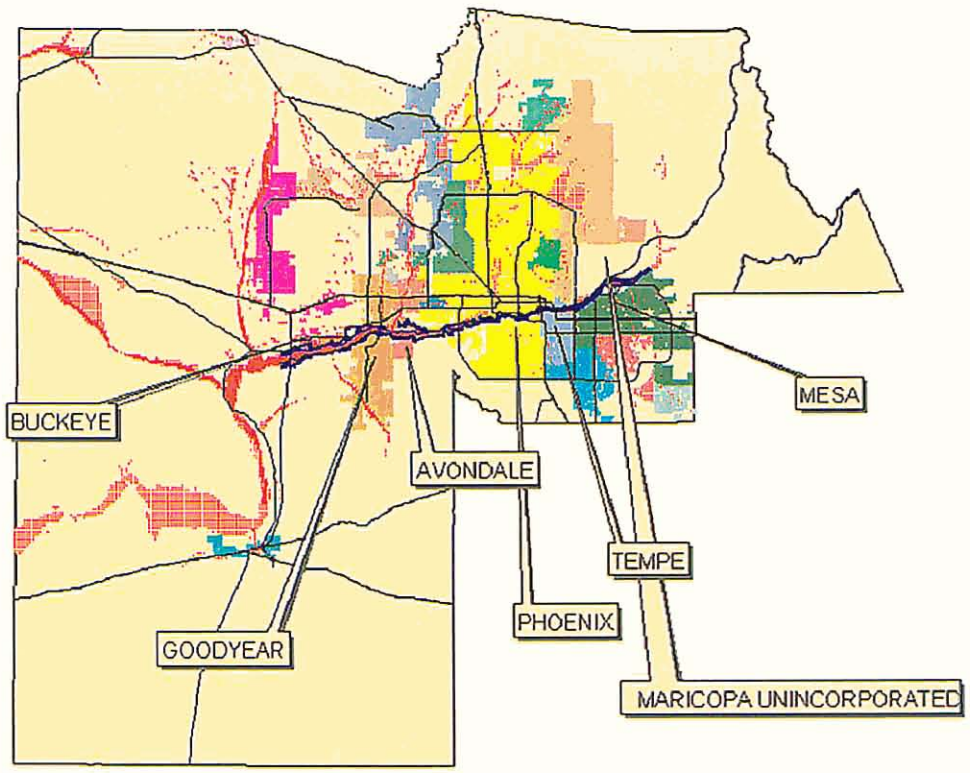
VOLUME 4 OF 5

19538-APA

May 1999

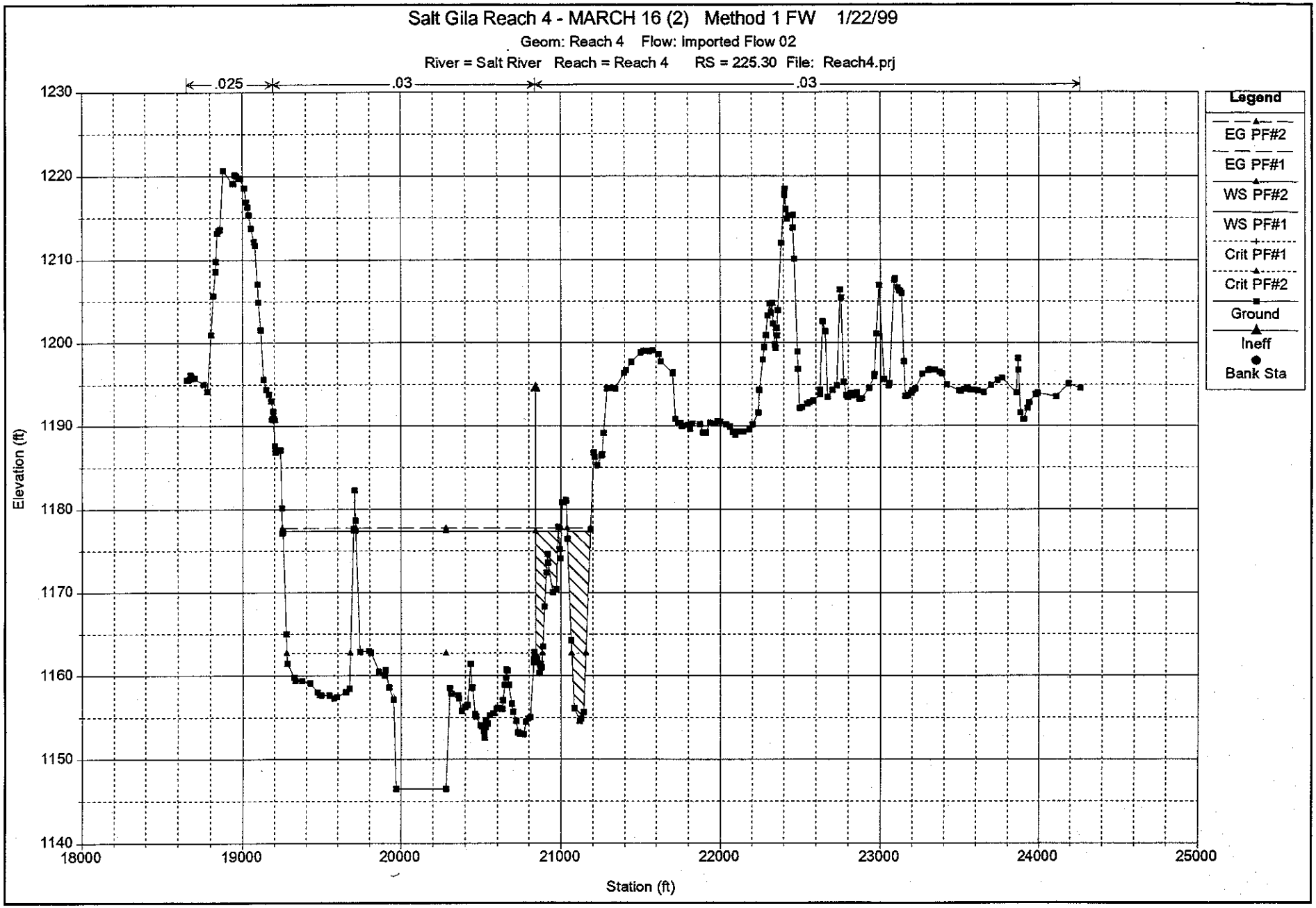
SALT-GILA RIVER
Floodplain Delineation Restudy

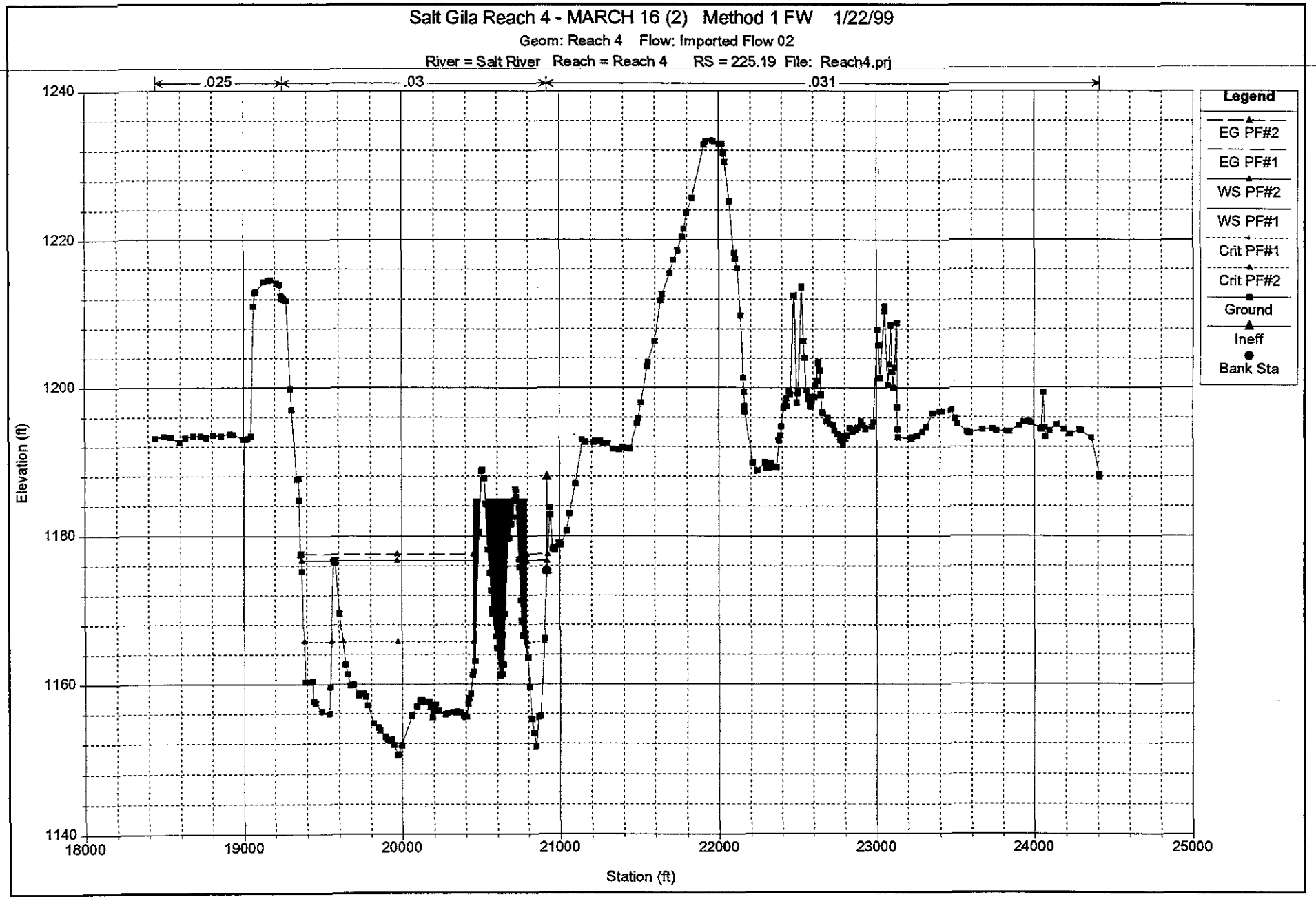


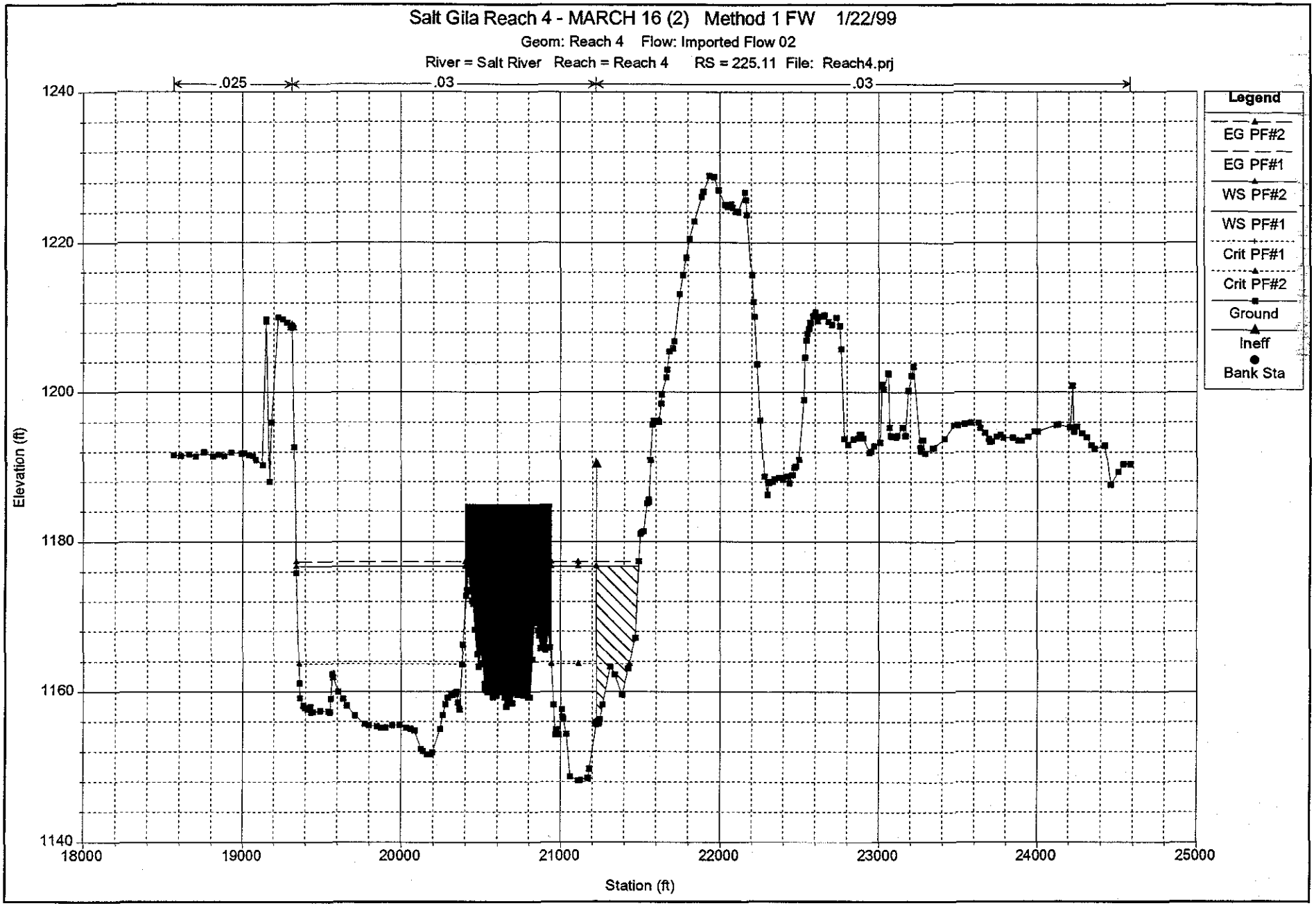
Submitted to

Flood Control District of Maricopa County
2801 West Durango Street
Phoenix, Arizona 85009
(602) 506-1501

Submitted by
Michael Baker, Jr., Inc.
1313 East Osborn Road, Suite 150
Phoenix, Arizona 85014
Phone (602) 279-1234
Fax (602) 279-1411


Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 225.30 File: Reach4.prj
.025
.03
.03
Elevation (ft)
Station (ft)
1230
1220
1210
1200
1190
1180
1170
1160
1150
1140
18000
19000
20000
21000
22000
23000
24000
25000
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta


Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 225.19 File: Reach4.prj
.025
.03
.031
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1240
1220
1200
1180
1160
1140
18000
19000
20000
21000
22000
23000
24000
25000
Station (ft)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Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 225.11 File: Reach4.prj
.025
.03
.03
Legend
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EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1240
1220
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22000
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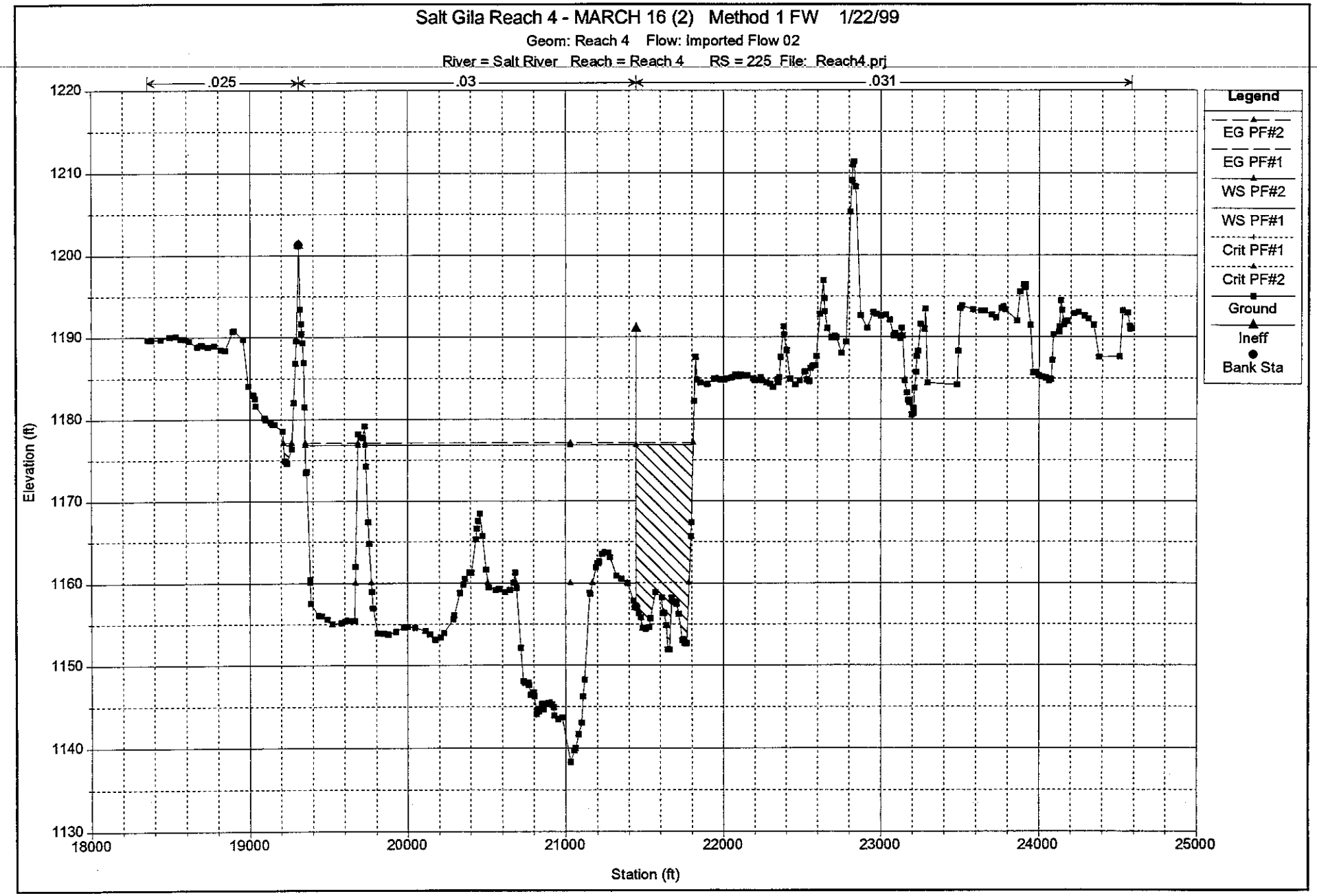
24000
25000
Station (ft)


Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 225 File: Reach4.prj
.025
.03
.031
Elevation (ft)
Station (ft)
1220
1210
1200
1190
1180
1170
1160
1150
1140
1130
18000
19000
20000
21000
22000
23000
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Legend
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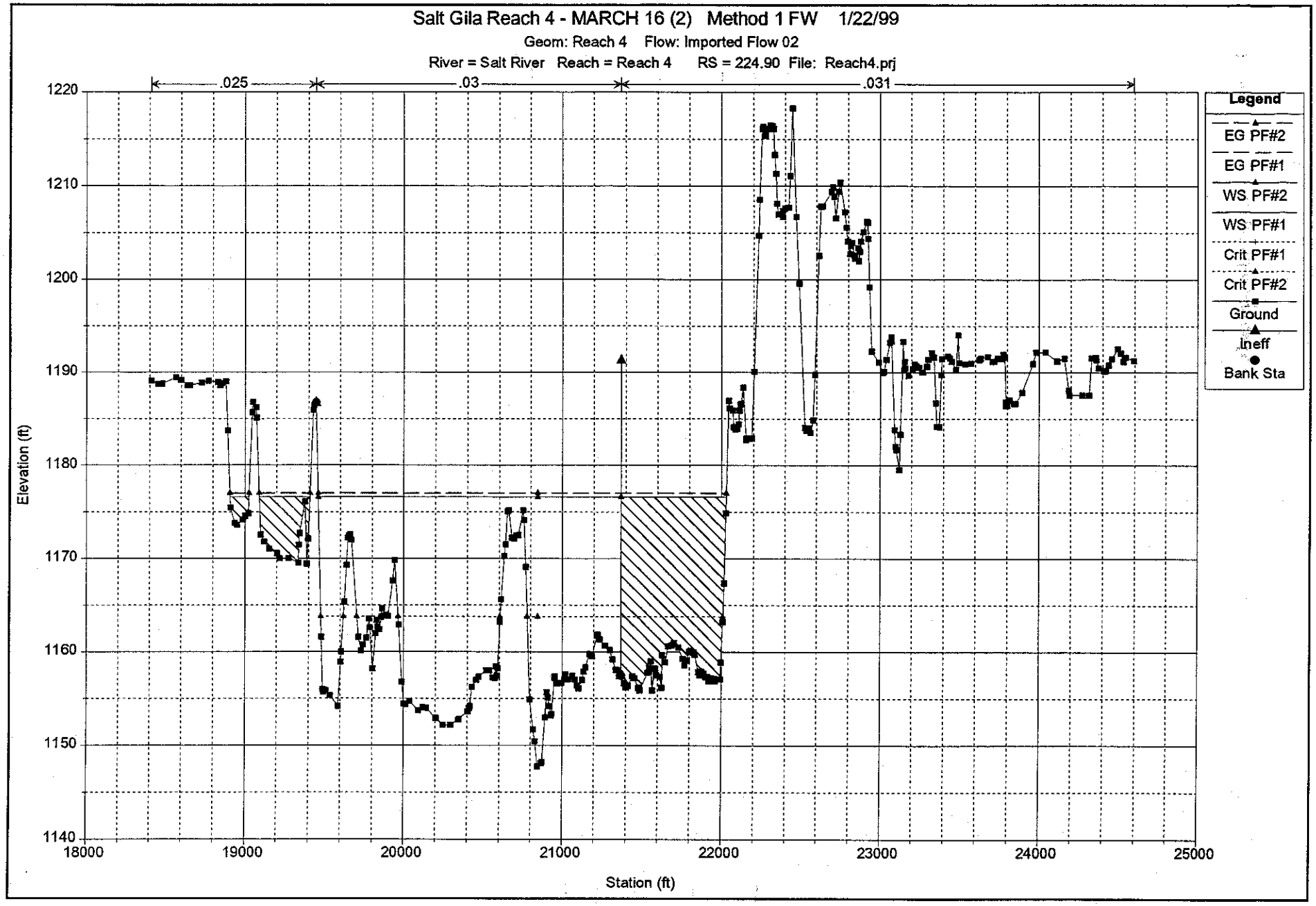
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta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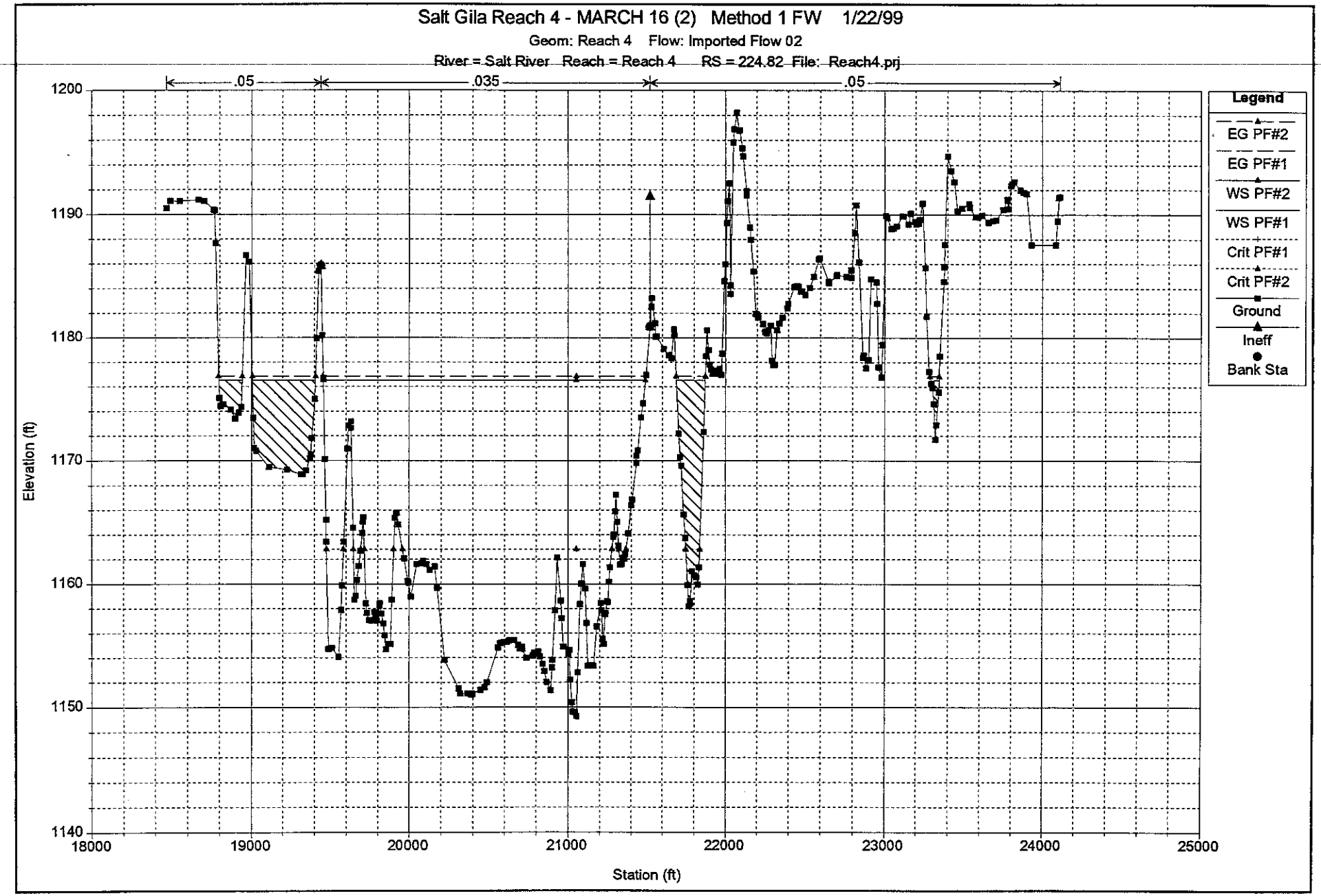
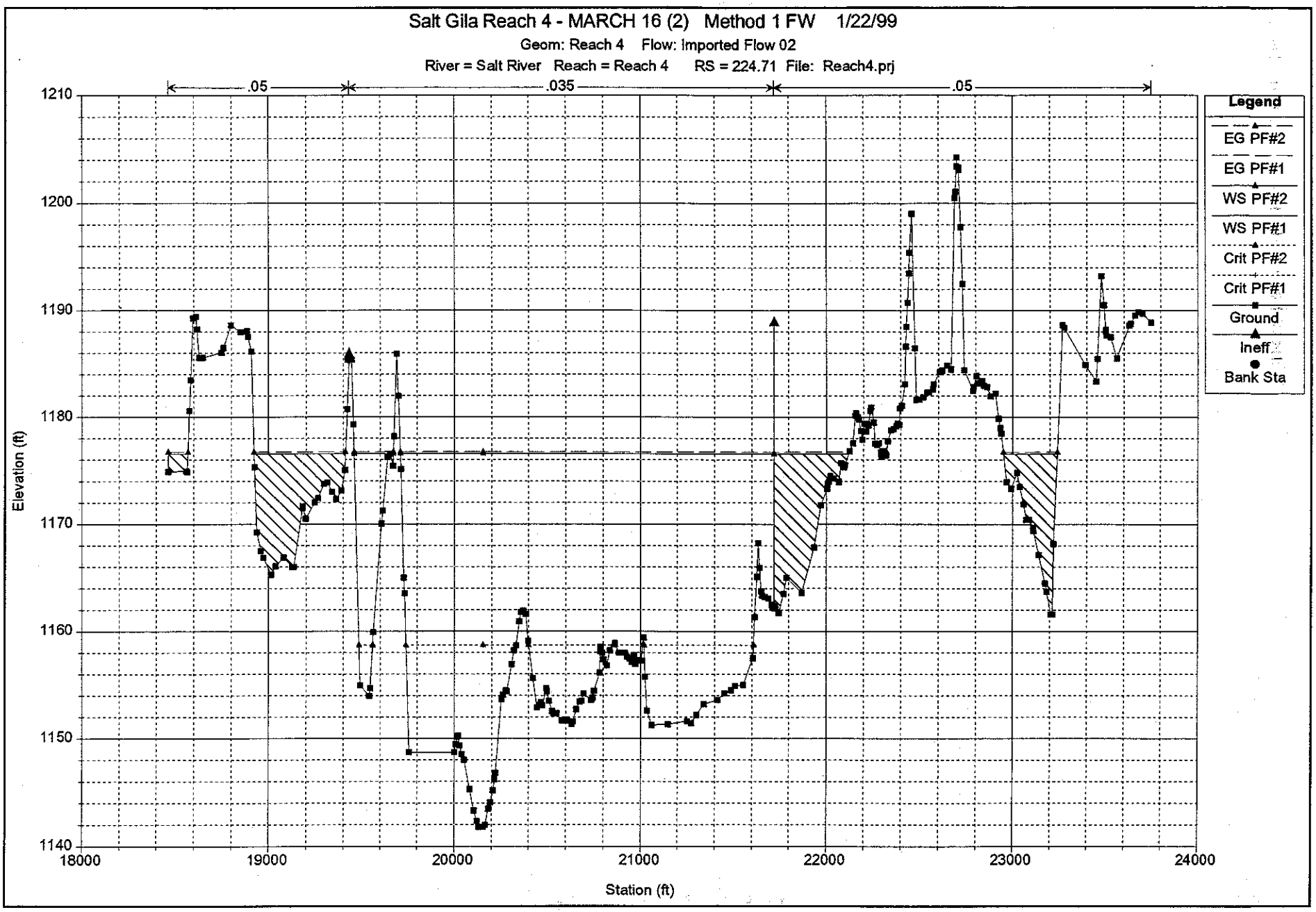
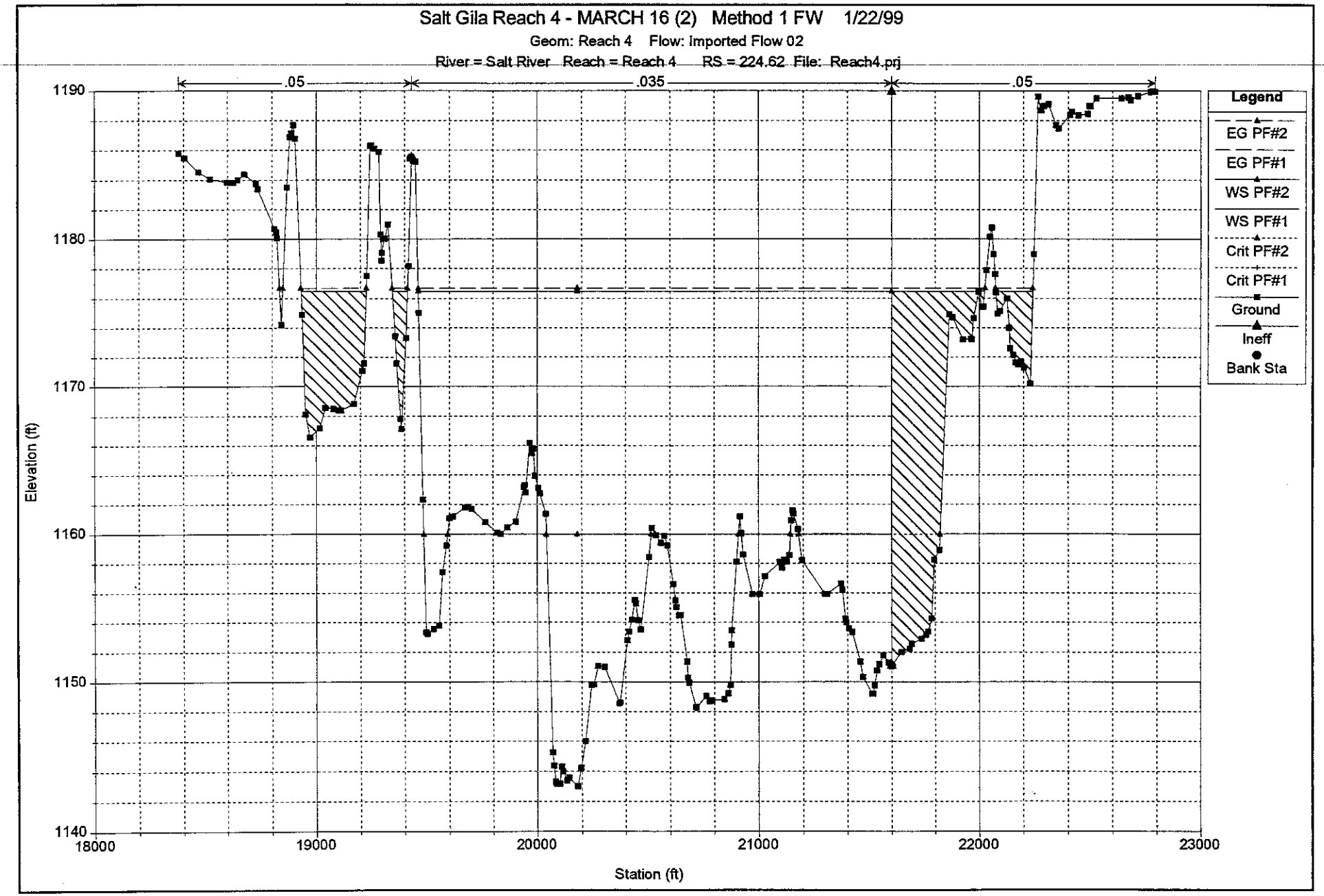
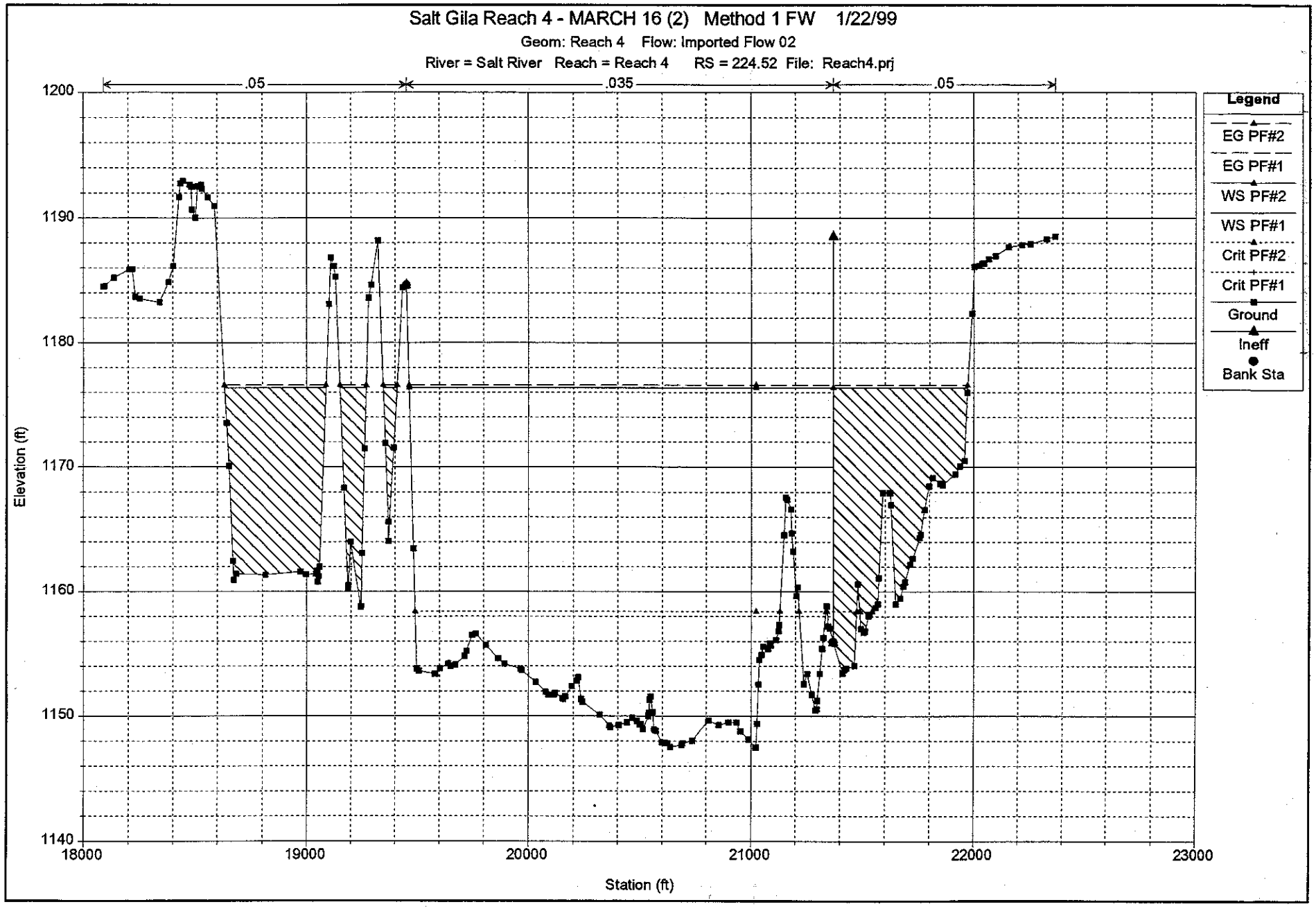
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 224.90 File: Reach4.prj
.025
.03
.031
Elevation (ft)
Station (ft)
1220
1210
1200
1190
1180
1170
1160
1150
1140
18000
19000
20000
21000
22000
23000
24000
25000
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta


Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 224.82 File: Reach4.prj
.05
.035
.05
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1200
1190
1180
1170
1160
1150
1140
18000
19000
20000
21000
22000
23000
24000
25000
Station (ft)


Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 224.71 File: Reach4.prj
.05
.035
.05
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1210
1200
1190
1180
1170
1160
1150
1140
18000
19000
20000
21000
22000
23000
24000
Station (ft)


Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 224.62 File: Reach4.prj
.05
.035
.05
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1190
1180
1170
1160
1150
1140
18000
19000
20000
21000
22000
23000
Station (ft)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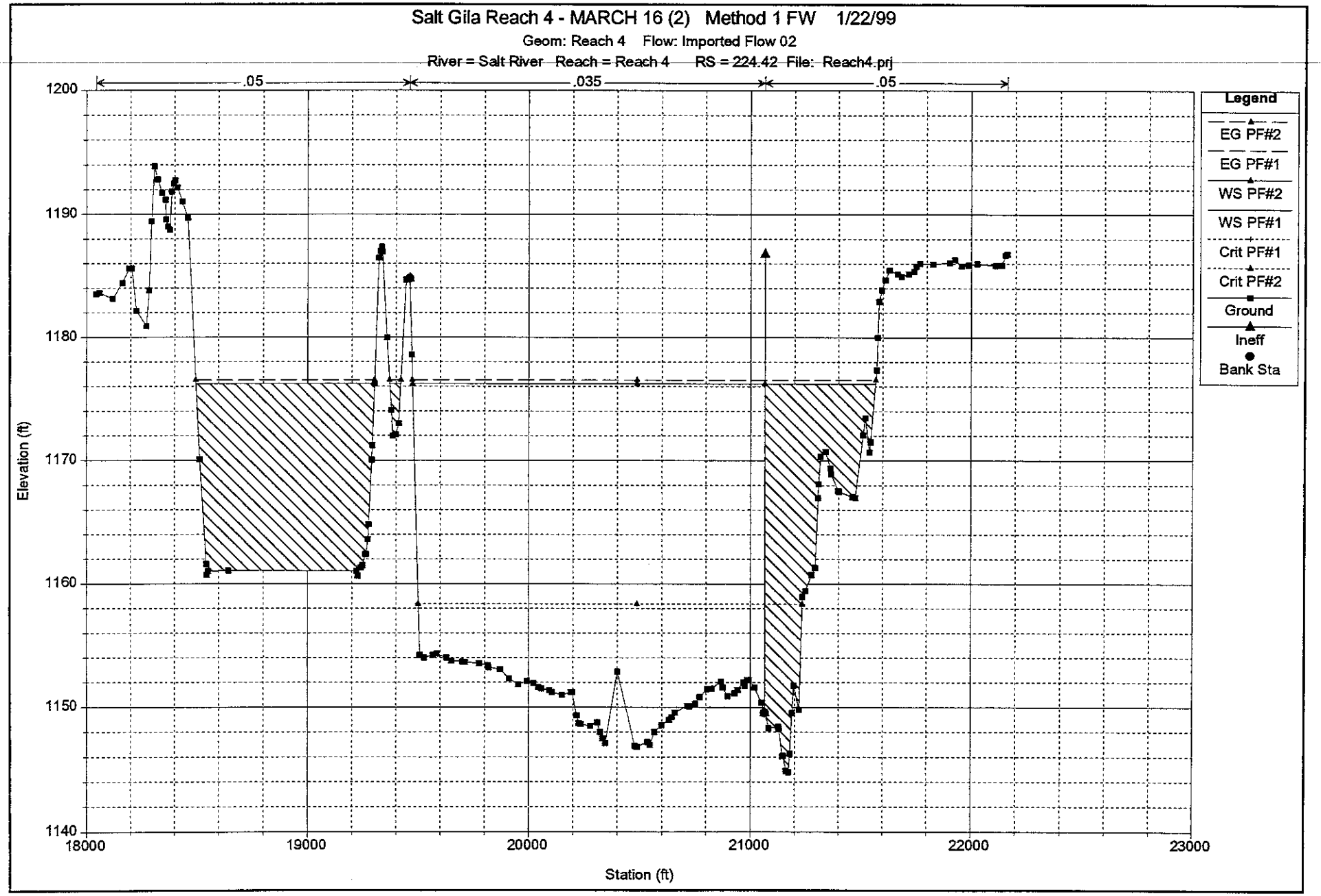
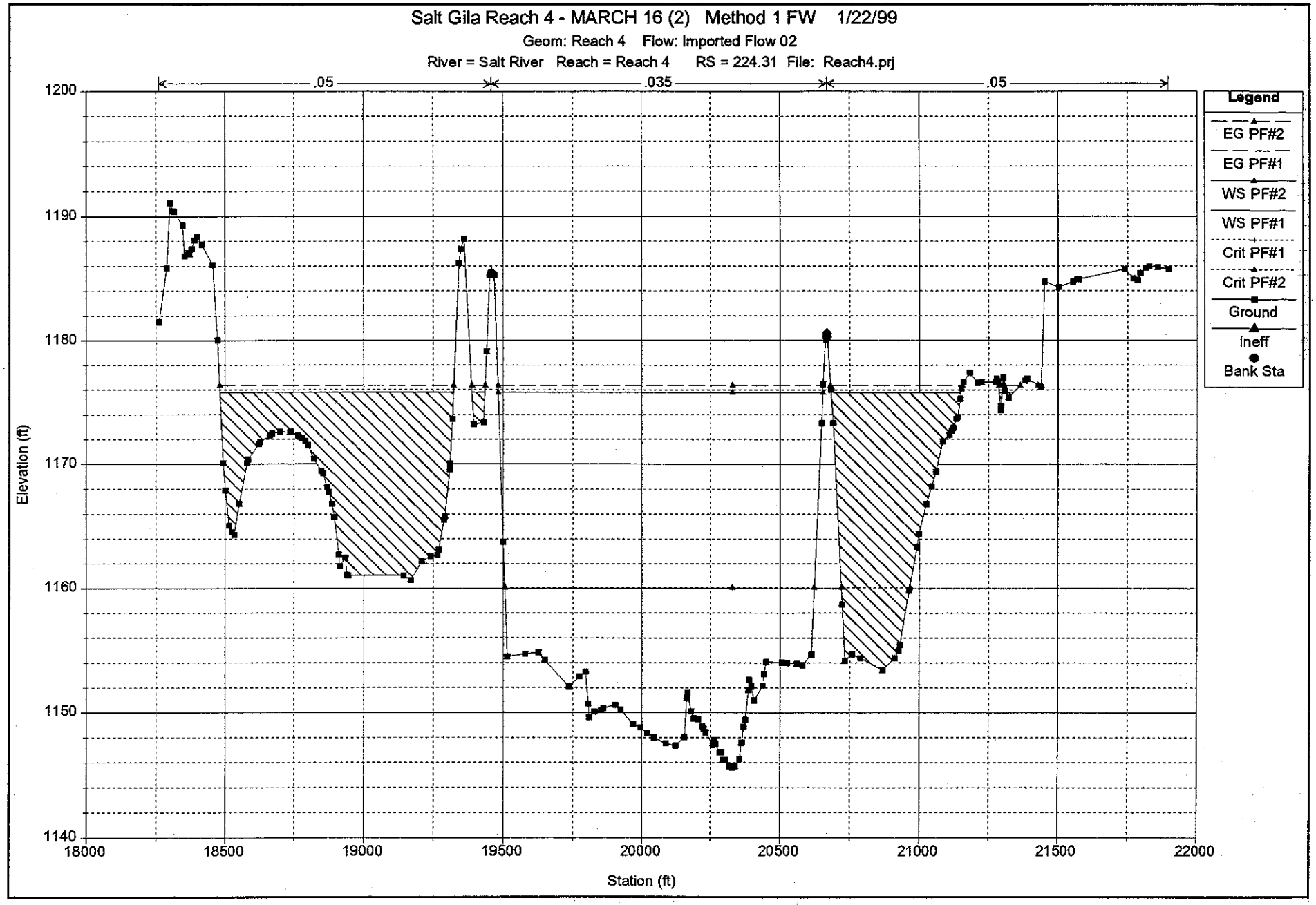
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 224.52 File: Reach4.prj
.05
.035
.05
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1200
1190
1180
1170
1160
1150
1140
18000
19000
20000
21000
22000
23000
Station (ft)


Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 224.42 File: Reach4.prj
.05
.035
.05
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1200
1190
1180
1170
1160
1150
1140
18000
19000
20000
21000
22000
23000
Station (ft)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Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 224.31 File: Reach4.prj
.05
.035
.05
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1200
1190
1180
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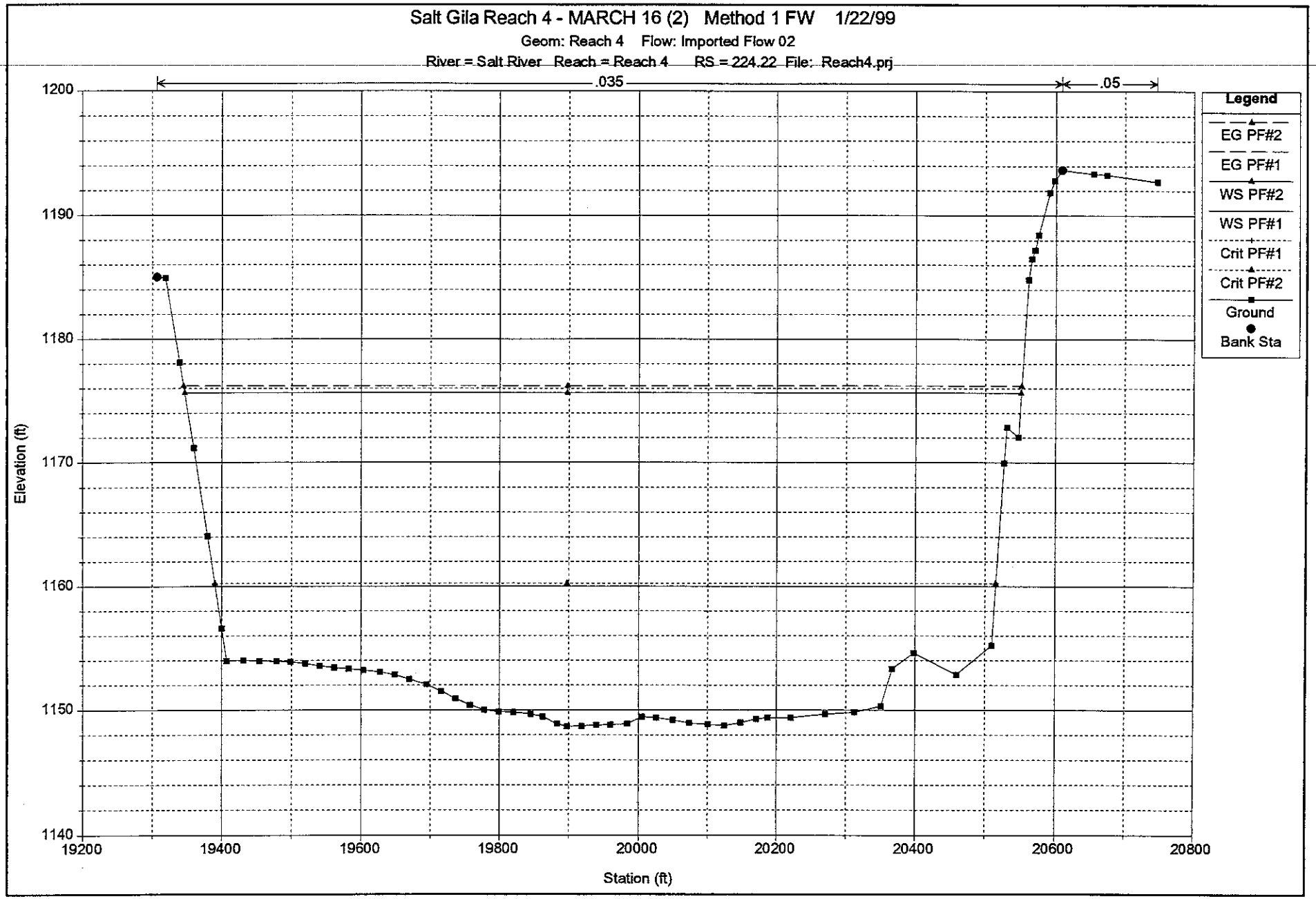
21000
21500
22000
Station (ft)


Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 224.22 File: Reach4.prj
.035
.05
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Bank Sta
Elevation (ft)
1200
1190
1180
1170
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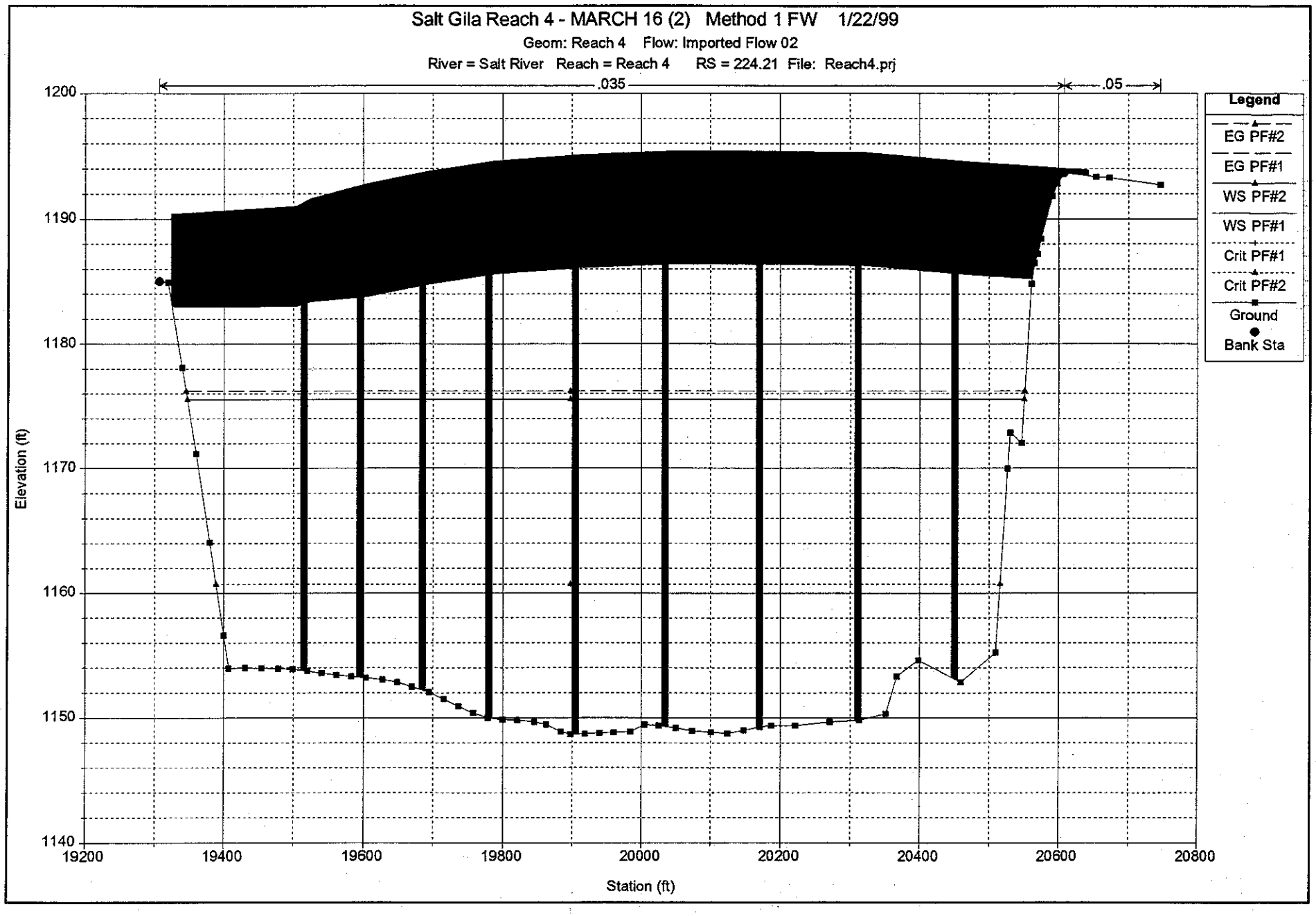
20400
20600
20800
Station (ft)


Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 224.21 File: Reach4.prj
.035
.05
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Bank Sta
Elevation (ft)
1200
1190
1180
1170
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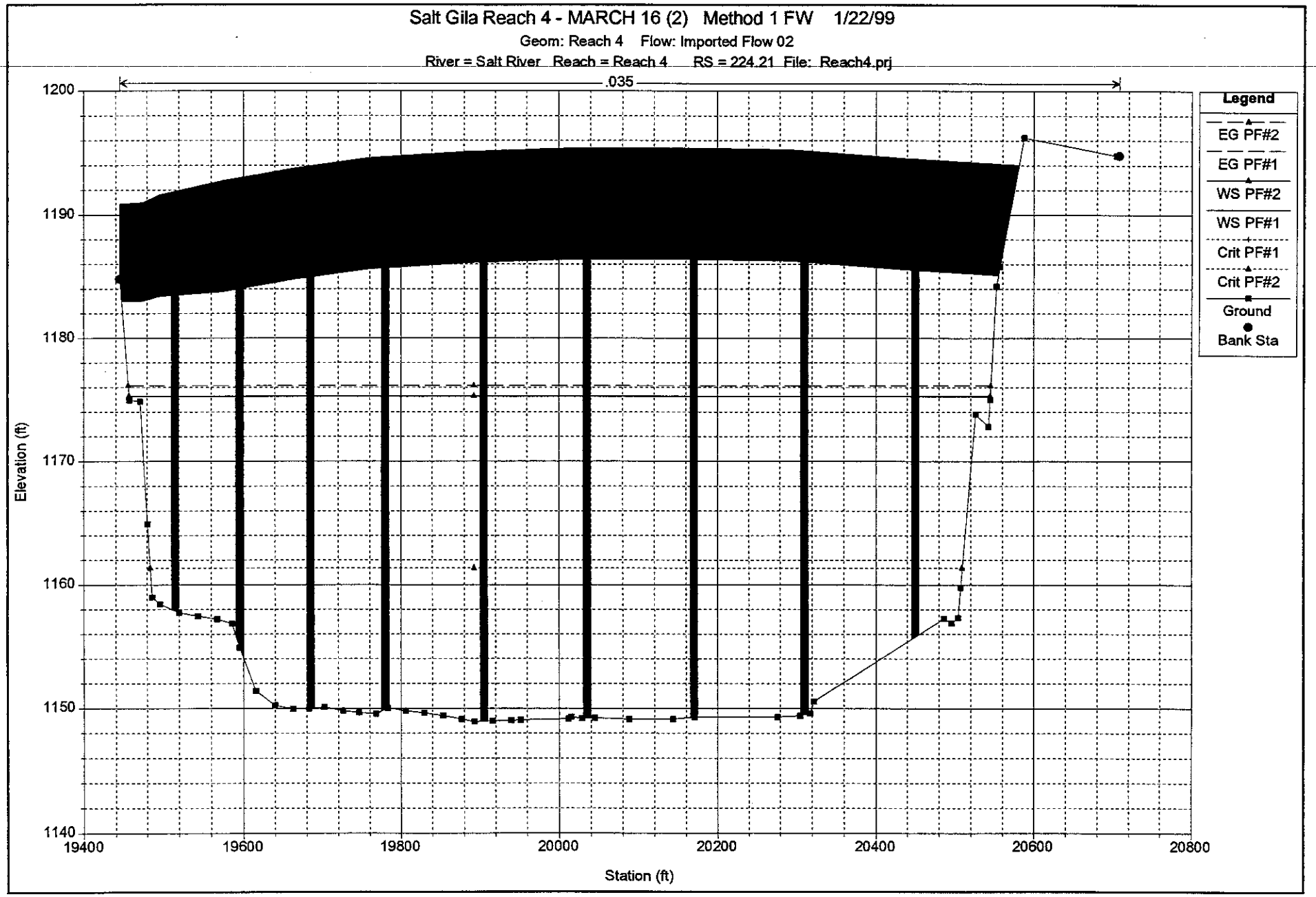
20400
20600
20800
Station (ft)


Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 224.21 File: Reach4.prj
.035
Elevation (ft)
1200
1190
1180
1170
1160
1150
1140
19400
19600
19800
20000
20200
20400
20600
20800
Station (ft)
Legend
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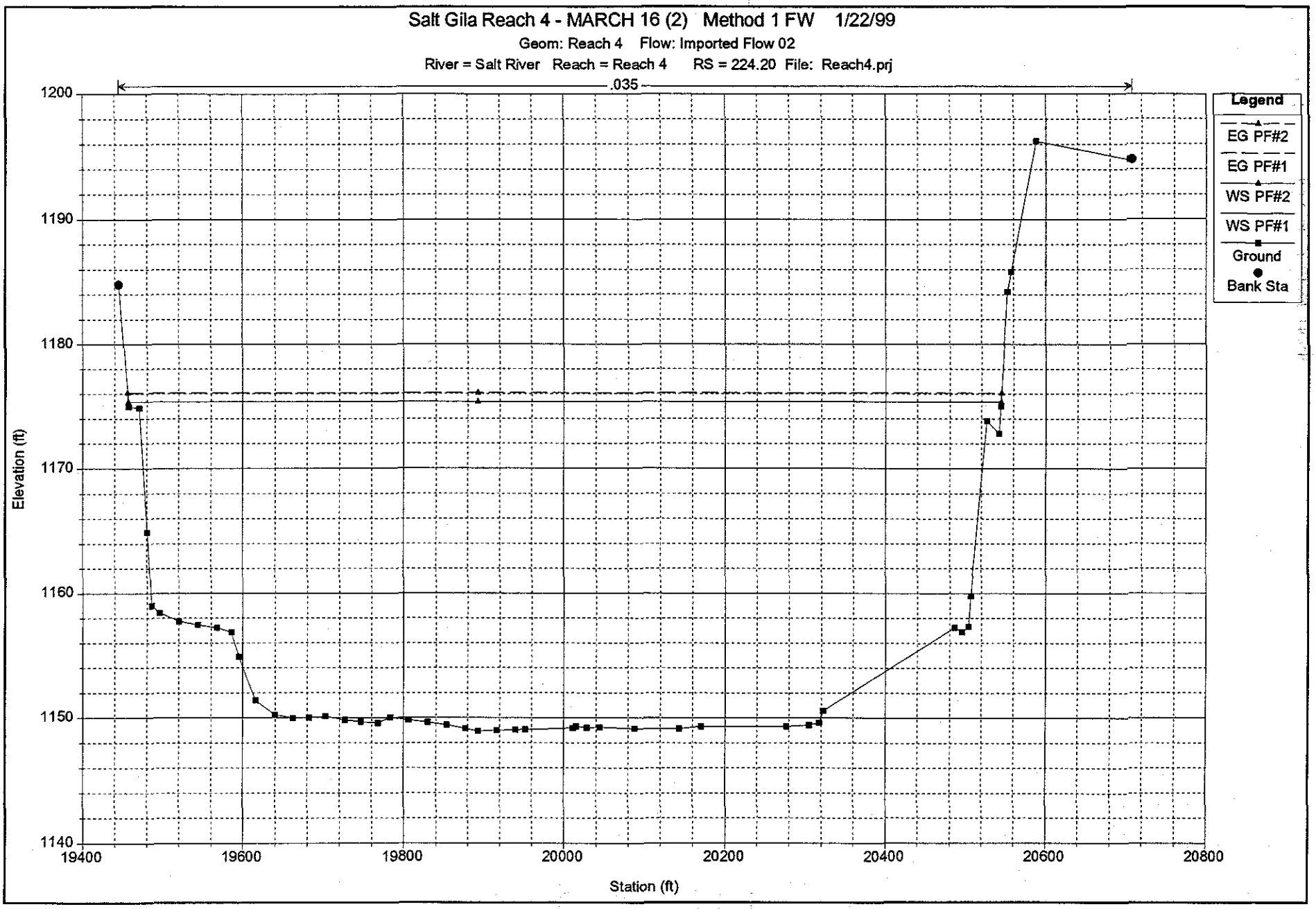
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Bank Sta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Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 224.20 File: Reach4.prj
.035
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Ground
Bank Sta
Elevation (ft)
1200
1190
1180
1170
1160
1150
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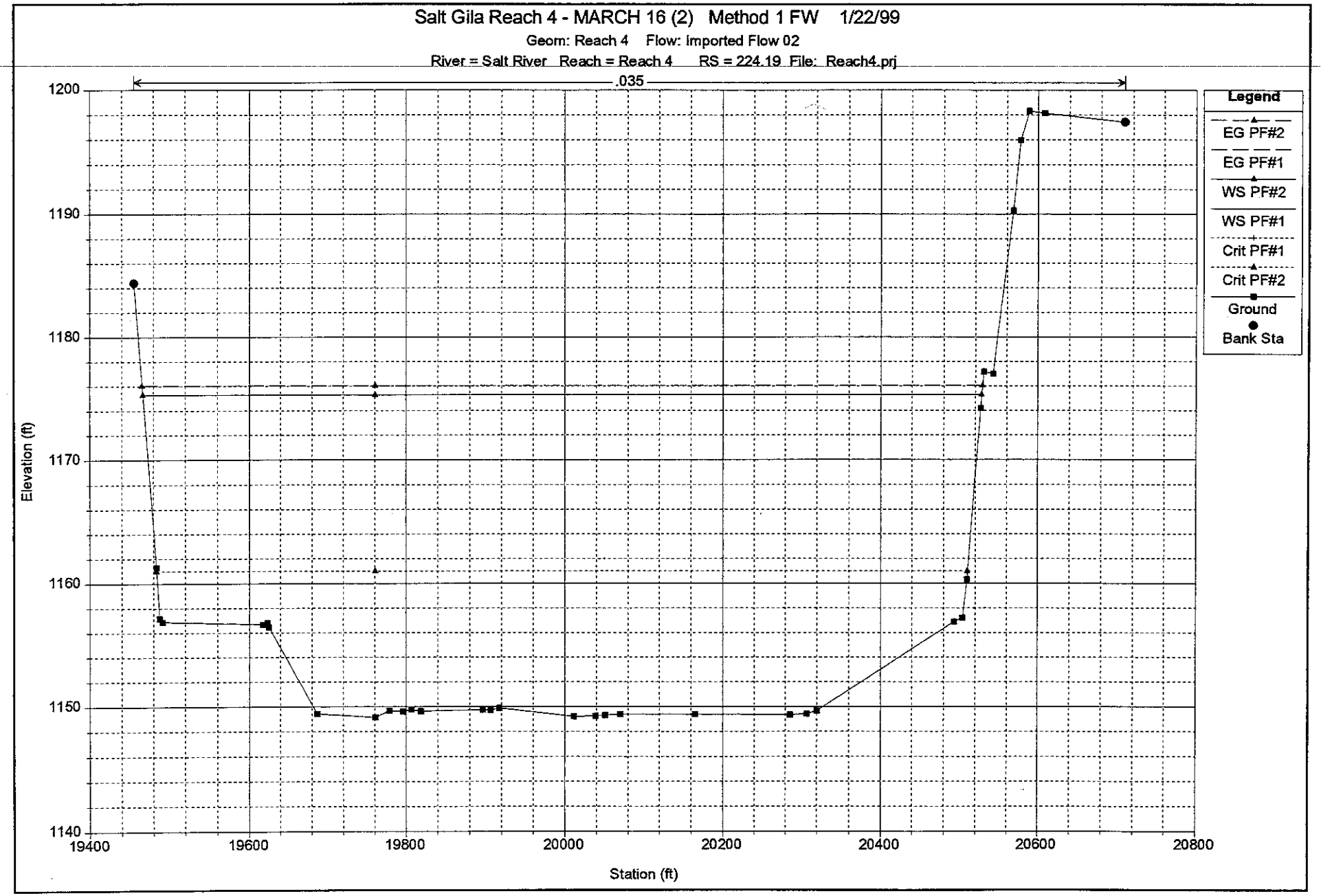
19600
19800
20000
20200
20400
20600
20800
Station (ft)


Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 224.19 File: Reach4.prj
.035
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Bank Sta
Elevation (ft)
1200
1190
1180
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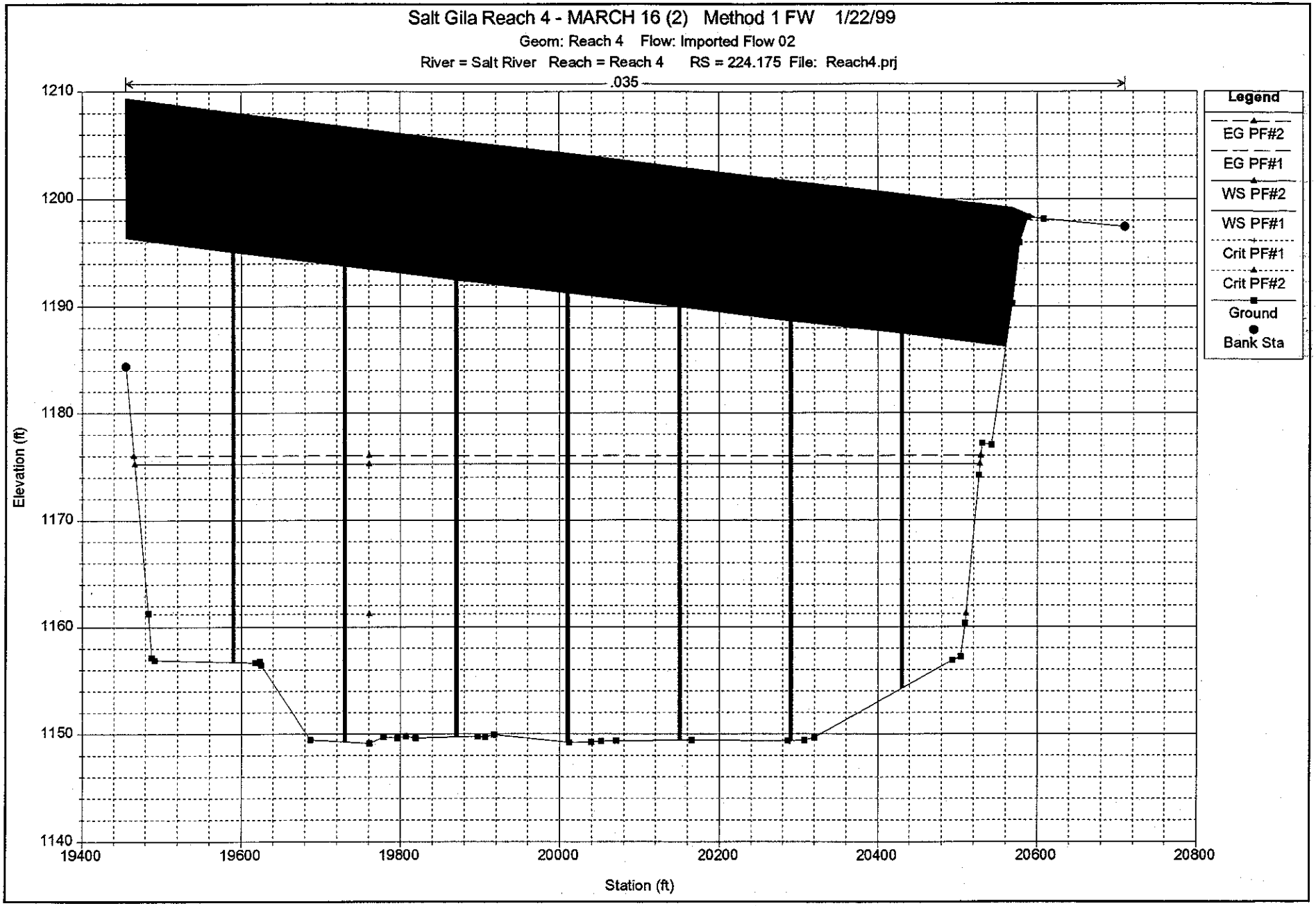
20800
Station (ft)


Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 224.175 File: Reach4.prj
.035
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Bank Sta
Elevation (ft)
1210
1200
1190
1180
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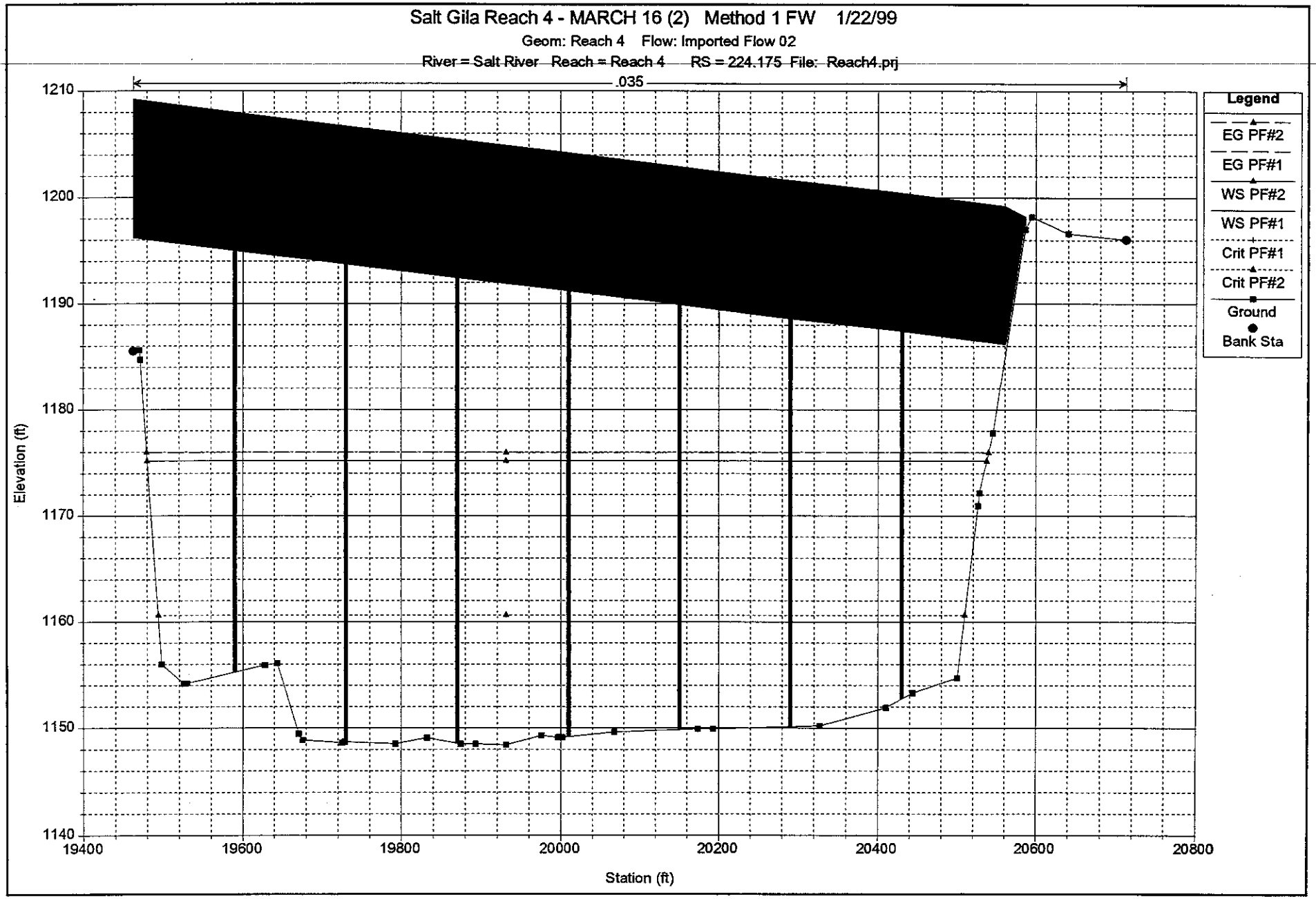
20600
20800
Station (ft)


Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 224.175 File: Reach4.prj
.035
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Bank Sta
Elevation (ft)
1210
1200
1190
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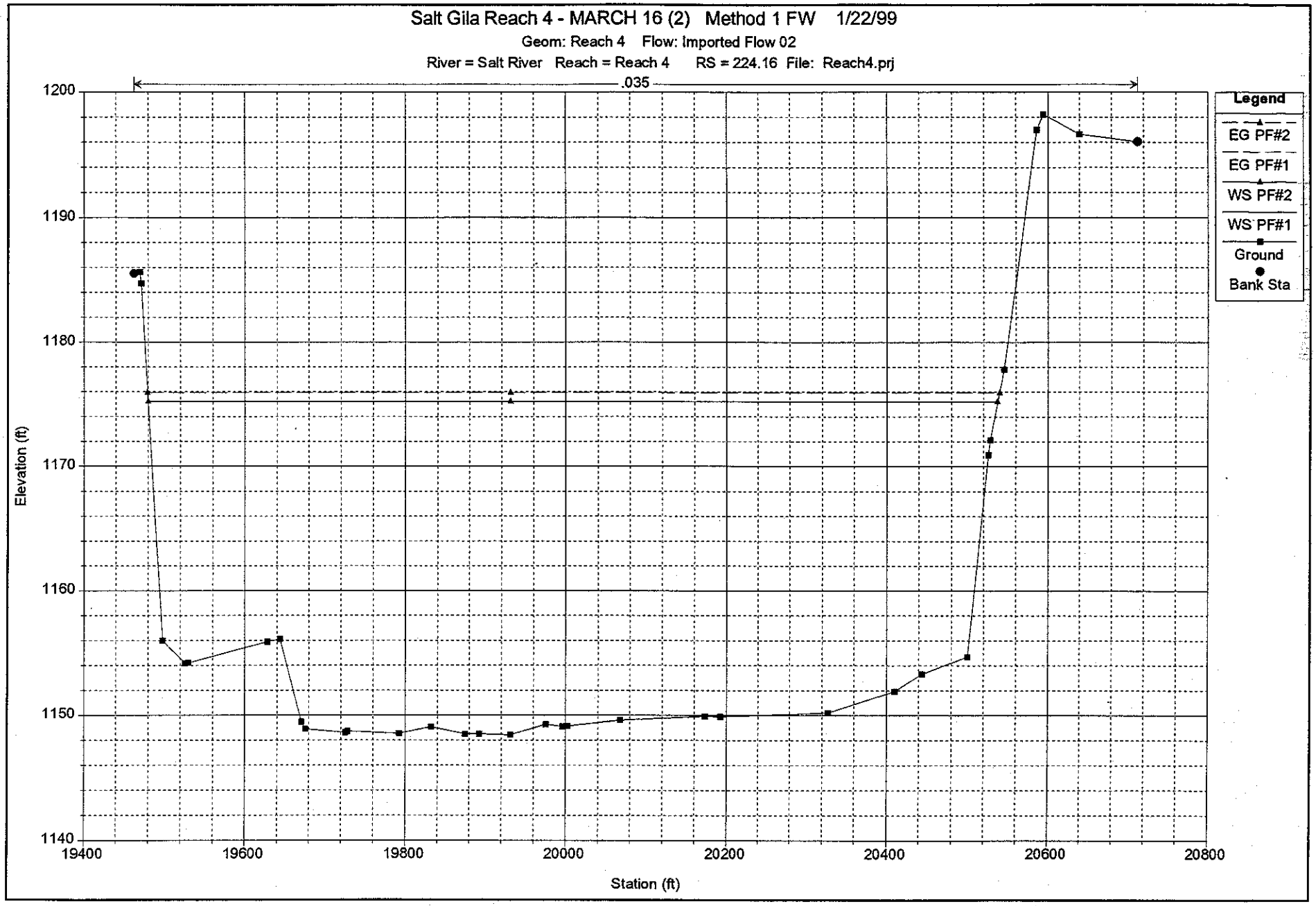
Station (ft)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Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 224.16 File: Reach4.prj
.035
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Ground
Bank Sta
Elevation (ft)
1200
1190
1180
1170
1160
1150
1140
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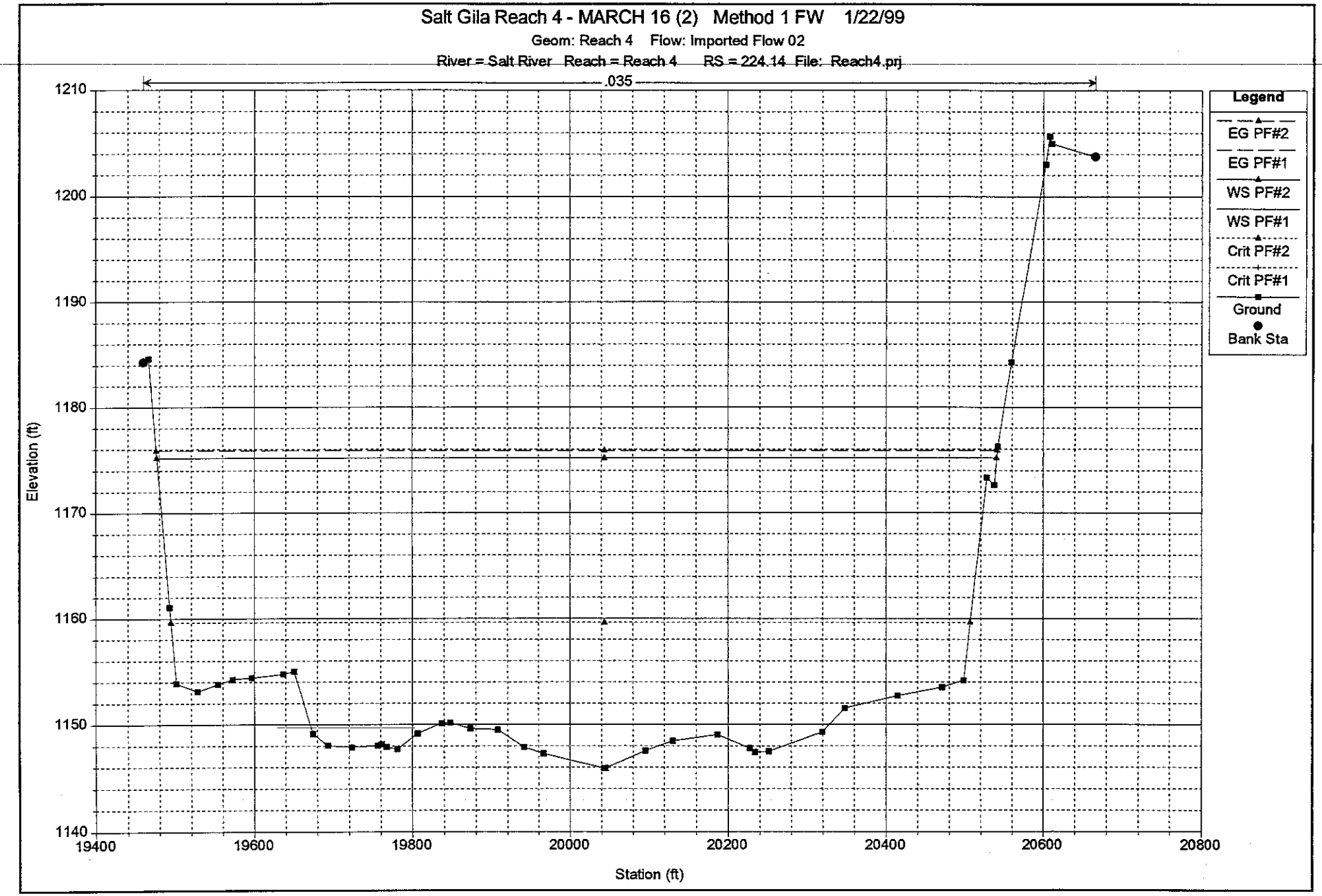
20400
20600
20800
Station (ft)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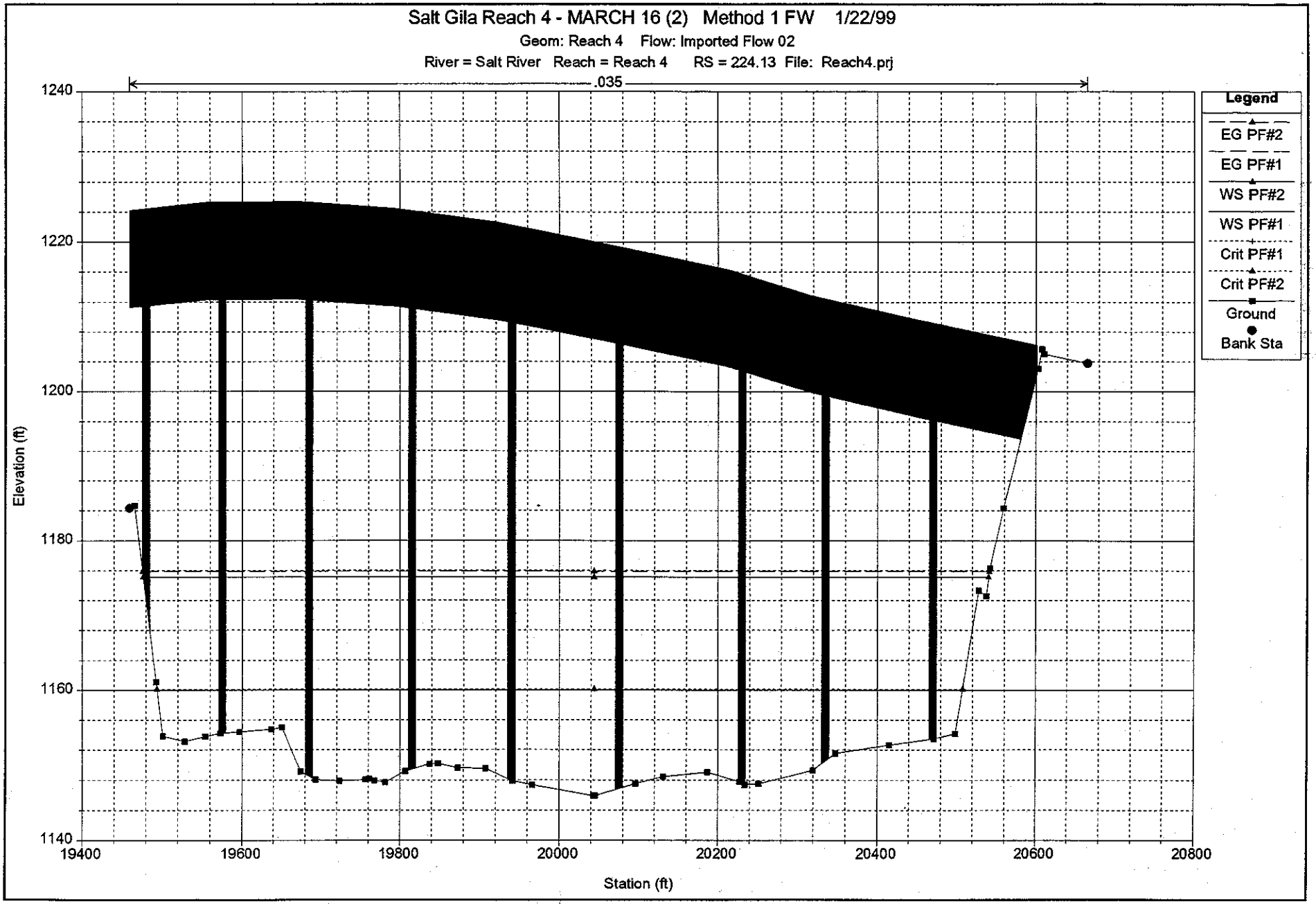
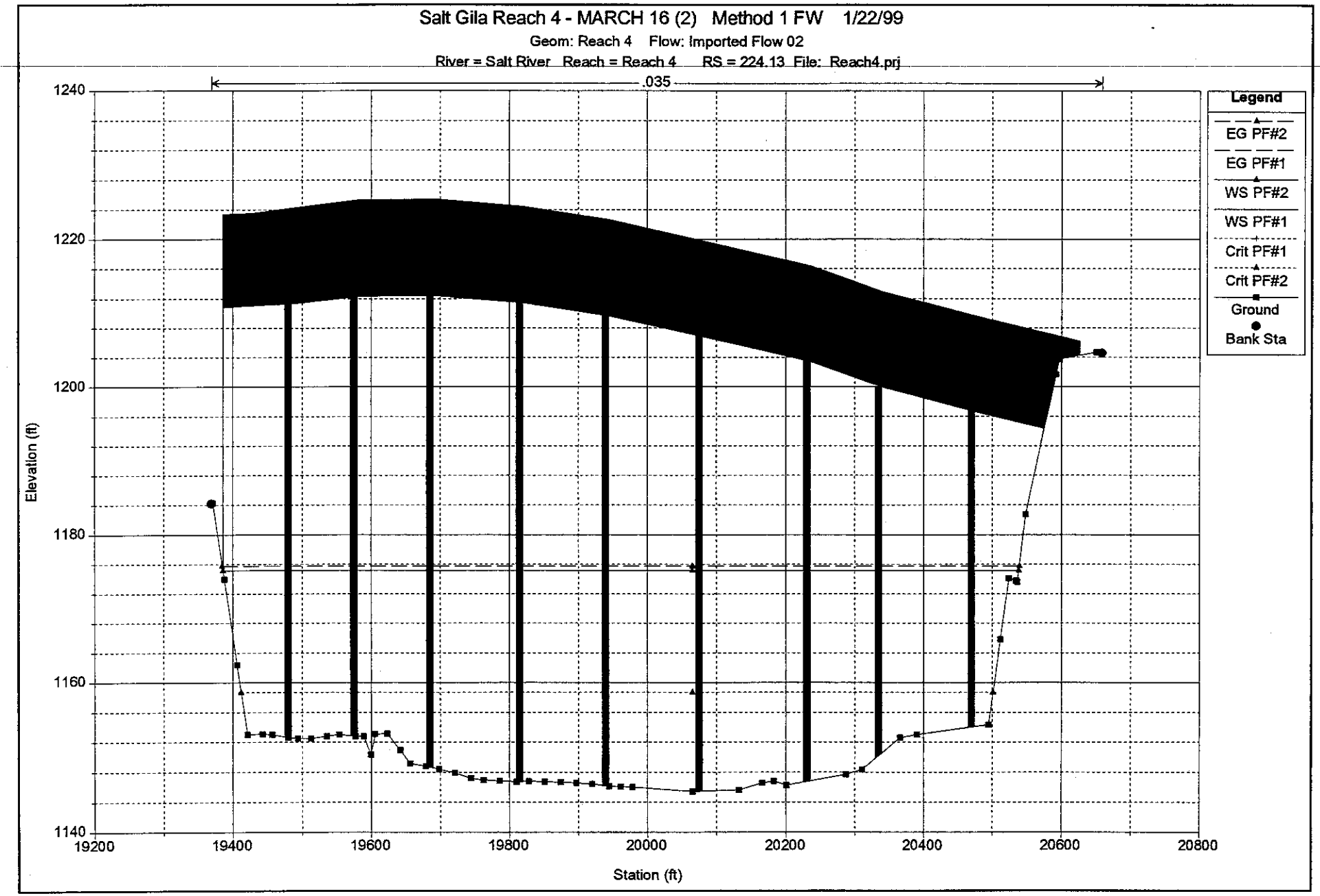
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 224.14 File: Reach4.prj
.035
Elevation (ft)
1210
1200
1190
1180
1170
1160
1150
1140
19400
19600
19800
20000
20200
20400
20600
20800
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Bank Sta


Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 224.13 File: Reach4.prj
.035
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Bank Sta
Elevation (ft)
1240
1220
1200
1180
1160
1140
19400
19600
19800
20000
20200
20400
20600
20800
Station (ft)


Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 224.13 File: Reach4.prj
.035
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Bank Sta
Elevation (ft)
1240
1220
1200
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20000
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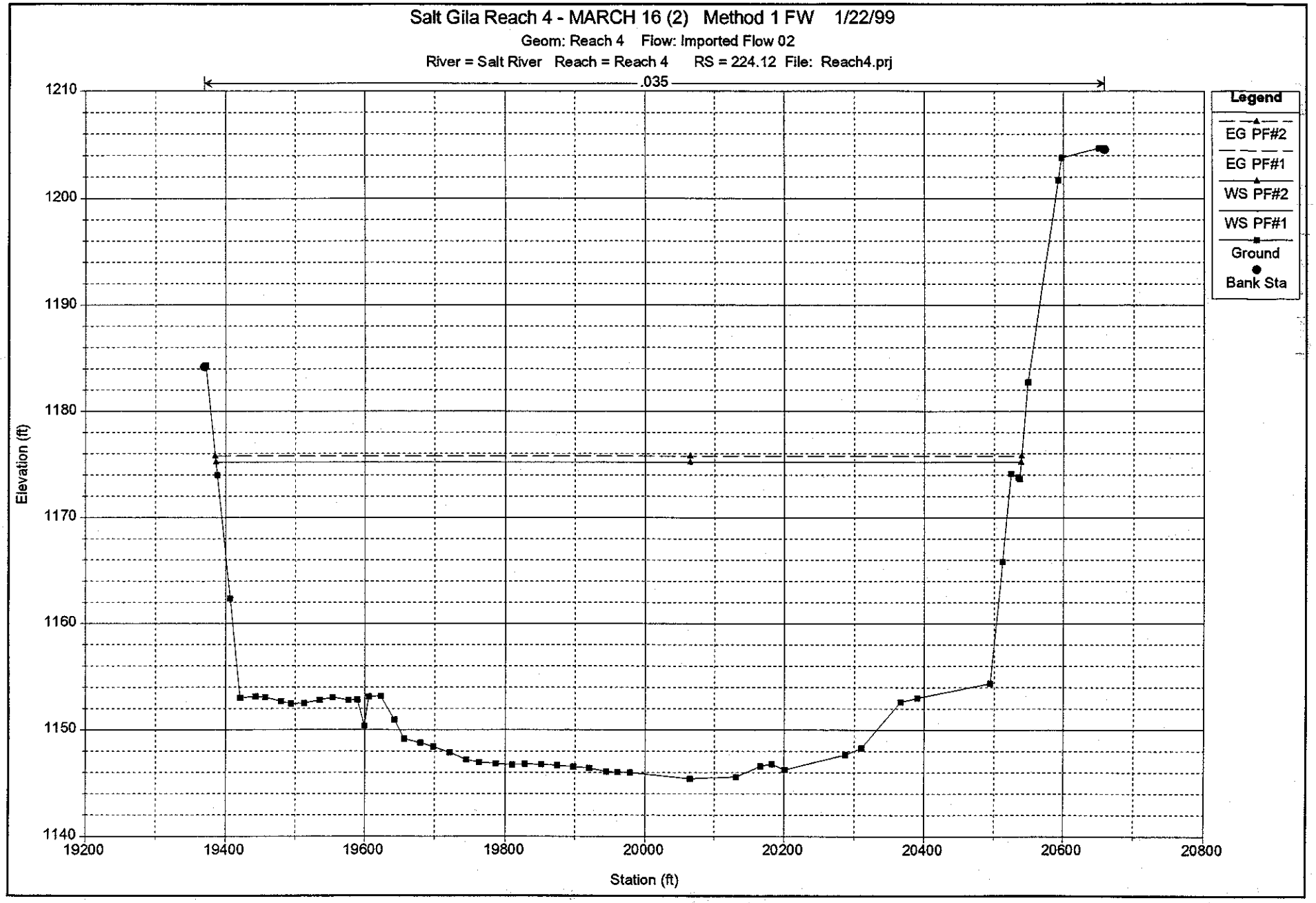
20400
20600
20800
Station (ft)


Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 224.12 File: Reach4.prj
.035
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Ground
Bank Sta
Elevation (ft)
1210
1200
1190
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19600
19800
20000
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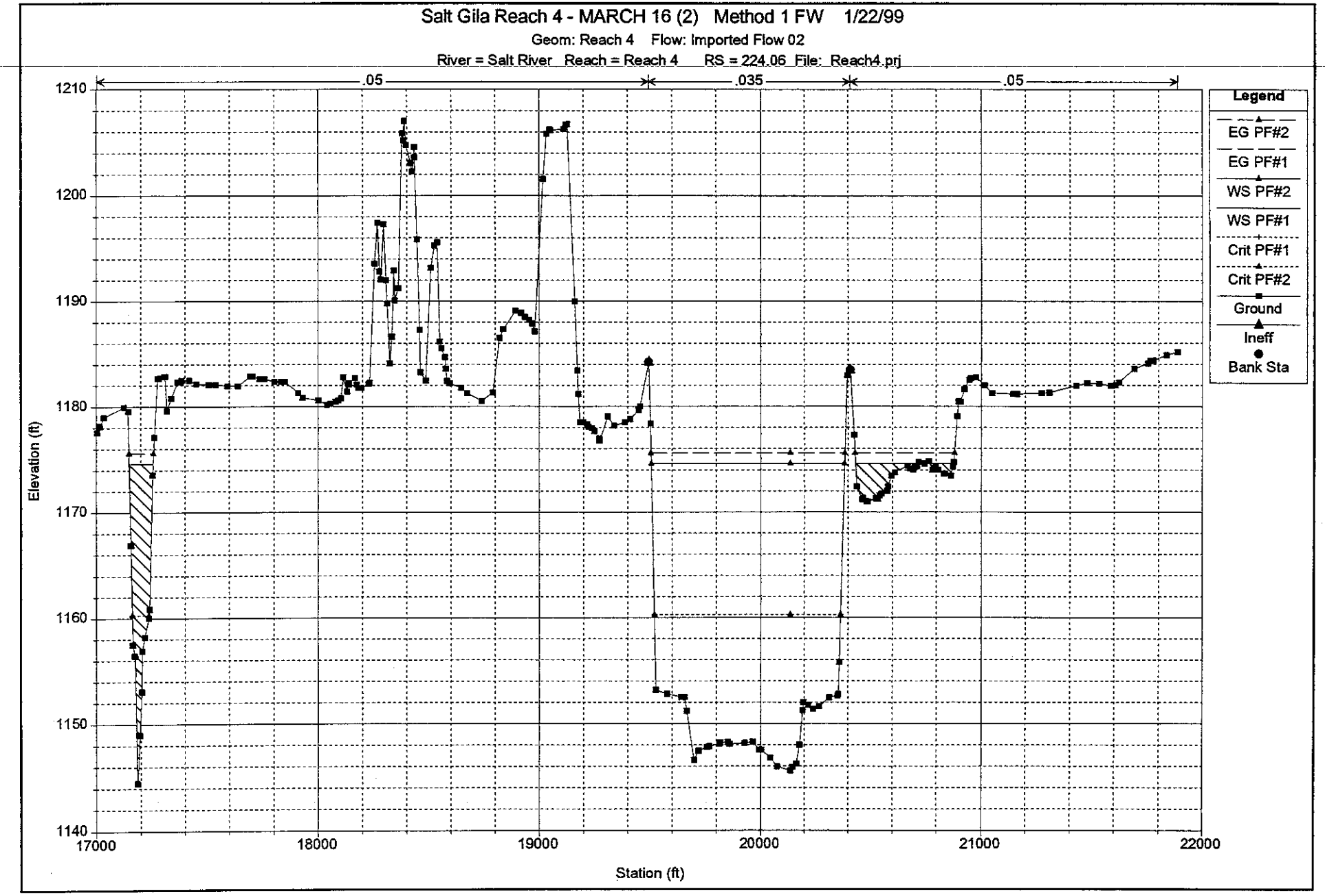
20400
20600
20800
Station (ft)


Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 224.06 File: Reach4.prj
.05
.035
.05
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1210
1200
1190
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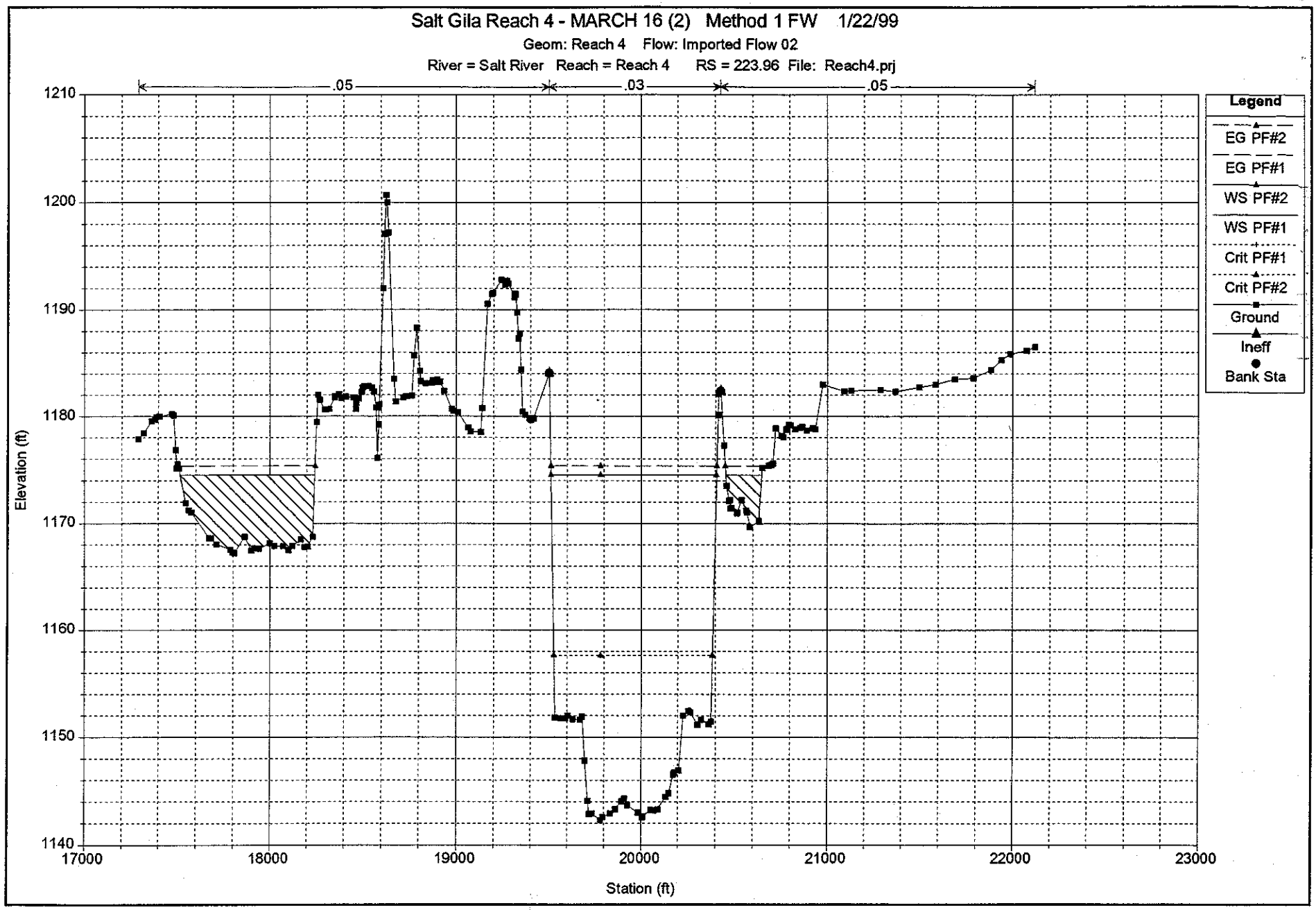
1160
1150
1140
17000
18000
19000
20000
21000
22000
Station (ft)


Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 223.96 File: Reach4.prj
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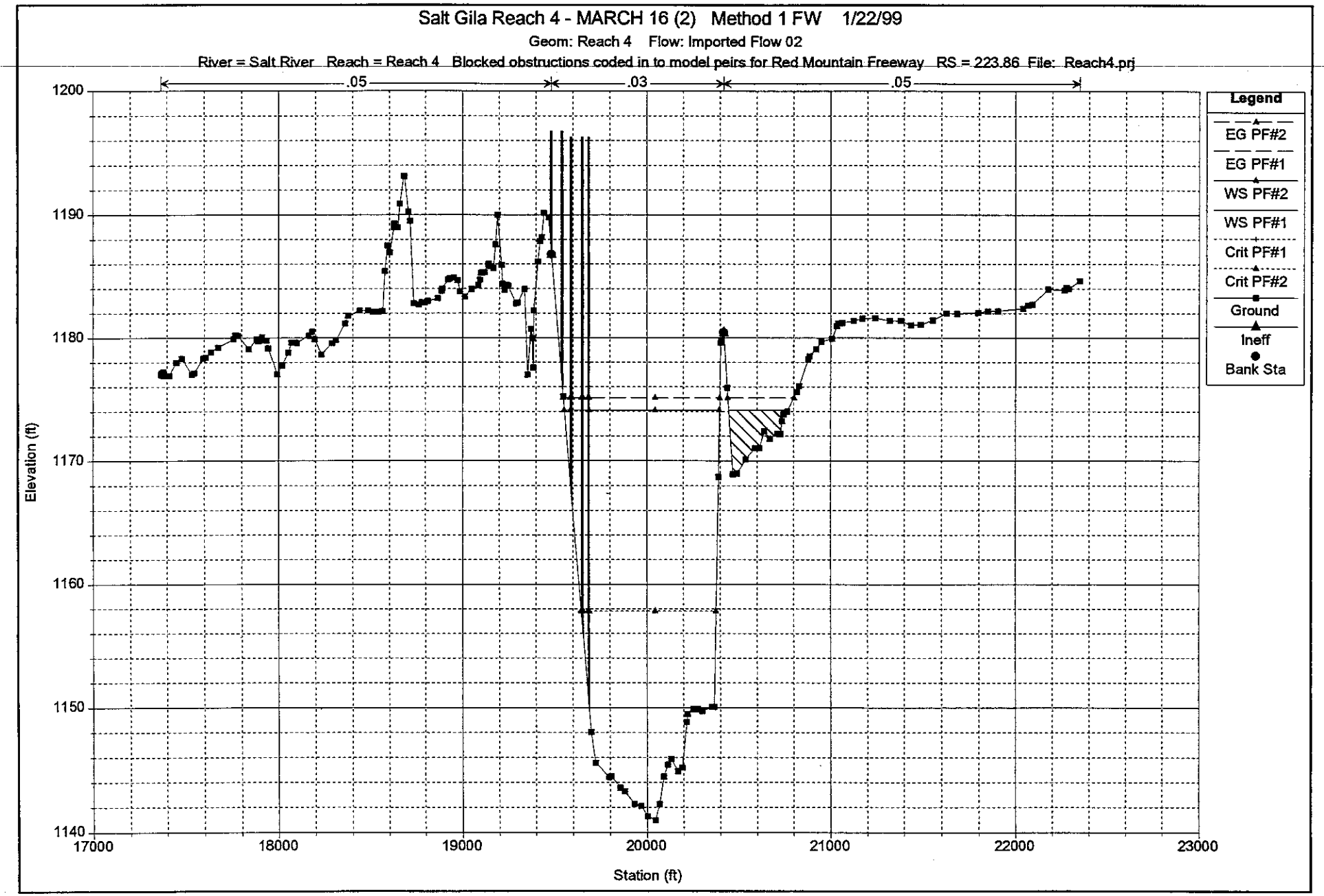
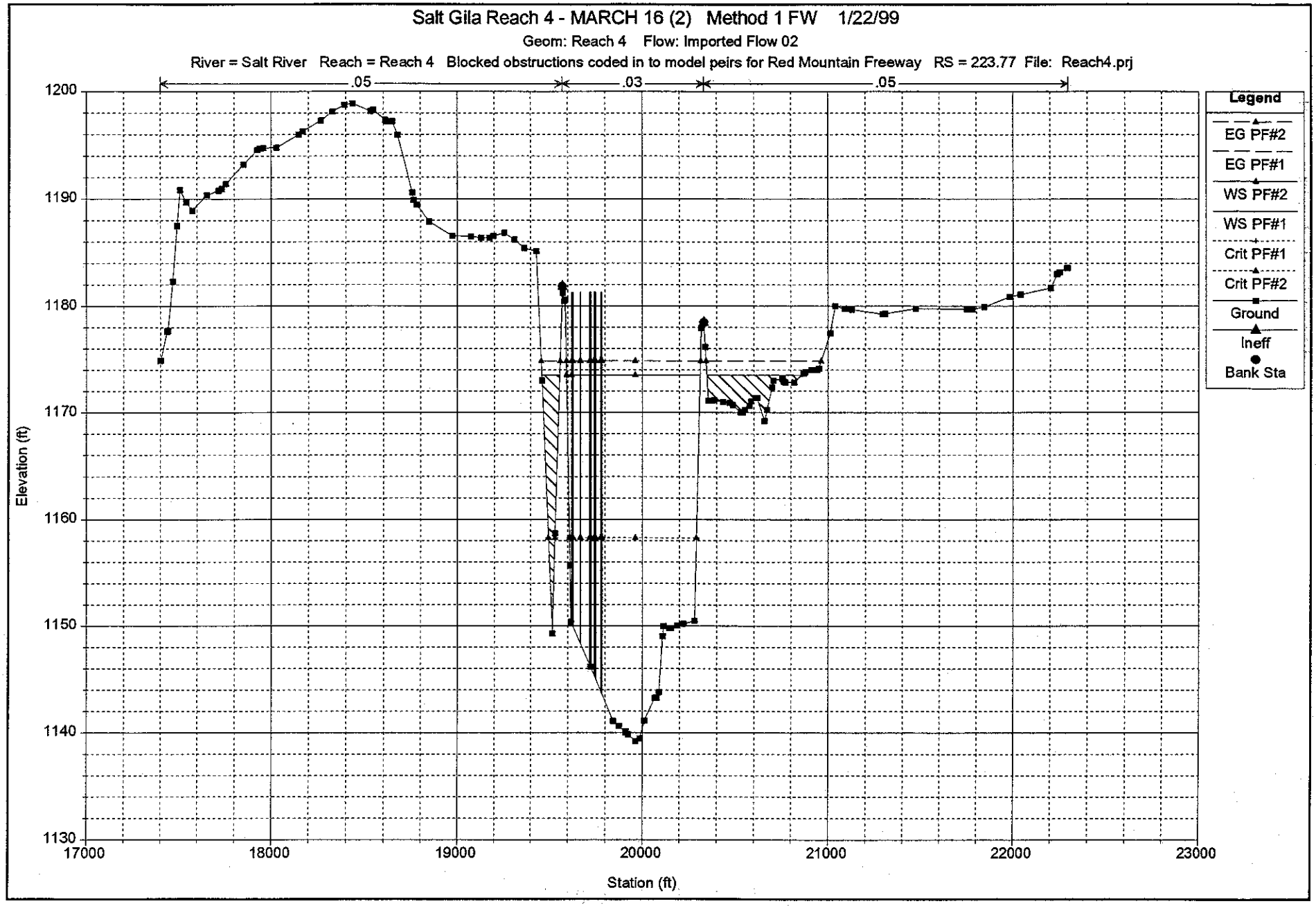
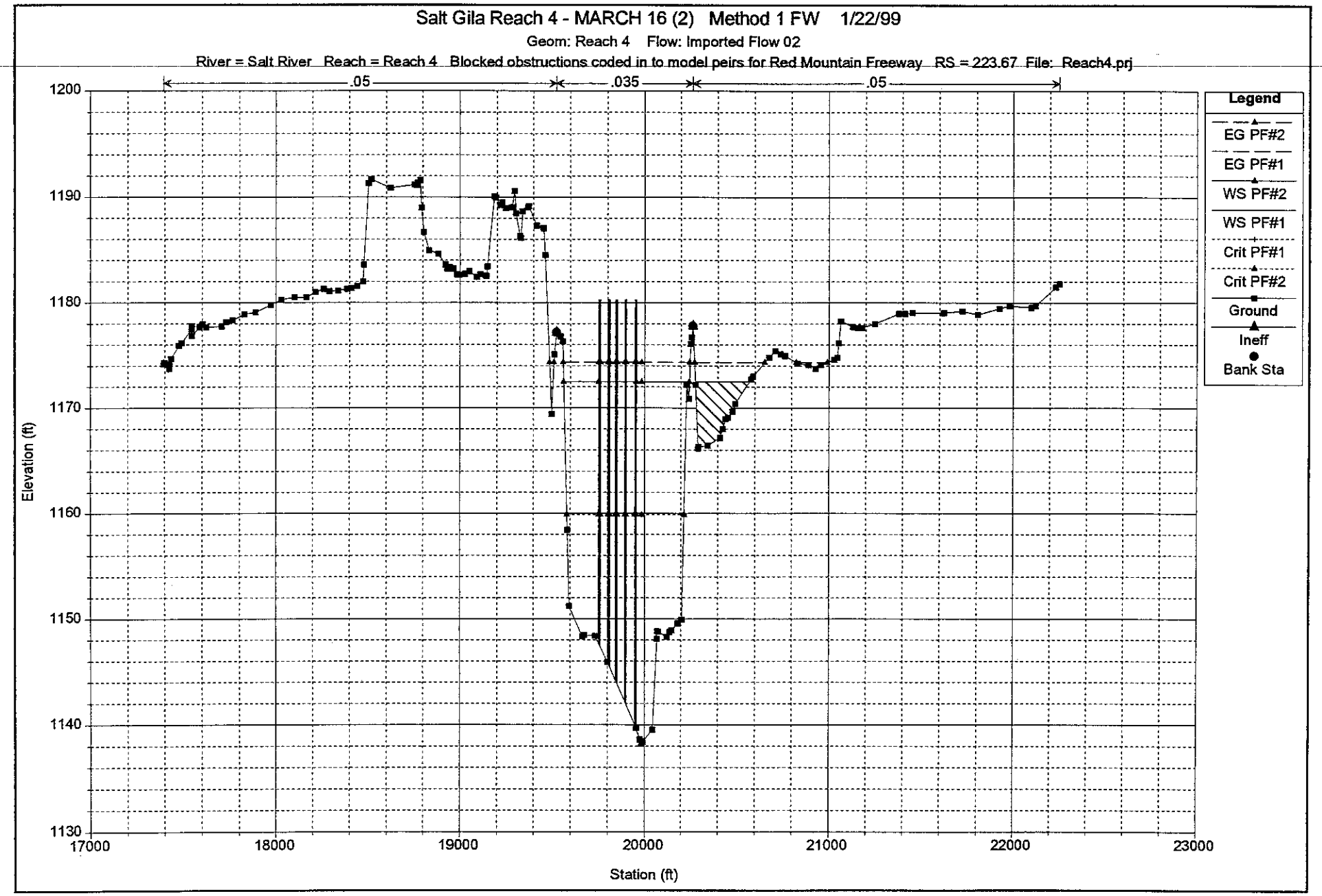
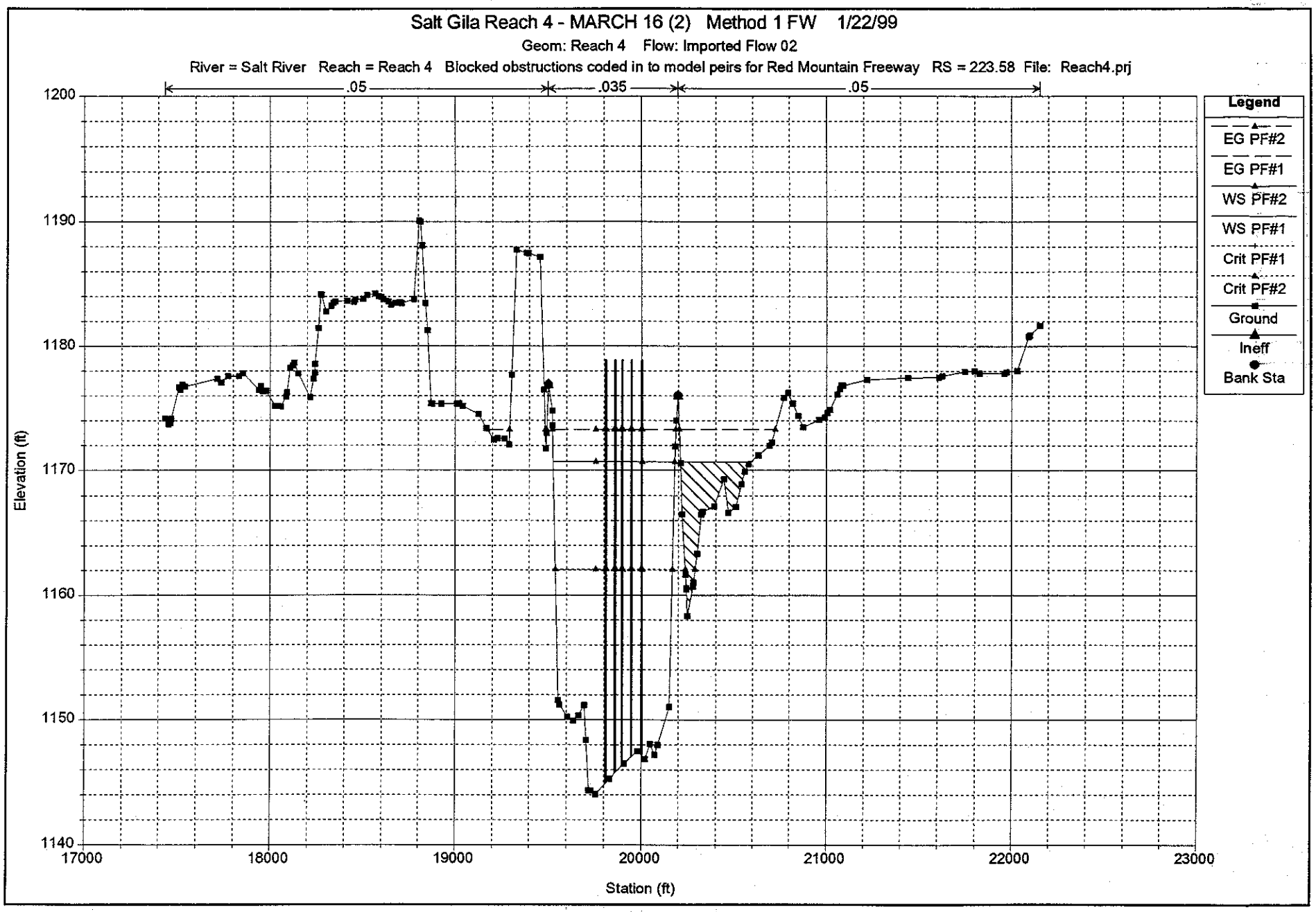
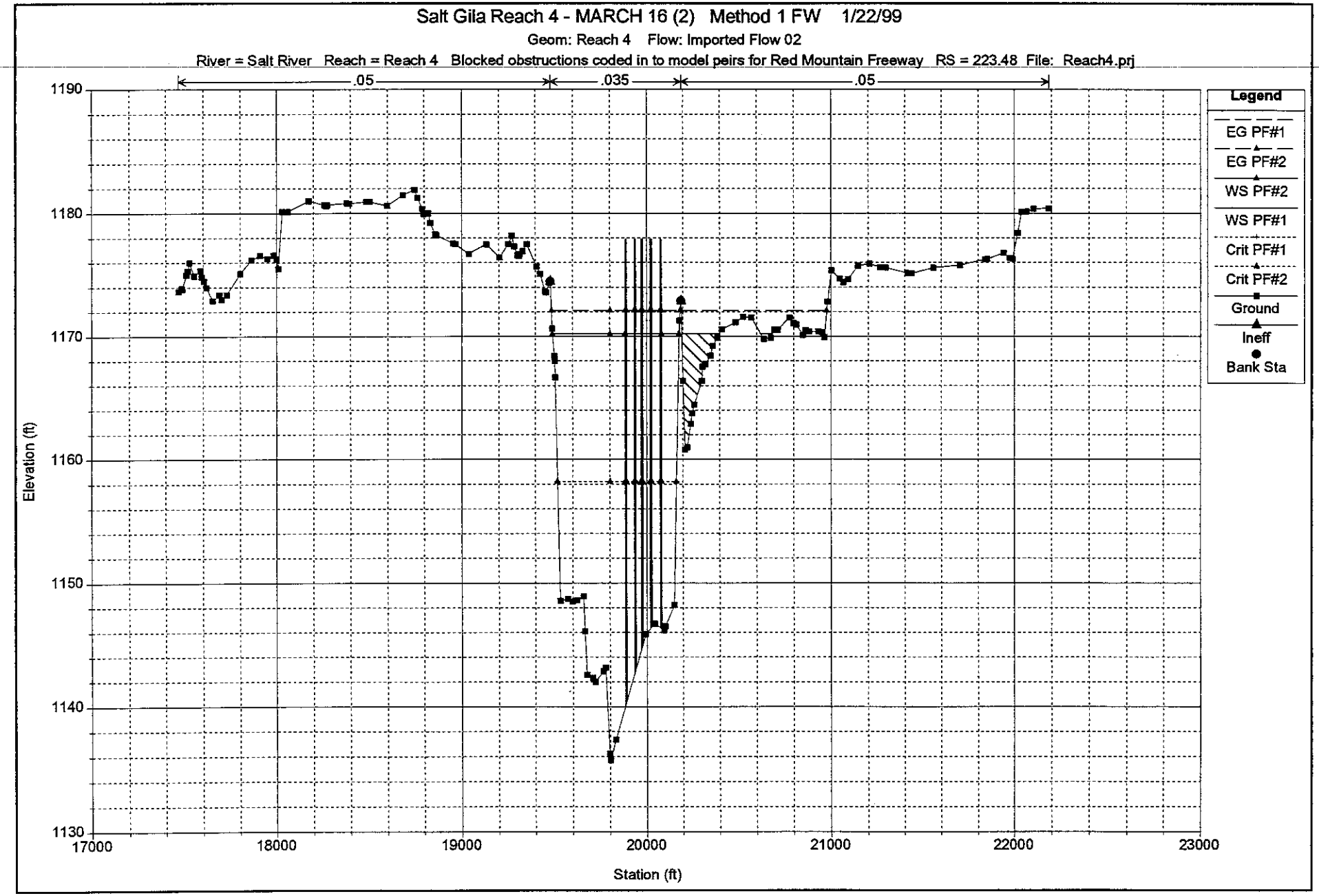
.03
.05
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1210
1200
1190
1180
1170
1160
1150
1140
17000
18000
19000
20000
21000
22000
23000
Station (ft)

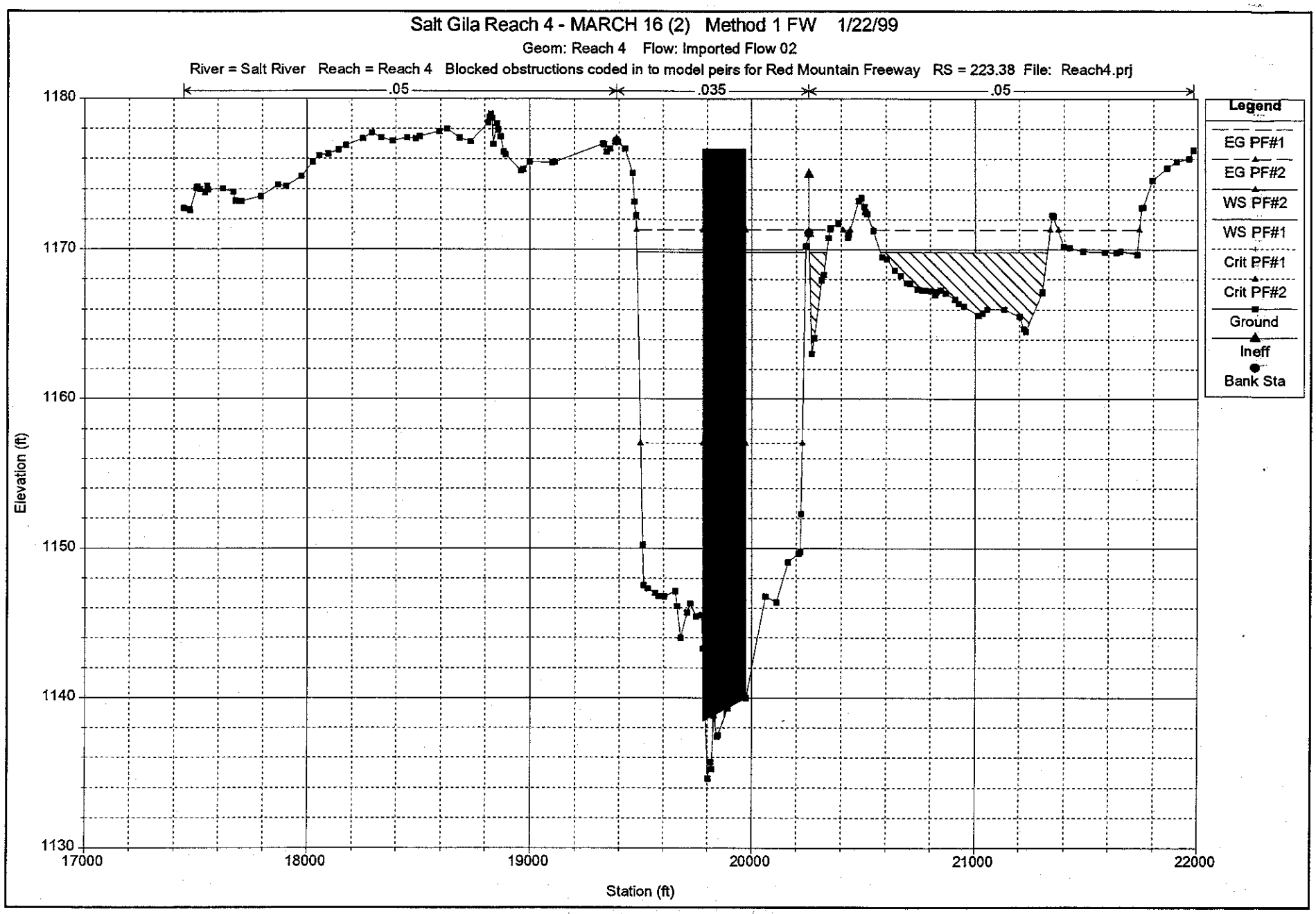

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Blocked obstructions coded in to model peirs for Red Mountain Freeway RS = 223.86 File: Reach4.prj
.05
.03
.05
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1200
1190
1180
1170
1160
1150
1140
17000
18000
19000
20000
21000
22000
23000
Station (ft)

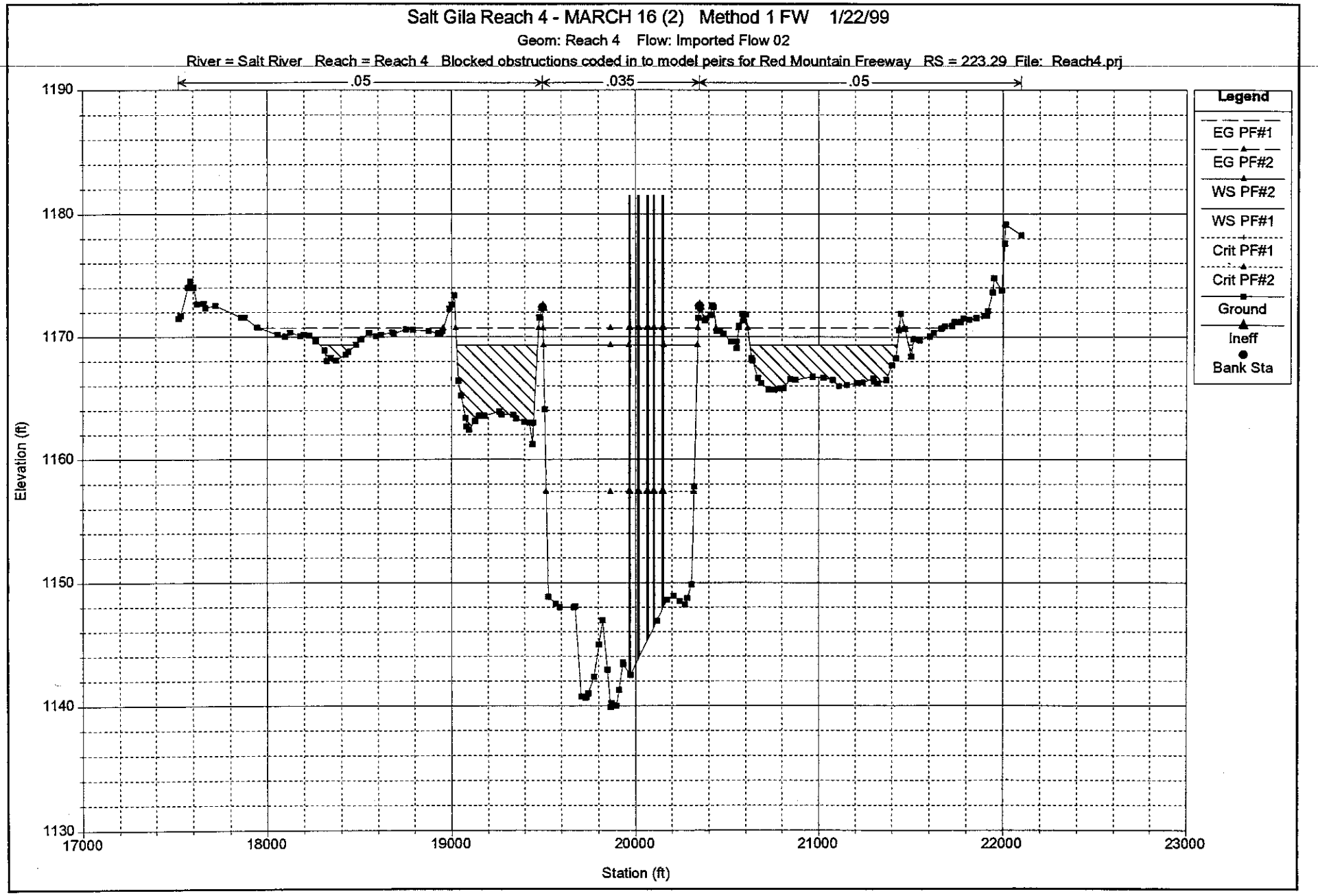

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Blocked obstructions coded in to model peirs for Red Mountain Freeway RS = 223.77 File: Reach4.prj
.05
.03
.05
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1200
1190
1180
1170
1160
1150
1140
1130
17000
18000
19000
20000
21000
22000
23000
Station (ft)

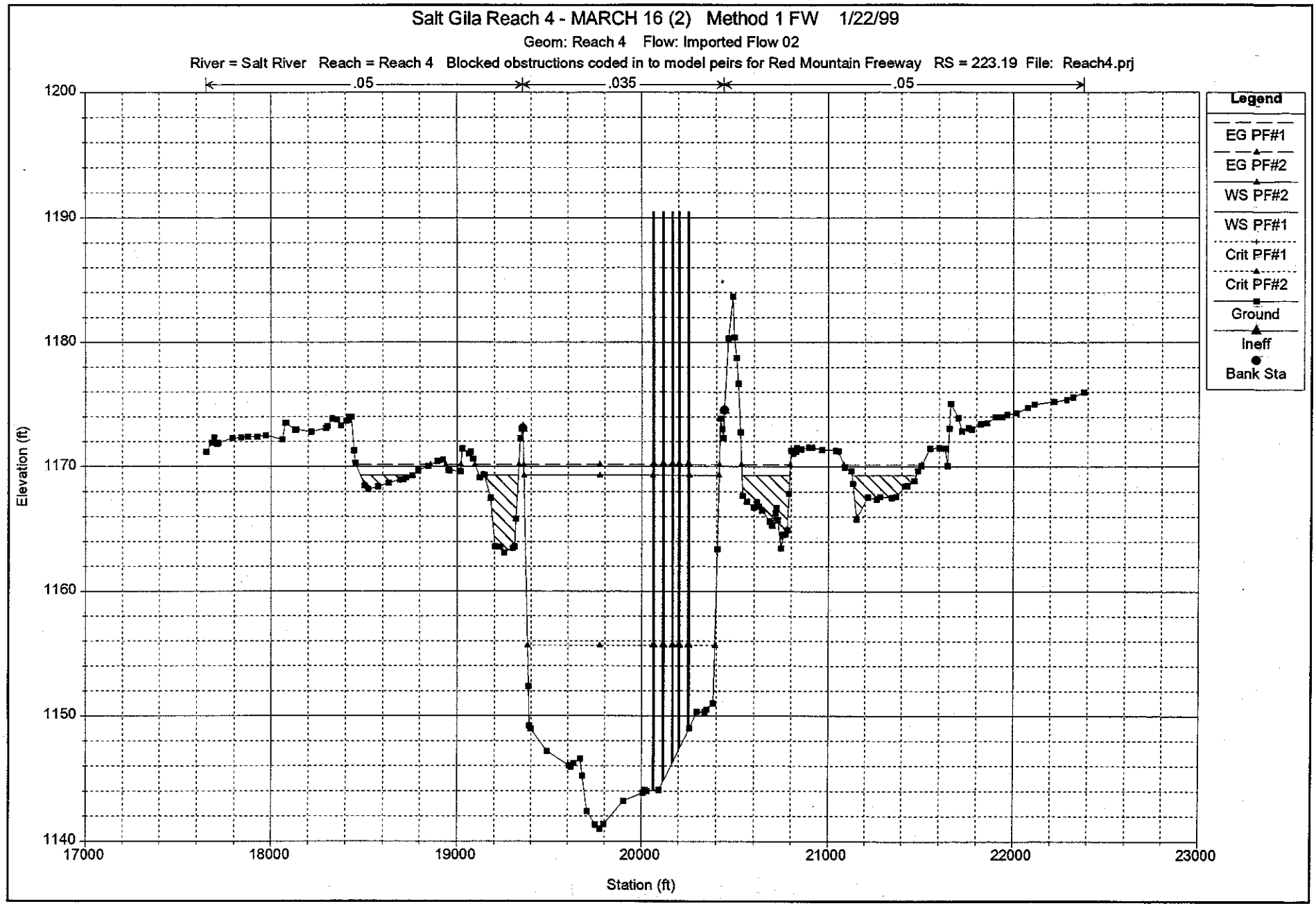

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Blocked obstructions coded in to model peirs for Red Mountain Freeway RS = 223.67 File: Reach4.prj
.05
.035
.05
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1200
1190
1180
1170
1160
1150
1140
1130
17000
18000
19000
20000
21000
22000
23000
Station (ft)

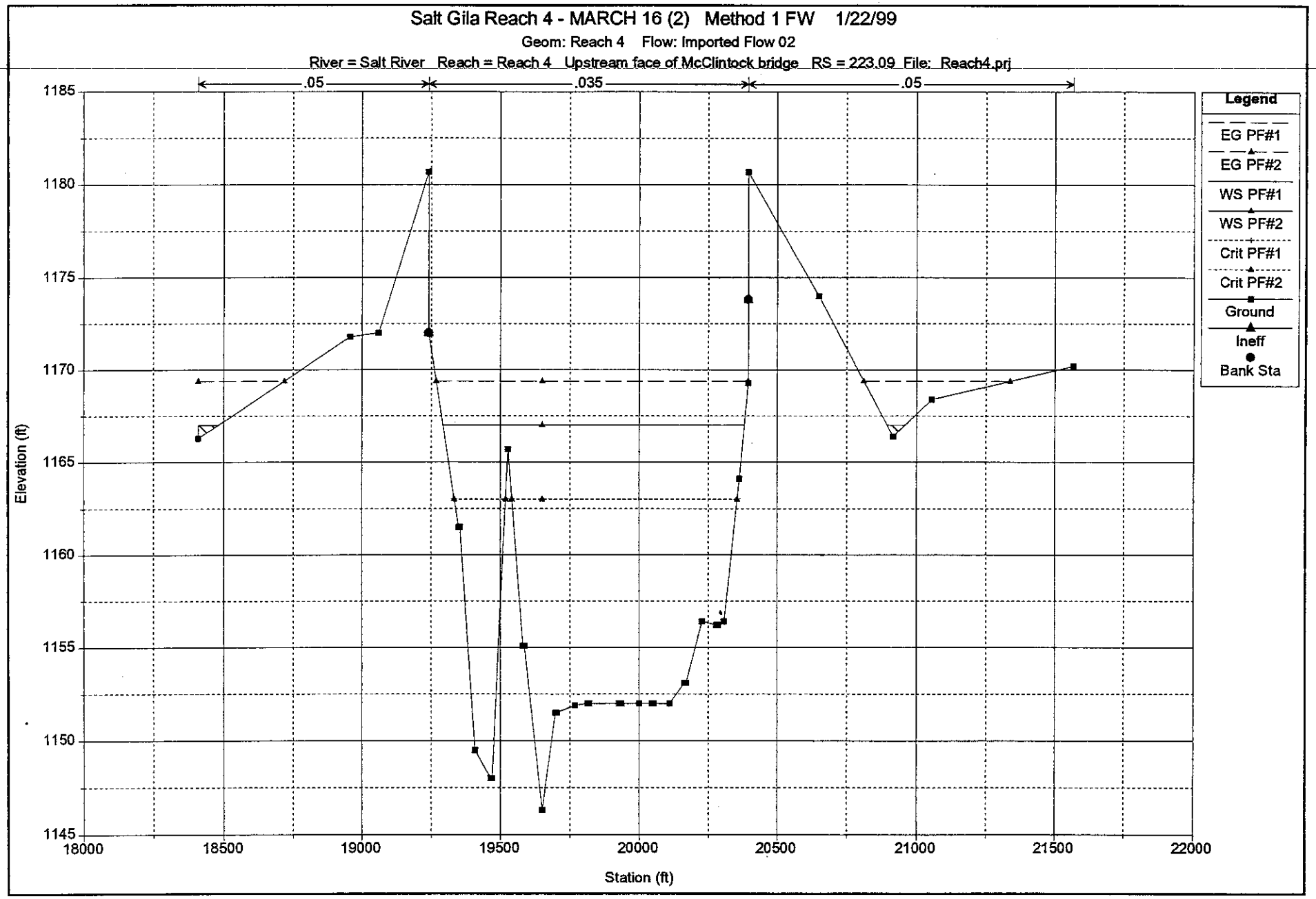

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Blocked obstructions coded in to model peirs for Red Mountain Freeway RS = 223.58 File: Reach4.prj
.05
.035
.05
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1200
1190
1180
1170
1160
1150
1140
17000
18000
19000
20000
21000
22000
23000
Station (ft)

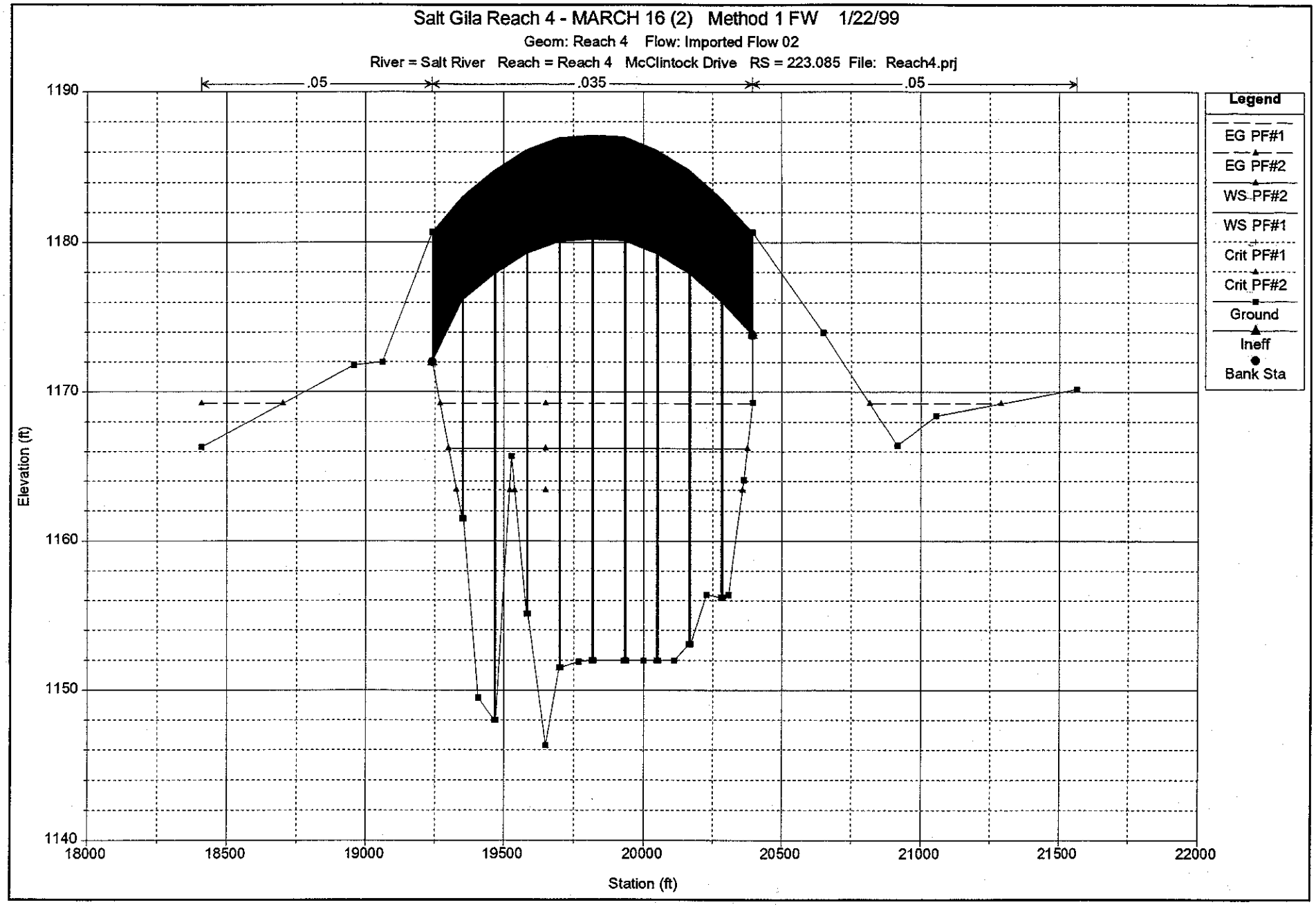

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Blocked obstructions coded in to model peirs for Red Mountain Freeway RS = 223.48 File: Reach4.prj
.05
.035
.05
Legend
EG PF#1
EG PF#2
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1190
1180
1170
1160
1150
1140
1130
17000
18000
19000
20000
21000
22000
23000
Station (ft)

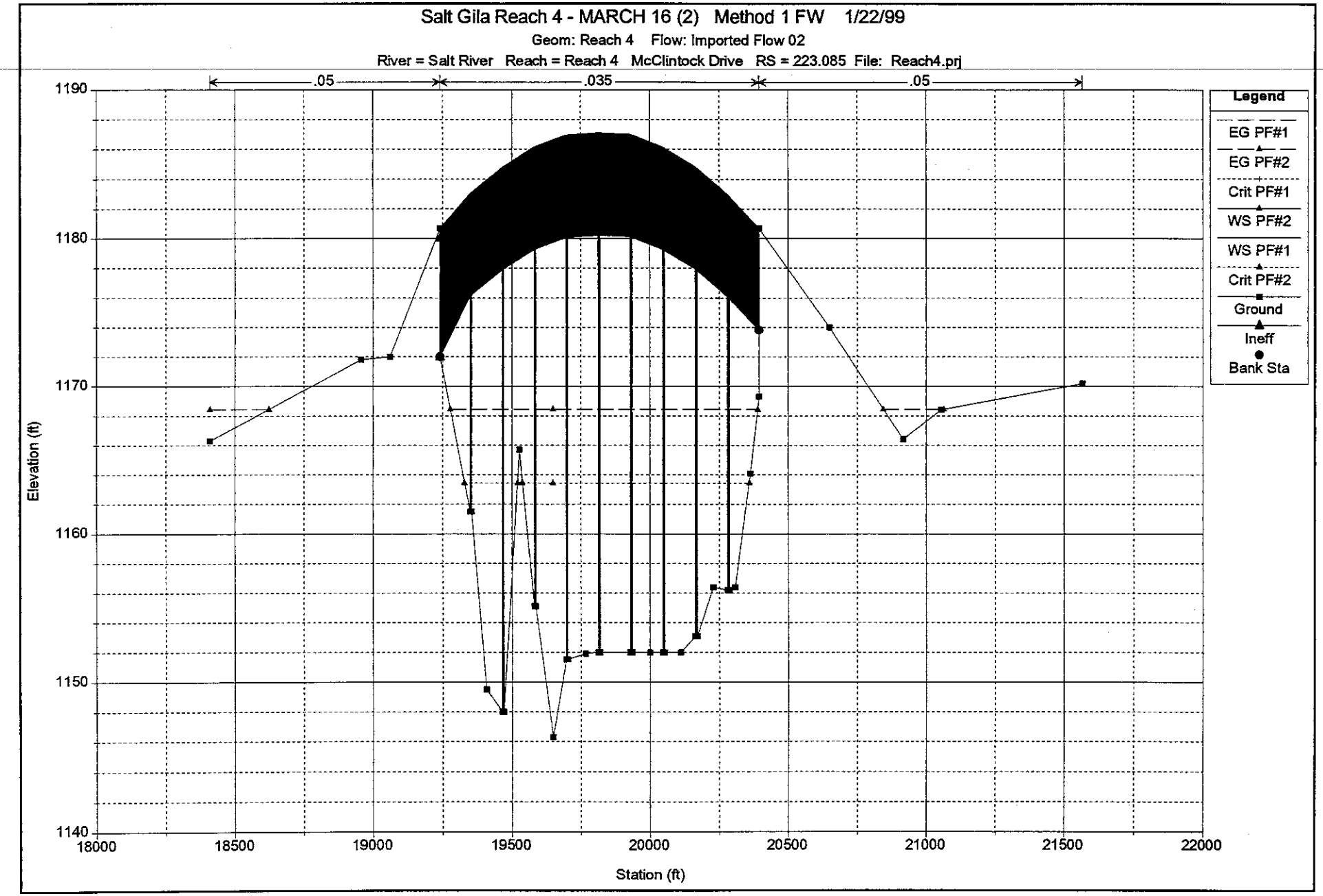

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Blocked obstructions coded in to model peirs for Red Mountain Freeway RS = 223.38 File: Reach4.prj
.05
.035
.05
Legend
EG PF#1
EG PF#2
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1180
1170
1160
1150
1140
1130
17000
18000
19000
20000
21000
22000
Station (ft)

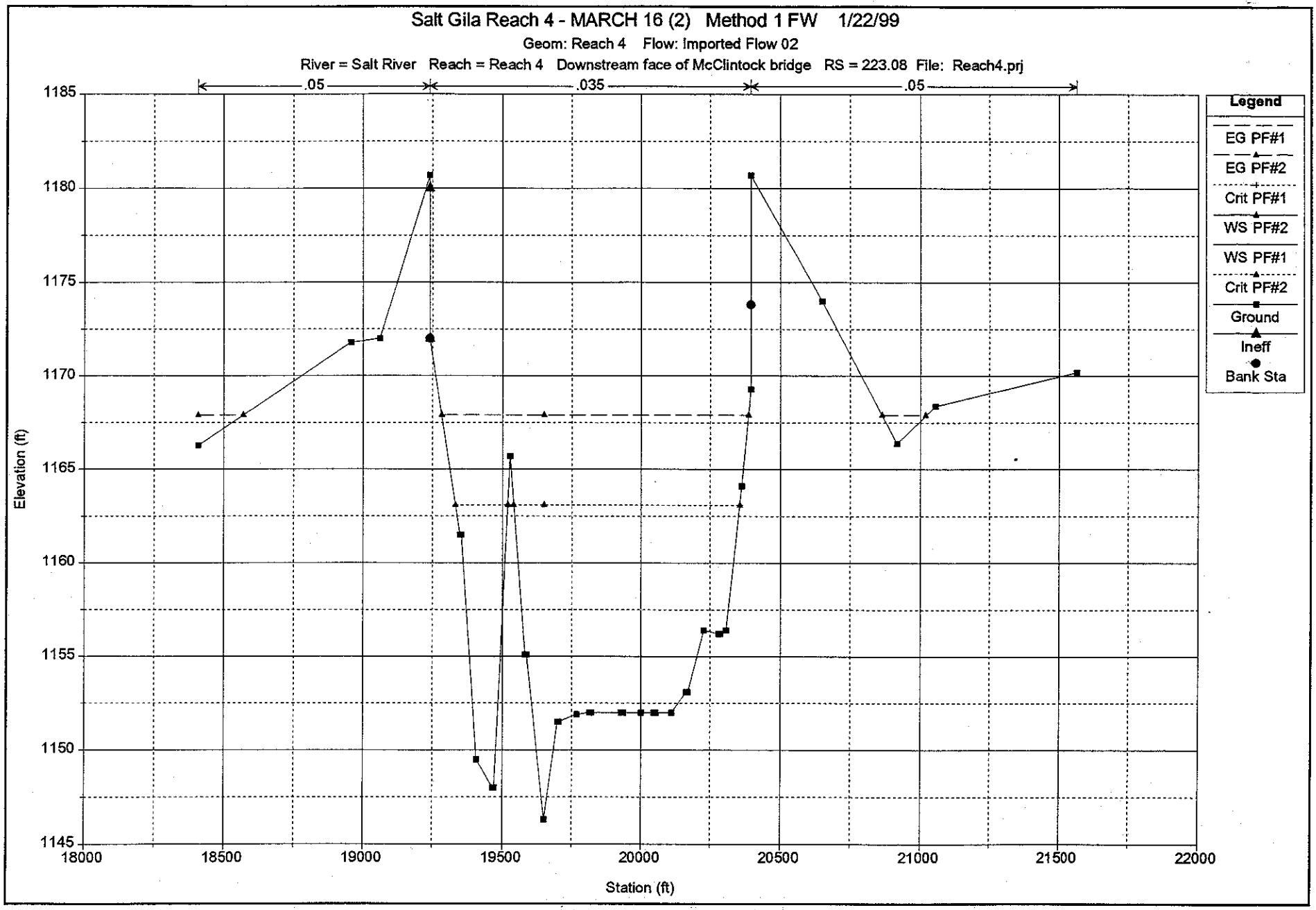

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Blocked obstructions coded in to model peirs for Red Mountain Freeway RS = 223.29 File: Reach4.prj
.05
.035
.05
Legend
EG PF#1
EG PF#2
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1190
1180
1170
1160
1150
1140
1130
17000
18000
19000
20000
21000
22000
23000
Station (ft)

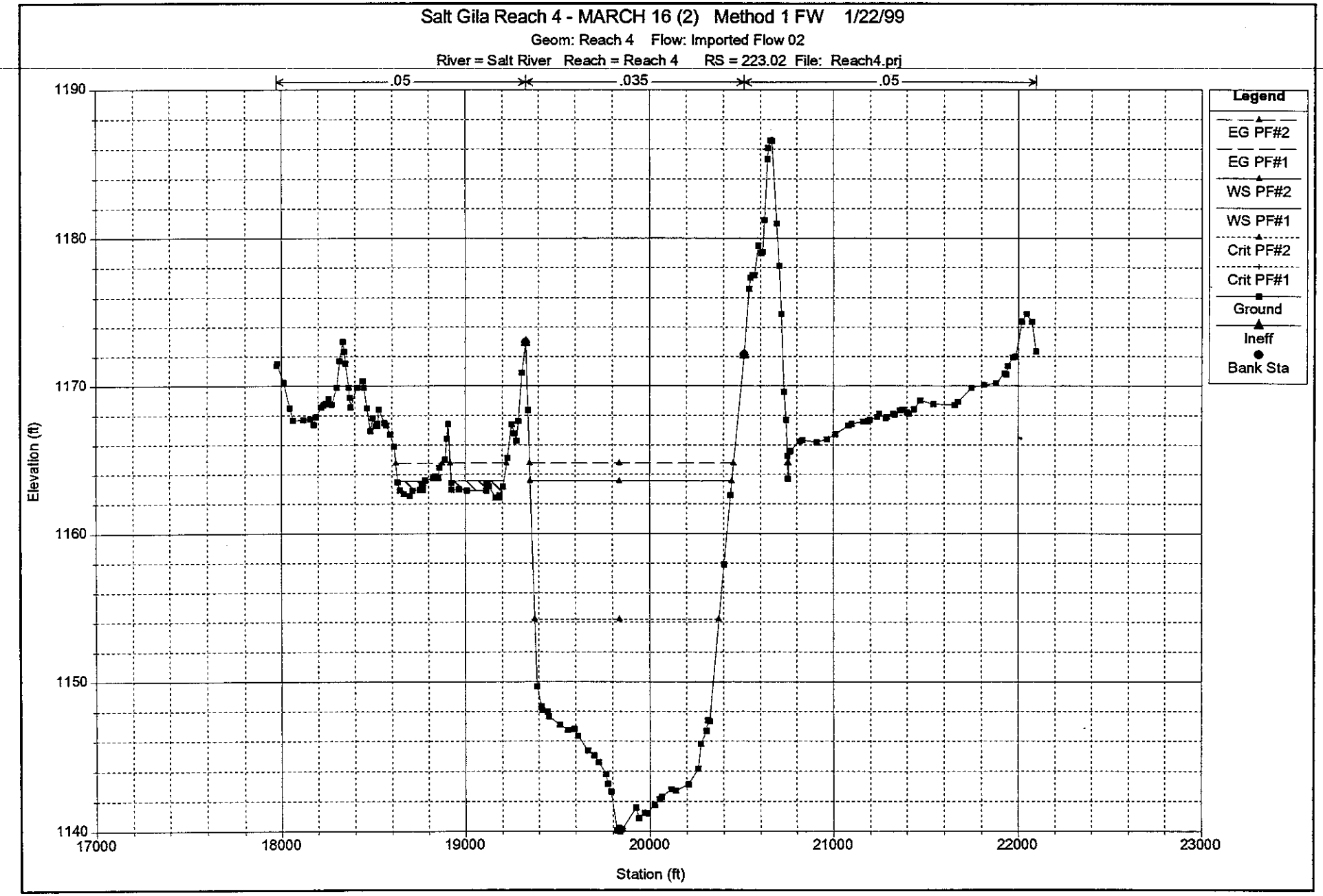

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Blocked obstructions coded in to model peirs for Red Mountain Freeway RS = 223.19 File: Reach4.prj
.05
.035
.05
Legend
EG PF#1
EG PF#2
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1200
1190
1180
1170
1160
1150
1140
17000
18000
19000
20000
21000
22000
23000
Station (ft)

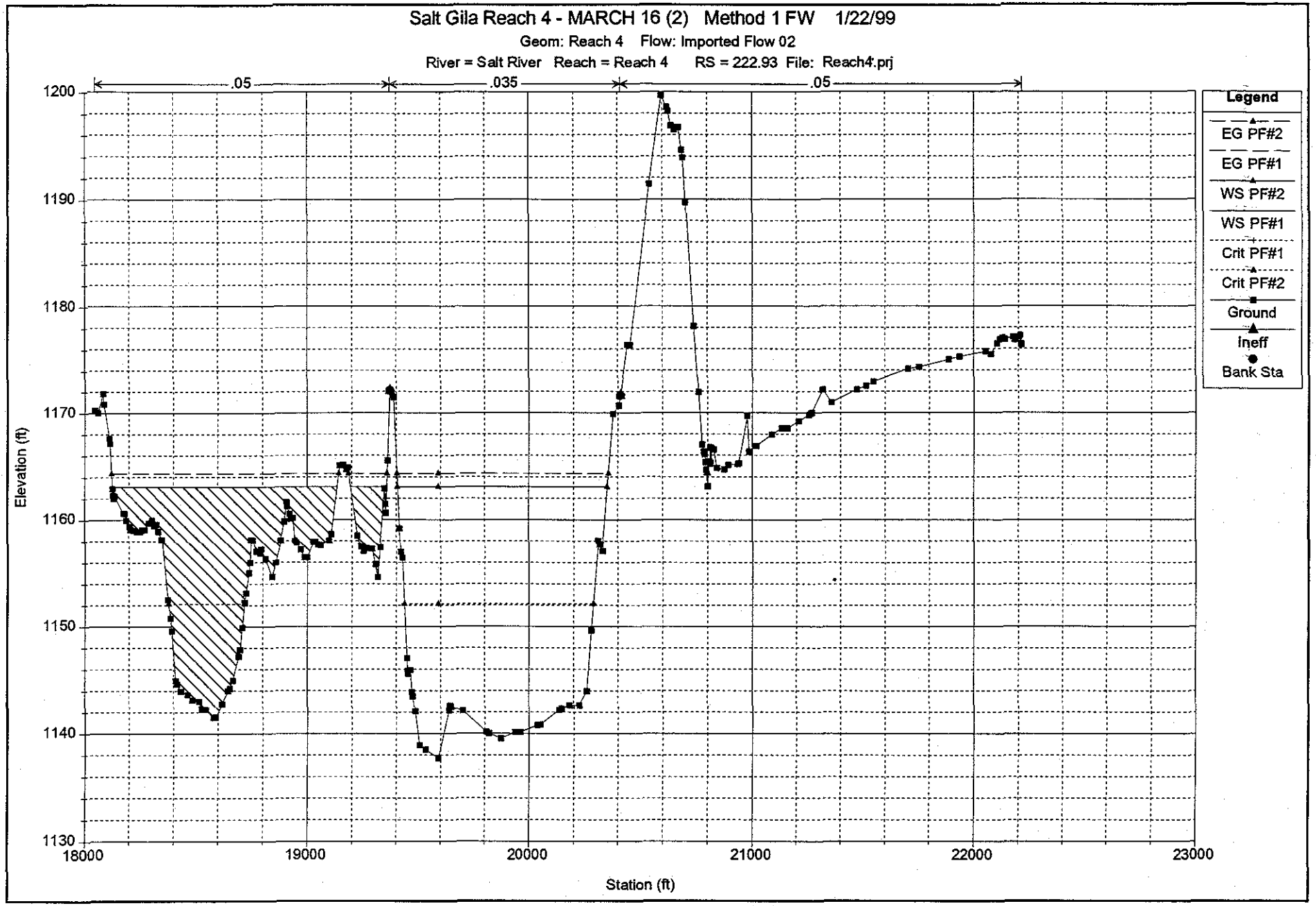

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Upstream face of McClintock bridge RS = 223.09 File: Reach4.prj
.05
.035
.05
Elevation (ft)
1185
1180
1175
1170
1165
1160
1155
1150
1145
18000
18500
19000
19500
20000
20500
21000
21500
22000
Station (ft)
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

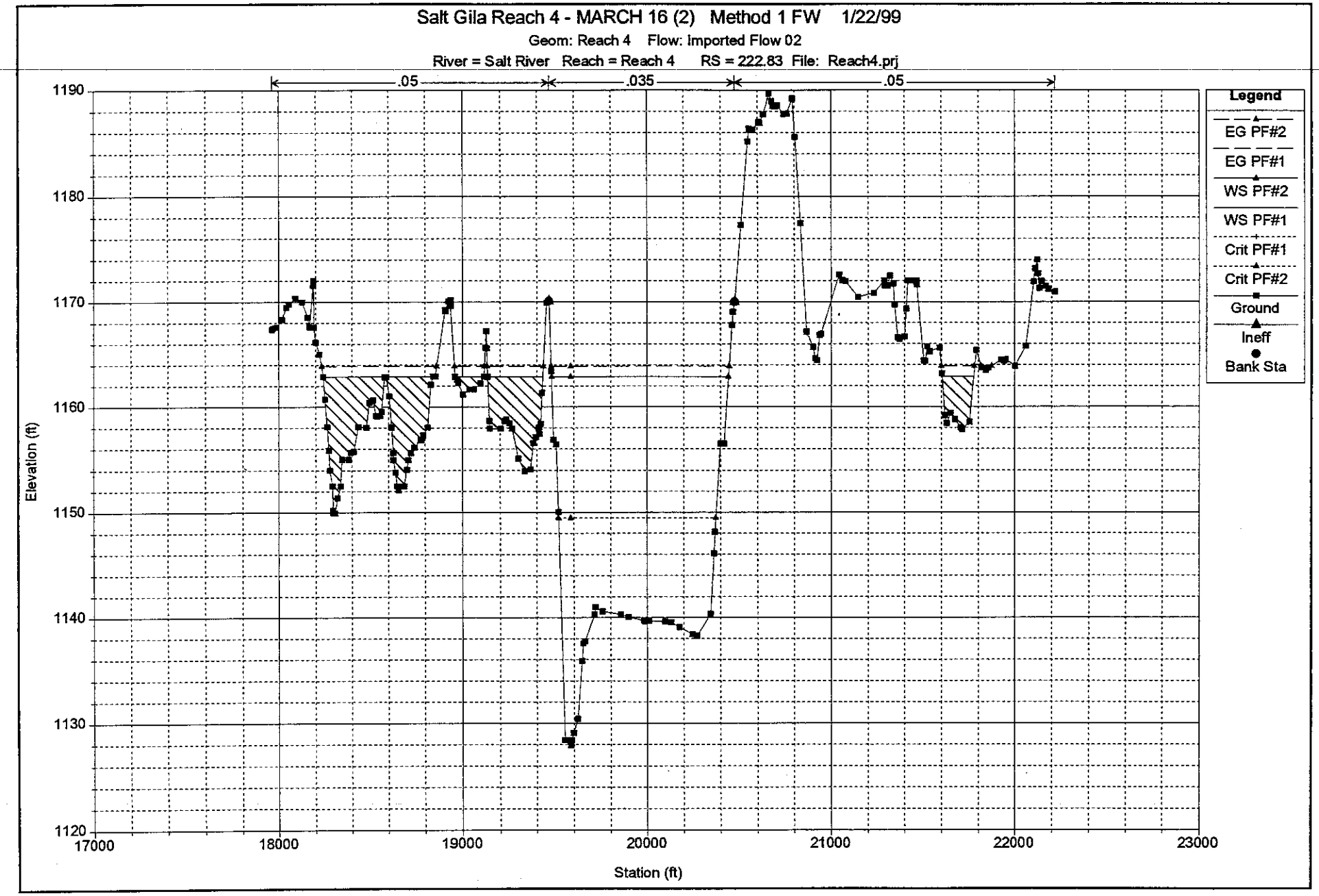

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 McClintock Drive RS = 223.085 File: Reach4.prj
.05
.035
.05
Legend
EG PF#1
EG PF#2
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1190
1180
1170
1160
1150
1140
18000
18500
19000
19500
20000
20500
21000
21500
22000
Station (ft)

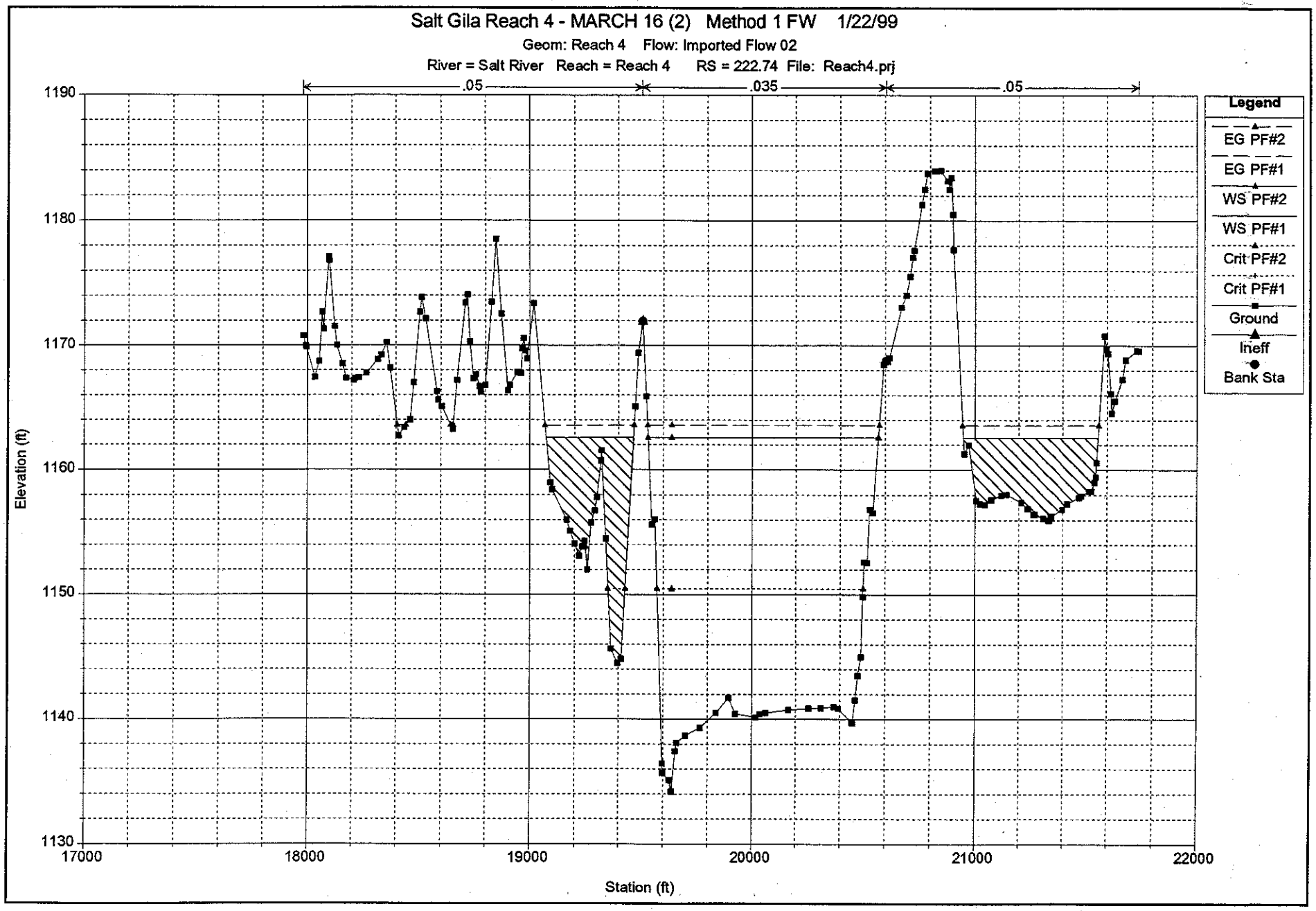

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 McClintock Drive RS = 223.085 File: Reach4.prj
.05
.035
.05
Legend
EG PF#1
EG PF#2
Crit PF#1
WS PF#2
WS PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1190
1180
1170
1160
1150
1140
18000
18500
19000
19500
20000
20500
21000
21500
22000
Station (ft)

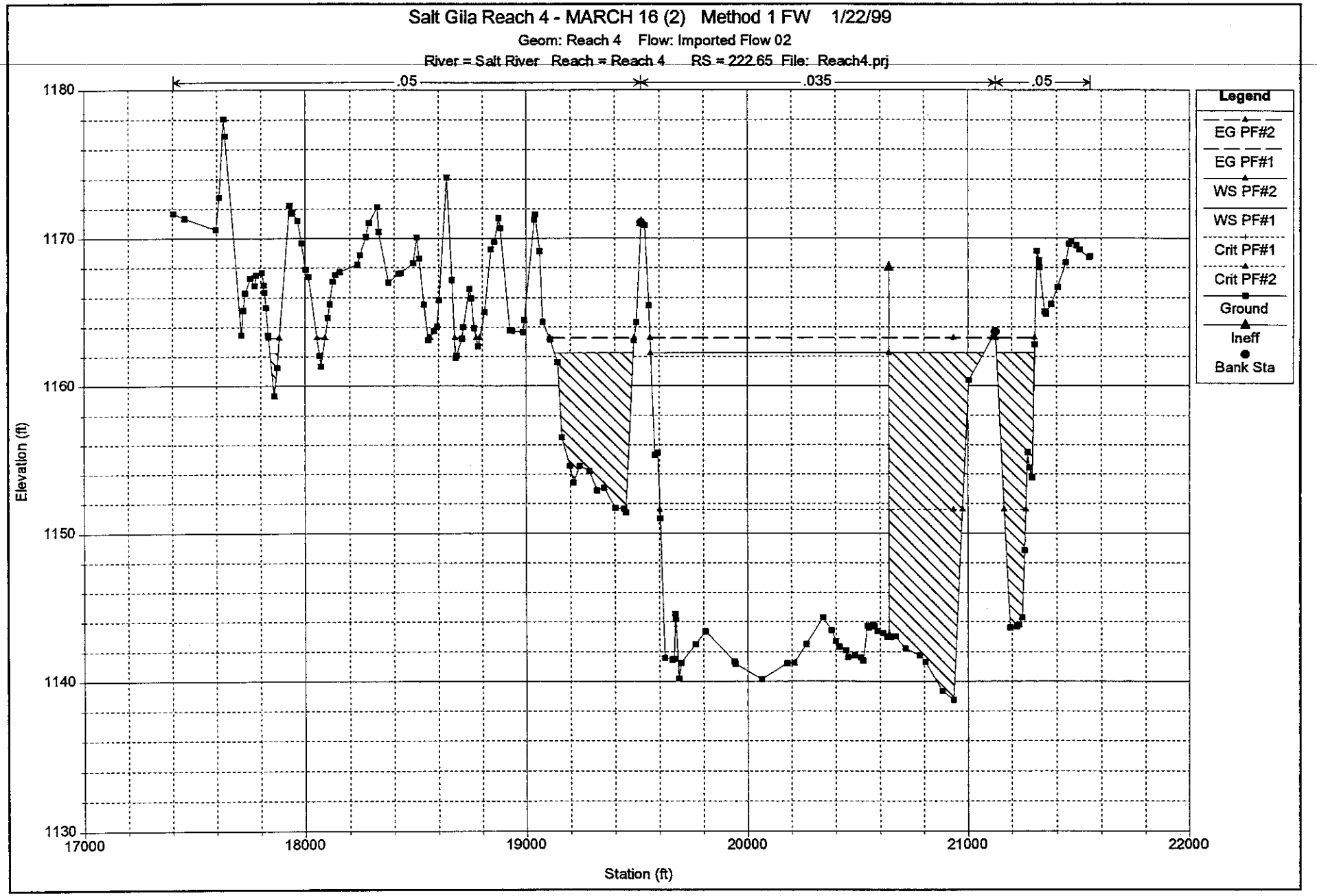

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Downstream face of McClintock bridge RS = 223.08 File: Reach4.prj
.05
.035
.05
Elevation (ft)
1185
1180
1175
1170
1165
1160
1155
1150
1145
18000
18500
19000
19500
20000
20500
21000
21500
22000
Station (ft)
Legend
EG PF#1
EG PF#2
Crit PF#1
WS PF#2
WS PF#1
Crit PF#2
Ground
Ineff
Bank Sta

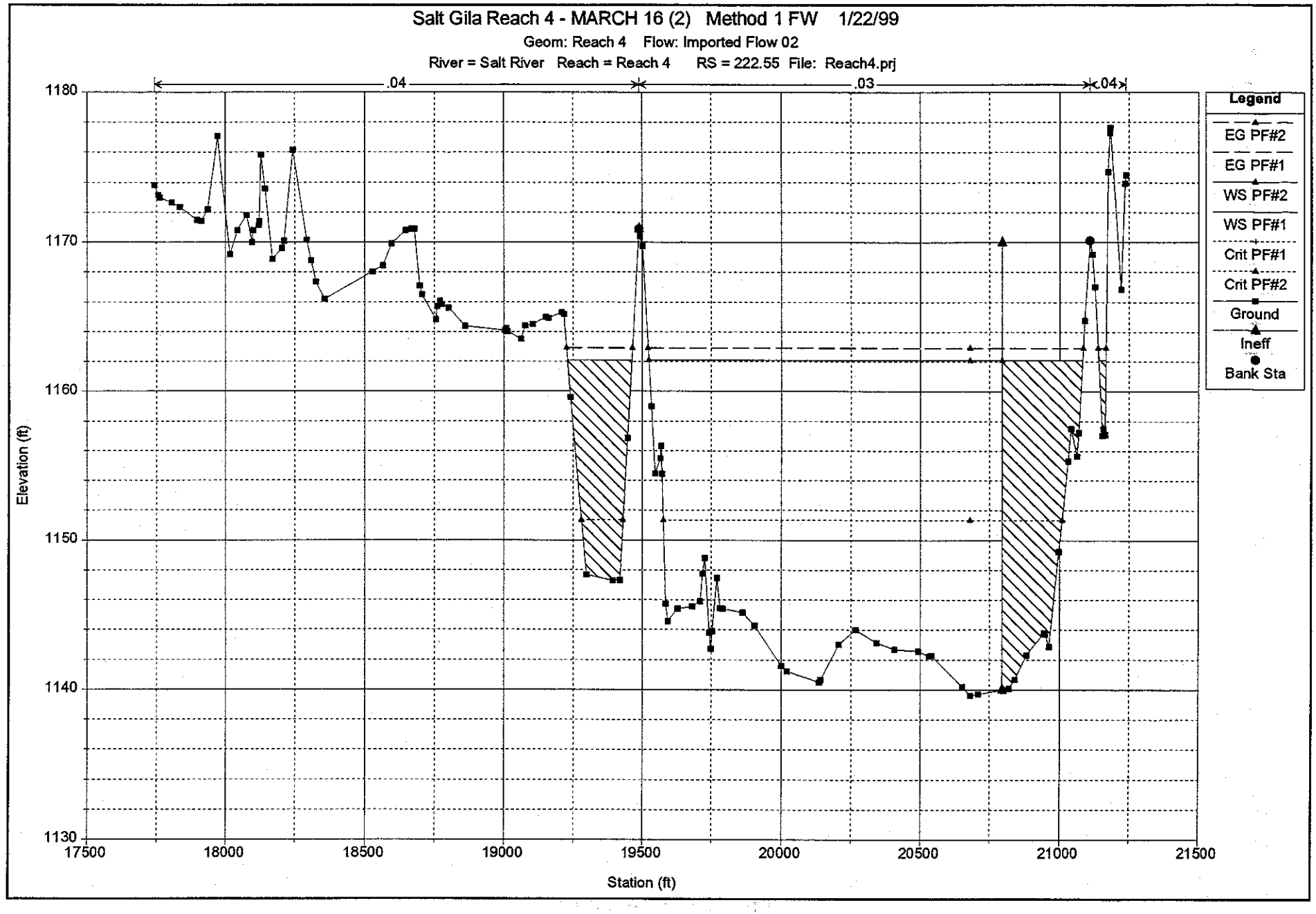

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 223.02 File: Reach4.prj
.05
.035
.05
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1190
1180
1170
1160
1150
1140
17000
18000
19000
20000
21000
22000
23000
Station (ft)

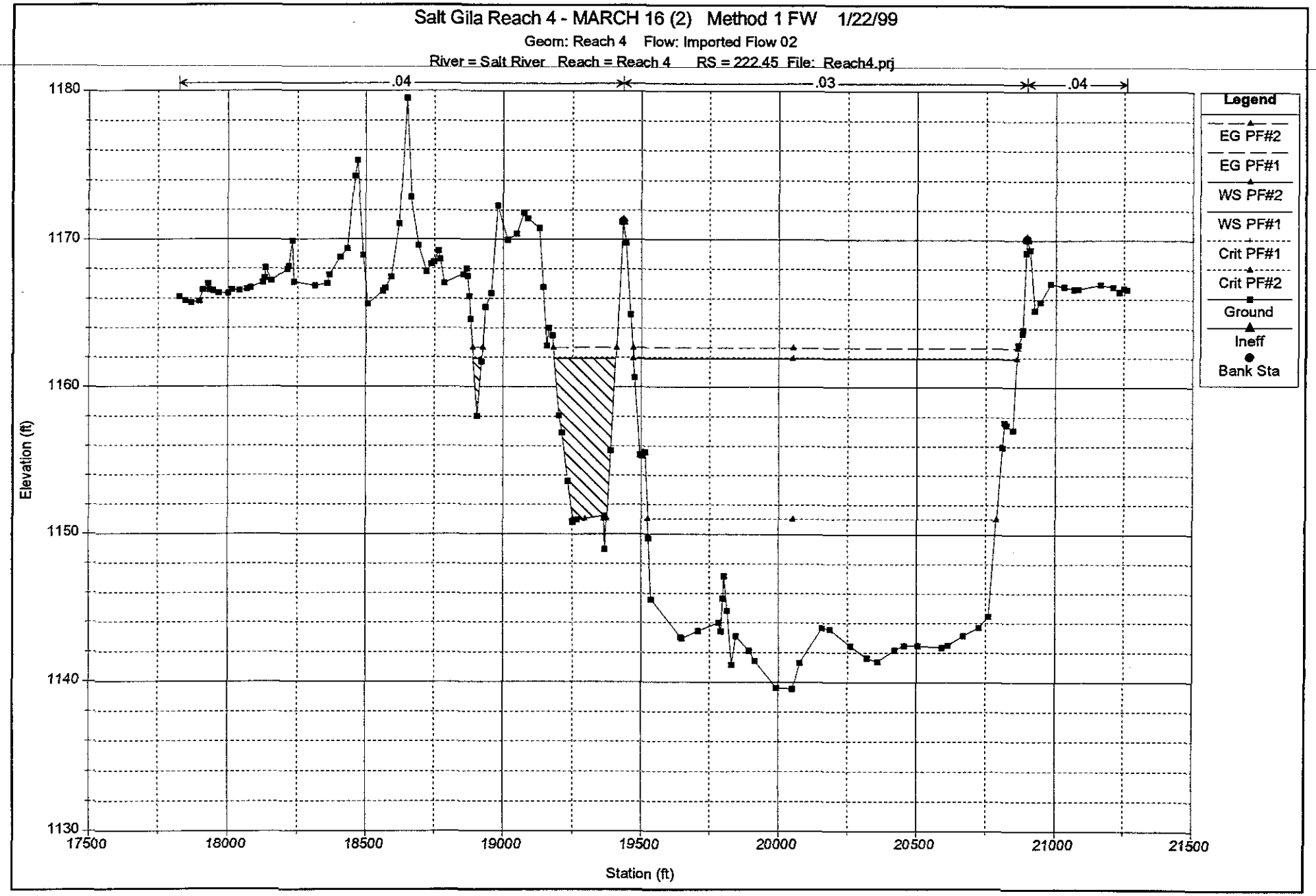

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 222.93 File: Reach4.prj
.05
.035
.05
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1200
1190
1180
1170
1160
1150
1140
1130
18000
19000
20000
21000
22000
23000
Station (ft)

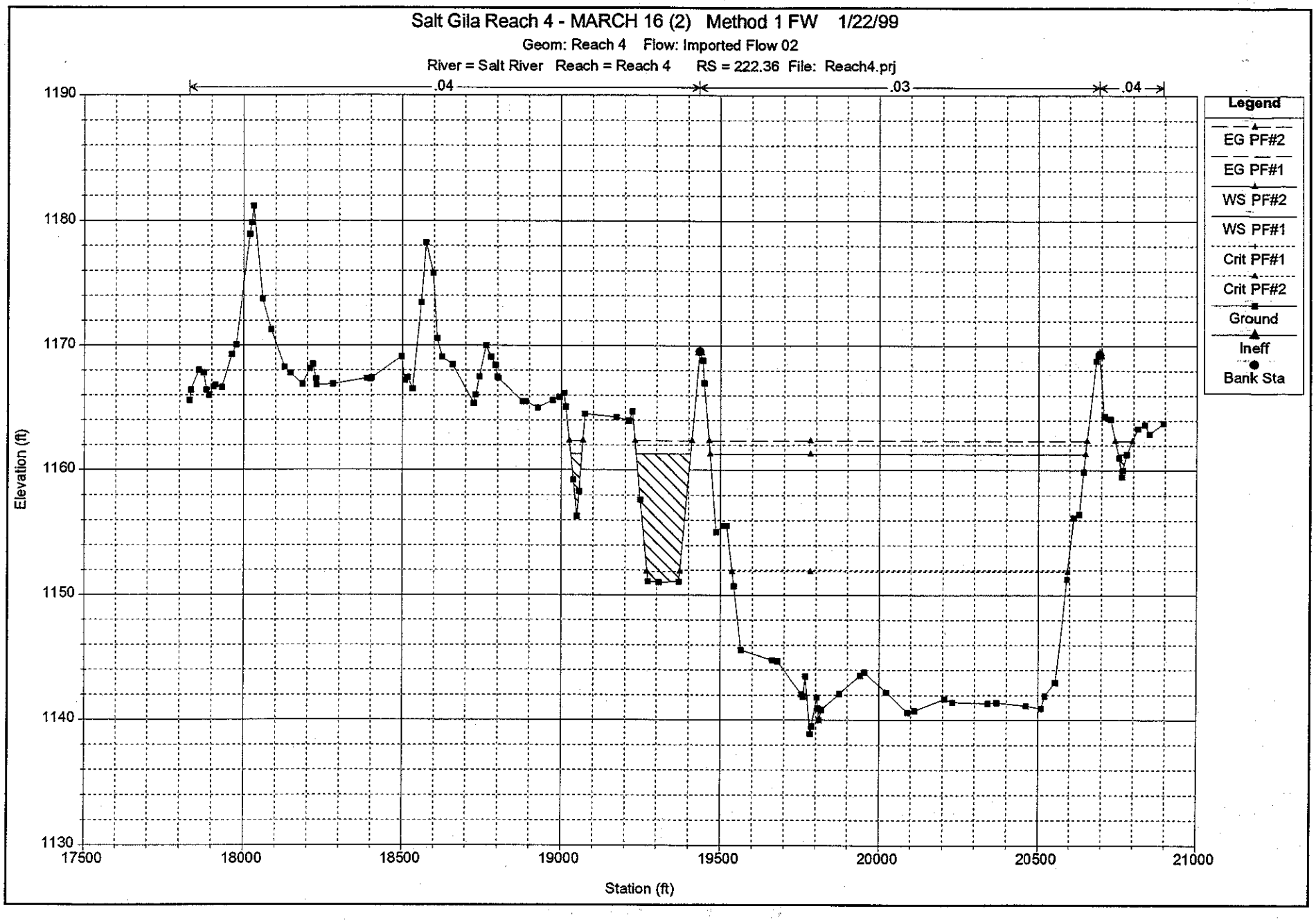

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 222.83 File: Reach4.prj
.05
.035
.05
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1190
1180
1170
1160
1150
1140
1130
1120
17000
18000
19000
20000
21000
22000
23000
Station (ft)

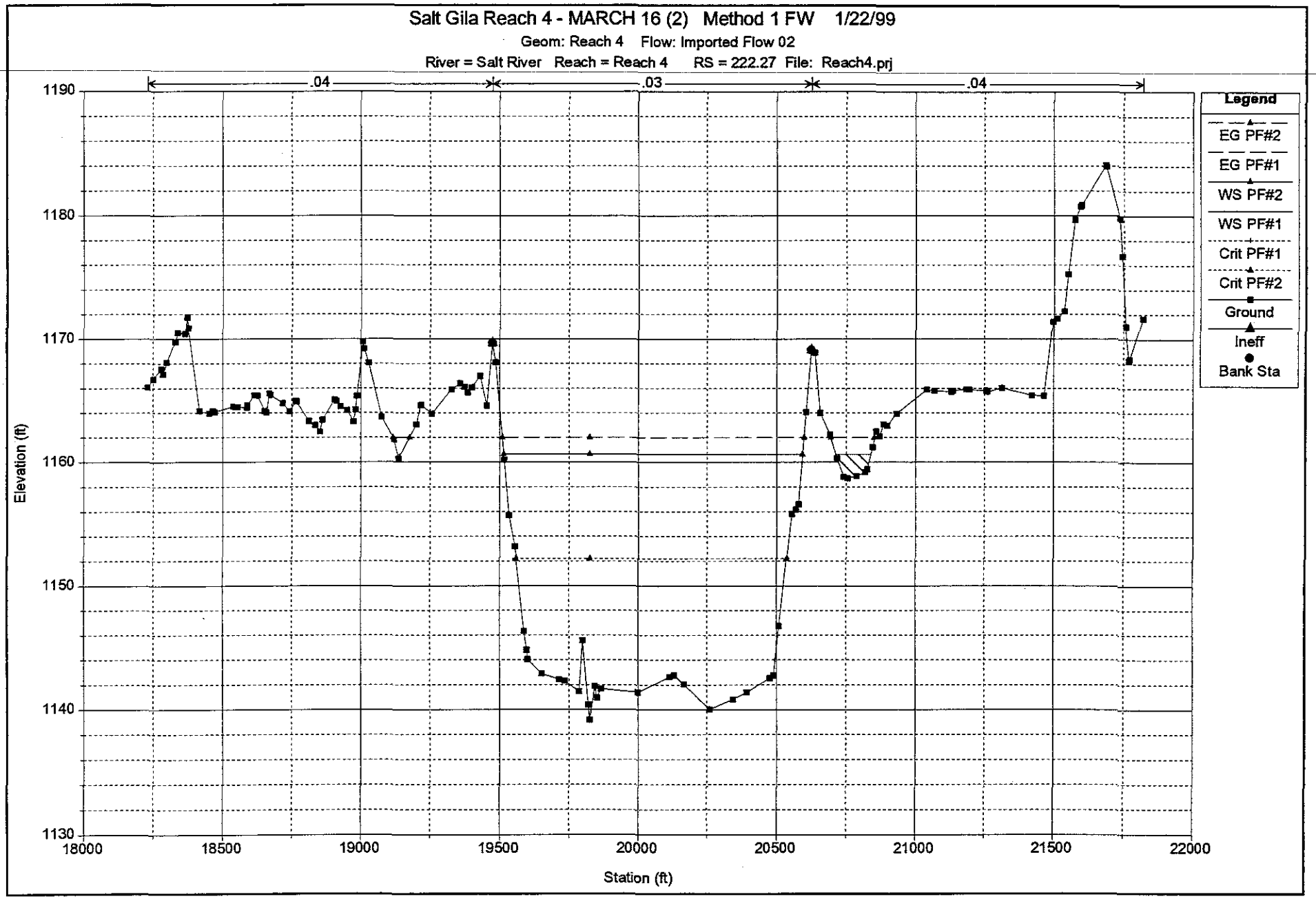

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 222.74 File: Reach4.prj
.05
.035
.05
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1190
1180
1170
1160
1150
1140
1130
17000
18000
19000
20000
21000
22000
Station (ft)

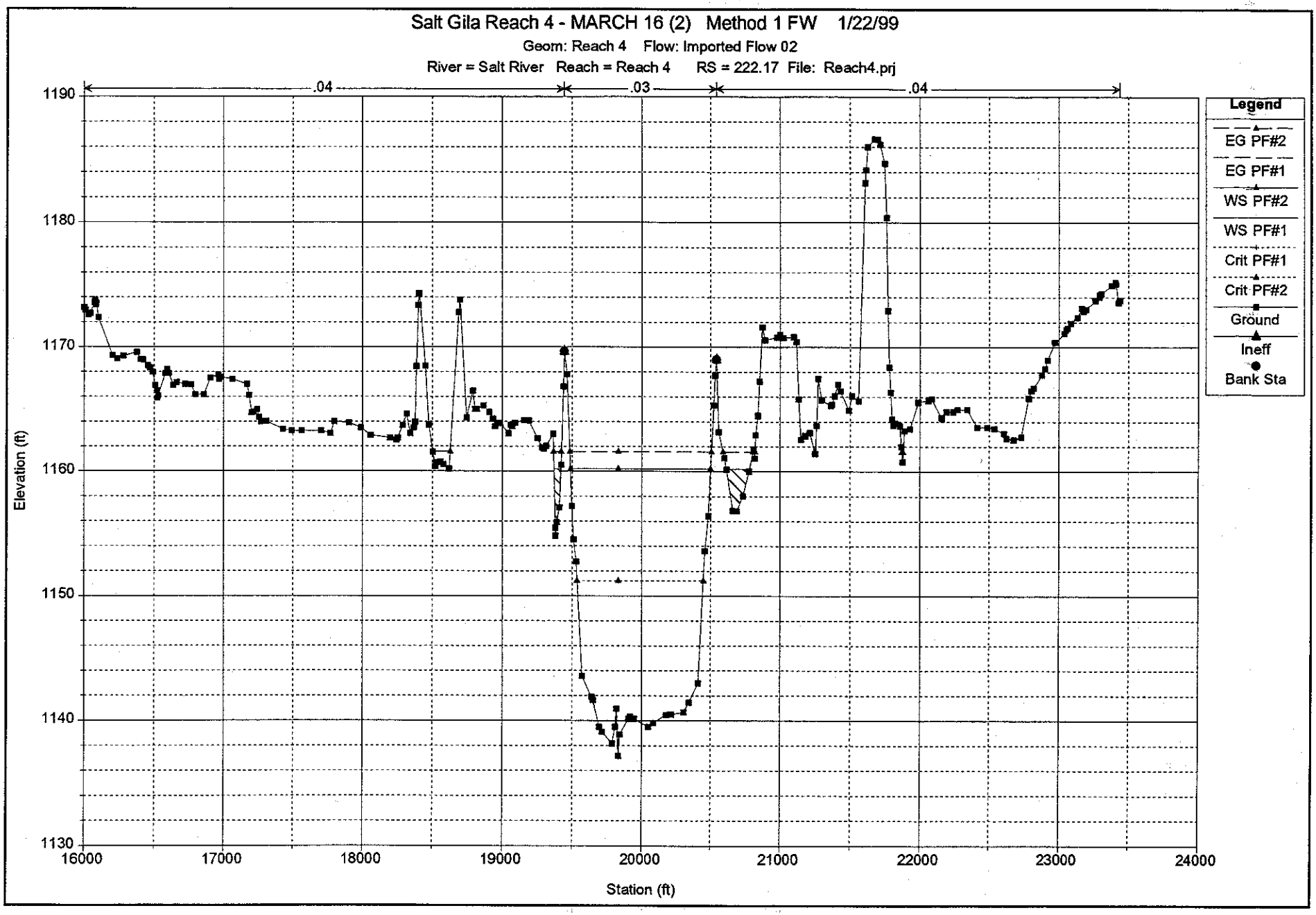

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 222.65 File: Reach4.prj
.05
.035
.05
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1180
1170
1160
1150
1140
1130
17000
18000
19000
20000
21000
22000
Station (ft)

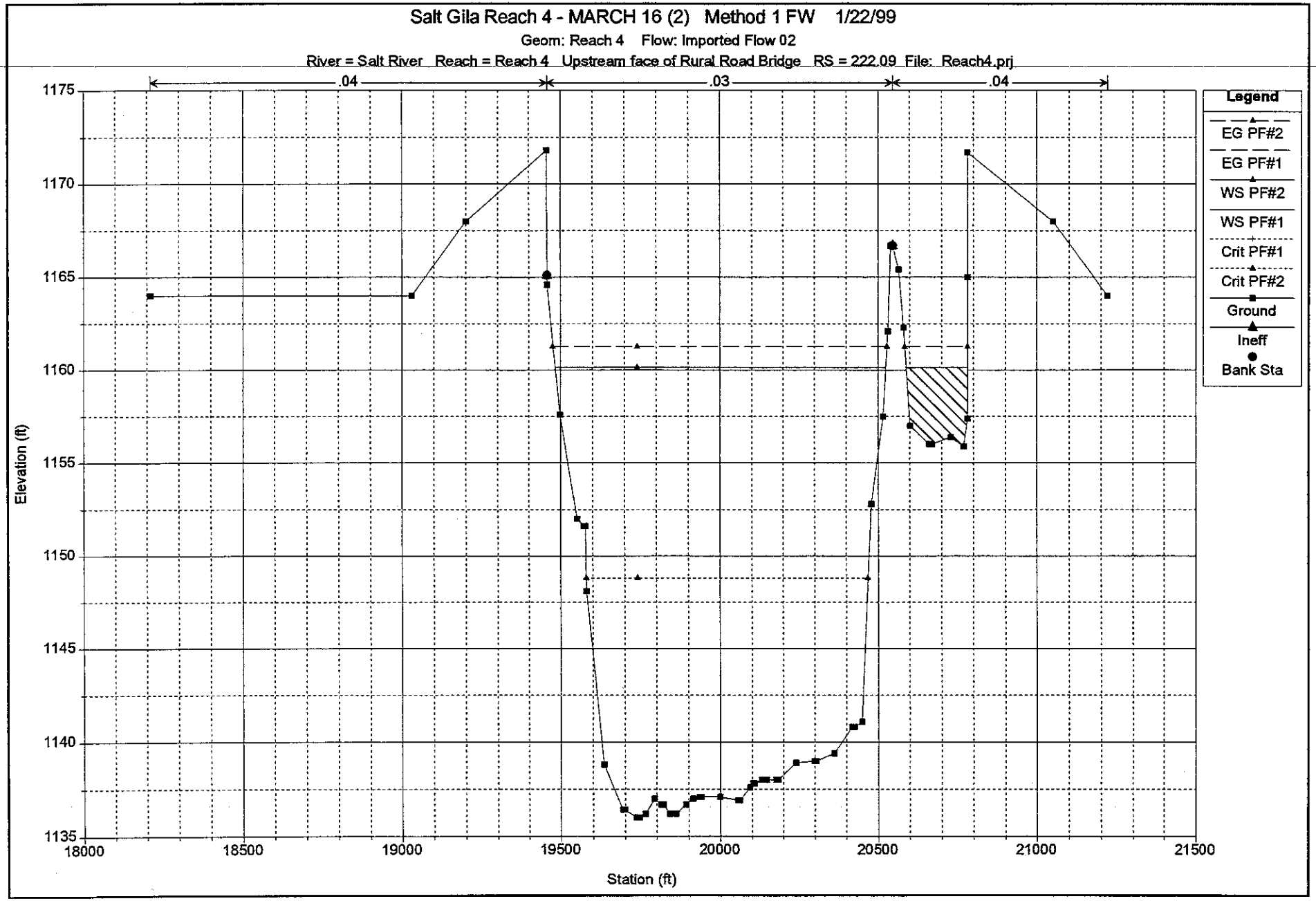

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 222.55 File: Reach4.prj
.04
.03
.04
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1180
1170
1160
1150
1140
1130
17500
18000
18500
19000
19500
20000
20500
21000
21500
Station (ft)

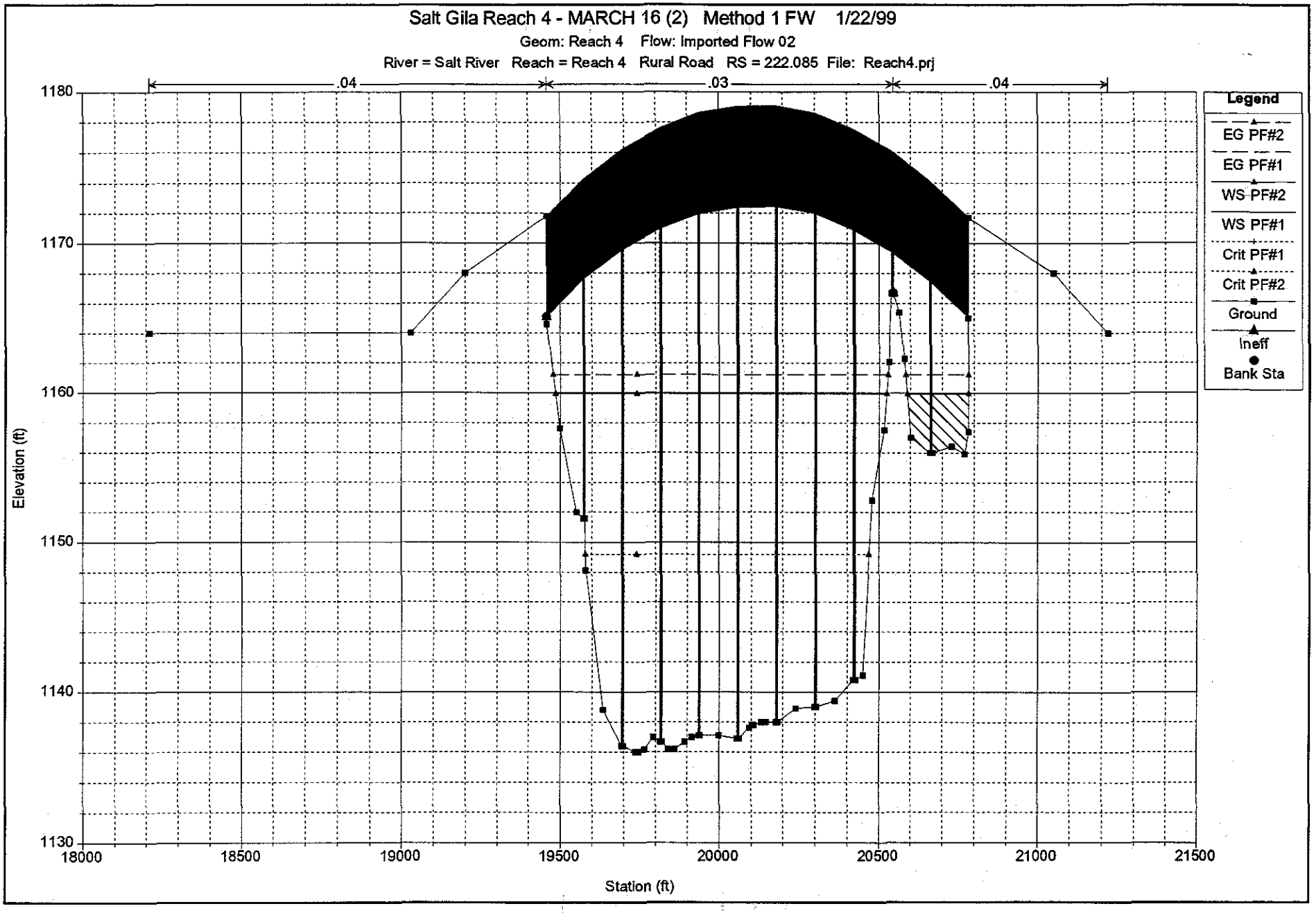

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 222.45 File: Reach4.prj
.04
.03
.04
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1180
1170
1160
1150
1140
1130
17500
18000
18500
19000
19500
20000
20500
21000
21500
Station (ft)

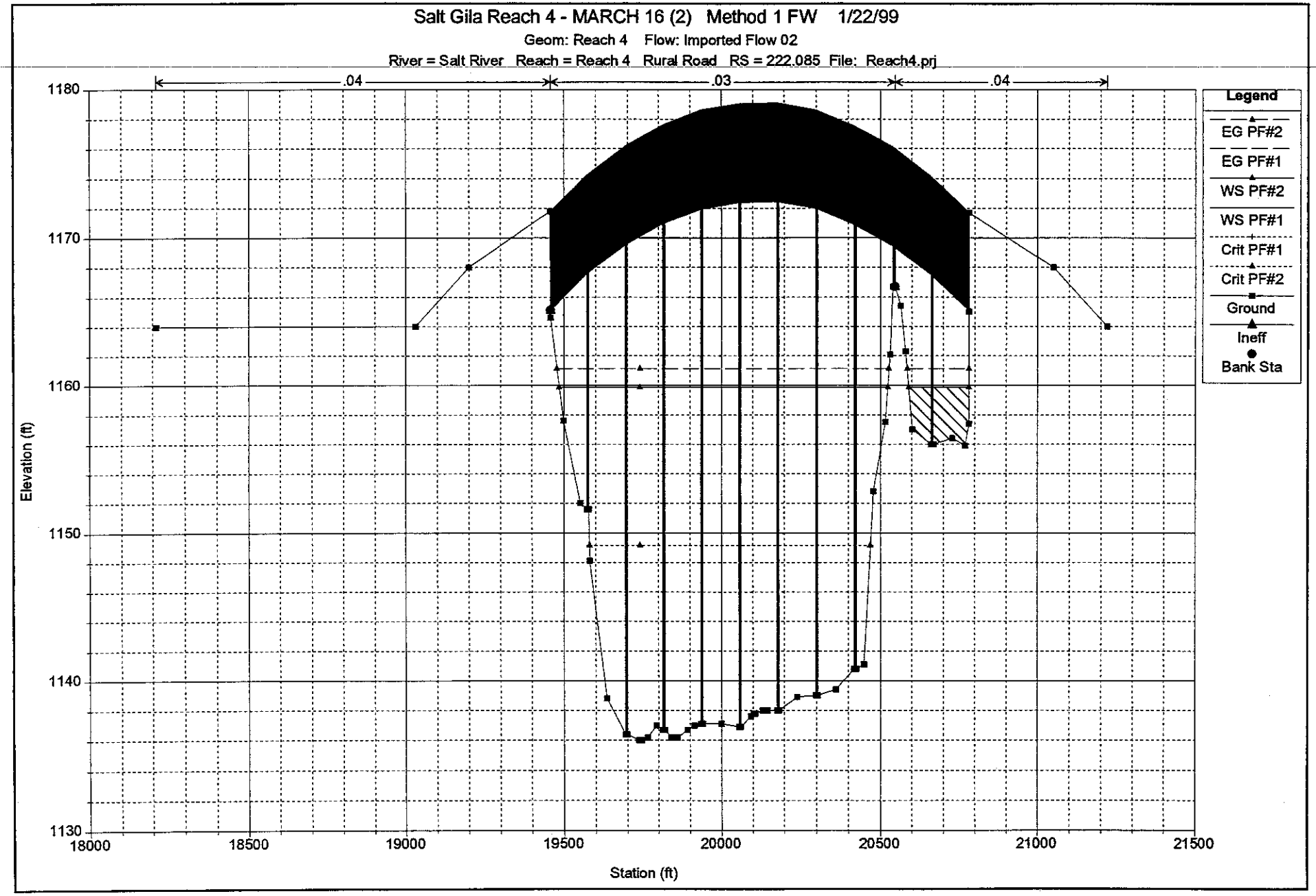

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 222.36 File: Reach4.prj
.04
.03
.04
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1190
1180
1170
1160
1150
1140
1130
17500
18000
18500
19000
19500
20000
20500
21000
Station (ft)

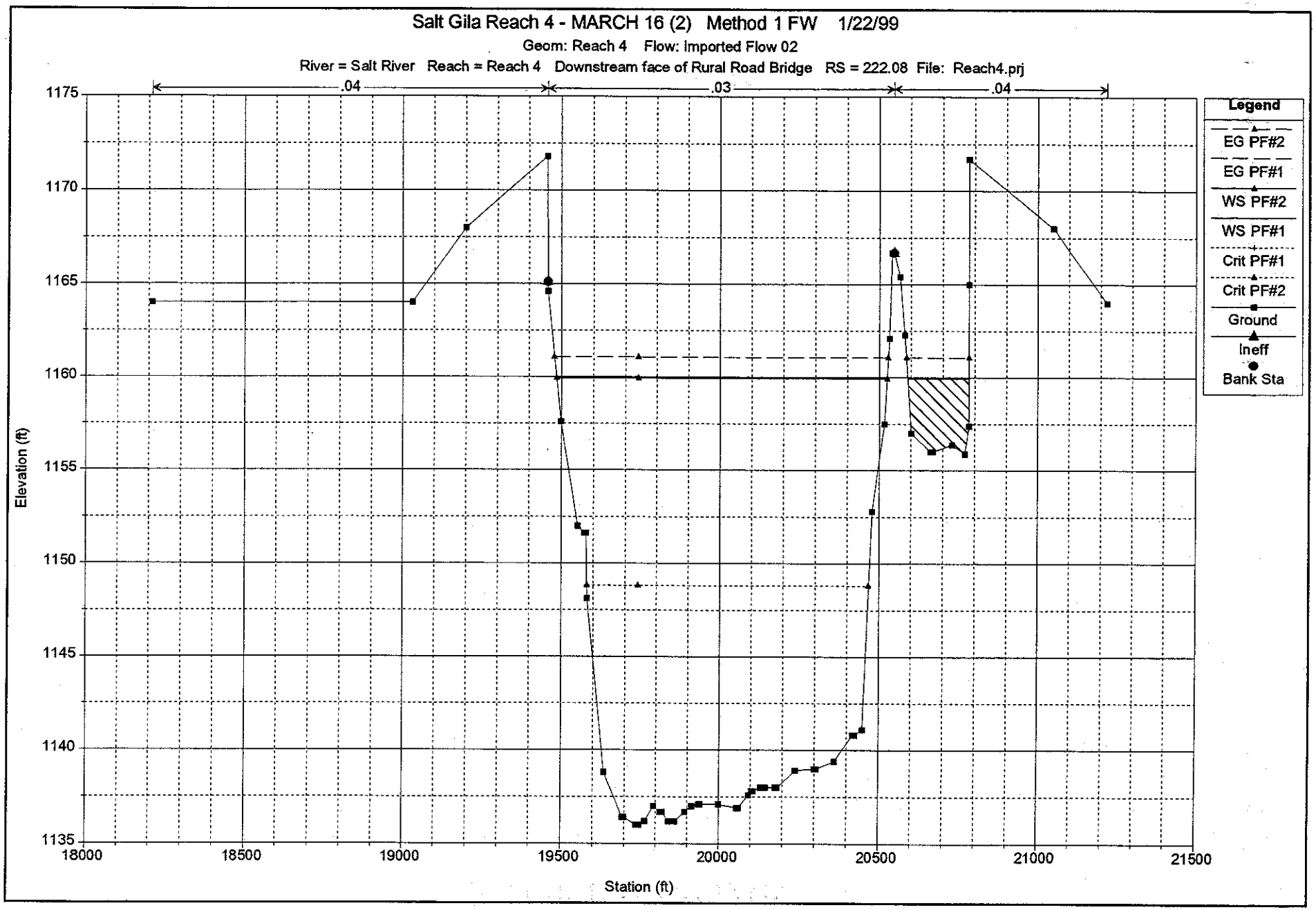

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 222.27 File: Reach4.prj
.04
.03
.04
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1190
1180
1170
1160
1150
1140
1130
18000
18500
19000
19500
20000
20500
21000
21500
22000
Station (ft)

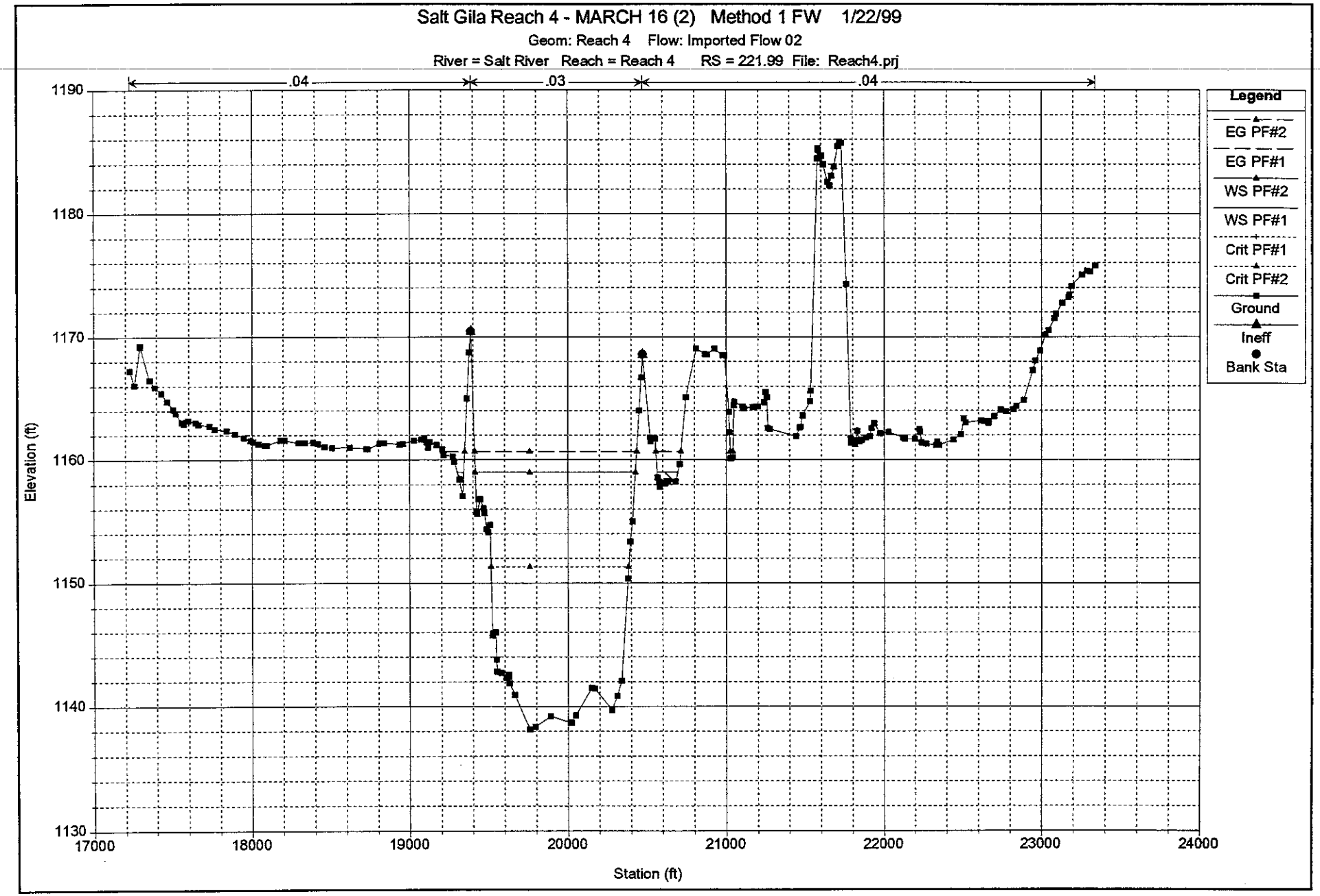

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 222.17 File: Reach4.prj
.04
.03
.04
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1190
1180
1170
1160
1150
1140
1130
16000
17000
18000
19000
20000
21000
22000
23000
24000
Station (ft)

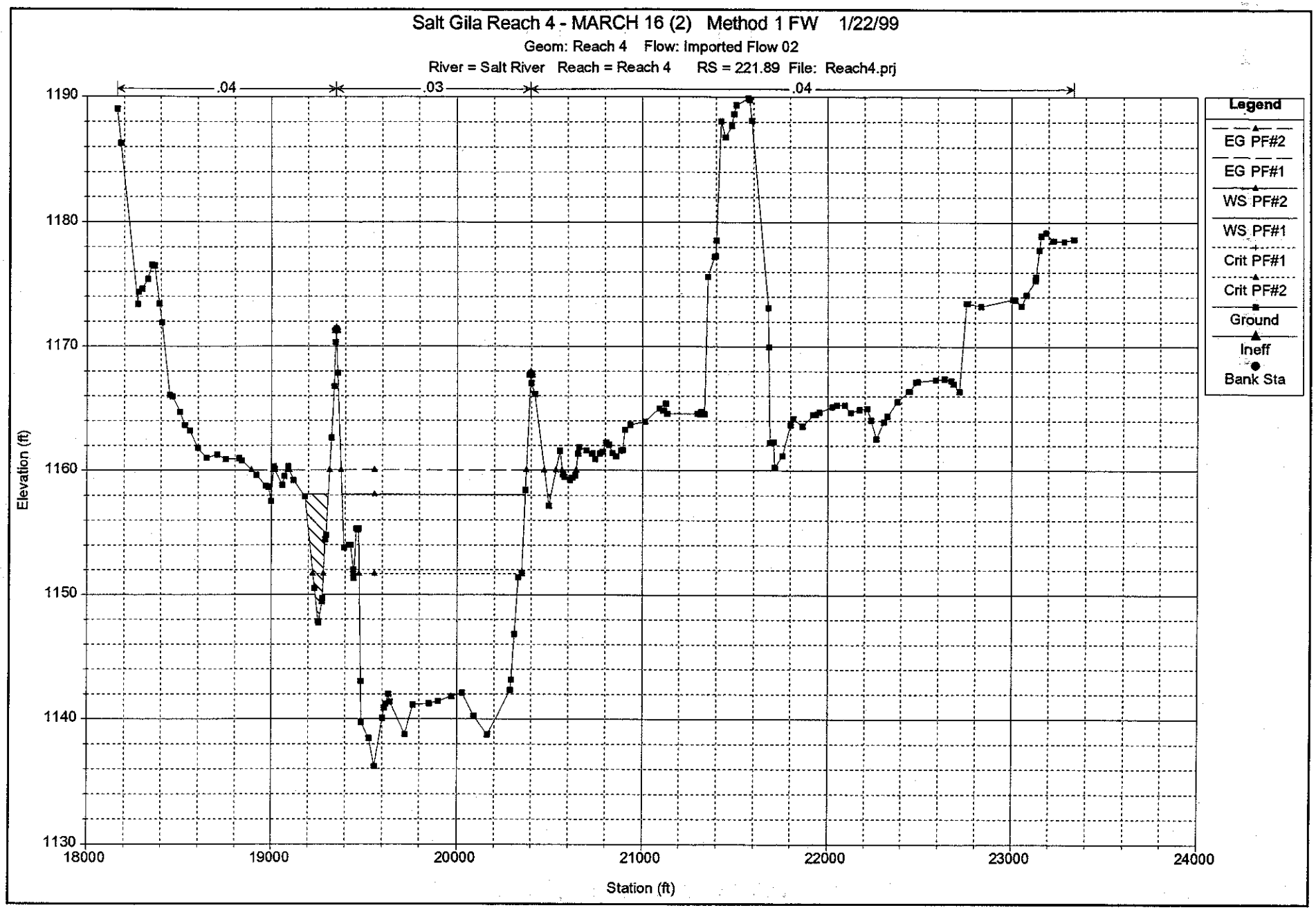

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Upstream face of Rural Road Bridge RS = 222.09 File: Reach4.prj
.04
.03
.04
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1175
1170
1165
1160
1155
1150
1145
1140
1135
18000
18500
19000
19500
20000
20500
21000
21500
Station (ft)

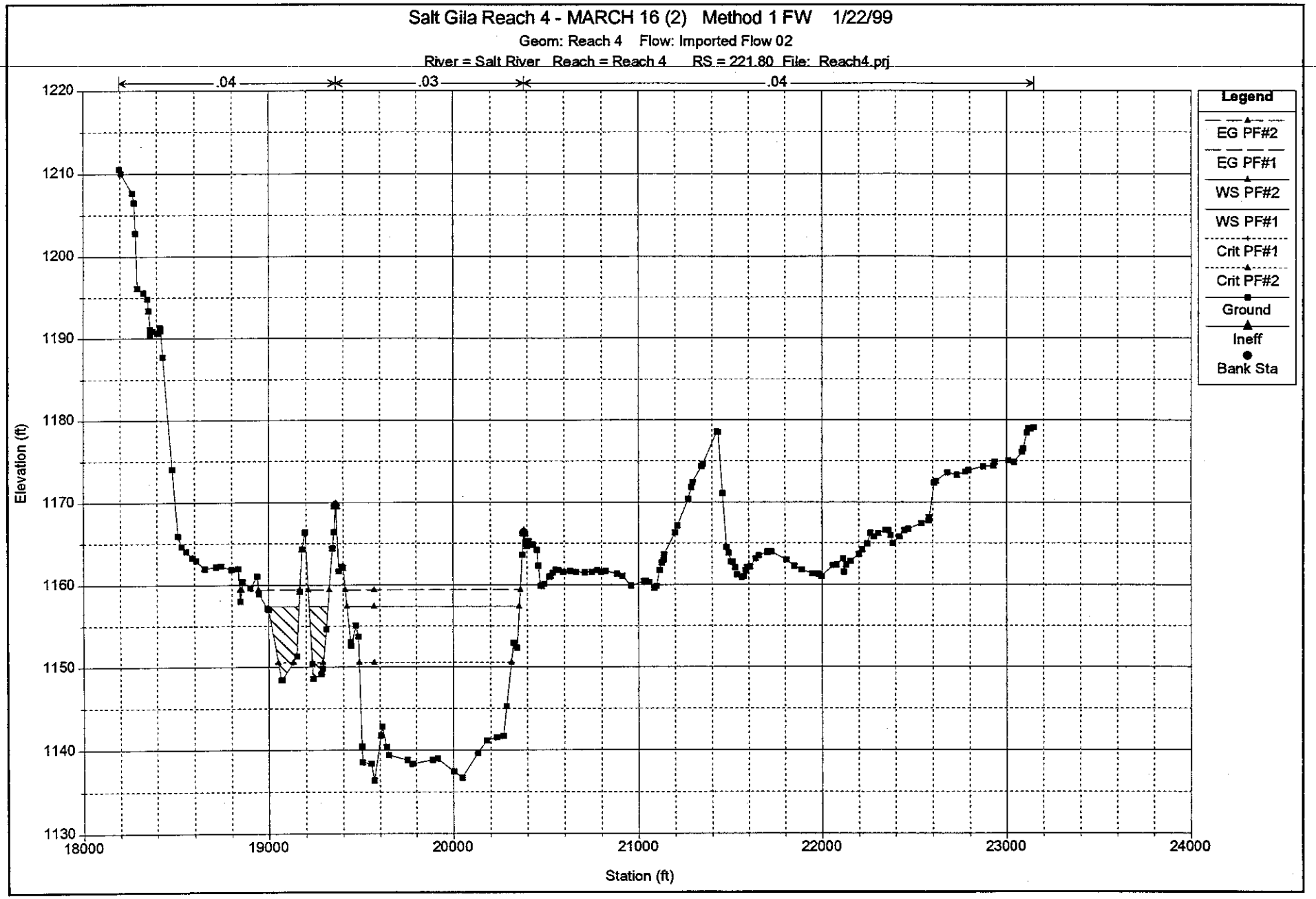

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Rural Road RS = 222.085 File: Reach4.prj
.04
.03
.04
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1180
1170
1160
1150
1140
1130
18000
18500
19000
19500
20000
20500
21000
21500
Station (ft)

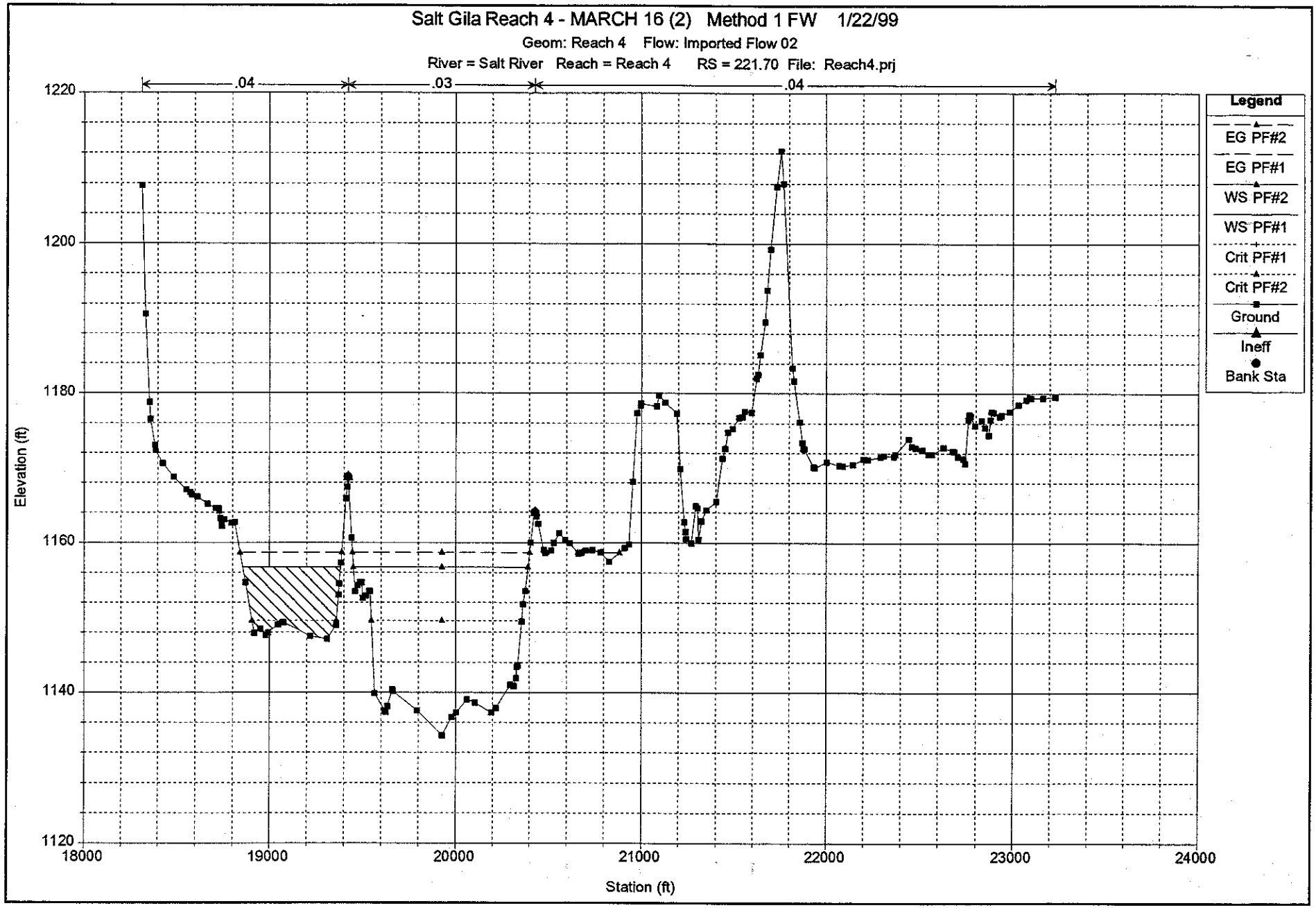

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Rural Road RS = 222.085 File: Reach4.prj
.04
.03
.04
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1180
1170
1160
1150
1140
1130
18000
18500
19000
19500
20000
20500
21000
21500
Station (ft)

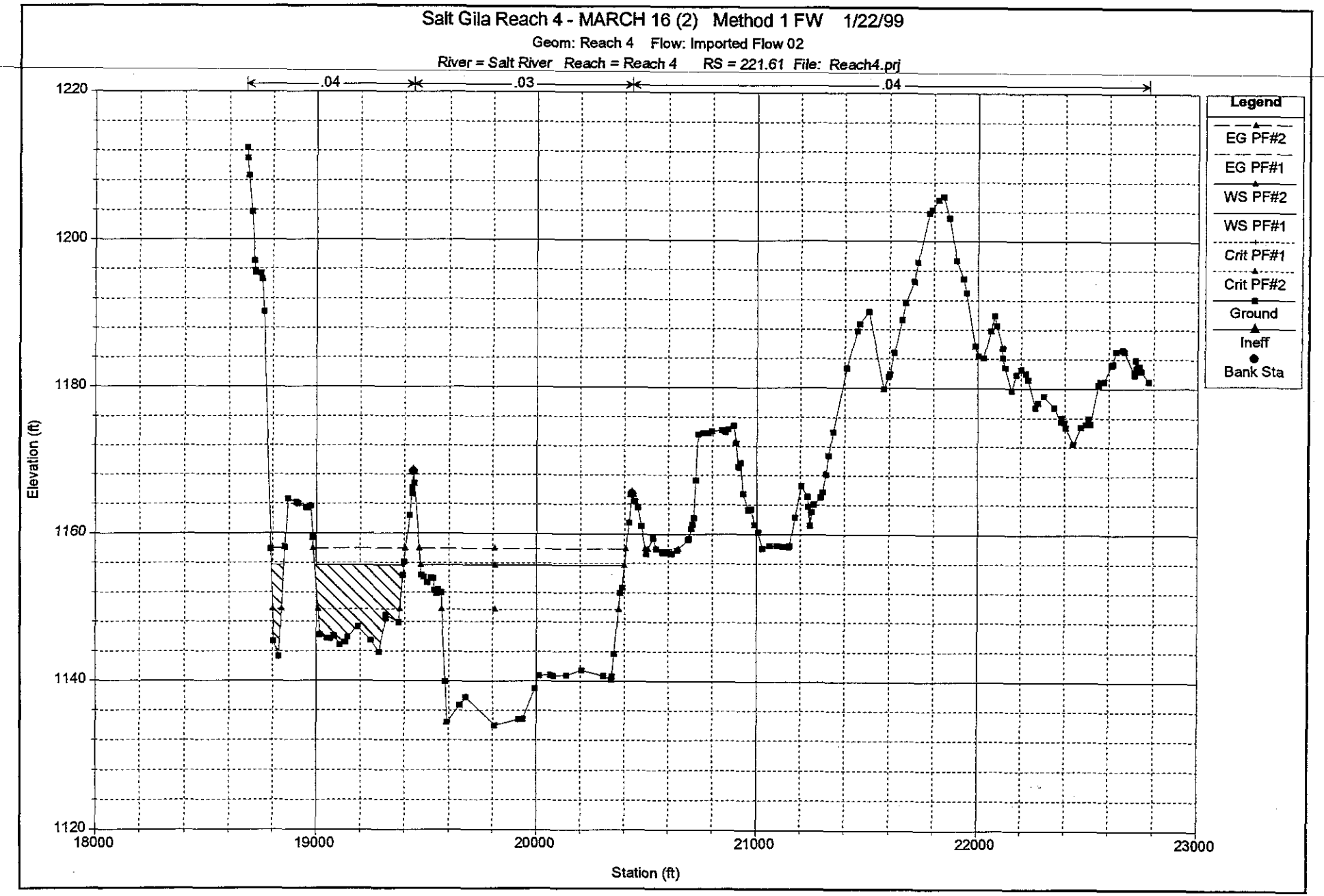

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Downstream face of Rural Road Bridge RS = 222.08 File: Reach4.prj
.04
.03
.04
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1175
1170
1165
1160
1155
1150
1145
1140
1135
18000
18500
19000
19500
20000
20500
21000
21500
Station (ft)

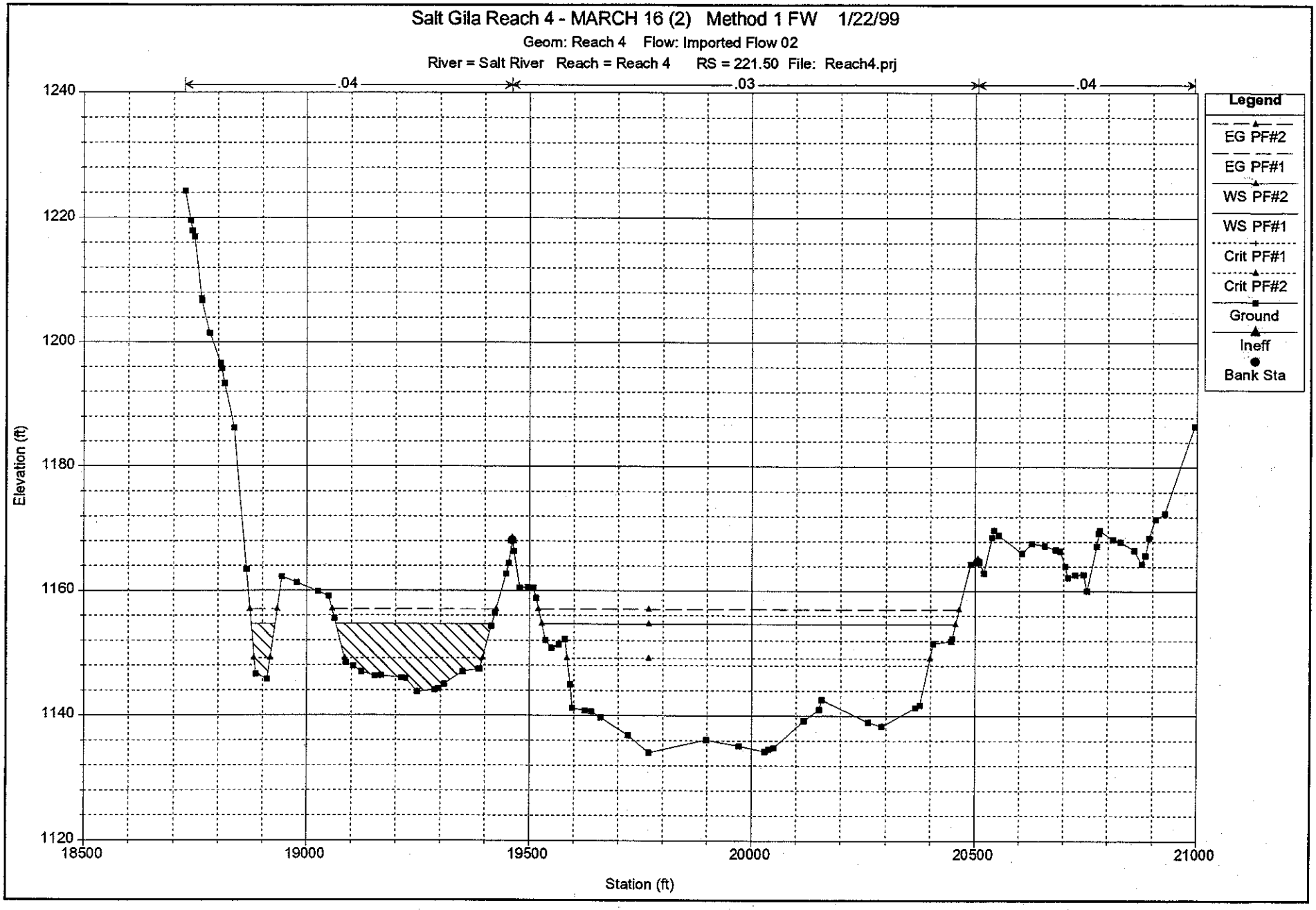

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 221.99 File: Reach4.prj
.04
.03
.04
Elevation (ft)
1190
1180
1170
1160
1150
1140
1130
17000
18000
19000
20000
21000
22000
23000
24000
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

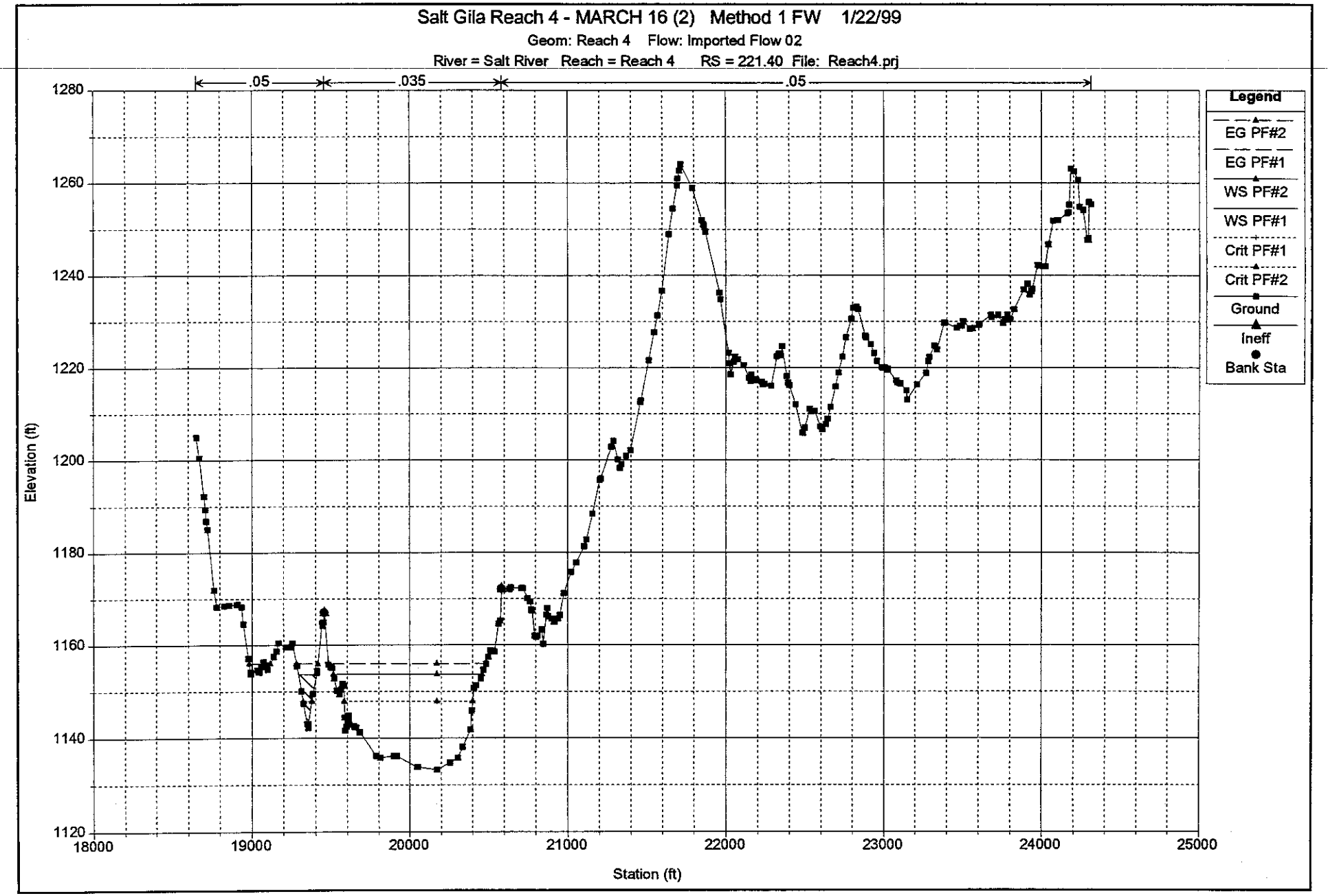

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 221.89 File: Reach4.prj
.04
.03
.04
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1190
1180
1170
1160
1150
1140
1130
18000
19000
20000
21000
22000
23000
24000
Station (ft)

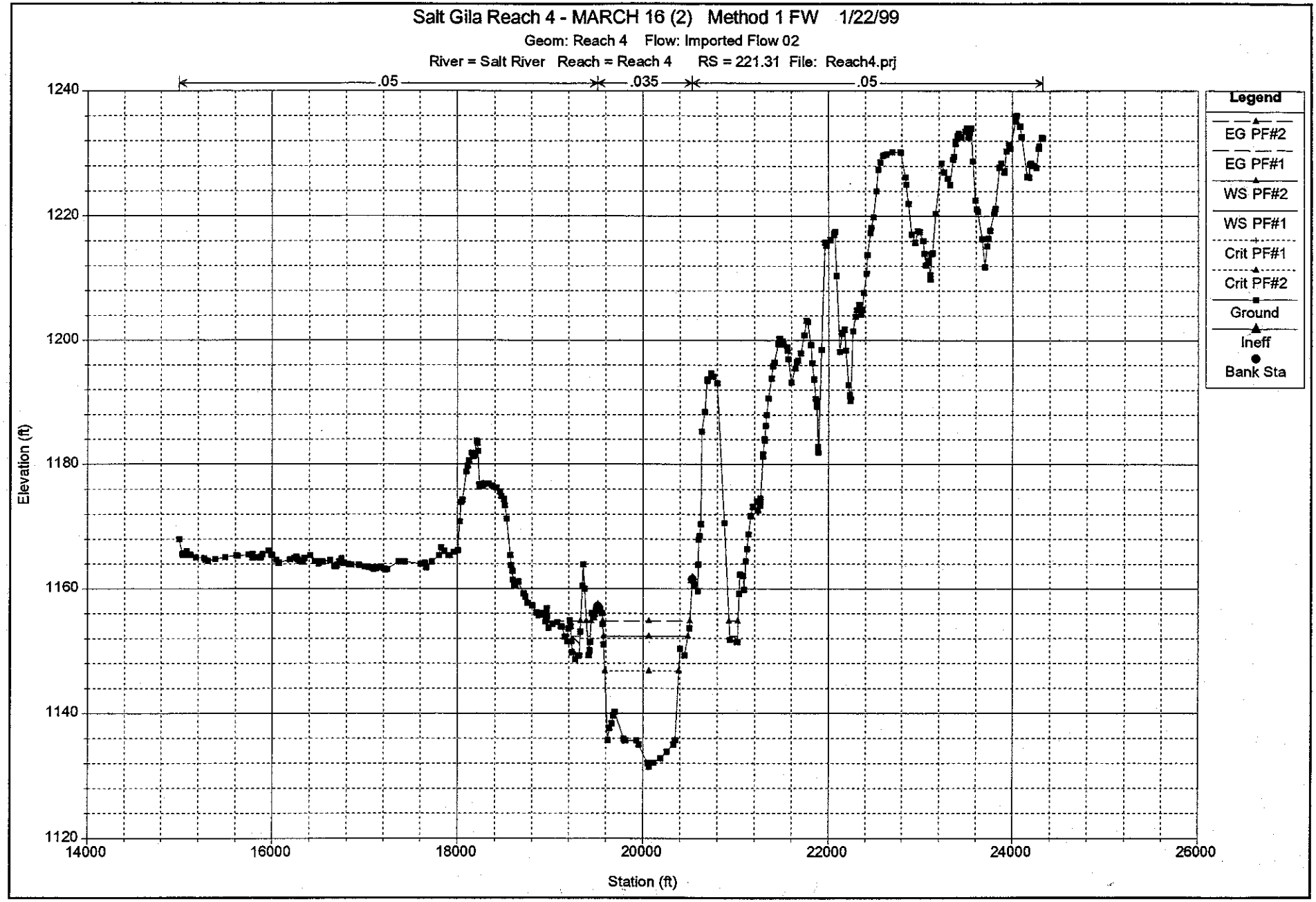

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 221.80 File: Reach4.prj
.04
.03
.04
Elevation (ft)
1220
1210
1200
1190
1180
1170
1160
1150
1140
1130
18000
19000
20000
21000
22000
23000
24000
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

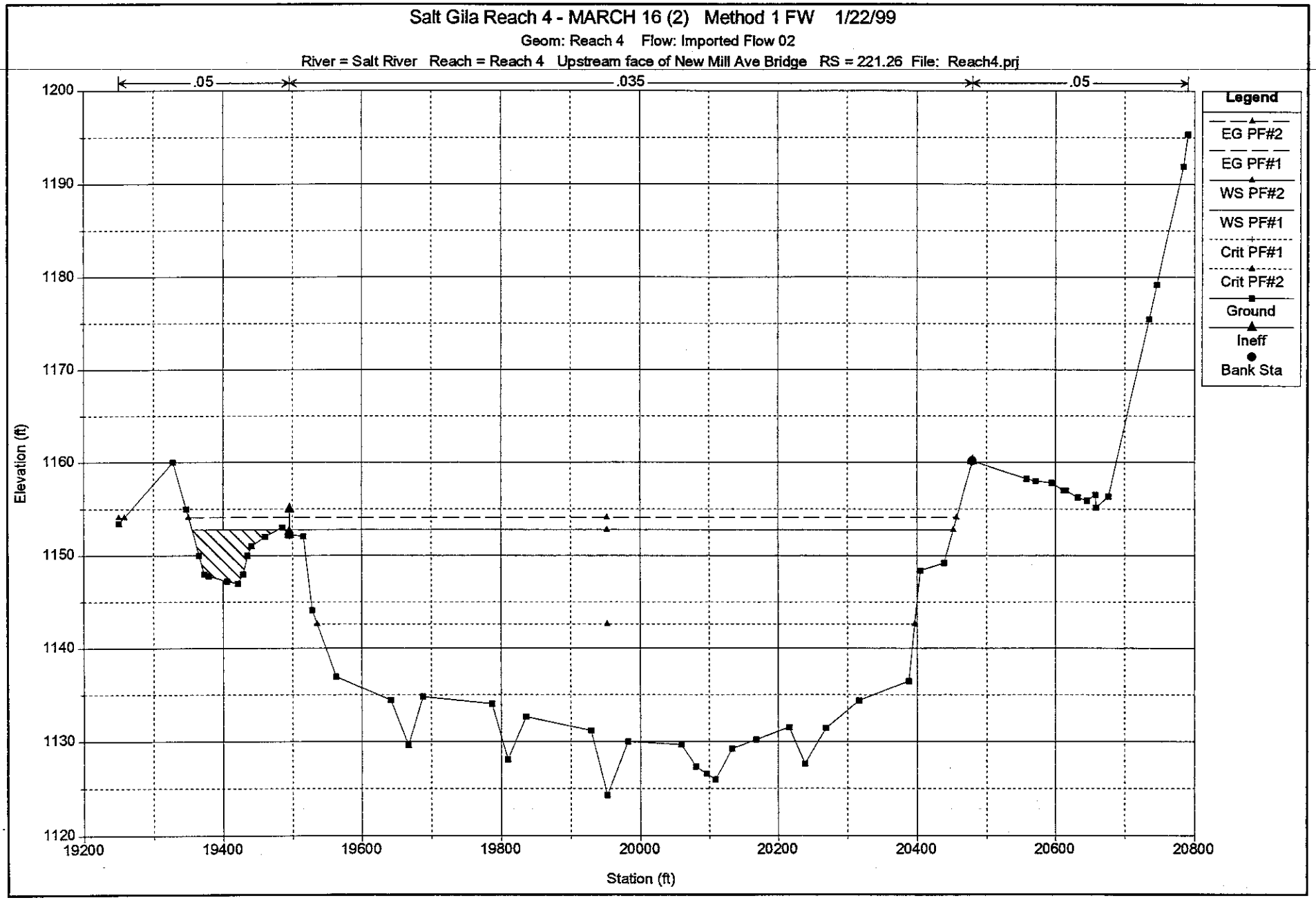

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 221.70 File: Reach4.prj
.04
.03
.04
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1220
1200
1180
1160
1140
1120
18000
19000
20000
21000
22000
23000
24000
Station (ft)

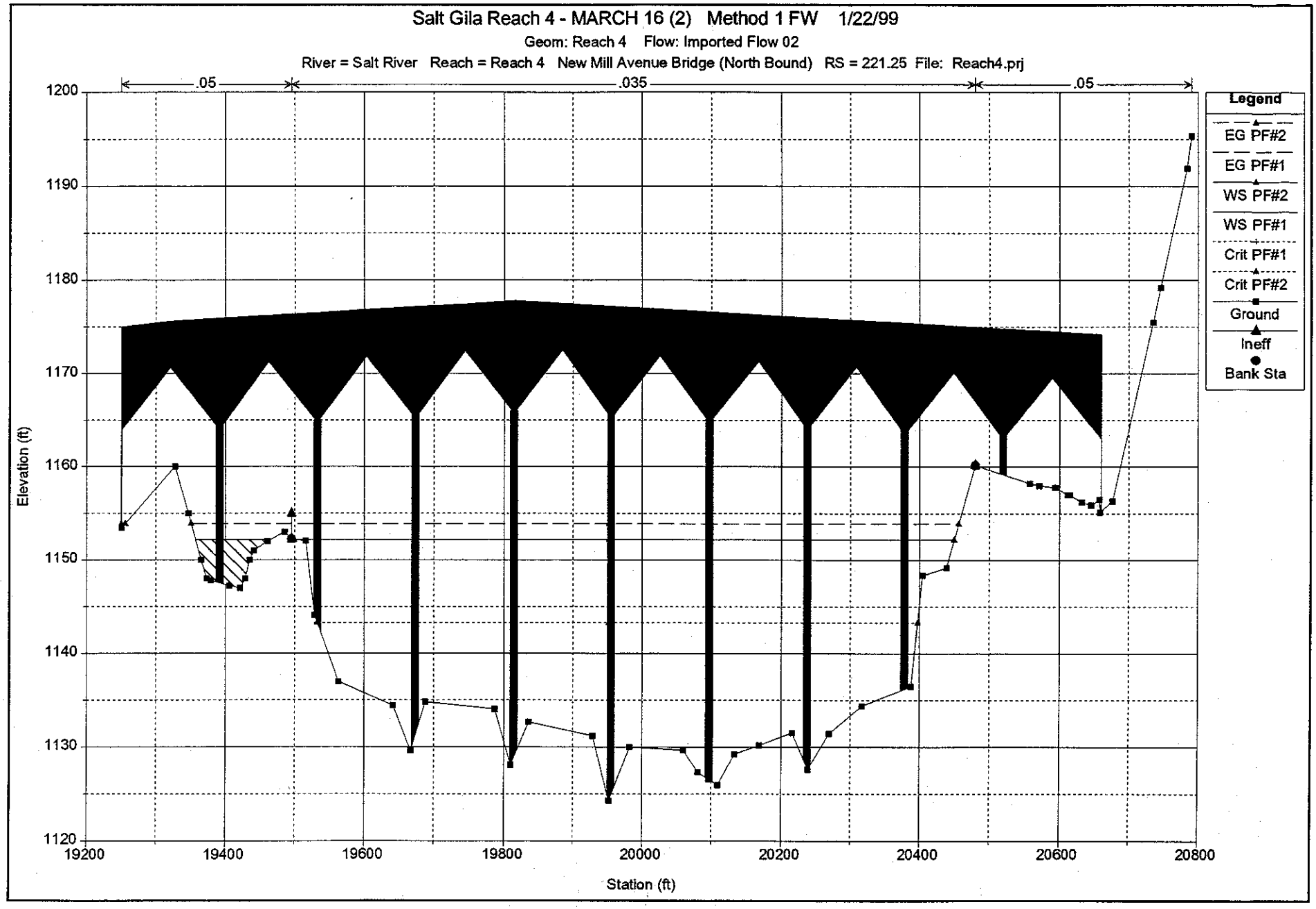

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 221.61 File: Reach4.prj
.04
.03
.04
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1220
1200
1180
1160
1140
1120
18000
19000
20000
21000
22000
23000
Station (ft)

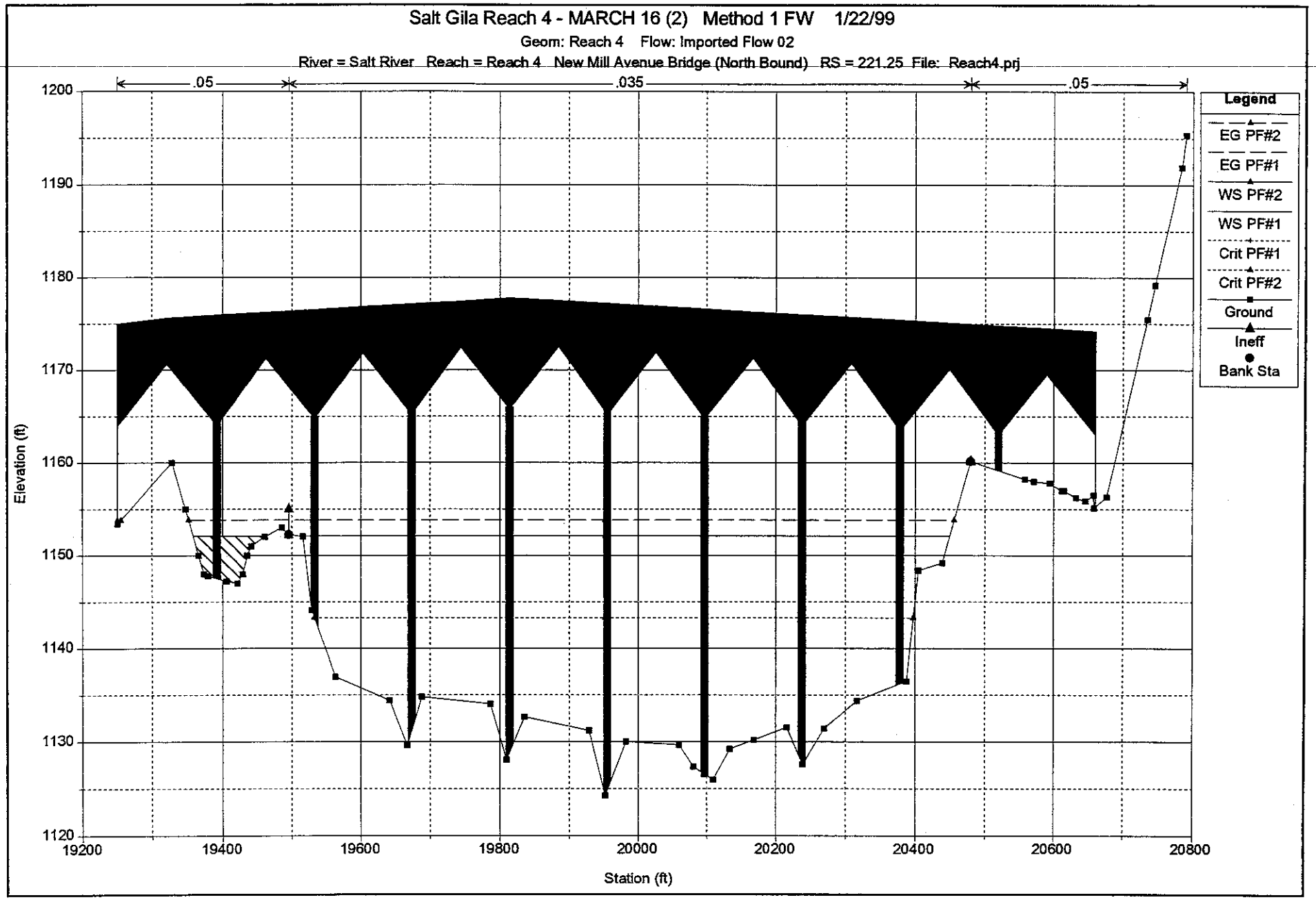

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 221.50 File: Reach4.prj
.04
.03
.04
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1240
1220
1200
1180
1160
1140
1120
18500
19000
19500
20000
20500
21000
Station (ft)

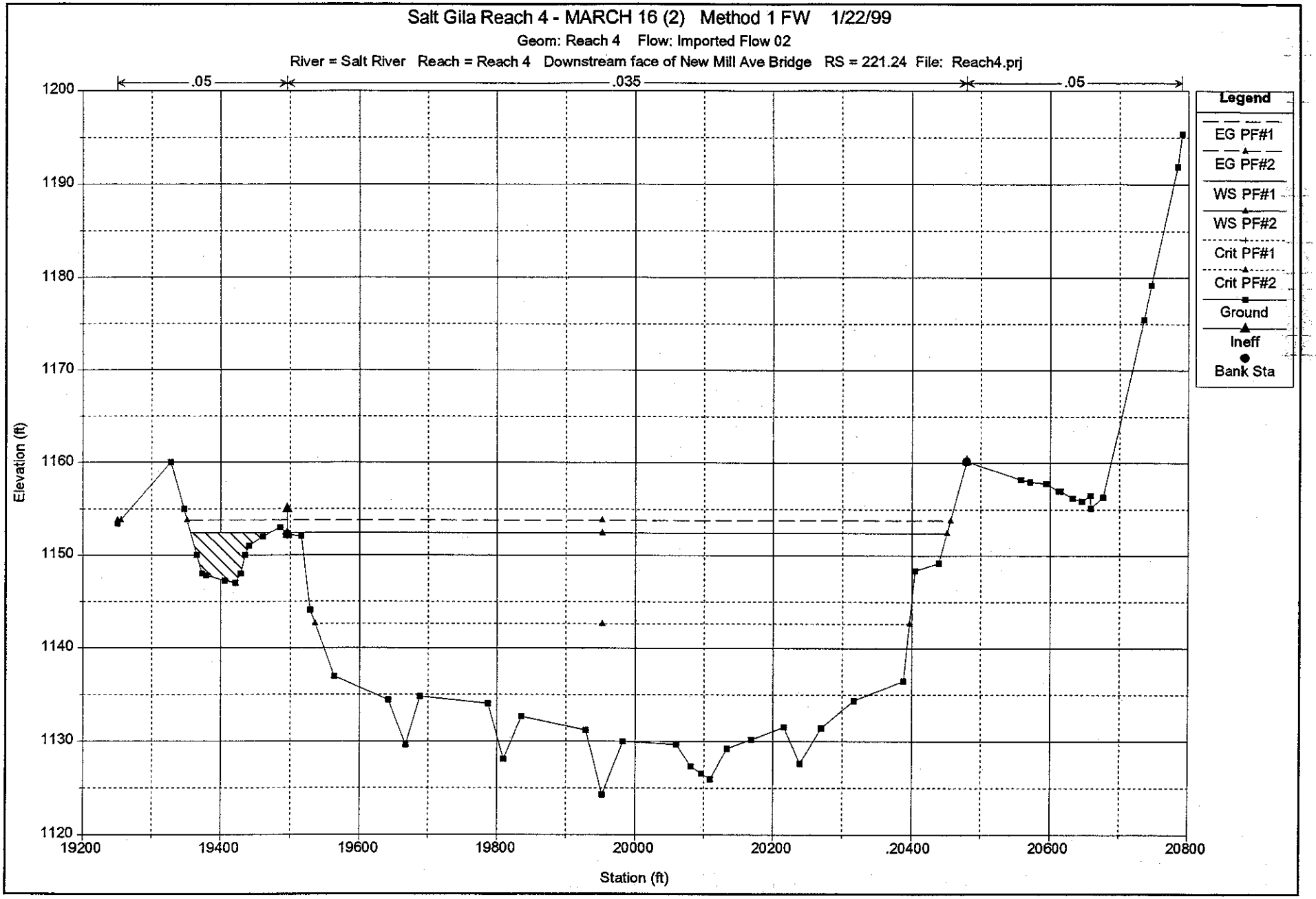

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 221.40 File: Reach4.prj
.05
.035
.05
Elevation (ft)
1280
1260
1240
1220
1200
1180
1160
1140
1120
18000
19000
20000
21000
22000
23000
24000
25000
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

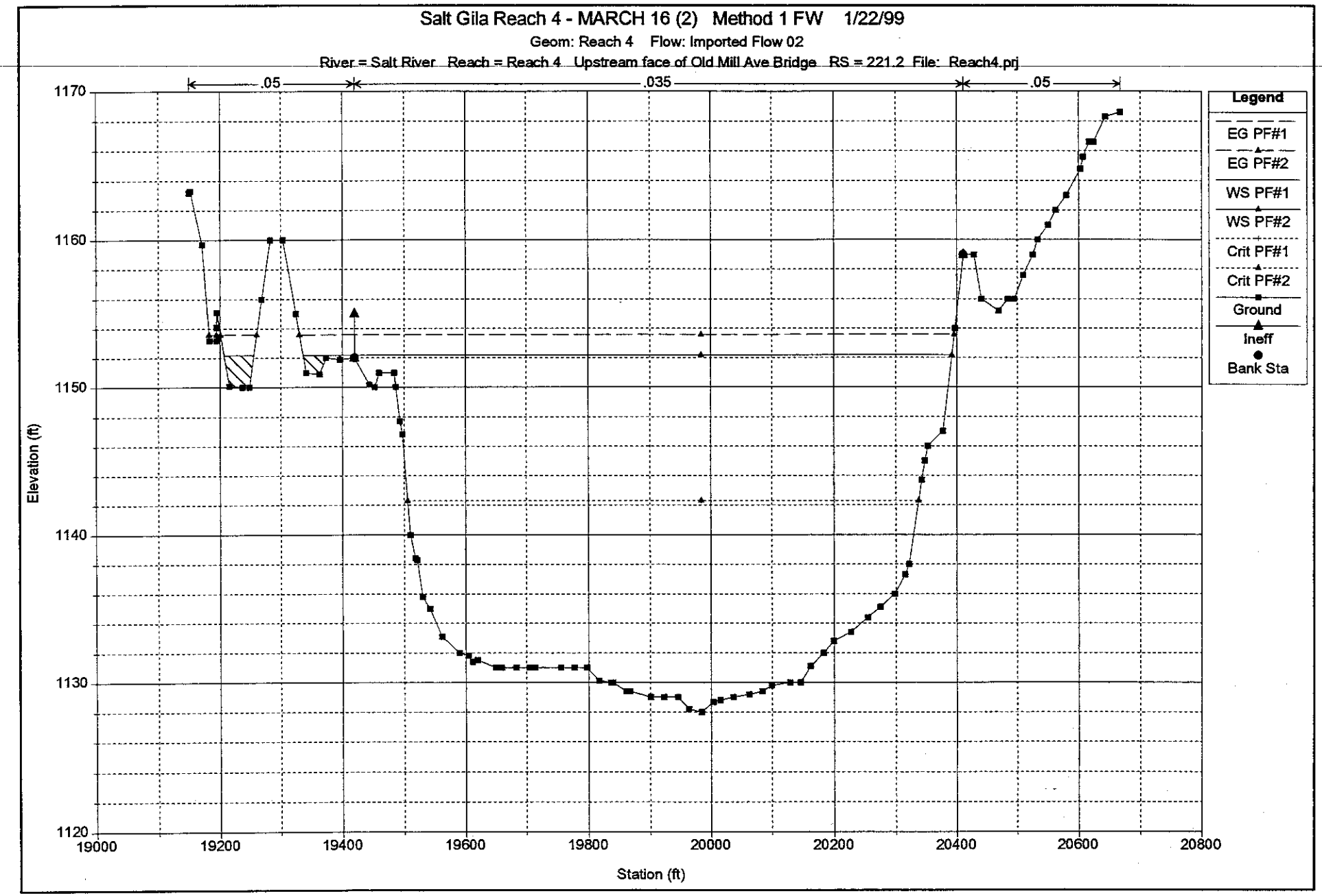

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 221.31 File: Reach4.prj
.05
.035
.05
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1240
1220
1200
1180
1160
1140
1120
14000
16000
18000
20000
22000
24000
26000
Station (ft)

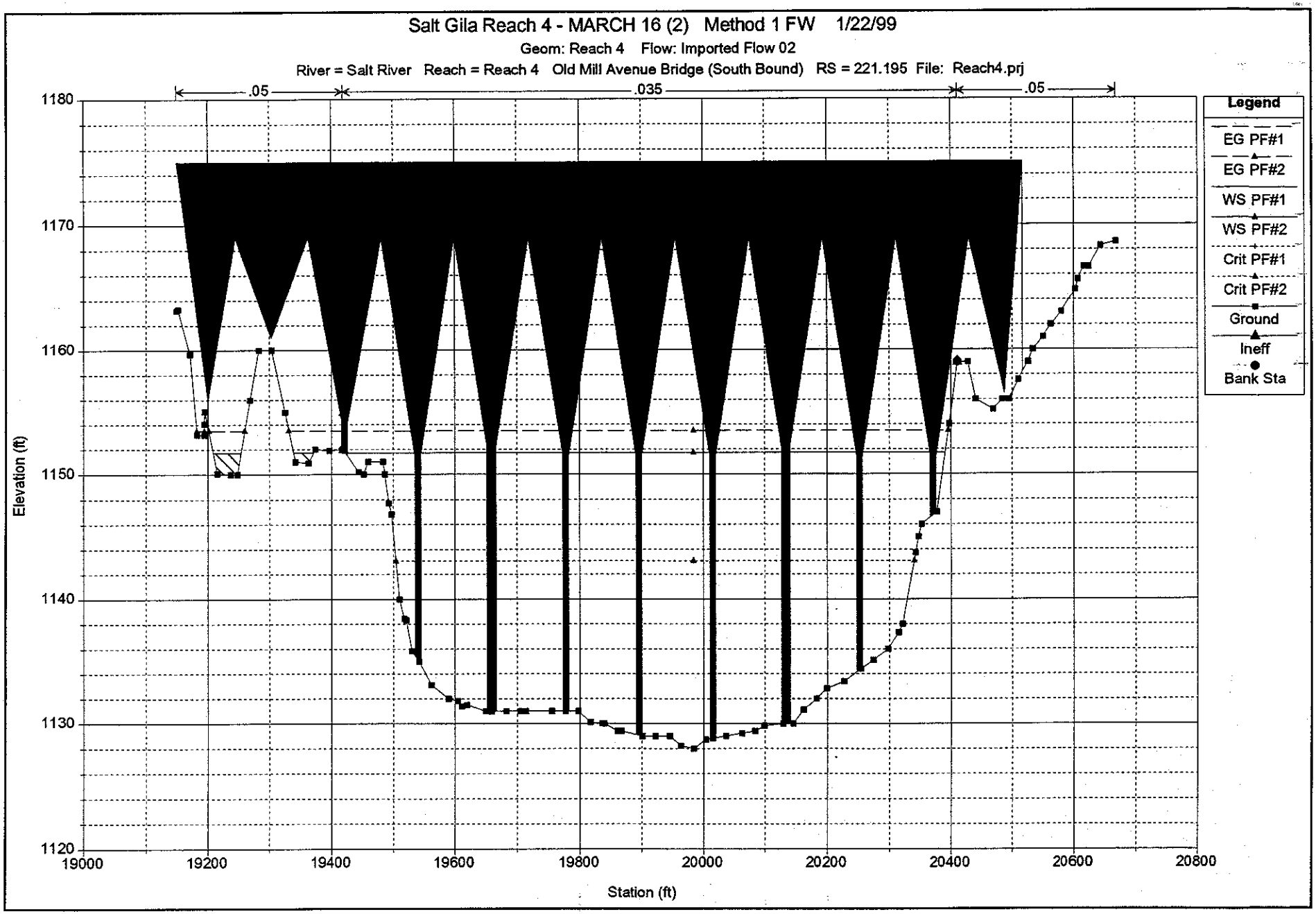

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Upstream face of New Mill Ave Bridge RS = 221.26 File: Reach4.prj
.05
.035
.05
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1200
1190
1180
1170
1160
1150
1140
1130
1120
19200
19400
19600
19800
20000
20200
20400
20600
20800
Station (ft)

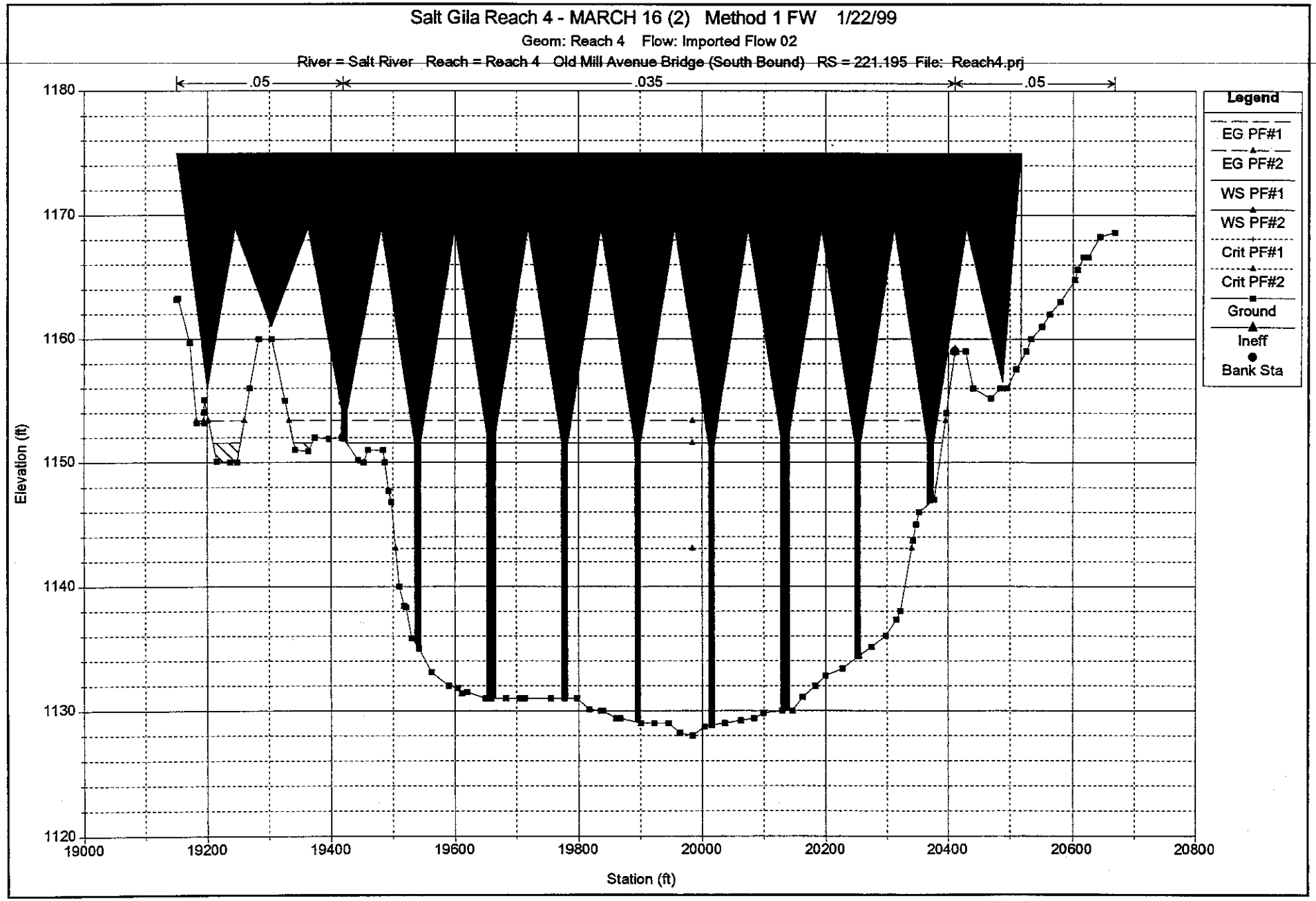

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 New Mill Avenue Bridge (North Bound) RS = 221.25 File: Reach4.prj
.05
.035
.05
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1200
1190
1180
1170
1160
1150
1140
1130
1120
19200
19400
19600
19800
20000
20200
20400
20600
20800
Station (ft)

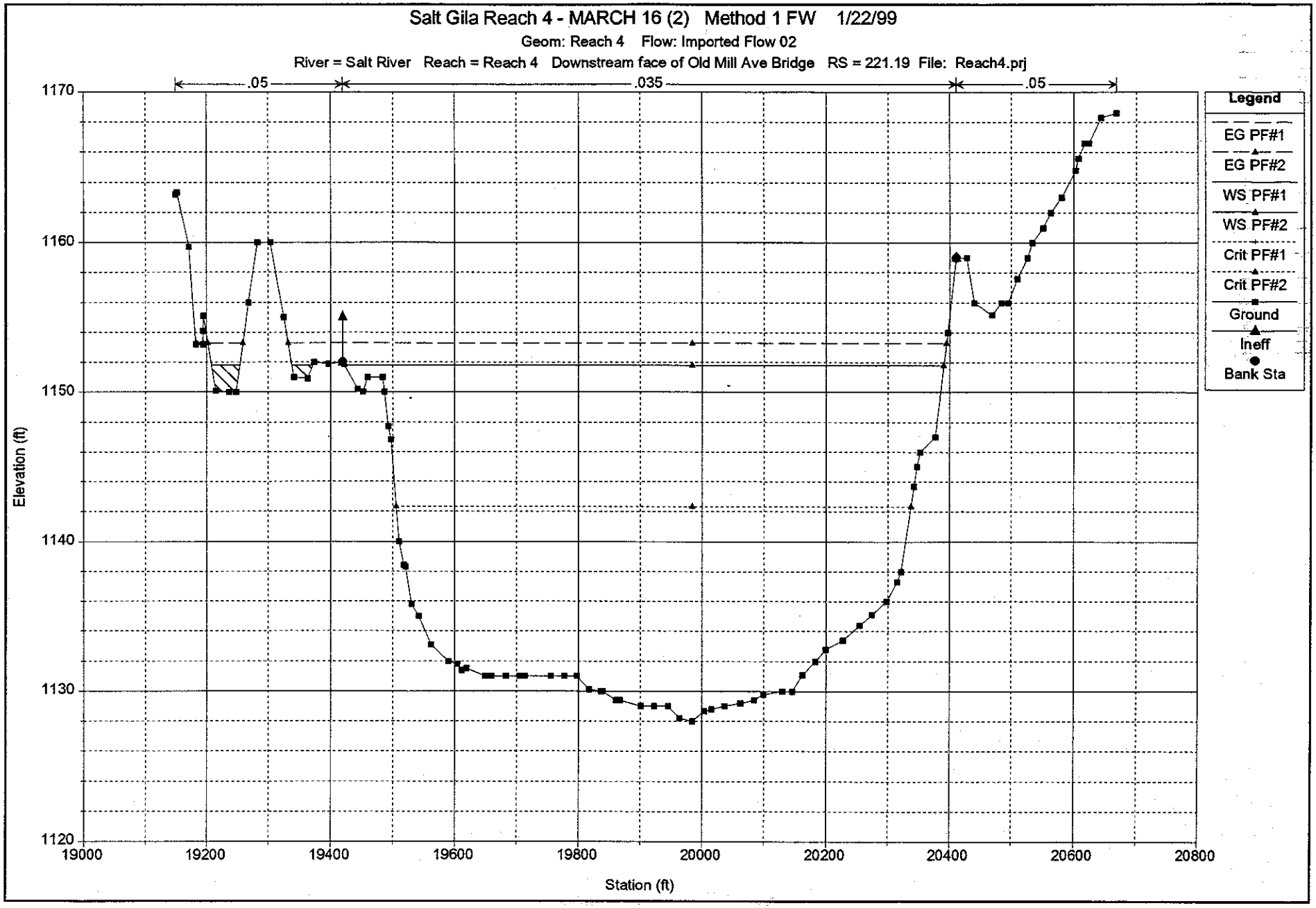

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 New Mill Avenue Bridge (North Bound) RS = 221.25 File: Reach4.prj
.05
.035
.05
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1200
1190
1180
1170
1160
1150
1140
1130
1120
19200
19400
19600
19800
20000
20200
20400
20600
20800
Station (ft)

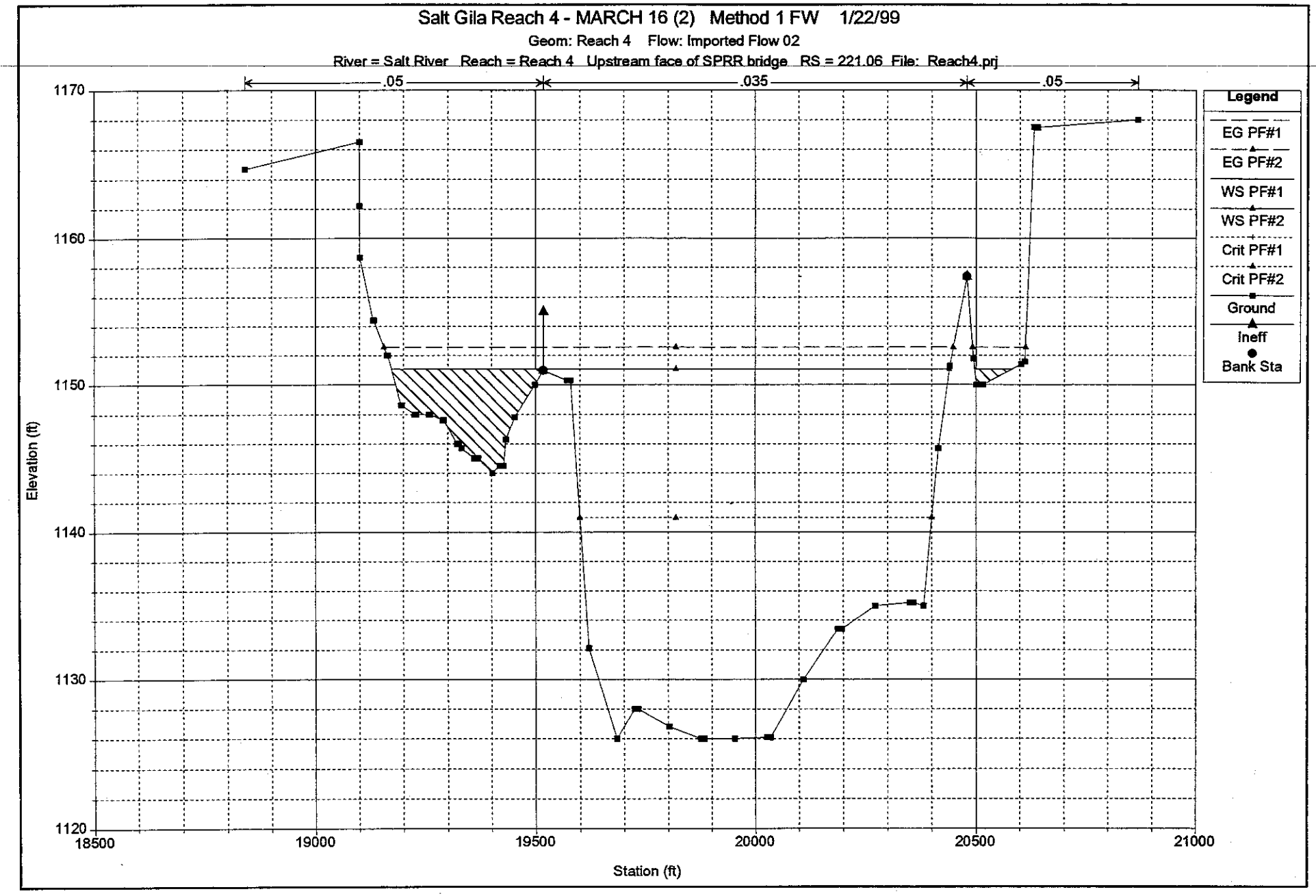

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Downstream face of New Mill Ave Bridge RS = 221.24 File: Reach4.prj
.05
.035
.05
Elevation (ft)
1200
1190
1180
1170
1160
1150
1140
1130
1120
19200
19400
19600
19800
20000
20200
.20400
20600
20800
Station (ft)
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

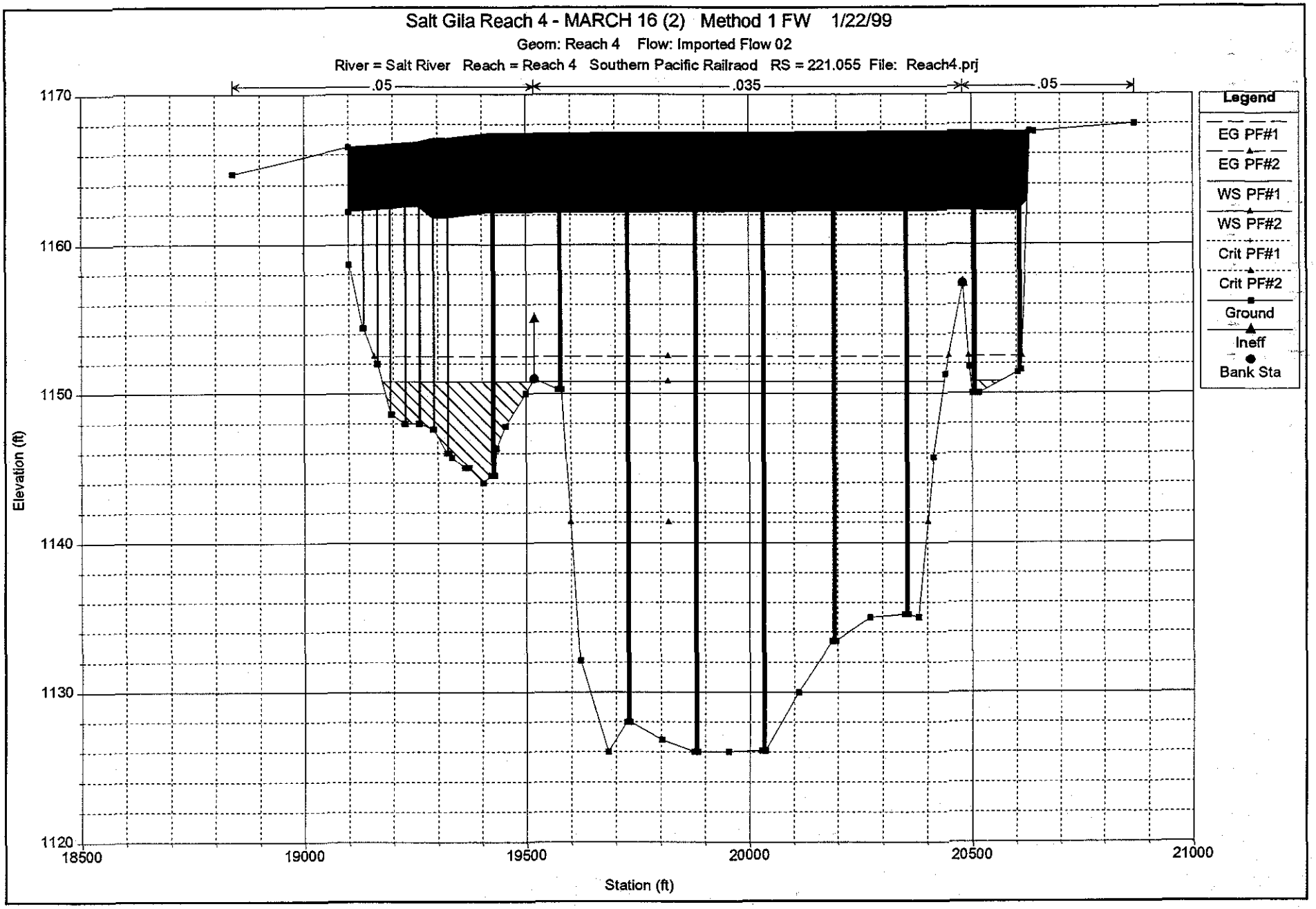

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Upstream face of Old Mill Ave Bridge RS = 221.2 File: Reach4.prj
.05
.035
.05
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1170
1160
1150
1140
1130
1120
19000
19200
19400
19600
19800
20000
20200
20400
20600
20800
Station (ft)

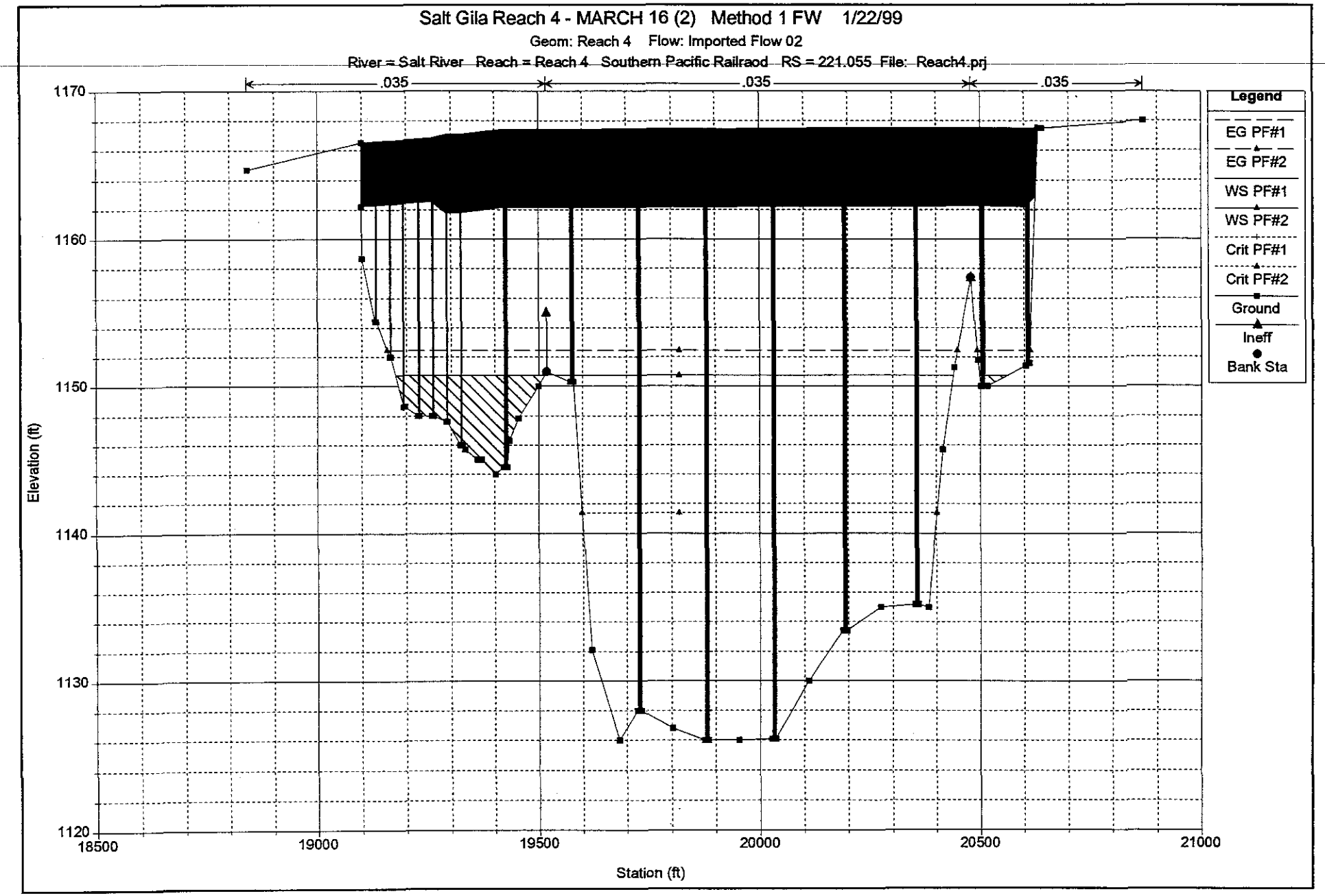

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Old Mill Avenue Bridge (South Bound) RS = 221.195 File: Reach4.prj
.05
.035
.05
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1180
1170
1160
1150
1140
1130
1120
19000
19200
19400
19600
19800
20000
20200
20400
20600
20800
Station (ft)

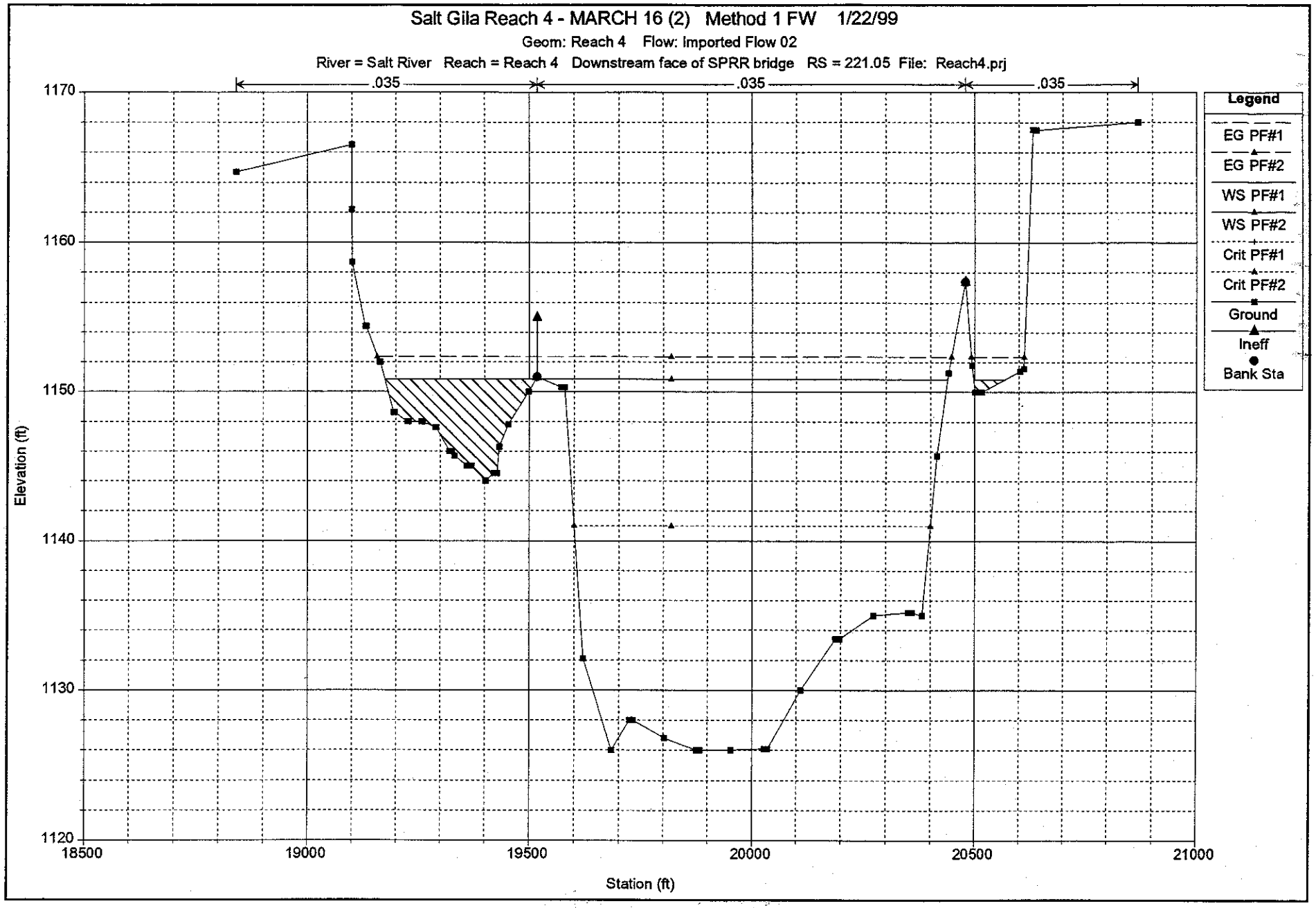

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Old Mill Avenue Bridge (South Bound) RS = 221.195 File: Reach4.prj
.05
.035
.05
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1180
1170
1160
1150
1140
1130
1120
19000
19200
19400
19600
19800
20000
20200
20400
20600
20800
Station (ft)

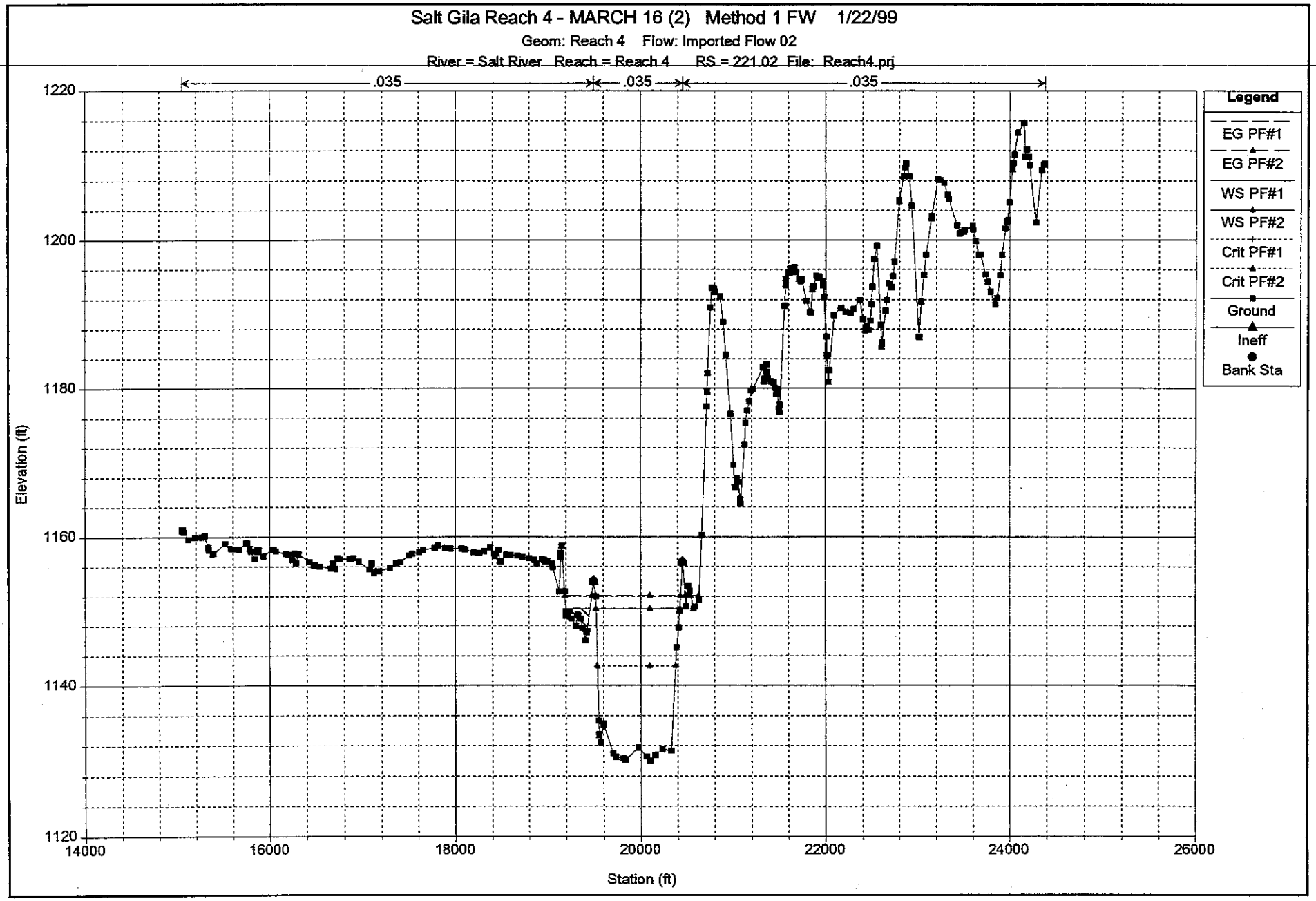

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Downstream face of Old Mill Ave Bridge RS = 221.19 File: Reach4.prj
.05
.035
.05
Elevation (ft)
1170
1160
1150
1140
1130
1120
19000
19200
19400
19600
19800
20000
20200
20400
20600
20800
Station (ft)
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

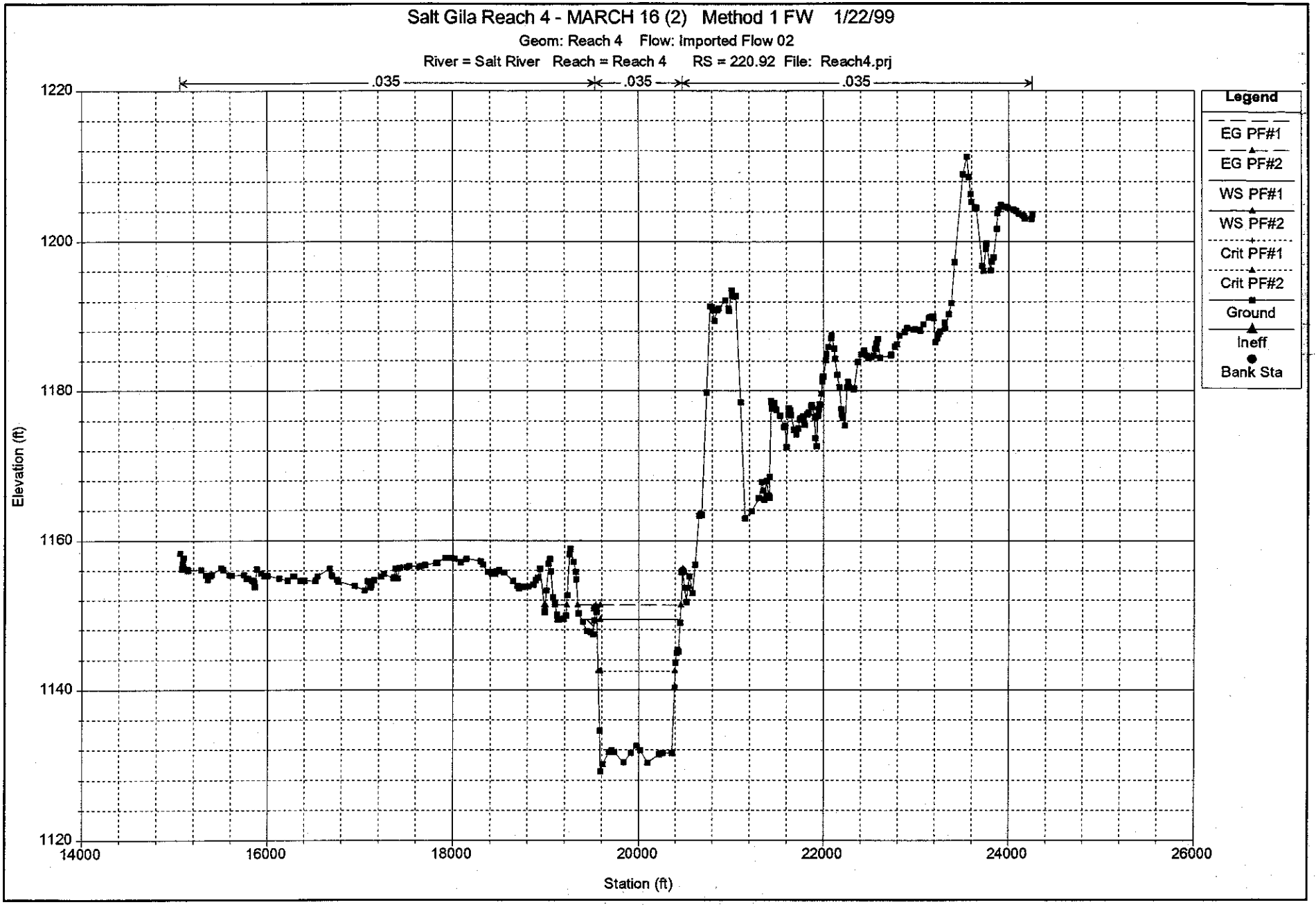

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Upstream face of SPRR bridge RS = 221.06 File: Reach4.prj
.05
.035
.05
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1170
1160
1150
1140
1130
1120
18500
19000
19500
20000
20500
21000
Station (ft)

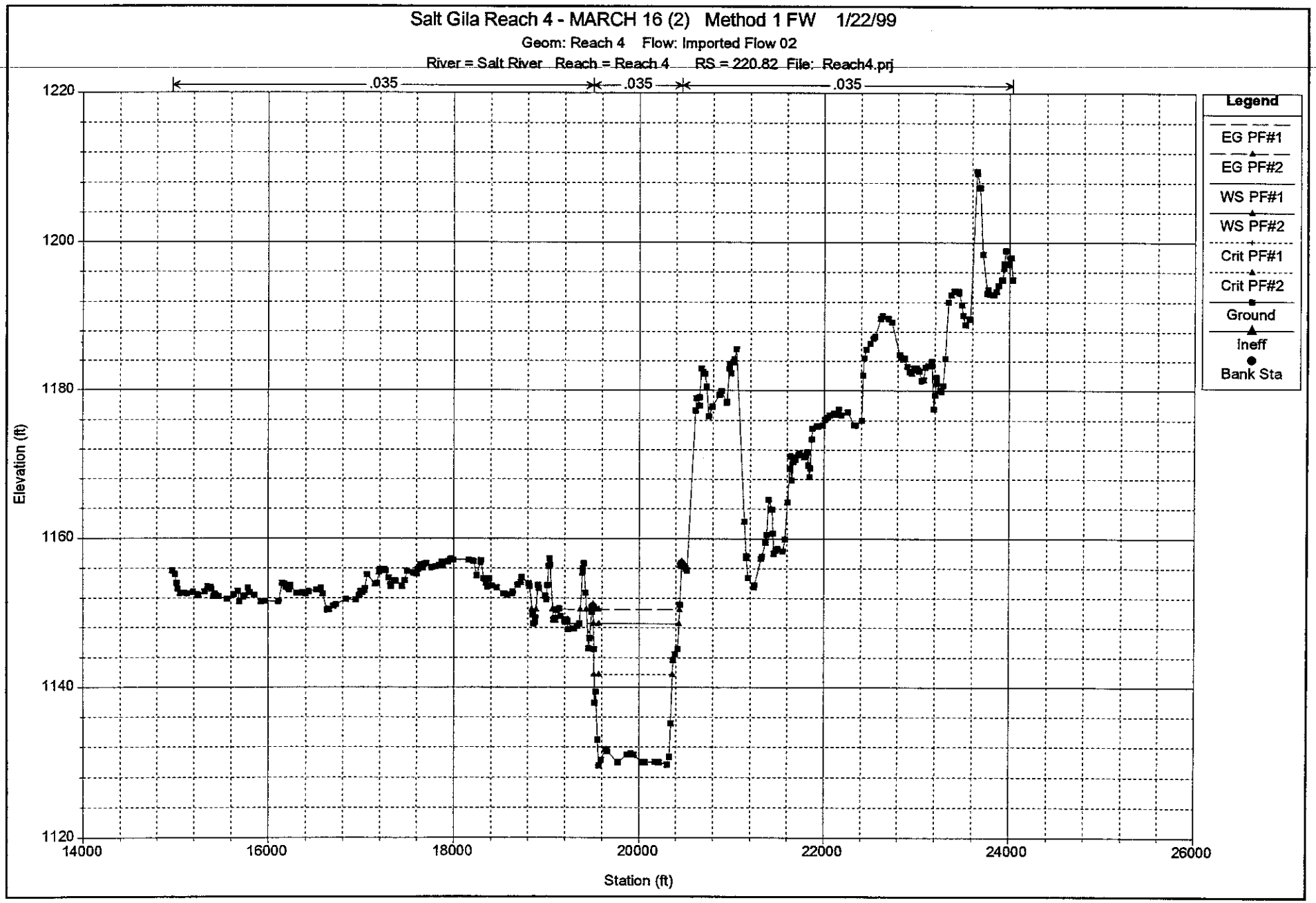

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Southern Pacific Railraod RS = 221.055 File: Reach4.prj
.05
.035
.05
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1170
1160
1150
1140
1130
1120
18500
19000
19500
20000
20500
21000
Station (ft)

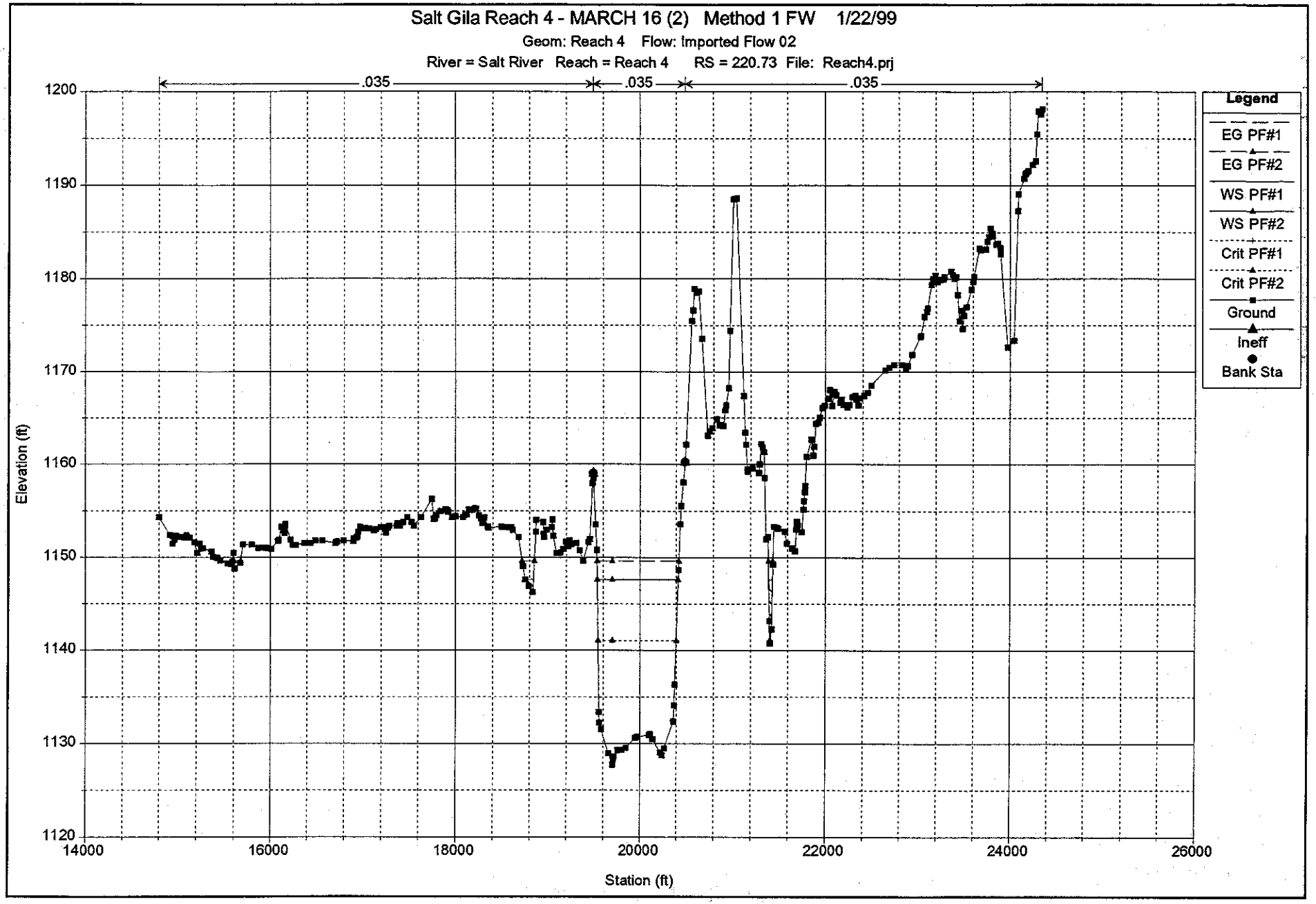

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Southern Pacific Railraod RS = 221.055 File: Reach4.prj
.035
.035
.035
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1170
1160
1150
1140
1130
1120
18500
19000
19500
20000
20500
21000
Station (ft)

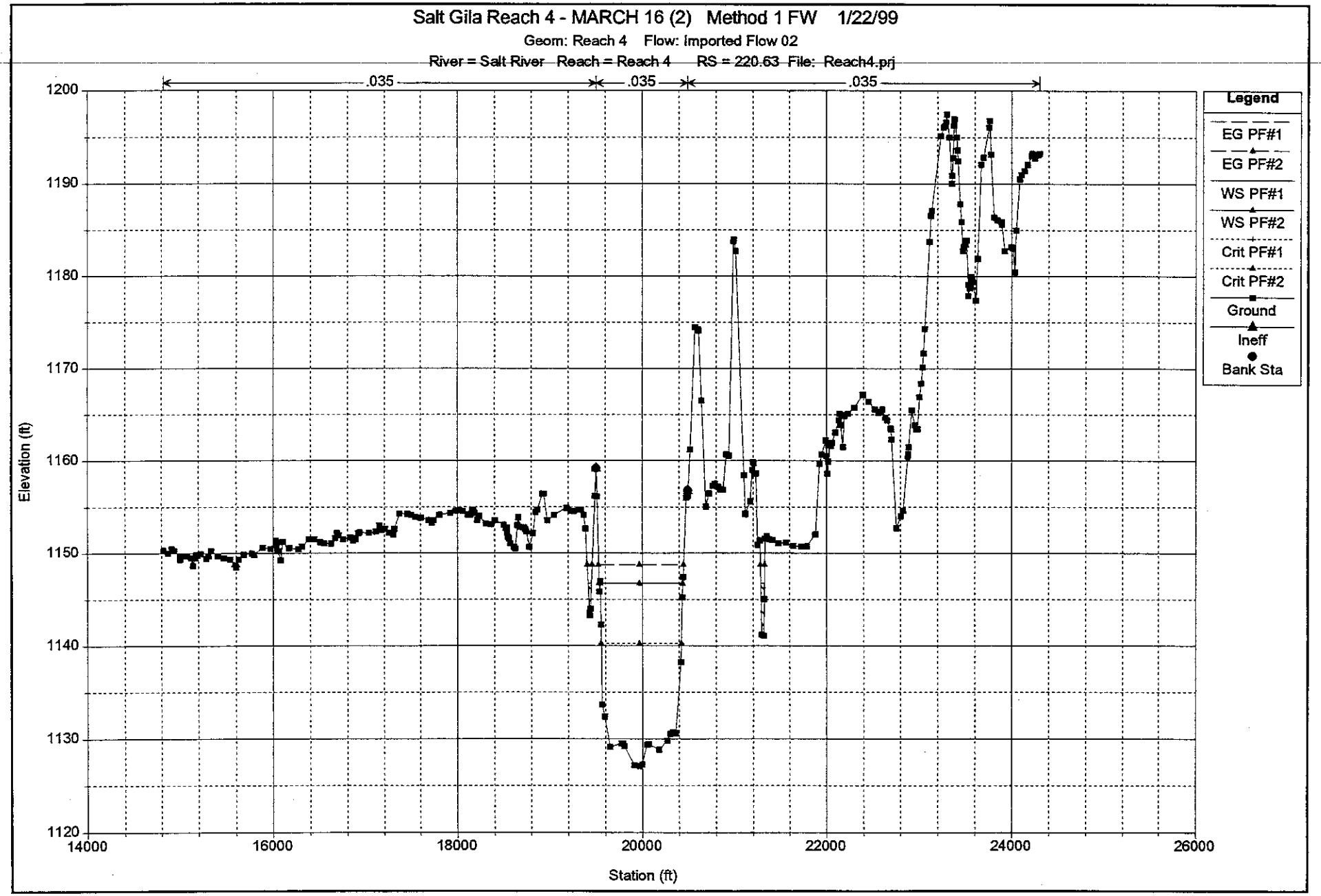

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Downstream face of SPRR bridge RS = 221.05 File: Reach4.prj
.035
.035
.035
Elevation (ft)
1170
1160
1150
1140
1130
1120
18500
19000
19500
20000
20500
21000
Station (ft)
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

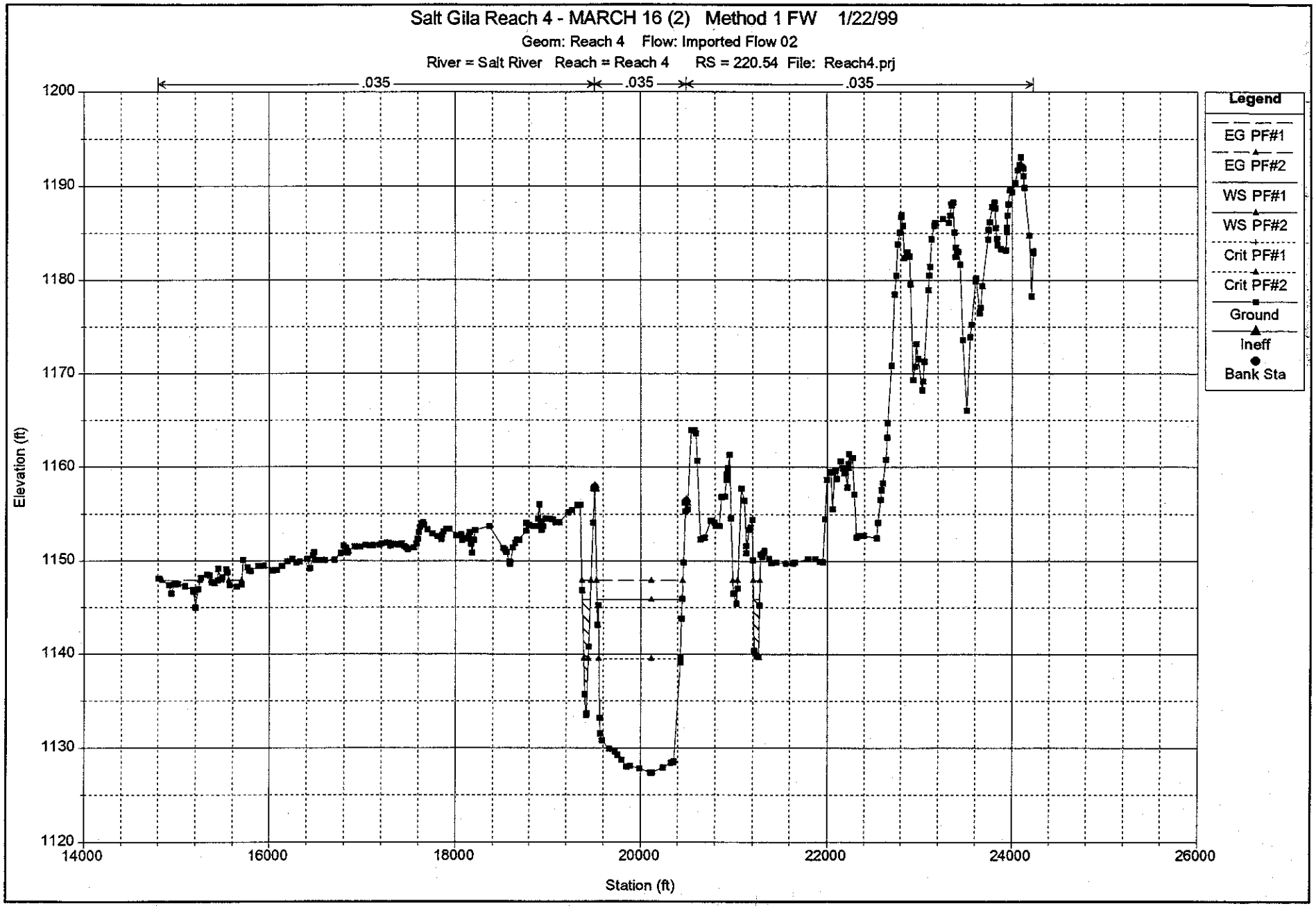

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 221.02 File: Reach4.prj
.035
.035
.035
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1220
1200
1180
1160
1140
1120
14000
16000
18000
20000
22000
24000
26000
Station (ft)

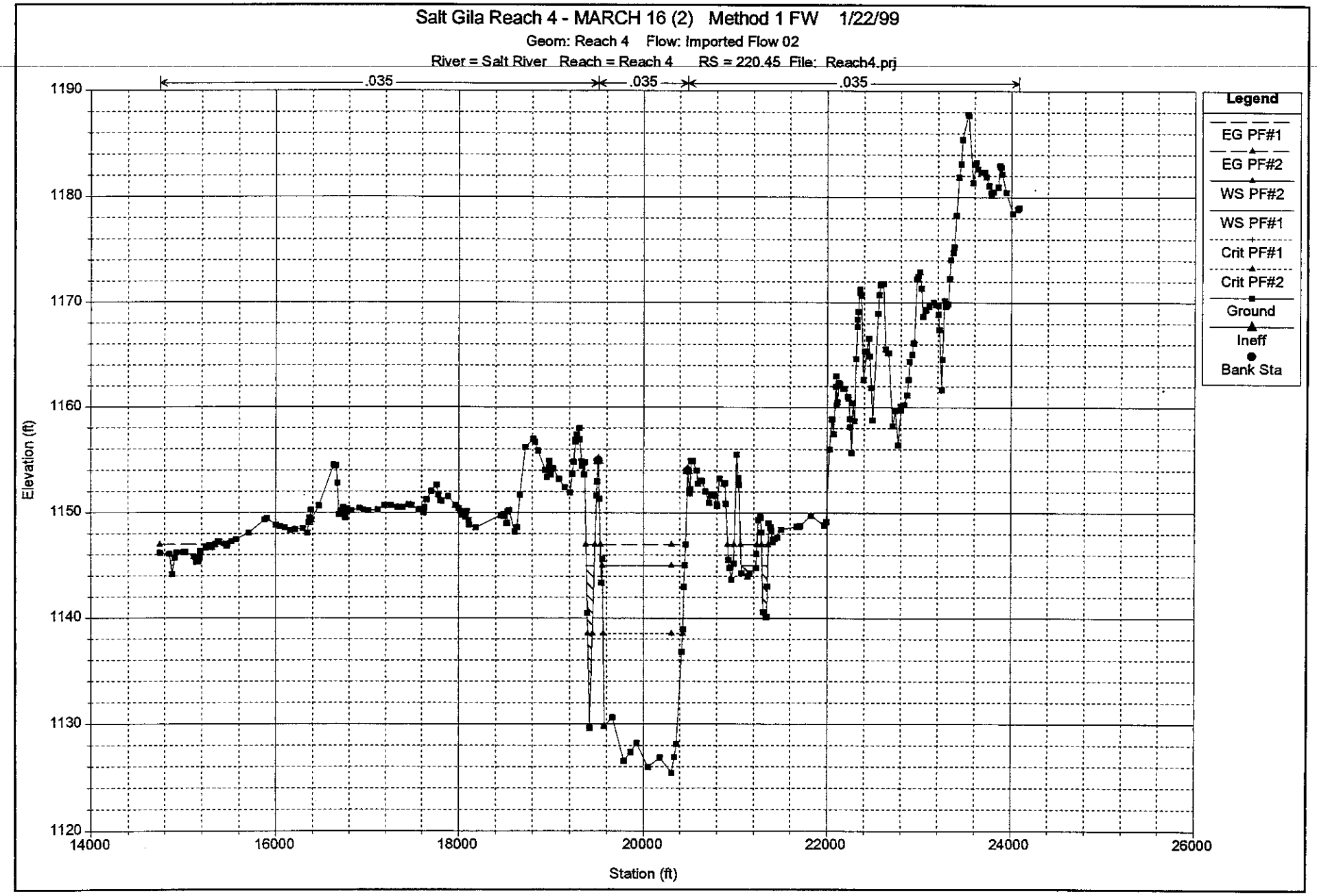

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 220.92 File: Reach4.prj
.035
.035
.035
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1220
1200
1180
1160
1140
1120
14000
16000
18000
20000
22000
24000
26000
Station (ft)

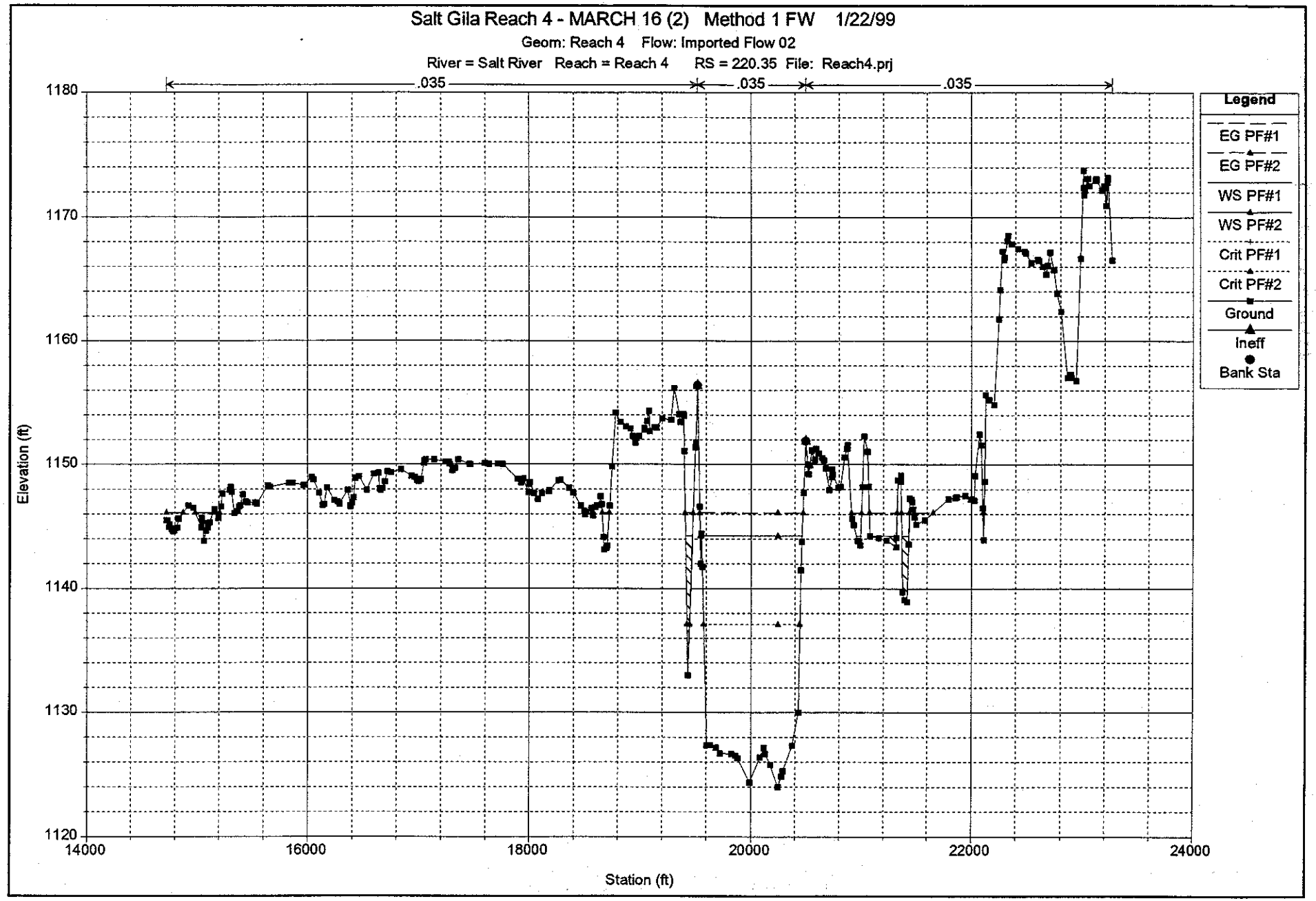

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 220.82 File: Reach4.prj
.035
.035
.035
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1220
1200
1180
1160
1140
1120
14000
16000
18000
20000
22000
24000
26000
Station (ft)

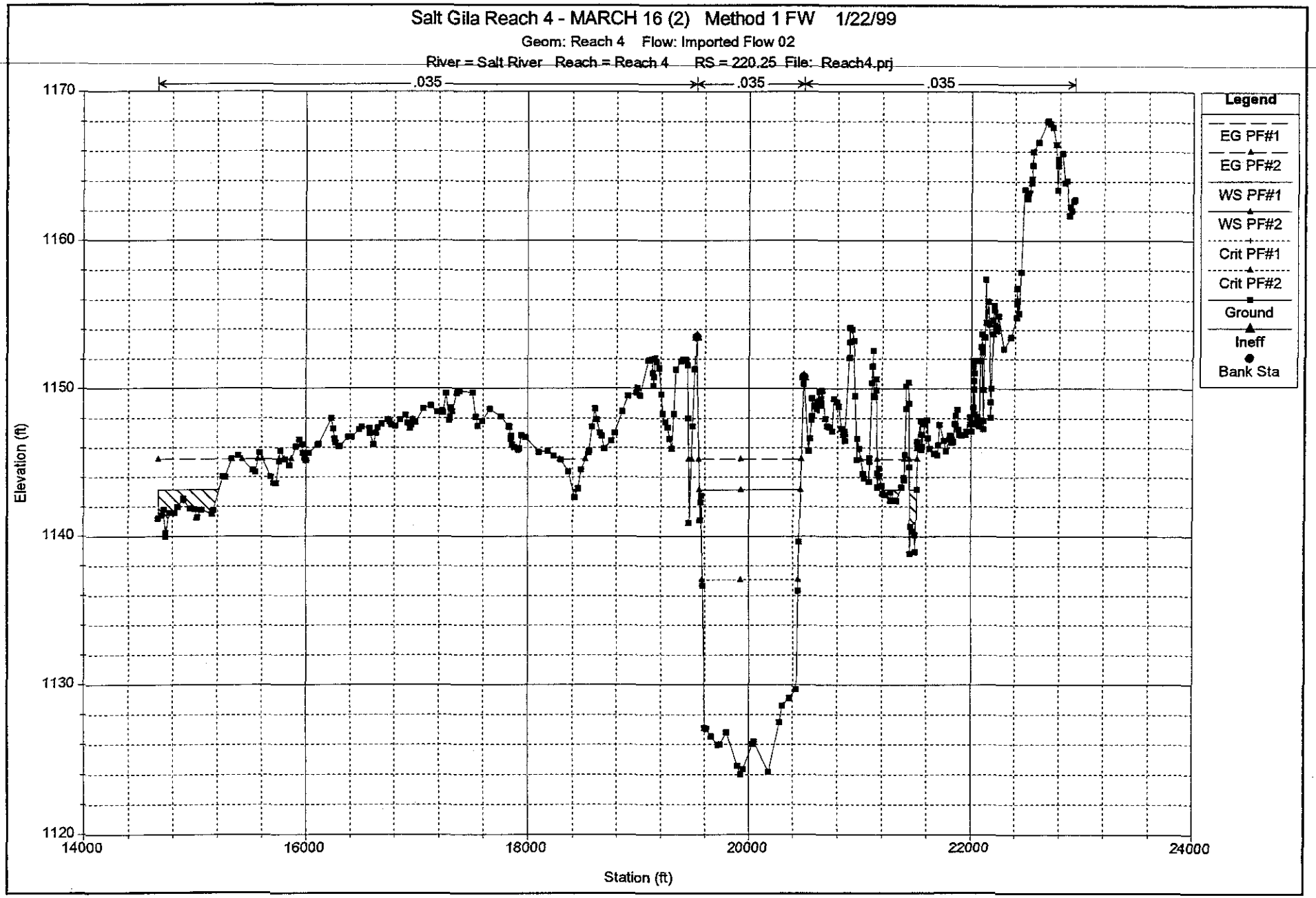

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 220.73 File: Reach4.prj
.035
.035
.035
Elevation (ft)
1200
1190
1180
1170
1160
1150
1140
1130
1120
14000
16000
18000
20000
22000
24000
26000
Station (ft)
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

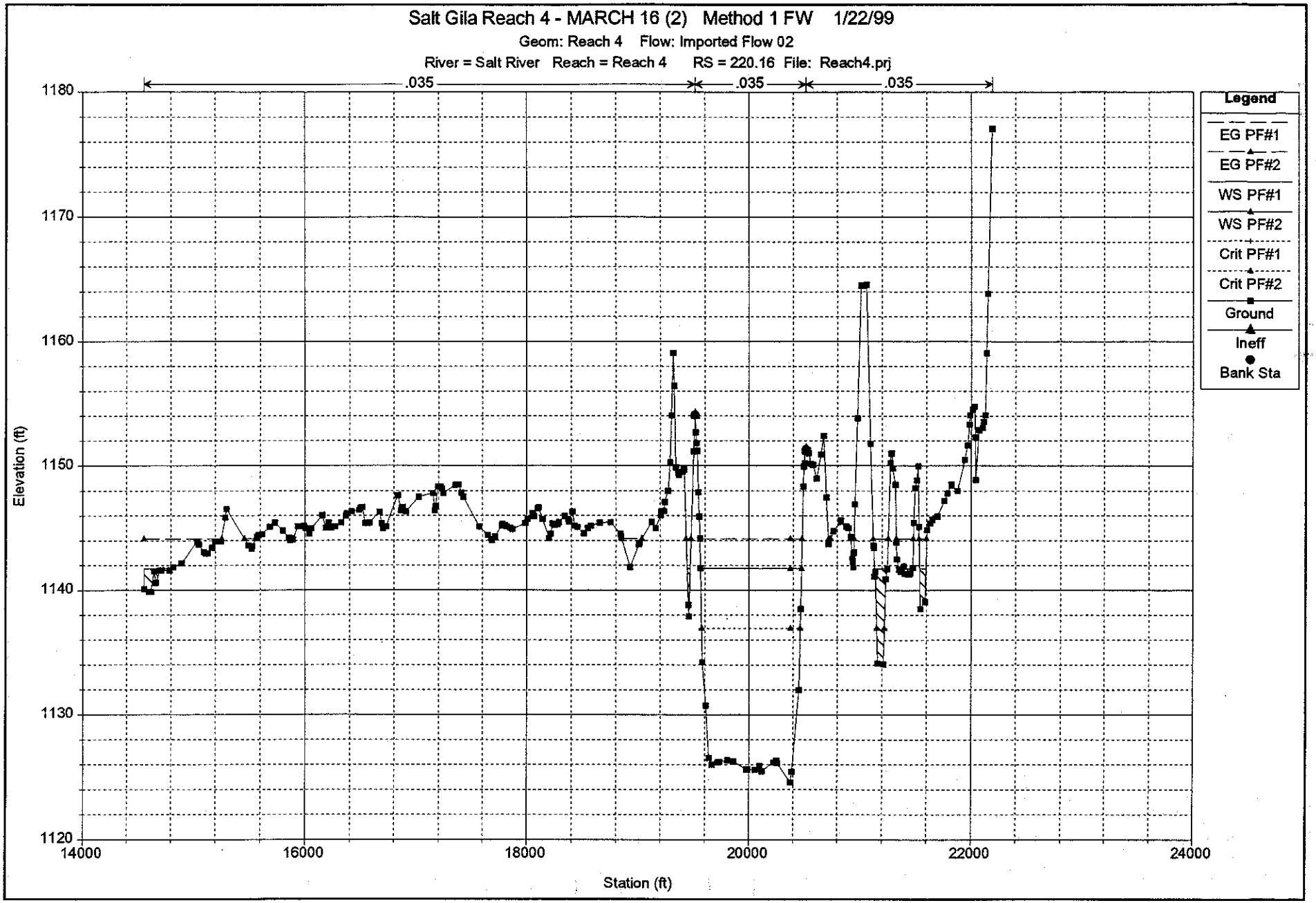

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 220.63 File: Reach4.prj
.035
.035
.035
Elevation (ft)
1200
1190
1180
1170
1160
1150
1140
1130
1120
14000
16000
18000
20000
22000
24000
26000
Station (ft)
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

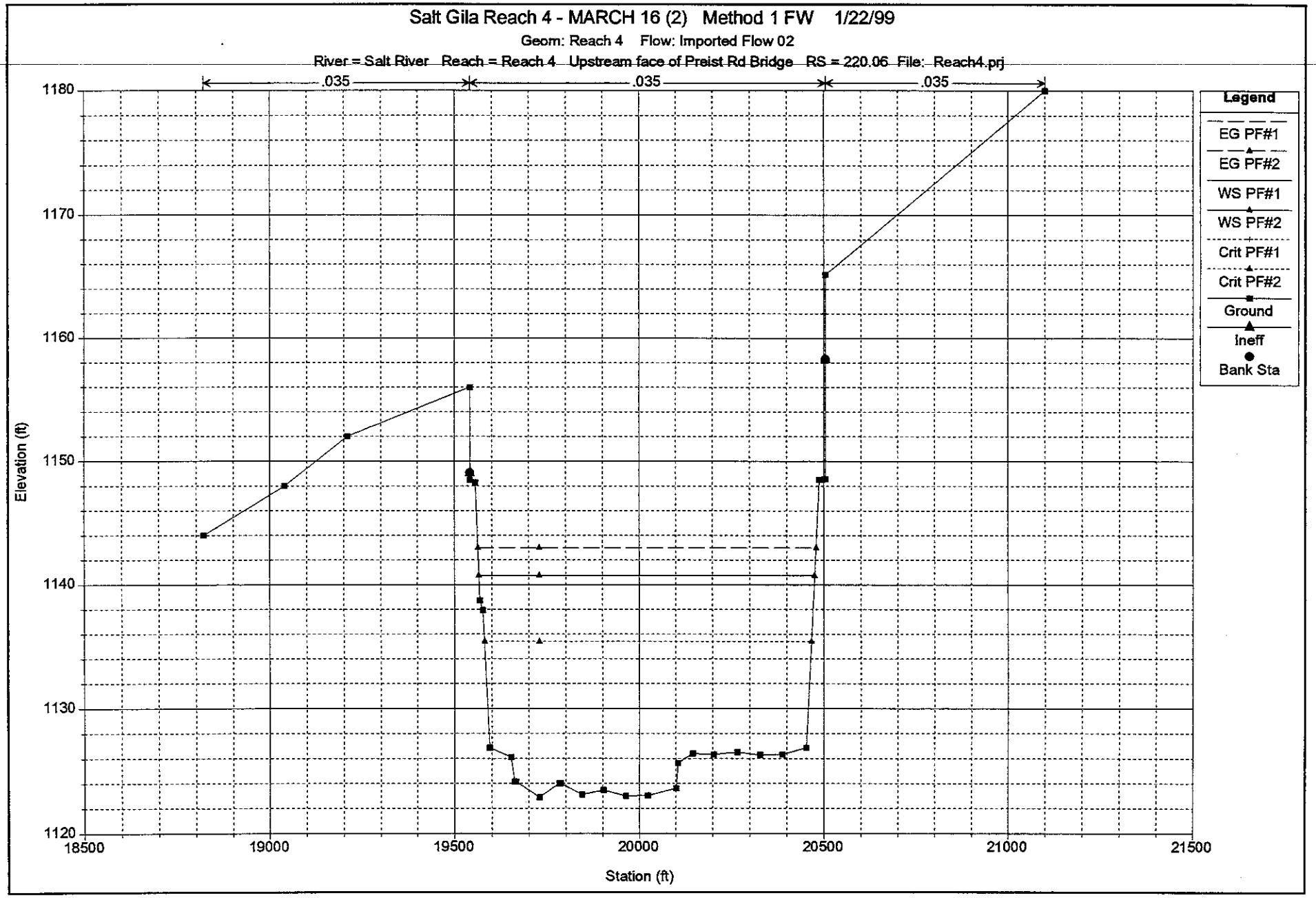

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 220.54 File: Reach4.prj
.035
.035
.035
Elevation (ft)
1200
1190
1180
1170
1160
1150
1140
1130
1120
14000
16000
18000
20000
22000
24000
26000
Station (ft)
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

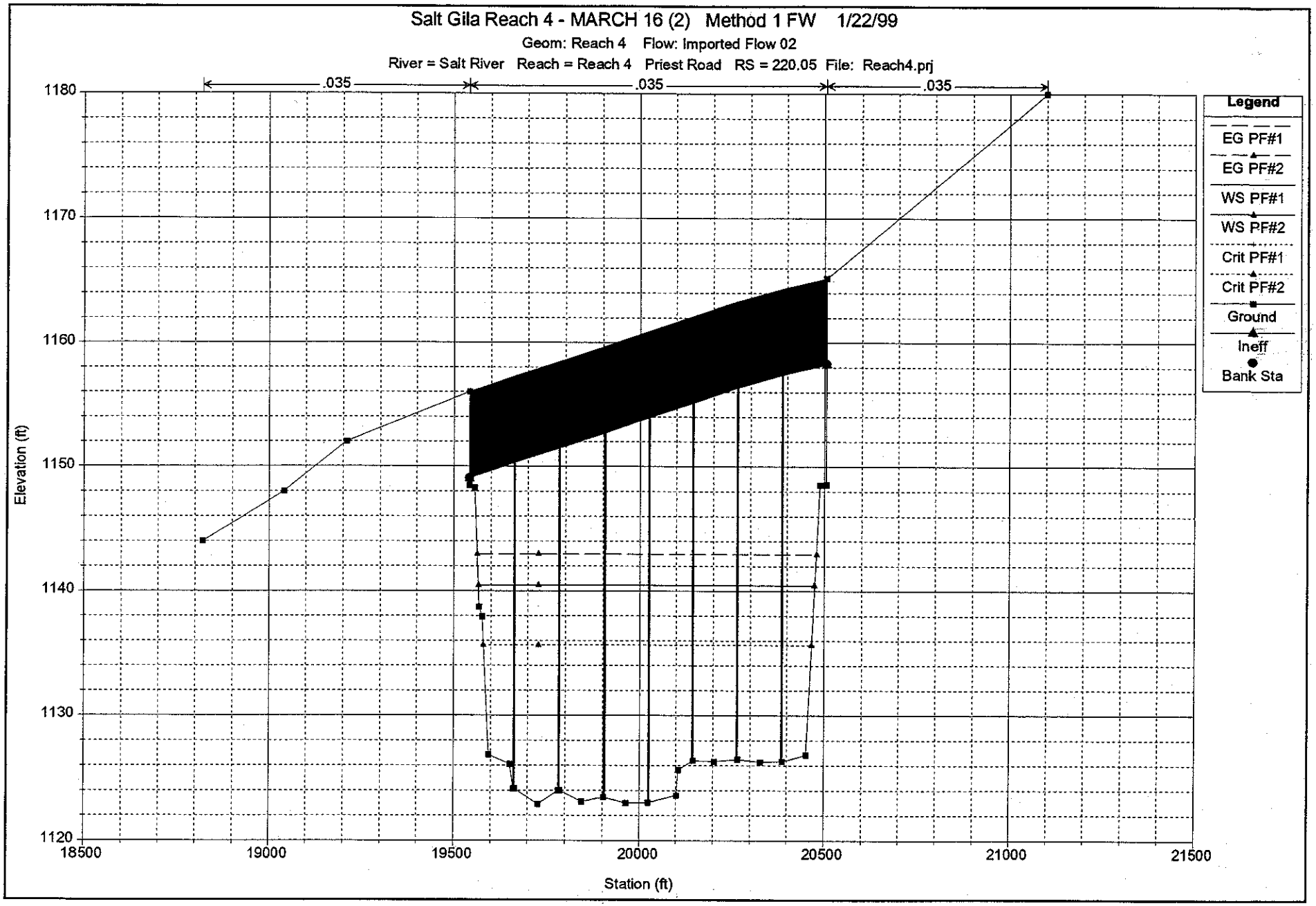

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 220.45 File: Reach4.prj
.035
.035
.035
Legend
EG PF#1
EG PF#2
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1190
1180
1170
1160
1150
1140
1130
1120
14000
16000
18000
20000
22000
24000
26000
Station (ft)

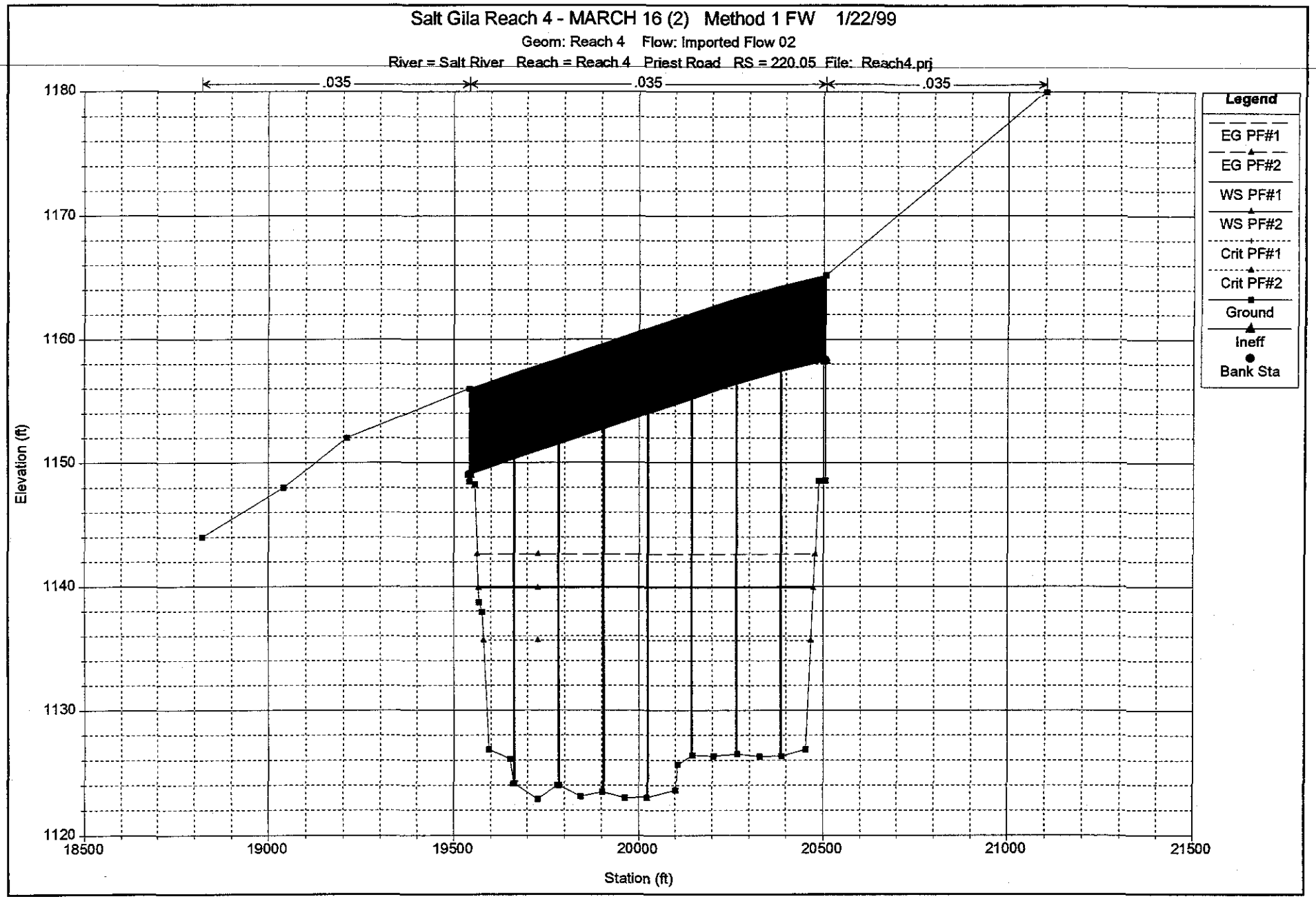

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 220.35 File: Reach4.prj
.035
.035
.035
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1180
1170
1160
1150
1140
1130
1120
14000
16000
18000
20000
22000
24000
Station (ft)

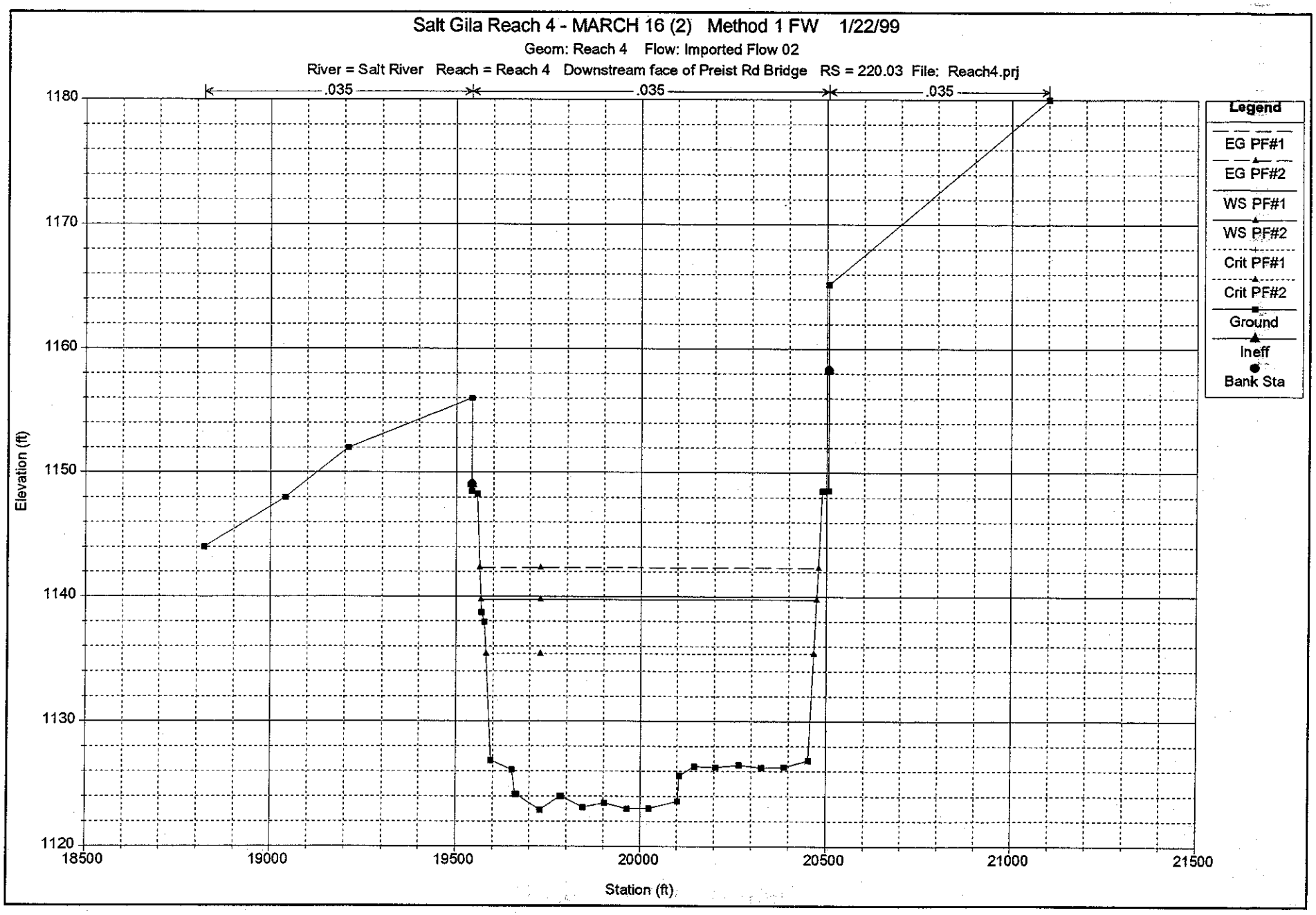

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 220.25 File: Reach4.prj
.035
.035
.035
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1170
1160
1150
1140
1130
1120
14000
16000
18000
20000
22000
24000
Station (ft)

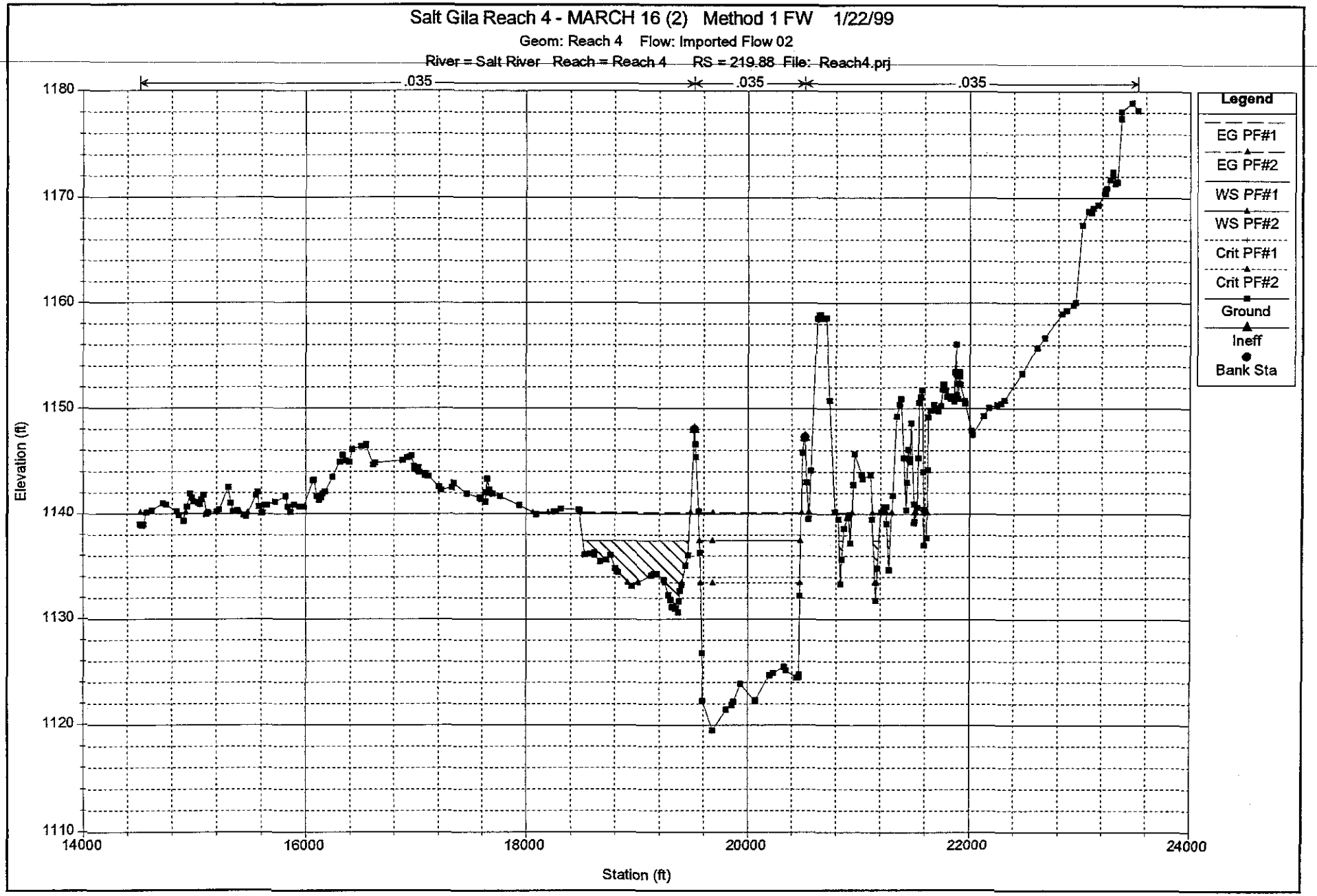

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 220.16 File: Reach4.prj
.035
.035
.035
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1180
1170
1160
1150
1140
1130
1120
14000
16000
18000
20000
22000
24000
Station (ft)

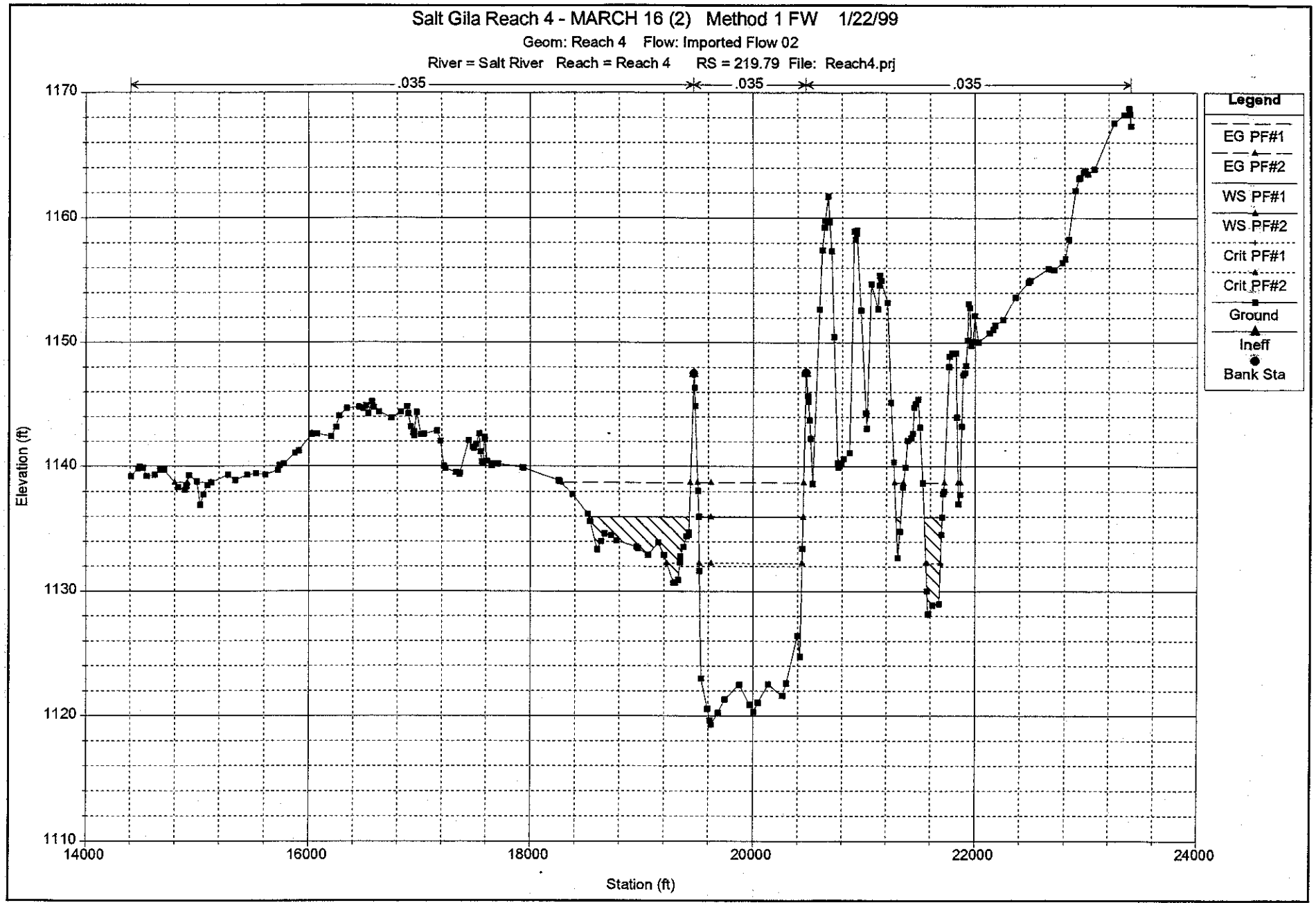

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Upstream face of Preist Rd Bridge RS = 220.06 File: Reach4.prj
.035
.035
.035
Elevation (ft)
1180
1170
1160
1150
1140
1130
1120
18500
19000
19500
20000
20500
21000
21500
Station (ft)
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

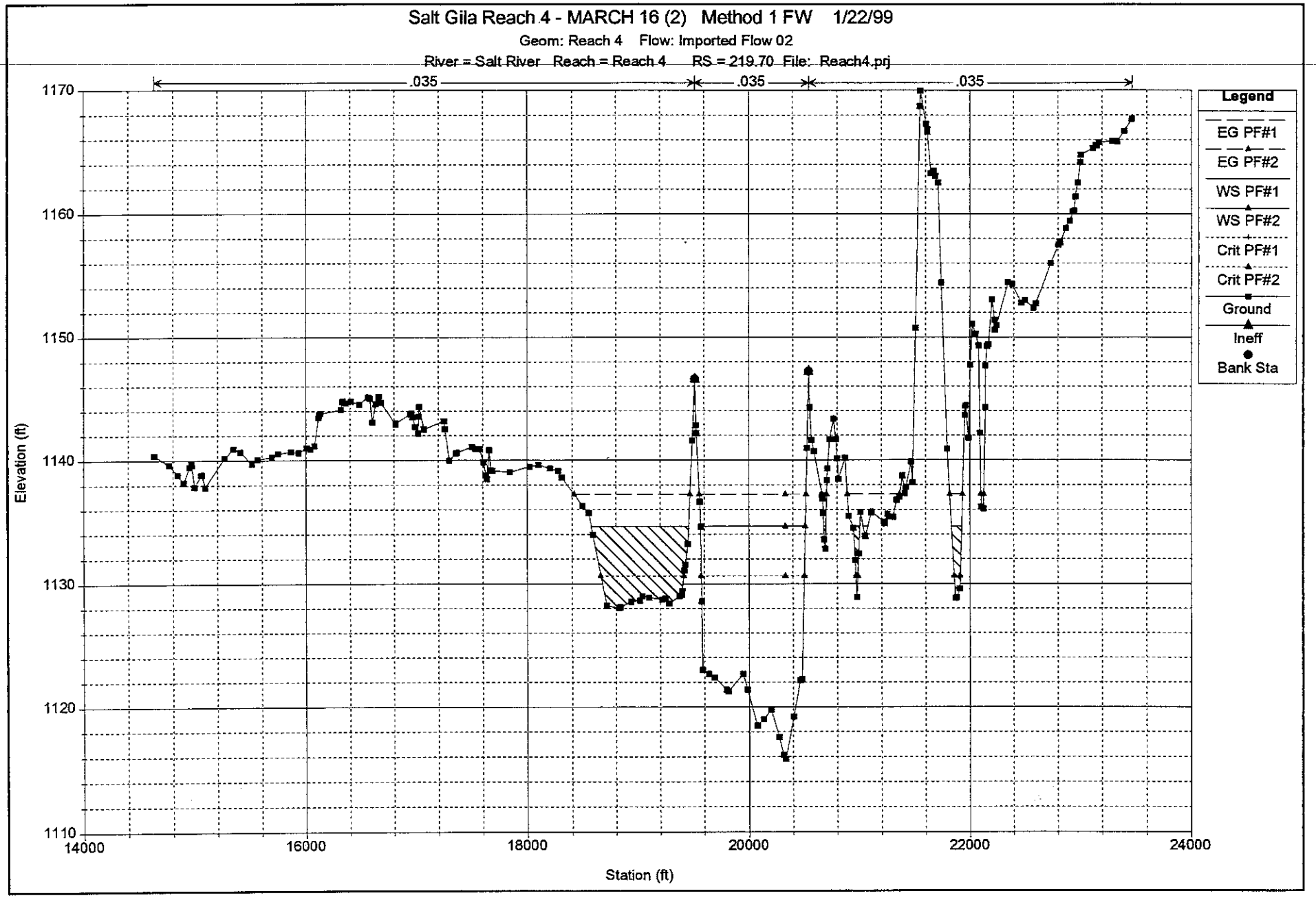

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Priest Road RS = 220.05 File: Reach4.prj
.035
.035
.035
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1180
1170
1160
1150
1140
1130
1120
18500
19000
19500
20000
20500
21000
21500
Station (ft)

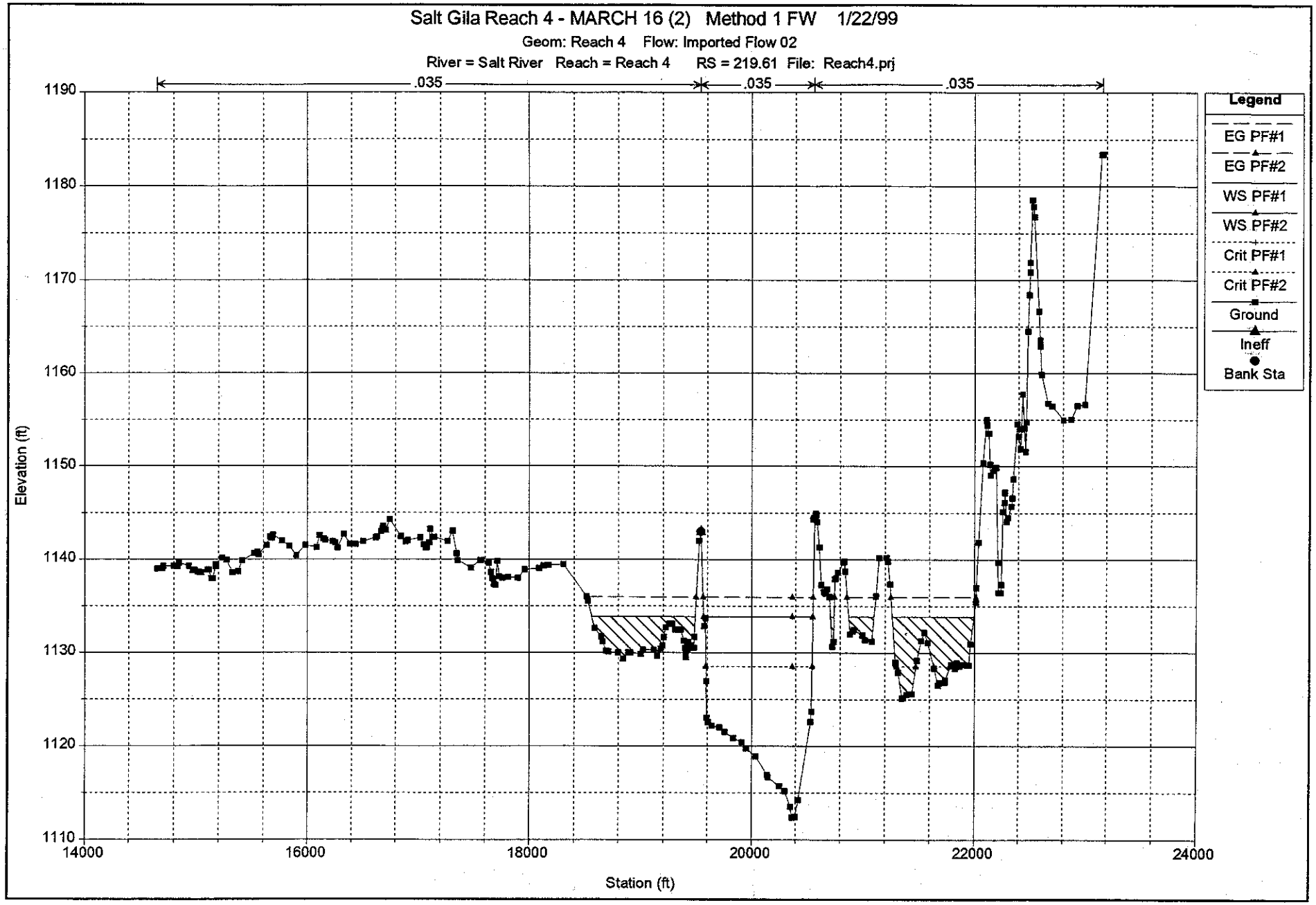

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Priest Road RS = 220.05 File: Reach4.prj
.035
.035
.035
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1180
1170
1160
1150
1140
1130
1120
18500
19000
19500
20000
20500
21000
21500
Station (ft)

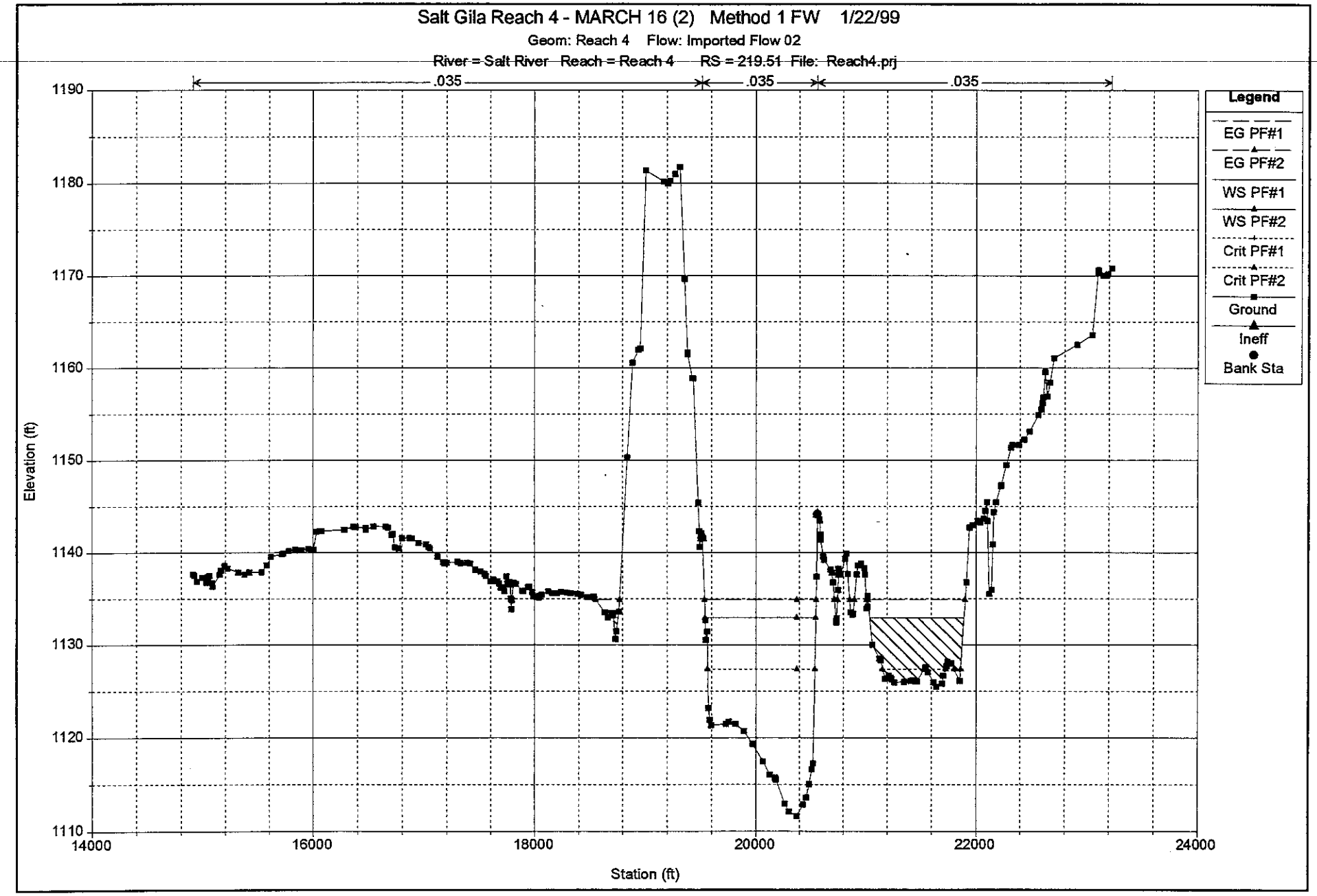

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Downstream face of Preist Rd Bridge RS = 220.03 File: Reach4.prj
.035
.035
.035
Elevation (ft)
1180
1170
1160
1150
1140
1130
1120
18500
19000
19500
20000
20500
21000
21500
Station (ft)
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

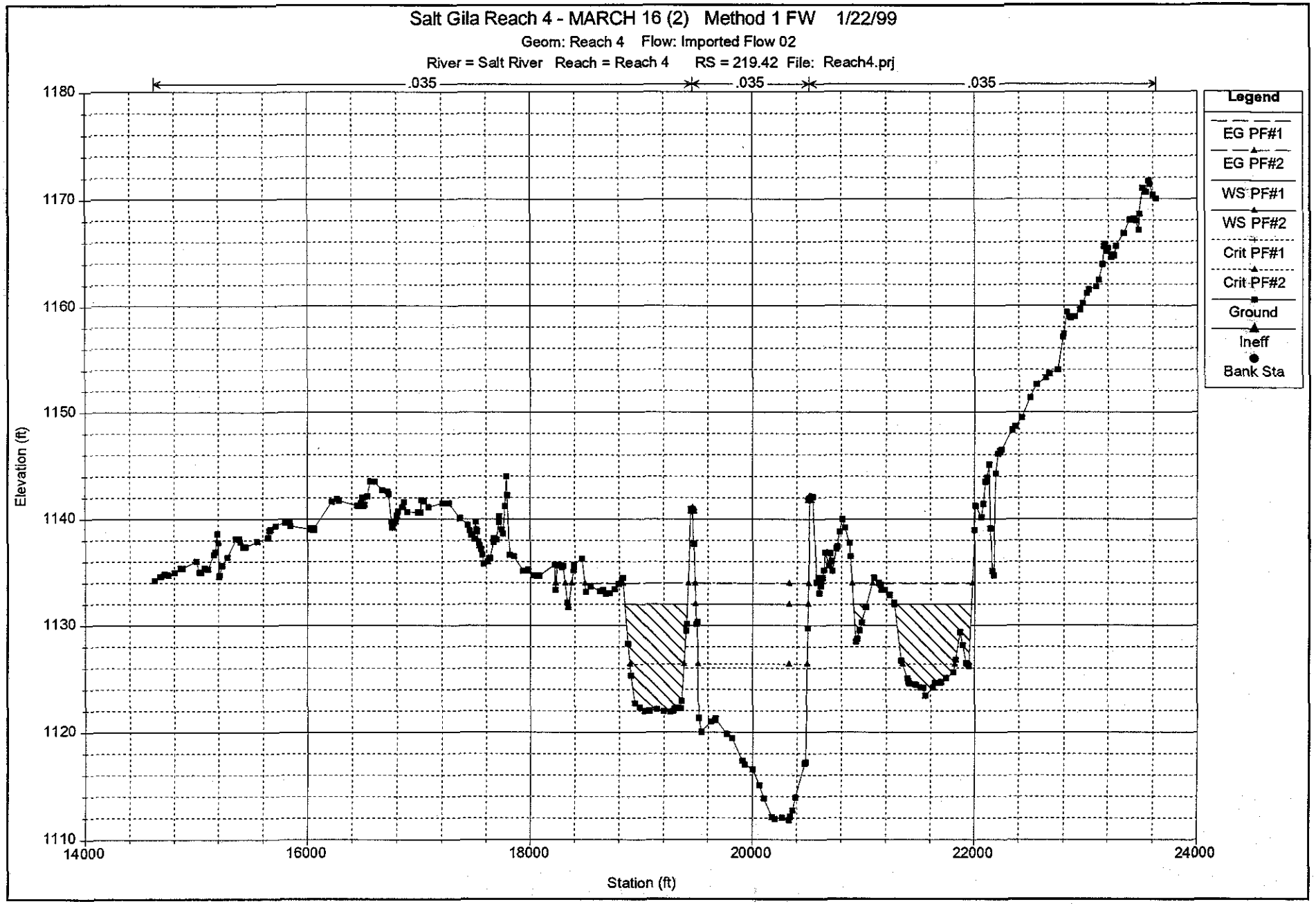

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 219.88 File: Reach4.prj
.035
.035
.035
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1180
1170
1160
1150
1140
1130
1120
1110
14000
16000
18000
20000
22000
24000
Station (ft)

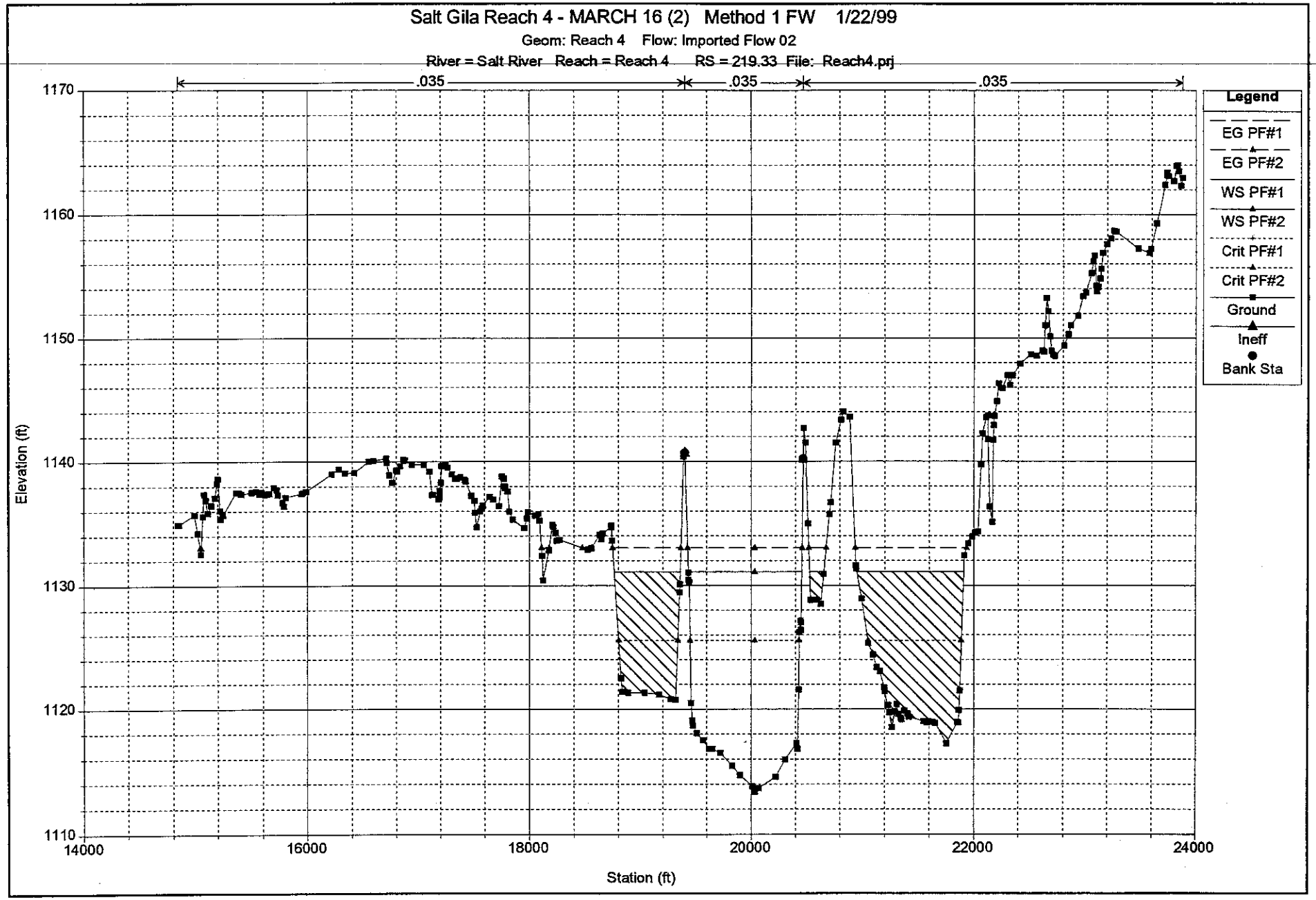

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 219.79 File: Reach4.prj
.035
.035
.035
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1170
1160
1150
1140
1130
1120
1110
14000
16000
18000
20000
22000
24000
Station (ft)

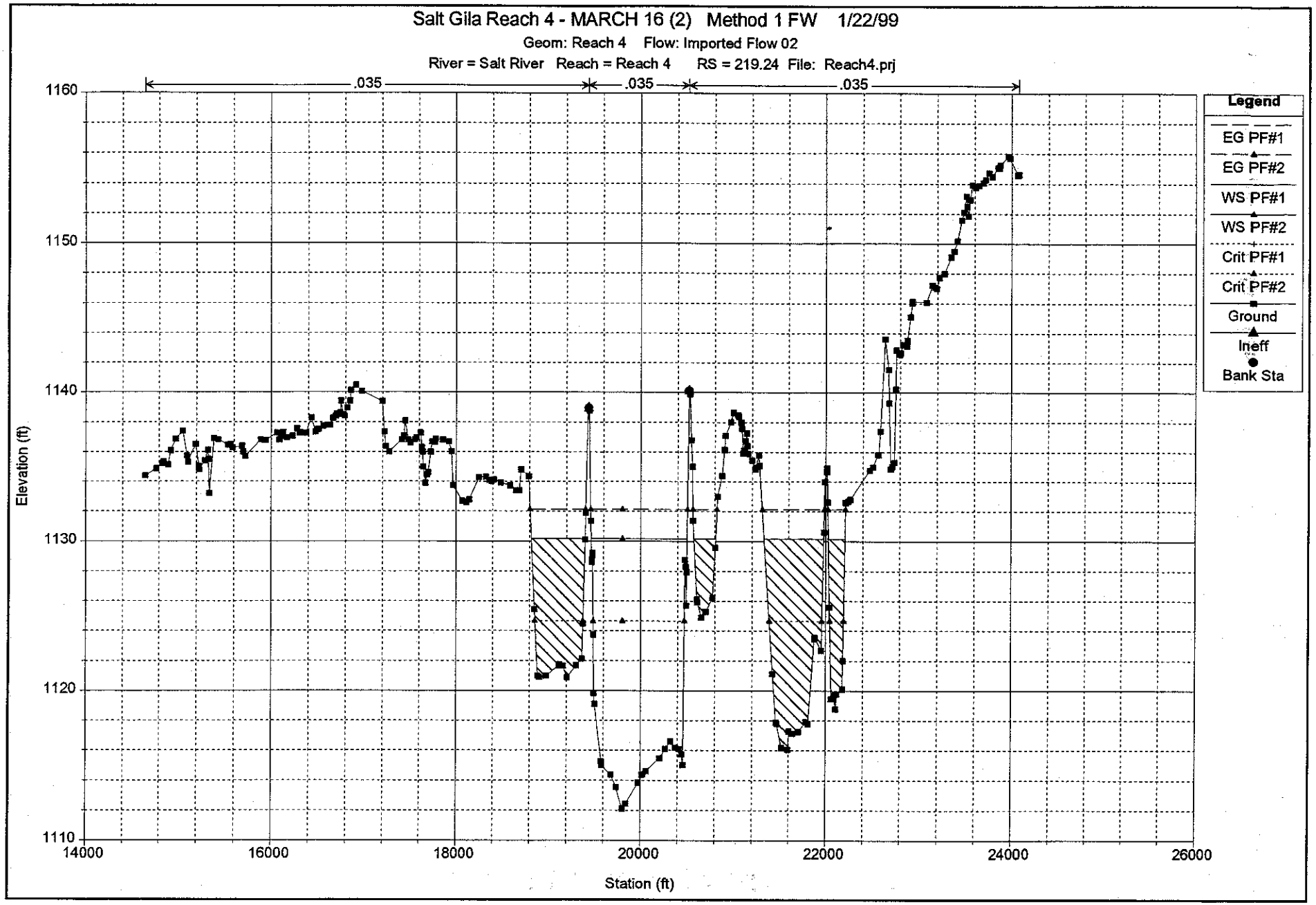

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 219.70 File: Reach4.prj
.035
.035
.035
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1170
1160
1150
1140
1130
1120
1110
14000
16000
18000
20000
22000
24000
Station (ft)

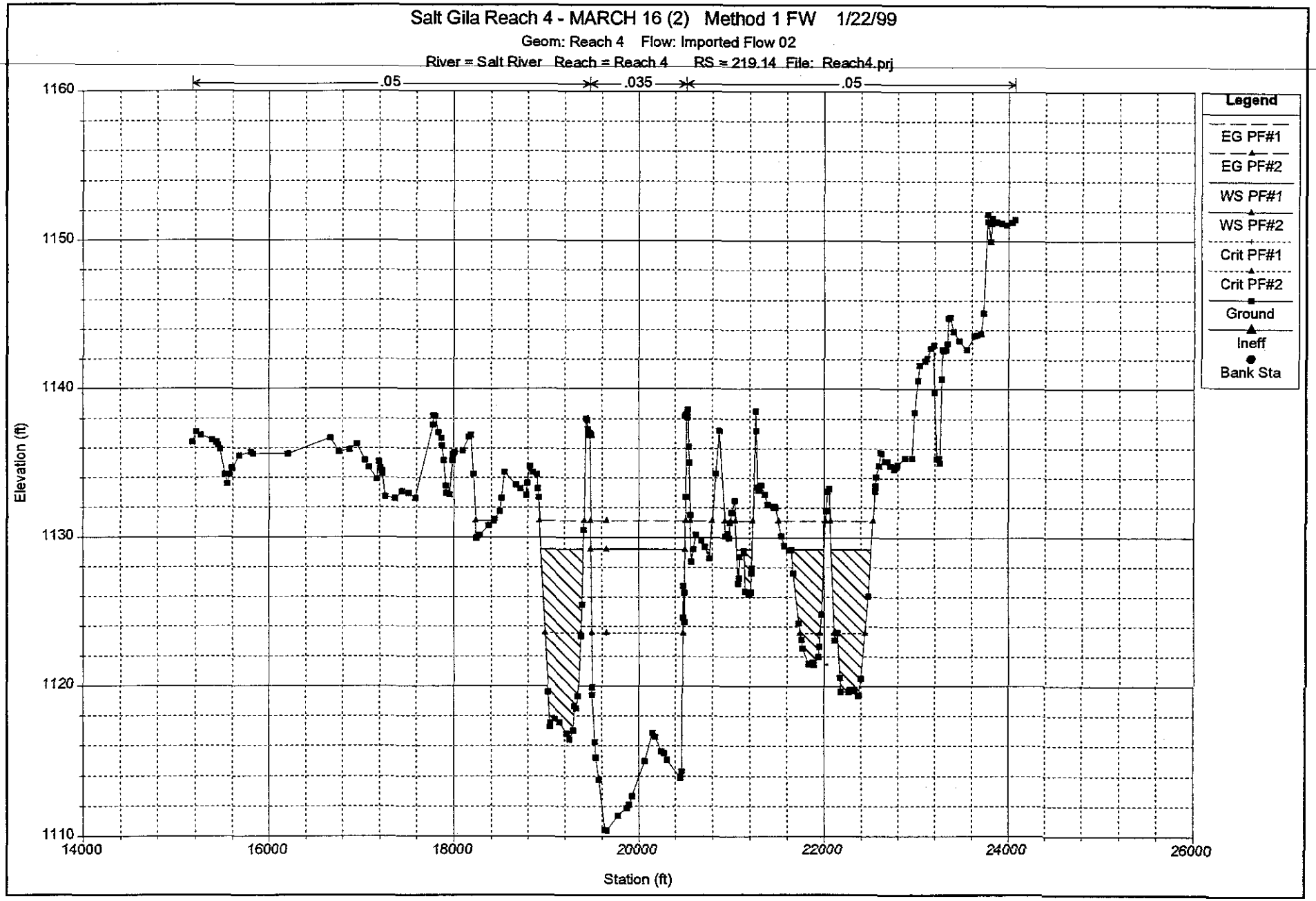

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 219.61 File: Reach4.prj
.035
.035
.035
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1190
1180
1170
1160
1150
1140
1130
1120
1110
14000
16000
18000
20000
22000
24000
Station (ft)

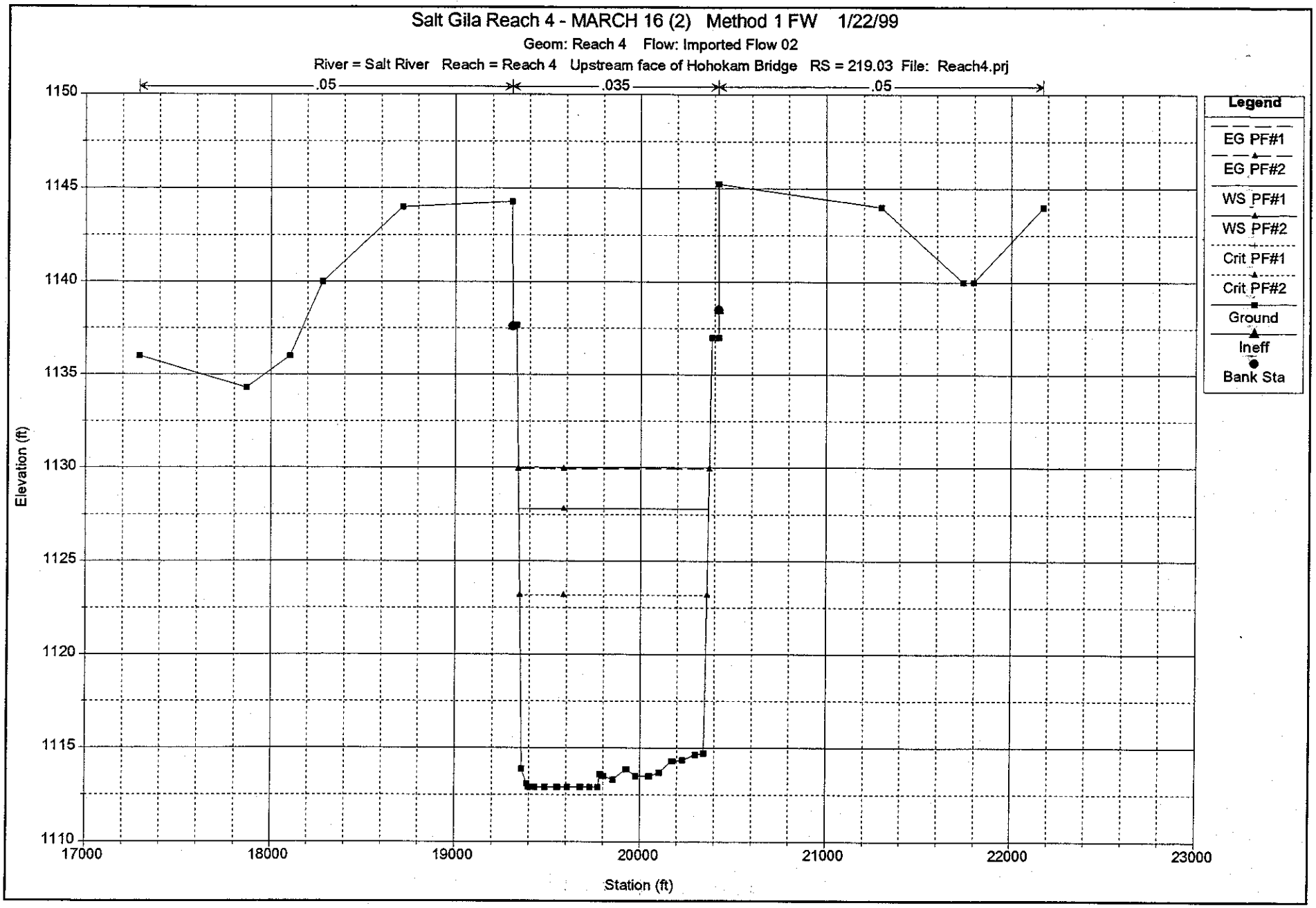

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 219.51 File: Reach4.prj
.035
.035
.035
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1190
1180
1170
1160
1150
1140
1130
1120
1110
14000
16000
18000
20000
22000
24000
Station (ft)

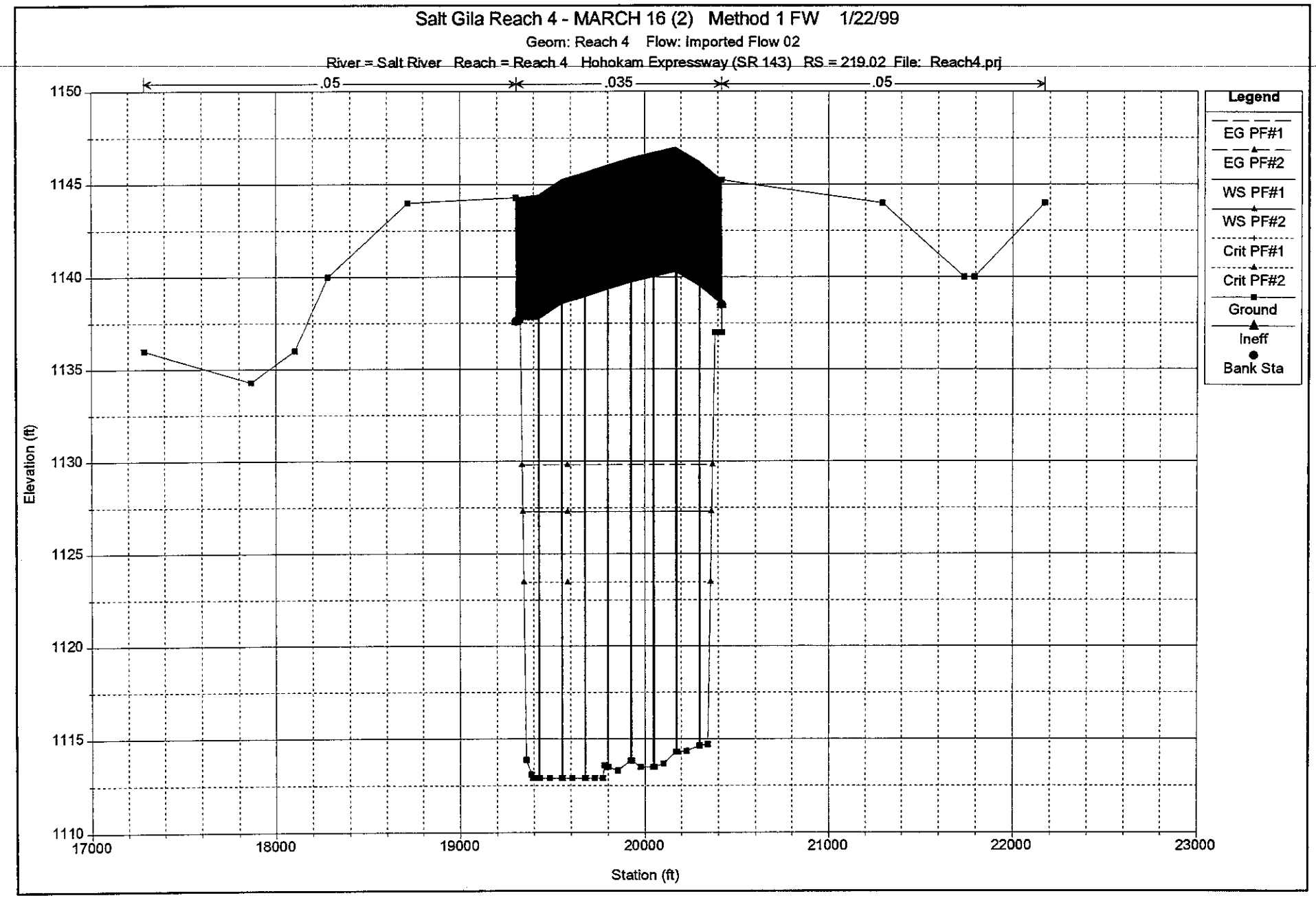

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 219.42 File: Reach4.prj
.035
.035
.035
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1180
1170
1160
1150
1140
1130
1120
1110
14000
16000
18000
20000
22000
24000
Station (ft)

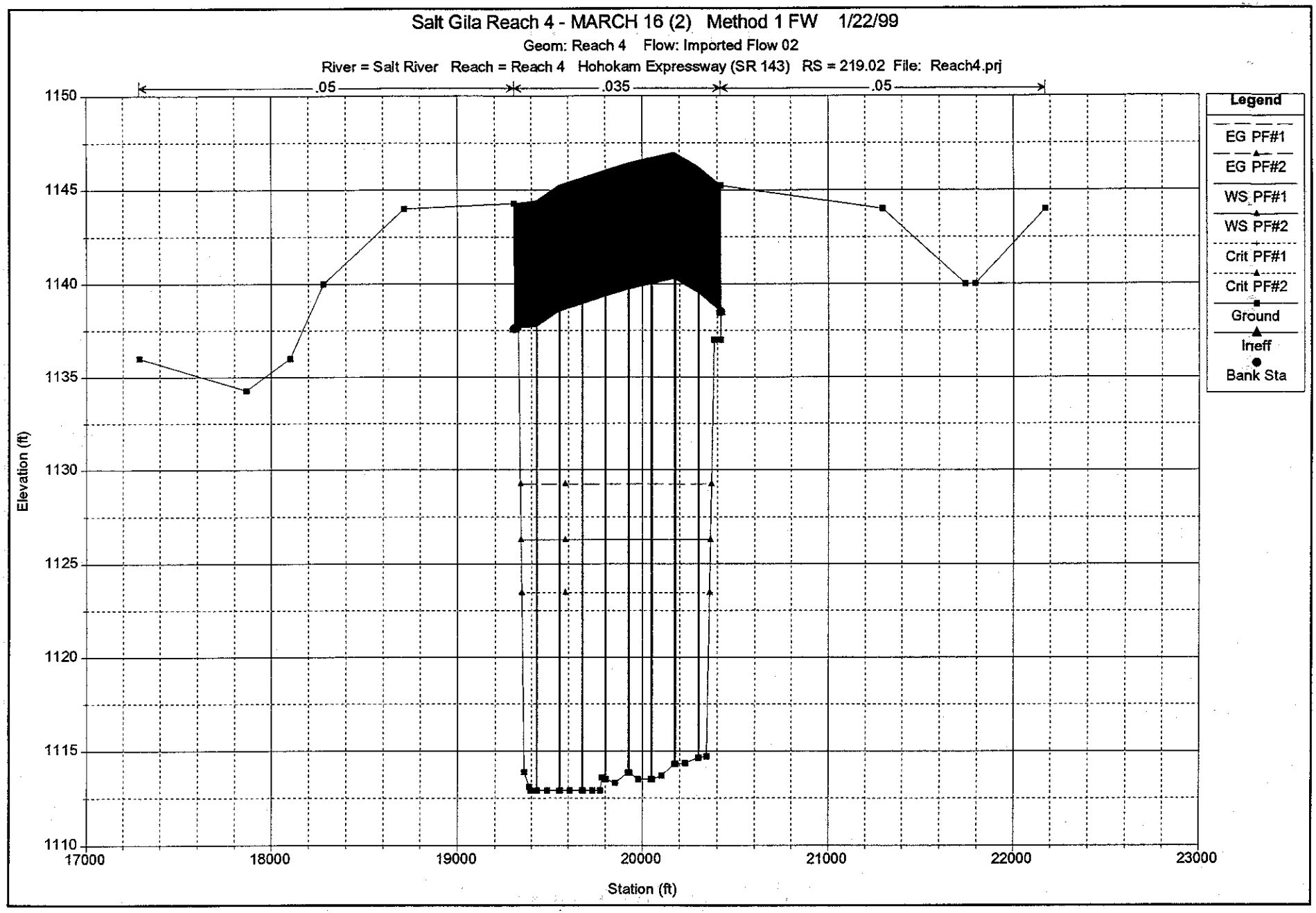

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 219.33 File: Reach4.prj
.035
.035
.035
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1170
1160
1150
1140
1130
1120
1110
14000
16000
18000
20000
22000
24000
Station (ft)

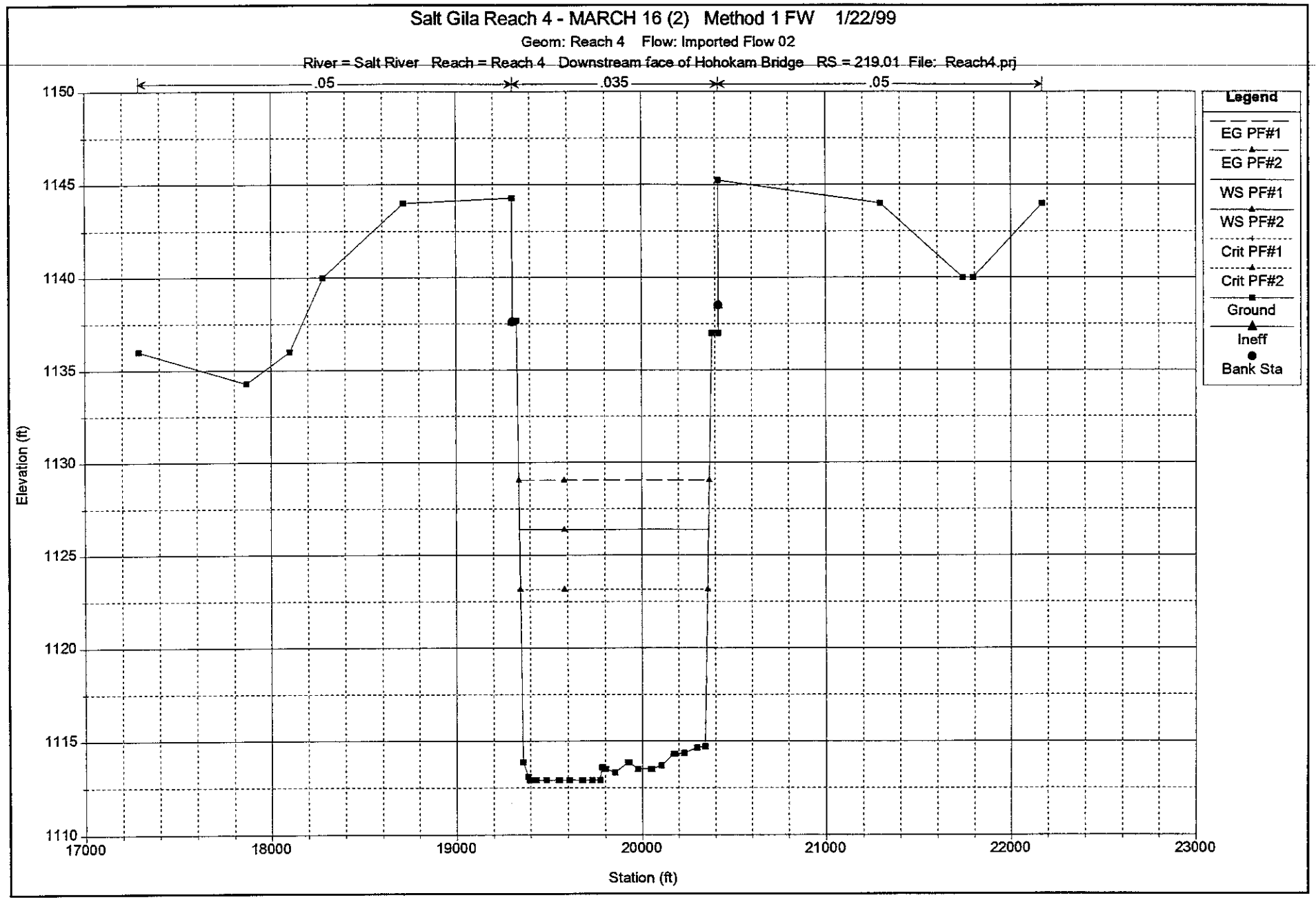

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 219.24 File: Reach4.prj
.035
.035
.035
1160
1150
1140
1130
1120
1110
Elevation (ft)
14000
16000
18000
20000
22000
24000
26000
Station (ft)
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

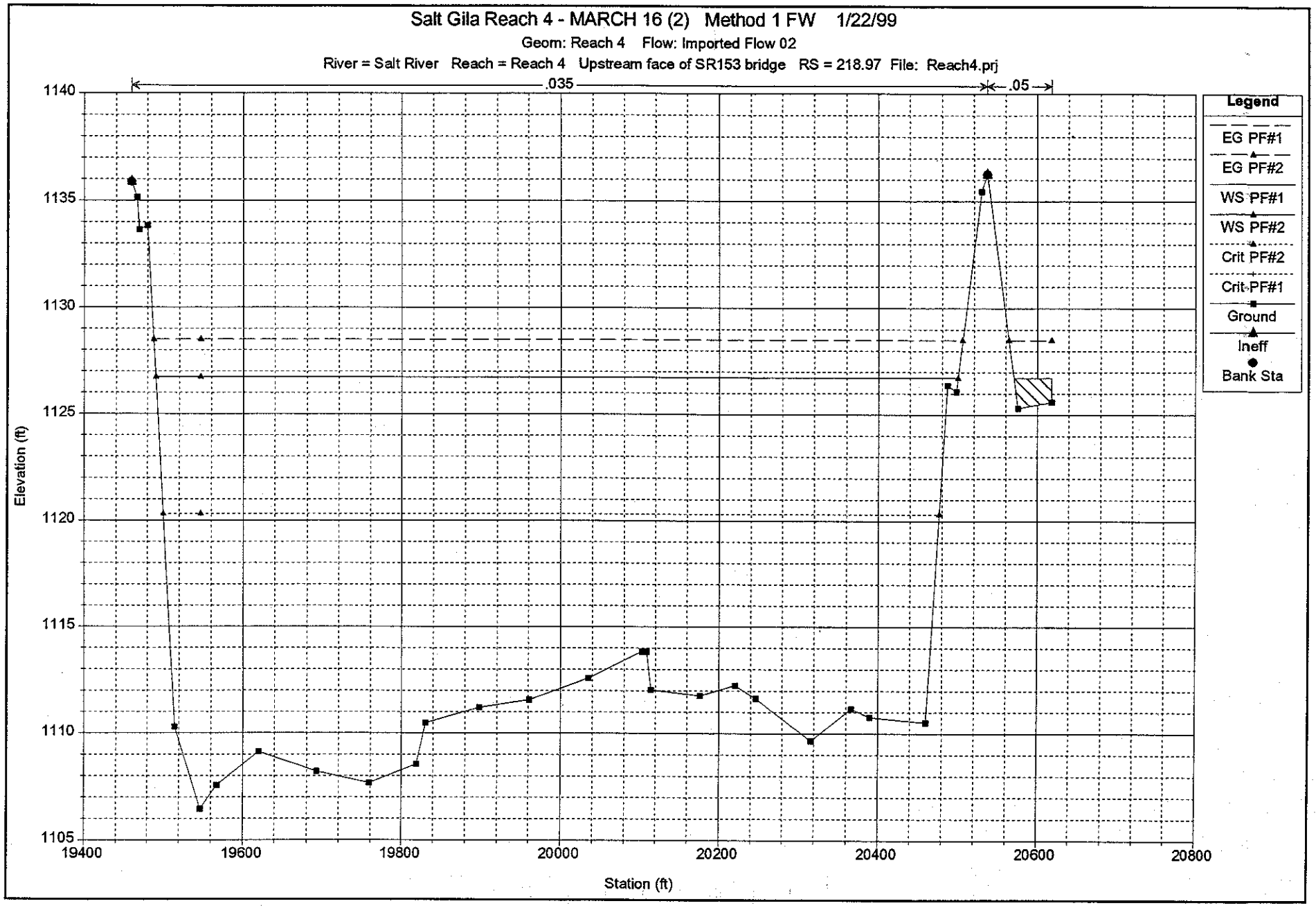

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 219.14 File: Reach4.prj
.05
.035
.05
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1160
1150
1140
1130
1120
1110
14000
16000
18000
20000
22000
24000
26000
Station (ft)

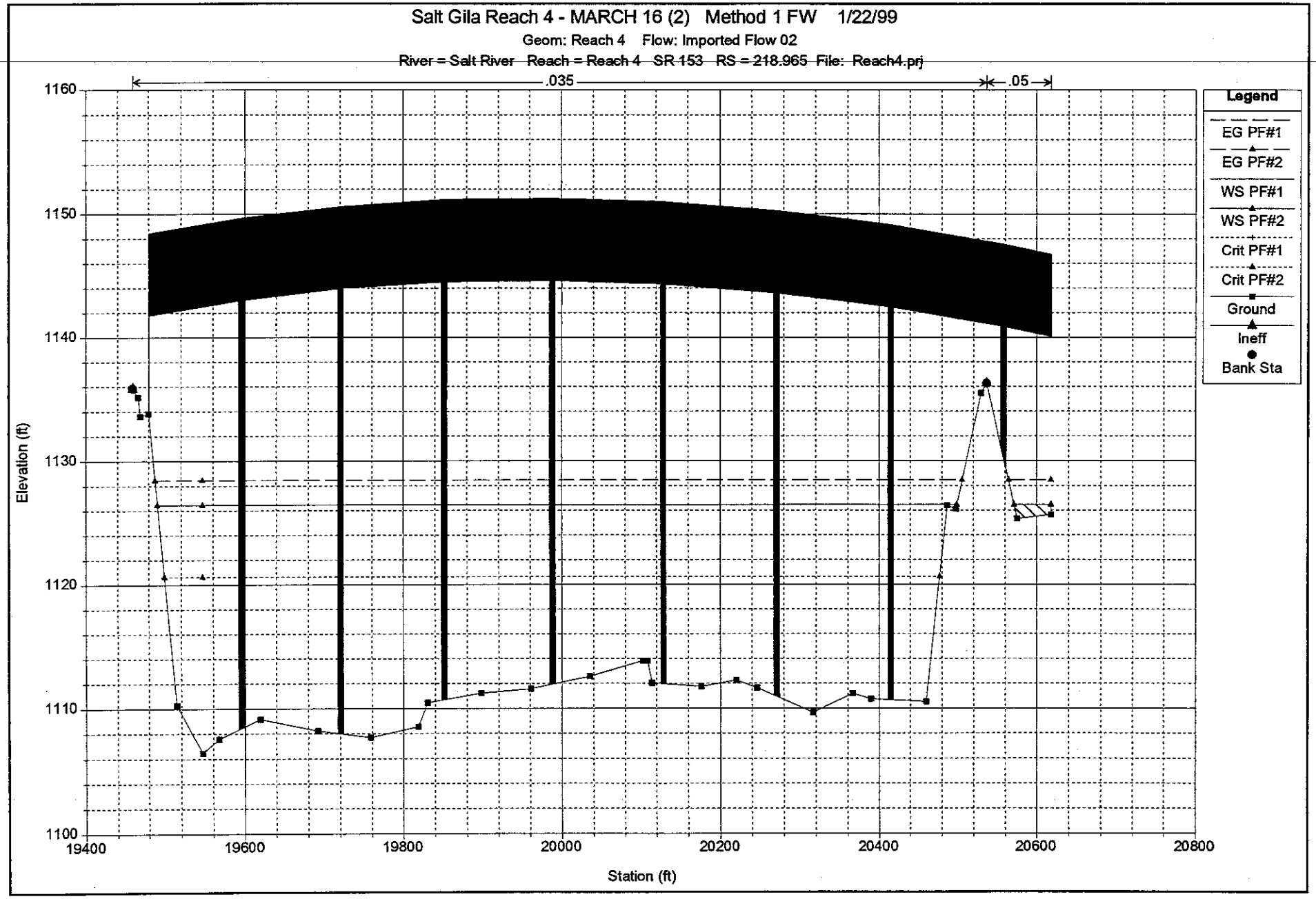

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Upstream face of Hohokam Bridge RS = 219.03 File: Reach4.prj
.05
.035
.05
Elevation (ft)
1150
1145
1140
1135
1130
1125
1120
1115
1110
17000
18000
19000
20000
21000
22000
23000
Station (ft)
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

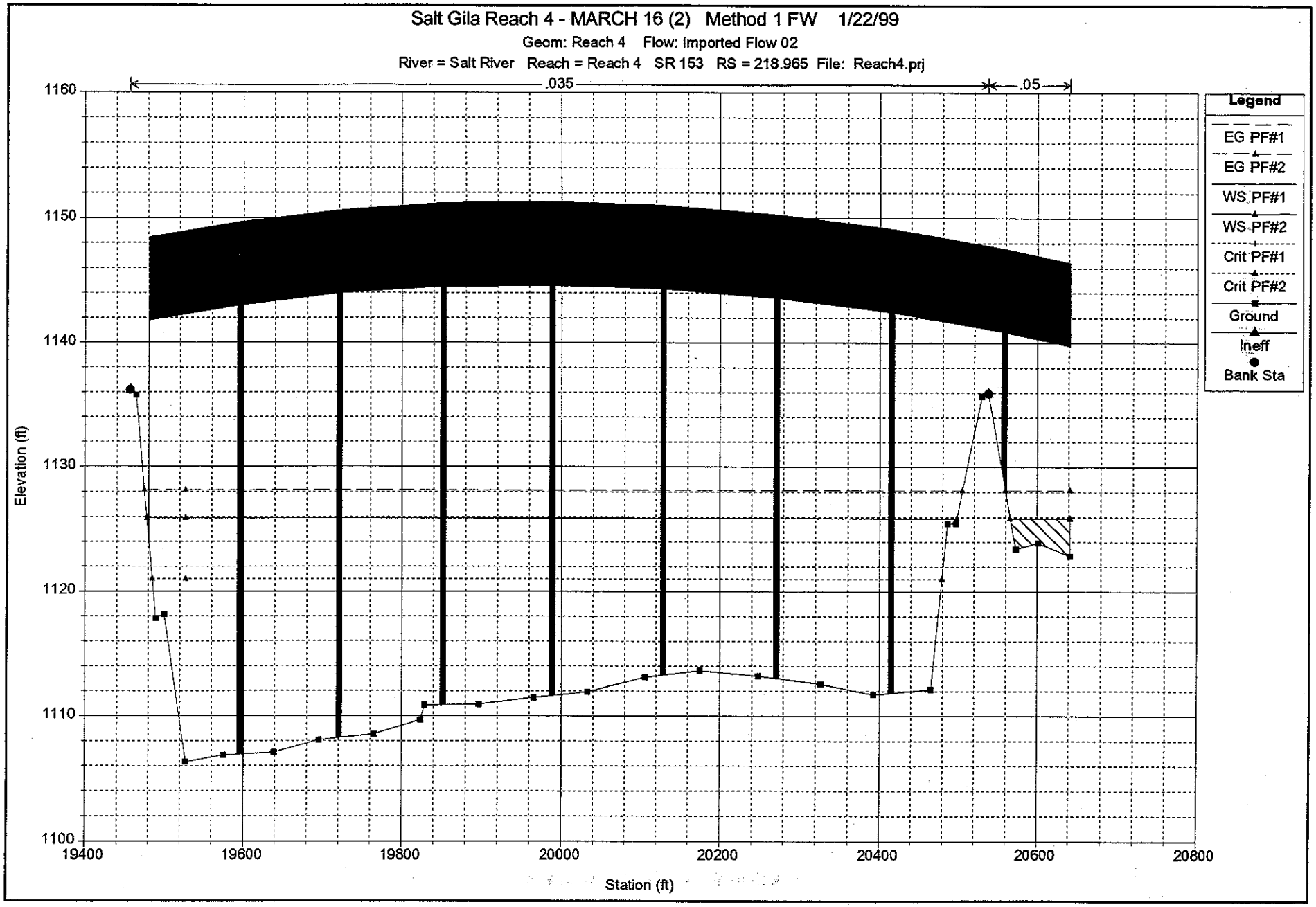

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Hohokam Expressway (SR 143) RS = 219.02 File: Reach4.prj
.05
.035
.05
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1150
1145
1140
1135
1130
1125
1120
1115
1110
17000
18000
19000
20000
21000
22000
23000
Station (ft)

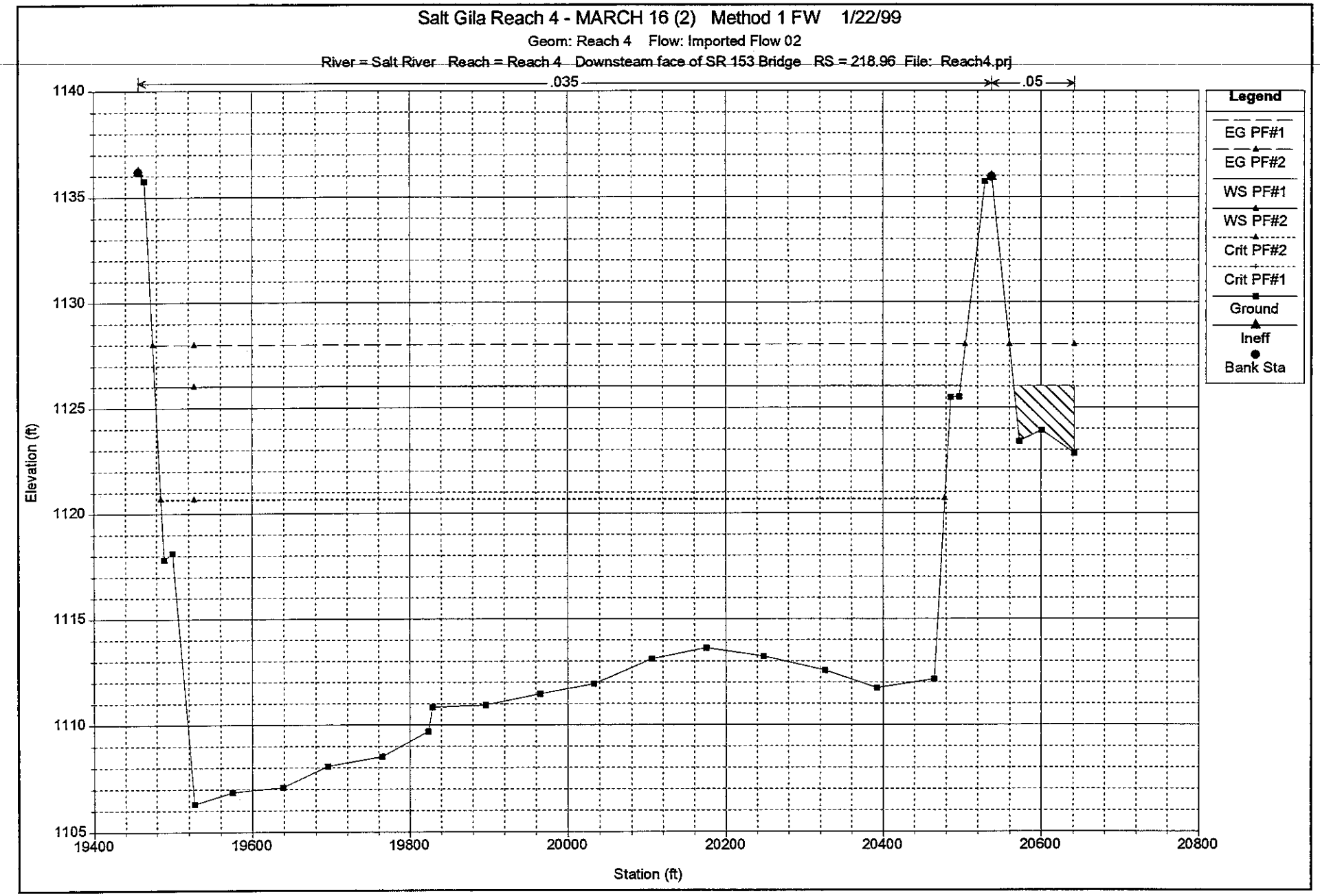

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Hohokam Expressway (SR 143) RS = 219.02 File: Reach4.prj
.05
.035
.05
Elevation (ft)
1150
1145
1140
1135
1130
1125
1120
1115
1110
17000
18000
19000
20000
21000
22000
23000
Station (ft)
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

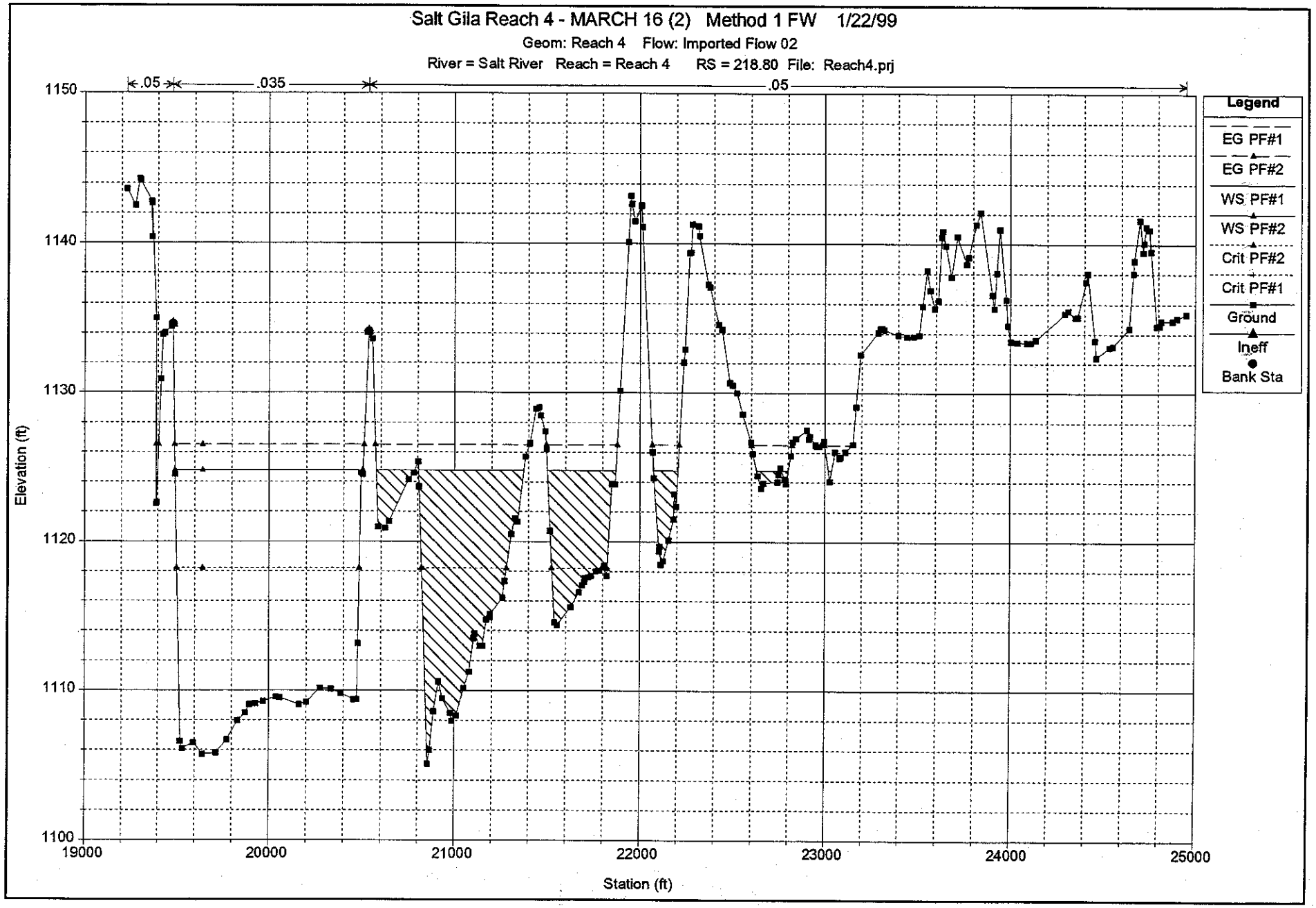

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Downstream face of Hohokam Bridge RS = 219.01 File: Reach4.prj
.05
.035
.05
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1150
1145
1140
1135
1130
1125
1120
1115
1110
17000
18000
19000
20000
21000
22000
23000
Station (ft)

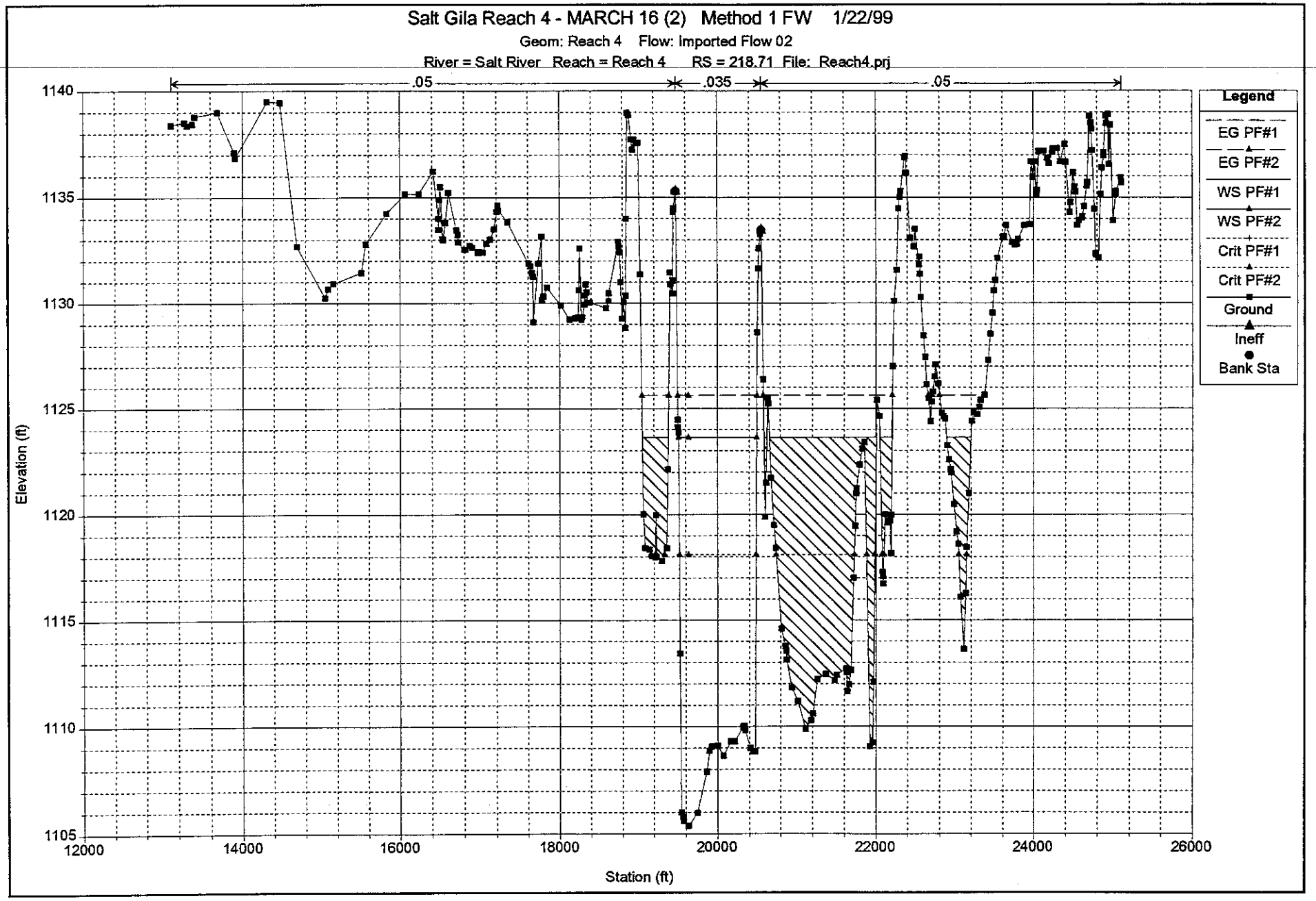

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Upstream face of SR153 bridge RS = 218.97 File: Reach4.prj
.035
.05
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1140
1135
1130
1125
1120
1115
1110
1105
19400
19600
19800
20000
20200
20400
20600
20800
Station (ft)

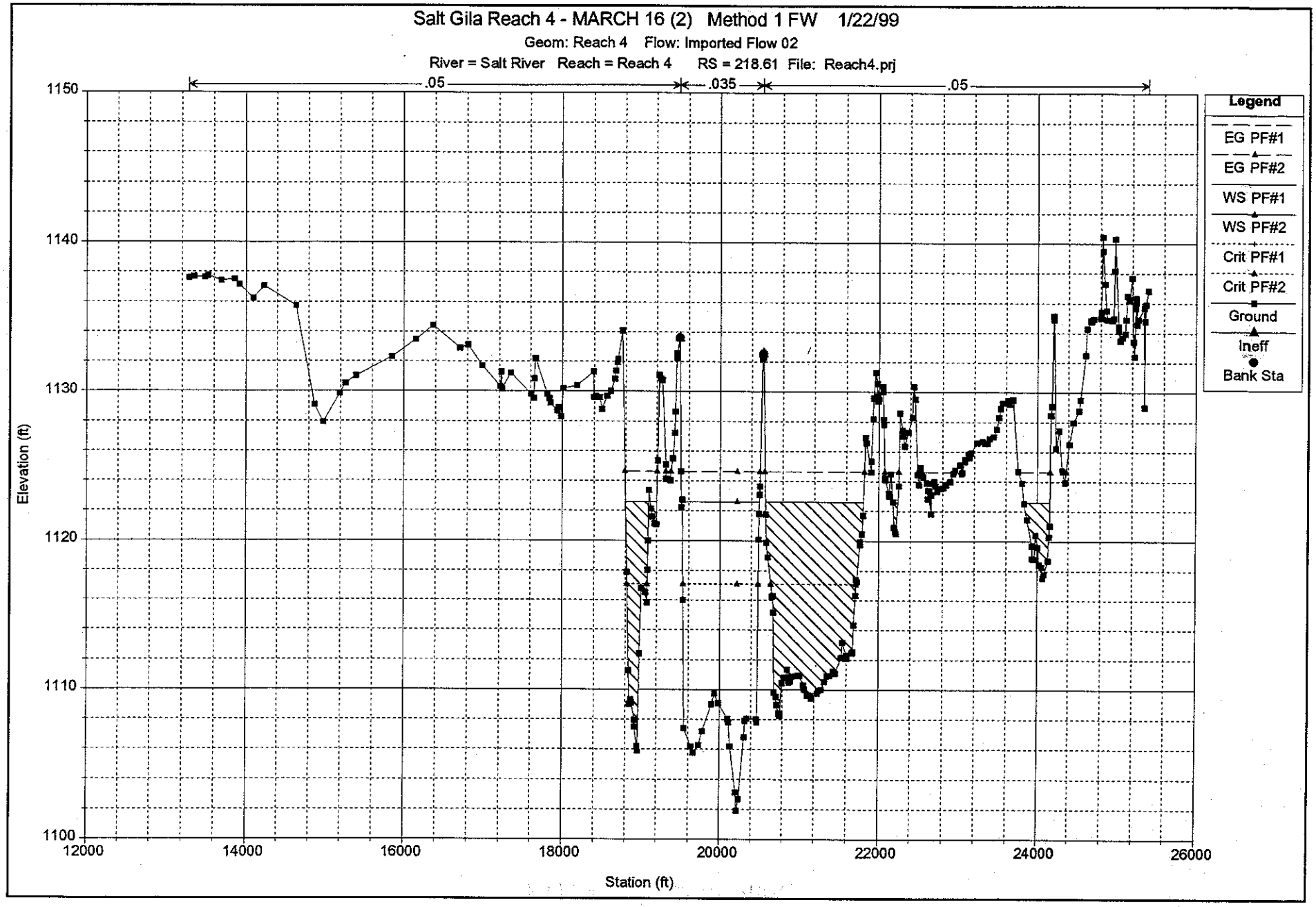

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 SR 153 RS = 218.965 File: Reach4.prj
.035
.05
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1160
1150
1140
1130
1120
1110
1100
19400
19600
19800
20000
20200
20400
20600
20800
Station (ft)

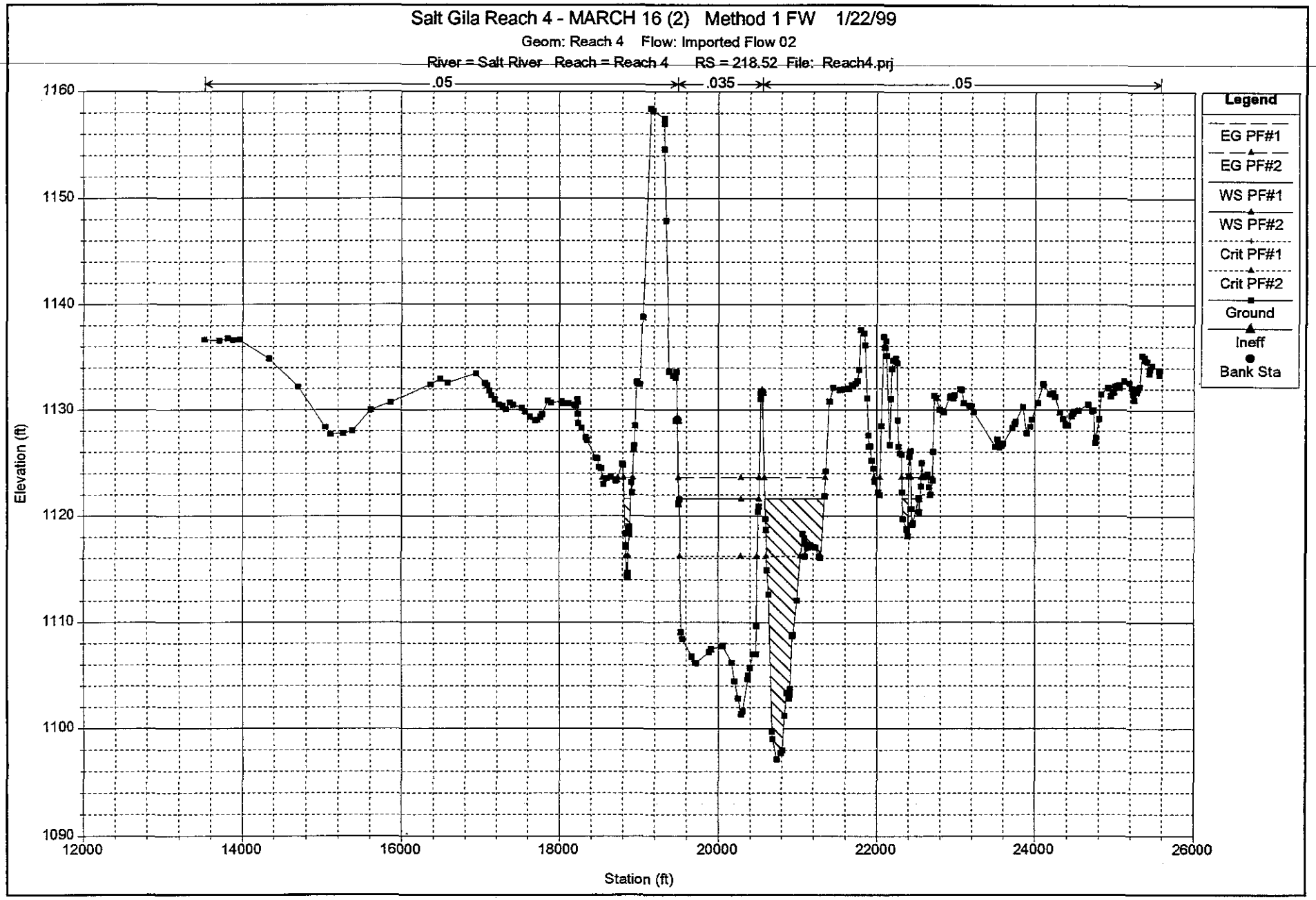

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 SR 153 RS = 218.965 File: Reach4.prj
.035
.05
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1160
1150
1140
1130
1120
1110
1100
19400
19600
19800
20000
20200
20400
20600
20800
Station (ft)

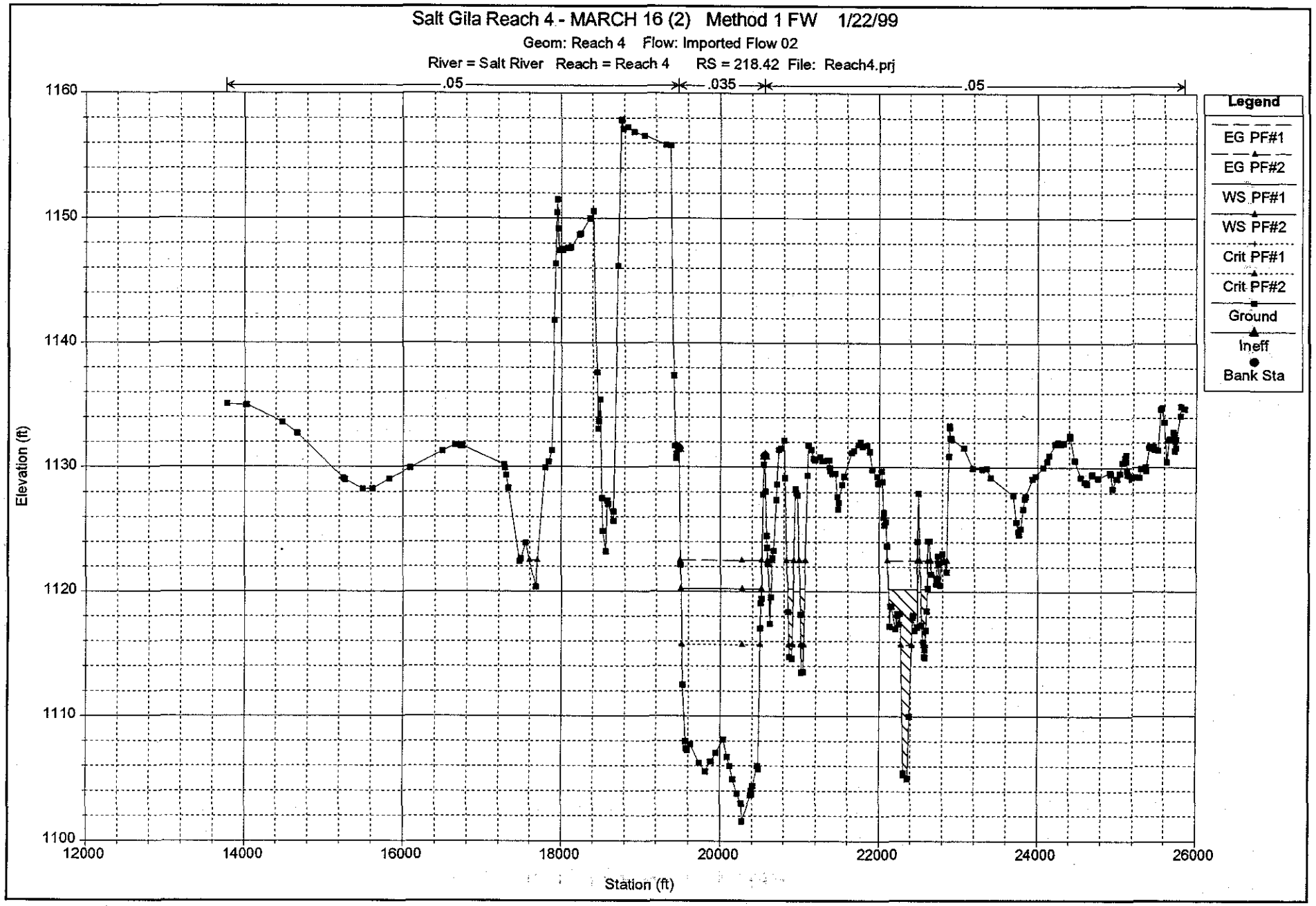

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Downsteam face of SR 153 Bridge RS = 218.96 File: Reach4.prj
.035
.05
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1140
1135
1130
1125
1120
1115
1110
1105
19400
19600
19800
20000
20200
20400
20600
20800
Station (ft)

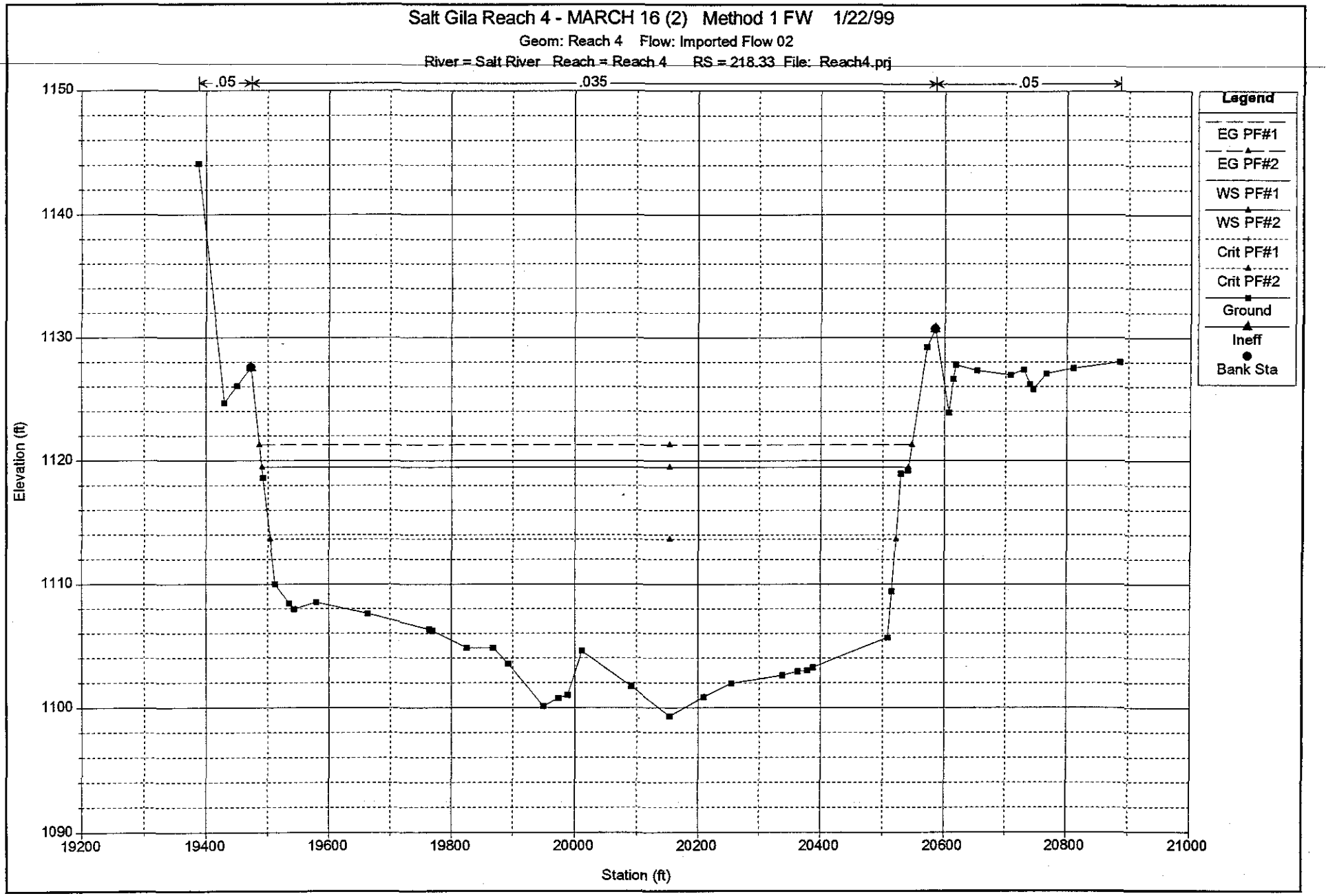

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 218.80 File: Reach4.prj
.05
.035
.05
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1150
1140
1130
1120
1110
1100
19000
20000
21000
22000
23000
24000
25000
Station (ft)

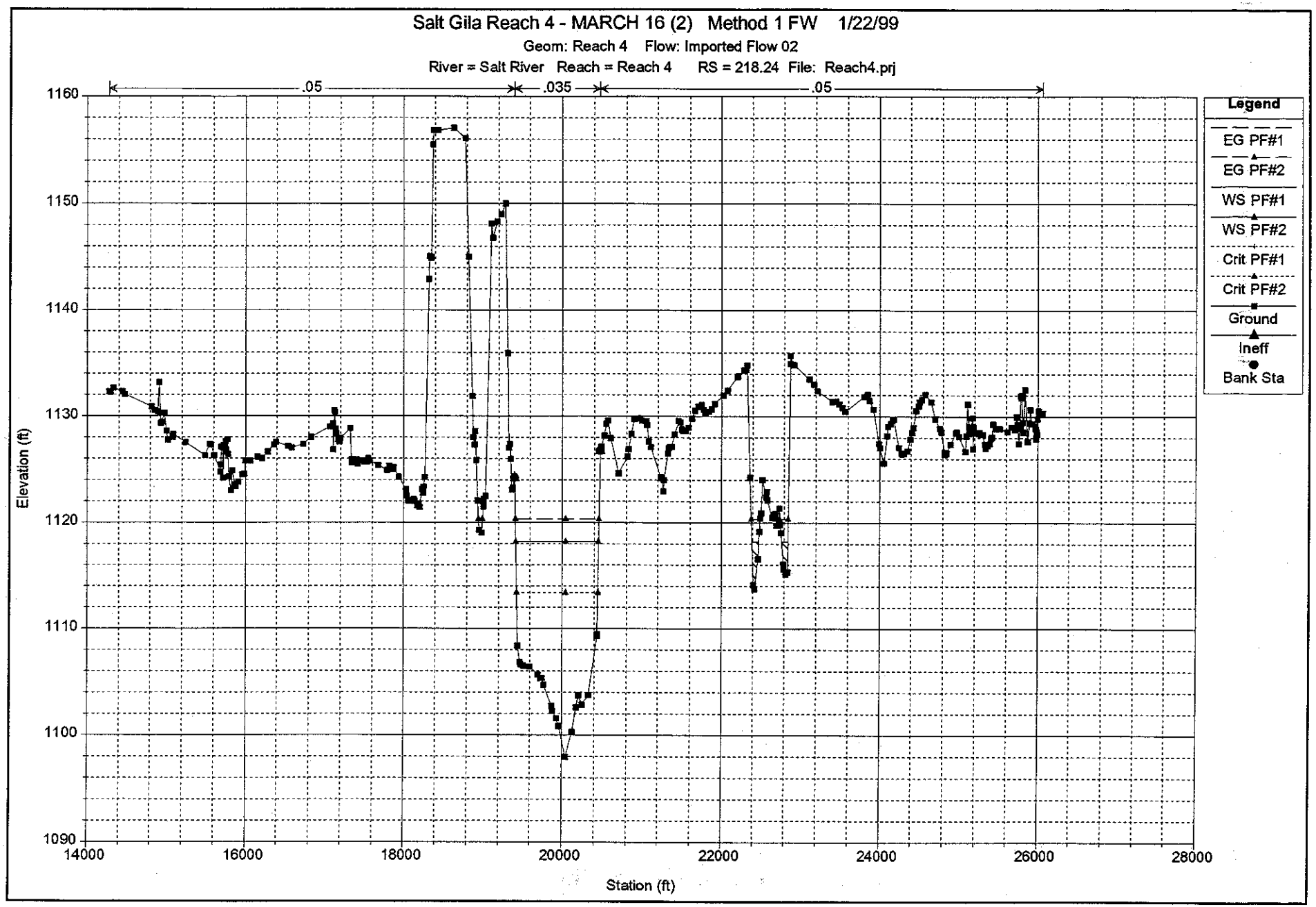

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 218.71 File: Reach4.prj
.05
.035
.05
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1140
1135
1130
1125
1120
1115
1110
1105
12000
14000
16000
18000
20000
22000
24000
26000
Station (ft)

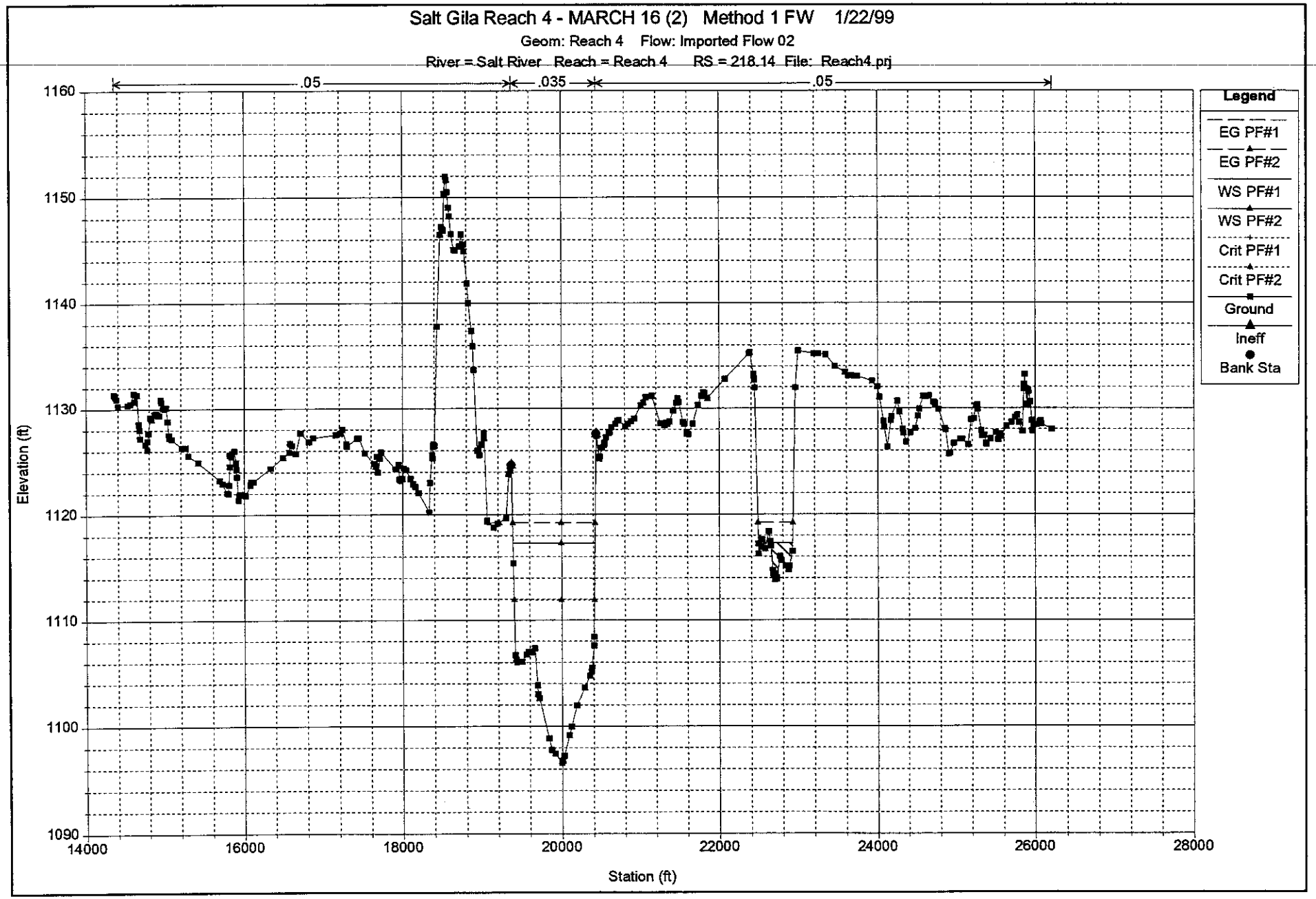

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 218.61 File: Reach4.prj
.05
.035
.05
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1150
1140
1130
1120
1110
1100
12000
14000
16000
18000
20000
22000
24000
26000
Station (ft)

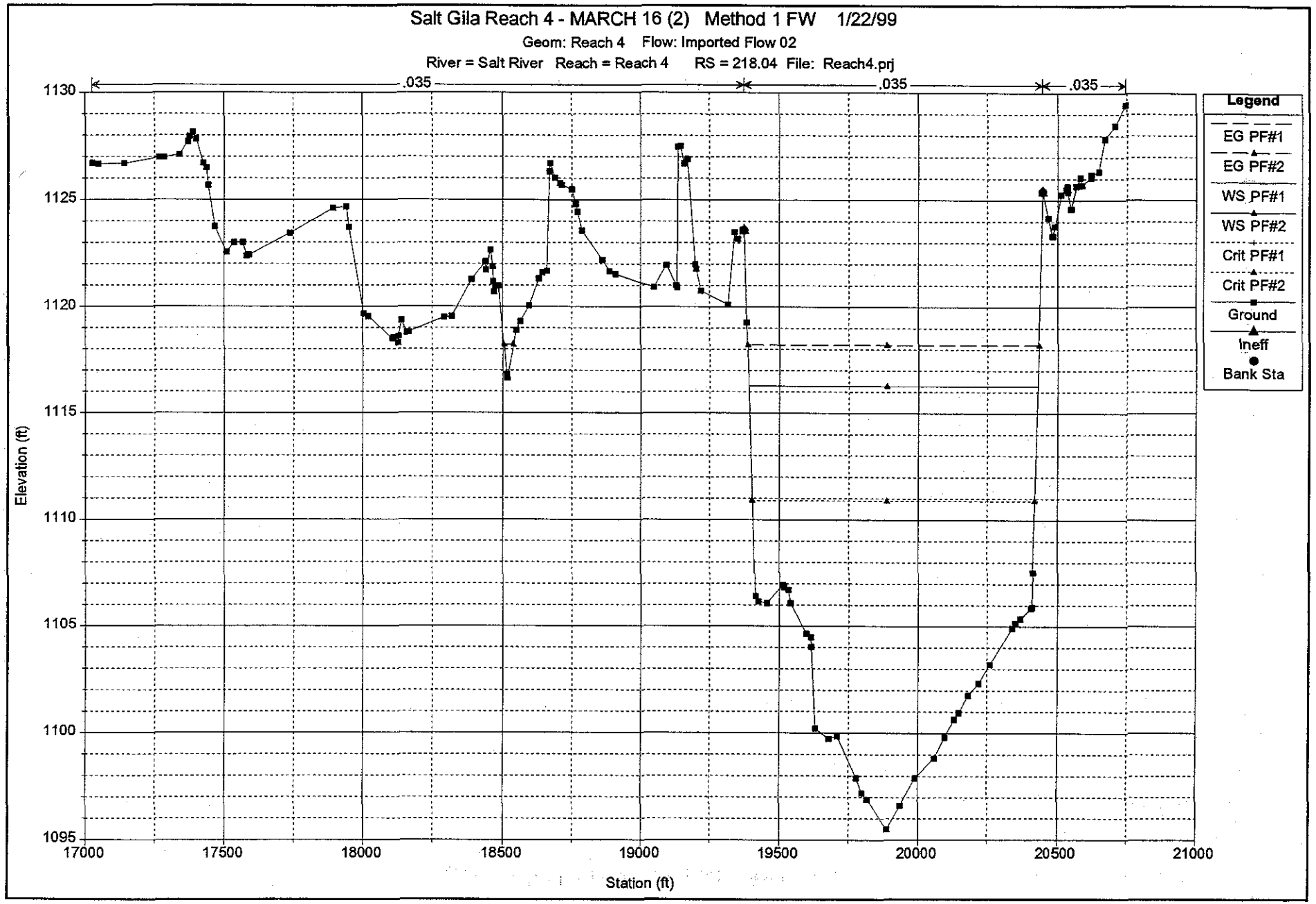

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 218.52 File: Reach4.prj
.05
.035
.05
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1160
1150
1140
1130
1120
1110
1100
1090
12000
14000
16000
18000
20000
22000
24000
26000
Station (ft)

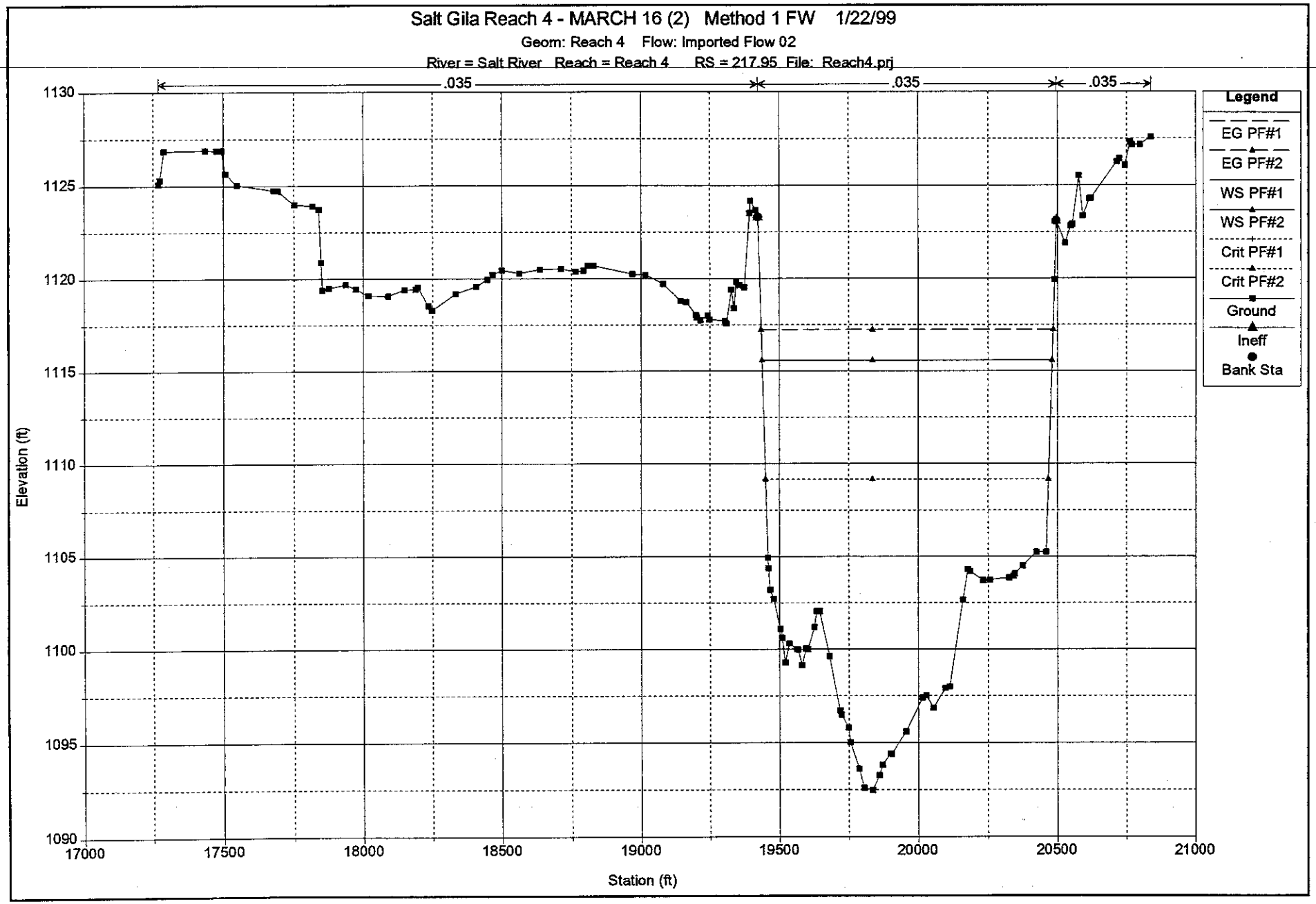

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 218.42 File: Reach4.prj
.05
.035
.05
Elevation (ft)
1160
1150
1140
1130
1120
1110
1100
12000
14000
16000
18000
20000
22000
24000
26000
Station (ft)
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

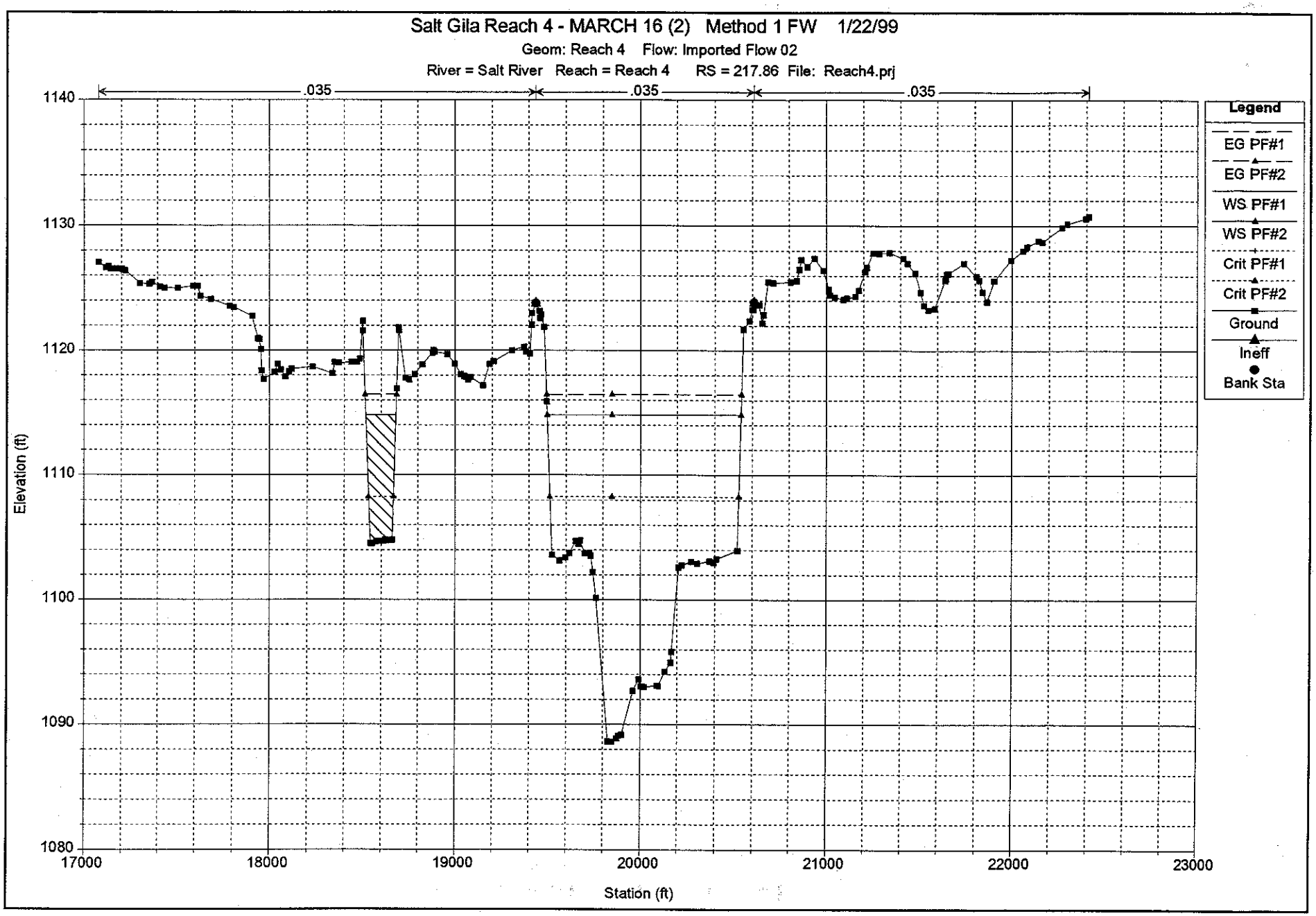

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 218.33 File: Reach4.prj
.05
.035
.05
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1150
1140
1130
1120
1110
1100
1090
19200
19400
19600
19800
20000
20200
20400
20600
20800
21000
Station (ft)

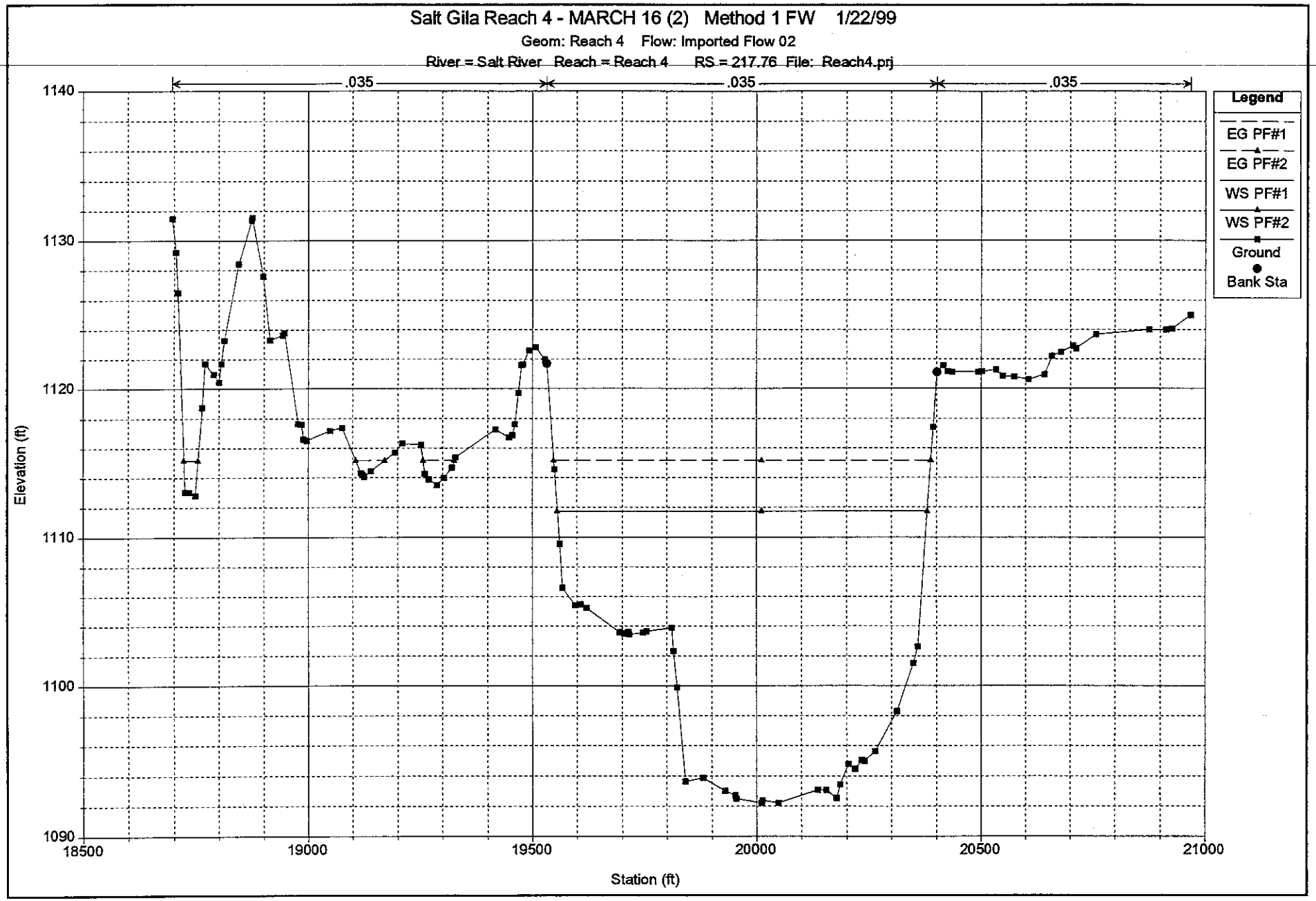

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 218.24 File: Reach4.prj
.05
.035
.05
Elevation (ft)
1160
1150
1140
1130
1120
1110
1100
1090
14000
16000
18000
20000
22000
24000
26000
28000
Station (ft)
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

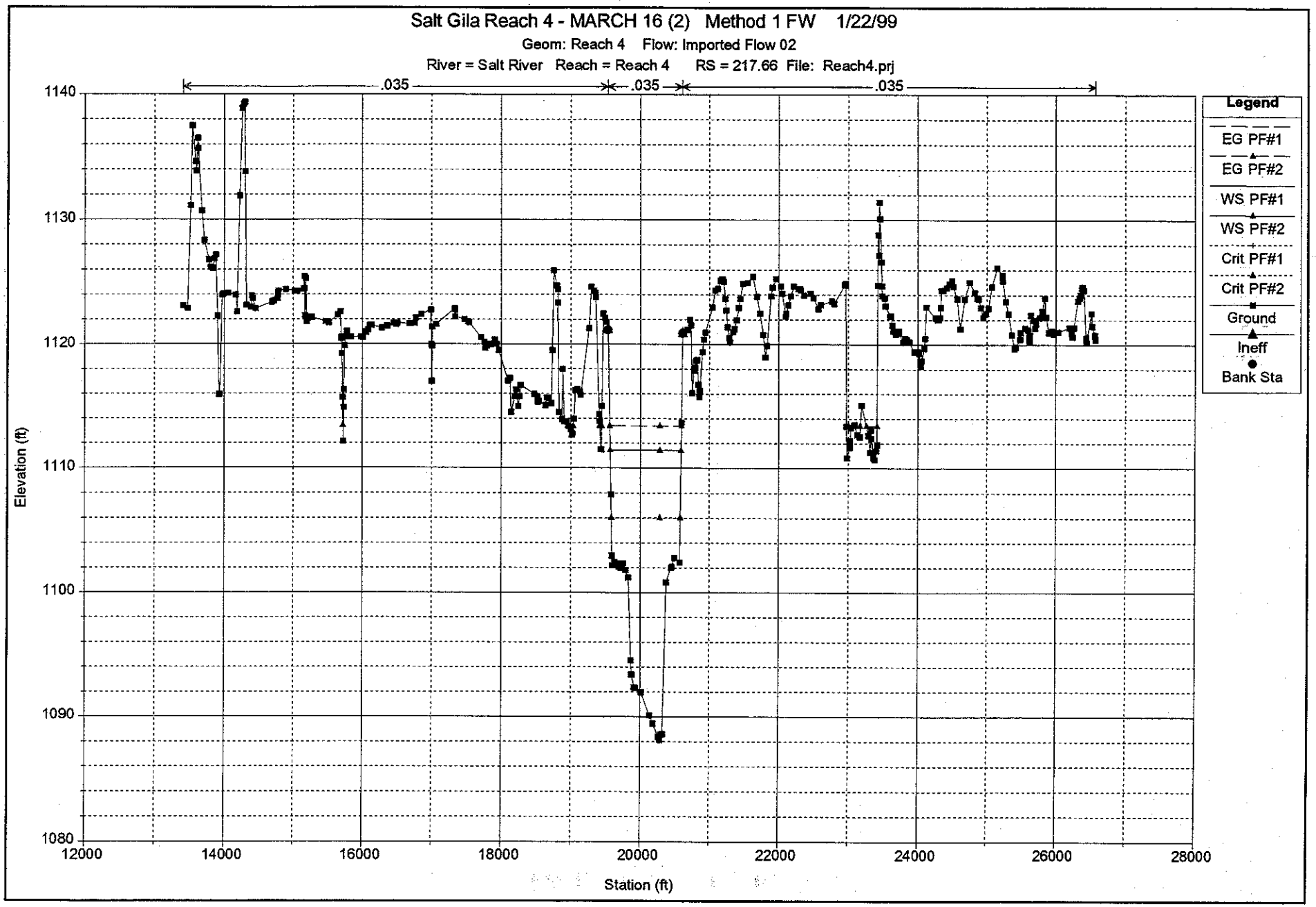

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 218.14 File: Reach4.prj
.05
.035
.05
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1160
1150
1140
1130
1120
1110
1100
1090
14000
16000
18000
20000
22000
24000
26000
28000
Station (ft)

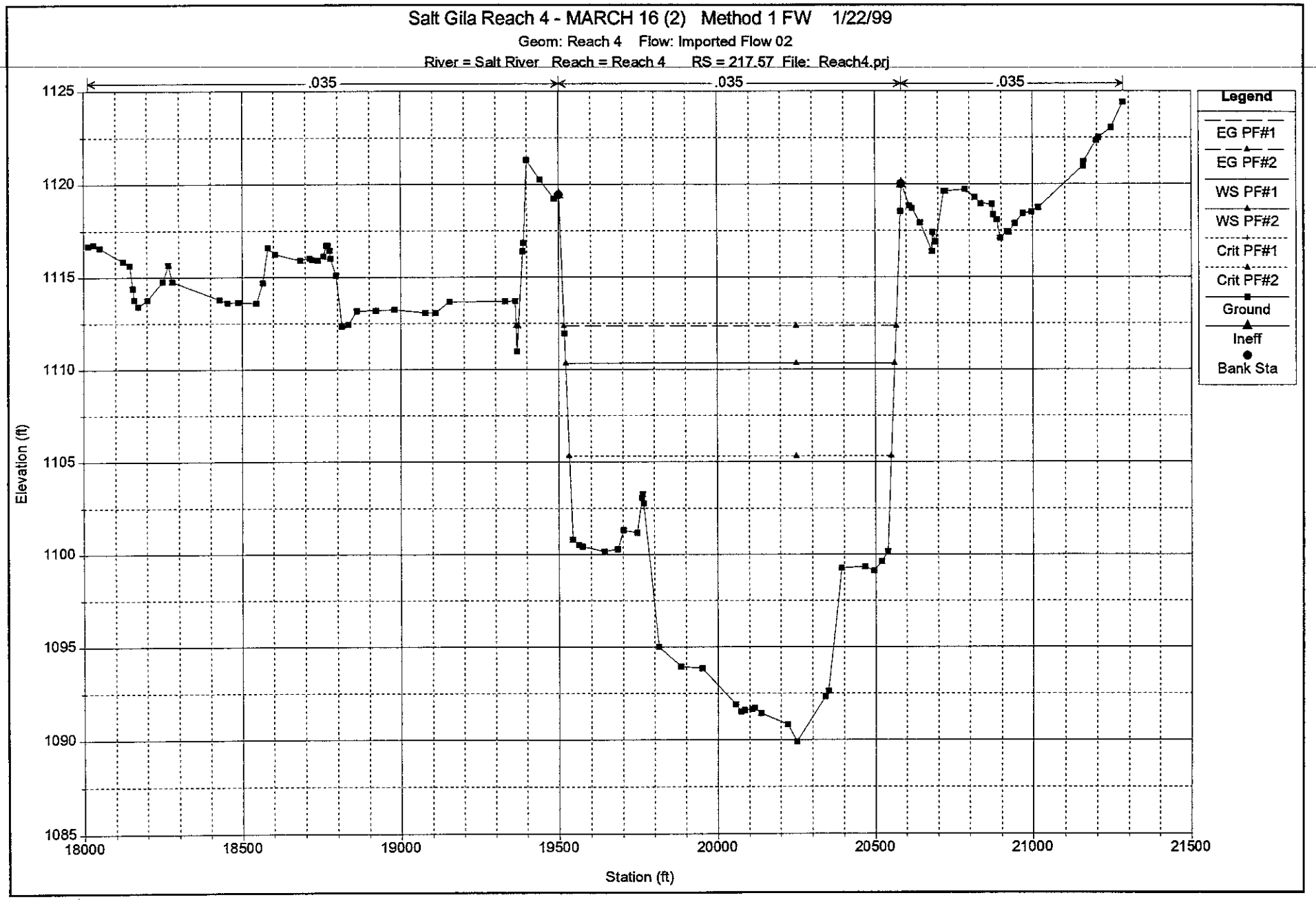

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 218.04 File: Reach4.prj
.035
.035
.035
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1130
1125
1120
1115
1110
1105
1100
1095
17000
17500
18000
18500
19000
19500
20000
20500
21000
Station (ft)

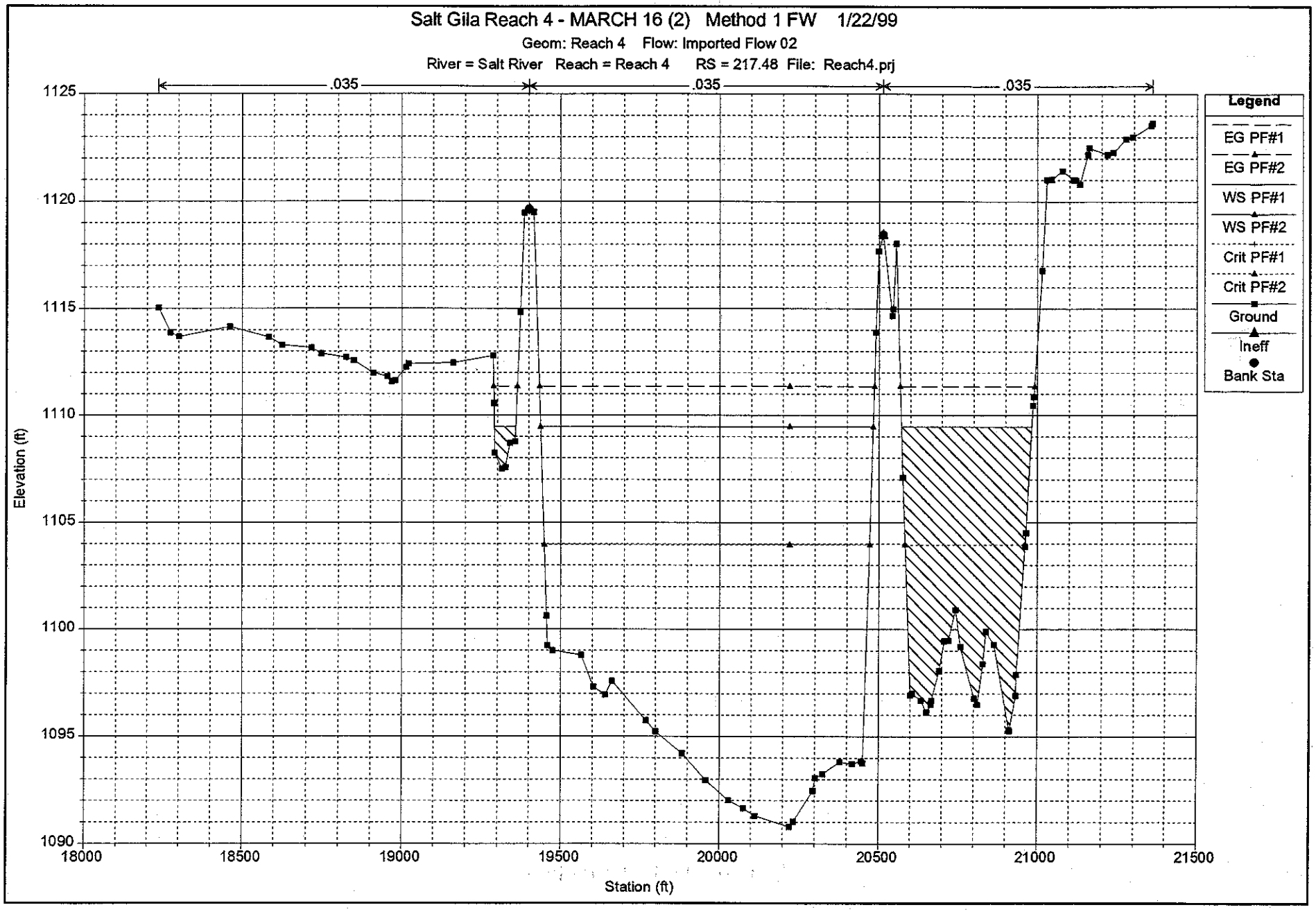

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 217.95 File: Reach4.prj
.035
.035
.035
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1130
1125
1120
1115
1110
1105
1100
1095
1090
17000
17500
18000
18500
19000
19500
20000
20500
21000
Station (ft)

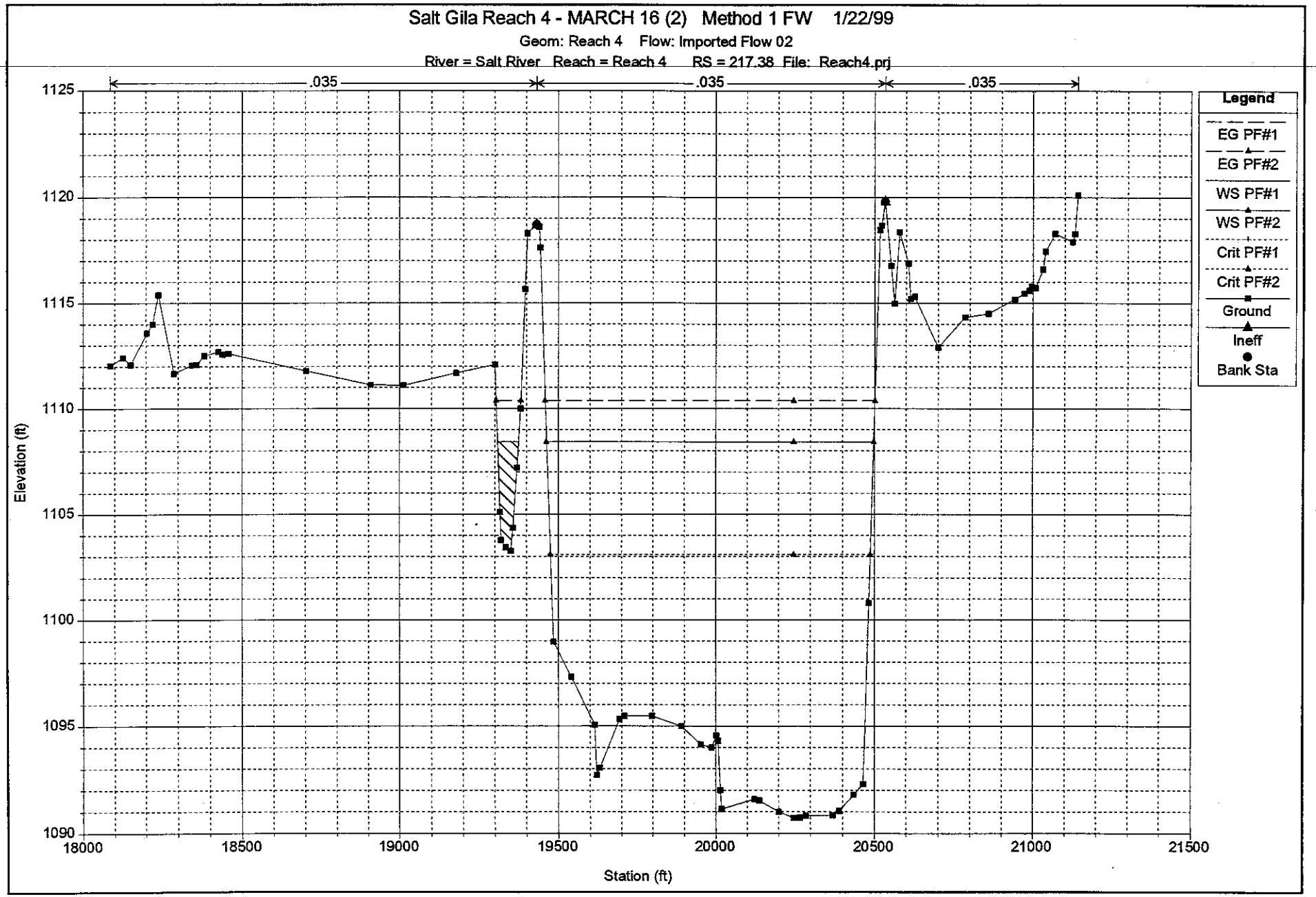

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 217.86 File: Reach4.prj
.035
.035
.035
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1140
1130
1120
1110
1100
1090
1080
17000
18000
19000
20000
21000
22000
23000
Station (ft)

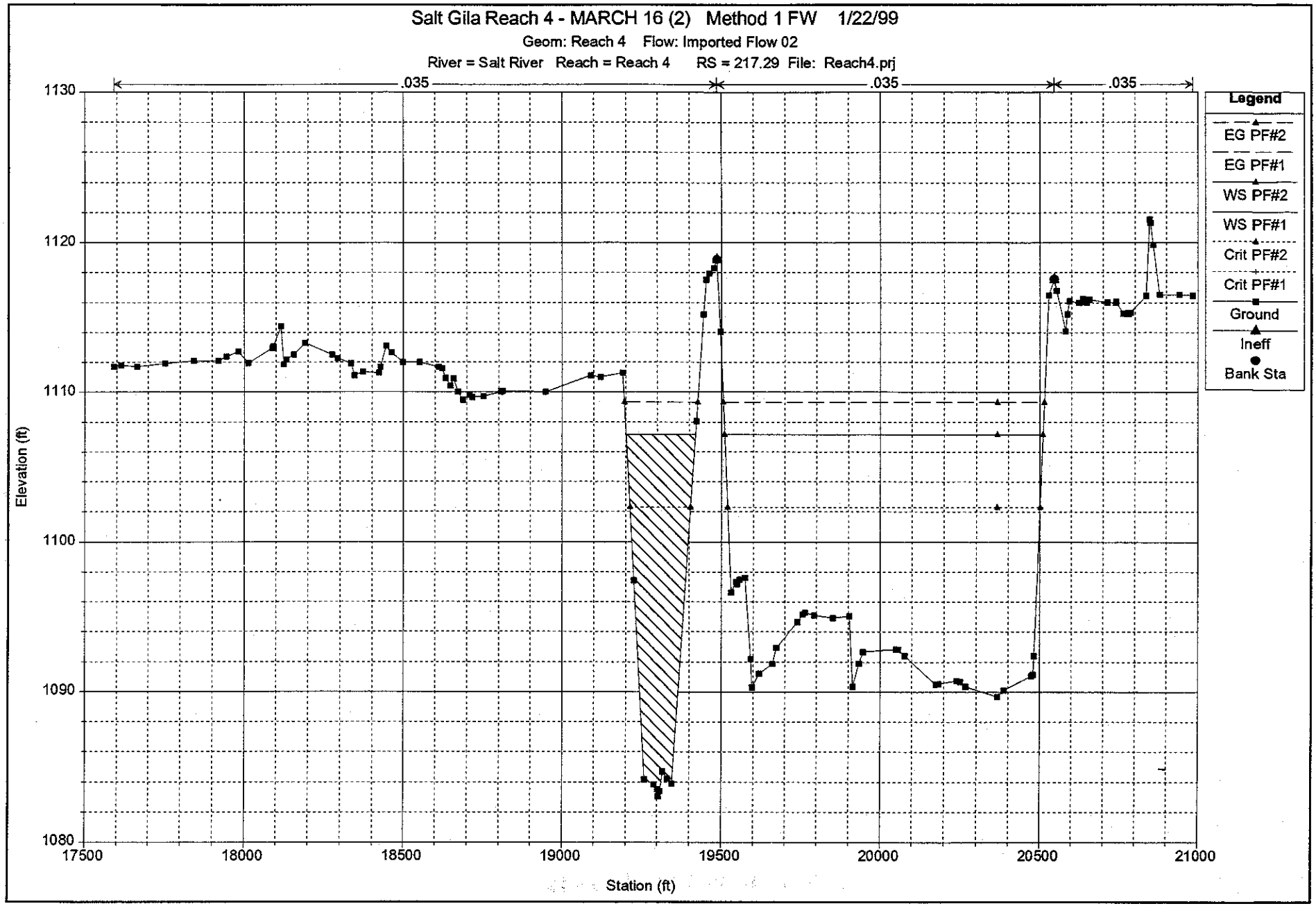

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 217.76 File: Reach4.prj
.035
.035
.035
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Ground
Bank Sta
Elevation (ft)
1140
1130
1120
1110
1100
1090
18500
19000
19500
20000
20500
21000
Station (ft)

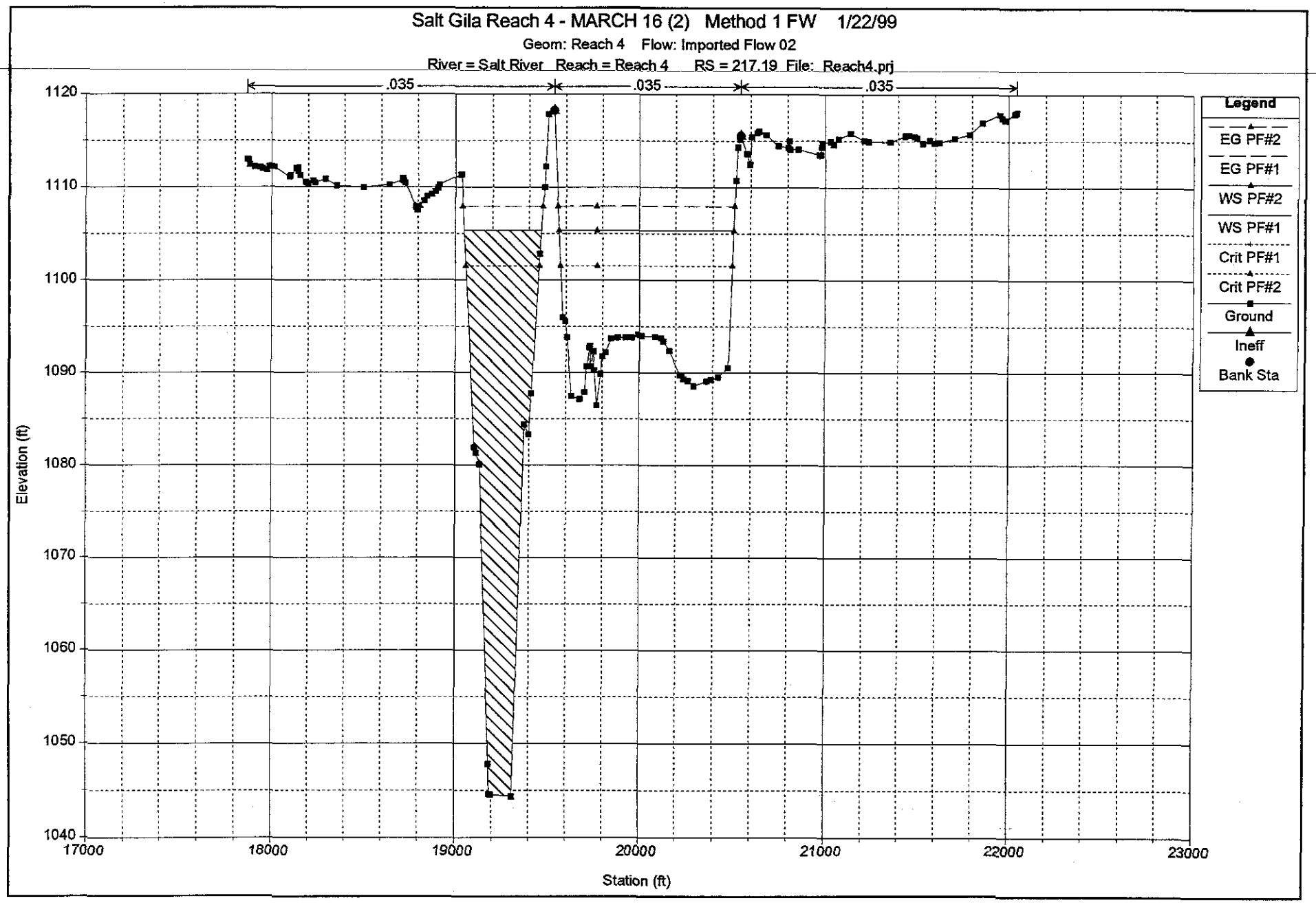

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 217.66 File: Reach4.prj
.035
.035
.035
Elevation (ft)
1140
1130
1120
1110
1100
1090
1080
12000
14000
16000
18000
20000
22000
24000
26000
28000
Station (ft)
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

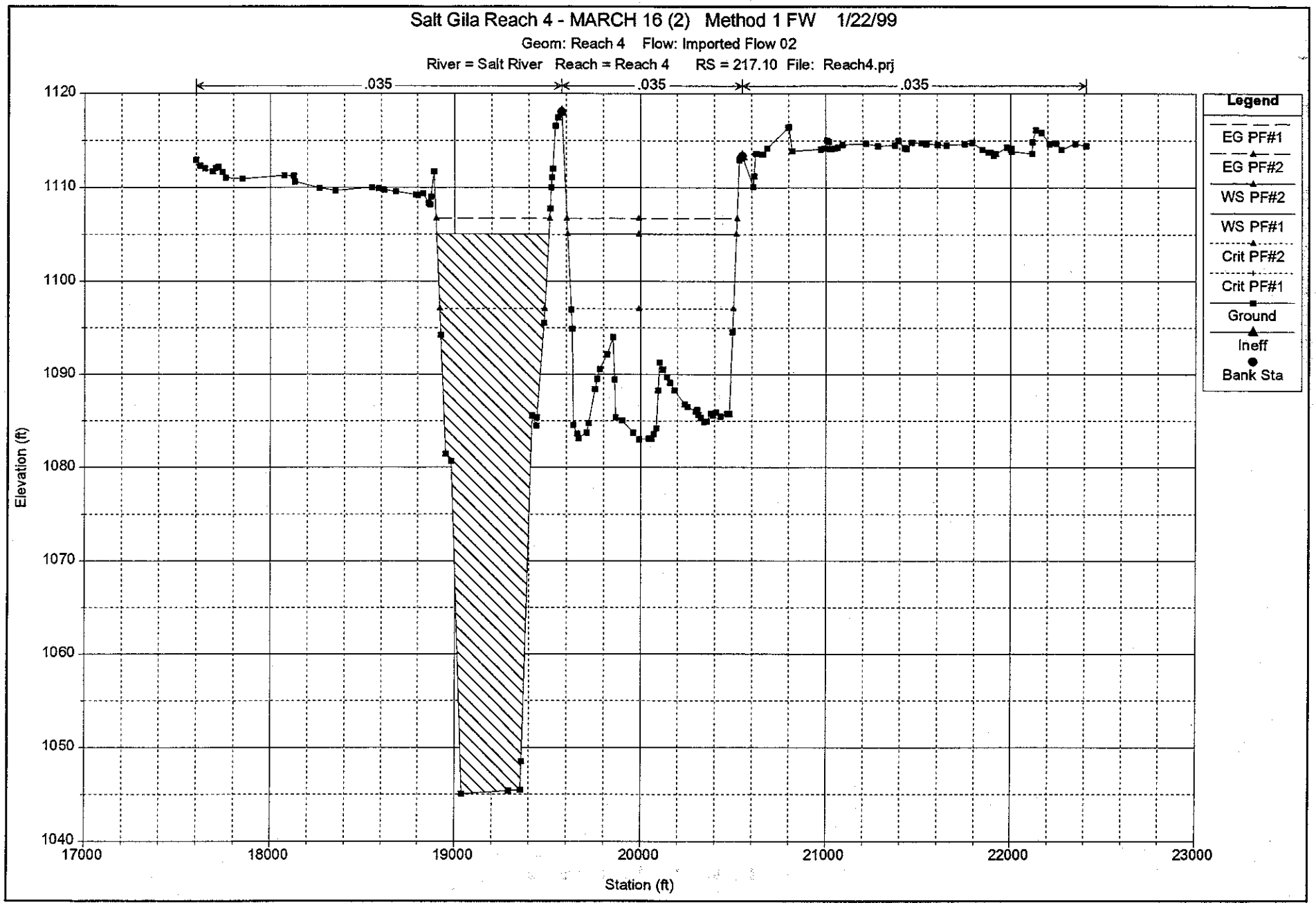

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 217.57 File: Reach4.prj
.035
.035
.035
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1125
1120
1115
1110
1105
1100
1095
1090
1085
18000
18500
19000
19500
20000
20500
21000
21500
Station (ft)

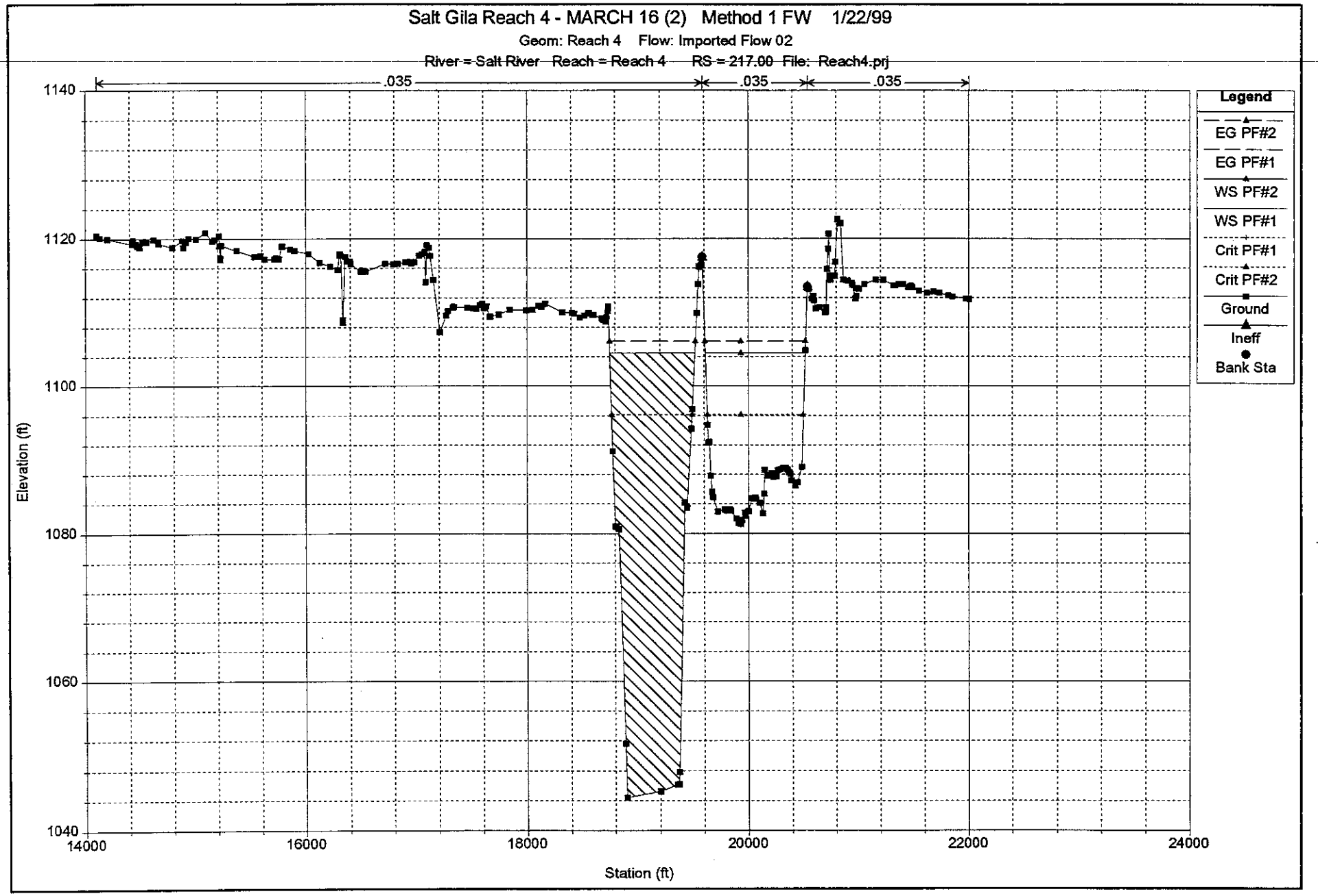

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 217.48 File: Reach4.prj
.035
.035
.035
Elevation (ft)
1125
1120
1115
1110
1105
1100
1095
1090
18000
18500
19000
19500
20000
20500
21000
21500
Station (ft)
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

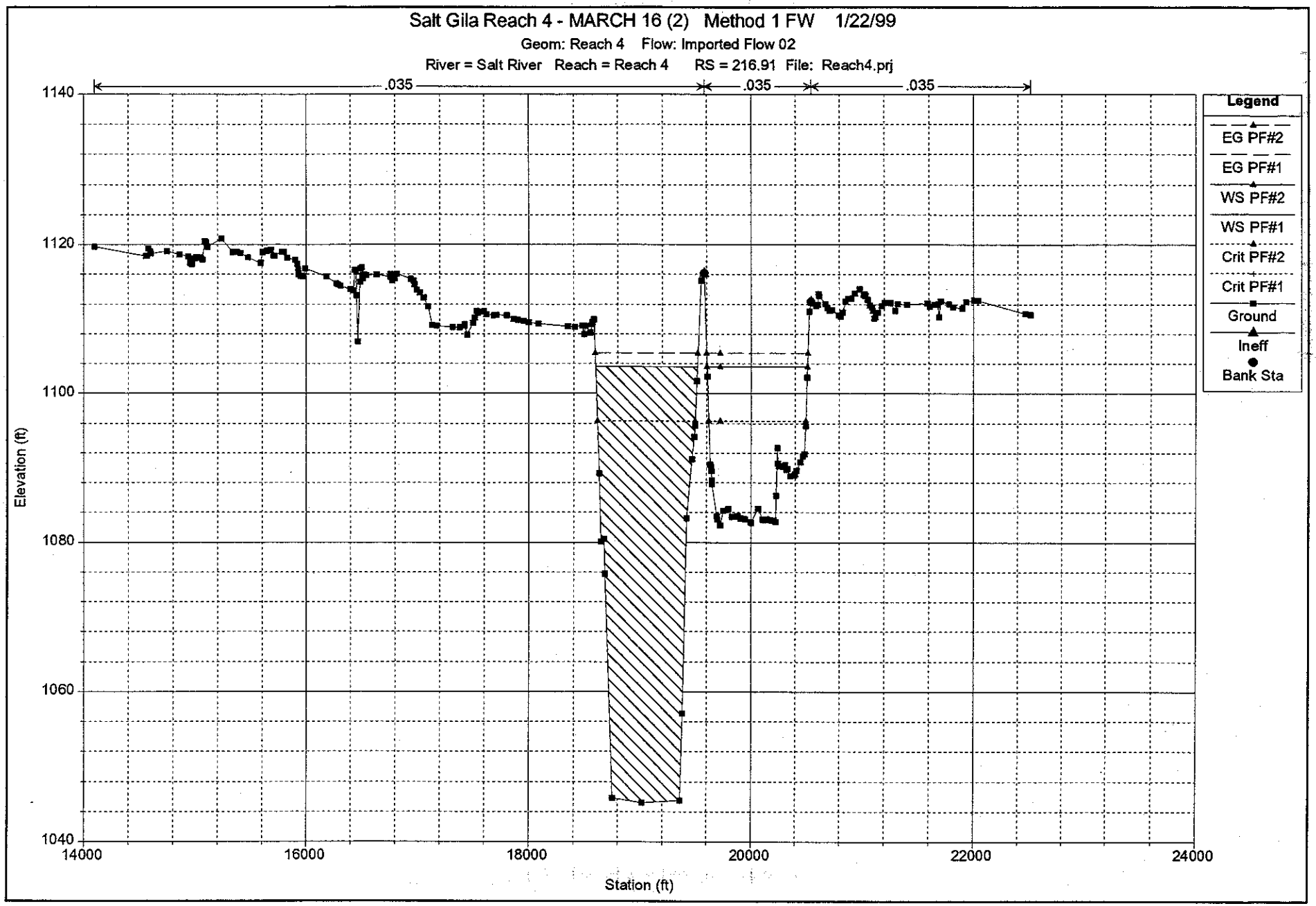

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 217.38 File: Reach4.prj
.035
.035
.035
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1125
1120
1115
1110
1105
1100
1095
1090
18000
18500
19000
19500
20000
20500
21000
21500
Station (ft)

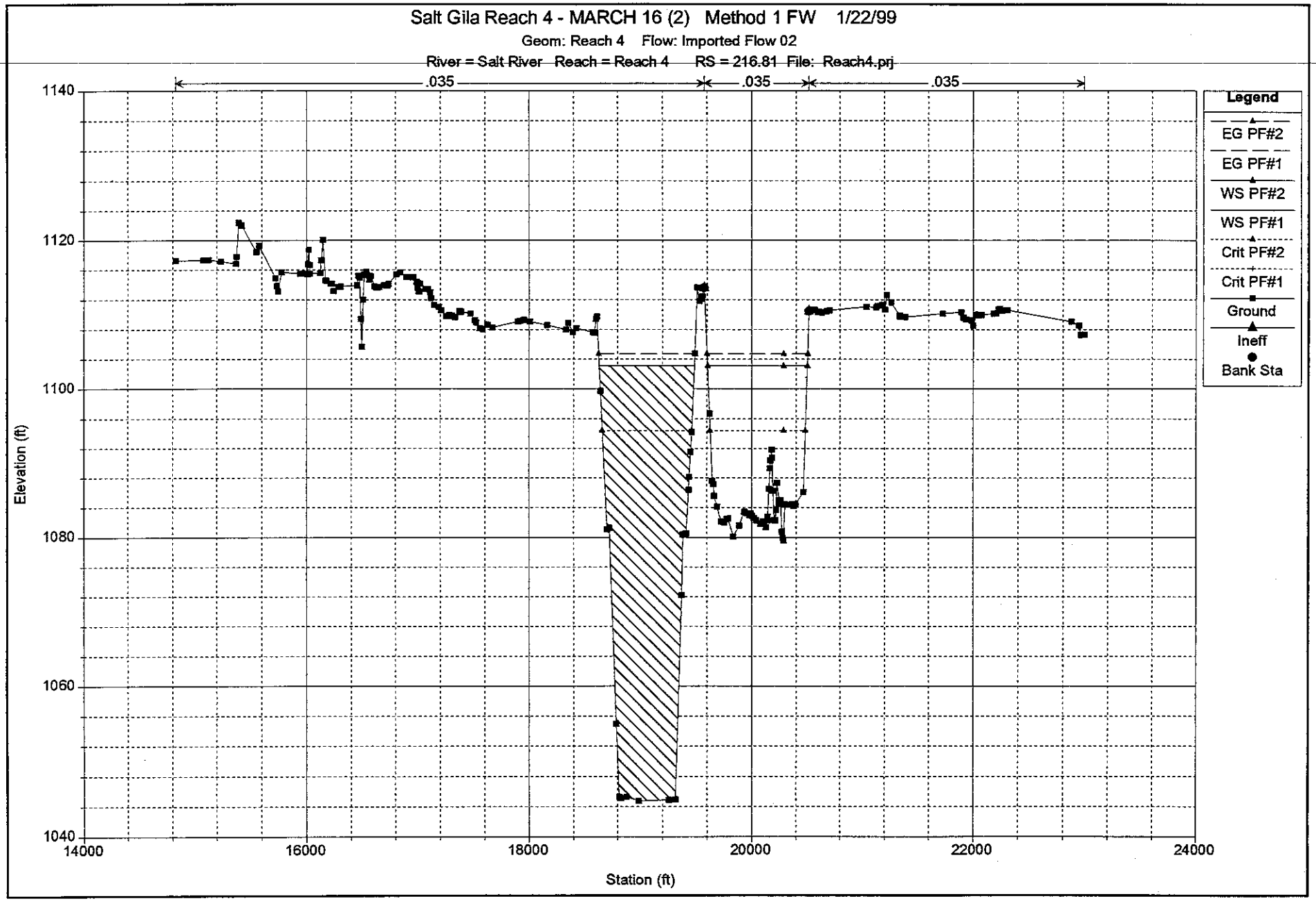

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 217.29 File: Reach4.prj
.035
.035
.035
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1130
1120
1110
1100
1090
1080
17500
18000
18500
19000
19500
20000
20500
21000
Station (ft)

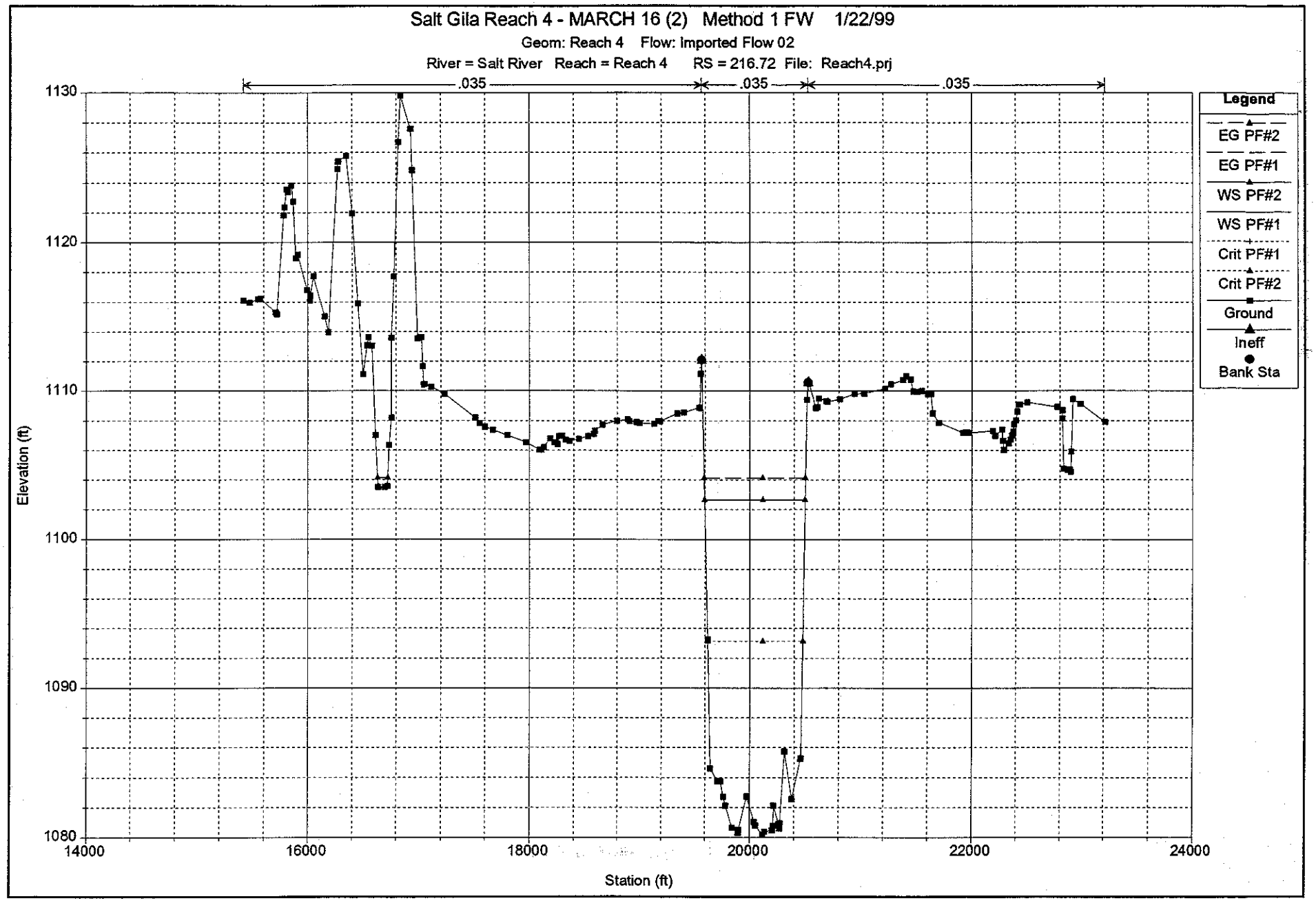

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 217.19 File: Reach4.prj
.035
.035
.035
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1120
1110
1100
1090
1080
1070
1060
1050
1040
17000
18000
19000
20000
21000
22000
23000
Station (ft)

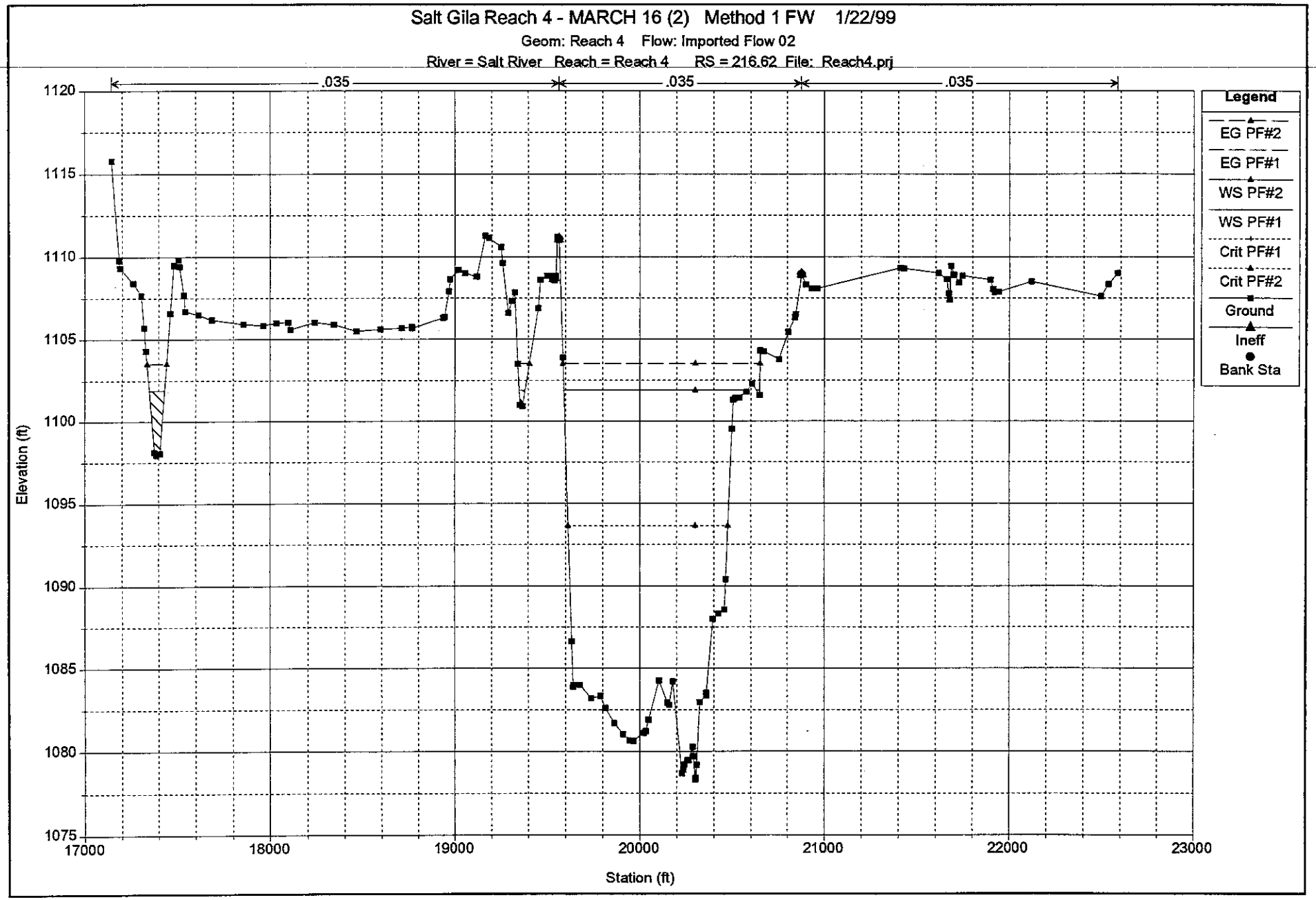

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 217.10 File: Reach4.prj
.035
.035
.035
Elevation (ft)
1120
1110
1100
1090
1080
1070
1060
1050
1040
17000
18000
19000
20000
21000
22000
23000
Station (ft)
Legend
EG PF#1
EG PF#2
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta

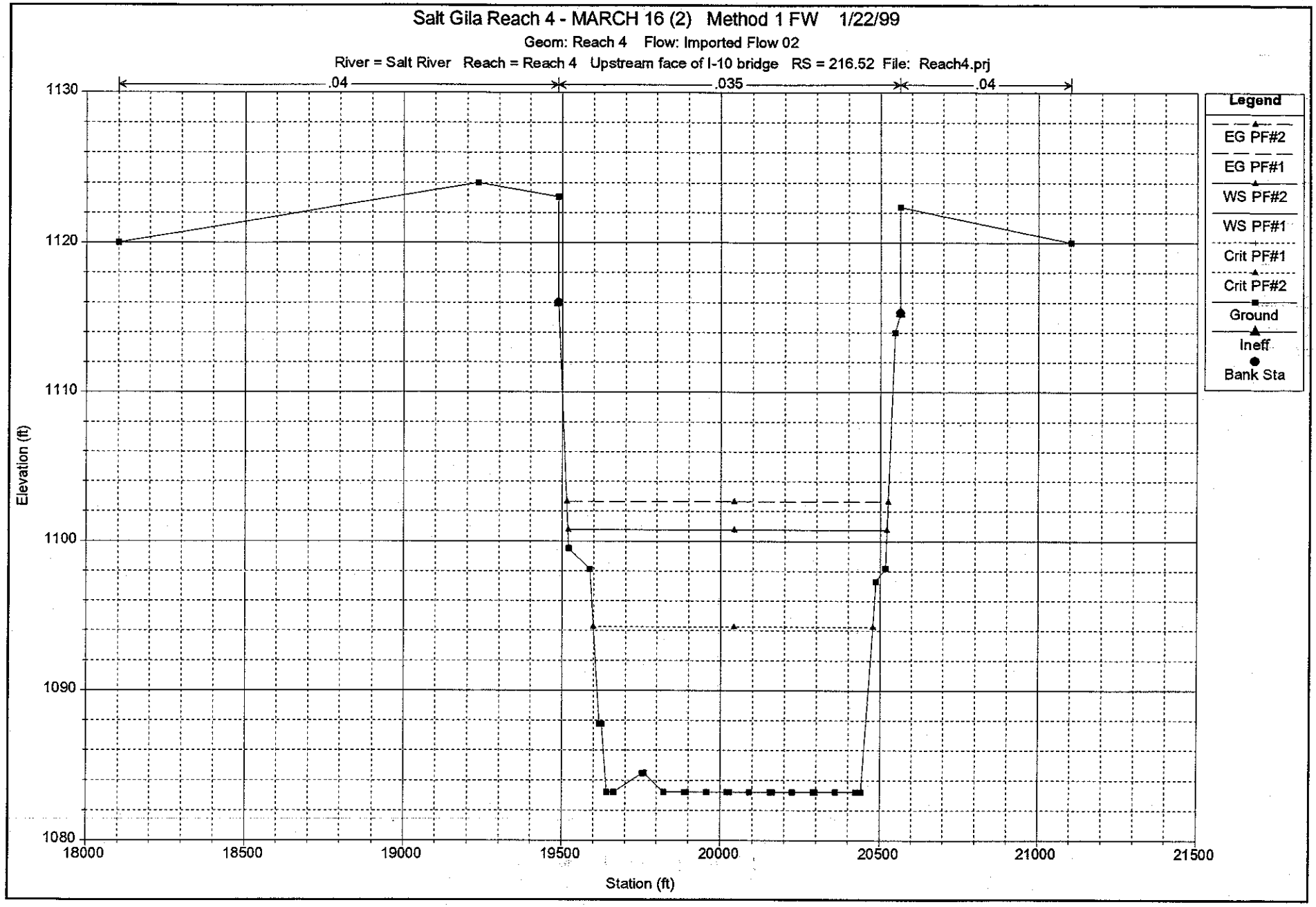

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 217.00 File: Reach4.prj
.035
.035
.035
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1140
1120
1100
1080
1060
1040
14000
16000
18000
20000
22000
24000
Station (ft)

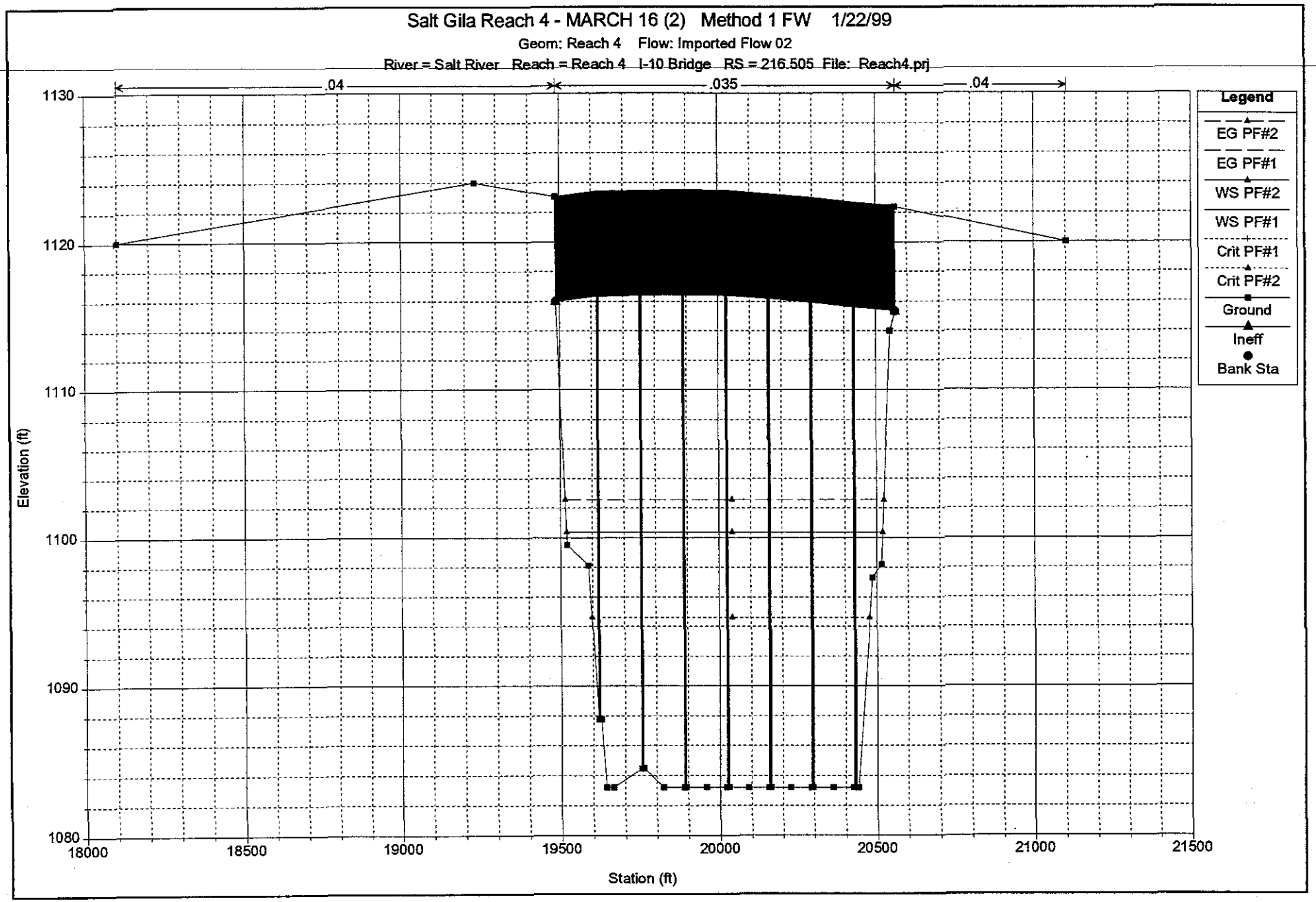

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 216.91 File: Reach4.prj
.035
.035
.035
1140
1120
1100
1080
1060
1040
Elevation (ft)
14000
16000
18000
20000
22000
24000
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta

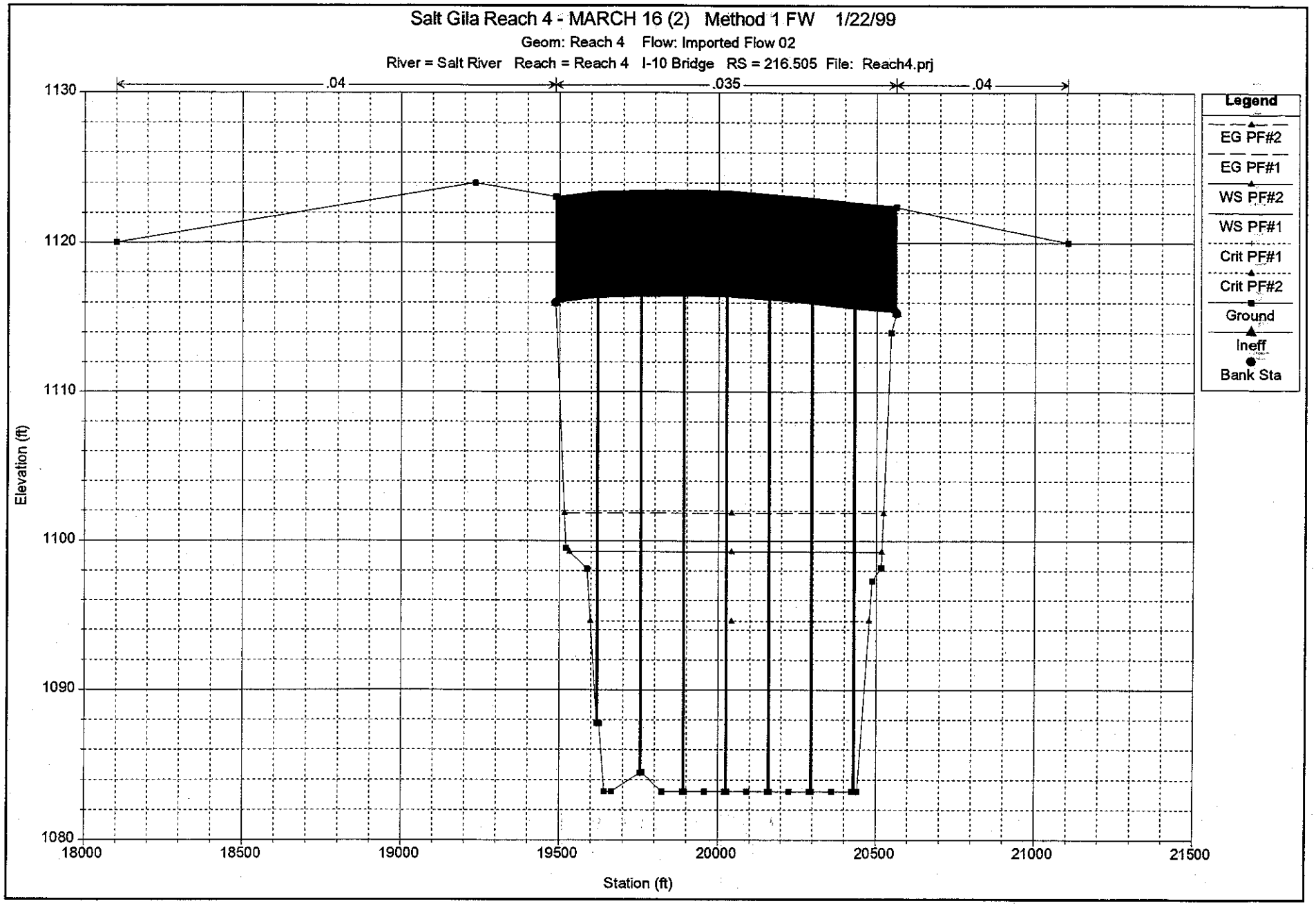

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 216.81 File: Reach4.prj
.035
.035
.035
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1140
1120
1100
1080
1060
1040
14000
16000
18000
20000
22000
24000
Station (ft)


Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 216.72 File: Reach4.prj
.035
.035
.035
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1130
1120
1110
1100
1090
1080
14000
16000
18000
20000
22000
24000
Station (ft)

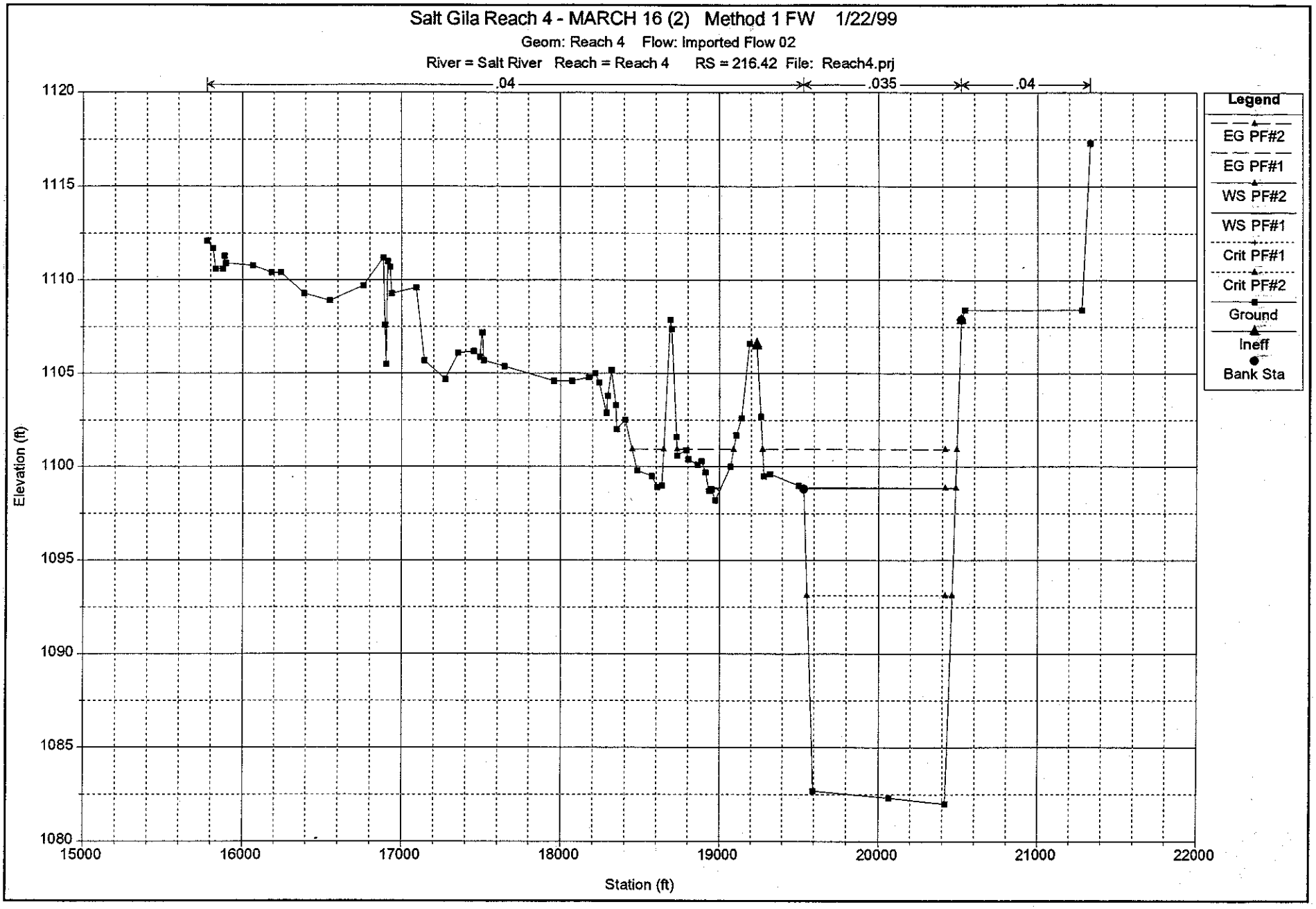

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 216.62 File: Reach4.prj
.035
.035
.035
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1120
1115
1110
1105
1100
1095
1090
1085
1080
1075
17000
18000
19000
20000
21000
22000
23000
Station (ft)

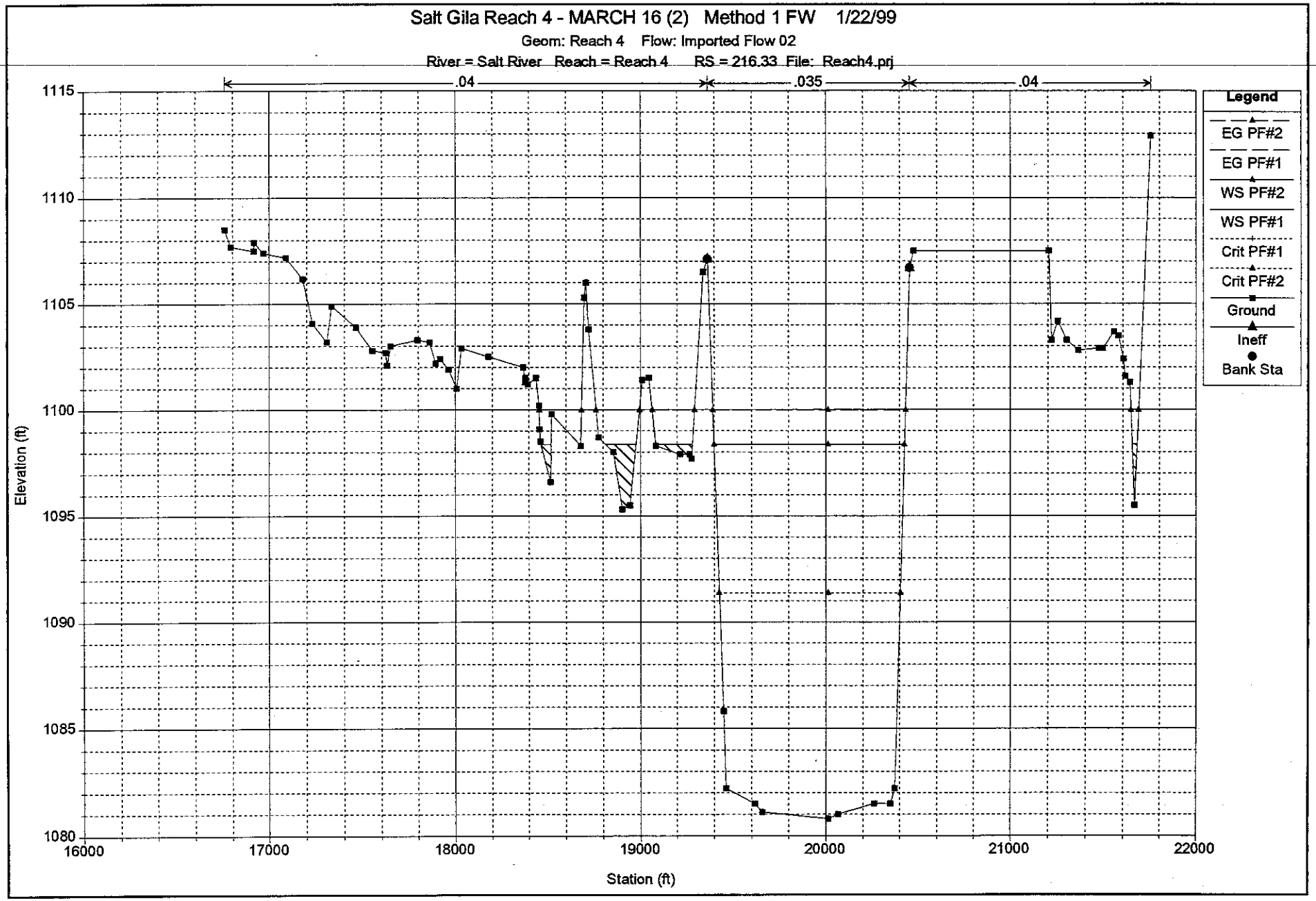

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Upstream face of I-10 bridge RS = 216.52 File: Reach4.prj
.04
.035
.04
Elevation (ft)
1130
1120
1110
1100
1090
1080
18000
18500
19000
19500
20000
20500
21000
21500
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

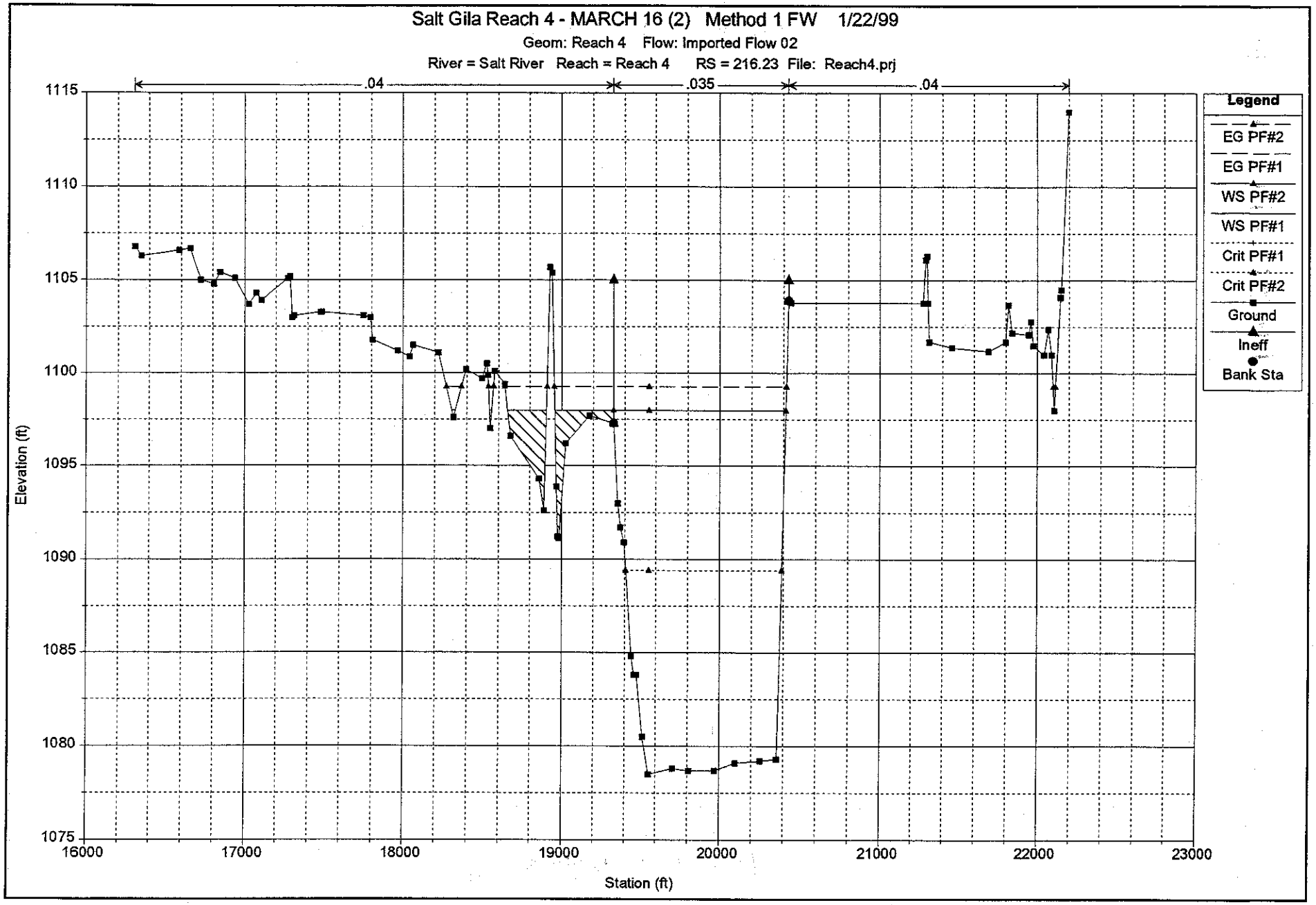

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 I-10 Bridge RS = 216.505 File: Reach4.prj
.04
.035
.04
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1130
1120
1110
1100
1090
1080
18000
18500
19000
19500
20000
20500
21000
21500
Station (ft)

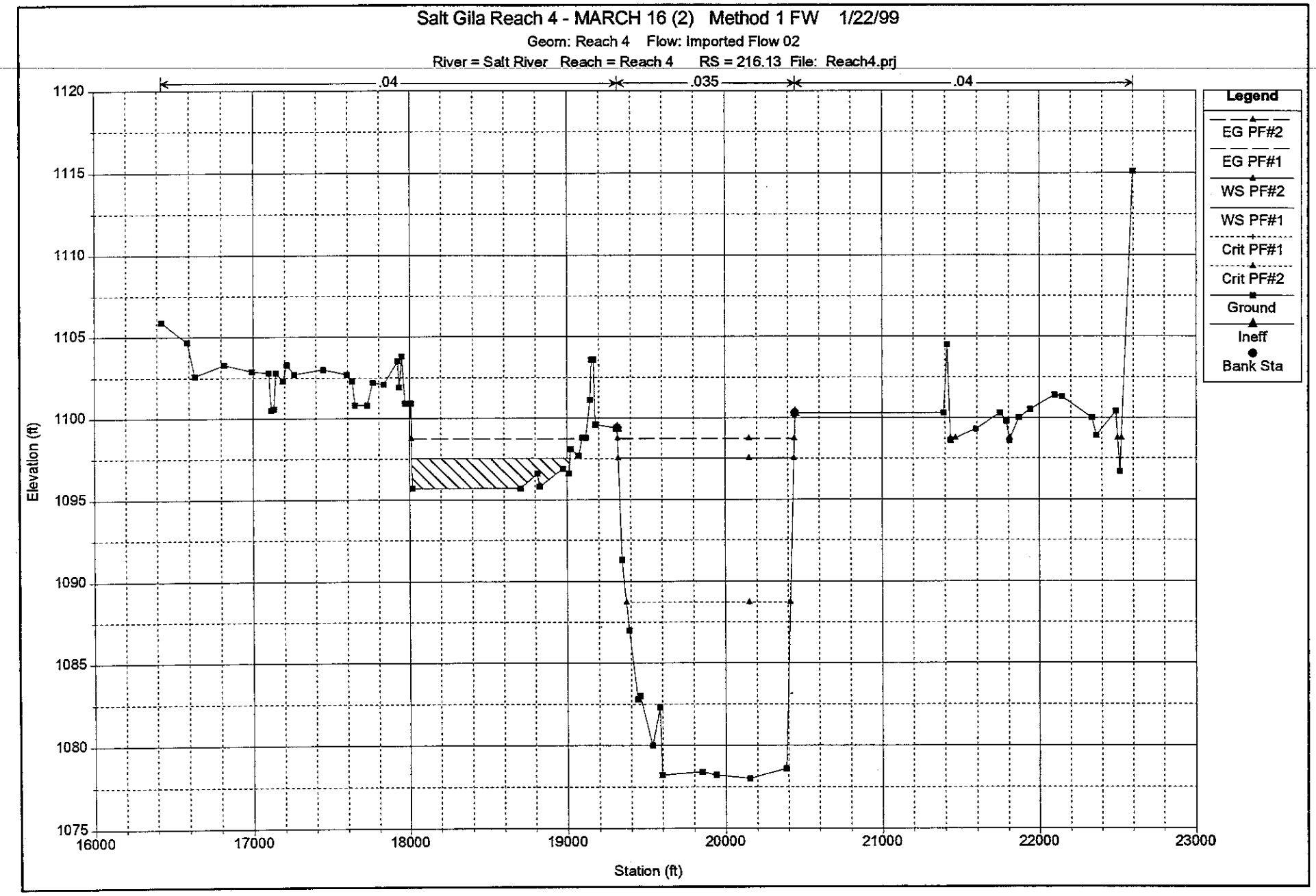

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 I-10 Bridge RS = 216.505 File: Reach4.prj
.04
.035
.04
1130
1120
1110
1100
1090
1080
Elevation (ft)
18000
18500
19000
19500
20000
20500
21000
21500
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

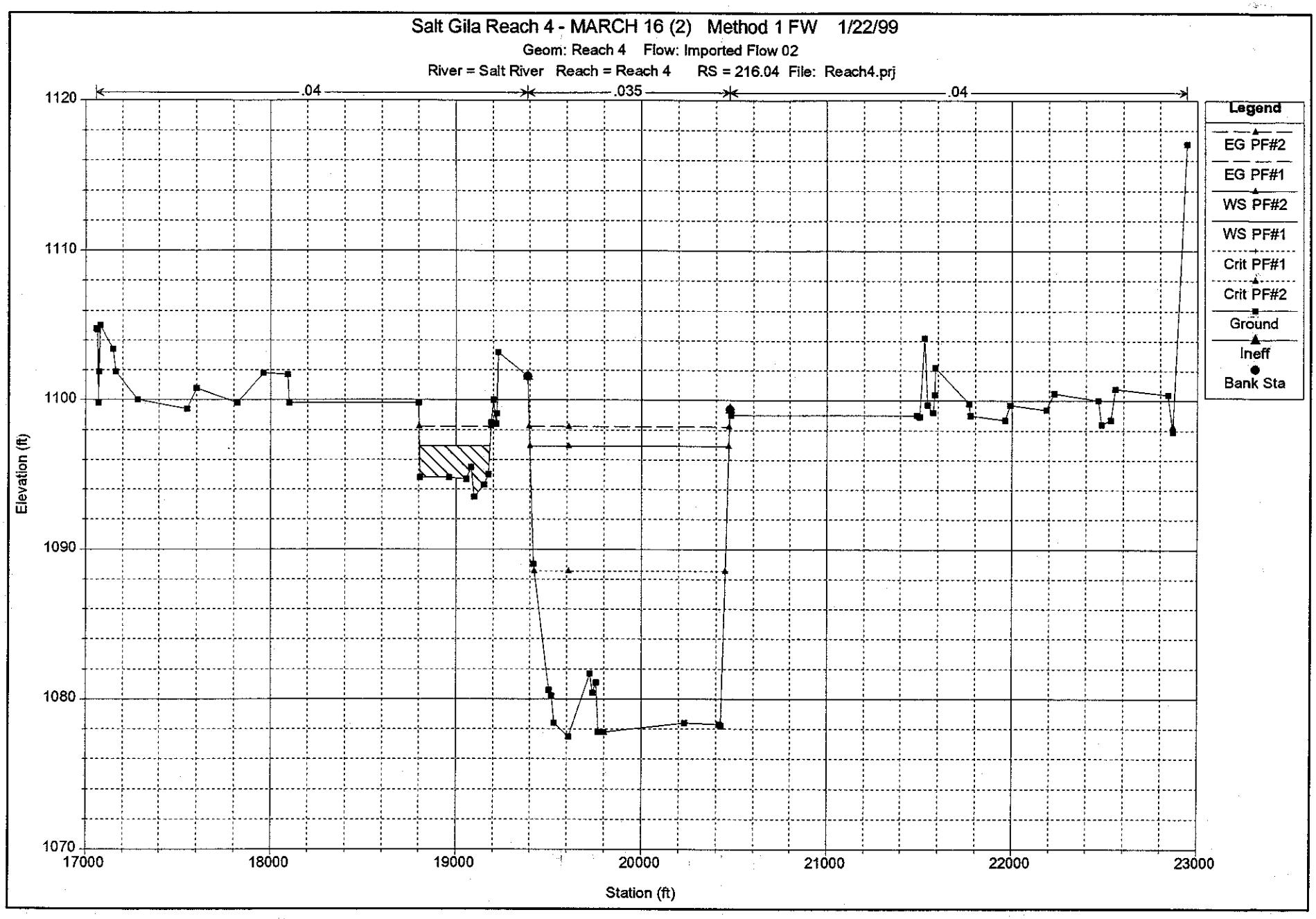
Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Downstream face of I-10 bridge RS = 216.49 File: Reach4.prj
.04
.035
.04
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1130
1120
1110
1100
1090
1080
18000
18500
19000
19500
20000
20500
21000
21500
Station (ft)

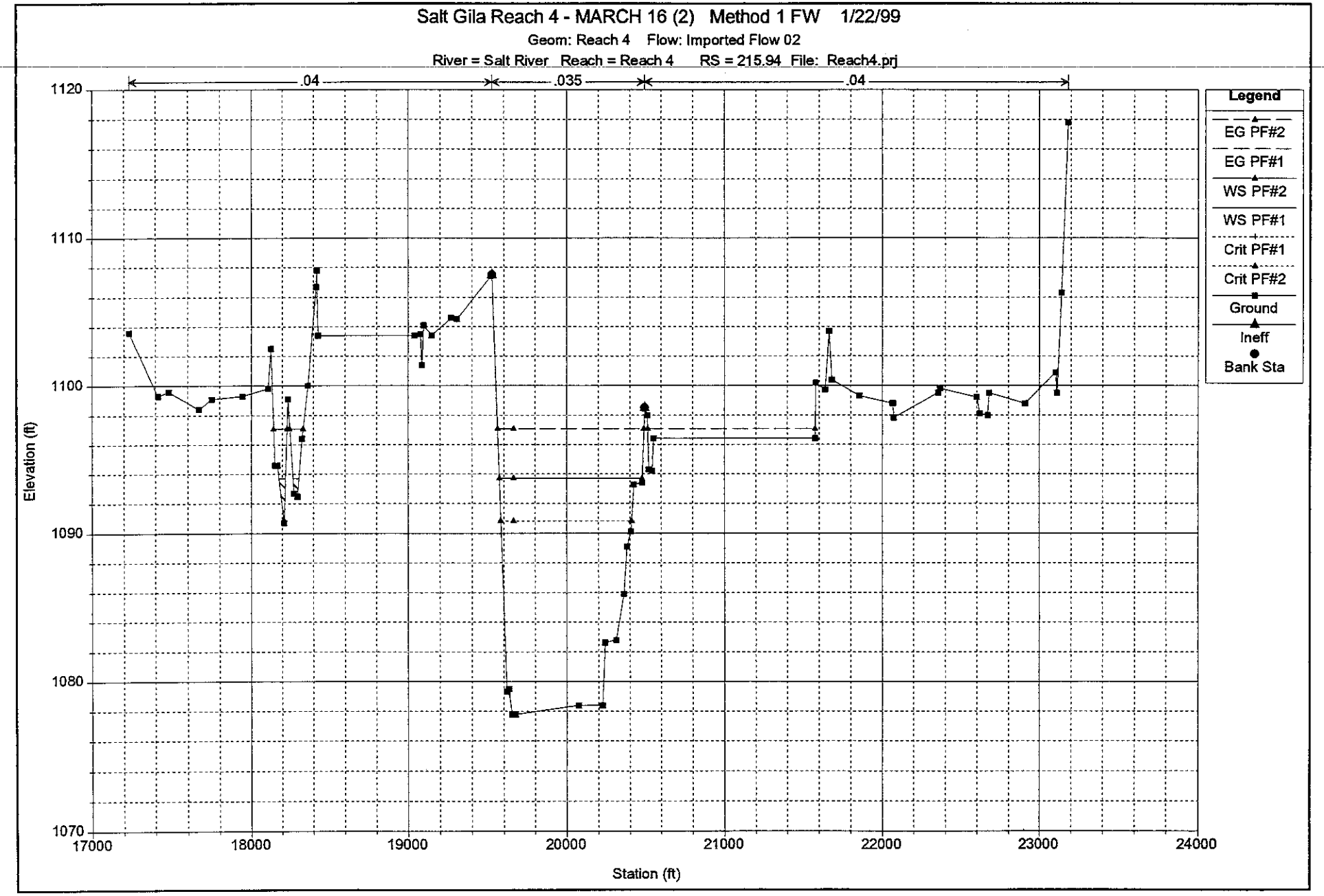

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 216.42 File: Reach4.prj
.04
.035
.04
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1120
1115
1110
1105
1100
1095
1090
1085
1080
15000
16000
17000
18000
19000
20000
21000
22000
Station (ft)

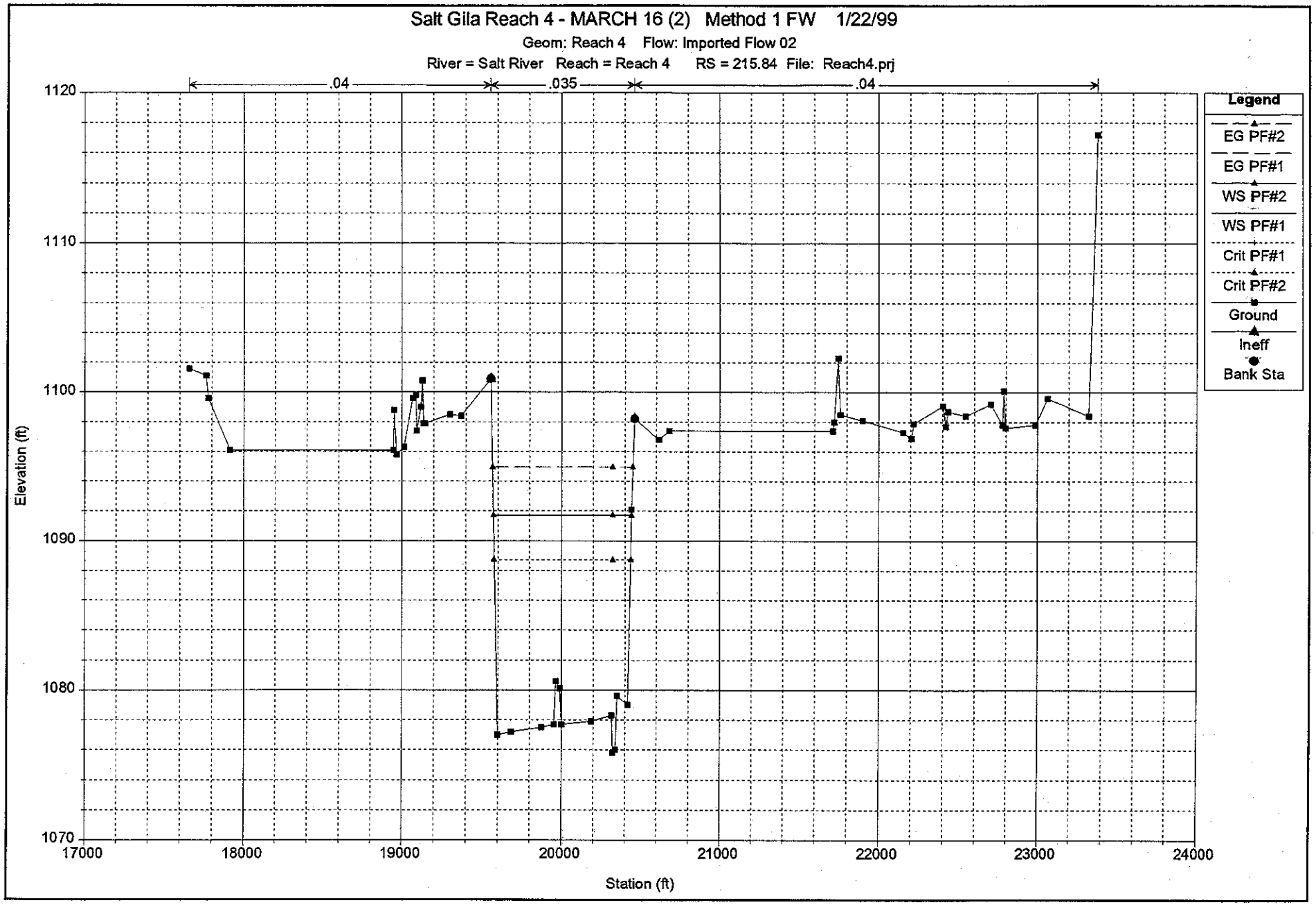

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 216.33 File: Reach4.prj
.04
.035
.04
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1115
1110
1105
1100
1095
1090
1085
1080
16000
17000
18000
19000
20000
21000
22000
Station (ft)

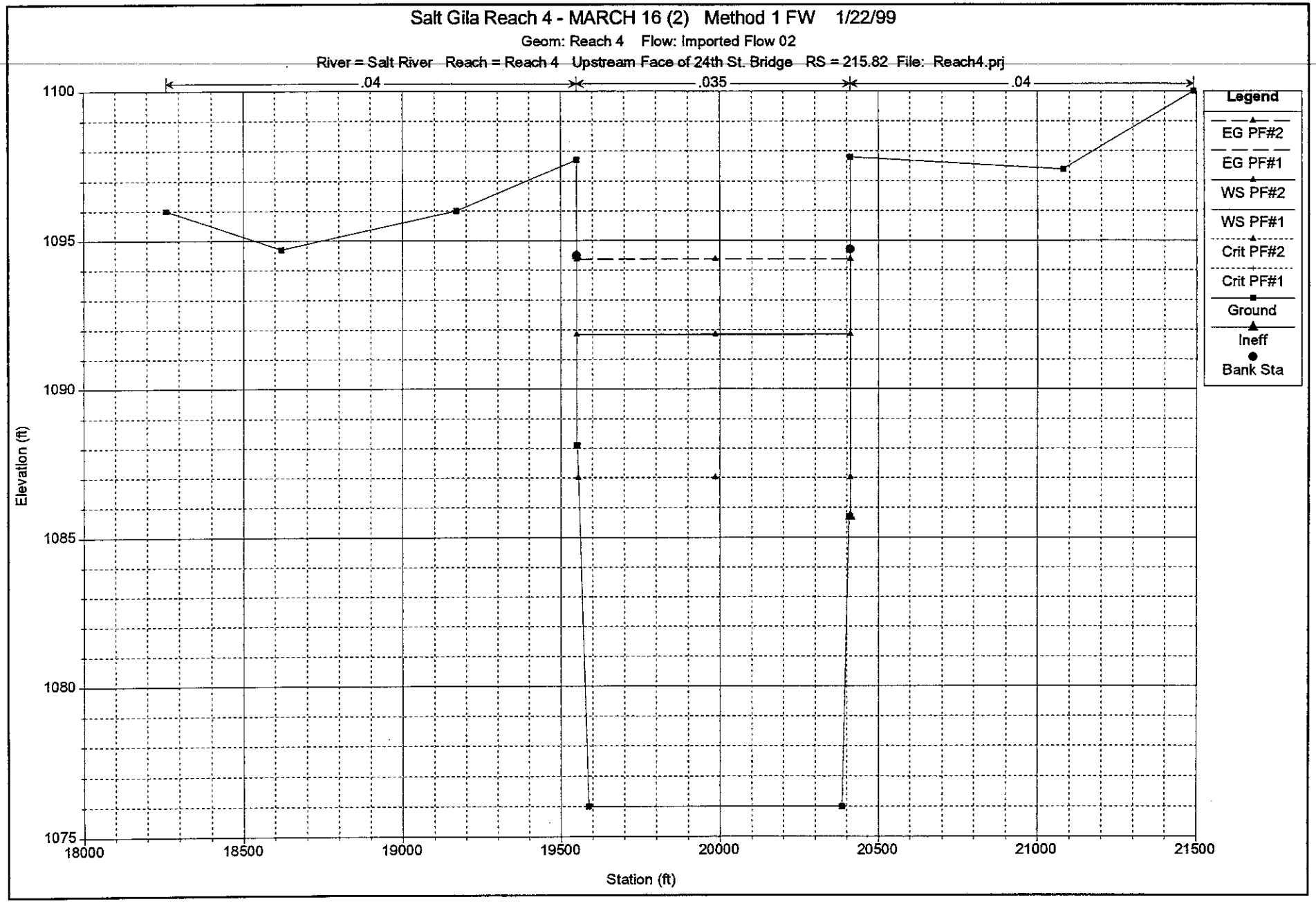

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 216.23 File: Reach4.prj
.04
.035
.04
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1115
1110
1105
1100
1095
1090
1085
1080
1075
16000
17000
18000
19000
20000
21000
22000
23000
Station (ft)

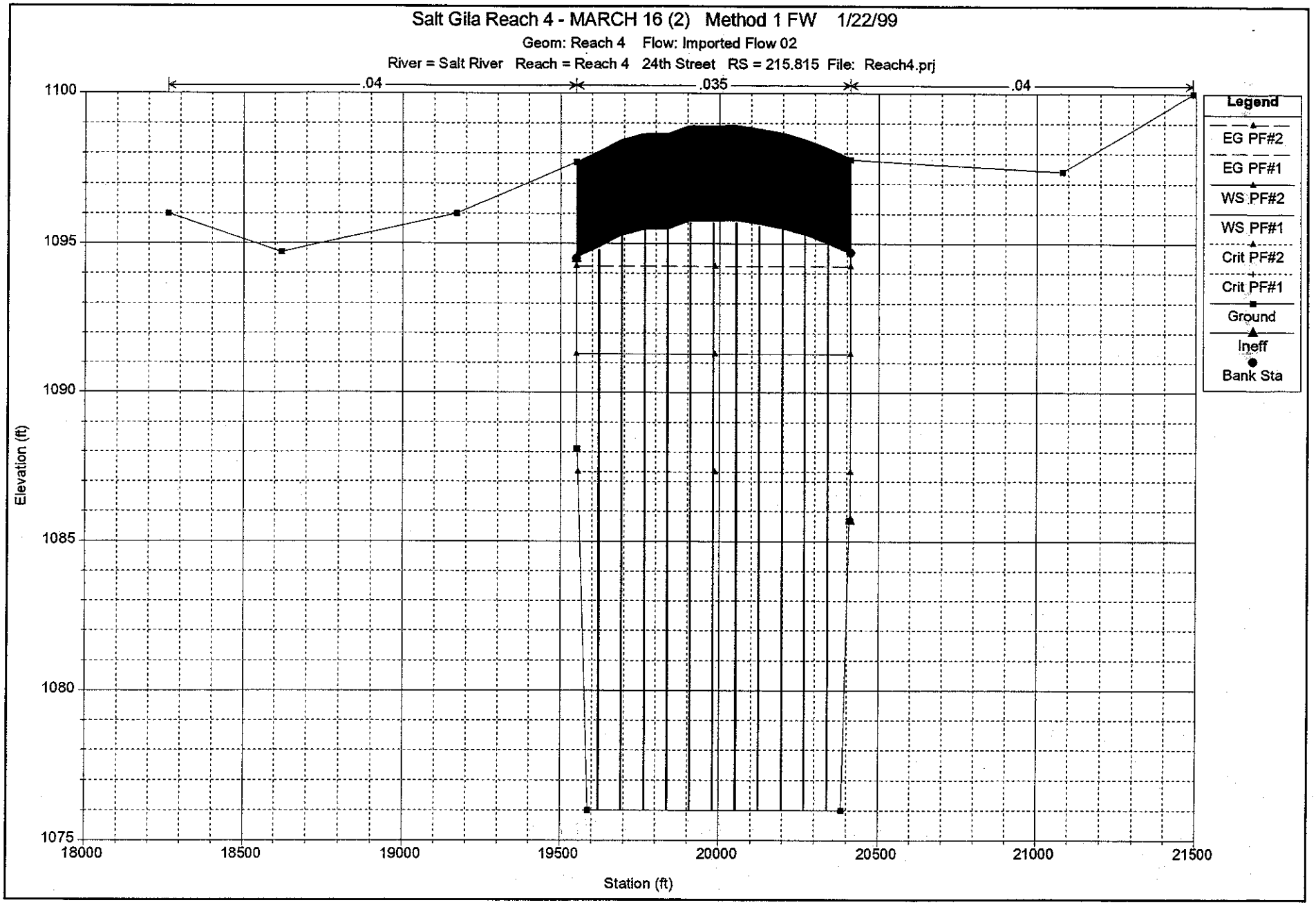

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 216.13 File: Reach4.prj
.04
.035
.04
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1120
1115
1110
1105
1100
1095
1090
1085
1080
1075
16000
17000
18000
19000
20000
21000
22000
23000
Station (ft)


Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 216.04 File: Reach4.prj
.04
.035
.04
Elevation (ft)
1120
1110
1100
1090
1080
1070
17000
18000
19000
20000
21000
22000
23000
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta


Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 215.94 File: Reach4.prj
.04
.035
.04
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1120
1110
1100
1090
1080
1070
17000
18000
19000
20000
21000
22000
23000
24000
Station (ft)


Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 215.84 File: Reach4.prj
.04
.035
.04
1120
1110
1100
1090
1080
1070
Elevation (ft)
17000
18000
19000
20000
21000
22000
23000
24000
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

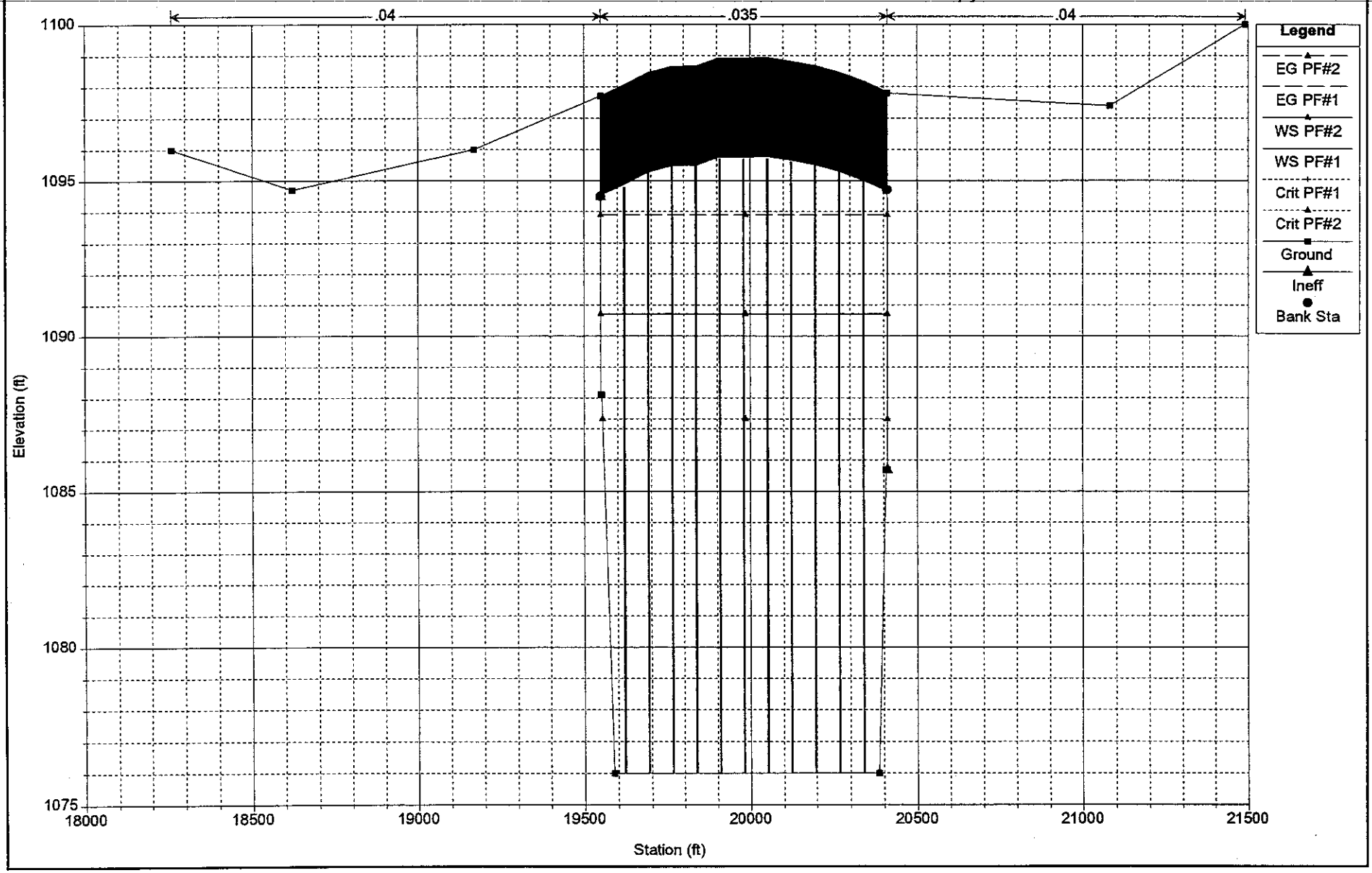

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Upstream Face of 24th St. Bridge RS = 215.82 File: Reach4.prj
.04
.035
.04
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1100
1095
1090
1085
1080
1075
18000
18500
19000
19500
20000
20500
21000
21500
Station (ft)

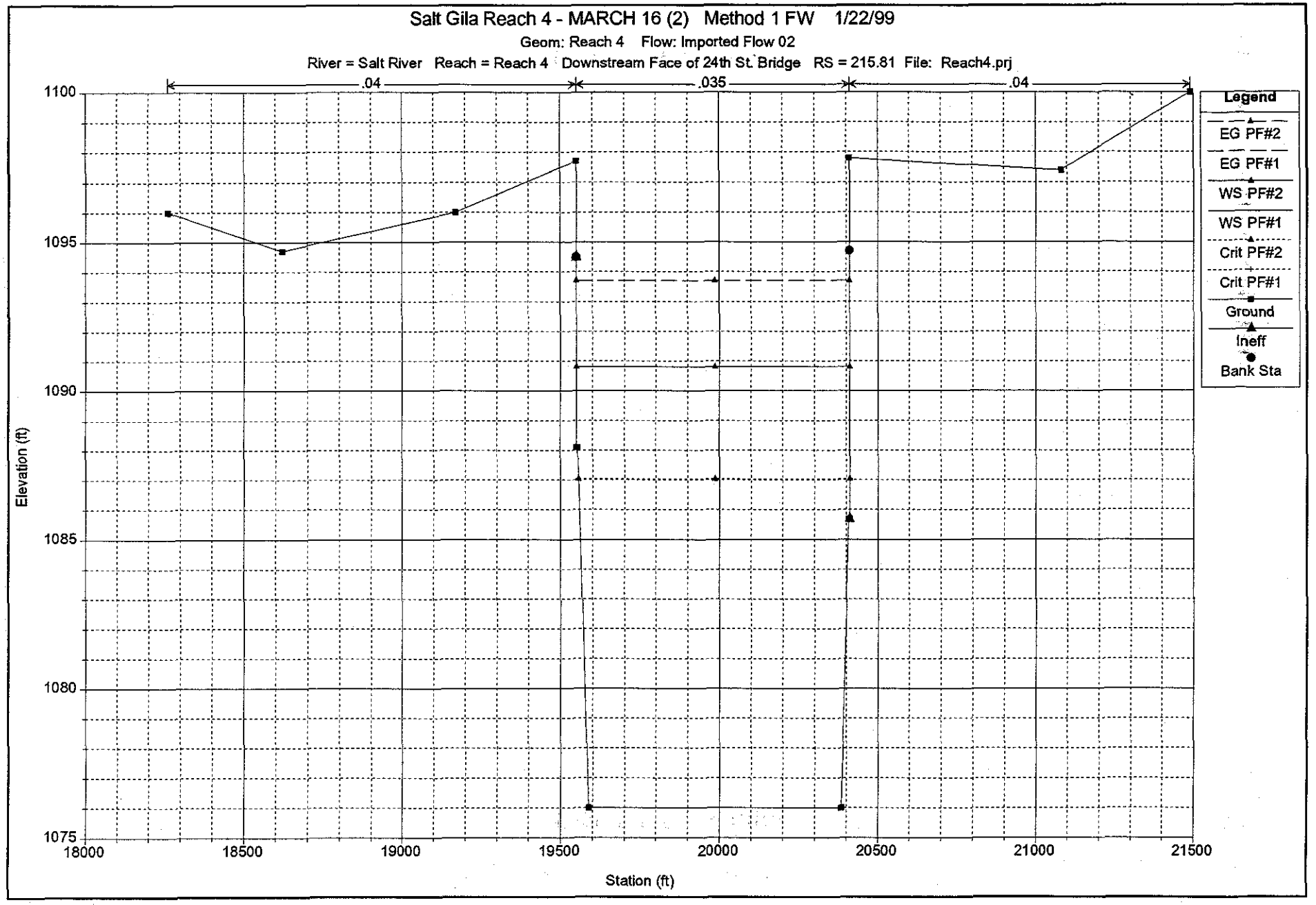

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 24th Street RS = 215.815 File: Reach4.prj
.04
.035
.04
1100
1095
1090
1085
1080
1075
Elevation (ft)
18000
18500
19000
19500
20000
20500
21000
21500
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta

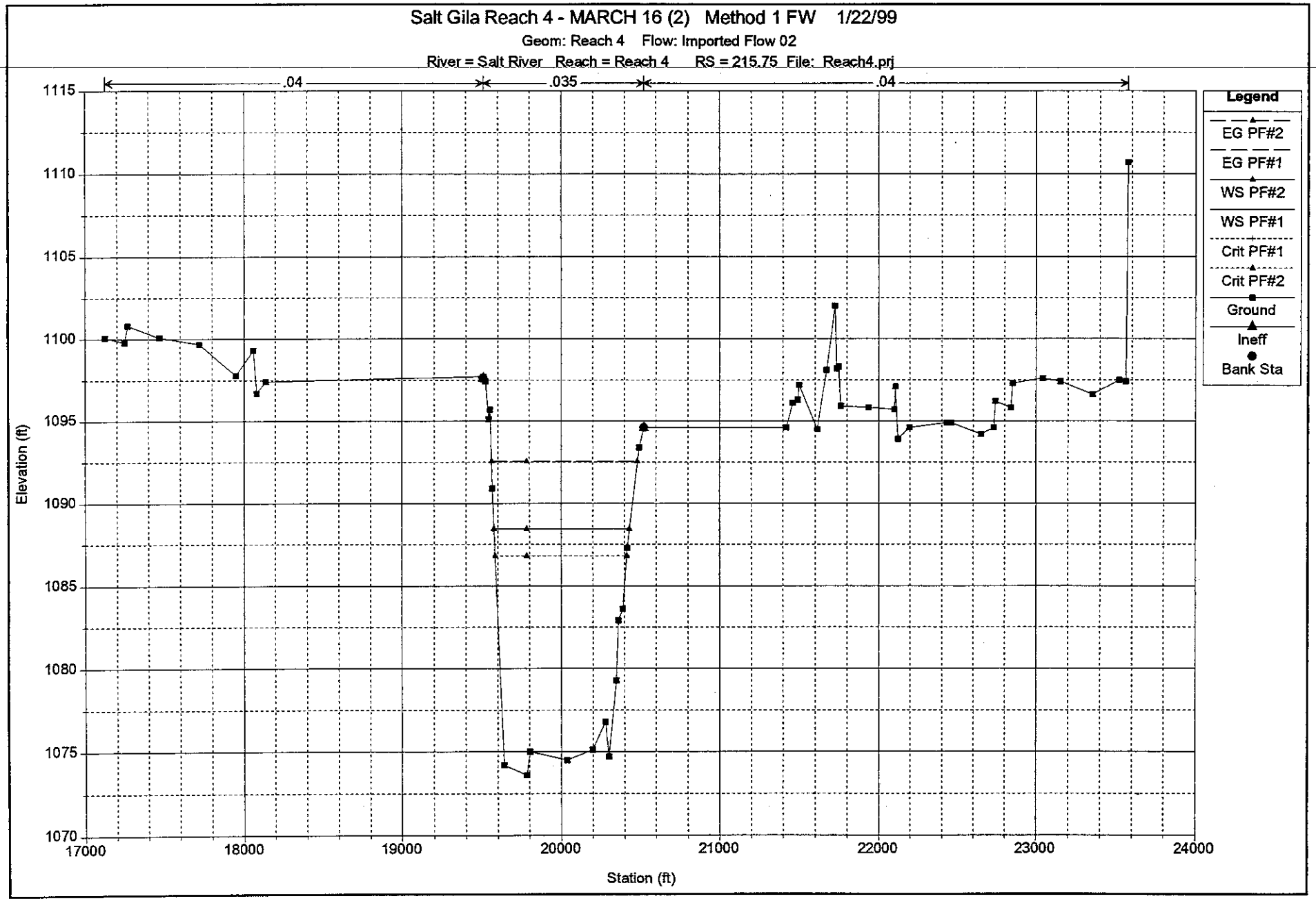
Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99

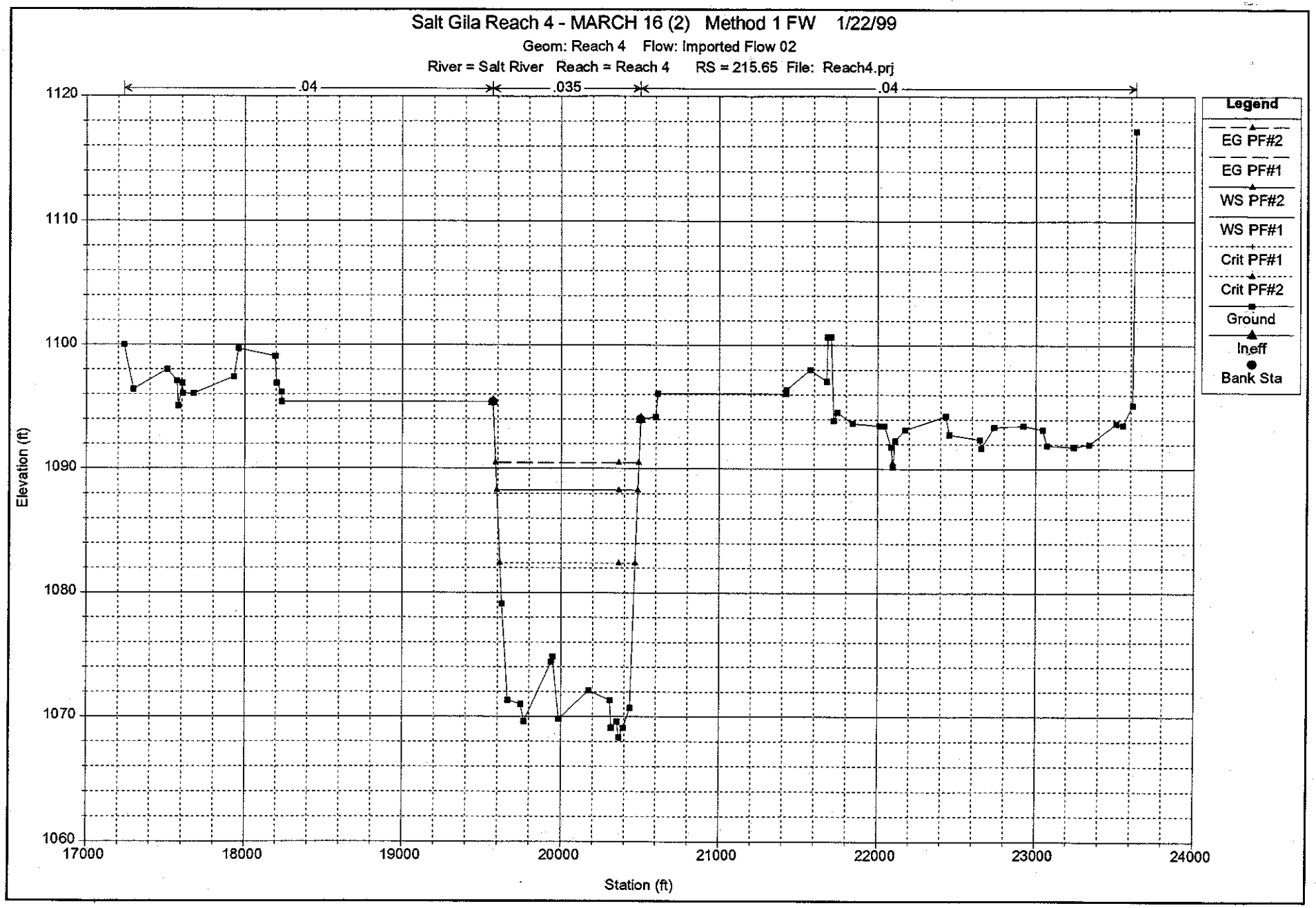
Geom: Reach 4 Flow: Imported Flow 02

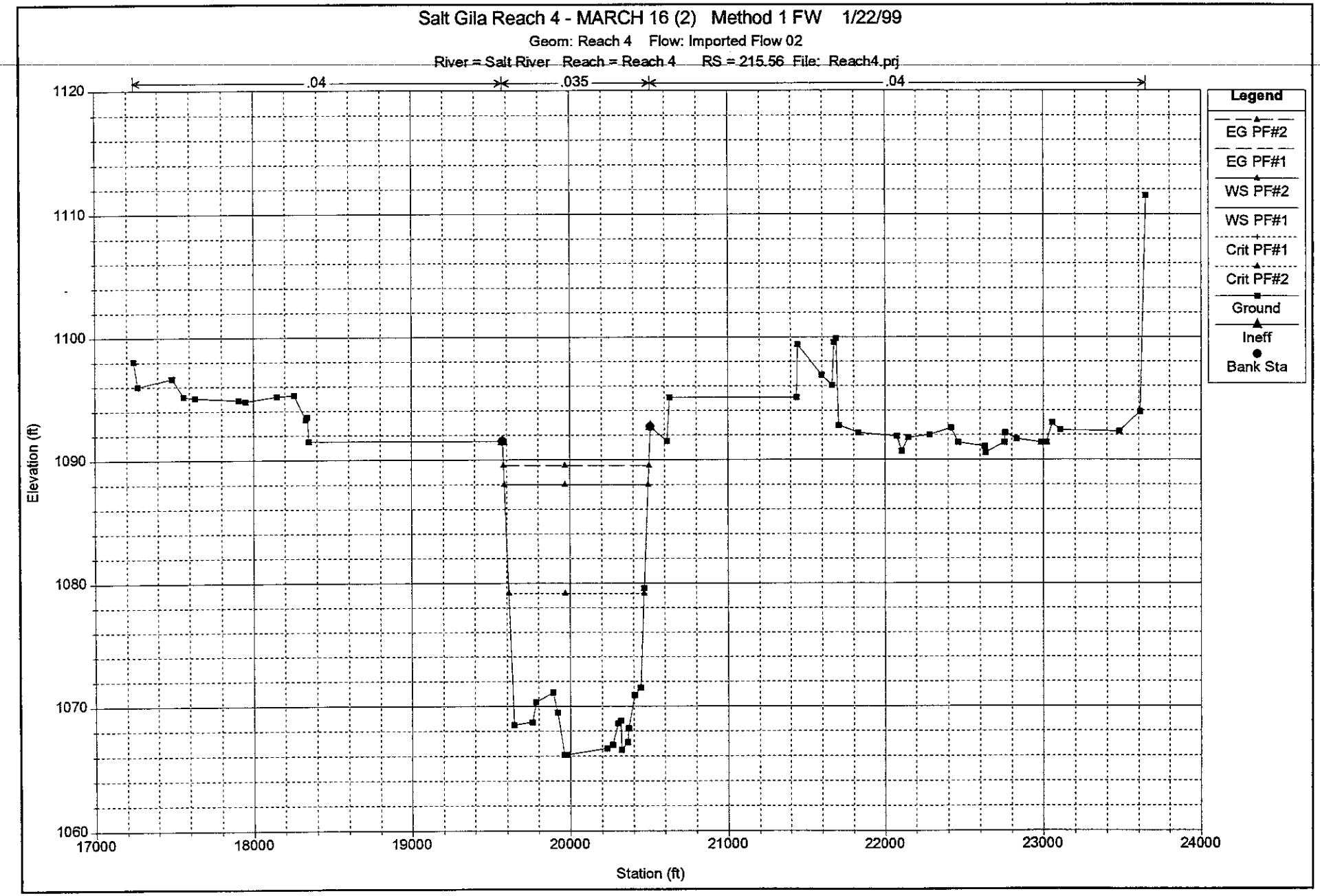
River = Salt River Reach = Reach 4 24th Street RS = 215.815 File: Reach4.prj

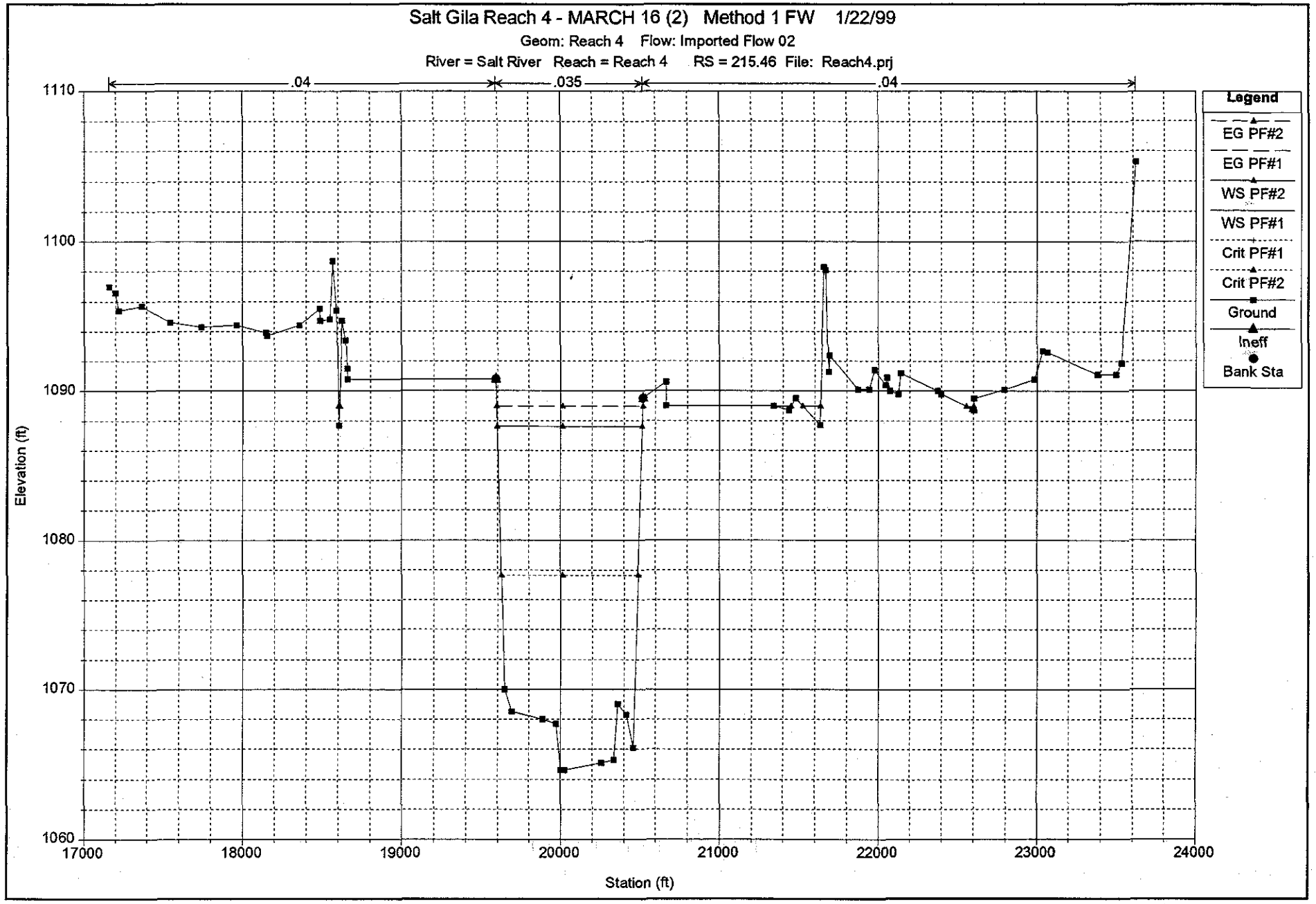


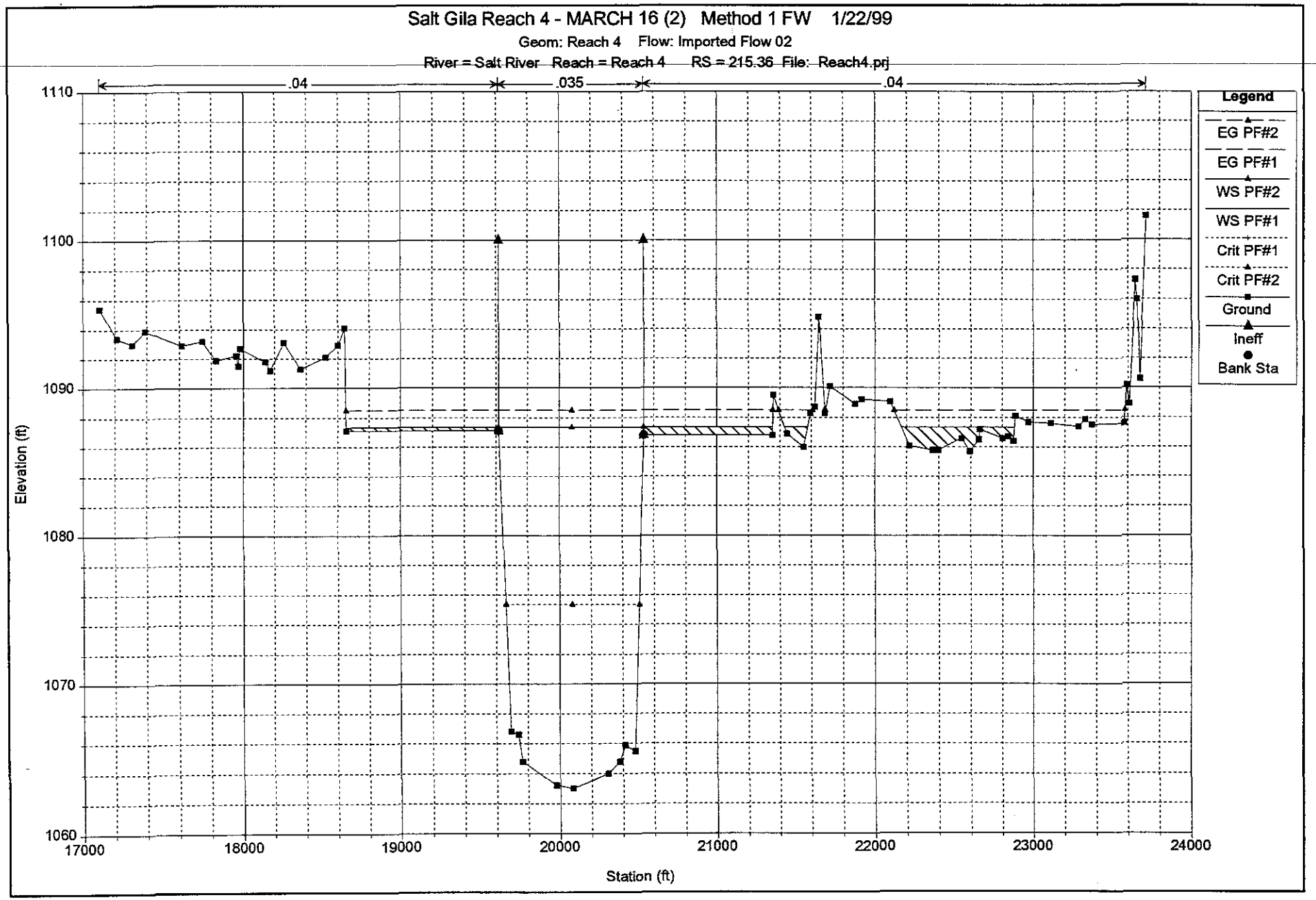

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Downstream Face of 24th St. Bridge RS = 215.81 File: Reach4.prj
.04
.035
.04
1100
1095
1090
1085
1080
1075
Elevation (ft)
18000
18500
19000
19500
20000
20500
21000
21500
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta

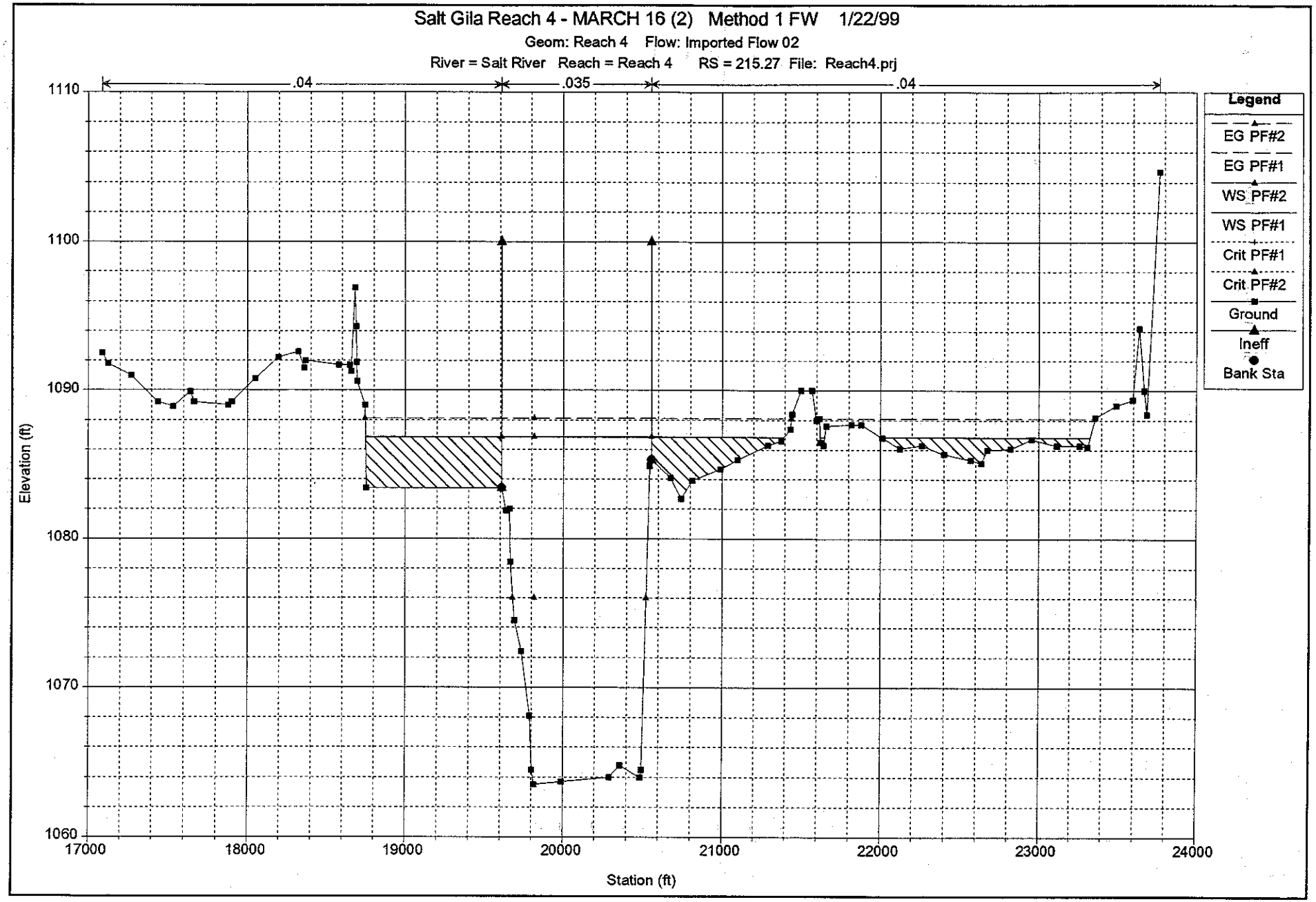

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 215.75 File: Reach4.prj
.04
.035
.04
Elevation (ft)
1115
1110
1105
1100
1095
1090
1085
1080
1075
1070
17000
18000
19000
20000
21000
22000
23000
24000
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

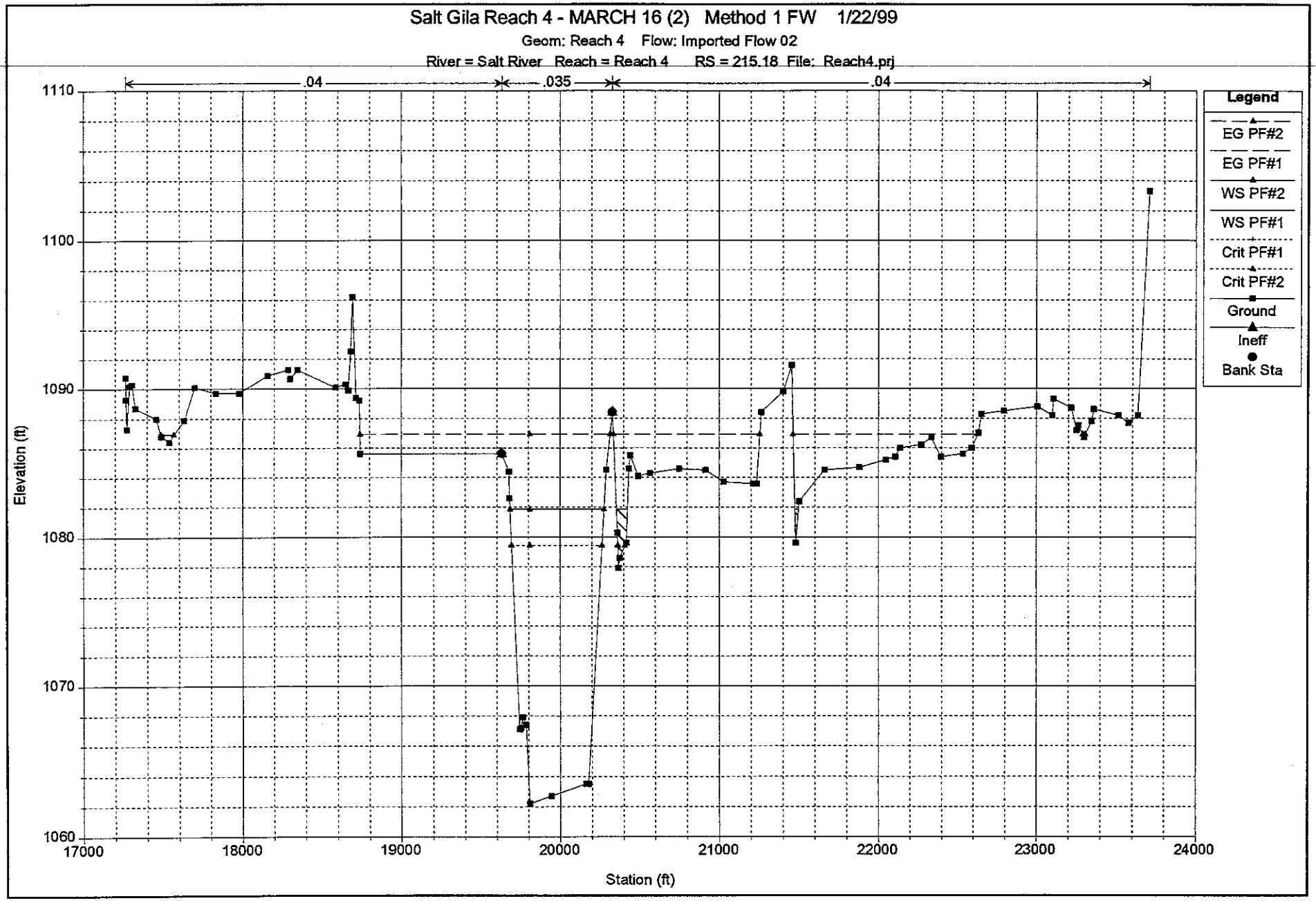

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 215.65 File: Reach4.prj
.04
.035
.04
Elevation (ft)
1120
1110
1100
1090
1080
1070
1060
17000
18000
19000
20000
21000
22000
23000
24000
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

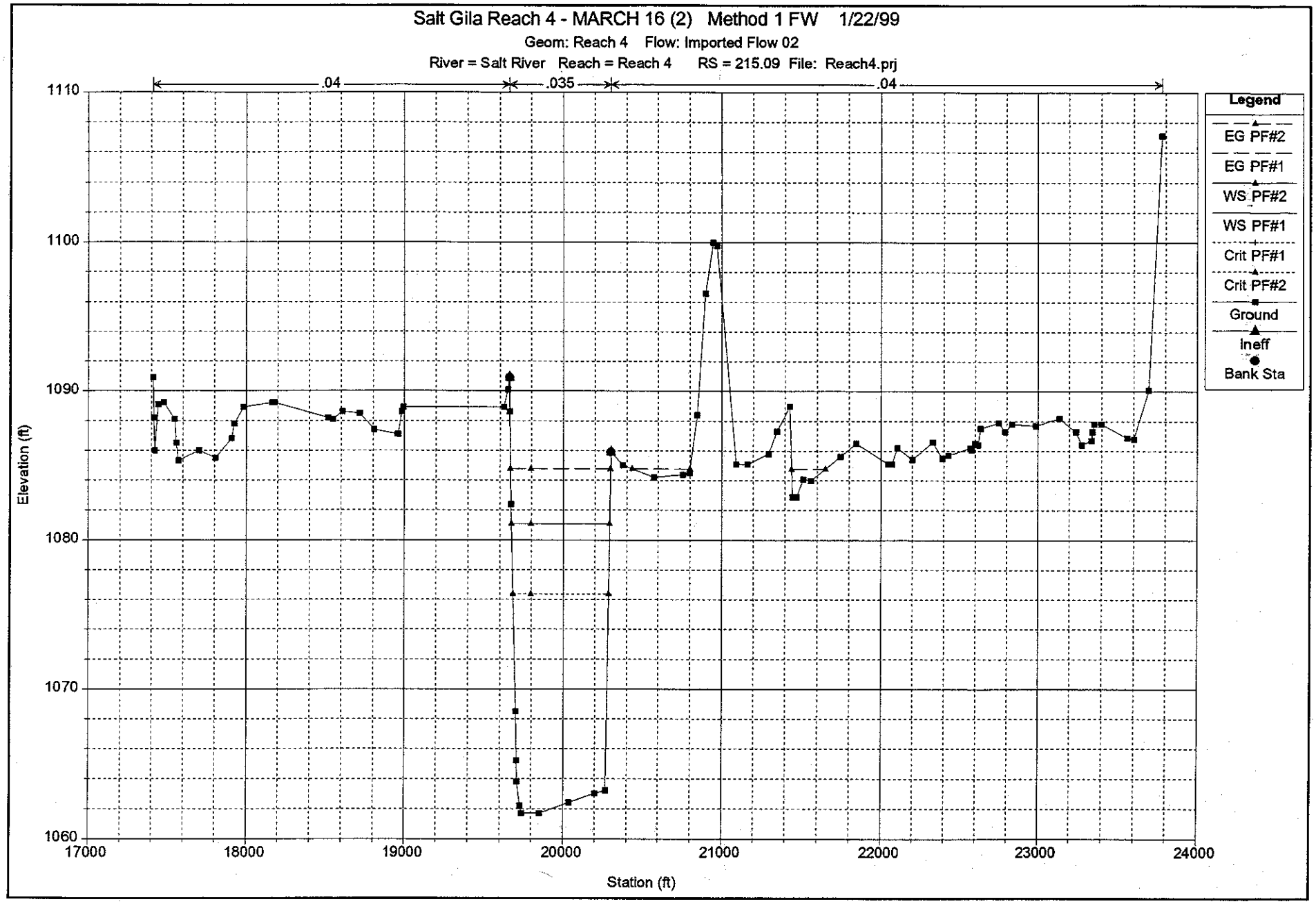

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 215.56 File: Reach4.prj
.04
.035
.04
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1120
1110
1100
1090
1080
1070
1060
17000
18000
19000
20000
21000
22000
23000
24000
Station (ft)

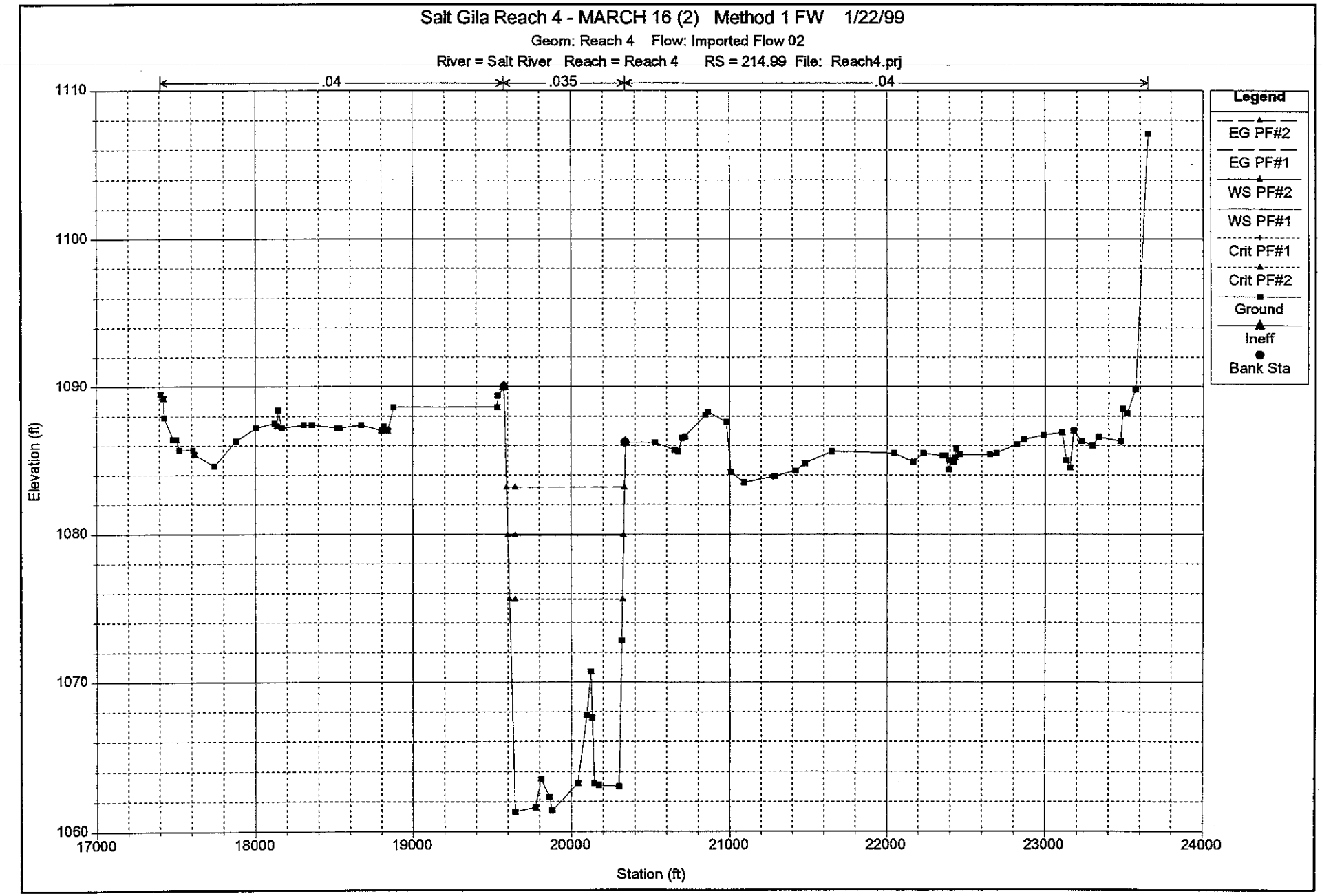

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 215.46 File: Reach4.prj
.04
.035
.04
Elevation (ft)
1110
1100
1090
1080
1070
1060
17000
18000
19000
20000
21000
22000
23000
24000
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

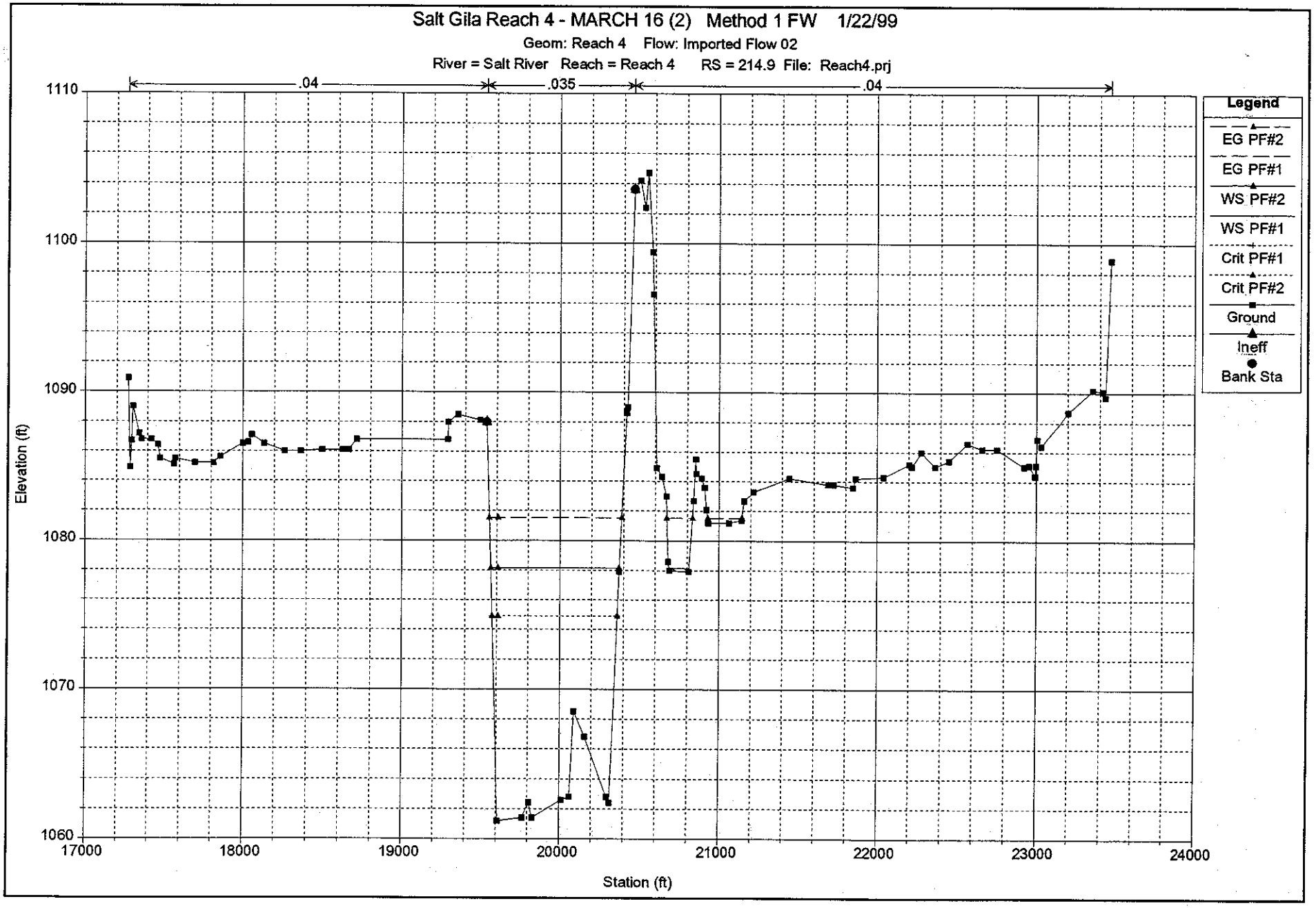

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 215.36 File: Reach4.prj
.04
.035
.04
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1110
1100
1090
1080
1070
1060
17000
18000
19000
20000
21000
22000
23000
24000
Station (ft)

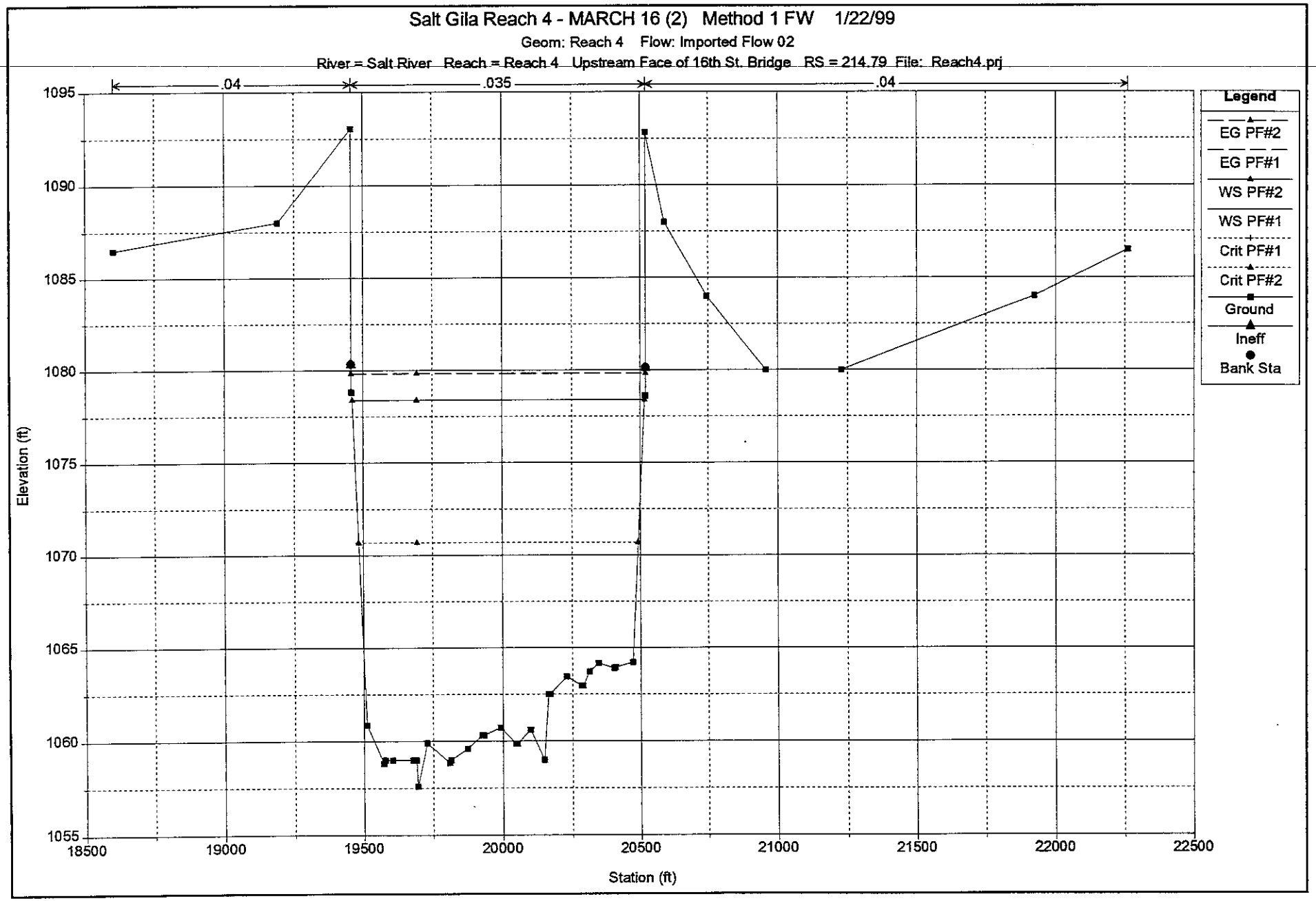

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 215.27 File: Reach4.prj
.04
.035
.04
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1110
1100
1090
1080
1070
1060
17000
18000
19000
20000
21000
22000
23000
24000
Station (ft)

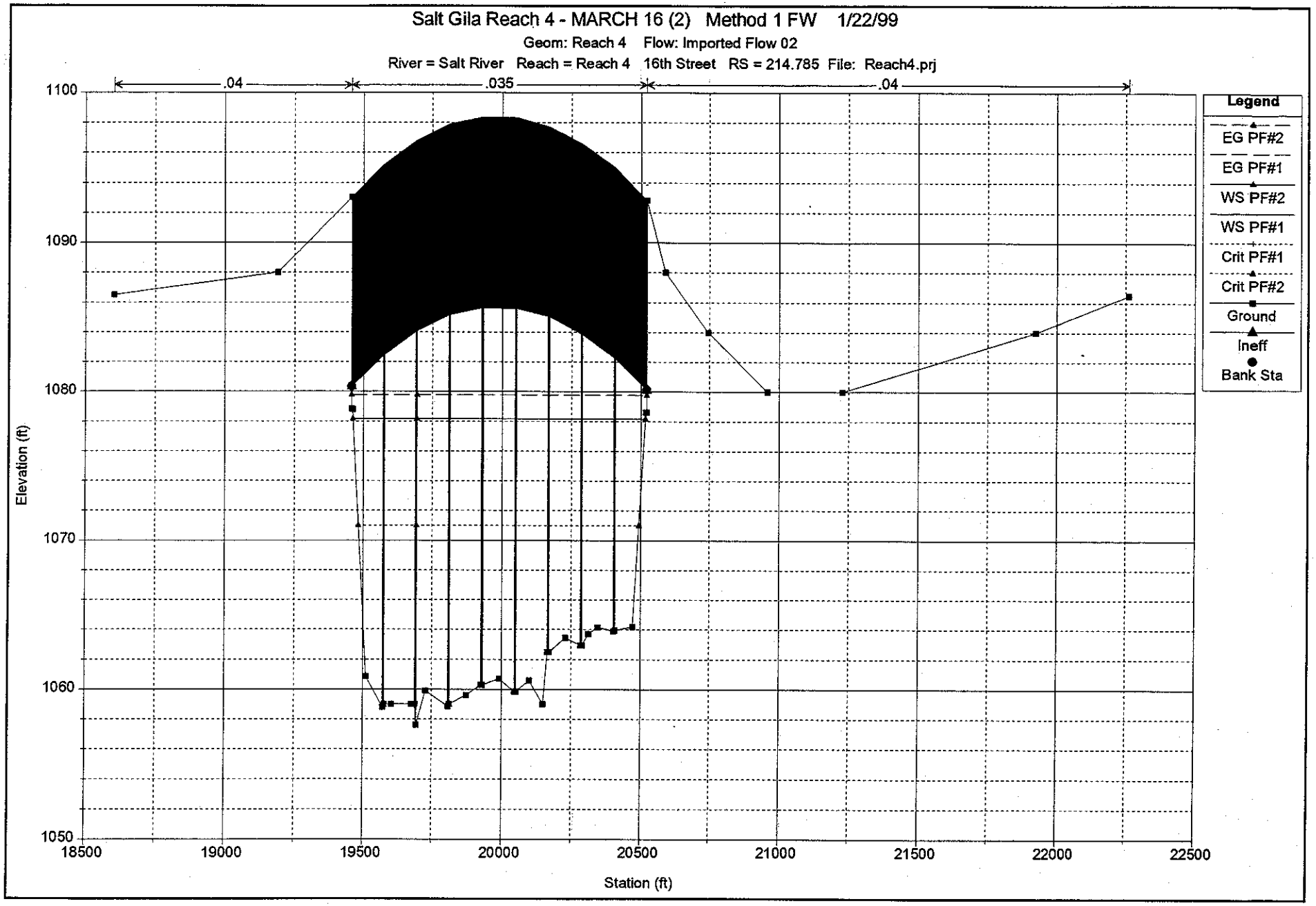

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 215.18 File: Reach4.prj
.04
.035
.04
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1110
1100
1090
1080
1070
1060
17000
18000
19000
20000
21000
22000
23000
24000
Station (ft)

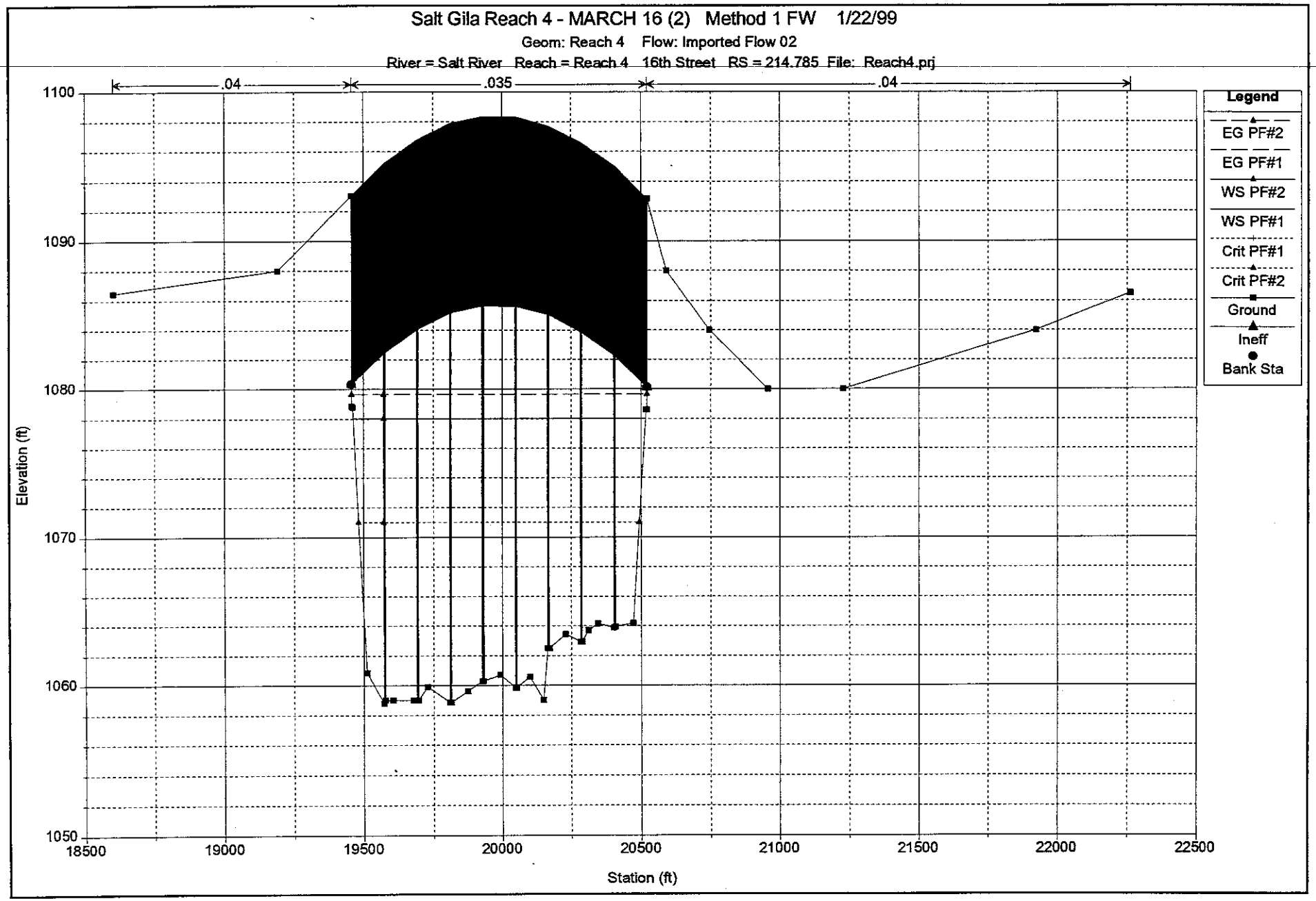

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 215.09 File: Reach4.prj
.04
.035
.04
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1110
1100
1090
1080
1070
1060
17000
18000
19000
20000
21000
22000
23000
24000
Station (ft)

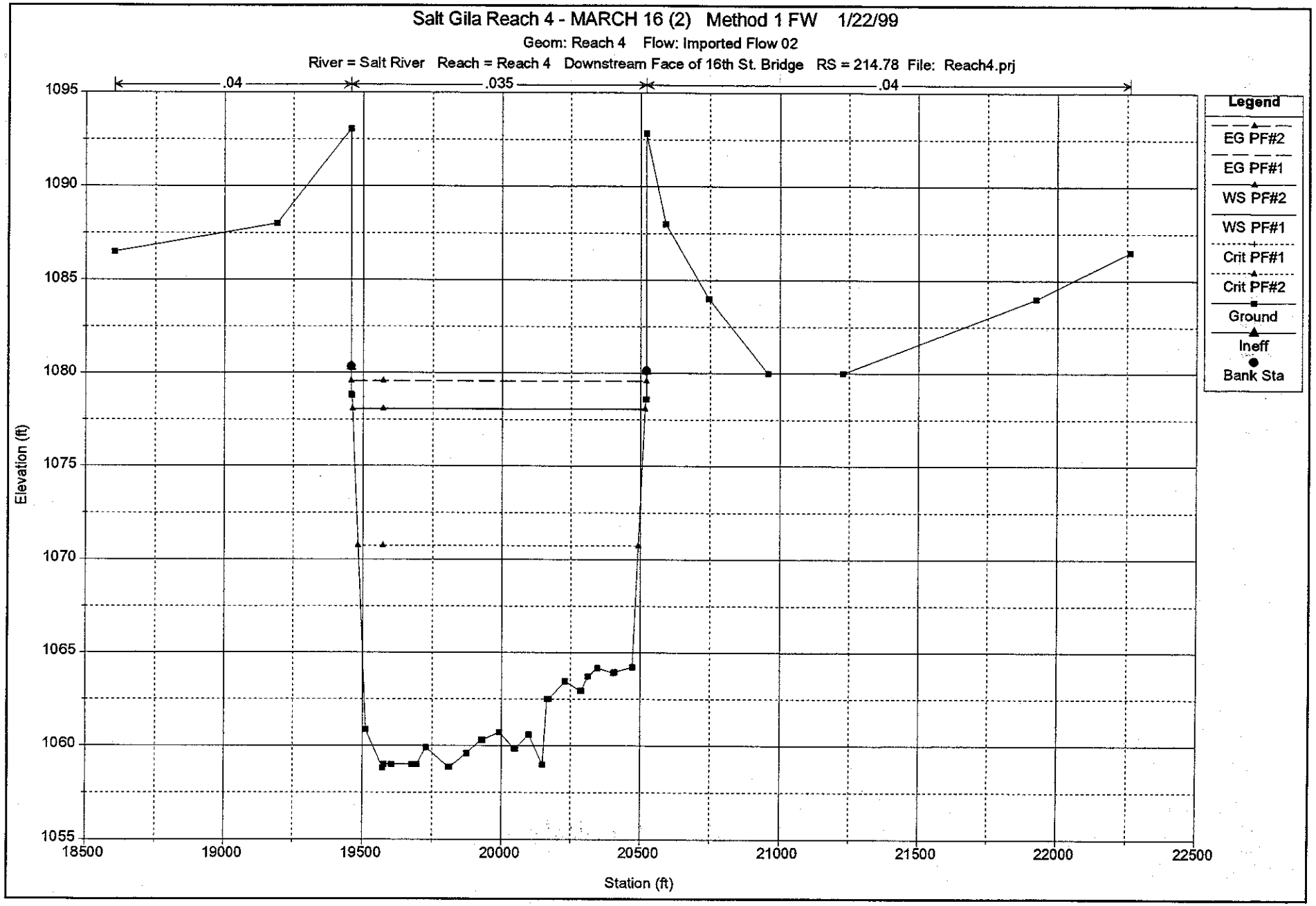

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 214.99 File: Reach4.prj
.04
.035
.04
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1110
1100
1090
1080
1070
1060
17000
18000
19000
20000
21000
22000
23000
24000
Station (ft)

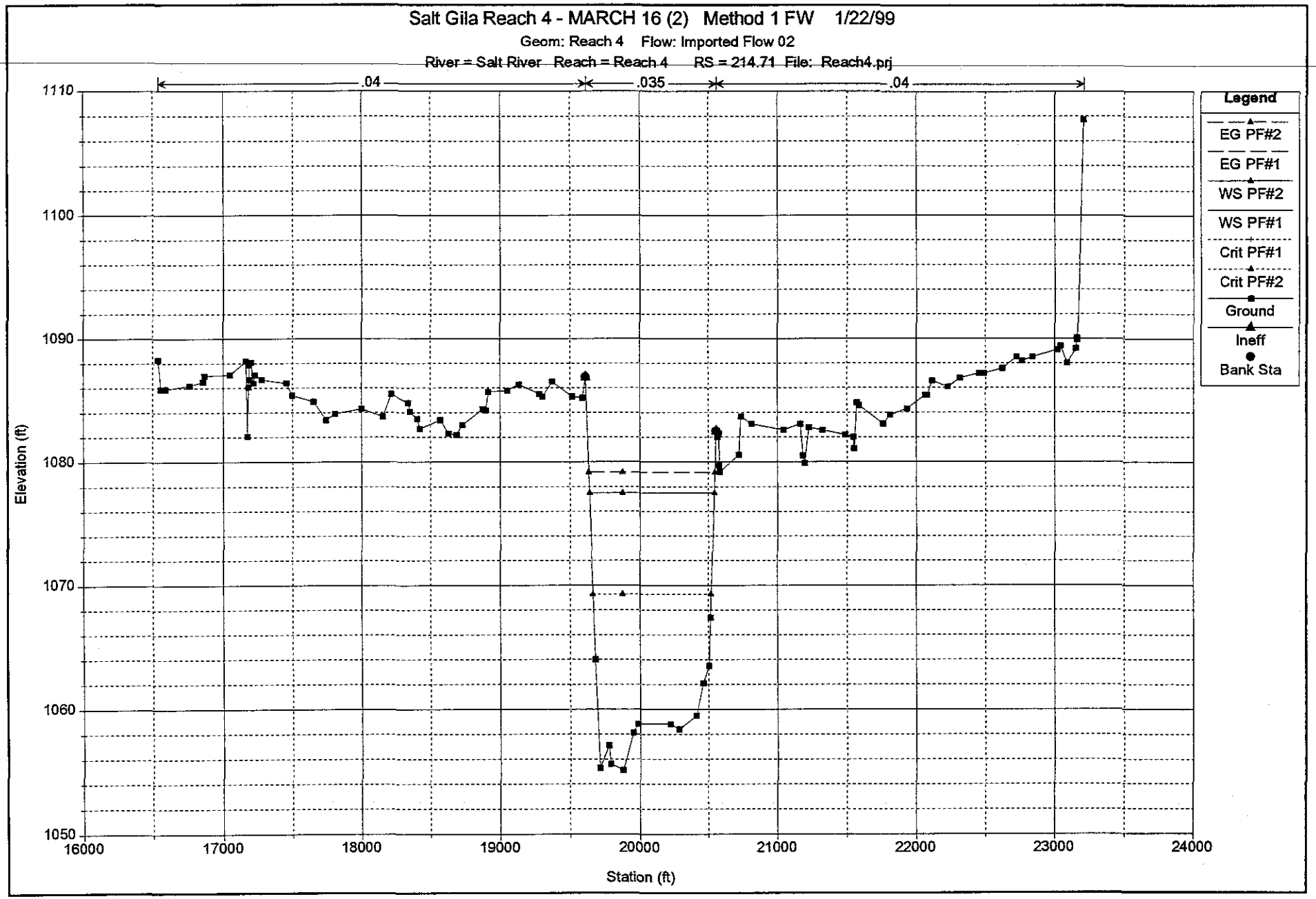

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 214.9 File: Reach4.prj
.04
.035
.04
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1110
1100
1090
1080
1070
1060
17000
18000
19000
20000
21000
22000
23000
24000
Station (ft)

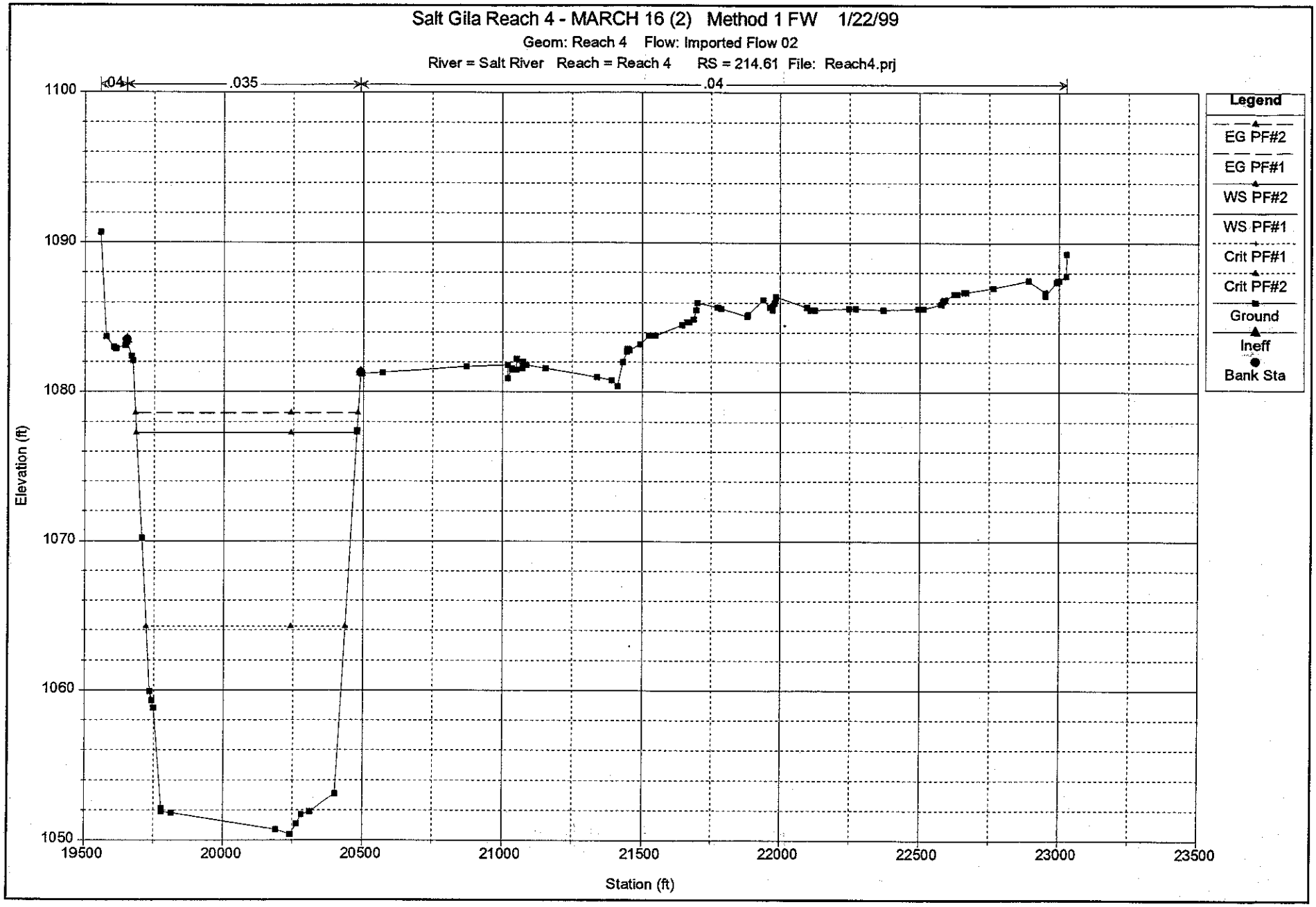

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Upstream Face of 16th St. Bridge RS = 214.79 File: Reach4.prj
.04
.035
.04
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1095
1090
1085
1080
1075
1070
1065
1060
1055
18500
19000
19500
20000
20500
21000
21500
22000
22500
Station (ft)

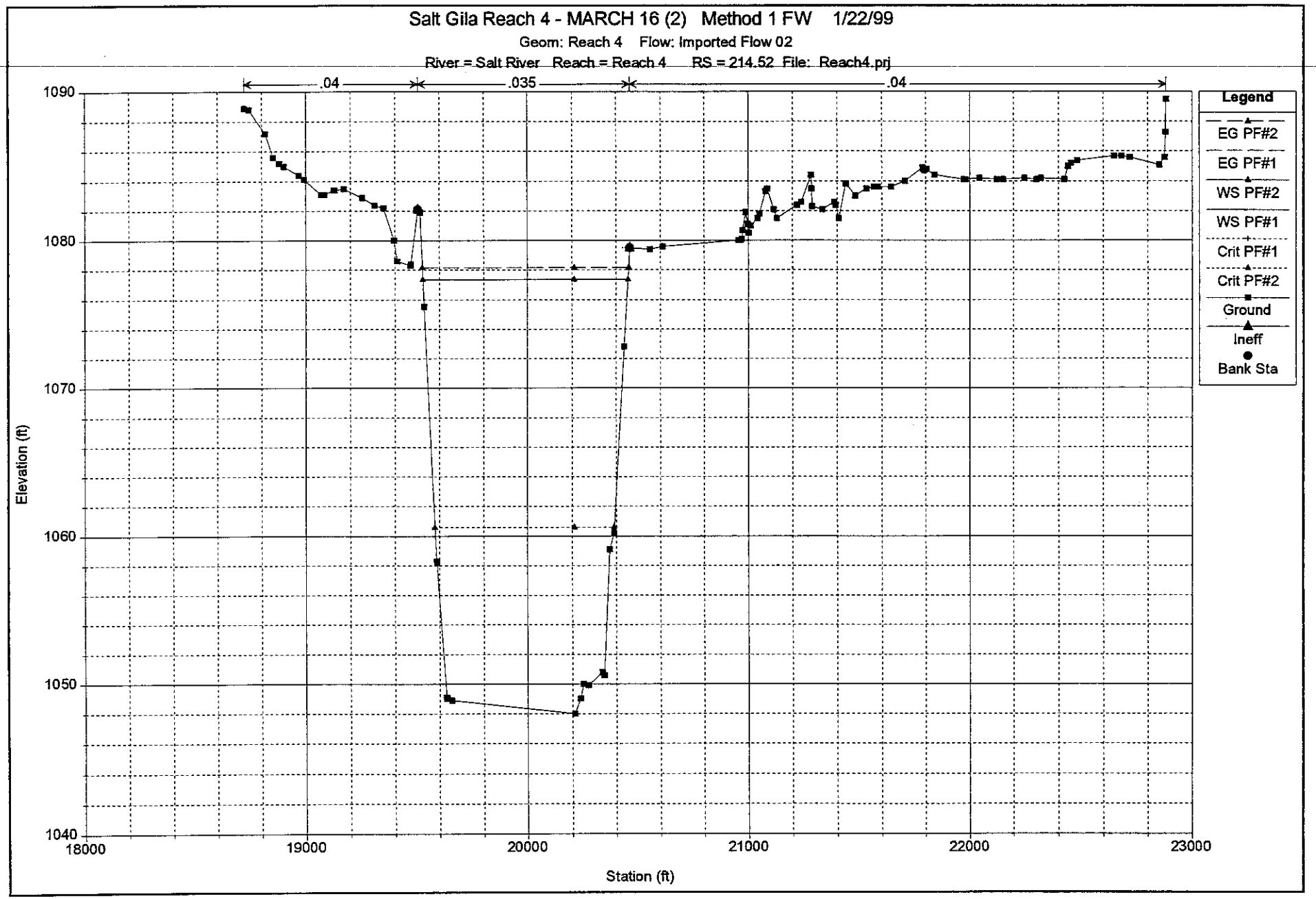

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 16th Street RS = 214.785 File: Reach4.prj
.04
.035
.04
1100
1090
1080
1070
1060
1050
Elevation (ft)
18500
19000
19500
20000
20500
21000
21500
22000
22500
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

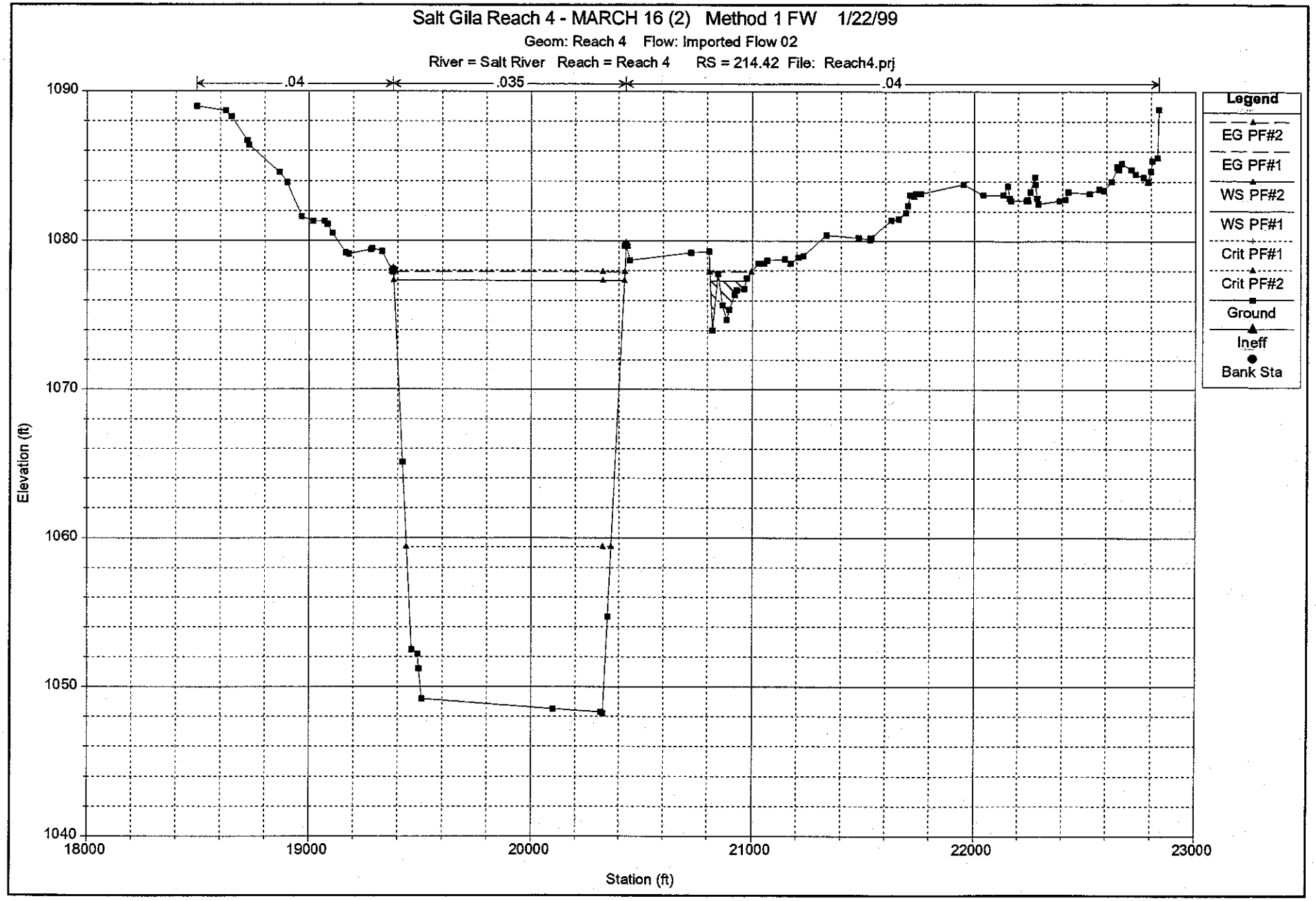

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 16th Street RS = 214.785 File: Reach4.prj
.04
.035
.04
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1100
1090
1080
1070
1060
1050
18500
19000
19500
20000
20500
21000
21500
22000
22500
Station (ft)

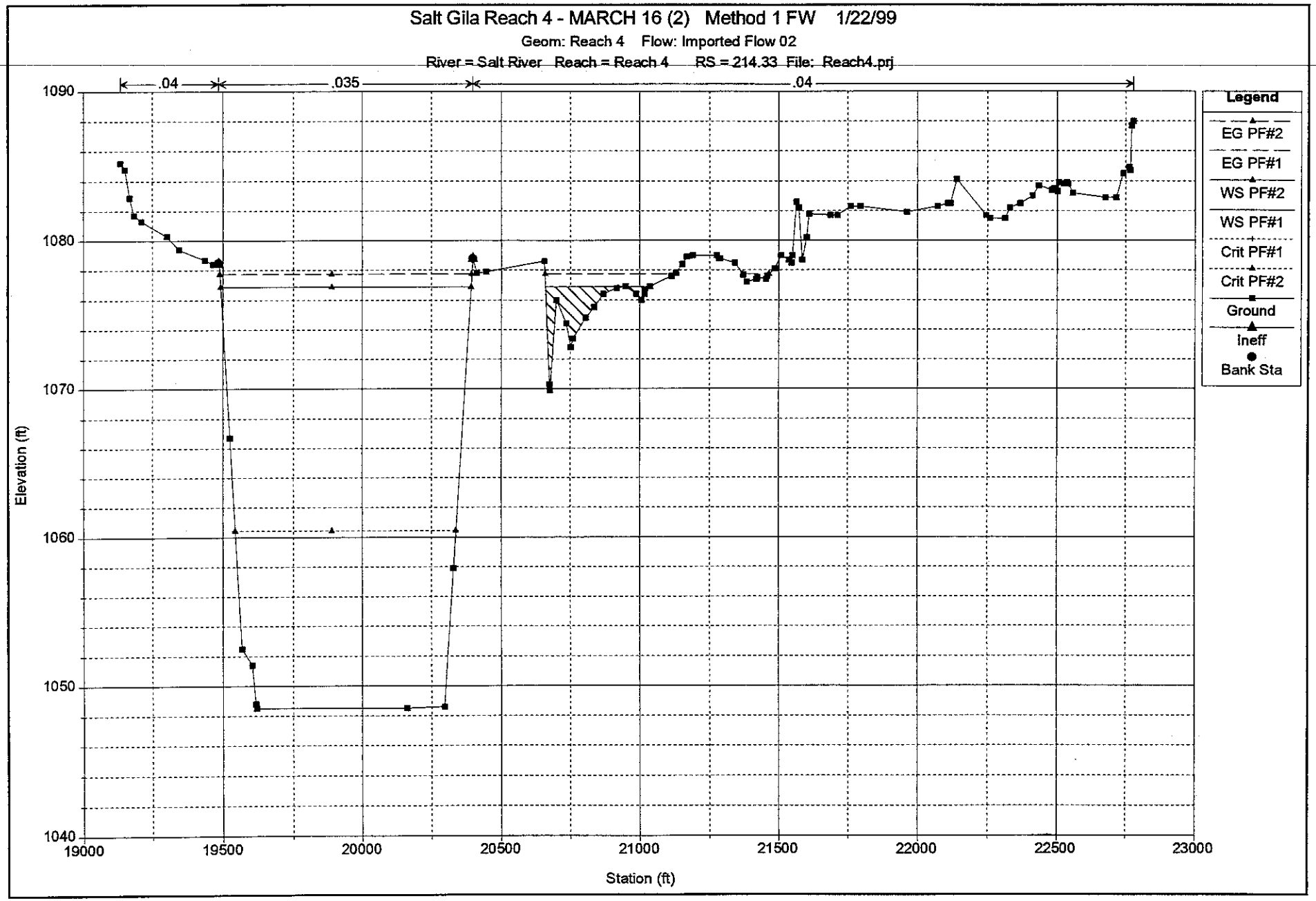

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 Downstream Face of 16th St. Bridge RS = 214.78 File: Reach4.prj
.04
.035
.04
Elevation (ft)
1095
1090
1085
1080
1075
1070
1065
1060
1055
18500
19000
19500
20000
20500
21000
21500
22000
22500
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

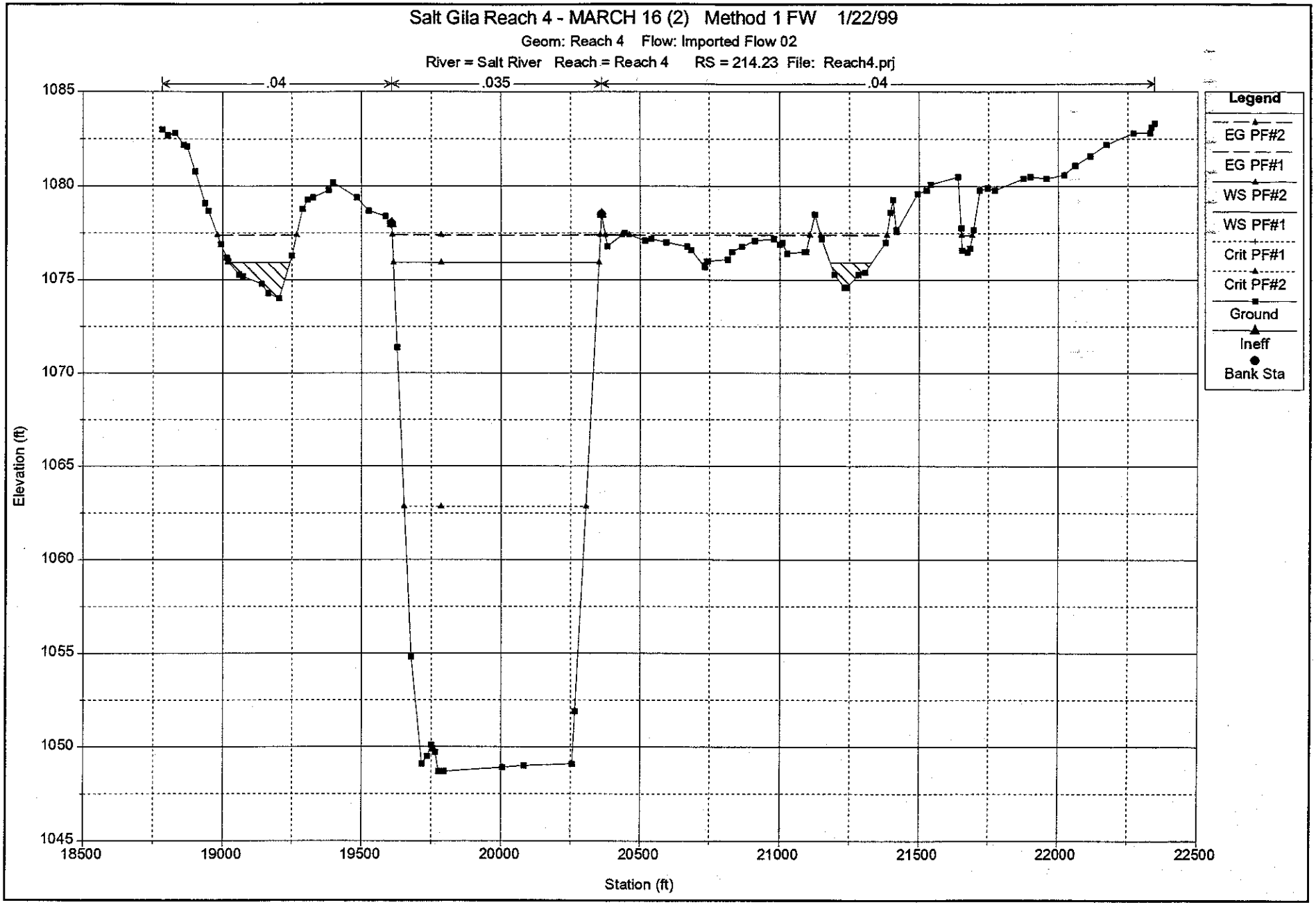

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 214.71 File: Reach4.prj
.04
.035
.04
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1110
1100
1090
1080
1070
1060
1050
16000
17000
18000
19000
20000
21000
22000
23000
24000
Station (ft)

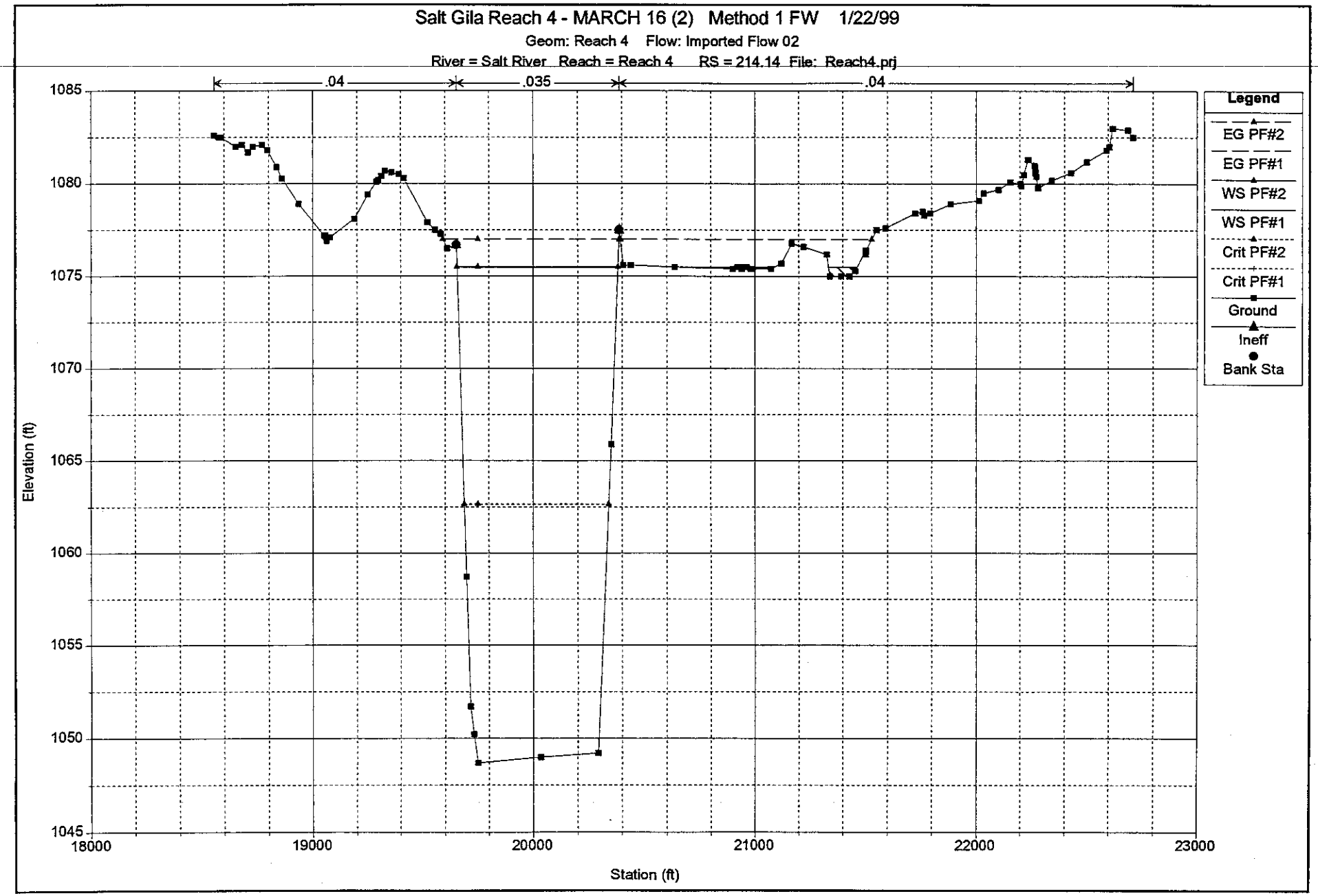

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 214.61 File: Reach4.prj
.04
.035
.04
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1100
1090
1080
1070
1060
1050
19500
20000
20500
21000
21500
22000
22500
23000
23500
Station (ft)

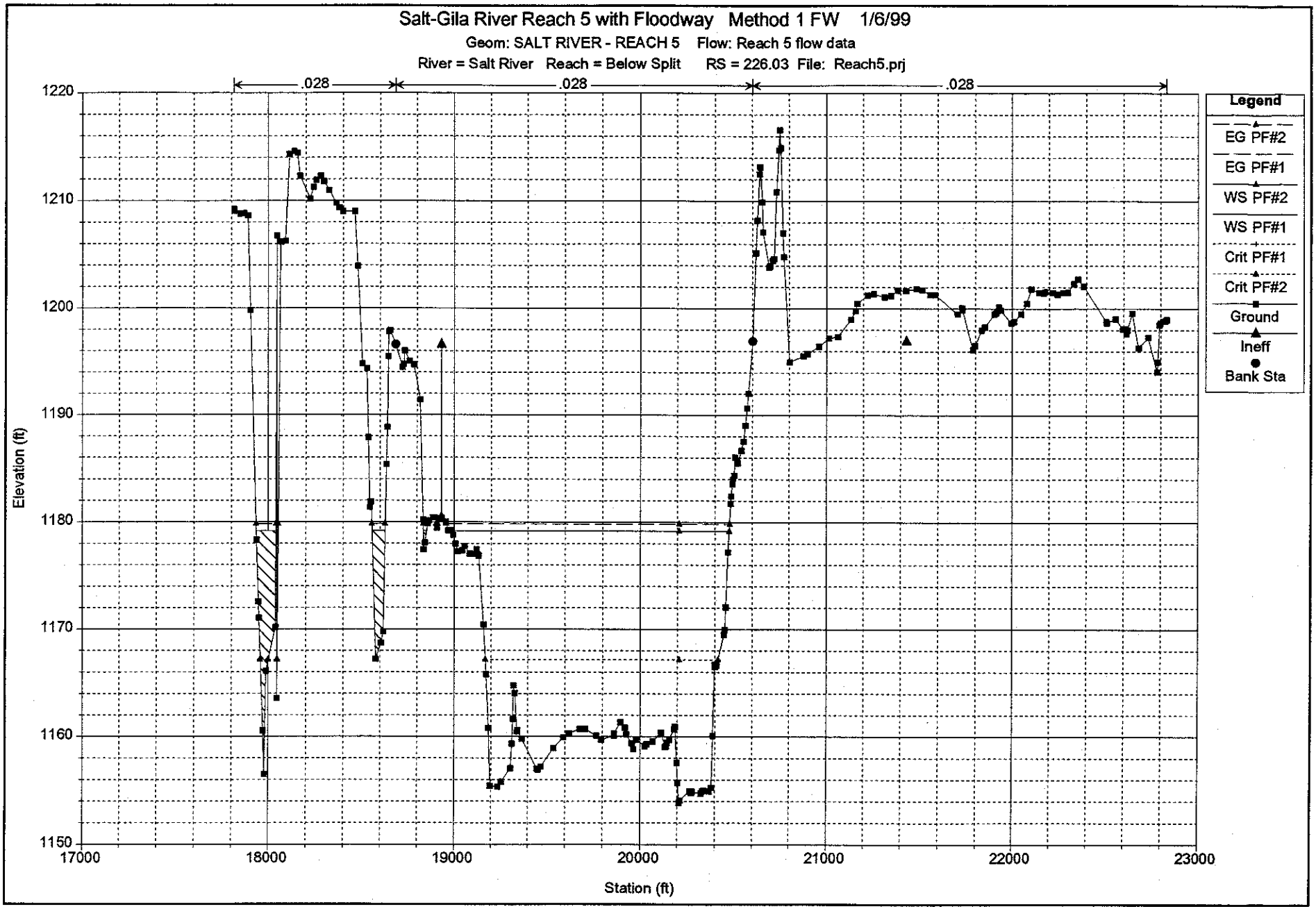

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 214.52 File: Reach4.prj
.04
.035
.04
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1090
1080
1070
1060
1050
1040
18000
19000
20000
21000
22000
23000
Station (ft)

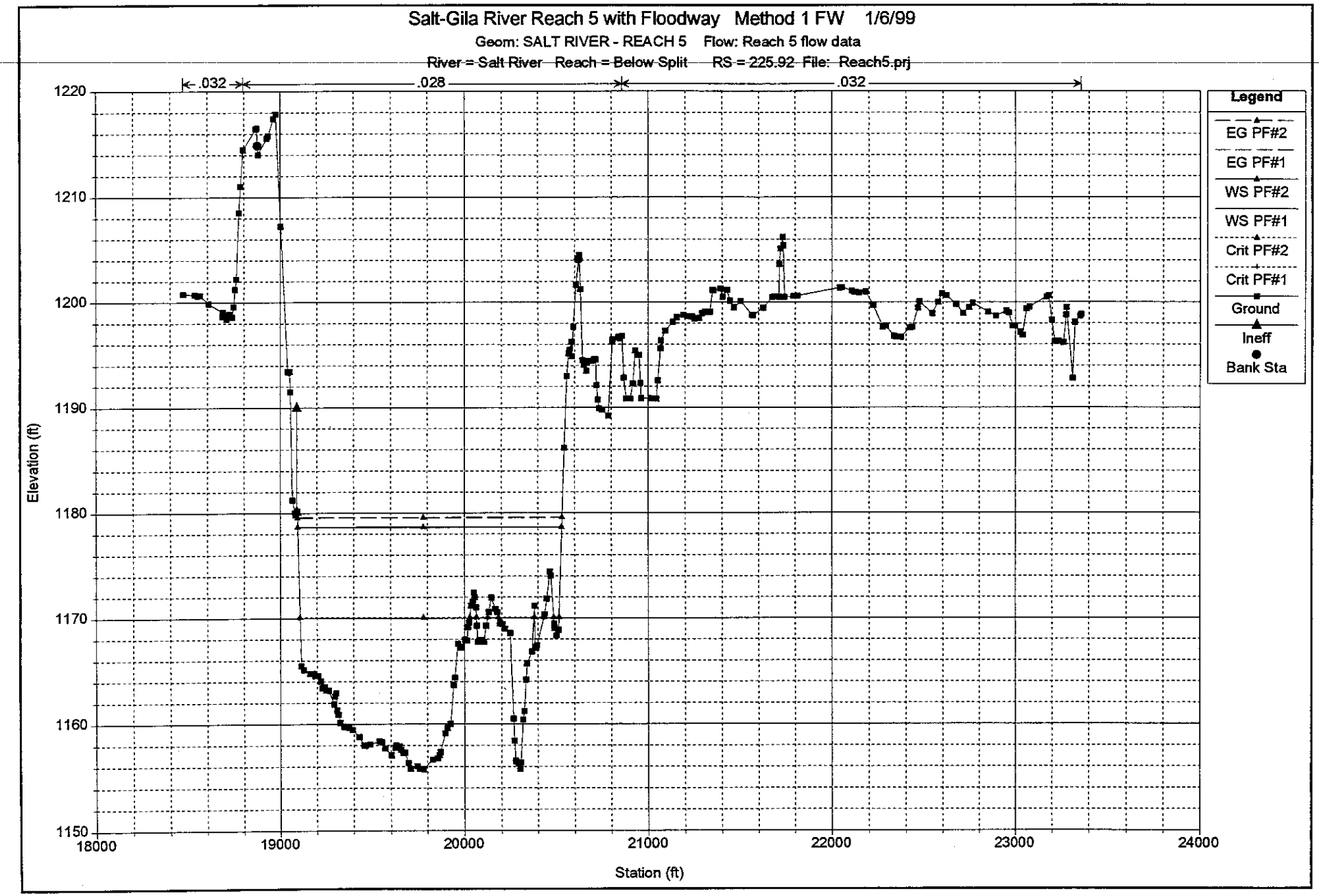

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 214.42 File: Reach4.prj
.04
.035
.04
1090
1080
1070
1060
1050
1040
Elevation (ft)
18000
19000
20000
21000
22000
23000
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

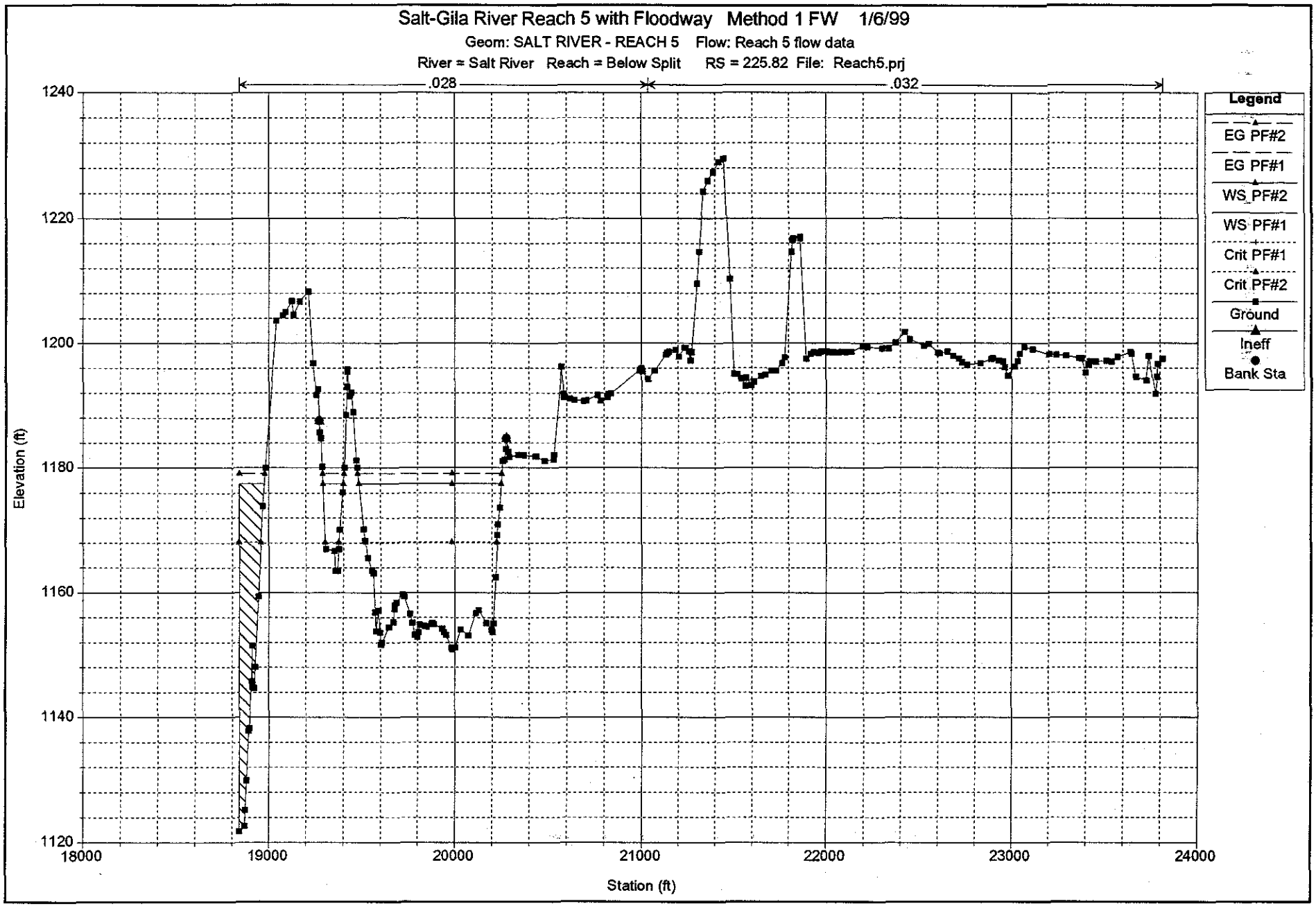

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 214.33 File: Reach4.prj
.04
.035
.04
Elevation (ft)
1090
1080
1070
1060
1050
1040
19000
19500
20000
20500
21000
21500
22000
22500
23000
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

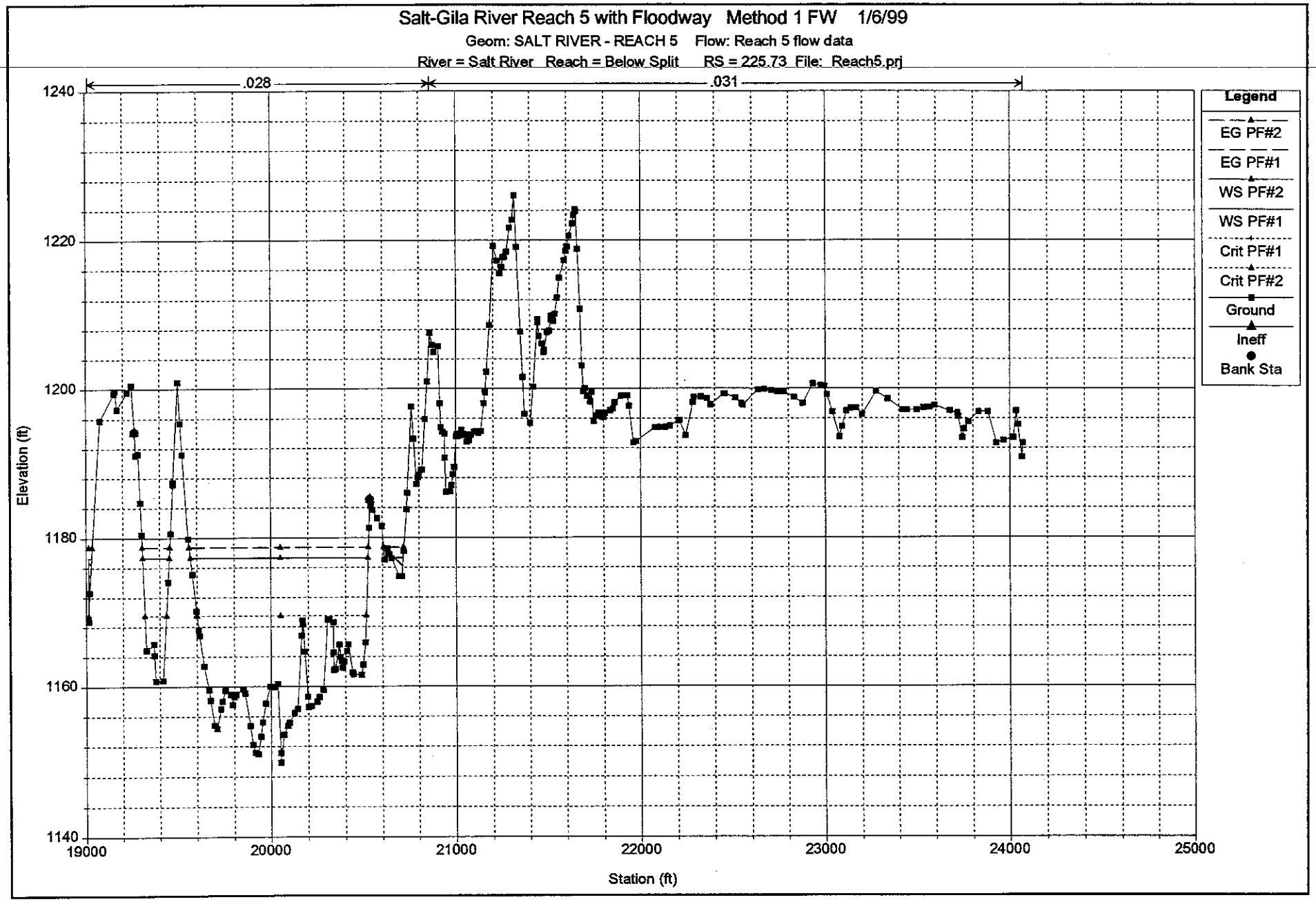

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 214.23 File: Reach4.prj
.04
.035
.04
Elevation (ft)
1085
1080
1075
1070
1065
1060
1055
1050
1045
18500
19000
19500
20000
20500
21000
21500
22000
22500
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

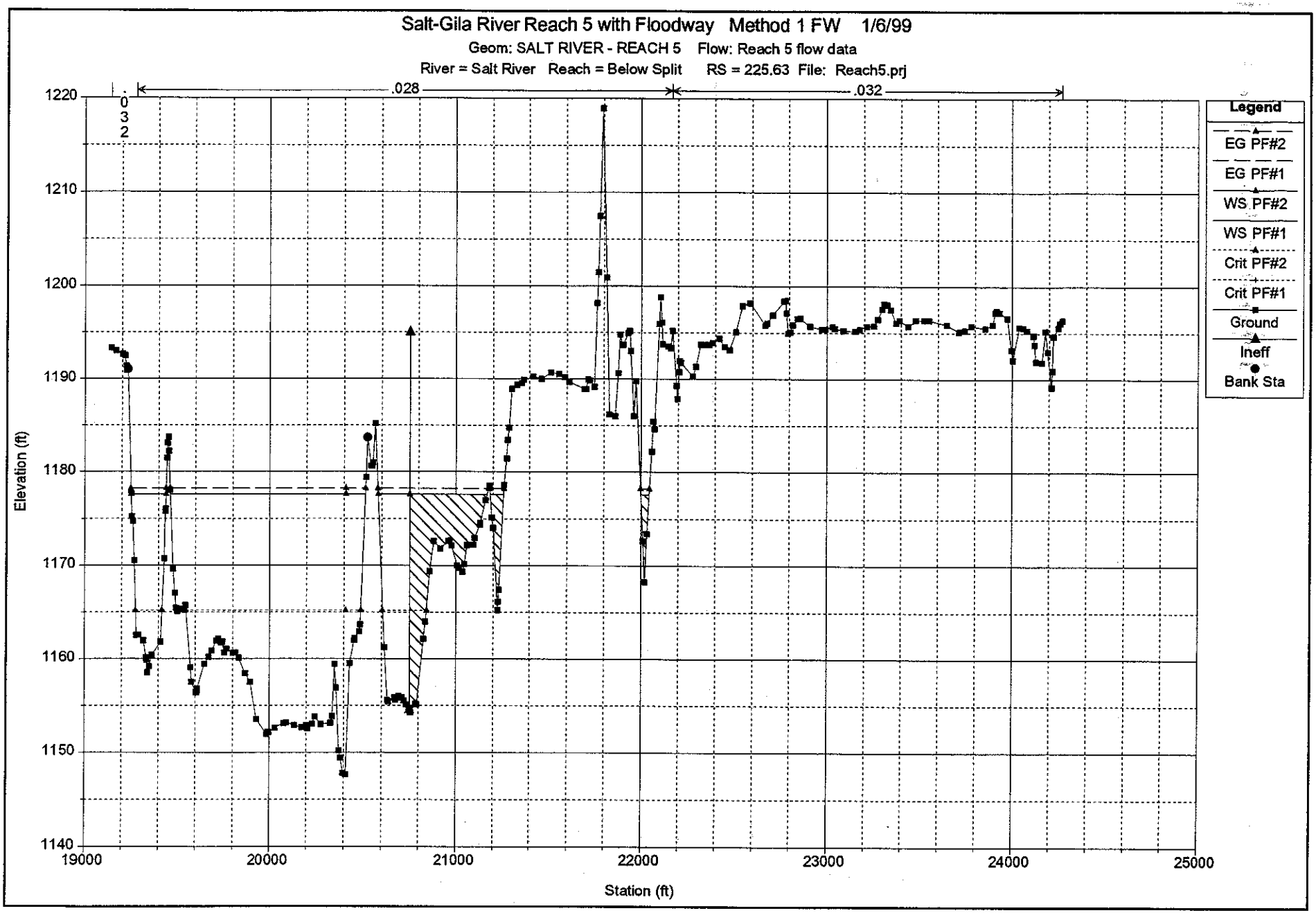

Salt Gila Reach 4 - MARCH 16 (2) Method 1 FW 1/22/99
Geom: Reach 4 Flow: Imported Flow 02
River = Salt River Reach = Reach 4 RS = 214.14 File: Reach4.prj
.04
.035
.04
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1085
1080
1075
1070
1065
1060
1055
1050
1045
18000
19000
20000
21000
22000
23000
Station (ft)

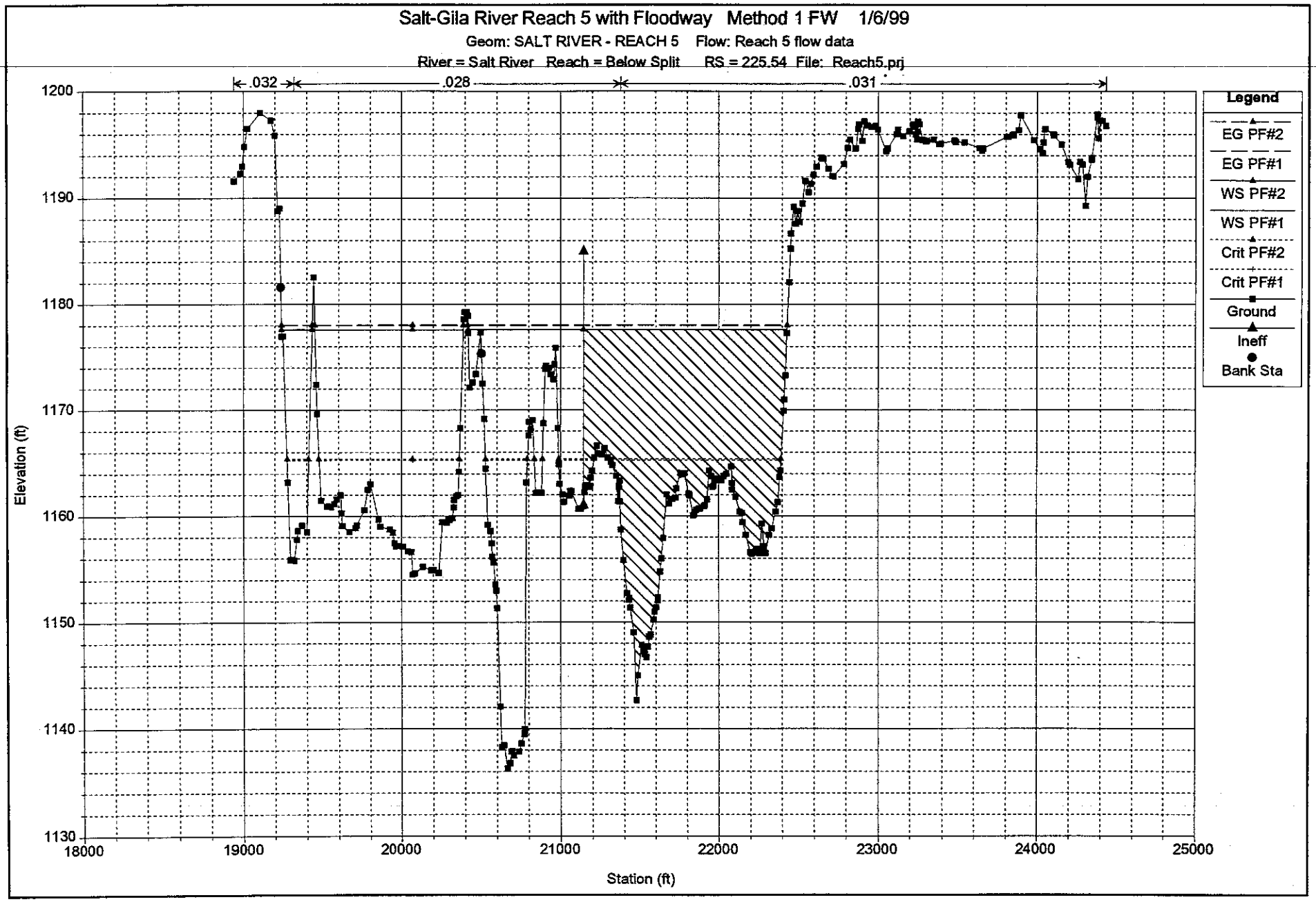

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Below Split RS = 226.03 File: Reach5.prj
.028
.028
.028
Elevation (ft)
1220
1210
1200
1190
1180
1170
1160
1150
17000
18000
19000
20000
21000
22000
23000
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

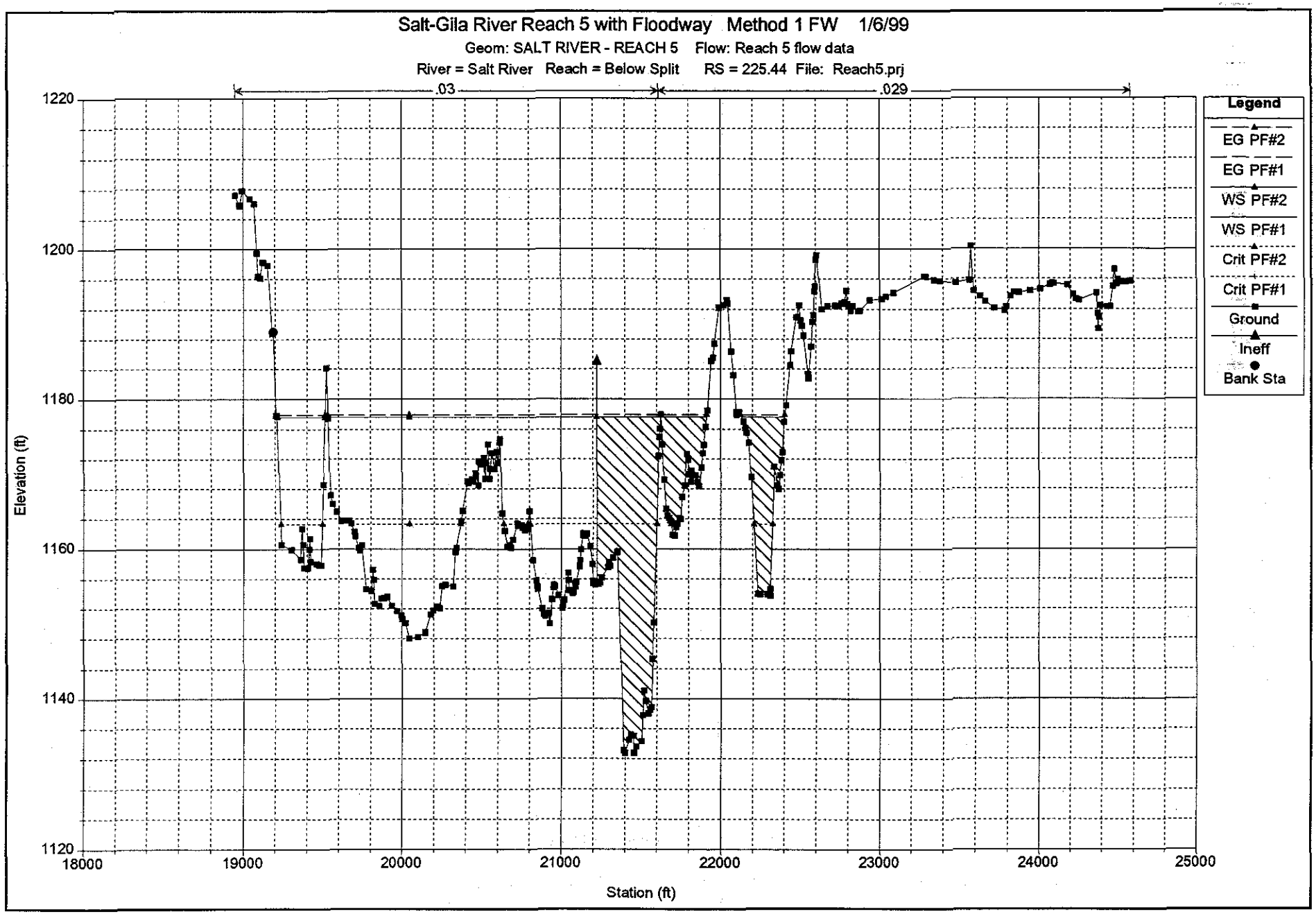

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Below Split RS = 225.92 File: Reach5.prj
.032
.028
.032
Elevation (ft)
1220
1210
1200
1190
1180
1170
1160
1150
18000
19000
20000
21000
22000
23000
24000
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta

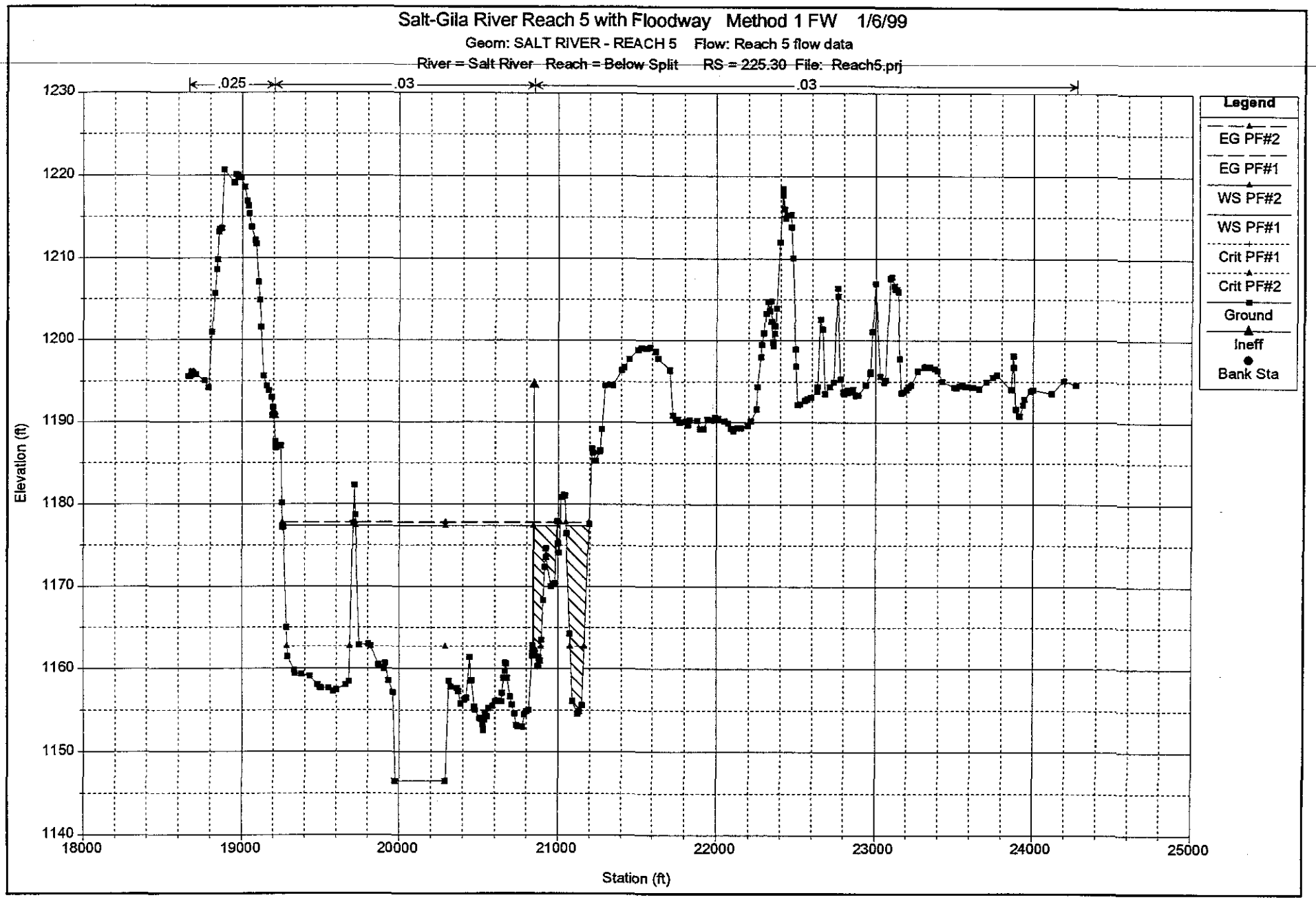

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Below Split RS = 225.82 File: Reach5.prj
.028
.032
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1240
1220
1200
1180
1160
1140
1120
18000
19000
20000
21000
22000
23000
24000
Station (ft)

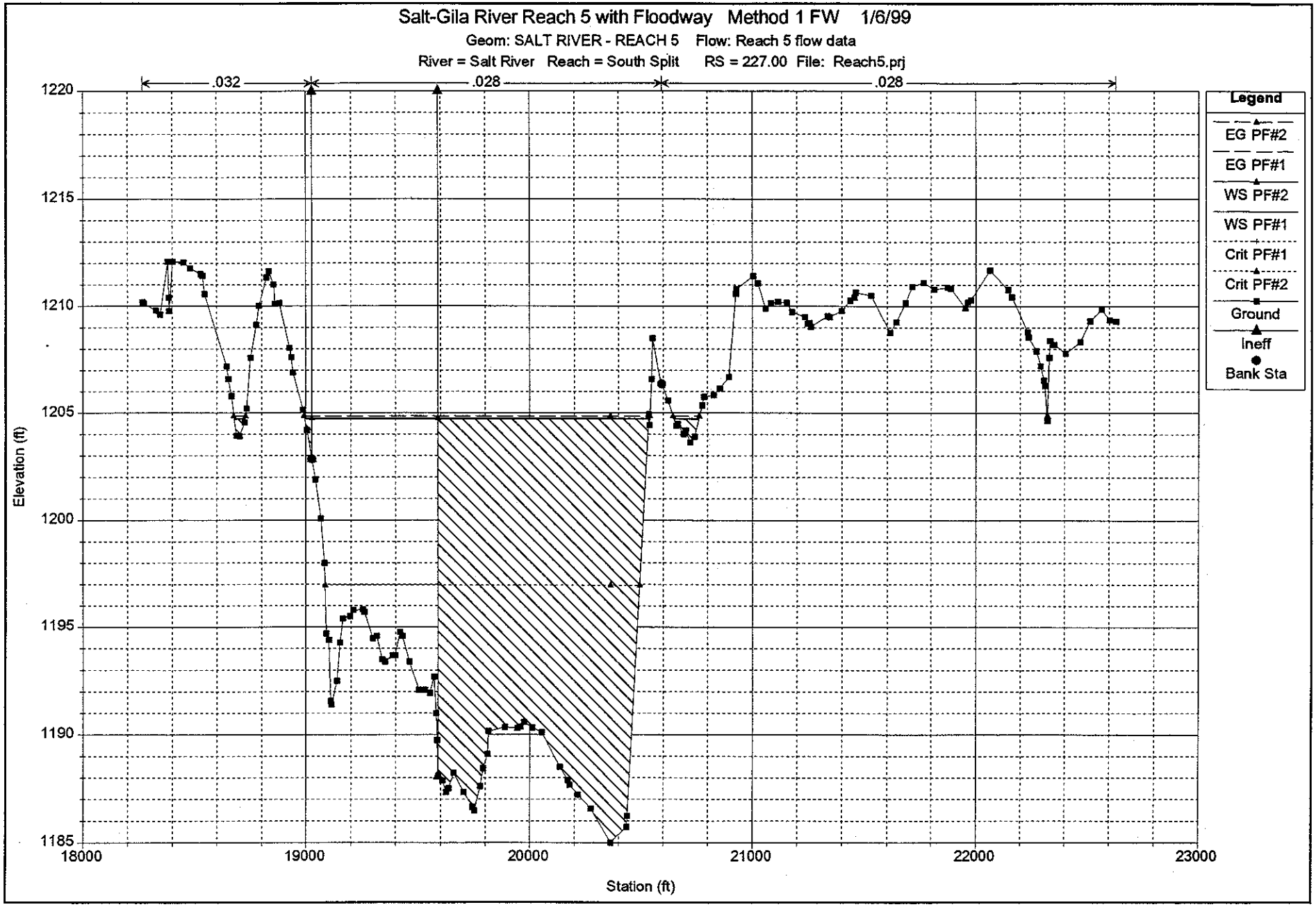

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Below Split RS = 225.73 File: Reach5.prj
.028
.031
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1240
1220
1200
1180
1160
1140
19000
20000
21000
22000
23000
24000
25000
Station (ft)

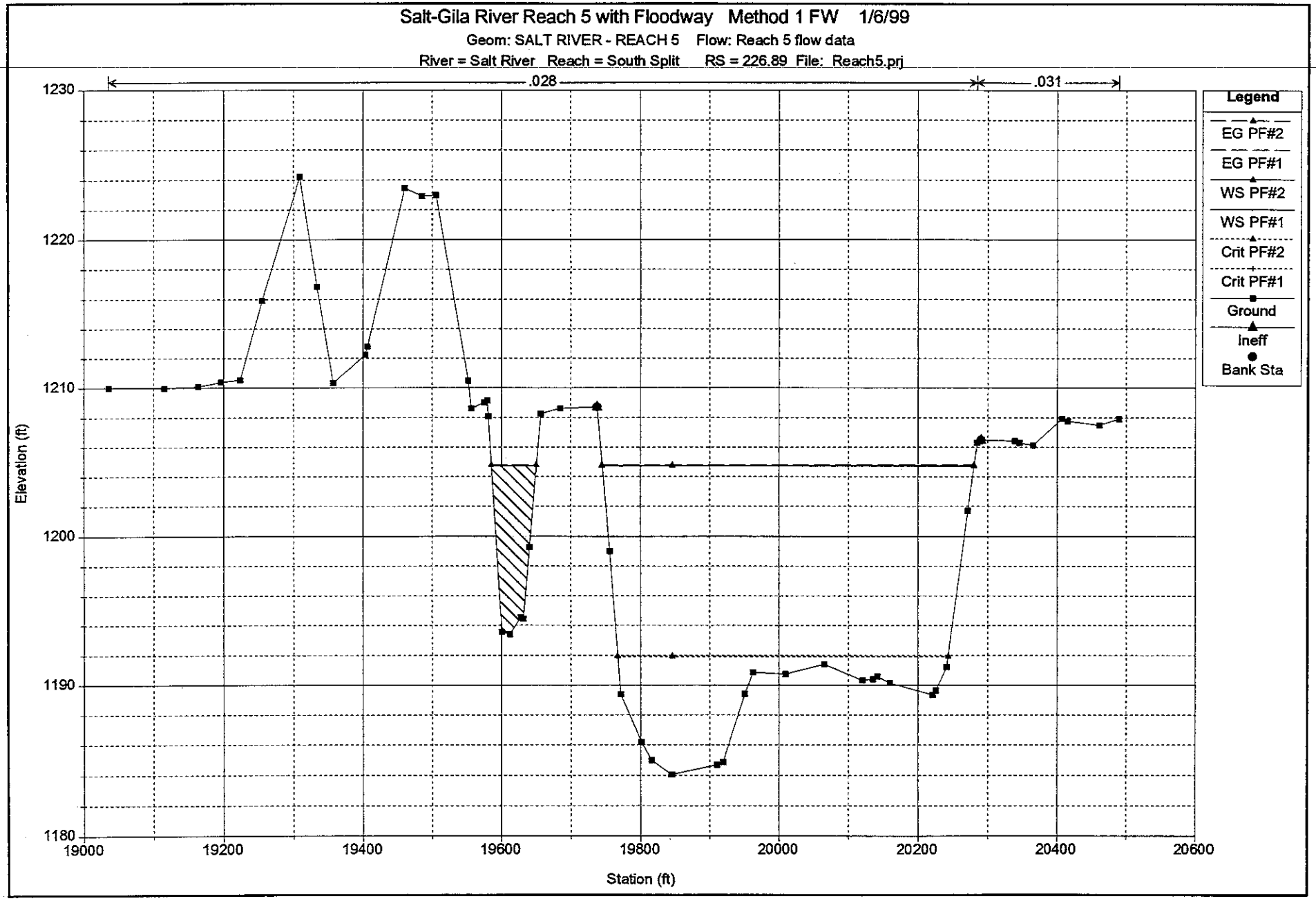

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Below Split RS = 225.63 File: Reach5.prj
.028
.032
.032
Elevation (ft)
Station (ft)
1220
1210
1200
1190
1180
1170
1160
1150
1140
19000
20000
21000
22000
23000
24000
25000
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta

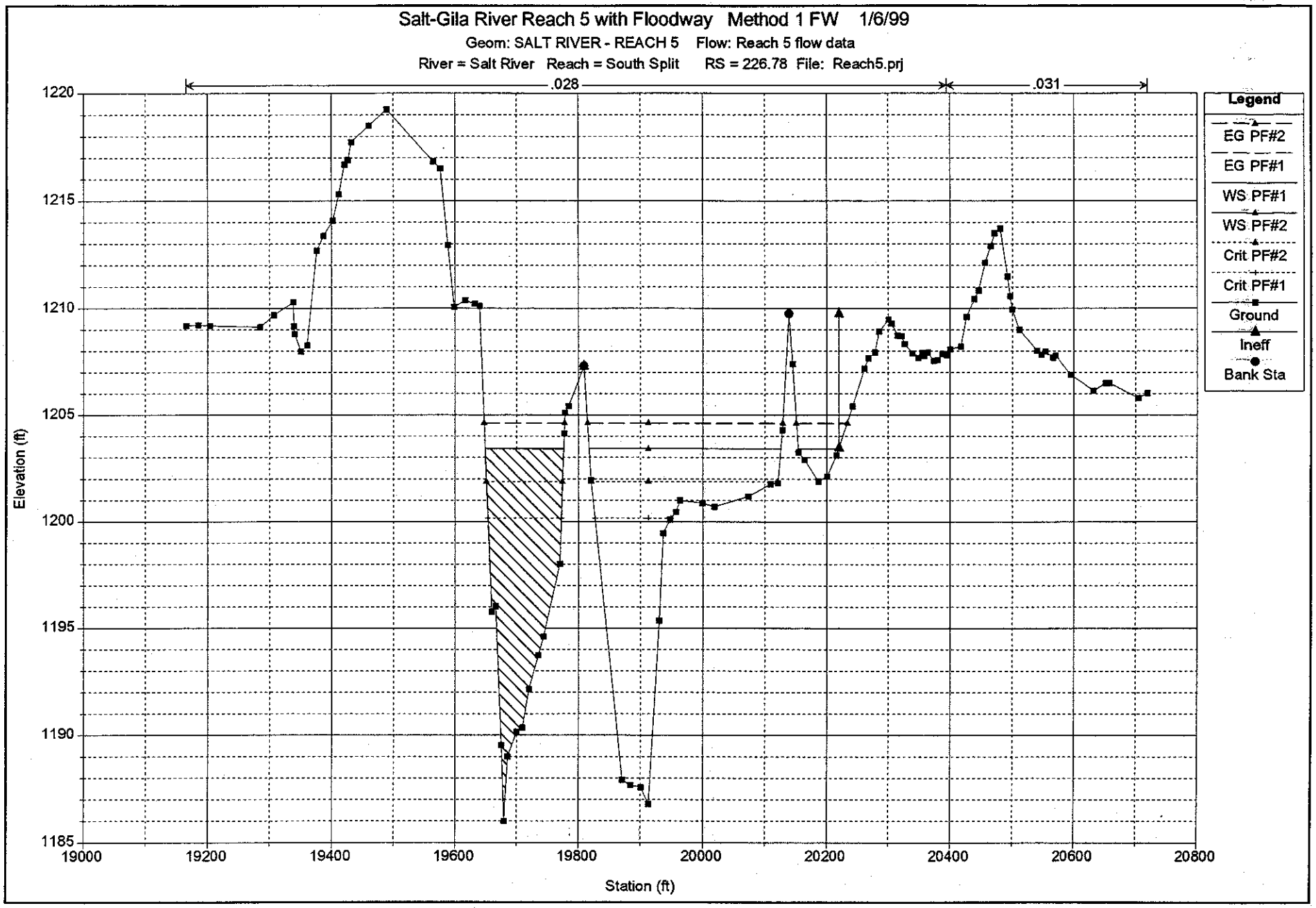

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Below Split RS = 225.54 File: Reach5.prj
.032
.028
.031
Elevation (ft)
Station (ft)
1200
1190
1180
1170
1160
1150
1140
1130
18000
19000
20000
21000
22000
23000
24000
25000
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta

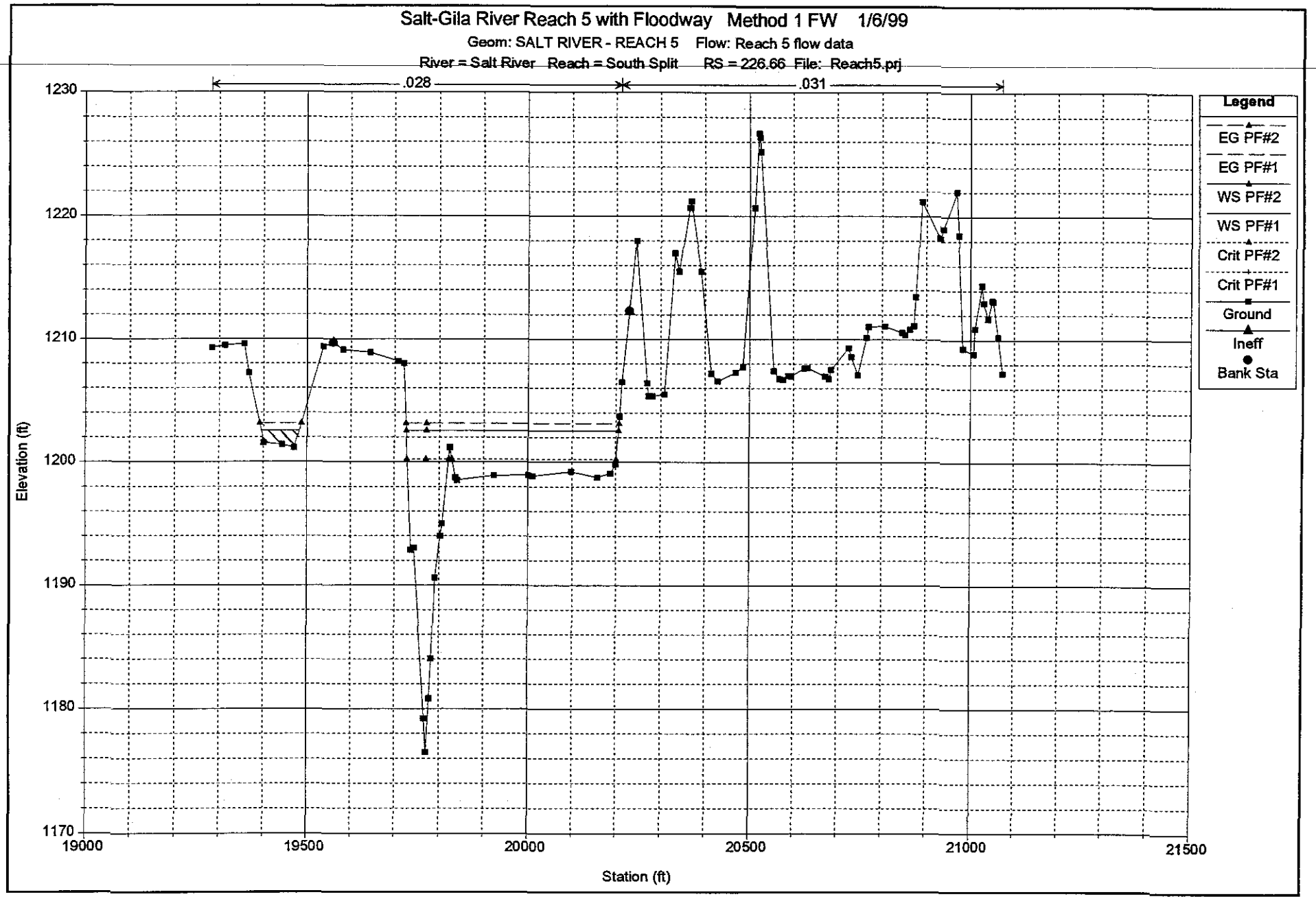

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Below Split RS = 225.44 File: Reach5.prj
.03
.029
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1220
1200
1180
1160
1140
1120
18000
19000
20000
21000
22000
23000
24000
25000
Station (ft)

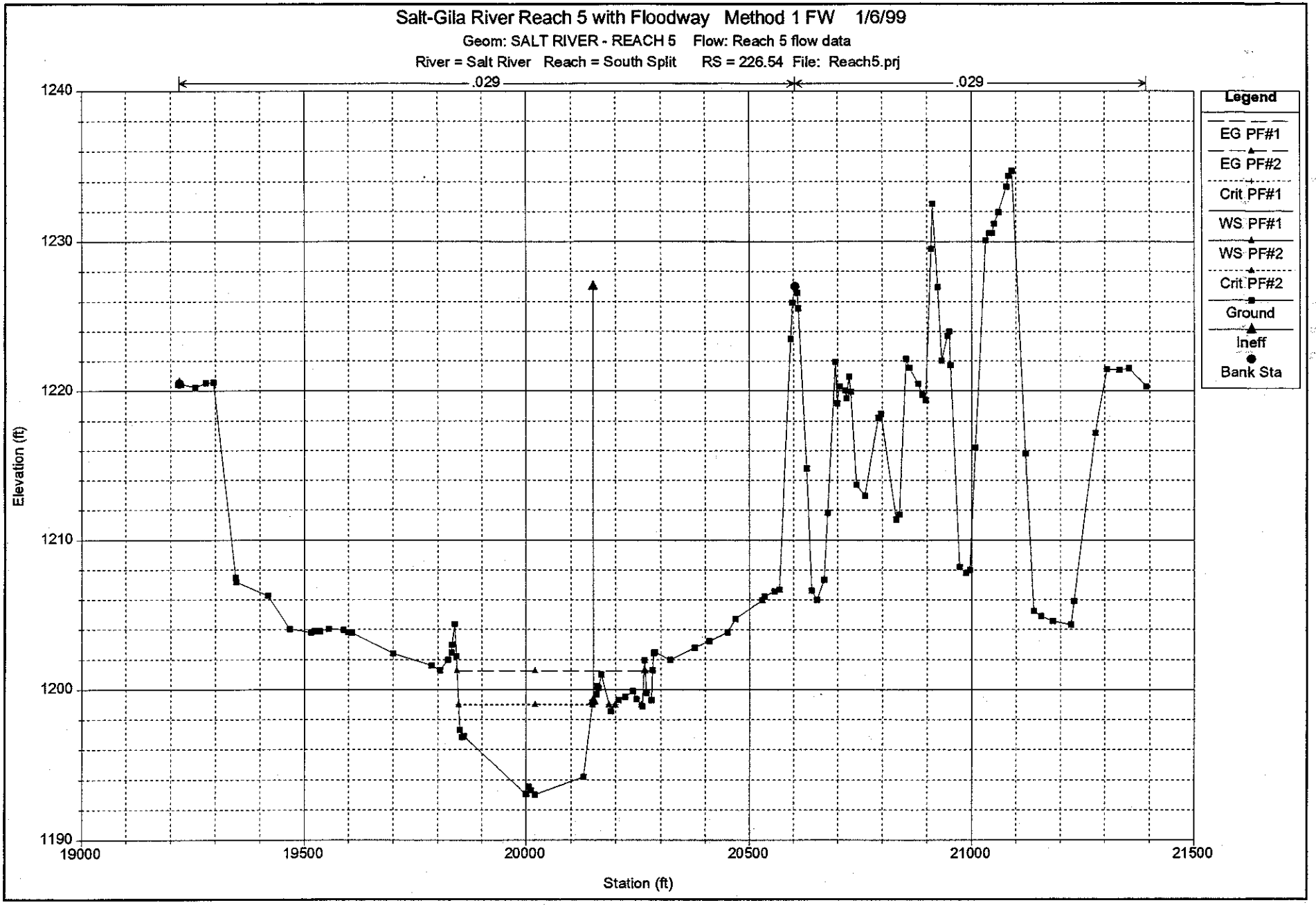

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Below Split RS = 225.30 File: Reach5.prj
.025
.03
.03
Elevation (ft)
1230
1220
1210
1200
1190
1180
1170
1160
1150
1140
18000
19000
20000
21000
22000
23000
24000
25000
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

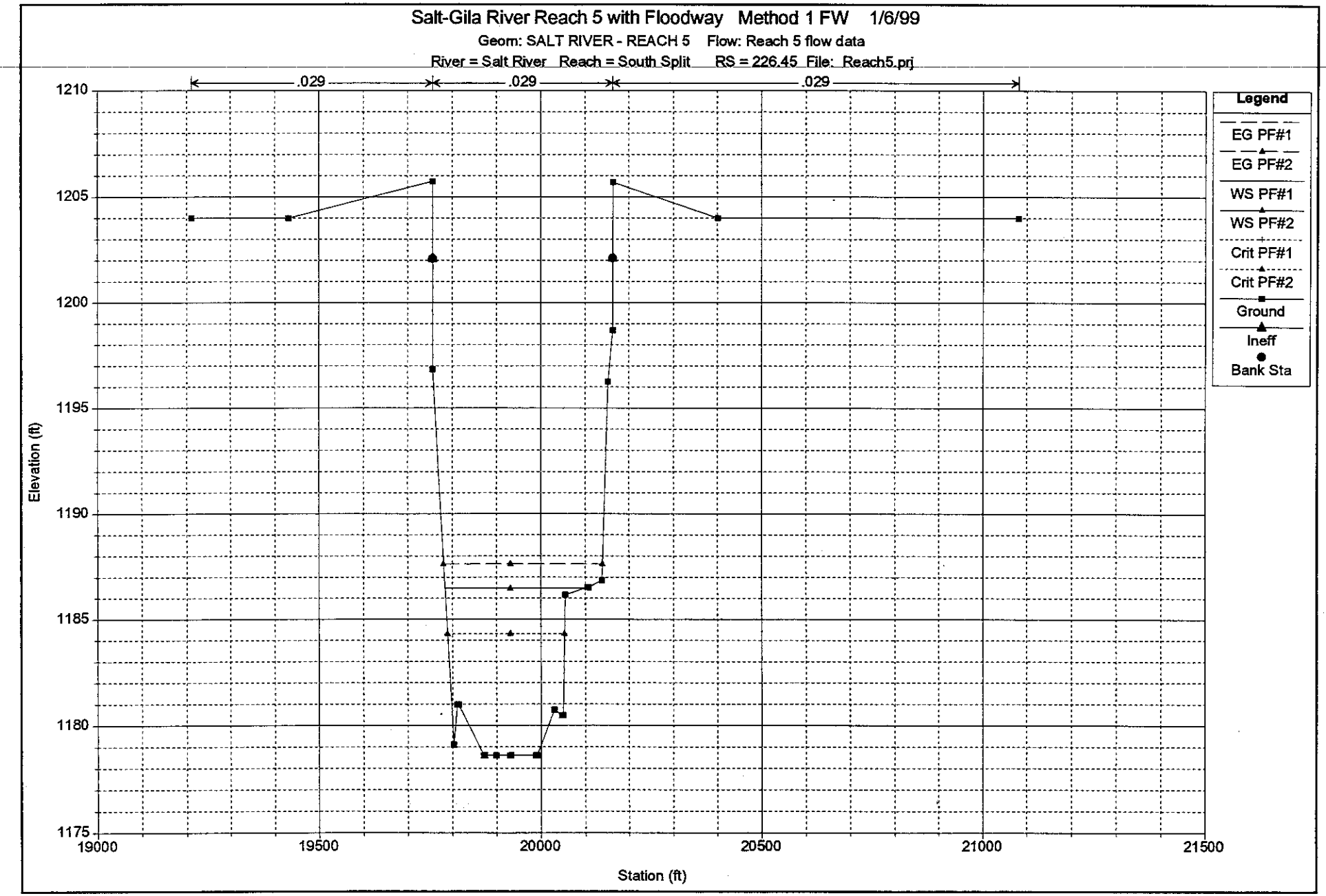

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = South Split RS = 227.00 File: Reach5.prj
.032
.028
.028
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1220
1215
1210
1205
1200
1195
1190
1185
18000
19000
20000
21000
22000
23000
Station (ft)

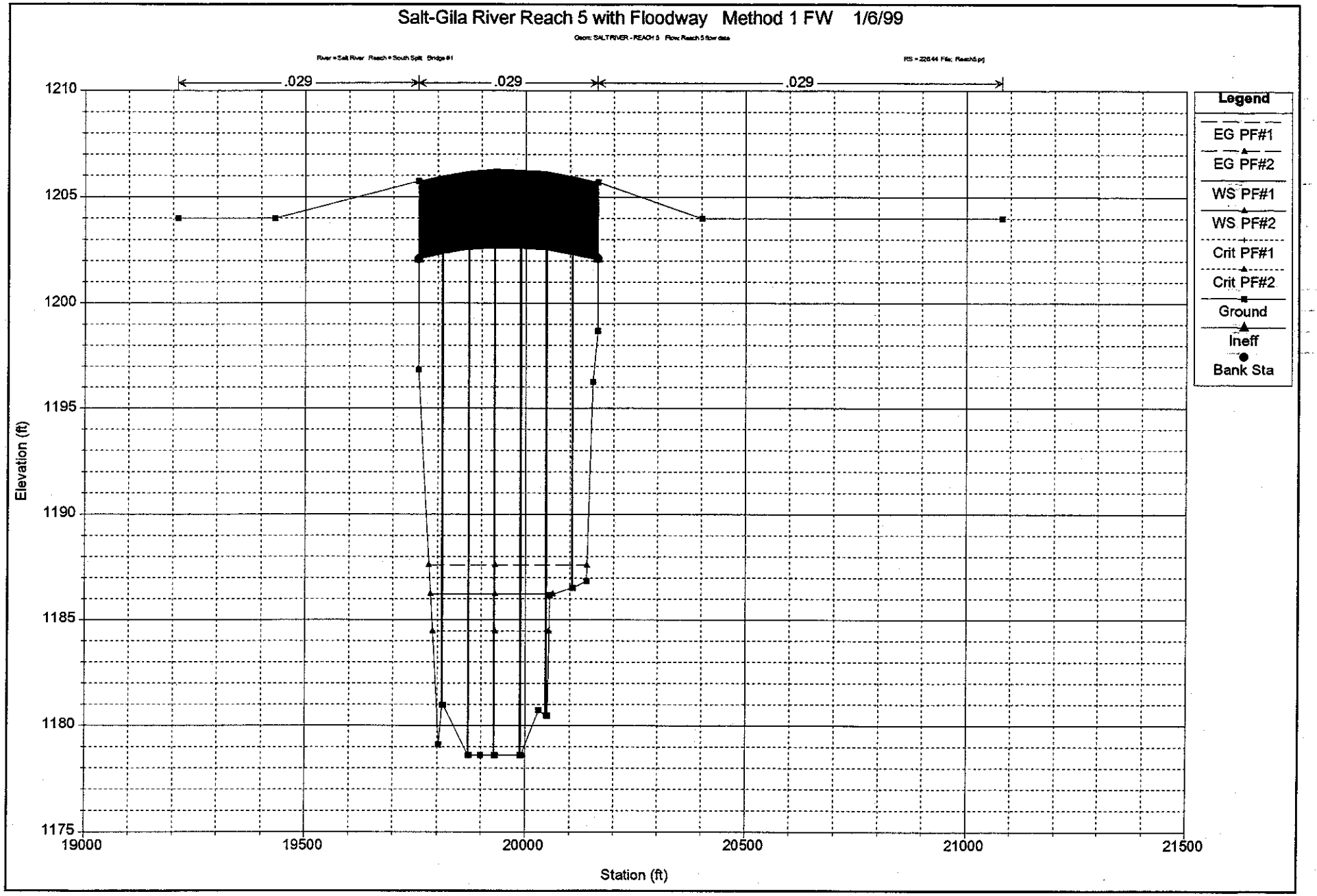

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = South Split RS = 226.89 File: Reach5.prj
.028
.031
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1230
1220
1210
1200
1190
1180
19000
19200
19400
19600
19800
20000
20200
20400
20600
Station (ft)


Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = South Split RS = 226.78 File: Reach5.prj
.028
.031
Legend
EG PF#2
EG PF#1
WS PF#1
WS PF#2
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1220
1215
1210
1205
1200
1195
1190
1185
19000
19200
19400
19600
19800
20000
20200
20400
20600
20800
Station (ft)

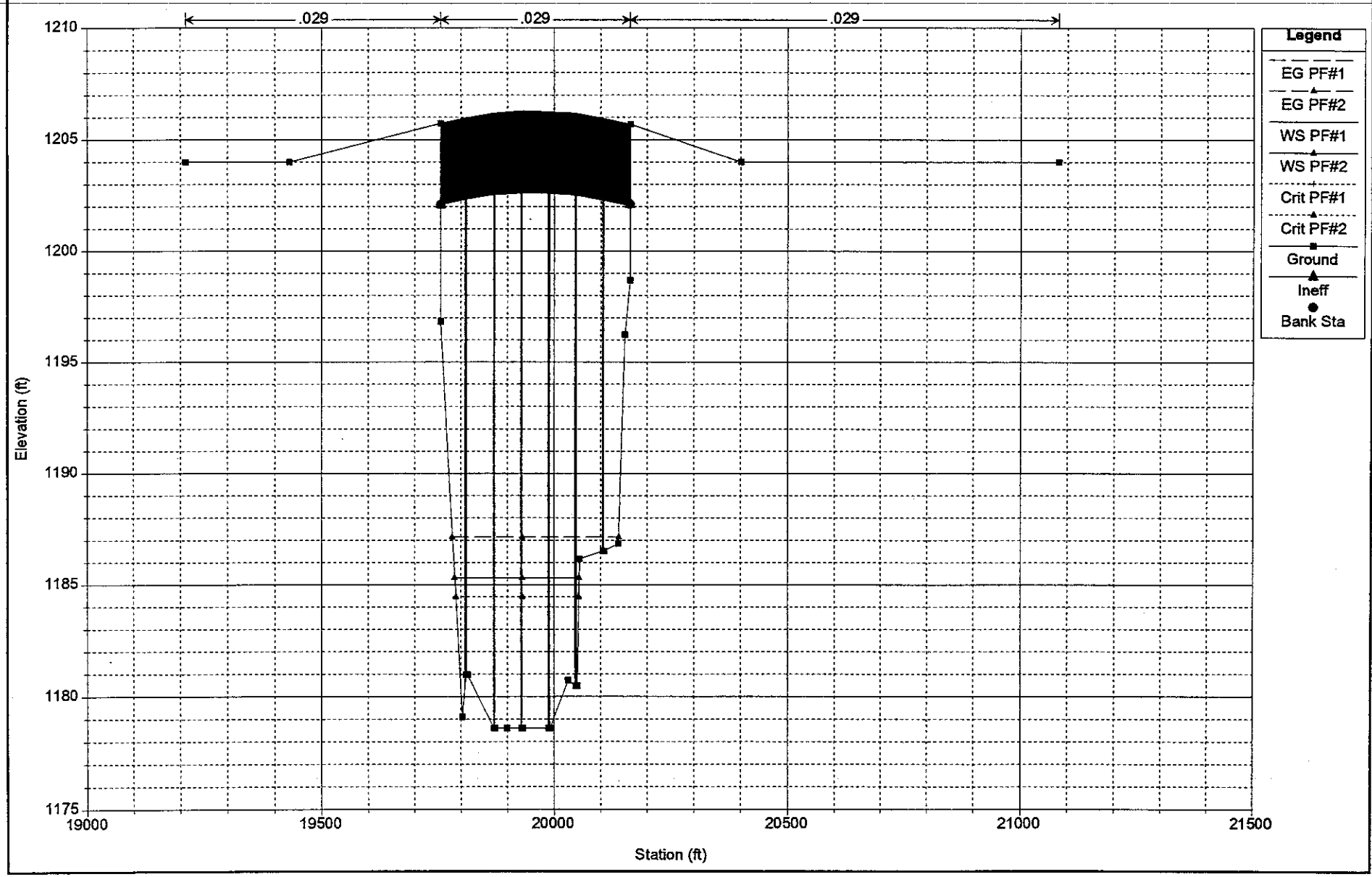

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = South Split RS = 226.66 File: Reach5.prj
.028
.031
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1230
1220
1210
1200
1190
1180
1170
19000
19500
20000
20500
21000
21500
Station (ft)

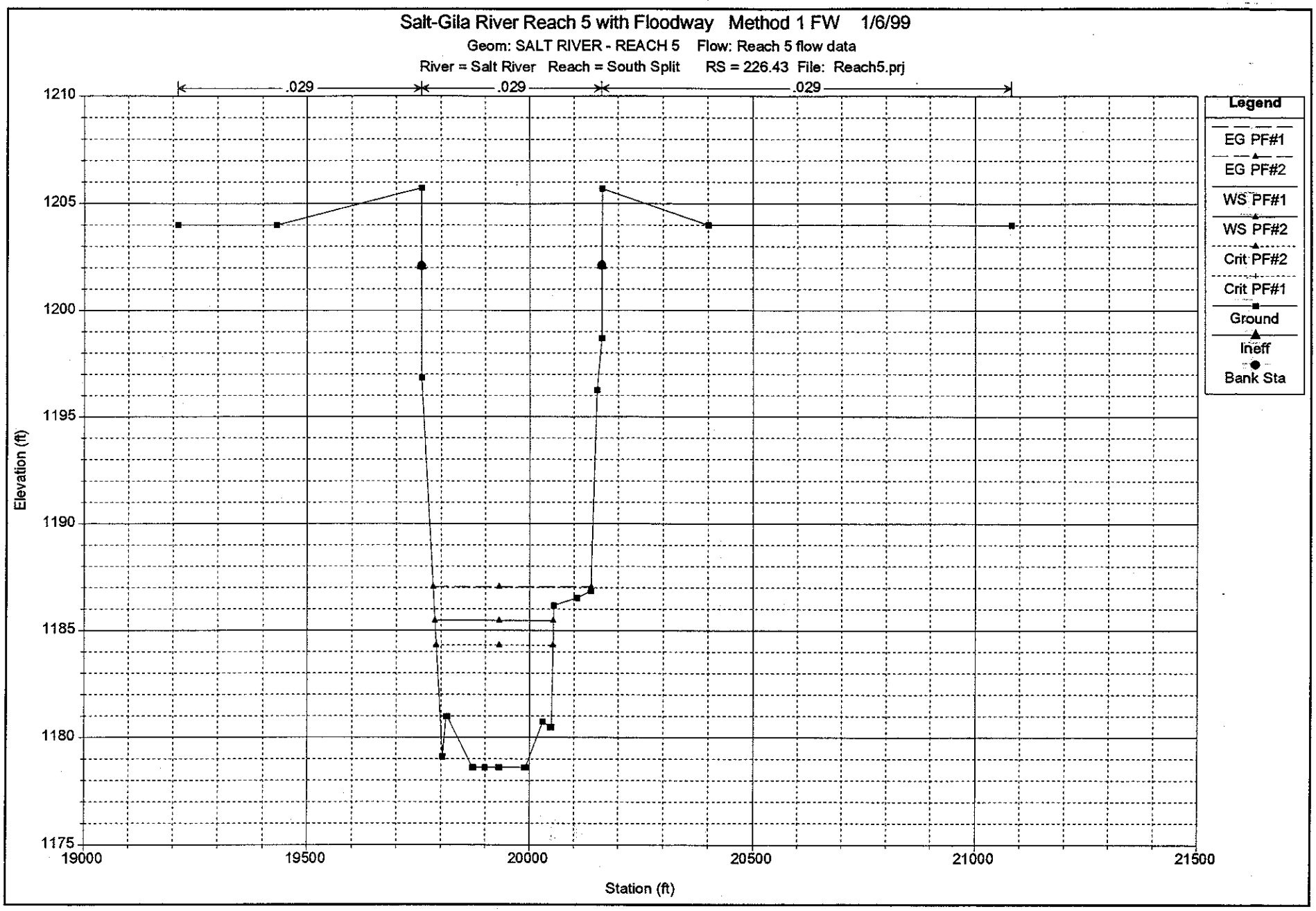

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = South Split RS = 226.54 File: Reach5.prj
.029
.029
Legend
EG PF#1
EG PF#2
Crit PF#1
WS PF#1
WS PF#2
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1240
1230
1220
1210
1200
1190
19000
19500
20000
20500
21000
21500
Station (ft)

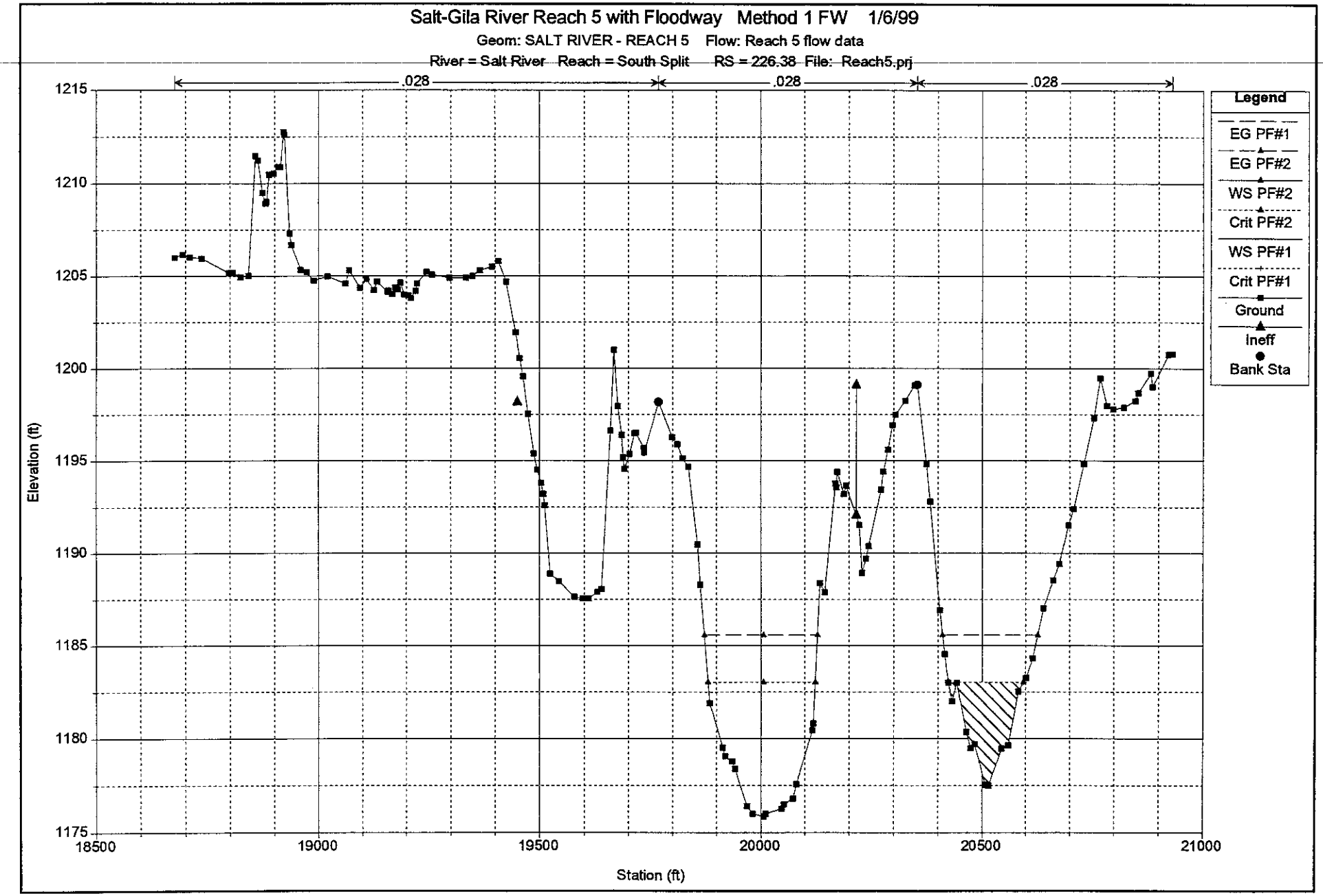

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = South Split RS = 226.45 File: Reach5.prj
.029
.029
.029
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1210
1205
1200
1195
1190
1185
1180
1175
19000
19500
20000
20500
21000
21500
Station (ft)

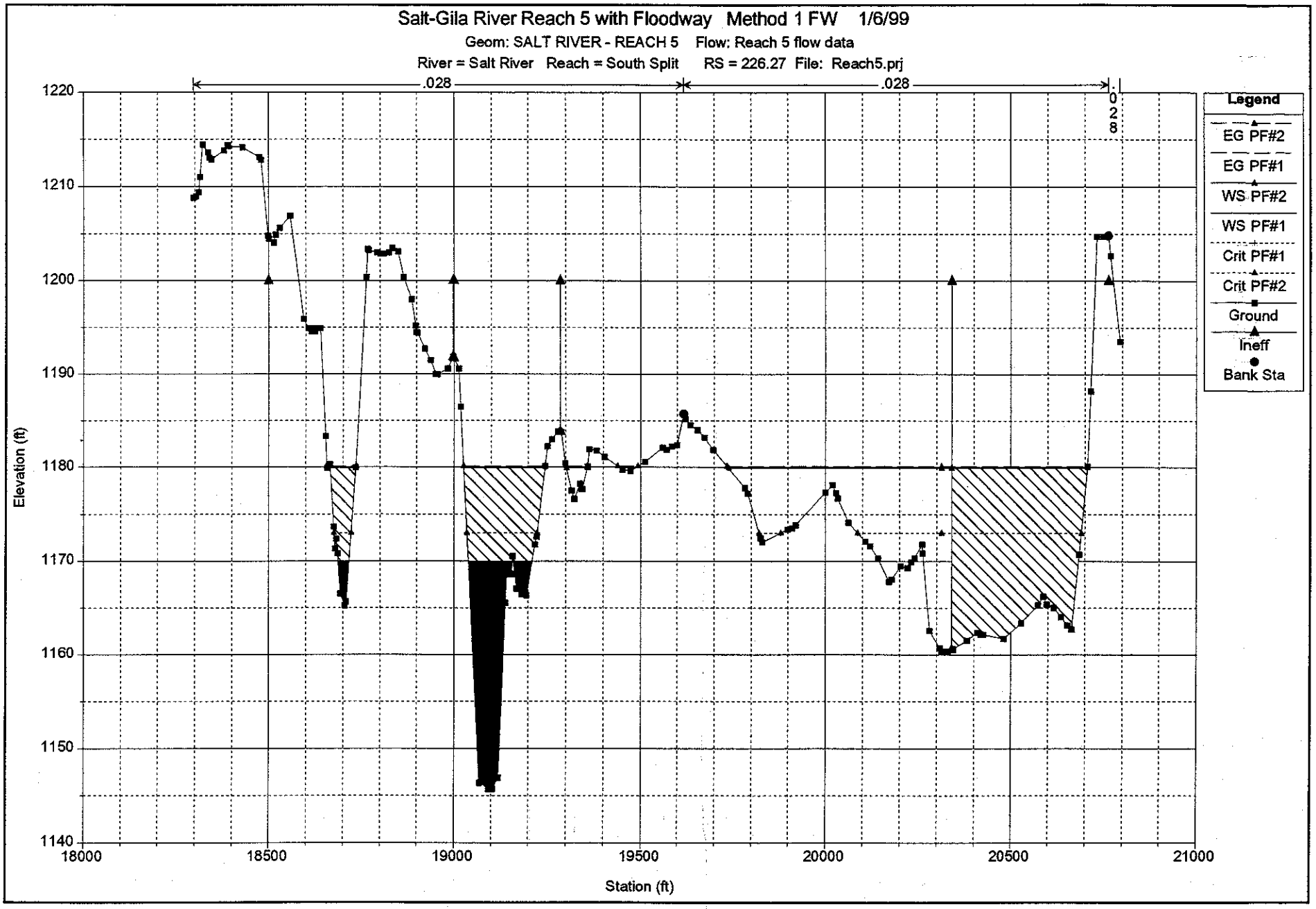

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
.029
.029
.029
1210
1205
1200
1195
1190
1185
1180
1175
Elevation (ft)
19000
19500
20000
20500
21000
21500
Station (ft)
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

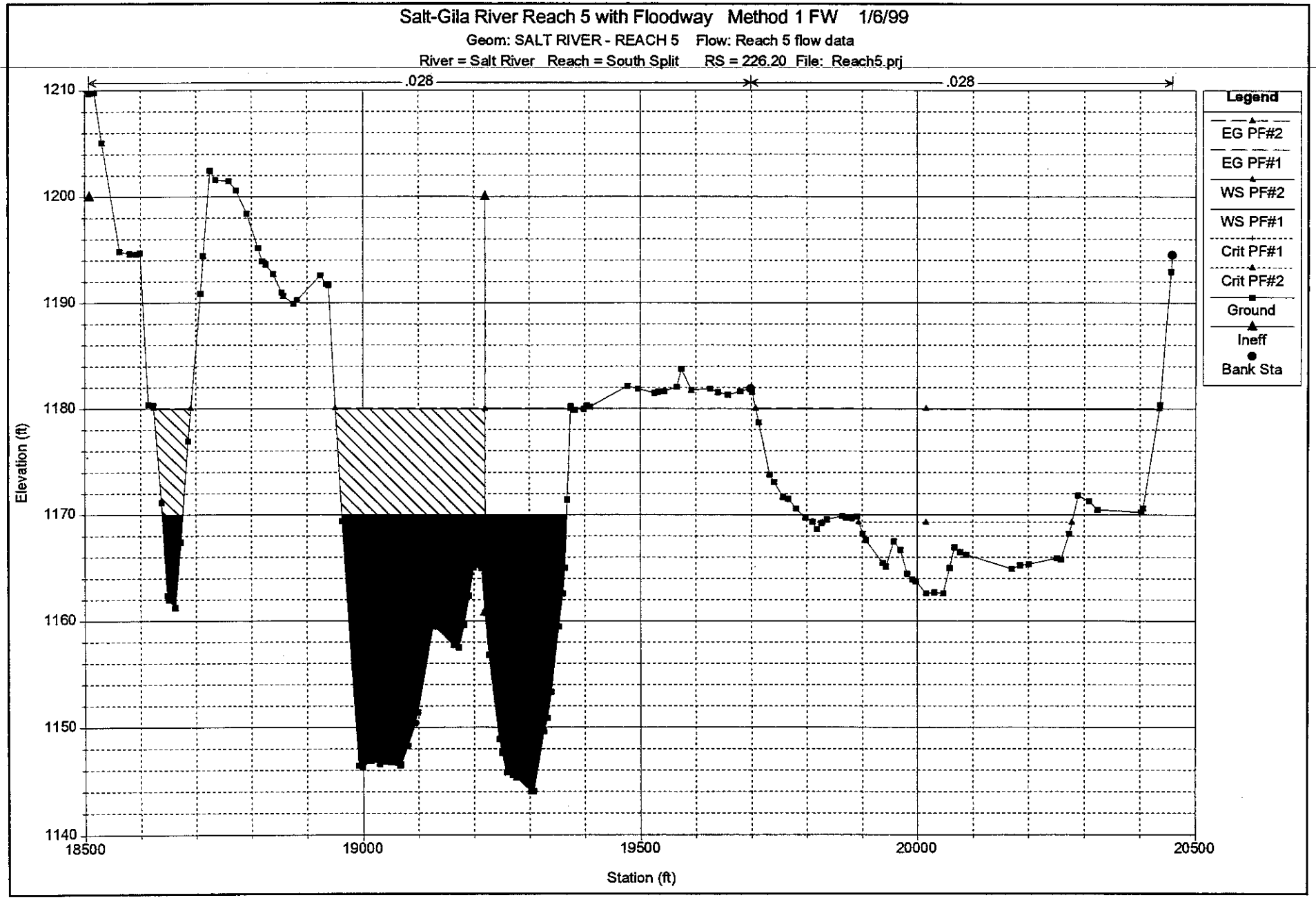
Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99

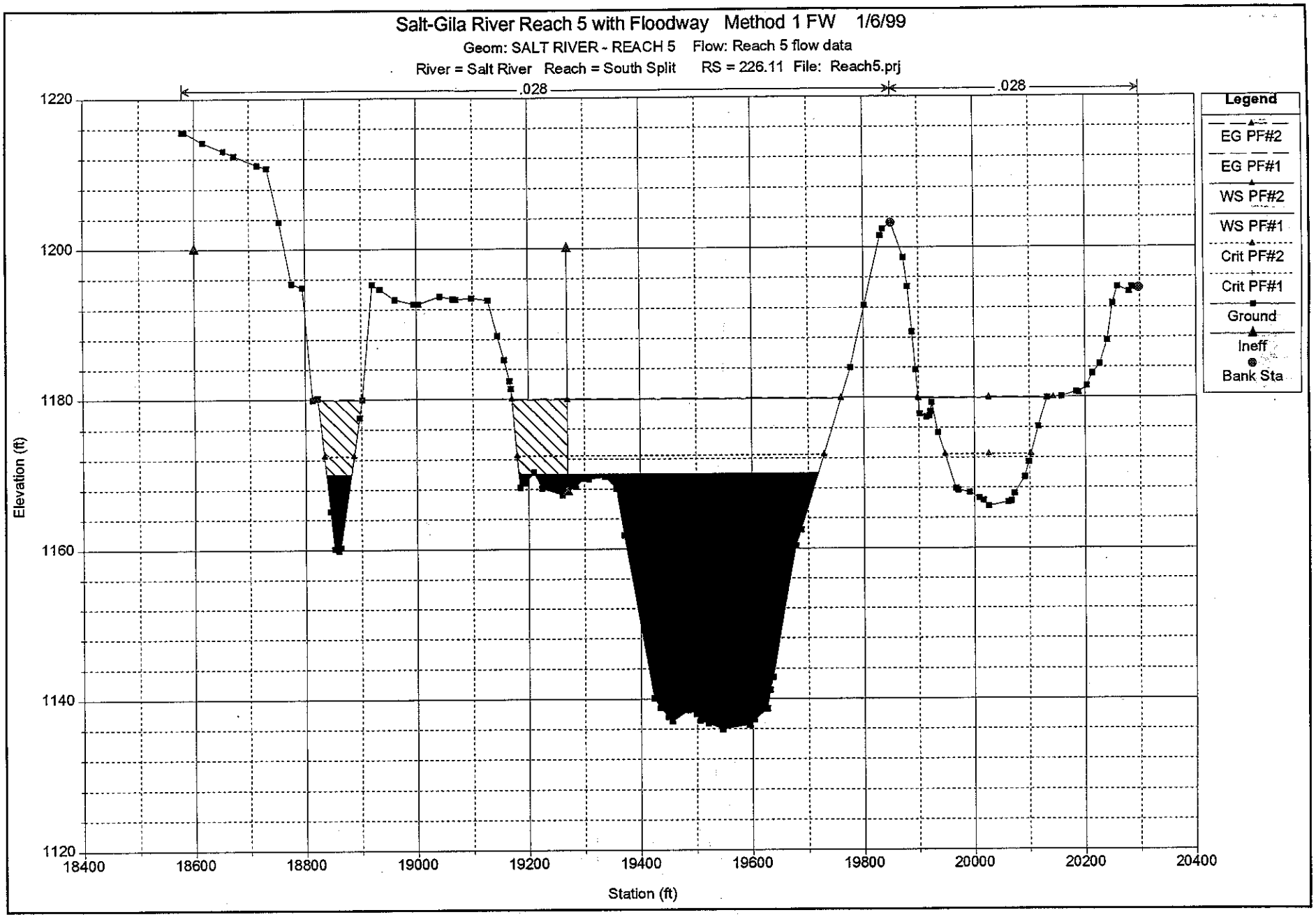


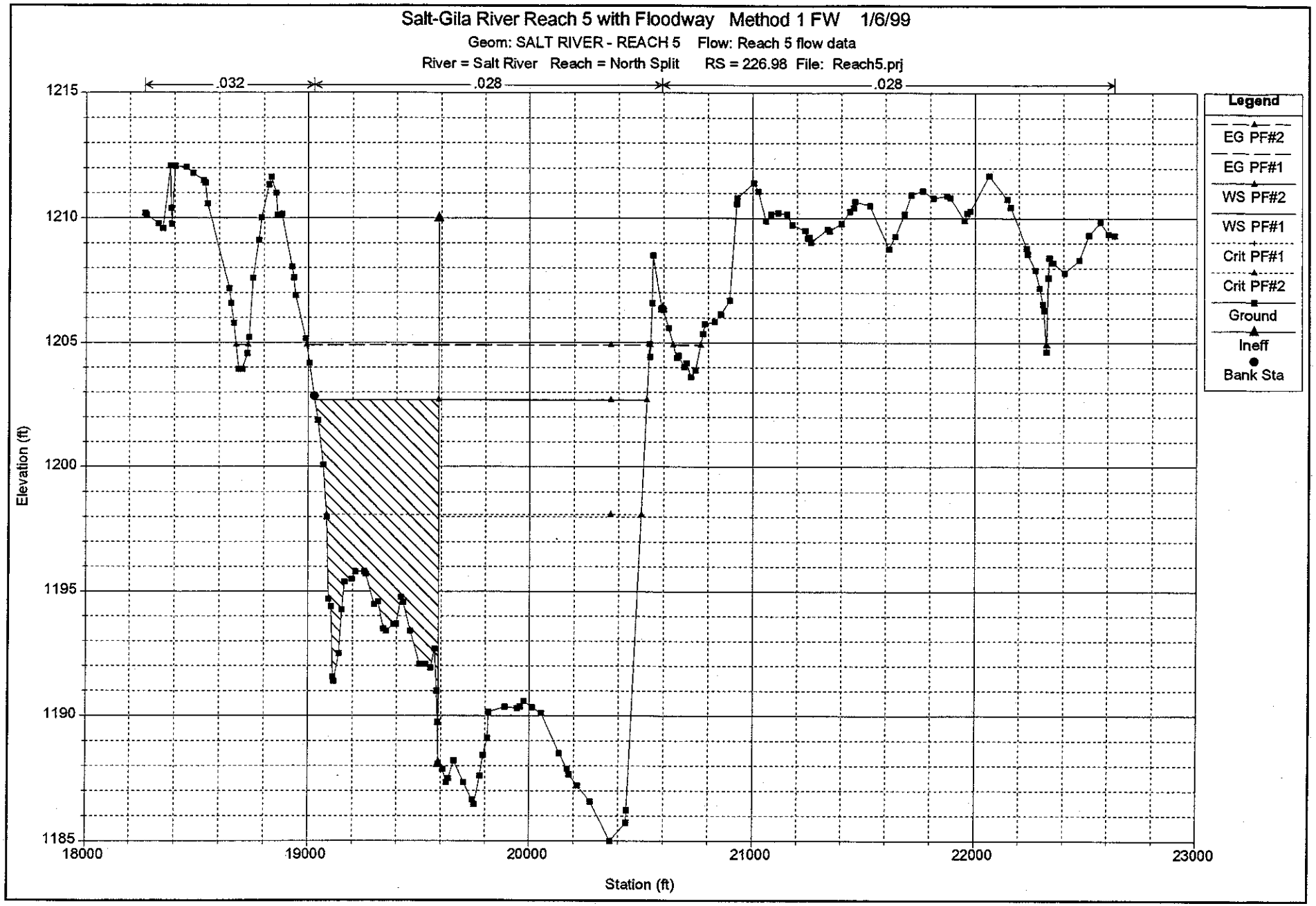

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = South Split RS = 226.43 File: Reach5.prj
.029
.029
.029
Elevation (ft)
1210
1205
1200
1195
1190
1185
1180
1175
19000
19500
20000
20500
21000
21500
Station (ft)
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta

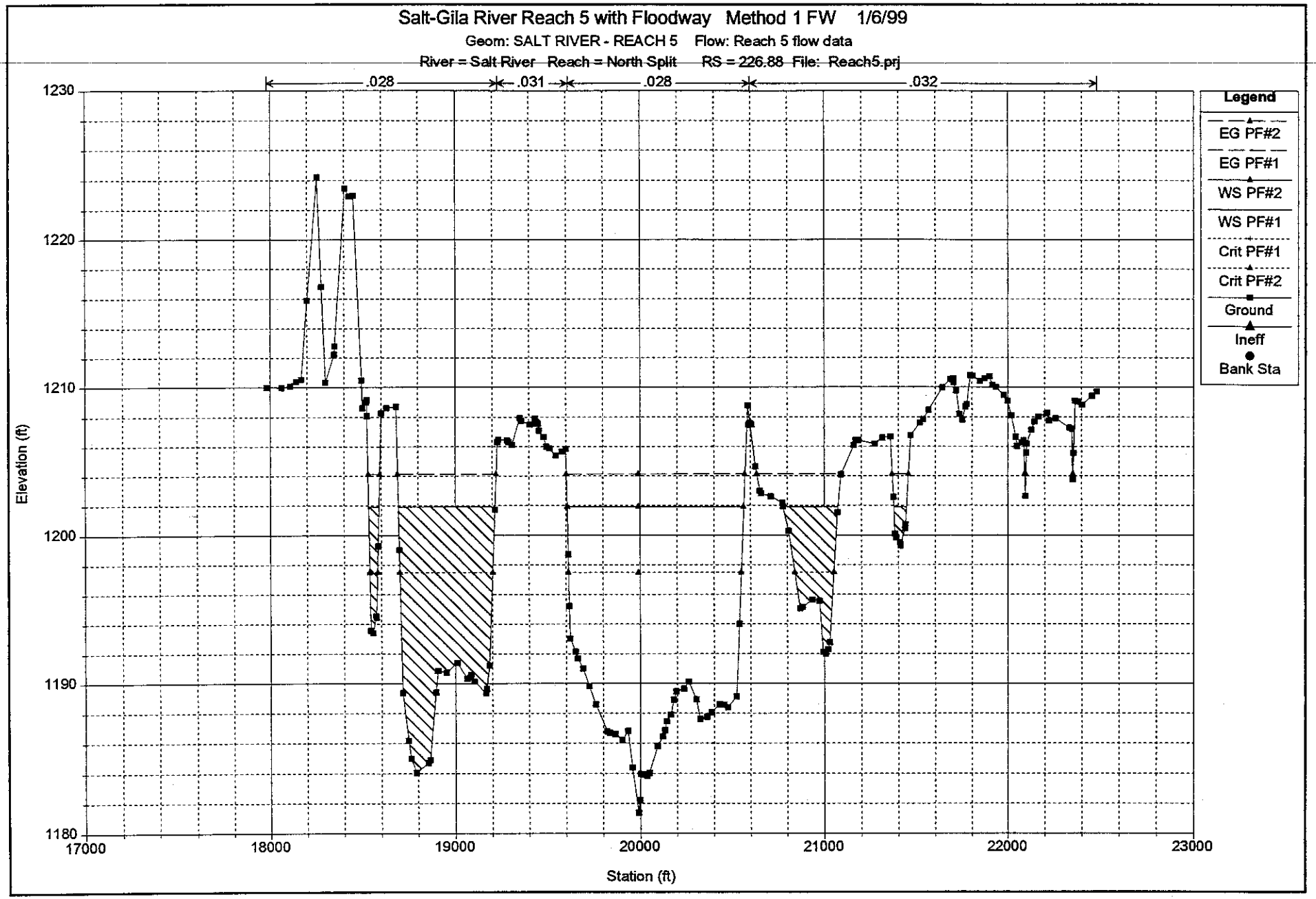

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = South Split RS = 226.38 File: Reach5.prj
.028
.028
.028
Legend
EG PF#1
EG PF#2
WS PF#2
Crit PF#2
WS PF#1
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1215
1210
1205
1200
1195
1190
1185
1180
1175
18500
19000
19500
20000
20500
21000
Station (ft)

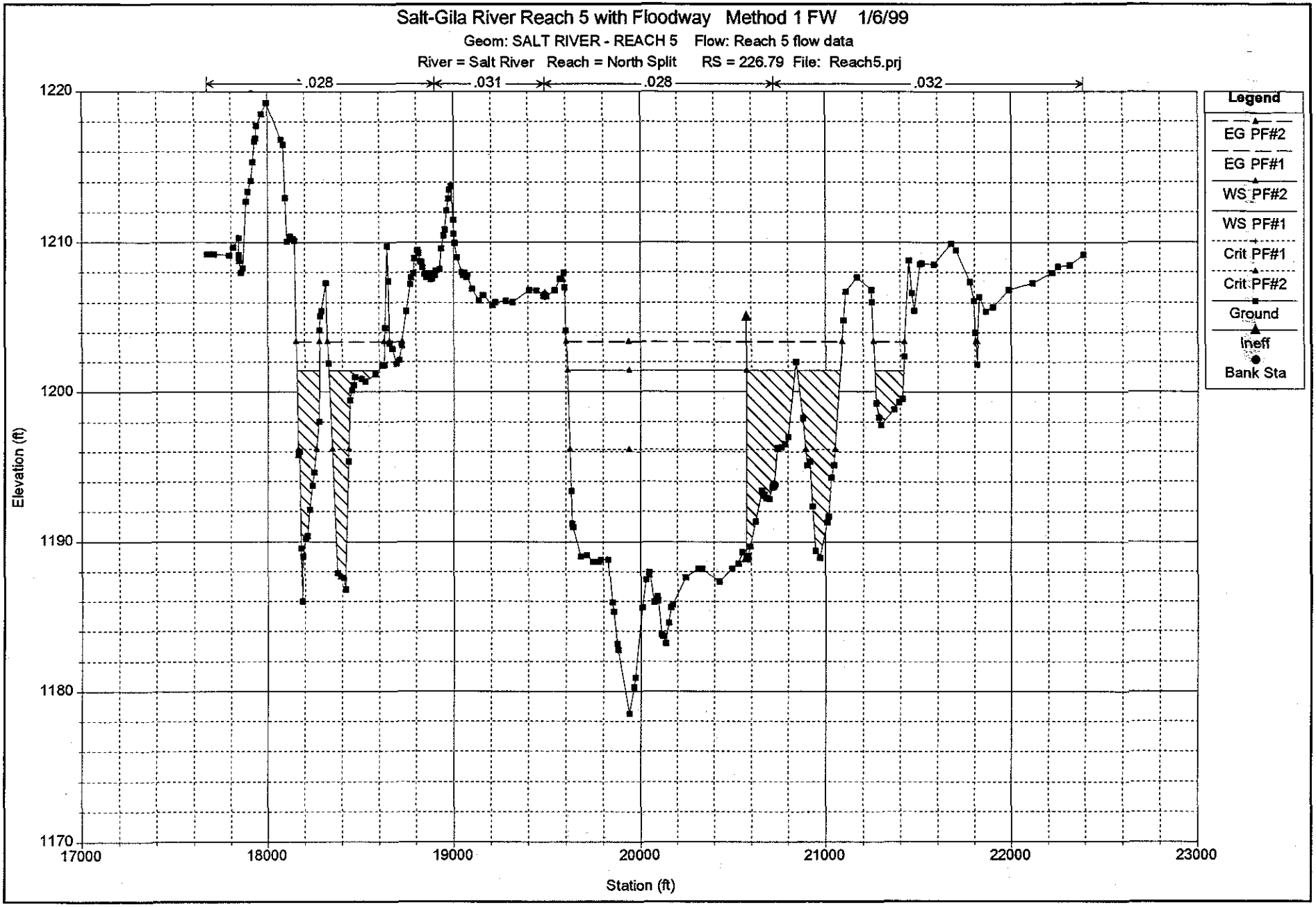

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = South Split RS = 226.27 File: Reach5.prj
.028
.028
.028
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1220
1210
1200
1190
1180
1170
1160
1150
1140
18000
18500
19000
19500
20000
20500
21000
Station (ft)

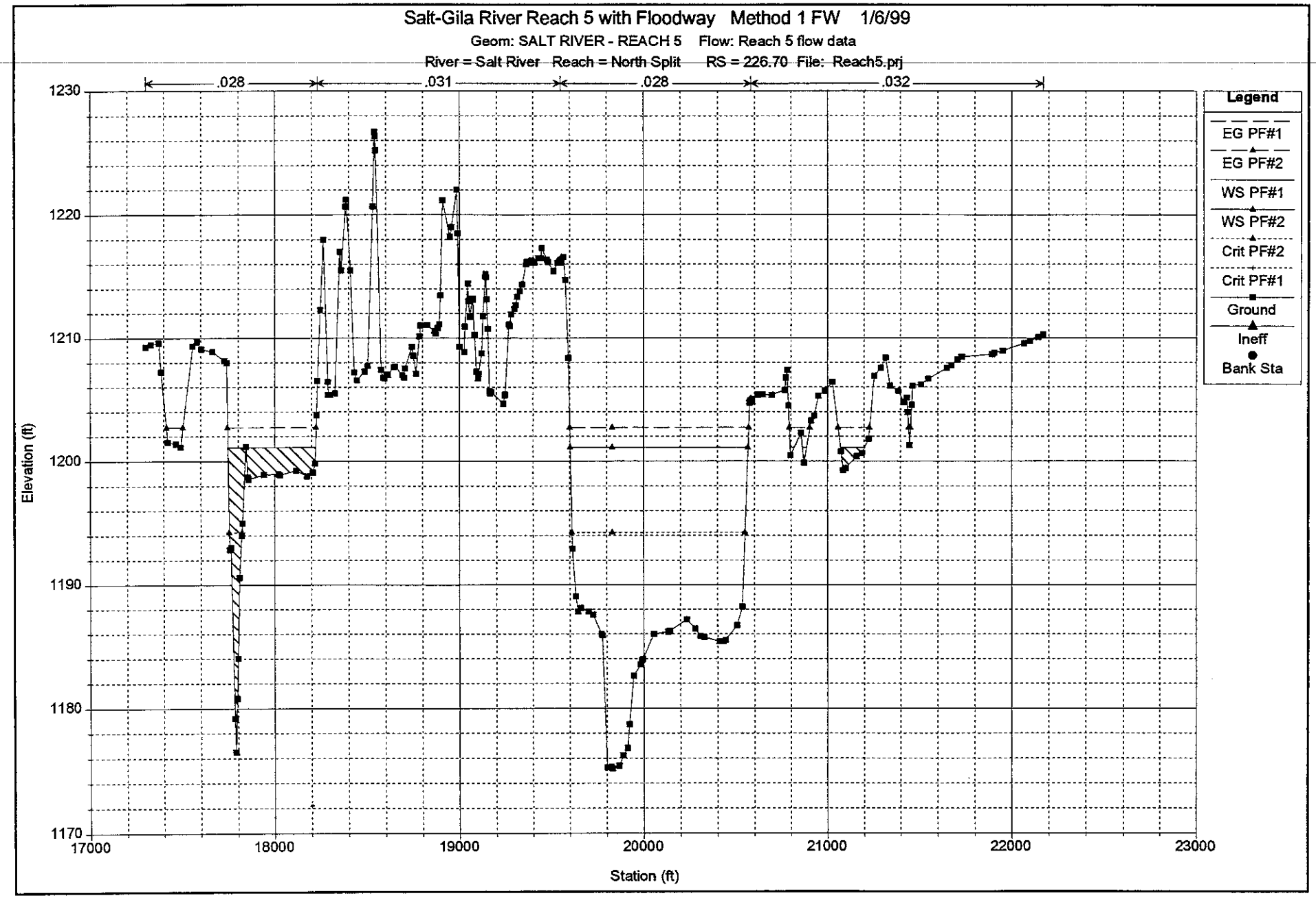

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = South Split RS = 226.20 File: Reach5.prj
.028
.028
Elevation (ft)
1210
1200
1190
1180
1170
1160
1150
1140
18500
19000
19500
20000
20500
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

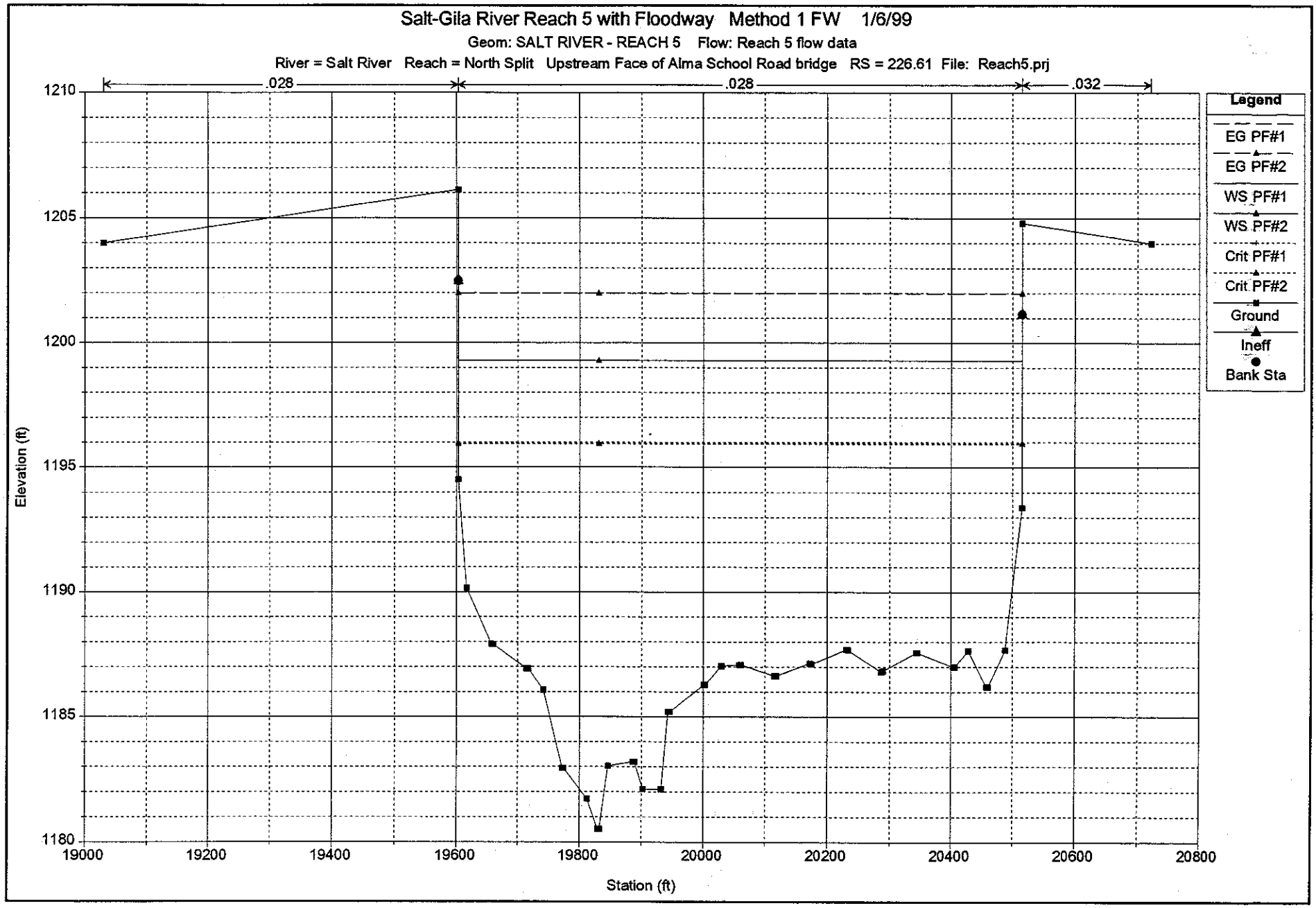

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = South Split RS = 226.11 File: Reach5.prj
.028
.028
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1220
1200
1180
1160
1140
1120
18400
18600
18800
19000
19200
19400
19600
19800
20000
20200
20400
Station (ft)

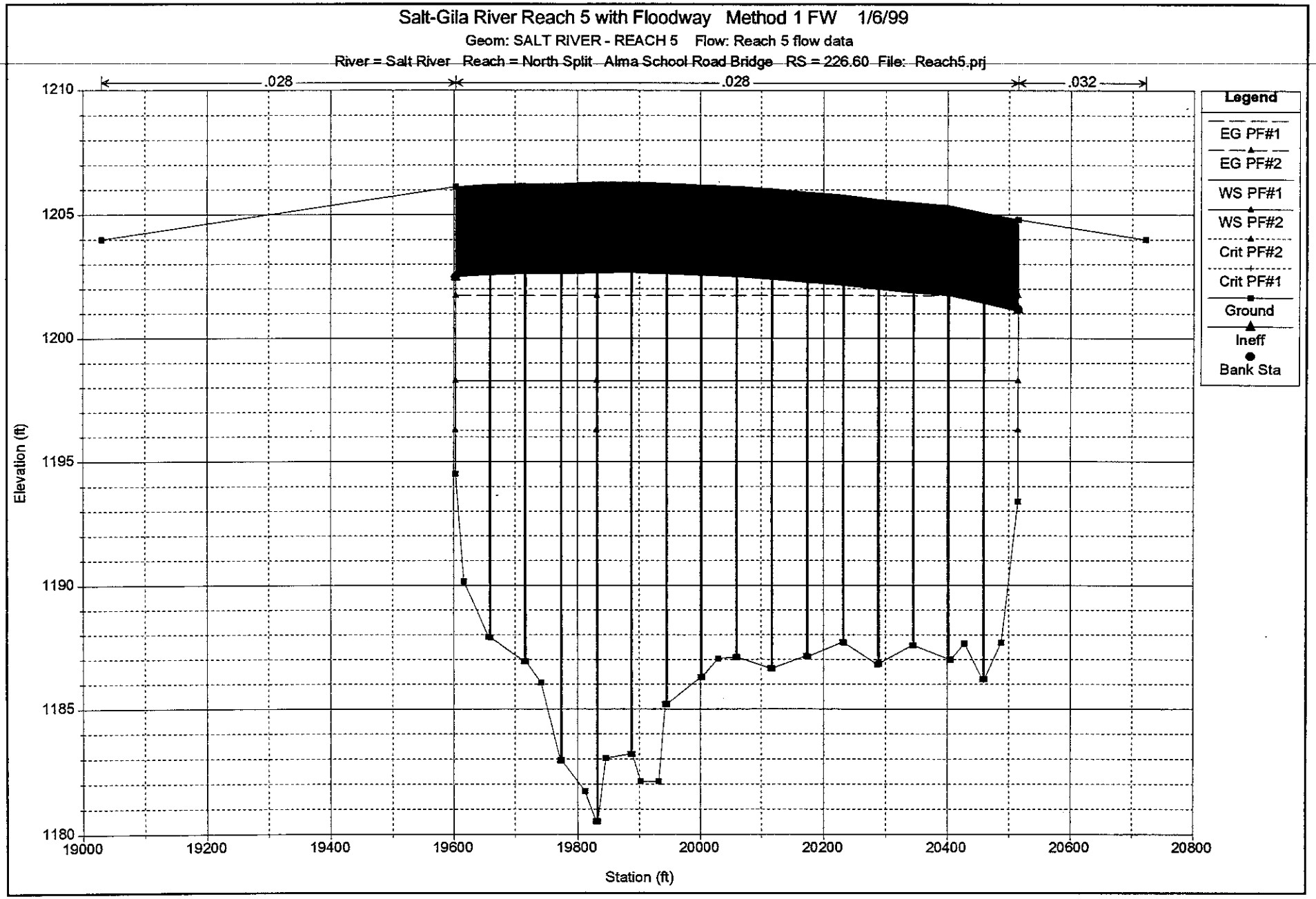

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = North Split RS = 226.98 File: Reach5.prj
.032
.028
.028
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1215
1210
1205
1200
1195
1190
1185
18000
19000
20000
21000
22000
23000
Station (ft)

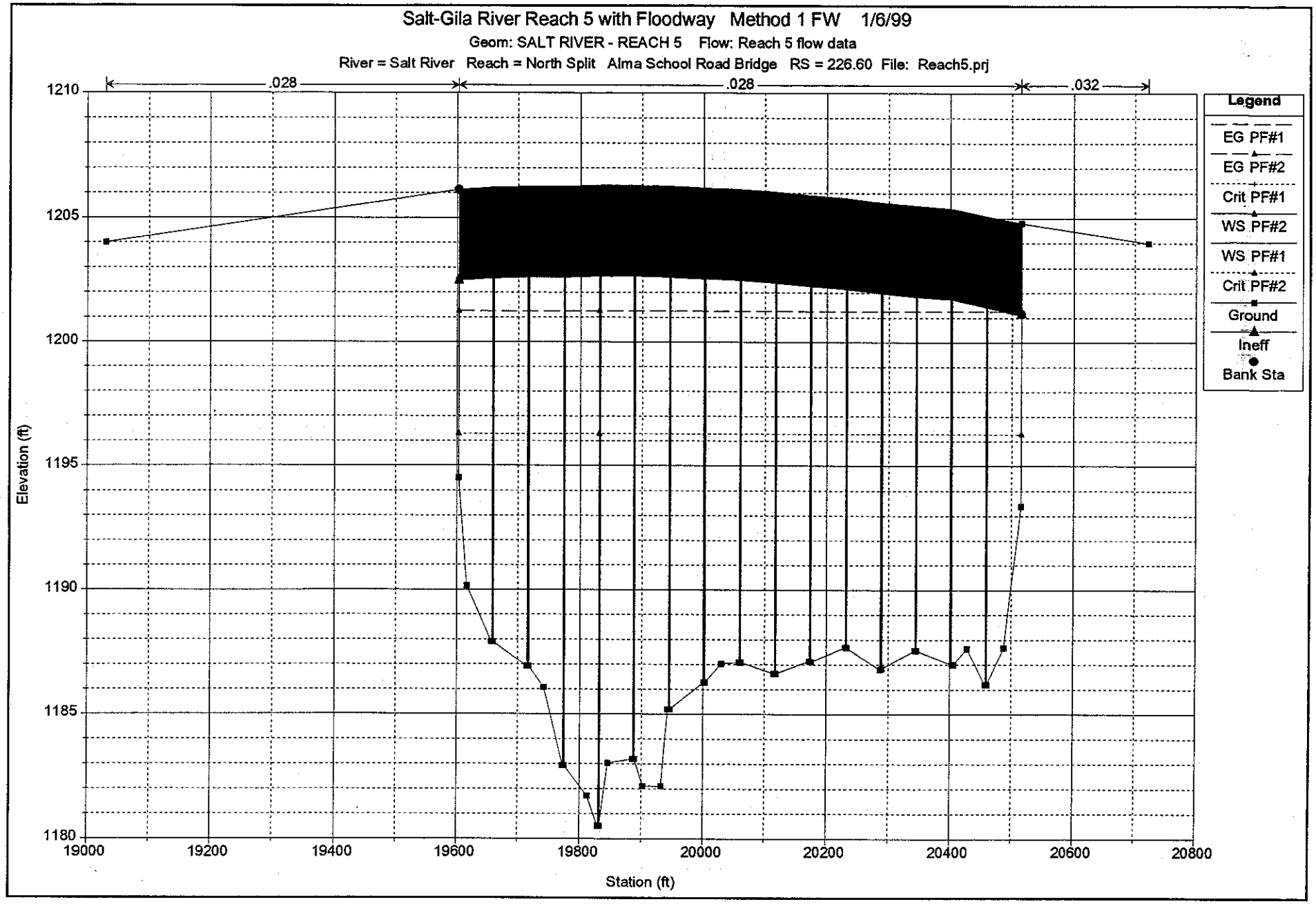

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = North Split RS = 226.88 File: Reach5.prj
.028
.031
.028
.032
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1230
1220
1210
1200
1190
1180
17000
18000
19000
20000
21000
22000
23000
Station (ft)

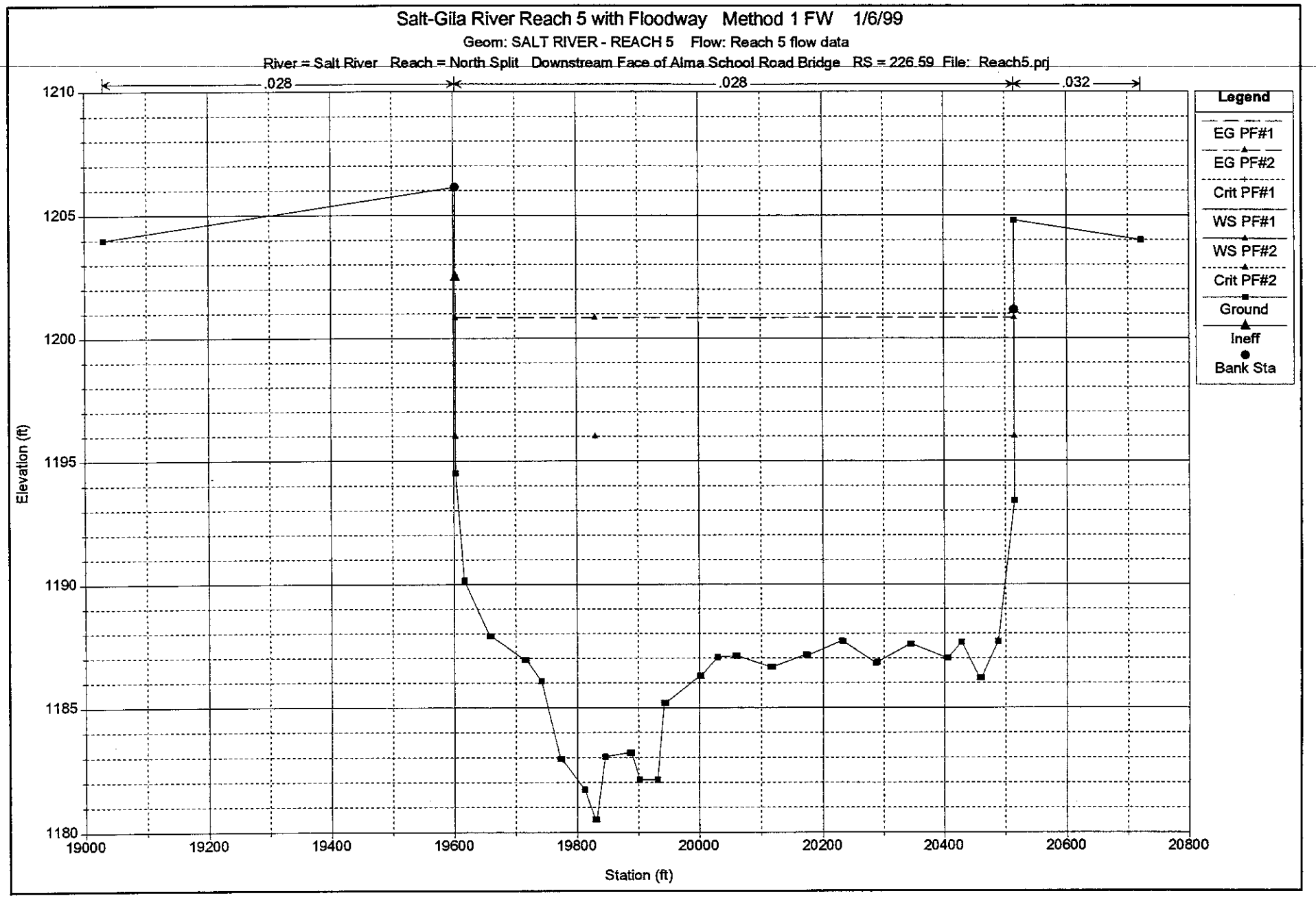

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = North Split RS = 226.79 File: Reach5.prj
.028
.031
.028
.032
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1220
1210
1200
1190
1180
1170
17000
18000
19000
20000
21000
22000
23000
Station (ft)

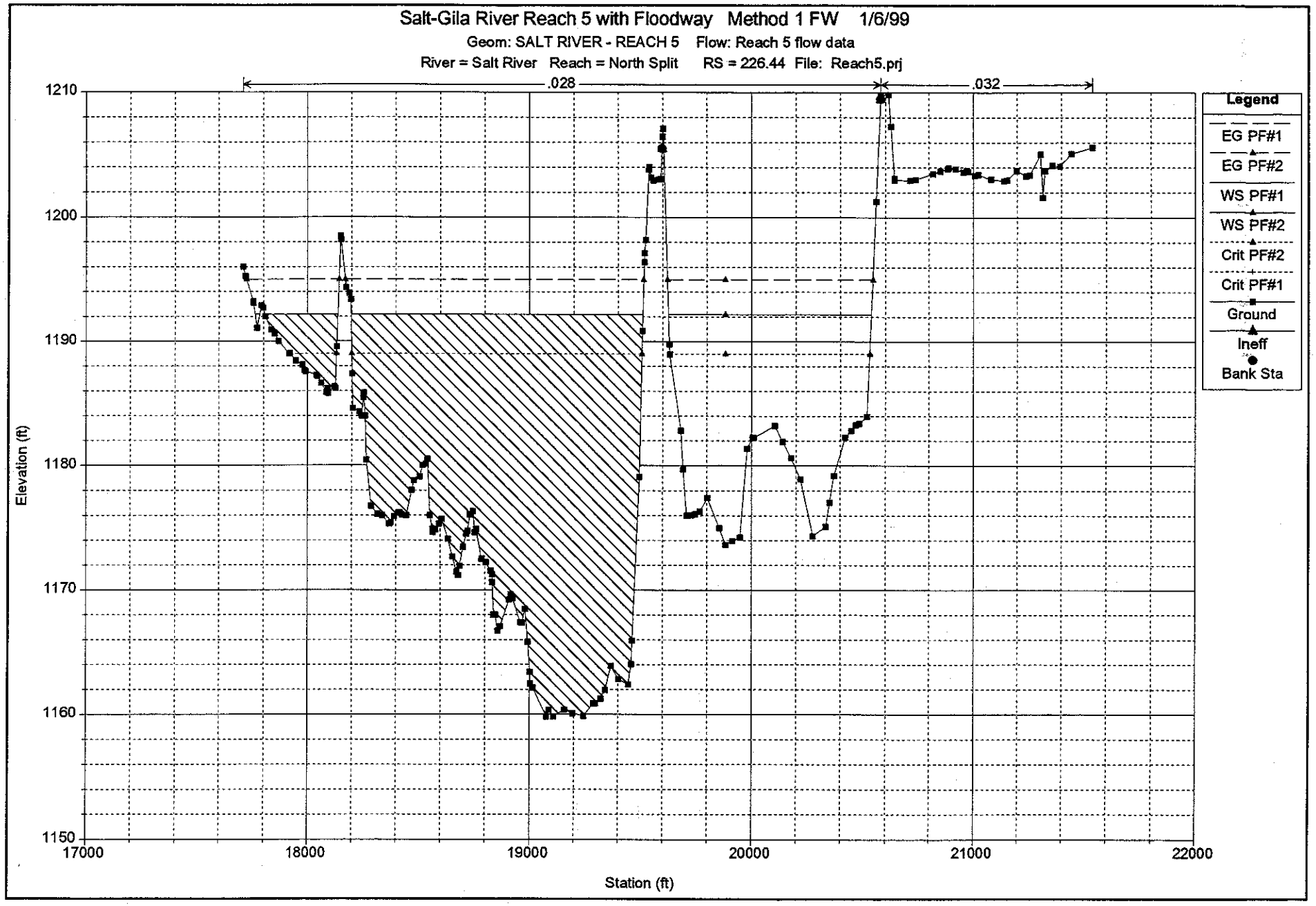

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = North Split RS = 226.70 File: Reach5.prj
.028
.031
.028
.032
Elevation (ft)
1230
1220
1210
1200
1190
1180
1170
17000
18000
19000
20000
21000
22000
23000
Station (ft)
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta

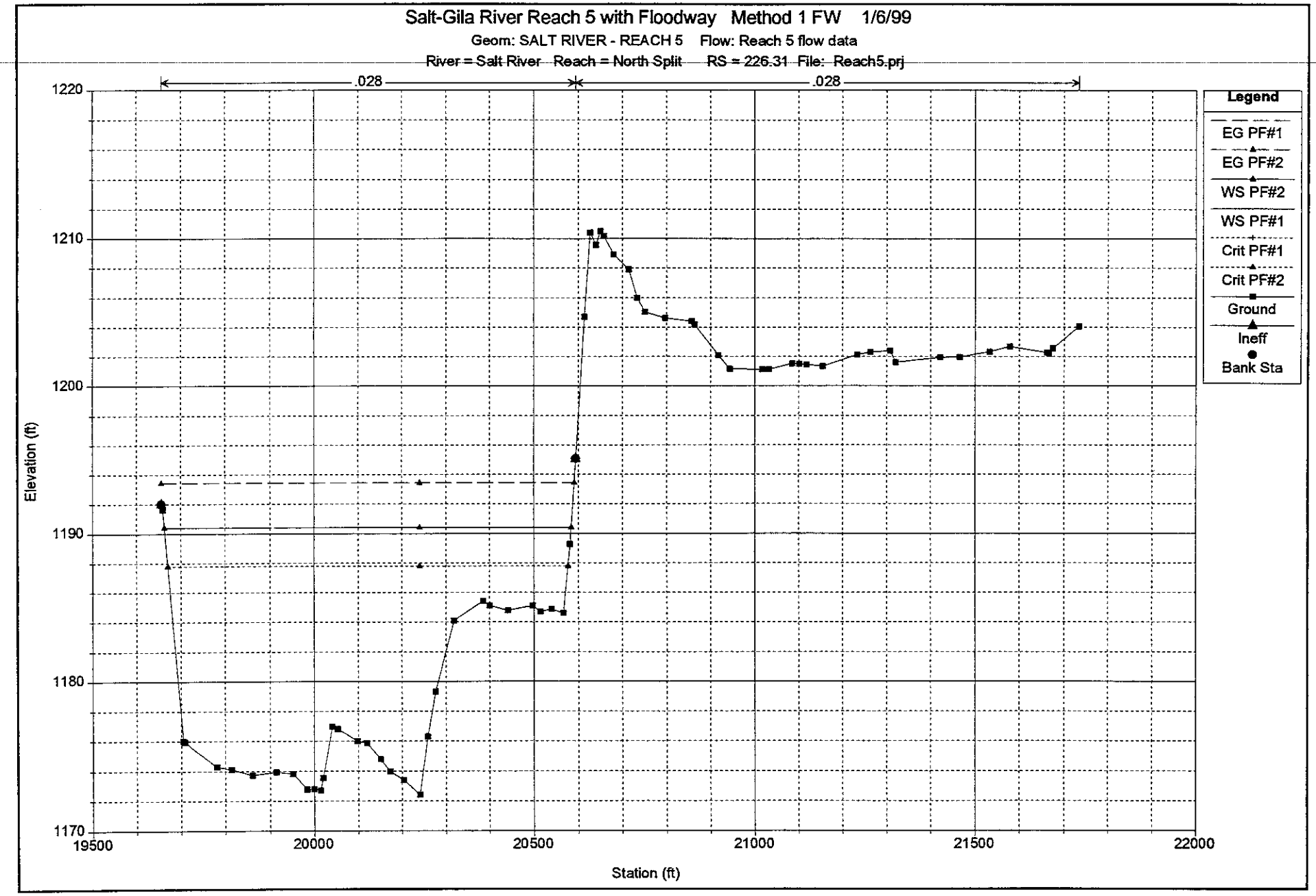

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = North Split Upstream Face of Alma School Road bridge RS = 226.61 File: Reach5.prj
.028
.028
.032
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1210
1205
1200
1195
1190
1185
1180
19000
19200
19400
19600
19800
20000
20200
20400
20600
20800
Station (ft)

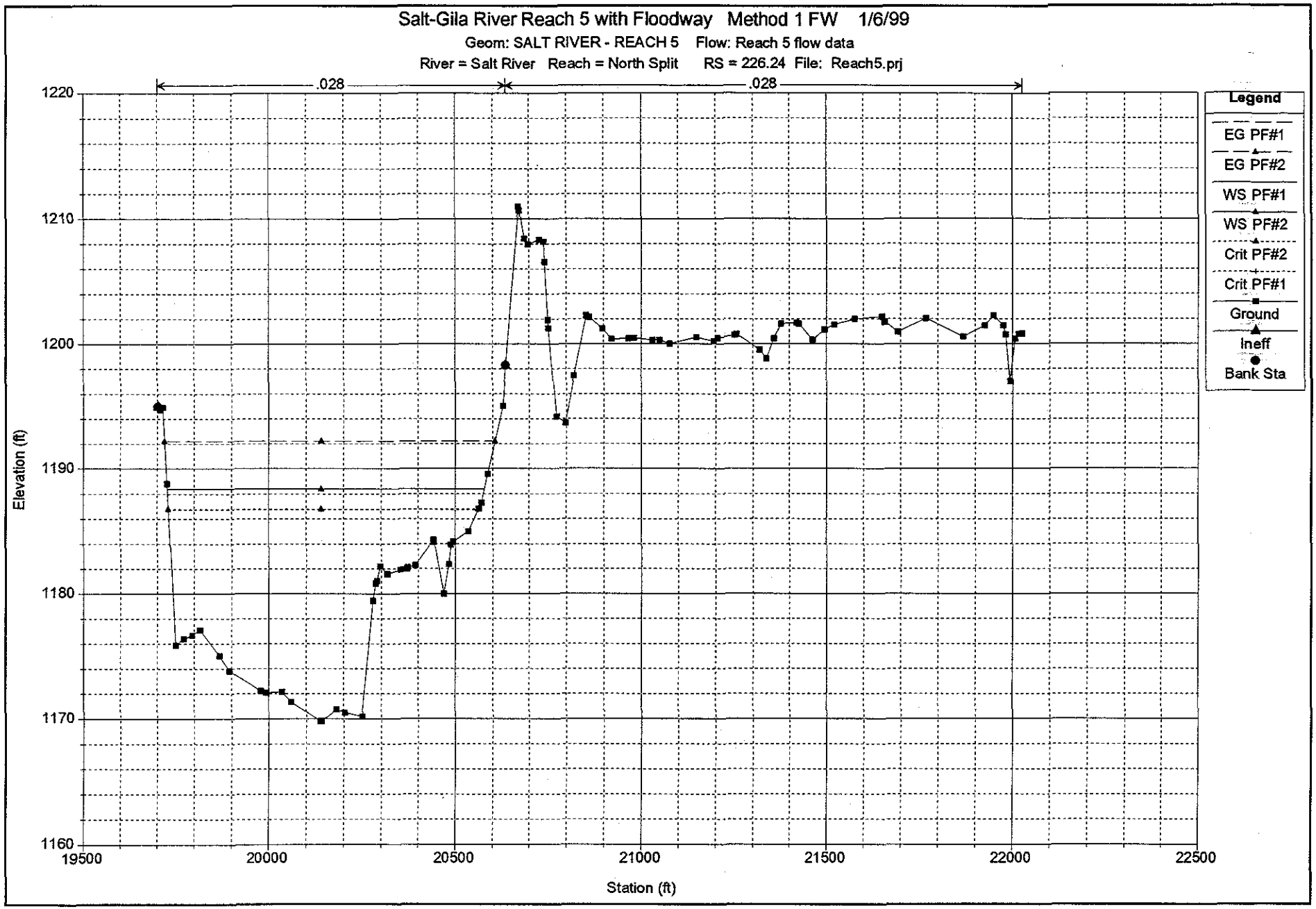

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = North Split Alma School Road Bridge RS = 226.60 File: Reach5.prj
.028
.028
.032
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1210
1205
1200
1195
1190
1185
1180
19000
19200
19400
19600
19800
20000
20200
20400
20600
20800
Station (ft)

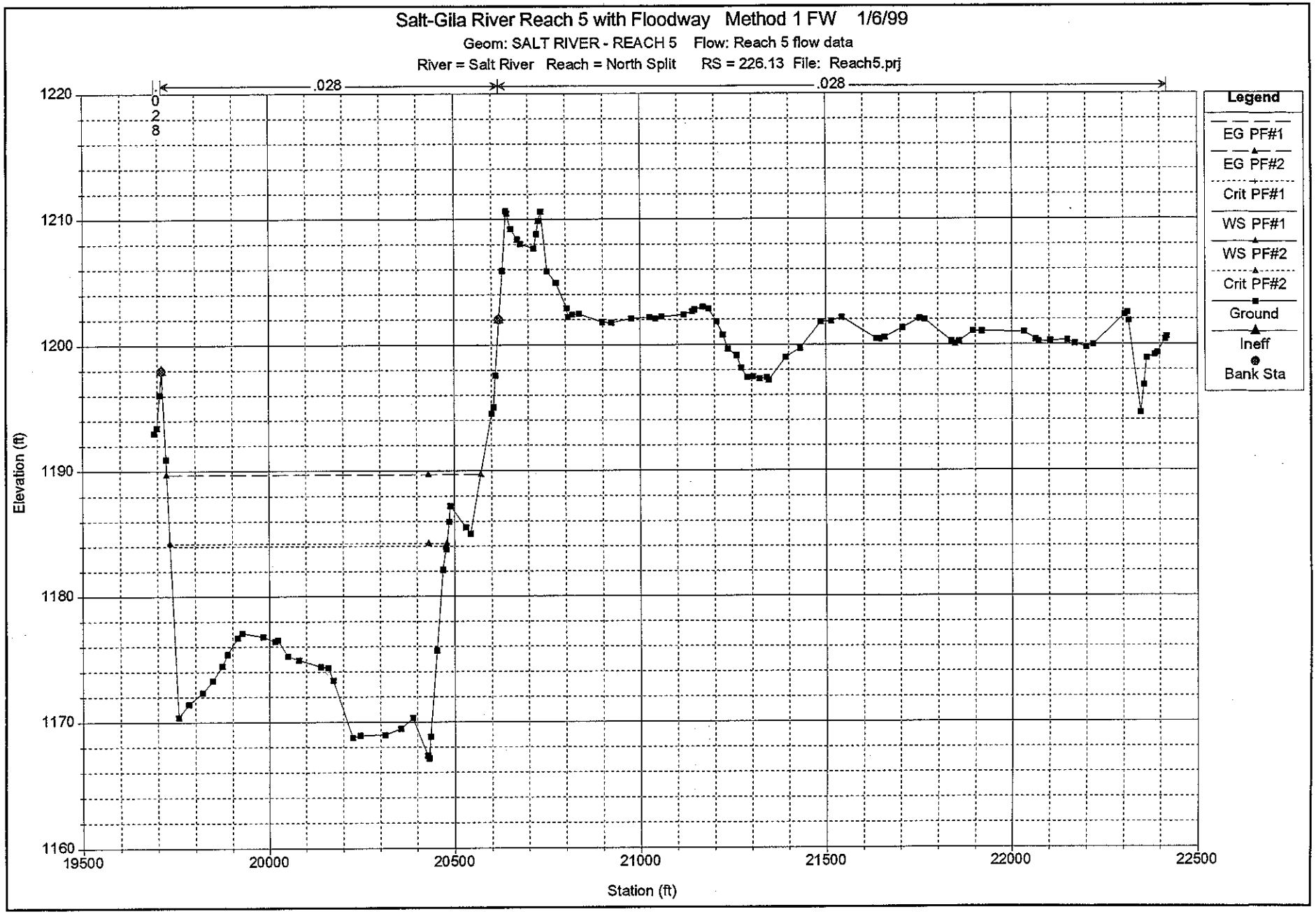

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = North Split Alma School Road Bridge RS = 226.60 File: Reach5.prj
.028
.028
.032
Legend
EG PF#1
EG PF#2
Crit PF#1
WS PF#2
WS PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1210
1205
1200
1195
1190
1185
1180
19000
19200
19400
19600
19800
20000
20200
20400
20600
20800
Station (ft)


Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = North Split Downstream Face of Alma School Road Bridge RS = 226.59 File: Reach5.prj
.028
.028
.032
Legend
EG PF#1
EG PF#2
Crit PF#1
WS PF#1
WS PF#2
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1210
1205
1200
1195
1190
1185
1180
19000
19200
19400
19600
19800
20000
20200
20400
20600
20800
Station (ft)


Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = North Split RS = 226.44 File: Reach5.prj
.028
.032
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1210
1200
1190
1180
1170
1160
1150
17000
18000
19000
20000
21000
22000
Station (ft)


Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = North Split RS = 226.31 File: Reach5.prj
.028
.028
Legend
EG PF#1
EG PF#2
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1220
1210
1200
1190
1180
1170
19500
20000
20500
21000
21500
22000
Station (ft)

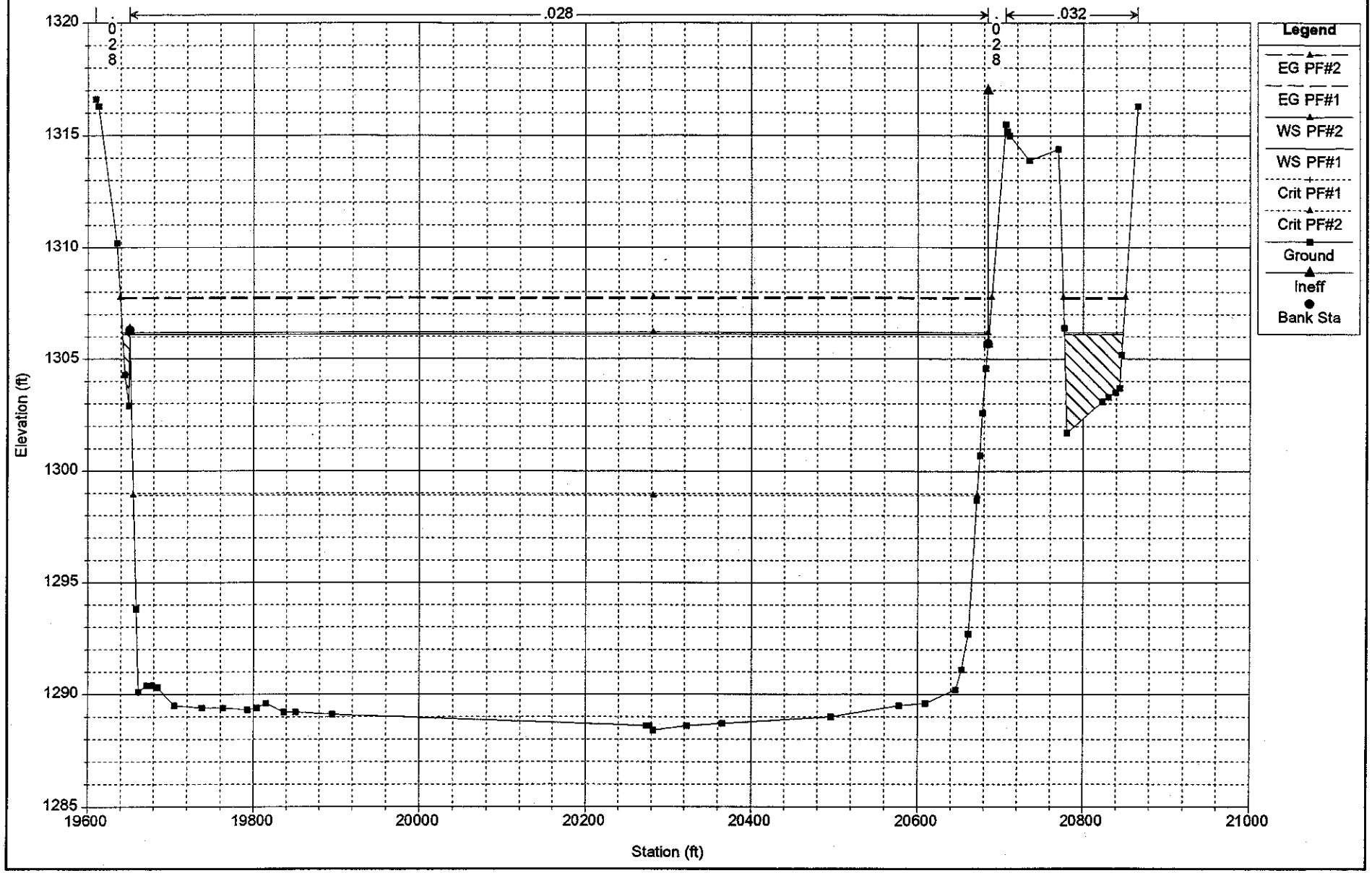

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = North Split RS = 226.24 File: Reach5.prj
.028
.028
Elevation (ft)
1220
1210
1200
1190
1180
1170
1160
19500
20000
20500
21000
21500
22000
22500
Station (ft)
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta

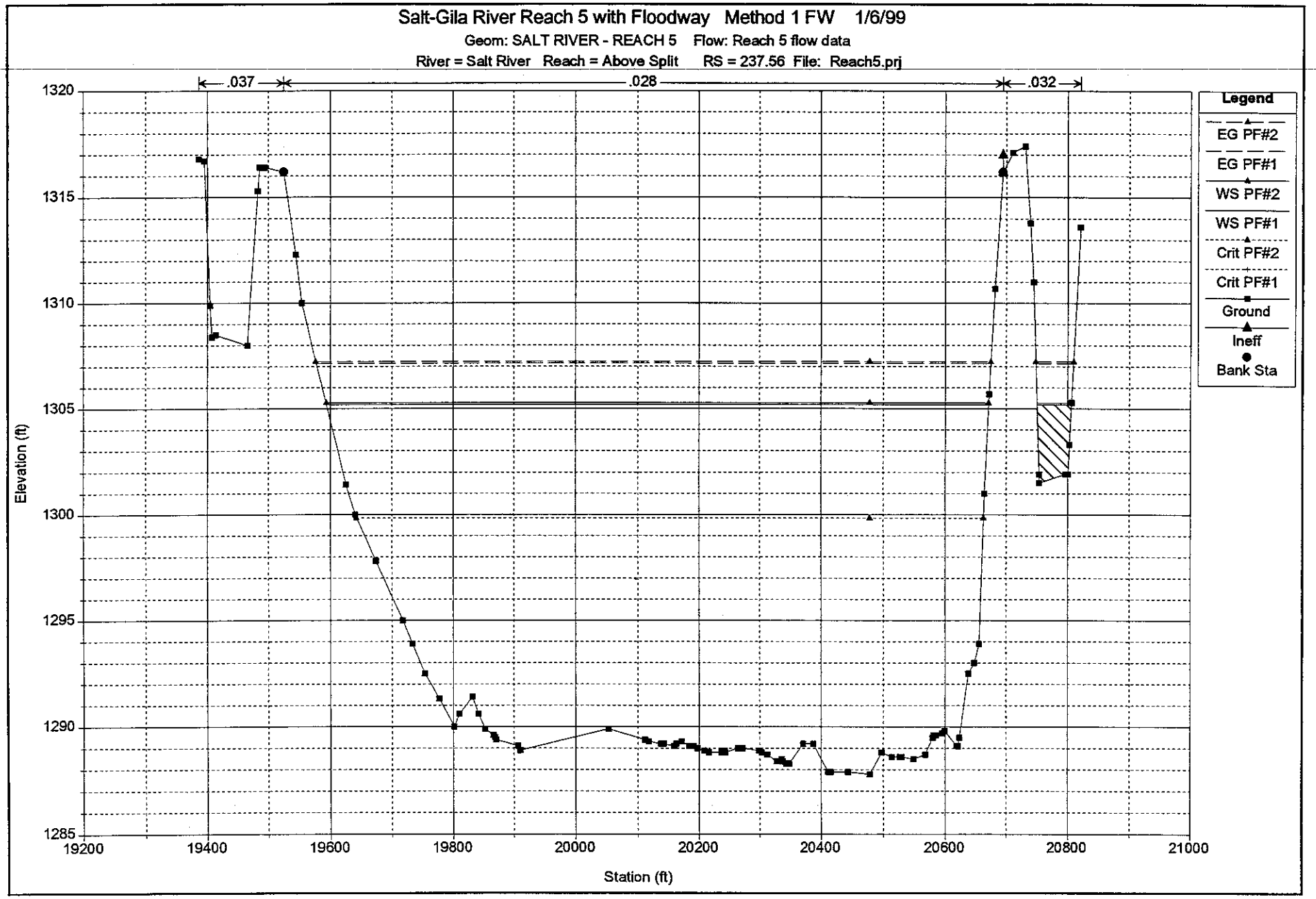

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = North Split RS = 226.13 File: Reach5.prj
.028
.028
.028
Elevation (ft)
Station (ft)
1220
1210
1200
1190
1180
1170
1160
19500
20000
20500
21000
21500
22000
22500
Legend
EG PF#1
EG PF#2
Crit PF#1
WS PF#1
WS PF#2
Crit PF#2
Ground
Ineff
Bank Sta

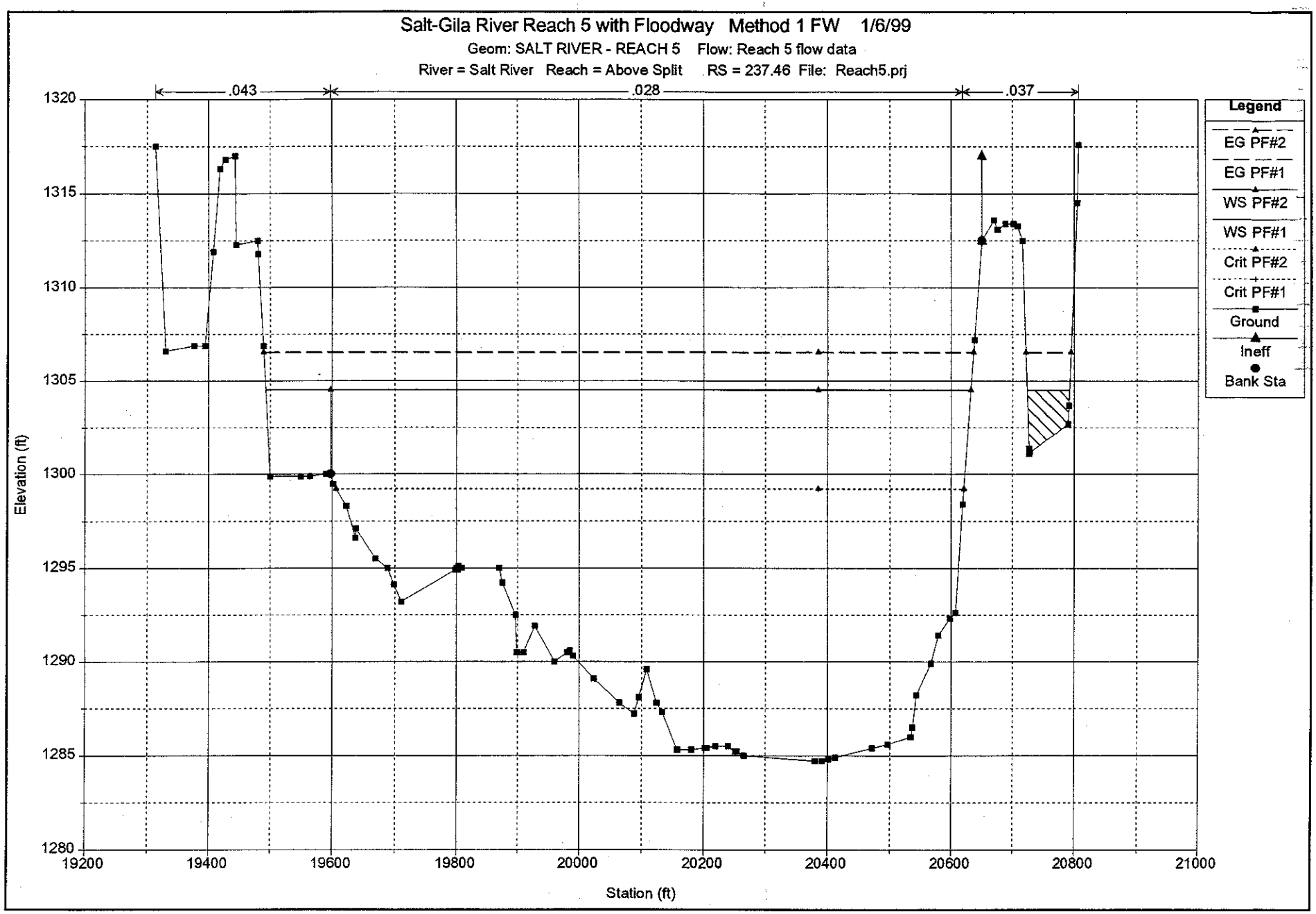
Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99

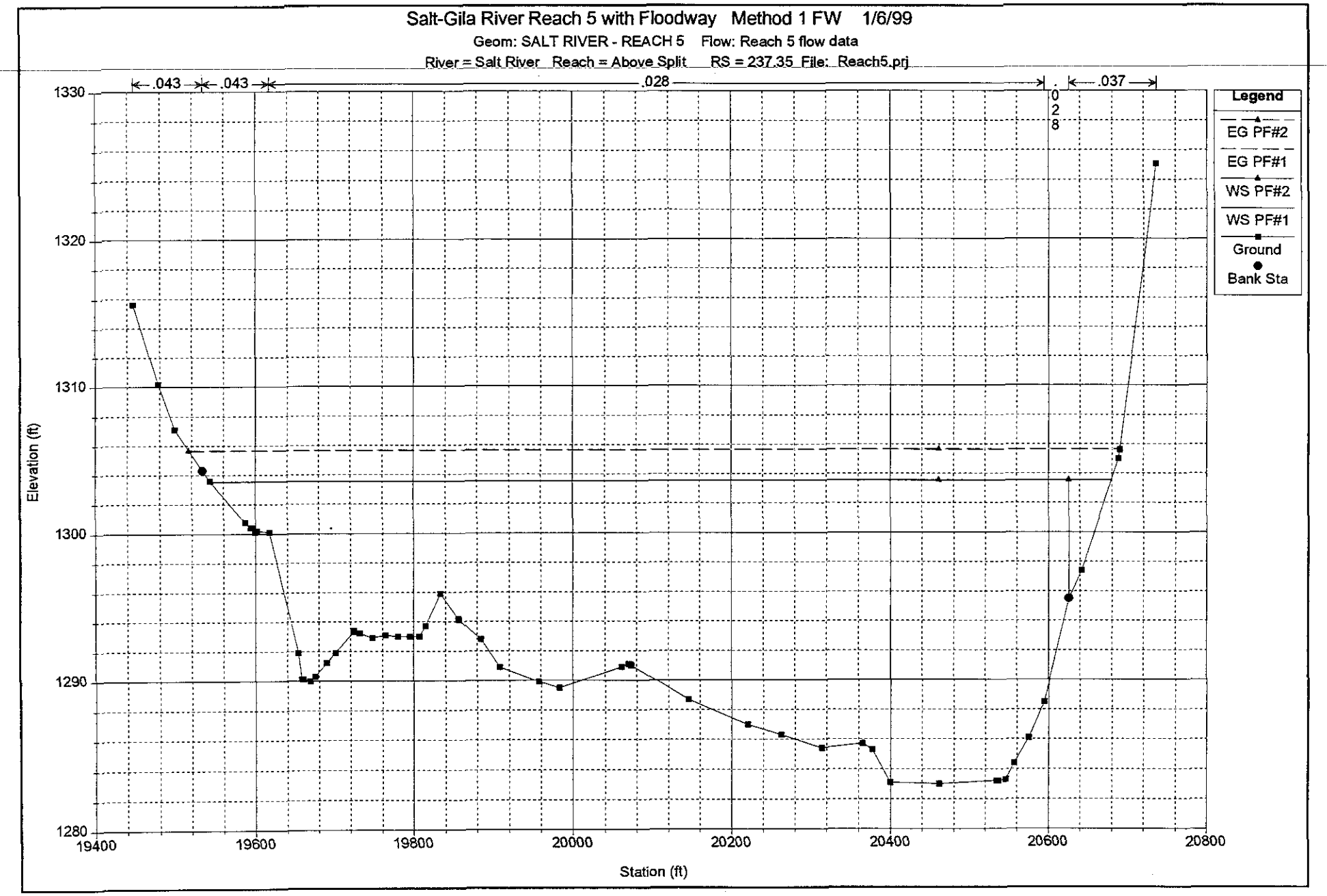
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data

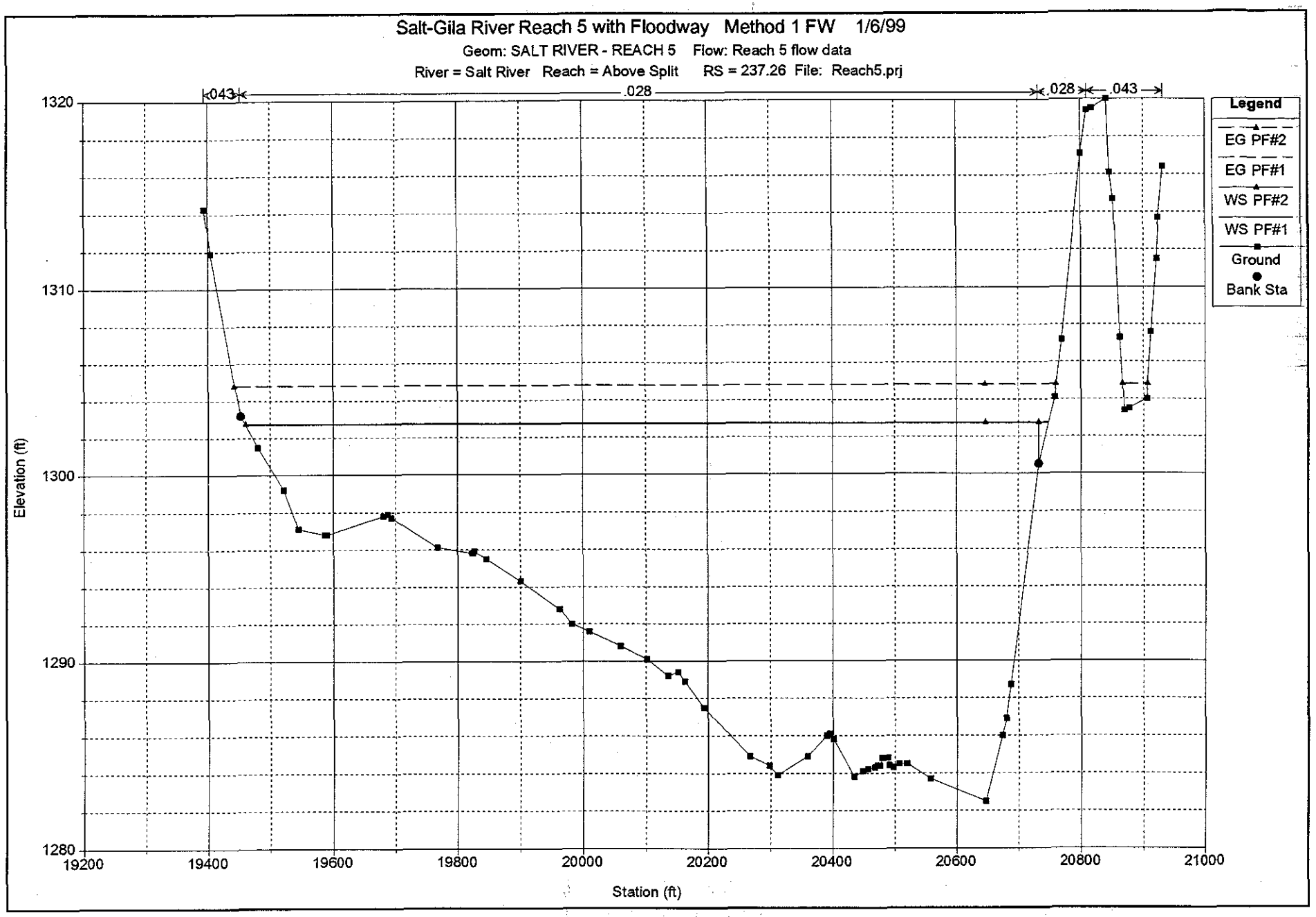
River = Salt River Reach = Above Split GRANITE REEF DAM (JUST DOWNSTREAM) RS = 237.65 File: Reach5.prj

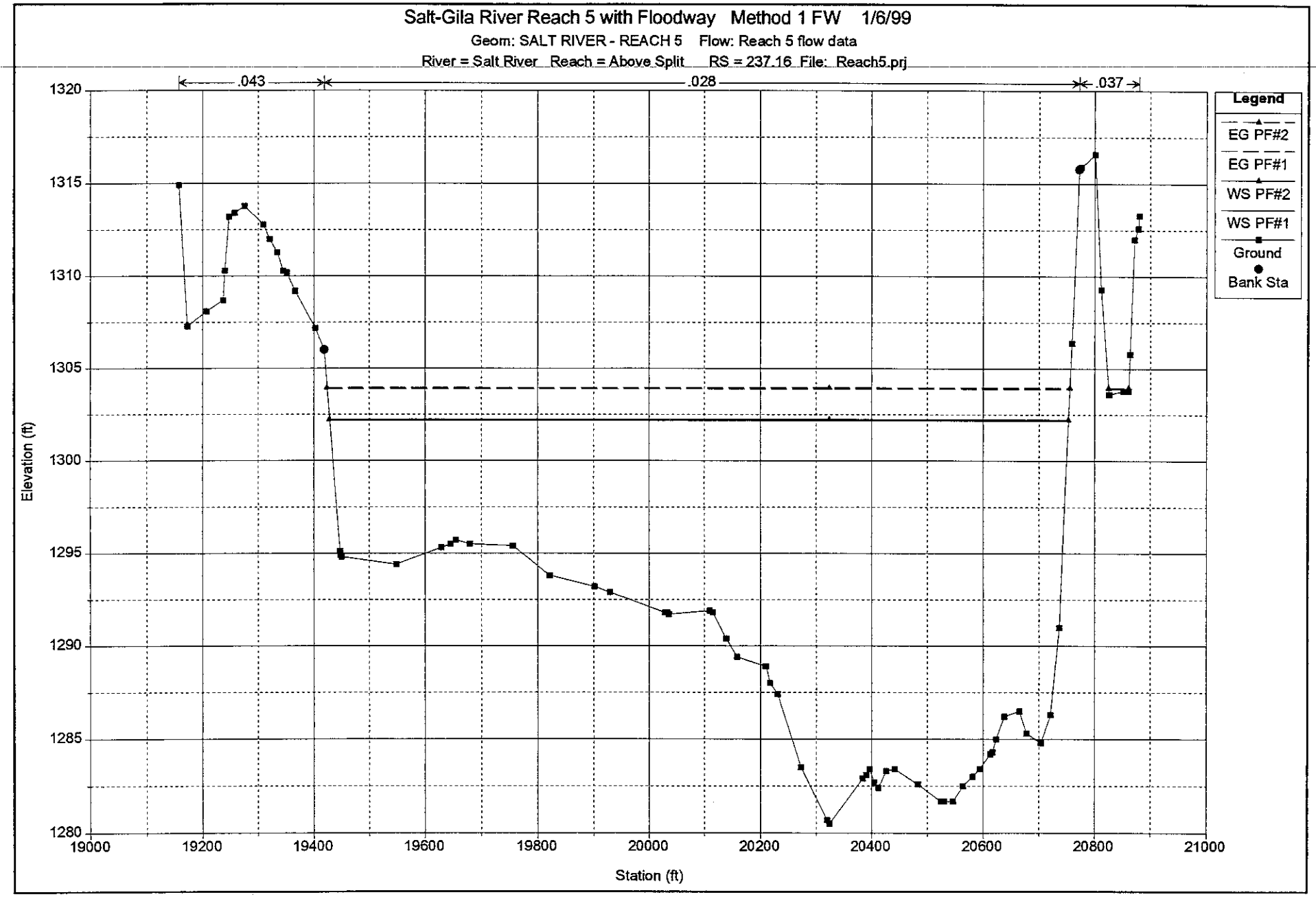


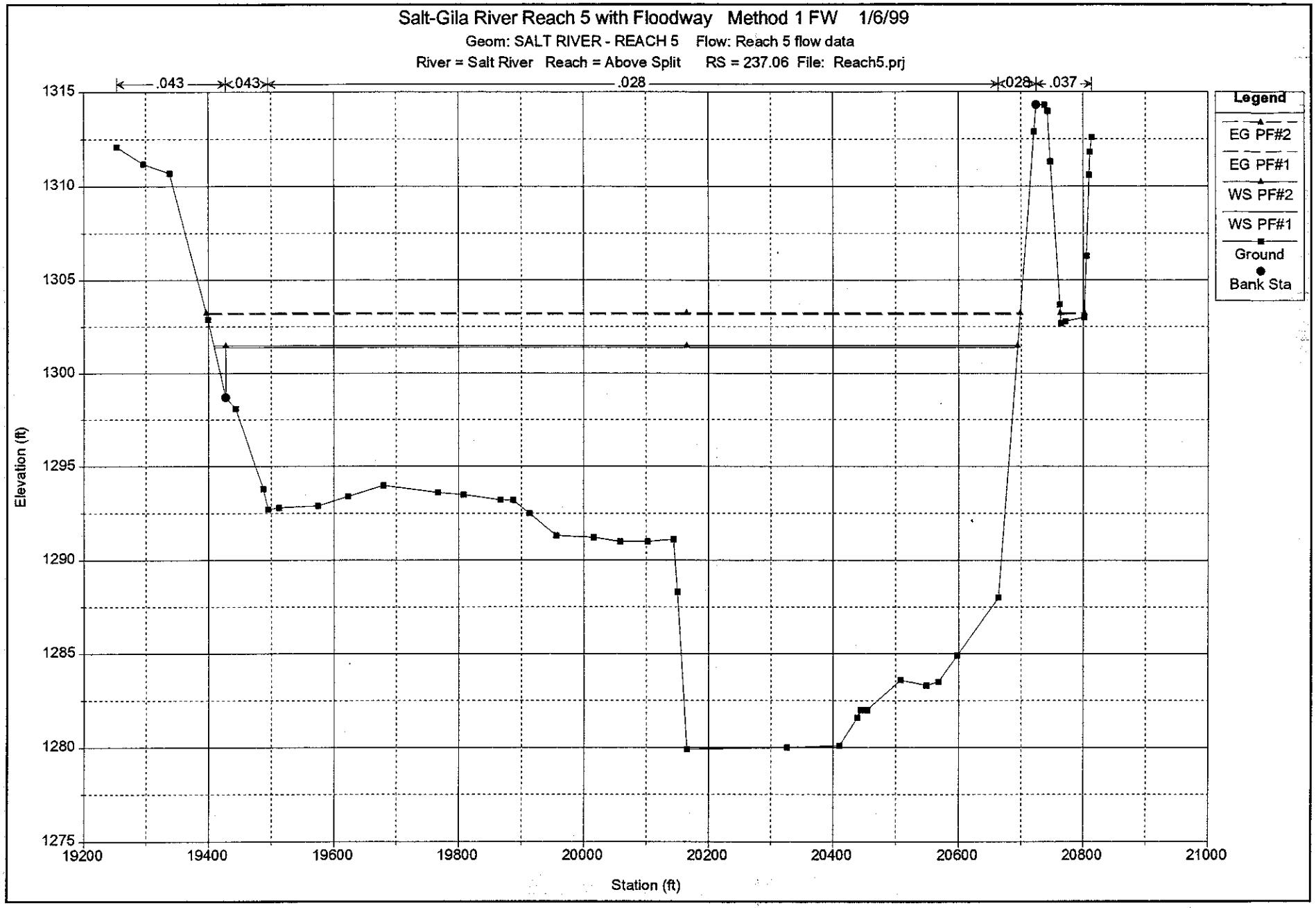

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 237.56 File: Reach5.prj
.037
.028
.032
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1320
1315
1310
1305
1300
1295
1290
1285
19200
19400
19600
19800
20000
20200
20400
20600
20800
21000
Station (ft)

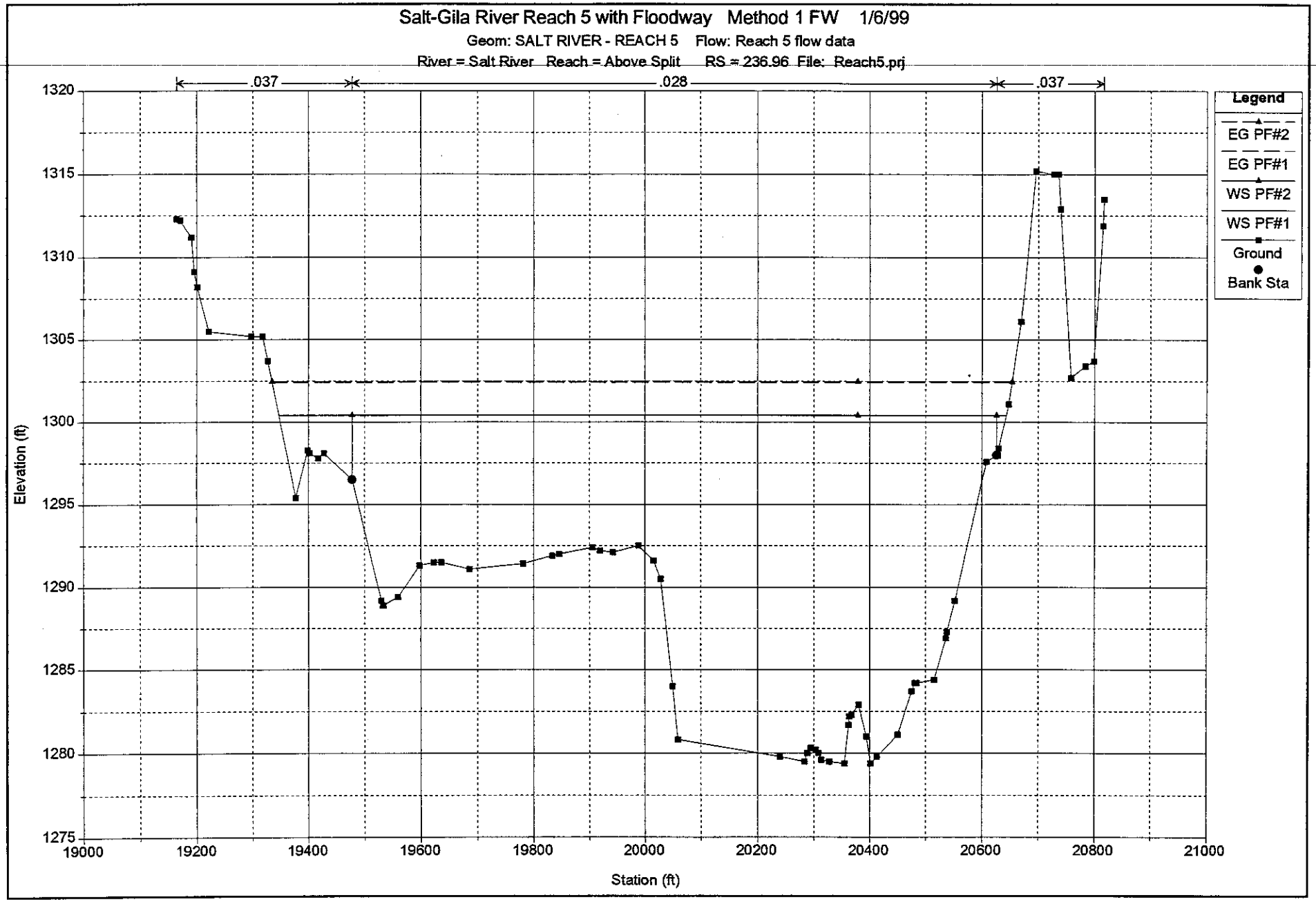

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 237.46 File: Reach5.prj
.043
.028
.037
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1320
1315
1310
1305
1300
1295
1290
1285
1280
19200
19400
19600
19800
20000
20200
20400
20600
20800
21000
Station (ft)

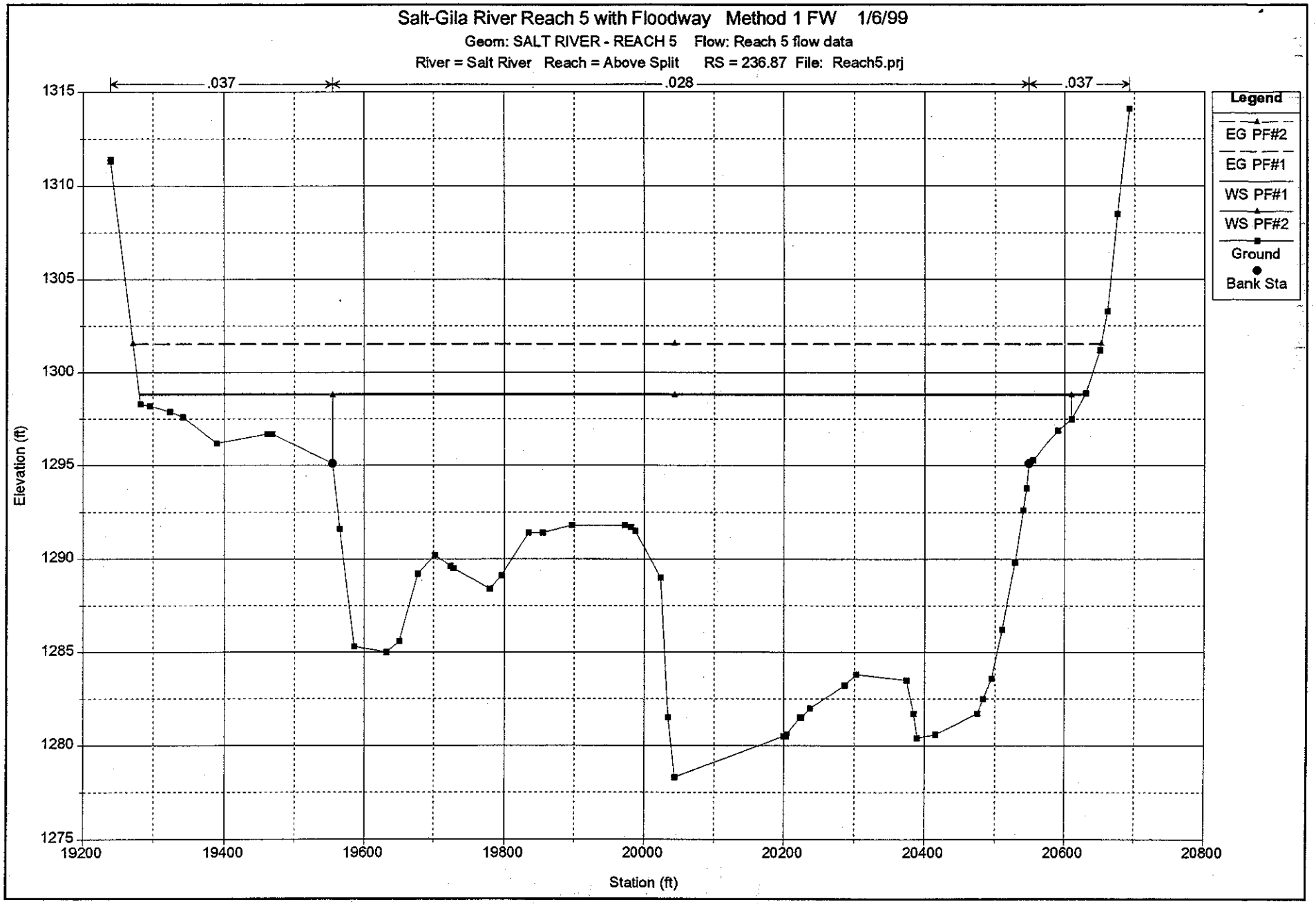

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 237.35 File: Reach5.prj
.043
.043
.028
.028
.037
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Ground
Bank Sta
Elevation (ft)
1330
1320
1310
1300
1290
1280
19400
19600
19800
20000
20200
20400
20600
20800
Station (ft)

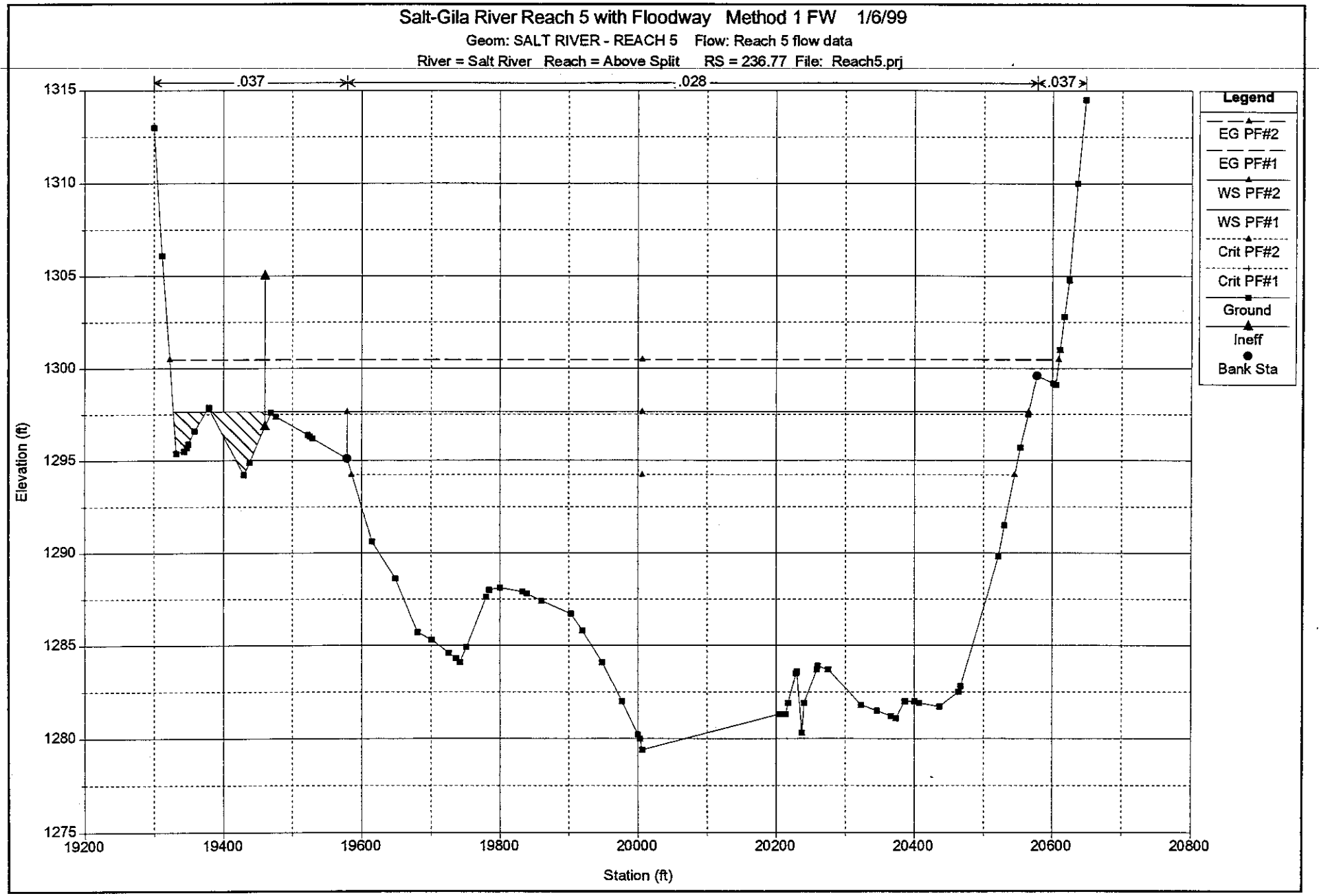

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 237.26 File: Reach5.prj
.043
.028
.028
.043
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Ground
Bank Sta
Elevation (ft)
1320
1310
1300
1290
1280
19200
19400
19600
19800
20000
20200
20400
20600
20800
21000
Station (ft)

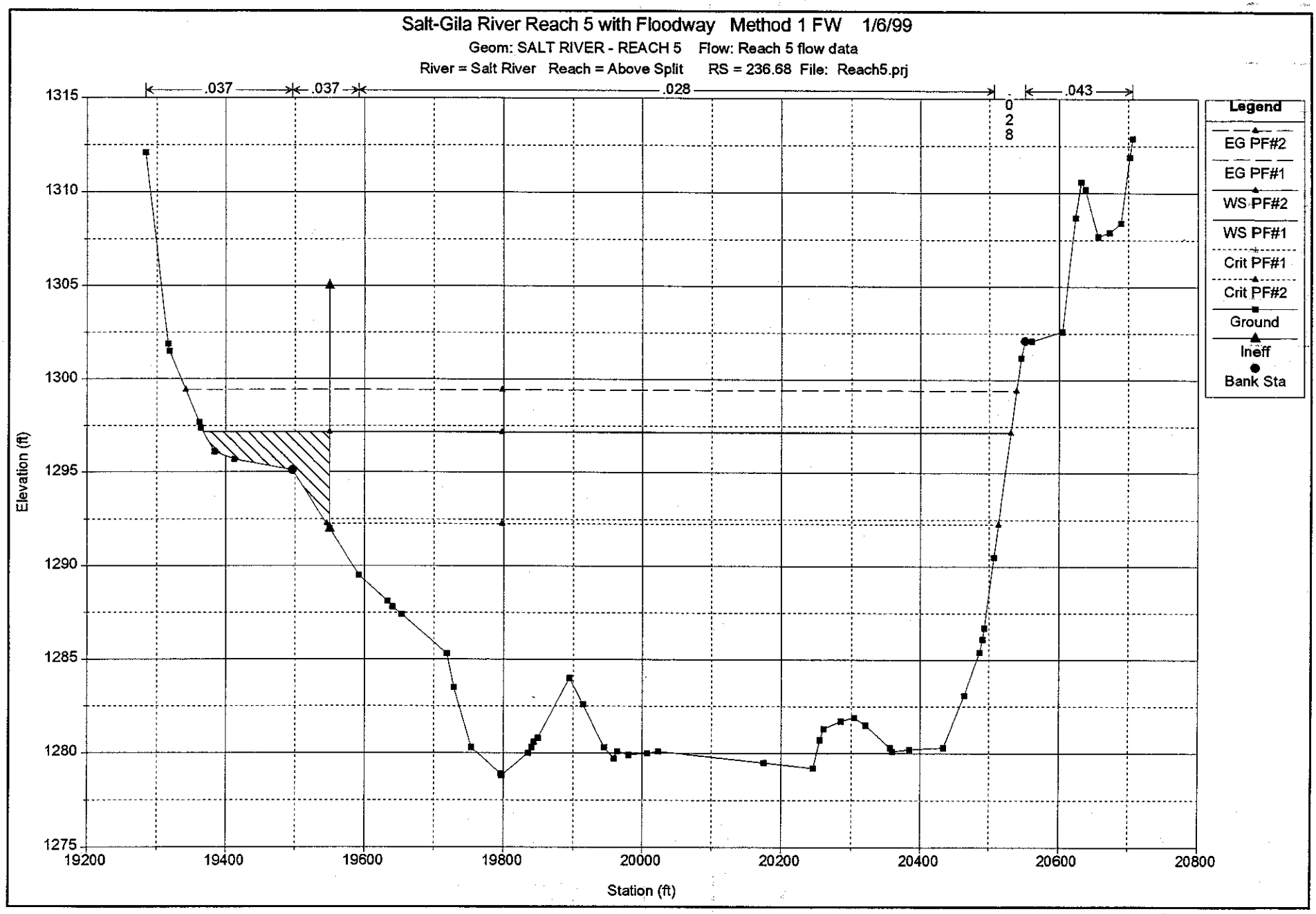

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 237.16 File: Reach5.prj
.043
.028
.037
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Ground
Bank Sta
Elevation (ft)
1320
1315
1310
1305
1300
1295
1290
1285
1280
19000
19200
19400
19600
19800
20000
20200
20400
20600
20800
21000
Station (ft)

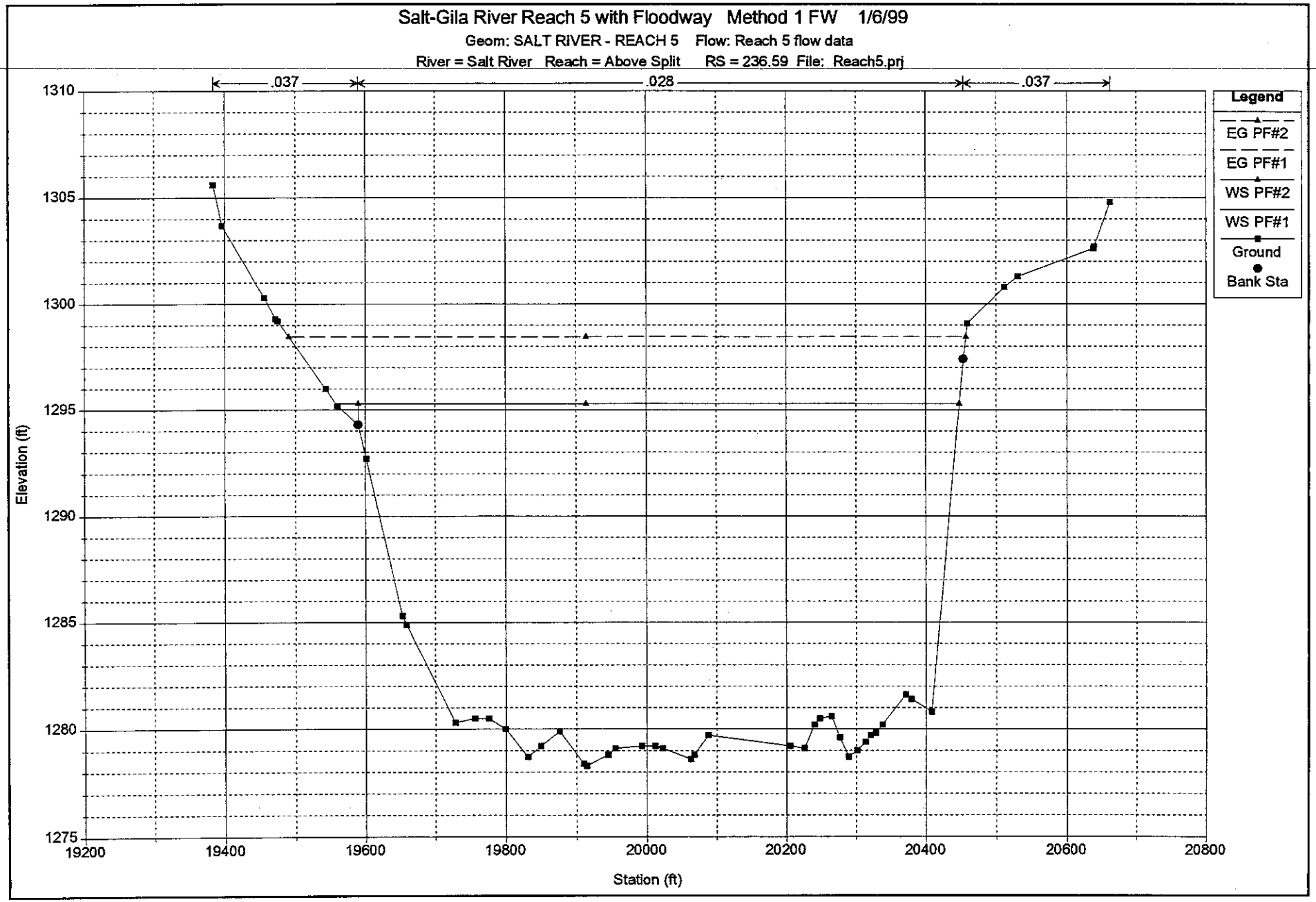

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 237.06 File: Reach5.prj
.043
.043
.028
.028
.037
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Ground
Bank Sta
Elevation (ft)
1315
1310
1305
1300
1295
1290
1285
1280
1275
19200
19400
19600
19800
20000
20200
20400
20600
20800
21000
Station (ft)

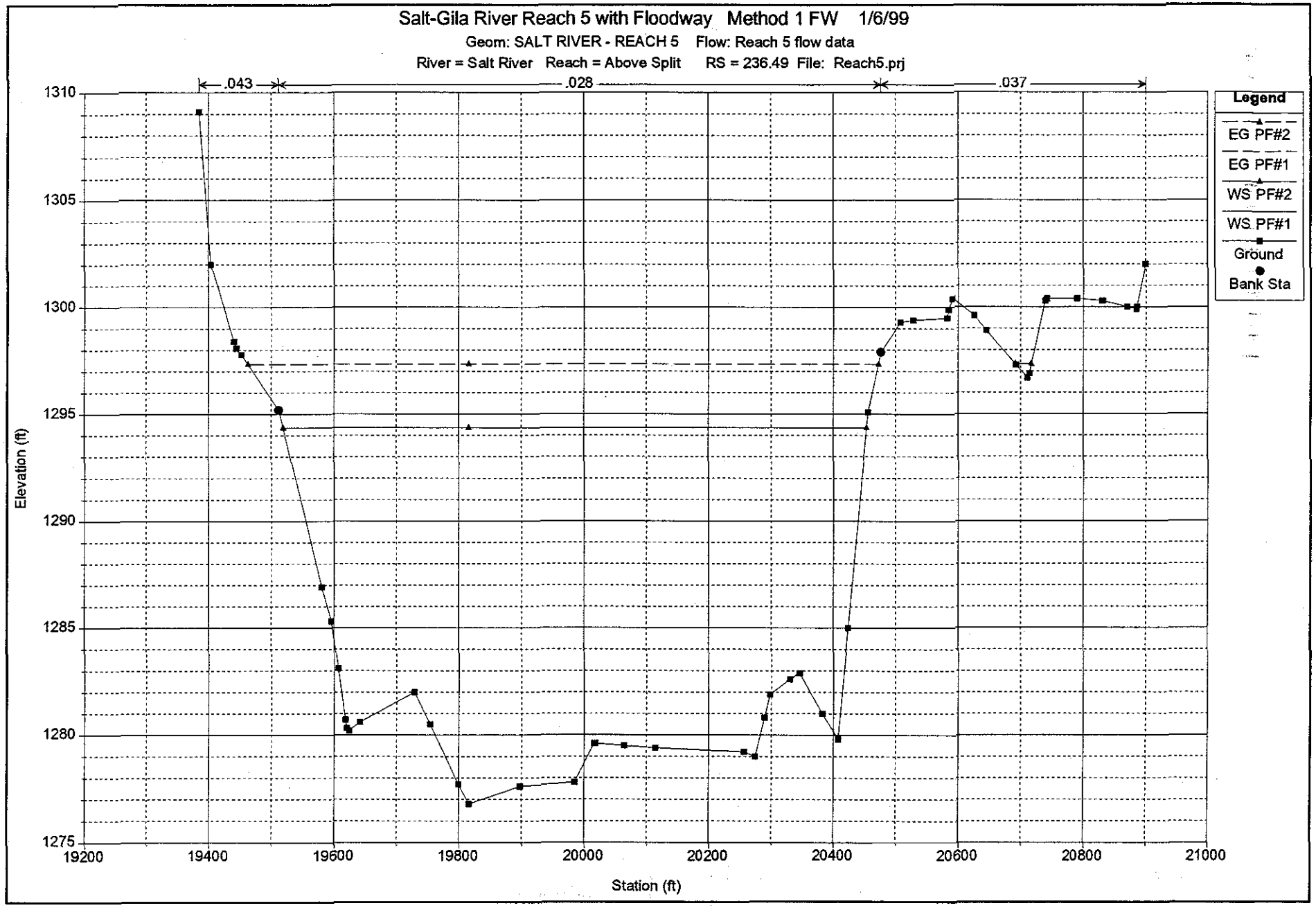

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 236.96 File: Reach5.prj
.037
.028
.037
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Ground
Bank Sta
Elevation (ft)
1320
1315
1310
1305
1300
1295
1290
1285
1280
1275
19000
19200
19400
19600
19800
20000
20200
20400
20600
20800
21000
Station (ft)

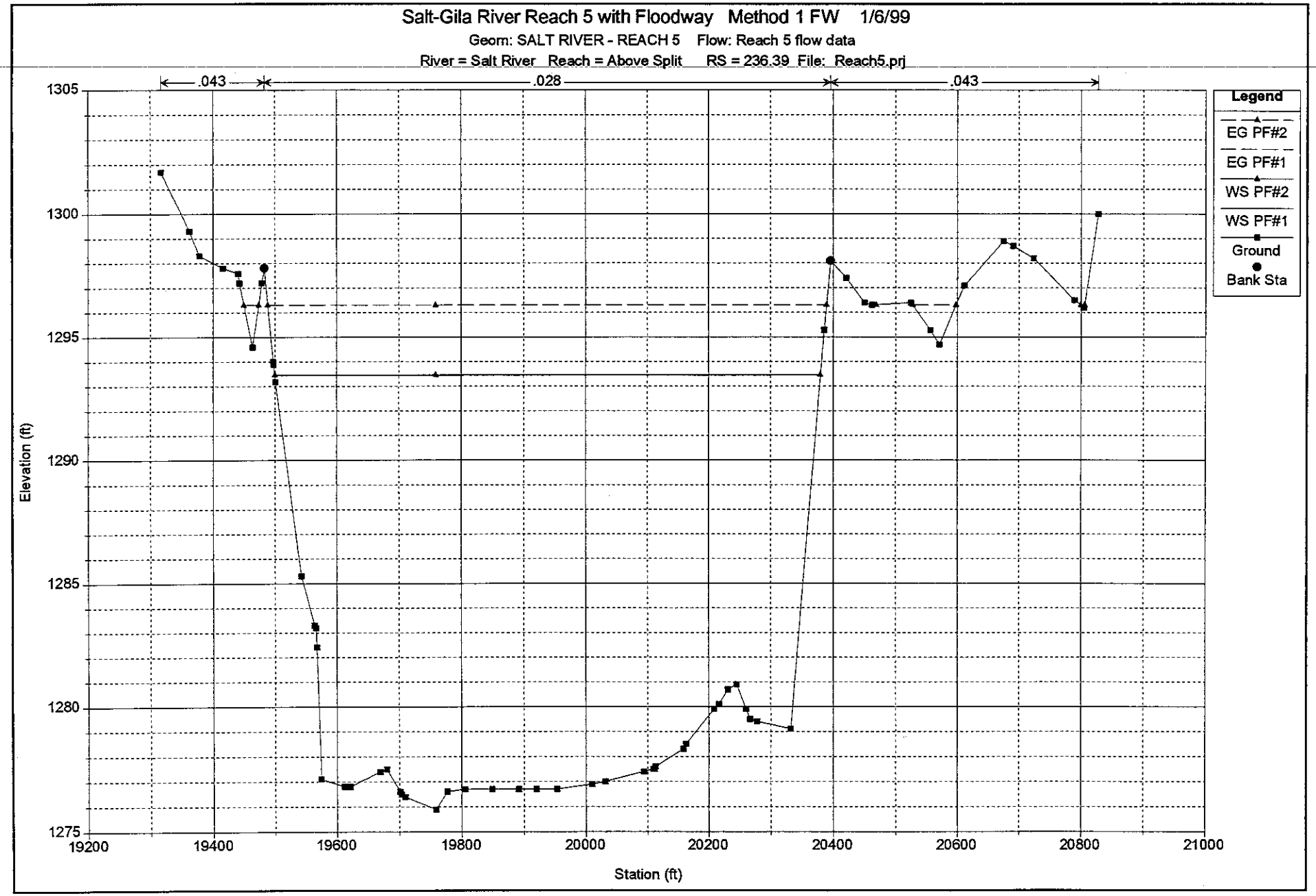

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 236.87 File: Reach5.prj
.037
.028
.037
Legend
EG PF#2
EG PF#1
WS PF#1
WS PF#2
Ground
Bank Sta
Elevation (ft)
1315
1310
1305
1300
1295
1290
1285
1280
1275
19200
19400
19600
19800
20000
20200
20400
20600
20800
Station (ft)

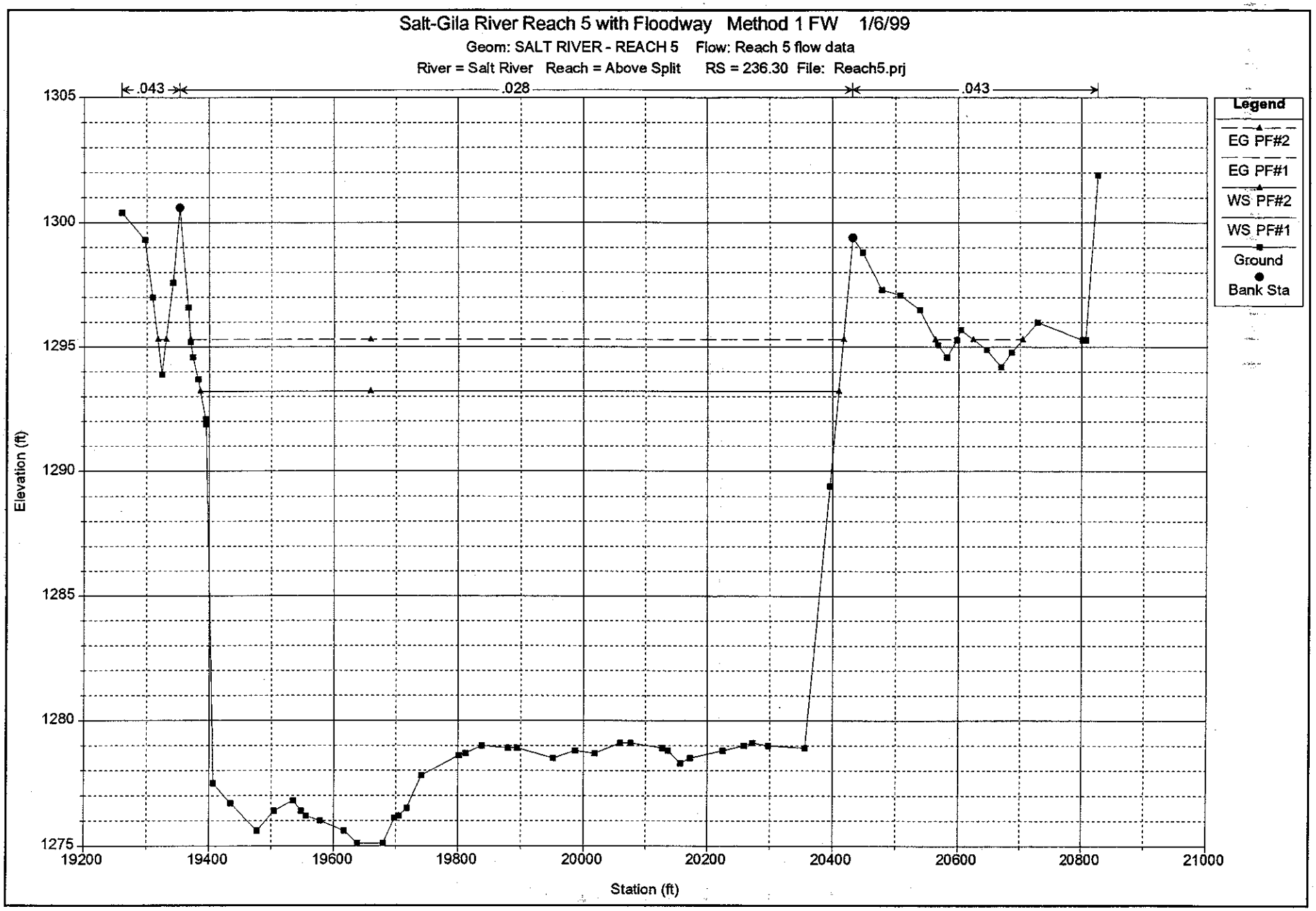

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 236.77 File: Reach5.prj
.037
.028
.037
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1315
1310
1305
1300
1295
1290
1285
1280
1275
19200
19400
19600
19800
20000
20200
20400
20600
20800
Station (ft)

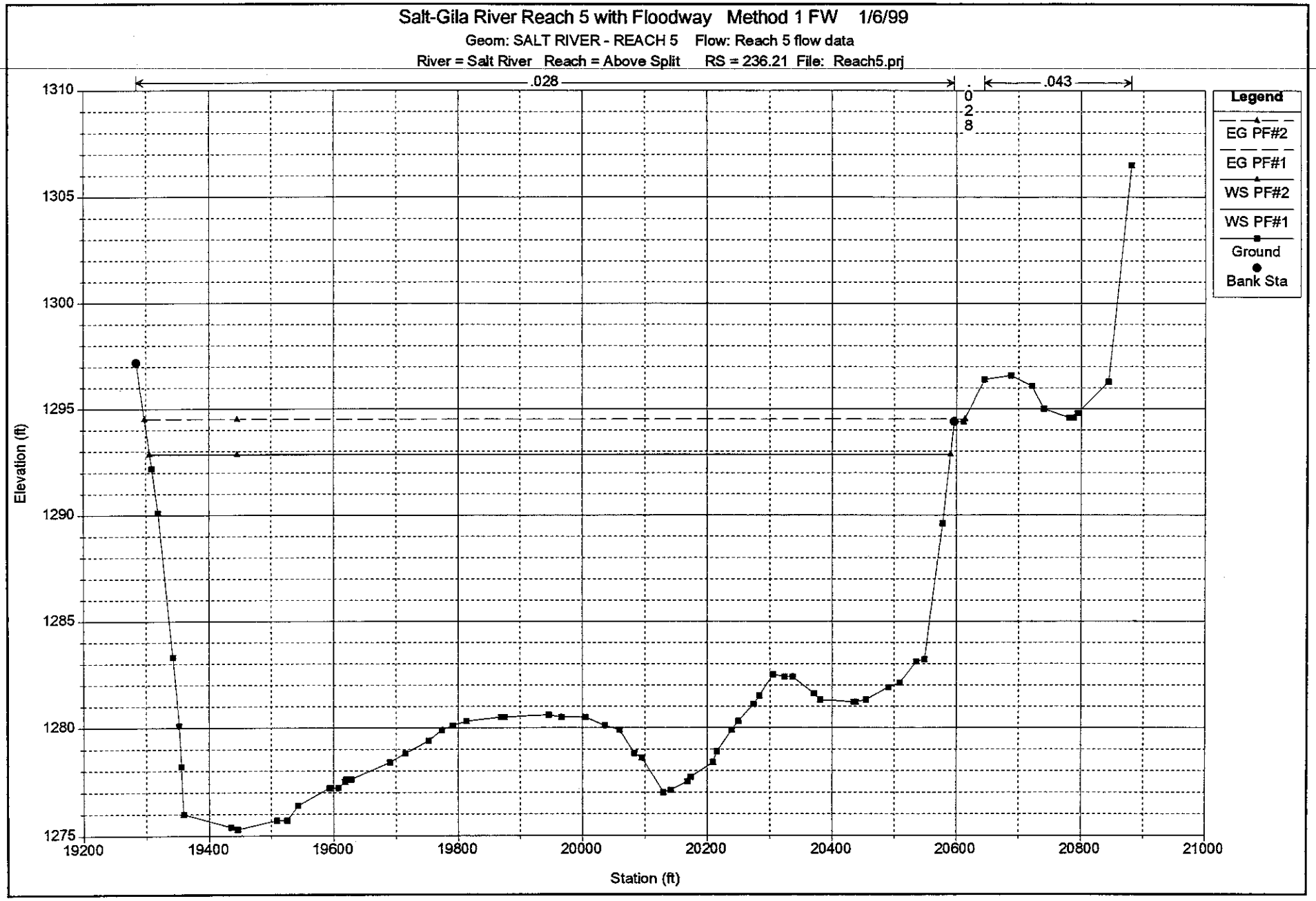

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 236.68 File: Reach5.prj
.037
.037
.028
.028
.043
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1315
1310
1305
1300
1295
1290
1285
1280
1275
19200
19400
19600
19800
20000
20200
20400
20600
20800
Station (ft)

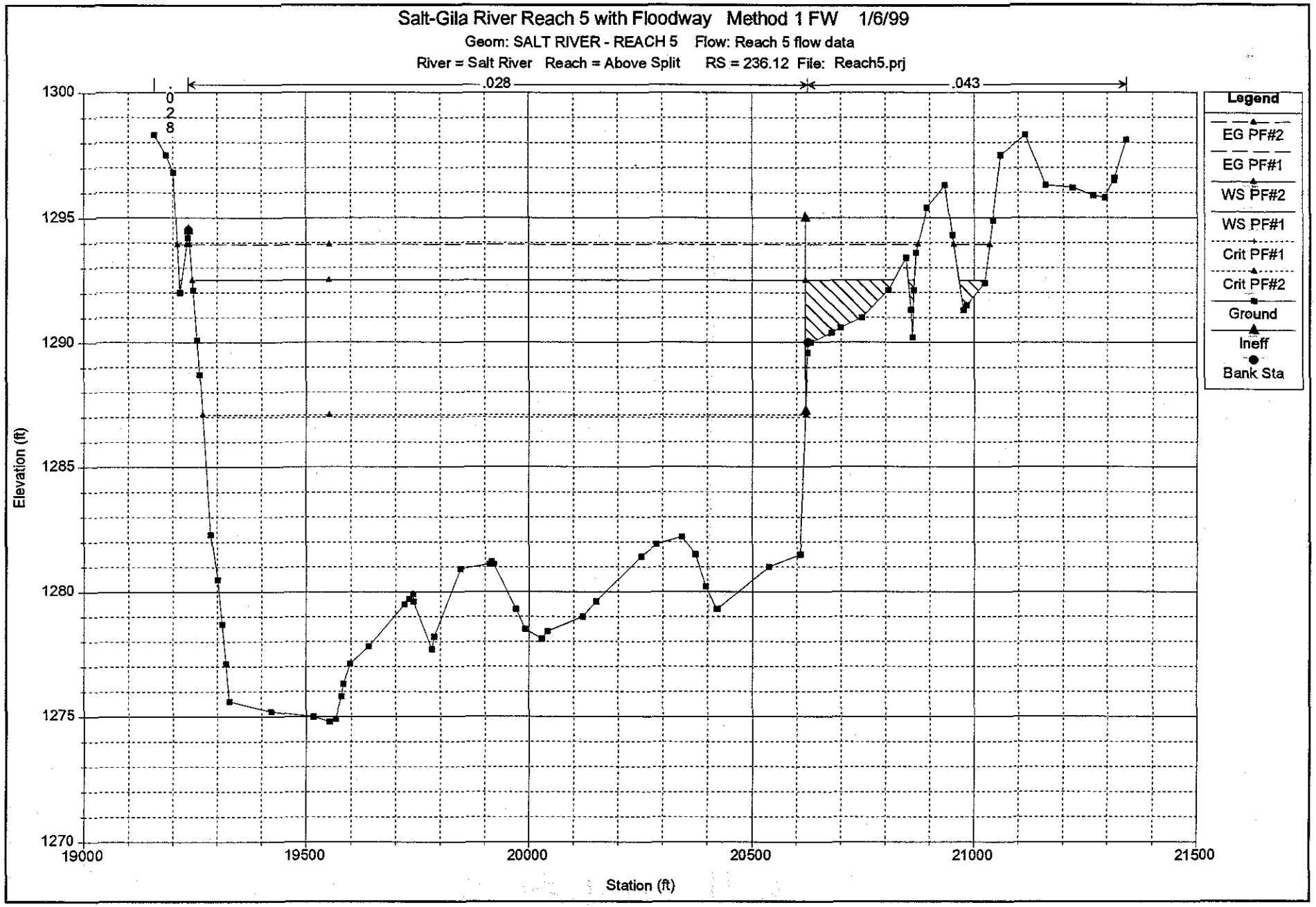

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 236.59 File: Reach5.prj
.037
.028
.037
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Ground
Bank Sta
Elevation (ft)
1310
1305
1300
1295
1290
1285
1280
1275
19200
19400
19600
19800
20000
20200
20400
20600
20800
Station (ft)

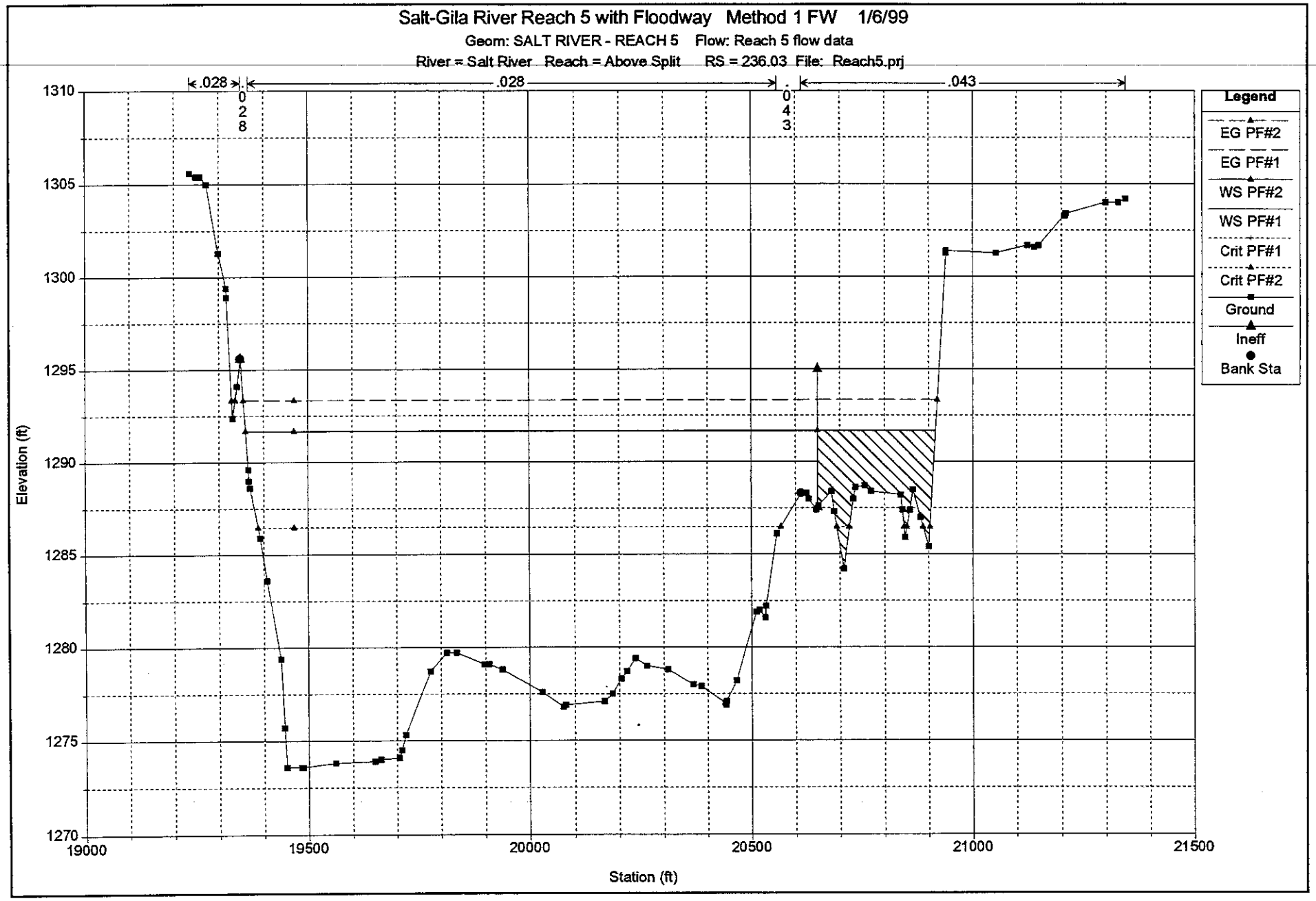

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 236.49 File: Reach5.prj
.043
.028
.037
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Ground
Bank Sta
Elevation (ft)
1310
1305
1300
1295
1290
1285
1280
1275
19200
19400
19600
19800
20000
20200
20400
20600
20800
21000
Station (ft)

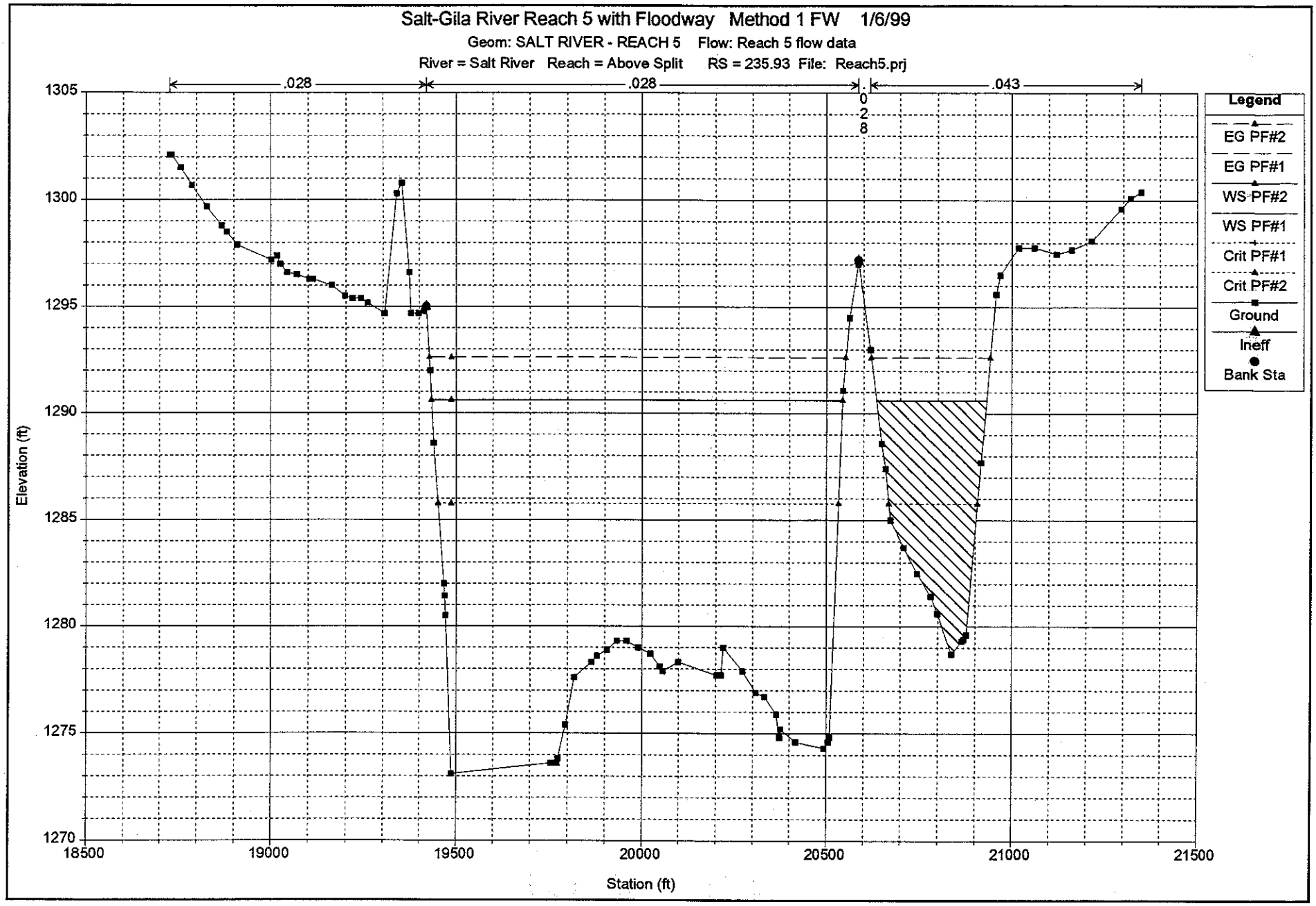

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 236.39 File: Reach5.prj
.043
.028
.043
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Ground
Bank Sta
Elevation (ft)
1305
1300
1295
1290
1285
1280
1275
19200
19400
19600
19800
20000
20200
20400
20600
20800
21000
Station (ft)

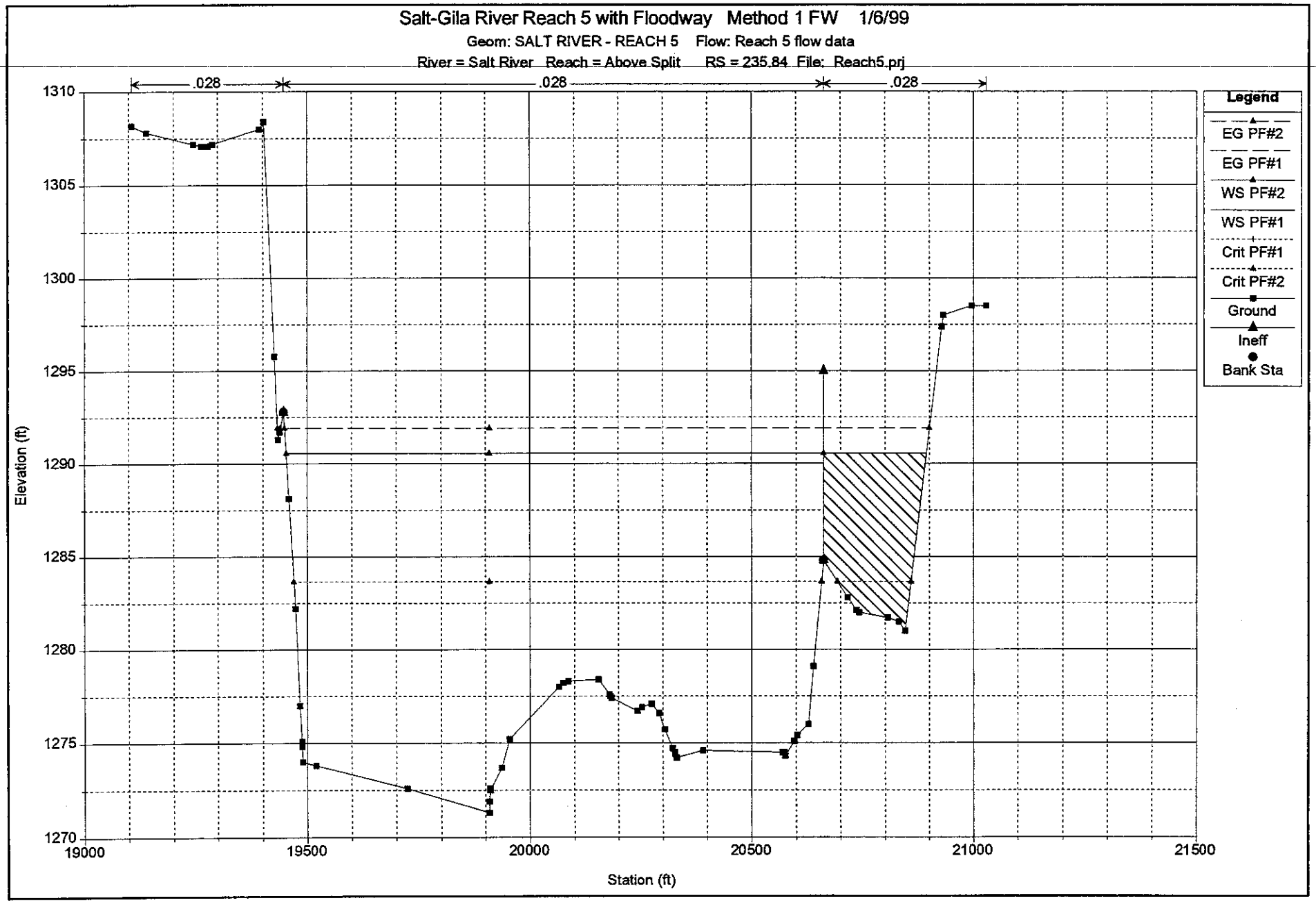

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 236.30 File: Reach5.prj
.043
.028
.043
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Ground
Bank Sta
Elevation (ft)
1305
1300
1295
1290
1285
1280
1275
19200
19400
19600
19800
20000
20200
20400
20600
20800
21000
Station (ft)

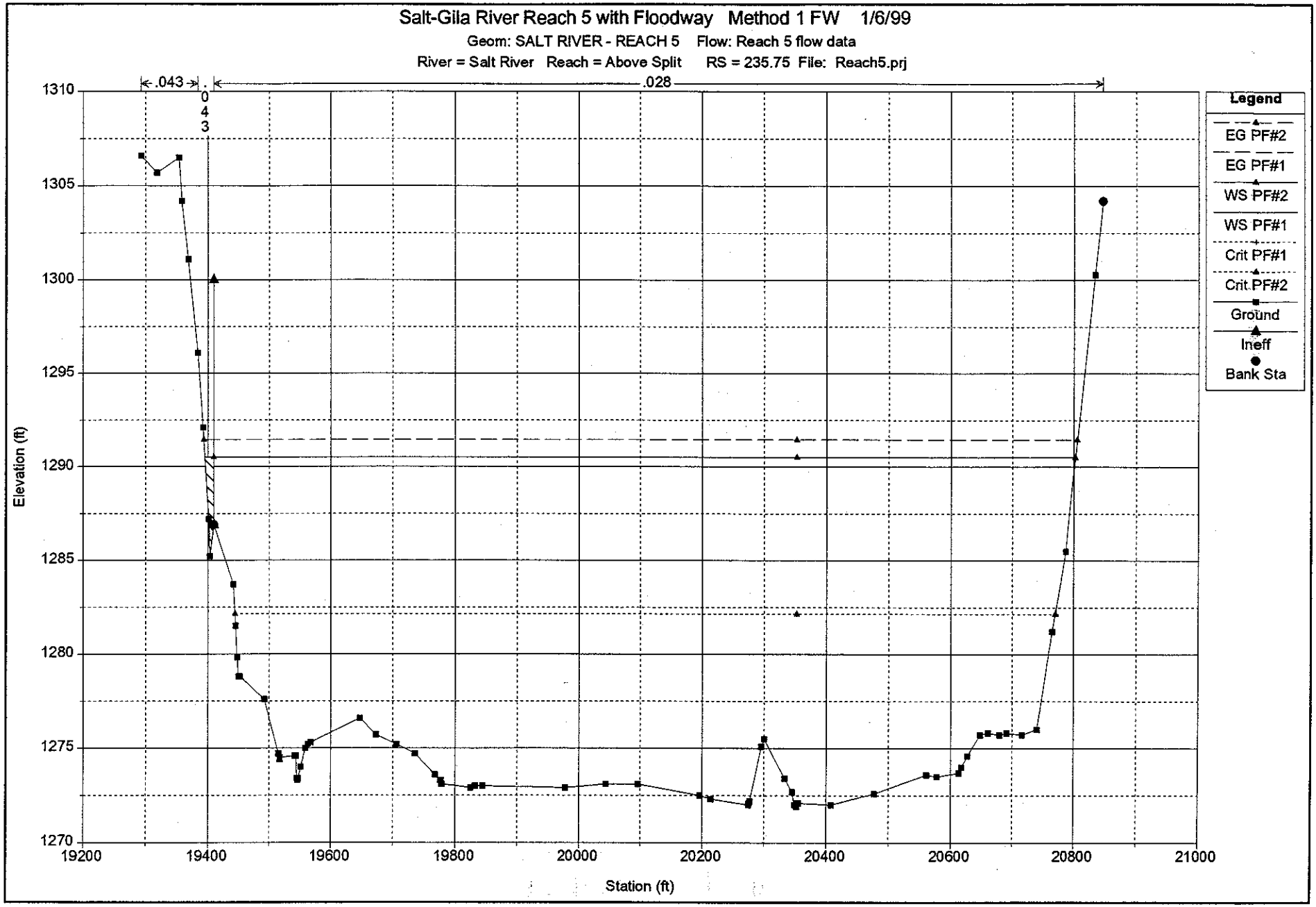

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 236.21 File: Reach5.prj
.028
.028
.043
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Ground
Bank Sta
Elevation (ft)
1310
1305
1300
1295
1290
1285
1280
1275
19200
19400
19600
19800
20000
20200
20400
20600
20800
21000
Station (ft)

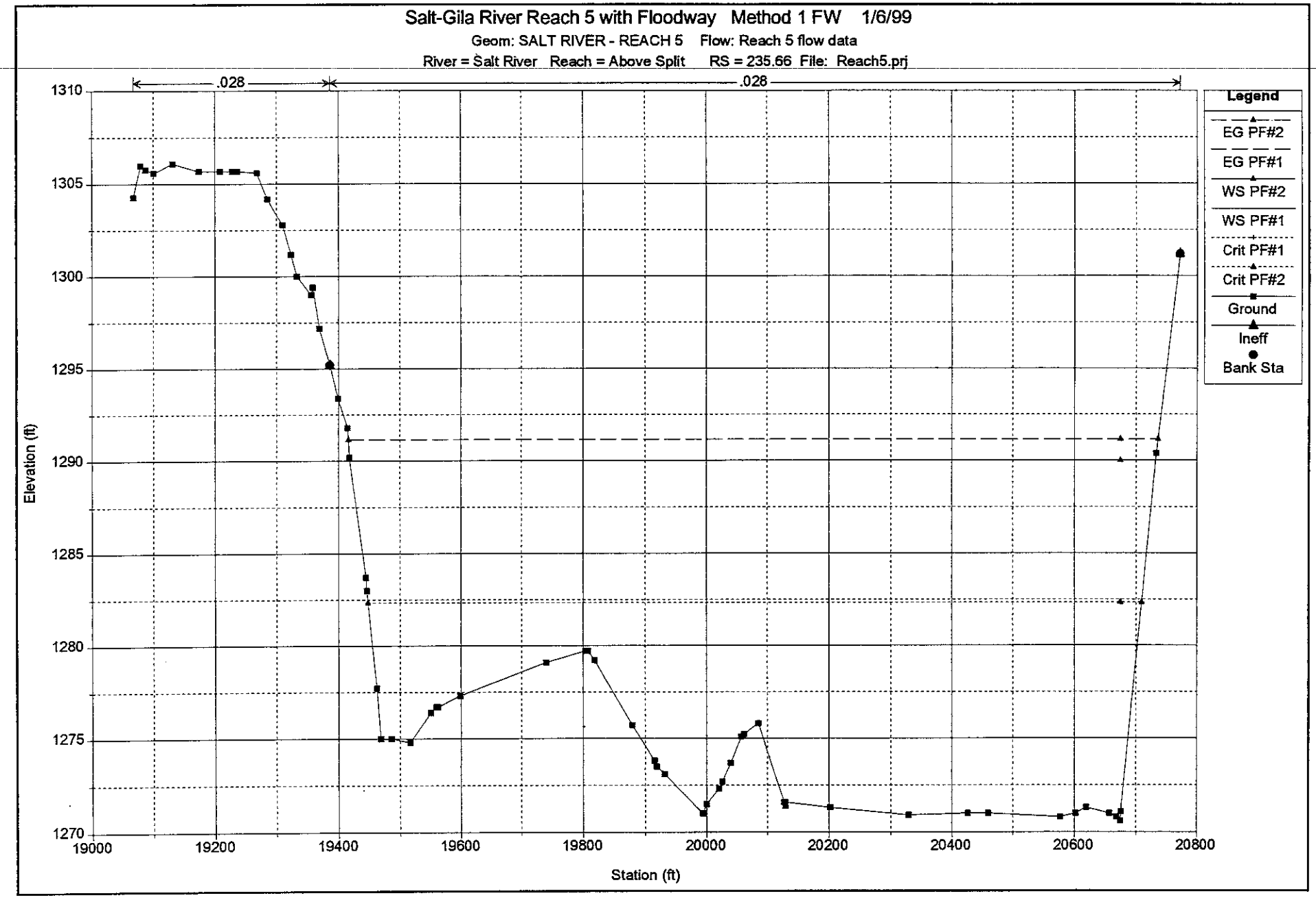

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 236.12 File: Reach5.prj
.028
.043
.028
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1300
1295
1290
1285
1280
1275
1270
19000
19500
20000
20500
21000
21500
Station (ft)

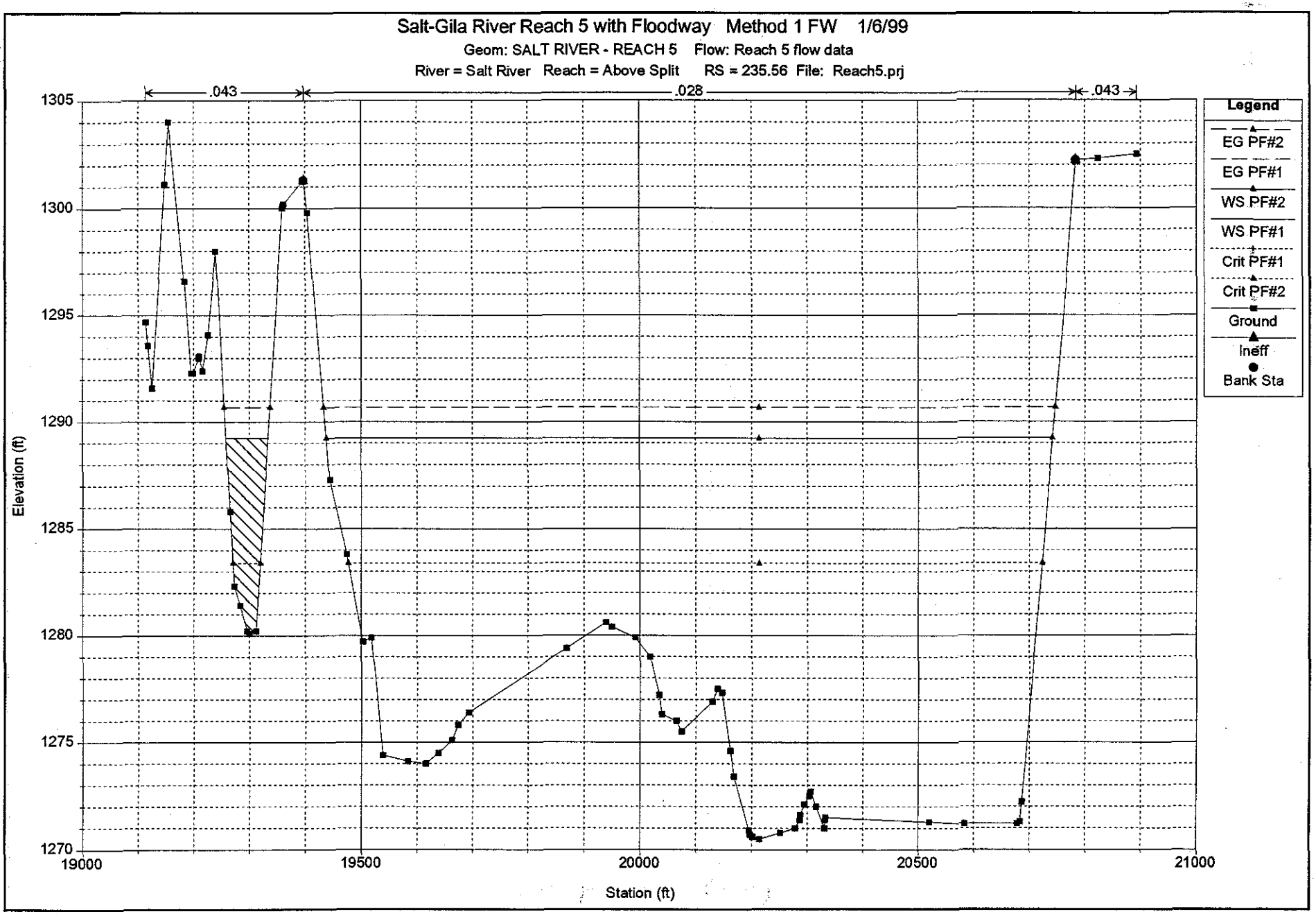

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 236.03 File: Reach5.prj
.028
.028
.043
Elevation (ft)
Station (ft)
1310
1305
1300
1295
1290
1285
1280
1275
1270
19000
19500
20000
20500
21000
21500
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

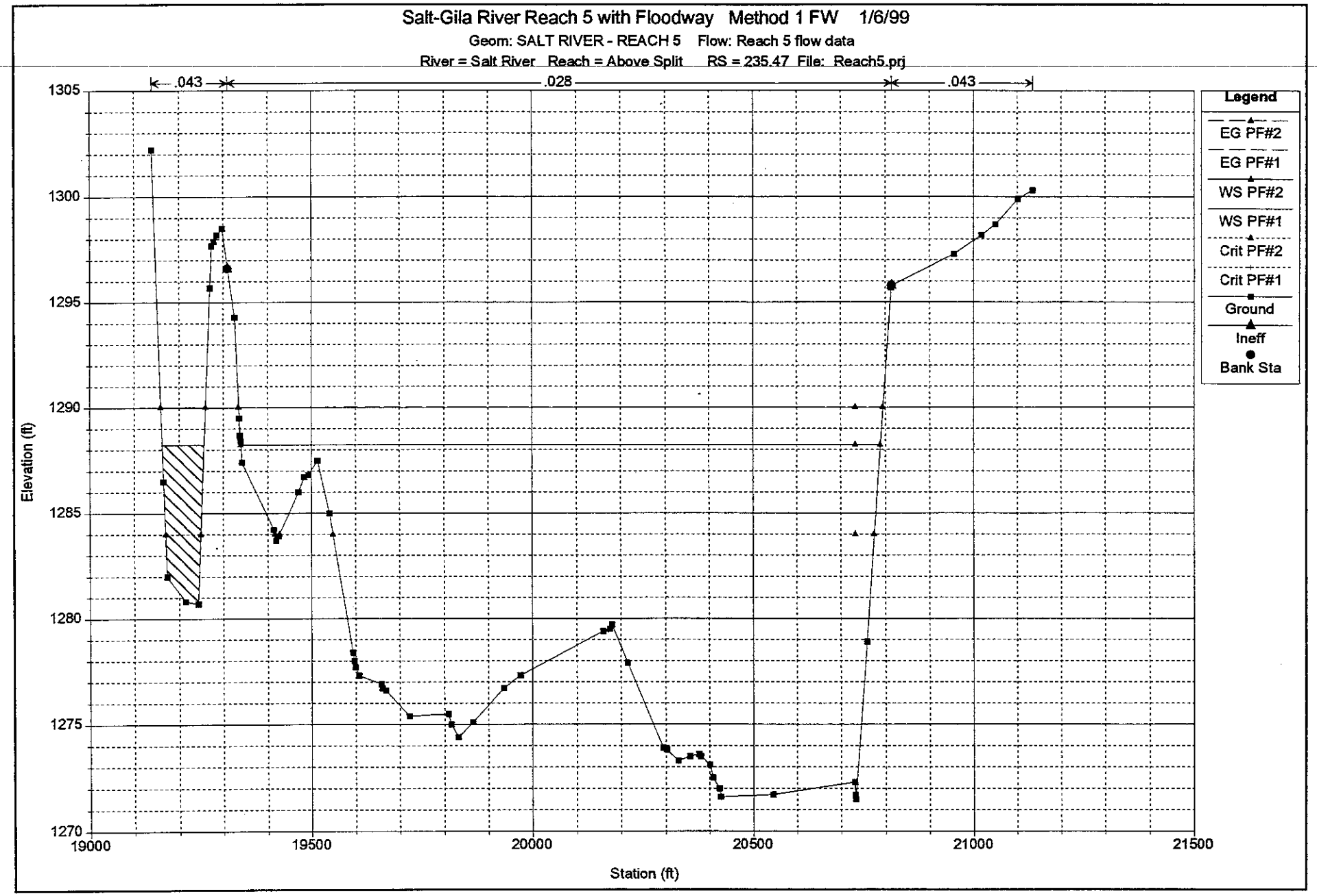

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 235.93 File: Reach5.prj
.028
.028
.028
.043
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1305
1300
1295
1290
1285
1280
1275
1270
18500
19000
19500
20000
20500
21000
21500
Station (ft)

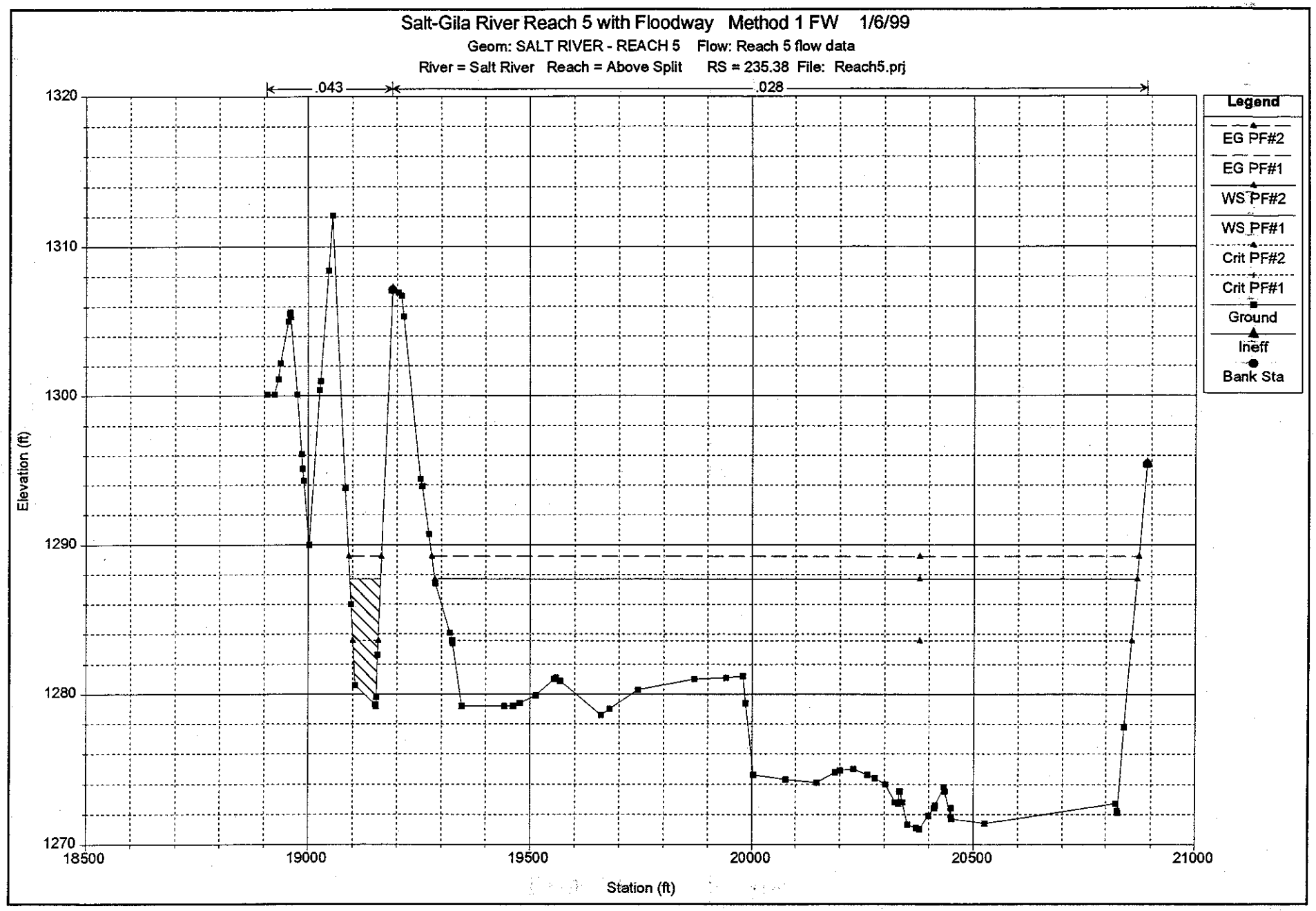

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 235.84 File: Reach5.prj
.028
.028
.028
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1310
1305
1300
1295
1290
1285
1280
1275
1270
19000
19500
20000
20500
21000
21500
Station (ft)

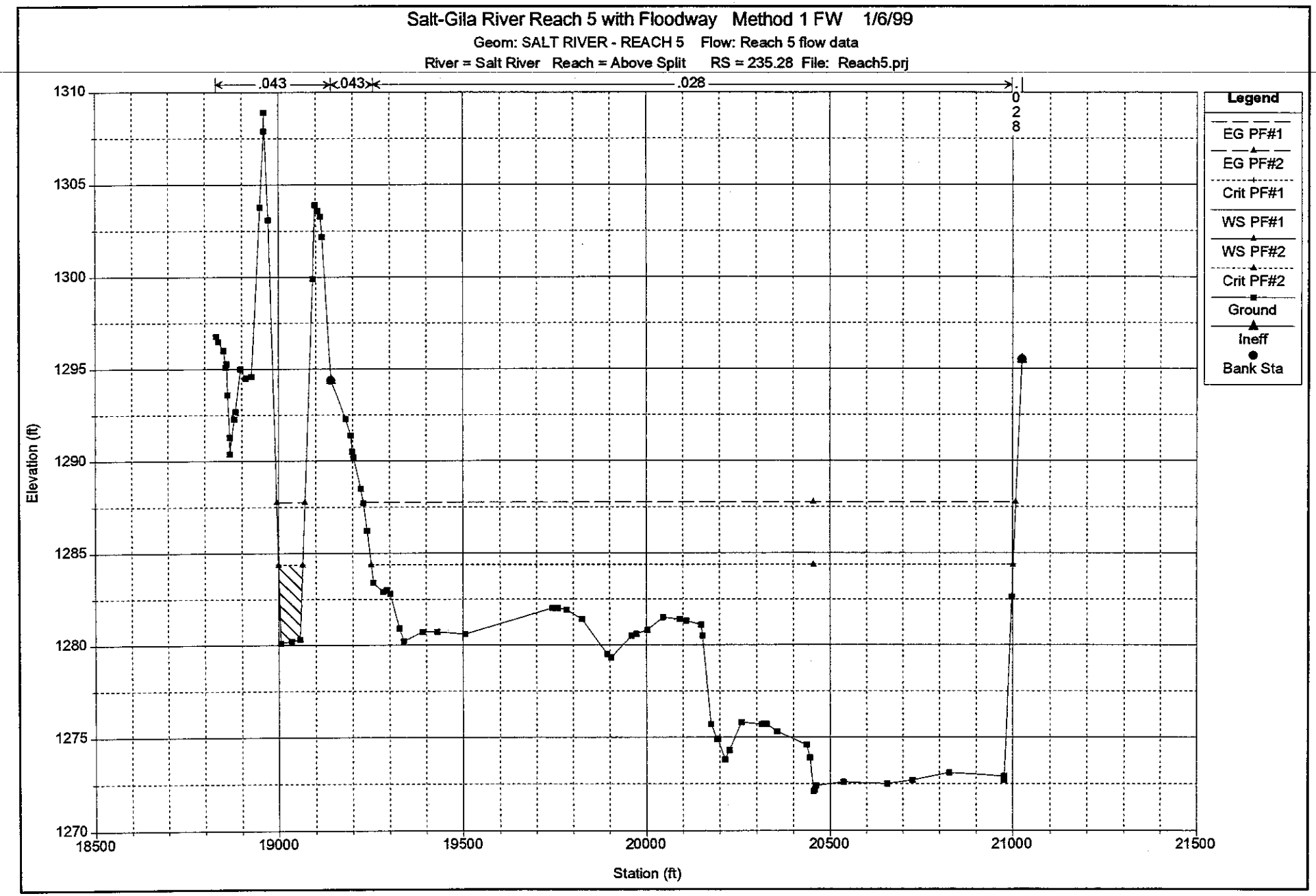

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 235.75 File: Reach5.prj
.043
.028
.043
Elevation (ft)
Station (ft)
1310
1305
1300
1295
1290
1285
1280
1275
1270
19200
19400
19600
19800
20000
20200
20400
20600
20800
21000
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

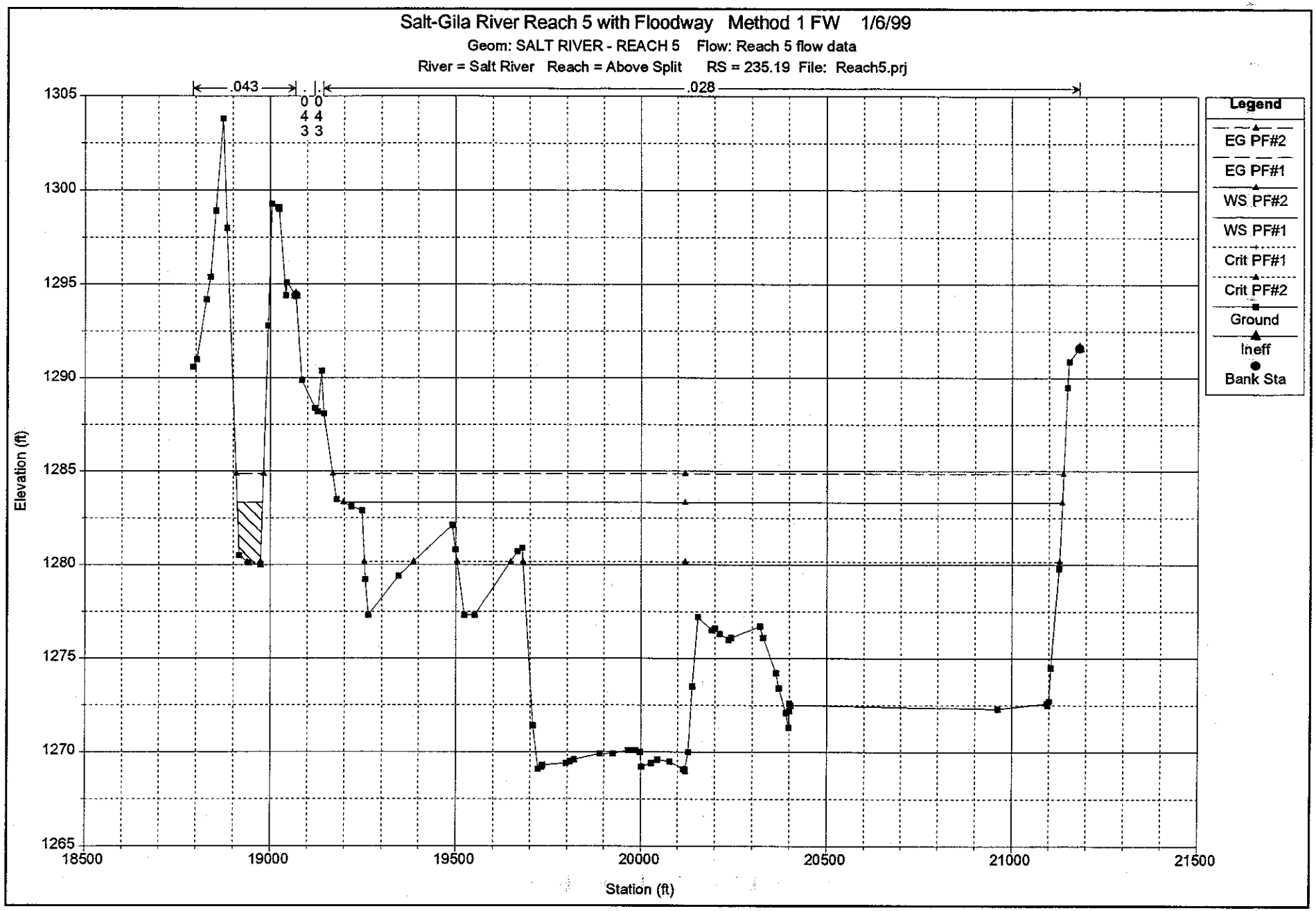

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 235.66 File: Reach5.prj
.028
.028
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1310
1305
1300
1295
1290
1285
1280
1275
1270
19000
19200
19400
19600
19800
20000
20200
20400
20600
20800
Station (ft)

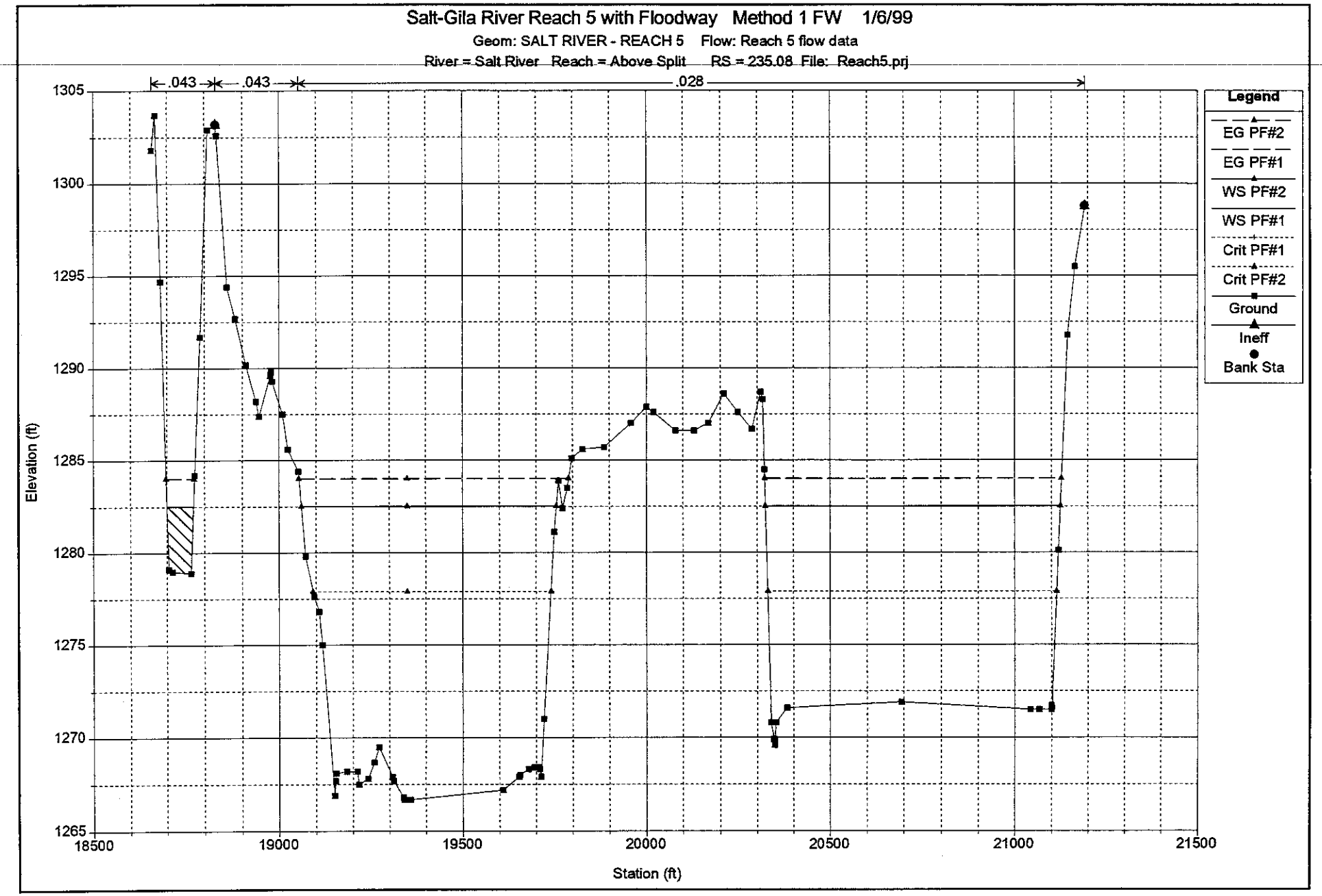

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 235.56 File: Reach5.prj
.043
.028
.043
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1305
1300
1295
1290
1285
1280
1275
1270
19000
19500
20000
20500
21000
Station (ft)

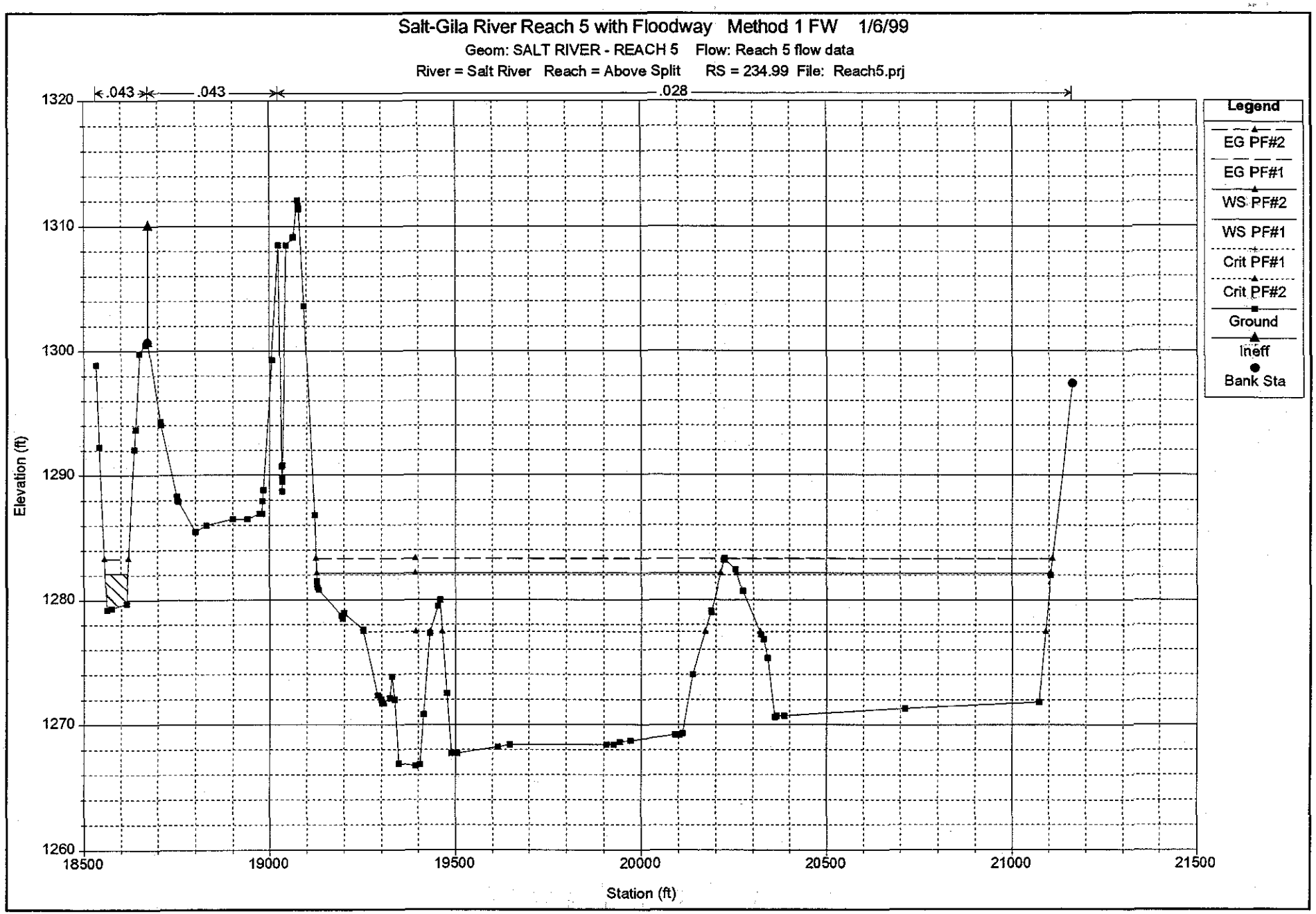

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 235.47 File: Reach5.prj
.043
.028
.043
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1305
1300
1295
1290
1285
1280
1275
1270
19000
19500
20000
20500
21000
21500
Station (ft)

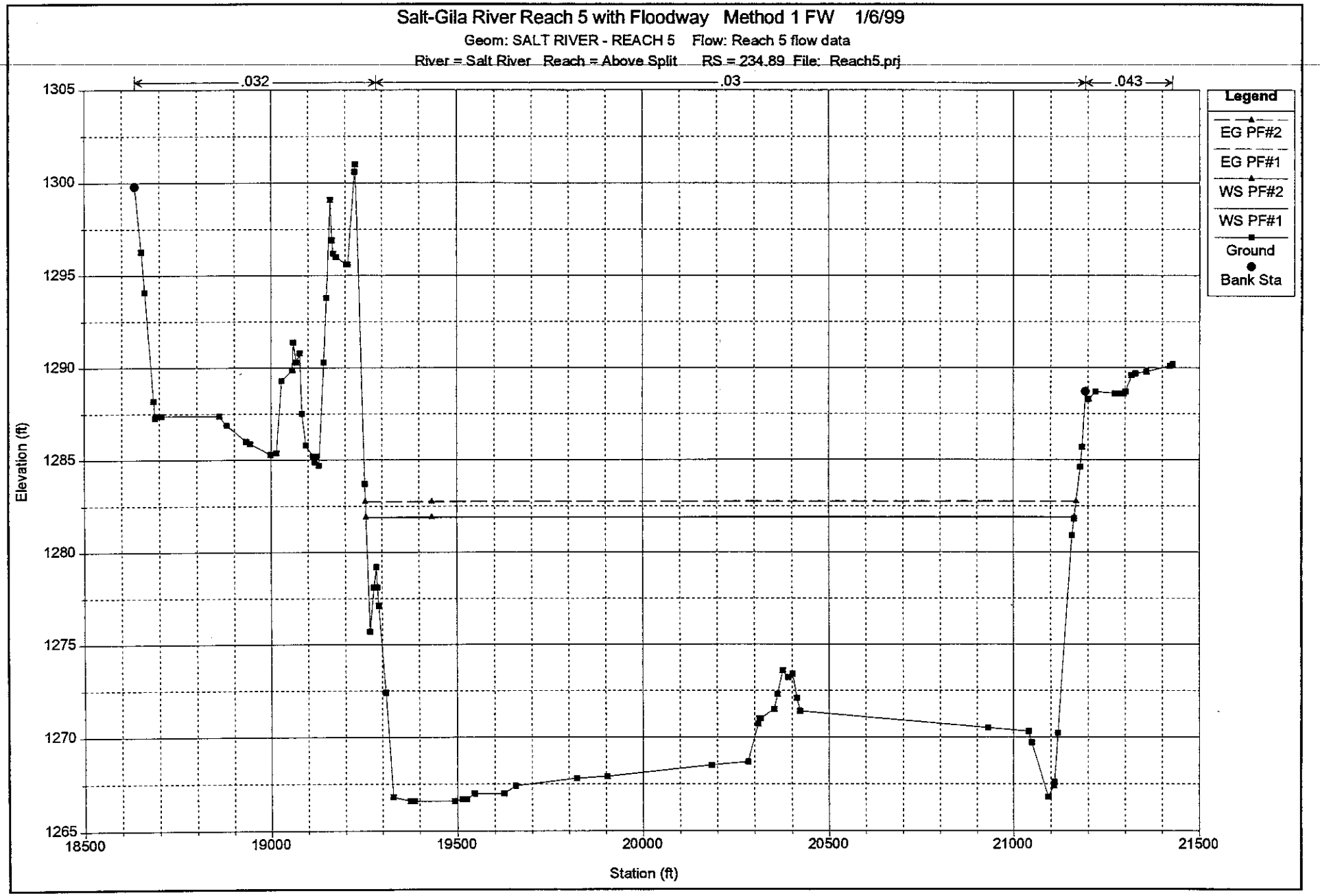

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 235.38 File: Reach5.prj
.043
.028
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1320
1310
1300
1290
1280
1270
18500
19000
19500
20000
20500
21000
Station (ft)

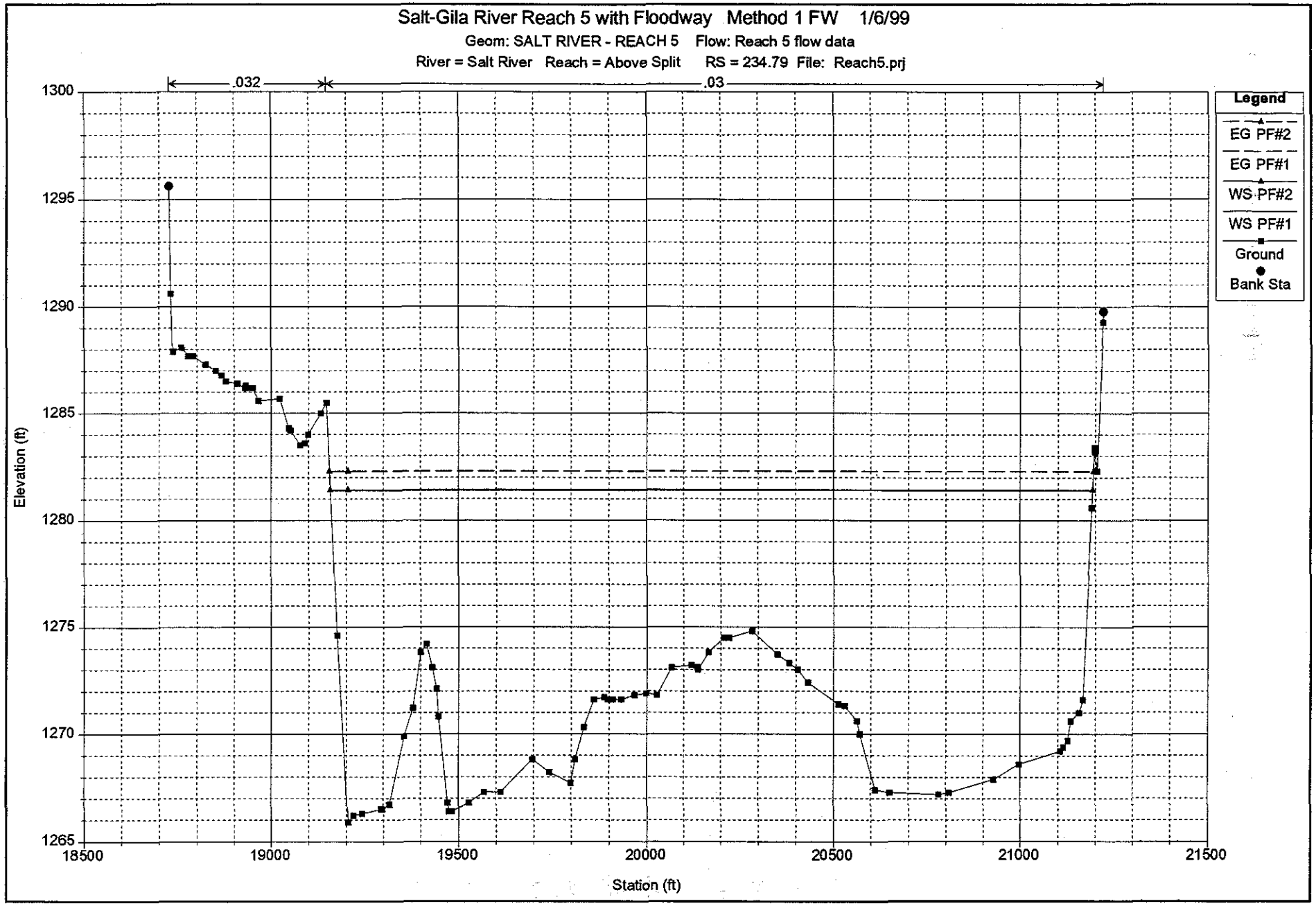

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 235.28 File: Reach5.prj
.043
.043
.028
.028
Elevation (ft)
Station (ft)
1310
1305
1300
1295
1290
1285
1280
1275
1270
18500
19000
19500
20000
20500
21000
21500
Legend
EG PF#1
EG PF#2
Crit PF#1
WS PF#1
WS PF#2
Crit PF#2
Ground
Ineff
Bank Sta

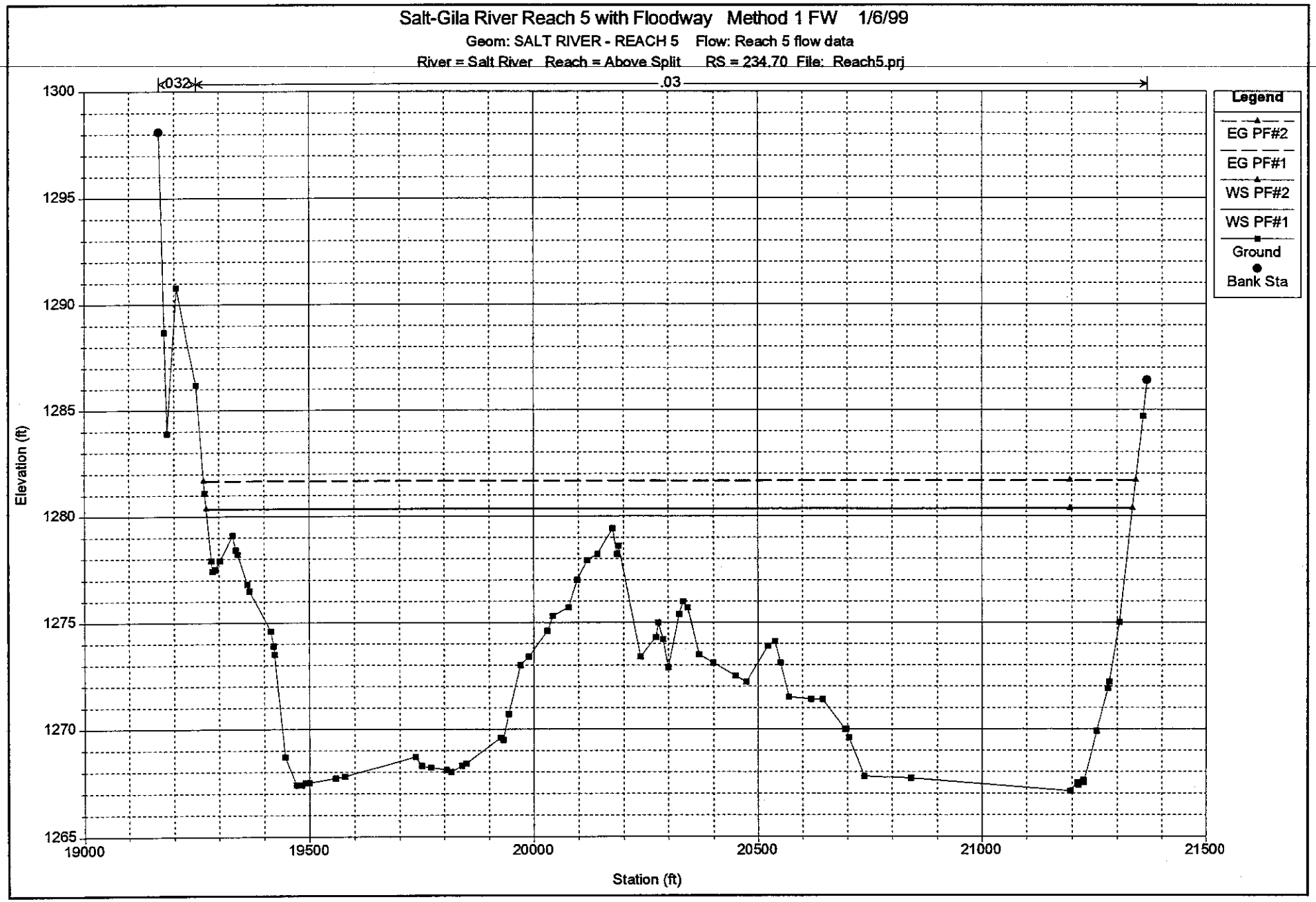

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 235.19 File: Reach5.prj
.043
.004
.043
.028
Elevation (ft)
Station (ft)
1305
1300
1295
1290
1285
1280
1275
1270
1265
18500
19000
19500
20000
20500
21000
21500
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

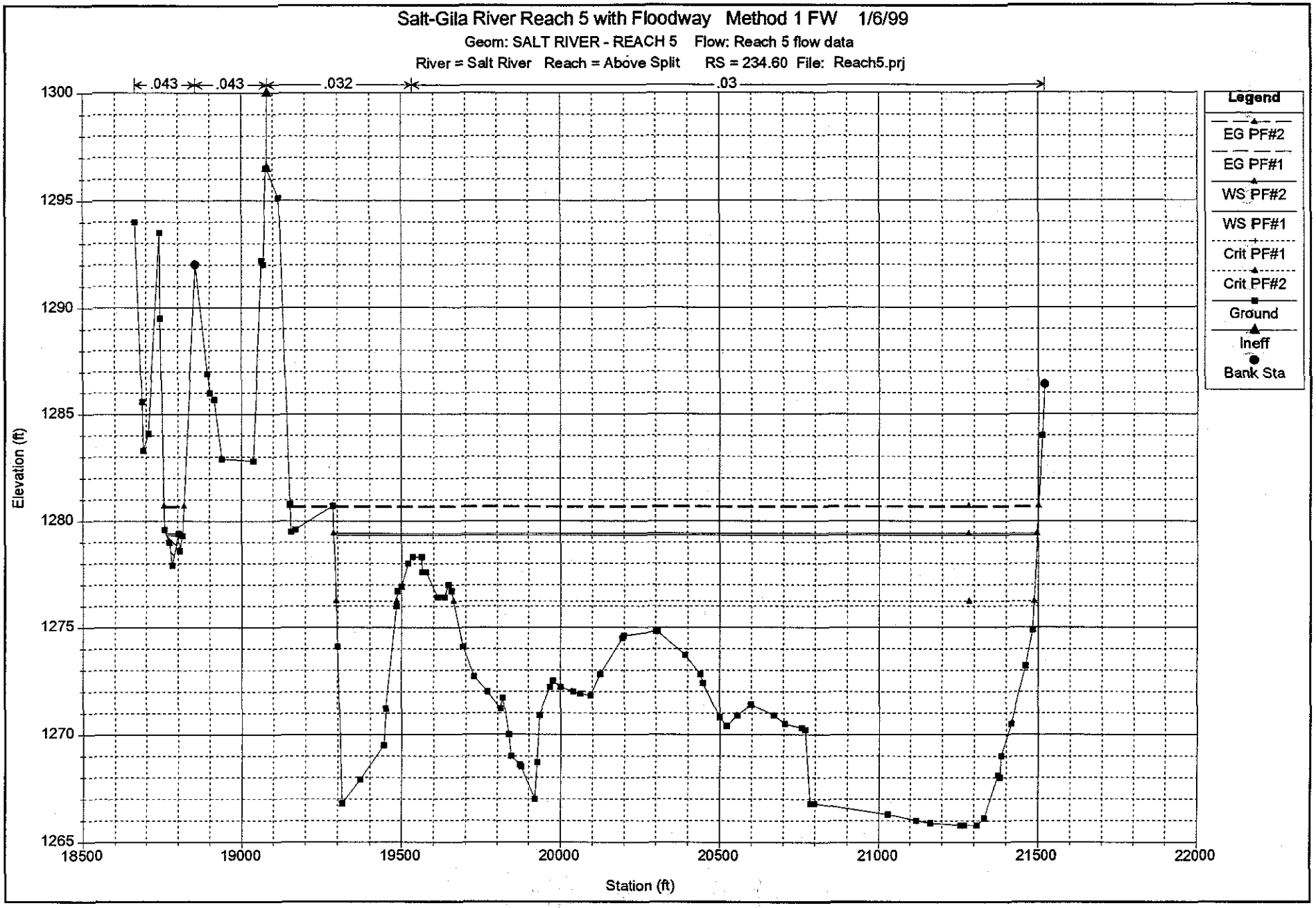

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 235.08 File: Reach5.prj
.043
.043
.028
Elevation (ft)
1305
1300
1295
1290
1285
1280
1275
1270
1265
18500
19000
19500
20000
20500
21000
21500
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

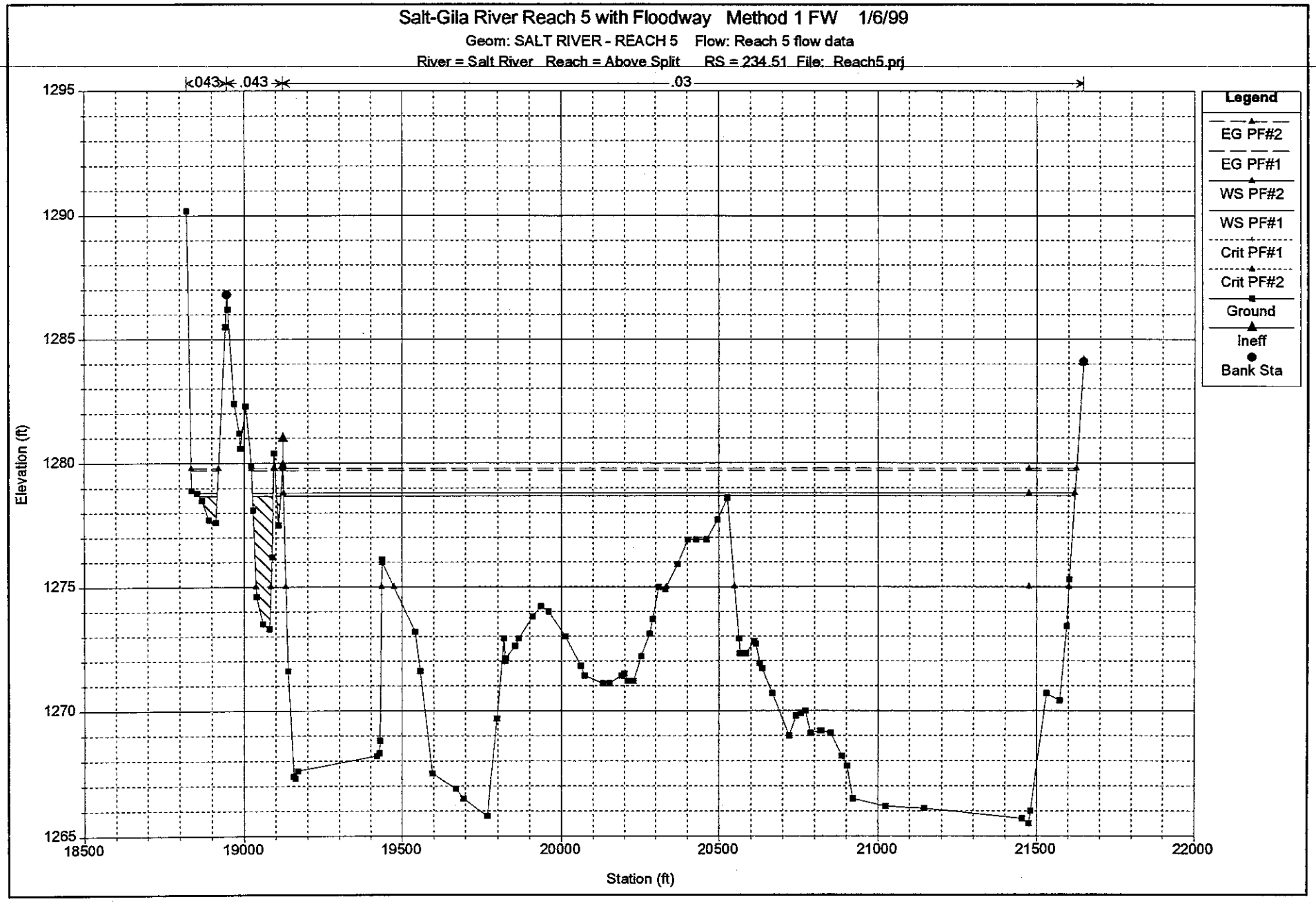

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 234.99 File: Reach5.prj
.043
.043
.028
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1320
1310
1300
1290
1280
1270
1260
18500
19000
19500
20000
20500
21000
21500
Station (ft)

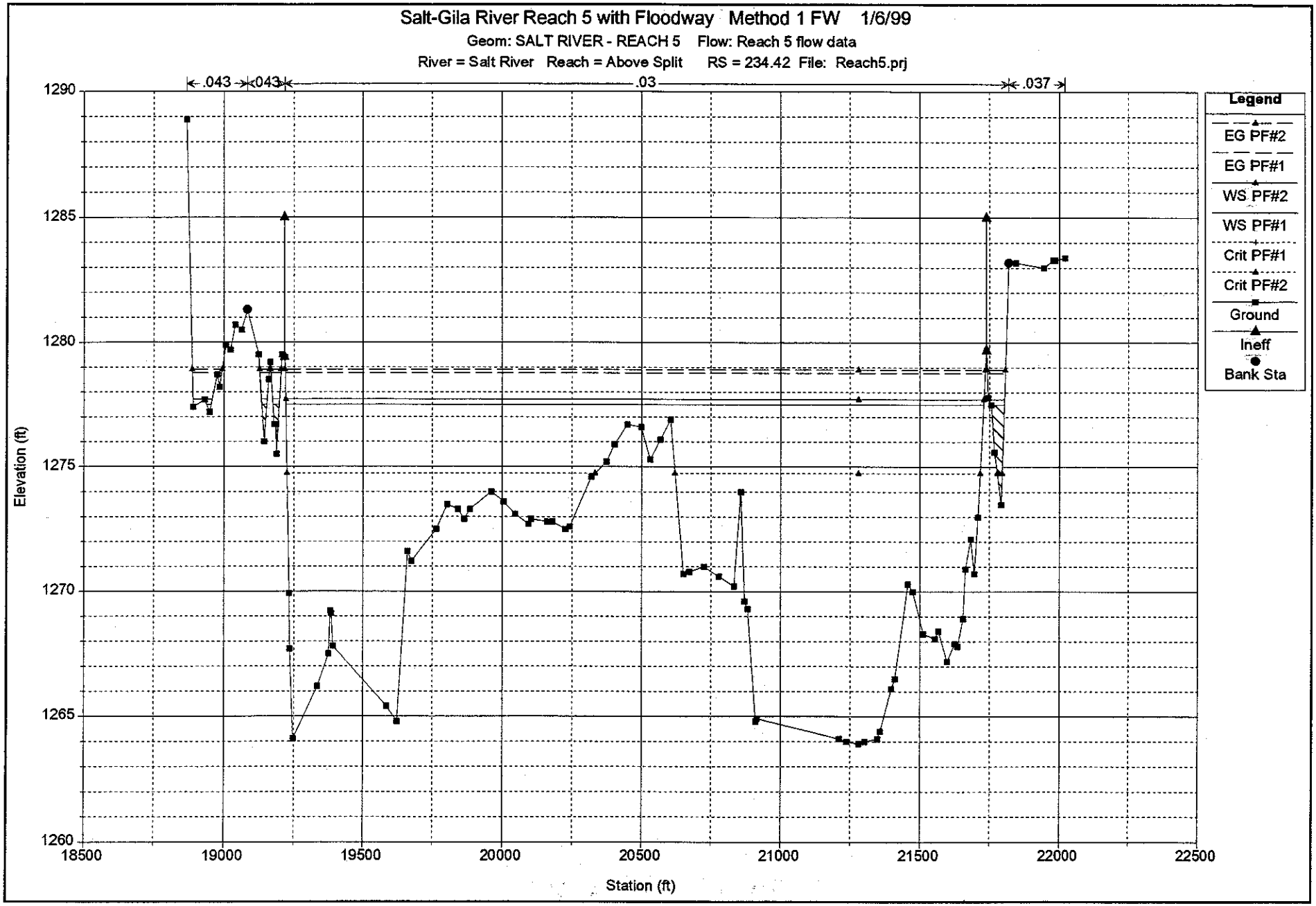

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 234.89 File: Reach5.prj
.032
.03
.043
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Ground
Bank Sta
Elevation (ft)
1305
1300
1295
1290
1285
1280
1275
1270
1265
18500
19000
19500
20000
20500
21000
21500
Station (ft)

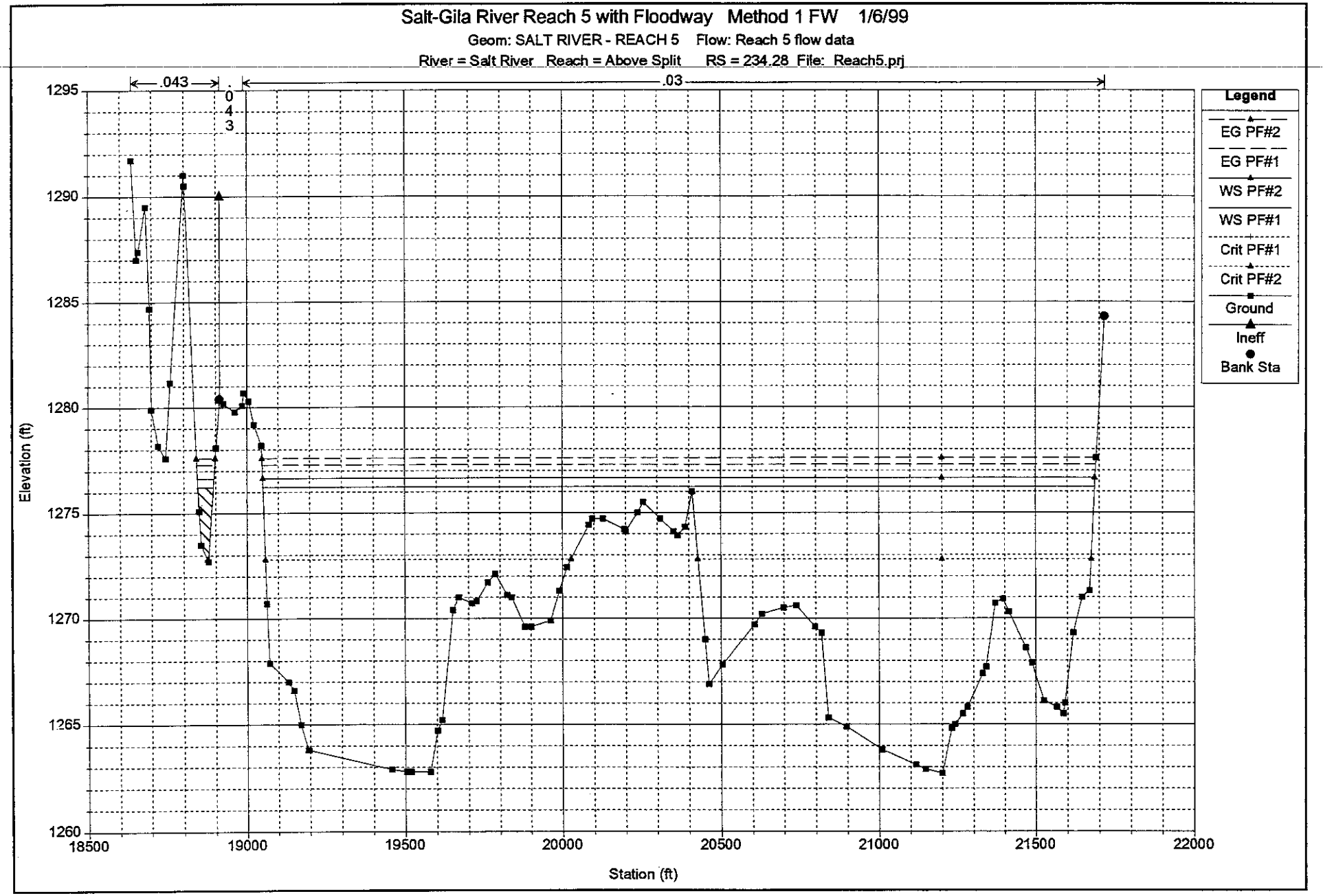

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 234.79 File: Reach5.prj
.032
.03
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Ground
Bank Sta
Elevation (ft)
1300
1295
1290
1285
1280
1275
1270
1265
18500
19000
19500
20000
20500
21000
21500
Station (ft)

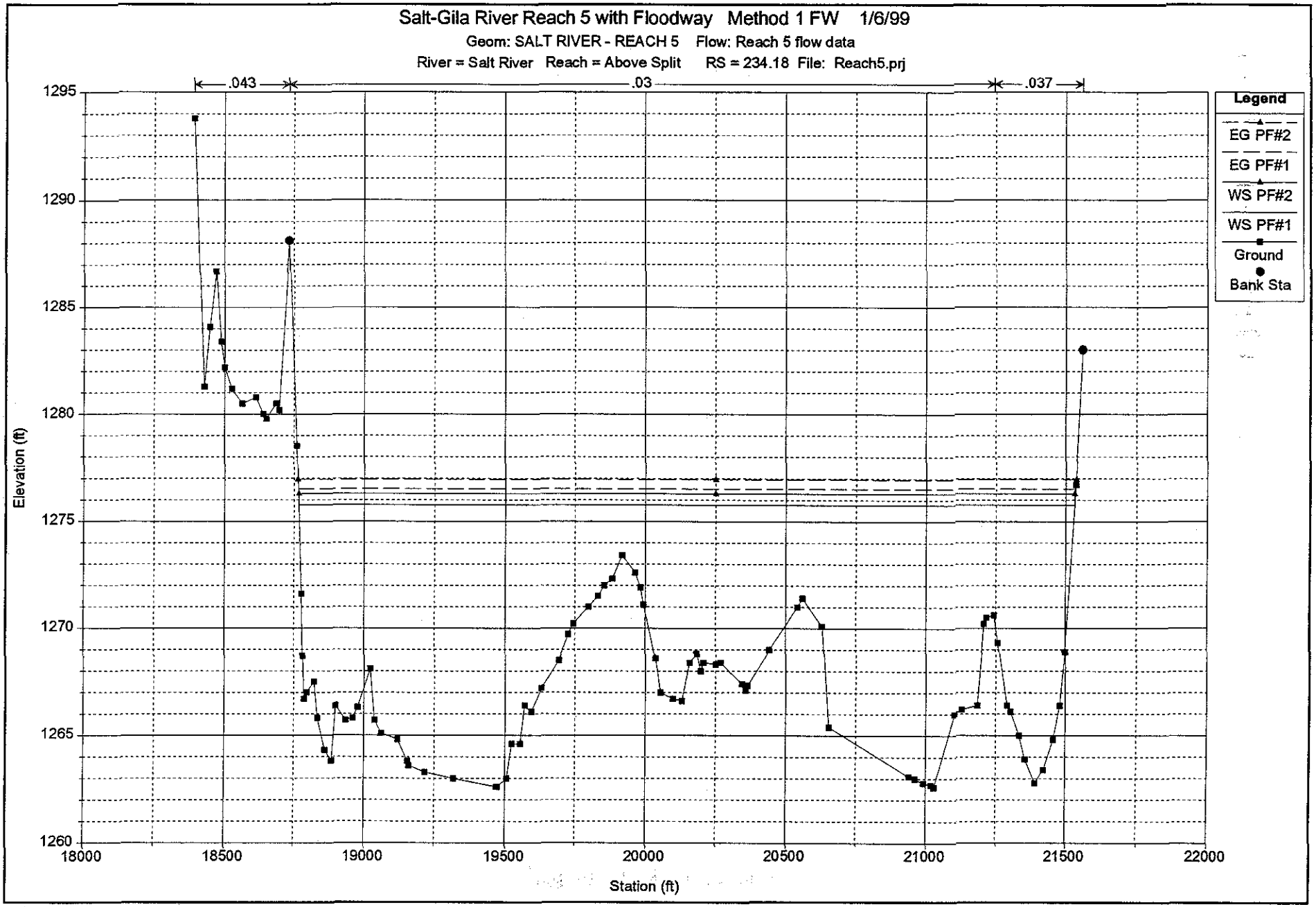

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 234.70 File: Reach5.prj
.032
.03
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Ground
Bank Sta
Elevation (ft)
1300
1295
1290
1285
1280
1275
1270
1265
19000
19500
20000
20500
21000
21500
Station (ft)

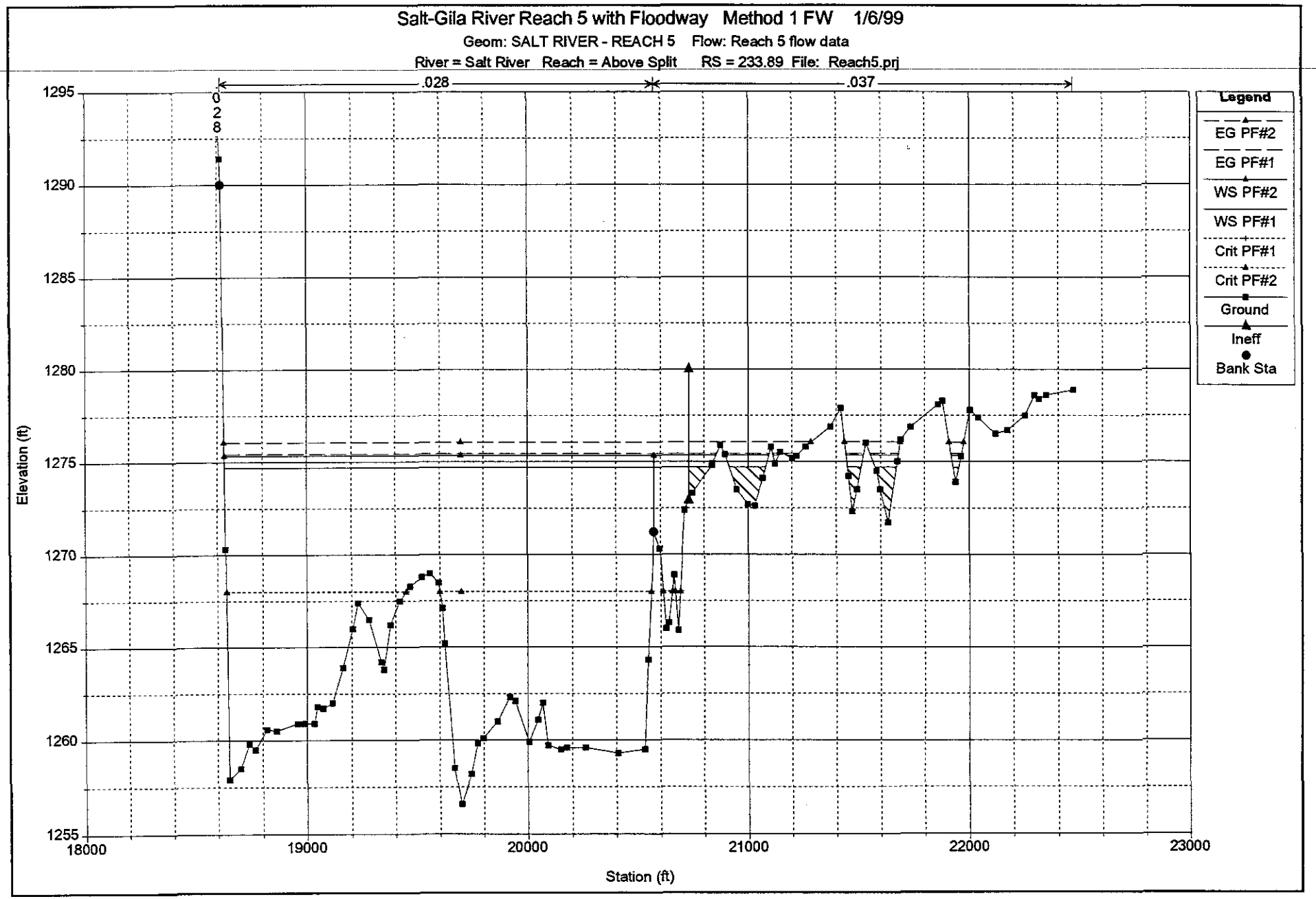

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 234.60 File: Reach5.prj
.043
.043
.032
.03
Elevation (ft)
Station (ft)
1300
1295
1290
1285
1280
1275
1270
1265
18500
19000
19500
20000
20500
21000
21500
22000
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

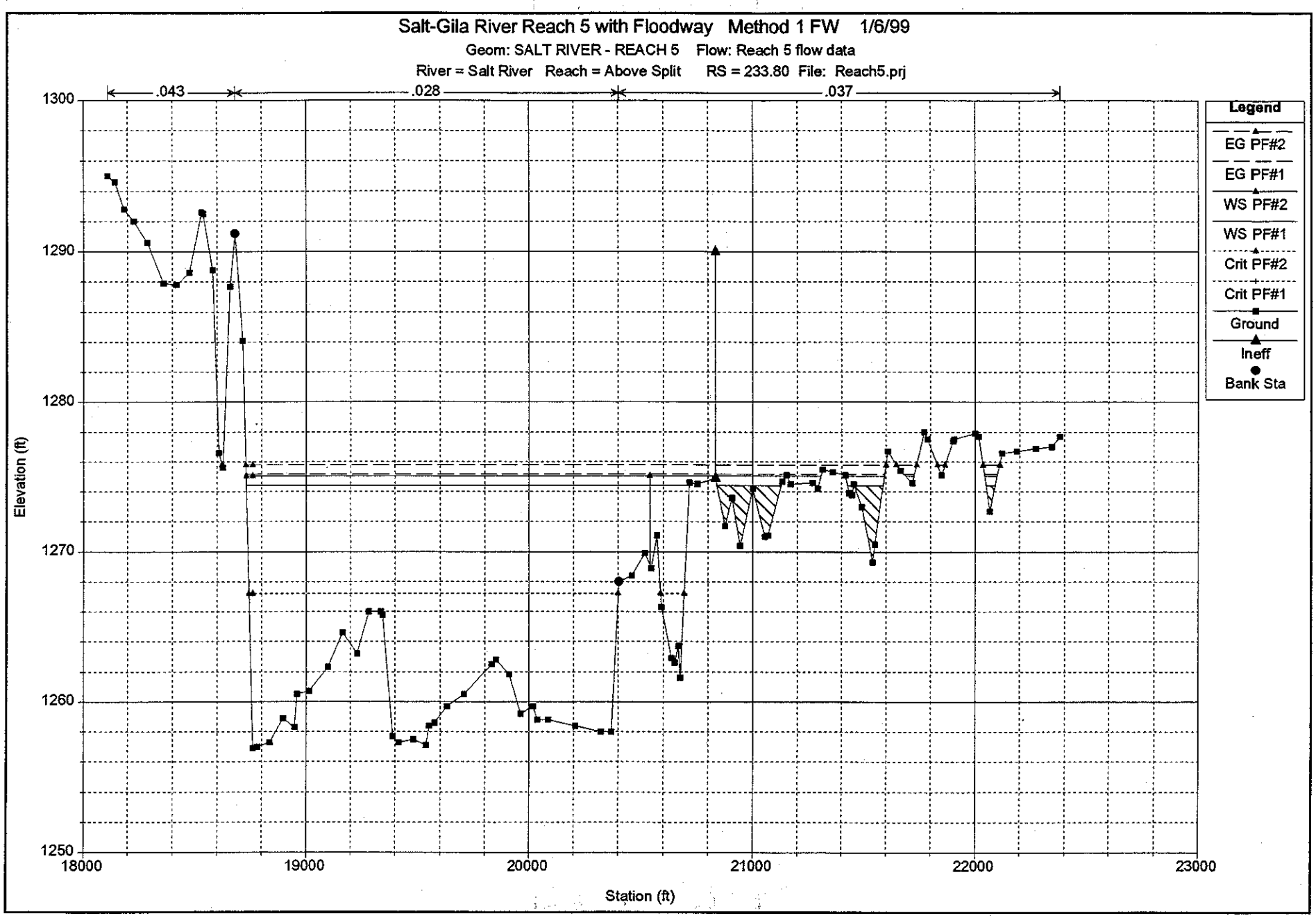

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 234.51 File: Reach5.prj
.043
.043
.03
Elevation (ft)
1295
1290
1285
1280
1275
1270
1265
18500
19000
19500
20000
20500
21000
21500
22000
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

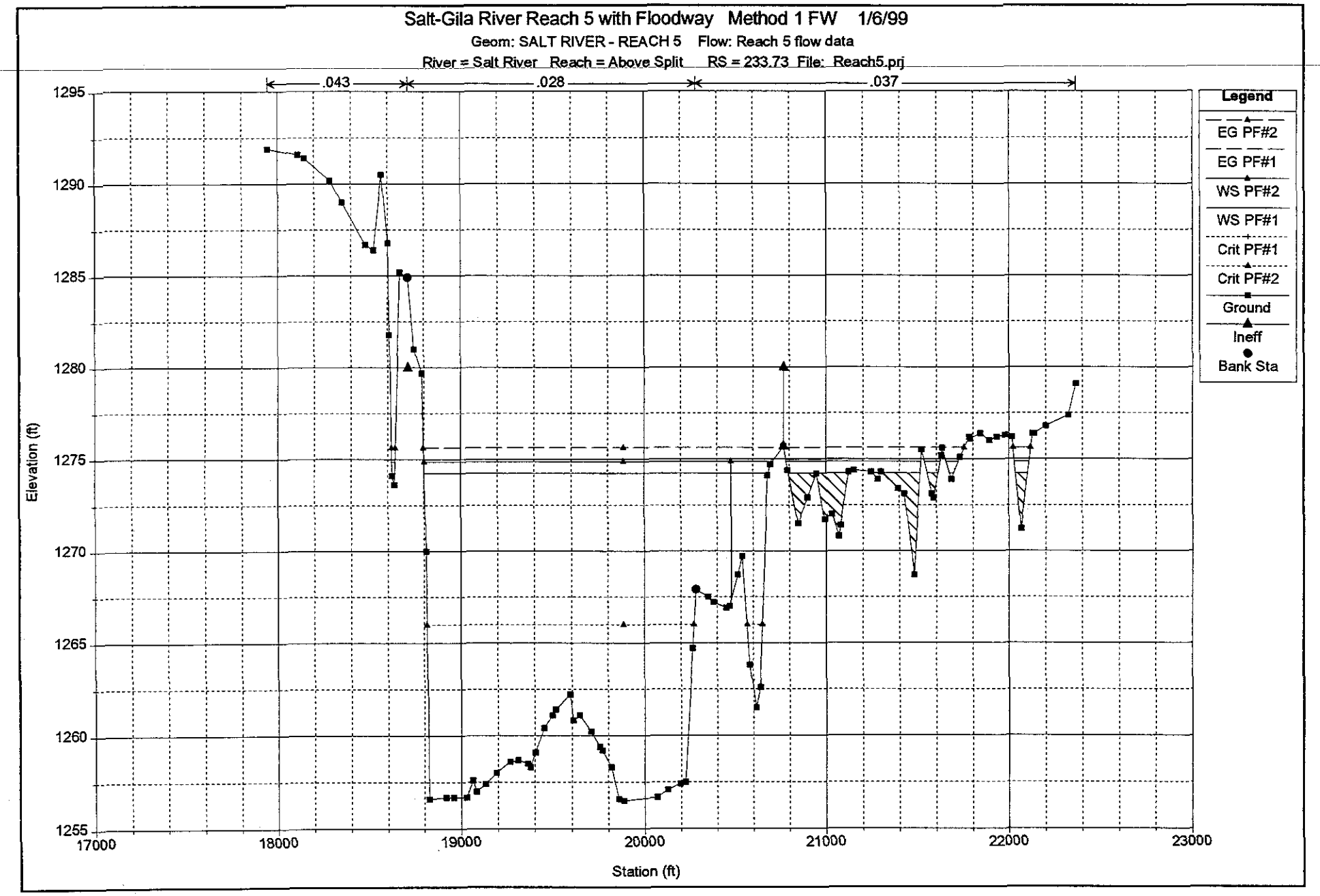

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 234.42 File: Reach5.prj
.043
.043
.03
.037
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1290
1285
1280
1275
1270
1265
1260
18500
19000
19500
20000
20500
21000
21500
22000
22500
Station (ft)

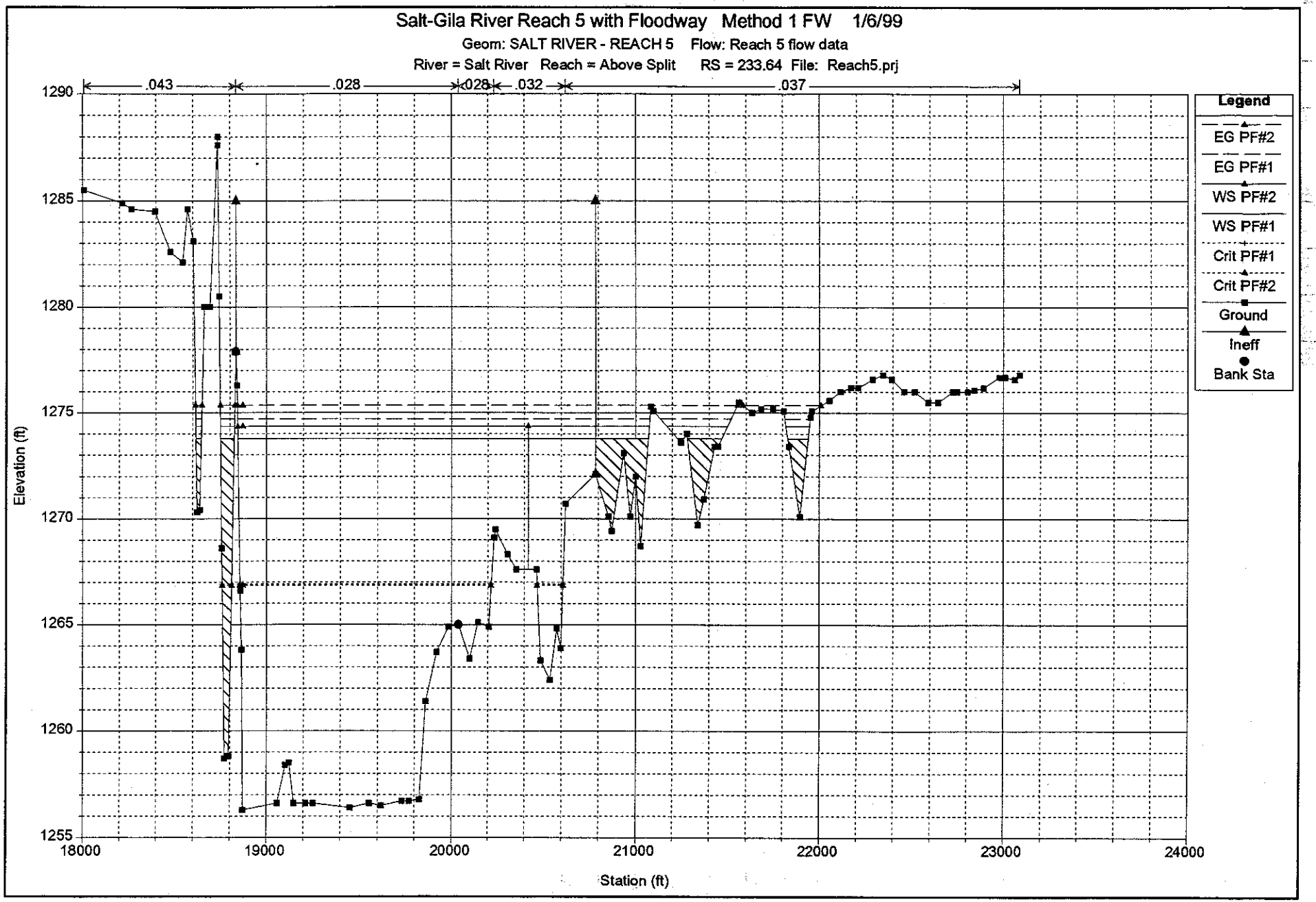

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 234.28 File: Reach5.prj
.043
.043
.03
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1295
1290
1285
1280
1275
1270
1265
1260
18500
19000
19500
20000
20500
21000
21500
22000
Station (ft)

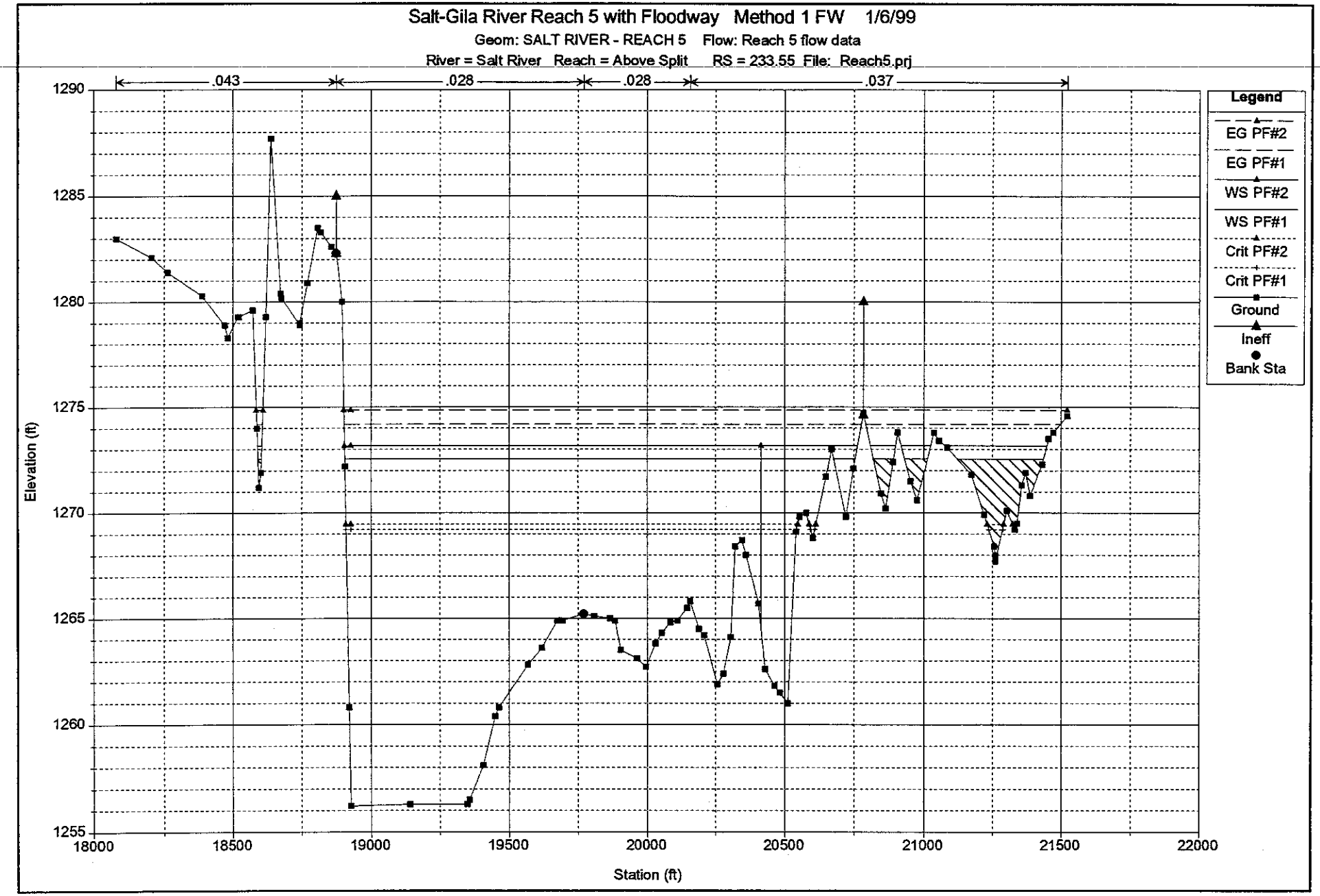

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 234.18 File: Reach5.prj
.043
.03
.037
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Ground
Bank Sta
Elevation (ft)
1295
1290
1285
1280
1275
1270
1265
1260
18000
18500
19000
19500
20000
20500
21000
21500
22000
Station (ft)

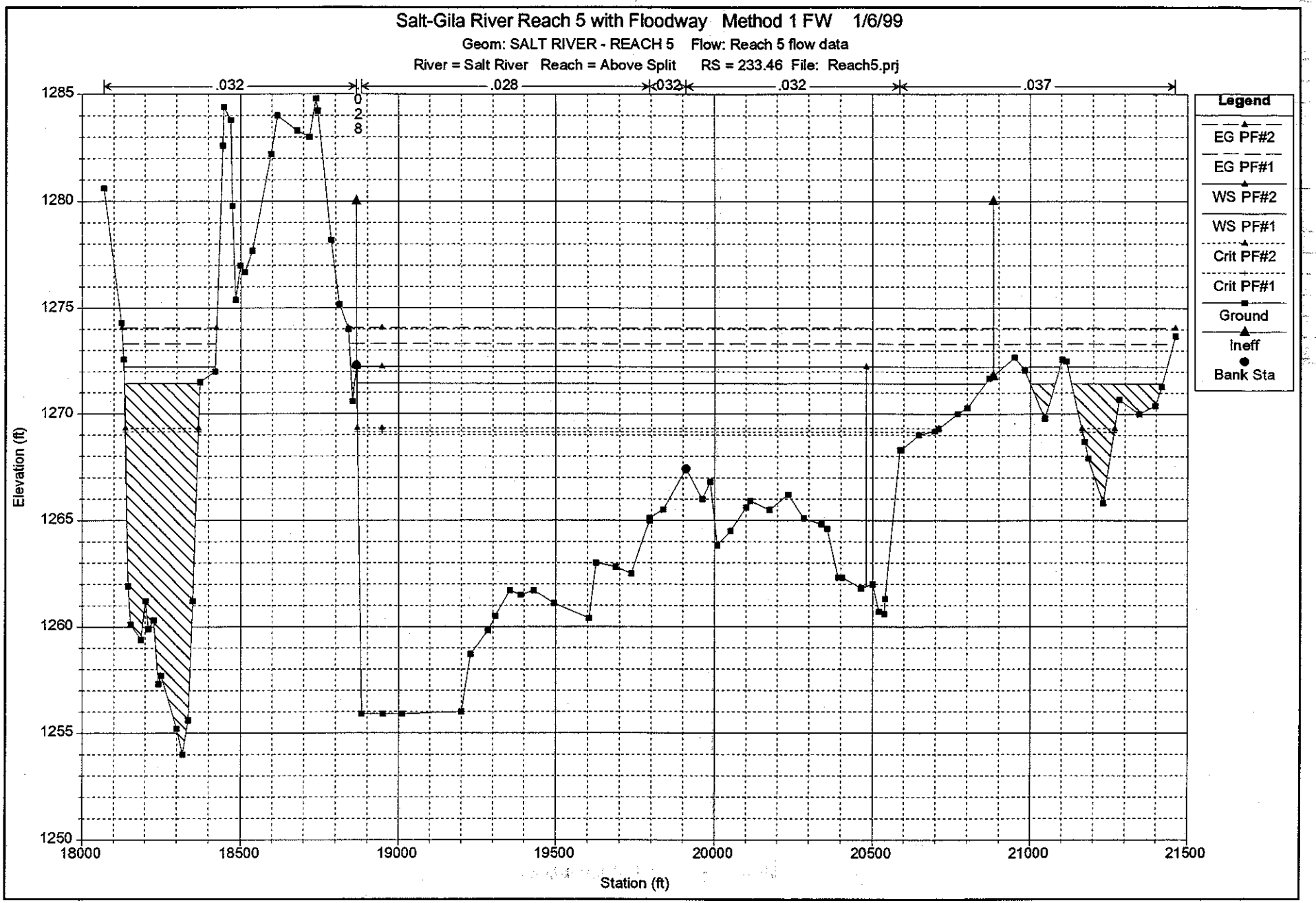

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 233.89 File: Reach5.prj
.028
.037
028
Elevation (ft)
1295
1290
1285
1280
1275
1270
1265
1260
1255
18000
19000
20000
21000
22000
23000
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

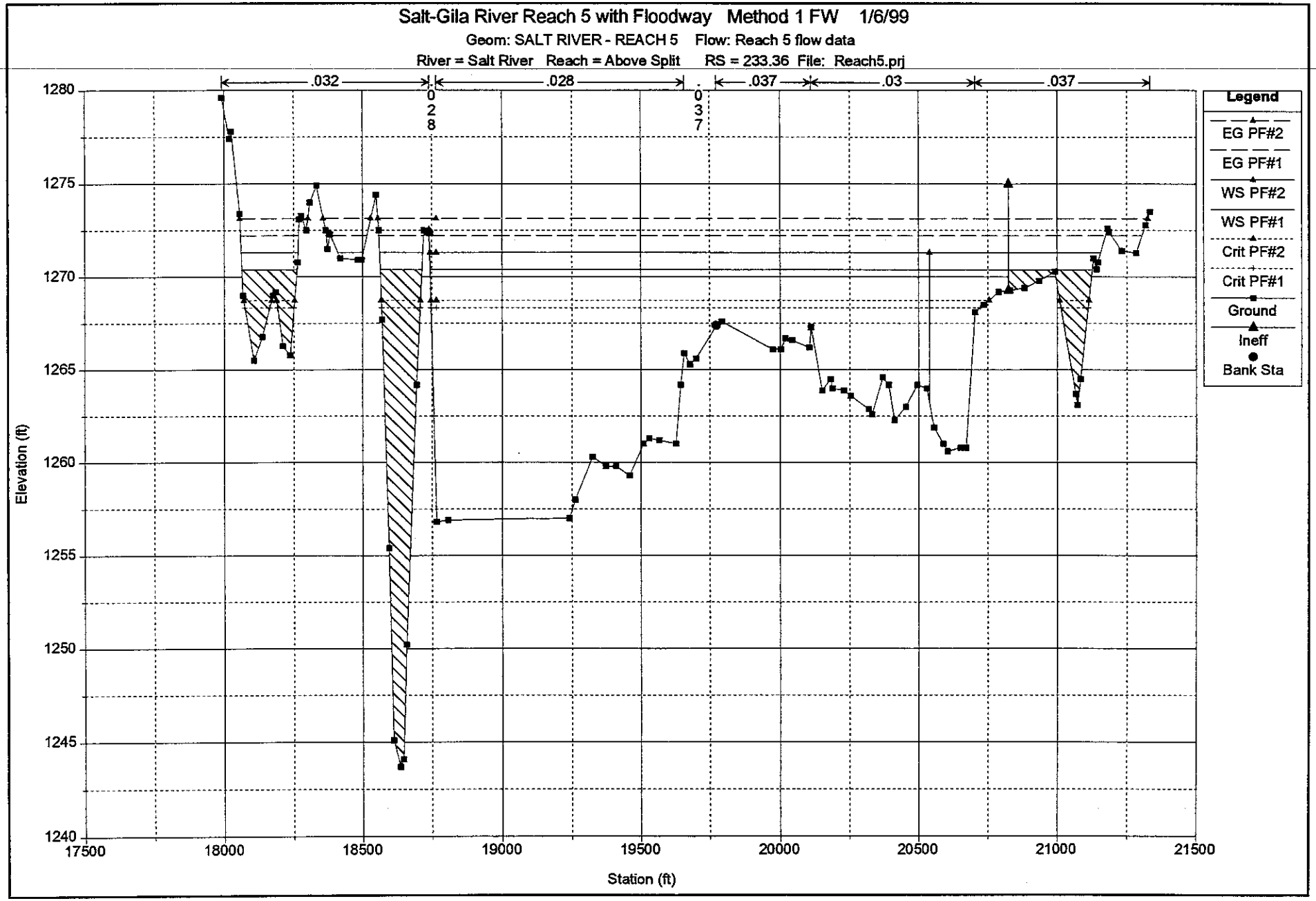

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 233.80 File: Reach5.prj
.043
.028
.037
1300
1290
1280
1270
1260
1250
Elevation (ft)
18000
19000
20000
21000
22000
23000
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta

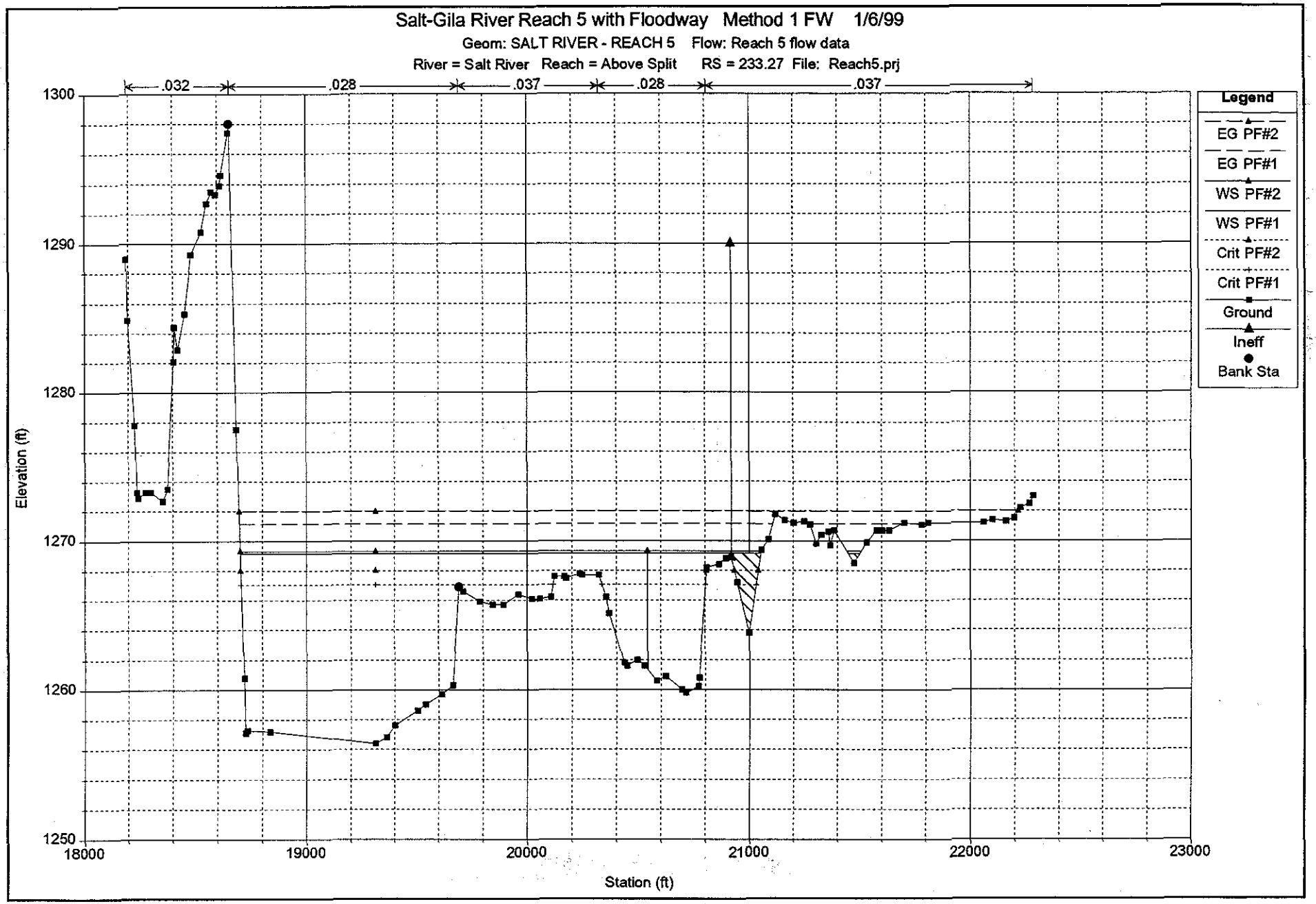

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 233.73 File: Reach5.prj
.043
.028
.037
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1295
1290
1285
1280
1275
1270
1265
1260
1255
17000
18000
19000
20000
21000
22000
23000
Station (ft)

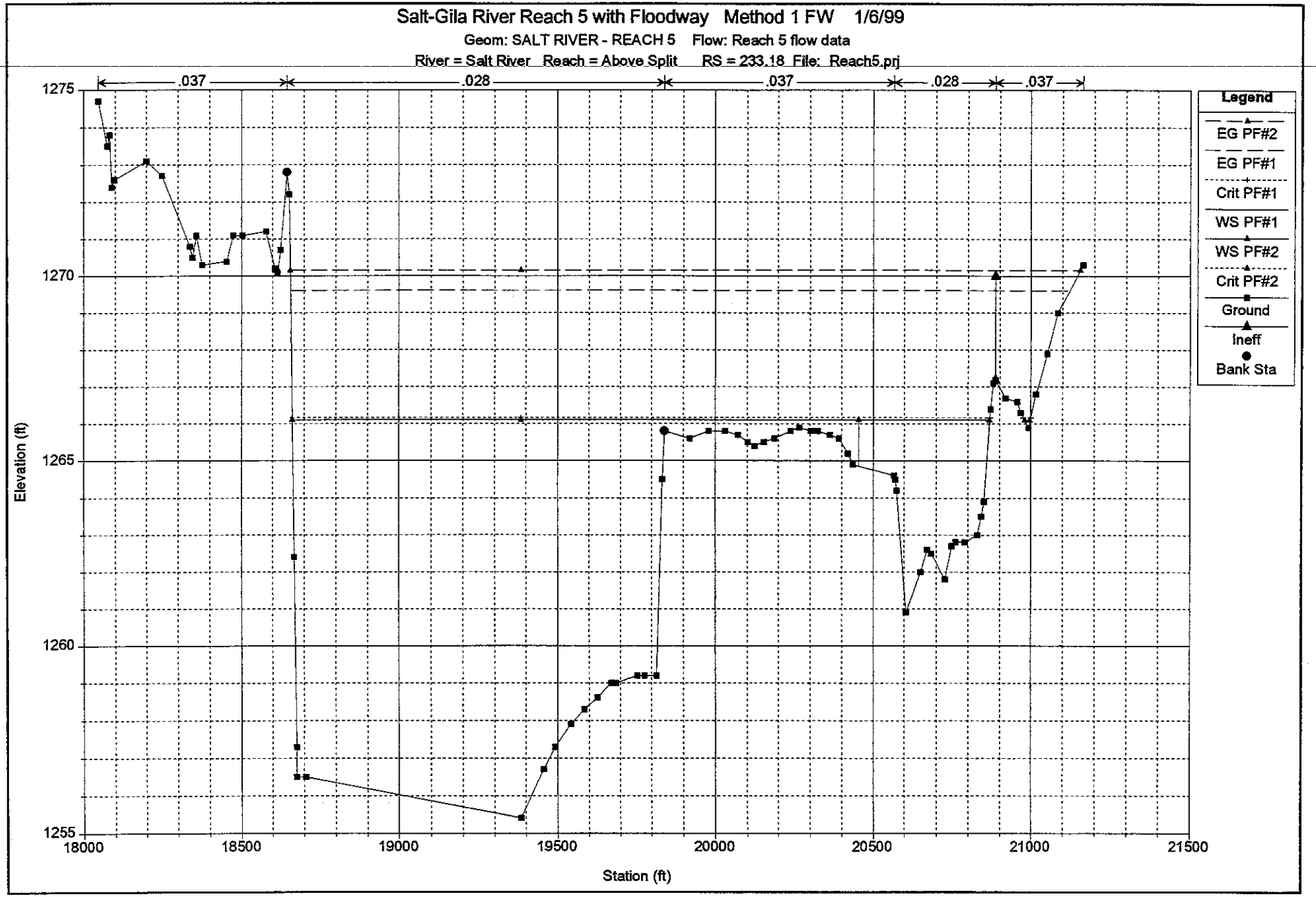

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 233.64 File: Reach5.prj
.043
.028
.028
.032
.037
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1290
1285
1280
1275
1270
1265
1260
1255
18000
19000
20000
21000
22000
23000
24000
Station (ft)

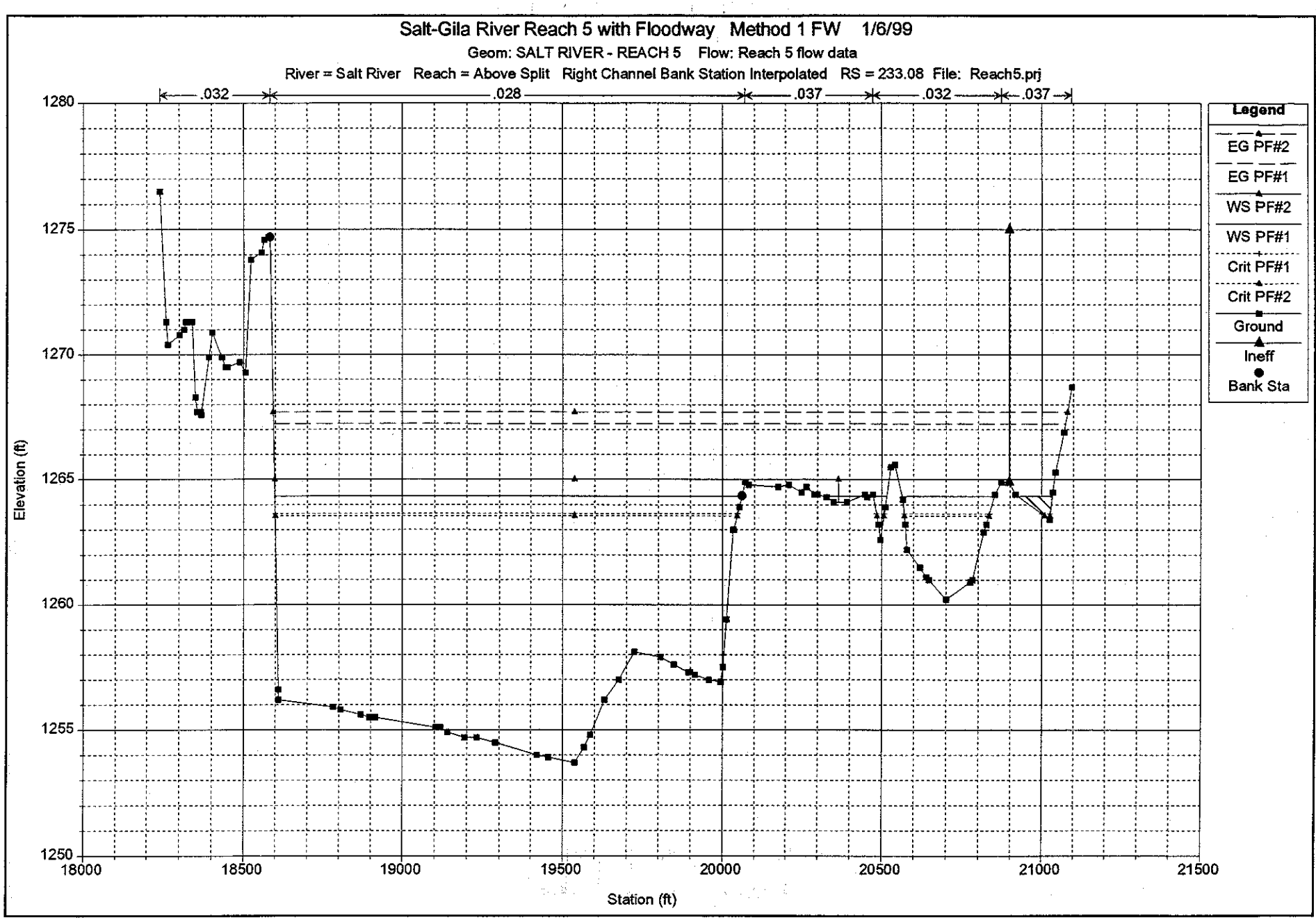

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 233.55 File: Reach5.prj
.043
.028
.028
.037
Elevation (ft)
Station (ft)
1290
1285
1280
1275
1270
1265
1260
1255
18000
18500
19000
19500
20000
20500
21000
21500
22000
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta

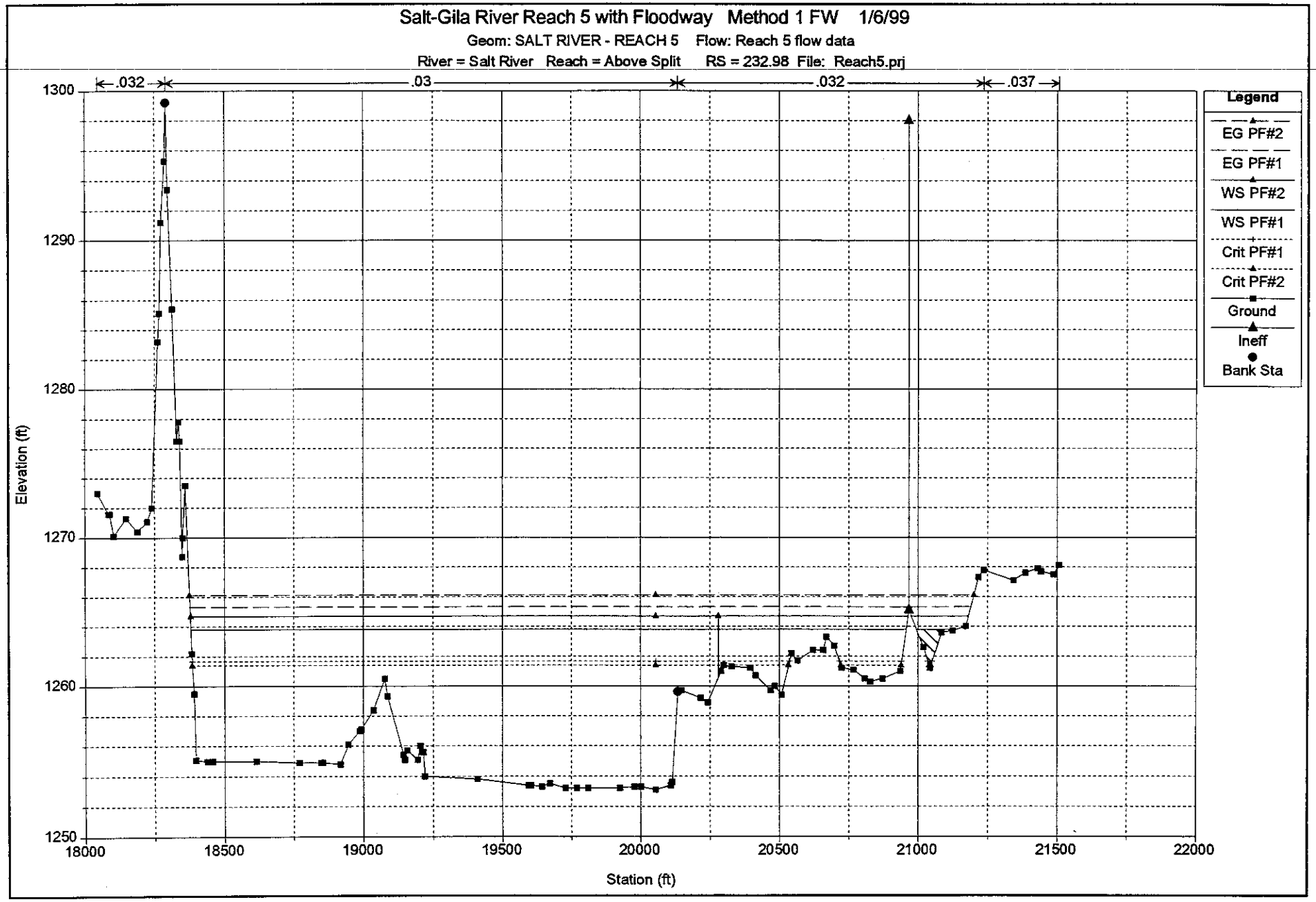

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 233.46 File: Reach5.prj
.032
.028
.032
.032
.037
Elevation (ft)
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta

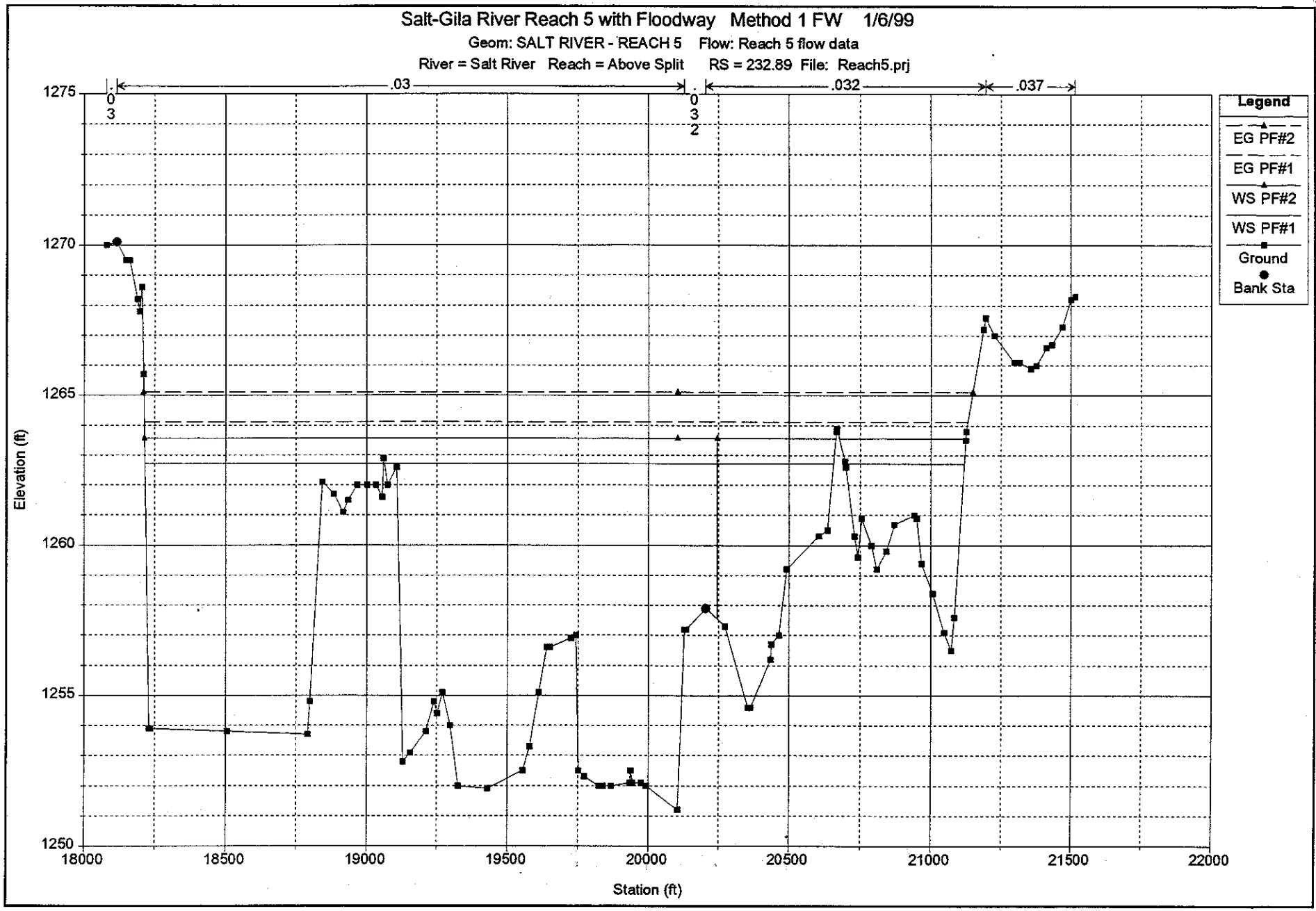

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 233.36 File: Reach5.prj
.032
.028
.037
.03
.037
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
1280
1275
1270
1265
1260
1255
1250
1245
1240
17500
18000
18500
19000
19500
20000
20500
21000
21500

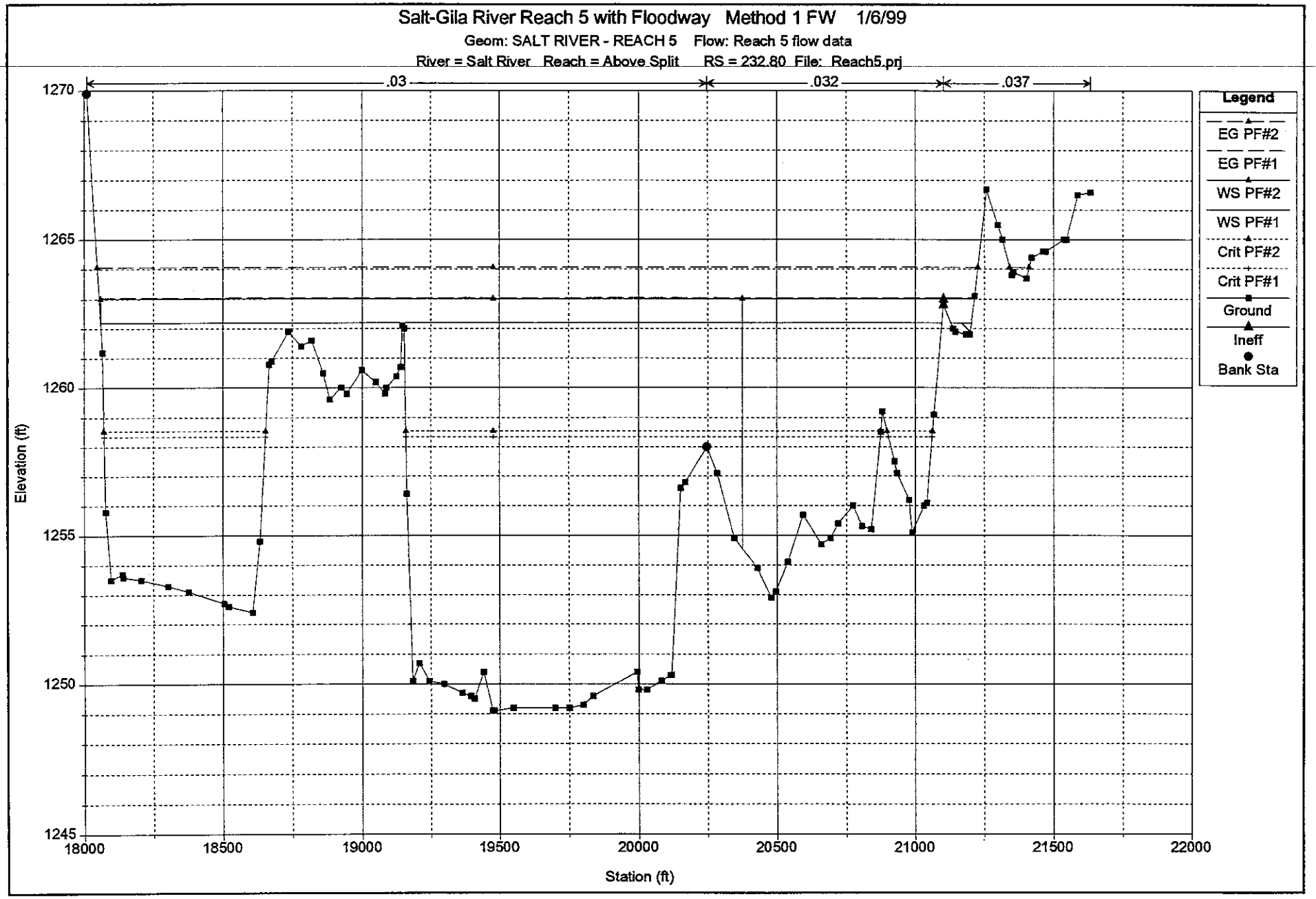

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 233.27 File: Reach5.prj
.032
.028
.037
.028
.037
1300
1290
1280
1270
1260
1250
Elevation (ft)
18000
19000
20000
21000
22000
23000
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta

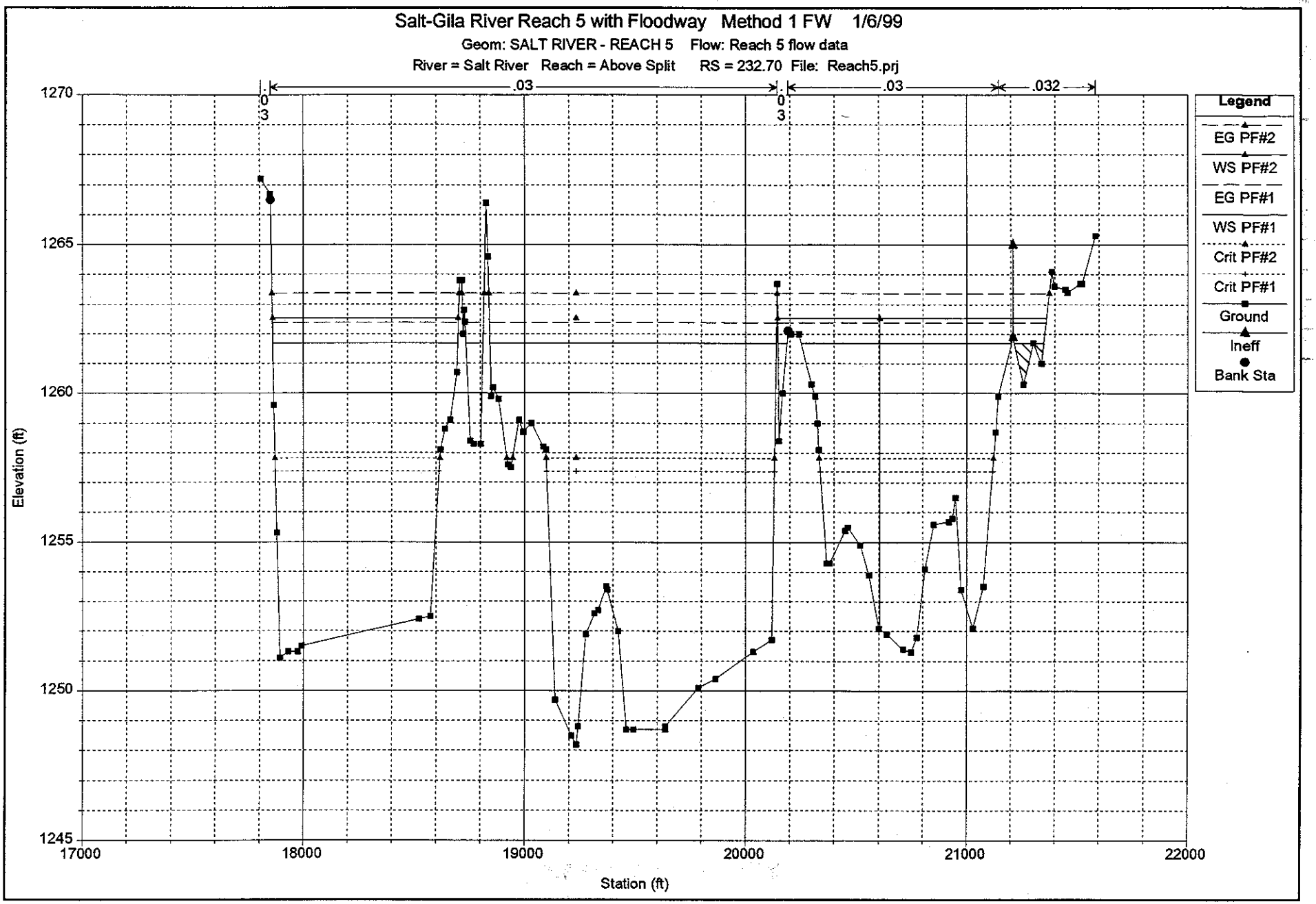

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 233.18 File: Reach5.prj
.037
.028
.037
.028
.037
Legend
EG PF#2
EG PF#1
Crit PF#1
WS PF#1
WS PF#2
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1275
1270
1265
1260
1255
18000
18500
19000
19500
20000
20500
21000
21500
Station (ft)

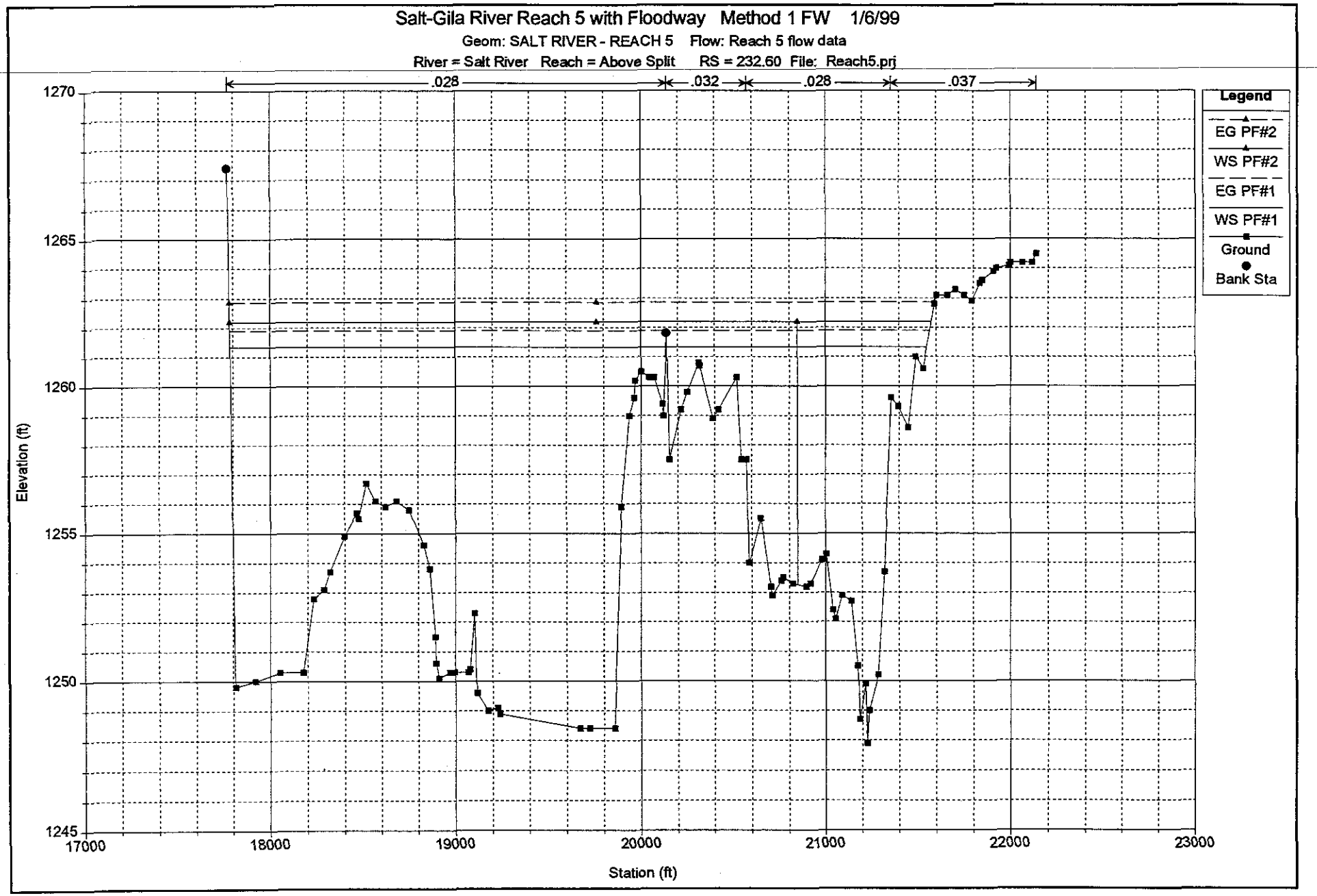

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split Right Channel Bank Station Interpolated RS = 233.08 File: Reach5.prj
.032
.028
.037
.032
.037
Elevation (ft)
1280
1275
1270
1265
1260
1255
1250
18000
18500
19000
19500
20000
20500
21000
21500
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

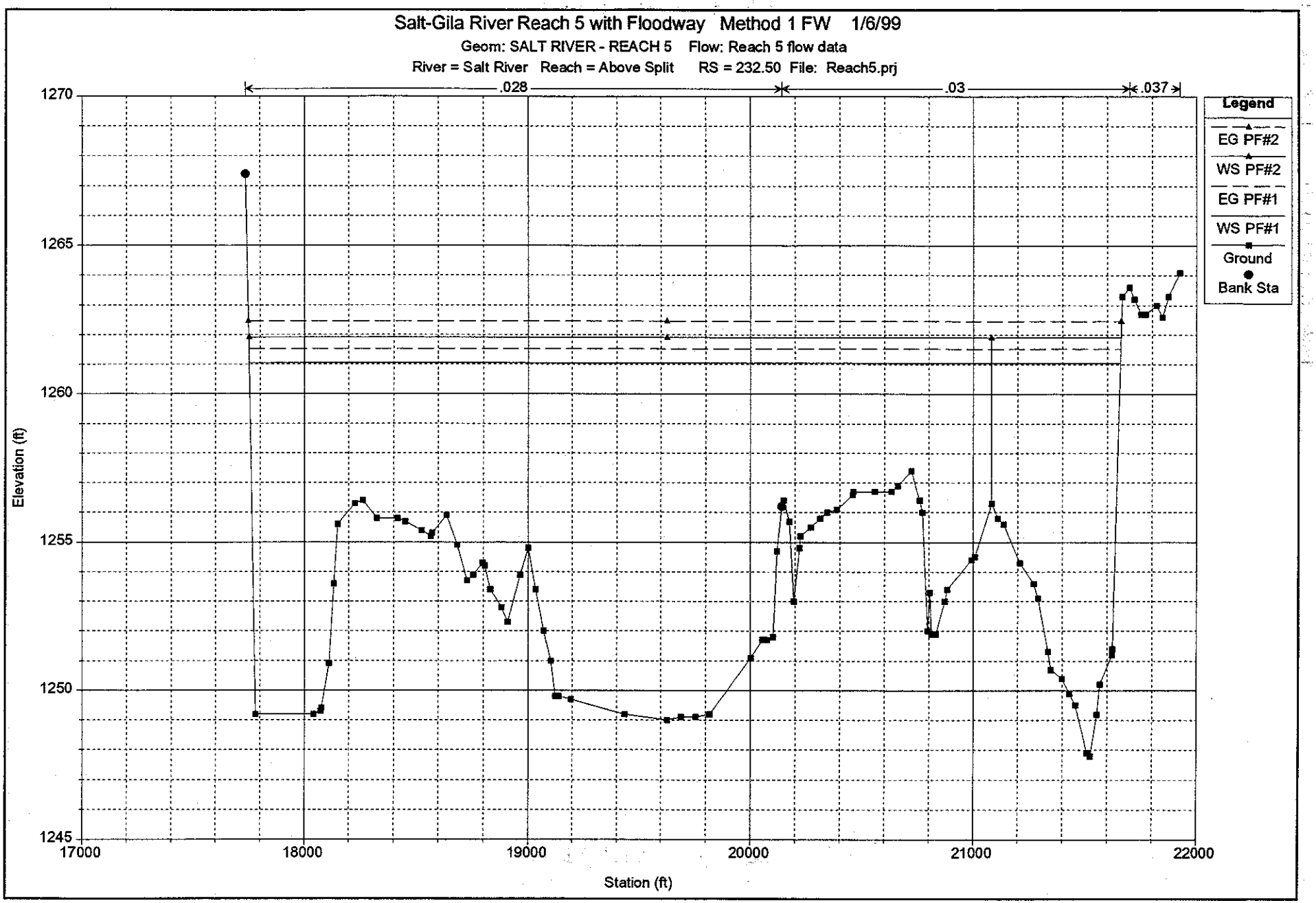

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 232.98 File: Reach5.prj
.032
.03
.032
.037
Elevation (ft)
1300
1290
1280
1270
1260
1250
18000
18500
19000
19500
20000
20500
21000
21500
22000
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

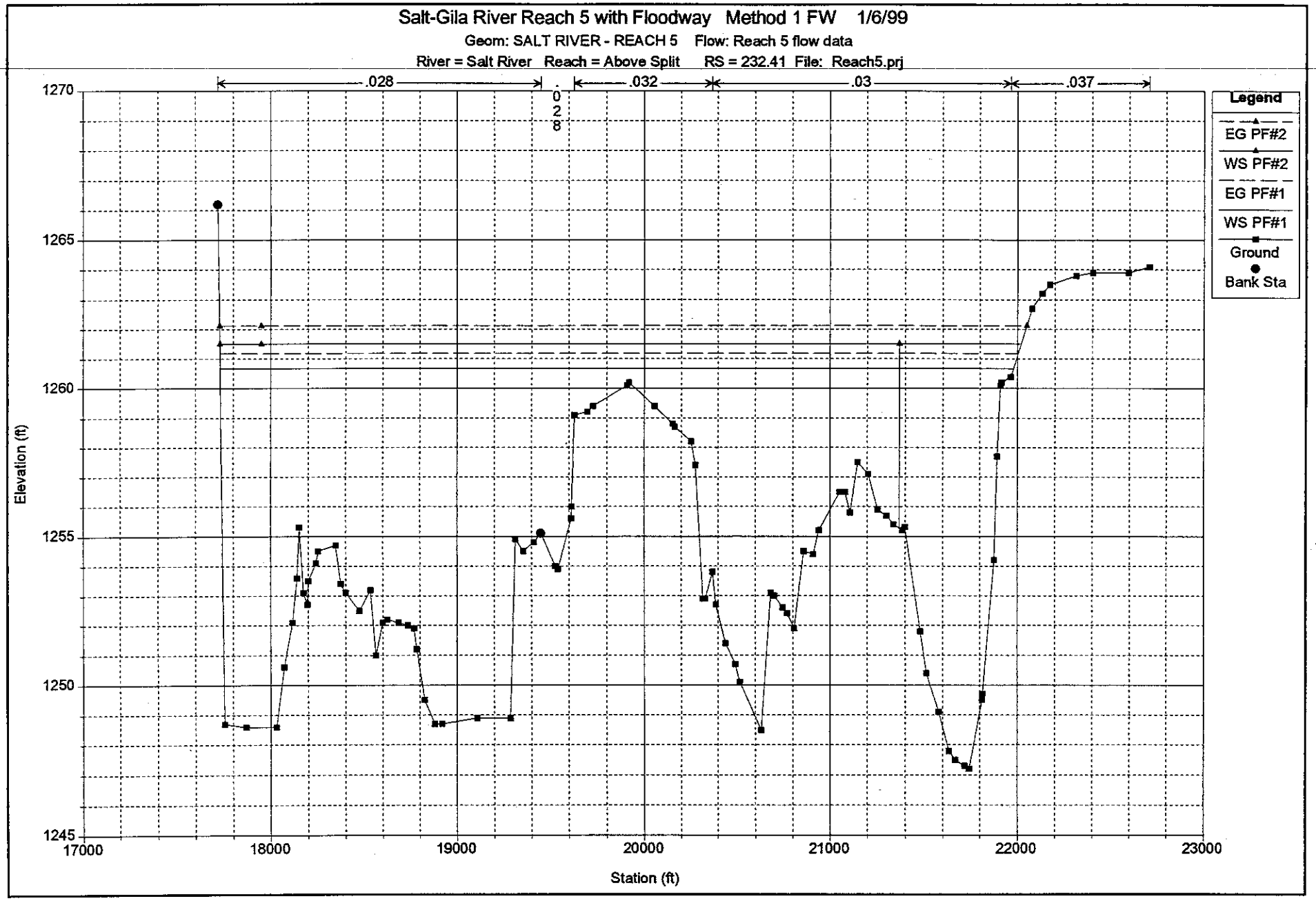

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 232.89 File: Reach5.prj
.03
.032
.037
.03
.032
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Ground
Bank Sta
Elevation (ft)
1275
1270
1265
1260
1255
1250
18000
18500
19000
19500
20000
20500
21000
21500
22000
Station (ft)

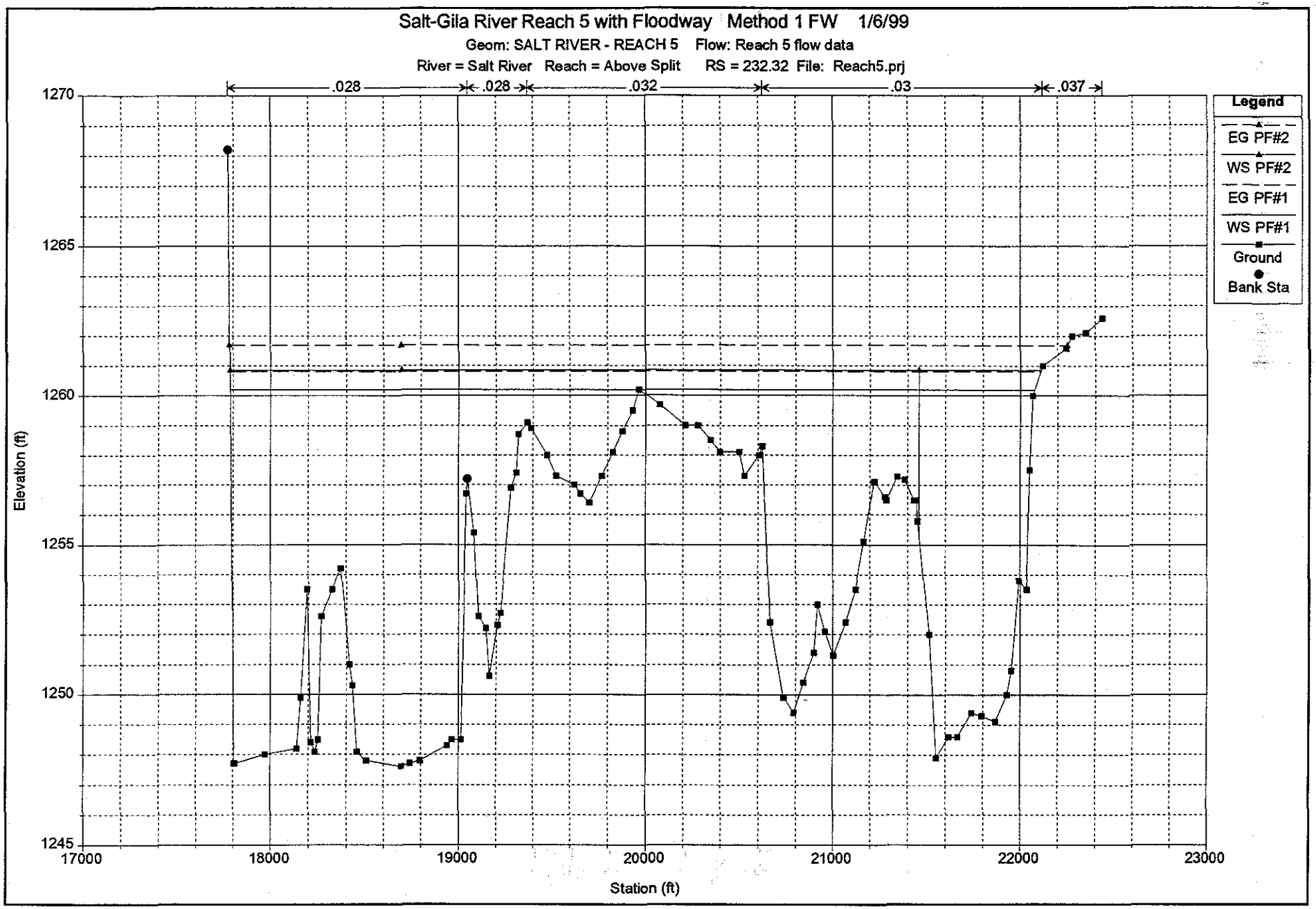

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 232.80 File: Reach5.prj
.03
.032
.037
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1270
1265
1260
1255
1250
1245
18000
18500
19000
19500
20000
20500
21000
21500
22000
Station (ft)

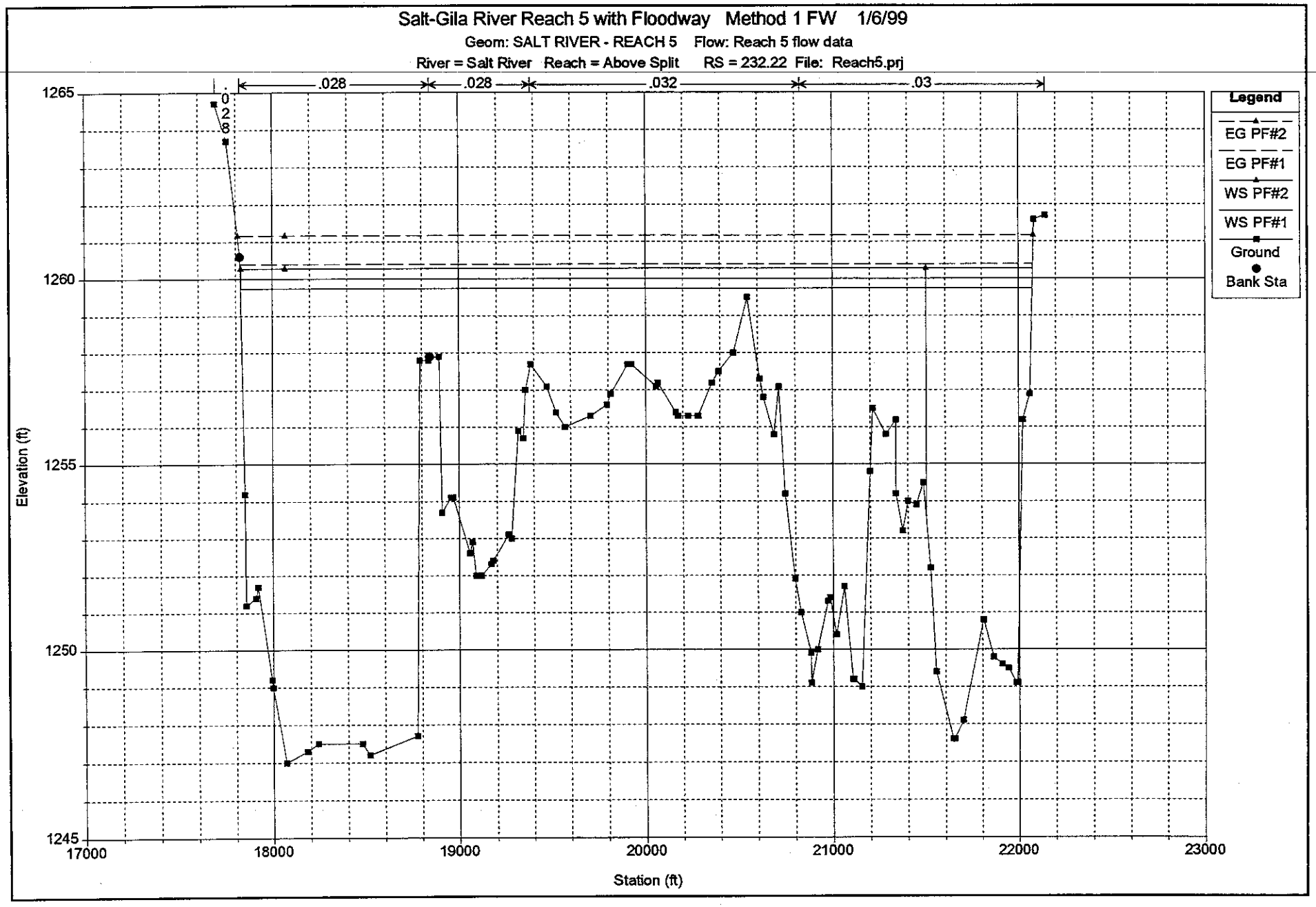

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 232.70 File: Reach5.prj
.03
.03
.03
.032
Legend
EG PF#2
WS PF#2
EG PF#1
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1270
1265
1260
1255
1250
1245
17000
18000
19000
20000
21000
22000
Station (ft)

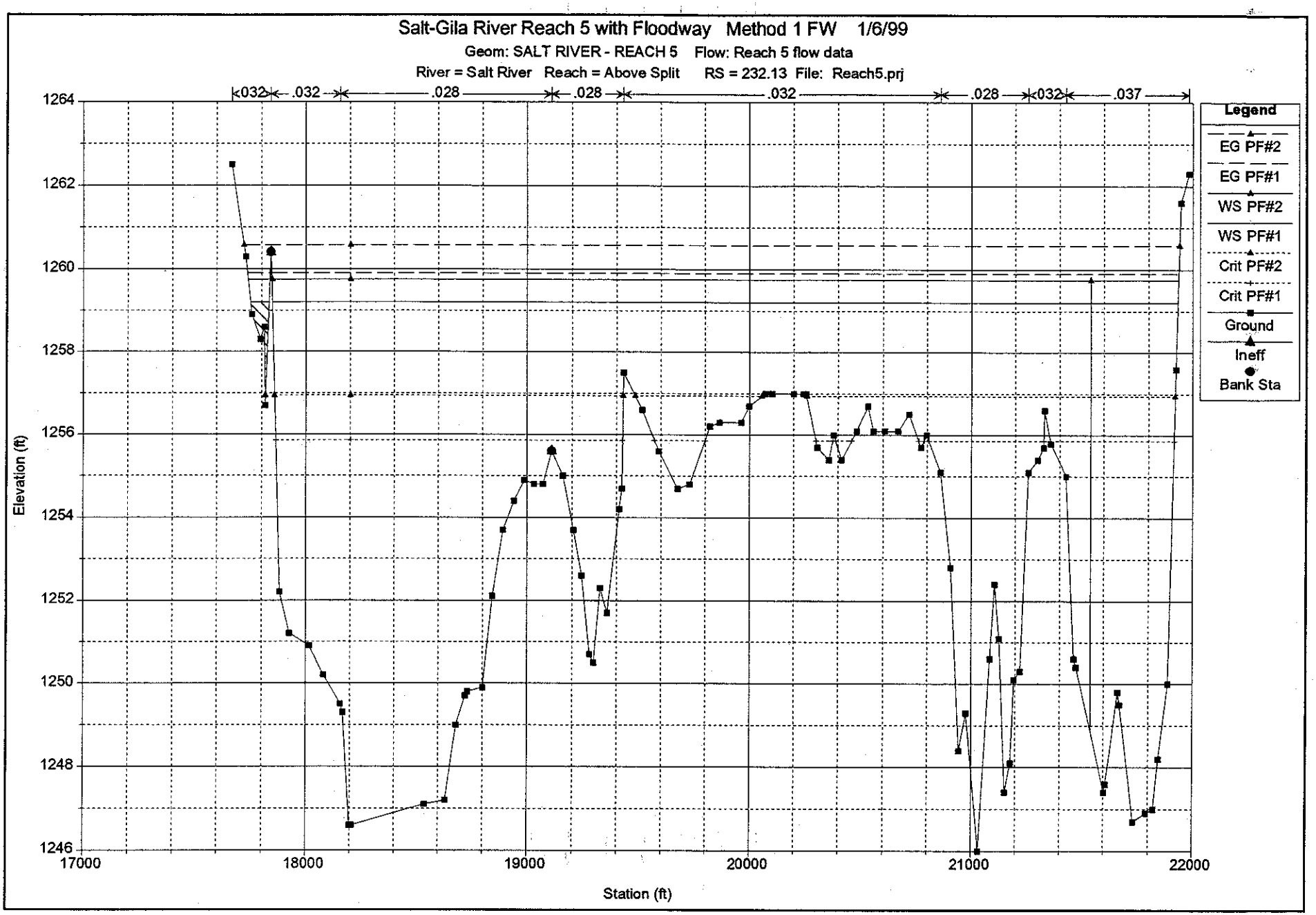

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 232.60 File: Reach5.prj
.028
.032
.028
.037
Legend
EG PF#2
WS PF#2
EG PF#1
WS PF#1
Ground
Bank Sta
Elevation (ft)
1270
1265
1260
1255
1250
1245
17000
18000
19000
20000
21000
22000
23000
Station (ft)

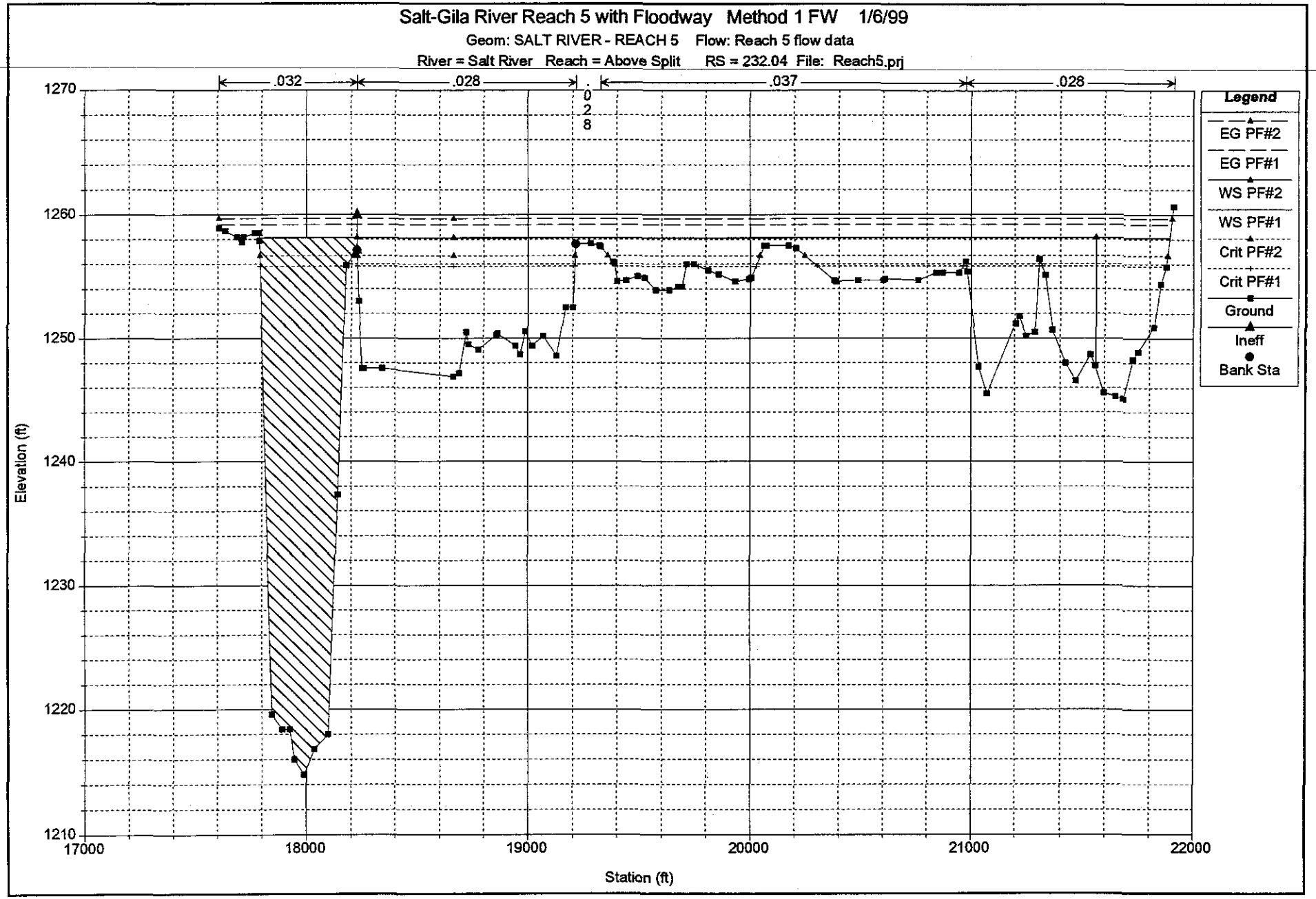

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 232.50 File: Reach5.prj
.028
.03
.037
Legend
EG PF#2
WS PF#2
EG PF#1
WS PF#1
Ground
Bank Sta
Elevation (ft)
1270
1265
1260
1255
1250
1245
17000
18000
19000
20000
21000
22000
Station (ft)

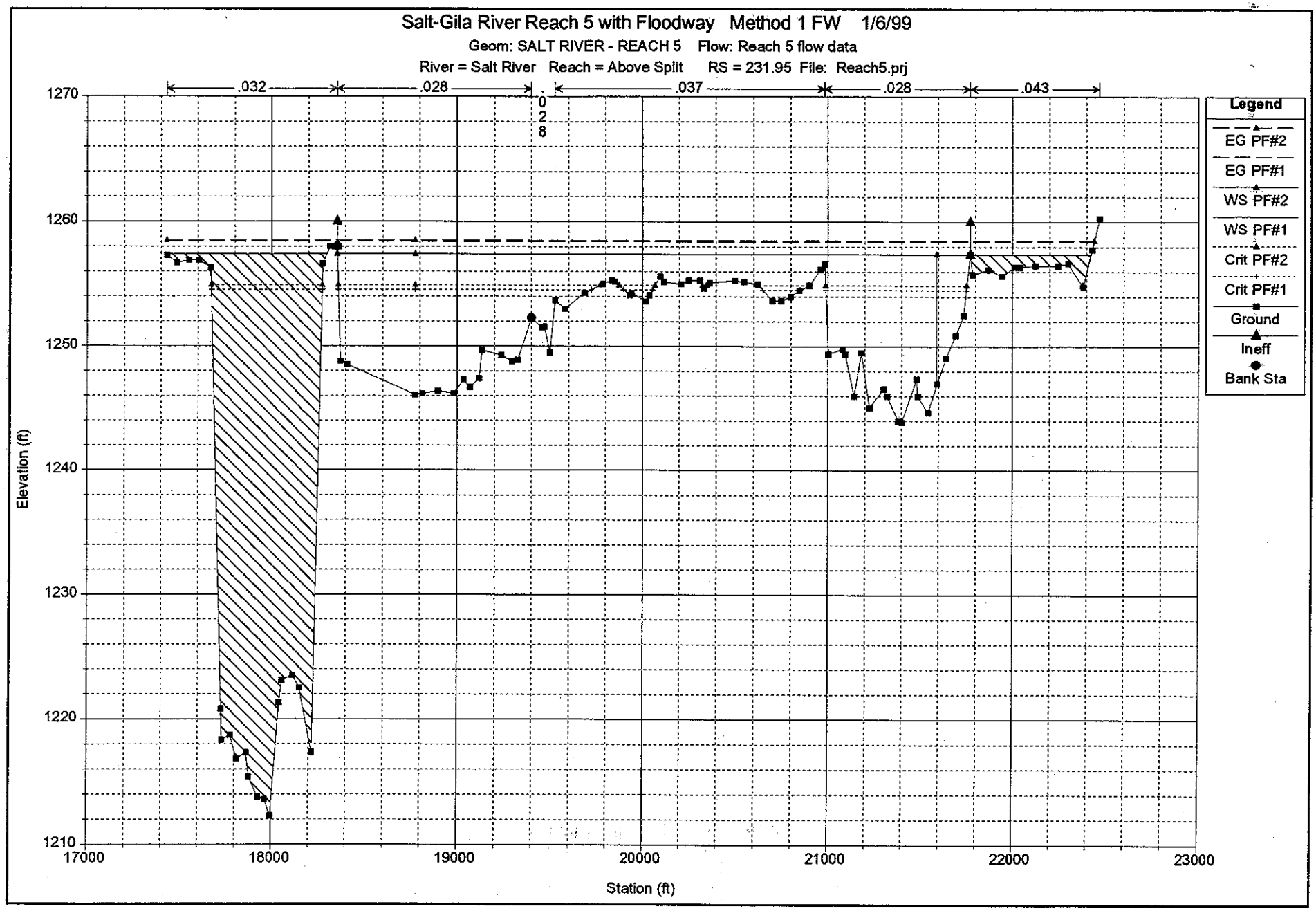

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 232.41 File: Reach5.prj
.028
.028
.032
.03
.037
Legend
EG PF#2
WS PF#2
EG PF#1
WS PF#1
Ground
Bank Sta
Elevation (ft)
1270
1265
1260
1255
1250
1245
17000
18000
19000
20000
21000
22000
23000
Station (ft)

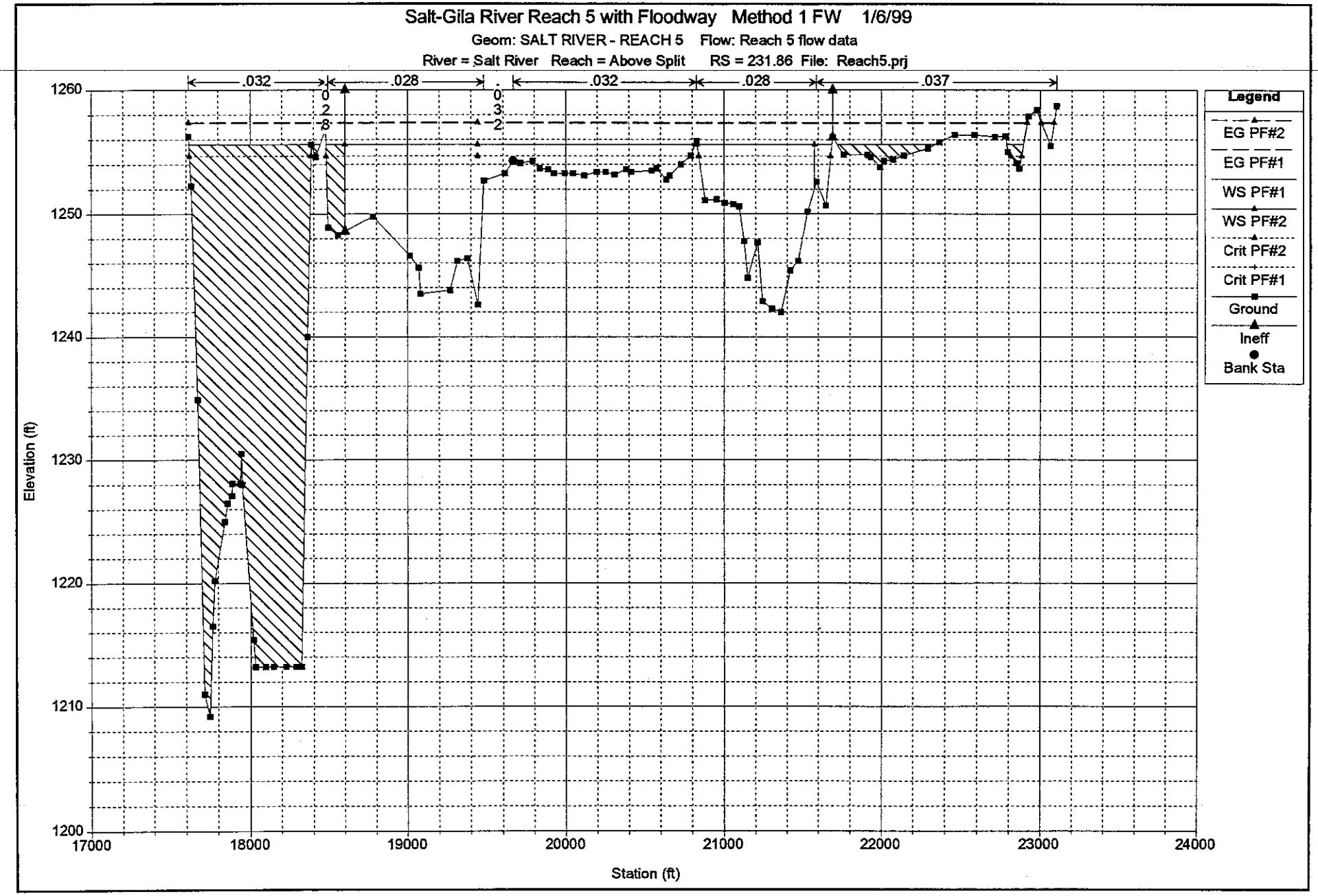

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 232.32 File: Reach5.prj
.028
.028
.032
.03
.037
Legend
EG PF#2
WS PF#2
EG PF#1
WS PF#1
Ground
Bank Sta
Elevation (ft)
1270
1265
1260
1255
1250
1245
17000
18000
19000
20000
21000
22000
23000
Station (ft)

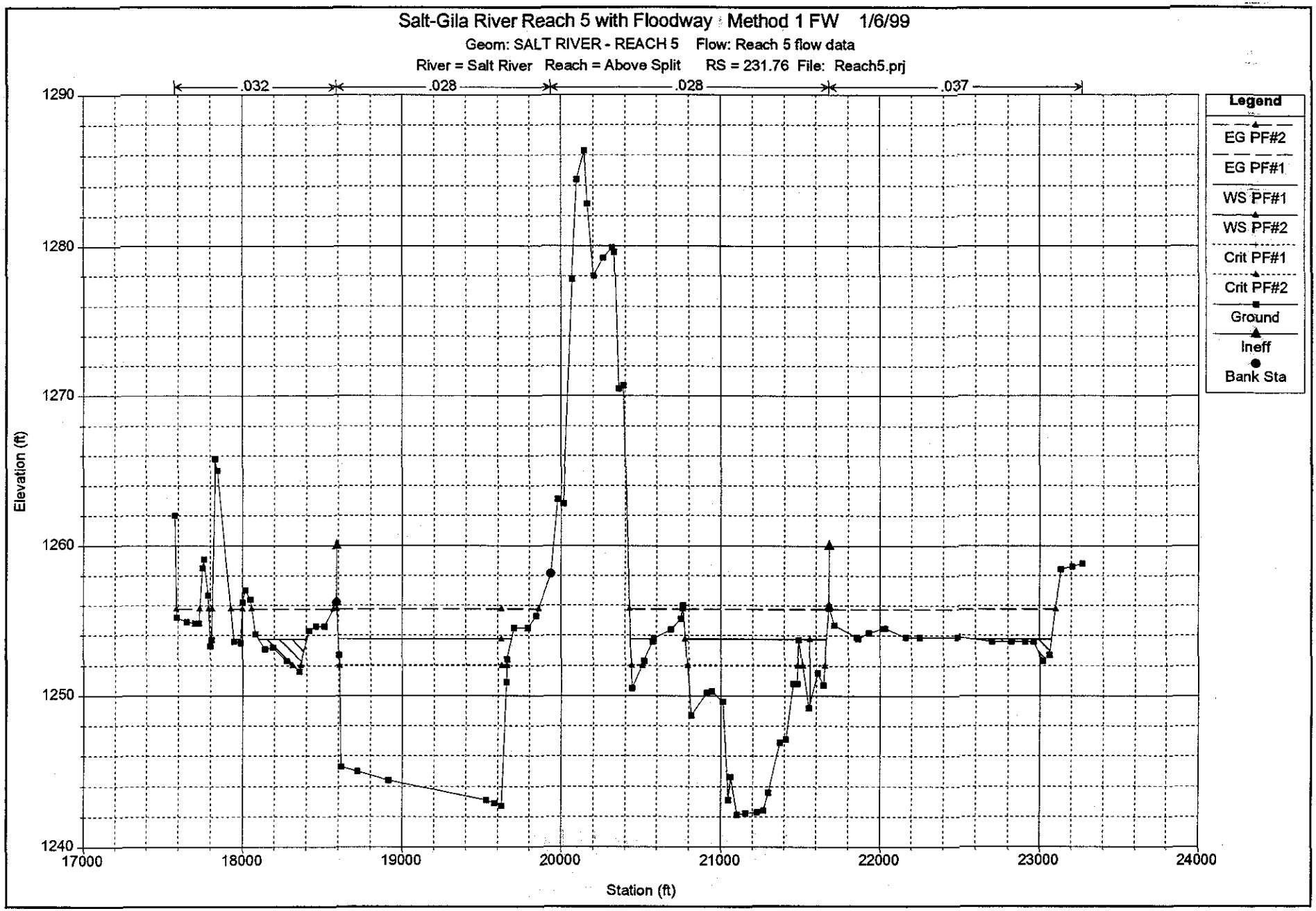

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 232.22 File: Reach5.prj
.028
.028
.032
.03
.028
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Ground
Bank Sta
Elevation (ft)
1265
1260
1255
1250
1245
17000
18000
19000
20000
21000
22000
23000
Station (ft)

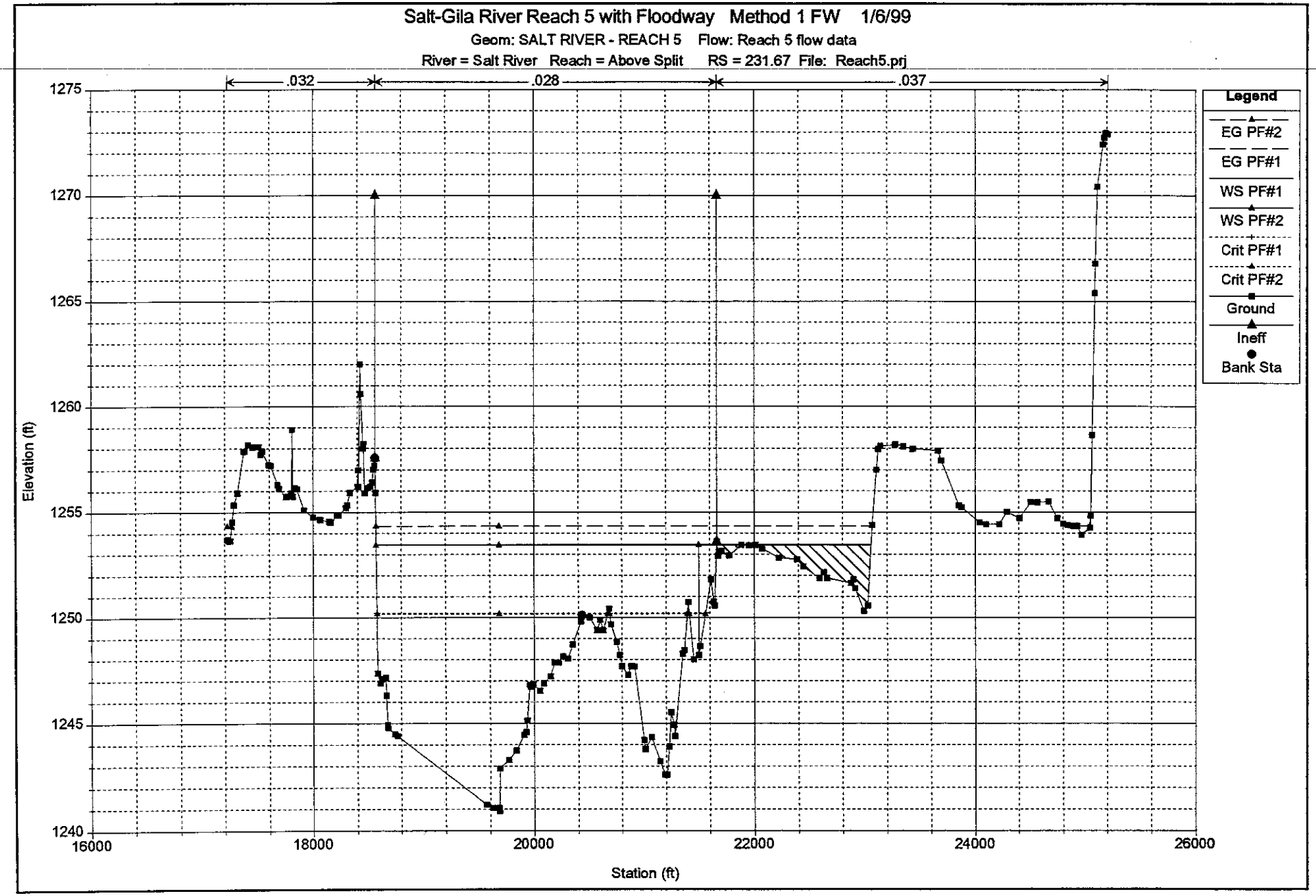

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 232.13 File: Reach5.prj
.032
.032
.028
.028
.032
.028
.032
.037
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1264
1262
1260
1258
1256
1254
1252
1250
1248
1246
17000
18000
19000
20000
21000
22000
Station (ft)

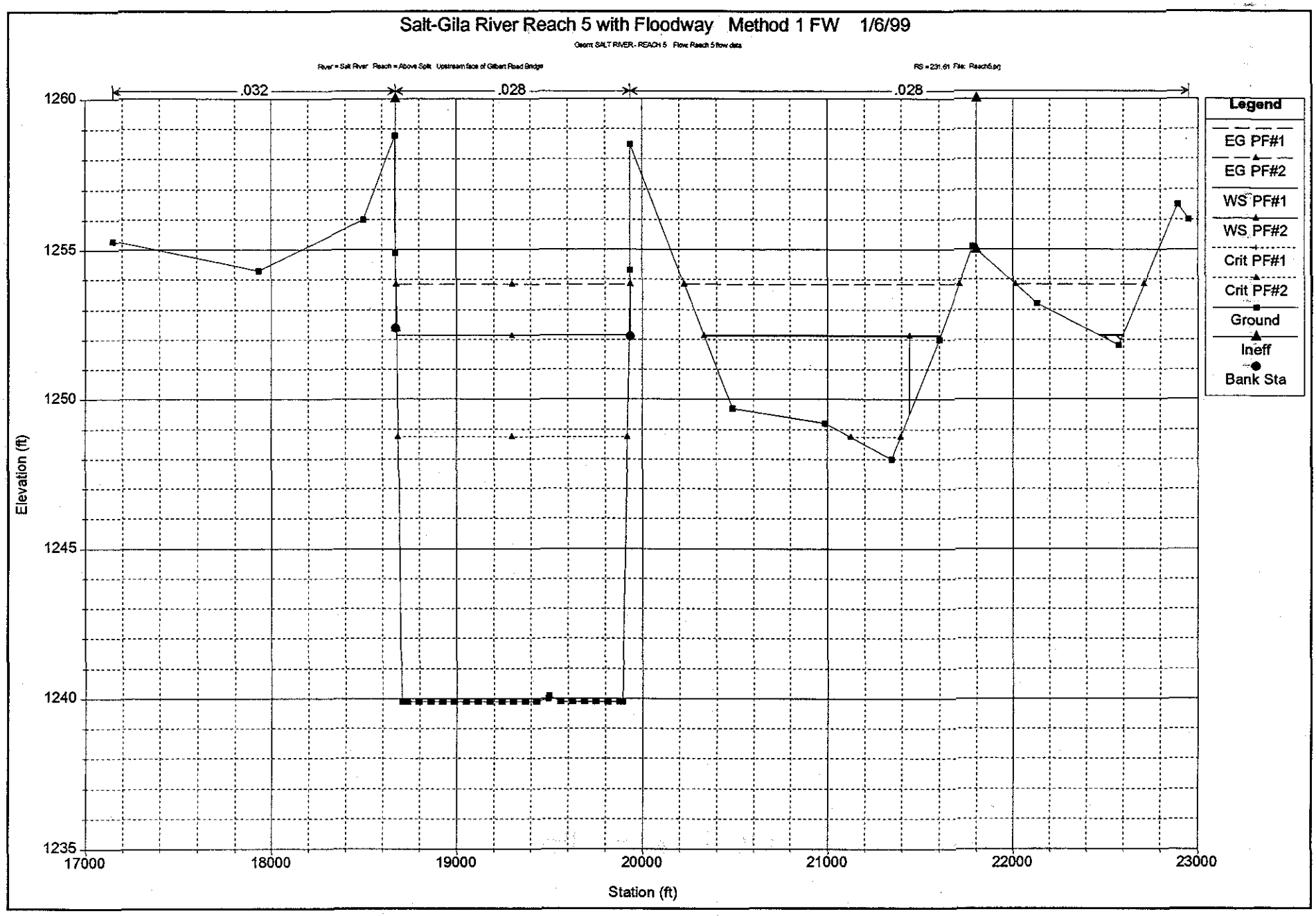

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 232.04 File: Reach5.prj
.032
.028
.028
.037
.028
Elevation (ft)
1270
1260
1250
1240
1230
1220
1210
17000
18000
19000
20000
21000
22000
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta

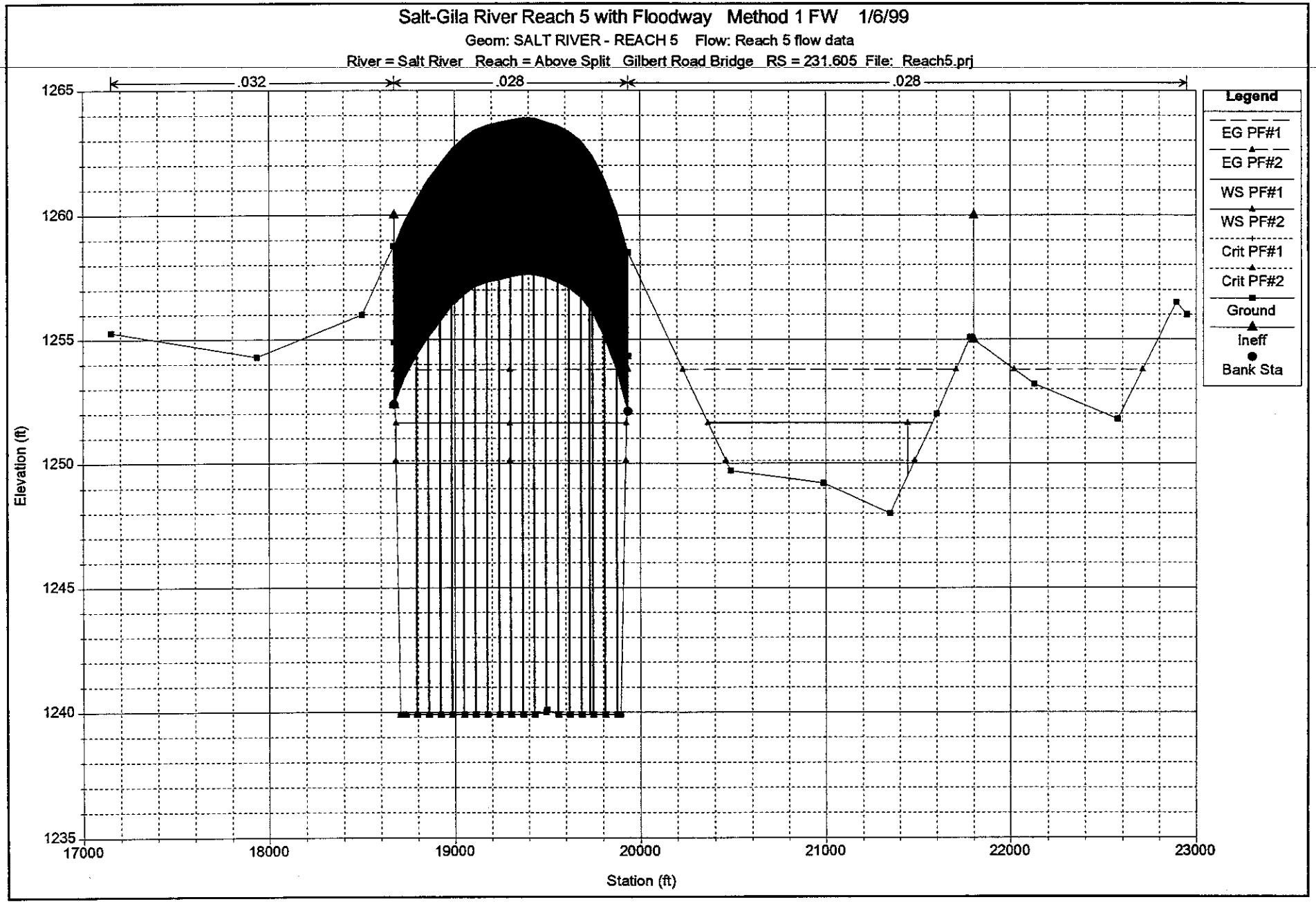

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 231.95 File: Reach5.prj
.032
.028
.028
.037
.028
.043
Elevation (ft)
Station (ft)
1270
1260
1250
1240
1230
1220
1210
17000
18000
19000
20000
21000
22000
23000
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta

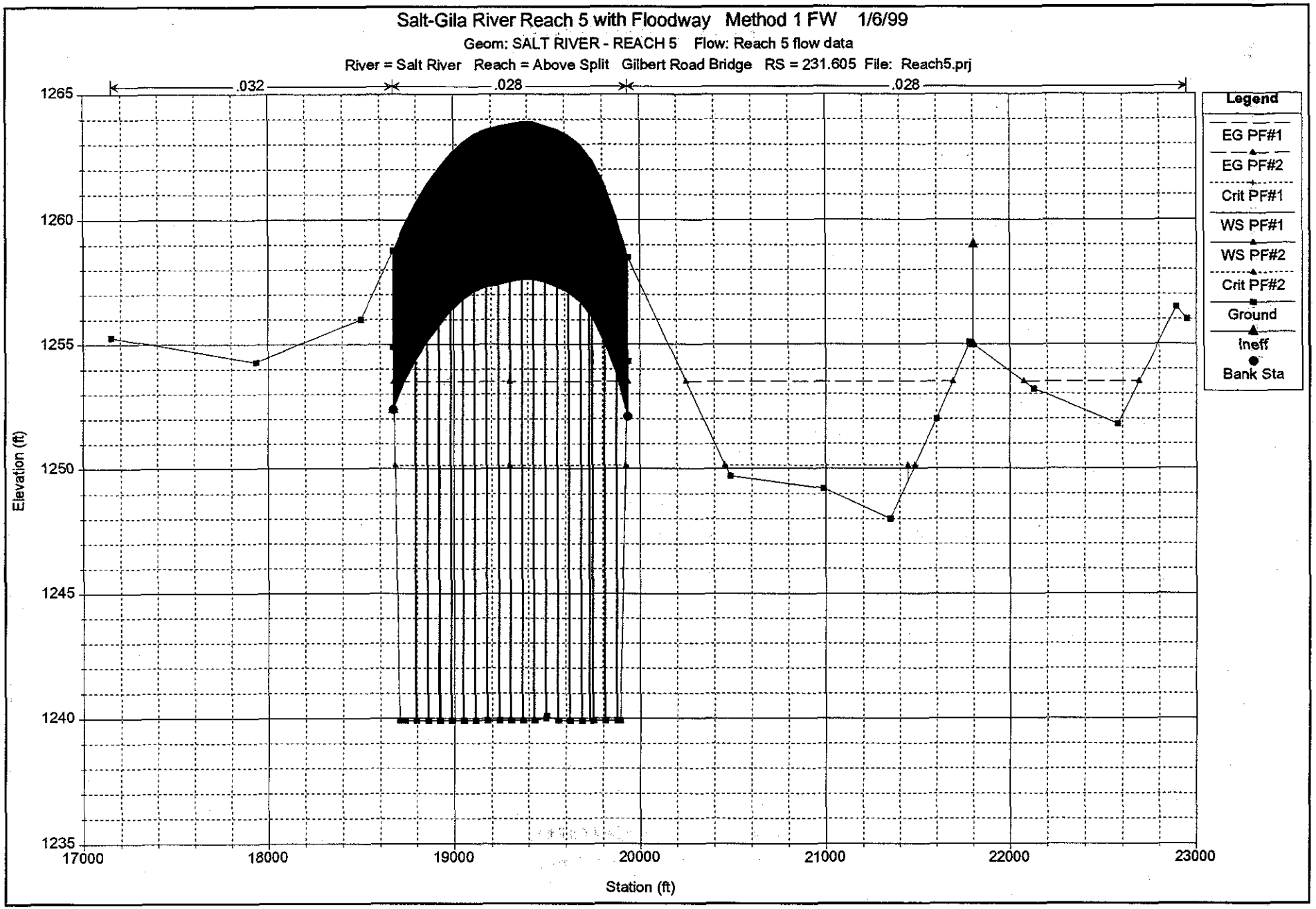

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 231.86 File: Reach5.prj
.032
.028
.032
.028
.037
Legend
EG PF#2
EG PF#1
WS PF#1
WS PF#2
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
1260
1250
1240
1230
1220
1210
1200
17000
18000
19000
20000
21000
22000
23000
24000

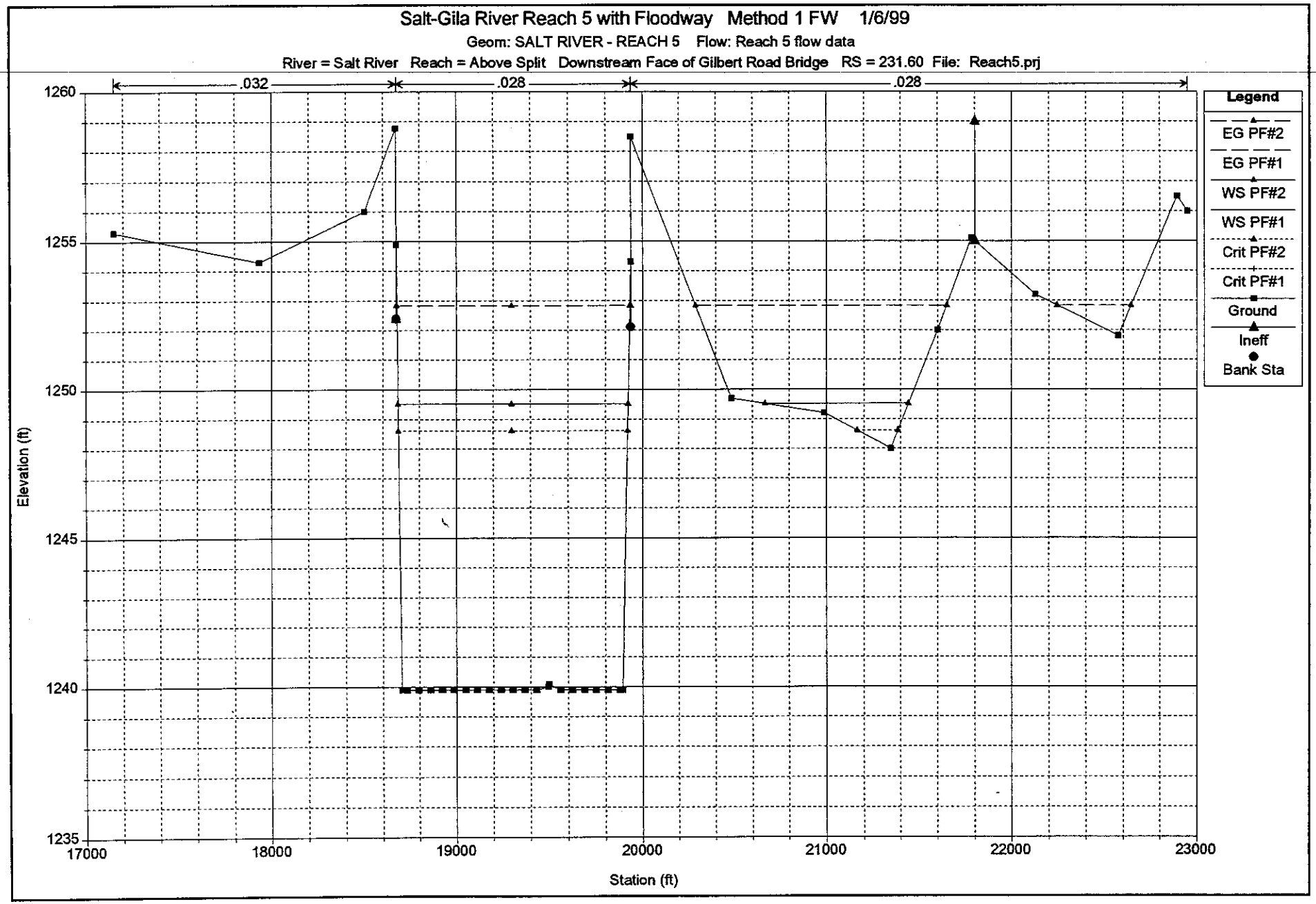

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 231.76 File: Reach5.prj
.032
.028
.028
.037
1290
1280
1270
1260
1250
1240
Elevation (ft)
17000
18000
19000
20000
21000
22000
23000
24000
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

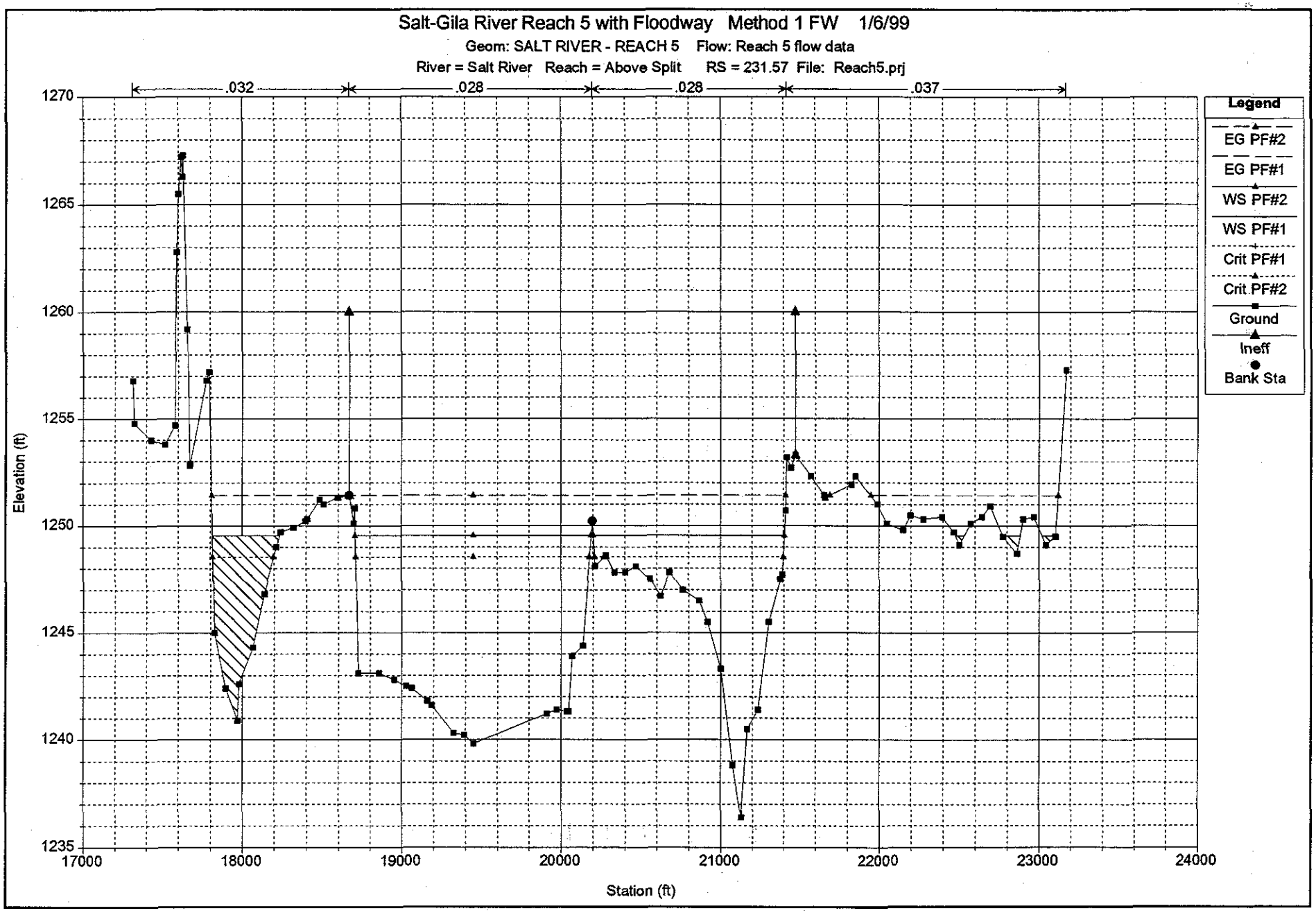

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 231.67 File: Reach5.prj
.032
.028
.037
Legend
EG PF#2
EG PF#1
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1275
1270
1265
1260
1255
1250
1245
1240
16000
18000
20000
22000
24000
26000
Station (ft)

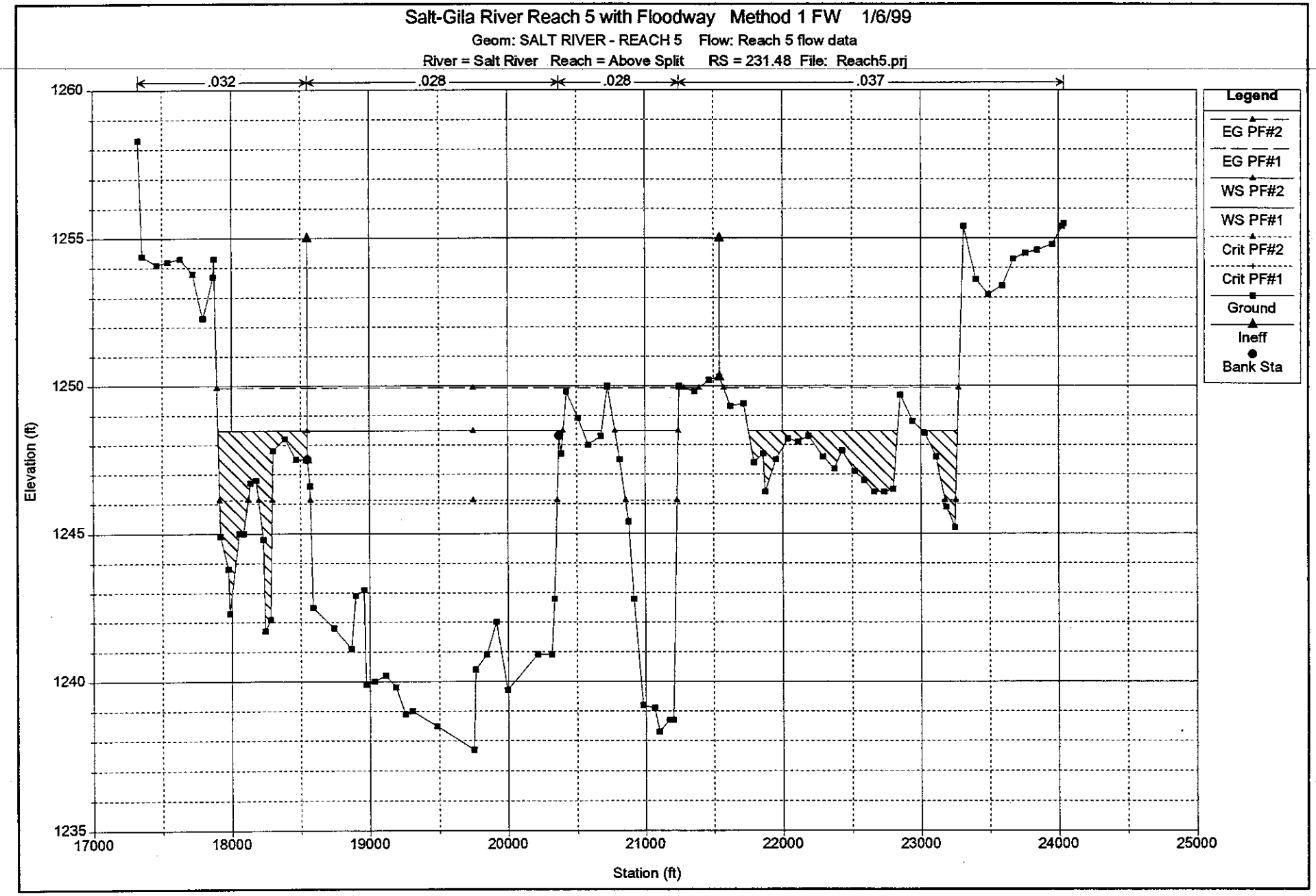

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split Upstream face of Gilbert Road Bridge
RS = 231.61 File: Reach5.prj
.032
.028
.028
1260
1255
1250
1245
1240
1235
Elevation (ft)
17000
18000
19000
20000
21000
22000
23000
Station (ft)
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

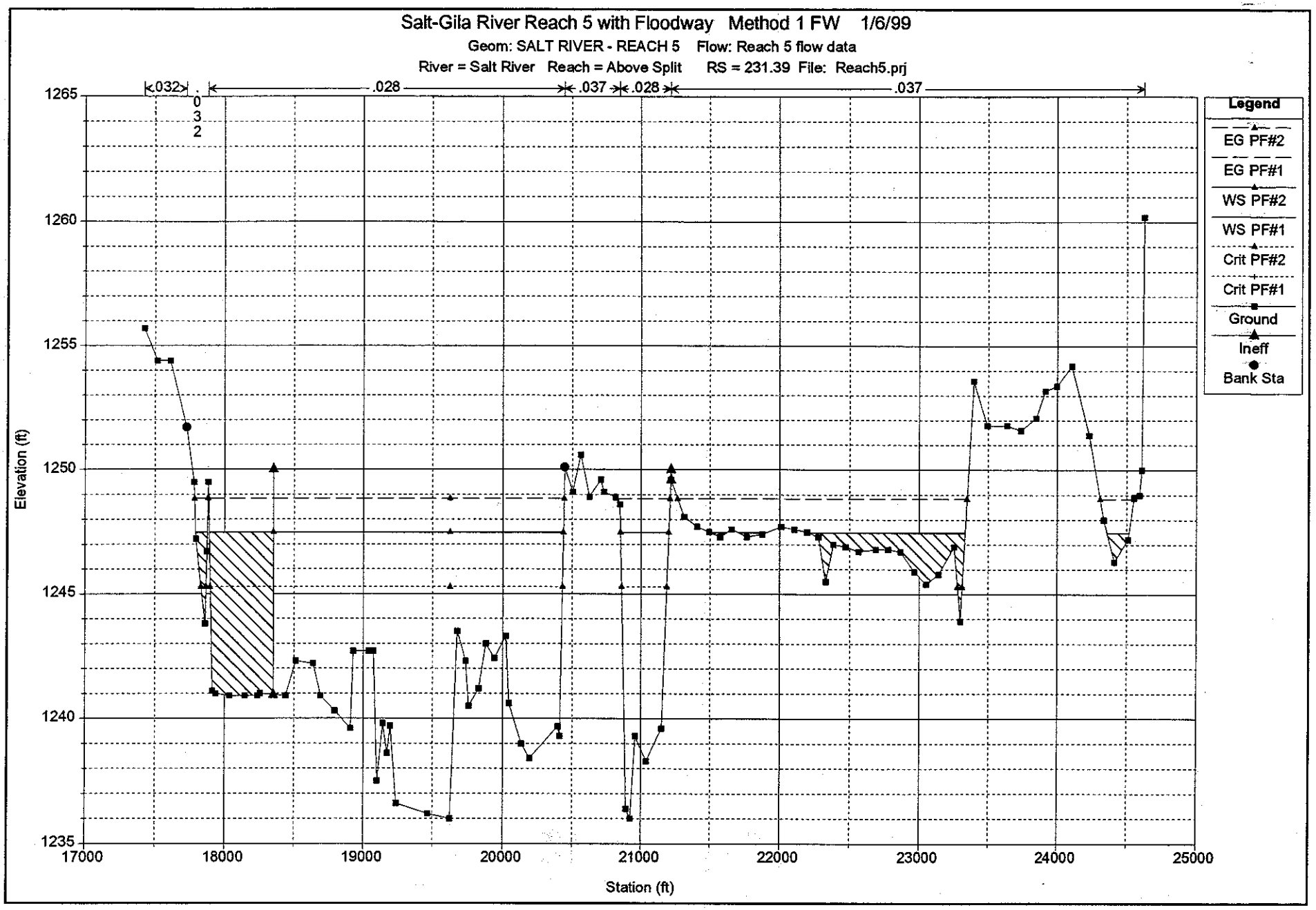

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split Gilbert Road Bridge RS = 231.605 File: Reach5.prj
.032
.028
.028
Elevation (ft)
1265
1260
1255
1250
1245
1240
1235
17000
18000
19000
20000
21000
22000
23000
Station (ft)
Legend
EG PF#1
EG PF#2
WS PF#1
WS PF#2
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

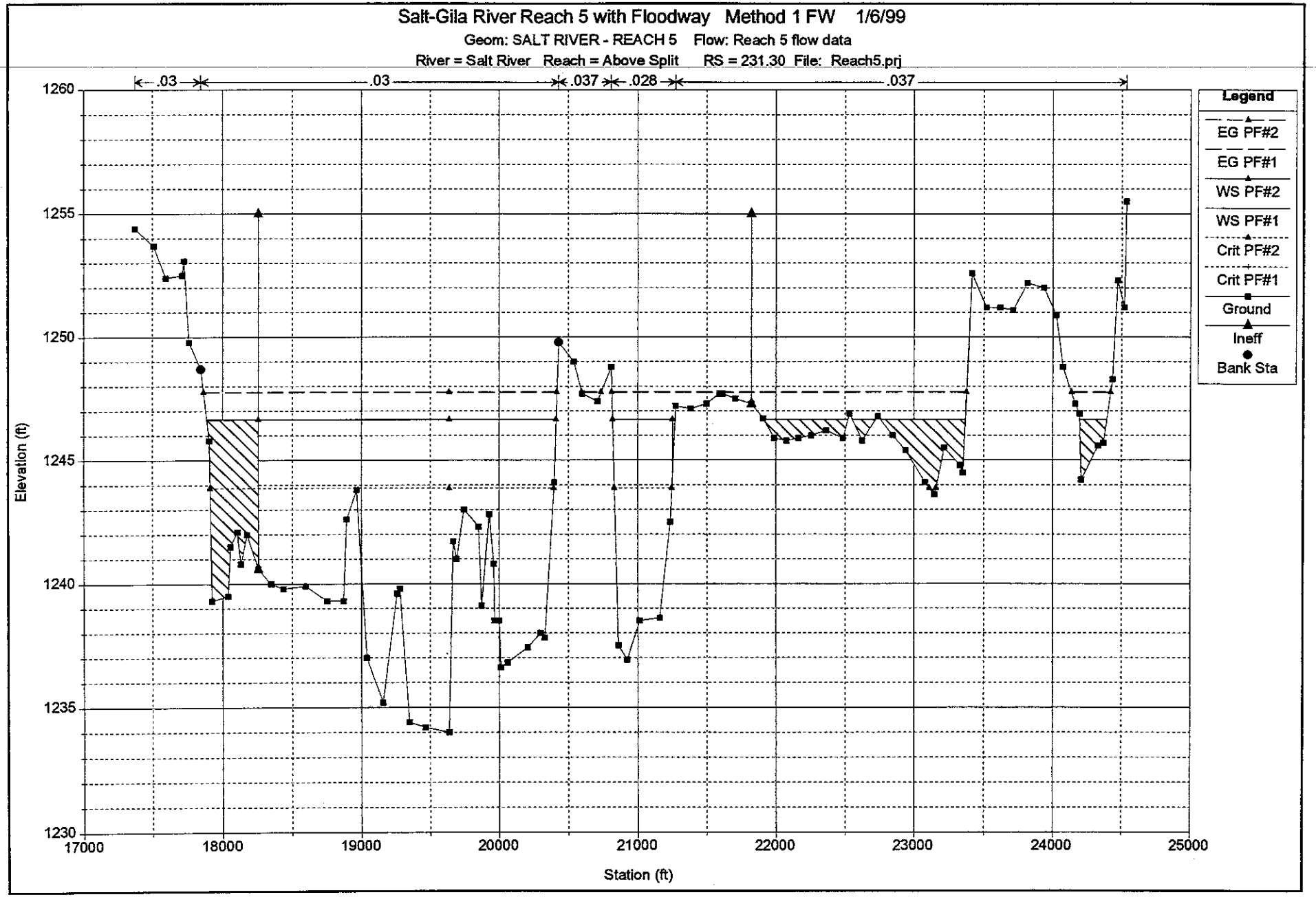

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split Gilbert Road Bridge RS = 231.605 File: Reach5.prj
.032
.028
.028
Legend
EG PF#1
EG PF#2
Crit PF#1
WS PF#1
WS PF#2
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1265
1260
1255
1250
1245
1240
1235
17000
18000
19000
20000
21000
22000
23000
Station (ft)

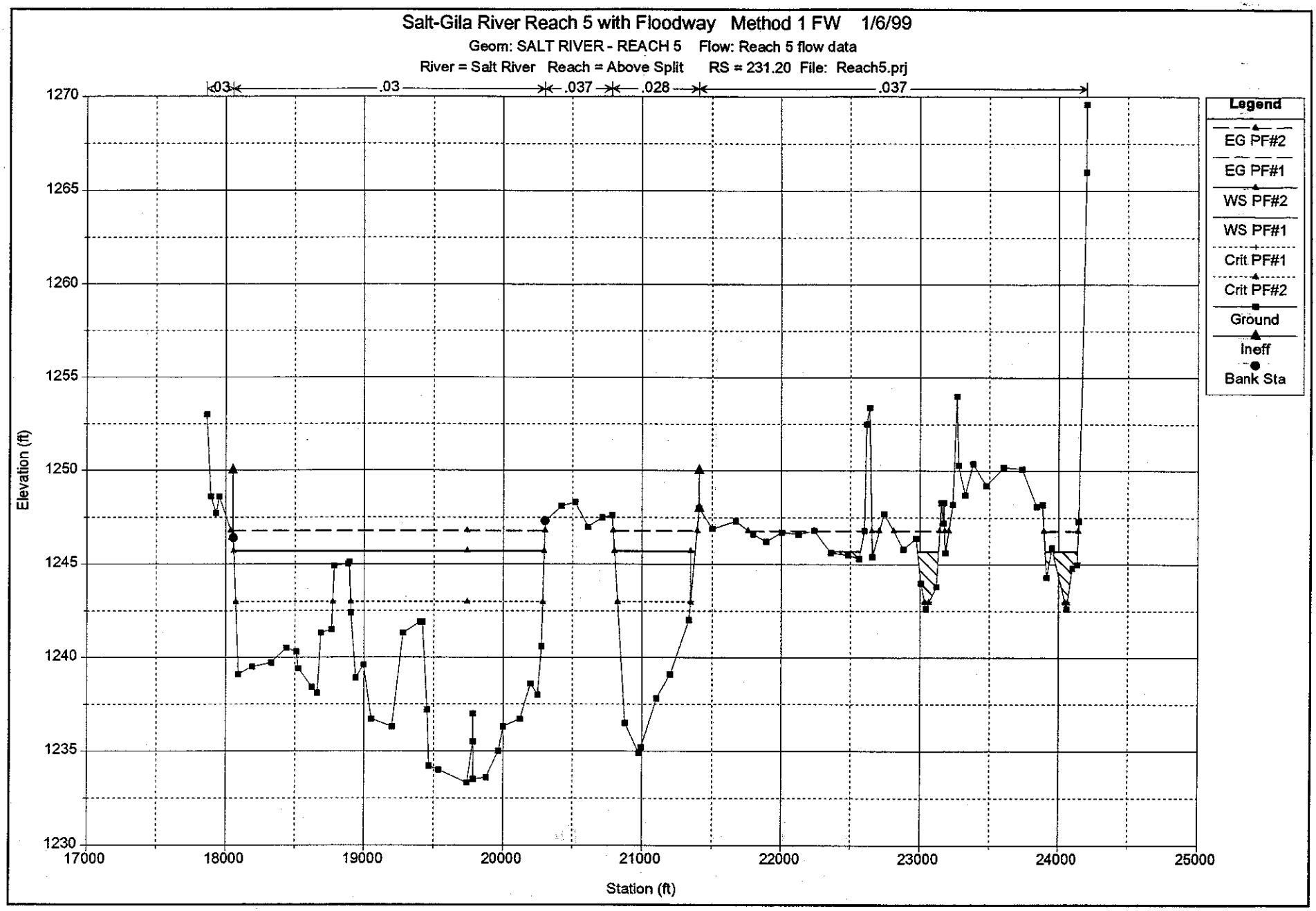

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split Downstream Face of Gilbert Road Bridge RS = 231.60 File: Reach5.prj
.032
.028
.028
Elevation (ft)
1260
1255
1250
1245
1240
1235
17000
18000
19000
20000
21000
22000
23000
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta

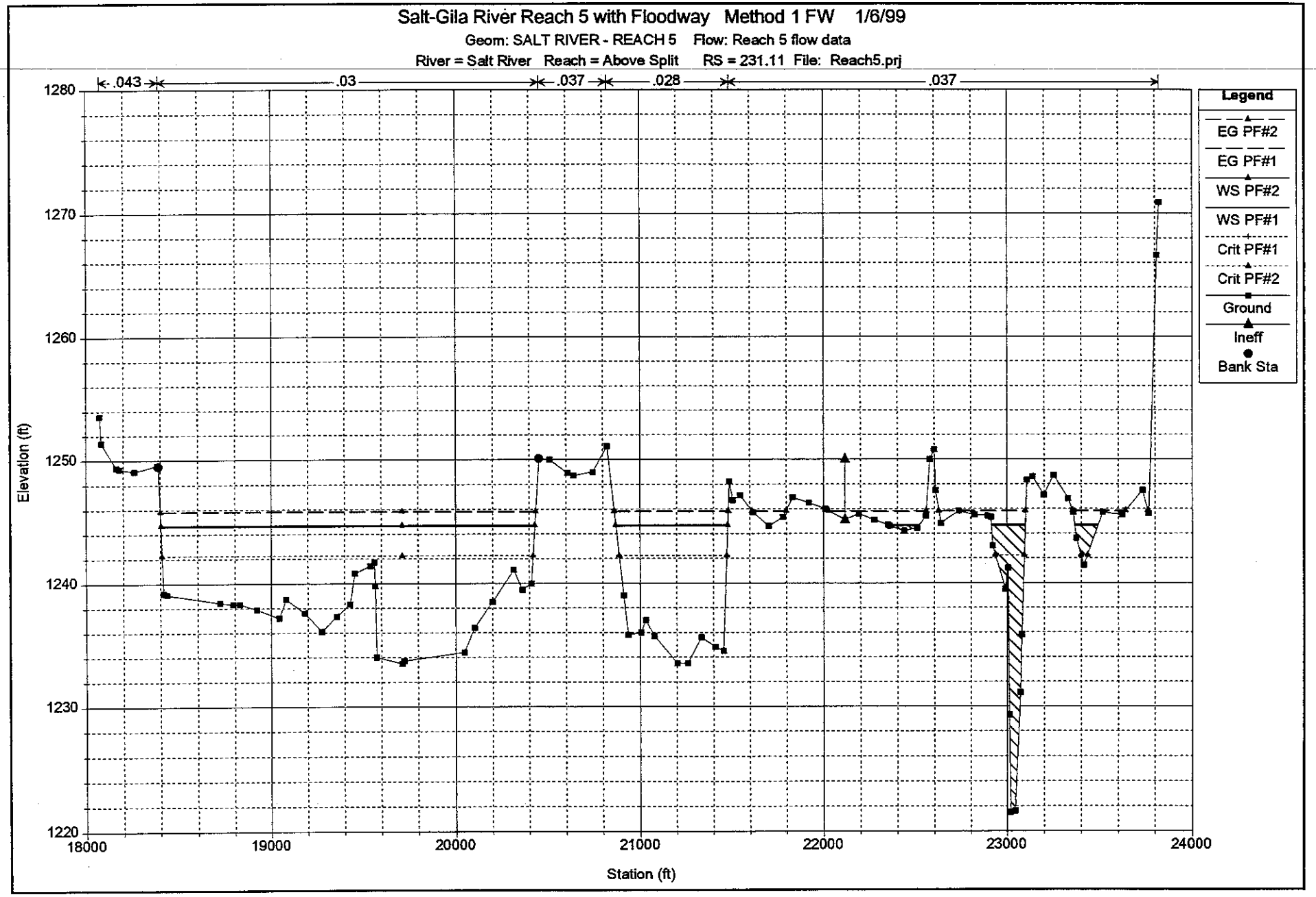

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 231.57 File: Reach5.prj
.032
.028
.028
.037
Elevation (ft)
Station (ft)
1270
1265
1260
1255
1250
1245
1240
1235
17000
18000
19000
20000
21000
22000
23000
24000
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

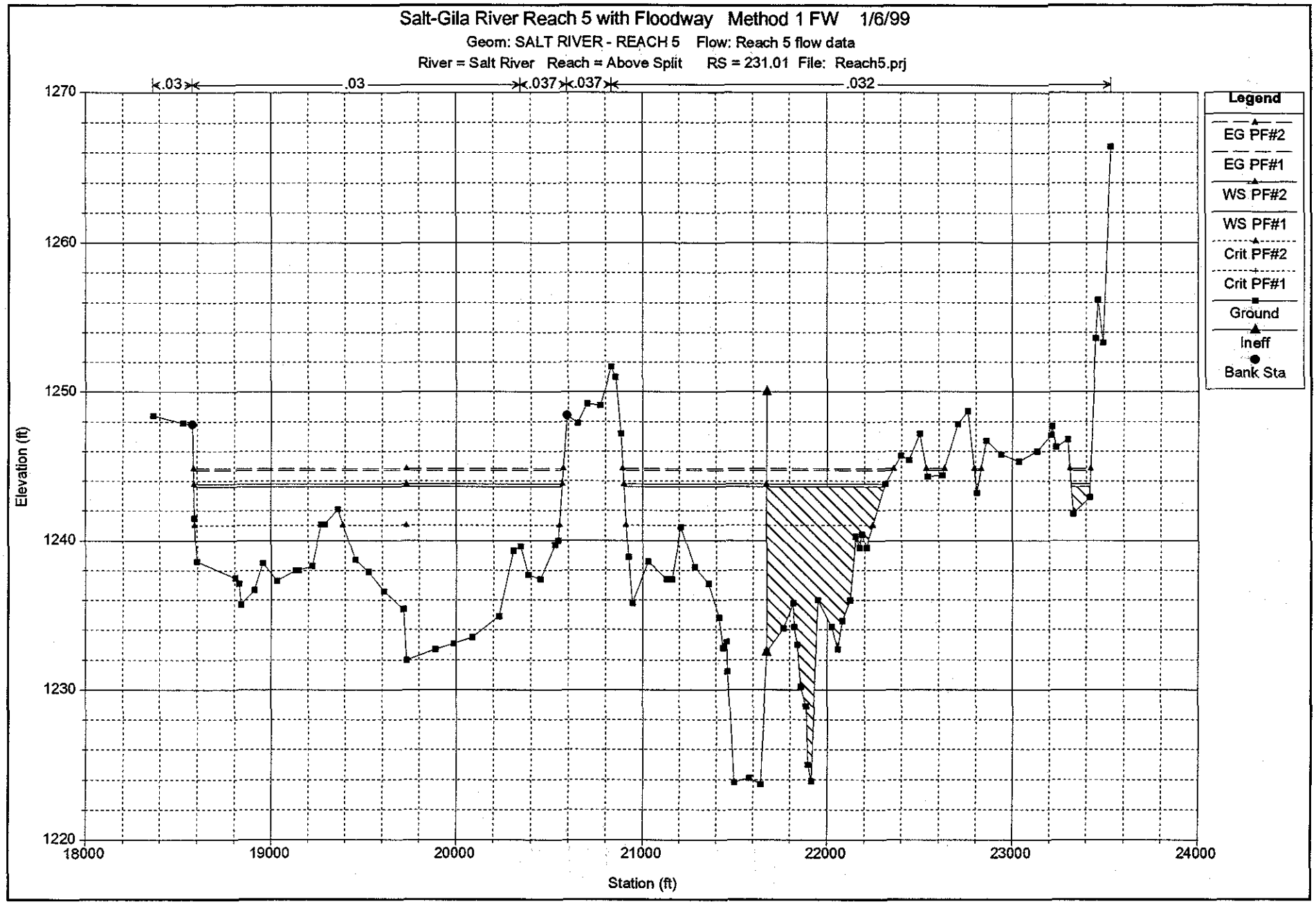

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 231.48 File: Reach5.prj
.032
.028
.028
.037
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1260
1255
1250
1245
1240
1235
17000
18000
19000
20000
21000
22000
23000
24000
25000
Station (ft)

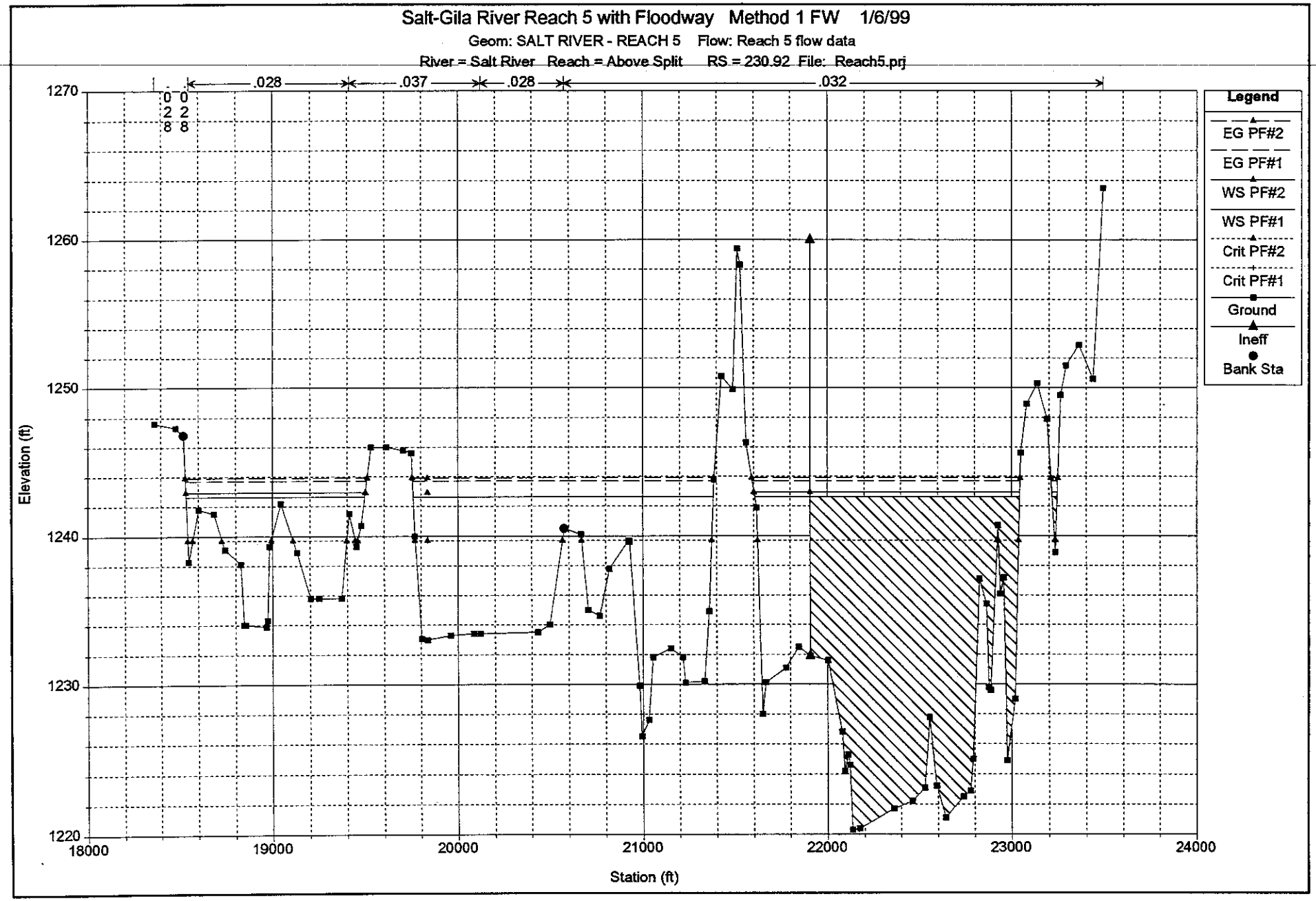

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 231.39 File: Reach5.prj
.032
.032
.028
.037
.028
.037
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1265
1260
1255
1250
1245
1240
1235
17000
18000
19000
20000
21000
22000
23000
24000
25000
Station (ft)

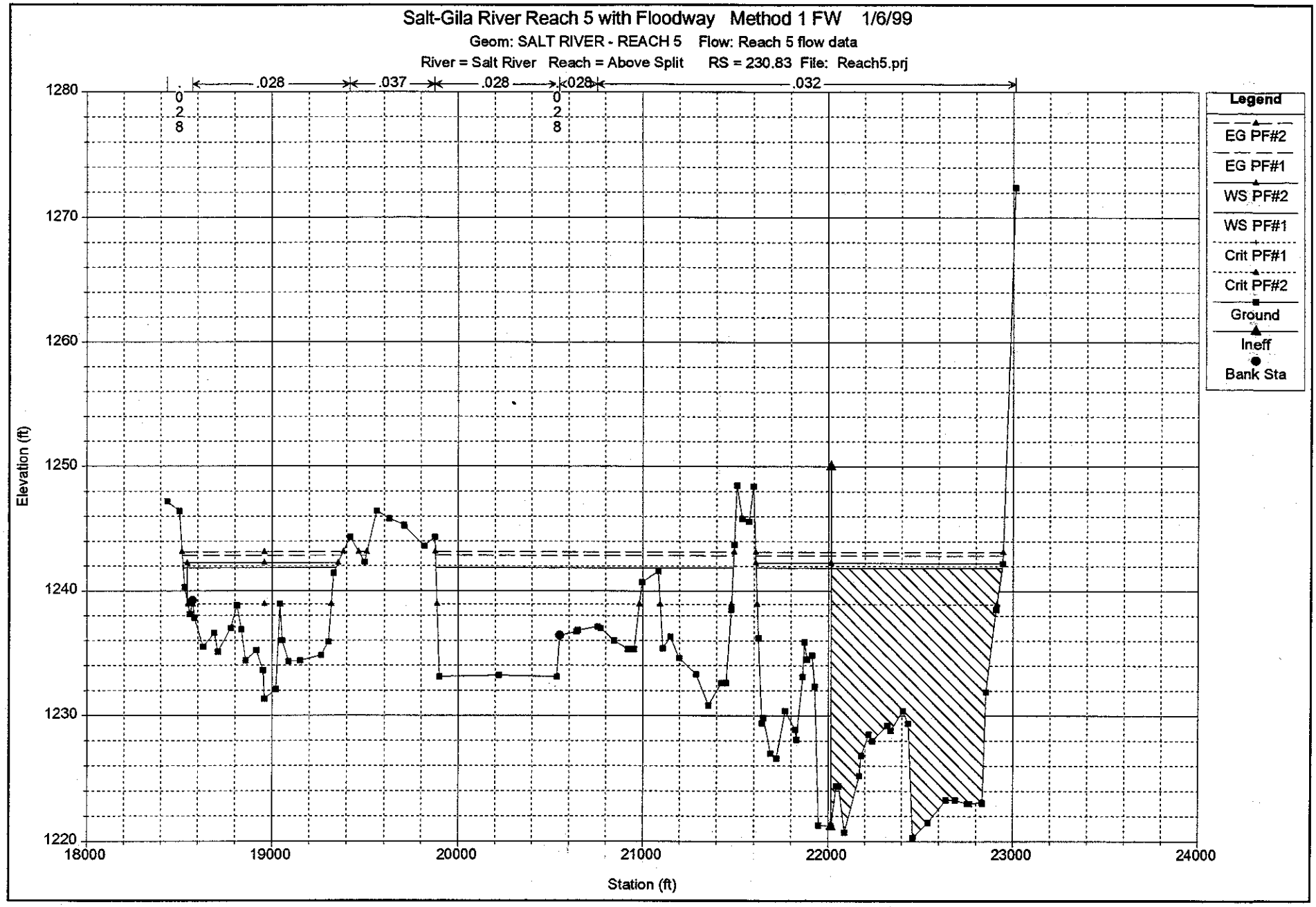

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 231.30 File: Reach5.prj
.03
.03
.037
.028
.037
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1260
1255
1250
1245
1240
1235
1230
17000
18000
19000
20000
21000
22000
23000
24000
25000
Station (ft)

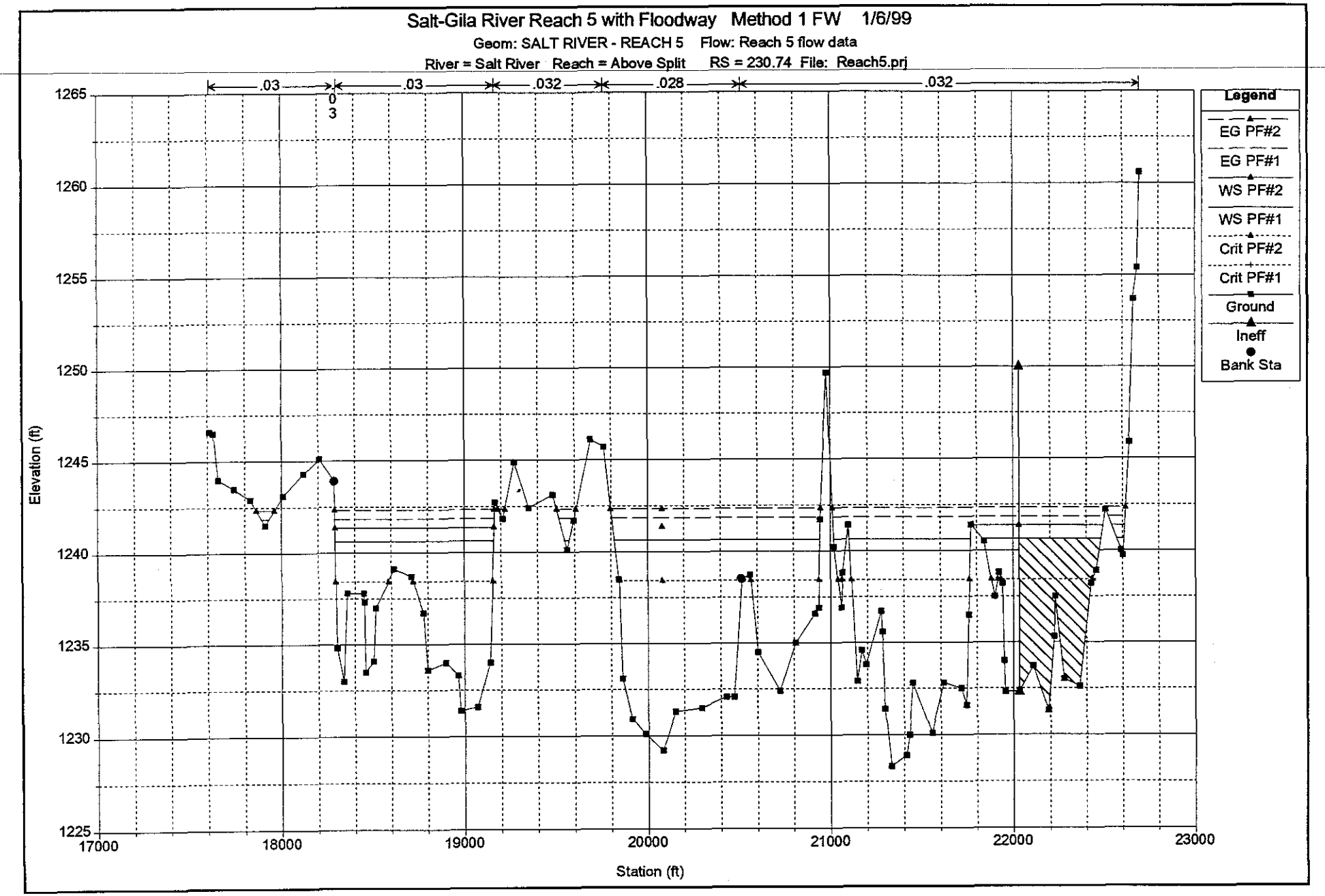

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 231.20 File: Reach5.prj
.03
.03
.037
.028
.037
Elevation (ft)
1270
1265
1260
1255
1250
1245
1240
1235
1230
17000
18000
19000
20000
21000
22000
23000
24000
25000
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

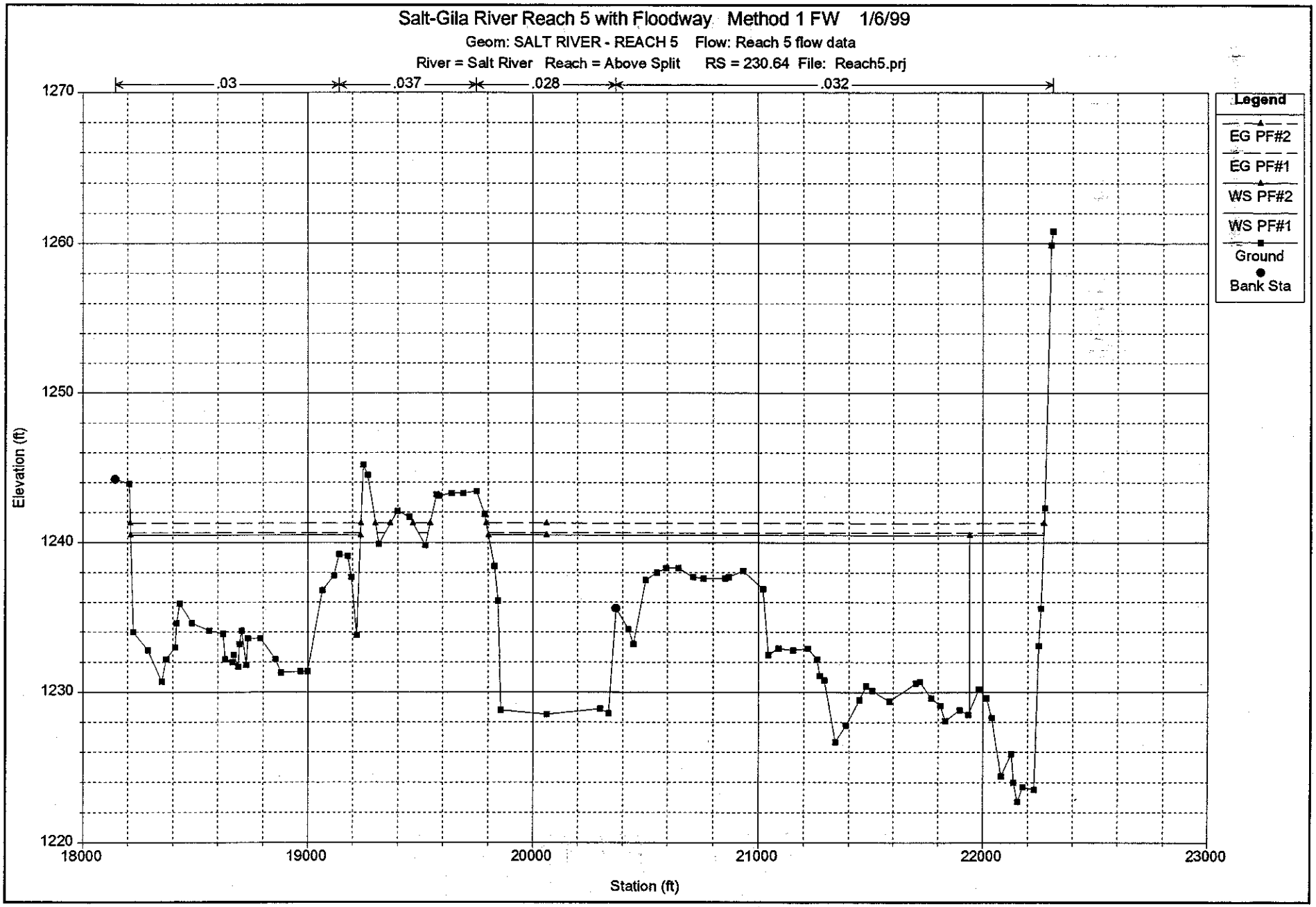

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 231.11 File: Reach5.prj
.043
.03
.037
.028
.037
Elevation (ft)
1280
1270
1260
1250
1240
1230
1220
18000
19000
20000
21000
22000
23000
24000
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

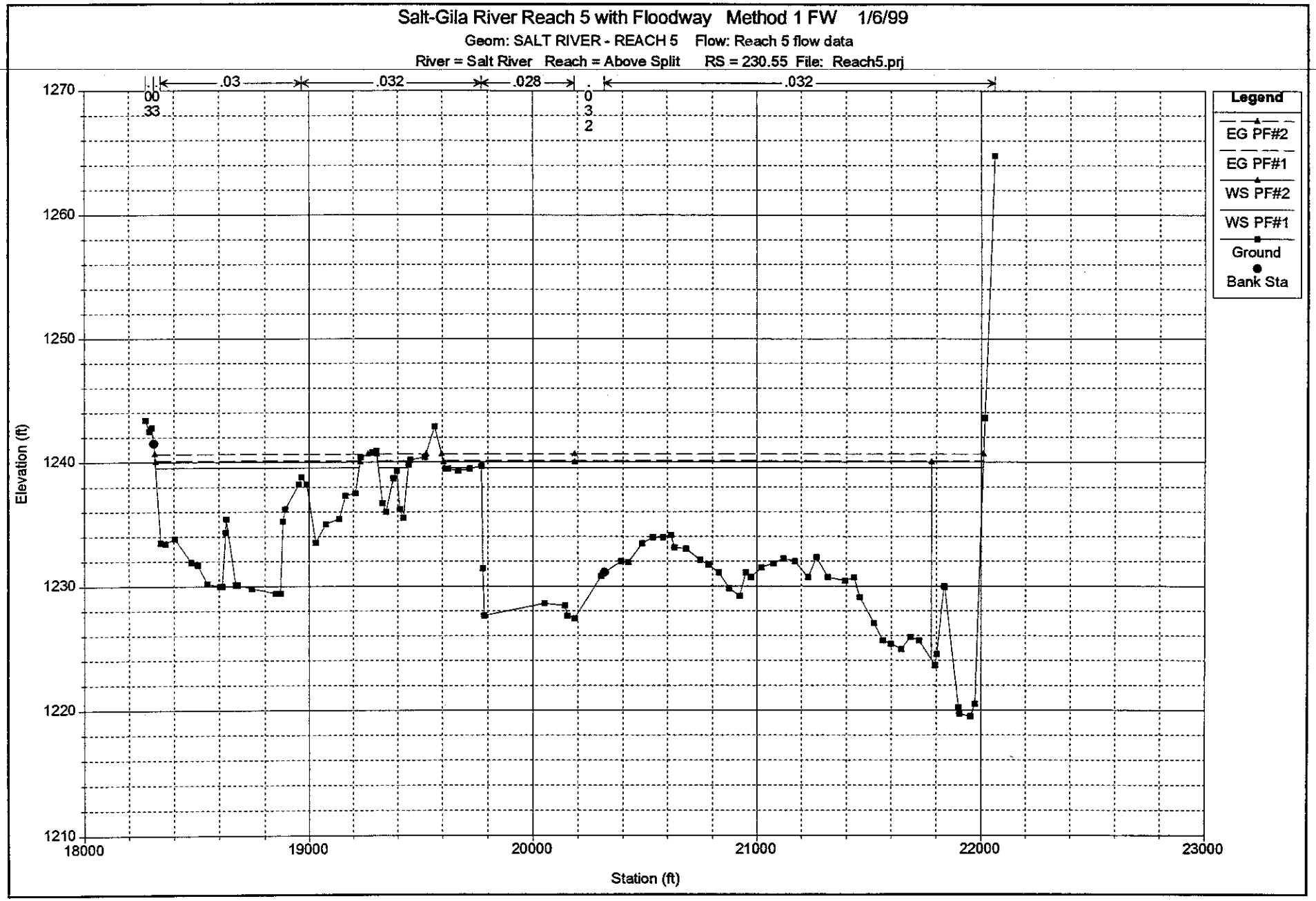

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 231.01 File: Reach5.prj
.03
.03
.037
.037
.032
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1270
1260
1250
1240
1230
1220
18000
19000
20000
21000
22000
23000
24000
Station (ft)

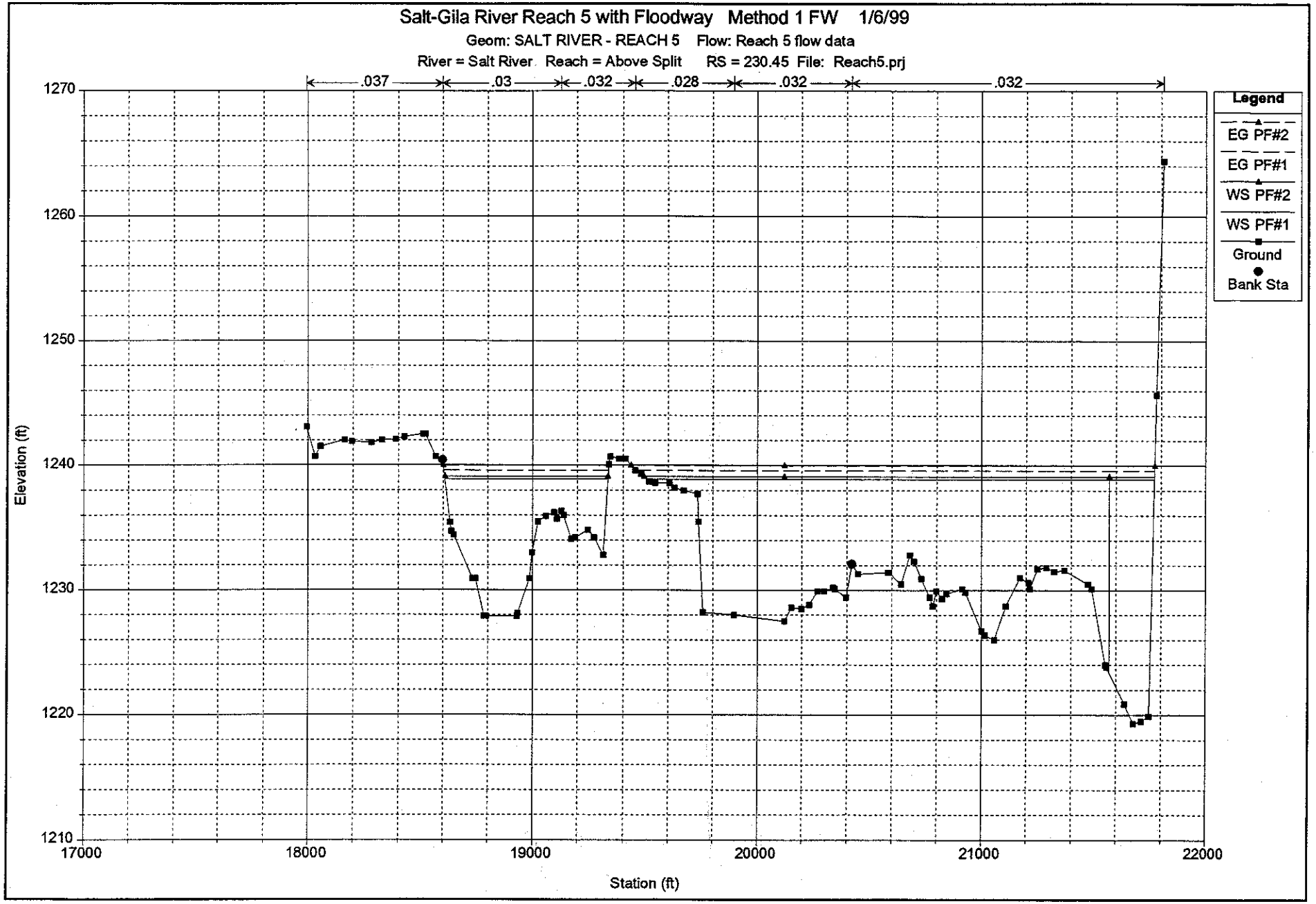

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 230.92 File: Reach5.prj
.028
.037
.028
.032
0 0
2 2
8 8
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1270
1260
1250
1240
1230
1220
18000
19000
20000
21000
22000
23000
24000
Station (ft)

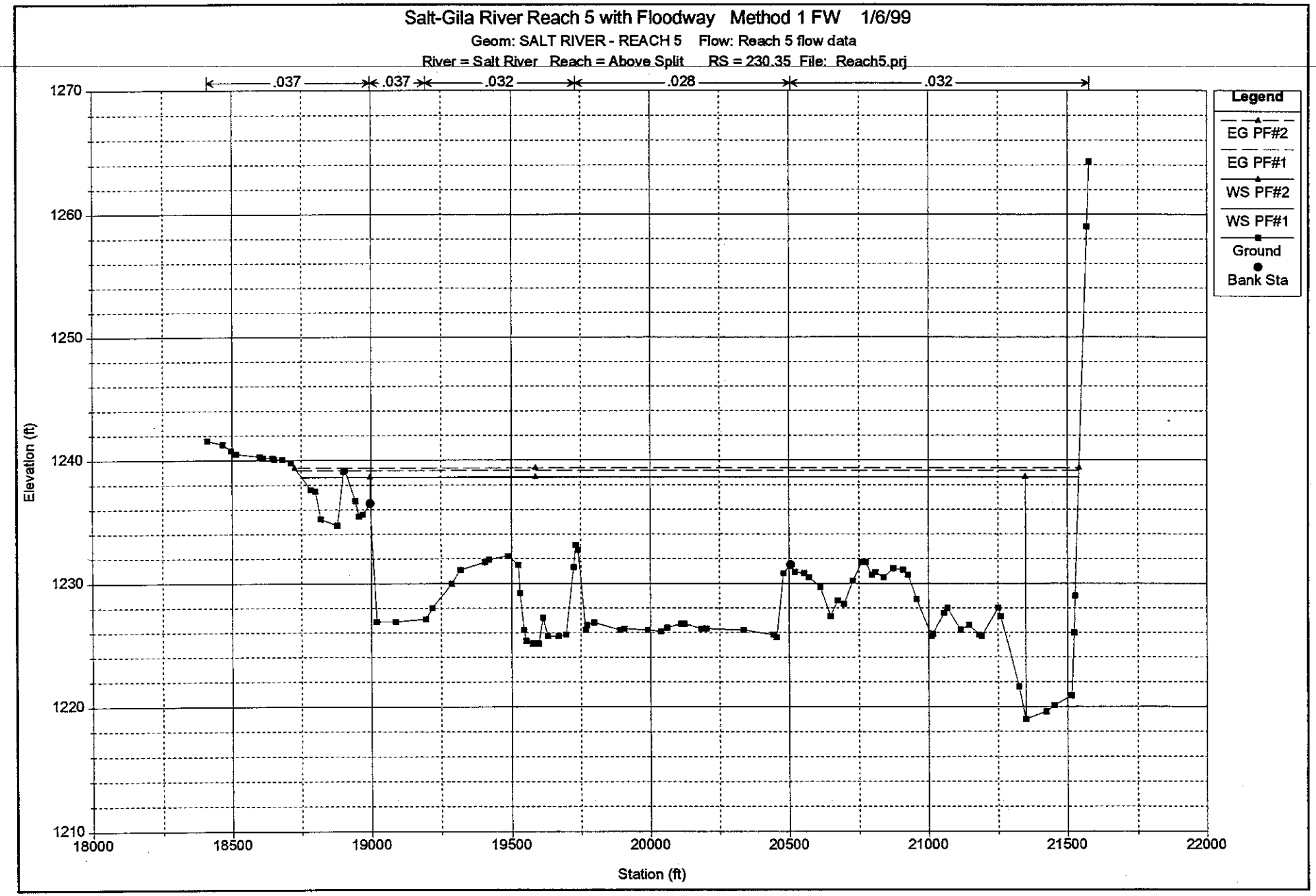

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 230.83 File: Reach5.prj
.028
.037
.028
.028
.032
.028
Elevation (ft)
Station (ft)
1280
1270
1260
1250
1240
1230
1220
18000
19000
20000
21000
22000
23000
24000
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

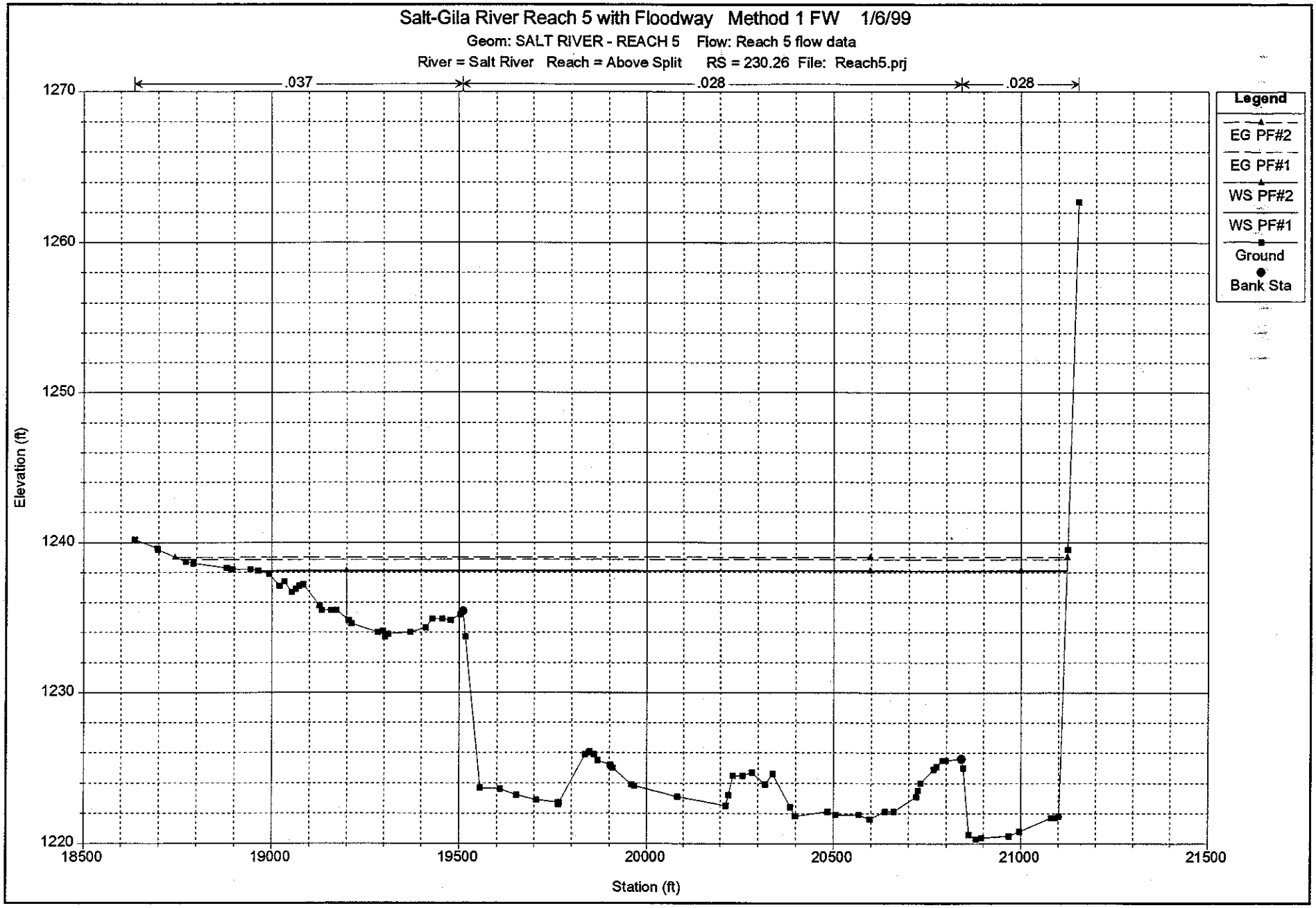

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 230.74 File: Reach5.prj
.03
.03
.032
.028
.032
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
1265
1260
1255
1250
1245
1240
1235
1230
1225
17000
18000
19000
20000
21000
22000
23000

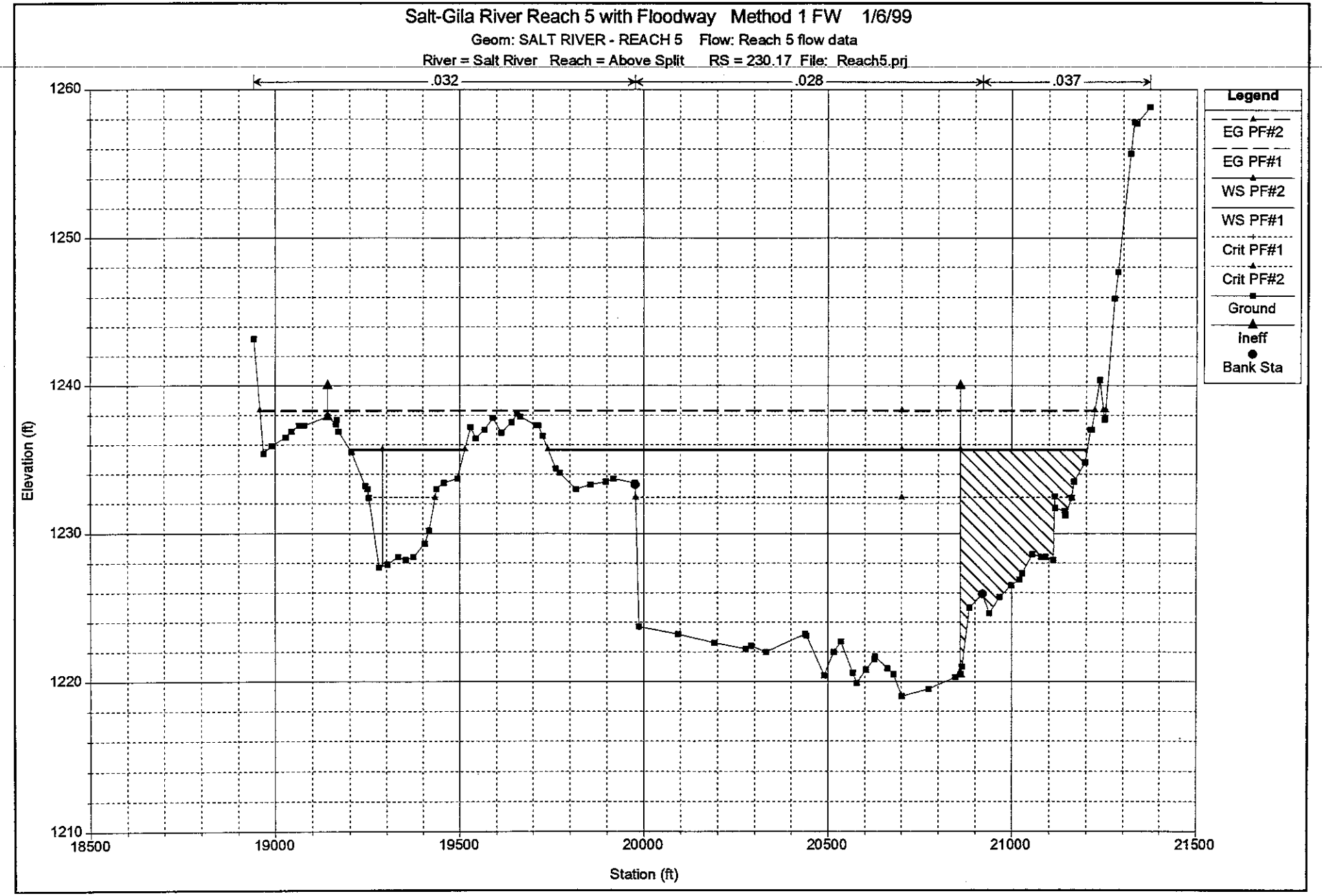

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 230.64 File: Reach5.prj
.03
.037
.028
.032
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Ground
Bank Sta
Elevation (ft)
1270
1260
1250
1240
1230
1220
18000
19000
20000
21000
22000
23000
Station (ft)

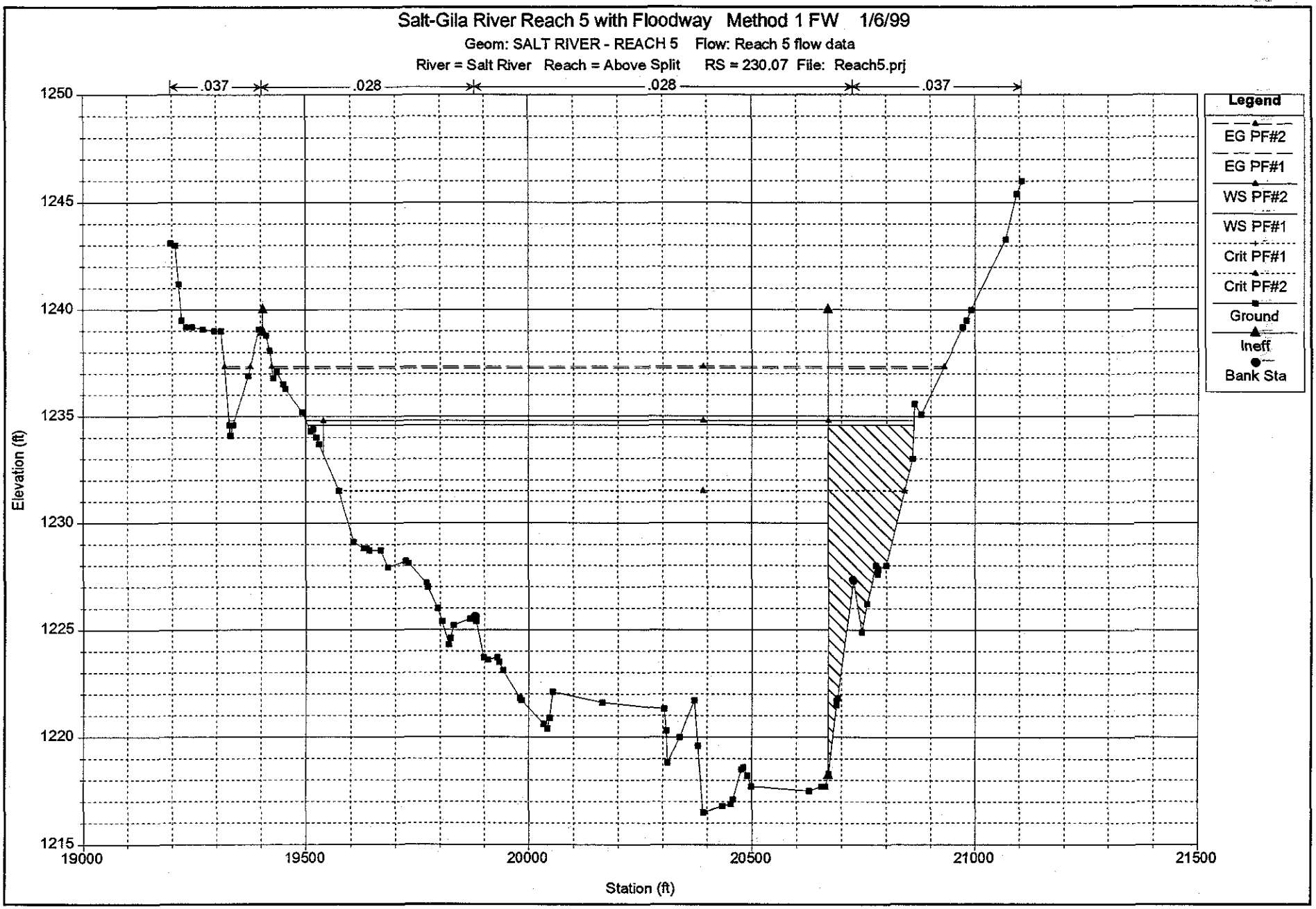

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 230.55 File: Reach5.prj
.03
.032
.028
.032
.033
.032
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Ground
Bank Sta
Elevation (ft)
Station (ft)
1270
1260
1250
1240
1230
1220
1210
18000
19000
20000
21000
22000
23000

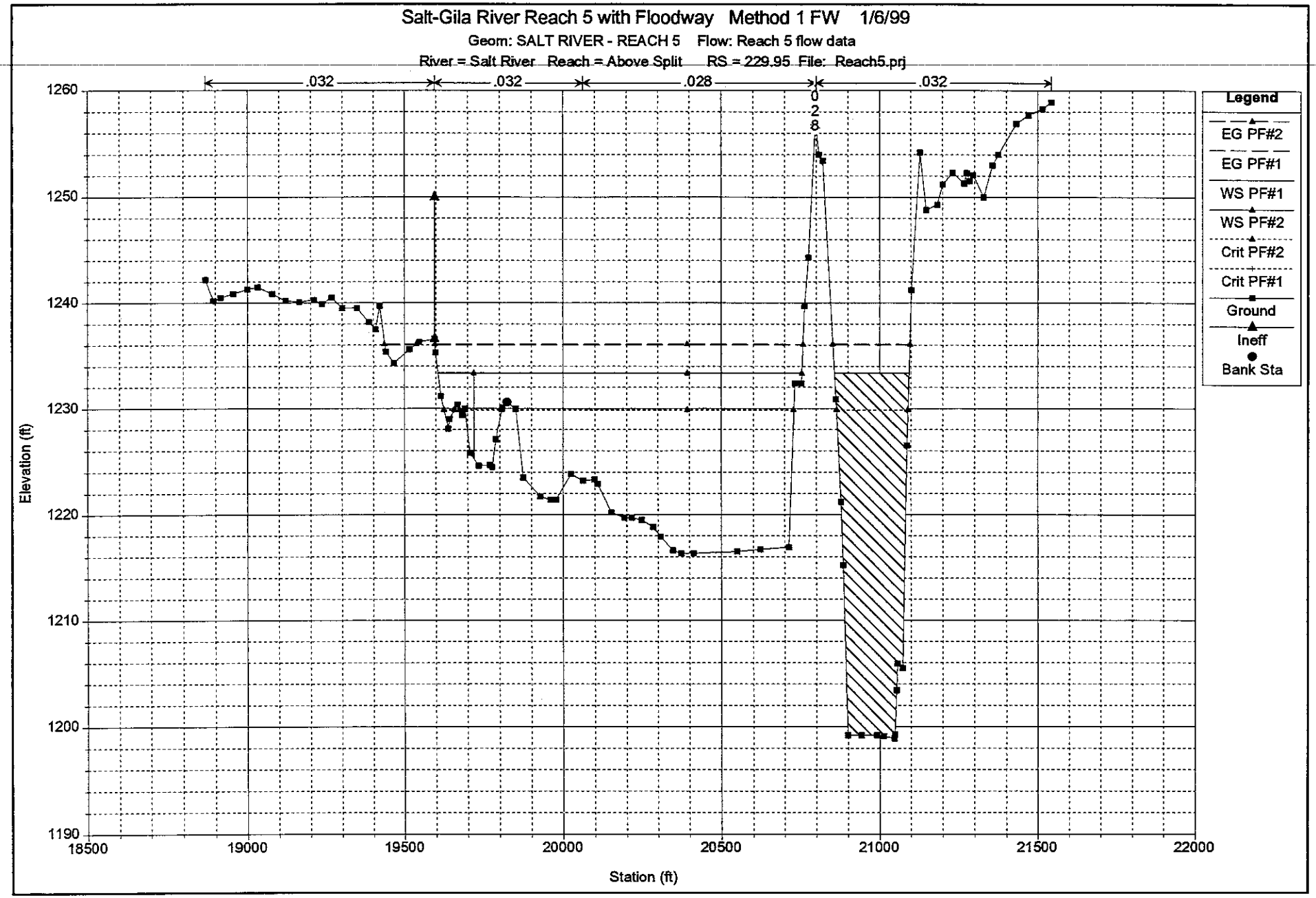

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 230.45 File: Reach5.prj
.037
.03
.032
.028
.032
.032
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Ground
Bank Sta
Elevation (ft)
1270
1260
1250
1240
1230
1220
1210
17000
18000
19000
20000
21000
22000
Station (ft)

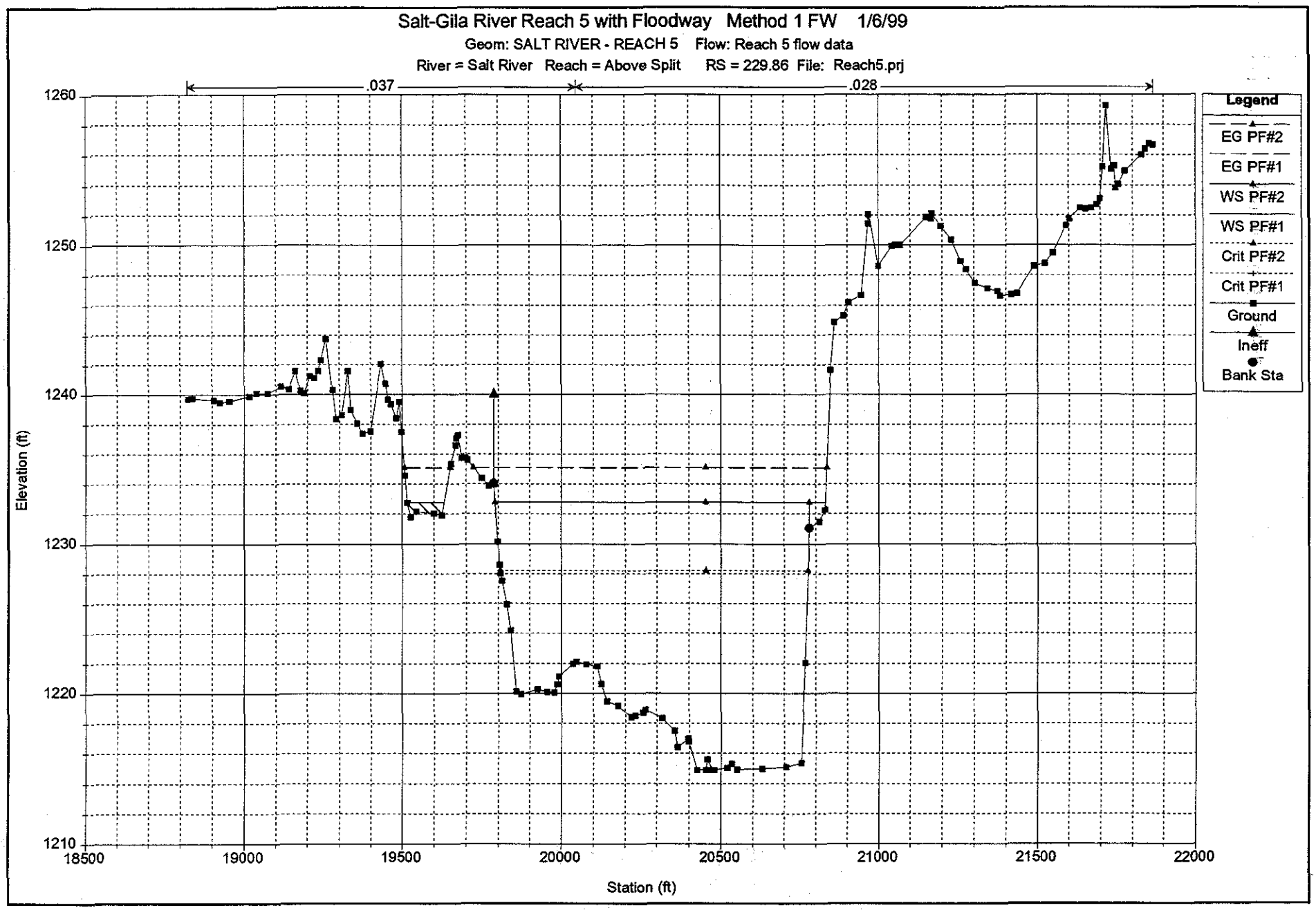

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 230.35 File: Reach5.prj
.037
.037
.032
.028
.032
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Ground
Bank Sta
Elevation (ft)
1270
1260
1250
1240
1230
1220
1210
18000
18500
19000
19500
20000
20500
21000
21500
22000
Station (ft)

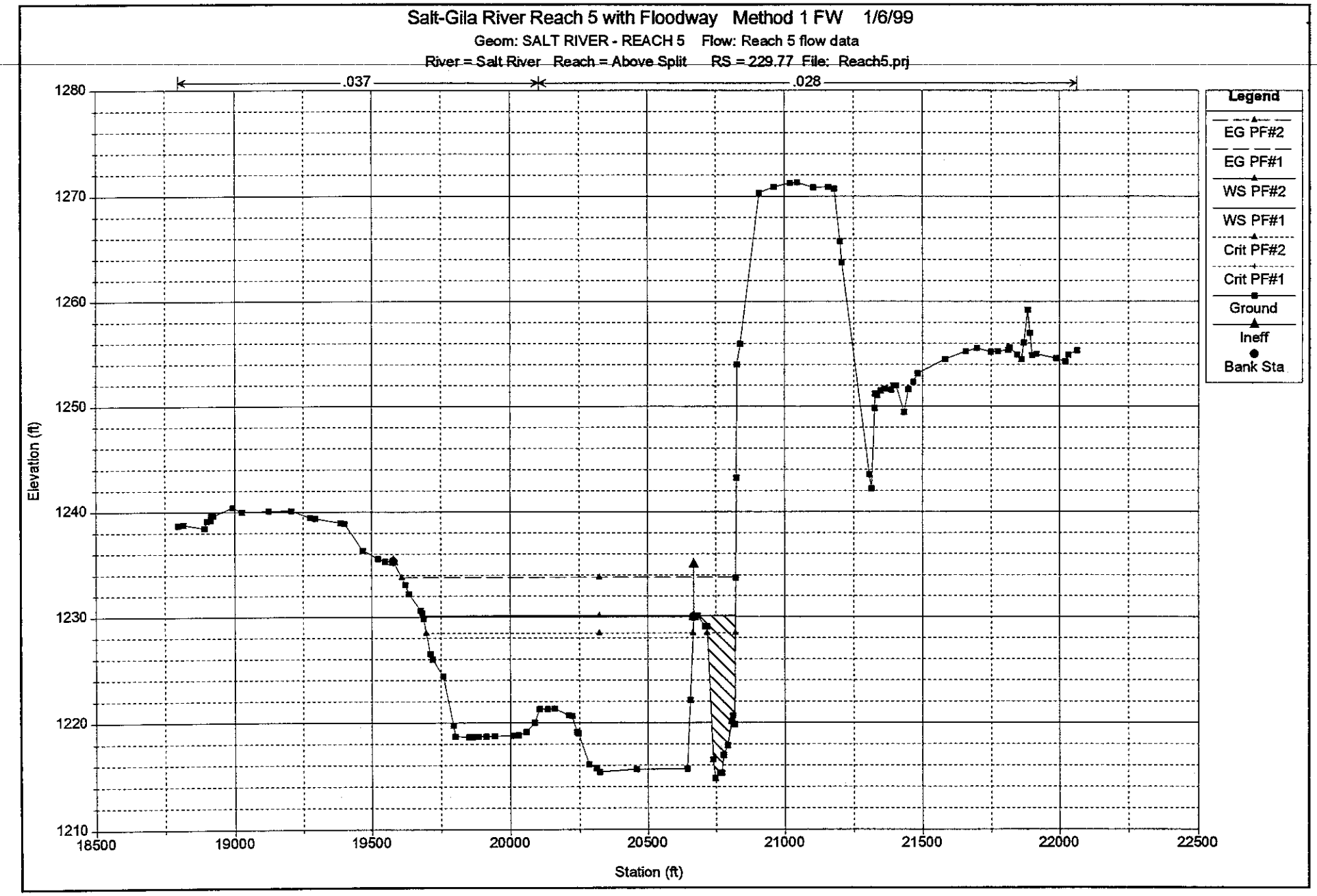

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 230.26 File: Reach5.prj
.037
.028
.028
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Ground
Bank Sta
Elevation (ft)
1270
1260
1250
1240
1230
1220
18500
19000
19500
20000
20500
21000
21500
Station (ft)

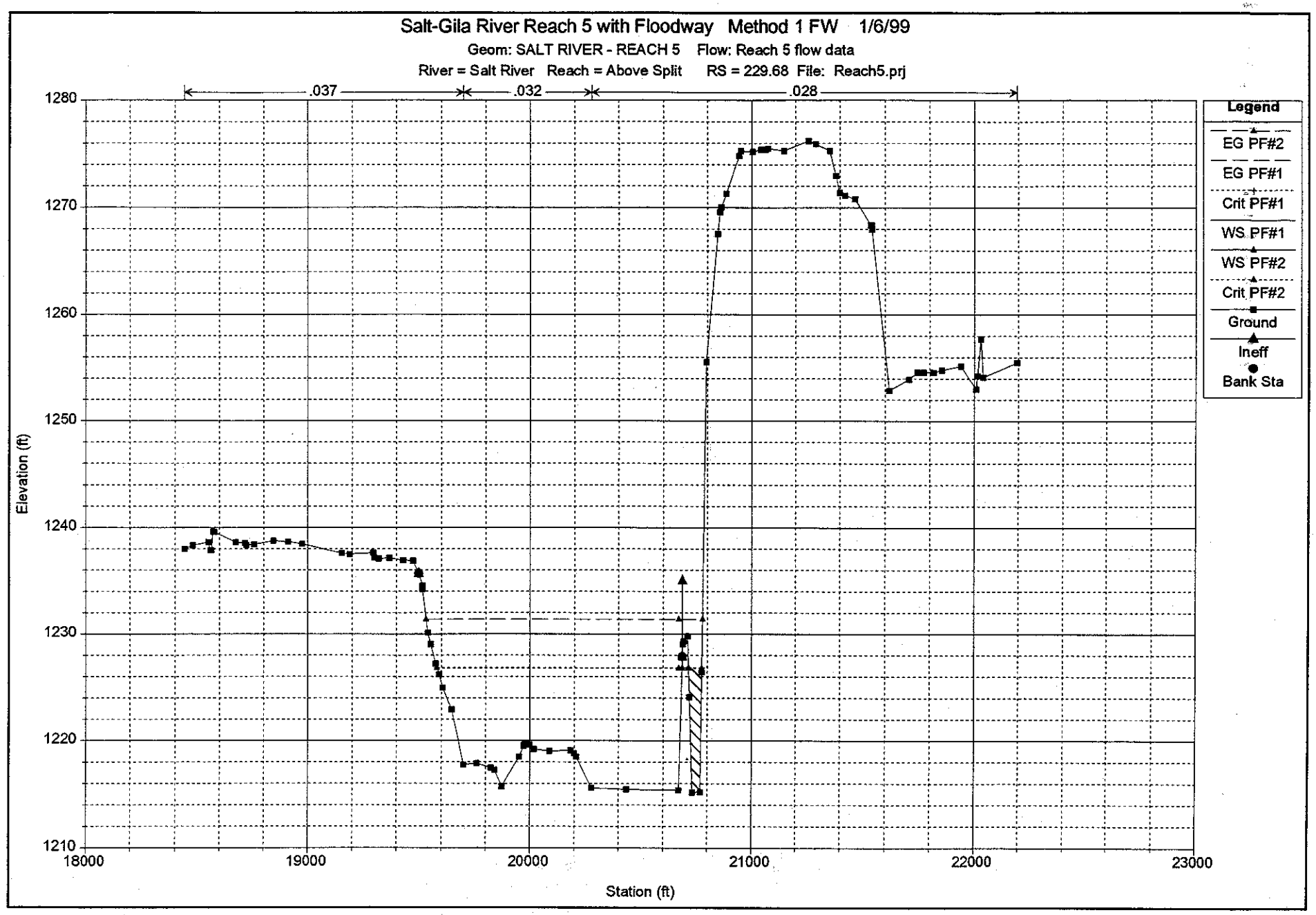

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 230.17 File: Reach5.prj
.032
.028
.037
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1260
1250
1240
1230
1220
1210
18500
19000
19500
20000
20500
21000
21500
Station (ft)

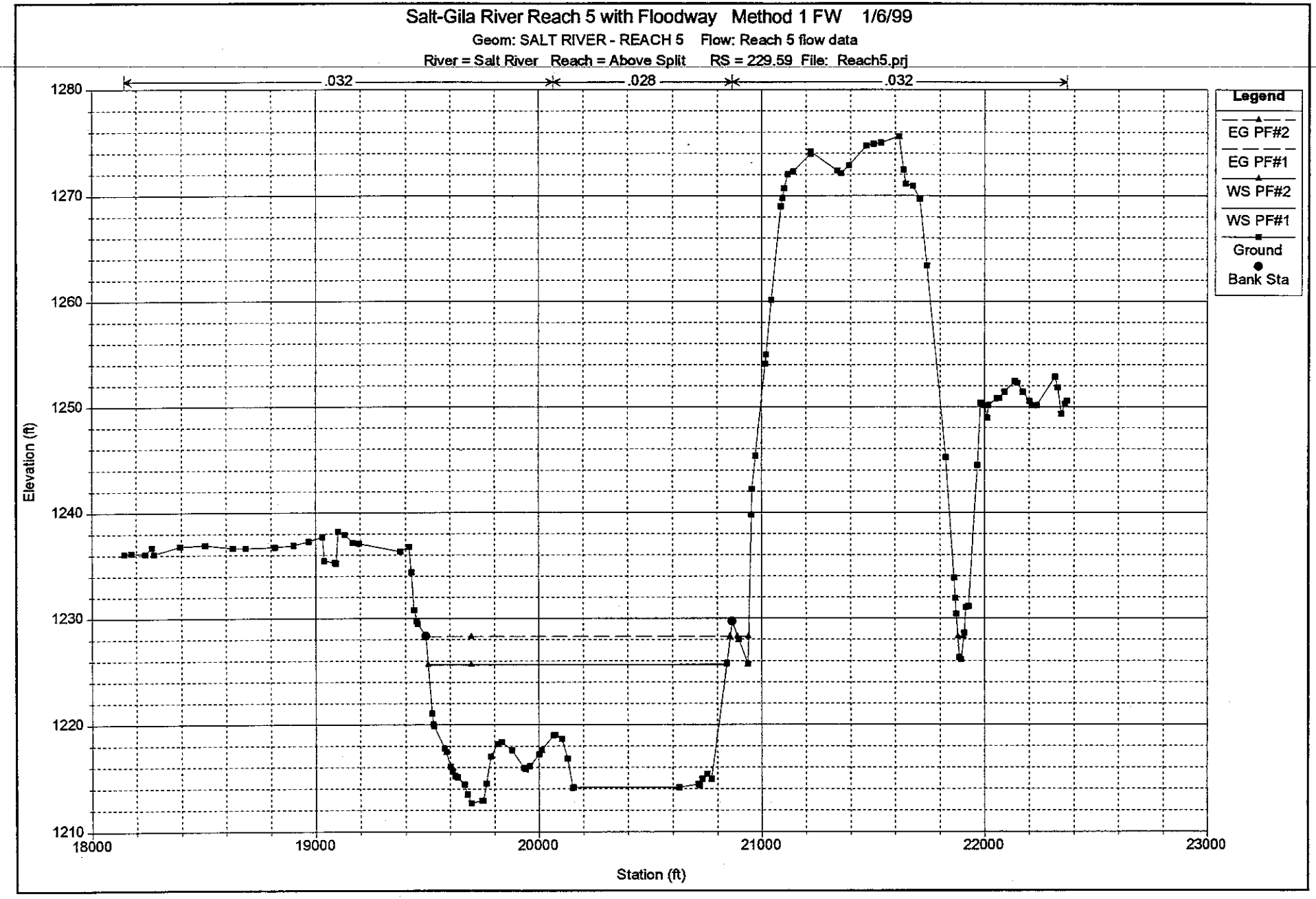

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 230.07 File: Reach5.prj
.037
.028
.028
.037
Elevation (ft)
1250
1245
1240
1235
1230
1225
1220
1215
19000
19500
20000
20500
21000
21500
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

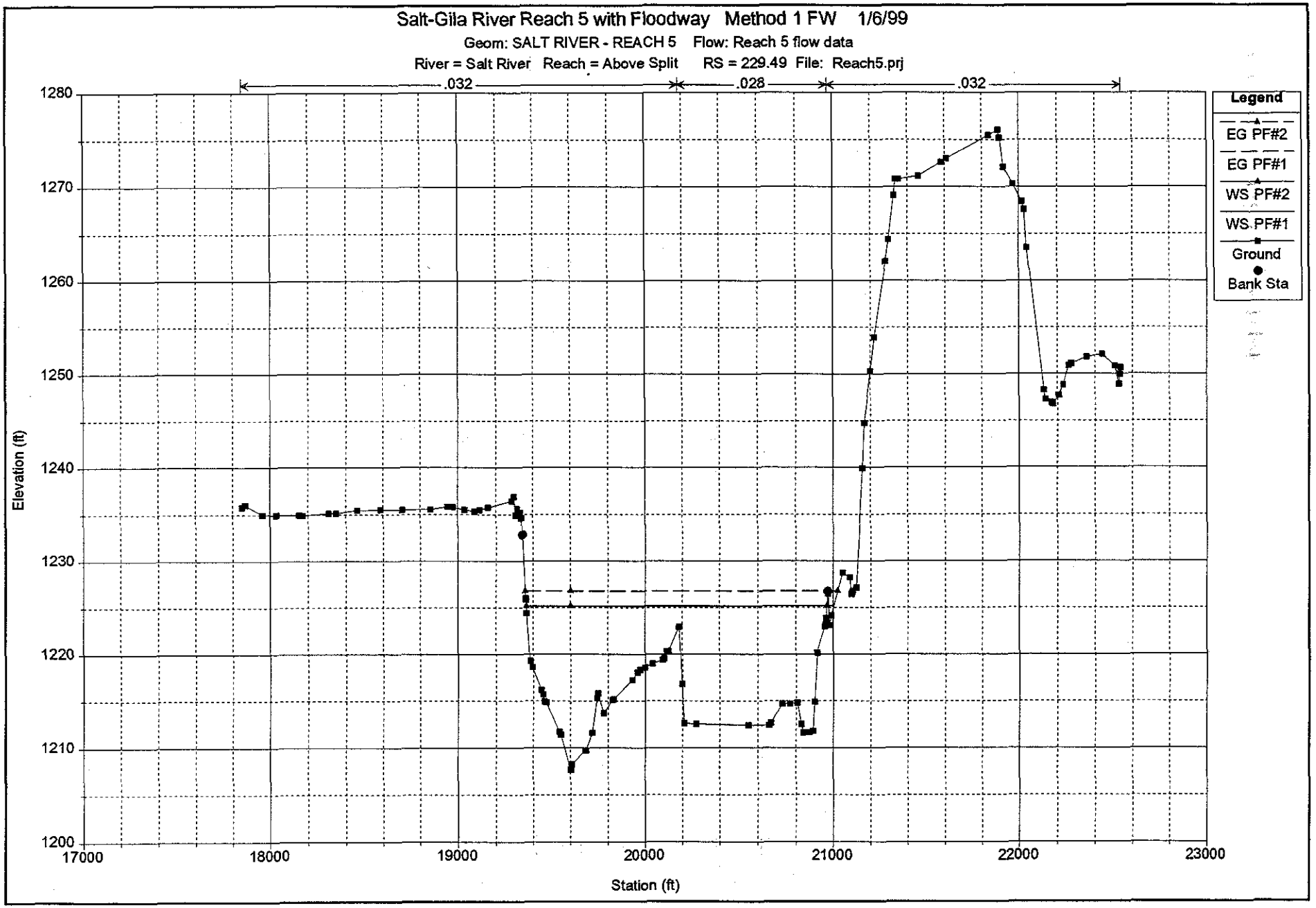

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 229.95 File: Reach5.prj
.032
.032
.028
.032
0
2
8
Legend
EG PF#2
EG PF#1
WS PF#1
WS PF#2
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1260
1250
1240
1230
1220
1210
1200
1190
18500
19000
19500
20000
20500
21000
21500
22000
Station (ft)

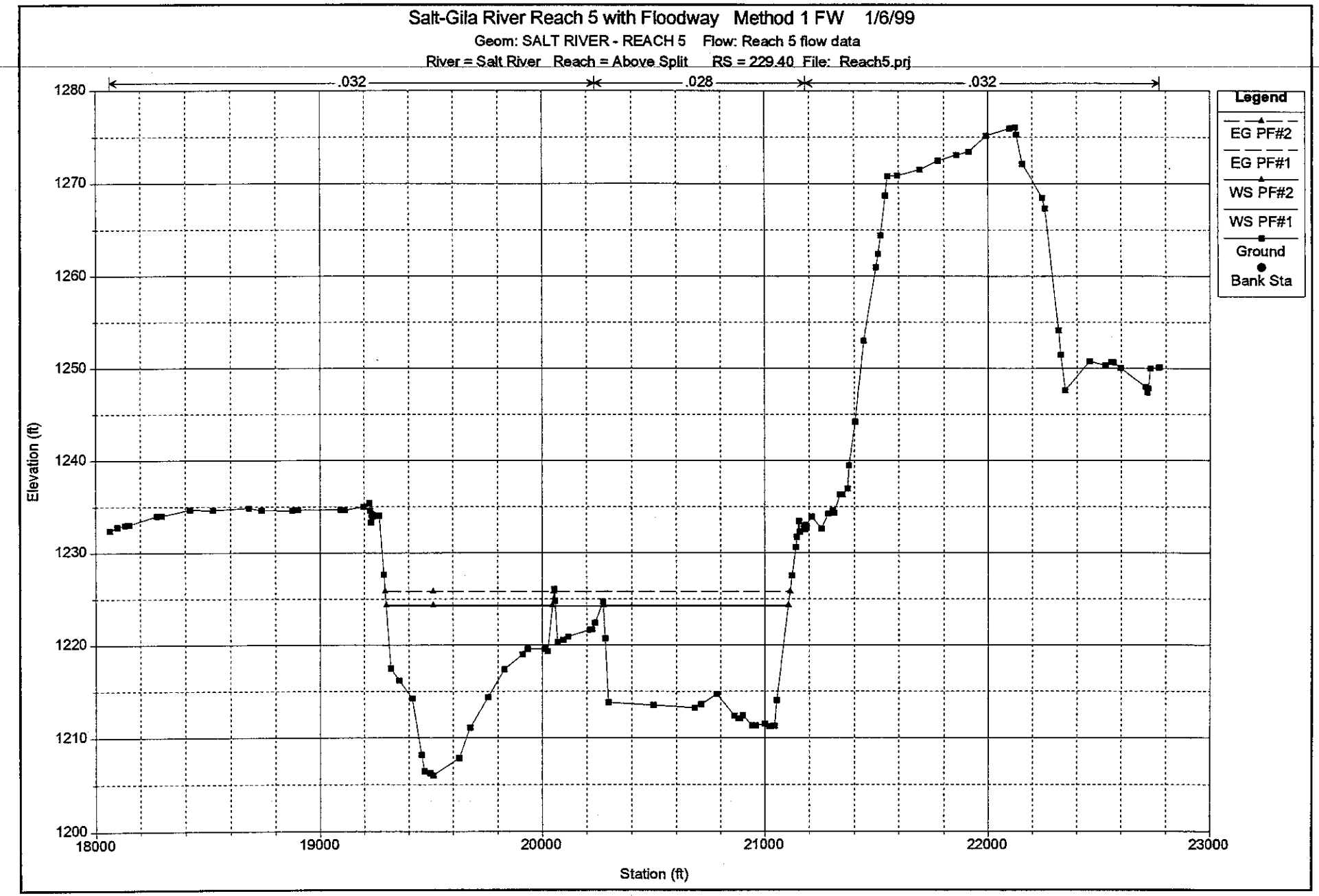

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 229.86 File: Reach5.prj
.037
.028
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1260
1250
1240
1230
1220
1210
18500
19000
19500
20000
20500
21000
21500
22000
Station (ft)

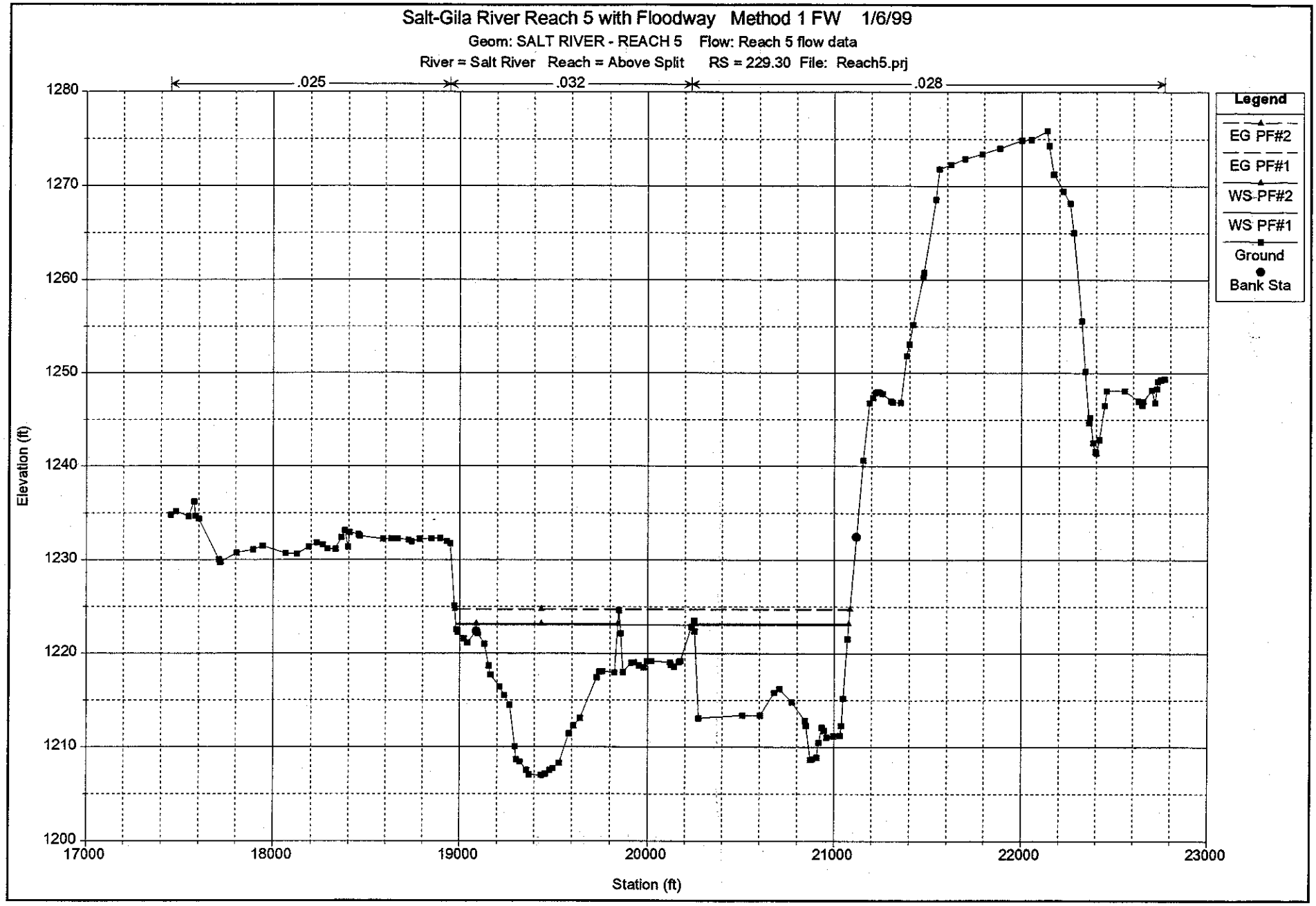

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 229.77 File: Reach5.prj
.037
.028
Elevation (ft)
Station (ft)
1280
1270
1260
1250
1240
1230
1220
1210
18500
19000
19500
20000
20500
21000
21500
22000
22500
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta

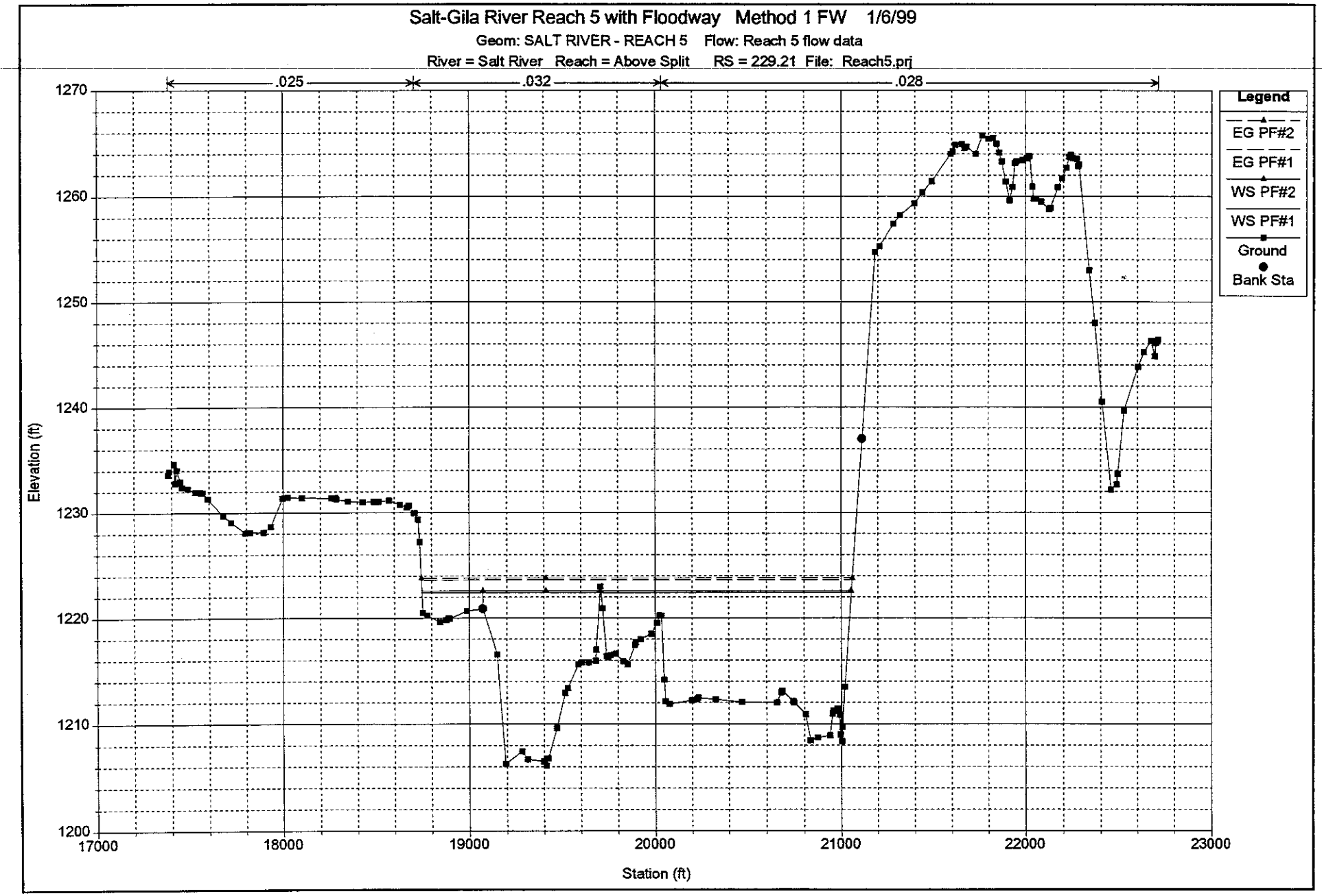

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 229.68 File: Reach5.prj
.037
.032
.028
Elevation (ft)
1280
1270
1260
1250
1240
1230
1220
1210
18000
19000
20000
21000
22000
23000
Station (ft)
Legend
EG PF#2
EG PF#1
Crit PF#1
WS PF#1
WS PF#2
Crit PF#2
Ground
Ineff
Bank Sta

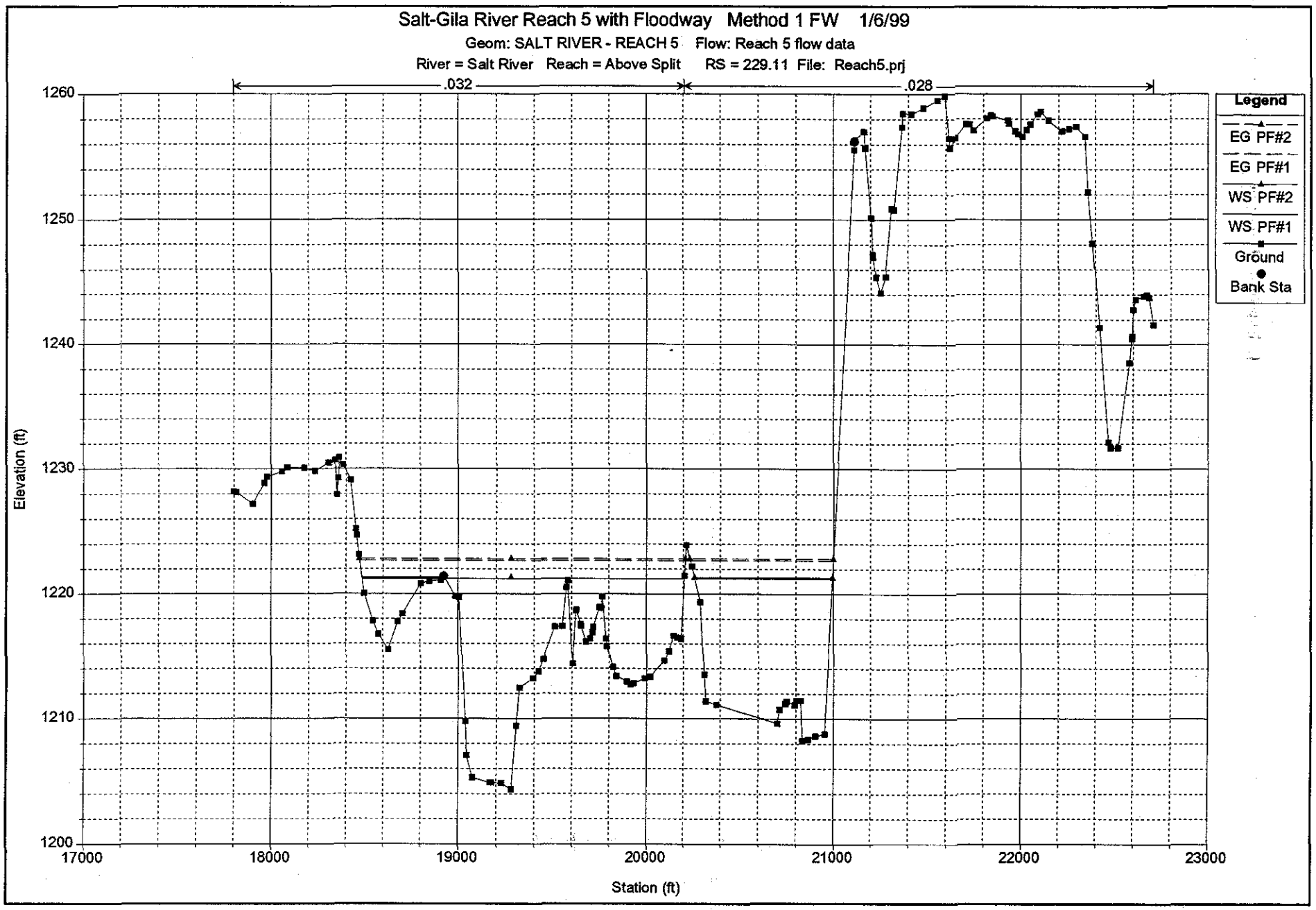

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 229.59 File: Reach5.prj
.032
.028
.032
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Ground
Bank Sta
Elevation (ft)
1280
1270
1260
1250
1240
1230
1220
1210
18000
19000
20000
21000
22000
23000
Station (ft)

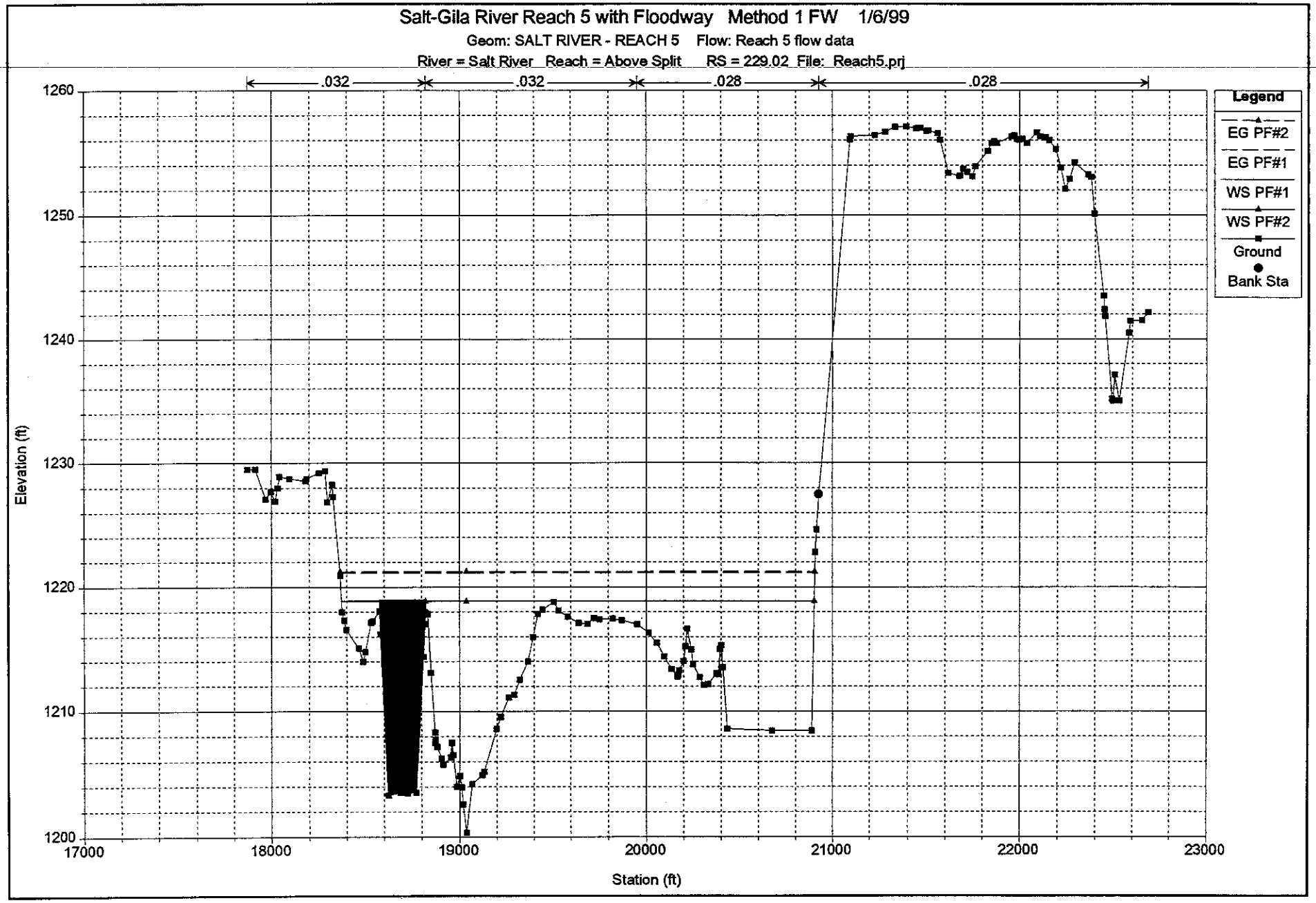

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 229.49 File: Reach5.prj
.032
.028
.032
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Ground
Bank Sta
Elevation (ft)
1280
1270
1260
1250
1240
1230
1220
1210
1200
17000
18000
19000
20000
21000
22000
23000
Station (ft)

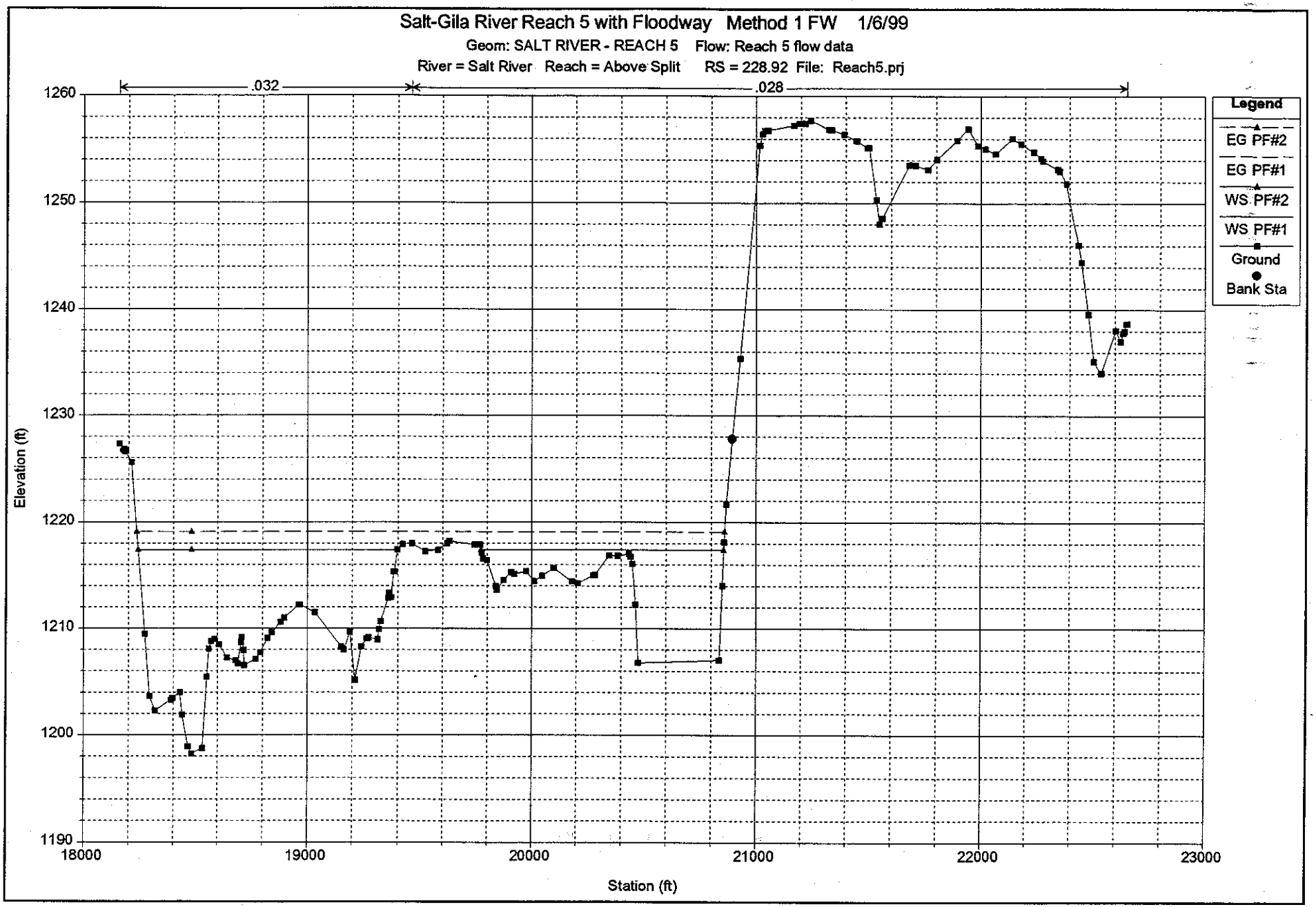

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 229.40 File: Reach5.prj
.032
.028
.032
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Ground
Bank Sta
Elevation (ft)
1280
1270
1260
1250
1240
1230
1220
1210
1200
18000
19000
20000
21000
22000
23000
Station (ft)

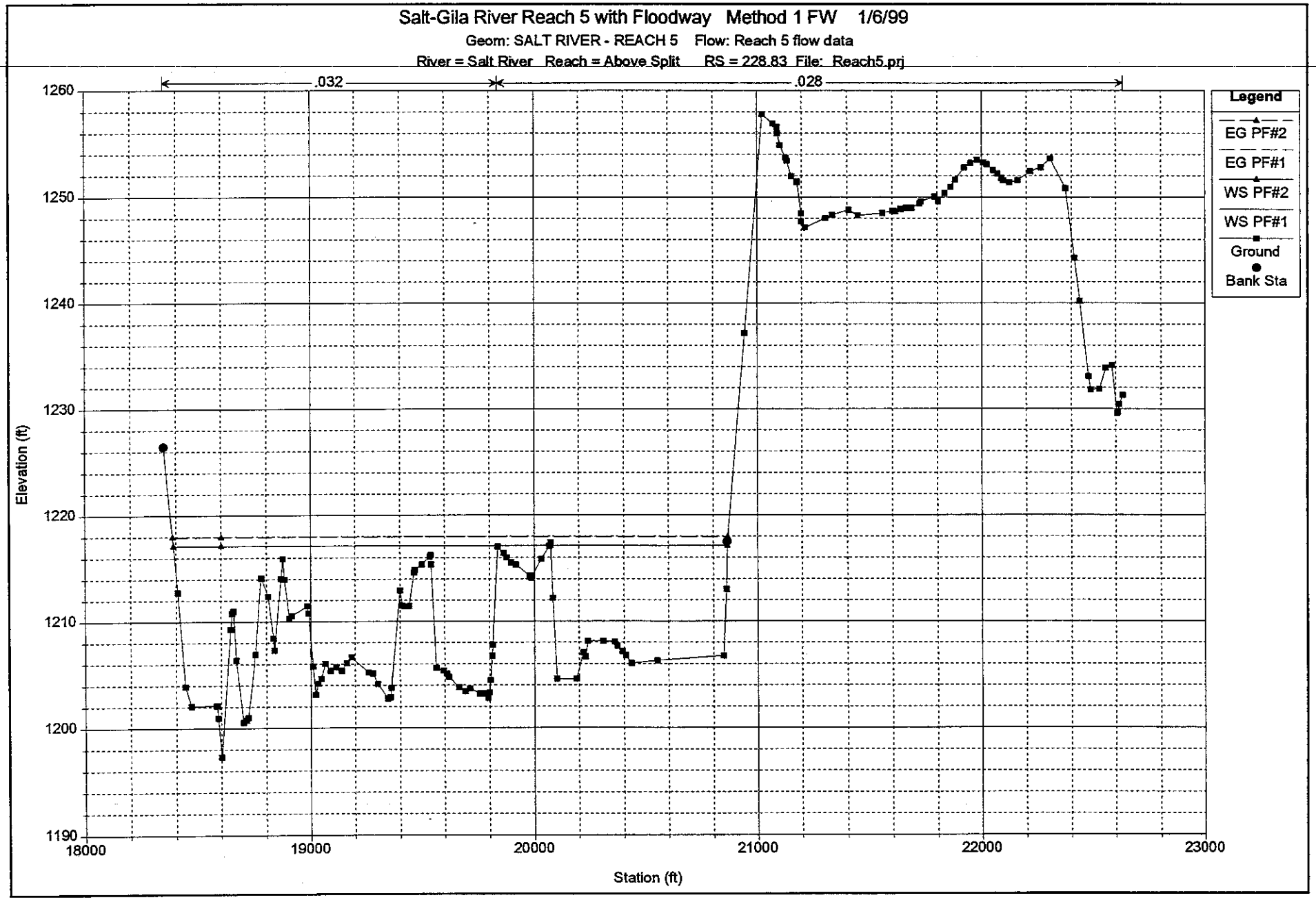

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 229.30 File: Reach5.prj
.025
.032
.028
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Ground
Bank Sta
Elevation (ft)
1280
1270
1260
1250
1240
1230
1220
1210
1200
17000
18000
19000
20000
21000
22000
23000
Station (ft)

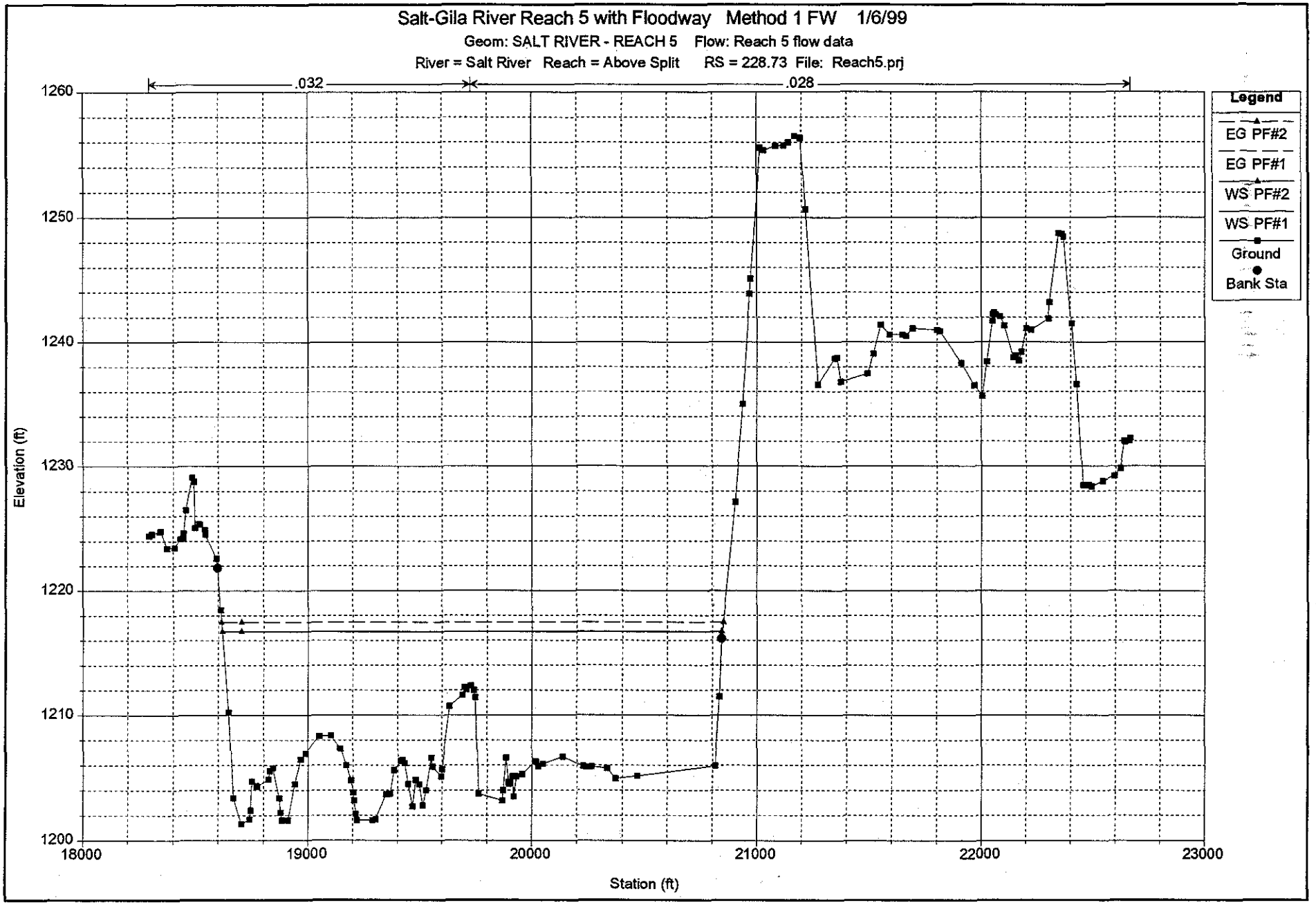

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 229.21 File: Reach5.prj
.025
.032
.028
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Ground
Bank Sta
Elevation (ft)
1270
1260
1250
1240
1230
1220
1210
1200
17000
18000
19000
20000
21000
22000
23000
Station (ft)

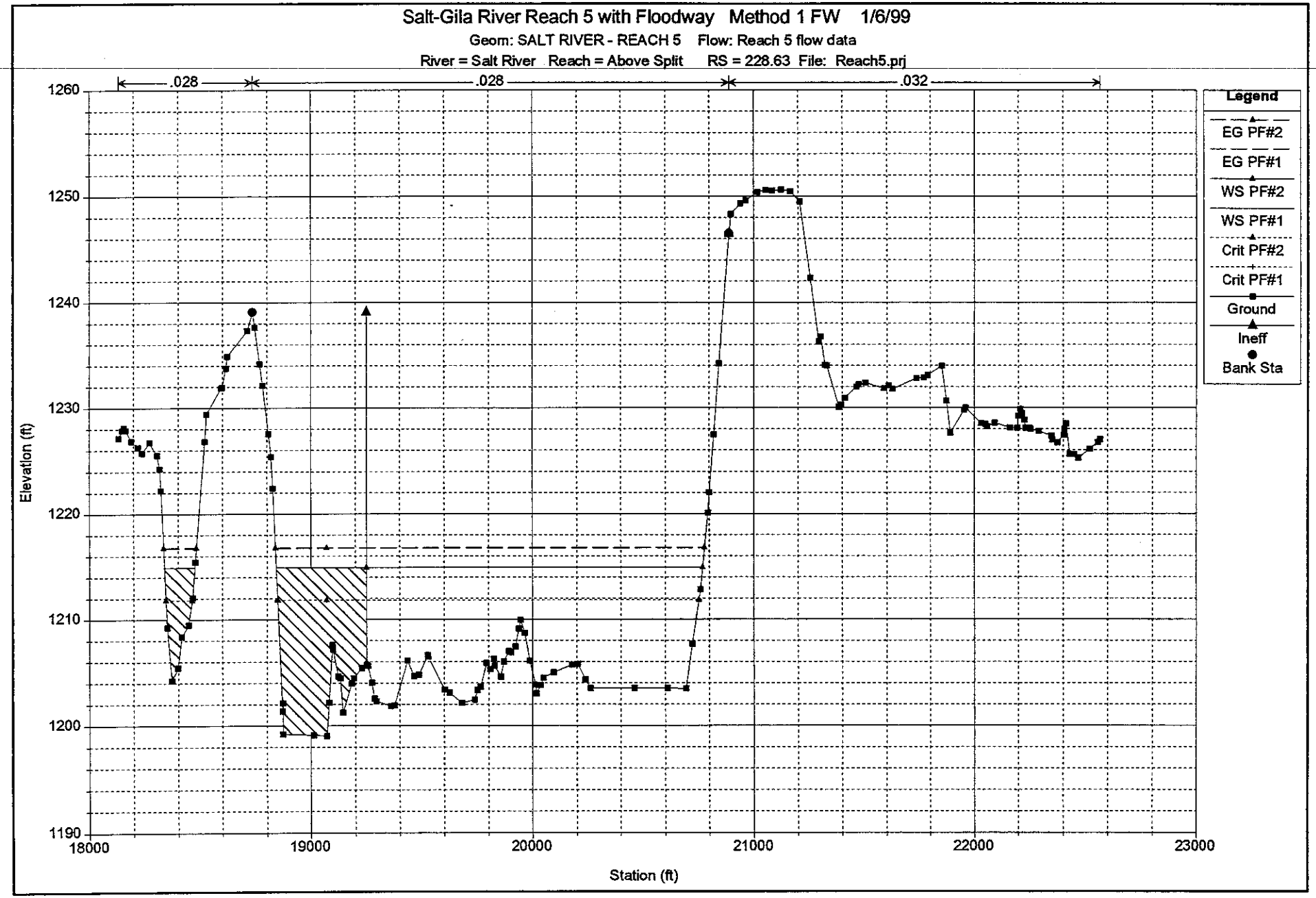

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 229.11 File: Reach5.prj
.032
.028
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Ground
Bank Sta
Elevation (ft)
1260
1250
1240
1230
1220
1210
1200
17000
18000
19000
20000
21000
22000
23000
Station (ft)

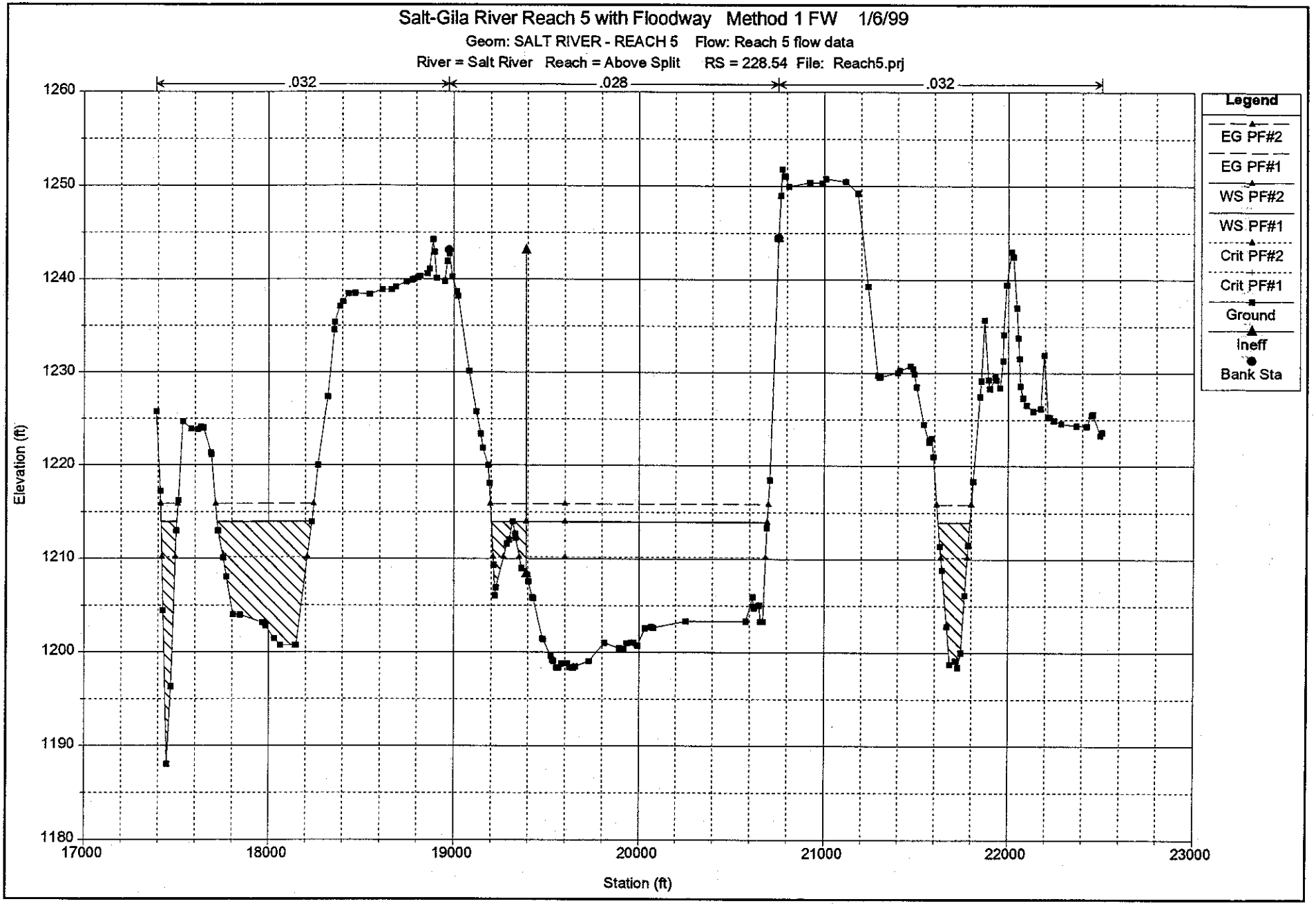

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 229.02 File: Reach5.prj
.032
.032
.028
.028
Legend
EG PF#2
EG PF#1
WS PF#1
WS PF#2
Ground
Bank Sta
Elevation (ft)
1260
1250
1240
1230
1220
1210
1200
17000
18000
19000
20000
21000
22000
23000
Station (ft)

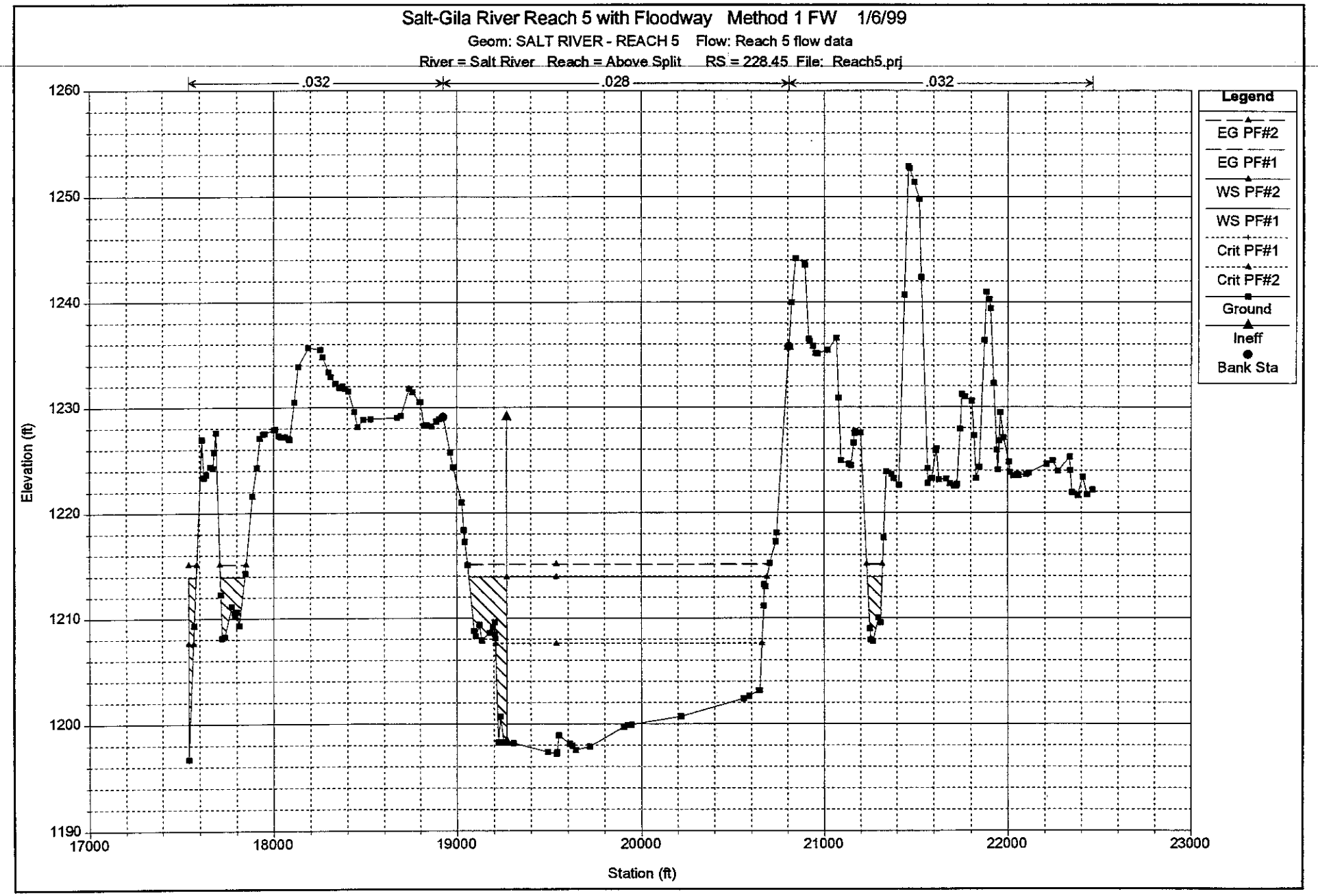

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 228.92 File: Reach5.prj
.032
.028
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Ground
Bank Sta
Elevation (ft)
1260
1250
1240
1230
1220
1210
1200
1190
18000
19000
20000
21000
22000
23000
Station (ft)

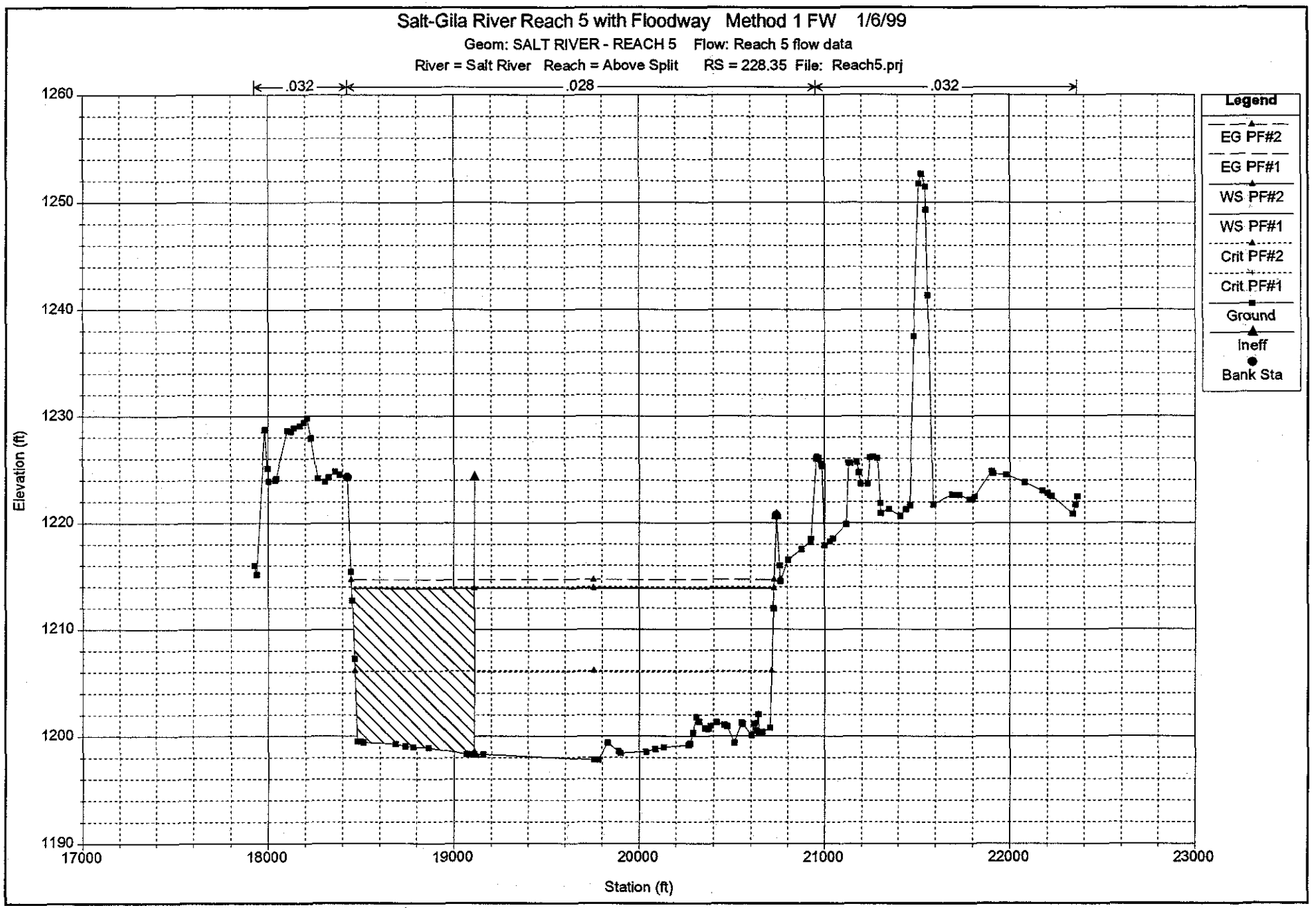

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 228.83 File: Reach5.prj
.032
.028
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Ground
Bank Sta
Elevation (ft)
1260
1250
1240
1230
1220
1210
1200
1190
18000
19000
20000
21000
22000
23000
Station (ft)

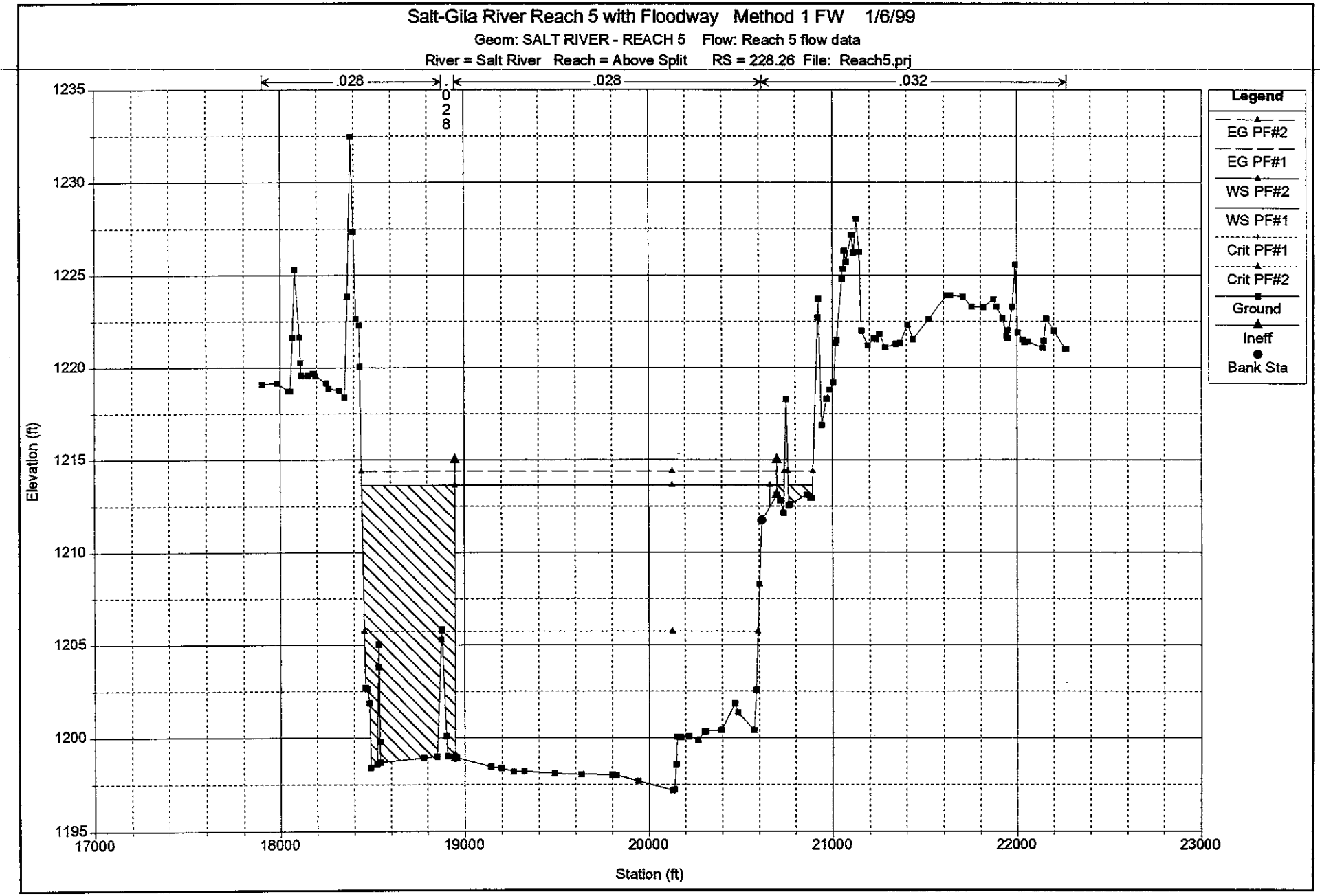

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 228.73 File: Reach5.prj
.032
.028
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Ground
Bank Sta
Elevation (ft)
1260
1250
1240
1230
1220
1210
1200
18000
19000
20000
21000
22000
23000
Station (ft)

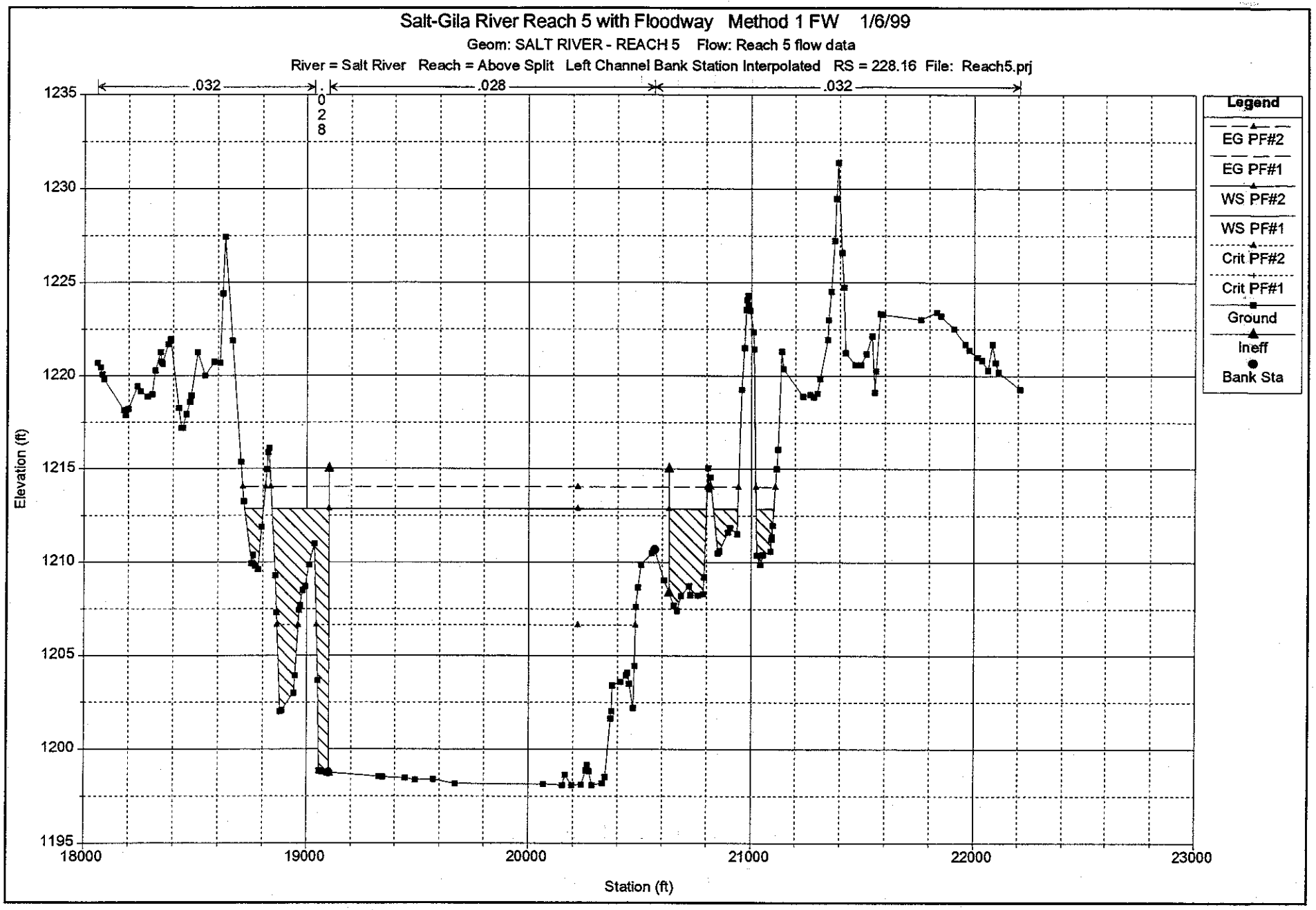

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 228.63 File: Reach5.prj
.028
.028
.032
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1260
1250
1240
1230
1220
1210
1200
1190
18000
19000
20000
21000
22000
23000
Station (ft)

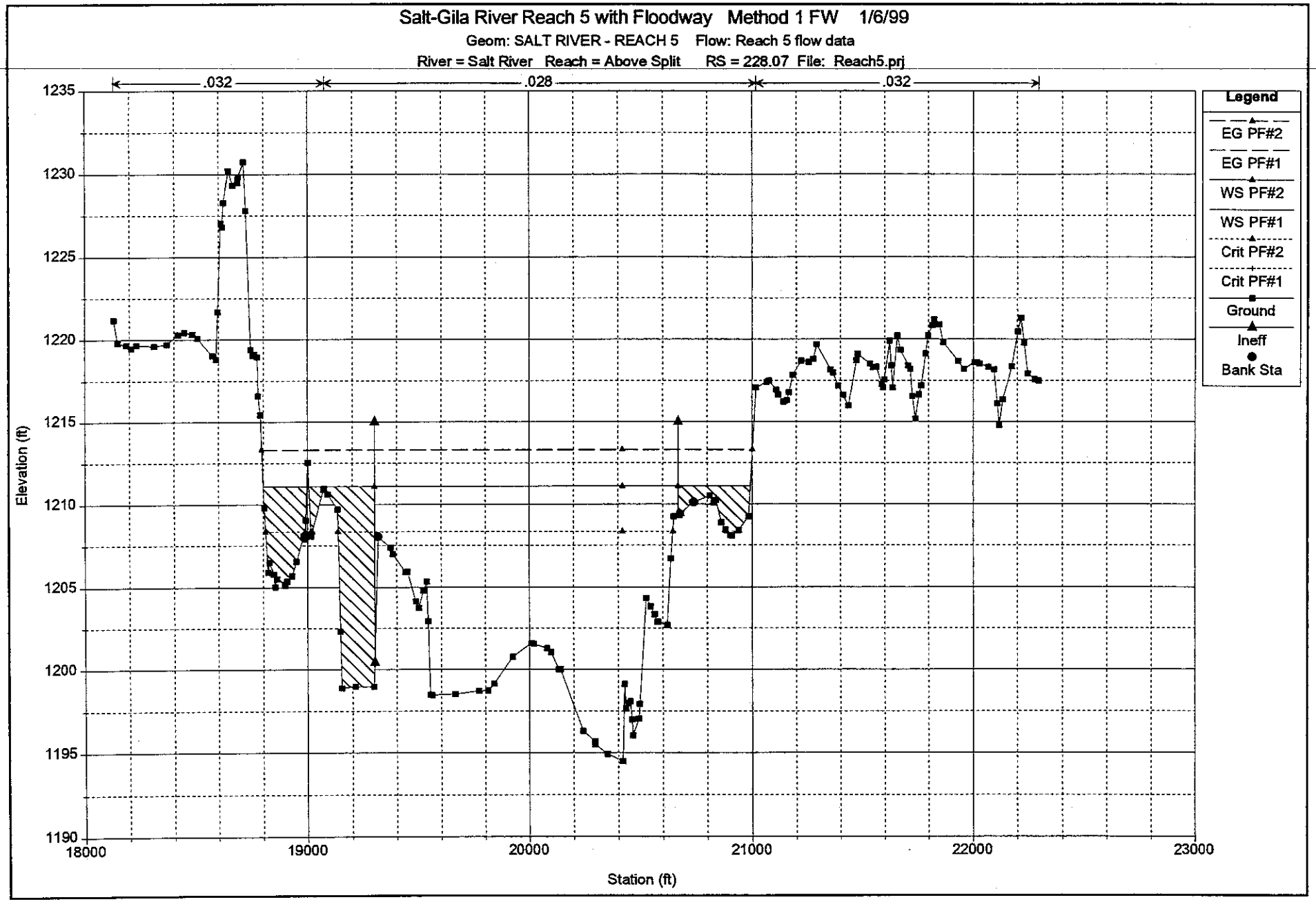

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 228.54 File: Reach5.prj
.032
.028
.032
Elevation (ft)
Station (ft)
1260
1250
1240
1230
1220
1210
1200
1190
1180
17000
18000
19000
20000
21000
22000
23000
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta

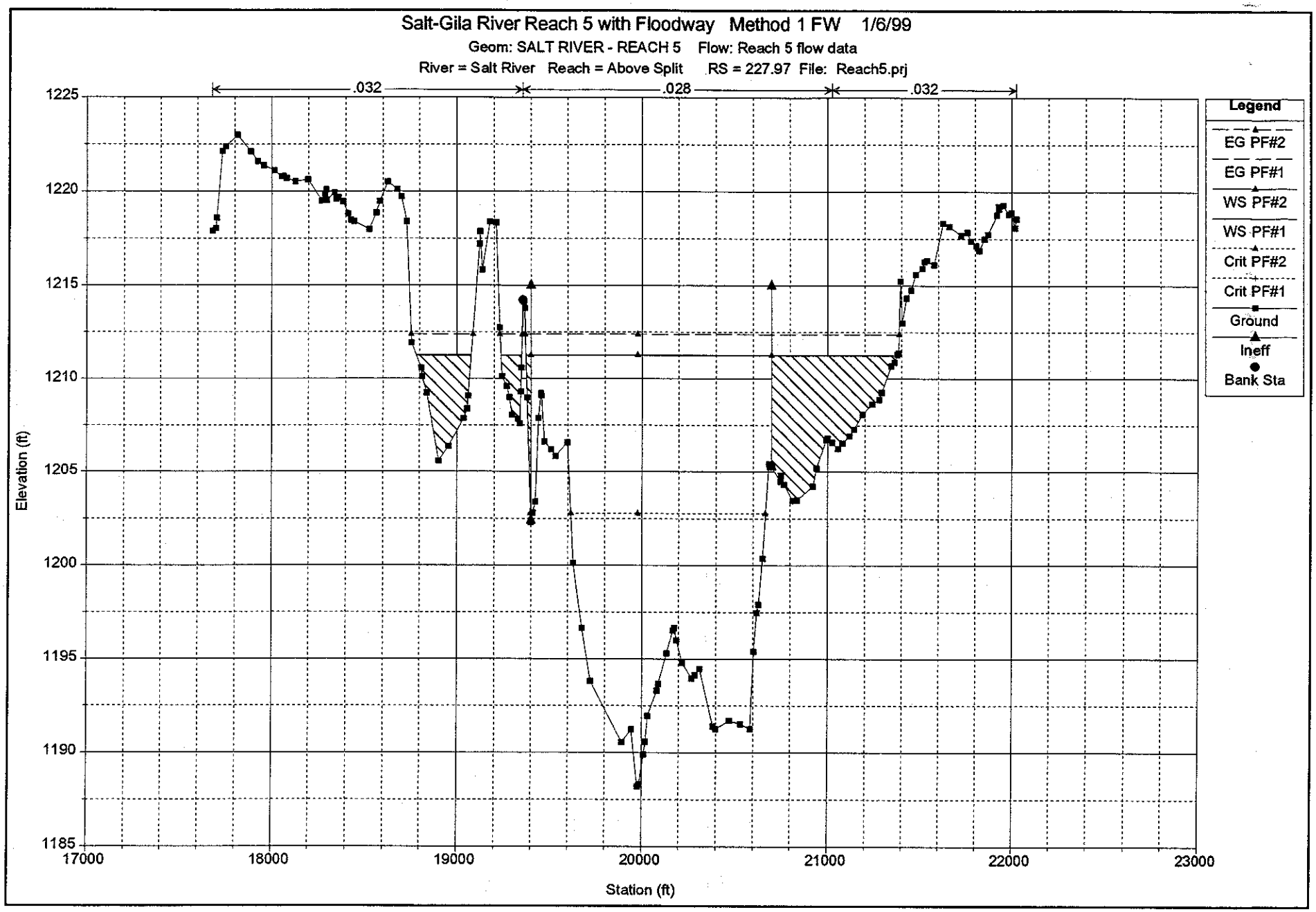

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 228.45 File: Reach5.prj
.032
.028
.032
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1260
1250
1240
1230
1220
1210
1200
1190
17000
18000
19000
20000
21000
22000
23000
Station (ft)

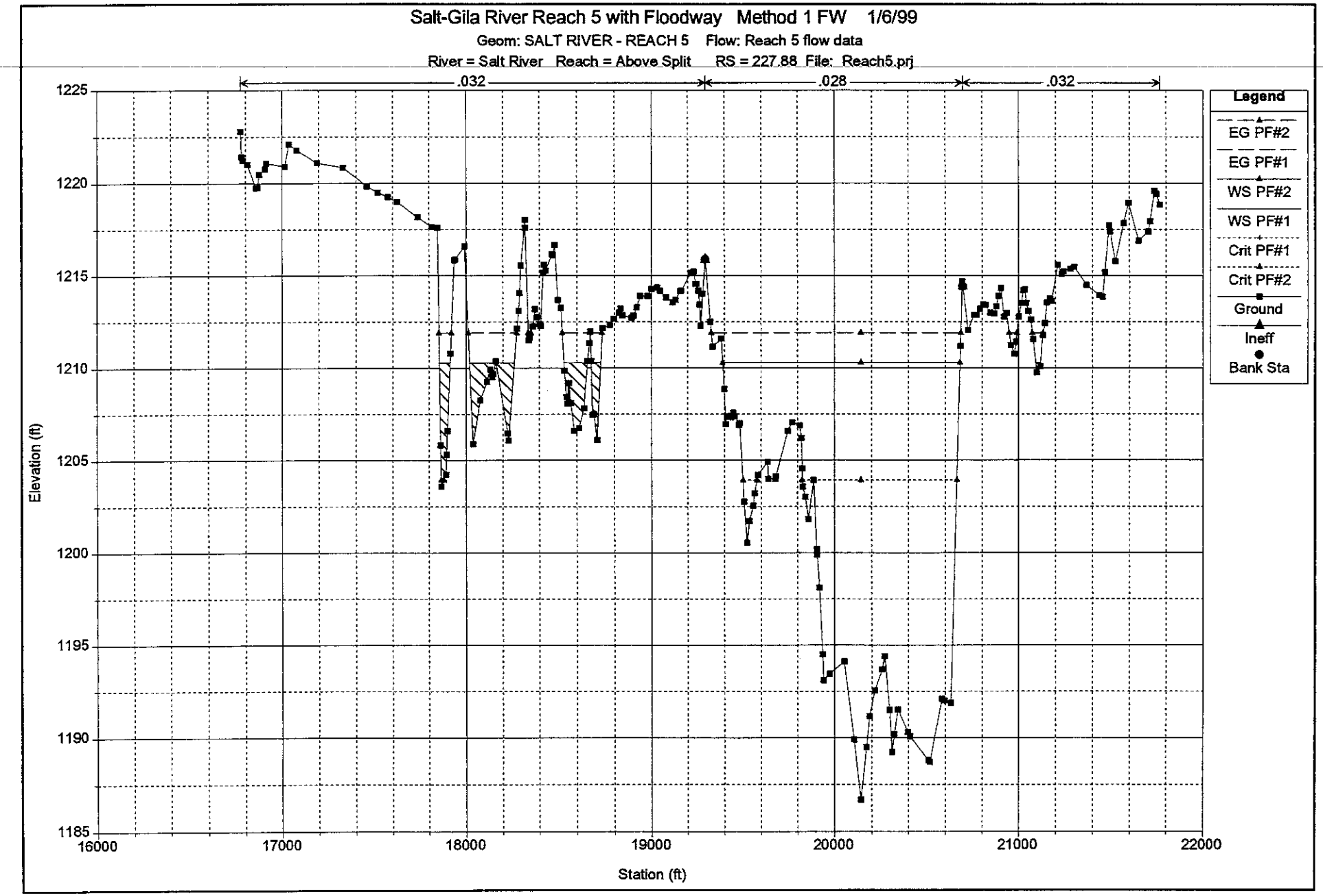

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 228.35 File: Reach5.prj
.032
.028
.032
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1260
1250
1240
1230
1220
1210
1200
1190
17000
18000
19000
20000
21000
22000
23000
Station (ft)

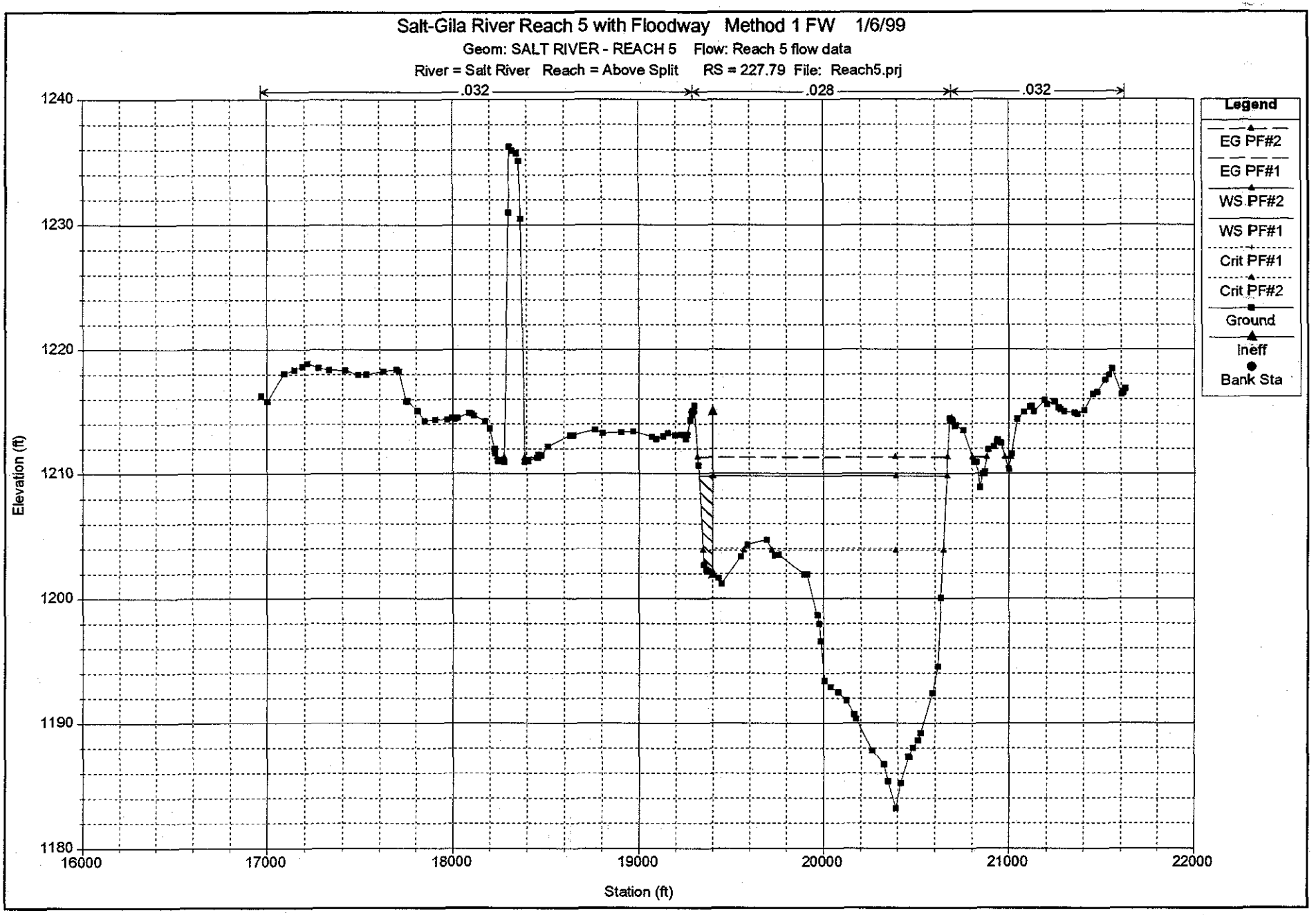

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 228.26 File: Reach5.prj
.028
.028
.028
.032
Elevation (ft)
Station (ft)
1235
1230
1225
1220
1215
1210
1205
1200
1195
17000
18000
19000
20000
21000
22000
23000
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta


Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split Left Channel Bank Station Interpolated RS = 228.16 File: Reach5.prj
.032
.028
.032
.028
Elevation (ft)
1235
1230
1225
1220
1215
1210
1205
1200
1195
18000
19000
20000
21000
22000
23000
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta


Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 228.07 File: Reach5.prj
.032
.028
.032
Elevation (ft)
1235
1230
1225
1220
1215
1210
1205
1200
1195
1190
18000
19000
20000
21000
22000
23000
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta


Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 227.97 File: Reach5.prj
.032
.028
.032
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (ft)
1225
1220
1215
1210
1205
1200
1195
1190
1185
17000
18000
19000
20000
21000
22000
23000
Station (ft)


Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 227.88 File: Reach5.prj
.032
.028
.032
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1225
1220
1215
1210
1205
1200
1195
1190
1185
16000
17000
18000
19000
20000
21000
22000
Station (ft)

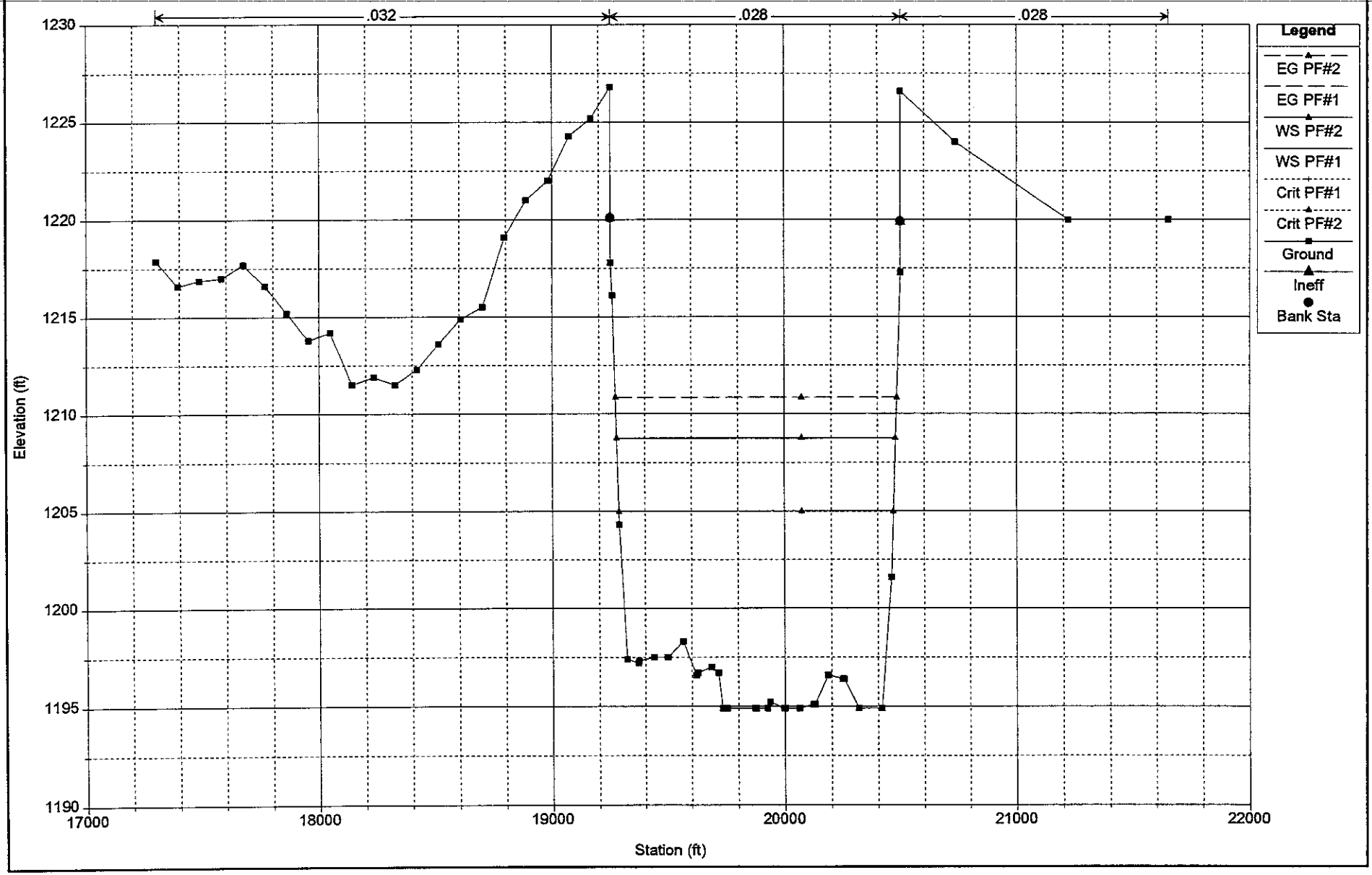

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 227.79 File: Reach5.prj
.032
.028
.032
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1240
1230
1220
1210
1200
1190
1180
16000
17000
18000
19000
20000
21000
22000
Station (ft)

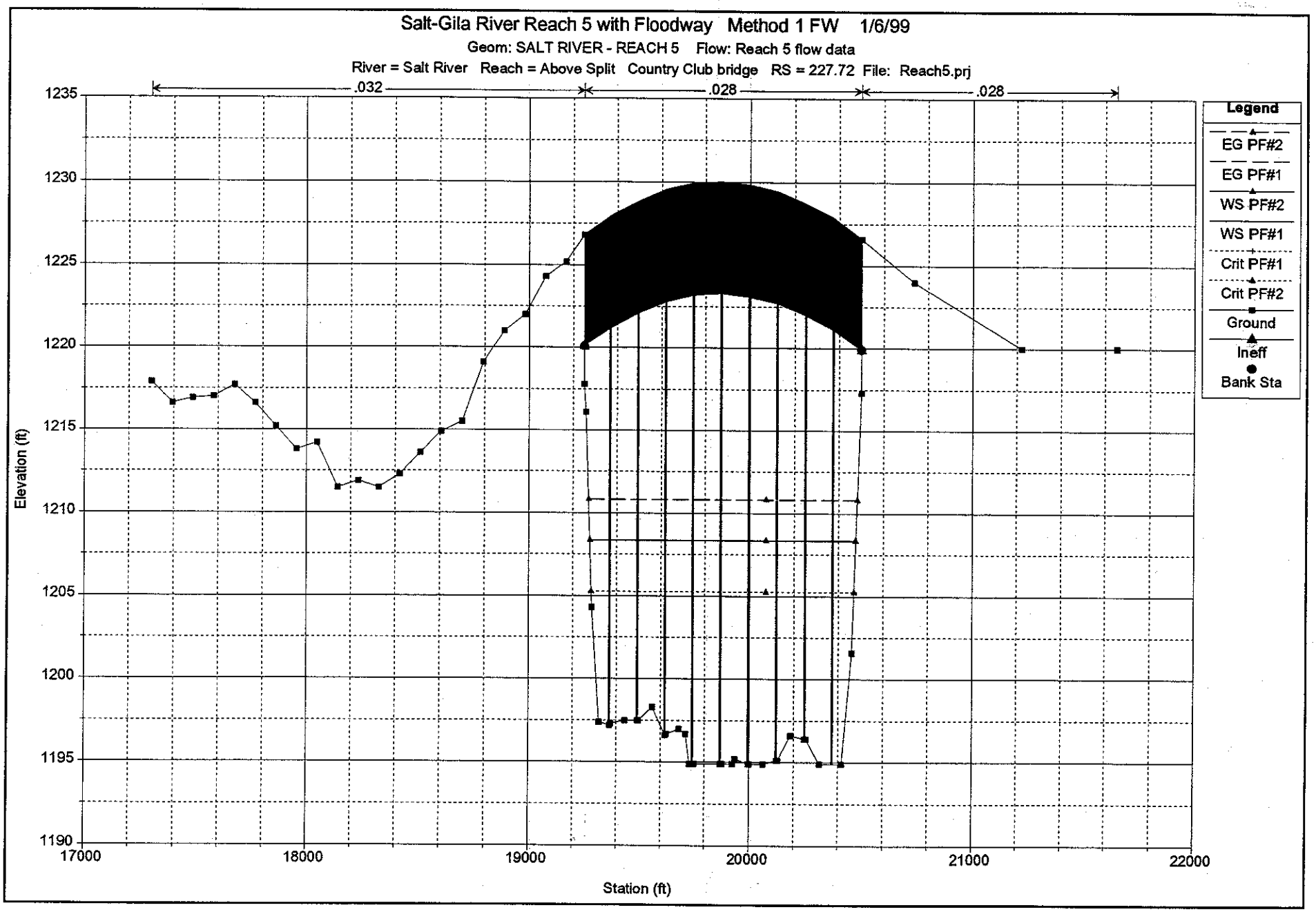
Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99

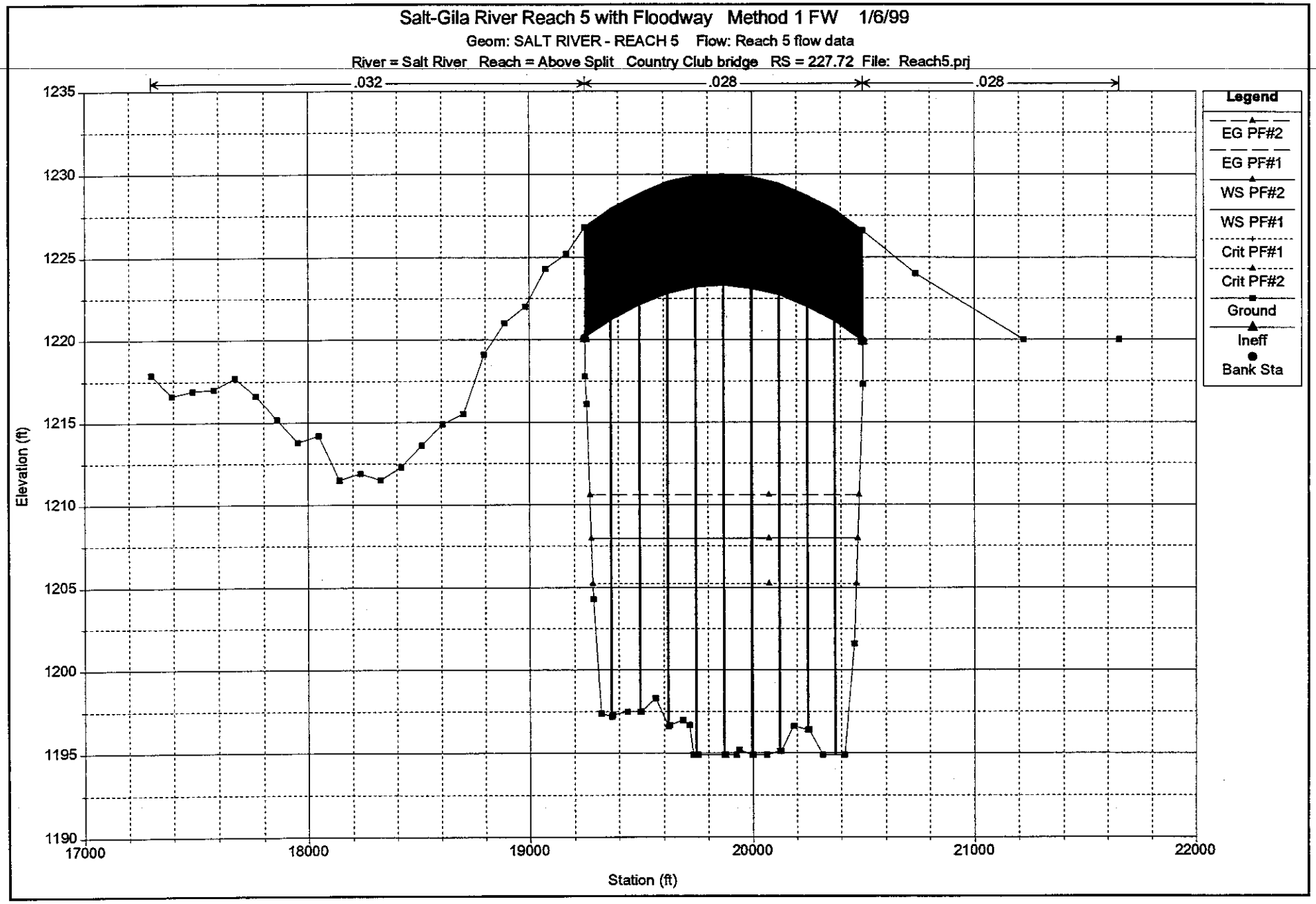
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data

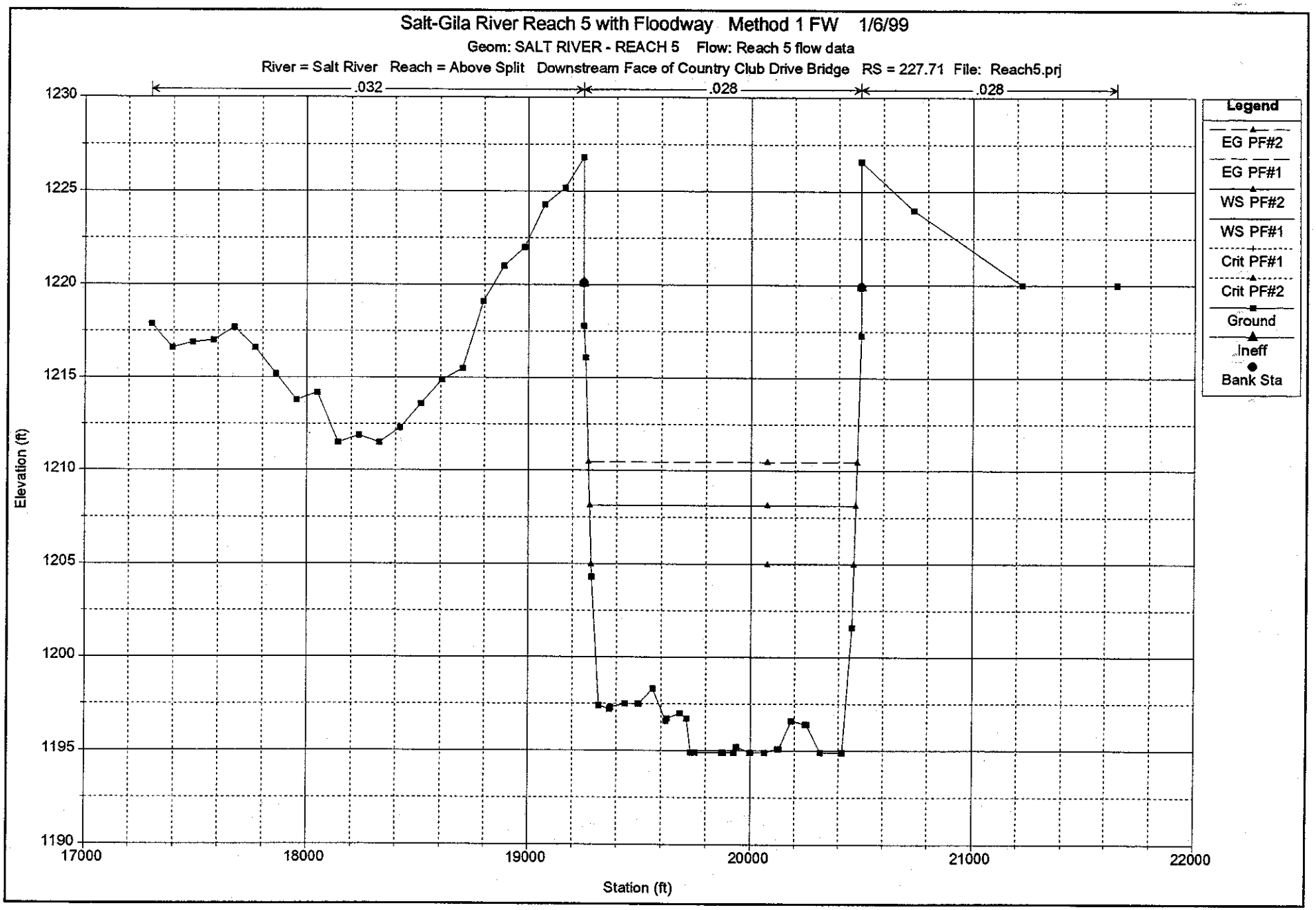
River = Salt River Reach = Above Split Upstream Face of Country Club Drive Bridge

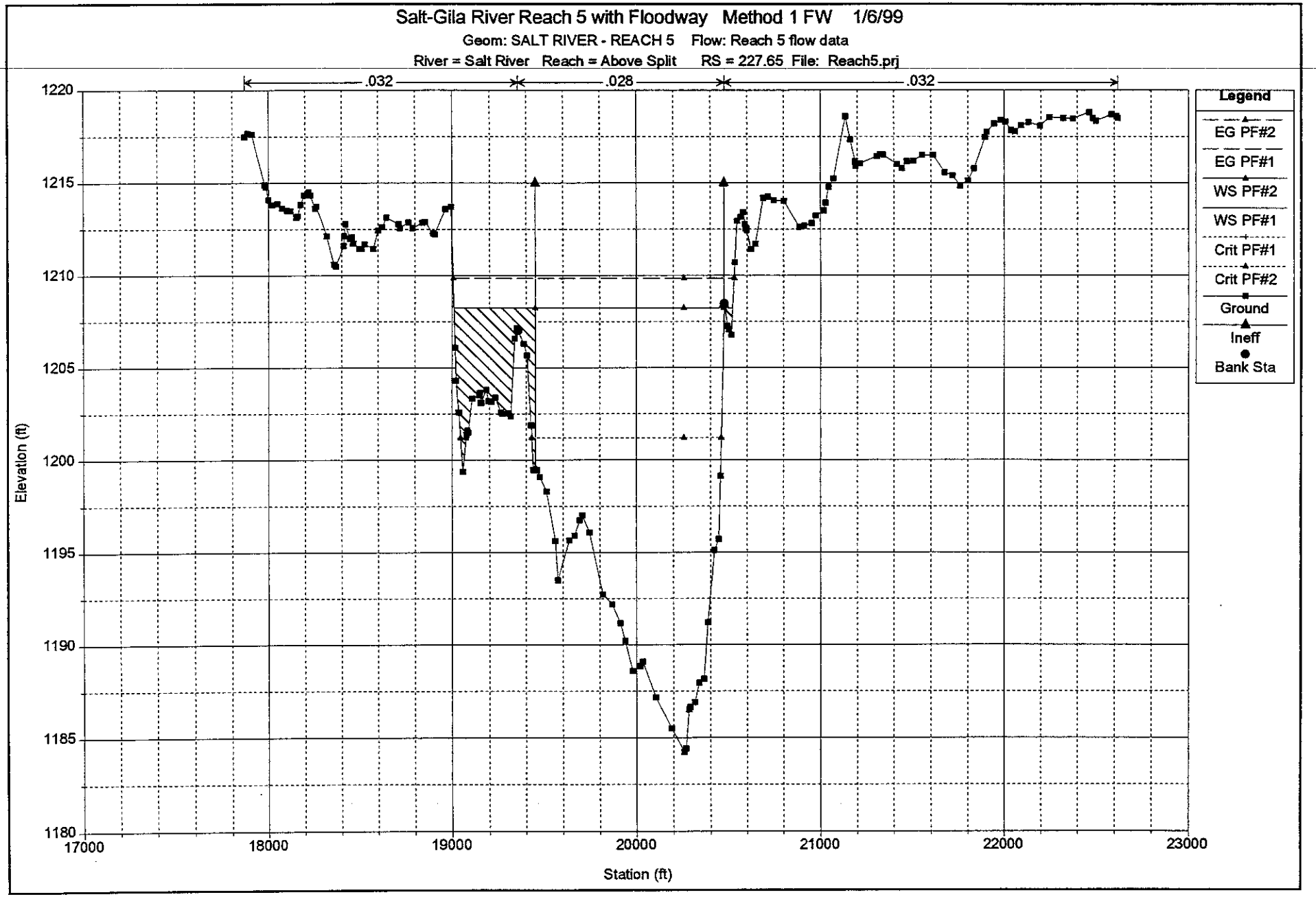
RS = 227.73 File: Reach5.prj

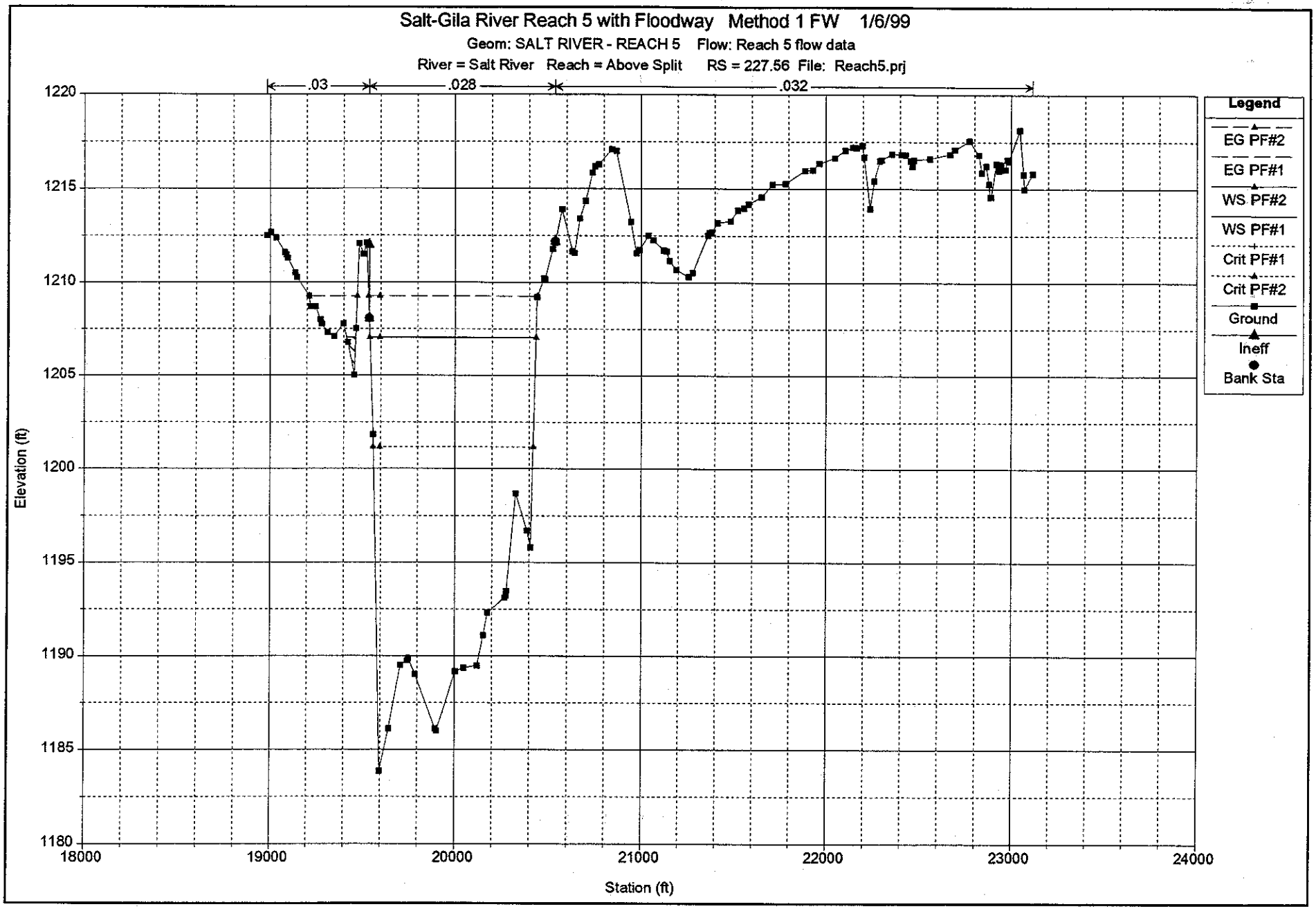


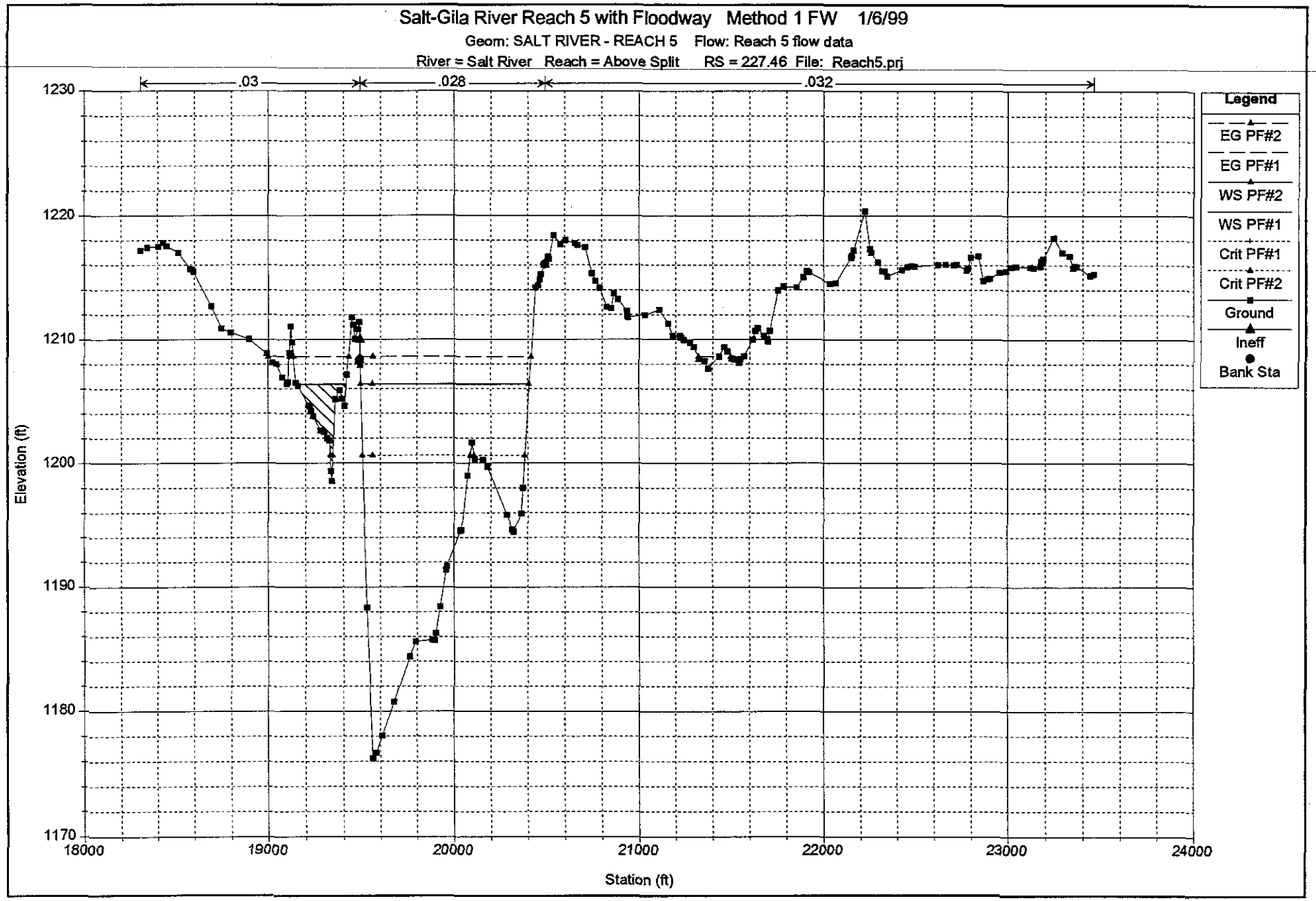

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split Country Club bridge RS = 227.72 File: Reach5.prj
.032
.028
.028
Elevation (ft)
1235
1230
1225
1220
1215
1210
1205
1200
1195
1190
17000
18000
19000
20000
21000
22000
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

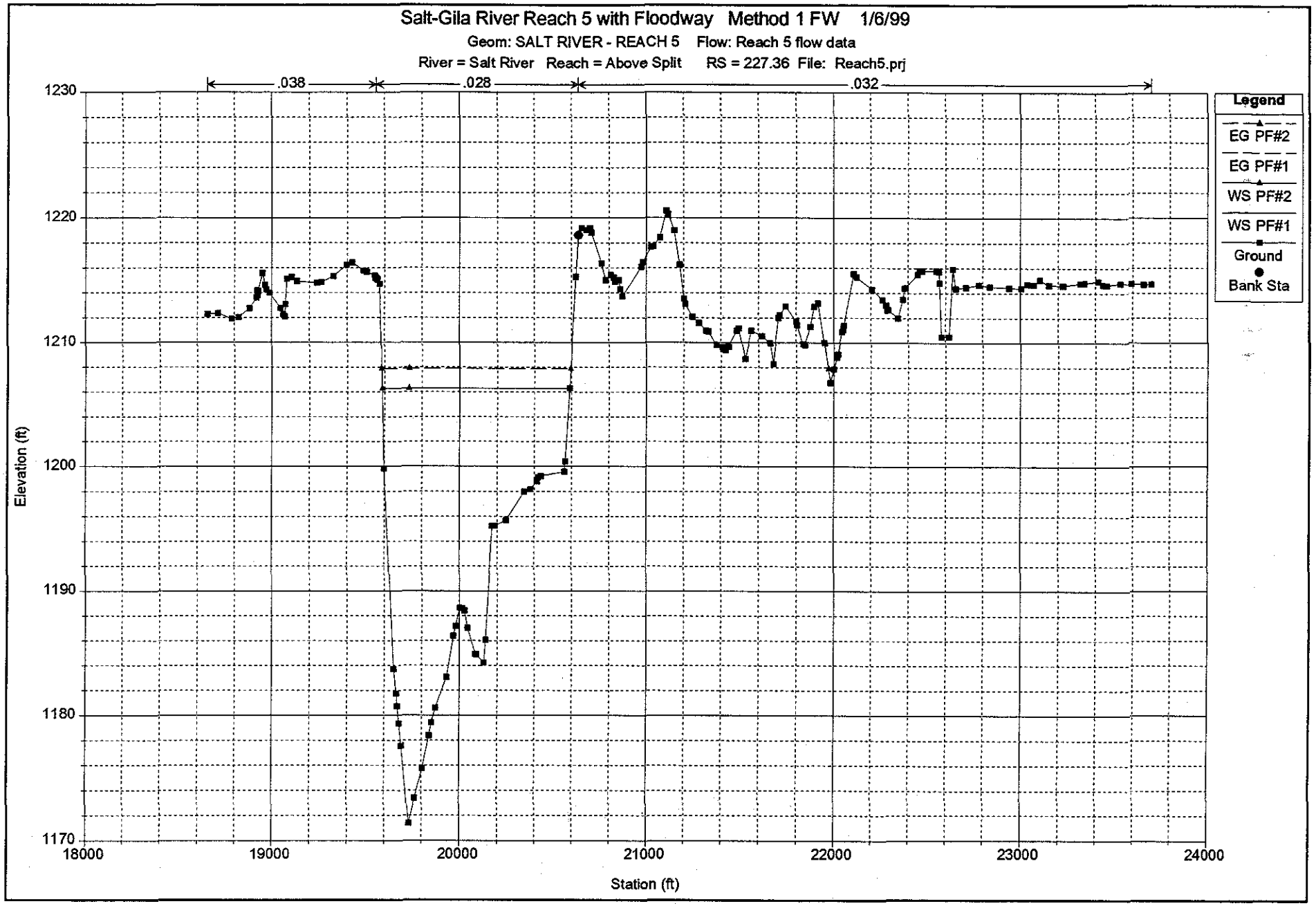

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split Country Club bridge RS = 227.72 File: Reach5.prj
.032
.028
.028
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1235
1230
1225
1220
1215
1210
1205
1200
1195
1190
17000
18000
19000
20000
21000
22000
Station (ft)

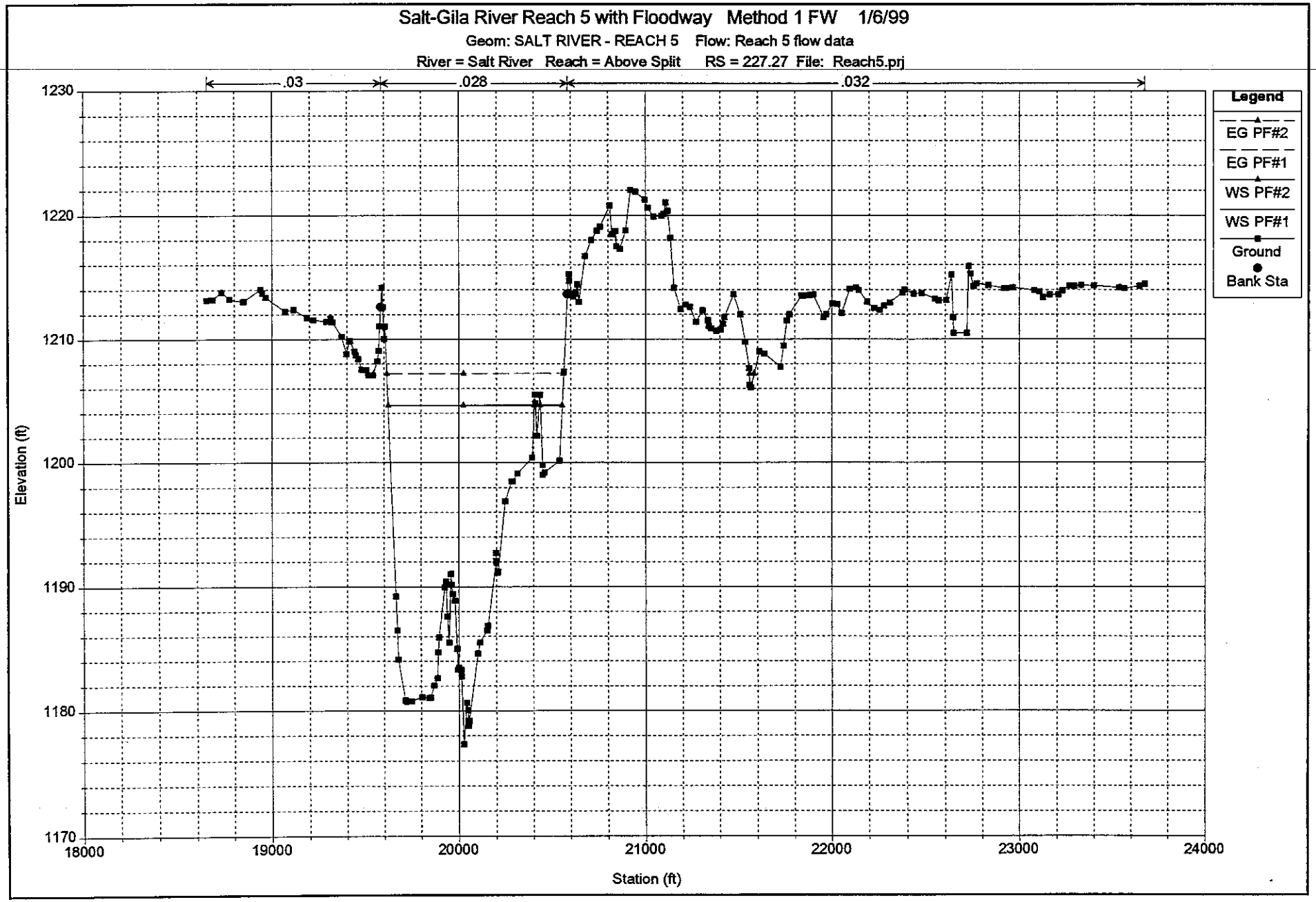

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split Downstream Face of Country Club Drive Bridge RS = 227.71 File: Reach5.prj
.032
.028
.028
Elevation (ft)
1230
1225
1220
1215
1210
1205
1200
1195
1190
17000
18000
19000
20000
21000
22000
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta

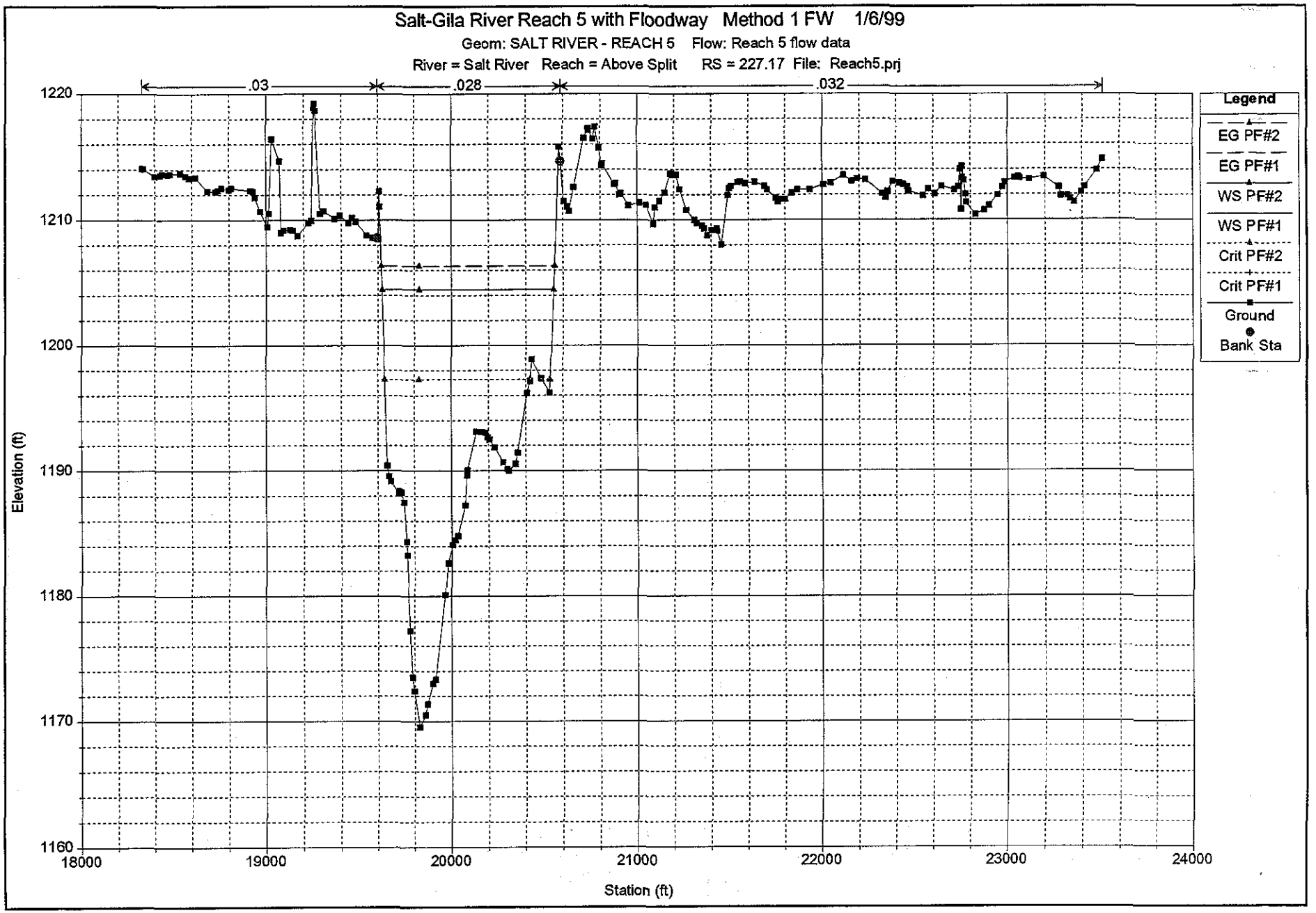

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 227.65 File: Reach5.prj
.032
.028
.032
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1220
1215
1210
1205
1200
1195
1190
1185
1180
17000
18000
19000
20000
21000
22000
23000
Station (ft)

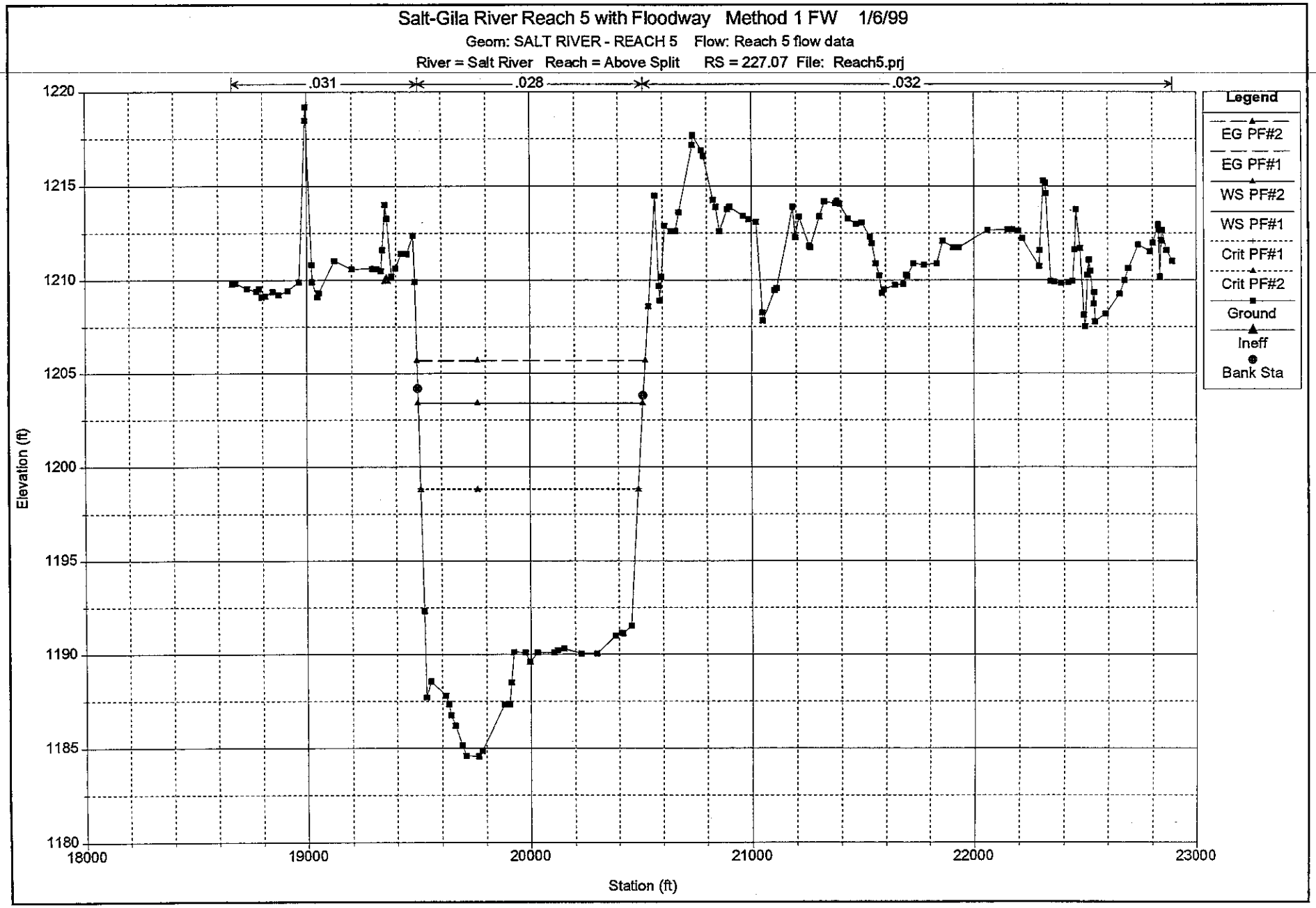

Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 227.56 File: Reach5.prj
.03
.028
.032
Elevation (ft)
1220
1215
1210
1205
1200
1195
1190
1185
1180
18000
19000
20000
21000
22000
23000
24000
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta


Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 227.46 File: Reach5.prj
.03
.028
.032
Elevation (ft)
1230
1220
1210
1200
1190
1180
1170
18000
19000
20000
21000
22000
23000
24000
Station (ft)
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta


Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 227.36 File: Reach5.prj
.038
.028
.032
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Ground
Bank Sta
Elevation (ft)
1230
1220
1210
1200
1190
1180
1170
18000
19000
20000
21000
22000
23000
24000
Station (ft)


Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 227.27 File: Reach5.prj
.03
.028
.032
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Ground
Bank Sta
Elevation (ft)
1230
1220
1210
1200
1190
1180
1170
18000
19000
20000
21000
22000
23000
24000
Station (ft)


Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 227.17 File: Reach5.prj
.03
.028
.032
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#2
Crit PF#1
Ground
Bank Sta
Elevation (ft)
1220
1210
1200
1190
1180
1170
1160
18000
19000
20000
21000
22000
23000
24000
Station (ft)


Salt-Gila River Reach 5 with Floodway Method 1 FW 1/6/99
Geom: SALT RIVER - REACH 5 Flow: Reach 5 flow data
River = Salt River Reach = Above Split RS = 227.07 File: Reach5.prj
.031
.028
.032
Legend
EG PF#2
EG PF#1
WS PF#2
WS PF#1
Crit PF#1
Crit PF#2
Ground
Ineff
Bank Sta
Elevation (ft)
1220
1215
1210
1205
1200
1195
1190
1185
1180
18000
19000
20000
21000
22000
23000
Station (ft)

HEC-RAS Version 2.1 October 1997
U.S. Army Corp of Engineers
Hydrologic Engineering Center
609 Second Street, Suite D
Davis, California 95616-4687
(916) 756-1104

```
X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X      X   X     X  X    X
X     X  X        X           X   X    X    X   X
XXXXXXX  XXXX     X       XXX XXXX     XXXXXX    XXXX
X     X  X        X           X  X     X    X        X
X     X  X        X    X      X   X    X    X        X
X     X  XXXXXX    XXXX       X    X   X    X   XXXXX
```

PROJECT DATA
Project Title: REACH2
Project File : reach2.prj
Run Date and Time: 1/26/99 9:20:52 AM

Project in English units

Project Description:
SALT GILA FLOODPLAIN DELINEATION

100 YEAR FLOW

REACH 1 - 2 - SECTIONS 178.61 - 199.82

PLAN DATA

Plan Title: Main Run w/ Method 1 Floodway
Plan File : c:\saltgila\diskette\revision 1\disk 1\unzipped\reach2.p01

Geometry Title: Salt Gila FDS - Reach 2
Geometry File : c:\saltgila\diskette\revision 1\disk 1\unzipped\reach2.g01

Flow Title : Main Run w/ Method 1 Floodway
Flow File : c:\saltgila\diskette\revision 1\disk 1\unzipped\reach2.f06

Plan Summary Information:
Number of: Cross Sections = 240 Mulitple Openings = 0
Culverts = 0 Inline Weirs = 0
Bridges = 5

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculaton tolerance = 0.01
Maximum number of interations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computational Flow Regime: Subcritical Flow

Encroachment Data
Equal Conveyance = True
Left Offset = 0
Right Offset = 0

River = RIVER-1 Reach = Reach-1

RS	Profile	Method	Value1	Value2
199.82	PF#2	1	16870	21650
199.72	PF#2	1	16975	22150
199.63	PF#2	1	17620	23150
199.53	PF#2	1	18150	23500
199.44	PF#2	1	18493.3	23570
199.34	PF#2	1	18931.28	23560
199.20	PF#2	1	19049.02	23620
199.195	PF#2	1	19067.41	23625
199.19	PF#2	1	19085.81	23630
199.07	PF#2	1	19030	22900
198.96	PF#2	1	18882	23020
198.86	PF#2	1	18775.5	23220
198.79	PF#2	1	18926.18	23400
198.73	PF#2	1	19013.92	23660
198.65	PF#2	1	18868.65	23720
198.59	PF#2	1	18713.88	23700
198.49	PF#2	1	18537.81	23450
198.4	PF#2	1	18487	23190
198.34	PF#2	1	18503.6	23000
198.3	PF#2	1	18604.74	22920
198.26	PF#2	1	18711.6	22890
198.2	PF#2	1	18811.5	22890
198.11	PF#2	1	18894.8	22900
198.02	PF#2	1	19036.4	22910
197.92	PF#2	1	19093	23004.6
197.83	PF#2	1	18995	23410
197.74	PF#2	1	18876.7	23780
197.64	PF#2	1	18742.8	23950
197.54	PF#2	1	18897.3	23940
197.45	PF#2	1	18961	23850
197.35	PF#2	1	19065	23721.33
197.26	PF#2	1	19000	23170
197.16	PF#2	1	18778.2	23075
197.07	PF#2	1	18790	22917.53
196.98	PF#2	1	18768.6	22741.2
196.88	PF#2	1	18697.5	22404
196.79	PF#2	1	18667.3	22147
196.7	PF#2	1	18435.6	22031
196.61	PF#2	1	18190	21975
196.51	PF#2	1	17920.6	21910
196.42	PF#2	1	17733.1	21780
196.32	PF#2	1	17673.4	21655
196.23	PF#2	1	17724.11	21574
196.13	PF#2	1	17919.7	21585
196.04	PF#2	1	18740.35	21690
195.94	PF#2	1	19536.61	21850
195.85	PF#2	1	19622.17	21670
195.75	PF#2	1	19500.6	21550
195.66	PF#2	1	19207.4	21480
195.56	PF#2	1	19147.59	21437.7
195.47	PF#2	1	19030.1	21435
195.38	PF#2	1	18956.3	21305.5
195.28	PF#2	1	18983.7	21105.9
195.19	PF#2	1	19044.34	20874.3
195.16	PF#2	1	19040.17	20811.55
195.145	PF#2	1	19040.38	20811.12
195.13	PF#2	1	19040.59	20810.68
195.09	PF#2	1	19034.28	20850.3
195	PF#2	1	18846.6	20978
194.91	PF#2	1	18830	21286.9
194.81	PF#2	1	18830.9	21544.5
194.72	PF#2	1	18832.62	21653.16
194.62	PF#2	1	18871.4	21793.5
194.53	PF#2	1	18928.9	22150
194.4	PF#2	1	19006.6	22130
194.29	PF#2	1	18949.5	21792
194.21	PF#2	1	19116.79	21259.81
194.195	PF#2	1	19119.94	21258.93
194.18	PF#2	1	19119.68	21258.75
194.09	PF#2	1	18944.9	21552
194.01	PF#2	1	18849.39	21911
193.93	PF#2	1	18740.43	22163.5
193.86	PF#2	1	18632.83	22115.51
193.78	PF#2	1	18611.02	22175.37
193.71	PF#2	1	18756.78	22187.72

193.65	PF#2	118945.23		22186
193.54	PF#2	1 19116.6		22292.2
193.45	PF#2	1 18978.92		22312.93
193.36	PF#2	118810.97		22351.3
193.24	PF#2	118708.77		22469.9
193.16	PF#2	118643.03		22543.9
193.07	PF#2	1 18646.8		22560.4
192.97	PF#2	1 18966.4		22539.5
192.88	PF#2	1 19219.4		22500.6
192.78	PF#2	1 19307.32		22232.61
192.69	PF#2	1 19322.8		22200
192.6	PF#2	1 19312.8		22220
192.51	PF#2	1 19234.6		22250
192.42	PF#2	1	19112	22330
192.33	PF#2	118918.23		22362.34
192.23	PF#2	1 18794.1		22480
192.13	PF#2	118683.83		22630
192.04	PF#2	1 18607.1		22775
191.94	PF#2	118561.44		22910
191.84	PF#2	1	18504	23055
191.75	PF#2	1	18451	23180
191.65	PF#2	1 18412.7		23380
191.55	PF#2	1 18357.1		23530
191.46	PF#2	1	18300	23859
191.36	PF#2	1 18312.3		24110
191.27	PF#2	1	18380	24251.8
191.17	PF#2	1	18400	24128.16
191.08	PF#2	1	18420	24101.12
190.99	PF#2	1 18442.1		23868.5
190.89	PF#2	1	18475	23830
190.8	PF#2	1	18500	23724
190.71	PF#2	1	18470	23630
190.62	PF#2	1	18250	23480
190.53	PF#2	1	18270	23320.3
190.43	PF#2	1	18260	23288.9
190.34	PF#2	1 18228.7		23008.4
190.24	PF#2	1 18289.2		22894
190.15	PF#2	1 18294.6		22803
190.05	PF#2	1 18275.3		22800
189.96	PF#2	1 18393.4		22800
189.87	PF#2	118427.66		22820
189.77	PF#2	1 18347.5		22800
189.68	PF#2	1 18153.7		22770
189.58	PF#2	1 18198.8		22950
189.49	PF#2	1 18302.2		23200
189.39	PF#2	1	18350	23350
189.31	PF#2	118345.35		23390
189.22	PF#2	118287.82		23480
189.12	PF#2	1 18174.4		23580
189.02	PF#2	1 17828.4		23700
188.81	PF#2	1 17654.8		23780
188.7	PF#2	117705.12		23720
188.59	PF#2	1 17764.8		23640
188.5	PF#2	117985.99		23450
188.39	PF#2	118219.99		23400
188.29	PF#2	118370.74		23300
188.2	PF#2	1	18700	23250
188.1	PF#2	118969.12		23230
188.07	PF#2	119107.54		23150
188.055	PF#2	119107.53		23150
188.04	PF#2	119107.51		23100
188	PF#2	119064.73		23010
187.91	PF#2	1 19105.1		22800
187.82	PF#2	1 19134.4		22580
187.73	PF#2	1 19064.3		22350
187.64	PF#2	1 19149.8		22110
187.54	PF#2	1	19070	22000
187.45	PF#2	1 19030.1		21860
187.36	PF#2	1 18951.6		21674.6
187.24	PF#2	1	18963	21550
187.15	PF#2	1 18686.6		21500
187.06	PF#2	118358.98		21542
186.97	PF#2	1 18218.2		21504.1
186.87	PF#2	1	18303	21605.4
186.78	PF#2	1 18388.5		21612
186.69	PF#2	1 18253.9		21625.2

186.61	PF#2	1	18241.6	21735.6
186.55	PF#2	1	18128.8	21951.3
186.46	PF#2	1	18200	22181.4
186.36	PF#2	1	18274.1	22369.4
186.27	PF#2	1	18366.9	22476.8
186.19	PF#2	1	18448.2	22594.2
186.1	PF#2	1	18575.7	22759.4
186	PF#2	1	18592.8	22869
185.9	PF#2	1	18520	22863.3
185.81	PF#2	1	18373.8	22919.8
185.71	PF#2	1	18280	22968.6
185.61	PF#2	1	18200	23059.3
185.53	PF#2	1	18161.4	23170.43
185.46	PF#2	1	18131.7	23089.09
185.38	PF#2	1	18000	23012.09
185.28	PF#2	1	17842.7	23018.19
185.19	PF#2	1	17695.7	23131.1
185.1	PF#2	1	17609.35	23454.3
185	PF#2	1	17660.52	23545
184.9	PF#2	1	17670.88	23562.89
184.81	PF#2	1	17821.42	23474.02
184.71	PF#2	1	17970	23322.87
184.62	PF#2	1	18075.53	23309.88
184.53	PF#2	1	18397.5	23333.63
184.43	PF#2	1	19038.65	23230.48
184.33	PF#2	1	19270.5	23135
184.24	PF#2	1	19272.7	23074.94
184.14	PF#2	1	18997.92	22992.19
184.05	PF#2	1	19001.44	23034.63
183.96	PF#2	1	19050	23016.07
183.86	PF#2	1	19063.3	22939
183.77	PF#2	1	19179.66	23107.11
183.67	PF#2	1	19240.75	23317.77
183.58	PF#2	1	19221.92	23499.93
183.49	PF#2	1	19202.77	23299
183.39	PF#2	1	19122.62	22966
183.3	PF#2	1	18984.3	22879
183.2	PF#2	1	18909.13	22943
183.11	PF#2	1	18793.1	22986.4
183.02	PF#2	1	18635.99	22918.2
182.92	PF#2	1	18472.69	23005.5
182.83	PF#2	1	18416.67	23059
182.74	PF#2	1	18369.84	23050
182.64	PF#2	1	18459.7	23105.1
182.55	PF#2	1	18958.25	23256
182.45	PF#2	1	19261.6	23500
182.36	PF#2	1	19396.16	23830
182.27	PF#2	1	19311.71	24340
182.17	PF#2	1	19270	24600
182.08	PF#2	1	19030	24740
181.99	PF#2	1	18843.32	24720
181.9	PF#2	1	18610.12	24725
181.82	PF#2	1	18275.59	24700
181.74	PF#2	1	18120.49	24680
181.62	PF#2	1	18118.4	24590
181.51	PF#2	1	18051.8	24575
181.41	PF#2	1	17870	24680
181.32	PF#2	1	17780	24890
181.23	PF#2	1	17460	25150
181.13	PF#2	1	17240	25250
181.04	PF#2	1	17190	25330
180.99	PF#2	1	17270	25380
180.94	PF#2	1	17400	25450
180.85	PF#2	1	17920	25575
180.75	PF#2	1	18369.82	25570
180.65	PF#2	1	18730	25265
180.56	PF#2	1	19038.5	25110
180.47	PF#2	1	19223.5	24880
180.37	PF#2	1	19327.4	24593
180.28	PF#2	1	19401.3	24129
180.18	PF#2	1	19471.8	23646
180.09	PF#2	1	19537.6	23167.8
180.06	PF#2	1	19544.3	23004
180.04	PF#2	1	19246.4	22856.02
180.025	PF#2	1	19247.2	22855.19
180.01	PF#2	1	19247.7	22854.71

179.91	PF#2	1	19217.5	22890
179.84	PF#2	1	18983.3	22930
179.76	PF#2	1	18767.9	22920
179.68	PF#2	1	18300.2	22885
179.59	PF#2	1	17865.2	22875
179.5	PF#2	1	17842.36	22835
179.4	PF#2	1	17787.45	22800
179.35	PF#2	1	17644.33	22810
179.3	PF#2	1	17573.63	22800
179.25	PF#2	1	17526.64	22770
179.2	PF#2	1	17494.25	22735
179.11	PF#2	1	17591.99	22720
179.03	PF#2	1	17770.59	22705
178.95	PF#2	1	18048.56	22745
178.86	PF#2	1	18230	22860
178.77	PF#2	1	18330	22990
178.68	PF#2	1	18358.32	3087.26
178.61	PF#2	1	18365.7	23215

FLOW DATA

Flow Title: Main Run w/ Method 1 Floodway
Flow File : c:\saltgila\diskette\revision 1\disk 1\unzipped\reach2.f06

Flow Data (cfs)

River	Reach	RS	PF#1	PF#2
RIVER-1	Reach-1	199.82	179750	179750
RIVER-1	Reach-1	199.72	195500	195500
RIVER-1	Reach-1	199.53	211250	211250
RIVER-1	Reach-1	199.44	227000	227000
RIVER-1	Reach-1	186.1	210000	210000

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
RIVER-1	Reach-1	PF#1		Normal S = .000693
RIVER-1	Reach-1	PF#2		Known WS = 815.98

GEOMETRY DATA

Geometry Title: Salt Gila FDS - Reach 2
Geometry File : c:\saltgila\diskette\revision 1\disk 1\unzipped\reach2.g01

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 199.82

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14626.5	957.7	14665	955.3	14714.8	947.7	14731.9	943.6	14878.2	942.2
15038.4	942.1	15177.1	942.1	15312	942.9	15442.8	943.5	15572.5	942.6
15710.4	942.1	15843.3	942.2	15981.6	942	16111.7	941.9	16269.4	941.3
16337.7	941.1	16490	941.8	16647.8	941.2	16807.1	940.1	16870	940.1
16937.5	940.1	17070.8	940.1	17202.5	940.1	17339.2	940.1	17503.8	940.1
17635.5	940.1	17774.7	939.1	17955.5	939.8	18107	939.8	18236.3	940.2
18376.6	941.1	18554.9	941.8	18684.9	940.6	18768.3	940	18787.7	931.4
18818.1	931.2	18845.4	938.1	18894.5	940	19032.4	940.6	19165.1	939.3
19236.6	938.1	19354.5	941.6	19458.6	938.6	20124.2	939.3	20322.3	939.2
20533.6	938.6	20766.2	939.3	20910.7	936.7	20926	937.9	21009.9	936.6
21146.9	939.7	21241.8	942.2	21405.4	944.5	21551.8	945.7	21756.1	945.8
21937.2	945.7	22121.7	945.7	22347.1	945.6	22491.6	945.9	22657.2	946.2
22790.5	945.6	22925.1	946.5	23055.8	946.4	23218.3	946.1	23364.5	946.1
23514.8	945.8	23642	948.2	23655.7	947.2	23663.6	949.2	23669.7	947
23724.8	949.5	23780.9	946.5	23947	945	24077.1	944.4	24199.5	945.5

24210.3	943.6	24214.2	944.9	24354.9	943.6	24545.8	943	24742.9	943.3
24928.6	944	25002.7	943.7	25010.2	942.2	25023.6	945.4	25153.6	945.8
25304.8	946.9	25434.7	948.1	25588.5	950.5	25663.5	951.7	25798.3	956.3
25810.1	957.9	25834.3	954.9	25859.3	957.7	25991.9	960.7	26149.5	962.1
26241.6	962.1	26277	964.4						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14626.5	.15	18554.9	.15	19165.1	.065	21405.4	.025	23724.8	.053
25002.7	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
16870	21405.4	510	509.99	510	.1	.3

Ineffective Flow num= 3

Sta L	Sta R	Elev	Sta L	Sta R	Elev	Sta L	Sta R	Elev
14626.5	16870	960	21650	22900	960	25350	26120	960

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	948.90	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.19	Wt. n-Val.		0.089	0.039
E.G. Elev (ft)	949.09	Reach Len. (ft)	510.00	509.99	510.00
Crit W.S. (ft)	943.26	Flow Area (sq ft)		42042.36	9724.74
E.G. Slope (ft/ft)	0.002009	Area (sq ft)	14818.94	42042.36	13717.27
Q Total (cfs)	179750.00	Flow (cfs)		138934.91	40815.09
Top Width (ft)	10752.38	Top Width (ft)	2163.05	4535.40	4053.93
Vel Total (ft/s)	3.47	Avg. Vel. (ft/s)		3.30	4.20
Max Chl Dpth (ft)	17.70	Hydr. Depth (ft)		9.27	3.64
Conv. Total (cfs)	4010755.0	Conv. (cfs)		3100049.5	910705.6
Length Wtd. (ft)	509.99	Wetted Per. (ft)		4538.41	2669.71
Min Ch El (ft)	931.20	Shear (lb/sq ft)		1.16	0.46
Alpha	1.03	Stream Power (lb/ft s)		3.84	1.92
Frctn Loss (ft)	0.64	Cum Volume (acre-ft)	8028.49	85897.98	30357.49
C & E Loss (ft)	0.01	Cum SA (acres)	2099.74	9041.15	9367.47

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	949.90	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.24	Wt. n-Val.		0.089	0.025
E.G. Elev (ft)	950.14	Reach Len. (ft)	510.00	509.99	510.00
Crit W.S. (ft)	943.22	Flow Area (sq ft)		46580.80	1112.57
E.G. Slope (ft/ft)	0.002185	Area (sq ft)		46580.80	1112.57
Q Total (cfs)	179750.00	Flow (cfs)		171358.63	8391.37
Top Width (ft)	4780.00	Top Width (ft)		4535.40	244.60
Vel Total (ft/s)	3.77	Avg. Vel. (ft/s)		3.68	7.54
Max Chl Dpth (ft)	18.70	Hydr. Depth (ft)		10.27	4.55
Conv. Total (cfs)	3845196.8	Conv. (cfs)		3665689.3	179507.4
Length Wtd. (ft)	509.99	Wetted Per. (ft)		4548.21	248.76
Min Ch El (ft)	931.20	Shear (lb/sq ft)		1.40	0.61
Alpha	1.10	Stream Power (lb/ft s)		5.14	4.60
Frctn Loss (ft)	0.65	Cum Volume (acre-ft)	943.90	90546.83	11056.55
C & E Loss (ft)	0.01	Cum SA (acres)	169.68	9049.41	1809.12

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16870.00 LB	18003.85	19517.79	10177.69	1133.85	10.86	8.98	1.92
18003.85	19137.70	19143.06	10069.67	1136.59	10.65	8.88	1.90
19137.70	20271.55	50690.45	11012.69	1133.96	28.20	9.71	4.60
20271.55	21405.40 RB	49583.62	10782.31	1134.02	27.58	9.51	4.60
21405.40	21730.17	5272.83	867.80	244.60	2.93	3.55	6.08
21730.17	22704.49						
22704.49	23029.27	1500.13	316.29	129.27	0.83	2.45	4.74
23029.27	23354.04	4435.75	876.24	324.77	2.47	2.70	5.06

23354.04	23678.81	3481.75	756.42	323.36	1.94	2.34	4.60
23678.81	24003.59	2117.59	829.00	300.37	1.18	2.76	2.55
24003.59	24328.36	4474.62	1383.26	325.16	2.49	4.26	3.23
24328.36	24653.13	7142.46	1830.42	324.78	3.97	5.64	3.90
24653.13	24977.91	6499.81	1729.75	324.78	3.62	5.33	3.76
24977.91	25302.68	5561.16	1050.42	325.30	3.09	3.23	5.29
25302.68	25627.45	328.99	85.14	47.32	0.18	1.80	3.86

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16870.00 LB	18003.85	24140.89	11312.30	1143.65	13.43	9.98	2.13
18003.85	19137.70	23856.35	11204.29	1136.59	13.27	9.88	2.13
19137.70	20271.55	62257.34	12147.30	1133.96	34.64	10.71	5.13
20271.55	21405.40 RB	61104.04	11916.92	1134.02	33.99	10.51	5.13
21405.40	21730.17	8391.37	1112.57	248.76	4.67	4.55	7.54

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 199.72

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14625.6	954.4	14714.1	948.9	14882.2	946.7	14963.2	948.4	15079.7	950.2
15210.4	946.5	15356.1	946.8	15504	946.6	15653.6	944.1	15797.4	941.8
15950.6	941.2	16098.5	941.1	16257.1	941	16400.7	941.1	16589.9	940
16721.9	941.3	16884.9	941.6	16975	941.5	311 17015.6	941.5	17152.1	940.9
17296.8	940.5	17431.9	940	17569.4	940.7	17728.2	939.1	17922.7	938.1
18091.5	938.1	18224	939.1	18358.4	939.1	18506.1	939.6	18650.7	939.1
18802.3	939	18842.5	938.5	18853.2	930.9	18879.6	930.6	18930.9	938
19167.5	936.7	19275.2	943.6	19443.1	940	19616.2	937.9	19812	935.7
20165.4	936.7	20400.6	936.9	20553.6	935	20580.5	934	20640.7	942.5
20797.9	940.4	20865.6	939.8	20971.6	940.5	21027.6	937	21198.3	935.7
21330.5	935.4	21461.5	937	21603.2	935.7	21644.9	943.2	21821.3	945.2
21997.5	945.2	22167.7	945.2	22315.7	945.3	22466.5	945.4	22607	945.4
22745.2	945.3	22886.4	944.7	22930.3	944.4	22974.1	947.2	23113.9	947.6
23287.2	946.8	23480.9	946.7	23616.4	947.3	23639.3	948	23645	945.4
23657.9	948	23731.5	944.4	23740.4	946.3	23784	944.1	23929.1	943.7
24083.9	944.1	24281.7	943	24414.6	943	24555.9	942.4	24720.3	943.7
24731.2	942.6	24868.9	942.8	24998.2	943.4	25003.3	940.6	25018.9	944.8
25031.2	942.2	25043	943.7	25188.9	943.6	25338.1	944	25490.8	944.5
25629.1	944.4	25788.9	944.6	25946.2	944.1	26093.5	944.2	26243.2	947.3
26255.4	948.2	26282	953.4						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14625.6	.15	18506.1	.15	19275.2	.032	20640.7	.065	21644.9	.025
23731.5	.053	24998.2	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
16975	21644.9	590	493.34	490	.1	.3

Ineffective Flow num= 3

Sta L	Sta R	Elev	Sta L	Sta R	Elev	Sta L	Sta R	Elev
14625.6	16975	960	22150	22750	960	25500	26282	960

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	948.27	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.18	Wt. n-Val.		0.059	0.037
E.G. Elev (ft)	948.45	Reach Len. (ft)	590.00	493.34	490.00
Crit W.S. (ft)	942.09	Flow Area (sq ft)		46276.09	11898.23
E.G. Slope (ft/ft)	0.000873	Area (sq ft)	10340.19	46276.09	16369.15
Q Total (cfs)	195500.00	Flow (cfs)		159481.81	36018.18

Top Width (ft)	11303.26	Top Width (ft)	2022.49	4669.90	4610.88
Vel Total (ft/s)	3.36	Avg. Vel. (ft/s)		3.45	3.03
Max Chl Dpth (ft)	17.67	Hydr. Depth (ft)		9.91	3.66
Conv. Total (cfs)	6618451.5	Conv. (cfs)		5399093.0	1219358.5
Length Wtd. (ft)	492.53	Wetted Per. (ft)		4674.62	3258.09
Min Ch El (ft)	930.60	Shear (lb/sq ft)		0.54	0.20
Alpha	1.01	Stream Power (lb/ft s)		1.86	0.60
Frctn Loss (ft)	0.59	Cum Volume (acre-ft)	7881.21	85380.98	30181.36
C & E Loss (ft)	0.00	Cum SA (acres)	2075.23	8987.27	9316.75

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	949.27	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.21	Wt. n-Val.		0.059	0.025
E.G. Elev (ft)	949.48	Reach Len. (ft)	590.00	493.34	490.00
Crit W.S. (ft)	942.09	Flow Area (sq ft)		50906.09	2229.72
E.G. Slope (ft/ft)	0.000868	Area (sq ft)		50906.09	2229.72
Q Total (cfs)	195500.00	Flow (cfs)		185049.09	10450.91
Top Width (ft)	5175.00	Top Width (ft)		4669.90	505.10
Vel Total (ft/s)	3.68	Avg. Vel. (ft/s)		3.64	4.69
Max Chl Dpth (ft)	18.67	Hydr. Depth (ft)		10.90	4.41
Conv. Total (cfs)	6635714.5	Conv. (cfs)		6280987.0	354727.6
Length Wtd. (ft)	492.98	Wetted Per. (ft)		4682.35	509.18
Min Ch El (ft)	930.60	Shear (lb/sq ft)		0.59	0.24
Alpha	1.01	Stream Power (lb/ft s)		2.14	1.11
Frctn Loss (ft)	0.60	Cum Volume (acre-ft)	943.90	89976.15	11036.99
C & E Loss (ft)	0.00	Cum SA (acres)	169.68	8995.52	1804.73

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16975.00 LB	18142.47	12104.77	9946.82	1167.49	6.19	8.52	1.22
18142.47	19309.95	15684.08	11355.08	1170.67	8.02	9.73	1.38
19309.95	20477.43	84680.24	12648.00	1167.54	43.31	10.83	6.70
20477.43	21644.90 RB	47012.72	12326.19	1168.91	24.05	10.56	3.81
21644.90	21954.04	4539.73	1126.62	309.15	2.32	3.64	4.03
21954.04	22263.18	2166.67	602.33	195.96	1.11	3.07	3.60
22263.18	22572.32						
22572.32	22881.46	1614.31	430.33	131.46	0.83	3.27	3.75
22881.46	23190.60	1082.92	476.83	309.23	0.55	1.54	2.27
23190.60	23499.74	964.76	444.84	309.14	0.49	1.44	2.17
23499.74	23808.88	1226.03	604.65	310.32	0.63	1.96	2.03
23808.88	24118.02	2904.33	1352.63	309.14	1.49	4.38	2.15
24118.02	24427.16	3668.64	1556.17	309.14	1.88	5.03	2.36
24427.16	24736.30	4103.75	1664.55	309.20	2.10	5.38	2.47
24736.30	25045.44	4742.98	1659.20	310.78	2.43	5.37	2.86
25045.44	25354.58	6527.80	1400.91	309.14	3.34	4.53	4.66
25354.58	25663.72	2476.28	579.19	145.42	1.27	3.98	4.28

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16975.00 LB	18142.47	14448.15	11104.32	1175.23	7.39	9.51	1.30
18142.47	19309.95	18481.87	12512.58	1170.67	9.45	10.72	1.48
19309.95	20477.43	97780.84	13805.50	1167.54	50.02	11.83	7.08
20477.43	21644.90 RB	54338.22	13483.69	1168.91	27.79	11.55	4.03
21644.90	21954.04	6956.41	1433.11	309.15	3.56	4.64	4.85

21954.04	22263.18	3494.51	796.61	200.02	1.79	4.07	4.39

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 199.63

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15721	952.7	15771.7	945	15819.5	941.3	16025.1	939.3	16223.6	939.2
16417.5	939	16599.8	939.1	16789.6	938.9	16997.2	940.5	17182	940.1
17392	939.3	17620	940.0889	17652.1	940.2	17844	938	18078.3	938.4
18293.8	938.1	18491.6	937.8	18675	938	18865.3	938	18950.4	937.6
18968.9	930.9	19025.9	933.5	19053.7	937.7	19244.4	938.4	19426.7	942.3
19610	939.5	19694.2	936.6	19995.9	936.4	20287.4	936.2	20496.6	936.5
20568.1	936.9	20654.1	934.2	20728.3	939.7	20960.6	941.9	21043.1	935.9
21263	937.2	21449.4	935.6	21545.8	933.4	21744.9	933.9	21791	944.4
22017	944.7	22221.4	944.4	22410.2	944.5	22622.4	944.8	22822.4	944.8
22909.6	943.2	22931.3	946.5	23167.9	945.9	23400.9	945.2	23601.7	945.2
23616.1	946.5	23620	944.4	23630.3	947.2	23679.4	947.1	23712	944.6
23914.1	943.4	24109.4	944.7	24305.3	942.8	24505.9	942.6	24697	943.8
24884.3	942.5	24973.7	943.8	24980	941	24996	944.5	25004.2	941.9
25193.5	943.2	25385.6	943.5	25591.1	943.6	25788.3	943.5	25996.2	943.4
26157.8	943.7	26190.3	945.7	26220	934.5	26231	937	26244	945.7
26481.8	945.2	26664.9	945	26897.3	945.6	27085.4	946.3	27276.7	946.7
27461	946.7	27564.9	948.6	27625.8	952.2	27815	951.9	28003.3	951.9
28201	952.4	28397.7	952.5	28612.6	953	28847.2	953.8	28920.3	952.6
29126.8	951.9	29342.2	951	29541.9	950.3	29753	949.8	29941.1	949.1
30133.5	949	30239	953.1						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15721	.15	18491.6	.15	20496.6	.032	20960.6	.065	21791	.025
23712	.053	24996	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17620	21791	705	512.18	510	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15721	17620	952	25650	30239	952

Blocked Obstructions num= 1

Sta L	Sta R	Elev
26190	30239	945

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	947.65	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.21	Wt. n-Val.		0.090	0.033
E.G. Elev (ft)	947.86	Reach Len. (ft)	705.00	512.18	510.00
Crit W.S. (ft)	941.57	Flow Area (sq ft)		42136.96	13310.51
E.G. Slope (ft/ft)	0.001732	Area (sq ft)	14781.41	42136.96	17933.40
Q Total (cfs)	195500.00	Flow (cfs)		136246.28	59253.72
Top Width (ft)	11758.87	Top Width (ft)	1865.77	4171.00	5722.10
Vel Total (ft/s)	3.53	Avg. Vel. (ft/s)		3.23	4.45
Max Chl Dpth (ft)	16.75	Hydr. Depth (ft)		10.10	3.45
Conv. Total (cfs)	4697375.5	Conv. (cfs)		3273657.0	1423718.6
Length Wtd. (ft)	511.59	Wetted Per. (ft)		4174.37	3861.74
Min Ch El (ft)	930.90	Shear (lb/sq ft)		1.09	0.37
Alpha	1.07	Stream Power (lb/ft s)		3.53	1.66
Frctn Loss (ft)	0.83	Cum Volume (acre-ft)	7711.08	84880.31	29988.43
C & E Loss (ft)	0.01	Cum SA (acres)	2048.90	8937.20	9258.63

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	948.61	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.26	Wt. n-Val.		0.090	0.025
E.G. Elev (ft)	948.87	Reach Len. (ft)	705.00	512.18	510.00
Crit W.S. (ft)	941.55	Flow Area (sq ft)		46122.63	5138.56
E.G. Slope (ft/ft)	0.001854	Area (sq ft)		46122.63	5138.56
Q Total (cfs)	195500.00	Flow (cfs)		163624.53	31875.47

Top Width (ft)	5530.00	Top Width (ft)		4171.00	1359.00
Vel Total (ft/s)	3.81	Avg. Vel. (ft/s)		3.55	6.20
Max Chl Dpth (ft)	17.71	Hydr. Depth (ft)		11.06	3.78
Conv. Total (cfs)	4539885.0	Conv. (cfs)		3799675.5	740209.6
Length Wtd. (ft)	511.88	Wetted Per. (ft)		4182.89	1361.93
Min Ch El (ft)	930.90	Shear (lb/sq ft)		1.28	0.44
Alpha	1.16	Stream Power (lb/ft s)		4.53	2.71
Frctn Loss (ft)	0.88	Cum Volume (acre-ft)	943.90	89426.70	10995.55
C & E Loss (ft)	0.01	Cum SA (acres)	169.68	8945.46	1794.25

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17620.00 LB	18662.75	17561.90	9712.91	1042.76	8.98	9.31	1.81
18662.75	19705.50	17178.99	9591.36	1044.42	8.79	9.20	1.79
19705.50	20748.25	44598.80	11688.60	1043.00	22.81	11.21	3.82
20748.25	21791.00 RB	56906.56	11144.09	1044.19	29.11	10.69	5.11
21791.00	22354.20	9198.30	1762.72	563.20	4.71	3.13	5.22
22354.20	22917.40	8946.72	1733.76	563.31	4.58	3.08	5.16
22917.40	23480.60	3939.14	1059.86	563.36	2.01	1.88	3.72
23480.60	24043.80	5012.32	1667.94	564.27	2.56	2.96	3.01
24043.80	24607.00	7484.23	2444.85	563.21	3.83	4.34	3.06
24607.00	25170.20	11882.49	2626.49	564.59	6.08	4.66	4.52
25170.20	25733.40	12790.52	2014.89	479.80	6.54	4.20	6.35

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17620.00 LB	18662.75	21300.89	10709.33	1051.28	10.90	10.27	1.99
18662.75	19705.50	20990.99	10587.78	1044.42	10.74	10.15	1.98
19705.50	20748.25	53023.30	12685.02	1043.00	27.12	12.16	4.18
20748.25	21791.00 RB	68309.36	12140.51	1044.19	34.94	11.64	5.63
21791.00	22354.20	14814.77	2300.89	563.20	7.58	4.09	6.44
22354.20	22917.40	14503.54	2271.94	563.31	7.42	4.03	6.38
22917.40	23480.60	2557.17	565.73	235.42	1.31	2.43	4.52

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 199.53

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17089.9	953.3	17164.9	939.8	17305.3	936.8	17447.5	935	17593.8	935.2
17741.6	935.5	17909.5	935.2	18078.8	936.8	18150	936.8	18264.3	936.8
18409.6	938.1	18558.3	937.9	18705.7	938.7	18873.3	938.2	19026.5	938
19176.5	937.9	19217.5	937.7	19246	939.5	19335.2	937.4	19488.7	939.8
19641.7	943.1	19718.5	937.8	20027.7	936.1	20210.3	935.6	20457.3	934.6
20639.9	933.3	20761.9	935	20793.8	932.7	20838.9	938.2	20936.5	941.3
21021.5	934.5	21135.9	935.4	21273.1	933.2	21438.1	935.2	21520.4	933.3
21688.9	933.9	21737.3	933	21795.7	946.5	21840.7	949.1	21861.5	943.7
22014.2	943.1	22165.7	943.2	22336	943.9	22502	944.4	22644.1	944.4
22787.1	944.8	22937.9	945.5	23099.1	946.2	23262.7	945.7	23292.8	946
23301	944.1	23446.1	945.4	23591.5	946	23594.9	943.4	23677.2	945.4
23823.2	941.4	24005.9	941	24161.7	941	24347.7	941.1	24497.2	941.1
24644.8	941.1	24803.7	940.2	24956.7	941.5	25097.9	941.3	25194.2	939.7
25355	941.2	25523.9	941.8	25684.5	942.4	25845.4	942.7	26009.2	943
26166.5	943.5	26312.1	943.1	26481.4	943.1	26641.6	943.3	26792.2	943.3
26970.8	943.9	27130.9	945.1	27272.9	945.3	27441.8	945.6	27594.6	945.9
27735.3	947.2	27908.1	947.3	28052.5	947.7	28208.4	948	28369.7	948.8
28515.7	949.1	28703	949.2	28843.6	948.5	28992.7	948.8	29185.5	948.7
29359.2	947.9	29508.8	947.6	29660.9	947.6	29804.7	948	29960.8	951.3
30113.6	950.6	30210	952.2						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17089.9	.15	18409.6	.15	19176.5	.032	20027.7	.065	21840.7	.025
23292.8	.053	26166.5	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18150	21840.7	460	493.06	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17089.9	18150	952	25820	30210	952

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	946.76	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.27	Wt. n-Val.		0.063	0.046
E.G. Elev (ft)	947.02	Reach Len. (ft)	460.00	493.06	500.00
Crit W.S. (ft)	941.64	Flow Area (sq ft)		36535.98	15505.89
E.G. Slope (ft/ft)	0.001529	Area (sq ft)	10701.83	36535.98	20573.75
Q Total (cfs)	211250.00	Flow (cfs)		159791.44	51458.55
Top Width (ft)	10511.45	Top Width (ft)	1023.75	3650.14	5837.57
Vel Total (ft/s)	4.06	Avg. Vel. (ft/s)		4.37	3.32
Max Chl Dpth (ft)	14.06	Hydr. Depth (ft)		10.01	3.91
Conv. Total (cfs)	5401918.0	Conv. (cfs)		4086060.5	1315857.4
Length Wtd. (ft)	494.64	Wetted Per. (ft)		3652.84	3971.89
Min Ch El (ft)	932.70	Shear (lb/sq ft)		0.95	0.37
Alpha	1.04	Stream Power (lb/ft s)		4.18	1.24
Frctn Loss (ft)	0.79	Cum Volume (acre-ft)	7504.86	84417.79	29763.01
C & E Loss (ft)	0.01	Cum SA (acres)	2025.52	8891.22	9190.96

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	947.64	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.34	Wt. n-Val.		0.062	0.026
E.G. Elev (ft)	947.99	Reach Len. (ft)	460.00	493.06	500.00
Crit W.S. (ft)	941.33	Flow Area (sq ft)		39770.70	5079.62
E.G. Slope (ft/ft)	0.001591	Area (sq ft)		39770.70	5079.62
Q Total (cfs)	211250.00	Flow (cfs)		187128.19	24121.81
Top Width (ft)	5319.12	Top Width (ft)		3665.44	1653.68
Vel Total (ft/s)	4.71	Avg. Vel. (ft/s)		4.71	4.75
Max Chl Dpth (ft)	14.94	Hydr. Depth (ft)		10.85	3.07
Conv. Total (cfs)	5296604.5	Conv. (cfs)		4691806.0	604798.4
Length Wtd. (ft)	493.78	Wetted Per. (ft)		3679.01	1656.43
Min Ch El (ft)	932.70	Shear (lb/sq ft)		1.07	0.30
Alpha	1.00	Stream Power (lb/ft s)		5.05	1.45
Frctn Loss (ft)	0.81	Cum Volume (acre-ft)	943.90	88921.73	10935.73
C & E Loss (ft)	0.01	Cum SA (acres)	169.68	8899.39	1776.61

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18150.00 LB	19072.68	13518.06	8162.21	922.68	6.40	8.85	1.66
19072.68	19995.35	49404.23	7495.08	923.00	23.39	8.12	6.59
19995.35	20918.02	49640.84	10588.23	923.15	23.50	11.48	4.69
20918.02	21840.70 RB	47228.34	10290.46	884.01	22.36	11.67	4.59
21840.70	22398.65	8737.13	1796.02	549.32	4.14	3.27	4.86
22398.65	22956.61	4219.96	1167.84	557.96	2.00	2.09	3.61
22956.61	23514.56	1143.12	670.92	558.18	0.54	1.20	1.70
23514.56	24072.51	5541.09	2160.01	558.92	2.62	3.87	2.57
24072.51	24630.47	10537.57	3174.27	557.95	4.99	5.69	3.32
24630.47	25188.42	11091.48	3273.41	557.97	5.25	5.87	3.39
25188.42	25746.37	9358.81	2956.21	557.96	4.43	5.30	3.17
25746.37	26304.33	829.38	307.21	73.63	0.39	4.17	2.70

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18150.00 LB	19072.68	16034.53	8978.16	933.53	7.59	9.73	1.79
19072.68	19995.35	59938.61	8311.04	923.00	28.37	9.01	7.21
19995.35	20918.02	57313.88	11404.19	923.15	27.13	12.36	5.03
20918.02	21840.70 RB	53841.19	11077.32	899.34	25.49	12.34	4.86
21840.70	22398.65	13308.73	2282.96	552.84	6.30	4.13	5.83
22398.65	22956.61	7786.97	1661.26	557.96	3.69	2.98	4.69

22956.61	23514.56	3026.09	1135.39	545.64	1.43	2.09	2.67

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 199.44

INPUT
Description: Left Bank Channel Station Interpolated
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18309.1	959.9	18322.3	939.7	18336	934.7	18493.3	933.2	18662.1	934.8
18811.6	934.7	18848.4	935	19008.3	934.1	19162.1	935	19354.1	935.5
19383.4	937.5	19414.5	934.7	19580.1	936.3	19608.2	936.7	20369.7	935.4
20522.1	935.2	20719.6	934.5	20904.1	935.8	20985.5	936.9	21013.6	932.5
21050.3	932.6	21066.3	934.1	21082.5	931.7	21126.8	933.4	21144.3	937.3
21222.4	938.5	21381.6	937.5	21431.1	934.8	21577.2	933.4	21758.6	948.5
21773.6	949.2	21798.6	942.2	21968.1	941.5	22116.2	941.8	22304.8	942
22514.7	942.1	22669.6	942.3	22824.1	942.6	22976.2	943.9	23129.9	943.4
23278.7	943.5	23284.7	942.6	23296.1	943.9	23444.4	942.7	23553.8	942.6
23565.2	945.8	23572.2	941.4	23581.2	944.8	23783.7	942.7	23938.9	942.3
24151.9	941.5	24326.8	941.6	24467.2	941.5	24511.3	939.5	24518.4	941.3
24667.6	941	24850.1	940.3	25026.1	940.3	25183.7	940.1	25348.8	940.3
25527.7	940.3	25685.5	941.1	25871.6	941.4	26027.5	942.3	26166	942.4
26215.1	940.5	26221.3	938.4	26232.3	943.9	26266.9	941.7	26456	942.6
26609.7	942.7	26767.3	942.8	26920.5	942.7	27083.5	942.5	27267.5	943.8
27418.8	943.9	27569.8	943.9	27730.3	944.6	27909.6	944.7	28072.5	944.8
28246.8	945.3	28438.6	945.9	28636.5	946.5	28804.2	947.1	29008.2	946.8
29225.7	946.5	29397	946.1	29546.2	947.6	29694.3	949	29880.1	949.8
30071	950.9	30129.6	952.4	30144.6	948.4	30161.3	951.5	30280.3	952.7
30295	956.7								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18309.1	.15	19162.1	.032	20369.7	.065	21758.6	.053	26166	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18493.3	21758.6	505	508.09	510	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18309.1	18493.3	955	25980	30295	955

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	945.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.38	Wt. n-Val.		0.053	0.053
E.G. Elev (ft)	946.22	Reach Len. (ft)	505.00	508.09	510.00
Crit W.S. (ft)	941.03	Flow Area (sq ft)		33147.14	16827.56
E.G. Slope (ft/ft)	0.001650	Area (sq ft)	2001.42	33147.14	22499.54
Q Total (cfs)	227000.00	Flow (cfs)		178639.58	48360.43
Top Width (ft)	10043.00	Top Width (ft)	175.01	3233.37	6634.61
Vel Total (ft/s)	4.54	Avg. Vel. (ft/s)		5.39	2.87
Max Chl Dpth (ft)	14.14	Hydr. Depth (ft)		10.25	4.01
Conv. Total (cfs)	5588352.0	Conv. (cfs)		4397801.0	1190551.1
Length Wtd. (ft)	508.52	Wetted Per. (ft)		3235.27	4197.68
Min Ch El (ft)	931.70	Shear (lb/sq ft)		1.06	0.41
Alpha	1.19	Stream Power (lb/ft s)		5.69	1.19
Frctn Loss (ft)	0.87	Cum Volume (acre-ft)	7437.79	84023.41	29515.80
C & E Loss (ft)	0.01	Cum SA (acres)	2019.19	8852.26	9119.38

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	946.69	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.47	Wt. n-Val.		0.053	0.053
E.G. Elev (ft)	947.17	Reach Len. (ft)	505.00	508.09	510.00
Crit W.S. (ft)	940.85	Flow Area (sq ft)		35904.52	7355.96
E.G. Slope (ft/ft)	0.001673	Area (sq ft)		35904.52	7355.96
Q Total (cfs)	227000.00	Flow (cfs)		205386.94	21613.07
Top Width (ft)	5031.05	Top Width (ft)		3243.60	1787.45
Vel Total (ft/s)	5.25	Avg. Vel. (ft/s)		5.72	2.94
Max Chl Dpth (ft)	14.99	Hydr. Depth (ft)		11.07	4.12
Conv. Total (cfs)	5550121.0	Conv. (cfs)		5021684.5	528436.8

Length Wtd. (ft)	508.29	Wetted Per. (ft)		3259.03	1793.44
Min Ch El (ft)	931.70	Shear (lb/sq ft)		1.15	0.43
Alpha	1.11	Stream Power (lb/ft s)		6.58	1.26
Frctn Loss (ft)	0.91	Cum Volume (acre-ft)	943.90	88493.44	10864.36
C & E Loss (ft)	0.01	Cum SA (acres)	169.68	8860.29	1756.86

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18493.30 LB	19309.63	29785.43	9175.50	816.34	13.12	11.24	3.25
19309.63	20125.95	68683.41	7976.82	816.53	30.26	9.77	8.61
20125.95	20942.28	49731.25	8618.61	816.34	21.91	10.56	5.77
20942.28	21758.60 RB	30439.44	7376.21	786.06	13.41	9.40	4.13
21758.60	22327.69	5918.94	2152.71	542.60	2.61	3.97	2.75
22327.69	22896.79	5112.95	2009.67	569.10	2.25	3.53	2.54
22896.79	23465.88	2683.75	1365.24	569.24	1.18	2.40	1.97
23465.88	24034.97	3636.67	1640.80	571.44	1.60	2.88	2.22
24034.97	24604.07	7385.36	2506.26	569.36	3.25	4.40	2.95
24604.07	25173.16	10278.69	3055.51	569.10	4.53	5.37	3.36
25173.16	25742.25	10312.99	3061.62	569.10	4.54	5.38	3.37
25742.25	26311.35	3031.10	1035.75	237.75	1.34	4.36	2.93

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18493.30 LB	19309.63	33722.73	9870.55	829.83	14.86	12.09	3.42
19309.63	20125.95	79490.24	8671.88	816.53	35.02	10.62	9.17
20125.95	20942.28	57034.02	9313.66	816.34	25.13	11.41	6.12
20942.28	21758.60 RB	35139.95	8048.43	796.33	15.48	10.13	4.37
21758.60	22327.69	8409.48	2615.58	545.76	3.70	4.80	3.22
22327.69	22896.79	7555.41	2494.21	569.10	3.33	4.38	3.03
22896.79	23465.88	4590.21	1849.79	569.24	2.02	3.25	2.48
23465.88	24034.97	1057.97	396.37	109.34	0.47	3.81	2.67

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 199.34

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18927	950.6	18931.2	8944.8412	18935.1	939.7	18950.4	934.3	18954.1	929.6
19039.8	929.5	19088.8	934.7	19245.2	933.3	19382.1	935.2	19552.3	934.6
19624.2	935	20292.9	933.5	20713.2	930.6	20858.1	931	20883.8	934.2
20981.5	933.6	21139.6	932.2	21148.3	932.7	21283.2	933	21394.2	933.6
21545.8	944.3	21604.6	946.9	21618	942	21679.6	941.4	21692	939.1
21698.7	941.4	21831.5	941.7	21964.5	940.9	22098.8	940.6	22230.9	940.9
22373.7	941.3	22505.3	941.4	22634.1	941.3	22788.6	941.5	22918.2	941.6
23067	942	23202.7	942.2	23328.9	942	23410.7	944	23420.8	941.7
23526.4	940.9	23540.8	945.2	23549.9	941.8	23558.5	944.6	23690.9	941.7
23829.9	941.3	23963.5	941.5	23973.1	941.8	23976.2	947.8	24001.8	947.1
24020.5	941.8	24189.2	940.5	24327.2	940.5	24453.8	939.8	24583.1	939.5
24714.5	939	24868	939	25045.9	939.3	25178.1	939.4	25315.5	939.4
25455	939.5	25629.1	939	25782.3	938.9	25932.4	939.2	26072.9	940.6
26194	940.6	26200.8	938.6	26207	944.3	26284.6	942.3	26447	941.9
26574.4	941.5	26758.7	941.4	26893.2	941.8	27024.2	942	27149.9	942
27272.7	942.6	27437.9	942.9	27488.4	943	27515.4	941.9	27526.6	943.3
27665.1	943.6	27821.7	943.5	27977.9	943.9	28128.8	944.1	28270.8	944.2
28442.8	944.4	28599.2	945	28733.7	945.4	28871.1	945.3	29012.9	945.4
29141.3	945.6	29331	945.8	29469.9	946.3	29595.7	946.5	29741.1	948.4
29869.4	950.4	29977	951.8						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18927	.15	19382.1	.032	20292.9	.065	21604.6	.053	26194	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18931.28	21604.6	1220	748.26	200	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
26120	29977	950

Blocked Obstructions num= 1

Sta L	Sta R	Elev
24000	29977	940

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	944.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.44	Wt. n-Val.	0.000	0.053	0.053
E.G. Elev (ft)	945.35	Reach Len. (ft)	1220.00	748.26	200.00
Crit W.S. (ft)	939.65	Flow Area (sq ft)	0.00	29508.46	17777.17
E.G. Slope (ft/ft)	0.001778	Area (sq ft)	0.00	29508.46	22828.63
Q Total (cfs)	227000.00	Flow (cfs)	0.00	173303.47	53696.54
Top Width (ft)	9556.20	Top Width (ft)	0.05	2628.22	6927.93
Vel Total (ft/s)	4.80	Avg. Vel. (ft/s)	0.03	5.87	3.02
Max Chl Dpth (ft)	15.41	Hydr. Depth (ft)	0.03	11.23	3.97
Conv. Total (cfs)	5383045.5	Conv. (cfs)	0.0	4109693.5	1273352.0
Length Wtd. (ft)	664.17	Wetted Per. (ft)	0.08	2634.93	4478.69
Min Ch El (ft)	929.50	Shear (lb/sq ft)		1.24	0.44
Alpha	1.24	Stream Power (lb/ft s)		7.30	1.33
Frctn Loss (ft)	1.29	Cum Volume (acre-ft)	7426.19	83658.00	29250.45
C & E Loss (ft)	0.02	Cum SA (acres)	2018.17	8818.08	9039.99

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	945.66	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.58	Wt. n-Val.		0.053	0.053
E.G. Elev (ft)	946.24	Reach Len. (ft)	1220.00	748.26	200.00
Crit W.S. (ft)	939.65	Flow Area (sq ft)		31497.77	8056.92
E.G. Slope (ft/ft)	0.001939	Area (sq ft)		31497.77	8056.92
Q Total (cfs)	227000.00	Flow (cfs)		201441.55	25558.45
Top Width (ft)	4597.29	Top Width (ft)		2645.28	1952.01
Vel Total (ft/s)	5.74	Avg. Vel. (ft/s)		6.40	3.17
Max Chl Dpth (ft)	16.16	Hydr. Depth (ft)		11.91	4.13
Conv. Total (cfs)	5154636.0	Conv. (cfs)		4574263.5	580372.3
Length Wtd. (ft)	712.09	Wetted Per. (ft)		2652.83	1956.33
Min Ch El (ft)	929.50	Shear (lb/sq ft)		1.44	0.50
Alpha	1.14	Stream Power (lb/ft s)		9.19	1.58
Frctn Loss (ft)	1.38	Cum Volume (acre-ft)	943.90	88100.34	10774.13
C & E Loss (ft)	0.01	Cum SA (acres)	169.68	8825.94	1734.97

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18930.99	18931.28	0.00	0.00	0.08	0.00	0.03	0.03
18931.28 LB	19599.61	31095.14	7471.11	674.42	13.70	11.18	4.16
19599.61	20267.94	66737.09	7086.71	668.33	29.40	10.60	9.42
20267.94	20936.27	46943.98	8617.56	668.54	20.68	12.89	5.45
20936.27	21604.60 RB	28527.29	6333.09	623.64	12.57	10.16	4.50
21604.60	22162.76	5786.19	2051.95	553.82	2.55	3.71	2.82
22162.76	22720.92	5773.75	2055.71	558.16	2.54	3.68	2.81
22720.92	23279.08	4299.74	1722.48	558.16	1.89	3.09	2.50
23279.08	23837.24	3364.45	1486.89	558.30	1.48	2.67	2.26
23837.24	24395.40	5969.77	2047.57	525.65	2.63	3.91	2.92
24395.40	24953.56	9302.15	2736.77	558.16	4.10	4.90	3.40
24953.56	25511.72	9309.90	2738.13	558.16	4.10	4.91	3.40
25511.72	26069.88	9217.67	2721.83	558.16	4.06	4.88	3.39
26069.88	26628.04	672.87	215.85	50.12	0.30	4.31	3.12

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18931.28 LB	19599.61	36393.83	7975.33	675.24	16.03	11.93	4.56
19599.61	20267.94	78133.20	7590.94	668.33	34.42	11.36	10.29
20267.94	20936.27	53901.97	9121.79	668.54	23.75	13.65	5.91
20936.27	21604.60 RB	33012.55	6809.73	640.72	14.54	10.64	4.85
21604.60	22162.76	8197.62	2469.72	556.02	3.61	4.45	3.32
22162.76	22720.92	8215.82	2476.82	558.16	3.62	4.44	3.32
22720.92	23279.08	6457.45	2143.58	558.16	2.84	3.84	3.01
23279.08	23837.24	2687.56	966.79	283.99	1.18	3.44	2.78

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 199.20

INPUT
Description: Upstream Face of 166th Ave Bridge
Left Bank Channel Station
Interpolated
Station Elevation Data num= 75

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18482.37	935.118	501.31	929.851	8663.22	929.441	8720.11	928.921	8800.46	930.97
18873.91	931	18977.97	931.221	9047.53	931.719	049.02	931.7054	19132.6	932.01
19232.44	932.719	267.67	928	19307.5	926.941	9372.56	928.471	9444.36	925.73
19506.83	929.719	607.02	941.3	19667.5	932.251	9775.49	929.681	9911.84	929.78
20003.42	928.262	0115.95	931.22	0218.97	933.062	0237.25	932.912	0477.21	930.95
20685.96	931.142	0748.47	931.512	1011.31	929.32	1109.31	930.812	1154.95	930.46
21290.05	928.612	1405.17	930.692	1420.87	935.92	1463.54	944.522	1514.01	944.94
21575.27	936.572	1653.15	938.64	21698.9	939.42	1712.76	939.672	1786.44	941.03
21935.9	941.082	2132.23	941.442	2402.15	942.39	22545.5	943.42	2807.59	943.71
23305.76	944.52	3452.36	943.912	3504.27	944.382	3582.87	941.52	3940.67	941.51
24226.46	941.192	4302.11	940.242	4715.24	939.832	5160.57	940.72	5393.16	941.67
25816.05	941.392	6048.83	942.342	6300.49	942.382	6702.98	942.92	7079.44	943.88
27406.34	943.792	7691.02	943.542	7843.39	943.852	8122.74	944.92	8418.37	944.37
28607.18	945.44	28926	945.832	9079.03	946.792	9265.06	946.92	9586.55	948.26
29739.27	949.122	9998.01	953.113	0127.33	954.643	0183.35	957.53	0231.91	958.32

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18482.37	.03	220237.25	.15	21463.54	.05	326300.49	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19049.02	21712.76	60	73.82	60	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18482.37	19049.02	954	26270	30231.91	954

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	943.36	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.68	Wt. n-Val.		0.053	0.053
E.G. Elev (ft)	944.04	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	937.25	Flow Area (sq ft)		30855.40	7520.24
E.G. Slope (ft/ft)	0.002110	Area (sq ft)	7339.86	30855.40	7880.28
Q Total (cfs)	227000.00	Flow (cfs)		210984.13	16015.88
Top Width (ft)	7336.93	Top Width (ft)	566.65	2595.96	4174.32
Vel Total (ft/s)	5.92	Avg. Vel. (ft/s)		6.84	2.13
Max Chl Dpth (ft)	17.63	Hydr. Depth (ft)		11.89	2.11
Conv. Total (cfs)	4941644.5	Conv. (cfs)		4592989.0	348655.4
Length Wtd. (ft)	0.00	Wetted Per. (ft)		2600.07	3564.92
Min Ch El (ft)	925.73	Shear (lb/sq ft)		1.56	0.28
Alpha	1.25	Stream Power (lb/ft s)		10.69	0.59
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	7323.40	83139.55	29179.96
C & E Loss (ft)	0.01	Cum SA (acres)	2010.24	8773.21	9014.50

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	944.16	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.70	Wt. n-Val.		0.053	0.053
E.G. Elev (ft)	944.85	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	937.25	Flow Area (sq ft)		32929.22	2525.32
E.G. Slope (ft/ft)	0.001926	Area (sq ft)		32929.22	2525.32
Q Total (cfs)	227000.00	Flow (cfs)		222609.69	4390.32
Top Width (ft)	4180.54	Top Width (ft)		2605.74	1574.80
Vel Total (ft/s)	6.40	Avg. Vel. (ft/s)		6.76	1.74
Max Chl Dpth (ft)	18.43	Hydr. Depth (ft)		12.64	1.60
Conv. Total (cfs)	5172847.5	Conv. (cfs)		5072801.5	100046.1
Length Wtd. (ft)	0.00	Wetted Per. (ft)		2622.44	1577.52
Min Ch El (ft)	925.73	Shear (lb/sq ft)		1.51	0.19
Alpha	1.09	Stream Power (lb/ft s)		10.21	0.33
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	943.90	87546.99	10749.84
C & E Loss (ft)	0.02	Cum SA (acres)	169.68	8780.84	1726.87

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19049.02 LB	19714.96	90267.58	8054.08	667.82	39.77	12.09	11.21
19714.96	20380.89	84479.16	8421.50	666.03	37.22	12.65	10.03
20380.89	21046.82	20590.50	8374.82	665.95	9.07	12.58	2.46
21046.82	21712.76 RB	15646.88	6005.00	600.28	6.89	10.04	2.61
21712.76	22280.70	2499.27	1224.52	567.96	1.10	2.16	2.04
22280.70	22848.65	223.96	210.38	259.04	0.10	0.81	1.06
22848.65	23416.59						
23416.59	23984.53	1409.49	792.90	452.44	0.62	1.75	1.78
23984.53	24552.48	3521.55	1504.24	567.95	1.55	2.65	2.34
24552.48	25120.42	4886.78	1831.00	567.94	2.15	3.22	2.67
25120.42	25688.36	2223.90	1141.68	567.95	0.98	2.01	1.95
25688.36	26256.31	1234.59	802.03	567.95	0.54	1.41	1.54
26256.31	26824.25	16.34	13.49	13.69	0.01	0.99	1.21

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19049.02 LB	19714.96	94717.53	8585.07	680.27	41.73	12.89	11.03
19714.96	20380.89	89107.67	8952.49	666.03	39.25	13.44	9.95
20380.89	21046.82	21786.99	8905.81	665.95	9.60	13.37	2.45
21046.82	21712.76 RB	16997.50	6485.85	610.19	7.49	10.67	2.62
21712.76	22280.70	3470.71	1677.38	567.96	1.53	2.95	2.07
22280.70	22848.65	618.88	596.13	567.95	0.27	1.05	1.04
22848.65	23416.59	15.00	47.24	266.24	0.01	0.18	0.32
23416.59	23984.53	285.74	204.57	175.37	0.13	1.18	1.40

Warning - Divided flow computed for this cross-section.

BRIDGE RIVER: RIVER-1
REACH: Reach-1 RS: 199.195

INPUT
Description:
Distance from Upstream XS = 0
Deck/Roadway Width = 73.82
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =
Upstream Deck/Roadway Coordinates
num= 39
Sta Hi Cord Lo Cord Sta Hi Cord Lo Cord Sta Hi Cord Lo Cord

18482.37	945	18855.3	945.54	18931.45	954.15		
19024.09	956.68	949.5619116.12	959.2	952.0819158.01	960.35	953.23	
19293.51	963.63	956.51 19429	966.46	959.34 19564.5	968.85	961.73	
19699.99	970.81	963.6919835.48	972.33	965.2119970.98	973.4	966.28	
20106.47	974.04	966.9220241.96	974.23	967.1120377.46	973.99	966.87	
20512.95	973.31	966.1920648.45	972.19	965.0720783.94	970.62	963.5	
20919.43	968.62	961.521054.93	966.18	959.0621190.42	963.3	956.18	
21259.82	961.6	954.4821325.92	959.98	952.8621459.84	956.27	949.15	
21510.03	954.76	021557.07	953.33	021715.56	949.44	0	
21879.61	946.13	021961.63	944.86	022043.65	943.86	0	
22125.67	943.13	022207.69	942.65	022289.71	942.44	0	
22315.96	942.43	022388.14	942.54	022437.35	942.68	0	
22667.86	943.72	0 23027.9	945.92	023452.36	943.91	0	

Upstream Bridge Cross Section Data
Station Elevation Data num= 74

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18482.37	935.118501.31	929.8518663.22	929.4418720.11	928.9218800.46	930.97				
18873.91	93118977.97	931.2219047.53	931.7 19132.6	932.0119232.44	932.7				
19267.67	928 19307.5	926.9419372.56	928.4719444.36	925.7319506.83	929.7				
19607.02	941.3 19667.5	932.2519775.49	929.6819911.84	929.7820003.42	928.26				
20115.95	931.220218.97	933.0620237.25	932.9120477.21	930.9520685.96	931.14				
20748.47	931.5121011.31	929.321109.31	930.8121154.95	930.4621290.05	928.61				
21405.17	930.6921420.87	935.921463.54	944.5221514.01	944.9421575.27	936.57				
21653.15	938.64 21698.9	939.421712.76	939.6721786.44	941.03 21935.9	941.08				
22132.23	941.4422402.15	942.39 22545.5	94222807.59	943.7123305.76	944.5				
23452.36	943.9123504.27	944.3823582.87	941.523940.67	941.5124226.46	941.19				
24302.11	940.2424715.24	939.8325160.57	940.725393.16	941.6725816.05	941.39				
26048.83	942.3426300.49	942.3826702.98	942.927079.44	943.8827406.34	943.79				
27691.02	943.5427843.39	943.8528122.74	944.928418.37	944.3728607.18	945.44				
28926	945.8329079.03	946.7929265.06	946.929586.55	948.2629739.27	949.12				
29998.01	953.1130127.33	954.6430183.35	957.530231.91	958.32					

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18482.37	.03220237.25	.1521463.54	.05326300.49	.025			

Bank Sta: Left Right Coeff Contr. Expan.
19047.5321786.44 .1 .3
Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18482.3719049.02	954	2627030231.91	954		

Downstream Deck/Roadway Coordinates
num= 39

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
18472.36	945	18887.67	945.54	18972.88	954.15			
19058.82	956.68	949.5619119.67	958.35	951.2319192.74	960.35	953.23		
19328.24	963.63	956.5119463.73	966.46	959.3419599.23	968.85	961.73		
19734.72	970.81	963.6919870.21	972.33	965.2120005.71	973.4	966.28		
20141.2	974.04	966.92 20276.7	974.23	967.1120412.19	973.99	966.87		
20547.68	973.31	966.1920683.18	972.19	965.0720818.67	970.62	963.5		
20954.16	968.62	961.521089.66	966.18	959.0621225.15	963.3	956.18		
21258.76	962.48	955.3621360.65	959.98	952.8621494.57	956.27	949.15		
21544.76	954.76	0 21591.8	953.33	021752.65	949.44	0		
21916.7	946.13	021998.72	944.86	022080.74	943.86	0		
22162.76	943.13	022244.78	942.65	0 22326.8	942.44	0		
22353.05	942.43	022425.23	942.54	022474.44	942.68	0		
22704.95	943.72	023064.99	945.92	0 23447.4	943.98	0		

Downstream Bridge Cross Section Data
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18472.36	93318496.76	929.8118584.64	928.7218665.03	929.1418732.54	929.1				
18785.56	930.918906.78	930.619034.69	931.7419106.13	931.1219208.94	933.89				
19254.04	932.419276.56	927.9619314.87	926.6219371.14	927.9119431.85	925.9				
19488.13	929.719522.21	934.8119583.86	939.2319639.08	931.49 19673.5	930.13				
19721.28	930.619779.15	929.44 19826.5	929.9619990.26	929.120011.65	928.52				
20127.26	930.820182.94	933.74 20238.7	932.81 20356.3	930.8620428.93	931.36				
20520.93	930.6320763.07	931.520997.21	929.1721082.21	930.5621219.07	929.68				
21306.68	928.621395.06	930.721438.26	945.8721457.19	945.1921473.69	939.6				
21604.26	940.5321678.59	944 21739.2	940.84 21802.7	938.821880.58	940.88				
21965.3	940.3522182.99	941.722407.37	942.122549.08	94222706.66	943.37				
23116.18	944.0423314.07	944.4 23447.4	943.9823542.48	943.1823620.34	940.97				
23950.53	941.0324231.11	940.924455.71	939.8524733.83	939.9124842.54	940.56				
24965.64	939.8225385.75	941.525819.81	941.2526059.71	942.23 26305	941.9				

```
26719.25  942.4927174.05   943.727414.59  943.7827858.45  943.6628121.68  944.57
28422.59   944.328695.82   945.628924.96  945.8529079.83   946.729254.73  946.71
 29420.8  947.17 29658.6   948.129859.94  950.3530005.89  953.5830129.21  955.14
30233.86  958.7230266.76   958.9

Manning's n Values        num=       4
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
18472.36    .032 20238.7     .1521457.19    .05324965.64    .025

Bank Sta: Left   Right    Coeff Contr.   Expan.
     19106.13 21739.2             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
18472.3619085.81     957   2627030266.76     957

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Piers =  17

Pier Data
Pier Station     Upstream=19158.01    Downstream=19192.74
Upstream     num=       2
    Width   Elev    Width   Elev
      5       0       5   953.3
Downstream     num=       2
    Width   Elev    Width   Elev
      5       0       5   953.3

Pier Data
Pier Station     Upstream=19293.51    Downstream=19328.24
Upstream     num=       2
    Width   Elev    Width   Elev
      5       0       5   956.6
Downstream     num=       2
    Width   Elev    Width   Elev
      5       0       5   956.6

Pier Data
Pier Station     Upstream=   19429    Downstream=19463.73
Upstream     num=       2
    Width   Elev    Width   Elev
      5       0       5   959.4
Downstream     num=       2
    Width   Elev    Width   Elev
      5       0       5   959.4

Pier Data
Pier Station     Upstream= 19564.5    Downstream=19599.23
Upstream     num=       2
    Width   Elev    Width   Elev
      5       0       5   961.8
Downstream     num=       2
    Width   Elev    Width   Elev
      5       0       5   961.8

Pier Data
Pier Station     Upstream=19699.99    Downstream=19734.72
Upstream     num=       2
    Width   Elev    Width   Elev
      5       0       5   963.7
Downstream     num=       2
    Width   Elev    Width   Elev
      5       0       5   963.7

Pier Data
Pier Station     Upstream=19835.48    Downstream=19870.21
Upstream     num=       2
    Width   Elev    Width   Elev
      5       0       5   965.3
Downstream     num=       2
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    Width   Elev    Width   Elev
       5       0       5   965.3

Pier Data
Pier Station     Upstream=19970.98    Downstream=20005.71
Upstream     num=       2
    Width   Elev    Width   Elev
       5       0       5   966.3
Downstream     num=       2
    Width   Elev    Width   Elev
       5       0       5   966.3

Pier Data
Pier Station     Upstream=20106.47    Downstream= 20141.2
Upstream     num=       2
    Width   Elev    Width   Elev
       5       0       5     967
Downstream     num=       2
    Width   Elev    Width   Elev
       5       0       5     967

Pier Data
Pier Station     Upstream=20241.96    Downstream= 20276.7
Upstream     num=       2
    Width   Elev    Width   Elev
       5       0       5   967.2
Downstream     num=       2
    Width   Elev    Width   Elev
       5       0       5   967.2

Pier Data
Pier Station     Upstream=20377.46    Downstream=20412.19
Upstream     num=       2
    Width   Elev    Width   Elev
       5       0       5   966.9
Downstream     num=       2
    Width   Elev    Width   Elev
       5       0       5   966.9

Pier Data
Pier Station     Upstream=20512.95    Downstream=20547.68
Upstream     num=       2
    Width   Elev    Width   Elev
       5       0       5   966.2
Downstream     num=       2
    Width   Elev    Width   Elev
       5       0       5   966.2

Pier Data
Pier Station     Upstream=20648.45    Downstream=20683.18
Upstream     num=       2
    Width   Elev    Width   Elev
       5       0       5   965.1
Downstream     num=       2
    Width   Elev    Width   Elev
       5       0       5   965.1

Pier Data
Pier Station     Upstream=20783.94    Downstream=20818.67
Upstream     num=       2
    Width   Elev    Width   Elev
       5       0       5   963.6
Downstream     num=       2
    Width   Elev    Width   Elev
       5       0       5   963.6

Pier Data
Pier Station     Upstream=20919.43    Downstream=20954.16
Upstream     num=       2
    Width   Elev    Width   Elev
       5       0       5   961.6
Downstream     num=       2
    Width   Elev    Width   Elev
       5       0       5   961.6

Pier Data
```

```
Pier Station     Upstream=21054.93    Downstream=21089.66
Upstream     num=       2
    Width   Elev    Width   Elev
      5       0       5   959.1
Downstream     num=       2
    Width   Elev    Width   Elev
      5       0       5   959.1

Pier Data
Pier Station     Upstream=21190.42    Downstream=21225.15
Upstream     num=       2
    Width   Elev    Width   Elev
      5       0       5   956.2
Downstream     num=       2
    Width   Elev    Width   Elev
      5       0       5   956.2

Pier Data
Pier Station     Upstream=21325.92    Downstream=21360.65
Upstream     num=       2
    Width   Elev    Width   Elev
      5       0       5   952.9
Downstream     num=       2
    Width   Elev    Width   Elev
      5       0       5   952.9

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
       Energy
       Momentum                Cd   =     1.2
       Yarnell                 KVal =     .95
Selected Low Flow Methods = Highest Energy Answer

High Flow Method
       Energy Only

Additional Bridge Parameters
       Add Friction component to Momentum
       Do not add Weight component to Momentum
       Class B flow critical depth computations use critical depth
           inside the bridge at the downstream end
       Criteria to check for pressure flow = Upstream water surface

BRIDGE OUTPUT    Profile #PF#1
Opening : Bridge #1

  E.G. US. (ft)                 944.04   Element                  Inside BR US  Inside BR DS
  W.S. US. (ft)                 943.36   E.G. Elev (ft)                944.03        943.79
  Q Total (cfs)              227000.00   W.S. Elev (ft)                943.22        942.97
  Q Bridge (cfs)             212345.69   Crit W.S. (ft)                937.39        937.45
  Q Weir (cfs)                           Max Chl Dpth (ft)              17.49         17.07
  Weir Sta Lft (ft)                      Vel Total (ft/s)                6.58          6.81
  Weir Sta Rgt (ft)                      Flow Area (sq ft)           34490.75      33323.17
  Weir Submerg                           Froude # Chl                    0.33          0.35
  Weir Max Depth (ft)                    Specif Force (cu ft)       239606.25     231276.77
  Min Top Rd (ft)               939.83   Hydr Depth (ft)                 6.27          6.22
  Min El Prs (ft)               967.11   W.P. Total (ft)              5930.19       5782.37
  Delta EG (ft)                   0.28   Conv. Total (cfs)          4096987.8     4008012.3
  Delta WS (ft)                   0.31   Top Width (ft)               6078.55       6012.32
  BR Open Area (sq ft)        70678.68   Frctn Loss (ft)                 0.23          0.00
  BR Open Vel (ft/s)              7.66   C & E Loss (ft)                 0.00          0.04
  Coef of Q                              Shear Total (lb/sq ft)          1.11          1.15
  Br Sel Mthd              Energy only   Power Total (lb/ft s)           7.34          7.86


Note - Yarnell answer is not valid if the water surface is above the low chord or if there is
weir flow.
                The Yarnell answer has been disregarded.
Note - Momentum answer is not valid if the water surface is above the low chord or if there is
weir
                flow.  The momentum answer has been disregarded.

BRIDGE OUTPUT    Profile #PF#2
Opening : Bridge #1
```

E.G. US. (ft)	944.85	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	944.16	E.G. Elev (ft)	944.84	944.60
Q Total (cfs)	227000.00	W.S. Elev (ft)	943.97	943.66
Q Bridge (cfs)	225652.56	Crit W.S. (ft)	937.42	937.42
Q Weir (cfs)		Max Chl Dpth (ft)	18.24	17.76
Weir Sta Lft (ft)		Vel Total (ft/s)	7.34	7.59
Weir Sta Rgt (ft)		Flow Area (sq ft)	30922.76	29893.38
Weir Submerg		Froude # Chl	0.36	0.38
Weir Max Depth (ft)		Specif Force (cu ft)	256580.81	249113.97
Min Top Rd (ft)	941.50	Hydr Depth (ft)	9.94	9.89
Min El Prs (ft)	967.11	W.P. Total (ft)	3570.24	3474.20
Delta EG (ft)	0.30	Conv. Total (cfs)	4171929.5	4007916.3
Delta WS (ft)	0.38	Top Width (ft)	3109.74	3039.96
BR Open Area (sq ft)	70176.71	Frctn Loss (ft)	0.23	0.00
BR Open Vel (ft/s)	7.70	C & E Loss (ft)	0.01	0.05
Coef of Q		Shear Total (lb/sq ft)	1.60	1.72
Br Sel Mthd	Energy only	Power Total (lb/ft s)	11.75	13.09

Note - Yarnell answer is not valid if the water surface is above the low chord or if there is weir flow.
The Yarnell answer has been disregarded.
Note - Momentum answer is not valid if the water surface is above the low chord or if there is weir
flow. The momentum answer has been disregarded.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 199.19

INPUT
Description: Downstream Face of 116th Ave Bridge
Left Bank Channel Station
Interpolated
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18472.36	933	18496.76	929.8	118584.64	928.7	218665.03	929.1	418732.54	929.1
18785.56	930.9	18906.78	930.6	19034.69	931.7	419085.81	931.2	96319106.13	931.12
19208.94	933.8	919254.04	932.4	19276.56	927.9	619314.87	926.6	219371.14	927.91
19431.85	925.9	19488.13	929.7	19522.21	934.8	119583.86	939.2	319639.08	931.49
19673.5	930.1	319721.28	930.6	19779.15	929.44	19826.5	929.9	619990.26	929.1
20011.65	928.5	220127.26	930.8	20182.94	933.74	20238.7	932.81	20356.3	930.86
20428.93	931.3	620520.93	930.6	320763.07	931.5	20997.21	929.1	721082.21	930.56
21219.07	929.6	821306.68	928.6	21395.06	930.7	21438.26	945.8	721457.19	945.19
21473.69	939.6	21604.26	940.5	321678.59	944	21739.2	940.84	21802.7	938.8
21880.58	940.88	21965.3	940.3	522182.99	941.7	22407.37	942.1	22549.08	943.25
22706.66	943.3	723116.18	944.0	423314.07	944.4	23447.4	943.9	823542.48	943.18
23620.34	940.9	723950.53	941.0	324231.11	940.9	24455.71	939.8	524733.83	939.91
24842.54	940.5	624965.64	939.8	225385.75	941.5	25819.81	941.2	526059.71	942.23
26305	941.9	26719.25	942.4	927174.05	943.7	27414.59	943.7	827858.45	943.66
28121.68	944.5	728422.59	944.3	28695.82	945.6	28924.96	945.8	529079.83	946.7
29254.73	946.71	29420.8	947.17	29658.6	948.1	29859.94	950.3	530005.89	953.58
30129.21	955.1	430233.86	958.7	230266.76	958.9				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18472.36	.032	20238.7	.15	21457.19	.05	32496	5.64 .025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19085.81	21739.2	270	646.69	1140	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18472.36	19085.81	957	26270	30266.76	957

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	943.05	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.71	Wt. n-Val.		0.053	0.040
E.G. Elev (ft)	943.76	Reach Len. (ft)	270.00	646.69	1140.00
Crit W.S. (ft)	937.25	Flow Area (sq ft)		29385.86	7138.61
E.G. Slope (ft/ft)	0.002301	Area (sq ft)	7862.49	29385.86	7590.50
Q Total (cfs)	227000.00	Flow (cfs)		206478.80	20521.22
Top Width (ft)	7362.33	Top Width (ft)	613.45	2581.49	4167.38
Vel Total (ft/s)	6.22	Avg. Vel. (ft/s)		7.03	2.87
Max Chl Dpth (ft)	17.15	Hydr. Depth (ft)		11.38	2.03
Conv. Total (cfs)	4732284.0	Conv. (cfs)		4304477.0	427807.2
Length Wtd. (ft)	709.10	Wetted Per. (ft)		2586.30	3508.13

Min Ch El (ft)	925.90	Shear (lb/sq ft)		1.63	0.29
Alpha	1.18	Stream Power (lb/ft s)		11.47	0.84
Frctn Loss (ft)	1.42	Cum Volume (acre-ft)	7322.68	83092.04	29169.61
C & E Loss (ft)	0.03	Cum SA (acres)	2010.18	8769.32	9008.21

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	943.78	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.77	Wt. n-Val.		0.053	0.053
E.G. Elev (ft)	944.55	Reach Len. (ft)	270.00	646.69	1140.00
Crit W.S. (ft)	937.25	Flow Area (sq ft)		31278.83	2307.93
E.G. Slope (ft/ft)	0.002226	Area (sq ft)		31278.83	2307.93
Q Total (cfs)	227000.00	Flow (cfs)		222658.75	4341.25
Top Width (ft)	3990.39	Top Width (ft)		2615.30	1375.10
Vel Total (ft/s)	6.76	Avg. Vel. (ft/s)		7.12	1.88
Max Chl Dpth (ft)	17.88	Hydr. Depth (ft)		11.96	1.68
Conv. Total (cfs)	4811492.5	Conv. (cfs)		4719475.5	92017.0
Length Wtd. (ft)	678.50	Wetted Per. (ft)		2632.87	1378.01
Min Ch El (ft)	925.90	Shear (lb/sq ft)		1.65	0.23
Alpha	1.09	Stream Power (lb/ft s)		11.75	0.44
Frctn Loss (ft)	1.26	Cum Volume (acre-ft)	943.49	87496.88	10748.63
C & E Loss (ft)	0.04	Cum SA (acres)	169.65	8776.96	1725.58

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19085.81 LB	19749.16	92275.82	7937.62	665.16	40.65	11.97	11.63
19749.16	20412.50	80654.72	8235.71	663.49	35.53	12.42	9.79
20412.50	21075.85	20910.08	8221.47	663.37	9.21	12.39	2.54
21075.85	21739.20 RB	12638.21	4991.06	594.28	5.57	8.44	2.53
21739.20	22307.70	2754.84	1256.16	568.57	1.21	2.21	2.19
22307.70	22876.21	167.15	158.93	216.61	0.07	0.73	1.05
22876.21	23444.71						
23444.71	24013.21	1738.37	880.17	466.15	0.77	1.89	1.98
24013.21	24581.72	3536.69	1459.23	568.51	1.56	2.57	2.42
24581.72	25150.22	5950.31	1665.73	568.51	2.62	2.93	3.57
25150.22	25718.73	4151.23	1023.46	568.51	1.83	1.80	4.06
25718.73	26287.23	2222.60	694.92	551.28	0.98	1.26	3.20

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19085.81 LB	19749.16	98895.27	8420.88	677.64	43.57	12.69	11.74
19749.16	20412.50	87055.52	8718.97	663.49	38.35	13.14	9.98
20412.50	21075.85	22614.66	8704.73	663.37	9.96	13.12	2.60
21075.85	21739.20 RB	14093.30	5434.25	628.36	6.21	8.69	2.59
21739.20	22307.70	3709.68	1670.32	568.57	1.63	2.94	2.22
22307.70	22876.21	419.31	451.54	568.51	0.18	0.79	0.93
22876.21	23444.71	0.91	5.18	79.55	0.00	0.07	0.18
23444.71	24013.21	211.34	180.89	161.38	0.09	1.14	1.17

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 199.07

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18402.04	940.41	8479.23	940.03	18569.32	929.94	18677.44	928.93	18779.11	929.42
18868	929.31	8871.74	929.31	8928.11	929.51	19013.82	929.45	19030	929.7805
19110.77	931.43	19278.97	931.06	19313.24	923.51	9371.07	924.43	19425.69	927.23
19470.69	926.31	9536.38	934.92	19568.85	937	19604.6	934.91	19664.72	927.24
19727.26	929.77	19782.09	928.02	19832.79	929.81	9877.13	927.21	9904.08	927.2
19935.17	929.75	19961.4	929.55	19994.75	927	20207.7	929.38	20270.76	930.32
20360.06	928.72	20437.07	930.97	20558.04	931.42	0594.34	929.69	20697.54	927.18
20796.98	930.35	20908.71	931.64	20997.29	930.52	1094.13	927.31	21186.49	926.06
21273.67	928.22	21334.59	928.57	21387.11	943.22	1416.13	938.85	21473.29	937.68
21709.87	937.96	21838.7	938.39	22044.79	938.12	2287.75	940.39	22415.78	940.68
22512.75	940.45	22645.45	941.05	22867.04	940.92	3000.65	941.46	23110	940.9
23230.9	939.18	23341.25	942.03	23417.7	940.52	3498.75	939.95	23607.03	942.41
23699.31	940.37	23863.47	940.15	24156.51	940.52	4512.01	939.22	24681.42	939.44
24762.83	938.68	24796.09	940.33	24849.2	940.72	5014.31	938.71	25083.55	939.02
25185.57	939.51	25402.55	939.46	25737.69	939.12	6120.98	940.22	6275.36	940.07
26477.35	940.96	26822.8	941.58	27370.77	941.62	7498.03	942.29	27555.28	942.72
27588.36	941.89	27848.57	942.86	28645.85	942.92	8759.81	941.76	28835.29	942.74
28898.8	946.04	28937.43	943.84	29191.13	94	29523.28	943.59	29704.73	944.19
29893.18	944.15	29987.33	943.79	30075.22	944.93	0127.19	946.48	30151.97	949.65
30168.74	953.45								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18402.04	.03	22027	0.76	.15	21387.11	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19030	21387.11	560	546.65	605	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18402.04	19030	952	26600	30168.74	952

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	941.71	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.60	Wt. n-Val.		0.050	0.025
E.G. Elev (ft)	942.31	Reach Len. (ft)	560.00	546.65	605.00
Crit W.S. (ft)	935.91	Flow Area (sq ft)		28941.03	9687.99
E.G. Slope (ft/ft)	0.001742	Area (sq ft)	6406.90	28941.03	9831.23
Q Total (cfs)	227000.00	Flow (cfs)		189961.25	37038.75
Top Width (ft)	8884.23	Top Width (ft)	627.96	2351.77	5904.50
Vel Total (ft/s)	5.88	Avg. Vel. (ft/s)		6.56	3.82
Max Chl Dpth (ft)	18.21	Hydr. Depth (ft)		12.31	1.89
Conv. Total (cfs)	5438329.5	Conv. (cfs)		4550977.5	887352.0
Length Wtd. (ft)	557.22	Wetted Per. (ft)		2356.36	5113.17
Min Ch El (ft)	923.50	Shear (lb/sq ft)		1.34	0.21
Alpha	1.11	Stream Power (lb/ft s)		8.77	0.79
Frctn Loss (ft)	0.74	Cum Volume (acre-ft)	7278.46	82659.08	28941.64
C & E Loss (ft)	0.04	Cum SA (acres)	2006.33	8732.70	8876.41

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	942.61	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.63	Wt. n-Val.		0.050	0.025
E.G. Elev (ft)	943.24	Reach Len. (ft)	560.00	546.65	605.00
Crit W.S. (ft)	935.91	Flow Area (sq ft)		31061.01	4851.11
E.G. Slope (ft/ft)	0.001579	Area (sq ft)		31061.01	4851.11
Q Total (cfs)	227000.00	Flow (cfs)		202060.83	24939.17
Top Width (ft)	3863.99	Top Width (ft)		2355.01	1508.98
Vel Total (ft/s)	6.32	Avg. Vel. (ft/s)		6.51	5.14
Max Chl Dpth (ft)	19.11	Hydr. Depth (ft)		13.19	3.21
Conv. Total (cfs)	5711934.5	Conv. (cfs)		5084397.5	627537.1
Length Wtd. (ft)	553.02	Wetted Per. (ft)		2372.55	1510.87
Min Ch El (ft)	923.50	Shear (lb/sq ft)		1.29	0.32

Alpha	1.02	Stream Power (lb/ft s)		8.40	1.63
Frctn Loss (ft)	0.70	Cum Volume (acre-ft)	943.49	87034.13	10654.96
C & E Loss (ft)	0.03	Cum SA (acres)	169.65	8740.07	1687.84

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19030.00 LB	19619.28	69646.34	6955.03	591.02	30.68	11.80	10.01
19619.28	20208.55	83462.77	7747.67	590.05	36.77	13.15	10.77
20208.55	20797.83	21197.96	7087.20	589.45	9.34	12.03	2.99
20797.83	21387.11 RB	15654.18	7151.14	585.84	6.90	12.25	2.19
21387.11	21972.55	10928.86	2058.98	575.75	4.81	3.58	5.31
21972.55	22557.99	4225.18	1171.97	585.46	1.86	2.00	3.61
22557.99	23143.44	715.47	403.80	585.45	0.32	0.69	1.77
23143.44	23728.88	1541.13	598.51	495.32	0.68	1.21	2.57
23728.88	24314.32	2433.07	841.59	585.44	1.07	1.44	2.89
24314.32	24899.76	4680.51	1246.23	585.49	2.06	2.13	3.76
24899.76	25485.20	5584.83	1385.53	585.45	2.46	2.37	4.03
25485.20	26070.65	5261.49	1336.82	585.44	2.32	2.28	3.94
26070.65	26656.09	1668.22	644.56	529.36	0.73	1.22	2.59

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19030.00 LB	19619.28	73867.19	7485.86	603.85	32.54	12.70	9.87
19619.28	20208.55	88714.73	8278.50	590.05	39.08	14.05	10.72
20208.55	20797.83	22767.10	7618.03	589.45	10.03	12.93	2.99
20797.83	21387.11 RB	16711.84	7678.62	589.20	7.36	13.08	2.18
21387.11	21972.55	15473.18	2580.13	581.83	6.82	4.44	6.00
21972.55	22557.99	7682.75	1699.35	585.46	3.38	2.90	4.52
22557.99	23143.44	1783.21	571.62	343.58	0.79	1.67	3.12

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 198.96

INPUT
Description: Left Bank Channel Station Interpolated
Station Elevation Data num= 92

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18119.7	954.4	18194.3	942.25	18311.44	940.58	18519.73	938.03	18594.13	938.59
18683.31	934.81	18748.32	934.04	18802.65	932.24	18829.01	930.1	18882	928.4734
18910.78	927.59	19245.27	927.5	19399.43	924.61	19416.06	928.24	19423	924.43
19524.44	927.36	19674.38	927.4	19809.36	925.94	19993.68	927.29	20063.61	927.26
20067.28	929.14	20111.19	925.8	20160.27		92620258.75	936.24	20494.99	935.73
20560	936.23	20612.15	936.64	20675.45	935.3	20745.64	932.54	20879.06	928.28
20996.13	933.54	21149.05	932.75	21215.66	927.6	21310.61	928.44	21380.85	925.62
21463.91	925.35	21546.69	928.17	21596.72	941.9	21624.33	937.53	21696.33	936.58
21914.13	937.76	22027.74	937.53	22151.69	939.1	22289.52	937.96	22619.92	938.77
22734.01	938.47	23119	939.72	23330.9	939.9	23450.62	937.46	23565.98	937.64
23634.32	938.6	23725.57	937.46	23815.06	940.8	23886.31	938.41	24040.18	938.18
24180.31	938.72	24341.79	938.01	24584.97	939.4	24884.6	939.63	25015.52	937.85
25089.24	941.66	25152.66	938.71	25250.24	937.3	25319.28	938.43	25360.97	937.44
25460.36	937.53	25670.17	938.74	25781.98	938.4	26067.93	938.87	26202.46	938.87
26403.72	939.94	26453.28	938.95	26585.77	938.3	26697.2	938.89	26987.37	939.63
27182.66	940.5	27725.13	940.23	28119.65	941.7	28484.58	941.62	28841.24	941.1
29028.42	942.43	29107.19	941.58	29174.98	942.1	29307.2	942.09	29470.78	942.67
29612.18	942.24	29914.47	942.44	30076.12		94330182.32	943.04	30309.66	941.83
30371.36	944.71	30385.88	947.09						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18119.7	.032	20560	.15	21596.72	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1888	21596.72	510	539.93	510	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18119.7	18882	953	26866	30385.88	953

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	941.07	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.46	Wt. n-Val.		0.042	0.025
E.G. Elev (ft)	941.52	Reach Len. (ft)	510.00	539.93	510.00
Crit W.S. (ft)	934.98	Flow Area (sq ft)		31235.70	12862.48
E.G. Slope (ft/ft)	0.001058	Area (sq ft)	2717.15	31235.70	13724.21
Q Total (cfs)	227000.00	Flow (cfs)		181758.33	45241.68
Top Width (ft)	9639.26	Top Width (ft)	604.59	2711.68	6322.99
Vel Total (ft/s)	5.15	Avg. Vel. (ft/s)		5.82	3.52
Max Chl Dpth (ft)	16.64	Hydr. Depth (ft)		11.52	2.45
Conv. Total (cfs)	6979928.5	Conv. (cfs)		5588811.0	1391117.5
Length Wtd. (ft)	534.25	Wetted Per. (ft)		2716.56	5240.36
Min Ch El (ft)	924.43	Shear (lb/sq ft)		0.76	0.16
Alpha	1.12	Stream Power (lb/ft s)		4.42	0.57
Frctn Loss (ft)	0.50	Cum Volume (acre-ft)	7219.81	82281.49	28778.06
C & E Loss (ft)	0.03	Cum SA (acres)	1998.41	8700.93	8791.50

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	941.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.53	Wt. n-Val.		0.043	0.025
E.G. Elev (ft)	942.52	Reach Len. (ft)	510.00	539.93	510.00
Crit W.S. (ft)	934.98	Flow Area (sq ft)		33720.66	5337.27
E.G. Slope (ft/ft)	0.001038	Area (sq ft)		33720.66	5337.27
Q Total (cfs)	227000.00	Flow (cfs)		202365.59	24634.41
Top Width (ft)	4138.00	Top Width (ft)		2714.72	1423.28
Vel Total (ft/s)	5.81	Avg. Vel. (ft/s)		6.00	4.62
Max Chl Dpth (ft)	17.55	Hydr. Depth (ft)		12.42	3.75
Conv. Total (cfs)	7046010.0	Conv. (cfs)		6281365.5	764644.6
Length Wtd. (ft)	536.92	Wetted Per. (ft)		2733.22	1426.23
Min Ch El (ft)	924.43	Shear (lb/sq ft)		0.80	0.24
Alpha	1.02	Stream Power (lb/ft s)		4.80	1.12
Frctn Loss (ft)	0.48	Cum Volume (acre-ft)	943.49	86627.65	10584.20
C & E Loss (ft)	0.03	Cum SA (acres)	169.65	8708.25	1667.48

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18882.00 LB	19560.68	80987.62	9592.49	680.13	35.68	14.13	8.44
19560.68	20239.36	78068.02	9381.10	679.70	34.39	13.82	8.32
20239.36	20918.04	10782.05	4595.21	678.97	4.75	6.77	2.35
20918.04	21596.72 RB	11920.66	7666.89	677.76	5.25	11.35	1.55
21596.72	22182.66	8378.33	1970.87	580.97	3.69	3.39	4.25
22182.66	22768.61	5543.53	1543.54	585.95	2.44	2.63	3.59
22768.61	23354.55	2555.42	969.89	585.95	1.13	1.66	2.63
23354.55	23940.50	5637.50	1559.33	586.08	2.48	2.66	3.62
23940.50	24526.44	5578.47	1549.37	585.95	2.46	2.64	3.60
24526.44	25112.38	2667.94	978.65	561.76	1.18	1.74	2.73
25112.38	25698.33	6797.15	1744.47	586.02	2.99	2.98	3.90
25698.33	26284.27	4512.96	1364.34	585.95	1.99	2.33	3.31
26284.27	26870.22	3570.37	1182.01	581.74	1.57	2.03	3.02

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18882.00 LB	19560.68	88525.45	10214.05	693.64	39.00	15.05	8.67
19560.68	20239.36	86657.91	10002.66	679.70	38.18	14.74	8.66
20239.36	20918.04	13687.44	5216.77	678.97	6.03	7.69	2.62
20918.04	21596.72 RB	13494.81	8287.17	680.92	5.94	12.21	1.63
21596.72	22182.66	12512.75	2505.29	586.31	5.51	4.28	4.99

22182.66	22768.61	9181.84	2080.17	585.95	4.04	3.55	4.41
22768.61	23354.55	2939.80	751.80	253.97	1.30	2.99	3.91

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 198.86

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18195.7	950.2	18235.75	944.2	18336.62	942.17	18448.46	941.58	18622.94	937.65
18725.02	934.9	18754.5	934.85	18775.59	933.76	29188	43.36	930.25	18984.76	927.57
19028.12	927.53	19120.25	926	19187.52	925.34	19367.06	926.73	19454.24	924.52
19531.22	925.01	19561.75	923.81	19900.12	923.36	19922.7	926.71	19935.42	923.24
19989.24	922.71	20118.36	924.62	20153.46	930.12	20212.55	932.45	20244.48	936.97
20293.61	949.89	20317.21	935.12	20424.91	933.62	20709.82	936.57	20826.98	936.07
20890.28	932.69	20981.84	929.82	21043.04	928.79	21127.67	931.65	21227.73	931.14
21345.18	929.29	21426.48	926.82	21430.49	926.01	21537.91	926.92	21618.98	925.29
21712.42	925.52	21763.08	926.42	21812.74	942.59	21849.04	937.13	22006.59	936.62
22245.48	937.47	22619.48	937.72	3069.76	938.92	23326.52	939.12	23545.71	939.23
23669.3	937.03	23774.74	938.42	3848.19	937.38	23951.01	936.92	24039.97	940.18
24098.06	937.64	24222.33	938.12	4335.39	937.99	24555.72	938.56	24872.52	938.82
25167.43	938.55	25237.22	937.62	5312.35	939.52	25371.62	938.99	25475.45	936.87
25542.39	938.12	25567.21	9372	5779.48	937.82	26070.96	938.24	26314.58	937.68
26593.88	938.02	26652.31	939.52	6671.95	937.47	26698.23	937.97	27190.74	939.12
27560.24	939.39	27870.48	9402	7974.17	941.42	28004.07	939.59	28078.45	939.97
28403.77	940.34	28999.11	939.92	9218.03	940.12	9285.93	9402	9348.88	941.5
29373.76	940.32	9617.87	941.12	9920.02	941.16	30493.34	941.43	30563.35	941.62
30592.1	944								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18195.7	.03	22082.66	.15	21812.74	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18775.5	21812.74	350	367.41	295	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18195.7	18775.55	948	27090	30592.1	948

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	940.63	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.38	Wt. n-Val.		0.042	0.025
E.G. Elev (ft)	941.00	Reach Len. (ft)	350.00	367.41	295.00
Crit W.S. (ft)	933.56	Flow Area (sq ft)		35437.88	13129.40
E.G. Slope (ft/ft)	0.000822	Area (sq ft)	943.13	35438.22	14831.87
Q Total (cfs)	227000.00	Flow (cfs)		185845.11	41154.89
Top Width (ft)	10788.66	Top Width (ft)	284.71	2981.21	7522.75
Vel Total (ft/s)	4.67	Avg. Vel. (ft/s)		5.24	3.13
Max Chl Dpth (ft)	17.92	Hydr. Depth (ft)		11.89	2.49
Conv. Total (cfs)	7915474.0	Conv. (cfs)		6480406.0	1435068.3
Length Wtd. (ft)	357.15	Wetted Per. (ft)		2987.57	5264.85
Min Ch El (ft)	922.71	Shear (lb/sq ft)		0.61	0.13
Alpha	1.11	Stream Power (lb/ft s)		3.19	0.40
Frctn Loss (ft)	0.28	Cum Volume (acre-ft)	7198.38	81868.28	28610.89
C & E Loss (ft)	0.00	Cum SA (acres)	1993.20	8665.64	8710.45

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	941.57	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.43	Wt. n-Val.		0.042	0.025
E.G. Elev (ft)	942.00	Reach Len. (ft)	350.00	367.41	295.00
Crit W.S. (ft)	933.56	Flow Area (sq ft)		38252.86	5233.10
E.G. Slope (ft/ft)	0.000788	Area (sq ft)		38253.25	5233.10
Q Total (cfs)	227000.00	Flow (cfs)		205997.13	21002.87
Top Width (ft)	4389.67	Top Width (ft)		2989.19	1400.47
Vel Total (ft/s)	5.22	Avg. Vel. (ft/s)		5.39	4.01
Max Chl Dpth (ft)	18.86	Hydr. Depth (ft)		12.80	3.74
Conv. Total (cfs)	8083987.0	Conv. (cfs)		7336027.0	747959.9
Length Wtd. (ft)	363.05	Wetted Per. (ft)		2996.09	1403.34
Min Ch El (ft)	922.71	Shear (lb/sq ft)		0.63	0.18

Alpha	1.02	Stream Power (lb/ft s)		3.38	0.74
Frctn Loss (ft)	0.27	Cum Volume (acre-ft)	943.49	86181.59	10522.32
C & E Loss (ft)	0.00	Cum SA (acres)	169.65	8672.90	1650.95

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18775.50 LB	19534.81	73505.61	10296.41	759.43	32.38	13.56	7.14
19534.81	20294.12	86304.41	11132.53	725.59	38.02	15.39	7.75
20294.12	21053.43	13088.70	4848.79	746.80	5.77	6.51	2.70
21053.43	21812.74 RB	12946.35	9160.15	755.75	5.70	12.16	1.41
21812.74	22398.03	7432.85	1961.64	572.50	3.27	3.43	3.79
22398.03	22983.32	4938.72	1548.58	585.29	2.18	2.65	3.19
22983.32	23568.61	2091.96	924.90	585.29	0.92	1.58	2.26
23568.61	24153.90	5120.81	1582.75	585.44	2.26	2.70	3.24
24153.90	24739.19	3962.23	1356.84	585.29	1.75	2.32	2.92
24739.19	25324.48	3086.86	1168.11	585.32	1.36	2.00	2.64
25324.48	25909.78	5595.45	1669.10	585.35	2.46	2.85	3.35
25909.78	26495.06	5026.06	1564.95	585.29	2.21	2.67	3.21
26495.06	27080.36	3859.01	1335.63	585.42	1.70	2.28	2.89
27080.36	27665.65	40.98	16.91	9.64	0.02	1.75	2.42

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18775.50 LB	19534.81	81176.45	11012.38	759.43	35.76	14.50	7.37
19534.81	20294.12	93792.59	11816.54	729.29	41.32	16.25	7.94
20294.12	21053.43	16587.15	5552.06	748.58	7.31	7.44	2.99
21053.43	21812.74 RB	14440.92	9871.86	758.79	6.36	13.05	1.46
21812.74	22398.03	10936.31	2504.21	578.84	4.82	4.33	4.37
22398.03	22983.32	8098.71	2100.50	585.29	3.57	3.59	3.86
22983.32	23568.61	1967.88	628.40	239.21	0.87	2.66	3.13

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 198.79

INPUT
Description: Left Bank Channel Station Interpolated
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17662.07	95217	806.27	949.4317	906.39	947.3318	028.27	946.1318	105.01	943.57
18236.33	941.6183	69.13	941.3618	643.12	936.7518	779.75	935.4618	838.93	932.96
18894.85	936.5189	26.18	930.7328	18928.26	930.3518	964.21	927.66	19035.9	925.26
19150.84	925.1119	331.86	923.5195	12.39	922.1	19622	923.5419	734.03	923.17
19837.78	923.8420	040.14	922.7201	19.94	922.4620	256.23	924.0420	287.14	928.81
20427.84	933.2720	736.89	935.1208	56.17	934.95	20976.1	936.9721	114.63	930.03
21131.45	927.2212	30.47	930.2212	95.79	929.9221	331.41	930.8721	419.86	929.99
21463.4	928.8521	488.26	926.9215	76.83	924.7121	676.75	924.9721	765.33	923.74
21847.11	926.4921	893.36	941.5	21910.3	941.0821	925.42	937.4322	124.89	939.76
22299.19	940.3122	507.25	938.9	23171	939.29	23419.1	939	23674.1	938.96
23803	938.7523	850.98	937.8240	54.58	937.9924	167.19	939.5243	03.23	938.49
24437.08	938.2324	461.18	938.7246	49.81	937.5224	837.67	937.5724	942.03	936.96
25224.07	936.4825	348.55	936.8253	78.05	937.89	25450	938.3225	518.81	938.73
25596.52	936.76	25695.1	938.2925	755.71	937.2259	70.11	938.1626	242.78	938.3
26570.56	937.9426	745.24	937.5426	811.98	938.7268	24.98	937.3926	877.54	936.97
27461.36	939.0528	056.27	939.0428	116.67	941.1281	68.81	939.1228	443.25	939.54
29144.81	939.48	29356	939.02	29418.8	941.3294	77.98	940.0429	794.12	939.83
29945.27	940.1300	09.41	939.5130	411.16	939.5306	30.71	939.6530	724.62	941.21
30769.25	943.43								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17662.07	.032	20976.1	.15	21893.36	.05	32250 7.25	.02	52416 7.19	.053
25450	.025								

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
18926.1821893.36 310 330.9 290 .1 .3
Ineffective Flow num= 2
Sta L Sta R Elev Sta L Sta R Elev
17662.0718926.18 947 2722630769.25 947

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	940.30	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.42	Wt. n-Val.		0.041	0.032
E.G. Elev (ft)	940.72	Reach Len. (ft)	310.00	330.90	290.00
Crit W.S. (ft)	932.25	Flow Area (sq ft)		37456.50	10665.20
E.G. Slope (ft/ft)	0.000755	Area (sq ft)	1827.73	37456.50	13593.56
Q Total (cfs)	227000.00	Flow (cfs)		203849.17	23150.83
Top Width (ft)	12088.39	Top Width (ft)	493.90	2963.47	8631.01
Vel Total (ft/s)	4.72	Avg. Vel. (ft/s)		5.44	2.17
Max Chl Dpth (ft)	18.20	Hydr. Depth (ft)		12.64	2.01
Conv. Total (cfs)	8260782.5	Conv. (cfs)		7418298.0	842484.6
Length Wtd. (ft)	324.63	Wetted Per. (ft)		2966.98	5307.22
Min Ch El (ft)	922.10	Shear (lb/sq ft)		0.60	0.09
Alpha	1.22	Stream Power (lb/ft s)		3.24	0.21
Frctn Loss (ft)	0.23	Cum Volume (acre-ft)	7187.25	81560.87	28514.64
C & E Loss (ft)	0.03	Cum SA (acres)	1990.07	8640.57	8655.75

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	941.28	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.45	Wt. n-Val.		0.041	0.031
E.G. Elev (ft)	941.73	Reach Len. (ft)	310.00	330.90	290.00
Crit W.S. (ft)	932.25	Flow Area (sq ft)		40360.50	3064.63
E.G. Slope (ft/ft)	0.000698	Area (sq ft)		40360.50	3064.63
Q Total (cfs)	227000.00	Flow (cfs)		220652.98	6347.01
Top Width (ft)	4464.14	Top Width (ft)		2966.49	1497.64
Vel Total (ft/s)	5.23	Avg. Vel. (ft/s)		5.47	2.07
Max Chl Dpth (ft)	19.18	Hydr. Depth (ft)		13.61	2.05
Conv. Total (cfs)	8590789.0	Conv. (cfs)		8350587.0	240201.8
Length Wtd. (ft)	327.64	Wetted Per. (ft)		2980.69	1500.36
Min Ch El (ft)	922.10	Shear (lb/sq ft)		0.59	0.09
Alpha	1.07	Stream Power (lb/ft s)		3.23	0.18
Frctn Loss (ft)	0.22	Cum Volume (acre-ft)	943.49	85850.05	10494.23
C & E Loss (ft)	0.03	Cum SA (acres)	169.65	8647.79	1641.13

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18926.18 LB	19667.97	90378.57	11898.75	741.99	39.81	16.04	7.60
19667.97	20409.77	87213.93	11648.52	742.24	38.42	15.70	7.49
20409.77	21151.56	13352.99	4565.85	742.25	5.88	6.16	2.92
21151.56	21893.36 RB	12903.62	9343.39	740.50	5.68	12.66	1.38
21893.36	22485.09	369.38	517.21	566.12	0.16	0.91	0.71
22485.09	23076.81	1320.43	730.00	591.73	0.58	1.23	1.81
23076.81	23668.54	1295.24	711.99	591.73	0.57	1.20	1.82
23668.54	24260.26	2454.08	1060.81	591.75	1.08	1.79	2.31
24260.26	24851.99	1760.84	1343.70	591.74	0.78	2.27	1.31
24851.99	25443.71	3341.26	1973.43	591.75	1.47	3.34	1.69
25443.71	26035.44	4273.95	1460.66	591.78	1.88	2.47	2.93
26035.44	26627.17	3425.23	1276.09	591.73	1.51	2.16	2.68
26627.17	27218.89	4871.14	1576.41	591.81	2.15	2.66	3.09
27218.89	27810.62	39.31	14.91	7.11	0.02	2.10	2.64

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18926.18 LB	19667.97	95978.88	12625.29	752.54	42.28	17.02	7.60
19667.97	20409.77	93686.23	12375.06	742.24	41.27	16.68	7.57

20409.77	21151.56	16835.84	5292.38	742.25	7.42	7.13	3.18
21151.56	21893.36 RB	14152.01	10067.77	743.67	6.23	13.58	1.41
21893.36	22485.09	1205.16	1079.65	583.19	0.53	1.85	1.12
22485.09	23076.81	3416.99	1309.55	591.73	1.51	2.21	2.61
23076.81	23668.54	1724.89	675.43	325.44	0.76	2.09	2.55

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 198.73

INPUT
Description: Left Bank Channel Station Interpolated
Station Elevation Data num= 92

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17720.43	951.71	7824.93	949.69	18087.38	947.14	18282.25	944.68	18431.09	944.54
18667.05	940.41	8862.03	937.66	18981.64	931.47	19010.28	934.43	19013.92	934.058
19098.86	925.38	19166.08	922.51	9445.29	922.08	19522.33	927.47	19619.44	926.15
19696.6	926.97	19875.43	922.42	0064.49	922.15	20256.74	922.98	20302.61	931.89
20446.53	932.52	20629.59	933.92	0749.35	933.72	20886.25	934.52	20988.87	934.35
21107.23	936.82	21174.45	933.92	1238.52	930.12	1260.98	927.52	21340.97	926.93
21410.02	930.87	21453.86	932.12	1514.39	926.76	21570.66	924.07	21655.19	926.71
21751.32	924.89	21856.65	924.62	1903.15	923.86	21943.08	924.35	22002.64	941.06
22022.41	939.98	22030.45	936.42	2194.48	936.82	2285.66	936.47	22408.01	937.14
22680.95	935.99	22876.18	935.72	3227.89	936.09	23348.83	935.62	3467.65	937.2
23716.45	937.07	23862.35	937.72	3955.32	935.81	24056.73	934.99	24155.75	937.52
24230.33	937.57	24314.58	938.62	4470.85	936.94	24583.26	938.55	24690.36	937.32
24933.66	937.88	25208.56	937.42	5348.49	936.58	25580.06	937.42	5653.26	938.2
25835.04	936.71	25918.79	936.42	6367.79	937.07	26749.47	937.67	26833.04	936.81
26931.96	938.99	26977.91	936.92	7187.22	937.64	27534.38	937.54	27691.81	938.26
28119.68	938.67	28242.26	939.32	8508.53	939.49	28769.85	939.85	29111.44	939.46
29364.7	939.48	29493.06	938.82	9550.95	939.99	29596.33	939.27	29618.24	940.17
29722.02	939.15	30148.07	939.53	0457.43	939.72	30746.85	939.43	0815.29	938.94
30878.37	941.11	30891.3	943.1						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17720.43	.03	22110	7.23	.152	2002.64	.02	5233	48.83	.05
32431	4.58	.043							
25580.06	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19013.92	22002.64	500	417.7	290	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17720.43	19013.92	950	27341	30891.3	950

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	940.13	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.33	Wt. n-Val.		0.042	0.030
E.G. Elev (ft)	940.46	Reach Len. (ft)	500.00	417.70	290.00
Crit W.S. (ft)	932.52	Flow Area (sq ft)		36509.02	16689.36
E.G. Slope (ft/ft)	0.000684	Area (sq ft)	1109.81	36509.02	20039.70
Q Total (cfs)	227000.00	Flow (cfs)		180551.81	46448.18
Top Width (ft)	12138.27	Top Width (ft)	327.66	2985.41	8825.20
Vel Total (ft/s)	4.27	Avg. Vel. (ft/s)		4.95	2.78
Max Chl Dpth (ft)	18.05	Hydr. Depth (ft)		12.23	3.14
Conv. Total (cfs)	8682618.0	Conv. (cfs)		6906002.0	1776615.8
Length Wtd. (ft)	387.67	Wetted Per. (ft)		2990.06	5322.30
Min Ch El (ft)	922.08	Shear (lb/sq ft)		0.52	0.13
Alpha	1.16	Stream Power (lb/ft s)		2.58	0.37
Frctn Loss (ft)	0.23	Cum Volume (acre-ft)	7176.80	81279.93	28402.69
C & E Loss (ft)	0.01	Cum SA (acres)	1987.15	8617.98	8597.64

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	941.12	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.37	Wt. n-Val.		0.042	0.027
E.G. Elev (ft)	941.49	Reach Len. (ft)	500.00	417.70	290.00
Crit W.S. (ft)	932.52	Flow Area (sq ft)		39466.29	7787.14
E.G. Slope (ft/ft)	0.000632	Area (sq ft)		39466.29	7787.14
Q Total (cfs)	227000.00	Flow (cfs)		197107.80	29892.19

Top Width (ft)	4646.08	Top Width (ft)		2988.72	1657.36
Vel Total (ft/s)	4.80	Avg. Vel. (ft/s)		4.99	3.84
Max Chl Dpth (ft)	19.04	Hydr. Depth (ft)		13.21	4.70
Conv. Total (cfs)	9032083.0	Conv. (cfs)		7842705.0	1189377.8
Length Wtd. (ft)	399.29	Wetted Per. (ft)		3000.56	1662.19
Min Ch El (ft)	922.08	Shear (lb/sq ft)		0.52	0.18
Alpha	1.02	Stream Power (lb/ft s)		2.59	0.71
Frctn Loss (ft)	0.23	Cum Volume (acre-ft)	943.49	85546.85	10458.10
C & E Loss (ft)	0.01	Cum SA (acres)	169.65	8625.17	1630.63

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19013.92 LB	19761.10	80011.52	11379.29	747.91	35.25	15.23	7.03
19761.10	20508.28	73226.79	10791.12	748.08	32.26	14.44	6.79
20508.28	21255.46	13997.20	4541.27	747.50	6.17	6.08	3.08
21255.46	22002.64 RB	13316.30	9797.35	746.57	5.87	13.17	1.36
22002.64	22595.22	6821.82	1953.98	576.33	3.01	3.39	3.49
22595.22	23187.79	10115.63	2502.69	592.58	4.46	4.22	4.04
23187.79	23780.37	4928.73	2056.31	592.59	2.17	3.47	2.40
23780.37	24372.95	2977.63	1863.42	592.64	1.31	3.14	1.60
24372.95	24965.53	2375.64	1452.79	592.60	1.05	2.45	1.64
24965.53	25558.11	3140.73	1717.70	592.58	1.38	2.90	1.83
25558.11	26150.68	5992.60	1841.91	592.59	2.64	3.11	3.25
26150.68	26743.26	5507.44	1737.73	592.58	2.43	2.93	3.17
26743.26	27335.84	4550.38	1549.75	592.65	2.00	2.62	2.94
27335.84	27928.41	37.62	13.08	5.16	0.02	2.53	2.88

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19013.92 LB	19761.10	85669.51	12118.99	754.97	37.74	16.22	7.07
19761.10	20508.28	79335.77	11530.82	748.08	34.95	15.43	6.88
20508.28	21255.46	17566.73	5280.97	747.50	7.74	7.07	3.33
21255.46	22002.64 RB	14535.81	10535.51	750.01	6.40	14.10	1.38
22002.64	22595.22	9906.60	2532.71	593.37	4.36	4.27	3.91
22595.22	23187.79	13807.36	3089.33	592.58	6.08	5.21	4.47
23187.79	23780.37	6178.22	2165.09	476.24	2.72	4.59	2.85

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 198.65

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17689.87	947.31	7760.42	945.94	17808.66	950.42	18103.85	945.82	18174.39	945.26
18232.2	940.11	8320.61	934.77	18412.42	932.98	18564.3	932.94	18610.84	933.33
18674.59	935.61	8789.53	935.21	18861.64	930.54	18868.65	930.85	18892.49	931.89
18989.85	928.99	19066.24	924.61	9150.31	922.91	19335.17	922.25	19404.17	925.55
19473.83	922.88	19608.1	923.21	9786.44	927.86	19847.34	930.15	19957.38	927.75
20038.91	922.57	20147.6	922	20167.3	923.42	20199.48	931.15	20383.52	931.69
20437.12	931.57	20554.55	933.12	0669.63	932.86	20909.7	933.01	21146.23	936.05
21176.79	935.21	21246.35	935.52	1314.02	929.36	21405.83	926.77	21470.2	926.93
21526.13	925.03	21636	922.62	1701.83	926.92	1843.38	924.97	21899.93	922.63
21941.61	923.36	22005.91	940.62	2047.81	936.28	22208.11	935.68	22326.26	936.31
22448.66	935.59	23039.14	935.42	3268.82	936.14	23389.8	935.58	23641.12	936.03
23863.56	936.08	23983.04	934.62	4156.63	935.22	24175.2	936.35	24285.66	935.61
24371.34	937.82	24404.21	938.7	24484.1	935.96	24565.77	936.08	25255.33	936.82
25488.47	936.83	25596.5	935	25645.5	937.82	5688.12	936.59	25701.75	938.68
25758.68	935.62	6026.97	936.72	6299.86	937.42	6839.32	937.03	26978.12	938.1
27021.39	936.95	27250.17	937.72	7755.64	937.51	27970.68	938.22	8039.74	938.18
28171	939.35	28245.8	939	28280.35	938.61	28317.01	940.05	28376	939.07
28650.57	939.53	29440.03	939.52	9578.12	938.78	29600.38	939.95	29823.08	939.35
30150.88	939.23	30388.61	938.93	0669.62	939.23	30861.19	938.13	30918.48	940.13

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17689.87	.03	22019	9.48	.02	8214	6.23	.152	2047.81	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18868.65	22005.91	300	326.88	390	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17689.87	18868.65	948	27364	30918.48	948

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	939.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.28	Wt. n-Val.		0.040	0.025
E.G. Elev (ft)	940.21	Reach Len. (ft)	300.00	326.88	390.00
Crit W.S. (ft)	933.24	Flow Area (sq ft)		36696.54	19010.09
E.G. Slope (ft/ft)	0.000527	Area (sq ft)	3595.72	36696.54	22429.21
Q Total (cfs)	227000.00	Flow (cfs)		166690.66	60309.36
Top Width (ft)	12652.47	Top Width (ft)	633.69	3134.77	8884.01
Vel Total (ft/s)	4.07	Avg. Vel. (ft/s)		4.54	3.17
Max Chl Dpth (ft)	17.93	Hydr. Depth (ft)		11.71	3.55
Conv. Total (cfs)	9891530.0	Conv. (cfs)		7263549.0	2627981.5
Length Wtd. (ft)	344.18	Wetted Per. (ft)		3139.18	5352.33
Min Ch El (ft)	922.00	Shear (lb/sq ft)		0.38	0.12
Alpha	1.07	Stream Power (lb/ft s)		1.75	0.37
Frctn Loss (ft)	0.17	Cum Volume (acre-ft)	7149.79	80928.95	28261.32
C & E Loss (ft)	0.01	Cum SA (acres)	1981.63	8588.63	8538.69

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	940.90	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.34	Wt. n-Val.		0.040	0.025
E.G. Elev (ft)	941.25	Reach Len. (ft)	300.00	326.88	390.00
Crit W.S. (ft)	933.24	Flow Area (sq ft)		39735.88	8724.81
E.G. Slope (ft/ft)	0.000541	Area (sq ft)		39735.88	8724.81
Q Total (cfs)	227000.00	Flow (cfs)		191443.45	35556.54
Top Width (ft)	4851.35	Top Width (ft)		3137.26	1714.09
Vel Total (ft/s)	4.68	Avg. Vel. (ft/s)		4.82	4.08
Max Chl Dpth (ft)	18.90	Hydr. Depth (ft)		12.67	5.09
Conv. Total (cfs)	9756811.0	Conv. (cfs)		8228535.5	1528275.3
Length Wtd. (ft)	336.73	Wetted Per. (ft)		3151.81	1719.17
Min Ch El (ft)	922.00	Shear (lb/sq ft)		0.43	0.17
Alpha	1.01	Stream Power (lb/ft s)		2.05	0.70
Frctn Loss (ft)	0.17	Cum Volume (acre-ft)	943.49	85167.12	10403.14
C & E Loss (ft)	0.00	Cum SA (acres)	169.65	8595.80	1619.41

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18868.65 LB	19652.96	77327.11	11894.12	784.67	34.06	15.16	6.50
19652.96	20437.28	56595.97	9600.64	785.56	24.93	12.24	5.90
20437.28	21221.60	19969.12	4988.27	784.36	8.80	6.36	4.00
21221.60	22005.91 RB	12798.43	10213.51	784.59	5.64	13.06	1.25
22005.91	22600.08	7700.29	2312.72	587.90	3.39	3.94	3.33
22600.08	23194.25	9462.85	2623.82	594.17	4.17	4.42	3.61
23194.25	23788.42	8126.16	2394.71	594.17	3.58	4.03	3.39
23788.42	24382.60	8861.36	2522.58	594.25	3.90	4.25	3.51
24382.60	24976.77	6289.73	2053.61	594.23	2.77	3.46	3.06
24976.77	25570.94	5755.99	1947.14	594.18	2.54	3.28	2.96
25570.94	26165.11	6208.33	2038.02	594.52	2.73	3.43	3.05
26165.11	26759.28	4153.58	1600.94	594.17	1.83	2.69	2.59
26759.28	27353.45	3695.50	1492.56	594.19	1.63	2.51	2.48
27353.45	27947.62	55.58	23.99	10.55	0.02	2.27	2.32

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18868.65 LB	19652.96	86253.46	12654.16	794.72	38.00	16.13	6.82
19652.96	20437.28	65069.25	10360.68	785.56	28.66	13.21	6.28
20437.28	21221.60	25519.10	5748.32	784.36	11.24	7.33	4.44

21221.60	22005.91 RB	14601.67	10972.72	787.17	6.43	13.99	1.33
22005.91	22600.08	11348.05	2886.35	594.40	5.00	4.86	3.93
22600.08	23194.25	13583.86	3199.61	594.17	5.98	5.39	4.25
23194.25	23788.42	10624.60	2638.85	530.60	4.68	5.02	4.03

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 198.59

INPUT
Description: Left Bank Channel Station Interpolated
Station Elevation Data num= 92

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17724.25	94717789.73	947.1917800.13	94617847.01	948.1517912.24	946.04				
18012.5	940.118096.94	930.9118180.69	930.1518444.37	929.1618660.62	930.58				
18692.11	934.618713.88	933.748218759.84	931.9518859.05	925.619034.63	922.08				
19200.07	923.0219289.52	924.619394.98	922.919501.17	925.4919621.03	924.96				
19661.45	929.4319728.57	931.619849.99	933.7719917.24	927.9119967.92	927.91				
20020.15	924.5520041.11	92220169.97	922.3920208.55	925.420234.06	931				
20344.48	930.3620439.59	930.320699.41	932.61 20919.2	933.2221031.32	934.89				
21148.48	934.1621264.23	935.921364.61	930.2521457.83	927.23 21485.3	925.12				
21642.81	925.0721708.96	925.121814.48	922.51 21906.9	923.2921973.94	940.16				
22011.46	936.322093.36	935.222330.76	935.9222489.04	935.28 22918.7	935.58				
23156.34	935.8723391.38	934.9 23510.2	935.623747.12	935.2523881.14	935.29				
23997.78	934.324165.65	935.5 24179.9	934.7124283.54	936.1424354.62	938.39				
24421.26	937.7224455.89	935.124674.11	935.2524985.12	936.6625438.03	936.7				
25599.26	935.1725708.37	936.625748.59	935.6525905.13	935.6126132.99	936.52				
26821.26	936.6826941.93	936.426975.35	938.1127002.06	935.9327092.18	936.61				
27275.66	936.7927613.98	936.827983.86	937.2628257.51	937.4228320.24	940.44				
28354.09	937.9728568.46	938.828880.09	939.3729142.27	939.3129396.34	938.35				
29584.7	938.5829619.78	938.229750.26	938.7930401.83	938.7130619.62	937.99				
30895.23	937.5830923.31	938.8							

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17724.25	.03	20234.06	.02	82126 4.23	.15	21973.94	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18713.88	21973.94	530	505.62	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17724.25	18713.88	947	27320	30923.31	947

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	939.78	Element			
Vel Head (ft)	0.25	Wt. n-Val.		0.039	0.025
E.G. Elev (ft)	940.03	Reach Len. (ft)	530.00	505.62	500.00
Crit W.S. (ft)	933.04	Flow Area (sq ft)		37531.53	20461.02
E.G. Slope (ft/ft)	0.000464	Area (sq ft)	6297.55	37531.53	26017.84
Q Total (cfs)	227000.00	Flow (cfs)		162894.56	64105.44
Top Width (ft)	12879.93	Top Width (ft)	698.44	3258.55	8922.93
Vel Total (ft/s)	3.91	Avg. Vel. (ft/s)		4.34	3.13
Max Chl Dpth (ft)	17.78	Hydr. Depth (ft)		11.52	3.83
Conv. Total (cfs)	10540951.0	Conv. (cfs)		7564156.5	2976794.3
Length Wtd. (ft)	504.07	Wetted Per. (ft)		3262.84	5342.91
Min Ch El (ft)	922.00	Shear (lb/sq ft)		0.33	0.11
Alpha	1.06	Stream Power (lb/ft s)		1.45	0.35
Frctn Loss (ft)	0.26	Cum Volume (acre-ft)	7115.73	80650.44	28044.44
C & E Loss (ft)	0.00	Cum SA (acres)	1977.05	8564.65	8458.98

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	940.74	Element			
Vel Head (ft)	0.33	Wt. n-Val.		0.039	0.025
E.G. Elev (ft)	941.07	Reach Len. (ft)	530.00	505.62	500.00
Crit W.S. (ft)	933.04	Flow Area (sq ft)		40655.80	8930.20
E.G. Slope (ft/ft)	0.000496	Area (sq ft)		40655.80	8930.20
Q Total (cfs)	227000.00	Flow (cfs)		191720.78	35279.21
Top Width (ft)	4986.12	Top Width (ft)		3260.06	1726.06
Vel Total (ft/s)	4.58	Avg. Vel. (ft/s)		4.72	3.95

Max Chl Dpth (ft)	18.74	Hydr. Depth (ft)		12.47	5.17
Conv. Total (cfs)	10194141.0	Conv. (cfs)		8609818.0	1584322.9
Length Wtd. (ft)	505.01	Wetted Per. (ft)		3271.38	1731.69
Min Ch El (ft)	922.00	Shear (lb/sq ft)		0.38	0.16
Alpha	1.01	Stream Power (lb/ft s)		1.81	0.63
Frctn Loss (ft)	0.30	Cum Volume (acre-ft)	943.49	84865.48	10324.10
C & E Loss (ft)	0.01	Cum SA (acres)	169.65	8571.79	1604.01

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18713.88 LB	19528.89	73969.27	12231.68	815.35	32.59	15.01	6.05
19528.89	20343.91	51680.38	9769.04	816.56	22.77	11.99	5.29
20343.91	21158.93	25026.68	5891.65	815.04	11.02	7.23	4.25
21158.93	21973.94 RB	12218.27	9639.16	815.88	5.38	11.85	1.27
21973.94	22570.56	7820.57	2417.01	593.12	3.45	4.08	3.24
22570.56	23167.19	8300.68	2510.89	596.63	3.66	4.21	3.31
23167.19	23763.81	9001.89	2636.09	596.63	3.97	4.42	3.41
23763.81	24360.44	8992.81	2634.62	596.70	3.96	4.42	3.41
24360.44	24957.06	7320.62	2328.73	596.73	3.22	3.90	3.14
24957.06	25553.69	5276.20	1913.17	596.63	2.32	3.21	2.76
25553.69	26150.31	7301.39	2324.93	596.65	3.22	3.90	3.14
26150.31	26746.94	5221.98	1901.34	596.63	2.30	3.19	2.75
26746.94	27343.56	4869.27	1794.23	573.20	2.15	3.13	2.71

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18713.88 LB	19528.89	84414.76	13012.82	822.34	37.19	15.97	6.49
19528.89	20343.91	60803.13	10550.18	816.56	26.79	12.94	5.76
20343.91	21158.93	31882.39	6672.79	815.04	14.05	8.19	4.78
21158.93	21973.94 RB	14620.52	10420.01	817.44	6.44	12.79	1.40
21973.94	22570.56	11570.65	2988.14	596.83	5.10	5.01	3.87
22570.56	23167.19	12190.25	3082.72	596.63	5.37	5.17	3.95
23167.19	23763.81	11518.31	2859.35	538.23	5.07	5.37	4.03

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 198.49

INPUT
Description: Left Bank Channel Station Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17755.34	949.7	17770.3	945.59	17800.16	946.93	17861.22	947.44	17874.45	944.94
17965.33	945.5	18046.43	938.16	18121.16	929.52	18215.68	928.88	18299.75	929.18
18424.76	928.5	18492.42	929.24	18515.22	934.41	8537.81	933.27	7518577.61	931.3
18631.64	925.77	18760.72	923.61	8982.39	922.62	19182.33	922.94	19351.96	925.89
19399.75	928.48	19456.17	925.6	19485.4	923.19	19519.97	929.83	19596.6	930.24
19738.61	932.75	19854.32	933.81	9980.66	933.32	20027.43	932.31	20083.14	923.01
20262.39	922.39	20303.41	923.12	0339.29	930.22	0561.33	930.59	20796.14	931.85
21035.66	931.45	21268.58	933.82	1390.23	934.18	21457.58	929.76	21475.38	922.6
21542.58	921.61	21622.71	922.82	1702.95	925.06	21759.84	921.9	21794.1	921.7
21856.69	939.89	21874.44	9382	1886.78	933.63	21951.56	935.54	22253.13	935.82
22370.01	935.75	22476.75	936.42	2822.48	936.81	23016.03	936.35	23062.09	936.62
23105.24	935.06	23143.09	936.82	3245.35	935.65	23435.31	934.82	3781.14	934.41
23931.33	934.75	23966.76	935.22	3987.27	933.15	24109.53	934.39	24170.94	933.41
24310.79	933.62	24363.82	934.42	4425.56	938.19	24461.02	934.57	24612.88	935.74
24910.53	934.54	25129.73	935.22	5491.48	935.17	25640.05	935.67	25703.34	936.58
25752.92	933.73	25851.97	934.52	6653.82	935.56	26923.59	936.34	27001.99	936.51
27140.3	937.05	27565.53	9372	8008.37	938.43	28253.82	937.96	28316	938.07
28349.05	937.29	28392.26	938.82	8672.32	937.92	8984.93	938.47	29472.01	937.46
29602.06	938.21	29654.22	939.42	9705.67	936.65	29935.94	937.15	30217.22	936.68
30423.24	938.96	30899.22	938.83	0938.03	940.26				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17755.34	.043	18515.22	.043	19980.66	.028	21457.58	.152	1856.69	.053

24425.56 .025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18537.81	21856.69	390	488.9	465	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17755.34	18537.81	947	27186	30938.03	947

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	939.52	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.25	Wt. n-Val.		0.042	0.033
E.G. Elev (ft)	939.77	Reach Len. (ft)	390.00	488.90	465.00
Crit W.S. (ft)	933.01	Flow Area (sq ft)		37776.27	22144.94
E.G. Slope (ft/ft)	0.000575	Area (sq ft)	4652.71	37776.27	28277.14
Q Total (cfs)	227000.00	Flow (cfs)		165936.25	61063.75
Top Width (ft)	12882.32	Top Width (ft)	506.43	3317.61	9058.27
Vel Total (ft/s)	3.79	Avg. Vel. (ft/s)		4.39	2.76
Max Chl Dpth (ft)	17.91	Hydr. Depth (ft)		11.39	4.16
Conv. Total (cfs)	9465072.0	Conv. (cfs)		6918936.5	2546135.8
Length Wtd. (ft)	483.49	Wetted Per. (ft)		3324.60	5327.33
Min Ch El (ft)	921.61	Shear (lb/sq ft)		0.41	0.15
Alpha	1.13	Stream Power (lb/ft s)		1.79	0.41
Frctn Loss (ft)	0.38	Cum Volume (acre-ft)	7049.11	80213.38	27732.83
C & E Loss (ft)	0.02	Cum SA (acres)	1969.72	8526.48	8355.78

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	940.35	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.41	Wt. n-Val.		0.041	0.053
E.G. Elev (ft)	940.76	Reach Len. (ft)	390.00	488.90	465.00
Crit W.S. (ft)	933.00	Flow Area (sq ft)		40523.27	6893.81
E.G. Slope (ft/ft)	0.000744	Area (sq ft)		40523.27	6893.81
Q Total (cfs)	227000.00	Flow (cfs)		213038.28	13961.71
Top Width (ft)	4912.19	Top Width (ft)		3318.88	1593.31
Vel Total (ft/s)	4.79	Avg. Vel. (ft/s)		5.26	2.03
Max Chl Dpth (ft)	18.74	Hydr. Depth (ft)		12.21	4.33
Conv. Total (cfs)	8321248.5	Conv. (cfs)		7809447.0	511801.3
Length Wtd. (ft)	487.21	Wetted Per. (ft)		3332.99	1599.84
Min Ch El (ft)	921.61	Shear (lb/sq ft)		0.56	0.20
Alpha	1.14	Stream Power (lb/ft s)		2.97	0.41
Frctn Loss (ft)	0.44	Cum Volume (acre-ft)	943.49	84394.34	10233.29
C & E Loss (ft)	0.01	Cum SA (acres)	169.65	8533.61	1584.96

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18537.81 LB	19367.53	61679.46	12550.54	830.12	27.17	15.13	4.91
19367.53	20197.25	37975.84	8204.45	831.38	16.73	9.89	4.63
20197.25	21026.97	45176.80	8050.16	830.43	19.90	9.70	5.61
21026.97	21856.69 RB	21104.11	8971.12	832.67	9.30	10.83	2.35
21856.69	22462.11	3710.06	2293.53	602.83	1.63	3.81	1.62
22462.11	23067.54	2426.05	1780.59	605.43	1.07	2.94	1.36
23067.54	23672.96	4518.36	2586.02	605.49	1.99	4.27	1.75
23672.96	24278.38	6633.16	3256.03	605.54	2.92	5.38	2.04
24278.38	24883.80	8449.12	2630.88	605.73	3.72	4.35	3.21
24883.80	25489.22	10361.32	2710.63	605.42	4.56	4.48	3.82
25489.22	26094.65	10716.87	2766.23	605.52	4.72	4.57	3.87
26094.65	26700.07	9680.77	2602.35	605.42	4.26	4.30	3.72
26700.07	27305.49	4568.08	1518.68	485.93	2.01	3.13	3.01

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18537.81 LB	19367.53	76595.98	13237.35	837.19	33.74	15.95	5.79
19367.53	20197.25	49188.84	8891.25	831.38	21.67	10.72	5.53
20197.25	21026.97	59174.30	8736.97	830.43	26.07	10.53	6.77
21026.97	21856.69 RB	28079.15	9657.70	833.99	12.37	11.64	2.91
21856.69	22462.11	5886.04	2794.04	606.30	2.59	4.62	2.11
22462.11	23067.54	4203.67	2281.73	605.43	1.85	3.77	1.84
23067.54	23672.96	3872.01	1818.04	388.10	1.71	4.75	2.13

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 198.4

INPUT
Description:

Eliminate vertical ineffective area in main channel by coding out GR

data between and below 21477.5, 925.4 and 21782, 925.4

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18085.7	944.1	18260.5	932.6	18368.9	929.3	18437.2	929.6	18453.2	935.5
18487	934.264	18516.1	933.2	18637.5	922.1	18819.5	923.4	19062.7	922.3
19101.5	922.8	19112.6	925.5	19173.4	924.9	19226.1	931	19425.7	932.3
19615.1	933.1	19825.3	933.7	20032	933.1	20160	930.5	20176	923.3
20191.6	921.5	20365.5	926.6	20425.9	930.6	20680.7	930.9	20860.3	931.2
21036.9	930.9	21241.6	933.5	21394.6	934.4	21450.8	930.3	21477.5	925.4
21782	925.4	21828.2	940.1	21844.6	939.1	21858.7	933.4	22035.4	934.1
22233.6	934.7	22443.2	934.8	22629	935.1	22823.4	935.7	23017.3	935.4
23115.4	934.3	23288.4	934.9	23468.9	934.3	23643.1	933.9	23839.9	933.8
24001.2	933.3	24042.9	935.2	24217.5	935.1	24395	938.9	24438.4	939
24487.6	936	24668.3	936.4	24859	937	25069.8	937.7	25249.3	937.3
25339.8	937.3	25591.8	936.7	25745.5	938.2	25751.8	928.3	25765.4	928.2
25784.7	934.9	25820.1	937.5	26038.6	936.7	26365.1	937	26536.5	937.4
26790.2	937	26965.3	937.1	26994.9	936.7	27189.1	937.3	27433.4	937.6
27509	938.1	27707.3	938.8	27773	938.8	27969.8	938.7	28150.1	939.1
28322.7	938.7	28557.7	939.3	28584.7	939.3	28779.1	939.1	28826.6	938.9
29042.8	939.5	29229.2	938.9	29414.4	938.8	29426.8	938.8	29600.3	938.8
29668.7	939.5	29874.5	937.9	29889.6	938	30114.5	939.1	30169.3	939
30428	938	30500.1	938.1	30724.2	937.9	30901.3	938.5	30943.8	938.7
30949	940.1								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18085.7	.043	18453.2	.043	19425.7	.03	21394.6	.15	21828.2	.053
24395	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18487	21828.2	365	308.13	450	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18085.7	18487	943	26863	30949	943

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	938.93	Element			
Vel Head (ft)	0.44	Wt. n-Val.		0.041	0.043
E.G. Elev (ft)	939.37	Reach Len. (ft)	365.00	308.13	450.00
Crit W.S. (ft)	934.53	Flow Area (sq ft)		32209.25	15464.32
E.G. Slope (ft/ft)	0.001159	Area (sq ft)	2056.26	32209.25	17447.10
Q Total (cfs)	227000.00	Flow (cfs)		185280.11	41719.88
Top Width (ft)	11555.75	Top Width (ft)	322.73	3337.53	7895.49
Vel Total (ft/s)	4.76	Avg. Vel. (ft/s)		5.75	2.70
Max Chl Dpth (ft)	17.43	Hydr. Depth (ft)		9.65	3.10
Conv. Total (cfs)	6668048.5	Conv. (cfs)		5442541.0	1225507.4
Length Wtd. (ft)	338.18	Wetted Per. (ft)		3343.35	4994.82
Min Ch El (ft)	921.50	Shear (lb/sq ft)		0.70	0.22
Alpha	1.25	Stream Power (lb/ft s)		4.01	0.60

Frctn Loss (ft)	0.41	Cum Volume (acre-ft)	7019.08	79820.63	27488.78
C & E Loss (ft)	0.00	Cum SA (acres)	1966.00	8489.13	8265.29

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	939.79	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.52	Wt. n-Val.		0.041	0.053
E.G. Elev (ft)	940.31	Reach Len. (ft)	365.00	308.13	450.00
Crit W.S. (ft)	934.52	Flow Area (sq ft)		35086.75	6708.89
E.G. Slope (ft/ft)	0.001104	Area (sq ft)		35086.75	6708.89
Q Total (cfs)	227000.00	Flow (cfs)		208920.77	18079.24
Top Width (ft)	4697.00	Top Width (ft)		3340.23	1356.76
Vel Total (ft/s)	5.43	Avg. Vel. (ft/s)		5.95	2.69
Max Chl Dpth (ft)	18.29	Hydr. Depth (ft)		10.50	4.94
Conv. Total (cfs)	6833188.5	Conv. (cfs)		6288964.5	544224.1
Length Wtd. (ft)	316.87	Wetted Per. (ft)		3351.72	1363.14
Min Ch El (ft)	921.50	Shear (lb/sq ft)		0.72	0.34
Alpha	1.13	Stream Power (lb/ft s)		4.29	0.91
Frctn Loss (ft)	0.41	Cum Volume (acre-ft)	943.49	83970.04	10160.68
C & E Loss (ft)	0.01	Cum SA (acres)	169.65	8496.24	1569.21

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18487.00 LB	19322.30	73899.27	11322.65	836.52	32.55	13.56	6.53
19322.30	20157.60	26786.98	5099.05	835.33	11.80	6.10	5.25
20157.60	20992.90	62112.32	8222.33	837.16	27.36	9.84	7.55
20992.90	21828.20 RB	22481.55	7565.23	834.34	9.90	9.10	2.97
21828.20	22436.25	6976.43	2698.97	592.31	3.07	4.56	2.58
22436.25	23044.31	4912.48	2209.82	608.06	2.16	3.63	2.22
23044.31	23652.36	6944.91	2720.05	608.06	3.06	4.47	2.55
23652.36	24260.41	7380.80	2821.32	608.11	3.25	4.64	2.62
24260.41	24868.47	3718.85	1205.77	577.08	1.64	2.09	3.08
24868.47	25476.52	2616.98	964.84	608.05	1.15	1.59	2.71
25476.52	26084.57	4779.00	1390.82	614.72	2.11	2.29	3.44
26084.57	26692.63	3419.36	1132.77	608.06	1.51	1.86	3.02
26692.63	27300.68	971.05	319.97	170.37	0.43	1.88	3.03

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18487.00 LB	19322.30	79877.88	12042.52	842.05	35.19	14.42	6.63
19322.30	20157.60	32731.57	5818.93	835.33	14.42	6.97	5.63
20157.60	20992.90	69985.00	8942.20	837.16	30.83	10.71	7.83
20992.90	21828.20 RB	26326.31	8283.10	837.19	11.60	9.93	3.18
21828.20	22436.25	9084.69	3212.77	604.15	4.00	5.33	2.83
22436.25	23044.31	6911.95	2733.85	608.06	3.04	4.50	2.53
23044.31	23652.36	2082.60	762.28	150.93	0.92	5.23	2.73

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 198.34

INPUT
Description:

Eliminate vertical ineffective area in main channel by coding out GR

data between and below sta, elev. 21477.4, 925.4 and 21835, 925.4

Station Elevation Data num= 93

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17998.4	944.3	18237.6	940.7	18434.2	937.5	18443.8	935.4	18503.6	937.8
18544.3	936	18550.4	932.5	18642	927.1	18663.5	922.8	18796.3	924.2
19122.5	922.7	19290.1	932.6	19296.6	934.5	19484.8	933.3	19672.4	931.1
19862.9	934.5	20051	934	20231.3	932.4	20253	923.8	20403.6	924.8
20483.7	930.5	20683.2	931	20923.2	930.4	21042.5	931	21088.4	927.8
21170	932.8	21397.1	933.2	21420.7	931.9	21448.7	933	21477.4	925.4
21835	925.4	21880.9	939.6	21897.3	939	21912.9	932.5	22096.1	935
22282.1	936.1	22471.7	936.2	22664.5	936.2	22902.7	936.4	23102	935.8
23285	936	23509.4	935.1	23728.9	934.8	23928.9	933.1	24125.4	933.4
24353	933.2	24408.7	938.2	24472.6	934.3	24484.1	931.3	24681.1	934.9
24881.8	935.3	24895.7	935.4	25082.2	935	25187.5	937.2	25406.8	935.8
25594.2	935.8	25747.9	935.9	25763	927.9	25771.6	927.2	25791.8	935.2
25857.3	934.2	26053.7	935	26238.9	935.1	26476.4	935.6	26747.9	935.5
26996.7	936.3	27023.9	937.2	27049.4	935.1	27095.1	936.1	27276.4	936.5
27463.2	936.8	27548	936.7	27772.2	936.9	27819.5	937.4	28046	938
28255.8	937.9	28532.2	938.3	28738.7	938.4	28924.5	938	29148.2	938.1
29364.3	938.4	29604.3	938.7	29688.3	937.1	29697.6	939.4	29731.1	937.8
29942.8	938.2	30193	937.9	30434	937.4	30662	937.8	30914	937.1
30937.6	939.1	30948.7	936.8	30955	939.4				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17998.4	.043	18503.6	.043	19290.1	.03	21397.1	.15	21880.9	.053
24353	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18503.6	21880.9	200	200.38	200	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17998.4	18491.52	943	26553	30955	943

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	938.53	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.42	Wt. n-Val.	0.043	0.042	0.035
E.G. Elev (ft)	938.96	Reach Len. (ft)	200.00	200.38	200.00
Crit W.S. (ft)	934.69	Flow Area (sq ft)	11.79	30388.16	15891.90
E.G. Slope (ft/ft)	0.001263	Area (sq ft)	168.40	30388.16	20462.42
Q Total (cfs)	227000.00	Flow (cfs)	14.23	172540.94	54444.84
Top Width (ft)	12387.92	Top Width (ft)	132.88	3373.85	8881.19
Vel Total (ft/s)	4.90	Avg. Vel. (ft/s)	1.21	5.68	3.43
Max Chl Dpth (ft)	15.83	Hydr. Depth (ft)	0.98	9.01	3.41
Conv. Total (cfs)	6388390.5	Conv. (cfs)	400.4	4855766.0	1532224.3
Length Wtd. (ft)	200.31	Wetted Per. (ft)	12.09	3381.19	4660.16
Min Ch El (ft)	922.70	Shear (lb/sq ft)	0.08	0.71	0.27
Alpha	1.14	Stream Power (lb/ft s)	0.09	4.02	0.92
Frctn Loss (ft)	0.52	Cum Volume (acre-ft)	7009.76	79599.23	27292.97
C & E Loss (ft)	0.09	Cum SA (acres)	1964.09	8465.40	8178.63

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	939.22	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.66	Wt. n-Val.		0.041	0.053
E.G. Elev (ft)	939.88	Reach Len. (ft)	200.00	200.38	200.00
Crit W.S. (ft)	934.68	Flow Area (sq ft)		32722.25	3893.33
E.G. Slope (ft/ft)	0.001552	Area (sq ft)		32722.25	3893.33
Q Total (cfs)	227000.00	Flow (cfs)		217092.84	9907.15
Top Width (ft)	4484.93	Top Width (ft)		3376.09	1108.84
Vel Total (ft/s)	6.20	Avg. Vel. (ft/s)		6.63	2.54
Max Chl Dpth (ft)	16.52	Hydr. Depth (ft)		9.69	3.51
Conv. Total (cfs)	5762276.0	Conv. (cfs)		5510788.0	251487.9
Length Wtd. (ft)	200.37	Wetted Per. (ft)		3384.95	1113.29

Min Ch El (ft)	922.70	Shear (lb/sq ft)		0.94	0.34
Alpha	1.10	Stream Power (lb/ft s)		6.21	0.86
Frctn Loss (ft)	0.56	Cum Volume (acre-ft)	943.49	83730.21	10105.92
C & E Loss (ft)	0.07	Cum SA (acres)	169.65	8472.49	1556.48

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18469.92	18503.60	14.23	11.79	12.09	0.01	0.98	1.21
18503.60 LB	19347.93	65730.42	10172.96	846.46	28.96	12.05	6.46
19347.93	20192.25	23420.08	4471.36	844.38	10.32	5.30	5.24
20192.25	21036.57	59079.96	7796.88	846.18	26.03	9.23	7.58
21036.57	21880.90 RB	24310.46	7946.95	844.17	10.71	9.45	3.06
21880.90	22485.84	4246.57	1959.68	588.64	1.87	3.34	2.17
22485.84	23090.78	2389.92	1403.26	604.94	1.05	2.32	1.70
23090.78	23695.72	3771.87	1845.19	604.94	1.66	3.05	2.04
23695.72	24300.66	8437.04	2991.04	604.95	3.72	4.94	2.82
24300.66	24905.60	12236.29	2482.32	605.70	5.39	4.10	4.93
24905.60	25510.54	6149.11	1576.16	604.97	2.71	2.61	3.90
25510.54	26115.48	10878.18	2224.62	608.49	4.79	3.68	4.89
26115.48	26720.42	6335.87	1409.62	437.52	2.79	3.22	4.49

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18503.60 LB	19347.93	80031.55	10756.89	847.88	35.26	12.74	7.44
19347.93	20192.25	31954.32	5055.29	844.38	14.08	5.99	6.32
20192.25	21036.57	74099.10	8380.81	846.18	32.64	9.93	8.84
21036.57	21880.90 RB	31007.86	8529.27	846.51	13.66	10.12	3.64
21880.90	22485.84	6480.16	2367.14	596.01	2.85	3.98	2.74
22485.84	23090.78	3426.99	1526.19	517.28	1.51	2.97	2.25

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 198.3

INPUT
Description: APPROX. ALIGNMENT OF EL MIRAGE RD.
Left Channel Bank
Station Interpolated

Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18002.3	943.6	18229.9	940.3	18374.3	939.6	18538.4	7937.0131	18539.3	937
18564.5	938.8	18604.7	4937.0309	18726	931.7	18875.4	927	18921.4	926.2
18922.3	922.1	18951.4	922.5	18966.3	924.5	19051.6	924	19079	921.7
19101.9	923.9	19243.4	931.1	19423.3	932.9	19557.2	933	19701.9	933.3
19851.2	933	20014.2	933.9	20171.9	932.9	20263.3	931.4	20312.5	928
20346.7	927.3	20354.4	923.9	20369.8	923.3	20384.2	925	20417	923
20420.8	925.6	20579.1	931.7	20750.3	932.7	20895.7	932.5	21002.8	933.2

21048.8	930.7	21095.1	929.7	21251.3	930.7	21385.3	929.3	21517.5	925.8
21674.4	928.3	21811.1	935.4	21935	940.2	22076.1	939.3	22218.4	938.4
22322.9	935.4	22455.9	935.7	22635.6	936.5	22804.1	936.2	22986.2	936
23138	935.8	23287.5	936	23473.4	936.8	23644.2	936.2	23777.2	936.2
23929.4	935.4	24036	935.2	24190.9	937	24355	938.1	24492.3	936.3
24793.6	935.3	24862.7	935.3	25047.6	935.9	25051.9	936	25253.6	935
25326.5	934.9	25651.4	935.2	25793.8	935.2	25965.5	935.2	26032.2	935.4
26231.9	935.7	26304.9	936	26641.6	937.5	26774.7	937.7	26991.6	938
27104.6	938.3	27248.6	937.9	27248.7	937.9	27501.3	937.7	27524.3	937.8
27888.8	938.2	28016.8	939.3	28264.1	939	28485.7	939.5	28732.1	939.7
28841.9	939.8	29098.5	939.8	29142.6	939.8	29332.4	940.3	29590	939.8
29714.5	940	29901.9	940.1	30063	940.2	30068.9	940.2	30475.8	940
30520.7	939.9	30695.1	940.5	30779	940.8				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18002.3	.043	18564.5	.043	20014.2	.03	21002.8	.15	21935	.053
24355	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18604.74	21935	200	200.38	210	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
26533	30779	942

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	937.03	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.32	Wt. n-Val.	0.043	0.048	0.030
E.G. Elev (ft)	938.35	Reach Len. (ft)	200.00	200.38	210.00
Crit W.S. (ft)	936.52	Flow Area (sq ft)	0.03	20939.03	4938.57
E.G. Slope (ft/ft)	0.008079	Area (sq ft)	0.03	20939.03	4938.59
Q Total (cfs)	227000.00	Flow (cfs)	0.01	201224.47	25775.52
Top Width (ft)	7278.89	Top Width (ft)	2.25	3248.37	4028.28
Vel Total (ft/s)	8.77	Avg. Vel. (ft/s)	0.18	9.61	5.22
Max Chl Dpth (ft)	15.33	Hydr. Depth (ft)	0.01	6.45	1.23
Conv. Total (cfs)	2525461.0	Conv. (cfs)	0.1	2238698.5	286762.4
Length Wtd. (ft)	202.18	Wetted Per. (ft)	2.25	3254.73	4025.45
Min Ch El (ft)	921.70	Shear (lb/sq ft)	0.01	3.24	0.62
Alpha	1.10	Stream Power (lb/ft s)	0.00	31.18	3.23
Frctn Loss (ft)	0.61	Cum Volume (acre-ft)	7009.37	79481.18	27234.65
C & E Loss (ft)	0.26	Cum SA (acres)	1963.78	8450.16	8149.00

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	937.92	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.34	Wt. n-Val.		0.048	0.053
E.G. Elev (ft)	939.26	Reach Len. (ft)	200.00	200.38	210.00
Crit W.S. (ft)	935.90	Flow Area (sq ft)		23845.58	1224.58
E.G. Slope (ft/ft)	0.006378	Area (sq ft)		23845.58	1224.58
Q Total (cfs)	227000.00	Flow (cfs)		222968.28	4031.73
Top Width (ft)	3956.33	Top Width (ft)		3271.42	684.90
Vel Total (ft/s)	9.05	Avg. Vel. (ft/s)		9.35	3.29
Max Chl Dpth (ft)	16.22	Hydr. Depth (ft)		7.29	1.79
Conv. Total (cfs)	2842381.0	Conv. (cfs)		2791897.8	50483.3
Length Wtd. (ft)	201.10	Wetted Per. (ft)		3278.69	686.79
Min Ch El (ft)	921.70	Shear (lb/sq ft)		2.90	0.71
Alpha	1.05	Stream Power (lb/ft s)		27.08	2.34
Frctn Loss (ft)	0.57	Cum Volume (acre-ft)	943.49	83600.10	10094.17
C & E Loss (ft)	0.22	Cum SA (acres)	169.65	8457.20	1552.36

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18524.41	18564.58	0.01	0.03	2.25	0.00	0.01	0.18
18564.58	18604.74						
18604.74 LB	19437.30	80520.09	6707.01	836.55	35.47	8.06	12.01
19437.30	20269.87	27933.26	3268.98	832.60	12.31	3.93	8.54
20269.87	21102.44	74864.36	5446.97	834.57	32.98	6.54	13.74
21102.44	21935.00 RB	17906.70	5516.07	751.01	7.89	7.35	3.25
21935.00	22524.60	920.26	323.73	258.47	0.41	1.25	2.84
22524.60	23114.20	1141.10	512.26	589.60	0.50	0.87	2.23
23114.20	23703.80	934.44	454.39	589.60	0.41	0.77	2.06
23703.80	24293.40	1567.40	576.20	491.45	0.69	1.17	2.72
24293.40	24883.00	3224.37	544.50	446.32	1.42	1.22	5.92
24883.00	25472.60	7322.42	995.61	589.60	3.23	1.69	7.35
25472.60	26062.20	8383.47	1079.82	589.60	3.69	1.83	7.76
26062.20	26651.80	2282.11	452.07	470.80	1.01	0.96	5.05

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18604.74 LB	19437.30	85882.68	7449.33	837.48	37.83	8.95	11.53
19437.30	20269.87	35128.03	4011.30	832.60	15.47	4.82	8.76
20269.87	21102.44	82871.79	6189.29	834.57	36.51	7.43	13.39
21102.44	21935.00 RB	19085.79	6195.67	774.04	8.41	8.01	3.08
21935.00	22524.60	1984.96	568.00	289.54	0.87	1.96	3.49
22524.60	23114.20	2046.76	656.57	397.25	0.90	1.66	3.12

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 198.26

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17999.7	942.6	18313.2	938.5	18542.4	939.9	18551.8	941.7	18596.3	937
18698.8	938.4	18711.6	936.9	18737.6	922.3	18751.5	918.7	19062.3	921
19107.7	920.2	19164.9	922.4	19167.1	927.6	19378.8	930.1	19392.8	932.2
19424.6	929.9	19437.1	932	19528.5	929.7	19556	933.3	19613.6	930.9
19659.4	931.3	19674.5	930.3	19717	933.5	19749.9	930.7	19778.2	933.5
19855.4	930.4	19861.2	928.4	19895.6	932.2	20188.9	931.6	20230.4	926.2
20260.2	931.8	20318.5	931.6	20364.3	922.7	20423.5	922.7	20704.8	930.4
20771.4	927.5	20794.6	930.3	20942.6	929.6	21076.5	932	21130.8	930.1
21257.8	933.6	21455.1	931.8	21456.3	927.7	21468.3	925.5	21478.1	926.6
21520.1	919.2	21608.8	920.6	21611.4	919.2	21630.8	923.3	21664.7	925.8
21937	925.8	22010.9	935.7	22028	931.5	22326.1	932.8	22697.1	933.5
23034.1	934.2	23384.5	934.6	23687.2	933.7	23977.5	934.4	24283.4	936.1
24364.8	935.4	24384.8	937.2	24392	935	24690.9	934.6	24866.6	933.4
25272.7	934.6	25580.6	935.3	25656.8	935.5	25757.5	933.4	25767.2	926.2
25782.2	926	25798.8	935.3	25817.1	933.6	25834.5	935.1	25869.3	932.9
26255.5	933.6	26278	933.8	26638.2	934.4	26959.7	934.6	27035.6	936.6
27068.3	934.9	27394.5	936.2	27691	935.9	28097.7	936.3	28395.2	936.7
28754.1	937.1	29271.2	936.3	29567.7	936.3	29684.2	938.5	29696.7	935.9
30075.7	936.4	30498.8	936.8	30790.8	935.9	30976.4	939.2	30982.7	942.5
30995	943.5								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17999.7	.043	18711.6	.043	19895.6	.03	21257.8	.15	22010.9	.025
24392	.053	25757.5	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18711.6	22010.9	320	300.4	260	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
26486	30995	942

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	937.03	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.44	Wt. n-Val.	0.043	0.046	0.028
E.G. Elev (ft)	937.47	Reach Len. (ft)	320.00	300.40	260.00
Crit W.S. (ft)	933.39	Flow Area (sq ft)	0.12	29810.96	13523.80
E.G. Slope (ft/ft)	0.001570	Area (sq ft)	0.12	29810.96	17427.52
Q Total (cfs)	227000.00	Flow (cfs)	0.02	167815.77	59184.21
Top Width (ft)	11953.71	Top Width (ft)	3.73	3299.30	8650.68
Vel Total (ft/s)	5.24	Avg. Vel. (ft/s)	0.17	5.63	4.38
Max Chl Dpth (ft)	18.33	Hydr. Depth (ft)	0.03	9.04	3.02
Conv. Total (cfs)	5729773.0	Conv. (cfs)	0.5	4235886.5	1493885.8
Length Wtd. (ft)	290.13	Wetted Per. (ft)	3.74	3316.55	4478.63
Min Ch El (ft)	918.70	Shear (lb/sq ft)	0.00	0.88	0.30
Alpha	1.04	Stream Power (lb/ft s)	0.00	4.96	1.29
Frctn Loss (ft)	0.47	Cum Volume (acre-ft)	7009.37	79364.45	27180.74
C & E Loss (ft)	0.00	Cum SA (acres)	1963.77	8435.10	8118.43

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	937.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.59	Wt. n-Val.		0.045	0.025
E.G. Elev (ft)	938.46	Reach Len. (ft)	320.00	300.40	260.00
Crit W.S. (ft)	933.36	Flow Area (sq ft)		32581.25	4334.67
E.G. Slope (ft/ft)	0.001598	Area (sq ft)		32581.25	4334.67
Q Total (cfs)	227000.00	Flow (cfs)		197262.78	29737.23
Top Width (ft)	4178.40	Top Width (ft)		3299.30	879.10
Vel Total (ft/s)	6.15	Avg. Vel. (ft/s)		6.05	6.86
Max Chl Dpth (ft)	19.17	Hydr. Depth (ft)		9.88	4.93
Conv. Total (cfs)	5678170.5	Conv. (cfs)		4934324.5	743846.1
Length Wtd. (ft)	295.20	Wetted Per. (ft)		3317.52	883.58
Min Ch El (ft)	918.70	Shear (lb/sq ft)		0.98	0.49
Alpha	1.01	Stream Power (lb/ft s)		5.93	3.36
Frctn Loss (ft)	0.49	Cum Volume (acre-ft)	943.49	83470.32	10080.77
C & E Loss (ft)	0.00	Cum SA (acres)	169.65	8442.08	1548.59

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18569.22	18616.68	0.00	0.04	2.61	0.00	0.02	0.09
18616.68	18664.14						
18664.14	18711.60	0.02	0.07	1.13	0.00	0.07	0.22
18711.60 LB	19536.43	70936.40	10134.95	833.13	31.25	12.29	7.00
19536.43	20361.25	25402.17	4738.44	827.73	11.19	5.74	5.36
20361.25	21186.07	56736.74	7114.89	825.30	24.99	8.63	7.97
21186.07	22010.90 RB	14740.41	7822.67	830.39	6.49	9.48	1.88
22010.90	22609.84	16220.59	2638.59	599.45	7.15	4.41	6.15
22609.84	23208.78	9100.26	1864.73	598.94	4.01	3.11	4.88
23208.78	23807.72	7809.07	1701.15	598.94	3.44	2.84	4.59
23807.72	24406.66	4209.86	1182.30	596.90	1.85	1.98	3.56
24406.66	25005.60	3486.51	1645.97	598.94	1.54	2.75	2.12
25005.60	25604.54	2778.85	1436.50	598.94	1.22	2.40	1.93
25604.54	26203.48	11184.70	2162.52	603.98	4.93	3.61	5.17
26203.48	26802.42	4394.41	892.05	282.52	1.94	3.16	4.93

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta	Right Sta	Flow	Area	W.P.	% Conv.	Hydr D.	Velocity

(ft)	(ft)	(cfs)	(sq ft)	(ft)		(ft)	(ft/s)
18711.60 LB	19536.43	80316.44	10827.53	834.11	35.38	13.13	7.42
19536.43	20361.25	32287.18	5431.02	827.73	14.22	6.58	5.94
20361.25	21186.07	67224.47	7807.47	825.30	29.61	9.47	8.61
21186.07	22010.90 RB	17434.66	8515.25	830.39	7.68	10.32	2.05
22010.90	22609.84	22398.07	3141.49	599.45	9.87	5.25	7.13
22609.84	23208.78	7339.21	1193.18	284.13	3.23	4.26	6.15

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 198.2

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18101	942.6	18409.7	937.5	18696.6	936	18811.5	934.8	18834.5	923.4
18843.2	924.4	18844.6	921.1	18850.1	918.8	18851	920.8	18995.7	919.3
19009.9	923.2	19070.4	923.7	19088.1	926	19092.7	923	19114.5	924.2
19115.3	926	19210.1	921.7	19295.2	921.1	19308.1	929	19329	931.3
19343.1	927.7	19484.7	926.3	19505.3	930.5	19525.1	931	19525.7	927.8
19557.8	934.5	19568.3	932.4	19583.4	935.4	19601.9	930.1	19792.9	933.3
19822.3	926.6	19869.8	930.7	19940.6	929	20073.6	932.7	20126.5	930.5
20193	931	20220.3	927.5	20242	930.1	20355.2	931	20387.4	921.9
20485.6	922	20616.8	931	20665	927.3	20828.9	927.3	20851.5	929.1
20915.9	926.9	20938.9	924.1	20994.4	930.3	21088.3	924.9	21091.1	931.3
21296	929.9	21327.4	927.8	21489.8	932.5	21513.6	926.8	21568.7	924.7
21572.3	919.2	21576.7	924.9	21673.6	919.2	21677.5	920.9	21680.9	925.7
21698.2	923.7	21743.2	927	21824.6	925	21857.5	927.1	21876.9	924.9
21982	926.1	22011	933.8	22023.3	934.5	22039.6	930.6	22338.2	932.3
22628.6	933.5	22940	933.4	23232.5	934.4	23543.2	934.3	23824	934
24125.7	934	24411	935.5	24779.6	933.5	25079	933.5	25409.4	933.3
25738.4	932.9	25761.6	932.7	25769.2	924.6	25787	925.4	25805.1	935
26101.9	933.2	26579.8	934.2	26862.9	934.5	27269.9	935.3	27634.8	934.9
27952.7	935.1	28305.8	934.9	28731.4	936.9	29012.6	936	29364.8	936.5
29520	937.3								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18101	.043	18811.5	.043	19792.9	.03	21091.1	.15	22023.3	.025
24411	.053	25738.4	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18811.5	22023.3	570	493.64	395	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
26575	29520	941

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	936.54	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.46	Wt. n-Val.	0.043	0.045	0.029
E.G. Elev (ft)	937.00	Reach Len. (ft)	570.00	493.64	395.00
Crit W.S. (ft)	932.69	Flow Area (sq ft)	158.80	29295.16	13371.85
E.G. Slope (ft/ft)	0.001661	Area (sq ft)	158.80	29295.16	16662.53
Q Total (cfs)	227000.00	Flow (cfs)	181.01	170364.78	56454.20
Top Width (ft)	10589.85	Top Width (ft)	218.12	3211.80	7159.93
Vel Total (ft/s)	5.30	Avg. Vel. (ft/s)	1.14	5.82	4.22
Max Chl Dpth (ft)	17.74	Hydr. Depth (ft)	0.73	9.12	2.94
Conv. Total (cfs)	5569377.0	Conv. (cfs)	4441.0	4179849.0	1385087.0
Length Wtd. (ft)	473.75	Wetted Per. (ft)	218.13	3248.44	4558.10
Min Ch El (ft)	918.80	Shear (lb/sq ft)	0.08	0.94	0.30
Alpha	1.06	Stream Power (lb/ft s)	0.09	5.44	1.28
Frctn Loss (ft)	1.04	Cum Volume (acre-ft)	7008.79	79160.65	27079.00
C & E Loss (ft)	0.02	Cum SA (acres)	1962.96	8412.65	8071.25

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	937.36	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.62	Wt. n-Val.		0.045	0.025
E.G. Elev (ft)	937.97	Reach Len. (ft)	570.00	493.64	395.00

Crit W.S. (ft)	932.80	Flow Area (sq ft)		31921.02	4155.90
E.G. Slope (ft/ft)	0.001689	Area (sq ft)		31921.02	4155.90
Q Total (cfs)	227000.00	Flow (cfs)		198234.53	28765.47
Top Width (ft)	4078.50	Top Width (ft)		3211.80	866.70
Vel Total (ft/s)	6.29	Avg. Vel. (ft/s)		6.21	6.92
Max Chl Dpth (ft)	18.56	Hydr. Depth (ft)		9.94	4.80
Conv. Total (cfs)	5524198.0	Conv. (cfs)		4824171.0	700027.2
Length Wtd. (ft)	486.82	Wetted Per. (ft)		3250.99	871.11
Min Ch El (ft)	918.80	Shear (lb/sq ft)		1.04	0.50
Alpha	1.00	Stream Power (lb/ft s)		6.43	3.48
Frctn Loss (ft)	1.11	Cum Volume (acre-ft)	943.49	83247.91	10055.43
C & E Loss (ft)	0.03	Cum SA (acres)	169.65	8419.63	1543.38

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18574.67	18622.03	0.43	2.15	28.65	0.00	0.07	0.20
18622.03	18669.40	6.09	12.96	47.37	0.00	0.27	0.47
18669.40	18716.77	19.11	25.75	47.37	0.01	0.54	0.74
18716.77	18764.13	52.56	47.25	47.37	0.02	1.00	1.11
18764.13	18811.50	102.83	70.69	47.37	0.05	1.49	1.45
18811.50 LB	19614.45	64096.55	9260.03	820.33	28.24	11.53	6.92
19614.45	20417.40	33326.72	5098.67	805.67	14.68	6.35	6.54
20417.40	21220.35	59518.06	7289.81	808.37	26.22	9.08	8.16
21220.35	22023.30 RB	13423.45	7646.65	814.06	5.91	9.52	1.76
22023.30	22523.08	14830.53	2298.02	500.25	6.53	4.60	6.45
22523.08	23022.86	7733.73	1554.29	499.78	3.41	3.11	4.98
23022.86	23522.64	4735.58	1158.04	499.78	2.09	2.32	4.09
23522.64	24022.42	5171.90	1220.92	499.78	2.28	2.44	4.24
24022.42	24522.20	3054.56	922.05	499.79	1.35	1.84	3.31
24522.20	25021.98	2846.83	1339.42	499.78	1.25	2.68	2.13
25021.98	25521.76	3758.44	1582.35	499.78	1.66	3.17	2.38
25521.76	26021.54	6769.90	1702.15	505.70	2.98	3.41	3.98
26021.54	26521.32	7011.23	1465.46	499.78	3.09	2.93	4.78
26521.32	27021.10	541.53	129.15	53.68	0.24	2.41	4.19

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18811.50 LB	19614.45	72570.80	9916.49	822.89	31.97	12.35	7.32
19614.45	20417.40	41065.46	5755.14	805.67	18.09	7.17	7.14
20417.40	21220.35	69012.32	7946.28	808.37	30.40	9.90	8.68
21220.35	22023.30 RB	15585.93	8303.11	814.06	6.87	10.34	1.88
22023.30	22523.08	20101.10	2706.62	500.25	8.86	5.42	7.43
22523.08	23022.86	8664.37	1449.27	370.86	3.82	3.95	5.98

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 198.11

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17902	940.1	18077.6	938.8	18285.2	937.6	18436.3	936	18635.1	935.7
18787.2	934.1	18894.8	935.8	18903.8	931.1	18923.2	928.1	18939.7	923.5
19122.2	923.5	19199.7	924.9	19234.1	929.4	19286.3	928.3	19335.2	929.8
19372.3	924.2	19506.4	926	19564.7	929	19617.2	925	19639.5	925.6
19763.7	933.5	19925.8	930.1	20092.9	930.9	20123.6	926.3	20294.9	924.1
20523	923.7	20673.9	925.2	20709.9	926.9	20876.2	925.8	20906.4	924.1
21086.1	922.4	21087.1	925.1	21141.5	933	21302.1	931.6	21535.1	933
21656.1	924.8	21737.7	924.9	21770.7	926.7	21910.6	924.6	21948.4	926

22088.9	924.6	22121.8	931.1	22296.3	931.9	22484.5	932	22633.3	932.5
22816.2	933.4	23003.5	933.4	23161	934.5	23340.3	934.1	23499.7	933.4
23649.7	933.5	23813.5	933.5	23915.2	933.9	23972.1	931.4	24078.6	933.2
24242.2	933.8	24384	932.8	24481.8	934.8	24634.2	932.7	24779.5	933.5
25003.2	934.3	25110.4	931.4	25304.6	932.3	25445.6	932.1	25447.8	933.1
25474.2	932	25683.1	932.5	25769.8	933.1	25776.5	923.8	25795.3	924.1
25810.7	933.8	25856.5	934.2	25932.8	932.5	26094.9	933.3	26175.2	933.4
26338.5	932.9	26534	932.4	26619.8	932.5	26827.4	934.5	27003.2	933
27014.2	932.5	27029	935.2	27061.1	933.7	27210.1	934.6	27241.8	934.6
27440	934.9	27468.3	935	27703.8	935.5	27718.9	935.6	27903.4	935.2
27911.6	935.2	28087.3	935.5	28153.1	935.6	28318.3	934.7	28345.7	934.8
28370	937.1								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17902	.043	18894.8	.043	20092.9	.03	20906.4	.15	22296.3	.15
23161	.025	24384	.053	25769.8	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18894.8	22296.3	565	483.89	220	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
26690	28370	939

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	935.23	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.70	Wt. n-Val.	0.043	0.046	0.039
E.G. Elev (ft)	935.93	Reach Len. (ft)	565.00	483.89	220.00
Crit W.S. (ft)	932.50	Flow Area (sq ft)	101.91	26857.72	9720.05
E.G. Slope (ft/ft)	0.003079	Area (sq ft)	101.91	26857.72	10586.02
Q Total (cfs)	227000.00	Flow (cfs)	133.90	191645.98	35220.13
Top Width (ft)	9036.93	Top Width (ft)	179.66	3400.42	5456.86
Vel Total (ft/s)	6.19	Avg. Vel. (ft/s)	1.31	7.14	3.62
Max Chl Dpth (ft)	12.83	Hydr. Depth (ft)	0.57	7.90	2.21
Conv. Total (cfs)	4091019.0	Conv. (cfs)	2413.1	3453865.0	634740.9
Length Wtd. (ft)	451.69	Wetted Per. (ft)	179.67	3407.53	4401.70
Min Ch El (ft)	922.40	Shear (lb/sq ft)	0.11	1.51	0.42
Alpha	1.18	Stream Power (lb/ft s)	0.14	10.81	1.54
Frctn Loss (ft)	1.08	Cum Volume (acre-ft)	7007.08	78842.48	26955.46
C & E Loss (ft)	0.00	Cum SA (acres)	1960.35	8375.19	8014.04

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	935.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.91	Wt. n-Val.		0.047	0.150
E.G. Elev (ft)	936.83	Reach Len. (ft)	565.00	483.89	220.00
Crit W.S. (ft)	932.34	Flow Area (sq ft)		29210.47	2051.41
E.G. Slope (ft/ft)	0.003271	Area (sq ft)		29210.47	2051.41
Q Total (cfs)	227000.00	Flow (cfs)		224380.39	2619.61
Top Width (ft)	4005.20	Top Width (ft)		3401.50	603.70
Vel Total (ft/s)	7.26	Avg. Vel. (ft/s)		7.68	1.28
Max Chl Dpth (ft)	13.53	Hydr. Depth (ft)		8.59	3.40
Conv. Total (cfs)	3969088.3	Conv. (cfs)		3923284.5	45803.9
Length Wtd. (ft)	480.88	Wetted Per. (ft)		3408.88	606.23
Min Ch El (ft)	922.40	Shear (lb/sq ft)		1.75	0.69
Alpha	1.11	Stream Power (lb/ft s)		13.44	0.88
Frctn Loss (ft)	1.10	Cum Volume (acre-ft)	943.49	82901.52	10027.29
C & E Loss (ft)	0.05	Cum SA (acres)	169.65	8382.16	1536.71

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18630.05	18696.24	0.50	1.50	16.89	0.00	0.09	0.34
18696.24	18762.43	38.25	34.80	66.19	0.02	0.53	1.10
18762.43	18828.61	90.40	58.31	66.19	0.04	0.88	1.55

18828.61	18894.80	4.76	7.30	30.40	0.00	0.24	0.65
18894.80 LB	19745.18	61820.32	7624.14	852.39	27.23	8.98	8.11
19745.18	20595.55	75704.20	6709.58	850.81	33.35	7.89	11.28
20595.55	21445.93	41706.91	6368.84	852.94	18.37	7.49	6.55
21445.93	22296.30 RB	12414.51	6155.16	851.39	5.47	7.24	2.02
22296.30	22701.21	1393.07	1236.59	404.92	0.61	3.05	1.13
22701.21	23106.13	590.06	738.55	404.92	0.26	1.82	0.80
23106.13	23511.04	1578.71	475.77	404.92	0.70	1.17	3.32
23511.04	23915.95	3146.50	688.10	404.91	1.39	1.70	4.57
23915.95	24320.87	4713.65	876.99	404.99	2.08	2.17	5.37
24320.87	24725.78	1995.09	715.20	404.95	0.88	1.77	2.79
24725.78	25130.69	1645.73	732.13	404.95	0.72	1.81	2.25
25130.69	25535.61	4169.18	1279.05	405.16	1.84	3.16	3.26
25535.61	25940.52	5934.94	1216.10	412.50	2.61	3.00	4.88
25940.52	26345.43	4611.02	865.43	404.92	2.03	2.14	5.33
26345.43	26750.35	5442.19	896.15	344.57	2.40	2.60	6.07

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18894.80 LB	19745.18	72247.37	8212.10	853.74	31.83	9.66	8.80
19745.18	20595.55	88280.23	7297.84	850.81	38.89	8.58	12.10
20595.55	21445.93	48911.99	6957.10	852.94	21.55	8.18	7.03
21445.93	22296.30 RB	14940.82	6743.43	851.39	6.58	7.93	2.22
22296.30	22701.21	2046.02	1516.70	404.92	0.90	3.75	1.35
22701.21	23106.13	573.59	534.71	201.31	0.25	2.69	1.07

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 198.02

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18153.5	940	18336.7	937.7	18357.8	937.7	18427.1	933.1	18468.4	932.3
18476.3	934.5	18695.6	932.2	18884.6	933.7	19036.4	932.5	19059.2	923
19096.9	922.8	19278.2	923.2	19357.9	929.2	19375.9	923.3	19421.2	923.6
19459	926.3	19476.5	924	19522.8	927.5	19612	923	19634.3	928.7
19669.4	929	19767	923.4	19790.3	924.6	19814	928.1	19887.3	929.2
19926.4	927.3	20002	926.6	20039.1	928	20069.7	924.8	20313.3	928.1
20533.5	923.3	20537.3	924.7	20726.2	923.5	20976.3	923.3	21090	923.1
21106.9	931.3	21144.6	931.5	21186.3	924.8	21220.9	930.3	21416.5	930
21620.2	930.3	21744.6	924.1	21927.7	924.2	22120	924.7	22335.1	922.9
22432.3	926.9	22451.1	930.1	22495.8	927.5	22684	932.1	22891.4	932.7
23097.9	933.6	23287.6	933.4	23471.1	933.1	23667.9	932.5	23865.8	932.8
23939.4	931.3	24212.7	932	24397.1	933.9	24656.2	933.9	24794.2	933.2
24803.5	931.7	25005	933.3	25131.1	931.3	25294.5	932.7	25606.3	930.7
25753.7	931.7	25761.4	923.7	25775.8	923.6	25790.2	932.7	25801.4	933.7
25809.2	931.7	25823.5	933	25883.5	931.4	26097.6	932.3	26158.6	932.6
26386.1	932.6	26457.8	932.7	26687.2	932.4	26878.7	933.2	27003.7	933.1
27012	935.5	27063.7	933.5	27320.5	933.6	27595.5	934.3	27836	934.5
28117.7	934.5	28301.8	934	28358.9	936.5	28613.6	935.5	28714.6	935.5
28896.2	936.1	28970.8	936	29212.7	935.9	29433	935.9	29614.3	936.3
29659.1	936.8								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18153.5	.043	19036.4	.043	19096.9	.032	21106.9	.065	22451.1	.025
24397.1	.053	25753.7	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19036.4	22684	510	501.89	495	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
26757	29659.1	938

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	934.16	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.69	Wt. n-Val.	0.043	0.038	0.030
E.G. Elev (ft)	934.85	Reach Len. (ft)	510.00	501.89	495.00
Crit W.S. (ft)	930.97	Flow Area (sq ft)	649.94	29582.38	6802.02
E.G. Slope (ft/ft)	0.001900	Area (sq ft)	649.94	29582.38	7309.91
Q Total (cfs)	227000.00	Flow (cfs)	1041.63	205440.08	20518.29
Top Width (ft)	9122.52	Top Width (ft)	592.06	3647.60	4882.86
Vel Total (ft/s)	6.13	Avg. Vel. (ft/s)	1.60	6.94	3.02
Max Chl Dpth (ft)	11.36	Hydr. Depth (ft)	1.10	8.11	1.67
Conv. Total (cfs)	5208146.5	Conv. (cfs)	23898.6	4713489.0	470758.8
Length Wtd. (ft)	501.25	Wetted Per. (ft)	592.38	3656.41	4079.61
Min Ch El (ft)	922.80	Shear (lb/sq ft)	0.13	0.96	0.20
Alpha	1.18	Stream Power (lb/ft s)	0.21	6.66	0.60
Frctn Loss (ft)	0.82	Cum Volume (acre-ft)	7002.20	78528.99	26910.27
C & E Loss (ft)	0.05	Cum SA (acres)	1955.35	8336.04	7987.93

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	934.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.74	Wt. n-Val.		0.038	0.025
E.G. Elev (ft)	935.68	Reach Len. (ft)	510.00	501.89	495.00
Crit W.S. (ft)	930.92	Flow Area (sq ft)		32434.29	568.98
E.G. Slope (ft/ft)	0.001683	Area (sq ft)		32434.29	568.98
Q Total (cfs)	227000.00	Flow (cfs)		224448.75	2551.24
Top Width (ft)	3873.60	Top Width (ft)		3647.60	226.00
Vel Total (ft/s)	6.88	Avg. Vel. (ft/s)		6.92	4.48
Max Chl Dpth (ft)	12.15	Hydr. Depth (ft)		8.89	2.52
Conv. Total (cfs)	5533336.5	Conv. (cfs)		5471147.5	62188.9
Length Wtd. (ft)	501.85	Wetted Per. (ft)		3658.85	228.17
Min Ch El (ft)	922.80	Shear (lb/sq ft)		0.93	0.26
Alpha	1.01	Stream Power (lb/ft s)		6.45	1.17
Frctn Loss (ft)	0.76	Cum Volume (acre-ft)	943.49	82559.13	10020.67
C & E Loss (ft)	0.04	Cum SA (acres)	169.65	8343.01	1534.62

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18388.94	18447.80	46.14	34.70	36.77	0.02	0.94	1.33
18447.80	18506.66	72.43	40.52	27.55	0.03	1.48	1.79
18506.66	18565.52	10.61	17.13	57.16	0.00	0.30	0.62
18565.52	18624.38	69.28	53.45	58.86	0.03	0.91	1.30
18624.38	18683.24	164.44	89.79	58.86	0.07	1.53	1.83
18683.24	18742.10	217.55	106.20	58.86	0.10	1.80	2.05
18742.10	18800.96	136.00	80.12	58.86	0.06	1.36	1.70
18800.96	18859.82	67.49	52.62	58.86	0.03	0.89	1.28
18859.82	18918.68	33.11	34.32	58.86	0.01	0.58	0.96
18918.68	18977.54	76.77	56.85	58.86	0.03	0.97	1.35
18977.54	19036.40	147.84	84.23	58.86	0.07	1.43	1.76
19036.40 LB	19948.30	65192.72	7907.15	916.68	28.72	8.67	8.24
19948.30	20860.20	68027.37	8003.62	912.42	29.97	8.78	8.50
20860.20	21772.10	34744.16	5949.52	914.91	15.31	6.52	5.84
21772.10	22684.00 RB	37475.85	7722.11	912.39	16.51	8.47	4.85
22684.00	23149.01	1758.12	605.34	465.01	0.77	1.30	2.90
23149.01	23614.01	1058.90	446.56	465.01	0.47	0.96	2.37
23614.01	24079.02	3501.67	915.25	465.02	1.54	1.97	3.83
24079.02	24544.03	1867.03	574.70	465.02	0.82	1.24	3.25
24544.03	25009.03	542.06	469.08	465.13	0.24	1.01	1.16
25009.03	25474.04	1761.09	951.15	465.03	0.78	2.05	1.85
25474.04	25939.05	5138.41	1439.64	471.43	2.26	3.10	3.57
25939.05	26404.05	3014.08	836.49	465.01	1.33	1.80	3.60
26404.05	26869.06	1876.91	563.81	352.95	0.83	1.60	3.33

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)

19036.40 LB	19948.30	70918.70	8620.12	919.13	31.24	9.45	8.23
19948.30	20860.20	73971.12	8716.59	912.42	32.59	9.56	8.49
20860.20	21772.10	38226.38	6662.50	914.91	16.84	7.31	5.74
21772.10	22684.00 RB	41332.54	8435.09	912.39	18.21	9.25	4.90
22684.00	23149.01	2551.24	568.98	228.17	1.12	2.52	4.48

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 197.92

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18191.2	940.2	18223.7	936.4	18236.8	932.1	18243.4	933.1	18254	931.2
18425.3	931.2	18610.6	933.3	18846.9	932.9	19048.7	932.9	19072.2	930.3
19093	931.8	19230.1	930.7	19266.6	923.1	19372.1	923.1	19598.9	923
19804.4	921.6	19862.5	921.4	19905.4	923.5	19971.2	921.7	20033.3	925
20045.7	921.6	20203.7	923.1	20246.3	925.1	20307.8	920.6	20357.5	924.4
20554.3	926.4	20730.4	923.7	20984.8	922.3	21145.6	921.9	21155.7	921.5
21172.4	929.1	21356.9	929.1	21520.1	927.1	21683.5	927.4	21845.4	924.1
21870.7	926.6	21903.8	923.5	21929.8	926.1	21937	925.4	21940.7	923.5
22081.5	923.2	22083.6	924.7	22267.5	925.3	22293.3	924.8	22337	927.2
22493.9	923.2	22644.9	923.6	22697.3	921.5	22757.5	921.5	22810.4	929.9
23004.6	932.6	23164.7	932.8	23355.3	932.9	23559	932.6	23719.9	933.3
23817.4	932.7	23885.7	930.2	24055	931	24231.6	931.5	24386.7	933.5
24420.9	933.6	24424.9	931.6	24498.9	930.7	24681.5	930.6	24722	930.6
24976.1	930.1	25040.6	929.9	25249.8	930.1	25390.6	930.2	25629.1	930.1
25722	930.7	25725.8	922.4	25744.8	923.2	25757.1	931.9	25830.8	930.3
26008.8	930.6	26229.9	931.4	26358.1	931.9	26757.8	931.5	26919.5	931.7
27066.7	932.6	27324.3	932.6	27571.1	933.6	27749.9	932.9	27891.9	933.3
28082.3	933.3	28251.7	933.3	28402.7	934.4	28565.6	934.9	28634.2	934.8
28872.4	934.6	29049.1	934.8	29292.4	934.6	29469.4	934.6	29588.3	934.2
29631.2	936.6								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18191.2	.043	19093	.032	21145.6	.065	23004.6	.025	24386.7	.05
25722	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19093	23004.6	500	488.75	510	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
26797	29631.2	939

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	933.46	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.52	Wt. n-Val.	0.043	0.039	0.035
E.G. Elev (ft)	933.98	Reach Len. (ft)	500.00	488.75	510.00
Crit W.S. (ft)	929.31	Flow Area (sq ft)	929.91	33334.48	8335.71
E.G. Slope (ft/ft)	0.001425	Area (sq ft)	929.91	33334.48	9223.73
Q Total (cfs)	227000.00	Flow (cfs)	1276.96	201332.95	24390.10
Top Width (ft)	9936.71	Top Width (ft)	860.36	3911.60	5164.75
Vel Total (ft/s)	5.33	Avg. Vel. (ft/s)	1.37	6.04	2.93
Max Chl Dpth (ft)	12.86	Hydr. Depth (ft)	1.08	8.52	2.22
Conv. Total (cfs)	6013073.0	Conv. (cfs)	33825.9	5333170.5	646076.8
Length Wtd. (ft)	491.28	Wetted Per. (ft)	861.03	3917.33	3763.86
Min Ch El (ft)	920.60	Shear (lb/sq ft)	0.10	0.76	0.20
Alpha	1.17	Stream Power (lb/ft s)	0.13	4.57	0.58
Frctn Loss (ft)	0.71	Cum Volume (acre-ft)	6992.96	78166.53	26816.33
C & E Loss (ft)	0.01	Cum SA (acres)	1946.85	8292.49	7930.85

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	934.29	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.60	Wt. n-Val.		0.039	
E.G. Elev (ft)	934.89	Reach Len. (ft)	500.00	488.75	510.00
Crit W.S. (ft)	929.34	Flow Area (sq ft)		36551.33	
E.G. Slope (ft/ft)	0.001356	Area (sq ft)		36551.33	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	3911.60	Top Width (ft)		3911.60	

Vel Total (ft/s)	6.21	Avg. Vel. (ft/s)		6.21	
Max Chl Dpth (ft)	13.69	Hydr. Depth (ft)		9.34	
Conv. Total (cfs)	6163784.5	Conv. (cfs)		6163784.5	
Length Wtd. (ft)	488.82	Wetted Per. (ft)		3921.51	
Min Ch El (ft)	920.60	Shear (lb/sq ft)		0.79	
Alpha	1.00	Stream Power (lb/ft s)		4.90	
Frctn Loss (ft)	0.68	Cum Volume (acre-ft)	943.49	82161.71	10017.44
C & E Loss (ft)	0.01	Cum SA (acres)	169.65	8299.46	1533.33

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18191.20	18251.32	16.19	17.06	19.10	0.01	0.91	0.95
18251.32	18311.44	238.43	135.53	60.16	0.11	2.25	1.76
18311.44	18371.56	240.42	136.17	60.12	0.11	2.26	1.77
18371.56	18431.68	239.75	135.94	60.12	0.11	2.26	1.76
18431.68	18491.80	171.90	111.34	60.12	0.08	1.85	1.54
18491.80	18551.92	80.03	70.38	60.12	0.04	1.17	1.14
18551.92	18612.04	18.72	29.43	60.12	0.01	0.49	0.64
18612.04	18672.16	4.87	13.12	60.12	0.00	0.22	0.37
18672.16	18732.28	9.22	19.24	60.12	0.00	0.32	0.48
18732.28	18792.40	14.60	25.36	60.12	0.01	0.42	0.58
18792.40	18852.52	20.90	31.45	60.12	0.01	0.52	0.66
18852.52	18912.64	23.76	33.96	60.12	0.01	0.56	0.70
18912.64	18972.76	23.76	33.96	60.12	0.01	0.56	0.70
18972.76	19032.88	23.76	33.96	60.12	0.01	0.56	0.70
19032.88	19093.00	150.64	103.00	60.32	0.07	1.71	1.46
19093.00 LB	20070.90	72028.24	9226.12	979.32	31.73	9.43	7.81
20070.90	21048.80	75784.50	9507.91	978.30	33.39	9.72	7.97
21048.80	22026.70	27686.48	6971.39	980.49	12.20	7.13	3.97
22026.70	23004.60 RB	25833.70	7629.07	979.23	11.38	7.80	3.39
23004.60	23446.37	486.29	297.25	441.77	0.21	0.67	1.64
23446.37	23888.15	674.93	361.87	441.82	0.30	0.82	1.87
23888.15	24329.92	3667.59	999.10	441.78	1.62	2.26	3.67
24329.92	24771.69	1984.25	968.48	405.04	0.87	2.39	2.05
24771.69	25213.47	3499.04	1472.19	441.77	1.54	3.33	2.38
25213.47	25655.24	3474.62	1466.02	441.77	1.53	3.32	2.37
25655.24	26097.01	6307.48	1450.26	449.90	2.78	3.28	4.35
26097.01	26538.79	2736.67	838.13	441.77	1.21	1.90	3.27
26538.79	26980.56	1559.24	482.43	258.21	0.69	1.87	3.23

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19093.00 LB	20070.90	80652.38	10030.33	981.80	35.53	10.26	8.04
20070.90	21048.80	84665.63	10312.12	978.30	37.30	10.55	8.21
21048.80	22026.70	31925.30	7775.60	980.49	14.06	7.95	4.11
22026.70	23004.60 RB	29756.71	8433.29	980.92	13.11	8.62	3.53

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 197.83

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18231.8	937.8	18257.1	928.9	18407.4	929	18471.4	932.6	18572.1	930
18745	930.8	18926.4	932.9	18995	933.5	19038.2	927.7	19197.2	927.5
19350.5	931	19407.4	931.3	19436	922.4	19590.8	923.4	19697.5	922
19733	925.3	19894.8	925.2	20001.6	924.9	20046.1	921.4	20115.4	919.6
20274.2	920.4	20431.2	921.2	20464.2	924.5	20626.8	925.4	20764.6	925.2
20841.9	920.5	21078.2	919.9	21190.6	919.7	21234.5	929.4	21413.8	928.4
21574.1	926.9	21676.3	922.3	21816.8	923.3	21837.1	925.7	22000.2	922.8
22056.2	928.4	22176.2	925.8	22230.6	922.5	22328.8	929.8	22370.8	929.2
22433.9	923.3	22513	924.9	22677	921.9	22741.6	920.4	22847.7	921.6
22907	920.7	22943.5	927.8	23053.4	932.2	23248.1	932.3	23447.8	932
23619.5	932.6	23813.2	932.6	23990.3	930.3	24173.3	930.3	24329.8	932
24383.6	932.7	24396.1	930.7	24565	930.5	24723.8	930.4	24779.4	930.9
24976	931.1	25069.6	931.2	25312.2	931	25336.4	930.8	25518.9	930.7

25676.7	929.1	25688.5	929.3	25693.4	920.8	25710.4	922.4	25723.7	931
25740.2	930.2	25743.8	928.5	25798.6	928.6	25955.3	929	26014.4	929.2
26274.3	929.8	26344.7	929.9	26625.1	930.8	26800.6	930.8	26955.5	931.5
27088.8	931.7	27243.4	932.1	27474.5	932	27635.1	932.5	27840.2	932.3
28068.3	932.5	28233.9	932.3	28403.2	933.2	28678.2	933.7	28908	933.4
29077.6	933.4	29180.9	933.5	29345.8	933.6	29521.8	933.8	29605.7	934
29613	935.5								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18231.8	.043	18995	.043	19436	.032	21078.2	.065	23053.4	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18995	23053.4	515	499.47	475	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
26815	29613	936

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	932.78	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.48	Wt. n-Val.	0.043	0.041	0.025
E.G. Elev (ft)	933.26	Reach Len. (ft)	515.00	499.47	475.00
Crit W.S. (ft)	928.84	Flow Area (sq ft)	1450.34	33660.35	7534.04
E.G. Slope (ft/ft)	0.001479	Area (sq ft)	1450.34	33660.35	8547.46
Q Total (cfs)	227000.00	Flow (cfs)	3223.82	196456.03	27320.16
Top Width (ft)	9992.39	Top Width (ft)	669.52	4053.00	5269.87
Vel Total (ft/s)	5.32	Avg. Vel. (ft/s)	2.22	5.84	3.63
Max Chl Dpth (ft)	13.18	Hydr. Depth (ft)	2.17	8.31	2.00
Conv. Total (cfs)	5903432.0	Conv. (cfs)	83839.6	5109096.0	710496.6
Length Wtd. (ft)	496.71	Wetted Per. (ft)	670.33	4058.52	3769.73
Min Ch El (ft)	919.60	Shear (lb/sq ft)	0.20	0.77	0.18
Alpha	1.10	Stream Power (lb/ft s)	0.44	4.47	0.67
Frctn Loss (ft)	0.81	Cum Volume (acre-ft)	6979.29	77790.69	26712.29
C & E Loss (ft)	0.00	Cum SA (acres)	1938.07	8247.81	7869.76

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	933.62	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.57	Wt. n-Val.		0.042	0.025
E.G. Elev (ft)	934.19	Reach Len. (ft)	515.00	499.47	475.00
Crit W.S. (ft)	928.74	Flow Area (sq ft)		37100.25	501.27
E.G. Slope (ft/ft)	0.001442	Area (sq ft)		37100.25	501.27
Q Total (cfs)	227000.00	Flow (cfs)		225584.45	1415.55
Top Width (ft)	4415.00	Top Width (ft)		4058.40	356.60
Vel Total (ft/s)	6.04	Avg. Vel. (ft/s)		6.08	2.82
Max Chl Dpth (ft)	14.02	Hydr. Depth (ft)		9.14	1.41
Conv. Total (cfs)	5977888.0	Conv. (cfs)		5940610.5	37277.6
Length Wtd. (ft)	499.29	Wetted Per. (ft)		4064.09	358.17
Min Ch El (ft)	919.60	Shear (lb/sq ft)		0.82	0.13
Alpha	1.01	Stream Power (lb/ft s)		5.00	0.36
Frctn Loss (ft)	0.78	Cum Volume (acre-ft)	943.49	81748.52	10014.50
C & E Loss (ft)	0.01	Cum SA (acres)	169.65	8254.75	1531.24

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18231.80	18282.68	304.03	120.26	37.26	0.13	3.29	2.53
18282.68	18333.56	554.86	195.43	50.88	0.24	3.84	2.84
18333.56	18384.44	546.76	193.72	50.88	0.24	3.81	2.82
18384.44	18435.32	440.96	170.32	50.92	0.19	3.35	2.59
18435.32	18486.20	54.05	48.35	50.94	0.02	0.95	1.12
18486.20	18537.08	81.36	61.77	50.90	0.04	1.21	1.32
18537.08	18587.96	262.65	124.79	50.89	0.12	2.45	2.10
18587.96	18638.84	286.58	131.47	50.88	0.13	2.58	2.18
18638.84	18689.72	244.41	119.50	50.88	0.11	2.35	2.05
18689.72	18740.60	204.95	107.52	50.88	0.09	2.11	1.91
18740.60	18791.48	146.86	88.03	50.88	0.06	1.73	1.67
18791.48	18842.36	73.53	58.13	50.88	0.03	1.14	1.27
18842.36	18893.24	21.97	28.16	50.88	0.01	0.55	0.78
18893.24	18944.12	0.86	2.90	22.37	0.00	0.13	0.30

18944.12	18995.00							
18995.00 LB	20009.60	43782.69	6756.80	1011.12	19.29	6.70	6.48
20009.60	21024.20	92906.91	10799.32	1015.05	40.93	10.64	8.60
21024.20	22038.80	32215.40	8133.35	1016.14	14.19	8.02	3.96
22038.80	23053.40 RB	27550.99	7970.89	1016.21	12.14	7.86	3.46
23053.40	23490.71	356.05	257.11	437.31	0.16	0.59	1.38
23490.71	23928.01	217.26	191.16	437.32	0.10	0.44	1.14
23928.01	24365.32	2640.83	855.57	437.32	1.16	1.96	3.09
24365.32	24802.63	2953.00	915.01	437.47	1.30	2.09	3.23
24802.63	25239.93	2064.51	738.06	437.31	0.91	1.69	2.80
25239.93	25677.24	3406.46	996.75	437.32	1.50	2.28	3.42
25677.24	26114.55	9140.60	1815.13	445.23	4.03	4.15	5.04
26114.55	26551.85	4884.63	1237.38	437.31	2.15	2.83	3.95
26551.85	26989.16	1656.84	527.88	263.15	0.73	2.01	3.14

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18995.00 LB	20009.60	51619.45	7615.31	1016.69	22.74	7.51	6.78
20009.60	21024.20	104321.77	11659.78	1015.05	45.96	11.49	8.95
21024.20	22038.80	37345.27	8993.81	1016.14	16.45	8.86	4.15
22038.80	23053.40 RB	32297.94	8831.35	1016.21	14.23	8.70	3.66
23053.40	23490.71	1415.55	501.27	358.17	0.62	1.41	2.82

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 197.74

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18369.7	939.2	18400.3	936	18449.4	936	18620.7	928.7	18801.1	929.4
18876.7	930.7	18919	925.9	19070.5	925.9	19147.1	928.5	19167.1	927.1
19196.4	929.7	19358.7	929.3	19420.3	929.7	19462.8	925.5	19520.2	925.9
19551.5	922.4	19727.9	922.7	19916.3	922.1	19959.3	926.5	19998.2	925.9
20024.8	921.6	20099	921.8	20161.6	925.1	20227.1	923.1	20262.4	919.2
20427.7	920.4	20581.4	921.2	20595.1	922.4	20657	919.1	20849.6	919.3
20925.9	920.4	21134.6	921.3	21139.6	919.6	21170.7	926.6	21282.8	927.6
21345.7	922	21496	921.2	21685.1	922	21811.3	924.7	21878	929.4
22042.2	927.9	22235.6	928.8	22402	926.3	22508.4	924.3	22667.7	922.4
22757.2	920.1	22778.1	924.4	22818.1	920.9	22820.9	922	22877.3	919.5
22998.3	922.6	23058.1	927.6	23231	931.8	23417.9	931.2	23598.2	931.8
23729.2	932.6	23779.2	928.9	23944.2	929.8	24120.1	929.9	24283.8	931.1
24347.7	932.1	24381.1	929.5	24512.7	929.9	24675.7	929.9	24892.5	929.9
25074.6	930.2	25347.7	929.7	25542.5	929.4	25654.3	929.2	25659.6	920.7
25679.7	921.2	25689.1	928.9	25857.4	927.9	26035.9	929	26116.5	928.8
26399.2	929.4	26471.8	929.6	26710.9	929.8	26891	929.6	26997.7	931.3
27173.3	931.4	27229.1	931.4	27515.3	931.2	27842.2	932.1	27982.6	932.1
28174.4	932	28273.3	933.4	28488.5	933.2	28508	933.3	28834.4	933.5
28892.8	933.5	29141.8	933.6	29226.9	933.6	29448.9	933.8	29527.9	933.5
29557.6	934.9								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18369.7	.043	18876.7	.043	19916.3	.032	20849.6	.065	23058.1	.025
23779.2	.053	25654.3	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18876.7	23231	525	522.82	510	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
26839	29557.6	938

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	931.97	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.47	Wt. n-Val.	0.043	0.045	0.033
E.G. Elev (ft)	932.44	Reach Len. (ft)	525.00	522.82	510.00
Crit W.S. (ft)	928.12	Flow Area (sq ft)	797.12	34317.96	7722.17
E.G. Slope (ft/ft)	0.001823	Area (sq ft)	797.12	34317.96	8445.46
Q Total (cfs)	227000.00	Flow (cfs)	2105.31	197633.84	27260.83

Top Width (ft)	9128.88	Top Width (ft)	332.71	4354.30	4441.87
Vel Total (ft/s)	5.30	Avg. Vel. (ft/s)	2.64	5.76	3.53
Max Chl Dpth (ft)	12.87	Hydr. Depth (ft)	2.40	7.88	2.22
Conv. Total (cfs)	5316867.5	Conv. (cfs)	49311.3	4629044.0	638512.0
Length Wtd. (ft)	520.67	Wetted Per. (ft)	332.80	4359.00	3493.87
Min Ch El (ft)	919.10	Shear (lb/sq ft)	0.27	0.90	0.25
Alpha	1.08	Stream Power (lb/ft s)	0.72	5.16	0.89
Frctn Loss (ft)	0.84	Cum Volume (acre-ft)	6966.01	77400.96	26619.64
C & E Loss (ft)	0.04	Cum SA (acres)	1932.14	8199.61	7816.81

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	932.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.53	Wt. n-Val.		0.045	0.025
E.G. Elev (ft)	933.41	Reach Len. (ft)	525.00	522.82	510.00
Crit W.S. (ft)	927.90	Flow Area (sq ft)		38255.54	701.95
E.G. Slope (ft/ft)	0.001681	Area (sq ft)		38255.54	701.95
Q Total (cfs)	227000.00	Flow (cfs)		224995.92	2004.07
Top Width (ft)	4903.30	Top Width (ft)		4354.30	549.00
Vel Total (ft/s)	5.83	Avg. Vel. (ft/s)		5.88	2.85
Max Chl Dpth (ft)	13.77	Hydr. Depth (ft)		8.79	1.28
Conv. Total (cfs)	5537324.0	Conv. (cfs)		5488437.5	48886.3
Length Wtd. (ft)	522.44	Wetted Per. (ft)		4361.18	553.11
Min Ch El (ft)	919.10	Shear (lb/sq ft)		0.92	0.13
Alpha	1.01	Stream Power (lb/ft s)		5.41	0.38
Frctn Loss (ft)	0.84	Cum Volume (acre-ft)	943.49	81316.50	10007.94
C & E Loss (ft)	0.03	Cum SA (acres)	169.65	8206.52	1526.31

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18538.70	18572.50	17.34	17.33	28.54	0.01	0.61	1.00
18572.50	18606.30	141.74	65.41	33.83	0.06	1.94	2.17
18606.30	18640.10	313.76	105.35	33.81	0.14	3.12	2.98
18640.10	18673.90	315.75	105.74	33.80	0.14	3.13	2.99
18673.90	18707.70	294.01	101.31	33.80	0.13	3.00	2.90
18707.70	18741.50	272.88	96.88	33.80	0.12	2.87	2.82
18741.50	18775.30	252.37	92.44	33.80	0.11	2.73	2.73
18775.30	18809.10	230.66	87.58	33.80	0.10	2.59	2.63
18809.10	18842.90	167.81	72.37	33.80	0.07	2.14	2.32
18842.90	18876.70	98.99	52.72	33.81	0.04	1.56	1.88
18876.70 LB	19965.27	34523.06	6798.25	1089.69	15.21	6.25	5.08
19965.27	21053.85	104908.16	11993.85	1089.41	46.22	11.02	8.75
21053.85	22142.43	29754.34	8070.49	1090.10	13.11	7.41	3.69
22142.43	23231.00 RB	28448.29	7455.37	1089.81	12.53	6.85	3.82
23231.00	23652.77	250.38	174.65	394.92	0.11	0.44	1.43
23652.77	24074.55	1693.46	773.75	336.94	0.75	2.30	2.19
24074.55	24496.32	1060.95	663.00	411.85	0.47	1.61	1.60
24496.32	24918.09	1650.60	872.61	421.77	0.73	2.07	1.89
24918.09	25339.87	1520.92	830.80	421.77	0.67	1.97	1.83
25339.87	25761.64	5693.12	1349.40	429.25	2.51	3.20	4.22
25761.64	26183.41	8113.49	1445.30	421.78	3.57	3.43	5.61
26183.41	26605.19	5082.74	1091.67	421.77	2.24	2.59	4.66
26605.19	27026.96	2195.16	520.99	233.81	0.97	2.23	4.21

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18876.70 LB	19965.27	41481.80	7782.65	1091.86	18.27	7.15	5.33
19965.27	21053.85	115078.82	12978.25	1089.41	50.70	11.92	8.87
21053.85	22142.43	34645.91	9054.88	1090.10	15.26	8.32	3.83
22142.43	23231.00 RB	33789.38	8439.76	1089.81	14.89	7.75	4.00
23231.00	23652.77	1615.49	553.86	421.78	0.71	1.31	2.92
23652.77	24074.55	388.59	148.10	131.33	0.17	1.16	2.62

CROSS SECTION RIVER: RIVER-1

REACH: Reach-1 RS: 197.64

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18412	938.7	18493.6	930.1	18627	927.8	18742.8	928.6	18793.7	927.1
18863.7	928.2	19048.6	924.1	19102.6	929	19210.9	926.3	19228.9	927.9
19307.5	925.4	19329.8	922.7	19382.7	925.8	19434.7	925.9	19456.9	921.9
19490.7	925.8	19510.8	922.9	19528.4	923	19565.2	925.2	19626.4	922.1
19656.4	925.2	19750.4	924.1	19855	921.6	20051.7	923.5	20226.4	918.2
20396.8	918.6	20599.1	918.3	20677.1	918.4	20839.3	918.3	21043.7	922.7
21105.3	924.3	21140	921	21167.7	922.6	21185.4	919.5	21205.2	922.6
21257	921	21297	927.1	21401	926.3	21424.9	920	21599.3	921.8
21707.5	920.4	21850.1	928	22064.2	927.6	22234.6	926.3	22452.2	925.7
22575.5	926.4	22635	923.9	22660.5	919.7	22848.2	920.1	22965.1	921.5
22995.7	919.6	23167.5	921.8	23216.2	927.1	23392.2	930.3	23563	930.4
23681.3	930.4	23735	926.9	23928.2	927.7	24177.7	927.9	24239.8	928.9
24262.4	931.3	24341.5	928.3	24400.4	928.3	24582.1	928.1	24724.4	928.3
24943.7	928.5	25150.2	927.5	25261.9	927.3	25428.3	927.4	25579.8	926.6
25616.8	929.3	25623.6	919.2	25638	921	25652.8	929.2	25747.6	926.8
26021.8	927.2	26180.9	927.2	26346	927.2	26350.7	927.2	26667.7	927.5
26841	927.9	26951.5	928.5	27222.4	929.7	27279.8	929.8	27576	930.2
27630.5	930.1	27861.5	929.5	28035.5	929.6	28204.1	932.4	28361.4	930.6
28589.4	931.4	28726.3	931.4	28931.6	931.4	29055.1	931.4	29291.4	931.8
29465	933.2								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18412	.043	18742.8	.043	19855	.032	20599.1	.065	23216.2	.025
24341.5	.053	25616.8	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18742.8	23216.2	510	532.05	575	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
26844	29465	938

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	931.22	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.34	Wt. n-Val.	0.043	0.048	0.031
E.G. Elev (ft)	931.56	Reach Len. (ft)	510.00	532.05	575.00
Crit W.S. (ft)	927.29	Flow Area (sq ft)	659.60	36355.81	11960.21
E.G. Slope (ft/ft)	0.001430	Area (sq ft)	659.60	36355.81	14138.00
Q Total (cfs)	227000.00	Flow (cfs)	1603.49	175988.16	49408.36
Top Width (ft)	9880.12	Top Width (ft)	259.87	4473.40	5146.85
Vel Total (ft/s)	4.63	Avg. Vel. (ft/s)	2.43	4.84	4.13
Max Chl Dpth (ft)	13.02	Hydr. Depth (ft)	2.54	8.13	3.30
Conv. Total (cfs)	6002820.0	Conv. (cfs)	42402.9	4653855.5	1306561.8
Length Wtd. (ft)	541.44	Wetted Per. (ft)	259.95	4478.40	3633.16
Min Ch El (ft)	918.20	Shear (lb/sq ft)	0.23	0.72	0.29
Alpha	1.02	Stream Power (lb/ft s)	0.55	3.51	1.21
Frctn Loss (ft)	0.68	Cum Volume (acre-ft)	6957.23	76976.84	26487.44
C & E Loss (ft)	0.01	Cum SA (acres)	1928.57	8146.64	7760.68

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	932.09	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.44	Wt. n-Val.		0.048	0.025
E.G. Elev (ft)	932.53	Reach Len. (ft)	510.00	532.05	575.00
Crit W.S. (ft)	927.11	Flow Area (sq ft)		40240.00	2301.28
E.G. Slope (ft/ft)	0.001557	Area (sq ft)		40240.00	2301.28
Q Total (cfs)	227000.00	Flow (cfs)		215484.03	11515.98
Top Width (ft)	5207.20	Top Width (ft)		4473.40	733.80
Vel Total (ft/s)	5.34	Avg. Vel. (ft/s)		5.35	5.00
Max Chl Dpth (ft)	13.89	Hydr. Depth (ft)		9.00	3.14
Conv. Total (cfs)	5753052.0	Conv. (cfs)		5461193.0	291859.1
Length Wtd. (ft)	534.50	Wetted Per. (ft)		4481.89	738.32
Min Ch El (ft)	918.20	Shear (lb/sq ft)		0.87	0.30
Alpha	1.00	Stream Power (lb/ft s)		4.67	1.52
Frctn Loss (ft)	0.74	Cum Volume (acre-ft)	943.49	80845.44	9990.36
C & E Loss (ft)	0.02	Cum SA (acres)	169.65	8153.54	1518.80

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18478.16	18500.21	14.78	13.81	17.34	0.01	0.80	1.07
18500.21	18522.27	49.79	31.50	22.06	0.02	1.43	1.58
18522.27	18544.32	73.78	39.89	22.06	0.03	1.81	1.85
18544.32	18566.37	101.40	48.27	22.06	0.04	2.19	2.10
18566.37	18588.43	132.43	56.66	22.06	0.06	2.57	2.34
18588.43	18610.48	166.67	65.04	22.06	0.07	2.95	2.56
18610.48	18632.53	202.29	73.06	22.06	0.09	3.31	2.77
18632.53	18654.59	202.02	73.00	22.06	0.09	3.31	2.77
18654.59	18676.64	186.75	69.63	22.05	0.08	3.16	2.68
18676.64	18698.69	171.97	66.27	22.05	0.08	3.01	2.59
18698.69	18720.75	157.70	62.92	22.06	0.07	2.85	2.51
18720.75	18742.80	143.91	59.55	22.05	0.06	2.70	2.42
18742.80 LB	19861.15	26922.26	6443.35	1120.18	11.86	5.76	4.18
19861.15	20979.50	92869.73	12921.89	1118.47	40.91	11.55	7.19
20979.50	22097.85	26476.79	8203.24	1120.63	11.66	7.34	3.23
22097.85	23216.20 RB	29719.42	8787.33	1119.12	13.09	7.86	3.38
23216.20	23632.79	1946.28	651.11	416.62	0.86	1.56	2.99
23632.79	24049.37	6621.77	1357.54	416.70	2.92	3.26	4.88
24049.37	24465.96	3904.32	1113.05	414.06	1.72	2.69	3.51
24465.96	24882.55	2674.99	1236.84	416.59	1.18	2.97	2.16
24882.55	25299.13	3315.95	1406.97	416.59	1.46	3.38	2.36
25299.13	25715.72	6168.40	1735.83	424.31	2.72	4.17	3.55
25715.72	26132.31	9931.87	1731.18	416.60	4.38	4.16	5.74
26132.31	26548.89	9240.88	1657.85	416.59	4.07	3.98	5.57
26548.89	26965.48	5603.85	1069.84	295.11	2.47	3.63	5.24

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18742.80 LB	19861.15	35457.86	7414.40	1123.67	15.62	6.63	4.78
19861.15	20979.50	109691.00	13892.94	1118.47	48.32	12.42	7.90
20979.50	22097.85	33344.63	9174.29	1120.63	14.69	8.20	3.63
22097.85	23216.20 RB	36990.53	9758.38	1119.12	16.30	8.73	3.79
23216.20	23632.79	4150.66	1012.82	416.62	1.83	2.43	4.10
23632.79	24049.37	7365.31	1288.45	321.71	3.24	4.06	5.72

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 197.54

INPUT
Description: Station 24260 Interpolated to provide point for 'n' value change
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18353.9	935.2	18542	931	18710.2	930	18897.3	925.9	19104.5	924.7
19306.6	921.9	19512	926.5	19525.1	926.6	19561	920	19649.8	920.3
19752.8	924.1	19816.4	918	19986.5	920.2	20038.2	919.6	20094.2	922.4
20249	916.9	20475	918	20665.8	917.8	20718.1	918.3	20720.1	916.1
20737.2	919.9	20839.4	916.8	20873	925.2	21082.1	923.9	21127.2	918.6
21172.3	920.7	21193.9	919.4	21234.4	925	21274	922.3	21319.5	924.3
21412.6	918	21464.8	925.2	21511.5	922.3	21534.6	925	21568.6	924.5
21618.5	917.4	21652.8	921.2	21723.9	919	21764.9	922.7	21973.2	923
22156.8	922.9	22370.7	922.3	22398.9	924.2	22624.9	924.3	22690.3	925
22717.7	919.7	22834.7	919.6	22857.3	917.1	22900.3	919.7	22946	917.7
23128.7	920.6	23239.8	928.1	23436.8	928.5	23622.3	928.5	23641.5	926.3
23697.6	925.9	23928.4	926.6	24161.7	926	24199.9	927.2	24228.3	930.1
24260	929.14	24353.3	926.3	24470.7	926.4	24707.2	926.6	24730.2	926.6
25093.4	925.9	25178.4	928.2	25195.6	931.4	25264.1	931.5	25289.9	926.1
25547.3	926.6	25578.3	928.3	25586.5	918.9	25598	919.7	25612.1	929.5
25630	929.9	25636.4	927.3	25785.3	926.9	26048.2	926.6	26365.5	926.5
26526.1	926.9	26709.9	927.2	26835.9	929.9	27061.6	929.4	27347.5	929.9
27582.2	929.7	27758.2	930	27951.2	930	28137.4	929.6	28171.5	932
28417.8	931.1	28623.4	931.3	28687.8	931.2	28883.2	931.3	28934.3	931.5
29240.8	931.5	29422	932.5						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18353.9	.043	18897.3	.043	20038.2	.032	20665.8	.065	23239.8	.025
24260	.043	25547.3	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18897.3	23239.8	510	483.58	535	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
26785	29422	934

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	930.57	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.30	Wt. n-Val.	0.043	0.048	0.030
E.G. Elev (ft)	930.87	Reach Len. (ft)	510.00	483.58	535.00
Crit W.S. (ft)	926.08	Flow Area (sq ft)	518.79	38903.74	12873.80
E.G. Slope (ft/ft)	0.001111	Area (sq ft)	518.79	38903.74	13979.93
Q Total (cfs)	227000.00	Flow (cfs)	893.58	174968.98	51137.45
Top Width (ft)	9460.31	Top Width (ft)	283.73	4342.50	4834.09
Vel Total (ft/s)	4.34	Avg. Vel. (ft/s)	1.72	4.50	3.97
Max Chl Dpth (ft)	14.47	Hydr. Depth (ft)	1.83	8.96	3.71
Conv. Total (cfs)	6809181.5	Conv. (cfs)	26804.1	5248438.5	1533939.0
Length Wtd. (ft)	493.86	Wetted Per. (ft)	283.77	4350.11	3476.86
Min Ch El (ft)	916.10	Shear (lb/sq ft)	0.13	0.62	0.26
Alpha	1.02	Stream Power (lb/ft s)	0.22	2.79	1.02
Frctn Loss (ft)	0.60	Cum Volume (acre-ft)	6950.33	76517.22	26301.86
C & E Loss (ft)	0.01	Cum SA (acres)	1925.39	8092.80	7694.80

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	931.39	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.39	Wt. n-Val.		0.048	0.025
E.G. Elev (ft)	931.78	Reach Len. (ft)	510.00	483.58	535.00
Crit W.S. (ft)	925.95	Flow Area (sq ft)		42423.80	2756.80
E.G. Slope (ft/ft)	0.001248	Area (sq ft)		42423.80	2756.80
Q Total (cfs)	227000.00	Flow (cfs)		212636.11	14363.90
Top Width (ft)	5042.70	Top Width (ft)		4342.50	700.20
Vel Total (ft/s)	5.02	Avg. Vel. (ft/s)		5.01	5.21
Max Chl Dpth (ft)	15.29	Hydr. Depth (ft)		9.77	3.94
Conv. Total (cfs)	6426373.0	Conv. (cfs)		6019731.0	406642.1
Length Wtd. (ft)	487.25	Wetted Per. (ft)		4355.59	705.14
Min Ch El (ft)	916.10	Shear (lb/sq ft)		0.76	0.30
Alpha	1.00	Stream Power (lb/ft s)		3.80	1.59
Frctn Loss (ft)	0.61	Cum Volume (acre-ft)	943.49	80340.60	9956.98
C & E Loss (ft)	0.00	Cum SA (acres)	169.65	8099.70	1509.33

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18607.49	18643.71	0.46	2.70	30.14	0.00	0.09	0.17
18643.71	18679.94	3.84	10.39	36.23	0.00	0.29	0.37
18679.94	18716.17	10.03	18.48	36.23	0.00	0.51	0.54
18716.17	18752.39	36.20	39.93	36.24	0.02	1.10	0.91
18752.39	18788.62	89.42	68.69	36.24	0.04	1.90	1.30
18788.62	18824.85	160.16	97.44	36.24	0.07	2.69	1.64
18824.85	18861.07	246.46	126.20	36.24	0.11	3.48	1.95
18861.07	18897.30	347.01	154.96	36.24	0.15	4.28	2.24
18897.30 LB	19982.93	38513.83	8494.88	1086.68	16.97	7.82	4.53
19982.93	21068.55	77383.28	11838.41	1088.28	34.09	10.90	6.54
21068.55	22154.18	29050.33	9196.49	1088.42	12.80	8.47	3.16
22154.18	23239.80 RB	30021.51	9373.96	1086.74	13.23	8.63	3.20
23239.80	23651.95	3176.59	938.88	412.27	1.40	2.28	3.38
23651.95	24064.09	9115.47	1767.04	412.15	4.02	4.29	5.16
24064.09	24476.24	5086.82	1456.37	412.37	2.24	3.53	3.49
24476.24	24888.39	4894.68	1684.73	412.15	2.16	4.09	2.91
24888.39	25300.53	3775.67	1327.85	335.50	1.66	3.97	2.84
25300.53	25712.68	6180.33	1693.74	420.08	2.72	4.11	3.65
25712.68	26124.83	7490.59	1570.68	412.15	3.30	3.81	4.77
26124.83	26536.97	7997.23	1633.59	412.15	3.52	3.96	4.90
26536.97	26949.12	3420.07	800.92	248.04	1.51	3.23	4.27

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18897.30 LB	19982.93	47938.52	9374.89	1092.16	21.12	8.64	5.11
19982.93	21068.55	91903.58	12718.43	1088.28	40.49	11.72	7.23
21068.55	22154.18	35848.78	10076.51	1088.42	15.79	9.28	3.56
22154.18	23239.80 RB	36945.22	10253.97	1086.74	16.28	9.45	3.60
23239.80	23651.95	5478.98	1272.97	412.27	2.41	3.09	4.30
23651.95	24064.09	8884.91	1483.83	292.87	3.91	5.15	5.99

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 197.45

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18283.9	939.9	18297.4	932.2	18354.7	933	18365.9	928.7	18618.5	927.6
18808	926.4	18961	927.4	19071.7	920.7	19263.4	922.4	19389.7	925.4
19436.8	924.3	19486.7	917.4	19526.2	920.8	19581.4	918.5	19615.1	921.2
19713.3	920.3	19792.4	922.1	20026.7	917.2	20035.6	917.4	20041.2	919.4
20057.3	918.5	20147.6	921.2	20163.1	917.7	20395.5	917.7	20515	919.8
20607.7	917.4	20654.8	918.9	20669.6	921.8	20745.7	922.6	20817.7	915.6
20863.5	916.3	20905.2	924.2	20952	924.7	20979.2	922.8	21048.8	923
21159.7	916.1	21201.7	915.8	21228.8	918.6	21239.5	917	21275.2	922
21568.5	924.6	21773.6	925.1	21977.3	924.4	22183	923.8	22407.2	922.5
22519.6	921.6	22639.5	916	22709.5	916.9	22739.6	916	22900.2	919.4
23021.8	918.8	23088.4	926.8	23280.7	926.1	23468.6	926.8	23665.7	926.3
23847.4	926.3	24046.2	927	24229	930.8	24379.5	928	24567	928.5
24667.7	927.9	24703.3	928.1	24748.4	926	24973.2	926.2	25045.5	925.8
25076	927.5	25164.2	926.4	25367.9	926.4	25514.2	925.4	25547.9	927.3
25558.3	919	25569.1	919.1	25582.6	928.8	25600.8	929.6	25611.1	926.4
25842.5	926.1	25891.7	926.3	26137.2	926.9	26234.1	927.3	26477.4	927.9
26624.9	928.3	26708.3	926.2	26839.3	929.6	27073.3	929.4	27254.8	929.9
27551.1	929.9	27753.6	930.3	27977.1	930.2	28260.7	932.5	28322.4	932.6
28597.3	932.4	28664.5	932.2	28857.7	932.3	29014	932.7	29282.6	933.3
29321	933.6								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18283.9	.043	18961	.043	20026.7	.032	20905.2	.065	23088.4	.025
24229	.053	25611.1	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18961	23088.4	520	502.18	490	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
26650	29321	938

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	929.90	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.37	Wt. n-Val.	0.043	0.045	0.031
E.G. Elev (ft)	930.27	Reach Len. (ft)	520.00	502.18	490.00
Crit W.S. (ft)	925.58	Flow Area (sq ft)	1451.87	36268.13	10439.33
E.G. Slope (ft/ft)	0.001313	Area (sq ft)	1451.87	36268.13	11012.61
Q Total (cfs)	227000.00	Flow (cfs)	3282.47	186257.31	37460.21
Top Width (ft)	8799.87	Top Width (ft)	598.22	4127.40	4074.25
Vel Total (ft/s)	4.71	Avg. Vel. (ft/s)	2.26	5.14	3.59
Max Chl Dpth (ft)	14.30	Hydr. Depth (ft)	2.43	8.79	3.01
Conv. Total (cfs)	6264335.0	Conv. (cfs)	90583.8	5139992.0	1033759.1
Length Wtd. (ft)	499.71	Wetted Per. (ft)	598.45	4132.35	3476.59
Min Ch El (ft)	915.60	Shear (lb/sq ft)	0.20	0.72	0.25
Alpha	1.07	Stream Power (lb/ft s)	0.45	3.69	0.88
Frctn Loss (ft)	0.77	Cum Volume (acre-ft)	6938.80	76099.96	26148.38
C & E Loss (ft)	0.00	Cum SA (acres)	1920.22	8045.78	7640.10

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	930.73	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.43	Wt. n-Val.		0.045	0.025
E.G. Elev (ft)	931.17	Reach Len. (ft)	520.00	502.18	490.00
Crit W.S. (ft)	925.64	Flow Area (sq ft)		39712.33	3270.22
E.G. Slope (ft/ft)	0.001241	Area (sq ft)		39712.33	3270.22
Q Total (cfs)	227000.00	Flow (cfs)		208981.02	18018.98
Top Width (ft)	4889.00	Top Width (ft)		4127.40	761.60
Vel Total (ft/s)	5.28	Avg. Vel. (ft/s)		5.26	5.51
Max Chl Dpth (ft)	15.13	Hydr. Depth (ft)		9.62	4.29
Conv. Total (cfs)	6443897.0	Conv. (cfs)		5932388.5	511508.7
Length Wtd. (ft)	500.45	Wetted Per. (ft)		4135.68	766.03
Min Ch El (ft)	915.60	Shear (lb/sq ft)		0.74	0.33
Alpha	1.00	Stream Power (lb/ft s)		3.91	1.82
Frctn Loss (ft)	0.75	Cum Volume (acre-ft)	943.49	79884.69	9919.97
C & E Loss (ft)	0.01	Cum SA (acres)	169.65	8052.69	1500.36

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18329.04	18374.18	14.59	11.95	11.62	0.01	1.05	1.22
18374.18	18419.32	87.43	60.19	45.14	0.04	1.33	1.45
18419.32	18464.46	109.95	69.06	45.14	0.05	1.53	1.59
18464.46	18509.60	134.48	77.93	45.14	0.06	1.73	1.73
18509.60	18554.74	160.97	86.81	45.14	0.07	1.92	1.85
18554.74	18599.88	189.32	95.68	45.14	0.08	2.12	1.98
18599.88	18645.02	221.90	105.25	45.14	0.10	2.33	2.11
18645.02	18690.16	267.78	117.81	45.14	0.12	2.61	2.27
18690.16	18735.30	318.43	130.71	45.14	0.14	2.90	2.44
18735.30	18780.44	372.50	143.61	45.14	0.16	3.18	2.59
18780.44	18825.58	420.89	154.53	45.14	0.19	3.42	2.72
18825.58	18870.72	383.31	146.10	45.14	0.17	3.24	2.62
18870.72	18915.86	326.86	132.78	45.14	0.14	2.94	2.46
18915.86	18961.00	274.07	119.46	45.14	0.12	2.65	2.29
18961.00 LB	19992.85	43992.88	8595.93	1032.95	19.38	8.33	5.12
19992.85	21024.70	85762.19	10896.48	1034.18	37.78	10.56	7.87
21024.70	22056.55	21716.18	7210.36	1032.69	9.57	6.99	3.01
22056.55	23088.40 RB	34786.12	9565.37	1032.52	15.32	9.27	3.64
23088.40	23503.91	6727.58	1422.30	415.51	2.96	3.42	4.73
23503.91	23919.41	6971.91	1453.08	415.51	3.07	3.50	4.80
23919.41	24334.92	2155.54	628.73	323.77	0.95	1.94	3.43
24334.92	24750.43	1093.17	750.44	415.57	0.48	1.81	1.46
24750.43	25165.93	3441.32	1493.26	415.56	1.52	3.59	2.30
25165.93	25581.44	4138.37	1677.22	421.32	1.82	4.04	2.47
25581.44	25996.95	6851.75	1425.65	416.28	3.02	3.43	4.81
25996.95	26412.45	4654.04	1140.18	415.51	2.05	2.74	4.08
26412.45	26827.96	1426.46	448.44	237.56	0.63	1.89	3.18

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18961.00 LB	19992.85	50072.70	9456.98	1036.29	22.06	9.17	5.29
19992.85	21024.70	94340.98	11757.53	1034.18	41.56	11.39	8.02
21024.70	22056.55	25497.04	8071.41	1032.69	11.23	7.82	3.16
22056.55	23088.40 RB	39070.33	10426.42	1032.52	17.21	10.10	3.75
23088.40	23503.91	9729.79	1769.03	415.51	4.29	4.26	5.50
23503.91	23919.41	8289.16	1501.18	350.52	3.65	4.34	5.52

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 197.35

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18240.6	935.5	18251.2	930.8	18263	928.4	18279.7	931.1	18324.8	929.9
18345	925.5	18561.2	927.3	18792.1	926.7	18852.2	927.3	18895.3	923.9
18967.1	928.5	19103.1	930.2	19166.1	925.9	19200.6	918.3	19314.9	924.3
19357.8	919.6	19553.8	917.6	19609.4	917.9	19655.5	920.4	19776.3	920.1

19808	916.9	19903.9	917.2	19934.5	919.3	19953.8	918.1	20040.4	918
20257	918.3	20474.4	918.3	20498.1	921.4	20615.9	920.7	20648.7	917.2
20816.1	917.6	20836.2	914.2	20875.1	916.7	20971.4	915.2	21003.9	919
21014.3	918.4	21023.1	915.8	21069.1	914.6	21112.7	924.1	21346.7	922.2
21583.4	923.5	21797.7	924.1	22016.7	925	22181.6	923.7	22244.6	917.8
22269.4	919	22302.6	915.4	22509.2	915.9	22590.4	917.4	22704	924.9
22750	923.4	22791.1	925.9	22940.3	918.1	22963.1	920.8	23081.6	924.9
23284.2	925.3	23498.5	925	23825.6	925.6	24049	925.7	24154	928.3
24168.7	930.5	24229.1	929.3	24462.4	928.7	24663.8	927.7	24862.8	927.7
25060.3	927	25323.9	926.1	25517.7	927.2	25525.3	919	25538	919.2
25553.5	929.2	25611.8	924.9	25820.1	925	25850.8	925	26112.9	925.5
26363.4	926.1	26523.6	927	26564.1	929.4	26606.2	927.5	26808.5	929.2
27066.2	929.1	27229.7	929.2	27435.1	929.2	27705.4	930.5	27927.4	930.2
28099.1	931.1	28115.4	932.8	28191.2	931	28289.2	931.7	28581.1	931.7
28617.7	931.7	28889.7	931.9	28935.3	931.9	29272.8	932.7	29344.7	931.9
29383	933.9								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18240.6	.043	19103.1	.043	19314.9	.15	19953.8	.032	20648.7	.065
22704	.025	24229.1	.053	25611.8	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19103.1	22704	500	486.44	470	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18240.6	18324.8	935	26454	29383	935

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	929.10	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.40	Wt. n-Val.	0.043	0.057	0.027
E.G. Elev (ft)	929.50	Reach Len. (ft)	500.00	486.44	470.00
Crit W.S. (ft)	925.18	Flow Area (sq ft)	1597.20	32284.56	11745.82
E.G. Slope (ft/ft)	0.001837	Area (sq ft)	1599.91	32284.56	12123.06
Q Total (cfs)	227000.00	Flow (cfs)	4150.84	157248.28	65600.88
Top Width (ft)	8210.19	Top Width (ft)	694.28	3584.77	3931.15
Vel Total (ft/s)	4.98	Avg. Vel. (ft/s)	2.60	4.87	5.59
Max Chl Dpth (ft)	14.90	Hydr. Depth (ft)	2.33	9.01	3.26
Conv. Total (cfs)	5296139.0	Conv. (cfs)	96843.4	3668761.0	1530534.8
Length Wtd. (ft)	483.22	Wetted Per. (ft)	687.21	3589.67	3607.75
Min Ch El (ft)	914.20	Shear (lb/sq ft)	0.27	1.03	0.37
Alpha	1.03	Stream Power (lb/ft s)	0.69	5.02	2.09
Frctn Loss (ft)	0.83	Cum Volume (acre-ft)	6920.58	75704.80	26018.26
C & E Loss (ft)	0.01	Cum SA (acres)	1912.51	8001.33	7595.07

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	929.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.54	Wt. n-Val.	0.043	0.057	0.025
E.G. Elev (ft)	930.40	Reach Len. (ft)	500.00	486.44	470.00
Crit W.S. (ft)	925.19	Flow Area (sq ft)	0.84	35050.13	5737.85
E.G. Slope (ft/ft)	0.001856	Area (sq ft)	0.84	35050.13	5737.85
Q Total (cfs)	227000.00	Flow (cfs)	0.22	180594.13	46405.66
Top Width (ft)	4625.00	Top Width (ft)	11.62	3596.05	1017.33
Vel Total (ft/s)	5.57	Avg. Vel. (ft/s)	0.26	5.15	8.09
Max Chl Dpth (ft)	15.67	Hydr. Depth (ft)	0.07	9.75	5.64
Conv. Total (cfs)	5268654.0	Conv. (cfs)	5.0	4191577.0	1077072.1
Length Wtd. (ft)	484.61	Wetted Per. (ft)	11.77	3600.98	1022.33
Min Ch El (ft)	914.20	Shear (lb/sq ft)	0.01	1.13	0.65
Alpha	1.11	Stream Power (lb/ft s)	0.00	5.81	5.26
Frctn Loss (ft)	0.83	Cum Volume (acre-ft)	943.49	79453.74	9869.30
C & E Loss (ft)	0.00	Cum SA (acres)	169.58	8008.17	1490.35

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18298.10	18355.60	169.35	67.41	27.51	0.07	2.49	2.51
18355.60	18413.10	572.94	188.09	57.50	0.25	3.27	3.05

18413.10	18470.60	440.12	160.56	57.50	0.19	2.79	2.74
18470.60	18528.10	321.70	133.04	57.50	0.14	2.31	2.42
18528.10	18585.60	229.95	108.76	57.50	0.10	1.89	2.11
18585.60	18643.10	239.22	111.37	57.50	0.11	1.94	2.15
18643.10	18700.60	270.76	119.96	57.50	0.12	2.09	2.26
18700.60	18758.10	303.84	128.55	57.50	0.13	2.24	2.36
18758.10	18815.60	324.25	133.67	57.50	0.14	2.32	2.43
18815.60	18873.10	298.86	127.34	57.57	0.13	2.21	2.35
18873.10	18930.60	856.09	239.57	57.64	0.38	4.17	3.57
18930.60	18988.10	121.87	74.35	57.58	0.05	1.29	1.64
18988.10	19045.60	1.90	4.52	26.90	0.00	0.17	0.42
19045.60	19103.10						
19103.10 LB	20003.32	24297.85	8301.05	885.79	10.70	9.39	2.93
20003.32	20903.55	77889.18	9743.73	900.99	34.31	10.82	7.99
20903.55	21803.78	24259.30	6612.16	901.90	10.69	7.35	3.67
21803.78	22704.00 RB	30801.99	7627.62	900.99	13.57	8.47	4.04
22704.00	23149.27	22092.06	2709.68	445.80	9.73	6.09	8.15
23149.27	23594.53	10790.29	1761.93	445.27	4.75	3.96	6.12
23594.53	24039.80	9155.99	1596.58	445.27	4.03	3.59	5.73
24039.80	24485.07	1043.68	295.01	297.34	0.46	0.99	3.54
24485.07	24930.33	734.64	551.59	445.27	0.32	1.24	1.33
24930.33	25375.60	2189.53	1062.14	445.27	0.96	2.39	2.06
25375.60	25820.87	7106.68	1562.47	450.39	3.13	3.52	4.55
25820.87	26266.13	9718.93	1654.78	445.27	4.28	3.72	5.87
26266.13	26711.40	2769.03	551.64	187.87	1.22	2.94	5.02

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19045.60	19103.10	0.22	0.84	11.77	0.00	0.07	0.26
19103.10 LB	20003.32	27841.07	8986.38	897.10	12.26	10.04	3.10
20003.32	20903.55	88088.45	10437.15	900.99	38.81	11.59	8.44
20903.55	21803.78	28828.62	7305.57	901.90	12.70	8.12	3.95
21803.78	22704.00 RB	35836.03	8321.03	900.99	15.79	9.24	4.31
22704.00	23149.27	27612.39	3052.66	445.80	12.16	6.86	9.05
23149.27	23594.53	14872.16	2104.90	445.27	6.55	4.73	7.07
23594.53	24039.80	3921.08	580.30	131.26	1.73	4.58	6.76

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 197.26

INPUT
Description: APPROX. ALIGNMENT OF DYSART RD.

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17801	934.8	17892.6	930.4	17994.2	931.6	18058.3	928.1	18221.2	927.6
18243.7	931.6	18281.2	931.3	18297.7	928	18434.2	927.5	18669.7	926.7
18892.5	926.2	18975.4	922.8	19067.4	926.4	19104.5	925	19137.8	915.5
19172.5	917.6	19386.8	914.8	19396.9	916.9	19486.6	916.5	19512.6	920.6
19538.8	915.7	19642.7	918.7	19720.8	915.3	19722.9	917.3	19731.1	919.2
19772.4	915.5	19850.7	919.3	19874.5	916.5	19952.4	916.7	20329.8	916.7
20495.4	917.6	20543	921.3	20688.6	919.4	20859.6	913.8	20872.1	915
20893.2	913.6	20976.2	915.2	21072.6	924	21288.7	923.2	21523.7	921.6
21759.9	921.8	21800.4	917.6	21862.1	918.1	21892.7	915.9	21938	917.8
21984.5	913	21989.2	914.2	22054.6	913	22064.4	915.8	22191.4	917.1
22221.1	913.2	22323.7	918.9	22347.2	915.7	22389.8	921.2	22573.8	923.3
22785.4	923.2	22930	924	22976.1	922.1	22997.1	918.1	23135.5	924.5
23374	924.7	23620.1	923.8	23839.6	924.5	24100.4	927.1	24223.1	928.2
24410.6	926.8	24611.6	928.5	24805.9	926	25011.8	928.2	25062.1	926.2
25292.2	926.1	25474.6	926.2	25483.2	919.1	25496.8	919.1	25509.4	927.6
25530.7	928.6	25537.5	926.2	25599.6	925.1	25844	925.3	25865.2	925.2
26141.9	925.5	26355.7	925.5	26534.3	929.3	26755.1	929.5	26846.7	929.2
27103	929.1	27428.1	929.5	27699.7	929.9	27984.3	930.5	28089.6	932.4
28356.1	932	28470.9	932.3	28775.9	932.2	29043.3	933	29287.8	932.4
29325	933.6								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

17801	.043	19067.4	.043	19952.4	.032	21072.6	.15	22573.8	.15
23374	.025	24100.4	.053	25509.4	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19067.4	22573.8	530	497.32	425	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17801	18243.7	933	26126	29325	933

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	928.21	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.45	Wt. n-Val.	0.043	0.048	0.047
E.G. Elev (ft)	928.66	Reach Len. (ft)	530.00	497.32	425.00
Crit W.S. (ft)	923.38	Flow Area (sq ft)	1355.14	34133.19	10017.94
E.G. Slope (ft/ft)	0.001598	Area (sq ft)	1414.73	34133.19	10812.71
Q Total (cfs)	227000.00	Flow (cfs)	2726.83	195242.61	29030.56
Top Width (ft)	8288.15	Top Width (ft)	939.06	3506.40	3842.70
Vel Total (ft/s)	4.99	Avg. Vel. (ft/s)	2.01	5.72	2.90
Max Chl Dpth (ft)	15.21	Hydr. Depth (ft)	1.76	9.73	2.87
Conv. Total (cfs)	5678044.5	Conv. (cfs)	68207.4	4883684.0	726153.3
Length Wtd. (ft)	489.50	Wetted Per. (ft)	770.91	3513.30	3491.87
Min Ch El (ft)	913.00	Shear (lb/sq ft)	0.18	0.97	0.29
Alpha	1.18	Stream Power (lb/ft s)	0.35	5.55	0.83
Frctn Loss (ft)	0.63	Cum Volume (acre-ft)	6903.28	75333.95	25894.52
C & E Loss (ft)	0.00	Cum SA (acres)	1903.14	7961.73	7553.13

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	929.03	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.54	Wt. n-Val.	0.043	0.048	0.150
E.G. Elev (ft)	929.57	Reach Len. (ft)	530.00	497.32	425.00
Crit W.S. (ft)	923.40	Flow Area (sq ft)	266.07	37008.88	3696.38
E.G. Slope (ft/ft)	0.001597	Area (sq ft)	266.07	37008.88	3696.38
Q Total (cfs)	227000.00	Flow (cfs)	872.45	221216.84	4910.70
Top Width (ft)	4170.00	Top Width (ft)	67.40	3506.40	596.20
Vel Total (ft/s)	5.54	Avg. Vel. (ft/s)	3.28	5.98	1.33
Max Chl Dpth (ft)	16.03	Hydr. Depth (ft)	3.95	10.55	6.20
Conv. Total (cfs)	5680265.5	Conv. (cfs)	21831.6	5535552.5	122881.5
Length Wtd. (ft)	496.12	Wetted Per. (ft)	72.72	3513.30	601.27
Min Ch El (ft)	913.00	Shear (lb/sq ft)	0.36	1.05	0.61
Alpha	1.14	Stream Power (lb/ft s)	1.20	6.28	0.81
Frctn Loss (ft)	0.60	Cum Volume (acre-ft)	941.96	79051.40	9818.41
C & E Loss (ft)	0.02	Cum SA (acres)	169.13	7968.51	1481.65

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18223.13	18307.56	0.95	2.35	10.93	0.00	0.22	0.40
18307.56	18391.99	20.59	33.73	84.43	0.01	0.40	0.61
18391.99	18476.41	53.18	59.60	84.43	0.02	0.71	0.89
18476.41	18560.84	94.31	84.05	84.43	0.04	1.00	1.12
18560.84	18645.27	143.81	108.26	84.43	0.06	1.28	1.33
18645.27	18729.69	196.09	130.40	84.43	0.09	1.54	1.50
18729.69	18814.12	238.74	146.74	84.43	0.11	1.74	1.63
18814.12	18898.55	285.71	163.44	84.43	0.13	1.94	1.75
18898.55	18982.97	941.60	334.40	84.50	0.41	3.96	2.82
18982.97	19067.40	751.86	292.16	84.49	0.33	3.46	2.57
19067.40 LB	19944.00	63557.25	9481.53	880.59	28.00	10.82	6.70
19944.00	20820.60	82416.96	9280.71	876.83	36.31	10.59	8.88
20820.60	21697.20	32859.15	6473.99	877.15	14.48	7.39	5.08
21697.20	22573.80 RB	16409.21	8896.95	878.74	7.23	10.15	1.84
22573.80	23023.88	2804.29	2377.93	450.53	1.24	5.28	1.18
23023.88	23473.96	3704.93	1931.72	450.20	1.63	4.29	1.92
23473.96	23924.04	10329.67	1773.76	450.09	4.55	3.94	5.82
23924.04	24374.12	1410.48	505.60	450.10	0.62	1.12	2.79
24374.12	24824.20	430.76	391.96	393.03	0.19	1.00	1.10
24824.20	25274.28	977.00	676.39	450.13	0.43	1.50	1.44
25274.28	25724.36	3847.67	1196.19	446.16	1.70	2.71	3.22
25724.36	26174.44	5525.77	1164.38	401.64	2.43	2.90	4.75

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18982.97	19067.40	872.45	266.07	72.72	0.38	3.95	3.28
19067.40 LB	19944.00	71814.03	10200.45	880.59	31.64	11.64	7.04
19944.00	20820.60	93362.70	9999.64	876.83	41.13	11.41	9.34
20820.60	21697.20	37355.86	7192.92	877.15	16.46	8.21	5.19
21697.20	22573.80 RB	18684.26	9615.88	878.74	8.23	10.97	1.94
22573.80	23023.88	3629.20	2747.05	450.53	1.60	6.10	1.32
23023.88	23473.96	1281.50	949.32	150.74	0.56	6.50	1.35

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 197.16

INPUT
Description: Station 24130 Interpolated to provide point for change in 'n' value
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18108.5	937.1	18137.3	930.2	18144.2	931.5	18162.7	930.7	18223.9	931.4
18237.8	928.5	18417	929.5	18587.4	926.7	18778.2	926.8	18941.4	922.4
18974.1	918.9	19135.2	915.1	19155.8	915.9	19190.1	913.4	19343.5	914.6
19509.6	914.9	19662.5	917.9	19753.8	916.7	19870.6	918.8	20027.5	917.3
20480.8	917	20631	915.1	20703.5	915.8	20795.3	914.6	20851.7	919.4
20883.3	914.2	20936.5	913.9	21110.4	921.6	21302.7	921.6	21458	921.5
21623.9	921	21687.7	913.7	21903.9	913.9	22051.5	916.6	22052.8	915
22238.1	914.1	22267.8	914.1	22371.7	922.7	22461	924.1	22506.1	922
22523.2	919.6	22545.9	919.5	22557	922.9	22623.1	925.7	22676	922.6
22699.9	922.8	22707.3	924.8	22768.1	926.5	22940.9	923	23015.6	924.8
23204.3	924.2	23378.9	924.3	23533.6	924.1	23685.6	925.2	23912.3	924
24062.6	924.9	24072.1	926.4	24130	926.35	24313.5	926.2	24527.9	926
24707.1	925.9	24865	926.7	24958.4	926.8	24969	924.4	24997.4	925.9
25166.9	924.7	25394.9	925.1	25400.4	926.9	25428.7	927.5	25436.5	917.9
25451.4	918.1	25462.3	925.5	25485.5	927	25494.4	925.3	25654.1	925.4
25664.3	925.4	25853.2	926	25924.9	926.1	26148.2	925.8	26228.3	925.9
26440.6	926.5	26597.5	926.7	26761.9	929.1	26817.5	930.2	26872.4	937.7
26963.9	937.7	27118.9	936.4	27188.1	937.7	27343.3	930.8	27401.5	931
27430.1	936	27508.7	936.2	27534.3	930.5	27765.3	931.3	27922.4	931.4
28041.2	932.8	28062	934.7						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18108.5	.032	18778.2	.032	21623.9	.15	22461	.15	23015.6	.025
24130	.043	25428.7	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18778.2	22461	560	499.71	435	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
25662	28062	936

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	927.59	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.44	Wt. n-Val.	0.032	0.041	0.037
E.G. Elev (ft)	928.03	Reach Len. (ft)	560.00	499.71	435.00
Crit W.S. (ft)	922.08	Flow Area (sq ft)	184.78	37246.17	8296.00
E.G. Slope (ft/ft)	0.001056	Area (sq ft)	184.78	37246.17	9753.29
Q Total (cfs)	227000.00	Flow (cfs)	231.00	205420.19	21348.82
Top Width (ft)	8125.44	Top Width (ft)	245.06	3682.80	4197.58
Vel Total (ft/s)	4.96	Avg. Vel. (ft/s)	1.25	5.52	2.57
Max Chl Dpth (ft)	14.19	Hydr. Depth (ft)	0.75	10.11	2.59
Conv. Total (cfs)	6985158.0	Conv. (cfs)	7108.1	6321112.0	656937.7
Length Wtd. (ft)	492.21	Wetted Per. (ft)	245.07	3685.66	3210.01
Min Ch El (ft)	913.40	Shear (lb/sq ft)	0.05	0.67	0.17
Alpha	1.14	Stream Power (lb/ft s)	0.06	3.67	0.44
Frctn Loss (ft)	0.50	Cum Volume (acre-ft)	6893.55	74926.48	25794.19
C & E Loss (ft)	0.01	Cum SA (acres)	1895.93	7920.69	7513.91

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	928.48	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.47	Wt. n-Val.		0.041	0.111
E.G. Elev (ft)	928.95	Reach Len. (ft)	560.00	499.71	435.00
Crit W.S. (ft)	922.10	Flow Area (sq ft)		40528.41	2722.60
E.G. Slope (ft/ft)	0.000941	Area (sq ft)		40528.41	2722.60
Q Total (cfs)	227000.00	Flow (cfs)		223981.56	3018.42
Top Width (ft)	4296.80	Top Width (ft)		3682.80	614.00
Vel Total (ft/s)	5.25	Avg. Vel. (ft/s)		5.53	1.11
Max Chl Dpth (ft)	15.08	Hydr. Depth (ft)		11.00	4.43
Conv. Total (cfs)	7401153.5	Conv. (cfs)		7302740.0	98413.3
Length Wtd. (ft)	497.86	Wetted Per. (ft)		3687.34	619.10
Min Ch El (ft)	913.40	Shear (lb/sq ft)		0.65	0.26
Alpha	1.09	Stream Power (lb/ft s)		3.57	0.29
Frctn Loss (ft)	0.47	Cum Volume (acre-ft)	940.34	78608.78	9787.09
C & E Loss (ft)	0.01	Cum SA (acres)	168.72	7927.47	1475.74

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18510.32	18554.97	1.81	3.92	21.83	0.00	0.18	0.46
18554.97	18599.61	35.57	31.13	44.65	0.02	0.70	1.14
18599.61	18644.26	51.80	39.00	44.65	0.02	0.87	1.33
18644.26	18688.91	49.51	37.96	44.65	0.02	0.85	1.30
18688.91	18733.55	47.26	36.91	44.65	0.02	0.83	1.28
18733.55	18778.20	45.05	35.87	44.65	0.02	0.80	1.26
18778.20 LB	19698.90	66507.42	9405.18	921.13	29.30	10.22	7.07
19698.90	20619.60	68241.65	9549.94	920.74	30.06	10.37	7.15
20619.60	21540.30	52172.73	8131.72	921.51	22.98	8.83	6.42
21540.30	22461.00 RB	18498.37	10159.32	922.27	8.15	11.03	1.82
22461.00	22834.40	1005.40	1354.03	374.58	0.44	3.63	0.74
22834.40	23207.80	2872.36	1245.18	373.44	1.27	3.33	2.31
23207.80	23581.20	5321.31	1254.28	373.40	2.34	3.36	4.24
23581.20	23954.60	4366.21	1113.91	373.41	1.92	2.98	3.92
23954.60	24328.00	1737.47	676.40	373.52	0.77	1.81	2.57
24328.00	24701.40	865.56	584.09	373.40	0.38	1.56	1.48
24701.40	25074.80	746.85	534.79	373.71	0.33	1.43	1.40
25074.80	25448.20	2708.70	1020.46	378.26	1.19	2.73	2.65
25448.20	25821.60	1724.94	512.85	216.28	0.76	2.40	3.36

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18778.20 LB	19698.90	72123.94	10225.74	922.82	31.77	11.11	7.05
19698.90	20619.60	73944.59	10370.51	920.74	32.57	11.26	7.13
20619.60	21540.30	57839.00	8952.29	921.51	25.48	9.72	6.46
21540.30	22461.00 RB	20074.03	10979.88	922.27	8.84	11.93	1.83
22461.00	22834.40	1397.59	1686.82	374.58	0.62	4.52	0.83
22834.40	23207.80	1620.84	1035.78	244.52	0.71	4.30	1.56

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 197.07

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18156.8	935.6	18180.1	930.2	18362.2	925.3	18423.5	928.7	18602.8	925.5
18786	923.4	18795	921.1	18808.7	923.3	18842	923.3	18878.7	917.5
18947.4	916	19044.7	920.7	19059.4	918.4	19092.9	923.8	19120.5	916
19354	914.9	19373.3	914.8	19404.2	920.3	19462.9	921.4	19541.2	915.1
19704.5	915.1	19850.5	917.8	19957	916.4	20276.5	917	20465.2	914.9
20616.3	914.8	20694.2	916.1	20773.9	915.7	21011.7	913.9	21168.4	917.1
21182.3	919.7	21373.7	919.2	21432.9	919.1	21484.6	914	21649.1	913.2
21812.6	914.4	21837	913.5	21936.9	923.6	22044.5	921.3	22092.4	924.5
22239.5	923	22292.1	924.2	22399.3	915.7	22509.5	920.4	22529.4	924.2
22608.4	924.6	22698.8	920.6	22959.3	923.5	23007.4	922.2	23276.8	923.9
23442.1	922.9	23446.9	922.8	23630.4	922.9	23697	922.9	23858	922.9
24027.3	924.1	24073	926.9	24172.8	926.8	24369.6	926.3	24553.4	925.1
24729.6	925.2	24912.9	925.2	25105.3	924.7	25322.7	923.9	25342.4	924.1
25366.8	926.3	25374.7	918.7	25391	918.8	25402.4	925.6	25427.8	926.9
25437.5	924.6	25515.7	925.5	25693.7	925.7	25722.1	925.7	25983.4	926.7

26005	926.7	26209.5	926.7	26374	926.5	26551.9	926.6	26707.4	930.4
26797.9	930.6	26818.6	935.5	26827.5	935.8	26846.2	930.2	26862.4	932
27030.1	932.1	27100.2	931.7	27147.7	934	27308.3	932.3	27500.3	930.8
27515.1	931.9	27545.8	936.8	27568.3	930.5	27782.7	931.4	27968.1	931.2
28024	934.3								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18156.8	.032	18842	.032	21168.4	.15	22608.4	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18842	22608.4	605	484.35	345	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18156.8	18423.5	935	25427.8	28024	935

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	927.13	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.39	Wt. n-Val.	0.032	0.041	0.025
E.G. Elev (ft)	927.52	Reach Len. (ft)	605.00	484.35	345.00
Crit W.S. (ft)	921.77	Flow Area (sq ft)	803.14	36751.81	8604.04
E.G. Slope (ft/ft)	0.000970	Area (sq ft)	895.17	36751.81	9624.98
Q Total (cfs)	227000.00	Flow (cfs)	2097.73	191440.55	33461.72
Top Width (ft)	8162.54	Top Width (ft)	431.11	3766.40	3965.03
Vel Total (ft/s)	4.92	Avg. Vel. (ft/s)	2.61	5.21	3.89
Max Chl Dpth (ft)	13.93	Hydr. Depth (ft)	2.43	9.76	3.05
Conv. Total (cfs)	7289914.0	Conv. (cfs)	67366.8	6147952.0	1074595.0
Length Wtd. (ft)	467.23	Wetted Per. (ft)	330.81	3771.50	2824.70
Min Ch El (ft)	913.20	Shear (lb/sq ft)	0.15	0.59	0.18
Alpha	1.04	Stream Power (lb/ft s)	0.38	3.07	0.72
Frctn Loss (ft)	0.50	Cum Volume (acre-ft)	6886.61	74502.04	25697.44
C & E Loss (ft)	0.01	Cum SA (acres)	1891.59	7877.97	7473.15

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	928.03	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.45	Wt. n-Val.	0.032	0.041	0.025
E.G. Elev (ft)	928.48	Reach Len. (ft)	605.00	484.35	345.00
Crit W.S. (ft)	921.79	Flow Area (sq ft)	268.89	40160.29	1850.08
E.G. Slope (ft/ft)	0.000929	Area (sq ft)	268.89	40160.29	1850.08
Q Total (cfs)	227000.00	Flow (cfs)	1058.23	215013.70	10928.07
Top Width (ft)	4127.53	Top Width (ft)	52.00	3766.40	309.13
Vel Total (ft/s)	5.37	Avg. Vel. (ft/s)	3.94	5.35	5.91
Max Chl Dpth (ft)	14.83	Hydr. Depth (ft)	5.17	10.66	5.98
Conv. Total (cfs)	7447777.5	Conv. (cfs)	34720.1	7054512.0	358545.4
Length Wtd. (ft)	481.28	Wetted Per. (ft)	57.99	3771.50	314.23
Min Ch El (ft)	913.20	Shear (lb/sq ft)	0.27	0.62	0.34
Alpha	1.00	Stream Power (lb/ft s)	1.06	3.31	2.02
Frctn Loss (ft)	0.51	Cum Volume (acre-ft)	938.61	78145.96	9764.26
C & E Loss (ft)	0.01	Cum SA (acres)	168.38	7884.74	1471.13

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18476.56	18522.24	0.26	0.99	10.56	0.00	0.09	0.26
18522.24	18567.92	24.28	27.23	45.69	0.01	0.60	0.89
18567.92	18613.60	101.16	64.09	45.69	0.04	1.40	1.58
18613.60	18659.28	184.43	91.90	45.68	0.08	2.01	2.01
18659.28	18704.96	271.20	115.82	45.68	0.12	2.54	2.34
18704.96	18750.64	370.83	139.73	45.68	0.16	3.06	2.65
18750.64	18796.32	543.82	176.29	45.99	0.24	3.86	3.08
18796.32	18842.00	601.74	187.08	45.84	0.27	4.10	3.22
18842.00 LB	19783.60	63838.92	9506.22	944.64	28.12	10.10	6.72
19783.60	20725.20	72909.20	10281.90	941.64	32.12	10.92	7.09
20725.20	21666.80	47307.31	10383.38	942.14	20.84	11.03	4.56
21666.80	22608.40 RB	7385.07	6580.31	943.08	3.25	6.99	1.12
22608.40	22969.44	8451.42	1769.67	361.15	3.72	4.90	4.78
22969.44	23330.48	6047.32	1447.54	361.06	2.66	4.01	4.18
23330.48	23691.52	6399.66	1497.53	361.04	2.82	4.15	4.27
23691.52	24052.56	5546.22	1374.37	361.09	2.44	3.81	4.04

24052.56	24413.60	225.24	201.04	361.08	0.10	0.56	1.12
24413.60	24774.64	1610.47	654.42	361.04	0.71	1.81	2.46
24774.64	25135.68	2068.25	760.40	361.04	0.91	2.11	2.72
25135.68	25496.72	3113.20	899.08	297.19	1.37	3.08	3.46

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18750.64	18796.32	126.24	40.47	12.15	0.06	6.40	3.12
18796.32	18842.00	931.99	228.42	45.84	0.41	5.00	4.08
18842.00 LB	19783.60	72136.66	10358.34	944.64	31.78	11.00	6.96
19783.60	20725.20	81535.50	11134.02	941.64	35.92	11.82	7.32
20725.20	21666.80	52481.65	11235.50	942.14	23.12	11.93	4.67
21666.80	22608.40 RB	8859.90	7432.43	943.08	3.90	7.89	1.19
22608.40	22969.44	10928.07	1850.08	314.23	4.81	5.98	5.91

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 196.98

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18215.3	936.9	18273	924.3	18469.1	924	18645.3	924.3	18768.6	924.6
18918.1	916.7	19068.3	919.3	19092.4	924.4	19159.7	922.9	19188.7	912.5
19428.2	913.3	19483.9	916.8	19694.4	917.7	19861.6	918.9	20028.4	915.4
20056.3	915.2	20222.5	915.4	20297.3	917.4	20405.6	915.8	20447	917.1
20576.1	914.6	20597.3	912.3	20765.1	916.1	20804.3	911.7	20818.9	912.1
20994	911.1	21004.5	915	21026.5	911	21121.2	911.5	21143.2	917.7
21235.2	923.8	21393.2	921.3	21560.4	921.1	21594.4	920	21602.3	916.4
21625.5	921.5	21639.9	919.5	21747.4	922.4	21905.9	919.8	21957.2	922.6
22117.5	921.1	22239.2	920.7	22308.1	917.4	22316.6	919	22507.1	920.3
22741.2	923.1	22928.8	921.9	23051.7	922.4	23248.3	923.5	23493.4	922.9
23715.5	923.2	23884.5	923	24043	926.2	24071.2	926.7	24094	925
24150.9	925.4	24333.9	925.5	24510.9	925.4	24547.7	925.2	24791.6	924.8
24954.2	924.5	25118.1	923.8	25293.5	925.4	25330.9	926	25341.9	918.7
25355.8	919.8	25367.3	928	25392.2	927.9	25402.2	925.2	25594.7	925.8
25797.7	926.3	25954.8	926.2	26140	926.1	26349.9	926.3	26534.8	926.4
26555.9	926.7	26582.7	930.3	26770	931.3	26782.3	931.2	26800	935.5
26824.6	932.2	26852.5	924	26908.3	924	26932.4	932.4	26957.1	930
27053.3	932.3	27253.5	932.3	27381.6	933	27438.5	930	27501.2	933.5
27513.4	936.5	27524	936.2	27540.7	931.1	27714.4	930.5	27963.4	932.5
28002	933.2								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18215.3	.032	18768.6	.032	21026.5	.15	22507.1	.025	22741.2	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18768.6	22741.2	600	490.37	290	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
25367.3	28002	935

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	926.51	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.49	Wt. n-Val.	0.032	0.038	0.025
E.G. Elev (ft)	927.00	Reach Len. (ft)	600.00	490.37	290.00
Crit W.S. (ft)	922.50	Flow Area (sq ft)	1146.29	33868.14	6579.30
E.G. Slope (ft/ft)	0.001209	Area (sq ft)	1146.29	33868.14	7238.65
Q Total (cfs)	227000.00	Flow (cfs)	3191.92	196986.69	26821.38
Top Width (ft)	8306.56	Top Width (ft)	505.74	3972.60	3828.22
Vel Total (ft/s)	5.46	Avg. Vel. (ft/s)	2.78	5.82	4.08
Max Chl Dpth (ft)	15.51	Hydr. Depth (ft)	2.27	8.53	2.52
Conv. Total (cfs)	6529561.0	Conv. (cfs)	91814.4	5666240.5	771505.9
Length Wtd. (ft)	469.65	Wetted Per. (ft)	505.98	3979.88	2615.61
Min Ch El (ft)	911.00	Shear (lb/sq ft)	0.17	0.64	0.19
Alpha	1.06	Stream Power (lb/ft s)	0.48	3.73	0.77
Frctn Loss (ft)	0.80	Cum Volume (acre-ft)	6872.43	74109.42	25630.65
C & E Loss (ft)	0.02	Cum SA (acres)	1885.08	7834.94	7442.29

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	927.39	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.57	Wt. n-Val.		0.039	
E.G. Elev (ft)	927.96	Reach Len. (ft)	600.00	490.37	290.00
Crit W.S. (ft)	922.45	Flow Area (sq ft)		37328.64	
E.G. Slope (ft/ft)	0.001205	Area (sq ft)		37328.64	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	3972.60	Top Width (ft)		3972.60	
Vel Total (ft/s)	6.08	Avg. Vel. (ft/s)		6.08	
Max Chl Dpth (ft)	16.39	Hydr. Depth (ft)		9.40	
Conv. Total (cfs)	6538036.5	Conv. (cfs)		6538036.5	
Length Wtd. (ft)	490.37	Wetted Per. (ft)		3986.95	
Min Ch El (ft)	911.00	Shear (lb/sq ft)		0.70	
Alpha	1.00	Stream Power (lb/ft s)		4.28	
Frctn Loss (ft)	0.80	Cum Volume (acre-ft)	936.74	77715.16	9756.93
C & E Loss (ft)	0.02	Cum SA (acres)	168.02	7841.72	1469.91

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18252.19	18289.07	110.98	47.03	26.46	0.05	1.79	2.36
18289.07	18325.96	232.15	83.65	36.89	0.10	2.27	2.78
18325.96	18362.85	241.86	85.73	36.89	0.11	2.32	2.82
18362.85	18399.73	251.73	87.81	36.89	0.11	2.38	2.87
18399.73	18436.62	261.75	89.89	36.89	0.12	2.44	2.91
18436.62	18473.51	271.77	91.94	36.89	0.12	2.49	2.96
18473.51	18510.39	268.75	91.33	36.88	0.12	2.48	2.94
18510.39	18547.28	257.50	89.01	36.89	0.11	2.41	2.89
18547.28	18584.17	246.43	86.70	36.89	0.11	2.35	2.84
18584.17	18621.05	235.55	84.38	36.89	0.10	2.29	2.79
18621.05	18657.94	224.61	82.01	36.89	0.10	2.22	2.74
18657.94	18694.83	210.66	78.91	36.89	0.09	2.14	2.67
18694.83	18731.71	196.13	75.60	36.89	0.09	2.05	2.59
18731.71	18768.60	182.03	72.29	36.89	0.08	1.96	2.52
18768.60 LB	19761.75	64015.41	9143.64	995.86	28.20	9.21	7.00
19761.75	20754.90	79400.38	10394.88	993.44	34.98	10.47	7.64
20754.90	21748.05	42071.86	8750.31	997.08	18.53	8.81	4.81
21748.05	22741.20 RB	11499.05	5579.29	993.51	5.07	5.62	2.06
22741.20	23091.92	7553.55	1450.61	350.73	3.33	4.14	5.21
23091.92	23442.64	5294.09	1172.02	350.72	2.33	3.34	4.52
23442.64	23793.36	5595.24	1211.57	350.72	2.46	3.45	4.62
23793.36	24144.08	2321.85	704.18	337.89	1.02	2.08	3.30
24144.08	24494.80	786.26	373.25	350.72	0.35	1.06	2.11
24494.80	24845.52	1398.14	527.22	350.72	0.62	1.50	2.65
24845.52	25196.24	2685.61	779.98	350.73	1.18	2.22	3.44
25196.24	25546.96	1186.65	360.47	173.38	0.52	2.13	3.29

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18768.60 LB	19761.75	74307.70	10008.77	998.64	32.73	10.08	7.42
19761.75	20754.90	90742.38	11260.01	993.44	39.97	11.34	8.06
20754.90	21748.05	47173.28	9615.44	997.08	20.78	9.68	4.91
21748.05	22741.20 RB	14776.66	6444.42	997.79	6.51	6.49	2.29

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 196.88

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17999.6	934.3	18059.2	928.8	18218.9	928.2	18385.9	925.2	18543.4	924.2
18618.4	922.9	18631.1	919.2	18697.5	924.6	18737.5	918.6	18916.3	921.7
19080.4	917.3	19118.8	915.3	19170.8	917.6	19204	914.5	19409.2	913.5
19484.5	914.1	19527.4	919.7	19692.9	918.9	19737.5	919	19819.1	915.4
19932.4	919.9	19957.2	914.2	20023.8	916.2	20054.2	918.7	20114.8	915.1
20239.7	913.6	20358.6	916.5	20402.5	916.2	20453.9	913.2	20601.3	917.4
20631.6	914.9	20700.8	916.5	20721.2	911.3	20746.6	911.5	20983.4	911.6
21059.7	910.8	21089.1	920.8	21269.7	921.5	21428.6	921	21498.9	918
21538.4	920.8	21566.6	918.3	21592.8	921.1	21762.5	921.6	21846.6	920.3
22024	920.1	22046.1	918.5	22067	920.3	22165.8	920.7	22235.2	917.3
22404	923.3	22605.4	922.3	22771.6	922	22945.1	923.1	23205.5	923.5
23370.6	922.8	23396.6	923	23592.9	924	23800.1	923.2	23975.2	923.8
24143.9	925.4	24307.1	924.7	24533.2	924.9	24605.6	925.2	24827.5	923.8
24983.1	923.8	25165.5	923.3	25225.3	924.7	25271.2	927.6	25280.2	918.7
25308.3	920.1	25325.3	928.9	25361.2	927.7	25370.6	925.5	25483	926.1
25847.8	926.6	26008.7	927	26216.4	926.6	26286	926.6	26445.1	926.6
26620.4	930.1	26701.4	929	26790.8	931.6	26805.7	935.4	26857.6	924
26922	924.9	26936.6	927.5	27112.9	931.7	27190.8	932.5	27372.6	930.3
27497.3	931.4	27516.6	936.5	27542.1	930.8	27733.1	931.4	27965.6	932
28009.9	933								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17999.6	.043	18697.5	.043	19080.4	.032	20746.6	.15	20983.4	.15
22404	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18697.5	22404	610	502.13	370	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
25271.2	28009.9	935

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	925.48	Element			
Vel Head (ft)	0.70	Wt. n-Val.	0.043	0.046	0.025
E.G. Elev (ft)	926.18	Reach Len. (ft)	610.00	502.13	370.00
Crit W.S. (ft)	922.48	Flow Area (sq ft)	562.21	29188.51	5060.26
E.G. Slope (ft/ft)	0.002605	Area (sq ft)	562.21	29188.51	5354.01
Q Total (cfs)	227000.00	Flow (cfs)	1420.99	202985.13	22593.90
Top Width (ft)	6986.68	Top Width (ft)	326.92	3706.50	2953.26
Vel Total (ft/s)	6.52	Avg. Vel. (ft/s)	2.53	6.95	4.46
Max Chl Dpth (ft)	14.68	Hydr. Depth (ft)	1.72	7.87	1.79
Conv. Total (cfs)	4447828.5	Conv. (cfs)	27842.8	3977282.0	442703.8
Length Wtd. (ft)	489.80	Wetted Per. (ft)	327.69	3712.09	2833.64
Min Ch El (ft)	910.80	Shear (lb/sq ft)	0.28	1.28	0.29
Alpha	1.06	Stream Power (lb/ft s)	0.71	8.89	1.30
Frctn Loss (ft)	0.94	Cum Volume (acre-ft)	6860.66	73754.50	25588.74
C & E Loss (ft)	0.04	Cum SA (acres)	1879.35	7791.72	7419.72

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	926.38	Element			
Vel Head (ft)	0.76	Wt. n-Val.		0.046	
E.G. Elev (ft)	927.14	Reach Len. (ft)	610.00	502.13	370.00
Crit W.S. (ft)	922.45	Flow Area (sq ft)		32554.31	
E.G. Slope (ft/ft)	0.002357	Area (sq ft)		32554.31	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	3706.50	Top Width (ft)		3706.50	
Vel Total (ft/s)	6.97	Avg. Vel. (ft/s)		6.97	
Max Chl Dpth (ft)	15.58	Hydr. Depth (ft)		8.78	
Conv. Total (cfs)	4675503.5	Conv. (cfs)		4675503.5	
Length Wtd. (ft)	502.13	Wetted Per. (ft)		3716.96	
Min Ch El (ft)	910.80	Shear (lb/sq ft)		1.29	
Alpha	1.00	Stream Power (lb/ft s)		8.99	
Frctn Loss (ft)	0.89	Cum Volume (acre-ft)	936.74	77321.80	9756.93
C & E Loss (ft)	0.04	Cum SA (acres)	168.02	7798.50	1469.91

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18325.29	18371.81	0.00	0.01	1.24	0.00	0.01	0.07
18371.81	18418.34	8.89	14.37	46.53	0.00	0.31	0.62
18418.34	18464.87	29.11	29.26	46.53	0.01	0.63	0.99
18464.87	18511.39	55.30	43.01	46.53	0.02	0.92	1.29
18511.39	18557.92	90.80	57.91	46.53	0.04	1.24	1.57
18557.92	18604.45	188.64	89.80	46.53	0.08	1.93	2.10
18604.45	18650.97	705.11	199.09	47.12	0.31	4.28	3.54
18650.97	18697.50	343.14	128.75	46.68	0.15	2.77	2.67
18697.50 LB	19624.13	69354.59	7405.26	927.78	30.55	7.99	9.37
19624.13	20550.75	90227.80	8589.37	927.85	39.75	9.27	10.50
20550.75	21477.38	36092.36	8390.01	929.13	15.90	9.05	4.30
21477.38	22404.00 RB	7310.39	4803.86	927.34	3.22	5.18	1.52
22404.00	22777.73	6313.04	1112.64	373.73	2.78	2.98	5.67
22777.73	23151.45	4798.69	943.81	373.73	2.11	2.53	5.08
23151.45	23525.18	3920.52	836.02	373.73	1.73	2.24	4.69
23525.18	23898.91	2973.52	708.23	373.73	1.31	1.90	4.20
23898.91	24272.63	835.56	330.67	373.74	0.37	0.88	2.53
24272.63	24646.36	436.90	224.10	373.73	0.19	0.60	1.95
24646.36	25020.09	1802.36	524.47	373.73	0.79	1.40	3.44
25020.09	25393.81	1513.28	380.32	217.53	0.67	1.75	3.98

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18697.50 LB	19624.13	77835.48	8246.71	929.56	34.29	8.90	9.44
19624.13	20550.75	100206.83	9430.82	927.85	44.14	10.18	10.63
20550.75	21477.38	39885.36	9231.46	929.13	17.57	9.96	4.32
21477.38	22404.00 RB	9072.32	5645.31	930.42	4.00	6.09	1.61

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 196.79

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17706	933.3	17721.2	930.2	17801.2	930.3	17838.2	927.2	18025.3	925.9
18262.6	921.7	18299.6	918.4	18359.1	925	18454.1	924.4	18463.2	920.9
18477.3	918.6	18525.9	923	18529.6	921	18575.6	921.2	18598.4	918.5
18667.3	920.3	18736.8	916.6	18747.2	914.4	18881.6	916.9	18946.3	911.9
19066.6	913.6	19092	915.6	19226.4	912.3	19594.3	911.9	19610.3	914
19630.7	912.1	19829.3	914.8	20002.5	916.2	20015.4	916.6	20042.8	912.1
20244.3	912.7	20327	913.6	20493.9	912	20516.7	914.3	20541.3	913.2
20593.1	915.8	20636	914	20644.3	911.5	20658.1	910.7	20849.1	911.4
21017.1	911.4	21032.8	920.9	21220.9	919.6	21401.7	919.8	21579.9	919.6
21753.8	919	21858.1	921.3	22020.4	915.1	22147	921.3	22345.8	921.5
22433.3	921.5	22607.5	921.9	22639.2	921.9	22890.5	921.3	23079.4	922.4
23252	921.6	23487.5	921.6	23748.7	923.1	23923.2	923.8	23940.6	925.3
24042.4	924.5	24260.7	924.5	24489.2	924.2	24722.3	923.2	24931.8	923.9
24978.1	926.8	24986.7	918.3	25012.7	919	25025.2	927.2	25061.6	927.8
25081	923.6	25251.1	922.9	25287.5	925.2	25374.7	924.1	25616.7	925.2
25766.9	925.8	26024.2	926.8	26065.9	926.9	26274.6	926.8	26464.8	928.3
26598.1	930.1	26610.3	928.3	26794.9	929.3	26943.4	930.9	26971.7	923.3
27149.6	922.6	27263.7	923.2	27332.2	930.5	27382.4	930.8	27560	930.6
27754.7	930.4	27913.9	931.1	28133.9	929.7	28209.4	931.2	28383	931.4
28460	931.8								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17706	.15	18667.3	.15	19092	.032	20849.1	.15	22147	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18667.3	22147	530	454.29	375	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
24978.1	28460	932

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	924.63	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.57	Wt. n-Val.	0.150	0.042	0.025
E.G. Elev (ft)	925.20	Reach Len. (ft)	530.00	454.29	375.00
Crit W.S. (ft)	920.21	Flow Area (sq ft)	1504.54	32668.31	5307.94
E.G. Slope (ft/ft)	0.001475	Area (sq ft)	1504.54	32668.31	6318.52
Q Total (cfs)	227000.00	Flow (cfs)	1213.73	203970.22	21816.05
Top Width (ft)	7402.27	Top Width (ft)	507.89	3479.70	3414.68
Vel Total (ft/s)	5.75	Avg. Vel. (ft/s)	0.81	6.24	4.11
Max Chl Dpth (ft)	13.93	Hydr. Depth (ft)	2.96	9.39	1.96
Conv. Total (cfs)	5910820.5	Conv. (cfs)	31604.0	5311151.5	568064.9
Length Wtd. (ft)	445.03	Wetted Per. (ft)	510.13	3484.60	2703.20
Min Ch El (ft)	910.70	Shear (lb/sq ft)	0.27	0.86	0.18
Alpha	1.11	Stream Power (lb/ft s)	0.22	5.39	0.74
Frctn Loss (ft)	0.57	Cum Volume (acre-ft)	6846.19	73397.98	25539.16
C & E Loss (ft)	0.05	Cum SA (acres)	1873.50	7750.30	7392.67

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	925.59	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.62	Wt. n-Val.		0.043	
E.G. Elev (ft)	926.21	Reach Len. (ft)	530.00	454.29	375.00
Crit W.S. (ft)	920.20	Flow Area (sq ft)		36011.87	
E.G. Slope (ft/ft)	0.001384	Area (sq ft)		36011.87	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	3479.70	Top Width (ft)		3479.70	
Vel Total (ft/s)	6.30	Avg. Vel. (ft/s)		6.30	
Max Chl Dpth (ft)	14.89	Hydr. Depth (ft)		10.35	
Conv. Total (cfs)	6101575.0	Conv. (cfs)		6101575.0	
Length Wtd. (ft)	454.29	Wetted Per. (ft)		3494.18	
Min Ch El (ft)	910.70	Shear (lb/sq ft)		0.89	
Alpha	1.00	Stream Power (lb/ft s)		5.61	
Frctn Loss (ft)	0.59	Cum Volume (acre-ft)	936.74	76926.61	9756.93
C & E Loss (ft)	0.04	Cum SA (acres)	168.02	7757.08	1469.91

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18090.52	18154.61	6.32	29.20	57.45	0.00	0.51	0.22
18154.61	18218.69	46.83	101.50	64.10	0.02	1.58	0.46
18218.69	18282.78	131.59	188.76	64.17	0.06	2.95	0.70
18282.78	18346.87	227.52	262.60	64.44	0.10	4.10	0.87
18346.87	18410.95	0.92	4.37	8.93	0.00	0.49	0.21
18410.95	18475.04	32.12	77.70	57.85	0.01	1.36	0.41
18475.04	18539.13	199.61	243.34	64.82	0.09	3.80	0.82
18539.13	18603.21	233.01	266.07	64.25	0.10	4.15	0.88
18603.21	18667.30	335.82	331.01	64.11	0.15	5.17	1.01
18667.30 LB	19537.23	56458.60	9395.88	870.60	24.87	10.80	6.01
19537.23	20407.15	85592.36	9664.29	870.56	37.71	11.11	8.86
20407.15	21277.07	56349.64	8868.98	873.22	24.82	10.20	6.35
21277.07	22147.00 RB	5569.59	4739.16	870.22	2.45	5.45	1.18
22147.00	22567.87	6249.97	1315.58	420.87	2.75	3.13	4.75
22567.87	22988.73	5786.72	1256.18	420.87	2.55	2.98	4.61
22988.73	23409.60	5043.81	1156.77	420.87	2.22	2.75	4.36
23409.60	23830.47	3584.65	942.46	420.87	1.58	2.24	3.80
23830.47	24251.33	147.71	125.81	327.60	0.07	0.38	1.17
24251.33	24672.20	305.08	214.90	420.87	0.13	0.51	1.42
24672.20	25093.07	698.14	296.24	271.25	0.31	1.09	2.36

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18667.30 LB	19537.23	62408.27	10231.77	875.89	27.49	11.76	6.10
19537.23	20407.15	95239.53	10500.18	870.56	41.96	12.07	9.07
20407.15	21277.07	62300.12	9704.87	873.22	27.44	11.16	6.42
21277.07	22147.00 RB	7052.07	5575.05	874.51	3.11	6.41	1.26

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 196.7

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17573.9	932	17644.9	926	17782.7	924.3	17843.1	922.4	18020.3	923.8
18134.6	924.5	18267.5	919.8	18319.9	922.2	18331.2	919.8	18435.6	921
18556.8	918.9	18641.7	915.4	18711.6	911.7	18760.8	915.2	18869.5	912.4
18902.2	916.4	18965.3	911.7	19049.6	914.9	19154.6	912.3	19175.7	915
19236.9	915.6	19292.7	913.2	19488.6	911.8	19652.7	911.1	19862.7	912.2
19880.8	911.7	19929.7	915.3	19950	910.9	20122.4	911.3	20202	915.8
20219.3	909.6	20273.5	912.8	20434.4	909.3	20550.4	909.5	20737.4	909.3
20923.4	909.4	20968	919.2	21188.4	916.4	21194.2	914.8	21385.7	915.8
21544.3	914.9	21731.4	920.1	21896.3	920.4	21959.9	916.5	22031	920.5
22071.7	919	22279.4	920.6	22401.8	920.7	22565.2	920.6	22751.7	921
22937.2	921	23104.9	919.5	23207.4	921	23369.2	921	23560	921.7
23702.6	922.1	23758.8	920.3	23813.6	922.7	23873.1	921.4	24075.4	922.4
24329.1	921.2	24500.6	923.8	24552.9	924.6	24562.3	916.6	24587.3	917.2
24606.7	926	24641.2	927.6	24659	921.7	24856.9	922.3	24937.4	922.2
25096.4	922.9	25304.3	923.4	25463	923.6	25572.3	923.9	25904.3	924.3
26004	924.5	26226	925.7	26288.1	925	26368.3	927.5	26422.1	926.5
26480.7	928.5	26504.7	927.5	26710.9	928.6	26853.9	928.6	27041.9	929.2
27067.7	929.4	27307.6	930.4	27485.5	929.7	27715.8	929.6	27810.9	930.7
27853.4	928.8	28035.2	930.1	28210	930.3	28363.1	930.8	28616.3	931.3
28793.9	932								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17573.9	.15	18435.6	.15	18760.8	.032	19236.9	.15	19929.7	.03
20968	.15	22031	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18435.6	22031	500	505.46	520	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
24641	28793.9	931

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	924.17	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.41	Wt. n-Val.	0.150	0.046	0.025
E.G. Elev (ft)	924.58	Reach Len. (ft)	500.00	505.46	520.00
Crit W.S. (ft)	918.53	Flow Area (sq ft)	1117.19	36771.25	7808.42
E.G. Slope (ft/ft)	0.001124	Area (sq ft)	1117.19	36771.25	9055.89
Q Total (cfs)	227000.00	Flow (cfs)	668.64	193350.44	32980.93
Top Width (ft)	7870.97	Top Width (ft)	585.97	3595.40	3689.59
Vel Total (ft/s)	4.97	Avg. Vel. (ft/s)	0.60	5.26	4.22
Max Chl Dpth (ft)	14.87	Hydr. Depth (ft)	1.91	10.23	3.07
Conv. Total (cfs)	6770958.5	Conv. (cfs)	19944.1	5767259.0	983755.5
Length Wtd. (ft)	507.82	Wetted Per. (ft)	586.40	3600.05	2547.66
Min Ch El (ft)	909.30	Shear (lb/sq ft)	0.13	0.72	0.22
Alpha	1.06	Stream Power (lb/ft s)	0.08	3.77	0.91
Frctn Loss (ft)	0.49	Cum Volume (acre-ft)	6830.24	73035.88	25472.98
C & E Loss (ft)	0.01	Cum SA (acres)	1866.85	7713.41	7362.09

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	925.08	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.50	Wt. n-Val.		0.047	
E.G. Elev (ft)	925.58	Reach Len. (ft)	500.00	505.46	520.00
Crit W.S. (ft)	918.53	Flow Area (sq ft)		40048.45	
E.G. Slope (ft/ft)	0.001214	Area (sq ft)		40048.45	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	3595.40	Top Width (ft)		3595.40	
Vel Total (ft/s)	5.67	Avg. Vel. (ft/s)		5.67	
Max Chl Dpth (ft)	15.78	Hydr. Depth (ft)		11.14	
Conv. Total (cfs)	6515179.0	Conv. (cfs)		6515179.0	
Length Wtd. (ft)	505.46	Wetted Per. (ft)		3608.72	
Min Ch El (ft)	909.30	Shear (lb/sq ft)		0.84	

Alpha	1.00	Stream Power (lb/ft s)		4.77	
Frctn Loss (ft)	0.56	Cum Volume (acre-ft)	936.74	76529.99	9756.93
C & E Loss (ft)	0.00	Cum SA (acres)	168.02	7720.18	1469.91

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17746.24	17803.69	0.57	4.50	16.92	0.00	0.27	0.13
17803.69	17861.13	28.15	76.07	57.47	0.01	1.32	0.37
17861.13	17918.58	30.98	80.57	57.45	0.01	1.40	0.38
17918.58	17976.03	16.15	54.49	57.45	0.01	0.95	0.30
17976.03	18033.47	5.51	28.58	57.45	0.00	0.50	0.19
18033.47	18090.92	0.59	6.92	47.55	0.00	0.15	0.08
18090.92	18148.37	0.02	0.36	4.49	0.00	0.08	0.06
18148.37	18205.81	23.05	67.47	57.48	0.01	1.17	0.34
18205.81	18263.26	122.87	184.18	57.48	0.05	3.21	0.67
18263.26	18320.71	124.94	186.09	57.52	0.06	3.24	0.67
18320.71	18378.15	173.40	226.78	57.68	0.08	3.95	0.76
18378.15	18435.60	142.40	201.18	57.45	0.06	3.50	0.71
18435.60 LB	19334.45	40276.98	8264.56	899.94	17.74	9.19	4.87
19334.45	20233.30	45484.32	11003.10	900.70	20.04	12.24	4.13
20233.30	21132.15	100088.37	11276.48	900.04	44.09	12.55	8.88
21132.15	22031.00 RB	7500.74	6227.10	899.38	3.30	6.93	1.20
22031.00	22481.86	8834.96	1799.01	450.89	3.89	3.99	4.91
22481.86	22932.72	6515.91	1498.59	450.86	2.87	3.32	4.35
22932.72	23383.58	7513.55	1632.34	450.88	3.31	3.62	4.60
23383.58	23834.44	4288.30	1166.01	450.95	1.89	2.59	3.68
23834.44	24285.30	3468.35	1026.54	450.88	1.53	2.28	3.38
24285.30	24736.16	2359.88	685.93	293.20	1.04	2.37	3.44

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18435.60 LB	19334.45	48421.01	9083.86	904.02	21.33	10.11	5.33
19334.45	20233.30	53288.23	11822.41	900.70	23.47	13.15	4.51
20233.30	21132.15	115742.63	12095.78	900.04	50.99	13.46	9.57
21132.15	22031.00 RB	9548.13	7046.40	903.96	4.21	7.84	1.36

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 196.61

INPUT
Description: Left Bank Channel Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17396.9	932.5	17455.1	926.1	17620.5	921.5	17767.1	921.2	17925.9	923.5
18029.4	924.1	18068	917.7	18118.7	922	18135.9	919.4	18190	919.3372
18308.1	919.2	18351.1	920.3	18393.8	912.3	18520.1	911.8	18587	916.4
18830.4	913.6	18867.7	910.5	18908.2	913.2	19068.6	911.9	19184.6	911.7
19243.5	915.9	19277.6	920	19410.5	919.1	19463.6	915.9	19538	919
19637.8	917	19679.3	914.3	19695.4	916.1	19727.8	914.7	19752	911.4
19769.6	913.1	19799.3	910.9	19824.7	910.9	20032.8	911.1	20185.2	910.7
20212.5	915.7	20231.9	909.7	20557.8	909	20759.4	908.9	20830.2	908.5
20862.7	918.3	20886.1	914.2	21052.1	913.5	21221.6	917.9	21253.8	918.4
21288.4	916.8	21446.1	918.3	21586.6	917.9	21614.8	916.8	21713.6	918.2
21758.5	911.8	21818.3	918.5	21975	918.8	22127.6	916.8	22268.6	917.5
22429.9	918.6	22576.9	918.5	22742.1	918.7	22948.5	918.6	22988.7	918.6
23203.9	920.2	23345.9	920.5	23543.6	919	23599.2	921.6	23778.5	920.2
23885	922.3	23896	916.7	23913.6	916.6	23929.5	925.9	23953.1	925.6
23979.3	919.8	24167.1	921	24325.1	921.6	24437	921.8	24677.6	922.4
24902	922.1	24969.1	924.6	25050.2	923	25250.5	923.7	25268.7	923.8
25472.8	923.7	25616.2	923.6	25869.9	924.5	26056.2	924	26089.8	926.3
26108.9	925	26253.3	927.2	26411.4	927.1	26597	927	26691.9	927.4
26905.6	927.5	27056.9	927.5	27182	927.8	27344.7	927.6	27510.3	928.2
27671.9	932.1	27674	932.2						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17396.9	.043	18351.1	.043	19538	.03	20862.7	.15	21975	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18190	21975	530	508.32	535	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23929.5	27674	931

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	923.70	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.39	Wt. n-Val.	0.043	0.039	0.025
E.G. Elev (ft)	924.09	Reach Len. (ft)	530.00	508.32	535.00
Crit W.S. (ft)	919.12	Flow Area (sq ft)	1237.99	35819.71	8925.96
E.G. Slope (ft/ft)	0.000822	Area (sq ft)	1237.99	35819.71	11016.32
Q Total (cfs)	227000.00	Flow (cfs)	2258.76	182865.83	41875.43
Top Width (ft)	7699.37	Top Width (ft)	576.80	3785.00	3337.56
Vel Total (ft/s)	4.94	Avg. Vel. (ft/s)	1.82	5.11	4.69
Max Chl Dpth (ft)	15.20	Hydr. Depth (ft)	2.15	9.46	4.58
Conv. Total (cfs)	7917327.5	Conv. (cfs)	78781.1	6378011.5	1460535.1
Length Wtd. (ft)	513.21	Wetted Per. (ft)	577.72	3791.47	1954.12
Min Ch El (ft)	908.50	Shear (lb/sq ft)	0.11	0.48	0.23
Alpha	1.03	Stream Power (lb/ft s)	0.20	2.48	1.10
Frctn Loss (ft)	0.39	Cum Volume (acre-ft)	6816.73	72614.72	25353.18
C & E Loss (ft)	0.01	Cum SA (acres)	1860.17	7670.59	7320.15

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	924.49	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.53	Wt. n-Val.		0.039	
E.G. Elev (ft)	925.02	Reach Len. (ft)	530.00	508.32	535.00
Crit W.S. (ft)	918.85	Flow Area (sq ft)		38824.10	
E.G. Slope (ft/ft)	0.001002	Area (sq ft)		38824.10	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	3785.00	Top Width (ft)		3785.00	
Vel Total (ft/s)	5.85	Avg. Vel. (ft/s)		5.85	
Max Chl Dpth (ft)	15.99	Hydr. Depth (ft)		10.26	
Conv. Total (cfs)	7170403.0	Conv. (cfs)		7170403.0	
Length Wtd. (ft)	508.32	Wetted Per. (ft)		3802.32	
Min Ch El (ft)	908.50	Shear (lb/sq ft)		0.64	
Alpha	1.00	Stream Power (lb/ft s)		3.74	
Frctn Loss (ft)	0.46	Cum Volume (acre-ft)	936.74	76072.38	9756.93
C & E Loss (ft)	0.02	Cum SA (acres)	168.02	7677.36	1469.91

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17502.65	17555.52	0.86	2.75	14.06	0.00	0.20	0.31
17555.52	17608.39	59.85	59.55	52.90	0.03	1.13	1.00
17608.39	17661.27	181.57	115.89	52.88	0.08	2.19	1.57
17661.27	17714.14	201.88	123.50	52.87	0.09	2.34	1.63
17714.14	17767.01	217.71	129.22	52.87	0.10	2.44	1.68
17767.01	17819.89	171.30	111.91	52.88	0.08	2.12	1.53
17819.89	17872.76	81.03	71.42	52.88	0.04	1.35	1.13
17872.76	17925.63	20.09	30.93	52.88	0.01	0.58	0.65
17925.63	17978.51	0.69	3.44	34.46	0.00	0.10	0.20
17978.51	18031.38						
18031.38	18084.25	430.87	194.79	52.98	0.19	3.72	2.21
18084.25	18137.13	328.06	165.65	53.19	0.14	3.13	1.98
18137.13	18190.00	564.85	228.95	52.87	0.25	4.33	2.47
18190.00 LB	19136.25	37921.78	8743.81	947.41	16.71	9.24	4.34
19136.25	20082.50	48125.39	8414.29	947.43	21.20	8.89	5.72
20082.50	21028.75	90651.14	12439.00	949.42	39.93	13.15	7.29
21028.75	21975.00 RB	6167.52	6222.61	947.22	2.72	6.58	0.99
21975.00	22354.93	12916.06	2333.06	379.95	5.69	6.14	5.54
22354.93	22734.87	9695.42	1964.17	379.94	4.27	5.17	4.94
22734.87	23114.80	8908.01	1866.85	379.94	3.92	4.91	4.77
23114.80	23494.73	5361.79	1376.66	379.94	2.36	3.62	3.89
23494.73	23874.67	4009.19	1156.41	380.02	1.77	3.04	3.47
23874.67	24254.60	984.96	228.80	54.34	0.43	4.48	4.30

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18190.00 LB	19136.25	47917.88	9494.91	952.56	21.11	10.03	5.05
19136.25	20082.50	60862.64	9165.39	947.43	26.81	9.69	6.64
20082.50	21028.75	110008.56	13190.09	949.42	48.46	13.94	8.34
21028.75	21975.00 RB	8210.91	6973.71	952.91	3.62	7.37	1.18

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 196.51

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17314.6	931.8	17370.3	924.5	17501.7	920.2	17664.7	920.7	17828.2	922.9
17864.4	918.8	17920.6	922.5	17996.6	919.6	18047.9	920.4	18078.1	915.8
18248.1	911.8	18441.5	911.2	18472.7	914.1	18587.2	913.4	18680.5	914.8
18703.6	910.5	18829.5	913.4	18899.9	911.1	18941.9	916.7	18972.7	918.9
18987.3	915.1	19095.5	914	19142.6	915.3	19154.1	918.8	19182.8	914.9
19354.5	915.1	19436.9	916.3	19551.7	912.2	19764.1	909.2	19788	909
19810.4	913.7	19835.8	914.3	19873.7	910.5	19934.4	909.2	20279.3	908.8
20507.7	908.2	20705.9	908.2	20733.2	918.9	20745.6	917.2	20791.4	917.5
20884.9	914.9	21131.5	917.8	21297.1	916.2	21460.9	915.7	21648.4	917.7
21717.9	910.1	21774.9	917.3	21907.2	919	21932.1	914.9	21952.1	917
21977.7	916.4	21989.7	918.1	22006.9	915.2	22169.5	917.4	22330.3	917.9
22383.1	918.1	22553.8	917.8	22747.2	916.7	23029.7	919.7	23285.1	919.8
23336.1	918.9	23364	919.9	23376.3	915.4	23387.7	917	23406.8	924.2
23432	925.3	23458.1	918.2	23608.1	919.7	23823.6	920	23877.8	920.1
24096.5	921.3	24280.1	921.4	24555.2	922.2	24708.2	921.9	24804.8	923.1
24987.9	924.5	25203.1	924.5	25398.8	924.8	25585.5	925.1	25790.1	926.2
25952.4	925.2	26066.2	928.3	26329.3	927.3	26461.3	927.7	26664.3	927.8
26898.5	928	27075.1	929.4	27178.4	930.9	27350.5	931.2	27390.7	931.4
27443.6	928	27493.7	929.6	27599.9	925.9	27779.5	926.1	27949.7	928.3
28149	929.9								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17314.6	.043	17920.6	.043	19835.8	.028	20733.2	.15	21907.2	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17920.6	21907.2	495	498.4	550	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23432	28149	930

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	923.33	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.35	Wt. n-Val.	0.043	0.039	0.025
E.G. Elev (ft)	923.69	Reach Len. (ft)	495.00	498.40	550.00
Crit W.S. (ft)	918.16	Flow Area (sq ft)	1112.19	39030.53	7983.94
E.G. Slope (ft/ft)	0.000698	Area (sq ft)	1112.19	39030.53	11262.95
Q Total (cfs)	227000.00	Flow (cfs)	1695.81	187098.27	38205.93
Top Width (ft)	7394.90	Top Width (ft)	514.70	3986.60	2893.61
Vel Total (ft/s)	4.72	Avg. Vel. (ft/s)	1.52	4.79	4.79
Max Chl Dpth (ft)	15.13	Hydr. Depth (ft)	2.16	9.79	5.33
Conv. Total (cfs)	8594165.0	Conv. (cfs)	64202.9	7083495.0	1446467.1
Length Wtd. (ft)	506.82	Wetted Per. (ft)	515.12	3993.31	1500.25
Min Ch El (ft)	908.20	Shear (lb/sq ft)	0.09	0.43	0.23
Alpha	1.03	Stream Power (lb/ft s)	0.14	2.04	1.11
Frctn Loss (ft)	0.34	Cum Volume (acre-ft)	6802.43	72177.99	25216.36
C & E Loss (ft)	0.01	Cum SA (acres)	1853.53	7625.24	7281.88

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	924.08	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.45	Wt. n-Val.		0.039	0.025
E.G. Elev (ft)	924.54	Reach Len. (ft)	495.00	498.40	550.00

Crit W.S. (ft)	917.97	Flow Area (sq ft)		42013.91	14.88
E.G. Slope (ft/ft)	0.000832	Area (sq ft)		42013.91	14.88
Q Total (cfs)	227000.00	Flow (cfs)		226962.59	37.41
Top Width (ft)	3989.40	Top Width (ft)		3986.60	2.80
Vel Total (ft/s)	5.40	Avg. Vel. (ft/s)		5.40	2.51
Max Chl Dpth (ft)	15.88	Hydr. Depth (ft)		10.54	5.31
Conv. Total (cfs)	7870844.0	Conv. (cfs)		7869547.0	1297.0
Length Wtd. (ft)	498.45	Wetted Per. (ft)		3994.89	8.38
Min Ch El (ft)	908.20	Shear (lb/sq ft)		0.55	0.09
Alpha	1.00	Stream Power (lb/ft s)		2.95	0.23
Frctn Loss (ft)	0.39	Cum Volume (acre-ft)	936.74	75600.72	9756.84
C & E Loss (ft)	0.01	Cum SA (acres)	168.02	7632.02	1469.89

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17395.40	17435.80	7.56	14.62	29.91	0.00	0.49	0.52
17435.80	17476.20	76.72	66.23	40.42	0.03	1.64	1.16
17476.20	17516.60	194.33	115.67	40.41	0.09	2.86	1.68
17516.60	17557.00	213.29	122.30	40.40	0.09	3.03	1.74
17557.00	17597.40	198.94	117.29	40.40	0.09	2.90	1.70
17597.40	17637.80	184.98	112.28	40.40	0.08	2.78	1.65
17637.80	17678.20	168.93	106.33	40.40	0.07	2.63	1.59
17678.20	17718.60	123.53	88.13	40.40	0.05	2.18	1.40
17718.60	17759.00	76.62	66.17	40.40	0.03	1.64	1.16
17759.00	17799.40	39.12	44.21	40.40	0.02	1.09	0.88
17799.40	17839.80	21.36	30.77	40.48	0.01	0.76	0.69
17839.80	17880.20	268.64	140.72	40.59	0.12	3.48	1.91
17880.20	17920.60	121.80	87.46	40.49	0.05	2.16	1.39
17920.60 LB	18917.25	37956.49	9357.85	997.88	16.72	9.39	4.06
18917.25	19913.90	42583.84	9665.28	999.04	18.76	9.70	4.41
19913.90	20910.55	100002.70	13103.77	998.83	44.05	13.15	7.63
20910.55	21907.20 RB	6555.24	6903.62	997.56	2.89	6.93	0.95
21907.20	22323.32	14351.37	2684.52	416.95	6.32	6.45	5.35
22323.32	22739.44	11629.47	2364.41	416.12	5.12	5.68	4.92
22739.44	23155.56	8480.26	1956.30	416.14	3.74	4.70	4.33
23155.56	23571.68	3744.83	978.70	251.04	1.65	3.93	3.83

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17920.60 LB	18917.25	47049.08	10103.70	999.46	20.73	10.14	4.66
18917.25	19913.90	52542.42	10411.13	999.04	23.15	10.45	5.05
19913.90	20910.55	118878.06	13849.62	998.83	52.37	13.90	8.58
20910.55	21907.20 RB	8493.03	7649.46	997.56	3.74	7.68	1.11
21907.20	22323.32	37.41	14.88	8.38	0.02	5.31	2.51

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 196.42

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17283.5	932.2	17343.7	930.1	17350.8	926	17381.4	923	17464.8	922.1
17525.6	919	17693.4	917.7	17733.1	920.9	17759.2	914.5	17929.7	912.5
18103.2	912.9	18337	910.8	18381.8	914.7	18506.5	914.9	18542.9	910.5
18709.3	911.8	18776.8	910.8	18814.1	916.8	18870.3	917.9	18897.5	914.1
18903.9	911.8	18955.4	916.4	19062.7	913.9	19144.2	916.4	19241.2	911.5
19328.7	915.4	19409	914.6	19459.5	911.4	19501.8	916.6	19636.3	914.2
19686.9	915.5	19702.2	908.9	19855.2	912.6	19877.9	909.2	20026.2	909
20497.4	907.9	20605.2	907.3	20626.9	912.1	20635.6	916.2	20664.8	913.4
20732.7	913.2	20910.5	917.3	21108.3	914.4	21157.8	913.4	21291	917.6
21344.7	909.4	21393.8	917.2	21566.3	915	21644.4	917.9	21682.3	915.7
21748	920.1	21805.2	917	21829.3	911.5	21897.3	916.7	21911.5	914.8
22001	916.2	22164	917	22164.4	917	22344.4	916.9	22569.7	915.5
22760.7	916.9	22790.1	917	22961.7	918.2	23108.4	917.2	23144.1	921
23152	915.2	23171.8	916.6	23183.6	922.5	23201.7	925	23222.5	917.3
23399	917.9	23574.5	920	23642.7	920	23893.2	920.2	24140.1	921

24405.7	922	24562.7	921.4	24799.3	923.8	25019.3	925.7	25209.5	924.6
25385.6	924.7	25619.9	925.9	25864.4	925.4	25937	927.9	25967.2	926.5
26139.3	927.7	26332.5	928.5	26497.2	928.1	26675.2	930.8	26741.9	929.4
26946.2	930.7	27111.7	928.6	27279.5	925.2	27461.5	925.6	27689.5	929.1
27859	930.4								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17283.5	.043	17733.1	.043	19686.9	.028	20635.6	.15	21393.8	.032
21748	.032								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17733.1	21748	515	490.39	465	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23201.7	27859	930

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	923.02	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.33	Wt. n-Val.	0.043	0.038	0.032
E.G. Elev (ft)	923.34	Reach Len. (ft)	515.00	490.39	465.00
Crit W.S. (ft)	917.67	Flow Area (sq ft)	1119.85	40028.29	9077.79
E.G. Slope (ft/ft)	0.000632	Area (sq ft)	1119.85	40028.29	13064.55
Q Total (cfs)	227000.00	Flow (cfs)	2104.47	188791.22	36104.32
Top Width (ft)	7321.24	Top Width (ft)	351.88	4014.90	2954.46
Vel Total (ft/s)	4.52	Avg. Vel. (ft/s)	1.88	4.72	3.98
Max Chl Dpth (ft)	15.72	Hydr. Depth (ft)	3.18	9.97	6.31
Conv. Total (cfs)	9027556.0	Conv. (cfs)	83692.5	7508032.0	1435831.5
Length Wtd. (ft)	485.73	Wetted Per. (ft)	352.10	4023.14	1443.99
Min Ch El (ft)	907.30	Shear (lb/sq ft)	0.13	0.39	0.25
Alpha	1.03	Stream Power (lb/ft s)	0.24	1.85	0.99
Frctn Loss (ft)	0.28	Cum Volume (acre-ft)	6789.75	71725.71	25062.78
C & E Loss (ft)	0.01	Cum SA (acres)	1848.61	7579.46	7244.97

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	923.70	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.43	Wt. n-Val.		0.038	0.032
E.G. Elev (ft)	924.14	Reach Len. (ft)	515.00	490.39	465.00
Crit W.S. (ft)	917.63	Flow Area (sq ft)		42783.38	143.07
E.G. Slope (ft/ft)	0.000745	Area (sq ft)		42783.38	143.07
Q Total (cfs)	227000.00	Flow (cfs)		226556.23	443.77
Top Width (ft)	4046.90	Top Width (ft)		4014.90	32.00
Vel Total (ft/s)	5.29	Avg. Vel. (ft/s)		5.30	3.10
Max Chl Dpth (ft)	16.40	Hydr. Depth (ft)		10.66	4.47
Conv. Total (cfs)	8314646.0	Conv. (cfs)		8298391.5	16254.4
Length Wtd. (ft)	489.67	Wetted Per. (ft)		4025.95	37.39
Min Ch El (ft)	907.30	Shear (lb/sq ft)		0.49	0.18
Alpha	1.00	Stream Power (lb/ft s)		2.62	0.55
Frctn Loss (ft)	0.36	Cum Volume (acre-ft)	936.74	75115.61	9755.84
C & E Loss (ft)	0.01	Cum SA (acres)	168.02	7586.24	1469.67

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17373.42	17403.39	0.58	3.00	22.17	0.00	0.14	0.19
17403.39	17433.37	5.11	12.49	29.98	0.00	0.42	0.41
17433.37	17463.34	13.31	22.18	29.97	0.01	0.74	0.60
17463.34	17493.31	48.49	48.22	30.01	0.02	1.61	1.01
17493.31	17523.29	147.46	93.99	30.01	0.06	3.14	1.57
17523.29	17553.26	231.85	123.25	29.98	0.10	4.11	1.88
17553.26	17583.23	254.48	130.32	29.97	0.11	4.35	1.95
17583.23	17613.21	277.55	137.29	29.98	0.12	4.58	2.02
17613.21	17643.18	301.37	144.24	29.97	0.13	4.81	2.09
17643.18	17673.15	326.00	151.20	29.97	0.14	5.04	2.16
17673.15	17703.13	335.84	153.99	30.01	0.15	5.14	2.18
17703.13	17733.10	162.44	99.68	30.07	0.07	3.33	1.63
17733.10 LB	18736.82	42216.36	10312.09	1004.96	18.60	10.27	4.09
18736.82	19740.55	33759.78	8713.77	1007.21	14.87	8.68	3.87
19740.55	20744.28	98595.84	13596.67	1005.59	43.43	13.55	7.25

20744.28	21748.00 RB	14219.23	7405.75	1005.38	6.26	7.38	1.92
21748.00	22155.40	12035.83	2843.43	408.44	5.30	6.98	4.23
22155.40	22562.80	10591.48	2630.81	407.40	4.67	6.46	4.03
22562.80	22970.20	9748.65	2503.13	407.41	4.29	6.14	3.89
22970.20	23377.60	3728.39	1100.43	220.73	1.64	5.07	3.39

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17733.10 LB	18736.82	50972.48	11000.86	1007.77	22.45	10.96	4.63
18736.82	19740.55	41503.64	9402.55	1007.21	18.28	9.37	4.41
19740.55	20744.28	115986.25	14285.45	1005.59	51.10	14.23	8.12
20744.28	21748.00 RB	18093.87	8094.52	1005.38	7.97	8.06	2.24
21748.00	22155.40	443.77	143.07	37.39	0.20	4.47	3.10

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 196.32

INPUT
Description: CONFLUENCE WITH AGUA FRIA RIVER

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17304.6	929.3	17369.4	925.6	17424.3	926.4	17467.3	916.3	17615.8	917
17673.4	920	17703.8	915.2	17815.7	913.7	17835	915.8	18040.2	913.8
18219.9	909.5	18305.8	909.9	18343.5	907.7	18412.3	909.2	18485.4	907.6
18596.1	909	18668.4	915.5	18727.6	917.5	18806.1	911.4	18894.9	913.7
19075	914.7	19252.8	911.6	19320.8	912	19365.4	907.3	19395.8	906.2
19425.6	907.8	19451.7	913.9	19561.1	914.8	19695.4	913.9	19749.6	910.4
19776.9	915.5	19834	909.4	20037.1	908.4	20492.6	907	20511.3	909.4
20551.1	911.2	20577.6	916.3	20625.2	910.4	20659.1	914.4	20730.2	915.2
20789.9	913	21013.5	914.9	21080.9	910.5	21113.8	915.2	21213.4	912.2
21385.9	918.5	21431.6	918.6	21471.5	908.6	21527	908.8	21584	917
21650.7	918	21754.6	913.6	21920.4	914.1	22092.2	915.7	22173	914.2
22375.9	915.3	22550.8	915.2	22643.9	915.9	22652.4	913.5	22660.2	916.6
22850.3	916.7	23016.4	915.4	23032	916.8	23260.9	916.3	23441	917.1
23634.4	918.3	23797.5	917.4	23817.5	921.4	23827.5	917.3	23843.7	917.4
24020.8	919.2	24278.5	919.6	24416.7	919.5	24442.5	920.6	24452.9	918.8
24651.8	920.5	24818.4	923.8	25010.9	923.2	25182.5	924	25250.5	924.2
25519	924.9	25719.1	924.8	25794.3	926.7	25823.3	923.5	25892.6	924.5
26141.8	922.6	26312.1	923	26483	924.4	26615.8	924.7	26647.4	931.3
26726.4	929	26819.1	920	26887	922.7	27009.2	922.4	27127.3	927
27395	929.4								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17304.6	.043	17673.4	.043	19695.4	.028	20577.6	.15	21431.6	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17673.4	21431.6	535	514.33	495	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23029	27395	930

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	922.77	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.28	Wt. n-Val.	0.043	0.040	0.032
E.G. Elev (ft)	923.05	Reach Len. (ft)	535.00	514.33	495.00
Crit W.S. (ft)	916.59	Flow Area (sq ft)	1242.87	40104.52	12349.87
E.G. Slope (ft/ft)	0.000544	Area (sq ft)	1242.87	40104.52	19979.13
Q Total (cfs)	227000.00	Flow (cfs)	3044.51	171740.56	52214.92
Top Width (ft)	7646.67	Top Width (ft)	233.63	3758.20	3654.84
Vel Total (ft/s)	4.23	Avg. Vel. (ft/s)	2.45	4.28	4.23
Max Chl Dpth (ft)	16.57	Hydr. Depth (ft)	5.32	10.67	7.73
Conv. Total (cfs)	9735841.0	Conv. (cfs)	130576.3	7365810.0	2239454.5
Length Wtd. (ft)	510.15	Wetted Per. (ft)	234.46	3763.40	1600.33
Min Ch El (ft)	906.20	Shear (lb/sq ft)	0.18	0.36	0.26
Alpha	1.01	Stream Power (lb/ft s)	0.44	1.55	1.11

Frctn Loss (ft)	0.28	Cum Volume (acre-ft)	6775.78	71274.65	24886.41
C & E Loss (ft)	0.01	Cum SA (acres)	1845.15	7535.71	7209.69

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	923.37	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.40	Wt. n-Val.		0.040	0.032
E.G. Elev (ft)	923.77	Reach Len. (ft)	535.00	514.33	495.00
Crit W.S. (ft)	916.65	Flow Area (sq ft)		42367.60	2215.34
E.G. Slope (ft/ft)	0.000718	Area (sq ft)		42367.60	2215.34
Q Total (cfs)	227000.00	Flow (cfs)		214551.84	12448.18
Top Width (ft)	3981.60	Top Width (ft)		3758.20	223.40
Vel Total (ft/s)	5.09	Avg. Vel. (ft/s)		5.06	5.62
Max Chl Dpth (ft)	17.17	Hydr. Depth (ft)		11.27	9.92
Conv. Total (cfs)	8472844.0	Conv. (cfs)		8008212.5	464632.0
Length Wtd. (ft)	513.35	Wetted Per. (ft)		3766.76	230.78
Min Ch El (ft)	906.20	Shear (lb/sq ft)		0.50	0.43
Alpha	1.00	Stream Power (lb/ft s)		2.55	2.42
Frctn Loss (ft)	0.38	Cum Volume (acre-ft)	936.74	74636.30	9743.26
C & E Loss (ft)	0.02	Cum SA (acres)	168.02	7542.49	1468.31

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17427.53	17452.12	17.55	17.90	12.68	0.01	1.45	0.98
17452.12	17476.71	310.60	131.70	25.00	0.14	5.36	2.36
17476.71	17501.29	418.50	156.45	24.59	0.18	6.36	2.67
17501.29	17525.88	405.91	153.61	24.59	0.18	6.25	2.64
17525.88	17550.47	393.40	150.75	24.59	0.17	6.13	2.61
17550.47	17575.05	381.09	147.90	24.59	0.17	6.02	2.58
17575.05	17599.64	368.96	145.06	24.59	0.16	5.90	2.54
17599.64	17624.23	349.82	140.52	24.60	0.15	5.72	2.49
17624.23	17648.81	251.16	115.23	24.62	0.11	4.69	2.18
17648.81	17673.40	147.53	83.74	24.62	0.06	3.41	1.76
17673.40 LB	18612.95	41364.78	10378.74	940.29	18.22	11.05	3.99
18612.95	19552.50	33659.11	9174.49	941.12	14.83	9.76	3.67
19552.50	20492.05	83299.77	12301.26	940.47	36.70	13.09	6.77
20492.05	21431.60 RB	13416.87	8250.01	941.52	5.91	8.78	1.63
21431.60	21829.16	15691.89	3458.68	399.48	6.91	8.70	4.54
21829.16	22226.72	14106.34	3238.36	397.58	6.21	8.15	4.36
22226.72	22624.28	12586.32	3024.19	397.56	5.54	7.61	4.16
22624.28	23021.84	9653.93	2581.70	398.51	4.25	6.49	3.74
23021.84	23419.40	176.47	46.94	7.19	0.08	6.56	3.76

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17673.40 LB	18612.95	51817.60	10944.51	943.65	22.83	11.65	4.73
18612.95	19552.50	42744.42	9740.27	941.12	18.83	10.37	4.39
19552.50	20492.05	102962.63	12867.04	940.47	45.36	13.69	8.00
20492.05	21431.60 RB	17027.18	8815.78	941.52	7.50	9.38	1.93
21431.60	21829.16	12448.18	2215.34	230.78	5.48	9.92	5.62

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 196.23

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17383.2	928.4	17538.4	925.4	17685.5	924.8	17711.8	924.5	17724.1	1922.4945
17760.9	916.5	17850.8	913	17966.3	913.1	18115.3	910.8	18170.6	911.3
18219.1	908	18381.3	907.9	18548.6	908.4	18614.6	908.6	18655.5	914.2
18760	911	18888.9	913.8	19025.3	911.8	19072.6	908.3	19178.8	913
19290.8	913.3	19299.5	914.5	19339.1	907.9	19377.4	907.8	19394.1	911.7
19412.2	910	19439	914.6	19544.4	915.1	19565.2	911	19581.6	910.8

19600	913.8	19625.3	908.7	19711.2	906	19760.4	908.8	20064.1	908.2
20128.6	908.1	20394.7	906.8	20413.4	906.7	20434	910.2	20481.9	909.3
20517.3	917.9	20540.8	913.7	20685	913.8	20872.1	913.6	21015.9	914.4
21224.5	915	21386.5	915.3	21540.8	915.2	21694.8	914.9	21922.9	913.8
21969.3	914	22118	915.3	22278.8	914.9	22385.8	913.3	22569.7	916
22713.2	914.9	22829	915.8	22937.9	913	23147.6	914.9	23298.8	914.6
23444.2	915.9	23540.5	916	23655.7	917.4	23820.4	916.2	24012.8	917.1
24168.7	918.4	24352	918.7	24448	918.5	24631.1	920.1	24739.1	923
24896.8	922.6	25029.8	922.8	25067.3	921.4	25225.7	922.1	25262.9	921.8
25413.1	921.8	25437.1	921.8	25596.8	921.6	25639.1	925	25700.4	923.6
25775.5	929	25898.8	929.1	25964.4	921	26107.2	922.1	26248.5	922.1
26443.8	924.1	26587.9	924.1	26743	924.5	26934.3	926.6	27102.3	926
27317.9	925.6	27440.2	928	27590.1	927.1	27826.6	928.3	28037.8	928.5
28282.7	929	28468	931.1						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17383.2	.043	17711.8	.043	19600	.028	20517.3	.15	21540.8	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17724.11	20517.3	1365	505.25	460	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22817	28468	930

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	922.38	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.37	Wt. n-Val.		0.035	0.050
E.G. Elev (ft)	922.75	Reach Len. (ft)	1365.00	505.25	460.00
Crit W.S. (ft)	916.53	Flow Area (sq ft)		33267.28	17812.42
E.G. Slope (ft/ft)	0.000571	Area (sq ft)		33267.28	28973.65
Q Total (cfs)	227000.00	Flow (cfs)		177682.41	49317.59
Top Width (ft)	7879.30	Top Width (ft)		2792.49	5086.81
Vel Total (ft/s)	4.44	Avg. Vel. (ft/s)		5.34	2.77
Max Chl Dpth (ft)	16.38	Hydr. Depth (ft)		11.91	7.75
Conv. Total (cfs)	9495880.0	Conv. (cfs)		7432823.0	2063056.9
Length Wtd. (ft)	493.97	Wetted Per. (ft)		2798.04	2300.12
Min Ch El (ft)	906.00	Shear (lb/sq ft)		0.42	0.28
Alpha	1.21	Stream Power (lb/ft s)		2.27	0.76
Frctn Loss (ft)	0.25	Cum Volume (acre-ft)	6768.15	70841.48	24608.27
C & E Loss (ft)	0.02	Cum SA (acres)	1843.71	7497.04	7160.02

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	922.79	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.59	Wt. n-Val.		0.035	0.138
E.G. Elev (ft)	923.37	Reach Len. (ft)	1365.00	505.25	460.00
Crit W.S. (ft)	916.33	Flow Area (sq ft)		34404.19	8771.32
E.G. Slope (ft/ft)	0.000761	Area (sq ft)		34404.19	8771.32
Q Total (cfs)	227000.00	Flow (cfs)		216350.77	10649.25
Top Width (ft)	3849.89	Top Width (ft)		2793.19	1056.70
Vel Total (ft/s)	5.26	Avg. Vel. (ft/s)		6.29	1.21
Max Chl Dpth (ft)	16.79	Hydr. Depth (ft)		12.32	8.30
Conv. Total (cfs)	8229689.0	Conv. (cfs)		7843610.0	386079.2
Length Wtd. (ft)	501.17	Wetted Per. (ft)		2799.04	1064.73
Min Ch El (ft)	906.00	Shear (lb/sq ft)		0.58	0.39
Alpha	1.37	Stream Power (lb/ft s)		3.67	0.48
Frctn Loss (ft)	0.34	Cum Volume (acre-ft)	936.74	74183.07	9680.83
C & E Loss (ft)	0.04	Cum SA (acres)	168.02	7503.81	1461.03

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17724.11 LB	18422.41	30817.13	7601.00	698.27	13.58	10.90	4.05
18422.41	19120.71	33382.71	7977.70	698.95	14.71	11.42	4.18
19120.71	19819.00	41270.72	7886.61	701.18	18.18	11.29	5.23
19819.00	20517.30 RB	72211.87	9801.96	699.63	31.81	14.04	7.37
20517.30	21047.35	4392.11	4477.74	530.42	1.93	8.45	0.98
21047.35	21577.39	4332.93	3888.06	530.05	1.91	7.34	1.11
21577.39	22107.44	18249.91	4164.15	530.06	8.04	7.86	4.38

22107.44	22637.49	17091.25	4003.53	530.08	7.53	7.55	4.27
22637.49	23167.53	5251.39	1278.94	179.52	2.31	7.12	4.11

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17724.11 LB	18422.41	37767.53	7885.20	699.28	16.64	11.29	4.79
18422.41	19120.71	40835.19	8261.94	698.95	17.99	11.83	4.94
19120.71	19819.00	50355.98	8170.85	701.18	22.18	11.70	6.16
19819.00	20517.30 RB	87392.06	10086.20	699.63	38.50	14.44	8.66
20517.30	21047.35	5474.60	4693.49	530.42	2.41	8.85	1.17
21047.35	21577.39	5174.65	4077.82	534.31	2.28	7.74	1.27

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 196.13

INPUT
Description:

Eliminate vertical ineffective areas in rt. overbank by coding out GR

data between and below sta.'s, elev.'s 26234.1, 920.9 and 26306,920.7

26443, 920.7 and 26569, 920.7

Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17603.2	930.8	17750.2	920.1	17891.4	916.9	17919.7	920.6	17964.8	914.4
18074.7	907.2	18221	906.9	18257.8	910.5	18335.9	910.7	18444.8	906.2
18483.5	908.5	18540.3	906	18599.3	908.7	18750.4	907.8	18885.3	911.6
18901	913.3	18947.4	906.3	19091.4	910.8	19236	912.2	19273.5	911.5
19301.9	907.3	19384.1	904.9	19399.9	908.1	19434.8	907.6	19469.8	915.2
19620.6	915.4	19668.7	915.7	19754	908.2	19876.4	907.6	20122.9	906.3
20274.4	905.7	20387.5	905.3	20420.2	911	20460.5	911.5	20516.2	917.4
20645.9	912.4	20819.4	914.4	20983.7	915.1	21169.8	914.7	21281.2	913.2
21358.4	909.1	21513	911.3	21682.7	910.7	21847.6	912.4	22049.7	913.5
22239.5	912.9	22402.2	913.5	22596.7	914.5	22693.7	914.1	22934.7	915.6
23086.3	915.1	23286.3	915	23443.4	915.3	23669.8	916.2	23805.9	917.6
23872.9	914.6	23947.2	919.8	24215.9	919.6	24329.6	919.5	24518.6	919.3
24549.9	919.4	24721.1	920.3	24946.9	921.7	25100.5	921.9	25275	922.5
25474.7	922.9	25665.2	923.6	25822.2	924	25997.9	923.5	26039.9	927
26076.4	925.4	26114.2	926.6	26137.4	921.5	26234.1	920.9	26306	920.7
26312.4	924.4	26388.1	926	26431	923.1	26443	920.7	26569	920.7
26612.4	927.2	26721.5	924.8	26871.3	927	26994.8	926.8	27071.3	922.9
27218.1	921.2	27385.3	920.1	27552.5	921.2	27683.6	920.9	27825.9	924.1
27859.3	925.9	28009.6	925.2	28211.5	926.9	28368.3	926.5	28561	928.6

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17603.2	.043	17919.7	.043	19668.7	.028	20516.2	.15	21169.8	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17919.7	20516.2	860	493.22	470	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17603.2	17919.7	930	22507	28561	930

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	922.17	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.32	Wt. n-Val.		0.036	0.040
E.G. Elev (ft)	922.49	Reach Len. (ft)	860.00	493.22	470.00
Crit W.S. (ft)	915.08	Flow Area (sq ft)		33453.25	18200.53

E.G. Slope (ft/ft)	0.000453	Area (sq ft)	643.88	33453.25	31361.06
Q Total (cfs)	227000.00	Flow (cfs)		163125.53	63874.46
Top Width (ft)	8379.10	Top Width (ft)	197.90	2596.50	5584.70
Vel Total (ft/s)	4.39	Avg. Vel. (ft/s)		4.88	3.51
Max Chl Dpth (ft)	17.27	Hydr. Depth (ft)		12.88	9.14
Conv. Total (cfs)	10671104.0	Conv. (cfs)		7668412.0	3002691.8
Length Wtd. (ft)	485.79	Wetted Per. (ft)		2601.00	1991.06
Min Ch El (ft)	904.90	Shear (lb/sq ft)		0.36	0.26
Alpha	1.06	Stream Power (lb/ft s)		1.77	0.91
Frctn Loss (ft)	0.25	Cum Volume (acre-ft)	6758.06	70454.54	24289.70
C & E Loss (ft)	0.01	Cum SA (acres)	1840.61	7465.78	7103.67

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	922.54	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.46	Wt. n-Val.		0.036	0.052
E.G. Elev (ft)	923.00	Reach Len. (ft)	860.00	493.22	470.00
Crit W.S. (ft)	915.24	Flow Area (sq ft)		34418.23	9839.65
E.G. Slope (ft/ft)	0.000600	Area (sq ft)		34418.23	9839.65
Q Total (cfs)	227000.00	Flow (cfs)		196674.45	30325.54
Top Width (ft)	3665.30	Top Width (ft)		2596.50	1068.80
Vel Total (ft/s)	5.13	Avg. Vel. (ft/s)		5.71	3.08
Max Chl Dpth (ft)	17.64	Hydr. Depth (ft)		13.26	9.21
Conv. Total (cfs)	9268896.0	Conv. (cfs)		8030639.0	1238256.9
Length Wtd. (ft)	488.34	Wetted Per. (ft)		2602.94	1080.54
Min Ch El (ft)	904.90	Shear (lb/sq ft)		0.50	0.34
Alpha	1.12	Stream Power (lb/ft s)		2.83	1.05
Frctn Loss (ft)	0.31	Cum Volume (acre-ft)	936.74	73783.94	9582.57
C & E Loss (ft)	0.01	Cum SA (acres)	168.02	7472.55	1449.81

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17919.70 LB	18568.82	34070.32	8427.47	650.21	15.01	12.98	4.04
18568.82	19217.95	32990.73	8264.68	649.91	14.53	12.73	3.99
19217.95	19867.07	31608.87	7211.85	650.95	13.92	11.11	4.38
19867.07	20516.20 RB	64455.64	9549.26	649.94	28.39	14.71	6.75
20516.20	21052.52	3444.63	4173.78	536.43	1.52	7.78	0.83
21052.52	21588.84	21864.51	5311.38	536.46	9.63	9.90	4.12
21588.84	22125.16	24329.32	5337.35	536.33	10.72	9.95	4.56
22125.16	22661.48	14235.99	3378.01	381.84	6.27	8.85	4.21

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17919.70 LB	18568.82	41040.96	8668.71	652.15	18.08	13.35	4.73
18568.82	19217.95	39855.83	8505.92	649.91	17.56	13.10	4.69
19217.95	19867.07	38403.84	7453.09	650.95	16.92	11.48	5.15
19867.07	20516.20 RB	77373.81	9790.50	649.94	34.09	15.08	7.90
20516.20	21052.52	4297.25	4373.10	536.43	1.89	8.15	0.98
21052.52	21588.84	26028.29	5466.55	544.11	11.47	10.27	4.76

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 196.04

INPUT
Description:

Eliminate vertical ineffective area in rt. overbank by coding out GR

data betweem amd below sta, elev. 26196, 920.7 and 27762.8, 920.7

Station Elevation Data num= 85

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18716	934.4	18740.35	921.9	005	18761	911.3	18791	905.9	18879.5	904.5
18918.1	908.5	19027.1	906.1	19084.2	907.4	19126.8	905.4	19172.9	908.2
19215.5	905.6	19251.5	908.5	19254.8	907.3	19300.1	910.3	19366	906.3
19461.5	905	19468.2	907.8	19516.7	912.2	19613.8	908.1	19654	909.6
19691.2	914.4	19706	913.1	19729.8	908.1	19822.4	907.2	20109.1	906.2
20268.2	906.4	20378.3	906.5	20398.1	910.4	20457.4	914.5	20534.7	908.4
20595.4	913.6	20739.8	912.2	20904.2	910.6	21017.2	912.1	21054.9	906.2
21124.3	909.4	21280.1	909.2	21309	908.9	21443.6	909.3	21628.1	910.4
21792.2	911.2	21959	912.2	22076.1	910	22237.1	912.1	22375.9	911.3
22516.8	913.7	22701.4	915.7	22718	916.3	22876.7	916.7	22906.2	916.6
23104.1	916.3	23126.7	916.4	23263.1	916.4	23420.7	916.6	23650.3	917.2
23816.3	917.9	23961.1	918.7	24152.7	919.4	24226.3	919.1	24364	920.3
24426.7	920.6	24598.7	921.4	24739.7	920.2	24877.7	920.4	25013.4	920.4
25176.1	922.5	25376.4	922	25532.2	922.4	25707.8	921	25795.3	920.2
25824.6	917.1	25874.5	917.4	25955.5	926.4	25993.7	921.5	26139.9	923
26188.2	923.6	26196	920.7	27762.8	920.7	27904.5	921.1	28097.3	921.9
28241.8	922.6	28404.5	922.7	28598.2	923.1	28769.3	924.1	28782	924.2

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18716	.043	19691.2	.028	20457.4	.043	22718	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18740.35	20457.4	660	497.99	500	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22240	28782	931

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	921.77	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.45	Wt. n-Val.		0.035	0.043
E.G. Elev (ft)	922.23	Reach Len. (ft)	660.00	497.99	500.00
Crit W.S. (ft)	914.66	Flow Area (sq ft)		24225.86	19760.87
E.G. Slope (ft/ft)	0.000575	Area (sq ft)		24225.86	34098.73
Q Total (cfs)	227000.00	Flow (cfs)		145641.69	81358.32
Top Width (ft)	8583.65	Top Width (ft)		1716.80	6866.85
Vel Total (ft/s)	5.16	Avg. Vel. (ft/s)		6.01	4.12
Max Chl Dpth (ft)	17.27	Hydr. Depth (ft)		14.11	11.09
Conv. Total (cfs)	9468590.0	Conv. (cfs)		6074984.5	3393606.0
Length Wtd. (ft)	498.56	Wetted Per. (ft)		1723.13	1783.66
Min Ch El (ft)	904.50	Shear (lb/sq ft)		0.50	0.40
Alpha	1.10	Stream Power (lb/ft s)		3.03	1.64
Frctn Loss (ft)	0.43	Cum Volume (acre-ft)	6751.70	70127.99	23936.55
C & E Loss (ft)	0.09	Cum SA (acres)	1838.66	7441.36	7036.50

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	922.12	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.56	Wt. n-Val.		0.035	0.043
E.G. Elev (ft)	922.68	Reach Len. (ft)	660.00	497.99	500.00
Crit W.S. (ft)	914.81	Flow Area (sq ft)		24824.25	14400.80
E.G. Slope (ft/ft)	0.000655	Area (sq ft)		24824.25	14400.80
Q Total (cfs)	227000.00	Flow (cfs)		161868.53	65131.47
Top Width (ft)	2949.65	Top Width (ft)		1717.05	1232.60
Vel Total (ft/s)	5.79	Avg. Vel. (ft/s)		6.52	4.52
Max Chl Dpth (ft)	17.62	Hydr. Depth (ft)		14.46	11.68
Conv. Total (cfs)	8870529.0	Conv. (cfs)		6325372.0	2545156.8
Length Wtd. (ft)	498.45	Wetted Per. (ft)		1723.63	1245.04
Min Ch El (ft)	904.50	Shear (lb/sq ft)		0.59	0.47
Alpha	1.08	Stream Power (lb/ft s)		3.84	2.14
Frctn Loss (ft)	0.47	Cum Volume (acre-ft)	936.74	73448.54	9451.79
C & E Loss (ft)	0.09	Cum SA (acres)	168.02	7448.13	1437.40

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18740.35 LB	19169.61	31049.12	6293.20	432.41	13.68	14.67	4.93
19169.61	19598.88	27736.53	5872.20	430.74	12.22	13.68	4.72
19598.88	20028.14	39976.81	5846.24	430.19	17.61	13.62	6.84
20028.14	20457.40 RB	46879.19	6214.22	429.79	20.65	14.48	7.54
20457.40	21012.37	21339.18	5568.58	555.46	9.40	10.03	3.83
21012.37	21567.35	31288.49	7006.25	555.51	13.78	12.62	4.47
21567.35	22122.32	23923.42	5961.96	555.00	10.54	10.74	4.01
22122.32	22677.29	4807.27	1224.08	117.69	2.12	10.40	3.93

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18740.35 LB	19169.61	34441.15	6442.79	432.91	15.17	15.01	5.35
19169.61	19598.88	30876.11	6021.80	430.74	13.60	14.03	5.13
19598.88	20028.14	44484.51	5995.84	430.19	19.60	13.97	7.42
20028.14	20457.40 RB	52066.73	6363.82	429.79	22.94	14.82	8.18
20457.40	21012.37	24078.41	5762.00	555.46	10.61	10.38	4.18
21012.37	21567.35	34900.52	7199.66	555.51	15.37	12.97	4.85
21567.35	22122.32	6152.56	1439.15	134.07	2.71	11.73	4.28

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 195.94

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19522.4	940.2	19536.61	920.515	19544.2	910	19554.5	906.2	19654.2	906
19843.9	905.8	20021.3	904.5	20047.5	906.5	20128.9	907.5	20167.2	905.4
20237.9	909.3	20309.9	906.1	20413.5	907.4	20431.7	908.5	20464.3	906.9
20478.1	909	20616	907.4	20783.8	906	20819.6	912.6	20954.3	909.3
21036.5	907.1	21068.5	910.6	21211.1	910	21315.7	908.9	21404.3	910.1
21439.4	912.4	21517.6	911.5	21679.9	912.8	21821.7	913	21968.2	912.5
22106.9	913	22125	913.8	22139.6	909.4	22228.5	915.6	22380.2	910.7
22498	913.6	22553.2	912	22605.5	912	22640.1	909.1	22700.7	911.1
22730.8	913.6	22766.5	912	22934.6	913.5	23068.7	913.2	23142.8	914.1
23190.8	923.3	23230	921.9	23331.6	913.5	23496.6	913.6	23507.1	913.6
23674.7	914.7	23901.8	915.2	24079.9	914.6	24241.2	915.8	24388.2	917.7
24564.8	917.8	24691.7	919.1	24823.6	918.6	24974.5	918.3	25142.5	918.2
25166.1	918.4	25369.6	918.8	25520.8	920	25655.3	920.1	25799.7	926.3
25936.1	930.1	26033.2	926.2	26057.6	928.9	26089.9	928.6	26162.9	932.2
26320.7	931.2	26411.9	933	26550.7	931.5	26694.6	929.3	26825.2	922.8
26843.8	921.2	26888.3	922.4	26928.5	927.5	26980.7	928.8	27082.7	921.6
27097.3	919.2	27244.8	919.4	27430.9	920.1	27460.7	920.3	27618.2	920.4
27820.7	919.6	27960.2	920.7	28155.3	921.8	28263.1	922.3	28344.3	921.3
28406.2	927.8	28476.3	925.7	28491.9	922.9	28691.7	924.1	28830.9	924
28882.2	923.7	28917.8	930.5						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val

19522.4 .031 20819.6 .065 22498 .025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19536.61	20819.6	250	505.97	440	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22182	28917.8	935

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	920.33	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.37	Wt. n-Val.		0.031	0.065
E.G. Elev (ft)	921.70	Reach Len. (ft)	250.00	505.97	440.00
Crit W.S. (ft)	916.07	Flow Area (sq ft)		17420.62	12332.14
E.G. Slope (ft/ft)	0.001451	Area (sq ft)		17420.62	28343.36
Q Total (cfs)	227000.00	Flow (cfs)		180382.28	46617.71
Top Width (ft)	6753.45	Top Width (ft)		1282.86	5470.59
Vel Total (ft/s)	7.63	Avg. Vel. (ft/s)		10.35	3.78
Max Chl Dpth (ft)	15.83	Hydr. Depth (ft)		13.58	9.05
Conv. Total (cfs)	5959054.0	Conv. (cfs)		4735276.5	1223777.4
Length Wtd. (ft)	495.63	Wetted Per. (ft)		1290.01	1363.53
Min Ch El (ft)	904.50	Shear (lb/sq ft)		1.22	0.82
Alpha	1.51	Stream Power (lb/ft s)		12.67	3.10
Frctn Loss (ft)	0.88	Cum Volume (acre-ft)	6751.70	69889.94	23578.18
C & E Loss (ft)	0.07	Cum SA (acres)	1838.66	7424.22	6965.69

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	920.68	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.45	Wt. n-Val.		0.031	0.065
E.G. Elev (ft)	922.13	Reach Len. (ft)	250.00	505.97	440.00
Crit W.S. (ft)	916.06	Flow Area (sq ft)		17861.17	10077.94
E.G. Slope (ft/ft)	0.001439	Area (sq ft)		17861.17	10077.94
Q Total (cfs)	227000.00	Flow (cfs)		187237.22	39762.78
Top Width (ft)	2313.39	Top Width (ft)		1282.99	1030.40
Vel Total (ft/s)	8.12	Avg. Vel. (ft/s)		10.48	3.95
Max Chl Dpth (ft)	16.18	Hydr. Depth (ft)		13.92	9.78
Conv. Total (cfs)	5983694.5	Conv. (cfs)		4935552.0	1048142.4
Length Wtd. (ft)	497.25	Wetted Per. (ft)		1290.39	1038.54
Min Ch El (ft)	904.50	Shear (lb/sq ft)		1.24	0.87
Alpha	1.41	Stream Power (lb/ft s)		13.04	3.44
Frctn Loss (ft)	0.84	Cum Volume (acre-ft)	936.74	73204.55	9311.30
C & E Loss (ft)	0.06	Cum SA (acres)	168.02	7430.98	1424.41

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19536.61 LB	19857.36	47467.77	4518.13	326.58	20.91	14.09	10.51
19857.36	20178.11	50616.18	4662.82	320.91	22.30	14.54	10.86
20178.11	20498.85	41181.78	4121.24	321.15	18.14	12.85	9.99
20498.85	20819.60 RB	41116.57	4118.43	321.37	18.11	12.84	9.98
20819.60	21359.48	23551.51	5685.95	540.15	10.38	10.53	4.14
21359.48	21899.36	15418.08	4409.11	539.97	6.79	8.17	3.50
21899.36	22439.24	7648.11	2237.09	283.41	3.37	7.91	3.42

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19536.61 LB	19857.36	49173.79	4628.26	326.97	21.66	14.43	10.62
19857.36	20178.11	52412.31	4772.96	320.91	23.09	14.88	10.98

20178.11	20498.85	42858.86	4231.38	321.15	18.88	13.19	10.13
20498.85	20819.60 RB	42792.27	4228.57	321.37	18.85	13.18	10.12
20819.60	21359.48	24769.89	5871.33	540.15	10.91	10.88	4.22
21359.48	21899.36	14992.88	4206.61	498.38	6.60	8.58	3.56

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 195.85

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19590.5	940.2	19617.1	923.3	19622.17	919.0013	19635.5	907.7	19641.3	904.5
19747.9	904.5	19906.8	904.7	19969.4	908.3	20040.3	905.2	20187.2	905.3
20321.3	906.5	20398.3	906.8	20522.4	905.7	20631.1	905.4	20674.5	907.1
20807.5	905.4	20882.8	905.5	20914.5	914.3	21001.1	913.9	21073.1	909.6
21145.2	910.1	21146.5	918.5	21152	910.1	21273.2	910.4	21393.8	910.9
21527	913.4	21666.7	915.4	21740.7	914.2	21809.4	915.6	21840.9	911.8
21910.9	914.8	21928.5	911.7	22054.5	912.8	22082.7	911.1	22211.1	910.5
22244.2	907.7	22399.4	910.1	22435	912.9	22475.6	911.3	22485	912.6
22516.6	912	22629.3	914.8	22790.2	914.6	22933.5	915.3	23036.1	915.5
23172.9	915.6	23277.2	915.8	23421.3	916.1	23619.6	915.8	23686.6	916.3
23741.8	914.4	23770.6	916.1	23927.4	916.6	24087.8	916.4	24243.6	917.5
24381.7	920.7	24496.1	922.5	24544.9	925.6	24614.7	927.1	24706.9	918.6
24834.4	917.6	24936.8	920.6	25010.8	920.4	25177.5	921.7	25331.8	923.1
25490	923.5	25666.2	924.7	25769.7	923	25807.9	925.1	25826.2	923.3
25964.4	923.4	25980.5	923.4	26103.5	909.7	26138.6	909.4	26165.7	923.3
26177.8	922	26205.9	909.4	26229	908	26308.9	910.6	26358	924.3
26428.6	923.6	26556.3	927.3	26701.6	927	26825	925.6	26961.2	925.6
26973.4	924.4	26993.5	926.6	27121.7	922.4	27249.7	922.4	27351.5	920.9
27429.8	915.4	27528.7	913.8	27561.3	921	27695.4	923.8	27807.5	924.8
27903.6	923.1	27923.1	930						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
19590.5	.031	19617.1	.031	20914.5	.065	22211.1	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19622.17	20914.5	500	507.21	540	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22041	27923.1	935

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	918.65	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.10	Wt. n-Val.		0.031	0.065
E.G. Elev (ft)	920.75	Reach Len. (ft)	500.00	507.21	540.00
Crit W.S. (ft)	915.90	Flow Area (sq ft)		16512.43	6891.86
E.G. Slope (ft/ft)	0.002203	Area (sq ft)		16512.43	18550.94
Q Total (cfs)	227000.00	Flow (cfs)		202443.38	24556.63
Top Width (ft)	5287.62	Top Width (ft)		1291.92	3995.70
Vel Total (ft/s)	9.70	Avg. Vel. (ft/s)		12.26	3.56
Max Chl Dpth (ft)	14.15	Hydr. Depth (ft)		12.78	6.12
Conv. Total (cfs)	4835971.0	Conv. (cfs)		4312820.5	523150.5
Length Wtd. (ft)	510.88	Wetted Per. (ft)		1298.18	1139.00
Min Ch El (ft)	904.50	Shear (lb/sq ft)		1.75	0.83
Alpha	1.44	Stream Power (lb/ft s)		21.45	2.97
Frctn Loss (ft)	1.11	Cum Volume (acre-ft)	6751.70	69692.86	23341.34
C & E Loss (ft)	0.10	Cum SA (acres)	1838.66	7409.26	6917.88

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	919.15	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.07	Wt. n-Val.		0.031	0.065
E.G. Elev (ft)	921.22	Reach Len. (ft)	500.00	507.21	540.00
Crit W.S. (ft)	915.79	Flow Area (sq ft)		17156.87	5384.85

E.G. Slope (ft/ft)	0.002025	Area (sq ft)		17156.87	5384.85
Q Total (cfs)	227000.00	Flow (cfs)		206765.98	20234.03
Top Width (ft)	2047.83	Top Width (ft)		1292.33	755.50
Vel Total (ft/s)	10.07	Avg. Vel. (ft/s)		12.05	3.76
Max Chl Dpth (ft)	14.65	Hydr. Depth (ft)		13.28	7.13
Conv. Total (cfs)	5045052.5	Conv. (cfs)		4595353.5	449699.2
Length Wtd. (ft)	509.57	Wetted Per. (ft)		1298.87	771.21
Min Ch El (ft)	904.50	Shear (lb/sq ft)		1.67	0.88
Alpha	1.32	Stream Power (lb/ft s)		20.12	3.32
Frctn Loss (ft)	1.08	Cum Volume (acre-ft)	936.74	73001.17	9233.21
C & E Loss (ft)	0.03	Cum SA (acres)	168.02	7416.03	1415.39

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19622.17 LB	19945.25	55448.49	4378.32	327.57	24.43	13.57	12.66
19945.25	20268.34	50812.76	4132.57	323.19	22.38	12.79	12.30
20268.34	20591.42	48522.34	4019.25	323.09	21.38	12.44	12.07
20591.42	20914.50 RB	47659.76	3982.30	324.33	21.00	12.33	11.97
20914.50	21381.74	13546.59	3443.98	479.11	5.97	7.37	3.93
21381.74	21848.98	7054.55	2305.67	467.54	3.11	4.93	3.06
21848.98	22316.22	3955.48	1142.21	192.35	1.74	5.95	3.46

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19622.17 LB	19945.25	56374.06	4539.37	328.26	24.83	14.05	12.42
19945.25	20268.34	51917.08	4293.69	323.19	22.87	13.29	12.09
20268.34	20591.42	49664.32	4180.38	323.09	21.88	12.94	11.88
20591.42	20914.50 RB	48810.52	4143.43	324.33	21.50	12.82	11.78
20914.50	21381.74	14583.80	3677.01	479.11	6.42	7.87	3.97
21381.74	21848.98	5650.22	1707.85	292.10	2.49	5.92	3.31

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 195.75

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19463.8	939.6	19500.6	925.1	19520.2	919.3	19571.3	911.3	19676.7	910.1
19775.1	903.5	19944.5	903.4	20000.3	903.4	20041.4	904.8	20133.9	903.9
20171.6	906.8	20236	906.5	20307.1	908.6	20407.5	906.5	20409.5	906.5
20515.5	906.7	20580.8	908.4	20698.4	907.9	20782.1	905.4	20902.4	904.8
21067	904.6	21116.4	913.8	21166.4	913.9	21196	910.3	21227.9	912.6
21348.2	912	21409.7	915.8	21477.5	910.6	21581.3	910.4	21674.3	910.6
21693.3	913.7	21743.3	912.8	21768.8	913.4	21815.7	908.5	21927	908.5
21970.6	906.3	22044.8	907	22085	905.6	22169	907.6	22204.8	912.6
22241	910.5	22270.8	911.9	22356	911.5	22386.2	912.7	22549.2	913
22640.6	913.5	22753.7	914	22920.7	914.2	23027.6	914.3	23181.3	915
23305.3	915	23415.4	914.1	23438	915.1	23444.4	917.3	23457.5	915.8
23482.7	916.5	23497.3	915.3	23608.8	915.4	23644.9	915.7	23791.4	916.8
23917.4	917.9	24052.8	917.9	24177.9	918.1	24251.2	918.4	24364.8	916.6
24486.9	920.6	24513.7	920.7	24671.9	921.3	24764.6	921.5	24880.7	921.6
25031.3	922.2	25116.3	922.3	25234.1	922.3	25338.5	920.3	25420.5	920.8
25453.1	922.6	25605.9	922.4	25626.7	922.5	25829.7	923.5	25872.4	923
25909.9	929.6	26019.8	924.1	26136.5	924.1	26215.2	922.6	26226.7	924.3
26256.8	922.4	26274	925.2	26345.1	926.7	26384.4	925	26535.4	925.5
26539	925.5	26730.4	925.7	26776.2	925.7	26936.6	927.4	27063.5	927.5
27093.2	929.3								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
19463.8	.031	19500.6	.031	21116.4	.043	22204.8	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19500.6	21116.4	410	495.98	530	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
21916	27093.2	935

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	917.78	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.76	Wt. n-Val.		0.031	0.043
E.G. Elev (ft)	919.54	Reach Len. (ft)	410.00	495.98	530.00
Crit W.S. (ft)	914.92	Flow Area (sq ft)		17975.87	4911.01
E.G. Slope (ft/ft)	0.002136	Area (sq ft)		17975.87	13785.92
Q Total (cfs)	227000.00	Flow (cfs)		200722.25	26277.76
Top Width (ft)	4484.09	Top Width (ft)		1586.49	2897.60
Vel Total (ft/s)	9.92	Avg. Vel. (ft/s)		11.17	5.35
Max Chl Dpth (ft)	14.38	Hydr. Depth (ft)		11.33	6.14
Conv. Total (cfs)	4911951.5	Conv. (cfs)		4343339.0	568612.6
Length Wtd. (ft)	499.44	Wetted Per. (ft)		1588.33	800.74
Min Ch El (ft)	903.40	Shear (lb/sq ft)		1.51	0.82
Alpha	1.15	Stream Power (lb/ft s)		16.85	4.38
Frctn Loss (ft)	0.76	Cum Volume (acre-ft)	6751.70	69492.07	23140.91
C & E Loss (ft)	0.22	Cum SA (acres)	1838.66	7392.51	6875.16

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	918.13	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.99	Wt. n-Val.		0.031	0.043
E.G. Elev (ft)	920.12	Reach Len. (ft)	410.00	495.98	530.00
Crit W.S. (ft)	915.07	Flow Area (sq ft)		18537.41	2453.62
E.G. Slope (ft/ft)	0.002206	Area (sq ft)		18537.41	2453.62
Q Total (cfs)	227000.00	Flow (cfs)		214513.44	12486.56
Top Width (ft)	2022.35	Top Width (ft)		1588.75	433.60
Vel Total (ft/s)	10.81	Avg. Vel. (ft/s)		11.57	5.09
Max Chl Dpth (ft)	14.73	Hydr. Depth (ft)		11.67	5.66
Conv. Total (cfs)	4833302.0	Conv. (cfs)		4567437.0	265864.8
Length Wtd. (ft)	497.33	Wetted Per. (ft)		1590.61	441.89
Min Ch El (ft)	903.40	Shear (lb/sq ft)		1.60	0.76
Alpha	1.09	Stream Power (lb/ft s)		18.57	3.89
Frctn Loss (ft)	0.78	Cum Volume (acre-ft)	936.74	72793.36	9184.62
C & E Loss (ft)	0.25	Cum SA (acres)	168.02	7399.25	1408.02

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19500.60 LB	19904.55	39434.48	3814.02	375.37	17.37	10.18	10.34
19904.55	20308.50	61053.03	5106.25	404.12	26.90	12.64	11.96
20308.50	20712.45	43462.29	4163.83	404.00	19.15	10.31	10.44
20712.45	21116.40 RB	56772.45	4891.77	404.83	25.01	12.11	11.61
21116.40	21514.85	9555.34	2044.21	399.07	4.21	5.13	4.67
21514.85	21913.31	16548.81	2841.81	398.98	7.29	7.13	5.82
21913.31	22311.76	173.60	24.99	2.69	0.08	9.28	6.95

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19500.60 LB	19904.55	42265.35	3946.93	377.66	18.62	10.47	10.71
19904.55	20308.50	64976.24	5249.13	404.12	28.62	12.99	12.38
20308.50	20712.45	46731.02	4306.71	404.00	20.59	10.66	10.85
20712.45	21116.40 RB	60540.82	5034.65	404.83	26.67	12.46	12.02
21116.40	21514.85	11006.42	2185.14	399.07	4.85	5.48	5.04
21514.85	21913.31	1480.14	268.48	42.82	0.65	7.64	5.51

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 195.66

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19143.1	934.8	19155.6	925.1	19179.8	916.3	19207.4	916.5	19218.5	915.1
19233.3	910.6	19321.7	911.2	19516.6	905.3	19611.3	907.6	19705	906.1
19732.1	904.4	19868	903.9	20056.2	903.1	20080.9	904.6	20200.4	905.3
20264.4	908.3	20352.2	905	20388.8	905.8	20419.8	907.2	20517.2	903.5
20628.1	903.4	20748.3	904.1	20919.6	904.5	20966.4	904.1	21076	904.2
21202.1	904.1	21253.9	913.1	21280.8	916.2	21309.9	909.7	21442.5	911.7
21546.5	912.3	21593.5	912.5	21618.6	907.3	21753.3	905	21877.4	903.3
21951.2	905.3	21993.7	912.2	22038.6	910.7	22059.5	912.7	22188.4	912.5
22250.5	912.5	22401.7	914.2	22484.7	914.6	22621.4	914.3	22852.5	914.5
22860.6	914.6	22997.1	915.7	23140.5	914.2	23168.9	913	23192.5	915.9
23196.2	914.7	23206.5	916.5	23332.3	917.3	23356.2	917.2	23527.3	917.7
23554.7	917.8	23743.4	918.6	23884.1	917.1	23915	916	23925.5	918
24073.9	919.7	24195.9	919.9	24322.1	921	24429.9	920.8	24543.1	920.1
24583.7	919.6	24589.6	918.4	24661.5	920.2	24778.8	919.2	24877.2	920.2
24898.9	918.6	24929.3	920.6	24930.6	921.5	24974.3	920	25077.5	920.3
25112.6	919.5	25122.8	920.6	25262.3	920.8	25444	922.5	25557.8	922.6
25577.1	922.7	25697.9	923.4	25875.6	923.7	25931.6	922.5	26005.7	922.7
26047.3	922.2	26065.9	925.8	26120.5	925.2	26255.7	925.8	26336.6	925.7
26478	926	26669.2	926	26717.6	926.2	26916	926.8	27089	927.4
27225.1	927.5								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
19143.1	.031	19207.4	.031	21280.8	.043	21993.7	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19207.4	21280.8	435	491.32	525	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
21806	27225.1	930

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	917.53	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.03	Wt. n-Val.	0.031	0.031	0.043
E.G. Elev (ft)	918.56	Reach Len. (ft)	435.00	491.32	525.00
Crit W.S. (ft)	912.19	Flow Area (sq ft)	33.22	24573.87	4258.06
E.G. Slope (ft/ft)	0.001143	Area (sq ft)	33.22	24573.87	11045.82
Q Total (cfs)	227000.00	Flow (cfs)	56.14	206897.02	20046.84
Top Width (ft)	4371.25	Top Width (ft)	30.98	2073.40	2266.88
Vel Total (ft/s)	7.86	Avg. Vel. (ft/s)	1.69	8.42	4.71
Max Chl Dpth (ft)	14.43	Hydr. Depth (ft)	1.07	11.85	8.11
Conv. Total (cfs)	6713252.0	Conv. (cfs)	1660.4	6118730.5	592861.1
Length Wtd. (ft)	493.99	Wetted Per. (ft)	31.20	2075.59	526.49
Min Ch El (ft)	903.10	Shear (lb/sq ft)	0.08	0.85	0.58
Alpha	1.08	Stream Power (lb/ft s)	0.13	7.12	2.72
Frctn Loss (ft)	0.56	Cum Volume (acre-ft)	6751.55	69249.83	22989.84
C & E Loss (ft)	0.02	Cum SA (acres)	1838.51	7371.67	6843.74

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	917.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.16	Wt. n-Val.		0.031	0.043
E.G. Elev (ft)	919.09	Reach Len. (ft)	435.00	491.32	525.00
Crit W.S. (ft)	912.82	Flow Area (sq ft)		25413.41	1333.83
E.G. Slope (ft/ft)	0.001173	Area (sq ft)		25413.41	1333.83
Q Total (cfs)	227000.00	Flow (cfs)		221515.34	5484.66
Top Width (ft)	2272.60	Top Width (ft)		2073.40	199.20
Vel Total (ft/s)	8.49	Avg. Vel. (ft/s)		8.72	4.11
Max Chl Dpth (ft)	14.83	Hydr. Depth (ft)		12.26	6.70
Conv. Total (cfs)	6628252.0	Conv. (cfs)		6468103.5	160148.4
Length Wtd. (ft)	491.73	Wetted Per. (ft)		2077.03	205.95
Min Ch El (ft)	903.10	Shear (lb/sq ft)		0.90	0.47
Alpha	1.04	Stream Power (lb/ft s)		7.81	1.95
Frctn Loss (ft)	0.58	Cum Volume (acre-ft)	936.74	72543.14	9161.58
C & E Loss (ft)	0.02	Cum SA (acres)	168.02	7378.41	1404.17

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19173.11	19177.39	0.08	0.17	1.03	0.00	0.18	0.48
19177.39	19181.68	6.44	4.20	4.44	0.00	0.98	1.53
19181.68	19185.97	9.24	5.14	4.29	0.00	1.20	1.80
19185.97	19190.25	8.84	5.01	4.29	0.00	1.17	1.77
19190.25	19194.54	8.45	4.87	4.29	0.00	1.14	1.73
19194.54	19198.83	8.07	4.74	4.29	0.00	1.11	1.70
19198.83	19203.11	7.70	4.61	4.29	0.00	1.07	1.67
19203.11	19207.40	7.33	4.48	4.29	0.00	1.04	1.64
19207.40 LB	19725.75	33735.41	4783.07	519.28	14.86	9.23	7.05
19725.75	20244.10	61762.95	6870.97	518.46	27.21	13.26	8.99
20244.10	20762.45	56752.28	6531.30	518.55	25.00	12.60	8.69
20762.45	21280.80 RB	54646.39	6388.53	519.31	24.07	12.32	8.55
21280.80	21677.09	10630.01	2673.57	397.56	4.68	6.75	3.98
21677.09	22073.37	9416.82	1584.49	128.93	4.15	12.29	5.94

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19207.40 LB	19725.75	36653.29	4992.95	520.71	16.15	9.63	7.34
19725.75	20244.10	65803.28	7080.86	518.46	28.99	13.66	9.29
20244.10	20762.45	60620.24	6741.19	518.55	26.70	13.01	8.99
20762.45	21280.80 RB	58438.54	6598.41	519.31	25.74	12.73	8.86
21280.80	21677.09	5484.66	1333.83	205.95	2.42	6.70	4.11

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 195.56

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18535.8	929.2	18542.3	927.4	18654	920.1	18755.8	917.6	18873.4	916
18984.6	914.6	19100.8	921.7	19137.7	920.1	19147.5	9917.6	578 19178.2	910.1
19250	912	19291	908.6	19403.1	906.8	19416.6	904.4	19504.8	905.6
19531.1	903.8	19577.2	904.1	19604.1	907.3	19650.1	904.2	19906.8	903.7
20065.2	903.4	20167.5	903.8	20273.7	903.3	20297.3	906	20408.5	905.5
20513.4	903.9	20528.7	902.5	20631.1	902.6	20792.2	904	20887.4	906.4
20999.8	902.8	21057.6	901.4	21094.4	912.4	21149.4	910.2	21181	916
21221.5	911.3	21246.9	912.2	21295.2	904.3	21374.8	903.4	21391.4	909.7
21423.4	912.9	21437.7	916.5	21473	907.4	21524.9	905	21597.3	904.1
21637.6	905.9	21742.2	906.6	21779.4	912.7	21829.5	910.7	21837.3	911.7
21897.4	911.4	22076.9	913.3	22277.5	914.4	22363.9	914.4	22642.1	914.1
22719.1	914.2	22823	914.5	22941	913.6	22988.2	916	23006.8	915.8
23073.2	918.2	23291.3	917.9	23469.7	918.6	23600.6	918.5	23701.9	917.4
23720.2	919.2	23794.4	920.1	23914.3	920.9	24066.7	920.3	24155.7	921
24286.7	920.6	24337.2	920.3	24363.5	918.6	24386.1	918.8	24390.4	920
24401.2	919.1	24502.9	921.5	24652	921.8	24718.2	922.1	24872.3	923
25062.6	923.2	25205.7	923.1	25342.1	923.1	25409.5	923.4	25582.9	922.9
25623.6	923	25738.1	923	25756.9	921.2	25839	924	25903.1	923.4
26064.6	923.4	26159.7	923.4	26321.9	924.3	26372.6	923.2	26392	925

26583.1 926 26737 926.6

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18535.8	.032	19137.7	.031	21181	.043	21437.7	.043	21779.4	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19147.59	21437.7	395	509.15	580	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18535.8	19137.7	928	21703	26737	928

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	917.01	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.98	Wt. n-Val.		0.032	0.043
E.G. Elev (ft)	917.98	Reach Len. (ft)	395.00	509.15	580.00
Crit W.S. (ft)	911.74	Flow Area (sq ft)		26138.39	2837.08
E.G. Slope (ft/ft)	0.001135	Area (sq ft)	274.35	26138.39	7613.48
Q Total (cfs)	227000.00	Flow (cfs)		211019.28	15980.73
Top Width (ft)	4114.50	Top Width (ft)	224.55	2287.47	1602.48
Vel Total (ft/s)	7.83	Avg. Vel. (ft/s)		8.07	5.63
Max Chl Dpth (ft)	15.61	Hydr. Depth (ft)		11.43	10.69
Conv. Total (cfs)	6738263.0	Conv. (cfs)		6263891.5	474371.7
Length Wtd. (ft)	511.42	Wetted Per. (ft)		2294.29	266.56
Min Ch El (ft)	901.40	Shear (lb/sq ft)		0.81	0.75
Alpha	1.02	Stream Power (lb/ft s)		6.52	4.25
Frctn Loss (ft)	0.63	Cum Volume (acre-ft)	6750.01	68963.84	22877.40
C & E Loss (ft)	0.01	Cum SA (acres)	1837.24	7347.08	6820.42

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	917.40	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.09	Wt. n-Val.		0.032	
E.G. Elev (ft)	918.49	Reach Len. (ft)	395.00	509.15	580.00
Crit W.S. (ft)	912.10	Flow Area (sq ft)		27039.09	
E.G. Slope (ft/ft)	0.001176	Area (sq ft)		27039.09	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	2289.06	Top Width (ft)		2289.06	
Vel Total (ft/s)	8.40	Avg. Vel. (ft/s)		8.40	
Max Chl Dpth (ft)	16.00	Hydr. Depth (ft)		11.81	
Conv. Total (cfs)	6618563.5	Conv. (cfs)		6618563.5	
Length Wtd. (ft)	509.15	Wetted Per. (ft)		2296.83	
Min Ch El (ft)	901.40	Shear (lb/sq ft)		0.86	
Alpha	1.00	Stream Power (lb/ft s)		7.26	
Frctn Loss (ft)	0.62	Cum Volume (acre-ft)	936.74	72247.33	9153.54
C & E Loss (ft)	0.00	Cum SA (acres)	168.02	7353.80	1402.97

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19147.59 LB	19720.12	42345.76	5704.34	571.49	18.65	10.01	7.42
19720.12	20292.64	68536.54	7621.27	572.65	30.19	13.31	8.99
20292.64	20865.17	64910.34	7376.76	572.66	28.59	12.88	8.80
20865.17	21437.70 RB	35226.63	5436.03	577.49	15.52	9.49	6.48
21437.70	21790.99	15980.74	2837.08	266.56	7.04	10.69	5.63

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19147.59 LB	19720.12	45908.97	5928.97	573.13	20.22	10.37	7.74
19720.12	20292.64	73278.46	7846.62	572.65	32.28	13.71	9.34
20292.64	20865.17	69511.52	7602.11	572.66	30.62	13.28	9.14
20865.17	21437.70 RB	38301.06	5661.38	578.39	16.87	9.89	6.77

CROSS SECTION RIVER: RIVER-1

REACH: Reach-1 RS: 195.47

INPUT
Description: Begin 1:1 contraction

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17792.4	929.7	17913.6	921.6	18044.5	918	18179.7	917.5	18307	916.2
18487.2	915	18615.4	914.8	18775.7	912.9	18852.5	910.3	18904.5	912.6
18916.7	911.3	18959.1	921.3	18994.9	920.8	19030.1	915.1	19050.5	910
19149.3	906.6	19183.5	908.4	19210.9	905	19358.6	906.6	19375.4	904.1
19538.3	904.3	19693.5	903.6	19901.5	903.9	20031.1	904	20267.2	903.9
20328.5	905.8	20515.1	903.2	20643.8	902.5	20758.9	903	20815.3	907.7
20885.5	907.1	20934.5	911.2	21053.1	910.7	21180.5	907.3	21228.8	907.7
21231.3	906.1	21288.7	904.6	21317	908.9	21386.3	904.4	21393	902.1
21415.1	904.5	21435	913.4	21435.7	910.5	21458.3	910.9	21469.7	903.3
21514.8	904.4	21534.1	918.3	21538.2	914.9	21579.2	913.7	21604.4	914.6
21615.9	916.7	21644.4	918.1	21658.8	914.4	21687.6	913.3	21718.9	914.9
21855.3	915.4	22042.9	915.8	22051.4	915.9	22306.1	915.9	22355.8	915.8
22499.3	916	22635.9	915.8	22733.8	915.4	22742.1	916.6	22786.2	914.8
22855.2	918.6	23042.1	917.3	23071.1	917.7	23212.7	917.8	23439.8	918
23585.3	919	23742.1	919.7	23920.1	919	24060.6	918.5	24222.6	921.1
24370.4	921.3	24505.4	921.6	24624.8	922	24781.1	922.2	24953.6	922.6
25023.6	922.7	25161	922.5	25379.3	923.6	25508.6	922.8	25629.5	923.3
25772.6	923.7	25823.9	923.8	25965.2	924.2	26155.4	924.8	26297.1	925.3
26330.2	925.5	26540.8	926.2	26734.8	927.1	26860.6	924.9	26973.4	927.9
26977	929.8								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17792.4	.032	19030.1	.031	20885.5	.043	21435	.043	21534.1	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19030.1	21435	485	472.11	530	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17792.4	18680	928	21644.4	26977	928

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	916.29	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.05	Wt. n-Val.	0.032	0.032	0.041
E.G. Elev (ft)	917.34	Reach Len. (ft)	485.00	472.11	530.00
Crit W.S. (ft)	911.87	Flow Area (sq ft)	991.72	26041.25	1037.57
E.G. Slope (ft/ft)	0.001347	Area (sq ft)	1415.04	26041.25	1818.31
Q Total (cfs)	227000.00	Flow (cfs)	4116.35	217679.11	5204.54
Top Width (ft)	4377.17	Top Width (ft)	646.85	2404.90	1325.42
Vel Total (ft/s)	8.09	Avg. Vel. (ft/s)	4.15	8.36	5.02
Max Chl Dpth (ft)	14.19	Hydr. Depth (ft)	3.74	10.83	5.98
Conv. Total (cfs)	6184113.5	Conv. (cfs)	112140.8	5930186.5	141786.3
Length Wtd. (ft)	474.20	Wetted Per. (ft)	266.04	2409.88	182.55
Min Ch El (ft)	902.10	Shear (lb/sq ft)	0.31	0.91	0.48
Alpha	1.04	Stream Power (lb/ft s)	1.30	7.60	2.40
Frctn Loss (ft)	0.57	Cum Volume (acre-ft)	6742.35	68658.88	22814.61
C & E Loss (ft)	0.05	Cum SA (acres)	1833.29	7319.65	6800.93

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	916.79	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.08	Wt. n-Val.		0.032	
E.G. Elev (ft)	917.87	Reach Len. (ft)	485.00	472.11	530.00
Crit W.S. (ft)	911.94	Flow Area (sq ft)		27246.78	
E.G. Slope (ft/ft)	0.001268	Area (sq ft)		27246.78	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	2404.90	Top Width (ft)		2404.90	
Vel Total (ft/s)	8.33	Avg. Vel. (ft/s)		8.33	
Max Chl Dpth (ft)	14.69	Hydr. Depth (ft)		11.33	
Conv. Total (cfs)	6375794.0	Conv. (cfs)		6375794.0	
Length Wtd. (ft)	472.11	Wetted Per. (ft)		2414.96	
Min Ch El (ft)	902.10	Shear (lb/sq ft)		0.89	
Alpha	1.00	Stream Power (lb/ft s)		7.44	

Frctn Loss (ft)	0.56	Cum Volume (acre-ft)	936.74	71930.07	9153.54
C & E Loss (ft)	0.02	Cum SA (acres)	168.02	7326.37	1402.97

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18617.53	18700.05	140.05	47.57	20.05	0.06	2.37	2.94
18700.05	18782.56	845.93	246.47	82.52	0.37	2.99	3.43
18782.56	18865.07	1957.50	407.82	82.56	0.86	4.94	4.80
18865.07	18947.59	1167.81	285.49	73.47	0.51	3.92	4.09
18947.59	19030.10	5.06	4.36	7.44	0.00	0.59	1.16
19030.10 LB	19631.32	52330.63	6265.67	602.36	23.05	10.42	8.35
19631.32	20232.55	70257.09	7471.37	601.23	30.95	12.43	9.40
20232.55	20833.78	69041.95	7394.77	601.47	30.41	12.30	9.34
20833.78	21435.00 RB	26049.43	4909.44	604.82	11.48	8.17	5.31
21435.00	21804.47	5204.54	1037.57	182.55	2.29	5.98	5.02

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19030.10 LB	19631.32	54801.43	6567.05	604.05	24.14	10.92	8.34
19631.32	20232.55	72804.23	7772.75	601.23	32.07	12.93	9.37
20232.55	20833.78	71592.92	7696.15	601.47	31.54	12.80	9.30
20833.78	21435.00 RB	27801.40	5210.82	608.21	12.25	8.67	5.34

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 195.38

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17018.7	929.3	17121.4	921.9	17168.1	923.8	17215.2	918.5	17263.8	924.6
17418.1	920	17567.8	916.9	17766.8	916	17950.8	915.3	18136.3	915.1
18338.9	912.6	18494.2	913	18637	912.2	18793.2	908.6	18845.6	908.5
18898.7	919.2	18926.1	920	18956.3	914.2	18970.1	910	19114.2	907.9
19135.1	907.8	19172	904.5	19244.6	906.5	19270.5	903.3	19399.5	905.4
19436.7	903.1	19578.9	902.4	19692.3	903.3	19960.9	902.4	20479.2	902.1
20570.9	904.1	20765.4	902.7	20862.2	908.3	20996.6	906.8	21049.3	907.7
21069.1	905.7	21100.5	909.5	21161	908.8	21161.7	909.9	21192.3	902.5
21204.7	904.7	21226.4	900.4	21279.7	903.4	21282.4	901.6	21296.5	902.5
21305.5	907.5	21332.8	909.8	21453	908.5	21499	915.3	21527.1	915.6
21560	902.3	21597.3	903.2	21612.8	908.8	21622.8	908.6	21637.1	917.7
21657.9	917.4	21675.9	914.8	21715.1	914	21796.6	915.5	21958.9	916.3
22099	916.3	22245.6	916.4	22428.3	916.6	22590.4	914.6	22616	916.7
22677.6	916.9	22893.6	917.6	23086.7	918	23281.5	918.6	23435.8	919.1
23504	919.6	23652.8	920.1	23839.2	918.8	24022.4	920.3	24224.4	920.9
24247.6	920.8	24392.5	921.1	24465.5	921.4	24636.6	922.4	24872.2	922.7
25035.7	922.7	25261.1	921.4	25493.8	923.5	25645.6	922.6	25853.9	923.5
25995.6	924	26056	924.4	26067.6	923.2	26112.6	925.3	26318.6	925.4
26398.8	924.4	26432.2	925.8	26442	924	26489.3	927.9	26630.1	927.8
26686	930.1								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17018.7	.032	18956.3	.031	20862.2	.043	21161.7	.043	21637.1	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18956.3	21305.5	675	539.38	595	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17018.7	18480	928	21637.1	26686	928

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	915.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.88	Wt. n-Val.	0.032	0.032	0.043
E.G. Elev (ft)	916.73	Reach Len. (ft)	675.00	539.38	595.00
Crit W.S. (ft)	910.82	Flow Area (sq ft)	1877.23	27203.41	2173.93

E.G. Slope (ft/ft)	0.001064	Area (sq ft)	2871.54	27203.41	2407.56
Q Total (cfs)	227000.00	Flow (cfs)	7891.92	210583.31	8524.77
Top Width (ft)	4074.28	Top Width (ft)	1082.75	2349.20	642.34
Vel Total (ft/s)	7.26	Avg. Vel. (ft/s)	4.20	7.74	3.92
Max Chl Dpth (ft)	15.44	Hydr. Depth (ft)	4.57	11.58	6.61
Conv. Total (cfs)	6959886.5	Conv. (cfs)	241968.6	6456546.0	261371.8
Length Wtd. (ft)	545.32	Wetted Per. (ft)	411.53	2354.90	334.98
Min Ch El (ft)	900.40	Shear (lb/sq ft)	0.30	0.77	0.43
Alpha	1.08	Stream Power (lb/ft s)	1.27	5.94	1.69
Frctn Loss (ft)	0.58	Cum Volume (acre-ft)	6718.49	68370.34	22788.90
C & E Loss (ft)	0.01	Cum SA (acres)	1823.66	7293.89	6788.96

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	916.29	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.00	Wt. n-Val.		0.032	
E.G. Elev (ft)	917.29	Reach Len. (ft)	675.00	539.38	595.00
Crit W.S. (ft)	910.85	Flow Area (sq ft)		28240.65	
E.G. Slope (ft/ft)	0.001099	Area (sq ft)		28240.65	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	2349.20	Top Width (ft)		2349.20	
Vel Total (ft/s)	8.04	Avg. Vel. (ft/s)		8.04	
Max Chl Dpth (ft)	15.89	Hydr. Depth (ft)		12.02	
Conv. Total (cfs)	6847167.5	Conv. (cfs)		6847167.5	
Length Wtd. (ft)	539.38	Wetted Per. (ft)		2365.77	
Min Ch El (ft)	900.40	Shear (lb/sq ft)		0.82	
Alpha	1.00	Stream Power (lb/ft s)		6.58	
Frctn Loss (ft)	0.59	Cum Volume (acre-ft)	936.74	71629.38	9153.54
C & E Loss (ft)	0.01	Cum SA (acres)	168.02	7300.61	1402.97

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18439.61	18568.78	818.80	268.32	88.78	0.36	3.02	3.05
18568.78	18697.95	1802.06	500.46	129.19	0.79	3.87	3.60
18697.95	18827.13	4206.40	832.27	129.20	1.85	6.44	5.05
18827.13	18956.30	1064.70	276.19	64.36	0.47	4.35	3.85
18956.30 LB	19543.60	42795.86	5908.69	588.40	18.85	10.06	7.24
19543.60	20130.90	67038.16	7728.92	587.30	29.53	13.16	8.67
20130.90	20718.20	67029.16	7728.41	587.32	29.53	13.16	8.67
20718.20	21305.50 RB	33720.11	5837.39	591.87	14.85	9.94	5.78
21305.50	21664.20	8524.77	2173.93	334.98	3.76	6.61	3.92

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18956.30 LB	19543.60	46519.88	6168.00	590.49	20.49	10.50	7.54
19543.60	20130.90	71842.39	7988.23	587.30	31.65	13.60	8.99
20130.90	20718.20	71832.99	7987.72	587.32	31.64	13.60	8.99
20718.20	21305.50 RB	36804.74	6096.70	600.65	16.21	10.38	6.04

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 195.28

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17044.9	929.9	17154	914.8	17304.3	912.3	17482.4	913.7	17619.6	914.5
17774.6	913.4	17910.7	913.6	18080	913.5	18219.2	913	18370.3	912
18499.9	914.5	18607.4	914.3	18712.5	909.9	18773.8	911.6	18810.6	908.5
18852.3	918.1	18876.8	918.7	18884.8	916.6	18931.3	912.6	18969.8	918.3
18983.7916.0444		18992.6	914.6	19009	910	19043.6	907.2	19085.2	908.2
19153.1	906.9	19165.2	908	19190.5	902	19345.5	902.2	19390.1	903.4
19451.6	901.5	19610.2	901.4	19774.2	902.4	19842.2	902.3	20301.6	902.2
20378.3	902.1	20415.3	904.2	20440.5	901.9	20604.8	901.7	20617.2	903.8

20701.2	905.7	20793.4	901.6	20917.6	901.4	20958.3	901.3	20979.7	904.2
21035.4	902.7	21105.9	910.5	21177.9	908.5	21323.6	908.9	21460.5	908.5
21500	907.7	21568.8	917.2	21591.5	918.1	21594.1	914	21603.7	906.2
21616.5	907.1	21622.1	903.7	21676.9	907.1	21687	914.6	21689.7	918.4
21716.1	916.2	21733.8	912.5	21875.3	914.2	22006.6	914.4	22074.6	914.2
22457	915.1	22626.6	915.3	22768.7	915.4	22908.2	917.5	22939	918
23166.3	918.5	23348.7	918.9	23501.7	918.7	23698.9	918.2	23874.7	919.4
24017.3	920	24254.1	920.4	24446.9	921.2	24505.8	921.2	24643.7	921.4
24827.2	922.2	24913.6	922.3	25041.7	920.5	25103.7	920.9	25114	923.3
25194.1	922.6	25405.7	923.5	25470.9	923.5	25625.8	923.4	25659	923.3
25797.2	922	25909.2	924.6	26112.1	925.1	26283.2	925.7	26415.1	924.9
26451.6	929.7	26489	930.7						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17044.9	.032	18876.8	.031	18969.8	.031	21105.9	.043	21689.7	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18983.7	21105.9	655	472.67	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17044.9	18260	928	21591.5	26489	928

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	915.12	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.01	Wt. n-Val.	0.032	0.031	0.043
E.G. Elev (ft)	916.13	Reach Len. (ft)	655.00	472.67	500.00
Crit W.S. (ft)	910.17	Flow Area (sq ft)	1552.04	25697.91	2697.74
E.G. Slope (ft/ft)	0.001069	Area (sq ft)	3331.18	25697.91	4099.35
Q Total (cfs)	227000.00	Flow (cfs)	4364.17	212554.17	10081.65
Top Width (ft)	5149.34	Top Width (ft)	1734.13	2116.54	1298.68
Vel Total (ft/s)	7.58	Avg. Vel. (ft/s)	2.81	8.27	3.74
Max Chl Dpth (ft)	13.82	Hydr. Depth (ft)	2.48	12.14	6.02
Conv. Total (cfs)	6943281.0	Conv. (cfs)	133487.6	6501424.5	308368.8
Length Wtd. (ft)	481.64	Wetted Per. (ft)	627.10	2119.25	448.42
Min Ch El (ft)	901.30	Shear (lb/sq ft)	0.17	0.81	0.40
Alpha	1.13	Stream Power (lb/ft s)	0.46	6.69	1.50
Frctn Loss (ft)	0.65	Cum Volume (acre-ft)	6670.43	68042.82	22744.46
C & E Loss (ft)	0.05	Cum SA (acres)	1801.83	7266.24	6775.70

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	915.56	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.13	Wt. n-Val.		0.031	
E.G. Elev (ft)	916.69	Reach Len. (ft)	655.00	472.67	500.00
Crit W.S. (ft)	910.02	Flow Area (sq ft)		26609.61	
E.G. Slope (ft/ft)	0.001091	Area (sq ft)		26609.61	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	2119.19	Top Width (ft)		2119.19	
Vel Total (ft/s)	8.53	Avg. Vel. (ft/s)		8.53	
Max Chl Dpth (ft)	14.26	Hydr. Depth (ft)		12.56	
Conv. Total (cfs)	6873647.0	Conv. (cfs)		6873647.0	
Length Wtd. (ft)	472.67	Wetted Per. (ft)		2126.99	
Min Ch El (ft)	901.30	Shear (lb/sq ft)		0.85	
Alpha	1.00	Stream Power (lb/ft s)		7.27	
Frctn Loss (ft)	0.67	Cum Volume (acre-ft)	936.74	71289.79	9153.54
C & E Loss (ft)	0.06	Cum SA (acres)	168.02	7272.94	1402.97

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18208.18	18337.43	537.21	205.28	77.44	0.24	2.65	2.62
18337.43	18466.69	761.71	310.71	129.27	0.34	2.40	2.45
18466.69	18595.94	115.10	99.98	129.26	0.05	0.77	1.15
18595.94	18725.19	1118.33	391.32	129.35	0.49	3.03	2.86
18725.19	18854.45	1735.73	466.16	115.09	0.76	4.26	3.57
18854.45	18983.70	96.10	58.58	46.70	0.04	1.26	1.64

18983.70 LB	19514.25	42903.28	5648.03	526.49	18.90	10.76	7.60
19514.25	20044.80	60376.01	6954.33	530.55	26.60	13.11	8.68
20044.80	20575.35	58845.75	6848.85	530.71	25.92	12.91	8.59
20575.35	21105.90 RB	50429.13	6246.70	531.49	22.22	11.77	8.07
21105.90	21464.77	8603.22	2249.13	358.90	3.79	6.27	3.83
21464.77	21823.65	1478.43	448.61	89.52	0.65	5.04	3.30

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18983.70 LB	19514.25	46116.06	5874.55	529.18	20.32	11.14	7.85
19514.25	20044.80	64361.55	7182.72	530.55	28.35	13.54	8.96
20044.80	20575.35	62781.45	7077.24	530.71	27.66	13.34	8.87
20575.35	21105.90 RB	53740.93	6475.09	536.54	23.67	12.20	8.30

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 195.19

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17251.5	929.4	17266	923.9	17276.7	918	17302.2	912.3	17415.2	911.2
17599.4	912.7	17738.6	910.5	17858.2	912.7	18053.1	912.2	18180.7	911.7
18350	912.5	18472.4	911.7	18587.8	909.2	18694.3	909.3	18751.3	905.9
18795.7	918.6	18826.1	918.6	18879.6	906.8	18942.7	905.1	18988.3	906
19027.8	917.8	19044.34	914.4629	19095.7	904.1	19147.6	900.8	19267.8	902.6
19341.3	903.9	19379	900.7	19496.9	901.5	19621	903.9	19657.9	902
19784	901.5	19941.8	901	19962.5	902.9	20120.8	901.8	20363.9	902.2
20479.8	902.4	20524	906.4	20552	902.7	20737.8	901.3	20820.1	904
20874.39	914.4615	20880.2	915.6	20986.2	916.6	21026.5	903.5	21115.2	904.1
21202.9	908.9	21328.7	907.3	21404	910	21415.4	912.4	21475.1	907.6
21581.5	910.8	21605.2	915	21634.2	917	21647.7	907	21659.6	908.1
21670.5	903.8	21704.6	903.7	21719.8	909.1	21732.5	910.6	21744.6	916.1
21797.5	913.1	21849.2	915.2	21967.1	914.8	22139.3	914.9	22239.9	915.2
22357.5	915.5	22543.9	915.7	22689.5	916	22765.4	918	22811	916.6
22940.3	917.6	22991.2	917.6	23144.9	917.4	23184.2	917.4	23331.2	917.5
23393.1	917.8	23529.1	917.9	23588	919	23641.7	917.9	23770.9	918.3
23913.4	919.5	23976.4	919.5	24128.7	919.5	24202	919.6	24352.5	920.6
24796.7	920	24912.3	920.3	25035.3	921	25431.5	921.6	25537.4	921.8
25746.7	923	25897.4	923.6	26020.5	923.5	26085.2	923.6	26235.5	922.9
26334.2	925.7	26353	928.4	26447	928.1				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17251.5	.032	18826.1	.031	19027.8	.031	20880.2	.043	21744.6	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19044.34	20874.3	201	185.16	251	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17251.5	18030	921	20880.2	26447	921

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	913.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.51	Wt. n-Val.	0.032	0.031	
E.G. Elev (ft)	915.43	Reach Len. (ft)	201.00	185.16	251.00
Crit W.S. (ft)	910.30	Flow Area (sq ft)	3303.14	20785.87	
E.G. Slope (ft/ft)	0.001746	Area (sq ft)	4770.47	20785.87	4378.77
Q Total (cfs)	227000.00	Flow (cfs)	16455.11	210544.89	
Top Width (ft)	4217.70	Top Width (ft)	1652.00	1824.54	741.16
Vel Total (ft/s)	9.42	Avg. Vel. (ft/s)	4.98	10.13	
Max Chl Dpth (ft)	13.23	Hydr. Depth (ft)	3.60	11.39	
Conv. Total (cfs)	5433040.0	Conv. (cfs)	393838.3	5039202.0	
Length Wtd. (ft)	185.92	Wetted Per. (ft)	920.14	1827.38	
Min Ch El (ft)	900.70	Shear (lb/sq ft)	0.39	1.24	
Alpha	1.09	Stream Power (lb/ft s)	1.95	12.56	

Frctn Loss (ft)	0.28	Cum Volume (acre-ft)	6609.52	67790.63	22695.80
C & E Loss (ft)	0.03	Cum SA (acres)	1776.37	7244.86	6763.99

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	914.18	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.77	Wt. n-Val.		0.031	
E.G. Elev (ft)	915.96	Reach Len. (ft)	201.00	185.16	251.00
Crit W.S. (ft)	910.24	Flow Area (sq ft)		21254.03	
E.G. Slope (ft/ft)	0.001888	Area (sq ft)		21254.03	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	1827.14	Top Width (ft)		1827.14	
Vel Total (ft/s)	10.68	Avg. Vel. (ft/s)		10.68	
Max Chl Dpth (ft)	13.48	Hydr. Depth (ft)		11.63	
Conv. Total (cfs)	5224727.5	Conv. (cfs)		5224727.5	
Length Wtd. (ft)	185.16	Wetted Per. (ft)		1830.03	
Min Ch El (ft)	900.70	Shear (lb/sq ft)		1.37	
Alpha	1.00	Stream Power (lb/ft s)		14.62	
Frctn Loss (ft)	0.28	Cum Volume (acre-ft)	936.74	71030.10	9153.54
C & E Loss (ft)	0.11	Cum SA (acres)	168.02	7251.53	1402.97

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17968.64	18088.16	270.89	102.19	58.16	0.12	1.76	2.65
18088.16	18207.68	733.17	247.74	119.52	0.32	2.07	2.96
18207.68	18327.20	589.02	217.24	119.52	0.26	1.82	2.71
18327.20	18446.73	523.57	202.42	119.53	0.23	1.69	2.59
18446.73	18566.25	1363.45	359.49	119.55	0.60	3.01	3.79
18566.25	18685.77	2816.34	555.50	119.53	1.24	4.65	5.07
18685.77	18805.29	2876.39	512.81	94.82	1.27	5.48	5.61
18805.29	18924.82	2864.95	464.99	78.32	1.26	6.00	6.16
18924.82	19044.34	4417.33	640.77	91.20	1.95	7.12	6.89
19044.34 LB	19501.83	51027.66	5101.31	456.09	22.48	11.22	10.00
19501.83	19959.32	57468.24	5485.86	457.64	25.32	11.99	10.48
19959.32	20416.81	55744.19	5385.91	457.51	24.56	11.77	10.35
20416.81	20874.30 RB	46304.79	4812.79	456.15	20.40	10.58	9.62

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19044.34 LB	19501.83	54997.16	5218.10	457.38	24.23	11.44	10.54
19501.83	19959.32	61903.52	5603.17	457.64	27.27	12.25	11.05
19959.32	20416.81	60085.30	5503.21	457.51	26.47	12.03	10.92
20416.81	20874.30 RB	50014.02	4929.55	457.50	22.03	10.81	10.15

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 195.16

INPUT
Description: APPROX. ALIGNMENT OF BULLARD AVE. BRIDGE

Left and Right Channel Bank Stations Interpolated

U
Station Elevation Data num= 68

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17788	912.7	17983	912.2	18110	911.7	18204.1	908	18304.1	908
18389.1	916	18489.1	921.1	18764.1	922.4	19009.1	922.35	19028.1	922.29
19038.6	915.39	19040.17	914.36	11 19061.6	900.32	19126.8	900	19130.8	900
19190	900	19247.1	900	19251.1	900	19309.9	900	19368.2	900
19372.2	900	19411.6	900	19425.7	900	19475	900	19488.8	900
19492.8	900	19554.2	900.1	19608.9	901.7	19612.9	901.7	19672.5	901.6
19730.9	902.19	19734.9	902.19	19792.8	902.1	19850.7	901.1	19854.7	901.1

19918.1	900	19971.9	900	19975.9	900	20059.1	900.6	20091.5	901.3
20095.5	901.3	20156.4	900.5	20212.5	900	20216.5	900	20244.6	900
20276.3	900	20334.1	900	20338.1	900	20395.8	901.2	20454.6	900.5
20458.6	900.5	20496.8	900	20575.1	900	20579.1	900	20636.4	900
20696.6	900	20700.6	900	20765.9	900	20811.55	914.3599	20817.4	916.2
20838.1	923.1	20857.9	923.3	20907.9	923.5	21862.9	923	22777.9	923.4
23187.9	923.4	24257.9	923.6	25318	920.8				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17788	.032	18204.1	.032	19009.1	.031	19038.6	.031	20817.4	.043
21862.9	.032								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19040.17	20811.55	64.2	64.2	64.2	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17788	17990	915.39	20817.4	25318	916.2

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	913.71	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.41	Wt. n-Val.	0.032	0.031	
E.G. Elev (ft)	915.12	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	908.67	Flow Area (sq ft)	1321.96	23040.15	
E.G. Slope (ft/ft)	0.001320	Area (sq ft)	1579.23	23040.15	
Q Total (cfs)	227000.00	Flow (cfs)	5374.05	221625.95	
Top Width (ft)	2345.16	Top Width (ft)	576.82	1768.34	
Vel Total (ft/s)	9.32	Avg. Vel. (ft/s)	4.07	9.62	
Max Chl Dpth (ft)	13.71	Hydr. Depth (ft)	3.53	13.03	
Conv. Total (cfs)	6248738.5	Conv. (cfs)	147934.1	6100804.5	
Length Wtd. (ft)	0.00	Wetted Per. (ft)	375.16	1774.53	
Min Ch El (ft)	900.00	Shear (lb/sq ft)	0.29	1.07	
Alpha	1.05	Stream Power (lb/ft s)	1.18	10.29	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	6594.87	67697.48	22683.18
C & E Loss (ft)	0.01	Cum SA (acres)	1771.23	7237.22	6761.86

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	914.16	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.41	Wt. n-Val.		0.031	
E.G. Elev (ft)	915.57	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	908.60	Flow Area (sq ft)		23820.73	
E.G. Slope (ft/ft)	0.001241	Area (sq ft)		23820.73	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	1770.42	Top Width (ft)		1770.42	
Vel Total (ft/s)	9.53	Avg. Vel. (ft/s)		9.53	
Max Chl Dpth (ft)	14.16	Hydr. Depth (ft)		13.45	
Conv. Total (cfs)	6443661.0	Conv. (cfs)		6443661.0	
Length Wtd. (ft)	0.00	Wetted Per. (ft)		1776.80	
Min Ch El (ft)	900.00	Shear (lb/sq ft)		1.04	
Alpha	1.00	Stream Power (lb/ft s)		9.90	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	936.74	70934.30	9153.54
C & E Loss (ft)	0.01	Cum SA (acres)	168.02	7243.89	1402.97

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17954.96	18038.43	176.21	79.30	48.43	0.08	1.64	2.22
18038.43	18121.91	398.44	160.87	83.49	0.18	1.93	2.48
18121.91	18205.39	1415.13	344.24	83.54	0.62	4.12	4.11
18205.39	18288.87	2438.72	477.02	83.48	1.07	5.71	5.11
18288.87	18372.35	945.55	260.53	76.22	0.42	3.43	3.63
18372.35	19040.17						
19040.17 LB	19483.02	57549.50	5905.98	445.86	25.35	13.37	9.74
19483.02	19925.86	51966.63	5540.40	442.89	22.89	12.51	9.38
19925.86	20368.71	58263.96	5933.88	442.87	25.67	13.40	9.82
20368.71	20811.55 RB	53845.86	5659.88	442.91	23.72	12.84	9.51

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19040.17 LB	19483.02	58845.26	6101.06	446.66	25.92	13.79	9.65
19483.02	19925.86	53392.20	5735.77	442.89	23.52	12.95	9.31
19925.86	20368.71	59637.11	6129.25	442.87	26.27	13.84	9.73
20368.71	20811.55 RB	55125.44	5854.65	444.38	24.28	13.24	9.42

BRIDGE RIVER: RIVER-1
REACH: Reach-1 RS: 195.145

INPUT
Description: Bridge #4

Downstream face of Bullard Rd bridge

Distance from Upstream XS = 0
Deck/Roadway Width = 64.2
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =
Upstream Deck/Roadway Coordinates
num= 18

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
19009.1	922.35	922.35	19038.6	922.29	915.39	19126.8	925.31	918.38
19247.1	926.11	919.18	19368.2	926.91	919.98	19488.8	927.86	920.81
19608.9	928.48	921.63	19730.9	928.62	921.73	19850.7	928.75	921.82
19971.9	928.5	921.58	20091.5	928.25	921.37	20212.5	927.95	921.03
20334.1	927.65	920.77	20454.6	926.85	919.95	20575.1	926.05	919.17
20696.6	925.1	918.22	20817.4	923.1	916.2	20857.9	923.3	923.3

Upstream Bridge Cross Section Data
Station Elevation Data num= 68

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17788	912.7	17983	912.2	18110	911.7	18204.1	908	18304.1	908
18389.1	916	18489.1	921.1	18764.1	922.4	19009.1	922.35	19028.1	922.29
19038.6	915.39	19040.17	914.3611	19061.6	900.32	19126.8	900	19130.8	900
19190	900	19247.1	900	19251.1	900	19309.9	900	19368.2	900
19372.2	900	19411.6	900	19425.7	900	19475	900	19488.8	900
19492.8	900	19554.2	900.1	19608.9	901.7	19612.9	901.7	19672.5	901.6
19730.9	902.19	19734.9	902.19	19792.8	902.1	19850.7	901.1	19854.7	901.1
19918.1	900	19971.9	900	19975.9	900	20059.1	900.6	20091.5	901.3
20095.5	901.3	20156.4	900.5	20212.5	900	20216.5	900	20244.6	900
20276.3	900	20334.1	900	20338.1	900	20395.8	901.2	20454.6	900.5
20458.6	900.5	20496.8	900	20575.1	900	20579.1	900	20636.4	900
20696.6	900	20700.6	900	20765.9	900	20811.55	914.3599	20817.4	916.2
20838.1	923.1	20857.9	923.3	20907.9	923.5	21862.9	923	22777.9	923.4
23187.9	923.4	24257.9	923.6	25318	920.8				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17788	.032	18204.1	.032	19009.1	.031	19038.6	.031	20817.4	.043
21862.9	.032								

Bank Sta: Left	Right	Coeff Contr.	Expan.
19040.17	20811.55	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17788	17990	915.39	20817.4	25318	916.2

Downstream Deck/Roadway Coordinates
num= 18

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
19009.1	922.35	922.35	19038.6	922.29	915.39	19126.8	925.31	918.38
19247.1	926.11	919.18	19368.2	926.91	919.98	19488.8	927.86	920.81
19608.9	928.48	921.63	19730.9	928.62	921.73	19850.7	928.75	921.82
19971.9	928.5	921.58	20091.5	928.25	921.37	20212.5	927.95	921.03
20334.1	927.65	920.77	20454.6	926.85	919.95	20575.1	926.05	919.17
20696.6	925.1	918.22	20817.4	923.1	916.2	20857.9	923.3	923.3

Downstream Bridge Cross Section Data
Station Elevation Data num= 68

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17851	914.3	17951	911.4	18080	912.4	18204.1	908	18304.1	908
18389.1	916	18489.1	921.1	18764.1	922.4	19009.1	922.35	19028.1	922.29
19038.6	915.39	19040.59	914.086	19061.6	900.32	19126.8	900	19130.8	900
19190	900	19247.1	900	19251.1	900	19309.9	900	19368.2	900
19372.2	900	19411.6	900	19425.7	900	19475	900	19488.8	900
19492.8	900	19554.2	900.1	19608.9	901.7	19612.9	901.7	19672.5	901.6
19730.9	902.19	19734.9	902.19	19792.8	902.1	19850.7	901.1	19854.7	901.1
19918.1	900	19971.9	900	19975.9	900	20059.1	900.6	20091.5	901.3
20095.5	901.3	20156.4	900.5	20212.5	900	20216.5	900	20244.6	900
20276.3	900	20334.1	900	20338.1	900	20395.8	901.2	20454.6	900.5
20458.6	900.5	20496.8	900	20575.1	900	20579.1	900	20636.4	900
20696.6	900	20700.6	900	20765.9	900	20810.68	914.0859	20817.4	916.2
20838.1	923.1	20857.9	923.3	20907.9	923.5	21862.9	923	22777.9	923.4
23187.9	923.4	24257.9	923.6	25318	920.8				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17851	.032	18204.1	.032	19009.1	.032	19038.6	.031	20817.4	.043
21862.9	.025								

Bank Sta: Left Right Coeff Contr. Expan.
19040.59 20810.68 .1 .3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17851	17980	915.39	20817.4	25318	916.2

Upstream Embankment side slope = 0 horiz. to 1.0 vertical
Downstream Embankment side slope = 0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow = .95
Elevation at which weir flow begins =
Energy head used in spillway design =
Spillway height used in design =
Weir crest shape = Broad Crested

Number of Piers = 14

Pier Data
Pier Station Upstream= 19128.8 Downstream= 19128.8
Upstream num= 2

Width	Elev	Width	Elev
4	900	4	918.41

Downstream num= 2

Width	Elev	Width	Elev
4	900	4	918.41

Pier Data
Pier Station Upstream= 19249.1 Downstream= 19249.1
Upstream num= 2

Width	Elev	Width	Elev
4	900	4	919.21

Downstream num= 2

Width	Elev	Width	Elev
4	900	4	919.21

Pier Data
Pier Station Upstream= 19370.2 Downstream= 19370.2
Upstream num= 2

Width	Elev	Width	Elev
4	900	4	920.01

Downstream num= 2

Width	Elev	Width	Elev
4	900	4	920.01

Pier Data
Pier Station Upstream= 19490.8 Downstream= 19490.8
Upstream num= 2

Width	Elev	Width	Elev
4	900	4	920.84

Downstream num= 2

Width	Elev	Width	Elev
4	900	4	920.84

```
Pier Data
Pier Station     Upstream= 19610.9    Downstream= 19610.9
Upstream     num=        2
    Width   Elev    Width   Elev
       4     900       4  921.66
Downstream     num=        2
    Width   Elev    Width   Elev
       4     900       4  921.66

Pier Data
Pier Station     Upstream= 19732.9    Downstream= 19732.9
Upstream     num=        2
    Width   Elev    Width   Elev
       4     900       4  921.76
Downstream     num=        2
    Width   Elev    Width   Elev
       4     900       4  921.76

Pier Data
Pier Station     Upstream= 19852.7    Downstream= 19852.7
Upstream     num=        2
    Width   Elev    Width   Elev
       4     900       4  921.85
Downstream     num=        2
    Width   Elev    Width   Elev
       4     900       4  921.85

Pier Data
Pier Station     Upstream= 19973.9    Downstream= 19973.9
Upstream     num=        2
    Width   Elev    Width   Elev
       4     900       4   921.6
Downstream     num=        2
    Width   Elev    Width   Elev
       4     900       4   921.6

Pier Data
Pier Station     Upstream= 20093.5    Downstream= 20093.5
Upstream     num=        2
    Width   Elev    Width   Elev
       4     900       4  921.35
Downstream     num=        2
    Width   Elev    Width   Elev
       4     900       4  921.35

Pier Data
Pier Station     Upstream= 20214.5    Downstream= 20214.5
Upstream     num=        2
    Width   Elev    Width   Elev
       4     900       4  921.05
Downstream     num=        2
    Width   Elev    Width   Elev
       4     900       4  921.05

Pier Data
Pier Station     Upstream= 20336.1    Downstream= 20336.1
Upstream     num=        2
    Width   Elev    Width   Elev
       4     900       4  920.75
Downstream     num=        2
    Width   Elev    Width   Elev
       4     900       4  920.75

Pier Data
Pier Station     Upstream= 20456.6    Downstream= 20456.6
Upstream     num=        2
    Width   Elev    Width   Elev
       4     900       4  919.95
Downstream     num=        2
    Width   Elev    Width   Elev
       4     900       4  919.95

Pier Data
Pier Station     Upstream= 20577.1    Downstream= 20577.1
Upstream     num=        2
    Width   Elev    Width   Elev
```

```
      4     900       4  919.15
Downstream     num=       2
    Width   Elev    Width   Elev
      4     900       4  919.15

Pier Data
Pier Station     Upstream= 20698.6    Downstream= 20698.6
Upstream     num=       2
    Width   Elev    Width   Elev
      4     900       4   918.2
Downstream     num=       2
    Width   Elev    Width   Elev
      4     900       4   918.2

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
      Energy
      Momentum                Cd   =     1.2
      Yarnell                 KVal =     .95
Selected Low Flow Methods = Highest Energy Answer

High Flow Method
      Energy Only

Additional Bridge Parameters
      Add Friction component to Momentum
      Do not add Weight component to Momentum
      Class B flow critical depth computations use critical depth
          inside the bridge at the downstream end
      Criteria to check for pressure flow = Upstream water surface

BRIDGE OUTPUT    Profile #PF#1
Opening : Bridge #1

  E.G. US. (ft)                 915.12   Element                 Inside BR US  Inside BR DS
  W.S. US. (ft)                 913.71   E.G. Elev (ft)               915.11        914.98
  Q Total (cfs)              227000.00   W.S. Elev (ft)               913.59        913.42
  Q Bridge (cfs)             220930.48   Crit W.S. (ft)               908.87        908.85
  Q Weir (cfs)                           Max Chl Dpth (ft)             13.59         13.42
  Weir Sta Lft (ft)                      Vel Total (ft/s)               9.72          9.86
  Weir Sta Rgt (ft)                      Flow Area (sq ft)          23362.53      23028.91
  Weir Submerg                           Froude # Chl                   0.49          0.50
  Weir Max Depth (ft)                    Specif Force (cu ft)      216861.47     213947.14
  Min Top Rd (ft)               908.00   Hydr Depth (ft)               11.20         11.00
  Min El Prs (ft)               921.82   W.P. Total (ft)             2458.68       2461.11
  Delta EG (ft)                   0.17   Conv. Total (cfs)         5247047.0     5134823.0
  Delta WS (ft)                   0.22   Top Width (ft)              2287.26       2191.18
  BR Open Area (sq ft)        33365.07   Frctn Loss (ft)                0.12          0.00
  BR Open Vel (ft/s)             10.14   C & E Loss (ft)                0.00          0.03
  Coef of Q                              Shear Total (lb/sq ft)         1.11          1.14
  Br Sel Mthd              Energy only   Power Total (lb/ft s)         10.79         11.25


Note - Yarnell answer is not valid if the water surface is above the low chord or if there is
weir flow.
                The Yarnell answer has been disregarded.
Note - Momentum answer is not valid if the water surface is above the low chord or if there is
weir
                flow.  The momentum answer has been disregarded.

BRIDGE OUTPUT    Profile #PF#2
Opening : Bridge #1

  E.G. US. (ft)                 915.57   Element                 Inside BR US  Inside BR DS
  W.S. US. (ft)                 914.16   E.G. Elev (ft)               915.55        915.43
  Q Total (cfs)              227000.00   W.S. Elev (ft)               914.02        913.86
  Q Bridge (cfs)             227000.00   Crit W.S. (ft)               908.78        908.78
  Q Weir (cfs)                           Max Chl Dpth (ft)             14.02         13.86
  Weir Sta Lft (ft)                      Vel Total (ft/s)               9.95         10.07
  Weir Sta Rgt (ft)                      Flow Area (sq ft)          22815.70      22545.26
  Weir Submerg                           Froude # Chl                   0.48          0.49
  Weir Max Depth (ft)                    Specif Force (cu ft)      224276.25     221537.78
  Min Top Rd (ft)               922.35   Hydr Depth (ft)               13.31         13.16
  Min El Prs (ft)               921.82   W.P. Total (ft)             2098.95       2093.72
  Delta EG (ft)                   0.17   Conv. Total (cfs)         5366468.5     5269635.5
```

Delta WS (ft)	0.22	Top Width (ft)	1713.76	1713.02
BR Open Area (sq ft)	33357.45	Frctn Loss (ft)	0.12	0.00
BR Open Vel (ft/s)	10.07	C & E Loss (ft)	0.00	0.04
Coef of Q		Shear Total (lb/sq ft)	1.21	1.25
Br Sel Mthd	Energy only	Power Total (lb/ft s)	12.08	12.56

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 195.13

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 68

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17851	914.3	17951	911.4	18080	912.4	18204.1	908	18304.1	908
18389.1	916	18489.1	921.1	18764.1	922.4	19009.1	922.35	19028.1	922.29
19038.6	915.39	19040.59	914.086	19061.6	900.32	19126.8	900	19130.8	900
19190	900	19247.1	900	19251.1	900	19309.9	900	19368.2	900
19372.2	900	19411.6	900	19425.7	900	19475	900	19488.8	900
19492.8	900	19554.2	900.1	19608.9	901.7	19612.9	901.7	19672.5	901.6
19730.9	902.19	19734.9	902.19	19792.8	902.1	19850.7	901.1	19854.7	901.1
19918.1	900	19971.9	900	19975.9	900	20059.1	900.6	20091.5	901.3
20095.5	901.3	20156.4	900.5	20212.5	900	20216.5	900	20244.6	900
20276.3	900	20334.1	900	20338.1	900	20395.8	901.2	20454.6	900.5
20458.6	900.5	20496.8	900	20575.1	900	20579.1	900	20636.4	900
20696.6	900	20700.6	900	20765.9	900	20810.68	914.0859	20817.4	916.2
20838.1	923.1	20857.9	923.3	20907.9	923.5	21862.9	923	22777.9	923.4
23187.9	923.4	24257.9	923.6	25318	920.8				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17851	.032	18204.1	.032	19009.1	.032	19038.6	.031	20817.4	.043
21862.9	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19040.59	20810.68	261	244.16	276	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17851	17980	915.39	20817.4	25318	916.2

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	913.49	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.46	Wt. n-Val.	0.032	0.031	
E.G. Elev (ft)	914.95	Reach Len. (ft)	261.00	244.16	276.00
Crit W.S. (ft)	908.67	Flow Area (sq ft)	1265.35	22644.16	
E.G. Slope (ft/ft)	0.001400	Area (sq ft)	1398.06	22644.16	
Q Total (cfs)	227000.00	Flow (cfs)	5115.68	221884.33	
Top Width (ft)	2250.81	Top Width (ft)	483.52	1767.29	
Vel Total (ft/s)	9.49	Avg. Vel. (ft/s)	4.04	9.80	
Max Chl Dpth (ft)	13.49	Hydr. Depth (ft)	3.31	12.81	
Conv. Total (cfs)	6066334.5	Conv. (cfs)	136711.2	5929623.5	
Length Wtd. (ft)	244.67	Wetted Per. (ft)	382.77	1773.37	
Min Ch El (ft)	900.00	Shear (lb/sq ft)	0.29	1.12	
Alpha	1.05	Stream Power (lb/ft s)	1.17	10.94	
Frctn Loss (ft)	0.39	Cum Volume (acre-ft)	6592.75	67665.14	22683.18
C & E Loss (ft)	0.02	Cum SA (acres)	1770.45	7234.70	6761.86

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	913.94	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.46	Wt. n-Val.		0.031	
E.G. Elev (ft)	915.40	Reach Len. (ft)	261.00	244.16	276.00
Crit W.S. (ft)	908.61	Flow Area (sq ft)		23440.15	
E.G. Slope (ft/ft)	0.001308	Area (sq ft)		23440.15	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	1769.41	Top Width (ft)		1769.41	
Vel Total (ft/s)	9.68	Avg. Vel. (ft/s)		9.68	
Max Chl Dpth (ft)	13.94	Hydr. Depth (ft)		13.25	
Conv. Total (cfs)	6275601.0	Conv. (cfs)		6275601.0	
Length Wtd. (ft)	244.16	Wetted Per. (ft)		1775.69	
Min Ch El (ft)	900.00	Shear (lb/sq ft)		1.08	
Alpha	1.00	Stream Power (lb/ft s)		10.44	

Frctn Loss (ft)	0.37	Cum Volume (acre-ft)	936.74	70900.88	9153.54
C & E Loss (ft)	0.03	Cum SA (acres)	168.02	7241.36	1402.97

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17930.31	18009.61	120.28	51.85	29.61	0.05	1.75	2.32
18009.61	18088.92	208.94	107.09	79.31	0.09	1.35	1.95
18088.92	18168.22	709.49	223.05	79.36	0.31	2.81	3.18
18168.22	18247.53	1978.14	412.60	79.33	0.87	5.20	4.79
18247.53	18326.84	1964.85	411.10	79.41	0.87	5.18	4.78
18326.84	18406.14	133.96	59.64	35.76	0.06	1.68	2.25
18406.14	19040.59						
19040.59 LB	19483.11	57681.91	5808.36	445.55	25.41	13.15	9.93
19483.11	19925.63	51896.71	5436.86	442.57	22.86	12.29	9.55
19925.63	20368.16	58313.59	5830.66	442.55	25.69	13.18	10.00
20368.16	20810.68 RB	53992.14	5568.28	442.72	23.79	12.64	9.70

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19040.59 LB	19483.11	58906.73	6007.30	446.37	25.95	13.58	9.81
19483.11	19925.63	53268.05	5636.05	442.57	23.47	12.74	9.45
19925.63	20368.16	59616.54	6029.85	442.55	26.26	13.63	9.89
20368.16	20810.68 RB	55208.67	5766.95	444.22	24.32	13.05	9.57

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 195.09

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17259.5	929.5	17291	918.1	17350.1	911.6	17371.5	912.8	17442.6	910.2
17562.3	912.3	17680.9	911.6	17801.1	914.3	17901.7	911.4	18030.7	912.4
18158.8	912.8	18399.9	911.4	18505.8	909.1	18643.8	910.2	18674.4	910.4
18732.8	905.1	18788	920.1	18833.4	918.2	18856.2	907.5	18965.6	907.2
19017.6	918	19034.28	913.4839	19073	903	19111.5	899.9	19272.8	902.5
19386.6	902.9	19440.3	898.8	19573.1	901.2	19740.8	900.2	19866.9	902
20023.1	900.3	20035.1	900.3	20210.7	899.9	20272.1	902.3	20368.8	899.1
20399.1	901.5	20444.9	899.1	20601.7	900.1	20687.6	901	20745.8	906.4
20818.6	905.8	20850.3	914.6	20863.8	913.4	20881	908.8	21042.7	910
21169.2	906.6	21213.3	907.3	21284.9	911.4	21419.7	914.9	21546.9	914.8
21671.6	915.9	21722.4	918.2	21756.2	918.1	21799.4	900.7	21822	901.8
21833.1	907.9	21841.6	908	21862.1	916.1	21886.5	915.6	21913.3	917.2
21918.9	914.3	21983.9	912.7	22132.4	913.9	22301.9	914.5	22351.1	914.6
22514.4	915.2	22621.6	915.5	22777.6	915.1	22912.4	916.8	23059.1	919.8
23191.3	920.6	23344.7	918.5	23474.6	917.6	23488.7	918	23505.3	915.4
23594.6	919.3	23724.3	919.6	23824	919	24027.1	919.2	24134.7	919.7
24307.7	919.7	24493	919.8	24638	919.8	24766.1	919.5	24793.3	920.7
24859.8	918.7	25047	920	25222.7	919.8	25272.9	920.1	25454.4	920.8
25586	920.7	25706.5	920.3	25866.3	921.1	26005.3	921	26126.3	921.5
26177.4	921.6	26189.7	923.4						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17259.5	.032	19017.6	.031	20850.3	.043	21722.4	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19034.28	20850.3	445	504	575	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17259.5	17920	925	20850.3	26189.7	925

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	912.92	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.63	Wt. n-Val.	0.032	0.031	
E.G. Elev (ft)	914.55	Reach Len. (ft)	445.00	504.00	575.00

Crit W.S. (ft)	909.20	Flow Area (sq ft)	2295.06	20970.93	
E.G. Slope (ft/ft)	0.001800	Area (sq ft)	2841.22	20970.93	2366.24
Q Total (cfs)	227000.00	Flow (cfs)	8737.14	218262.86	
Top Width (ft)	3870.59	Top Width (ft)	1462.99	1807.91	599.69
Vel Total (ft/s)	9.76	Avg. Vel. (ft/s)	3.81	10.41	
Max Chl Dpth (ft)	14.12	Hydr. Depth (ft)	2.32	11.60	
Conv. Total (cfs)	5350805.5	Conv. (cfs)	205950.5	5144855.0	
Length Wtd. (ft)	500.95	Wetted Per. (ft)	993.22	1811.07	
Min Ch El (ft)	898.80	Shear (lb/sq ft)	0.26	1.30	
Alpha	1.10	Stream Power (lb/ft s)	0.99	13.54	
Frctn Loss (ft)	0.77	Cum Volume (acre-ft)	6580.05	67542.91	22675.69
C & E Loss (ft)	0.15	Cum SA (acres)	1764.62	7224.68	6759.96

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	913.29	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.71	Wt. n-Val.		0.031	
E.G. Elev (ft)	915.00	Reach Len. (ft)	445.00	504.00	575.00
Crit W.S. (ft)	909.12	Flow Area (sq ft)		21643.44	
E.G. Slope (ft/ft)	0.001756	Area (sq ft)		21643.44	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	1810.62	Top Width (ft)		1810.62	
Vel Total (ft/s)	10.49	Avg. Vel. (ft/s)		10.49	
Max Chl Dpth (ft)	14.49	Hydr. Depth (ft)		11.95	
Conv. Total (cfs)	5417158.5	Conv. (cfs)		5417158.5	
Length Wtd. (ft)	504.00	Wetted Per. (ft)		1813.88	
Min Ch El (ft)	898.80	Shear (lb/sq ft)		1.31	
Alpha	1.00	Stream Power (lb/ft s)		13.72	
Frctn Loss (ft)	0.80	Cum Volume (acre-ft)	936.74	70774.52	9153.54
C & E Loss (ft)	0.11	Cum SA (acres)	168.02	7231.33	1402.97

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17851.09	17969.41	110.20	58.79	49.41	0.05	1.19	1.87
17969.41	18087.73	85.09	71.39	118.32	0.04	0.60	1.19
18087.73	18206.05	18.91	28.96	118.32	0.01	0.24	0.65
18206.05	18324.37	119.88	87.69	118.32	0.05	0.74	1.37
18324.37	18442.69	410.53	183.54	118.33	0.18	1.55	2.24
18442.69	18561.00	1484.85	396.96	118.33	0.65	3.36	3.74
18561.00	18679.32	1184.27	346.59	118.34	0.52	2.93	3.42
18679.32	18797.64	1906.51	401.21	83.53	0.84	4.88	4.75
18797.64	18915.96	1751.31	360.34	72.53	0.77	5.05	4.86
18915.96	19034.28	1665.59	359.57	77.78	0.73	4.66	4.63
19034.28 LB	19488.29	49988.36	4983.18	453.57	22.02	11.03	10.03
19488.29	19942.29	58073.90	5454.49	454.04	25.58	12.01	10.65
19942.29	20396.29	61495.31	5645.88	454.20	27.09	12.44	10.89
20396.29	20850.30 RB	48705.29	4887.38	449.27	21.46	10.91	9.97

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19034.28 LB	19488.29	52077.59	5151.42	454.99	22.94	11.36	10.11
19488.29	19942.29	60351.76	5623.25	454.04	26.59	12.39	10.73
19942.29	20396.29	63799.05	5814.64	454.20	28.11	12.81	10.97
20396.29	20850.30 RB	50771.58	5054.14	450.66	22.37	11.25	10.05

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 195

INPUT
Description:

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16932.1	929.5	16948	925.3	17003.4	923.6	17063.4	918	17187.4	912.9
17302.4	909.1	17423	909.9	17568.9	911.8	17721	912.7	17849.4	911
17879.3	912.4	17990.9	912	18071.5	909.5	18082.8	911.3	18094.4	905.7
18113.5	906.9	18286.2	907.2	18403	907.2	18579.5	906.7	18695.3	910.4
18753.8	905.9	18792.1	913.2	18846.6	912.6	18886	906	19024.5	904.4
19076.5	902.4	19114.3	898	19311	898.3	19471.7	898.9	19668	899.2
19708.2	901.7	19807.5	904.3	19960.2	902.3	20017.5	898.6	20063.6	898.6
20200.2	898.3	20259.7	898.5	20267	900.6	20275	899.7	20284.7	902.1
20328.6	902.1	20401.6	897.2	20557.2	897	20597.6	906.3	20747.1	906.2
20882.3	901.6	20906.1	905.3	20937.1	905	20978	911.9	21101.1	911.2
21136.1	911.2	21274.3	911.2	21335.9	911.3	21497.5	911.3	21617.2	911.3
21733.6	911.4	21836.4	911.3	21866.9	916	21907.1	917.1	21930.5	899.8
21964	901.6	21980.1	912.7	21991.9	913.4	22008.8	917.3	22022.1	918.2
22038.7	914	22185	913.4	22320.4	913.9	22424.1	913.9	22581.2	914.5
22761.4	915	22914	915.1	22996.8	915.2	23123.9	915.2	23314.2	915.9
23461.7	917.9	23659.8	917.9	23768.6	918	23985.5	918.5	24027	918.6
24251.1	918.9	24353.1	919.3	24488.9	919.4	24677	919	24773.2	919.1
24899.6	919.2	25006.8	919.4	25169.1	919.7	25203.8	919.8	25447.9	920.4
25580.5	920.4	25712.4	920.3	25734.4	920.2	25859.8	920.1	25977	920.2
26042.5	921.8								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16932.1	.032	18846.6	.031	20978	.032	22022.1	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18846.6	20978	435	489.93	605	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16932.1	17820	925	21431	26042.5	925

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	912.50	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.13	Wt. n-Val.	0.032	0.031	0.032
E.G. Elev (ft)	913.63	Reach Len. (ft)	435.00	489.93	605.00
Crit W.S. (ft)	908.47	Flow Area (sq ft)	3792.65	23937.83	533.83
E.G. Slope (ft/ft)	0.001335	Area (sq ft)	4658.87	23937.83	1605.21
Q Total (cfs)	227000.00	Flow (cfs)	15960.68	210028.88	1010.45
Top Width (ft)	4603.89	Top Width (ft)	1540.39	2130.81	932.69
Vel Total (ft/s)	8.03	Avg. Vel. (ft/s)	4.21	8.77	1.89
Max Chl Dpth (ft)	15.50	Hydr. Depth (ft)	3.92	11.23	1.18
Conv. Total (cfs)	6212927.0	Conv. (cfs)	436839.4	5748432.0	27655.6
Length Wtd. (ft)	486.69	Wetted Per. (ft)	970.83	2134.71	453.00
Min Ch El (ft)	897.00	Shear (lb/sq ft)	0.33	0.93	0.10
Alpha	1.12	Stream Power (lb/ft s)	1.37	8.20	0.19
Frctn Loss (ft)	0.60	Cum Volume (acre-ft)	6541.74	67283.10	22649.47
C & E Loss (ft)	0.06	Cum SA (acres)	1749.28	7201.90	6749.84

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	912.75	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.34	Wt. n-Val.		0.031	
E.G. Elev (ft)	914.09	Reach Len. (ft)	435.00	489.93	605.00
Crit W.S. (ft)	908.21	Flow Area (sq ft)		24472.73	
E.G. Slope (ft/ft)	0.001450	Area (sq ft)		24472.73	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	2131.40	Top Width (ft)		2131.40	
Vel Total (ft/s)	9.28	Avg. Vel. (ft/s)		9.28	
Max Chl Dpth (ft)	15.75	Hydr. Depth (ft)		11.48	
Conv. Total (cfs)	5961128.5	Conv. (cfs)		5961128.5	
Length Wtd. (ft)	489.93	Wetted Per. (ft)		2136.31	
Min Ch El (ft)	897.00	Shear (lb/sq ft)		1.04	
Alpha	1.00	Stream Power (lb/ft s)		9.62	
Frctn Loss (ft)	0.66	Cum Volume (acre-ft)	936.74	70507.73	9153.54
C & E Loss (ft)	0.07	Cum SA (acres)	168.02	7208.52	1402.97

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta	Right Sta	Flow	Area	W.P.	% Conv.	Hydr D.	Velocity

(ft)	(ft)	(cfs)	(sq ft)	(ft)		(ft)	(ft/s)
17697.90	17825.53	10.39	6.36	5.53	0.00	1.15	1.63
17825.53	17953.17	75.41	73.28	127.67	0.03	0.57	1.03
17953.17	18080.80	332.43	178.55	127.79	0.15	1.40	1.86
18080.80	18208.43	3155.70	691.51	128.98	1.39	5.42	4.56
18208.43	18336.07	3104.43	681.88	127.63	1.37	5.34	4.55
18336.07	18463.70	3104.17	681.84	127.63	1.37	5.34	4.55
18463.70	18591.33	3392.74	719.21	127.64	1.49	5.63	4.72
18591.33	18718.97	1624.07	462.43	127.76	0.72	3.62	3.51
18718.97	18846.60	1161.33	297.59	70.19	0.51	4.28	3.90
18846.60 LB	19379.45	50320.80	5861.89	533.11	22.17	11.01	8.58
19379.45	19912.30	56310.96	6270.50	532.97	24.81	11.77	8.98
19912.30	20445.15	66484.56	6931.71	533.78	29.29	13.01	9.59
20445.15	20978.00 RB	36912.57	4873.73	534.85	16.26	9.15	7.57
20978.00	21315.63	743.67	394.90	337.63	0.33	1.17	1.88
21315.63	21653.27	266.77	138.93	115.37	0.12	1.20	1.92

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18846.60 LB	19379.45	54419.96	5995.59	533.85	23.97	11.25	9.08
19379.45	19912.30	60808.03	6404.23	532.97	26.79	12.02	9.49
19912.30	20445.15	71555.91	7065.44	533.78	31.52	13.26	10.13
20445.15	20978.00 RB	40216.11	5007.46	535.70	17.72	9.40	8.03

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 194.91

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16952.1	929.6	17012.2	913.9	17128.1	910.2	17136.9	910.8	17148	909.6
17236.8	908.2	17320	910.2	17468.5	909.8	17586.2	910.5	17698.1	909.9
17751.7	909.9	17763.2	911.7	17770.9	909.5	17876.1	909	18060.5	907.3
18162.6	907.9	18299.8	907.6	18416.3	907.5	18533	908	18651.1	908.4
18748.1	909.1	18760.9	911.1	18830	911.1	18869.7	904.3	18950.7	902.8
19028.3	905.5	19063.1	898.1	19267.5	897.4	19368.2	898.7	19385.5	898.7
19570.8	900.4	19681.7	902	19778.3	900.6	19817.8	898.2	19917.1	902
19959.8	901.2	20005.9	897.3	20160.6	897.2	20390.8	896.9	20478	897.7
20510.7	905.9	20639.4	905.2	20774	904.6	20900.6	904.8	21008.3	904.2
21188.9	904.5	21238.7	904.5	21286.9	911.3	21406.1	911.1	21613.5	911
21644.4	911	21760.5	911	21895.2	910.4	21989.6	910	22020.2	915.2
22059.1	916.9	22085.8	900.4	22109.8	901.3	22127	909.7	22135.5	911.4
22147	918.4	22166.8	917.5	22187.2	911.8	22309	912.4	22335.8	912.8
22457.3	912.8	22546.4	912.8	22668.7	913.1	22860.1	913.9	23015.2	914.7
23141.6	914.8	23261.6	914	23310	914.6	23316.3	915.9	23376.7	915.9
23509.2	916.5	23552.5	916.6	23749.5	916.7	23804.6	916.7	24052.9	917.3
24071.2	917.4	24214.4	917.4	24352.2	918	24486.9	917.2	24618	917.7
24754.5	919.3	24842.9	919.6	24973.5	919.7	25114	920.6	25225	921.1
25408.7	921.2	25578.2	921.6	25730.2	921.6	25843.5	921.6	25950.2	921.2
25967.9	922								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16952.1	.032	18830	.031	21286.9	.032	22147	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18830	21286.9	475	494.18	530	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16952.1	17700	925	21895	25967.9	925

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	912.04	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.93	Wt. n-Val.	0.032	0.031	0.032
E.G. Elev (ft)	912.96	Reach Len. (ft)	475.00	494.18	530.00
Crit W.S. (ft)	907.59	Flow Area (sq ft)	4071.26	26515.90	636.56
E.G. Slope (ft/ft)	0.001156	Area (sq ft)	5406.72	26515.90	1331.73
Q Total (cfs)	227000.00	Flow (cfs)	15101.30	210862.53	1036.16

Top Width (ft)	5049.52	Top Width (ft)	1759.44	2456.90	833.18
Vel Total (ft/s)	7.27	Avg. Vel. (ft/s)	3.71	7.95	1.63
Max Chl Dpth (ft)	15.14	Hydr. Depth (ft)	3.60	10.79	1.05
Conv. Total (cfs)	6676161.5	Conv. (cfs)	444135.5	6201552.0	30474.0
Length Wtd. (ft)	493.07	Wetted Per. (ft)	1130.62	2460.17	608.10
Min Ch El (ft)	896.90	Shear (lb/sq ft)	0.26	0.78	0.08
Alpha	1.13	Stream Power (lb/ft s)	0.96	6.19	0.12
Frctn Loss (ft)	0.42	Cum Volume (acre-ft)	6491.48	66999.37	22629.08
C & E Loss (ft)	0.09	Cum SA (acres)	1732.81	7176.10	6737.58

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	912.26	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.09	Wt. n-Val.		0.031	
E.G. Elev (ft)	913.36	Reach Len. (ft)	475.00	494.18	530.00
Crit W.S. (ft)	907.56	Flow Area (sq ft)		27074.94	
E.G. Slope (ft/ft)	0.001251	Area (sq ft)		27074.94	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	2456.90	Top Width (ft)		2456.90	
Vel Total (ft/s)	8.38	Avg. Vel. (ft/s)		8.38	
Max Chl Dpth (ft)	15.36	Hydr. Depth (ft)		11.02	
Conv. Total (cfs)	6417292.0	Conv. (cfs)		6417292.0	
Length Wtd. (ft)	494.18	Wetted Per. (ft)		2462.30	
Min Ch El (ft)	896.90	Shear (lb/sq ft)		0.86	
Alpha	1.00	Stream Power (lb/ft s)		7.20	
Frctn Loss (ft)	0.46	Cum Volume (acre-ft)	936.74	70217.85	9153.54
C & E Loss (ft)	0.11	Cum SA (acres)	168.02	7182.72	1402.97

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17578.07	17703.26	17.56	6.97	3.26	0.01	2.14	2.52
17703.26	17828.45	737.41	282.66	125.64	0.32	2.26	2.61
17828.45	17953.65	1332.24	402.51	125.20	0.59	3.22	3.31
17953.65	18078.84	2170.02	539.40	125.20	0.96	4.31	4.02
18078.84	18204.03	2176.72	540.39	125.19	0.96	4.32	4.03
18204.03	18329.23	2213.21	545.81	125.19	0.97	4.36	4.05
18329.23	18454.42	2321.06	561.61	125.19	1.02	4.49	4.13
18454.42	18579.61	2008.49	514.93	125.19	0.88	4.11	3.90
18579.61	18704.81	1625.52	453.55	125.20	0.72	3.62	3.58
18704.81	18830.00	499.09	223.43	125.35	0.22	1.78	2.23
18830.00 LB	19444.22	58583.29	7154.66	615.65	25.81	11.65	8.19
19444.22	20058.45	60378.77	7280.30	614.57	26.60	11.85	8.29
20058.45	20672.68	65480.97	7646.78	615.25	28.85	12.45	8.56
20672.68	21286.90 RB	26419.49	4434.16	614.71	11.64	7.22	5.96
21286.90	21598.97	431.22	289.40	312.07	0.19	0.93	1.49
21598.97	21911.03	604.94	347.16	296.03	0.27	1.17	1.74

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18830.00 LB	19444.22	62912.73	7294.42	616.82	27.71	11.88	8.62
19444.22	20058.45	64886.87	7420.06	614.57	28.58	12.08	8.74
20058.45	20672.68	70264.19	7786.54	615.25	30.95	12.68	9.02
20672.68	21286.90 RB	28936.21	4573.92	615.67	12.75	7.45	6.33

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 194.81

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16922.9	929.7	16937.5	918.2	16990.3	912	17012.9	913.4	17080.5	906.9
17261.7	908.3	17383	909.4	17498.7	909.8	17608.2	909.8	17634.3	909.8
17689.2	904.8	17838.9	910	17890.6	908.5	17999.8	906.8	18126.8	907.2

18246.8	907.9	18363.1	907.3	18479.6	907.4	18593.9	906.7	18600.5	909.7
18609.2	906.3	18727.5	909.6	18779.3	908	18798.6	911.1	18830.9	911.2
18856.2	904.5	18935.6	902.5	18976	896.7	19191.8	897	19341.9	897.2
19417.2	898.3	19578.5	898.6	19646.4	901.6	19733.1	900.7	19769.6	896.5
19814.2	896.5	20003.6	896.3	20146.5	896	20272.7	896.3	20390.4	898.3
20501	898.9	20537.2	899.7	20682.9	898	20717.2	904.4	20883.9	903.8
20930.1	903.4	21039.6	903.3	21164.9	902.6	21285.7	905.2	21359.4	903.3
21493.7	904.2	21544.5	910	21625.2	910.3	21757.7	910.3	21928.6	910.1
22067.4	909.7	22136.1	909.9	22161.1	915	22186.9	914.5	22199.9	915.8
22229.4	899.9	22252.8	901	22267.5	907.8	22278.8	909.2	22290.5	916.7
22316.7	915.1	22326.9	911.4	22424.3	911.8	22604.1	912.8	22632.4	912.9
22831.8	913	22844.8	913.1	23053.3	913.8	23081.9	913.9	23209.1	914
23243.8	913.8	23267.2	915.3	23463.8	915.2	23574.3	915.9	23747.5	916.9
23947	916.9	24045.8	916.8	24228.8	916.8	24401.8	917.6	24427.8	917.6
24539	917.2	24560.2	919.4	24615	918.5	24725.8	919.5	24867.4	920.6
24898.9	920.6	25159.1	920.6	25256.2	921	25592	921.9	25719.8	921.9
25804	923.3								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16922.9	.032	18830.9	.031	20930.1	.032	21544.5	.032	22290.5	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18830.9	21544.5	435	485	555	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16922.9	17580	925	21940	25804	925

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	911.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.62	Wt. n-Val.	0.032	0.031	0.032
E.G. Elev (ft)	912.45	Reach Len. (ft)	435.00	485.00	555.00
Crit W.S. (ft)	905.81	Flow Area (sq ft)	5037.48	32382.15	636.50
E.G. Slope (ft/ft)	0.000657	Area (sq ft)	6714.47	32382.15	1606.09
Q Total (cfs)	227000.00	Flow (cfs)	15163.69	210795.72	1040.60
Top Width (ft)	5295.81	Top Width (ft)	1801.66	2713.60	780.54
Vel Total (ft/s)	5.96	Avg. Vel. (ft/s)	3.01	6.51	1.63
Max Chl Dpth (ft)	15.83	Hydr. Depth (ft)	4.03	11.93	1.61
Conv. Total (cfs)	8854254.0	Conv. (cfs)	591467.5	8222197.5	40589.2
Length Wtd. (ft)	481.64	Wetted Per. (ft)	1252.87	2716.25	395.50
Min Ch El (ft)	896.00	Shear (lb/sq ft)	0.16	0.49	0.07
Alpha	1.12	Stream Power (lb/ft s)	0.50	3.18	0.11
Frctn Loss (ft)	0.33	Cum Volume (acre-ft)	6425.40	66665.27	22611.21
C & E Loss (ft)	0.00	Cum SA (acres)	1713.39	7146.77	6727.76

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	912.05	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.74	Wt. n-Val.		0.031	
E.G. Elev (ft)	912.79	Reach Len. (ft)	435.00	485.00	555.00
Crit W.S. (ft)	905.80	Flow Area (sq ft)		32992.48	
E.G. Slope (ft/ft)	0.000718	Area (sq ft)		32992.48	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	2713.60	Top Width (ft)		2713.60	
Vel Total (ft/s)	6.88	Avg. Vel. (ft/s)		6.88	
Max Chl Dpth (ft)	16.05	Hydr. Depth (ft)		12.16	
Conv. Total (cfs)	8471679.0	Conv. (cfs)		8471679.0	
Length Wtd. (ft)	485.00	Wetted Per. (ft)		2719.16	
Min Ch El (ft)	896.00	Shear (lb/sq ft)		0.54	
Alpha	1.00	Stream Power (lb/ft s)		3.74	
Frctn Loss (ft)	0.37	Cum Volume (acre-ft)	936.74	69877.13	9153.54
C & E Loss (ft)	0.00	Cum SA (acres)	168.02	7153.39	1402.97

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17558.90	17686.10	845.84	337.49	106.31	0.37	3.18	2.51
17686.10	17813.30	2101.75	626.21	127.29	0.93	4.92	3.36
17813.30	17940.50	902.67	377.07	127.24	0.40	2.96	2.39
17940.50	18067.70	1985.83	605.10	127.21	0.87	4.76	3.28

18067.70	18194.90	1854.85	580.81	127.20	0.82	4.57	3.19
18194.90	18322.10	1553.89	522.28	127.20	0.68	4.11	2.98
18322.10	18449.30	1790.31	568.60	127.20	0.79	4.47	3.15
18449.30	18576.50	1917.71	592.54	127.20	0.84	4.66	3.24
18576.50	18703.70	1649.37	543.56	128.53	0.73	4.27	3.03
18703.70	18830.90	561.45	283.80	127.48	0.25	2.23	1.98
18830.90 LB	19509.30	61633.30	8997.82	679.72	27.15	13.26	6.85
19509.30	20187.70	68988.58	9621.80	678.71	30.39	14.18	7.17
20187.70	20866.10	54531.42	8357.18	679.03	24.02	12.32	6.53
20866.10	21544.50 RB	25642.39	5405.35	678.79	11.30	7.97	4.74
21544.50	21828.47	726.00	449.30	283.97	0.32	1.58	1.62
21828.47	22112.43	314.61	187.20	111.53	0.14	1.68	1.68

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18830.90 LB	19509.30	66201.50	9150.40	680.57	29.16	13.49	7.23
19509.30	20187.70	74030.39	9774.38	678.71	32.61	14.41	7.57
20187.70	20866.10	58747.24	8509.77	679.03	25.88	12.54	6.90
20866.10	21544.50 RB	28020.88	5557.93	680.84	12.34	8.19	5.04

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 194.72

INPUT
Description: Right Channel Bank Station Interpolated

Flow approximates fully
expanded flow from Bullard Rd. here

Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16804.8	929.8	16838.5	918.3	16876.8	913	16930.8	909.7	17061.2	907.7
17250.9	909.5	17371.2	906.4	17394.8	903.8	17596.6	911.4	17789.9	908.6
17956	908	18099.9	907.3	18253.4	907.4	18308.3	907.2	18473	903
18600.9	900.9	18634.3	912.2	18679	914.8	18778.7	910.8	18793.5	913.7
18832.6	913.1	18864.7	903.9	18920.1	904.4	18986.4	899.5	19021.3	901.3
19119.9	896.3	19208.6	895.7	19402.8	897.3	19447.4	899.3	19568	899.4
19599.4	896.6	19747.9	896.5	19871	896.2	20023.1	898.2	20186	898.9
20341.6	900	20479.5	900.1	20529	897.4	20615.5	897.7	20646.7	902.3
20696.1	903	20757.1	898.2	20858.8	898	20895.6	903.8	21042	904
21171.3	903.1	21247.7	905.6	21433.2	903	21534.3	901.3	21619.2	904.9
21653.16	911.5381	21654.5	911.8	21698.8	916.5	21735	917.1	21790.6	904.4
21853.1	914.1	21884	914.9	21932.1	910.2	22042.5	913.3	22078.7	904.3
22111.3	913.5	22211.9	909.8	22254.6	914.6	22266.1	911.5	22283.6	911.5
22300.4	899.8	22328.3	900.9	22341.9	908.1	22351	908.3	22366.2	916.2
22396.2	910.6	22554.1	911.5	22725.4	912.6	22887.5	912.6	23023.8	912.6
23156.1	912.9	23202.4	914.7	23415.4	914.9	23592.7	915.1	23714.1	915.1
23862.8	915.5	23992.6	915.7	24100.4	916	24239.8	916.5	24423.4	916.9
24552.9	917.9	24668.1	919.4	24823.9	919.7	24877.3	920	25144	919.9
25266.5	920	25433.1	920.2	25577.6	920.2	25623.1	920.2	25759.1	920.5
25881.2	919.7	25900.9	921.3						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16804.8	.032	18793.5	.031	21735	.043	23202.4	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18832.62	21653.16	495	503.5	550	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16804.8	17450	925	21735	25900.9	925

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft) 911.49 Element Left OB Channel Right OB

Vel Head (ft)	0.63	Wt. n-Val.	0.032	0.031	
E.G. Elev (ft)	912.12	Reach Len. (ft)	495.00	503.50	550.00
Crit W.S. (ft)	905.77	Flow Area (sq ft)	5102.50	32193.13	
E.G. Slope (ft/ft)	0.000721	Area (sq ft)	6985.97	32193.13	1173.82
Q Total (cfs)	227000.00	Flow (cfs)	16813.22	210186.77	
Top Width (ft)	5052.69	Top Width (ft)	1751.54	2814.72	486.43
Vel Total (ft/s)	6.09	Avg. Vel. (ft/s)	3.30	6.53	
Max Chl Dpth (ft)	15.79	Hydr. Depth (ft)	4.24	11.44	
Conv. Total (cfs)	8453026.0	Conv. (cfs)	626090.6	7826935.0	
Length Wtd. (ft)	502.64	Wetted Per. (ft)	1205.03	2818.19	
Min Ch El (ft)	895.70	Shear (lb/sq ft)	0.19	0.51	
Alpha	1.09	Stream Power (lb/ft s)	0.63	3.36	
Frctn Loss (ft)	0.34	Cum Volume (acre-ft)	6356.99	66305.78	22593.50
C & E Loss (ft)	0.03	Cum SA (acres)	1695.65	7115.99	6719.69

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	911.67	Element			
Vel Head (ft)	0.75	Wt. n-Val.		0.031	
E.G. Elev (ft)	912.42	Reach Len. (ft)	495.00	503.50	550.00
Crit W.S. (ft)	905.82	Flow Area (sq ft)		32699.84	
E.G. Slope (ft/ft)	0.000799	Area (sq ft)		32699.84	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	2815.58	Top Width (ft)		2815.58	
Vel Total (ft/s)	6.94	Avg. Vel. (ft/s)		6.94	
Max Chl Dpth (ft)	15.97	Hydr. Depth (ft)		11.61	
Conv. Total (cfs)	8031391.5	Conv. (cfs)		8031391.5	
Length Wtd. (ft)	503.50	Wetted Per. (ft)		2819.21	
Min Ch El (ft)	895.70	Shear (lb/sq ft)		0.58	
Alpha	1.00	Stream Power (lb/ft s)		4.02	
Frctn Loss (ft)	0.41	Cum Volume (acre-ft)	936.74	69511.41	9153.54
C & E Loss (ft)	0.00	Cum SA (acres)	168.02	7122.61	1402.97

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17345.55	17480.73	491.95	154.75	30.76	0.22	5.04	3.18
17480.73	17615.92	457.76	268.02	135.27	0.20	1.98	1.71
17615.92	17751.11	241.81	182.71	135.20	0.11	1.35	1.32
17751.11	17886.29	881.15	396.93	135.19	0.39	2.94	2.22
17886.29	18021.48	1183.63	473.81	135.19	0.52	3.50	2.50
18021.48	18156.67	1521.14	550.78	135.19	0.67	4.07	2.76
18156.67	18291.85	1559.22	559.01	135.19	0.69	4.14	2.79
18291.85	18427.04	2598.64	759.57	135.22	1.14	5.62	3.42
18427.04	18562.23	5465.24	1186.52	135.21	2.41	8.78	4.61
18562.23	18697.41	2408.81	563.20	71.73	1.06	8.05	4.28
18697.41	18832.60	3.84	7.20	20.88	0.00	0.35	0.53
18832.60 LB	19537.74	59195.85	8750.91	701.01	26.08	12.51	6.76
19537.74	20242.88	71930.18	9860.07	705.28	31.69	13.98	7.30
20242.88	20948.02	52820.88	8196.79	706.20	23.27	11.62	6.44
20948.02	21653.16 RB	26239.91	5385.35	705.70	11.56	7.64	4.87

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18832.60 LB	19537.74	63810.84	8876.87	701.66	28.11	12.68	7.19
19537.74	20242.88	77392.08	9986.99	705.28	34.09	14.16	7.75
20242.88	20948.02	57076.21	8323.71	706.20	25.14	11.80	6.86
20948.02	21653.16 RB	28720.88	5512.27	706.07	12.65	7.82	5.21

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 194.62

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16124.9	925.8	16259.3	919.2	16390.7	914.7	16536.4	912.8	16588.2	912.2
16745.2	909.4	16897.5	906.3	17030.6	907.2	17191.2	905.1	17276.2	903.5
17408.7	907.1	17557.5	907.1	17695.3	906.9	17835.6	906.1	17975.1	907.1
18114.8	907	18251	906	18306.1	904.7	18402.7	901.3	18538.9	904.6
18574.6	907.8	18587.9	912.1	18705.8	913	18766.9	911.2	18871.4	912.6
18913	900.9	19047.8	903.3	19161.2	896.3	19427.3	896.9	19498.3	896.7
19737.6	896.9	19823.4	899.9	19975.4	896.4	20129	899.1	20250.7	900.6
20438.8	900.4	20579.4	900.7	20639.6	897.9	20681.3	900.9	20784.6	896
20909.1	896.5	20943.4	904.1	21041.2	902.9	21081.1	904.7	21117.4	901.2
21164.1	902.9	21274.8	903	21335.6	898.8	21389.6	902.5	21570.9	904.1
21576	903.1	21750	903.1	21793.5	910.6	21956.8	908.5	22117.6	910.7
22166.9	902.9	22199.6	911.6	22284.7	909.5	22308.2	911.1	22332.6	910.1
22352.2	898.9	22377.3	901.2	22411.5	912.8	22450.9	911.8	22460.9	908.5
22478.1	911.2	22494.1	911.7	22630.3	911.5	22698	911.4	22856.5	911.4
22875.2	911.5	23015.3	911.5	23149.4	912.1	23222.1	912.8	23423.1	914.1
23447.5	914.2	23640.1	914.2	23714.8	914.1	23913.8	914.9	23953.5	915.2
24165.9	916.3	24288.1	916.2	24427.2	915.6	24566.6	917	24721.9	917.8
24856	918.1	24870.6	918.2	25138.6	917.6	25147.1	917.7	25351.1	918.1
25355.3	918.1	25577.8	918.1	25584.8	918.1	25717.2	918.2	25839.4	918.9
25856	921.3								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16124.9	.025	18871.4	.031	21570.9	.043	21793.5	.043	22411.5	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18871.4	21793.5	475	501.02	535	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16124.9	17350	924	21793.5	25856	924

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	911.22	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.53	Wt. n-Val.	0.025	0.031	
E.G. Elev (ft)	911.75	Reach Len. (ft)	475.00	501.02	535.00
Crit W.S. (ft)	905.56	Flow Area (sq ft)	6455.83	32871.81	
E.G. Slope (ft/ft)	0.000632	Area (sq ft)	9554.69	32871.81	1572.41
Q Total (cfs)	227000.00	Flow (cfs)	29039.37	197960.63	
Top Width (ft)	5483.84	Top Width (ft)	1944.10	2917.19	622.55
Vel Total (ft/s)	5.77	Avg. Vel. (ft/s)	4.50	6.02	
Max Chl Dpth (ft)	15.22	Hydr. Depth (ft)	5.22	11.27	
Conv. Total (cfs)	9029523.0	Conv. (cfs)	1155117.4	7874405.5	
Length Wtd. (ft)	498.16	Wetted Per. (ft)	1238.11	2921.37	
Min Ch El (ft)	896.00	Shear (lb/sq ft)	0.21	0.44	
Alpha	1.03	Stream Power (lb/ft s)	0.93	2.67	
Frctn Loss (ft)	0.32	Cum Volume (acre-ft)	6263.01	65929.74	22576.16
C & E Loss (ft)	0.00	Cum SA (acres)	1674.65	7082.86	6712.69

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	911.28	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.73	Wt. n-Val.		0.031	
E.G. Elev (ft)	912.01	Reach Len. (ft)	475.00	501.02	535.00
Crit W.S. (ft)	905.59	Flow Area (sq ft)		33037.93	
E.G. Slope (ft/ft)	0.000818	Area (sq ft)		33037.93	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	2917.39	Top Width (ft)		2917.39	
Vel Total (ft/s)	6.87	Avg. Vel. (ft/s)		6.87	
Max Chl Dpth (ft)	15.28	Hydr. Depth (ft)		11.32	
Conv. Total (cfs)	7939168.0	Conv. (cfs)		7939168.0	
Length Wtd. (ft)	501.03	Wetted Per. (ft)		2922.25	
Min Ch El (ft)	896.00	Shear (lb/sq ft)		0.58	
Alpha	1.00	Stream Power (lb/ft s)		3.96	
Frctn Loss (ft)	0.41	Cum Volume (acre-ft)	936.74	69131.49	9153.54
C & E Loss (ft)	0.01	Cum SA (acres)	168.02	7089.48	1402.97

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)

17223.50	17406.60	1164.48	279.91	56.62	0.51	4.95	4.16
17406.60	17589.70	2783.71	755.09	183.10	1.23	4.12	3.69
17589.70	17772.80	3064.57	799.92	183.10	1.35	4.37	3.83
17772.80	17955.90	3553.74	874.25	183.10	1.57	4.77	4.06
17955.90	18139.00	2858.18	767.14	183.10	1.26	4.19	3.73
18139.00	18322.10	4230.84	970.74	183.13	1.86	5.30	4.36
18322.10	18505.20	9472.78	1574.66	183.18	4.17	8.60	6.02
18505.20	18688.30	1911.08	434.10	80.67	0.84	5.43	4.40
18688.30	18871.40	0.00	0.02	2.11	0.00	0.01	0.07
18871.40 LB	19601.93	58849.92	9127.68	727.28	25.93	12.58	6.45
19601.93	20332.45	61191.32	9361.17	730.65	26.96	12.81	6.54
20332.45	21062.97	50407.37	8337.90	731.68	22.21	11.41	6.05
21062.97	21793.50 RB	27512.02	6045.07	731.76	12.12	8.27	4.55

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18871.40 LB	19601.93	67431.86	9169.00	727.49	29.71	12.63	7.35
19601.93	20332.45	70118.41	9402.77	730.65	30.89	12.87	7.46
20332.45	21062.97	57813.49	8379.50	731.68	25.47	11.47	6.90
21062.97	21793.50 RB	31636.26	6086.67	732.44	13.94	8.33	5.20

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 194.53

INPUT
Description:

BEGIN 1:1 CONTRACTION TO ESTRELLA BRIDGE

Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15853.1	924.7	15994.7	919.6	16135.5	919.1	16297.8	920	16346.4	910.1
16386.5	907	16574.9	909.1	16736.8	906	16922.1	907.2	17074	910
17201.6	907.1	17362.9	904.2	17506.4	906.1	17650.5	905.8	17793.4	905.9
17932	908.5	18017	906.8	18162.3	907.4	18309.2	906.3	18448	911.3
18608.9	910.2	18710.2	911.6	18739.2	910.1	18856.7	911.2	18928.9	909.2
18975	901.7	19047.7	897.1	19093.8	901.7	19166.9	905	19213	896.2
19757	896.2	19808.7	899.7	19828.8	896.4	19998.4	896.9	20025.1	897.9
20185.1	900.6	20284.6	902.2	20441.5	899.7	20511.5	898.7	20712.9	900.7
20739.7	897.8	20897.1	897.8	21003	895.2	21040.3	901	21145	902.8
21151.2	901.5	21240	903.6	21443.8	900.8	21540.4	903.2	21693.5	905.3
21845.2	896.6	21879.6	898.7	21925.8	908.4	21997.9	910.4	22080.7	909.7
22150	912.1	22200.5	909.3	22242.7	902.5	22292.9	914.1	22309.5	909.7
22328.3	909.3	22387.7	912.1	22405.7	900.2	22436.7	901.6	22444	904.3
22454.6	905.4	22466.6	912.2	22484.4	912.6	22503.4	909.1	22533.3	909.7
22539.3	908.1	22567.5	910.2	22697.6	909.5	22863.9	909.9	23032	909.9
23143.5	911.8	23151.1	910.5	23424.6	911.4	23581.9	912.3	23739	912.7
23926.6	913.1	24071	913.4	24241.4	913.8	24402.1	913.4	24428.9	915.5
24661.1	914.5	24808.2	915	24930.7	914.8	25153.5	915.3	25316.7	915.4
25548.3	915.6	25705	915.7	25732.6	918.6	25773.6	917.3	25797	919

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15853.1	.025	18928.9	.031	21540.4	.043	21997.9	.043	22484.4	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18928.9	21997.9	475	661.08	630	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15853.1	17250	920	22150	25797	920

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	910.88	Element	Left OB	Channel	Right OB

Vel Head (ft)	0.54	Wt. n-Val.	0.025	0.032	0.043
E.G. Elev (ft)	911.43	Reach Len. (ft)	475.00	661.08	630.00
Crit W.S. (ft)	905.18	Flow Area (sq ft)	5252.84	33918.30	89.21
E.G. Slope (ft/ft)	0.000668	Area (sq ft)	8063.79	33918.30	1735.01
Q Total (cfs)	227000.00	Flow (cfs)	20935.21	205998.27	66.51
Top Width (ft)	6542.15	Top Width (ft)	2402.85	3069.00	1070.30
Vel Total (ft/s)	5.78	Avg. Vel. (ft/s)	3.99	6.07	0.75
Max Chl Dpth (ft)	15.68	Hydr. Depth (ft)	3.51	11.05	0.76
Conv. Total (cfs)	8781415.0	Conv. (cfs)	809871.0	7968970.5	2573.1
Length Wtd. (ft)	646.32	Wetted Per. (ft)	1495.62	3073.59	116.99
Min Ch El (ft)	895.20	Shear (lb/sq ft)	0.15	0.46	0.03
Alpha	1.05	Stream Power (lb/ft s)	0.58	2.80	0.02
Frctn Loss (ft)	0.45	Cum Volume (acre-ft)	6166.95	65545.64	22555.85
C & E Loss (ft)	0.03	Cum SA (acres)	1650.95	7048.44	6702.30

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	910.90	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.69	Wt. n-Val.		0.032	0.043
E.G. Elev (ft)	911.59	Reach Len. (ft)	475.00	661.08	630.00
Crit W.S. (ft)	905.15	Flow Area (sq ft)		33960.82	90.83
E.G. Slope (ft/ft)	0.000808	Area (sq ft)		33960.82	90.83
Q Total (cfs)	227000.00	Flow (cfs)		226924.80	75.21
Top Width (ft)	3186.37	Top Width (ft)		3069.00	117.37
Vel Total (ft/s)	6.67	Avg. Vel. (ft/s)		6.68	0.83
Max Chl Dpth (ft)	15.70	Hydr. Depth (ft)		11.07	0.77
Conv. Total (cfs)	7984624.0	Conv. (cfs)		7981978.5	2645.5
Length Wtd. (ft)	660.75	Wetted Per. (ft)		3075.29	117.39
Min Ch El (ft)	895.20	Shear (lb/sq ft)		0.56	0.04
Alpha	1.00	Stream Power (lb/ft s)		3.72	0.03
Frctn Loss (ft)	0.55	Cum Volume (acre-ft)	936.74	68746.19	9152.99
C & E Loss (ft)	0.02	Cum SA (acres)	168.02	7055.05	1402.25

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17083.42	17288.47	836.94	192.34	38.48	0.37	5.00	4.35
17288.47	17493.53	5862.02	1207.68	205.08	2.58	5.89	4.85
17493.53	17698.58	4403.60	1017.16	205.05	1.94	4.96	4.33
17698.58	17903.63	3664.44	911.01	205.07	1.61	4.44	4.02
17903.63	18108.69	2401.64	707.02	205.08	1.06	3.45	3.40
18108.69	18313.74	2985.56	805.61	205.06	1.32	3.93	3.71
18313.74	18518.79	651.42	271.46	132.61	0.29	2.05	2.40
18518.79	18723.85	38.43	50.71	139.56	0.02	0.36	0.76
18723.85	18928.90	91.17	89.85	159.63	0.04	0.56	1.01
18928.90 LB	19696.15	65147.41	9733.67	769.14	28.70	12.69	6.69
19696.15	20463.40	59439.76	9205.83	767.71	26.18	12.00	6.46
20463.40	21230.65	55731.51	8858.47	768.07	24.55	11.55	6.29
21230.65	21997.90 RB	25679.58	6120.33	768.66	11.31	7.98	4.20
21997.90	22251.17	66.51	89.21	116.99	0.03	0.76	0.75

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18928.90 LB	19696.15	71678.55	9744.30	770.83	31.58	12.70	7.36
19696.15	20463.40	65501.71	9216.46	767.71	28.86	12.01	7.11
20463.40	21230.65	61419.90	8869.10	768.07	27.06	11.56	6.93
21230.65	21997.90 RB	28324.63	6130.96	768.66	12.48	7.99	4.62
21997.90	22251.17	75.21	90.83	117.39	0.03	0.77	0.83

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 194.4

INPUT
Description:
Station Elevation Data num= 93

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16334.9	917.4	16367.1	906.9	16394.3	906.7	16419.8	911.4	16462.3	907.8
16670.7	906.2	16846	905.6	16883.4	904.4	16943.6	906.4	17091.4	908
17142.7	905.4	17288	904.1	17458.5	904.9	17603.8	908.5	17726.2	909.9
17882.9	907.4	18045.4	906.9	18114.1	906.5	18208.9	905.4	18223.5	907.5
18373	905.5	18521.7	907.6	18670.8	907.2	18820.1	905	18833.1	905.2
18857.2	909	18923.5	905.4	19006.6	907	19021.2	901.7	19034.6	902.7
19071.1	900.9	19089.2	897.2	19231.5	900.2	19275	896.2	19829	896.2
19883.6	899.4	19956.2	896	20021.2	897.4	20050.5	899.6	20095.7	896.2
20166.6	899.4	20171.6	900.8	20361.5	898.1	20559.2	899.6	20776.5	900.3
21011.2	897.8	21151.3	896.3	21158.9	898.5	21213.2	899.1	21260.9	896.6
21314.2	902.8	21362.1	899.9	21536.7	902.1	21567.9	902.4	21714.8	903.1
21898	903.1	21924	907.5	21982.3	908.9	22051.5	907.8	22118.5	910.2
22166.9	908.8	22207.7	901.2	22257.8	910.9	22297.7	907.8	22378.1	909.1
22436.6	913.6	22447.7	906.8	22462	907.2	22471.9	899.4	22518.2	904.9
22531.3	914	22609.4	910.6	22619.5	907.2	22636	910.7	22661.1	908.3
22806.7	909.5	23036.7	910.4	23203.4	909.9	23360.9	910.5	23459.7	910.5
23620.5	910.9	23762.2	911.3	24011.5	912.1	24231.7	912.3	24356.7	912
24609.8	912.3	24734.8	913	25022.8	914.3	25073.4	914.4	25426.3	914.2
25463.6	914.3	25647.7	914	25690.2	916.4				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16334.9	.025	19006.6	.031	21567.9	.043	21714.8	.043

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19006.6	21714.8	555	616.38	525	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16334.9	18014	915	22130	25690.2	915

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	910.30	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.64	Wt. n-Val.	0.025	0.031	0.043
E.G. Elev (ft)	910.94	Reach Len. (ft)	555.00	616.38	525.00
Crit W.S. (ft)	904.74	Flow Area (sq ft)	3696.06	31383.03	1796.06
E.G. Slope (ft/ft)	0.000737	Area (sq ft)	9592.33	31383.03	3374.88
Q Total (cfs)	227000.00	Flow (cfs)	14318.94	208211.81	4469.25
Top Width (ft)	6723.23	Top Width (ft)	2630.95	2708.20	1384.08
Vel Total (ft/s)	6.16	Avg. Vel. (ft/s)	3.87	6.63	2.49
Max Chl Dpth (ft)	14.30	Hydr. Depth (ft)	3.72	11.59	4.33
Conv. Total (cfs)	8363199.5	Conv. (cfs)	527542.7	7670999.5	164657.4
Length Wtd. (ft)	610.87	Wetted Per. (ft)	993.21	2711.36	415.64
Min Ch El (ft)	896.00	Shear (lb/sq ft)	0.17	0.53	0.20
Alpha	1.09	Stream Power (lb/ft s)	0.66	3.53	0.49
Frctn Loss (ft)	0.55	Cum Volume (acre-ft)	6070.68	65050.12	22518.90
C & E Loss (ft)	0.07	Cum SA (acres)	1623.50	7004.60	6684.55

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	910.25	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.77	Wt. n-Val.		0.031	0.043
E.G. Elev (ft)	911.02	Reach Len. (ft)	555.00	616.38	525.00
Crit W.S. (ft)	904.74	Flow Area (sq ft)		31238.40	1773.88
E.G. Slope (ft/ft)	0.000854	Area (sq ft)		31238.40	1773.88
Q Total (cfs)	227000.00	Flow (cfs)		222289.52	4710.49
Top Width (ft)	3123.40	Top Width (ft)		2708.20	415.20
Vel Total (ft/s)	6.88	Avg. Vel. (ft/s)		7.12	2.66
Max Chl Dpth (ft)	14.25	Hydr. Depth (ft)		11.53	4.27
Conv. Total (cfs)	7767587.0	Conv. (cfs)		7606401.5	161185.5
Length Wtd. (ft)	613.70	Wetted Per. (ft)		2714.60	416.02
Min Ch El (ft)	896.00	Shear (lb/sq ft)		0.61	0.23
Alpha	1.05	Stream Power (lb/ft s)		4.37	0.60
Frctn Loss (ft)	0.62	Cum Volume (acre-ft)	936.74	68251.45	9139.50
C & E Loss (ft)	0.06	Cum SA (acres)	168.02	7011.21	1398.40

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17937.92	18116.03	1334.47	359.80	102.03	0.59	3.53	3.71

20317.7	896.21	20375.2	896.22	20433.3	897.22	20438.3	897.22	20495.7	895
20554	897.1	20559	897.1	20616.7	898.41	20674.7	899.09	20679.7	899.09
20737.7	898.49	20795.3	898.04	20800.3	898.04	20916	898.64	20921	898.64
21036.7	898.63	21041.7	899.05	21121.7	898.03	21157.3	895	21162.3	895
21207.7	895	21259.82	908.313	21270.3	910.99	21276.3	910.99	21300	917.92

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17414	.025	19112.8	.031	21276.3	.031

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19116.1	221259.82	34.54	34.54	34.54	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17414	19112.8	911.39	21276.3	21300	910.99

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	908.21	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.35	Wt. n-Val.		0.031	
E.G. Elev (ft)	909.56	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	903.81	Flow Area (sq ft)		24318.30	
E.G. Slope (ft/ft)	0.001488	Area (sq ft)		24318.30	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	2140.38	Top Width (ft)		2140.38	
Vel Total (ft/s)	9.33	Avg. Vel. (ft/s)		9.33	
Max Chl Dpth (ft)	13.21	Hydr. Depth (ft)		11.36	
Conv. Total (cfs)	5884137.0	Conv. (cfs)		5884137.0	
Length Wtd. (ft)	0.00	Wetted Per. (ft)		2144.17	
Min Ch El (ft)	895.00	Shear (lb/sq ft)		1.05	
Alpha	1.00	Stream Power (lb/ft s)		9.84	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	5895.95	64345.55	22448.62
C & E Loss (ft)	0.05	Cum SA (acres)	1581.68	6941.05	6660.30

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	908.23	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.35	Wt. n-Val.		0.031	
E.G. Elev (ft)	909.58	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	903.81	Flow Area (sq ft)		24356.18	
E.G. Slope (ft/ft)	0.001481	Area (sq ft)		24356.18	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	2140.52	Top Width (ft)		2140.52	
Vel Total (ft/s)	9.32	Avg. Vel. (ft/s)		9.32	
Max Chl Dpth (ft)	13.23	Hydr. Depth (ft)		11.38	
Conv. Total (cfs)	5899168.0	Conv. (cfs)		5899168.0	
Length Wtd. (ft)	0.00	Wetted Per. (ft)		2144.31	
Min Ch El (ft)	895.00	Shear (lb/sq ft)		1.05	
Alpha	1.00	Stream Power (lb/ft s)		9.79	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	936.74	67549.74	9104.33
C & E Loss (ft)	0.05	Cum SA (acres)	168.02	6947.66	1392.52

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19116.12 LB	19652.04	66726.77	6713.29	534.74	29.40	12.60	9.94
19652.04	20187.97	63211.27	6504.86	535.99	27.85	12.14	9.72
20187.97	20723.89	52223.46	5801.19	536.10	23.01	10.82	9.00
20723.89	21259.82 RB	44838.50	5298.96	537.34	19.75	9.89	8.46

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19116.12 LB	19652.04	66707.95	6722.72	534.81	29.39	12.61	9.92
19652.04	20187.97	63204.44	6514.35	535.99	27.84	12.16	9.70
20187.97	20723.89	52233.18	5810.68	536.10	23.01	10.84	8.99
20723.89	21259.82 RB	44854.42	5308.44	537.41	19.76	9.91	8.45

BRIDGE RIVER: RIVER-1
REACH: Reach-1 RS: 194.195

INPUT
Description: Bridge #3

Downstream face of Estrella Parkway (Reems Rd) bridge

Code out verticle ineffective flow area below El. 895 under the bridge

Distance from Upstream XS = 0
Deck/Roadway Width = 34.54
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =

Upstream Deck/Roadway Coordinates
num= 13

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
19112.8	918.32	911.39	19118.7	918.35	911.42	19226.7	919.43	912.48
19468	921.03	914.18	19709.3	922.43	915.35	19950.7	923.33	916.25
20192	923.33	916.2	20438.3	923.33	916.19	20679.7	922.33	915.59
20921	921.03	914.09	21162.3	919.03	912.08	21259.82	918.08	911.15
21276.3	917.92	910.99						

Upstream Bridge Cross Section Data
Station Elevation Data num= 62

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17414	910.8	18194	910.1	18484	912	18874	914.1	19074	917.7
19112.7	918.32	19112.8	911.39	19112.9	908.33	19118.7	908.3	19168.7	895
19226.7	895	19231.7	895	19262.7	895	19329.7	895	19347.3	895
19352.3	895	19409.7	895	19468	895	19473	895	19531.2	895
19588.7	895	19593.7	895	19652.6	895	19709.3	895	19714.3	895
19772.7	895	19830	895	19835	895	19892.7	895	19950.7	895
19955.7	895	20014.2	895.75	20071.3	898.26	20076.3	898.26	20192	899.34
20197	898.92	20254.7	898.5	20312.7	896.21	20317.7	896.21	20375.2	896.22
20433.3	897.22	20438.3	897.22	20495.7	895	20554	897.1	20559	897.1
20616.7	898.41	20674.7	899.09	20679.7	899.09	20737.7	898.49	20795.3	898.04
20800.3	898.04	20916	898.64	20921	898.64	21036.7	898.63	21041.7	899.05
21121.7	898.03	21157.3	895	21162.3	895	21207.7	895	21270.3	910.99
21276.3	910.99	21300	917.92						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17414	.025	19112.8	.031	21276.3	.031

Bank Sta: Left	Right	Coeff Contr.	Expan.
19118.7	21270.3	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17414	19112.8	911.39	21276.3	21300	910.99

Downstream Deck/Roadway Coordinates
num= 13

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
19112.8	918.32	911.39	19119.67	918.39	911.46	19226.7	919.43	912.48
19468	921.03	914.18	19709.3	922.43	915.35	19950.7	923.33	916.25
20192	923.33	916.2	20438.3	923.33	916.19	20679.7	922.33	915.59
20921	921.03	914.09	21162.3	919.03	912.08	21258.76	918.09	911.16
21276.3	917.92	910.99						

Downstream Bridge Cross Section Data
Station Elevation Data num= 62

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17414	910.8	18194	910.1	18484	912	18874	914.1	19074	917.7
19112.7	918.32	19112.8	911.39	19112.9	908.33	19118.7	908.3	19168.7	895
19226.7	895	19231.7	895	19262.7	895	19329.7	895	19347.3	895
19352.3	895	19409.7	895	19468	895	19473	895	19531.2	895
19588.7	895	19593.7	895	19652.6	895	19709.3	895	19714.3	895
19772.7	895	19830	895	19835	895	19892.7	895	19950.7	895
19955.7	895	20014.2	895.75	20071.3	898.26	20076.3	898.26	20192	899.34
20197	898.92	20254.7	898.5	20312.7	896.21	20317.7	896.21	20375.2	896.22
20433.3	897.22	20438.3	897.22	20495.7	895	20554	897.1	20559	897.1
20616.7	898.41	20674.7	899.09	20679.7	899.09	20737.7	898.49	20795.3	898.04
20800.3	898.04	20916	898.64	20921	898.64	21036.7	898.63	21041.7	899.05

```
 21121.7  898.03 21157.3     895 21162.3     895 21207.7     895 21270.3  910.99
 21276.3  910.99   21300  917.92

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
   17414    .025 19112.8    .031 21276.3    .031

Bank Sta: Left   Right    Coeff Contr.   Expan.
      19118.7 21270.3             .3        .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
   17414 19112.8  911.39 21276.3   21300  910.99

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Piers =  17

Pier Data
Pier Station     Upstream= 19229.2    Downstream= 19229.2
Upstream     num=       2
    Width   Elev    Width   Elev
      5     895       5   912.5
Downstream     num=       2
    Width   Elev    Width   Elev
      5     895       5   912.5

Pier Data
Pier Station     Upstream= 19349.8    Downstream= 19349.8
Upstream     num=       2
    Width   Elev    Width   Elev
      5     895       5   913.4
Downstream     num=       2
    Width   Elev    Width   Elev
      5     895       5   913.4

Pier Data
Pier Station     Upstream=   19468    Downstream=   19468
Upstream     num=       2
    Width   Elev    Width   Elev
      5     895       5   914.2
Downstream     num=       2
    Width   Elev    Width   Elev
      5     895       5   914.2

Pier Data
Pier Station     Upstream= 19591.2    Downstream= 19591.2
Upstream     num=       2
    Width   Elev    Width   Elev
      5     895       5   914.8
Downstream     num=       2
    Width   Elev    Width   Elev
      5     895       5   914.8

Pier Data
Pier Station     Upstream= 19711.8    Downstream= 19711.8
Upstream     num=       2
    Width   Elev    Width   Elev
      5     895       5   915.4
Downstream     num=       2
    Width   Elev    Width   Elev
      5     895       5   915.4

Pier Data
Pier Station     Upstream= 19832.5    Downstream= 19832.5
Upstream     num=       2
    Width   Elev    Width   Elev
      5     895       5   915.9
Downstream     num=       2
    Width   Elev    Width   Elev
      5     895       5   915.9
```

```
Pier Data
Pier Station     Upstream= 19953.2    Downstream= 19953.2
Upstream     num=       2
    Width   Elev    Width   Elev
       5     895       5   916.3
Downstream     num=       2
    Width   Elev    Width   Elev
       5     895       5   916.3

Pier Data
Pier Station     Upstream= 20073.8    Downstream= 20073.8
Upstream     num=       2
    Width   Elev    Width   Elev
       5  898.26       5  916.25
Downstream     num=       2
    Width   Elev    Width   Elev
       5  898.26       5  916.25

Pier Data
Pier Station     Upstream= 20194.5    Downstream= 20194.5
Upstream     num=       2
    Width   Elev    Width   Elev
       5  899.13       5   916.2
Downstream     num=       2
    Width   Elev    Width   Elev
       5  899.13       5   916.2

Pier Data
Pier Station     Upstream= 20315.2    Downstream= 20315.2
Upstream     num=       2
    Width   Elev    Width   Elev
       5  896.21       5   916.2
Downstream     num=       2
    Width   Elev    Width   Elev
       5  896.21       5   916.2

Pier Data
Pier Station     Upstream= 20435.8    Downstream= 20435.8
Upstream     num=       2
    Width   Elev    Width   Elev
       5  897.22       5   916.2
Downstream     num=       2
    Width   Elev    Width   Elev
       5  897.22       5   916.2

Pier Data
Pier Station     Upstream= 20556.5    Downstream= 20556.5
Upstream     num=       2
    Width   Elev    Width   Elev
       5   897.1       5   915.9
Downstream     num=       2
    Width   Elev    Width   Elev
       5   897.1       5   915.9

Pier Data
Pier Station     Upstream= 20677.2    Downstream= 20677.2
Upstream     num=       2
    Width   Elev    Width   Elev
       5  899.09       5   915.6
Downstream     num=       2
    Width   Elev    Width   Elev
       5  899.09       5   915.6

Pier Data
Pier Station     Upstream= 20797.8    Downstream= 20797.8
Upstream     num=       2
    Width   Elev    Width   Elev
       5  898.04       5  914.85
Downstream     num=       2
    Width   Elev    Width   Elev
       5  898.04       5  914.85

Pier Data
Pier Station     Upstream= 20918.5    Downstream= 20918.5
Upstream     num=       2
```

```
    Width   Elev    Width   Elev
      5  898.64       5  914.11
Downstream     num=        2
    Width   Elev    Width   Elev
      5  898.64       5  914.11

Pier Data
Pier Station     Upstream= 21039.2    Downstream= 21039.2
Upstream     num=        2
    Width   Elev    Width   Elev
      5  898.84       5   913.1
Downstream     num=        2
    Width   Elev    Width   Elev
      5  898.84       5   913.1

Pier Data
Pier Station     Upstream= 21159.8    Downstream= 21159.8
Upstream     num=        2
    Width   Elev    Width   Elev
      5     895       5   912.1
Downstream     num=        2
    Width   Elev    Width   Elev
      5     895       5   912.1

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
      Energy
      Momentum                Cd   =     1.2
      Yarnell                 KVal =     .95
Selected Low Flow Methods = Highest Energy Answer

High Flow Method
      Energy Only

Additional Bridge Parameters
      Add Friction component to Momentum
      Do not add Weight component to Momentum
      Class B flow critical depth computations use critical depth
          inside the bridge at the downstream end
      Criteria to check for pressure flow = Upstream water surface

BRIDGE OUTPUT    Profile #PF#1
Opening : Bridge #1

  E.G. US. (ft)                 909.56   Element                 Inside BR US  Inside BR DS
  W.S. US. (ft)                 908.21   E.G. Elev (ft)               909.51        909.42
  Q Total (cfs)             227000.00   W.S. Elev (ft)               907.98        907.86
  Q Bridge (cfs)            227000.00   Crit W.S. (ft)               904.01        904.01
  Q Weir (cfs)                          Max Chl Dpth (ft)             12.98         12.86
  Weir Sta Lft (ft)                     Vel Total (ft/s)               9.93         10.04
  Weir Sta Rgt (ft)                     Flow Area (sq ft)          22854.41      22607.04
  Weir Submerg                          Froude # Chl                   0.52          0.53
  Weir Max Depth (ft)                   Specif Force (cu ft)       201576.20     199603.69
  Min Top Rd (ft)               910.99  Hydr Depth (ft)               11.13         11.01
  Min El Prs (ft)               916.25  W.P. Total (ft)             2443.46       2438.41
  Delta EG (ft)                   0.19  Conv. Total (cfs)          4863101.0     4782286.0
  Delta WS (ft)                   0.25  Top Width (ft)              2053.60       2052.67
  BR Open Area (sq ft)        36716.15  Frctn Loss (ft)                0.08          0.00
  BR Open Vel (ft/s)             10.04  C & E Loss (ft)                0.01          0.05
  Coef of Q                             Shear Total (lb/sq ft)         1.27          1.30
  Br Sel Mthd              Energy only  Power Total (lb/ft s)         12.64         13.09


BRIDGE OUTPUT    Profile #PF#2
Opening : Bridge #1

  E.G. US. (ft)                 909.58   Element                 Inside BR US  Inside BR DS
  W.S. US. (ft)                 908.23   E.G. Elev (ft)               909.52        909.44
  Q Total (cfs)             227000.00   W.S. Elev (ft)               908.00        907.88
  Q Bridge (cfs)            227000.00   Crit W.S. (ft)               904.01        904.01
  Q Weir (cfs)                          Max Chl Dpth (ft)             13.00         12.88
  Weir Sta Lft (ft)                     Vel Total (ft/s)               9.92         10.02
  Weir Sta Rgt (ft)                     Flow Area (sq ft)          22893.52      22648.27
  Weir Submerg                          Froude # Chl                   0.52          0.53
  Weir Max Depth (ft)                   Specif Force (cu ft)       201892.16     199929.23
```

Min Top Rd (ft)	918.09	Hydr Depth (ft)	11.15	11.03
Min El Prs (ft)	916.25	W.P. Total (ft)	2444.16	2439.25
Delta EG (ft)	0.19	Conv. Total (cfs)	4876053.0	4795723.5
Delta WS (ft)	0.25	Top Width (ft)	2053.64	2052.82
BR Open Area (sq ft)	36676.02	Frctn Loss (ft)	0.08	0.00
BR Open Vel (ft/s)	10.02	C & E Loss (ft)	0.01	0.05
Coef of Q		Shear Total (lb/sq ft)	1.27	1.30
Br Sel Mthd	Energy only	Power Total (lb/ft s)	12.57	13.02

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 194.18

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 64

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17414	910.8	18194	910.1	18484	912	18874	914.1	19074	917.7
19112.7	918.32	19112.8	911.39	19112.9	908.33	19118.7	908.31	19119.67	908.0418
19168.7	895	19226.7	895	19231.7	895	19262.7	895	19329.7	895
19347.3	895	19352.3	895	19409.7	895	19468	895	19473	895
19531.2	895	19588.7	895	19593.7	895	19652.6	895	19709.3	895
19714.3	895	19772.7	895	19830	895	19835	895	19892.7	895
19950.7	895	19955.7	895	20014.2	895.75	20071.3	898.26	20076.3	898.26
20192	899.34	20197	898.92	20254.7	898.5	20312.7	896.21	20317.7	896.21
20375.2	896.22	20433.3	897.22	20438.3	897.22	20495.7	895	20554	897.1
20559	897.1	20616.7	898.41	20674.7	899.09	20679.7	899.09	20737.7	898.49
20795.3	898.04	20800.3	898.04	20916	898.64	20921	898.64	21036.7	898.63
21041.7	899.05	21121.7	898.03	21157.3	895	21162.3	895	21207.7	895
21258.76	908.0421	21270.3	910.99	21276.3	910.99	21300	917.92		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17414	.025	19112.8	.031	21276.3	.031

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19119.67	21258.76	537.77	516.56	387.77	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17414	19112.8	911.39	21276.3	21300	910.99

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	907.96	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.41	Wt. n-Val.		0.031	
E.G. Elev (ft)	909.38	Reach Len. (ft)	537.77	516.56	387.77
Crit W.S. (ft)	903.82	Flow Area (sq ft)		23789.32	
E.G. Slope (ft/ft)	0.001600	Area (sq ft)		23789.32	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	2138.49	Top Width (ft)		2138.49	
Vel Total (ft/s)	9.54	Avg. Vel. (ft/s)		9.54	
Max Chl Dpth (ft)	12.96	Hydr. Depth (ft)		11.12	
Conv. Total (cfs)	5675827.0	Conv. (cfs)		5675827.0	
Length Wtd. (ft)	516.56	Wetted Per. (ft)		2142.21	
Min Ch El (ft)	895.00	Shear (lb/sq ft)		1.11	
Alpha	1.00	Stream Power (lb/ft s)		10.58	
Frctn Loss (ft)	1.10	Cum Volume (acre-ft)	5895.95	64327.53	22448.62
C & E Loss (ft)	0.09	Cum SA (acres)	1581.68	6939.42	6660.30

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	907.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.41	Wt. n-Val.		0.031	
E.G. Elev (ft)	909.39	Reach Len. (ft)	537.77	516.56	387.77
Crit W.S. (ft)	903.82	Flow Area (sq ft)		23831.09	
E.G. Slope (ft/ft)	0.001590	Area (sq ft)		23831.09	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	2138.63	Top Width (ft)		2138.63	
Vel Total (ft/s)	9.53	Avg. Vel. (ft/s)		9.53	
Max Chl Dpth (ft)	12.98	Hydr. Depth (ft)		11.14	
Conv. Total (cfs)	5692174.0	Conv. (cfs)		5692174.0	
Length Wtd. (ft)	516.56	Wetted Per. (ft)		2142.36	

Min Ch El (ft)	895.00	Shear (lb/sq ft)		1.10	
Alpha	1.00	Stream Power (lb/ft s)		10.52	
Frctn Loss (ft)	1.09	Cum Volume (acre-ft)	936.74	67531.69	9104.33
C & E Loss (ft)	0.08	Cum SA (acres)	168.02	6946.03	1392.52

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19119.67 LB	19654.44	67323.09	6612.68	536.17	29.66	12.37	10.18
19654.44	20189.21	63063.96	6352.07	534.84	27.78	11.88	9.93
20189.21	20723.99	52007.53	5658.77	534.95	22.91	10.58	9.19
20723.99	21258.76 RB	44605.42	5165.79	536.25	19.65	9.67	8.63

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19119.67 LB	19654.44	67301.32	6623.12	536.25	29.65	12.39	10.16
19654.44	20189.21	63056.36	6362.52	534.84	27.78	11.90	9.91
20189.21	20723.99	52018.69	5669.22	534.95	22.92	10.60	9.18
20723.99	21258.76 RB	44623.64	5176.23	536.33	19.66	9.68	8.62

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 194.09

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16494.1	917.7	16513.1	915.4	16521.3	916.9	16579	915.6	16617.5	910.5
16684.3	910.1	16713.7	900.2	16839.8	900.4	16871.9	906.8	16985.2	905.6
17152.3	905.3	17327.7	905.4	17487.5	904.9	17534.5	906.5	17551.7	904.3
17594.3	904.5	17836.5	904	18025.9	903.4	18113.4	902.4	18117.1	903.5
18155.3	904.4	18158.2	903.2	18325.9	902	18534.8	901.9	18732.5	900.4
18781.4	901.4	18825.1	912.4	18919.9	914.11	8944.99	906.7	7006 18949.4	905.4
18997.8	905.3	19030.4	898.3	19190.1	897.4	19308.4	896.3	19461.3	895.8
19569.8	896	19808.5	896.9	20013.3	896.4	20073	896.4	20124.1	900.9
20151.6	901	20196.6	898.4	20298.6	900	20359.8	903.2	20408.6	896.5
20502.1	898.9	20610	898.6	20651.7	900.9	20819.7	902.3	20973.5	900.3
21150.8	898.2	21180.5	899.2	21207.7	896.9	21223.6	900.4	21232.1	900.8
21373.8	891.9	21445.7	892.4	21490.6	898	21552	898.3	637 21676.3	899.1
21753.6	898.8	21832	895.1	21875	907.2	21974.4	905	22024.4	908.1
22067.4	906.1	22179.1	906.7	22222.5	901.2	22253.1	908.5	22289.4	905.9
22443.2	906.5	22478.1	905.7	22639	909.7	22737.9	905	22759.4	910.4
22888.7	907	22908.8	908.9	22951.1	910	22971.9	908.9	23192.2	909
23342.9	909.4	23459.2	909.8	23621.9	909.2	23903.5	909.1	24005.9	909
24211.4	909	24365.1	910.4	24381.9	911.2	24390.3	909.5	24600	910.3
24797.6	910.5	25069.7	910.6	25124.5	910.8	25371.6	911.8	25580	910.8
25652.1	912.7	25690.2	912	25699.8	913.8				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16494.1	.025	18919.9	.031	19808.5	.032	21490.6	.043	21875	.043
22639	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18944.99	21552	545	460.74	450	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16494.1	18919.9	916	21552	25699.8	916

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	906.48	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.71	Wt. n-Val.		0.032	
E.G. Elev (ft)	908.19	Reach Len. (ft)	545.00	460.74	450.00
Crit W.S. (ft)	904.24	Flow Area (sq ft)		21662.34	
E.G. Slope (ft/ft)	0.002975	Area (sq ft)	6174.98	21662.34	2874.89
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	5496.83	Top Width (ft)	2074.59	2606.28	815.97
Vel Total (ft/s)	10.48	Avg. Vel. (ft/s)		10.48	
Max Chl Dpth (ft)	14.58	Hydr. Depth (ft)		8.31	
Conv. Total (cfs)	4161567.0	Conv. (cfs)		4161567.0	
Length Wtd. (ft)	460.74	Wetted Per. (ft)		2609.27	
Min Ch El (ft)	891.90	Shear (lb/sq ft)		1.54	
Alpha	1.00	Stream Power (lb/ft s)		16.16	
Frctn Loss (ft)	1.08	Cum Volume (acre-ft)	5857.83	64058.03	22435.82
C & E Loss (ft)	0.18	Cum SA (acres)	1568.87	6911.29	6656.67

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	906.54	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.68	Wt. n-Val.		0.032	
E.G. Elev (ft)	908.22	Reach Len. (ft)	545.00	460.74	450.00
Crit W.S. (ft)	904.24	Flow Area (sq ft)		21802.65	
E.G. Slope (ft/ft)	0.002921	Area (sq ft)		21802.65	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	2606.46	Top Width (ft)		2606.46	
Vel Total (ft/s)	10.41	Avg. Vel. (ft/s)		10.41	
Max Chl Dpth (ft)	14.64	Hydr. Depth (ft)		8.36	
Conv. Total (cfs)	4200317.5	Conv. (cfs)		4200317.5	
Length Wtd. (ft)	460.74	Wetted Per. (ft)		2617.64	
Min Ch El (ft)	891.90	Shear (lb/sq ft)		1.52	
Alpha	1.00	Stream Power (lb/ft s)		15.81	
Frctn Loss (ft)	1.06	Cum Volume (acre-ft)	936.74	67261.11	9104.33
C & E Loss (ft)	0.18	Cum SA (acres)	168.02	6917.89	1392.52

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18944.99 LB	19596.74	63648.73	5753.15	651.93	28.04	8.84	11.06
19596.74	20248.50	66802.66	5986.42	652.04	29.43	9.19	11.16
20248.50	20900.25	35094.76	4103.72	652.41	15.46	6.30	8.55
20900.25	21552.00 RB	61453.86	5819.05	652.90	27.07	8.93	10.56

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18944.99 LB	19596.74	63697.21	5788.20	652.12	28.06	8.89	11.00
19596.74	20248.50	66838.82	6021.51	652.04	29.44	9.24	11.10
20248.50	20900.25	35271.48	4138.81	652.41	15.54	6.35	8.52
20900.25	21552.00 RB	61192.47	5854.14	661.08	26.96	8.98	10.45

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross

section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 194.01

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16680.8	908.9	16774.3	908.3	16788.6	905.5	16810.7	904	16851.9	904
16877.5	908.4	16945.6	904.9	17136.4	905.2	17333.4	904.6	17473.3	903.7
17527	904.3	17536.8	905.6	17553	904.1	17693.8	904	17796.6	904.1
17940.8	904	18102.8	902.9	18146.7	903.7	18165.9	901.6	18232.3	899.6
18408.7	900.3	18575.1	900.5	18687.3	901.4	18729.4	911.9	18769.5	912.8
18832.5	911.3	18849.39	905.9606	18880.9	896	19146.1	895.9	19557	895.5
19616.5	898.1	19700.5	894.7	19985.3	895.7	20183.2	896.4	20270.1	901.1
20328.8	901.5	20374.8	897.7	20479.5	894.8	20578.7	896.6	20675	895.7
20712.6	898.8	20878	899.5	20946.1	898.5	20996.4	895.5	21025.8	897.5
21086.1	894.1	21160.7	897.8	21276	898.2	21353.7	900.3	21500.4	897.4
21533.4	899.7	21674.8	899.3	21837.2	896.5	21899.8	895.1	21911	897.726
21949.7	906.8	21986.2	905.1	22057.4	905.7	22117.8	904.4	22177.9	905.1
22218.9	900.7	22249.5	909.1	22279.8	903.3	22420.9	905.7	22444.3	905.7
22469.3	907.8	22614.7	907.7	22722.3	910.6	22807.4	904	22827.2	911.7
22866	913.7	22921.5	910	23001.1	910.2	23016.4	908.9	23095.4	908.7
23235.3	908.6	23316.5	908.5	23578.1	909.5	23626.5	909.6	23805.8	909.7
23945.7	909.8	24044.6	909.5	24192.9	909.3	24341.5	909.1	24387	910.7
24394.7	908.8	24551.2	909.6	24627	909.6	24775.9	909.7	24930.5	910.1
25043.2	910.2	25285.8	910.6	25330.2	910.7	25499.9	910.7	25618.5	910.9
25660.9	912.2	25700.4	911.3	25710.3	913.4				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16680.8	.025	18832.5	.031	20374.8	.032	21276	.043	21949.7	.043
22866	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18849.39	21911	455	378.07	400	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16680.8	18832.5	912	21911	25710.3	912

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	905.82	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.11	Wt. n-Val.		0.033	
E.G. Elev (ft)	906.93	Reach Len. (ft)	455.00	378.07	400.00
Crit W.S. (ft)	902.57	Flow Area (sq ft)		26851.08	
E.G. Slope (ft/ft)	0.001899	Area (sq ft)	4911.14	26851.08	684.59
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	5422.54	Top Width (ft)	1852.83	3061.16	508.54
Vel Total (ft/s)	8.45	Avg. Vel. (ft/s)		8.45	
Max Chl Dpth (ft)	11.72	Hydr. Depth (ft)		8.77	
Conv. Total (cfs)	5208826.0	Conv. (cfs)		5208826.0	
Length Wtd. (ft)	378.08	Wetted Per. (ft)		3064.12	
Min Ch El (ft)	894.10	Shear (lb/sq ft)		1.04	
Alpha	1.00	Stream Power (lb/ft s)		8.78	
Frctn Loss (ft)	0.54	Cum Volume (acre-ft)	5788.48	63801.46	22417.44
C & E Loss (ft)	0.11	Cum SA (acres)	1544.30	6881.31	6649.83

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	905.90	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.09	Wt. n-Val.		0.033	
E.G. Elev (ft)	906.99	Reach Len. (ft)	455.00	378.07	400.00
Crit W.S. (ft)	902.57	Flow Area (sq ft)		27084.45	
E.G. Slope (ft/ft)	0.001850	Area (sq ft)		27084.45	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	3061.40	Top Width (ft)		3061.40	
Vel Total (ft/s)	8.38	Avg. Vel. (ft/s)		8.38	
Max Chl Dpth (ft)	11.80	Hydr. Depth (ft)		8.85	
Conv. Total (cfs)	5277765.0	Conv. (cfs)		5277765.0	
Length Wtd. (ft)	378.07	Wetted Per. (ft)		3072.54	
Min Ch El (ft)	894.10	Shear (lb/sq ft)		1.02	

Alpha	1.00	Stream Power (lb/ft s)		8.53	
Frctn Loss (ft)	0.53	Cum Volume (acre-ft)	936.74	67002.57	9104.33
C & E Loss (ft)	0.10	Cum SA (acres)	168.02	6887.92	1392.52

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18849.39 LB	19614.79	70859.34	7451.48	766.53	31.22	9.74	9.51
19614.79	20380.20	63461.62	6972.29	765.76	27.96	9.11	9.10
20380.20	21145.60	57727.84	6713.85	765.92	25.43	8.77	8.60
21145.60	21911.00 RB	34951.21	5713.47	765.90	15.40	7.46	6.12

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18849.39 LB	19614.79	70833.75	7509.80	766.78	31.20	9.81	9.43
19614.79	20380.20	63509.43	7030.64	765.76	27.98	9.19	9.03
20380.20	21145.60	57802.15	6772.20	765.92	25.46	8.85	8.54
21145.60	21911.00 RB	34854.67	5771.82	774.07	15.35	7.54	6.04

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 193.93

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17144.2	920.2	17170.7	908.8	17187.5	904.1	17224.3	905.8	17246.5	903.1
17370.6	902.8	17516.5	902.7	17634.6	902.6	17790.6	902.6	17894.2	902.4
18045.6	902	18160.3	902.7	18205.6	900	18274	900.3	18395	900.2
18529.9	900.9	18582.5	899.9	18624.1	910.8	18689.4	911	18724.5	909.6
18740.43	905.6078	18765.6	899.3	18776.3	895.1	18915.7	894.5	19090.2	894.1
19446.1	894.5	19575.9	894.7	19708.8	894.8	19749.3	896	19861.1	894.7
19984.8	894.8	20102.8	895.2	20184.8	895.5	20308.2	895.8	20358.2	898.9
20402.3	897	20513.1	894.4	20661.6	895.9	20740.1	897.7	20796.4	895.3
20855.3	895.6	20925	899.9	20954.2	894.3	21094.4	895.8	21133.9	894.6
21200.3	898	21322.1	896.5	21367.7	898.8	21411.7	899.4	21446.2	895.5
21553.9	895.3	21590.6	899	21714	898.9	21832.1	897.4	21930.6	895.9
22015.8	898.2	22046.5	897.2	22119.5	900.5	22163.5	904.5	22178.5	899.8
22203.97	905.6078	22214.9	908.1	22258	903.8	22386.6	908.6	22500.9	909.4
22556.1	909.1	22590.2	910.9	22720.9	909.1	22741.4	911.3	22794.3	911.2
22883.3	904.2	22905	912.9	22958.3	909.9	22979	911.4	23121.3	908.9
23214.3	908.9	23402.1	909.5	23610.3	908.4	23665.3	908.4	23901.4	908.7
24007.4	909	24162.3	909.1	24248.7	908.6	24360.9	909.7	24381.2	911
24396.9	908.2	24419.9	909.5	24547.9	909.4	24703.8	909.1	24848.4	909.1
24959.6	909.7	25159.4	910.5	25283.3	910.4	25435.8	909.5	25560.5	909.5
25662.7	911.8	25703.2	911.2	25708.9	912.7				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17144.2	.025	18724.5	.031	20661.6	.032	21590.6	.043	22214.9	.043
22905	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18740.43	22163.5	355	384.58	425	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17144.2	18724.5	918	22215	25708.9	918

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	905.53	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.75	Wt. n-Val.		0.032	0.043
E.G. Elev (ft)	906.28	Reach Len. (ft)	355.00	384.58	425.00
Crit W.S. (ft)	901.11	Flow Area (sq ft)		32560.47	122.72
E.G. Slope (ft/ft)	0.001111	Area (sq ft)	4955.04	32560.47	191.31
Q Total (cfs)	227000.00	Flow (cfs)		226708.78	291.22
Top Width (ft)	4960.40	Top Width (ft)	1413.55	3422.76	124.08
Vel Total (ft/s)	6.95	Avg. Vel. (ft/s)		6.96	2.37

Max Chl Dpth (ft)	11.43	Hydr. Depth (ft)		9.51	3.06
Conv. Total (cfs)	6810500.0	Conv. (cfs)		6801763.0	8737.2
Length Wtd. (ft)	384.61	Wetted Per. (ft)		3426.18	41.50
Min Ch El (ft)	894.10	Shear (lb/sq ft)		0.66	0.21
Alpha	1.00	Stream Power (lb/ft s)		4.59	0.49
Frctn Loss (ft)	0.43	Cum Volume (acre-ft)	5736.95	63543.64	22413.42
C & E Loss (ft)	0.00	Cum SA (acres)	1527.24	6853.18	6646.92

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	905.61	Element			
Vel Head (ft)	0.74	Wt. n-Val.		0.032	
E.G. Elev (ft)	906.36	Reach Len. (ft)	355.00	384.58	425.00
Crit W.S. (ft)	901.11	Flow Area (sq ft)		32847.95	
E.G. Slope (ft/ft)	0.001083	Area (sq ft)		32847.95	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	3423.07	Top Width (ft)		3423.07	
Vel Total (ft/s)	6.91	Avg. Vel. (ft/s)		6.91	
Max Chl Dpth (ft)	11.51	Hydr. Depth (ft)		9.60	
Conv. Total (cfs)	6898818.5	Conv. (cfs)		6898818.5	
Length Wtd. (ft)	384.58	Wetted Per. (ft)		3427.62	
Min Ch El (ft)	894.10	Shear (lb/sq ft)		0.65	
Alpha	1.00	Stream Power (lb/ft s)		4.48	
Frctn Loss (ft)	0.42	Cum Volume (acre-ft)	936.74	66742.48	9104.33
C & E Loss (ft)	0.00	Cum SA (acres)	168.02	6859.78	1392.52

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18740.43 LB	19596.20	72233.37	9257.60	857.02	31.82	10.82	7.80
19596.20	20451.96	63787.36	8587.72	855.95	28.10	10.04	7.43
20451.96	21307.73	56918.29	8124.58	856.65	25.07	9.49	7.01
21307.73	22163.50 RB	33769.75	6590.58	856.56	14.88	7.70	5.12
22163.50	22399.86	291.22	122.72	41.50	0.13	3.06	2.37

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18740.43 LB	19596.20	72216.34	9329.46	857.35	31.81	10.90	7.74
19596.20	20451.96	63852.49	8659.59	855.95	28.13	10.12	7.37
20451.96	21307.73	57019.10	8196.45	856.65	25.12	9.58	6.96
21307.73	22163.50 RB	33912.07	6662.45	857.68	14.94	7.79	5.09

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 193.86

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17460.6	920	17535.6	908.4	17536.3	907.5	17571.8	901.7	17619.1	903.8
17670.6	901.1	17810.3	901.3	18019.7	900.5	18136.3	900.6	18154.2	903.4
18213.4	900	18357.1	899.8	18419.3	900.1	18452.8	898.3	18482.4	900.1
18524.6	908.5	18621.7	908.5	18632.8	3905.1952	18670.2	894.1	18824.6	894.1
18899.6	893.8	18934.5	895.9	18990.5	895.5	19034.9	892.9	19259.4	894.5
19403.4	896.5	19560.8	893.9	19641.6	893.7	19672.1	895.6	19686.6	894.1
19826.8	894.1	19868.6	894.7	19991.8	893.6	20100.5	895	20241	894.6
20431.1	893.9	20472.8	899.2	20548.3	893.7	20629.1	896.4	20767.7	894.2
20894.5	893.6	20918.1	894.8	20954.1	892	20978.2	894.8	21007.4	900.2
21052.8	896.6	21190.2	897.7	21298.2	899.1	21451.5	895.4	21512.9	895.3
21546.2	901.2	21720.3	898	21885.5	896.9	22061.4	898	22078.3	899.1
22115.51	905.194	22118.6	905.7	22150.5	900.5	22190.3	907	22196.1	905.7
22234.5	903.3	22314.5	907.8	22398.1	907	22493.3	909.1	22550.3	907.3
22641	910.6	22781	910.4	22863	915.6	22960.9	903.2	22979.2	911.7
23048.5	911.8	23061.2	909.3	23070.1	910.5	23073.2	908.6	23140.1	910.6
23191.8	907.6	23324.3	910.5	23332.3	909.3	23349	910.7	23365.2	908

23371.3	908	23582.3	908.1	23723.7	908.1	23872.8	908.5	24108.5	908.5
24156	908.5	24345.2	909.3	24395.4	909	24611.7	908.2	24675.9	908.4
24851.8	908.9	24873	909	25081.4	908.9	25149.5	909.2	25295.4	909.7
25439.1	909.1	25564.7	909.4	25671.2	910.7				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17460.6	.025	18621.7	.031	20100.5	.032	21546.2	.043	22118.6	.043
22863	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18632.8	322115.51	445	430.34	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17460.6	18621.7	915	22118.6	25671.2	915

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	905.11	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.75	Wt. n-Val.		0.032	
E.G. Elev (ft)	905.85	Reach Len. (ft)	445.00	430.34	500.00
Crit W.S. (ft)	900.72	Flow Area (sq ft)		32754.09	
E.G. Slope (ft/ft)	0.001114	Area (sq ft)	4004.09	32754.09	203.52
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	4575.14	Top Width (ft)	956.61	3481.85	136.68
Vel Total (ft/s)	6.93	Avg. Vel. (ft/s)		6.93	
Max Chl Dpth (ft)	13.11	Hydr. Depth (ft)		9.41	
Conv. Total (cfs)	6802089.5	Conv. (cfs)		6802089.5	
Length Wtd. (ft)	430.34	Wetted Per. (ft)		3486.47	
Min Ch El (ft)	892.00	Shear (lb/sq ft)		0.65	
Alpha	1.00	Stream Power (lb/ft s)		4.53	
Frctn Loss (ft)	0.45	Cum Volume (acre-ft)	5700.44	63255.32	22411.49
C & E Loss (ft)	0.04	Cum SA (acres)	1517.59	6822.70	6645.65

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	905.21	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.73	Wt. n-Val.		0.032	
E.G. Elev (ft)	905.94	Reach Len. (ft)	445.00	430.34	500.00
Crit W.S. (ft)	900.72	Flow Area (sq ft)		33103.51	
E.G. Slope (ft/ft)	0.001076	Area (sq ft)		33103.51	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	3482.68	Top Width (ft)		3482.68	
Vel Total (ft/s)	6.86	Avg. Vel. (ft/s)		6.86	
Max Chl Dpth (ft)	13.21	Hydr. Depth (ft)		9.51	
Conv. Total (cfs)	6919537.5	Conv. (cfs)		6919537.5	
Length Wtd. (ft)	430.34	Wetted Per. (ft)		3487.34	
Min Ch El (ft)	892.00	Shear (lb/sq ft)		0.64	
Alpha	1.00	Stream Power (lb/ft s)		4.37	
Frctn Loss (ft)	0.43	Cum Volume (acre-ft)	936.74	66451.35	9104.33
C & E Loss (ft)	0.04	Cum SA (acres)	168.02	6829.29	1392.52

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18632.83 LB	19503.50	68068.62	8998.02	872.15	29.99	10.34	7.56
19503.50	20374.17	72499.74	9391.78	870.83	31.94	10.79	7.72
20374.17	21244.84	56502.52	8201.75	872.22	24.89	9.42	6.89
21244.84	22115.51 RB	29929.12	6162.53	871.27	13.18	7.08	4.86

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18632.83 LB	19503.50	67985.45	9085.37	872.47	29.95	10.43	7.48
19503.50	20374.17	72379.99	9479.14	870.83	31.89	10.89	7.64
20374.17	21244.84	56535.33	8289.11	872.22	24.91	9.52	6.82
21244.84	22115.51 RB	30099.24	6249.88	871.82	13.26	7.18	4.82

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 193.78

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18041.9	919.6	18135.3	899.6	18189.9	900.7	18208.8	899.8	18231.1	901.9
18287.6	904.6	18407.8	901.3	18419.5	901.7	18429.8	900.5	18449.6	896
18460.8	895.8	18520.1	908.4	18602.8	907.31	8611.02	904.8192	18651.5	892.6
18819	892.9	19000	892.7	19213	892.2	19256.2	895.7	19383.3	895.6
19456.9	892.9	19574.7	894.4	19582.8	894.9	19605.1	893.1	19732.5	893.3
19764.8	894.9	19807	893.1	19896.9	893.5	20057.3	893.4	20195.1	892.8
20298.5	893.6	20491.7	893.5	20518.1	893.3	20565.3	897.2	20771.5	892.4
20867.7	897.2	20902.4	892.3	21016.5	893.5	21061.7	897	21185.2	895.1
21281.7	893.5	21402	894.9	21480.7	895.7	21544.4	900.1	21594.7	898
21749.2	897.7	21858.1	898.5	21961.7	895	21964.1	895.8	22063	897.9
22092.3	896.7	22160.9	901.7	22175.37	904.819	22194.3	908.9	22228.5	905.8
22240.4	907	22271.3	902.3	22322	902.6	22343.5	901	22360.6	901.8
22379.5	904.9	22386.5	907.3	22394	908.1	22517.2	909.6	22659.9	910
22768.3	910.4	22816.4	910.1	22837.7	911.3	22965.5	912.7	23020.2	907.3
23055.9	902.5	23076.2	910	23101	912.8	23132.6	907.3	23268.3	907.4
23350.3	910.3	23359.2	911.3	23368	907.9	23381.5	907.7	23496.1	908
23599.6	908.2	23733.4	908.2	23873.2	908.1	23952	908	24168.8	908
24331.9	908	24372.7	908	24506.8	908.1	24713	908.4	24730.8	908.5
24898.1	908.2	24907.9	908.2	25139.4	908.2	25340.6	908.5	25434.8	908.3
25456.1	909.7	25511.4	907.6	25536	910.4				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18041.9	.025	18602.8	.031	20565.3	.043	22194.3	.043	22965.5	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18611.02	22175.37	750	341.33	430	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18041.9	18602.8	915	22194.3	25536	915

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	904.75	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.62	Wt. n-Val.		0.034	
E.G. Elev (ft)	905.37	Reach Len. (ft)	750.00	341.33	430.00
Crit W.S. (ft)	899.61	Flow Area (sq ft)		35874.51	
E.G. Slope (ft/ft)	0.000970	Area (sq ft)	1277.06	35874.51	308.85
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	4101.58	Top Width (ft)	391.64	3563.78	146.15
Vel Total (ft/s)	6.33	Avg. Vel. (ft/s)		6.33	
Max Chl Dpth (ft)	12.55	Hydr. Depth (ft)		10.07	
Conv. Total (cfs)	7288175.0	Conv. (cfs)		7288175.0	
Length Wtd. (ft)	341.33	Wetted Per. (ft)		3567.75	
Min Ch El (ft)	892.20	Shear (lb/sq ft)		0.61	
Alpha	1.00	Stream Power (lb/ft s)		3.85	
Frctn Loss (ft)	0.36	Cum Volume (acre-ft)	5673.47	62916.32	22408.55
C & E Loss (ft)	0.01	Cum SA (acres)	1510.70	6787.89	6644.03

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	904.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.61	Wt. n-Val.		0.034	
E.G. Elev (ft)	905.47	Reach Len. (ft)	750.00	341.33	430.00
Crit W.S. (ft)	899.61	Flow Area (sq ft)		36283.26	
E.G. Slope (ft/ft)	0.000935	Area (sq ft)		36283.26	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	3564.35	Top Width (ft)		3564.35	
Vel Total (ft/s)	6.26	Avg. Vel. (ft/s)		6.26	
Max Chl Dpth (ft)	12.66	Hydr. Depth (ft)		10.18	
Conv. Total (cfs)	7422288.0	Conv. (cfs)		7422288.0	
Length Wtd. (ft)	341.33	Wetted Per. (ft)		3568.42	
Min Ch El (ft)	892.20	Shear (lb/sq ft)		0.59	
Alpha	1.00	Stream Power (lb/ft s)		3.71	

Frctn Loss (ft)	0.35	Cum Volume (acre-ft)	936.74	66108.61	9104.33
C & E Loss (ft)	0.01	Cum SA (acres)	168.02	6794.49	1392.52

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18611.02 LB	19502.11	73916.19	9953.53	892.84	32.56	11.17	7.43
19502.11	20393.20	75485.98	10072.72	891.27	33.25	11.30	7.49
20393.20	21284.28	49695.40	9100.44	891.94	21.89	10.21	5.46
21284.28	22175.37 RB	27902.41	6747.81	891.71	12.29	7.58	4.14

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18611.02 LB	19502.11	73815.34	10055.72	893.13	32.52	11.28	7.34
19502.11	20393.20	75384.38	10174.92	891.27	33.21	11.42	7.41
20393.20	21284.28	49713.32	9202.64	891.94	21.90	10.33	5.40
21284.28	22175.37 RB	28086.97	6849.99	892.09	12.37	7.69	4.10

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 193.71

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18741.9	910	18747.4	906.4	18756.78	904.369	18778.8	899.6	18783.6	897.9
18791.9	891.3	18980.3	891.4	19065	891.5	19203.8	891.6	19233.7	895.9
19310.2	896.4	19408.5	895.3	19437.5	891.4	19535.9	892.4	19568	895.9
19613.8	896.1	19637.6	893.9	19725.1	896.2	19761.2	892.9	19850.7	892.6
19879.9	894.8	19912.9	893.2	20108.4	892.5	20155.6	892.4	20208.8	893.4
20268.1	892.5	20451	893.1	20503.4	897.8	20601.5	892.8	20796.3	892.4
20839.4	892.5	20872.8	893.8	20890.9	892.4	20912.3	893.5	20919.3	892.3
21052	893.5	21059.1	892.8	21098.4	892.5	21117.2	895.1	21208	896.6
21300.2	893.9	21463.7	893.9	21505.7	896.4	21586	896.8	21626.9	899.9
21760.3	898.3	21930.9	898.1	21991.1	898.3	22037.4	896	22106.7	896.8
22164.6	900.4	22187.72	904.3	694 22197.8	906.1	22246.3	906.2	22269.6	905.2
22424	907.7	22514.9	909	22552.8	908.4	22635.9	909.2	22689	910.8
22923.5	910.9	22994.5	910.4	23046.1	917.5	23052.7	913.9	23065.1	914.8
23088.9	897.3	23119.3	898.6	23129.5	902.7	23138.6	903.6	23143	905.4
23161.2	910.2	23205.6	908.3	23286.3	908.7	23338.3	907.8	23366.3	909.6
23376.5	907.5	23379.9	908.4	23449.7	908.9	23580.8	909	23672.1	909.1
23828.8	908.9	23929.1	908.9	24139.2	908.5	24202.5	908.5	24401.2	908.6
24441.4	908.7	24617.2	908.6	24691.7	908.9	24859.3	908.9	24922.6	908.7
25159.6	908.6	25201.7	908.5	25351.1	909.1	25493.1	908.5	25543.3	907.4
25709.6	909.4	25862	909.1	25922	909.5				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18741.9	.031	18747.4	.031	20451	.043	22197.8	.043	23046.1	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18756.78	22187.72	515	362.07	410	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22197.8	25922	909

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	904.30	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.70	Wt. n-Val.		0.035	
E.G. Elev (ft)	905.00	Reach Len. (ft)	515.00	362.07	410.00
Crit W.S. (ft)	899.44	Flow Area (sq ft)		33916.86	
E.G. Slope (ft/ft)	0.001157	Area (sq ft)		33916.86	274.96
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	3491.22	Top Width (ft)		3430.27	60.95
Vel Total (ft/s)	6.69	Avg. Vel. (ft/s)		6.69	
Max Chl Dpth (ft)	13.01	Hydr. Depth (ft)		9.89	
Conv. Total (cfs)	6674012.5	Conv. (cfs)		6674012.5	

Length Wtd. (ft)	362.07	Wetted Per. (ft)		3436.10	
Min Ch El (ft)	891.30	Shear (lb/sq ft)		0.71	
Alpha	1.00	Stream Power (lb/ft s)		4.77	
Frctn Loss (ft)	0.43	Cum Volume (acre-ft)	5662.47	62642.88	22405.67
C & E Loss (ft)	0.01	Cum SA (acres)	1507.33	6760.49	6643.01

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	904.44	Element			
Vel Head (ft)	0.68	Wt. n-Val.		0.035	
E.G. Elev (ft)	905.12	Reach Len. (ft)	515.00	362.07	410.00
Crit W.S. (ft)	899.44	Flow Area (sq ft)		34375.43	
E.G. Slope (ft/ft)	0.001108	Area (sq ft)		34375.43	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	3430.94	Top Width (ft)		3430.94	
Vel Total (ft/s)	6.60	Avg. Vel. (ft/s)		6.60	
Max Chl Dpth (ft)	13.14	Hydr. Depth (ft)		10.02	
Conv. Total (cfs)	6819957.0	Conv. (cfs)		6819957.0	
Length Wtd. (ft)	362.07	Wetted Per. (ft)		3436.92	
Min Ch El (ft)	891.30	Shear (lb/sq ft)		0.69	
Alpha	1.00	Stream Power (lb/ft s)		4.57	
Frctn Loss (ft)	0.41	Cum Volume (acre-ft)	936.74	65831.77	9104.33
C & E Loss (ft)	0.01	Cum SA (acres)	168.02	6767.08	1392.52

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18756.78 LB	19614.52	75910.80	9479.41	861.32	33.44	11.06	8.01
19614.52	20472.25	75410.83	9462.65	858.24	33.22	11.03	7.97
20472.25	21329.98	50111.92	8979.51	858.47	22.08	10.47	5.58
21329.98	22187.72 RB	25566.46	5995.28	858.07	11.26	6.99	4.26

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18756.78 LB	19614.52	75781.02	9594.05	861.69	33.38	11.19	7.90
19614.52	20472.25	75305.54	9577.30	858.24	33.17	11.17	7.86
20472.25	21329.98	50096.22	9094.16	858.47	22.07	10.60	5.51
21329.98	22187.72 RB	25817.23	6109.92	858.52	11.37	7.12	4.23

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 193.65

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18919.7	921	18927.8	916.418945.23903.8618			18964.5	890	18985	890
19093.2	890.2	19277.4	891.1	19291.5	893.3	19339.9	895.2	19436.3	892.1
19481.6	891.7	19516.9	890.6	19542.5	891.1	19584.1	894.6	19670.9	895.1
19716.3	893.9	19800	896.3	19885.9	896.6	19997.9	892.1	20126.1	892.4
20304.9	892.4	20515	892.5	20626.2	891.7	20662.2	891.7	20688.4	893.8
20714.7	891.3	20738.7	891	20876.4	892.5	20897.4	892.7	20920.3	896
20945.8	891.8	21001.4	891.4	21011.8	893.4	21036.7	895.8	21174.8	893
21210.3	892.9	21321	895.4	21351.3	896.9	21417.4	892.7	21441.7	892.3
21486.3	894.3	21615.4	893	21692.2	894.1	21727.6	899.7	21841.6	898.9
21964.5	897.8	22139.2	897.8	22186	898.2	22238.1	905.4	22314.7	906.2
22440.3	907.8	22606.7	908.6	22738	910.3	22890.8	910	23042	909.1
23077.4	908.7	23105.2	911.7	23115	911.8	23119.2	911	23123.6	914.8
23135.8	913.2	23137.5	911	23149.6	912.5	23176.7	897.4	23202.3	898.3
23205.3	899.2	23215.9	904.7	23224.6	903.3	23232.3	908.1	23272	906.4
23387.6	906.4	23519.1	907.6	23636.3	908.1	23789.2	907.8	23910.7	907.7
24039.7	908.8	24181	908.7	24345	908.5	24455	908.7	24503.5	909.1
24609.4	906.9	24652.6	906.2	24672.4	907.2	24679.1	908.6	24692.8	906.4
24705.3	906.8	24845.4	907.7	24928.1	908.2	25063.2	908.2	25175.3	908
25269	908	25411.6	908	25577.9	907.4	25684.3	906.5	25698.1	907.8

25700.4 908.8 25715 909.7

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18919.7	.031	20662.2	.043	22238.1	.043	23123.6	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18945.23	22186	460	556.82	605	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22186	25715	920

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	903.80	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.76	Wt. n-Val.		0.035	
E.G. Elev (ft)	904.56	Reach Len. (ft)	460.00	556.82	605.00
Crit W.S. (ft)	899.04	Flow Area (sq ft)		32396.94	
E.G. Slope (ft/ft)	0.001228	Area (sq ft)		32396.94	339.04
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	3334.06	Top Width (ft)		3240.68	93.38
Vel Total (ft/s)	7.01	Avg. Vel. (ft/s)		7.01	
Max Chl Dpth (ft)	13.80	Hydr. Depth (ft)		10.00	
Conv. Total (cfs)	6477370.0	Conv. (cfs)		6477370.0	
Length Wtd. (ft)	556.82	Wetted Per. (ft)		3247.55	
Min Ch El (ft)	890.00	Shear (lb/sq ft)		0.76	
Alpha	1.00	Stream Power (lb/ft s)		5.36	
Frctn Loss (ft)	0.72	Cum Volume (acre-ft)	5662.47	62367.28	22402.78
C & E Loss (ft)	0.01	Cum SA (acres)	1507.33	6732.77	6642.28

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	903.96	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.74	Wt. n-Val.		0.035	
E.G. Elev (ft)	904.70	Reach Len. (ft)	460.00	556.82	605.00
Crit W.S. (ft)	899.04	Flow Area (sq ft)		32912.41	
E.G. Slope (ft/ft)	0.001169	Area (sq ft)		32912.41	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	3240.77	Top Width (ft)		3240.77	
Vel Total (ft/s)	6.90	Avg. Vel. (ft/s)		6.90	
Max Chl Dpth (ft)	13.96	Hydr. Depth (ft)		10.16	
Conv. Total (cfs)	6640271.0	Conv. (cfs)		6640271.0	
Length Wtd. (ft)	556.82	Wetted Per. (ft)		3253.51	
Min Ch El (ft)	890.00	Shear (lb/sq ft)		0.74	
Alpha	1.00	Stream Power (lb/ft s)		5.09	
Frctn Loss (ft)	0.68	Cum Volume (acre-ft)	936.74	65552.13	9104.33
C & E Loss (ft)	0.01	Cum SA (acres)	168.02	6739.35	1392.52

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18945.23 LB	19755.42	78183.84	9260.97	815.02	34.44	11.43	8.44
19755.42	20565.62	68532.30	8537.21	810.30	30.19	10.54	8.03
20565.62	21375.81	52894.91	8605.10	811.44	23.30	10.62	6.15
21375.81	22186.00 RB	27388.95	5993.66	810.79	12.07	7.40	4.57

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18945.23 LB	19755.42	78028.34	9389.84	815.22	34.37	11.59	8.31
19755.42	20565.62	68540.10	8666.08	810.30	30.19	10.70	7.91
20565.62	21375.81	52881.08	8733.97	811.44	23.30	10.78	6.05
21375.81	22186.00 RB	27550.48	6122.52	816.55	12.14	7.56	4.50

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 193.54

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19062.5	916	19075	913.6	19092	908.7	19116.6	899.1	19138.9	898.2
19154.2	896.9	19176.7	889.8	19391.5	890.1	19490.6	890.6	19520.1	894.4
19567.9	895.9	19655	894.7	19756.2	895.5	19891.7	894.4	19996.9	892.3
20070.1	894.7	20083.8	894.5	20119.9	892.5	20385.8	891.4	20494.3	891.3
20580.5	891.3	20595.2	891.2	20727.2	891	21129	890.6	21160.9	897
21275.9	895.1	21385.3	894.8	21440.1	895.6	21480.5	893	21534.6	895
21582.7	895.8	21655.8	894.4	21711.5	894.2	21753.3	891.9	21809.6	891.1
21860.2	897.8	21990.1	897.9	22005.9	897.4	22031.9	899.2	22057	898.9
22149.8	896.5	22205.2	896	22211.4	896.8	22244.2	897.8	22292.2	902.7
22312	901.5	22374	902.2	22389.3	903.9	22437.3	904	22484.9	905.1
22545.8	904.6	22659.7	908.7	22682.8	909	22736	910.8	22820.5	911.2
22882.5	910.2	22990.3	910.2	23135.1	909.7	23203.1	908.4	23225	912.1
23247.3	913.7	23263.4	902.6	23279.6	904	23290.5	896.9	23324.1	899.5
23334	902.7	23344.5	901.7	23350.5	905.2	23355.1	907	23367.8	906.8
23386.8	904.5	23481.7	906.2	23525.8	906.5	23635.2	908.1	23729.4	908.1
23842.2	908.2	24017.5	907.5	24059.7	907.4	24192.8	907.7	24357.9	908.3
24459.9	908.3	24570.9	907.6	24611.1	908.1	24682.3	906.4	24691.7	907.1
24702.9	904.8	24735	906.7	24866	906	24969.9	906.4	25038.1	907.3
25240.9	907.4	25300.4	907.4	25475.5	907.4	25548.8	907.1	25637.9	906.7
25694	908.3								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
19062.5	.031	19116.6	.031	21160.9	.043	22292.2	.043	23225	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19116.6	22292.2	470	473.96	570	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22437.3	25694	913

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	902.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.90	Wt. n-Val.	0.031	0.033	0.043
E.G. Elev (ft)	903.82	Reach Len. (ft)	470.00	473.96	570.00
Crit W.S. (ft)	898.85	Flow Area (sq ft)	18.78	29861.05	85.65
E.G. Slope (ft/ft)	0.001382	Area (sq ft)	18.78	29861.05	300.17
Q Total (cfs)	227000.00	Flow (cfs)	49.21	226843.09	107.70
Top Width (ft)	3343.41	Top Width (ft)	9.81	3175.60	158.00
Vel Total (ft/s)	7.58	Avg. Vel. (ft/s)	2.62	7.60	1.26
Max Chl Dpth (ft)	13.13	Hydr. Depth (ft)	1.91	9.40	0.97
Conv. Total (cfs)	6106495.0	Conv. (cfs)	1323.7	6102274.0	2897.3
Length Wtd. (ft)	473.98	Wetted Per. (ft)	10.53	3178.90	88.44
Min Ch El (ft)	889.80	Shear (lb/sq ft)	0.15	0.81	0.08
Alpha	1.00	Stream Power (lb/ft s)	0.40	6.16	0.11
Frctn Loss (ft)	0.71	Cum Volume (acre-ft)	5662.37	61969.36	22398.34
C & E Loss (ft)	0.01	Cum SA (acres)	1507.28	6691.76	6640.54

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	903.14	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.86	Wt. n-Val.		0.033	
E.G. Elev (ft)	904.00	Reach Len. (ft)	470.00	473.96	570.00
Crit W.S. (ft)	898.85	Flow Area (sq ft)		30548.16	
E.G. Slope (ft/ft)	0.001290	Area (sq ft)		30548.16	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	3175.60	Top Width (ft)		3175.60	
Vel Total (ft/s)	7.43	Avg. Vel. (ft/s)		7.43	
Max Chl Dpth (ft)	13.34	Hydr. Depth (ft)		9.62	
Conv. Total (cfs)	6320067.0	Conv. (cfs)		6320067.0	
Length Wtd. (ft)	473.96	Wetted Per. (ft)		3183.39	
Min Ch El (ft)	889.80	Shear (lb/sq ft)		0.77	
Alpha	1.00	Stream Power (lb/ft s)		5.74	
Frctn Loss (ft)	0.65	Cum Volume (acre-ft)	936.74	65146.52	9104.33
C & E Loss (ft)	0.01	Cum SA (acres)	168.02	6698.34	1392.52

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19105.78	19109.39	1.22	1.32	2.79	0.00	0.51	0.93
19109.39	19112.99	12.92	6.19	3.87	0.01	1.72	2.09
19112.99	19116.60	35.06	11.27	3.87	0.02	3.12	3.11
19116.60 LB	19910.50	63609.10	7808.55	795.36	28.02	9.84	8.15
19910.50	20704.40	75198.41	8627.62	794.01	33.13	10.87	8.72
20704.40	21498.30	63362.78	8042.81	794.65	27.91	10.13	7.88
21498.30	22292.20 RB	24672.81	5382.07	794.88	10.87	6.78	4.58
22292.20	22518.99	107.70	85.65	88.44	0.05	0.97	1.26

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19116.60 LB	19910.50	63512.52	7980.33	799.40	27.98	10.05	7.96
19910.50	20704.40	75082.13	8799.39	794.01	33.08	11.08	8.53
20704.40	21498.30	63294.82	8214.59	794.65	27.88	10.35	7.71
21498.30	22292.20 RB	25110.52	5553.85	795.32	11.06	7.00	4.52

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 193.45

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18539.7	913	18644.2	910.7	18690.3	910.5	18695.7	911.7	18720.2	904.5
18739.3	907.9	18751	908.6	18776.8	906	18852.2	904.2	18915.8	904
18958	907.4	18978.9	902.295	19027.6	890.4	19091.1	891.9	19119.1	889.8
19150.5	889.9	19569.9	891.2	19635.6	889.4	19808.7	893.8	19916	892.8
19970.1	894.8	20118.6	894.4	20160.4	894.7	20199.2	891.8	20376.8	890.7
20441.4	890.3	20472.3	892	20525.3	891	20577.8	893.6	20659.6	892.8
20727.3	890.4	20977.8	889.1	21072.8	888.9	21112.3	892.1	21222.3	895.7
21280.5	896.4	21383.7	894.7	21459	894.7	21533	897.4	21703.5	895.8
21770.8	896.7	21809.8	893.6	21903.7	893.3	21951.5	898.7	22031.2	895.8
22122.9	896.3	22153.4	891.6	22210.7	897.2	22222	899.2	22312.9	3902.2941
22366	904.1	22468.4	900.3	22509.2	904.3	22553.4	901.6	22689.7	904.1
22785.6	908.3	22838	911.4	22895.2	909.5	22959	909.7	22992.9	909.1
23026.5	910.1	23071.9	915.8	23108.1	906	23128.7	906.8	23153	897.5
23206.5	898	23226.5	903.9	23232.6	906.5	23250.7	906.4	23265	911.8
23274.1	912.4	23303.3	911.5	23314.8	910	23332.6	911.3	23351.4	910.8
23366.1	906.6	23414.8	904.8	23519.7	905.7	23722	906.9	23882.3	906.3
24036.3	906.5	24290.6	906.3	24453.8	906.6	24657.3	906.4	24684.4	905.6
24708.8	907.1	24721.9	905.1	24837.2	906.2	25020.7	906.9	25252.9	906.6
25511.5	907.3	25523.4	907.3	25670.3	907.3	25756.7	907.2	25903.5	905.2
25937.3	906	25954.3	908.1	25966	908.4				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18539.7	.025	18958	.031	20472.3	.043	22366	.043	23071.9	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18978.9	22312.93	515	497.87	540	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22366	25966	910

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	902.25	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.86	Wt. n-Val.		0.035	
E.G. Elev (ft)	903.10	Reach Len. (ft)	515.00	497.87	540.00
Crit W.S. (ft)	898.16	Flow Area (sq ft)		30532.26	
E.G. Slope (ft/ft)	0.001620	Area (sq ft)		30532.26	385.76
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	3530.87	Top Width (ft)		3332.43	198.44
Vel Total (ft/s)	7.43	Avg. Vel. (ft/s)		7.43	
Max Chl Dpth (ft)	13.35	Hydr. Depth (ft)		9.16	
Conv. Total (cfs)	5640628.5	Conv. (cfs)		5640628.5	

Length Wtd. (ft)	498.07	Wetted Per. (ft)		3335.97	
Min Ch El (ft)	888.90	Shear (lb/sq ft)		0.93	
Alpha	1.00	Stream Power (lb/ft s)		6.88	
Frctn Loss (ft)	0.68	Cum Volume (acre-ft)	5662.27	61640.80	22393.85
C & E Loss (ft)	0.02	Cum SA (acres)	1507.22	6656.35	6638.20

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	902.53	Element			
Vel Head (ft)	0.81	Wt. n-Val.		0.036	
E.G. Elev (ft)	903.34	Reach Len. (ft)	515.00	497.87	540.00
Crit W.S. (ft)	898.16	Flow Area (sq ft)		31468.90	
E.G. Slope (ft/ft)	0.001470	Area (sq ft)		31468.90	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	3334.03	Top Width (ft)		3334.03	
Vel Total (ft/s)	7.21	Avg. Vel. (ft/s)		7.21	
Max Chl Dpth (ft)	13.63	Hydr. Depth (ft)		9.44	
Conv. Total (cfs)	5921549.0	Conv. (cfs)		5921549.0	
Length Wtd. (ft)	497.87	Wetted Per. (ft)		3338.04	
Min Ch El (ft)	888.90	Shear (lb/sq ft)		0.86	
Alpha	1.00	Stream Power (lb/ft s)		6.24	
Frctn Loss (ft)	0.62	Cum Volume (acre-ft)	936.74	64809.13	9104.33
C & E Loss (ft)	0.02	Cum SA (acres)	168.02	6662.93	1392.52

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18978.90 LB	19812.41	87583.28	9264.96	834.91	38.58	11.12	9.45
19812.41	20645.91	63791.71	7949.91	833.79	28.10	9.54	8.02
20645.91	21479.42	53531.17	8386.52	833.77	23.58	10.06	6.38
21479.42	22312.93 RB	22093.84	4930.87	833.50	9.73	5.93	4.48

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18978.90 LB	19812.41	87011.15	9499.13	835.35	38.33	11.40	9.16
19812.41	20645.91	63833.67	8184.08	833.79	28.12	9.82	7.80
20645.91	21479.42	53429.24	8620.69	833.77	23.54	10.34	6.20
21479.42	22312.93 RB	22725.95	5165.00	835.13	10.01	6.20	4.40

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 193.36

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17978.2	912.1	18056	910.3	18091.7	908.3	18102.4	904.7	18116.2	909.1
18150.8	910.7	18164.9	906.8	18339	904.9	18463.5	904.3	18604.9	904.6
18759.3	902.1	18798.7	904.4	18810.97	901.6	586 18836.3	896	18882.4	890.6
18977	889.8	19017	893	19051.9	892.6	19064.1	891.3	19269	890.7
19423.2	890.3	19574.9	889.8	19773.7	891.7	19876.5	894	20028.6	894.4
20074.1	894.5	20233.7	891	20386.5	890.4	20526.7	893.3	20590.6	893.5
20745	889.5	20864.8	888.9	21113.4	888.7	21169.2	890.7	21206.8	896.7
21345.9	895.7	21496.5	893.7	21651.4	891	21792.6	896.5	21845.7	897.6
21884.4	894.9	22022.5	897.8	22047.9	896.7	22116.5	897.5	22171	895.5
22237.3	899.8	22351.3	900.2	22374.3	899.1	22406.5	899.6	22432.1	891.2
22450.7	893.3	22475.1	902	22506.2	900	22628.6	899.7	22666.9	902.8
22718.2	904.8	22737.2	907	22787.4	908.5	22803	907.2	22809.6	904.9
22831.8	907.6	22848.1	897.8	22876.7	898	22892.6	903.9	22907.8	904.2
22938	910.1	23026.9	906.8	23122.7	908.1	23145.1	903.5	23201.7	904.3
23391.1	905.1	23428.7	905.4	23565.2	905.5	23749.9	905.9	23879.9	906.3
23956.8	906.1	24176	906	24344.2	906.7	24484.8	906.7	24673.8	906.3
24725.2	905.4	24737.1	905.8	24750.5	904.3	24768.8	906	24954.4	906.2
25082.2	906.1	25236.8	906.6	25281.7	906.5	25473	906.5	25487.1	906.5
25623.2	906.4	25640.5	906.3	25804.1	905	25841.9	904.3	25872.7	906.7

25882.5 904.9 25914 908.3

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17978.2	.025	18798.7	.032	19064.1	.029	21113.4	.043	22351.3	.043
22938	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18810.97	22351.3	660	606.52	575	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22803	25914	910

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	901.61	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.79	Wt. n-Val.		0.031	0.043
E.G. Elev (ft)	902.41	Reach Len. (ft)	660.00	606.52	575.00
Crit W.S. (ft)	897.56	Flow Area (sq ft)		31362.11	807.19
E.G. Slope (ft/ft)	0.001162	Area (sq ft)		31362.11	943.13
Q Total (cfs)	227000.00	Flow (cfs)		224873.80	2126.20
Top Width (ft)	3878.69	Top Width (ft)		3540.13	338.56
Vel Total (ft/s)	7.06	Avg. Vel. (ft/s)		7.17	2.63
Max Chl Dpth (ft)	12.91	Hydr. Depth (ft)		8.86	2.75
Conv. Total (cfs)	6659900.0	Conv. (cfs)		6597520.0	62380.2
Length Wtd. (ft)	606.31	Wetted Per. (ft)		3542.43	296.94
Min Ch El (ft)	888.70	Shear (lb/sq ft)		0.64	0.20
Alpha	1.02	Stream Power (lb/ft s)		4.60	0.52
Frctn Loss (ft)	0.83	Cum Volume (acre-ft)	5662.27	61287.09	22385.62
C & E Loss (ft)	0.01	Cum SA (acres)	1507.22	6617.08	6634.88

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	901.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.76	Wt. n-Val.		0.031	
E.G. Elev (ft)	902.70	Reach Len. (ft)	660.00	606.52	575.00
Crit W.S. (ft)	897.58	Flow Area (sq ft)		32544.73	
E.G. Slope (ft/ft)	0.001055	Area (sq ft)		32544.73	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	3540.33	Top Width (ft)		3540.33	
Vel Total (ft/s)	6.98	Avg. Vel. (ft/s)		6.98	
Max Chl Dpth (ft)	13.25	Hydr. Depth (ft)		9.19	
Conv. Total (cfs)	6988670.5	Conv. (cfs)		6988670.5	
Length Wtd. (ft)	606.52	Wetted Per. (ft)		3544.67	
Min Ch El (ft)	888.70	Shear (lb/sq ft)		0.60	
Alpha	1.00	Stream Power (lb/ft s)		4.22	
Frctn Loss (ft)	0.73	Cum Volume (acre-ft)	936.74	64443.31	9104.33
C & E Loss (ft)	0.00	Cum SA (acres)	168.02	6623.64	1392.52

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18810.97 LB	19696.05	76902.33	9372.10	886.03	33.88	10.59	8.21
19696.05	20581.14	60890.26	8052.83	885.18	26.82	9.10	7.56
20581.14	21466.22	67892.16	8834.86	885.66	29.91	9.98	7.68
21466.22	22351.30 RB	19189.04	5102.31	885.56	8.45	5.76	3.76
22351.30	22588.81	1957.75	710.32	233.42	0.86	3.08	2.76
22588.81	22826.33	168.45	96.87	63.52	0.07	1.53	1.74

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18810.97 LB	19696.05	77162.66	9667.75	886.52	33.99	10.92	7.98
19696.05	20581.14	61645.66	8348.49	885.18	27.16	9.43	7.38
20581.14	21466.22	68123.38	9130.52	885.66	30.01	10.32	7.46
21466.22	22351.30 RB	20068.29	5397.97	887.30	8.84	6.10	3.72

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 193.24

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17704.2	910.3	17726.8	906.4	17739.7	908.5	17763.2	909.1	17774.5	905.2
17851.5	903.5	18043.3	902.8	18237.2	902.1	18450.3	901.6	18597.3	901.3
18670.2	901.6	18700.6	903.2	18708.77	900.7766	18733.3	893.5	18776.7	891.9
18848.7	893.3	18890	889.6	18923.4	892.9	18957.3	888	18995.4	890.2
19142.3	889.6	19184.9	889.7	19212.4	893.4	19278.5	889.2	19437	889.4
19621.1	889.9	19667.3	891.4	19713.4	890.3	19859.9	892.8	19960.7	890.4
20040.3	895.3	20162.1	893.1	20224.3	890.6	20263.5	893	20422.8	891.3
20591.5	888.6	20701.9	891	20740.6	888.9	20918.3	889	21092.7	889
21236.3	891.1	21264.4	893.3	21382.4	891.6	21450.1	895.7	21529.1	895.4
21575.5	898	21743.7	898.4	21911.2	897	22070.5	896.7	22225.1	895.5
22313.6	897	22469.9	900.1	22626.8	898.1	22817.7	900.5	22893.6	908.3
23044	908.7	23077.4	908.2	23110	913	23114.9	910.7	23117.8	905.7
23135.3	907	23150.1	898.2	23180.4	898.9	23196.7	905	23226	906.5
23237.8	905.3	23240	903.4	23308.8	904.7	23473.5	905.4	23696.3	905.9
23718.8	905.9	23924.8	905.5	23974.7	905.5	24127.1	905.4	24322.8	905.6
24472.5	905.6	24486.8	904	24510.6	904.1	24515.9	902.6	24526.4	904.9
24700.2	904.6	24824.9	904.8	25068.2	904.7	25167.1	904.7	25319.8	904.6
25347.5	904.8	25538.3	905.6	25701.1	905.9	25777.1	904.6	25924	908.4
25976.1	906.1	26008.3	907.5	26054.7	905.7	26060.9	909.1	26064.6	908.7
26066.9	906.4	26068.5	909.3						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17704.2	.025	18700.6	.032	19278.5	.029	20591.5	.043	22469.9	.043
23110	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18708.77	22469.9	410	430.76	480	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22920	26068.5	910

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	900.72	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.85	Wt. n-Val.		0.033	0.043
E.G. Elev (ft)	901.57	Reach Len. (ft)	410.00	430.76	480.00
Crit W.S. (ft)	897.03	Flow Area (sq ft)		30569.37	526.77
E.G. Slope (ft/ft)	0.001645	Area (sq ft)		30569.37	602.43
Q Total (cfs)	227000.00	Flow (cfs)		226030.50	969.51
Top Width (ft)	4150.35	Top Width (ft)		3760.95	389.39
Vel Total (ft/s)	7.30	Avg. Vel. (ft/s)		7.39	1.84
Max Chl Dpth (ft)	12.72	Hydr. Depth (ft)		8.13	1.51
Conv. Total (cfs)	5597272.0	Conv. (cfs)		5573366.5	23905.7
Length Wtd. (ft)	430.95	Wetted Per. (ft)		3764.03	350.01
Min Ch El (ft)	888.00	Shear (lb/sq ft)		0.83	0.15
Alpha	1.02	Stream Power (lb/ft s)		6.17	0.28
Frctn Loss (ft)	0.78	Cum Volume (acre-ft)	5662.27	60855.93	22375.41
C & E Loss (ft)	0.01	Cum SA (acres)	1507.22	6566.25	6630.07

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	901.21	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.76	Wt. n-Val.		0.034	
E.G. Elev (ft)	901.98	Reach Len. (ft)	410.00	430.76	480.00
Crit W.S. (ft)	897.03	Flow Area (sq ft)		32412.51	
E.G. Slope (ft/ft)	0.001378	Area (sq ft)		32412.51	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	3761.13	Top Width (ft)		3761.13	
Vel Total (ft/s)	7.00	Avg. Vel. (ft/s)		7.00	
Max Chl Dpth (ft)	13.21	Hydr. Depth (ft)		8.62	
Conv. Total (cfs)	6114952.0	Conv. (cfs)		6114952.0	
Length Wtd. (ft)	430.76	Wetted Per. (ft)		3765.77	
Min Ch El (ft)	888.00	Shear (lb/sq ft)		0.74	
Alpha	1.00	Stream Power (lb/ft s)		5.19	

Frctn Loss (ft)	0.62	Cum Volume (acre-ft)	936.74	63991.08	9104.33
C & E Loss (ft)	0.00	Cum SA (acres)	168.02	6572.81	1392.52

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18708.77 LB	19649.05	85556.27	9587.70	942.34	37.69	10.20	8.92
19649.05	20589.34	71779.28	8374.48	940.68	31.62	8.91	8.57
20589.34	21529.62	59041.60	9424.77	940.60	26.01	10.02	6.26
21529.62	22469.90 RB	9653.34	3182.42	940.41	4.25	3.38	3.03
22469.90	22709.81	848.75	429.22	239.93	0.37	1.79	1.98
22709.81	22949.71	120.75	97.55	110.09	0.05	0.89	1.24

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18708.77 LB	19649.05	84971.21	10048.48	942.96	37.43	10.69	8.46
19649.05	20589.34	72149.16	8835.27	940.68	31.78	9.40	8.17
20589.34	21529.62	58770.61	9885.56	940.60	25.89	10.51	5.95
21529.62	22469.90 RB	11109.00	3643.21	941.52	4.89	3.87	3.05

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 193.16

INPUT
Description: Left Channel Bank Station Interpolated

FLOW FULLY EXPANDED
(END 4:1 TRANSITION)

Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17457.1	914.9	17583.5	907.6	17603.2	908	17621	905.4	17642.4	909.3
17661.4	909.1	17682.6	904.6	17932.6	900.6	18081.2	902	18263.3	901.3
18460.8	900.3	18633.3	902.5	18643.03	899.8	864 18666.8	893.5	18810.5	892.7
18956.4	889.2	18998.3	893.6	19030	890.6	19198.3	889.9	19198.5	891.8
19232.6	890.5	19241.4	892.3	19268.9	889.5	19408.1	890	19639.4	890.3
19706.4	893.5	19849.7	890.7	20006.4	889.5	20010.8	892.4	20018.3	893.9
20140.7	890.4	20173.8	891.4	20224.2	889	20321.6	889.8	20348.1	887.5
20451.6	892.2	20513.9	889.6	20840.5	887.6	20880.4	897.1	20971.5	884.8
21022.4	885	21112.1	889.7	21124.5	885.1	21178.1	892.1	21188.2	895.9
21210	892.8	21256.5	891.2	21330.7	897.8	21510.9	897.3	21747.5	897.6
21946.2	895	22168.9	893.5	22237.9	895	22304.5	899	22390.2	896.3
22543.9	900.1	22732.5	897.3	22804.4	898	22860.5	904	22981.3	906.5
23134.3	905.1	23152	907	23165	911.1	23179.8	906	23193.5	906.6
23206.5	898.1	23240.5	900.3	23251.7	905.1	23280.3	906.2	23292.4	903
23304.6	904.8	23354.8	904.3	23539.7	904.7	23543.4	904.7	23803.6	905.6
23839.5	905.5	24030.8	905.3	24279.1	905.4	24465.8	905.3	24552.6	904.5
24857.8	905.4	25108	904.8	25128.2	904.8	25349.1	904.8	25587.8	905.3
25784.1	905.3	25865.5	904.8	25953.1	906.1	25973.1	902.3	26013.7	904.9
26051.7	904.4	26070.6	908.2	26088.1	905.7	26100.3	910	26111.6	910.6
26120.1	905.6	26241	910.7						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17457.1	.025	18633.3	.032	19030	.029	20513.9	.043	22543.9	.043
23165	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18643.03	22543.9	440	478.38	605	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17457.1	18263.3	913	22981.3	26241	913

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	899.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.94	Wt. n-Val.		0.033	0.043
E.G. Elev (ft)	900.78	Reach Len. (ft)	440.00	478.38	605.00
Crit W.S. (ft)	896.53	Flow Area (sq ft)		28978.13	389.07
E.G. Slope (ft/ft)	0.002012	Area (sq ft)		28978.13	414.61
Q Total (cfs)	227000.00	Flow (cfs)		226210.77	789.24
Top Width (ft)	4179.13	Top Width (ft)		3889.93	289.21
Vel Total (ft/s)	7.73	Avg. Vel. (ft/s)		7.81	2.03
Max Chl Dpth (ft)	15.03	Hydr. Depth (ft)		7.45	1.50
Conv. Total (cfs)	5060862.0	Conv. (cfs)		5043266.5	17595.7
Length Wtd. (ft)	478.95	Wetted Per. (ft)		3899.59	259.87
Min Ch El (ft)	884.80	Shear (lb/sq ft)		0.93	0.19
Alpha	1.02	Stream Power (lb/ft s)		7.29	0.38
Frctn Loss (ft)	0.62	Cum Volume (acre-ft)	5662.27	60561.50	22369.81
C & E Loss (ft)	0.10	Cum SA (acres)	1507.22	6528.42	6626.33

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	900.56	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.79	Wt. n-Val.		0.033	
E.G. Elev (ft)	901.35	Reach Len. (ft)	440.00	478.38	605.00
Crit W.S. (ft)	896.53	Flow Area (sq ft)		31804.25	
E.G. Slope (ft/ft)	0.001516	Area (sq ft)		31804.25	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	3900.87	Top Width (ft)		3900.87	
Vel Total (ft/s)	7.14	Avg. Vel. (ft/s)		7.14	
Max Chl Dpth (ft)	15.76	Hydr. Depth (ft)		8.15	
Conv. Total (cfs)	5830346.5	Conv. (cfs)		5830346.5	
Length Wtd. (ft)	478.38	Wetted Per. (ft)		3911.67	
Min Ch El (ft)	884.80	Shear (lb/sq ft)		0.77	
Alpha	1.00	Stream Power (lb/ft s)		5.49	
Frctn Loss (ft)	0.48	Cum Volume (acre-ft)	936.74	63673.57	9104.33
C & E Loss (ft)	0.08	Cum SA (acres)	168.02	6534.92	1392.52

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18643.03 LB	19618.25	80368.97	8609.74	978.34	35.40	8.83	9.33
19618.25	20593.46	84339.16	8914.61	976.73	37.15	9.14	9.46
20593.46	21568.68	49733.73	8074.25	979.80	21.91	8.28	6.16
21568.68	22543.90 RB	11768.87	3379.53	964.71	5.18	3.50	3.48
22543.90	22790.37	708.75	346.66	228.59	0.31	1.52	2.04
22790.37	23036.85	80.49	42.42	31.28	0.04	1.36	1.90

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18643.03 LB	19618.25	79706.01	9316.62	979.21	35.11	9.55	8.56
19618.25	20593.46	83491.84	9621.50	976.73	36.78	9.87	8.68
20593.46	21568.68	49844.00	8781.14	979.80	21.96	9.00	5.68
21568.68	22543.90 RB	13958.14	4084.99	975.92	6.15	4.19	3.42

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less

than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 193.07

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17608	911.3	17723.7	908.6	17798.2	904.9	17944.5	904.3	18133.7	900.4
18203.9	901	18212.8	900.1	18228	901.2	18350.5	900.1	18565.9	899.1
18646.8	900.8	18675.3	893.6	18818.2	890.5	18862.4	891	18893.6	887.7
18990.2	887.6	19041.3	891.2	19076.2	887.2	19203	887.6	19375.9	888
19669.6	888.3	19800.7	888.8	19858.1	888.5	19977.8	887.7	20028.8	889.7
20071	885.4	20200.5	887.8	20320.3	886.9	20401.5	885.9	20418.9	883.9
20496.9	883.9	20683.7	884.1	20843.6	884.6	20942.6	886.4	20977.2	884
21054.4	888	21190.4	891.8	21246.6	891.9	21314.7	896.4	21475.8	896.5
21596.3	897	21665.9	894.7	21714.7	890.6	21763.7	897	21882.2	894.9
21915.4	894	21998.8	896.4	22028.7	895.3	22056.7	892.1	22090.1	894.3
22119.3	891.7	22166.7	894.7	22349.9	895.5	22424	894.8	22544.8	898.7
22560.4	899.9	22651	897.8	22815.7	895.6	22902.2	898.5	22954.3	904.6
23082.5	904.1	23152.8	904.5	23167	906.4	23178.9	903.9	23195.7	905.4
23209.5	897.9	23241.7	897.9	23257.4	904.5	23274	904.6	23318.6	902.1
23350.6	903	23361	901.1	23385.9	903.1	23549.3	903.8	23598.3	902.7
23715.6	902.1	23988.8	900.4	24095.8	900	24376.5	900.7	24429.4	900.7
24558	900.8	24673.8	900.6	24707.1	901.9	24749.8	900.7	24826.7	901
24993.1	902.1	25152.4	902	25436	901.4	25523.5	901.4	25668.6	901.2
25785.8	901.3	25893	904.9	25960.4	905.2	25985.6	903	26056.4	903.4
26110	908.5								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17608	.025	18646.8	.032	19800.7	.029	20683.7	.043	22560.4	.043
23274	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18646.8	22560.4	495	530.32	605	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22954.3	26110	910

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	899.45	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.60	Wt. n-Val.	0.025	0.033	0.043
E.G. Elev (ft)	900.06	Reach Len. (ft)	495.00	530.32	605.00
Crit W.S. (ft)	893.80	Flow Area (sq ft)	16.24	36110.17	723.58
E.G. Slope (ft/ft)	0.000903	Area (sq ft)	16.24	36110.17	778.61
Q Total (cfs)	227000.00	Flow (cfs)	9.10	225724.63	1266.27
Top Width (ft)	4364.17	Top Width (ft)	92.43	3902.43	369.32
Vel Total (ft/s)	6.16	Avg. Vel. (ft/s)	0.56	6.25	1.75
Max Chl Dpth (ft)	15.55	Hydr. Depth (ft)	0.18	9.25	2.19
Conv. Total (cfs)	7554425.5	Conv. (cfs)	302.8	7511982.0	42140.8
Length Wtd. (ft)	531.69	Wetted Per. (ft)	92.43	3905.81	330.71
Min Ch El (ft)	883.90	Shear (lb/sq ft)	0.01	0.52	0.12
Alpha	1.02	Stream Power (lb/ft s)	0.01	3.26	0.22
Frctn Loss (ft)	0.45	Cum Volume (acre-ft)	5662.19	60204.10	22361.52
C & E Loss (ft)	0.02	Cum SA (acres)	1506.76	6485.63	6621.76

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	900.27	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.52	Wt. n-Val.		0.033	
E.G. Elev (ft)	900.79	Reach Len. (ft)	495.00	530.32	605.00
Crit W.S. (ft)	893.80	Flow Area (sq ft)		39320.96	
E.G. Slope (ft/ft)	0.000707	Area (sq ft)		39320.96	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	3911.51	Top Width (ft)		3911.51	
Vel Total (ft/s)	5.77	Avg. Vel. (ft/s)		5.77	
Max Chl Dpth (ft)	16.37	Hydr. Depth (ft)		10.05	
Conv. Total (cfs)	8539872.0	Conv. (cfs)		8539872.0	
Length Wtd. (ft)	530.32	Wetted Per. (ft)		3915.39	

Min Ch El (ft)	883.90	Shear (lb/sq ft)		0.44	
Alpha	1.00	Stream Power (lb/ft s)		2.56	
Frctn Loss (ft)	0.36	Cum Volume (acre-ft)	936.74	63283.02	9104.33
C & E Loss (ft)	0.00	Cum SA (acres)	168.02	6492.03	1392.52

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18439.04	18508.29	0.15	0.76	18.10	0.00	0.04	0.19
18508.29	18577.55	8.89	15.21	69.26	0.00	0.22	0.58
18577.55	18646.80	0.06	0.27	5.08	0.00	0.05	0.23
18646.80 LB	19625.20	67111.84	10202.37	974.36	29.56	10.48	6.58
19625.20	20603.60	98949.71	12247.87	978.81	43.59	12.52	8.08
20603.60	21582.00	48106.19	9421.30	978.80	21.19	9.63	5.11
21582.00	22560.40 RB	11556.89	4238.63	973.84	5.09	4.36	2.73
22560.40	22797.04	734.27	442.45	217.32	0.32	2.04	1.66
22797.04	23033.68	532.01	281.13	113.39	0.23	2.48	1.89

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18646.80 LB	19625.20	67321.80	11003.11	977.71	29.66	11.27	6.12
19625.20	20603.60	97476.34	13051.66	978.81	42.94	13.34	7.47
20603.60	21582.00	48582.43	10225.09	978.80	21.40	10.45	4.75
21582.00	22560.40 RB	13619.43	5041.11	980.06	6.00	5.15	2.70

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 192.97

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18073.4	919	18101.2	898.9	18137.8	901.8	18157.4	900	18241.6	899.2
18432.6	898.8	18443.5	898.8	18654.7	899	18764.6	897.8	18894.6	898.3
18966.4	898.3	18992.7	891.9	19094.3	887.6	19149.9	887.2	19406	887.2
19651.2	887.1	19773.5	887.1	19899.8	887.5	20007.4	886.7	20100.2	884.8
20141.7	886.7	20168.1	885.2	20494.2	884.4	20652.7	884.1	20733.7	883
20764.3	886.6	20845.7	889	21018.2	885.2	21068.5	888.9	21157.8	888.5
21202.7	893.5	21336.1	891.1	21452.1	891.9	21496.9	893.1	21504.1	891.3
21531.4	893.1	21599.9	888.8	21635.9	893.2	21663.6	891.9	21750.3	893.4
21766.3	892.6	21800.8	894.1	21908.9	890.2	21924.5	888.7	22001.4	891.4
22042	890.4	22075.2	893.8	22099.8	890.3	22177.2	893.8	22254.2	894.8
22295.7	892.8	22354	894.1	22385	891.2	22501.9	890.9	22539.5	898.9
22586.8	894.5	22688.4	896.4	22844.3	895.9	22916.3	895.8	23040.6	896.6
23098.7	896.5	23204.9	896.7	23280.2	896.4	23297.5	901.3	23300.2	899.5
23313.6	900.7	23326	895.9	23357.7	896.7	23373.6	902.2	23506.7	902.4
23517.9	900.3	23563.7	901.4	23730.2	901.2	23816.2	900.7	24044.7	901.2
24139.7	901.4	24410.7	901.2	24429.6	901.2	24602	901.2	24673.7	901.1
24779.9	899.8	24815.7	902	24827.6	900.2	24855.2	901.9	24943.6	900.8
25131.2	901.6	25172	901.7	25325	901.5	25507	901.5	25700.6	902
25846	902.1	25958.1	903.8	25976	904	26094.8	908.5	26154.3	907.1
26204	910.1								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18073.4	.025	18966.4	.029	20494.2	.043	22539.5	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18966.4	22539.5	495	491.43	525	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18073.4	18900	915	23297.5	26204	915

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	899.04	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.54	Wt. n-Val.	0.025	0.034	0.025
E.G. Elev (ft)	899.58	Reach Len. (ft)	495.00	491.43	525.00

Crit W.S. (ft)	893.58	Flow Area (sq ft)	49.18	36771.98	2112.75
E.G. Slope (ft/ft)	0.000806	Area (sq ft)	298.67	36771.98	2220.28
Q Total (cfs)	227000.00	Flow (cfs)	67.95	219823.80	7108.27
Top Width (ft)	5020.38	Top Width (ft)	650.68	3573.10	796.60
Vel Total (ft/s)	5.83	Avg. Vel. (ft/s)	1.38	5.98	3.36
Max Chl Dpth (ft)	16.04	Hydr. Depth (ft)	0.74	10.29	2.82
Conv. Total (cfs)	7994367.5	Conv. (cfs)	2392.9	7741639.5	250335.2
Length Wtd. (ft)	492.66	Wetted Per. (ft)	66.40	3577.35	750.62
Min Ch El (ft)	883.00	Shear (lb/sq ft)	0.04	0.52	0.14
Alpha	1.03	Stream Power (lb/ft s)	0.05	3.09	0.48
Frctn Loss (ft)	0.42	Cum Volume (acre-ft)	5660.40	59760.45	22340.70
C & E Loss (ft)	0.01	Cum SA (acres)	1502.53	6440.12	6613.66

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	899.92	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.50	Wt. n-Val.		0.034	
E.G. Elev (ft)	900.42	Reach Len. (ft)	495.00	491.43	525.00
Crit W.S. (ft)	893.58	Flow Area (sq ft)		39917.42	
E.G. Slope (ft/ft)	0.000663	Area (sq ft)		39917.42	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	3573.10	Top Width (ft)		3573.10	
Vel Total (ft/s)	5.69	Avg. Vel. (ft/s)		5.69	
Max Chl Dpth (ft)	16.92	Hydr. Depth (ft)		11.17	
Conv. Total (cfs)	8817807.0	Conv. (cfs)		8817807.0	
Length Wtd. (ft)	491.43	Wetted Per. (ft)		3579.99	
Min Ch El (ft)	883.00	Shear (lb/sq ft)		0.46	
Alpha	1.00	Stream Power (lb/ft s)		2.62	
Frctn Loss (ft)	0.35	Cum Volume (acre-ft)	936.74	62800.67	9104.33
C & E Loss (ft)	0.01	Cum SA (acres)	168.02	6446.47	1392.52

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18847.33	18906.87	7.03	5.09	6.87	0.00	0.74	1.38
18906.87	18966.40	60.92	44.09	59.53	0.03	0.74	1.38
18966.40 LB	19859.68	72858.92	10120.35	894.14	32.10	11.33	7.20
19859.68	20752.95	91569.20	12410.86	893.52	40.34	13.89	7.38
20752.95	21646.22	34735.73	8220.54	894.58	15.30	9.20	4.23
21646.22	22539.50 RB	20659.94	6020.25	895.11	9.10	6.74	3.43
22539.50	22783.80	2608.44	742.03	244.52	1.15	3.04	3.52
22783.80	23028.10	2574.42	735.94	244.30	1.13	3.01	3.50
23028.10	23272.40	1841.82	601.99	244.30	0.81	2.46	3.06
23272.40	23516.70	83.58	32.78	17.49	0.04	1.91	2.55

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18966.40 LB	19859.68	74933.77	10906.71	895.76	33.01	12.21	6.87
19859.68	20752.95	92273.53	13197.21	893.52	40.65	14.77	6.99
20752.95	21646.22	36766.88	9006.90	894.58	16.20	10.08	4.08
21646.22	22539.50 RB	23025.82	6806.61	896.13	10.14	7.62	3.38

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 192.88

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17937.3	910.1	17968.1	900.1	17970.3	897.4	17974.2	896.4	17984.2	899.4
18116.2	897.1	18220.6	898.8	18387.7	898.3	18605.5	898.6	18644.3	898.6
18807.6	898.5	18961.8	898.2	19105.5	897.8	19162.6	895.9	19219.4	898
19266.9	886.8	19578.7	886.1	19816	885.7	19859.6	890.1	19893.7	888.3
19925.8	889.9	20005.4	887.5	20022.9	888.6	20069.4	885.5	20200.3	884
20275.5	883.9	20578.2	883.7	20735.8	883.8	20862.7	887.9	21012.5	887.5

21092.2	887.8	21132.1	891.8	21174.2	892.8	21185.6	889.4	21228.8	891.7
21370.9	891.3	21443.9	890.7	21464.4	888	21502.4	888.1	21559	892.9
21620.9	890.2	21703.2	891.9	21760.1	888.2	21817.1	888.4	21867.2	891.4
21950.7	890.6	22005.7	892.2	22116.9	890.4	22172.3	892.1	22256.5	892.5
22307.3	893.9	22314.7	892.4	22360.4	893.6	22419.6	890.4	22463.6	891.7
22500.6	899	22533.5	897.2	22545	894.4	22573.2	896.3	22601	894.9
22762.7	895.6	22785	895.5	22972.2	896.7	23120.4	895.6	23155.5	894.8
23169	897.4	23302.9	896	23534.9	896.4	23646.2	896.1	23844.4	899.2
24013.7	900.3	24029.7	900.5	24165.5	900.6	24296	900.7	24432.7	900.7
24600.8	900.7	24665.9	900.9	24796.4	901	24958.4	900.1	24984.1	901.7
24994.5	900.5	25025.5	902.7	25055.4	900	25061.3	900.5	25287.3	901.1
25443.4	903	25529.1	902.3	25712.1	902.4	25907.1	902	26035.5	902.8
26050.2	902.7	26063.2	907.2	26109.1	907.2	26136.7	903.5	26224.3	905.1
26258	908.7								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17937.3	.032	18220.6	.025	19219.4	.029	20578.2	.043	22500.6	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19219.4	22500.6	415	496.28	760	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
17937.3	18644.3	908

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	898.53	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.62	Wt. n-Val.	0.025	0.034	0.025
E.G. Elev (ft)	899.15	Reach Len. (ft)	415.00	496.28	760.00
Crit W.S. (ft)	893.45	Flow Area (sq ft)	290.20	33750.04	3000.59
E.G. Slope (ft/ft)	0.000925	Area (sq ft)	454.03	33750.04	3000.59
Q Total (cfs)	227000.00	Flow (cfs)	385.53	217109.97	9504.51
Top Width (ft)	5456.87	Top Width (ft)	885.70	3278.82	1292.35
Vel Total (ft/s)	6.13	Avg. Vel. (ft/s)	1.33	6.43	3.17
Max Chl Dpth (ft)	14.83	Hydr. Depth (ft)	0.63	10.29	2.32
Conv. Total (cfs)	7465692.5	Conv. (cfs)	12679.5	7140424.0	312589.2
Length Wtd. (ft)	514.46	Wetted Per. (ft)	460.42	3283.15	1293.11
Min Ch El (ft)	883.70	Shear (lb/sq ft)	0.04	0.59	0.13
Alpha	1.07	Stream Power (lb/ft s)	0.05	3.82	0.42
Frctn Loss (ft)	0.41	Cum Volume (acre-ft)	5656.12	59362.64	22309.24
C & E Loss (ft)	0.01	Cum SA (acres)	1493.81	6401.47	6601.07

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	899.48	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.59	Wt. n-Val.		0.034	
E.G. Elev (ft)	900.06	Reach Len. (ft)	415.00	496.28	760.00
Crit W.S. (ft)	893.45	Flow Area (sq ft)		36852.84	
E.G. Slope (ft/ft)	0.000767	Area (sq ft)		36852.84	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	3281.20	Top Width (ft)		3281.20	
Vel Total (ft/s)	6.16	Avg. Vel. (ft/s)		6.16	
Max Chl Dpth (ft)	15.78	Hydr. Depth (ft)		11.23	
Conv. Total (cfs)	8198463.0	Conv. (cfs)		8198463.0	
Length Wtd. (ft)	497.09	Wetted Per. (ft)		3287.53	
Min Ch El (ft)	883.70	Shear (lb/sq ft)		0.54	
Alpha	1.00	Stream Power (lb/ft s)		3.30	
Frctn Loss (ft)	0.36	Cum Volume (acre-ft)	936.74	62367.63	9104.33
C & E Loss (ft)	0.01	Cum SA (acres)	168.02	6407.80	1392.52

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18706.56	18792.03	0.02	0.33	32.98	0.00	0.01	0.06
18792.03	18877.51	1.69	7.22	85.47	0.00	0.08	0.23
18877.51	18962.98	10.22	21.27	85.47	0.00	0.25	0.48
18962.98	19048.45	27.63	38.63	85.47	0.01	0.45	0.72
19048.45	19133.93	76.71	71.29	85.49	0.03	0.83	1.08
19133.93	19219.40	269.25	151.45	85.53	0.12	1.77	1.78
19219.40 LB	20039.70	71533.33	9281.01	822.02	31.51	11.31	7.71

20039.70	20860.00	93021.08	11625.95	820.44	40.98	14.17	8.00
20860.00	21680.30	30435.46	7038.12	821.53	13.41	8.58	4.32
21680.30	22500.60 RB	22120.11	5804.96	819.16	9.74	7.10	3.81
22500.60	22751.09	2586.56	714.70	242.37	1.14	2.95	3.62
22751.09	23001.59	1956.80	612.56	250.50	0.86	2.45	3.19
23001.59	23252.08	1761.35	575.32	250.76	0.78	2.30	3.06
23252.08	23502.57	1816.43	585.80	250.50	0.80	2.34	3.10
23502.57	23753.07	1366.40	493.83	250.51	0.60	1.97	2.77
23753.07	24003.56	16.94	18.38	48.48	0.01	0.38	0.92

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19219.40 LB	20039.70	74559.89	10056.85	823.49	32.85	12.26	7.41
20039.70	20860.00	94541.02	12401.79	820.44	41.65	15.12	7.62
20860.00	21680.30	33073.17	7813.96	821.53	14.57	9.53	4.23
21680.30	22500.60 RB	24825.90	6580.24	822.06	10.94	8.02	3.77

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 192.78

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17836.7	918.6	17884.9	905.9	17900.3	900.2	17925.8	895.3	17940.1	898.2
17955.7	898.8	18000.8	897.2	18113.6	896.2	18135.4	898.2	18143.8	900.6
18163.3	896.5	18182.7	900.5	18441.9	897.9	18719.1	897.3	18904.8	897.2
19141.2	897	19281.4	896.9	19307.3	899.1	19327	897.4	19363.5	891.7
19385.2	885.3	19721.9	884.1	20054.5	883.4	20078.8	886.6	20107	883.9
20147.2	886	20180	884.4	20206.9	884.4	20422.2	883.8	20507.1	884.8
20555.2	883.6	20740.6	884.2	20820.7	883.3	20890.8	887.8	21085.7	890.2
21191.4	890.7	21328.8	889	21474.3	890.6	21543.8	886.8	21603.8	888.3
21662.3	892	21715.4	890.9	21808.9	890.7	21836.6	889.5	21873.4	889.8
21936.6	887.6	21967.8	889.6	22083.2	887.5	22150.3	897.1	22176.8	896.2
22186.9	893.5	22420.8	894.3	22634.2	894.4	22856.8	895.3	22950.1	895.6
22956.8	896.9	22976.7	894.9	23013.3	894.7	23210.9	894.9	23220.8	894.9
23402.1	894.3	23607.8	894	23677.1	894.4	23721.1	896.5	23827.6	895.6
24068.7	896.3	24181.1	897.3	24277.3	896.3	24364.2	897.9	24380.3	897.4
24396.1	901.4	24421.6	901.7	24442	896.1	24495.8	897.7	24520.5	900.6
24542.9	901	24555.2	899.4	24585.2	900.9	24701.5	900.8	24884.9	900.7
25115.7	901.2	25152	901.2	25439.1	901.7	25629.5	902.4	25706.8	902.7
25940.3	903.5	26112.2	904.8	26123.8	907.1	26165	909.3	26166.4	908.4
26189.1	908.5	26214.4	905.2	26249.4	907.3	26299.7	906.7	26318.1	909.6
26344	910.2								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17836.7	.032	18182.7	.025	19307.3	.029	20890.8	.043	22150.3	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19307.3	22150.3	410	473.4	635	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17836.7	19000	915	24396.1	26344	915

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	898.14	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.59	Wt. n-Val.	0.025	0.032	0.025
E.G. Elev (ft)	898.73	Reach Len. (ft)	410.00	473.40	635.00
Crit W.S. (ft)	892.60	Flow Area (sq ft)	327.13	31868.19	6701.74
E.G. Slope (ft/ft)	0.000708	Area (sq ft)	984.02	31868.19	6776.57
Q Total (cfs)	227000.00	Flow (cfs)	553.20	204391.48	22055.32
Top Width (ft)	6211.91	Top Width (ft)	1082.25	2831.82	2297.83
Vel Total (ft/s)	5.84	Avg. Vel. (ft/s)	1.69	6.41	3.29
Max Chl Dpth (ft)	14.84	Hydr. Depth (ft)	1.11	11.25	3.00
Conv. Total (cfs)	8528354.0	Conv. (cfs)	20783.6	7678955.5	828615.1
Length Wtd. (ft)	493.84	Wetted Per. (ft)	296.00	2834.95	2233.69
Min Ch El (ft)	883.30	Shear (lb/sq ft)	0.05	0.50	0.13
Alpha	1.12	Stream Power (lb/ft s)	0.08	3.19	0.44

Frctn Loss (ft)	0.34	Cum Volume (acre-ft)	5649.27	58988.84	22223.94
C & E Loss (ft)	0.00	Cum SA (acres)	1484.43	6366.66	6569.75

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	899.03	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.66	Wt. n-Val.		0.032	0.025
E.G. Elev (ft)	899.70	Reach Len. (ft)	410.00	473.40	635.00
Crit W.S. (ft)	892.60	Flow Area (sq ft)		34413.44	354.71
E.G. Slope (ft/ft)	0.000684	Area (sq ft)		34413.44	354.71
Q Total (cfs)	227000.00	Flow (cfs)		225604.30	1395.71
Top Width (ft)	2924.53	Top Width (ft)		2842.22	82.31
Vel Total (ft/s)	6.53	Avg. Vel. (ft/s)		6.56	3.93
Max Chl Dpth (ft)	15.73	Hydr. Depth (ft)		12.11	4.31
Conv. Total (cfs)	8681134.0	Conv. (cfs)		8627758.0	53376.1
Length Wtd. (ft)	478.70	Wetted Per. (ft)		2845.38	88.06
Min Ch El (ft)	883.30	Shear (lb/sq ft)		0.52	0.17
Alpha	1.00	Stream Power (lb/ft s)		3.38	0.68
Frctn Loss (ft)	0.32	Cum Volume (acre-ft)	936.74	61961.66	9101.24
C & E Loss (ft)	0.00	Cum SA (acres)	168.02	6372.92	1391.80

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18915.14	19013.18	21.60	13.47	13.18	0.01	1.02	1.60
19013.18	19111.22	173.17	104.78	98.04	0.08	1.07	1.65
19111.22	19209.26	195.26	112.61	98.04	0.09	1.15	1.73
19209.26	19307.30	163.15	96.27	86.74	0.07	1.11	1.69
19307.30 LB	20018.05	68721.18	9115.84	700.98	30.27	13.03	7.54
20018.05	20728.80	77879.61	9883.56	711.21	34.31	13.91	7.88
20728.80	21439.55	34982.47	6874.88	710.93	15.41	9.67	5.09
21439.55	22150.30 RB	22808.26	5993.91	711.84	10.05	8.43	3.81
22150.30	22429.88	4110.20	1098.08	279.95	1.81	3.93	3.74
22429.88	22709.46	3774.11	1042.73	279.58	1.66	3.73	3.62
22709.46	22989.04	2474.69	809.72	279.81	1.09	2.90	3.06
22989.04	23268.62	3126.69	931.40	279.58	1.38	3.33	3.36
23268.62	23548.20	3869.38	1058.45	279.58	1.70	3.79	3.66
23548.20	23827.78	2723.23	857.37	279.64	1.20	3.07	3.18
23827.78	24107.36	1464.22	590.81	279.58	0.65	2.11	2.48
24107.36	24386.94	512.79	313.17	275.97	0.23	1.14	1.64

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19307.30 LB	20018.05	74744.59	9748.13	711.41	32.93	13.73	7.67
20018.05	20728.80	84899.30	10521.21	711.21	37.40	14.80	8.07
20728.80	21439.55	39445.23	7512.53	710.93	17.38	10.57	5.25
21439.55	22150.30 RB	26515.18	6631.57	711.84	11.68	9.33	4.00
22150.30	22429.88	1395.71	354.71	88.06	0.61	4.31	3.93

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 192.69

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17820	920.3	17862.5	900.3	17950.3	896.7	18131	896.6	18283.5	896.4
18322.5	898.8	18344.7	897.6	18360.7	899.4	18400.7	897.1	18494.5	897.5
18678.5	897.8	18679.1	897.8	18883.9	897.3	18933.3	898	19143.9	897.3
19277	896.5	19287.9	897.2	19322.8	897.2	19369.7	888.2	19412.6	889
19459.7	888.2	19485.4	885.3	19683	884.8	19820.8	884.5	20209	883.7
20430.5	884.1	20594.3	882.7	20629.1	883.9	20678.1	883	20812.5	883.2
20839.7	883.8	20842.4	884.3	20854.6	884.1	20921.7	886.9	20958.7	886.7
21029.5	889.7	21077.7	888.9	21115.4	889.5	21203.9	889	21340.3	886.1
21416.8	890.5	21486	888.4	21550.1	889.7	21598.7	889.1	21616.9	887.7

21689.2	887.1	21746	884.3	21770.3	889.9	21792.1	895.8	21813.7	895.1
21833.3	892.6	21885	891.3	22074.3	892.1	22101.2	892.1	22106.8	892.8
22265.1	893	22491.5	893.5	22650	894.4	22814	895.3	22972.2	895.2
23015.3	896.4	23025.5	895	23072.7	894.3	23301.2	895	23424.3	895.2
23579.6	894.4	23589.8	894.4	23840.6	894.9	23976.9	894.3	24121.6	894.2
24193.6	893.6	24211	895.8	24238.2	894.7	24250.9	895.5	24309.4	895.1
24498.4	896	24570.4	895.5	24772.1	896.2	24911.7	896.4	24932.3	897.3
24956.1	901	24978.4	903.5	24990.6	896.7	25026	898.4	25036.8	902.9
25048.1	903.8	25072.9	901.7	25247.4	902.7	25417.1	903	25455.5	903.8
25698.4	904.3	25894.9	904.9	26088.5	905	26234.5	904.5	26244	907.2
26291	910.2								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17820	.032	17950.3	.025	19322.8	.029	21029.5	.043	21792.1	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19322.8	21792.1	450	487.89	560	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17820	18933.3	918	24978.4	26291	918

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	897.80	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.59	Wt. n-Val.	0.025	0.031	0.025
E.G. Elev (ft)	898.38	Reach Len. (ft)	450.00	487.89	560.00
Crit W.S. (ft)	892.38	Flow Area (sq ft)	187.75	29259.47	10392.28
E.G. Slope (ft/ft)	0.000677	Area (sq ft)	761.18	29259.47	10405.89
Q Total (cfs)	227000.00	Flow (cfs)	199.99	191133.67	35666.34
Top Width (ft)	6880.90	Top Width (ft)	1243.39	2469.30	3168.21
Vel Total (ft/s)	5.70	Avg. Vel. (ft/s)	1.07	6.53	3.43
Max Chl Dpth (ft)	15.10	Hydr. Depth (ft)	0.57	11.85	3.31
Conv. Total (cfs)	8723371.0	Conv. (cfs)	7685.3	7345065.5	1370619.9
Length Wtd. (ft)	505.17	Wetted Per. (ft)	328.49	2472.31	3144.01
Min Ch El (ft)	882.70	Shear (lb/sq ft)	0.02	0.50	0.14
Alpha	1.16	Stream Power (lb/ft s)	0.03	3.27	0.48
Frctn Loss (ft)	0.37	Cum Volume (acre-ft)	5641.06	58656.68	22098.70
C & E Loss (ft)	0.03	Cum SA (acres)	1473.49	6337.86	6529.91

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	898.67	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.70	Wt. n-Val.		0.031	0.025
E.G. Elev (ft)	899.37	Reach Len. (ft)	450.00	487.89	560.00
Crit W.S. (ft)	892.35	Flow Area (sq ft)		31413.92	2583.88
E.G. Slope (ft/ft)	0.000672	Area (sq ft)		31413.92	2583.88
Q Total (cfs)	227000.00	Flow (cfs)		213497.45	13502.54
Top Width (ft)	2877.20	Top Width (ft)		2469.30	407.90
Vel Total (ft/s)	6.68	Avg. Vel. (ft/s)		6.80	5.23
Max Chl Dpth (ft)	15.97	Hydr. Depth (ft)		12.72	6.33
Conv. Total (cfs)	8753895.0	Conv. (cfs)		8233190.5	520704.1
Length Wtd. (ft)	497.27	Wetted Per. (ft)		2473.78	413.88
Min Ch El (ft)	882.70	Shear (lb/sq ft)		0.53	0.26
Alpha	1.01	Stream Power (lb/ft s)		3.62	1.37
Frctn Loss (ft)	0.39	Cum Volume (acre-ft)	936.74	61603.96	9079.82
C & E Loss (ft)	0.00	Cum SA (acres)	168.02	6344.06	1388.23

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18922.05	19022.24	0.22	1.29	27.90	0.00	0.05	0.17
19022.24	19122.43	13.99	25.98	100.19	0.01	0.26	0.54
19122.43	19222.61	68.97	67.66	100.19	0.03	0.68	1.02
19222.61	19322.80	116.81	92.82	100.21	0.05	0.93	1.26
19322.80 LB	19940.13	50133.00	7282.56	618.36	22.09	11.80	6.88
19940.13	20557.45	66239.04	8601.80	617.33	29.18	13.93	7.70
20557.45	21174.78	50960.97	7473.00	617.55	22.45	12.11	6.82
21174.78	21792.10 RB	23800.68	5902.11	619.08	10.48	9.56	4.03
21792.10	22092.03	7743.35	1685.53	300.11	3.41	5.62	4.59
22092.03	22391.95	6014.69	1448.19	299.97	2.65	4.83	4.15

22391.95	22691.88	4311.65	1185.93	299.93	1.90	3.95	3.64
22691.88	22991.81	2211.06	794.40	299.94	0.97	2.65	2.78
22991.81	23291.73	2736.56	902.94	300.04	1.21	3.01	3.03
23291.73	23591.66	2548.47	865.05	299.93	1.12	2.88	2.95
23591.66	23891.59	2908.41	936.41	299.93	1.28	3.12	3.11
23891.59	24191.51	3617.94	1067.46	299.93	1.59	3.56	3.39
24191.51	24491.44	1894.93	724.33	300.12	0.83	2.42	2.62
24491.44	24791.37	1321.22	583.26	299.93	0.58	1.94	2.27
24791.37	25091.29	358.06	198.80	144.19	0.16	1.38	1.80

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19322.80 LB	19940.13	56192.65	7821.18	619.83	24.75	12.67	7.18
19940.13	20557.45	73058.63	9140.41	617.33	32.18	14.81	7.99
20557.45	21174.78	56805.29	8011.61	617.55	25.02	12.98	7.09
21174.78	21792.10 RB	27440.89	6440.73	619.08	12.09	10.43	4.26
21792.10	22092.03	10416.56	1947.22	300.11	4.59	6.49	5.35
22092.03	22391.95	3085.98	636.67	113.77	1.36	5.90	4.85

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 192.6

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17485.7	914.5	17534.8	906.5	17555.8	904.8	17588	906.5	17669.3	898.6
17680.9	896.4	17695.3	899	17720.4	899.6	17756.1	896.2	17885.7	895
17906	897.4	18100.2	897.7	18449.8	898.3	18563.1	896.9	18683.9	898.9
18816.9	899	18922.4	897	19051.6	897.9	19072.8	892.2	19094.2	891.2
19096.5	890.2	19234.6	896.5	19242.3	897.7	19262.2	895.8	19289.1	895.1
19312.8	896.6	19339.7	892.2	19409.7	888.7	19441.5	885.5	19560	887
19602.8	886.4	19790.5	886	20112.9	885.1	20329.3	884.5	20373.5	886.1
20498.3	885.2	20522.8	883.7	20759	884.4	20938.1	885	20948.7	887
21026.9	887.9	21080.3	885.8	21219.5	889	21284.6	887.1	21374.6	884.3
21403.8	885.9	21406	887.3	21448.4	889.9	21500.1	887.1	21536.3	890
21619.8	889.1	21630.1	889.7	21698.6	886.3	21886.4	888.1	21900.2	890.7
21972.4	889.8	22013	892.4	22076.7	890.9	22272.1	891.5	22462.1	891.8
22711.1	892.6	22896.3	893	23163.2	894.6	23245.3	895.4	23272.2	896.1
23294.3	890	23335	889.1	23394.8	896.4	23482	893.2	23707.7	894.4
23892.7	894.5	24185.8	894.4	24404.9	893.1	24459.7	893.8	24470.2	895.2
24500.5	893.6	24516	894.5	24740.4	895.3	24993.7	895.7	25054.6	897.5
25091.1	901.9	25096.9	898.9	25104.9	896.8	25137.9	897.2	25151.7	904.2
25167.5	904.7	25176.1	901.8	25372	903.1	25612.8	904.3	25847.6	904.2
25946.6	904.4	26180.3	905.2	26385.4	905.7	26414.3	905.8	26423.6	908.3
26449	910.6								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17485.7	.032	17756.1	.025	19312.8	.029	20373.5	.043	21536.3	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19312.8	21536.3	520	500.22	475	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17485.7	19242.3	912	24720	26449	912

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	897.49	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.50	Wt. n-Val.	0.025	0.035	0.025
E.G. Elev (ft)	897.99	Reach Len. (ft)	520.00	500.22	475.00
Crit W.S. (ft)	892.82	Flow Area (sq ft)	108.47	25314.79	15325.00
E.G. Slope (ft/ft)	0.000799	Area (sq ft)	1209.97	25314.79	15944.60
Q Total (cfs)	227000.00	Flow (cfs)	247.82	153383.52	73368.67
Top Width (ft)	6443.24	Top Width (ft)	665.72	2223.50	3554.03
Vel Total (ft/s)	5.57	Avg. Vel. (ft/s)	2.28	6.06	4.79
Max Chl Dpth (ft)	13.79	Hydr. Depth (ft)	1.59	11.39	4.81
Conv. Total (cfs)	8030975.0	Conv. (cfs)	8767.6	5426516.0	2595691.5
Length Wtd. (ft)	493.08	Wetted Per. (ft)	68.40	2225.27	3185.70

Min Ch El (ft)	883.70	Shear (lb/sq ft)	0.08	0.57	0.24
Alpha	1.04	Stream Power (lb/ft s)	0.18	3.44	1.15
Frctn Loss (ft)	0.43	Cum Volume (acre-ft)	5630.88	58351.05	21929.32
C & E Loss (ft)	0.02	Cum SA (acres)	1463.62	6311.58	6486.70

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	898.24	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.74	Wt. n-Val.		0.035	0.025
E.G. Elev (ft)	898.98	Reach Len. (ft)	520.00	500.22	475.00
Crit W.S. (ft)	892.61	Flow Area (sq ft)		26993.28	6021.28
E.G. Slope (ft/ft)	0.000903	Area (sq ft)		26993.28	6021.28
Q Total (cfs)	227000.00	Flow (cfs)		181452.42	45547.58
Top Width.(ft)	2907.20	Top Width (ft)		2223.50	683.70
Vel Total (ft/s)	6.88	Avg. Vel. (ft/s)		6.72	7.56
Max Chl Dpth (ft)	14.54	Hydr. Depth (ft)		12.14	8.81
Conv. Total (cfs)	7552390.5	Conv. (cfs)		6037002.5	1515388.1
Length Wtd. (ft)	495.89	Wetted Per. (ft)		2226.91	691.07
Min Ch El (ft)	883.70	Shear (lb/sq ft)		0.68	0.49
Alpha	1.01	Stream Power (lb/ft s)		4.60	3.72
Frctn Loss (ft)	0.46	Cum Volume (acre-ft)	936.74	61276.86	9024.51
C & E Loss (ft)	0.01	Cum SA (acres)	168.02	6317.78	1381.21

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19190.99	19312.80	247.82	108.47	68.40	0.11	1.59	2.28
19312.80 LB	19868.68	38989.80	5724.11	556.49	17.18	10.30	6.81
19868.68	20424.55	50794.98	6816.61	555.91	22.38	12.26	7.45
20424.55	20980.43	37832.83	7118.39	556.11	16.67	12.81	5.31
20980.43	21536.30 RB	25765.88	5655.70	556.75	11.35	10.17	4.56
21536.30	21863.81	21496.15	3113.22	327.63	9.47	9.51	6.90
21863.81	22191.33	12178.12	2214.45	327.86	5.36	6.76	5.50
22191.33	22518.84	9607.74	1920.02	327.51	4.23	5.86	5.00
22518.84	22846.35	7388.36	1640.07	327.51	3.25	5.01	4.50
22846.35	23173.87	4642.17	1240.99	327.52	2.05	3.79	3.74
23173.87	23501.38	4631.46	1241.31	328.87	2.04	3.79	3.73
23501.38	23828.89	3913.26	1120.10	327.52	1.72	3.42	3.49
23828.89	24156.41	3191.47	991.12	327.51	1.41	3.03	3.22
24156.41	24483.92	4377.36	1198.19	327.63	1.93	3.66	3.65
24483.92	24811.43	1942.57	645.55	236.13	0.86	2.73	3.01

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19312.80 LB	19868.68	46585.09	6143.73	558.14	20.52	11.05	7.58
19868.68	20424.55	59692.98	7236.23	555.91	26.30	13.02	8.25
20424.55	20980.43	44286.23	7538.01	556.11	19.51	13.56	5.88
20980.43	21536.30 RB	30888.13	6075.32	556.75	13.61	10.93	5.08
21536.30	21863.81	27865.06	3360.45	327.63	12.28	10.26	8.29
21863.81	22191.33	16579.70	2461.69	327.86	7.30	7.52	6.74
22191.33	22518.84	1102.80	199.14	35.57	0.49	6.95	5.54

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 192.51

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17519.2	910.3	17522.4	909.2	17530.7	900.3	17547	894.9	17564	898.8
17593.6	898.6	17613.2	895.6	17661.5	894.5	17886.1	895.9	18078.4	895.1
18173.3	894.4	18257.4	898.5	18277.7	896.3	18396	897.1	18555.6	895.9
18726.2	896.6	18893	896.1	18986.3	896.2	19003.2	893.4	19044.7	897.7
19116.2	896.3	19234.6	896.9	19281.8	891.8	19329.7	889.6	19369.4	886.2
19458.5	885.5	19500.3	889.9	19728.2	886.1	19780.9	885.9	20014.9	885.4

20279.3	885.1	20485.1	884.5	20672.7	883.9	20773.1	885.2	20793.5	883.3
20991.4	884.5	21012.1	887.6	21123.4	886.3	21149.6	888	21162.3	886.4
21221.2	890	21323.2	889.2	21416.4	884.3	21486	892	21668.8	891
21804.8	890.9	21828.7	887.7	21868.3	887	21917	891	21923.1	889.9
22122.4	889.1	22167.6	888.7	22299.4	891.7	22471.5	890.8	22563.7	892.1
22578	891.3	22592	892.3	22838	893.1	23028.7	893.8	23074.9	893.8
23253	893.8	23466.9	894.6	23610.3	894.3	23787.9	895	23975.7	895.5
24148.3	892.9	24343.8	893.2	24478.6	893.1	24649	892.3	24697.3	895.2
24728.4	892	24747.4	893.9	24938.6	894.5	25111.7	894.6	25230.5	896.5
25246.3	895.6	25298.8	900.9	25312.2	895.9	25349.6	896.7	25360.9	903.2
25538.7	903	25732.8	904.8	25856.3	907.1	25886.7	904.5	26150.8	905.4
26324.9	906.2	26487.6	906.9	26520.7	903.8	26532.4	907.3	26575.1	906.8
26587.7	909.3	26653.2	910.4	26669.5	906.9	26731	905.2	26769.6	909
26783.2	911.6								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17519.2	.032	17613.2	.025	19234.6	.065	19500.3	.026	20793.5	.043
21486	.043	21917	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19234.6	21486	520	447.28	535	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17519.2	19232	910	24460	26783.2	910

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	896.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.68	Wt. n-Val.		0.031	0.028
E.G. Elev (ft)	897.54	Reach Len. (ft)	520.00	447.28	535.00
Crit W.S. (ft)	893.11	Flow Area (sq ft)		23828.66	12671.02
E.G. Slope (ft/ft)	0.000955	Area (sq ft)	1471.96	23828.66	14880.06
Q Total (cfs)	227000.00	Flow (cfs)		171705.28	55294.72
Top Width (ft)	7531.29	Top Width (ft)	1467.30	2251.00	3812.99
Vel Total (ft/s)	6.22	Avg. Vel. (ft/s)		7.21	4.36
Max Chl Dpth (ft)	13.56	Hydr. Depth (ft)		10.59	4.26
Conv. Total (cfs)	7345589.0	Conv. (cfs)		5556284.0	1789305.3
Length Wtd. (ft)	470.89	Wetted Per. (ft)		2252.90	2974.62
Min Ch El (ft)	883.30	Shear (lb/sq ft)		0.63	0.25
Alpha	1.14	Stream Power (lb/ft s)		4.54	1.11
Frctn Loss (ft)	0.50	Cum Volume (acre-ft)	5614.87	58068.89	21761.26
C & E Loss (ft)	0.00	Cum SA (acres)	1450.89	6285.89	6446.54

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	897.67	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.83	Wt. n-Val.		0.031	0.032
E.G. Elev (ft)	898.51	Reach Len. (ft)	520.00	447.28	535.00
Crit W.S. (ft)	892.92	Flow Area (sq ft)		25669.46	5806.90
E.G. Slope (ft/ft)	0.000964	Area (sq ft)		25669.46	5806.90
Q Total (cfs)	227000.00	Flow (cfs)		194564.70	32435.30
Top Width (ft)	3015.40	Top Width (ft)		2251.40	764.00
Vel Total (ft/s)	7.21	Avg. Vel. (ft/s)		7.58	5.59
Max Chl Dpth (ft)	14.37	Hydr. Depth (ft)		11.40	7.60
Conv. Total (cfs)	7311568.5	Conv. (cfs)		6266842.0	1044726.4
Length Wtd. (ft)	462.38	Wetted Per. (ft)		2254.07	771.61
Min Ch El (ft)	883.30	Shear (lb/sq ft)		0.69	0.45
Alpha	1.03	Stream Power (lb/ft s)		5.19	2.53
Frctn Loss (ft)	0.49	Cum Volume (acre-ft)	936.74	60974.49	8960.02
C & E Loss (ft)	0.01	Cum SA (acres)	168.02	6292.08	1373.32

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19234.60 LB	19797.45	27547.93	4904.67	563.19	12.14	8.72	5.62
19797.45	20360.30	57840.53	6471.62	562.85	25.48	11.50	8.94
20360.30	20923.15	60811.27	7093.43	562.95	26.79	12.60	8.57
20923.15	21486.00 RB	25505.55	5358.93	563.91	11.24	9.52	4.76
21486.00	21839.15	6564.45	2059.86	353.36	2.89	5.83	3.19
21839.15	22192.29	16040.97	2721.98	353.42	7.07	7.71	5.89

22192.29	22545.44	11270.40	2057.20	353.18	4.96	5.83	5.48
22545.44	22898.59	6489.85	1477.29	353.21	2.86	4.18	4.39
22898.59	23251.73	4034.70	1110.66	353.15	1.78	3.15	3.63
23251.73	23604.88	2860.48	903.57	353.15	1.26	2.56	3.17
23604.88	23958.03	1795.13	683.21	353.15	0.79	1.93	2.63
23958.03	24311.17	4013.29	1107.15	353.17	1.77	3.14	3.62
24311.17	24664.32	2225.44	550.09	148.83	0.98	3.70	4.05

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19234.60 LB	19797.45	31994.93	5364.86	564.36	14.09	9.53	5.96
19797.45	20360.30	65216.61	6931.82	562.85	28.73	12.32	9.41
20360.30	20923.15	67931.32	7553.63	562.95	29.93	13.42	8.99
20923.15	21486.00 RB	29421.85	5819.13	563.91	12.96	10.34	5.06
21486.00	21839.15	8855.56	2348.61	353.36	3.90	6.65	3.77
21839.15	22192.29	20602.41	3010.72	353.42	9.08	8.53	6.84
22192.29	22545.44	2977.35	447.57	64.82	1.31	7.76	6.65

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 192.42

INPUT
Description: Left Bank Channel Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17244.5	910.3	17314.9	899.3	17462.8	898	17497.6	895.4	17537.5	895.6
17538.7	897.2	17545.4	896.8	17549.4	894.2	17568.7	897.4	17594.8	897
17613.8	894.2	17784.7	896	17897.3	896.2	18078.7	896.1	18259.8	895.4
18426	895.7	18453.4	895.3	18462.6	898.2	18617.3	896.8	18836.1	897
18966.3	896.3	18974	895.2	18987.2	897.4	19005	894.9	19044.8	897.9
19086.7	895.9	19112	896.5	864 19112.5	896.6	19155.2	891.6	19198.3	891
19274.6	886.2	19395.3	886.5	19441.2	889.6	19523.8	888.2	19574	889.4
19803.5	884.4	19838.9	885.8	20345.1	885	20641	884.5	20672.6	884.2
20737.6	887.3	20809.4	885.5	20863.5	886.2	20902.1	883.2	21083.9	885.5
21135.2	887	21182.3	883.7	21215.1	884.4	21315	891.8	21354.2	888
21465.2	887.5	21556.2	884.3	21657.3	890.5	21776.6	890.6	21861.3	889.3
22040.6	890.4	22094.8	889	22180	889.9	22206.1	888	22374	889.4
22557.1	890.4	22740.6	890.6	22848.1	892.7	22878.5	891.6	23069.2	892.6
23328.9	893.1	23540.3	894	23819.8	895.5	24014.9	895	24209.8	896.4
24393.3	895.3	24539.2	896.2	24551.1	895.2	24625.4	896.1	24868.2	893.7
25076.6	893.6	25186.8	892.1	25212.3	893.3	25231.9	897.1	25305.4	896.1
25323.8	898.2	25363.4	897.3	25400.3	901.1	25416.8	901.6	25427.9	896.6
25461.7	896.6	25481.9	901.1	25519.1	901.5	25721.8	902	25792.2	902.2
26034.3	902.6	26221.8	903.5	26361.7	903.9	26528.8	904.5	26720.8	905.5
26758.6	907.1	26801	910.8						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17244.5	.032	17613.8	.025	19044.8	.065	19838.9	.026	20863.5	.043
21315	.043	22180	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19112	21315	450	496.15	480	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17244.5	19112	910	24140	26801	910

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	896.36	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.67	Wt. n-Val.		0.034	0.033
E.G. Elev (ft)	897.03	Reach Len. (ft)	450.00	496.15	480.00
Crit W.S. (ft)	892.53	Flow Area (sq ft)		22302.09	13895.56
E.G. Slope (ft/ft)	0.001202	Area (sq ft)	666.19	22302.09	15582.15
Q Total (cfs)	227000.00	Flow (cfs)		160133.44	66866.55
Top Width (ft)	7133.50	Top Width (ft)	1010.05	2200.47	3922.99
Vel Total (ft/s)	6.27	Avg. Vel. (ft/s)		7.18	4.81
Max Chl Dpth (ft)	13.16	Hydr. Depth (ft)		10.14	4.92
Conv. Total (cfs)	6546563.0	Conv. (cfs)		4618166.0	1928396.9
Length Wtd. (ft)	492.02	Wetted Per. (ft)		2201.77	2825.60

Min Ch El (ft)	883.20	Shear (lb/sq ft)		0.76	0.37
Alpha	1.10	Stream Power (lb/ft s)		5.46	1.78
Frctn Loss (ft)	0.64	Cum Volume (acre-ft)	5602.11	57832.05	21574.19
C & E Loss (ft)	0.02	Cum SA (acres)	1436.11	6263.03	6399.03

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	897.21	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.79	Wt. n-Val.		0.034	0.039
E.G. Elev (ft)	898.00	Reach Len. (ft)	450.00	496.15	480.00
Crit W.S. (ft)	892.61	Flow Area (sq ft)		24173.55	8449.26
E.G. Slope (ft/ft)	0.001193	Area (sq ft)		24173.55	8449.26
Q Total (cfs)	227000.00	Flow (cfs)		181308.52	45691.47
Top Width (ft)	3218.00	Top Width (ft)		2203.00	1015.00
Vel Total (ft/s)	6.96	Avg. Vel. (ft/s)		7.50	5.41
Max Chl Dpth (ft)	14.01	Hydr. Depth (ft)		10.97	8.32
Conv. Total (cfs)	6572543.0	Conv. (cfs)		5249595.0	1322947.9
Length Wtd. (ft)	493.59	Wetted Per. (ft)		2204.94	1023.72
Min Ch El (ft)	883.20	Shear (lb/sq ft)		0.82	0.61
Alpha	1.05	Stream Power (lb/ft s)		6.12	3.32
Frctn Loss (ft)	0.63	Cum Volume (acre-ft)	936.74	60718.59	8872.47
C & E Loss (ft)	0.02	Cum SA (acres)	168.02	6269.21	1362.39

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19112.00 LB	19662.75	12889.15	4196.83	548.80	5.68	7.66	3.07
19662.75	20213.50	46573.43	5933.89	550.81	20.52	10.77	7.85
20213.50	20764.25	62213.28	6237.27	550.83	27.41	11.33	9.97
20764.25	21315.00 RB	38457.57	5934.08	551.32	16.94	10.77	6.48
21315.00	21680.73	14765.45	3204.46	366.16	6.50	8.76	4.61
21680.73	22046.47	8516.59	2302.34	365.75	3.75	6.30	3.70
22046.47	22412.20	16032.52	2656.39	365.83	7.06	7.26	6.04
22412.20	22777.93	13563.04	2198.39	365.74	5.97	6.01	6.17
22777.93	23143.67	7337.32	1520.63	365.77	3.23	4.16	4.83
23143.67	23509.40	4651.02	1156.69	365.74	2.05	3.16	4.02
23509.40	23875.13	1460.03	577.17	365.74	0.64	1.58	2.53
23875.13	24240.87	540.62	279.49	264.87	0.24	1.06	1.93

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19112.00 LB	19662.75	15254.35	4664.43	551.97	6.72	8.47	3.27
19662.75	20213.50	52631.79	6401.85	550.81	23.19	11.62	8.22
20213.50	20764.25	69923.70	6705.23	550.83	30.80	12.17	10.43
20764.25	21315.00 RB	43498.66	6402.04	551.32	19.16	11.62	6.79
21315.00	21680.73	18795.20	3515.21	366.16	8.28	9.61	5.35
21680.73	22046.47	11473.98	2613.09	365.75	5.05	7.14	4.39
22046.47	22412.20	15422.32	2320.95	291.81	6.79	8.19	6.64

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 192.33

INPUT
Description: Left Bank Channel Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17338.2	910.3	17374.5	901.3	17382.6	900.2	17490.7	899.7	17533.9	896.1
17549.9	898.5	17574.8	898.8	17586.6	895.5	17621.3	898.2	17736.9	895.1
17966.1	895.8	18187.4	896.1	18371.1	895.7	18569.1	895.9	18724.1	895.6
18761.7	895.7	18773.8	898	18820	896.6	18841.4	897.3	18859.3	895.3
18863.2	897.3	18891.2	894.9	18898.9	896.2	18911.8	896.3	18918.2	3895.8662
18978.5	891.8	19068.8	890.9	19123.2	886.5	19281.1	885.8	19312.6	889
19477.7	888.5	19728.8	885.1	19772.1	886.8	19838.3	885	19983.3	885.5
20784.3	885.1	20902	885.8	20936.5	884.2	21187.2	885.5	21258	884.7
21310.4	890.3	21314	889.7	21490.6	890.2	21642.1	890.6	21798.2	890.5

21962	891.3	22177.4	890.9	22344.5	888.2	22444.1	889.9	22561.5	890
22626.4	888.3	22679.4	888.2	22738.9	889.7	22922.3	890.3	23098.7	892.3
23248.8	892.7	23409	892.9	23560.3	893.6	23567.6	892.8	23782.8	894.5
23989	895.6	24104.1	895.8	24266.2	895.7	24375.1	894.9	24416.8	897.1
24466	896.5	24473	894.6	24503.9	893.6	24530.1	895	24716.2	894
24960.5	893.1	25167	892.5	25267.8	890.2	25316.1	891.3	25343.9	897.1
25371.5	898.2	25421.8	897.8	25443.8	902.1	25459	903.7	25473.2	896.9
25508.2	896.9	25519.7	901.9	25539	899.6	25584.3	899.7	25840.1	901.7
25942.9	902.3	26212.8	903.5	26458	904.4	26616.2	904.8	26836.9	904.6
26871.5	905.7	26908.3	909.5	26957.9	910.4	26977.3	906.3	27027.3	908.1
27101.7	908.3	27111	910.9						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17338.2	.032	17736.9	.025	18863.2	.025	18978.5	.065	19477.7	.026
20902	.043	21310.4	.043	22561.5	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18918.23	21310.4	500	507.53	495	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17338.2	18911.8	910	24104.1	27111	910

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	895.51	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.86	Wt. n-Val.		0.031	0.034
E.G. Elev (ft)	896.37	Reach Len. (ft)	500.00	507.53	495.00
Crit W.S. (ft)	892.55	Flow Area (sq ft)		21972.27	11224.08
E.G. Slope (ft/ft)	0.001428	Area (sq ft)	33.88	21972.27	13246.10
Q Total (cfs)	227000.00	Flow (cfs)		177871.31	49128.68
Top Width (ft)	6171.17	Top Width (ft)	161.98	2386.86	3622.32
Vel Total (ft/s)	6.84	Avg. Vel. (ft/s)		8.10	4.38
Max Chl Dpth (ft)	11.31	Hydr. Depth (ft)		9.21	4.22
Conv. Total (cfs)	6007462.0	Conv. (cfs)		4707291.5	1300170.3
Length Wtd. (ft)	504.46	Wetted Per. (ft)		2387.76	2661.59
Min Ch El (ft)	884.20	Shear (lb/sq ft)		0.82	0.38
Alpha	1.19	Stream Power (lb/ft s)		6.64	1.65
Frctn Loss (ft)	0.61	Cum Volume (acre-ft)	5598.49	57579.90	21415.36
C & E Loss (ft)	0.09	Cum SA (acres)	1430.05	6236.91	6357.46

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	896.36	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.99	Wt. n-Val.		0.031	0.043
E.G. Elev (ft)	897.35	Reach Len. (ft)	500.00	507.53	495.00
Crit W.S. (ft)	892.84	Flow Area (sq ft)		24003.87	6270.67
E.G. Slope (ft/ft)	0.001372	Area (sq ft)		24003.87	6270.67
Q Total (cfs)	227000.00	Flow (cfs)		200747.73	26252.26
Top Width (ft)	3444.11	Top Width (ft)		2392.17	1051.94
Vel Total (ft/s)	7.50	Avg. Vel. (ft/s)		8.36	4.19
Max Chl Dpth (ft)	12.16	Hydr. Depth (ft)		10.03	5.96
Conv. Total (cfs)	6129254.5	Conv. (cfs)		5420414.0	708840.5
Length Wtd. (ft)	505.67	Wetted Per. (ft)		2393.57	1059.87
Min Ch El (ft)	884.20	Shear (lb/sq ft)		0.86	0.51
Alpha	1.14	Stream Power (lb/ft s)		7.18	2.12
Frctn Loss (ft)	0.58	Cum Volume (acre-ft)	936.74	60444.22	8791.37
C & E Loss (ft)	0.10	Cum SA (acres)	168.02	6243.04	1351.00

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18918.23 LB	19516.27	14173.02	3977.00	593.21	6.24	6.71	3.56
19516.27	20114.32	56218.88	5759.12	598.12	24.77	9.63	9.76
20114.32	20712.36	62111.48	6113.73	598.04	27.36	10.22	10.16
20712.36	21310.40 RB	45367.93	6122.42	598.39	19.99	10.24	7.41
21310.40	21697.11	7482.45	2046.25	386.76	3.30	5.29	3.66
21697.11	22083.81	5955.29	1784.23	386.71	2.62	4.61	3.34
22083.81	22470.52	8506.01	2209.83	386.74	3.75	5.71	3.85
22470.52	22857.23	14936.04	2356.56	386.75	6.58	6.09	6.34
22857.23	23243.93	7893.37	1526.00	386.72	3.48	3.95	5.17

23243.93	23630.64	3652.44	961.09	386.75	1.61	2.49	3.80
23630.64	24017.35	703.11	340.12	341.16	0.31	1.00	2.07

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18918.23 LB	19516.27	16937.63	4484.19	599.02	7.46	7.50	3.78
19516.27	20114.32	63453.11	6267.26	598.12	27.95	10.48	10.12
20114.32	20712.36	69555.33	6621.87	598.04	30.64	11.07	10.50
20712.36	21310.40 RB	50801.67	6630.56	598.39	22.38	11.09	7.66
21310.40	21697.11	10172.18	2374.82	386.76	4.48	6.14	4.28
21697.11	22083.81	8372.06	2112.81	386.71	3.69	5.46	3.96
22083.81	22470.52	7708.02	1783.05	286.40	3.40	6.40	4.32

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 192.23

INPUT
Description: CROSSES COTTON LN. ALIGNMENT AT CENTERLINE OF 100 YR FLOW

Left Channel Bank Station Interpolated

Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17064.2	915.3	17143.9	909.2	17220.4	912.3	17259.4	910.3	17289.5	904.8
17290.5	903.6	17353.8	906.6	17432.8	902.3	17491.7	909	17574.8	912.4
17762.6	898.2	17778.2	895.1	17799.9	898.4	17832.6	899.5	17850.5	894.6
18094.7	894.7	18267.4	894.1	18274	895.8	18477.9	895.3	18667.8	895.3
18791.4	895.3	18794.18	895.0112	18834.4	890.7	18878.4	889.6	18919.7	885.7
19160.2	885.6	19198.8	888.9	19403.9	887.4	19447.3	885.9	19665.1	886.3
19765.1	888	19810	884.9	19869.5	884.9	20068.6	884.7	20388.9	884.8
20405.3	884.9	20692	885.5	20881.8	884.8	20959.7	883.9	21172.4	883.8
21307.3	883.7	21311	885.7	21337.8	884	21348.1	886.1	21363.8	885.7
21376.2	883.8	21533.9	885.8	21572	891.9	21600.5	888.5	21787.4	888.9
21986.9	889.6	22180.1	889.3	22412.9	889.2	22600	889.2	22637.6	890.7
22666.8	887.7	22866.3	888.1	22991.7	887.1	23094	890.3	23203.8	890.7
23392.6	891.8	23497.4	893.1	23626.4	891.9	23814.1	893.5	24026.1	894.2
24063.4	894.2	24259.9	893.9	24460.5	894.8	24659.7	895.7	24711	895.1
24734.5	892.1	24802.7	891.9	25016.3	891.6	25206.9	890.9	25342.2	892
25377.4	898.3	25479.6	896.9	25501.8	902.2	25517.7	902.2	25529.6	896.6
25565	896.6	25576	900.3	25617.2	898.7	25670	900.1	25864.8	901.1
26128.5	902.2	26328.6	903.4	26406.3	903.8	26615.7	904.5	26808.7	904.8
26868.3	905.7	27013.2	908.1	27071.1	910.4	27106.1	907.5	27240.3	907.7
27270.8	909	27278.5	910.6						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17064.2	.032	17850.5	.025	18791.4	.065	19447.3	.026	20692	.043
21572	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18794.1	21572	510	514.6	590	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17064.2	18765	910	24660	27278.5	910

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	895.12	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.55	Wt. n-Val.	0.065	0.034	0.025
E.G. Elev (ft)	895.67	Reach Len. (ft)	510.00	514.60	590.00
Crit W.S. (ft)	891.32	Flow Area (sq ft)	0.06	26368.37	12482.46
E.G. Slope (ft/ft)	0.001029	Area (sq ft)	242.36	26368.37	14713.21
Q Total (cfs)	227000.00	Flow (cfs)	0.01	164869.70	62130.30
Top Width (ft)	6812.12	Top Width (ft)	424.06	2777.90	3610.17
Vel Total (ft/s)	5.84	Avg. Vel. (ft/s)	0.11	6.25	4.98
Max Chl Dpth (ft)	11.42	Hydr. Depth (ft)	0.06	9.49	4.22
Conv. Total (cfs)	7075148.5	Conv. (cfs)	0.2	5138668.0	1936480.5
Length Wtd. (ft)	537.66	Wetted Per. (ft)	1.04	2780.05	2960.15
Min Ch El (ft)	883.70	Shear (lb/sq ft)	0.00	0.61	0.27

Alpha	1.03	Stream Power (lb/ft s)	0.00	3.81	1.35
Frctn Loss (ft)	0.62	Cum Volume (acre-ft)	5596.91	57298.29	21256.50
C & E Loss (ft)	0.01	Cum SA (acres)	1426.69	6206.82	6316.36

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	896.01	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.65	Wt. n-Val.		0.034	0.025
E.G. Elev (ft)	896.67	Reach Len. (ft)	510.00	514.60	590.00
Crit W.S. (ft)	891.48	Flow Area (sq ft)		28848.37	6182.46
E.G. Slope (ft/ft)	0.000977	Area (sq ft)		28848.37	6182.46
Q Total (cfs)	227000.00	Flow (cfs)		185944.53	41055.46
Top Width (ft)	3685.90	Top Width (ft)		2777.90	908.00
Vel Total (ft/s)	6.48	Avg. Vel. (ft/s)		6.45	6.64
Max Chl Dpth (ft)	12.31	Hydr. Depth (ft)		10.38	6.81
Conv. Total (cfs)	7261488.0	Conv. (cfs)		5948167.5	1313320.5
Length Wtd. (ft)	528.13	Wetted Per. (ft)		2781.05	915.02
Min Ch El (ft)	883.70	Shear (lb/sq ft)		0.63	0.41
Alpha	1.00	Stream Power (lb/ft s)		4.08	2.74
Frctn Loss (ft)	0.63	Cum Volume (acre-ft)	936.74	60136.32	8720.61
C & E Loss (ft)	0.00	Cum SA (acres)	168.02	6212.93	1339.87

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18678.77	18794.10	0.01	0.06	1.04	0.00	0.06	0.11
18794.10 LB	19488.57	17266.06	5376.98	695.07	7.61	7.74	3.21
19488.57	20183.05	54629.35	6626.28	694.60	24.07	9.54	8.24
20183.05	20877.53	53563.81	6992.80	694.48	23.60	10.07	7.66
20877.53	21572.00 RB	39410.48	7372.31	695.90	17.36	10.62	5.35
21572.00	21952.43	12620.37	2319.44	380.64	5.56	6.10	5.44
21952.43	22332.87	11407.23	2182.51	380.43	5.03	5.74	5.23
22332.87	22713.30	12361.88	2290.77	380.62	5.45	6.02	5.40
22713.30	23093.73	16227.29	2696.61	380.49	7.15	7.09	6.02
23093.73	23474.17	5899.22	1469.36	380.44	2.60	3.86	4.01
23474.17	23854.60	2635.04	906.00	380.45	1.16	2.38	2.91
23854.60	24235.03	736.48	421.64	380.43	0.32	1.11	1.75
24235.03	24615.47	242.76	196.13	296.65	0.11	0.66	1.24

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18794.10 LB	19488.57	20101.38	5996.98	696.08	8.86	8.64	3.35
19488.57	20183.05	61788.45	7246.28	694.60	27.22	10.43	8.53
20183.05	20877.53	60120.90	7612.80	694.48	26.48	10.96	7.90
20877.53	21572.00 RB	43933.79	7992.31	695.90	19.35	11.51	5.50
21572.00	21952.43	18046.46	2659.08	380.64	7.95	6.99	6.79
21952.43	22332.87	16530.19	2522.14	380.43	7.28	6.63	6.55
22332.87	22713.30	6478.80	1001.24	153.95	2.85	6.80	6.47

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 192.13

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16803.1	906.4	17010.3	904.3	17109.6	902.6	17140.6	900.1	17345.3	898.7
17454.4	895.4	17480.1	901.2	17501.2	899.9	17516.6	894.8	17533	892.7
17754.5	893.9	17981.7	894.2	18193.7	893.6	18392.9	895.1	18573.9	893.9
18681.9	895.1	18683.8	3894.5	372 18703.5	888.8	18731.4	890.2	18774	888.3
18815.6	888.4	18887.5	884.9	18906.6	887.2	19088.4	885.6	19111.7	887.6
19163	888.4	19206.5	887	19341.1	888.6	19522.3	885.5	19574.9	884.6
19619.1	889.1	19651.1	888.8	19670.9	885.6	19818.7	885.4	20275.6	884.5
20282.8	886.9	20321.5	886.5	20330.9	884.4	20546.4	884.6	20653.3	884.6
20838.2	889.5	20968.5	886.7	21060	887.8	21095.2	885	21178.1	883.5

21397.2	883.6	21495.7	883.6	21518	886.7	21690.3	883.1	21816	892.5
21851.5	887.5	21858.3	888.6	22098.8	889.1	22317.4	889.5	22551.6	888.4
22770.8	888.5	22912.4	889.4	22923.6	887.5	23152.9	888.2	23340.6	888.3
23525.9	890.4	23707.2	891.4	23906	891.8	24049.7	892.2	24060.8	893.5
24107.8	891.5	24357.7	892.4	24540.6	892.6	24563.4	891.3	24601.2	891.8
24791.6	890.7	24915.6	890.6	24948.6	892.7	24990.9	890.2	25181.3	890.1
25229.6	891.8	25237.2	890.7	25260.5	893.9	25337.1	893.7	25401.4	896.8
25426.3	890.8	25496.6	897	25508.3	896	25572.9	898.5	25582.2	897.1
25615.3	897.7	25626.7	902.2	25643.7	901.2	25654.6	897.6	25945.3	899
26205.3	899.8	26236.4	899.9	26470	901.4	26721.3	901.8	26914.6	901.5
26990.3	899.5	27072.2	906.8						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16803.1	.032	17533	.025	18681.9	.065	19651.1	.026	20275.6	.043
21816	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18683.83	21816	480	480.35	490	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16803.1	18681.9	905	24680	27072.2	905

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	894.53	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.51	Wt. n-Val.		0.040	0.025
E.G. Elev (ft)	895.04	Reach Len. (ft)	480.00	480.35	490.00
Crit W.S. (ft)	891.07	Flow Area (sq ft)		26727.67	13015.42
E.G. Slope (ft/ft)	0.001305	Area (sq ft)	631.47	26727.67	15366.42
Q Total (cfs)	227000.00	Flow (cfs)		150341.31	76658.68
Top Width (ft)	7677.62	Top Width (ft)	949.47	3132.14	3596.01
Vel Total (ft/s)	5.71	Avg. Vel. (ft/s)		5.62	5.89
Max Chl Dpth (ft)	11.43	Hydr. Depth (ft)		8.53	4.54
Conv. Total (cfs)	6283791.5	Conv. (cfs)		4161733.5	2122058.0
Length Wtd. (ft)	483.42	Wetted Per. (ft)		3135.36	2864.78
Min Ch El (ft)	883.10	Shear (lb/sq ft)		0.69	0.37
Alpha	1.00	Stream Power (lb/ft s)		3.91	2.18
Frctn Loss (ft)	0.50	Cum Volume (acre-ft)	5591.79	56984.66	21052.79
C & E Loss (ft)	0.02	Cum SA (acres)	1418.65	6171.91	6267.56

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	895.34	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.69	Wt. n-Val.		0.040	0.025
E.G. Elev (ft)	896.03	Reach Len. (ft)	480.00	480.35	490.00
Crit W.S. (ft)	891.30	Flow Area (sq ft)		29283.07	5162.72
E.G. Slope (ft/ft)	0.001497	Area (sq ft)		29283.07	5162.72
Q Total (cfs)	227000.00	Flow (cfs)		186566.58	40433.43
Top Width (ft)	3946.17	Top Width (ft)		3132.17	814.00
Vel Total (ft/s)	6.59	Avg. Vel. (ft/s)		6.37	7.83
Max Chl Dpth (ft)	12.24	Hydr. Depth (ft)		9.35	6.34
Conv. Total (cfs)	5867491.0	Conv. (cfs)		4822369.0	1045122.3
Length Wtd. (ft)	481.85	Wetted Per. (ft)		3136.20	821.35
Min Ch El (ft)	883.10	Shear (lb/sq ft)		0.87	0.59
Alpha	1.02	Stream Power (lb/ft s)		5.56	4.60
Frctn Loss (ft)	0.57	Cum Volume (acre-ft)	936.74	59792.95	8643.78
C & E Loss (ft)	0.02	Cum SA (acres)	168.02	6178.02	1328.21

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18683.83 LB	19466.87	16552.97	5487.53	784.28	7.29	7.01	3.02
19466.87	20249.91	56155.64	7089.22	783.54	24.74	9.05	7.92
20249.91	21032.96	35310.23	6630.97	783.77	15.56	8.47	5.33
21032.96	21816.00 RB	42322.49	7519.95	783.77	18.64	9.60	5.63
21816.00	22166.41	12152.58	1933.19	350.85	5.35	5.52	6.29
22166.41	22516.83	11570.29	1876.13	350.41	5.10	5.35	6.17
22516.83	22867.24	13898.94	2094.34	350.42	6.12	5.98	6.64
22867.24	23217.65	15612.36	2246.04	350.57	6.88	6.41	6.95
23217.65	23568.07	11799.71	1898.39	350.43	5.20	5.42	6.22

23568.07	23918.48	4784.69	1104.51	350.42	2.11	3.15	4.33
23918.48	24268.89	3303.14	884.45	350.53	1.46	2.52	3.73
24268.89	24619.31	2770.40	795.80	350.46	1.22	2.27	3.48
24619.31	24969.72	766.57	182.56	60.69	0.34	3.01	4.20

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18683.83 LB	19466.87	21288.86	6126.38	785.12	9.38	7.82	3.47
19466.87	20249.91	69282.43	7728.07	783.54	30.52	9.87	8.97
20249.91	21032.96	44059.77	7269.82	783.77	19.41	9.28	6.06
21032.96	21816.00 RB	51935.52	8158.80	783.77	22.88	10.42	6.37
21816.00	22166.41	17448.18	2219.08	350.85	7.69	6.33	7.86
22166.41	22516.83	16720.76	2162.02	350.41	7.37	6.17	7.73
22516.83	22867.24	6264.48	781.62	120.08	2.76	6.91	8.01

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 192.04

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16825.8	903.3	16862	900.1	17011	896.4	17158.8	896.7	17181.2	894.7
17203.6	899.3	17231.4	898.9	17247.3	892.8	17418.7	892.9	17590.5	893
17833.3	893.2	18068.3	892.6	18270.8	891.9	18436	894.1	18607.1	893.9
18656.4	889.4	18790.7	886.3	18967.2	886.5	19004.6	889.1	19019.7	886.3
19147.6	887.2	19167.2	889.8	19216.4	887.9	19259.3	889.5	19416.2	886.1
19538.2	884	19542.6	885	19551.2	883.8	19918	884.3	20097.5	884.3
20267.4	884.2	20283.3	885.8	20362.5	885.8	20549.6	882	20606.2	888.2
20809.3	888.1	20899.1	887.5	20930.3	884.2	20975.8	884.8	21068.2	888.5
21269.7	888.1	21293.6	885.7	21385	885.9	21396.9	883	21608.6	883.1
21721.8	884.6	21729.4	886.5	21749.1	883.8	21776.7	883.5	21789.7	885.7
21839.5	885.5	21861	883.1	21889.3	883.9	21940.8	883.2	21974.8	888
22073.2	889.7	22111.6	888.3	22287	887.9	22474.3	888.6	22727.3	887.7
22892.9	888.3	23089.9	887.9	23259.7	888.7	23429.6	887.9	23633.6	888.9
23749.1	889	23914.6	891	24171.9	891.1	24351.5	891.8	24582	890.2
24829.1	889.5	24970.6	891	24985.4	894.3	25017	894.7	25043.1	889.9
25084.8	896	25140.6	895	25163.6	897.3	25394.9	896	25561.3	895.7
25657.5	896.9	25666.3	898.9	25717.4	900.6	25721.8	897.1	25758	897.5
25773.1	900.8	25788.4	900.7	25799.3	896	26018.2	897.4	26228.5	897.9
26244.8	897.9	26481.6	898.3	26662	898.8	26868	898.4	27035	898.9
27087	903.2								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16825.8	.032	17203.6	.025	18607.1	.065	19259.3	.026	20283.3	.043
21385	.025	22073.2	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18607.1	22073.2	570	526.05	485	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16825.8	18607.1	902	24985.4	27087	902

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	894.07	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.45	Wt. n-Val.		0.031	0.025
E.G. Elev (ft)	894.52	Reach Len. (ft)	570.00	526.05	485.00
Crit W.S. (ft)	890.72	Flow Area (sq ft)		28461.87	13961.39
E.G. Slope (ft/ft)	0.000824	Area (sq ft)	1475.97	28461.87	14068.26
Q Total (cfs)	227000.00	Flow (cfs)		159247.25	67752.74
Top Width (ft)	7766.62	Top Width (ft)	1338.12	3466.10	2962.40
Vel Total (ft/s)	5.35	Avg. Vel. (ft/s)		5.60	4.85
Max Chl Dpth (ft)	12.07	Hydr. Depth (ft)		8.21	4.80
Conv. Total (cfs)	7905850.0	Conv. (cfs)		5546189.0	2359660.8
Length Wtd. (ft)	514.58	Wetted Per. (ft)		3469.48	2911.59
Min Ch El (ft)	882.00	Shear (lb/sq ft)		0.42	0.25
Alpha	1.01	Stream Power (lb/ft s)		2.36	1.20
Frctn Loss (ft)	0.42	Cum Volume (acre-ft)	5580.18	56680.36	20887.24

C & E Loss (ft)	0.02	Cum SA (acres)	1406.04	6135.53	6230.67

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	894.81	Element			
Vel Head (ft)	0.63	Wt. n-Val.		0.032	0.025
E.G. Elev (ft)	895.44	Reach Len. (ft)	570.00	526.05	485.00
Crit W.S. (ft)	890.79	Flow Area (sq ft)		31032.88	4652.16
E.G. Slope (ft/ft)	0.000960	Area (sq ft)		31032.88	4652.16
Q Total (cfs)	227000.00	Flow (cfs)		196967.67	30032.33
Top Width (ft)	4167.90	Top Width (ft)		3466.10	701.80
Vel Total (ft/s)	6.36	Avg. Vel. (ft/s)		6.35	6.46
Max Chl Dpth (ft)	12.81	Hydr. Depth (ft)		8.95	6.63
Conv. Total (cfs)	7326762.0	Conv. (cfs)		6357424.0	969338.2
Length Wtd. (ft)	521.17	Wetted Per. (ft)		3470.39	708.77
Min Ch El (ft)	882.00	Shear (lb/sq ft)		0.54	0.39
Alpha	1.00	Stream Power (lb/ft s)		3.40	2.54
Frctn Loss (ft)	0.49	Cum Volume (acre-ft)	936.74	59460.39	8588.58
C & E Loss (ft)	0.04	Cum SA (acres)	168.02	6141.64	1319.68

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18607.10 LB	19473.63	18068.37	5644.22	867.40	7.96	6.51	3.20
19473.63	20340.15	61871.08	8454.18	866.81	27.26	9.76	7.32
20340.15	21206.67	24793.04	6531.30	867.16	10.92	7.54	3.80
21206.67	22073.20 RB	54514.79	7832.17	868.11	24.02	9.04	6.96
22073.20	22407.45	10485.95	1958.95	334.28	4.62	5.86	5.35
22407.45	22741.71	10533.27	1964.19	334.25	4.64	5.88	5.36
22741.71	23075.96	10901.58	2005.12	334.26	4.80	6.00	5.44
23075.96	23410.21	10213.39	1928.19	334.26	4.50	5.77	5.30
23410.21	23744.47	9483.70	1844.31	334.26	4.18	5.52	5.14
23744.47	24078.72	4612.25	1196.74	334.26	2.03	3.58	3.85
24078.72	24412.97	2882.85	902.69	334.26	1.27	2.70	3.19
24412.97	24747.23	4854.87	1234.11	334.26	2.14	3.69	3.93
24747.23	25081.48	3784.86	927.07	237.50	1.67	3.91	4.08

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18607.10 LB	19473.63	23279.82	6286.97	868.32	10.26	7.26	3.70
19473.63	20340.15	75440.75	9096.94	866.81	33.23	10.50	8.29
20340.15	21206.67	31303.39	7174.05	867.16	13.79	8.28	4.36
21206.67	22073.20 RB	66943.70	8474.92	868.11	29.49	9.78	7.90
22073.20	22407.45	14295.31	2206.89	334.28	6.30	6.60	6.48
22407.45	22741.71	14352.65	2212.13	334.25	6.32	6.62	6.49
22741.71	23075.96	1384.38	233.14	40.24	0.61	7.00	5.94

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 191.94

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16743.4	902.7	16774.7	902.3	16818	898.9	16832	899.3	16854.8	904.1
16903.1	900.8	17052.9	896.5	17176.2	896.7	17267.1	893.8	17312.3	890.1
17575.6	892.1	17661.3	893.7	18059.5	892.9	18367.4	892.4	18532.2	892.5
18559.9	894.2	18561.4	893.7	18565.3	892.5	18570.4	888	18615.8	889
18657.8	887.6	18807.6	887.9	18833	884.6	19058.5	885	19146.6	884.1
19163.9	887.8	19199.8	888.4	19227.2	886.4	19332	886.4	19354.9	888
19394.6	885.2	19437.3	887.5	19452.3	882.1	19629.9	882.6	20048.7	882.9
20150	883.3	20407.5	883.1	20493.5	883.4	20510.1	887.6	20676.7	888.1
20750.6	887.2	21016.1	886.6	21082.3	886.2	21121.1	884.1	21295.4	886.8
21548.1	886.5	21577.6	886.1	21593.7	882.8	21891.2	883.1	21923.4	885.3
21996.2	882.9	22229.4	881.4	22247.4	881.4	22248.4	882.4	22248.8	881.4

22293	887.8	22345.5	888.9	22381.8	887.3	22597.6	888.2	22824.8	888.2
23077.2	888.9	23319	888.9	23346.7	890	23372.9	889	23390.8	884.3
23407.7	885.1	23421.2	890.1	23462.5	887.4	23718.1	889	23901.2	886
24066.9	890.5	24260.5	889.4	24551.2	891.8	24799.6	889.2	24815.8	889.5
24830.3	893	24850.5	892.9	24866.5	887.9	24920	893.5	24978	892.1
25206.1	893.2	25239.4	894	25246.1	895.7	25345	894.6	25571.5	895.5
25711.5	894.9	25803.9	900.3	25810.7	895.9	25846.2	895.9	25857.2	901.2
25875.3	900.4	25886.8	896	26165.5	897.2	26441.8	897.7	26811.5	898.5
27006.9	898	27105.3	902.7						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16743.4	.032	17267.1	.025	18559.9	.065	19437.3	.026	20510.1	.043
22293	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18561.44	22293	560	524.69	495	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16743.4	18559.9	902	24920	27105.3	902

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	893.70	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.39	Wt. n-Val.		0.036	0.025
E.G. Elev (ft)	894.09	Reach Len. (ft)	560.00	524.69	495.00
Crit W.S. (ft)	889.76	Flow Area (sq ft)		33109.32	12473.62
E.G. Slope (ft/ft)	0.000797	Area (sq ft)	1533.55	33109.32	12770.76
Q Total (cfs)	227000.00	Flow (cfs)		167905.48	59094.52
Top Width (ft)	7948.91	Top Width (ft)	1283.45	3731.51	2933.94
Vel Total (ft/s)	4.98	Avg. Vel. (ft/s)		5.07	4.74
Max Chl Dpth (ft)	12.30	Hydr. Depth (ft)		8.87	4.75
Conv. Total (cfs)	8038690.5	Conv. (cfs)		5945992.0	2092698.5
Length Wtd. (ft)	518.30	Wetted Per. (ft)		3737.90	2630.29
Min Ch El (ft)	881.40	Shear (lb/sq ft)		0.44	0.24
Alpha	1.00	Stream Power (lb/ft s)		2.24	1.12
Frctn Loss (ft)	0.44	Cum Volume (acre-ft)	5560.49	56308.58	20737.83
C & E Loss (ft)	0.00	Cum SA (acres)	1388.89	6092.07	6197.85

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	894.41	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.51	Wt. n-Val.		0.036	0.025
E.G. Elev (ft)	894.92	Reach Len. (ft)	560.00	524.69	495.00
Crit W.S. (ft)	889.72	Flow Area (sq ft)		35754.94	3914.20
E.G. Slope (ft/ft)	0.000916	Area (sq ft)		35754.94	3914.20
Q Total (cfs)	227000.00	Flow (cfs)		203030.00	23970.00
Top Width (ft)	4348.56	Top Width (ft)		3731.56	617.00
Vel Total (ft/s)	5.72	Avg. Vel. (ft/s)		5.68	6.12
Max Chl Dpth (ft)	13.01	Hydr. Depth (ft)		9.58	6.34
Conv. Total (cfs)	7501506.0	Conv. (cfs)		6709386.5	792119.4
Length Wtd. (ft)	522.27	Wetted Per. (ft)		3738.64	623.02
Min Ch El (ft)	881.40	Shear (lb/sq ft)		0.55	0.36
Alpha	1.00	Stream Power (lb/ft s)		3.10	2.20
Frctn Loss (ft)	0.49	Cum Volume (acre-ft)	936.74	59057.11	8540.89
C & E Loss (ft)	0.00	Cum SA (acres)	168.02	6098.17	1312.34

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18561.44 LB	19494.33	20216.60	7012.96	936.61	8.91	7.52	2.88
19494.33	20427.22	79326.52	10103.13	932.89	34.95	10.83	7.85
20427.22	21360.11	27112.35	6756.25	933.50	11.94	7.24	4.01
21360.11	22293.00 RB	41250.03	9236.99	934.90	18.17	9.90	4.47
22293.00	22613.82	9786.42	1857.61	320.87	4.31	5.79	5.27
22613.82	22934.64	8844.04	1748.02	320.82	3.90	5.45	5.06
22934.64	23255.46	7381.54	1568.35	320.82	3.25	4.89	4.71
23255.46	23576.28	9036.26	1774.35	322.47	3.98	5.53	5.09
23576.28	23897.10	9576.30	1833.53	320.85	4.22	5.72	5.22
23897.10	24217.92	6721.78	1482.79	320.88	2.96	4.62	4.53
24217.92	24538.74	3812.20	1055.03	320.83	1.68	3.29	3.61

24538.74	24859.56	3255.19	960.66	321.69	1.43	2.99	3.39
24859.56	25180.38	680.77	193.27	61.06	0.30	3.20	3.52

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18561.44 LB	19494.33	25005.92	7674.36	937.35	11.02	8.23	3.26
19494.33	20427.22	94562.38	10764.53	932.89	41.66	11.54	8.78
20427.22	21360.11	33815.88	7417.65	933.50	14.90	7.95	4.56
21360.11	22293.00 RB	49645.82	9898.39	934.90	21.87	10.61	5.02
22293.00	22613.82	13050.10	2085.07	320.87	5.75	6.50	6.26
22613.82	22934.64	10919.91	1829.13	302.15	4.81	6.18	5.97

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 191.84

INPUT
Description:

Eliminate vertical ineffective area in rt. overbank by coding out GR

data between and below sta, elev. 23554.5, 888.5 and 24089, 888.5

Station Elevation Data num= 93

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16434.8	900	16563.3	899.5	16578.1	897.4	16589.9	901.3	16613.5	901.3
16639	899.2	17001.7	897	17270.8	893.7	17403.4	893.2	17643.7	891.8
17923.4	892.4	18222.2	892.3	18457.8	891.6	18504	893.1	18532.5	887.2
18796.4	887.9	18878.4	889.2	18911.6	884.5	18937.5	884.4	18940.1	886.1
18973.7	886.5	18977.3	884.1	19010.2	885.6	19011.5	884.1	19023.9	887.6
19035.6	886.6	19195.5	884	19261.1	888.1	19297.9	887.3	19389.6	889.8
19414.2	885.9	19456.9	888.5	19472.9	881.6	19803.9	881.9	19872.3	884.5
19931.1	883.8	20001	882.3	20139.7	882.5	20392.2	882.8	20483.7	883
20502.1	886.5	20811.4	888.7	21056.9	888.1	21243.8	885.2	21408.3	885.6
21433.5	884	21654.7	885.2	21662.4	884.2	21917.5	883	22173.9	881.7
22464.2	880.8	22520.4	883.7	22600.5	884.8	22631	889	22885.7	888.2
23159.3	888.6	23554.5	888.5	24089	888.5	24167.8	894.2	24236.7	894.1
24342.8	889.9	24601.4	890.4	24868.8	891.3	25173.5	892.8	25298.7	891.8
25342.8	892.3	25349.3	895.3	25591.5	896	25841.7	895.5	25853.9	897.1
25864.1	896.5	25871.8	898.9	25887.4	899.1	25897.3	895.9	25931.9	895.9
25944.9	898.9	25959.4	899.5	25968.3	895.7	26224.3	895.8	26506.6	896.7
26765.6	897.4	26992.5	897.7	27026.1	900.9	27038.7	900.2	27070.5	901.4
27096.8	897.4	27156.5	896.8	27206.5	899	27219.4	897.1	27483	898.3
27752.4	899.6	27964.7	899.5	27978.9	900.8				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16434.8	.032	17403.4	.025	18504	.065	19456.9	.026	20502.1	.043
22631	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18504	22631	510	495.05	540	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	893.24	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.41	Wt. n-Val.	0.025	0.036	0.025
E.G. Elev (ft)	893.64	Reach Len. (ft)	510.00	495.05	540.00
Crit W.S. (ft)		Flow Area (sq ft)	1105.76	34959.21	9156.18
E.G. Slope (ft/ft)	0.000912	Area (sq ft)	1105.76	34959.21	9156.18
Q Total (cfs)	227000.00	Flow (cfs)	1989.86	184022.83	40987.32
Top Width (ft)	7847.56	Top Width (ft)	1110.70	4127.00	2609.86
Vel Total (ft/s)	5.02	Avg. Vel. (ft/s)	1.80	5.26	4.48
Max Chl Dpth (ft)	12.44	Hydr. Depth (ft)	1.00	8.47	3.51

Conv. Total (cfs)	7518689.0	Conv. (cfs)	65908.0	6095200.0	1357581.0
Length Wtd. (ft)	503.28	Wetted Per. (ft)	1110.73	4133.36	2610.32
Min Ch El (ft)	880.80	Shear (lb/sq ft)	0.06	0.48	0.20
Alpha	1.04	Stream Power (lb/ft s)	0.10	2.53	0.89
Frctn Loss (ft)	0.43	Cum Volume (acre-ft)	5543.53	55898.63	20613.24
C & E Loss (ft)	0.02	Cum SA (acres)	1373.50	6044.74	6166.35

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	893.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.50	Wt. n-Val.		0.036	0.025
E.G. Elev (ft)	894.42	Reach Len. (ft)	510.00	495.05	540.00
Crit W.S. (ft)		Flow Area (sq ft)		37800.80	2305.26
E.G. Slope (ft/ft)	0.000967	Area (sq ft)		37800.80	2305.26
Q Total (cfs)	227000.00	Flow (cfs)		213937.45	13062.53
Top Width (ft)	4551.00	Top Width (ft)		4127.00	424.00
Vel Total (ft/s)	5.66	Avg. Vel. (ft/s)		5.66	5.67
Max Chl Dpth (ft)	13.13	Hydr. Depth (ft)		9.16	5.44
Conv. Total (cfs)	7299464.0	Conv. (cfs)		6879422.0	420041.8
Length Wtd. (ft)	497.28	Wetted Per. (ft)		4134.19	429.48
Min Ch El (ft)	880.80	Shear (lb/sq ft)		0.55	0.32
Alpha	1.00	Stream Power (lb/ft s)		3.12	1.84
Frctn Loss (ft)	0.46	Cum Volume (acre-ft)	936.74	58614.11	8505.55
C & E Loss (ft)	0.02	Cum SA (acres)	168.02	6050.85	1306.42

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17262.48	17400.43	0.01	0.10	7.13	0.00	0.01	0.08
17400.43	17538.37	57.40	58.31	137.95	0.03	0.42	0.98
17538.37	17676.32	320.84	164.92	137.95	0.14	1.20	1.95
17676.32	17814.27	331.92	168.32	137.95	0.15	1.22	1.97
17814.27	17952.21	211.73	128.52	137.95	0.09	0.93	1.65
17952.21	18090.16	189.18	120.13	137.95	0.08	0.87	1.57
18090.16	18228.11	206.33	126.54	137.95	0.09	0.92	1.63
18228.11	18366.05	305.36	160.10	137.95	0.13	1.16	1.91
18366.05	18504.00	367.11	178.82	137.97	0.16	1.30	2.05
18504.00 LB	19535.75	20688.51	6771.58	1037.18	9.11	6.56	3.06
19535.75	20567.50	86275.92	10710.35	1032.15	38.01	10.38	8.06
20567.50	21599.25	23996.78	6696.17	1031.83	10.57	6.49	3.58
21599.25	22631.00 RB	53061.61	10781.11	1032.19	23.38	10.45	4.92
22631.00	22987.53	8407.44	1686.76	356.53	3.70	4.73	4.98
22987.53	23344.05	8347.22	1679.49	356.53	3.68	4.71	4.97
23344.05	23700.58	8381.75	1683.66	356.53	3.69	4.72	4.98
23700.58	24057.11	8428.27	1689.26	356.53	3.71	4.74	4.99
24057.11	24413.63	2318.37	678.63	252.79	1.02	2.69	3.42
24413.63	24770.16	3505.89	998.01	356.53	1.54	2.80	3.51
24770.16	25126.69	1273.87	543.66	356.53	0.56	1.52	2.34
25126.69	25483.21	324.50	196.71	218.36	0.14	0.90	1.65

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18504.00 LB	19535.75	24810.02	7481.98	1038.01	10.93	7.25	3.32
19535.75	20567.50	98940.81	11420.75	1032.15	43.59	11.07	8.66
20567.50	21599.25	29291.90	7406.57	1031.83	12.90	7.18	3.95
21599.25	22631.00 RB	60894.74	11491.51	1032.19	26.83	11.14	5.30
22631.00	22987.53	11016.68	1932.24	356.53	4.85	5.42	5.70
22987.53	23344.05	2045.84	373.02	72.95	0.90	5.53	5.48

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 191.75

INPUT
Description:

Eliminate vertical ineffective area in rt. overbank by coding out GR

data between and below sta, elev. 22812, 888.5 and 24274.1, 888.5

Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16397.4	898.9	16416.4	895.9	16455.3	894.9	16469.8	898.1	16492.1	898.9
16510.3	893.4	16567.2	896.2	16576.2	894.3	16851.8	891.3	16910	889.8
17133.9	891.3	17465.5	891.7	17705.5	891.6	17934.7	891.5	18167.8	893.1
18384.3	891.1	18451	891.8	18485.1	886.2	18711.7	885.6	18782.7	888.2
18876.6	887.5	18915.5	883	18981.8	885.5	19001.5	883.5	19139.6	883.2
19169.6	886.5	19177.8	883.1	19287.3	883.7	19295	888.1	19341.5	886.5
19360.5	889	19377.3	885.5	19529.2	890.3	19560.9	882	19715.8	882.1
20042.3	881.4	20383.4	881.3	20441.3	885.6	20687.8	887.3	20948.8	887.4
21010.7	886.8	21025.6	884.5	21143.7	885.3	21159.2	883.6	21232	886.3
21447.4	886	21599.9	881.7	21946.7	882.2	22174.2	884.3	22399.5	883.8
22528.8	883.1	22558.1	880.4	22774.5	880.9	22812	888.5	24274.1	888.5
24493.8	889.2	24775.5	889.7	24901.5	890.1	25116.7	889.9	25369.7	891.2
25427.8	892.3	25442.9	896.5	25687.1	895.2	25821.4	894.8	25876.9	897.8
25885.8	895.3	25905.6	898.7	25932.1	898.7	25945.3	893.2	25975.7	894.1
25983.9	899.5	26002.7	898.9	26014.3	894.6	26290.1	895.9	26539.4	895.1
26760.1	896.3	26804.2	895.9	26899.2	898.1	26936.2	896.1	27058.4	897.6
27070.8	896.6	27112.7	896.7	27371.3	896.1	27462.4	896.4	27687.4	896.6
27963.1	896.5	28181	898	28249.9	897.9	28257.3	899.5		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16397.4	.032	16567.2	.025	18451	.065	19529.2	.026	20687.8	.043
22812	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18451	22812	580	545.07	560	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
16397.4	16570	898

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	892.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.34	Wt. n-Val.	0.025	0.037	0.025
E.G. Elev (ft)	893.19	Reach Len. (ft)	580.00	545.07	560.00
Crit W.S. (ft)	888.66	Flow Area (sq ft)	2199.13	37918.75	9850.54
E.G. Slope (ft/ft)	0.000796	Area (sq ft)	2199.13	37918.75	9850.54
Q Total (cfs)	227000.00	Flow (cfs)	4433.45	182604.14	39962.41
Top Width (ft)	8659.89	Top Width (ft)	1681.08	4361.00	2617.81
Vel Total (ft/s)	4.54	Avg. Vel. (ft/s)	2.02	4.82	4.06
Max Chl Dpth (ft)	12.46	Hydr. Depth (ft)	1.31	8.69	3.76
Conv. Total (cfs)	8045646.0	Conv. (cfs)	157136.6	6472107.0	1416402.5
Length Wtd. (ft)	548.26	Wetted Per. (ft)	1681.13	4367.09	2617.90
Min Ch El (ft)	880.40	Shear (lb/sq ft)	0.07	0.43	0.19
Alpha	1.05	Stream Power (lb/ft s)	0.13	2.08	0.76
Frctn Loss (ft)	0.38	Cum Volume (acre-ft)	5524.18	55484.51	20495.43
C & E Loss (ft)	0.01	Cum SA (acres)	1357.16	5996.51	6133.95

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	893.50	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.44	Wt. n-Val.		0.037	0.025
E.G. Elev (ft)	893.94	Reach Len. (ft)	580.00	545.07	560.00
Crit W.S. (ft)	888.49	Flow Area (sq ft)		40724.49	1840.72
E.G. Slope (ft/ft)	0.000900	Area (sq ft)		40724.49	1840.72
Q Total (cfs)	227000.00	Flow (cfs)		217488.81	9511.18
Top Width (ft)	4729.00	Top Width (ft)		4361.00	368.00
Vel Total (ft/s)	5.33	Avg. Vel. (ft/s)		5.34	5.17
Max Chl Dpth (ft)	13.10	Hydr. Depth (ft)		9.34	5.00
Conv. Total (cfs)	7568646.5	Conv. (cfs)		7251524.0	317122.3

Length Wtd. (ft)	545.48	Wetted Per. (ft)		4368.79	373.00
Min Ch El (ft)	880.40	Shear (lb/sq ft)		0.52	0.28
Alpha	1.00	Stream Power (lb/ft s)		2.80	1.43
Frctn Loss (ft)	0.41	Cum Volume (acre-ft)	936.74	58167.90	8479.85
C & E Loss (ft)	0.02	Cum SA (acres)	168.02	6002.61	1301.52

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16671.21	16808.12	55.06	53.89	99.51	0.02	0.54	1.02
16808.12	16945.03	757.12	295.08	136.93	0.33	2.16	2.57
16945.03	17081.93	884.11	323.83	136.91	0.39	2.37	2.73
17081.93	17218.84	457.43	218.07	136.91	0.20	1.59	2.10
17218.84	17355.75	357.35	188.05	136.91	0.16	1.37	1.90
17355.75	17492.65	290.39	166.04	136.91	0.13	1.21	1.75
17492.65	17629.56	284.68	164.07	136.91	0.13	1.20	1.74
17629.56	17766.47	307.75	171.92	136.91	0.14	1.26	1.79
17766.47	17903.37	332.36	180.04	136.91	0.15	1.32	1.85
17903.37	18040.28	238.48	147.53	136.91	0.11	1.08	1.62
18040.28	18177.19	20.93	29.27	92.36	0.01	0.32	0.71
18177.19	18314.09	69.27	66.69	120.17	0.03	0.56	1.04
18314.09	18451.00	378.51	194.65	136.91	0.17	1.42	1.94
18451.00 LB	19541.25	17801.04	7594.73	1094.23	7.84	6.97	2.34
19541.25	20631.50	84389.84	11190.21	1091.08	37.18	10.26	7.54
20631.50	21721.75	30114.00	8039.28	1090.64	13.27	7.37	3.75
21721.75	22812.00 RB	50299.25	11094.54	1091.15	22.16	10.18	4.53
22812.00	23175.02	6893.17	1582.25	363.02	3.04	4.36	4.36
23175.02	23538.04	6893.20	1582.26	363.02	3.04	4.36	4.36
23538.04	23901.06	6893.17	1582.25	363.02	3.04	4.36	4.36
23901.06	24264.08	6893.17	1582.25	363.02	3.04	4.36	4.36
24264.08	24627.10	5596.43	1396.28	363.02	2.47	3.85	4.01
24627.10	24990.12	3813.25	1109.18	363.02	1.68	3.06	3.44
24990.12	25353.14	2807.05	922.94	363.02	1.24	2.54	3.04
25353.14	25716.16	173.01	93.14	76.75	0.08	1.21	1.86

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18451.00 LB	19541.25	21938.24	8296.16	1095.93	9.66	7.61	2.64
19541.25	20631.50	99392.31	11891.64	1091.08	43.79	10.91	8.36
20631.50	21721.75	36866.79	8740.71	1090.64	16.24	8.02	4.22
21721.75	22812.00 RB	59291.47	11795.98	1091.15	26.12	10.82	5.03
22812.00	23175.02	9429.80	1815.81	363.02	4.15	5.00	5.19
23175.02	23538.04	81.38	24.91	9.98	0.04	5.00	3.27

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 191.65

INPUT
Description:

Eliminate vertical ineffective area in rt. overbank by coding out GR

data between and below sta, elev. 23213, 888.8 and 24253, 888.7

Station Elevation Data num= 90

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16063.7	902.8	16164.6	896.2	16274.6	895	16295	892.5	16308.1	898.4
16532.3	890.3	16829.6	890.4	17133.6	890.2	17158.9	890.2	17429.2	889.6
17703.1	890.1	17965.6	890.3	18197.2	889.7	18412.7	891.5	18468.7	884.6
18666.6	886.7	18789.6	885	19001.7	888.5	19024.3	882.6	19121.3	883.7
19168.8	883.3	19180.8	881.8	19256.7	882.9	19497.7	880.5	19514.8	880.7

19530.2	886.4	19577.8	886.6	19616.7	888.7	19622	885.6	19638.1	880.7
19764.5	879.7	20214.8	879.9	20457.1	882.9	20490.3	886.1	20713	886.6
20910.5	886.1	20958.6	883.9	21178.8	886.1	21392.1	885.4	21457.8	885.5
21477.1	883.6	21655.1	882.6	21675	885.4	21712.7	882.8	21946.2	882.5
22051.6	881.5	22069.4	884.1	22313.5	886.4	22538.9	882.9	22792.4	882.7
22838.7	881.3	22932.3	883.2	22945.2	880.2	23139.2	880.4	23140.3	879.1
23182.4	887	23213	888.8	24253	888.7	24297.1	889.2	24303.9	887.5
24543	888.7	24765.9	890.4	24986.2	892.5	24997.1	889.7	25026	891.7
25053.2	891.3	25088.9	896.7	25104.5	892.5	25125.4	892.7	25147.6	896.5
25187.9	893.5	25404.8	892.9	25625.2	893.2	25692.5	891.4	25982.7	891.2
26137.9	892.5	26155.2	896.1	26172.5	896.7	26187.1	893.9	26217.3	894.1
26230	897.8	26254	897.9	26271.2	894.5	26507.5	894.6	26582.2	899.1
26620.6	894.2	26835.3	894	27057	894.5	27290.8	895.5	27493.1	898.1

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16063.7	.032	16532.3	.025	18412.7	.065	19121.3	.026	20490.3	.043
23213	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18412.7	23213	510	480.24	360	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16063.7	16500	901	24986.2	27493.1	901

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	892.50	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.30	Wt. n-Val.	0.025	0.035	0.025
E.G. Elev (ft)	892.80	Reach Len. (ft)	510.00	480.24	360.00
Crit W.S. (ft)	887.63	Flow Area (sq ft)	4447.97	42765.16	6033.79
E.G. Slope (ft/ft)	0.000606	Area (sq ft)	4462.87	42765.16	6607.34
Q Total (cfs)	227000.00	Flow (cfs)	11411.47	195616.05	19972.49
Top Width (ft)	9077.15	Top Width (ft)	1941.47	4800.30	2335.38
Vel Total (ft/s)	4.26	Avg. Vel. (ft/s)	2.57	4.57	3.31
Max Chl Dpth (ft)	13.40	Hydr. Depth (ft)	2.33	8.91	3.40
Conv. Total (cfs)	9220545.0	Conv. (cfs)	463524.3	7945755.5	811265.5
Length Wtd. (ft)	473.55	Wetted Per. (ft)	1912.73	4806.93	1773.43
Min Ch El (ft)	879.10	Shear (lb/sq ft)	0.09	0.34	0.13
Alpha	1.06	Stream Power (lb/ft s)	0.23	1.54	0.43
Frctn Loss (ft)	0.30	Cum Volume (acre-ft)	5479.83	54979.71	20389.64
C & E Loss (ft)	0.01	Cum SA (acres)	1333.04	5939.19	6102.11

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	893.14	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.37	Wt. n-Val.		0.035	0.025
E.G. Elev (ft)	893.51	Reach Len. (ft)	510.00	480.24	360.00
Crit W.S. (ft)	887.65	Flow Area (sq ft)		45819.26	726.26
E.G. Slope (ft/ft)	0.000641	Area (sq ft)		45819.26	726.26
Q Total (cfs)	227000.00	Flow (cfs)		224136.75	2863.25
Top Width (ft)	4967.30	Top Width (ft)		4800.30	167.00
Vel Total (ft/s)	4.88	Avg. Vel. (ft/s)		4.89	3.94
Max Chl Dpth (ft)	14.04	Hydr. Depth (ft)		9.55	4.35
Conv. Total (cfs)	8962678.0	Conv. (cfs)		8849628.0	113050.3
Length Wtd. (ft)	479.48	Wetted Per. (ft)		4808.57	171.36
Min Ch El (ft)	879.10	Shear (lb/sq ft)		0.38	0.17
Alpha	1.00	Stream Power (lb/ft s)		1.87	0.67
Frctn Loss (ft)	0.33	Cum Volume (acre-ft)	936.74	57626.43	8463.35
C & E Loss (ft)	0.01	Cum SA (acres)	168.02	5945.30	1298.08

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16376.90	16533.50	88.36	55.01	33.52	0.04	1.64	1.61
16533.50	16690.10	831.29	341.05	156.60	0.37	2.18	2.44
16690.10	16846.70	798.62	332.94	156.60	0.35	2.13	2.40
16846.70	17003.30	824.61	339.40	156.60	0.36	2.17	2.43
17003.30	17159.90	890.03	355.31	156.60	0.39	2.27	2.50
17159.90	17316.50	1032.69	388.46	156.60	0.45	2.48	2.66
17316.50	17473.10	1266.21	439.00	156.60	0.56	2.80	2.88

17473.10	17629.70	1175.83	419.92	156.60	0.52	2.68	2.80
17629.70	17786.30	990.41	378.84	156.60	0.44	2.42	2.61
17786.30	17942.90	898.30	357.29	156.60	0.40	2.28	2.51
17942.90	18099.50	946.46	368.66	156.60	0.42	2.35	2.57
18099.50	18256.10	1140.65	412.34	156.60	0.50	2.63	2.77
18256.10	18412.70	527.96	259.74	156.61	0.23	1.66	2.03
18412.70 LB	19612.77	39106.01	9432.19	1202.50	17.23	7.86	4.15
19612.77	20812.85	81409.82	12399.72	1201.83	35.86	10.33	6.57
20812.85	22012.93	33794.17	9834.42	1200.52	14.89	8.19	3.44
22012.93	23213.00 RB	41306.12	11098.83	1202.08	18.20	9.25	3.72
23213.00	23498.34	3566.21	1060.98	285.34	1.57	3.72	3.36
23498.34	23783.68	3610.17	1068.81	285.34	1.59	3.75	3.38
23783.68	24069.02	3654.35	1076.63	285.34	1.61	3.77	3.39
24069.02	24354.36	3956.23	1129.48	285.55	1.74	3.96	3.50
24354.36	24639.70	4015.28	1139.24	285.35	1.77	3.99	3.52
24639.70	24925.04	1158.97	540.54	285.35	0.51	1.89	2.14
24925.04	25210.38	11.27	18.11	61.16	0.00	0.30	0.62

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18412.70 LB	19612.77	45280.07	10195.71	1204.14	19.95	8.50	4.44
19612.77	20812.85	91934.45	13163.24	1201.83	40.50	10.97	6.98
20812.85	22012.93	39409.59	10597.95	1200.52	17.36	8.83	3.72
22012.93	23213.00 RB	47512.64	11862.36	1202.08	20.93	9.88	4.01
23213.00	23498.34	2863.25	726.26	171.36	1.26	4.35	3.94

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 191.55

INPUT
Description:

Eliminate vertical ineffective area in main channel and rt. overbank

by coding out GR data between and below sta/elev. 23529, 889.2 and

24477.3, 889.2

Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16003.3	900.1	16035.1	899	16071.1	893.5	16154.7	894.3	16169.2	890.8
16189.4	895.2	16225.8	893.8	16253.9	889.9	16554.8	890.3	16725	889.8
16941.7	888.6	17142.3	890	17203.6	889.8	17220	887.9	17441.1	888.9
17699.5	889.1	17821.4	888.9	18093.5	889.9	18310.6	890.1	18357.1	890.3
18411	884.9	18618	885.4	18672.6	886.8	18881.8	884.6	19093.7	887.2
19246.1	885.5	19286.5	876.5	19355.9	883.7	19372.8	882.4	19405.4	884.2
19438	881.5	19645.9	883.7	19714	879.9	19770.8	879.9	20278.9	879.1
20321.8	883.3	20526.8	884.3	20755.4	887.1	20793.7	883.5	20828.3	886.4
20848.1	883.2	20904.8	883.5	20920.7	886	21094.7	886.3	21123	884.7
21359.8	885.8	21564.7	882.2	21707.6	884.3	21717.3	882.5	21889	882.4
22114.9	882.2	22138	885.1	22402.3	884.7	22642	886	22847.6	883.2
23064.7	881.5	23221.1	881.4	23462.5	879.3	23503.4	887.2	23530	889.2
24477.3	889.2	24722.3	889.2	24882.2	890.8	24981.6	896	24991.5	890.6
25047.1	896.3	25061	892.5	25281	893.2	25494.6	894.1	25783.5	892.4
25863	893.9	25889.2	891.4	26105.6	892	26304.9	891.9	26385.9	893
26418	899.7	26453.1	899.4	26459.9	896.6	26474	899.8	26499.2	898.9
26507.3	893	26541	892.9	26558.8	896.8	26576.2	896.5	26613.3	893.2
26947.9	894.1	27181.5	894.7	27470.8	895.4	27672.7	895	27841.1	895.4
28050.1	896.3								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

16003.3 .032 16554.8 .025 18357.1 .065 19405.4 .026 20321.8 .043
23530 .025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18357.1	23530	515	490.48	575	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16003.3	16260	898	24981.6	28050.1	898

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	892.22	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.28	Wt. n-Val.	0.025	0.038	0.025
E.G. Elev (ft)	892.49	Reach Len. (ft)	515.00	490.48	575.00
Crit W.S. (ft)	887.36	Flow Area (sq ft)	5835.55	44897.66	3969.97
E.G. Slope (ft/ft)	0.000677	Area (sq ft)	5877.74	44897.66	4157.11
Q Total (cfs)	227000.00	Flow (cfs)	17609.22	196963.64	12427.12
Top Width (ft)	9150.72	Top Width (ft)	2132.26	5172.90	1845.55
Vel Total (ft/s)	4.15	Avg. Vel. (ft/s)	3.02	4.39	3.13
Max Chl Dpth (ft)	15.72	Hydr. Depth (ft)	2.78	8.68	2.88
Conv. Total (cfs)	8721274.0	Conv. (cfs)	676541.0	7567286.0	477446.5
Length Wtd. (ft)	495.73	Wetted Per. (ft)	2097.22	5177.20	1379.32
Min Ch El (ft)	876.50	Shear (lb/sq ft)	0.12	0.37	0.12
Alpha	1.04	Stream Power (lb/ft s)	0.36	1.61	0.38
Frctn Loss (ft)	0.33	Cum Volume (acre-ft)	5419.29	54496.48	20345.16
C & E Loss (ft)	0.00	Cum SA (acres)	1309.20	5884.21	6084.83

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	892.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.35	Wt. n-Val.		0.038	
E.G. Elev (ft)	893.18	Reach Len. (ft)	515.00	490.48	575.00
Crit W.S. (ft)	887.36	Flow Area (sq ft)		48072.30	
E.G. Slope (ft/ft)	0.000728	Area (sq ft)		48072.30	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	5172.90	Top Width (ft)		5172.90	
Vel Total (ft/s)	4.72	Avg. Vel. (ft/s)		4.72	
Max Chl Dpth (ft)	16.33	Hydr. Depth (ft)		9.29	
Conv. Total (cfs)	8413743.0	Conv. (cfs)		8413743.0	
Length Wtd. (ft)	490.48	Wetted Per. (ft)		5183.36	
Min Ch El (ft)	876.50	Shear (lb/sq ft)		0.42	
Alpha	1.00	Stream Power (lb/ft s)		1.99	
Frctn Loss (ft)	0.35	Cum Volume (acre-ft)	936.74	57108.87	8460.35
C & E Loss (ft)	0.01	Cum SA (acres)	168.02	5890.32	1297.39

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16160.22	16317.14	266.77	129.72	57.14	0.12	2.27	2.06
16317.14	16474.06	657.72	333.93	156.92	0.29	2.13	1.97
16474.06	16630.98	674.89	313.58	156.92	0.30	2.00	2.15
16630.98	16787.90	1031.24	377.15	156.92	0.45	2.40	2.73
16787.90	16944.82	1660.64	501.96	156.92	0.73	3.20	3.31
16944.82	17101.74	1531.40	478.14	156.92	0.67	3.05	3.20
17101.74	17258.66	1416.11	456.33	157.03	0.62	2.91	3.10
17258.66	17415.58	2199.80	594.20	156.92	0.97	3.79	3.70
17415.58	17572.50	1734.28	515.19	156.92	0.76	3.28	3.37
17572.50	17729.42	1627.94	496.00	156.92	0.72	3.16	3.28
17729.42	17886.34	1681.42	505.71	156.92	0.74	3.22	3.32
17886.34	18043.26	1321.70	437.70	156.92	0.58	2.79	3.02
18043.26	18200.18	967.02	362.88	156.92	0.43	2.31	2.66
18200.18	18357.10	838.28	333.07	156.92	0.37	2.12	2.52
18357.10 LB	19650.32	31689.08	9723.63	1295.14	13.96	7.52	3.26
19650.32	20943.55	81657.12	12945.69	1294.29	35.97	10.01	6.31
20943.55	22236.78	38776.10	10629.19	1293.67	17.08	8.22	3.65
22236.78	23530.00 RB	44841.37	11599.15	1294.09	19.75	8.97	3.87
23530.00	23831.34	2909.15	908.95	301.34	1.28	3.02	3.20
23831.34	24132.68	2909.15	908.95	301.34	1.28	3.02	3.20
24132.68	24434.02	2909.15	908.95	301.34	1.28	3.02	3.20
24434.02	24735.36	2904.59	908.10	301.34	1.28	3.01	3.20
24735.36	25036.70	795.09	335.03	173.96	0.35	1.93	2.37

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18357.10 LB	19650.32	37092.09	10517.29	1297.67	16.34	8.13	3.53
19650.32	20943.55	92736.12	13739.35	1294.29	40.85	10.62	6.75
20943.55	22236.78	45341.61	11422.85	1293.67	19.97	8.83	3.97
22236.78	23530.00 RB	51830.20	12392.82	1297.72	22.83	9.58	4.18

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 191.46

INPUT
Description:

Eliminate vertical ineffective area in rt. overbank by coding out GR

data between and below sta, elev. 23859.3, 890 and 24613.7, 890

Station Elevation Data num= 92

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15929	901.4	15939.9	898.9	16132.6	896.2	16273.1	894	16325.6	895.1
16340.8	890.8	16361.4	894.4	16481.6	890.7	16578.3	892.1	16610	889.7
16637.1	891.2	16854.8	889	16929	888.8	17249.7	889	17442.1	890.5
17507.7	886.3	17766.5	886.5	18057	889.4	18167.3	886.7	18193	883.2
18300	883.3599	18460.7	883.6	18687.7	886.3	18891.5	883.7	19115.7	885
19336.1	886.1	19499.6	886.6	19606	880.2	19679.9	882.2	19721.7	879.2
19893	879.4	20097.2	880.1	20162.6	880.3	20355.4	880.5	20384	886.3
20686.7	885.3	20898.1	885.3	20922.7	883.7	20996.4	885.8	21035.8	883.9
21075.9	886.4	21276	886	21387.9	886.4	21587.8	882.4	21659.5	882.3
21952.5	881.7	22159.2	882.7	22290.8	885.5	22486.2	885.2	22690.4	885.6
22860.1	883.5	22899.7	885.4	22931.6	882.6	23170	883.7	23386.5	883
23511.6	882.3	23537.8	879	23575.2	881.5	23785.7	880.2	23812	880.3
23858.1	887.6	23859	890	24613.7	890	24701.3	890.3	24720.6	896.8
24735.4	896.9	24749.4	891.1	24766.5	893.3	24771.3	895.7	24793.6	896.2
24802.1	894.6	24811.8	898.4	24896.1	893.5	25212.8	892.9	25476.7	892.3
25733.9	891.7	25991.7	891.9	26062.7	892.2	26152.3	896.8	26189.7	890.6
26458.5	892.2	26656	892	26809.2	891.9	26845.5	895.5	26853.4	893.6
26923.3	895.6	26942.8	893.2	27170	894.4	27367.1	894.6	27743	894.3
27954.5	895.4	28068.5	895.2						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15929	.032	16578.3	.025	18057	.025	18687.7	.065	19499.6	.026
20384	.043	23859	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18300	23859	515	512.91	480	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15929	16600	900	24735.4	28068.5	900

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	891.88	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.28	Wt. n-Val.	0.025	0.036	0.025
E.G. Elev (ft)	892.16	Reach Len. (ft)	515.00	512.91	480.00
Crit W.S. (ft)	887.30	Flow Area (sq ft)	6342.83	45885.13	1575.60
E.G. Slope (ft/ft)	0.000657	Area (sq ft)	6432.57	45885.13	1750.05
Q Total (cfs)	227000.00	Flow (cfs)	24176.18	199193.95	3629.88
Top Width (ft)	8798.08	Top Width (ft)	1848.85	5559.00	1390.23
Vel Total (ft/s)	4.22	Avg. Vel. (ft/s)	3.81	4.34	2.30
Max Chl Dpth (ft)	12.88	Hydr. Depth (ft)	3.73	8.25	1.86
Conv. Total (cfs)	8856316.0	Conv. (cfs)	943224.3	7771474.0	141618.2
Length Wtd. (ft)	512.37	Wetted Per. (ft)	1700.51	5562.95	847.26
Min Ch El (ft)	879.00	Shear (lb/sq ft)	0.15	0.34	0.08

Alpha	1.02	Stream Power (lb/ft s)	0.58	1.47	0.18
Frctn Loss (ft)	0.36	Cum Volume (acre-ft)	5346.52	53985.38	20306.17
C & E Loss (ft)	0.00	Cum SA (acres)	1285.66	5823.79	6063.48

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	892.50	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.33	Wt. n-Val.		0.037	
E.G. Elev (ft)	892.83	Reach Len. (ft)	515.00	512.91	480.00
Crit W.S. (ft)	887.33	Flow Area (sq ft)		49301.14	
E.G. Slope (ft/ft)	0.000683	Area (sq ft)		49301.14	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	5559.00	Top Width (ft)		5559.00	
Vel Total (ft/s)	4.60	Avg. Vel. (ft/s)		4.60	
Max Chl Dpth (ft)	13.50	Hydr. Depth (ft)		8.87	
Conv. Total (cfs)	8686920.0	Conv. (cfs)		8686920.0	
Length Wtd. (ft)	512.91	Wetted Per. (ft)		5574.58	
Min Ch El (ft)	879.00	Shear (lb/sq ft)		0.38	
Alpha	1.00	Stream Power (lb/ft s)		1.74	
Frctn Loss (ft)	0.39	Cum Volume (acre-ft)	936.74	56560.66	8460.35
C & E Loss (ft)	0.00	Cum SA (acres)	168.02	5829.90	1297.39

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16561.27	16719.33	239.77	147.07	119.41	0.11	1.23	1.63
16719.33	16877.40	898.49	363.48	158.07	0.40	2.30	2.47
16877.40	17035.47	1428.25	480.00	158.07	0.63	3.04	2.98
17035.47	17193.53	1373.32	468.84	158.07	0.60	2.97	2.93
17193.53	17351.60	1125.25	416.02	158.07	0.50	2.63	2.70
17351.60	17509.67	1037.43	396.36	158.20	0.46	2.51	2.62
17509.67	17667.73	3865.96	872.40	158.07	1.70	5.52	4.43
17667.73	17825.80	3607.32	836.91	158.07	1.59	5.29	4.31
17825.80	17983.87	2261.34	632.40	158.07	1.00	4.00	3.58
17983.87	18141.93	1565.82	507.27	158.10	0.69	3.21	3.09
18141.93	18300.00	6773.26	1222.10	158.31	2.98	7.73	5.54
18300.00 LB	19689.75	39801.67	10105.48	1390.03	17.53	7.27	3.94
19689.75	21079.50	76066.80	12727.66	1390.62	33.51	9.16	5.98
21079.50	22469.25	38619.67	11015.93	1389.82	17.01	7.93	3.51
22469.25	23859.00 RB	44705.75	12036.06	1392.47	19.69	8.66	3.71
23859.00	24139.63	1224.67	528.09	280.63	0.54	1.88	2.32
24139.63	24420.27	1224.68	528.09	280.63	0.54	1.88	2.32
24420.27	24700.90	1174.76	515.07	280.63	0.52	1.84	2.28
24700.90	24981.53	5.76	4.35	5.36	0.00	0.85	1.32

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18300.00 LB	19689.75	45842.66	10959.49	1399.17	20.20	7.89	4.18
19689.75	21079.50	85478.55	13581.67	1390.62	37.66	9.77	6.29
21079.50	22469.25	44616.27	11869.93	1389.82	19.65	8.54	3.76
22469.25	23859.00 RB	51062.53	12890.06	1394.97	22.49	9.28	3.96

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 191.36

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16334	897.8	16425.9	897	16498.2	899	16506.1	895	16510	890.4
16531.8	894.9	16839.1	891.6	16924.6	888	16956.6	890.6	17034.6	890.8
17092.2	884.9	17132.9	890.2	17165.7	886.2	17557.5	887.4	17759.1	889.1
17769.7	886.2	18107.7	885.9	18312.3	886.2	18342.5	881.8	18634.4	883.5
18940	885.7	19249.9	885.1	19425.8	884.4	19680.7	886.5	19715.5	879.2
19898.4	879.6	20344.5	880.1	20461.9	885.2	20782.3	885.8	20850.2	883.8

20954.5	886.1	21241.1	885.3	21346.1	885.7	21359.2	887.4	21422	885.3
21571.3	884.4	21590.5	882.4	21632.9	883.4	21648.9	881.6	21946.1	881.2
21965	884.3	22142.3	884.5	22159	882.1	22464.7	885.8	22712.3	885.9
22738.3	883.2	22905.3	883	22936.1	885.9	23004.6	882.1	23045.1	885.3
23071.8	882.5	23096.8	884.7	23386.1	882.8	23427.1	883.3	23455.3	880.7
23495.7	883.2	23533.7	879.9	23757	882.9	23909.4	880	24008.6	886
24051.4	884.8	24089.7	880	24110	887.4	24148.8	882.4	24169	884.1
24443.3	886.4	24555.1	893.6	24571	897.5	24590	898	24606	890.5
24625.6	890.5	24638.2	897.3	24753.2	894.7	25047	894.7	25081.8	891.9
25389.8	891.7	25731.2	891.2	25853.7	891	25945.5	893.9	26001.2	889.7
26301.9	889.3	26411.2	888.8	26434.7	891.4	26811	891	27106	890.8
27131.5	892.3	27152.5	896.3	27167.3	896.4	27175.1	891.8	27209.6	892.7
27216	896.3	27234.5	896.6	27250.9	893.6	27582.9	894.5	27870	895.3
27982	895.3								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16334	.032	17034.6	.025	18312.3	.065	19680.7	.026	20461.9	.043
24110	.043	24590	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18312.3	24110	515	498.89	560	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16334	16900	898	24590	27982	898

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	891.53	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.27	Wt. n-Val.	0.025	0.039	0.043
E.G. Elev (ft)	891.80	Reach Len. (ft)	515.00	498.89	560.00
Crit W.S. (ft)	887.19	Flow Area (sq ft)	6225.81	46193.43	2352.42
E.G. Slope (ft/ft)	0.000745	Area (sq ft)	6303.48	46193.43	3724.56
Q Total (cfs)	227000.00	Flow (cfs)	27753.04	192176.64	7070.31
Top Width (ft)	9220.32	Top Width (ft)	1478.04	5797.70	1944.57
Vel Total (ft/s)	4.14	Avg. Vel. (ft/s)	4.46	4.16	3.01
Max Chl Dpth (ft)	12.33	Hydr. Depth (ft)	4.41	7.97	5.70
Conv. Total (cfs)	8316598.0	Conv. (cfs)	1016788.0	7040775.0	259035.1
Length Wtd. (ft)	502.12	Wetted Per. (ft)	1413.72	5802.73	413.56
Min Ch El (ft)	879.20	Shear (lb/sq ft)	0.20	0.37	0.26
Alpha	1.01	Stream Power (lb/ft s)	0.91	1.54	0.80
Frctn Loss (ft)	0.33	Cum Volume (acre-ft)	5271.23	53443.27	20276.01
C & E Loss (ft)	0.01	Cum SA (acres)	1266.00	5756.93	6045.10

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	892.11	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.33	Wt. n-Val.		0.040	
E.G. Elev (ft)	892.44	Reach Len. (ft)	515.00	498.89	560.00
Crit W.S. (ft)	887.16	Flow Area (sq ft)		49554.42	
E.G. Slope (ft/ft)	0.000836	Area (sq ft)		49554.42	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	5797.70	Top Width (ft)		5797.70	
Vel Total (ft/s)	4.58	Avg. Vel. (ft/s)		4.58	
Max Chl Dpth (ft)	12.91	Hydr. Depth (ft)		8.55	
Conv. Total (cfs)	7851660.5	Conv. (cfs)		7851660.5	
Length Wtd. (ft)	499.00	Wetted Per. (ft)		5813.36	
Min Ch El (ft)	879.20	Shear (lb/sq ft)		0.44	
Alpha	1.00	Stream Power (lb/ft s)		2.04	
Frctn Loss (ft)	0.36	Cum Volume (acre-ft)	936.74	55978.66	8460.35
C & E Loss (ft)	0.02	Cum SA (acres)	168.02	5763.04	1297.39

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16861.55	16993.43	341.57	178.20	93.56	0.15	1.91	1.92
16993.43	17125.32	1471.35	392.68	132.47	0.65	2.98	3.75
17125.32	17257.21	2613.74	598.27	132.19	1.15	4.54	4.37
17257.21	17389.09	2926.61	639.67	131.89	1.29	4.85	4.58
17389.09	17520.98	2531.77	586.40	131.89	1.12	4.45	4.32
17520.98	17652.87	1997.75	508.71	131.89	0.88	3.86	3.93

17652.87	17784.75	1492.21	427.52	132.28	0.66	3.24	3.49
17784.75	17916.64	3504.87	712.76	131.89	1.54	5.40	4.92
17916.64	18048.53	3632.32	728.19	131.89	1.60	5.52	4.99
18048.53	18180.41	3709.23	737.41	131.89	1.63	5.59	5.03
18180.41	18312.30	3531.69	716.02	131.89	1.56	5.43	4.93
18312.30 LB	19761.73	28325.68	10452.56	1450.53	12.48	7.21	2.71
19761.73	21211.15	76088.93	12468.23	1449.59	33.52	8.60	6.10
21211.15	22660.57	39200.08	10886.31	1450.24	17.27	7.51	3.60
22660.57	24110.00 RB	48561.89	12386.32	1452.38	21.39	8.55	3.92
24110.00	24368.13	5664.57	1738.43	258.53	2.50	6.73	3.26
24368.13	24626.27	1405.75	613.99	155.03	0.62	3.96	2.29

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18312.30 LB	19761.73	33853.94	11292.81	1456.44	14.91	7.79	3.00
19761.73	21211.15	88823.02	13308.48	1449.59	39.13	9.18	6.67
21211.15	22660.57	47027.89	11726.56	1450.24	20.72	8.09	4.01
22660.57	24110.00 RB	57295.16	13226.57	1457.09	25.24	9.13	4.33

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 191.27

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16501.2	902.2	16590.7	901.5	16606.9	898.4	16660.8	898.9	16663.7	894.5
16668.3	890.8	16678.5	888.8	16698.7	891.7	16757	886.9	16899.8	887.2
17117.4	885.7	17157.1	885.6	17415.2	885.5	17557.7	886.4	17754.1	886.1
17983.4	886.4	18020.3	888.9	18088.1	888.7	18101.7	886.2	18297.3	885.9
18419.8	885.5	18500.8	887.8	18547.3	880.3	18683.1	880.3	18906.9	882.2
19026	884.7	19215.1	884.3	19232.8	884.9	19281.5	882.3	19463.7	883.7
19484.3	885.2	19632	885.8	19667.6	879	19993.5	879.4	20363.1	880.1
20394.4	880.3	20414	883.6	20603.3	883.7	20789.1	884.8	20975.9	885.4
21046.9	883.7	21071.8	886.1	21225.3	883.7	21259	886	21425.3	884.1
21630	883.6	21650.4	881.6	21968.2	882	22159.1	881.5	22283.4	881.8
22376	885.2	22544.2	881.9	22749.6	883.4	22941.3	884.5	23143.1	883.5
23334.3	881.7	23450.8	883.1	23463.9	879.7	23635.2	880	23835.5	883
24049.5	880	24103.4	881.6	24117.6	879.1	24214.3	879.8	24251.8	889.7
24310.7	888.9	24350.4	890.5	24390.3	897.1	24413	898.3	24429.2	889.5
24449.9	890.2	24465.2	896.7	24541.6	894.1	24761.6	895	24964.7	894.7
25153.2	894.5	25342.8	893.2	25582.1	891.8	25692.7	894.5	25739.2	889.7
25995.4	890	26315.8	888.8	26505.7	888.9	26695.6	889.6	26932.8	890.1
27145.5	890.9	27364.2	889.7	27549.3	889.9	27604.3	891.6	27633.3	896.5
27653.2	896.8	27659.6	893.8	27696.5	894.2	27721.9	896.6	27734.4	893.9
27937	894.9								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16501.2	.025	18500.8	.065	19632	.026	20414	.043	24251.8	.043
24413	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18500.8	24251.8	540	507.2	500	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
24413	27937	900

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	891.23	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.23	Wt. n-Val.	0.025	0.040	0.043
E.G. Elev (ft)	891.46	Reach Len. (ft)	540.00	507.20	500.00
Crit W.S. (ft)	886.20	Flow Area (sq ft)	8763.71	50173.50	176.46
E.G. Slope (ft/ft)	0.000570	Area (sq ft)	8763.71	50173.50	2975.59
Q Total (cfs)	227000.00	Flow (cfs)	35583.81	191207.92	208.28
Top Width (ft)	9572.64	Top Width (ft)	1824.14	5751.00	1997.50
Vel Total (ft/s)	3.84	Avg. Vel. (ft/s)	4.06	3.81	1.18
Max Chl Dpth (ft)	12.23	Hydr. Depth (ft)	4.80	8.72	1.71
Conv. Total (cfs)	9507467.0	Conv. (cfs)	1490360.9	8008383.0	8723.2

Length Wtd. (ft)	512.54	Wetted Per. (ft)	1825.19	5755.17	103.14
Min Ch El (ft)	879.00	Shear (lb/sq ft)	0.17	0.31	0.06
Alpha	1.00	Stream Power (lb/ft s)	0.69	1.18	0.07
Frctn Loss (ft)	0.29	Cum Volume (acre-ft)	5182.17	52891.43	20232.94
C & E Loss (ft)	0.00	Cum SA (acres)	1246.47	5690.80	6019.76

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	891.78	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.27	Wt. n-Val.	0.025	0.040	
E.G. Elev (ft)	892.06	Reach Len. (ft)	540.00	507.20	500.00
Crit W.S. (ft)	886.13	Flow Area (sq ft)	663.31	53331.91	
E.G. Slope (ft/ft)	0.000644	Area (sq ft)	663.31	53331.91	
Q Total (cfs)	227000.00	Flow (cfs)	3012.27	223987.72	
Top Width (ft)	5871.80	Top Width (ft)	120.80	5751.00	
Vel Total (ft/s)	4.20	Avg. Vel. (ft/s)	4.54	4.20	
Max Chl Dpth (ft)	12.78	Hydr. Depth (ft)	5.49	9.27	
Conv. Total (cfs)	8944204.0	Conv. (cfs)	118688.7	8825515.0	
Length Wtd. (ft)	507.61	Wetted Per. (ft)	126.99	5757.26	
Min Ch El (ft)	879.00	Shear (lb/sq ft)	0.21	0.37	
Alpha	1.00	Stream Power (lb/ft s)	0.95	1.56	
Frctn Loss (ft)	0.33	Cum Volume (acre-ft)	932.82	55389.48	8460.35
C & E Loss (ft)	0.00	Cum SA (acres)	167.31	5696.90	1297.39

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16634.51	16767.81	455.31	196.21	91.85	0.20	2.15	2.32
16767.81	16901.12	2016.06	556.10	133.31	0.89	4.17	3.63
16901.12	17034.43	2289.85	600.25	133.31	1.01	4.50	3.81
17034.43	17167.73	3079.95	717.09	133.31	1.36	5.38	4.30
17167.73	17301.04	3356.63	755.07	133.31	1.48	5.66	4.45
17301.04	17434.35	3398.65	760.73	133.31	1.50	5.71	4.47
17434.35	17567.65	2906.40	692.57	133.31	1.28	5.20	4.20
17567.65	17700.96	2682.47	660.04	133.31	1.18	4.95	4.06
17700.96	17834.27	2805.74	678.07	133.31	1.24	5.09	4.14
17834.27	17967.57	2674.24	658.82	133.31	1.18	4.94	4.06
17967.57	18100.88	1267.81	421.37	133.61	0.56	3.16	3.01
18100.88	18234.19	2849.99	684.50	133.32	1.26	5.13	4.16
18234.19	18367.49	3072.70	716.08	133.31	1.35	5.37	4.29
18367.49	18500.80	2727.97	666.80	133.34	1.20	5.00	4.09
18500.80 LB	19938.55	45355.88	12814.48	1439.17	19.98	8.91	3.54
19938.55	21376.30	55859.81	11815.66	1438.27	24.61	8.22	4.73
21376.30	22814.05	42180.45	12288.52	1437.95	18.58	8.55	3.43
22814.05	24251.80 RB	47811.82	13254.84	1439.78	21.06	9.22	3.61
24251.80	24497.48	208.28	176.46	103.14	0.09	1.71	1.18

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18367.49	18500.80	3012.27	663.31	126.99	1.33	5.49	4.54
18500.80 LB	19938.55	52834.54	13604.09	1439.17	23.28	9.46	3.88
19938.55	21376.30	65438.49	12605.26	1438.27	28.83	8.77	5.19
21376.30	22814.05	49768.72	13078.13	1437.95	21.92	9.10	3.81
22814.05	24251.80 RB	55945.97	14044.44	1441.86	24.65	9.77	3.98

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 191.17

INPUT
Description: Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16315.6	900.3	16480.6	899.6	16689.4	890.1	16823.1	887.6	16839.9	884.4
16848.1	885.5	16853.7	889.8	16889.3	884.2	16960	884.2	17185	885.2
17523.8	886.1	17751.7	885.6	17955.5	886	18176.2	885.6	18331.9	885.2

18419.9	888.1	18662.9	888.9	18905.3	886.5	18941.2	887.2	18983	879.6
19195.9	882.9	19295.8	883.6	19374	881.1	19609.1	884.4	19652.9	880.1
19950	880.5	20471.2	879.3	20500	883	20703.7	882.3	20910.1	884.3
20995.8	882.3	21032.7	884.6	21252	884.4	21278.3	881.3	21348.4	882.5
21371.7	880.8	21525.8	882.8	21590.2	881	21649.2	884.2	21683.1	882
21701.6	884.3	21719.1	881.7	21771.4	881.3	21979.4	880.8	22197.9	881.8
22454.4	882	22472.7	880.3	22560.1	879.8	22588.1	882.9	22728.8	883.1
22929.8	881.8	23139.4	882.8	23342.4	880.7	23446.7	882.6	23465.2	879.9
23668.5	880.6	23874.7	881.8	24084.6	879.3	24128.1	689	0.9908	893.9
24150	893.9	24160.8	897.1	24184.9	896.6	24207.1	889.2	24224.8	890.4
24238.3	895.2	24399.9	890.8	24608.5	894.1	24814	894.2	24922.3	895.2
25096.9	895.1	25141.3	891.7	25345	895.8	25363.6	895.8	25381.1	893.3
25586.9	891.2	25622.8	893.4	25735.2	890.2	25895.8	890.7	26097.1	889.5
26152.6	889.4	26397.7	889.6	26625	890.3	26834.4	889.6	27058.7	889.5
27314.9	890.1	27431.2	890.4	27654.6	890.7	27864.8	891.2	27890.9	891.9
27931	897	27937.6	893.5	27970.3	893.7	27980.2	896.2	28001.3	897.2
28012.2	893	28053	893.5						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16315.6	.032	16853.7	.025	18419.9	.065	18941.2	.065	19609.1	.026
20500	.043	24139	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18941.2	24128.16	520	505.85	395	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
24160.8	28053	900

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	890.94	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.24	Wt. n-Val.	0.027	0.039	
E.G. Elev (ft)	891.18	Reach Len. (ft)	520.00	505.85	395.00
Crit W.S. (ft)	885.68	Flow Area (sq ft)	10352.11	47650.32	
E.G. Slope (ft/ft)	0.000553	Area (sq ft)	10352.11	47650.32	1929.48
Q Total (cfs)	227000.00	Flow (cfs)	38441.61	188558.41	
Top Width (ft)	9540.25	Top Width (ft)	2270.21	5186.76	2083.28
Vel Total (ft/s)	3.91	Avg. Vel. (ft/s)	3.71	3.96	
Max Chl Dpth (ft)	11.64	Hydr. Depth (ft)	4.56	9.19	
Conv. Total (cfs)	9648997.0	Conv. (cfs)	1634021.9	8014975.5	
Length Wtd. (ft)	508.38	Wetted Per. (ft)	2272.59	5190.92	
Min Ch El (ft)	879.30	Shear (lb/sq ft)	0.16	0.32	
Alpha	1.00	Stream Power (lb/ft s)	0.58	1.26	
Frctn Loss (ft)	0.28	Cum Volume (acre-ft)	5063.68	52321.91	20204.79
C & E Loss (ft)	0.00	Cum SA (acres)	1221.10	5627.12	5996.34

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	891.41	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.31	Wt. n-Val.	0.061	0.039	
E.G. Elev (ft)	891.72	Reach Len. (ft)	520.00	505.85	395.00
Crit W.S. (ft)	885.63	Flow Area (sq ft)	1844.89	50124.13	
E.G. Slope (ft/ft)	0.000665	Area (sq ft)	1844.89	50124.13	
Q Total (cfs)	227000.00	Flow (cfs)	2595.38	224404.61	
Top Width (ft)	5728.16	Top Width (ft)	541.20	5186.96	
Vel Total (ft/s)	4.37	Avg. Vel. (ft/s)	1.41	4.48	
Max Chl Dpth (ft)	12.11	Hydr. Depth (ft)	3.41	9.66	
Conv. Total (cfs)	8802537.0	Conv. (cfs)	100643.0	8701894.0	
Length Wtd. (ft)	506.12	Wetted Per. (ft)	545.20	5191.55	
Min Ch El (ft)	879.30	Shear (lb/sq ft)	0.14	0.40	
Alpha	1.04	Stream Power (lb/ft s)	0.20	1.79	
Frctn Loss (ft)	0.34	Cum Volume (acre-ft)	917.27	54787.18	8460.35
C & E Loss (ft)	0.00	Cum SA (acres)	163.21	5633.23	1297.39

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16665.68	16840.72	690.67	375.06	170.08	0.30	2.21	1.84
16840.72	17015.76	4736.49	1047.47	177.01	2.09	5.98	4.52
17015.76	17190.80	4960.53	1067.88	175.04	2.19	6.10	4.65

17190.80	17365.84	4160.24	960.90	175.04	1.83	5.49	4.33
17365.84	17540.88	3594.46	880.21	175.04	1.58	5.03	4.08
17540.88	17715.92	3640.28	886.93	175.04	1.60	5.07	4.10
17715.92	17890.96	3826.21	913.83	175.04	1.69	5.22	4.19
17890.96	18066.00	3589.00	879.41	175.04	1.58	5.02	4.08
18066.00	18241.04	3930.24	928.66	175.04	1.73	5.31	4.23
18241.04	18416.08	3571.49	876.92	175.09	1.57	5.01	4.07
18416.08	18591.12	469.01	448.65	175.04	0.21	2.56	1.05
18591.12	18766.16	399.45	417.90	175.05	0.18	2.39	0.96
18766.16	18941.20	873.58	668.32	175.05	0.38	3.82	1.31
18941.20 LB	20237.94	55815.07	12383.60	1297.73	24.59	9.55	4.51
20237.94	21534.68	45866.12	11084.93	1297.35	20.21	8.55	4.14
21534.68	22831.42	42170.29	11877.53	1297.51	18.58	9.16	3.55
22831.42	24128.16 RB	44706.88	12304.26	1298.32	19.69	9.49	3.63

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18241.04	18416.08	185.40	59.58	20.06	0.08	3.71	3.11
18416.08	18591.12	673.79	532.13	175.04	0.30	3.04	1.27
18591.12	18766.16	585.70	501.38	175.05	0.26	2.86	1.17
18766.16	18941.20	1150.50	751.80	175.05	0.51	4.30	1.53
18941.20 LB	20237.94	66120.69	13002.05	1297.73	29.13	10.03	5.09
20237.94	21534.68	54794.84	11703.38	1297.35	24.14	9.03	4.68
21534.68	22831.42	50316.13	12495.98	1297.51	22.17	9.64	4.03
22831.42	24128.16 RB	53172.96	12922.70	1298.95	23.42	9.97	4.11

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 191.08

INPUT
Description: Right Channel Bank Station Interpolated
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16419.8	894.6	16442.3	894.5	16503.4	890	16682.1	885.1	16695.6	883
16709.7	889.5	16864.3	884.1	16979.6	886.9	17269.5	884.6	17562.1	884.4
17830.5	884.6	18085.7	885.8	18311.2	885.5	18511	886.6	18535.6	888.8
18554.1	886.8	18771.4	888.3	18986	882.8	19052.4	888.8	19303.5	889.1
19309.2	889.4	19352	879.9	19522.3	881.1	19565.5	885.7	19626.3	882
19950.1	881.4	20245.9	880.7	20600.5	878.9	20639.7	879.7	20671	883.5
20714.6	877.3	20774.6	881.4	20991.6	881.8	21074.6	880.8	21093.7	882.8
21249.3	881.8	21259.8	881.3	21308.2	879.8	21350.5	882.6	21584	881.9
21708.1	882.9	21730.5	880.4	21758.6	882.2	21856.6	881	21872.1	883.4
22107.5	880.9	22327.1	880.7	22598	881.5	22833.9	880.1	22863.1	881.8
22961.7	879.6	22981.7	883.4	23228.8	882.4	23369.9	879.6	23417.2	882.1
23452.8	880.2	23670.1	879.1	23689.3	881.9	23704.1	878.6	23731.3	881.6
23968.6	878.8	24058.9	879.5	24101.1	2890.7	156 24118	895.2	24134.1	896.5
24147.4	889.7	24179.5	893.4	24427.2	893.5	24546.9	893.4	24567.9	891.2
24803.6	893.7	24860.5	892.3	25084.6	891.4	25122.1	891.9	25188	895.2
25210.9	890.6	25477	891.8	25711.4	891.7	25818.2	892.2	25939.5	888.6
26190.2	888.5	26390	888.2	26609.2	888.4	26708.9	888.8	27051.8	888
27145.5	888.1	27392.4	888.4	27663.6	889.6	27934	890.6	28177.5	891.3
28189.9	891.9	28228.2	898.3	28242.4	893.9	28276.3	894.9	28280.5	897
28306	896								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16419.8	.032	16979.6	.025	18535.6	.065	19309.2	.065	19565.5	.026
20671	.043	24118	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19309.2	24101.12	475	483.82	435	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16419.8	16660	897	24134.1	28306	897

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	890.65	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.24	Wt. n-Val.	0.029	0.038	
E.G. Elev (ft)	890.90	Reach Len. (ft)	475.00	483.82	435.00

Crit W.S. (ft)	885.40	Flow Area (sq ft)	12426.19	45209.73	
E.G. Slope (ft/ft)	0.000536	Area (sq ft)	12867.80	45209.73	3995.04
Q Total (cfs)	227000.00	Flow (cfs)	42807.07	184192.92	
Top Width (ft)	9711.52	Top Width (ft)	2814.68	4791.69	2105.15
Vel Total (ft/s)	3.94	Avg. Vel. (ft/s)	3.44	4.07	
Max Chl Dpth (ft)	13.35	Hydr. Depth (ft)	4.69	9.44	
Conv. Total (cfs)	9808789.0	Conv. (cfs)	1849716.1	7959073.0	
Length Wtd. (ft)	482.34	Wetted Per. (ft)	2651.50	4797.36	
Min Ch El (ft)	877.30	Shear (lb/sq ft)	0.16	0.32	
Alpha	1.01	Stream Power (lb/ft s)	0.54	1.28	
Frctn Loss (ft)	0.24	Cum Volume (acre-ft)	4925.09	51782.73	20177.93
C & E Loss (ft)	0.00	Cum SA (acres)	1190.75	5569.18	5977.35

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	891.05	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.33	Wt. n-Val.	0.052	0.038	
E.G. Elev (ft)	891.38	Reach Len. (ft)	475.00	483.82	435.00
Crit W.S. (ft)	885.29	Flow Area (sq ft)	3395.35	47094.72	
E.G. Slope (ft/ft)	0.000672	Area (sq ft)	3395.35	47094.72	
Q Total (cfs)	227000.00	Flow (cfs)	6166.32	220833.67	
Top Width (ft)	5681.12	Top Width (ft)	889.20	4791.92	
Vel Total (ft/s)	4.50	Avg. Vel. (ft/s)	1.82	4.69	
Max Chl Dpth (ft)	13.75	Hydr. Depth (ft)	3.82	9.83	
Conv. Total (cfs)	8754269.0	Conv. (cfs)	237804.7	8516464.0	
Length Wtd. (ft)	483.55	Wetted Per. (ft)	894.71	4797.93	
Min Ch El (ft)	877.30	Shear (lb/sq ft)	0.16	0.41	
Alpha	1.06	Stream Power (lb/ft s)	0.29	1.93	
Frctn Loss (ft)	0.29	Cum Volume (acre-ft)	886.00	54222.69	8460.35
C & E Loss (ft)	0.00	Cum SA (acres)	154.67	5575.28	1297.39

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16612.43	16805.05	1348.56	536.19	146.71	0.59	3.70	2.52
16805.05	16997.68	3189.47	990.50	192.70	1.41	5.14	3.22
16997.68	17190.31	3400.25	898.02	192.63	1.50	4.66	3.79
17190.31	17382.93	5103.45	1145.77	192.63	2.25	5.95	4.45
17382.93	17575.56	5464.49	1193.73	192.63	2.41	6.20	4.58
17575.56	17768.19	5428.58	1189.02	192.63	2.39	6.17	4.57
17768.19	17960.81	4970.50	1127.76	192.63	2.19	5.85	4.41
17960.81	18153.44	3898.59	974.81	192.63	1.72	5.06	4.00
18153.44	18346.07	3886.36	972.98	192.63	1.71	5.05	3.99
18346.07	18538.69	2935.87	822.53	192.75	1.29	4.27	3.57
18538.69	18731.32	707.44	621.24	192.72	0.31	3.23	1.14
18731.32	18923.95	984.17	757.26	192.68	0.43	3.93	1.30
18923.95	19116.57	1255.77	876.94	192.92	0.55	4.55	1.43
19116.57	19309.20	233.55	319.45	192.63	0.10	1.66	0.73
19309.20 LB	20507.18	58075.49	11227.96	1199.39	25.58	9.37	5.17
20507.18	21705.16	43804.40	11087.51	1199.04	19.30	9.26	3.95
21705.16	22903.14	39941.52	11240.45	1198.45	17.60	9.38	3.55
22903.14	24101.12 RB	42371.52	11653.81	1200.48	18.67	9.73	3.64

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18346.07	18538.69	1998.71	517.37	123.76	0.88	4.36	3.86
18538.69	18731.32	943.53	697.01	192.72	0.42	3.62	1.35
18731.32	18923.95	1270.17	833.04	192.68	0.56	4.32	1.52
18923.95	19116.57	1587.30	952.71	192.92	0.70	4.95	1.67
19116.57	19309.20	366.62	395.22	192.63	0.16	2.05	0.93
19309.20 LB	20507.18	69661.70	11699.21	1199.39	30.69	9.77	5.95
20507.18	21705.16	52539.01	11558.76	1199.04	23.14	9.65	4.55
21705.16	22903.14	47927.06	11711.70	1198.45	21.11	9.78	4.09
22903.14	24101.12 RB	50705.90	12125.05	1201.05	22.34	10.12	4.18

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 190.99

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16293.2	896.5	16445.3	890.1	16501.6	887.3	16538.3	888.7	16600.3	887.7
16642.7	883.5	16656.9	887.8	16680.6	888.1	16697.5	884.7	16863.4	884.5
16986.1	884.7	16993	887.7	17141.1	887.2	17265.3	887.5	17315.2	884.5
17474.2	885.7	17645.1	886.2	17801.3	886.7	17900.2	885.1	18153.3	886
18345.3	886.2	18530.3	886.4	18657.1	887.8	18676.1	885.4	18778	888.7
18932.4	887.4	19050.9	884.5	19084.1	881.8	19145.1	888.5	19188.6	886.8
19332.7	888	19442.8	888.4	19487.1	881.2	19542	883.1	19582.4	878.3
19622.6	882	19678	878.4	20012.2	878	20404.8	878	20594.3	878
20689.1	881.9	20787.1	882.4	20806.3	879.6	20939.2	878.3	20958.6	880.1
21000.9	878.3	21049.7	878.4	21063	881.6	21211.5	880.9	21350	881.3
21384.7	883.3	21410.4	881.5	21429	883.1	21489.3	880.2	21568.7	880.8
21586.5	882.2	21729.6	883	21867	883.7	22013.1	882.2	22122.1	882
22145.6	880.4	22282.8	881.8	22414.5	881.3	22436.3	879.3	22614.2	879.1
22768.3	878.5	22874.5	880.6	22887.5	882.6	22967.5	879.5	23109.9	879
23243.4	880.5	23277.3	877.6	23295.8	880.9	23437.6	879.6	23450	877.4
23599.2	877.6	23737.6	876.8	23823.5	878.2	23868.5	889.6	23932.5	890.7
23952	896.1	23963.5	895.3	23972.5	890	23987.9	890.1	24005.3	895.2
24029.8	891.6	24182.3	891.3	24327.3	892.1	24493.8	891.4	24668.6	890.7
24753.3	891.7	24755.4	893.5	24825.5	891.1	24905.1	891.9	24975.6	894.1
24989.6	892.7								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16293.2	.032	16993	.025	18778	.065	19442.8	.026	20787.1	.15
21063	.043	23868.5	.043	23952	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19442.8	23868.5	460	502.34	575	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16293.2	16620	895	23952	24989.6	895

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	890.40	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.25	Wt. n-Val.	0.029	0.037	0.043
E.G. Elev (ft)	890.66	Reach Len. (ft)	460.00	502.34	575.00
Crit W.S. (ft)	884.26	Flow Area (sq ft)	11626.36	46145.97	18.78
E.G. Slope (ft/ft)	0.000469	Area (sq ft)	12020.67	46145.97	24.52
Q Total (cfs)	227000.00	Flow (cfs)	33082.32	193910.03	7.65
Top Width (ft)	7494.28	Top Width (ft)	3004.71	4425.70	63.87
Vel Total (ft/s)	3.93	Avg. Vel. (ft/s)	2.85	4.20	0.41
Max Chl Dpth (ft)	13.60	Hydr. Depth (ft)	4.12	10.43	0.40
Conv. Total (cfs)	10486804.0	Conv. (cfs)	1528316.4	8958134.0	353.4
Length Wtd. (ft)	495.22	Wetted Per. (ft)	2825.39	4430.46	46.76
Min Ch El (ft)	876.80	Shear (lb/sq ft)	0.12	0.30	0.01
Alpha	1.05	Stream Power (lb/ft s)	0.34	1.28	0.00
Frctn Loss (ft)	0.24	Cum Volume (acre-ft)	4789.39	51275.39	20157.86
C & E Loss (ft)	0.00	Cum SA (acres)	1159.02	5517.99	5966.52

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	890.77	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.32	Wt. n-Val.	0.042	0.037	
E.G. Elev (ft)	891.09	Reach Len. (ft)	460.00	502.34	575.00
Crit W.S. (ft)	884.26	Flow Area (sq ft)	3803.50	47763.47	
E.G. Slope (ft/ft)	0.000536	Area (sq ft)	3803.50	47763.47	
Q Total (cfs)	227000.00	Flow (cfs)	7617.15	219382.84	
Top Width (ft)	5426.40	Top Width (ft)	1000.70	4425.70	
Vel Total (ft/s)	4.40	Avg. Vel. (ft/s)	2.00	4.59	
Max Chl Dpth (ft)	13.97	Hydr. Depth (ft)	3.80	10.79	
Conv. Total (cfs)	9808188.0	Conv. (cfs)	329121.1	9479067.0	
Length Wtd. (ft)	500.56	Wetted Per. (ft)	1005.93	4431.63	
Min Ch El (ft)	876.80	Shear (lb/sq ft)	0.13	0.36	
Alpha	1.06	Stream Power (lb/ft s)	0.25	1.66	
Frctn Loss (ft)	0.29	Cum Volume (acre-ft)	846.75	53695.90	8460.35

C & E Loss (ft) 0.00 Cum SA (acres) 144.36 5524.09 1297.39

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16503.17	16713.15	1101.03	413.88	94.23	0.49	4.44	2.66
16713.15	16923.12	3927.52	1223.07	209.97	1.73	5.82	3.21
16923.12	17133.09	2290.61	803.31	210.60	1.01	3.83	2.85
17133.09	17343.07	2405.73	786.10	210.06	1.06	3.74	3.06
17343.07	17553.04	3857.71	1043.41	209.98	1.70	4.97	3.70
17553.04	17763.01	2864.65	872.76	209.97	1.26	4.16	3.28
17763.01	17972.99	3393.34	966.14	209.99	1.49	4.60	3.51
17972.99	18182.96	3486.64	981.97	209.98	1.54	4.68	3.55
18182.96	18392.93	2988.00	895.12	209.97	1.32	4.26	3.34
18392.93	18602.91	2590.89	821.73	209.98	1.14	3.91	3.15
18602.91	18812.88	1641.88	635.83	210.18	0.72	3.03	2.58
18812.88	19022.85	710.17	670.63	210.00	0.31	3.19	1.06
19022.85	19232.83	1353.07	988.23	210.49	0.60	4.71	1.37
19232.83	19442.80	471.05	524.18	209.98	0.21	2.50	0.90
19442.80 LB	20549.23	80732.23	12810.25	1107.61	35.56	11.58	6.30
20549.23	21655.65	33839.00	10791.45	1107.54	14.91	9.75	3.14
21655.65	22762.07	32932.63	10112.12	1106.59	14.51	9.14	3.26
22762.07	23868.50 RB	46406.18	12432.14	1108.72	20.44	11.24	3.73
23868.50	23943.24	7.65	18.78	46.76	0.00	0.40	0.41

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18392.93	18602.91	2349.40	677.67	165.28	1.03	4.21	3.47
18602.91	18812.88	2096.80	712.57	210.18	0.92	3.39	2.94
18812.88	19022.85	906.78	747.37	210.00	0.40	3.56	1.21
19022.85	19232.83	1633.69	1064.98	210.49	0.72	5.07	1.53
19232.83	19442.80	630.49	600.92	209.98	0.28	2.86	1.05
19442.80 LB	20549.23	90933.13	13214.63	1107.61	40.06	11.94	6.88
20549.23	21655.65	38535.57	11195.83	1107.54	16.98	10.12	3.44
21655.65	22762.07	37599.98	10516.50	1106.59	16.56	9.50	3.58
22762.07	23868.50 RB	52314.17	12836.52	1109.89	23.05	11.60	4.08

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 190.89

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16503.2	899.9	16535.8	894.6	16657	885.5	16665.3	883.5	16702	887.4
16710.3	884.6	16943.5	884.3	17198.5	884	17277	885.2	17282.5	887.1
17513.2	886.2	17732	884.9	17974.7	885.7	18208.9	885.2	18478.4	885.7
18715.8	885.3	18827.1	885.2	18931.1	891.9	19028.7	888.5	19143.1	886.8
19216	881.2	19271.6	887	19324.8	885.1	19585.6	888.4	19645.1	876.4
19839.4	877.8	20196.7	877.4	20479.4	877.1	20599.8	877.8	20762.2	881.6
20895	882.3	20951.8	879.2	21085.2	877.4	21102.7	879.7	21166.2	880.7
21177.6	877.4	21264.1	879.8	21417.2	882.1	21444.8	879.6	21650.5	881.5
21851.6	881	21896.2	882	21919.7	879.1	21957	882.3	22045.5	879.3
22247.1	882.1	22451.3	882.6	22654.5	883.6	22850	881.8	22864.7	881.3
22879.7	877.8	23129.7	877.4	23366.2	877	23580.2	876.2	23775.3	878.3
23830	889.8	23900.7	889.7	23926.4	895.9	23935.2	889.6	23955.6	889.4
23969.7	894.7	23990.9	891	24229.8	891.9	24458.6	891.5	24606.6	890
24692	893.6	24709.3	889.1	24961.9	890.7	25267.9	890.7	25345.9	890.4
25552.9	890.5	25831.8	889.9	26047.1	889.4	26318.7	889.2	26359.2	888.2
26390.8	891.1	26461.5	888	26709.1	886.2	26913.8	888.2	27105.7	887.4
27122.5	885.3	27335.6	886.2	27561.9	886.9	27925	888	28158	888.9
28371.7	889.6	28576.5	889.9	28697.5	890.3	28737.2	895	28745.9	893.3
28777.1	893.3	28787.9	896.3	28806.5	897.3	28827.5	893	29052.8	893.1
29056.5	893.1								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16503.2	.025	18931.1	.065	19585.6	.026	20762.2	.15	21085.2	.043

22850 .065 23830 .051

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19585.6	23830	420	469.24	485	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23926.4	29056.5	898

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	890.18	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.24	Wt. n-Val.	0.027	0.040	0.051
E.G. Elev (ft)	890.41	Reach Len. (ft)	420.00	469.24	485.00
Crit W.S. (ft)	883.86	Flow Area (sq ft)	13209.11	45480.98	30.74
E.G. Slope (ft/ft)	0.000487	Area (sq ft)	13209.11	45480.98	5994.98
Q Total (cfs)	227000.00	Flow (cfs)	43349.25	183639.61	11.13
Top Width (ft)	10378.27	Top Width (ft)	2914.75	4244.40	3219.12
Vel Total (ft/s)	3.87	Avg. Vel. (ft/s)	3.28	4.04	0.36
Max Chl Dpth (ft)	13.98	Hydr. Depth (ft)	4.53	10.72	0.42
Conv. Total (cfs)	10291241.0	Conv. (cfs)	1965275.9	8325460.5	504.4
Length Wtd. (ft)	458.76	Wetted Per. (ft)	2916.94	4248.58	72.74
Min Ch El (ft)	876.20	Shear (lb/sq ft)	0.14	0.33	0.01
Alpha	1.02	Stream Power (lb/ft s)	0.45	1.31	0.00
Frctn Loss (ft)	0.21	Cum Volume (acre-ft)	4656.17	50747.06	20118.13
C & E Loss (ft)	0.00	Cum SA (acres)	1127.76	5468.00	5944.85

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	890.48	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.32	Wt. n-Val.	0.037	0.040	
E.G. Elev (ft)	890.80	Reach Len. (ft)	420.00	469.24	485.00
Crit W.S. (ft)	883.86	Flow Area (sq ft)	4415.63	46774.72	
E.G. Slope (ft/ft)	0.000612	Area (sq ft)	4415.63	46774.72	
Q Total (cfs)	227000.00	Flow (cfs)	11477.77	215522.23	
Top Width (ft)	5292.32	Top Width (ft)	1047.92	4244.40	
Vel Total (ft/s)	4.43	Avg. Vel. (ft/s)	2.60	4.61	
Max Chl Dpth (ft)	14.28	Hydr. Depth (ft)	4.21	11.02	
Conv. Total (cfs)	9174687.0	Conv. (cfs)	463898.4	8710789.0	
Length Wtd. (ft)	466.08	Wetted Per. (ft)	1053.50	4249.26	
Min Ch El (ft)	876.20	Shear (lb/sq ft)	0.16	0.42	
Alpha	1.04	Stream Power (lb/ft s)	0.42	1.94	
Frctn Loss (ft)	0.29	Cum Volume (acre-ft)	803.35	53150.79	8460.35
C & E Loss (ft)	0.00	Cum SA (acres)	133.55	5474.10	1297.39

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16503.20	16708.69	1148.03	392.54	114.99	0.51	3.44	2.92
16708.69	16914.19	4828.65	1172.56	205.58	2.13	5.71	4.12
16914.19	17119.68	5199.78	1225.62	205.49	2.29	5.96	4.24
17119.68	17325.17	4195.56	1078.24	205.82	1.85	5.25	3.89
17325.17	17530.67	2290.49	749.42	205.50	1.01	3.65	3.06
17530.67	17736.16	3485.81	964.16	205.50	1.54	4.69	3.62
17736.16	17941.65	3780.03	1012.19	205.49	1.67	4.93	3.73
17941.65	18147.15	3423.40	953.77	205.49	1.51	4.64	3.59
18147.15	18352.64	3702.75	999.72	205.49	1.63	4.87	3.70
18352.64	18558.13	3342.93	940.25	205.49	1.47	4.58	3.56
18558.13	18763.63	3597.06	982.51	205.49	1.58	4.78	3.66
18763.63	18969.12	1533.20	506.50	140.90	0.68	3.60	3.03
18969.12	19174.61	426.66	474.24	194.22	0.19	2.44	0.90
19174.61	19380.11	1730.82	1124.84	205.95	0.76	5.47	1.54
19380.11	19585.60	664.07	632.55	205.51	0.29	3.08	1.05
19585.60 LB	20646.70	89528.67	13240.06	1062.32	39.44	12.48	6.76
20646.70	21707.80	31230.19	10477.19	1062.03	13.76	9.87	2.98
21707.80	22768.90	27683.03	8851.25	1061.50	12.20	8.34	3.13
22768.90	23830.00 RB	35197.73	12912.48	1062.72	15.51	12.17	2.73
23830.00	24178.43	11.13	30.74	72.74	0.00	0.42	0.36

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18352.64	18558.13	1595.22	402.98	87.92	0.70	4.85	3.96
18558.13	18763.63	4434.40	1045.14	205.49	1.95	5.09	4.24
18763.63	18969.12	1914.11	550.12	145.65	0.84	3.78	3.48
18969.12	19174.61	562.81	534.73	202.97	0.25	2.64	1.05
19174.61	19380.11	2106.82	1187.47	205.95	0.93	5.78	1.77
19380.11	19585.60	864.40	695.19	205.51	0.38	3.38	1.24
19585.60 LB	20646.70	104558.21	13563.49	1062.32	46.06	12.78	7.71
20646.70	21707.80	36858.53	10800.62	1062.03	16.24	10.18	3.41
21707.80	22768.90	32969.89	9174.69	1061.50	14.52	8.65	3.59
22768.90	23830.00 RB	41135.58	13235.92	1063.41	18.12	12.47	3.11

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 190.8

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16505.6	900.4	16604	882.9	16646.6	885	16867.3	884.2	17123.9	884.3
17321.3	884	17518.7	883.5	17564.6	884.1	17588.2	886.7	17786	885.8
18002.7	884.9	18208	885.5	18287.5	883.9	18633.8	883.9	18850.2	884.1
18983.9	887.4	19038.1	885.9	19243.1	885.1	19316.3	880.4	19386.5	886.5
19594.1	886.7	19602.3	887.9	19622.6	875.8	19878.4	876	20161.6	876.1
20513.1	876.4	20585.2	876.3	20665.9	880.9	20864.1	881.9	20991.2	880.6
21088.3	878.7	21132.3	880	21152.4	876.7	21254.1	876.8	21279.9	881.6
21377.4	879.2	21386	880.9	21450.6	879.4	21479.6	882.7	21517.1	879.8
21615.4	881.5	21663.5	880.1	21776.7	881.5	21788.5	879	21986.9	881
22185.3	882.5	22385	881.6	22590	881.3	22759.2	880	22793	881.2
22822.6	877.9	23026.6	880.3	23237.4	878.7	23445.9	877.5	23481.4	881.2
23528.6	877.5	23563.8	877.2	23591.8	879.7	23612.9	877	23689.5	877.8
23724	887.9	23881.2	889.2	23890.2	894.1	23898.4	894	23908.9	889.4
23926.6	889.8	23935	894.5	23963.3	891.4	24167.6	891	24369.8	893.7
24430.1	890.7	24439.9	891.8	24451.6	889.5	24696	889.5	24912.5	888.6
25215.2	888.5	25475.4	888.8	25672	889.1	25963.1	888.4	26269.8	888.1
26492.4	888.1	26691.1	887.1	26900	884.7	27126.7	886.4	27363.6	887.7
27390.3	887.7	27402.2	884.6	27496.2	885.2	27704.6	885.8	27946.4	886.4
28175.1	886.7	28425.6	888.6	28694.2	888.3	28898	890.8	28910.1	891
28922	894								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16505.6	.025	18983.9	.065	19602.3	.026	20665.9	.15	21132.3	.043
22385	.065	23724	.065	23935	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19602.3	23724	470	477.66	410	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23890.2	28922	900

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	889.97	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.22	Wt. n-Val.	0.028	0.040	0.065
E.G. Elev (ft)	890.20	Reach Len. (ft)	470.00	477.66	410.00
Crit W.S. (ft)	883.72	Flow Area (sq ft)	15726.98	44462.40	224.39
E.G. Slope (ft/ft)	0.000447	Area (sq ft)	15726.98	44462.40	10186.17
Q Total (cfs)	227000.00	Flow (cfs)	53326.19	173537.22	136.60
Top Width (ft)	11719.19	Top Width (ft)	3038.08	4121.70	4559.41
Vel Total (ft/s)	3.76	Avg. Vel. (ft/s)	3.39	3.90	0.61
Max Chl Dpth (ft)	14.17	Hydr. Depth (ft)	5.18	10.79	1.41
Conv. Total (cfs)	10732767.0	Conv. (cfs)	2521310.8	8204998.0	6458.6
Length Wtd. (ft)	475.57	Wetted Per. (ft)	3039.49	4129.07	158.82
Min Ch El (ft)	875.80	Shear (lb/sq ft)	0.14	0.30	0.04
Alpha	1.02	Stream Power (lb/ft s)	0.49	1.17	0.02
Frctn Loss (ft)	0.21	Cum Volume (acre-ft)	4516.67	50262.62	20028.05
C & E Loss (ft)	0.00	Cum SA (acres)	1099.06	5422.94	5901.55

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	890.20	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.32	Wt. n-Val.	0.036	0.040	
E.G. Elev (ft)	890.52	Reach Len. (ft)	470.00	477.66	410.00
Crit W.S. (ft)	883.69	Flow Area (sq ft)	5725.30	45392.20	
E.G. Slope (ft/ft)	0.000611	Area (sq ft)	5725.30	45392.20	
Q Total (cfs)	227000.00	Flow (cfs)	17689.43	209310.56	
Top Width (ft)	5224.00	Top Width (ft)	1102.30	4121.70	
Vel Total (ft/s)	4.44	Avg. Vel. (ft/s)	3.09	4.61	
Max Chl Dpth (ft)	14.40	Hydr. Depth (ft)	5.19	11.01	
Conv. Total (cfs)	9185468.0	Conv. (cfs)	715795.9	8469672.0	
Length Wtd. (ft)	476.99	Wetted Per. (ft)	1109.17	4131.36	
Min Ch El (ft)	875.80	Shear (lb/sq ft)	0.20	0.42	
Alpha	1.03	Stream Power (lb/ft s)	0.61	1.93	
Frctn Loss (ft)	0.30	Cum Volume (acre-ft)	754.46	52654.36	8460.35
C & E Loss (ft)	0.00	Cum SA (acres)	123.18	5429.04	1297.39

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16505.60	16712.05	2627.61	730.60	148.50	1.16	4.94	3.60
16712.05	16918.49	4478.74	1147.80	206.45	1.97	5.56	3.90
16918.49	17124.94	4687.34	1179.59	206.45	2.06	5.71	3.97
17124.94	17331.39	4851.02	1204.13	206.45	2.14	5.83	4.03
17331.39	17537.83	5439.01	1289.70	206.45	2.40	6.25	4.22
17537.83	17744.28	2640.85	836.26	206.59	1.16	4.05	3.16
17744.28	17950.73	3064.45	914.09	206.45	1.35	4.43	3.35
17950.73	18157.17	3601.12	1007.02	206.45	1.59	4.88	3.58
18157.17	18363.62	4253.17	1112.80	206.46	1.87	5.39	3.82
18363.62	18570.07	5189.99	1253.93	206.45	2.29	6.07	4.14
18570.07	18776.51	5125.31	1244.54	206.45	2.26	6.03	4.12
18776.51	18982.96	3545.00	997.65	206.49	1.56	4.83	3.55
18982.96	19189.41	1035.04	843.68	206.47	0.46	4.09	1.23
19189.41	19395.85	2050.39	1275.29	206.86	0.90	6.18	1.61
19395.85	19602.30	737.21	689.90	206.53	0.32	3.34	1.07
19602.30 LB	20632.73	97071.53	14100.04	1033.84	42.76	13.68	6.88
20632.73	21663.15	24524.52	10060.66	1031.78	10.80	9.76	2.44
21663.15	22693.57	25211.76	9036.58	1030.72	11.11	8.77	2.79
22693.57	23724.00 RB	26729.35	11265.13	1032.73	11.78	10.93	2.37
23724.00	24070.53	136.60	224.39	158.82	0.06	1.41	0.61

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18363.62	18570.07	2060.65	441.38	76.37	0.91	6.30	4.67
18570.07	18776.51	6352.93	1291.11	206.45	2.80	6.25	4.92
18776.51	18982.96	4459.68	1044.22	206.49	1.96	5.06	4.27
18982.96	19189.41	1319.99	890.25	206.47	0.58	4.31	1.48
19189.41	19395.85	2537.82	1321.86	206.86	1.12	6.40	1.92
19395.85	19602.30	958.38	736.47	206.53	0.42	3.57	1.30
19602.30 LB	20632.73	116568.94	14332.49	1033.84	51.35	13.91	8.13
20632.73	21663.15	29738.13	10293.11	1031.78	13.10	9.99	2.89
21663.15	22693.57	30734.60	9269.03	1030.72	13.54	9.00	3.32
22693.57	23724.00 RB	32268.87	11497.58	1035.03	14.22	11.16	2.81

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 190.71

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16760.6	900.7	16766.3	899.7	16790.6	904.1	16817.7	896.9	16827.2	889.9
16869.6	884.2	16924.6	880.9	17157.1	883.7	17406.7	883.9	17698.9	884.1

17948.5	885.4	18228.2	884.6	18567.5	884.4	18860.3	884.2	19027.5	883.1
19049.9	886.9	19098	883.9	19264.6	885.4	19480	880.6	19533.2	885.3
19603.4	885	19623.4	891.3	19639.8	883.9	19676.3	875.3	20207.3	875.5
20569	875.6	20589.5	882.2	20657.6	879.5	20766.6	879.7	20881.7	877.2
21074.3	880.4	21116.6	877	21249.7	881	21265.4	875.6	21385.3	876.4
21427.3	878	21446.4	881.1	21501.1	879.8	21516.4	877.9	21567	881
21582.9	878.1	21700.6	879.1	21755.2	881	22005.8	881.7	22065.5	883.2
22087.6	881.1	22318	882.4	22473.1	880	22616.6	881.2	22647	879.1
22687	881.2	22722.7	878.2	22909.4	881.3	23019	880	23070.4	882
23212.3	877.3	23579.5	878.1	23602.8	879.1	23630	885.8	23865.1	885.1
23914.2	885.3	23929.7	893	23944.5	893.7	23951.5	889.8	23970.6	888.9
23981	893	24121.2	890.8	24192.3	893.1	24218.7	890.2	24477	887.7
24699.9	887.9	24946.3	888.2	25195.4	887.7	25435.5	887.4	25711.9	886.9
25977.2	887.2	26288	886.7	26579	886.5	26820.2	887.3	27066.6	884.7
27319.1	885.6	27577.3	886.8	27663.3	884.4	27988.2	885.5	28221.6	886
28485.8	886.1	28810.3	887.2	29052.5	889.3	29089	890.1	29119.8	894.8
29132.7	889.5	29165.2	893.2	29175.8	896.1	29186.1	896.4	29209	890.9
29459.6	893								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16760.6	.025	19049.9	.065	19623.4	.026	20589.5	.15	21249.7	.043
22687	.065	23630	.065	23981	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19623.4	23630	595	475.57	575	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23944.5	29459.6	900

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	889.76	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.22	Wt. n-Val.	0.029	0.041	0.065
E.G. Elev (ft)	889.98	Reach Len. (ft)	595.00	475.57	575.00
Crit W.S. (ft)	883.40	Flow Area (sq ft)	15752.09	44058.63	1257.51
E.G. Slope (ft/ft)	0.000456	Area (sq ft)	15752.09	44058.63	15479.83
Q Total (cfs)	227000.00	Flow (cfs)	55279.87	170103.98	1616.16
Top Width (ft)	11919.52	Top Width (ft)	2790.28	4003.19	5126.05
Vel Total (ft/s)	3.72	Avg. Vel. (ft/s)	3.51	3.86	1.29
Max Chl Dpth (ft)	14.46	Hydr. Depth (ft)	5.65	11.01	4.29
Conv. Total (cfs)	10633673.0	Conv. (cfs)	2589550.8	7968414.5	75708.2
Length Wtd. (ft)	503.20	Wetted Per. (ft)	2792.19	4009.89	294.23
Min Ch El (ft)	875.30	Shear (lb/sq ft)	0.16	0.31	0.12
Alpha	1.03	Stream Power (lb/ft s)	0.56	1.21	0.16
Frctn Loss (ft)	0.23	Cum Volume (acre-ft)	4346.85	49777.28	19907.26
C & E Loss (ft)	0.00	Cum SA (acres)	1067.62	5378.39	5855.97

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	889.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.31	Wt. n-Val.	0.036	0.041	
E.G. Elev (ft)	890.22	Reach Len. (ft)	595.00	475.57	575.00
Crit W.S. (ft)	883.36	Flow Area (sq ft)	6652.39	44635.28	
E.G. Slope (ft/ft)	0.000636	Area (sq ft)	6652.39	44635.28	
Q Total (cfs)	227000.00	Flow (cfs)	22101.24	204898.75	
Top Width (ft)	5152.48	Top Width (ft)	1148.97	4003.51	
Vel Total (ft/s)	4.43	Avg. Vel. (ft/s)	3.32	4.59	
Max Chl Dpth (ft)	14.61	Hydr. Depth (ft)	5.79	11.15	
Conv. Total (cfs)	9003555.0	Conv. (cfs)	876606.9	8126948.0	
Length Wtd. (ft)	490.93	Wetted Per. (ft)	1155.86	4014.34	
Min Ch El (ft)	875.30	Shear (lb/sq ft)	0.23	0.44	
Alpha	1.03	Stream Power (lb/ft s)	0.76	2.03	
Frctn Loss (ft)	0.28	Cum Volume (acre-ft)	687.68	52160.76	8460.35
C & E Loss (ft)	0.01	Cum SA (acres)	111.04	5384.49	1297.39

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)

16760.60	16951.45	3106.35	745.24	123.69	1.37	6.05	4.17
16951.45	17142.31	6733.73	1410.10	190.87	2.97	7.39	4.78
17142.31	17333.16	4763.81	1145.67	190.85	2.10	6.00	4.16
17333.16	17524.01	4560.39	1116.05	190.85	2.01	5.85	4.09
17524.01	17714.87	4385.92	1090.24	190.85	1.93	5.71	4.02
17714.87	17905.72	3607.89	969.70	190.86	1.59	5.08	3.72
17905.72	18096.57	3002.09	868.44	190.85	1.32	4.55	3.46
18096.57	18287.43	3555.69	961.25	190.85	1.57	5.04	3.70
18287.43	18478.28	3812.99	1002.41	190.85	1.68	5.25	3.80
18478.28	18669.13	3953.14	1024.35	190.85	1.74	5.37	3.86
18669.13	18859.99	4111.99	1048.86	190.85	1.81	5.50	3.92
18859.99	19050.84	4669.57	1132.88	191.18	2.06	5.94	4.12
19050.84	19241.69	1355.35	956.29	190.95	0.60	5.01	1.42
19241.69	19432.55	1840.76	1148.96	190.90	0.81	6.02	1.60
19432.55	19623.40	1820.15	1131.66	186.92	0.80	6.09	1.61
19623.40 LB	20625.05	94332.68	13691.30	1001.56	41.56	13.72	6.89
20625.05	21626.70	23626.86	11149.14	1003.60	10.41	11.13	2.12
21626.70	22628.35	26763.28	8647.29	1001.86	11.79	8.63	3.09
22628.35	23630.00 RB	25381.19	10570.89	1002.86	11.18	10.55	2.40
23630.00	24018.64	1616.16	1257.51	294.23	0.71	4.29	1.29

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18287.43	18478.28	148.94	45.12	13.73	0.07	5.45	3.30
18478.28	18669.13	4900.04	1051.84	190.85	2.16	5.51	4.66
18669.13	18859.99	5091.76	1076.35	190.85	2.24	5.64	4.73
18859.99	19050.84	5763.52	1160.37	191.18	2.54	6.08	4.97
19050.84	19241.69	1685.21	983.78	190.95	0.74	5.15	1.71
19241.69	19432.55	2270.91	1176.45	190.90	1.00	6.16	1.93
19432.55	19623.40	2240.82	1158.48	187.40	0.99	6.21	1.93
19623.40 LB	20625.05	113325.08	13835.11	1001.91	49.92	13.86	8.19
20625.05	21626.70	28495.54	11293.42	1003.60	12.55	11.27	2.52
21626.70	22628.35	32495.03	8791.58	1001.86	14.31	8.78	3.70
22628.35	23630.00 RB	30583.14	10715.17	1006.97	13.47	10.70	2.85

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 190.62

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17913.4	897.7	17955.4	894.9	18001	885	18037.1	879	18166.6	879.5
18387.1	882.7	18519.1	883	18744.9	883.3	18960.3	883.4	19135.9	882.6
19161.5	880.9	19199.8	886.9	19227.9	884.2	19442	881.7	19604.9	881.9
19615.6	884.1	19623.5	889.8	19642.3	881.5	19675.9	875.1	19754.7	874.4
20214.9	874.7	20414.3	874.7	20570.8	875	20590.4	881.8	20780.9	876.9
21006.3	880.2	21136.9	882.7	21213.3	877.2	21389.1	878.5	21595.6	878.8
21644.3	879.6	21656.9	878.1	21882.6	881.5	21931.4	882	22042.6	880.4
22090.5	881.2	22290.8	881.2	22359.2	881.9	22391.7	880	22478	881.8
22694.6	878.1	22932	876	22941.6	878.5	23281.4	874.6	23480	872.2
23514.7	881	23556	885.2	23709	885.4	23722.4	889.6	23742.2	888
23750	884.1	23770	885.8	23779.3	891.7	23797.5	887.7	23815.8	892.2
23827.8	892.2	23844.7	887.8	23918.3	891.3	23929.9	888.6	23946.6	891.1
23958	886.3	24024.1	887.8	24146.6	885.1	24154.2	889.7	24214.6	886.4
24453.9	887.8	24757.4	887.6	24946	887.6	25143.8	888	25214.2	887.9
25491.4	887.1	25773.1	887.9	25872.4	888.2	26115	887.3	26148.7	887.2
26400.2	886.5	26563.7	887.5	26682.6	885.1	26905.3	884.8	26927	888.1
26935.1	885.4	26941.6	887.2	26986.2	884.1	27195.4	884.4	27275.2	884.7
27291.3	880.7	27608.1	882.2	27826.9	883.1	28104.9	884.2	28309.3	884.5
28350.1	884.6	28558	885.3	28677.7	885.7	28903.4	887	29103.6	888.3
29299.6	888.1								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17913.4	.025	19199.8	.065	19623.5	.026	20590.4	.15	21389.1	.043
22478	.065	23480	.065	23918.3	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19623.5	23480	350	502.72	510	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23722.4	29299.6	895

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	889.50	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.24	Wt. n-Val.	0.029	0.043	0.065
E.G. Elev (ft)	889.75	Reach Len. (ft)	350.00	502.72	510.00
Crit W.S. (ft)	882.51	Flow Area (sq ft)	11547.41	44938.32	1381.71
E.G. Slope (ft/ft)	0.000472	Area (sq ft)	11547.41	44938.32	19968.44
Q Total (cfs)	227000.00	Flow (cfs)	46549.42	178271.38	2179.20
Top Width (ft)	11205.92	Top Width (ft)	1642.82	3855.82	5707.28
Vel Total (ft/s)	3.92	Avg. Vel. (ft/s)	4.03	3.97	1.58
Max Chl Dpth (ft)	17.30	Hydr. Depth (ft)	7.03	11.65	5.71
Conv. Total (cfs)	10452408.0	Conv. (cfs)	2143407.5	8208657.0	100343.3
Length Wtd. (ft)	476.73	Wetted Per. (ft)	1646.46	3860.20	244.03
Min Ch El (ft)	872.20	Shear (lb/sq ft)	0.21	0.34	0.17
Alpha	1.02	Stream Power (lb/ft s)	0.83	1.36	0.26
Frctn Loss (ft)	0.27	Cum Volume (acre-ft)	4160.40	49291.46	19673.30
C & E Loss (ft)	0.00	Cum SA (acres)	1037.34	5335.49	5784.47

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	889.66	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.27	Wt. n-Val.	0.031	0.043	
E.G. Elev (ft)	889.92	Reach Len. (ft)	350.00	502.72	510.00
Crit W.S. (ft)	882.58	Flow Area (sq ft)	9330.02	45531.64	
E.G. Slope (ft/ft)	0.000521	Area (sq ft)	9330.02	45531.64	
Q Total (cfs)	227000.00	Flow (cfs)	36321.23	190678.77	
Top Width (ft)	5229.47	Top Width (ft)	1373.30	3856.17	
Vel Total (ft/s)	4.14	Avg. Vel. (ft/s)	3.89	4.19	
Max Chl Dpth (ft)	17.46	Hydr. Depth (ft)	6.79	11.81	
Conv. Total (cfs)	9949270.0	Conv. (cfs)	1591937.4	8357333.0	
Length Wtd. (ft)	479.86	Wetted Per. (ft)	1384.95	3878.03	
Min Ch El (ft)	872.20	Shear (lb/sq ft)	0.22	0.38	
Alpha	1.00	Stream Power (lb/ft s)	0.85	1.60	
Frctn Loss (ft)	0.28	Cum Volume (acre-ft)	578.53	51668.56	8460.35
C & E Loss (ft)	0.00	Cum SA (acres)	93.81	5341.59	1297.39

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17913.40	18027.41	787.01	223.48	47.99	0.35	4.74	3.52
18027.41	18141.41	6956.01	1168.43	114.14	3.06	10.25	5.95
18141.41	18255.42	6145.07	1084.21	114.02	2.71	9.51	5.67
18255.42	18369.43	4496.84	898.97	114.02	1.98	7.89	5.00
18369.43	18483.43	3452.53	767.13	114.01	1.52	6.73	4.50
18483.43	18597.44	3241.07	738.57	114.01	1.43	6.48	4.39
18597.44	18711.45	3111.49	720.72	114.01	1.37	6.32	4.32
18711.45	18825.45	3008.06	706.24	114.01	1.33	6.19	4.26
18825.45	18939.46	2961.98	699.73	114.01	1.30	6.14	4.23
18939.46	19053.47	3073.88	715.48	114.01	1.35	6.28	4.30
19053.47	19167.47	3703.32	800.45	114.14	1.63	7.02	4.63
19167.47	19281.48	1206.14	577.81	114.54	0.53	5.07	2.09
19281.48	19395.49	1283.39	751.61	114.01	0.57	6.59	1.71
19395.49	19509.49	1650.30	874.00	114.01	0.73	7.67	1.89
19509.49	19623.50	1472.36	820.59	115.56	0.65	7.22	1.79
19623.50 LB	20587.63	102248.95	13931.19	966.73	45.04	14.46	7.34
20587.63	21551.75	14998.22	10024.77	964.60	6.61	10.40	1.50
21551.75	22515.88	27118.68	8545.20	964.35	11.95	8.86	3.17
22515.88	23480.00 RB	33905.51	12437.16	964.52	14.94	12.90	2.73
23480.00	23867.97	2179.20	1381.71	244.03	0.96	5.71	1.58

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18141.41	18255.42	145.79	48.27	14.37	0.06	8.91	3.02
18255.42	18369.43	4951.59	916.52	114.02	2.18	8.04	5.40
18369.43	18483.43	3822.53	784.67	114.01	1.68	6.88	4.87
18483.43	18597.44	3593.58	756.12	114.01	1.58	6.63	4.75
18597.44	18711.45	3453.22	738.26	114.01	1.52	6.48	4.68
18711.45	18825.45	3341.13	723.78	114.01	1.47	6.35	4.62
18825.45	18939.46	3291.19	717.28	114.01	1.45	6.29	4.59
18939.46	19053.47	3412.46	733.02	114.01	1.50	6.43	4.66
19053.47	19167.47	4093.84	817.99	114.14	1.80	7.17	5.00
19167.47	19281.48	1351.48	595.35	114.54	0.60	5.22	2.27
19281.48	19395.49	1422.02	769.15	114.01	0.63	6.75	1.85
19395.49	19509.49	1818.84	891.54	114.01	0.80	7.82	2.04
19509.49	19623.50	1623.59	838.09	115.82	0.72	7.36	1.94
19623.50 LB	20587.63	109312.41	14079.46	967.11	48.16	14.61	7.76
20587.63	21551.75	16143.68	10173.12	964.60	7.11	10.55	1.59
21551.75	22515.88	29320.43	8693.55	964.35	12.92	9.02	3.37
22515.88	23480.00 RB	35902.23	12585.51	981.97	15.82	13.05	2.85

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 190.53

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18233.1	902.1	18280.1	885	18347.8	879.4	18525.2	883.3	18748.7	882.3
18976.8	882.7	19167.5	882.8	19309.1	883.4	19343.5	886.9	19376.8	882.4
19520.2	881.3	19697.6	876.9	19773	874.1	20104.9	874.9	20273.8	875.2
20564.4	875.6	20588.7	880.5	20804	877.3	21024.7	880.2	21180.6	882.1
21227	875.5	21464	878.2	21577.5	877	21589	878.6	21615.9	876.6
21804.8	878	21973.1	876.7	22011.7	880.3	22187.3	878.8	22233.6	879.7
22251	877.6	22277.6	879.8	22324.9	880.3	22376.4	875.6	22555	875.5
22609	878.1	22792.7	878.7	22833.7	877.1	22863.3	879.4	22894.8	878.2
22924.9	879.2	23039.1	878.5	23063.6	875.2	23320.3	876.2	23427.6	885.1
23465	887.5	23497.9	891	23511.2	884	23531	885	23547.6	890.9
23559.1	891.4	23567.2	887.3	23587.2	890.8	23686.5	889	23692.9	887.5
23718.4	890.1	23729	886.3	23793.8	887	24008.7	886.7	24276.5	887.1
24411.1	887.4	24694.7	887.5	24841.5	887.3	25059.6	886.7	25240.7	887.2
25530.7	886.2	25653	886.3	25904.9	886.1	26142.7	886.4	26361.4	886.7
26592.6	885.7	26791.2	885.6	26988.4	885.4	27197.5	885.4	27213	886.5
27394.8	884.7	27570.5	882.6	27576.4	880.5	27788.4	882.6	27987.4	882.8
28175.5	882.7	28295.9	883.9	28488.9	885.4	28685.1	885	28962.6	887
29127.5	887.1	29323.6	887.6	29544	889.3	29591	890.2	29622	893.6
29628.8	891.6	29659.2	892.2	29671.8	895.4	29714	891.3	29983	892.5
30012.1	892.6								

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18233.1	.043	18748.7	.025	19343.5	.065	19773	.026	20588.7	.15
21464	.043	22609	.15	23320.3	.15	23559.1	.025		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19343.5	23320.3	380	493.96	450	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23497.9	30012.1	900

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	889.20	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.28	Wt. n-Val.	0.031	0.048	0.150
E.G. Elev (ft)	889.47	Reach Len. (ft)	380.00	493.96	450.00
Crit W.S. (ft)	882.14	Flow Area (sq ft)	7077.46	46267.90	1038.70
E.G. Slope (ft/ft)	0.000687	Area (sq ft)	7077.46	46267.90	20441.72
Q Total (cfs)	227000.00	Flow (cfs)	30908.60	195157.22	934.18

Top Width (ft)	11111.72	Top Width (ft)	1074.93	3976.80	6059.99
Vel Total (ft/s)	4.17	Avg. Vel. (ft/s)	4.37	4.22	0.90
Max Chl Dpth (ft)	15.10	Hydr. Depth (ft)	6.58	11.63	6.47
Conv. Total (cfs)	8658846.0	Conv. (cfs)	1178999.3	7444212.5	35633.8
Length Wtd. (ft)	484.89	Wetted Per. (ft)	1076.13	3979.51	161.17
Min Ch El (ft)	874.10	Shear (lb/sq ft)	0.28	0.50	0.28
Alpha	1.03	Stream Power (lb/ft s)	1.23	2.10	0.25
Frctn Loss (ft)	0.35	Cum Volume (acre-ft)	4085.58	48765.16	19436.74
C & E Loss (ft)	0.00	Cum SA (acres)	1026.43	5290.30	5715.58

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	889.37	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.27	Wt. n-Val.	0.031	0.048	
E.G. Elev (ft)	889.64	Reach Len. (ft)	380.00	493.96	450.00
Crit W.S. (ft)	882.15	Flow Area (sq ft)	7263.23	46957.48	
E.G. Slope (ft/ft)	0.000659	Area (sq ft)	7263.23	46957.48	
Q Total (cfs)	227000.00	Flow (cfs)	31625.20	195374.80	
Top Width (ft)	5050.30	Top Width (ft)	1073.50	3976.80	
Vel Total (ft/s)	4.19	Avg. Vel. (ft/s)	4.35	4.16	
Max Chl Dpth (ft)	15.27	Hydr. Depth (ft)	6.77	11.81	
Conv. Total (cfs)	8843927.0	Conv. (cfs)	1232118.6	7611808.0	
Length Wtd. (ft)	484.78	Wetted Per. (ft)	1075.30	3992.68	
Min Ch El (ft)	874.10	Shear (lb/sq ft)	0.28	0.48	
Alpha	1.00	Stream Power (lb/ft s)	1.21	2.01	
Frctn Loss (ft)	0.33	Cum Volume (acre-ft)	511.87	51134.86	8460.35
C & E Loss (ft)	0.00	Cum SA (acres)	83.98	5296.39	1297.39

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18233.10	18307.13	395.94	167.79	39.39	0.17	4.35	2.36
18307.13	18381.15	2445.94	644.45	74.17	1.08	8.71	3.80
18381.15	18455.18	2238.16	610.60	74.05	0.99	8.25	3.67
18455.18	18529.21	1552.84	490.34	74.04	0.68	6.62	3.17
18529.21	18603.23	1345.98	449.99	74.03	0.59	6.08	2.99
18603.23	18677.26	1470.45	474.52	74.03	0.65	6.41	3.10
18677.26	18751.29	1640.94	499.02	74.03	0.72	6.74	3.29
18751.29	18825.31	2808.44	505.29	74.03	1.24	6.83	5.56
18825.31	18899.34	2720.05	495.69	74.03	1.20	6.70	5.49
18899.34	18973.37	2632.73	486.08	74.03	1.16	6.57	5.42
18973.37	19047.39	2573.83	479.52	74.03	1.13	6.48	5.37
19047.39	19121.42	2548.18	476.65	74.03	1.12	6.44	5.35
19121.42	19195.45	2509.77	472.33	74.03	1.11	6.38	5.31
19195.45	19269.47	2341.29	453.04	74.03	1.03	6.12	5.17
19269.47	19343.50	1684.09	372.14	74.21	0.74	5.03	4.53
19343.50 LB	20337.70	83119.95	12186.20	994.61	36.62	12.26	6.82
20337.70	21331.90	38052.88	11020.70	995.22	16.76	11.08	3.45
21331.90	22326.10	44416.83	11024.51	994.82	19.57	11.09	4.03
22326.10	23320.30 RB	29567.53	12036.48	994.86	13.03	12.11	2.46
23320.30	23766.42	934.18	1038.70	161.17	0.41	6.47	0.90

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18233.10	18307.13	417.43	173.85	38.56	0.18	4.68	2.40
18307.13	18381.15	2476.34	657.29	74.17	1.09	8.88	3.77
18381.15	18455.18	2270.06	623.44	74.05	1.00	8.42	3.64
18455.18	18529.21	1588.26	503.18	74.04	0.70	6.80	3.16
18529.21	18603.23	1381.92	462.83	74.03	0.61	6.25	2.99
18603.23	18677.26	1506.12	487.36	74.03	0.66	6.58	3.09
18677.26	18751.29	1677.08	511.86	74.03	0.74	6.91	3.28
18751.29	18825.31	2868.87	518.13	74.03	1.26	7.00	5.54
18825.31	18899.34	2780.81	508.53	74.03	1.23	6.87	5.47
18899.34	18973.37	2693.77	498.92	74.03	1.19	6.74	5.40
18973.37	19047.39	2635.04	492.36	74.03	1.16	6.65	5.35
19047.39	19121.42	2609.48	489.49	74.03	1.15	6.61	5.33

19121.42	19195.45	2571.17	485.17	74.03	1.13	6.55	5.30
19195.45	19269.47	2403.07	465.88	74.03	1.06	6.29	5.16
19269.47	19343.50	1745.82	384.97	74.21	0.77	5.20	4.53
19343.50 LB	20337.70	83132.45	12358.60	994.61	36.62	12.43	6.73
20337.70	21331.90	38121.13	11193.10	995.22	16.79	11.26	3.41
21331.90	22326.10	44635.18	11196.91	994.82	19.66	11.26	3.99
22326.10	23320.30 RB	29485.99	12208.88	1008.03	12.99	12.28	2.42

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 190.43

INPUT
Description: .

Eliminate vertical ineffective area in main channel by coding out GR

data between and below sta, elev. 22018, 876.2 and 22616, 876.2 -

22774, 876.2 and 23180, 876.2

Station Elevation Data num= 92

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18066.2	901.7	18136.2	893.8	18162.1	893.8	18167.3	891.3	18191.4	887.5
18242.9	887.2	18254.5	885.5	18487	882.5	18589	879.6	18698.5	879.7
18860.3	883.2	19037.1	883.1	19168.3	877	19353.7	877.4	19408.1	878.8
19632.2	876.3	19684.7	874.2	19868	874.4	20263.5	875.2	20430.6	875.7
20559.9	876.5	20574.9	879.7	20672.3	876.8	20804.2	878.7	21021.3	880
21216.1	882.4	21243	881.6	21278.4	875.1	21355.6	875.3	21379.5	876.9
21402.8	875.2	21458.5	878.5	21657.6	878.5	21838	878.9	21985.1	877.6
22018	876.2	22616	876.2	22700.3	877.4	22774	876.2	23180	876.2
23247.5	879.3	23288.9	887.1	23455	890.5	23501.9	890.1	23554.9	887.3
23686.2	885.9	23692.8	888.9	23712.5	884.5	23724.9	885.6	23730.7	888.6
23843.9	886.8	24038.1	887.6	24164.2	887.8	24359	888	24422.3	888
24692.4	887.4	24926.8	887.3	25070.2	887.2	25276.6	886.1	25329.9	886.1
25594.1	886.2	25656.6	886.2	25855.2	886.4	26049.9	886.1	26258.2	886.1
26430.2	885.3	26621.6	885.9	26791.5	885.8	26964.4	885.7	27134.5	884.4
27356.4	885.8	27587.9	884	27756.3	882.3	27795.5	881.9	27799.9	880.2
27996.8	882.6	28225.4	884	28417.4	884.6	28600.8	883.7	28842.3	885.4
29064	886	29283.3	887	29486.8	888.1	29664.7	889.4	29764.4	890
29783.5	891.9	29788.5	894.6	29808.5	893.9	29816.6	890.4	29995.5	895.3
30161.4	895.9	30231.1	894.7						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18066.2	.15	19037.1	.15	19632.2	.026	20574.9	.15	21216.1	.043
22616	.15	23288.9	.15	23455	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19037.1	23288.9	495	497.76	360	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18066.2	18250	900	23455	30231.1	900

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	888.82	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.30	Wt. n-Val.	0.150	0.047	0.150
E.G. Elev (ft)	889.12	Reach Len. (ft)	495.00	497.76	360.00
Crit W.S. (ft)	881.51	Flow Area (sq ft)	5124.15	49644.63	72.10
E.G. Slope (ft/ft)	0.000750	Area (sq ft)	5220.45	49644.63	17984.78
Q Total (cfs)	227000.00	Flow (cfs)	4845.54	222136.80	17.67
Top Width (ft)	11248.14	Top Width (ft)	854.06	4251.80	6142.28
Vel Total (ft/s)	4.14	Avg. Vel. (ft/s)	0.95	4.47	0.25
Max Chl Dpth (ft)	14.62	Hydr. Depth (ft)	6.51	11.68	0.86
Conv. Total (cfs)	8289925.5	Conv. (cfs)	176956.6	8112323.5	645.3
Length Wtd. (ft)	497.66	Wetted Per. (ft)	787.25	4254.10	83.95
Min Ch El (ft)	874.20	Shear (lb/sq ft)	0.30	0.55	0.04

Alpha	1.14	Stream Power (lb/ft s)	0.29	2.44	0.01
Frctn Loss (ft)	0.47	Cum Volume (acre-ft)	4031.94	48221.35	19238.26
C & E Loss (ft)	0.00	Cum SA (acres)	1018.01	5243.64	5652.56

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	889.01	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.29	Wt. n-Val.	0.150	0.047	
E.G. Elev (ft)	889.31	Reach Len. (ft)	495.00	497.76	360.00
Crit W.S. (ft)	881.51	Flow Area (sq ft)	5243.47	50471.95	
E.G. Slope (ft/ft)	0.000712	Area (sq ft)	5243.47	50471.95	
Q Total (cfs)	227000.00	Flow (cfs)	4933.11	222066.89	
Top Width (ft)	5028.90	Top Width (ft)	777.10	4251.80	
Vel Total (ft/s)	4.07	Avg. Vel. (ft/s)	0.94	4.40	
Max Chl Dpth (ft)	14.81	Hydr. Depth (ft)	6.75	11.87	
Conv. Total (cfs)	8507873.0	Conv. (cfs)	184890.9	8322982.0	
Length Wtd. (ft)	497.73	Wetted Per. (ft)	780.78	4256.02	
Min Ch El (ft)	874.20	Shear (lb/sq ft)	0.30	0.53	
Alpha	1.14	Stream Power (lb/ft s)	0.28	2.32	
Frctn Loss (ft)	0.45	Cum Volume (acre-ft)	457.31	50582.44	8460.35
C & E Loss (ft)	0.00	Cum SA (acres)	75.91	5249.73	1297.39

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18195.65	18260.38	18.76	33.18	10.43	0.01	3.20	0.57
18260.38	18325.11	157.38	246.70	64.73	0.07	3.81	0.64
18325.11	18389.83	218.95	300.76	64.73	0.10	4.65	0.73
18389.83	18454.56	288.40	354.82	64.73	0.13	5.48	0.81
18454.56	18519.29	377.38	416.97	64.74	0.17	6.44	0.91
18519.29	18584.01	559.13	527.93	64.75	0.25	8.16	1.06
18584.01	18648.74	682.01	594.67	64.73	0.30	9.19	1.15
18648.74	18713.47	670.98	588.89	64.73	0.30	9.10	1.14
18713.47	18778.19	552.12	523.91	64.74	0.24	8.09	1.05
18778.19	18842.92	402.31	433.29	64.74	0.18	6.69	0.93
18842.92	18907.65	305.84	367.54	64.73	0.13	5.68	0.83
18907.65	18972.37	304.49	366.56	64.73	0.13	5.66	0.83
18972.37	19037.10	307.78	368.93	64.73	0.14	5.70	0.83
19037.10 LB	20100.05	69694.61	13077.33	1063.17	30.70	12.30	5.33
20100.05	21163.00	62007.69	11962.44	1063.36	27.32	11.25	5.18
21163.00	22225.95	53935.62	11681.73	1063.81	23.76	10.99	4.62
22225.95	23288.90 RB	36498.91	12923.14	1063.77	16.08	12.16	2.82
23288.90	23751.71	17.67	72.10	83.95	0.01	0.86	0.25

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18195.65	18260.38	0.17	1.36	3.96	0.00	3.59	0.12
18260.38	18325.11	166.76	259.30	64.73	0.07	4.01	0.64
18325.11	18389.83	228.65	313.36	64.73	0.10	4.84	0.73
18389.83	18454.56	298.10	367.42	64.73	0.13	5.68	0.81
18454.56	18519.29	386.76	429.57	64.74	0.17	6.64	0.90
18519.29	18584.01	567.15	540.53	64.75	0.25	8.35	1.05
18584.01	18648.74	688.78	607.27	64.73	0.30	9.38	1.13
18648.74	18713.47	677.87	601.48	64.73	0.30	9.29	1.13
18713.47	18778.19	560.21	536.51	64.74	0.25	8.29	1.04
18778.19	18842.92	411.55	445.88	64.74	0.18	6.89	0.92
18842.92	18907.65	315.50	380.13	64.73	0.14	5.87	0.83
18907.65	18972.37	314.16	379.15	64.73	0.14	5.86	0.83
18972.37	19037.10	317.44	381.52	64.73	0.14	5.89	0.83
19037.10 LB	20100.05	69525.73	13284.16	1063.17	30.63	12.50	5.23
20100.05	21163.00	61970.13	12169.27	1063.36	27.30	11.45	5.09
21163.00	22225.95	54091.04	11888.56	1063.81	23.83	11.18	4.55
22225.95	23288.90 RB	36479.99	13129.96	1065.68	16.07	12.35	2.78

CROSS SECTION RIVER: RIVER-1

REACH: Reach-1 RS: 190.34

INPUT
Description:

Eliminate vertical ineffective area in main channel by coding out GR

data between and below sta, elev. 21998, 876.2 and 22935, 876.2

Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18103.2	905.1	18131.9	903.1	18151.3	899.3	18164.1	894.5	18228.7	887.6
18457.9	882.5	18701.4	878.1	18894.7	877.7	19071.1	877.1	19233.7	876.8
19423.9	876.2	19529	877	19597.7	873	19621.6	878.7	19730.8	877.7
20275.9	874.8	20543.1	873.7	20560.1	877.9	20720.8	877.7	20735.5	877.8
20924.5	878.6	21030.2	879.8	21255.3	880.6	21308	880.1	21329.3	874.3
21528.9	877.6	21549.5	876.3	21578.2	878.9	21642.6	875	21687.3	878.8
21799.2	878.7	21893.3	875.7	21941.7	879.3	21959.2	874.9	21983.9	876.4
21991	874.9	21993.6	876.7	21998	876.2	22935	876.2	23008.4	885.6
23172	886.7	23282	889.8	23319.3	887.1	23517.2	886.4	23741.2	887
23942.4	885.6	23975.8	888.5	23982.9	883.3	24000.1	884.2	24008.3	888
24201.4	887	24242.7	887	24453.4	888.1	24467.9	888.1	24743.2	887.5
24826.6	887.7	25014.6	887.8	25221.9	887.5	25456.5	887.1	25589.6	886.8
25750.1	886.3	25913.7	885.9	26031.9	886.3	26213.1	886	26315.1	885.9
26515.2	885.8	26682.8	886.1	26888.3	885.9	27054.8	885	27295.9	884.1
27471.6	886	27675.4	885.4	27884	883.6	28051.1	883.7	28238.5	881.1
28462.7	881.9	28688.6	883	28901	883.8	29146	885	29380.9	885.9
29672.4	887	29862.6	887.1	30026.7	889.8	30070.4	894.2	30077.5	889.9
30105.9	891.7	30117.4	894.3	30138.4	894	30169.7	890.9	30392.2	892.7
30468.5	892.5								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18103.2	.15	18228.7	.15	19621.6	.026	20560.1	.15	21308	.043
21998	.15	23008.4	.15	23282	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18228.7	23008.4	500	507.25	505	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23282	30468.5	900

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	888.35	Element			
Vel Head (ft)	0.30	Wt. n-Val.	0.150	0.059	0.150
E.G. Elev (ft)	888.65	Reach Len. (ft)	500.00	507.25	505.00
Crit W.S. (ft)	881.35	Flow Area (sq ft)	2.64	51675.82	408.41
E.G. Slope (ft/ft)	0.001233	Area (sq ft)	2.64	51675.82	17570.31
Q Total (cfs)	227000.00	Flow (cfs)	0.48	226786.38	213.15
Top Width (ft)	11643.59	Top Width (ft)	7.03	4779.70	6856.86
Vel Total (ft/s)	4.36	Avg. Vel. (ft/s)	0.18	4.39	0.52
Max Chl Dpth (ft)	15.35	Hydr. Depth (ft)	0.38	10.81	1.84
Conv. Total (cfs)	6464797.5	Conv. (cfs)	13.6	6458713.5	6070.5
Length Wtd. (ft)	507.24	Wetted Per. (ft)	7.07	4784.49	222.20
Min Ch El (ft)	873.00	Shear (lb/sq ft)	0.03	0.83	0.14
Alpha	1.01	Stream Power (lb/ft s)	0.01	3.65	0.07
Frctn Loss (ft)	0.52	Cum Volume (acre-ft)	4002.26	47642.45	19091.33
C & E Loss (ft)	0.00	Cum SA (acres)	1013.12	5192.04	5598.84

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	888.57	Element			
Vel Head (ft)	0.29	Wt. n-Val.		0.059	
E.G. Elev (ft)	888.86	Reach Len. (ft)	500.00	507.25	505.00
Crit W.S. (ft)	881.35	Flow Area (sq ft)		52730.13	

E.G. Slope (ft/ft)	0.001161	Area (sq ft)		52730.13		
Q Total (cfs)	227000.00	Flow (cfs)		227000.00		
Top Width (ft)	4779.70	Top Width (ft)		4779.70		
Vel Total (ft/s)	4.30	Avg. Vel. (ft/s)		4.30		
Max Chl Dpth (ft)	15.57	Hydr. Depth (ft)		11.03		
Conv. Total (cfs)	6662459.0	Conv. (cfs)		6662459.0		
Length Wtd. (ft)	507.25	Wetted Per. (ft)		4788.43		
Min Ch El (ft)	873.00	Shear (lb/sq ft)		0.80		
Alpha	1.00	Stream Power (lb/ft s)		3.44		
Frctn Loss (ft)	0.49	Cum Volume (acre-ft)	427.52	49992.80	8460.35	
C & E Loss (ft)	0.00	Cum SA (acres)	71.49	5198.13	1297.39	

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18220.33	18228.70	0.48	2.64	7.07	0.00	0.38	0.18
18228.70 LB	19423.63	16219.31	10773.27	1195.03	7.15	9.02	1.51
19423.63	20618.55	131411.67	14753.04	1196.24	57.89	12.35	8.91
20618.55	21813.47	44648.63	12098.06	1196.18	19.67	10.12	3.69
21813.47	23008.40 RB	34506.77	14051.45	1197.04	15.20	11.76	2.46
23008.40	23505.74	213.15	408.41	222.20	0.09	1.84	0.52

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18228.70 LB	19423.63	16376.63	11036.85	1196.00	7.21	9.24	1.48
19423.63	20618.55	131309.53	15016.62	1196.24	57.85	12.57	8.74
20618.55	21813.47	44811.91	12361.63	1196.18	19.74	10.35	3.63
21813.47	23008.40 RB	34501.95	14315.02	1200.01	15.20	11.98	2.41

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 190.24

INPUT
Description:

Eliminate vertical ineffective area in main channel by coding out GR

data between and below sta, elev. 19491, 873.8 and 20547, 873.8 -

21613, 876.2 and 22842, 876.2

Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17851.9	904	17930.9	889.7	18129.1	886	18233.2	882.9	18289.2	884.6
18460.2	882.5	18694.9	879.2	18883	878.4	19186.8	876.9	19295.2	879.2
19463.7	876.2	19491	873.8	20547	873.8	20562.4	876.9	20880.1	878.2
21034.9	878.7	21206.6	879	21270.5	875.6	21301.2	879.4	21416.7	879.6
21458.4	873	21485.9	873.1	21506.1	876	21603.6	876.8	21613	876.2
22842	876.2	22894	885.3	23112.4	886.4	23147.1	891.4	23238.1	886.2
23440.5	887.3	23616.5	885.9	23791.2	886.4	23969	885.9	24022.5	888.4
24065.6	883.6	24077	889.9	24112.8	888	24115.1	885.9	24140	884.8
24352	886.2	24554.4	885.6	24730.8	886.1	24971.8	885	25224.1	885.1
25396.3	885.1	25575.2	884	25817.8	884.4	26015.7	884.3	26063.3	884.3
26252.1	885	26432	885.1	26699.1	885.4	26881.7	885.6	26948.8	884
26960.9	885.5	27171.2	885.9	27384.9	885.5	27605.5	885.4	27852	885.4
28130	884.3	28304	882.4	28316.9	882.1	28327.7	878.6	28340.7	881.2
28357.4	878.7	28377.9	880.7	28571.9	880.6	28757.8	882.5	28940.1	882.4
29058.3	882.6	29371.9	883.8	29568.1	885.7	29725	887.1	30056.6	887.9
30245.4	888.4	30359	891.2	30383.3	894	30390.3	889.8	30434.8	895.1
30479.8	890.6	30661	892						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17851.9	.15	18289.2	.15	19463.7	.026	20562.4	.15	21613	.065
22894	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18289.2	22894	450	487.35	450	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23147.1	30661	901

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	887.82	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.31	Wt. n-Val.	0.150	0.049	0.025
E.G. Elev (ft)	888.13	Reach Len. (ft)	450.00	487.35	450.00
Crit W.S. (ft)	880.83	Flow Area (sq ft)	668.02	50500.42	437.75
E.G. Slope (ft/ft)	0.000861	Area (sq ft)	668.02	50500.42	20121.85
Q Total (cfs)	227000.00	Flow (cfs)	366.36	225455.48	1178.16
Top Width (ft)	11848.11	Top Width (ft)	257.71	4604.80	6985.60
Vel Total (ft/s)	4.40	Avg. Vel. (ft/s)	0.55	4.46	2.69
Max Chl Dpth (ft)	14.82	Hydr. Depth (ft)	2.59	10.97	1.92
Conv. Total (cfs)	7735413.0	Conv. (cfs)	12484.3	7682781.0	40147.9
Length Wtd. (ft)	486.80	Wetted Per. (ft)	257.80	4607.18	228.37
Min Ch El (ft)	873.00	Shear (lb/sq ft)	0.14	0.59	0.10
Alpha	1.03	Stream Power (lb/ft s)	0.08	2.63	0.28
Frctn Loss (ft)	0.61	Cum Volume (acre-ft)	3998.41	47047.54	18872.85
C & E Loss (ft)	0.02	Cum SA (acres)	1011.60	5137.40	5518.60

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	888.07	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.30	Wt. n-Val.		0.049	
E.G. Elev (ft)	888.37	Reach Len. (ft)	450.00	487.35	450.00
Crit W.S. (ft)	880.83	Flow Area (sq ft)		51626.32	
E.G. Slope (ft/ft)	0.000820	Area (sq ft)		51626.32	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	4604.80	Top Width (ft)		4604.80	
Vel Total (ft/s)	4.40	Avg. Vel. (ft/s)		4.40	
Max Chl Dpth (ft)	15.07	Hydr. Depth (ft)		11.21	
Conv. Total (cfs)	7929428.0	Conv. (cfs)		7929428.0	
Length Wtd. (ft)	487.35	Wetted Per. (ft)		4613.41	
Min Ch El (ft)	873.00	Shear (lb/sq ft)		0.57	
Alpha	1.00	Stream Power (lb/ft s)		2.52	
Frctn Loss (ft)	0.58	Cum Volume (acre-ft)	427.52	49385.19	8460.35
C & E Loss (ft)	0.02	Cum SA (acres)	71.49	5143.49	1297.39

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18026.82	18055.97	0.51	5.60	24.49	0.00	0.23	0.09
18055.97	18085.13	4.20	21.26	29.16	0.00	0.73	0.20
18085.13	18114.28	10.65	37.12	29.16	0.00	1.27	0.29
18114.28	18143.43	19.96	54.13	29.16	0.01	1.86	0.37
18143.43	18172.59	36.86	78.22	29.17	0.02	2.68	0.47
18172.59	18201.74	58.82	103.53	29.17	0.03	3.55	0.57
18201.74	18230.89	84.68	128.84	29.17	0.04	4.42	0.66
18230.89	18260.05	88.71	132.48	29.17	0.04	4.54	0.67
18260.05	18289.20	61.98	106.83	29.17	0.03	3.66	0.58
18289.20 LB	19440.40	11580.90	9653.22	1151.29	5.10	8.39	1.20
19440.40	20591.60	150121.75	15932.74	1151.62	66.13	13.84	9.42
20591.60	21742.80	19073.54	11771.58	1152.28	8.40	10.23	1.62
21742.80	22894.00 RB	44679.29	13142.86	1151.99	19.68	11.42	3.40

22894.00	23411.80	1178.16	437.75	228.37	0.52	1.92	2.69

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18289.20 LB	19440.40	11828.17	9934.70	1154.75	5.21	8.63	1.19
19440.40	20591.60	150751.63	16214.22	1151.62	66.41	14.08	9.30
20591.60	21742.80	19339.36	12053.06	1152.28	8.52	10.47	1.60
21742.80	22894.00 RB	45080.84	13424.33	1154.76	19.86	11.66	3.36

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 190.15

INPUT
Description:

Eliminate vertical ineffective area in main channel by coding out GR

data between and below sta, elev. 19488, 873.8 and 19804, 873.8 -

22091, 876.2 and 22610, 876.2

Station Elevation Data num= 94

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16806.6	895	17001.3	892.2	17194.4	890.7	17383.4	890	17563.4	888
17757.7	886	17953.6	885	18123.7	883	18294.6	883.8	18474.6	880.6
18714.3	879	18891.7	877	19222.4	874.7	19377.1	875.8	19414.4	877.6
19477.4	875.8	19488	873.8	19804	873.8	20526.1	881.2	20569.7	884.6
20576.8	878.8	20599	875.8	20828.2	877.7	20911.5	877.7	21024.6	885.6
21112.2	885.4	21256	879.7	21301.9	884.8	21370.7	882.8	21444.7	878.6
21612.8	881.3	21689.9	877.9	21736.1	883.2	21843.1	878.4	21913.1	880.7
21939.8	877.8	22019.3	878.2	22091	876.2	22610	876.2	22645.1	879.2
22803	883.8	23018.6	885.5	23098.1	884.3	23135	886.2	23141.2	882.2
23173.2	885	23186.6	887.7	23212.3	887.7	23222	890.4	23317	885.2
23511.1	882.9	23536.2	882.9	23716.4	883.4	23844.4	883.4	24080.5	883.7
24313.8	884	24484.1	884.4	24703.6	883.7	24977.6	884.5	25177.1	884.8
25382.6	884.9	25588.6	884.9	25813.3	884.7	25870.1	885.4	25882.9	883.3
26059.1	883.9	26338.7	884.5	26441.5	884.7	26682.8	884.8	26950.7	885.1
27143.1	885.8	27353.5	884.8	27589.6	884	27835.6	883.8	28110.7	884.3
28326.7	884	28509.8	882.1	28584.4	880.5	28592.5	878.4	28603.6	882
28621.4	879.2	28630.7	880.6	28831.9	881.3	29070.5	882.5	29302.1	884.4
29567.5	884.1	29637.6	884.6	29821.9	885.5	30074.7	886.3	30277.2	887
30460.3	887.7	30632.9	887.7	30805.6	891.5	30809	891.9		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16806.6	.15	18294.6	.15	19414.4	.026	20569.7	.15	21612.8	.065
22803	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18294.6	22803	495	507.16	520	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16806.6	18000	893	23222	30809	893

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	887.01	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.49	Wt. n-Val.	0.150	0.051	0.025
E.G. Elev (ft)	887.50	Reach Len. (ft)	495.00	507.16	520.00
Crit W.S. (ft)	882.18	Flow Area (sq ft)	1024.49	39452.65	879.96
E.G. Slope (ft/ft)	0.002000	Area (sq ft)	1477.46	39452.65	20820.50
Q Total (cfs)	227000.00	Flow (cfs)	1041.78	221876.77	4081.46
Top Width (ft)	12521.37	Top Width (ft)	635.50	4508.40	7377.47
Vel Total (ft/s)	5.49	Avg. Vel. (ft/s)	1.02	5.62	4.64
Max Chl Dpth (ft)	13.21	Hydr. Depth (ft)	3.48	8.75	2.31
Conv. Total (cfs)	5075767.0	Conv. (cfs)	23294.4	4961210.5	91262.3
Length Wtd. (ft)	507.66	Wetted Per. (ft)	294.61	4512.91	381.77
Min Ch El (ft)	873.80	Shear (lb/sq ft)	0.43	1.09	0.29
Alpha	1.04	Stream Power (lb/ft s)	0.44	6.14	1.33
Frctn Loss (ft)	0.94	Cum Volume (acre-ft)	3987.33	46544.34	18661.37
C & E Loss (ft)	0.01	Cum SA (acres)	1006.99	5086.42	5444.41

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	887.28	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.48	Wt. n-Val.		0.051	
E.G. Elev (ft)	887.76	Reach Len. (ft)	495.00	507.16	520.00
Crit W.S. (ft)	882.18	Flow Area (sq ft)		40649.91	
E.G. Slope (ft/ft)	0.001914	Area (sq ft)		40649.91	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	4508.40	Top Width (ft)		4508.40	
Vel Total (ft/s)	5.58	Avg. Vel. (ft/s)		5.58	
Max Chl Dpth (ft)	13.48	Hydr. Depth (ft)		9.02	
Conv. Total (cfs)	5188092.0	Conv. (cfs)		5188092.0	
Length Wtd. (ft)	507.34	Wetted Per. (ft)		4519.87	
Min Ch El (ft)	873.80	Shear (lb/sq ft)		1.07	
Alpha	1.00	Stream Power (lb/ft s)		6.00	
Frctn Loss (ft)	0.90	Cum Volume (acre-ft)	427.52	48868.99	8460.35
C & E Loss (ft)	0.01	Cum SA (acres)	71.49	5092.51	1297.39

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17997.00	18096.20	283.69	300.73	96.21	0.12	3.13	0.94
18096.20	18195.40	413.76	381.81	99.20	0.18	3.85	1.08
18195.40	18294.60	344.32	341.95	99.20	0.15	3.45	1.01
18294.60 LB	19421.70	20083.53	10161.90	1127.20	8.85	9.02	1.98
19421.70	20548.80	145152.27	11868.42	1127.42	63.94	10.53	12.23
20548.80	21675.90	12664.08	7374.36	1130.34	5.58	6.54	1.72
21675.90	22803.00 RB	43976.91	10047.97	1127.94	19.37	8.91	4.38
22803.00	23336.73	4081.46	879.96	381.77	1.80	2.31	4.64

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18294.60 LB	19421.70	20584.50	10461.21	1130.68	9.07	9.28	1.97
19421.70	20548.80	148060.48	12167.74	1127.42	65.22	10.80	12.17
20548.80	21675.90	13256.03	7673.67	1130.34	5.84	6.81	1.73
21675.90	22803.00 RB	45098.99	10347.29	1131.42	19.87	9.18	4.36

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 190.05

INPUT
Description:

Eliminate vertical ineffective area in main channel by coding out GR

data between and below sta, elev. 19489, 873.8 and

19867.6, 873.8

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18021.5	897.3	18058.5	887.4	18085.3	885	18275.3	883.8	18288.1	881.9
18290.5	880	18467.7	876.8	18489.7	876.9	18704.3	877.1	18854.7	874.9
19057.5	876.9	19245.1	875	19365.6	877.7	19479.9	875.4	19489	873.8
19867.6	873.8	20084.3	876.3	20197.1	877.6	20549.3	878.5	20578.7	882.9
20768	884.3	20957.8	883.5	21134.8	882.3	21239.8	881.9	21272.4	876.8
21444.4	877	21523.1	879.8	21651.4	878.4	21666.8	879.7	21688	876.8
21737.8	876.1	21806.6	879	21829.8	876.7	21855.4	876.9	22072	877.5
22311.6	877.5	22480.7	877	22509.2	883.3	22535.9	885.3	22569.2	882.5
22739.2	881.6	22845.7	882.2	23076.5	883.2	23272	883.4	23435.8	884.3
23460	886.2	23468.1	882.7	23547.3	884.4	23560.6	881.4	23757.2	882.9
23901.3	883	24191	882.3	24227.9	882.3	24507.8	882.9	24676.6	882.9
24842.3	882.9	24849.1	884.7	25144.7	884.7	25169.4	884.5	25418.2	884.2
25588.9	884.2	25763.4	884.5	25981.2	884.6	26148.7	883.9	26181.8	885.5
26220.4	883.7	26443.1	884.3	26640	884.8	26868.5	884.2	27024.2	884.5
27228	885	27434.2	885.3	27614	882.6	27636.7	882.7	27850.6	881.4
28041.9	883	28216.3	880	28220.5	879.9	28461	880.7	28664.6	881.4
28832.4	882.4	28879	882.1	28888.6	878.1	28902.4	882	29132.1	881.3
29280.2	881.3	29459.1	882.4	29682.4	883.6	29886.8	884.6	30090.5	885.3
30149.3	885.6	30425	886.8	30744.9	887.6	30913.7	889.4	31090.1	888.9
31126	892								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18021.5	.15	18275.3	.15	19365.6	.026	20578.7	.043	22535.9	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18275.3	22535.9	465	479.19	475	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23460	31126	895

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	885.99	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.57	Wt. n-Val.	0.150	0.042	0.025
E.G. Elev (ft)	886.56	Reach Len. (ft)	465.00	479.19	475.00
Crit W.S. (ft)	881.77	Flow Area (sq ft)	306.68	34686.80	2824.81
E.G. Slope (ft/ft)	0.001708	Area (sq ft)	306.68	34686.80	21140.17
Q Total (cfs)	227000.00	Flow (cfs)	166.37	212191.66	14641.97
Top Width (ft)	12160.36	Top Width (ft)	201.01	4260.60	7698.75
Vel Total (ft/s)	6.00	Avg. Vel. (ft/s)	0.54	6.12	5.18
Max Chl Dpth (ft)	12.19	Hydr. Depth (ft)	1.53	8.14	3.07
Conv. Total (cfs)	5492649.0	Conv. (cfs)	4025.6	5134336.0	354287.3
Length Wtd. (ft)	478.91	Wetted Per. (ft)	201.05	4263.67	921.56
Min Ch El (ft)	873.80	Shear (lb/sq ft)	0.16	0.87	0.33
Alpha	1.02	Stream Power (lb/ft s)	0.09	5.31	1.69
Frctn Loss (ft)	0.99	Cum Volume (acre-ft)	3977.19	46112.75	18410.92
C & E Loss (ft)	0.01	Cum SA (acres)	1002.23	5035.37	5354.42

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	886.27	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.59	Wt. n-Val.		0.042	0.025
E.G. Elev (ft)	886.85	Reach Len. (ft)	465.00	479.19	475.00
Crit W.S. (ft)	881.77	Flow Area (sq ft)		35883.01	1068.87
E.G. Slope (ft/ft)	0.001656	Area (sq ft)		35883.01	1068.87
Q Total (cfs)	227000.00	Flow (cfs)		220506.45	6493.54
Top Width (ft)	4524.70	Top Width (ft)		4260.60	264.10
Vel Total (ft/s)	6.14	Avg. Vel. (ft/s)		6.15	6.08
Max Chl Dpth (ft)	12.47	Hydr. Depth (ft)		8.42	4.05
Conv. Total (cfs)	5577794.5	Conv. (cfs)		5418236.5	159558.0
Length Wtd. (ft)	479.06	Wetted Per. (ft)		4266.14	268.54
Min Ch El (ft)	873.80	Shear (lb/sq ft)		0.87	0.41
Alpha	1.00	Stream Power (lb/ft s)		5.34	2.50
Frctn Loss (ft)	0.94	Cum Volume (acre-ft)	427.52	48423.46	8453.97

C & E Loss (ft) 0.00 Cum SA (acres) 71.49 5041.46 1295.81

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18072.26	18089.18	2.66	9.29	14.93	0.00	0.62	0.29
18089.18	18106.10	7.37	17.99	16.92	0.00	1.06	0.41
18106.10	18123.02	8.64	19.80	16.92	0.00	1.17	0.44
18123.02	18139.94	10.00	21.61	16.92	0.00	1.28	0.46
18139.94	18156.86	11.43	23.42	16.92	0.01	1.38	0.49
18156.86	18173.78	12.94	25.23	16.92	0.01	1.49	0.51
18173.78	18190.70	14.52	27.03	16.92	0.01	1.60	0.54
18190.70	18207.62	16.18	28.84	16.92	0.01	1.70	0.56
18207.62	18224.54	17.90	30.65	16.92	0.01	1.81	0.58
18224.54	18241.46	19.69	32.46	16.92	0.01	1.92	0.61
18241.46	18258.38	21.56	34.27	16.92	0.01	2.03	0.63
18258.38	18275.30	23.49	36.08	16.92	0.01	2.13	0.65
18275.30 LB	19340.45	17575.64	9901.11	1066.04	7.74	9.30	1.78
19340.45	20405.60	120921.95	11092.79	1065.34	53.27	10.41	10.90
20405.60	21470.75	24938.50	5062.42	1065.90	10.99	4.75	4.93
21470.75	22535.90 RB	48755.60	8630.48	1066.39	21.48	8.10	5.65
22535.90	23108.57	11265.87	2020.72	572.80	4.96	3.53	5.58
23108.57	23681.25	3376.09	804.09	348.76	1.49	2.31	4.20

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18275.30 LB	19340.45	18181.58	10200.16	1068.51	8.01	9.58	1.78
19340.45	20405.60	124607.02	11391.84	1065.34	54.89	10.70	10.94
20405.60	21470.75	26839.69	5361.47	1065.90	11.82	5.03	5.01
21470.75	22535.90 RB	50878.17	8929.53	1066.39	22.41	8.38	5.70
22535.90	23108.57	6493.55	1068.87	268.54	2.86	4.05	6.08

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 189.96

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18200.2	892.1	18305.9	894	18345.1	892.4	18393.4	880	18445	874.9
18639.3	875.5	18664.1	875.5	18837.7	874.7	19078.8	873.8	19313.8	877.5
19345.7	876	19454.7	883.6	19492.8	877.6	19690.7	877.7	19909.4	878.2
19978.4	878	20168.7	877.7	20358	877.8	20456.1	878	20617.1	878
20647.6	884.2	20816.8	882	20871.1	879.1	21038.2	882.7	21209	876.4
21235.3	874.3	21390.9	876.7	21547.4	878	21573.7	875	21675.2	878.4
21835	874.8	21881.5	874.6	22171.3	873.8	22364.7	873.7	22522.6	874
22534.4	876.8	22548.5	882.6	22581.4	880.8	22863.5	881.6	22894.1	881.7
23199.4	882	23357.2	884.2	23526.6	884.8	23586.7	886.6	23595.7	882.8
23641.9	884.4	23692.6	881.6	23823.4	883.5	23859.6	881.5	24075.2	882.3
24311.2	882.8	24452.6	883.2	24708.6	881.9	24749	881.8	24950.9	881.9
25088.6	883	25115.6	881.8	25130.1	884.9	25350.9	884.1	25625.3	884.1
25841.2	883.9	26130.7	883.8	26311.2	885.3	26443.6	884.3	26514.8	882
26717.6	882.9	26858	882.9	27103	882.7	27172.8	882.7	27344.4	882.7
27526.2	882.8	27718.9	882.5	27906.1	882.4	28010	882.4	28219.9	883
28375.6	882.9	28628.2	881.3	28794.2	881.2	28952.5	880.3	29090	879.6
29150.8	880.4	29157.5	878.2	29172.5	879.6	29329	881.1	29521	880.2
29564.7	880.2	29728.7	883.6	29947.7	884.2	29980.4	884.2	30243.3	884.4
30516.9	885.3	30694.8	885.8	30951.6	887	31205.1	887.1	31360.2	888.8
31381	892.8								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18200.2	.15	18393.4	.15	19454.7	.026	20647.6	.043	22548.5	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18393.4	22548.5	455	483.49	600	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev

23586 31381 892

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	884.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.63	Wt. n-Val.	0.150	0.047	0.025
E.G. Elev (ft)	885.56	Reach Len. (ft)	455.00	483.49	600.00
Crit W.S. (ft)	881.26	Flow Area (sq ft)	47.41	33156.76	2564.68
E.G. Slope (ft/ft)	0.002540	Area (sq ft)	47.41	33156.76	17482.59
Q Total (cfs)	227000.00	Flow (cfs)	42.31	212393.00	14564.71
Top Width (ft)	11879.18	Top Width (ft)	19.22	4155.10	7704.86
Vel Total (ft/s)	6.35	Avg. Vel. (ft/s)	0.89	6.41	5.68
Max Chl Dpth (ft)	11.23	Hydr. Depth (ft)	2.47	7.98	2.61
Conv. Total (cfs)	4503758.0	Conv. (cfs)	839.4	4213950.0	288968.8
Length Wtd. (ft)	489.49	Wetted Per. (ft)	19.84	4158.88	982.63
Min Ch El (ft)	873.70	Shear (lb/sq ft)	0.38	1.26	0.41
Alpha	1.00	Stream Power (lb/ft s)	0.34	8.10	2.35
Frctn Loss (ft)	1.32	Cum Volume (acre-ft)	3975.30	45739.58	18200.34
C & E Loss (ft)	0.01	Cum SA (acres)	1001.06	4989.08	5270.44

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	885.28	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.63	Wt. n-Val.		0.047	0.025
E.G. Elev (ft)	885.91	Reach Len. (ft)	455.00	483.49	600.00
Crit W.S. (ft)	881.25	Flow Area (sq ft)		34595.73	1029.35
E.G. Slope (ft/ft)	0.002340	Area (sq ft)		34595.73	1029.35
Q Total (cfs)	227000.00	Flow (cfs)		219504.83	7495.18
Top Width (ft)	4406.60	Top Width (ft)		4155.10	251.50
Vel Total (ft/s)	6.37	Avg. Vel. (ft/s)		6.34	7.28
Max Chl Dpth (ft)	11.58	Hydr. Depth (ft)		8.33	4.09
Conv. Total (cfs)	4692554.5	Conv. (cfs)		4537614.0	154940.7
Length Wtd. (ft)	485.41	Wetted Per. (ft)		4164.16	255.41
Min Ch El (ft)	873.70	Shear (lb/sq ft)		1.21	0.59
Alpha	1.00	Stream Power (lb/ft s)		7.70	4.29
Frctn Loss (ft)	1.15	Cum Volume (acre-ft)	427.52	48035.81	8442.53
C & E Loss (ft)	0.00	Cum SA (acres)	71.49	4995.17	1293.00

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18367.64	18380.52	1.94	5.15	6.54	0.00	0.81	0.38
18380.52	18393.40	40.36	42.25	13.30	0.02	3.28	0.96
18393.40 LB	19432.18	21183.02	9748.87	1039.31	9.33	9.38	2.17
19432.18	20470.95	73255.04	7153.97	1039.30	32.27	6.89	10.24
20470.95	21509.72	36478.03	5911.77	1039.75	16.07	5.69	6.17
21509.72	22548.50 RB	81476.92	10342.16	1040.52	35.89	9.96	7.88
22548.50	23137.33	12680.82	2017.60	588.88	5.59	3.43	6.29
23137.33	23726.17	1883.87	547.08	393.75	0.83	1.39	3.44

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18393.40 LB	19432.18	21563.37	10108.61	1044.59	9.50	9.73	2.13
19432.18	20470.95	76354.70	7513.71	1039.30	33.64	7.23	10.16
20470.95	21509.72	38649.18	6271.51	1039.75	17.03	6.04	6.16
21509.72	22548.50 RB	82937.59	10701.91	1040.52	36.54	10.30	7.75
22548.50	23137.33	7495.18	1029.35	255.41	3.30	4.09	7.28

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 189.87

INPUT
Description: CROSSES PERRYVILLE RD. ALIGNMENT AT CENTERLINE OF 100 YR FLOW

Left Channel Bank Station Interpolated

Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18306.3	895	18347.3	894.9	18416.8	888.91	8427.66	884.434	18450.6	875
18481.1	872.7	18655.5	874.7	18909.5	875.5	19111.8	874.9	19299.8	874.6
19452.1	882.2	19490.7	877	19883.1	876.8	20367.2	876.1	20584.8	876.3
20667.2	876	20687.1	881.5	20896.2	880.5	21021.8	878.7	21045.8	875.6
21273.4	873.6	21353.5	875.6	21511.6	876.5	21527.9	874.8	21676.2	873.6
21718.5	877.2	21781.6	876.1	21818.4	872.6	21933.5	874	22138.3	873
22243.3	876.5	22277.9	876.1	22282	874.3	22414.2	879.6	22444.2	874
22499.4	876.8	22600.1	872.5	22640.9	879.2	22820	881.986	22820.9	882
22874	884.1	23058.7	880	23246.7	880.2	23471	881.9	23604.8	884.7
23631.9	886.6	23638.6	883.2	23684.9	886.5	23700.2	882.5	23895.8	882.6
24079.3	882.8	24276.1	878.3	24471.4	878.7	24472.1	878.7	24811.2	880.1
24863.7	880.2	25145.7	880.1	25365.9	881.2	25540.7	880.7	25773.8	884.3
25934.7	881.1	26201.1	881.2	26425.3	882	26597.2	882.1	26771.6	881.2
26803.3	882.3	26814.2	878.8	26885.7	880.5	27074	880.9	27228.5	880.9
27467.7	880.6	27688.8	879.6	27891.3	880.1	28156.3	879.1	28378.4	879.9
28668.6	878.9	28765.3	878.8	28943.4	879.8	29014.6	879.7	29255.8	879
29433	878.8	29478.8	880.6	29508.6	877.4	29518.9	879.9	29559	877.9
29793.9	882.1	29892.5	879.3	30084.8	881.9	30418.6	882.4	30470.8	883.1
30685.8	884.5	30787.9	884.7	31013.6	886	31187.8	886.3	31446.3	887
31657.8	887.7	31729.4	889.5	31737	891.8				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18306.3	.15	18416.8	.15	19452.1	.026	20687.1	.043	22874	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18427.66	22820	490	523.22	715	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23631.9	31737	893

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	883.54	Element			
Vel Head (ft)	0.70	Wt. n-Val.		0.045	0.025
E.G. Elev (ft)	884.24	Reach Len. (ft)	490.00	523.22	715.00
Crit W.S. (ft)	880.39	Flow Area (sq ft)		32299.55	1582.23
E.G. Slope (ft/ft)	0.002852	Area (sq ft)		32299.55	21879.55
Q Total (cfs)	227000.00	Flow (cfs)		218161.63	8838.37
Top Width (ft)	11839.79	Top Width (ft)		4390.16	7449.62
Vel Total (ft/s)	6.70	Avg. Vel. (ft/s)		6.75	5.59
Max Chl Dpth (ft)	11.04	Hydr. Depth (ft)		7.36	2.29
Conv. Total (cfs)	4250734.5	Conv. (cfs)		4085229.8	165504.7
Length Wtd. (ft)	537.34	Wetted Per. (ft)		4395.71	689.92
Min Ch El (ft)	872.50	Shear (lb/sq ft)		1.31	0.41
Alpha	1.00	Stream Power (lb/ft s)		8.84	2.28
Frctn Loss (ft)	1.22	Cum Volume (acre-ft)	3975.05	45376.32	17929.25
C & E Loss (ft)	0.07	Cum SA (acres)	1000.96	4941.66	5166.07

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	884.09	Element			
Vel Head (ft)	0.66	Wt. n-Val.		0.044	
E.G. Elev (ft)	884.76	Reach Len. (ft)	490.00	523.22	715.00
Crit W.S. (ft)	880.33	Flow Area (sq ft)		34734.02	
E.G. Slope (ft/ft)	0.002409	Area (sq ft)		34734.02	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	

Top Width (ft)	4391.51	Top Width (ft)		4391.51	
Vel Total (ft/s)	6.54	Avg. Vel. (ft/s)		6.54	
Max Chl Dpth (ft)	11.59	Hydr. Depth (ft)		7.91	
Conv. Total (cfs)	4625332.5	Conv. (cfs)		4625332.5	
Length Wtd. (ft)	523.22	Wetted Per. (ft)		4399.28	
Min Ch El (ft)	872.50	Shear (lb/sq ft)		1.19	
Alpha	1.00	Stream Power (lb/ft s)		7.76	
Frctn Loss (ft)	1.10	Cum Volume (acre-ft)	427.52	47651.05	8435.44
C & E Loss (ft)	0.05	Cum SA (acres)	71.49	4947.74	1291.27

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18427.66 LB	19525.75	21376.42	8746.77	1098.23	9.42	7.98	2.44
19525.75	20623.83	85714.18	7689.41	1098.08	37.76	7.00	11.15
20623.83	21721.91	50473.02	7411.62	1099.33	22.23	6.75	6.81
21721.91	22820.00 RB	60598.03	8451.75	1100.07	26.70	7.70	7.17
22820.00	23414.47	8236.00	1413.32	555.06	3.63	2.55	5.83
23414.47	24008.93	602.37	168.91	134.86	0.27	1.25	3.57

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18427.66 LB	19525.75	22125.04	9354.76	1099.69	9.75	8.53	2.37
19525.75	20623.83	89468.57	8298.24	1098.08	39.41	7.56	10.78
20623.83	21721.91	52929.95	8020.45	1099.33	23.32	7.30	6.60
21721.91	22820.00 RB	62476.45	9060.58	1102.17	27.52	8.25	6.90

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 189.77

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 99

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18103.7	890.8	18159.5	887.4	18290.7	890	18342.7	885	18347.5	883.6362
18377.9	875	18467.3	872.3	18709	874.3	19009.3	874.1	19119.5	874.7
19153.4	881.4	19208.4	879.5	19300.5	880.5	19324.7	878.5	19398.7	881.5
19429.7	875.5	19571.7	875	19870.8	874.1	20144.8	873.3	20381.2	872.4
20458.2	874.2	20774.8	873	20792.2	880.3	20919.4	877.6	20944.4	873.2
21037.9	872.5	21069.9	876.7	21187.3	876.3	21218.8	872.3	21234.4	872.3
21262.4	876.4	21280.4	872.4	21565.6	873.1	21978.9	871.4	22154.4	873.8
22191.8	871.8	22260.6	875.3	22301.1	873.8	22318.1	871	22376	874
22384.4	872.4	22518.8	876.4	22717.7	869.9	22759.5	874.5	22800	874.946
22804.9	875	22832.4	872.1	22881.7	878.8	22898.3	876.6	22916	877.0512
23055.2	880.6	23072.9	873.7	23103.6	879.8	23138.4	876.1	23426.1	877.5
23599.4	879.1	23815.6	883.6	23825.5	876.5	23833.7	877	23843.6	883.7
23944.5	879.9	24211.4	880.4	24498.2	879.1	24822.8	880.2	24899.7	880
25256.4	880.1	25521.3	879.2	25855.7	880	26185.5	881.5	26462.6	881.5
26756.6	880.3	27063.1	879.9	27232.3	881.1	27245	874.6	27254	880.7
27305.9	876	27647.7	876.9	27779.5	877	28041.5	877.4	28113.4	877.2
28374.2	877.1	28508.9	875.7	28510.3	877.9	28937.3	878	29240.5	878.5
29485.2	879.1	29730.3	878.2	30066.7	879.5	30372	880.5	30687.2	882.8
30988.2	882.6	31181.2	885.5	31216	883.5	31255.5	885.6	31514.9	885.7
31760.8	886.1	32024	885.8	32172.8	886.2	32213	888.3		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18103.7	.15	18290.7	.15	19398.7	.027	20792.2	.065	23055.2	.025

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

18347.5 22800 495 513.89 450 .1 .3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23815.6	32213	889

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	882.48	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.47	Wt. n-Val.		0.048	0.031
E.G. Elev (ft)	882.95	Reach Len. (ft)	495.00	513.89	450.00
Crit W.S. (ft)	878.24	Flow Area (sq ft)		36868.81	4377.51
E.G. Slope (ft/ft)	0.001849	Area (sq ft)		36868.81	26396.36
Q Total (cfs)	227000.00	Flow (cfs)		202401.67	24598.34
Top Width (ft)	12202.11	Top Width (ft)		4448.43	7753.68
Vel Total (ft/s)	5.50	Avg. Vel. (ft/s)		5.49	5.62
Max Chl Dpth (ft)	12.58	Hydr. Depth (ft)		8.29	4.55
Conv. Total (cfs)	5279677.5	Conv. (cfs)		4707557.5	572120.2
Length Wtd. (ft)	507.09	Wetted Per. (ft)		4455.18	964.71
Min Ch El (ft)	869.90	Shear (lb/sq ft)		0.96	0.52
Alpha	1.00	Stream Power (lb/ft s)		5.24	2.94
Frctn Loss (ft)	0.84	Cum Volume (acre-ft)	3975.05	44960.91	17533.04
C & E Loss (ft)	0.01	Cum SA (acres)	1000.96	4888.58	5041.30

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	883.10	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.51	Wt. n-Val.		0.048	
E.G. Elev (ft)	883.61	Reach Len. (ft)	495.00	513.89	450.00
Crit W.S. (ft)	878.22	Flow Area (sq ft)		39643.52	
E.G. Slope (ft/ft)	0.001841	Area (sq ft)		39643.52	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	4450.62	Top Width (ft)		4450.62	
Vel Total (ft/s)	5.73	Avg. Vel. (ft/s)		5.73	
Max Chl Dpth (ft)	13.20	Hydr. Depth (ft)		8.91	
Conv. Total (cfs)	5290428.5	Conv. (cfs)		5290428.5	
Length Wtd. (ft)	513.89	Wetted Per. (ft)		4465.62	
Min Ch El (ft)	869.90	Shear (lb/sq ft)		1.02	
Alpha	1.00	Stream Power (lb/ft s)		5.84	
Frctn Loss (ft)	0.85	Cum Volume (acre-ft)	427.52	47204.36	8435.44
C & E Loss (ft)	0.01	Cum SA (acres)	71.49	4894.64	1291.27

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18347.50 LB	19460.63	13602.45	7569.89	1111.56	5.99	6.83	1.80
19460.63	20573.75	94406.30	9551.66	1113.15	41.59	8.58	9.88
20573.75	21686.88	47745.15	9143.29	1116.28	21.03	8.21	5.22
21686.88	22800.00 RB	46647.76	10603.97	1114.19	20.55	9.53	4.40
22800.00	23427.53	19574.61	3385.95	630.43	8.62	5.40	5.78
23427.53	24055.07	5023.72	991.56	334.28	2.21	2.97	5.07

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18347.50 LB	19460.63	15772.93	8262.17	1113.84	6.95	7.44	1.91
19460.63	20573.75	105959.05	10245.80	1113.15	46.68	9.20	10.34
20573.75	21686.88	53748.34	9837.43	1116.28	23.68	8.84	5.46
21686.88	22800.00 RB	51519.68	11298.12	1122.35	22.70	10.15	4.56

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 189.68

INPUT
Description: Right Bank Channel Station Interpolated
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

17815.9	896	17930.1	890	18109.7	887.3	18153.7	880	18359.5	870.8
18625.2	877	18741.9	875	18789.3	880.1	18824.3	876.2	18856.8	879.6
19112.3	878.5	19236.6	882.3	19298.5	878.2	19329.4	878.6	19389.7	874.5
19682.8	872.8	19961.1	871.8	20230.4	873.6	20268.2	872.8	20272.7	875.1
20415.7	871.8	20767.4	872.4	20818.9	873.4	20880.2	878.4	20993.4	873.4
21016.7	870.6	21146.7	873.4	21167.3	870.8	21204.3	873.1	21485	871.9
21662.3	871.7	21714.4	874.6	21743	871.1	21961.5	867.4	22061.7	873.8
22064.9	871.6	22068.1	864.9	22077.8	871.5	22119.4	871.1	22124.5	865.2
22197.7	872.9	22227.6	864.6	22244.3	871.9	22261.6	869.3	22301	871
22305.1	868.5	22305.2	866.7	22326.6	872.5	22387.4	873.6	22422.4	866.1
22422.7	867.8	22467.9	874.3	22616.6	872.1	22716.5	873.6	22770	873.8875
22977	875	23310.4	877.9	23606.1	877.8	23870.7	881.6	23900.6	884.4
23909.9	877.1	23922.4	877.9	23932.7	883	24033.3	881	24359.9	880.6
24623.2	880.1	24890.4	879.5	25200.6	879.9	25206	879.9	25508.4	879.6
25808.7	880.6	26139.6	880.4	26466.2	881.8	26783.9	881.1	27140.1	880.3
27461.9	878.8	27497.2	880.7	27507.2	874.8	27517.1	879.3	27560.4	877.5
27827.4	876.4	28123.3	876.7	28495.7	877.6	28766.5	877.1	28823	878.1
29110.7	877.3	29585.8	879.8	29846	879.1	30110.2	880.1	30158.8	879.6
30177.4	877.4	30473.7	879.1	30745.7	882.6	31076	883.2	31370.7	883.1
31443.7	885.7								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17815.9	.15	18153.7	.15	18789.3	.032	19236.6	.027	20880.2	.065
22977	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18153.7	22770	495	502.76	400	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23901	31443.7	894

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	881.65	Element			
Vel Head (ft)	0.45	Wt. n-Val.	0.150	0.045	0.033
E.G. Elev (ft)	882.10	Reach Len. (ft)	495.00	502.76	400.00
Crit W.S. (ft)	877.26	Flow Area (sq ft)	8.23	37501.36	4868.00
E.G. Slope (ft/ft)	0.001501	Area (sq ft)	8.23	37501.36	20644.83
Q Total (cfs)	227000.00	Flow (cfs)	2.76	203218.02	23779.24
Top Width (ft)	12292.87	Top Width (ft)	9.96	4585.36	7697.55
Vel Total (ft/s)	5.36	Avg. Vel. (ft/s)	0.33	5.42	4.88
Max Chl Dpth (ft)	17.05	Hydr. Depth (ft)	0.83	8.18	4.42
Conv. Total (cfs)	5858707.0	Conv. (cfs)	71.2	5244911.0	613725.1
Length Wtd. (ft)	491.62	Wetted Per. (ft)	10.10	4607.36	1101.31
Min Ch El (ft)	864.60	Shear (lb/sq ft)	0.08	0.76	0.41
Alpha	1.00	Stream Power (lb/ft s)	0.03	4.13	2.02
Frctn Loss (ft)	0.74	Cum Volume (acre-ft)	3975.01	44522.23	17290.06
C & E Loss (ft)	0.00	Cum SA (acres)	1000.90	4835.29	4961.49

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	882.27	Element			
Vel Head (ft)	0.49	Wt. n-Val.		0.045	
E.G. Elev (ft)	882.76	Reach Len. (ft)	495.00	502.76	400.00
Crit W.S. (ft)	877.25	Flow Area (sq ft)		40321.34	
E.G. Slope (ft/ft)	0.001491	Area (sq ft)		40321.34	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	4614.66	Top Width (ft)		4614.66	
Vel Total (ft/s)	5.63	Avg. Vel. (ft/s)		5.63	
Max Chl Dpth (ft)	17.67	Hydr. Depth (ft)		8.74	
Conv. Total (cfs)	5878485.0	Conv. (cfs)		5878485.0	
Length Wtd. (ft)	500.72	Wetted Per. (ft)		4647.34	
Min Ch El (ft)	864.60	Shear (lb/sq ft)		0.81	
Alpha	1.00	Stream Power (lb/ft s)		4.55	
Frctn Loss (ft)	0.72	Cum Volume (acre-ft)	427.52	46732.68	8435.44
C & E Loss (ft)	0.01	Cum SA (acres)	71.49	4841.17	1291.27

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18131.18	18153.70	2.76	8.23	10.10	0.00	0.83	0.33
18153.70 LB	19307.77	9558.02	5394.43	1124.26	4.21	4.80	1.77
19307.77	20461.85	84902.00	9716.22	1154.83	37.40	8.42	8.74
20461.85	21615.93	58195.80	10252.67	1154.84	25.64	8.88	5.68
21615.93	22770.00 RB	50562.18	12138.04	1173.44	22.27	10.52	4.17
22770.00	23348.25	17055.04	3369.10	578.26	7.51	5.83	5.06
23348.25	23926.49	6724.22	1498.90	523.05	2.96	2.87	4.49

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18153.70 LB	19307.77	12015.18	6091.93	1155.86	5.29	5.29	1.97
19307.77	20461.85	95090.79	10423.71	1154.83	41.89	9.03	9.12
20461.85	21615.93	64798.38	10960.16	1154.84	28.55	9.50	5.91
21615.93	22770.00 RB	55095.65	12845.53	1181.82	24.27	11.13	4.29

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 189.58

INPUT
Description:

Eliminate vertical ineffective area in main channel by coding out GR

data between and below sta.'s, elev.'s 21894, 868.1 and 22043, 868.1

22158, 868.1 and 22163, 868.1 - 22221, 868.1 and 22535, 868.1

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18052.1	898.6	18099.7	890	18112.3	885	18150.1	885	18198.8	880
18206.7	876.6	18459.7	872.2	18662.5	877.3	18917.4	877.5	18993.7	876.5
19055.9	880	19282.5	879.9	19323.5	877.6	19361.1	879.3	19371	874.1
19541.7	872.7	19907.2	871.5	20268.6	870.1	20306.4	869.9	20308.5	871.8
20324.3	873.6	20381.7	871.4	20621.2	872.2	20729.9	871.2	20744.1	875.7
20996.5	875.7	21145.9	870.9	21224.6	873.3	21248.8	869.9	21525.5	869.8
21734.6	874.8	21769.5	872.1	21814.5	872.3	21894	868.1	22043	868.1
22045.8	869.3	22132.2	869.4	22157.9	872.8	22158	868.1	22163	868.1
22165.6	867.7	22194.4	871.5	22206.1	871.3	22221	868.1	22535	868.1
22613.2	872.5	22700	872.2	556 22897.3	871.7	23081.2	873.3	23188	876.6
23486.2	877.6	23839.5	878.3	24048.2	883.5	24052.8	878	24066.4	877.8
24079.9	883.9	24129	881.8	24355.5	880.8	24709.9	880.1	24953.6	881
25120.9	878.4	25130.2	880.4	25321.5	879	25574.9	879.4	25633.7	879.4
26000.7	880.8	26026.3	880.8	26308.4	880.9	26458.2	879.7	26686.7	880.5
26859.8	881.2	27110.4	881.6	27149.2	881.5	27404	880.7	27637.6	879.8
27832.2	880.5	27841.2	874.7	27852.9	878.8	28137.4	877.8	28362.7	877.3
28682.2	877.6	28988.2	876.8	29156.2	879	29441.3	878.3	29557.3	878.8
29808.5	879.3	30088.9	880	30406.2	878.8	30490.7	880.8	30508.5	878.4
30741.9	879.9	31068.9	881	31107.4	881.3	31412.4	883.3	31707.4	883.1
31774.5	886.1								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18052.1	.15	18198.8	.15	18917.4	.032	19361.1	.027	20744.1	.065
23188	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18198.8	22700	495	495.44	550	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
24048	31774.5	896

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	880.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.45	Wt. n-Val.	0.150	0.045	0.047
E.G. Elev (ft)	881.36	Reach Len. (ft)	495.00	495.44	550.00
Crit W.S. (ft)	876.34	Flow Area (sq ft)	4.01	36417.90	6260.54
E.G. Slope (ft/ft)	0.001514	Area (sq ft)	4.01	36417.90	15666.88
Q Total (cfs)	227000.00	Flow (cfs)	0.91	201569.77	25429.33
Top Width (ft)	11905.41	Top Width (ft)	8.84	4501.20	7395.38
Vel Total (ft/s)	5.32	Avg. Vel. (ft/s)	0.23	5.53	4.06
Max Chl Dpth (ft)	13.21	Hydr. Depth (ft)	0.45	8.09	5.03
Conv. Total (cfs)	5833610.0	Conv. (cfs)	23.4	5180085.5	653501.3
Length Wtd. (ft)	502.78	Wetted Per. (ft)	8.88	4511.53	1244.23
Min Ch El (ft)	867.70	Shear (lb/sq ft)	0.04	0.76	0.48
Alpha	1.03	Stream Power (lb/ft s)	0.01	4.22	1.93
Frctn Loss (ft)	0.64	Cum Volume (acre-ft)	3974.94	44095.65	17123.34
C & E Loss (ft)	0.02	Cum SA (acres)	1000.79	4782.85	4892.19

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	881.56	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.47	Wt. n-Val.		0.045	0.065
E.G. Elev (ft)	882.03	Reach Len. (ft)	495.00	495.44	550.00
Crit W.S. (ft)	876.39	Flow Area (sq ft)		39369.06	2398.81
E.G. Slope (ft/ft)	0.001393	Area (sq ft)		39369.06	2398.81
Q Total (cfs)	227000.00	Flow (cfs)		217984.48	9015.51
Top Width (ft)	4751.20	Top Width (ft)		4501.20	250.00
Vel Total (ft/s)	5.43	Avg. Vel. (ft/s)		5.54	3.76
Max Chl Dpth (ft)	13.86	Hydr. Depth (ft)		8.75	9.60
Conv. Total (cfs)	6083055.0	Conv. (cfs)		5841461.0	241593.9
Length Wtd. (ft)	498.67	Wetted Per. (ft)		4513.09	259.41
Min Ch El (ft)	867.70	Shear (lb/sq ft)		0.76	0.80
Alpha	1.02	Stream Power (lb/ft s)		4.20	3.02
Frctn Loss (ft)	0.59	Cum Volume (acre-ft)	427.52	46272.79	8424.43
C & E Loss (ft)	0.02	Cum SA (acres)	71.49	4788.56	1290.12

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18189.02	18198.80	0.91	4.01	8.88	0.00	0.45	0.23
18198.80 LB	19324.10	6570.61	4580.27	1126.27	2.89	4.07	1.43
19324.10	20449.40	91878.61	9966.93	1127.51	40.48	8.86	9.22
20449.40	21574.70	49808.32	9598.08	1126.37	21.94	8.53	5.19
21574.70	22700.00 RB	53312.25	12272.62	1131.38	23.49	10.91	4.34
22700.00	23304.97	16750.22	4424.92	605.03	7.38	7.31	3.79
23304.97	23909.93	8660.25	1821.04	604.99	3.82	3.01	4.76
23909.93	24514.90	18.82	14.57	34.21	0.01	0.43	1.29

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18198.80 LB	19324.10	8517.94	5318.06	1127.84	3.75	4.73	1.60
19324.10	20449.40	99122.72	10704.72	1127.51	43.67	9.51	9.26
20449.40	21574.70	53966.87	10335.87	1126.37	23.77	9.18	5.22
21574.70	22700.00 RB	56376.96	13010.41	1131.38	24.84	11.56	4.33
22700.00	23304.97	9015.51	2398.81	259.41	3.97	9.60	3.76

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 189.49

INPUT
Description:

Eliminate vertical ineffective area in main channel by
coding out GR

data between and below sta, elev. 22367, 868.1 and

22657, 868.1

Station Elevation Data num= 94

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18254.6	895.3	18276	890	18302.2	880	18334	875	18547.4	872.8
18651.8	876.2	18892.2	875.9	18974.9	875	19044.2	878.3	19315.8	880.3
19334.5	872.4	19703.8	870.9	19994.2	869.7	20079	869.3	20317.6	869.3
20672.7	870.4	20755.5	873.9	20934.1	875	20985	871.8	21085.2	872.6
21117.9	869.2	21356.8	869.4	21601	870.2	21778.7	871.8	21803.5	868.6
21947.6	872.2	22005.9	868.9	22162.1	867.7	22247.1	870.8	22330.1	863.4
22358.8	870.3	22367	868.1	22640	868.1	22657	868.1	22684.9	871.8
22912.9	871.5	23155.3	871.2	23249	871.8	23339	876	23390.1	874.1
23603.1	875.2	23816.8	876.1	24035.5	877.9	24254.9	880.6	24293.3	883.5
24299	878	24316.5	880.4	24320.7	882.5	24346.5	883.7	24452.4	881.2
24708.9	881.4	24784	881	25110.8	879.8	25139.7	879.7	25441.9	878.3
25617.8	878.3	25847.3	878.4	25849.5	878.4	26093.2	879.4	26118.1	879.6
26530.4	881	26761.5	880.7	26853.7	883	26882.5	880.8	27206.1	881.4
27430.4	880.2	27672	879.7	27957.4	879.7	28104.3	879.8	28142.7	878.3
28154.1	880.7	28164.1	875.6	28176.6	879.3	28192.9	877.2	28433	877.9
28511.1	878	28759.7	878.1	28989.3	877.4	29245.5	877.6	29449.9	877.6
29457.7	879.6	29539.4	877.9	29773	878.7	29884.4	878.8	30094.6	879.5
30339.5	879.7	30586.1	880.8	30801.8	881.1	30867.5	878.7	31105.9	879.8
31329.1	881.6	31555.9	882.8	31827.1	883.4	31951	884.2		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18254.6	.15	18302.2	.15	18892.2	.032	19315.8	.027	20755.5	.065
23339	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18302.2	22640	490	500.67	450	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
24293	31951	893

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	880.32	Element			
Vel Head (ft)	0.37	Wt. n-Val.	0.150	0.043	0.046
E.G. Elev (ft)	880.70	Reach Len. (ft)	490.00	500.67	450.00
Crit W.S. (ft)	875.26	Flow Area (sq ft)	0.14	37521.95	9494.04
E.G. Slope (ft/ft)	0.001081	Area (sq ft)	0.14	37521.95	16576.98
Q Total (cfs)	227000.00	Flow (cfs)	0.01	191298.50	35701.49
Top Width (ft)	10728.30	Top Width (ft)	0.84	4337.80	6389.65
Vel Total (ft/s)	4.83	Avg. Vel. (ft/s)	0.09	5.10	3.76
Max Chl Dpth (ft)	16.92	Hydr. Depth (ft)	0.16	8.65	5.96
Conv. Total (cfs)	6904054.5	Conv. (cfs)	0.4	5818217.0	1085837.3
Length Wtd. (ft)	492.44	Wetted Per. (ft)	0.90	4342.17	1592.69
Min Ch El (ft)	863.40	Shear (lb/sq ft)	0.01	0.58	0.40
Alpha	1.04	Stream Power (lb/ft s)	0.00	2.97	1.51
Frctn Loss (ft)	0.55	Cum Volume (acre-ft)	3974.91	43675.17	16919.78
C & E Loss (ft)	0.00	Cum SA (acres)	1000.74	4732.58	4805.16

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	881.02	Element			
Vel Head (ft)	0.39	Wt. n-Val.		0.043	0.065
E.G. Elev (ft)	881.42	Reach Len. (ft)	490.00	500.67	450.00
Crit W.S. (ft)	875.23	Flow Area (sq ft)		40568.79	5443.69
E.G. Slope (ft/ft)	0.001016	Area (sq ft)		40568.79	5443.69
Q Total (cfs)	227000.00	Flow (cfs)		209139.73	17860.27
Top Width (ft)	4897.80	Top Width (ft)		4337.80	560.00
Vel Total (ft/s)	4.93	Avg. Vel. (ft/s)		5.16	3.28
Max Chl Dpth (ft)	17.62	Hydr. Depth (ft)		9.35	9.72
Conv. Total (cfs)	7121445.5	Conv. (cfs)		6561133.0	560312.6
Length Wtd. (ft)	496.11	Wetted Per. (ft)		4343.19	569.78
Min Ch El (ft)	863.40	Shear (lb/sq ft)		0.59	0.61
Alpha	1.04	Stream Power (lb/ft s)		3.05	1.99
Frctn Loss (ft)	0.50	Cum Volume (acre-ft)	427.52	45818.20	8374.92
C & E Loss (ft)	0.00	Cum SA (acres)	71.49	4738.29	1285.01

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18299.03	18302.20	0.01	0.14	0.90	0.00	0.16	0.09
18302.20 LB	19386.65	8629.56	4522.50	1086.60	3.80	4.17	1.91
19386.65	20471.10	91465.14	10896.86	1084.46	40.29	10.05	8.39
20471.10	21555.55	46010.30	10001.68	1084.81	20.27	9.22	4.60
21555.55	22640.00 RB	45193.45	12100.90	1086.30	19.91	11.16	3.73
22640.00	23260.73	17359.90	5572.36	620.99	7.65	8.98	3.12
23260.73	23881.47	16216.24	3212.76	620.86	7.14	5.18	5.05
23881.47	24502.20	2125.40	708.92	350.84	0.94	2.02	3.00

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18302.20 LB	19386.65	10956.00	5284.21	1087.62	4.83	4.87	2.07
19386.65	20471.10	99292.02	11658.57	1084.46	43.74	10.75	8.52
20471.10	21555.55	50361.36	10763.39	1084.81	22.19	9.93	4.68
21555.55	22640.00 RB	48530.34	12862.61	1086.30	21.38	11.86	3.77
22640.00	23260.73	17860.28	5443.69	569.78	7.87	9.72	3.28

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 189.39

INPUT
Description: Right Bank Channel Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18305.7	890	18376.1	872.9	18391.2	877.5	18556.8	874.6	18789.9	876.2
19016.7	877	19137.4	879.5	19245.1	876.4	19304.3	875.3	19324.9	872.3
19559.1	872.8	19632.3	875.4	19866.5	868.7	20229.6	868.1	20491.1	868.1
20619.4	866.8	20645.3	871.6	20866.2	871.2	21102.8	869.2	21136.1	873
21192.9	870	21275.1	870	21309.5	867.9	21581.7	868.4	21823.6	868.7
22125.1	869.3	22178.8	872.2	22302.5	870.7	22347.8	867.1	22560	868.9265
22603.4	869.3	22624	869.6	22632	866	22693.4	876	22722.1	872.3
22951.6	870.2	23113	872.2	23158.6	869.6	23162.9	871.3	23178.3	869.4
23189.2	873.2	23237.8	871.8	23324	874.6	23553.3	873.7	23776.4	876.7
24000.1	877.2	24307.4	877.4	24533.3	880.9	24561.2	882.7	24567.5	877.5
24577.3	878.6	24589	883.7	24641.1	881.2	24905.1	881.4	25054.1	880.8
25338.9	879.8	25387.6	879.6	25621.5	879.6	25847.8	878.9	25921.9	877.8
26248.3	878.7	26261.7	878.8	26671.9	880.2	26677.1	880.3	26953	880.6
27179	880.9	27217.3	880.9	27496.3	880.6	27508.7	880.6	27822	879.2
27841.9	879.1	28223.2	878.1	28458.1	878.2	28476.4	879.6	28484.7	876
28499.8	878.7	28601.7	877.3	28851.7	877.8	28931.6	877.8	29237.2	878.9
29466.7	878.3	29732.1	877.6	30084	878.4	30381.1	878.5	30617.5	878.8
30884.3	879.5	31072.5	879	31092.1	881.7	31131.6	880.8	31141.6	878.9
31153	880.2	31424.7	881.4	31491.7	880.4	31818.7	882.7	31940.5	883.1
32167.5	883.6	32300	885.2						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18305.7	.032	18391.2	.032	19137.4	.027	20645.3	.065	23324	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18391.2	22560	470	448.35	180	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
24559.6	32300	888

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	879.75	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.40	Wt. n-Val.	0.032	0.042	0.046
E.G. Elev (ft)	880.15	Reach Len. (ft)	470.00	448.35	180.00
Crit W.S. (ft)	874.85	Flow Area (sq ft)	165.26	35621.71	10250.50
E.G. Slope (ft/ft)	0.001145	Area (sq ft)	165.26	35621.71	15662.88
Q Total (cfs)	227000.00	Flow (cfs)	619.91	188517.06	37863.04
Top Width (ft)	10705.54	Top Width (ft)	43.30	4168.80	6493.45
Vel Total (ft/s)	4.93	Avg. Vel. (ft/s)	3.75	5.29	3.69

Max Chl Dpth (ft)	13.75	Hydr. Depth (ft)	3.82	8.54	5.40
Conv. Total (cfs)	6708139.0	Conv. (cfs)	18319.2	5570919.0	1118901.0
Length Wtd. (ft)	399.35	Wetted Per. (ft)	44.80	4170.33	1902.13
Min Ch El (ft)	866.80	Shear (lb/sq ft)	0.26	0.61	0.39
Alpha	1.05	Stream Power (lb/ft s)	0.99	3.23	1.42
Frctn Loss (ft)	0.43	Cum Volume (acre-ft)	3973.98	43254.82	16753.25
C & E Loss (ft)	0.01	Cum SA (acres)	1000.49	4683.70	4738.62

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	880.52	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.40	Wt. n-Val.	0.032	0.041	0.064
E.G. Elev (ft)	880.92	Reach Len. (ft)	470.00	448.35	180.00
Crit W.S. (ft)	874.77	Flow Area (sq ft)	196.38	38824.90	7137.05
E.G. Slope (ft/ft)	0.001003	Area (sq ft)	196.38	38824.90	7137.05
Q Total (cfs)	227000.00	Flow (cfs)	783.90	203340.28	22875.82
Top Width (ft)	5000.00	Top Width (ft)	41.20	4168.80	790.00
Vel Total (ft/s)	4.92	Avg. Vel. (ft/s)	3.99	5.24	3.21
Max Chl Dpth (ft)	14.52	Hydr. Depth (ft)	4.77	9.31	9.03
Conv. Total (cfs)	7166541.0	Conv. (cfs)	24748.3	6419588.0	722204.9
Length Wtd. (ft)	418.30	Wetted Per. (ft)	43.92	4170.33	799.09
Min Ch El (ft)	866.80	Shear (lb/sq ft)	0.28	0.58	0.56
Alpha	1.06	Stream Power (lb/ft s)	1.12	3.05	1.79
Frctn Loss (ft)	0.41	Cum Volume (acre-ft)	426.42	45361.93	8309.93
C & E Loss (ft)	0.01	Cum SA (acres)	71.26	4689.41	1278.03

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18345.60	18351.30	1.06	1.40	3.50	0.00	0.41	0.76
18351.30	18357.00	15.60	8.65	5.87	0.01	1.52	1.80
18357.00	18362.70	45.95	16.54	5.86	0.02	2.90	2.78
18362.70	18368.40	88.03	24.43	5.86	0.04	4.29	3.60
18368.40	18374.10	140.40	32.33	5.87	0.06	5.67	4.34
18374.10	18379.80	170.45	36.46	5.93	0.08	6.40	4.67
18379.80	18385.50	107.20	27.67	5.96	0.05	4.85	3.87
18385.50	18391.20	51.23	17.77	5.96	0.02	3.12	2.88
18391.20 LB	19433.40	15428.40	3864.34	1042.53	6.80	3.71	3.99
19433.40	20475.60	83546.85	10093.61	1042.34	36.80	9.68	8.28
20475.60	21517.80	48451.84	10493.20	1043.02	21.34	10.07	4.62
21517.80	22560.00 RB	41089.96	11170.57	1042.44	18.10	10.72	3.68
22560.00	23209.33	17571.88	5615.68	652.35	7.74	8.65	3.13
23209.33	23858.67	16003.10	3321.22	649.41	7.05	5.11	4.82
23858.67	24508.00	4288.04	1313.59	600.37	1.89	2.19	3.26

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18345.60	18351.30	2.01	1.86	2.61	0.00	1.44	1.08
18351.30	18357.00	29.99	13.03	5.87	0.01	2.29	2.30
18357.00	18362.70	66.01	20.92	5.86	0.03	3.67	3.16
18362.70	18368.40	112.53	28.81	5.86	0.05	5.05	3.91
18368.40	18374.10	168.52	36.71	5.87	0.07	6.44	4.59
18374.10	18379.80	199.98	40.84	5.93	0.09	7.17	4.90
18379.80	18385.50	133.01	32.05	5.96	0.06	5.62	4.15
18385.50	18391.20	71.83	22.14	5.96	0.03	3.89	3.24
18391.20 LB	19433.40	19703.44	4665.14	1042.53	8.68	4.48	4.22
19433.40	20475.60	89122.05	10894.40	1042.34	39.26	10.45	8.18
20475.60	21517.80	51199.33	11294.00	1043.02	22.55	10.84	4.53
21517.80	22560.00 RB	43315.47	11971.36	1042.44	19.08	11.49	3.62
22560.00	23209.33	19629.21	6114.61	652.35	8.65	9.42	3.21
23209.33	23858.67	3246.61	1022.44	146.74	1.43	7.27	3.18

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 189.31

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18205.1	894.8	18268	894.8	18293.9	889.8	18309.2	884.8	18330.5	884.8
18345.35	881.0031	18387.6	870.2	18389.8	872.6	18505	874.4	18520.5	872
18671.1	876.7	18702.5	873.4	18735.3	876.8	18768.7	873.5	18831.4	877.2
19162.5	877.4	19352.8	875.7	19385	870.2	19456.4	871.4	19478.5	868.7
19569.8	875.5	19629.7	868	19665	872.3	19700	872.9	19746.5	867.6
19868.7	870	19959.6	868.6	20540.9	865.8	20562.2	871.2	20639.4	872.4
20735.5	872	20847	867.9	20893.4	872.5	20954.5	868.7	20994.7	870.3
21033.8	867.1	21065.1	869.6	21376	866.3	21480.2	869.2	21536.5	866.6
21578.7	870.7	21880	868.6	22026	868.4	22065.3	869.8	22084.4	868.1
22409.6	868.1	22500	867.7777	22521.8	867.7	22586.6	874	22600.6	868.4
22657	876	22681.6	870.3	22931.6	870.5	23060.1	867.3	23088.1	868.3
23105	877.5	23127.5	871.6	23217.3	872.6	23243.2	881.5	23253.5	881.8
23289.9	872	23620.1	872.9	24002.9	876.1	24041.3	876.2	24342.9	878.4
24694.5	877.6	24773.7	883.2	24778.8	877.5	24791.9	878.6	24804.5	883.1
25172.4	881	25500.8	879.9	25925	878.8	26077.8	879.5	26097.6	877.9
26447.7	878.8	26855.2	879.3	27171.2	880.4	27655.9	880.2	28045.9	879.1
28380.7	878.2	28687	879	28697.5	879.2	28705.6	875.7	29167.6	877
29557.4	877.1	29865.6	878	30003.2	880.1	30086.2	877.4	30432	877.8
30733.1	879.2	31095	879.6	31351.3	882.6	31370.9	879.3	31390.4	879.2
31396	880.8	31944.6	882.8	32341	885.6				

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18205.1	.15	18330.5	.15	18671.1	.032	19569.8	.027	20639.4	.065
23105	.05	23253.5	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18345.35	22500	500	485.98	210	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
24773.5	32341	893

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	879.34	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.36	Wt. n-Val.		0.043	0.042
E.G. Elev (ft)	879.70	Reach Len. (ft)	500.00	485.98	210.00
Crit W.S. (ft)	874.19	Flow Area (sq ft)		36256.04	11770.93
E.G. Slope (ft/ft)	0.001026	Area (sq ft)		36256.04	16664.30
Q Total (cfs)	227000.00	Flow (cfs)		181914.66	45085.35
Top Width (ft)	10326.02	Top Width (ft)		4148.16	6177.86
Vel Total (ft/s)	4.73	Avg. Vel. (ft/s)		5.02	3.83
Max Chl Dpth (ft)	13.54	Hydr. Depth (ft)		8.74	5.37
Conv. Total (cfs)	7088266.0	Conv. (cfs)		5680438.0	1407828.0
Length Wtd. (ft)	427.89	Wetted Per. (ft)		4155.03	2201.36
Min Ch El (ft)	865.80	Shear (lb/sq ft)		0.56	0.34
Alpha	1.03	Stream Power (lb/ft s)		2.80	1.31
Frctn Loss (ft)	0.44	Cum Volume (acre-ft)	3973.09	42884.91	16686.46
C & E Loss (ft)	0.01	Cum SA (acres)	1000.26	4640.90	4712.44

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	880.13	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.37	Wt. n-Val.		0.043	0.055
E.G. Elev (ft)	880.50	Reach Len. (ft)	500.00	485.98	210.00
Crit W.S. (ft)	874.13	Flow Area (sq ft)		39528.13	7812.46
E.G. Slope (ft/ft)	0.000937	Area (sq ft)		39528.13	7812.46
Q Total (cfs)	227000.00	Flow (cfs)		198966.47	28033.53
Top Width (ft)	5020.77	Top Width (ft)		4151.24	869.52
Vel Total (ft/s)	4.80	Avg. Vel. (ft/s)		5.03	3.59
Max Chl Dpth (ft)	14.33	Hydr. Depth (ft)		9.52	8.98
Conv. Total (cfs)	7414922.0	Conv. (cfs)		6499211.0	915711.0
Length Wtd. (ft)	454.55	Wetted Per. (ft)		4158.21	885.43
Min Ch El (ft)	865.80	Shear (lb/sq ft)		0.56	0.52
Alpha	1.04	Stream Power (lb/ft s)		2.80	1.85
Frctn Loss (ft)	0.45	Cum Volume (acre-ft)	425.36	44958.70	8279.04
C & E Loss (ft)	0.00	Cum SA (acres)	71.04	4646.59	1274.60

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18345.35 LB	19384.01	7814.65	3771.21	1035.73	3.44	3.65	2.07
19384.01	20422.68	86039.55	10617.08	1040.18	37.90	10.22	8.10
20422.68	21461.34	49140.48	10783.42	1040.08	21.65	10.38	4.56
21461.34	22500.00 RB	38920.02	11084.34	1039.04	17.15	10.67	3.51
22500.00	23156.07	16909.22	5807.28	661.77	7.45	8.85	2.91
23156.07	23812.13	22067.56	3959.74	632.48	9.72	6.28	5.57
23812.13	24468.20	5315.73	1646.05	656.08	2.34	2.51	3.23
24468.20	25124.27	792.79	357.85	251.03	0.35	1.43	2.22

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18345.35 LB	19384.01	10795.12	4586.30	1038.91	4.76	4.43	2.35
19384.01	20422.68	93120.63	11436.08	1040.18	41.02	11.01	8.14
20422.68	21461.34	53078.11	11602.42	1040.08	23.38	11.17	4.57
21461.34	22500.00 RB	41972.59	11903.34	1039.04	18.49	11.46	3.53
22500.00	23156.07	20281.29	6324.60	661.77	8.93	9.64	3.21
23156.07	23812.13	7752.23	1487.86	223.65	3.42	6.97	5.21

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 189.22

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18203.8	896.5	18262.5	897.3	18262.8	894.9	18270.2	889.3	18281.1	884.8
18287.72	880.5897	18300.6	872.4	18388.9	872.9	18413.6	869.5	18629.5	874.3
18714.6	871.8	18900.4	877	19247.5	877.5	19270.8	874.8	19483.3	876.4
19568.7	872.2	19602.1	867.8	19808.2	870.9	19834.4	867	20309.9	864.9
20425.6	864.7	20449.3	874	20494.6	876.3	20513.9	869.4	20593.9	873.6
20808.9	867	20882.2	870.5	20956.9	866.8	21021.4	869	21181.3	868.2
21235.4	866.1	21318.8	866.3	21354.3	868.3	21790.1	867.7	21926	869.9
21943	868	22128.8	868.9	22398.6	867.4	22415.2	873.3	22440	869.5208
22446.7	868.5	22582.6	868.9	22617.2	871.8	22747.3	872.4	22760.3	869.8
22815	876.9	22892	872.7	22973.6	873.4	22981.5	874.9	23026.1	870.9
23098.5	873.5	23115.3	886	23131.7	887.1	23144	890.6	23160.4	878.3
23170.5	874	23428.1	871.5	23470.9	872.6	23493.1	880.6	23512.2	876.4
23514.4	872.4	23606.1	872.3	23959.8	872.3	24262.7	875.2	24613.2	876
24969.5	879.5	24994.1	882.3	25001.7	877.4	25015.6	878	25025.5	882.5
25523.6	880.7	25963.3	878.8	26307.4	879.5	26322.8	876.3	26810.2	879.2
27317.6	880.5	27552.3	879.8	27613.6	882.9	27661.4	880.6	28074.6	879.8
28691.5	878.4	28928.1	879.3	28938.6	875.3	28949.4	878.9	29012.2	877.2
29450.4	877.5	29891.5	877.9	30195.5	877.2	30227	878.7	30237.3	880.6
30265.5	878.2	30622.3	878.5	30992.3	879.5	31486.3	878.7	31582	882.9
31655.2	879.8	32159.1	884.7	32292	885.5				

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18203.8	.15	18281.1	.15	18629.5	.032	19483.3	.027	20494.6	.065
22815	.051	23493.1	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18287.72	22440	505	510.45	180	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
24994	32292	895

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	878.92	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.34	Wt. n-Val.		0.044	0.038
E.G. Elev (ft)	879.26	Reach Len. (ft)	505.00	510.45	180.00

Crit W.S. (ft)	874.02	Flow Area (sq ft)		36129.87	12748.44
E.G. Slope (ft/ft)	0.001017	Area (sq ft)		36129.87	15475.44
Q Total (cfs)	227000.00	Flow (cfs)		176501.23	50498.77
Top Width (ft)	9433.04	Top Width (ft)		4149.65	5283.39
Vel Total (ft/s)	4.64	Avg. Vel. (ft/s)		4.89	3.96
Max Chl Dpth (ft)	14.22	Hydr. Depth (ft)		8.71	5.30
Conv. Total (cfs)	7119028.0	Conv. (cfs)		5535318.0	1583709.8
Length Wtd. (ft)	440.23	Wetted Per. (ft)		4157.79	2412.22
Min Ch El (ft)	864.70	Shear (lb/sq ft)		0.55	0.34
Alpha	1.02	Stream Power (lb/ft s)		2.69	1.33
Frctn Loss (ft)	0.45	Cum Volume (acre-ft)	3973.09	42481.13	16608.99
C & E Loss (ft)	0.00	Cum SA (acres)	1000.26	4594.61	4684.81

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	879.66	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.39	Wt. n-Val.		0.044	0.057
E.G. Elev (ft)	880.05	Reach Len. (ft)	505.00	510.45	180.00
Crit W.S. (ft)	873.95	Flow Area (sq ft)		39201.50	7337.05
E.G. Slope (ft/ft)	0.001050	Area (sq ft)		39201.50	7337.05
Q Total (cfs)	227000.00	Flow (cfs)		203323.70	23676.29
Top Width (ft)	5139.00	Top Width (ft)		4150.81	988.19
Vel Total (ft/s)	4.88	Avg. Vel. (ft/s)		5.19	3.23
Max Chl Dpth (ft)	14.96	Hydr. Depth (ft)		9.44	7.42
Conv. Total (cfs)	7006164.0	Conv. (cfs)		6275415.0	730748.8
Length Wtd. (ft)	475.68	Wetted Per. (ft)		4159.17	997.34
Min Ch El (ft)	864.70	Shear (lb/sq ft)		0.62	0.48
Alpha	1.06	Stream Power (lb/ft s)		3.20	1.56
Frctn Loss (ft)	0.49	Cum Volume (acre-ft)	425.36	44519.52	8242.53
C & E Loss (ft)	0.00	Cum SA (acres)	71.04	4600.28	1270.13

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18287.72 LB	19325.79	9567.51	4490.06	1037.89	4.21	4.34	2.13
19325.79	20363.86	87883.66	10340.59	1038.78	38.72	9.96	8.50
20363.86	21401.93	40590.26	10325.35	1041.61	17.88	9.95	3.93
21401.93	22440.00 RB	38459.77	10973.85	1039.50	16.94	10.57	3.50
22440.00	23096.80	12910.36	4623.81	658.20	5.69	7.04	2.79
23096.80	23753.60	15543.71	3598.23	597.33	6.85	6.09	4.32
23753.60	24410.40	18830.62	3454.30	656.82	8.30	5.26	5.45
24410.40	25067.20	3214.11	1072.12	499.87	1.42	2.14	3.00

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18287.72 LB	19325.79	13199.24	5256.83	1039.27	5.81	5.07	2.51
19325.79	20363.86	99867.07	11108.88	1038.78	43.99	10.70	8.99
20363.86	21401.93	46507.36	11093.64	1041.61	20.49	10.69	4.19
21401.93	22440.00 RB	43750.03	11742.14	1039.50	19.27	11.31	3.73
22440.00	23096.80	16267.98	5109.91	658.20	7.17	7.78	3.18
23096.80	23753.60	7408.31	2227.14	339.14	3.26	6.72	3.33

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 189.12

INPUT
Description: Right Bank Channel Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18160.7	895.1	18162.7	889.9	18174.4	880	18187.8	874.9	18308.9	869.7
18472.2	872.4	18497.7	870.4	18540.8	874.8	18677.8	876.5	18939.6	873.2

19108.4	876.9	19296.9	874	19514.5	876.7	19554.4	875.7	19626.6	868.7
19909.9	866.7	20424.7	863.1	20477	873.1	20509.1	865.8	20647.1	868.5
20669.6	865.8	20718.7	869.4	20753.4	866.6	20781.5	872	20817.5	870.3
20845.1	866.8	21074.9	866.4	21119.5	868.3	21158.6	866	21462.3	867.7
21721.5	868	21799.2	869.2	22077.8	869.1	22309.4	869.5	22370	870.2521
22535	872.3	22593.2	868.8	22635	873.4	22864.5	872.2	23094.9	872.5
23333.2	873.5	23484.2	873.5	23501.4	882.7	23536.3	882.8	23549.2	872.6
23790	872.6	24028.2	872.9	24199.9	872.4	24494.2	875.8	24839.7	877.6
25139.7	877.6	25234.2	881.9	25238.7	877.2	25252.5	877.9	25262.7	882.6
25484.9	881.5	25582.5	881.6	25856.8	880.7	25918.8	880.6	26223.3	879.2
26456.9	877.8	26552.4	881.1	26568.8	876	26866.6	878.6	26983	878.7
27253	879	27416.8	879.4	27688.2	880.5	27858.5	882.3	27935.5	881.1
28178.2	880.1	28340.9	879.5	28574.9	878.8	28597.5	878.7	28872.5	879
29100.6	878.1	29159.7	877.9	29174.7	879.6	29183.4	875.2	29195.5	878.9
29299.4	877.2	29606.6	877.8	29965.4	877.3	30205.1	877.2	30383.7	878.3
30481.3	880.8	30504.4	877.5	30761.5	879.1	31055.7	878.1	31242	879.3
31489.9	879.7	31733.5	879.4	31829.4	882.8	31868.6	879.5	32001.8	882.4
32195.3	881.7	32424	884.1						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18160.7	.15	18174.4	.15	18540.8	.032	19514.5	.027	20477	.065
22635	.052	23536.3	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18174.4	22370	575	514.2	130	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
25234	32424	893

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	878.47	Element			
Vel Head (ft)	0.35	Wt. n-Val.		0.044	0.038
E.G. Elev (ft)	878.81	Reach Len. (ft)	575.00	514.20	130.00
Crit W.S. (ft)	873.73	Flow Area (sq ft)		36426.63	12696.13
E.G. Slope (ft/ft)	0.001015	Area (sq ft)		36426.63	14386.89
Q Total (cfs)	227000.00	Flow (cfs)		181044.33	45955.68
Top Width (ft)	9037.03	Top Width (ft)		4191.57	4845.46
Vel Total (ft/s)	4.62	Avg. Vel. (ft/s)		4.97	3.62
Max Chl Dpth (ft)	15.37	Hydr. Depth (ft)		8.69	4.63
Conv. Total (cfs)	7124486.0	Conv. (cfs)		5682149.0	1442337.3
Length Wtd. (ft)	444.83	Wetted Per. (ft)		4196.24	2744.13
Min Ch El (ft)	863.10	Shear (lb/sq ft)		0.55	0.29
Alpha	1.05	Stream Power (lb/ft s)		2.73	1.06
Frctn Loss (ft)	0.44	Cum Volume (acre-ft)	3973.09	42056.00	16547.29
C & E Loss (ft)	0.00	Cum SA (acres)	1000.26	4545.74	4663.88

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	879.17	Element			
Vel Head (ft)	0.38	Wt. n-Val.		0.044	0.054
E.G. Elev (ft)	879.56	Reach Len. (ft)	575.00	514.20	130.00
Crit W.S. (ft)	873.51	Flow Area (sq ft)		39398.02	7765.89
E.G. Slope (ft/ft)	0.001006	Area (sq ft)		39398.02	7765.89
Q Total (cfs)	227000.00	Flow (cfs)		202909.81	24090.19
Top Width (ft)	5357.35	Top Width (ft)		4193.43	1163.92
Vel Total (ft/s)	4.81	Avg. Vel. (ft/s)		5.15	3.10
Max Chl Dpth (ft)	16.07	Hydr. Depth (ft)		9.40	6.67
Conv. Total (cfs)	7157425.0	Conv. (cfs)		6397849.0	759575.8
Length Wtd. (ft)	476.88	Wetted Per. (ft)		4198.24	1174.58
Min Ch El (ft)	863.10	Shear (lb/sq ft)		0.59	0.42
Alpha	1.07	Stream Power (lb/ft s)		3.04	1.29
Frctn Loss (ft)	0.45	Cum Volume (acre-ft)	425.36	44058.99	8211.32
C & E Loss (ft)	0.00	Cum SA (acres)	71.04	4551.39	1265.68

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)

18174.40 LB	19223.30	9695.55	4597.50	1046.05	4.27	4.40	2.11
19223.30	20272.20	74880.02	9279.14	1049.29	32.99	8.85	8.07
20272.20	21321.10	62004.67	12217.44	1051.99	27.31	11.65	5.08
21321.10	22370.00 RB	34464.09	10332.55	1048.92	15.18	9.85	3.34
22370.00	23040.27	11332.23	4336.22	670.64	4.99	6.47	2.61
23040.27	23710.53	11348.81	3371.19	625.25	5.00	5.42	3.37
23710.53	24380.80	20228.15	3734.29	670.28	8.91	5.57	5.42
24380.80	25051.07	2921.47	1169.48	670.28	1.29	1.74	2.50
25051.07	25721.33	125.01	84.95	107.67	0.06	0.79	1.47

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18174.40 LB	19223.30	12895.00	5338.70	1048.04	5.68	5.10	2.42
19223.30	20272.20	83622.77	10022.54	1049.29	36.84	9.56	8.34
20272.20	21321.10	67857.53	12960.84	1051.99	29.89	12.36	5.24
21321.10	22370.00 RB	38534.53	11075.95	1048.92	16.98	10.56	3.48
22370.00	23040.27	14735.44	4811.26	670.64	6.49	7.18	3.06
23040.27	23710.53	9354.74	2954.63	503.94	4.12	5.99	3.17

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 189.02

INPUT
Description: Right Bank Channel Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17401.1	885	17440	888.4	17828.4	877	18179.1	872.7	18308.8	870.9
18347.3	868.7	18416.1	874.3	18499.5	873.3	18526.3	870.7	18620.6	868.7
18682.8	875.8	18778.2	876.8	18889.8	872.8	19002.2	874	19377.6	873.2
19523.7	874.6	19560.1	867.8	19836.9	864.4	19843.4	865.6	20424.3	863.7
20486.9	863.4	20519.7	874.3	20701.5	868.5	20736.1	865.9	20783.4	870.9
20861.1	866.1	20896.8	870.5	20908.7	867.2	20978.1	865.2	21046.2	869.7
21086.3	869.7	21119.2	865.6	21281.8	864.7	21338.5	867.4	21548.5	866.7
21580.7	869.3	21862.2	869.3	21910.4	871.2	21965.2	868.4	22002.1	870.6
22272.4	869.5	22310	869.7567	22624	871.9	22812.7	872.8	22826	878.2
22830.9	876.6	22843	877	22865.7	872.2	23256.1	872.8	23655.7	873.8
23683.6	873.2	23726.2	895.2	23766	901.3	23783.3	892.7	23810.1	871.9
23824	873.8	23832.6	877.3	23866.9	877	23878.8	873.7	24322.5	872.6
24417	872.1	24720.7	876	25133.6	877.3	25422.6	880.6	25436.4	882.3
25443.6	877.1	25456.8	878.8	25465.6	882.7	26053.6	880.4	26482.5	879.8
26760.3	880.9	26780.5	877.2	27165.8	877.9	27784.4	878.8	28040.9	881.7
28052.6	880.8	28061.7	882.3	28079.6	879.7	28655	879.9	29039.1	877.9
29367.8	878.1	29380.6	879.6	29391	875.5	29403.1	878.4	29414.1	876.8
29839.9	877.1	30319.8	877	30596.6	877.7	30645	876.8	30684.9	878.5
30689	880.7	30709	877.6	31225.3	878.8	31715.5	880	31972	880
32040	882	32418.3	882.4						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17401.1	.15	17828.4	.15	18416.1	.032	19523.7	.027	20519.7	.065
22826	.065	23766	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17828.4	22310	1300	1100.05	460	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17401.1	17828.4	898	25435	32418.3	898

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	878.00	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.37	Wt. n-Val.		0.040	0.044
E.G. Elev (ft)	878.37	Reach Len. (ft)	1300.00	1100.05	460.00
Crit W.S. (ft)	873.76	Flow Area (sq ft)		37086.14	12273.78
E.G. Slope (ft/ft)	0.000958	Area (sq ft)	17.19	37086.14	13672.02
Q Total (cfs)	227000.00	Flow (cfs)		190934.95	36065.06
Top Width (ft)	9413.65	Top Width (ft)	34.23	4481.60	4897.82
Vel Total (ft/s)	4.60	Avg. Vel. (ft/s)		5.15	2.94

Max Chl Dpth (ft)	14.60	Hydr. Depth (ft)		8.28	4.42
Conv. Total (cfs)	7334100.0	Conv. (cfs)		6168881.0	1165219.3
Length Wtd. (ft)	999.28	Wetted Per. (ft)		4487.21	2781.22
Min Ch El (ft)	863.40	Shear (lb/sq ft)		0.49	0.26
Alpha	1.12	Stream Power (lb/ft s)		2.54	0.78
Frctn Loss (ft)	0.75	Cum Volume (acre-ft)	3972.98	41622.12	16505.42
C & E Loss (ft)	0.03	Cum SA (acres)	1000.03	4494.55	4649.34

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	878.73	Element			
Vel Head (ft)	0.38	Wt. n-Val.		0.040	0.065
E.G. Elev (ft)	879.11	Reach Len. (ft)	1300.00	1100.05	460.00
Crit W.S. (ft)	873.51	Flow Area (sq ft)		40323.97	8625.14
E.G. Slope (ft/ft)	0.000886	Area (sq ft)		40323.97	8625.14
Q Total (cfs)	227000.00	Flow (cfs)		206995.83	20004.18
Top Width (ft)	5865.90	Top Width (ft)		4481.60	1384.30
Vel Total (ft/s)	4.64	Avg. Vel. (ft/s)		5.13	2.32
Max Chl Dpth (ft)	15.33	Hydr. Depth (ft)		9.00	6.23
Conv. Total (cfs)	7627470.0	Conv. (cfs)		6955306.0	672164.1
Length Wtd. (ft)	1033.65	Wetted Per. (ft)		4488.93	1387.48
Min Ch El (ft)	863.40	Shear (lb/sq ft)		0.50	0.34
Alpha	1.14	Stream Power (lb/ft s)		2.55	0.80
Frctn Loss (ft)	0.68	Cum Volume (acre-ft)	425.36	43588.46	8186.86
C & E Loss (ft)	0.03	Cum SA (acres)	71.04	4500.19	1261.88

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17828.40 LB	18948.80	12041.78	5135.88	1121.37	5.30	4.58	2.34
18948.80	20069.20	67255.38	8994.02	1121.17	29.63	8.03	7.48
20069.20	21189.60	78367.91	12399.96	1123.92	34.52	11.07	6.32
21189.60	22310.00 RB	33269.91	10556.27	1120.75	14.66	9.42	3.15
22310.00	22983.89	9390.30	4123.91	674.57	4.14	6.13	2.28
22983.89	23657.77	6686.75	3362.46	673.89	2.95	4.99	1.99
23657.77	24331.66	11674.60	2520.67	569.09	5.14	4.46	4.63
24331.66	25005.55	8116.28	2128.94	673.91	3.58	3.16	3.81
25005.55	25679.43	197.10	137.79	189.77	0.09	0.73	1.43

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17828.40 LB	18948.80	14757.27	5945.34	1123.09	6.50	5.31	2.48
18948.80	20069.20	73072.34	9803.48	1121.17	32.19	8.75	7.45
20069.20	21189.60	82977.81	13209.42	1123.92	36.55	11.79	6.28
21189.60	22310.00 RB	36188.41	11365.73	1120.75	15.94	10.14	3.18
22310.00	22983.89	11313.70	4610.67	675.71	4.98	6.84	2.45
22983.89	23657.77	8389.84	3849.32	673.89	3.70	5.71	2.18
23657.77	24331.66	300.63	165.15	37.88	0.13	4.52	1.82

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 188.81

INPUT
Description: Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17608.2	891.5	17639.8	878.6	17654.8	881.2	17697.3	875.2	17702.3	872.7
17733	870.1	17813.1	867.5	17934.9	872.3	18194.5	870.5	18426.1	866.8
18544.3	869.8	18668.4	869.8	18746.6	872.9	19031.9	872	19319.1	869.4
19379.1	870.6	19401.2	863.5	19426.1	866.6	19462.5	864.1	19823	865.1
19978.3	865.1	20008.6	863.5	20125.9	866	20341.1	865.1	20660.9	864
20682.6	869.3	20741.6	868.4	20795.4	865.2	21030.7	866	21057.6	863.6
21353.3	865.8	21656.2	865.4	21730.6	869.4	21960	868.6	22008.1	866.6
22162.1	873.6	22204.58	878.9711	22223	881.3	22343.7	878.6	22432.4	872.8
22641.3	872.6	22914.7	872.5	23155.9	873	23172.6	876	23243	873.3

23587.3	873.3	23837.4	874.1	24282.2	873.7	24536.2	872.8	24743.8	874.3
24806.1	872.7	24922.5	875.2	25296.7	877.4	25558.2	876.8	25807.3	877.4
25819	878.1	25830.2	881.8	25841.3	882.3	25846.2	875.9	25862.7	877.9
25874	882.3	25889.2	882.7	25923.7	878.8	26072.6	879.5	26256.1	876.9
26563.8	877.8	26904.7	878.2	27116.1	877.6	27180.1	880.5	27260.9	878.1
27513.2	878.5	27754.2	877.4	27831.3	880.5	27871.8	878.4	28176.9	879
28253.7	879.2	28283.2	881.9	28297.9	877.7	28559.1	878.5	28822.1	879.3
29204.4	878.5	29481.1	878.3	29748.8	877.1	29791.3	877.9	29807.1	872.6
29827.3	877.7	30107.2	877.2	30405.5	877.3	30713.8	878.6	30970.4	878.3
31125.4	878.4	31389.6	877.9	31661.5	880	31941.8	881.1	32243	881.8
32508.2	884.5	32593	883.6						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17608.2	.15	17654.8	.15	18194.5	.032	19379.1	.028	20682.6	.065
22223	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17654.8	22204.58	790	612.89	215	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
25840	32593	890

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	877.31	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.28	Wt. n-Val.		0.039	0.025
E.G. Elev (ft)	877.60	Reach Len. (ft)	790.00	612.89	215.00
Crit W.S. (ft)	871.66	Flow Area (sq ft)		43407.06	10498.00
E.G. Slope (ft/ft)	0.000604	Area (sq ft)		43407.06	10648.70
Q Total (cfs)	227000.00	Flow (cfs)		191594.31	35405.68
Top Width (ft)	8506.56	Top Width (ft)		4509.15	3997.41
Vel Total (ft/s)	4.21	Avg. Vel. (ft/s)		4.41	3.37
Max Chl Dpth (ft)	13.81	Hydr. Depth (ft)		9.63	3.13
Conv. Total (cfs)	9240298.0	Conv. (cfs)		7799068.5	1441229.1
Length Wtd. (ft)	545.65	Wetted Per. (ft)		4513.16	3356.85
Min Ch El (ft)	863.50	Shear (lb/sq ft)		0.36	0.12
Alpha	1.03	Stream Power (lb/ft s)		1.60	0.40
Frctn Loss (ft)	0.40	Cum Volume (acre-ft)	3972.72	40605.74	16377.01
C & E Loss (ft)	0.00	Cum SA (acres)	999.52	4381.02	4602.38

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	878.12	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.27	Wt. n-Val.		0.039	0.025
E.G. Elev (ft)	878.39	Reach Len. (ft)	790.00	612.89	215.00
Crit W.S. (ft)	871.66	Flow Area (sq ft)		47033.20	6996.60
E.G. Slope (ft/ft)	0.000513	Area (sq ft)		47033.20	6996.60
Q Total (cfs)	227000.00	Flow (cfs)		199903.59	27096.41
Top Width (ft)	5950.11	Top Width (ft)		4521.19	1428.92
Vel Total (ft/s)	4.20	Avg. Vel. (ft/s)		4.25	3.87
Max Chl Dpth (ft)	14.62	Hydr. Depth (ft)		10.40	4.90
Conv. Total (cfs)	10023656.0	Conv. (cfs)		8827158.0	1196498.3
Length Wtd. (ft)	563.62	Wetted Per. (ft)		4525.31	1433.62
Min Ch El (ft)	863.50	Shear (lb/sq ft)		0.33	0.16
Alpha	1.00	Stream Power (lb/ft s)		1.41	0.61
Frctn Loss (ft)	0.35	Cum Volume (acre-ft)	425.36	42485.41	8104.38
C & E Loss (ft)	0.01	Cum SA (acres)	71.04	4386.51	1247.02

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17654.80 LB	18792.25	23795.66	8010.39	1111.04	10.48	7.22	2.97
18792.25	19929.69	61065.86	10375.78	1138.86	26.90	9.12	5.89
19929.69	21067.13	76696.65	13595.36	1138.36	33.79	11.95	5.64
21067.13	22204.58 RB	30036.12	11425.53	1124.89	13.23	10.16	2.63
22204.58	22897.14	8761.01	2337.80	533.92	3.86	4.38	3.75
22897.14	23589.70	10016.00	2811.66	692.88	4.41	4.06	3.56
23589.70	24282.26	7766.03	2413.15	692.56	3.42	3.48	3.22

24282.26	24974.83	8487.39	2545.33	692.62	3.74	3.68	3.33
24974.83	25667.39	370.67	376.97	640.57	0.16	0.59	0.98
25667.39	26359.95	4.60	13.10	104.29	0.00	0.13	0.35

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17654.80 LB	18792.25	25899.37	8904.05	1116.79	11.41	7.98	2.91
18792.25	19929.69	63993.75	11289.26	1138.86	28.19	9.93	5.67
19929.69	21067.13	78679.20	14508.84	1138.36	34.66	12.76	5.42
21067.13	22204.58 RB	31331.28	12331.04	1131.30	13.80	10.91	2.54
22204.58	22897.14	11003.08	2771.41	546.23	4.85	5.08	3.97
22897.14	23589.70	12994.18	3367.85	692.88	5.72	4.86	3.86
23589.70	24282.26	3099.16	857.34	194.50	1.37	4.51	3.61

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 188.7

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17683.7	893.1	17693.2	888.3	17700.9	880.6	17705.1	2878.5	009 17721.2	870.5
17735.2	867.2	17748.4	869.7	17957.6	867.1	18031.3	869.2	18100.9	868.2
18185.6	872.6	18385.6	871.2	18512.9	867.5	18709.4	872.3	18782.6	868.9
18885.3	871.3	19088.7	869.2	19273.4	867.9	19306.9	864.2	19571.2	864.8
19773.6	866.1	19907.1	869.1	20104.1	863.8	20163.3	866.1	20447.1	865
20594	867.5	20617.2	863.3	20628.2	865.7	20682.9	869.8	20832.2	870.5
20958.3	868.3	21006.4	864.4	21234.8	865.2	21401.8	867.4	21606.6	868
21818.8	868.4	21886.1	866.7	21960.7	873.9	21978.2	871.3	22006.9	873.5
22041.4	8878.5	004 22056	880.6	22138.2	879.2	22161.2	874.1	22456.1	873.1
22682.4	873.1	22989.4	872.9	23206.5	872.7	23301.5	873	23331.2	875.2
23574.2	873.9	23798.1	873.7	24013.4	873.2	24226.3	873	24437.5	872.8
24662	872.9	24899.4	872	25108.7	876.4	25180	876.8	25409.7	875.5
25722.9	876.1	25925	878.2	25952.7	880.9	25958.2	875.8	25969.6	876.3
25981.4	882.3	26077.1	879	26372.1	878.5	26614.3	879.2	26834.7	878
27100.6	878.5	27314.7	880.1	27406.5	878.4	27641.1	878.1	27898.9	877.8
28126.6	878.8	28336.4	878.6	28541.6	878.3	28686.2	876.6	28702.3	878.1
28929.8	878.3	29145.6	877.8	29473.8	876.8	29678.2	876.5	29883.8	877.2
29939.7	877.1	29954.5	871.6	29970.2	877.3	30303.7	876.3	30573.4	877.1
30847.9	877.2	31112.6	877.5	31427.7	878.2	31637.4	879.2	31922.5	880.6
32125.6	881.4	32373.3	881.8	32454	882.6				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17683.7	.15	17693.2	.15	18385.6	.043	19273.4	.028	20594	.065
22056	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17705.1	22041.48	635	542.71	410	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
25950	32454	890

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	876.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.33	Wt. n-Val.		0.041	0.025
E.G. Elev (ft)	877.19	Reach Len. (ft)	635.00	542.71	410.00
Crit W.S. (ft)	872.20	Flow Area (sq ft)		38780.74	11027.14
E.G. Slope (ft/ft)	0.000909	Area (sq ft)		38780.74	11284.73
Q Total (cfs)	227000.00	Flow (cfs)		185684.73	41315.27
Top Width (ft)	8743.87	Top Width (ft)		4321.73	4422.14
Vel Total (ft/s)	4.56	Avg. Vel. (ft/s)		4.79	3.75
Max Chl Dpth (ft)	13.56	Hydr. Depth (ft)		8.97	3.02
Conv. Total (cfs)	7528596.5	Conv. (cfs)		6158350.0	1370246.6
Length Wtd. (ft)	518.52	Wetted Per. (ft)		4326.51	3647.89
Min Ch El (ft)	863.30	Shear (lb/sq ft)		0.51	0.17
Alpha	1.03	Stream Power (lb/ft s)		2.44	0.64

Frctn Loss (ft)	0.43	Cum Volume (acre-ft)	3972.72	40027.55	16322.88
C & E Loss (ft)	0.00	Cum SA (acres)	999.52	4318.90	4581.60

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	877.70	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.33	Wt. n-Val.		0.041	0.025
E.G. Elev (ft)	878.03	Reach Len. (ft)	635.00	542.71	410.00
Crit W.S. (ft)	872.20	Flow Area (sq ft)		42408.44	6682.95
E.G. Slope (ft/ft)	0.000785	Area (sq ft)		42408.44	6682.95
Q Total (cfs)	227000.00	Flow (cfs)		197878.42	29121.58
Top Width (ft)	5904.26	Top Width (ft)		4329.22	1575.04
Vel Total (ft/s)	4.62	Avg. Vel. (ft/s)		4.67	4.36
Max Chl Dpth (ft)	14.40	Hydr. Depth (ft)		9.80	4.24
Conv. Total (cfs)	8099832.5	Conv. (cfs)		7060714.0	1039118.5
Length Wtd. (ft)	525.99	Wetted Per. (ft)		4334.25	1579.45
Min Ch El (ft)	863.30	Shear (lb/sq ft)		0.48	0.21
Alpha	1.00	Stream Power (lb/ft s)		2.24	0.90
Frctn Loss (ft)	0.38	Cum Volume (acre-ft)	425.36	41856.19	8070.62
C & E Loss (ft)	0.00	Cum SA (acres)	71.04	4324.25	1239.61

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17705.12 LB	18789.21	16059.46	7618.29	1083.27	7.07	7.05	2.11
18789.21	19873.30	69949.08	10422.48	1084.37	30.81	9.61	6.71
19873.30	20957.39	68668.23	10635.88	1085.05	30.25	9.81	6.46
20957.39	22041.48 RB	31007.99	10104.08	1073.82	13.66	9.42	3.07
22041.48	22735.65	7846.86	2031.48	587.21	3.46	3.46	3.86
22735.65	23429.82	10043.87	2518.99	694.25	4.42	3.63	3.99
23429.82	24123.98	8030.31	2202.44	694.17	3.54	3.17	3.65
24123.98	24818.15	11925.63	2792.25	694.17	5.25	4.02	4.27
24818.15	25512.32	3129.22	1251.24	694.22	1.38	1.80	2.50
25512.32	26206.49	339.36	230.74	283.87	0.15	0.81	1.47

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17705.12 LB	18789.21	18002.48	8525.45	1085.16	7.93	7.88	2.11
18789.21	19873.30	74081.49	11331.69	1084.37	32.64	10.45	6.54
19873.30	20957.39	72671.88	11545.09	1085.05	32.01	10.65	6.29
20957.39	22041.48 RB	33122.57	11006.22	1079.68	14.59	10.20	3.01
22041.48	22735.65	11040.35	2525.29	591.08	4.86	4.28	4.37
22735.65	23429.82	13966.71	3101.18	694.25	6.15	4.47	4.50
23429.82	24123.98	4114.52	1056.48	294.12	1.81	3.64	3.89

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 188.59

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17700.9	881.2	17736.4	892.1	17747.2	890.6	17756.5	880.6	17764.8	878.0974
17790	870.5	17959.1	869	18043.8	865.6	18168.3	872.8	18344.1	870.3
18405.6	867.5	18632.1	872.6	18820.7	867.3	18898.2	869.1	18922.9	867.1
18939.5	870.2	18960.7	867	19130.4	866.1	19178.7	870.4	19220.2	866.6
19320.9	871.5	19349.4	869.1	19372.6	862.7	19636	866.3	19689.9	861.5
19720.8	865.3	19950.6	863	20047.6	865.7	20070.1	861.4	20494.4	864.6
20602.2	866.3	20635.1	863.8	20698	868.5	20743.8	866.4	20780.6	868.5
20855	867.4	20888.6	864.7	21163.4	866.7	21216.5	865.1	21345.7	867.1
21660.3	865.8	21803.8	866.7	21870.6	874.1	21899.8	871.8	21931.5	875.6

21939.66	878.0991	21947.5	880.5	22001.6	879.8	22019.3	873	22150.2	872.1
22281.9	875.6	22621.7	874.7	23015.1	871.9	23333.4	871.4	23532.6	871.9
23935.3	872.7	24299.5	873.4	24677.9	873.4	25011.8	872.5	25144.3	871.6
25287.1	877.2	25601.4	877.7	25972	878.4	26006.7	877.4	26024.1	880.4
26027.6	875.6	26042.7	876	26053.8	881.3	26072.8	881.1	26089.1	877.6
26129.7	879.7	26459.1	880.5	26766.8	880.1	27084.6	880.1	27410.6	878.7
27828.6	879.2	28150.3	880.1	28166.5	880.7	28176.7	878.8	28538.9	879.1
28728.7	877.7	28803.7	880.3	29126.8	879.1	29453.5	877.7	29864.5	878.6
30156.1	879.2	30165.8	874.1	30178.4	878.4	30387.8	876.3	30760.5	879.9
30800	880	30865.5	875.8	30896.3	875.7	30955.5	879.3	31358.1	879.8
31414.3	878.5	31466.3	881.6	31910	882.5				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17700.9	.065	17747.2	.065	19372.6	.028	20602.2	.065	21947.5	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17764.82	1939.66	510	493.58	390	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
25972	31910	890

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	876.44	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.32	Wt. n-Val.		0.041	0.025
E.G. Elev (ft)	876.76	Reach Len. (ft)	510.00	493.58	390.00
Crit W.S. (ft)	871.15	Flow Area (sq ft)		39758.28	11117.52
E.G. Slope (ft/ft)	0.000765	Area (sq ft)		39758.28	11171.87
Q Total (cfs)	227000.00	Flow (cfs)		185585.11	41414.89
Top Width (ft)	7530.80	Top Width (ft)		4163.95	3366.85
Vel Total (ft/s)	4.46	Avg. Vel. (ft/s)		4.67	3.73
Max Chl Dpth (ft)	15.04	Hydr. Depth (ft)		9.55	3.41
Conv. Total (cfs)	8208941.5	Conv. (cfs)		6711265.5	1497675.9
Length Wtd. (ft)	472.52	Wetted Per. (ft)		4169.75	3258.19
Min Ch El (ft)	861.40	Shear (lb/sq ft)		0.46	0.16
Alpha	1.02	Stream Power (lb/ft s)		2.12	0.61
Frctn Loss (ft)	0.34	Cum Volume (acre-ft)	3972.72	39538.30	16217.19
C & E Loss (ft)	0.01	Cum SA (acres)	999.52	4266.03	4544.94

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	877.33	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.32	Wt. n-Val.		0.041	0.025
E.G. Elev (ft)	877.65	Reach Len. (ft)	510.00	493.58	390.00
Crit W.S. (ft)	871.15	Flow Area (sq ft)		43461.78	6944.52
E.G. Slope (ft/ft)	0.000674	Area (sq ft)		43461.78	6944.52
Q Total (cfs)	227000.00	Flow (cfs)		198927.20	28072.79
Top Width (ft)	5801.77	Top Width (ft)		4169.80	1631.97
Vel Total (ft/s)	4.50	Avg. Vel. (ft/s)		4.58	4.04
Max Chl Dpth (ft)	15.93	Hydr. Depth (ft)		10.42	4.26
Conv. Total (cfs)	8742754.0	Conv. (cfs)		7661549.0	1081205.0
Length Wtd. (ft)	479.54	Wetted Per. (ft)		4175.87	1638.05
Min Ch El (ft)	861.40	Shear (lb/sq ft)		0.44	0.18
Alpha	1.00	Stream Power (lb/ft s)		2.00	0.72
Frctn Loss (ft)	0.32	Cum Volume (acre-ft)	425.36	41321.27	8006.49
C & E Loss (ft)	0.00	Cum SA (acres)	71.04	4271.30	1224.52

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17764.80 LB	18808.52	14829.04	6751.30	1039.59	6.53	6.50	2.20
18808.52	19852.23	57073.56	10591.45	1046.28	25.14	10.15	5.39
19852.23	20895.95	85324.94	12455.59	1044.68	37.59	11.93	6.85
20895.95	21939.66 RB	28357.56	9959.94	1039.20	12.49	9.59	2.85
21939.66	22604.35	3392.89	1274.55	594.69	1.49	2.15	2.66
22604.35	23269.04	9482.64	2468.92	664.70	4.18	3.71	3.84
23269.04	23933.73	12664.03	2936.90	664.69	5.58	4.42	4.31
23933.73	24598.42	7527.76	2149.54	664.69	3.32	3.23	3.50

24598.42	25263.11	8347.43	2287.19	664.79	3.68	3.44	3.65
25263.11	25927.80	0.14	0.42	4.63	0.00	0.09	0.32

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17764.80 LB	18808.52	17213.06	7675.38	1042.67	7.58	7.37	2.24
18808.52	19852.23	60993.33	11519.10	1046.28	26.87	11.04	5.29
19852.23	20895.95	89903.38	13383.23	1044.68	39.61	12.82	6.72
20895.95	21939.66 RB	30817.43	10884.07	1042.24	13.58	10.45	2.83
21939.66	22604.35	5643.17	1803.53	597.17	2.49	3.02	3.13
22604.35	23269.04	12679.33	3059.69	664.70	5.59	4.60	4.14
23269.04	23933.73	9750.31	2081.31	376.18	4.30	5.61	4.68

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 188.5

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17952.5	891.2	17975.2	880.5	17985.99	877.7263	18003.6	873.2	18093.7	868.6
18306.9	865.7	18331.5	868.5	18612	869.2	18636.5	870.8	18795.5	868
18840.8	863.5	19008.3	869.1	19087	866	19164.4	868.7	19179.8	866.1
19218.2	870.1	19334.8	869.7	19381.5	863.3	19627	864.6	19659.7	860.5
19778	863.6	19904.2	860.6	19952.7	863.2	20123.7	862.1	20390.1	864
20433.7	868.7	20537.9	865.9	20581.6	861.3	20722.3	863.8	20825	862.8
20889.7	865.2	20988.2	866	21057.6	863.5	21108.4	866.8	21229.7	863.9
21315.4	865.2	21593.3	863.7	21667	866.8	21699	866.2	21762	876.2
21809	873.1	21830	873.6472	21870.4	874.7	21907.8	880.1	21947.6	879.3
21970.2	871.9	22362.1	870.7	22438.2	875.4	22471.8	872.6	22855.6	871.9
22857.9	871.9	23197.4	872	23596.6	871.8	23755.3	871.5	24238.8	873
24588.4	872.5	24874.9	872.5	25251.9	872.4	25522.1	875.4	25914.4	877.6
26100.4	877.8	26154	876.1	26166.8	880.9	26179	880.7	26182.9	875.9
26195.2	875.7	26205.5	881.7	26244.7	878.2	26305.9	880.2	26591.6	880.6
26623.1	880.6	26919.5	880	26959.1	880	27323.4	880	27656.2	878.5
27712.9	878	27726.5	880.2	27726.8	878.6	27770.6	880.7	27838.6	879.1
28213.5	878.9	28599.1	879.5	28905.8	878.4	28980.5	881.5	29295.3	879
29593.3	879.2	29929.6	878	30215.6	877.7	30375.7	881.1	30388.7	875
30399.9	880.4	30426.9	878.3	30742.2	878.5	31040.4	879.2	31430.4	878.8
31704.9	882.4	31865	880.9	32021	882.9				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17952.5	.065	19381.5	.028	20433.7	.065	21907.8	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17985.99	21830	790	581.55	245	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
26100	32021	887

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	876.12	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.29	Wt. n-Val.		0.043	0.025
E.G. Elev (ft)	876.40	Reach Len. (ft)	790.00	581.55	245.00
Crit W.S. (ft)	870.31	Flow Area (sq ft)		39671.73	13723.98
E.G. Slope (ft/ft)	0.000689	Area (sq ft)		39671.73	13730.72
Q Total (cfs)	227000.00	Flow (cfs)		176079.83	50920.18
Top Width (ft)	7597.81	Top Width (ft)		3836.02	3761.79
Vel Total (ft/s)	4.25	Avg. Vel. (ft/s)		4.44	3.71
Max Chl Dpth (ft)	15.62	Hydr. Depth (ft)		10.34	3.67
Conv. Total (cfs)	8644895.0	Conv. (cfs)		6705690.0	1939205.3
Length Wtd. (ft)	514.50	Wetted Per. (ft)		3840.23	3744.31
Min Ch El (ft)	860.50	Shear (lb/sq ft)		0.44	0.16
Alpha	1.02	Stream Power (lb/ft s)		1.97	0.59
Frctn Loss (ft)	0.30	Cum Volume (acre-ft)	3972.72	39088.29	16105.71
C & E Loss (ft)	0.00	Cum SA (acres)	999.52	4220.71	4513.03

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	877.02	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.31	Wt. n-Val.		0.043	0.025
E.G. Elev (ft)	877.33	Reach Len. (ft)	790.00	581.55	245.00
Crit W.S. (ft)	870.31	Flow Area (sq ft)		43118.87	7661.92
E.G. Slope (ft/ft)	0.000647	Area (sq ft)		43118.87	7661.92
Q Total (cfs)	227000.00	Flow (cfs)		193529.84	33470.16
Top Width (ft)	5393.13	Top Width (ft)		3841.25	1551.88
Vel Total (ft/s)	4.47	Avg. Vel. (ft/s)		4.49	4.37
Max Chl Dpth (ft)	16.52	Hydr. Depth (ft)		11.23	4.94
Conv. Total (cfs)	8926342.0	Conv. (cfs)		7610192.0	1316150.3
Length Wtd. (ft)	540.67	Wetted Per. (ft)		3845.59	1558.28
Min Ch El (ft)	860.50	Shear (lb/sq ft)		0.45	0.20
Alpha	1.00	Stream Power (lb/ft s)		2.03	0.87
Frctn Loss (ft)	0.30	Cum Volume (acre-ft)	425.36	40830.74	7941.10
C & E Loss (ft)	0.00	Cum SA (acres)	71.04	4225.92	1210.26

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17985.99 LB	18946.99	17758.31	7499.39	955.78	7.82	7.85	2.37
18946.99	19908.00	61946.09	10386.17	962.35	27.29	10.81	5.96
19908.00	20869.00	69184.78	12083.68	961.67	30.48	12.57	5.73
20869.00	21830.00 RB	27190.70	9702.50	960.44	11.98	10.11	2.80
21830.00	22509.40	9488.08	2439.71	603.37	4.18	4.05	3.89
22509.40	23188.80	10578.87	2741.00	679.40	4.66	4.03	3.86
23188.80	23868.20	11826.72	2930.65	679.40	5.21	4.31	4.04
23868.20	24547.60	8479.62	2400.34	679.40	3.74	3.53	3.53
24547.60	25227.00	8918.09	2474.05	679.40	3.93	3.64	3.60
25227.00	25906.40	1628.72	738.21	423.34	0.72	1.74	2.21

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17985.99 LB	18946.99	20555.27	8358.15	959.38	9.06	8.72	2.46
18946.99	19908.00	67609.84	11248.98	962.35	29.78	11.71	6.01
19908.00	20869.00	75047.39	12946.49	961.67	33.06	13.47	5.80
20869.00	21830.00 RB	30317.40	10565.24	962.19	13.36	10.99	2.87
21830.00	22509.40	12950.92	2984.51	612.54	5.71	4.88	4.34
22509.40	23188.80	14673.52	3350.99	679.40	6.46	4.93	4.38
23188.80	23868.20	5845.66	1326.41	266.34	2.58	5.08	4.41

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 188.39

INPUT
Description: BEGIN 1:1 TRANSITION TO BRIDGE

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18183	888.3	18214.8	880.41	8219.99	877.3875	18232.2	870.3	18242.8	868.2
18338.1	863.5	18555.1	867.6	18713.4	864.4	18871	870.7	19003.9	865.5
19161.2	865.6	19179.7	863.9	19276.5	868.3	19362.2	861.6	19635.3	860.8
19867.5	860.8	20129.9	861.3	20165.1	860.7	20403	862.2	20644	861
20689.4	864.5	20713.6	863	20749.3	869.8	20863.4	863.4	21090.6	865.9
21171.5	861.9	21210.2	865.7	21270.3	862.1	21439.4	865.6	21603.9	864.5
21698.4	875.3	21760	874.85	09 21863	874.1	21938.7	880.3	21956.8	879.6
21976.8	872.4	22220.2	872.4	22456.5	872	22752.5	872.3	22982.8	872.6

23189.4	872.6	23439.6	871.7	23692.1	871.7	23922.7	871.3	24173.2	872.7
24445.7	872.7	24718.2	873	24953.5	873	25204.4	871.3	25455.2	871.5
25515.5	871.5	25626.4	875.7	25908.5	877.3	26133.6	877.3	26234.9	877
26261.4	875.4	26273.1	877.2	26285.1	881.9	26296.6	883.1	26301.6	876.1
26314.1	876.5	26323	881.4	26341.1	880.7	26359.5	877.7	26656.9	879.8
26934.3	879.5	27191.3	879.2	27448.8	879.2	27677.2	879.3	27908.2	878.7
27933.8	879	27943.6	881.1	27982.4	878.5	28210.6	878.8	28440.3	879.2
28733.9	879.2	28963	879.5	29150.4	882	29216.6	880.1	29224.5	874.8
29236.5	880.5	29289.1	877.8	29545.5	878.4	29919.2	878.4	30144.8	878.7
30412.9	879.1	30507.8	879	30517.7	880.8	30527.7	879.4	30533.7	881.1
30821.4	880.1	31050.2	880.8	31316.3	880.3	31630.1	879.3	31926	879.9
31999.8	883.1	32272.5	884.1	32297	884.4				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18183	.15	18214.8	.15	19276.5	.026	20749.3	.065	21938.7	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18219.99	21760	705	536.34	280	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
26130	32297	886

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	875.81	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.29	Wt. n-Val.		0.037	0.025
E.G. Elev (ft)	876.11	Reach Len. (ft)	705.00	536.34	280.00
Crit W.S. (ft)	868.98	Flow Area (sq ft)		40911.54	13137.13
E.G. Slope (ft/ft)	0.000487	Area (sq ft)		40911.54	13140.96
Q Total (cfs)	227000.00	Flow (cfs)		187443.72	39556.28
Top Width (ft)	7353.58	Top Width (ft)		3537.30	3816.28
Vel Total (ft/s)	4.20	Avg. Vel. (ft/s)		4.58	3.01
Max Chl Dpth (ft)	15.11	Hydr. Depth (ft)		11.57	3.45
Conv. Total (cfs)	10284515.0	Conv. (cfs)		8492369.0	1792146.1
Length Wtd. (ft)	497.66	Wetted Per. (ft)		3541.92	3803.85
Min Ch El (ft)	860.70	Shear (lb/sq ft)		0.35	0.11
Alpha	1.07	Stream Power (lb/ft s)		1.61	0.32
Frctn Loss (ft)	0.24	Cum Volume (acre-ft)	3972.72	38550.37	16030.15
C & E Loss (ft)	0.01	Cum SA (acres)	999.52	4171.49	4491.72

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	876.71	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.32	Wt. n-Val.		0.038	0.025
E.G. Elev (ft)	877.03	Reach Len. (ft)	705.00	536.34	280.00
Crit W.S. (ft)	868.98	Flow Area (sq ft)		44080.12	6536.79
E.G. Slope (ft/ft)	0.000469	Area (sq ft)		44080.12	6536.79
Q Total (cfs)	227000.00	Flow (cfs)		205299.20	21700.80
Top Width (ft)	5108.87	Top Width (ft)		3538.84	1570.03
Vel Total (ft/s)	4.48	Avg. Vel. (ft/s)		4.66	3.32
Max Chl Dpth (ft)	16.01	Hydr. Depth (ft)		12.46	4.16
Conv. Total (cfs)	10480898.0	Conv. (cfs)		9478943.0	1001955.4
Length Wtd. (ft)	515.30	Wetted Per. (ft)		3543.71	1575.76
Min Ch El (ft)	860.70	Shear (lb/sq ft)		0.36	0.12
Alpha	1.03	Stream Power (lb/ft s)		1.70	0.40
Frctn Loss (ft)	0.23	Cum Volume (acre-ft)	425.36	40248.66	7901.17
C & E Loss (ft)	0.01	Cum SA (acres)	71.04	4176.65	1201.48

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18219.99 LB	19104.99	7900.91	8193.11	884.40	3.48	9.29	0.96
19104.99	19990.00	77919.60	11953.28	885.44	34.33	13.51	6.52
19990.00	20875.00	80578.56	11829.04	886.02	35.50	13.37	6.81
20875.00	21760.00 RB	21044.69	8936.12	886.06	9.27	10.10	2.36
21760.00	22462.47	5270.79	1879.62	619.74	2.32	3.04	2.80
22462.47	23164.93	7235.42	2421.85	702.47	3.19	3.45	2.99
23164.93	23867.40	9115.71	2781.92	702.47	4.02	3.96	3.28

23867.40	24569.87	7271.19	2429.04	702.47	3.20	3.46	2.99
24569.87	25272.33	6714.56	2315.70	702.47	2.96	3.30	2.90
25272.33	25974.80	3948.57	1308.99	374.23	1.74	3.50	3.02

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18219.99 LB	19104.99	9027.81	8983.95	886.18	3.98	10.16	1.00
19104.99	19990.00	84663.03	12745.86	885.44	37.30	14.40	6.64
19990.00	20875.00	87815.66	12621.62	886.02	38.69	14.26	6.96
20875.00	21760.00 RB	23792.69	9728.70	886.06	10.48	10.99	2.45
21760.00	22462.47	7653.67	2440.05	633.36	3.37	3.86	3.14
22462.47	23164.93	10455.05	3050.96	702.47	4.61	4.34	3.43
23164.93	23867.40	3592.09	1045.77	239.93	1.58	4.45	3.43

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 188.29

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18244	885.4	18266.4	881.5	18355.9	880.3	18370.74	877.0516	18379.2	875.2
18392.2	868.2	18404.3	870.2	18528.5	866.2	18634.8	866.6	18804.2	863.9
19004.2	867.9	19223.3	864.7	19241	860.7	19602.1	860.8	19893.5	861.2
20119.1	862.5	20155	868.3	20242.1	864.6	20313.2	864.4	20418.4	862.6
20456.6	859.6	20473.6	861	20520.1	860.1	20540.3	865	20577.8	859.9
20605.8	869.4	20647.8	864.9	20774.5	862.5	20982.3	866.1	21068.6	862.1
21139.6	864.6	21491.6	864.7	21506.8	864.4	21587.3	874.8	21600	874.7214
21797.3	873.5	21871.2	880.2	21886.5	879.5	21905.2	872.9	22321.3	872.4
22601.4	872.6	22962.3	872.8	23435	872.6	23731.4	872.5	23999.3	870.8
24276.9	872.4	24557.8	872.3	24661.2	872.2	24686	874.4	24953.8	872.8
25217.3	872.2	25419.5	872.2	25497.3	875.7	25597.5	872.1	25817.6	875.8
26152.9	876.7	26275.3	876.6	26285.7	882.5	26299	883	26304.3	876.2
26319	876.1	26330.3	881.5	26367.6	877.9	26411.8	880	26713.5	880.5
27091	879.4	27521.9	879.9	27830.4	879.5	27985	880.6	27986.7	879.1
28026	879.4	28044.1	880.8	28489.9	880	28771.7	879.4	28996.7	877.5
29002.5	881.1	29241.2	876.6	29301.1	879.9	29307.9	875.7	29323	879.5
29339.7	877.3	29613.4	878.2	29894.1	877.8	30242.1	878	30503.1	877.8
30590.3	879	30602.2	882.1	30611.5	879.2	30619.3	881.3	30632	878.1
30666.8	880.7	30984	880	31294	880.2	31756.8	880.6	32026.5	878.9
32055.1	878.7	32070.6	881.7	32101	882.8				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18244	.15	18355.9	.15	19223.3	.026	21587.3	.065	21871.2	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18370.74	21600	505	492.53	310	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
26000	32101	884

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	875.45	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.41	Wt. n-Val.		0.030	0.025
E.G. Elev (ft)	875.86	Reach Len. (ft)	505.00	492.53	310.00
Crit W.S. (ft)	869.30	Flow Area (sq ft)		36603.44	11306.34
E.G. Slope (ft/ft)	0.000472	Area (sq ft)		36603.44	11306.34
Q Total (cfs)	227000.00	Flow (cfs)		198080.94	28919.06
Top Width (ft)	7326.72	Top Width (ft)		3221.93	4104.79
Vel Total (ft/s)	4.74	Avg. Vel. (ft/s)		5.41	2.56
Max Chl Dpth (ft)	15.85	Hydr. Depth (ft)		11.36	2.75
Conv. Total (cfs)	10444934.0	Conv. (cfs)		9114283.0	1330650.8
Length Wtd. (ft)	468.05	Wetted Per. (ft)		3228.83	4105.59
Min Ch El (ft)	859.60	Shear (lb/sq ft)		0.33	0.08
Alpha	1.18	Stream Power (lb/ft s)		1.81	0.21
Frctn Loss (ft)	0.31	Cum Volume (acre-ft)	3972.72	38073.16	15951.57

C & E Loss (ft)	0.01	Cum SA (acres)	999.52	4129.88	4466.26

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	876.37	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.42	Wt. n-Val.		0.031	0.026
E.G. Elev (ft)	876.79	Reach Len. (ft)	505.00	492.53	310.00
Crit W.S. (ft)	869.30	Flow Area (sq ft)		39580.32	5695.64
E.G. Slope (ft/ft)	0.000421	Area (sq ft)		39580.32	5695.64
Q Total (cfs)	227000.00	Flow (cfs)		211446.41	15553.60
Top Width (ft)	4859.75	Top Width (ft)		3226.15	1633.60
Vel Total (ft/s)	5.01	Avg. Vel. (ft/s)		5.34	2.73
Max Chl Dpth (ft)	16.77	Hydr. Depth (ft)		12.27	3.49
Conv. Total (cfs)	11060138.0	Conv. (cfs)		10302319.0	757819.1
Length Wtd. (ft)	478.57	Wetted Per. (ft)		3233.15	1638.04
Min Ch El (ft)	859.60	Shear (lb/sq ft)		0.32	0.09
Alpha	1.08	Stream Power (lb/ft s)		1.72	0.25
Frctn Loss (ft)	0.28	Cum Volume (acre-ft)	425.36	39733.62	7861.86
C & E Loss (ft)	0.01	Cum SA (acres)	71.04	4135.00	1191.19

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18370.74 LB	19178.05	6565.04	7156.14	802.09	2.89	8.95	0.92
19178.05	19985.37	81016.81	11498.79	807.77	35.69	14.24	7.05
19985.37	20792.69	61152.15	9580.65	810.82	26.94	11.87	6.38
20792.69	21600.00 RB	49346.93	8367.85	808.15	21.74	10.37	5.90
21600.00	22300.07	2957.78	1393.43	621.39	1.30	2.24	2.12
22300.07	23000.13	5080.80	1982.04	700.07	2.24	2.83	2.56
23000.13	23700.20	5009.35	1965.27	700.07	2.21	2.81	2.55
23700.20	24400.27	7761.84	2555.85	700.08	3.42	3.65	3.04
24400.27	25100.33	4256.45	1782.41	700.17	1.88	2.55	2.39
25100.33	25800.40	3852.85	1627.34	683.81	1.70	2.38	2.37

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18370.74 LB	19178.05	7288.94	7896.75	806.41	3.21	9.82	0.92
19178.05	19985.37	84946.98	12244.22	807.77	37.42	15.17	6.94
19985.37	20792.69	65515.66	10326.07	810.82	28.86	12.79	6.34
20792.69	21600.00 RB	53694.83	9113.28	808.15	23.65	11.29	5.89
21600.00	22300.07	4669.95	1972.61	634.39	2.06	3.11	2.37
22300.07	23000.13	7744.44	2628.44	700.07	3.41	3.75	2.95
23000.13	23700.20	3139.21	1094.59	303.58	1.38	3.65	2.87

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 188.2

INPUT
Description: Left and Right Bank Channel Stations Interpolated

Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18202.1	884.1	18292.2	882.8	18364.8	884.9	18481.2	880.3	18517.5	870.1
18656.4	865.2	18668.5	869.4	18700	868.8918	18959.8	864.7	19103.9	867.3
19127.9	861	19303.3	859.3	19579.2	861.6	19818.3	861.2	19932	861.3
19971.9	859.4	20039	862.3	20082.8	859.6	20097	864.3	20135.8	860
20352	865.7	20387.9	859.3	20412.2	862.1	20465.3	859.7	20706.5	864.1
20891.9	861.2	21134.1	862.5	21232.4	874.7	21280	874.183	21481	872
21602	872.7	21652.9	880.4	21696.5	878.8	21718.1	872.7	22013.9	873.5
22319.8	871.8	22552.9	872.5	22791.9	873.9	22854.8	871.8	22934	873.2
23168	873.1	23187.6	873.1	23502.4	872.6	23512.1	872.6	23892.5	872.2
24135.9	871.3	24219.2	872	24453.8	872.1	24691.3	872.5	24794.9	871.8
24812.5	874.3	25118.6	872.1	25362.1	872.2	25635.8	873.6	25892.1	877
26124.2	876.3	26142.4	881.2	26155.8	881	26160.3	876.2	26172.1	875.7
26190.2	882.2	26255.1	879.9	26277.8	881.6	26559.1	881.6	26906.3	880.9
27019.2	880.3	27325.4	879.4	27457.7	879	27731	879	27979.4	879.7
28323.1	880.5	28566.5	879.4	28798.1	880.1	28887.2	878.2	29119.4	878.6
29138.4	880.3	29373.1	877.7	29429.2	879.6	29438	875.6	29451.9	880.6
29469	877.7	29678.4	878.6	29955.6	879.2	30014.2	879.1	30389.6	878.6
30704.5	879.1	30750.7	880.7	30757.7	878.8	31041	880.2	31048.4	880.2
31312.4	880.9	31321	880.9	31577.2	880.6	31611.9	880.6	31883.3	881.8
32123.6	879.8	32423.1	882.1	32447	882.4				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18202.1	.043	18481.2	.15	19103.9	.03	20352	.065	21652.9	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18700	21280	620	525.06	340	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18202.1	18700	881	25750	32447	881

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	875.00	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.54	Wt. n-Val.		0.040	0.026
E.G. Elev (ft)	875.54	Reach Len. (ft)	620.00	525.06	340.00
Crit W.S. (ft)	868.80	Flow Area (sq ft)		31427.77	10242.21
E.G. Slope (ft/ft)	0.000962	Area (sq ft)	1341.97	31427.77	10242.21
Q Total (cfs)	227000.00	Flow (cfs)		195032.36	31967.64
Top Width (ft)	7148.86	Top Width (ft)	199.95	2580.00	4368.91
Vel Total (ft/s)	5.45	Avg. Vel. (ft/s)		6.21	3.12
Max Chl Dpth (ft)	15.70	Hydr. Depth (ft)		12.18	2.34
Conv. Total (cfs)	7318211.0	Conv. (cfs)		6287612.0	1030598.9
Length Wtd. (ft)	495.89	Wetted Per. (ft)		2583.75	4369.68
Min Ch El (ft)	859.30	Shear (lb/sq ft)		0.73	0.14
Alpha	1.16	Stream Power (lb/ft s)		4.53	0.44
Frctn Loss (ft)	0.45	Cum Volume (acre-ft)	3964.94	37688.55	15874.90
C & E Loss (ft)	0.02	Cum SA (acres)	998.36	4097.08	4436.11

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	875.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.55	Wt. n-Val.		0.040	0.028
E.G. Elev (ft)	876.50	Reach Len. (ft)	620.00	525.06	340.00
Crit W.S. (ft)	868.80	Flow Area (sq ft)		33866.83	5817.94
E.G. Slope (ft/ft)	0.000866	Area (sq ft)		33866.83	5817.94
Q Total (cfs)	227000.00	Flow (cfs)		207825.19	19174.81
Top Width (ft)	4466.88	Top Width (ft)		2580.00	1886.88
Vel Total (ft/s)	5.72	Avg. Vel. (ft/s)		6.14	3.30
Max Chl Dpth (ft)	16.65	Hydr. Depth (ft)		13.13	3.08
Conv. Total (cfs)	7711841.0	Conv. (cfs)		7060417.5	651423.3
Length Wtd. (ft)	505.72	Wetted Per. (ft)		2590.81	1890.60
Min Ch El (ft)	859.30	Shear (lb/sq ft)		0.71	0.17
Alpha	1.08	Stream Power (lb/ft s)		4.34	0.55
Frctn Loss (ft)	0.41	Cum Volume (acre-ft)	425.36	39318.39	7820.89
C & E Loss (ft)	0.02	Cum SA (acres)	71.04	4102.18	1178.66

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18700.00 LB	19345.00	36423.64	6943.30	645.88	16.05	10.76	5.25
19345.00	19990.00	80586.15	9044.30	645.07	35.50	14.02	8.91
19990.00	20635.00	54011.99	8481.43	647.01	23.79	13.15	6.37
20635.00	21280.00 RB	24010.61	6958.75	645.80	10.58	10.79	3.45
21280.00	22024.47	2476.14	1311.76	652.26	1.09	2.01	1.89
22024.47	22768.93	5776.05	1773.25	744.48	2.54	2.38	3.26
22768.93	23513.40	4547.37	1536.23	744.52	2.00	2.06	2.96
23513.40	24257.87	8115.02	2174.52	744.47	3.57	2.92	3.73
24257.87	25002.33	5989.39	1812.43	744.65	2.64	2.43	3.30
25002.33	25746.80	5063.64	1634.02	739.30	2.23	2.21	3.10

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18700.00 LB	19345.00	38678.15	7553.06	652.94	17.04	11.71	5.12
19345.00	19990.00	85286.20	9654.07	645.07	37.57	14.97	8.83
19990.00	20635.00	57643.13	9091.20	647.01	25.39	14.09	6.34
20635.00	21280.00 RB	26217.74	7568.51	645.80	11.55	11.73	3.46
21280.00	22024.47	4538.21	1932.44	662.06	2.00	2.92	2.35
22024.47	22768.93	9629.53	2477.05	744.48	4.24	3.33	3.89
22768.93	23513.40	5007.04	1408.45	484.06	2.21	2.93	3.56

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 188.1

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18347.4	882.4	18572.7	878.8	18758.4	878.7	18775.8	876.6	18941.3	878
18969.12	875.562	19094.2	864.6	19118.1	860.9	19192.9	861	19412.6	861.5
19528.9	860.9	19600.5	855.8	19728.6	861.4	19774.5	856.4	19832	862.5
19890.5	862.7	19949.7	866.3	19988.2	860	20045.1	864.2	20057.9	857
20120.8	859.8	20135	858.4	20312.5	858.6	20340	862.6	20360.2	860.2
20434.8	861.4	20503.2	860.3	20731.2	861.2	20768.8	860.6	20853.2	867.3
20859.8	865	20890.9	866.7	21000	867.5	096 21120	868.4	21317.1	869.2
21327.3	867.2	21462.4	872.2	21504.3	879.5	21594.5	880.9	21619.2	871.9
21838.1	872.4	22088.8	872.5	22346.6	873.3	22618.3	871.8	22871.4	872.1
23110.7	870.9	23328.5	870.5	23654	870.7	23910.7	870.9	24128.5	870.9
24346.8	871.9	24634.3	872.8	24851.6	875.3	24992.5	871.3	25315.1	871.8
25537.8	872.1	25759.5	873.2	25996.2	877.1	26048.2	876.8	26058.8	880.9
26068.9	880.8	26074.6	874.4	26085.1	874.9	26105.2	881.1	26162	877.4
26406	877.8	26697.1	877	26922.7	877.5	27143.8	876.8	27491.2	877.8
27752.4	879.2	28017.5	879.7	28234.9	879	28483	879.6	28715.8	879.3
28936	879.3	29185.5	877.4	29421.8	877	29550.5	878.6	29564.2	874.3
29579.5	879.2	29599.5	879.9	29632.4	878.2	29794.7	878.4	30073.8	878.4
30120	878.5	30375.2	879.2	30599.9	880.4	30849.7	879.1	30888.1	881.5
30961.6	879.1	31200.2	879.4	31417.6	879.4	31470.1	879.5	31848.8	879.2
32174	880.6	32428.3	881.4	32616	881.2				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18347.4	.065	18941.3	.065	19118.1	.03	20340	.043	21504.3	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18969.12	21000	196.03	193.81	246.03	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
25480	32616	880

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	874.36	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.71	Wt. n-Val.		0.033	0.029
E.G. Elev (ft)	875.07	Reach Len. (ft)	196.03	193.81	246.03
Crit W.S. (ft)	868.80	Flow Area (sq ft)		25760.13	12210.86

E.G. Slope (ft/ft)	0.000861	Area (sq ft)		25760.13	12764.83
Q Total (cfs)	227000.00	Flow (cfs)		187427.69	39572.30
Top Width (ft)	6595.65	Top Width (ft)		2017.20	4578.45
Vel Total (ft/s)	5.98	Avg. Vel. (ft/s)		7.28	3.24
Max Chl Dpth (ft)	18.56	Hydr. Depth (ft)		12.77	2.89
Conv. Total (cfs)	7734821.0	Conv. (cfs)		6386430.0	1348390.8
Length Wtd. (ft)	202.63	Wetted Per. (ft)		2022.77	4228.94
Min Ch El (ft)	855.80	Shear (lb/sq ft)		0.68	0.16
Alpha	1.27	Stream Power (lb/ft s)		4.98	0.50
Frctn Loss (ft)	0.14	Cum Volume (acre-ft)	3955.39	37343.89	15785.11
C & E Loss (ft)	0.02	Cum SA (acres)	996.94	4069.37	4401.19

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	875.35	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.72	Wt. n-Val.		0.033	0.031
E.G. Elev (ft)	876.07	Reach Len. (ft)	196.03	193.81	246.03
Crit W.S. (ft)	868.80	Flow Area (sq ft)		27758.27	8207.29
E.G. Slope (ft/ft)	0.000763	Area (sq ft)		27758.27	8207.29
Q Total (cfs)	227000.00	Flow (cfs)		198733.95	28266.04
Top Width (ft)	4129.23	Top Width (ft)		2028.47	2100.76
Vel Total (ft/s)	6.31	Avg. Vel. (ft/s)		7.16	3.44
Max Chl Dpth (ft)	19.55	Hydr. Depth (ft)		13.68	3.91
Conv. Total (cfs)	8215547.5	Conv. (cfs)		7192547.5	1022999.9
Length Wtd. (ft)	198.10	Wetted Per. (ft)		2034.08	2106.61
Min Ch El (ft)	855.80	Shear (lb/sq ft)		0.65	0.19
Alpha	1.16	Stream Power (lb/ft s)		4.66	0.64
Frctn Loss (ft)	0.14	Cum Volume (acre-ft)	425.36	38946.98	7766.15
C & E Loss (ft)	0.01	Cum SA (acres)	71.04	4074.41	1163.10

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18969.12 LB	19476.84	40015.66	5542.65	494.76	17.63	11.22	7.22
19476.84	19984.56	59403.07	7079.53	509.19	26.17	13.94	8.39
19984.56	20492.28	58657.30	7385.55	510.39	25.84	14.55	7.94
20492.28	21000.00 RB	29351.67	5752.39	508.43	12.93	11.33	5.10
21000.00	21774.40	8858.06	2934.92	637.69	3.90	4.61	3.02
21774.40	22548.80	3168.00	1314.40	774.40	1.40	1.70	2.41
22548.80	23323.20	7692.37	2238.16	774.40	3.39	2.89	3.44
23323.20	24097.60	11221.80	2807.32	774.40	4.94	3.63	4.00
24097.60	24872.00	4046.65	1438.88	672.59	1.78	2.14	2.81
24872.00	25646.40	4585.42	1477.18	595.45	2.02	2.48	3.10

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18969.12 LB	19476.84	42690.00	6036.22	506.07	18.81	11.95	7.07
19476.84	19984.56	62699.51	7581.06	509.19	27.62	14.93	8.27
19984.56	20492.28	61571.89	7887.08	510.39	27.12	15.53	7.81
20492.28	21000.00 RB	31772.55	6253.92	508.43	14.00	12.32	5.08
21000.00	21774.40	11698.66	3568.06	646.33	5.15	5.53	3.28
21774.40	22548.80	6539.75	2079.35	774.40	2.88	2.69	3.15
22548.80	23323.20	10027.65	2559.88	685.87	4.42	3.76	3.92

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 188.07

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 62

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

17738.5	884	19088.5	887.43	19098	881.18	19104.8	876.53	19107.54	875.38	34	
19134.7	864.01	19178	855	19198	855	19455.6	855	19545.9	856.01		
19569.5	855.82	19573.5	855.82	19633	855.06	19687	857.81	19691	857.81		
19749.5	858.51	19805.5	860.06	19809.5	860.06	19867.6	863.15	19923.2	863.25		
19927.3	863.25	19980.7	858.53	20041.4	857.23	20045.5	857.23	20070.5	856.68		
20159.2	855	20163.2	855	20224.3	857.42	20278	856.74	20282	856.74		
20335.5	857.58	20395.5	855.35	20399.5	855.35	20472.7	855	20517.5	855		
20527.6	856.08	20562.1	858.91	20631.4	862.4	20635.4	862.4	20686.6	865.43		
20749.1	866.47	20753.1	866.47	20842.4	867.7	20858.72	875.38	25	20865.3	878.48	
20869	879.9	20881.8	886.15	21833.8	885.6	21858	872.6	22095.6	872.7		
22385.2	874.2	22632.4	871.9	22983.9	873.1	23006.6	870	24233.4	868.7		
24410.3	870.8	24443.1	868.9	25188.3	871.9	25395.5	871.9	25667.1	873.1		
25840.4	873.1	25851.7	879.3								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17738.5	.065	19107.54	.032	20858.72	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19107.54	20858.72	33	33	33	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17738.5	19098	881	25260	25851.7	881

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	874.27	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.64	Wt. n-Val.		0.032	0.025
E.G. Elev (ft)	874.91	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	866.16	Flow Area (sq ft)		27568.82	11644.58
E.G. Slope (ft/ft)	0.000558	Area (sq ft)		27568.82	12650.43
Q Total (cfs)	227000.00	Flow (cfs)		189900.11	37099.89
Top Width (ft)	5733.80	Top Width (ft)		1746.16	3987.64
Vel Total (ft/s)	5.79	Avg. Vel. (ft/s)		6.89	3.19
Max Chl Dpth (ft)	19.27	Hydr. Depth (ft)		15.79	3.42
Conv. Total (cfs)	9610941.0	Conv. (cfs)		8040170.5	1570770.3
Length Wtd. (ft)	0.00	Wetted Per. (ft)		1751.52	3405.83
Min Ch El (ft)	855.00	Shear (lb/sq ft)		0.55	0.12
Alpha	1.23	Stream Power (lb/ft s)		3.78	0.38
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	3955.39	37225.25	15713.33
C & E Loss (ft)	0.00	Cum SA (acres)	996.94	4061.00	4377.00

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	875.07	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.85	Wt. n-Val.		0.032	0.025
E.G. Elev (ft)	875.92	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	866.17	Flow Area (sq ft)		28969.94	3272.35
E.G. Slope (ft/ft)	0.000625	Area (sq ft)		28969.94	3272.35
Q Total (cfs)	227000.00	Flow (cfs)		218013.58	8986.42
Top Width (ft)	3046.38	Top Width (ft)		1749.78	1296.60
Vel Total (ft/s)	7.04	Avg. Vel. (ft/s)		7.53	2.75
Max Chl Dpth (ft)	20.07	Hydr. Depth (ft)		16.56	2.52
Conv. Total (cfs)	9078970.0	Conv. (cfs)		8719554.0	359415.8
Length Wtd. (ft)	0.00	Wetted Per. (ft)		1755.48	1302.67
Min Ch El (ft)	855.00	Shear (lb/sq ft)		0.64	0.10
Alpha	1.10	Stream Power (lb/ft s)		4.85	0.27
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	425.36	38820.79	7733.73
C & E Loss (ft)	0.00	Cum SA (acres)	71.04	4066.00	1153.50

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19107.54 LB	19545.33	57654.42	7798.51	438.13	25.40	17.92	7.39
19545.33	19983.13	44253.91	6654.34	438.19	19.50	15.20	6.65
19983.13	20420.93	56874.69	7733.65	437.93	25.05	17.66	7.35
20420.93	20858.72 RB	31117.09	5382.32	437.27	13.71	12.36	5.78
20858.72	21524.45						
21524.45	21857.32	1.37	1.58	2.75	0.00	0.65	0.87

21857.32	22190.18	853.77	511.24	332.96	0.38	1.54	1.67
22190.18	22523.05	194.09	210.18	332.87	0.09	0.63	0.92
22523.05	22855.91	1267.54	647.97	332.87	0.56	1.95	1.96
22855.91	23188.78	2765.09	1034.92	333.08	1.22	3.11	2.67
23188.78	23521.64	5390.04	1544.29	332.87	2.37	4.64	3.49
23521.64	23854.51	6090.19	1661.70	332.87	2.68	4.99	3.67
23854.51	24187.37	6824.14	1779.10	332.87	3.01	5.34	3.84
24187.37	24520.24	5729.46	1602.05	332.93	2.52	4.81	3.58
24520.24	24853.10	4914.68	1461.07	332.87	2.17	4.39	3.36
24853.10	25185.97	2678.15	1015.02	332.87	1.18	3.05	2.64
25185.97	25518.83	391.36	175.46	74.03	0.17	2.37	2.23

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19107.54 LB	19545.33	65518.09	8148.07	440.21	28.86	18.64	8.04
19545.33	19983.13	51086.82	7005.27	438.19	22.51	16.00	7.29
19983.13	20420.93	64893.07	8084.58	437.93	28.59	18.47	8.03
20420.93	20858.72 RB	36515.62	5732.03	439.15	16.09	13.11	6.37
20858.72	21524.45						
21524.45	21857.32	5.51	4.12	4.45	0.00	1.05	1.34
21857.32	22190.18	1927.71	778.06	332.96	0.85	2.34	2.48
22190.18	22523.05	853.00	476.99	332.87	0.38	1.43	1.79
22523.05	22855.91	2525.20	914.78	332.87	1.11	2.75	2.76
22855.91	23188.78	3675.00	1098.39	299.52	1.62	3.73	3.35

Warning - Divided flow computed for this cross-section.

BRIDGE RIVER: RIVER-1
REACH: Reach-1 RS: 188.055

INPUT
Description: Bridge #2 (Tuthill)
Distance from Upstream XS = 0
Deck/Roadway Width = 33
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =
Upstream Deck/Roadway Coordinates
num= 18

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
19088.5	894.85	894.85	19100.52	895	887.3	19218.52	896.08	888.38
19336.52	897.01	889.3	19454.52	897.78	889.9	19572.52	898.4	890.7
19690.52	898.87	891.17	19808.52	899.18	891.29	19926.52	899.33	891.63
20044.52	899.33	891.63	20162.52	899.18	891.29	20280.52	898.87	891.17
20398.52	898.4	890.7	20516.52	897.78	889.9	20634.52	897.01	889.31
20752.52	896.08	888.38	20870.52	895	887.3	20881.8	894.85	894.85

Upstream Bridge Cross Section Data
Station Elevation Data num= 62

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17738.5	884	19088.5	887.43	19098	881.18	19104.8	876.53	19107.54	875.38
19134.7	864.01	19178	855	19198	855	19455.6	855	19545.9	856.01
19569.5	855.82	19573.5	855.82	19633	855.06	19687	857.81	19691	857.81
19749.5	858.51	19805.5	860.06	19809.5	860.06	19867.6	863.15	19923.2	863.25
19927.3	863.25	19980.7	858.53	20041.4	857.23	20045.5	857.23	20070.5	856.68
20159.2	855	20163.2	855	20224.3	857.42	20278	856.74	20282	856.74
20335.5	857.58	20395.5	855.35	20399.5	855.35	20472.7	855	20517.5	855
20527.6	856.08	20562.1	858.91	20631.4	862.4	20635.4	862.4	20686.6	865.43
20749.1	866.47	20753.1	866.47	20842.4	867.72	20858.72	875.38	25	20865.3
20869	879.9	20881.8	886.15	21833.8	885.6	21858	872.6	22095.6	872.7
22385.2	874.2	22632.4	871.9	22983.9	873.1	23006.6	870	24233.4	868.7
24410.3	870.8	24443.1	868.9	25188.3	871.9	25395.5	871.9	25667.1	873.1
25840.4	873.1	25851.7	879.3						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17738.5	.065	19107.54	.032	20858.72	.025

Bank Sta: Left Right Coeff Contr. Expan.
19107.54 20858.72 .1 .3
Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17738.5	19098	881	25260	25851.7	881

Downstream Deck/Roadway Coordinates
num= 18

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
19088.5	894.85	894.85	19100.52	895	887.3	19218.52	896.08	888.38
19336.52	897.01	889.3	19454.52	897.78	889.9	19572.52	898.4	890.7
19690.52	898.87	891.17	19808.52	899.18	891.29	19926.52	899.33	891.63
20044.52	899.33	891.63	20162.52	899.18	891.29	20280.52	898.87	891.17
20398.52	898.4	890.7	20516.52	897.78	889.9	20634.52	897.01	889.31
20752.52	896.08	888.38	20870.52	895	887.3	20881.8	894.85	894.85

Downstream Bridge Cross Section Data
Station Elevation Data num= 62

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17738.5	884	19088.5	887.43	19098	881.18	19104.8	876.53	19107.51	875.39
19134.7	864.01	19178	855	19198	855	19455.6	855	19545.9	856.01
19569.5	855.82	19573.5	855.82	19633	855.06	19687	857.81	19691	857.81
19749.5	858.51	19805.5	860.06	19809.5	860.06	19867.6	863.15	19923.2	863.25
19927.3	863.25	19980.7	858.53	20041.4	857.23	20045.5	857.23	20070.5	856.68
20159.2	855	20163.2	855	20224.3	857.42	20278	856.74	20282	856.74
20335.5	857.58	20395.5	855.35	20399.5	855.35	20472.7	855	20517.5	855
20527.6	856.08	20562.1	858.91	20631.4	862.4	20635.4	862.4	20686.6	865.43
20749.1	866.47	20753.1	866.47	20842.4	867.7	20858.91	875.47	17 20865.3	878.48
20869	879.9	20881.8	886.15	21833.8	885.6	21858	872.6	22095.6	872.7
22385.2	874.2	22632.4	871.9	22983.9	873.1	23006.6	870	24233.4	868.7
24410.3	870.8	24443.1	868.9	25188.3	871.9	25395.5	871.9	25667.1	873.1
25840.4	873.1	25851.7	879.3						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17738.5	.065	19107.51	.032	20858.91	.025

Bank Sta: Left	Right	Coeff Contr.	Expan.
19107.51	20858.91	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17738.5	19098	881.18	25000	25851.7	881

Upstream Embankment side slope = 0 horiz. to 1.0 vertical
Downstream Embankment side slope = 0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow = .95
Elevation at which weir flow begins =
Energy head used in spillway design =
Spillway height used in design =
Weir crest shape = Broad Crested

Number of Piers = 14

Pier Data
Pier Station Upstream= 19218.5 Downstream= 19218.5
Upstream num= 2

Width	Elev	Width	Elev
4	854	4	892

Downstream num= 2

Width	Elev	Width	Elev
4	854	4	892

Pier Data
Pier Station Upstream= 19336.2 Downstream= 19336.2
Upstream num= 2

Width	Elev	Width	Elev
4	854	4	892

Downstream num= 2

Width	Elev	Width	Elev
4	854	4	892

Pier Data
Pier Station Upstream= 19453.6 Downstream= 19453.6
Upstream num= 2

Width	Elev	Width	Elev
4	854	4	892

Downstream num= 2

Width	Elev	Width	Elev
4	854	4	892

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Pier Data
Pier Station     Upstream= 19571.5    Downstream= 19571.5
Upstream     num=       2
    Width   Elev    Width   Elev
       4     854       4     892
Downstream     num=       2
    Width   Elev    Width   Elev
       4     854       4     892

Pier Data
Pier Station     Upstream=   19689    Downstream=   19689
Upstream     num=       2
    Width   Elev    Width   Elev
       4     854       4     892
Downstream     num=       2
    Width   Elev    Width   Elev
       4     854       4     892

Pier Data
Pier Station     Upstream= 19807.5    Downstream= 19807.5
Upstream     num=       2
    Width   Elev    Width   Elev
       4     854       4     892
Downstream     num=       2
    Width   Elev    Width   Elev
       4     854       4     892

Pier Data
Pier Station     Upstream= 19925.3    Downstream= 19925.3
Upstream     num=       2
    Width   Elev    Width   Elev
       4     854       4     892
Downstream     num=       2
    Width   Elev    Width   Elev
       4     854       4     892

Pier Data
Pier Station     Upstream= 20043.4    Downstream= 20043.4
Upstream     num=       2
    Width   Elev    Width   Elev
       4     854       4     892
Downstream     num=       2
    Width   Elev    Width   Elev
       4     854       4     892

Pier Data
Pier Station     Upstream= 20161.2    Downstream= 20161.2
Upstream     num=       2
    Width   Elev    Width   Elev
       4     854       4     892
Downstream     num=       2
    Width   Elev    Width   Elev
       4     854       4     892

Pier Data
Pier Station     Upstream=   20280    Downstream=   20280
Upstream     num=       2
    Width   Elev    Width   Elev
       4     854       4     892
Downstream     num=       2
    Width   Elev    Width   Elev
       4     854       4     892

Pier Data
Pier Station     Upstream= 20397.5    Downstream= 20397.5
Upstream     num=       2
    Width   Elev    Width   Elev
       4     854       4     892
Downstream     num=       2
    Width   Elev    Width   Elev
       4     854       4     892

Pier Data
Pier Station     Upstream= 20515.5    Downstream= 20515.5
Upstream     num=       2
```

```
    Width   Elev    Width   Elev
      4     854       4     892
Downstream     num=       2
    Width   Elev    Width   Elev
      4     854       4     892

Pier Data
Pier Station     Upstream= 20633.4    Downstream= 20633.4
Upstream     num=       2
    Width   Elev    Width   Elev
      4     854       4     892
Downstream     num=       2
    Width   Elev    Width   Elev
      4     854       4     892

Pier Data
Pier Station     Upstream= 20751.1    Downstream= 20751.1
Upstream     num=       2
    Width   Elev    Width   Elev
      4     854       4     892
Downstream     num=       2
    Width   Elev    Width   Elev
      4     854       4     892

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
      Energy
      Momentum                Cd   =      .32
      Yarnell                 KVal =      .9
Selected Low Flow Methods = Highest Energy Answer

High Flow Method
      Energy Only

Additional Bridge Parameters
      Add Friction component to Momentum
      Do not add Weight component to Momentum
      Class B flow critical depth computations use critical depth
          inside the bridge at the downstream end
      Criteria to check for pressure flow = Upstream water surface

BRIDGE OUTPUT    Profile #PF#1
Opening : Bridge #1

  E.G. US. (ft)                874.91   Element                 Inside BR US  Inside BR DS
  W.S. US. (ft)                874.27   E.G. Elev (ft)               874.91        874.88
  Q Total (cfs)             227000.00   W.S. Elev (ft)               874.27        874.22
  Q Bridge (cfs)            183402.45   Crit W.S. (ft)               866.41        866.40
  Q Weir (cfs)                          Max Chl Dpth (ft)             19.27         19.22
  Weir Sta Lft (ft)                     Vel Total (ft/s)               5.92          6.08
  Weir Sta Rgt (ft)                     Flow Area (sq ft)          38315.30      37355.79
  Weir Submerg                          Froude # Chl                   0.31          0.31
  Weir Max Depth (ft)                   Specif Force (cu ft)       292980.16     290958.66
  Min Top Rd (ft)               868.70  Hydr Depth (ft)                7.52          7.73
  Min El Prs (ft)               894.85  W.P. Total (ft)             5560.79       5298.82
  Delta EG (ft)                   0.03  Conv. Total (cfs)          8194585.5     8044754.0
  Delta WS (ft)                   0.06  Top Width (ft)             5677.83       5677.37
  BR Open Area (sq ft)        53945.39  Frctn Loss (ft)                0.03          0.00
  BR Open Vel (ft/s)              6.90  C & E Loss (ft)                0.00          0.00
  Coef of Q                             Shear Total (lb/sq ft)         0.33          0.35
  Br Sel Mthd               Energy only Power Total (lb/ft s)          1.96          2.13

Note - Yarnell answer is not valid if the water surface is above the low chord or if there is
weir flow.
                The Yarnell answer has been disregarded.
Note - Momentum answer is not valid if the water surface is above the low chord or if there is
weir
                flow.  The momentum answer has been disregarded.
Warning - Computed energy elevation is less than the downstream energy. Computed energy is set to
                downstream energy.

BRIDGE OUTPUT    Profile #PF#2
Opening : Bridge #1
```

E.G. US. (ft)	875.92	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	875.07	E.G. Elev (ft)	875.92	875.88
Q Total (cfs)	227000.00	W.S. Elev (ft)	875.02	874.98
Q Bridge (cfs)	216420.92	Crit W.S. (ft)	866.41	866.40
Q Weir (cfs)		Max Chl Dpth (ft)	20.02	19.98
Weir Sta Lft (ft)		Vel Total (ft/s)	7.29	7.32
Weir Sta Rgt (ft)		Flow Area (sq ft)	31119.47	31005.41
Weir Submerg		Froude # Chl	0.34	0.34
Weir Max Depth (ft)		Specif Force (cu ft)	302410.28	301425.06
Min Top Rd (ft)	869.85	Hydr Depth (ft)	10.41	10.37
Min El Prs (ft)	894.85	W.P. Total (ft)	3481.97	3480.60
Delta EG (ft)	0.05	Conv. Total (cfs)	7443307.0	7409817.5
Delta WS (ft)	0.07	Top Width (ft)	2990.04	2989.79
BR Open Area (sq ft)	53782.96	Frctn Loss (ft)	0.03	0.00
BR Open Vel (ft/s)	7.77	C & E Loss (ft)	0.00	0.01
Coef of Q		Shear Total (lb/sq ft)	0.52	0.52
Br Sel Mthd	Energy only	Power Total (lb/ft s)	3.79	3.82

Note - Yarnell answer is not valid if the water surface is above the low chord or if there is weir flow.
The Yarnell answer has been disregarded.
Note - Momentum answer is not valid if the water surface is above the low chord or if there is weir
flow. The momentum answer has been disregarded.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 188.04

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 62

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17738.5	884	19088.5	887.43	19098	881.18	19104.8	876.53	19107.5	1875.3956
19134.7	864.01	19178	855	19198	855	19455.6	855	19545.9	856.01
19569.5	855.82	19573.5	855.82	19633	855.06	19687	857.81	19691	857.81
19749.5	858.51	19805.5	860.06	19809.5	860.06	19867.6	863.15	19923.2	863.25
19927.3	863.25	19980.7	858.53	20041.4	857.23	20045.5	857.23	20070.5	856.68
20159.2	855	20163.2	855	20224.3	857.42	20278	856.74	20282	856.74
20335.5	857.58	20395.5	855.35	20399.5	855.35	20472.7	855	20517.5	855
20527.6	856.08	20562.1	858.91	20631.4	862.4	20635.4	862.4	20686.6	865.43
20749.1	866.47	20753.1	866.47	20842.4	867.7	20858.9	1875.4717	20865.3	878.48
20869	879.9	20881.8	886.15	21833.8	885.6	21858	872.6	22095.6	872.7
22385.2	874.2	22632.4	871.9	22983.9	873.1	23006.6	870	24233.4	868.7
24410.3	870.8	24443.1	868.9	25188.3	871.9	25395.5	871.9	25667.1	873.1
25840.4	873.1	25851.7	879.3						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17738.5	.065	19107.51	.032	20858.91	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19107.5	20858.91	256.03	256.92	271.03	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17738.5	19098	881.18	25000	25851.7	881

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	874.21	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.67	Wt. n-Val.		0.032	0.025
E.G. Elev (ft)	874.88	Reach Len. (ft)	256.03	256.92	271.03
Crit W.S. (ft)	866.15	Flow Area (sq ft)		27472.15	10782.90
E.G. Slope (ft/ft)	0.000577	Area (sq ft)		27472.15	12429.67
Q Total (cfs)	227000.00	Flow (cfs)		192004.53	34995.48
Top Width (ft)	5733.35	Top Width (ft)		1745.91	3987.44
Vel Total (ft/s)	5.93	Avg. Vel. (ft/s)		6.99	3.25
Max Chl Dpth (ft)	19.21	Hydr. Depth (ft)		15.74	3.43
Conv. Total (cfs)	9451102.0	Conv. (cfs)		7994072.0	1457030.4
Length Wtd. (ft)	260.13	Wetted Per. (ft)		1751.25	3145.71
Min Ch El (ft)	855.00	Shear (lb/sq ft)		0.56	0.12
Alpha	1.22	Stream Power (lb/ft s)		3.95	0.40
Frctn Loss (ft)	0.18	Cum Volume (acre-ft)	3955.39	37205.09	15703.82
C & E Loss (ft)	0.00	Cum SA (acres)	996.94	4059.72	4373.98

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	875.00	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.87	Wt. n-Val.		0.032	0.025
E.G. Elev (ft)	875.87	Reach Len. (ft)	256.03	256.92	271.03
Crit W.S. (ft)	866.18	Flow Area (sq ft)		28850.55	2927.43
E.G. Slope (ft/ft)	0.000641	Area (sq ft)		28850.55	2927.43
Q Total (cfs)	227000.00	Flow (cfs)		219242.30	7757.70
Top Width (ft)	2995.94	Top Width (ft)		1749.47	1246.47
Vel Total (ft/s)	7.14	Avg. Vel. (ft/s)		7.60	2.65
Max Chl Dpth (ft)	20.00	Hydr. Depth (ft)		16.49	2.35
Conv. Total (cfs)	8967313.0	Conv. (cfs)		8660856.0	306456.8
Length Wtd. (ft)	258.40	Wetted Per. (ft)		1755.14	1252.41
Min Ch El (ft)	855.00	Shear (lb/sq ft)		0.66	0.09
Alpha	1.10	Stream Power (lb/ft s)		5.00	0.25
Frctn Loss (ft)	0.20	Cum Volume (acre-ft)	425.36	38799.66	7731.32
C & E Loss (ft)	0.00	Cum SA (acres)	71.04	4064.72	1152.52

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19107.51 LB	19545.36	58339.45	7774.88	438.01	25.70	17.87	7.50
19545.36	19983.21	44731.26	6630.93	438.24	19.71	15.14	6.75
19983.21	20421.06	57541.14	7710.68	437.99	25.35	17.61	7.46
20421.06	20858.91 RB	31392.64	5355.66	437.00	13.83	12.31	5.86
20858.91	21524.62						
21524.62	21857.47	1.46	1.64	2.81	0.00	0.66	0.89
21857.47	22190.32	810.84	492.76	332.92	0.36	1.48	1.65
22190.32	22523.17	168.23	191.77	332.86	0.07	0.58	0.88
22523.17	22856.03	1219.88	629.55	332.86	0.54	1.89	1.94
22856.03	23188.88	2710.97	1016.77	333.07	1.19	3.05	2.67
23188.88	23521.73	5334.78	1525.83	332.85	2.35	4.58	3.50
23521.73	23854.58	6036.29	1643.23	332.85	2.66	4.94	3.67
23854.58	24187.44	6772.03	1760.63	332.85	2.98	5.29	3.85
24187.44	24520.29	5674.49	1583.54	332.92	2.50	4.76	3.58
24520.29	24853.14	4858.27	1442.53	332.85	2.14	4.33	3.37
24853.14	25185.99	1408.26	494.66	146.86	0.62	3.37	2.85

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19107.51 LB	19545.36	65945.84	8118.73	440.05	29.05	18.58	8.12
19545.36	19983.21	51357.71	6976.26	438.24	22.62	15.93	7.36
19983.21	20421.06	65303.76	8056.01	437.99	28.77	18.40	8.11
20421.06	20858.91 RB	36634.98	5699.54	438.86	16.14	13.05	6.43
20858.91	21524.62						
21524.62	21857.47	5.72	4.18	4.48	0.00	1.06	1.37
21857.47	22190.32	1870.67	755.28	332.92	0.82	2.27	2.48
22190.32	22523.17	801.86	454.29	332.86	0.35	1.36	1.77
22523.17	22856.03	2469.11	892.07	332.86	1.09	2.68	2.77
22856.03	23188.88	2610.34	821.62	249.29	1.15	3.37	3.18

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 188

INPUT
Description: Left and Right Bank Channel Station Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17809.5	882.7	18032.2	871.3	18276.6	870.2	18423.8	868.3	18503	871.2
18526.5	867.4	18545	871.2	18580.9	873.5	18792	877.1	19009.2	876.1
19064.7	3874.4347	19095.9	873.5	19119.6	871	19135.5	866.6	19146.6	858.5
19191.6	863.6	19215.5	863.4	19613.8	858.8	19662.5	860.8	19687.5	858.6

19855.8	864.2	19952.9	858.3	20053.8	859.2	20309.5	860.5	20360.5	866.1
20417.8	863.3	20632.7	864.6	20848.7	868.3	21040	868.4297	21143.7	868.5
21354.6	868.6	21579.2	869	21617.4	867.8	21647.5	872.3	21867.1	872.3
22088	871.9	22301.1	871.9	22378.5	873.3	22407.2	870.1	22631.3	869.9
22874.1	869.8	22916.6	869.1	23000.5	869.7	23239.4	869.1	23543.4	869.4
23676.7	869.4	23898.3	868.7	24195.4	868.8	24409.2	868.8	24443	871.4
24470.7	869.3	24810.4	870.5	25085.2	871.2	25305.8	872.1	25559.6	872.3
25738.2	874.4	25745.9	878.9	25763.1	878.1	25772.8	872	25787.1	872.2
25796.4	879.8	25832.3	875.5	26004.6	875.3	26202.5	878.7	26529.2	878
26570.7	878	26857.9	878	27071.1	877.7	27120.8	874.8	27140.6	877.1
27366	877.5	27646.8	878.2	27689.4	878.3	28007.8	878.6	28238.9	879
28350.4	879.7	28686.3	877.1	28911.9	877.4	28974.7	877.3	29188.7	878.1
29434.6	878.8	29673.3	878.9	29685.9	876.3	29706.7	879.6	29717	872.7
29732.6	878	29953.2	876.6	30214.9	877.6	30455.5	878.5	30815.7	879.1
31029.5	879.8	31098.8	877.7	31381.4	878.8	31701.5	878.6	31992	879
32205.1	879.2	32566.2	880.8	32782.3	881.9				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17809.5	.065	19009.2	.03	20360.5	.032	21647.5	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19064.73	21040	505	526.41	545	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17809.5	19009.2	880	24800	32782.3	880

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	874.03	Element			
Vel Head (ft)	0.66	Wt. n-Val.		0.030	0.026
E.G. Elev (ft)	874.70	Reach Len. (ft)	505.00	526.41	545.00
Crit W.S. (ft)	871.09	Flow Area (sq ft)		21806.73	15766.18
E.G. Slope (ft/ft)	0.000856	Area (sq ft)	2187.15	21806.73	17834.85
Q Total (cfs)	227000.00	Flow (cfs)		158910.33	68089.68
Top Width (ft)	7288.22	Top Width (ft)	633.47	1961.93	4692.82
Vel Total (ft/s)	6.04	Avg. Vel. (ft/s)		7.29	4.32
Max Chl Dpth (ft)	15.73	Hydr. Depth (ft)		11.11	4.19
Conv. Total (cfs)	7756525.5	Conv. (cfs)		5429920.5	2326605.0
Length Wtd. (ft)	531.33	Wetted Per. (ft)		1966.45	3760.74
Min Ch El (ft)	858.30	Shear (lb/sq ft)		0.59	0.22
Alpha	1.17	Stream Power (lb/ft s)		4.32	0.97
Frctn Loss (ft)	0.46	Cum Volume (acre-ft)	3948.97	37059.77	15609.67
C & E Loss (ft)	0.00	Cum SA (acres)	995.08	4048.78	4346.97

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	874.79	Element			
Vel Head (ft)	0.88	Wt. n-Val.		0.030	0.028
E.G. Elev (ft)	875.67	Reach Len. (ft)	505.00	526.41	545.00
Crit W.S. (ft)	870.76	Flow Area (sq ft)		23290.10	8713.59
E.G. Slope (ft/ft)	0.000971	Area (sq ft)		23290.10	8713.59
Q Total (cfs)	227000.00	Flow (cfs)		187082.14	39917.86
Top Width (ft)	3945.27	Top Width (ft)		1975.27	1970.00
Vel Total (ft/s)	7.09	Avg. Vel. (ft/s)		8.03	4.58
Max Chl Dpth (ft)	16.49	Hydr. Depth (ft)		11.79	4.42
Conv. Total (cfs)	7285969.0	Conv. (cfs)		6004734.5	1281234.8
Length Wtd. (ft)	529.20	Wetted Per. (ft)		1980.15	1975.66
Min Ch El (ft)	858.30	Shear (lb/sq ft)		0.71	0.27
Alpha	1.13	Stream Power (lb/ft s)		5.73	1.22
Frctn Loss (ft)	0.49	Cum Volume (acre-ft)	425.36	38645.89	7695.11
C & E Loss (ft)	0.01	Cum SA (acres)	71.04	4053.73	1142.52

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19064.73 LB	19558.55	39081.46	5421.58	484.16	17.22	11.28	7.21
19558.55	20052.37	55742.54	6764.44	494.24	24.56	13.70	8.24
20052.37	20546.18	46134.31	6058.93	494.20	20.32	12.27	7.61
20546.18	21040.00 RB	17952.00	3561.79	493.85	7.91	7.21	5.04
21040.00	21822.82	13743.61	3549.28	783.17	6.05	4.53	3.87

21822.82	22605.64	5942.31	1935.44	783.01	2.62	2.47	3.07
22605.64	23388.46	16237.23	3537.32	782.83	7.15	4.52	4.59
23388.46	24171.28	19073.20	3896.00	782.82	8.40	4.98	4.90
24171.28	24954.10	13093.33	2848.15	628.90	5.77	4.53	4.60

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19064.73 LB	19558.55	45559.11	5790.42	497.86	20.07	11.73	7.87
19558.55	20052.37	64852.95	7135.95	494.24	28.57	14.45	9.09
20052.37	20546.18	54129.24	6430.44	494.20	23.85	13.02	8.42
20546.18	21040.00 RB	22540.83	3933.30	493.85	9.93	7.97	5.73
21040.00	21822.82	18989.38	4138.21	783.17	8.37	5.29	4.59
21822.82	22605.64	10014.17	2524.37	783.01	4.41	3.22	3.97
22605.64	23388.46	10914.30	2051.01	409.48	4.81	5.07	5.32

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 187.91

INPUT
Description: Right Bank Channel Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18003.2	880.8	18217.8	877.8	18433.4	878.6	18691.1	876.2	18803.4	875.2
18947.3	870.3	19049.7	868.7	19105.1	869.8	19184.5	863.3	19212.2	858.4
19285	858.5	19608	859.2	19815.6	860.6	19824.7	858.2	19913.6	856.5
20023.9	864.1	20081.6	865.6	20095.6	861.6	20145.5	859.6	20158.6	857.4
20452.6	861.1	20492.7	866.6	20615.2	868.4	20861.3	867.1	21099.5	868.7
21319.3	868.7	21500	869.0129	21608.1	869.2	21635.5	868.2	21671.2	873.1
21690.3	870.8	21772.7	870.2	22007.1	870	22113.4	870	22353.1	869.6
22602.5	869.4	22851.6	868.8	23024.5	870.7	23040.3	867.5	23057.7	868.3
23061.7	870.4	23279.5	869.2	23505.4	869.3	23813.2	869.3	24023.9	868.7
24242.8	869	24448.9	868.9	24457.2	870.9	24605.1	871.6	24644.2	877.8
24660	870.5	24676.7	871.1	24696.7	878.4	24770.5	874.1	25041.4	874.9
25398.2	874.9	25628	874.8	25855.6	873.6	25946.5	873.2	26134.7	877.2
26290.9	876.9	26509.7	876.8	26695.5	876.7	26935.7	876.6	27193.9	876.4
27489.9	877.6	27760.5	877.8	28014.6	877.5	28227.1	878	28397.1	877.8
28412	875.2	28462.3	877	28463.1	878.5	28497.2	874.1	28548.8	877.9
28817.1	876.3	29100.5	877	29394.7	877.3	29675.7	876.8	29699.8	877.3
29714.9	876.2	29719.9	878	29740	877.2	29751.4	870.8	29766	877
30036.6	877.7	30409.7	877.7	30488.1	877.7	30717.4	878.1	30951.8	878.5
31075.8	878.9	31384	877.4	31731.1	878.3	32092.9	879.7	32309.3	880
32596	880.4	32822.9	881.5						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18003.2	.065	19105.1	.03	20615.2	.032	21671.2	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19105.1	21500	430	456.46	505	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18003.2	19105.1	880	24400	32822.9	880

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	873.54	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.70	Wt. n-Val.		0.030	0.025
E.G. Elev (ft)	874.24	Reach Len. (ft)	430.00	456.46	505.00
Crit W.S. (ft)	870.72	Flow Area (sq ft)		24092.82	11810.10
E.G. Slope (ft/ft)	0.000870	Area (sq ft)	804.59	24092.82	12511.20
Q Total (cfs)	227000.00	Flow (cfs)		174930.88	52069.13
Top Width (ft)	5898.59	Top Width (ft)	252.84	2394.90	3250.85
Vel Total (ft/s)	6.32	Avg. Vel. (ft/s)		7.26	4.41
Max Chl Dpth (ft)	17.04	Hydr. Depth (ft)		10.06	4.07
Conv. Total (cfs)	7697004.0	Conv. (cfs)		5931470.0	1765534.3
Length Wtd. (ft)	465.36	Wetted Per. (ft)		2397.41	2901.37
Min Ch El (ft)	856.50	Shear (lb/sq ft)		0.55	0.22
Alpha	1.13	Stream Power (lb/ft s)		3.96	0.97
Frctn Loss (ft)	0.46	Cum Volume (acre-ft)	3931.62	36782.43	15419.83
C & E Loss (ft)	0.02	Cum SA (acres)	989.94	4022.46	4297.28

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	874.32	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.84	Wt. n-Val.		0.030	0.026
E.G. Elev (ft)	875.16	Reach Len. (ft)	430.00	456.46	505.00
Crit W.S. (ft)	870.37	Flow Area (sq ft)		25980.50	5967.20
E.G. Slope (ft/ft)	0.000895	Area (sq ft)		25980.50	5967.20
Q Total (cfs)	227000.00	Flow (cfs)		198719.95	28280.06
Top Width (ft)	3694.90	Top Width (ft)		2394.90	1300.00
Vel Total (ft/s)	7.11	Avg. Vel. (ft/s)		7.65	4.74
Max Chl Dpth (ft)	17.82	Hydr. Depth (ft)		10.85	4.59
Conv. Total (cfs)	7586401.0	Conv. (cfs)		6641274.0	945127.1
Length Wtd. (ft)	460.68	Wetted Per. (ft)		2401.94	1305.89
Min Ch El (ft)	856.50	Shear (lb/sq ft)		0.60	0.26
Alpha	1.07	Stream Power (lb/ft s)		4.62	1.21
Frctn Loss (ft)	0.44	Cum Volume (acre-ft)	425.36	38348.18	7603.27
C & E Loss (ft)	0.01	Cum SA (acres)	71.04	4027.33	1122.06

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19105.10 LB	19703.82	66555.56	8090.93	599.42	29.32	13.51	8.23
19703.82	20302.55	67879.04	8190.96	600.13	29.90	13.68	8.29
20302.55	20901.28	28550.73	4811.58	599.13	12.58	8.04	5.93
20901.28	21500.00 RB	11945.56	2999.36	598.73	5.26	5.01	3.98
21500.00	22254.86	10306.86	2693.29	755.35	4.54	3.57	3.83
22254.86	23009.72	13878.88	3101.98	754.87	6.11	4.11	4.47
23009.72	23764.58	13914.04	3108.09	755.72	6.13	4.12	4.48
23764.58	24519.44	13969.33	2906.74	635.42	6.15	4.57	4.81

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19105.10 LB	19703.82	73918.26	8562.85	603.95	32.56	14.30	8.63
19703.82	20302.55	75682.08	8662.88	600.13	33.34	14.47	8.74
20302.55	20901.28	33642.63	5283.50	599.13	14.82	8.82	6.37
20901.28	21500.00 RB	15476.99	3471.28	598.73	6.82	5.80	4.46
21500.00	22254.86	14637.69	3288.27	755.35	6.45	4.36	4.45
22254.86	23009.72	13642.37	2678.93	550.54	6.01	4.91	5.09

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 187.82

INPUT
Description: Right Bank Channel Station Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17839.6	880	18098.9	878.8	18327.4	875.4	18552.6	874.2	18811.8	874.9
19033.6	871	19077.1	867.9	19134.4	868.8	19145.8	862.9	19155.6	860.7
19175.2	864.6	19197.8	858.5	19588.8	857.9	19735.3	861.4	19775.8	855.4
19919.3	859.8	19963.5	865.9	20108.8	867.7	20137	863.8	20204.4	865.2
20241.3	857.4	20549.2	860.6	20575.2	868.8	20758.1	865.4	21181.5	867.1
21213.2	867.3	21453.2	867.8	21600	868.7	21656.2	869.1	21920	870.6
21975.7	871	22232.9	869.6	22484.8	870	22730.4	868.6	22858.1	868.7
22968.7	866.2	22980.6	868.4	23209.7	868.5	23330.2	868.7	23571.1	868.3
23636.6	867.3	23671.5	871.9	23919.3	873	24172.8	873	24428	872.6
24475.9	875.3	24487.1	868.3	24499.5	869.1	24509.5	874.5	24769.5	874.1
25027.3	873.4	25282.1	873.5	25526.2	873.8	25764.8	874.1	25787.5	875.4
25804.5	872.3	25925.4	872.8	26069.3	876.4	26357.6	876	26608.7	875.9
26869.9	876.6	27226.6	876.2	27613.3	876.2	27866.4	877	28133.4	877.3
28329.4	877.1	28413.5	874.4	28472.8	875.3	28484.7	871.5	28521.6	875.2
28809.1	876.2	29099.3	876.1	29466.7	876.4	29693.7	874.9	29703	873.5
29716.1	876.9	29734.1	876.1	29744.8	869.5	29764.5	875.2	29781.8	874.8
29797.2	876.7	29999.7	877.1	30226.9	876.9	30459.3	876.9	30789.8	877.2
31033.1	877.8	31065.3	875.2	31067.5	876.4	31083.3	874.7	31121.1	876.3

31358.4	877.3	31630.3	877.3	31653.3	877	31884	877.6	32131	878		
32435.6	878.9	32662.4	879.9	32821.1	879.9						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17839.6	.065	19134.4	.03	20575.2	.032	21975.7	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19134.4	21920	475	490.95	375	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17839.6	19134.4	878	23950	32821.1	878

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	872.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.85	Wt. n-Val.		0.030	0.025
E.G. Elev (ft)	873.76	Reach Len. (ft)	475.00	490.95	375.00
Crit W.S. (ft)	869.96	Flow Area (sq ft)		25202.42	6838.09
E.G. Slope (ft/ft)	0.001124	Area (sq ft)	515.31	25202.42	7039.17
Q Total (cfs)	227000.00	Flow (cfs)		195856.50	31143.50
Top Width (ft)	5367.53	Top Width (ft)	209.36	2785.60	2372.56
Vel Total (ft/s)	7.08	Avg. Vel. (ft/s)		7.77	4.55
Max Chl Dpth (ft)	17.51	Hydr. Depth (ft)		9.05	3.46
Conv. Total (cfs)	6770502.0	Conv. (cfs)		5841616.0	928885.9
Length Wtd. (ft)	474.17	Wetted Per. (ft)		2791.88	1979.34
Min Ch El (ft)	855.40	Shear (lb/sq ft)		0.63	0.24
Alpha	1.09	Stream Power (lb/ft s)		4.92	1.10
Frctn Loss (ft)	0.53	Cum Volume (acre-ft)	3925.11	36524.14	15306.51
C & E Loss (ft)	0.00	Cum SA (acres)	987.66	3995.32	4264.68

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	873.80	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.91	Wt. n-Val.		0.030	0.025
E.G. Elev (ft)	874.71	Reach Len. (ft)	475.00	490.95	375.00
Crit W.S. (ft)	869.59	Flow Area (sq ft)		27681.13	2459.77
E.G. Slope (ft/ft)	0.001035	Area (sq ft)		27681.13	2459.77
Q Total (cfs)	227000.00	Flow (cfs)		215861.03	11138.98
Top Width (ft)	3445.60	Top Width (ft)		2785.60	660.00
Vel Total (ft/s)	7.53	Avg. Vel. (ft/s)		7.80	4.53
Max Chl Dpth (ft)	18.40	Hydr. Depth (ft)		9.94	3.73
Conv. Total (cfs)	7055082.0	Conv. (cfs)		6708886.5	346195.8
Length Wtd. (ft)	485.29	Wetted Per. (ft)		2796.88	664.35
Min Ch El (ft)	855.40	Shear (lb/sq ft)		0.64	0.24
Alpha	1.04	Stream Power (lb/ft s)		4.99	1.08
Frctn Loss (ft)	0.52	Cum Volume (acre-ft)	425.36	38067.03	7554.42
C & E Loss (ft)	0.01	Cum SA (acres)	71.04	4000.18	1110.70

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19134.40 LB	19830.80	94288.77	9844.98	699.78	41.54	14.14	9.58
19830.80	20527.20	64328.60	7818.69	697.98	28.34	11.23	8.23
20527.20	21223.60	25467.85	4607.79	697.70	11.22	6.62	5.53
21223.60	21920.00 RB	11771.28	2930.96	696.41	5.19	4.21	4.02
21920.00	22646.74	8310.78	2115.53	726.75	3.66	2.91	3.93
22646.74	23373.48	17349.27	3279.39	726.97	7.64	4.51	5.29
23373.48	24100.22	5483.44	1443.17	525.62	2.42	2.75	3.80

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19134.40 LB	19830.80	99901.03	10464.65	704.78	44.01	15.03	9.55
19830.80	20527.20	70242.28	8438.36	697.98	30.94	12.12	8.32
20527.20	21223.60	30135.16	5227.47	697.70	13.28	7.51	5.76
21223.60	21920.00 RB	15582.54	3550.64	696.41	6.86	5.10	4.39

21920.00	22646.74	11138.98	2459.77	664.35	4.91	3.73	4.53

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 187.73

INPUT
Description:
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17304.3	880.2	17535	877.6	17680.2	877	17706.8	879.2	17828.6	875.7
18074	874.3	18329.8	874.9	18553.6	873.3	18646.5	873.9	18784.7	869.4
18836.3	866	18944.4	869	18980.6	868.1	19064.3	870.9	19070.1	869.3
19109.6	869	19133.5	860.6	19148.6	863	19162.9	858.6	19568.6	858.2
19658.3	859.2	19748.3	855.4	19823	858.1	19846.8	862	19892.8	864.6
20038.4	866.2	20206.8	866.7	20249.3	858.1	20358.4	860.4	20380.9	856.1
20432.1	857	20679.3	860.9	20707.9	865.4	20982.3	866.8	21196	867.5
21229.5	867.8	21339.7	865.3	21556.2	869.5	21640.8	868.6	21682	869.6345
21732.4	870.9	21985.2	870.2	22286.3	867.7	22533	866.5	22757.7	866.4
22970.7	865.6	23038.6	865	23091.2	870.8	23302	870.5	23529	870.9
23862.3	871.7	24081.2	871.9	24335.7	872.8	24455.8	874	24464.8	867.4
24474.1	866.9	24488.2	874.3	24869.8	872.5	24873.8	872.5	25101.2	872.5
25305.5	873.1	25557.7	873.2	25769.2	873.5	25779.8	870.7	26047.5	872.5
26195.5	872	26423.7	872.7	26680.6	872.5	26941.4	871.9	27129.5	871.3
27372.3	874.7	27607.2	872	27931.8	873	28166.3	873.4	28268	875.6
28477.7	871.1	28693.5	872.1	28755	872	29051.6	872.6	29285.3	872.4
29519.2	872.2	29716.7	872	29727.6	867.2	29749.7	871.6	30054	873.5
30458.1	873.2	30472.4	872.8	30751.4	872.4	30931.4	875.6	31107.6	873.3
31274.8	875.3	31561.4	875	31780.9	875.4	32095.8	876	32310.5	876.3
32663.3	878.1	32804.6	878.6						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17304.3	.065	19064.3	.03	20707.9	.032	21732.4	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19064.3	21732.4	490	474.38	280	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17304.3	18800	878	23450	32804.6	878

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	872.38	Element			
Vel Head (ft)	0.84	Wt. n-Val.	0.065	0.030	0.025
E.G. Elev (ft)	873.23	Reach Len. (ft)	490.00	474.38	280.00
Crit W.S. (ft)	869.13	Flow Area (sq ft)	1096.58	24620.16	6836.93
E.G. Slope (ft/ft)	0.001124	Area (sq ft)	1286.72	24620.16	8596.15
Q Total (cfs)	227000.00	Flow (cfs)	2169.51	190609.45	34221.04
Top Width (ft)	7780.90	Top Width (ft)	371.25	2668.10	4741.55
Vel Total (ft/s)	6.97	Avg. Vel. (ft/s)	1.98	7.74	5.01
Max Chl Dpth (ft)	16.98	Hydr. Depth (ft)	4.15	9.23	3.98
Conv. Total (cfs)	6769423.5	Conv. (cfs)	64697.4	5684212.0	1020514.0
Length Wtd. (ft)	442.03	Wetted Per. (ft)	264.48	2672.93	1717.94
Min Ch El (ft)	855.40	Shear (lb/sq ft)	0.29	0.65	0.28
Alpha	1.11	Stream Power (lb/ft s)	0.58	5.01	1.40
Frctn Loss (ft)	0.43	Cum Volume (acre-ft)	3915.28	36243.38	15239.21
C & E Loss (ft)	0.05	Cum SA (acres)	984.49	3964.58	4234.06

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	873.21	Element			
Vel Head (ft)	0.97	Wt. n-Val.		0.030	0.025
E.G. Elev (ft)	874.19	Reach Len. (ft)	490.00	474.38	280.00
Crit W.S. (ft)	869.16	Flow Area (sq ft)		26825.13	2316.48
E.G. Slope (ft/ft)	0.001112	Area (sq ft)		26825.13	2316.48
Q Total (cfs)	227000.00	Flow (cfs)		215985.69	11014.31
Top Width (ft)	3285.70	Top Width (ft)		2668.10	617.60
Vel Total (ft/s)	7.79	Avg. Vel. (ft/s)		8.05	4.75
Max Chl Dpth (ft)	17.81	Hydr. Depth (ft)		10.05	3.75
Conv. Total (cfs)	6807377.5	Conv. (cfs)		6477075.5	330301.9
Length Wtd. (ft)	463.09	Wetted Per. (ft)		2675.24	623.43
Min Ch El (ft)	855.40	Shear (lb/sq ft)		0.70	0.26

Alpha	1.03	Stream Power (lb/ft s)		5.60	1.23
Frctn Loss (ft)	0.48	Cum Volume (acre-ft)	425.36	37759.87	7533.86
C & E Loss (ft)	0.03	Cum SA (acres)	71.04	3969.45	1105.20

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18712.30	18829.63	320.20	147.25	29.70	0.14	4.97	2.17
18829.63	18946.97	1250.56	577.86	117.39	0.55	4.93	2.16
18946.97	19064.30	598.75	371.46	117.39	0.26	3.17	1.61
19064.30 LB	19731.33	77962.13	8624.11	669.60	34.34	12.93	9.04
19731.33	20398.35	50397.52	6634.65	668.79	22.20	9.95	7.60
20398.35	21065.38	49148.66	6291.36	667.42	21.65	9.43	7.81
21065.38	21732.40 RB	13101.14	3070.05	667.13	5.77	4.60	4.27
21732.40	22470.55	10198.48	2443.47	738.16	4.49	3.31	4.17
22470.55	23208.69	22838.47	3964.24	738.47	10.06	5.37	5.76
23208.69	23946.84	1184.08	429.22	241.31	0.52	1.78	2.76

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19064.30 LB	19731.33	85892.18	9175.35	671.91	37.84	13.76	9.36
19731.33	20398.35	57332.41	7185.89	668.79	25.26	10.77	7.98
20398.35	21065.38	55579.68	6842.59	667.42	24.48	10.26	8.12
21065.38	21732.40 RB	17181.42	3621.29	667.13	7.57	5.43	4.74
21732.40	22470.55	11014.31	2316.48	623.43	4.85	3.75	4.75

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 187.64

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17435	878.6	17689.2	877	17936	874.2	18206.4	871.3	18235	872.4
18474.6	869.2	18698.6	867.9	18932.1	866.3	19149.8	866.7	19181.5	857.5
19335	857.4	19700.7	858.1	19752.4	865.4	19814.2	859.8	19887.2	867.1
19903.1	864.6	20007.7	862.1	20056.6	866.1	20138.7	863.5	20171.4	858.9
20209.7	858.7	20219	856.1	20288.3	856.9	20309.7	861.8	20379.3	864
20407.7	858.2	20798.8	860.6	20811.5	867.2	20961.2	864.8	21264.7	866.4
21306.9	861.3	21386.2	863	21444.1	861.5	21475.9	863.5	21553.3	863.1
21594.2	868.1	21882.5	867.8	22187.5	865.1	22291.1	868.1	22317.1	866
22627.9	865.6	22872.9	866.8	23093.2	868.5	23155.1	870.2	23272.7	872.6
23393.2	871.9	23658.2	872.6	23900.4	872.1	24164	873.5	24436.5	871.7
24440.7	870.5	24451.2	873.4	24470.7	874.3	24482.9	867.5	24491.3	867.4
24503.9	874.2	24722.1	871.5	25001.2	870.7	25242.1	871.1	25486.9	871.4
25759.8	871	25918.9	870.6	26089	872.6	26333.7	871.9	26572.2	872.5
26808.3	873.2	27069.2	872.9	27289.9	872	27601.3	872.5	27832.6	872.5
28078.8	872.6	28296.7	873.5	28515.6	870.8	28780.9	871.3	28784.3	871.3
29024.4	871.1	29047.1	871.1	29303.8	871.4	29530.7	872.1	29733.3	872.6
29743.4	867	29765.4	871.4	30055.6	872.7	30381.8	872.4	30598.2	872.7
30858.7	873.2	31077.7	873.3	31366.4	873.8	31447.1	873.9	31696.4	874.6
31916.3	875.6	32225.3	876.6	32532.3	877.4	32561.9	877.4	32820.6	877.8
32822.9	877.8								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17435	.065	19149.8	.03	20811.5	.032	21594.2	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19149.8	21594.2	510	513.43	105	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17435	18600	876	23100	32822.9	876

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	872.07	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.68	Wt. n-Val.	0.065	0.030	0.025

E.G. Elev (ft)	872.75	Reach Len. (ft)	510.00	513.43	105.00
Crit W.S. (ft)	868.36	Flow Area (sq ft)	2754.53	25718.30	7979.24
E.G. Slope (ft/ft)	0.000847	Area (sq ft)	3502.59	25718.30	10605.49
Q Total (cfs)	227000.00	Flow (cfs)	5365.47	179687.20	41947.33
Top Width (ft)	8099.08	Top Width (ft)	981.37	2444.40	4673.30
Vel Total (ft/s)	6.23	Avg. Vel. (ft/s)	1.95	6.99	5.26
Max Chl Dpth (ft)	15.97	Hydr. Depth (ft)	5.01	10.52	5.30
Conv. Total (cfs)	7800190.0	Conv. (cfs)	184368.7	6174424.5	1441397.0
Length Wtd. (ft)	449.46	Wetted Per. (ft)	549.81	2451.48	1505.95
Min Ch El (ft)	856.10	Shear (lb/sq ft)	0.26	0.55	0.28
Alpha	1.13	Stream Power (lb/ft s)	0.52	3.88	1.47
Frctn Loss (ft)	0.40	Cum Volume (acre-ft)	3888.35	35969.28	15177.49
C & E Loss (ft)	0.01	Cum SA (acres)	976.88	3936.74	4203.80

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	872.79	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.89	Wt. n-Val.		0.030	0.025
E.G. Elev (ft)	873.68	Reach Len. (ft)	510.00	513.43	105.00
Crit W.S. (ft)	868.15	Flow Area (sq ft)		27496.55	2762.14
E.G. Slope (ft/ft)	0.000950	Area (sq ft)		27496.55	2762.14
Q Total (cfs)	227000.00	Flow (cfs)		211647.38	15352.63
Top Width (ft)	2960.20	Top Width (ft)		2444.40	515.80
Vel Total (ft/s)	7.50	Avg. Vel. (ft/s)		7.70	5.56
Max Chl Dpth (ft)	16.69	Hydr. Depth (ft)		11.25	5.36
Conv. Total (cfs)	7363300.0	Conv. (cfs)		6865300.0	498000.3
Length Wtd. (ft)	496.60	Wetted Per. (ft)		2457.58	522.82
Min Ch El (ft)	856.10	Shear (lb/sq ft)		0.66	0.31
Alpha	1.02	Stream Power (lb/ft s)		5.11	1.74
Frctn Loss (ft)	0.48	Cum Volume (acre-ft)	425.36	37464.08	7517.54
C & E Loss (ft)	0.00	Cum SA (acres)	71.04	3941.61	1101.56

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18578.20	18692.52	579.98	357.46	92.52	0.26	3.86	1.62
18692.52	18806.84	929.98	516.43	114.32	0.41	4.52	1.80
18806.84	18921.16	1213.96	605.97	114.32	0.53	5.30	2.00
18921.16	19035.48	1361.34	649.09	114.32	0.60	5.68	2.10
19035.48	19149.80	1280.21	625.59	114.32	0.56	5.47	2.05
19149.80 LB	19760.90	68540.28	8388.87	612.96	30.19	13.73	8.17
19760.90	20372.00	40066.32	6080.29	613.38	17.65	9.95	6.59
20372.00	20983.10	46113.66	6495.25	613.33	20.31	10.63	7.10
20983.10	21594.20 RB	24966.88	4753.88	611.82	11.00	7.78	5.25
21594.20	22342.78	18976.54	3753.37	748.72	8.36	5.01	5.06
22342.78	23091.36	22850.80	4195.68	748.59	10.07	5.60	5.45
23091.36	23839.94	120.04	30.20	8.64	0.05	3.50	3.97

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19149.80 LB	19760.90	78736.72	8833.43	619.05	34.69	14.45	8.91
19760.90	20372.00	47816.32	6524.85	613.38	21.06	10.68	7.33
20372.00	20983.10	54348.10	6939.82	613.33	23.94	11.36	7.83
20983.10	21594.20 RB	30746.22	5198.45	611.82	13.54	8.51	5.91
21594.20	22342.78	15352.64	2762.14	522.82	6.76	5.36	5.56

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 187.54

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 99

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16484.8	877.9	16720.4	875.2	16962.7	874	17132.8	873.4	17191.8	869.1
17315.9	872.3	17515.6	868.9	17555.7	866.5	17670.1	876.6	17919.1	874.6

18157.5	873.9	18409.3	872.9	18661.3	872.7	18902.8	870.7	19070	866.8175		
19100.9	866.1	19135.1	857.4	19373.1	857.8	19665	858.1	19679.2	857.5		
19716.3	867.2	19783.7	865.5	19797.3	863.2	19949.8	865.4	20027.4	858.6		
20171.3	855.9	20187.2	860.7	20276.4	863.7	20365.5	859.2	20599.8	860		
20870	860.3	20894.3	861.7	20898.1	865.8	20919.5	865	20942.2	867.3		
21114	864.9	21415.4	865.2	21438.8	863.5	21455.9	864.7	21770	865.8915		
21820	866.0811	21904.1	866.4	22202.1	865.7	22472.7	865.2	22562.5	865.1		
22606.9	867.6	22875.3	867.9	23072.2	870	23134.7	872.5	23396.4	872.1		
23673.7	872.1	23978.2	871.8	24256.8	872	24351.6	870.1	24376.6	874.2		
24387.1	867.4	24397.4	868.2	24408.9	873.4	24423.9	873.4	24431.1	869.9		
24542.5	871.9	24896.1	871.7	25235.4	871.3	25484.5	871.2	25758.3	871.5		
26027.8	870.4	26298.1	870.9	26317.8	871.1	26556.9	871.5	26598.5	871.4		
26870.3	871.1	26906.2	871	27168.5	871.1	27308.1	871.1	27564.2	871.8		
27817	871.5	28080.3	871.8	28316	871.5	28704.4	871.3	28988.1	871.1		
29265	871.7	29570.1	872.2	29642.7	872	29654.1	866.7	29677.1	871.6		
29926	872.6	30215.4	872.5	30569.5	872.7	30823.4	873.4	31078.7	872.8		
31261.5	873.9	31547.9	874.2	31603.2	874.3	31873.6	874.8	31903.5	874.9		
32162	876.5	32410.6	877	32706.9	877.2	32735.3	877.3				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16484.8	.065	18902.8	.03	20942.2	.025	21904.1	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19070	21904.1	445	444.68	420	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16484.8	18560	876	23134.7	32735.3	876

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	871.57	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.77	Wt. n-Val.	0.030	0.029	0.025
E.G. Elev (ft)	872.34	Reach Len. (ft)	445.00	444.68	420.00
Crit W.S. (ft)	867.68	Flow Area (sq ft)	516.68	26983.83	5685.50
E.G. Slope (ft/ft)	0.000939	Area (sq ft)	1188.30	26983.83	7229.30
Q Total (cfs)	227000.00	Flow (cfs)	1442.45	196465.27	29092.29
Top Width (ft)	8488.08	Top Width (ft)	657.13	2834.10	4996.85
Vel Total (ft/s)	6.84	Avg. Vel. (ft/s)	2.79	7.28	5.12
Max Chl Dpth (ft)	15.67	Hydr. Depth (ft)	1.89	9.52	4.71
Conv. Total (cfs)	7407070.5	Conv. (cfs)	47067.4	6410714.0	949289.0
Length Wtd. (ft)	441.78	Wetted Per. (ft)	272.72	2839.97	1207.55
Min Ch El (ft)	855.90	Shear (lb/sq ft)	0.11	0.56	0.28
Alpha	1.05	Stream Power (lb/ft s)	0.31	4.06	1.41
Frctn Loss (ft)	0.36	Cum Volume (acre-ft)	3860.89	35658.68	15156.00
C & E Loss (ft)	0.06	Cum SA (acres)	967.29	3905.64	4192.15

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	872.29	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.92	Wt. n-Val.		0.029	0.025
E.G. Elev (ft)	873.21	Reach Len. (ft)	445:00	444.68	420.00
Crit W.S. (ft)	867.88	Flow Area (sq ft)		29018.77	575.80
E.G. Slope (ft/ft)	0.000963	Area (sq ft)		29018.77	575.80
Q Total (cfs)	227000.00	Flow (cfs)		223632.97	3367.04
Top Width (ft)	2930.00	Top Width (ft)		2834.10	95.90
Vel Total (ft/s)	7.67	Avg. Vel. (ft/s)		7.71	5.85
Max Chl Dpth (ft)	16.39	Hydr. Depth (ft)		10.24	6.00
Conv. Total (cfs)	7314189.0	Conv. (cfs)		7205699.5	108489.7
Length Wtd. (ft)	444.37	Wetted Per. (ft)		2845.44	102.02
Min Ch El (ft)	855.90	Shear (lb/sq ft)		0.61	0.34
Alpha	1.00	Stream Power (lb/ft s)		4.73	1.98
Frctn Loss (ft)	0.44	Cum Volume (acre-ft)	425.36	37131.01	7513.52
C & E Loss (ft)	0.00	Cum SA (acres)	71.04	3910.50	1100.82

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18725.31	18897.65	16.25	41.68	100.33	0.01	0.42	0.39
18897.65	19070.00	1426.19	475.01	172.39	0.63	2.76	3.00
19070.00 LB	19778.53	69383.58	8655.14	710.90	30.57	12.22	8.02

19778.53	20487.05	54339.25	7470.53	709.93	23.94	10.54	7.27
20487.05	21195.57	45502.25	6436.54	710.50	20.05	9.08	7.07
21195.57	21904.10 RB	27240.18	4421.62	708.63	12.00	6.24	6.16
21904.10	22626.18	23562.26	4188.16	722.15	10.38	5.80	5.63
22626.18	23348.26	5530.04	1497.33	485.40	2.44	3.09	3.69

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19070.00 LB	19778.53	76924.55	9163.88	716.38	33.89	12.93	8.39
19778.53	20487.05	61445.03	7979.26	709.93	27.07	11.26	7.70
20487.05	21195.57	52171.22	6945.27	710.50	22.98	9.80	7.51
21195.57	21904.10 RB	33092.15	4930.36	708.63	14.58	6.96	6.71
21904.10	22626.18	3367.04	575.80	102.02	1.48	6.00	5.85

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 187.45

INPUT
Description:

Eliminate vertical ineffective area in lt. overbank by coding out GR

data between and below sta, elev. 18459, 864.4 and 18742, 864.4

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17315.3	879.4	17578.6	873.9	17848.5	873.8	17936.1	874.8	18125.2	869.6
18151.9	871	18459	864.4	18742	864.4	18778.8	865.7	18844.5	858.7
18892.4	856.2	18962.7	862	19016	857.7	19030.1	860.8	19045.8	860
19068.6	864.6	19095.8	857.2	19300.1	856.9	19676.2	856.3	19698.8	857.1
19707.4	855.3	19746.9	868.3	19881.5	866.5	19917.3	859.5	19971.1	855.3
20100.9	857.9	20116.6	861.4	20283.4	862.3	20322.6	858.6	20399.9	862.3
20415.9	865.2	20460.4	859.2	20473.1	861.9	20487.2	859.3	20510.2	859.2
20529.4	861.9	20542.4	859.7	20823.4	860.7	20861.9	861.1	20881	865.2
21040	867.1	21191.6	864.1	21434.9	863.9	21736.5	865.7	871	21786.5	866.1
22091.4	866	22353.6	865.4	22530.2	864.7	22549.9	868	22728.1	866.2
22741.7	869.8	22992	868.9	23094.1	872.4	23468.9	872	23745.8	871.8
24192.5	871.7	24323.3	870.6	24338.5	872.7	24347.8	867.3	24362.1	868
24370.1	873	24381.9	872.1	24406.3	876.2	24418.4	869	24492	871.5
24969.9	870.7	25231.5	870.8	25521.1	870.4	25803.1	871	26192.1	870.2
26569.5	870.8	26883	869.9	27146.1	871	27468.5	871	27747.3	871.2
28032.1	871.4	28293.4	871	28675.8	871.4	28971.8	871.3	29306.6	872
29571.6	871.7	29614.2	871.3	29623.3	866.4	29638.5	871.3	29931.4	872.6
30324.5	872.3	30625.6	872.8	30896.6	873.3	31247.4	872.7	31541.2	873.6
31841.8	874.7	32127.8	875.5	32289.8	875.4	32322.5	876.8	32706.4	878.6
32898.9	879.2								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17315.3	.065	18778.8	.03	21040	.025	21786.5	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19030.1	21786.5	495	500.61	480	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17315.3	18340	875	23094.1	32898.9	875

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	871.35	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.57	Wt. n-Val.	0.038	0.029	0.025
E.G. Elev (ft)	871.92	Reach Len. (ft)	495.00	500.61	480.00
Crit W.S. (ft)	866.99	Flow Area (sq ft)	5784.18	27351.43	5697.55
E.G. Slope (ft/ft)	0.000722	Area (sq ft)	6313.50	27351.43	8097.29
Q Total (cfs)	227000.00	Flow (cfs)	25950.53	176398.28	24651.18

Top Width (ft)	9339.73	Top Width (ft)	968.48	2756.40	5614.85
Vel Total (ft/s)	5.85	Avg. Vel. (ft/s)	4.49	6.45	4.33
Max Chl Dpth (ft)	16.05	Hydr. Depth (ft)	8.38	9.92	4.46
Conv. Total (cfs)	8448238.0	Conv. (cfs)	965798.6	6564998.5	917440.8
Length Wtd. (ft)	498.12	Wetted Per. (ft)	691.34	2763.73	1277.72
Min Ch El (ft)	855.30	Shear (lb/sq ft)	0.38	0.45	0.20
Alpha	1.07	Stream Power (lb/ft s)	1.69	2.88	0.87
Frctn Loss (ft)	0.37	Cum Volume (acre-ft)	3822.57	35381.34	15082.11
C & E Loss (ft)	0.01	Cum SA (acres)	958.99	3877.10	4140.99

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	871.82	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.95	Wt. n-Val.		0.029	0.025
E.G. Elev (ft)	872.77	Reach Len. (ft)	495.00	500.61	480.00
Crit W.S. (ft)	867.30	Flow Area (sq ft)		28639.62	421.00
E.G. Slope (ft/ft)	0.001012	Area (sq ft)		28639.62	421.00
Q Total (cfs)	227000.00	Flow (cfs)		224576.22	2423.78
Top Width (ft)	2829.90	Top Width (ft)		2756.40	73.50
Vel Total (ft/s)	7.81	Avg. Vel. (ft/s)		7.84	5.76
Max Chl Dpth (ft)	16.52	Hydr. Depth (ft)		10.39	5.73
Conv. Total (cfs)	7135541.5	Conv. (cfs)		7059352.0	76189.3
Length Wtd. (ft)	500.50	Wetted Per. (ft)		2774.75	79.24
Min Ch El (ft)	855.30	Shear (lb/sq ft)		0.65	0.34
Alpha	1.00	Stream Power (lb/ft s)		5.11	1.93
Frctn Loss (ft)	0.46	Cum Volume (acre-ft)	425.36	36836.71	7508.71
C & E Loss (ft)	0.02	Cum SA (acres)	71.04	3881.97	1100.00

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18229.86	18344.18	30.46	18.54	4.18	0.01	4.44	1.64
18344.18	18458.50	1268.64	652.68	114.35	0.56	5.71	1.94
18458.50	18572.82	1760.30	794.34	114.32	0.78	6.95	2.22
18572.82	18687.14	1760.31	794.35	114.32	0.78	6.95	2.22
18687.14	18801.46	2060.31	768.31	114.47	0.91	6.72	2.68
18801.46	18915.78	10292.53	1443.06	114.71	4.53	12.62	7.13
18915.78	19030.10	8777.99	1312.90	114.99	3.87	11.48	6.69
19030.10 LB	19719.20	74503.50	9758.24	691.39	32.82	14.16	7.63
19719.20	20408.30	40905.68	6813.12	692.23	18.02	9.89	6.00
20408.30	21097.40	35266.88	6165.06	690.98	15.54	8.95	5.72
21097.40	21786.50 RB	25722.25	4615.00	689.13	11.33	6.70	5.57
21786.50	22527.33	20112.27	4189.73	740.83	8.86	5.66	4.80
22527.33	23268.15	4538.91	1507.82	536.89	2.00	2.81	3.01

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19030.10 LB	19719.20	92398.52	10080.29	702.41	40.70	14.63	9.17
19719.20	20408.30	52453.75	7135.17	692.23	23.11	10.35	7.35
20408.30	21097.40	45549.81	6487.11	690.98	20.07	9.41	7.02
21097.40	21786.50 RB	34174.15	4937.05	689.13	15.05	7.16	6.92
21786.50	22527.33	2423.78	421.00	79.24	1.07	5.73	5.76

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 187.36

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17063.3	877.9	17372.9	874.3	17627.4	873.1	17699.5	873.7	17751.1	873.2
17805.6	870.6	17998.1	870.1	18249.4	867.2	18497.8	868.1	18748.1	864.5
18951.6	868.5	18981.1	862.5	19047.6	862.9	19077.3	856.6	19648.5	856.6
19732.2	856.9	19741.3	854.8	19804.9	853.7	19859.9	859.4	19928.2	860.2
19969.4	856.1	20216.7	859.2	20292.7	862.2	20437	861	20472.9	865.7

20517.9	859	20895.3	859.8	20909.5	866.5	21202.7	863.6	21384.8	863.9
21393.7	865.4	21410.6	865.6	21421.6	863.6	21674.6	866	21913.6	866.2
22208.9	866	22459	865	22493.4	865.1	22516.3	867.2	22693.9	867.5
22705	871.1	22945.6	869.2	23032.2	871.1	23040.5	874.5	23101.5	869.3
23498.7	870.7	23733.8	870.5	23967.1	869.6	24212.6	869.5	24274.3	871.7
24303.5	873.8	24315.8	867.2	24330	868.7	24334.6	872.7	24350.9	873
24364.9	869.6	24388.8	868.9	24623.7	870.5	24898.8	870.6	25337.3	869.7
25625.1	869.2	25892.6	870.3	26176.3	869.8	26428.7	870	26701.5	869.9
26969.3	869.8	27033.1	869.8	27328.9	871	27637.1	871.3	27645.2	871.3
27914.3	870.5	28152	871.5	28509.7	870.6	28846	871.8	29176.8	872
29463.2	872.4	29579	871.3	29598.4	867.1	29606.8	871.3	29854.7	872.7
29895.7	872.7	30171.8	872.4	30344.3	872.9	30642.8	872.8	30880.2	873.1
30926.9	871.6	30937.1	870	30983.8	872.6	31227.6	873.1	31523.8	873.4
31879.2	874.4	32147.5	875.5	32480.5	877.5	32518.4	877.6	32780.9	878.4
32784.7	878.5								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17063.3	.065	18951.6	.03	20909.5	.025	21674.6	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18951.6	21674.6	590	610	690	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17063.3	18340	875	22705	32784.7	875

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	870.83	Element			
Vel Head (ft)	0.70	Wt. n-Val.	0.065	0.029	0.025
E.G. Elev (ft)	871.53	Reach Len. (ft)	590.00	610.00	690.00
Crit W.S. (ft)	866.50	Flow Area (sq ft)	2490.11	28739.22	4800.05
E.G. Slope (ft/ft)	0.000766	Area (sq ft)	3444.20	28739.22	8622.97
Q Total (cfs)	227000.00	Flow (cfs)	4016.33	200958.80	22024.88
Top Width (ft)	9688.89	Top Width (ft)	1150.79	2723.00	5815.09
Vel Total (ft/s)	6.30	Avg. Vel. (ft/s)	1.61	6.99	4.59
Max Chl Dpth (ft)	17.13	Hydr. Depth (ft)	4.07	10.55	4.66
Conv. Total (cfs)	8202879.0	Conv. (cfs)	145134.2	7261853.0	795891.9
Length Wtd. (ft)	616.17	Wetted Per. (ft)	611.67	2727.74	1030.19
Min Ch El (ft)	853.70	Shear (lb/sq ft)	0.19	0.50	0.22
Alpha	1.14	Stream Power (lb/ft s)	0.31	3.52	1.02
Frctn Loss (ft)	0.65	Cum Volume (acre-ft)	3767.13	35059.04	14989.99
C & E Loss (ft)	0.03	Cum SA (acres)	946.95	3845.62	4078.01

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	871.42	Element			
Vel Head (ft)	0.87	Wt. n-Val.		0.029	
E.G. Elev (ft)	872.29	Reach Len. (ft)	590.00	610.00	690.00
Crit W.S. (ft)	866.21	Flow Area (sq ft)		30341.88	
E.G. Slope (ft/ft)	0.000822	Area (sq ft)		30341.88	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	2723.00	Top Width (ft)		2723.00	
Vel Total (ft/s)	7.48	Avg. Vel. (ft/s)		7.48	
Max Chl Dpth (ft)	17.72	Hydr. Depth (ft)		11.14	
Conv. Total (cfs)	7917960.0	Conv. (cfs)		7917960.0	
Length Wtd. (ft)	610.20	Wetted Per. (ft)		2736.07	
Min Ch El (ft)	853.70	Shear (lb/sq ft)		0.57	
Alpha	1.00	Stream Power (lb/ft s)		4.26	
Frctn Loss (ft)	0.66	Cum Volume (acre-ft)	425.36	36497.79	7506.39
C & E Loss (ft)	0.03	Cum SA (acres)	71.04	3850.48	1099.60

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18322.17	18448.05	436.26	335.47	108.05	0.19	3.10	1.30
18448.05	18573.94	505.74	389.68	125.89	0.22	3.10	1.30
18573.94	18699.83	1024.86	595.33	125.90	0.45	4.73	1.72

18699.83	18825.71	1409.33	720.74	125.91	0.62	5.73	1.96
18825.71	18951.60	640.16	448.90	125.91	0.28	3.57	1.43
18951.60 LB	19632.35	67565.76	8924.42	682.02	29.76	13.11	7.57
19632.35	20313.10	66864.32	8866.46	681.58	29.46	13.02	7.54
20313.10	20993.85	42293.11	6626.50	683.06	18.63	9.73	6.38
20993.85	21674.60 RB	24235.63	4321.84	681.08	10.68	6.35	5.61
21674.60	22415.27	17004.19	3608.18	740.68	7.49	4.87	4.71
22415.27	23155.95	5020.67	1191.87	289.51	2.21	4.13	4.21

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18951.60 LB	19632.35	75146.81	9325.09	684.93	33.10	13.70	8.06
19632.35	20313.10	74613.48	9267.12	681.58	32.87	13.61	8.05
20313.10	20993.85	48268.63	7027.17	683.06	21.26	10.32	6.87
20993.85	21674.60 RB	28971.09	4722.51	686.50	12.76	6.94	6.13

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 187.24

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18406.8	876.9	18516.7	865.1	18772.2	867.2	18840	865.8	18963	867.1
19039	856.8	19450.8	856.7	19588.6	856.4	19589.3	854.9	19607.5	861
19645.6	857.1	19656.2	853.8	19660.8	855.8	19821.3	854.2	19847.2	860.8
20057.6	855.8	20088	865.1	20241.9	865	20306.5	859.7	20357.2	860.3
20378.2	856.3	20585.8	857.7	20629.3	860	20647.7	863	20680.5	858.6
20772.6	864.3	20850.3	862.4	20971	862.9	21060.1	861.7	21142.9	862.9
21274.3	859.9	21369.3	869.5	21552.8	864.7	21874	865	22108	865.8
22329.5	867.3	22552.9	868.9	22819.6	870.9	22982.2	869.1	22992.1	871.8
23020.7	869.6	23250.9	871	23471.7	871.1	23678.2	870.3	23956.1	870.3
24102.5	868.8	24121.5	873.7	24128.8	871.6	24136.7	866.3	24149.9	866
24161.3	873	24173.4	872.9	24188.5	868.6	24243.2	870.6	24549.2	870.6
24562	870.6	24778	870.5	24795.3	870.4	25022.7	870.1	25294.8	869.9
25521.2	869.4	25867.4	869.2	25896.3	869.2	26202.6	869.6	26401.2	869.4
26685.9	868.9	26975.4	868.9	27289.9	869.2	27525.9	869.8	27615.8	870.1
27875.6	869.9	28154.3	870.2	28187.3	870	28196.2	871.9	28204.8	868.4
28251.1	871.7	28304.8	868.2	28528.1	869	28778.4	871.3	29056.5	870.8
29296.6	869.8	29524.4	870.7	29538.3	869.1	29548.5	865.4	29568.7	870.1
29593.9	868	29827.9	869.2	30109.8	869.3	30429.1	870.1	30667.1	869
30877.8	869	30915.2	871	31156.8	871.5	31363	873.1	31634.5	873.6
31822	874								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18406.8	.065	18963	.065	18963	.03	20647.7	.065	21369.3	.065
21874	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18963	21369.3	475	481.03	515	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22819.6	31822	875

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	869.81	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.04	Wt. n-Val.	0.065	0.033	0.038
E.G. Elev (ft)	870.85	Reach Len. (ft)	475.00	481.03	515.00
Crit W.S. (ft)	866.21	Flow Area (sq ft)	1676.08	24617.18	4281.53
E.G. Slope (ft/ft)	0.001547	Area (sq ft)	1676.08	24617.18	6807.85
Q Total (cfs)	227000.00	Flow (cfs)	3419.61	208705.98	14874.40
Top Width (ft)	8204.85	Top Width (ft)	490.17	2406.30	5308.39
Vel Total (ft/s)	7.42	Avg. Vel. (ft/s)	2.04	8.48	3.47
Max Chl Dpth (ft)	16.01	Hydr. Depth (ft)	3.42	10.23	3.28
Conv. Total (cfs)	5770677.0	Conv. (cfs)	86931.5	5305616.0	378129.4

Length Wtd. (ft)	484.00	Wetted Per. (ft)	490.45	2414.28	1305.01
Min Ch El (ft)	853.80	Shear (lb/sq ft)	0.33	0.99	0.32
Alpha	1.21	Stream Power (lb/ft s)	0.67	8.35	1.10
Frctn Loss (ft)	0.58	Cum Volume (acre-ft)	3732.45	34685.44	14867.77
C & E Loss (ft)	0.11	Cum SA (acres)	935.83	3809.70	3989.92

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	870.44	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.15	Wt. n-Val.		0.033	0.065
E.G. Elev (ft)	871.59	Reach Len. (ft)	475.00	481.03	515.00
Crit W.S. (ft)	866.03	Flow Area (sq ft)		26131.83	596.80
E.G. Slope (ft/ft)	0.001507	Area (sq ft)		26131.83	596.80
Q Total (cfs)	227000.00	Flow (cfs)		225849.59	1150.41
Top Width (ft)	2587.00	Top Width (ft)		2406.30	180.70
Vel Total (ft/s)	8.49	Avg. Vel. (ft/s)		8.64	1.93
Max Chl Dpth (ft)	16.64	Hydr. Depth (ft)		10.86	3.30
Conv. Total (cfs)	5847361.0	Conv. (cfs)		5817727.5	29633.7
Length Wtd. (ft)	481.12	Wetted Per. (ft)		2417.62	186.43
Min Ch El (ft)	853.80	Shear (lb/sq ft)		1.02	0.30
Alpha	1.03	Stream Power (lb/ft s)		8.79	0.58
Frctn Loss (ft)	0.61	Cum Volume (acre-ft)	425.36	36102.37	7501.67
C & E Loss (ft)	0.09	Cum SA (acres)	71.04	3814.57	1098.17

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18443.88	18480.96	1.79	3.55	8.17	0.00	0.44	0.50
18480.96	18518.04	187.41	106.07	37.29	0.08	2.86	1.77
18518.04	18555.12	407.17	168.58	37.08	0.18	4.55	2.42
18555.12	18592.20	362.71	157.28	37.08	0.16	4.24	2.31
18592.20	18629.28	320.32	145.98	37.08	0.14	3.94	2.19
18629.28	18666.36	280.07	134.68	37.08	0.12	3.63	2.08
18666.36	18703.44	242.00	123.37	37.08	0.11	3.33	1.96
18703.44	18740.52	206.20	112.08	37.08	0.09	3.02	1.84
18740.52	18777.60	173.93	101.20	37.08	0.08	2.73	1.72
18777.60	18814.68	215.54	115.10	37.09	0.09	3.10	1.87
18814.68	18851.76	303.49	141.34	37.09	0.13	3.81	2.15
18851.76	18888.84	287.49	136.81	37.08	0.13	3.69	2.10
18888.84	18925.92	238.42	122.28	37.08	0.11	3.30	1.95
18925.92	18963.00	193.09	107.75	37.08	0.09	2.91	1.79
18963.00 LB	19564.57	77895.82	7481.06	602.27	34.32	12.44	10.41
19564.57	20166.15	68556.87	6950.63	606.93	30.20	11.55	9.86
20166.15	20767.73	48103.05	5910.33	602.94	21.19	9.82	8.14
20767.73	21369.30 RB	14150.24	4275.15	602.14	6.23	7.11	3.31
21369.30	22066.15	9865.29	2951.46	696.91	4.35	4.24	3.34
22066.15	22762.99	5009.09	1330.07	608.10	2.21	2.19	3.77

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18963.00 LB	19564.57	83206.58	7859.73	605.61	36.65	13.07	10.59
19564.57	20166.15	73952.32	7329.29	606.93	32.58	12.18	10.09
20166.15	20767.73	52595.44	6289.00	602.94	23.17	10.45	8.36
20767.73	21369.30 RB	16095.24	4653.82	602.14	7.09	7.74	3.46
21369.30	22066.15	1150.41	596.80	186.43	0.51	3.30	1.93

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 187.15

INPUT
Description: Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18115.2	878.9	18172.5	875.2	18194.2	871.9	18357.1	875.6	18397.9	867.1
18539.9	863.4	18619	867.9	18646.1	865.7	18686.6	868.7	18760.4	863.4

18803.3	862.9	18914.9	865.7	18938	864.3	18965.7	858.1	19020.5	855.7
19330.4	853.5	19548.1	854.8	19821.9	853.2	19855.5	861.8	20059.3	854.9
20223.2	854.5	20245.1	862.2	20287.4	862.2	20325.4	864.6	20352	864
20378	857	20587.9	860.6	20612	863.6	20868.5	861.1	21139.2	865.5
21390	861	21428.5	861.5	21438.5	864.2	21482.4	859.5	21500	860.4631
21582.9	865	21592.8	863.5	21721.3	865.2	21744.9	868.7	21788.7	865.3
21805.1	861.7	22060.1	862.1	22351.9	865.7	22690	868.2	22912.4	869.8
22958.3	867	22972.5	871.9	23275.4	870.3	23563.1	870.1	23877.6	869.9
23909.3	869.9	23932.3	866.6	23964.1	873.1	23971	871.6	23981.1	866.4
23992	866.9	24000.5	872.3	24012.6	871.5	24026.9	866.3	24079.6	869.3
24364.3	870.2	24626.6	870.4	24923.1	869.5	25198.4	868.7	25474.6	868.7
25768.4	868.1	26033.1	867.5	26391	868.3	26560.8	868.4	26862.5	867.7
26909.7	867.8	27284.7	868.6	27299.8	868.7	27589.5	870.2	27618.4	870.2
27915.4	868.9	28166	869.1	28181.2	870.7	28186.2	867.8	28473.8	870.1
28850.9	870.3	29153.6	870.9	29423.2	870.5	29519.6	868.1	29531.1	865.7
29557.1	870.4	29894	869.3	30194.3	869.1	30471.8	869.5	30815.6	869.4
31089	871.8	31091.1	871.9	31351.9	872.8	31385	872.8	31676	873.5
31949.9	874	32128.2	874.2						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18115.2	.065	18686.6	.03	20612	.065	21744.9	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18686.6	21500	495	501.33	500	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22912.4	32128.2	875

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	869.48	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.68	Wt. n-Val.	0.065	0.033	0.030
E.G. Elev (ft)	870.16	Reach Len. (ft)	495.00	501.33	500.00
Crit W.S. (ft)	864.95	Flow Area (sq ft)	1081.18	28919.15	6062.71
E.G. Slope (ft/ft)	0.000967	Area (sq ft)	1081.18	28919.15	9809.85
Q Total (cfs)	227000.00	Flow (cfs)	1803.71	199455.55	25740.73
Top Width (ft)	8794.07	Top Width (ft)	300.11	2813.40	5680.56
Vel Total (ft/s)	6.29	Avg. Vel. (ft/s)	1.67	6.90	4.25
Max Chl Dpth (ft)	16.28	Hydr. Depth (ft)	3.60	10.28	4.43
Conv. Total (cfs)	7299921.0	Conv. (cfs)	58004.2	6414140.0	827776.6
Length Wtd. (ft)	501.16	Wetted Per. (ft)	300.73	2818.89	1368.53
Min Ch El (ft)	853.20	Shear (lb/sq ft)	0.22	0.62	0.27
Alpha	1.11	Stream Power (lb/ft s)	0.36	4.27	1.14
Frctn Loss (ft)	0.45	Cum Volume (acre-ft)	3717.42	34389.84	14769.54
C & E Loss (ft)	0.03	Cum SA (acres)	931.53	3780.88	3924.96

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	870.04	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.86	Wt. n-Val.		0.033	
E.G. Elev (ft)	870.90	Reach Len. (ft)	495.00	501.33	500.00
Crit W.S. (ft)	864.88	Flow Area (sq ft)		30503.75	
E.G. Slope (ft/ft)	0.001067	Area (sq ft)		30503.75	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	2813.40	Top Width (ft)		2813.40	
Vel Total (ft/s)	7.44	Avg. Vel. (ft/s)		7.44	
Max Chl Dpth (ft)	16.84	Hydr. Depth (ft)		10.84	
Conv. Total (cfs)	6950764.0	Conv. (cfs)		6950764.0	
Length Wtd. (ft)	501.33	Wetted Per. (ft)		2829.81	
Min Ch El (ft)	853.20	Shear (lb/sq ft)		0.72	
Alpha	1.00	Stream Power (lb/ft s)		5.34	
Frctn Loss (ft)	0.48	Cum Volume (acre-ft)	425.36	35789.66	7498.14
C & E Loss (ft)	0.05	Cum SA (acres)	71.04	3785.75	1097.10

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18381.85	18419.95	80.19	72.28	33.71	0.04	2.16	1.11
18419.95	18458.04	199.88	131.32	38.11	0.09	3.45	1.52
18458.04	18496.13	304.74	169.14	38.11	0.13	4.44	1.80

18496.13	18534.23	426.55	206.95	38.11	0.19	5.43	2.06
18534.23	18572.32	406.59	201.17	38.15	0.18	5.28	2.02
18572.32	18610.41	171.71	119.94	38.15	0.08	3.15	1.43
18610.41	18648.51	120.54	97.05	38.20	0.05	2.55	1.24
18648.51	18686.60	93.51	83.33	38.20	0.04	2.19	1.12
18686.60 LB	19389.95	57615.27	7674.99	704.37	25.38	10.91	7.51
19389.95	20093.30	86576.60	9800.39	704.56	38.14	13.93	8.83
20093.30	20796.65	43536.88	6748.46	705.90	19.18	9.59	6.45
20796.65	21500.00 RB	11726.77	4695.31	704.07	5.17	6.68	2.50
21500.00	22208.55	20778.48	4427.00	709.59	9.15	6.25	4.69
22208.55	22917.09	4962.26	1635.71	658.94	2.19	2.48	3.03

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18686.60 LB	19389.95	65766.38	8071.14	705.71	28.97	11.48	8.15
19389.95	20093.30	97201.11	10196.54	704.56	42.82	14.50	9.53
20093.30	20796.65	50053.21	7144.61	705.90	22.05	10.16	7.01
20796.65	21500.00 RB	13979.29	5091.46	713.64	6.16	7.24	2.75

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 187.06

INPUT
Description: APPROX. ALIGNMENT OF AIRPORT RD. Left
and Right Channel Bank Stations Interpolated

Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18210.8	871.4	18290.6	875.3	18352.9	871	18358.98	869.126	18367.5	866.5
18403.5	862.1	18448.7	864.9	18553.8	862.5	18764.6	862.9	18814.5	865.2
18856.3	861.9	18915.2	863.6	18958.5	856.8	19169.6	853.6	19224.3	853.5
19406.8	858.8	19472.7	856.9	19487.6	854.5	19545.3	854.1	19862.7	852.6
19941.3	851.9	20131.2	859.6	20160.1	855.8	20219.3	855.5	20266.6	862.9
20298.4	857.6	20347.8	860.6	20462.4	856.7	20556.6	857	20600.6	861.7
20810.8	862.5	21041.5	862.4	21268.3	861	21319.2	865.8	21522.6	858.8
21542	859.5872	21640.9	863.6	21801.3	862.6	21842.6	860.8	21892	868.5
22116.5	866	22357	864	22637.8	866.4	22907.5	867.9	22980.3	868.3
22991.1	871	23214.5	869.8	23431.8	871.2	23596.3	871.3	23861.3	871.5
24028	871.7	24241	869.7	24300.5	870.2	24305.7	868	24518.8	869.7
24783.5	868.8	25120.4	868.9	25481.8	868.7	25743.3	870	25962.3	870.3
26012.7	870.2	26031.8	865.3	26043.7	870.1	26062.1	869.6	26070.8	867.3
26286.8	868.5	26545.6	868.1	26770.3	867.8	26875.6	868.9	26889.2	866.8
27011.8	867.5	27223.3	867.8	27475.2	868.2	27696.5	869.2	27869.2	869
27906.8	867.1	28134.9	868.7	28180.4	869.9	28193.2	867.8	28204.3	869.5
28419	868.4	28648.8	868	28878.9	868.5	29180.1	868.5	29403.7	869.2
29538.3	867.8	29551.8	866	29590	869.8	29861	870.5	30119.2	870.3
30420.5	869.4	30723.8	869.5	30940.5	871	31333.4	873	31421.4	872.9
31652.9	873.4	31941.8	874.1	32114.9	874.9				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18210.8	.065	18352.9	.065	18814.5	.028	20266.6	.065	21319.2	.025
21892	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18358.98	21542	495	491.11	445	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
24028	32114.9	875

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	869.09	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.59	Wt. n-Val.		0.033	0.025
E.G. Elev (ft)	869.69	Reach Len. (ft)	495.00	491.11	445.00
Crit W.S. (ft)	864.34	Flow Area (sq ft)		32078.92	5318.06
E.G. Slope (ft/ft)	0.000821	Area (sq ft)		32078.92	8555.76
Q Total (cfs)	227000.00	Flow (cfs)		203452.28	23547.71
Top Width (ft)	8894.79	Top Width (ft)		3182.92	5711.87

Vel Total (ft/s)	6.07	Avg. Vel. (ft/s)		6.34	4.43
Max Chl Dpth (ft)	17.19	Hydr. Depth (ft)		10.08	3.69
Conv. Total (cfs)	7921888.0	Conv. (cfs)		7100115.5	821772.3
Length Wtd. (ft)	483.86	Wetted Per. (ft)		3186.95	1442.33
Min Ch El (ft)	851.90	Shear (lb/sq ft)		0.52	0.19
Alpha	1.03	Stream Power (lb/ft s)		3.27	0.84
Frctn Loss (ft)	0.38	Cum Volume (acre-ft)	3711.27	34038.83	14664.14
C & E Loss (ft)	0.02	Cum SA (acres)	929.82	3746.37	3859.57

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	869.67	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.70	Wt. n-Val.		0.033	
E.G. Elev (ft)	870.37	Reach Len. (ft)	495.00	491.11	445.00
Crit W.S. (ft)	864.26	Flow Area (sq ft)		33921.63	
E.G. Slope (ft/ft)	0.000871	Area (sq ft)		33921.63	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	3183.02	Top Width (ft)		3183.02	
Vel Total (ft/s)	6.69	Avg. Vel. (ft/s)		6.69	
Max Chl Dpth (ft)	17.77	Hydr. Depth (ft)		10.66	
Conv. Total (cfs)	7689668.0	Conv. (cfs)		7689668.0	
Length Wtd. (ft)	491.11	Wetted Per. (ft)		3197.69	
Min Ch El (ft)	851.90	Shear (lb/sq ft)		0.58	
Alpha	1.00	Stream Power (lb/ft s)		3.86	
Frctn Loss (ft)	0.48	Cum Volume (acre-ft)	425.36	35418.93	7498.14
C & E Loss (ft)	0.01	Cum SA (acres)	71.04	3751.24	1097.10

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18358.98 LB	19154.73	32682.28	6297.68	797.18	14.40	7.92	5.19
19154.73	19950.49	106047.13	11712.75	796.07	46.72	14.72	9.05
19950.49	20746.25	45714.79	8561.36	797.58	20.14	10.76	5.34
20746.25	21542.00 RB	19008.09	5507.12	796.12	8.37	6.92	3.45
21542.00	22246.86	15166.09	3116.10	705.60	6.68	4.42	4.87
22246.86	22951.72	8340.04	2175.76	704.88	3.67	3.09	3.83
22951.72	23656.58	41.58	26.20	31.85	0.02	0.82	1.59

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18358.98 LB	19154.73	37203.36	6758.36	797.84	16.39	8.49	5.50
19154.73	19950.49	116594.02	12173.43	796.07	51.36	15.30	9.58
19950.49	20746.25	51150.90	9022.04	797.58	22.53	11.34	5.67
20746.25	21542.00 RB	22051.75	5967.79	806.21	9.71	7.50	3.70

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 186.97

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17703.7	876.1	17935.8	874.1	18118.3	867.1	18218.2	867.5	18239.6	864
18467	863.4	18711.5	863.7	18859.1	861.3	18893.5	856.3	19200.8	853.4
19248.7	854.2	19275.1	857.1	19412.8	857	19490.4	860.7	19525.6	853
19907	852.3	19928	851.9	19961.2	858.6	20003.2	855.3	20066.4	858.5
20144.7	853.3	20163.8	857.7	20283.4	855.8	20354.6	857.1	20397.9	863.6
20539.2	861.3	20696.7	854	20772.2	866	21016.2	869.2	21239.8	864.1
21274.4	858.3	21465.1	862.8	21504.1	876	21600	861.3	21936.9	860.8
22028.9	861	22284.2	860.9	22521.6	862.2	22790.8	866.3	22971.2	867.9
22982	867.7	22992.5	871	23037.1	869.2	23225.8	868.6	23320.1	870.3
23563.9	869.3	23610	868.3	23862.7	868.4	24031	870.8	24262	869.2
24529.7	868.1	24852.4	867.6	25085.9	866.5	25361.3	866.2	25586.6	866
25802.5	866.2	25964.8	867.4	25984	870.2	25988.4	864.7	25999.7	864.2
26017.3	869.9	26031.7	869.3	26085.8	866.2	26338.8	867.1	26425.6	867.1

26680.8	867.2	26855.4	867.8	26877	856.7	26902.7	869.3	26924.2	868.6
26928.8	866.8	27225.8	866.8	27568.5	866.8	27790.3	867.8	28043.3	869.5
28228.7	866.4	28281.9	868.3	28305.2	866.5	28524.5	867.7	28767.4	868.3
29027.4	868.6	29055	867.6	29270.8	869.2	29643	870.1	29861.6	869.9
30077.2	870.6	30381.7	870.2	30626.6	871.6	30686	871.5	30883.6	871.5
30898.5	872.5	30916.7	869.3	31134.8	871.2	31489.5	872.3	31774.4	873.6
32015	874.3								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17703.7	.065	18218.2	.028	20397.9	.15	21504.1	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18218.2	21504.1	480	487.74	595	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17703.7	18218.2	875	22971.2	32015	875

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	868.75	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.54	Wt. n-Val.		0.032	0.025
E.G. Elev (ft)	869.29	Reach Len. (ft)	480.00	487.74	595.00
Crit W.S. (ft)	864.01	Flow Area (sq ft)		29930.55	8704.71
E.G. Slope (ft/ft)	0.000764	Area (sq ft)	180.11	29930.55	16089.39
Q Total (cfs)	227000.00	Flow (cfs)		179121.98	47878.02
Top Width (ft)	9764.11	Top Width (ft)	142.87	3210.23	6411.01
Vel Total (ft/s)	5.88	Avg. Vel. (ft/s)		5.98	5.50
Max Chl Dpth (ft)	16.85	Hydr. Depth (ft)		9.32	6.13
Conv. Total (cfs)	8214757.5	Conv. (cfs)		6482130.5	1732627.0
Length Wtd. (ft)	505.50	Wetted Per. (ft)		3216.79	1420.40
Min Ch El (ft)	851.90	Shear (lb/sq ft)		0.44	0.29
Alpha	1.00	Stream Power (lb/ft s)		2.65	1.61
Frctn Loss (ft)	0.45	Cum Volume (acre-ft)	3710.25	33689.27	14538.25
C & E Loss (ft)	0.01	Cum SA (acres)	929.01	3710.34	3797.65

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	869.03	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.84	Wt. n-Val.		0.032	
E.G. Elev (ft)	869.87	Reach Len. (ft)	480.00	487.74	595.00
Crit W.S. (ft)	864.16	Flow Area (sq ft)		30828.60	
E.G. Slope (ft/ft)	0.001128	Area (sq ft)		30828.60	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	3244.47	Top Width (ft)		3244.47	
Vel Total (ft/s)	7.36	Avg. Vel. (ft/s)		7.36	
Max Chl Dpth (ft)	17.13	Hydr. Depth (ft)		9.50	
Conv. Total (cfs)	6757741.5	Conv. (cfs)		6757741.5	
Length Wtd. (ft)	487.74	Wetted Per. (ft)		3252.61	
Min Ch El (ft)	851.90	Shear (lb/sq ft)		0.67	
Alpha	1.00	Stream Power (lb/ft s)		4.92	
Frctn Loss (ft)	0.58	Cum Volume (acre-ft)	425.36	35053.92	7498.14
C & E Loss (ft)	0.00	Cum SA (acres)	71.04	3715.01	1097.10

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18218.20 LB	19039.67	28696.62	5668.08	822.15	12.64	6.90	5.06
19039.67	19861.15	94605.22	11597.80	822.57	41.68	14.12	8.16
19861.15	20682.63	53263.95	9162.69	823.72	23.46	11.15	5.81
20682.63	21504.10 RB	2556.16	3501.98	748.36	1.13	4.70	0.73
21504.10	22204.83	29427.93	4865.79	653.99	12.96	7.45	6.05
22204.83	22905.55	18320.62	3764.12	700.77	8.07	5.37	4.87
22905.55	23606.28	129.49	74.80	65.65	0.06	1.14	1.73

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18218.20 LB	19039.67	37277.88	5896.66	823.67	16.42	7.18	6.32
19039.67	19861.15	119009.79	11826.38	822.57	52.43	14.40	10.06
19861.15	20682.63	67333.79	9391.28	823.72	29.66	11.43	7.17
20682.63	21504.10 RB	3378.53	3714.28	782.65	1.49	4.76	0.91

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 186.87

INPUT
Description:

FLOW FULLY EXPANDED HERE (4:1 TRANSITION)

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18052.9	876.5	18194.5	871.3	18248.3	863.7	18267.8	863.3	18303	866.1
18577.8	859.3	18691.2	861.6	18700.2	863.1	18732.1	859	18852.8	865.2
18908.8	862.9	18929.7	856	19249	853.8	19445.3	852.7	19456.1	857.6
19524.6	859.9	19616.4	852.6	19890.4	854.2	20088.8	854	20124.7	856.2
20280.7	858.5	20382.1	857.8	20400	859.7	20443	858.9	20573.5	860.4
20709.2	855.3	20845.8	865.7	21062.4	868.4	21231.2	862.2	21295.9	862.7
21330.9	861	21366.9	863.6	21416.9	856.8	21510.3	860.5	21569	873.5
21605.4	874.2	21610	871.4	21612.8	871.7	21632.8	862.8	21655.6	860
21918.2	862.9	22271.4	864.5	22481.1	864.1	22703.6	865.9	22978.5	866.8
23040.5	866.1	23052.6	869.2	23151.1	867.6	23489	868.4	23648.2	868
23951.3	869.4	24254	868.9	24318.8	869.7	24328.2	868.2	24366.7	869.4
24372.4	866.8	24383.5	868.6	24663.7	868.4	24987.5	867.8	25244.5	866.4
25530.6	867.3	25781.1	865.9	25961.3	866.4	25979.9	869.4	25985.1	862.9
26000.9	864.7	26014.7	869.1	26035.6	868.9	26052.5	865.9	26312.7	865.6
26340.5	865.5	26644.8	864	26925.4	865	26944.3	855.9	26970	866.4
26993.2	867.3	27015.3	865	27470.2	864.5	27751.3	864.9	28035.3	864.9
28289.9	864.6	28373.2	866.7	28397.8	864.6	28663.2	864.7	28982.8	865.7
29261.9	865.9	29516.5	865.8	29689.6	865.1	29984.5	866.8	30320	867.8
30663.2	868.3	30946.1	868.1	31212.3	869.9	31607.3	871.4	31863.8	874.5
31916	874.2								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18052.9	.065	18303	.065	18852.8	.028	20400	.15	21605.4	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18303	21605.4	500	494.14	440	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23052.2	31916	875

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	868.18	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.65	Wt. n-Val.	0.065	0.034	0.025
E.G. Elev (ft)	868.83	Reach Len. (ft)	500.00	494.14	440.00
Crit W.S. (ft)	863.59	Flow Area (sq ft)	284.95	29962.28	5679.20
E.G. Slope (ft/ft)	0.001044	Area (sq ft)	284.95	29962.28	19799.34
Q Total (cfs)	227000.00	Flow (cfs)	464.70	199176.56	27358.74
Top Width (ft)	11029.64	Top Width (ft)	86.43	3218.54	7724.68
Vel Total (ft/s)	6.32	Avg. Vel. (ft/s)	1.63	6.65	4.82
Max Chl Dpth (ft)	15.58	Hydr. Depth (ft)	3.30	9.31	3.98
Conv. Total (cfs)	7025360.0	Conv. (cfs)	14382.0	6164260.0	846718.0
Length Wtd. (ft)	489.87	Wetted Per. (ft)	86.86	3224.08	1429.53
Min Ch El (ft)	852.60	Shear (lb/sq ft)	0.21	0.61	0.26
Alpha	1.04	Stream Power (lb/ft s)	0.35	4.03	1.25
Frctn Loss (ft)	0.65	Cum Volume (acre-ft)	3707.69	33353.96	14293.14
C & E Loss (ft)	0.02	Cum SA (acres)	927.75	3674.34	3701.11

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	868.44	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.84	Wt. n-Val.		0.034	
E.G. Elev (ft)	869.29	Reach Len. (ft)	500.00	494.14	440.00
Crit W.S. (ft)	863.50	Flow Area (sq ft)		30807.37	
E.G. Slope (ft/ft)	0.001262	Area (sq ft)		30807.37	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	3243.17	Top Width (ft)		3243.17	
Vel Total (ft/s)	7.37	Avg. Vel. (ft/s)		7.37	
Max Chl Dpth (ft)	15.84	Hydr. Depth (ft)		9.50	
Conv. Total (cfs)	6391179.0	Conv. (cfs)		6391179.0	
Length Wtd. (ft)	494.14	Wetted Per. (ft)		3251.09	
Min Ch El (ft)	852.60	Shear (lb/sq ft)		0.75	
Alpha	1.00	Stream Power (lb/ft s)		5.50	
Frctn Loss (ft)	0.72	Cum Volume (acre-ft)	425.36	34708.85	7498.14
C & E Loss (ft)	0.01	Cum SA (acres)	71.04	3678.69	1097.10

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18202.96	18219.63	0.16	0.66	3.09	0.00	0.22	0.24
18219.63	18236.31	24.98	26.84	16.84	0.01	1.61	0.93
18236.31	18252.98	108.71	64.79	16.79	0.05	3.89	1.68
18252.98	18269.65	151.98	79.01	16.68	0.07	4.74	1.92
18269.65	18286.33	117.79	67.88	16.72	0.05	4.07	1.74
18286.33	18303.00	61.07	45.77	16.73	0.03	2.74	1.33
18303.00 LB	19128.60	32977.78	6370.34	827.41	14.53	7.72	5.18
19128.60	19954.20	112096.49	11439.17	827.00	49.38	13.86	9.80
19954.20	20779.80	51286.68	8862.22	826.11	22.59	10.73	5.79
20779.80	21605.40 RB	2815.60	3290.54	743.56	1.24	4.44	0.86
21605.40	22292.77	20026.09	3617.00	673.40	8.82	5.38	5.54
22292.77	22980.15	7046.28	1948.66	687.38	3.10	2.83	3.62
22980.15	23667.52	286.38	113.54	68.74	0.13	1.66	2.52

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18303.00 LB	19128.60	37987.70	6586.16	829.76	16.73	7.98	5.77
19128.60	19954.20	127136.84	11654.99	827.00	56.01	14.12	10.91
19954.20	20779.80	58537.45	9078.05	826.11	25.79	11.00	6.45
20779.80	21605.40 RB	3338.02	3488.16	768.23	1.47	4.55	0.96

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 186.78

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18267.8	883.7	18275.5	882.2	18316.6	865.7	18388.5	862.8	18576.8	861.8
18620.4	859.8	18684.6	860.1	18701.5	857.9	18772.5	858	18797.9	863
18865.5	863.4	18895.3	856.5	18941.7	859.5	18965.8	859.8	19001.7	865.8
19053.4	863.9	19076.7	855.4	19354.1	854	19451.9	854.1	19479.9	856.6
19635.4	851.7	19929.6	853.6	20206.9	855.9	20230.1	855.2	20258.5	857.2
20272.2	853.9	20297.8	853.9	20350.6	866.3	20444.6	856.5	20517.2	858.9
20545.8	857.2	20913.6	864.8	21055	863.6	21199.3	855.2	21274.5	865
21350.2	860	21612	862.1	21670.6	858.5	21847.9	857.7	22049.2	866.7
22200.3	869.8	22348.8	863.4	22620.9	865.5	22817.4	855.8	22910.6	858.1
22940.8	865.1	23146.3	865.9	23155	868.7	23232.9	866.6	23542.6	866.8
23760.8	868.9	23770.6	867.9	23774.2	869.7	23833.9	868	24141.7	868.1
24418.2	868.3	24426.3	867.1	24461.8	869.2	24471.3	866	24804	866.8
25091.6	866.8	25371.1	866	25728.7	866.8	25977.8	863.8	26019.3	864.9
26039.7	868.6	26046.4	863	26057.2	863.6	26071.4	868.3	26094.3	868.3
26112.1	864.7	26459.6	864.8	26794.8	864.1	27033.3	864.9	27054.3	856.9
27079.7	867.5	27157.1	864.6	27579.3	865.2	27865.9	864.7	28219.4	865.5

28390.8	865.6	28401.1	864.1	28590.7	864.8	28653.7	863.3	28978.4	867.4
29303.9	866.1	29608.3	866.2	29902.7	867	30224.8	867.4	30566.3	868.5
30873.8	868.4	31087.8	870.7	31107.6	869	31395.4	870.4	31643.4	874.3
31832	873.9								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18267.8	.15	18388.5	.15	18797.9	.028	20350.6	.15	21612	.15
23155	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18388.5	21612	460	460.85	500	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23155	31832	875

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	867.28	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.87	Wt. n-Val.	0.150	0.036	0.150
E.G. Elev (ft)	868.16	Reach Len. (ft)	460.00	460.85	500.00
Crit W.S. (ft)	863.40	Flow Area (sq ft)	221.18	28582.12	6821.82
E.G. Slope (ft/ft)	0.001739	Area (sq ft)	221.18	28582.12	16486.39
Q Total (cfs)	227000.00	Flow (cfs)	185.93	218321.95	8492.11
Top Width (ft)	10624.54	Top Width (ft)	75.84	3223.50	7325.19
Vel Total (ft/s)	6.37	Avg. Vel. (ft/s)	0.84	7.64	1.24
Max Chl Dpth (ft)	15.58	Hydr. Depth (ft)	2.92	8.87	5.03
Conv. Total (cfs)	5442856.5	Conv. (cfs)	4458.2	5234780.0	203618.1
Length Wtd. (ft)	462.67	Wetted Per. (ft)	76.21	3230.96	1359.20
Min Ch El (ft)	851.70	Shear (lb/sq ft)	0.32	0.96	0.55
Alpha	1.38	Stream Power (lb/ft s)	0.26	7.34	0.68
Frctn Loss (ft)	0.88	Cum Volume (acre-ft)	3704.78	33021.90	14109.88
C & E Loss (ft)	0.00	Cum SA (acres)	926.81	3637.81	3625.10

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	867.66	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.90	Wt. n-Val.		0.037	
E.G. Elev (ft)	868.57	Reach Len. (ft)	460.00	460.85	500.00
Crit W.S. (ft)	863.45	Flow Area (sq ft)		29813.95	
E.G. Slope (ft/ft)	0.001678	Area (sq ft)		29813.95	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	3223.50	Top Width (ft)		3223.50	
Vel Total (ft/s)	7.61	Avg. Vel. (ft/s)		7.61	
Max Chl Dpth (ft)	15.96	Hydr. Depth (ft)		9.25	
Conv. Total (cfs)	5540949.0	Conv. (cfs)		5540949.0	
Length Wtd. (ft)	460.85	Wetted Per. (ft)		3241.39	
Min Ch El (ft)	851.70	Shear (lb/sq ft)		0.96	
Alpha	1.00	Stream Power (lb/ft s)		7.34	
Frctn Loss (ft)	0.87	Cum Volume (acre-ft)	425.36	34365.01	7498.14
C & E Loss (ft)	0.01	Cum SA (acres)	71.04	3642.01	1097.10

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18308.03	18316.08	0.68	2.35	3.69	0.00	0.69	0.29
18316.08	18324.13	7.68	13.83	8.09	0.00	1.72	0.56
18324.13	18332.17	10.33	16.49	8.05	0.00	2.05	0.63
18332.17	18340.22	13.20	19.10	8.05	0.01	2.37	0.69
18340.22	18348.27	16.34	21.71	8.05	0.01	2.70	0.75
18348.27	18356.31	19.75	24.32	8.05	0.01	3.02	0.81
18356.31	18364.36	23.40	26.93	8.05	0.01	3.35	0.87
18364.36	18372.41	27.31	29.54	8.05	0.01	3.67	0.92
18372.41	18380.45	31.45	32.16	8.05	0.01	4.00	0.98
18380.45	18388.50	35.82	34.77	8.05	0.02	4.32	1.03
18388.50 LB	19194.38	28660.84	5673.59	809.48	12.63	7.04	5.05
19194.38	20000.25	135079.50	10978.65	806.07	59.51	13.62	12.30
20000.25	20806.13	48896.47	7436.32	808.45	21.54	9.23	6.58
20806.13	21612.00 RB	5685.16	4493.56	806.96	2.50	5.58	1.27
21612.00	22293.33	4233.76	3094.60	500.59	1.87	6.19	1.37
22293.33	22974.67	4086.82	3429.57	682.46	1.80	5.03	1.19

22974.67	23656.00	171.51	297.65	176.15	0.08	1.69	0.58

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18388.50 LB	19194.38	30627.97	5981.55	814.34	13.49	7.42	5.12
19194.38	20000.25	139176.06	11286.61	806.07	61.31	14.01	12.33
20000.25	20806.13	50977.48	7744.27	808.45	22.46	9.61	6.58
20806.13	21612.00 RB	6218.47	4801.52	812.52	2.74	5.96	1.30

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 186.69

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18198.8	877.1	18253.9	862	18500	862	18688	860.7	18765.5	857.8
18904.5	860.9	18922.1	858	18995.1	856.5	19015.7	860.6	19175.5	864.8
19210.3	862.2	19233.4	854.5	19529.6	854.1	19769	853.4	19826.7	853.1
19864.3	850.5	20143.8	853	20369.8	855	20398.1	866.1	20432.3	856.1
20695.7	857.2	20782.7	857.1	20974.5	866.7	21128.7	866.1	21245.1	854.3
21313.4	863.6	21418.2	861.7	21625.2	862.8	21801	859.8	21906.4	856.1
22023	863.5	22072.3	860.2	22169.8	862.7	22424.4	860.5	22547.6	867.4
22667	860.2	22818.7	857.4	23028	856.6	23039.8	856.2	23081.4	863.8
23190.8	865.4	23207	866.7	23232.2	864.7	23255.4	867.2	23307.2	866
23553.4	865.9	23810.5	866.7	24112.1	867.1	24337.8	867.3	24545	867
24561.1	864.9	24833.8	866.5	24916.9	866.5	25142	866.4	25355.8	865.5
25628.2	866	25862.4	866	26070	868.8	26074.9	868.7	26080.2	863
26087.4	863.2	26106.9	869.1	26130.3	868.2	26148.9	864.3	26286.5	865
26510.1	864.6	26547.9	864.5	26822.7	865.3	27069	863.5	27130.4	865.7
27148.5	857.7	27176.9	867.5	27202.8	867.4	27204.9	865.3	27479.3	865
27700.5	865.7	27932.5	865.4	28268	865.4	28481	866.4	28490.1	866.8
28501.2	863	28523	866.6	28762.6	866.1	28921.4	866.5	29175.5	866.6
29259.6	866.8	29515.3	867.7	29768.5	867.2	29889.4	867.7	30126.7	868.1
30443.7	868	30722.3	868.6	30945.2	870.4	31162.6	871.3	31372.5	872.9
31600.9	873.7								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18198.8	.15	18253.9	.15	19175.5	.028	20398.1	.15	21625.2	.15
23207	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18253.9	21625.2	420	455.31	480	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23207	31600.9	875

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	866.36	Element			
Vel Head (ft)	0.92	Wt. n-Val.	0.150	0.038	0.150
E.G. Elev (ft)	867.27	Reach Len. (ft)	420.00	455.31	480.00
Crit W.S. (ft)	862.92	Flow Area (sq ft)	34.67	27157.54	8760.08
E.G. Slope (ft/ft)	0.002069	Area (sq ft)	34.67	27157.54	12594.99
Q Total (cfs)	227000.00	Flow (cfs)	25.64	214360.77	12613.61
Top Width (ft)	8858.33	Top Width (ft)	15.91	3276.90	5565.52
Vel Total (ft/s)	6.31	Avg. Vel. (ft/s)	0.74	7.89	1.44
Max Chl Dpth (ft)	15.86	Hydr. Depth (ft)	2.18	8.29	5.68
Conv. Total (cfs)	4990072.0	Conv. (cfs)	563.6	4712227.5	277281.1
Length Wtd. (ft)	456.56	Wetted Per. (ft)	16.49	3284.18	1543.31
Min Ch El (ft)	850.50	Shear (lb/sq ft)	0.27	1.07	0.73
Alpha	1.48	Stream Power (lb/ft s)	0.20	8.43	1.06
Frctn Loss (ft)	0.91	Cum Volume (acre-ft)	3703.43	32727.05	13942.98
C & E Loss (ft)	0.01	Cum SA (acres)	926.33	3603.42	3551.12

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	866.68	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.00	Wt. n-Val.		0.038	
E.G. Elev (ft)	867.69	Reach Len. (ft)	420.00	455.31	480.00
Crit W.S. (ft)	863.00	Flow Area (sq ft)		28237.42	
E.G. Slope (ft/ft)	0.002124	Area (sq ft)		28237.42	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	3366.94	Top Width (ft)		3366.94	
Vel Total (ft/s)	8.04	Avg. Vel. (ft/s)		8.04	
Max Chl Dpth (ft)	16.18	Hydr. Depth (ft)		8.39	
Conv. Total (cfs)	4926056.5	Conv. (cfs)		4926056.5	
Length Wtd. (ft)	455.31	Wetted Per. (ft)		3382.79	
Min Ch El (ft)	850.50	Shear (lb/sq ft)		1.11	
Alpha	1.00	Stream Power (lb/ft s)		8.90	
Frctn Loss (ft)	0.91	Cum Volume (acre-ft)	425.36	34057.93	7498.14
C & E Loss (ft)	0.02	Cum SA (acres)	71.04	3607.15	1097.10

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18235.53	18239.21	0.02	0.20	1.26	0.00	0.17	0.11
18239.21	18242.88	1.02	3.07	3.81	0.00	0.84	0.33
18242.88	18246.55	3.79	6.77	3.81	0.00	1.84	0.56
18246.55	18250.23	7.83	10.46	3.81	0.00	2.85	0.75
18250.23	18253.90	12.98	14.17	3.81	0.01	3.86	0.92
18253.90 LB	19096.72	7026.17	4867.57	843.60	3.10	5.78	1.44
19096.72	19939.55	119311.23	9551.38	844.29	52.56	11.33	12.49
19939.55	20782.38	83985.88	9408.22	846.37	37.00	11.16	8.93
20782.38	21625.20 RB	4037.47	3330.38	749.91	1.78	4.45	1.21
21625.20	22290.25	5354.50	3744.91	665.52	2.36	5.63	1.43
22290.25	22955.29	5533.00	3735.46	629.58	2.44	5.94	1.48
22955.29	23620.34	1726.12	1279.72	248.21	0.76	5.17	1.35

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18253.90 LB	19096.72	7762.78	5141.55	848.29	3.42	6.10	1.51
19096.72	19939.55	126192.51	9825.36	844.29	55.59	11.66	12.84
19939.55	20782.38	88755.84	9682.20	846.37	39.10	11.49	9.17
20782.38	21625.20 RB	4288.88	3588.31	843.83	1.89	4.28	1.20

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 186.61

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17706.6	872.5	17962.4	868.9	18178.9	865	18224.9	867.3	18241.6	865.4703
18275.1	861.8	18558.1	861.5	18649.2	863.1	18750.7	860.2	18802.1	856.8
18993.6	861.8	19076	862.1	19255.1	854.9	19285.9	857.9	19303.2	852.6
19608.2	852.5	19719.2	853.8	19747.8	856.9	19782.8	853.3	19919.5	853.7
19946.7	849.6	20429.6	853.5	20482.5	853.7	20541.7	862.3	20757.5	855.8
20927.9	853.1	21015.3	863.1	21085	864.9	21182.7	852.9	21265.9	862
21495.7	863.9	21636.7	859	21735.6	865	21803.7	863.3	21915.7	855.4
22097.6	860.5	22386.1	866	22486.6	867	22554.7	859.1	22614.2	858.3
22658.8	855.5	22915.2	860.1	22956.2	859.8	23054.1	856.4	23066.4	860.1
23071.4	857.2	23093.8	857.3	23108.6	861.1	23140.6	859.5	23299.4	865.8
23325.1	864	23346	867.5	23725.7	866.7	23943	868	23952.3	866.4
24204.4	867.2	24602.1	866	24649.3	867	24656.3	864.8	24925.3	866.3
25273.5	866.5	25525.8	865.4	25806.4	866.2	26027.8	866.8	26046	868
26050.3	863.1	26059.9	862.6	26083.3	868	26101.6	867.7	26112.1	864.5
26414.9	864.6	26683.9	865.1	26958.3	865.7	27163.4	865.8	27231.5	867.6
27253	858.3	27277.1	867.2	27297.6	866.6	27301.5	868.4	27321.8	865.6
27574.6	865.3	27818.3	865.6	28163.6	865.7	28418.2	865.5	28590.9	867.6

28599.6	863.2	28612.1	866.2	29008.6	866.3	29061.6	866.5	29385.1	866.2
29629.6	866.5	29884.2	868	30210.7	868.8	30503.6	868.4	30848.4	869.7
31091.6	872	31110.5	872						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17706.6	.15	18224.9	.15	19285.9	.028	20541.7	.15	21735.6	.15
23346	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18241.6	21735.6	295	290.56	220	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17706.6	18224.9	870	23346	31110.5	870

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	865.47	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.89	Wt. n-Val.		0.037	0.150
E.G. Elev (ft)	866.36	Reach Len. (ft)	295.00	290.56	220.00
Crit W.S. (ft)	862.00	Flow Area (sq ft)		27918.98	7698.73
E.G. Slope (ft/ft)	0.001906	Area (sq ft)	8.27	27918.98	8430.92
Q Total (cfs)	227000.00	Flow (cfs)		216613.33	10386.67
Top Width (ft)	6229.27	Top Width (ft)	35.33	3493.98	2699.96
Vel Total (ft/s)	6.37	Avg. Vel. (ft/s)		7.76	1.35
Max Chl Dpth (ft)	15.87	Hydr. Depth (ft)		7.99	5.33
Conv. Total (cfs)	5199015.0	Conv. (cfs)		4961127.5	237887.5
Length Wtd. (ft)	286.35	Wetted Per. (ft)		3499.02	1446.65
Min Ch El (ft)	849.60	Shear (lb/sq ft)		0.95	0.63
Alpha	1.42	Stream Power (lb/ft s)		7.37	0.85
Frctn Loss (ft)	0.48	Cum Volume (acre-ft)	3703.23	32439.21	13827.13
C & E Loss (ft)	0.12	Cum SA (acres)	926.08	3568.03	3505.58

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	865.81	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.94	Wt. n-Val.		0.037	
E.G. Elev (ft)	866.76	Reach Len. (ft)	295.00	290.56	220.00
Crit W.S. (ft)	862.06	Flow Area (sq ft)		29123.45	
E.G. Slope (ft/ft)	0.001898	Area (sq ft)		29123.45	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	3494.00	Top Width (ft)		3494.00	
Vel Total (ft/s)	7.79	Avg. Vel. (ft/s)		7.79	
Max Chl Dpth (ft)	16.21	Hydr. Depth (ft)		8.34	
Conv. Total (cfs)	5210723.5	Conv. (cfs)		5210723.5	
Length Wtd. (ft)	290.56	Wetted Per. (ft)		3500.20	
Min Ch El (ft)	849.60	Shear (lb/sq ft)		0.99	
Alpha	1.00	Stream Power (lb/ft s)		7.68	
Frctn Loss (ft)	0.51	Cum Volume (acre-ft)	425.36	33758.15	7498.14
C & E Loss (ft)	0.10	Cum SA (acres)	71.04	3571.29	1097.10

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18241.60 LB	19115.10	4386.37	3809.57	873.94	1.93	4.36	1.15
19115.10	19988.60	112017.86	10170.72	875.22	49.35	11.64	11.01
19988.60	20862.10	94801.41	9616.03	874.25	41.76	11.01	9.86
20862.10	21735.60 RB	5407.71	4322.66	875.61	2.38	4.95	1.25
21735.60	22360.59	3278.68	2789.74	623.01	1.44	4.48	1.18
22360.59	22985.59	5203.60	3333.44	486.30	2.29	6.86	1.56
22985.59	23610.58	1904.38	1575.54	337.34	0.84	4.70	1.21

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18241.60 LB	19115.10	4967.49	4110.69	874.31	2.19	4.71	1.21
19115.10	19988.60	117017.47	10471.84	875.22	51.55	11.99	11.17

19988.60	20862.10	98981.45	9917.14	874.25	43.60	11.35	9.98
20862.10	21735.60 RB	6033.60	4623.78	876.42	2.66	5.29	1.30

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 186.55

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18001.2	868.5	18093.9	867.9	18112.1	874.6	18128.8	863.7	18254.1	860.2
18496.1	859.1	18711.8	859.4	18955.9	859.2	19127.1	861.7	19240.3	856.8
19271.4	859.6	19288.6	852.9	19432.7	856	19480.5	851.1	19686.9	852.1
19882.4	854.4	19928.6	852.7	19966.2	853.3	19979.8	850	20250.3	851.7
20532.7	853.7	20567.5	863.1	20647.3	855.4	20705.7	852.5	20733.2	853.6
20769.3	852	20879.2	854.8	21084.9	853.3	21116.3	857.9	21202.6	852.4
21282.7	859.7	21348.4	857.4	21387.2	858.7	21622.2	855.3	21735.8	853.5
21951.3	861.1	22155.8	857.8	22293.9	862.7	22462	861.7	22478.7	862.9
22614.3	853.9	22677	853	22818.3	857.1	22871.4	854.7	22965.9	856.1
23019.2	853.4	23066.9	853.7	23084.1	851.6	23118.7	856	23131	861.8
23316.7	861.4	23343.3	864.7	23433.4	864.2	23640.8	863.9	23849.4	865.1
23856	865.1	24264.2	864.6	24380.7	864.5	24719.4	864.2	25011.8	864.7
25305	864.9	25551	864.7	25843.9	864.5	26007.8	866.4	26039.6	870
26050.2	861.3	26062.4	862.2	26071.9	869.6	26091.8	870	26149.4	862.6
26510.9	863.9	26812.8	864.1	27100.5	863.9	27301.9	864.2	27621.8	864.4
27830.7	864.3	28072.8	864.4	28305.7	864.4	28567.6	864.3	28626.2	865.1
28650.5	867.3	28660.2	863	28672.5	866.5	28794.3	864.4	28993.8	866.6
29053.1	866.7	29395.2	867	29440.4	867.1	29700.1	867.9	29931.5	868.4
30173.6	867.7	30377.8	869	30627.1	869	30879.8	869.6	31084.2	870.4
31174.2	872.2								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18001.2	.15	18128.8	.15	19271.4	.028	20567.5	.15	21951.3	.15
23131	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18128.8	21951.3	475	489.65	675	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23343.3	31174.2	870

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	865.26	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.51	Wt. n-Val.	0.150	0.045	0.121
E.G. Elev (ft)	865.76	Reach Len. (ft)	475.00	489.65	675.00
Crit W.S. (ft)	860.33	Flow Area (sq ft)	1.86	35608.56	9531.87
E.G. Slope (ft/ft)	0.001493	Area (sq ft)	1.86	35608.56	14323.59
Q Total (cfs)	227000.00	Flow (cfs)	0.54	210286.73	16712.73
Top Width (ft)	10443.62	Top Width (ft)	2.39	3822.50	6618.73
Vel Total (ft/s)	5.03	Avg. Vel. (ft/s)	0.29	5.91	1.75
Max Chl Dpth (ft)	15.26	Hydr. Depth (ft)	0.78	9.32	6.85
Conv. Total (cfs)	5875385.0	Conv. (cfs)	13.9	5442799.5	432571.6
Length Wtd. (ft)	500.74	Wetted Per. (ft)	2.85	3827.67	1394.57
Min Ch El (ft)	850.00	Shear (lb/sq ft)	0.06	0.87	0.64
Alpha	1.29	Stream Power (lb/ft s)	0.02	5.12	1.12
Frctn Loss (ft)	0.78	Cum Volume (acre-ft)	3703.19	32227.33	13769.67
C & E Loss (ft)	0.01	Cum SA (acres)	925.96	3543.63	3482.04

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	865.55	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.59	Wt. n-Val.		0.046	
E.G. Elev (ft)	866.14	Reach Len. (ft)	475.00	489.65	675.00
Crit W.S. (ft)	860.51	Flow Area (sq ft)		36731.93	
E.G. Slope (ft/ft)	0.001601	Area (sq ft)		36731.93	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	3822.50	Top Width (ft)		3822.50	
Vel Total (ft/s)	6.18	Avg. Vel. (ft/s)		6.18	
Max Chl Dpth (ft)	15.55	Hydr. Depth (ft)		9.61	
Conv. Total (cfs)	5672408.0	Conv. (cfs)		5672408.0	

Length Wtd. (ft)	489.65	Wetted Per. (ft)		3833.97	
Min Ch El (ft)	850.00	Shear (lb/sq ft)		0.96	
Alpha	1.00	Stream Power (lb/ft s)		5.92	
Frctn Loss (ft)	0.79	Cum Volume (acre-ft)	425.36	33538.51	7498.14
C & E Loss (ft)	0.02	Cum SA (acres)	71.04	3546.89	1097.10

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18120.29	18128.80	0.54	1.86	2.85	0.00	0.78	0.29
18128.80 LB	19084.43	6113.97	5179.77	955.69	2.69	5.42	1.18
19084.43	20040.05	105798.35	10597.99	957.85	46.61	11.09	9.98
20040.05	20995.68	84260.30	11270.41	957.42	37.12	11.79	7.48
20995.68	21951.30 RB	14114.11	8560.38	956.70	6.22	8.96	1.65
21951.30	22566.16	2942.82	2902.79	615.21	1.30	4.72	1.01
22566.16	23181.02	10987.93	6066.75	616.87	4.84	9.87	1.81
23181.02	23795.88	2781.98	562.33	162.48	1.23	3.47	4.95

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18128.80 LB	19084.43	6906.40	5460.62	957.54	3.04	5.71	1.26
19084.43	20040.05	114010.59	10878.83	957.85	50.22	11.38	10.48
20040.05	20995.68	90703.37	11551.26	957.42	39.96	12.09	7.85
20995.68	21951.30 RB	15379.63	8841.22	961.16	6.78	9.25	1.74

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 186.46

INPUT
Description:

Eliminate vertical ineffective area in rt. overbank by coding out GR

data between and below sta, elev. 22973, 851.1 and 23071, 851.1

Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15785.1	872.5	16067.1	871	16286	870.3	16498.2	869.4	16746.6	867.6
17152.2	866.2	17370.8	864.9	17587.9	869.2	17639.7	872.6	17866.7	869.3
17921.2	866.1	17937.4	862.1	17984.8	863.6	18200	860.5	18210.9	860.4
18547.4	859.7	18768.8	859.3	18991	860.9	19059.5	863.1	19122.1	857.4
19243.7	859.1	19258.1	853.6	19308.1	852	19410.8	854.1	19599	852.5
19690.6	853.4	19716.8	850.9	19909.8	852.2	20554.9	853.3	20590.7	853.3
20609.3	864	20631.5	859.4	20633.6	861.2	20647.6	858.4	20691.2	856.3
20694.5	854.7	20784.6	849.9	21022.4	852.3	21127.8	853.3	21299.7	850.7
21518.5	852.5	21718.4	851.4	21794	854.6	21991.1	856.5	22181.4	863.6
22262.6	860.9	22407.6	862	22624.9	860.1	22867	855.8	22954.4	855.1
22973	851.1	23071	851.1	23147	856.4	23177	863.2	23307.1	860.8
23310.6	862.5	23502.3	863.9	23825.5	864.4	24046.2	864.3	24267.7	864.5
24510.5	864.2	24739.6	863.2	25066.6	863.4	25317.1	863.9	25602.8	863.4
25657.4	864.2	25710	868.4	25717.6	861.2	25729.9	861.1	25742.8	868
25771.7	868.2	25784.2	863.6	26094.9	863.1	26149.9	864.3	26372	862.5
26612.8	862.2	26865.5	862.9	27106.3	862.8	27400.5	863.3	27688.7	864
27772.4	864	27984.8	863.6	28028.4	863.7	28351.3	864.6	28360.9	864.6
28584.8	864.9	28768.9	866.5	28777.3	861.8	28825.4	866.8	29052.3	865.5
29361	866.8	29672.7	868.1	29939	868.2	30156.1	868.9	30529.8	869.8
30828.8	869.8	31063.6	870.4						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15785.1	.15	17984.8	.15	19059.5	.028	20609.3	.15	22181.4	.15
23177	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18200	22181.4	475	494.75	460	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23502.3	31063.6	870

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	864.49	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.49	Wt. n-Val.	0.150	0.049	0.126
E.G. Elev (ft)	864.98	Reach Len. (ft)	475.00	494.75	460.00
Crit W.S. (ft)	858.65	Flow Area (sq ft)	608.35	37694.63	6804.85
E.G. Slope (ft/ft)	0.001632	Area (sq ft)	608.35	37694.63	11196.84
Q Total (cfs)	227000.00	Flow (cfs)	421.49	216084.36	10494.15
Top Width (ft)	10295.29	Top Width (ft)	272.28	3981.40	6041.61
Vel Total (ft/s)	5.03	Avg. Vel. (ft/s)	0.69	5.73	1.54
Max Chl Dpth (ft)	14.59	Hydr. Depth (ft)	2.23	9.47	5.15
Conv. Total (cfs)	5619857.5	Conv. (cfs)	10434.9	5349618.0	259804.5
Length Wtd. (ft)	493.06	Wetted Per. (ft)	272.61	3987.99	1322.79
Min Ch El (ft)	849.90	Shear (lb/sq ft)	0.23	0.96	0.52
Alpha	1.24	Stream Power (lb/ft s)	0.16	5.52	0.81
Frctn Loss (ft)	0.86	Cum Volume (acre-ft)	3699.86	31815.34	13571.94
C & E Loss (ft)	0.00	Cum SA (acres)	924.46	3499.77	3383.95

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	864.81	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.53	Wt. n-Val.		0.049	
E.G. Elev (ft)	865.33	Reach Len. (ft)	475.00	494.75	460.00
Crit W.S. (ft)	858.78	Flow Area (sq ft)		38955.58	
E.G. Slope (ft/ft)	0.001633	Area (sq ft)		38955.58	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	3981.40	Top Width (ft)		3981.40	
Vel Total (ft/s)	5.83	Avg. Vel. (ft/s)		5.83	
Max Chl Dpth (ft)	14.91	Hydr. Depth (ft)		9.78	
Conv. Total (cfs)	5617332.0	Conv. (cfs)		5617332.0	
Length Wtd. (ft)	494.75	Wetted Per. (ft)		3993.44	
Min Ch El (ft)	849.90	Shear (lb/sq ft)		0.99	
Alpha	1.00	Stream Power (lb/ft s)		5.80	
Frctn Loss (ft)	0.87	Cum Volume (acre-ft)	425.36	33113.11	7498.14
C & E Loss (ft)	0.00	Cum SA (acres)	71.04	3503.03	1097.10

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17878.01	18039.01	77.04	158.26	111.60	0.03	1.42	0.49
18039.01	18200.00	344.46	450.09	161.01	0.15	2.80	0.77
18200.00 LB	19195.35	8950.79	4535.12	995.66	3.94	4.56	1.97
19195.35	20190.70	124784.37	11521.55	996.55	54.97	11.58	10.83
20190.70	21186.05	63101.32	11366.43	1000.19	27.80	11.42	5.55
21186.05	22181.40 RB	19247.87	10271.53	995.58	8.48	10.32	1.87
22181.40	22773.55	1919.56	2218.55	592.23	0.85	3.75	0.87
22773.55	23365.69	8236.16	4437.66	593.95	3.63	7.49	1.86
23365.69	23957.84	338.42	148.64	136.61	0.15	1.09	2.28

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18200.00 LB	19195.35	9922.56	4850.36	999.91	4.37	4.87	2.05
19195.35	20190.70	130674.86	11836.79	996.55	57.57	11.89	11.04
20190.70	21186.05	66153.46	11681.67	1000.19	29.14	11.74	5.66
21186.05	22181.40 RB	20249.12	10586.77	996.79	8.92	10.64	1.91

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 186.36

INPUT
Description:

Eliminate vertical ineffective area in rt. overbank by coding out GR

data between and below sta, elev. 23002, 851.1 and 23131, 851.1

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16815.1	866.7	16885.9	864.1	16935.4	864.3	16962.2	874.3	16983	875.4
17021.2	864.9	17384.5	863.3	17653.3	861.9	17907.9	861.3	18199.6	860.5
18274.1	863	18302.4	858.6	18618.1	857.8	18851.8	857.5	18914.6	856.8
18994.3	860.5	19144.2	863.2	19200.6	862.1	19209.2	864.2	19215	858.6
19260.1	852.2	19373.2	851.4	19393.9	855.1	19570.6	853.4	19619.6	854.5
19662	850.2	19898.5	851.9	19960.9	851.9	20473	852.4	20657.5	852.7
20678.9	857.7	20687.5	861.6	20846.9	862.6	20871.1	861.3	20928	853.7
21150.4	849.2	21384.6	853.2	21468.2	851.1	21697.8	853.8	21949.9	853.6
22133.6	852.4	22369.4	860.5	22644.8	859.1	22877.9	857.4	22950.7	858
23002	851.1	23131	851.1	23180.6	855.1	23222	862.6	23466.7	861.1
23515.6	860	23564.2	863.8	23652.3	861.8	24056.1	863.6	24109.5	863.6
24345.8	863.3	24374.8	863.4	24642.7	863.4	24900.7	863	25195.4	863
25446.5	863.5	25519.3	868.2	25529.7	861.1	25537	861	25558.8	866.9
25577.9	867.6	25595.7	863.6	25835.2	862.9	26123.3	862.5	26247.3	864
26253.1	861.3	26490.7	861.8	26768.3	862.9	27007.1	862.6	27054	862.4
27314	863	27544.4	863.4	27790.7	864	28058.5	863.9	28309.2	864.3
28545.4	864.1	28813.2	863.8	28861.6	866.2	28874.1	861.7	29250.5	866.3
29549.5	866.3	29830.9	867.3	30091.5	868.2	30192.7	865.2	30225.2	869.2
30465.3	869.4	30702.3	869.2	30948.2	870.3	31189.7	870.9	31438.4	872.5
31628.5	873.4								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16815.1	.15	18274.1	.15	19209.2	.028	20846.9	.15	22369.4	.15
23222	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18274.1	22369.4	450	470.98	385	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16815.1	17900	870	23564.2	31628.5	870

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	863.59	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.52	Wt. n-Val.	0.150	0.049	0.120
E.G. Elev (ft)	864.11	Reach Len. (ft)	450.00	470.98	385.00
Crit W.S. (ft)	858.54	Flow Area (sq ft)	941.52	36499.13	6171.24
E.G. Slope (ft/ft)	0.001886	Area (sq ft)	1708.52	36499.13	9059.19
Q Total (cfs)	227000.00	Flow (cfs)	749.43	215384.89	10865.68
Top Width (ft)	10230.07	Top Width (ft)	956.51	4092.20	5181.37
Vel Total (ft/s)	5.21	Avg. Vel. (ft/s)	0.80	5.90	1.76
Max Chl Dpth (ft)	14.39	Hydr. Depth (ft)	2.52	8.92	5.18
Conv. Total (cfs)	5226605.5	Conv. (cfs)	17255.4	4959171.0	250178.9
Length Wtd. (ft)	467.47	Wetted Per. (ft)	374.14	4098.11	1193.64
Min Ch El (ft)	849.20	Shear (lb/sq ft)	0.30	1.05	0.61
Alpha	1.23	Stream Power (lb/ft s)	0.24	6.19	1.07
Frctn Loss (ft)	0.84	Cum Volume (acre-ft)	3687.23	31394.00	13464.99
C & E Loss (ft)	0.00	Cum SA (acres)	917.76	3453.92	3324.69

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	863.90	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.56	Wt. n-Val.		0.049	
E.G. Elev (ft)	864.46	Reach Len. (ft)	450.00	470.98	385.00
Crit W.S. (ft)	858.61	Flow Area (sq ft)		37744.96	
E.G. Slope (ft/ft)	0.001895	Area (sq ft)		37744.96	

Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	4093.76	Top Width (ft)		4093.76	
Vel Total (ft/s)	6.01	Avg. Vel. (ft/s)		6.01	
Max Chl Dpth (ft)	14.70	Hydr. Depth (ft)		9.22	
Conv. Total (cfs)	5214792.5	Conv. (cfs)		5214792.5	
Length Wtd. (ft)	470.98	Wetted Per. (ft)		4104.13	
Min Ch El (ft)	849.20	Shear (lb/sq ft)		1.09	
Alpha	1.00	Stream Power (lb/ft s)		6.54	
Frctn Loss (ft)	0.84	Cum Volume (acre-ft)	425.36	32677.54	7498.14
C & E Loss (ft)	0.01	Cum SA (acres)	71.04	3457.17	1097.10

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17885.03	17982.30	149.75	196.37	82.30	0.07	2.39	0.76
17982.30	18079.57	208.44	256.02	97.27	0.09	2.63	0.81
18079.57	18176.83	244.82	281.96	97.27	0.11	2.90	0.87
18176.83	18274.10	146.43	207.17	97.31	0.06	2.13	0.71
18274.10 LB	19297.93	13139.77	5108.23	1023.84	5.79	5.00	2.57
19297.93	20321.75	132657.17	11565.61	1024.40	58.44	11.30	11.47
20321.75	21345.57	49957.48	9765.64	1025.86	22.01	9.54	5.12
21345.57	22369.40 RB	19630.45	10059.66	1024.02	8.65	9.83	1.95
22369.40	22986.67	3495.60	3008.32	617.61	1.54	4.87	1.16
22986.67	23603.95	7370.07	3162.92	576.03	3.25	5.50	2.33

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18274.10 LB	19297.93	14160.86	5419.16	1026.46	6.24	5.30	2.61
19297.93	20321.75	139066.75	11877.24	1024.40	61.26	11.60	11.71
20321.75	21345.57	53104.27	10077.28	1025.86	23.39	9.84	5.27
21345.57	22369.40 RB	20668.12	10371.29	1027.42	9.10	10.13	1.99

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 186.27

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17016.7	860.1	17192.4	872.2	17241.5	863.8	17425.7	862.5	17439.4	862.4
17626.1	862	17895.9	859.9	18153.7	859.3	18344.6	861.1	18366.9	862
18386.7	858	18632.5	858.5	18845.6	856.4	19007	856.6	19128	860.8
19145.5	863	19181.4	855.9	19288	851.1	19477.6	851.9	19679	852
19792.1	853.3	19960.3	849.8	20071.8	850.2	20547.4	852.3	20709.6	852.9
20733.9	858.8	20745.7	855.9	20886.6	857.8	21130.4	857	21264.9	850.6
21506.5	850.9	21713.3	852.2	21843.7	850.4	21977	849.9	22046.1	854.6
22116.3	852.5	22252.3	851.6	22433.5	857.6	22476.8	860.8	22608.6	858.8
22800.2	859.1	22994.9	861.1	23025.4	862.8	23045.6	852.6	23115.9	851.1
23232.4	854.4	23274	862.8	23462.8	860.9	23606.3	859.2	23690.5	862.1
23945.5	861.8	24176.2	862.1	24455.2	862.2	24710.1	862.9	24970	863.1
25163.9	863.8	25355.2	863.4	25398.5	866.5	25409.7	860	25436.7	868.5
25443.7	869	25453.5	863.8	25712.5	864.3	25946	864.1	26165.9	863.5
26330.3	863.9	26337.1	860.7	26556.3	861	26827.1	861.8	27053.1	861.9
27342.8	862.8	27528.7	862.3	27814.8	862.6	28049.2	862.9	28317.7	863.2
28573.2	863.6	28814.4	863.7	28930.5	864.4	28948.4	866.1	28961.4	860.7
29011.1	865.5	29286.8	865.3	29346.4	865.5	29586.3	865.6	29640.3	865.6
29875.3	866.6	30069.9	866.7	30261.5	866.4	30303.8	868.4	30322.1	866
30459.2	868	30714.1	867.6	30725.1	867.6	30946.9	868.5	30956.3	868.5
31146.3	869.2								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17016.7	.15	18366.9	.15	19145.5	.028	20733.9	.15	22476.8	.15
23274	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18366.9	22476.8	395	425.61	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17016.7	17920	870	23606.3	31146.3	870

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	862.75	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.52	Wt. n-Val.	0.150	0.047	0.116
E.G. Elev (ft)	863.27	Reach Len. (ft)	395.00	425.61	500.00
Crit W.S. (ft)	857.88	Flow Area (sq ft)	1254.98	37184.33	4417.48
E.G. Slope (ft/ft)	0.001728	Area (sq ft)	1970.56	37184.33	6481.56
Q Total (cfs)	227000.00	Flow (cfs)	1028.58	218725.33	7246.08
Top Width (ft)	8892.25	Top Width (ft)	1014.66	4106.61	3770.98
Vel Total (ft/s)	5.30	Avg. Vel. (ft/s)	0.82	5.88	1.64
Max Chl Dpth (ft)	12.95	Hydr. Depth (ft)	2.81	9.05	3.93
Conv. Total (cfs)	5460881.5	Conv. (cfs)	24744.4	5261820.0	174317.2
Length Wtd. (ft)	427.86	Wetted Per. (ft)	446.93	4109.70	1126.34
Min Ch El (ft)	849.80	Shear (lb/sq ft)	0.30	0.98	0.42
Alpha	1.19	Stream Power (lb/ft s)	0.25	5.74	0.69
Frctn Loss (ft)	0.75	Cum Volume (acre-ft)	3668.23	30995.66	13396.31
C & E Loss (ft)	0.01	Cum SA (acres)	907.58	3409.60	3285.13

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	863.08	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.54	Wt. n-Val.		0.047	
E.G. Elev (ft)	863.61	Reach Len. (ft)	395.00	425.61	500.00
Crit W.S. (ft)	857.95	Flow Area (sq ft)		38536.24	
E.G. Slope (ft/ft)	0.001678	Area (sq ft)		38536.24	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	4109.90	Top Width (ft)		4109.90	
Vel Total (ft/s)	5.89	Avg. Vel. (ft/s)		5.89	
Max Chl Dpth (ft)	13.28	Hydr. Depth (ft)		9.38	
Conv. Total (cfs)	5541064.0	Conv. (cfs)		5541064.0	
Length Wtd. (ft)	425.61	Wetted Per. (ft)		4116.38	
Min Ch El (ft)	849.80	Shear (lb/sq ft)		0.98	
Alpha	1.00	Stream Power (lb/ft s)		5.78	
Frctn Loss (ft)	0.72	Cum Volume (acre-ft)	425.36	32265.15	7498.14
C & E Loss (ft)	0.00	Cum SA (acres)	71.04	3412.82	1097.10

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17916.83	18006.85	218.71	260.91	86.85	0.10	3.00	0.84
18006.85	18096.86	253.14	288.95	90.01	0.11	3.21	0.88
18096.86	18186.87	271.49	301.34	90.02	0.12	3.35	0.90
18186.87	18276.89	190.89	243.94	90.02	0.08	2.71	0.78
18276.89	18366.90	94.36	159.85	90.03	0.04	1.78	0.59
18366.90 LB	19394.38	27095.84	6121.04	1025.57	11.94	5.98	4.43
19394.38	20421.85	129395.34	11660.17	1027.53	57.00	11.35	11.10
20421.85	21449.33	41560.59	8780.63	1028.70	18.31	8.55	4.73
21449.33	22476.80 RB	20673.57	10622.50	1027.90	9.11	10.34	1.95
22476.80	23054.77	1657.67	1851.58	579.40	0.73	3.21	0.90
23054.77	23632.73	5588.41	2565.90	546.93	2.46	4.70	2.18

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18366.90 LB	19394.38	28444.31	6458.70	1029.98	12.53	6.29	4.40
19394.38	20421.85	133765.47	11998.25	1027.53	58.93	11.68	11.15

20421.85	21449.33	43351.95	9118.71	1028.70	19.10	8.87	4.75
21449.33	22476.80 RB	21438.28	10960.58	1030.18	9.44	10.67	1.96

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 186.19

INPUT
Description:

Eliminate vertical ineffective area in lt. overbank and main channel

by coding out GR data between and below sta/elev. 21652, 850.5 and

21830, 850.5

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16703.7	869.7	16899.6	868.3	17036.3	866.8	17153.4	867.2	17163.6	863.6
17364.2	864.6	17407.2	857.7	17630.7	856.5	17827.8	855.2	17931.7	861.5
18142.1	860.4	18362.6	859.2	18448.2	860.6	18485.2	856.4	18691.3	857.7
18787	856.9	18816.8	855	19062.4	854	19091.4	859.2	19208.2	850.2
19366	851	19388.5	854	19528.1	852.1	19718.8	853.7	19910.8	851.1
20040.2	848.9	20139	850.8	20659.3	851.5	20796.5	851.7	20814.7	862.6
20876	856.5	21112.3	858.9	21317.5	855.9	21466.1	857.7	21652	850.5
21830	850.5	21834.3	850.7	22105.3	850.6	22320.5	851.1	22403.2	850.7
22594.2	858.2	22805.7	859.4	22915.2	860.8	23027	858.9	23066.7	850.9
23129.5	854	23197.2	851.1	23262.7	853.6	23290	861.3	23323.3	861.3
23329	859.8	23515.5	859.9	23701.6	859.9	23956.9	861.3	24162.9	861.3
24391.8	862.3	24632.2	862	24851.2	863.2	25044.7	863.5	25238.9	863.6
25423.7	865.4	25438.6	866.1	25446.2	860.7	25483.7	866.1	25515.7	863.6
25700.5	864.1	25896.1	863.3	26128.7	862.1	26376.9	861.8	26424.8	863.2
26472.2	860.2	26661.6	860.8	26859	861.6	27048.5	861.6	27211.5	861.5
27428.8	861.7	27699.4	861.2	27958.9	861.9	28228.4	862.9	28501.8	862.6
28793.5	862.8	28996.4	862.1	29028.9	862.5	29053.9	863.9	29059.5	858.9
29087.5	865.1	29181.8	862.5	29387.8	864	29691.4	865.5	30005.3	865.8
30217	866.3	30417.1	867.3	30660.3	868.9	30924.5	867.8	31128.4	869.4
31332	869.7								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16703.7	.065	18448.2	.065	19091.4	.028	20814.7	.15	22594.2	.15
23290	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18448.2	22594.2	520	513.3	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16703.7	17931.7	865	23736.9	31332	865

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	861.94	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.57	Wt. n-Val.	0.065	0.043	0.093
E.G. Elev (ft)	862.51	Reach Len. (ft)	520.00	513.30	500.00
Crit W.S. (ft)	857.64	Flow Area (sq ft)	856.46	35435.37	4232.09
E.G. Slope (ft/ft)	0.001770	Area (sq ft)	3569.34	35435.37	5611.12
Q Total (cfs)	227000.00	Flow (cfs)	1153.80	218465.33	7380.87
Top Width (ft)	8598.54	Top Width (ft)	1067.44	4138.30	3392.79
Vel Total (ft/s)	5.60	Avg. Vel. (ft/s)	1.35	6.17	1.74
Max Chl Dpth (ft)	13.04	Hydr. Depth (ft)	1.66	8.56	3.70
Conv. Total (cfs)	5396294.5	Conv. (cfs)	27428.4	5193406.5	175459.7
Length Wtd. (ft)	512.96	Wetted Per. (ft)	516.52	4143.14	1144.97
Min Ch El (ft)	848.90	Shear (lb/sq ft)	0.18	0.94	0.41
Alpha	1.17	Stream Power (lb/ft s)	0.25	5.83	0.71
Frctn Loss (ft)	0.90	Cum Volume (acre-ft)	3643.11	30640.88	13326.91
C & E Loss (ft)	0.01	Cum SA (acres)	898.14	3369.32	3244.02

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	862.31	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.59	Wt. n-Val.		0.043	
E.G. Elev (ft)	862.89	Reach Len. (ft)	520.00	513.30	500.00
Crit W.S. (ft)	857.72	Flow Area (sq ft)		36944.82	
E.G. Slope (ft/ft)	0.001687	Area (sq ft)		36944.82	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	4142.58	Top Width (ft)		4142.58	
Vel Total (ft/s)	6.14	Avg. Vel. (ft/s)		6.14	
Max Chl Dpth (ft)	13.41	Hydr. Depth (ft)		8.92	
Conv. Total (cfs)	5526094.0	Conv. (cfs)		5526094.0	
Length Wtd. (ft)	513.30	Wetted Per. (ft)		4153.34	
Min Ch El (ft)	848.90	Shear (lb/sq ft)		0.94	
Alpha	1.00	Stream Power (lb/ft s)		5.76	
Frctn Loss (ft)	0.86	Cum Volume (acre-ft)	425.36	31896.40	7498.14
C & E Loss (ft)	0.01	Cum SA (acres)	71.04	3372.50	1097.10

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17866.70	17983.00	18.38	29.62	51.30	0.01	0.58	0.62
17983.00	18099.30	106.77	118.09	116.30	0.05	1.02	0.90
18099.30	18215.60	234.60	189.39	116.30	0.10	1.63	1.24
18215.60	18331.90	405.00	262.80	116.30	0.18	2.26	1.54
18331.90	18448.20	389.06	256.56	116.31	0.17	2.21	1.52
18448.20 LB	19484.70	47580.88	7417.42	1037.83	20.96	7.16	6.41
19484.70	20521.20	115279.16	10872.17	1036.57	50.78	10.49	10.60
20521.20	21557.70	34376.17	6360.99	1032.02	15.14	6.18	5.40
21557.70	22594.20 RB	21229.10	10784.78	1036.72	9.35	10.40	1.97
22594.20	23176.72	2488.32	2399.27	583.47	1.10	4.12	1.04
23176.72	23759.24	4892.55	1832.82	561.51	2.16	3.27	2.67

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18448.20 LB	19484.70	49992.54	7795.29	1039.53	22.02	7.52	6.41
19484.70	20521.20	119245.05	11250.04	1036.57	52.53	10.85	10.60
20521.20	21557.70	35850.86	6736.83	1036.41	15.79	6.52	5.32
21557.70	22594.20 RB	21911.55	11162.65	1040.83	9.65	10.77	1.96

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 186.1

INPUT
Description: APPROX. ALIGNMENT OF DEAN RD. AND WATERMAN WASH

Eliminate vertical ineffective area in main channel by coding out GR

data between and below sta, elev. 22412, 850.5 and 22604, 850.5

Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16805.3	871.5	16962.3	871.6	17082.5	869	17184.5	859.5	17571.3	857.7
17671.9	858	17698.5	862	17750.3	859.8	18003.1	859.2	18271.6	857.7
18575.7	858.8	18697.6	857.8	18706.6	856.2	18712.9	858.6	18764.9	851
18783.7	850.8	18818.4	853.7	18959.6	853.4	19038.1	855.2	19099.5	847.9
19155.9	846.4	19192.9	848.1	19200.1	850.6	19232.6	852.5	19346.2	851.7
19438.7	853.2	19693.4	851.4	19957	848.8	20218.2	850	20418.7	850.5
20781	851.4	20883.6	851.7	20901.2	861.7	21019.5	859	21238.5	857.1
21437.8	858.5	21659.2	853.5	21926.5	853.8	22173.4	853.6	22412	850.5
22604	850.5	22701.4	856.4	22759.4	857.2	22814.1	854.9	23000.2	857
23084.6	858.8	23134.4	849.2	23272.4	852.7	23277.3	851.5	23421	861
23675.9	860.2	23820.2	859.8	24103.3	861.6	24395.9	861.9	24681.1	863.1
24960.8	863.1	25369.2	864	25537.7	865.2	25545.8	859	25558.9	860.1
25567.6	865.8	25587.2	865	25591.6	862.4	25615.4	865.2	25618	862.8
25891	861.7	26150.9	861.1	26495	860.6	26770.3	860.3	26937	864.5
27246.6	863.4	27518.1	862	27771.3	862.3	27827.1	863.8	27833.9	856.7
27862.4	864.3	27913.1	862.1	28166.8	861.7	28499.3	863.2	28780.2	862.3
28834.1	862.2	28860.2	865.4	28936.4	862.6	29179	862.3	29258.2	864.7
29272.6	860.8	29289.8	865	29669.8	864.6	29960.8	865.7	30260.6	864.8
30492.2	867.2	30849	869.9	31134.3	870.4	31398	870.6	31414	870.7

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16805.3	.065	18575.7	.065	19438.7	.028	20901.2	.15	22759.4	.15
23421	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18575.7	22759.4	520	506.66	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16805.3	17698.5	870	24103.3	31414	870

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	861.07	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.53	Wt. n-Val.	0.065	0.043	0.135
E.G. Elev (ft)	861.60	Reach Len. (ft)	520.00	506.66	500.00
Crit W.S. (ft)	856.64	Flow Area (sq ft)	1972.84	33452.75	4375.26
E.G. Slope (ft/ft)	0.001748	Area (sq ft)	3294.25	33452.75	4699.23
Q Total (cfs)	210000.00	Flow (cfs)	3291.75	200516.84	6191.41
Top Width (ft)	7460.11	Top Width (ft)	1379.78	4154.77	1925.56
Vel Total (ft/s)	5.28	Avg. Vel. (ft/s)	1.67	5.99	1.42
Max Chl Dpth (ft)	14.67	Hydr. Depth (ft)	2.31	8.05	3.47
Conv. Total (cfs)	5023144.5	Conv. (cfs)	78737.9	4796310.0	148096.8
Length Wtd. (ft)	506.71	Wetted Per. (ft)	855.22	4159.83	1261.30
Min Ch El (ft)	846.40	Shear (lb/sq ft)	0.25	0.88	0.38
Alpha	1.24	Stream Power (lb/ft s)	0.42	5.26	0.54
Frctn Loss (ft)	0.53	Cum Volume (acre-ft)	3602.14	30235.00	13267.73
C & E Loss (ft)	0.07	Cum SA (acres)	883.53	3320.46	3213.49

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	861.47	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.56	Wt. n-Val.		0.043	
E.G. Elev (ft)	862.02	Reach Len. (ft)	520.00	506.66	500.00
Crit W.S. (ft)	856.72	Flow Area (sq ft)		35123.76	
E.G. Slope (ft/ft)	0.001673	Area (sq ft)		35123.76	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	4173.06	Top Width (ft)		4173.06	
Vel Total (ft/s)	5.98	Avg. Vel. (ft/s)		5.98	
Max Chl Dpth (ft)	15.07	Hydr. Depth (ft)		8.42	
Conv. Total (cfs)	5134493.5	Conv. (cfs)		5134493.5	
Length Wtd. (ft)	506.66	Wetted Per. (ft)		4185.17	
Min Ch El (ft)	846.40	Shear (lb/sq ft)		0.88	
Alpha	1.00	Stream Power (lb/ft s)		5.24	
Frctn Loss (ft)	0.60	Cum Volume (acre-ft)	425.36	31471.78	7498.14
C & E Loss (ft)	0.04	Cum SA (acres)	71.04	3323.51	1097.10

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17631.49	17749.51	11.76	17.86	29.03	0.01	0.62	0.66
17749.51	17867.54	188.92	165.63	118.03	0.09	1.40	1.14
17867.54	17985.57	255.89	198.71	118.03	0.12	1.68	1.29
17985.57	18103.59	370.19	247.99	118.03	0.18	2.10	1.49
18103.59	18221.62	581.94	325.32	118.03	0.28	2.76	1.79
18221.62	18339.65	760.03	381.84	118.03	0.36	3.24	1.99
18339.65	18457.67	635.43	342.94	118.03	0.30	2.91	1.85
18457.67	18575.70	487.59	292.56	118.03	0.23	2.48	1.67
18575.70 LB	19621.63	40367.67	8457.93	1048.20	19.22	8.09	4.77
19621.63	20667.55	122040.13	11333.62	1045.94	58.11	10.84	10.77
20667.55	21713.47	23840.30	5100.88	1019.56	11.35	5.02	4.67
21713.47	22759.40 RB	14268.76	8560.31	1046.13	6.79	8.18	1.67
22759.40	23336.37	5235.41	3734.81	578.29	2.49	6.47	1.40
23336.37	23913.35	914.21	604.83	577.16	0.44	1.05	1.51
23913.35	24490.32	41.79	35.62	105.85	0.02	0.34	1.17

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18575.70 LB	19621.63	42740.82	8877.67	1050.86	20.35	8.49	4.81
19621.63	20667.55	126913.34	11753.36	1045.94	60.43	11.24	10.80
20667.55	21713.47	25261.06	5512.67	1037.96	12.03	5.32	4.58
21713.47	22759.40 RB	15084.77	8980.05	1050.40	7.18	8.59	1.68

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 186

INPUT
Description:

Eliminate vertical ineffective area in main channel by coding out GR

data between and below sta, elev. 22458, 850.5 and 22839, 850.5

Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17007.6	871.7	17054	868.1	17100.8	867.5	17165.2	864.1	17180	860.5
17410.9	858.7	17779.1	858	18075.8	854.9	18320.8	853.4	18357.8	855
18396.9	848.9	18559.2	852.9	18592.8	858.1	18603.3	857.4	18639	849.7
18743.7	850.8	18771.8	854.1	18860.2	854.3	18905.1	846.8	18906.8	852.3
18924.3	856.4	18951.4	849.7	18964.4	848.2	18972.2	851.5	19076	846.9
19152.5	849.2	19160.9	845.8	19170.6	848	19258.2	849	19275.9	852.1
19524.2	849.1	19720.5	847.5	19914.7	851.2	20178.8	849.6	20215.9	850.5
20583.7	849.8	20914.3	848.7	20939	852.3	21037.2	848.8	21086.8	850.1
21108.1	856	21347.4	856.6	21591.6	855.5	21780.8	856.5	21994.6	850.1
22253.5	853.3	22458	850.5	22839	850.5	22869	856.2	23113.3	856.6
23378.8	856.1	23610.6	856.3	23850.8	856.2	23931.8	858.8	23954.4	862.3
24195.6	860.8	24457.1	861.6	24532.2	861.3	24571.7	865.1	24581.7	857.4
24621.6	864.7	24648.5	862.2	24977.4	861.1	25298.6	861	25565.9	860
25861.2	859.8	26104	859.8	26337.6	859.7	26587.6	858.6	26735.6	858.5
26773.7	860.4	26931.1	857.5	27182.8	862	27260.6	864.3	27286.3	861.3
27522.5	861.6	27774.2	863.3	27921.1	862.3	27952.8	862.9	27958.1	858.9
27966.9	858.7	27981.4	863.7	28089.2	862.3	28328	863.8	28561.4	864.7
28807.9	864.3	29062.4	864.6	29290.6	863.9	29372	865.5	29607.5	866.2

Min Ch El (ft)	845.30	Shear (lb/sq ft)	0.21	0.37	0.18
Alpha	1.15	Stream Power (lb/ft s)	0.36	1.71	0.72
Frctn Loss (ft)	0.39	Cum Volume (acre-ft)	3464.26	29358.95	13111.78
C & E Loss (ft)	0.01	Cum SA (acres)	850.15	3222.35	3144.56

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	860.48	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.46	Wt. n-Val.	0.065	0.036	
E.G. Elev (ft)	860.93	Reach Len. (ft)	525.00	521.25	620.00
Crit W.S. (ft)	855.09	Flow Area (sq ft)	803.60	38267.63	
E.G. Slope (ft/ft)	0.000866	Area (sq ft)	803.60	38267.63	
Q Total (cfs)	210000.00	Flow (cfs)	1344.30	208655.70	
Top Width (ft)	4343.30	Top Width (ft)	201.10	4142.20	
Vel Total (ft/s)	5.37	Avg. Vel. (ft/s)	1.67	5.45	
Max Chl Dpth (ft)	15.18	Hydr. Depth (ft)	4.00	9.24	
Conv. Total (cfs)	7134239.0	Conv. (cfs)	45669.2	7088570.0	
Length Wtd. (ft)	521.26	Wetted Per. (ft)	205.02	4156.26	
Min Ch El (ft)	845.30	Shear (lb/sq ft)	0.21	0.50	
Alpha	1.02	Stream Power (lb/ft s)	0.35	2.72	
Frctn Loss (ft)	0.51	Cum Volume (acre-ft)	420.56	30569.06	7498.14
C & E Loss (ft)	0.00	Cum SA (acres)	69.84	3225.30	1097.10

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17268.39	17380.14	155.35	132.47	44.72	0.07	2.99	1.17
17380.14	17491.89	622.65	439.53	111.75	0.30	3.93	1.42
17491.89	17603.63	798.48	510.27	111.75	0.38	4.57	1.56
17603.63	17715.38	991.39	581.02	111.75	0.47	5.20	1.71
17715.38	17827.13	1118.30	624.56	111.75	0.53	5.59	1.79
17827.13	17938.87	1154.14	636.50	111.75	0.55	5.70	1.81
17938.87	18050.62	1191.49	648.77	111.75	0.57	5.81	1.84
18050.62	18162.37	1303.38	684.68	111.75	0.62	6.13	1.90
18162.37	18274.11	1455.24	731.48	111.75	0.69	6.55	1.99
18274.11	18385.86	1490.42	742.04	111.75	0.71	6.64	2.01
18385.86	18497.61	935.10	561.12	111.81	0.45	5.02	1.67
18497.61	18609.35	589.99	425.55	111.75	0.28	3.81	1.39
18609.35	18721.10	612.92	435.39	111.75	0.29	3.90	1.41
18721.10 LB	19756.65	67727.33	10922.29	1044.61	32.25	10.55	6.20
19756.65	20792.20	70051.23	11107.43	1035.68	33.36	10.73	6.31
20792.20	21827.75	29240.20	6883.06	1036.69	13.92	6.65	4.25
21827.75	22863.30 RB	9176.82	8795.61	1036.10	4.37	8.49	1.04
22863.30	23436.75	9512.88	2420.59	573.45	4.53	4.22	3.93
23436.75	24010.19	11295.64	2683.36	573.45	5.38	4.68	4.21
24010.19	24583.64	577.08	177.79	56.11	0.27	3.19	3.25

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18497.61	18609.35	576.89	353.12	93.27	0.27	3.95	1.63
18609.35	18721.10	767.40	450.48	111.75	0.37	4.03	1.70
18721.10 LB	19756.65	80158.93	11062.10	1044.61	38.17	10.68	7.25
19756.65	20792.20	82880.31	11247.24	1035.68	39.47	10.86	7.37
20792.20	21827.75	34722.06	7022.86	1036.69	16.53	6.78	4.94
21827.75	22863.30 RB	10894.39	8935.42	1039.28	5.19	8.63	1.22

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 185.81

INPUT
Description:

Eliminate vertical ineffective area in lt. overbank and main channel

by coding out GR data between and below sta.'s,
elev.'s 17687, 853.3

18100, 853.3 - 22300, 850.5 and 22867, 850.5

Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17237.1	870.8	17277.1	859.9	17316.7	856.1	17585.6	854.4	17687	853.3
18100	853.3	18121.1	856.7	18246.3	848.8	18282.3	854	18333.1	853.1
18373.8	859.4	18431.8	856.4	18753.3	853.9	18883.1	854.6	18907.7	851.9
18934.4	856.9	18972.5	857.4	18982.2	860.5	19006.6	848.9	19029	846.8
19041.4	849	19129.5	846.4	19138.9	843.6	19170.6	848	19262.1	848
19280.5	845.9	19332.8	847.8	19631.6	848.4	19728.2	852.2	20049.4	851.5
20070.5	852.2	20089.6	855.2	20160.6	855.8	20241.2	848.5	20504.9	848
20853.9	847.6	20880.3	850.5	20934.5	847.6	20979.1	853.4	21200.3	851.9
21268.2	849.9	21348	850.8	21385.9	857.6	21715.3	857.3	21774.2	855.5
21828.7	857.3	21969.9	852.1	22168.9	855.7	22300	850.5	22867	850.5
22899.7	856.2	22919.8	857.7	22958.4	855.1	23429.9	856.2	23720	857
24058.5	857.2	24141.6	861.8	24232.4	864.2	24238.4	861.2	24536.8	861.3
24759.1	864.2	24784.3	868.1	24792.8	861	24798.9	860.7	24818.4	866.4
24861.7	863.1	25150.1	863.1	25194.5	859.1	25229.1	858.8	25306.5	863.1
25579.3	861.8	25882.6	861.8	26220.9	862.1	26498	861.4	26826.7	860.4
26990.5	861.8	27244	862.1	27246.2	860.2	27546.7	860.5	27850.3	861.3
28146.7	860.7	28194.8	863.1	28199.6	856.8	28209.6	856.4	28224.5	863.3
28577.2	862.1	28991.1	862	29328.6	862.4	29592.4	865.9	29658.9	864.1
30001.3	865.6	30344.2	866.3	30617	867.4	30996	869.1	31244.8	869.5

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17237.1	.065	18373.8	.029	21385.9	.15	22919.8	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18373.8	22919.8	505	506.15	650	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23520	31244.8	870

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	859.88	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.37	Wt. n-Val.	0.065	0.035	0.025
E.G. Elev (ft)	860.25	Reach Len. (ft)	505.00	506.15	650.00
Crit W.S. (ft)	855.30	Flow Area (sq ft)	6423.37	36620.32	2451.71
E.G. Slope (ft/ft)	0.000864	Area (sq ft)	6423.37	36620.32	4187.18
Q Total (cfs)	210000.00	Flow (cfs)	14013.62	185041.08	10945.30
Top Width (ft)	6909.20	Top Width (ft)	1096.54	4542.78	1269.89
Vel Total (ft/s)	4.62	Avg. Vel. (ft/s)	2.18	5.05	4.46
Max Chl Dpth (ft)	16.28	Hydr. Depth (ft)	5.86	8.06	4.08
Conv. Total (cfs)	7143698.0	Conv. (cfs)	476710.0	6294655.0	372332.9
Length Wtd. (ft)	509.85	Wetted Per. (ft)	1098.12	4550.29	600.29
Min Ch El (ft)	843.60	Shear (lb/sq ft)	0.32	0.43	0.22
Alpha	1.12	Stream Power (lb/ft s)	0.69	2.19	0.98
Frctn Loss (ft)	0.63	Cum Volume (acre-ft)	3382.44	28914.23	13021.63
C & E Loss (ft)	0.02	Cum SA (acres)	835.20	3170.39	3106.21

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	859.92	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.51	Wt. n-Val.		0.035	
E.G. Elev (ft)	860.42	Reach Len. (ft)	505.00	506.15	650.00
Crit W.S. (ft)	855.27	Flow Area (sq ft)		36763.39	
E.G. Slope (ft/ft)	0.001100	Area (sq ft)		36763.39	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	4542.94	Top Width (ft)		4542.94	

Vel Total (ft/s)	5.71	Avg. Vel. (ft/s)		5.71	
Max Chl Dpth (ft)	16.32	Hydr. Depth (ft)		8.09	
Conv. Total (cfs)	6331085.5	Conv. (cfs)		6331085.5	
Length Wtd. (ft)	506.15	Wetted Per. (ft)		4553.20	
Min Ch El (ft)	843.60	Shear (lb/sq ft)		0.55	
Alpha	1.00	Stream Power (lb/ft s)		3.17	
Frctn Loss (ft)	0.73	Cum Volume (acre-ft)	415.72	30120.14	7498.14
C & E Loss (ft)	0.01	Cum SA (acres)	68.63	3173.33	1097.10

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17237.10	17312.88	56.50	60.86	35.78	0.03	1.71	0.93
17312.88	17388.66	495.71	302.45	75.80	0.24	3.99	1.64
17388.66	17464.44	600.81	339.40	75.78	0.29	4.48	1.77
17464.44	17540.22	711.71	375.71	75.78	0.34	4.96	1.89
17540.22	17616.00	836.98	414.10	75.78	0.40	5.46	2.02
17616.00	17691.78	1039.55	471.61	75.78	0.50	6.22	2.20
17691.78	17767.56	1142.00	498.97	75.78	0.54	6.58	2.29
17767.56	17843.34	1141.97	498.95	75.78	0.54	6.58	2.29
17843.34	17919.12	1142.00	498.97	75.78	0.54	6.58	2.29
17919.12	17994.90	1141.97	498.95	75.78	0.54	6.58	2.29
17994.90	18070.68	1141.97	498.95	75.78	0.54	6.58	2.29
18070.68	18146.46	778.50	397.16	76.10	0.37	5.24	1.96
18146.46	18222.24	1316.14	543.74	75.93	0.63	7.18	2.42
18222.24	18298.02	1761.36	648.56	76.21	0.84	8.56	2.72
18298.02	18373.80	706.44	375.00	76.27	0.34	4.95	1.88
18373.80 LB	19510.30	54592.93	9117.26	1138.05	26.00	8.05	5.99
19510.30	20646.80	73586.16	10902.45	1137.15	35.04	9.59	6.75
20646.80	21783.30	47361.52	8043.40	1137.79	22.55	7.08	5.89
21783.30	22919.80 RB	9500.46	8557.21	1137.31	4.52	7.53	1.11
22919.80	23474.80	10309.29	2293.60	555.09	4.91	4.13	4.49
23474.80	24029.80	636.00	158.11	45.20	0.30	3.50	4.02

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18373.80 LB	19510.30	61980.22	9152.96	1138.74	29.51	8.08	6.77
19510.30	20646.80	83489.68	10938.24	1137.15	39.76	9.62	7.63
20646.80	21783.30	53748.93	8079.20	1137.79	25.59	7.11	6.65
21783.30	22919.80 RB	10781.18	8593.00	1139.52	5.13	7.56	1.25

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 185.71

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17061	872.5	17090.5	861.9	17163.8	858.3	17506.5	858	17793.4	856.7
18020.9	853.7	18058.5	855.2	18172	854.7	18350.4	856.8	18364.5	861
18381.7	857.7	18475.7	855.8	18494.9	846.8	18562.8	846.8	18582.9	849.6
18606.6	847.1	18645.9	852	18700.6	847.5	18778.8	846.8	18797.8	849.5
18801.2	846.3	18814	850.2	18880.8	850.1	18892.8	854.7	18909	854.1
18922.2	849.4	18951.7	852.9	18982.6	847.7	19006.3	846	19021.6	850.2
19061.6	853.4	19065.6	855.1	19101.2	846.1	19144.8	848.1	19313.4	846.7
19339.7	850.2	19486.9	848.5	19556.6	851.9	19843.4	851.2	20144.4	854.1
20243.9	849.8	20482.9	848.1	20772.4	847.3	20810.8	849.2	20960.6	846.8
21237	850.9	21263.9	856	21588.8	861.4	21691.9	857.1	21762.6	860.8
21860.9	855.3	22141	858	22230.5	856.6	22328.3	851.2	22372.3	852.2
22623.9	849.9	22829.8	852.1	22920.9	849.7	22968.6	855.5	23265.8	859.6
23631.4	861.1	23913.5	862.6	24204.9	862.9	24364.9	864.1	24471.7	862.4

24810.9	862.3	24887.2	864.6	24910.5	866.6	24916.9	861.2	24943.2	866.3
24967.7	862.9	25415.4	862.7	25800.6	862	26107.8	861.6	26393.5	860.3
26675.9	860.4	26984.6	862.7	27001.8	862.2	27008.9	857	27016.4	856.8
27028.3	861.1	27311	860.6	27656.3	859.7	27944.9	861.2	28329.9	860.9
28642.4	861.6	28952.6	862.1	29239.2	863.3	29533.6	863.6	29672.3	862.8
29749	865.8	30130.7	866	30429.8	866.1	30808.4	868	31023.9	868.5
31409	872.2								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17061	.065	18381.7	.065	18892.8	.029	20810.8	.15	22968.6	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18381.7	22968.6	525	521.31	525	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22968.6	31409	870

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	859.04	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.57	Wt. n-Val.	0.065	0.042	
E.G. Elev (ft)	859.61	Reach Len. (ft)	525.00	521.31	525.00
Crit W.S. (ft)	854.74	Flow Area (sq ft)	2900.72	33414.92	
E.G. Slope (ft/ft)	0.001901	Area (sq ft)	2900.72	33414.92	478.88
Q Total (cfs)	210000.00	Flow (cfs)	5170.03	204829.95	
Top Width (ft)	5811.54	Top Width (ft)	1216.05	4322.72	272.77
Vel Total (ft/s)	5.78	Avg. Vel. (ft/s)	1.78	6.13	
Max Chl Dpth (ft)	13.04	Hydr. Depth (ft)	2.39	7.73	
Conv. Total (cfs)	4816314.0	Conv. (cfs)	118573.8	4697740.0	
Length Wtd. (ft)	521.40	Wetted Per. (ft)	1216.58	4334.02	
Min Ch El (ft)	846.00	Shear (lb/sq ft)	0.28	0.92	
Alpha	1.10	Stream Power (lb/ft s)	0.50	5.61	
Frctn Loss (ft)	0.80	Cum Volume (acre-ft)	3328.40	28507.34	12986.82
C & E Loss (ft)	0.01	Cum SA (acres)	821.79	3118.88	3094.70

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	859.08	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.60	Wt. n-Val.	0.065	0.042	
E.G. Elev (ft)	859.69	Reach Len. (ft)	525.00	521.31	525.00
Crit W.S. (ft)	854.73	Flow Area (sq ft)	203.57	33616.36	
E.G. Slope (ft/ft)	0.001957	Area (sq ft)	203.57	33616.36	
Q Total (cfs)	210000.00	Flow (cfs)	367.55	209632.45	
Top Width (ft)	4413.63	Top Width (ft)	85.27	4328.36	
Vel Total (ft/s)	6.21	Avg. Vel. (ft/s)	1.81	6.24	
Max Chl Dpth (ft)	13.08	Hydr. Depth (ft)	2.39	7.77	
Conv. Total (cfs)	4746743.5	Conv. (cfs)	8307.9	4738435.5	
Length Wtd. (ft)	521.32	Wetted Per. (ft)	88.85	4343.25	
Min Ch El (ft)	846.00	Shear (lb/sq ft)	0.28	0.95	
Alpha	1.01	Stream Power (lb/ft s)	0.51	5.90	
Frctn Loss (ft)	0.83	Cum Volume (acre-ft)	414.54	29711.25	7498.14
C & E Loss (ft)	0.01	Cum SA (acres)	68.13	3121.79	1097.10

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17061.00	17149.05	0.00	0.00	0.23	0.00	0.01	0.03
17149.05	17237.09	41.02	61.79	88.06	0.02	0.70	0.66
17237.09	17325.14	55.19	73.82	88.05	0.03	0.84	0.75
17325.14	17413.19	63.91	80.61	88.04	0.03	0.92	0.79
17413.19	17501.23	73.12	87.40	88.05	0.03	0.99	0.84
17501.23	17589.28	101.98	106.71	88.05	0.05	1.21	0.96
17589.28	17677.33	163.78	141.78	88.05	0.08	1.61	1.16
17677.33	17765.37	236.85	176.91	88.05	0.11	2.01	1.34
17765.37	17853.42	360.50	227.63	88.05	0.17	2.59	1.58
17853.42	17941.47	657.49	326.45	88.05	0.31	3.71	2.01
17941.47	18029.51	1027.37	426.71	88.06	0.49	4.85	2.41
18029.51	18117.56	781.59	362.16	88.07	0.37	4.11	2.16

18117.56	18205.61	804.91	368.58	88.05	0.38	4.19	2.18
18205.61	18293.65	575.23	301.29	88.05	0.27	3.42	1.91
18293.65	18381.70	227.09	158.87	71.67	0.11	2.23	1.43
18381.70 LB	19528.42	83777.80	10852.02	1156.49	39.89	9.46	7.72
19528.42	20675.15	87312.03	9558.44	1146.87	41.58	8.34	9.13
20675.15	21821.88	24948.19	6540.69	883.28	11.88	7.41	3.81
21821.88	22968.60 RB	8791.96	6463.77	1147.38	4.19	5.64	1.36

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18205.61	18293.65	78.44	41.38	16.76	0.04	3.03	1.90
18293.65	18381.70	289.11	162.20	72.08	0.14	2.26	1.78
18381.70 LB	19528.42	85694.90	10905.42	1156.49	40.81	9.51	7.86
19528.42	20675.15	89424.70	9611.85	1146.87	42.58	8.38	9.30
20675.15	21821.88	25486.97	6581.92	888.93	12.14	7.41	3.87
21821.88	22968.60 RB	9025.87	6517.17	1150.96	4.30	5.68	1.38

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 185.61

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17081.2	874.6	17110.5	864.9	17139.8	859.2	17184.3	856.4	17531.5	856.8
17785.3	855.9	17876	856.6	17926.9	852.2	18085.7	855.8	18391.2	856
18602	855.5	18619.2	845.8	18829.2	846.6	19029.5	844.9	19357.6	848.5
19596.6	851.2	19624.4	850.9	19648.4	847.6	19674	850.2	19902.3	850.2
20131.1	851.4	20167.5	846.9	20399.4	847.3	20604.9	848.5	20811.3	849.9
20902	848.8	20950.8	847.5	21031.7	849.3	21082.6	857.1	21288.2	859.4
21480.5	857.8	21732.8	861.4	21821.2	855.9	21906.5	857.5	22004.9	854.4
22181.8	855.1	22390.2	851.3	22607.7	852.5	22876.8	852	22954.1	851.2
23059.3	856.4	23201.9	855.2	23211.4	858.2	23423.6	859	23721.7	861.1
23952.8	862.6	24092.1	863.7	24099.6	861.9	24331	861.5	24556.6	863.5
24757.3	865	24917.1	863.1	24993.8	865.9	25001.7	868.9	25017.1	870.3
25028.3	860.4	25045.3	864.9	25050.2	868.4	25070.3	868.3	25078.1	864.3
25287.9	864	25531.4	863.4	25762.9	860.9	25970.8	864	26209.5	861.6
26483.6	861.1	26698.2	861.8	26906.8	860.4	27119.8	860.7	27145.8	862
27162.2	855.2	27172.2	861.5	27218.7	859.1	27274.7	860.3	27325.7	858.4
27456.7	861	27718	860.2	27993.5	861.3	28321.5	861	28529.8	860.8
28765	860.8	29052.2	861.1	29266	861.6	29512.4	860.9	29721.8	860.8
29809.9	859.4	29879.3	861.1	29889.4	865.3	29902.9	862.6	29925	863.8
29961.7	861.2	30186.3	860.8	30419.1	861.8	30628	863.2	30843.9	864.4
30869	864.5								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17081.2	.065	18391.2	.065	18602	.029	21082.6	.15	23059.3	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18391.2	23059.3	410	410.24	405	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
24099.6	30869	870

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	858.11	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.69	Wt. n-Val.	0.065	0.032	0.025
E.G. Elev (ft)	858.80	Reach Len. (ft)	410.00	410.24	405.00
Crit W.S. (ft)	854.35	Flow Area (sq ft)	2676.97	30496.07	342.49
E.G. Slope (ft/ft)	0.001260	Area (sq ft)	2676.97	30496.07	359.40
Q Total (cfs)	210000.00	Flow (cfs)	3639.79	205119.63	1240.57
Top Width (ft)	5511.15	Top Width (ft)	1234.04	4113.67	163.44
Vel Total (ft/s)	6.27	Avg. Vel. (ft/s)	1.36	6.73	3.62
Max Chl Dpth (ft)	13.21	Hydr. Depth (ft)	2.17	7.41	2.26
Conv. Total (cfs)	5915764.5	Conv. (cfs)	102534.0	5778283.0	34947.3
Length Wtd. (ft)	410.22	Wetted Per. (ft)	1234.33	4117.87	152.26

Min Ch El (ft)	844.90	Shear (lb/sq ft)	0.17	0.58	0.18
Alpha	1.13	Stream Power (lb/ft s)	0.23	3.92	0.64
Frctn Loss (ft)	0.56	Cum Volume (acre-ft)	3294.78	28124.91	12981.77
C & E Loss (ft)	0.01	Cum SA (acres)	807.03	3068.40	3092.07

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	858.12	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.73	Wt. n-Val.	0.065	0.032	
E.G. Elev (ft)	858.85	Reach Len. (ft)	410.00	410.24	405.00
Crit W.S. (ft)	854.34	Flow Area (sq ft)	416.99	30539.03	
E.G. Slope (ft/ft)	0.001309	Area (sq ft)	416.99	30539.03	
Q Total (cfs)	210000.00	Flow (cfs)	575.49	209424.50	
Top Width (ft)	4307.96	Top Width (ft)	191.20	4116.76	
Vel Total (ft/s)	6.78	Avg. Vel. (ft/s)	1.38	6.86	
Max Chl Dpth (ft)	13.22	Hydr. Depth (ft)	2.18	7.42	
Conv. Total (cfs)	5804684.5	Conv. (cfs)	15907.3	5788777.0	
Length Wtd. (ft)	410.24	Wetted Per. (ft)	193.44	4122.67	
Min Ch El (ft)	844.90	Shear (lb/sq ft)	0.18	0.61	
Alpha	1.02	Stream Power (lb/ft s)	0.24	4.15	
Frctn Loss (ft)	0.57	Cum Volume (acre-ft)	410.80	29327.35	7498.14
C & E Loss (ft)	0.01	Cum SA (acres)	66.47	3071.26	1097.10

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17081.20	17168.53	1.52	4.07	11.40	0.00	0.36	0.37
17168.53	17255.87	139.87	138.38	87.36	0.07	1.58	1.01
17255.87	17343.20	138.52	137.56	87.33	0.07	1.58	1.01
17343.20	17430.53	124.09	128.78	87.33	0.06	1.47	0.96
17430.53	17517.87	110.30	119.99	87.33	0.05	1.37	0.92
17517.87	17605.20	116.46	123.96	87.33	0.06	1.42	0.94
17605.20	17692.53	161.04	150.57	87.33	0.08	1.72	1.07
17692.53	17779.87	212.07	177.61	87.33	0.10	2.03	1.19
17779.87	17867.20	191.16	166.89	87.34	0.09	1.91	1.15
17867.20	17954.53	677.55	356.90	87.53	0.32	4.09	1.90
17954.53	18041.87	736.08	374.79	87.35	0.35	4.29	1.96
18041.87	18129.20	309.20	222.72	87.35	0.15	2.55	1.39
18129.20	18216.53	251.13	196.58	87.33	0.12	2.25	1.28
18216.53	18303.87	240.59	191.58	87.33	0.11	2.19	1.26
18303.87	18391.20	230.23	186.59	87.33	0.11	2.14	1.23
18391.20 LB	19558.22	94788.30	11044.44	1169.61	45.14	9.46	8.58
19558.22	20725.25	81608.25	10479.07	1167.67	38.86	8.98	7.79
20725.25	21892.28	22965.25	3250.02	613.33	10.94	5.31	7.07
21892.28	23059.30 RB	5757.81	5722.55	1167.25	2.74	4.90	1.01
23059.30	23579.95	1240.57	342.49	152.26	0.59	2.26	3.62

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18129.20	18216.53	48.08	37.00	18.78	0.02	2.24	1.30
18216.53	18303.87	269.48	192.49	87.33	0.13	2.20	1.40
18303.87	18391.20	257.93	187.50	87.33	0.12	2.15	1.38
18391.20 LB	19558.22	96758.02	11056.62	1169.61	46.08	9.47	8.75
19558.22	20725.25	83330.45	10491.25	1167.67	39.68	8.99	7.94
20725.25	21892.28	23453.03	3256.43	616.42	11.17	5.29	7.20
21892.28	23059.30 RB	5883.00	5734.73	1168.97	2.80	4.91	1.03

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 185.53

INPUT

Description: Right Channel Bank Station Interpolated

Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17158.1	871.1	17193.9	870.3	17209.1	858.3	17287.4	856.3	17491.4	856.7
17724.7	856.8	17850.1	857.1	17879.8	851.7	18086.3	854.3	18161.4	856.6
18461.6	855.6	18713	854.8	18779.8	854.6	18798.6	845	19005	847.1
19202.5	845.5	19431	849.6	19632.6	850.4	19761.8	847.5	19856	849.7
19896.5	847.3	19958.9	850.7	20004.9	848.8	20064.9	849.4	20084.4	846.3
20575.9	846.2	20823.1	846.2	20942.6	848.8	20976.8	854.2	21192.8	856.3
21340.2	859.3	21379.1	857	21579.9	857.8	21777.5	858	21876.6	859.3
21965.1	852.7	22050.3	855.3	22163.8	853.7	22283	855.3	22505.7	851.2
22642.4	852.6	22784.5	850.7	22922.7	854.5	23084.2	850.7	23170.4	3857.4438
23180.1	858.2	23241.9	858	23272	855.4	23562.9	860.5	23799.2	861.9
24085.4	863.1	24282.4	864.8	24473.8	862	24653.4	865.5	24674.2	862.5
24867.7	864	24999.3	863.1	25015.8	868.2	25023.3	868.3	25036	860.4
25047.8	862.9	25056.5	868.1	25070.5	868	25079.8	865.2	25161.1	863.6
25371.3	863.2	25653.6	863.4	25904.8	860.6	26106.3	861.2	26456.4	861.2
26657.8	861.1	26938.8	860.7	27150.6	860.4	27289.3	860.4	27296	855.1
27315	859.9	27508.2	859.6	27598.6	861.3	27797.1	857	27991.6	857.3
28199.4	858	28403.8	858.6	28598.9	858.3	28794	858.1	28991.7	857.8
29204.3	857.5	29433.8	857.5	29628	857.8	29828.4	860.1	29930.5	860.6
29934.8	858.5	29944.1	862	30157.6	861	30393.8	861.2	30623.7	862.9
30772	865.5	30869	864.6						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17158.1	.065	18161.4	.065	18779.8	.029	20976.8	.15	23180.1	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18161.4	23170.43	340	385.26	285	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23180.1	30869	870

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	857.44	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.79	Wt. n-Val.	0.065	0.032	
E.G. Elev (ft)	858.23	Reach Len. (ft)	340.00	385.26	285.00
Crit W.S. (ft)	854.12	Flow Area (sq ft)	1592.14	29024.81	
E.G. Slope (ft/ft)	0.001485	Area (sq ft)	1592.14	29024.81	219.04
Q Total (cfs)	210000.00	Flow (cfs)	2023.09	207976.91	
Top Width (ft)	5797.78	Top Width (ft)	918.46	4472.61	406.71
Vel Total (ft/s)	6.86	Avg. Vel. (ft/s)	1.27	7.17	
Max Chl Dpth (ft)	12.44	Hydr. Depth (ft)	1.73	6.49	
Conv. Total (cfs)	5449691.5	Conv. (cfs)	52501.1	5397190.5	
Length Wtd. (ft)	384.87	Wetted Per. (ft)	919.01	4476.63	
Min Ch El (ft)	845.00	Shear (lb/sq ft)	0.16	0.60	
Alpha	1.08	Stream Power (lb/ft s)	0.20	4.31	
Frctn Loss (ft)	0.55	Cum Volume (acre-ft)	3274.69	27844.63	12979.08
C & E Loss (ft)	0.00	Cum SA (acres)	796.90	3027.96	3089.42

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	857.46	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.81	Wt. n-Val.		0.032	
E.G. Elev (ft)	858.26	Reach Len. (ft)	340.00	385.26	285.00
Crit W.S. (ft)	854.09	Flow Area (sq ft)		29117.97	
E.G. Slope (ft/ft)	0.001503	Area (sq ft)		29117.97	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	4479.59	Top Width (ft)		4479.59	
Vel Total (ft/s)	7.21	Avg. Vel. (ft/s)		7.21	
Max Chl Dpth (ft)	12.46	Hydr. Depth (ft)		6.50	
Conv. Total (cfs)	5416964.5	Conv. (cfs)		5416964.5	
Length Wtd. (ft)	385.26	Wetted Per. (ft)		4484.48	
Min Ch El (ft)	845.00	Shear (lb/sq ft)		0.61	
Alpha	1.00	Stream Power (lb/ft s)		4.39	
Frctn Loss (ft)	0.55	Cum Volume (acre-ft)	408.84	29046.43	7498.14
C & E Loss (ft)	0.00	Cum SA (acres)	65.57	3030.78	1097.10

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17224.99	17291.87	13.94	30.30	48.94	0.01	0.62	0.46
17291.87	17358.76	46.77	70.98	66.89	0.02	1.06	0.66
17358.76	17425.65	37.54	62.21	66.89	0.02	0.93	0.60
17425.65	17492.53	29.14	53.44	66.89	0.01	0.80	0.55
17492.53	17559.42	24.54	48.21	66.89	0.01	0.72	0.51
17559.42	17626.31	22.94	46.29	66.89	0.01	0.69	0.50
17626.31	17693.19	21.38	44.37	66.89	0.01	0.66	0.48
17693.19	17760.08	18.91	41.23	66.89	0.01	0.62	0.46
17760.08	17826.97	12.07	31.50	66.89	0.01	0.47	0.38
17826.97	17893.85	215.28	177.92	67.37	0.10	2.66	1.21
17893.85	17960.74	647.95	343.63	66.89	0.31	5.14	1.89
17960.74	18027.63	480.79	287.30	66.89	0.23	4.30	1.67
18027.63	18094.51	332.72	230.37	66.90	0.16	3.44	1.44
18094.51	18161.40	119.11	124.40	66.92	0.06	1.86	0.96
18161.40 LB	19413.66	66662.52	7958.76	1254.62	31.74	6.36	8.38
19413.66	20665.91	106582.17	12004.13	1252.77	50.75	9.59	8.88
20665.91	21918.17	29346.89	3695.77	716.48	13.97	5.16	7.94
21918.17	23170.43 RB	5385.32	5366.14	1252.76	2.56	4.29	1.00

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18161.40 LB	19413.66	67301.59	7984.83	1255.48	32.05	6.38	8.43
19413.66	20665.91	107610.30	12030.20	1252.77	51.24	9.61	8.95
20665.91	21918.17	29626.89	3710.75	723.36	14.11	5.13	7.98
21918.17	23170.43 RB	5461.23	5392.20	1252.88	2.60	4.31	1.01

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 185.46

INPUT
Description: Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17150.8	871	17254.9	865.6	17265.4	866.4	17284.9	857.7	17506.7	856.4
17775.8	857	17847.4	856	17885.7	851.8	18131.7	855.3	18380.9	853.7
18608.6	853.4	18787.2	853.3	18868.8	848.5	19077.8	851.7	19106.4	844.2
19327.2	846.5	19574.1	848.8	19807.3	848.2	19854.2	845.4	19915.8	845.5
20183	845.8	20450.8	846	20783	846.9	20917.1	846.7	20947.9	854.5
21178.4	855.2	21459.3	860.2	21485.4	860.7	21587.1	855.1	21729.7	854.9
21852.9	858.5	21949.8	856.9	22020.6	858.2	22110.5	852.7	22322.9	855.2
22384.2	853.7	22397.5	848.8	22659.3	850.4	22874.1	853.1	23039.5	850.6
23067.5	855.5	23089.09	856.884	23145.5	860.5	23282.4	860.5	23323.1	855
23374.8	855.2	23437.2	861.7	23469.4	857.7	23726.9	859.1	23750.5	862.2
23996.5	861.2	24280.5	862.8	24503.1	862.9	24721	863.8	24732.3	862.5
24754.2	865.5	24789.4	865.5	24799	862.6	25028.9	863.6	25112.8	862.5
25134.7	868	25142.5	860.3	25154	862.4	25163.7	867.5	25183.1	867.4
25201.2	863.9	25519.3	862.7	25749	862.6	26027.2	860.5	26071.7	860.5
26081	862	26331.7	861.1	26600.2	860.4	26825.2	859.3	27186.1	859.4
27408.3	860.1	27418.9	861.1	27428.3	856.1	27433.3	855.5	27441.4	860.8
27718.1	858.7	27891.7	858.9	28156.3	857.5	28464.5	857	28713.6	857.2
28942.3	857.9	29177.9	858.5	29445.5	858.9	29665.9	859.7	29893.3	860.1
30053.1	860.9	30061.4	860	30066	862	30300	862.1	30571.8	863.7
30792.2	865	30795	865						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17150.8	.065	18131.7	.043	19077.8	.026	20947.9	.15	23145.5	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18131.7	23089.09	490	446.49	615	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23145.5	30795	865

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	856.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.80	Wt. n-Val.	0.065	0.030	
E.G. Elev (ft)	857.68	Reach Len. (ft)	490.00	446.49	615.00
Crit W.S. (ft)	853.85	Flow Area (sq ft)	1028.24	28882.65	
E.G. Slope (ft/ft)	0.001366	Area (sq ft)	1028.24	28882.65	125.50
Q Total (cfs)	210000.00	Flow (cfs)	1617.46	208382.53	
Top Width (ft)	5159.96	Top Width (ft)	640.05	4429.72	90.19
Vel Total (ft/s)	7.02	Avg. Vel. (ft/s)	1.57	7.21	
Max Chl Dpth (ft)	12.67	Hydr. Depth (ft)	1.61	6.52	
Conv. Total (cfs)	5681357.5	Conv. (cfs)	43759.0	5637598.5	
Length Wtd. (ft)	446.90	Wetted Per. (ft)	640.32	4433.58	
Min Ch El (ft)	844.20	Shear (lb/sq ft)	0.14	0.56	
Alpha	1.05	Stream Power (lb/ft s)	0.22	4.01	
Frctn Loss (ft)	0.60	Cum Volume (acre-ft)	3264.47	27588.55	12977.95
C & E Loss (ft)	0.01	Cum SA (acres)	790.81	2988.60	3087.79

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	856.89	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.82	Wt. n-Val.		0.030	
E.G. Elev (ft)	857.71	Reach Len. (ft)	490.00	446.49	615.00
Crit W.S. (ft)	853.84	Flow Area (sq ft)		28967.58	
E.G. Slope (ft/ft)	0.001378	Area (sq ft)		28967.58	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	4432.28	Top Width (ft)		4432.28	
Vel Total (ft/s)	7.25	Avg. Vel. (ft/s)		7.25	
Max Chl Dpth (ft)	12.69	Hydr. Depth (ft)		6.54	
Conv. Total (cfs)	5657048.5	Conv. (cfs)		5657048.5	
Length Wtd. (ft)	446.59	Wetted Per. (ft)		4437.74	
Min Ch El (ft)	844.20	Shear (lb/sq ft)		0.56	
Alpha	1.00	Stream Power (lb/ft s)		4.07	
Frctn Loss (ft)	0.60	Cum Volume (acre-ft)	408.84	28789.57	7498.14
C & E Loss (ft)	0.01	Cum SA (acres)	65.57	2991.37	1097.10

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17412.37	17477.77	1.66	7.88	51.87	0.00	0.15	0.21
17477.77	17543.16	11.09	27.03	65.39	0.01	0.41	0.41
17543.16	17608.55	7.21	20.88	65.39	0.00	0.32	0.35
17608.55	17673.95	2.61	11.35	65.39	0.00	0.17	0.23
17673.95	17739.34	0.23	2.27	45.16	0.00	0.05	0.10
17739.34	17804.73	0.55	2.76	19.88	0.00	0.14	0.20
17804.73	17870.13	57.64	72.74	65.53	0.03	1.11	0.79
17870.13	17935.52	614.50	300.82	65.49	0.29	4.60	2.04
17935.52	18000.91	467.01	255.00	65.40	0.22	3.90	1.83
18000.91	18066.31	296.50	194.17	65.40	0.14	2.97	1.53
18066.31	18131.70	158.46	133.32	65.40	0.08	2.04	1.19
18131.70 LB	19371.05	46531.50	7126.24	1240.50	22.16	5.75	6.53
19371.05	20610.39	124508.48	12598.82	1239.44	59.29	10.17	9.88
20610.39	21849.74	32266.35	4213.45	905.44	15.36	4.66	7.66
21849.74	23089.09 RB	5076.23	4944.15	1048.19	2.42	4.72	1.03

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18131.70 LB	19371.05	46914.63	7149.99	1242.09	22.34	5.77	6.56
19371.05	20610.39	125437.02	12622.57	1239.44	59.73	10.18	9.94
20610.39	21849.74	32517.35	4230.80	907.53	15.48	4.67	7.69
21849.74	23089.09 RB	5131.00	4964.22	1048.68	2.44	4.74	1.03

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 185.38

INPUT
Description: Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17362.8	868.1	17377.7	858	17432.7	855.2	17691.2	855.9	17917.7	851.6
18145.4	853.4	18250.3	850.3	18325.8	852.9	18367.3	848.7	18656.8	848.6
18911.5	851.6	19167.9	852.2	19269.6	850.7	19284.2	849.1	19304.6	843.1
19509.2	846.9	19605.1	847.8	19813.3	843.8	19845.5	843.7	20606	845.8
20684.5	845.9	20936.5	846.3	20963.7	855.2	21198.3	857.2	21271.3	853.4
21337.1	853.9	21468	858.8	21671.8	859.6	21729.3	855.9	21940.7	856.9
22174.2	857.1	22259.7	852.4	22403.5	855.5	22453.2	851.9	22492.2	846.4
22570.7	849.7	22834	850.7	22958	849.1	23012.0	9856.3	169 23032.2	859
23138	861	23227.3	855.6	23462.2	854	23537.8	855.6	23614.2	861.3
23634.3	857.7	23886.9	857.8	23903.7	863	23922.2	861	24129.6	860.6
24360.4	862.7	24614.8	862.6	24835.1	862	24886.2	862.3	24891.9	860.8
24954.6	863.1	25155	862.8	25194.1	861.2	25207	866.2	25219.9	866.4
25225.1	860.3	25241.1	862.5	25248.8	867.3	25269.5	867.1	25294.4	863.4
25520.7	862.6	25839	861.9	26059.5	861.8	26267.7	860	26470.4	860.2
26747.7	859.8	26974	859	27238.5	859.4	27473.2	859.2	27540.2	858.8
27585.4	860.9	27594.8	855.2	27603.6	855	27609.5	860.5	27667.9	856.2
27759.5	859.3	27975	859.3	28024.3	856.1	28274	856.5	28514.8	856.6
28733	857.8	28969.6	858.1	29208.9	858.7	29436	859.1	29647.3	859.3
29849.8	859.4	30068	860	30234.7	860.5	30242.8	863.6	30458.1	863.7
30658.3	864	30868	865.2						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17362.8	.065	18145.4	.043	19167.9	.026	21198.3	.15	23032.2	.15
23138	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18145.4	23012.09	490	498.2	605	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23138	30868	865

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	856.30	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.77	Wt. n-Val.	0.065	0.030	
E.G. Elev (ft)	857.07	Reach Len. (ft)	490.00	498.20	605.00
Crit W.S. (ft)	852.79	Flow Area (sq ft)	1651.09	29413.55	
E.G. Slope (ft/ft)	0.001301	Area (sq ft)	1651.09	29413.55	500.19
Q Total (cfs)	210000.00	Flow (cfs)	2336.73	207663.27	
Top Width (ft)	5260.88	Top Width (ft)	734.38	4048.35	478.15
Vel Total (ft/s)	6.76	Avg. Vel. (ft/s)	1.42	7.06	
Max Chl Dpth (ft)	13.20	Hydr. Depth (ft)	2.25	7.27	
Conv. Total (cfs)	5821067.5	Conv. (cfs)	64772.8	5756294.5	
Length Wtd. (ft)	498.15	Wetted Per. (ft)	734.45	4052.49	
Min Ch El (ft)	843.10	Shear (lb/sq ft)	0.18	0.59	
Alpha	1.08	Stream Power (lb/ft s)	0.26	4.16	
Frctn Loss (ft)	0.59	Cum Volume (acre-ft)	3249.40	27289.79	12973.54
C & E Loss (ft)	0.03	Cum SA (acres)	783.08	2945.15	3083.78

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	856.32	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.78	Wt. n-Val.	0.065	0.030	
E.G. Elev (ft)	857.10	Reach Len. (ft)	490.00	498.20	605.00
Crit W.S. (ft)	852.78	Flow Area (sq ft)	507.99	29476.86	
E.G. Slope (ft/ft)	0.001313	Area (sq ft)	507.99	29476.86	
Q Total (cfs)	210000.00	Flow (cfs)	951.09	209048.91	
Top Width (ft)	4200.23	Top Width (ft)	145.40	4054.83	
Vel Total (ft/s)	7.00	Avg. Vel. (ft/s)	1.87	7.09	
Max Chl Dpth (ft)	13.22	Hydr. Depth (ft)	3.49	7.27	
Conv. Total (cfs)	5795946.0	Conv. (cfs)	26249.9	5769696.0	
Length Wtd. (ft)	498.18	Wetted Per. (ft)	149.47	4058.98	
Min Ch El (ft)	843.10	Shear (lb/sq ft)	0.28	0.60	
Alpha	1.02	Stream Power (lb/ft s)	0.52	4.22	

Frctn Loss (ft)	0.60	Cum Volume (acre-ft)	405.98	28490.04	7498.14
C & E Loss (ft)	0.03	Cum SA (acres)	64.75	2947.87	1097.10

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17362.80	17414.97	0.06	0.40	3.95	0.00	0.10	0.14
17414.97	17467.15	30.07	47.96	52.19	0.01	0.92	0.63
17467.15	17519.32	31.18	49.02	52.17	0.01	0.94	0.64
17519.32	17571.49	23.77	41.64	52.17	0.01	0.80	0.57
17571.49	17623.67	17.18	34.27	52.17	0.01	0.66	0.50
17623.67	17675.84	11.47	26.90	52.17	0.01	0.52	0.43
17675.84	17728.01	17.14	34.23	52.18	0.01	0.66	0.50
17728.01	17780.19	75.53	83.35	52.18	0.04	1.60	0.91
17780.19	17832.36	168.79	135.03	52.18	0.08	2.59	1.25
17832.36	17884.53	289.66	186.70	52.18	0.14	3.58	1.55
17884.53	17936.71	420.61	233.53	52.18	0.20	4.48	1.80
17936.71	17988.88	400.63	226.80	52.18	0.19	4.35	1.77
17988.88	18041.05	339.30	205.28	52.18	0.16	3.93	1.65
18041.05	18093.23	282.11	183.75	52.17	0.13	3.52	1.54
18093.23	18145.40	229.24	162.24	52.18	0.11	3.11	1.41
18145.40 LB	19362.07	35952.63	7498.76	1217.97	17.12	6.16	4.79
19362.07	20578.75	136858.89	13533.26	1216.74	65.17	11.12	10.11
20578.75	21795.42	30663.60	4251.90	774.11	14.60	5.50	7.21
21795.42	23012.09 RB	4188.15	4129.64	843.67	1.99	4.90	1.01

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17988.88	18041.05	308.73	160.37	45.12	0.15	3.91	1.93
18041.05	18093.23	354.24	184.57	52.17	0.17	3.54	1.92
18093.23	18145.40	288.13	163.06	52.18	0.14	3.13	1.77
18145.40 LB	19362.07	36237.70	7517.77	1217.97	17.26	6.18	4.82
19362.07	20578.75	137706.03	13552.27	1216.74	65.57	11.14	10.16
20578.75	21795.42	30816.70	4263.99	776.90	14.67	5.50	7.23
21795.42	23012.09 RB	4288.50	4142.83	847.36	2.04	4.90	1.04

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 185.28

INPUT
Description: Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17072.3	862.6	17182.6	860.7	17229.9	856.4	17267.2	859.4	17315.5	859.5
17348.2	852.6	17380.9	860.3	17553.3	854.7	17819.1	854.3	17842.7	854.1
17880.2	847.5	18151.9	848.9	18570.8	850.1	18836.6	851.8	19138.5	852.6
19406.5	850.5	19426.3	848.7	19427.8	843.9	19745.6	846.1	19838.4	841.5
20175.1	842	20466.4	843.7	20802.3	844.8	20965.7	845.3	21034.3	858.8
21209.5	855.2	21367	857.9	21491.5	851.8	21677.5	855.7	21740.8	855.2
21819.3	858.2	22100.4	854.8	22191.2	856	22238.8	853.7	22318.2	858.6
22387.7	859	22420.3	852.6	22465.4	853.8	22528.6	851	22573.3	846.6
22701.4	849.6	22887.7	847.4	23005.6	85323018.19855.7902			23024.1	857.1
23269.2	856.3	23626.1	856.9	23763.1	857	23798.5	860.2	23816.3	854.9
24060.1	855.6	24073	855.6	24095.1	861.4	24107.7	862.2	24121.3	859.9
24394.8	861.2	24737.5	861.5	24999.5	860.7	25080.2	860.4	25138.8	862.8
25292.2	859.9	25295.8	863.6	25300.7	865.7	25312.1	864.7	25319.5	859.8
25332.5	860.9	25341.6	866.9	25362	865.6	25377.7	862.5	25613.5	862.4
25928.9	861.9	26251.8	860.9	26484.6	859.6	26718.1	859.4	26974.4	858.4
27241.2	859	27517.1	858.8	27764.6	859.5	27778.7	860.9	27787.9	854.8
27794	854.9	27804	859.3	27822.8	859.6	27834.6	856.9	28084.4	859.1
28168.8	858.6	28181	856.1	28426.9	856	28675.5	856.2	28907.8	857.1
29012.2	855	29253.3	860.2	29503.6	860.7	29749.6	861.9	29993	862.9
30227.7	862.3	30364	864.5						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17072.3	.065	17842.7	.065	19406.5	.026	21034.3	.15	23024.1	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17842.723	018.19	490	481.96	495	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17072.3	17380.9	865	23024.1	30364	865

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	855.77	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.67	Wt. n-Val.	0.065	0.032	
E.G. Elev (ft)	856.45	Reach Len. (ft)	490.00	481.96	495.00
Crit W.S. (ft)	851.77	Flow Area (sq ft)	393.74	31842.92	
E.G. Slope (ft/ft)	0.001098	Area (sq ft)	439.02	31842.92	167.56
Q Total (cfs)	210000.00	Flow (cfs)	340.65	209659.34	
Top Width (ft)	5123.35	Top Width (ft)	351.01	4428.05	344.29
Vel Total (ft/s)	6.51	Avg. Vel. (ft/s)	0.87	6.58	
Max Chl Dpth (ft)	14.27	Hydr. Depth (ft)	1.22	7.19	
Conv. Total (cfs)	6338502.5	Conv. (cfs)	10282.0	6328220.5	
Length Wtd. (ft)	481.98	Wetted Per. (ft)	322.50	4434.78	
Min Ch El (ft)	841.50	Shear (lb/sq ft)	0.08	0.49	
Alpha	1.02	Stream Power (lb/ft s)	0.07	3.24	
Frctn Loss (ft)	0.46	Cum Volume (acre-ft)	3237.64	26939.49	12968.90
C & E Loss (ft)	0.08	Cum SA (acres)	776.98	2896.67	3078.07

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	855.80	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.67	Wt. n-Val.		0.032	
E.G. Elev (ft)	856.47	Reach Len. (ft)	490.00	481.96	495.00
Crit W.S. (ft)	851.77	Flow Area (sq ft)		31947.07	
E.G. Slope (ft/ft)	0.001093	Area (sq ft)		31947.07	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	4436.56	Top Width (ft)		4436.56	
Vel Total (ft/s)	6.57	Avg. Vel. (ft/s)		6.57	
Max Chl Dpth (ft)	14.30	Hydr. Depth (ft)		7.20	
Conv. Total (cfs)	6351179.0	Conv. (cfs)		6351179.0	
Length Wtd. (ft)	481.96	Wetted Per. (ft)		4445.00	
Min Ch El (ft)	841.50	Shear (lb/sq ft)		0.49	
Alpha	1.00	Stream Power (lb/ft s)		3.22	
Frctn Loss (ft)	0.46	Cum Volume (acre-ft)	403.12	28138.78	7498.14
C & E Loss (ft)	0.08	Cum SA (acres)	63.93	2899.31	1097.10

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17483.18	17534.54	0.93	3.33	14.33	0.00	0.23	0.28
17534.54	17585.90	36.47	50.28	51.37	0.02	0.98	0.73
17585.90	17637.26	48.56	59.70	51.36	0.02	1.16	0.81
17637.26	17688.62	54.07	63.67	51.36	0.03	1.24	0.85
17688.62	17739.98	59.80	67.64	51.36	0.03	1.32	0.88
17739.98	17791.34	65.77	71.61	51.36	0.03	1.39	0.92
17791.34	17842.70	75.06	77.52	51.36	0.04	1.51	0.97
17842.70 LB	19136.57	17163.82	7228.51	1294.46	8.17	5.59	2.37
19136.57	20430.45	130621.32	13859.38	1297.62	62.20	10.71	9.42
20430.45	21724.32	58505.64	6907.84	965.08	27.86	7.17	8.47
21724.32	23018.19 RB	3368.58	3847.19	877.62	1.60	4.39	0.88

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17842.70 LB	19136.57	17182.24	7258.92	1296.16	8.18	5.61	2.37

19136.57	20430.45	130387.16	13889.78	1297.62	62.09	10.74	9.39
20430.45	21724.32	58418.93	6930.53	968.20	27.82	7.17	8.43
21724.32	23018.19 RB	4011.65	3867.84	883.03	1.91	4.39	1.04

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 185.19

INPUT
Description: Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17152.9	864.5	17275.8	865.1	17288.1	866.6	17300	865	17356	865.1
17389.6	854.3	17480.1	853.3	17695.7	853.8	17722.7	849.1	17794.1	848.8
17938.9	844	18239.8	846.3	18396.4	847.7	18490.3	850.5	18588.5	849.4
18668.9	841.4	18799.9	839.4	19099	840.9	19274.1	847.7	19323.5	851.4
19402.4	850.5	19430.6	848.4	19440.2	843.8	19711.9	844.6	19796.6	844
20170	843.6	20591.2	842.9	20829	843.2	20914.9	843.3	20956.7	854.4
21051.6	858.3	21364.6	854	21593	853.9	21689.9	850.5	21953.1	856.6
22156.5	858	22214.6	854.1	22250.3	859.3	22487.6	858.1	22537.8	857.2
22581	860.3	22603	853.6	22627.7	853	22727.9	845.9	22976.1	849
23046.1	846.8	23088.5	849.1	23131.1	855.669	23131.3	855.7	23429.8	856.7
23717.3	856.6	23944.9	858.5	23969.5	861.8	23985.8	854.3	24248.5	855.1
24297.7	860.8	24545.1	860.4	24793.9	860.6	25031.9	861	25049.7	859.9
25061.5	863.1	25148.6	862.5	25171.3	865.1	25192.3	859.4	25220.8	864
25317.6	864.8	25327.6	862.1	25642.3	862.2	25804.4	860.5	25994.8	861.9
26188.8	859.4	26550	860.4	26635.8	859.3	26658.3	856.7	26961.7	858.3
27218.6	857.8	27509.2	857.5	27880.4	857.1	27912.7	856.4	27919.4	858.4
27947.4	858.6	27957.4	851.8	27968.3	852.8	27974.5	857.5	28003.5	855
28259.8	854.8	28531.8	855.2	28775.9	856.2	29048.4	857.6	29287.2	859.9
29591.4	860.8	29828	862.3	30085.2	863	30370	863.1	30580.1	864.7
30679.2	867	30697	865.5						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17152.9	.065	17695.7	.065	19323.5	.026	21051.6	.15	23131.3	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17695.7	23131.1	485	477.45	420	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23969.5	30697	865

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	855.50	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.41	Wt. n-Val.	0.065	0.038	
E.G. Elev (ft)	855.91	Reach Len. (ft)	485.00	477.45	420.00
Crit W.S. (ft)	849.35	Flow Area (sq ft)	575.70	40549.16	
E.G. Slope (ft/ft)	0.000833	Area (sq ft)	575.70	40549.16	562.04
Q Total (cfs)	210000.00	Flow (cfs)	573.73	209426.28	
Top Width (ft)	5706.36	Top Width (ft)	309.82	4501.25	895.28
Vel Total (ft/s)	5.11	Avg. Vel. (ft/s)	1.00	5.16	
Max Chl Dpth (ft)	16.10	Hydr. Depth (ft)	1.86	9.01	
Conv. Total (cfs)	7277764.5	Conv. (cfs)	19883.1	7257881.5	
Length Wtd. (ft)	477.46	Wetted Per. (ft)	310.02	4506.52	
Min Ch El (ft)	839.40	Shear (lb/sq ft)	0.10	0.47	
Alpha	1.02	Stream Power (lb/ft s)	0.10	2.42	
Frctn Loss (ft)	0.39	Cum Volume (acre-ft)	3231.93	26539.01	12964.75
C & E Loss (ft)	0.02	Cum SA (acres)	773.26	2847.28	3071.03

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	855.52	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.41	Wt. n-Val.		0.038	
E.G. Elev (ft)	855.93	Reach Len. (ft)	485.00	477.45	420.00
Crit W.S. (ft)	849.35	Flow Area (sq ft)		40652.23	
E.G. Slope (ft/ft)	0.000832	Area (sq ft)		40652.22	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	4505.18	Top Width (ft)		4505.18	
Vel Total (ft/s)	5.17	Avg. Vel. (ft/s)		5.17	

Max Chl Dpth (ft)	16.12	Hydr. Depth (ft)		9.02	
Conv. Total (cfs)	7281166.0	Conv. (cfs)		7281166.0	
Length Wtd. (ft)	477.45	Wetted Per. (ft)		4512.18	
Min Ch El (ft)	839.40	Shear (lb/sq ft)		0.47	
Alpha	1.00	Stream Power (lb/ft s)		2.42	
Frctn Loss (ft)	0.39	Cum Volume (acre-ft)	403.12	27737.15	7498.14
C & E Loss (ft)	0.03	Cum SA (acres)	63.93	2849.84	1097.10

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17370.02	17406.21	16.96	23.64	20.52	0.01	1.16	0.72
17406.21	17442.39	50.67	57.20	36.19	0.02	1.58	0.89
17442.39	17478.58	73.79	71.68	36.19	0.04	1.98	1.03
17478.58	17514.77	85.16	78.11	36.19	0.04	2.16	1.09
17514.77	17550.95	79.74	75.09	36.19	0.04	2.08	1.06
17550.95	17587.14	74.44	72.05	36.19	0.04	1.99	1.03
17587.14	17623.33	69.28	69.02	36.19	0.03	1.91	1.00
17623.33	17659.51	64.27	65.98	36.19	0.03	1.82	0.97
17659.51	17695.70	59.42	62.94	36.19	0.03	1.74	0.94
17695.70 LB	19054.55	44718.27	14209.90	1359.81	21.29	10.46	3.15
19054.55	20413.40	106370.77	14858.58	1360.25	50.65	10.93	7.16
20413.40	21772.25	54871.65	7605.58	1088.21	26.13	7.00	7.21
21772.25	23131.10 RB	3465.60	3875.10	698.24	1.65	5.56	0.89

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17695.70 LB	19054.55	44745.93	14241.00	1361.53	21.31	10.48	3.14
19054.55	20413.40	106508.84	14889.68	1360.25	50.72	10.96	7.15
20413.40	21772.25	54906.00	7630.48	1090.44	26.15	7.01	7.20
21772.25	23131.10 RB	3839.24	3891.07	699.95	1.83	5.57	0.99

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 185.1

INPUT
Description: APPROX. ALIGNMENT OF RAINBOW RD.
Left Channel Bank
Station Interpolated

Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17525.4	864.7	17561.2	863.6	17609.3	855.1	846	17616.7	853.9	17639.8	845.8
17748.7	846.4	17820.4	843.1	18010.7	842.9	18257.6	840.5	18334.9	838.5
18554.1	842.5	18749.4	841.8	18940.4	842	19062.4	846.2	19251.2	843.3
19339.3	854.9	19417.6	856.3	19444.1	843.7	19592.2	843.8	20088.9	843.2
20307.2	842.6	20626.8	842.4	20734	842.6	20779.4	850.1	20877.5	851.5
21099.6	851.7	21317	851.6	21546.6	852.4	21747.2	852.8	21863.5	850
22061.2	856.3	22185.2	858.7	22221	853.8	22248.8	858.2	22452.8	858.8
22635	858	22698.3	850.6	22743.6	850.8	22764	846.1	22967.8	846.9
23042	848.5	23096.7	851.9	23288.7	849.9	23454.3	854.3	23655.5	855
23852.9	855	24052.9	854.7	24106.1	857.4	24128.2	862.3	24342.7	861.2
24586.6	861.1	24724.2	861.1	24934	861.2	25168.7	862	25379.9	862
25414	862.1	25429.5	860	25453.4	861.5	25453.5	858.6	25465.3	860.8
25476.7	858.6	25497.5	862.5	25767.8	861.5	25999.7	860	26170.7	859.3
26416.2	859.1	26608.3	859.2	26761.6	857.9	26776	854.4	26799.6	853.1
26811.1	854.4	26812.1	852.8	27038.7	852.8	27249.9	852.8	27440.1	852.4
27670.2	852.3	27882.6	852.6	27917.5	855.7	28073.8	853.5	28113.8	855.4
28120.7	848.4	28129.5	850.1	28138	856.1	28161.6	852.6	28366.5	853.5
28582.7	854	28815.8	854.9	29043.3	856.4	29245.2	857.6	29442.3	860.2
29634.8	860.1	29838.4	860.9	30042.4	862.2	30248.1	863.2	30474.7	864
30672.9	864.3	30697	864.3						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17525.4	.065	17561.2	.065	19417.6	.026	20877.5	.15	23454.3	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17609.35	23454.3	575	544.41	415	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23454.3	30697	860

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	855.17	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.33	Wt. n-Val.		0.042	
E.G. Elev (ft)	855.50	Reach Len. (ft)	575.00	544.41	415.00
Crit W.S. (ft)	848.27	Flow Area (sq ft)		45406.79	
E.G. Slope (ft/ft)	0.000793	Area (sq ft)		45406.79	4195.35
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	7798.42	Top Width (ft)		5164.03	2634.38
Vel Total (ft/s)	4.62	Avg. Vel. (ft/s)		4.62	
Max Chl Dpth (ft)	16.67	Hydr. Depth (ft)		8.79	
Conv. Total (cfs)	7457536.0	Conv. (cfs)		7457536.0	
Length Wtd. (ft)	543.90	Wetted Per. (ft)		5171.06	
Min Ch El (ft)	838.50	Shear (lb/sq ft)		0.43	
Alpha	1.00	Stream Power (lb/ft s)		2.01	
Frctn Loss (ft)	0.52	Cum Volume (acre-ft)	3228.73	26067.94	12941.82
C & E Loss (ft)	0.01	Cum SA (acres)	771.54	2794.31	3054.01

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	855.19	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.33	Wt. n-Val.		0.042	
E.G. Elev (ft)	855.52	Reach Len. (ft)	575.00	544.41	415.00
Crit W.S. (ft)	848.27	Flow Area (sq ft)		45545.83	
E.G. Slope (ft/ft)	0.000787	Area (sq ft)		45545.83	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	5167.14	Top Width (ft)		5167.14	
Vel Total (ft/s)	4.61	Avg. Vel. (ft/s)		4.61	
Max Chl Dpth (ft)	16.69	Hydr. Depth (ft)		8.81	
Conv. Total (cfs)	7486135.0	Conv. (cfs)		7486135.0	
Length Wtd. (ft)	544.41	Wetted Per. (ft)		5175.09	
Min Ch El (ft)	838.50	Shear (lb/sq ft)		0.43	
Alpha	1.00	Stream Power (lb/ft s)		1.99	
Frctn Loss (ft)	0.52	Cum Volume (acre-ft)	403.12	27264.76	7498.14
C & E Loss (ft)	0.01	Cum SA (acres)	63.93	2796.84	1097.10

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17609.35 LB	19070.59	63850.37	18427.23	1462.85	30.40	12.61	3.47
19070.59	20531.82	115408.58	15568.75	1398.81	54.96	11.16	7.41
20531.82	21993.06	27114.19	7034.07	1461.97	12.91	4.81	3.85
21993.06	23454.30 RB	3626.87	4376.74	847.44	1.73	5.17	0.83

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17609.35 LB	19070.59	63790.48	18466.56	1462.96	30.38	12.64	3.45
19070.59	20531.82	115316.38	15606.33	1400.38	54.91	11.17	7.39
20531.82	21993.06	27137.85	7073.40	1461.97	12.92	4.84	3.84
21993.06	23454.30 RB	3755.29	4399.54	849.78	1.79	5.19	0.85

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 185

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17508.6	858.1	17588.3	858	17642.3	862.7	17648.1	861.9	17660.5	2854.5007
17662.2	853.5	17687.8	843	17735.1	844.1	17743.1	842.2	17811	840.7
17871	843.9	17970	841.1	18021.8	843.8	18108.3	843.7	18151.5	839.1
18426.9	836.6	18445.6	836.6	18509.3	842.6	18566.3	842	18616	853.4
18820.8	857.4	19165.6	854.4	19377.9	852.9	19394	855.9	19419.3	841.7
19549.9	844.7	19741.4	846.2	20628.6	842.2	20640.7	842	20670.1	848.8
20837.7	853.6	21060	851.9	21222.5	852.6	21286	849.9	21498.7	850
21600	851.9	21634.5	850.7	21730.9	852	21938.5	847.4	22135.8	855.2
22218	852.5	22261.6	852.4	22278.1	855.3	22430.8	853.8	22510.2	847.4
22744.5	851.6	22899.2	845.4	23129.3	848.9	23352.1	847.2	23508.2	845
23545	852.6	23583.5	850.6	23819	851.7	24012.5	851.7	24049.1	849.9
24139.5	860.2	24208.7	859.7	24283.9	855.5	24487	854.6	24719.9	855
24837.5	855	25089.9	854.9	25233.1	855.3	25339.9	857.8	25461.2	857.1
25481.4	855.3	25575.1	855.3	25885.9	855.4	26087.5	855.5	26313.8	854.5
26531.2	854.3	26788.3	854.3	26968	853.4	26985.1	850.9	27205.6	851.9
27420.4	851.9	27630.4	851.2	27843.2	851.6	28049.5	851.9	28247.1	853
28284.1	855.4	28293.1	847.9	28304.2	849.8	28310.1	854.8	28351.5	851.5
28570.3	853.1	28774.9	854.5	29012.5	854.9	29273.2	856.1	29498.9	857.4
29572.6	858.1	29580.1	860.2	29782.9	860.1	29997.4	860.9	30205.1	861.5
30484	863.5	30493	863.6						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17508.6	.065	17648.1	.065	19394	.028	20837.7	.15	22430.8	.025
23545	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17660.52	23545	505	516.75	555	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23650	30493	860

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	854.49	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.47	Wt. n-Val.		0.038	0.025
E.G. Elev (ft)	854.96	Reach Len. (ft)	505.00	516.75	555.00
Crit W.S. (ft)	849.48	Flow Area (sq ft)		37833.47	360.07
E.G. Slope (ft/ft)	0.001178	Area (sq ft)		37833.48	6177.56
Q Total (cfs)	210000.00	Flow (cfs)		208330.41	1669.59
Top Width (ft)	8244.93	Top Width (ft)		5265.73	2979.20
Vel Total (ft/s)	5.50	Avg. Vel. (ft/s)		5.51	4.64
Max Chl Dpth (ft)	17.89	Hydr. Depth (ft)		7.18	3.43
Conv. Total (cfs)	6119426.5	Conv. (cfs)		6070774.5	48652.0
Length Wtd. (ft)	516.90	Wetted Per. (ft)		5276.53	105.05
Min Ch El (ft)	836.60	Shear (lb/sq ft)		0.53	0.25
Alpha	1.00	Stream Power (lb/ft s)		2.90	1.17
Frctn Loss (ft)	0.87	Cum Volume (acre-ft)	3228.73	25547.77	12892.41
C & E Loss (ft)	0.03	Cum SA (acres)	771.54	2729.13	3027.27

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	854.51	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.48	Wt. n-Val.		0.038	
E.G. Elev (ft)	854.99	Reach Len. (ft)	505.00	516.75	555.00
Crit W.S. (ft)	849.48	Flow Area (sq ft)		37922.55	
E.G. Slope (ft/ft)	0.001190	Area (sq ft)		37922.55	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	5271.43	Top Width (ft)		5271.43	
Vel Total (ft/s)	5.54	Avg. Vel. (ft/s)		5.54	
Max Chl Dpth (ft)	17.91	Hydr. Depth (ft)		7.19	
Conv. Total (cfs)	6087385.5	Conv. (cfs)		6087385.5	
Length Wtd. (ft)	516.75	Wetted Per. (ft)		5284.16	

Min Ch El (ft)	836.60	Shear (lb/sq ft)		0.53	
Alpha	1.00	Stream Power (lb/ft s)		2.95	
Frctn Loss (ft)	0.88	Cum Volume (acre-ft)	403.12	26743.17	7498.14
C & E Loss (ft)	0.03	Cum SA (acres)	63.93	2731.61	1097.10

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17660.52 LB	19131.64	51142.21	12623.47	1016.13	24.35	12.48	4.05
19131.64	20602.76	99562.15	12356.26	1441.49	47.41	8.59	8.06
20602.76	22073.88	10202.12	5576.42	1472.24	4.86	3.79	1.83
22073.88	23545.00 RB	47423.93	7277.32	1346.67	22.58	5.41	6.52
23545.00	24008.20	1669.59	360.07	105.05	0.80	3.43	4.64

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17660.52 LB	19131.64	51493.68	12640.58	1017.02	24.52	12.49	4.07
19131.64	20602.76	100359.70	12380.59	1443.56	47.79	8.60	8.11
20602.76	22073.88	10317.54	5601.29	1472.24	4.91	3.81	1.84
22073.88	23545.00 RB	47829.07	7300.09	1351.35	22.78	5.42	6.55

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 184.9

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17265.8	865.2	17307.8	861.8	17389.2	861.7	17456.1	857.8	17472.4	861.3
17620.6	857	17625.6	855.2	17668.1	854.4	17670.8	853.6954	17675.6	852.5
17676.3	854.2	17690.1	851.6	17704.1	843.2	17874.6	840.3	17942.1	841.7
17977.7	837	18019.7	843.1	18092.5	836.5	18135.9	838.8	18174.2	837
18453.7	840.3	18483	843.8	18527.4	844.2	18561.8	850.8	18815.2	853.6
19098.7	853	19293.1	853	19302.5	845.1	19312.3	839.8	19582.5	840.5
19866.4	845.1	20210.7	850.3	20457.4	850.4	20478.6	857.5	20500.2	853
20538.1	849	20585.2	840.9	20628.3	848.7	20647.5	848.4	20722	854.1
20777	847.6	21070.4	846.9	21192.2	850.6	21205.3	846.7	21327.5	843
21355.3	839.8	21431.6	845.9	21681.3	851.1	22002.9	848.1	22188.5	847.8
22379.6	850	22478.4	849.5	22598.4	853.3	22709.8	852	22728	850.3
22750.6	843.3	22938.2	844.5	22982.6	840.7	22997.2	837.3	23030.8	840.4
23096.9	840.4	23136.9	845.7	23178	840.2	23475.2	841.7	23522.7	842.5
23562.8	9853.6962	23564.7	854.2	23720	854	23996.3	852.7	24382.7	853.5
24452.5	857.1	24515.8	853.4	24904.3	854.5	25269.7	854.5	25587.4	854.9
25805.7	854.6	26078.2	854.8	26447	854.3	26891.2	853.7	27123.4	852.2
27157.2	850.2	27556.9	851	27926.7	851	28203.3	850.5	28443.1	853.9
28452	847.1	28463.2	848.7	28469.5	853.2	28497.7	850.9	28783	851.8
29091.1	855.1	29423.9	856.2	29704.6	857.3	29754.6	860.9	30055.1	859.9
30367.5	861	30692.5	862.3	30984	864.1				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17265.8	.065	17620.6	.065	19293.1	.028	20722	.15	23564.7	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17670.8823562.89		680	473.98	445	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23820	30984	865

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	853.69	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.37	Wt. n-Val.		0.059	0.025
E.G. Elev (ft)	854.06	Reach Len. (ft)	680.00	473.98	445.00
Crit W.S. (ft)	847.76	Flow Area (sq ft)		43075.01	2.75
E.G. Slope (ft/ft)	0.002634	Area (sq ft)		43075.01	4998.09
Q Total (cfs)	210000.00	Flow (cfs)		209998.44	1.56
Top Width (ft)	8610.41	Top Width (ft)		5850.57	2759.84
Vel Total (ft/s)	4.87	Avg. Vel. (ft/s)		4.88	0.57
Max Chl Dpth (ft)	17.19	Hydr. Depth (ft)		7.36	0.08
Conv. Total (cfs)	4091934.0	Conv. (cfs)		4091903.5	30.5
Length Wtd. (ft)	473.95	Wetted Per. (ft)		5868.52	34.19
Min Ch El (ft)	836.50	Shear (lb/sq ft)		1.21	0.01
Alpha	1.00	Stream Power (lb/ft s)		5.88	0.01
Frctn Loss (ft)	0.97	Cum Volume (acre-ft)	3228.73	25067.86	12821.21
C & E Loss (ft)	0.01	Cum SA (acres)	771.54	2663.20	2990.71

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	853.71	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.37	Wt. n-Val.		0.059	
E.G. Elev (ft)	854.08	Reach Len. (ft)	680.00	473.98	445.00
Crit W.S. (ft)	847.76	Flow Area (sq ft)		43195.36	
E.G. Slope (ft/ft)	0.002611	Area (sq ft)		43195.36	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	5851.34	Top Width (ft)		5851.34	
Vel Total (ft/s)	4.86	Avg. Vel. (ft/s)		4.86	
Max Chl Dpth (ft)	17.21	Hydr. Depth (ft)		7.38	
Conv. Total (cfs)	4109731.5	Conv. (cfs)		4109731.5	
Length Wtd. (ft)	473.98	Wetted Per. (ft)		5869.35	
Min Ch El (ft)	836.50	Shear (lb/sq ft)		1.20	
Alpha	1.00	Stream Power (lb/ft s)		5.83	
Frctn Loss (ft)	0.96	Cum Volume (acre-ft)	403.12	26262.02	7498.14
C & E Loss (ft)	0.01	Cum SA (acres)	63.93	2665.63	1097.10

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17670.88 LB	19143.88	56360.48	12098.32	1475.60	26.84	8.23	4.66
19143.88	20616.89	114927.37	10739.12	1449.67	54.73	7.44	10.70
20616.89	22089.89	15233.76	8417.65	1466.11	7.25	5.75	1.81
22089.89	23562.89 RB	23476.83	11819.92	1477.16	11.18	8.02	1.99
23562.89	24057.63	1.56	2.75	34.19	0.00	0.08	0.57

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17670.88 LB	19143.88	56350.83	12128.56	1475.77	26.83	8.25	4.65
19143.88	20616.89	114911.76	10768.81	1449.83	54.72	7.46	10.67
20616.89	22089.89	15260.67	8447.77	1466.55	7.27	5.77	1.81
22089.89	23562.89 RB	23476.75	11850.22	1477.19	11.18	8.04	1.98

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 184.81

INPUT
Description: Left and Right Channel Bank Stations Interpolated

Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17481.3	872.4	17513.8	865.2	17515.1	862.1	17534.8	861	17767.5	854.5
17807.7	854.5	17821.42	852.6387	17833.5	851	17848.3	842.3	17902.9	836.7
17910.3	838.4	18016.6	838.2	18036.6	835.5	18080.4	839.4	18140	840.5
18212.3	837.2	18389.1	835.4	18443.5	841.2	18466.3	845.7	18535.7	847.1
18566.2	852.6	18872.7	851.4	19115.6	852.3	19220.6	850.8	19241.9	839.6
19482	840.2	19570.8	840.2	19860.7	844.9	20006.6	846.5	20348.3	851.1
20463.7	852.3	20488.6	855.9	20509.5	851.3	20535.4	849.5	20550.4	845.3
20592.2	840.3	20620.2	850.5	20873.6	847	21107.2	846	21302.3	841
21439.2	846.9	21679.9	846.7	21916.1	849.6	22159.1	847.4	22401.4	848.3
22603.4	849.9	22810	850.6	22900.8	843.1	23104.4	840.6	23167.4	836.1
23248.8	838.7	23349.3	839.4	23381.6	844.8	23407.5	838.3	23430.9	840.3
23474.02	852.6403	23491	857.5	23576.4	851.5	23871.6	852.3	24102.2	852.3
24332.6	852.8	24536.9	852.6	24597.9	855.1	24647	853.2	25029.2	853.4
25302.1	852.5	25641.4	852.4	25831.1	851.2	26024.1	854.4	26324.7	854.5
26687.6	853.3	26985.3	852.7	27227.9	852.1	27301.8	849.5	27620.2	849.9
27855.3	850.7	28129.5	850	28447.7	849.6	28580.1	852.9	28590.9	847.2
28599.4	847.7	28609.5	852.4	28845.8	852	29079	854	29338.5	854.8
29585	855.9	29830.9	857.6	29874.1	860.5	30147.6	860.1	30382.9	860.6
30630.1	861.9	30917.1	862.5	31164.9	863.3	31190.7	864.2	31205.3	867.4
31588.9	869.7	31608.5	869.8	31842.1	872.2				

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17481.3	.065	17534.8	.065	19115.6	.028	20348.3	.15	21916.1	.025
22810	.037	23491	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17821.42	23474.02	685	505.87	570	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23980	31842.1	865

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	852.64	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.44	Wt. n-Val.		0.043	0.025
E.G. Elev (ft)	853.08	Reach Len. (ft)	685.00	505.87	570.00
Crit W.S. (ft)	847.53	Flow Area (sq ft)		39213.64	263.69
E.G. Slope (ft/ft)	0.001641	Area (sq ft)		39213.64	4240.41
Q Total (cfs)	210000.00	Flow (cfs)		209534.36	465.64
Top Width (ft)	8908.96	Top Width (ft)		5615.20	3293.75
Vel Total (ft/s)	5.32	Avg. Vel. (ft/s)		5.34	1.77
Max Chl Dpth (ft)	17.24	Hydr. Depth (ft)		6.98	0.63
Conv. Total (cfs)	5184004.5	Conv. (cfs)		5172510.0	11494.6
Length Wtd. (ft)	505.94	Wetted Per. (ft)		5629.48	419.84
Min Ch El (ft)	835.40	Shear (lb/sq ft)		0.71	0.06
Alpha	1.01	Stream Power (lb/ft s)		3.81	0.11
Frctn Loss (ft)	0.52	Cum Volume (acre-ft)	3228.73	24620.17	12774.02
C & E Loss (ft)	0.02	Cum SA (acres)	771.54	2600.82	2959.79

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	852.66	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.44	Wt. n-Val.		0.043	
E.G. Elev (ft)	853.11	Reach Len. (ft)	685.00	505.87	570.00
Crit W.S. (ft)	847.53	Flow Area (sq ft)		39362.04	
E.G. Slope (ft/ft)	0.001629	Area (sq ft)		39362.04	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	5615.52	Top Width (ft)		5615.52	
Vel Total (ft/s)	5.34	Avg. Vel. (ft/s)		5.34	
Max Chl Dpth (ft)	17.26	Hydr. Depth (ft)		7.01	
Conv. Total (cfs)	5202586.0	Conv. (cfs)		5202586.0	
Length Wtd. (ft)	505.87	Wetted Per. (ft)		5629.86	
Min Ch El (ft)	835.40	Shear (lb/sq ft)		0.71	
Alpha	1.00	Stream Power (lb/ft s)		3.79	
Frctn Loss (ft)	0.51	Cum Volume (acre-ft)	403.12	25812.86	7498.14
C & E Loss (ft)	0.02	Cum SA (acres)	63.93	2603.25	1097.10

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17821.42 LB	19234.57	35841.49	10159.76	1419.63	17.07	7.19	3.53
19234.57	20647.72	84454.98	10419.64	1379.71	40.22	7.57	8.11
20647.72	22060.87	13327.52	8327.07	1413.39	6.35	5.89	1.60
22060.87	23474.02 RB	75910.38	10307.16	1416.75	36.15	7.29	7.36
23474.02	24031.89	465.64	263.69	419.84	0.22	0.63	1.77

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17821.42 LB	19234.57	35933.74	10197.11	1419.67	17.11	7.22	3.52
19234.57	20647.72	84604.66	10456.01	1380.02	40.29	7.60	8.09
20647.72	22060.87	13391.30	8364.42	1413.39	6.38	5.92	1.60
22060.87	23474.02 RB	76070.30	10344.51	1416.78	36.22	7.32	7.35

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 184.71

INPUT
Description: Left Bank Channel Station Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17701.8	865.2	17754.2	865.2	17794.5	855.7	17803.1	855.8	17934.3	842.4
17953.6	844.3	17970	842.9747	18013	839.5	18182.2	836.5	18199.9	839.6
18266	838.4	18322.6	841.4	18362.4	841.2	18378.1	838.8	18426.7	836.1
18473.2	852.6	18779.8	851.2	18976.5	850.3	19159.2	849.6	19208.8	849.5
19226.8	839.3	19254.9	839.3	19437.8	839.1	19535.1	839.1	19882.8	838.8
20062.6	840.3	20445.7	849.1	20466.4	848.9	20498.3	854.5	20620.7	840.6
20640.9	848.8	20879.1	847.9	21116.4	848.1	21297.4	841.6	21384.3	845.6
21570.1	844.4	21772.4	844.4	22004.7	845.7	22187.1	843.4	22277.8	844.6
22334.6	843	22504.7	844	22668.5	845.5	22683.4	847	22799.3	839.2
22984.3	839.7	23119.1	836.9	23141.9	842.9	23280.4	842.4	23310.7	847.4
23322.87	852.1723	23326	853.4	23570.5	851.9	23791.7	852.5	24003.7	852.6
24058.2	852.8	24280.1	853.7	24474.1	853.7	24647.7	853.2	24895.8	853.7
24987.2	853.5	25181.1	852.7	25250	852.5	25531	851.2	25551.5	851.2
25794	851.7	26016.7	852	26089.9	852	26266	852	26453.9	851.9
26634	851.3	26692.9	851.1	26955.5	850.7	27001	850.7	27198.6	851
27385	850.4	27565.9	849.6	27738.6	849.9	28041.8	849.6	28236.2	849.4
28410.9	849.6	28629.7	849	28709.2	852	28720.5	846.6	28743.2	851.4
28972	850.5	29143	850.7	29159.7	855	29342.8	855.2	29517.1	856.1
29747.8	856.3	29931.4	856.7	30102.1	858.8	30300.7	859.9	30478.8	860.4
30652.3	860.5	30828.9	862	30985	863.1				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17701.8	.065	17803.1	.065	19208.8	.028	20640.9	.15	22004.7	.025
23326	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17970	23322.87	640	480.91	605	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17701.8	17970	860	24150	30985	860

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	852.17	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.37	Wt. n-Val.		0.034	0.025
E.G. Elev (ft)	852.54	Reach Len. (ft)	640.00	480.91	605.00
Crit W.S. (ft)	846.44	Flow Area (sq ft)		43044.81	19.34
E.G. Slope (ft/ft)	0.000702	Area (sq ft)	777.42	43044.81	5511.14
Q Total (cfs)	210000.00	Flow (cfs)		209991.98	8.01
Top Width (ft)	9325.71	Top Width (ft)	131.36	5223.63	3970.72
Vel Total (ft/s)	4.88	Avg. Vel. (ft/s)		4.88	0.41
Max Chl Dpth (ft)	16.07	Hydr. Depth (ft)		8.24	0.13
Conv. Total (cfs)	7925441.5	Conv. (cfs)		7925139.0	302.3
Length Wtd. (ft)	480.92	Wetted Per. (ft)		5235.26	143.40
Min Ch El (ft)	836.10	Shear (lb/sq ft)		0.36	0.01
Alpha	1.00	Stream Power (lb/ft s)		1.76	0.00
Frctn Loss (ft)	0.31	Cum Volume (acre-ft)	3222.62	24142.53	12710.22
C & E Loss (ft)	0.02	Cum SA (acres)	770.50	2537.88	2912.26

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	852.20	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.37	Wt. n-Val.		0.034	
E.G. Elev (ft)	852.57	Reach Len. (ft)	640.00	480.91	605.00
Crit W.S. (ft)	846.44	Flow Area (sq ft)		43215.19	
E.G. Slope (ft/ft)	0.000695	Area (sq ft)		43215.19	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	5231.34	Top Width (ft)		5231.34	
Vel Total (ft/s)	4.86	Avg. Vel. (ft/s)		4.86	
Max Chl Dpth (ft)	16.10	Hydr. Depth (ft)		8.26	
Conv. Total (cfs)	7964549.0	Conv. (cfs)		7964549.0	
Length Wtd. (ft)	480.91	Wetted Per. (ft)		5252.23	
Min Ch El (ft)	836.10	Shear (lb/sq ft)		0.36	
Alpha	1.00	Stream Power (lb/ft s)		1.74	
Frctn Loss (ft)	0.31	Cum Volume (acre-ft)	403.12	25333.37	7498.14
C & E Loss (ft)	0.02	Cum SA (acres)	63.93	2540.26	1097.10

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17970.00 LB	19308.22	23783.27	8492.39	1249.03	11.33	6.83	2.80
19308.22	20646.43	90491.04	13538.35	1307.07	43.09	10.38	6.68
20646.43	21984.65	7465.98	8377.26	1338.44	3.56	6.26	0.89
21984.65	23322.87 RB	88251.69	12636.81	1340.72	42.02	9.44	6.98
23322.87	23833.68	8.01	19.34	143.40	0.00	0.13	0.41

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17970.00 LB	19308.22	23690.36	8533.01	1265.49	11.28	6.83	2.78
19308.22	20646.43	90495.27	13580.88	1307.55	43.09	10.41	6.66
20646.43	21984.65	7493.90	8420.88	1338.44	3.57	6.29	0.89
21984.65	23322.87 RB	88320.46	12680.43	1340.76	42.06	9.48	6.97

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 184.62

INPUT
Description: Left and Right Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17810.5	858.3	17845.8	860.2	17854.7	857.4	17930.7	858.1	17944	855.3
18073.6	852.2	18075.5	3851.9	122 18096.4	848.8	18118.3	838.6	18166.7	837.1

18194.3	839.8	18219.8	835.4	18249.1	835.8	18261.4	839	18394.5	835.6
18466.9	838.4	18554.4	838	18618.5	848.5	18831.9	847.9	19088.7	848.8
19149.9	848.1	19176.8	838.2	19416.8	838.9	19693.7	838.9	20015.7	838.5
20136.9	838.6	20318.9	846	20628	844.7	20659.7	841.5	20665.2	847.9
20674.1	844.1	20685	847.6	20928.7	847.3	21102.8	844.6	21139.9	841.9
21275.1	845.5	21369.4	843.5	21591.8	845.1	21721	842.8	21924.1	844.2
22135.2	843.7	22379.2	842.7	22552.2	844.5	22745.6	840.6	22775.1	841.9
22788.2	834.6	22811.7	835.6	22830.6	840.8	23056	841.8	23270.8	840.5
23288.1	84323309.88851.9142			23314	853.6	23362.9	851.8	23539.2	851.7
23757.8	852	23985	852	24280.8	852.8	24509.6	852.9	24712.5	852.9
24894.4	853.9	25121	851.7	25128.1	851.7	25136.2	849.2	25376.3	848.8
25610	848.8	25830.7	849.8	26083.2	849	26285.2	849	26496.2	849
26721.8	848.1	26934.5	848.1	26962.7	848.7	27049	852.3	27074.3	849.9
27290.2	853.1	27492.2	852.8	27512.9	848.6	27752.3	848.5	27967.4	849
28302.5	849.5	28538.2	850	28791.5	849.3	28870.2	851.4	28878.9	845.3
28892.2	846.5	28897.5	850.7	29069.7	850.5	29092.9	852.1	29287.8	851
29311.4	855.7	29547.2	856	29762.1	856.2	30002.7	856.5	30205.4	859.1
30245.5	861.9	30261	859.8	30283	860.9				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17810.5	.043	17944	.043	19088.7	.025	20665.2	.15	22775.1	.025
23314	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18075.5	323309.88	490	508.57	385	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
24330	30283	860

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	851.91	Element			
Vel Head (ft)	0.30	Wt. n-Val.		0.037	0.025
E.G. Elev (ft)	852.21	Reach Len. (ft)	490.00	508.57	385.00
Crit W.S. (ft)	845.78	Flow Area (sq ft)		47973.54	44.43
E.G. Slope (ft/ft)	0.000595	Area (sq ft)		47973.54	9896.23
Q Total (cfs)	210000.00	Flow (cfs)		209983.17	16.84
Top Width (ft)	9423.05	Top Width (ft)		5234.33	4188.72
Vel Total (ft/s)	4.37	Avg. Vel. (ft/s)		4.38	0.38
Max Chl Dpth (ft)	17.31	Hydr. Depth (ft)		9.17	0.13
Conv. Total (cfs)	8611027.0	Conv. (cfs)		8610337.0	690.5
Length Wtd. (ft)	508.52	Wetted Per. (ft)		5249.92	332.29
Min Ch El (ft)	834.60	Shear (lb/sq ft)		0.34	0.00
Alpha	1.00	Stream Power (lb/ft s)		1.49	0.00
Frctn Loss (ft)	0.34	Cum Volume (acre-ft)	3216.91	23640.10	12603.22
C & E Loss (ft)	0.01	Cum SA (acres)	769.54	2480.15	2855.60

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	851.95	Element			
Vel Head (ft)	0.30	Wt. n-Val.		0.037	
E.G. Elev (ft)	852.24	Reach Len. (ft)	490.00	508.57	385.00
Crit W.S. (ft)	845.78	Flow Area (sq ft)		48159.16	
E.G. Slope (ft/ft)	0.000588	Area (sq ft)		48159.16	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	5234.35	Top Width (ft)		5234.35	
Vel Total (ft/s)	4.36	Avg. Vel. (ft/s)		4.36	
Max Chl Dpth (ft)	17.35	Hydr. Depth (ft)		9.20	
Conv. Total (cfs)	8660136.0	Conv. (cfs)		8660136.0	
Length Wtd. (ft)	508.57	Wetted Per. (ft)		5250.01	
Min Ch El (ft)	834.60	Shear (lb/sq ft)		0.34	
Alpha	1.00	Stream Power (lb/ft s)		1.47	
Frctn Loss (ft)	0.33	Cum Volume (acre-ft)	403.12	24828.97	7498.14
C & E Loss (ft)	0.01	Cum SA (acres)	63.93	2482.49	1097.10

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18075.53 LB	19384.12	53979.94	11997.20	1314.73	25.70	9.17	4.50
19384.12	20692.71	99799.74	14149.59	1313.17	47.52	10.81	7.05

20692.71	22001.29	8229.38	9252.49	1308.81	3.92	7.07	0.89
22001.29	23309.88 RB	47974.12	12574.27	1313.22	22.84	9.61	3.82
23309.88	23774.76	16.84	44.43	332.29	0.01	0.13	0.38

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18075.53 LB	19384.12	54007.61	12043.61	1314.78	25.72	9.20	4.48
19384.12	20692.71	99772.07	14195.99	1313.17	47.51	10.85	7.03
20692.71	22001.29	8251.25	9298.89	1308.81	3.93	7.11	0.89
22001.29	23309.88 RB	47969.07	12620.68	1313.26	22.84	9.64	3.80

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 184.53

INPUT
Description: Right Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18333.6	865.2	18397.5	850.2	18437.2	845.8	18470	835.4	18507.1	835.5
18534.5	839.4	18613.7	836.3	18669.7	839.2	18718.3	835.4	18880.3	838.5
18940.2	847.8	19138.5	847.7	19157.2	847.7	19172.3	837.9	19442.5	838.6
19459.7	840.8	19620.5	840.8	19644.1	838.7	19763	838.6	20082.9	838.4
20247.9	839	20700.6	840.6	20703.6	839.1	20716	846.9	20792.6	845.2
20793.6	846.3	20933.5	847.4	21172.8	845.6	21226	843.3	21294.9	843.1
21313.1	840.9	21455.6	843.8	21698.1	844.8	21891.5	842.4	22048.4	841
22150.1	844.5	22215.6	841.3	22236.8	842.4	22309.3	841.2	22378.7	844.6
22401.4	840.2	22589.2	840.4	22675.2	842.9	22699	834.3	22730.5	836.1
22744.7	840.1	22937.8	840.6	23132.5	840.6	23311.5	842.2	23333.63	851.5943
23336	852.6	23520.2	850.7	23761.5	851.8	23821.1	851.5	24035.8	851.3
24271.5	852.3	24505.1	852.3	24701.5	852.1	24940.9	852.7	25020.8	852.8
25215.7	850.1	25270.2	851.6	25293.4	848.8	25582.7	848.4	25905.2	848.1
26136.8	848.5	26318.3	849.1	26508	848.7	26762.4	849.1	26883.8	848.9
26936.6	851.5	26998.7	848.2	27145.8	853.8	27351.9	853	27534.3	852.4
27594.2	852.4	27721.1	847.3	27902.2	848.1	27934	848.3	28117.7	849.3
28348.9	848.9	28602	849.9	28827	850	28992.1	850.8	29001.6	845.2
29008.8	845.6	29016.8	850.8	29228.5	850.4	29399.5	850.4	29427.2	855.1
29612.5	856	29794.5	856.9	30000.6	857.4	30192.8	857.9	30316.2	858.6
30324.9	860.8	30397	863.2						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18333.6	.043	18397.5	.043	18940.2	.028	20933.5	.15	23336	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18397.5	23333.63	480	508.72	420	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
24240	30397	860

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	851.59	Element			
Vel Head (ft)	0.27	Wt. n-Val.	0.043	0.046	0.025
E.G. Elev (ft)	851.86	Reach Len. (ft)	480.00	508.72	420.00
Crit W.S. (ft)	844.67	Flow Area (sq ft)	4.12	50098.71	176.84
E.G. Slope (ft/ft)	0.000745	Area (sq ft)	4.12	50098.71	9154.09
Q Total (cfs)	210000.00	Flow (cfs)	2.99	209852.73	144.27
Top Width (ft)	9295.90	Top Width (ft)	5.92	4936.12	4353.86
Vel Total (ft/s)	4.18	Avg. Vel. (ft/s)	0.73	4.19	0.82
Max Chl Dpth (ft)	17.29	Hydr. Depth (ft)	0.70	10.15	0.30
Conv. Total (cfs)	7693520.0	Conv. (cfs)	109.6	7688125.0	5285.6
Length Wtd. (ft)	508.62	Wetted Per. (ft)	6.08	4950.52	582.53
Min Ch El (ft)	834.30	Shear (lb/sq ft)	0.03	0.47	0.01
Alpha	1.01	Stream Power (lb/ft s)	0.02	1.97	0.01
Frctn Loss (ft)	0.42	Cum Volume (acre-ft)	3216.88	23067.59	12519.04
C & E Loss (ft)	0.01	Cum SA (acres)	769.51	2420.78	2817.84

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	851.63	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.27	Wt. n-Val.		0.046	
E.G. Elev (ft)	851.90	Reach Len. (ft)	480.00	508.72	420.00
Crit W.S. (ft)	844.67	Flow Area (sq ft)		50288.81	
E.G. Slope (ft/ft)	0.000738	Area (sq ft)		50288.81	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	4936.13	Top Width (ft)		4936.13	
Vel Total (ft/s)	4.18	Avg. Vel. (ft/s)		4.18	
Max Chl Dpth (ft)	17.33	Hydr. Depth (ft)		10.19	
Conv. Total (cfs)	7731892.0	Conv. (cfs)		7731892.0	
Length Wtd. (ft)	508.72	Wetted Per. (ft)		4952.00	
Min Ch El (ft)	834.30	Shear (lb/sq ft)		0.47	
Alpha	1.00	Stream Power (lb/ft s)		1.95	
Frctn Loss (ft)	0.41	Cum Volume (acre-ft)	403.12	24254.28	7498.14
C & E Loss (ft)	0.01	Cum SA (acres)	63.93	2423.12	1097.10

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18388.98	18393.24	0.09	0.32	1.71	0.00	0.20	0.28
18393.24	18397.50	2.90	3.79	4.38	0.00	0.89	0.77
18397.50 LB	19631.53	78058.70	13559.73	1240.28	37.17	10.99	5.76
19631.53	20865.57	104615.04	14277.59	1237.20	49.82	11.57	7.33
20865.57	22099.60	10640.16	9332.00	1234.31	5.07	7.56	1.14
22099.60	23333.63 RB	16538.85	12929.39	1238.74	7.88	10.48	1.28
23333.63	23804.52	118.37	125.30	282.87	0.06	0.44	0.94
23804.52	24275.41	25.91	51.53	299.66	0.01	0.17	0.50

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18397.50 LB	19631.53	78077.32	13607.26	1241.71	37.18	11.03	5.74
19631.53	20865.57	104681.08	14325.12	1237.20	49.85	11.61	7.31
20865.57	22099.60	10683.17	9379.52	1234.31	5.09	7.60	1.14
22099.60	23333.63 RB	16558.43	12976.92	1238.79	7.88	10.52	1.28

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 184.43

INPUT
Description: Left and Right Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19020.1	860.31	19038.6	5851.0911	19062	839.5	19089.9	837.9	19263	842.5
19286.6	843.2	19302	837.3	19540.2	837.9	19564.2	840.3	19583.7	837.9
19705.8	841	19739	838.2	19938	838.1	20009.5	838	20227.9	837.8
20378.1	838.5	20648.5	839.9	20724.8	841.1	20732.1	842.8	20786.3	842.4
20797.3	844.2	20797.6	845.5	20806.3	846.9	21006.4	845.1	21178.3	844
21367.5	839.6	21613.9	840.2	21725.3	842.9	21884.5	842.5	22005.8	843.2
22033.7	839.7	22061.8	839.4	22083.8	842.1	22263	843.5	22403.1	842.5
22434.2	838.5	22515.3	840.9	22545.4	839.4	22754.9	839.5	22781.4	839.5
22794.5	834.4	22820.1	834.3	22852.4	838.5	23031	839.2	23202.6	840.8
23230.4	8851.0913	23232.4	851.8	23444.4	850.1	23507.5	850.4	23682.9	850.6
23715.5	850.7	23919.8	850.9	24168.2	851.3	24413.4	852.1	24458.1	851
24489.2	847.6	24681.9	848.8	24925.5	848.9	25105.2	847.7	25209.3	848.4
25383.6	849	25616	848.7	25636.5	848.7	25810.6	847.9	26105.5	848.2
26336.1	848	26414.5	847.8	26466.6	850.4	26492.2	848.5	26685.8	848.3
26772.6	849	26816.7	852.5	26988.6	853.9	27160.9	853.3	27167.4	853.3
27355.4	852.5	27535.2	850.9	27607.9	851.5	27780.9	847.5	27981.9	848.4
28194	848.4	28391.3	848	28661.1	848.5	28868.9	848.9	29043.1	848.4
29108.6	850.4	29118.7	845.2	29127.3	846	29133.4	850.2	29335.8	850.5
29506.5	851.1	29535.5	855.3	29748.5	855.9	29921.2	857.2	30133.5	858.6
30305.4	858.6	30468	863.9	30494.6	862.8				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19020.1	.028	20806.3	.15	23232.4	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19038.6	523230.48	310	505.74	440	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23940	30494.6	860

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	851.09	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.35	Wt. n-Val.		0.046	0.025
E.G. Elev (ft)	851.44	Reach Len. (ft)	310.00	505.74	440.00
Crit W.S. (ft)	844.52	Flow Area (sq ft)		44428.98	295.89
E.G. Slope (ft/ft)	0.000910	Area (sq ft)	0.00	44428.98	10653.29
Q Total (cfs)	210000.00	Flow (cfs)		209675.73	324.27
Top Width (ft)	9178.18	Top Width (ft)		4191.83	4986.34
Vel Total (ft/s)	4.70	Avg. Vel. (ft/s)		4.72	1.10
Max Chl Dpth (ft)	16.79	Hydr. Depth (ft)		10.60	0.48
Conv. Total (cfs)	6960685.0	Conv. (cfs)		6949937.0	10748.2
Length Wtd. (ft)	505.52	Wetted Per. (ft)		4201.59	619.31
Min Ch El (ft)	834.30	Shear (lb/sq ft)		0.60	0.03
Alpha	1.01	Stream Power (lb/ft s)		2.84	0.03
Frctn Loss (ft)	0.47	Cum Volume (acre-ft)	3216.86	22515.62	12423.55
C & E Loss (ft)	0.01	Cum SA (acres)	769.47	2367.48	2772.82

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	851.13	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.34	Wt. n-Val.		0.046	
E.G. Elev (ft)	851.48	Reach Len. (ft)	310.00	505.74	440.00
Crit W.S. (ft)	844.52	Flow Area (sq ft)		44605.00	
E.G. Slope (ft/ft)	0.000902	Area (sq ft)		44605.00	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	4191.83	Top Width (ft)		4191.83	
Vel Total (ft/s)	4.71	Avg. Vel. (ft/s)		4.71	
Max Chl Dpth (ft)	16.83	Hydr. Depth (ft)		10.64	
Conv. Total (cfs)	6991847.0	Conv. (cfs)		6991847.0	
Length Wtd. (ft)	505.74	Wetted Per. (ft)		4201.67	
Min Ch El (ft)	834.30	Shear (lb/sq ft)		0.60	
Alpha	1.00	Stream Power (lb/ft s)		2.81	
Frctn Loss (ft)	0.47	Cum Volume (acre-ft)	403.12	23700.16	7498.14
C & E Loss (ft)	0.01	Cum SA (acres)	63.93	2369.82	1097.10

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19038.65 LB	20086.61	107899.09	12786.52	1052.31	51.38	12.20	8.44
20086.61	21134.57	71925.88	10333.08	1049.47	34.25	9.86	6.96
21134.57	22182.52	13156.81	9888.97	1048.43	6.27	9.44	1.33
22182.52	23230.48 RB	16693.94	11420.42	1051.37	7.95	10.90	1.46
23230.48	23714.76	277.88	232.41	394.06	0.13	0.59	1.20
23714.76	24199.03	46.38	63.48	225.24	0.02	0.28	0.73

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19038.65 LB	20086.61	108034.51	12830.53	1052.35	51.44	12.24	8.42
20086.61	21134.57	72043.38	10377.08	1049.47	34.31	9.90	6.94
21134.57	22182.52	13195.75	9932.97	1048.43	6.28	9.48	1.33
22182.52	23230.48 RB	16726.34	11464.42	1051.41	7.96	10.94	1.46

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 184.33

INPUT
Description: Right Bank Station Interpolated

Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19243.8	861.1	19270.5	849.3	19330	845.3	19383.5	838.6	19491.2	837.1
19658.9	838.2	19876.3	838.1	19954.5	838	20567.4	837.2	20712.4	837.7
20742.2	844.2	20902.3	843.3	21026.3	843.3	21167.5	840.5	21278.4	842.3
21498.7	838.3	21627.9	841.4	21790.6	841.2	21943.3	841.8	22053.5	845.6
22169.4	842.9	22318.5	848.7	22453.2	850.3	22468.2	846.1	22480.5	840.6
22619.7	837	22806.7	836.7	22962	839.2	22986.5	831.9	23013.9	833
23037.7	842	23067.4	841.9	23089.9	846.8	23135	845.8277	23150.2	845.5
23187	848.6	23270.2	848.4	23285.4	3850.5101	23286.8	850.7	23318.4	851
23345.8	849.3	23503.3	849.1	23661.8	849.3	23836.7	850.8	23996.9	851.4
24204	849.5	24361.9	849.7	24372.8	847.3	24596.2	847.7	24816.2	848.5
24881.2	848.8	25069.1	848.8	25224.6	848.2	25381.4	847.5	25562.2	847.6
25578.1	847.7	25806.9	848	26003.7	846.9	26272	847.9	26459.9	847.4
26529	847.4	26535.6	849	26609.7	849.3	26618	850.5	26680	847.4
26721.8	853.1	26768.3	852.9	26929.1	852.7	26960.6	852.7	27136.9	852.6
27289.6	852.6	27366.2	851.6	27398.9	849.7	27468.5	848.1	27479.2	850.3
27565.6	848.6	27596.8	851.9	27675	847.5	27843	847.2	27877.7	847.9
27887	846.6	28118.1	848	28311.3	848.4	28573.6	847.4	28657.4	848.6
28889.8	848.5	29142.9	848.3	29219.9	850.5	29228.2	845.8	29238	845
29247	851.3	29354.6	850.6	29364.5	852	29517.7	851.5	29606.7	851.8
29632.7	855.3	29845.1	856.5	29999	857.7				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
19243.8	.026	19270.5	.026	20742.2	.065	21627.9	.15	23318.4	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19270.5	23135	515	499.71	320	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23630	29999	860

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	850.51	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.44	Wt. n-Val.	0.026	0.041	0.051
E.G. Elev (ft)	850.95	Reach Len. (ft)	515.00	499.71	320.00
Crit W.S. (ft)	844.41	Flow Area (sq ft)	1.66	38948.55	770.77
E.G. Slope (ft/ft)	0.000962	Area (sq ft)	1.66	38948.55	11355.10
Q Total (cfs)	210000.00	Flow (cfs)	1.98	208940.97	1057.05
Top Width (ft)	8926.11	Top Width (ft)	2.74	3864.50	5058.87
Vel Total (ft/s)	5.29	Avg. Vel. (ft/s)	1.19	5.36	1.37
Max Chl Dpth (ft)	18.61	Hydr. Depth (ft)	0.60	10.08	1.70
Conv. Total (cfs)	6771300.5	Conv. (cfs)	63.8	6737153.0	34083.9
Length Wtd. (ft)	499.07	Wetted Per. (ft)	2.99	3871.19	454.44
Min Ch El (ft)	831.90	Shear (lb/sq ft)	0.03	0.60	0.10
Alpha	1.02	Stream Power (lb/ft s)	0.04	3.24	0.14
Frctn Loss (ft)	0.50	Cum Volume (acre-ft)	3216.85	22031.60	12312.39
C & E Loss (ft)	0.00	Cum SA (acres)	769.46	2320.71	2722.08

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	850.55	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.45	Wt. n-Val.		0.041	
E.G. Elev (ft)	851.00	Reach Len. (ft)	515.00	499.71	320.00
Crit W.S. (ft)	844.41	Flow Area (sq ft)		39099.98	
E.G. Slope (ft/ft)	0.000962	Area (sq ft)		39099.98	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	3864.50	Top Width (ft)		3864.50	
Vel Total (ft/s)	5.37	Avg. Vel. (ft/s)		5.37	
Max Chl Dpth (ft)	18.65	Hydr. Depth (ft)		10.12	
Conv. Total (cfs)	6771805.0	Conv. (cfs)		6771805.0	
Length Wtd. (ft)	499.71	Wetted Per. (ft)		3877.16	
Min Ch El (ft)	831.90	Shear (lb/sq ft)		0.61	
Alpha	1.00	Stream Power (lb/ft s)		3.25	
Frctn Loss (ft)	0.50	Cum Volume (acre-ft)	403.12	23214.25	7498.14
C & E Loss (ft)	0.00	Cum SA (acres)	63.93	2323.05	1097.10

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta	Right Sta	Flow	Area	W.P.	% Conv.	Hydr D.	Velocity

(ft)	(ft)	(cfs)	(sq ft)	(ft)		(ft)	(ft/s)
19266.94	19268.72	0.11	0.20	1.05	0.00	0.21	0.52
19268.72	19270.50	1.87	1.45	1.95	0.00	0.82	1.29
19270.50 LB	20236.63	104641.48	11411.49	966.69	49.83	11.81	9.17
20236.63	21202.75	72920.92	10044.26	966.86	34.72	10.40	7.26
21202.75	22168.88	19536.48	8640.02	966.31	9.30	8.94	2.26
22168.88	23135.00 RB	11842.07	8852.78	971.33	5.64	9.16	1.34
23135.00	23592.60	953.92	723.15	417.04	0.45	1.74	1.32
23592.60	24050.20	103.14	47.62	37.40	0.05	1.27	2.17

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19270.50 LB	20236.63	105122.73	11449.34	967.94	50.06	11.85	9.18
20236.63	21202.75	73319.52	10082.12	966.86	34.91	10.44	7.27
21202.75	22168.88	19670.49	8677.88	966.31	9.37	8.98	2.27
22168.88	23135.00 RB	11887.26	8890.63	976.06	5.66	9.20	1.34

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 184.24

INPUT
Description: Right Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18844.8	860.3	18931.3	859.2	19049.2	855.3	19174.1	844.9	19272.7	848
19431.5	847.9	19445.7	841.9	19467.1	836.8	19619.1	837.6	19885.4	838
20076	837.7	20313.9	837.4	20631.3	837	20645.2	841.7	20829.3	841.8
20979.6	839.6	20990.5	834.2	20998.6	832.2	21047	839.1	21115.6	831.7
21127.8	835.2	21146.6	835.6	21157.2	831.5	21188.4	840.6	21271.6	843
21319.5	842.2	21336.2	843.7	21338.3	839.6	21375.1	841.3	21381.2	843.9
21514.2	842.2	21516.7	837.9	21561.9	841.5	21732.3	839.7	21937.2	841.4
22047.2	842.6	22157.2	846.4	22279.6	845.8	22358.5	847.4	22412.1	845.7
22505	845.7	22569.5	839.1	22652.8	837.2	22674.9	832.3	22823.7	835.1
22884.5	837.5	22911.3	841.5	23054	840.6	23074.9	849.9	23080.9	852.6
23202.6	848.4	23413.7	849.4	23671.7	849.6	23881.5	850	24047.9	849.6
24257.1	849.6	24420	848.6	24540.5	847.7	24698.2	847.9	24725	847.8
24918.9	848.5	24930	848.5	25105.8	848.5	25306.3	848.2	25556.9	848
25718.1	847.7	25854.8	848.1	26083.7	847.9	26376.9	847.8	26591.2	846.3
26641.4	848.4	26784.4	849.2	26848.1	853.6	27029.6	851.2	27242.3	848.5
27305.2	847.4	27467.4	847.3	27740.5	847.2	27953.8	846.8	28138.9	846.2
28321	846.6	28495.2	848	28744.3	848.6	28997.5	848.8	29203.5	848.9
29293.5	850.1	29318.3	851.4	29327.1	845.7	29336.8	844.9	29344.7	851.1
29521.3	851.2	29678.7	852.4	29740.4	855.7	29898.3	856.7	30060.7	857.6
30270.3	860	30375	860.2						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18844.8	.032	19272.7	.026	20645.2	.043	21732.3	.15	23080.9	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19272.72	23074.94	505	504.24	520	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18844.8	19272.7	860	23350	30375	860

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	849.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.49	Wt. n-Val.		0.039	0.025
E.G. Elev (ft)	850.45	Reach Len. (ft)	505.00	504.24	520.00
Crit W.S. (ft)	844.01	Flow Area (sq ft)		37177.61	212.56
E.G. Slope (ft/ft)	0.001059	Area (sq ft)	498.85	37177.61	10096.50
Q Total (cfs)	210000.00	Flow (cfs)		209560.78	439.21
Top Width (ft)	9733.38	Top Width (ft)	159.29	3802.24	5771.85
Vel Total (ft/s)	5.62	Avg. Vel. (ft/s)		5.64	2.07
Max Chl Dpth (ft)	18.45	Hydr. Depth (ft)		9.78	1.10
Conv. Total (cfs)	6454238.5	Conv. (cfs)		6440739.5	13498.8
Length Wtd. (ft)	504.26	Wetted Per. (ft)		3819.01	192.48
Min Ch El (ft)	831.50	Shear (lb/sq ft)		0.64	0.07
Alpha	1.01	Stream Power (lb/ft s)		3.63	0.15

Frctn Loss (ft)	0.49	Cum Volume (acre-ft)	3213.90	21594.95	12233.60
C & E Loss (ft)	0.00	Cum SA (acres)	768.51	2276.73	2682.30

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	850.00	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.49	Wt. n-Val.		0.039	
E.G. Elev (ft)	850.49	Reach Len. (ft)	505.00	504.24	520.00
Crit W.S. (ft)	844.01	Flow Area (sq ft)		37353.05	
E.G. Slope (ft/ft)	0.001049	Area (sq ft)		37353.05	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	3802.24	Top Width (ft)		3802.24	
Vel Total (ft/s)	5.62	Avg. Vel. (ft/s)		5.62	
Max Chl Dpth (ft)	18.50	Hydr. Depth (ft)		9.82	
Conv. Total (cfs)	6483846.5	Conv. (cfs)		6483846.5	
Length Wtd. (ft)	504.24	Wetted Per. (ft)		3821.07	
Min Ch El (ft)	831.50	Shear (lb/sq ft)		0.64	
Alpha	1.00	Stream Power (lb/ft s)		3.60	
Frctn Loss (ft)	0.49	Cum Volume (acre-ft)	403.12	22775.72	7498.14
C & E Loss (ft)	0.00	Cum SA (acres)	63.93	2279.08	1097.10

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19272.70 LB	20223.26	87459.26	9917.23	952.38	41.65	10.43	8.82
20223.26	21173.82	85083.21	11113.32	955.70	40.52	11.69	7.66
21173.82	22124.38	26092.23	7993.82	957.05	12.42	8.41	3.26
22124.38	23074.94 RB	10926.06	8153.24	953.88	5.20	8.58	1.34
23074.94	23561.61	439.21	212.56	192.48	0.21	1.10	2.07

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19272.70 LB	20223.26	87578.20	9961.09	954.38	41.70	10.48	8.79
20223.26	21173.82	85239.03	11157.18	955.70	40.59	11.74	7.64
21173.82	22124.38	26209.57	8037.68	957.05	12.48	8.46	3.26
22124.38	23074.94 RB	10973.18	8197.10	953.94	5.23	8.62	1.34

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 184.14

INPUT
Description: Left and Right Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18514.6	861.7	18742.9	858.9	18903.4	845.8	18996	849.5	18997.9	2849.4472		
19094.2	846.8	19300.3	845.9	19361.1	845.6	19396.4	836.2	19552.4	836.4		
19992.9	837	20277	837.4	20504.5	837.6	20570.2	837.3	20587.1	842.2		
20658.9	841.7	20697	839	20757.7	841.2	20802	838.5	20850.4	844.7		
20941.9	842.4	21027.6	843.6	21069.2	836.3	21153.8	836.2	21153.9	834.1		
21182.6	842.4	21197.5	831.8	21210.2	839.8	21291.4	838.6	21298.8	834.4		
21299.8	832.3	21322	837.3	21326.7	833.1	21328.8	835.6	21350.8	840.9		
21423.1	833	21448.8	839.2	21455.3	831	21484.8	832.2	21514.1	840.2		
21547.1	838.7	21564.5	841.2	21632.6	840.2	21691.2	844.3	21902.4	839.7		
22048.2	843.1	22268.2	844.3	22322.2	842.8	22419.5	849	22560.8	850		
22606.9	832	22842.4	836.1	22964.5	838.9	22992.1	9849.4484	22996	850.9		
23249.6	849.7	23478.4	850	23657.9	849.9	23838.3	849.5	24034.1	849.5		
24312.5	849.5	24529.8	848.6	24676.3	847.4	24879.7	848	24946	848.2		
25125.8	848.1	25307.7	848	25492.7	849.3	25535.2	847	25736.7	846.2		
25934.3	847.9	26175.6	847.9	26230.1	847.8	26507.5	848.9	26660.3	846.4		
26767.1	850	26783.8	848	26837.3	850.1	26879.1	848.7	26889.8	850.7		
26897.1	848.3	27135.9	848.9	27356	849.2	27541	849.5	27762.9	849		
27981.3	849	28169.1	847.6	28396.8	848.5	28603.1	849.3	28696.5	849.5		
28921.2	849.3	29191.9	849.9	29395.6	852.9	29611.2	855.3	29799	856.1		
29981.5	856.9	30182	857.8	30396	859.5						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18514.6	.043	18996	.043	19361.1	.026	20587.1	.043	21902.4	.15
22996	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18997.9	22992.19	490	493.72	440	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18514.6	18996	860	22996	30396	860

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	849.46	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.49	Wt. n-Val.	0.000	0.037	
E.G. Elev (ft)	849.95	Reach Len. (ft)	490.00	493.72	440.00
Crit W.S. (ft)	843.52	Flow Area (sq ft)	0.00	37396.79	
E.G. Slope (ft/ft)	0.000909	Area (sq ft)	249.96	37396.79	4890.51
Q Total (cfs)	210000.00	Flow (cfs)	0.00	210000.00	
Top Width (ft)	8559.61	Top Width (ft)	137.05	3916.87	4505.69
Vel Total (ft/s)	5.62	Avg. Vel. (ft/s)	0.04	5.62	
Max Chl Dpth (ft)	18.46	Hydr. Depth (ft)	0.01	9.55	
Conv. Total (cfs)	6966114.0	Conv. (cfs)	0.0	6966114.0	
Length Wtd. (ft)	493.72	Wetted Per. (ft)	0.54	3947.59	
Min Ch El (ft)	831.00	Shear (lb/sq ft)		0.54	
Alpha	1.00	Stream Power (lb/ft s)		3.02	
Frctn Loss (ft)	0.50	Cum Volume (acre-ft)	3209.55	21163.33	12144.15
C & E Loss (ft)	0.01	Cum SA (acres)	766.79	2232.06	2620.96

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	849.52	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.48	Wt. n-Val.		0.037	
E.G. Elev (ft)	850.00	Reach Len. (ft)	490.00	493.72	440.00
Crit W.S. (ft)	843.52	Flow Area (sq ft)		37613.61	
E.G. Slope (ft/ft)	0.000894	Area (sq ft)		37613.61	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	3924.82	Top Width (ft)		3924.82	
Vel Total (ft/s)	5.58	Avg. Vel. (ft/s)		5.58	
Max Chl Dpth (ft)	18.52	Hydr. Depth (ft)		9.58	
Conv. Total (cfs)	7023502.5	Conv. (cfs)		7023502.5	
Length Wtd. (ft)	493.72	Wetted Per. (ft)		3955.70	
Min Ch El (ft)	831.00	Shear (lb/sq ft)		0.53	
Alpha	1.00	Stream Power (lb/ft s)		2.96	
Frctn Loss (ft)	0.49	Cum Volume (acre-ft)	403.12	22341.82	7498.14
C & E Loss (ft)	0.01	Cum SA (acres)	63.93	2234.35	1097.10

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18965.70	18997.92	0.00	0.00	0.54	0.00	0.01	0.04
18997.92 LB	19996.49	76698.33	9017.78	999.84	36.52	9.03	8.51
19996.49	20995.05	77030.81	10271.25	999.91	36.68	10.29	7.50
20995.05	21993.62	46328.49	10150.31	1021.14	22.06	10.16	4.56
21993.62	22992.19 RB	9942.37	7957.46	926.70	4.73	8.64	1.25

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18997.92 LB	19996.49	76220.86	9073.00	999.91	36.30	9.09	8.40
19996.49	20995.05	76579.12	10326.46	999.91	36.47	10.34	7.42
20995.05	21993.62	46084.88	10205.53	1021.14	21.95	10.22	4.52
21993.62	22992.19 RB	11115.14	8008.62	934.74	5.29	8.62	1.39

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 184.05

INPUT
Description: APPROX. ALIGNMENT OF WATSON RD.
Left and Right Bank Stations
Interpolated

Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18408.6	857.9	18759.4	846.5	18771.1	849	18829.4	851.4	18994.3	849.2
19001.4	4848.7987	19061.9	845.4	19086.4	846.3	19097.5	843.7	19120.3	847.4
19242.3	843.8	19343.8	844.4	19379.2	836.2	19462.2	836.3	20011.6	836.8
20395.3	837.1	20540.6	837.3	20556.6	846.3	20764.9	843.1	21005	844.7
21145.8	841.9	21175.9	838	21258.3	839.6	21300.2	837	21306.9	833.7
21308.4	838	21311.6	841	21331.6	830.9	21331.7	835.4	21350	836.4
21359	830.1	21387.3	830.5	21389	837.6	21398.7	840.1	21427.9	835.1
21430	841.5	21450.3	833.6	21450.5	831.8	21459.8	834.8	21473	835.7
21473.3	833.9	21498.1	840.4	21566.9	839.9	21580.1	834.9	21581	832.9
21613.3	838.1	21637.8	833.4	21649.4	836.7	21721.6	838.4	21722.9	842.3
22068.3	842.8	22137	842.6	22248	845.4	22310.7	842.3	22366.2	842.6
22428	850	22618.2	849.2	22651.6	840.1	22693.5	837.2	22725.2	832.2
22765.1	833.4	22788.1	838	22860.8	836.1	23010.9	8432	3034.6	3848.7995
23051	852.8	23465	851.6	23875.5	852.1	23949.4	852.1	24055.5	848.4
24151.3	851.6	24382.7	851.7	24447.1	849.4	24580	851.8	24954.8	850.7
25376.8	851.5	25766.9	849.1	26041.1	851.9	26092.4	838.8	26122.2	840.3
26172.5	852.4	26236.4	850.7	26304.3	847.5	26675.2	848.9	26978.8	850.7
26993.1	846.9	27377.6	848.7	27756.4	847.9	28116.2	848.1	28225.9	848.7
28229.6	842.7	28241.3	842.5	28252.1	849.7	28374.2	847.2	28952.6	848.7
29347.5	852.6	29758.5	856.4	29973.3	856.6				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18408.6	.043	18994.3	.043	19343.8	.026	20556.6	.15	21005	.043
22428	.15	23051	.025	26236.4	.043	26978.8	.032		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19001.4423034.63		505	504.2	475	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18408.6	18829.4	855	23051	29973.3	855

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	848.82	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.62	Wt. n-Val.	0.000	0.036	0.000
E.G. Elev (ft)	849.44	Reach Len. (ft)	505.00	504.20	475.00
Crit W.S. (ft)	844.16	Flow Area (sq ft)	0.00	33280.43	0.00
E.G. Slope (ft/ft)	0.001151	Area (sq ft)	95.19	33280.43	2490.97
Q Total (cfs)	210000.00	Flow (cfs)	0.00	210000.00	0.00
Top Width (ft)	6354.23	Top Width (ft)	82.48	3831.71	2440.04
Vel Total (ft/s)	6.31	Avg. Vel. (ft/s)	0.05	6.31	0.01
Max Chl Dpth (ft)	18.72	Hydr. Depth (ft)	0.01	8.69	0.01
Conv. Total (cfs)	6189620.0	Conv. (cfs)	0.0	6189620.0	0.0
Length Wtd. (ft)	504.20	Wetted Per. (ft)	0.33	3876.81	0.07
Min Ch El (ft)	830.10	Shear (lb/sq ft)		0.62	
Alpha	1.00	Stream Power (lb/ft s)		3.89	
Frctn Loss (ft)	0.53	Cum Volume (acre-ft)	3207.61	20762.79	12106.87
C & E Loss (ft)	0.03	Cum SA (acres)	765.55	2188.15	2585.88

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	848.89	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.61	Wt. n-Val.		0.036	
E.G. Elev (ft)	849.50	Reach Len. (ft)	505.00	504.20	475.00
Crit W.S. (ft)	844.16	Flow Area (sq ft)		33546.84	
E.G. Slope (ft/ft)	0.001125	Area (sq ft)		33546.84	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	3832.54	Top Width (ft)		3832.54	
Vel Total (ft/s)	6.26	Avg. Vel. (ft/s)		6.26	

Max Chl Dpth (ft)	18.79	Hydr. Depth (ft)		8.75		
Conv. Total (cfs)	6260119.5	Conv. (cfs)		6260119.5		
Length Wtd. (ft)	504.20	Wetted Per. (ft)		3877.83		
Min Ch El (ft)	830.10	Shear (lb/sq ft)		0.61		
Alpha	1.00	Stream Power (lb/ft s)		3.80		
Frctn Loss (ft)	0.51	Cum Volume (acre-ft)	403.12	21938.55	7498.14	
C & E Loss (ft)	0.03	Cum SA (acres)	63.93	2190.39	1097.10	

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18961.92	19001.44	0.00	0.00	0.33	0.00	0.01	0.05
19001.44 LB	20009.74	84859.47	9226.59	1010.00	40.41	9.15	9.20
20009.74	21018.04	65005.86	8469.74	1010.69	30.96	8.40	7.68
21018.04	22026.33	46321.77	9279.57	1045.80	22.06	9.20	4.99
22026.33	23034.63 RB	13812.91	6304.53	810.32	6.58	7.81	2.19

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19001.44 LB	20009.74	84788.61	9296.69	1010.09	40.38	9.22	9.12
20009.74	21018.04	64950.16	8539.83	1010.69	30.93	8.47	7.61
21018.04	22026.33	46381.41	9349.67	1045.80	22.09	9.27	4.96
22026.33	23034.63 RB	13879.83	6360.65	811.25	6.61	7.88	2.18

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 183.96

INPUT
Description: Right Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18803.4	857.2	18900.5	853.7	18994	846.5	19100.4	846.1	19110.8	844.2
19223	847.4	19272.1	844.1	19297.9	844.7	19309.3	842.7	19320.5	836.2
19373.5	838.2	19378.2	835.9	19719.8	836.5	20170.5	837	20510.7	837.2
20522.5	844.1	20568.5	841.6	20916	840.2	20963.1	844.3	21017.4	839.9
21056.1	842.8	21270.9	843.2	21277.5	840.1	21315.4	831.7	21383.2	832.7
21397.3	841.5	21401.8	838.7	21405.7	830.7	21525.3	841.6	21537.8	834.8
21542.5	840.3	21580.7	841	21604.4	833.1	21614.1	840.1	21626.4	836.9
21658.7	836.6	21661.6	838.4	21684.8	837.6	21689.1	835.8	21702.4	837.8
22028.8	839.5	22070.3	839.9	22153.4	834.9	22238.2	838.7	22306.8	846.9
22413.6	844.8	22480.1	839.7	22618.8	842.3	22736.1	836.8	22835.1	840.6
22869.4	832.2	22900.9	833.9	22933.7	839.3	22983.3	836.8	23016.07	848.3315
23022.8	850.7	23359.9	850.4	23821.9	851.4	24009	850	24035.4	853.1
24066.9	851.7	24077.4	850.3	24173	850.9	24185.3	849.5	24534.2	850.2
24905.3	850.3	25050	848.9	25097.5	851.7	25105	848.6	25496	849.7
25738	850.7	25769.8	845.4	26147	846.4	26374.4	847.7	26423.5	850.7
26661.1	848.9	26770.7	853.2	27007.5	851.3	27028.7	848.7	27122.5	851.3
27137.7	846.6	27330.1	848.7	27718.2	848.1	28038.3	848	28220.2	849.4
28244.6	851.7	28247.3	847.8	28263.8	849.1	28265.5	845.7	28282.2	843.2
28288.3	848.5	28417.9	846.1	28776.8	848.6	29098.6	850	29484.6	851.9
29816.5	856	29976	857.3						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18803.4	.043	19223	.026	20522.5	.15	21270.9	.043	23022.8	.025
25738	.043	27007.5	.032	28244.6	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19223	23016.07	480	485.76	550	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23022.8	29976	855

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	848.35	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.53	Wt. n-Val.	0.043	0.036	0.000
E.G. Elev (ft)	848.88	Reach Len. (ft)	480.00	485.76	550.00
Crit W.S. (ft)	843.18	Flow Area (sq ft)	560.96	35826.41	0.00
E.G. Slope (ft/ft)	0.000953	Area (sq ft)	560.96	35826.41	2111.79
Q Total (cfs)	210000.00	Flow (cfs)	1016.49	208983.50	0.00
Top Width (ft)	5853.65	Top Width (ft)	253.09	3793.07	1807.49
Vel Total (ft/s)	5.77	Avg. Vel. (ft/s)	1.81	5.83	0.05
Max Chl Dpth (ft)	17.65	Hydr. Depth (ft)	2.22	9.45	0.01
Conv. Total (cfs)	6802775.5	Conv. (cfs)	32928.3	6769847.0	0.0
Length Wtd. (ft)	485.75	Wetted Per. (ft)	253.38	3822.49	0.07
Min Ch El (ft)	830.70	Shear (lb/sq ft)	0.13	0.56	
Alpha	1.02	Stream Power (lb/ft s)	0.24	3.25	
Frctn Loss (ft)	0.61	Cum Volume (acre-ft)	3203.81	20362.84	12081.77
C & E Loss (ft)	0.02	Cum SA (acres)	763.61	2144.02	2562.72

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	848.44	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.52	Wt. n-Val.	0.043	0.036	
E.G. Elev (ft)	848.95	Reach Len. (ft)	480.00	485.76	550.00
Crit W.S. (ft)	843.18	Flow Area (sq ft)	442.76	36131.30	
E.G. Slope (ft/ft)	0.000930	Area (sq ft)	442.76	36131.30	
Q Total (cfs)	210000.00	Flow (cfs)	865.05	209134.94	
Top Width (ft)	3966.07	Top Width (ft)	173.00	3793.07	
Vel Total (ft/s)	5.74	Avg. Vel. (ft/s)	1.95	5.79	
Max Chl Dpth (ft)	17.74	Hydr. Depth (ft)	2.56	9.53	
Conv. Total (cfs)	6886944.5	Conv. (cfs)	28369.3	6858575.0	
Length Wtd. (ft)	485.75	Wetted Per. (ft)	175.36	3822.60	
Min Ch El (ft)	830.70	Shear (lb/sq ft)	0.15	0.55	
Alpha	1.01	Stream Power (lb/ft s)	0.29	3.18	
Frctn Loss (ft)	0.59	Cum Volume (acre-ft)	400.56	21535.29	7498.14
C & E Loss (ft)	0.02	Cum SA (acres)	62.93	2146.26	1097.10

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18943.27	18971.24	0.01	0.07	1.33	0.00	0.05	0.14
18971.24	18999.21	34.96	31.99	28.04	0.02	1.14	1.09
18999.21	19027.19	83.55	53.91	27.97	0.04	1.93	1.55
19027.19	19055.16	91.28	56.85	27.97	0.04	2.03	1.61
19055.16	19083.13	99.29	59.79	27.97	0.05	2.14	1.66
19083.13	19111.11	137.86	72.98	28.15	0.07	2.61	1.89
19111.11	19139.08	253.03	104.82	27.98	0.12	3.75	2.41
19139.08	19167.05	169.78	82.50	27.98	0.08	2.95	2.06
19167.05	19195.03	100.37	60.19	27.99	0.05	2.15	1.67
19195.03	19223.00	46.37	37.87	27.98	0.02	1.35	1.22
19223.00 LB	20171.27	90386.71	10418.19	950.88	43.04	10.99	8.68
20171.27	21119.54	38675.49	8001.78	950.67	18.42	8.44	4.83
21119.54	22067.80	45123.04	9453.23	967.97	21.49	9.97	4.77
22067.80	23016.07 RB	34798.27	7953.20	952.97	16.57	8.39	4.38

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19027.19	19055.16	14.77	11.12	7.31	0.01	2.16	1.33
19055.16	19083.13	105.87	62.04	27.97	0.05	2.22	1.71
19083.13	19111.11	145.39	75.23	28.15	0.07	2.69	1.93
19111.11	19139.08	262.83	107.07	27.98	0.13	3.83	2.45
19139.08	19167.05	178.03	84.75	27.98	0.08	3.03	2.10
19167.05	19195.03	106.98	62.44	27.99	0.05	2.23	1.71
19195.03	19223.00	51.18	40.12	27.98	0.02	1.43	1.28
19223.00 LB	20171.27	90377.99	10494.42	950.88	43.04	11.07	8.61
20171.27	21119.54	38699.13	8078.01	950.67	18.43	8.52	4.79
21119.54	22067.80	45134.79	9529.45	967.97	21.49	10.05	4.74
22067.80	23016.07 RB	34923.03	8029.43	953.07	16.63	8.47	4.35

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 183.86

INPUT
Description:

Eliminate vertical ineffective area in main channel by coding out GR

data between and below sta, elev. 22848, 837.4 and 22913, 837.4

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18950.1	859.3	19063.3	846.7	19139.4	843.5	19212.4	844.5	19236.7	840.6
19251.1	841.4	19255.9	844.2	19341.6	843.2	19359.4	835.4	19598.5	836
19868.8	836.5	20087.5	836.8	20261.5	836.9	20497.7	837.2	20510.3	846.3
20596.9	841.4	20754.6	838.6	20915.2	839.5	21050.4	838.1	21077.9	841.8
21101.1	842.5	21120	837.4	21289.8	839.4	21328.1	842.9	21442.1	843
21466.6	838.7	21534.9	838.7	21604.7	831.5	21605.5	834.4	21608.9	837.3
21650.4	838.9	21660.4	835.2	21703.2	837.7	21706.4	836.5	21742.9	837.5
21756.9	835.1	21819.7	842.9	21823.3	844.7	22104.3	845.2	22226.5	846.3
22444.9	841.6	22507.4	841.8	22565.5	836.3	22654.4	839.4	22753	837.9
22829.9	842.4	22848	837.4	22913	837.4	22939	846.5	23166.7	850.2
23263.3	850.4	23307.9	848	23533.6	848.6	23751.3	849.5	23797.7	849.5
24014	849.5	24213.9	849.8	24223.2	851.4	24246.7	847.9	24485.9	848.7
24716	848.7	25041.2	848.6	25209.3	849.1	25255.8	850.3	25282.2	845.6
25527.8	847.3	25773.9	847.1	25906	849.7	25928.5	843.8	25981.4	846.2
26222.6	846.4	26464.7	847.3	26646	850	26865.4	849.8	27105.9	847.5
27283.6	849.9	27301.5	846.2	27582.7	847.7	27795.1	847.4	27851.1	848.9
27859.5	843	27869.8	841.7	27893.6	847.5	28137.4	847.2	28370.5	847.3
28591.4	847.2	28810.3	848.7	29098.8	850.5	29328.4	851.3	29616.2	852.9
29780.8	854.3	29909.9	857.2	29971.4	855.2	30220.7	856.7	30312.9	856.8
30357	859.1								

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18950.1	.043	19063.3	.043	19341.6	.026	20510.3	.15	21442.1	.043
22939	.025	25906	.043	27283.6	.032	28591.4	.025		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19063.3	22939	475	485.05	550	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23263.3	30357	855

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	847.49	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.75	Wt. n-Val.	0.043	0.036	0.025
E.G. Elev (ft)	848.25	Reach Len. (ft)	475.00	485.05	550.00
Crit W.S. (ft)	843.62	Flow Area (sq ft)	2.83	30128.81	30.42
E.G. Slope (ft/ft)	0.001729	Area (sq ft)	2.83	30128.81	1429.76
Q Total (cfs)	210000.00	Flow (cfs)	2.19	209950.63	47.18
Top Width (ft)	6125.54	Top Width (ft)	7.14	3875.70	2242.71
Vel Total (ft/s)	6.96	Avg. Vel. (ft/s)	0.77	6.97	1.55
Max Chl Dpth (ft)	15.99	Hydr. Depth (ft)	0.40	7.77	0.50
Conv. Total (cfs)	5050513.0	Conv. (cfs)	52.7	5049325.5	1134.7
Length Wtd. (ft)	485.06	Wetted Per. (ft)	7.18	3891.59	61.20
Min Ch El (ft)	831.50	Shear (lb/sq ft)	0.04	0.84	0.05
Alpha	1.00	Stream Power (lb/ft s)	0.03	5.82	0.08
Frctn Loss (ft)	1.08	Cum Volume (acre-ft)	3200.70	19995.09	12059.41
C & E Loss (ft)	0.03	Cum SA (acres)	762.17	2101.26	2537.15

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	847.61	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.73	Wt. n-Val.		0.036	
E.G. Elev (ft)	848.34	Reach Len. (ft)	475.00	485.05	550.00
Crit W.S. (ft)	843.62	Flow Area (sq ft)		30571.64	
E.G. Slope (ft/ft)	0.001659	Area (sq ft)		30571.64	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	3875.70	Top Width (ft)		3875.70	
Vel Total (ft/s)	6.87	Avg. Vel. (ft/s)		6.87	
Max Chl Dpth (ft)	16.11	Hydr. Depth (ft)		7.89	
Conv. Total (cfs)	5156182.5	Conv. (cfs)		5156182.5	
Length Wtd. (ft)	485.05	Wetted Per. (ft)		3893.61	
Min Ch El (ft)	831.50	Shear (lb/sq ft)		0.81	
Alpha	1.00	Stream Power (lb/ft s)		5.59	
Frctn Loss (ft)	1.02	Cum Volume (acre-ft)	398.12	21163.37	7498.14
C & E Loss (ft)	0.03	Cum SA (acres)	61.97	2103.50	1097.10

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19055.75	19063.30	2.19	2.83	7.18	0.00	0.40	0.77
19063.30 LB	20032.23	95792.16	8782.33	971.73	45.62	9.06	10.91
20032.23	21001.15	61590.29	8563.62	972.04	29.33	8.84	7.19
21001.15	21970.07	28354.51	7386.93	976.16	13.50	7.62	3.84
21970.07	22939.00 RB	24213.69	5395.93	971.66	11.53	5.57	4.49
22939.00	23433.53	47.18	30.42	61.20	0.02	0.50	1.55

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19063.30 LB	20032.23	95540.61	8893.04	972.64	45.50	9.18	10.74
20032.23	21001.15	61482.11	8674.32	972.04	29.28	8.95	7.09
21001.15	21970.07	28459.77	7497.64	976.16	13.55	7.74	3.80
21970.07	22939.00 RB	24517.51	5506.64	972.77	11.68	5.68	4.45

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 183.77

INPUT
Description:

Eliminate vertical ineffective area in rt. overbank by coding out GR

data between and below sta, elev. 22803, 837.4 and 22875.3, 837.4

Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18950.7	859.4	18976.9	859	19031.6	854.5	19101.1	846.2	19160.1	847.1
19179.66	845.98	19209	844.3	19227.3	839.1	19259.4	844.8	19284.5	846
19327.3	841.7	19363.9	841.4	19379.9	834.8	19585.7	835.3	19741.8	835.5
20095.2	836.2	20236.9	836.6	20441.2	837.1	20465.1	840.2	20475.7	844.4
20510.7	845.9	20607.7	842.2	20802	841.1	21080.6	840.6	21173.2	840.1
21218.7	840.6	21255.2	835.2	21339.6	837.7	21358.3	836.9	21378.2	840.2
21435.2	836.3	21492.4	840.2	21549.2	836	21596.2	835.7	21611.2	833
21658.7	834.2	21689.9	837.3	21795.9	834.8	21803.9	839.8	21818.5	841.4

21871.8	839.1	21889.5	836.4	21894	841.5	21945.9	840.2	22036	843.9
22123	844.8	22148.6	847.2	22312.4	846.5	22350.9	848.4	22417.3	846.3
22588	849.6	22640.2	835.9	22791	840.9	22803	837.4	22875	837.4
22942.2	837.5	23107.1	1845.9799	23107.5	846	23339.9	847.6	23555.1	849.3
23871.6	847.8	24084.4	847.6	24318.2	847.4	24478.3	849.7	24519.8	847.8
24728.9	847.8	24950.3	846.7	25123.7	849.1	25344.2	848.7	25588.7	847.9
25802.8	846.5	25986	847	26026.1	844.2	26069	847.8	26104.2	846.2
26412.3	846.7	26744.6	846.6	27006.3	846.6	27274.6	846.5	27421.3	849.3
27432.3	842.9	27440.1	842.9	27457.1	848.5	27572.5	845.7	27872.7	846.3
28074.8	846.5	28275	847.5	28491.2	847.8	28692	848.6	28714.3	848.4
28720	849.8	28988.1	850.5	29206.3	851.7	29464.5	852.3	29764.6	854
29983.9	854.2	30151.4	857.1						

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18950.7	.043	19160.1	.043	19363.9	.026	20510.7	.15	21492.4	.043
22588	.15	22875	.065	23339.9	.065	26069	.025		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19179.66	23107.11	515	511.32	540	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23555.1	30151.4	855

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	846.05	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.09	Wt. n-Val.	0.043	0.038	0.065
E.G. Elev (ft)	847.13	Reach Len. (ft)	515.00	511.32	540.00
Crit W.S. (ft)	843.30	Flow Area (sq ft)	0.04	25098.27	0.18
E.G. Slope (ft/ft)	0.002982	Area (sq ft)	0.04	25098.27	125.53
Q Total (cfs)	210000.00	Flow (cfs)	0.01	209999.97	0.02
Top Width (ft)	3729.46	Top Width (ft)	1.16	3462.21	266.09
Vel Total (ft/s)	8.37	Avg. Vel. (ft/s)	0.20	8.37	0.11
Max Chl Dpth (ft)	13.05	Hydr. Depth (ft)	0.03	7.25	0.03
Conv. Total (cfs)	3845801.0	Conv. (cfs)	0.1	3845800.5	0.4
Length Wtd. (ft)	511.32	Wetted Per. (ft)	1.17	3474.08	7.16
Min Ch El (ft)	833.00	Shear (lb/sq ft)	0.01	1.34	0.00
Alpha	1.00	Stream Power (lb/ft s)	0.00	11.25	0.00
Frctn Loss (ft)	1.31	Cum Volume (acre-ft)	3200.69	19687.61	12049.59
C & E Loss (ft)	0.10	Cum SA (acres)	762.13	2060.40	2521.31

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	846.27	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.02	Wt. n-Val.		0.038	
E.G. Elev (ft)	847.30	Reach Len. (ft)	515.00	511.32	540.00
Crit W.S. (ft)	843.30	Flow Area (sq ft)		25881.56	
E.G. Slope (ft/ft)	0.002736	Area (sq ft)		25881.56	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	3465.48	Top Width (ft)		3465.48	
Vel Total (ft/s)	8.11	Avg. Vel. (ft/s)		8.11	
Max Chl Dpth (ft)	13.27	Hydr. Depth (ft)		7.47	
Conv. Total (cfs)	4015125.3	Conv. (cfs)		4015125.3	
Length Wtd. (ft)	511.32	Wetted Per. (ft)		3477.98	
Min Ch El (ft)	833.00	Shear (lb/sq ft)		1.27	
Alpha	1.00	Stream Power (lb/ft s)		10.31	
Frctn Loss (ft)	1.19	Cum Volume (acre-ft)	398.12	20849.06	7498.14
C & E Loss (ft)	0.09	Cum SA (acres)	61.97	2062.63	1097.10

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19164.40	19179.66	0.01	0.04	1.17	0.00	0.03	0.20
19179.66 LB	20161.52	124258.52	8815.00	984.69	59.17	8.98	14.10

20161.52	21143.38	39787.96	5695.16	982.97	18.95	5.80	6.99
21143.38	22125.25	36743.56	7239.91	987.63	17.50	7.37	5.08
22125.25	23107.11 RB	9209.93	3348.19	518.78	4.39	6.48	2.75
23107.11	23576.73	0.02	0.18	7.16	0.00	0.03	0.11

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19179.66 LB	20161.52	123552.66	9037.04	984.99	58.83	9.20	13.67
20161.52	21143.38	40044.85	5917.19	982.97	19.07	6.03	6.77
21143.38	22125.25	37055.09	7461.95	987.63	17.65	7.60	4.97
22125.25	23107.11 RB	9347.39	3465.39	522.39	4.45	6.67	2.70

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 183.67

INPUT
Description:

Eliminate vertical ineffective area in rt. overbank by coding out GR

data between and below sta, elev. 22775, 837.4 and 23039, 837.4

Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19177.2	859.7	19207.6	849.8	19240.75	844.8	19275.3	839.7	19323.2	840.1
19335.5	834.4	19488.6	835.5	19644.5	835.3	19855.7	835.8	20026.6	835.3
20097.8	835.3	20489.8	835.6	20496.6	844.4	20571.2	840.9	20775.1	839.9
20913.9	838.2	21090.2	837.1	21248.9	837.6	21288.3	836.9	21332.1	827.2
21381.1	831.4	21404.9	836.7	21421	837	21451.2	830.1	21497.7	828.5
21518.7	830.6	21645.2	830.7	21692	834.3	21877.5	835.3	21921.3	837.2
22090.9	834.8	22133.5	835.3	22181.9	842.9	22339.2	845.3	22410.1	844.5
22478.5	847.8	22652	847.4	22701	848.1	22722.3	839.2	22764.4	840
22775	837.4	23039	837.4	23129.8	838.2	23224.4	843.5	23317.77	844.854
23383	845.8	23585.8	848.6	23684.8	848.7	23747.5	847.2	23816.2	850
23824.3	846.1	23907.2	849.2	24061	848.7	24189.1	850	24412.5	848.4
24506.1	847	24659.7	847.9	24760.5	847.3	24856.7	844.3	25023.9	847.8
25107.4	849.2	25321.7	848.1	25536.8	846.8	25691.6	846.9	25785.3	847
25824.4	844.5	25978.3	848.4	26152.2	847.1	26180	849	26226.9	846.3
26395	846.8	26582.5	846.8	26740	846.8	26859.1	846.7	27093.6	846.2
27251.2	846.7	27401.9	845.7	27472	846.1	27554.8	848.3	27565.4	842.8
27572.2	842.7	27586.5	847	27780.4	846.1	27970.5	846.7	28200.4	847
28315	847	28471	847.3	28643.1	848.1	28814.2	848.3	28854.8	849.6
28861.3	851.1	29072.8	851.1	29229.5	852	29268.3	852	29428.2	852.1
29691.1	854.2	29892.1	855	29923	855.2				

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
19177.2	.026	19207.6	.026	20496.6	.15	21421	.043	22701	.15
23383	.065	26180	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19240.75	23317.77	475	489.05	585	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23585.8	29923	855

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft) 844.96 Element Left OB Channel Right OB

Vel Head (ft)	0.77	Wt. n-Val.	0.026	0.040	0.150
E.G. Elev (ft)	845.73	Reach Len. (ft)	475.00	489.05	585.00
Crit W.S. (ft)	841.05	Flow Area (sq ft)	0.04	29816.28	0.39
E.G. Slope (ft/ft)	0.002219	Area (sq ft)	0.04	29816.28	51.66
Q Total (cfs)	210000.00	Flow (cfs)	0.01	209999.95	0.03
Top Width (ft)	3840.39	Top Width (ft)	0.71	3735.78	103.90
Vel Total (ft/s)	7.04	Avg. Vel. (ft/s)	0.38	7.04	0.07
Max Chl Dpth (ft)	17.76	Hydr. Depth (ft)	0.05	7.98	0.05
Conv. Total (cfs)	4458385.5	Conv. (cfs)	0.3	4458384.5	0.5
Length Wtd. (ft)	489.05	Wetted Per. (ft)	0.72	3747.05	7.33
Min Ch El (ft)	827.20	Shear (lb/sq ft)	0.01	1.10	0.01
Alpha	1.00	Stream Power (lb/ft s)	0.00	7.76	0.00
Frctn Loss (ft)	0.85	Cum Volume (acre-ft)	3200.69	19365.30	12048.50
C & E Loss (ft)	0.04	Cum SA (acres)	762.12	2018.16	2519.02

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	845.31	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.71	Wt. n-Val.		0.040	
E.G. Elev (ft)	846.01	Reach Len. (ft)	475.00	489.05	585.00
Crit W.S. (ft)	841.05	Flow Area (sq ft)		31120.66	
E.G. Slope (ft/ft)	0.001994	Area (sq ft)		31120.66	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	3796.15	Top Width (ft)		3796.15	
Vel Total (ft/s)	6.75	Avg. Vel. (ft/s)		6.75	
Max Chl Dpth (ft)	18.11	Hydr. Depth (ft)		8.20	
Conv. Total (cfs)	4702886.0	Conv. (cfs)		4702886.0	
Length Wtd. (ft)	489.05	Wetted Per. (ft)		3808.41	
Min Ch El (ft)	827.20	Shear (lb/sq ft)		1.02	
Alpha	1.00	Stream Power (lb/ft s)		6.86	
Frctn Loss (ft)	0.75	Cum Volume (acre-ft)	398.12	20514.51	7498.14
C & E Loss (ft)	0.04	Cum SA (acres)	61.97	2020.01	1097.10

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19236.51	19240.75	0.01	0.04	0.72	0.00	0.05	0.38
19240.75 LB	20260.00	107260.64	9293.35	1020.90	51.08	9.12	11.54
20260.00	21279.26	32540.36	6855.68	1023.68	15.50	6.73	4.75
21279.26	22298.52	65195.29	10213.29	1022.80	31.05	10.02	6.38
22298.52	23317.77 RB	5003.65	3453.96	679.67	2.38	5.09	1.45
23317.77	23758.12	0.03	0.39	7.33	0.00	0.05	0.07

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19240.75 LB	20260.00	107169.33	9646.33	1021.35	51.03	9.46	11.11
20260.00	21279.26	32718.13	7208.66	1023.68	15.58	7.07	4.54
21279.26	22298.52	64900.14	10566.27	1022.80	30.90	10.37	6.14
22298.52	23317.77 RB	5212.41	3699.40	740.58	2.48	5.01	1.41

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 183.58

INPUT
Description:

Eliminate vertical ineffective area in rt. overbank by coding out GR

data betweeen and below sta, elev. 22975, 837.4 and

23302, 837.4

Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18803.8	856.6	18956.4	846	18987.2	846.9	19022.8	844.7	19184.3	848
19220.9	844.7	19221.92	844.0661	19224.6	842.4	19251.2	838.4	19284.1	838.2
19293.7	833	19483.8	833.8	19732.9	834	19755.6	834	19926	834.2
20162.4	834.7	20290.7	835.4	20468.8	835.4	20476.1	841.9	20560.9	840.3
20794.2	838.3	20868.1	837.6	21084.3	835.6	21271.9	835.6	21325.1	828.8
21345.6	830.2	21369.5	827.3	21417.4	830.3	21522.9	827.6	21725.3	830.7
21760.5	834.7	21981.9	837.2	22210	834.3	22348.9	835	22469	844.2
22659.7	847.2	22828.6	847.2	22874.4	846.7	22938.4	839.1	22975	837.4
23302	837.4	23434.8	843.7	23485.2	843.2	23499.93	844.0654	23563.5	847.8
23687.6	847.4	23810.4	850.4	23885.2	843.1	23933	848.3	23972.5	847.2
24146.1	846.8	24345.2	847.9	24517.5	848.5	24723.2	847.9	24876.5	845.1
25047.1	847	25223.6	845.7	25396.1	844.8	25451.6	843.7	25518	846.3
25684	845.4	25910.7	848.2	26041.4	849.3	26214.4	848.2	26278.3	846.7
26331.5	848.6	26349.4	846	26540	845.9	26729.8	846.9	26733.6	846.9
26926.9	846.4	27155.8	845.8	27362.8	846.9	27552.1	846.9	27692.4	846.2
27702.6	840.7	27710.9	841.2	27723.6	848.5	27774.8	845.6	27949.6	846.4
28228.2	846.6	28260.3	846.7	28463.3	847	28646.6	847.4	28834.8	848.2
29006.1	848.6	29175.9	851	29265.7	851.7	29487.9	854.4	29608.6	854.3
29814.3	854.3	29843.1	854.6	30028.7	855.4	30294	855.8	30328.3	857.2
30344.4	859	30376.1	858.8						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18803.8	.032	19184.3	.026	20476.1	.15	21271.9	.043	22659.7	.15
22975	.065	23563.5	.065	26331.5	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19221.92	23499.93	495	493.31	545	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23810.4	30376.1	855

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	844.21	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.63	Wt. n-Val.	0.026	0.038	0.065
E.G. Elev (ft)	844.84	Reach Len. (ft)	495.00	493.31	545.00
Crit W.S. (ft)	839.72	Flow Area (sq ft)	0.02	33017.86	0.17
E.G. Slope (ft/ft)	0.001401	Area (sq ft)	0.02	33017.86	68.30
Q Total (cfs)	210000.00	Flow (cfs)	0.01	209999.97	0.03
Top Width (ft)	3935.12	Top Width (ft)	0.23	3852.19	82.70
Vel Total (ft/s)	6.36	Avg. Vel. (ft/s)	0.33	6.36	0.15
Max Chl Dpth (ft)	16.91	Hydr. Depth (ft)	0.07	8.57	0.07
Conv. Total (cfs)	5610116.0	Conv. (cfs)	0.1	5610115.0	0.7
Length Wtd. (ft)	493.90	Wetted Per. (ft)	0.27	3858.74	2.45
Min Ch El (ft)	827.30	Shear (lb/sq ft)	0.01	0.75	0.01
Alpha	1.00	Stream Power (lb/ft s)	0.00	4.76	0.00
Frctn Loss (ft)	0.63	Cum Volume (acre-ft)	3200.69	19012.58	12047.69
C & E Loss (ft)	0.05	Cum SA (acres)	762.11	1975.56	2517.76

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	844.65	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.57	Wt. n-Val.		0.038	
E.G. Elev (ft)	845.22	Reach Len. (ft)	495.00	493.31	545.00
Crit W.S. (ft)	839.72	Flow Area (sq ft)		34739.95	
E.G. Slope (ft/ft)	0.001217	Area (sq ft)		34739.95	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	3884.24	Top Width (ft)		3884.24	
Vel Total (ft/s)	6.04	Avg. Vel. (ft/s)		6.04	
Max Chl Dpth (ft)	17.35	Hydr. Depth (ft)		8.94	
Conv. Total (cfs)	6019169.0	Conv. (cfs)		6019169.0	
Length Wtd. (ft)	493.31	Wetted Per. (ft)		3891.99	
Min Ch El (ft)	827.30	Shear (lb/sq ft)		0.68	
Alpha	1.00	Stream Power (lb/ft s)		4.10	
Frctn Loss (ft)	0.56	Cum Volume (acre-ft)	398.12	20144.80	7498.14
C & E Loss (ft)	0.04	Cum SA (acres)	61.97	1976.89	1097.10

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19194.04	19221.92	0.01	0.02	0.27	0.00	0.07	0.33
19221.92 LB	20291.42	101240.52	10446.34	1071.60	48.21	9.77	9.69
20291.42	21360.93	29118.62	7903.83	1072.61	13.87	7.39	3.68
21360.93	22430.43	72152.78	11523.28	1070.22	34.36	10.77	6.26
22430.43	23499.93 RB	7488.05	3144.40	644.31	3.57	4.89	2.38
23499.93	23958.34	0.03	0.17	2.45	0.00	0.07	0.15

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19221.92 LB	20291.42	101119.69	10922.48	1072.19	48.15	10.21	9.26
20291.42	21360.93	29316.37	8379.97	1072.61	13.96	7.84	3.50
21360.93	22430.43	71604.16	11999.42	1070.22	34.10	11.22	5.97
22430.43	23499.93 RB	7959.77	3438.09	676.98	3.79	5.09	2.32

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 183.49

INPUT
Description:

Eliminate vertical ineffective area in rt. overbank by coding out GR

data between and below sta, elev. 23182, 837.4 and 23245, 837.4

Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19103.6	854.9	19115	853.2	19120.8	854.9	19165.9	855	19172.1	850
19202.77	843.5394	19213.4	841.3	19239.5	839.8	19251.6	831.5	19469.6	832.1
19700	832.8	20348.6	835	20453.8	835.2	20474.2	842.9	20575	838.7
20749	836.5	20899.4	832.6	21092.4	833.7	21255.1	833.9	21357.4	826.9
21425.8	829.2	21549.6	827.1	21710.3	831.4	21776.5	832.7	21876.9	830.7
21922.2	834.5	22033.6	834.4	22112.1	837.4	22251.1	834.4	22481.3	832.6
22673.8	840.1	22751.2	846.1	22803.7	846.3	22872.2	837.5	23060	836.1
23167.7	842.9	23179	839.1	23182	837.4	23245	837.4	23250.3	838
23299	839.5	23457.4	837.4	23549.5	835.8	23644.3	841.32	3666.04	843.5378
23691.9	846.2	23741.3	845.7	23790.2	847.4	23812.7	846.2	23921.2	846.5
24016.2	845.1	24069	849.4	24093.1	847.9	24256.4	846.4	24440.3	847.1
24621.3	846.8	24803.9	846.2	24970.6	843.6	25139.1	846.5	25341.7	843.6
25526.3	845.9	25630.9	847.7	25912	847.7	26140	847.5	26300.8	847.4
26418.2	844.7	26464	847.2	26483.7	845.2	26657.2	845.7	26821.3	846.1
27082.7	846.3	27264.6	846.1	27368.9	845.8	27524.9	846.3	27682.8	846
27738.7	846	27746.5	844.6	27791.5	847.1	27825.5	847	27837.4	839.7
27844.8	840.5	27858.9	846.6	27888.5	844.2	28040.9	845.6	28096.5	845.9
28247	846.2	28496.1	846.7	28688.6	847.8	28819.8	848.3	28979.6	848.4
29133.7	848.4	29140.6	851.2	29234.8	851	29412.6	851.8	29685.6	853.4
29784.3	854.1	29938	854.8	29985.3	855				

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
19103.6	.026	19120.8	.026	20474.2	.15	21425.8	.043	22751.2	.15
23299	.065	23691.9	.065	26464	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19202.77	23299	510	506.57	525	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23691.9	29985.3	850

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	843.70	Element			
Vel Head (ft)	0.46	Wt. n-Val.	0.026	0.042	0.065
E.G. Elev (ft)	844.16	Reach Len. (ft)	510.00	506.57	525.00
Crit W.S. (ft)	838.31	Flow Area (sq ft)	0.06	37450.50	2001.11
E.G. Slope (ft/ft)	0.001166	Area (sq ft)	0.06	37450.50	2053.91
Q Total (cfs)	210000.00	Flow (cfs)	0.02	205177.92	4822.05
Top Width (ft)	4409.96	Top Width (ft)	0.75	3992.50	416.71
Vel Total (ft/s)	5.32	Avg. Vel. (ft/s)	0.36	5.48	2.41
Max Chl Dpth (ft)	16.80	Hydr. Depth (ft)	0.08	9.38	5.43
Conv. Total (cfs)	6150436.0	Conv. (cfs)	0.6	6009208.0	141227.2
Length Wtd. (ft)	507.07	Wetted Per. (ft)	0.77	3999.58	368.91
Min Ch El (ft)	826.90	Shear (lb/sq ft)	0.01	0.68	0.39
Alpha	1.04	Stream Power (lb/ft s)	0.00	3.73	0.95
Frctn Loss (ft)	0.50	Cum Volume (acre-ft)	3200.69	18613.56	12034.41
C & E Loss (ft)	0.02	Cum SA (acres)	762.11	1931.14	2514.64

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	844.19	Element			
Vel Head (ft)	0.44	Wt. n-Val.		0.042	
E.G. Elev (ft)	844.63	Reach Len. (ft)	510.00	506.57	525.00
Crit W.S. (ft)	838.30	Flow Area (sq ft)		39405.12	
E.G. Slope (ft/ft)	0.001044	Area (sq ft)		39405.12	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	4002.61	Top Width (ft)		4002.61	
Vel Total (ft/s)	5.33	Avg. Vel. (ft/s)		5.33	
Max Chl Dpth (ft)	17.29	Hydr. Depth (ft)		9.84	
Conv. Total (cfs)	6500342.5	Conv. (cfs)		6500342.5	
Length Wtd. (ft)	506.57	Wetted Per. (ft)		4015.08	
Min Ch El (ft)	826.90	Shear (lb/sq ft)		0.64	
Alpha	1.00	Stream Power (lb/ft s)		3.41	
Frctn Loss (ft)	0.45	Cum Volume (acre-ft)	398.12	19724.96	7498.14
C & E Loss (ft)	0.01	Cum SA (acres)	61.97	1932.23	1097.10

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19196.16	19202.77	0.02	0.06	0.77	0.00	0.08	0.36
19202.77 LB	20226.83	97967.63	10649.48	1026.91	46.65	10.40	9.20
20226.83	21250.88	25228.79	8417.91	1025.62	12.01	8.22	3.00
21250.88	22274.94	62130.50	12147.64	1024.69	29.59	11.86	5.11
22274.94	23299.00 RB	19851.02	6235.46	922.36	9.45	6.78	3.18
23299.00	23744.75	4822.05	2001.11	368.91	2.30	5.43	2.41

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19202.77 LB	20226.83	100072.77	11150.19	1027.56	47.65	10.89	8.97
20226.83	21250.88	26262.85	8918.62	1025.62	12.51	8.71	2.94
21250.88	22274.94	63012.62	12648.36	1024.69	30.01	12.35	4.98
22274.94	23299.00 RB	20651.77	6687.93	937.21	9.83	7.19	3.09

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 183.39

INPUT
Description: Left Bank Station Interpolated

Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19042.7	856.8	19063.5	852.4	19103.7	847.4	19122.62	843.0379	19139.7	839.1
19174.5	837.8	19184.5	831.5	19368.6	831.5	19762.7	831.5	20461.8	834
20475.2	840.7	20535.5	835.6	20713.9	835.5	20874.2	834.4	20912.4	834.1
21094.4	835.4	21270.7	834.8	21300.9	836.7	21345.5	827.4	21502.6	826.9
21643.5	830.7	21761.1	830.7	21929.9	833.5	22059.3	830.8	22119.4	835.3
22246.5	836	22396.8	834.3	22437.8	834.8	22489	827	22522.2	828.5
22578.3	837.4	22704.1	833.7	22799.8	830.6	22843.2	830.9	22966	839.3
23038.5	839.2	23188.4	841.6	23248.3	843.1	23310.5	837.3	23478.1	837.8
23707.6	837.9	23806.9	837.8	23857.1	844.7	23936	843.5	24006.2	844.6
24069.2	843.4	24111	847.9	24172	845.9	24369.7	846.1	24480	845.5
24615.5	846.4	24840.4	843.8	24861.5	843.7	24992.7	841.7	24998.6	841.6
25170.5	842	25301.3	846.9	25427	847.6	25579.9	846.6	25663.4	846.5
25831	845.8	25949.2	845.6	26124.8	845.4	26353	847.4	26484.7	846.4
26615.8	844.8	26642.6	844.6	26802	843.6	27008.2	844.8	27240.4	844.5
27284.5	844.7	27430.4	844.7	27646.3	844.8	27852.8	844.2	27884	844.1
27887.5	845.4	27958.1	846.6	27966.4	839.9	27978.4	840.8	27994.8	845.6
28041.8	844.3	28232.5	845.4	28405.5	845.5	28482.3	845.7	28680.5	846.4
28711.4	846.6	28953.2	848	29091.6	849.6	29104	849.7	29232.2	849.6
29269.8	852.6	29318.5	851	29451.8	852.2	29514.6	852.6	29714.8	853
29898.2	854.2	29989	854.7						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
19042.7	.026	19103.7	.026	20475.2	.15	21300.9	.043	22246.5	.065
22966	.065	26802	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19122.62	22966	495	492.34	530	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23857.1	29989	850

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	843.24	Element			
Vel Head (ft)	0.40	Wt. n-Val.	0.026	0.039	0.065
E.G. Elev (ft)	843.64	Reach Len. (ft)	495.00	492.34	530.00
Crit W.S. (ft)	837.41	Flow Area (sq ft)	0.09	39346.15	3791.77
E.G. Slope (ft/ft)	0.000830	Area (sq ft)	0.09	39346.15	4199.09
Q Total (cfs)	210000.00	Flow (cfs)	0.03	203392.88	6607.10
Top Width (ft)	5061.24	Top Width (ft)	0.88	3843.38	1216.98
Vel Total (ft/s)	4.87	Avg. Vel. (ft/s)	0.35	5.17	1.74
Max Chl Dpth (ft)	16.34	Hydr. Depth (ft)	0.10	10.24	4.31
Conv. Total (cfs)	7288801.5	Conv. (cfs)	1.1	7059477.5	229322.9
Length Wtd. (ft)	493.50	Wetted Per. (ft)	0.90	3850.51	881.17
Min Ch El (ft)	826.90	Shear (lb/sq ft)	0.01	0.53	0.22
Alpha	1.10	Stream Power (lb/ft s)	0.00	2.74	0.39
Frctn Loss (ft)	0.36	Cum Volume (acre-ft)	3200.69	18167.02	11996.73
C & E Loss (ft)	0.01	Cum SA (acres)	762.10	1885.58	2504.80

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	843.77	Element			
Vel Head (ft)	0.40	Wt. n-Val.		0.040	
E.G. Elev (ft)	844.17	Reach Len. (ft)	495.00	492.34	530.00
Crit W.S. (ft)	837.43	Flow Area (sq ft)		41375.98	
E.G. Slope (ft/ft)	0.000756	Area (sq ft)		41375.98	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	3843.38	Top Width (ft)		3843.38	
Vel Total (ft/s)	5.08	Avg. Vel. (ft/s)		5.08	
Max Chl Dpth (ft)	16.87	Hydr. Depth (ft)		10.77	
Conv. Total (cfs)	7639257.5	Conv. (cfs)		7639257.5	
Length Wtd. (ft)	492.34	Wetted Per. (ft)		3855.71	
Min Ch El (ft)	826.90	Shear (lb/sq ft)		0.51	
Alpha	1.00	Stream Power (lb/ft s)		2.57	
Frctn Loss (ft)	0.32	Cum Volume (acre-ft)	398.12	19255.25	7498.14
C & E Loss (ft)	0.01	Cum SA (acres)	61.97	1886.61	1097.10

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19117.29	19122.62	0.03	0.09	0.90	0.00	0.10	0.35
19122.62 LB	20083.46	86810.96	10660.49	963.14	41.34	11.09	8.14
20083.46	21044.31	33714.32	8326.24	962.65	16.05	8.67	4.05
21044.31	22005.15	52978.33	11272.48	961.96	25.23	11.73	4.70
22005.15	22966.00 RB	29889.26	9086.95	962.76	14.23	9.46	3.29
22966.00	23434.20	2519.29	1669.80	468.51	1.20	3.57	1.51
23434.20	23902.40	4087.81	2121.98	412.66	1.95	5.15	1.93

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19122.62 LB	20083.46	89493.39	11167.95	963.87	42.62	11.62	8.01
20083.46	21044.31	35236.31	8833.70	962.65	16.78	9.19	3.99
21044.31	22005.15	54115.28	11779.93	961.96	25.77	12.26	4.59
22005.15	22966.00 RB	31155.01	9594.41	967.23	14.84	9.99	3.25

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 183.3

INPUT
Description:

Eliminate vertical ineffective area in main channel by coding out GR

data between and below sta, elev. 20514, 836.1 and 21640, 836.1

Station Elevation Data num= 93

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18650.1	852.5	18737	848.6	18790.5	848.7	18860.2	844.5	18924	842.4
18984.3	843.4	19015.1	837.2	19030.9	836.5	19042.3	829.9	19242.1	831.1
19338.5	831.4	19507.2	831.4	19706.6	831.4	19796.9	831.4	20183.3	831.4
20330.4	831.4	20473.4	831.4	20491.2	838.7	20514	836.1	21340	836.1
21350.5	836.5	21478.8	827.6	21541.6	827.7	21559.9	830.5	21582.2	828.2
21636.7	828.5	21831.2	827.7	21967.6	829	22136.5	830.5	22286.8	830.1
22359.9	833.8	22396.1	827	22420.3	825.7	22426.1	831.3	22427	833.6
22532.5	834.6	22720.9	831.6	22826	832	22879	840.9	23112.3	846.5
23223	846.6	23267.1	839.8	23297.9	838.9	23333.5	835.7	23500.6	835.7
23696.1	837.8	23884.7	839.9	23988.8	847.1	24126	843.9	24172.2	848.2
24390.6	845.7	24536.4	846.3	24590.8	846.6	24819.6	842.1	24977.9	842.1
25137	845.4	25262.8	842.6	25345.4	843.3	25346.1	846	25392.7	844.6
25419	846.1	25429.9	841.1	25433.1	843.4	25460.3	841.3	25646.2	843.2
25885	843.4	26124.3	842.8	26176.6	841.8	26431	841.7	26651.7	840.9
26730.8	841.9	26740.6	844.4	26779.1	841.1	27033.6	842.1	27238.2	841.8
27424.6	841.7	27642.9	841.8	27838.7	842.3	27992.1	841.8	28066.4	843.9
28090.2	846.2	28111.4	843.8	28119.5	840.5	28132.5	841.8	28143.5	845.8
28359.1	844.8	28594.5	846.2	28607.6	846.3	28836.9	847.3	29046.5	848.6
29230.9	849.7	29380.8	850.3	29458.5	853				

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18650.1	.026	18984.3	.026	20491.2	.15	21559.9	.043	22532.5	.065
22879	.065	25419	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18984.3	22879	510	499.99	495	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23988.8	29458.5	850

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	842.91	Element	Left OB	Channel	Right OB

Vel Head (ft)	0.36	Wt. n-Val.	0.026	0.038	0.065
E.G. Elev (ft)	843.27	Reach Len. (ft)	510.00	499.99	495.00
Crit W.S. (ft)	836.63	Flow Area (sq ft)	11.89	41641.96	3666.73
E.G. Slope (ft/ft)	0.000640	Area (sq ft)	11.89	41641.96	6168.07
Q Total (cfs)	210000.00	Flow (cfs)	6.93	203685.08	6307.99
Top Width (ft)	7129.14	Top Width (ft)	46.43	3892.28	3190.44
Vel Total (ft/s)	4.63	Avg. Vel. (ft/s)	0.58	4.89	1.72
Max Chl Dpth (ft)	17.21	Hydr. Depth (ft)	0.26	10.70	4.79
Conv. Total (cfs)	8304024.0	Conv. (cfs)	273.9	8054313.5	249436.8
Length Wtd. (ft)	499.74	Wetted Per. (ft)	46.44	3902.25	765.70
Min Ch El (ft)	825.70	Shear (lb/sq ft)	0.01	0.43	0.19
Alpha	1.08	Stream Power (lb/ft s)	0.01	2.08	0.33
Frctn Loss (ft)	0.29	Cum Volume (acre-ft)	3200.62	17709.33	11933.66
C & E Loss (ft)	0.02	Cum SA (acres)	761.83	1841.86	2477.98

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	843.47	Element			
Vel Head (ft)	0.36	Wt. n-Val.		0.038	
E.G. Elev (ft)	843.83	Reach Len. (ft)	510.00	499.99	495.00
Crit W.S. (ft)	836.60	Flow Area (sq ft)		43833.32	
E.G. Slope (ft/ft)	0.000581	Area (sq ft)		43833.32	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	3894.70	Top Width (ft)		3894.70	
Vel Total (ft/s)	4.79	Avg. Vel. (ft/s)		4.79	
Max Chl Dpth (ft)	17.77	Hydr. Depth (ft)		11.25	
Conv. Total (cfs)	8712377.0	Conv. (cfs)		8712377.0	
Length Wtd. (ft)	499.99	Wetted Per. (ft)		3907.37	
Min Ch El (ft)	825.70	Shear (lb/sq ft)		0.41	
Alpha	1.00	Stream Power (lb/ft s)		1.95	
Frctn Loss (ft)	0.28	Cum Volume (acre-ft)	398.12	18773.71	7498.14
C & E Loss (ft)	0.01	Cum SA (acres)	61.97	1842.88	1097.10

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18895.18	18917.46	0.48	1.34	9.02	0.00	0.15	0.36
18917.46	18939.74	5.84	8.65	22.29	0.00	0.39	0.68
18939.74	18962.02	0.60	1.90	15.14	0.00	0.13	0.32
18962.02	18984.30						
18984.30 LB	19957.98	80185.25	11023.11	973.61	38.18	11.35	7.27
19957.98	20931.65	46929.76	9044.25	975.26	22.35	9.29	5.19
20931.65	21905.32	32341.26	10534.35	974.33	15.40	10.82	3.07
21905.32	22879.00 RB	44228.81	11040.23	979.05	21.06	11.34	4.01
22879.00	23317.63	292.09	322.11	154.89	0.14	2.08	0.91
23317.63	23756.27	5363.23	2800.35	438.71	2.55	6.38	1.92
23756.27	24194.90	652.67	544.26	172.09	0.31	3.16	1.20

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18984.30 LB	19957.98	82725.12	11570.51	976.16	39.39	11.88	7.15
19957.98	20931.65	48631.24	9592.24	975.26	23.16	9.85	5.07
20931.65	21905.32	33073.24	11082.34	974.33	15.75	11.38	2.98
21905.32	22879.00 RB	45570.42	11588.22	981.63	21.70	11.90	3.93

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 183.2

INPUT
Description:

Eliminate vertical ineffective area in main channel by coding out GR

data between and below sta, elev. 20601.9, 836.1 and
21564.1, 836.1

Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18453.2	852.4	18565.5	851.3	18716.2	844.5	18757.1	839.5	18781.7	840.8
18802.4	845.1	18860.7	847.7	18903.8	844.5	18909.1	3842.4	376 18920.6	838
18934.1	829.7	19096.8	829.8	19283.6	830.2	19434.2	831.3	19586.3	831
19768	831.3	19946.6	831	19955.2	831	20305.4	831.3	20379.8	831.3
20544.5	831.4	20559.3	839.1	20601.9	836.1	21564.1	836.1	21618.8	827.7
21813.4	826.9	21860.4	827	22051	830.4	22300.8	828.8	22432	828.3
22467.8	825.5	22631.8	830.4	22751.1	827.6	22899.4	832.2	22943	843.1
23094.4	841.3	23280.2	843.5	23313.6	843.4	23341.3	836.9	23416.7	832.4
23598	832.6	23784.3	832.9	23941	835.4	24042.3	831.9	24122.5	841.4
24172.7	839.8	24217.2	841.9	24225.6	840	24308.4	843.2	24462.1	841.6
24484	841.5	24668.5	839.6	24893	840	24978.8	841.7	24992.7	843.7
25149.9	841.4	25350.1	843	25465.2	845.8	25601	845.9	25615.3	841.8
25845.1	842	26067.3	841.5	26162.8	841.5	26341.4	841.4	26534.2	841.5
26711.6	841.2	26864.1	841.1	26905.7	840.9	27010.6	841.9	27162	842.1
27252.8	842.2	27487.4	841.6	27668.5	842	27836.9	842.4	27996.1	842.5
28147.4	841	28243.4	843.3	28254.5	846.1	28284.2	844.7	28295.7	840.5
28309.9	841.9	28321.9	845.7	28540.8	846.1	28733.9	847.4	28894.2	848
29003.8	850.1	29067.9	845.1	29174.5	851.2	29334.2	851.2	29533.6	851.5
29599	853.2								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18453.2	.028	18860.7	.028	20559.3	.15	21860.4	.043	22943	.065
25601	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18909.13	22943	475	495.51	600	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18453.2	18860.7	850	24308.4	29599	850

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	842.68	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.28	Wt. n-Val.	0.028	0.039	0.065
E.G. Elev (ft)	842.96	Reach Len. (ft)	475.00	495.51	600.00
Crit W.S. (ft)	835.27	Flow Area (sq ft)	0.08	44676.01	7563.33
E.G. Slope (ft/ft)	0.000522	Area (sq ft)	112.29	44676.01	11478.24
Q Total (cfs)	210000.00	Flow (cfs)	0.02	195049.11	14950.88
Top Width (ft)	8807.27	Top Width (ft)	60.32	4032.20	4714.76
Vel Total (ft/s)	4.02	Avg. Vel. (ft/s)	0.29	4.37	1.98
Max Chl Dpth (ft)	17.18	Hydr. Depth (ft)	0.12	11.08	6.24
Conv. Total (cfs)	9189961.0	Conv. (cfs)	1.0	8535684.0	654276.2
Length Wtd. (ft)	504.08	Wetted Per. (ft)	0.68	4039.62	1213.08
Min Ch El (ft)	825.50	Shear (lb/sq ft)	0.00	0.36	0.20
Alpha	1.11	Stream Power (lb/ft s)	0.00	1.57	0.40
Frctn Loss (ft)	0.29	Cum Volume (acre-ft)	3199.89	17213.95	11833.40
C & E Loss (ft)	0.00	Cum SA (acres)	761.20	1796.38	2433.07

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	843.23	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.31	Wt. n-Val.		0.039	
E.G. Elev (ft)	843.54	Reach Len. (ft)	475.00	495.51	600.00
Crit W.S. (ft)	835.27	Flow Area (sq ft)		46891.77	
E.G. Slope (ft/ft)	0.000522	Area (sq ft)		46891.77	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	4033.87	Top Width (ft)		4033.87	
Vel Total (ft/s)	4.48	Avg. Vel. (ft/s)		4.48	
Max Chl Dpth (ft)	17.73	Hydr. Depth (ft)		11.62	
Conv. Total (cfs)	9194459.0	Conv. (cfs)		9194459.0	
Length Wtd. (ft)	495.51	Wetted Per. (ft)		4042.27	
Min Ch El (ft)	825.50	Shear (lb/sq ft)		0.38	
Alpha	1.00	Stream Power (lb/ft s)		1.69	
Frctn Loss (ft)	0.29	Cum Volume (acre-ft)	398.12	18253.03	7498.14
C & E Loss (ft)	0.00	Cum SA (acres)	61.97	1797.38	1097.10

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18878.74	18909.13	0.02	0.08	0.68	0.00	0.12	0.29
18909.13 LB	19917.60	75490.96	11988.26	1011.65	35.95	11.89	6.30
19917.60	20926.07	46481.68	9650.32	1010.46	22.13	9.57	4.82
20926.07	21934.53	13756.33	9635.49	1009.12	6.55	9.55	1.43
21934.53	22943.00 RB	59320.12	13401.94	1008.40	28.25	13.31	4.43
22943.00	23386.73	420.75	556.46	303.78	0.20	1.84	0.76
23386.73	23830.47	10303.40	4412.21	443.79	4.91	9.94	2.34
23830.47	24274.20	4224.44	2586.31	444.69	2.01	5.83	1.63
24274.20	24717.93	2.30	8.36	20.81	0.00	0.40	0.27

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18909.13 LB	19917.60	81319.43	12542.29	1012.44	38.72	12.44	6.48
19917.60	20926.07	50381.88	10204.35	1010.46	23.99	10.12	4.94
20926.07	21934.53	14941.24	10189.51	1009.12	7.11	10.10	1.47
21934.53	22943.00 RB	63357.44	13955.62	1010.25	30.17	13.84	4.54

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 183.11

INPUT
Description: APPROX. ALIGNMENT OF APACHE RD.
Left Bank Station
Interpolated

Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18463	854.7	18485.4	849.5	18499.9	844.8	18647.2	842.2	18783	842.9
18793.1	842.1268	18803.9	841.3	18818.3	842.2	18870.3	836.2	18880.7	829.6
18899.1	829.6	19037.4	829.3	19185.5	829.2	19358.7	830.2	19515.9	829.9
19662	830.3	19810.4	830.7	19998.3	831.1	20102.8	830.7	20136.7	832
20308.9	831.2	20573.6	831.4	20583.4	838.8	20616.8	835.9	20769.3	836
20852.5	836	21038.1	837.4	21171.7	838.7	21402.2	836.2	21610.6	836
21770.1	835.1	21825.4	824.4	21933.7	828.8	22086.1	827.7	22240.8	830.2
22435.1	831.8	22598.8	829.3	22758.8	828.5	22894	828.3	22935.1	824
22954.9	824.8	22973.2	831.5	22986.4	839.3	23068.4	837.3	23123.8	840
23266.7	842.1	23347.5	840.4	23386.8	832.7	23427.5	833.7	23558.4	830
23696.9	831.2	23886.5	833.7	24050.3	831.7	24148.5	839.2	24261.7	837.7
24405	839.5	24536.7	839.3	24644.7	842.2	24859.5	843.8	25080.4	842.1
25191	839.8	25349.6	842.3	25495.5	845.7	25637.9	844.4	25821.7	843
25996.1	842.3	26080.6	841	26254.7	840.9	26440.5	840.7	26588.4	839.7
26792.5	839.5	26940.5	840.6	27026.9	845.4	27054	841.2	27063	836.6
27075.1	836.7	27085.5	841	27103.4	838.4	27137.3	840.6	27341.5	840.8
27543.6	840.5	27763.5	840.3	27785.5	840.5	27930.6	841.5	28102	841.9
28291.4	842.7	28413	842.6	28444	846.1	28474.2	844.6	28596.8	846.6
28760.5	847.2	28982.3	848.9	29206.1	849.9	29433.4	850.4	29636.9	851.8
29748.3	852.1	29787.2	854.5						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18463	.032	18783	.028	20583.4	.15	22435.1	.043	22986.4	.065
28444	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18793.1	22986.4	480	494.4	555	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
24350	29787.2	850

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	842.40	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.27	Wt. n-Val.	0.032	0.041	0.065

E.G. Elev (ft)	842.67	Reach Len. (ft)	480.00	494.40	555.00
Crit W.S. (ft)	835.10	Flow Area (sq ft)	5.39	43661.39	9417.67
E.G. Slope (ft/ft)	0.000625	Area (sq ft)	5.39	43661.39	14261.71
Q Total (cfs)	210000.00	Flow (cfs)	1.39	190495.78	19502.83
Top Width (ft)	8418.23	Top Width (ft)	53.15	4193.30	4171.78
Vel Total (ft/s)	3.96	Avg. Vel. (ft/s)	0.26	4.36	2.07
Max Chl Dpth (ft)	18.40	Hydr. Depth (ft)	0.10	10.41	6.91
Conv. Total (cfs)	8401980.0	Conv. (cfs)	55.5	7621627.5	780297.1
Length Wtd. (ft)	499.84	Wetted Per. (ft)	53.17	4203.02	1364.87
Min Ch El (ft)	824.00	Shear (lb/sq ft)	0.00	0.41	0.27
Alpha	1.13	Stream Power (lb/ft s)	0.00	1.77	0.56
Frctn Loss (ft)	0.25	Cum Volume (acre-ft)	3199.25	16711.51	11656.13
C & E Loss (ft)	0.00	Cum SA (acres)	760.58	1749.60	2371.86

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	842.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.33	Wt. n-Val.		0.041	
E.G. Elev (ft)	843.25	Reach Len. (ft)	480.00	494.40	555.00
Crit W.S. (ft)	835.32	Flow Area (sq ft)		45881.91	
E.G. Slope (ft/ft)	0.000654	Area (sq ft)		45881.91	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	4193.30	Top Width (ft)		4193.30	
Vel Total (ft/s)	4.58	Avg. Vel. (ft/s)		4.58	
Max Chl Dpth (ft)	18.93	Hydr. Depth (ft)		10.94	
Conv. Total (cfs)	8210143.0	Conv. (cfs)		8210143.0	
Length Wtd. (ft)	494.40	Wetted Per. (ft)		4207.44	
Min Ch El (ft)	824.00	Shear (lb/sq ft)		0.45	
Alpha	1.00	Stream Power (lb/ft s)		2.04	
Frctn Loss (ft)	0.26	Cum Volume (acre-ft)	398.12	17725.36	7498.14
C & E Loss (ft)	0.01	Cum SA (acres)	61.97	1750.59	1097.10

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18617.05	18639.05	0.01	0.08	3.07	0.00	0.03	0.09
18639.05	18661.06	0.96	3.28	22.01	0.00	0.15	0.29
18661.06	18683.07	0.27	1.54	22.01	0.00	0.07	0.18
18683.07	18705.07	0.00	0.02	2.53	0.00	0.01	0.04
18705.07	18771.09						
18771.09	18793.10	0.15	0.48	3.55	0.00	0.14	0.31
18793.10 LB	19841.43	83936.42	12319.86	1050.65	39.97	11.75	6.81
19841.43	20889.75	55658.73	10160.47	1050.96	26.50	9.69	5.48
20889.75	21938.07	6735.77	7420.47	1049.47	3.21	7.08	0.91
21938.07	22986.40 RB	44164.86	13760.58	1051.94	21.03	13.13	3.21
22986.40	23439.79	1802.04	1542.23	454.27	0.86	3.40	1.17
23439.79	23893.17	12179.62	4850.18	453.46	5.80	10.70	2.51
23893.17	24346.56	5506.05	3012.84	453.70	2.62	6.65	1.83
24346.56	24799.95	15.12	12.42	3.44	0.01	3.61	1.22

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18793.10 LB	19841.43	92438.15	12875.00	1051.45	44.02	12.28	7.18
19841.43	20889.75	61687.89	10715.60	1050.96	29.38	10.22	5.76
20889.75	21938.07	7777.25	7975.60	1049.47	3.70	7.61	0.98
21938.07	22986.40 RB	48096.70	14315.71	1055.57	22.90	13.66	3.36

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 183.02

INPUT
Description:

Eliminate vertical ineffective area in main channel by

coding out GR

data between and below sta, elev. 22743, 824.4 and 22781, 824.4

Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18402.5	853.8	18538.7	851.5	18622.9	849.6	18635.99	841.8	18645.9	836
18660.9	834.9	18672.2	829.3	18689.1	829.3	19038	829.5	19206.1	829.9
19343.4	830.1	19508.6	830.4	19711.9	830.7	19920.8	831.1	20064.9	831.5
20247.3	832.8	20400.9	832.3	20521.1	832.1	20533.7	838.9	20589.5	836.7
20868.9	837	20946.6	836.7	21311.3	834.8	21338.4	833.5	21519.9	837.7
21719.7	838.1	21854.8	832.2	21912	825.9	21974.5	825.7	21991.9	823.5
22072.8	826.2	22227.2	827.1	22425.5	828.2	22576.8	828.3	22734	826
22743	824.4	22781	824.4	22793.3	826.9	22876.8	826.7	22918.2	839
23075.9	839.8	23136.6	840.4	23152	839.1	23161.2	841.1	23200.5	829
23338.7	831.4	23481.3	830.8	23663.5	832.2	23734.8	830.5	23869.8	830.2
23984.2	837.6	24149	839.9	24289.5	843.6	24421.7	843.1	24498.2	839
24522.6	842.6	24662.7	842.9	24797.8	842.6	24945.4	842.7	25095.1	843.1
25247.1	842.2	25402.7	841.2	25570	840.1	25775	839.8	25952.8	840.6
26135.1	840.5	26289.9	839.8	26426.4	839.7	26578.7	839.1	26729	839.5
26795.9	841.1	27026	840.8	27088.3	840.6	27100.1	836.9	27118.9	839.8
27129.8	839	27166.2	841.3	27325	840.9	27461.9	841.8	27559.2	842
27727	841	27807.6	840.8	27961.8	841.4	28177.7	843.3	28271.1	844.8
28410.5	844.7	28508	846.5	28572.5	846.7	28722	847.6	28911.9	848.5
29124.5	849.9	29129.2	849.9	29335.6	851	29521.2	852.2	29684.9	852.4
29770.8	852.6	29792	851.5						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18402.5	.028	18622.9	.028	20533.7	.15	21719.7	.043	22918.2	.065
28508	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18635.99	22918.2	525	494.5	385	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
24289.5	29792	850

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	842.15	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.26	Wt. n-Val.	0.028	0.036	0.065
E.G. Elev (ft)	842.41	Reach Len. (ft)	525.00	494.50	385.00
Crit W.S. (ft)	834.59	Flow Area (sq ft)	0.07	45074.61	10028.02
E.G. Slope (ft/ft)	0.000421	Area (sq ft)	0.07	45074.61	14467.01
Q Total (cfs)	210000.00	Flow (cfs)	0.02	191801.53	18198.45
Top Width (ft)	8472.26	Top Width (ft)	0.50	4282.21	4189.55
Vel Total (ft/s)	3.81	Avg. Vel. (ft/s)	0.27	4.26	1.81
Max Chl Dpth (ft)	18.65	Hydr. Depth (ft)	0.15	10.53	7.62
Conv. Total (cfs)	10229212.0	Conv. (cfs)	1.0	9342755.0	886456.3
Length Wtd. (ft)	485.06	Wetted Per. (ft)	0.58	4289.88	1318.79
Min Ch El (ft)	823.50	Shear (lb/sq ft)	0.00	0.28	0.20
Alpha	1.16	Stream Power (lb/ft s)	0.00	1.18	0.36
Frctn Loss (ft)	0.21	Cum Volume (acre-ft)	3199.22	16207.94	11473.11
C & E Loss (ft)	0.01	Cum SA (acres)	760.29	1701.50	2318.60

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	842.68	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.31	Wt. n-Val.		0.036	
E.G. Elev (ft)	842.98	Reach Len. (ft)	525.00	494.50	385.00
Crit W.S. (ft)	834.86	Flow Area (sq ft)		47326.79	
E.G. Slope (ft/ft)	0.000438	Area (sq ft)		47326.79	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	4282.21	Top Width (ft)		4282.21	
Vel Total (ft/s)	4.44	Avg. Vel. (ft/s)		4.44	
Max Chl Dpth (ft)	19.18	Hydr. Depth (ft)		11.05	
Conv. Total (cfs)	10032525.0	Conv. (cfs)		10032525.0	
Length Wtd. (ft)	494.50	Wetted Per. (ft)		4294.38	
Min Ch El (ft)	823.50	Shear (lb/sq ft)		0.30	

Alpha	1.00	Stream Power (lb/ft s)		1.34	
Frctn Loss (ft)	0.22	Cum Volume (acre-ft)	398.12	17196.41	7498.14
C & E Loss (ft)	0.01	Cum SA (acres)	61.97	1702.49	1097.10

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18620.42	18635.99	0.02	0.07	0.58	0.00	0.15	0.27
18635.99 LB	19706.54	73463.32	12938.81	1073.51	34.98	12.09	5.68
19706.54	20777.09	44556.31	9802.89	1072.32	21.22	9.16	4.55
20777.09	21847.65	5793.15	6356.99	1070.76	2.76	5.94	0.91
21847.65	22918.20 RB	67988.73	15975.91	1073.29	32.38	14.92	4.26
22918.20	23376.45	4509.09	2954.74	460.37	2.15	6.45	1.53
23376.45	23834.71	11063.75	5053.78	458.28	5.27	11.03	2.19
23834.71	24292.96	2625.61	2019.51	400.14	1.25	5.05	1.30

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18635.99 LB	19706.54	80438.50	13501.86	1074.33	38.30	12.61	5.96
19706.54	20777.09	49453.57	10365.94	1072.32	23.55	9.68	4.77
20777.09	21847.65	6774.94	6920.04	1070.76	3.23	6.46	0.98
21847.65	22918.20 RB	73332.98	16538.96	1076.97	34.92	15.45	4.43

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 182.92

INPUT
Description:

Eliminate vertical ineffective area in main channel by coding our GR

data between and below sta.'s, elev.'s 22104, 824.4 and 22325, 824.4

22644, 824.4 and 22691, 824.4

Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18429.9	853.2	18463.4	849.7	18472.69	841.968	18480.1	835.8	18483	829.8
18567.6	829	18880.3	829.2	19052.4	831	19228	830	19398.1	831.5
19564.1	830.5	19772	830.7	19948.4	832	20192.8	831.8	20391.6	832.1
20421.3	830.1	20509.3	831.9	20531.8	837.7	20589.4	833.5	20815.9	835.7
21235	836.1	21240.9	836.1	21402.5	834.5	21591.9	836.2	21734	837
21814.8	831.9	22000	832.3	22013	832.5	22063.7	827.9	22104	824.4
22325	824.4	22357.3	827.6	22534.1	827.6	22591.6	827.5	22607.1	824.9
22632.2	826.5	22644	824.4	22691	824.4	22698	826.3	22768.9	825.2
22941.9	831.6	23005.5	834	23073.9	833.4	23134.9	830.6	23290.6	832.5
23446.1	830	23592.6	832.5	23636.5	828.8	23816.5	833.2	23870.1	838.9
24031	840	24216.1	842.8	24374	841.5	24429.2	842.6	24465	836.4
24484.1	838.5	24495	837.8	24525.1	841.6	24704.2	840.9	24711.2	840.9
24882.5	840.8	25056.4	840.9	25229.6	839.1	25407.7	840.9	25574.7	840.6
25605.9	840.6	25767	840.4	25965	841	26158.1	839.3	26355.5	838.6
26465.4	836.6	26649	839	26871	839.1	27039.1	840	27063.6	842.5
27080.1	840.7	27089.1	837.2	27099.4	836.6	27112.3	841.4	27126.5	840.1
27319.3	842.2	27518.1	841.8	27680.8	841.7	27889.4	842.1	28057.2	842
28218	846.6	28281.8	844.2	28447.9	844.9	28503.3	846.7	28509.7	845.4
28647.2	847.7	28817.3	848.3	29022.1	849	29090.1	849.6	29262.4	851.4
29518.9	851.3	29600	851.3						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18429.9	.03	18463.4	.03	20531.8	.15	22013	.043	23005.5	.065
28218	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18472.69	23005.5	505	496.47	490	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
24216.1	29600	850

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	841.97	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.23	Wt. n-Val.		0.039	0.065
E.G. Elev (ft)	842.20	Reach Len. (ft)	505.00	496.47	490.00
Crit W.S. (ft)	834.61	Flow Area (sq ft)		48192.19	9352.57
E.G. Slope (ft/ft)	0.000436	Area (sq ft)		48192.19	15229.13
Q Total (cfs)	210000.00	Flow (cfs)		192005.47	17994.52
Top Width (ft)	9008.12	Top Width (ft)		4532.81	4475.31
Vel Total (ft/s)	3.65	Avg. Vel. (ft/s)		3.98	1.92
Max Chl Dpth (ft)	17.57	Hydr. Depth (ft)		10.63	8.09
Conv. Total (cfs)	10054604.0	Conv. (cfs)		9193043.0	861560.7
Length Wtd. (ft)	495.96	Wetted Per. (ft)		4541.40	1156.17
Min Ch El (ft)	824.40	Shear (lb/sq ft)		0.29	0.22
Alpha	1.11	Stream Power (lb/ft s)		1.15	0.42
Frctn Loss (ft)	0.24	Cum Volume (acre-ft)	3199.22	15678.55	11341.88
C & E Loss (ft)	0.00	Cum SA (acres)	760.29	1651.47	2280.31

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	842.48	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.27	Wt. n-Val.		0.039	
E.G. Elev (ft)	842.75	Reach Len. (ft)	505.00	496.47	490.00
Crit W.S. (ft)	834.78	Flow Area (sq ft)		50539.66	
E.G. Slope (ft/ft)	0.000455	Area (sq ft)		50539.66	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	4532.81	Top Width (ft)		4532.81	
Vel Total (ft/s)	4.16	Avg. Vel. (ft/s)		4.16	
Max Chl Dpth (ft)	18.08	Hydr. Depth (ft)		11.15	
Conv. Total (cfs)	9848704.0	Conv. (cfs)		9848704.0	
Length Wtd. (ft)	496.47	Wetted Per. (ft)		4550.40	
Min Ch El (ft)	824.40	Shear (lb/sq ft)		0.32	
Alpha	1.00	Stream Power (lb/ft s)		1.31	
Frctn Loss (ft)	0.24	Cum Volume (acre-ft)	398.12	16640.91	7498.14
C & E Loss (ft)	0.00	Cum SA (acres)	61.97	1652.45	1097.10

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18472.69 LB	19605.89	71566.70	13398.73	1139.22	34.08	11.82	5.34
19605.89	20739.09	48784.34	11183.65	1134.19	23.23	9.87	4.36
20739.09	21872.30	5295.15	7362.98	1133.39	2.52	6.50	0.72
21872.30	23005.50 RB	66359.27	16246.84	1134.60	31.60	14.34	4.08
23005.50	23445.13	8907.92	4450.21	439.73	4.24	10.12	2.00
23445.13	23884.77	8780.93	4413.79	440.17	4.18	10.04	1.99
23884.77	24324.40	305.67	488.56	276.27	0.15	1.77	0.63

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18472.69 LB	19605.89	78461.84	13985.59	1139.74	37.36	12.34	5.61
19605.89	20739.09	54044.91	11770.51	1134.19	25.74	10.39	4.59
20739.09	21872.30	6143.80	7949.85	1133.39	2.93	7.02	0.77
21872.30	23005.50 RB	71349.43	16833.71	1143.09	33.98	14.85	4.24

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 182.83

INPUT
Description:

Eliminate vertical ineffective area in main channel by coding out GR

data between and below sta.'s, elev.'s 22392.7, 824.4 and 22467,

824.4 - 22775, 824.4 and 22885, 824.4

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18410.4	849.8	18416.67	841.7281	18419.1	838.6	18428.6	829	18567.9	828.9
18644.2	828.8	18978.8	828.9	19130.9	829.7	19323	830	19467.7	830
19616.1	830.5	19767.1	829.4	19800.7	829.7	19813.9	833.4	19865.3	832.2
19886.2	833.4	19902	829.7	20034.5	831.3	20076.1	829	20224.3	829.9
20357	830.5	20493.8	831.1	20525.9	837.4	20595.3	832.6	20668.3	831.7
20782.6	833.4	20956.5	834.1	21116.1	834.6	21416.3	835.6	21648	836
21704.8	836.9	21771.3	830.7	21988	831.5	22150	832.5	22299.6	834.6
22370.2	833.8	22392.7	824.4	22467	824.4	22493	827.1	22630.3	825.6
22764.2	824.9	22775	824.4	22885	824.4	22924.1	837.8	23059	840.6
23145.5	840.2	23175.5	828	23193.6	829.6	23273.7	826.7	23444.9	828.3
23580.7	831.6	23661.4	838.6	23819.9	837.1	23932.4	842.5	24109.3	840.8
24190	835	24335.5	843	24474	837.9	24520.3	840.7	24717.8	840.3
24893.7	841.5	25031.2	841	25184.8	841.4	25317.7	841.2	25450.6	839.6
25579.8	839.6	25714.3	840.9	25881.4	840	26034.7	839.9	26105.6	837.1
26123.9	838.6	26302.9	839	26518.9	838.5	26666.5	836.9	26818.3	836.4
26961.8	834.1	27027.8	834.1	27039.1	840.6	27068.1	841.5	27077.6	836.7
27087.1	836.5	27100.6	841.1	27250.4	841.4	27283.9	841.5	27479.7	841.1
27577.5	841	27741.2	841.1	27813.6	839.6	27996.6	841.6	28159	842.9
28366.6	843.2	28432.2	844.2	28490	848.2	28514.2	847.1	28637.3	847.6
28788	848.3								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18410.4	.03	20525.9	.15	21988	.043	22370.2	.065	23059	.065
28490	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18416.67	23059	530	491.48	390	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23932.4	28788	845

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	841.72	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.24	Wt. n-Val.		0.042	0.065
E.G. Elev (ft)	841.96	Reach Len. (ft)	530.00	491.48	390.00
Crit W.S. (ft)	834.26	Flow Area (sq ft)		48634.53	7068.31
E.G. Slope (ft/ft)	0.000530	Area (sq ft)		48634.53	14947.73
Q Total (cfs)	210000.00	Flow (cfs)		194856.91	15143.10
Top Width (ft)	9440.12	Top Width (ft)		4642.33	4797.79
Vel Total (ft/s)	3.77	Avg. Vel. (ft/s)		4.01	2.14
Max Chl Dpth (ft)	17.32	Hydr. Depth (ft)		10.48	8.25
Conv. Total (cfs)	9124745.0	Conv. (cfs)		8466760.0	657985.3
Length Wtd. (ft)	484.34	Wetted Per. (ft)		4654.36	860.18
Min Ch El (ft)	824.40	Shear (lb/sq ft)		0.35	0.27
Alpha	1.07	Stream Power (lb/ft s)		1.38	0.58
Frctn Loss (ft)	0.24	Cum Volume (acre-ft)	3199.22	15126.77	11172.15
C & E Loss (ft)	0.00	Cum SA (acres)	760.29	1599.18	2228.15

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	842.25	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.26	Wt. n-Val.		0.042	
E.G. Elev (ft)	842.51	Reach Len. (ft)	530.00	491.48	390.00
Crit W.S. (ft)	834.71	Flow Area (sq ft)		51061.66	
E.G. Slope (ft/ft)	0.000530	Area (sq ft)		51061.66	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	4642.33	Top Width (ft)		4642.33	
Vel Total (ft/s)	4.11	Avg. Vel. (ft/s)		4.11	
Max Chl Dpth (ft)	17.85	Hydr. Depth (ft)		11.00	
Conv. Total (cfs)	9119038.0	Conv. (cfs)		9119038.0	
Length Wtd. (ft)	490.98	Wetted Per. (ft)		4656.53	

Min Ch El (ft)	824.40	Shear (lb/sq ft)		0.36	
Alpha	1.00	Stream Power (lb/ft s)		1.49	
Frctn Loss (ft)	0.24	Cum Volume (acre-ft)	398.12	16061.92	7498.14
C & E Loss (ft)	0.01	Cum SA (acres)	61.97	1600.17	1097.10

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18416.67 LB	19577.25	86356.61	14277.67	1166.12	41.12	12.30	6.05
19577.25	20737.84	62141.39	12441.52	1162.44	29.59	10.72	4.99
20737.84	21898.42	7310.13	8508.18	1160.89	3.48	7.33	0.86
21898.42	23059.00 RB	39048.78	13407.15	1164.91	18.59	11.55	2.91
23059.00	23440.93	9667.41	4045.60	384.45	4.60	10.59	2.39
23440.93	23822.87	5297.73	2813.65	382.29	2.52	7.37	1.88
23822.87	24204.80	177.96	209.05	93.44	0.08	2.24	0.85

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18416.67 LB	19577.25	92600.17	14884.45	1166.64	44.10	12.82	6.22
19577.25	20737.84	67147.04	13048.30	1162.44	31.97	11.24	5.15
20737.84	21898.42	8205.58	9114.96	1160.89	3.91	7.85	0.90
21898.42	23059.00 RB	42047.21	14013.93	1166.56	20.02	12.07	3.00

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 182.74

INPUT
Description:

Eliminate vertical ineffective area in main channel by coding out GR

data between and below sta, elev. 22603, 824.7 and 22815, 824.7

Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18343.3	858.2	18369.84	841.486	18390.3	828.6	18634.3	828.4	18900	828.9
19093.7	828.6	19287.8	828.9	19475.7	827.7	19654.5	829.4	19873.4	830.1
20058.1	831.2	20251.7	831.1	20436.5	829.9	20459.7	837.1	20518.6	830.6
20706.6	830	20906.7	830.8	21106.1	832.8	21233	834.3	21486.7	836.1
21691.2	837.6	21758.6	829.5	21902.8	831.1	21947.4	830.1	22132.3	831.8
22304.4	832	22468.3	832.4	22522.7	828.4	22572.9	827.8	22603	824.7
22815	824.7	22860.9	827.3	22886.2	830	22913	837.9	22935.6	840.8
22956.8	840.5	23004.9	827.9	23172.4	825.8	23304.8	831	23362.6	836.8
23509.9	842.4	23525.5	838.9	23647.6	834.3	23829	835.8	23861	837.5
24050.7	841.2	24177.4	837.9	24360	840.7	24406.5	839	24422.4	836.7
24470.4	840	24688.2	841.8	24918	842.7	25102.7	839.1	25311.6	838.3
25514.1	838.7	25710.9	839	25776.7	840.1	25873.6	844	25906.9	840.4
26102.5	837.9	26293.6	836.8	26346.2	837.3	26350.5	839.2	26389.9	844.1
26417.6	836.5	26478.4	836	26661.9	836.7	26853.1	836.3	26912.6	836
26933	844.7	26958.9	845.9	26977.5	840.5	27007	839.4	27014.3	835.1
27042.8	840.9	27233.4	842	27279	842.1	27573.3	841.7	27849.2	842.4
28032.9	842.4	28203.8	843.9	28395.2	847.9	28435	847.9	28440.3	845.5
28496	847.8	28666.8	849	28705.5	849.3	28971.9	849.9	29168.7	851.3
29466.8	852.3	29666.2	853.8	29703.2	853.2	29764.7	855.8	29947	856.9

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18343.3	.03	20459.7	.15	22132.3	.043	22935.6	.065	28435	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18369.84	22935.6	510	492.12	480	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev

23800 29947 850

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	841.49	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.23	Wt. n-Val.		0.041	0.065
E.G. Elev (ft)	841.71	Reach Len. (ft)	510.00	492.12	480.00
Crit W.S. (ft)	833.83	Flow Area (sq ft)		49808.79	6889.72
E.G. Slope (ft/ft)	0.000475	Area (sq ft)		49808.79	15021.96
Q Total (cfs)	210000.00	Flow (cfs)		195609.53	14390.46
Top Width (ft)	8251.17	Top Width (ft)		4565.76	3685.41
Vel Total (ft/s)	3.70	Avg. Vel. (ft/s)		3.93	2.09
Max Chl Dpth (ft)	16.79	Hydr. Depth (ft)		10.91	8.24
Conv. Total (cfs)	9630544.0	Conv. (cfs)		8970601.0	659942.5
Length Wtd. (ft)	491.54	Wetted Per. (ft)		4573.35	838.77
Min Ch El (ft)	824.70	Shear (lb/sq ft)		0.32	0.24
Alpha	1.07	Stream Power (lb/ft s)		1.27	0.51
Frctn Loss (ft)	0.32	Cum Volume (acre-ft)	3199.22	14571.41	11037.99
C & E Loss (ft)	0.00	Cum SA (acres)	760.29	1547.23	2190.18

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	842.01	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.24	Wt. n-Val.		0.041	0.065
E.G. Elev (ft)	842.26	Reach Len. (ft)	510.00	492.12	480.00
Crit W.S. (ft)	834.13	Flow Area (sq ft)		52224.59	1054.12
E.G. Slope (ft/ft)	0.000464	Area (sq ft)		52224.59	1054.12
Q Total (cfs)	210000.00	Flow (cfs)		207912.23	2087.76
Top Width (ft)	4680.16	Top Width (ft)		4565.76	114.40
Vel Total (ft/s)	3.94	Avg. Vel. (ft/s)		3.98	1.98
Max Chl Dpth (ft)	17.31	Hydr. Depth (ft)		11.44	9.21
Conv. Total (cfs)	9747658.0	Conv. (cfs)		9650749.0	96908.5
Length Wtd. (ft)	492.06	Wetted Per. (ft)		4573.88	130.71
Min Ch El (ft)	824.70	Shear (lb/sq ft)		0.33	0.23
Alpha	1.01	Stream Power (lb/ft s)		1.32	0.46
Frctn Loss (ft)	0.30	Cum Volume (acre-ft)	398.12	15479.23	7493.42
C & E Loss (ft)	0.00	Cum SA (acres)	61.97	1548.22	1096.59

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18369.84 LB	19511.28	85967.93	14611.47	1145.17	40.94	12.80	5.88
19511.28	20652.72	59127.07	12553.32	1142.90	28.16	11.00	4.71
20652.72	21794.16	8065.18	9267.35	1141.96	3.84	8.12	0.87
21794.16	22935.60 RB	42449.36	13376.65	1143.32	20.21	11.72	3.17
22935.60	23403.03	12066.78	5148.89	469.49	5.75	11.02	2.34
23403.03	23870.45	2323.68	1740.84	369.28	1.11	4.72	1.33

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18369.84 LB	19511.28	90857.77	15215.42	1145.69	43.27	13.33	5.97
19511.28	20652.72	63122.88	13157.27	1142.90	30.06	11.53	4.80
20652.72	21794.16	8854.31	9871.31	1141.96	4.22	8.65	0.90
21794.16	22935.60 RB	45077.29	13980.60	1143.32	21.47	12.25	3.22
22935.60	23403.03	2087.76	1054.12	130.71	0.99	9.21	1.98

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 182.64

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18435.4	850	18459.7	840	18473.2	828.6	18734	828.4	18960.1	828
19145.7	827.6	19304.2	827.5	19520.2	827.6	19714.7	830	19881.2	829.8
20005.6	831.6	20059.9	829.4	20090.4	833	20219.1	831.4	20240.5	829.4
20371.3	829.6	20395.3	835.2	20408	836	20453.5	831.2	20688.7	830.5
20888.6	830.1	21129.6	830.2	21277	834.1	21472	835.7	21665.5	835.2
21725	834.8	21743.6	831.6	21784.9	828.2	21917.3	827.8	22005.8	832.5
22196.3	831.2	22337.7	833.8	22436.1	828.8	22624	828.6	22651	828.6
22683.1	824.7	22776.9	824.5	22816.9	827.3	22848.2	825.7	22953.4	825.7
22979.3	831.4	23040.9	829.5	23092.6	837.6	23105.1	841.8	23299.8	838.4
23332.9	834.6	23541.5	835.9	23744.3	838.1	23938.8	839.9	24215.5	842.1
24377.1	839	24400.1	835	24419.1	839.6	24635.6	840.5	24842.6	840.5
25030	838.9	25220.1	836.8	25265.4	836	25377.9	840.7	25587.1	839.4
25749.9	836.7	25789.9	844.7	25806.2	844.4	25833.7	837.8	25897.7	836.3
26097.8	836.5	26286.4	836.8	26340.4	840.2	26351.8	843.3	26366.8	844.3
26379.3	838.3	26471	840.2	26551.3	844.6	26708.2	844.9	26797	841
26884	840.1	26896.7	843.8	26922.9	844.5	26939.1	842	26961	842.3
26977.4	835.3	26986.4	834.8	27000.6	839.8	27135.7	841.3	27281.8	836.8
27374.3	842.4	27645.5	844.6	27974.5	844.8	28176.3	846	28338.6	846.1
28356.5	845.2	28360	847.3	28593.7	847.7	28782.8	847.9	28995.9	849.5
29188	851.7								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18435.4	.03	18459.7	.03	20005.6	.15	23105.1	.043	24215.5	.065
28360	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18459.7	23105.1	520	498.71	500	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23640	29188	845

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	841.15	Element			
Vel Head (ft)	0.24	Wt. n-Val.	0.030	0.057	0.043
E.G. Elev (ft)	841.39	Reach Len. (ft)	520.00	498.71	500.00
Crit W.S. (ft)	833.75	Flow Area (sq ft)	1.61	51209.95	2065.45
E.G. Slope (ft/ft)	0.000933	Area (sq ft)	1.61	51209.95	9003.10
Q Total (cfs)	210000.00	Flow (cfs)	1.59	204370.06	5628.34
Top Width (ft)	8211.61	Top Width (ft)	2.79	4643.46	3565.35
Vel Total (ft/s)	3.94	Avg. Vel. (ft/s)	0.99	3.99	2.72
Max Chl Dpth (ft)	16.65	Hydr. Depth (ft)	0.57	11.03	4.15
Conv. Total (cfs)	6875323.0	Conv. (cfs)	52.2	6691001.0	184269.8
Length Wtd. (ft)	498.74	Wetted Per. (ft)	3.02	4651.94	497.90
Min Ch El (ft)	824.50	Shear (lb/sq ft)	0.03	0.64	0.24
Alpha	1.01	Stream Power (lb/ft s)	0.03	2.56	0.66
Frctn Loss (ft)	0.40	Cum Volume (acre-ft)	3199.21	14000.78	10905.62
C & E Loss (ft)	0.00	Cum SA (acres)	760.27	1495.21	2150.23

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	841.72	Element			
Vel Head (ft)	0.24	Wt. n-Val.		0.057	
E.G. Elev (ft)	841.96	Reach Len. (ft)	520.00	498.71	500.00
Crit W.S. (ft)	833.75	Flow Area (sq ft)		53854.69	
E.G. Slope (ft/ft)	0.000845	Area (sq ft)		53854.69	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	4645.16	Top Width (ft)		4645.16	
Vel Total (ft/s)	3.90	Avg. Vel. (ft/s)		3.90	
Max Chl Dpth (ft)	17.22	Hydr. Depth (ft)		11.59	
Conv. Total (cfs)	7224583.0	Conv. (cfs)		7224583.0	
Length Wtd. (ft)	498.71	Wetted Per. (ft)		4655.44	
Min Ch El (ft)	824.50	Shear (lb/sq ft)		0.61	
Alpha	1.00	Stream Power (lb/ft s)		2.38	
Frctn Loss (ft)	0.36	Cum Volume (acre-ft)	398.12	14880.02	7487.61
C & E Loss (ft)	0.00	Cum SA (acres)	61.97	1496.19	1095.96

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18456.46	18458.08	0.14	0.28	1.27	0.00	0.24	0.49
18458.08	18459.70	1.46	1.32	1.75	0.00	0.82	1.10
18459.70 LB	19621.05	126903.61	15193.78	1165.53	60.43	13.08	8.35
19621.05	20782.40	43092.84	12111.64	1162.65	20.52	10.43	3.56
20782.40	21943.75	13771.76	10515.02	1161.86	6.56	9.05	1.31
21943.75	23105.10 RB	20601.86	13389.50	1161.89	9.81	11.55	1.54
23105.10	23510.63	3731.50	1435.96	368.52	1.78	3.90	2.60
23510.63	23916.15	1896.83	629.49	129.38	0.90	4.87	3.01

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18459.70 LB	19621.05	129574.00	15855.12	1167.25	61.70	13.65	8.17
19621.05	20782.40	44682.21	12772.98	1162.65	21.28	11.00	3.50
20782.40	21943.75	14513.46	11176.36	1161.86	6.91	9.62	1.30
21943.75	23105.10 RB	21230.32	14050.22	1163.68	10.11	12.10	1.51

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 182.55

INPUT
Description: Left Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18613.2	850.1	18629.5	838.5	18647.7	835	18664.5	840.4	18812.6	846.5
18921.3	845.1	18958.2	840.7	19198	839.4	19039.4	831.1	19056.9	827.3
19265.6	827.4	19458.1	828.4	19827.4	829.5	19970.6	831.6	20019.1	833
20042	831.2	20182.5	833.4	20194.5	830.7	20338.6	829.9	20422.3	829.9
20443.4	834.8	20487.1	830.8	20623.4	828.5	20786.1	828	21024.3	829.2
21162.4	831.6	21299.5	832.5	21446.7	832.2	21466.8	832.4	21694.5	834.4
21794.6	835.3	21857.1	826	21989.4	831.5	22178.2	831.9	22244.1	832.5
22280.4	828.2	22420.9	829.3	22459.8	826.2	22616.3	827.3	22655.5	828.7
22676.1	825.7	22826.1	824.6	22898.3	822.6	23005.2	822.7	23148.7	822.7
23200.7	826.5	23256	838.1	23403.7	836.8	23534.5	836.1	23539.4	833.3
23580.8	831.8	23722.5	838.1	23945	839.2	24154	838	24295.6	838.5
24375.9	838.5	24512.5	838.1	24606.2	838.2	24760.8	838.7	24929.5	839.8
25075.2	836.5	25215.7	836.7	25278.2	835.1	25466.2	837.7	25609.9	836.3
25760.2	837.6	25772.5	837.1	25774.2	835.3	25784	832.1	25791.9	831.3
25808.6	836.9	25948.9	837.1	26101.2	836.7	26177.2	837.3	26350.9	835.1
26409	836.4	26423	837.9	26453.3	834.1	26602.2	835.8	26712.5	839.6
26739.1	847	26925.6	838.9	27063.1	838.7	27222.6	839.5	27428.4	841.8
27509.3	842.4	27740.8	842.3	27889	842.9	28152.3	843.7	28211	844.1
28384.2	845	28425.9	845.4	28435.3	843.1	28494	847.1	28692	848
28859.2	848.8	28903.7	849	28934.5	849.2				

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18613.2	.032	18812.6	.03	18921.3	.03	20443.4	.15	22244.1	.043
23256	.043	23945	.065	28494	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18958.25	23256	520	507.96	525	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18613.2	18812.6	845	23640	28934.5	845

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	840.72	Element			
Vel Head (ft)	0.27	Wt. n-Val.		0.047	0.043
E.G. Elev (ft)	840.99	Reach Len. (ft)	520.00	507.96	525.00
Crit W.S. (ft)	833.40	Flow Area (sq ft)		48560.70	1858.87
E.G. Slope (ft/ft)	0.000692	Area (sq ft)	127.63	48560.70	12766.06
Q Total (cfs)	210000.00	Flow (cfs)		205171.50	4828.49
Top Width (ft)	8252.03	Top Width (ft)	45.85	4297.74	3908.44
Vel Total (ft/s)	4.17	Avg. Vel. (ft/s)		4.23	2.60
Max Chl Dpth (ft)	18.12	Hydr. Depth (ft)		11.30	4.84

Conv. Total (cfs)	7982959.5	Conv. (cfs)		7799408.5	183550.8
Length Wtd. (ft)	508.91	Wetted Per. (ft)		4302.76	384.84
Min Ch El (ft)	822.60	Shear (lb/sq ft)		0.49	0.21
Alpha	1.01	Stream Power (lb/ft s)		2.06	0.54
Frctn Loss (ft)	0.39	Cum Volume (acre-ft)	3198.44	13429.65	10780.68
C & E Loss (ft)	0.01	Cum SA (acres)	759.98	1444.03	2107.33

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	841.33	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.26	Wt. n-Val.		0.047	
E.G. Elev (ft)	841.60	Reach Len. (ft)	520.00	507.96	525.00
Crit W.S. (ft)	833.39	Flow Area (sq ft)		51207.19	
E.G. Slope (ft/ft)	0.000614	Area (sq ft)		51207.19	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	4297.75	Top Width (ft)		4297.75	
Vel Total (ft/s)	4.10	Avg. Vel. (ft/s)		4.10	
Max Chl Dpth (ft)	18.73	Hydr. Depth (ft)		11.91	
Conv. Total (cfs)	8471625.0	Conv. (cfs)		8471625.0	
Length Wtd. (ft)	508.42	Wetted Per. (ft)		4306.62	
Min Ch El (ft)	822.60	Shear (lb/sq ft)		0.46	
Alpha	1.00	Stream Power (lb/ft s)		1.87	
Frctn Loss (ft)	0.35	Cum Volume (acre-ft)	398.12	14278.60	7487.61
C & E Loss (ft)	0.01	Cum SA (acres)	61.97	1445.00	1095.96

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18958.25 LB	20032.69	79744.80	12172.15	1075.49	37.97	11.33	6.55
20032.69	21107.13	33411.81	11619.92	1075.57	15.91	10.81	2.88
21107.13	22181.56	10220.40	9319.08	1075.27	4.87	8.67	1.10
22181.56	23256.00 RB	81794.48	15449.55	1076.44	38.95	14.38	5.29
23256.00	23634.57	4719.48	1824.05	379.40	2.25	4.82	2.59
23634.57	24013.13	109.02	34.82	5.44	0.05	6.41	3.13

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18958.25 LB	20032.69	82064.22	12833.77	1076.11	39.08	11.94	6.39
20032.69	21107.13	34743.36	12281.54	1075.57	16.54	11.43	2.83
21107.13	22181.56	10799.96	9980.70	1075.27	5.14	9.29	1.08
22181.56	23256.00 RB	82392.45	16111.18	1079.68	39.23	14.99	5.11

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 182.45

INPUT
Description: 182.45
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19224.1	850.2	19261.6	837.6	19284.1	827.3	19451.4	827.7	19602.3	828.1
19935.8	829.3	19953	829.4	19961.3	831.2	20089.7	831.7	20097.7	829.6
20223.8	831.5	20271.6	830.2	20288.9	831.9	20307.7	829.7	20409.2	827.4
20461.8	834.9	20667.7	824.5	20725.8	821.4	20884.2	826.7	20981.7	826.5
21061.4	823.6	21190.9	831.6	21320	832.7	21394.1	835	21552.7	832.8
21702.7	832.6	21782.7	834.9	21848	828.4	22003.9	830.1	22163.8	829.5
22213.9	826	22266.6	826.3	22312	828.6	22386	830.3	22424.3	826.9
22450.1	829.2	22462.4	828.2	22566.8	829	22586.9	825.1	22674.2	824.9
22691.5	827.2	22769.3	825.7	22793	827	22858.3	838.8	22952.4	836.3
23116.9	834.5	23272	834.3	23466.8	834.4	23622.5	836.9	23759.2	833.3
23771.4	828.9	23785.6	829.5	23806	833.9	23997.6	836.3	24204.6	839
24361.9	839.8	24530.9	840	24596.6	841.2	24810.1	839.5	24983.2	837.8
25144.9	837.1	25298.5	833.5	25504.7	834.7	25672	834.3	25853.3	835.8
25859.5	830.7	25870.6	830.2	25887.7	835.2	25903.5	836.5	25911.3	834.4
26125.3	835.6	26230.3	836.3	26406	836.1	26498.4	836.1	26731.2	836.7
26937.8	837.5	27125.7	837.6	27163.2	838.1	27168.7	839.3	27175.5	838.1

27199.6	839.6	27222.8	838.1	27422.7	840	27503.6	840.8	27668.1	841.5
27913.3	843.1	27985.6	843.2	28215.7	844.3	28429.3	844.7	28479.1	844.5
28525.2	847.1	28692.4	847.1	28820.5	848.3	28826.7	849.7	28858.5	847.8
28950.6	849.1								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
19224.1	.03	19261.6	.03	20307.7	.065	22163.8	.043	22858.3	.043
25672	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19261.6	22858.3	490	493.26	510	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
24050	28950.6	845

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	840.26	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.34	Wt. n-Val.	0.030	0.045	0.043
E.G. Elev (ft)	840.60	Reach Len. (ft)	490.00	493.26	510.00
Crit W.S. (ft)	833.62	Flow Area (sq ft)	10.51	39848.63	6156.49
E.G. Slope (ft/ft)	0.000846	Area (sq ft)	10.51	39848.63	16953.67
Q Total (cfs)	210000.00	Flow (cfs)	17.66	191506.38	18475.97
Top Width (ft)	8025.08	Top Width (ft)	7.91	3596.70	4420.47
Vel Total (ft/s)	4.56	Avg. Vel. (ft/s)	1.68	4.81	3.00
Max Chl Dpth (ft)	18.86	Hydr. Depth (ft)	1.33	11.08	5.17
Conv. Total (cfs)	7220724.5	Conv. (cfs)	607.2	6584832.0	635285.2
Length Wtd. (ft)	494.47	Wetted Per. (ft)	8.34	3603.50	1193.08
Min Ch El (ft)	821.40	Shear (lb/sq ft)	0.07	0.58	0.27
Alpha	1.05	Stream Power (lb/ft s)	0.11	2.81	0.82
Frctn Loss (ft)	0.46	Cum Volume (acre-ft)	3197.61	12914.17	10601.58
C & E Loss (ft)	0.02	Cum SA (acres)	759.66	1398.00	2057.14

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	840.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.33	Wt. n-Val.		0.045	0.043
E.G. Elev (ft)	841.24	Reach Len. (ft)	490.00	493.26	510.00
Crit W.S. (ft)	833.67	Flow Area (sq ft)		42193.38	3717.07
E.G. Slope (ft/ft)	0.000755	Area (sq ft)		42193.38	3717.07
Q Total (cfs)	210000.00	Flow (cfs)		198686.92	11313.08
Top Width (ft)	4238.40	Top Width (ft)		3596.70	641.70
Vel Total (ft/s)	4.57	Avg. Vel. (ft/s)		4.71	3.04
Max Chl Dpth (ft)	19.51	Hydr. Depth (ft)		11.73	5.79
Conv. Total (cfs)	7642587.5	Conv. (cfs)		7230867.5	411719.9
Length Wtd. (ft)	494.14	Wetted Per. (ft)		3606.81	647.72
Min Ch El (ft)	821.40	Shear (lb/sq ft)		0.55	0.27
Alpha	1.03	Stream Power (lb/ft s)		2.60	0.82
Frctn Loss (ft)	0.39	Cum Volume (acre-ft)	398.12	13734.02	7465.21
C & E Loss (ft)	0.01	Cum SA (acres)	61.97	1398.97	1092.09

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19251.60	19254.10	0.01	0.03	0.43	0.00	0.07	0.20
19254.10	19256.60	1.12	1.39	2.64	0.00	0.56	0.80
19256.60	19259.10	5.18	3.49	2.64	0.00	1.40	1.48
19259.10	19261.60	11.35	5.59	2.64	0.01	2.24	2.03
19261.60 LB	20160.78	72781.72	10149.45	901.90	34.66	11.29	7.17
20160.78	21059.95	45185.14	11302.14	900.45	21.52	12.57	4.00
21059.95	21959.13	21046.15	7659.70	899.84	10.02	8.52	2.75
21959.13	22858.30 RB	52493.35	10737.35	901.31	25.00	11.94	4.89
22858.30	23264.45	5407.93	1917.41	406.20	2.58	4.72	2.82
23264.45	23670.61	6318.64	2105.08	406.19	3.01	5.18	3.00
23670.61	24076.76	6749.40	2133.99	380.69	3.21	5.62	3.16

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19261.60 LB	20160.78	75398.89	10735.63	905.21	35.90	11.94	7.02
20160.78	21059.95	46597.86	11888.32	900.45	22.19	13.22	3.92
21059.95	21959.13	22506.59	8245.88	899.84	10.72	9.17	2.73
21959.13	22858.30 RB	54183.57	11323.54	901.31	25.80	12.59	4.79
22858.30	23264.45	6331.79	2182.19	406.20	3.02	5.37	2.90
23264.45	23670.61	4981.30	1534.88	241.53	2.37	6.52	3.25

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 182.36

INPUT
Description: 182.36
Left Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19206.8	853.1	19249.4	853.8	19363.3	846.2	19366.7	843.9	19382.9	843.7
19396.16	839.5952	19427.8	829.8	19448.6	830.7	19466.5	826.8	19695	827.9
19906.9	828.6	20073.9	829.2	20158.6	831.3	20319.9	828.7	20421	827.7
20452.9	836.4	20520.8	834.8	20564.5	831.4	20660	830	20672.4	826.5
20780.7	823.8	20923.4	834.7	21035	832.8	21257.1	833.4	21434.9	833.5
21616.8	832.7	21681.7	834.9	21771.9	829.8	21816.3	833.3	21987.8	831.9
22114.3	831.1	22141.9	829.5	22162.5	825.4	22279.6	828.2	22393.4	824.6
22523	825.1	22539.6	827.6	22543.2	825.7	22692.1	823.6	22784.1	828.6
22838.7	838.5	22849.8	837.1	22933.5	842.1	22973.4	847.6	23000.6	843.5
23109.3	845.8	23139.5	836.7	23273.8	833.6	23319	835.1	23368.6	833.8
23420.5	835.3	23596.6	833.7	23639.5	833.5	23668.6	830.3	23683.8	830.9
23692.1	827.1	23702.5	826.5	23718.6	832.5	23752.5	831.1	23795.5	832.8
23971.2	834.1	24037.7	838.1	24168.5	837.4	24267.9	838.8	24454.4	836.8
24612.7	837.2	24825.4	835.4	25089.9	832.5	25235.9	832.5	25409.6	832.6
25590	834	25823.3	834.2	25860.5	832.7	25913.2	834.2	25923.7	829.5
25933.7	830.5	25947	835.5	25967.5	833.5	26163.1	835.1	26531.5	836.1
26720.6	836.3	26769.9	836.6	26989.2	838	27085.1	838	27205.7	840.5
27251.9	842.3	27414.8	841.1	27570.2	839.8	27773	842.7	27910	843.8
27999.8	847.2	28170.1	846.8	28369.9	845.4	28542.7	847.1	28576.2	850.3
28651.6	849.1	28669.8	850.4						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
19206.8	.029	19382.9	.029	20452.9	.043	22838.7	.065	25947	.025
27773	.037								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19396.16	22838.7	490	493.32	590	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
24230	28669.8	850

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	839.59	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.52	Wt. n-Val.		0.037	0.065
E.G. Elev (ft)	840.12	Reach Len. (ft)	490.00	493.32	590.00
Crit W.S. (ft)	834.68	Flow Area (sq ft)		33307.33	5589.63
E.G. Slope (ft/ft)	0.001040	Area (sq ft)		33307.33	18188.70
Q Total (cfs)	210000.00	Flow (cfs)		198035.52	11964.50
Top Width (ft)	7527.51	Top Width (ft)		3442.54	4084.97
Vel Total (ft/s)	5.40	Avg. Vel. (ft/s)		5.95	2.14
Max Chl Dpth (ft)	15.99	Hydr. Depth (ft)		9.68	4.85
Conv. Total (cfs)	6511191.0	Conv. (cfs)		6140224.0	370967.3
Length Wtd. (ft)	503.30	Wetted Per. (ft)		3449.36	1155.97
Min Ch El (ft)	823.60	Shear (lb/sq ft)		0.63	0.31
Alpha	1.15	Stream Power (lb/ft s)		3.73	0.67
Frctn Loss (ft)	0.54	Cum Volume (acre-ft)	3197.55	12499.97	10395.86
C & E Loss (ft)	0.02	Cum SA (acres)	759.61	1358.15	2007.35

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	840.39	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.45	Wt. n-Val.		0.037	0.065

E.G. Elev (ft)	840.84	Reach Len. (ft)	490.00	493.32	590.00
Crit W.S. (ft)	834.65	Flow Area (sq ft)		36042.83	4762.78
E.G. Slope (ft/ft)	0.000814	Area (sq ft)		36042.83	4762.78
Q Total (cfs)	210000.00	Flow (cfs)		199324.25	10675.75
Top Width (ft)	4211.44	Top Width (ft)		3442.54	768.90
Vel Total (ft/s)	5.15	Avg. Vel. (ft/s)		5.53	2.24
Max Chl Dpth (ft)	16.79	Hydr. Depth (ft)		10.47	6.19
Conv. Total (cfs)	7361980.5	Conv. (cfs)		6987720.0	374260.4
Length Wtd. (ft)	502.14	Wetted Per. (ft)		3450.16	779.25
Min Ch El (ft)	823.60	Shear (lb/sq ft)		0.53	0.31
Alpha	1.11	Stream Power (lb/ft s)		2.93	0.70
Frctn Loss (ft)	0.41	Cum Volume (acre-ft)	398.12	13291.06	7415.57
C & E Loss (ft)	0.01	Cum SA (acres)	61.97	1359.11	1083.83

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19396.16 LB	20256.79	72345.13	9214.72	862.60	34.45	10.71	7.85
20256.79	21117.43	42497.89	7836.70	862.92	20.24	9.11	5.42
21117.43	21978.06	21791.17	5676.98	860.96	10.38	6.60	3.84
21978.06	22838.70 RB	61401.32	10578.93	862.88	29.24	12.29	5.80
22838.70	23227.44	592.18	429.68	151.01	0.28	2.86	1.38
23227.44	23616.18	4160.64	2020.53	388.82	1.98	5.20	2.06
23616.18	24004.92	6755.85	2708.56	390.98	3.22	6.97	2.49
24004.92	24393.66	455.83	430.86	225.15	0.22	1.91	1.06

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19396.16 LB	20256.79	72264.98	9898.59	863.39	34.41	11.50	7.30
20256.79	21117.43	43231.16	8520.57	862.92	20.59	9.90	5.07
21117.43	21978.06	23365.63	6360.85	860.96	11.13	7.39	3.67
21978.06	22838.70 RB	60462.48	11262.81	862.88	28.79	13.09	5.37
22838.70	23227.44	791.73	555.52	167.09	0.38	3.34	1.43
23227.44	23616.18	4916.15	2329.43	388.82	2.34	5.99	2.11
23616.18	24004.92	4967.89	1877.83	223.33	2.37	8.78	2.65

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 182.27

INPUT
Description: 182.27
Left Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19017.2	850.1	19040.8	847.5	19060.2	842.7	19091.5	840.6	19257.5	840.8
19311.71	839.0978	19362.6	837.5	19407.8	833	19493.6	830.9	19505.4	827.1
19715.1	827.6	19970	828.3	20202	828.9	20363.6	830.2	20461.4	831
20479.4	829	20496.9	828.7	20527.1	831.7	20688.2	828.2	20887.6	832.3
21053.1	833.2	21208.2	832.9	21305.1	835.8	21363.6	834.8	21448.2	829.3
21526	828.4	21611.9	831	21840.1	830	21958.6	829.3	22074.7	826.7
22240.6	825.8	22366.8	824.2	22406.9	833.2	22438.8	834.1	22599.8	831.5
22738.4	834	22794.3	836.6	22826.4	841.5	22837.9	837.5	22889.2	837.4
22924.7	834.7	22940.2	838.7	22947.1	834.7	22968.4	833.1	23158.3	832.9
23245.5	833	23248.7	834.5	23265.6	833.8	23287.2	843	23332.1	831.1
23388	836.3	23583.7	831.9	23644.9	832.9	23671.6	835.9	23686	834.7
23688.3	835.7	23702.1	830.1	23704.8	828	23714.9	825.9	23733.4	832.6
23852.8	831.2	24100.3	836.4	24197.1	837.7	24358.6	835.5	24539.4	834.5
24700.3	833.4	24888.4	832.1	25067	832.2	25233.3	832.8	25456	832.5
25665.6	832.3	25766.3	831.1	25942.4	832.4	26008.7	833.9	26014.6	829.3
26023.6	829.6	26041.8	834.9	26281.9	836	26342.9	836.3	26515.3	836.9
26583	837.1	26808.4	838.4	26811.8	838.4	27015.8	839	27277.7	840.2
27342.9	842.2	27361.8	841.1	27529	842.3	27703.7	842.9	28009.8	842.2
28188	843.9	28223.1	849.7	28241.9	849.6	28411.4	848.6	28602.2	848
28655.8	847.7	28669.6	850.4						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
19017.2	.029	19715.1	.029	20496.9	.043	23158.3	.043	26281.9	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19311.71	22826.4	485	496.27	550	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
24800	28669.6	845

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	839.09	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.47	Wt. n-Val.		0.036	0.043
E.G. Elev (ft)	839.56	Reach Len. (ft)	485.00	496.27	550.00
Crit W.S. (ft)	834.89	Flow Area (sq ft)		30770.08	9543.42
E.G. Slope (ft/ft)	0.001090	Area (sq ft)		30770.08	20011.63
Q Total (cfs)	210000.00	Flow (cfs)		178606.59	31393.40
Top Width (ft)	7678.09	Top Width (ft)		3498.84	4179.26
Vel Total (ft/s)	5.21	Avg. Vel. (ft/s)		5.80	3.29
Max Chl Dpth (ft)	14.89	Hydr. Depth (ft)		8.79	4.91
Conv. Total (cfs)	6361406.0	Conv. (cfs)		5410424.0	950981.8
Length Wtd. (ft)	505.72	Wetted Per. (ft)		3501.69	1951.29
Min Ch El (ft)	824.20	Shear (lb/sq ft)		0.60	0.33
Alpha	1.12	Stream Power (lb/ft s)		3.47	1.09
Frctn Loss (ft)	0.47	Cum Volume (acre-ft)	3197.55	12137.13	10137.16
C & E Loss (ft)	0.02	Cum SA (acres)	759.61	1318.84	1951.38

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	840.01	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.41	Wt. n-Val.		0.036	0.043
E.G. Elev (ft)	840.42	Reach Len. (ft)	485.00	496.27	550.00
Crit W.S. (ft)	834.86	Flow Area (sq ft)		33974.91	8669.44
E.G. Slope (ft/ft)	0.000823	Area (sq ft)		33974.91	8669.44
Q Total (cfs)	210000.00	Flow (cfs)		182353.50	27646.51
Top Width (ft)	4995.94	Top Width (ft)		3504.93	1491.02
Vel Total (ft/s)	4.92	Avg. Vel. (ft/s)		5.37	3.19
Max Chl Dpth (ft)	15.81	Hydr. Depth (ft)		9.69	5.81
Conv. Total (cfs)	7319808.5	Conv. (cfs)		6356155.5	963653.0
Length Wtd. (ft)	503.56	Wetted Per. (ft)		3508.76	1504.23
Min Ch El (ft)	824.20	Shear (lb/sq ft)		0.50	0.30
Alpha	1.09	Stream Power (lb/ft s)		2.67	0.94
Frctn Loss (ft)	0.38	Cum Volume (acre-ft)	398.12	12894.58	7324.60
C & E Loss (ft)	0.01	Cum SA (acres)	61.97	1319.77	1068.53

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19311.71 LB	20190.38	66073.47	8566.25	879.45	31.46	9.75	7.71
20190.38	21069.05	42548.36	7484.62	879.03	20.26	8.52	5.68
21069.05	21947.73	29593.49	6699.41	878.95	14.09	7.62	4.42
21947.73	22826.40 RB	40391.27	8019.80	864.26	19.23	9.29	5.04
22826.40	23215.95	5926.81	1873.00	384.65	2.82	4.90	3.16
23215.95	23605.49	6065.75	1866.74	368.41	2.89	5.11	3.25
23605.49	23995.04	10300.31	2632.60	393.22	4.90	6.76	3.91
23995.04	24384.59	2406.23	1096.14	389.59	1.15	2.81	2.20
24384.59	24774.13	6082.96	1912.13	389.55	2.90	4.91	3.18
24774.13	25163.68	611.36	162.82	25.87	0.29	6.29	3.75

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19311.71 LB	20190.38	66649.48	9370.38	880.46	31.74	10.66	7.11

20190.38	21069.05	43738.63	8288.75	879.03	20.83	9.43	5.28
21069.05	21947.73	31074.46	7503.54	878.95	14.80	8.54	4.14
21947.73	22826.40 RB	40890.91	8812.25	870.33	19.47	10.14	4.64
22826.40	23215.95	6844.73	2224.37	387.43	3.26	5.77	3.08
23215.95	23605.49	6896.73	2203.92	374.32	3.28	5.94	3.13
23605.49	23995.04	11090.50	2989.10	393.22	5.28	7.67	3.71
23995.04	24384.59	2814.57	1252.05	349.26	1.34	3.63	2.25

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 182.17

INPUT
Description: 182.17
Left Bank Channel Station Interpolated

Station Elevation Data num= 92

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18580.5	847.8	18619.4	844.9	18630.2	842.3	18786.7	844.1	18808.6	839.9
18916.3	840.2	18943	838.3	18972.9	840	18994.4	837.7	19115.8	839.8
19154.2	830.4	19228.8	828.9	19270	835.66	19273.9	836.3	19388.5	831.2
19414.3	828.4	19432.4	830.7	19516.1	830.7	19530.1	826.4	19882.5	827.2
20327.6	827.6	20521.2	827.5	20555.8	832.4	20594.4	828.9	20874.7	835.7
20932	833.3	20952.4	835	21013.9	828.9	21228.5	831.6	21502.2	827
21554.8	826.7	21589.7	830.3	21794.1	829.7	21878.4	826.8	21894.6	824.3
22044.7	825.5	22055.7	823.2	22309.9	831.1	22378.5	831.9	22465.8	831
22570	834.9	22643	843.3	22666.2	847.8	22692.8	848	22769.2	840
22808.2	838.7	22839.4	841.2	22851.9	838.6	23033.7	841.1	23082.3	838.8
23104.9	840.7	23397.8	838.6	23405.4	841.9	23425.3	834.3	23525	830.6
23629.8	831	23657.4	833.2	23673	832.1	23687.1	824.7	23707.2	830.4
23985.1	833.5	24273.8	834.2	24534.6	830.8	24788	832.2	24936.3	833.7
25090.2	831.2	25372.8	832.8	25695.3	833.2	25971.1	834.8	26052	834.5
26056.3	829.3	26072.3	830.4	26089.7	836	26483.4	837.3	26743	839.1
26933.4	838	27153.7	839.2	27462.3	840.9	27735.6	842	27808.6	841.4
27847.2	843.9	28160.3	845.6	28420.1	847.8	28449.2	849.4	28464.2	841.3
28482.4	841.1	28501.7	849.7	28554.8	847.6	28632.7	850.6	28805.2	853.8
28827.3	851.4	28882.1	851.8						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18580.5	.037	19115.8	.037	19388.5	.03	20327.6	.032	21794.1	.065
22570	.065	22839.4	.043	26089.7	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19270	22570	450	471.44	525	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18580.5	19270	850	25380	28882.1	850

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	838.68	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.39	Wt. n-Val.		0.036	0.043
E.G. Elev (ft)	839.07	Reach Len. (ft)	450.00	471.44	525.00
Crit W.S. (ft)	833.99	Flow Area (sq ft)		31382.92	12612.04
E.G. Slope (ft/ft)	0.000810	Area (sq ft)	1111.71	31382.92	17301.87
Q Total (cfs)	210000.00	Flow (cfs)		167521.89	42478.10
Top Width (ft)	7088.33	Top Width (ft)	227.38	3300.00	3560.95
Vel Total (ft/s)	4.77	Avg. Vel. (ft/s)		5.34	3.37
Max Chl Dpth (ft)	15.48	Hydr. Depth (ft)		9.51	6.25
Conv. Total (cfs)	7378223.0	Conv. (cfs)		5885780.5	1492442.4
Length Wtd. (ft)	486.63	Wetted Per. (ft)		3303.05	2020.32
Min Ch El (ft)	823.20	Shear (lb/sq ft)		0.48	0.32
Alpha	1.10	Stream Power (lb/ft s)		2.56	1.06
Frctn Loss (ft)	0.34	Cum Volume (acre-ft)	3191.37	11783.08	9901.59
C & E Loss (ft)	0.04	Cum SA (acres)	758.35	1280.11	1902.52

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	839.65	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.39	Wt. n-Val.		0.036	0.043

E.G. Elev (ft)	840.04	Reach Len. (ft)	450.00	471.44	525.00
Crit W.S. (ft)	833.97	Flow Area (sq ft)		34577.78	8894.15
E.G. Slope (ft/ft)	0.000685	Area (sq ft)		34577.78	8894.15
Q Total (cfs)	210000.00	Flow (cfs)		180668.22	29331.78
Top Width (ft)	4827.88	Top Width (ft)		3300.00	1527.88
Vel Total (ft/s)	4.83	Avg. Vel. (ft/s)		5.22	3.30
Max Chl Dpth (ft)	16.45	Hydr. Depth (ft)		10.48	5.82
Conv. Total (cfs)	8024760.0	Conv. (cfs)		6903900.5	1120859.4
Length Wtd. (ft)	482.68	Wetted Per. (ft)		3307.04	1540.92
Min Ch El (ft)	823.20	Shear (lb/sq ft)		0.45	0.25
Alpha	1.07	Stream Power (lb/ft s)		2.34	0.81
Frctn Loss (ft)	0.30	Cum Volume (acre-ft)	398.12	12504.08	7213.72
C & E Loss (ft)	0.03	Cum SA (acres)	61.97	1281.01	1049.47

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19270.00 LB	20095.00	56434.52	8384.66	826.11	26.87	10.16	6.73
20095.00	20920.00	43295.61	7333.92	825.63	20.62	8.89	5.90
20920.00	21745.00	40837.05	7257.93	825.63	19.45	8.80	5.63
21745.00	22570.00 RB	26954.72	8406.40	825.69	12.84	10.19	3.21
22570.00	22990.81	61.10	62.30	39.21	0.03	1.60	0.98
22990.81	23411.61	0.05	0.44	11.25	0.00	0.04	0.11
23411.61	23832.42	11235.98	3065.43	422.21	5.35	7.32	3.67
23832.42	24253.23	6588.01	2222.30	420.82	3.14	5.28	2.96
24253.23	24674.03	9391.38	2749.11	420.83	4.47	6.53	3.42
24674.03	25094.84	8652.56	2617.24	420.84	4.12	6.22	3.31
25094.84	25515.65	6549.01	1895.20	285.16	3.12	6.65	3.46

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19270.00 LB	20095.00	59988.44	9183.38	830.10	28.57	11.13	6.53
20095.00	20920.00	47133.83	8132.63	825.63	22.44	9.86	5.80
20920.00	21745.00	44687.17	8056.65	825.63	21.28	9.77	5.55
21745.00	22570.00 RB	28858.81	9205.12	825.69	13.74	11.16	3.14
22570.00	22990.81	113.06	159.51	163.14	0.05	0.98	0.71
22990.81	23411.61	51.16	89.64	177.09	0.02	0.51	0.57
23411.61	23832.42	12662.05	3471.89	424.59	6.03	8.25	3.65
23832.42	24253.23	8016.57	2629.70	420.82	3.82	6.25	3.05
24253.23	24674.03	8488.92	2543.41	355.28	4.04	7.33	3.34

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 182.08

INPUT
Description: 182.08
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18533.4	848.4	18557.2	843.3	18605.8	840.2	18834.9	839.8	18901.5	838.7
18951.3	834.2	19000.4	838.6	19030	839	19079.7	834	19107	827.1
19350.7	832.6	19436.5	831.6	19456.7	829.3	19482	830.9	19544.3	828.1
19564.6	830.2	19582	826.3	19806.9	826.6	20040.3	827	20232.7	827.2
20402.2	827.4	20623.8	827.5	20645.7	831.6	20816.6	829.9	21017.3	830.7
21090.1	831.1	21179.9	828.7	21358	829	21542.9	828.4	21591.9	828.3
21617.6	825.7	21732.6	825.1	21747.9	827.2	21814	826.1	21861.4	829.5
21893.7	829.8	21921.1	825.2	22018.1	825.1	22050.3	832.6	22080.8	830.4
22144	835.5	22371.6	834.2	22385.2	833.8	22593	835.2	22790.9	836.2
22808.1	837.7	22851.5	845.6	22870	832	23113.1	831	23164	828
23356.3	829.5	23438.9	831.4	23638.3	831.5	23681.1	830.2	23698.6	826.3
23707.8	826.3	23730.2	830.6	23875.8	833.3	23975.6	834.4	24240.4	832.5
24443.3	832.4	24620.8	833.8	24680.1	831.5	24701.2	832.4	24941.4	832.7
25037.1	832.6	25262.6	832.5	25478.9	832.9	25726.8	832.2	25745.5	831.8
25782.4	832.6	25790.6	831.4	25957.1	833.5	26013.2	832.6	26038.1	834
26046.2	836	26062.3	836	26069.7	831.1	26079.7	832.2	26091.4	836.4

26125.4	837.5	26187.8	835.4	26412.5	836	26508.2	836.2	26788.3	837.3
26980.7	838.4	27098.8	838.8	27310.3	840.2	27570.9	841.1	27768.7	841.8
27827.9	842.5	27856.5	845.1	27891.7	844	28088.5	846.9	28287.4	845.7
28443.4	846.6								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18533.4	.037	19030	.037	19436.5	.03	20402.2	.037	21179.9	.065
22144	.065	23638.3	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19030	22144	505	509.1	485	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
25800	28443.4	845

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	838.43	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.26	Wt. n-Val.	0.037	0.039	0.034
E.G. Elev (ft)	838.69	Reach Len. (ft)	505.00	509.10	485.00
Crit W.S. (ft)	833.71	Flow Area (sq ft)	198.58	30592.19	20981.28
E.G. Slope (ft/ft)	0.000612	Area (sq ft)	198.58	30592.19	24149.34
Q Total (cfs)	210000.00	Flow (cfs)	324.03	132933.83	76742.14
Top Width (ft)	7997.81	Top Width (ft)	93.95	3108.31	4795.55
Vel Total (ft/s)	4.06	Avg. Vel. (ft/s)	1.63	4.35	3.66
Max Chl Dpth (ft)	13.33	Hydr. Depth (ft)	2.11	9.84	5.82
Conv. Total (cfs)	8489204.0	Conv. (cfs)	13098.8	5373821.0	3102284.3
Length Wtd. (ft)	500.75	Wetted Per. (ft)	94.33	3112.60	3610.28
Min Ch El (ft)	825.10	Shear (lb/sq ft)	0.08	0.38	0.22
Alpha	1.02	Stream Power (lb/ft s)	0.13	1.63	0.81
Frctn Loss (ft)	0.34	Cum Volume (acre-ft)	3184.60	11447.71	9651.80
C & E Loss (ft)	0.01	Cum SA (acres)	756.69	1245.43	1852.16

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	839.42	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.28	Wt. n-Val.		0.039	0.039
E.G. Elev (ft)	839.70	Reach Len. (ft)	505.00	509.10	485.00
Crit W.S. (ft)	833.57	Flow Area (sq ft)		33692.59	17300.85
E.G. Slope (ft/ft)	0.000578	Area (sq ft)		33692.59	17300.85
Q Total (cfs)	210000.00	Flow (cfs)		151210.86	58789.14
Top Width (ft)	5667.66	Top Width (ft)		3114.00	2553.66
Vel Total (ft/s)	4.12	Avg. Vel. (ft/s)		4.49	3.40
Max Chl Dpth (ft)	14.32	Hydr. Depth (ft)		10.82	6.77
Conv. Total (cfs)	8737925.0	Conv. (cfs)		6291758.0	2446167.0
Length Wtd. (ft)	503.30	Wetted Per. (ft)		3118.75	2564.40
Min Ch El (ft)	825.10	Shear (lb/sq ft)		0.39	0.24
Alpha	1.05	Stream Power (lb/ft s)		1.75	0.83
Frctn Loss (ft)	0.33	Cum Volume (acre-ft)	398.12	12134.64	7055.87
C & E Loss (ft)	0.01	Cum SA (acres)	61.97	1246.30	1024.87

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18897.57	18930.68	30.44	30.92	26.27	0.01	1.18	0.98
18930.68	18963.79	228.10	113.75	33.24	0.11	3.44	2.01
18963.79	18996.89	65.48	53.79	33.24	0.03	1.62	1.22
18996.89	19030.00	0.02	0.11	1.59	0.00	0.07	0.15
19030.00 LB	19808.50	34853.50	6951.59	774.74	16.60	9.00	5.01
19808.50	20587.00	51757.56	8790.39	778.50	24.65	11.29	5.89
20587.00	21365.50	24044.21	6630.20	778.92	11.45	8.52	3.63
21365.50	22144.00 RB	22278.58	8220.01	780.44	10.61	10.56	2.71
22144.00	22563.96	2179.42	1593.89	419.97	1.04	3.80	1.37
22563.96	22983.92	2014.74	1450.09	373.04	0.96	3.91	1.39
22983.92	23403.88	8626.79	3639.17	420.07	4.11	8.67	2.37
23403.88	23823.84	12105.23	3140.54	420.84	5.76	7.48	3.85
23823.84	24243.80	8875.54	2086.36	419.98	4.23	4.97	4.25
24243.80	24663.76	10997.40	2372.75	420.00	5.24	5.65	4.63

24663.76	25083.72	11849.54	2481.41	419.99	5.64	5.91	4.78
25083.72	25503.68	11442.08	2429.77	419.96	5.45	5.79	4.71
25503.68	25923.64	8651.37	1787.29	296.42	4.12	6.03	4.84

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19030.00 LB	19808.50	39977.01	7725.46	780.88	19.04	9.92	5.17
19808.50	20587.00	57907.91	9565.89	778.50	27.58	12.29	6.05
20587.00	21365.50	28161.10	7405.71	778.92	13.41	9.51	3.80
21365.50	22144.00 RB	25164.85	8995.52	780.44	11.98	11.55	2.80
22144.00	22563.96	3118.02	2012.23	419.97	1.48	4.79	1.55
22563.96	22983.92	2825.43	1822.87	380.28	1.35	4.83	1.55
22983.92	23403.88	10033.45	4057.51	420.07	4.78	9.66	2.47
23403.88	23823.84	14376.01	3558.88	420.84	6.85	8.47	4.04
23823.84	24243.80	11676.47	2504.71	419.98	5.56	5.96	4.66
24243.80	24663.76	13985.08	2791.10	420.00	6.66	6.65	5.01
24663.76	25083.72	2774.67	553.54	83.25	1.32	7.26	5.01

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 181.99

INPUT
Description: 181.99
Left Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18503.3	842.3	18647.5	841.5	18752.4	841.6	18809.7	854.2	18843.32	838.022
18860.2	829.9	18883.2	826.5	18984.8	826.7	19040	829.4	19159.1	829
19192.1	831.8	19215.1	830.6	19219.9	828.9	19360.2	831.2	19457	831.8
19511.1	829	19587.7	829.3	19604.7	826.2	19912.6	826.5	20021.5	826.4
20271.9	826.6	20502.4	826.7	20721.7	826.7	20765.1	831	20927.3	830.2
21123	828.7	21205.9	828.1	21239.2	830.9	21385.3	830.9	21419.4	830.5
21455.9	825.7	21564.4	825.2	21591	831.5	21673.4	829.2	21844.7	830.8
22004.1	831.5	22293.5	833.6	22489.7	834.3	22684.7	833.1	22872.5	833.2
22897.1	833.4	23108.4	835.2	23307.2	834.8	23371.7	834.3	23499.2	835.6
23557.8	835.4	23685.1	833.6	23753.5	833.8	23791.5	830	23857	826.8
23871.7	823.2	23885.9	824.7	23917.1	832.6	23996.3	832	24250.3	831.7
24316.9	832.3	24477.9	832.4	24611.3	832.6	24669.2	832.6	24689.1	830.7
24711.5	831.6	24915.9	832.4	24978.2	832.8	25210.9	833.9	25224.2	834
25538	832.6	25709.9	832.5	25818.8	832.8	25831	831.1	26051.3	832.1
26063.9	835.4	26072.3	833.9	26085.7	836.5	26098.7	835.9	26110.7	830.2
26120.3	830.4	26136.4	836.9	26176.3	837.1	26204.9	834.7	26340.3	835.6
26524.1	836.5	26736.8	837.3	26814	837.8	26996.4	838.7	27151	840.5
27348.6	840.3	27400	842.6	27404.5	844.2	27476.8	842.6	27617.2	844.2
27631.3	844.4	27839.3	845	27874.9	845.2	28051.9	845.7	28226.5	846.3
28268.9	846.6	28480.2	848.3						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18503.3	.037	18809.7	.037	19360.2	.029	20502.4	.037	21239.2	.15
21591	.15	23996.3	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18843.32	21591	370	443.58	390	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
26140	28480.2	850

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	838.02	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.33	Wt. n-Val.		0.035	0.043
E.G. Elev (ft)	838.35	Reach Len. (ft)	370.00	443.58	390.00
Crit W.S. (ft)	834.03	Flow Area (sq ft)		26989.48	24009.07
E.G. Slope (ft/ft)	0.000736	Area (sq ft)		26989.48	25135.59
Q Total (cfs)	210000.00	Flow (cfs)		141296.33	68703.66
Top Width (ft)	8015.01	Top Width (ft)		2747.67	5267.33
Vel Total (ft/s)	4.12	Avg. Vel. (ft/s)		5.24	2.86

Max Chl Dpth (ft)	14.82	Hydr. Depth (ft)		9.82	5.28
Conv. Total (cfs)	7738836.0	Conv. (cfs)		5206996.0	2531839.8
Length Wtd. (ft)	427.00	Wetted Per. (ft)		2752.05	4554.46
Min Ch El (ft)	825.20	Shear (lb/sq ft)		0.45	0.24
Alpha	1.25	Stream Power (lb/ft s)		2.36	0.69
Frctn Loss (ft)	0.36	Cum Volume (acre-ft)	3183.45	11111.22	9377.43
C & E Loss (ft)	0.01	Cum SA (acres)	756.14	1211.21	1796.14

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	838.93	Element			
Vel Head (ft)	0.42	Wt. n-Val.		0.035	0.064
E.G. Elev (ft)	839.35	Reach Len. (ft)	370.00	443.58	390.00
Crit W.S. (ft)	833.91	Flow Area (sq ft)		29503.88	19373.36
E.G. Slope (ft/ft)	0.000776	Area (sq ft)		29503.88	19373.36
Q Total (cfs)	210000.00	Flow (cfs)		167734.78	42265.23
Top Width (ft)	5876.68	Top Width (ft)		2747.68	3129.00
Vel Total (ft/s)	4.30	Avg. Vel. (ft/s)		5.69	2.18
Max Chl Dpth (ft)	15.73	Hydr. Depth (ft)		10.74	6.19
Conv. Total (cfs)	7540333.5	Conv. (cfs)		6022743.5	1517590.0
Length Wtd. (ft)	434.50	Wetted Per. (ft)		2752.97	3138.26
Min Ch El (ft)	825.20	Shear (lb/sq ft)		0.52	0.30
Alpha	1.45	Stream Power (lb/ft s)		2.95	0.65
Frctn Loss (ft)	0.41	Cum Volume (acre-ft)	398.12	11765.34	6851.70
C & E Loss (ft)	0.02	Cum SA (acres)	61.97	1212.05	993.24

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18843.32 LB	19530.24	27693.72	5836.10	689.62	13.19	8.50	4.75
19530.24	20217.16	54312.88	7792.68	687.20	25.86	11.34	6.97
20217.16	20904.08	41915.60	7149.97	687.13	19.96	10.41	5.86
20904.08	21591.00 RB	17374.15	6210.73	688.10	8.27	9.04	2.80
21591.00	22050.28	3432.17	3393.68	459.32	1.63	7.39	1.01
22050.28	22509.56	1619.84	2162.72	459.29	0.77	4.71	0.75
22509.56	22968.84	1550.82	2106.95	459.29	0.74	4.59	0.74
22968.84	23428.12	874.21	1493.78	459.29	0.42	3.25	0.59
23428.12	23887.40	1873.90	2362.01	460.13	0.89	5.14	0.79
23887.40	24346.68	12098.50	2863.26	460.22	5.76	6.23	4.23
24346.68	24805.96	13737.71	2662.03	459.39	6.54	5.80	5.16
24805.96	25265.24	10676.81	2288.18	459.29	5.08	4.98	4.67
25265.24	25724.52	11023.92	2332.52	459.28	5.25	5.08	4.73
25724.52	26183.80	11815.76	2343.92	418.97	5.63	5.64	5.04

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18843.32 LB	19530.24	33736.25	6464.70	690.54	16.06	9.41	5.22
19530.24	20217.16	63506.95	8421.28	687.20	30.24	12.26	7.54
20217.16	20904.08	49470.36	7778.57	687.13	23.56	11.32	6.36
20904.08	21591.00 RB	21021.20	6839.33	688.10	10.01	9.96	3.07
21591.00	22050.28	4274.87	3813.97	459.32	2.04	8.30	1.12
22050.28	22509.56	2232.84	2583.01	459.29	1.06	5.62	0.86
22509.56	22968.84	2153.07	2527.23	459.29	1.03	5.50	0.85
22968.84	23428.12	1354.91	1914.07	459.29	0.65	4.17	0.71
23428.12	23887.40	2524.22	2782.30	460.13	1.20	6.06	0.91
23887.40	24346.68	15641.71	3283.55	460.22	7.45	7.15	4.76
24346.68	24805.96	14083.61	2469.23	380.73	6.71	6.61	5.70

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 181.9

INPUT
Description: 181.9
Left Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17817.2	845.6	17902.8	848.6	17917.6	845	17934.1	838	18071.9	831.7
18101.6	840.2	18146.5	838.4	18281.1	838.9	18368.1	838.5	18440.7	843.5
18589.3	840.9	18610.1	2837.5	455	18670.6	827.8	18729.6	826.2	18750.1	828.9

18906.2	827.9	18955.9	833	19108.9	832.6	19281.5	831.8	19334.9	832.8
19400.3	829.7	19544.5	828.6	19576.2	829.9	19592.3	829.2	19609.9	826.2
19631.1	826.2	20584.7	826.4	20802.5	826.5	20816.8	827.2	20837.8	830.4
21080	829.8	21150.2	829.8	21170.6	826.2	21267.6	825.7	21296.9	833.4
21330.9	830.8	21441.4	831.4	21688.5	831.2	21745.8	830.9	21905.4	830.8
21970.5	830.8	22314.3	831.7	22553.5	831.9	22699.4	832	22846.7	832.9
22992.5	835.4	23032.2	836.1	23189.6	833.9	23358.6	834.7	23477.2	836.3
23627.8	832.6	23665	837.5	23751.6	835.6	23802.2	830.8	23921.5	826
23933.6	823.7	23946	825	23963.2	832.5	24111	831.5	24154	836
24298.9	837.1	24463.5	833.6	24618.7	833.3	24861.4	831.5	24990.7	832.3
25316.7	832.6	25364.3	832.6	25532.9	833.1	25681.4	833	25837.7	832.1
25873.1	832.4	25883.3	831	26094.6	831.7	26108.6	832.3	26117.6	835.7
26124.7	834.5	26153	836.5	26166.2	828.4	26174.1	829	26193.1	837.9
26234.9	837	26255.9	834.2	26355	835.8	26498.6	836.8	26657.8	837.5
26810.5	837.8	27016.3	838.5	27256.5	839.3	27400	840	27458.4	843.6
27645.9	844.5	27672.4	844.7	27856.4	846.5	27872.9	846.5	28097.9	846.7
28143.4	847.1	28472.7	848.5						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17817.2	.037	18589.3	.037	19400.3	.029	20802.5	.15	21296.9	.15
24111	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18610.12	21296.9	270	414.11	590	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17817.2	18440.7	845	26193.1	28472.7	845

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	837.54	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.43	Wt. n-Val.		0.035	0.052
E.G. Elev (ft)	837.97	Reach Len. (ft)	270.00	414.11	590.00
Crit W.S. (ft)	834.17	Flow Area (sq ft)		24624.03	23781.98
E.G. Slope (ft/ft)	0.000997	Area (sq ft)	432.71	24624.03	24322.19
Q Total (cfs)	210000.00	Flow (cfs)		148763.92	61236.08
Top Width (ft)	8199.19	Top Width (ft)	148.17	2686.75	5364.27
Vel Total (ft/s)	4.34	Avg. Vel. (ft/s)		6.04	2.57
Max Chl Dpth (ft)	13.84	Hydr. Depth (ft)		9.16	4.86
Conv. Total (cfs)	6649166.0	Conv. (cfs)		4710266.5	1938899.3
Length Wtd. (ft)	465.54	Wetted Per. (ft)		2689.95	4903.56
Min Ch El (ft)	825.70	Shear (lb/sq ft)		0.57	0.30
Alpha	1.48	Stream Power (lb/ft s)		3.44	0.78
Frctn Loss (ft)	0.38	Cum Volume (acre-ft)	3181.61	10848.43	9156.03
C & E Loss (ft)	0.01	Cum SA (acres)	755.51	1183.54	1748.55

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	838.30	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.62	Wt. n-Val.		0.035	0.103
E.G. Elev (ft)	838.92	Reach Len. (ft)	270.00	414.11	590.00
Crit W.S. (ft)	834.09	Flow Area (sq ft)		26661.58	18810.23
E.G. Slope (ft/ft)	0.001151	Area (sq ft)		26661.58	18810.23
Q Total (cfs)	210000.00	Flow (cfs)		181089.52	28910.49
Top Width (ft)	6114.88	Top Width (ft)		2686.78	3428.10
Vel Total (ft/s)	4.62	Avg. Vel. (ft/s)		6.79	1.54
Max Chl Dpth (ft)	14.60	Hydr. Depth (ft)		9.92	5.49
Conv. Total (cfs)	6189126.0	Conv. (cfs)		5337075.5	852050.8
Length Wtd. (ft)	441.46	Wetted Per. (ft)		2690.73	3436.89
Min Ch El (ft)	825.70	Shear (lb/sq ft)		0.71	0.39
Alpha	1.88	Stream Power (lb/ft s)		4.84	0.60
Frctn Loss (ft)	0.40	Cum Volume (acre-ft)	398.12	11479.37	6680.77
C & E Loss (ft)	0.03	Cum SA (acres)	61.97	1184.38	963.88

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18610.12 LB	19281.81	20610.05	4549.47	672.91	9.81	6.77	4.53
19281.81	19953.51	45937.57	6350.06	672.08	21.88	9.45	7.23
19953.51	20625.21	60900.13	7524.67	671.70	29.00	11.20	8.09

20625.21	21296.90 RB	21316.16	6199.83	673.27	10.15	9.23	3.44
21296.90	21775.29	3080.89	3006.85	478.49	1.47	6.29	1.02
21775.29	22253.67	3267.37	3114.49	478.39	1.56	6.51	1.05
22253.67	22732.06	2616.04	2725.56	478.39	1.25	5.70	0.96
22732.06	23210.45	1090.64	1612.47	478.43	0.52	3.37	0.68
23210.45	23688.83	742.12	1280.24	478.77	0.35	2.68	0.58
23688.83	24167.22	3470.10	2858.76	480.81	1.65	5.98	1.21
24167.22	24645.61	4202.40	1236.21	478.43	2.00	2.58	3.40
24645.61	25123.99	14053.67	2550.67	478.39	6.69	5.33	5.51
25123.99	25602.38	11875.23	2305.49	478.39	5.65	4.82	5.15
25602.38	26080.77	14607.27	2610.69	478.49	6.96	5.46	5.60
26080.77	26559.15	2230.35	480.56	116.58	1.06	4.31	4.64

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18610.12 LB	19281.81	26409.84	5058.86	673.69	12.58	7.53	5.22
19281.81	19953.51	55909.60	6859.45	672.08	26.62	10.21	8.15
19953.51	20625.21	72985.17	8034.06	671.70	34.75	11.96	9.08
20625.21	21296.90 RB	25784.89	6709.22	673.27	12.28	9.99	3.84
21296.90	21775.29	4039.38	3369.64	478.49	1.92	7.04	1.20
21775.29	22253.67	4257.33	3477.28	478.39	2.03	7.27	1.22
22253.67	22732.06	3493.66	3088.35	478.39	1.66	6.46	1.13
22732.06	23210.45	1658.64	1975.26	478.43	0.79	4.13	0.84
23210.45	23688.83	1219.69	1643.03	478.77	0.58	3.43	0.74
23688.83	24167.22	4708.07	3221.55	480.81	2.24	6.73	1.46
24167.22	24645.61	6997.50	1599.00	478.43	3.33	3.34	4.38
24645.61	25123.99	2536.24	436.12	85.18	1.21	5.49	5.82

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 181.82

INPUT
Description: 181.82
Left Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17708.4	845.9	17735.6	846.9	17778.8	844.1	17841.4	844.2	17842.5	845.8
18004.8	841.5	18071.8	840.3	18216.1	840.4	18262.2	840.5	18275.59	837.1899
18306.7	829.5	18349.3	826	18404.7	828.9	18557.6	829.6	18707.1	830.1
18784.7	829.3	18839	832	18992.1	829.5	19118.6	831.6	19245.5	830.2
19261.2	827.4	19281.6	827.1	19302.3	829.4	19448	828.8	19594.2	828.3
19613.6	825.5	19832.6	825.6	20199.9	824.9	20305.2	826.3	20515.3	826.4
20658.2	826	20812.2	826.3	20983.5	826.4	20993	832.5	21142.7	833.4
21233.9	832.4	21478.8	832.6	21547.9	832.9	21740.7	831.7	21759	831.6
21915	832.2	22214.2	833.3	22351.7	833.2	22666.4	832.6	22846.3	833
23032.8	832.7	23228.6	833.1	23502.1	835.3	23674.8	835.4	23715.7	836.1
23750.8	831.7	23789.3	830.4	23796.7	826.9	23811	828.4	23819.8	831.4
23830.8	831.2	23844.2	824.1	23870.7	826.1	23898.3	830.2	24104.5	831.5
24267.3	830.6	24570.6	831.6	24759.1	831.4	24819	832.5	24860.5	832
25024.7	832.8	25145.8	833	25372.7	833.1	25510.1	832.6	25665.3	831.7
25832.1	831.4	25974.3	831.9	26156.7	832.7	26194.3	832.3	26224.6	835.2
26229.2	832.9	26242.6	835.8	26261.8	836	26271.1	827.8	26279.2	828.3
26298.3	836.8	26338.1	837.6	26361.8	834.8	26382.9	835.5	26560.2	836.3
26628.9	836.7	26928.6	837.9	26995.3	838.3	27181.6	839.7	27350.6	839.9
27500.9	840.6	27564.4	844.2	27755.6	844.5	27937.2	845.4	28056.4	845.8
28256.5	848	28291	848.8						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17708.4	.037	18262.2	.037	19448	.029	20993	.15	24104.5	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18275.59	20993	400	463.36	390	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
26338.1	28291	845

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft) 837.18 Element Left OB Channel Right OB

Vel Head (ft)	0.39	Wt. n-Val.		0.031	0.045
E.G. Elev (ft)	837.58	Reach Len. (ft)	400.00	463.36	390.00
Crit W.S. (ft)	833.70	Flow Area (sq ft)		25713.86	25118.50
E.G. Slope (ft/ft)	0.000690	Area (sq ft)		25713.86	25489.70
Q Total (cfs)	210000.00	Flow (cfs)		148441.61	61558.38
Top Width (ft)	8450.20	Top Width (ft)		2717.39	5732.81
Vel Total (ft/s)	4.13	Avg. Vel. (ft/s)		5.77	2.45
Max Chl Dpth (ft)	13.08	Hydr. Depth (ft)		9.46	4.72
Conv. Total (cfs)	7995786.0	Conv. (cfs)		5651940.0	2343845.8
Length Wtd. (ft)	443.47	Wetted Per. (ft)		2721.05	5334.23
Min Ch El (ft)	824.90	Shear (lb/sq ft)		0.41	0.20
Alpha	1.48	Stream Power (lb/ft s)		2.35	0.50
Frctn Loss (ft)	0.33	Cum Volume (acre-ft)	3180.27	10609.16	8818.69
C & E Loss (ft)	0.00	Cum SA (acres)	755.06	1157.86	1673.39

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	837.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.51	Wt. n-Val.		0.031	0.070
E.G. Elev (ft)	838.49	Reach Len. (ft)	400.00	463.36	390.00
Crit W.S. (ft)	833.49	Flow Area (sq ft)		27877.80	20401.76
E.G. Slope (ft/ft)	0.000729	Area (sq ft)		27877.80	20401.76
Q Total (cfs)	210000.00	Flow (cfs)		173622.53	36377.46
Top Width (ft)	6424.41	Top Width (ft)		2717.41	3707.00
Vel Total (ft/s)	4.35	Avg. Vel. (ft/s)		6.23	1.78
Max Chl Dpth (ft)	13.88	Hydr. Depth (ft)		10.26	5.50
Conv. Total (cfs)	7776415.5	Conv. (cfs)		6429338.0	1347077.5
Length Wtd. (ft)	452.10	Wetted Per. (ft)		2721.86	3717.36
Min Ch El (ft)	824.90	Shear (lb/sq ft)		0.47	0.25
Alpha	1.72	Stream Power (lb/ft s)		2.90	0.45
Frctn Loss (ft)	0.34	Cum Volume (acre-ft)	398.12	11220.13	6415.21
C & E Loss (ft)	0.00	Cum SA (acres)	61.97	1158.69	915.56

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18275.59 LB	18954.94	19994.63	5017.04	680.58	9.52	7.39	3.99
18954.94	19634.29	24297.18	5312.01	679.96	11.57	7.82	4.57
19634.29	20313.65	55607.43	8001.79	679.36	26.48	11.78	6.95
20313.65	20993.00 RB	48542.39	7383.02	681.14	23.12	10.87	6.57
20993.00	21479.53	1522.22	2175.39	486.54	0.72	4.47	0.70
21479.53	21966.07	1818.50	2420.36	486.54	0.87	4.97	0.75
21966.07	22452.60	1356.41	2029.94	486.54	0.65	4.17	0.67
22452.60	22939.13	1459.22	2120.91	486.53	0.69	4.36	0.69
22939.13	23425.67	1215.63	1900.78	486.54	0.58	3.91	0.64
23425.67	23912.20	1334.84	2016.79	490.35	0.64	4.15	0.66
23912.20	24398.73	10687.10	3045.49	486.54	5.09	6.26	3.51
24398.73	24885.27	13297.84	2725.41	486.55	6.33	5.60	4.88
24885.27	25371.80	8695.17	2112.15	486.54	4.14	4.34	4.12
25371.80	25858.33	11295.09	2471.12	486.54	5.38	5.08	4.57
25858.33	26344.87	8876.35	2100.13	465.03	4.23	4.57	4.23

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18275.59 LB	18954.94	24373.70	5558.02	681.39	11.61	8.18	4.39
18954.94	19634.29	29289.69	5853.00	679.96	13.95	8.62	5.00
19634.29	20313.65	63784.90	8542.77	679.36	30.37	12.57	7.47
20313.65	20993.00 RB	56174.27	7924.01	681.14	26.75	11.66	7.09
20993.00	21479.53	2069.18	2562.83	486.54	0.99	5.27	0.81
21479.53	21966.07	2409.21	2807.79	486.54	1.15	5.77	0.86
21966.07	22452.60	1877.19	2417.38	486.54	0.89	4.97	0.78
22452.60	22939.13	1996.40	2508.35	486.53	0.95	5.16	0.80
22939.13	23425.67	1713.01	2288.22	486.54	0.82	4.70	0.75
23425.67	23912.20	1850.56	2404.23	490.35	0.88	4.94	0.77
23912.20	24398.73	13502.80	3432.93	486.54	6.43	7.06	3.93
24398.73	24885.27	10959.10	1980.01	307.79	5.22	6.57	5.53

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 181.74

INPUT
Description: 181.74
Left Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17284.5	849	17325.1	843.8	17341.8	843.8	17397.4	836.8	17408.5	839.8
17417.6	839.6	17557.8	840.1	17719.3	838.1	17855.8	837.9	17895.6	840
18030.4	839.5	18119	837.2	18120.4	9836.8	571 18166.8	826.2	18334.2	826.7
18364.1	830.3	18438.5	831.9	18546.5	827.9	18650.4	829.3	18784.8	833.8
18929.9	827.4	18990.4	825.6	19010.2	829.5	19144.4	830.4	19222.7	828.7
19282	830.8	19344.5	827.7	19481.5	829.3	19541.9	827.3	19643.9	828.7
19667.8	826.5	19710.6	827	19718.4	824.7	19899.3	825.1	20213.1	826.1
20381.9	828.4	20516.8	828.3	20692.8	826.8	20828.6	826.7	21098.6	828
21215.5	828.8	21228.1	833	21386.9	830.7	21532.3	829.6	21578.3	829.4
21756	829.1	21800.7	829.5	22212.7	829.8	22280.6	829.9	22931.2	831.5
23186	832.1	23236.6	832.5	23396.1	833.2	23633.4	834	23791.8	834.4
23927.6	835.2	24033.6	835.4	24089.7	830.1	24099.4	824.5	24145.2	828.3
24292.1	831.5	24427.6	832.7	24612.5	832.8	24770.8	832.5	24921.3	831.7
25061	832.4	25256.6	832.8	25306	833	25577.4	832.4	25614.7	832.1
25800.3	832.2	25866.3	832.3	26055.2	831.2	26211.2	832.1	26351.1	832.2
26376	835.5	26381.3	833.1	26415.5	837	26420	833.4	26424	827.8
26432.6	828.2	26452.2	837.9	26515.1	835	26539.7	836.2	26758.8	837.2
26947.9	838.7	26959.9	838.9	27239.4	840.4	27441.3	841.4	27545.2	842.2
27679.4	843	27757.9	843.3	28028.6	844.5	28146	845.7	28327.2	846.5
28465.1	847.2	28681	848.9						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17284.5	.037	18119	.037	19541.9	.029	21228.1	.15	24292.1	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18120.49	21228.1	890	625.63	375	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17284.5	17895.6	845	26120	28681	845

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	836.85	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.40	Wt. n-Val.		0.031	0.060
E.G. Elev (ft)	837.25	Reach Len. (ft)	890.00	625.63	375.00
Crit W.S. (ft)	833.42	Flow Area (sq ft)		27494.69	25119.93
E.G. Slope (ft/ft)	0.000787	Area (sq ft)	0.01	27494.69	26683.06
Q Total (cfs)	210000.00	Flow (cfs)		157704.38	52295.63
Top Width (ft)	8535.90	Top Width (ft)	0.59	3107.58	5427.73
Vel Total (ft/s)	3.99	Avg. Vel. (ft/s)		5.74	2.08
Max Chl Dpth (ft)	12.35	Hydr. Depth (ft)		8.85	5.14
Conv. Total (cfs)	7487266.0	Conv. (cfs)		5622736.0	1864530.1
Length Wtd. (ft)	577.86	Wetted Per. (ft)		3111.07	4893.89
Min Ch El (ft)	824.70	Shear (lb/sq ft)		0.43	0.25
Alpha	1.62	Stream Power (lb/ft s)		2.49	0.52
Frctn Loss (ft)	0.47	Cum Volume (acre-ft)	3180.27	10326.16	8585.13
C & E Loss (ft)	0.00	Cum SA (acres)	755.05	1126.88	1623.43

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	837.64	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.50	Wt. n-Val.		0.031	0.106
E.G. Elev (ft)	838.14	Reach Len. (ft)	890.00	625.63	375.00
Crit W.S. (ft)	833.17	Flow Area (sq ft)		29955.89	21262.91
E.G. Slope (ft/ft)	0.000792	Area (sq ft)		29955.89	21262.91
Q Total (cfs)	210000.00	Flow (cfs)		181898.80	28101.21
Top Width (ft)	6559.51	Top Width (ft)		3107.61	3451.90
Vel Total (ft/s)	4.10	Avg. Vel. (ft/s)		6.07	1.32
Max Chl Dpth (ft)	13.14	Hydr. Depth (ft)		9.64	6.16
Conv. Total (cfs)	7460894.5	Conv. (cfs)		6462513.0	998381.6
Length Wtd. (ft)	598.73	Wetted Per. (ft)		3111.88	3458.85
Min Ch El (ft)	824.70	Shear (lb/sq ft)		0.48	0.30

Alpha	1.91	Stream Power (lb/ft s)		2.89	0.40
Frctn Loss (ft)	0.46	Cum Volume (acre-ft)	398.12	10912.53	6228.70
C & E Loss (ft)	0.01	Cum SA (acres)	61.97	1127.71	883.51

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18120.49 LB	18897.39	23496.66	5608.29	778.58	11.19	7.22	4.19
18897.39	19674.29	30472.47	6339.28	777.63	14.51	8.16	4.81
19674.29	20451.20	58278.90	8351.30	777.25	27.75	10.75	6.98
20451.20	21228.10 RB	45456.34	7195.82	777.60	21.65	9.26	6.32
21228.10	21724.96	3070.16	3217.27	496.88	1.46	6.48	0.95
21724.96	22221.82	3716.69	3608.11	496.86	1.77	7.26	1.03
22221.82	22718.68	3074.51	3219.96	496.86	1.46	6.48	0.95
22718.68	23215.54	2175.30	2616.36	496.86	1.04	5.27	0.83
23215.54	23712.40	1081.29	1720.09	496.87	0.51	3.46	0.63
23712.40	24209.26	1328.96	1949.68	498.78	0.63	3.92	0.68
24209.26	24706.12	8307.81	2307.35	496.88	3.96	4.64	3.60
24706.12	25202.98	10333.32	2274.26	496.87	4.92	4.58	4.54
25202.98	25699.84	9161.57	2115.81	496.86	4.36	4.26	4.33
25699.84	26196.70	10046.02	2091.05	420.16	4.78	4.98	4.80

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18120.49 LB	18897.39	28039.15	6223.59	779.40	13.35	8.01	4.51
18897.39	19674.29	35667.91	6954.58	777.63	16.98	8.95	5.13
19674.29	20451.20	65868.58	8966.60	777.25	31.37	11.54	7.35
20451.20	21228.10 RB	52323.13	7811.12	777.60	24.92	10.05	6.70
21228.10	21724.96	3711.12	3610.78	496.88	1.77	7.27	1.03
21724.96	22221.82	4404.60	4001.62	496.86	2.10	8.05	1.10
22221.82	22718.68	3715.82	3613.47	496.86	1.77	7.27	1.03
22718.68	23215.54	2740.05	3009.86	496.86	1.30	6.06	0.91
23215.54	23712.40	1520.14	2113.60	496.87	0.72	4.25	0.72
23712.40	24209.26	1800.56	2343.19	498.78	0.86	4.72	0.77
24209.26	24706.12	10208.93	2570.39	475.74	4.86	5.46	3.97

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 181.62

INPUT
Description: 181.62
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16983	842.4	16995.3	841.9	17020.3	836.7	17087.7	837.7	17111.4	834.5
17130.1	834.4	17317.8	834.1	17522.9	835	17701.5	834.8	17939.5	835.2
18118.4	834.2	18155.7	828.4	18176.1	822.8	18250.2	823.6	18398.4	828.3
18424.9	824.3	18538.5	826.1	18555.8	828.2	18600	828.8	18691.2	825.5
18793.7	826.2	18839.5	824.5	19009.4	826.8	19173.2	828.6	19385.7	830.7
19549.8	829.5	19692.9	826.1	19699.6	824.1	19998.8	825.6	20103.5	826.1
20291.3	826.9	20470.8	826.8	20650.1	828.4	20778.4	826.3	21004.6	827.1
21196.6	827.7	21368.6	828.4	21375	832.5	21445.3	830.3	21633.3	830.5
21711	830.6	21992.5	830.5	22041.9	830.6	22427.4	832.2	22503.2	831.6
22782.7	832.1	22994	832.1	23179.8	832.3	23369.8	831.4	23538.1	830
23795.9	831.5	24036.4	835.5	24223.8	835.4	24232.6	835	24245.1	839
24262.2	830.1	24269.3	830.1	24281	824.1	24312.2	825.6	24357.7	831.9
24488	832.1	24648.6	832.6	24810.4	833.6	24971.5	833.4	25051	832.9
25065.3	834.1	25112.5	831.9	25185.5	831.6	25353.4	832.3	25385.4	832.6
25597.6	833	25623.9	832.9	25941.4	832.8	25946.7	832.8	26177.9	832.6
26223.2	832.8	26237.9	830.9	26467.9	832.4	26492.5	835	26500.8	833
26510.7	836.5	26535.4	837.7	26540.2	828.5	26550.6	827.7	26569.5	838.1
26647.9	836	26820.1	837.2	26851.4	837.4	27121.3	838.5	27193.4	838.8
27417.7	840.1	27553.1	840.8	27751.2	841.4	27926.7	843.3	28199.3	845
28443.8	846.7								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16983	.037	18118.4	.037	19549.8	.029	21368.6	.15	21375	.15
24488	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18118.4	21375	680	551.52	380	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
25780	28443.8	845

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	836.33	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.45	Wt. n-Val.	0.037	0.033	0.073
E.G. Elev (ft)	836.77	Reach Len. (ft)	680.00	551.52	380.00
Crit W.S. (ft)	831.98	Flow Area (sq ft)	1665.56	30481.56	19159.85
E.G. Slope (ft/ft)	0.000847	Area (sq ft)	1665.56	30481.56	22168.14
Q Total (cfs)	210000.00	Flow (cfs)	2697.60	176743.16	30559.25
Top Width (ft)	9488.54	Top Width (ft)	1020.55	3256.60	5211.39
Vel Total (ft/s)	4.09	Avg. Vel. (ft/s)	1.62	5.80	1.59
Max Chl Dpth (ft)	13.53	Hydr. Depth (ft)	1.63	9.36	4.36
Conv. Total (cfs)	7217321.5	Conv. (cfs)	92711.6	6074343.5	1050266.5
Length Wtd. (ft)	528.29	Wetted Per. (ft)	1020.68	3260.03	4395.38
Min Ch El (ft)	822.80	Shear (lb/sq ft)	0.09	0.49	0.23
Alpha	1.71	Stream Power (lb/ft s)	0.14	2.87	0.37
Frctn Loss (ft)	0.41	Cum Volume (acre-ft)	3163.25	9909.82	8374.86
C & E Loss (ft)	0.01	Cum SA (acres)	744.62	1081.17	1577.64

Warning - Divided flow computed for this cross-section.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	837.19	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.48	Wt. n-Val.		0.033	0.133
E.G. Elev (ft)	837.67	Reach Len. (ft)	680.00	551.52	380.00
Crit W.S. (ft)	831.89	Flow Area (sq ft)		33295.71	17705.46
E.G. Slope (ft/ft)	0.000753	Area (sq ft)		33295.71	17705.46
Q Total (cfs)	210000.00	Flow (cfs)		193019.38	16980.62
Top Width (ft)	6462.48	Top Width (ft)		3256.60	3205.88
Vel Total (ft/s)	4.12	Avg. Vel. (ft/s)		5.80	0.96
Max Chl Dpth (ft)	14.39	Hydr. Depth (ft)		10.22	5.52
Conv. Total (cfs)	7651067.5	Conv. (cfs)		7032401.5	618666.1
Length Wtd. (ft)	538.91	Wetted Per. (ft)		3263.02	3214.75
Min Ch El (ft)	822.80	Shear (lb/sq ft)		0.48	0.26
Alpha	1.83	Stream Power (lb/ft s)		2.78	0.25
Frctn Loss (ft)	0.38	Cum Volume (acre-ft)	398.12	10458.31	6060.96
C & E Loss (ft)	0.01	Cum SA (acres)	61.97	1082.01	854.86

Warning - Divided flow computed for this cross-section.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17058.69	17134.39	84.57	55.81	36.66	0.04	1.53	1.52
17134.39	17210.08	274.34	151.11	75.69	0.13	2.00	1.82
17210.08	17285.77	302.61	160.27	75.69	0.14	2.12	1.89
17285.77	17361.47	313.55	163.72	75.69	0.15	2.16	1.92
17361.47	17437.16	246.31	141.65	75.69	0.12	1.87	1.74
17437.16	17512.85	177.84	116.50	75.69	0.08	1.54	1.53
17512.85	17588.55	145.37	103.23	75.69	0.07	1.36	1.41
17588.55	17664.24	160.06	109.37	75.69	0.08	1.44	1.46
17664.24	17739.93	170.81	113.72	75.69	0.08	1.50	1.50
17739.93	17815.63	152.01	106.03	75.69	0.07	1.40	1.43
17815.63	17891.32	129.70	96.40	75.69	0.06	1.27	1.35
17891.32	17967.01	114.65	89.52	75.69	0.05	1.18	1.28
17967.01	18042.71	169.29	113.11	75.69	0.08	1.49	1.50
18042.71	18118.40	256.51	145.14	75.69	0.12	1.92	1.77
18118.40 LB	18932.55	44566.68	8408.49	815.98	21.22	10.33	5.30
18932.55	19746.70	31758.09	6493.30	814.51	15.12	7.98	4.89
19746.70	20560.85	56068.23	8330.51	814.16	26.70	10.23	6.73
20560.85	21375.00 RB	44350.15	7249.26	815.38	21.12	8.90	6.12
21375.00	21846.25	2439.19	2688.30	471.29	1.16	5.70	0.91
21846.25	22317.51	2241.74	2555.46	471.25	1.07	5.42	0.88
22317.51	22788.76	1606.02	2092.04	471.26	0.76	4.44	0.77

22788.76	23260.01	1457.30	1973.55	471.25	0.69	4.19	0.74
23260.01	23731.27	2268.79	2573.94	471.26	1.08	5.46	0.88
23731.27	24202.52	592.14	1149.70	471.29	0.28	2.44	0.52
24202.52	24673.77	4409.13	2219.82	461.44	2.10	4.85	1.99
24673.77	25145.03	5428.88	1482.83	471.36	2.59	3.15	3.66
25145.03	25616.28	7915.08	1859.09	471.26	3.77	3.94	4.26
25616.28	26087.53	2200.99	565.11	163.72	1.05	3.45	3.89

Warning - Divided flow computed for this cross-section.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18118.40 LB	18932.55	48016.65	9112.02	818.97	22.87	11.19	5.27
18932.55	19746.70	35500.56	7196.84	814.51	16.91	8.84	4.93
19746.70	20560.85	60629.12	9034.05	814.16	28.87	11.10	6.71
20560.85	21375.00 RB	48873.07	7952.79	815.38	23.27	9.77	6.15
21375.00	21846.25	2903.44	3095.53	471.29	1.38	6.57	0.94
21846.25	22317.51	2698.88	2962.69	471.25	1.29	6.29	0.91
22317.51	22788.76	2032.64	2499.26	471.26	0.97	5.30	0.81
22788.76	23260.01	1874.58	2380.78	471.25	0.89	5.05	0.79
23260.01	23731.27	2726.96	2981.17	471.26	1.30	6.33	0.91
23731.27	24202.52	923.57	1556.93	471.29	0.44	3.30	0.59
24202.52	24673.77	3820.54	2229.11	387.15	1.82	5.89	1.71

Warning - Divided flow computed for this cross-section.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 181.51

INPUT
Description: 181.51
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16541.8	841	16580.7	842.5	16592.9	835.7	16623.6	834.3	16723.4	835.7
16758.5	831.8	16805	833.6	17015	833.5	17207.4	834.3	17266.3	834.5
17415.8	834.3	17584.5	834.5	17599	834.5	17734.3	835.4	17858.6	835.1
17945	835.4	18051.8	832.9	18090.7	824.6	18211.2	824.1	18302.5	820.9
18359.3	830.1	18475	827.9	18524.8	824.8	18645.8	826.3	18780.5	826.1
18923.1	827	19050.7	829.7	19187.7	830.9	19312.4	828.8	19432.1	830.8
19521.1	825.7	19528.5	824.1	19795.4	824.7	19928.6	824.9	20055.7	825.2
20173	825.3	20288.9	826.6	20308.6	825.8	20435.2	826.2	20553	826.2
20668.9	825.7	20721.4	825.6	20945.7	826.2	21149	827	21423.3	828
21433	831.6	21574.9	829.8	21775.2	831	21924.7	831.2	22069.6	830.9
22259.3	831.1	22567.5	830.8	22766.1	830.6	22905.4	831.9	23095.7	831.9
23260.8	832.2	23565.6	831.5	23745.3	830.8	23920.1	830.2	24066.9	831.2
24156	832.4	24212.5	836.8	24269.1	837.7	24322.9	835	24377.2	834.8
24394.6	831.9	24415.7	831.7	24456.9	826.2	24476	822.4	24491.7	827.2
24625	833.4	24743.9	832.4	24890.1	832	24923	832.1	25110.8	831.5
25163.8	831.4	25462.2	831.2	25588.5	831	25744.3	831.8	25952.2	832.6
26077.9	833.1	26300.5	833.9	26459.3	833.9	26608.1	834.6	26697.7	838
26707.2	834.4	26722.8	838.1	26800.5	837.7	26991.7	838.7	27067.9	838.9
27389	840.3	27439.4	840.4	27735.2	841.1	27872.7	842	27955.2	840.3
27999	842.9								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16541.8	.037	18051.8	.037	19312.4	.03	21433	.15	24625	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18051.8	21433	630	521.13	435	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16541.8	16723.4	842.9	25740	27999	842.9

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	835.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.40	Wt. n-Val.	0.037	0.032	0.070
E.G. Elev (ft)	836.35	Reach Len. (ft)	630.00	521.13	435.00
Crit W.S. (ft)	831.59	Flow Area (sq ft)	2210.26	31908.95	19565.37

E.G. Slope (ft/ft)	0.000707	Area (sq ft)	2334.58	31908.95	21910.70
Q Total (cfs)	210000.00	Flow (cfs)	3314.24	175854.16	30831.59
Top Width (ft)	9959.62	Top Width (ft)	1459.35	3381.20	5119.06
Vel Total (ft/s)	3.91	Avg. Vel. (ft/s)	1.50	5.51	1.58
Max Chl Dpth (ft)	15.05	Hydr. Depth (ft)	1.66	9.44	4.65
Conv. Total (cfs)	7896236.5	Conv. (cfs)	124619.3	6612314.5	1159302.5
Length Wtd. (ft)	509.74	Wetted Per. (ft)	1328.69	3384.06	4206.74
Min Ch El (ft)	820.90	Shear (lb/sq ft)	0.07	0.42	0.21
Alpha	1.69	Stream Power (lb/ft s)	0.11	2.29	0.32
Frctn Loss (ft)	0.30	Cum Volume (acre-ft)	3132.03	9514.85	8182.59
C & E Loss (ft)	0.05	Cum SA (acres)	725.26	1039.15	1532.58

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	836.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.46	Wt. n-Val.		0.032	0.150
E.G. Elev (ft)	837.29	Reach Len. (ft)	630.00	521.13	435.00
Crit W.S. (ft)	831.49	Flow Area (sq ft)		34876.58	17309.51
E.G. Slope (ft/ft)	0.000656	Area (sq ft)		34876.58	17309.51
Q Total (cfs)	210000.00	Flow (cfs)		196112.38	13887.63
Top Width (ft)	6451.14	Top Width (ft)		3381.20	3069.94
Vel Total (ft/s)	4.02	Avg. Vel. (ft/s)		5.62	0.80
Max Chl Dpth (ft)	15.93	Hydr. Depth (ft)		10.31	5.64
Conv. Total (cfs)	8200207.5	Conv. (cfs)		7657915.0	542292.7
Length Wtd. (ft)	516.45	Wetted Per. (ft)		3387.99	3077.74
Min Ch El (ft)	820.90	Shear (lb/sq ft)		0.42	0.23
Alpha	1.83	Stream Power (lb/ft s)		2.37	0.18
Frctn Loss (ft)	0.36	Cum Volume (acre-ft)	398.12	10026.74	5908.23
C & E Loss (ft)	0.00	Cum SA (acres)	61.97	1039.98	827.48

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16642.47	16743.13	31.80	26.61	19.86	0.02	1.35	1.20
16743.13	16843.80	588.49	293.54	100.80	0.28	2.92	2.00
16843.80	16944.47	424.18	241.06	100.67	0.20	2.39	1.76
16944.47	17045.13	432.19	243.79	100.67	0.21	2.42	1.77
17045.13	17145.80	345.58	213.17	100.67	0.16	2.12	1.62
17145.80	17246.47	240.77	171.62	100.67	0.11	1.70	1.40
17246.47	17347.13	195.01	151.23	100.67	0.09	1.50	1.29
17347.13	17447.80	219.97	162.56	100.67	0.10	1.61	1.35
17447.80	17548.47	206.46	156.49	100.67	0.10	1.55	1.32
17548.47	17649.13	168.63	138.60	100.67	0.08	1.38	1.22
17649.13	17749.80	67.48	80.00	100.67	0.03	0.79	0.84
17749.80	17850.47	56.06	71.58	100.67	0.03	0.71	0.78
17850.47	17951.13	55.76	71.35	100.67	0.03	0.71	0.78
17951.13	18051.80	281.84	188.65	100.69	0.13	1.87	1.49
18051.80 LB	18897.10	41636.70	8460.84	847.10	19.83	10.01	4.92
18897.10	19742.40	33248.21	6727.68	845.69	15.83	7.96	4.94
19742.40	20587.70	55187.92	8827.16	845.32	26.28	10.44	6.25
20587.70	21433.00 RB	45781.36	7893.27	845.95	21.80	9.34	5.80
21433.00	21870.73	1851.47	2324.39	437.75	0.88	5.31	0.80
21870.73	22308.47	1623.20	2147.92	437.73	0.77	4.91	0.76
22308.47	22746.20	1739.18	2238.72	437.73	0.83	5.11	0.78
22746.20	23183.93	1303.35	1882.93	437.74	0.62	4.30	0.69
23183.93	23621.67	1208.97	1799.88	437.73	0.58	4.11	0.67
23621.67	24059.40	1813.23	2295.45	437.74	0.86	5.24	0.79
24059.40	24497.13	967.63	1418.86	337.29	0.46	4.23	0.68
24497.13	24934.87	4510.89	1792.37	437.88	2.15	4.09	2.52
24934.87	25372.60	8202.06	1937.57	437.73	3.91	4.43	4.23
25372.60	25810.33	7611.60	1727.28	367.40	3.62	4.70	4.41

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)

W.S. Elev (ft)	836.46	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.48	Wt. n-Val.	0.037	0.033	0.136
E.G. Elev (ft)	836.93	Reach Len. (ft)	495.00	497.47	435.00
Crit W.S. (ft)	831.20	Flow Area (sq ft)	611.48	34377.99	14540.37
E.G. Slope (ft/ft)	0.000724	Area (sq ft)	611.48	34377.99	14540.37
Q Total (cfs)	210000.00	Flow (cfs)	2025.26	196478.84	11495.89
Top Width (ft)	6810.00	Top Width (ft)	108.20	3397.80	3304.00
Vel Total (ft/s)	4.24	Avg. Vel. (ft/s)	3.31	5.72	0.79
Max Chl Dpth (ft)	15.16	Hydr. Depth (ft)	5.65	10.12	4.40
Conv. Total (cfs)	7804844.0	Conv. (cfs)	75270.5	7302318.0	427255.5
Length Wtd. (ft)	492.46	Wetted Per. (ft)	113.95	3403.56	3313.91
Min Ch El (ft)	821.30	Shear (lb/sq ft)	0.24	0.46	0.20
Alpha	1.71	Stream Power (lb/ft s)	0.80	2.61	0.16
Frctn Loss (ft)	0.32	Cum Volume (acre-ft)	393.69	9612.47	5749.21
C & E Loss (ft)	0.02	Cum SA (acres)	61.19	999.43	795.66

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16196.65	16323.91	165.15	157.88	119.28	0.08	1.32	1.05
16323.91	16451.16	828.83	426.70	127.39	0.39	3.35	1.94
16451.16	16578.41	1164.72	523.11	127.26	0.55	4.11	2.23
16578.41	16705.67	988.63	474.10	127.25	0.47	3.73	2.09
16705.67	16832.92	1060.01	494.36	127.25	0.50	3.88	2.14
16832.92	16960.17	1001.22	477.72	127.25	0.48	3.75	2.10
16960.17	17087.43	855.00	434.54	127.25	0.41	3.41	1.97
17087.43	17214.68	832.05	427.51	127.25	0.40	3.36	1.95
17214.68	17341.93	862.60	436.86	127.25	0.41	3.43	1.97
17341.93	17469.19	890.14	445.17	127.25	0.42	3.50	2.00
17469.19	17596.44	1220.26	537.98	127.28	0.58	4.23	2.27
17596.44	17723.69	2248.20	776.20	127.27	1.07	6.10	2.90
17723.69	17850.95	1806.39	680.68	127.25	0.86	5.35	2.65
17850.95	17978.20	1597.52	632.30	127.25	0.76	4.97	2.53
17978.20 LB	18827.65	36774.03	8723.43	852.09	17.51	10.27	4.22
18827.65	19677.10	29266.94	6804.58	851.37	13.94	8.01	4.30
19677.10	20526.55	41660.77	8444.19	849.46	19.84	9.94	4.93
20526.55	21376.00 RB	38267.07	8028.96	850.64	18.22	9.45	4.77
21376.00	21842.80	1274.42	2110.76	466.84	0.61	4.52	0.60
21842.80	22309.60	496.07	1198.30	466.80	0.24	2.57	0.41
22309.60	22776.40	1472.95	2302.33	466.84	0.70	4.93	0.64
22776.40	23243.20	522.11	1235.67	466.81	0.25	2.65	0.42
23243.20	23710.00	484.03	1180.76	466.80	0.23	2.53	0.41
23710.00	24176.80	936.80	1754.85	466.83	0.45	3.76	0.53
24176.80	24643.60	1497.70	2237.77	469.32	0.71	4.79	0.67
24643.60	25110.40	14478.75	3096.09	466.87	6.89	6.63	4.68
25110.40	25577.20	14615.71	3113.44	466.80	6.96	6.67	4.69
25577.20	26044.00	11203.22	2654.49	466.87	5.33	5.69	4.22
26044.00	26510.80	1528.74	408.41	86.00	0.73	4.75	3.74

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17850.95	17978.20	2025.25	611.48	113.95	0.96	5.65	3.31
17978.20 LB	18827.65	49136.63	9317.64	852.09	23.40	10.97	5.27
18827.65	19677.10	39877.70	7398.80	851.37	18.99	8.71	5.39
19677.10	20526.55	55861.99	9038.40	849.46	26.60	10.64	6.18
20526.55	21376.00 RB	51602.54	8623.17	850.64	24.57	10.15	5.98
21376.00	21842.80	1905.38	2437.30	466.84	0.91	5.22	0.78
21842.80	22309.60	872.01	1524.83	466.80	0.42	3.27	0.57
22309.60	22776.40	2161.44	2628.86	466.84	1.03	5.63	0.82
22776.40	23243.20	907.91	1562.21	466.81	0.43	3.35	0.58
23243.20	23710.00	855.36	1507.29	466.80	0.41	3.23	0.57
23710.00	24176.80	1464.61	2081.39	466.83	0.70	4.46	0.70
24176.80	24643.60	2210.86	2564.31	469.32	1.05	5.49	0.86
24643.60	25110.40	1118.34	234.18	43.66	0.53	6.43	4.78

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 181.32

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16215.88	16351.81	10.81	22.82	57.63	0.01	0.40	0.47
16351.81	16487.73	1.39	6.01	44.49	0.00	0.14	0.23
16487.73	16623.66	59.36	89.38	135.93	0.03	0.66	0.66
16623.66	16759.59	157.67	160.62	135.93	0.08	1.18	0.98
16759.59	16895.51	176.49	165.34	123.39	0.08	1.34	1.07
16895.51	17031.44	100.96	98.70	78.51	0.05	1.26	1.02
17031.44	17167.37	1213.65	546.59	135.96	0.58	4.02	2.22
17167.37	17303.29	1374.38	588.88	135.93	0.65	4.33	2.33
17303.29	17439.22	1264.14	560.07	135.93	0.60	4.12	2.26
17439.22	17575.15	1033.38	496.27	135.93	0.49	3.65	2.08
17575.15	17711.07	1105.97	516.91	135.93	0.53	3.80	2.14
17711.07	17847.00	1426.04	602.07	135.93	0.68	4.43	2.37
17847.00 LB	18700.22	33256.02	8178.66	853.65	15.84	9.59	4.07
18700.22	19553.45	27483.90	6766.21	855.57	13.09	7.93	4.06
19553.45	20406.68	50891.65	9307.10	853.24	24.23	10.91	5.47
20406.68	21259.90 RB	41575.72	8248.00	854.31	19.80	9.67	5.04
21259.90	21769.00	3294.12	2330.00	509.11	1.57	4.58	1.41
21769.00	22278.10	1150.19	2124.06	509.10	0.55	4.17	0.54
22278.10	22787.20	1004.75	1958.61	509.13	0.48	3.85	0.51
22787.20	23296.30	2766.69	3596.62	509.14	1.32	7.06	0.77
23296.30	23805.40	2271.28	3194.99	509.10	1.08	6.28	0.71
23805.40	24314.50	1678.51	2664.77	509.10	0.80	5.23	0.63
24314.50	24823.60	2282.62	3211.86	512.01	1.09	6.31	0.71
24823.60	25332.70	15364.65	3440.00	509.20	7.32	6.76	4.47
25332.70	25841.80	13451.04	3170.10	509.11	6.41	6.23	4.24
25841.80	26350.90	4981.99	1747.29	509.42	2.37	3.43	2.85
26350.90	26860.00	622.65	383.53	260.25	0.30	1.47	1.62

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17711.07	17847.00	949.93	342.13	72.35	0.45	5.11	2.78
17847.00 LB	18700.22	40649.35	8769.16	853.65	19.36	10.28	4.64
18700.22	19553.45	34199.04	7356.71	855.57	16.29	8.62	4.65
19553.45	20406.68	61361.52	9897.60	853.24	29.22	11.60	6.20
20406.68	21259.90 RB	50770.70	8838.49	854.31	24.18	10.36	5.74
21259.90	21769.00	4825.53	2682.34	509.11	2.30	5.27	1.80
21769.00	22278.10	1703.71	2476.40	509.10	0.81	4.86	0.69
22278.10	22787.20	1518.21	2310.95	509.13	0.72	4.54	0.66
22787.20	23296.30	3708.06	3948.95	509.14	1.77	7.76	0.94
23296.30	23805.40	3101.20	3547.32	509.10	1.48	6.97	0.87
23805.40	24314.50	2367.81	3017.10	509.10	1.13	5.93	0.78
24314.50	24823.60	3113.98	3564.20	512.01	1.48	7.00	0.87
24823.60	25332.70	1730.95	402.81	73.26	0.82	6.07	4.30

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 181.23

INPUT
Description: 181.23
Station Elevation Data num= 94

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15632.1	848.8	15653.2	843.6	15665.7	842.5	15666.5	840.6	15679.5	835.6
15719.4	834.9	15765.6	841.4	15823	836.8	15886.5	841.9	15965.5	834
16197.9	837.1	16213.4	836.3	16218.5	832.4	16250.5	833.8	16293.8	829.8
16332.6	832.9	16394.9	830.2	16622.3	830.1	16872.2	830.4	16882.3	830.4
17276.3	830.7	17522.2	830.8	17671.9	831	17707.5	823.1	17913.2	825.7
18131.7	825.1	18340.4	825.6	18482.4	827	18513.8	822.2	18731.4	823.7
18938	824.7	19115.9	825	19160.7	826.5	19310	824.8	19475.8	826.4
19492.1	823.9	19601.5	825.4	19605.5	822.6	19891	822.8	20113.2	824.3
20259.7	824.7	20295.4	823.2	20566.1	823.3	20775.5	824.1	20990.2	824.5
20999.8	831.8	21260.5	831.1	21575.8	828.5	21868.7	830.8	21915.4	830.6
22114.4	829.6	22366.1	830.8	22582.2	830.7	22813.9	830.1	23030.2	828.8
23269	828.1	23513	827.2	23742.9	829.4	23950.6	830.3	24283.7	830.7
24549.7	830.4	24772.3	829.9	24811.5	826.4	24848.1	825.9	24855.2	824.2
24899	829.9	24930.8	830.4	24990.1	826.9	25004.2	821	25019.4	820.1
25046	828.5	25259.8	827.9	25327.6	828.4	25567.3	828.3	25834.1	830.1

21529.03	22058.25	1444.60	2917.06	529.24	0.69	5.51	0.50
22058.25	22587.48	1207.07	2619.00	529.23	0.57	4.95	0.46
22587.48	23116.71	1484.61	2965.26	529.23	0.71	5.60	0.50
23116.71	23645.93	2381.08	3936.96	529.23	1.13	7.44	0.60
23645.93	24175.16	1395.54	2857.21	529.23	0.66	5.40	0.49
24175.16	24704.39	1169.92	2570.32	529.23	0.56	4.86	0.46
24704.39	25233.61	6321.38	3986.58	532.57	3.01	7.53	1.59
25233.61	25762.84	12301.22	3598.93	529.23	5.86	6.80	3.42
25762.84	26292.07	6979.00	2561.41	529.23	3.32	4.84	2.72
26292.07	26821.29	2153.84	1265.13	529.24	1.03	2.39	1.70
26821.29	27350.52	60.55	100.46	199.49	0.03	0.50	0.60

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17399.93	17535.91	1002.36	396.79	81.16	0.48	5.23	2.53
17535.91	17671.90	1807.28	694.75	135.99	0.86	5.11	2.60
17671.90 LB	18503.88	37595.14	8864.50	833.11	17.90	10.65	4.24
18503.88	19335.85	43823.06	9696.43	832.14	20.87	11.65	4.52
19335.85	20167.83	51718.92	10118.23	833.07	24.63	12.16	5.11
20167.83	20999.80 RB	51585.71	10109.37	834.47	24.56	12.15	5.10
20999.80	21529.03	4138.43	2808.87	529.24	1.97	5.31	1.47
21529.03	22058.25	2053.83	3281.48	529.24	0.98	6.20	0.63
22058.25	22587.48	1752.44	2983.42	529.23	0.83	5.64	0.59
22587.48	23116.71	2104.37	3329.68	529.23	1.00	6.29	0.63
23116.71	23645.93	3224.50	4301.38	529.23	1.54	8.13	0.75
23645.93	24175.16	1991.79	3221.63	529.23	0.95	6.09	0.62
24175.16	24704.39	1705.05	2934.74	529.23	0.81	5.55	0.58
24704.39	25233.61	5497.13	3688.18	456.77	2.62	8.28	1.49

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 181.13

INPUT
Description: 181.13
Station Elevation Data num= 93

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15825.2	848.6	15848.8	845	15858.3	840.6	15904.7	834.4	16150.5	835.3
16162	836.2	16176.9	829.1	16303.3	832	16546.7	828.7	16775.3	829.9
16965.9	829.8	17151	829.6	17355.9	829.8	17531.2	829.9	17649.5	829.9
17683.6	822.3	17722.7	824.9	17851.9	823.8	17888	826.2	18025.8	824.1
18229.1	824.3	18416.2	824.8	18615.8	824	18670.3	824.1	18716.3	826.4
18791.8	824.4	18814.8	822.1	18860.8	821.7	18909.9	825.6	19100	826.9
19162.4	824.7	19284.4	826.5	19318.5	822.9	19359.4	824.6	19570.4	824.1
19573.2	821.8	19614.7	821.9	19836.1	822	19944.5	822.5	20195.5	823.3
20235.4	823.4	20506.1	822.3	20654.6	822.1	20887.1	822.1	20901.2	830.6
21217.7	829.9	21407.4	828.9	21664.8	828.3	21828.9	828	22008.2	826.1
22188.2	826.6	22358.4	827.1	22368	827.2	22617.5	827.9	22637	827.9
23064.3	828	23293.4	827.9	23335.9	827.8	23583.1	827.7	23758.7	826.9
23977.4	828.2	24146.9	829.1	24482.9	829.3	24710.5	829.4	24921.6	829.6
24957.3	824.3	25001	830.5	25130.2	828.3	25139.6	821.4	25151	820.8
25187	827.3	25485.7	828.5	25643.6	828.9	25861.5	829.7	26143.9	829.9
26209.6	830.3	26443.8	831.9	26520.5	832.1	26719.8	833.7	26979.4	834.4
27157.5	835.2	27427.3	837.5	27492	837.9	27667.6	839.8	27730.2	840.2
27938.2	840.3	28024.1	840.9	28265.4	841.8	28444.9	842.4	28565.3	843.6
28666.6	846	28838.5	846.9	28882.9	847				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15825.2	.032	17649.5	.032	19284.4	.029	20901.2	.029	21217.7	.15
25187	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17649.5	20901.2	595	496.11	560	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15825.2	16162	845	26800	28882.9	845

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft) 835.23 Element Left OB Channel Right OB

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17163.02	17284.64	681.24	276.33	50.85	0.32	6.19	2.47
17284.64	17406.26	1982.63	743.49	121.62	0.94	6.11	2.67
17406.26	17527.88	1940.75	734.03	121.62	0.92	6.04	2.64
17527.88	17649.50	1921.16	729.57	121.62	0.91	6.00	2.63
17649.50 LB	18462.43	36982.39	9200.83	813.95	17.61	11.32	4.02
18462.43	19275.35	34859.84	8877.57	813.34	16.60	10.92	3.93
19275.35	20088.27	50700.12	10481.76	813.98	24.14	12.89	4.84
20088.27	20901.20 RB	53074.00	10779.39	815.29	25.27	13.26	4.92
20901.20	21433.31	5812.61	3202.81	532.12	2.77	6.02	1.81
21433.31	21965.43	2761.31	4145.30	532.12	1.31	7.79	0.67
21965.43	22497.54	3594.17	4855.62	532.12	1.71	9.13	0.74
22497.54	23029.65	2888.05	4258.41	532.11	1.38	8.00	0.68
23029.65	23561.77	2908.55	4276.52	532.11	1.39	8.04	0.68
23561.77	24093.88	3016.84	4371.38	532.12	1.44	8.22	0.69
24093.88	24625.99	2141.09	3558.49	532.11	1.02	6.69	0.60
24625.99	25158.11	2386.79	3807.40	535.35	1.14	7.16	0.63
25158.11	25690.22	2348.46	857.56	100.71	1.12	9.33	2.74

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 181.04

INPUT
Description: 181.04
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15505.5	837.8	15530	841.7	15586.1	842.9	15613.6	840.4	15659.6	834.3
15735.7	837.1	15835.5	832.7	15868.3	835.2	15973.5	832.7	16055.7	835.2
16092.8	831.2	16114.7	838.6	16159.6	832.9	16247.4	828.2	16473.9	827.7
16841.2	829.4	17249.9	829.3	17470	830.5	17508.8	826.4	17565.3	825.8
17640.5	830.5	17897.1	828.7	17989.6	830.1	18055.7	822.6	18295.8	825.1
18517.3	824.5	18669.9	825.2	18683	822.3	18774.9	826.2	18846.9	825
18887.2	822.1	18918.9	822.1	18949.8	826.1	18961.8	825.7	18994.1	820.8
19099.9	826.3	19123	823.2	19155.3	826.3	19329.2	826.8	19404.1	825
19457.5	820.7	19614.8	823.7	19619.7	821	19631.9	821.1	19865.8	821.9
19947.6	822.3	20518.2	824.2	20616.2	824.3	20745.5	820.6	20757.2	825
20790.2	823.5	20864.2	824.2	20956.9	831	21193.8	829.9	21418.1	828.2
21653.1	828.2	21817.1	824.9	22063.2	825	22323	827.6	22656.4	829.5
22793	829.7	23017.3	830	23135.1	829.9	23387.9	829.8	23614	829.1
23672	829.1	23967.9	829	24073.5	829	24362.8	829.4	24647.3	828.6
24702.1	826.5	24935.4	829.1	25035.6	830.2	25063.1	824.5	25098.3	826.5
25108.7	831	25191.3	827.3	25201.9	821.3	25213.3	821.1	25230	824.9
25420.3	828.3	25618.7	827.9	25949.6	829.3	26192	829.7	26427.9	830.7
26670.5	832.1	26721.4	832.4	27006.7	833.5	27230.7	833.8	27322.8	835.2
27384.6	837.7	27630.4	837.7	27866.7	839	28132	840.3	28466.6	842.2
28650	843.4								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15505.5	.032	17989.6	.032	19404.1	.029	20956.9	.15	25230	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17989.6	20956.9	250	229.74	230	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15505.5	16200	840	26860	28650	840

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	835.08	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.19	Wt. n-Val.	0.032	0.030	0.071
E.G. Elev (ft)	835.27	Reach Len. (ft)	250.00	229.74	230.00
Crit W.S. (ft)	829.29	Flow Area (sq ft)	10981.86	33234.72	37004.49
E.G. Slope (ft/ft)	0.000279	Area (sq ft)	11549.39	33234.72	37652.79
Q Total (cfs)	210000.00	Flow (cfs)	28558.35	137203.23	44238.42
Top Width (ft)	11511.06	Top Width (ft)	2185.63	2967.30	6358.12
Vel Total (ft/s)	2.59	Avg. Vel. (ft/s)	2.60	4.13	1.20
Max Chl Dpth (ft)	14.48	Hydr. Depth (ft)	6.14	11.20	6.27
Conv. Total (cfs)	12566461.0	Conv. (cfs)	1708940.1	8210281.0	2647240.0
Length Wtd. (ft)	232.92	Wetted Per. (ft)	1790.06	2971.45	5906.93
Min Ch El (ft)	820.60	Shear (lb/sq ft)	0.11	0.19	0.11
Alpha	1.85	Stream Power (lb/ft s)	0.28	0.81	0.13
Frctn Loss (ft)	0.07	Cum Volume (acre-ft)	2735.89	7538.96	6675.77
C & E Loss (ft)	0.00	Cum SA (acres)	623.24	847.37	1245.72

23521.27	24034.14	2193.04	3390.89	512.87	1.04	6.61	0.65
24034.14	24547.01	2149.38	3350.22	512.87	1.02	6.53	0.64
24547.01	25059.89	2633.66	3786.32	513.45	1.25	7.38	0.70
25059.89	25572.76	5915.89	2495.01	282.29	2.82	9.24	2.37

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 180.99

INPUT
Description: 180.99
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16004.8	845.9	16057.7	840.5	16074.2	835.3	16116.7	829.2	16137	835
16183	833.6	16195	831	16240.2	827.9	16384	826.2	16581.9	828.6
16815.8	829.1	17038.1	828.7	17231	828.7	17288.8	826	17498.5	827.5
17774.9	826.2	18001.9	829.1	18291	829.9	18331.4	829	18387.9	822.7
18622	824.6	18711.7	822.9	18797	827.6	18856.2	824.2	18966.7	825.5
18992	821.6	19083.9	824.8	19286.4	826.2	19447.5	825.3	19476.4	826.7
19521.9	820.7	19588.7	822.8	19593.2	821	20050.2	822.4	20160.3	822.8
20474.9	824.1	20670.9	823.8	20713.4	824	20732.3	835.8	20784.2	819.6
20911	822.8	20973.2	829.2	21223.1	829	21329.9	831.4	21551.6	828
21845.7	825.8	21938.6	824.3	22015.4	821.3	22043.9	824.1	22136.9	824.7
22352.1	825.7	22428.3	825.6	22669.3	826.8	22753.5	827.7	23025	827.5
23131.4	827.3	23433.5	826.9	23464.6	826.8	23781.5	829.1	23814.3	829.1
24098.3	830.7	24112.7	830.8	24338.9	827.6	24522.2	829.2	24819.4	826.6
24872.8	826.3	24948.7	832	25074.3	831.2	25129	825.3	25165.4	826.3
25171.5	828.5	25231.1	831.2	25251	827.1	25267	827.1	25269.9	819.8
25287.6	821.8	25301.7	826.7	25534.4	828.1	25768.5	827.6	26038.6	828.3
26229.1	830.6	26529.4	831.5	26804.5	832.5	27109.9	833.9	27340.6	834.4
27387.3	835.2	27448.9	838	27694.6	837.4	27967.9	839.2	28075.7	839.2
28287.9	840.8	28529.6	841.4	28724.2	844	28759.8	846.3	28773.6	845
28856.9	846.1								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16004.8	.032	18291	.032	19521.9	.029	20732.3	.029	20911	.029
20911	.15	25301.7	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18291	20732.3	250	272.51	230	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16004.8	16480	840	26950	28856.9	840

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	835.02	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.19	Wt. n-Val.	0.032	0.030	0.070
E.G. Elev (ft)	835.20	Reach Len. (ft)	250.00	272.51	230.00
Crit W.S. (ft)	829.39	Flow Area (sq ft)	12442.54	27263.25	42965.59
E.G. Slope (ft/ft)	0.000298	Area (sq ft)	14873.82	27263.25	43414.74
Q Total (cfs)	210000.00	Flow (cfs)	36046.98	116088.27	57864.74
Top Width (ft)	11296.82	Top Width (ft)	2214.84	2440.05	6641.93
Vel Total (ft/s)	2.54	Avg. Vel. (ft/s)	2.90	4.26	1.35
Max Chl Dpth (ft)	15.42	Hydr. Depth (ft)	6.87	11.17	6.91
Conv. Total (cfs)	12164162.0	Conv. (cfs)	2088006.0	6724364.5	3351791.0
Length Wtd. (ft)	256.49	Wetted Per. (ft)	1811.10	2445.00	6225.58
Min Ch El (ft)	820.70	Shear (lb/sq ft)	0.13	0.21	0.13
Alpha	1.85	Stream Power (lb/ft s)	0.37	0.88	0.17
Frctn Loss (ft)	0.08	Cum Volume (acre-ft)	2660.06	7379.42	6461.75
C & E Loss (ft)	0.00	Cum SA (acres)	610.62	833.11	1211.40

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	835.63	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.28	Wt. n-Val.	0.032	0.030	0.106
E.G. Elev (ft)	835.91	Reach Len. (ft)	250.00	272.51	230.00
Crit W.S. (ft)	829.06	Flow Area (sq ft)	8041.88	28746.29	37660.10
E.G. Slope (ft/ft)	0.000368	Area (sq ft)	8041.88	28746.29	37660.10
Q Total (cfs)	210000.00	Flow (cfs)	28200.61	140747.50	41051.90
Top Width (ft)	8109.17	Top Width (ft)	1021.00	2441.02	4647.14
Vel Total (ft/s)	2.82	Avg. Vel. (ft/s)	3.51	4.90	1.09

REACH: Reach-1 RS: 180.94

INPUT
Description: 180.94
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15919.6	840	15956.1	842.8	16010.7	840.4	16063.2	830.1	16091.1	834.8
16102.1	833	16126.4	834.2	16137.2	830.3	16351.3	826.6	16540.6	825.5
16760	828	16904.1	829.4	17070.8	827.4	17117.8	825.3	17367.6	827.6
17427.6	827.7	17652.3	827.7	17881.8	828.5	17961	828.9	18179.3	828.7
18339.2	829	18515.6	826.7	18644.1	824.7	18680.5	822.2	18800.6	824.1
18838.6	822.9	18883.9	826.5	19014.1	824.4	19029.1	821	19080.6	825.4
19156.1	826.7	19167.4	821.4	19252.3	826.6	19429.9	825.8	19516.3	823.2
19524.9	825.3	19539.7	825.2	19557.5	821.6	20014.7	823.1	20438.9	823.7
20623.8	823.7	20716.1	823.7	20726.2	829.8	20824.4	822.8	20831.7	821
20997.6	826	21012.9	827.5	21022	826.4	21188.9	828.6	21362.7	828.9
21528.7	828.3	21711.8	828.8	21905.3	826	22068.2	827.9	22259.5	828.3
22437.8	827.1	22672	827.2	22844	826.7	23053	826.5	23230.8	825.6
23413.2	825.5	23575.3	826.9	23754.1	826	23950.2	826.2	24114.1	825.8
24323.9	826.4	24499.7	828.6	24578.9	825.3	24646.6	826.2	24701.5	824.3
24780.2	830.5	24810.4	829.1	24992.1	831.1	25183.8	829.3	25297.8	828.6
25311.9	830.8	25326.2	827.2	25340.4	827.7	25346.9	820.7	25360.9	819.8
25378	828.7	25659.2	827.3	25904.5	828.8	26126	829.4	26289.7	829.9
26462.1	830.1	26703.1	832.6	27015.8	833.5	27253.4	834.5	27417.3	834.8
27522.1	837.9	27551.4	836.2	27804.3	837.8	28024.2	839.1	28197.1	840
28495.2	841.5								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15919.6	.032	18339.2	.032	19429.9	.029	20726.2	.032	21188.9	.15
25378	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18339.2	20726.2	540	479.73	405	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15919.6	16787	840	27000	28495.2	840

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	834.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.20	Wt. n-Val.	0.032	0.030	0.070
E.G. Elev (ft)	835.12	Reach Len. (ft)	540.00	479.73	405.00
Crit W.S. (ft)	829.82	Flow Area (sq ft)	10752.08	25631.24	44204.38
E.G. Slope (ft/ft)	0.000334	Area (sq ft)	15997.61	25631.24	44493.16
Q Total (cfs)	210000.00	Flow (cfs)	33141.86	113116.99	63741.15
Top Width (ft)	11382.99	Top Width (ft)	2300.60	2387.00	6695.39
Vel Total (ft/s)	2.61	Avg. Vel. (ft/s)	3.08	4.41	1.44
Max Chl Dpth (ft)	15.13	Hydr. Depth (ft)	6.93	10.74	7.05
Conv. Total (cfs)	11495533.0	Conv. (cfs)	1814206.1	6192096.0	3489231.0
Length Wtd. (ft)	462.64	Wetted Per. (ft)	1552.28	2391.59	6280.88
Min Ch El (ft)	821.00	Shear (lb/sq ft)	0.14	0.22	0.15
Alpha	1.86	Stream Power (lb/ft s)	0.44	0.99	0.21
Frctn Loss (ft)	0.16	Cum Volume (acre-ft)	2571.47	7213.97	6229.67
C & E Loss (ft)	0.00	Cum SA (acres)	597.66	818.02	1176.19

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	835.52	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.29	Wt. n-Val.	0.032	0.030	0.098
E.G. Elev (ft)	835.80	Reach Len. (ft)	540.00	479.73	405.00
Crit W.S. (ft)	829.87	Flow Area (sq ft)	6747.65	27040.66	39390.16
E.G. Slope (ft/ft)	0.000410	Area (sq ft)	6747.65	27040.66	39390.16
Q Total (cfs)	210000.00	Flow (cfs)	23479.83	136884.59	49635.57
Top Width (ft)	8050.00	Top Width (ft)	939.20	2387.00	4723.80
Vel Total (ft/s)	2.87	Avg. Vel. (ft/s)	3.48	5.06	1.26
Max Chl Dpth (ft)	15.72	Hydr. Depth (ft)	7.18	11.33	8.34
Conv. Total (cfs)	10376157.0	Conv. (cfs)	1160144.9	6763505.0	2452506.8
Length Wtd. (ft)	465.92	Wetted Per. (ft)	947.07	2391.59	4738.03
Min Ch El (ft)	821.00	Shear (lb/sq ft)	0.18	0.29	0.21
Alpha	2.24	Stream Power (lb/ft s)	0.63	1.46	0.27
Frctn Loss (ft)	0.22	Cum Volume (acre-ft)	229.82	7573.50	4319.72
C & E Loss (ft)	0.03	Cum SA (acres)	36.47	818.84	587.79

22095.5	825.8	22370	825.3	22682.9	825.9	22871.1	826.5	23203.9	826.4
23477.7	826.6	23691.1	825.8	23983.7	826.1	24098.2	826.9	24325.8	825.6
24510.9	826.1	24577.8	829.8	24776.6	829.7	24979.1	828.6	25172.6	829.7
25377.7	828.8	25396.3	827.6	25402	828.9	25410	825	25438.2	825.3
25448.7	820	25475.1	821.5	25502.7	827	25587.2	826	25782.3	826.5
25793.6	826.5	26022.6	827	26028.6	827	26274.7	827.4	26400.6	827.4
26448.4	830.3	26506.1	829.1	26753.6	830.9	26780.1	831.1	27108.7	832.3
27135.4	832.4	27364	833.6	27543	833.6	27724.6	836	27925.5	837.6
27981.2	838.2	28200.6	839.3	28243.4	839.3	28497.1	840.8	28750.4	841.5
28890.2	842.6								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15715.8	.032	18846.6	.032	19461.1	.029	20727.3	.043	20957.2	.032
21386	.15	24577.8	.043	25502.7	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18846.6	20727.3	535	524.58	545	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15715.8	17316	840	27083	28890.2	840

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	834.75	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.21	Wt. n-Val.	0.032	0.030	0.062
E.G. Elev (ft)	834.96	Reach Len. (ft)	535.00	524.58	545.00
Crit W.S. (ft)	830.03	Flow Area (sq ft)	9563.15	20454.14	46492.93
E.G. Slope (ft/ft)	0.000377	Area (sq ft)	20559.35	20454.14	47276.82
Q Total (cfs)	210000.00	Flow (cfs)	29240.61	98118.25	82641.14
Top Width (ft)	11762.36	Top Width (ft)	2978.98	1880.70	6902.68
Vel Total (ft/s)	2.74	Avg. Vel. (ft/s)	3.06	4.80	1.78
Max Chl Dpth (ft)	14.75	Hydr. Depth (ft)	6.25	10.88	7.32
Conv. Total (cfs)	10817366.0	Conv. (cfs)	1506220.9	5054195.5	4256950.0
Length Wtd. (ft)	534.83	Wetted Per. (ft)	1530.86	1888.00	6359.12
Min Ch El (ft)	821.80	Shear (lb/sq ft)	0.15	0.25	0.17
Alpha	1.76	Stream Power (lb/ft s)	0.45	1.22	0.31
Frctn Loss (ft)	0.23	Cum Volume (acre-ft)	2344.88	6960.20	5803.05
C & E Loss (ft)	0.01	Cum SA (acres)	564.93	794.52	1112.97

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	835.18	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.37	Wt. n-Val.	0.032	0.030	0.091
E.G. Elev (ft)	835.56	Reach Len. (ft)	535.00	524.58	545.00
Crit W.S. (ft)	830.51	Flow Area (sq ft)	5458.93	21271.66	39295.18
E.G. Slope (ft/ft)	0.000562	Area (sq ft)	5458.93	21271.66	39295.18
Q Total (cfs)	210000.00	Flow (cfs)	19500.16	127831.22	62668.62
Top Width (ft)	7655.00	Top Width (ft)	926.60	1880.70	4847.70
Vel Total (ft/s)	3.18	Avg. Vel. (ft/s)	3.57	6.01	1.59
Max Chl Dpth (ft)	15.18	Hydr. Depth (ft)	5.89	11.31	8.11
Conv. Total (cfs)	8855591.0	Conv. (cfs)	822311.8	5390576.0	2642703.0
Length Wtd. (ft)	532.75	Wetted Per. (ft)	934.29	1888.00	4860.05
Min Ch El (ft)	821.80	Shear (lb/sq ft)	0.21	0.40	0.28
Alpha	2.37	Stream Power (lb/ft s)	0.73	2.38	0.45
Frctn Loss (ft)	0.34	Cum Volume (acre-ft)	154.16	7307.47	3953.93
C & E Loss (ft)	0.02	Cum SA (acres)	24.91	795.34	543.29

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17176.84	17385.56	1885.24	545.70	69.56	0.90	7.84	3.45
17385.56	17594.28	5363.16	1585.84	208.72	2.55	7.60	3.38
17594.28	17803.00	5147.14	1547.21	208.72	2.45	7.41	3.33
17803.00	18011.72	4693.31	1463.84	208.72	2.23	7.01	3.21
18011.72	18220.44	4108.01	1351.42	208.72	1.96	6.47	3.04
18220.44	18429.16	4340.05	1397.01	208.83	2.07	6.69	3.11
18429.16	18637.88	2106.36	905.19	208.74	1.00	4.34	2.33
18637.88	18846.60	1597.34	766.93	208.85	0.76	3.67	2.08
18846.60 LB	19316.78	17694.58	4418.32	471.19	8.43	9.40	4.00
19316.78	19786.95	23021.58	4891.34	471.69	10.96	10.40	4.71

19011.2 20601.7 710 508.13 590 .3 .3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15321.8	17747	842	26761	28779.3	842

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	834.54	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.18	Wt. n-Val.	0.032	0.036	0.067
E.G. Elev (ft)	834.72	Reach Len. (ft)	710.00	508.13	590.00
Crit W.S. (ft)	829.53	Flow Area (sq ft)	8276.35	17971.62	49649.30
E.G. Slope (ft/ft)	0.000476	Area (sq ft)	23868.40	17971.62	51063.46
Q Total (cfs)	210000.00	Flow (cfs)	29349.85	82292.18	98357.97
Top Width (ft)	12008.02	Top Width (ft)	3462.49	1590.50	6955.04
Vel Total (ft/s)	2.77	Avg. Vel. (ft/s)	3.55	4.58	1.98
Max Chl Dpth (ft)	14.34	Hydr. Depth (ft)	6.55	11.30	8.06
Conv. Total (cfs)	9620517.0	Conv. (cfs)	1344574.8	3769968.0	4505974.0
Length Wtd. (ft)	567.30	Wetted Per. (ft)	1264.70	1594.83	6163.86
Min Ch El (ft)	821.40	Shear (lb/sq ft)	0.19	0.34	0.24
Alpha	1.54	Stream Power (lb/ft s)	0.69	1.53	0.47
Frctn Loss (ft)	0.30	Cum Volume (acre-ft)	2072.05	6728.83	5187.86
C & E Loss (ft)	0.04	Cum SA (acres)	525.38	773.61	1026.28

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	834.90	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.30	Wt. n-Val.	0.032	0.036	0.087
E.G. Elev (ft)	835.20	Reach Len. (ft)	710.00	508.13	590.00
Crit W.S. (ft)	829.65	Flow Area (sq ft)	4190.19	18537.48	44003.11
E.G. Slope (ft/ft)	0.000711	Area (sq ft)	4190.19	18537.48	44003.11
Q Total (cfs)	210000.00	Flow (cfs)	17945.53	105881.72	86172.76
Top Width (ft)	7200.18	Top Width (ft)	641.38	1590.50	4968.30
Vel Total (ft/s)	3.15	Avg. Vel. (ft/s)	4.28	5.71	1.96
Max Chl Dpth (ft)	14.70	Hydr. Depth (ft)	6.53	11.66	8.86
Conv. Total (cfs)	7873666.5	Conv. (cfs)	672843.4	3969892.0	3230931.3
Length Wtd. (ft)	550.56	Wetted Per. (ft)	651.60	1594.83	4980.74
Min Ch El (ft)	821.40	Shear (lb/sq ft)	0.29	0.52	0.39
Alpha	1.98	Stream Power (lb/ft s)	1.22	2.95	0.77
Frctn Loss (ft)	0.44	Cum Volume (acre-ft)	94.90	7067.76	3432.84
C & E Loss (ft)	0.07	Cum SA (acres)	15.28	774.44	481.89

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17535.44	17781.40	878.49	238.71	34.40	0.42	6.94	3.68
17781.40	18027.36	6250.03	1701.76	245.96	2.98	6.92	3.67
18027.36	18273.32	5794.06	1626.14	245.96	2.76	6.61	3.56
18273.32	18519.28	6339.19	1717.37	246.35	3.02	6.98	3.69
18519.28	18765.24	5252.29	1533.15	245.97	2.50	6.23	3.43
18765.24	19011.20	4835.79	1459.21	246.06	2.30	5.93	3.31
19011.20 LB	19408.82	18882.92	3864.35	399.08	8.99	9.72	4.89
19408.82	19806.45	27905.06	4881.22	398.36	13.29	12.28	5.72
19806.45	20204.07	24390.45	4751.76	397.63	11.61	11.95	5.13
20204.07	20601.70 RB	11113.75	4474.28	399.76	5.29	11.25	2.48
20601.70	21146.87	12880.05	4102.90	545.55	6.13	7.53	3.14
21146.87	21692.05	4565.85	4117.71	545.19	2.17	7.55	1.11
21692.05	22237.22	4527.73	4922.05	545.24	2.16	9.03	0.92
22237.22	22782.39	3352.63	4109.96	545.20	1.60	7.54	0.82
22782.39	23327.57	6522.74	6127.31	545.21	3.11	11.24	1.06
23327.57	23872.74	8298.94	7079.79	545.20	3.95	12.99	1.17
23872.74	24417.91	2704.11	3613.52	545.54	1.29	6.63	0.75
24417.91	24963.09	7228.89	3331.55	545.48	3.44	6.11	2.17
24963.09	25508.26	13470.54	4369.03	548.50	6.41	8.01	3.08
25508.26	26053.43	19595.53	4045.79	545.18	9.33	7.42	4.84
26053.43	26598.61	13157.26	3185.73	545.18	6.27	5.84	4.13
26598.61	27143.78	2053.70	643.94	162.40	0.98	3.97	3.19

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18273.32	18519.28	4369.99	1022.82	159.57	2.08	6.84	4.27

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	834.15	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.54	Wt. n-Val.	0.032	0.031	0.092
E.G. Elev (ft)	834.69	Reach Len. (ft)	465.00	483.21	485.00
Crit W.S. (ft)	830.03	Flow Area (sq ft)	1605.41	18530.82	36148.42
E.G. Slope (ft/ft)	0.000887	Area (sq ft)	1605.41	18530.82	36148.42
Q Total (cfs)	210000.00	Flow (cfs)	7459.08	133693.38	68847.54
Top Width (ft)	6535.00	Top Width (ft)	255.10	1637.10	4642.80
Vel Total (ft/s)	3.73	Avg. Vel. (ft/s)	4.65	7.21	1.90
Max Chl Dpth (ft)	14.35	Hydr. Depth (ft)	6.29	11.32	7.79
Conv. Total (cfs)	7050786.0	Conv. (cfs)	250439.9	4488778.0	2311568.0
Length Wtd. (ft)	483.50	Wetted Per. (ft)	260.72	1639.97	4654.46
Min Ch El (ft)	820.90	Shear (lb/sq ft)	0.34	0.63	0.43
Alpha	2.52	Stream Power (lb/ft s)	1.58	4.51	0.82
Frctn Loss (ft)	0.47	Cum Volume (acre-ft)	47.67	6851.56	2890.03
C & E Loss (ft)	0.01	Cum SA (acres)	7.97	755.62	416.80

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17939.13	18200.62	981.47	246.17	35.62	0.47	6.91	3.99
18200.62	18462.11	8302.16	1968.09	261.65	3.95	7.53	4.22
18462.11	18723.61	4628.87	1385.84	261.49	2.20	5.30	3.34
18723.61	18985.10	5997.69	1620.43	262.12	2.86	6.20	3.70
18985.10 LB	19394.38	18748.20	3776.89	409.99	8.93	9.23	4.96
19394.38	19803.65	32599.72	5221.41	409.28	15.52	12.76	6.24
19803.65	20212.92	24035.86	4349.56	409.44	11.45	10.63	5.53
20212.92	20622.20 RB	30998.63	5075.83	411.27	14.76	12.40	6.11
20622.20	21141.62	9019.10	2996.54	519.63	4.29	5.77	3.01
21141.62	21661.04	1569.03	2400.87	519.45	0.75	4.62	0.65
21661.04	22180.46	4071.68	4272.93	519.45	1.94	8.23	0.95
22180.46	22699.88	5046.96	4860.42	519.43	2.40	9.36	1.04
22699.88	23219.30	5241.71	4972.15	519.45	2.50	9.57	1.05
23219.30	23738.72	5275.02	4991.58	519.58	2.51	9.61	1.06
23738.72	24258.14	3855.15	4137.04	520.06	1.84	7.96	0.93
24258.14	24777.56	9200.29	3582.14	520.24	4.38	6.90	2.57
24777.56	25296.98	12412.45	3940.95	519.45	5.91	7.59	3.15
25296.98	25816.40	24771.06	4734.80	521.73	11.80	9.12	5.23
25816.40	26335.82	3244.98	649.34	96.60	1.55	6.72	5.00

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18723.61	18985.10	7459.08	1605.41	260.72	3.55	6.29	4.65
18985.10 LB	19394.38	23609.85	3803.67	409.99	11.24	9.29	6.21
19394.38	19803.65	40928.13	5248.19	409.28	19.49	12.82	7.80
19803.65	20212.92	30227.87	4376.34	409.44	14.39	10.69	6.91
20212.92	20622.20 RB	38927.50	5102.61	411.27	18.54	12.47	7.63
20622.20	21141.62	11443.95	3030.52	519.63	5.45	5.83	3.78
21141.62	21661.04	2002.47	2434.86	519.45	0.95	4.69	0.82
21661.04	22180.46	5143.43	4306.91	519.45	2.45	8.29	1.19
22180.46	22699.88	6365.30	4894.40	519.43	3.03	9.42	1.30
22699.88	23219.30	6609.20	5006.13	519.45	3.15	9.64	1.32
23219.30	23738.72	6650.90	5025.57	519.58	3.17	9.68	1.32
23738.72	24258.14	4872.01	4171.03	520.06	2.32	8.03	1.17
24258.14	24777.56	11656.85	3616.13	520.24	5.55	6.96	3.22
24777.56	25296.98	14103.45	3662.86	497.17	6.72	7.51	3.85

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 180.56

INPUT
Description: 180.56
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14713.1	839	14916.1	837.6	15175.7	836.2	15280	835.7	15507.7	835.7

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18461.78	18750.14	4834.42	981.84	136.16	2.30	7.21	4.92
18750.14	19038.50	7136.39	1674.61	288.42	3.40	5.81	4.26
19038.50 LB	19460.63	17984.59	3419.26	423.78	8.56	8.10	5.26
19460.63	19882.75	36353.73	5207.70	422.13	17.31	12.34	6.98
19882.75	20304.88	26868.90	4343.73	422.13	12.79	10.29	6.19
20304.88	20727.00 RB	36565.20	5243.36	425.68	17.41	12.42	6.97
20727.00	21229.55	6119.71	2457.08	502.60	2.91	4.89	2.49
21229.55	21732.11	6879.27	2975.54	502.56	3.28	5.92	2.31
21732.11	22234.66	4187.15	3849.25	502.57	1.99	7.66	1.09
22234.66	22737.21	8017.41	5683.86	502.57	3.82	11.31	1.41
22737.21	23239.77	5426.89	4497.30	502.56	2.58	8.95	1.21
23239.77	23742.32	3627.69	3531.82	502.56	1.73	7.03	1.03
23742.32	24244.87	7513.97	3823.18	503.12	3.58	7.61	1.97
24244.87	24747.43	15375.10	3969.54	502.57	7.32	7.90	3.87
24747.43	25249.98	12558.12	3515.61	502.56	5.98	7.00	3.57
25249.98	25752.53	10551.47	2324.19	266.45	5.02	8.84	4.54

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19038.50 LB	19460.63	20548.38	3427.22	426.32	9.78	8.12	6.00
19460.63	19882.75	41646.52	5215.66	422.13	19.83	12.36	7.98
19882.75	20304.88	30796.36	4351.70	422.13	14.66	10.31	7.08
20304.88	20727.00 RB	41888.04	5251.33	425.68	19.95	12.44	7.98
20727.00	21229.55	7020.39	2466.56	502.60	3.34	4.91	2.85
21229.55	21732.11	7885.83	2985.02	502.56	3.76	5.94	2.64
21732.11	22234.66	4795.57	3858.72	502.57	2.28	7.68	1.24
22234.66	22737.21	9170.27	5693.34	502.57	4.37	11.33	1.61
22737.21	23239.77	6211.80	4506.78	502.56	2.96	8.97	1.38
23239.77	23742.32	4156.36	3541.30	502.56	1.98	7.05	1.17
23742.32	24244.87	8603.12	3832.66	503.12	4.10	7.63	2.24
24244.87	24747.43	17607.04	3979.02	502.57	8.38	7.92	4.42
24747.43	25249.98	9670.32	2457.52	370.14	4.60	6.78	3.93

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 180.47

INPUT
Description: 180.47
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14801.7	839	14808.1	836.9	14832.8	842.4	14917.8	837.8	15151.4	836.5
15556	832.8	15781.8	830.1	15809.3	832.3	15828.9	829.6	16088.4	828
16352.4	826.7	16557.4	826.2	16569.6	830.6	16585.9	830.9	16619.5	824.6
16849.8	824.5	17105	824.4	17340.7	824.3	17566.7	824.1	17919.2	825.2
18170.8	826.8	18396.6	827.4	18623.8	826.3	18881.1	826.8	18902.1	831.6
18927.1	824.9	18952.9	824.2	18992.3	827.8	19084.8	826.8	19115.7	828.7
19207.8	824.1	19265.7	829	19301.9	825.6	19323.5	827.3	19339.4	820.3
19349.3	820.2	19649.6	819.8	19890.4	822.6	20140.3	822.4	20378.6	822.1
20731.7	821	20736.7	827.1	20747.2	831.3	20795.7	828.1	21080	829.3
21136.4	827.9	21171.2	824.5	21227.3	827.5	21368	828.9	21446.5	827.6
21485.5	829.4	21810.9	825.7	22077.7	823.9	22223.7	823.2	22479.1	820.2
22516.3	820.6	22743.6	823.2	22991.7	823.7	23242.7	823.5	23528.5	825.5
23773.4	823.7	24089.7	824.6	24207.2	824.6	24261	821	24526.7	825.4
24782	825.3	25032.4	826.9	25299.2	825.4	25351.3	828	25381.7	823
25393.7	817.2	25408.2	817.9	25425.4	822.4	25444.7	824.3	25663.9	824.5
25718.9	822.6	25851.4	827	26106.9	827.4	26333.3	828	26499.8	828.9
26506	827.8	26535.5	830.9	26545.2	828.1	26599.7	830.1	26933.7	831.3
26948.6	831.4	27330.4	832.6	27602.5	834.7	27842.6	835.7	27856.9	835.5
27905.3	839.1	27912.6	834.2	27931.9	839.4	28210.2	840.9	28487.8	841.4
28867.3	844.5								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

22912.56	23453.90	7893.28	4625.26	541.35	3.76	8.54	1.71
23453.90	23995.24	6996.62	4302.45	541.35	3.33	7.95	1.63
23995.24	24536.58	8088.57	4694.11	541.50	3.85	8.67	1.72
24536.58	25077.92	4877.28	3381.67	509.43	2.32	6.64	1.44

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19022.05	19323.50	3133.83	523.06	107.26	1.49	5.23	5.99
19323.50 LB	19679.43	45021.91	4319.63	357.40	21.44	12.14	10.42
19679.43	20035.35	35246.79	3723.50	355.94	16.78	10.46	9.47
20035.35	20391.27	32750.19	3562.87	355.92	15.60	10.01	9.19
20391.27	20747.20 RB	35626.46	3743.94	359.62	16.96	10.52	9.52
20747.20	21288.54	6439.87	2205.11	541.71	3.07	4.07	2.92
21288.54	21829.88	4104.76	2445.66	541.42	1.95	4.52	1.68
21829.88	22371.22	8433.85	4628.09	541.36	4.02	8.55	1.82
22371.22	22912.56	11444.01	5558.22	541.37	5.45	10.27	2.06
22912.56	23453.90	8285.22	4578.94	541.35	3.95	8.46	1.81
23453.90	23995.24	7334.75	4256.13	541.35	3.49	7.86	1.72
23995.24	24536.58	8492.30	4647.79	541.50	4.04	8.59	1.83
24536.58	25077.92	3686.05	2365.16	349.81	1.76	6.89	1.56

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 180.37

INPUT
Description: 180.37
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14708.2	836.9	14717.1	836.1	14736.4	839	14804.4	835.3	15141	834.6
15502.8	831.6	15747.1	829.7	15784.3	831	15802.7	827.6	16016.7	826.7
16326.3	825.9	16589.9	825.6	16727.4	826.5	16757.1	822.9	16795.5	824.5
16836.2	829.3	16852.3	824.3	17113.1	824.4	17335.4	824.3	17562.6	825.8
17797.4	823	18045.6	823.4	18222.4	827	18451.1	827.2	18677.6	827.9
18699.3	827	18733.2	832.9	18767.6	825.6	18994.3	825.1	19208.3	825.7
19272.4	829.5	19315.4	826.6	19327.4	829.5	19334.1	818.4	19634.6	820
19871.1	821.5	20081.3	821.3	20309.9	819.7	20364	819.9	20585.7	820.8
20738.1	821.5	20762.3	819.3	20779.6	820.2	20796.2	830.5	20819.8	827.9
20893.9	828	21051.5	824.6	21252.7	830.3	21524.5	827.9	21745.9	825.8
21937.6	825	22219.2	821.2	22350.7	814.4	22531.7	824.1	22609.5	825.5
22876.7	823.6	23113.2	821.5	23245.8	824.3	23500.4	824.4	23740.2	824.3
23988.7	825.1	24226.2	824.2	24268.8	821.3	24322.7	823.9	24573.7	825.4
24805.4	825.1	25066.4	826.5	25194.6	826.5	25224.6	824.6	25276.8	828.6
25291	823.3	25302.6	823	25317.7	817.1	25330.7	817.4	25348.2	825.6
25392.8	822.8	25657.9	824.9	25716.7	823.6	25840.9	827.1	26064.6	826.9
26281.8	827.5	26559	828.6	26586.6	832.6	26589.6	828.5	26598.2	830.3
26640.5	828	26683.3	829.8	26901.1	830.3	27161.5	832.4	27457.5	834.4
27765.4	835.9	27930.1	838.2	27938.6	836.7	27987.9	839.9	27994	835
27996	835.5								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14708.2	.037	18222.4	.031	19327.4	.031	20796.2	.065	21252.7	.15
25291	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19327.4	20796.2	540	510.23	470	.3	.3

Ineffective Flow num= 2

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19327.40 LB	19694.60	51079.96	3715.88	373.54	24.32	10.12	13.75
19694.60	20061.80	37760.52	3078.67	367.20	17.98	8.38	12.27
20061.80	20429.00	44168.52	3382.27	367.21	21.03	9.21	13.06
20429.00	20796.20 RB	39535.05	3169.12	368.49	18.83	8.67	12.48
20796.20	21276.19	2728.85	1083.15	422.40	1.30	2.57	2.52
21276.19	21756.17	713.02	798.23	420.59	0.34	1.90	0.89
21756.17	22236.16	5071.15	2730.83	480.04	2.41	5.69	1.86
22236.16	22716.15	10021.96	4110.91	480.41	4.77	8.56	2.44
22716.15	23196.13	6341.59	3122.78	480.02	3.02	6.51	2.03
23196.13	23676.12	4467.40	2530.74	480.00	2.13	5.27	1.77
23676.12	24156.11	3941.41	2347.49	479.99	1.88	4.89	1.68
24156.11	24636.09	4170.55	2348.07	441.25	1.99	5.37	1.78

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 180.28

INPUT
Description: 180.28
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14858.7	833.5	15122.5	832.2	15426.7	831.3	15620.3	830.8	15755.7	829.2
15764.6	826.3	15987.2	825.1	16247.4	825.7	16483.3	826	16664.2	825.4
16704.8	827.9	16746.5	821.5	16777.3	821.7	16817.2	828.4	16842.2	823.8
16970.9	825	17024.8	823.8	17276.1	824.3	17492.7	823.1	17710.8	824.7
18047.9	825.3	18241.4	823.8	18454.9	824.7	18650.9	826.1	18776.7	826.6
18802.7	831.6	18818.5	832.1	18851.8	826.1	19073.6	825.3	19258.2	825.1
19289.4	829.7	19297.9	829.1	19309.6	823.8	19377.7	824.7	19401.3	827.4
19411.6	817.6	19644.5	818.6	19910.1	819.9	20140.5	819.7	20409.8	819.3
20603.6	819.2	20821.8	821.2	20845.6	820.6	20857.1	817.7	20892.9	818.5
20910.6	829.6	20943.8	827	21232.8	825.9	21480.8	824.1	21688.6	822.3
21893.7	822.2	22096.4	818.8	22171.2	813.1	22366.9	819.8	22569.9	821.1
22844.3	819.7	23065.8	823.5	23270.4	824.5	23466.4	822.7	23669.2	823.9
23875.8	823.8	24069.4	822.4	24272.1	822.6	24490.3	824.3	24722.4	826.3
24989.5	827	25104	825.3	25191	825.8	25199.8	827.3	25223.6	824.7
25241	817	25256.8	818.2	25271.1	825.5	25313.3	823.5	25508	824.2
25699.3	824.2	26017.1	826.3	26275.2	827.4	26318.1	827.8	26536.2	827.1
26647.5	828	26677.5	829.8	26683	828	26707	831.5	26725.7	828.8
26771.3	830.2	26970.6	830.6	27024	830.9	27294.7	832.9	27488.4	833.8
27745.7	836.1	28000.7	837.1	28077.5	840.1	28084.6	835.5	28106.8	839.4
28165	840.4								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14858.7	.037	19401.3	.031	20821.8	.065	21480.8	.065	25223.6	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19401.3	21480.8	505	507.8	505	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14858.7	19401.3	840.4	24129	28165	840.4

CROSS SECTION OUTPUT Profile #PF#1

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 180.18

INPUT
Description: 180.18
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14868.5	830.7	15056.9	830	15247.2	829.4	15479.1	826.8	15651.9	828.4
15737.4	828.4	15746.4	825	15750.6	826.4	15810.5	824.1	16009.7	824.4
16199.7	824.7	16387.8	825.3	16589.3	826.3	16683.1	824.9	16693.9	826.4
16713.3	821.7	16752.2	822.7	16780.3	829.5	16798	829.5	16809.7	824.6
17000.3	826	17193.9	827.7	17384	826.5	17501.9	827.2	17638.6	823.7
17829.2	825.3	17915.1	827.2	18110.6	825.8	18195.3	824.1	18419.3	823.9
18425.9	823.9	18649.2	823.9	18855	823	18893.6	829.7	18905.6	830.3
18930.5	823.7	19129.8	823	19329.1	823.5	19458.4	823.4	19471.8	825.2
19502	818.5	19529.3	818.8	19531.9	817.1	19832.4	818	20143.9	818.8
20335	821	20567.5	819.4	20779.5	819.7	20990.8	817.7	21006	817.7
21018.9	826.4	21225	824	21545.8	821	21577.2	821.1	21811.5	819.1
21848.7	818.6	21916	809.9	22016.1	815.1	22341.1	818.9	22374.6	818.4
22753	820.6	22971.7	823.5	22995.6	823.7	23188.5	824.1	23353.1	822.4
23495.4	824.7	23698.6	822.1	23921.6	822.1	24145.3	821.3	24338.1	823.2
24677.7	825.1	24955	825.8	25139.7	824.7	25152.1	817.9	25166.6	817
25176.7	819.8	25189.8	826	25217	823.5	25241.4	823.6	25251	821.8
25262.6	823.6	25492.9	824.5	25733.7	825.1	25978.3	825.4	26169.5	827
26399.4	828.1	26624.3	829.5	26768.2	830.4	26774.6	828.9	26780.2	830.6
26979.1	831.2	27214.2	832.7	27469.9	834.2	27681.8	835.4	27912.4	836.1
27982	836.6								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14868.5	.037	19471.8	.029	20990.8	.065	22016.1	.065	25189.8	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19471.8	22016.1	490	495.76	490	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14868.5	19471.8	836.6	23646	27982	836.6

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	828.32	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.75	Wt. n-Val.		0.035	0.065
E.G. Elev (ft)	829.07	Reach Len. (ft)	490.00	495.76	490.00
Crit W.S. (ft)	824.68	Flow Area (sq ft)		21998.74	11885.56
E.G. Slope (ft/ft)	0.001808	Area (sq ft)	12792.51	21998.74	22937.35
Q Total (cfs)	210000.00	Flow (cfs)		166551.09	43448.91
Top Width (ft)	10945.18	Top Width (ft)	3981.75	2544.30	4419.13
Vel Total (ft/s)	6.20	Avg. Vel. (ft/s)		7.57	3.66
Max Chl Dpth (ft)	18.42	Hydr. Depth (ft)		8.65	7.29
Conv. Total (cfs)	4938156.0	Conv. (cfs)		3916453.8	1021702.3
Length Wtd. (ft)	495.00	Wetted Per. (ft)		2548.97	1629.99
Min Ch El (ft)	809.90	Shear (lb/sq ft)		0.97	0.82
Alpha	1.26	Stream Power (lb/ft s)		7.38	3.01
Frctn Loss (ft)	0.67	Cum Volume (acre-ft)	635.34	5557.51	2581.21
C & E Loss (ft)	0.07	Cum SA (acres)	265.59	654.54	611.12

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	828.46	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.72	Wt. n-Val.		0.035	0.065
E.G. Elev (ft)	829.18	Reach Len. (ft)	490.00	495.76	490.00
Crit W.S. (ft)	824.67	Flow Area (sq ft)		22340.69	12104.62
E.G. Slope (ft/ft)	0.001722	Area (sq ft)		22340.69	12104.62
Q Total (cfs)	210000.00	Flow (cfs)		166393.88	43606.12
Top Width (ft)	4174.20	Top Width (ft)		2544.30	1629.90
Vel Total (ft/s)	6.10	Avg. Vel. (ft/s)		7.45	3.60
Max Chl Dpth (ft)	18.56	Hydr. Depth (ft)		8.78	7.43
Conv. Total (cfs)	5060661.5	Conv. (cfs)		4009824.3	1050837.3
Length Wtd. (ft)	495.00	Wetted Per. (ft)		2552.22	1635.68
Min Ch El (ft)	809.90	Shear (lb/sq ft)		0.94	0.80
Alpha	1.26	Stream Power (lb/ft s)		7.01	2.87
Frctn Loss (ft)	0.64	Cum Volume (acre-ft)	32.89	5887.55	1484.57

Vel Head (ft)	0.51	Wt. n-Val.		0.040	0.065
E.G. Elev (ft)	828.33	Reach Len. (ft)	155.00	156.48	160.00
Crit W.S. (ft)	822.19	Flow Area (sq ft)		34021.90	3750.12
E.G. Slope (ft/ft)	0.001058	Area (sq ft)	12090.28	34021.90	17149.29
Q Total (cfs)	210000.00	Flow (cfs)		198030.78	11969.23
Top Width (ft)	10734.71	Top Width (ft)	3930.27	3208.40	3596.03
Vel Total (ft/s)	5.56	Avg. Vel. (ft/s)		5.82	3.19
Max Chl Dpth (ft)	13.22	Hydr. Depth (ft)		10.60	8.89
Conv. Total (cfs)	6455059.0	Conv. (cfs)		6087144.5	367914.6
Length Wtd. (ft)	156.63	Wetted Per. (ft)		3213.47	421.81
Min Ch El (ft)	814.60	Shear (lb/sq ft)		0.70	0.59
Alpha	1.05	Stream Power (lb/ft s)		4.07	1.87
Frctn Loss (ft)	0.17	Cum Volume (acre-ft)	495.39	5238.72	2355.74
C & E Loss (ft)	0.03	Cum SA (acres)	221.09	621.80	566.04

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	827.98	Element			
Vel Head (ft)	0.49	Wt. n-Val.		0.040	0.065
E.G. Elev (ft)	828.47	Reach Len. (ft)	155.00	156.48	160.00
Crit W.S. (ft)	822.19	Flow Area (sq ft)		34528.70	3816.74
E.G. Slope (ft/ft)	0.001012	Area (sq ft)		34528.70	3816.74
Q Total (cfs)	210000.00	Flow (cfs)		198115.33	11884.67
Top Width (ft)	3630.20	Top Width (ft)		3208.40	421.80
Vel Total (ft/s)	5.48	Avg. Vel. (ft/s)		5.74	3.11
Max Chl Dpth (ft)	13.38	Hydr. Depth (ft)		10.76	9.05
Conv. Total (cfs)	6601141.5	Conv. (cfs)		6227558.5	373582.8
Length Wtd. (ft)	156.63	Wetted Per. (ft)		3216.25	430.80
Min Ch El (ft)	814.60	Shear (lb/sq ft)		0.68	0.56
Alpha	1.05	Stream Power (lb/ft s)		3.89	1.74
Frctn Loss (ft)	0.17	Cum Volume (acre-ft)	32.89	5563.93	1395.02
C & E Loss (ft)	0.03	Cum SA (acres)	5.42	622.61	207.38

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19537.60 LB	20339.70	90720.59	10107.87	803.96	43.20	12.60	8.98
20339.70	21141.80	51808.33	7809.70	805.27	24.67	9.74	6.63
21141.80	21943.90	27793.87	8059.68	802.13	13.24	10.05	3.45
21943.90	22746.00 RB	27707.95	8044.65	802.11	13.19	10.03	3.44
22746.00	23125.13	10689.21	3357.86	379.13	5.09	8.86	3.18
23125.13	23504.27	1280.02	392.26	42.67	0.61	9.19	3.26

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19537.60 LB	20339.70	90387.41	10234.57	806.74	43.04	12.76	8.83
20339.70	21141.80	52010.36	7936.40	805.27	24.77	9.89	6.55
21141.80	21943.90	27901.25	8186.38	802.13	13.29	10.21	3.41
21943.90	22746.00 RB	27816.33	8171.35	802.11	13.25	10.19	3.40
22746.00	23125.13	10752.41	3417.75	379.13	5.12	9.01	3.15
23125.13	23504.27	1132.28	399.00	51.67	0.54	9.35	2.84

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 180.06

INPUT
Description: 180.06
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15155.3	827.7	15392.6	826.3	15631.5	825.6	15710.2	825.4	15714.6	823.5
15720.5	825.4	15908.2	824.5	16101.1	824.3	16287.9	824.4	16493.7	825.4
16667.1	826.4	16699.9	818.3	16721.1	818	16778.8	825.8	16790.5	825.4
16801.2	822.2	16976.8	824.6	17161.8	826.3	17340.3	825.6	17689.6	825.4
17867.9	825	18084.6	825.1	18194.4	820.8	18600.8	821.1	18632.9	821.1
18852.7	823	18883.3	822.4	18930.9	826.8	19097.5	827.9	19146.7	822.2

19544.30 LB	20360.48	92331.51	10017.89	819.77	43.97	12.27	9.22
20360.48	21176.65	64177.89	8132.73	818.22	30.56	9.96	7.89
21176.65	21992.82	19816.29	6446.58	816.20	9.44	7.90	3.07
21992.82	22809.00 RB	27979.96	7929.04	816.18	13.32	9.71	3.53
22809.00	23154.00	5694.33	1716.63	195.00	2.71	8.80	3.32

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19544.30 LB	20360.48	92028.33	10158.82	822.17	43.82	12.45	9.06
20360.48	21176.65	64250.13	8273.66	818.22	30.60	10.14	7.77
21176.65	21992.82	20043.81	6587.50	816.20	9.54	8.07	3.04
21992.82	22809.00 RB	28112.80	8069.96	816.18	13.39	9.89	3.48
22809.00	23154.00	5564.93	1750.30	204.16	2.65	8.98	3.18

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 180.04

INPUT
Description: 180.03
Left and Right Bank Stations Interpolated
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17151.5	832	18172.9	834	19238.8	837.5	19238.9	830.75	19241.6	830.25
19246.43	827.0129	19251	823.95	19399	823.53	19408	823.53	19563.6	818.97
19572.6	818.97	19614.5	811.12	19728.3	815.28	19737.3	815.28	19892.9	815.14
19901.9	815.14	20057.6	815	20066.6	815	20222.2	814.86	20231.2	814.86
20365.3	812.89	20386.8	820.51	20395.8	820.51	20551.5	823.84	20560.5	823.84
20665.8	823.8	20716.1	824.31	20725.1	824.31	20880.8	822.77	20889.8	822.77
21045.4	822.01	21054.4	822.01	21210.1	819.79	21219.1	819.79	21374.7	818.85
21383.7	818.85	21465.8	818.42	21539.4	818.28	21548.4	818.28	21704	818.4
21713	818.4	21868.7	818.32	21877.7	818.32	22033.3	818.33	22042.3	818.33
22198	818.5	22207	818.5	22362.6	818.32	22371.6	818.32	22527.3	818.61
22536.3	818.61	22691.9	819.52	22700.9	819.52	22846	820.3422	856.0282	7.0154
22861.1	830.4	22863.7	830.9	22863.8	837.65	23184	836	24281.3	834

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17151.5	.043	19238.9	.03	20716.1	.065	22863.7	.065

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19246.4	322856.02	118	118	118	.3	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	826.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.84	Wt. n-Val.		0.042	
E.G. Elev (ft)	827.79	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	823.51	Flow Area (sq ft)		28597.36	
E.G. Slope (ft/ft)	0.002694	Area (sq ft)		28597.36	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	3609.40	Top Width (ft)		3609.40	
Vel Total (ft/s)	7.34	Avg. Vel. (ft/s)		7.34	
Max Chl Dpth (ft)	15.83	Hydr. Depth (ft)		7.92	
Conv. Total (cfs)	4045791.0	Conv. (cfs)		4045791.0	
Length Wtd. (ft)	0.00	Wetted Per. (ft)		3614.58	
Min Ch El (ft)	811.12	Shear (lb/sq ft)		1.33	
Alpha	1.00	Stream Power (lb/ft s)		9.77	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	426.89	5008.88	2258.59
C & E Loss (ft)	0.04	Cum SA (acres)	199.03	597.77	545.16

CROSS SECTION OUTPUT Profile #PF#2

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17151.5	.043	19238.9	.03	20716.1	.065	22863.7	.065

Bank Sta: Left	Right	Coeff Contr.	Expan.
19246.4322856.02		.3	.3

Downstream Deck/Roadway Coordinates
num= 27

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
17151.5	832	832	18172.9	834	834	19238.8	837.5	837.5
19238.8	837.5	830.75	19399.1	838.33	831.58	19563.6	839.19	832.44
19728.3	840.04	833.29	19892.9	840.9	834.15	20057.6	841.76	835.01
20222.2	842.61	835.86	20386.8	843.47	836.72	20551.5	844.37	837.62
20716.1	845.16	838.41	20880.8	845.73	838.98	21045.4	845.95	839.2
21219.1	845.8	839.05	21383.7	845.3	838.55	21548.4	844.48	837.73
21713	843.63	836.88	21877.7	842.77	836.02	22042.3	841.92	835.17
22207	841.06	834.31	22371.6	840.21	833.46	22536.3	839.35	832.6
22700.9	838.5	831.75	22861.1	837.66	830.91	22861.1	837.66	837.66

Downstream Bridge Cross Section Data
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17151.5	832	18172.9	834	19238.8	837.5	19238.9	830.75	19241.6	830.25
19247.73826.1412		19251	823.95	19399	823.53	19408	823.53	19563.6	818.97
19572.6	818.97	19614.5	811.12	19728.3	815.28	19737.3	815.28	19892.9	815.14
19901.9	815.14	20057.6	815	20066.6	815	20222.2	814.86	20231.2	814.86
20365.3	812.89	20386.8	820.51	20395.8	820.51	20551.5	823.84	20560.5	823.84
20665.8	823.8	20716.1	824.31	20725.1	824.31	20880.8	822.77	20889.8	822.77
21045.4	822.01	21054.4	822.01	21210.1	819.79	21219.1	819.79	21374.7	818.85
21383.7	818.85	21465.8	818.42	21539.4	818.28	21548.4	818.28	21704	818.4
21713	818.4	21868.7	818.32	21877.7	818.32	22033.3	818.33	22042.3	818.33
22198	818.5	22207	818.5	22362.6	818.32	22371.6	818.32	22527.3	818.61
22536.3	818.61	22691.9	819.52	22700.9	819.52	22846	820.3422854.71826.1436		
22861.1	830.4	22863.7	830.9	22863.8	837.65	23184	836	24281.3	834

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17151.5	.043	19238.9	.03	20716.1	.065	22863.7	.065

Bank Sta: Left	Right	Coeff Contr.	Expan.
19247.7322854.71		.3	.3

Upstream Embankment side slope = horiz. to 1.0 vertical
Downstream Embankment side slope = horiz. to 1.0 vertical
Maximum allowable submergence for weir flow = .95
Elevation at which weir flow begins =
Energy head used in spillway design =
Spillway height used in design =
Weir crest shape = Broad Crested

Number of Piers = 22

Pier Data
Pier Station Upstream= 19403.6 Downstream= 19403.6
Upstream num= 2

Width	Elev	Width	Elev
9	823.53	9	831.61

Downstream num= 2

Width	Elev	Width	Elev
9	823.53	9	831.61

Pier Data
Pier Station Upstream= 19568.1 Downstream= 19568.1
Upstream num= 2

Width	Elev	Width	Elev
9	818.97	9	832.47

Downstream num= 2

Width	Elev	Width	Elev
9	818.97	9	832.47

Pier Data
Pier Station Upstream= 19732.8 Downstream= 19732.8
Upstream num= 2

Width	Elev	Width	Elev
9	815.28	9	833.32

Downstream num= 2

```
Pier Station      Upstream= 21049.9    Downstream= 21049.9
Upstream      num=        2
    Width   Elev    Width   Elev
       9  822.01       9   839.2
Downstream      num=        2
    Width   Elev    Width   Elev
       9  822.01       9   839.2

Pier Data
Pier Station      Upstream= 21214.6    Downstream= 21214.6
Upstream      num=        2
    Width   Elev    Width   Elev
       9  819.79       9  839.06
Downstream      num=        2
    Width   Elev    Width   Elev
       9  819.79       9  839.06

Pier Data
Pier Station      Upstream= 21379.2    Downstream= 21379.2
Upstream      num=        2
    Width   Elev    Width   Elev
       9  818.85       9  838.57
Downstream      num=        2
    Width   Elev    Width   Elev
       9  818.85       9  838.57

Pier Data
Pier Station      Upstream= 21543.9    Downstream= 21543.9
Upstream      num=        2
    Width   Elev    Width   Elev
       9  818.28       9  837.76
Downstream      num=        2
    Width   Elev    Width   Elev
       9  818.28       9  837.76

Pier Data
Pier Station      Upstream= 21708.5    Downstream= 21708.5
Upstream      num=        2
    Width   Elev    Width   Elev
       9   818.4       9   836.9
Downstream      num=        2
    Width   Elev    Width   Elev
       9   818.4       9   836.9

Pier Data
Pier Station      Upstream= 21873.2    Downstream= 21873.2
Upstream      num=        2
    Width   Elev    Width   Elev
       9  818.32       9  836.05
Downstream      num=        2
    Width   Elev    Width   Elev
       9  818.32       9  836.05

Pier Data
Pier Station      Upstream= 22037.8    Downstream= 22037.8
Upstream      num=        2
    Width   Elev    Width   Elev
       9  818.33       9  835.19
Downstream      num=        2
    Width   Elev    Width   Elev
       9  818.33       9  835.19

Pier Data
Pier Station      Upstream= 22202.5    Downstream= 22202.5
Upstream      num=        2
    Width   Elev    Width   Elev
       9   818.5       9  834.34
Downstream      num=        2
    Width   Elev    Width   Elev
       9   818.5       9  834.34

Pier Data
Pier Station      Upstream= 22367.1    Downstream= 22367.1
Upstream      num=        2
    Width   Elev    Width   Elev
       9  818.32       9  833.48
```

Delta EG (ft)	0.57	Conv. Total (cfs)	3659998.0	3195982.5
Delta WS (ft)	0.74	Top Width (ft)	3418.93	3418.57
BR Open Area (sq ft)	56241.27	Frctn Loss (ft)	0.44	0.00
BR Open Vel (ft/s)	8.38	C & E Loss (ft)	0.05	0.04
Coef of Q		Shear Total (lb/sq ft)	1.50	1.81
Br Sel Mthd	Energy only	Power Total (lb/ft s)	11.50	15.20

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 180.01

INPUT
Description: 180.02
Left and Right Bank Stations Interpolated
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17151.5	832	18172.9	834	19238.8	837.5	19238.9	830.75	19241.6	830.25
19247.7	3826.1412	19251	823.95	19399	823.53	19408	823.53	19563.6	818.97
19572.6	818.97	19614.5	811.12	19728.3	815.28	19737.3	815.28	19892.9	815.14
19901.9	815.14	20057.6	815	20066.6	815	20222.2	814.86	20231.2	814.86
20365.3	812.89	20386.8	820.51	20395.8	820.51	20551.5	823.84	20560.5	823.84
20665.8	823.8	20716.1	824.31	20725.1	824.31	20880.8	822.77	20889.8	822.77
21045.4	822.01	21054.4	822.01	21210.1	819.79	21219.1	819.79	21374.7	818.85
21383.7	818.85	21465.8	818.42	21539.4	818.28	21548.4	818.28	21704	818.4
21713	818.4	21868.7	818.32	21877.7	818.32	22033.3	818.33	22042.3	818.33
22198	818.5	22207	818.5	22362.6	818.32	22371.6	818.32	22527.3	818.61
22536.3	818.61	22691.9	819.52	22700.9	819.52	22846	820.3	22854.7	1826.1436
22861.1	830.4	22863.7	830.9	22863.8	837.65	23184	836	24281.3	834

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17151.5	.043	19238.9	.03	20716.1	.065	22863.7	.065

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19247.7	22854.71	441	487.1	601	.3	.3

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	826.06	Element			
Vel Head (ft)	1.06	Wt. n-Val.		0.042	
E.G. Elev (ft)	827.12	Reach Len. (ft)	441.00	487.10	601.00
Crit W.S. (ft)		Flow Area (sq ft)		25391.19	
E.G. Slope (ft/ft)	0.003941	Area (sq ft)		25391.19	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	3606.74	Top Width (ft)		3606.74	
Vel Total (ft/s)	8.27	Avg. Vel. (ft/s)		8.27	
Max Chl Dpth (ft)	14.94	Hydr. Depth (ft)		7.04	
Conv. Total (cfs)	3345023.5	Conv. (cfs)		3345023.5	
Length Wtd. (ft)	492.95	Wetted Per. (ft)		3611.38	
Min Ch El (ft)	811.12	Shear (lb/sq ft)		1.73	
Alpha	1.00	Stream Power (lb/ft s)		14.31	
Frctn Loss (ft)	1.29	Cum Volume (acre-ft)	426.89	4940.82	2258.59
C & E Loss (ft)	0.12	Cum SA (acres)	199.03	588.51	545.16

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	826.43	Element			
Vel Head (ft)	0.96	Wt. n-Val.		0.042	
E.G. Elev (ft)	827.39	Reach Len. (ft)	441.00	487.10	601.00
Crit W.S. (ft)		Flow Area (sq ft)		26736.09	
E.G. Slope (ft/ft)	0.003342	Area (sq ft)		26736.09	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	3606.98	Top Width (ft)		3606.98	
Vel Total (ft/s)	7.85	Avg. Vel. (ft/s)		7.85	
Max Chl Dpth (ft)	15.31	Hydr. Depth (ft)		7.41	
Conv. Total (cfs)	3632838.5	Conv. (cfs)		3632838.5	
Length Wtd. (ft)	489.95	Wetted Per. (ft)		3612.26	
Min Ch El (ft)	811.12	Shear (lb/sq ft)		1.54	
Alpha	1.00	Stream Power (lb/ft s)		12.13	

W.S. Elev (ft)	825.04	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.67	Wt. n-Val.	0.043	0.038	0.065
E.G. Elev (ft)	825.72	Reach Len. (ft)	405.00	409.73	405.00
Crit W.S. (ft)	821.67	Flow Area (sq ft)	1157.58	26752.29	6203.65
E.G. Slope (ft/ft)	0.001864	Area (sq ft)	7807.89	26752.29	15079.98
Q Total (cfs)	210000.00	Flow (cfs)	2843.96	184426.64	22729.39
Top Width (ft)	10895.12	Top Width (ft)	3896.63	3315.10	3683.40
Vel Total (ft/s)	6.16	Avg. Vel. (ft/s)	2.46	6.89	3.66
Max Chl Dpth (ft)	12.14	Hydr. Depth (ft)	2.11	8.07	7.15
Conv. Total (cfs)	4863804.0	Conv. (cfs)	65869.0	4271500.0	526434.9
Length Wtd. (ft)	409.15	Wetted Per. (ft)	547.83	3317.07	867.41
Min Ch El (ft)	812.90	Shear (lb/sq ft)	0.25	0.94	0.83
Alpha	1.14	Stream Power (lb/ft s)	0.60	6.47	3.05
Frctn Loss (ft)	1.01	Cum Volume (acre-ft)	387.36	4649.28	2154.56
C & E Loss (ft)	0.15	Cum SA (acres)	179.30	549.81	519.75

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	825.32	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.78	Wt. n-Val.		0.038	0.065
E.G. Elev (ft)	826.10	Reach Len. (ft)	405.00	409.73	405.00
Crit W.S. (ft)	821.82	Flow Area (sq ft)		27676.57	2715.85
E.G. Slope (ft/ft)	0.001974	Area (sq ft)		27676.57	2715.85
Q Total (cfs)	210000.00	Flow (cfs)		199492.38	10507.62
Top Width (ft)	3672.50	Top Width (ft)		3315.10	357.40
Vel Total (ft/s)	6.91	Avg. Vel. (ft/s)		7.21	3.87
Max Chl Dpth (ft)	12.42	Hydr. Depth (ft)		8.35	7.60
Conv. Total (cfs)	4726407.0	Conv. (cfs)		4489915.0	236491.8
Length Wtd. (ft)	409.43	Wetted Per. (ft)		3320.09	365.31
Min Ch El (ft)	812.90	Shear (lb/sq ft)		1.03	0.92
Alpha	1.05	Stream Power (lb/ft s)		7.41	3.54
Frctn Loss (ft)	1.03	Cum Volume (acre-ft)	32.89	4954.51	1362.72
C & E Loss (ft)	0.13	Cum SA (acres)	5.42	550.62	203.41

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18617.62	18917.56	905.11	427.75	247.56	0.43	1.73	2.12
18917.56	19217.50	1938.85	729.83	300.27	0.92	2.43	2.66
19217.50 LB	20046.28	82042.53	8158.21	829.00	39.07	9.84	10.06
20046.28	20875.05	58937.80	6903.85	830.41	28.07	8.33	8.54
20875.05	21703.82	13046.89	4392.80	828.80	6.21	5.30	2.97
21703.82	22532.60 RB	30399.43	7297.43	828.86	14.48	8.81	4.17
22532.60	22895.23	9873.21	2656.13	362.63	4.70	7.32	3.72
22895.23	23257.85	9825.68	2648.45	362.63	4.68	7.30	3.71
23257.85	23620.48	3030.51	899.08	142.15	1.44	6.32	3.37

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19217.50 LB	20046.28	88285.41	8389.28	832.03	42.04	10.12	10.52
20046.28	20875.05	63605.23	7134.92	830.41	30.29	8.61	8.91
20875.05	21703.82	14631.91	4623.87	828.80	6.97	5.58	3.16
21703.82	22532.60 RB	32969.84	7528.50	828.86	15.70	9.08	4.38
22532.60	22895.23	10507.62	2715.85	365.31	5.00	7.60	3.87

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

Frctn Loss (ft)	1.10	Cum Volume (acre-ft)	32.89	4724.91	1332.63
C & E Loss (ft)	0.08	Cum SA (acres)	5.42	519.50	198.85

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18189.66	18454.21	1591.38	505.65	214.21	0.76	2.36	3.15
18454.21	18718.75	496.10	273.40	264.55	0.24	1.03	1.81
18718.75	18983.30	1.73	4.16	36.79	0.00	0.11	0.42
18983.30 LB	19814.23	57611.71	5612.11	813.19	27.43	6.91	10.27
19814.23	20645.15	104435.13	7926.16	810.51	49.73	9.79	13.18
20645.15	21476.07	8206.46	2796.76	831.50	3.91	3.37	2.93
21476.07	22307.00 RB	13650.88	3794.41	830.95	6.50	4.57	3.60
22307.00	22753.05	10566.87	2638.67	446.16	5.03	5.92	4.00
22753.05	23199.11	8743.04	2354.92	446.06	4.16	5.28	3.71
23199.11	23645.16	4551.12	1591.69	446.08	2.17	3.57	2.86
23645.16	24091.21	145.58	147.79	204.85	0.07	0.72	0.99

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18983.30 LB	19814.23	60807.65	5863.44	822.61	28.96	7.13	10.37
19814.23	20645.15	108429.69	8176.36	818.78	51.63	10.00	13.26
20645.15	21476.07	9386.49	3052.26	831.50	4.47	3.67	3.08
21476.07	22307.00 RB	15045.24	4049.92	830.95	7.16	4.87	3.71
22307.00	22753.05	12363.01	2775.83	446.16	5.89	6.22	4.45
22753.05	23199.11	3967.93	981.91	182.61	1.89	5.55	4.04

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 179.76

INPUT
Description: 179.76
Station Elevation Data num= 94

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15008.2	830.7	15034.5	826.3	15057.9	827.8	15081	835.7	15310.5	828.9
15545.5	828	15647.9	827.8	15657.8	823.7	15669.8	826.7	15894.5	823.5
16129.9	822.7	16356.6	822.1	16615.9	822.8	16821.3	822.7	16846.6	820.3
16893.4	823.6	17128.4	823	17238.9	820.9	17274.9	817.4	17366.3	815.8
17485	820.8	17735	822	17809.1	822.1	17947	822	17970.8	817.3
18003.6	819.5	18150.7	818	18397.2	820.8	18604.5	820.2	18672.9	823
18767.9	821.7	18838.5	814.6	19123.7	811.6	19252.2	813.5	19267.7	810
19293.1	809.5	19316.6	818.2	19435.9	819.7	19450.7	815.7	19623	814
19677.7	814.3	19690.8	812.3	20067	812.6	20636.6	813.1	20650.8	819.1
20691.3	809.8	20754.1	811.7	20792.3	819	20823.8	817.6	20987	822.1
21315.6	820	21554.8	817.2	21625.9	815.2	21871.5	817.5	22101	818.5
22325.3	819.5	22447.2	818.4	22478.6	810.9	22565.3	810.9	22598.2	819.1
22646.2	816.5	22874	818.1	23123.6	818.3	23394.2	818.3	23657.4	820.4
23894.2	821.7	24173.3	821.9	24425.4	823.2	24645.1	823.7	24722.1	815.1
24734.1	811.6	24769.5	816.9	24801.7	819.3	25067	821.4	25156.9	822.7
25189.8	818.3	25216.1	823.9	25280.2	821.3	25543.8	820.9	25752.4	819.7
25796	826.9	25856.7	822.5	25868.6	823.6	25881.1	810.9	25893.6	812.1
25916.6	823.9	26556.6	824.6	26779	826	26999.2	827.3	27248.5	830.2
27474.5	830.9	27901.6	833.4	28150.6	836.2	28192.2	836.4		

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15008.2	.032	17238.9	.043	18767.9	.043	19293.1	.028	20636.6	.065
22101	.065	25916.6	.025						

19601.18	20434.45	98327.02	8366.96	833.43	46.82	10.04	11.75
20434.45	21267.72	29839.96	4522.21	836.36	14.21	5.43	6.60
21267.72	22101.00 RB	13878.74	4283.59	833.33	6.61	5.14	3.24
22101.00	22507.08	5836.69	1915.14	406.97	2.78	4.72	3.05
22507.08	22913.16	9864.85	2624.44	407.16	4.70	6.46	3.76
22913.16	23319.24	68.32	31.89	11.50	0.03	4.66	2.14

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 179.68

INPUT
Description: 179.68
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14702.3	841.1	14852.5	829.7	15072.8	827.7	15293.8	826.6	15530.4	823.8
15775.6	823.5	16017.7	823.1	16232.1	822.6	16475.9	822	16701.2	821.7
16762.2	821.2	16807.2	824	17031.1	822.3	17262.9	823.3	17293.3	823.8
17340.7	819.9	17419.3	821.2	17504.2	816.1	17651.9	818.9	17869.6	819
18080	818.1	18300.2	821.7	18530.6	816.3	18746.5	812	18902.1	809
19034.6	812	19063.2	808.3	19096.2	810.9	19121.4	816	19227	816.4
19306.7	820.5	19317.9	817.9	19409.2	820.4	19590.6	818.7	19608.2	814
19659	811.8	19849.3	811.9	20661.7	812.1	20679	818.3	20709.2	816.7
20742.6	817.5	20808	810.9	20965.1	813.3	21048.6	811.2	21083.2	819.4
21310.5	821.3	21367.9	823.1	21515.2	818.1	21590	818.9	21766	815.2
21876.3	818.2	22151.8	817.7	22384.4	819.5	22489.9	820.2	22510.7	811.1
22620	811.1	22653.2	819.1	22991.6	817.4	23297.8	817.5	23513.9	817.5
23628.2	819.8	23694.6	822.2	23972.1	821.5	24252.8	821	24496.1	822.3
24578.5	821.8	24615.1	816.7	24632	817.5	24655.3	811.8	24767.8	821.5
25000.8	821.6	25078.5	823.8	25198.5	821.4	25427.1	820.9	25660.6	820.6
25788.2	822.2	25813.9	826.4	25840.3	826.3	25862.1	821.1	25881.7	821.5
25897.3	809.8	25907.4	811	25933.4	824	25955.8	823.8	26249	822.1
26554.1	823.8	26894.3	825.5	27164.8	826.7	27469.3	830.1	27688.3	831.2
27932.2	833.2	28172.3	834.8	28392.2	836.3	28528.5	836.8	28667.6	841.3

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14702.3	.032	17419.3	.043	18300.2	.043	19608.2	.029	20965.1	.065
21590	.065	25840.3	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18300.2	21590	425	494.98	570	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14702.3	17419.3	841.3	23694.6	28667.6	841.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	821.43	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.95	Wt. n-Val.	0.043	0.033	0.065
E.G. Elev (ft)	822.39	Reach Len. (ft)	425.00	494.98	570.00
Crit W.S. (ft)	819.54	Flow Area (sq ft)	2304.47	21494.48	8041.53
E.G. Slope (ft/ft)	0.002432	Area (sq ft)	2391.96	21494.48	9527.32
Q Total (cfs)	210000.00	Flow (cfs)	7548.36	180165.47	22286.17
Top Width (ft)	7358.48	Top Width (ft)	994.07	3176.19	3188.23
Vel Total (ft/s)	6.60	Avg. Vel. (ft/s)	3.28	8.38	2.77
Max Chl Dpth (ft)	13.13	Hydr. Depth (ft)	2.67	6.77	3.86
Conv. Total (cfs)	4258265.0	Conv. (cfs)	153061.5	3653296.8	451906.7
Length Wtd. (ft)	498.04	Wetted Per. (ft)	864.80	3180.85	2086.39
Min Ch El (ft)	808.30	Shear (lb/sq ft)	0.40	1.03	0.59
Alpha	1.41	Stream Power (lb/ft s)	1.33	8.60	1.62
Frctn Loss (ft)	1.12	Cum Volume (acre-ft)	263.12	4025.47	1841.08
C & E Loss (ft)	0.01	Cum SA (acres)	115.12	458.41	427.10

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	821.59	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.12	Wt. n-Val.		0.033	0.065

22350.2	817.8	22471.8	819.5	22501.9	817.1	22530.8	811.4	22571.6	811.4
22599.5	816.4	22857.4	818.8	23060.7	820.2	23370.3	816.8	23405.3	817
23423	819.4	23702.7	821.7	23929.3	821.2	24011.6	816.9	24211.5	818.5
24233.9	816.3	24290.6	821.2	24415.5	820.7	24457.7	816.1	24472.9	816.1
24513.9	812.7	24617.1	821.7	24996.2	822.5	25130	819.2	25449.6	820.3
25773.9	819.4	25895.7	821.2	25919.1	825.6	25962.8	823.4	25969.7	819.9
25986.9	820.5	25998.7	809.7	26012.1	810.3	26036.1	822	26056.8	823.2
26387.9	822.1	26732.9	822.8	27029	825.4	27284.5	826.4	27343.6	828.2
27351.1	826	27472.7	829.1	27740.1	830.4	28200.1	833.2	28251.9	833.7

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14631.8	.032	17865.2	.032	17993	.043	19570.5	.028	21296.9	.065
21401	.065	25962.8	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17865.2	21401	455	504.22	540	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14631.8	17617.5	835.1	23702.7	28251.9	835.1

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	820.33	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.93	Wt. n-Val.	0.032	0.032	0.065
E.G. Elev (ft)	821.26	Reach Len. (ft)	455.00	504.22	540.00
Crit W.S. (ft)	817.94	Flow Area (sq ft)	1218.16	24274.87	4907.12
E.G. Slope (ft/ft)	0.002096	Area (sq ft)	1218.16	24274.87	7125.25
Q Total (cfs)	210000.00	Flow (cfs)	7583.48	193475.45	8941.05
Top Width (ft)	7238.87	Top Width (ft)	240.78	3535.80	3462.30
Vel Total (ft/s)	6.91	Avg. Vel. (ft/s)	6.23	7.97	1.82
Max Chl Dpth (ft)	12.13	Hydr. Depth (ft)	5.06	6.87	2.30
Conv. Total (cfs)	4587239.5	Conv. (cfs)	165653.6	4226277.5	195308.3
Length Wtd. (ft)	508.39	Wetted Per. (ft)	243.07	3541.70	2136.03
Min Ch El (ft)	808.20	Shear (lb/sq ft)	0.66	0.90	0.30
Alpha	1.26	Stream Power (lb/ft s)	4.08	7.15	0.55
Frctn Loss (ft)	0.97	Cum Volume (acre-ft)	245.50	3765.42	1732.13
C & E Loss (ft)	0.07	Cum SA (acres)	109.09	420.28	383.59

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	820.56	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.95	Wt. n-Val.		0.032	0.065
E.G. Elev (ft)	821.51	Reach Len. (ft)	455.00	504.22	540.00
Crit W.S. (ft)	818.04	Flow Area (sq ft)		25086.52	4328.38
E.G. Slope (ft/ft)	0.002041	Area (sq ft)		25086.52	4328.38
Q Total (cfs)	210000.00	Flow (cfs)		200845.47	9154.53
Top Width (ft)	5009.80	Top Width (ft)		3535.80	1474.00
Vel Total (ft/s)	7.14	Avg. Vel. (ft/s)		8.01	2.11
Max Chl Dpth (ft)	12.36	Hydr. Depth (ft)		7.10	2.94
Conv. Total (cfs)	4648489.0	Conv. (cfs)		4445847.5	202641.5
Length Wtd. (ft)	509.13	Wetted Per. (ft)		3542.46	1476.88
Min Ch El (ft)	808.20	Shear (lb/sq ft)		0.90	0.37
Alpha	1.21	Stream Power (lb/ft s)		7.22	0.79
Frctn Loss (ft)	0.91	Cum Volume (acre-ft)	32.89	4038.14	1185.85
C & E Loss (ft)	0.08	Cum SA (acres)	5.42	420.75	164.63

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17434.08	17649.64	474.51	95.23	26.32	0.23	3.78	4.98
17649.64	17865.20	7108.97	1122.93	216.74	3.39	5.21	6.33
17865.20 LB	18749.15	18916.18	4140.00	884.14	9.01	4.68	4.57
18749.15	19633.10	28275.91	5093.83	885.36	13.46	5.76	5.55
19633.10	20517.05	86268.75	8125.39	883.95	41.08	9.19	10.62
20517.05	21401.00 RB	60014.63	6915.65	888.25	28.58	7.82	8.68
21401.00	21857.73	2287.07	1217.68	456.85	1.09	2.67	1.88
21857.73	22314.45	1566.97	970.41	456.73	0.75	2.12	1.61
22314.45	22771.18	3637.47	1609.99	457.84	1.73	3.53	2.26

Alpha	1.12	Stream Power (lb/ft s)		5.68	2.24
Frctn Loss (ft)	0.78	Cum Volume (acre-ft)	239.03	3498.86	1611.54
C & E Loss (ft)	0.07	Cum SA (acres)	107.66	382.20	342.61

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	819.84	Element			
Vel Head (ft)	0.69	Wt. n-Val.		0.032	0.037
E.G. Elev (ft)	820.52	Reach Len. (ft)	465.00	506.43	535.00
Crit W.S. (ft)	816.78	Flow Area (sq ft)		22776.00	9868.39
E.G. Slope (ft/ft)	0.001564	Area (sq ft)		22776.00	9868.39
Q Total (cfs)	210000.00	Flow (cfs)		161553.69	48446.31
Top Width (ft)	4992.64	Top Width (ft)		3074.54	1918.10
Vel Total (ft/s)	6.43	Avg. Vel. (ft/s)		7.09	4.91
Max Chl Dpth (ft)	11.34	Hydr. Depth (ft)		7.41	5.14
Conv. Total (cfs)	5310545.5	Conv. (cfs)		4085420.0	1225125.5
Length Wtd. (ft)	513.42	Wetted Per. (ft)		3077.71	1923.26
Min Ch El (ft)	808.60	Shear (lb/sq ft)		0.72	0.50
Alpha	1.07	Stream Power (lb/ft s)		5.12	2.46
Frctn Loss (ft)	0.70	Cum Volume (acre-ft)	32.89	3761.13	1097.86
C & E Loss (ft)	0.06	Cum SA (acres)	5.42	382.49	143.60

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17842.36 LB	18610.99	31044.66	5716.77	768.90	14.78	7.44	5.43
18610.99	19379.63	14304.99	3533.45	738.31	6.81	4.79	4.05
19379.63	20148.27	56780.61	6230.63	769.03	27.04	8.11	9.11
20148.27	20916.90 RB	57425.06	6302.17	770.13	27.35	8.20	9.11
20916.90	21404.49	22445.92	3036.35	487.74	10.69	6.23	7.39
21404.49	21892.09	15070.99	2431.72	488.13	7.18	4.99	6.20
21892.09	22379.68	3352.29	1607.98	487.60	1.60	3.30	2.08
22379.68	22867.27	6021.98	2286.19	488.15	2.87	4.69	2.63
22867.27	23354.87	3553.48	1665.32	487.69	1.69	3.42	2.13
23354.87	23842.46	0.01	0.11	2.01	0.00	0.05	0.13

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17842.36 LB	18610.99	31594.46	5966.11	769.53	15.04	7.76	5.30
18610.99	19379.63	14762.60	3778.39	769.02	7.03	4.92	3.91
19379.63	20148.27	57269.83	6479.98	769.03	27.27	8.43	8.84
20148.27	20916.90 RB	57926.77	6551.52	770.13	27.58	8.52	8.84
20916.90	21404.49	23189.88	3194.52	487.74	11.04	6.55	7.26
21404.49	21892.09	15448.28	2589.89	488.13	7.36	5.31	5.96
21892.09	22379.68	3720.99	1766.15	487.60	1.77	3.62	2.11
22379.68	22867.27	6087.19	2317.82	459.79	2.90	5.09	2.63

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 179.4

INPUT
Description: 179.4
Left Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14523.1	829.6	14800.4	827.2	15056.3	825	15077.7	820.5	15103.5	825.7
15120.5	826.2	15132.2	821.7	15145.6	824.5	15419.8	820	15726	819.8
16002.5	819.7	16317.3	820.9	16605.1	821.3	16943.8	820.9	17010	821.3
17037.1	817.6	17051.7	821.7	17327.1	820.5	17607.5	819.4	17784.8	820.1
17787.45	818.8629	17816.7	805.2	18153.2	810.7	18305.3	812.7	18374.6	811.7
18662.9	815.1	18937.2	808.5	19149.7	815	19255.2	813.7	19312.1	816.2
19410.7	816.6	19417.9	813.5	19472.1	812.8	19484.2	808.9	19592.3	809.2
19898.1	809.8	19973.6	810.5	20417.3	808.6	20490.6	808.4	20830.5	808.3
20846.4	815.5	20949.3	813.4	20978.5	814.4	21012.8	811.4	21306.5	813
21608	811.1	21629.5	807.8	21793.3	812.5	21828.9	808.6	21870	815

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17787.45 LB	18552.19	22930.38	6837.54	768.28	10.92	8.94	3.35
18552.19	19316.93	13546.97	4977.52	764.99	6.45	6.51	2.72
19316.93	20081.66	50290.28	6502.81	766.00	23.95	8.50	7.73
20081.66	20846.40 RB	68917.19	7975.31	766.30	32.82	10.43	8.64
20846.40	21322.44	17524.10	3058.99	476.21	8.34	6.43	5.73
21322.44	21798.48	19978.03	3828.15	476.40	9.51	8.04	5.22
21798.48	22274.52	11150.88	3685.64	476.81	5.31	7.74	3.03
22274.52	22750.56	5469.61	2402.58	476.20	2.60	5.05	2.28
22750.56	23226.60	192.58	133.38	52.34	0.09	2.70	1.44

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 179.35

INPUT
Description: 179.35
Left Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14411	832.3	14642.3	830.9	14857.3	828.1	15065.5	826.9	15101.7	825.9
15125.3	820.1	15150.5	825.5	15171.6	825.3	15182.4	820.8	15194.4	823.9
15414.9	820.3	15625.6	820	15923.1	819.4	16143.3	820	16364.4	819.9
16668.2	819.9	16752.8	819.9	16973.1	819.8	17184.8	818.7	17393.8	819.3
17599.6	818.4	17638.7	819.9	17644.3	3818.6	077 17687.5	808.7	17964.9	807.2
18177.4	810.1	18377	812.2	18452.3	811.8	18532.6	815.8	18785.9	815.7
18841	813.9	18862.4	810.2	18871.7	811.8	18948.4	807.7	19191.3	814.3
19288.4	813.4	19318.8	815.5	19420.8	814.8	19433.7	808.5	19741.3	808.7
19975.4	808.9	20227.6	808.5	20358.8	808.2	20833	811	20854	811.3
20856.8	813.3	20908.8	816	20940.4	813.2	21000	814.1	21042.4	811
21263.7	811.2	21542.7	811.2	21675	808.9	21748.8	811.4	21758	807.8
21822.1	811.5	21996.5	809.5	22054.7	810.9	22220.4	809.6	22435.8	810
22563.9	815.1	22783.6	814.3	22898.9	816	23137.4	814	23217.8	812.3
23259.5	809.3	23349.9	817.6	23364.7	820.9	23612.3	818.9	23864.6	819.3
23990.2	821	24070.3	809.6	24087.3	816.1	24144.5	814.1	24202.5	820.8
24407.7	819	24639	819.1	24920.4	820.5	25180.1	819.8	25403.8	819.5
25648.8	821.6	26001.6	820	26152.8	821.3	26228.6	825.5	26238.8	821.1
26253.3	822.8	26272	808.9	26290.8	810	26309.3	822.8	26515.3	823.2
26588.6	821.3	26927.6	823.7	27141.9	824.1	27380.1	825	27597.4	827
27811.6	830	27961.1	831.1						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14411	.065	17638.7	.065	19420.8	.028	20908.8	.065	21042.4	.028
21758	.065	22563.9	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17644.33	20908.8	240	261.22	275	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14411	17638.7	832.3	23364.6	27961.1	832.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	818.66	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.38	Wt. n-Val.	0.001	0.037	0.038
E.G. Elev (ft)	819.04	Reach Len. (ft)	240.00	261.22	275.00
Crit W.S. (ft)	814.34	Flow Area (sq ft)	0.01	26389.63	16250.78
E.G. Slope (ft/ft)	0.000980	Area (sq ft)	8.36	26389.63	17222.12
Q Total (cfs)	210000.00	Flow (cfs)	0.00	136173.73	73826.27
Top Width (ft)	5997.45	Top Width (ft)	65.44	3264.47	2667.54
Vel Total (ft/s)	4.92	Avg. Vel. (ft/s)	0.06	5.16	4.54
Max Chl Dpth (ft)	11.46	Hydr. Depth (ft)	0.02	8.08	6.64
Conv. Total (cfs)	6707187.0	Conv. (cfs)	0.0	4349251.0	2357936.0
Length Wtd. (ft)	265.38	Wetted Per. (ft)	0.22	3268.67	2447.71
Min Ch El (ft)	807.20	Shear (lb/sq ft)		0.49	0.41
Alpha	1.01	Stream Power (lb/ft s)		2.55	1.85
Frctn Loss (ft)	0.27	Cum Volume (acre-ft)	238.83	3071.67	1335.67
C & E Loss (ft)	0.00	Cum SA (acres)	107.18	327.67	288.64

22129.3	812.4	22172.9	812.3	22368.9	811.4	22569.9	812.4	22853	813
23048	812.8	23153.3	815.8	23413.2	816.4	23537	812.1	23605.3	819.8
23809.9	817.5	23915.9	817.2	24002.6	812	24024	809.6	24055.6	813.5
24068.8	812.9	24126.3	821.6	24145.1	821.4	24361.1	818.3	24564.9	819.9
24766.2	819.2	25010.4	818.3	25269.7	817.2	25592.1	819.5	25779.5	820.2
26066.9	822.6	26221.4	823	26272.4	825.4	26296	822	26304.5	822.6
26325.5	808.9	26345.1	809.2	26363.8	820.6	26383.4	822.1	26602.8	822.2
26866.6	823.8	26947.6	824.4	27223.5	824.7	27225.8	824.7	27416.1	825.4
27659.6	827.2	27771.4	831.4						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14539.8	.065	17568.6	.065	19409.5	.027	20958.5	.065	21157.3	.027
21719	.065	26272.4	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17573.63	21157.3	230	258.47	280	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14539.8	17568.6	832.8	23605.3	27771.4	832.8

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	818.38	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.39	Wt. n-Val.	0.000	0.037	0.044
E.G. Elev (ft)	818.77	Reach Len. (ft)	230.00	258.47	280.00
Crit W.S. (ft)	814.18	Flow Area (sq ft)	0.00	29130.67	14657.25
E.G. Slope (ft/ft)	0.001042	Area (sq ft)	460.67	29130.67	16257.03
Q Total (cfs)	210000.00	Flow (cfs)	0.00	157002.80	52997.20
Top Width (ft)	7576.31	Top Width (ft)	716.56	3540.00	3319.74
Vel Total (ft/s)	4.80	Avg. Vel. (ft/s)	0.06	5.39	3.62
Max Chl Dpth (ft)	11.58	Hydr. Depth (ft)	0.03	8.23	6.02
Conv. Total (cfs)	6504193.5	Conv. (cfs)	0.0	4862745.5	1641447.8
Length Wtd. (ft)	262.60	Wetted Per. (ft)	0.14	3543.99	2436.50
Min Ch El (ft)	806.80	Shear (lb/sq ft)		0.53	0.39
Alpha	1.09	Stream Power (lb/ft s)		2.88	1.42
Frctn Loss (ft)	0.33	Cum Volume (acre-ft)	237.53	2905.20	1229.99
C & E Loss (ft)	0.01	Cum SA (acres)	105.02	307.27	269.74

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	818.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.38	Wt. n-Val.		0.037	0.042
E.G. Elev (ft)	819.21	Reach Len. (ft)	230.00	258.47	280.00
Crit W.S. (ft)	814.15	Flow Area (sq ft)		30728.09	12332.04
E.G. Slope (ft/ft)	0.000918	Area (sq ft)		30728.09	12332.04
Q Total (cfs)	210000.00	Flow (cfs)		159879.55	50120.44
Top Width (ft)	5200.24	Top Width (ft)		3557.54	1642.70
Vel Total (ft/s)	4.88	Avg. Vel. (ft/s)		5.20	4.06
Max Chl Dpth (ft)	12.03	Hydr. Depth (ft)		8.64	7.51
Conv. Total (cfs)	6930956.5	Conv. (cfs)		5276753.5	1654202.9
Length Wtd. (ft)	262.15	Wetted Per. (ft)		3562.06	1649.27
Min Ch El (ft)	806.80	Shear (lb/sq ft)		0.49	0.43
Alpha	1.03	Stream Power (lb/ft s)		2.57	1.74
Frctn Loss (ft)	0.29	Cum Volume (acre-ft)	32.89	3137.73	782.49
C & E Loss (ft)	0.01	Cum SA (acres)	5.42	307.33	96.25

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17371.38	17573.63	0.00	0.00	0.14	0.00	0.03	0.06
17573.63 LB	18469.55	20297.62	6871.14	854.97	9.67	8.06	2.95
18469.55	19365.46	15372.22	5927.08	896.49	7.32	6.62	2.59
19365.46	20261.38	66981.72	8418.94	896.61	31.90	9.40	7.96
20261.38	21157.30 RB	54351.22	7913.52	895.92	25.88	8.83	6.87
21157.30	21598.24	20949.77	3213.52	440.94	9.98	7.29	6.52
21598.24	22039.18	15083.21	3671.31	441.56	7.18	8.33	4.11
22039.18	22480.12	7045.86	2831.15	440.94	3.36	6.42	2.49
22480.12	22921.06	5853.94	2533.21	440.94	2.79	5.75	2.31

Alpha	1.49	Stream Power (lb/ft s)	0.00	4.55	1.05
Frctn Loss (ft)	0.31	Cum Volume (acre-ft)	235.34	2728.74	1124.98
C & E Loss (ft)	0.05	Cum SA (acres)	102.02	285.25	249.41

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	818.43	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.48	Wt. n-Val.		0.039	0.092
E.G. Elev (ft)	818.91	Reach Len. (ft)	230.00	259.41	280.00
Crit W.S. (ft)	814.23	Flow Area (sq ft)		32273.15	9821.66
E.G. Slope (ft/ft)	0.001359	Area (sq ft)		32273.15	9821.66
Q Total (cfs)	210000.00	Flow (cfs)		188348.39	21651.60
Top Width (ft)	5243.36	Top Width (ft)		3881.36	1362.00
Vel Total (ft/s)	4.99	Avg. Vel. (ft/s)		5.84	2.20
Max Chl Dpth (ft)	12.13	Hydr. Depth (ft)		8.31	7.21
Conv. Total (cfs)	5696427.0	Conv. (cfs)		5109109.0	587317.9
Length Wtd. (ft)	262.16	Wetted Per. (ft)		3885.13	1368.69
Min Ch El (ft)	806.30	Shear (lb/sq ft)		0.70	0.61
Alpha	1.25	Stream Power (lb/ft s)		4.11	1.34
Frctn Loss (ft)	0.26	Cum Volume (acre-ft)	32.89	2950.82	711.29
C & E Loss (ft)	0.05	Cum SA (acres)	5.42	285.26	86.59

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17332.94	17526.64	0.00	0.01	0.27	0.00	0.05	0.12
17526.64 LB	18496.98	21207.23	6611.25	972.68	10.10	6.81	3.21
18496.98	19467.32	24564.10	7022.87	971.10	11.70	7.24	3.50
19467.32	20437.66	76944.01	8634.52	970.40	36.64	8.90	8.91
20437.66	21408.00 RB	59708.30	8077.82	970.35	28.43	8.32	7.39
21408.00	21833.55	12128.91	2978.41	425.56	5.78	7.00	4.07
21833.55	22259.11	4699.18	3159.63	425.60	2.24	7.42	1.49
22259.11	22684.66	3148.07	2484.45	425.55	1.50	5.84	1.27
22684.66	23110.21	3404.23	2604.16	425.69	1.62	6.12	1.31
23110.21	23535.77	2472.67	2048.24	377.27	1.18	5.48	1.21
23535.77	23961.32	1673.93	1701.03	425.72	0.80	4.00	0.98
23961.32	24386.87	49.39	78.71	38.68	0.02	2.03	0.63

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17526.64 LB	18496.98	22312.96	7092.92	973.27	10.63	7.31	3.15
18496.98	19467.32	25732.46	7504.54	971.10	12.25	7.73	3.43
19467.32	20437.66	78852.48	9116.19	970.40	37.55	9.39	8.65
20437.66	21408.00 RB	61450.50	8559.50	970.35	29.26	8.82	7.18
21408.00	21833.55	12732.38	3189.66	425.56	6.06	7.50	3.99
21833.55	22259.11	4871.96	3370.87	425.60	2.32	7.92	1.45
22259.11	22684.66	3356.98	2695.69	425.55	1.60	6.33	1.25
22684.66	23110.21	690.27	565.44	91.97	0.33	6.63	1.22

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 179.2

INPUT
Description: 179.2
Left Bank Station Interpolated
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14710.2	829.7	14917.8	826.5	15126.9	823.1	15208.4	821.8	15242.9	825.3
15354.6	823.6	15369.3	821.2	15403.2	822.5	15446.6	818.2	15664.2	817.7
16019.3	817.4	16230.1	818.1	16433.6	818.3	16703.1	817.8	16904.4	818.1
16968.4	815.6	17096.1	819.1	17199.2	818.4	17216.5	816.3	17353.5	816.5
17398.1	811.1	17421.4	811.1	17444.9	817.8	17491.4	818.3	17494.2	5817.5876
17531.4	808.3	17635.7	805.4	17894.6	807.7	18127.5	810.4	18287.9	808.5
18447.4	815.5	18561.1	813.8	18698.5	810.4	18756.3	811.1	18851.9	807.7
19055.9	809.5	19093.4	803.8	19279.2	808.7	19376.7	808.5	19437.1	811.7

23130.75	23543.43	374.51	723.24	314.29	0.18	2.30	0.52
23543.43	23956.12	789.79	1012.35	237.89	0.38	4.28	0.78
23956.12	24368.81	388.04	654.38	232.04	0.18	2.82	0.59

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17494.25 LB	18490.69	25366.13	9126.45	998.51	12.08	9.16	2.78
18490.69	19487.13	25113.27	8833.60	997.14	11.96	8.87	2.84
19487.13	20483.56	63717.08	9560.89	996.49	30.34	9.60	6.66
20483.56	21480.00 RB	61267.62	9623.47	996.44	29.18	9.66	6.37
21480.00	21892.69	25040.12	4164.38	412.71	11.92	10.09	6.01
21892.69	22305.37	7343.32	3199.89	412.69	3.50	7.75	2.29
22305.37	22718.06	2114.78	2388.30	412.70	1.01	5.79	0.89
22718.06	23130.75	37.67	64.30	20.65	0.02	3.80	0.59

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 179.11

INPUT
Description: 179.11
Left Bank Station Interpolated
Station Elevation Data num= 94

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14600.4	827.5	14832.1	824.9	15075.9	822.9	15247.7	820.5	15279	817.6
15305	822.2	15367.1	820	15389.4	816.8	15577.2	816.8	15785.4	816.5
16119.7	817.9	16327.4	817.8	16532.8	817.5	16718.6	817.3	16934.2	817.3
17117.1	817.4	17354.4	815.4	17394.2	817.6	17557.8	816.2	17584.8	819.2
17591.99	816.9421	17621.1	807.8	17675.9	804.9	17705.8	805.2	17901	806.4
18119.9	808.3	18273.4	809.7	18412.6	816.4	18679.2	812	18968	806.5
19242.2	806.1	19301.8	806.4	19664.8	806.7	19897.7	808.3	20083.7	807.6
20313	808.4	20325.8	806.7	21022.4	806.8	21211.7	806.9	21482.2	808.4
21555.9	810.1	21607.1	809.8	21629	811.7	21807	809.3	22233	809.2
22576.9	810.6	22815.1	813.1	22901.7	816.1	23116.1	816.6	23185.3	808.9
23385.2	813.3	23571.2	817.1	23616.9	811	23668.1	812.2	23678.7	818.1
23720.8	812.8	23731.8	814.4	23919.9	809.6	23957.4	808	24011.4	815.3
24114.5	816.4	24134.8	821.2	24159.6	820.6	24175.9	816.8	24187.9	817.8
24192.9	814.5	24197.9	808.5	24218.5	808.2	24237.9	817.7	24260.5	820.8
24315.3	817.3	24440	817.6	25119.5	816.5	25205.1	820.2	25226.1	817.6
25312.1	817.5	26160.6	818.3	26354.7	818.9	26421.5	819	26461.7	825.8
26502.6	824.8	26516.6	820.2	26531.8	821.2	26547.4	808.8	26562	809.1
26589.7	823.5	26605.1	824.1	26630	821.4	26848.5	821.3	26860	823.4
27042.8	824.7	27284.2	824.8	27553.7	825.4	27735.4	827.2		

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14600.4	.025	16119.7	.032	17584.8	.065	19664.8	.028	21022.4	.032
21629	.15	24260.5	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17591.99	21629	425	425.8	425	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14600.4	17584.8	827.5	24134.8	27735.4	827.5

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	817.15	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.42	Wt. n-Val.	0.065	0.039	0.150
E.G. Elev (ft)	817.58	Reach Len. (ft)	425.00	425.80	425.00
Crit W.S. (ft)	812.05	Flow Area (sq ft)	0.07	36867.94	12860.53
E.G. Slope (ft/ft)	0.001036	Area (sq ft)	490.87	36867.94	13521.65
Q Total (cfs)	210000.00	Flow (cfs)	0.01	197676.64	12323.34
Top Width (ft)	7945.46	Top Width (ft)	915.37	4037.01	2993.08
Vel Total (ft/s)	4.22	Avg. Vel. (ft/s)	0.16	5.36	0.96
Max Chl Dpth (ft)	12.25	Hydr. Depth (ft)	0.11	9.13	5.19
Conv. Total (cfs)	6525176.0	Conv. (cfs)	0.4	6142261.5	382914.3
Length Wtd. (ft)	425.74	Wetted Per. (ft)	0.71	4038.99	2482.85
Min Ch El (ft)	804.90	Shear (lb/sq ft)	0.01	0.59	0.33
Alpha	1.52	Stream Power (lb/ft s)	0.00	3.16	0.32
Frctn Loss (ft)	0.43	Cum Volume (acre-ft)	224.80	2124.32	866.66

23430.5	815.1	23462.8	810.7	23499	810.8	23538.5	817.7	23592.8	811.9
23763.4	813.9	23872.7	812.6	23998.6	808.1	24032.3	809.3	24079.4	816.7
24091.1	814.8	24101.5	816.1	24114	808.1	24135.4	808.2	24151.4	817.3
24179.8	820.6	24257.4	817.2	24376.6	817.4	24660.8	817.4	24907.6	817.2
25127.7	817.3	25219.3	817.1	25237.9	818.9	25245.1	817.1	25269.3	820.1
25291.9	818	25495.9	818.3	25737.1	818.7	26025.6	819.1	26064.5	819.1
26273.2	819.2	26479.1	819.9	26570.5	824.5	26581.8	821.3	26597.1	821.9
26613	810.6	26627.5	810	26651.9	821.7	26855.5	823	26953.6	823.2
26983.8	825.2								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14605.7	.025	16187.4	.032	17765.9	.065	19708.8	.028	21039.4	.032
21800	.032	22074	.15	24179.8	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17770.59	21800	420	416.83	415	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14605.7	17642.9	829.4	24157.7	26983.8	829.4

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	816.76	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.37	Wt. n-Val.	0.065	0.041	0.081
E.G. Elev (ft)	817.13	Reach Len. (ft)	420.00	416.83	415.00
Crit W.S. (ft)	811.63	Flow Area (sq ft)	0.15	37229.38	10984.72
E.G. Slope (ft/ft)	0.000978	Area (sq ft)	501.29	37229.38	11152.88
Q Total (cfs)	210000.00	Flow (cfs)	0.03	189246.08	20753.89
Top Width (ft)	6573.63	Top Width (ft)	596.71	4029.41	1947.51
Vel Total (ft/s)	4.36	Avg. Vel. (ft/s)	0.18	5.08	1.89
Max Chl Dpth (ft)	13.96	Hydr. Depth (ft)	0.13	9.24	5.75
Conv. Total (cfs)	6714596.5	Conv. (cfs)	0.9	6051005.0	663590.6
Length Wtd. (ft)	416.69	Wetted Per. (ft)	1.15	4031.05	1918.56
Min Ch El (ft)	802.80	Shear (lb/sq ft)	0.01	0.56	0.35
Alpha	1.25	Stream Power (lb/ft s)	0.00	2.87	0.66
Frctn Loss (ft)	0.41	Cum Volume (acre-ft)	219.96	1762.17	746.29
C & E Loss (ft)	0.01	Cum SA (acres)	81.40	176.63	169.82

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	817.49	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.33	Wt. n-Val.		0.041	0.065
E.G. Elev (ft)	817.83	Reach Len. (ft)	420.00	416.83	415.00
Crit W.S. (ft)	811.67	Flow Area (sq ft)		40169.29	7040.61
E.G. Slope (ft/ft)	0.000785	Area (sq ft)		40169.29	7040.61
Q Total (cfs)	210000.00	Flow (cfs)		192351.11	17648.89
Top Width (ft)	4934.41	Top Width (ft)		4029.41	905.00
Vel Total (ft/s)	4.45	Avg. Vel. (ft/s)		4.79	2.51
Max Chl Dpth (ft)	14.69	Hydr. Depth (ft)		9.97	7.78
Conv. Total (cfs)	7495192.5	Conv. (cfs)		6865279.0	629913.4
Length Wtd. (ft)	416.73	Wetted Per. (ft)		4032.04	911.37
Min Ch El (ft)	802.80	Shear (lb/sq ft)		0.49	0.38
Alpha	1.09	Stream Power (lb/ft s)		2.34	0.95
Frctn Loss (ft)	0.33	Cum Volume (acre-ft)	32.89	1917.38	466.28
C & E Loss (ft)	0.01	Cum SA (acres)	5.42	176.64	54.98

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17559.60	17770.59	0.03	0.15	1.15	0.00	0.13	0.18
17770.59 LB	18777.94	28132.80	9096.19	1008.88	13.40	9.03	3.09
18777.94	19785.29	40827.05	10753.28	1007.42	19.44	10.67	3.80
19785.29	20792.65	77432.82	10068.68	1007.37	36.87	10.00	7.69
20792.65	21800.00 RB	42853.38	7311.23	1007.38	20.41	7.26	5.86
21800.00	22145.59	12768.70	2669.33	346.08	6.08	7.72	4.78
22145.59	22491.17	2709.86	2409.93	345.59	1.29	6.97	1.12
22491.17	22836.76	1493.30	1575.11	291.76	0.71	5.41	0.95
22836.76	23182.35						
23182.35	23527.93	1416.20	1584.94	320.86	0.67	4.96	0.89
23527.93	23873.52	822.79	1159.71	331.82	0.39	3.50	0.71

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	817.10	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.39	Wt. n-Val.	0.032	0.040	0.099
E.G. Elev (ft)	817.49	Reach Len. (ft)	465.00	470.20	470.00
Crit W.S. (ft)	811.02	Flow Area (sq ft)	346.69	39761.42	4910.91
E.G. Slope (ft/ft)	0.000807	Area (sq ft)	346.69	39761.42	4910.91
Q Total (cfs)	210000.00	Flow (cfs)	914.32	202108.03	6977.64
Top Width (ft)	4696.44	Top Width (ft)	121.44	3774.00	801.00
Vel Total (ft/s)	4.66	Avg. Vel. (ft/s)	2.64	5.08	1.42
Max Chl Dpth (ft)	17.50	Hydr. Depth (ft)	2.85	10.54	6.13
Conv. Total (cfs)	7392300.5	Conv. (cfs)	32185.5	7114492.0	245623.0
Length Wtd. (ft)	470.13	Wetted Per. (ft)	122.64	3776.34	807.99
Min Ch El (ft)	799.60	Shear (lb/sq ft)	0.14	0.53	0.31
Alpha	1.15	Stream Power (lb/ft s)	0.38	2.70	0.44
Frctn Loss (ft)	0.39	Cum Volume (acre-ft)	31.22	1534.95	409.34
C & E Loss (ft)	0.00	Cum SA (acres)	4.84	139.30	46.85

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17937.69	18170.00	574.25	248.73	127.12	0.27	1.96	2.31
18170.00 LB	19113.50	41783.99	11143.58	945.46	19.90	11.81	3.75
19113.50	20057.00	38458.49	8786.38	943.65	18.31	9.31	4.38
20057.00	21000.50	77109.87	9703.03	943.70	36.72	10.28	7.95
21000.50	21944.00 RB	39849.42	7054.21	943.53	18.98	7.48	5.65
21944.00	22254.34	3492.72	1669.63	310.54	1.66	5.38	2.09
22254.34	22564.68	1452.70	1602.40	310.34	0.69	5.16	0.91
22564.68	22875.02	1710.69	1767.66	310.39	0.81	5.70	0.97
22875.02	23185.36	841.52	1155.13	310.56	0.40	3.72	0.73
23185.36	23495.70	2577.03	2260.68	310.52	1.23	7.28	1.14
23495.70	23806.04	1415.46	1577.78	310.41	0.67	5.08	0.90
23806.04	24116.38	717.53	1050.37	311.01	0.34	3.38	0.68
24116.38	24426.72	16.32	55.74	58.79	0.01	0.95	0.29

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17937.69	18170.00	914.32	346.69	122.64	0.44	2.85	2.64
18170.00 LB	19113.50	41761.05	11912.13	945.46	19.89	12.63	3.51
19113.50	20057.00	39719.47	9554.93	943.65	18.91	10.13	4.16
20057.00	21000.50	78301.77	10471.58	943.70	37.29	11.10	7.48
21000.50	21944.00 RB	42325.75	7822.77	943.53	20.16	8.29	5.41
21944.00	22254.34	4204.32	1922.42	310.54	2.00	6.19	2.19
22254.34	22564.68	1715.92	1855.20	310.34	0.82	5.98	0.92
22564.68	22875.02	1057.40	1133.29	187.11	0.50	6.28	0.93

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 178.86

INPUT
Description: 178.86
Station Elevation Data num= 94

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14602.5	827.5	14696.5	826	14716.8	821.6	14739.5	827.1	14764.5	823.7
14941	822.2	14968.7	821.6	14985.8	818.9	15009.2	824.3	15031.6	824.1
15068.3	819.4	15077.5	820.4	15106.7	817.7	15129.9	817.6	15315.5	817.9
15545.7	817.5	15763	817.1	15844.3	817.1	15974.8	817.4	16117.3	817.4
16242.9	816.4	16423.1	816.4	16496.1	816.6	16831.4	815.2	16976.4	812.8
17140.3	815.8	17268.3	816.5	17420.3	816.9	17466.3	816.9	17603.3	816.1
17763.8	815.5	17866.1	814.5	18007.6	810.6	18078.3	809.5	18235.9	810
18361.2	809	18443.5	810	18452.7	811.5	18463.3	807.2	18469.1	802.9
18546.1	800.9	18724.4	800.6	18895.2	804.8	19047.1	803.9	19101.7	804.7
19335.6	807.8	19563.3	808.2	19647.3	807.5	19797	806.2	19934.8	805.6
20711.3	805.2	20776	805.1	21297.8	807	21393.3	808.6	21635.6	808.1
21796.6	808.1	21891.7	812.5	22049.9	810.9	22207.9	809.1	22371.3	808.7
22518.8	809.4	22970.7	810.3	23074.2	812.1	23160.7	814.9	23252.8	813.2
23395.3	813.4	23500.8	812.5	23686.2	811.3	23780.4	811	23808.9	807.1

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18196.02	18452.70	3918.37	1592.82	229.57	1.87	7.15	2.46
18452.70 LB	19312.45	42413.76	11322.43	862.11	20.20	13.17	3.75
19312.45	20172.20	57481.30	8561.01	859.76	27.37	9.96	6.71
20172.20	21031.95	68230.11	9736.42	859.75	32.49	11.32	7.01
21031.95	21891.70 RB	21808.00	7588.43	859.87	10.38	8.83	2.87
21891.70	22263.31	5145.19	2280.80	371.63	2.45	6.14	2.26
22263.31	22634.93	7322.44	2818.60	371.62	3.49	7.58	2.60
22634.93	23006.54	3680.84	1544.36	231.71	1.75	6.86	2.38

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 178.77

INPUT
Description: 178.77
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14564.3	827.3	14723.5	822.4	14770.1	820.5	14791.8	822.6	14831.3	818.6
14833.2	822.6	14859.3	818.4	14937	821.7	14998.6	818.9	15027	821.4
15183.9	819.8	15307.3	815.2	15395.8	815.4	15454.7	817.4	15499.5	821.5
15611.2	820.5	16312.8	818.4	16370.1	815.2	16503.6	812.6	16594.1	815
16721	814.9	16878.1	814.7	16899.6	814.7	17077	814.3	17174.6	814
17295.2	813.2	17446.5	813.1	17594.3	812	17658.4	812.2	17737.8	814.9
17764.8	806.8	17852.4	812.2	17970.6	809.5	18118.5	809.7	18241.9	808.9
18275.3	809.3	18417.8	809.6	18501.4	809.9	18550.5	806.5	18679.8	800
18779.1	803.6	18859.1	802.1	18924.6	803.7	18995.8	801.2	19142	803.7
19198	803.9	19442.9	805.5	19566.9	804.5	19720.1	806.3	20056.9	804.7
20062.2	806.2	21488	804.1	21558.7	804.6	21690.2	806.3	21708	806.6
21723.8	804.1	21806	809.9	21834.3	805.3	21978.4	805.2	22223.8	807.7
22390.7	808.3	22434.1	807.1	22517.4	804.5	22534.2	808.1	22676.9	808.8
22766.6	809.8	23113	808.3	23145.5	808.1	23175.7	805.9	23200.1	812.8
23381.8	813.5	23554.7	813.9	23579	808	23616.2	810.3	23714.8	809.1
23843.6	810.3	24074.8	813.1	24220.9	814.9	24243.8	816.2	24263.8	813.8
24818.6	814.2	25346.2	814.5	25472.8	814.7	25518.6	817.3	25593.7	817.2
26485.7	818.2	26697.8	819.2	26776.8	822.3	26797.2	825.4		

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14564.3	.025	16370.1	.032	17852.4	.065	18501.4	.065	19720.1	.027
21488	.027	21806	.065	24243.8	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18501.4	21806	445	444.41	440	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14564.3	17594.3	827.3	24243.8	26797.2	827.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	815.51	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.32	Wt. n-Val.	0.055	0.036	0.065
E.G. Elev (ft)	815.83	Reach Len. (ft)	445.00	444.41	440.00
Crit W.S. (ft)	809.61	Flow Area (sq ft)	4774.35	35458.71	14437.05
E.G. Slope (ft/ft)	0.000588	Area (sq ft)	6698.07	35458.71	16016.52
Q Total (cfs)	210000.00	Flow (cfs)	9576.32	174160.27	26263.41
Top Width (ft)	9204.34	Top Width (ft)	2236.70	3304.60	3663.04
Vel Total (ft/s)	3.84	Avg. Vel. (ft/s)	2.01	4.91	1.82
Max Chl Dpth (ft)	15.51	Hydr. Depth (ft)	5.26	10.73	5.95
Conv. Total (cfs)	8660551.0	Conv. (cfs)	394934.4	7182494.5	1083121.8
Length Wtd. (ft)	443.63	Wetted Per. (ft)	908.54	3305.69	2428.30
Min Ch El (ft)	800.00	Shear (lb/sq ft)	0.19	0.39	0.22
Alpha	1.40	Stream Power (lb/ft s)	0.39	1.93	0.40
Frctn Loss (ft)	0.27	Cum Volume (acre-ft)	131.99	644.18	359.90
C & E Loss (ft)	0.02	Cum SA (acres)	43.94	63.37	69.35

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

23209	805.9	23251.9	812.7	23318.1	813.4	23344.7	805	23391	813.3
23416.4	813.7	23441.9	810.9	23756.5	810.9	23944.3	810.5	24159.2	810
24242	809.2	24283.8	815.9	24317.2	813.8	24551.3	813.5	24777	814.2
25113.2	814.4	25238.1	814.6	25436.7	816.1	25564.2	816	25578.5	818
25595.6	817.4	25883.2	816.8	25909.9	816.8	26105.5	817.2	26338.9	818.1
26417.6	818.4	26568.2	819.9	26710.4	820.3	26824.5	823.8	26865.7	827.9
26889	827.8								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14468.8	.025	16416.9	.032	17870.9	.065	18358.3	.065	19469	.028
21260	.065	21759.9	.065	23391	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18358.3	21759.9	360	378.34	390	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14468.8	17392.1	827.9	24283.8	26889	827.9

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	815.29	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.24	Wt. n-Val.	0.047	0.040	0.052
E.G. Elev (ft)	815.54	Reach Len. (ft)	360.00	378.34	390.00
Crit W.S. (ft)	809.37	Flow Area (sq ft)	4844.02	34060.75	18085.48
E.G. Slope (ft/ft)	0.000622	Area (sq ft)	7455.86	34060.75	19279.93
Q Total (cfs)	210000.00	Flow (cfs)	11285.86	147887.81	50827.12
Top Width (ft)	9291.94	Top Width (ft)	2363.20	3400.54	3528.19
Vel Total (ft/s)	3.68	Avg. Vel. (ft/s)	2.33	4.34	2.81
Max Chl Dpth (ft)	17.69	Hydr. Depth (ft)	5.01	10.02	7.26
Conv. Total (cfs)	8419437.0	Conv. (cfs)	452447.3	5929200.5	2037789.3
Length Wtd. (ft)	379.95	Wetted Per. (ft)	967.02	3403.18	2496.94
Min Ch El (ft)	797.60	Shear (lb/sq ft)	0.19	0.39	0.28
Alpha	1.14	Stream Power (lb/ft s)	0.45	1.69	0.79
Frctn Loss (ft)	0.25	Cum Volume (acre-ft)	59.69	289.56	181.63
C & E Loss (ft)	0.01	Cum SA (acres)	20.45	29.16	33.03

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	816.21	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.30	Wt. n-Val.		0.040	0.065
E.G. Elev (ft)	816.51	Reach Len. (ft)	360.00	378.34	390.00
Crit W.S. (ft)	809.34	Flow Area (sq ft)		37187.72	13553.73
E.G. Slope (ft/ft)	0.000630	Area (sq ft)		37187.72	13553.73
Q Total (cfs)	210000.00	Flow (cfs)		172676.42	37323.57
Top Width (ft)	4711.04	Top Width (ft)		3401.60	1309.44
Vel Total (ft/s)	4.14	Avg. Vel. (ft/s)		4.64	2.75
Max Chl Dpth (ft)	18.61	Hydr. Depth (ft)		10.93	10.35
Conv. Total (cfs)	8363752.5	Conv. (cfs)		6877252.0	1486500.6
Length Wtd. (ft)	380.50	Wetted Per. (ft)		3407.49	1320.44
Min Ch El (ft)	797.60	Shear (lb/sq ft)		0.43	0.40
Alpha	1.11	Stream Power (lb/ft s)		1.99	1.11
Frctn Loss (ft)	0.23	Cum Volume (acre-ft)		317.53	129.72
C & E Loss (ft)	0.00	Cum SA (acres)		29.17	12.73

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17321.10	17580.40	2166.06	746.86	188.30	1.03	3.97	2.90
17580.40	17839.70	3464.25	1126.05	259.86	1.65	4.34	3.08
17839.70	18099.00	2900.30	1470.87	259.47	1.38	5.67	1.97
18099.00	18358.30	2754.47	1500.24	259.39	1.31	5.79	1.84
18358.30 LB	19208.70	30826.95	10281.31	851.20	14.68	12.09	3.00
19208.70	20059.10	39236.41	8072.74	850.45	18.68	9.49	4.86
20059.10	20909.50	47668.68	8055.92	850.90	22.70	9.47	5.92
20909.50	21759.90 RB	30155.75	7650.78	850.63	14.36	9.01	3.94
21759.90	22101.84	6877.28	2818.53	315.21	3.27	8.99	2.44
22101.84	22443.78	9774.14	3595.51	341.95	4.65	10.52	2.72
22443.78	22785.72	7682.08	3111.73	341.95	3.66	9.10	2.47

Length Wtd. (ft)		Wetted Per. (ft)	1001.98	3320.32	1733.35
Min Ch El (ft)	797.40	Shear (lb/sq ft)	0.20	0.43	0.37
Alpha	1.19	Stream Power (lb/ft s)	0.47	2.05	1.05
Frctn Loss (ft)		Cum Volume (acre-ft)			
C & E Loss (ft)		Cum SA (acres)			

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	815.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.30	Wt. n-Val.		0.038	0.063
E.G. Elev (ft)	816.28	Reach Len. (ft)			
Crit W.S. (ft)	809.41	Flow Area (sq ft)		35928.59	15423.29
E.G. Slope (ft/ft)	0.000583	Area (sq ft)		35928.59	15423.29
Q Total (cfs)	210000.00	Flow (cfs)		169411.28	40588.71
Top Width (ft)	4849.30	Top Width (ft)		3314.50	1534.80
Vel Total (ft/s)	4.09	Avg. Vel. (ft/s)		4.72	2.63
Max Chl Dpth (ft)	18.58	Hydr. Depth (ft)		10.84	10.05
Conv. Total (cfs)	8694212.0	Conv. (cfs)		7013798.0	1680413.6
Length Wtd. (ft)		Wetted Per. (ft)		3322.20	1545.08
Min Ch El (ft)	797.40	Shear (lb/sq ft)		0.39	0.36
Alpha	1.15	Stream Power (lb/ft s)		1.86	0.96
Frctn Loss (ft)		Cum Volume (acre-ft)			
C & E Loss (ft)		Cum SA (acres)			

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17342.50	17598.30	1373.87	606.15	234.10	0.65	2.59	2.27
17598.30	17854.10	3285.30	1059.99	256.01	1.56	4.14	3.10
17854.10	18109.90	3638.31	1646.23	255.93	1.73	6.44	2.21
18109.90	18365.70	2483.08	1370.75	255.94	1.18	5.36	1.81
18365.70 LB	19194.32	30879.07	9868.28	829.81	14.70	11.91	3.13
19194.32	20022.95	50019.53	8332.35	831.78	23.82	10.06	6.00
20022.95	20851.57	55604.17	8288.59	829.35	26.48	10.00	6.71
20851.57	21680.20 RB	20807.79	6126.08	829.39	9.91	7.39	3.40
21680.20	22034.54	5382.15	2474.66	355.27	2.56	6.98	2.17
22034.54	22388.88	9368.47	3447.83	354.46	4.46	9.73	2.72
22388.88	22743.22	10532.66	3698.37	354.34	5.02	10.44	2.85
22743.22	23097.56	9111.33	3397.58	356.25	4.34	9.59	2.68
23097.56	23451.90	7514.26	1875.90	313.02	3.58	6.01	4.01

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18365.70 LB	19194.32	32359.13	10696.60	831.69	15.41	12.91	3.03
19194.32	20022.95	53787.98	9160.67	831.78	25.61	11.06	5.87
20022.95	20851.57	59799.80	9116.91	829.35	28.48	11.00	6.56
20851.57	21680.20 RB	23464.38	6954.40	829.39	11.17	8.39	3.37
21680.20	22034.54	6174.48	2828.87	355.27	2.94	7.98	2.18
22034.54	22388.88	10122.08	3802.04	354.46	4.82	10.73	2.66
22388.88	22743.22	11260.47	4052.58	354.34	5.36	11.44	2.78
22743.22	23097.56	9866.89	3751.79	356.25	4.70	10.59	2.63
23097.56	23451.90	3164.80	988.00	124.75	1.51	8.41	3.20

Reach-1	179.76	210000.00	809.50	822.80	820.17	823.75	0.002325	8.09	28581.26	4152.10	0.53
Reach-1	179.84	210000.00	812.40	823.40	821.94	824.56	0.003412	9.14	27645.73	9319.02	0.65
Reach-1	179.84	210000.00	812.40	823.71	821.98	824.93	0.003332	9.16	24899.73	3924.69	0.64
Reach-1	179.91	210000.00	812.90	825.04	821.67	825.72	0.001864	6.89	34113.52	10895.12	0.43
Reach-1	179.91	210000.00	812.90	825.32	821.82	826.10	0.001974	7.21	30392.42	3672.50	0.44
Reach-1	180.01	210000.00	811.12	826.06		827.12	0.003941	8.27	25391.19	3606.74	0.55
Reach-1	180.01	210000.00	811.12	826.43		827.39	0.003342	7.85	26736.09	3606.98	0.51
Reach-1	180.025	Bridge									
Reach-1	180.04	210000.00	811.12	826.95	823.51	827.79	0.002694	7.34	28597.36	3609.40	0.46
Reach-1	180.04	210000.00	811.12	827.17	823.51	827.96	0.002465	7.14	29401.71	3609.59	0.44
Reach-1	180.06	210000.00	814.40	827.52	822.47	828.12	0.001158	6.28	34242.87	11301.23	0.35
Reach-1	180.06	210000.00	814.40	827.70	822.47	828.28	0.001102	6.18	34840.25	3459.70	0.34
Reach-1	180.09	210000.00	814.60	827.82	822.19	828.33	0.001058	5.82	37772.02	10734.71	0.32
Reach-1	180.09	210000.00	814.60	827.98	822.19	828.47	0.001012	5.74	38345.44	3630.20	0.31
Reach-1	180.18	210000.00	809.90	828.32	824.68	829.07	0.001808	7.57	33884.30	10945.18	0.45
Reach-1	180.18	210000.00	809.90	828.46	824.67	829.18	0.001722	7.45	34445.31	4174.20	0.44
Reach-1	180.28	210000.00	817.60	829.23	826.13	829.98	0.001770	8.16	36637.38	10885.45	0.51
Reach-1	180.28	210000.00	817.60	829.33	826.13	830.05	0.001712	8.06	37072.97	4723.76	0.50
Reach-1	180.37	210000.00	818.40	829.50	828.39	831.68	0.003973	13.05	32061.66	10676.11	0.77
Reach-1	180.37	210000.00	818.40	829.57	828.39	831.71	0.003864	12.93	32418.14	5146.90	0.76
Reach-1	180.47	210000.00	819.80	832.40	829.09	833.31	0.001767	9.12	49455.00	11675.86	0.49
Reach-1	180.47	210000.00	819.80	832.31	829.03	833.37	0.002013	9.68	46558.11	5656.50	0.52
Reach-1	180.56	210000.00	820.50	833.62	829.32	834.03	0.000817	6.47	57497.88	11197.04	0.35
Reach-1	180.56	210000.00	820.50	833.64	829.61	834.21	0.001067	7.39	51566.82	6071.50	0.40
Reach-1	180.65	210000.00	820.90	834.08	829.47	834.39	0.000573	5.77	65183.02	11432.36	0.30
Reach-1	180.65	210000.00	820.90	834.15	830.03	834.69	0.000887	7.21	56284.65	6535.00	0.38
Reach-1	180.75	210000.00	821.40	834.54	829.53	834.72	0.000476	4.58	75897.27	12008.02	0.24
Reach-1	180.75	210000.00	821.40	834.90	829.65	835.20	0.000711	5.71	66730.78	7200.18	0.29
Reach-1	180.85	210000.00	821.80	834.75	830.03	834.96	0.000377	4.80	76510.21	11762.36	0.26
Reach-1	180.85	210000.00	821.80	835.18	830.51	835.56	0.000562	6.01	66025.78	7655.00	0.31
Reach-1	180.94	210000.00	821.00	834.93	829.82	835.12	0.000334	4.41	80587.70	11382.99	0.24
Reach-1	180.94	210000.00	821.00	835.52	829.87	835.80	0.000410	5.06	73178.46	8050.00	0.27
Reach-1	180.99	210000.00	820.70	835.02	829.39	835.20	0.000298	4.26	82671.38	11296.82	0.22
Reach-1	180.99	210000.00	820.70	835.63	829.06	835.91	0.000368	4.90	74448.27	8109.17	0.25

Reach-1	182.64	210000.00	824.50	841.15	833.75	841.39	0.000933	3.99	53277.00	8211.61	0.21
Reach-1	182.64	210000.00	824.50	841.72	833.75	841.96	0.000845	3.90	53854.69	4645.16	0.20
Reach-1	182.74	210000.00	824.70	841.49	833.83	841.71	0.000475	3.93	56698.51	8251.17	0.21
Reach-1	182.74	210000.00	824.70	842.01	834.13	842.26	0.000464	3.98	53278.71	4680.16	0.21
Reach-1	182.83	210000.00	824.40	841.72	834.26	841.96	0.000530	4.01	55702.84	9440.12	0.22
Reach-1	182.83	210000.00	824.40	842.25	834.71	842.51	0.000530	4.11	51061.66	4642.33	0.22
Reach-1	182.92	210000.00	824.40	841.97	834.61	842.20	0.000436	3.98	57544.77	9008.12	0.22
Reach-1	182.92	210000.00	824.40	842.48	834.78	842.75	0.000455	4.16	50539.66	4532.81	0.22
Reach-1	183.02	210000.00	823.50	842.15	834.59	842.41	0.000421	4.26	55102.70	8472.26	0.23
Reach-1	183.02	210000.00	823.50	842.68	834.86	842.98	0.000438	4.44	47326.79	4282.21	0.24
Reach-1	183.11	210000.00	824.00	842.40	835.10	842.67	0.000625	4.36	53084.45	8418.23	0.24
Reach-1	183.11	210000.00	824.00	842.93	835.32	843.25	0.000654	4.58	45881.91	4193.30	0.24
Reach-1	183.2	210000.00	825.50	842.68	835.27	842.96	0.000522	4.37	52239.41	8807.27	0.23
Reach-1	183.2	210000.00	825.50	843.23	835.27	843.54	0.000522	4.48	46891.77	4033.87	0.23
Reach-1	183.3	210000.00	825.70	842.91	836.63	843.27	0.000640	4.89	45320.57	7129.14	0.26
Reach-1	183.3	210000.00	825.70	843.47	836.60	843.83	0.000581	4.79	43833.32	3894.70	0.25
Reach-1	183.39	210000.00	826.90	843.24	837.41	843.64	0.000830	5.17	43138.02	5061.24	0.28
Reach-1	183.39	210000.00	826.90	843.77	837.43	844.17	0.000756	5.08	41375.98	3843.38	0.27
Reach-1	183.49	210000.00	826.90	843.70	838.31	844.16	0.001166	5.48	39451.67	4409.96	0.32
Reach-1	183.49	210000.00	826.90	844.19	838.30	844.63	0.001044	5.33	39405.12	4002.61	0.30
Reach-1	183.58	210000.00	827.30	844.21	839.72	844.84	0.001401	6.36	33018.05	3935.12	0.38
Reach-1	183.58	210000.00	827.30	844.65	839.72	845.22	0.001217	6.04	34739.95	3884.24	0.36
Reach-1	183.67	210000.00	827.20	844.96	841.05	845.73	0.002219	7.04	29816.71	3840.39	0.44
Reach-1	183.67	210000.00	827.20	845.31	841.05	846.01	0.001994	6.75	31120.66	3796.15	0.42
Reach-1	183.77	210000.00	833.00	846.05	843.30	847.13	0.002982	8.37	25098.48	3729.46	0.55
Reach-1	183.77	210000.00	833.00	846.27	843.30	847.30	0.002736	8.11	25881.56	3465.48	0.52
Reach-1	183.86	210000.00	831.50	847.49	843.62	848.25	0.001729	6.97	30162.06	6125.54	0.44
Reach-1	183.86	210000.00	831.50	847.61	843.62	848.34	0.001659	6.87	30571.64	3875.70	0.43
Reach-1	183.96	210000.00	830.70	848.35	843.18	848.88	0.000953	5.83	36387.37	5853.65	0.33
Reach-1	183.96	210000.00	830.70	848.44	843.18	848.95	0.000930	5.79	36574.07	3966.07	0.33
Reach-1	184.05	210000.00	830.10	848.82	844.16	849.44	0.001151	6.31	33280.43	6354.23	0.38
Reach-1	184.05	210000.00	830.10	848.89	844.16	849.50	0.001125	6.26	33546.84	3832.54	0.37
Reach-1	184.14	210000.00	831.00	849.46	843.52	849.95	0.000909	5.62	37396.80	8559.61	0.32
Reach-1	184.14	210000.00	831.00	849.52	843.52	850.00	0.000894	5.58	37613.61	3924.82	0.32

Reach-1	185.81	210000.00	843.60	859.88	855.30	860.25	0.000864	5.05	45495.41	6909.20	0.31
Reach-1	185.81	210000.00	843.60	859.92	855.27	860.42	0.001100	5.71	36763.39	4542.94	0.35
Reach-1	185.9	210000.00	845.30	860.34	855.12	860.65	0.000646	4.67	50143.52	9646.48	0.27
Reach-1	185.9	210000.00	845.30	860.48	855.09	860.93	0.000866	5.45	39071.23	4343.30	0.32
Reach-1	186	210000.00	845.80	860.70	855.15	861.00	0.000701	4.54	49984.23	8533.96	0.26
Reach-1	186	210000.00	845.80	860.97	855.20	861.38	0.000874	5.14	40821.33	4276.20	0.29
Reach-1	186.1	210000.00	846.40	861.07	856.64	861.60	0.001748	5.99	39800.85	7460.11	0.37
Reach-1	186.1	210000.00	846.40	861.47	856.72	862.02	0.001673	5.98	35123.76	4173.06	0.36
Reach-1	186.19	227000.00	848.90	861.94	857.64	862.51	0.001770	6.17	40523.91	8598.54	0.37
Reach-1	186.19	227000.00	848.90	862.31	857.72	862.89	0.001687	6.14	36944.82	4142.58	0.36
Reach-1	186.27	227000.00	849.80	862.75	857.88	863.27	0.001728	5.88	42856.80	8892.25	0.34
Reach-1	186.27	227000.00	849.80	863.08	857.95	863.61	0.001678	5.89	38536.24	4109.90	0.34
Reach-1	186.36	227000.00	849.20	863.59	858.54	864.11	0.001886	5.90	43611.89	10230.07	0.35
Reach-1	186.36	227000.00	849.20	863.90	858.61	864.46	0.001895	6.01	37744.96	4093.76	0.35
Reach-1	186.46	227000.00	849.90	864.49	858.65	864.98	0.001632	5.73	45107.82	10295.29	0.33
Reach-1	186.46	227000.00	849.90	864.81	858.78	865.33	0.001633	5.83	38955.58	3981.40	0.33
Reach-1	186.55	227000.00	850.00	865.26	860.33	865.76	0.001493	5.91	45142.29	10443.62	0.34
Reach-1	186.55	227000.00	850.00	865.55	860.51	866.14	0.001601	6.18	36731.93	3822.50	0.35
Reach-1	186.61	227000.00	849.60	865.47	862.00	866.36	0.001906	7.76	35617.71	6229.27	0.48
Reach-1	186.61	227000.00	849.60	865.81	862.06	866.76	0.001898	7.79	29123.45	3494.00	0.48
Reach-1	186.69	227000.00	850.50	866.36	862.92	867.27	0.002069	7.89	35952.29	8858.33	0.48
Reach-1	186.69	227000.00	850.50	866.68	863.00	867.69	0.002124	8.04	28237.42	3366.94	0.49
Reach-1	186.78	227000.00	851.70	867.28	863.40	868.16	0.001739	7.64	35625.12	10624.54	0.45
Reach-1	186.78	227000.00	851.70	867.66	863.45	868.57	0.001678	7.61	29813.95	3223.50	0.44
Reach-1	186.87	227000.00	852.60	868.18	863.59	868.83	0.001044	6.65	35926.42	11029.64	0.38
Reach-1	186.87	227000.00	852.60	868.44	863.50	869.29	0.001262	7.37	30807.37	3243.17	0.42
Reach-1	186.97	227000.00	851.90	868.75	864.01	869.29	0.000764	5.98	38635.27	9764.11	0.35
Reach-1	186.97	227000.00	851.90	869.03	864.16	869.87	0.001128	7.36	30828.60	3244.47	0.42
Reach-1	187.06	227000.00	851.90	869.09	864.34	869.69	0.000821	6.34	37396.98	8894.79	0.35
Reach-1	187.06	227000.00	851.90	869.67	864.26	870.37	0.000871	6.69	33921.63	3183.02	0.36
Reach-1	187.15	227000.00	853.20	869.48	864.95	870.16	0.000967	6.90	36063.04	8794.07	0.38
Reach-1	187.15	227000.00	853.20	870.04	864.88	870.90	0.001067	7.44	30503.75	2813.40	0.40
Reach-1	187.24	227000.00	853.80	869.81	866.21	870.85	0.001547	8.48	30574.78	8204.85	0.47
Reach-1	187.24	227000.00	853.80	870.44	866.03	871.59	0.001507	8.64	26728.63	2587.00	0.46

Reach-1	188.7	227000.00	863.30	876.86	872.20	877.19	0.000909	4.79	49807.88	8743.87	0.28
Reach-1	188.7	227000.00	863.30	877.70	872.20	878.03	0.000785	4.67	49091.39	5904.26	0.26
Reach-1	188.81	227000.00	863.50	877.31	871.66	877.60	0.000604	4.41	53905.06	8506.56	0.25
Reach-1	188.81	227000.00	863.50	878.12	871.66	878.39	0.000513	4.25	54029.80	5950.11	0.23
Reach-1	189.02	227000.00	863.40	878.00	873.76	878.37	0.000958	5.15	49359.91	9413.65	0.32
Reach-1	189.02	227000.00	863.40	878.73	873.51	879.11	0.000886	5.13	48949.11	5865.90	0.30
Reach-1	189.12	227000.00	863.10	878.47	873.73	878.81	0.001015	4.97	49122.77	9037.03	0.30
Reach-1	189.12	227000.00	863.10	879.17	873.51	879.56	0.001006	5.15	47163.92	5357.35	0.30
Reach-1	189.22	227000.00	864.70	878.92	874.02	879.26	0.001017	4.89	48878.31	9433.04	0.29
Reach-1	189.22	227000.00	864.70	879.66	873.95	880.05	0.001050	5.19	46538.55	5139.00	0.30
Reach-1	189.31	227000.00	865.80	879.34	874.19	879.70	0.001026	5.02	48026.97	10326.02	0.30
Reach-1	189.31	227000.00	865.80	880.13	874.13	880.50	0.000937	5.03	47340.60	5020.77	0.29
Reach-1	189.39	227000.00	866.80	879.75	874.85	880.15	0.001145	5.29	46037.47	10705.54	0.32
Reach-1	189.39	227000.00	866.80	880.52	874.77	880.92	0.001003	5.24	46158.32	5000.00	0.30
Reach-1	189.49	227000.00	863.40	880.32	875.26	880.70	0.001081	5.10	47016.13	10728.30	0.31
Reach-1	189.49	227000.00	863.40	881.02	875.23	881.42	0.001016	5.16	46012.48	4897.80	0.30
Reach-1	189.58	227000.00	867.70	880.91	876.34	881.36	0.001514	5.53	42682.45	11905.41	0.34
Reach-1	189.58	227000.00	867.70	881.56	876.39	882.03	0.001393	5.54	41767.87	4751.20	0.33
Reach-1	189.68	227000.00	864.60	881.65	877.26	882.10	0.001501	5.42	42377.59	12292.87	0.33
Reach-1	189.68	227000.00	864.60	882.27	877.25	882.76	0.001491	5.63	40321.34	4614.66	0.34
Reach-1	189.77	227000.00	869.90	882.48	878.24	882.95	0.001849	5.49	41246.32	12202.11	0.34
Reach-1	189.77	227000.00	869.90	883.10	878.22	883.61	0.001841	5.73	39643.52	4450.62	0.34
Reach-1	189.87	227000.00	872.50	883.54	880.39	884.24	0.002852	6.75	33881.78	11839.79	0.44
Reach-1	189.87	227000.00	872.50	884.09	880.33	884.76	0.002409	6.54	34734.02	4391.51	0.41
Reach-1	189.96	227000.00	873.70	884.93	881.26	885.56	0.002540	6.41	35768.85	11879.18	0.40
Reach-1	189.96	227000.00	873.70	885.28	881.25	885.91	0.002340	6.34	35625.07	4406.60	0.39
Reach-1	190.05	227000.00	873.80	885.99	881.77	886.56	0.001708	6.12	37818.29	12160.36	0.38
Reach-1	190.05	227000.00	873.80	886.27	881.77	886.85	0.001656	6.15	36951.88	4524.70	0.37
Reach-1	190.15	227000.00	873.80	887.01	882.18	887.50	0.002000	5.62	41357.09	12521.37	0.34
Reach-1	190.15	227000.00	873.80	887.28	882.18	887.76	0.001914	5.58	40649.91	4508.40	0.33
Reach-1	190.24	227000.00	873.00	887.82	880.83	888.13	0.000861	4.46	51606.19	11848.11	0.24
Reach-1	190.24	227000.00	873.00	888.07	880.83	888.37	0.000820	4.40	51626.32	4604.80	0.23
Reach-1	190.34	227000.00	873.00	888.35	881.35	888.65	0.001233	4.39	52086.86	11643.59	0.24
Reach-1	190.34	227000.00	873.00	888.57	881.35	888.86	0.001161	4.30	52730.13	4779.70	0.23

Reach-1	192.04	227000.00	882.00	894.07	890.72	894.52	0.000824	5.60	42423.25	7766.62	0.34
Reach-1	192.04	227000.00	882.00	894.81	890.79	895.44	0.000960	6.35	35685.04	4167.90	0.37
Reach-1	192.13	227000.00	883.10	894.53	891.07	895.04	0.001305	5.62	39743.08	7677.62	0.34
Reach-1	192.13	227000.00	883.10	895.34	891.30	896.03	0.001497	6.37	34445.79	3946.17	0.37
Reach-1	192.23	227000.00	883.70	895.12	891.32	895.67	0.001029	6.25	38850.88	6812.12	0.36
Reach-1	192.23	227000.00	883.70	896.01	891.48	896.67	0.000977	6.45	35030.83	3685.90	0.35
Reach-1	192.33	227000.00	884.20	895.51	892.55	896.37	0.001428	8.10	33196.34	6171.17	0.47
Reach-1	192.33	227000.00	884.20	896.36	892.84	897.35	0.001372	8.36	30274.54	3444.11	0.47
Reach-1	192.42	227000.00	883.20	896.36	892.53	897.03	0.001202	7.18	36197.65	7133.50	0.40
Reach-1	192.42	227000.00	883.20	897.21	892.61	898.00	0.001193	7.50	32622.81	3218.00	0.40
Reach-1	192.51	227000.00	883.30	896.86	893.11	897.54	0.000955	7.21	36499.68	7531.29	0.39
Reach-1	192.51	227000.00	883.30	897.67	892.92	898.51	0.000964	7.58	31476.35	3015.40	0.40
Reach-1	192.6	227000.00	883.70	897.49	892.82	897.99	0.000799	6.06	40748.27	6443.24	0.32
Reach-1	192.6	227000.00	883.70	898.24	892.61	898.98	0.000903	6.72	33014.56	2907.20	0.34
Reach-1	192.69	227000.00	882.70	897.80	892.38	898.38	0.000677	6.53	39839.49	6880.90	0.33
Reach-1	192.69	227000.00	882.70	898.67	892.35	899.37	0.000672	6.80	33997.80	2877.20	0.34
Reach-1	192.78	227000.00	883.30	898.14	892.60	898.73	0.000708	6.41	38897.05	6211.91	0.34
Reach-1	192.78	227000.00	883.30	899.03	892.60	899.70	0.000684	6.56	34768.15	2924.53	0.33
Reach-1	192.88	227000.00	883.70	898.53	893.45	899.15	0.000925	6.43	37040.82	5456.87	0.35
Reach-1	192.88	227000.00	883.70	899.48	893.45	900.06	0.000767	6.16	36852.84	3281.20	0.32
Reach-1	192.97	227000.00	883.00	899.04	893.58	899.58	0.000806	5.98	38933.91	5020.38	0.33
Reach-1	192.97	227000.00	883.00	899.92	893.58	900.42	0.000663	5.69	39917.42	3573.10	0.30
Reach-1	193.07	227000.00	883.90	899.45	893.80	900.06	0.000903	6.25	36849.99	4364.17	0.36
Reach-1	193.07	227000.00	883.90	900.27	893.80	900.79	0.000707	5.77	39320.96	3911.51	0.32
Reach-1	193.16	227000.00	884.80	899.83	896.53	900.78	0.002012	7.81	29367.20	4179.13	0.50
Reach-1	193.16	227000.00	884.80	900.56	896.53	901.35	0.001516	7.14	31804.25	3900.87	0.44
Reach-1	193.24	227000.00	888.00	900.72	897.03	901.57	0.001645	7.39	31096.13	4150.35	0.46
Reach-1	193.24	227000.00	888.00	901.21	897.03	901.98	0.001378	7.00	32412.51	3761.13	0.42
Reach-1	193.36	227000.00	888.70	901.61	897.56	902.41	0.001162	7.17	32169.30	3878.69	0.42
Reach-1	193.36	227000.00	888.70	901.95	897.58	902.70	0.001055	6.98	32544.73	3540.33	0.41
Reach-1	193.45	227000.00	888.90	902.25	898.16	903.10	0.001620	7.43	30532.26	3530.87	0.43
Reach-1	193.45	227000.00	888.90	902.53	898.16	903.34	0.001470	7.21	31468.90	3334.03	0.41
Reach-1	193.54	227000.00	889.80	902.93	898.85	903.82	0.001382	7.60	29965.48	3343.41	0.44
Reach-1	193.54	227000.00	889.80	903.14	898.85	904.00	0.001290	7.43	30548.16	3175.60	0.42

Reach-1	195	227000.00	897.00	912.75	908.21	914.09	0.001450	9.28	24472.73	2131.40	0.48
Reach-1	195.09	227000.00	898.80	912.92	909.20	914.55	0.001800	10.41	23265.98	3870.59	0.54
Reach-1	195.09	227000.00	898.80	913.29	909.12	915.00	0.001756	10.49	21643.44	1810.62	0.53
Reach-1	195.13	227000.00	900.00	913.49	908.67	914.95	0.001400	9.80	23909.51	2250.81	0.48
Reach-1	195.13	227000.00	900.00	913.94	908.61	915.40	0.001308	9.68	23440.15	1769.41	0.47
Reach-1	195.145	Bridge									
Reach-1	195.16	227000.00	900.00	913.71	908.67	915.12	0.001320	9.62	24362.12	2345.16	0.47
Reach-1	195.16	227000.00	900.00	914.16	908.60	915.57	0.001241	9.53	23820.73	1770.42	0.46
Reach-1	195.19	227000.00	900.70	913.93	910.30	915.43	0.001746	10.13	24089.01	4217.70	0.53
Reach-1	195.19	227000.00	900.70	914.18	910.24	915.96	0.001888	10.68	21254.03	1827.14	0.55
Reach-1	195.28	227000.00	901.30	915.12	910.17	916.13	0.001069	8.27	29947.69	5149.34	0.42
Reach-1	195.28	227000.00	901.30	915.56	910.02	916.69	0.001091	8.53	26609.61	2119.19	0.42
Reach-1	195.38	227000.00	900.40	915.84	910.82	916.73	0.001064	7.74	31254.58	4074.28	0.40
Reach-1	195.38	227000.00	900.40	916.29	910.85	917.29	0.001099	8.04	28240.65	2349.20	0.41
Reach-1	195.47	227000.00	902.10	916.29	911.87	917.34	0.001347	8.36	28070.53	4377.17	0.45
Reach-1	195.47	227000.00	902.10	916.79	911.94	917.87	0.001268	8.33	27246.78	2404.90	0.44
Reach-1	195.56	227000.00	901.40	917.01	911.74	917.98	0.001135	8.07	28975.47	4114.50	0.42
Reach-1	195.56	227000.00	901.40	917.40	912.10	918.49	0.001176	8.40	27039.09	2289.06	0.43
Reach-1	195.66	227000.00	903.10	917.53	912.19	918.56	0.001143	8.42	28865.16	4371.25	0.43
Reach-1	195.66	227000.00	903.10	917.93	912.82	919.09	0.001173	8.72	26747.24	2272.60	0.44
Reach-1	195.75	227000.00	903.40	917.78	914.92	919.54	0.002136	11.17	22886.88	4484.09	0.58
Reach-1	195.75	227000.00	903.40	918.13	915.07	920.12	0.002206	11.57	20991.03	2022.35	0.60
Reach-1	195.85	227000.00	904.50	918.65	915.90	920.75	0.002203	12.26	23404.30	5287.62	0.60
Reach-1	195.85	227000.00	904.50	919.15	915.79	921.22	0.002025	12.05	22541.72	2047.83	0.58
Reach-1	195.94	227000.00	904.50	920.33	916.07	921.70	0.001451	10.35	29752.77	6753.45	0.50
Reach-1	195.94	227000.00	904.50	920.68	916.06	922.13	0.001439	10.48	27939.11	2313.39	0.50
Reach-1	196.04	227000.00	904.50	921.77	914.66	922.23	0.000575	6.01	43986.73	8583.65	0.28
Reach-1	196.04	227000.00	904.50	922.12	914.81	922.68	0.000655	6.52	39225.05	2949.65	0.30
Reach-1	196.13	227000.00	904.90	922.17	915.08	922.49	0.000453	4.88	51653.78	8379.10	0.24
Reach-1	196.13	227000.00	904.90	922.54	915.24	923.00	0.000600	5.71	44257.88	3665.30	0.28
Reach-1	196.23	227000.00	906.00	922.38	916.53	922.75	0.000571	5.34	51079.70	7879.30	0.27
Reach-1	196.23	227000.00	906.00	922.79	916.33	923.37	0.000761	6.29	43175.50	3849.89	0.32
Reach-1	196.32	227000.00	906.20	922.77	916.59	923.05	0.000544	4.28	53697.25	7646.67	0.23
Reach-1	196.32	227000.00	906.20	923.37	916.65	923.77	0.000718	5.06	44582.93	3981.60	0.27

Reach-1	198.02	227000.00	922.80	934.16	930.97	934.85	0.001900	6.94	37034.34	9122.52	0.43
Reach-1	198.02	227000.00	922.80	934.95	930.92	935.68	0.001683	6.92	33003.27	3873.60	0.41
Reach-1	198.11	227000.00	922.40	935.23	932.50	935.93	0.003079	7.14	36679.68	9036.93	0.45
Reach-1	198.11	227000.00	922.40	935.93	932.34	936.83	0.003271	7.68	31261.89	4005.20	0.46
Reach-1	198.2	227000.00	918.80	936.54	932.69	937.00	0.001661	5.82	42825.81	10589.85	0.34
Reach-1	198.2	227000.00	918.80	937.36	932.80	937.97	0.001689	6.21	36076.91	4078.50	0.35
Reach-1	198.26	227000.00	918.70	937.03	933.39	937.47	0.001570	5.63	43334.88	11953.71	0.33
Reach-1	198.26	227000.00	918.70	937.87	933.36	938.46	0.001598	6.05	36915.91	4178.40	0.34
Reach-1	198.3	227000.00	921.70	937.03	936.52	938.35	0.008079	9.61	25877.63	7278.89	0.67
Reach-1	198.3	227000.00	921.70	937.92	935.90	939.26	0.006378	9.35	25070.15	3956.33	0.61
Reach-1	198.34	227000.00	922.70	938.53	934.69	938.96	0.001263	5.68	46291.84	12387.92	0.33
Reach-1	198.34	227000.00	922.70	939.22	934.68	939.88	0.001552	6.63	36615.59	4484.93	0.38
Reach-1	198.4	227000.00	921.50	938.93	934.53	939.37	0.001159	5.75	47673.58	11555.75	0.33
Reach-1	198.4	227000.00	921.50	939.79	934.52	940.31	0.001104	5.95	41795.65	4697.00	0.32
Reach-1	198.49	227000.00	921.61	939.52	933.01	939.77	0.000575	4.39	59921.20	12882.32	0.23
Reach-1	198.49	227000.00	921.61	940.35	933.00	940.76	0.000744	5.26	47417.08	4912.19	0.27
Reach-1	198.59	227000.00	922.00	939.78	933.04	940.03	0.000464	4.34	57992.55	12879.93	0.23
Reach-1	198.59	227000.00	922.00	940.74	933.04	941.07	0.000496	4.72	49586.00	4986.12	0.24
Reach-1	198.65	227000.00	922.00	939.93	933.24	940.21	0.000527	4.54	55706.63	12652.47	0.23
Reach-1	198.65	227000.00	922.00	940.90	933.24	941.25	0.000541	4.82	48460.70	4851.35	0.24
Reach-1	198.73	227000.00	922.08	940.13	932.52	940.46	0.000684	4.95	53198.38	12138.27	0.25
Reach-1	198.73	227000.00	922.08	941.12	932.52	941.49	0.000632	4.99	47253.43	4646.08	0.24
Reach-1	198.79	227000.00	922.10	940.30	932.25	940.72	0.000755	5.44	48121.70	12088.39	0.27
Reach-1	198.79	227000.00	922.10	941.28	932.25	941.73	0.000698	5.47	43425.13	4464.14	0.26
Reach-1	198.86	227000.00	922.71	940.63	933.56	941.00	0.000822	5.24	48567.27	10788.66	0.27
Reach-1	198.86	227000.00	922.71	941.57	933.56	942.00	0.000788	5.39	43485.96	4389.67	0.27
Reach-1	198.96	227000.00	924.43	941.07	934.98	941.52	0.001058	5.82	44098.18	9639.26	0.30
Reach-1	198.96	227000.00	924.43	941.98	934.98	942.52	0.001038	6.00	39057.93	4138.00	0.30
Reach-1	199.07	227000.00	923.50	941.71	935.91	942.31	0.001742	6.56	38629.02	8884.23	0.33
Reach-1	199.07	227000.00	923.50	942.61	935.91	943.24	0.001579	6.51	35912.12	3863.99	0.32
Reach-1	199.19	227000.00	925.90	943.05	937.25	943.76	0.002301	7.03	36524.47	7362.33	0.37
Reach-1	199.19	227000.00	925.90	943.78	937.25	944.55	0.002226	7.12	33586.77	3990.39	0.36
Reach-1	199.195	Bridge									

Profile Output Table - Standard Table 2

Reach	River Sta	E.G. Elev (ft)	W.S. Elev (ft)	Vel Head (ft)	Frctn Loss (ft)	C & E Loss (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Top Width (ft)
Reach-1	178.61	815.28	814.98	0.30			10780.57	157310.56	41908.87	9749.97
Reach-1	178.61	816.28	815.98	0.30				169411.28	40588.71	4849.30
Reach-1	178.68	815.54	815.29	0.24	0.25	0.01	11285.07	147887.81	50827.12	9291.94
Reach-1	178.68	816.51	816.21	0.30	0.23	0.00		172676.42	37323.57	4711.04
Reach-1	178.77	815.83	815.51	0.32	0.27	0.02	9576.32	174160.27	26263.41	9204.34
Reach-1	178.77	816.77	816.44	0.32	0.25	0.01	2088.28	184925.77	22985.96	4660.00
Reach-1	178.86	816.21	815.83	0.38	0.37	0.02	7425.99	180836.64	21737.36	8198.97
Reach-1	178.86	817.09	816.72	0.37	0.31	0.02	3918.36	189933.17	16148.46	4630.00
Reach-1	178.95	816.71	816.29	0.42	0.48	0.01	574.25	197201.77	12223.98	7852.44
Reach-1	178.95	817.49	817.10	0.39	0.39	0.00	914.32	202108.03	6977.64	4696.44
Reach-1	179.03	817.13	816.76	0.37	0.41	0.01	0.03	189246.08	20753.89	6573.63
Reach-1	179.03	817.83	817.49	0.33	0.33	0.01		192351.11	17648.89	4934.41
Reach-1	179.11	817.58	817.15	0.42	0.43	0.02	0.01	197676.64	12323.34	7945.46
Reach-1	179.11	818.19	817.81	0.38	0.35	0.01		200221.42	9778.57	5128.01
Reach-1	179.2	818.07	817.73	0.34	0.49	0.01	0.01	173408.45	36591.54	8029.78
Reach-1	179.2	818.60	818.28	0.32	0.40	0.01		175464.09	34535.90	5240.75
Reach-1	179.25	818.43	817.93	0.49	0.31	0.05	0.00	182423.63	27576.37	7307.68
Reach-1	179.25	818.91	818.43	0.48	0.26	0.05		188348.39	21651.60	5243.36
Reach-1	179.3	818.77	818.38	0.39	0.33	0.01	0.00	157002.80	52997.20	7576.31
Reach-1	179.3	819.21	818.83	0.38	0.29	0.01		159879.55	50120.44	5200.24
Reach-1	179.35	819.04	818.66	0.38	0.27	0.00	0.00	136173.73	73826.27	5997.45
Reach-1	179.35	819.46	819.07	0.39	0.25	0.00		143851.27	66148.73	5165.67
Reach-1	179.4	819.38	818.88	0.49	0.31	0.03	0.00	153800.88	56199.13	5859.99
Reach-1	179.4	819.76	819.29	0.47	0.28	0.03		155684.83	54315.18	5012.55
Reach-1	179.5	820.22	819.51	0.71	0.78	0.07		159555.36	50444.64	6226.24
Reach-1	179.5	820.52	819.84	0.69	0.70	0.06		161553.69	48446.31	4992.64
Reach-1	179.59	821.26	820.33	0.93	0.97	0.07	7583.48	193475.45	8941.05	7238.87
Reach-1	179.59	821.51	820.56	0.95	0.91	0.08		200845.47	9154.53	5009.80
Reach-1	179.68	822.39	821.43	0.95	1.12	0.01	7548.36	180165.47	22286.17	7358.48
Reach-1	179.68	822.71	821.59	1.12	1.15	0.05		193550.94	16449.07	4487.80
Reach-1	179.76	823.36	822.51	0.86	0.95	0.03	6304.56	181994.94	21700.51	8548.59

Reach-1	181.04	835.27	835.08	0.19	0.07	0.00	28558.35	137203.23	44238.42	11511.06
Reach-1	181.04	835.99	835.70	0.30	0.08	0.01	15682.76	168368.88	25948.38	8140.00
Reach-1	181.13	835.41	835.23	0.19	0.14	0.00	17961.13	148717.92	43320.96	11228.28
Reach-1	181.13	836.16	835.90	0.26	0.16	0.00	6525.78	175616.36	27857.86	8010.00
Reach-1	181.23	835.55	835.33	0.22	0.12	0.01	15407.33	154949.38	39643.31	10946.62
Reach-1	181.23	836.33	836.02	0.31	0.15	0.01	2809.64	184722.83	22467.52	7690.00
Reach-1	181.32	835.76	835.49	0.27	0.20	0.01	7924.23	153207.28	48868.50	10230.38
Reach-1	181.32	836.58	836.18	0.40	0.23	0.03	949.93	186980.59	22069.46	7110.00
Reach-1	181.41	836.00	835.76	0.25	0.25	0.00	15520.71	145968.86	48510.44	10527.54
Reach-1	181.41	836.93	836.46	0.48	0.32	0.02	2025.26	196478.84	11495.89	6810.00
Reach-1	181.51	836.35	835.95	0.40	0.30	0.05	3314.24	175854.16	30831.59	9959.62
Reach-1	181.51	837.29	836.83	0.46	0.36	0.00		196112.38	13887.63	6451.14
Reach-1	181.62	836.77	836.33	0.45	0.41	0.01	2697.60	176743.16	30559.25	9488.54
Reach-1	181.62	837.67	837.19	0.48	0.38	0.01		193019.38	16980.62	6462.48
Reach-1	181.74	837.25	836.85	0.40	0.47	0.00		157704.38	52295.63	8535.90
Reach-1	181.74	838.14	837.64	0.50	0.46	0.01		181898.80	28101.21	6559.51
Reach-1	181.82	837.58	837.18	0.39	0.33	0.00		148441.61	61558.38	8450.20
Reach-1	181.82	838.49	837.98	0.51	0.34	0.00		173622.53	36377.46	6424.41
Reach-1	181.9	837.97	837.54	0.43	0.38	0.01		148763.92	61236.08	8199.19
Reach-1	181.9	838.92	838.30	0.62	0.40	0.03		181089.52	28910.49	6114.88
Reach-1	181.99	838.35	838.02	0.33	0.36	0.01		141296.33	68703.66	8015.01
Reach-1	181.99	839.35	838.93	0.42	0.41	0.02		167734.78	42265.23	5876.68
Reach-1	182.08	838.69	838.43	0.26	0.34	0.01	324.03	132933.83	76742.14	7997.81
Reach-1	182.08	839.70	839.42	0.28	0.33	0.01		151210.86	58789.14	5667.66
Reach-1	182.17	839.07	838.68	0.39	0.34	0.04		167521.89	42478.10	7088.33
Reach-1	182.17	840.04	839.65	0.39	0.30	0.03		180668.22	29331.78	4827.88
Reach-1	182.27	839.56	839.09	0.47	0.47	0.02		178606.59	31393.40	7678.09
Reach-1	182.27	840.42	840.01	0.41	0.38	0.01		182353.50	27646.51	4995.94
Reach-1	182.36	840.12	839.59	0.52	0.54	0.02		198035.52	11964.50	7527.51
Reach-1	182.36	840.84	840.39	0.45	0.41	0.01		199324.25	10675.75	4211.44
Reach-1	182.45	840.60	840.26	0.34	0.46	0.02	17.66	191506.38	18475.97	8025.08
Reach-1	182.45	841.24	840.91	0.33	0.39	0.01		198686.92	11313.08	4238.40
Reach-1	182.55	840.99	840.72	0.27	0.39	0.01		205171.50	4828.49	8252.03
Reach-1	182.55	841.60	841.33	0.26	0.35	0.01		210000.00		4297.75

Reach-1	182.64	841.39	841.15	0.24	0.40	0.00	1.59	204370.06	5628.34	8211.61
Reach-1	182.64	841.96	841.72	0.24	0.36	0.00		210000.00		4645.16
Reach-1	182.74	841.71	841.49	0.23	0.32	0.00		195609.53	14390.46	8251.17
Reach-1	182.74	842.26	842.01	0.24	0.30	0.00		207912.23	2087.76	4680.16
Reach-1	182.83	841.96	841.72	0.24	0.24	0.00		194856.91	15143.10	9440.12
Reach-1	182.83	842.51	842.25	0.26	0.24	0.01		210000.00		4642.33
Reach-1	182.92	842.20	841.97	0.23	0.24	0.00		192005.47	17994.52	9008.12
Reach-1	182.92	842.75	842.48	0.27	0.24	0.00		210000.00		4532.81
Reach-1	183.02	842.41	842.15	0.26	0.21	0.01	0.02	191801.53	18198.45	8472.26
Reach-1	183.02	842.98	842.68	0.31	0.22	0.01		210000.00		4282.21
Reach-1	183.11	842.67	842.40	0.27	0.25	0.00	1.39	190495.78	19502.83	8418.23
Reach-1	183.11	843.25	842.93	0.33	0.26	0.01		210000.00		4193.30
Reach-1	183.2	842.96	842.68	0.28	0.29	0.00	0.02	195049.11	14950.88	8807.27
Reach-1	183.2	843.54	843.23	0.31	0.29	0.00		210000.00		4033.87
Reach-1	183.3	843.27	842.91	0.36	0.29	0.02	6.93	203685.08	6307.99	7129.14
Reach-1	183.3	843.83	843.47	0.36	0.28	0.01		210000.00		3894.70
Reach-1	183.39	843.64	843.24	0.40	0.36	0.01	0.03	203392.88	6607.10	5061.24
Reach-1	183.39	844.17	843.77	0.40	0.32	0.01		210000.00		3843.38
Reach-1	183.49	844.16	843.70	0.46	0.50	0.02	0.02	205177.92	4822.05	4409.96
Reach-1	183.49	844.63	844.19	0.44	0.45	0.01		210000.00		4002.61
Reach-1	183.58	844.84	844.21	0.63	0.63	0.05	0.01	209999.97	0.03	3935.12
Reach-1	183.58	845.22	844.65	0.57	0.56	0.04		210000.00		3884.24
Reach-1	183.67	845.73	844.96	0.77	0.85	0.04	0.01	209999.95	0.03	3840.39
Reach-1	183.67	846.01	845.31	0.71	0.75	0.04		210000.00		3796.15
Reach-1	183.77	847.13	846.05	1.09	1.31	0.10	0.01	209999.97	0.02	3729.46
Reach-1	183.77	847.30	846.27	1.02	1.19	0.09		210000.00		3465.48
Reach-1	183.86	848.25	847.49	0.75	1.08	0.03	2.19	209950.63	47.18	6125.54
Reach-1	183.86	848.34	847.61	0.73	1.02	0.03		210000.00		3875.70
Reach-1	183.96	848.88	848.35	0.53	0.61	0.02	1016.49	208983.50	0.00	5853.65
Reach-1	183.96	848.95	848.44	0.52	0.59	0.02	865.05	209134.94		3966.07
Reach-1	184.05	849.44	848.82	0.62	0.53	0.03	0.00	210000.00	0.00	6354.23
Reach-1	184.05	849.50	848.89	0.61	0.51	0.03		210000.00		3832.54
Reach-1	184.14	849.95	849.46	0.49	0.50	0.01	0.00	210000.00		8559.61
Reach-1	184.14	850.00	849.52	0.48	0.49	0.01		210000.00		3924.82

Reach-1	184.24	850.45	849.95	0.49	0.49	0.00		209560.78	439.21	9733.38
Reach-1	184.24	850.49	850.00	0.49	0.49	0.00		210000.00		3802.24
Reach-1	184.33	850.95	850.51	0.44	0.50	0.00	1.98	208940.97	1057.05	8926.11
Reach-1	184.33	851.00	850.55	0.45	0.50	0.00		210000.00		3864.50
Reach-1	184.43	851.44	851.09	0.35	0.47	0.01		209675.73	324.27	9178.18
Reach-1	184.43	851.48	851.13	0.34	0.47	0.01		210000.00		4191.83
Reach-1	184.53	851.86	851.59	0.27	0.42	0.01	2.99	209852.73	144.27	9295.90
Reach-1	184.53	851.90	851.63	0.27	0.41	0.01		210000.00		4936.13
Reach-1	184.62	852.21	851.91	0.30	0.34	0.01		209983.17	16.84	9423.05
Reach-1	184.62	852.24	851.95	0.30	0.33	0.01		210000.00		5234.35
Reach-1	184.71	852.54	852.17	0.37	0.31	0.02		209991.98	8.01	9325.71
Reach-1	184.71	852.57	852.20	0.37	0.31	0.02		210000.00		5231.34
Reach-1	184.81	853.08	852.64	0.44	0.52	0.02		209534.36	465.64	8908.96
Reach-1	184.81	853.11	852.66	0.44	0.51	0.02		210000.00		5615.52
Reach-1	184.9	854.06	853.69	0.37	0.97	0.01		209998.44	1.56	8610.41
Reach-1	184.9	854.08	853.71	0.37	0.96	0.01		210000.00		5851.34
Reach-1	185	854.96	854.49	0.47	0.87	0.03		208330.41	1669.59	8244.93
Reach-1	185	854.99	854.51	0.48	0.88	0.03		210000.00		5271.43
Reach-1	185.1	855.50	855.17	0.33	0.52	0.01		210000.00		7798.42
Reach-1	185.1	855.52	855.19	0.33	0.52	0.01		210000.00		5167.14
Reach-1	185.19	855.91	855.50	0.41	0.39	0.02	573.73	209426.28		5706.36
Reach-1	185.19	855.93	855.52	0.41	0.39	0.03		210000.00		4505.18
Reach-1	185.28	856.45	855.77	0.67	0.46	0.08	340.65	209659.34		5123.35
Reach-1	185.28	856.47	855.80	0.67	0.46	0.08		210000.00		4436.56
Reach-1	185.38	857.07	856.30	0.77	0.59	0.03	2336.73	207663.27		5260.88
Reach-1	185.38	857.10	856.32	0.78	0.60	0.03	951.09	209048.91		4200.23
Reach-1	185.46	857.68	856.87	0.80	0.60	0.01	1617.46	208382.53		5159.96
Reach-1	185.46	857.71	856.89	0.82	0.60	0.01		210000.00		4432.28
Reach-1	185.53	858.23	857.44	0.79	0.55	0.00	2023.09	207976.91		5797.78
Reach-1	185.53	858.26	857.46	0.81	0.55	0.00		210000.00		4479.59
Reach-1	185.61	858.80	858.11	0.69	0.56	0.01	3639.79	205119.63	1240.57	5511.15
Reach-1	185.61	858.85	858.12	0.73	0.57	0.01	575.49	209424.50		4307.96
Reach-1	185.71	859.61	859.04	0.57	0.80	0.01	5170.03	204829.95		5811.54
Reach-1	185.71	859.69	859.08	0.60	0.83	0.01	367.55	209632.45		4413.63

Reach-1	185.81	860.25	859.88	0.37	0.63	0.02	14013.62	185041.08	10945.30	6909.20
Reach-1	185.81	860.42	859.92	0.51	0.73	0.01		210000.00		4542.94
Reach-1	185.9	860.65	860.34	0.31	0.39	0.01	12418.85	176195.53	21385.61	9646.48
Reach-1	185.9	860.93	860.48	0.46	0.51	0.00	1344.30	208655.70		4343.30
Reach-1	186	861.00	860.70	0.30	0.34	0.00	10938.21	180103.55	18958.24	8533.96
Reach-1	186	861.38	860.97	0.41	0.44	0.00		210000.00		4276.20
Reach-1	186.1	861.60	861.07	0.53	0.53	0.07	3291.75	200516.84	6191.41	7460.11
Reach-1	186.1	862.02	861.47	0.56	0.60	0.04		210000.00		4173.06
Reach-1	186.19	862.51	861.94	0.57	0.90	0.01	1153.80	218465.33	7380.87	8598.54
Reach-1	186.19	862.89	862.31	0.59	0.86	0.01		227000.00		4142.58
Reach-1	186.27	863.27	862.75	0.52	0.75	0.01	1028.58	218725.33	7246.08	8892.25
Reach-1	186.27	863.61	863.08	0.54	0.72	0.00		227000.00		4109.90
Reach-1	186.36	864.11	863.59	0.52	0.84	0.00	749.43	215384.89	10865.68	10230.07
Reach-1	186.36	864.46	863.90	0.56	0.84	0.01		227000.00		4093.76
Reach-1	186.46	864.98	864.49	0.49	0.86	0.00	421.49	216084.36	10494.15	10295.29
Reach-1	186.46	865.33	864.81	0.53	0.87	0.00		227000.00		3981.40
Reach-1	186.55	865.76	865.26	0.51	0.78	0.01	0.54	210286.73	16712.73	10443.62
Reach-1	186.55	866.14	865.55	0.59	0.79	0.02		227000.00		3822.50
Reach-1	186.61	866.36	865.47	0.89	0.48	0.12		216613.33	10386.67	6229.27
Reach-1	186.61	866.76	865.81	0.94	0.51	0.10		227000.00		3494.00
Reach-1	186.69	867.27	866.36	0.92	0.91	0.01	25.64	214360.77	12613.61	8858.33
Reach-1	186.69	867.69	866.68	1.00	0.91	0.02		227000.00		3366.94
Reach-1	186.78	868.16	867.28	0.87	0.88	0.00	185.93	218321.95	8492.11	10624.54
Reach-1	186.78	868.57	867.66	0.90	0.87	0.01		227000.00		3223.50
Reach-1	186.87	868.83	868.18	0.65	0.65	0.02	464.70	199176.56	27358.74	11029.64
Reach-1	186.87	869.29	868.44	0.84	0.72	0.01		227000.00		3243.17
Reach-1	186.97	869.29	868.75	0.54	0.45	0.01		179121.98	47878.02	9764.11
Reach-1	186.97	869.87	869.03	0.84	0.58	0.00		227000.00		3244.47
Reach-1	187.06	869.69	869.09	0.59	0.38	0.02		203452.28	23547.71	8894.79
Reach-1	187.06	870.37	869.67	0.70	0.48	0.01		227000.00		3183.02
Reach-1	187.15	870.16	869.48	0.68	0.45	0.03	1803.71	199455.55	25740.73	8794.07
Reach-1	187.15	870.90	870.04	0.86	0.48	0.05		227000.00		2813.40
Reach-1	187.24	870.85	869.81	1.04	0.58	0.11	3419.61	208705.98	14874.40	8204.85
Reach-1	187.24	871.59	870.44	1.15	0.61	0.09		225849.59	1150.41	2587.00

Reach-1	187.36	871.53	870.83	0.70	0.65	0.03	4016.33	200958.80	22024.88	9688.89
Reach-1	187.36	872.29	871.42	0.87	0.66	0.03		227000.00		2723.00
Reach-1	187.45	871.92	871.35	0.57	0.37	0.01	25950.53	176398.28	24651.18	9339.73
Reach-1	187.45	872.77	871.82	0.95	0.46	0.02		224576.22	2423.78	2829.90
Reach-1	187.54	872.34	871.57	0.77	0.36	0.06	1442.45	196465.27	29092.29	8488.08
Reach-1	187.54	873.21	872.29	0.92	0.44	0.00		223632.97	3367.04	2930.00
Reach-1	187.64	872.75	872.07	0.68	0.40	0.01	5365.47	179687.20	41947.33	8099.08
Reach-1	187.64	873.68	872.79	0.89	0.48	0.00		211647.38	15352.63	2960.20
Reach-1	187.73	873.23	872.38	0.84	0.43	0.05	2169.51	190609.45	34221.04	7780.90
Reach-1	187.73	874.19	873.21	0.97	0.48	0.03		215985.69	11014.31	3285.70
Reach-1	187.82	873.76	872.91	0.85	0.53	0.00		195856.50	31143.50	5367.53
Reach-1	187.82	874.71	873.80	0.91	0.52	0.01		215861.03	11138.98	3445.60
Reach-1	187.91	874.24	873.54	0.70	0.46	0.02		174930.88	52069.13	5898.59
Reach-1	187.91	875.16	874.32	0.84	0.44	0.01		198719.95	28280.06	3694.90
Reach-1	188	874.70	874.03	0.66	0.46	0.00		158910.33	68089.68	7288.22
Reach-1	188	875.67	874.79	0.88	0.49	0.01		187082.14	39917.86	3945.27
Reach-1	188.04	874.88	874.21	0.67	0.18	0.00		192004.53	34995.48	5733.35
Reach-1	188.04	875.87	875.00	0.87	0.20	0.00		219242.30	7757.70	2995.94
Reach-1	188.055	Bridge								
Reach-1	188.07	874.91	874.27	0.64	0.00	0.00		189900.11	37099.89	5733.80
Reach-1	188.07	875.92	875.07	0.85	0.00	0.00		218013.58	8986.42	3046.38
Reach-1	188.1	875.07	874.36	0.71	0.14	0.02		187427.69	39572.30	6595.65
Reach-1	188.1	876.07	875.35	0.72	0.14	0.01		198733.95	28266.04	4129.23
Reach-1	188.2	875.54	875.00	0.54	0.45	0.02		195032.36	31967.64	7148.86
Reach-1	188.2	876.50	875.95	0.55	0.41	0.02		207825.19	19174.81	4466.88
Reach-1	188.29	875.86	875.45	0.41	0.31	0.01		198080.94	28919.06	7326.72
Reach-1	188.29	876.79	876.37	0.42	0.28	0.01		211446.41	15553.60	4859.75
Reach-1	188.39	876.11	875.81	0.29	0.24	0.01		187443.72	39556.28	7353.58
Reach-1	188.39	877.03	876.71	0.32	0.23	0.01		205299.20	21700.80	5108.87
Reach-1	188.5	876.40	876.12	0.29	0.30	0.00		176079.83	50920.18	7597.81
Reach-1	188.5	877.33	877.02	0.31	0.30	0.00		193529.84	33470.16	5393.13
Reach-1	188.59	876.76	876.44	0.32	0.34	0.01		185585.11	41414.89	7530.80
Reach-1	188.59	877.65	877.33	0.32	0.32	0.00		198927.20	28072.79	5801.77

Reach-1	188.7	877.19	876.86	0.33	0.43	0.00		185684.73	41315.27	8743.87
Reach-1	188.7	878.03	877.70	0.33	0.38	0.00		197878.42	29121.58	5904.26
Reach-1	188.81	877.60	877.31	0.28	0.40	0.00		191594.31	35405.68	8506.56
Reach-1	188.81	878.39	878.12	0.27	0.35	0.01		199903.59	27096.41	5950.11
Reach-1	189.02	878.37	878.00	0.37	0.75	0.03		190934.95	36065.06	9413.65
Reach-1	189.02	879.11	878.73	0.38	0.68	0.03		206995.83	20004.18	5865.90
Reach-1	189.12	878.81	878.47	0.35	0.44	0.00		181044.33	45955.68	9037.03
Reach-1	189.12	879.56	879.17	0.38	0.45	0.00		202909.81	24090.19	5357.35
Reach-1	189.22	879.26	878.92	0.34	0.45	0.00		176501.23	50498.77	9433.04
Reach-1	189.22	880.05	879.66	0.39	0.49	0.00		203323.70	23676.29	5139.00
Reach-1	189.31	879.70	879.34	0.36	0.44	0.01		181914.66	45085.35	10326.02
Reach-1	189.31	880.50	880.13	0.37	0.45	0.00		198966.47	28033.53	5020.77
Reach-1	189.39	880.15	879.75	0.40	0.43	0.01	619.91	188517.06	37863.04	10705.54
Reach-1	189.39	880.92	880.52	0.40	0.41	0.01	783.90	203340.28	22875.82	5000.00
Reach-1	189.49	880.70	880.32	0.37	0.55	0.00	0.01	191298.50	35701.49	10728.30
Reach-1	189.49	881.42	881.02	0.39	0.50	0.00		209139.73	17860.27	4897.80
Reach-1	189.58	881.36	880.91	0.45	0.64	0.02	0.91	201569.77	25429.33	11905.41
Reach-1	189.58	882.03	881.56	0.47	0.59	0.02		217984.48	9015.51	4751.20
Reach-1	189.68	882.10	881.65	0.45	0.74	0.00	2.76	203218.02	23779.24	12292.87
Reach-1	189.68	882.76	882.27	0.49	0.72	0.01		227000.00		4614.66
Reach-1	189.77	882.95	882.48	0.47	0.84	0.01		202401.67	24598.34	12202.11
Reach-1	189.77	883.61	883.10	0.51	0.85	0.01		227000.00		4450.62
Reach-1	189.87	884.24	883.54	0.70	1.22	0.07		218161.63	8838.37	11839.79
Reach-1	189.87	884.76	884.09	0.66	1.10	0.05		227000.00		4391.51
Reach-1	189.96	885.56	884.93	0.63	1.32	0.01	42.31	212393.00	14564.71	11879.18
Reach-1	189.96	885.91	885.28	0.63	1.15	0.00		219504.83	7495.18	4406.60
Reach-1	190.05	886.56	885.99	0.57	0.99	0.01	166.37	212191.66	14641.97	12160.36
Reach-1	190.05	886.85	886.27	0.59	0.94	0.00		220506.45	6493.54	4524.70
Reach-1	190.15	887.50	887.01	0.49	0.94	0.01	1041.78	221876.77	4081.46	12521.37
Reach-1	190.15	887.76	887.28	0.48	0.90	0.01		227000.00		4508.40
Reach-1	190.24	888.13	887.82	0.31	0.61	0.02	366.36	225455.48	1178.16	11848.11
Reach-1	190.24	888.37	888.07	0.30	0.58	0.02		227000.00		4604.80
Reach-1	190.34	888.65	888.35	0.30	0.52	0.00	0.48	226786.38	213.15	11643.59
Reach-1	190.34	888.86	888.57	0.29	0.49	0.00		227000.00		4779.70

Reach-1	190.43	889.12	888.82	0.30	0.47	0.00	4845.54	222136.80	17.67	11248.14
Reach-1	190.43	889.31	889.01	0.29	0.45	0.00	4933.11	222066.89		5028.90
Reach-1	190.53	889.47	889.20	0.28	0.35	0.00	30908.60	195157.22	934.18	11111.72
Reach-1	190.53	889.64	889.37	0.27	0.33	0.00	31625.20	195374.80		5050.30
Reach-1	190.62	889.75	889.50	0.24	0.27	0.00	46549.42	178271.38	2179.20	11205.92
Reach-1	190.62	889.92	889.66	0.27	0.28	0.00	36321.23	190678.77		5229.47
Reach-1	190.71	889.98	889.76	0.22	0.23	0.00	55279.87	170103.98	1616.16	11919.52
Reach-1	190.71	890.22	889.91	0.31	0.28	0.01	22101.24	204898.75		5152.48
Reach-1	190.8	890.20	889.97	0.22	0.21	0.00	53326.19	173537.22	136.60	11719.19
Reach-1	190.8	890.52	890.20	0.32	0.30	0.00	17689.43	209310.56		5224.00
Reach-1	190.89	890.41	890.18	0.24	0.21	0.00	43349.25	183639.61	11.13	10378.27
Reach-1	190.89	890.80	890.48	0.32	0.29	0.00	11477.77	215522.23		5292.32
Reach-1	190.99	890.66	890.40	0.25	0.24	0.00	33082.32	193910.03	7.65	7494.28
Reach-1	190.99	891.09	890.77	0.32	0.29	0.00	7617.15	219382.84		5426.40
Reach-1	191.08	890.90	890.65	0.24	0.24	0.00	42807.07	184192.92		9711.52
Reach-1	191.08	891.38	891.05	0.33	0.29	0.00	6166.32	220833.67		5681.12
Reach-1	191.17	891.18	890.94	0.24	0.28	0.00	38441.61	188558.41		9540.25
Reach-1	191.17	891.72	891.41	0.31	0.34	0.00	2595.38	224404.61		5728.16
Reach-1	191.27	891.46	891.23	0.23	0.29	0.00	35583.81	191207.92	208.28	9572.64
Reach-1	191.27	892.06	891.78	0.27	0.33	0.00	3012.27	223987.72		5871.80
Reach-1	191.36	891.80	891.53	0.27	0.33	0.01	27753.04	192176.64	7070.31	9220.32
Reach-1	191.36	892.44	892.11	0.33	0.36	0.02		227000.00		5797.70
Reach-1	191.46	892.16	891.88	0.28	0.36	0.00	24176.18	199193.95	3629.88	8798.08
Reach-1	191.46	892.83	892.50	0.33	0.39	0.00		227000.00		5559.00
Reach-1	191.55	892.49	892.22	0.28	0.33	0.00	17609.22	196963.64	12427.12	9150.72
Reach-1	191.55	893.18	892.83	0.35	0.35	0.01		227000.00		5172.90
Reach-1	191.65	892.80	892.50	0.30	0.30	0.01	11411.47	195616.05	19972.49	9077.15
Reach-1	191.65	893.51	893.14	0.37	0.33	0.01		224136.75	2863.25	4967.30
Reach-1	191.75	893.19	892.86	0.34	0.38	0.01	4433.45	182604.14	39962.41	8659.89
Reach-1	191.75	893.94	893.50	0.44	0.41	0.02		217488.81	9511.18	4729.00
Reach-1	191.84	893.64	893.24	0.41	0.43	0.02	1989.86	184022.83	40987.32	7847.56
Reach-1	191.84	894.42	893.93	0.50	0.46	0.02		213937.45	13062.53	4551.00
Reach-1	191.94	894.09	893.70	0.39	0.44	0.00		167905.48	59094.52	7948.91
Reach-1	191.94	894.92	894.41	0.51	0.49	0.00		203030.00	23970.00	4348.56

Reach-1	192.04	894.52	894.07	0.45	0.42	0.02		159247.25	67752.74	7766.62
Reach-1	192.04	895.44	894.81	0.63	0.49	0.04		196967.67	30032.33	4167.90
Reach-1	192.13	895.04	894.53	0.51	0.50	0.02		150341.31	76658.68	7677.62
Reach-1	192.13	896.03	895.34	0.69	0.57	0.02		186566.58	40433.43	3946.17
Reach-1	192.23	895.67	895.12	0.55	0.62	0.01	0.01	164869.70	62130.30	6812.12
Reach-1	192.23	896.67	896.01	0.65	0.63	0.00		185944.53	41055.46	3685.90
Reach-1	192.33	896.37	895.51	0.86	0.61	0.09		177871.31	49128.68	6171.17
Reach-1	192.33	897.35	896.36	0.99	0.58	0.10		200747.73	26252.26	3444.11
Reach-1	192.42	897.03	896.36	0.67	0.64	0.02		160133.44	66866.55	7133.50
Reach-1	192.42	898.00	897.21	0.79	0.63	0.02		181308.52	45691.47	3218.00
Reach-1	192.51	897.54	896.86	0.68	0.50	0.00		171705.28	55294.72	7531.29
Reach-1	192.51	898.51	897.67	0.83	0.49	0.01		194564.70	32435.30	3015.40
Reach-1	192.6	897.99	897.49	0.50	0.43	0.02	247.82	153383.52	73368.67	6443.24
Reach-1	192.6	898.98	898.24	0.74	0.46	0.01		181452.42	45547.58	2907.20
Reach-1	192.69	898.38	897.80	0.59	0.37	0.03	199.99	191133.67	35666.34	6880.90
Reach-1	192.69	899.37	898.67	0.70	0.39	0.00		213497.45	13502.54	2877.20
Reach-1	192.78	898.73	898.14	0.59	0.34	0.00	553.20	204391.48	22055.32	6211.91
Reach-1	192.78	899.70	899.03	0.66	0.32	0.00		225604.30	1395.71	2924.53
Reach-1	192.88	899.15	898.53	0.62	0.41	0.01	385.53	217109.97	9504.51	5456.87
Reach-1	192.88	900.06	899.48	0.59	0.36	0.01		227000.00		3281.20
Reach-1	192.97	899.58	899.04	0.54	0.42	0.01	67.95	219823.80	7108.27	5020.38
Reach-1	192.97	900.42	899.92	0.50	0.35	0.01		227000.00		3573.10
Reach-1	193.07	900.06	899.45	0.60	0.45	0.02	9.10	225724.63	1266.27	4364.17
Reach-1	193.07	900.79	900.27	0.52	0.36	0.00		227000.00		3911.51
Reach-1	193.16	900.78	899.83	0.94	0.62	0.10		226210.77	789.24	4179.13
Reach-1	193.16	901.35	900.56	0.79	0.48	0.08		227000.00		3900.87
Reach-1	193.24	901.57	900.72	0.85	0.78	0.01		226030.50	969.51	4150.35
Reach-1	193.24	901.98	901.21	0.76	0.62	0.00		227000.00		3761.13
Reach-1	193.36	902.41	901.61	0.79	0.83	0.01		224873.80	2126.20	3878.69
Reach-1	193.36	902.70	901.95	0.76	0.73	0.00		227000.00		3540.33
Reach-1	193.45	903.10	902.25	0.86	0.68	0.02		227000.00		3530.87
Reach-1	193.45	903.34	902.53	0.81	0.62	0.02		227000.00		3334.03
Reach-1	193.54	903.82	902.93	0.90	0.71	0.01	49.21	226843.09	107.70	3343.41
Reach-1	193.54	904.00	903.14	0.86	0.65	0.01		227000.00		3175.60

Reach-1	193.65	904.56	903.80	0.76	0.72	0.01		227000.00		3334.06
Reach-1	193.65	904.70	903.96	0.74	0.68	0.01		227000.00		3240.77
Reach-1	193.71	905.00	904.30	0.70	0.43	0.01		227000.00		3491.22
Reach-1	193.71	905.12	904.44	0.68	0.41	0.01		227000.00		3430.94
Reach-1	193.78	905.37	904.75	0.62	0.36	0.01		227000.00		4101.58
Reach-1	193.78	905.47	904.86	0.61	0.35	0.01		227000.00		3564.35
Reach-1	193.86	905.85	905.11	0.75	0.45	0.04		227000.00		4575.14
Reach-1	193.86	905.94	905.21	0.73	0.43	0.04		227000.00		3482.68
Reach-1	193.93	906.28	905.53	0.75	0.43	0.00		226708.78	291.22	4960.40
Reach-1	193.93	906.36	905.61	0.74	0.42	0.00		227000.00		3423.07
Reach-1	194.01	906.93	905.82	1.11	0.54	0.11		227000.00		5422.54
Reach-1	194.01	906.99	905.90	1.09	0.53	0.10		227000.00		3061.40
Reach-1	194.09	908.19	906.48	1.71	1.08	0.18		227000.00		5496.83
Reach-1	194.09	908.22	906.54	1.68	1.06	0.18		227000.00		2606.46
Reach-1	194.18	909.38	907.96	1.41	1.10	0.09		227000.00		2138.49
Reach-1	194.18	909.39	907.98	1.41	1.09	0.08		227000.00		2138.63
Reach-1	194.195	Bridge								
Reach-1	194.21	909.56	908.21	1.35	0.00	0.05		227000.00		2140.38
Reach-1	194.21	909.58	908.23	1.35	0.00	0.05		227000.00		2140.52
Reach-1	194.29	910.32	909.44	0.88	0.62	0.14	7148.47	211359.30	8492.24	5971.81
Reach-1	194.29	910.34	909.38	0.96	0.65	0.12		218400.16	8599.85	2842.50
Reach-1	194.4	910.94	910.30	0.64	0.55	0.07	14318.94	208211.81	4469.25	6723.23
Reach-1	194.4	911.02	910.25	0.77	0.62	0.06		222289.52	4710.49	3123.40
Reach-1	194.53	911.43	910.88	0.54	0.45	0.03	20935.21	205998.27	66.51	6542.15
Reach-1	194.53	911.59	910.90	0.69	0.55	0.02		226924.80	75.21	3186.37
Reach-1	194.62	911.75	911.22	0.53	0.32	0.00	29039.37	197960.63		5483.84
Reach-1	194.62	912.01	911.28	0.73	0.41	0.01		227000.00		2917.39
Reach-1	194.72	912.12	911.49	0.63	0.34	0.03	16813.22	210186.77		5052.69
Reach-1	194.72	912.42	911.67	0.75	0.41	0.00		227000.00		2815.58
Reach-1	194.81	912.45	911.83	0.62	0.33	0.00	15163.69	210795.72	1040.60	5295.81
Reach-1	194.81	912.79	912.05	0.74	0.37	0.00		227000.00		2713.60
Reach-1	194.91	912.96	912.04	0.93	0.42	0.09	15101.30	210862.53	1036.16	5049.52
Reach-1	194.91	913.36	912.26	1.09	0.46	0.11		227000.00		2456.90
Reach-1	195	913.63	912.50	1.13	0.60	0.06	15960.68	210028.88	1010.45	4603.89

Reach-1	195	914.09	912.75	1.34	0.66	0.07		227000.00		2131.40
Reach-1	195.09	914.55	912.92	1.63	0.77	0.15	8737.14	218262.86		3870.59
Reach-1	195.09	915.00	913.29	1.71	0.80	0.11		227000.00		1810.62
Reach-1	195.13	914.95	913.49	1.46	0.39	0.02	5115.68	221884.33		2250.81
Reach-1	195.13	915.40	913.94	1.46	0.37	0.03		227000.00		1769.41
Reach-1	195.145	Bridge								
Reach-1	195.16	915.12	913.71	1.41	0.00	0.01	5374.05	221625.95		2345.16
Reach-1	195.16	915.57	914.16	1.41	0.00	0.01		227000.00		1770.42
Reach-1	195.19	915.43	913.93	1.51	0.28	0.03	16455.11	210544.89		4217.70
Reach-1	195.19	915.96	914.18	1.77	0.28	0.11		227000.00		1827.14
Reach-1	195.28	916.13	915.12	1.01	0.65	0.05	4364.17	212554.17	10081.65	5149.34
Reach-1	195.28	916.69	915.56	1.13	0.67	0.06		227000.00		2119.19
Reach-1	195.38	916.73	915.84	0.88	0.58	0.01	7891.92	210583.31	8524.77	4074.28
Reach-1	195.38	917.29	916.29	1.00	0.59	0.01		227000.00		2349.20
Reach-1	195.47	917.34	916.29	1.05	0.57	0.05	4116.35	217679.11	5204.54	4377.17
Reach-1	195.47	917.87	916.79	1.08	0.56	0.02		227000.00		2404.90
Reach-1	195.56	917.98	917.01	0.98	0.63	0.01		211019.28	15980.73	4114.50
Reach-1	195.56	918.49	917.40	1.09	0.62	0.00		227000.00		2289.06
Reach-1	195.66	918.56	917.53	1.03	0.56	0.02	56.14	206897.02	20046.84	4371.25
Reach-1	195.66	919.09	917.93	1.16	0.58	0.02		221515.34	5484.66	2272.60
Reach-1	195.75	919.54	917.78	1.76	0.76	0.22		200722.25	26277.76	4484.09
Reach-1	195.75	920.12	918.13	1.99	0.78	0.25		214513.44	12486.56	2022.35
Reach-1	195.85	920.75	918.65	2.10	1.11	0.10		202443.38	24556.63	5287.62
Reach-1	195.85	921.22	919.15	2.07	1.08	0.03		206765.98	20234.03	2047.83
Reach-1	195.94	921.70	920.33	1.37	0.88	0.07		180382.28	46617.71	6753.45
Reach-1	195.94	922.13	920.68	1.45	0.84	0.06		187237.22	39762.78	2313.39
Reach-1	196.04	922.23	921.77	0.45	0.43	0.09		145641.69	81358.32	8583.65
Reach-1	196.04	922.68	922.12	0.56	0.47	0.09		161868.53	65131.47	2949.65
Reach-1	196.13	922.49	922.17	0.32	0.25	0.01		163125.53	63874.46	8379.10
Reach-1	196.13	923.00	922.54	0.46	0.31	0.01		196674.45	30325.54	3665.30
Reach-1	196.23	922.75	922.38	0.37	0.25	0.02		177682.41	49317.59	7879.30
Reach-1	196.23	923.37	922.79	0.59	0.34	0.04		216350.77	10649.25	3849.89
Reach-1	196.32	923.05	922.77	0.28	0.28	0.01	3044.51	171740.56	52214.92	7646.67
Reach-1	196.32	923.77	923.37	0.40	0.38	0.02		214551.84	12448.18	3981.60

Reach-1	196.42	923.34	923.02	0.33	0.28	0.01	2104.47	188791.22	36104.32	7321.24
Reach-1	196.42	924.14	923.70	0.43	0.36	0.01		226556.23	443.77	4046.90
Reach-1	196.51	923.69	923.33	0.35	0.34	0.01	1695.81	187098.27	38205.93	7394.90
Reach-1	196.51	924.54	924.08	0.45	0.39	0.01		226962.59	37.41	3989.40
Reach-1	196.61	924.09	923.70	0.39	0.39	0.01	2258.76	182865.83	41875.43	7699.37
Reach-1	196.61	925.02	924.49	0.53	0.46	0.02		227000.00		3785.00
Reach-1	196.7	924.58	924.17	0.41	0.49	0.01	668.64	193350.44	32980.93	7870.97
Reach-1	196.7	925.58	925.08	0.50	0.56	0.00		227000.00		3595.40
Reach-1	196.79	925.20	924.63	0.57	0.57	0.05	1213.73	203970.22	21816.05	7402.27
Reach-1	196.79	926.21	925.59	0.62	0.59	0.04		227000.00		3479.70
Reach-1	196.88	926.18	925.48	0.70	0.94	0.04	1420.99	202985.13	22593.90	6986.68
Reach-1	196.88	927.14	926.38	0.76	0.89	0.04		227000.00		3706.50
Reach-1	196.98	927.00	926.51	0.49	0.80	0.02	3191.92	196986.69	26821.38	8306.56
Reach-1	196.98	927.96	927.39	0.57	0.80	0.02		227000.00		3972.60
Reach-1	197.07	927.52	927.13	0.39	0.50	0.01	2097.73	191440.55	33461.72	8162.54
Reach-1	197.07	928.48	928.03	0.45	0.51	0.01	1058.23	215013.70	10928.07	4127.53
Reach-1	197.16	928.03	927.59	0.44	0.50	0.01	231.00	205420.19	21348.82	8125.44
Reach-1	197.16	928.95	928.48	0.47	0.47	0.01		223981.56	3018.42	4296.80
Reach-1	197.26	928.66	928.21	0.45	0.63	0.00	2726.83	195242.61	29030.56	8288.15
Reach-1	197.26	929.57	929.03	0.54	0.60	0.02	872.45	221216.84	4910.70	4170.00
Reach-1	197.35	929.50	929.10	0.40	0.83	0.01	4150.84	157248.28	65600.88	8210.19
Reach-1	197.35	930.40	929.87	0.54	0.83	0.00	0.22	180594.13	46405.66	4625.00
Reach-1	197.45	930.27	929.90	0.37	0.77	0.00	3282.47	186257.31	37460.21	8799.87
Reach-1	197.45	931.17	930.73	0.43	0.75	0.01		208981.02	18018.98	4889.00
Reach-1	197.54	930.87	930.57	0.30	0.60	0.01	893.58	174968.98	51137.45	9460.31
Reach-1	197.54	931.78	931.39	0.39	0.61	0.00		212636.11	14363.90	5042.70
Reach-1	197.64	931.56	931.22	0.34	0.68	0.01	1603.49	175988.16	49408.36	9880.12
Reach-1	197.64	932.53	932.09	0.44	0.74	0.02		215484.03	11515.98	5207.20
Reach-1	197.74	932.44	931.97	0.47	0.84	0.04	2105.31	197633.84	27260.83	9128.88
Reach-1	197.74	933.41	932.87	0.53	0.84	0.03		224995.92	2004.07	4903.30
Reach-1	197.83	933.26	932.78	0.48	0.81	0.00	3223.82	196456.03	27320.16	9992.39
Reach-1	197.83	934.19	933.62	0.57	0.78	0.01		225584.45	1415.55	4415.00
Reach-1	197.92	933.98	933.46	0.52	0.71	0.01	1276.96	201332.95	24390.10	9936.71
Reach-1	197.92	934.89	934.29	0.60	0.68	0.01		227000.00		3911.60

Reach-1	198.02	934.85	934.16	0.69	0.82	0.05	1041.63	205440.08	20518.29	9122.52
Reach-1	198.02	935.68	934.95	0.74	0.76	0.04		224448.75	2551.24	3873.60
Reach-1	198.11	935.93	935.23	0.70	1.08	0.00	133.90	191645.98	35220.13	9036.93
Reach-1	198.11	936.83	935.93	0.91	1.10	0.05		224380.39	2619.61	4005.20
Reach-1	198.2	937.00	936.54	0.46	1.04	0.02	181.01	170364.78	56454.20	10589.85
Reach-1	198.2	937.97	937.36	0.62	1.11	0.03		198234.53	28765.47	4078.50
Reach-1	198.26	937.47	937.03	0.44	0.47	0.00	0.02	167815.77	59184.21	11953.71
Reach-1	198.26	938.46	937.87	0.59	0.49	0.00		197262.78	29737.23	4178.40
Reach-1	198.3	938.35	937.03	1.32	0.61	0.26	0.01	201224.47	25775.52	7278.89
Reach-1	198.3	939.26	937.92	1.34	0.57	0.22		222968.28	4031.73	3956.33
Reach-1	198.34	938.96	938.53	0.42	0.52	0.09	14.23	172540.94	54444.84	12387.92
Reach-1	198.34	939.88	939.22	0.66	0.56	0.07		217092.84	9907.15	4484.93
Reach-1	198.4	939.37	938.93	0.44	0.41	0.00		185280.11	41719.88	11555.75
Reach-1	198.4	940.31	939.79	0.52	0.41	0.01		208920.77	18079.24	4697.00
Reach-1	198.49	939.77	939.52	0.25	0.38	0.02		165936.25	61063.75	12882.32
Reach-1	198.49	940.76	940.35	0.41	0.44	0.01		213038.28	13961.71	4912.19
Reach-1	198.59	940.03	939.78	0.25	0.26	0.00		162894.56	64105.44	12879.93
Reach-1	198.59	941.07	940.74	0.33	0.30	0.01		191720.78	35279.21	4986.12
Reach-1	198.65	940.21	939.93	0.28	0.17	0.01		166690.66	60309.36	12652.47
Reach-1	198.65	941.25	940.90	0.34	0.17	0.00		191443.45	35556.54	4851.35
Reach-1	198.73	940.46	940.13	0.33	0.23	0.01		180551.81	46448.18	12138.27
Reach-1	198.73	941.49	941.12	0.37	0.23	0.01		197107.80	29892.19	4646.08
Reach-1	198.79	940.72	940.30	0.42	0.23	0.03		203849.17	23150.83	12088.39
Reach-1	198.79	941.73	941.28	0.45	0.22	0.03		220652.98	6347.01	4464.14
Reach-1	198.86	941.00	940.63	0.38	0.28	0.00		185845.11	41154.89	10788.66
Reach-1	198.86	942.00	941.57	0.43	0.27	0.00		205997.13	21002.87	4389.67
Reach-1	198.96	941.52	941.07	0.46	0.50	0.03		181758.33	45241.68	9639.26
Reach-1	198.96	942.52	941.98	0.53	0.48	0.03		202365.59	24634.41	4138.00
Reach-1	199.07	942.31	941.71	0.60	0.74	0.04		189961.25	37038.75	8884.23
Reach-1	199.07	943.24	942.61	0.63	0.70	0.03		202060.83	24939.17	3863.99
Reach-1	199.19	943.76	943.05	0.71	1.42	0.03		206478.80	20521.22	7362.33
Reach-1	199.19	944.55	943.78	0.77	1.26	0.04		222658.75	4341.25	3990.39
Reach-1	199.195	Bridge								

Reach-1	199.20	944.04	943.36	0.68	0.00	0.01		210984.13	16015.88	7336.93
Reach-1	199.20	944.85	944.16	0.70	0.00	0.02		222609.69	4390.32	4180.54
Reach-1	199.34	945.35	944.91	0.44	1.29	0.02	0.00	173303.47	53696.54	9556.20
Reach-1	199.34	946.24	945.66	0.58	1.38	0.01		201441.55	25558.45	4597.29
Reach-1	199.44	946.22	945.84	0.38	0.87	0.01		178639.58	48360.43	10043.00
Reach-1	199.44	947.17	946.69	0.47	0.91	0.01		205386.94	21613.07	5031.05
Reach-1	199.53	947.02	946.76	0.27	0.79	0.01		159791.44	51458.55	10511.45
Reach-1	199.53	947.99	947.64	0.34	0.81	0.01		187128.19	24121.81	5319.12
Reach-1	199.63	947.86	947.65	0.21	0.83	0.01		136246.28	59253.72	11758.87
Reach-1	199.63	948.87	948.61	0.26	0.88	0.01		163624.53	31875.47	5530.00
Reach-1	199.72	948.45	948.27	0.18	0.59	0.00		159481.81	36018.18	11303.26
Reach-1	199.72	949.48	949.27	0.21	0.60	0.00		185049.09	10450.91	5175.00
Reach-1	199.82	949.09	948.90	0.19	0.64	0.01		138934.91	40815.09	10752.38
Reach-1	199.82	950.14	949.90	0.24	0.65	0.01		171358.63	8391.37	4780.00

Profile Output Table - Encroachment 3

Reach	River Sta	Top Wdth Act (ft)	Area (sq ft)	Vel Total (ft/s)	W.S. Elev (ft)	Base WS (ft)	Prof Delta WS (ft)
Reach-1	178.61	6045.64	60899.18	4.02	814.98	814.98	
Reach-1	178.61	4849.30	51351.88	4.09	815.98	814.98	1.00
Reach-1	178.68	6858.29	60796.55	3.68	815.29	815.29	
Reach-1	178.68	4711.04	50741.45	4.14	816.21	815.29	0.92
Reach-1	178.77	6637.29	58173.30	3.84	815.51	815.51	
Reach-1	178.77	4660.00	50254.31	4.18	816.44	815.51	0.94
Reach-1	178.86	6408.50	49636.59	4.39	815.83	815.83	
Reach-1	178.86	4630.00	45444.90	4.62	816.72	815.83	0.89
Reach-1	178.95	6132.20	48967.28	4.37	816.29	816.29	
Reach-1	178.95	4696.44	45019.02	4.66	817.10	816.29	0.81
Reach-1	179.03	5940.76	48883.55	4.36	816.76	816.76	
Reach-1	179.03	4934.41	47209.91	4.45	817.49	816.76	0.73
Reach-1	179.11	6517.16	50880.46	4.22	817.15	817.15	
Reach-1	179.11	5128.01	48096.65	4.37	817.81	817.15	0.65
Reach-1	179.2	6419.76	50092.62	4.36	817.73	817.73	
Reach-1	179.2	5240.75	46961.29	4.47	818.28	817.73	0.54
Reach-1	179.25	6421.90	47134.43	4.63	817.93	817.93	
Reach-1	179.25	5243.36	42094.81	4.99	818.43	817.93	0.50
Reach-1	179.3	5975.53	45848.37	4.80	818.38	818.38	
Reach-1	179.3	5200.24	43060.13	4.88	818.83	818.38	0.45
Reach-1	179.35	5710.52	43620.11	4.92	818.66	818.66	
Reach-1	179.35	5165.67	42379.32	4.96	819.07	818.66	0.42
Reach-1	179.4	5549.21	40533.51	5.32	818.88	818.88	
Reach-1	179.4	5012.55	39401.92	5.33	819.29	818.88	0.41
Reach-1	179.5	5483.50	34132.43	6.40	819.51	819.51	
Reach-1	179.5	4992.64	32644.39	6.43	819.84	819.51	0.32
Reach-1	179.59	5911.17	32618.27	6.91	820.33	820.33	
Reach-1	179.59	5009.80	29414.91	7.14	820.56	820.33	0.23
Reach-1	179.68	6124.18	33413.76	6.60	821.43	821.43	
Reach-1	179.68	4487.80	27425.00	7.66	821.59	821.43	0.16
Reach-1	179.76	5901.82	37233.79	6.46	822.51	822.51	

Reach-1	179.76	4152.10	28581.26	7.35	822.80	822.51	0.29
Reach-1	179.84	5342.58	36338.15	7.60	823.40	823.40	
Reach-1	179.84	3924.69	24899.73	8.43	823.71	823.40	0.31
Reach-1	179.91	4730.00	49640.17	6.16	825.04	825.04	
Reach-1	179.91	3672.50	30392.42	6.91	825.32	825.04	0.28
Reach-1	180.01	3606.74	25391.19	8.27	826.06	826.06	
Reach-1	180.01	3606.98	26736.09	7.85	826.43	826.06	0.37
Reach-1	180.025 BR D	3417.41	23724.26	8.85	825.95	825.95	
Reach-1	180.025 BR D	3418.57	25049.19	8.38	826.34	825.95	0.39
Reach-1	180.025 BR U	3419.87	26527.37	7.92	826.77	826.77	
Reach-1	180.025 BR U	3418.93	27342.72	7.68	827.01	826.77	0.24
Reach-1	180.04	3609.40	28597.36	7.34	826.95	826.95	
Reach-1	180.04	3609.59	29401.71	7.14	827.17	826.95	0.22
Reach-1	180.06	3459.70	63233.95	6.13	827.52	827.52	
Reach-1	180.06	3459.70	34840.25	6.03	827.70	827.52	0.17
Reach-1	180.09	3630.20	63261.48	5.56	827.82	827.82	
Reach-1	180.09	3630.20	38345.44	5.48	827.98	827.82	0.16
Reach-1	180.18	4174.20	57728.59	6.20	828.32	828.32	
Reach-1	180.18	4174.20	34445.31	6.10	828.46	828.32	0.13
Reach-1	180.28	4722.43	61578.24	5.73	829.23	829.23	
Reach-1	180.28	4723.76	37072.97	5.66	829.33	829.23	0.09
Reach-1	180.37	5135.86	52827.64	6.55	829.50	829.50	
Reach-1	180.37	5146.90	32418.14	6.48	829.57	829.50	0.07
Reach-1	180.47	6078.00	80026.03	4.25	832.40	832.40	
Reach-1	180.47	5656.50	46558.11	4.51	832.31	832.40	-0.09
Reach-1	180.56	6899.00	84263.80	3.65	833.62	833.62	
Reach-1	180.56	6071.50	51566.82	4.07	833.64	833.62	0.02
Reach-1	180.65	7748.00	87428.00	3.22	834.08	834.08	
Reach-1	180.65	6535.00	56284.65	3.73	834.15	834.08	0.07
Reach-1	180.75	9014.00	92903.48	2.77	834.54	834.54	
Reach-1	180.75	7200.18	66730.78	3.15	834.90	834.54	0.36
Reach-1	180.85	9767.00	88290.30	2.74	834.75	834.75	
Reach-1	180.85	7655.00	66025.78	3.18	835.18	834.75	0.43
Reach-1	180.94	10213.00	86122.01	2.61	834.93	834.93	

Reach-1	180.94	8050.00	73178.46	2.87	835.52	834.93	0.59
Reach-1	180.99	10466.25	85551.81	2.54	835.02	835.02	
Reach-1	180.99	8109.17	74448.27	2.82	835.63	835.02	0.61
Reach-1	181.04	10660.00	82436.91	2.59	835.08	835.08	
Reach-1	181.04	8140.00	71849.55	2.92	835.70	835.08	0.61
Reach-1	181.13	10635.96	83525.67	2.53	835.23	835.23	
Reach-1	181.13	8010.00	75156.45	2.79	835.90	835.23	0.67
Reach-1	181.23	10806.12	75189.66	2.80	835.33	835.33	
Reach-1	181.23	7690.00	66429.45	3.16	836.02	835.33	0.69
Reach-1	181.32	10155.46	64238.88	3.27	835.49	835.49	
Reach-1	181.32	7110.00	57154.18	3.67	836.18	835.49	0.69
Reach-1	181.41	9925.28	62187.64	3.49	835.76	835.76	
Reach-1	181.41	6810.00	49529.84	4.24	836.46	835.76	0.70
Reach-1	181.51	8914.29	56154.23	3.91	835.95	835.95	
Reach-1	181.51	6451.14	52186.09	4.02	836.83	835.95	0.88
Reach-1	181.62	8668.67	54315.26	4.09	836.33	836.33	
Reach-1	181.62	6462.48	51001.17	4.12	837.19	836.33	0.86
Reach-1	181.74	7999.48	54177.77	3.99	836.85	836.85	
Reach-1	181.74	6559.51	51218.80	4.10	837.64	836.85	0.79
Reach-1	181.82	8041.84	51203.56	4.13	837.18	837.18	
Reach-1	181.82	6424.41	48279.56	4.35	837.98	837.18	0.80
Reach-1	181.9	7582.18	49378.93	4.34	837.54	837.54	
Reach-1	181.9	6114.88	45471.82	4.62	838.30	837.54	0.76
Reach-1	181.99	7296.67	52125.07	4.12	838.02	838.02	
Reach-1	181.99	5876.68	48877.23	4.30	838.93	838.02	0.92
Reach-1	182.08	6809.10	54940.11	4.06	838.43	838.43	
Reach-1	182.08	5667.66	50993.43	4.12	839.42	838.43	1.00
Reach-1	182.17	5316.38	49796.49	4.77	838.68	838.68	
Reach-1	182.17	4827.88	43471.93	4.83	839.65	838.68	0.97
Reach-1	182.27	5441.62	50781.71	5.21	839.09	839.09	
Reach-1	182.27	4995.94	42644.35	4.92	840.01	839.09	0.92
Reach-1	182.36	4595.50	51496.02	5.40	839.59	839.59	
Reach-1	182.36	4211.44	40805.61	5.15	840.39	839.59	0.79
Reach-1	182.45	4796.31	56812.82	4.56	840.26	840.26	

Reach-1	182.45	4238.40	45910.45	4.57	840.91	840.26	0.65
Reach-1	182.55	4681.74	61454.40	4.17	840.72	840.72	
Reach-1	182.55	4297.75	51207.19	4.10	841.33	840.72	0.62
Reach-1	182.64	5143.91	60214.65	3.94	841.15	841.15	
Reach-1	182.64	4645.16	53854.69	3.90	841.72	841.15	0.57
Reach-1	182.74	5402.03	64830.76	3.70	841.49	841.49	
Reach-1	182.74	4680.16	53278.71	3.94	842.01	841.49	0.53
Reach-1	182.83	5499.52	63582.25	3.77	841.72	841.72	
Reach-1	182.83	4642.33	51061.66	4.11	842.25	841.72	0.52
Reach-1	182.92	5688.33	63421.32	3.65	841.97	841.97	
Reach-1	182.92	4532.81	50539.66	4.16	842.48	841.97	0.52
Reach-1	183.02	5599.06	59541.69	3.81	842.15	842.15	
Reach-1	183.02	4282.21	47326.79	4.44	842.68	842.15	0.53
Reach-1	183.11	5610.05	57928.49	3.96	842.40	842.40	
Reach-1	183.11	4193.30	45881.91	4.58	842.93	842.40	0.53
Reach-1	183.2	5244.10	56266.54	4.02	842.68	842.68	
Reach-1	183.2	4033.87	46891.77	4.48	843.23	842.68	0.55
Reach-1	183.3	4703.86	47821.92	4.63	842.91	842.91	
Reach-1	183.3	3894.70	43833.32	4.79	843.47	842.91	0.56
Reach-1	183.39	4724.75	43545.33	4.87	843.24	843.24	
Reach-1	183.39	3843.38	41375.98	5.08	843.77	843.24	0.53
Reach-1	183.49	4361.85	39504.47	5.32	843.70	843.70	
Reach-1	183.49	4002.61	39405.12	5.33	844.19	843.70	0.49
Reach-1	183.58	3854.86	33086.17	6.36	844.21	844.21	
Reach-1	183.58	3884.24	34739.95	6.04	844.65	844.21	0.45
Reach-1	183.67	3743.82	29867.97	7.04	844.96	844.96	
Reach-1	183.67	3796.15	31120.66	6.75	845.31	844.96	0.35
Reach-1	183.77	3470.54	25223.83	8.37	846.05	846.05	
Reach-1	183.77	3465.48	25881.56	8.11	846.27	846.05	0.23
Reach-1	183.86	3944.03	31561.40	6.96	847.49	847.49	
Reach-1	183.86	3875.70	30571.64	6.87	847.61	847.49	0.11
Reach-1	183.96	4046.22	38499.16	5.77	848.35	848.35	
Reach-1	183.96	3966.07	36574.07	5.74	848.44	848.35	0.08
Reach-1	184.05	3832.11	35866.59	6.31	848.82	848.82	

Reach-1	184.05	3832.54	33546.84	6.26	848.89	848.82	0.07
Reach-1	184.14	3917.44	42537.27	5.62	849.46	849.46	
Reach-1	184.14	3924.82	37613.61	5.58	849.52	849.46	0.06
Reach-1	184.24	3994.69	47772.96	5.62	849.95	849.95	
Reach-1	184.24	3802.24	37353.05	5.62	850.00	849.95	0.05
Reach-1	184.33	4321.36	50305.31	5.29	850.51	850.51	
Reach-1	184.33	3864.50	39099.98	5.37	850.55	850.51	0.04
Reach-1	184.43	4811.13	55082.27	4.70	851.09	851.09	
Reach-1	184.43	4191.83	44605.00	4.71	851.13	851.09	0.04
Reach-1	184.53	5524.57	59256.91	4.18	851.59	851.59	
Reach-1	184.53	4936.13	50288.81	4.18	851.63	851.59	0.04
Reach-1	184.62	5566.61	57869.77	4.37	851.91	851.91	
Reach-1	184.62	5234.35	48159.16	4.36	851.95	851.91	0.04
Reach-1	184.71	5367.03	49333.36	4.88	852.17	852.17	
Reach-1	184.71	5231.34	43215.19	4.86	852.20	852.17	0.03
Reach-1	184.81	6035.00	43454.05	5.32	852.64	852.64	
Reach-1	184.81	5615.52	39362.04	5.34	852.66	852.64	0.03
Reach-1	184.9	5884.76	48073.09	4.87	853.69	853.69	
Reach-1	184.9	5851.34	43195.36	4.86	853.71	853.69	0.02
Reach-1	185	5370.73	44011.04	5.50	854.49	854.49	
Reach-1	185	5271.43	37922.55	5.54	854.51	854.49	0.02
Reach-1	185.1	5164.03	49602.14	4.62	855.17	855.17	
Reach-1	185.1	5167.14	45545.83	4.61	855.19	855.17	0.03
Reach-1	185.19	4811.08	41686.90	5.11	855.50	855.50	
Reach-1	185.19	4505.18	40652.22	5.17	855.52	855.50	0.02
Reach-1	185.28	4750.53	32449.51	6.51	855.77	855.77	
Reach-1	185.28	4436.56	31947.07	6.57	855.80	855.77	0.02
Reach-1	185.38	4782.72	31564.84	6.76	856.30	856.30	
Reach-1	185.38	4200.23	29984.84	7.00	856.32	856.30	0.02
Reach-1	185.46	5069.77	30036.39	7.02	856.87	856.87	
Reach-1	185.46	4432.28	28967.58	7.25	856.89	856.87	0.02
Reach-1	185.53	5391.07	30835.98	6.86	857.44	857.44	
Reach-1	185.53	4479.59	29117.97	7.21	857.46	857.44	0.02
Reach-1	185.61	5499.52	33532.45	6.27	858.11	858.11	

Reach-1	185.61	4307.96	30956.02	6.78	858.12	858.11	0.01
Reach-1	185.71	5538.77	36794.52	5.78	859.04	859.04	
Reach-1	185.71	4413.63	33819.93	6.21	859.08	859.04	0.05
Reach-1	185.81	6239.52	47230.87	4.62	859.88	859.88	
Reach-1	185.81	4542.94	36763.39	5.71	859.92	859.88	0.03
Reach-1	185.9	6730.13	53340.91	4.19	860.34	860.34	
Reach-1	185.9	4343.30	39071.23	5.37	860.48	860.34	0.14
Reach-1	186	6384.04	52666.91	4.20	860.70	860.70	
Reach-1	186	4276.20	40821.33	5.14	860.97	860.70	0.27
Reach-1	186.1	6269.76	41446.22	5.28	861.07	861.07	
Reach-1	186.1	4173.06	35123.76	5.98	861.47	861.07	0.40
Reach-1	186.19	5797.51	44615.83	5.60	861.94	861.94	
Reach-1	186.19	4142.58	36944.82	6.14	862.31	861.94	0.36
Reach-1	186.27	5676.44	45636.45	5.30	862.75	862.75	
Reach-1	186.27	4109.90	38536.24	5.89	863.08	862.75	0.33
Reach-1	186.36	5658.47	47266.84	5.21	863.59	863.59	
Reach-1	186.36	4093.76	37744.96	6.01	863.90	863.59	0.30
Reach-1	186.46	5574.58	49499.81	5.03	864.49	864.49	
Reach-1	186.46	3981.40	38955.58	5.83	864.81	864.49	0.32
Reach-1	186.55	5216.89	49934.01	5.03	865.26	865.26	
Reach-1	186.55	3822.50	36731.93	6.18	865.55	865.26	0.29
Reach-1	186.61	4937.51	36358.17	6.37	865.47	865.47	
Reach-1	186.61	3494.00	29123.45	7.79	865.81	865.47	0.34
Reach-1	186.69	4834.52	39787.21	6.31	866.36	866.36	
Reach-1	186.69	3366.94	28237.42	8.04	866.68	866.36	0.33
Reach-1	186.78	4656.84	45289.69	6.37	867.28	867.28	
Reach-1	186.78	3223.50	29813.95	7.61	867.66	867.28	0.38
Reach-1	186.87	4732.88	50046.56	6.32	868.18	868.18	
Reach-1	186.87	3243.17	30807.37	7.37	868.44	868.18	0.26
Reach-1	186.97	4630.02	46200.06	5.88	868.75	868.75	
Reach-1	186.97	3244.47	30828.60	7.36	869.03	868.75	0.28
Reach-1	187.06	4624.39	40634.68	6.07	869.09	869.09	
Reach-1	187.06	3183.02	33921.63	6.69	869.67	869.09	0.58
Reach-1	187.15	4480.97	39810.17	6.29	869.48	869.48	

Reach-1	187.15	2813.40	30503.75	7.44	870.04	869.48	0.56
Reach-1	187.24	4201.39	33101.11	7.42	869.81	869.81	
Reach-1	187.24	2587.00	26728.63	8.49	870.44	869.81	0.63
Reach-1	187.36	4364.16	40806.39	6.30	870.83	870.83	
Reach-1	187.36	2723.00	30341.88	7.48	871.42	870.83	0.59
Reach-1	187.45	4723.42	41762.21	5.85	871.35	871.35	
Reach-1	187.45	2829.90	29060.62	7.81	871.82	871.35	0.47
Reach-1	187.54	4314.21	35401.43	6.84	871.57	871.57	
Reach-1	187.54	2930.00	29594.56	7.67	872.29	871.57	0.72
Reach-1	187.64	4500.00	39826.38	6.23	872.07	872.07	
Reach-1	187.64	2960.20	30258.68	7.50	872.79	872.07	0.73
Reach-1	187.73	4650.00	34503.03	6.97	872.38	872.38	
Reach-1	187.73	3285.70	29141.61	7.79	873.21	872.38	0.83
Reach-1	187.82	4764.38	32756.90	7.08	872.91	872.91	
Reach-1	187.82	3445.60	30140.90	7.53	873.80	872.91	0.89
Reach-1	187.91	5294.90	37408.61	6.32	873.54	873.54	
Reach-1	187.91	3694.90	31947.70	7.11	874.32	873.54	0.79
Reach-1	188	5721.93	41828.73	6.04	874.03	874.03	
Reach-1	188	3945.27	32003.70	7.09	874.79	874.03	0.75
Reach-1	188.04	4890.92	39901.82	5.93	874.21	874.21	
Reach-1	188.04	2995.94	31777.98	7.14	875.00	874.21	0.79
Reach-1	188.055 BR D	4834.94	39005.39	6.08	874.22	874.22	
Reach-1	188.055 BR D	2989.79	31005.41	7.32	874.98	874.22	0.76
Reach-1	188.055 BR U	5095.29	39323.50	5.92	874.27	874.27	
Reach-1	188.055 BR U	2990.04	31119.47	7.29	875.02	874.27	0.74
Reach-1	188.07	5151.27	40219.24	5.79	874.27	874.27	
Reach-1	188.07	3046.38	32242.29	7.04	875.07	874.27	0.80
Reach-1	188.1	6245.16	38524.95	5.98	874.36	874.36	
Reach-1	188.1	4129.23	35965.56	6.31	875.35	874.36	0.99
Reach-1	188.2	6948.91	43011.95	5.45	875.00	875.00	
Reach-1	188.2	4466.88	39684.77	5.72	875.95	875.00	0.95
Reach-1	188.29	7326.72	47909.78	4.74	875.45	875.45	
Reach-1	188.29	4859.75	45275.96	5.01	876.37	875.45	0.92
Reach-1	188.39	7340.39	54052.49	4.20	875.81	875.81	

Reach-1	188.39	5108.87	50616.91	4.48	876.71	875.81	0.90
Reach-1	188.5	7579.26	53402.45	4.25	876.12	876.12	
Reach-1	188.5	5393.13	50780.78	4.47	877.02	876.12	0.90
Reach-1	188.59	7421.33	50930.15	4.46	876.44	876.44	
Reach-1	188.59	5801.77	50406.30	4.50	877.33	876.44	0.89
Reach-1	188.7	7969.17	50065.47	4.56	876.86	876.86	
Reach-1	188.7	5904.26	49091.39	4.62	877.70	876.86	0.84
Reach-1	188.81	7865.47	54055.76	4.21	877.31	877.31	
Reach-1	188.81	5950.11	54029.80	4.20	878.12	877.31	0.80
Reach-1	189.02	7256.50	50775.35	4.60	878.00	878.00	
Reach-1	189.02	5865.90	48949.11	4.64	878.73	878.00	0.72
Reach-1	189.12	6931.99	50813.52	4.62	878.47	878.47	
Reach-1	189.12	5357.35	47163.92	4.81	879.17	878.47	0.71
Reach-1	189.22	6553.79	51605.30	4.64	878.92	878.92	
Reach-1	189.22	5139.00	46538.55	4.88	879.66	878.92	0.74
Reach-1	189.31	6341.62	52920.33	4.73	879.34	879.34	
Reach-1	189.31	5020.77	47340.60	4.80	880.13	879.34	0.79
Reach-1	189.39	6111.12	51449.84	4.93	879.75	879.75	
Reach-1	189.39	5000.00	46158.32	4.92	880.52	879.75	0.77
Reach-1	189.49	5930.93	54099.07	4.83	880.32	880.32	
Reach-1	189.49	4897.80	46012.48	4.93	881.02	880.32	0.70
Reach-1	189.58	5754.17	52088.79	5.32	880.91	880.91	
Reach-1	189.58	4751.20	41767.87	5.43	881.56	880.91	0.66
Reach-1	189.68	5696.58	58154.42	5.36	881.65	881.65	
Reach-1	189.68	4614.66	40321.34	5.63	882.27	881.65	0.61
Reach-1	189.77	5410.20	63265.16	5.50	882.48	882.48	
Reach-1	189.77	4450.62	39643.52	5.73	883.10	882.48	0.62
Reach-1	189.87	5079.99	54179.10	6.70	883.54	883.54	
Reach-1	189.87	4391.51	34734.02	6.54	884.09	883.54	0.55
Reach-1	189.96	5156.88	50686.75	6.35	884.93	884.93	
Reach-1	189.96	4406.60	35625.07	6.37	885.28	884.93	0.35
Reach-1	190.05	5382.97	56133.64	6.00	885.99	885.99	
Reach-1	190.05	4524.70	36951.88	6.14	886.27	885.99	0.28
Reach-1	190.15	5183.20	61750.61	5.49	887.01	887.01	

Reach-1	190.15	4508.40	40649.91	5.58	887.28	887.01	0.27
Reach-1	190.24	5090.78	71290.29	4.40	887.82	887.82	
Reach-1	190.24	4604.80	51626.32	4.40	888.07	887.82	0.24
Reach-1	190.34	5008.91	69248.77	4.36	888.35	888.35	
Reach-1	190.34	4779.70	52730.13	4.30	888.57	888.35	0.22
Reach-1	190.43	5122.83	72849.86	4.14	888.82	888.82	
Reach-1	190.43	5028.90	55715.41	4.07	889.01	888.82	0.19
Reach-1	190.53	5212.37	73787.08	4.17	889.20	889.20	
Reach-1	190.53	5050.30	54220.71	4.19	889.37	889.20	0.17
Reach-1	190.62	5740.73	76454.17	3.92	889.50	889.50	
Reach-1	190.62	5229.47	54861.66	4.14	889.66	889.50	0.15
Reach-1	190.71	7086.65	75290.55	3.72	889.76	889.76	
Reach-1	190.71	5152.48	51287.67	4.43	889.91	889.76	0.14
Reach-1	190.8	7318.40	70375.55	3.76	889.97	889.97	
Reach-1	190.8	5224.00	51117.50	4.44	890.20	889.97	0.23
Reach-1	190.89	7231.83	64685.07	3.87	890.18	890.18	
Reach-1	190.89	5292.32	51190.36	4.43	890.48	890.18	0.30
Reach-1	190.99	7295.25	58191.16	3.93	890.40	890.40	
Reach-1	190.99	5426.40	51566.97	4.40	890.77	890.40	0.37
Reach-1	191.08	7440.89	62072.57	3.94	890.65	890.65	
Reach-1	191.08	5681.12	50490.07	4.50	891.05	890.65	0.39
Reach-1	191.17	7456.97	59931.91	3.91	890.94	890.94	
Reach-1	191.17	5728.16	51969.02	4.37	891.41	890.94	0.48
Reach-1	191.27	7678.18	61912.80	3.84	891.23	891.23	
Reach-1	191.27	5871.80	53995.22	4.20	891.78	891.23	0.55
Reach-1	191.36	7622.99	56221.46	4.14	891.53	891.53	
Reach-1	191.36	5797.70	49554.42	4.58	892.11	891.53	0.58
Reach-1	191.46	8106.00	54067.74	4.22	891.88	891.88	
Reach-1	191.46	5559.00	49301.14	4.60	892.50	891.88	0.61
Reach-1	191.55	8649.27	54932.51	4.15	892.22	892.22	
Reach-1	191.55	5172.90	48072.30	4.72	892.83	892.22	0.61
Reach-1	191.65	8486.20	53835.37	4.26	892.50	892.50	
Reach-1	191.65	4967.30	46545.52	4.88	893.14	892.50	0.64
Reach-1	191.75	8659.89	49968.42	4.54	892.86	892.86	

Reach-1	191.75	4729.00	42565.21	5.33	893.50	892.86	0.64
Reach-1	191.84	7847.56	45221.15	5.02	893.24	893.24	
Reach-1	191.84	4551.00	40106.06	5.66	893.93	893.24	0.69
Reach-1	191.94	6358.51	47413.63	4.98	893.70	893.70	
Reach-1	191.94	4348.56	39669.14	5.72	894.41	893.70	0.71
Reach-1	192.04	6377.28	44006.09	5.35	894.07	894.07	
Reach-1	192.04	4167.90	35685.04	6.36	894.81	894.07	0.74
Reach-1	192.13	5996.14	42725.55	5.71	894.53	894.53	
Reach-1	192.13	3946.17	34445.79	6.59	895.34	894.53	0.82
Reach-1	192.23	5738.61	41323.94	5.84	895.12	895.12	
Reach-1	192.23	3685.90	35030.83	6.48	896.01	895.12	0.89
Reach-1	192.33	5048.25	35252.24	6.84	895.51	895.51	
Reach-1	192.33	3444.11	30274.54	7.50	896.36	895.51	0.85
Reach-1	192.42	5025.47	38550.43	6.27	896.36	896.36	
Reach-1	192.42	3218.00	32622.81	6.96	897.21	896.36	0.85
Reach-1	192.51	5225.00	40180.68	6.22	896.86	896.86	
Reach-1	192.51	3015.40	31476.35	7.21	897.67	896.86	0.82
Reach-1	192.6	5475.46	42469.36	5.57	897.49	897.49	
Reach-1	192.6	2907.20	33014.56	6.88	898.24	897.49	0.75
Reach-1	192.69	5941.16	40426.54	5.70	897.80	897.80	
Reach-1	192.69	2877.20	33997.80	6.68	898.67	897.80	0.87
Reach-1	192.78	5360.68	39628.78	5.84	898.14	898.14	
Reach-1	192.78	2924.53	34768.15	6.53	899.03	898.14	0.90
Reach-1	192.88	5031.52	37204.66	6.13	898.53	898.53	
Reach-1	192.88	3281.20	36852.84	6.16	899.48	898.53	0.95
Reach-1	192.97	4389.52	39290.94	5.83	899.04	899.04	
Reach-1	192.97	3573.10	39917.42	5.69	899.92	899.04	0.88
Reach-1	193.07	4325.43	36905.02	6.16	899.45	899.45	
Reach-1	193.07	3911.51	39320.96	5.77	900.27	899.45	0.82
Reach-1	193.16	4149.68	29392.74	7.73	899.83	899.83	
Reach-1	193.16	3900.87	31804.25	7.14	900.56	899.83	0.72
Reach-1	193.24	4110.93	31171.79	7.30	900.72	900.72	
Reach-1	193.24	3761.13	32412.51	7.00	901.21	900.72	0.49
Reach-1	193.36	3834.01	32305.24	7.06	901.61	901.61	

Reach-1	193.36	3540.33	32544.73	6.98	901.95	901.61	0.33
Reach-1	193.45	3332.43	30918.01	7.43	902.25	902.25	
Reach-1	193.45	3334.03	31468.90	7.21	902.53	902.25	0.28
Reach-1	193.54	3273.77	30180.00	7.58	902.93	902.93	
Reach-1	193.54	3175.60	30548.16	7.43	903.14	902.93	0.22
Reach-1	193.65	3240.68	32735.98	7.01	903.80	903.80	
Reach-1	193.65	3240.77	32912.41	6.90	903.96	903.80	0.16
Reach-1	193.71	3430.27	34191.82	6.69	904.30	904.30	
Reach-1	193.71	3430.94	34375.43	6.60	904.44	904.30	0.13
Reach-1	193.78	3563.78	37460.41	6.33	904.75	904.75	
Reach-1	193.78	3564.35	36283.26	6.26	904.86	904.75	0.11
Reach-1	193.86	3481.85	36961.70	6.93	905.11	905.11	
Reach-1	193.86	3482.68	33103.51	6.86	905.21	905.11	0.10
Reach-1	193.93	3462.89	37706.82	6.95	905.53	905.53	
Reach-1	193.93	3423.07	32847.95	6.91	905.61	905.53	0.08
Reach-1	194.01	3061.16	32446.81	8.45	905.82	905.82	
Reach-1	194.01	3061.40	27084.45	8.38	905.90	905.82	0.08
Reach-1	194.09	2606.28	30712.21	10.48	906.48	906.48	
Reach-1	194.09	2606.46	21802.65	10.41	906.54	906.48	0.05
Reach-1	194.18	2138.49	23789.32	9.54	907.96	907.96	
Reach-1	194.18	2138.63	23831.09	9.53	907.98	907.96	0.02
Reach-1	194.195 BR D	2052.67	22607.04	10.04	907.86	907.86	
Reach-1	194.195 BR D	2052.82	22648.27	10.02	907.88	907.86	0.02
Reach-1	194.195 BR U	2053.60	22854.41	9.93	907.98	907.98	
Reach-1	194.195 BR U	2053.64	22893.52	9.92	908.00	907.98	0.02
Reach-1	194.21	2140.38	24318.30	9.33	908.21	908.21	
Reach-1	194.21	2140.52	24356.18	9.32	908.23	908.21	0.02
Reach-1	194.29	3032.00	41164.72	7.42	909.44	909.44	
Reach-1	194.29	2842.50	29302.16	7.75	909.38	909.44	-0.06
Reach-1	194.4	4116.00	44350.24	6.16	910.30	910.30	
Reach-1	194.4	3123.40	33012.29	6.88	910.25	910.30	-0.05
Reach-1	194.53	4681.37	43717.11	5.78	910.88	910.88	
Reach-1	194.53	3186.37	34051.65	6.67	910.90	910.88	0.01
Reach-1	194.62	4154.47	43998.90	5.77	911.22	911.22	

Reach-1	194.62	2917.39	33037.93	6.87	911.28	911.22	0.06
Reach-1	194.72	4017.73	40352.92	6.09	911.49	911.49	
Reach-1	194.72	2815.58	32699.84	6.94	911.67	911.49	0.18
Reach-1	194.81	4360.00	40702.71	5.96	911.83	911.83	
Reach-1	194.81	2713.60	32992.48	6.88	912.05	911.83	0.22
Reach-1	194.91	4195.00	33254.36	7.27	912.04	912.04	
Reach-1	194.91	2456.90	27074.94	8.38	912.26	912.04	0.23
Reach-1	195	3552.25	30201.91	8.03	912.50	912.50	
Reach-1	195	2131.40	24472.73	9.28	912.75	912.50	0.25
Reach-1	195.09	2798.01	26178.39	9.76	912.92	912.92	
Reach-1	195.09	1810.62	21643.44	10.49	913.29	912.92	0.37
Reach-1	195.13	2149.72	24042.22	9.49	913.49	913.49	
Reach-1	195.13	1769.41	23440.15	9.68	913.94	913.49	0.45
Reach-1	195.145 BR D	2092.61	23154.36	9.86	913.42	913.42	
Reach-1	195.145 BR D	1713.02	22545.26	10.07	913.86	913.42	0.44
Reach-1	195.145 BR U	2085.26	23594.74	9.72	913.59	913.59	
Reach-1	195.145 BR U	1713.76	22815.70	9.95	914.02	913.59	0.43
Reach-1	195.16	2143.16	24619.38	9.32	913.71	913.71	
Reach-1	195.16	1770.42	23820.73	9.53	914.16	913.71	0.44
Reach-1	195.19	2741.46	29935.10	9.42	913.93	913.93	
Reach-1	195.19	1827.14	21254.03	10.68	914.18	913.93	0.26
Reach-1	195.28	3190.19	33128.44	7.58	915.12	915.12	
Reach-1	195.28	2119.19	26609.61	8.53	915.56	915.12	0.43
Reach-1	195.38	3088.48	32482.52	7.26	915.84	915.84	
Reach-1	195.38	2349.20	28240.65	8.04	916.29	915.84	0.44
Reach-1	195.47	2843.52	29274.60	8.09	916.29	916.29	
Reach-1	195.47	2404.90	27246.78	8.33	916.79	916.29	0.50
Reach-1	195.56	2552.77	34026.22	7.83	917.01	917.01	
Reach-1	195.56	2289.06	27039.09	8.40	917.40	917.01	0.39
Reach-1	195.66	2629.58	35652.91	7.86	917.53	917.53	
Reach-1	195.66	2272.60	26747.24	8.49	917.93	917.53	0.40
Reach-1	195.75	2386.09	31761.80	9.92	917.78	917.78	
Reach-1	195.75	2022.35	20991.03	10.81	918.13	917.78	0.35
Reach-1	195.85	2418.42	35063.37	9.70	918.65	918.65	

Reach-1	195.85	2047.83	22541.72	10.07	919.15	918.65	0.50
Reach-1	195.94	2645.26	45763.98	7.63	920.33	920.33	
Reach-1	195.94	2313.39	27939.11	8.12	920.68	920.33	0.34
Reach-1	196.04	3499.40	58324.59	5.16	921.77	921.77	
Reach-1	196.04	2949.65	39225.05	5.79	922.12	921.77	0.35
Reach-1	196.13	4587.30	65458.20	4.39	922.17	922.17	
Reach-1	196.13	3665.30	44257.88	5.13	922.54	922.17	0.37
Reach-1	196.23	5092.19	62240.93	4.44	922.38	922.38	
Reach-1	196.23	3849.89	43175.50	5.26	922.79	922.38	0.41
Reach-1	196.32	5589.23	61326.52	4.23	922.77	922.77	
Reach-1	196.32	3981.60	44582.93	5.09	923.37	922.77	0.60
Reach-1	196.42	5806.13	54212.69	4.52	923.02	923.02	
Reach-1	196.42	4046.90	42926.45	5.29	923.70	923.02	0.69
Reach-1	196.51	5998.60	51405.67	4.72	923.33	923.33	
Reach-1	196.51	3989.40	42028.80	5.40	924.08	923.33	0.75
Reach-1	196.61	6312.54	48074.02	4.94	923.70	923.70	
Reach-1	196.61	3785.00	38824.10	5.85	924.49	923.70	0.79
Reach-1	196.7	6724.55	46944.33	4.97	924.17	924.17	
Reach-1	196.7	3595.40	40048.45	5.67	925.08	924.17	0.91
Reach-1	196.79	6690.71	40491.38	5.75	924.63	924.63	
Reach-1	196.79	3479.70	36011.87	6.30	925.59	924.63	0.96
Reach-1	196.88	6866.99	35104.73	6.52	925.48	925.48	
Reach-1	196.88	3706.50	32554.31	6.97	926.38	925.48	0.91
Reach-1	196.98	7089.44	42253.08	5.46	926.51	926.51	
Reach-1	196.98	3972.60	37328.64	6.08	927.39	926.51	0.87
Reach-1	197.07	6916.12	47271.96	4.92	927.13	927.13	
Reach-1	197.07	4127.53	42279.26	5.37	928.03	927.13	0.90
Reach-1	197.16	7128.86	47184.25	4.96	927.59	927.59	
Reach-1	197.16	4296.80	43251.01	5.25	928.48	927.59	0.89
Reach-1	197.26	7762.83	46360.63	4.99	928.21	928.21	
Reach-1	197.26	4170.00	40971.33	5.54	929.03	928.21	0.82
Reach-1	197.35	7871.74	46007.54	4.98	929.10	929.10	
Reach-1	197.35	4625.00	40788.82	5.57	929.87	929.10	0.77
Reach-1	197.45	8195.45	48732.61	4.71	929.90	929.90	

Reach-1	197.45	4889.00	42982.54	5.28	930.73	929.90	0.83
Reach-1	197.54	8094.07	53402.46	4.34	930.57	930.57	
Reach-1	197.54	5042.70	45180.60	5.02	931.39	930.57	0.81
Reach-1	197.64	8358.36	51153.41	4.63	931.22	931.22	
Reach-1	197.64	5207.20	42541.28	5.34	932.09	931.22	0.87
Reach-1	197.74	8173.17	43560.54	5.30	931.97	931.97	
Reach-1	197.74	4903.30	38957.49	5.83	932.87	931.97	0.90
Reach-1	197.83	8484.13	43658.15	5.32	932.78	932.78	
Reach-1	197.83	4415.00	37601.52	6.04	933.62	932.78	0.85
Reach-1	197.92	8527.17	43488.12	5.33	933.46	933.46	
Reach-1	197.92	3911.60	36551.33	6.21	934.29	933.46	0.82
Reach-1	198.02	8312.66	37542.23	6.13	934.16	934.16	
Reach-1	198.02	3873.60	33003.27	6.88	934.95	934.16	0.78
Reach-1	198.11	7973.77	37545.65	6.19	935.23	935.23	
Reach-1	198.11	4005.20	31261.89	7.26	935.93	935.23	0.69
Reach-1	198.2	7981.62	46116.49	5.30	936.54	936.54	
Reach-1	198.2	4078.50	36076.91	6.29	937.36	936.54	0.82
Reach-1	198.26	7775.71	47238.60	5.24	937.03	937.03	
Reach-1	198.26	4178.40	36915.91	6.15	937.87	937.03	0.84
Reach-1	198.3	7276.00	25877.65	8.77	937.03	937.03	
Reach-1	198.3	3956.33	25070.15	9.05	937.92	937.03	0.89
Reach-1	198.34	8040.51	51018.98	4.90	938.53	938.53	
Reach-1	198.34	4484.93	36615.59	6.20	939.22	938.53	0.69
Reach-1	198.4	8324.41	51712.62	4.76	938.93	938.93	
Reach-1	198.4	4697.00	41795.65	5.43	939.79	938.93	0.86
Reach-1	198.49	8643.47	70706.12	3.79	939.52	939.52	
Reach-1	198.49	4912.19	47417.08	4.79	940.35	939.52	0.83
Reach-1	198.59	8600.92	69846.91	3.91	939.78	939.78	
Reach-1	198.59	4986.12	49586.00	4.58	940.74	939.78	0.96
Reach-1	198.65	8486.40	62721.46	4.07	939.93	939.93	
Reach-1	198.65	4851.35	48460.70	4.68	940.90	939.93	0.97
Reach-1	198.73	8306.74	57658.53	4.27	940.13	940.13	
Reach-1	198.73	4646.08	47253.43	4.80	941.12	940.13	0.99
Reach-1	198.79	8270.15	52877.80	4.72	940.30	940.30	

Reach-1	198.79	4464.14	43425.13	5.23	941.28	940.30	0.98
Reach-1	198.86	8245.36	51213.23	4.67	940.63	940.63	
Reach-1	198.86	4389.62	43486.36	5.22	941.57	940.63	0.94
Reach-1	198.96	7951.39	47677.07	5.15	941.07	941.07	
Reach-1	198.96	4138.00	39057.93	5.81	941.98	941.07	0.92
Reach-1	199.07	7464.54	45179.16	5.88	941.71	941.71	
Reach-1	199.07	3863.99	35912.12	6.32	942.61	941.71	0.90
Reach-1	199.19	6089.51	44838.85	6.22	943.05	943.05	
Reach-1	199.19	3990.39	33586.77	6.76	943.78	943.05	0.73
Reach-1	199.195 BR D	5356.93	34045.53	6.81	942.97	942.97	
Reach-1	199.195 BR D	3021.56	30119.38	7.59	943.66	942.97	0.69
Reach-1	199.195 BR U	5497.89	35071.33	6.58	943.22	943.22	
Reach-1	199.195 BR U	3109.74	30922.77	7.34	943.97	943.22	0.75
Reach-1	199.20	6160.81	46075.54	5.92	943.36	943.36	
Reach-1	199.20	4180.54	35454.54	6.40	944.16	943.36	0.80
Reach-1	199.34	7101.60	52337.09	4.80	944.91	944.91	
Reach-1	199.34	4597.29	39554.70	5.74	945.66	944.91	0.75
Reach-1	199.44	7427.78	57648.09	4.54	945.84	945.84	
Reach-1	199.44	5031.05	43260.47	5.25	946.69	945.84	0.85
Reach-1	199.53	7620.41	67811.56	4.06	946.76	946.76	
Reach-1	199.53	5319.12	44850.32	4.71	947.64	946.76	0.88
Reach-1	199.63	8030.00	74851.77	3.53	947.65	947.65	
Reach-1	199.63	5530.00	51261.20	3.81	948.61	947.65	0.96
Reach-1	199.72	7925.00	72985.43	3.36	948.27	948.27	
Reach-1	199.72	5175.00	53135.81	3.68	949.27	948.27	0.99
Reach-1	199.82	7203.46	70578.57	3.47	948.90	948.90	
Reach-1	199.82	4780.00	47693.37	3.77	949.90	948.90	1.00

ERRORS WARNINGS AND NOTES
Errors Warnings and Notes for Plan : Method 1 FW

River: RIVER-1 Reach: Reach-1 RS: 199.82 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: RIVER-1 Reach: Reach-1 RS: 199.82 Profile: PF#2
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: RIVER-1 Reach: Reach-1 RS: 199.72 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: RIVER-1 Reach: Reach-1 RS: 199.72 Profile: PF#2
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: RIVER-1 Reach: Reach-1 RS: 199.53 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: RIVER-1 Reach: Reach-1 RS: 199.53 Profile: PF#2
Warning - Divided flow computed for this cross-section.
River: RIVER-1 Reach: Reach-1 RS: 199.44 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: RIVER-1 Reach: Reach-1 RS: 199.44 Profile: PF#2
Warning - Divided flow computed for this cross-section.
River: RIVER-1 Reach: Reach-1 RS: 199.34 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: RIVER-1 Reach: Reach-1 RS: 199.34 Profile: PF#2
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: RIVER-1 Reach: Reach-1 RS: 199.20 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: RIVER-1 Reach: Reach-1 RS: 199.20 Profile: PF#2
Warning - Divided flow computed for this cross-section.
River: RIVER-1 Reach: Reach-1 RS: 199.195 Profile: PF#1
Note - Yarnell answer is not valid if the water surface is above the low chord or if there is weir flow. The Yarnell answer has been disregarded.
Note - Momentum answer is not valid if the water surface is above the low chord or if there is weir flow. The momentum answer has been disregarded.
River: RIVER-1 Reach: Reach-1 RS: 199.195 Profile: PF#2
Note - Yarnell answer is not valid if the water surface is above the low chord or if there is weir flow. The Yarnell answer has been disregarded.
Note - Momentum answer is not valid if the water surface is above the low chord or if there is weir flow. The momentum answer has been disregarded.
River: RIVER-1 Reach: Reach-1 RS: 199.19 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

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      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 199.19     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 199.07     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: RIVER-1  Reach: Reach-1     RS: 199.07     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 198.96     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 198.86     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 198.86     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 198.79     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 198.79     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 198.73     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 198.65     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 198.59     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: RIVER-1  Reach: Reach-1     RS: 198.49     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 198.4     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 198.4     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 198.34     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 198.34     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 198.3     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
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                sections.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 198.3     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 198.26    Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 198.2     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 198.2     Profile: PF#2
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 198.11    Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 198.11    Profile: PF#2
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 198.02    Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 197.92    Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 197.83    Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 197.74    Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 197.64    Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 197.54    Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 197.45    Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 197.35    Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 197.35    Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 197.26    Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 197.07    Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 196.98    Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
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River: RIVER-1  Reach: Reach-1     RS: 196.88     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 196.79     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 196.7     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 196.61     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 196.51     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 196.42     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 196.32     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 196.23     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 196.13     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 196.04     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 196.04     Profile: PF#2
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 195.94     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
River: RIVER-1  Reach: Reach-1     RS: 195.94     Profile: PF#2
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
River: RIVER-1  Reach: Reach-1     RS: 195.85     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 195.85     Profile: PF#2
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 195.75     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
River: RIVER-1  Reach: Reach-1     RS: 195.75     Profile: PF#2
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
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                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 195.66     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 195.56     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 195.47     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 195.38     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 195.28     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 195.28     Profile: PF#2
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
River: RIVER-1  Reach: Reach-1     RS: 195.19     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 195.16     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: RIVER-1  Reach: Reach-1     RS: 195.145     Profile: PF#1
      Note -    Yarnell answer is not valid if the water surface is above the low chord or if there is weir flow.  The Yarnell
                answer has been disregarded.
      Note -    Momentum answer is not valid if the water surface is above the low chord or if there is weir flow.  The momentum
                answer has been disregarded.
River: RIVER-1  Reach: Reach-1     RS: 195.13     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 195.09     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
River: RIVER-1  Reach: Reach-1     RS: 195     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 194.91     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 194.81     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 194.72     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 194.62     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 194.53     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 194.4     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 194.29     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 194.18     Profile: PF#1
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 194.18     Profile: PF#2
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
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                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 194.09     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 194.09     Profile: PF#2
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 194.01     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 193.93     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 193.86     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 193.78     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 193.71     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 193.65     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 193.54     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 193.45     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 193.36     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 193.24     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 193.16     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 193.16     Profile: PF#2
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 193.07     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 192.97     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 192.88     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 192.78     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 192.69     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 192.6     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
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River: RIVER-1  Reach: Reach-1     RS: 192.51     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 192.42     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 192.33     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 192.23     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 192.13     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 192.04     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 191.94     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 191.84     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 191.75     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 191.65     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 191.55     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 191.46     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 191.36     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 191.27     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 191.17     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 191.08     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 190.99     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 190.89     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 190.89     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 190.8     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 190.71     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 190.71     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 190.62     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: RIVER-1  Reach: Reach-1     RS: 190.62     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 190.53     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
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River: RIVER-1  Reach: Reach-1     RS: 190.43     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 190.34     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 190.24     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 190.24     Profile: PF#2
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 190.15     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 190.05     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 189.96     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 189.96     Profile: PF#2
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 189.87     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 189.87     Profile: PF#2
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 189.77     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 189.68     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 189.68     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 189.58     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 189.49     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 189.39     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 189.31     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 189.31     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 189.22     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 189.22     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 189.12     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
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River: RIVER-1  Reach: Reach-1     RS: 189.12     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 189.02     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 188.81     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 188.81     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 188.7     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 188.7     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 188.59     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 188.59     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 188.5     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 188.5     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 188.39     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 188.39     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 188.29     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 188.29     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 188.2     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 188.2     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 188.1     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 188.1     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 188.07     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 188.07     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 188.055     Profile: PF#1
      Note -    Yarnell answer is not valid if the water surface is above the low chord or if there is weir flow.  The Yarnell
                answer has been disregarded.
      Note -    Momentum answer is not valid if the water surface is above the low chord or if there is weir flow.  The momentum
                answer has been disregarded.
River: RIVER-1  Reach: Reach-1     RS: 188.055     Profile: PF#1 Downstream
      Warning - Computed energy elevation is less than the downstream energy. Computed energy is set to downstream energy.
```

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River: RIVER-1  Reach: Reach-1     RS: 188.055     Profile: PF#2
      Note -    Yarnell answer is not valid if the water surface is above the low chord or if there is weir flow.  The Yarnell
                answer has been disregarded.
      Note -    Momentum answer is not valid if the water surface is above the low chord or if there is weir flow.  The momentum
                answer has been disregarded.
River: RIVER-1  Reach: Reach-1     RS: 188.04      Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 188.04      Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 188      Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 187.91      Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 187.82      Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 187.73      Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 187.64      Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 187.54      Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 187.45      Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 187.36      Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 187.24      Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 187.15      Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 187.06      Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 186.97      Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 186.97      Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 186.87      Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 186.78      Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 186.69      Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 186.69      Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 186.61      Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 186.55      Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 186.46      Profile: PF#1
      Warning - Divided flow computed for this cross-section.
```

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River: RIVER-1  Reach: Reach-1     RS: 186.36     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 186.36     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 186.27     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: RIVER-1  Reach: Reach-1     RS: 186.19     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 186.19     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 186.1     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 186.1     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 186     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 185.9     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 185.81     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 185.81     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 185.71     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 185.71     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 185.61     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 185.61     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 185.53     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 185.53     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 185.46     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 185.46     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 185.38     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 185.38     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 185.28     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 185.28     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
```

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River: RIVER-1  Reach: Reach-1     RS: 185.19     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 185.19     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 185.1     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 185.1     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 185     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 185     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 184.9     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 184.9     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 184.81     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 184.81     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 184.71     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 184.71     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 184.62     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 184.53     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 184.43     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 184.33     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 184.24     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 184.14     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 184.14     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 184.05     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 184.05     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 183.96     Profile: PF#1
```

```
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 183.86     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 183.86     Profile: PF#2
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 183.77     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 183.77     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 183.67     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 183.67     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 183.58     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 183.58     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 183.49     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 183.49     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 183.39     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 183.3     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 183.2     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 183.11     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 183.02     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 182.92     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 182.83     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 182.74     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 182.64     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 182.55     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 182.45     Profile: PF#1
```

```
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 182.36     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 182.36     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 182.27     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 182.27     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 182.17     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 182.17     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 182.08     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 182.08     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 181.9     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 181.82     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 181.74     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 181.62     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Note -    Manning's n values were composited to a single value in the main channel.
River: RIVER-1  Reach: Reach-1     RS: 181.62     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
      Note -    Manning's n values were composited to a single value in the main channel.
River: RIVER-1  Reach: Reach-1     RS: 181.51     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 181.51     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 181.41     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 181.32     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 181.23     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 181.13     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 181.04     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 180.99     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 180.99     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 180.85     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 180.65     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
```

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River: RIVER-1  Reach: Reach-1     RS: 180.56     Profile: PF#1
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 180.47     Profile: PF#1
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
      Note -    Manning's n values were composited to a single value in the main channel.
River: RIVER-1  Reach: Reach-1     RS: 180.47     Profile: PF#2
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
      Note -    Manning's n values were composited to a single value in the main channel.
River: RIVER-1  Reach: Reach-1     RS: 180.37     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 180.37     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 180.28     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 180.28     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 180.18     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 180.09     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 180.06     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 180.06     Profile: PF#2
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 180.01     Profile: PF#1
```

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      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 180.01     Profile: PF#2
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 179.91     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 179.91     Profile: PF#2
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 179.84     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 179.84     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 179.76     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 179.76     Profile: PF#2
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 179.68     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 179.68     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 179.59     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 179.5      Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 179.4      Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 179.35     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 179.3      Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 179.3      Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 179.25     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
```

```
River: RIVER-1  Reach: Reach-1     RS: 179.2     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 179.11    Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 179.03    Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 178.95    Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 178.86    Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 178.77    Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 178.68    Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 178.68    Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 178.61    Profile: PF#1
      Warning - Divided flow computed for this cross-section.
```

HEC-RAS Version 2.1 October 1997
U.S. Army Corp of Engineers
Hydrologic Engineering Center
609 Second Street, Suite D
Davis, California 95616-4687
(916) 756-1104

```
X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X      X   X     X  X    X
X     X  X        X           X   X    X    X   X
XXXXXXX  XXXX     X       XXX XXXX     XXXXXX    XXXX
X     X  X        X           X  X     X    X        X
X     X  X        X    X      X   X    X    X        X
X     X  XXXXXX    XXXX       X    X   X    X   XXXXX
```

PROJECT DATA
Project Title: Reach 2 with Levees in Place
Project File : r2wlevee.prj
Run Date and Time: 1/25/99 3:53:36 PM

Project in English units

Project Description:
SALT GILA FLOODPLAIN DELINEATION

100 YEAR FLOW

REACH 1 - 2 - SECTIONS 178.61 - 199.82

PLAN DATA

Plan Title: Main Run w/ Method 1 Floodway
Plan File : c:\saltgila\diskette\revision 1\disk 1\unzipped\r2wlevee.p01

Geometry Title: Salt Gila FDS - Reach 2
Geometry File : c:\saltgila\diskette\revision 1\disk 1\unzipped\r2wlevee.g01

Flow Title : Main Run w/ Method 1 Floodway
Flow File : c:\saltgila\diskette\revision 1\disk 1\unzipped\r2wlevee.f06

Plan Summary Information:

Number of:	Cross Sections =	241	Mulitple Openings =	0
	Culverts =	0	Inline Weirs =	0
	Bridges =	5		

Computational Information

Water surface calculation tolerance =	0.01
Critical depth calculaton tolerance =	0.01
Maximum number of interations =	20
Maximum difference tolerance =	0.3
Flow tolerance factor =	0.001

Computational Flow Regime: Subcritical Flow

Encroachment Data
Equal Conveyance = True
Left Offset = 0
Right Offset = 0

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
RIVER-1	Reach-1	PF#1		Normal S = .000693

GEOMETRY DATA

Geometry Title: Salt Gila FDS - Reach 2
Geometry File : c:\saltgila\diskette\revision 1\disk 1\unzipped\r2wlevee.g01

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 199.82

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14626.5	957.7	14665	955.3	14714.8	947.7	14731.9	943.6	14878.2	942.2
15038.4	942.1	15177.1	942.1	15312	942.9	15442.8	943.5	15572.5	942.6
15710.4	942.1	15843.3	942.2	15981.6	942	16111.7	941.9	16269.4	941.3
16337.7	941.1	16490	941.8	16647.8	941.2	16807.1	940.1	16870	940.1
16937.5	940.1	17070.8	940.1	17202.5	940.1	17339.2	940.1	17503.8	940.1
17635.5	940.1	17774.7	939.1	17955.5	939.8	18107	939.8	18236.3	940.2
18376.6	941.1	18554.9	941.8	18684.9	940.6	18768.3	940	18787.7	931.4
18818.1	931.2	18845.4	938.1	18894.5	940	19032.4	940.6	19165.1	939.3
19236.6	938.1	19354.5	941.6	19458.6	938.6	20124.2	939.3	20322.3	939.2
20533.6	938.6	20766.2	939.3	20910.7	936.7	20926	937.9	21009.9	936.6
21146.9	939.7	21241.8	942.2	21405.4	944.5	21551.8	945.7	21756.1	945.8
21937.2	945.7	22121.7	945.7	22347.1	945.6	22491.6	945.9	22657.2	946.2
22790.5	945.6	22925.1	946.5	23055.8	946.4	23218.3	946.1	23364.5	946.1
23514.8	945.8	23642	948.2	23655.7	947.2	23663.6	949.2	23669.7	947
23724.8	949.5	23780.9	946.5	23947	945	24077.1	944.4	24199.5	945.5
24210.3	943.6	24214.2	944.9	24354.9	943.6	24545.8	943	24742.9	943.3
24928.6	944	25002.7	943.7	25010.2	942.2	25023.6	945.4	25153.6	945.8
25304.8	946.9	25434.7	948.1	25588.5	950.5	25663.5	951.7	25798.3	956.3
25810.1	957.9	25834.3	954.9	25859.3	957.7	25991.9	960.7	26149.5	962.1
26241.6	962.1	26277	964.4						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14626.5	.15	18554.9	.15	19165.1	.065	21405.4	.025	23724.8	.053
25002.7	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
16870	21405.4	510	509.99	510	.1	.3

Ineffective Flow num= 3

Sta L	Sta R	Elev	Sta L	Sta R	Elev	Sta L	Sta R	Elev
14626.5	16870	960	21650	22900	960	23724	26120	960

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	949.63	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.23	Wt. n-Val.		0.089	0.025
E.G. Elev (ft)	949.86	Reach Len. (ft)	510.00	509.99	510.00
Crit W.S. (ft)	943.22	Flow Area (sq ft)		45356.44	3618.05
E.G. Slope (ft/ft)	0.002023	Area (sq ft)	16401.26	45356.44	16708.35
Q Total (cfs)	179750.00	Flow (cfs)		157949.50	21800.51
Top Width (ft)	10830.53	Top Width (ft)	2167.84	4535.40	4127.29
Vel Total (ft/s)	3.67	Avg. Vel. (ft/s)		3.48	6.03
Max Chl Dpth (ft)	18.43	Hydr. Depth (ft)		10.00	3.39
Conv. Total (cfs)	3996077.3	Conv. (cfs)		3511423.5	484653.8
Length Wtd. (ft)	509.99	Wetted Per. (ft)		4538.41	1069.35
Min Ch El (ft)	931.20	Shear (lb/sq ft)		1.26	0.43
Alpha	1.12	Stream Power (lb/ft s)		4.40	2.58
Frctn Loss (ft)	0.63	Cum Volume (acre-ft)	8146.48	87525.56	32022.89
C & E Loss (ft)	0.01	Cum SA (acres)	2105.35	9044.29	9576.61

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16870.00 LB	18003.85	22318.46	11006.21	1133.85	12.42	9.71	2.03
18003.85	19137.70	21919.43	10898.19	1136.59	12.19	9.61	2.01
19137.70	20271.55	57411.44	11841.21	1133.96	31.94	10.44	4.85
20271.55	21405.40 RB	56300.20	11610.82	1134.02	31.32	10.24	4.85
21405.40	21730.17	7219.52	1046.53	244.60	4.02	4.28	6.90
21730.17	22704.49						
22704.49	23029.27	2323.74	410.74	129.27	1.29	3.18	5.66
23029.27	23354.04	6627.65	1113.55	324.77	3.69	3.43	5.95
23354.04	23678.81	5471.53	993.43	325.48	3.04	3.06	5.51
23678.81	24003.59	158.05	53.79	45.23	0.09	1.19	2.94

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 199.72

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14625.6	954.4	14714.1	948.9	14882.2	946.7	14963.2	948.4	15079.7	950.2
15210.4	946.5	15356.1	946.8	15504	946.6	15653.6	944.1	15797.4	941.8
15950.6	941.2	16098.5	941.1	16257.1	941	16400.7	941.1	16589.9	940
16721.9	941.3	16884.9	941.6	16975	941.5	17015.6	941.5	17152.1	940.9
17296.8	940.5	17431.9	940	17569.4	940.7	17728.2	939.1	17922.7	938.1
18091.5	938.1	18224	939.1	18358.4	939.1	18506.1	939.6	18650.7	939.1
18802.3	939	18842.5	938.5	18853.2	930.9	18879.6	930.6	18930.9	938
19167.5	936.7	19275.2	943.6	19443.1	940	19616.2	937.9	19812	935.7
20165.4	936.7	20400.6	936.9	20553.6	935	20580.5	934	20640.7	942.5
20797.9	940.4	20865.6	939.8	20971.6	940.5	21027.6	937	21198.3	935.7
21330.5	935.4	21461.5	937	21603.2	935.7	21644.9	943.2	21821.3	945.2
21997.5	945.2	22167.7	945.2	22315.7	945.3	22466.5	945.4	22607	945.4
22745.2	945.3	22886.4	944.7	22930.3	944.4	22974.1	947.2	23113.9	947.6
23287.2	946.8	23480.9	946.7	23616.4	947.3	23639.3	948	23645	945.4
23657.9	948	23731.5	944.4	23740.4	946.3	23784	944.1	23929.1	943.7
24083.9	944.1	24281.7	943	24414.6	943	24555.9	942.4	24720.3	943.7
24731.2	942.6	24868.9	942.8	24998.2	943.4	25003.3	940.6	25018.9	944.8
25031.2	942.2	25043	943.7	25188.9	943.6	25338.1	944	25490.8	944.5
25629.1	944.4	25788.9	944.6	25946.2	944.1	26093.5	944.2	26243.2	947.3
26255.4	948.2	26282	953.4						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14625.6	.15	18506.1	.15	19275.2	.032	20640.7	.065	21644.9	.025
23731.5	.053	24998.2	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
16975	21644.9	590	493.34	490	.1	.3

Ineffective Flow num= 3

Sta L	Sta R	Elev	Sta L	Sta R	Elev	Sta L	Sta R	Elev
14625.6	16975	960	22150	22750	960	23800	26282	960

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	949.02	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.20	Wt. n-Val.		0.059	0.026
E.G. Elev (ft)	949.22	Reach Len. (ft)	590.00	493.34	490.00
Crit W.S. (ft)	942.09	Flow Area (sq ft)		49754.29	4806.27
E.G. Slope (ft/ft)	0.000866	Area (sq ft)	11893.61	49754.29	19804.80
Q Total (cfs)	195500.00	Flow (cfs)		178282.67	17217.33
Top Width (ft)	11429.19	Top Width (ft)	2144.61	4669.90	4614.69
Vel Total (ft/s)	3.58	Avg. Vel. (ft/s)		3.58	3.58
Max Chl Dpth (ft)	18.42	Hydr. Depth (ft)		10.65	3.09
Conv. Total (cfs)	6643319.5	Conv. (cfs)		6058254.5	585065.0
Length Wtd. (ft)	492.86	Wetted Per. (ft)		4674.62	1556.39
Min Ch El (ft)	930.60	Shear (lb/sq ft)		0.58	0.17
Alpha	1.00	Stream Power (lb/ft s)		2.06	0.60
Frctn Loss (ft)	0.60	Cum Volume (acre-ft)	7980.84	86968.80	31809.15
C & E Loss (ft)	0.00	Cum SA (acres)	2080.10	8990.40	9525.43

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16975.00 LB	18142.47	13872.79	10816.37	1167.49	7.10	9.26	1.28
18142.47	19309.95	17737.41	12224.63	1170.67	9.07	10.47	1.45
19309.95	20477.43	94287.48	13517.55	1167.54	48.23	11.58	6.98
20477.43	21644.90 RB	52385.01	13195.74	1168.91	26.80	11.30	3.97
21644.90	21954.04	6042.01	1356.87	309.15	3.09	4.39	4.45
21954.04	22263.18	3036.65	748.28	195.96	1.55	3.82	4.06
22263.18	22572.32						
22572.32	22881.46	2217.80	528.24	131.46	1.13	4.02	4.20
22881.46	23190.60	2038.56	707.08	309.23	1.04	2.29	2.88
23190.60	23499.74	1887.55	675.09	309.14	0.97	2.18	2.80
23499.74	23808.88	1994.75	790.72	301.44	1.02	2.63	2.52

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 199.63

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15721	952.7	15771.7	945	15819.5	941.3	16025.1	939.3	16223.6	939.2
16417.5	939	16599.8	939.1	16789.6	938.9	16997.2	940.5	17182	940.1
17392	939.3	17620	940.0889	17652.1	940.2	17844	938	18078.3	938.4
18293.8	938.1	18491.6	937.8	18675	938	18865.3	938	18950.4	937.6
18968.9	930.9	19025.9	933.5	19053.7	937.7	19244.4	938.4	19426.7	942.3
19610	939.5	19694.2	936.6	19995.9	936.4	20287.4	936.2	20496.6	936.5
20568.1	936.9	20654.1	934.2	20728.3	939.7	20960.6	941.9	21043.1	935.9
21263	937.2	21449.4	935.6	21545.8	933.4	21744.9	933.9	21791	944.4
22017	944.7	22221.4	944.4	22410.2	944.5	22622.4	944.8	22822.4	944.8
22909.6	943.2	22931.3	946.5	23167.9	945.9	23400.9	945.2	23601.7	945.2
23616.1	946.5	23620	944.4	23630.3	947.2	23679.4	947.1	23712	944.6
23914.1	943.4	24109.4	944.7	24305.3	942.8	24505.9	942.6	24697	943.8
24884.3	942.5	24973.7	943.8	24980	941	24996	944.5	25004.2	941.9
25193.5	943.2	25385.6	943.5	25591.1	943.6	25788.3	943.5	25996.2	943.4
26157.8	943.7	26190.3	945.7	26220	934.5	26231	937	26244	945.7
26481.8	945.2	26664.9	945	26897.3	945.6	27085.4	946.3	27276.7	946.7
27461	946.7	27564.9	948.6	27625.8	952.2	27815	951.9	28003.3	951.9
28201	952.4	28397.7	952.5	28612.6	953	28847.2	953.8	28920.3	952.6
29126.8	951.9	29342.2	951	29541.9	950.3	29753	949.8	29941.1	949.1
30133.5	949	30239	953.1						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15721	.15	18491.6	.15	20496.6	.032	20960.6	.065	21791	.025
23712	.053	24996	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17620	21791	705	512.18	510	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15721	17620	952	23900	30239	952

Blocked Obstructions num= 1

Sta L	Sta R	Elev
26190	30239	945

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	948.38	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.24	Wt. n-Val.		0.090	0.027
E.G. Elev (ft)	948.62	Reach Len. (ft)	705.00	512.18	510.00
Crit W.S. (ft)	941.57	Flow Area (sq ft)		45154.47	7195.07

E.G. Slope (ft/ft)	0.001826	Area (sq ft)	16132.93	45154.47	22087.36
Q Total (cfs)	195500.00	Flow (cfs)		156852.47	38647.53
Top Width (ft)	11803.19	Top Width (ft)	1870.53	4171.00	5761.66
Vel Total (ft/s)	3.73	Avg. Vel. (ft/s)		3.47	5.37
Max Chl Dpth (ft)	17.48	Hydr. Depth (ft)		10.83	3.41
Conv. Total (cfs)	4575501.5	Conv. (cfs)		3670991.0	904510.7
Length Wtd. (ft)	511.82	Wetted Per. (ft)		4174.37	2110.33
Min Ch El (ft)	930.90	Shear (lb/sq ft)		1.23	0.39
Alpha	1.10	Stream Power (lb/ft s)		4.28	2.09
Frctn Loss (ft)	0.89	Cum Volume (acre-ft)	7791.03	86431.35	31573.53
C & E Loss (ft)	0.01	Cum SA (acres)	2052.91	8940.34	9467.07

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17620.00 LB	18662.75	20448.52	10467.29	1042.76	10.46	10.04	1.95
18662.75	19705.50	20033.13	10345.74	1044.42	10.25	9.92	1.94
19705.50	20748.25	50918.75	12442.98	1043.00	26.05	11.93	4.09
20748.25	21791.00 RB	65452.06	11898.47	1044.19	33.48	11.41	5.50
21791.00	22354.20	13314.73	2170.16	563.20	6.81	3.85	6.14
22354.20	22917.40	13018.33	2141.21	563.31	6.66	3.80	6.08
22917.40	23480.60	6933.68	1467.31	563.36	3.55	2.61	4.73
23480.60	24043.80	5380.80	1416.39	420.46	2.75	3.38	3.80

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 199.53

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17089.9	953.3	17164.9	939.8	17305.3	936.8	17447.5	935	17593.8	935.2
17741.6	935.5	17909.5	935.2	18078.8	936.8	18150	936.8	18264.3	936.8
18409.6	938.1	18558.3	937.9	18705.7	938.7	18873.3	938.2	19026.5	938
19176.5	937.9	19217.5	937.7	19246	939.5	19335.2	937.4	19488.7	939.8
19641.7	943.1	19718.5	937.8	20027.7	936.1	20210.3	935.6	20457.3	934.6
20639.9	933.3	20761.9	935	20793.8	932.7	20838.9	938.2	20936.5	941.3
21021.5	934.5	21135.9	935.4	21273.1	933.2	21438.1	935.2	21520.4	933.3
21688.9	933.9	21737.3	933	21795.7	946.5	21840.7	949.1	21861.5	943.7
22014.2	943.1	22165.7	943.2	22336	943.9	22502	944.4	22644.1	944.4
22787.1	944.8	22937.9	945.5	23099.1	946.2	23262.7	945.7	23292.8	946
23301	944.1	23446.1	945.4	23591.5	946	23594.9	943.4	23677.2	945.4
23823.2	941.4	24005.9	941	24161.7	941	24347.7	941.1	24497.2	941.1
24644.8	941.1	24803.7	940.2	24956.7	941.5	25097.9	941.3	25194.2	939.7
25355	941.2	25523.9	941.8	25684.5	942.4	25845.4	942.7	26009.2	943
26166.5	943.5	26312.1	943.1	26481.4	943.1	26641.6	943.3	26792.2	943.3
26970.8	943.9	27130.9	945.1	27272.9	945.3	27441.8	945.6	27594.6	945.9
27735.3	947.2	27908.1	947.3	28052.5	947.7	28208.4	948	28369.7	948.8
28515.7	949.1	28703	949.2	28843.6	948.5	28992.7	948.8	29185.5	948.7
29359.2	947.9	29508.8	947.6	29660.9	947.6	29804.7	948	29960.8	951.3
30113.6	950.6	30210	952.2						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17089.9	.15	18409.6	.15	19176.5	.032	20027.7	.065	21840.7	.025
23292.8	.053	26166.5	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18150	21840.7	460	493.06	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17089.9	18150	952	24020	30210	952

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	947.38	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.33	Wt. n-Val.		0.062	0.032
E.G. Elev (ft)	947.72	Reach Len. (ft)	460.00	493.06	500.00
Crit W.S. (ft)	941.36	Flow Area (sq ft)		38830.09	6855.25
E.G. Slope (ft/ft)	0.001654	Area (sq ft)	11345.39	38830.09	24281.87
Q Total (cfs)	211250.00	Flow (cfs)		183586.31	27663.69
Top Width (ft)	10779.36	Top Width (ft)	1027.23	3661.00	6091.13
Vel Total (ft/s)	4.62	Avg. Vel. (ft/s)		4.73	4.04

Max Chl Dpth (ft)	14.68	Hydr. Depth (ft)		10.61	3.16
Conv. Total (cfs)	5195010.5	Conv. (cfs)		4514711.5	680298.9
Length Wtd. (ft)	493.90	Wetted Per. (ft)		3663.72	2174.35
Min Ch El (ft)	932.70	Shear (lb/sq ft)		1.09	0.33
Alpha	1.01	Stream Power (lb/ft s)		5.17	1.31
Frctn Loss (ft)	0.85	Cum Volume (acre-ft)	7568.67	85937.60	31302.08
C & E Loss (ft)	0.01	Cum SA (acres)	2029.46	8894.29	9397.69

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18150.00 LB	19072.68	15758.49	8741.24	922.68	7.46	9.47	1.80
19072.68	19995.35	58216.82	8074.12	923.00	27.56	8.75	7.21
19995.35	20918.02	56423.82	11167.27	923.15	26.71	12.10	5.05
20918.02	21840.70 RB	53187.17	10847.46	894.89	25.18	12.15	4.90
21840.70	22398.65	12151.73	2141.26	551.82	5.75	3.88	5.68
22398.65	22956.61	6798.84	1517.99	557.96	3.22	2.72	4.48
22956.61	23514.56	2483.55	1021.07	558.18	1.18	1.83	2.43
23514.56	24072.51	6229.55	2174.92	506.40	2.95	4.30	2.86

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 199.44

INPUT
Description: Left Bank Channel Station Interpolated
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18309.1	959.9	18322.3	939.7	18336	934.7	18493.3	933.2	18662.1	934.8
18811.6	934.7	18848.4	935	19008.3	934.1	19162.1	935	19354.1	935.5
19383.4	937.5	19414.5	934.7	19580.1	936.3	19608.2	936.7	20369.7	935.4
20522.1	935.2	20719.6	934.5	20904.1	935.8	20985.5	936.9	21013.6	932.5
21050.3	932.6	21066.3	934.1	21082.5	931.7	21126.8	933.4	21144.3	937.3
21222.4	938.5	21381.6	937.5	21431.1	934.8	21577.2	933.4	21758.6	948.5
21773.6	949.2	21798.6	942.2	21968.1	941.5	22116.2	941.8	22304.8	942
22514.7	942.1	22669.6	942.3	22824.1	942.6	22976.2	943.9	23129.9	943.4
23278.7	943.5	23284.7	942.6	23296.1	943.9	23444.4	942.7	23553.8	942.6
23565.2	945.8	23572.2	941.4	23581.2	944.8	23783.7	942.7	23938.9	942.3
24151.9	941.5	24326.8	941.6	24467.2	941.5	24511.3	939.5	24518.4	941.3
24667.6	941	24850.1	940.3	25026.1	940.3	25183.7	940.1	25348.8	940.3
25527.7	940.3	25685.5	941.1	25871.6	941.4	26027.5	942.3	26166	942.4
26215.1	940.5	26221.3	938.4	26232.3	943.9	26266.9	941.7	26456	942.6
26609.7	942.7	26767.3	942.8	26920.5	942.7	27083.5	942.5	27267.5	943.8
27418.8	943.9	27569.8	943.9	27730.3	944.6	27909.6	944.7	28072.5	944.8
28246.8	945.3	28438.6	945.9	28636.5	946.5	28804.2	947.1	29008.2	946.8
29225.7	946.5	29397	946.1	29546.2	947.6	29694.3	949	29880.1	949.8
30071	950.9	30129.6	952.4	30144.6	948.4	30161.3	951.5	30280.3	952.7
30295	956.7								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18309.1	.15	19162.1	.032	20369.7	.065	21758.6	.053	26166	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18493.3	21758.6	505	508.09	510	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18309.1	18493.3	955	24130	30295	955

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	946.38	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.48	Wt. n-Val.		0.053	0.053
E.G. Elev (ft)	946.86	Reach Len. (ft)	505.00	508.09	510.00
Crit W.S. (ft)	940.84	Flow Area (sq ft)		34893.06	8821.46
E.G. Slope (ft/ft)	0.001774	Area (sq ft)	2095.92	34893.06	26147.62
Q Total (cfs)	227000.00	Flow (cfs)		201838.44	25161.57
Top Width (ft)	10377.87	Top Width (ft)	175.37	3239.85	6962.65
Vel Total (ft/s)	5.19	Avg. Vel. (ft/s)		5.78	2.85
Max Chl Dpth (ft)	14.68	Hydr. Depth (ft)		10.77	3.76

Conv. Total (cfs)	5390175.0	Conv. (cfs)		4792707.0	597468.3
Length Wtd. (ft)	508.32	Wetted Per. (ft)		3241.77	2349.41
Min Ch El (ft)	931.70	Shear (lb/sq ft)		1.19	0.42
Alpha	1.14	Stream Power (lb/ft s)		6.89	1.19
Frctn Loss (ft)	0.97	Cum Volume (acre-ft)	7497.70	85520.36	31012.66
C & E Loss (ft)	0.01	Cum SA (acres)	2023.11	8855.24	9322.77

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18493.30 LB	19309.63	33443.21	9615.84	816.34	14.73	11.78	3.48
19309.63	20125.95	77881.31	8417.17	816.53	34.31	10.31	9.25
20125.95	20942.28	56057.04	9058.96	816.34	24.69	11.10	6.19
20942.28	21758.60 RB	34456.84	7801.08	792.57	15.18	9.86	4.42
21758.60	22327.69	7746.29	2445.66	544.61	3.41	4.50	3.17
22327.69	22896.79	6872.77	2316.65	569.10	3.03	4.07	2.97
22896.79	23465.88	3991.32	1672.23	569.24	1.76	2.94	2.39
23465.88	24034.97	5133.49	1947.79	571.44	2.26	3.42	2.64
24034.97	24604.07	1417.72	439.14	95.03	0.62	4.62	3.23

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 199.34

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18927	950.6	18931.2	8944.8412	18935.1	939.7	18950.4	934.3	18954.1	929.6
19039.8	929.5	19088.8	934.7	19245.2	933.3	19382.1	935.2	19552.3	934.6
19624.2	935	20292.9	933.5	20713.2	930.6	20858.1	931	20883.8	934.2
20981.5	933.6	21139.6	932.2	21148.3	932.7	21283.2	933	21394.2	933.6
21545.8	944.3	21604.6	946.9	21618	942	21679.6	941.4	21692	939.1
21698.7	941.4	21831.5	941.7	21964.5	940.9	22098.8	940.6	22230.9	940.9
22373.7	941.3	22505.3	941.4	22634.1	941.3	22788.6	941.5	22918.2	941.6
23067	942	23202.7	942.2	23328.9	942	23410.7	944	23420.8	941.7
23526.4	940.9	23540.8	945.2	23549.9	941.8	23558.5	944.6	23690.9	941.7
23829.9	941.3	23963.5	941.5	23973.1	941.8	23976.2	947.8	24001.8	947.1
24020.5	941.8	24189.2	940.5	24327.2	940.5	24453.8	939.8	24583.1	939.5
24714.5	939	24868	939	25045.9	939.3	25178.1	939.4	25315.5	939.4
25455	939.5	25629.1	939	25782.3	938.9	25932.4	939.2	26072.9	940.6
26194	940.6	26200.8	938.6	26207	944.3	26284.6	942.3	26447	941.9
26574.4	941.5	26758.7	941.4	26893.2	941.8	27024.2	942	27149.9	942
27272.7	942.6	27437.9	942.9	27488.4	943	27515.4	941.9	27526.6	943.3
27665.1	943.6	27821.7	943.5	27977.9	943.9	28128.8	944.1	28270.8	944.2
28442.8	944.4	28599.2	945	28733.7	945.4	28871.1	945.3	29012.9	945.4
29141.3	945.6	29331	945.8	29469.9	946.3	29595.7	946.5	29741.1	948.4
29869.4	950.4	29977	951.8						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18927	.15	19382.1	.032	20292.9	.065	21604.6	.053	26194	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18931.28	21604.6	1220	748.26	200	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
24220	29977	950

Blocked Obstructions num= 1

Sta L	Sta R	Elev
24000	29977	940

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	945.29	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.59	Wt. n-Val.	0.150	0.053	0.053
E.G. Elev (ft)	945.87	Reach Len. (ft)	1220.00	748.26	200.00
Crit W.S. (ft)	939.65	Flow Area (sq ft)	0.07	30509.31	9558.24
E.G. Slope (ft/ft)	0.002075	Area (sq ft)	0.07	30509.31	25485.38
Q Total (cfs)	227000.00	Flow (cfs)	0.01	197781.09	29218.90

Top Width (ft)	9690.13	Top Width (ft)	0.33	2636.82	7052.99
Vel Total (ft/s)	5.67	Avg. Vel. (ft/s)	0.12	6.48	3.06
Max Chl Dpth (ft)	15.79	Hydr. Depth (ft)	0.22	11.57	3.71
Conv. Total (cfs)	4982736.0	Conv. (cfs)	0.2	4341370.0	641366.0
Length Wtd. (ft)	703.99	Wetted Per. (ft)	0.55	2643.54	2583.49
Min Ch El (ft)	929.50	Shear (lb/sq ft)	0.02	1.50	0.48
Alpha	1.18	Stream Power (lb/ft s)	0.00	9.69	1.47
Frctn Loss (ft)	1.47	Cum Volume (acre-ft)	7485.55	85138.93	30710.40
C & E Loss (ft)	0.01	Cum SA (acres)	2022.09	8820.97	9240.72

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18930.71	18930.99	0.00	0.00	0.08	0.00	0.03	0.03
18930.99	18931.28	0.01	0.07	0.48	0.00	0.25	0.12
18931.28 LB	19599.61	35622.13	7725.20	674.42	15.69	11.56	4.61
19599.61	20267.94	76448.45	7340.80	668.33	33.68	10.98	10.41
20267.94	20936.27	53234.54	8871.65	668.54	23.45	13.27	6.00
20936.27	21604.60 RB	32475.99	6571.67	632.25	14.31	10.40	4.94
21604.60	22162.76	7324.84	2262.28	554.93	3.23	4.09	3.24
22162.76	22720.92	7326.85	2267.92	558.16	3.23	4.06	3.23
22720.92	23279.08	5621.96	1934.68	558.16	2.48	3.47	2.91
23279.08	23837.24	4515.97	1698.83	560.17	1.99	3.04	2.66
23837.24	24395.40	4429.27	1394.53	352.08	1.95	3.99	3.18

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 199.20

INPUT
Description: Upstream Face of 166th Ave Bridge
Left Bank Channel Station
Interpolated
Station Elevation Data num= 75

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18482.37	935.118	501.31	929.851	8663.22	929.441	8720.11	928.921	8800.46	930.97
18873.91	931.1	8977.97	931.221	9047.53	931.71	9049.02	931.7054	19132.6	932.01
19232.44	932.7	19267.67	928	19307.5	926.941	9372.56	928.471	9444.36	925.73
19506.83	929.7	19607.02	941.3	19667.5	932.251	9775.49	929.681	9911.84	929.78
20003.42	928.262	0115.95	931.22	0218.97	933.062	0237.25	932.912	0477.21	930.95
20685.96	931.142	0748.47	931.512	1011.31	929.32	1109.31	930.812	1154.95	930.46
21290.05	928.612	1405.17	930.692	1420.87	935.92	1463.54	944.522	1514.01	944.94
21575.27	936.572	1653.15	938.64	21698.9	939.42	1712.76	939.672	1786.44	941.03
21935.9	941.082	2132.23	941.442	2402.15	942.39	22545.5	943.42	2807.59	943.71
23305.76	944.52	3452.36	943.912	3504.27	944.382	3582.87	941.52	3940.67	941.51
24226.46	941.192	4302.11	940.242	4715.24	939.832	5160.57	940.72	5393.16	941.67
25816.05	941.392	6048.83	942.342	6300.49	942.382	6702.98	942.92	7079.44	943.88
27406.34	943.792	7691.02	943.542	7843.39	943.852	8122.74	944.92	8418.37	944.37
28607.18	945.44	28926	945.832	9079.03	946.792	9265.06	946.92	9586.55	948.26
29739.27	949.122	9998.01	953.113	0127.33	954.643	0183.35	957.53	0231.91	958.32

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18482.37	.03	20237.25	.152	1463.54	.053	26300.49	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19049.02	21712.76	60	73.82	60	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18482.37	19049.02	954	24370	30231.91	954

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	943.66	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.73	Wt. n-Val.		0.053	0.053
E.G. Elev (ft)	944.39	Reach Len. (ft)	0.00	0.00	0.00

Crit W.S. (ft)	937.25	Flow Area (sq ft)		31640.90	3669.24
E.G. Slope (ft/ft)	0.002107	Area (sq ft)	7511.19	31640.90	9203.96
Q Total (cfs)	227000.00	Flow (cfs)		219553.30	7446.71
Top Width (ft)	7890.73	Top Width (ft)	566.65	2599.67	4724.42
Vel Total (ft/s)	6.43	Avg. Vel. (ft/s)		6.94	2.03
Max Chl Dpth (ft)	17.93	Hydr. Depth (ft)		12.17	1.93
Conv. Total (cfs)	4945381.5	Conv. (cfs)		4783149.0	162232.6
Length Wtd. (ft)	0.00	Wetted Per. (ft)		2603.83	1900.26
Min Ch El (ft)	925.73	Shear (lb/sq ft)		1.60	0.25
Alpha	1.13	Stream Power (lb/ft s)		11.09	0.52
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	7380.37	84605.13	30630.76
C & E Loss (ft)	0.02	Cum SA (acres)	2014.15	8775.99	9213.68

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19049.02 LB	19714.96	93993.06	8255.44	667.82	41.41	12.40	11.39
19714.96	20380.89	87720.20	8622.86	666.03	38.64	12.95	10.17
20380.89	21046.82	21406.93	8576.18	665.95	9.43	12.88	2.50
21046.82	21712.76 RB	16433.13	6186.42	604.04	7.24	10.28	2.66
21712.76	22280.70	3038.70	1396.25	567.96	1.34	2.46	2.18
22280.70	22848.65	288.26	319.30	486.13	0.13	0.66	0.90
22848.65	23416.59						
23416.59	23984.53	1777.79	930.94	460.70	0.78	2.02	1.91
23984.53	24552.48	2341.95	1022.75	385.47	1.03	2.65	2.29

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

BRIDGE RIVER: RIVER-1
REACH: Reach-1 RS: 199.195

INPUT
Description:
Distance from Upstream XS = 0
Deck/Roadway Width = 73.82
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =
Upstream Deck/Roadway Coordinates
num= 39

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
18482.37	945		18855.3	945.54		18931.45	954.15	
19024.09	956.68	949.5619	116.12	959.2	952.0819	158.01	960.35	953.23
19293.51	963.63	956.51	19429	966.46	959.34	19564.5	968.85	961.73
19699.99	970.81	963.6919	835.48	972.33	965.2119	970.98	973.4	966.28
20106.47	974.04	966.9220	241.96	974.23	967.1120	377.46	973.99	966.87
20512.95	973.31	966.1920	648.45	972.19	965.0720	783.94	970.62	963.5
20919.43	968.62	961.521	054.93	966.18	959.0621	190.42	963.3	956.18
21259.82	961.6	954.4821	325.92	959.98	952.8621	459.84	956.27	949.15
21510.03	954.76		021557.07	953.33		021715.56	949.44	0
21879.61	946.13		021961.63	944.86		022043.65	943.86	0
22125.67	943.13		022207.69	942.65		022289.71	942.44	0
22315.96	942.43		022388.14	942.54		022437.35	942.68	0
22667.86	943.72		0 23027.9	945.92		023452.36	943.91	0

Upstream Bridge Cross Section Data
Station Elevation Data num= 74

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18482.37	935.1185	01.31	929.8518	663.22	929.4418	720.11	928.9218	800.46	930.97
18873.91	931	18977.97	931.2219	047.53	931.7	19132.6	932.0119	232.44	932.7
19267.67	928	19307.5	926.9419	372.56	928.4719	444.36	925.7319	506.83	929.7
19607.02	941.3	19667.5	932.2519	775.49	929.6819	911.84	929.7820	003.42	928.26
20115.95	931.2202	18.97	933.0620	237.25	932.9120	477.21	930.9520	685.96	931.14
20748.47	931.5121	011.31	929.321	109.31	930.8121	154.95	930.4621	290.05	928.61
21405.17	930.6921	420.87	935.921	463.54	944.5221	514.01	944.9421	575.27	936.57
21653.15	938.64	21698.9	939.421	712.76	939.6721	786.44	941.03	21935.9	941.08
22132.23	941.4422	402.15	942.39	22545.5	942	22807.59	943.7123	305.76	944.5
23452.36	943.9123	504.27	944.3823	582.87	941.5239	40.67	941.5124	226.46	941.19

```
24302.11  940.2424715.24  939.8325160.57   940.725393.16  941.6725816.05  941.39
26048.83  942.3426300.49  942.3826702.98   942.927079.44  943.8827406.34  943.79
27691.02  943.5427843.39  943.8528122.74   944.928418.37  944.3728607.18  945.44
   28926  945.8329079.03  946.7929265.06   946.929586.55  948.2629739.27  949.12
29998.01  953.1130127.33  954.6430183.35   957.530231.91  958.32

Manning's n Values        num=       4
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
18482.37    .03220237.25     .1521463.54    .05326300.49    .025

Bank Sta: Left   Right    Coeff Contr.   Expan.
      19047.5321786.44             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
18482.3719049.02     954   2437030231.91     954

Downstream  Deck/Roadway Coordinates
    num=      39
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
18472.36     945        18887.67  945.54        18972.88  954.15
19058.82  956.68  949.5619119.67  958.35  951.2319192.74  960.35  953.23
19328.24  963.63  956.5119463.73  966.46  959.3419599.23  968.85  961.73
19734.72  970.81  963.6919870.21  972.33  965.2120005.71   973.4  966.28
 20141.2  974.04  966.92 20276.7  974.23  967.1120412.19  973.99  966.87
20547.68  973.31  966.1920683.18  972.19  965.0720818.67  970.62   963.5
20954.16  968.62   961.521089.66  966.18  959.0621225.15   963.3  956.18
21258.76  962.48  955.3621360.65  959.98  952.8621494.57  956.27  949.15
21544.76  954.76       0 21591.8  953.33       021752.65  949.44       0
 21916.7  946.13       021998.72  944.86       022080.74  943.86       0
22162.76  943.13       022244.78  942.65       0 22326.8  942.44       0
22353.05  942.43       022425.23  942.54       022474.44  942.68       0
22704.95  943.72       023064.99  945.92       0 23447.4  943.98       0

Downstream Bridge Cross Section Data
Station Elevation Data    num=      82
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
18472.36     93318496.76  929.8118584.64  928.7218665.03  929.1418732.54   929.1
18785.56   930.918906.78   930.619034.69  931.7419106.13  931.1219208.94  933.89
19254.04   932.419276.56  927.9619314.87  926.6219371.14  927.9119431.85   925.9
19488.13   929.719522.21  934.8119583.86  939.2319639.08  931.49 19673.5  930.13
19721.28   930.619779.15  929.44 19826.5  929.9619990.26   929.120011.65  928.52
20127.26   930.820182.94  933.74 20238.7  932.81 20356.3  930.8620428.93  931.36
20520.93  930.6320763.07   931.520997.21  929.1721082.21  930.5621219.07  929.68
21306.68   928.621395.06   930.721438.26  945.8721457.19  945.1921473.69   939.6
21604.26  940.5321678.59      944 21739.2  940.84 21802.7   938.821880.58  940.88
 21965.3  940.3522182.99   941.722407.37   942.122549.08     94222706.66  943.37
23116.18  944.0423314.07   944.4 23447.4  943.9823542.48  943.1823620.34  940.97
23950.53  941.0324231.11   940.924455.71  939.8524733.83  939.9124842.54  940.56
24965.64  939.8225385.75   941.525819.81  941.2526059.71  942.23   26305   941.9
26719.25  942.4927174.05   943.727414.59  943.7827858.45  943.6628121.68  944.57
28422.59   944.328695.82   945.628924.96  945.8529079.83   946.729254.73  946.71
 29420.8  947.17 29658.6   948.129859.94  950.3530005.89  953.5830129.21  955.14
30233.86  958.7230266.76   958.9

Manning's n Values        num=       4
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
18472.36    .032 20238.7     .1521457.19    .05324965.64    .025

Bank Sta: Left   Right    Coeff Contr.   Expan.
      19106.13 21739.2             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
18472.3619085.81     957   2437030266.76     957

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Piers =  17

Pier Data
Pier Station     Upstream=19158.01    Downstream=19192.74
```

```
Upstream      num=        2
    Width    Elev     Width    Elev
        5       0         5   953.3
Downstream      num=        2
    Width    Elev     Width    Elev
        5       0         5   953.3

Pier Data
Pier Station      Upstream=19293.51     Downstream=19328.24
Upstream      num=        2
    Width    Elev     Width    Elev
        5       0         5   956.6
Downstream      num=        2
    Width    Elev     Width    Elev
        5       0         5   956.6

Pier Data
Pier Station      Upstream=   19429     Downstream=19463.73
Upstream      num=        2
    Width    Elev     Width    Elev
        5       0         5   959.4
Downstream      num=        2
    Width    Elev     Width    Elev
        5       0         5   959.4

Pier Data
Pier Station      Upstream= 19564.5     Downstream=19599.23
Upstream      num=        2
    Width    Elev     Width    Elev
        5       0         5   961.8
Downstream      num=        2
    Width    Elev     Width    Elev
        5       0         5   961.8

Pier Data
Pier Station      Upstream=19699.99     Downstream=19734.72
Upstream      num=        2
    Width    Elev     Width    Elev
        5       0         5   963.7
Downstream      num=        2
    Width    Elev     Width    Elev
        5       0         5   963.7

Pier Data
Pier Station      Upstream=19835.48     Downstream=19870.21
Upstream      num=        2
    Width    Elev     Width    Elev
        5       0         5   965.3
Downstream      num=        2
    Width    Elev     Width    Elev
        5       0         5   965.3

Pier Data
Pier Station      Upstream=19970.98     Downstream=20005.71
Upstream      num=        2
    Width    Elev     Width    Elev
        5       0         5   966.3
Downstream      num=        2
    Width    Elev     Width    Elev
        5       0         5   966.3

Pier Data
Pier Station      Upstream=20106.47     Downstream= 20141.2
Upstream      num=        2
    Width    Elev     Width    Elev
        5       0         5     967
Downstream      num=        2
    Width    Elev     Width    Elev
        5       0         5     967

Pier Data
Pier Station      Upstream=20241.96     Downstream= 20276.7
Upstream      num=        2
    Width    Elev     Width    Elev
        5       0         5   967.2
Downstream      num=        2
```

```
    Width   Elev    Width   Elev
      5       0       5   967.2

Pier Data
Pier Station     Upstream=20377.46    Downstream=20412.19
Upstream     num=       2
    Width   Elev    Width   Elev
      5       0       5   966.9
Downstream     num=       2
    Width   Elev    Width   Elev
      5       0       5   966.9

Pier Data
Pier Station     Upstream=20512.95    Downstream=20547.68
Upstream     num=       2
    Width   Elev    Width   Elev
      5       0       5   966.2
Downstream     num=       2
    Width   Elev    Width   Elev
      5       0       5   966.2

Pier Data
Pier Station     Upstream=20648.45    Downstream=20683.18
Upstream     num=       2
    Width   Elev    Width   Elev
      5       0       5   965.1
Downstream     num=       2
    Width   Elev    Width   Elev
      5       0       5   965.1

Pier Data
Pier Station     Upstream=20783.94    Downstream=20818.67
Upstream     num=       2
    Width   Elev    Width   Elev
      5       0       5   963.6
Downstream     num=       2
    Width   Elev    Width   Elev
      5       0       5   963.6

Pier Data
Pier Station     Upstream=20919.43    Downstream=20954.16
Upstream     num=       2
    Width   Elev    Width   Elev
      5       0       5   961.6
Downstream     num=       2
    Width   Elev    Width   Elev
      5       0       5   961.6

Pier Data
Pier Station     Upstream=21054.93    Downstream=21089.66
Upstream     num=       2
    Width   Elev    Width   Elev
      5       0       5   959.1
Downstream     num=       2
    Width   Elev    Width   Elev
      5       0       5   959.1

Pier Data
Pier Station     Upstream=21190.42    Downstream=21225.15
Upstream     num=       2
    Width   Elev    Width   Elev
      5       0       5   956.2
Downstream     num=       2
    Width   Elev    Width   Elev
      5       0       5   956.2

Pier Data
Pier Station     Upstream=21325.92    Downstream=21360.65
Upstream     num=       2
    Width   Elev    Width   Elev
      5       0       5   952.9
Downstream     num=       2
    Width   Elev    Width   Elev
      5       0       5   952.9

Number of Bridge Coefficient Sets =  1
```

Low Flow Methods and Data
Energy
Momentum Cd = 1.2
Yarnell KVal = .95
Selected Low Flow Methods = Highest Energy Answer

High Flow Method
Energy Only

Additional Bridge Parameters
Add Friction component to Momentum
Do not add Weight component to Momentum
Class B flow critical depth computations use critical depth inside the bridge at the downstream end
Criteria to check for pressure flow = Upstream water surface

BRIDGE OUTPUT Profile #PF#1
Opening : Bridge #1

E.G. US. (ft)	944.39	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	943.66	E.G. Elev (ft)	944.37	944.12
Q Total (cfs)	227000.00	W.S. Elev (ft)	943.50	943.15
Q Bridge (cfs)	221839.42	Crit W.S. (ft)	937.39	937.45
Q Weir (cfs)		Max Chl Dpth (ft)	17.77	17.25
Weir Sta Lft (ft)		Vel Total (ft/s)	7.23	7.54
Weir Sta Rgt (ft)		Flow Area (sq ft)	31384.58	30087.58
Weir Submerg		Froude # Chl	0.36	0.38
Weir Max Depth (ft)		Specif Force (cu ft)	245578.95	236712.39
Min Top Rd (ft)	940.25	Hydr Depth (ft)	8.48	8.51
Min El Prs (ft)	967.11	W.P. Total (ft)	4141.15	3967.99
Delta EG (ft)	0.32	Conv. Total (cfs)	4060001.3	3834967.5
Delta WS (ft)	0.40	Top Width (ft)	6286.51	6160.95
BR Open Area (sq ft)	70678.68	Frctn Loss (ft)	0.24	0.00
BR Open Vel (ft/s)	7.89	C & E Loss (ft)	0.01	0.05
Coef of Q		Shear Total (lb/sq ft)	1.48	1.66
Br Sel Mthd	Energy only	Power Total (lb/ft s)	10.70	12.51

Note - Yarnell answer is not valid if the water surface is above the low chord or if there is weir flow.
The Yarnell answer has been disregarded.
Note - Momentum answer is not valid if the water surface is above the low chord or if there is weir
flow. The momentum answer has been disregarded.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 199.19

INPUT
Description: Downstream Face of 116th Ave Bridge
Left Bank Channel Station
Interpolated
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18472.36	93318496.76	929.8118584.64		928.7218665.03		929.1418732.54		929.1	
18785.56	930.918906.78	930.619034.69		931.7419085.81931.296319106.13		931.12			
19208.94	933.8919254.04	932.419276.56		927.9619314.87		926.6219371.14		927.91	
19431.85	925.919488.13	929.719522.21		934.8119583.86		939.2319639.08		931.49	
19673.5	930.1319721.28	930.619779.15		929.44 19826.5		929.9619990.26		929.1	
20011.65	928.5220127.26	930.820182.94		933.74 20238.7		932.81 20356.3		930.86	
20428.93	931.3620520.93	930.6320763.07		931.520997.21		929.1721082.21		930.56	
21219.07	929.6821306.68	928.621395.06		930.721438.26		945.8721457.19		945.19	
21473.69	939.621604.26	940.5321678.59		944 21739.2		940.84 21802.7		938.8	
21880.58	940.88 21965.3	940.3522182.99		941.722407.37		942.122549.08		943.25	
22706.66	943.3723116.18	944.0423314.07		944.4 23447.4		943.9823542.48		943.18	
23620.34	940.9723950.53	941.0324231.11		940.924455.71		939.8524733.83		939.91	
24842.54	940.5624965.64	939.8225385.75		941.525819.81		941.2526059.71		942.23	
26305	941.926719.25	942.4927174.05		943.727414.59		943.7827858.45		943.66	
28121.68	944.5728422.59	944.328695.82		945.628924.96		945.8529079.83		946.7	
29254.73	946.71 29420.8	947.17 29658.6		948.129859.94		950.3530005.89		953.58	
30129.21	955.1430233.86	958.7230266.76		958.9					

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18472.36	.032	20238.7	.1521457.19		.05324965.64		.025

```
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
     19085.81 21739.2              270  646.69    1140            .1        .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
18472.3619085.81     957   2437030266.76     957
```

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	943.26	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.81	Wt. n-Val.		0.053	0.053
E.G. Elev (ft)	944.07	Reach Len. (ft)	270.00	646.69	1140.00
Crit W.S. (ft)	937.25	Flow Area (sq ft)		29940.28	3444.81
E.G. Slope (ft/ft)	0.002446	Area (sq ft)	7993.99	29940.28	8496.47
Q Total (cfs)	227000.00	Flow (cfs)		219221.53	7778.47
Top Width (ft)	7509.69	Top Width (ft)	613.45	2591.44	4304.79
Vel Total (ft/s)	6.80	Avg. Vel. (ft/s)		7.32	2.26
Max Chl Dpth (ft)	17.36	Hydr. Depth (ft)		11.55	2.07
Conv. Total (cfs)	4589949.5	Conv. (cfs)		4432668.5	157281.0
Length Wtd. (ft)	683.52	Wetted Per. (ft)		2596.33	1664.97
Min Ch El (ft)	925.90	Shear (lb/sq ft)		1.76	0.32
Alpha	1.12	Stream Power (lb/ft s)		12.89	0.71
Frctn Loss (ft)	1.45	Cum Volume (acre-ft)	7379.63	84556.73	30618.93
C & E Loss (ft)	0.04	Cum SA (acres)	2014.09	8772.09	9207.09

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19085.81 LB	19749.16	97996.73	8079.81	665.16	43.17	12.18	12.13
19749.16	20412.50	85516.07	8377.90	663.49	37.67	12.63	10.21
20412.50	21075.85	22183.98	8363.67	663.37	9.77	12.61	2.65
21075.85	21739.20 RB	13524.75	5118.90	604.31	5.96	8.51	2.64
21739.20	22307.70	3309.61	1378.02	568.57	1.46	2.42	2.40
22307.70	22876.21	239.83	208.30	258.93	0.11	0.80	1.15
22876.21	23444.71						
23444.71	24013.21	2101.65	981.19	480.67	0.93	2.04	2.14
24013.21	24581.72	2127.40	877.30	356.79	0.94	2.46	2.42

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 199.07

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18402.04	940.418	479.23	940.0318	569.32	929.9418	677.44	928.9318	779.11	929.42
18868	929.318	871.74	929.318	928.11	929.5119	013.82	929.45	19030	929.7805
19110.77	931.4319	278.97	931.0619	313.24	923.519	371.07	924.4319	425.69	927.23
19470.69	926.319	536.38	934.9219	568.85	937	19604.6	934.9119	664.72	927.24
19727.26	929.7719	782.09	928.0219	832.79	929.819	877.13	927.219	904.08	927.2
19935.17	929.75	19961.4	929.5519	994.75	927	20207.7	929.3820	270.76	930.32
20360.06	928.7220	437.07	930.9720	558.04	931.420	594.34	929.6920	697.54	927.18
20796.98	930.3520	908.71	931.6420	997.29	930.521	094.13	927.3121	186.49	926.06
21273.67	928.2221	334.59	928.5721	387.11	943.221	416.13	938.8521	473.29	937.68
21709.87	937.96	21838.7	938.3922	044.79	938.122	287.75	940.3922	415.78	940.68
22512.75	940.4522	645.45	941.0522	867.04	940.923	000.65	941.46	23110	940.9
23230.9	939.1823	341.25	942.03	23417.7	940.523	498.75	939.9523	607.03	942.41
23699.31	940.3723	863.47	940.1524	156.51	940.524	512.01	939.2224	681.42	939.44
24762.83	938.6824	796.09	940.33	24849.2	940.725	014.31	938.7125	083.55	939.02
25185.57	939.5125	402.55	939.4625	737.69	939.126	120.98	940.226	275.36	940.07
26477.35	940.96	26822.8	941.5827	370.77	941.627	498.03	942.2927	555.28	942.72

27588.36	941.8927848.57	942.8628645.85	942.928759.81	941.7628835.29	942.74
28898.8	946.0428937.43	943.8429191.13	94429523.28	943.5929704.73	944.19
29893.18	944.1529987.33	943.7930075.22	944.930127.19	946.4830151.97	949.65
30168.74	953.45				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18402.04	.03	220270.76	.15	21387.11	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19030	21387.11	560	546.65	605	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18402.04	19030	952	24600	30168.74	952

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	941.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.67	Wt. n-Val.		0.050	0.025
E.G. Elev (ft)	942.58	Reach Len. (ft)	560.00	546.65	605.00
Crit W.S. (ft)	935.91	Flow Area (sq ft)		29406.03	6330.83
E.G. Slope (ft/ft)	0.001848	Area (sq ft)	6531.04	29406.03	11007.82
Q Total (cfs)	227000.00	Flow (cfs)		200877.27	26122.74
Top Width (ft)	8991.24	Top Width (ft)	627.96	2352.48	6010.79
Vel Total (ft/s)	6.35	Avg. Vel. (ft/s)		6.83	4.13
Max Chl Dpth (ft)	18.41	Hydr. Depth (ft)		12.50	2.01
Conv. Total (cfs)	5279848.0	Conv. (cfs)		4672253.0	607595.3
Length Wtd. (ft)	554.36	Wetted Per. (ft)		2357.10	3149.62
Min Ch El (ft)	923.50	Shear (lb/sq ft)		1.44	0.23
Alpha	1.07	Stream Power (lb/ft s)		9.83	0.96
Frctn Loss (ft)	0.80	Cum Volume (acre-ft)	7334.62	84116.20	30363.71
C & E Loss (ft)	0.04	Cum SA (acres)	2010.24	8735.40	9072.11

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19030.00 LB	19619.28	73753.87	7071.53	591.02	32.49	12.00	10.43
19619.28	20208.55	88137.02	7864.16	590.05	38.83	13.35	11.21
20208.55	20797.83	22439.03	7203.69	589.45	9.89	12.22	3.11
20797.83	21387.11 RB	16547.33	7266.65	586.58	7.29	12.43	2.28
21387.11	21972.55	12114.72	2172.89	577.08	5.34	3.77	5.58
21972.55	22557.99	5017.03	1287.71	585.46	2.21	2.20	3.90
22557.99	23143.44	1105.21	519.53	585.45	0.49	0.89	2.13
23143.44	23728.88	1939.40	699.89	530.51	0.85	1.32	2.77
23728.88	24314.32	3060.94	957.33	585.44	1.35	1.64	3.20
24314.32	24899.76	2885.44	693.48	285.68	1.27	2.43	4.16

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 198.96

INPUT
Description: Left Bank Channel Station Interpolated
Station Elevation Data num= 92

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18119.7	954.4	18194.3	942.25	18311.44	940.58	18519.73	938.03	18594.13	938.59
18683.31	934.81	8748.32	934.04	18802.65	932.24	18829.01	930.1	18882	928.4734
18910.78	927.59	19245.27	927.51	9399.43	924.61	19416.06	928.24	19423	924.43
19524.44	927.36	19674.38	927.41	9809.36	925.94	19993.68	927.29	20063.61	927.26
20067.28	929.14	20111.19	925.82	0160.27		92620258.75	936.24	20494.99	935.73
20560	936.23	20612.15	936.64	20675.45	935.32	0745.64	932.54	20879.06	928.28
20996.13	933.54	21149.05	932.75	21215.66	927.62	1310.61	928.44	21380.85	925.62
21463.91	925.35	21546.69	928.17	21596.72	941.92	1624.33	937.53	21696.33	936.58
21914.13	937.76	22027.74	937.53	22151.69	939.12	2289.52	937.96	22619.92	938.77
22734.01	938.47	23119	939.72	23330.9	939.92	3450.62	937.46	23565.98	937.64
23634.32	938.62	3725.57	937.46	23815.06	940.82	3886.31	938.41	24040.18	938.18

```
24180.31  938.7224341.79  938.0124584.97   939.4 24884.6  939.6325015.52  937.85
25089.24  941.6625152.66  938.7125250.24   937.325319.28  938.4325360.97  937.44
25460.36  937.5325670.17  938.7425781.98   938.426067.93  938.8726202.46  938.87
26403.72  939.9426453.28  938.9526585.77   938.3 26697.2  938.8926987.37  939.63
27182.66   940.527725.13  940.2328119.65   941.728484.58  941.6228841.24   941.1
29028.42  942.4329107.19  941.5829174.98   942.1 29307.2  942.0929470.78  942.67
29612.18  942.2429914.47  942.4430076.12     94330182.32  943.0430309.66  941.83
30371.36  944.7130385.88  947.09

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 18119.7    .032   20560     .1521596.72    .025

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          1888221596.72              510  539.93     510              .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
 18119.7   18882     953   2496630385.88     953
```

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	941.22	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.53	Wt. n-Val.		0.043	0.025
E.G. Elev (ft)	941.74	Reach Len. (ft)	510.00	539.93	510.00
Crit W.S. (ft)	934.99	Flow Area (sq ft)		31650.50	8841.21
E.G. Slope (ft/ft)	0.001145	Area (sq ft)	2810.45	31650.50	14700.80
Q Total (cfs)	227000.00	Flow (cfs)		193141.11	33858.90
Top Width (ft)	9796.48	Top Width (ft)	615.32	2712.24	6468.92
Vel Total (ft/s)	5.61	Avg. Vel. (ft/s)		6.10	3.83
Max Chl Dpth (ft)	16.79	Hydr. Depth (ft)		11.67	2.63
Conv. Total (cfs)	6707589.0	Conv. (cfs)		5707097.5	1000491.6
Length Wtd. (ft)	535.74	Wetted Per. (ft)		2717.14	3365.44
Min Ch El (ft)	924.43	Shear (lb/sq ft)		0.83	0.19
Alpha	1.08	Stream Power (lb/ft s)		5.08	0.72
Frctn Loss (ft)	0.54	Cum Volume (acre-ft)	7274.57	83733.09	30185.18
C & E Loss (ft)	0.03	Cum SA (acres)	2002.25	8703.62	8985.44

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18882.00 LB	19560.68	85895.38	9696.30	680.13	37.84	14.29	8.86
19560.68	20239.36	82832.15	9484.91	679.70	36.49	13.98	8.73
20239.36	20918.04	11722.24	4699.02	678.97	5.16	6.92	2.49
20918.04	21596.72 RB	12691.36	7770.27	678.34	5.59	11.49	1.63
21596.72	22182.66	9348.84	2059.76	581.95	4.12	3.54	4.54
22182.66	22768.61	6321.14	1633.16	585.95	2.78	2.79	3.87
22768.61	23354.55	3073.21	1059.52	585.95	1.35	1.81	2.90
23354.55	23940.50	6422.34	1648.95	586.08	2.83	2.81	3.89
23940.50	24526.44	6358.79	1638.99	585.95	2.80	2.80	3.88
24526.44	25112.38	2334.54	800.83	439.57	1.03	1.82	2.92

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 198.86

INPUT
Description:

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Station Elevation Data    num=      91
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 18195.7   950.218235.75  944.2318336.62  942.1718448.46  941.5818622.94  937.65
18725.02   934.9 18754.5  934.85 18775.5933.762918843.36  930.2518984.76  927.57
19028.12  927.5319120.25     92619187.52  925.3419367.06  926.7319454.24  924.52
19531.22  925.0119561.75  923.819900.12  923.36 19922.7   926.719935.42  923.24
19989.24  922.7120118.36  924.620153.46   930.120212.55  932.4520244.48  936.97
20293.61  949.8920317.21  935.120424.91  933.6220709.82  936.5720826.98  936.07
20890.28  932.6920981.84  929.821043.04  928.7921127.67  931.6521227.73  931.14
21345.18  929.2921426.48  926.821430.49  926.0121537.91  926.9221618.98  925.29
21712.42  925.5221763.08  926.421812.74  942.5921849.04  937.1322006.59  936.62
22245.48  937.4722619.48  937.723069.76  938.9223326.52  939.1223545.71  939.23
 23669.3  937.0323774.74  938.423848.19  937.3823951.01  936.9224039.97  940.18
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24098.06	937.6424222.33	938.124335.39	937.9924555.72	938.5624872.52	938.82
25167.43	938.5525237.22	937.625312.35	939.5225371.62	938.9925475.45	936.87
25542.39	938.1225567.21	93725779.48	937.8226070.96	938.2426314.58	937.68
26593.88	938.0226652.31	939.526671.95	937.4726698.23	937.9727190.74	939.12
27560.24	939.3927870.48	94027974.17	941.428004.07	939.5928078.45	939.97
28403.77	940.3428999.11	939.929218.03	940.129285.93	94029348.88	941.5
29373.76	940.329617.87	941.129920.02	941.1630493.34	941.4330563.35	941.62
30592.1	944				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18195.7	.03	22082	6.98	152	1812.74 .025

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

18775.5	21812.74	350	367.41	295	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18195.7	18775.55	948	25340	30592.1	948

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	940.74	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.43	Wt. n-Val.		0.042	0.025
E.G. Elev (ft)	941.18	Reach Len. (ft)	350.00	367.41	295.00
Crit W.S. (ft)	933.56	Flow Area (sq ft)		35785.65	8972.66
E.G. Slope (ft/ft)	0.000897	Area (sq ft)	976.64	35786.00	15712.48
Q Total (cfs)	227000.00	Flow (cfs)		197171.50	29828.50
Top Width (ft)	10849.07	Top Width (ft)	289.88	2982.20	7576.99
Vel Total (ft/s)	5.07	Avg. Vel. (ft/s)		5.51	3.32
Max Chl Dpth (ft)	18.03	Hydr. Depth (ft)		12.00	2.55
Conv. Total (cfs)	7579934.0	Conv. (cfs)		6583907.5	996026.7
Length Wtd. (ft)	360.67	Wetted Per. (ft)		2988.62	3515.44
Min Ch El (ft)	922.71	Shear (lb/sq ft)		0.67	0.14
Alpha	1.08	Stream Power (lb/ft s)		3.69	0.48
Frctn Loss (ft)	0.31	Cum Volume (acre-ft)	7252.40	83315.16	30007.14
C & E Loss (ft)	0.00	Cum SA (acres)	1996.95	8668.33	8903.22

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18775.50 LB	19534.81	77950.92	10384.97	759.43	34.34	13.68	7.51
19534.81	20294.12	91331.45	11216.95	726.04	40.23	15.49	8.14
20294.12	21053.43	14141.82	4935.70	747.02	6.23	6.62	2.87
21053.43	21812.74 RB	13747.28	9248.04	756.13	6.06	12.27	1.49
21812.74	22398.03	8147.47	2028.43	573.28	3.59	3.54	4.02
22398.03	22983.32	5506.42	1616.84	585.29	2.43	2.76	3.41
22983.32	23568.61	2444.15	993.17	585.29	1.08	1.70	2.46
23568.61	24153.90	5700.77	1651.01	585.44	2.51	2.82	3.45
24153.90	24739.19	4461.71	1425.11	585.29	1.97	2.43	3.13
24739.19	25324.48	3520.94	1236.38	585.32	1.55	2.11	2.85
25324.48	25909.78	47.08	21.74	15.52	0.02	1.40	2.17

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 198.79

INPUT
Description: Left Bank Channel Station Interpolated
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17662.07	95	21806.27	949.4317	906.39	947.3318	028.27	946.1318	105.01	943.57
18236.33	941.61	8369.13	941.3618	643.12	936.7518	779.75	935.4618	838.93	932.96
18894.85	936.51	8926.18	930.7328	18928.26	930.3518	964.21	927.66	19035.9	925.26
19150.84	925.11	19331.86	923.5195	12.39	922.1	19622	923.5419	734.03	923.17
19837.78	923.84	20040.14	922.7201	19.94	922.4620	256.23	924.0420	287.14	928.81
20427.84	933.27	20736.89	935.1208	56.17	934.95	20976.1	936.97	21114.63	930.03
21131.45	927.22	1230.47	930.2212	95.79	929.92	21331.41	930.87	21419.86	929.99
21463.4	928.85	21488.26	926.9215	76.83	924.71	21676.75	924.97	21765.33	923.74
21847.11	926.49	21893.36	941.5	21910.3	941.08	21925.42	937.43	22124.89	939.76
22299.19	940.31	22507.25	938.9	23171	939.29	23419.1	939	23674.1	938.96

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   23803  938.7523850.98   937.824054.58  937.9924167.19   939.524303.23  938.49
24437.08  938.2324461.18   938.724649.81  937.5224837.67  937.5724942.03  936.96
25224.07  936.4825348.55   936.825378.05  937.89   25450  938.3225518.81  938.73
25596.52  936.76 25695.1  938.2925755.71   937.225970.11  938.1626242.78   938.3
26570.56  937.9426745.24  937.5426811.98   938.726824.98  937.3926877.54  936.97
27461.36  939.0528056.27  939.0428116.67   941.128168.81  939.1228443.25  939.54
29144.81  939.48   29356  939.02 29418.8   941.329477.98  940.0429794.12  939.83
29945.27   940.130009.41  939.5130411.16   939.530630.71  939.6530724.62  941.21
30769.25  943.43

Manning's n Values        num=       6
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
17662.07    .032 20976.1     .1521893.36    .05322507.25    .02524167.19    .053
   25450    .025

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      18926.1821893.36              310   330.9     290             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
17662.0718926.18     947   2557630769.25     947

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)              940.38   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                 0.48   Wt. n-Val.                              0.041      0.039
  E.G. Elev (ft)              940.86   Reach Len. (ft)            310.00     330.90     290.00
  Crit W.S. (ft)              932.25   Flow Area (sq ft)                   37712.27    6918.82
  E.G. Slope (ft/ft)        0.000818   Area (sq ft)               1870.58  37712.27   14339.65
  Q Total (cfs)           227000.00   Flow (cfs)                          214558.06   12441.93
  Top Width (ft)           12116.36   Top Width (ft)              499.03   2963.74    8653.58
  Vel Total (ft/s)             5.09   Avg. Vel. (ft/s)                       5.69       1.80
  Max Chl Dpth (ft)           18.28   Hydr. Depth (ft)                      12.72       1.89
  Conv. Total (cfs)        7935866.0  Conv. (cfs)                         7500899.0  434966.8
  Length Wtd. (ft)            326.65   Wetted Per. (ft)                    2967.26    3663.26
  Min Ch El (ft)              922.10   Shear (lb/sq ft)                       0.65       0.10
  Alpha                         1.19   Stream Power (lb/ft s)                 3.69       0.17
  Frctn Loss (ft)               0.26   Cum Volume (acre-ft)       7240.96  83005.20  29905.38
  C & E Loss (ft)               0.03   Cum SA (acres)             1993.78   8643.25   8848.26


Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT    Profile #PF#1

  Left Sta      Right Sta        Flow       Area       W.P.    % Conv.    Hydr D.   Velocity
  (ft)          (ft)             (cfs)     (sq ft)     (ft)                (ft)      (ft/s)
  18926.18 LB   19667.97      95006.98   11962.77    741.99      41.85     16.13       7.94
  19667.97      20409.77      91697.85   11712.54    742.24      40.40     15.79       7.83
  20409.77      21151.56      14259.83    4629.86    742.25       6.28      6.24       3.08
  21151.56      21893.36 RB   13593.38    9407.10    740.78       5.99     12.74       1.45
  21893.36      22485.09        439.76     566.52    572.27       0.19      0.99       0.78
  22485.09      23076.81       1522.96     781.07    591.73       0.67      1.32       1.95
  23076.81      23668.54       1497.79     763.06    591.73       0.66      1.29       1.96
  23668.54      24260.26       2726.08    1111.87    591.75       1.20      1.88       2.45
  24260.26      24851.99       1930.55    1394.77    591.74       0.85      2.36       1.38
  24851.99      25443.71       3592.25    2024.49    591.75       1.58      3.42       1.77
  25443.71      26035.44        732.56     277.04    132.30       0.32      2.09       2.64


Warning - Divided flow computed for this cross-section.

CROSS SECTION           RIVER: RIVER-1
REACH: Reach-1             RS: 198.73

INPUT
Description: Left Bank Channel Station Interpolated
Station Elevation Data     num=      92
     Sta     Elev     Sta     Elev     Sta     Elev     Sta     Elev     Sta     Elev
17720.43   951.717824.93  949.6918087.38  947.1418282.25  944.6818431.09  944.54
18667.05   940.418862.03  937.6618981.64  931.4719010.28  934.4319013.92 934.058
19098.86  925.3819166.08   922.519445.29  922.0819522.33  927.4719619.44  926.15
 19696.6  926.9719875.43   922.420064.49  922.1520256.74  922.9820302.61  931.89
20446.53  932.5220629.59   933.920749.35  933.7220886.25  934.5220988.87  934.35
21107.23  936.8221174.45   933.921238.52   930.121260.98  927.5221340.97  926.93
21410.02  930.8721453.86   932.121514.39  926.7621570.66  924.0721655.19  926.71
21751.32  924.8921856.65   924.621903.15  923.8621943.08  924.3522002.64  941.06
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22022.41	939.9822030.45	936.422194.48	936.822285.66	936.4722408.01	937.14
22680.95	935.9922876.18	935.723227.89	936.0923348.83	935.623467.65	937.2
23716.45	937.0723862.35	937.723955.32	935.8124056.73	934.9924155.75	937.52
24230.33	937.5724314.58	938.624470.85	936.9424583.26	938.5524690.36	937.32
24933.66	937.8825208.56	937.425348.49	936.5825580.06	937.425653.26	938.2
25835.04	936.7125918.79	936.426367.79	937.0726749.47	937.6726833.04	936.81
26931.96	938.9926977.91	936.927187.22	937.6427534.38	937.5427691.81	938.26
28119.68	938.6728242.26	939.328508.53	939.4928769.85	939.8529111.44	939.46
29364.7	939.4829493.06	938.829550.95	939.9929596.33	939.2729618.24	940.17
29722.02	939.1530148.07	939.530457.43	939.7230746.85	939.430815.29	938.94
30878.37	941.11 30891.3	943.1			

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17720.43	.03	22107.23	.15	22002.64	.02	523348.83	.05	324314.58	.043
25580.06	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19013.9	222002.64	500	417.7	290	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17720.43	19013.92	950	25791	30891.3	950

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	940.19	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.38	Wt. n-Val.		0.042	0.033
E.G. Elev (ft)	940.57	Reach Len. (ft)	500.00	417.70	290.00
Crit W.S. (ft)	932.51	Flow Area (sq ft)		36702.00	12365.66
E.G. Slope (ft/ft)	0.000762	Area (sq ft)	1131.14	36702.00	20610.45
Q Total (cfs)	227000.00	Flow (cfs)		192271.05	34728.95
Top Width (ft)	12151.19	Top Width (ft)	332.26	2985.64	8833.29
Vel Total (ft/s)	4.63	Avg. Vel. (ft/s)		5.24	2.81
Max Chl Dpth (ft)	18.11	Hydr. Depth (ft)		12.29	3.28
Conv. Total (cfs)	8225058.0	Conv. (cfs)		6966698.5	1258359.5
Length Wtd. (ft)	393.02	Wetted Per. (ft)		2990.30	3773.41
Min Ch El (ft)	922.08	Shear (lb/sq ft)		0.58	0.16
Alpha	1.14	Stream Power (lb/ft s)		3.06	0.44
Frctn Loss (ft)	0.26	Cum Volume (acre-ft)	7230.28	82722.55	29789.04
C & E Loss (ft)	0.02	Cum SA (acres)	1990.83	8620.65	8790.05

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19013.92 LB	19761.10	85112.92	11427.59	747.91	37.49	15.29	7.45
19761.10	20508.28	77925.52	10839.41	748.08	34.33	14.51	7.19
20508.28	21255.46	15054.69	4589.56	747.50	6.63	6.14	3.28
21255.46	22002.64 RB	14177.92	9845.44	746.81	6.25	13.23	1.44
22002.64	22595.22	7417.87	1991.22	577.51	3.27	3.45	3.73
22595.22	23187.79	10946.99	2540.99	592.58	4.82	4.29	4.31
23187.79	23780.37	5352.94	2094.61	592.59	2.36	3.53	2.56
23780.37	24372.95	3249.45	1901.72	592.64	1.43	3.21	1.71
24372.95	24965.53	2617.73	1491.10	592.60	1.15	2.52	1.76
24965.53	25558.11	3437.97	1756.00	592.58	1.51	2.96	1.96
25558.11	26150.68	1706.02	590.02	232.90	0.75	2.53	2.89

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 198.65

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17689.87	947.31	77760.42	945.94	17808.66	950.42	18103.85	945.82	18174.39	945.26
18232.2	940.11	8320.61	934.77	18412.42	932.98	18564.3	932.94	18610.84	933.33
18674.59	935.61	8789.53	935.21	18861.64	930.54	18868.65	930.85	18892.49	931.89
18989.85	928.99	19066.24	924.61	9150.31	922.91	19335.17	922.25	19404.17	925.55
19473.83	922.88	19608.1	923.21	9786.44	927.86	19847.34	930.15	19957.38	927.75
20038.91	922.57	20147.6	922	20167.3	923.42	20199.48	931.15	20383.52	931.69

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20437.12  931.5720554.55   933.120669.63  932.86 20909.7  933.0121146.23  936.05
21176.79  935.2121246.35   935.521314.02  929.3621405.83  926.77 21470.2  926.93
21526.13  925.03   21636   922.621701.83   926.921843.38  924.9721899.93  922.63
21941.61  923.3622005.91   940.622047.81  936.2822208.11  935.6822326.26  936.31
22448.66  935.5923039.14   935.423268.82  936.14 23389.8  935.5823641.12  936.03
23863.56  936.0823983.04   934.624156.63  935.22 24175.2  936.3524285.66  935.61
24371.34  937.8224404.21   938.7 24484.1  935.9624565.77  936.0825255.33  936.82
25488.47  936.83 25596.5     935 25645.5   937.825688.12  936.5925701.75  938.68
25758.68   935.626026.97   936.726299.86   937.426839.32  937.0326978.12   938.1
27021.39  936.9527250.17   937.727755.64  937.5127970.68   938.228039.74  938.18
   28171  939.35 28245.8     93928280.35  938.6128317.01  940.05   28376  939.07
28650.57  939.5329440.03   939.529578.12  938.7829600.38  939.9529823.08  939.35
30150.88  939.2330388.61   938.930669.62  939.2330861.19  938.1330918.48  940.13

Manning's n Values        num=       4
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
17689.87    .03220199.48    .02821146.23     .1522047.81    .025

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      18868.6522005.91              300  326.88     390              .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
17689.8718868.65     948   2586430918.48     948

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)            939.99   Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.31   Wt. n-Val.                            0.040      0.025
  E.G. Elev (ft)            940.30   Reach Len. (ft)            300.00    326.88     390.00
  Crit W.S. (ft)            933.24   Flow Area (sq ft)                  36864.91   15095.92
  E.G. Slope (ft/ft)      0.000566   Area (sq ft)               3629.78 36864.91   22906.85
  Q Total (cfs)          227000.00   Flow (cfs)                        174004.69   52995.32
  Top Width (ft)          12666.70   Top Width (ft)              634.58   3134.97    8897.15
  Vel Total (ft/s)            4.37   Avg. Vel. (ft/s)                      4.72       3.51
  Max Chl Dpth (ft)          17.99   Hydr. Depth (ft)                     11.76       3.92
  Conv. Total (cfs)       9545724.0  Conv. (cfs)                       7317184.0  2228540.5
  Length Wtd. (ft)          341.98   Wetted Per. (ft)                   3139.39    3852.84
  Min Ch El (ft)            922.00   Shear (lb/sq ft)                      0.41       0.14
  Alpha                       1.05   Stream Power (lb/ft s)                1.96       0.49
  Frctn Loss (ft)             0.18   Cum Volume (acre-ft)       7202.96 82369.84   29644.18
  C & E Loss (ft)             0.01   Cum SA (acres)             1985.28   8591.31    8731.03


Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT    Profile #PF#1

  Left Sta      Right Sta        Flow       Area       W.P.    % Conv.    Hydr D.   Velocity
  (ft)          (ft)             (cfs)    (sq ft)      (ft)                 (ft)      (ft/s)
  18868.65 LB   19652.96      80604.95   11936.24    784.67      35.51      15.22       6.75
  19652.96      20437.28      59070.61    9642.77    785.56      26.02      12.29       6.13
  20437.28      21221.60      20977.91    5030.40    784.36       9.24       6.41       4.17
  21221.60      22005.91 RB   13351.22   10255.51    784.80       5.88      13.11       1.30
  22005.91      22600.08       8252.69    2344.30    588.42       3.64       3.99       3.52
  22600.08      23194.25      10123.98    2655.74    594.17       4.46       4.47       3.81
  23194.25      23788.42       8710.57    2426.63    594.17       3.84       4.08       3.59
  23788.42      24382.60       9488.09    2554.50    594.25       4.18       4.30       3.71
  24382.60      24976.77       6766.63    2085.52    594.23       2.98       3.51       3.24
  24976.77      25570.94       6201.06    1979.05    594.18       2.73       3.33       3.13
  25570.94      26165.11       3452.30    1050.18    293.41       1.52       3.58       3.29


Warning - Divided flow computed for this cross-section.

CROSS SECTION          RIVER: RIVER-1
REACH: Reach-1            RS: 198.59

INPUT
Description: Left Bank Channel Station Interpolated
Station Elevation Data    num=      92
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
17724.25     94717789.73  947.1917800.13     94617847.01  948.1517912.24  946.04
 18012.5   940.118096.94  930.9118180.69  930.1518444.37  929.1618660.62  930.58
18692.11   934.618713.88933.748218759.84  931.9518859.05   925.619034.63  922.08
19200.07  923.0219289.52   924.619394.98   922.919501.17  925.4919621.03  924.96
19661.45  929.4319728.57   931.619849.99  933.7719917.24  927.9119967.92  927.91
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20020.15	924.5520041.11	92220169.97	922.3920208.55	925.420234.06	931
20344.48	930.3620439.59	930.320699.41	932.61 20919.2	933.2221031.32	934.89
21148.48	934.1621264.23	935.921364.61	930.2521457.83	927.23 21485.3	925.12
21642.81	925.0721708.96	925.121814.48	922.51 21906.9	923.2921973.94	940.16
22011.46	936.322093.36	935.222330.76	935.9222489.04	935.28 22918.7	935.58
23156.34	935.8723391.38	934.9 23510.2	935.623747.12	935.2523881.14	935.29
23997.78	934.324165.65	935.5 24179.9	934.7124283.54	936.1424354.62	938.39
24421.26	937.7224455.89	935.124674.11	935.2524985.12	936.6625438.03	936.7
25599.26	935.1725708.37	936.625748.59	935.6525905.13	935.6126132.99	936.52
26821.26	936.6826941.93	936.426975.35	938.1127002.06	935.9327092.18	936.61
27275.66	936.7927613.98	936.827983.86	937.2628257.51	937.4228320.24	940.44
28354.09	937.9728568.46	938.828880.09	939.3729142.27	939.3129396.34	938.35
29584.7	938.5829619.78	938.229750.26	938.7930401.83	938.7130619.62	937.99
30895.23	937.5830923.31	938.8			

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17724.25	.03	220234.06	.02	821264.23	.15	21973.94	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18713.8	821973.94	530	505.62	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17724.25	18713.88	947	25970	30923.31	947

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	939.82	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.29	Wt. n-Val.		0.039	0.025
E.G. Elev (ft)	940.11	Reach Len. (ft)	530.00	505.62	500.00
Crit W.S. (ft)	933.04	Flow Area (sq ft)		37661.21	16283.46
E.G. Slope (ft/ft)	0.000507	Area (sq ft)	6325.35	37661.21	26372.95
Q Total (cfs)	227000.00	Flow (cfs)		171354.38	55645.63
Top Width (ft)	12882.21	Top Width (ft)	698.81	3258.71	8924.69
Vel Total (ft/s)	4.21	Avg. Vel. (ft/s)		4.55	3.42
Max Chl Dpth (ft)	17.82	Hydr. Depth (ft)		11.56	4.08
Conv. Total (cfs)	10077433.0	Conv. (cfs)		7607102.5	2470330.8
Length Wtd. (ft)	504.30	Wetted Per. (ft)		3263.00	3993.16
Min Ch El (ft)	922.00	Shear (lb/sq ft)		0.37	0.13
Alpha	1.04	Stream Power (lb/ft s)		1.66	0.44
Frctn Loss (ft)	0.29	Cum Volume (acre-ft)	7168.68	82090.21	29423.57
C & E Loss (ft)	0.00	Cum SA (acres)	1980.68	8567.32	8651.25

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18713.88 LB	19528.89	77716.91	12264.11	815.35	34.24	15.05	6.34
19528.89	20343.91	54358.42	9801.47	816.56	23.95	12.03	5.55
20343.91	21158.93	26419.49	5924.08	815.04	11.64	7.27	4.46
21158.93	21973.94 RB	12859.62	9671.54	816.05	5.67	11.89	1.33
21973.94	22570.56	8343.75	2440.62	593.51	3.68	4.11	3.42
22570.56	23167.19	8855.32	2534.63	596.63	3.90	4.25	3.49
23167.19	23763.81	9596.26	2659.83	596.63	4.23	4.46	3.61
23763.81	24360.44	9586.66	2658.36	596.70	4.22	4.46	3.61
24360.44	24957.06	7819.31	2352.47	596.73	3.44	3.94	3.32
24957.06	25553.69	5656.23	1936.91	596.63	2.49	3.25	2.92
25553.69	26150.31	5788.06	1700.63	416.34	2.55	4.08	3.40

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 198.49

INPUT
Description: Left Bank Channel Station Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

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17755.34   949.7 17770.3  945.5917800.16  946.9317861.22  947.4417874.45  944.94
17965.33   945.518046.43  938.1618121.16  929.5218215.68  928.8818299.75  929.18
18424.76   928.518492.42  929.2418515.22   934.418537.81933.277518577.61   931.3
18631.64  925.7718760.72   923.618982.39  922.6219182.33  922.9419351.96  925.89
19399.75  928.4819456.17   925.6 19485.4  923.1919519.97  929.83 19596.6  930.24
19738.61  932.7519854.32   933.819980.66  933.3220027.43  932.3120083.14  923.01
20262.39  922.3920303.41   923.120339.29   930.220561.33  930.5920796.14  931.85
21035.66  931.4521268.58   933.821390.23  934.1821457.58  929.7621475.38   922.6
21542.58  921.6121622.71   922.821702.95  925.0621759.84   921.9 21794.1   921.7
21856.69  939.8921874.44     93821886.78  933.6321951.56  935.5422253.13  935.82
22370.01  935.7522476.75   936.422822.48  936.8123016.03  936.3523062.09  936.62
23105.24  935.0623143.09   936.823245.35  935.6523435.31   934.823781.14  934.41
23931.33  934.7523966.76   935.223987.27  933.1524109.53  934.3924170.94  933.41
24310.79  933.6224363.82   934.424425.56  938.1924461.02  934.5724612.88  935.74
24910.53  934.5425129.73   935.225491.48  935.1725640.05  935.6725703.34  936.58
25752.92  933.7325851.97   934.526653.82  935.5626923.59  936.3427001.99  936.51
 27140.3  937.0527565.53     93728008.37  938.4328253.82  937.96   28316  938.07
28349.05  937.2928392.26   938.828672.32   937.928984.93  938.4729472.01  937.46
29602.06  938.2129654.22   939.429705.67  936.6529935.94  937.1530217.22  936.68
30423.24  938.9630899.22   938.830938.03  940.26

Manning's n Values        num=       6
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
17755.34    .04318515.22    .04319980.66    .02821457.58     .1521856.69    .053
24425.56    .025

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      18537.8121856.69              390   488.9     465              .1       .3
Ineffective Flow     num=        2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
17755.3418537.81     947   2613630938.03     947

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)            939.53   Element                    Left OB    Channel   Right OB
  Vel Head (ft)               0.29   Wt. n-Val.                            0.042      0.036
  E.G. Elev (ft)            939.82   Reach Len. (ft)            390.00    488.90     465.00
  Crit W.S. (ft)            933.02   Flow Area (sq ft)                   37803.00   18251.63
  E.G. Slope (ft/ft)      0.000647   Area (sq ft)              4656.79   37803.00   28350.12
  Q Total (cfs)          227000.00   Flow (cfs)                         176214.19   50785.81
  Top Width (ft)          12882.72   Top Width (ft)             506.52    3317.64    9058.56
  Vel Total (ft/s)            4.05   Avg. Vel. (ft/s)                       4.66       2.78
  Max Chl Dpth (ft)          17.92   Hydr. Depth (ft)                      11.39       4.27
  Conv. Total (cfs)       8924029.0  Conv. (cfs)                        6927491.5  1996537.5
  Length Wtd. (ft)           484.17  Wetted Per. (ft)                    3324.63    4277.40
  Min Ch El (ft)             921.61  Shear (lb/sq ft)                       0.46       0.17
  Alpha                        1.13  Stream Power (lb/ft s)                 2.14       0.48
  Frctn Loss (ft)              0.42  Cum Volume (acre-ft)      7101.87  81652.23   29109.51
  C & E Loss (ft)              0.02  Cum SA (acres)            1973.35   8529.15    8548.04


Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT    Profile #PF#1

  Left Sta      Right Sta        Flow       Area       W.P.    % Conv.    Hydr D.   Velocity
  (ft)          (ft)             (cfs)    (sq ft)      (ft)                (ft)      (ft/s)
  18537.81 LB   19367.53      65479.97   12557.22    830.12      28.85     15.13       5.21
  19367.53      20197.25      40331.00    8211.13    831.38      17.77      9.90       4.91
  20197.25      21026.97      47984.25    8056.85    830.43      21.14      9.71       5.96
  21026.97      21856.69 RB   22418.93    8977.80    832.70       9.88     10.84       2.50
  21856.69      22462.11       3961.92    2298.38    602.91       1.75      3.82       1.72
  22462.11      23067.54       2593.66    1785.47    605.43       1.14      2.95       1.45
  23067.54      23672.96       4823.67    2590.89    605.49       2.12      4.28       1.86
  23672.96      24278.38       7076.79    3260.91    605.54       3.12      5.39       2.17
  24278.38      24883.80       9019.82    2635.76    605.73       3.97      4.35       3.42
  24883.80      25489.22      11059.84    2715.50    605.42       4.87      4.49       4.07
  25489.22      26094.65      11438.68    2771.11    605.52       5.04      4.58       4.13
  26094.65      26700.07        811.44     193.61     41.35       0.36      4.68       4.19


Warning - Divided flow computed for this cross-section.

CROSS SECTION          RIVER: RIVER-1
REACH: Reach-1            RS: 198.4
```

INPUT
Description:

Eliminate vertical ineffective area in main channel by coding out GR

data between and below 21477.5, 925.4 and 21782, 925.4

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18085.7	944.1	18260.5	932.6	18368.9	929.3	18437.2	929.6	18453.2	935.5
18487	934.264	18516.1	933.2	18637.5	922.1	18819.5	923.4	19062.7	922.3
19101.5	922.8	19112.6	925.5	19173.4	924.9	19226.1	931	19425.7	932.3
19615.1	933.1	19825.3	933.7	20032	933.1	20160	930.5	20176	923.3
20191.6	921.5	20365.5	926.6	20425.9	930.6	20680.7	930.9	20860.3	931.2
21036.9	930.9	21241.6	933.5	21394.6	934.4	21450.8	930.3	21477.5	925.4
21782	925.4	21828.2	940.1	21844.6	939.1	21858.7	933.4	22035.4	934.1
22233.6	934.7	22443.2	934.8	22629	935.1	22823.4	935.7	23017.3	935.4
23115.4	934.3	23288.4	934.9	23468.9	934.3	23643.1	933.9	23839.9	933.8
24001.2	933.3	24042.9	935.2	24217.5	935.1	24395	938.9	24438.4	939
24487.6	936	24668.3	936.4	24859	937	25069.8	937.7	25249.3	937.3
25339.8	937.3	25591.8	936.7	25745.5	938.2	25751.8	928.3	25765.4	928.2
25784.7	934.9	25820.1	937.5	26038.6	936.7	26365.1	937	26536.5	937.4
26790.2	937	26965.3	937.1	26994.9	936.7	27189.1	937.3	27433.4	937.6
27509	938.1	27707.3	938.8	27773	938.8	27969.8	938.7	28150.1	939.1
28322.7	938.7	28557.7	939.3	28584.7	939.3	28779.1	939.1	28826.6	938.9
29042.8	939.5	29229.2	938.9	29414.4	938.8	29426.8	938.8	29600.3	938.8
29668.7	939.5	29874.5	937.9	29889.6	938	30114.5	939.1	30169.3	939
30428	938	30500.1	938.1	30724.2	937.9	30901.3	938.5	30943.8	938.7
30949	940.1								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18085.7	.043	18453.2	.043	19425.7	.03	21394.6	.15	21828.2	.053
24395	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18487	21828.2	365	308.13	450	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18085.7	18487	943	26263	30949	943

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	938.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.46	Wt. n-Val.		0.041	0.044
E.G. Elev (ft)	939.39	Reach Len. (ft)	365.00	308.13	450.00
Crit W.S. (ft)	934.53	Flow Area (sq ft)		32201.92	14377.85
E.G. Slope (ft/ft)	0.001193	Area (sq ft)	2055.55	32201.92	17429.76
Q Total (cfs)	227000.00	Flow (cfs)		187948.17	39051.84
Top Width (ft)	11548.40	Top Width (ft)	322.70	3337.52	7888.18
Vel Total (ft/s)	4.87	Avg. Vel. (ft/s)		5.84	2.72
Max Chl Dpth (ft)	17.43	Hydr. Depth (ft)		9.65	3.28
Conv. Total (cfs)	6570836.0	Conv. (cfs)		5440425.5	1130410.8
Length Wtd. (ft)	336.68	Wetted Per. (ft)		3343.34	4393.82
Min Ch El (ft)	921.50	Shear (lb/sq ft)		0.72	0.24
Alpha	1.24	Stream Power (lb/ft s)		4.19	0.66
Frctn Loss (ft)	0.42	Cum Volume (acre-ft)	7071.82	81259.38	28865.16
C & E Loss (ft)	0.01	Cum SA (acres)	1969.64	8491.80	8457.59

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18487.00 LB	19322.30	74971.49	11320.81	836.52	33.03	13.55	6.62
19322.30	20157.60	27166.60	5097.22	835.33	11.97	6.10	5.33
20157.60	20992.90	63007.09	8220.49	837.16	27.76	9.84	7.66
20992.90	21828.20 RB	22802.99	7563.40	834.33	10.05	9.09	3.01
21828.20	22436.25	7066.71	2697.67	592.31	3.11	4.56	2.62

22436.25	23044.31	4974.99	2208.48	608.06	2.19	3.63	2.25
23044.31	23652.36	7034.62	2718.71	608.06	3.10	4.47	2.59
23652.36	24260.41	7476.36	2819.98	608.11	3.29	4.64	2.65
24260.41	24868.47	3768.96	1204.51	576.09	1.66	2.09	3.13
24868.47	25476.52	2646.83	963.50	608.05	1.17	1.58	2.75
25476.52	26084.57	4836.94	1389.48	614.72	2.13	2.29	3.48
26084.57	26692.63	1246.42	375.51	178.43	0.55	2.10	3.32

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 198.34

INPUT
Description:

Eliminate vertical ineffective area in main channel by coding out GR

data between and below sta, elev. 21477.4, 925.4 and 21835, 925.4

Station Elevation Data num= 93

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17998.4	944.3	18237.6	940.7	18434.2	937.5	18443.8	935.4	18503.6	937.8
18544.3	936	18550.4	932.5	18642	927.1	18663.5	922.8	18796.3	924.2
19122.5	922.7	19290.1	932.6	19296.6	934.5	19484.8	933.3	19672.4	931.1
19862.9	934.5	20051	934	20231.3	932.4	20253	923.8	20403.6	924.8
20483.7	930.5	20683.2	931	20923.2	930.4	21042.5	931	21088.4	927.8
21170	932.8	21397.1	933.2	21420.7	931.9	21448.7	933	21477.4	925.4
21835	925.4	21880.9	939.6	21897.3	939	21912.9	932.5	22096.1	935
22282.1	936.1	22471.7	936.2	22664.5	936.2	22902.7	936.4	23102	935.8
23285	936	23509.4	935.1	23728.9	934.8	23928.9	933.1	24125.4	933.4
24353	933.2	24408.7	938.2	24472.6	934.3	24484.1	931.3	24681.1	934.9
24881.8	935.3	24895.7	935.4	25082.2	935	25187.5	937.2	25406.8	935.8
25594.2	935.8	25747.9	935.9	25763	927.9	25771.6	927.2	25791.8	935.2
25857.3	934.2	26053.7	935	26238.9	935.1	26476.4	935.6	26747.9	935.5
26996.7	936.3	27023.9	937.2	27049.4	935.1	27095.1	936.1	27276.4	936.5
27463.2	936.8	27548	936.7	27772.2	936.9	27819.5	937.4	28046	938
28255.8	937.9	28532.2	938.3	28738.7	938.4	28924.5	938	29148.2	938.1
29364.3	938.4	29604.3	938.7	29688.3	937.1	29697.6	939.4	29731.1	937.8
29942.8	938.2	30193	937.9	30434	937.4	30662	937.8	30914	937.1
30937.6	939.1	30948.7	936.8	30955	939.4				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17998.4	.043	18503.6	.043	19290.1	.03	21397.1	.15	21880.9	.053
24353	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18503.6	21880.9	200	200.38	200	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17998.4	18491.52	943	26353	30955	943

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	938.52	Element			
Vel Head (ft)	0.44	Wt. n-Val.	0.043	0.042	0.035
E.G. Elev (ft)	938.96	Reach Len. (ft)	200.00	200.38	200.00
Crit W.S. (ft)	934.69	Flow Area (sq ft)	11.67	30356.04	15245.72
E.G. Slope (ft/ft)	0.001299	Area (sq ft)	167.13	30356.04	20377.90
Q Total (cfs)	227000.00	Flow (cfs)	14.20	174687.25	52298.56
Top Width (ft)	12378.75	Top Width (ft)	132.29	3373.82	8872.63
Vel Total (ft/s)	4.98	Avg. Vel. (ft/s)	1.22	5.75	3.43
Max Chl Dpth (ft)	15.82	Hydr. Depth (ft)	0.97	9.00	3.42
Conv. Total (cfs)	6298460.5	Conv. (cfs)	393.9	4846963.5	1451103.1
Length Wtd. (ft)	200.31	Wetted Per. (ft)	12.09	3381.16	4460.13
Min Ch El (ft)	922.70	Shear (lb/sq ft)	0.08	0.73	0.28
Alpha	1.14	Stream Power (lb/ft s)	0.10	4.19	0.95

Frctn Loss (ft)	0.53	Cum Volume (acre-ft)	7062.51	81038.13	28669.87
C & E Loss (ft)	0.09	Cum SA (acres)	1967.73	8468.07	8371.01

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18469.92	18503.60	14.20	11.67	12.09	0.01	0.97	1.22
18503.60 LB	19347.93	66579.23	10164.92	846.46	29.33	12.04	6.55
19347.93	20192.25	23682.24	4463.32	844.38	10.43	5.29	5.31
20192.25	21036.57	59817.79	7788.84	846.18	26.35	9.22	7.68
21036.57	21880.90 RB	24607.97	7938.94	844.14	10.84	9.44	3.10
21880.90	22485.84	4281.62	1954.09	588.62	1.89	3.33	2.19
22485.84	23090.78	2404.54	1397.50	604.94	1.06	2.31	1.72
23090.78	23695.72	3801.19	1839.43	604.94	1.67	3.04	2.07
23695.72	24300.66	8519.63	2985.28	604.95	3.75	4.93	2.85
24300.66	24905.60	12347.38	2476.56	605.70	5.44	4.09	4.99
24905.60	25510.54	6191.39	1570.40	604.97	2.73	2.60	3.94
25510.54	26115.48	10972.50	2218.86	608.49	4.83	3.67	4.95
26115.48	26720.42	3780.33	803.60	237.52	1.67	3.38	4.70

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 198.3

INPUT
Description: APPROX. ALIGNMENT OF EL MIRAGE RD.
Left Channel Bank
Station Interpolated

Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18002.3	943.6	18229.9	940.3	18374.3	939.6	18538.4	937.0131	18539.3	937
18564.5	938.8	18604.74	937.0309	18726	931.7	18875.4	927	18921.4	926.2
18922.3	922.1	18951.4	922.5	18966.3	924.5	19051.6	924	19079	921.7
19101.9	923.9	19243.4	931.1	19423.3	932.9	19557.2	933	19701.9	933.3
19851.2	933	20014.2	933.9	20171.9	932.9	20263.3	931.4	20312.5	928
20346.7	927.3	20354.4	923.9	20369.8	923.3	20384.2	925	20417	923
20420.8	925.6	20579.1	931.7	20750.3	932.7	20895.7	932.5	21002.8	933.2
21048.8	930.7	21095.1	929.7	21251.3	930.7	21385.3	929.3	21517.5	925.8
21674.4	928.3	21811.1	935.4	21935	940.2	22076.1	939.3	22218.4	938.4
22322.9	935.4	22455.9	935.7	22635.6	936.5	22804.1	936.2	22986.2	936
23138	935.8	23287.5	936	23473.4	936.8	23644.2	936.2	23777.2	936.2
23929.4	935.4	24036	935.2	24190.9	937	24355	938.1	24492.3	936.3
24793.6	935.3	24862.7	935.3	25047.6	935.9	25051.9	936	25253.6	935
25326.5	934.9	25651.4	935.2	25793.8	935.2	25965.5	935.2	26032.2	935.4
26231.9	935.7	26304.9	936	26641.6	937.5	26774.7	937.7	26991.6	938
27104.6	938.3	27248.6	937.9	27248.7	937.9	27501.3	937.7	27524.3	937.8
27888.8	938.2	28016.8	939.3	28264.1	939	28485.7	939.5	28732.1	939.7
28841.9	939.8	29098.5	939.8	29142.6	939.8	29332.4	940.3	29590	939.8
29714.5	940	29901.9	940.1	30063	940.2	30068.9	940.2	30475.8	940
30520.7	939.9	30695.1	940.5	30779	940.8				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18002.3	.043	18564.5	.043	20014.2	.03	21002.8	.15	21935	.053
24355	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18604.74	21935	200	200.38	210	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
26433	30779	942

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	937.03	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.31	Wt. n-Val.	0.043	0.048	0.030
E.G. Elev (ft)	938.34	Reach Len. (ft)	200.00	200.38	210.00
Crit W.S. (ft)	936.53	Flow Area (sq ft)	0.04	20951.32	4929.86
E.G. Slope (ft/ft)	0.008027	Area (sq ft)	0.04	20951.32	4953.84
Q Total (cfs)	227000.00	Flow (cfs)	0.01	200771.28	26228.71
Top Width (ft)	7281.21	Top Width (ft)	2.59	3248.51	4030.11
Vel Total (ft/s)	8.77	Avg. Vel. (ft/s)	0.20	9.58	5.32
Max Chl Dpth (ft)	15.33	Hydr. Depth (ft)	0.02	6.45	1.26
Conv. Total (cfs)	2533676.5	Conv. (cfs)	0.1	2240922.8	292753.6
Length Wtd. (ft)	202.19	Wetted Per. (ft)	2.59	3254.86	3926.43
Min Ch El (ft)	921.70	Shear (lb/sq ft)	0.01	3.23	0.63
Alpha	1.10	Stream Power (lb/ft s)	0.00	30.91	3.35
Frctn Loss (ft)	0.61	Cum Volume (acre-ft)	7062.12	80920.12	28611.72
C & E Loss (ft)	0.26	Cum SA (acres)	1967.42	8452.83	8341.39

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18524.41	18564.58	0.01	0.04	2.54	0.00	0.02	0.20
18564.58	18604.74						
18604.74 LB	19437.30	80322.99	6710.16	836.59	35.38	8.06	11.97
19437.30	20269.87	27888.43	3272.13	832.60	12.29	3.93	8.52
20269.87	21102.44	74696.55	5450.12	834.57	32.91	6.55	13.71
21102.44	21935.00 RB	17863.26	5518.91	751.10	7.87	7.35	3.24
21935.00	22524.60	930.81	324.71	258.60	0.41	1.26	2.87
22524.60	23114.20	1157.13	514.49	589.60	0.51	0.87	2.25
23114.20	23703.80	948.44	456.62	589.60	0.42	0.77	2.08
23703.80	24293.40	1585.24	578.06	492.01	0.70	1.17	2.74
24293.40	24883.00	3261.47	546.19	446.61	1.44	1.22	5.97
24883.00	25472.60	7399.26	997.84	589.60	3.26	1.69	7.42
25472.60	26062.20	8468.98	1082.05	589.60	3.73	1.84	7.83
26062.20	26651.80	2477.43	429.91	370.80	1.09	1.16	5.76

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 198.26

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17999.7	942.6	18313.2	938.5	18542.4	939.9	18551.8	941.7	18596.3	937
18698.8	938.4	18711.6	936.9	18737.6	922.3	18751.5	918.7	19062.3	921
19107.7	920.2	19164.9	922.4	19167.1	927.6	19378.8	930.1	19392.8	932.2
19424.6	929.9	19437.1	932	19528.5	929.7	19556	933.3	19613.6	930.9
19659.4	931.3	19674.5	930.3	19717	933.5	19749.9	930.7	19778.2	933.5
19855.4	930.4	19861.2	928.4	19895.6	932.2	20188.9	931.6	20230.4	926.2
20260.2	931.8	20318.5	931.6	20364.3	922.7	20423.5	922.7	20704.8	930.4
20771.4	927.5	20794.6	930.3	20942.6	929.6	21076.5	932	21130.8	930.1
21257.8	933.6	21455.1	931.8	21456.3	927.7	21468.3	925.5	21478.1	926.6
21520.1	919.2	21608.8	920.6	21611.4	919.2	21630.8	923.3	21664.7	925.8
21937	925.8	22010.9	935.7	22028	931.5	22326.1	932.8	22697.1	933.5
23034.1	934.2	23384.5	934.6	23687.2	933.7	23977.5	934.4	24283.4	936.1

24364.8	935.4	24384.8	937.2	24392	935	24690.9	934.6	24866.6	933.4
25272.7	934.6	25580.6	935.3	25656.8	935.5	25757.5	933.4	25767.2	926.2
25782.2	926	25798.8	935.3	25817.1	933.6	25834.5	935.1	25869.3	932.9
26255.5	933.6	26278	933.8	26638.2	934.4	26959.7	934.6	27035.6	936.6
27068.3	934.9	27394.5	936.2	27691	935.9	28097.7	936.3	28395.2	936.7
28754.1	937.1	29271.2	936.3	29567.7	936.3	29684.2	938.5	29696.7	935.9
30075.7	936.4	30498.8	936.8	30790.8	935.9	30976.4	939.2	30982.7	942.5
30995	943.5								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17999.7	.043	18711.6	.043	19895.6	.03	21257.8	.15	22010.9	.025
24392	.053	25757.5	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18711.6	22010.9	320	300.4	260	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
26486	30995	942

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	937.03	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.44	Wt. n-Val.	0.043	0.046	0.028
E.G. Elev (ft)	937.47	Reach Len. (ft)	320.00	300.40	260.00
Crit W.S. (ft)	933.39	Flow Area (sq ft)	0.11	29810.76	13523.52
E.G. Slope (ft/ft)	0.001570	Area (sq ft)	0.11	29810.76	17426.99
Q Total (cfs)	227000.00	Flow (cfs)	0.02	167816.67	59183.30
Top Width (ft)	11953.60	Top Width (ft)	3.73	3299.30	8650.57
Vel Total (ft/s)	5.24	Avg. Vel. (ft/s)	0.17	5.63	4.38
Max Chl Dpth (ft)	18.33	Hydr. Depth (ft)	0.03	9.04	3.02
Conv. Total (cfs)	5729676.0	Conv. (cfs)	0.5	4235837.5	1493837.8
Length Wtd. (ft)	290.13	Wetted Per. (ft)	3.74	3316.55	4478.63
Min Ch El (ft)	918.70	Shear (lb/sq ft)	0.00	0.88	0.30
Alpha	1.04	Stream Power (lb/ft s)	0.00	4.96	1.29
Frctn Loss (ft)	0.47	Cum Volume (acre-ft)	7062.12	80803.36	28557.77
C & E Loss (ft)	0.00	Cum SA (acres)	1967.41	8437.77	8310.83

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18569.22	18616.68	0.00	0.04	2.61	0.00	0.02	0.09
18616.68	18664.14						
18664.14	18711.60	0.02	0.07	1.13	0.00	0.07	0.22
18711.60 LB	19536.43	70936.98	10134.90	833.13	31.25	12.29	7.00
19536.43	20361.25	25402.14	4738.39	827.73	11.19	5.74	5.36
20361.25	21186.07	56737.02	7114.84	825.30	24.99	8.63	7.97
21186.07	22010.90 RB	14740.48	7822.62	830.39	6.49	9.48	1.88
22010.90	22609.84	16220.47	2638.55	599.45	7.15	4.41	6.15
22609.84	23208.78	9100.11	1864.70	598.94	4.01	3.11	4.88
23208.78	23807.72	7808.92	1701.12	598.94	3.44	2.84	4.59
23807.72	24406.66	4209.72	1182.27	596.90	1.85	1.98	3.56
24406.66	25005.60	3486.44	1645.93	598.94	1.54	2.75	2.12
25005.60	25604.54	2778.78	1436.46	598.94	1.22	2.40	1.93
25604.54	26203.48	11184.59	2162.48	603.98	4.93	3.61	5.17
26203.48	26802.42	4394.34	892.04	282.52	1.94	3.16	4.93

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 198.2

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18101	942.6	18409.7	937.5	18696.6	936	18811.5	934.8	18834.5	923.4
18843.2	924.4	18844.6	921.1	18850.1	918.8	18851	920.8	18995.7	919.3
19009.9	923.2	19070.4	923.7	19088.1	926	19092.7	923	19114.5	924.2
19115.3	926	19210.1	921.7	19295.2	921.1	19308.1	929	19329	931.3
19343.1	927.7	19484.7	926.3	19505.3	930.5	19525.1	931	19525.7	927.8

19557.8	934.5	19568.3	932.4	19583.4	935.4	19601.9	930.1	19792.9	933.3
19822.3	926.6	19869.8	930.7	19940.6	929	20073.6	932.7	20126.5	930.5
20193	931	20220.3	927.5	20242	930.1	20355.2	931	20387.4	921.9
20485.6	922	20616.8	931	20665	927.3	20828.9	927.3	20851.5	929.1
20915.9	926.9	20938.9	924.1	20994.4	930.3	21088.3	924.9	21091.1	931.3
21296	929.9	21327.4	927.8	21489.8	932.5	21513.6	926.8	21568.7	924.7
21572.3	919.2	21576.7	924.9	21673.6	919.2	21677.5	920.9	21680.9	925.7
21698.2	923.7	21743.2	927	21824.6	925	21857.5	927.1	21876.9	924.9
21982	926.1	22011	933.8	22023.3	934.5	22039.6	930.6	22338.2	932.3
22628.6	933.5	22940	933.4	23232.5	934.4	23543.2	934.3	23824	934
24125.7	934	24411	935.5	24779.6	933.5	25079	933.5	25409.4	933.3
25738.4	932.9	25761.6	932.7	25769.2	924.6	25787	925.4	25805.1	935
26101.9	933.2	26579.8	934.2	26862.9	934.5	27269.9	935.3	27634.8	934.9
27952.7	935.1	28305.8	934.9	28731.4	936.9	29012.6	936	29364.8	936.5
29520	937.3								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18101	.043	18811.5	.043	19792.9	.03	21091.1	.15	22023.3	.025
24411	.053	25738.4	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18811.5	22023.3	570	493.64	395	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
26575	29520	941

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	936.54	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.46	Wt. n-Val.	0.043	0.045	0.029
E.G. Elev (ft)	937.00	Reach Len. (ft)	570.00	493.64	395.00
Crit W.S. (ft)	932.69	Flow Area (sq ft)	158.79	29294.96	13371.57
E.G. Slope (ft/ft)	0.001661	Area (sq ft)	158.79	29294.96	16662.09
Q Total (cfs)	227000.00	Flow (cfs)	180.99	170365.78	56453.21
Top Width (ft)	10589.79	Top Width (ft)	218.11	3211.80	7159.88
Vel Total (ft/s)	5.30	Avg. Vel. (ft/s)	1.14	5.82	4.22
Max Chl Dpth (ft)	17.74	Hydr. Depth (ft)	0.73	9.12	2.94
Conv. Total (cfs)	5569282.0	Conv. (cfs)	4440.5	4179802.3	1385039.1
Length Wtd. (ft)	473.75	Wetted Per. (ft)	218.12	3248.44	4558.10
Min Ch El (ft)	918.80	Shear (lb/sq ft)	0.08	0.94	0.30
Alpha	1.06	Stream Power (lb/ft s)	0.09	5.44	1.28
Frctn Loss (ft)	1.04	Cum Volume (acre-ft)	7061.54	80599.55	28456.04
C & E Loss (ft)	0.02	Cum SA (acres)	1966.59	8415.32	8263.64

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18574.67	18622.03	0.42	2.15	28.64	0.00	0.07	0.20
18622.03	18669.40	6.08	12.96	47.37	0.00	0.27	0.47
18669.40	18716.77	19.11	25.75	47.37	0.01	0.54	0.74
18716.77	18764.13	52.55	47.25	47.37	0.02	1.00	1.11
18764.13	18811.50	102.83	70.69	47.37	0.05	1.49	1.45
18811.50 LB	19614.45	64097.05	9259.98	820.33	28.24	11.53	6.92
19614.45	20417.40	33326.76	5098.63	805.67	14.68	6.35	6.54
20417.40	21220.35	59518.43	7289.76	808.37	26.22	9.08	8.16
21220.35	22023.30 RB	13423.53	7646.60	814.06	5.91	9.52	1.76
22023.30	22523.08	14830.43	2297.99	500.25	6.53	4.60	6.45
22523.08	23022.86	7733.59	1554.26	499.78	3.41	3.11	4.98
23022.86	23522.64	4735.44	1158.01	499.78	2.09	2.32	4.09
23522.64	24022.42	5171.77	1220.89	499.78	2.28	2.44	4.24
24022.42	24522.20	3054.45	922.02	499.79	1.35	1.84	3.31
24522.20	25021.98	2846.77	1339.39	499.78	1.25	2.68	2.13
25021.98	25521.76	3758.38	1582.32	499.78	1.66	3.17	2.38
25521.76	26021.54	6769.80	1702.12	505.70	2.98	3.41	3.98
26021.54	26521.32	7011.10	1465.43	499.78	3.09	2.93	4.78
26521.32	27021.10	541.52	129.14	53.68	0.24	2.41	4.19

Warning - Divided flow computed for this cross-section.

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 198.11

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17902	940.1	18077.6	938.8	18285.2	937.6	18436.3	936	18635.1	935.7
18787.2	934.1	18894.8	935.8	18903.8	931.1	18923.2	928.1	18939.7	923.5
19122.2	923.5	19199.7	924.9	19234.1	929.4	19286.3	928.3	19335.2	929.8
19372.3	924.2	19506.4	926	19564.7	929	19617.2	925	19639.5	925.6
19763.7	933.5	19925.8	930.1	20092.9	930.9	20123.6	926.3	20294.9	924.1
20523	923.7	20673.9	925.2	20709.9	926.9	20876.2	925.8	20906.4	924.1
21086.1	922.4	21087.1	925.1	21141.5	933	21302.1	931.6	21535.1	933
21656.1	924.8	21737.7	924.9	21770.7	926.7	21910.6	924.6	21948.4	926
22088.9	924.6	22121.8	931.1	22296.3	931.9	22484.5	932	22633.3	932.5
22816.2	933.4	23003.5	933.4	23161	934.5	23340.3	934.1	23499.7	933.4
23649.7	933.5	23813.5	933.5	23915.2	933.9	23972.1	931.4	24078.6	933.2
24242.2	933.8	24384	932.8	24481.8	934.8	24634.2	932.7	24779.5	933.5
25003.2	934.3	25110.4	931.4	25304.6	932.3	25445.6	932.1	25447.8	933.1
25474.2	932	25683.1	932.5	25769.8	933.1	25776.5	923.8	25795.3	924.1
25810.7	933.8	25856.5	934.2	25932.8	932.5	26094.9	933.3	26175.2	933.4
26338.5	932.9	26534	932.4	26619.8	932.5	26827.4	934.5	27003.2	933
27014.2	932.5	27029	935.2	27061.1	933.7	27210.1	934.6	27241.8	934.6
27440	934.9	27468.3	935	27703.8	935.5	27718.9	935.6	27903.4	935.2
27911.6	935.2	28087.3	935.5	28153.1	935.6	28318.3	934.7	28345.7	934.8
28370	937.1								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17902	.043	18894.8	.043	20092.9	.03	20906.4	.15	22296.3	.15
23161	.025	24384	.053	25769.8	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18894.8	22296.3	565	483.89	220	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
26690	28370	939

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	935.23	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.70	Wt. n-Val.	0.043	0.046	0.039
E.G. Elev (ft)	935.93	Reach Len. (ft)	565.00	483.89	220.00
Crit W.S. (ft)	932.50	Flow Area (sq ft)	101.90	26857.51	9719.79
E.G. Slope (ft/ft)	0.003079	Area (sq ft)	101.90	26857.51	10585.69
Q Total (cfs)	227000.00	Flow (cfs)	133.88	191647.03	35219.10
Top Width (ft)	9036.81	Top Width (ft)	179.65	3400.42	5456.75
Vel Total (ft/s)	6.19	Avg. Vel. (ft/s)	1.31	7.14	3.62
Max Chl Dpth (ft)	12.83	Hydr. Depth (ft)	0.57	7.90	2.21
Conv. Total (cfs)	4090948.5	Conv. (cfs)	2412.8	3453824.3	634711.5
Length Wtd. (ft)	451.69	Wetted Per. (ft)	179.66	3407.53	4401.70
Min Ch El (ft)	922.40	Shear (lb/sq ft)	0.11	1.52	0.42
Alpha	1.18	Stream Power (lb/ft s)	0.14	10.81	1.54
Frctn Loss (ft)	1.08	Cum Volume (acre-ft)	7059.83	80281.38	28332.49
C & E Loss (ft)	0.00	Cum SA (acres)	1963.99	8377.86	8206.44

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18630.05	18696.24	0.50	1.50	16.88	0.00	0.09	0.34
18696.24	18762.43	38.24	34.80	66.19	0.02	0.53	1.10
18762.43	18828.61	90.39	58.31	66.19	0.04	0.88	1.55
18828.61	18894.80	4.75	7.30	30.39	0.00	0.24	0.65
18894.80 LB	19745.18	61820.66	7624.09	852.39	27.23	8.98	8.11
19745.18	20595.55	75704.64	6709.53	850.81	33.35	7.89	11.28
20595.55	21445.93	41707.13	6368.78	852.94	18.37	7.49	6.55

21445.93	22296.30 RB	12414.55	6155.11	851.39	5.47	7.24	2.02
22296.30	22701.21	1393.05	1236.57	404.92	0.61	3.05	1.13
22701.21	23106.13	590.03	738.53	404.92	0.26	1.82	0.80
23106.13	23511.04	1578.60	475.74	404.92	0.70	1.17	3.32
23511.04	23915.95	3146.36	688.07	404.91	1.39	1.70	4.57
23915.95	24320.87	4713.50	876.97	404.99	2.08	2.17	5.37
24320.87	24725.78	1995.01	715.17	404.95	0.88	1.77	2.79
24725.78	25130.69	1645.66	732.10	404.95	0.72	1.81	2.25
25130.69	25535.61	4169.12	1279.03	405.16	1.84	3.16	3.26
25535.61	25940.52	5934.84	1216.07	412.50	2.61	3.00	4.88
25940.52	26345.43	4610.88	865.40	404.92	2.03	2.14	5.33
26345.43	26750.35	5442.07	896.13	344.57	2.40	2.60	6.07

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 198.02

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18153.5	940	18336.7	937.7	18357.8	937.7	18427.1	933.1	18468.4	932.3
18476.3	934.5	18695.6	932.2	18884.6	933.7	19036.4	932.5	19059.2	923
19096.9	922.8	19278.2	923.2	19357.9	929.2	19375.9	923.3	19421.2	923.6
19459	926.3	19476.5	924	19522.8	927.5	19612	923	19634.3	928.7
19669.4	929	19767	923.4	19790.3	924.6	19814	928.1	19887.3	929.2
19926.4	927.3	20002	926.6	20039.1	928	20069.7	924.8	20313.3	928.1
20533.5	923.3	20537.3	924.7	20726.2	923.5	20976.3	923.3	21090	923.1
21106.9	931.3	21144.6	931.5	21186.3	924.8	21220.9	930.3	21416.5	930
21620.2	930.3	21744.6	924.1	21927.7	924.2	22120	924.7	22335.1	922.9
22432.3	926.9	22451.1	930.1	22495.8	927.5	22684	932.1	22891.4	932.7
23097.9	933.6	23287.6	933.4	23471.1	933.1	23667.9	932.5	23865.8	932.8
23939.4	931.3	24212.7	932	24397.1	933.9	24656.2	933.9	24794.2	933.2
24803.5	931.7	25005	933.3	25131.1	931.3	25294.5	932.7	25606.3	930.7
25753.7	931.7	25761.4	923.7	25775.8	923.6	25790.2	932.7	25801.4	933.7
25809.2	931.7	25823.5	933	25883.5	931.4	26097.6	932.3	26158.6	932.6
26386.1	932.6	26457.8	932.7	26687.2	932.4	26878.7	933.2	27003.7	933.1
27012	935.5	27063.7	933.5	27320.5	933.6	27595.5	934.3	27836	934.5
28117.7	934.5	28301.8	934	28358.9	936.5	28613.6	935.5	28714.6	935.5
28896.2	936.1	28970.8	936	29212.7	935.9	29433	935.9	29614.3	936.3
29659.1	936.8								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18153.5	.043	19036.4	.043	19096.9	.032	21106.9	.065	22451.1	.025
24397.1	.053	25753.7	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19036.4	22684	510	501.89	495	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
26757	29659.1	938

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	934.16	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.69	Wt. n-Val.	0.043	0.038	0.030
E.G. Elev (ft)	934.85	Reach Len. (ft)	510.00	501.89	495.00
Crit W.S. (ft)	930.97	Flow Area (sq ft)	649.97	29582.61	6802.27
E.G. Slope (ft/ft)	0.001900	Area (sq ft)	649.97	29582.61	7310.21
Q Total (cfs)	227000.00	Flow (cfs)	1041.70	205439.11	20519.18
Top Width (ft)	9122.57	Top Width (ft)	592.07	3647.60	4882.91
Vel Total (ft/s)	6.13	Avg. Vel. (ft/s)	1.60	6.94	3.02
Max Chl Dpth (ft)	11.36	Hydr. Depth (ft)	1.10	8.11	1.67
Conv. Total (cfs)	5208234.5	Conv. (cfs)	23900.6	4713546.5	470787.3
Length Wtd. (ft)	501.25	Wetted Per. (ft)	592.39	3656.41	4079.61
Min Ch El (ft)	922.80	Shear (lb/sq ft)	0.13	0.96	0.20
Alpha	1.18	Stream Power (lb/ft s)	0.21	6.66	0.60
Frctn Loss (ft)	0.82	Cum Volume (acre-ft)	7054.96	79967.90	28287.30
C & E Loss (ft)	0.05	Cum SA (acres)	1958.99	8338.71	8180.33

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18388.94	18447.80	46.14	34.70	36.77	0.02	0.94	1.33
18447.80	18506.66	72.43	40.52	27.55	0.03	1.48	1.79
18506.66	18565.52	10.61	17.14	57.17	0.00	0.30	0.62
18565.52	18624.38	69.29	53.46	58.86	0.03	0.91	1.30
18624.38	18683.24	164.45	89.79	58.86	0.07	1.53	1.83
18683.24	18742.10	217.56	106.21	58.86	0.10	1.80	2.05
18742.10	18800.96	136.01	80.12	58.86	0.06	1.36	1.70
18800.96	18859.82	67.49	52.62	58.86	0.03	0.89	1.28
18859.82	18918.68	33.12	34.33	58.86	0.01	0.58	0.96
18918.68	18977.54	76.78	56.85	58.86	0.03	0.97	1.35
18977.54	19036.40	147.85	84.24	58.86	0.07	1.43	1.76
19036.40 LB	19948.30	65192.39	7907.20	916.68	28.72	8.67	8.24
19948.30	20860.20	68027.02	8003.67	912.42	29.97	8.78	8.50
20860.20	21772.10	34744.03	5949.57	914.91	15.31	6.52	5.84
21772.10	22684.00 RB	37475.70	7722.16	912.39	16.51	8.47	4.85
22684.00	23149.01	1758.23	605.37	465.01	0.77	1.30	2.90
23149.01	23614.01	1059.00	446.59	465.01	0.47	0.96	2.37
23614.01	24079.02	3501.81	915.28	465.02	1.54	1.97	3.83
24079.02	24544.03	1867.12	574.73	465.02	0.82	1.24	3.25
24544.03	25009.03	542.11	469.11	465.13	0.24	1.01	1.16
25009.03	25474.04	1761.16	951.17	465.03	0.78	2.05	1.85
25474.04	25939.05	5138.51	1439.67	471.43	2.26	3.10	3.57
25939.05	26404.05	3014.21	836.52	465.01	1.33	1.80	3.60
26404.05	26869.06	1877.01	563.83	352.95	0.83	1.60	3.33

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 197.92

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18191.2	940.2	18223.7	936.4	18236.8	932.1	18243.4	933.1	18254	931.2
18425.3	931.2	18610.6	933.3	18846.9	932.9	19048.7	932.9	19072.2	930.3
19093	931.8	19230.1	930.7	19266.6	923.1	19372.1	923.1	19598.9	923
19804.4	921.6	19862.5	921.4	19905.4	923.5	19971.2	921.7	20033.3	925
20045.7	921.6	20203.7	923.1	20246.3	925.1	20307.8	920.6	20357.5	924.4
20554.3	926.4	20730.4	923.7	20984.8	922.3	21145.6	921.9	21155.7	921.5
21172.4	929.1	21356.9	929.1	21520.1	927.1	21683.5	927.4	21845.4	924.1
21870.7	926.6	21903.8	923.5	21929.8	926.1	21937	925.4	21940.7	923.5
22081.5	923.2	22083.6	924.7	22267.5	925.3	22293.3	924.8	22337	927.2
22493.9	923.2	22644.9	923.6	22697.3	921.5	22757.5	921.5	22810.4	929.9
23004.6	932.6	23164.7	932.8	23355.3	932.9	23559	932.6	23719.9	933.3
23817.4	932.7	23885.7	930.2	24055	931	24231.6	931.5	24386.7	933.5
24420.9	933.6	24424.9	931.6	24498.9	930.7	24681.5	930.6	24722	930.6
24976.1	930.1	25040.6	929.9	25249.8	930.1	25390.6	930.2	25629.1	930.1
25722	930.7	25725.8	922.4	25744.8	923.2	25757.1	931.9	25830.8	930.3
26008.8	930.6	26229.9	931.4	26358.1	931.9	26757.8	931.5	26919.5	931.7
27066.7	932.6	27324.3	932.6	27571.1	933.6	27749.9	932.9	27891.9	933.3
28082.3	933.3	28251.7	933.3	28402.7	934.4	28565.6	934.9	28634.2	934.8
28872.4	934.6	29049.1	934.8	29292.4	934.6	29469.4	934.6	29588.3	934.2
29631.2	936.6								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18191.2	.043	19093	.032	21145.6	.065	23004.6	.025	24386.7	.05
25722	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19093	23004.6	500	488.75	510	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
26797	29631.2	939

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft) 933.47 Element Left OB Channel Right OB

Vel Head (ft)	0.52	Wt. n-Val.	0.043	0.039	0.035
E.G. Elev (ft)	933.98	Reach Len. (ft)	500.00	488.75	510.00
Crit W.S. (ft)	929.31	Flow Area (sq ft)	930.02	33334.96	8336.17
E.G. Slope (ft/ft)	0.001425	Area (sq ft)	930.02	33334.96	9224.36
Q Total (cfs)	227000.00	Flow (cfs)	1277.17	201331.28	24391.55
Top Width (ft)	9936.79	Top Width (ft)	860.36	3911.60	5164.84
Vel Total (ft/s)	5.33	Avg. Vel. (ft/s)	1.37	6.04	2.93
Max Chl Dpth (ft)	12.87	Hydr. Depth (ft)	1.08	8.52	2.22
Conv. Total (cfs)	6013258.0	Conv. (cfs)	33832.3	5333290.5	646135.3
Length Wtd. (ft)	491.28	Wetted Per. (ft)	861.03	3917.33	3763.87
Min Ch El (ft)	920.60	Shear (lb/sq ft)	0.10	0.76	0.20
Alpha	1.17	Stream Power (lb/ft s)	0.13	4.57	0.58
Frctn Loss (ft)	0.71	Cum Volume (acre-ft)	7045.71	79605.44	28193.36
C & E Loss (ft)	0.01	Cum SA (acres)	1950.49	8295.16	8123.24

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18191.20	18251.32	16.20	17.06	19.10	0.01	0.91	0.95
18251.32	18311.44	238.45	135.53	60.16	0.11	2.25	1.76
18311.44	18371.56	240.45	136.17	60.12	0.11	2.27	1.77
18371.56	18431.68	239.78	135.95	60.12	0.11	2.26	1.76
18431.68	18491.80	171.92	111.35	60.12	0.08	1.85	1.54
18491.80	18551.92	80.05	70.39	60.12	0.04	1.17	1.14
18551.92	18612.04	18.72	29.44	60.12	0.01	0.49	0.64
18612.04	18672.16	4.88	13.13	60.12	0.00	0.22	0.37
18672.16	18732.28	9.22	19.25	60.12	0.00	0.32	0.48
18732.28	18792.40	14.61	25.37	60.12	0.01	0.42	0.58
18792.40	18852.52	20.91	31.46	60.12	0.01	0.52	0.66
18852.52	18912.64	23.77	33.97	60.12	0.01	0.57	0.70
18912.64	18972.76	23.77	33.97	60.12	0.01	0.57	0.70
18972.76	19032.88	23.77	33.97	60.12	0.01	0.57	0.70
19032.88	19093.00	150.66	103.00	60.32	0.07	1.71	1.46
19093.00 LB	20070.90	72027.57	9226.24	979.32	31.73	9.43	7.81
20070.90	21048.80	75783.75	9508.03	978.30	33.38	9.72	7.97
21048.80	22026.70	27686.35	6971.50	980.49	12.20	7.13	3.97
22026.70	23004.60 RB	25833.58	7629.19	979.23	11.38	7.80	3.39
23004.60	23446.37	486.43	297.30	441.77	0.21	0.67	1.64
23446.37	23888.15	675.08	361.92	441.82	0.30	0.82	1.87
23888.15	24329.92	3667.82	999.15	441.78	1.62	2.26	3.67
24329.92	24771.69	1984.36	968.53	405.05	0.87	2.39	2.05
24771.69	25213.47	3499.16	1472.24	441.77	1.54	3.33	2.38
25213.47	25655.24	3474.75	1466.07	441.77	1.53	3.32	2.37
25655.24	26097.01	6307.70	1450.32	449.90	2.78	3.28	4.35
26097.01	26538.79	2736.90	838.18	441.77	1.21	1.90	3.27
26538.79	26980.56	1559.37	482.46	258.21	0.69	1.87	3.23

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 197.83

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18231.8	937.8	18257.1	928.9	18407.4	929	18471.4	932.6	18572.1	930
18745	930.8	18926.4	932.9	18995	933.5	19038.2	927.7	19197.2	927.5
19350.5	931	19407.4	931.3	19436	922.4	19590.8	923.4	19697.5	922
19733	925.3	19894.8	925.2	20001.6	924.9	20046.1	921.4	20115.4	919.6
20274.2	920.4	20431.2	921.2	20464.2	924.5	20626.8	925.4	20764.6	925.2
20841.9	920.5	21078.2	919.9	21190.6	919.7	21234.5	929.4	21413.8	928.4
21574.1	926.9	21676.3	922.3	21816.8	923.3	21837.1	925.7	22000.2	922.8
22056.2	928.4	22176.2	925.8	22230.6	922.5	22328.8	929.8	22370.8	929.2
22433.9	923.3	22513	924.9	22677	921.9	22741.6	920.4	22847.7	921.6
22907	920.7	22943.5	927.8	23053.4	932.2	23248.1	932.3	23447.8	932
23619.5	932.6	23813.2	932.6	23990.3	930.3	24173.3	930.3	24329.8	932
24383.6	932.7	24396.1	930.7	24565	930.5	24723.8	930.4	24779.4	930.9
24976	931.1	25069.6	931.2	25312.2	931	25336.4	930.8	25518.9	930.7
25676.7	929.1	25688.5	929.3	25693.4	920.8	25710.4	922.4	25723.7	931
25740.2	930.2	25743.8	928.5	25798.6	928.6	25955.3	929	26014.4	929.2

26274.3	929.8	26344.7	929.9	26625.1	930.8	26800.6	930.8	26955.5	931.5
27088.8	931.7	27243.4	932.1	27474.5	932	27635.1	932.5	27840.2	932.3
28068.3	932.5	28233.9	932.3	28403.2	933.2	28678.2	933.7	28908	933.4
29077.6	933.4	29180.9	933.5	29345.8	933.6	29521.8	933.8	29605.7	934
29613	935.5								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18231.8	.043	18995	.043	19436	.032	21078.2	.065	23053.4	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18995	23053.4	515	499.47	475	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
26815	29613	936

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	932.78	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.48	Wt. n-Val.	0.043	0.041	0.025
E.G. Elev (ft)	933.26	Reach Len. (ft)	515.00	499.47	475.00
Crit W.S. (ft)	928.84	Flow Area (sq ft)	1450.50	33661.34	7534.96
E.G. Slope (ft/ft)	0.001478	Area (sq ft)	1450.50	33661.34	8548.75
Q Total (cfs)	227000.00	Flow (cfs)	3224.14	196451.95	27323.91
Top Width (ft)	9992.46	Top Width (ft)	669.54	4053.00	5269.91
Vel Total (ft/s)	5.32	Avg. Vel. (ft/s)	2.22	5.84	3.63
Max Chl Dpth (ft)	13.18	Hydr. Depth (ft)	2.17	8.31	2.00
Conv. Total (cfs)	5903822.0	Conv. (cfs)	83853.4	5109327.5	710640.9
Length Wtd. (ft)	496.71	Wetted Per. (ft)	670.35	4058.53	3769.73
Min Ch El (ft)	919.60	Shear (lb/sq ft)	0.20	0.77	0.18
Alpha	1.10	Stream Power (lb/ft s)	0.44	4.47	0.67
Frctn Loss (ft)	0.81	Cum Volume (acre-ft)	7032.05	79229.59	28089.31
C & E Loss (ft)	0.00	Cum SA (acres)	1941.70	8250.48	8062.15

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18231.80	18282.68	304.04	120.27	37.26	0.13	3.29	2.53
18282.68	18333.56	554.89	195.44	50.88	0.24	3.84	2.84
18333.56	18384.44	546.79	193.73	50.88	0.24	3.81	2.82
18384.44	18435.32	440.99	170.34	50.92	0.19	3.35	2.59
18435.32	18486.20	54.07	48.36	50.94	0.02	0.95	1.12
18486.20	18537.08	81.38	61.78	50.90	0.04	1.21	1.32
18537.08	18587.96	262.68	124.80	50.89	0.12	2.45	2.10
18587.96	18638.84	286.61	131.48	50.88	0.13	2.58	2.18
18638.84	18689.72	244.44	119.51	50.88	0.11	2.35	2.05
18689.72	18740.60	204.98	107.53	50.88	0.09	2.11	1.91
18740.60	18791.48	146.89	88.05	50.88	0.06	1.73	1.67
18791.48	18842.36	73.56	58.14	50.88	0.03	1.14	1.27
18842.36	18893.24	21.99	28.17	50.88	0.01	0.55	0.78
18893.24	18944.12	0.86	2.90	22.39	0.00	0.13	0.30
18944.12	18995.00						
18995.00 LB	20009.60	43782.13	6757.05	1011.13	19.29	6.70	6.48
20009.60	21024.20	92904.34	10799.57	1015.05	40.93	10.64	8.60
21024.20	22038.80	32214.83	8133.60	1016.14	14.19	8.02	3.96
22038.80	23053.40 RB	27550.60	7971.13	1016.21	12.14	7.86	3.46
23053.40	23490.71	356.29	257.21	437.31	0.16	0.59	1.39
23490.71	23928.01	217.46	191.27	437.32	0.10	0.44	1.14
23928.01	24365.32	2641.30	855.67	437.32	1.16	1.96	3.09
24365.32	24802.63	2953.48	915.12	437.47	1.30	2.09	3.23
24802.63	25239.93	2064.94	738.17	437.31	0.91	1.69	2.80
25239.93	25677.24	3406.96	996.86	437.32	1.50	2.28	3.42
25677.24	26114.55	9141.21	1815.24	445.23	4.03	4.15	5.04
26114.55	26551.85	4885.18	1237.49	437.31	2.15	2.83	3.95
26551.85	26989.16	1657.13	527.95	263.15	0.73	2.01	3.14

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 197.74

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18369.7	939.2	18400.3	936	18449.4	936	18620.7	928.7	18801.1	929.4
18876.7	930.7	18919	925.9	19070.5	925.9	19147.1	928.5	19167.1	927.1
19196.4	929.7	19358.7	929.3	19420.3	929.7	19462.8	925.5	19520.2	925.9
19551.5	922.4	19727.9	922.7	19916.3	922.1	19959.3	926.5	19998.2	925.9
20024.8	921.6	20099	921.8	20161.6	925.1	20227.1	923.1	20262.4	919.2
20427.7	920.4	20581.4	921.2	20595.1	922.4	20657	919.1	20849.6	919.3
20925.9	920.4	21134.6	921.3	21139.6	919.6	21170.7	926.6	21282.8	927.6
21345.7	922	21496	921.2	21685.1	922	21811.3	924.7	21878	929.4
22042.2	927.9	22235.6	928.8	22402	926.3	22508.4	924.3	22667.7	922.4
22757.2	920.1	22778.1	924.4	22818.1	920.9	22820.9	922	22877.3	919.5
22998.3	922.6	23058.1	927.6	23231	931.8	23417.9	931.2	23598.2	931.8
23729.2	932.6	23779.2	928.9	23944.2	929.8	24120.1	929.9	24283.8	931.1
24347.7	932.1	24381.1	929.5	24512.7	929.9	24675.7	929.9	24892.5	929.9
25074.6	930.2	25347.7	929.7	25542.5	929.4	25654.3	929.2	25659.6	920.7
25679.7	921.2	25689.1	928.9	25857.4	927.9	26035.9	929	26116.5	928.8
26399.2	929.4	26471.8	929.6	26710.9	929.8	26891	929.6	26997.7	931.3
27173.3	931.4	27229.1	931.4	27515.3	931.2	27842.2	932.1	27982.6	932.1
28174.4	932	28273.3	933.4	28488.5	933.2	28508	933.3	28834.4	933.5
28892.8	933.5	29141.8	933.6	29226.9	933.6	29448.9	933.8	29527.9	933.5
29557.6	934.9								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18369.7	.043	18876.7	.043	19916.3	.032	20849.6	.065	23058.1	.025
23779.2	.053	25654.3	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18876.7	23231	525	522.82	510	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
26839	29557.6	938

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	931.97	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.47	Wt. n-Val.	0.043	0.045	0.033
E.G. Elev (ft)	932.44	Reach Len. (ft)	525.00	522.82	510.00
Crit W.S. (ft)	928.12	Flow Area (sq ft)	797.24	34319.55	7723.44
E.G. Slope (ft/ft)	0.001822	Area (sq ft)	797.24	34319.55	8447.09
Q Total (cfs)	227000.00	Flow (cfs)	2105.61	197629.72	27264.68
Top Width (ft)	9129.12	Top Width (ft)	332.72	4354.30	4442.10
Vel Total (ft/s)	5.30	Avg. Vel. (ft/s)	2.64	5.76	3.53
Max Chl Dpth (ft)	12.87	Hydr. Depth (ft)	2.40	7.88	2.22
Conv. Total (cfs)	5317364.0	Conv. (cfs)	49323.0	4629379.5	638661.8
Length Wtd. (ft)	520.67	Wetted Per. (ft)	332.80	4359.00	3493.96
Min Ch El (ft)	919.10	Shear (lb/sq ft)	0.27	0.90	0.25
Alpha	1.08	Stream Power (lb/ft s)	0.72	5.16	0.89
Frctn Loss (ft)	0.84	Cum Volume (acre-ft)	7018.76	78839.84	27996.65
C & E Loss (ft)	0.04	Cum SA (acres)	1935.78	8202.28	8009.20

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18538.70	18572.50	17.35	17.34	28.55	0.01	0.61	1.00
18572.50	18606.30	141.77	65.43	33.83	0.06	1.94	2.17
18606.30	18640.10	313.79	105.37	33.81	0.14	3.12	2.98
18640.10	18673.90	315.78	105.75	33.80	0.14	3.13	2.99
18673.90	18707.70	294.04	101.32	33.80	0.13	3.00	2.90
18707.70	18741.50	272.92	96.89	33.80	0.12	2.87	2.82
18741.50	18775.30	252.41	92.45	33.80	0.11	2.74	2.73
18775.30	18809.10	230.69	87.59	33.80	0.10	2.59	2.63
18809.10	18842.90	167.84	72.38	33.80	0.07	2.14	2.32
18842.90	18876.70	99.02	52.74	33.81	0.04	1.56	1.88
18876.70 LB	19965.27	34523.21	6798.65	1089.69	15.21	6.25	5.08
19965.27	21053.85	104904.27	11994.25	1089.41	46.21	11.02	8.75
21053.85	22142.43	29754.02	8070.88	1090.10	13.11	7.41	3.69
22142.43	23231.00 RB	28448.22	7455.76	1089.81	12.53	6.85	3.82
23231.00	23652.77	250.68	174.79	394.98	0.11	0.44	1.43

23652.77	24074.55	1693.76	773.87	336.94	0.75	2.30	2.19
24074.55	24496.32	1061.21	663.15	411.88	0.47	1.61	1.60
24496.32	24918.09	1650.95	872.76	421.77	0.73	2.07	1.89
24918.09	25339.87	1521.26	830.96	421.77	0.67	1.97	1.83
25339.87	25761.64	5693.51	1349.55	429.25	2.51	3.20	4.22
25761.64	26183.41	8114.23	1445.46	421.78	3.57	3.43	5.61
26183.41	26605.19	5083.50	1091.82	421.77	2.24	2.59	4.66
26605.19	27026.96	2195.57	521.08	233.81	0.97	2.23	4.21

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 197.64

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18412	938.7	18493.6	930.1	18627	927.8	18742.8	928.6	18793.7	927.1
18863.7	928.2	19048.6	924.1	19102.6	929	19210.9	926.3	19228.9	927.9
19307.5	925.4	19329.8	922.7	19382.7	925.8	19434.7	925.9	19456.9	921.9
19490.7	925.8	19510.8	922.9	19528.4	923	19565.2	925.2	19626.4	922.1
19656.4	925.2	19750.4	924.1	19855	921.6	20051.7	923.5	20226.4	918.2
20396.8	918.6	20599.1	918.3	20677.1	918.4	20839.3	918.3	21043.7	922.7
21105.3	924.3	21140	921	21167.7	922.6	21185.4	919.5	21205.2	922.6
21257	921	21297	927.1	21401	926.3	21424.9	920	21599.3	921.8
21707.5	920.4	21850.1	928	22064.2	927.6	22234.6	926.3	22452.2	925.7
22575.5	926.4	22635	923.9	22660.5	919.7	22848.2	920.1	22965.1	921.5
22995.7	919.6	23167.5	921.8	23216.2	927.1	23392.2	930.3	23563	930.4
23681.3	930.4	23735	926.9	23928.2	927.7	24177.7	927.9	24239.8	928.9
24262.4	931.3	24341.5	928.3	24400.4	928.3	24582.1	928.1	24724.4	928.3
24943.7	928.5	25150.2	927.5	25261.9	927.3	25428.3	927.4	25579.8	926.6
25616.8	929.3	25623.6	919.2	25638	921	25652.8	929.2	25747.6	926.8
26021.8	927.2	26180.9	927.2	26346	927.2	26350.7	927.2	26667.7	927.5
26841	927.9	26951.5	928.5	27222.4	929.7	27279.8	929.8	27576	930.2
27630.5	930.1	27861.5	929.5	28035.5	929.6	28204.1	932.4	28361.4	930.6
28589.4	931.4	28726.3	931.4	28931.6	931.4	29055.1	931.4	29291.4	931.8
29465	933.2								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18412	.043	18742.8	.043	19855	.032	20599.1	.065	23216.2	.025
24341.5	.053	25616.8	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18742.8	23216.2	510	532.05	575	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
26844	29465	938

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	931.22	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.34	Wt. n-Val.	0.043	0.048	0.031
E.G. Elev (ft)	931.57	Reach Len. (ft)	510.00	532.05	575.00
Crit W.S. (ft)	927.29	Flow Area (sq ft)	659.75	36358.54	11962.43
E.G. Slope (ft/ft)	0.001430	Area (sq ft)	659.75	36358.54	14141.14
Q Total (cfs)	227000.00	Flow (cfs)	1603.85	175980.92	49415.21
Top Width (ft)	9880.41	Top Width (ft)	259.88	4473.40	5147.14
Vel Total (ft/s)	4.63	Avg. Vel. (ft/s)	2.43	4.84	4.13
Max Chl Dpth (ft)	13.02	Hydr. Depth (ft)	2.54	8.13	3.30
Conv. Total (cfs)	6003776.0	Conv. (cfs)	42419.3	4654405.5	1306951.0
Length Wtd. (ft)	541.44	Wetted Per. (ft)	259.96	4478.40	3633.19
Min Ch El (ft)	918.20	Shear (lb/sq ft)	0.23	0.72	0.29
Alpha	1.02	Stream Power (lb/ft s)	0.55	3.51	1.21
Frctn Loss (ft)	0.68	Cum Volume (acre-ft)	7009.98	78415.70	27864.42
C & E Loss (ft)	0.01	Cum SA (acres)	1932.21	8149.31	7953.07

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)

18478.16	18500.21	14.80	13.82	17.35	0.01	0.80	1.07
18500.21	18522.27	49.81	31.52	22.06	0.02	1.43	1.58
18522.27	18544.32	73.81	39.90	22.06	0.03	1.81	1.85
18544.32	18566.37	101.43	48.28	22.06	0.04	2.19	2.10
18566.37	18588.43	132.46	56.67	22.06	0.06	2.57	2.34
18588.43	18610.48	166.70	65.05	22.06	0.07	2.95	2.56
18610.48	18632.53	202.33	73.07	22.06	0.09	3.31	2.77
18632.53	18654.59	202.06	73.01	22.06	0.09	3.31	2.77
18654.59	18676.64	186.78	69.64	22.05	0.08	3.16	2.68
18676.64	18698.69	172.00	66.28	22.05	0.08	3.01	2.59
18698.69	18720.75	157.74	62.93	22.06	0.07	2.85	2.51
18720.75	18742.80	143.94	59.57	22.05	0.06	2.70	2.42
18742.80 LB	19861.15	26922.75	6444.04	1120.18	11.86	5.76	4.18
19861.15	20979.50	92863.36	12922.58	1118.47	40.91	11.56	7.19
20979.50	22097.85	26476.28	8203.92	1120.63	11.66	7.34	3.23
22097.85	23216.20 RB	29718.58	8788.01	1119.12	13.09	7.86	3.38
23216.20	23632.79	1947.25	651.36	416.62	0.86	1.56	2.99
23632.79	24049.37	6622.83	1357.79	416.70	2.92	3.26	4.88
24049.37	24465.96	3905.06	1113.31	414.09	1.72	2.69	3.51
24465.96	24882.55	2675.50	1237.09	416.59	1.18	2.97	2.16
24882.55	25299.13	3316.45	1407.23	416.59	1.46	3.38	2.36
25299.13	25715.72	6168.91	1736.08	424.31	2.72	4.17	3.55
25715.72	26132.31	9932.78	1731.43	416.60	4.38	4.16	5.74
26132.31	26548.89	9241.83	1658.11	416.59	4.07	3.98	5.57
26548.89	26965.48	5604.57	1070.02	295.11	2.47	3.63	5.24

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 197.54

INPUT
Description: Station 24260 Interpolated to provide point for 'n' value change
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18353.9	935.2	18542	931	18710.2	930	18897.3	925.9	19104.5	924.7
19306.6	921.9	19512	926.5	19525.1	926.6	19561	920	19649.8	920.3
19752.8	924.1	19816.4	918	19986.5	920.2	20038.2	919.6	20094.2	922.4
20249	916.9	20475	918	20665.8	917.8	20718.1	918.3	20720.1	916.1
20737.2	919.9	20839.4	916.8	20873	925.2	21082.1	923.9	21127.2	918.6
21172.3	920.7	21193.9	919.4	21234.4	925	21274	922.3	21319.5	924.3
21412.6	918	21464.8	925.2	21511.5	922.3	21534.6	925	21568.6	924.5
21618.5	917.4	21652.8	921.2	21723.9	919	21764.9	922.7	21973.2	923
22156.8	922.9	22370.7	922.3	22398.9	924.2	22624.9	924.3	22690.3	925
22717.7	919.7	22834.7	919.6	22857.3	917.1	22900.3	919.7	22946	917.7
23128.7	920.6	23239.8	928.1	23436.8	928.5	23622.3	928.5	23641.5	926.3
23697.6	925.9	23928.4	926.6	24161.7	926	24199.9	927.2	24228.3	930.1
24260	929.14	24353.3	926.3	24470.7	926.4	24707.2	926.6	24730.2	926.6
25093.4	925.9	25178.4	928.2	25195.6	931.4	25264.1	931.5	25289.9	926.1
25547.3	926.6	25578.3	928.3	25586.5	918.9	25598	919.7	25612.1	929.5
25630	929.9	25636.4	927.3	25785.3	926.9	26048.2	926.6	26365.5	926.5
26526.1	926.9	26709.9	927.2	26835.9	929.9	27061.6	929.4	27347.5	929.9
27582.2	929.7	27758.2	930	27951.2	930	28137.4	929.6	28171.5	932
28417.8	931.1	28623.4	931.3	28687.8	931.2	28883.2	931.3	28934.3	931.5
29240.8	931.5	29422	932.5						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18353.9	.043	18897.3	.043	20038.2	.032	20665.8	.065	23239.8	.025
24260	.043	25547.3	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18897.3	23239.8	510	483.58	535	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
26785	29422	934

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	930.58	Element			
Vel Head (ft)	0.30	Wt. n-Val.	0.043	0.048	0.030
E.G. Elev (ft)	930.87	Reach Len. (ft)	510.00	483.58	535.00
Crit W.S. (ft)	926.08	Flow Area (sq ft)	519.03	38907.45	12876.77
E.G. Slope (ft/ft)	0.001111	Area (sq ft)	519.03	38907.45	13984.06
Q Total (cfs)	227000.00	Flow (cfs)	893.79	174959.53	51146.67

Top Width (ft)	9460.48	Top Width (ft)	283.87	4342.50	4834.11
Vel Total (ft/s)	4.34	Avg. Vel. (ft/s)	1.72	4.50	3.97
Max Chl Dpth (ft)	14.48	Hydr. Depth (ft)	1.83	8.96	3.71
Conv. Total (cfs)	6810580.5	Conv. (cfs)	26816.0	5249233.5	1534531.0
Length Wtd. (ft)	493.86	Wetted Per. (ft)	283.92	4350.11	3476.87
Min Ch El (ft)	916.10	Shear (lb/sq ft)	0.13	0.62	0.26
Alpha	1.02	Stream Power (lb/ft s)	0.22	2.79	1.02
Frctn Loss (ft)	0.60	Cum Volume (acre-ft)	7003.08	77956.04	27678.79
C & E Loss (ft)	0.01	Cum SA (acres)	1929.03	8095.47	7887.19

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18607.49	18643.71	0.47	2.73	30.28	0.00	0.09	0.17
18643.71	18679.94	3.86	10.42	36.23	0.00	0.29	0.37
18679.94	18716.17	10.05	18.51	36.23	0.00	0.51	0.54
18716.17	18752.39	36.24	39.96	36.24	0.02	1.10	0.91
18752.39	18788.62	89.46	68.72	36.24	0.04	1.90	1.30
18788.62	18824.85	160.20	97.47	36.24	0.07	2.69	1.64
18824.85	18861.07	246.49	126.23	36.24	0.11	3.48	1.95
18861.07	18897.30	347.02	154.99	36.24	0.15	4.28	2.24
18897.30 LB	19982.93	38512.93	8495.80	1086.68	16.97	7.83	4.53
19982.93	21068.55	77377.02	11839.34	1088.28	34.09	10.91	6.54
21068.55	22154.18	29049.25	9197.42	1088.42	12.80	8.47	3.16
22154.18	23239.80 RB	30020.31	9374.89	1086.74	13.22	8.64	3.20
23239.80	23651.95	3177.94	939.23	412.27	1.40	2.28	3.38
23651.95	24064.09	9116.69	1767.40	412.15	4.02	4.29	5.16
24064.09	24476.24	5087.87	1456.72	412.37	2.24	3.53	3.49
24476.24	24888.39	4895.41	1685.08	412.15	2.16	4.09	2.91
24888.39	25300.53	3776.20	1328.14	335.51	1.66	3.97	2.84
25300.53	25712.68	6181.26	1694.09	420.08	2.72	4.11	3.65
25712.68	26124.83	7491.90	1571.04	412.15	3.30	3.81	4.77
26124.83	26536.97	7998.52	1633.94	412.15	3.52	3.96	4.90
26536.97	26949.12	3420.90	801.13	248.04	1.51	3.23	4.27

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 197.45

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18283.9	939.9	18297.4	932.2	18354.7	933	18365.9	928.7	18618.5	927.6
18808	926.4	18961	927.4	19071.7	920.7	19263.4	922.4	19389.7	925.4
19436.8	924.3	19486.7	917.4	19526.2	920.8	19581.4	918.5	19615.1	921.2
19713.3	920.3	19792.4	922.1	20026.7	917.2	20035.6	917.4	20041.2	919.4
20057.3	918.5	20147.6	921.2	20163.1	917.7	20395.5	917.7	20515	919.8
20607.7	917.4	20654.8	918.9	20669.6	921.8	20745.7	922.6	20817.7	915.6
20863.5	916.3	20905.2	924.2	20952	924.7	20979.2	922.8	21048.8	923
21159.7	916.1	21201.7	915.8	21228.8	918.6	21239.5	917	21275.2	922
21568.5	924.6	21773.6	925.1	21977.3	924.4	22183	923.8	22407.2	922.5
22519.6	921.6	22639.5	916	22709.5	916.9	22739.6	916	22900.2	919.4
23021.8	918.8	23088.4	926.8	23280.7	926.1	23468.6	926.8	23665.7	926.3
23847.4	926.3	24046.2	927	24229	930.8	24379.5	928	24567	928.5
24667.7	927.9	24703.3	928.1	24748.4	926	24973.2	926.2	25045.5	925.8
25076	927.5	25164.2	926.4	25367.9	926.4	25514.2	925.4	25547.9	927.3
25558.3	919	25569.1	919.1	25582.6	928.8	25600.8	929.6	25611.1	926.4
25842.5	926.1	25891.7	926.3	26137.2	926.9	26234.1	927.3	26477.4	927.9
26624.9	928.3	26708.3	926.2	26839.3	929.6	27073.3	929.4	27254.8	929.9
27551.1	929.9	27753.6	930.3	27977.1	930.2	28260.7	932.5	28322.4	932.6
28597.3	932.4	28664.5	932.2	28857.7	932.3	29014	932.7	29282.6	933.3
29321	933.6								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18283.9	.043	18961	.043	20026.7	.032	20905.2	.065	23088.4	.025
24229	.053	25611.1	.025						

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

18961 23088.4 520 502.18 490 .1 .3

Ineffective Flow num= 1

Sta L	Sta R	Elev
26650	29321	938

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	929.90	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.37	Wt. n-Val.	0.043	0.045	0.031
E.G. Elev (ft)	930.27	Reach Len. (ft)	520.00	502.18	490.00
Crit W.S. (ft)	925.58	Flow Area (sq ft)	1452.56	36272.91	10443.36
E.G. Slope (ft/ft)	0.001312	Area (sq ft)	1452.56	36272.91	11017.37
Q Total (cfs)	227000.00	Flow (cfs)	3284.14	186243.14	37472.72
Top Width (ft)	9096.73	Top Width (ft)	598.23	4127.40	4371.11
Vel Total (ft/s)	4.71	Avg. Vel. (ft/s)	2.26	5.13	3.59
Max Chl Dpth (ft)	14.30	Hydr. Depth (ft)	2.43	8.79	3.01
Conv. Total (cfs)	6266120.5	Conv. (cfs)	90655.6	5141066.0	1034399.1
Length Wtd. (ft)	499.71	Wetted Per. (ft)	598.46	4132.35	3476.71
Min Ch El (ft)	915.60	Shear (lb/sq ft)	0.20	0.72	0.25
Alpha	1.07	Stream Power (lb/ft s)	0.45	3.69	0.88
Frctn Loss (ft)	0.77	Cum Volume (acre-ft)	6991.54	77538.73	27525.25
C & E Loss (ft)	0.00	Cum SA (acres)	1923.86	8048.45	7830.66

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18329.04	18374.18	14.61	11.96	11.63	0.01	1.05	1.22
18374.18	18419.32	87.53	60.24	45.14	0.04	1.33	1.45
18419.32	18464.46	110.06	69.11	45.14	0.05	1.53	1.59
18464.46	18509.60	134.60	77.98	45.14	0.06	1.73	1.73
18509.60	18554.74	161.09	86.86	45.14	0.07	1.92	1.85
18554.74	18599.88	189.45	95.74	45.14	0.08	2.12	1.98
18599.88	18645.02	222.03	105.30	45.14	0.10	2.33	2.11
18645.02	18690.16	267.91	117.86	45.14	0.12	2.61	2.27
18690.16	18735.30	318.56	130.77	45.14	0.14	2.90	2.44
18735.30	18780.44	372.64	143.66	45.14	0.16	3.18	2.59
18780.44	18825.58	421.02	154.58	45.14	0.19	3.42	2.72
18825.58	18870.72	383.45	146.15	45.14	0.17	3.24	2.62
18870.72	18915.86	326.99	132.83	45.14	0.14	2.94	2.46
18915.86	18961.00	274.21	119.52	45.14	0.12	2.65	2.29
18961.00 LB	19992.85	43990.60	8597.13	1032.95	19.38	8.33	5.12
19992.85	21024.70	85753.06	10897.67	1034.18	37.78	10.56	7.87
21024.70	22056.55	21716.03	7211.55	1032.69	9.57	6.99	3.01
22056.55	23088.40 RB	34783.49	9566.57	1032.52	15.32	9.27	3.64
23088.40	23503.91	6729.55	1422.79	415.51	2.96	3.42	4.73
23503.91	23919.41	6973.86	1453.56	415.51	3.07	3.50	4.80
23919.41	24334.92	2156.55	629.11	323.89	0.95	1.94	3.43
24334.92	24750.43	1094.04	750.92	415.57	0.48	1.81	1.46
24750.43	25165.93	3442.23	1493.74	415.56	1.52	3.59	2.30
25165.93	25581.44	4139.23	1677.71	421.32	1.82	4.04	2.47
25581.44	25996.95	6853.59	1426.14	416.28	3.02	3.43	4.81
25996.95	26412.45	4656.05	1140.67	415.51	2.05	2.75	4.08
26412.45	26827.96	1427.54	448.72	237.56	0.63	1.89	3.18

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 197.35

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18240.6	935.5	18251.2	930.8	18263	928.4	18279.7	931.1	18324.8	929.9
18345	925.5	18561.2	927.3	18792.1	926.7	18852.2	927.3	18895.3	923.9
18967.1	928.5	19103.1	930.2	19166.1	925.9	19200.6	918.3	19314.9	924.3
19357.8	919.6	19553.8	917.6	19609.4	917.9	19655.5	920.4	19776.3	920.1
19808	916.9	19903.9	917.2	19934.5	919.3	19953.8	918.1	20040.4	918
20257	918.3	20474.4	918.3	20498.1	921.4	20615.9	920.7	20648.7	917.2
20816.1	917.6	20836.2	914.2	20875.1	916.7	20971.4	915.2	21003.9	919
21014.3	918.4	21023.1	915.8	21069.1	914.6	21112.7	924.1	21346.7	922.2

21583.4	923.5	21797.7	924.1	22016.7	925	22181.6	923.7	22244.6	917.8
22269.4	919	22302.6	915.4	22509.2	915.9	22590.4	917.4	22704	924.9
22750	923.4	22791.1	925.9	22940.3	918.1	22963.1	920.8	23081.6	924.9
23284.2	925.3	23498.5	925	23825.6	925.6	24049	925.7	24154	928.3
24168.7	930.5	24229.1	929.3	24462.4	928.7	24663.8	927.7	24862.8	927.7
25060.3	927	25323.9	926.1	25517.7	927.2	25525.3	919	25538	919.2
25553.5	929.2	25611.8	924.9	25820.1	925	25850.8	925	26112.9	925.5
26363.4	926.1	26523.6	927	26564.1	929.4	26606.2	927.5	26808.5	929.2
27066.2	929.1	27229.7	929.2	27435.1	929.2	27705.4	930.5	27927.4	930.2
28099.1	931.1	28115.4	932.8	28191.2	931	28289.2	931.7	28581.1	931.7
28617.7	931.7	28889.7	931.9	28935.3	931.9	29272.8	932.7	29344.7	931.9
29383	933.9								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18240.6	.043	19103.1	.043	19314.9	.15	19953.8	.032	20648.7	.065
22704	.025	24229.1	.053	25611.8	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19103.1	22704	500	486.44	470	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18240.6	18324.8	935	26454	29383	935

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	929.10	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.40	Wt. n-Val.	0.043	0.057	0.027
E.G. Elev (ft)	929.50	Reach Len. (ft)	500.00	486.44	470.00
Crit W.S. (ft)	925.18	Flow Area (sq ft)	1598.42	32290.91	11752.19
E.G. Slope (ft/ft)	0.001835	Area (sq ft)	1601.14	32290.91	12130.02
Q Total (cfs)	227000.00	Flow (cfs)	4153.60	157226.39	65620.00
Top Width (ft)	8213.71	Top Width (ft)	694.45	3584.79	3934.47
Vel Total (ft/s)	4.97	Avg. Vel. (ft/s)	2.60	4.87	5.58
Max Chl Dpth (ft)	14.90	Hydr. Depth (ft)	2.33	9.01	3.26
Conv. Total (cfs)	5298564.0	Conv. (cfs)	96952.1	3669930.0	1531681.8
Length Wtd. (ft)	483.22	Wetted Per. (ft)	687.35	3589.69	3608.48
Min Ch El (ft)	914.20	Shear (lb/sq ft)	0.27	1.03	0.37
Alpha	1.03	Stream Power (lb/ft s)	0.69	5.02	2.08
Frctn Loss (ft)	0.83	Cum Volume (acre-ft)	6973.31	77143.52	27395.06
C & E Loss (ft)	0.01	Cum SA (acres)	1916.15	8004.00	7783.95

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18298.10	18355.60	169.44	67.45	27.52	0.07	2.49	2.51
18355.60	18413.10	573.17	188.19	57.50	0.25	3.27	3.05
18413.10	18470.60	440.37	160.67	57.50	0.19	2.79	2.74
18470.60	18528.10	321.95	133.14	57.50	0.14	2.32	2.42
18528.10	18585.60	230.20	108.87	57.50	0.10	1.89	2.11
18585.60	18643.10	239.46	111.47	57.50	0.11	1.94	2.15
18643.10	18700.60	271.01	120.06	57.50	0.12	2.09	2.26
18700.60	18758.10	304.09	128.66	57.50	0.13	2.24	2.36
18758.10	18815.60	324.51	133.77	57.50	0.14	2.33	2.43
18815.60	18873.10	299.11	127.45	57.57	0.13	2.22	2.35
18873.10	18930.60	856.28	239.67	57.64	0.38	4.17	3.57
18930.60	18988.10	122.09	74.45	57.58	0.05	1.29	1.64
18988.10	19045.60	1.93	4.57	27.04	0.00	0.17	0.42
19045.60	19103.10						
19103.10 LB	20003.32	24294.31	8302.62	885.82	10.70	9.39	2.93
20003.32	20903.55	77875.40	9745.33	900.99	34.31	10.83	7.99
20903.55	21803.78	24258.01	6613.75	901.90	10.69	7.35	3.67
21803.78	22704.00 RB	30798.71	7629.21	900.99	13.57	8.47	4.04
22704.00	23149.27	22092.98	2710.47	445.80	9.73	6.09	8.15
23149.27	23594.53	10793.55	1762.71	445.27	4.75	3.96	6.12
23594.53	24039.80	9159.47	1597.37	445.27	4.04	3.59	5.73
24039.80	24485.07	1044.75	295.54	298.05	0.46	0.99	3.54
24485.07	24930.33	736.06	552.38	445.27	0.32	1.24	1.33
24930.33	25375.60	2191.27	1062.93	445.27	0.97	2.39	2.06
25375.60	25820.87	7108.93	1563.26	450.42	3.13	3.52	4.55
25820.87	26266.13	9722.34	1655.56	445.27	4.28	3.72	5.87
26266.13	26711.40	2770.59	551.98	187.87	1.22	2.94	5.02

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 197.26

INPUT
Description: APPROX. ALIGNMENT OF DYSART RD.

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17801	934.8	17892.6	930.4	17994.2	931.6	18058.3	928.1	18221.2	927.6
18243.7	931.6	18281.2	931.3	18297.7	928	18434.2	927.5	18669.7	926.7
18892.5	926.2	18975.4	922.8	19067.4	926.4	19104.5	925	19137.8	915.5
19172.5	917.6	19386.8	914.8	19396.9	916.9	19486.6	916.5	19512.6	920.6
19538.8	915.7	19642.7	918.7	19720.8	915.3	19722.9	917.3	19731.1	919.2
19772.4	915.5	19850.7	919.3	19874.5	916.5	19952.4	916.7	20329.8	916.7
20495.4	917.6	20543	921.3	20688.6	919.4	20859.6	913.8	20872.1	915
20893.2	913.6	20976.2	915.2	21072.6	924	21288.7	923.2	21523.7	921.6
21759.9	921.8	21800.4	917.6	21862.1	918.1	21892.7	915.9	21938	917.8
21984.5	913	21989.2	914.2	22054.6	913	22064.4	915.8	22191.4	917.1
22221.1	913.2	22323.7	918.9	22347.2	915.7	22389.8	921.2	22573.8	923.3
22785.4	923.2	22930	924	22976.1	922.1	22997.1	918.1	23135.5	924.5
23374	924.7	23620.1	923.8	23839.6	924.5	24100.4	927.1	24223.1	928.2
24410.6	926.8	24611.6	928.5	24805.9	926	25011.8	928.2	25062.1	926.2
25292.2	926.1	25474.6	926.2	25483.2	919.1	25496.8	919.1	25509.4	927.6
25530.7	928.6	25537.5	926.2	25599.6	925.1	25844	925.3	25865.2	925.2
26141.9	925.5	26355.7	925.5	26534.3	929.3	26755.1	929.5	26846.7	929.2
27103	929.1	27428.1	929.5	27699.7	929.9	27984.3	930.5	28089.6	932.4
28356.1	932	28470.9	932.3	28775.9	932.2	29043.3	933	29287.8	932.4
29325	933.6								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17801	.043	19067.4	.043	19952.4	.032	21072.6	.15	22573.8	.15
23374	.025	24100.4	.053	25509.4	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19067.4	22573.8	530	497.32	425	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17801	18243.7	933	26126	29325	933

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	928.21	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.45	Wt. n-Val.	0.043	0.048	0.047
E.G. Elev (ft)	928.67	Reach Len. (ft)	530.00	497.32	425.00
Crit W.S. (ft)	923.38	Flow Area (sq ft)	1357.35	34143.24	10027.95
E.G. Slope (ft/ft)	0.001596	Area (sq ft)	1417.43	34143.24	10823.73
Q Total (cfs)	227000.00	Flow (cfs)	2732.52	195209.97	29057.51
Top Width (ft)	8289.01	Top Width (ft)	939.14	3506.40	3843.46
Vel Total (ft/s)	4.99	Avg. Vel. (ft/s)	2.01	5.72	2.90
Max Chl Dpth (ft)	15.21	Hydr. Depth (ft)	1.76	9.74	2.88
Conv. Total (cfs)	5681578.5	Conv. (cfs)	68392.1	4885906.5	727279.9
Length Wtd. (ft)	489.49	Wetted Per. (ft)	770.92	3513.30	3492.50
Min Ch El (ft)	913.00	Shear (lb/sq ft)	0.18	0.97	0.29
Alpha	1.18	Stream Power (lb/ft s)	0.35	5.54	0.83
Frctn Loss (ft)	0.63	Cum Volume (acre-ft)	6955.99	76772.58	27271.23
C & E Loss (ft)	0.00	Cum SA (acres)	1906.77	7964.40	7741.98

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18223.13	18307.56	0.97	2.38	10.94	0.00	0.22	0.41
18307.56	18391.99	20.84	33.97	84.43	0.01	0.40	0.61
18391.99	18476.41	53.54	59.84	84.43	0.02	0.71	0.89
18476.41	18560.84	94.76	84.29	84.43	0.04	1.00	1.12
18560.84	18645.27	144.34	108.51	84.43	0.06	1.29	1.33
18645.27	18729.69	196.69	130.64	84.43	0.09	1.55	1.51
18729.69	18814.12	239.39	146.99	84.43	0.11	1.74	1.63

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17502.65	17555.52	1.07	3.27	15.33	0.00	0.21	0.33
17555.52	17608.39	62.43	61.42	52.90	0.03	1.16	1.02
17608.39	17661.27	184.77	117.75	52.88	0.08	2.23	1.57
17661.27	17714.14	205.10	125.36	52.87	0.09	2.37	1.64
17714.14	17767.01	220.94	131.08	52.87	0.10	2.48	1.69
17767.01	17819.89	174.48	113.77	52.88	0.08	2.15	1.53
17819.89	17872.76	83.82	73.28	52.88	0.04	1.39	1.14
17872.76	17925.63	21.94	32.79	52.88	0.01	0.62	0.67
17925.63	17978.51	1.05	4.76	40.54	0.00	0.12	0.22
17978.51	18031.38						
18031.38	18084.25	432.56	196.64	53.20	0.19	3.74	2.20
18084.25	18137.13	331.19	167.52	53.19	0.15	3.17	1.98
18137.13	18190.00	567.31	230.82	52.87	0.25	4.37	2.46
18190.00 LB	19136.25	37902.15	8777.19	947.41	16.70	9.28	4.32
19136.25	20082.50	48093.77	8447.67	947.43	21.19	8.93	5.69
20082.50	21028.75	90414.94	12472.38	949.42	39.83	13.18	7.25
21028.75	21975.00 RB	6180.17	6255.99	947.22	2.72	6.61	0.99
21975.00	22354.93	12956.44	2346.46	379.95	5.71	6.18	5.52
22354.93	22734.87	9743.12	1977.58	379.94	4.29	5.21	4.93
22734.87	23114.80	8957.11	1880.25	379.94	3.95	4.95	4.76
23114.80	23494.73	5414.17	1390.07	379.94	2.39	3.66	3.89
23494.73	23874.67	4060.76	1169.82	380.02	1.79	3.08	3.47
23874.67	24254.60	990.71	230.60	54.41	0.44	4.51	4.30

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 196.51

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17314.6	931.8	17370.3	924.5	17501.7	920.2	17664.7	920.7	17828.2	922.9
17864.4	918.8	17920.6	922.5	17996.6	919.6	18047.9	920.4	18078.1	915.8
18248.1	911.8	18441.5	911.2	18472.7	914.1	18587.2	913.4	18680.5	914.8
18703.6	910.5	18829.5	913.4	18899.9	911.1	18941.9	916.7	18972.7	918.9
18987.3	915.1	19095.5	914	19142.6	915.3	19154.1	918.8	19182.8	914.9
19354.5	915.1	19436.9	916.3	19551.7	912.2	19764.1	909.2	19788	909
19810.4	913.7	19835.8	914.3	19873.7	910.5	19934.4	909.2	20279.3	908.8
20507.7	908.2	20705.9	908.2	20733.2	918.9	20745.6	917.2	20791.4	917.5
20884.9	914.9	21131.5	917.8	21297.1	916.2	21460.9	915.7	21648.4	917.7
21717.9	910.1	21774.9	917.3	21907.2	919	21932.1	914.9	21952.1	917
21977.7	916.4	21989.7	918.1	22006.9	915.2	22169.5	917.4	22330.3	917.9
22383.1	918.1	22553.8	917.8	22747.2	916.7	23029.7	919.7	23285.1	919.8
23336.1	918.9	23364	919.9	23376.3	915.4	23387.7	917	23406.8	924.2
23432	925.3	23458.1	918.2	23608.1	919.7	23823.6	920	23877.8	920.1
24096.5	921.3	24280.1	921.4	24555.2	922.2	24708.2	921.9	24804.8	923.1
24987.9	924.5	25203.1	924.5	25398.8	924.8	25585.5	925.1	25790.1	926.2
25952.4	925.2	26066.2	928.3	26329.3	927.3	26461.3	927.7	26664.3	927.8
26898.5	928	27075.1	929.4	27178.4	930.9	27350.5	931.2	27390.7	931.4
27443.6	928	27493.7	929.6	27599.9	925.9	27779.5	926.1	27949.7	928.3
28149	929.9								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17314.6	.043	17920.6	.043	19835.8	.028	20733.2	.15	21907.2	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17920.6	21907.2	495	498.4	550	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23432	28149	930

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft) 923.38 Element Left OB Channel Right OB

Vel Head (ft)	0.35	Wt. n-Val.	0.043	0.039	0.025
E.G. Elev (ft)	923.73	Reach Len. (ft)	495.00	498.40	550.00
Crit W.S. (ft)	918.16	Flow Area (sq ft)	1133.10	39192.34	8044.71
E.G. Slope (ft/ft)	0.000688	Area (sq ft)	1133.10	39192.34	11380.51
Q Total (cfs)	227000.00	Flow (cfs)	1733.97	186853.55	38412.47
Top Width (ft)	7401.71	Top Width (ft)	515.94	3986.60	2899.17
Vel Total (ft/s)	4.69	Avg. Vel. (ft/s)	1.53	4.77	4.77
Max Chl Dpth (ft)	15.18	Hydr. Depth (ft)	2.20	9.83	5.37
Conv. Total (cfs)	8656233.0	Conv. (cfs)	66121.7	7125321.0	1464789.9
Length Wtd. (ft)	506.86	Wetted Per. (ft)	516.36	3993.31	1500.36
Min Ch El (ft)	908.20	Shear (lb/sq ft)	0.09	0.42	0.23
Alpha	1.03	Stream Power (lb/ft s)	0.14	2.01	1.10
Frctn Loss (ft)	0.33	Cum Volume (acre-ft)	6854.23	73610.70	26588.19
C & E Loss (ft)	0.01	Cum SA (acres)	1856.90	7627.91	7469.22

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17395.40	17435.80	8.38	15.86	31.15	0.00	0.51	0.53
17435.80	17476.20	79.48	67.87	40.42	0.04	1.68	1.17
17476.20	17516.60	197.88	117.31	40.41	0.09	2.90	1.69
17516.60	17557.00	216.91	123.94	40.40	0.10	3.07	1.75
17557.00	17597.40	202.51	118.93	40.40	0.09	2.94	1.70
17597.40	17637.80	188.49	113.92	40.40	0.08	2.82	1.65
17637.80	17678.20	172.37	107.97	40.40	0.08	2.67	1.60
17678.20	17718.60	126.70	89.77	40.40	0.06	2.22	1.41
17718.60	17759.00	79.38	67.81	40.40	0.03	1.68	1.17
17759.00	17799.40	41.34	45.85	40.40	0.02	1.13	0.90
17799.40	17839.80	23.16	32.41	40.48	0.01	0.80	0.71
17839.80	17880.20	272.41	142.36	40.59	0.12	3.52	1.91
17880.20	17920.60	124.96	89.10	40.49	0.06	2.21	1.40
17920.60 LB	18917.25	37956.41	9398.31	997.88	16.72	9.43	4.04
18917.25	19913.90	42569.67	9705.73	999.04	18.75	9.74	4.39
19913.90	20910.55	99755.51	13144.22	998.83	43.95	13.19	7.59
20910.55	21907.20 RB	6571.95	6944.07	997.56	2.90	6.97	0.95
21907.20	22323.32	14401.35	2701.41	416.95	6.34	6.49	5.33
22323.32	22739.44	11686.45	2381.30	416.12	5.15	5.72	4.91
22739.44	23155.56	8542.83	1973.19	416.14	3.76	4.74	4.33
23155.56	23571.68	3781.87	988.81	251.15	1.67	3.97	3.82

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 196.42

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17283.5	932.2	17343.7	930.1	17350.8	926	17381.4	923	17464.8	922.1
17525.6	919	17693.4	917.7	17733.1	920.9	17759.2	914.5	17929.7	912.5
18103.2	912.9	18337	910.8	18381.8	914.7	18506.5	914.9	18542.9	910.5
18709.3	911.8	18776.8	910.8	18814.1	916.8	18870.3	917.9	18897.5	914.1
18903.9	911.8	18955.4	916.4	19062.7	913.9	19144.2	916.4	19241.2	911.5
19328.7	915.4	19409	914.6	19459.5	911.4	19501.8	916.6	19636.3	914.2
19686.9	915.5	19702.2	908.9	19855.2	912.6	19877.9	909.2	20026.2	909
20497.4	907.9	20605.2	907.3	20626.9	912.1	20635.6	916.2	20664.8	913.4
20732.7	913.2	20910.5	917.3	21108.3	914.4	21157.8	913.4	21291	917.6
21344.7	909.4	21393.8	917.2	21566.3	915	21644.4	917.9	21682.3	915.7
21748	920.1	21805.2	917	21829.3	911.5	21897.3	916.7	21911.5	914.8
22001	916.2	22164	917	22164.4	917	22344.4	916.9	22569.7	915.5
22760.7	916.9	22790.1	917	22961.7	918.2	23108.4	917.2	23144.1	921
23152	915.2	23171.8	916.6	23183.6	922.5	23201.7	925	23222.5	917.3
23399	917.9	23574.5	920	23642.7	920	23893.2	920.2	24140.1	921
24405.7	922	24562.7	921.4	24799.3	923.8	25019.3	925.7	25209.5	924.6
25385.6	924.7	25619.9	925.9	25864.4	925.4	25937	927.9	25967.2	926.5
26139.3	927.7	26332.5	928.5	26497.2	928.1	26675.2	930.8	26741.9	929.4
26946.2	930.7	27111.7	928.6	27279.5	925.2	27461.5	925.6	27689.5	929.1
27859	930.4								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17283.5	.043	17733.1	.043	19686.9	.028	20635.6	.15	21393.8	.032
21748	.032								

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

17733.1	21748	515	490.39	465	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23201.7	27859	930

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	923.06	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.32	Wt. n-Val.	0.043	0.038	0.032
E.G. Elev (ft)	923.39	Reach Len. (ft)	515.00	490.39	465.00
Crit W.S. (ft)	917.67	Flow Area (sq ft)	1135.91	40211.34	9143.42
E.G. Slope (ft/ft)	0.000622	Area (sq ft)	1135.91	40211.34	13199.36
Q Total (cfs)	227000.00	Flow (cfs)	2136.35	188612.80	36250.85
Top Width (ft)	7326.66	Top Width (ft)	352.34	4014.90	2959.41
Vel Total (ft/s)	4.50	Avg. Vel. (ft/s)	1.88	4.69	3.96
Max Chl Dpth (ft)	15.76	Hydr. Depth (ft)	3.22	10.02	6.35
Conv. Total (cfs)	9098270.0	Conv. (cfs)	85626.0	7559692.0	1452951.5
Length Wtd. (ft)	485.72	Wetted Per. (ft)	352.56	4023.14	1444.32
Min Ch El (ft)	907.30	Shear (lb/sq ft)	0.13	0.39	0.25
Alpha	1.03	Stream Power (lb/ft s)	0.24	1.82	0.98
Frctn Loss (ft)	0.28	Cum Volume (acre-ft)	6841.34	73156.45	26433.02
C & E Loss (ft)	0.01	Cum SA (acres)	1851.97	7582.13	7432.23

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17373.42	17403.39	0.93	4.02	22.64	0.00	0.18	0.23
17403.39	17433.37	6.05	13.86	29.98	0.00	0.46	0.44
17433.37	17463.34	14.64	23.55	29.97	0.01	0.79	0.62
17463.34	17493.31	50.60	49.58	30.01	0.02	1.65	1.02
17493.31	17523.29	150.45	95.35	30.01	0.07	3.18	1.58
17523.29	17553.26	235.22	124.61	29.98	0.10	4.16	1.89
17553.26	17583.23	257.91	131.69	29.97	0.11	4.39	1.96
17583.23	17613.21	281.04	138.66	29.98	0.12	4.63	2.03
17613.21	17643.18	304.93	145.61	29.97	0.13	4.86	2.09
17643.18	17673.15	329.61	152.57	29.97	0.15	5.09	2.16
17673.15	17703.13	339.47	155.36	30.01	0.15	5.18	2.19
17703.13	17733.10	165.51	101.04	30.07	0.07	3.37	1.64
17733.10 LB	18736.82	42199.31	10357.85	1004.96	18.59	10.32	4.07
18736.82	19740.55	33784.75	8759.54	1007.21	14.88	8.73	3.86
19740.55	20744.28	98363.68	13642.43	1005.59	43.33	13.59	7.21
20744.28	21748.00 RB	14265.05	7451.51	1005.38	6.28	7.42	1.91
21748.00	22155.40	12072.93	2862.00	408.44	5.32	7.03	4.22
22155.40	22562.80	10633.42	2649.38	407.40	4.68	6.50	4.01
22562.80	22970.20	9793.09	2521.70	407.41	4.31	6.19	3.88
22970.20	23377.60	3751.42	1110.34	221.06	1.65	5.11	3.38

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 196.32

INPUT
Description: CONFLUENCE WITH AGUA FRIA RIVER

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17304.6	929.3	17369.4	925.6	17424.3	926.4	17467.3	916.3	17615.8	917
17673.4	920	17703.8	915.2	17815.7	913.7	17835	915.8	18040.2	913.8
18219.9	909.5	18305.8	909.9	18343.5	907.7	18412.3	909.2	18485.4	907.6
18596.1	909	18668.4	915.5	18727.6	917.5	18806.1	911.4	18894.9	913.7
19075	914.7	19252.8	911.6	19320.8	912	19365.4	907.3	19395.8	906.2
19425.6	907.8	19451.7	913.9	19561.1	914.8	19695.4	913.9	19749.6	910.4
19776.9	915.5	19834	909.4	20037.1	908.4	20492.6	907	20511.3	909.4

20551.1	911.2	20577.6	916.3	20625.2	910.4	20659.1	914.4	20730.2	915.2
20789.9	913	21013.5	914.9	21080.9	910.5	21113.8	915.2	21213.4	912.2
21385.9	918.5	21431.6	918.6	21471.5	908.6	21527	908.8	21584	917
21650.7	918	21754.6	913.6	21920.4	914.1	22092.2	915.7	22173	914.2
22375.9	915.3	22550.8	915.2	22643.9	915.9	22652.4	913.5	22660.2	916.6
22850.3	916.7	23016.4	915.4	23032	916.8	23260.9	916.3	23441	917.1
23634.4	918.3	23797.5	917.4	23817.5	921.4	23827.5	917.3	23843.7	917.4
24020.8	919.2	24278.5	919.6	24416.7	919.5	24442.5	920.6	24452.9	918.8
24651.8	920.5	24818.4	923.8	25010.9	923.2	25182.5	924	25250.5	924.2
25519	924.9	25719.1	924.8	25794.3	926.7	25823.3	923.5	25892.6	924.5
26141.8	922.6	26312.1	923	26483	924.4	26615.8	924.7	26647.4	931.3
26726.4	929	26819.1	920	26887	922.7	27009.2	922.4	27127.3	927
27395	929.4								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17304.6	.043	17673.4	.043	19695.4	.028	20577.6	.15	21431.6	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17673.4	21431.6	535	514.33	495	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23029	27395	930

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	922.82	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.28	Wt. n-Val.	0.043	0.040	0.032
E.G. Elev (ft)	923.09	Reach Len. (ft)	535.00	514.33	495.00
Crit W.S. (ft)	916.59	Flow Area (sq ft)	1254.49	40291.23	12429.23
E.G. Slope (ft/ft)	0.000535	Area (sq ft)	1254.49	40291.23	20161.50
Q Total (cfs)	227000.00	Flow (cfs)	3065.44	171581.27	52353.29
Top Width (ft)	7678.84	Top Width (ft)	233.84	3758.20	3686.80
Vel Total (ft/s)	4.21	Avg. Vel. (ft/s)	2.44	4.26	4.21
Max Chl Dpth (ft)	16.62	Hydr. Depth (ft)	5.36	10.72	7.78
Conv. Total (cfs)	9814330.0	Conv. (cfs)	132534.2	7418305.0	2263491.0
Length Wtd. (ft)	510.13	Wetted Per. (ft)	234.67	3763.40	1600.33
Min Ch El (ft)	906.20	Shear (lb/sq ft)	0.18	0.36	0.26
Alpha	1.01	Stream Power (lb/ft s)	0.44	1.52	1.09
Frctn Loss (ft)	0.28	Cum Volume (acre-ft)	6827.21	72703.30	26254.95
C & E Loss (ft)	0.01	Cum SA (acres)	1848.50	7538.38	7396.76

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17427.53	17452.12	18.21	18.52	12.90	0.01	1.47	0.98
17452.12	17476.71	312.92	132.92	25.00	0.14	5.41	2.35
17476.71	17501.29	420.61	157.67	24.59	0.19	6.41	2.67
17501.29	17525.88	408.05	154.84	24.59	0.18	6.30	2.64
17525.88	17550.47	395.57	151.97	24.59	0.17	6.18	2.60
17550.47	17575.05	383.29	149.12	24.59	0.17	6.07	2.57
17575.05	17599.64	371.19	146.29	24.59	0.16	5.95	2.54
17599.64	17624.23	352.09	141.74	24.60	0.16	5.77	2.48
17624.23	17648.81	253.58	116.45	24.62	0.11	4.74	2.18
17648.81	17673.40	149.94	84.96	24.62	0.07	3.46	1.76
17673.40 LB	18612.95	41342.78	10425.42	940.29	18.21	11.10	3.97
18612.95	19552.50	33674.17	9221.17	941.12	14.83	9.81	3.65
19552.50	20492.05	83142.23	12347.94	940.47	36.63	13.14	6.73
20492.05	21431.60 RB	13422.04	8296.69	941.52	5.91	8.83	1.62
21431.60	21829.16	15716.08	3478.43	399.48	6.92	8.75	4.52
21829.16	22226.72	14137.18	3258.11	397.58	6.23	8.20	4.34
22226.72	22624.28	12622.86	3043.94	397.56	5.56	7.66	4.15
22624.28	23021.84	9699.91	2601.45	398.51	4.27	6.54	3.73
23021.84	23419.40	177.29	47.30	7.19	0.08	6.61	3.75

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 196.23

INPUT

Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17383.2	928.4	17538.4	925.4	17685.5	924.8	17711.8	924.5	17724.11	922.4945
17760.9	916.5	17850.8	913	17966.3	913.1	18115.3	910.8	18170.6	911.3
18219.1	908	18381.3	907.9	18548.6	908.4	18614.6	908.6	18655.5	914.2
18760	911	18888.9	913.8	19025.3	911.8	19072.6	908.3	19178.8	913
19290.8	913.3	19299.5	914.5	19339.1	907.9	19377.4	907.8	19394.1	911.7
19412.2	910	19439	914.6	19544.4	915.1	19565.2	911	19581.6	910.8
19600	913.8	19625.3	908.7	19711.2	906	19760.4	908.8	20064.1	908.2
20128.6	908.1	20394.7	906.8	20413.4	906.7	20434	910.2	20481.9	909.3
20517.3	917.9	20540.8	913.7	20685	913.8	20872.1	913.6	21015.9	914.4
21224.5	915	21386.5	915.3	21540.8	915.2	21694.8	914.9	21922.9	913.8
21969.3	914	22118	915.3	22278.8	914.9	22385.8	913.3	22569.7	916
22713.2	914.9	22829	915.8	22937.9	913	23147.6	914.9	23298.8	914.6
23444.2	915.9	23540.5	916	23655.7	917.4	23820.4	916.2	24012.8	917.1
24168.7	918.4	24352	918.7	24448	918.5	24631.1	920.1	24739.1	923
24896.8	922.6	25029.8	922.8	25067.3	921.4	25225.7	922.1	25262.9	921.8
25413.1	921.8	25437.1	921.8	25596.8	921.6	25639.1	925	25700.4	923.6
25775.5	929	25898.8	929.1	25964.4	921	26107.2	922.1	26248.5	922.1
26443.8	924.1	26587.9	924.1	26743	924.5	26934.3	926.6	27102.3	926
27317.9	925.6	27440.2	928	27590.1	927.1	27826.6	928.3	28037.8	928.5
28282.7	929	28468	931.1						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17383.2	.043	17711.8	.043	19600	.028	20517.3	.15	21540.8	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17724.11	20517.3	1365	505.25	460	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22817	28468	930

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	922.44	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.37	Wt. n-Val.		0.035	0.050
E.G. Elev (ft)	922.80	Reach Len. (ft)	1365.00	505.25	460.00
Crit W.S. (ft)	916.53	Flow Area (sq ft)		33423.58	17941.13
E.G. Slope (ft/ft)	0.000562	Area (sq ft)		33423.58	29258.64
Q Total (cfs)	227000.00	Flow (cfs)		177501.64	49498.38
Top Width (ft)	7889.84	Top Width (ft)		2792.83	5097.01
Vel Total (ft/s)	4.42	Avg. Vel. (ft/s)		5.31	2.76
Max Chl Dpth (ft)	16.44	Hydr. Depth (ft)		11.97	7.80
Conv. Total (cfs)	9576772.0	Conv. (cfs)		7488514.0	2088258.5
Length Wtd. (ft)	493.94	Wetted Per. (ft)		2798.39	2300.12
Min Ch El (ft)	906.00	Shear (lb/sq ft)		0.42	0.27
Alpha	1.21	Stream Power (lb/ft s)		2.22	0.75
Frctn Loss (ft)	0.25	Cum Volume (acre-ft)	6819.51	72268.12	25974.16
C & E Loss (ft)	0.02	Cum SA (acres)	1847.07	7499.70	7346.85

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17724.11 LB	18422.41	30808.95	7640.05	698.62	13.57	10.95	4.03
18422.41	19120.71	33371.69	8016.78	698.95	14.70	11.48	4.16
19120.71	19819.00	41242.14	7925.70	701.18	18.17	11.35	5.20
19819.00	20517.30 RB	72078.87	9841.04	699.63	31.75	14.09	7.32
20517.30	21047.35	4403.26	4507.41	530.42	1.94	8.50	0.98
21047.35	21577.39	4351.34	3917.72	530.05	1.92	7.39	1.11
21577.39	22107.44	18311.37	4193.82	530.06	8.07	7.91	4.37
22107.44	22637.49	17156.93	4033.19	530.08	7.56	7.61	4.25
22637.49	23167.53	5275.46	1288.99	179.52	2.32	7.18	4.09

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 196.13

INPUT

Description:

Eliminate vertical ineffective areas in rt. overbank by coding out GR

data between and below sta.'s, elev.'s 26234.1, 920.9 and 26306,920.7

26443, 920.7 and 26569, 920.7

Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17603.2	930.8	17750.2	920.1	17891.4	916.9	17919.7	920.6	17964.8	914.4
18074.7	907.2	18221	906.9	18257.8	910.5	18335.9	910.7	18444.8	906.2
18483.5	908.5	18540.3	906	18599.3	908.7	18750.4	907.8	18885.3	911.6
18901	913.3	18947.4	906.3	19091.4	910.8	19236	912.2	19273.5	911.5
19301.9	907.3	19384.1	904.9	19399.9	908.1	19434.8	907.6	19469.8	915.2
19620.6	915.4	19668.7	915.7	19754	908.2	19876.4	907.6	20122.9	906.3
20274.4	905.7	20387.5	905.3	20420.2	911	20460.5	911.5	20516.2	917.4
20645.9	912.4	20819.4	914.4	20983.7	915.1	21169.8	914.7	21281.2	913.2
21358.4	909.1	21513	911.3	21682.7	910.7	21847.6	912.4	22049.7	913.5
22239.5	912.9	22402.2	913.5	22596.7	914.5	22693.7	914.1	22934.7	915.6
23086.3	915.1	23286.3	915	23443.4	915.3	23669.8	916.2	23805.9	917.6
23872.9	914.6	23947.2	919.8	24215.9	919.6	24329.6	919.5	24518.6	919.3
24549.9	919.4	24721.1	920.3	24946.9	921.7	25100.5	921.9	25275	922.5
25474.7	922.9	25665.2	923.6	25822.2	924	25997.9	923.5	26039.9	927
26076.4	925.4	26114.2	926.6	26137.4	921.5	26234.1	920.9	26306	920.7
26312.4	924.4	26388.1	926	26431	923.1	26443	920.7	26569	920.7
26612.4	927.2	26721.5	924.8	26871.3	927	26994.8	926.8	27071.3	922.9
27218.1	921.2	27385.3	920.1	27552.5	921.2	27683.6	920.9	27825.9	924.1
27859.3	925.9	28009.6	925.2	28211.5	926.9	28368.3	926.5	28561	928.6

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17603.2	.043	17919.7	.043	19668.7	.028	20516.2	.15	21169.8	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17919.7	20516.2	860	493.22	470	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17603.2	17919.7	930	22507	28561	930

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	922.23	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.32	Wt. n-Val.		0.036	0.040
E.G. Elev (ft)	922.54	Reach Len. (ft)	860.00	493.22	470.00
Crit W.S. (ft)	915.08	Flow Area (sq ft)		33607.61	18318.88
E.G. Slope (ft/ft)	0.000445	Area (sq ft)	655.67	33607.61	31693.84
Q Total (cfs)	227000.00	Flow (cfs)		163002.34	63997.67
Top Width (ft)	8406.05	Top Width (ft)	198.72	2596.50	5610.83
Vel Total (ft/s)	4.37	Avg. Vel. (ft/s)		4.85	3.49
Max Chl Dpth (ft)	17.33	Hydr. Depth (ft)		12.94	9.20
Conv. Total (cfs)	10759897.0	Conv. (cfs)		7726380.5	3033516.8
Length Wtd. (ft)	485.78	Wetted Per. (ft)		2601.00	1991.06
Min Ch El (ft)	904.90	Shear (lb/sq ft)		0.36	0.26
Alpha	1.06	Stream Power (lb/ft s)		1.74	0.89
Frctn Loss (ft)	0.24	Cum Volume (acre-ft)	6809.23	71879.38	25652.32
C & E Loss (ft)	0.01	Cum SA (acres)	1843.95	7468.45	7290.31

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17919.70 LB	18568.82	34048.44	8466.06	650.21	15.00	13.04	4.02
18568.82	19217.95	32974.46	8303.27	649.91	14.53	12.79	3.97
19217.95	19867.07	31622.72	7250.44	650.95	13.93	11.17	4.36

19867.07	20516.20 RB	64356.74	9587.85	649.94	28.35	14.77	6.71
20516.20	21052.52	3459.92	4205.66	536.43	1.52	7.84	0.82
21052.52	21588.84	21890.28	5343.27	536.46	9.64	9.96	4.10
21588.84	22125.16	24370.01	5369.23	536.33	10.74	10.01	4.54
22125.16	22661.48	14277.44	3400.71	381.84	6.29	8.91	4.20

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 196.04

INPUT
Description:

Eliminate vertical ineffective area in rt. overbank by coding out GR

data betweem amd below sta, elev. 26196, 920.7 and 27762.8, 920.7

Station Elevation Data num= 85

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18716	934.4	18740.35	921.9005	18761	911.3	18791	905.9	18879.5	904.5
18918.1	908.5	19027.1	906.1	19084.2	907.4	19126.8	905.4	19172.9	908.2
19215.5	905.6	19251.5	908.5	19254.8	907.3	19300.1	910.3	19366	906.3
19461.5	905	19468.2	907.8	19516.7	912.2	19613.8	908.1	19654	909.6
19691.2	914.4	19706	913.1	19729.8	908.1	19822.4	907.2	20109.1	906.2
20268.2	906.4	20378.3	906.5	20398.1	910.4	20457.4	914.5	20534.7	908.4
20595.4	913.6	20739.8	912.2	20904.2	910.6	21017.2	912.1	21054.9	906.2
21124.3	909.4	21280.1	909.2	21309	908.9	21443.6	909.3	21628.1	910.4
21792.2	911.2	21959	912.2	22076.1	910	22237.1	912.1	22375.9	911.3
22516.8	913.7	22701.4	915.7	22718	916.3	22876.7	916.7	22906.2	916.6
23104.1	916.3	23126.7	916.4	23263.1	916.4	23420.7	916.6	23650.3	917.2
23816.3	917.9	23961.1	918.7	24152.7	919.4	24226.3	919.1	24364	920.3
24426.7	920.6	24598.7	921.4	24739.7	920.2	24877.7	920.4	25013.4	920.4
25176.1	922.5	25376.4	922	25532.2	922.4	25707.8	921	25795.3	920.2
25824.6	917.1	25874.5	917.4	25955.5	926.4	25993.7	921.5	26139.9	923
26188.2	923.6	26196	920.7	27762.8	920.7	27904.5	921.1	28097.3	921.9
28241.8	922.6	28404.5	922.7	28598.2	923.1	28769.3	924.1	28782	924.2

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18716	.043	19691.2	.028	20457.4	.043	22718	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18740.35	20457.4	660	497.99	500	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22240	28782	931

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	921.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.45	Wt. n-Val.		0.035	0.043
E.G. Elev (ft)	922.29	Reach Len. (ft)	660.00	497.99	500.00
Crit W.S. (ft)	914.66	Flow Area (sq ft)		24337.35	19876.64
E.G. Slope (ft/ft)	0.000565	Area (sq ft)		24337.35	34545.86
Q Total (cfs)	227000.00	Flow (cfs)		145529.44	81470.55
Top Width (ft)	8620.20	Top Width (ft)		1716.93	6903.27
Vel Total (ft/s)	5.13	Avg. Vel. (ft/s)		5.98	4.10
Max Chl Dpth (ft)	17.34	Hydr. Depth (ft)		14.17	11.15
Conv. Total (cfs)	9548050.0	Conv. (cfs)		6121244.0	3426805.5
Length Wtd. (ft)	498.56	Wetted Per. (ft)		1723.27	1783.66
Min Ch El (ft)	904.50	Shear (lb/sq ft)		0.50	0.39
Alpha	1.10	Stream Power (lb/ft s)		2.98	1.61
Frctn Loss (ft)	0.42	Cum Volume (acre-ft)	6802.76	71551.33	25294.97
C & E Loss (ft)	0.09	Cum SA (acres)	1841.99	7444.03	7222.80

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18740.35 LB	19169.61	31011.86	6321.06	432.55	13.66	14.73	4.91
19169.61	19598.88	27724.03	5900.07	430.74	12.21	13.74	4.70
19598.88	20028.14	39955.80	5874.12	430.19	17.60	13.68	6.80
20028.14	20457.40 RB	46837.75	6242.10	429.79	20.63	14.54	7.50
20457.40	21012.37	21391.63	5604.62	555.46	9.42	10.10	3.82
21012.37	21567.35	31296.44	7042.29	555.51	13.79	12.69	4.44
21567.35	22122.32	23965.26	5998.01	555.00	10.56	10.81	4.00
22122.32	22677.29	4817.26	1231.73	117.69	2.12	10.47	3.91

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 195.94

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19522.4	940.2	19536.61	920.515	19544.2	910	19554.5	906.2	19654.2	906
19843.9	905.8	20021.3	904.5	20047.5	906.5	20128.9	907.5	20167.2	905.4
20237.9	909.3	20309.9	906.1	20413.5	907.4	20431.7	908.5	20464.3	906.9
20478.1	909	20616	907.4	20783.8	906	20819.6	912.6	20954.3	909.3
21036.5	907.1	21068.5	910.6	21211.1	910	21315.7	908.9	21404.3	910.1
21439.4	912.4	21517.6	911.5	21679.9	912.8	21821.7	913	21968.2	912.5
22106.9	913	22125	913.8	22139.6	909.4	22228.5	915.6	22380.2	910.7
22498	913.6	22553.2	912	22605.5	912	22640.1	909.1	22700.7	911.1
22730.8	913.6	22766.5	912	22934.6	913.5	23068.7	913.2	23142.8	914.1
23190.8	923.3	23230	921.9	23331.6	913.5	23496.6	913.6	23507.1	913.6
23674.7	914.7	23901.8	915.2	24079.9	914.6	24241.2	915.8	24388.2	917.7
24564.8	917.8	24691.7	919.1	24823.6	918.6	24974.5	918.3	25142.5	918.2
25166.1	918.4	25369.6	918.8	25520.8	920	25655.3	920.1	25799.7	926.3
25936.1	930.1	26033.2	926.2	26057.6	928.9	26089.9	928.6	26162.9	932.2
26320.7	931.2	26411.9	933	26550.7	931.5	26694.6	929.3	26825.2	922.8
26843.8	921.2	26888.3	922.4	26928.5	927.5	26980.7	928.8	27082.7	921.6
27097.3	919.2	27244.8	919.4	27430.9	920.1	27460.7	920.3	27618.2	920.4
27820.7	919.6	27960.2	920.7	28155.3	921.8	28263.1	922.3	28344.3	921.3
28406.2	927.8	28476.3	925.7	28491.9	922.9	28691.7	924.1	28830.9	924
28882.2	923.7	28917.8	930.5						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19522.4	.031	20819.6	.065	22498	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19536.61	20819.6	250	505.97	440	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22182	28917.8	935

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	920.43	Element			
Vel Head (ft)	1.35	Wt. n-Val.		0.031	0.065
E.G. Elev (ft)	921.77	Reach Len. (ft)	250.00	505.97	440.00
Crit W.S. (ft)	916.07	Flow Area (sq ft)		17540.43	12459.37
E.G. Slope (ft/ft)	0.001415	Area (sq ft)		17540.43	28862.26
Q Total (cfs)	227000.00	Flow (cfs)		180169.16	46830.83
Top Width (ft)	6890.08	Top Width (ft)		1282.93	5607.15
Vel Total (ft/s)	7.57	Avg. Vel. (ft/s)		10.27	3.76
Max Chl Dpth (ft)	15.93	Hydr. Depth (ft)		13.67	9.15
Conv. Total (cfs)	6034282.0	Conv. (cfs)		4789390.0	1244891.9
Length Wtd. (ft)	495.51	Wetted Per. (ft)		1290.12	1363.53

Min Ch El (ft)	904.50	Shear (lb/sq ft)		1.20	0.81
Alpha	1.51	Stream Power (lb/ft s)		12.34	3.03
Frctn Loss (ft)	0.84	Cum Volume (acre-ft)	6802.76	71311.95	24931.06
C & E Loss (ft)	0.07	Cum SA (acres)	1841.99	7426.88	7151.00

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19536.61 LB	19857.36	47384.93	4548.08	326.70	20.87	14.18	10.42
19857.36	20178.11	50522.70	4692.77	320.91	22.26	14.63	10.77
20178.11	20498.85	41163.20	4151.19	321.15	18.13	12.94	9.92
20498.85	20819.60 RB	41098.36	4148.39	321.37	18.11	12.93	9.91
20819.60	21359.48	23607.25	5736.36	540.15	10.40	10.63	4.12
21359.48	21899.36	15520.19	4459.52	539.97	6.84	8.26	3.48
21899.36	22439.24	7703.38	2263.49	283.41	3.39	8.01	3.40

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 195.85

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19590.5	940.2	19617.1	923.3	19622.17	919.0013	19635.5	907.7	19641.3	904.5
19747.9	904.5	19906.8	904.7	19969.4	908.3	20040.3	905.2	20187.2	905.3
20321.3	906.5	20398.3	906.8	20522.4	905.7	20631.1	905.4	20674.5	907.1
20807.5	905.4	20882.8	905.5	20914.5	914.3	21001.1	913.9	21073.1	909.6
21145.2	910.1	21146.5	918.5	21152	910.1	21273.2	910.4	21393.8	910.9
21527	913.4	21666.7	915.4	21740.7	914.2	21809.4	915.6	21840.9	911.8
21910.9	914.8	21928.5	911.7	22054.5	912.8	22082.7	911.1	22211.1	910.5
22244.2	907.7	22399.4	910.1	22435	912.9	22475.6	911.3	22485	912.6
22516.6	912	22629.3	914.8	22790.2	914.6	22933.5	915.3	23036.1	915.5
23172.9	915.6	23277.2	915.8	23421.3	916.1	23619.6	915.8	23686.6	916.3
23741.8	914.4	23770.6	916.1	23927.4	916.6	24087.8	916.4	24243.6	917.5
24381.7	920.7	24496.1	922.5	24544.9	925.6	24614.7	927.1	24706.9	918.6
24834.4	917.6	24936.8	920.6	25010.8	920.4	25177.5	921.7	25331.8	923.1
25490	923.5	25666.2	924.7	25769.7	923	25807.9	925.1	25826.2	923.3
25964.4	923.4	25980.5	923.4	26103.5	909.7	26138.6	909.4	26165.7	923.3
26177.8	922	26205.9	909.4	26229	908	26308.9	910.6	26358	924.3
26428.6	923.6	26556.3	927.3	26701.6	927	26825	925.6	26961.2	925.6
26973.4	924.4	26993.5	926.6	27121.7	922.4	27249.7	922.4	27351.5	920.9
27429.8	915.4	27528.7	913.8	27561.3	921	27695.4	923.8	27807.5	924.8
27903.6	923.1	27923.1	930						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
19590.5	.031	19617.1	.031	20914.5	.065	22211.1	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19622.17	20914.5	500	507.21	540	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22041	27923.1	935

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	918.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.03	Wt. n-Val.		0.031	0.065
E.G. Elev (ft)	920.86	Reach Len. (ft)	500.00	507.21	540.00
Crit W.S. (ft)	915.90	Flow Area (sq ft)		16749.25	7098.34
E.G. Slope (ft/ft)	0.002090	Area (sq ft)		16749.25	19285.38
Q Total (cfs)	227000.00	Flow (cfs)		201876.81	25123.18
Top Width (ft)	5310.50	Top Width (ft)		1292.13	4018.37
Vel Total (ft/s)	9.52	Avg. Vel. (ft/s)		12.05	3.54
Max Chl Dpth (ft)	14.33	Hydr. Depth (ft)		12.96	6.30

Conv. Total (cfs)	4965289.0	Conv. (cfs)		4415756.5	549532.4
Length Wtd. (ft)	510.98	Wetted Per. (ft)		1298.47	1139.00
Min Ch El (ft)	904.50	Shear (lb/sq ft)		1.68	0.81
Alpha	1.44	Stream Power (lb/ft s)		20.29	2.88
Frctn Loss (ft)	1.03	Cum Volume (acre-ft)	6802.76	71112.80	24687.89
C & E Loss (ft)	0.11	Cum SA (acres)	1841.99	7411.93	7102.39

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19622.17 LB	19945.25	55195.95	4437.48	327.86	24.32	13.74	12.44
19945.25	20268.34	50678.53	4191.78	323.19	22.33	12.97	12.09
20268.34	20591.42	48426.28	4078.47	323.09	21.33	12.62	11.87
20591.42	20914.50 RB	47576.09	4041.52	324.33	20.96	12.51	11.77
20914.50	21381.74	13758.43	3529.62	479.11	6.06	7.55	3.90
21381.74	21848.98	7308.48	2391.31	467.54	3.22	5.12	3.06
21848.98	22316.22	4056.26	1177.41	192.35	1.79	6.13	3.45

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 195.75

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19463.8	939.6	19500.6	925.1	19520.2	919.3	19571.3	911.3	19676.7	910.1
19775.1	903.5	19944.5	903.4	20000.3	903.4	20041.4	904.8	20133.9	903.9
20171.6	906.8	20236	906.5	20307.1	908.6	20407.5	906.5	20409.5	906.5
20515.5	906.7	20580.8	908.4	20698.4	907.9	20782.1	905.4	20902.4	904.8
21067	904.6	21116.4	913.8	21166.4	913.9	21196	910.3	21227.9	912.6
21348.2	912	21409.7	915.8	21477.5	910.6	21581.3	910.4	21674.3	910.6
21693.3	913.7	21743.3	912.8	21768.8	913.4	21815.7	908.5	21927	908.5
21970.6	906.3	22044.8	907	22085	905.6	22169	907.6	22204.8	912.6
22241	910.5	22270.8	911.9	22356	911.5	22386.2	912.7	22549.2	913
22640.6	913.5	22753.7	914	22920.7	914.2	23027.6	914.3	23181.3	915
23305.3	915	23415.4	914.1	23438	915.1	23444.4	917.3	23457.5	915.8
23482.7	916.5	23497.3	915.3	23608.8	915.4	23644.9	915.7	23791.4	916.8
23917.4	917.9	24052.8	917.9	24177.9	918.1	24251.2	918.4	24364.8	916.6
24486.9	920.6	24513.7	920.7	24671.9	921.3	24764.6	921.5	24880.7	921.6
25031.3	922.2	25116.3	922.3	25234.1	922.3	25338.5	920.3	25420.5	920.8
25453.1	922.6	25605.9	922.4	25626.7	922.5	25829.7	923.5	25872.4	923
25909.9	929.6	26019.8	924.1	26136.5	924.1	26215.2	922.6	26226.7	924.3
26256.8	922.4	26274	925.2	26345.1	926.7	26384.4	925	26535.4	925.5
26539	925.5	26730.4	925.7	26776.2	925.7	26936.6	927.4	27063.5	927.5
27093.2	929.3								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
19463.8	.031	19500.6	.031	21116.4	.043	22204.8	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19500.6	21116.4	410	495.98	530	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
21916	27093.2	935

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	918.05	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.66	Wt. n-Val.		0.031	0.043
E.G. Elev (ft)	919.72	Reach Len. (ft)	410.00	495.98	530.00
Crit W.S. (ft)	914.95	Flow Area (sq ft)		18411.66	5130.53
E.G. Slope (ft/ft)	0.001959	Area (sq ft)		18411.66	14616.13
Q Total (cfs)	227000.00	Flow (cfs)		199928.94	27071.07
Top Width (ft)	4757.00	Top Width (ft)		1588.24	3168.76

Vel Total (ft/s)	9.64	Avg. Vel. (ft/s)		10.86	5.28
Max Chl Dpth (ft)	14.65	Hydr. Depth (ft)		11.59	6.42
Conv. Total (cfs)	5128484.5	Conv. (cfs)		4516883.0	611601.7
Length Wtd. (ft)	499.52	Wetted Per. (ft)		1590.10	800.74
Min Ch El (ft)	903.40	Shear (lb/sq ft)		1.42	0.78
Alpha	1.15	Stream Power (lb/ft s)		15.38	4.14
Frctn Loss (ft)	0.70	Cum Volume (acre-ft)	6802.76	70908.09	24477.75
C & E Loss (ft)	0.21	Cum SA (acres)	1841.99	7395.16	7057.84

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19500.60 LB	19904.55	39366.79	3917.11	377.14	17.34	10.41	10.05
19904.55	20308.50	60614.02	5217.15	404.12	26.70	12.92	11.62
20308.50	20712.45	43496.29	4274.73	404.00	19.16	10.58	10.18
20712.45	21116.40 RB	56451.81	5002.67	404.83	24.87	12.38	11.28
21116.40	21514.85	9995.14	2153.60	399.07	4.40	5.40	4.64
21514.85	21913.31	16901.15	2951.20	398.98	7.45	7.41	5.73
21913.31	22311.76	174.77	25.73	2.69	0.08	9.55	6.79

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 195.66

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19143.1	934.8	19155.6	925.1	19179.8	916.3	19207.4	916.5	19218.5	915.1
19233.3	910.6	19321.7	911.2	19516.6	905.3	19611.3	907.6	19705	906.1
19732.1	904.4	19868	903.9	20056.2	903.1	20080.9	904.6	20200.4	905.3
20264.4	908.3	20352.2	905	20388.8	905.8	20419.8	907.2	20517.2	903.5
20628.1	903.4	20748.3	904.1	20919.6	904.5	20966.4	904.1	21076	904.2
21202.1	904.1	21253.9	913.1	21280.8	916.2	21309.9	909.7	21442.5	911.7
21546.5	912.3	21593.5	912.5	21618.6	907.3	21753.3	905	21877.4	903.3
21951.2	905.3	21993.7	912.2	22038.6	910.7	22059.5	912.7	22188.4	912.5
22250.5	912.5	22401.7	914.2	22484.7	914.6	22621.4	914.3	22852.5	914.5
22860.6	914.6	22997.1	915.7	23140.5	914.2	23168.9	913	23192.5	915.9
23196.2	914.7	23206.5	916.5	23332.3	917.3	23356.2	917.2	23527.3	917.7
23554.7	917.8	23743.4	918.6	23884.1	917.1	23915	916	23925.5	918
24073.9	919.7	24195.9	919.9	24322.1	921	24429.9	920.8	24543.1	920.1
24583.7	919.6	24589.6	918.4	24661.5	920.2	24778.8	919.2	24877.2	920.2
24898.9	918.6	24929.3	920.6	24930.6	921.5	24974.3	920	25077.5	920.3
25112.6	919.5	25122.8	920.6	25262.3	920.8	25444	922.5	25557.8	922.6
25577.1	922.7	25697.9	923.4	25875.6	923.7	25931.6	922.5	26005.7	922.7
26047.3	922.2	26065.9	925.8	26120.5	925.2	26255.7	925.8	26336.6	925.7
26478	926	26669.2	926	26717.6	926.2	26916	926.8	27089	927.4
27225.1	927.5								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
19143.1	.031	19207.4	.031	21280.8	.043	21993.7	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19207.4	21280.8	435	491.32	525	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
21806	27225.1	930

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	917.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.98	Wt. n-Val.	0.031	0.031	0.043
E.G. Elev (ft)	918.81	Reach Len. (ft)	435.00	491.32	525.00
Crit W.S. (ft)	912.19	Flow Area (sq ft)	42.90	25213.33	4420.04
E.G. Slope (ft/ft)	0.001046	Area (sq ft)	42.90	25213.33	11765.27

Q Total (cfs)	227000.00	Flow (cfs)	80.69	206517.11	20402.19
Top Width (ft)	4497.46	Top Width (ft)	31.83	2073.40	2392.24
Vel Total (ft/s)	7.65	Avg. Vel. (ft/s)	1.88	8.19	4.62
Max Chl Dpth (ft)	14.74	Hydr. Depth (ft)	1.35	12.16	8.42
Conv. Total (cfs)	7019812.0	Conv. (cfs)	2495.3	6386393.5	630923.1
Length Wtd. (ft)	494.01	Wetted Per. (ft)	32.10	2075.59	526.49
Min Ch El (ft)	903.10	Shear (lb/sq ft)	0.09	0.79	0.55
Alpha	1.08	Stream Power (lb/ft s)	0.16	6.50	2.53
Frctn Loss (ft)	0.51	Cum Volume (acre-ft)	6802.56	70659.73	24317.26
C & E Loss (ft)	0.02	Cum SA (acres)	1841.84	7374.31	7024.01

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19173.11	19177.39	0.42	0.60	1.93	0.00	0.33	0.69
19177.39	19181.68	9.65	5.52	4.44	0.00	1.29	1.75
19181.68	19185.97	12.85	6.46	4.29	0.01	1.51	1.99
19185.97	19190.25	12.41	6.33	4.29	0.01	1.48	1.96
19190.25	19194.54	11.98	6.20	4.29	0.01	1.45	1.93
19194.54	19198.83	11.55	6.06	4.29	0.01	1.41	1.90
19198.83	19203.11	11.13	5.93	4.29	0.00	1.38	1.88
19203.11	19207.40	10.72	5.80	4.29	0.00	1.35	1.85
19207.40 LB	19725.75	34095.85	4942.93	519.28	15.02	9.54	6.90
19725.75	20244.10	61403.73	7030.84	518.46	27.05	13.56	8.73
20244.10	20762.45	56533.43	6691.17	518.55	24.90	12.91	8.45
20762.45	21280.80 RB	54484.12	6548.39	519.31	24.00	12.63	8.32
21280.80	21677.09	10986.96	2795.79	397.56	4.84	7.05	3.93
21677.09	22073.37	9415.23	1624.25	128.93	4.15	12.60	5.80

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 195.56

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18535.8	929.2	18542.3	927.4	18654	920.1	18755.8	917.6	18873.4	916
18984.6	914.6	19100.8	921.7	19137.7	920.1	19147.59	917.6	19178.2	910.1
19250	912	19291	908.6	19403.1	906.8	19416.6	904.4	19504.8	905.6
19531.1	903.8	19577.2	904.1	19604.1	907.3	19650.1	904.2	19906.8	903.7
20065.2	903.4	20167.5	903.8	20273.7	903.3	20297.3	906	20408.5	905.5
20513.4	903.9	20528.7	902.5	20631.1	902.6	20792.2	904	20887.4	906.4
20999.8	902.8	21057.6	901.4	21094.4	912.4	21149.4	910.2	21181	916
21221.5	911.3	21246.9	912.2	21295.2	904.3	21374.8	903.4	21391.4	909.7
21423.4	912.9	21437.7	916.5	21473	907.4	21524.9	905	21597.3	904.1
21637.6	905.9	21742.2	906.6	21779.4	912.7	21829.5	910.7	21837.3	911.7
21897.4	911.4	22076.9	913.3	22277.5	914.4	22363.9	914.4	22642.1	914.1
22719.1	914.2	22823	914.5	22941	913.6	22988.2	916	23006.8	915.8
23073.2	918.2	23291.3	917.9	23469.7	918.6	23600.6	918.5	23701.9	917.4
23720.2	919.2	23794.4	920.1	23914.3	920.9	24066.7	920.3	24155.7	921
24286.7	920.6	24337.2	920.3	24363.5	918.6	24386.1	918.8	24390.4	920
24401.2	919.1	24502.9	921.5	24652	921.8	24718.2	922.1	24872.3	923
25062.6	923.2	25205.7	923.1	25342.1	923.1	25409.5	923.4	25582.9	922.9
25623.6	923	25738.1	923	25756.9	921.2	25839	924	25903.1	923.4
26064.6	923.4	26159.7	923.4	26321.9	924.3	26372.6	923.2	26392	925
26583.1	926	26737	926.6						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18535.8	.032	19137.7	.031	21181	.043	21437.7	.043	21779.4	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19147.59	21437.7	395	509.15	580	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18535.8	19137.7	928	21703	26737	928

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	917.37	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.92	Wt. n-Val.		0.032	0.043
E.G. Elev (ft)	918.28	Reach Len. (ft)	395.00	509.15	580.00
Crit W.S. (ft)	911.74	Flow Area (sq ft)		26967.42	2933.20
E.G. Slope (ft/ft)	0.001024	Area (sq ft)	361.60	26967.42	8195.88
Q Total (cfs)	227000.00	Flow (cfs)		210949.83	16050.18
Top Width (ft)	4158.55	Top Width (ft)	257.11	2288.94	1612.50
Vel Total (ft/s)	7.59	Avg. Vel. (ft/s)		7.82	5.47
Max Chl Dpth (ft)	15.97	Hydr. Depth (ft)		11.78	11.06
Conv. Total (cfs)	7092207.0	Conv. (cfs)		6590748.0	501459.1
Length Wtd. (ft)	512.51	Wetted Per. (ft)		2295.80	266.56
Min Ch El (ft)	901.40	Shear (lb/sq ft)		0.75	0.70
Alpha	1.02	Stream Power (lb/ft s)		5.88	3.85
Frctn Loss (ft)	0.58	Cum Volume (acre-ft)	6800.54	70365.45	24196.97
C & E Loss (ft)	0.01	Cum SA (acres)	1840.40	7349.71	6999.88

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19147.59 LB	19720.12	42632.96	5911.08	573.00	18.78	10.35	7.21
19720.12	20292.64	68122.42	7828.70	572.65	30.01	13.67	8.70
20292.64	20865.17	64612.62	7584.19	572.66	28.46	13.25	8.52
20865.17	21437.70 RB	35581.82	5643.46	577.49	15.67	9.86	6.30
21437.70	21790.99	16050.19	2933.20	266.56	7.07	11.06	5.47

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 195.47

INPUT
Description: Begin 1:1 contraction

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17792.4	929.7	17913.6	921.6	18044.5	918	18179.7	917.5	18307	916.2
18487.2	915	18615.4	914.8	18775.7	912.9	18852.5	910.3	18904.5	912.6
18916.7	911.3	18959.1	921.3	18994.9	920.8	19030.1	915.1	19050.5	910
19149.3	906.6	19183.5	908.4	19210.9	905	19358.6	906.6	19375.4	904.1
19538.3	904.3	19693.5	903.6	19901.5	903.9	20031.1	904	20267.2	903.9
20328.5	905.8	20515.1	903.2	20643.8	902.5	20758.9	903	20815.3	907.7
20885.5	907.1	20934.5	911.2	21053.1	910.7	21180.5	907.3	21228.8	907.7
21231.3	906.1	21288.7	904.6	21317	908.9	21386.3	904.4	21393	902.1
21415.1	904.5	21435	913.4	21435.7	910.5	21458.3	910.9	21469.7	903.3
21514.8	904.4	21534.1	918.3	21538.2	914.9	21579.2	913.7	21604.4	914.6
21615.9	916.7	21644.4	918.1	21658.8	914.4	21687.6	913.3	21718.9	914.9
21855.3	915.4	22042.9	915.8	22051.4	915.9	22306.1	915.9	22355.8	915.8
22499.3	916	22635.9	915.8	22733.8	915.4	22742.1	916.6	22786.2	914.8
22855.2	918.6	23042.1	917.3	23071.1	917.7	23212.7	917.8	23439.8	918
23585.3	919	23742.1	919.7	23920.1	919	24060.6	918.5	24222.6	921.1
24370.4	921.3	24505.4	921.6	24624.8	922	24781.1	922.2	24953.6	922.6
25023.6	922.7	25161	922.5	25379.3	923.6	25508.6	922.8	25629.5	923.3
25772.6	923.7	25823.9	923.8	25965.2	924.2	26155.4	924.8	26297.1	925.3
26330.2	925.5	26540.8	926.2	26734.8	927.1	26860.6	924.9	26973.4	927.9
26977	929.8								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17792.4	.032	19030.1	.031	20885.5	.043	21435	.043	21534.1	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19030.1	21435	485	472.11	530	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17792.4	19030.1	928	21644.4	26977	928

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	916.66	Element	Left OB	Channel	Right OB

Vel Head (ft)	1.03	Wt. n-Val.		0.032	0.041
E.G. Elev (ft)	917.69	Reach Len. (ft)	485.00	472.11	530.00
Crit W.S. (ft)	911.84	Flow Area (sq ft)		26932.96	1102.43
E.G. Slope (ft/ft)	0.001251	Area (sq ft)	1662.33	26932.96	2313.93
Q Total (cfs)	227000.00	Flow (cfs)		221545.52	5454.48
Top Width (ft)	4438.29	Top Width (ft)	687.02	2404.90	1346.37
Vel Total (ft/s)	8.10	Avg. Vel. (ft/s)		8.23	4.95
Max Chl Dpth (ft)	14.56	Hydr. Depth (ft)		11.20	6.25
Conv. Total (cfs)	6417301.5	Conv. (cfs)		6263103.0	154198.3
Length Wtd. (ft)	473.97	Wetted Per. (ft)		2409.88	185.83
Min Ch El (ft)	902.10	Shear (lb/sq ft)		0.87	0.46
Alpha	1.02	Stream Power (lb/ft s)		7.18	2.29
Frctn Loss (ft)	0.54	Cum Volume (acre-ft)	6791.36	70050.45	24127.00
C & E Loss (ft)	0.04	Cum SA (acres)	1836.12	7322.28	6980.18

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19030.10 LB	19631.32	53467.63	6488.60	602.36	23.55	10.79	8.24
19631.32	20232.55	71121.51	7694.30	601.23	31.33	12.80	9.24
20232.55	20833.78	69926.38	7617.69	601.47	30.80	12.67	9.18
20833.78	21435.00 RB	27030.02	5132.37	604.82	11.91	8.54	5.27
21435.00	21804.47	5454.48	1102.43	185.83	2.40	6.25	4.95

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 195.38

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17018.7	929.3	17121.4	921.9	17168.1	923.8	17215.2	918.5	17263.8	924.6
17418.1	920	17567.8	916.9	17766.8	916	17950.8	915.3	18136.3	915.1
18338.9	912.6	18494.2	913	18637	912.2	18793.2	908.6	18845.6	908.5
18898.7	919.2	18926.1	920	18956.3	914.2	18970.1	910	19114.2	907.9
19135.1	907.8	19172	904.5	19244.6	906.5	19270.5	903.3	19399.5	905.4
19436.7	903.1	19578.9	902.4	19692.3	903.3	19960.9	902.4	20479.2	902.1
20570.9	904.1	20765.4	902.7	20862.2	908.3	20996.6	906.8	21049.3	907.7
21069.1	905.7	21100.5	909.5	21161	908.8	21161.7	909.9	21192.3	902.5
21204.7	904.7	21226.4	900.4	21279.7	903.4	21282.4	901.6	21296.5	902.5
21305.5	907.5	21332.8	909.8	21453	908.5	21499	915.3	21527.1	915.6
21560	902.3	21597.3	903.2	21612.8	908.8	21622.8	908.6	21637.1	917.7
21657.9	917.4	21675.9	914.8	21715.1	914	21796.6	915.5	21958.9	916.3
22099	916.3	22245.6	916.4	22428.3	916.6	22590.4	914.6	22616	916.7
22677.6	916.9	22893.6	917.6	23086.7	918	23281.5	918.6	23435.8	919.1
23504	919.6	23652.8	920.1	23839.2	918.8	24022.4	920.3	24224.4	920.9
24247.6	920.8	24392.5	921.1	24465.5	921.4	24636.6	922.4	24872.2	922.7
25035.7	922.7	25261.1	921.4	25493.8	923.5	25645.6	922.6	25853.9	923.5
25995.6	924	26056	924.4	26067.6	923.2	26112.6	925.3	26318.6	925.4
26398.8	924.4	26432.2	925.8	26442	924	26489.3	927.9	26630.1	927.8
26686	930.1								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17018.7	.032	18956.3	.031	20862.2	.043	21161.7	.043	21637.1	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18956.3	21305.5	675	539.38	595	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17018.7	18956.3	928	21637.1	26686	928

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	916.21	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.91	Wt. n-Val.		0.032	0.043
E.G. Elev (ft)	917.12	Reach Len. (ft)	675.00	539.38	595.00
Crit W.S. (ft)	910.78	Flow Area (sq ft)		28068.45	2295.07
E.G. Slope (ft/ft)	0.001027	Area (sq ft)	3287.81	28068.45	2664.74

Q Total (cfs)	227000.00	Flow (cfs)		217842.53	9157.47
Top Width (ft)	4278.13	Top Width (ft)	1174.43	2349.20	754.50
Vel Total (ft/s)	7.48	Avg. Vel. (ft/s)		7.76	3.99
Max Chl Dpth (ft)	15.81	Hydr. Depth (ft)		11.95	6.97
Conv. Total (cfs)	7082170.5	Conv. (cfs)		6796466.5	285703.9
Length Wtd. (ft)	541.83	Wetted Per. (ft)		2354.90	335.66
Min Ch El (ft)	900.40	Shear (lb/sq ft)		0.76	0.44
Alpha	1.05	Stream Power (lb/ft s)		5.93	1.75
Frctn Loss (ft)	0.54	Cum Volume (acre-ft)	6763.81	69752.39	24096.72
C & E Loss (ft)	0.01	Cum SA (acres)	1825.76	7296.51	6967.40

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18956.30 LB	19543.60	44665.30	6124.95	588.40	19.68	10.43	7.29
19543.60	20130.90	68999.60	7945.18	587.30	30.40	13.53	8.68
20130.90	20718.20	68990.55	7944.67	587.32	30.39	13.53	8.68
20718.20	21305.50 RB	35187.05	6053.65	591.87	15.50	10.31	5.81
21305.50	21664.20	9157.47	2295.07	335.66	4.03	6.97	3.99

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 195.28

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17044.9	929.9	17154	914.8	17304.3	912.3	17482.4	913.7	17619.6	914.5
17774.6	913.4	17910.7	913.6	18080	913.5	18219.2	913	18370.3	912
18499.9	914.5	18607.4	914.3	18712.5	909.9	18773.8	911.6	18810.6	908.5
18852.3	918.1	18876.8	918.7	18884.8	916.6	18931.3	912.6	18969.8	918.3
18983.7	916.0444	18992.6	914.6	19009	910	19043.6	907.2	19085.2	908.2
19153.1	906.9	19165.2	908	19190.5	902	19345.5	902.2	19390.1	903.4
19451.6	901.5	19610.2	901.4	19774.2	902.4	19842.2	902.3	20301.6	902.2
20378.3	902.1	20415.3	904.2	20440.5	901.9	20604.8	901.7	20617.2	903.8
20701.2	905.7	20793.4	901.6	20917.6	901.4	20958.3	901.3	20979.7	904.2
21035.4	902.7	21105.9	910.5	21177.9	908.5	21323.6	908.9	21460.5	908.5
21500	907.7	21568.8	917.2	21591.5	918.1	21594.1	914	21603.7	906.2
21616.5	907.1	21622.1	903.7	21676.9	907.1	21687	914.6	21689.7	918.4
21716.1	916.2	21733.8	912.5	21875.3	914.2	22006.6	914.4	22074.6	914.2
22457	915.1	22626.6	915.3	22768.7	915.4	22908.2	917.5	22939	918
23166.3	918.5	23348.7	918.9	23501.7	918.7	23698.9	918.2	23874.7	919.4
24017.3	920	24254.1	920.4	24446.9	921.2	24505.8	921.2	24643.7	921.4
24827.2	922.2	24913.6	922.3	25041.7	920.5	25103.7	920.9	25114	923.3
25194.1	922.6	25405.7	923.5	25470.9	923.5	25625.8	923.4	25659	923.3
25797.2	922	25909.2	924.6	26112.1	925.1	26283.2	925.7	26415.1	924.9
26451.6	929.7	26489	930.7						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17044.9	.032	18876.8	.031	18969.8	.031	21105.9	.043	21689.7	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18983.7	21105.9	655	472.67	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17044.9	18969.8	928	21591.5	26489	928

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	915.59	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.98	Wt. n-Val.		0.031	0.043
E.G. Elev (ft)	916.57	Reach Len. (ft)	655.00	472.67	500.00
Crit W.S. (ft)	910.16	Flow Area (sq ft)		26680.88	2906.38
E.G. Slope (ft/ft)	0.000977	Area (sq ft)	4139.24	26680.88	4794.58
Q Total (cfs)	227000.00	Flow (cfs)		216141.66	10858.34
Top Width (ft)	5475.49	Top Width (ft)	1748.03	2119.39	1608.07
Vel Total (ft/s)	7.67	Avg. Vel. (ft/s)		8.10	3.74
Max Chl Dpth (ft)	14.29	Hydr. Depth (ft)		12.59	6.44

Conv. Total (cfs)	7262247.5	Conv. (cfs)		6914864.5	347383.1
Length Wtd. (ft)	473.32	Wetted Per. (ft)		2122.15	451.81
Min Ch El (ft)	901.30	Shear (lb/sq ft)		0.77	0.39
Alpha	1.07	Stream Power (lb/ft s)		6.21	1.47
Frctn Loss (ft)	0.64	Cum Volume (acre-ft)	6706.26	69413.42	24045.77
C & E Loss (ft)	0.08	Cum SA (acres)	1803.11	7268.85	6951.26

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18983.70 LB	19514.25	43860.91	5892.29	529.39	19.32	11.17	7.44
19514.25	20044.80	61175.75	7200.56	530.55	26.95	13.57	8.50
20044.80	20575.35	59677.55	7095.09	530.71	26.29	13.37	8.41
20575.35	21105.90 RB	51427.44	6492.93	531.49	22.66	12.24	7.92
21105.90	21464.77	9258.43	2415.69	358.90	4.08	6.73	3.83
21464.77	21823.65	1599.92	490.69	92.91	0.70	5.31	3.26

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 195.19

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17251.5	929.4	17266	923.9	17276.7	918	17302.2	912.3	17415.2	911.2
17599.4	912.7	17738.6	910.5	17858.2	912.7	18053.1	912.2	18180.7	911.7
18350	912.5	18472.4	911.7	18587.8	909.2	18694.3	909.3	18751.3	905.9
18795.7	918.6	18826.1	918.6	18879.6	906.8	18942.7	905.1	18988.3	906
19027.8	917.8	19044.34	914.4629	19095.7	904.1	19147.6	900.8	19267.8	902.6
19341.3	903.9	19379	900.7	19496.9	901.5	19621	903.9	19657.9	902
19784	901.5	19941.8	901	19962.5	902.9	20120.8	901.8	20363.9	902.2
20479.8	902.4	20524	906.4	20552	902.7	20737.8	901.3	20820.1	904
20874.39	914.4615	20880.2	915.6	20986.2	916.6	21026.5	903.5	21115.2	904.1
21202.9	908.9	21328.7	907.3	21404	910	21415.4	912.4	21475.1	907.6
21581.5	910.8	21605.2	915	21634.2	917	21647.7	907	21659.6	908.1
21670.5	903.8	21704.6	903.7	21719.8	909.1	21732.5	910.6	21744.6	916.1
21797.5	913.1	21849.2	915.2	21967.1	914.8	22139.3	914.9	22239.9	915.2
22357.5	915.5	22543.9	915.7	22689.5	916	22765.4	918	22811	916.6
22940.3	917.6	22991.2	917.6	23144.9	917.4	23184.2	917.4	23331.2	917.5
23393.1	917.8	23529.1	917.9	23588	919	23641.7	917.9	23770.9	918.3
23913.4	919.5	23976.4	919.5	24128.7	919.5	24202	919.6	24352.5	920.6
24796.7	920	24912.3	920.3	25035.3	921	25431.5	921.6	25537.4	921.8
25746.7	923	25897.4	923.6	26020.5	923.5	26085.2	923.6	26235.5	922.9
26334.2	925.7	26353	928.4	26447	928.1				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17251.5	.032	18826.1	.031	19027.8	.031	20880.2	.043	21744.6	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19044.34	20874.3	201	185.16	251	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17251.5	19027.8	921	20880.2	26447	921

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	914.03	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.82	Wt. n-Val.		0.031	

E.G. Elev (ft)	915.85	Reach Len. (ft)	201.00	185.16	251.00
Crit W.S. (ft)	910.24	Flow Area (sq ft)		20970.23	
E.G. Slope (ft/ft)	0.001972	Area (sq ft)	4937.42	20970.23	4453.91
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	4225.84	Top Width (ft)	1653.60	1825.56	746.67
Vel Total (ft/s)	10.82	Avg. Vel. (ft/s)		10.82	
Max Chl Dpth (ft)	13.33	Hydr. Depth (ft)		11.49	
Conv. Total (cfs)	5111964.0	Conv. (cfs)		5111964.0	
Length Wtd. (ft)	185.16	Wetted Per. (ft)		1828.42	
Min Ch El (ft)	900.70	Shear (lb/sq ft)		1.41	
Alpha	1.00	Stream Power (lb/ft s)		15.28	
Frctn Loss (ft)	0.29	Cum Volume (acre-ft)	6638.02	69154.89	23992.69
C & E Loss (ft)	0.11	Cum SA (acres)	1777.54	7247.45	6937.75

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19044.34 LB	19501.83	55008.20	5147.29	456.60	24.23	11.30	10.69
19501.83	19959.32	61937.34	5532.07	457.64	27.29	12.09	11.20
19959.32	20416.81	60094.75	5432.12	457.51	26.47	11.87	11.06
20416.81	20874.30 RB	49959.70	4858.75	456.68	22.01	10.67	10.28

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 195.16

INPUT
Description: APPROX. ALIGNMENT OF BULLARD AVE. BRIDGE

Left and Right Channel Bank Stations Interpolated

U
Station Elevation Data num= 68

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17788	912.7	17983	912.2	18110	911.7	18204.1	908	18304.1	908
18389.1	916	18489.1	921.1	18764.1	922.4	19009.1	922.35	19028.1	922.29
19038.6	915.39	19040.17	914.36	11 19061.6	900.32	19126.8	900	19130.8	900
19190	900	19247.1	900	19251.1	900	19309.9	900	19368.2	900
19372.2	900	19411.6	900	19425.7	900	19475	900	19488.8	900
19492.8	900	19554.2	900.1	19608.9	901.7	19612.9	901.7	19672.5	901.6
19730.9	902.19	19734.9	902.19	19792.8	902.1	19850.7	901.1	19854.7	901.1
19918.1	900	19971.9	900	19975.9	900	20059.1	900.6	20091.5	901.3
20095.5	901.3	20156.4	900.5	20212.5	900	20216.5	900	20244.6	900
20276.3	900	20334.1	900	20338.1	900	20395.8	901.2	20454.6	900.5
20458.6	900.5	20496.8	900	20575.1	900	20579.1	900	20636.4	900
20696.6	900	20700.6	900	20765.9	900	20811.55	914.35	99 20817.4	916.2
20838.1	923.1	20857.9	923.3	20907.9	923.5	21862.9	923	22777.9	923.4
23187.9	923.4	24257.9	923.6	25318	920.8				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17788	.032	18204.1	.032	19009.1	.031	19038.6	.031	20817.4	.043
21862.9	.032								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19040.17	20811.55	64.2	64.2	64.2	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17788	19038.6	915.39	20817.4	25318	916.2

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	914.00	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.44	Wt. n-Val.		0.031	
E.G. Elev (ft)	915.44	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	908.60	Flow Area (sq ft)		23543.40	
E.G. Slope (ft/ft)	0.001290	Area (sq ft)	1743.76	23543.40	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	

Top Width (ft)	2349.52	Top Width (ft)	579.84	1769.68	
Vel Total (ft/s)	9.64	Avg. Vel. (ft/s)		9.64	
Max Chl Dpth (ft)	14.00	Hydr. Depth (ft)		13.30	
Conv. Total (cfs)	6321029.0	Conv. (cfs)		6321029.0	
Length Wtd. (ft)	0.00	Wetted Per. (ft)		1775.99	
Min Ch El (ft)	900.00	Shear (lb/sq ft)		1.07	
Alpha	1.00	Stream Power (lb/ft s)		10.29	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	6622.60	69060.28	23979.86
C & E Loss (ft)	0.01	Cum SA (acres)	1772.39	7239.80	6935.60

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19040.17 LB	19483.02	58879.91	6031.74	446.38	25.94	13.64	9.76
19483.02	19925.86	53334.75	5666.39	442.89	23.50	12.80	9.41
19925.86	20368.71	59650.99	6059.87	442.87	26.28	13.68	9.84
20368.71	20811.55 RB	55134.35	5785.41	443.86	24.29	13.10	9.53

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

BRIDGE RIVER: RIVER-1
REACH: Reach-1 RS: 195.145

INPUT
Description: Bridge #4

Downstream face of Bullard Rd bridge

Distance from Upstream XS = 0
Deck/Roadway Width = 64.2
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =
Upstream Deck/Roadway Coordinates
num= 18

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
19009.1	922.35	922.35	19038.6	922.29	915.39	19126.8	925.31	918.38
19247.1	926.11	919.18	19368.2	926.91	919.98	19488.8	927.86	920.81
19608.9	928.48	921.63	19730.9	928.62	921.73	19850.7	928.75	921.82
19971.9	928.5	921.58	20091.5	928.25	921.37	20212.5	927.95	921.03
20334.1	927.65	920.77	20454.6	926.85	919.95	20575.1	926.05	919.17
20696.6	925.1	918.22	20817.4	923.1	916.2	20857.9	923.3	923.3

Upstream Bridge Cross Section Data
Station Elevation Data num= 68

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17788	912.7	17983	912.2	18110	911.7	18204.1	908	18304.1	908
18389.1	916	18489.1	921.1	18764.1	922.4	19009.1	922.35	19028.1	922.29
19038.6	915.39	19040.17	914.3611	19061.6	900.32	19126.8	900	19130.8	900
19190	900	19247.1	900	19251.1	900	19309.9	900	19368.2	900
19372.2	900	19411.6	900	19425.7	900	19475	900	19488.8	900
19492.8	900	19554.2	900.1	19608.9	901.7	19612.9	901.7	19672.5	901.6
19730.9	902.19	19734.9	902.19	19792.8	902.1	19850.7	901.1	19854.7	901.1
19918.1	900	19971.9	900	19975.9	900	20059.1	900.6	20091.5	901.3
20095.5	901.3	20156.4	900.5	20212.5	900	20216.5	900	20244.6	900
20276.3	900	20334.1	900	20338.1	900	20395.8	901.2	20454.6	900.5
20458.6	900.5	20496.8	900	20575.1	900	20579.1	900	20636.4	900
20696.6	900	20700.6	900	20765.9	900	20811.55	914.3599	20817.4	916.2
20838.1	923.1	20857.9	923.3	20907.9	923.5	21862.9	923	22777.9	923.4
23187.9	923.4	24257.9	923.6	25318	920.8				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17788	.032	18204.1	.032	19009.1	.031	19038.6	.031	20817.4	.043
21862.9	.032								

Bank Sta: Left Right Coeff Contr. Expan.

```
      19040.1720811.55              .1        .3
 Ineffective Flow     num=        2
    Sta L   Sta R    Elev   Sta L   Sta R    Elev
    17788 19038.6  915.39 20817.4   25318   916.2

 Downstream  Deck/Roadway Coordinates
     num=       18
      Sta Hi Cord Lo Cord      Sta Hi Cord Lo Cord      Sta Hi Cord Lo Cord
  19009.1  922.35  922.35 19038.6  922.29  915.39 19126.8  925.31  918.38
  19247.1  926.11  919.18 19368.2  926.91  919.98 19488.8  927.86  920.81
  19608.9  928.48  921.63 19730.9  928.62  921.73 19850.7  928.75  921.82
  19971.9   928.5  921.58 20091.5  928.25  921.37 20212.5  927.95  921.03
  20334.1  927.65  920.77 20454.6  926.85  919.95 20575.1  926.05  919.17
  20696.6   925.1  918.22 20817.4   923.1   916.2 20857.9   923.3   923.3

 Downstream Bridge Cross Section Data
 Station Elevation Data    num=      68
      Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
    17851   914.3   17951   911.4   18080   912.4 18204.1     908 18304.1     908
  18389.1     916 18489.1   921.1 18764.1   922.4 19009.1  922.35 19028.1  922.29
  19038.6 915.3919040.59 914.086 19061.6  900.32 19126.8     900 19130.8     900
    19190     900 19247.1     900 19251.1     900 19309.9     900 19368.2     900
  19372.2     900 19411.6     900 19425.7     900   19475     900 19488.8     900
  19492.8     900 19554.2   900.1 19608.9   901.7 19612.9   901.7 19672.5   901.6
  19730.9  902.19 19734.9  902.19 19792.8   902.1 19850.7   901.1 19854.7   901.1
  19918.1     900 19971.9     900 19975.9     900 20059.1   900.6 20091.5   901.3
  20095.5   901.3 20156.4   900.5 20212.5     900 20216.5     900 20244.6     900
  20276.3     900 20334.1     900 20338.1     900 20395.8   901.2 20454.6   900.5
  20458.6   900.5 20496.8     900 20575.1     900 20579.1     900 20636.4     900
  20696.6     900 20700.6     900 20765.9     90020810.68914.0859 20817.4   916.2
  20838.1   923.1 20857.9   923.3 20907.9   923.5 21862.9     923 22777.9   923.4
  23187.9   923.4 24257.9   923.6   25318   920.8

 Manning's n Values        num=       6
      Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
    17851    .032 18204.1    .032 19009.1    .032 19038.6    .031 20817.4    .043
  21862.9    .025

 Bank Sta: Left   Right    Coeff Contr.   Expan.
      19040.5920810.68              .1        .3
 Ineffective Flow     num=        2
    Sta L   Sta R    Elev   Sta L   Sta R    Elev
    17851 19038.6  915.39 20817.4   25318   916.2

 Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
 Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
 Maximum allowable submergence for weir flow =     .95
 Elevation at which weir flow begins         =
 Energy head used in spillway design         =
 Spillway height used in design              =
 Weir crest shape                            = Broad Crested

 Number of Piers =  14

 Pier Data
 Pier Station     Upstream= 19128.8    Downstream= 19128.8
 Upstream     num=       2
     Width   Elev    Width   Elev
        4     900        4  918.41
 Downstream     num=       2
     Width   Elev    Width   Elev
        4     900        4  918.41

 Pier Data
 Pier Station     Upstream= 19249.1    Downstream= 19249.1
 Upstream     num=       2
     Width   Elev    Width   Elev
        4     900        4  919.21
 Downstream     num=       2
     Width   Elev    Width   Elev
        4     900        4  919.21

 Pier Data
 Pier Station     Upstream= 19370.2    Downstream= 19370.2
 Upstream     num=       2
     Width   Elev    Width   Elev
```

```
      4      900        4  920.01
Downstream      num=        2
    Width   Elev    Width   Elev
      4      900        4  920.01

Pier Data
Pier Station     Upstream= 19490.8    Downstream= 19490.8
Upstream      num=        2
    Width   Elev    Width   Elev
      4      900        4  920.84
Downstream      num=        2
    Width   Elev    Width   Elev
      4      900        4  920.84

Pier Data
Pier Station     Upstream= 19610.9    Downstream= 19610.9
Upstream      num=        2
    Width   Elev    Width   Elev
      4      900        4  921.66
Downstream      num=        2
    Width   Elev    Width   Elev
      4      900        4  921.66

Pier Data
Pier Station     Upstream= 19732.9    Downstream= 19732.9
Upstream      num=        2
    Width   Elev    Width   Elev
      4      900        4  921.76
Downstream      num=        2
    Width   Elev    Width   Elev
      4      900        4  921.76

Pier Data
Pier Station     Upstream= 19852.7    Downstream= 19852.7
Upstream      num=        2
    Width   Elev    Width   Elev
      4      900        4  921.85
Downstream      num=        2
    Width   Elev    Width   Elev
      4      900        4  921.85

Pier Data
Pier Station     Upstream= 19973.9    Downstream= 19973.9
Upstream      num=        2
    Width   Elev    Width   Elev
      4      900        4   921.6
Downstream      num=        2
    Width   Elev    Width   Elev
      4      900        4   921.6

Pier Data
Pier Station     Upstream= 20093.5    Downstream= 20093.5
Upstream      num=        2
    Width   Elev    Width   Elev
      4      900        4  921.35
Downstream      num=        2
    Width   Elev    Width   Elev
      4      900        4  921.35

Pier Data
Pier Station     Upstream= 20214.5    Downstream= 20214.5
Upstream      num=        2
    Width   Elev    Width   Elev
      4      900        4  921.05
Downstream      num=        2
    Width   Elev    Width   Elev
      4      900        4  921.05

Pier Data
Pier Station     Upstream= 20336.1    Downstream= 20336.1
Upstream      num=        2
    Width   Elev    Width   Elev
      4      900        4  920.75
Downstream      num=        2
    Width   Elev    Width   Elev
      4      900        4  920.75
```

```
Pier Data
Pier Station     Upstream= 20456.6    Downstream= 20456.6
Upstream     num=        2
    Width   Elev    Width   Elev
       4     900       4  919.95
Downstream     num=        2
    Width   Elev    Width   Elev
       4     900       4  919.95

Pier Data
Pier Station     Upstream= 20577.1    Downstream= 20577.1
Upstream     num=        2
    Width   Elev    Width   Elev
       4     900       4  919.15
Downstream     num=        2
    Width   Elev    Width   Elev
       4     900       4  919.15

Pier Data
Pier Station     Upstream= 20698.6    Downstream= 20698.6
Upstream     num=        2
    Width   Elev    Width   Elev
       4     900       4   918.2
Downstream     num=        2
    Width   Elev    Width   Elev
       4     900       4   918.2

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
       Energy
       Momentum                Cd   =     1.2
       Yarnell                 KVal =     .95
Selected Low Flow Methods = Highest Energy Answer

High Flow Method
       Energy Only

Additional Bridge Parameters
       Add Friction component to Momentum
       Do not add Weight component to Momentum
       Class B flow critical depth computations use critical depth
           inside the bridge at the downstream end
       Criteria to check for pressure flow = Upstream water surface

BRIDGE OUTPUT    Profile #PF#1
Opening : Bridge #1
```

E.G. US. (ft)	915.44	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	914.00	E.G. Elev (ft)	915.43	915.30
Q Total (cfs)	227000.00	W.S. Elev (ft)	913.85	913.69
Q Bridge (cfs)	227000.00	Crit W.S. (ft)	908.78	908.78
Q Weir (cfs)		Max Chl Dpth (ft)	13.85	13.69
Weir Sta Lft (ft)		Vel Total (ft/s)	10.07	10.20
Weir Sta Rgt (ft)		Flow Area (sq ft)	22538.47	22253.73
Weir Submerg		Froude # Chl	0.49	0.50
Weir Max Depth (ft)		Specif Force (cu ft)	221469.75	218654.64
Min Top Rd (ft)	915.39	Hydr Depth (ft)	13.16	13.00
Min El Prs (ft)	921.82	W.P. Total (ft)	2093.58	2088.07
Delta EG (ft)	0.18	Conv. Total (cfs)	5267207.0	5165844.0
Delta WS (ft)	0.23	Top Width (ft)	1713.00	1712.22
BR Open Area (sq ft)	33365.07	Frctn Loss (ft)	0.12	0.00
BR Open Vel (ft/s)	10.20	C & E Loss (ft)	0.00	0.04
Coef of Q		Shear Total (lb/sq ft)	1.25	1.28
Br Sel Mthd	Energy only	Power Total (lb/ft s)	12.57	13.11

```
Note - Momentum answer is not valid if the water surface is above the low chord or if there is
weir
                flow.  The momentum answer has been disregarded.

CROSS SECTION          RIVER: RIVER-1
REACH: Reach-1            RS: 195.13

INPUT
```

Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 68

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17851	914.3	17951	911.4	18080	912.4	18204.1	908	18304.1	908
18389.1	916	18489.1	921.1	18764.1	922.4	19009.1	922.35	19028.1	922.29
19038.6	915.39	19040.59	914.086	19061.6	900.32	19126.8	900	19130.8	900
19190	900	19247.1	900	19251.1	900	19309.9	900	19368.2	900
19372.2	900	19411.6	900	19425.7	900	19475	900	19488.8	900
19492.8	900	19554.2	900.1	19608.9	901.7	19612.9	901.7	19672.5	901.6
19730.9	902.19	19734.9	902.19	19792.8	902.1	19850.7	901.1	19854.7	901.1
19918.1	900	19971.9	900	19975.9	900	20059.1	900.6	20091.5	901.3
20095.5	901.3	20156.4	900.5	20212.5	900	20216.5	900	20244.6	900
20276.3	900	20334.1	900	20338.1	900	20395.8	901.2	20454.6	900.5
20458.6	900.5	20496.8	900	20575.1	900	20579.1	900	20636.4	900
20696.6	900	20700.6	900	20765.9	900	20810.68	914.0859	20817.4	916.2
20838.1	923.1	20857.9	923.3	20907.9	923.5	21862.9	923	22777.9	923.4
23187.9	923.4	24257.9	923.6	25318	920.8				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17851	.032	18204.1	.032	19009.1	.032	19038.6	.031	20817.4	.043
21862.9	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19040.59	20810.68	261	244.16	276	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17851	19038.6	915.39	20817.4	25318	916.2

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	913.77	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.49	Wt. n-Val.		0.031	
E.G. Elev (ft)	915.27	Reach Len. (ft)	261.00	244.16	276.00
Crit W.S. (ft)	908.61	Flow Area (sq ft)		23143.99	
E.G. Slope (ft/ft)	0.001364	Area (sq ft)	1536.56	23143.99	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	2264.89	Top Width (ft)	496.27	1768.62	
Vel Total (ft/s)	9.81	Avg. Vel. (ft/s)		9.81	
Max Chl Dpth (ft)	13.77	Hydr. Depth (ft)		13.09	
Conv. Total (cfs)	6145999.0	Conv. (cfs)		6145999.0	
Length Wtd. (ft)	244.16	Wetted Per. (ft)		1774.83	
Min Ch El (ft)	900.00	Shear (lb/sq ft)		1.11	
Alpha	1.00	Stream Power (lb/ft s)		10.89	
Frctn Loss (ft)	0.39	Cum Volume (acre-ft)	6622.60	69027.27	23979.86
C & E Loss (ft)	0.03	Cum SA (acres)	1772.39	7237.28	6935.60

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19040.59 LB	19483.11	58944.98	5933.28	446.06	25.97	13.42	9.93
19483.11	19925.63	53204.45	5561.97	442.57	23.44	12.57	9.57
19925.63	20368.16	59631.73	5955.77	442.55	26.27	13.46	10.01
20368.16	20810.68 RB	55218.84	5692.98	443.66	24.33	12.89	9.70

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 195.09

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17259.5	929.5	17291	918.1	17350.1	911.6	17371.5	912.8	17442.6	910.2
17562.3	912.3	17680.9	911.6	17801.1	914.3	17901.7	911.4	18030.7	912.4
18158.8	912.8	18399.9	911.4	18505.8	909.1	18643.8	910.2	18674.4	910.4
18732.8	905.1	18788	920.1	18833.4	918.2	18856.2	907.5	18965.6	907.2
19017.6	918	19034.28	913.4839	19073	903	19111.5	899.9	19272.8	902.5
19386.6	902.9	19440.3	898.8	19573.1	901.2	19740.8	900.2	19866.9	902
20023.1	900.3	20035.1	900.3	20210.7	899.9	20272.1	902.3	20368.8	899.1

20399.1	901.5	20444.9	899.1	20601.7	900.1	20687.6	901	20745.8	906.4
20818.6	905.8	20850.3	914.6	20863.8	913.4	20881	908.8	21042.7	910
21169.2	906.6	21213.3	907.3	21284.9	911.4	21419.7	914.9	21546.9	914.8
21671.6	915.9	21722.4	918.2	21756.2	918.1	21799.4	900.7	21822	901.8
21833.1	907.9	21841.6	908	21862.1	916.1	21886.5	915.6	21913.3	917.2
21918.9	914.3	21983.9	912.7	22132.4	913.9	22301.9	914.5	22351.1	914.6
22514.4	915.2	22621.6	915.5	22777.6	915.1	22912.4	916.8	23059.1	919.8
23191.3	920.6	23344.7	918.5	23474.6	917.6	23488.7	918	23505.3	915.4
23594.6	919.3	23724.3	919.6	23824	919	24027.1	919.2	24134.7	919.7
24307.7	919.7	24493	919.8	24638	919.8	24766.1	919.5	24793.3	920.7
24859.8	918.7	25047	920	25222.7	919.8	25272.9	920.1	25454.4	920.8
25586	920.7	25706.5	920.3	25866.3	921.1	26005.3	921	26126.3	921.5
26177.4	921.6	26189.7	923.4						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17259.5	.032	19017.6	.031	20850.3	.043	21722.4	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19034.28	20850.3	445	504	575	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17259.5	19017.6	925	20850.3	26189.7	925

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	913.08	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.77	Wt. n-Val.		0.031	
E.G. Elev (ft)	914.85	Reach Len. (ft)	445.00	504.00	575.00
Crit W.S. (ft)	909.12	Flow Area (sq ft)		21256.15	
E.G. Slope (ft/ft)	0.001863	Area (sq ft)	3073.18	21256.15	2463.46
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	3920.72	Top Width (ft)	1478.59	1809.06	633.07
Vel Total (ft/s)	10.68	Avg. Vel. (ft/s)		10.68	
Max Chl Dpth (ft)	14.28	Hydr. Depth (ft)		11.75	
Conv. Total (cfs)	5259698.5	Conv. (cfs)		5259698.5	
Length Wtd. (ft)	504.17	Wetted Per. (ft)		1812.26	
Min Ch El (ft)	898.80	Shear (lb/sq ft)		1.36	
Alpha	1.00	Stream Power (lb/ft s)		14.57	
Frctn Loss (ft)	0.85	Cum Volume (acre-ft)	6608.79	68902.84	23972.06
C & E Loss (ft)	0.12	Cum SA (acres)	1766.47	7227.25	6933.59

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19034.28 LB	19488.29	52027.37	5054.50	454.17	22.92	11.17	10.29
19488.29	19942.29	60378.51	5526.09	454.04	26.60	12.17	10.93
19942.29	20396.29	63888.91	5717.48	454.20	28.14	12.59	11.17
20396.29	20850.30 RB	50705.21	4958.08	449.86	22.34	11.05	10.23

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 195

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16932.1	929.5	16948	925.3	17003.4	923.6	17063.4	918	17187.4	912.9
17302.4	909.1	17423	909.9	17568.9	911.8	17721	912.7	17849.4	911
17879.3	912.4	17990.9	912	18071.5	909.5	18082.8	911.3	18094.4	905.7
18113.5	906.9	18286.2	907.2	18403	907.2	18579.5	906.7	18695.3	910.4
18753.8	905.9	18792.1	913.2	18846.6	912.6	18886	906	19024.5	904.4
19076.5	902.4	19114.3	898	19311	898.3	19471.7	898.9	19668	899.2
19708.2	901.7	19807.5	904.3	19960.2	902.3	20017.5	898.6	20063.6	898.6
20200.2	898.3	20259.7	898.5	20267	900.6	20275	899.7	20284.7	902.1
20328.6	902.1	20401.6	897.2	20557.2	897	20597.6	906.3	20747.1	906.2
20882.3	901.6	20906.1	905.3	20937.1	905	20978	911.9	21101.1	911.2
21136.1	911.2	21274.3	911.2	21335.9	911.3	21497.5	911.3	21617.2	911.3
21733.6	911.4	21836.4	911.3	21866.9	916	21907.1	917.1	21930.5	899.8

21964	901.6	21980.1	912.7	21991.9	913.4	22008.8	917.3	22022.1	918.2
22038.7	914	22185	913.4	22320.4	913.9	22424.1	913.9	22581.2	914.5
22761.4	915	22914	915.1	22996.8	915.2	23123.9	915.2	23314.2	915.9
23461.7	917.9	23659.8	917.9	23768.6	918	23985.5	918.5	24027	918.6
24251.1	918.9	24353.1	919.3	24488.9	919.4	24677	919	24773.2	919.1
24899.6	919.2	25006.8	919.4	25169.1	919.7	25203.8	919.8	25447.9	920.4
25580.5	920.4	25712.4	920.3	25734.4	920.2	25859.8	920.1	25977	920.2
26042.5	921.8								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16932.1	.032	18846.6	.031	20978	.032	22021.1	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18846.6	20978	435	489.93	605	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16932.1	18846.6	925	21431	26042.5	925

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	912.50	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.38	Wt. n-Val.		0.031	0.032
E.G. Elev (ft)	913.88	Reach Len. (ft)	435.00	489.93	605.00
Crit W.S. (ft)	908.21	Flow Area (sq ft)		23942.63	534.85
E.G. Slope (ft/ft)	0.001543	Area (sq ft)	4662.35	23942.63	1607.32
Q Total (cfs)	227000.00	Flow (cfs)		225910.03	1089.96
Top Width (ft)	4604.55	Top Width (ft)	1541.02	2130.82	932.71
Vel Total (ft/s)	9.27	Avg. Vel. (ft/s)		9.44	2.04
Max Chl Dpth (ft)	15.50	Hydr. Depth (ft)		11.24	1.18
Conv. Total (cfs)	5778077.5	Conv. (cfs)		5750333.5	27744.0
Length Wtd. (ft)	490.21	Wetted Per. (ft)		2134.72	453.00
Min Ch El (ft)	897.00	Shear (lb/sq ft)		1.08	0.11
Alpha	1.03	Stream Power (lb/ft s)		10.20	0.23
Frctn Loss (ft)	0.70	Cum Volume (acre-ft)	6569.28	68641.35	23945.19
C & E Loss (ft)	0.08	Cum SA (acres)	1751.05	7204.46	6923.26

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18846.60 LB	19379.45	54125.67	5863.09	533.12	23.84	11.02	9.23
19379.45	19912.30	60568.38	6271.70	532.97	26.68	11.77	9.66
19912.30	20445.15	71508.98	6932.91	533.78	31.50	13.01	10.31
20445.15	20978.00 RB	39707.01	4874.93	534.85	17.49	9.15	8.15
20978.00	21315.63	802.22	395.66	337.63	0.35	1.17	2.03
21315.63	21653.27	287.75	139.19	115.37	0.13	1.21	2.07

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 194.91

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16952.1	929.6	17012.2	913.9	17128.1	910.2	17136.9	910.8	17148	909.6
17236.8	908.2	17320	910.2	17468.5	909.8	17586.2	910.5	17698.1	909.9
17751.7	909.9	17763.2	911.7	17770.9	909.5	17876.1	909	18060.5	907.3
18162.6	907.9	18299.8	907.6	18416.3	907.5	18533	908	18651.1	908.4
18748.1	909.1	18760.9	911.1	18830	911.1	18869.7	904.3	18950.7	902.8
19028.3	905.5	19063.1	898.1	19267.5	897.4	19368.2	898.7	19385.5	898.7
19570.8	900.4	19681.7	902	19778.3	900.6	19817.8	898.2	19917.1	902
19959.8	901.2	20005.9	897.3	20160.6	897.2	20390.8	896.9	20478	897.7
20510.7	905.9	20639.4	905.2	20774	904.6	20900.6	904.8	21008.3	904.2
21188.9	904.5	21238.7	904.5	21286.9	911.3	21406.1	911.1	21613.5	911
21644.4	911	21760.5	911	21895.2	910.4	21989.6	910	22020.2	915.2
22059.1	916.9	22085.8	900.4	22109.8	901.3	22127	909.7	22135.5	911.4
22147	918.4	22166.8	917.5	22187.2	911.8	22309	912.4	22335.8	912.8
22457.3	912.8	22546.4	912.8	22668.7	913.1	22860.1	913.9	23015.2	914.7
23141.6	914.8	23261.6	914	23310	914.6	23316.3	915.9	23376.7	915.9

23509.2	916.5	23552.5	916.6	23749.5	916.7	23804.6	916.7	24052.9	917.3
24071.2	917.4	24214.4	917.4	24352.2	918	24486.9	917.2	24618	917.7
24754.5	919.3	24842.9	919.6	24973.5	919.7	25114	920.6	25225	921.1
25408.7	921.2	25578.2	921.6	25730.2	921.6	25843.5	921.6	25950.2	921.2
25967.9	922								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16952.1	.032	18830	.031	21286.9	.032	22147	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18830	21286.9	475	494.18	530	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16952.1	18579	925	21895	25967.9	925

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	912.00	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.10	Wt. n-Val.	0.032	0.031	0.032
E.G. Elev (ft)	913.10	Reach Len. (ft)	475.00	494.18	530.00
Crit W.S. (ft)	907.56	Flow Area (sq ft)	669.85	26422.78	613.51
E.G. Slope (ft/ft)	0.001318	Area (sq ft)	5340.06	26422.78	1300.30
Q Total (cfs)	227000.00	Flow (cfs)	2171.32	223788.47	1040.20
Top Width (ft)	5040.15	Top Width (ft)	1758.25	2456.90	825.00
Vel Total (ft/s)	8.19	Avg. Vel. (ft/s)	3.24	8.47	1.70
Max Chl Dpth (ft)	15.10	Hydr. Depth (ft)	2.67	10.75	1.01
Conv. Total (cfs)	6253771.0	Conv. (cfs)	59819.1	6165294.5	28657.2
Length Wtd. (ft)	493.97	Wetted Per. (ft)	251.16	2460.17	608.10
Min Ch El (ft)	896.90	Shear (lb/sq ft)	0.22	0.88	0.08
Alpha	1.06	Stream Power (lb/ft s)	0.71	7.48	0.14
Frctn Loss (ft)	0.47	Cum Volume (acre-ft)	6519.34	68358.12	23925.00
C & E Loss (ft)	0.12	Cum SA (acres)	1734.57	7178.66	6911.05

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18454.42	18579.61	9.13	2.36	0.61	0.00	3.84	3.88
18579.61	18704.81	1661.32	448.80	125.20	0.73	3.58	3.70
18704.81	18830.00	500.86	218.69	125.35	0.22	1.75	2.29
18830.00 LB	19444.22	62192.02	7131.38	615.65	27.40	11.61	8.72
19444.22	20058.45	64104.13	7257.02	614.57	28.24	11.81	8.83
20058.45	20672.68	69538.95	7623.50	615.25	30.63	12.41	9.12
20672.68	21286.90 RB	27953.38	4410.88	614.71	12.31	7.18	6.34
21286.90	21598.97	429.17	277.57	312.07	0.19	0.89	1.55
21598.97	21911.03	611.03	335.94	296.03	0.27	1.13	1.82

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 194.81

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16922.9	929.7	16937.5	918.2	16990.3	912	17012.9	913.4	17080.5	906.9
17261.7	908.3	17383	909.4	17498.7	909.8	17608.2	909.8	17634.3	909.8
17689.2	904.8	17838.9	910	17890.6	908.5	17999.8	906.8	18126.8	907.2
18246.8	907.9	18363.1	907.3	18479.6	907.4	18593.9	906.7	18600.5	909.7
18609.2	906.3	18727.5	909.6	18779.3	908	18798.6	911.1	18830.9	911.2
18856.2	904.5	18935.6	902.5	18976	896.7	19191.8	897	19341.9	897.2
19417.2	898.3	19578.5	898.6	19646.4	901.6	19733.1	900.7	19769.6	896.5
19814.2	896.5	20003.6	896.3	20146.5	896	20272.7	896.3	20390.4	898.3
20501	898.9	20537.2	899.7	20682.9	898	20717.2	904.4	20883.9	903.8
20930.1	903.4	21039.6	903.3	21164.9	902.6	21285.7	905.2	21359.4	903.3
21493.7	904.2	21544.5	910	21625.2	910.3	21757.7	910.3	21928.6	910.1
22067.4	909.7	22136.1	909.9	22161.1	915	22186.9	914.5	22199.9	915.8
22229.4	899.9	22252.8	901	22267.5	907.8	22278.8	909.2	22290.5	916.7
22316.7	915.1	22326.9	911.4	22424.3	911.8	22604.1	912.8	22632.4	912.9
22831.8	913	22844.8	913.1	23053.3	913.8	23081.9	913.9	23209.1	914

23243.8	913.8	23267.2	915.3	23463.8	915.2	23574.3	915.9	23747.5	916.9
23947	916.9	24045.8	916.8	24228.8	916.8	24401.8	917.6	24427.8	917.6
24539	917.2	24560.2	919.4	24615	918.5	24725.8	919.5	24867.4	920.6
24898.9	920.6	25159.1	920.6	25256.2	921	25592	921.9	25719.8	921.9
25804	923.3								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16922.9	.032	18830.9	.031	20930.1	.032	21544.5	.032	22290.5	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18830.9	21544.5	435	485	555	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16922.9	18272	925	21940	25804	925

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	911.82	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.69	Wt. n-Val.	0.032	0.031	0.032
E.G. Elev (ft)	912.51	Reach Len. (ft)	435.00	485.00	555.00
Crit W.S. (ft)	905.80	Flow Area (sq ft)	2190.68	32344.89	631.07
E.G. Slope (ft/ft)	0.000713	Area (sq ft)	6689.73	32344.89	1595.39
Q Total (cfs)	227000.00	Flow (cfs)	6741.13	219190.19	1068.70
Top Width (ft)	5293.04	Top Width (ft)	1801.52	2713.60	777.92
Vel Total (ft/s)	6.45	Avg. Vel. (ft/s)	3.08	6.78	1.69
Max Chl Dpth (ft)	15.82	Hydr. Depth (ft)	3.92	11.92	1.60
Conv. Total (cfs)	8499227.0	Conv. (cfs)	252398.1	8206815.5	40013.6
Length Wtd. (ft)	482.75	Wetted Per. (ft)	560.51	2716.25	395.50
Min Ch El (ft)	896.00	Shear (lb/sq ft)	0.17	0.53	0.07
Alpha	1.07	Stream Power (lb/ft s)	0.54	3.59	0.12
Frctn Loss (ft)	0.35	Cum Volume (acre-ft)	6453.75	68024.77	23907.38
C & E Loss (ft)	0.02	Cum SA (acres)	1715.16	7149.33	6901.30

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18194.90	18322.10	651.06	209.15	50.10	0.29	4.17	3.11
18322.10	18449.30	1843.00	566.86	127.20	0.81	4.46	3.25
18449.30	18576.50	1974.56	590.80	127.20	0.87	4.64	3.34
18576.50	18703.70	1697.51	541.81	128.53	0.75	4.26	3.13
18703.70	18830.90	575.00	282.06	127.48	0.25	2.22	2.04
18830.90 LB	19509.30	64096.51	8988.51	679.72	28.24	13.25	7.13
19509.30	20187.70	71753.78	9612.48	678.71	31.61	14.17	7.46
20187.70	20866.10	56703.29	8347.87	679.03	24.98	12.31	6.79
20866.10	21544.50 RB	26636.61	5396.03	678.79	11.73	7.95	4.94
21544.50	21828.47	745.41	445.40	283.97	0.33	1.57	1.67
21828.47	22112.43	323.29	185.66	111.53	0.14	1.66	1.74

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 194.72

INPUT
Description: Right Channel Bank Station Interpolated

Flow approximates fully
expanded flow from Bullard Rd. here

Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16804.8	929.8	16838.5	918.3	16876.8	913	16930.8	909.7	17061.2	907.7
17250.9	909.5	17371.2	906.4	17394.8	903.8	17596.6	911.4	17789.9	908.6
17956	908	18099.9	907.3	18253.4	907.4	18308.3	907.2	18473	903
18600.9	900.9	18634.3	912.2	18679	914.8	18778.7	910.8	18793.5	913.7

18832.6	913.1	18864.7	903.9	18920.1	904.4	18986.4	899.5	19021.3	901.3
19119.9	896.3	19208.6	895.7	19402.8	897.3	19447.4	899.3	19568	899.4
19599.4	896.6	19747.9	896.5	19871	896.2	20023.1	898.2	20186	898.9
20341.6	900	20479.5	900.1	20529	897.4	20615.5	897.7	20646.7	902.3
20696.1	903	20757.1	898.2	20858.8	898	20895.6	903.8	21042	904
21171.3	903.1	21247.7	905.6	21433.2	903	21534.3	901.3	21619.2	904.9
21653.16	911.5381	21654.5	911.8	21698.8	916.5	21735	917.1	21790.6	904.4
21853.1	914.1	21884	914.9	21932.1	910.2	22042.5	913.3	22078.7	904.3
22111.3	913.5	22211.9	909.8	22254.6	914.6	22266.1	911.5	22283.6	911.5
22300.4	899.8	22328.3	900.9	22341.9	908.1	22351	908.3	22366.2	916.2
22396.2	910.6	22554.1	911.5	22725.4	912.6	22887.5	912.6	23023.8	912.6
23156.1	912.9	23202.4	914.7	23415.4	914.9	23592.7	915.1	23714.1	915.1
23862.8	915.5	23992.6	915.7	24100.4	916	24239.8	916.5	24423.4	916.9
24552.9	917.9	24668.1	919.4	24823.9	919.7	24877.3	920	25144	919.9
25266.5	920	25433.1	920.2	25577.6	920.2	25623.1	920.2	25759.1	920.5
25881.2	919.7	25900.9	921.3						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16804.8	.032	18793.5	.031	21735	.043	23202.4	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18832.62	21653.16	495	503.5	550	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16804.8	17986	925	21735	25900.9	925

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	911.50	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.64	Wt. n-Val.	0.032	0.031	
E.G. Elev (ft)	912.15	Reach Len. (ft)	495.00	503.50	550.00
Crit W.S. (ft)	905.77	Flow Area (sq ft)	3765.12	32221.30	
E.G. Slope (ft/ft)	0.000730	Area (sq ft)	7003.51	32221.30	1178.75
Q Total (cfs)	227000.00	Flow (cfs)	15220.88	211779.13	
Top Width (ft)	5073.57	Top Width (ft)	1752.04	2814.80	506.73
Vel Total (ft/s)	6.31	Avg. Vel. (ft/s)	4.04	6.57	
Max Chl Dpth (ft)	15.80	Hydr. Depth (ft)	5.64	11.45	
Conv. Total (cfs)	8401537.0	Conv. (cfs)	563342.5	7838194.5	
Length Wtd. (ft)	502.77	Wetted Per. (ft)	669.24	2818.28	
Min Ch El (ft)	895.70	Shear (lb/sq ft)	0.26	0.52	
Alpha	1.04	Stream Power (lb/ft s)	1.04	3.42	
Frctn Loss (ft)	0.35	Cum Volume (acre-ft)	6385.38	67665.32	23889.71
C & E Loss (ft)	0.02	Cum SA (acres)	1697.42	7118.56	6893.11

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17886.29	18021.48	377.17	132.51	35.48	0.17	3.73	2.85
18021.48	18156.67	1668.04	552.13	135.19	0.73	4.08	3.02
18156.67	18291.85	1709.70	560.36	135.19	0.75	4.15	3.05
18291.85	18427.04	2846.39	760.93	135.22	1.25	5.63	3.74
18427.04	18562.23	5979.91	1187.87	135.21	2.63	8.79	5.03
18562.23	18697.41	2635.30	563.90	71.76	1.16	8.05	4.67
18697.41	18832.60	4.35	7.41	21.18	0.00	0.35	0.59
18832.60 LB	19537.74	59638.25	8757.91	701.04	26.27	12.52	6.81
19537.74	20242.88	72459.99	9867.13	705.28	31.92	13.99	7.34
20242.88	20948.02	53222.82	8203.85	706.20	23.45	11.63	6.49
20948.02	21653.16 RB	26458.06	5392.41	705.75	11.66	7.65	4.91

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 194.62

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16124.9	925.8	16259.3	919.2	16390.7	914.7	16536.4	912.8	16588.2	912.2
16745.2	909.4	16897.5	906.3	17030.6	907.2	17191.2	905.1	17276.2	903.5

17408.7	907.1	17557.5	907.1	17695.3	906.9	17835.6	906.1	17975.1	907.1
18114.8	907	18251	906	18306.1	904.7	18402.7	901.3	18538.9	904.6
18574.6	907.8	18587.9	912.1	18705.8	913	18766.9	911.2	18871.4	912.6
18913	900.9	19047.8	903.3	19161.2	896.3	19427.3	896.9	19498.3	896.7
19737.6	896.9	19823.4	899.9	19975.4	896.4	20129	899.1	20250.7	900.6
20438.8	900.4	20579.4	900.7	20639.6	897.9	20681.3	900.9	20784.6	896
20909.1	896.5	20943.4	904.1	21041.2	902.9	21081.1	904.7	21117.4	901.2
21164.1	902.9	21274.8	903	21335.6	898.8	21389.6	902.5	21570.9	904.1
21576	903.1	21750	903.1	21793.5	910.6	21956.8	908.5	22117.6	910.7
22166.9	902.9	22199.6	911.6	22284.7	909.5	22308.2	911.1	22332.6	910.1
22352.2	898.9	22377.3	901.2	22411.5	912.8	22450.9	911.8	22460.9	908.5
22478.1	911.2	22494.1	911.7	22630.3	911.5	22698	911.4	22856.5	911.4
22875.2	911.5	23015.3	911.5	23149.4	912.1	23222.1	912.8	23423.1	914.1
23447.5	914.2	23640.1	914.2	23714.8	914.1	23913.8	914.9	23953.5	915.2
24165.9	916.3	24288.1	916.2	24427.2	915.6	24566.6	917	24721.9	917.8
24856	918.1	24870.6	918.2	25138.6	917.6	25147.1	917.7	25351.1	918.1
25355.3	918.1	25577.8	918.1	25584.8	918.1	25717.2	918.2	25839.4	918.9
25856	921.3								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16124.9	.025	18871.4	.031	21570.9	.043	21793.5	.043	22411.5	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18871.4	21793.5	475	501.02	535	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16124.9	17700	924	21793.5	25856	924

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	911.20	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.57	Wt. n-Val.	0.025	0.031	
E.G. Elev (ft)	911.77	Reach Len. (ft)	475.00	501.02	535.00
Crit W.S. (ft)	905.57	Flow Area (sq ft)	4937.12	32821.42	
E.G. Slope (ft/ft)	0.000669	Area (sq ft)	9521.13	32821.42	1561.67
Q Total (cfs)	227000.00	Flow (cfs)	23855.58	203144.42	
Top Width (ft)	5479.46	Top Width (ft)	1941.21	2917.13	621.13
Vel Total (ft/s)	6.01	Avg. Vel. (ft/s)	4.83	6.19	
Max Chl Dpth (ft)	15.20	Hydr. Depth (ft)	5.58	11.25	
Conv. Total (cfs)	8777063.0	Conv. (cfs)	922387.2	7854675.5	
Length Wtd. (ft)	498.72	Wetted Per. (ft)	886.16	2921.30	
Min Ch El (ft)	896.00	Shear (lb/sq ft)	0.23	0.47	
Alpha	1.02	Stream Power (lb/ft s)	1.12	2.90	
Frctn Loss (ft)	0.34	Cum Volume (acre-ft)	6291.49	67289.41	23872.41
C & E Loss (ft)	0.00	Cum SA (acres)	1676.43	7085.43	6885.99

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17589.70	17772.80	1333.01	330.26	72.80	0.59	4.54	4.04
17772.80	17955.90	3629.16	871.09	183.10	1.60	4.76	4.17
17955.90	18139.00	2916.37	763.98	183.10	1.28	4.17	3.82
18139.00	18322.10	4323.23	967.58	183.13	1.90	5.28	4.47
18322.10	18505.20	9699.87	1571.49	183.18	4.27	8.58	6.17
18505.20	18688.30	1953.95	432.72	80.61	0.86	5.41	4.52
18688.30	18871.40						
18871.40 LB	19601.93	60405.91	9115.15	727.21	26.61	12.56	6.63
19601.93	20332.45	62808.13	9348.55	730.65	27.67	12.80	6.72
20332.45	21062.97	51724.97	8325.28	731.68	22.79	11.40	6.21
21062.97	21793.50 RB	28205.38	6032.45	731.76	12.43	8.26	4.68

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 194.53

INPUT
Description:

BEGIN 1:1 CONTRACTION TO ESTRELLA BRIDGE

Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15853.1	924.7	15994.7	919.6	16135.5	919.1	16297.8	920	16346.4	910.1
16386.5	907	16574.9	909.1	16736.8	906	16922.1	907.2	17074	910
17201.6	907.1	17362.9	904.2	17506.4	906.1	17650.5	905.8	17793.4	905.9
17932	908.5	18017	906.8	18162.3	907.4	18309.2	906.3	18448	911.3
18608.9	910.2	18710.2	911.6	18739.2	910.1	18856.7	911.2	18928.9	909.2
18975	901.7	19047.7	897.1	19093.8	901.7	19166.9	905	19213	896.2
19757	896.2	19808.7	899.7	19828.8	896.4	19998.4	896.9	20025.1	897.9
20185.1	900.6	20284.6	902.2	20441.5	899.7	20511.5	898.7	20712.9	900.7
20739.7	897.8	20897.1	897.8	21003	895.2	21040.3	901	21145	902.8
21151.2	901.5	21240	903.6	21443.8	900.8	21540.4	903.2	21693.5	905.3
21845.2	896.6	21879.6	898.7	21925.8	908.4	21997.9	910.4	22080.7	909.7
22150	912.1	22200.5	909.3	22242.7	902.5	22292.9	914.1	22309.5	909.7
22328.3	909.3	22387.7	912.1	22405.7	900.2	22436.7	901.6	22444	904.3
22454.6	905.4	22466.6	912.2	22484.4	912.6	22503.4	909.1	22533.3	909.7
22539.3	908.1	22567.5	910.2	22697.6	909.5	22863.9	909.9	23032	909.9
23143.5	911.8	23151.1	910.5	23424.6	911.4	23581.9	912.3	23739	912.7
23926.6	913.1	24071	913.4	24241.4	913.8	24402.1	913.4	24428.9	915.5
24661.1	914.5	24808.2	915	24930.7	914.8	25153.5	915.3	25316.7	915.4
25548.3	915.6	25705	915.7	25732.6	918.6	25773.6	917.3	25797	919

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15853.1	.025	18928.9	.031	21540.4	.043	21997.9	.043	22484.4	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18928.9	21997.9	475	661.08	630	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15853.1	17423.6	920	22150	25797	920

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	910.85	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.58	Wt. n-Val.	0.025	0.032	0.043
E.G. Elev (ft)	911.43	Reach Len. (ft)	475.00	661.08	630.00
Crit W.S. (ft)	905.15	Flow Area (sq ft)	4193.45	33829.33	85.83
E.G. Slope (ft/ft)	0.000705	Area (sq ft)	7994.31	33829.33	1704.17
Q Total (cfs)	227000.00	Flow (cfs)	16312.82	210622.84	64.35
Top Width (ft)	6517.01	Top Width (ft)	2390.86	3069.00	1057.15
Vel Total (ft/s)	5.96	Avg. Vel. (ft/s)	3.89	6.23	0.75
Max Chl Dpth (ft)	15.65	Hydr. Depth (ft)	3.20	11.02	0.74
Conv. Total (cfs)	8551968.0	Conv. (cfs)	614567.0	7934977.0	2424.3
Length Wtd. (ft)	648.21	Wetted Per. (ft)	1310.15	3073.59	116.15
Min Ch El (ft)	895.20	Shear (lb/sq ft)	0.14	0.48	0.03
Alpha	1.04	Stream Power (lb/ft s)	0.55	3.01	0.02
Frctn Loss (ft)	0.47	Cum Volume (acre-ft)	6195.99	66906.11	23852.36
C & E Loss (ft)	0.02	Cum SA (acres)	1652.82	7051.00	6875.69

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17288.47	17493.53	1779.50	376.75	69.93	0.78	5.39	4.72
17493.53	17698.58	4502.89	1011.22	205.05	1.98	4.93	4.45
17698.58	17903.63	3742.79	905.07	205.07	1.65	4.41	4.14
17903.63	18108.69	2445.25	701.07	205.08	1.08	3.42	3.49
18108.69	18313.74	3045.03	799.67	205.06	1.34	3.90	3.81
18313.74	18518.79	674.39	267.70	127.57	0.30	2.10	2.52
18518.79	18723.85	34.94	46.69	137.46	0.02	0.34	0.75
18723.85	18928.90	88.05	85.29	154.92	0.04	0.55	1.03
18928.90 LB	19696.15	66638.84	9711.43	769.14	29.36	12.66	6.86
19696.15	20463.40	60787.22	9183.59	767.71	26.78	11.97	6.62
20463.40	21230.65	56985.89	8836.22	768.07	25.10	11.52	6.45
21230.65	21997.90 RB	26210.85	6098.09	768.66	11.55	7.95	4.30

21997.90	22251.17	64.35	85.83	116.15	0.03	0.74	0.75

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 194.4

INPUT
Description:
Station Elevation Data num= 93

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16334.9	917.4	16367.1	906.9	16394.3	906.7	16419.8	911.4	16462.3	907.8
16670.7	906.2	16846	905.6	16883.4	904.4	16943.6	906.4	17091.4	908
17142.7	905.4	17288	904.1	17458.5	904.9	17603.8	908.5	17726.2	909.9
17882.9	907.4	18045.4	906.9	18114.1	906.5	18208.9	905.4	18223.5	907.5
18373	905.5	18521.7	907.6	18670.8	907.2	18820.1	905	18833.1	905.2
18857.2	909	18923.5	905.4	19006.6	907	19021.2	901.7	19034.6	902.7
19071.1	900.9	19089.2	897.2	19231.5	900.2	19275	896.2	19829	896.2
19883.6	899.4	19956.2	896	20021.2	897.4	20050.5	899.6	20095.7	896.2
20166.6	899.4	20171.6	900.8	20361.5	898.1	20559.2	899.6	20776.5	900.3
21011.2	897.8	21151.3	896.3	21158.9	898.5	21213.2	899.1	21260.9	896.6
21314.2	902.8	21362.1	899.9	21536.7	902.1	21567.9	902.4	21714.8	903.1
21898	903.1	21924	907.5	21982.3	908.9	22051.5	907.8	22118.5	910.2
22166.9	908.8	22207.7	901.2	22257.8	910.9	22297.7	907.8	22378.1	909.1
22436.6	913.6	22447.7	906.8	22462	907.2	22471.9	899.4	22518.2	904.9
22531.3	914	22609.4	910.6	22619.5	907.2	22636	910.7	22661.1	908.3
22806.7	909.5	23036.7	910.4	23203.4	909.9	23360.9	910.5	23459.7	910.5
23620.5	910.9	23762.2	911.3	24011.5	912.1	24231.7	912.3	24356.7	912
24609.8	912.3	24734.8	913	25022.8	914.3	25073.4	914.4	25426.3	914.2
25463.6	914.3	25647.7	914	25690.2	916.4				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16334.9	.025	19006.6	.031	21567.9	.043	21714.8	.043

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19006.6	21714.8	555	616.38	525	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16334.9	18014	915	22130	25690.2	915

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	910.30	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.64	Wt. n-Val.	0.025	0.031	0.043
E.G. Elev (ft)	910.94	Reach Len. (ft)	555.00	616.38	525.00
Crit W.S. (ft)	904.74	Flow Area (sq ft)	3696.06	31383.03	1796.06
E.G. Slope (ft/ft)	0.000737	Area (sq ft)	9592.33	31383.03	3374.88
Q Total (cfs)	227000.00	Flow (cfs)	14318.94	208211.81	4469.25
Top Width (ft)	6723.23	Top Width (ft)	2630.95	2708.20	1384.08
Vel Total (ft/s)	6.16	Avg. Vel. (ft/s)	3.87	6.63	2.49
Max Chl Dpth (ft)	14.30	Hydr. Depth (ft)	3.72	11.59	4.33
Conv. Total (cfs)	8363199.5	Conv. (cfs)	527542.7	7670999.5	164657.4
Length Wtd. (ft)	610.87	Wetted Per. (ft)	993.21	2711.36	415.64
Min Ch El (ft)	896.00	Shear (lb/sq ft)	0.17	0.53	0.20
Alpha	1.09	Stream Power (lb/ft s)	0.66	3.53	0.49
Frctn Loss (ft)	0.55	Cum Volume (acre-ft)	6100.10	66411.27	23815.63
C & E Loss (ft)	0.07	Cum SA (acres)	1625.44	7007.16	6858.03

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17937.92	18116.03	1334.47	359.80	102.03	0.59	3.53	3.71
18116.03	18294.15	2737.50	692.20	178.28	1.21	3.89	3.95
18294.15	18472.26	3086.06	743.56	178.13	1.36	4.17	4.15
18472.26	18650.37	1701.31	520.16	178.12	0.75	2.92	3.27
18650.37	18828.49	3016.82	733.51	178.13	1.33	4.12	4.11
18828.49	19006.60	2442.78	646.83	178.52	1.08	3.63	3.78
19006.60 LB	19683.65	61206.32	8647.45	678.65	26.96	12.77	7.08
19683.65	20360.70	58645.99	8423.97	677.73	25.84	12.44	6.96
20360.70	21037.75	48328.57	7497.69	677.07	21.29	11.07	6.45

21037.75	21714.80 RB	40030.92	6813.93	677.90	17.63	10.06	5.87
21714.80	21979.83	4220.34	1567.61	265.41	1.86	5.91	2.69
21979.83	22244.85	248.91	228.45	150.23	0.11	1.52	1.09

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 194.29

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16727	934.6	16823	907	16853.8	904.2	16897.1	904.3	16907.9	906
17020.7	907.3	17102.2	904	17154.5	905.4	17194.9	904.6	17214.8	902.8
17326.6	903.4	17450.5	904.8	17507.5	903.9	17644.2	907.1	17668.7	907.9
17777.7	903.5	17895.7	906.5	18019.9	906.7	18188.5	903.4	18301.3	904.8
18389.9	905.4	18436	903.7	18518.9	906.2	18678.8	904.1	18781.6	903.3
18819.8	901.6	18841.3	903.2	18861.6	900.6	18889.8	905.2	18903.6	906.3
18935.8	905.1	18949.5	905.8	18970.2	900.9	19027.1	898.2	19139.8	898.4
19193.5	898.4	19223.8	896.7	19498.5	896.4	19820.7	896.2	19880.9	899.3
19963.2	898.7	19988	897.3	20041.5	899.3	20167	899.9	20278.7	898.3
20409.2	897.2	20552.2	898.6	20635.9	901.8	20771.4	900.5	20878.3	900
20965.1	900.8	21099.8	897.9	21158.4	901	21219.9	900.1	21251.5	897.6
21307.5	896.8	21319.5	900.1	21359	903.1	21458.7	900.9	21524.1	903.2
21572.1	900.3	21624.9	902.1	21748	902.8	21856.7	902.5	21990.7	907.9
22116.5	909.3	22171.1	905.8	22284	908.4	22376.4	908.3	22442.3	911
22469.2	913.6	22584.7	911.7	22702.6	909.6	22712.2	908.2	22863.6	908.2
23015.4	908.4	23096.6	909.6	23246.2	909.7	23371.1	909.9	23653	910.6
23751.2	910.7	23946.9	910.6	24150.9	910.8	24322.8	910.5	24360.7	913
24413.8	910.6	24501.2	911.3	24616.4	911.9	24785.3	911.8	24980	911.9
25221.1	912	25297.7	912	25425.1	912.8	25554.6	912.9	25667.5	913.7
25694	915.6								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16727	.025	18949.5	.031	21319.5	.043	21524.1	.043	22469.2	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18949.5	21524.1	467.77	483.67	572.77	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16727	18760	930	21792	25694	930

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	909.44	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.88	Wt. n-Val.	0.025	0.031	0.043
E.G. Elev (ft)	910.32	Reach Len. (ft)	467.77	483.67	572.77
Crit W.S. (ft)	904.95	Flow Area (sq ft)	1112.73	27522.52	1959.55
E.G. Slope (ft/ft)	0.001108	Area (sq ft)	9678.79	27522.52	3963.41
Q Total (cfs)	227000.00	Flow (cfs)	7148.47	211359.30	8492.24
Top Width (ft)	5971.81	Top Width (ft)	2134.99	2574.60	1262.22
Vel Total (ft/s)	7.42	Avg. Vel. (ft/s)	6.42	7.68	4.33
Max Chl Dpth (ft)	13.24	Hydr. Depth (ft)	5.87	10.69	7.31
Conv. Total (cfs)	6818342.5	Conv. (cfs)	214716.7	6348546.5	255079.3
Length Wtd. (ft)	485.09	Wetted Per. (ft)	190.22	2576.39	268.02
Min Ch El (ft)	896.20	Shear (lb/sq ft)	0.40	0.74	0.51
Alpha	1.03	Stream Power (lb/ft s)	2.60	5.68	2.19
Frctn Loss (ft)	0.62	Cum Volume (acre-ft)	5977.33	65994.51	23771.40
C & E Loss (ft)	0.14	Cum SA (acres)	1595.07	6969.79	6842.09

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18653.17	18801.33	1758.26	260.65	41.35	0.77	6.31	6.75
18801.33	18949.50	5390.21	852.08	148.87	2.37	5.75	6.33
18949.50 LB	19593.15	63699.05	7675.41	644.33	28.06	11.92	8.30
19593.15	20236.80	59632.41	7375.17	643.82	26.27	11.46	8.09
20236.80	20880.45	48681.01	6529.43	643.73	21.45	10.14	7.46
20880.45	21524.10 RB	39346.84	5942.51	644.50	17.33	9.23	6.62

21524.10	21802.09	8492.24	1959.55	268.02	3.74	7.31	4.33

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 194.21

INPUT
Description: APPROX. ALIGNMENT OF ESTRELLA PKWY BRIDGE

Left and Right Channel Bank Stations Interpolated

U
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17414	910.8	18194	910.1	18484	912	18874	914.1	19074	917.7
19112.7	918.32	19112.8	911.39	19112.9	908.33	19116.12	908.313	19116.59	908.311
19118.7	908.3	19168.7	895	19226.7	895	19231.7	895	19262.7	895
19329.7	895	19347.3	895	19352.3	895	19409.7	895	19468	895
19473	895	19531.2	895	19588.7	895	19593.7	895	19652.6	895
19709.3	895	19714.3	895	19772.7	895	19830	895	19835	895
19892.7	895	19950.7	895	19955.7	895	20014.2	895.75	20071.3	898.26
20076.3	898.26	20192	899.34	20197	898.92	20254.7	898.5	20312.7	896.21
20317.7	896.21	20375.2	896.22	20433.3	897.22	20438.3	897.22	20495.7	895
20554	897.1	20559	897.1	20616.7	898.41	20674.7	899.09	20679.7	899.09
20737.7	898.49	20795.3	898.04	20800.3	898.04	20916	898.64	20921	898.64
21036.7	898.63	21041.7	899.05	21121.7	898.03	21157.3	895	21162.3	895
21207.7	895	21259.82	908.313	21270.3	910.99	21276.3	910.99	21300	917.92

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17414	.025	19112.8	.031	21276.3	.031

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19116.12	21259.82	34.54	34.54	34.54	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17414	19112.8	911.39	21276.3	21300	910.99

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	908.21	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.35	Wt. n-Val.		0.031	
E.G. Elev (ft)	909.56	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	903.81	Flow Area (sq ft)		24318.30	
E.G. Slope (ft/ft)	0.001488	Area (sq ft)		24318.30	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	2140.38	Top Width (ft)		2140.38	
Vel Total (ft/s)	9.33	Avg. Vel. (ft/s)		9.33	
Max Chl Dpth (ft)	13.21	Hydr. Depth (ft)		11.36	
Conv. Total (cfs)	5884137.0	Conv. (cfs)		5884137.0	
Length Wtd. (ft)	0.00	Wetted Per. (ft)		2144.17	
Min Ch El (ft)	895.00	Shear (lb/sq ft)		1.05	
Alpha	1.00	Stream Power (lb/ft s)		9.84	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	5925.37	65706.70	23745.35
C & E Loss (ft)	0.05	Cum SA (acres)	1583.61	6943.61	6833.79

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19116.12 LB	19652.04	66726.77	6713.29	534.74	29.40	12.60	9.94
19652.04	20187.97	63211.27	6504.86	535.99	27.85	12.14	9.72
20187.97	20723.89	52223.46	5801.19	536.10	23.01	10.82	9.00
20723.89	21259.82 RB	44838.50	5298.96	537.34	19.75	9.89	8.46

BRIDGE RIVER: RIVER-1
REACH: Reach-1 RS: 194.195

INPUT
Description: Bridge #3

Downstream face of Estrella Parkway (Reems Rd) bridge

Code out verticle ineffective flow area below El. 895 under the bridge

Distance from Upstream XS = 0
Deck/Roadway Width = 34.54
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =

Upstream Deck/Roadway Coordinates
num= 13

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
19112.8	918.32	911.39	19118.7	918.35	911.42	19226.7	919.43	912.48
19468	921.03	914.18	19709.3	922.43	915.35	19950.7	923.33	916.25
20192	923.33	916.2	20438.3	923.33	916.19	20679.7	922.33	915.59
20921	921.03	914.09	21162.3	919.03	912.08	21259.82	918.08	911.15
21276.3	917.92	910.99						

Upstream Bridge Cross Section Data
Station Elevation Data num= 62

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17414	910.8	18194	910.1	18484	912	18874	914.1	19074	917.7
19112.7	918.32	19112.8	911.89	19112.9	908.33	19118.7	908.3	19168.7	895
19226.7	895	19231.7	895	19262.7	895	19329.7	895	19347.3	895
19352.3	895	19409.7	895	19468	895	19473	895	19531.2	895
19588.7	895	19593.7	895	19652.6	895	19709.3	895	19714.3	895
19772.7	895	19830	895	19835	895	19892.7	895	19950.7	895
19955.7	895	20014.2	895.75	20071.3	898.26	20076.3	898.26	20192	899.34
20197	898.92	20254.7	898.5	20312.7	896.21	20317.7	896.21	20375.2	896.22
20433.3	897.22	20438.3	897.22	20495.7	895	20554	897.1	20559	897.1
20616.7	898.41	20674.7	899.09	20679.7	899.09	20737.7	898.49	20795.3	898.04
20800.3	898.04	20916	898.64	20921	898.64	21036.7	898.63	21041.7	899.05
21121.7	898.03	21157.3	895	21162.3	895	21207.7	895	21270.3	910.99
21276.3	910.99	21300	917.92						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17414	.025	19112.8	.031	21276.3	.031

Bank Sta: Left	Right	Coeff Contr.	Expan.
19118.7	21270.3	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17414	19112.8	911.39	21276.3	21300	910.99

Downstream Deck/Roadway Coordinates
num= 13

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
19112.8	918.32	911.39	19119.67	918.39	911.46	19226.7	919.43	912.48
19468	921.03	914.18	19709.3	922.43	915.35	19950.7	923.33	916.25
20192	923.33	916.2	20438.3	923.33	916.19	20679.7	922.33	915.59
20921	921.03	914.09	21162.3	919.03	912.08	21258.76	918.09	911.16
21276.3	917.92	910.99						

Downstream Bridge Cross Section Data
Station Elevation Data num= 62

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17414	910.8	18194	910.1	18484	912	18874	914.1	19074	917.7
19112.7	918.32	19112.8	911.39	19112.9	908.33	19118.7	908.3	19168.7	895
19226.7	895	19231.7	895	19262.7	895	19329.7	895	19347.3	895
19352.3	895	19409.7	895	19468	895	19473	895	19531.2	895
19588.7	895	19593.7	895	19652.6	895	19709.3	895	19714.3	895
19772.7	895	19830	895	19835	895	19892.7	895	19950.7	895
19955.7	895	20014.2	895.75	20071.3	898.26	20076.3	898.26	20192	899.34
20197	898.92	20254.7	898.5	20312.7	896.21	20317.7	896.21	20375.2	896.22
20433.3	897.22	20438.3	897.22	20495.7	895	20554	897.1	20559	897.1
20616.7	898.41	20674.7	899.09	20679.7	899.09	20737.7	898.49	20795.3	898.04
20800.3	898.04	20916	898.64	20921	898.64	21036.7	898.63	21041.7	899.05
21121.7	898.03	21157.3	895	21162.3	895	21207.7	895	21270.3	910.99
21276.3	910.99	21300	917.92						

```
Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
   17414    .025 19112.8    .031 21276.3    .031

Bank Sta: Left   Right    Coeff Contr.   Expan.
       19118.7 21270.3             .3       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
   17414 19112.8  911.39 21276.3   21300  910.99

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Piers =  17

Pier Data
Pier Station     Upstream= 19229.2    Downstream= 19229.2
Upstream     num=       2
    Width   Elev    Width   Elev
       5     895       5   912.5
Downstream     num=       2
    Width   Elev    Width   Elev
       5     895       5   912.5

Pier Data
Pier Station     Upstream= 19349.8    Downstream= 19349.8
Upstream     num=       2
    Width   Elev    Width   Elev
       5     895       5   913.4
Downstream     num=       2
    Width   Elev    Width   Elev
       5     895       5   913.4

Pier Data
Pier Station     Upstream=   19468    Downstream=   19468
Upstream     num=       2
    Width   Elev    Width   Elev
       5     895       5   914.2
Downstream     num=       2
    Width   Elev    Width   Elev
       5     895       5   914.2

Pier Data
Pier Station     Upstream= 19591.2    Downstream= 19591.2
Upstream     num=       2
    Width   Elev    Width   Elev
       5     895       5   914.8
Downstream     num=       2
    Width   Elev    Width   Elev
       5     895       5   914.8

Pier Data
Pier Station     Upstream= 19711.8    Downstream= 19711.8
Upstream     num=       2
    Width   Elev    Width   Elev
       5     895       5   915.4
Downstream     num=       2
    Width   Elev    Width   Elev
       5     895       5   915.4

Pier Data
Pier Station     Upstream= 19832.5    Downstream= 19832.5
Upstream     num=       2
    Width   Elev    Width   Elev
       5     895       5   915.9
Downstream     num=       2
    Width   Elev    Width   Elev
       5     895       5   915.9

Pier Data
Pier Station     Upstream= 19953.2    Downstream= 19953.2
```

```
Upstream      num=        2
    Width   Elev    Width   Elev
        5     895       5   916.3
Downstream      num=        2
    Width   Elev    Width   Elev
        5     895       5   916.3

Pier Data
Pier Station     Upstream= 20073.8    Downstream= 20073.8
Upstream      num=        2
    Width   Elev    Width   Elev
        5  898.26       5  916.25
Downstream      num=        2
    Width   Elev    Width   Elev
        5  898.26       5  916.25

Pier Data
Pier Station     Upstream= 20194.5    Downstream= 20194.5
Upstream      num=        2
    Width   Elev    Width   Elev
        5  899.13       5   916.2
Downstream      num=        2
    Width   Elev    Width   Elev
        5  899.13       5   916.2

Pier Data
Pier Station     Upstream= 20315.2    Downstream= 20315.2
Upstream      num=        2
    Width   Elev    Width   Elev
        5  896.21       5   916.2
Downstream      num=        2
    Width   Elev    Width   Elev
        5  896.21       5   916.2

Pier Data
Pier Station     Upstream= 20435.8    Downstream= 20435.8
Upstream      num=        2
    Width   Elev    Width   Elev
        5  897.22       5   916.2
Downstream      num=        2
    Width   Elev    Width   Elev
        5  897.22       5   916.2

Pier Data
Pier Station     Upstream= 20556.5    Downstream= 20556.5
Upstream      num=        2
    Width   Elev    Width   Elev
        5   897.1       5   915.9
Downstream      num=        2
    Width   Elev    Width   Elev
        5   897.1       5   915.9

Pier Data
Pier Station     Upstream= 20677.2    Downstream= 20677.2
Upstream      num=        2
    Width   Elev    Width   Elev
        5  899.09       5   915.6
Downstream      num=        2
    Width   Elev    Width   Elev
        5  899.09       5   915.6

Pier Data
Pier Station     Upstream= 20797.8    Downstream= 20797.8
Upstream      num=        2
    Width   Elev    Width   Elev
        5  898.04       5  914.85
Downstream      num=        2
    Width   Elev    Width   Elev
        5  898.04       5  914.85

Pier Data
Pier Station     Upstream= 20918.5    Downstream= 20918.5
Upstream      num=        2
    Width   Elev    Width   Elev
        5  898.64       5  914.11
Downstream      num=        2
```

Width	Elev	Width	Elev
5	898.64	5	914.11

Pier Data
Pier Station Upstream= 21039.2 Downstream= 21039.2
Upstream num= 2

Width	Elev	Width	Elev
5	898.84	5	913.1

Downstream num= 2

Width	Elev	Width	Elev
5	898.84	5	913.1

Pier Data
Pier Station Upstream= 21159.8 Downstream= 21159.8
Upstream num= 2

Width	Elev	Width	Elev
5	895	5	912.1

Downstream num= 2

Width	Elev	Width	Elev
5	895	5	912.1

Number of Bridge Coefficient Sets = 1

Low Flow Methods and Data
Energy
Momentum Cd = 1.2
Yarnell KVal = .95
Selected Low Flow Methods = Highest Energy Answer

High Flow Method
Energy Only

Additional Bridge Parameters
Add Friction component to Momentum
Do not add Weight component to Momentum
Class B flow critical depth computations use critical depth inside the bridge at the downstream end
Criteria to check for pressure flow = Upstream water surface

BRIDGE OUTPUT Profile #PF#1
Opening : Bridge #1

E.G. US. (ft)	909.56	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	908.21	E.G. Elev (ft)	909.51	909.42
Q Total (cfs)	227000.00	W.S. Elev (ft)	907.98	907.86
Q Bridge (cfs)	227000.00	Crit W.S. (ft)	904.01	904.01
Q Weir (cfs)		Max Chl Dpth (ft)	12.98	12.86
Weir Sta Lft (ft)		Vel Total (ft/s)	9.93	10.04
Weir Sta Rgt (ft)		Flow Area (sq ft)	22854.41	22607.04
Weir Submerg		Froude # Chl	0.52	0.53
Weir Max Depth (ft)		Specif Force (cu ft)	201576.20	199603.69
Min Top Rd (ft)	910.99	Hydr Depth (ft)	11.13	11.01
Min El Prs (ft)	916.25	W.P. Total (ft)	2443.46	2438.41
Delta EG (ft)	0.19	Conv. Total (cfs)	4863101.0	4782286.0
Delta WS (ft)	0.25	Top Width (ft)	2053.60	2052.67
BR Open Area (sq ft)	36716.15	Frctn Loss (ft)	0.08	0.00
BR Open Vel (ft/s)	10.04	C & E Loss (ft)	0.01	0.05
Coef of Q		Shear Total (lb/sq ft)	1.27	1.30
Br Sel Mthd	Energy only	Power Total (lb/ft s)	12.64	13.09

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 194.18

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 64

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17414	910.8	18194	910.1	18484	912	18874	914.1	19074	917.7
19112.7	918.32	19112.8	911.39	19112.9	908.33	19118.7	908.31	19119.67	908.0418
19168.7	895	19226.7	895	19231.7	895	19262.7	895	19329.7	895
19347.3	895	19352.3	895	19409.7	895	19468	895	19473	895
19531.2	895	19588.7	895	19593.7	895	19652.6	895	19709.3	895
19714.3	895	19772.7	895	19830	895	19835	895	19892.7	895
19950.7	895	19955.7	895	20014.2	895.75	20071.3	898.26	20076.3	898.26
20192	899.34	20197	898.92	20254.7	898.5	20312.7	896.21	20317.7	896.21

20375.2	896.22	20433.3	897.22	20438.3	897.22	20495.7	895	20554	897.1
20559	897.1	20616.7	898.41	20674.7	899.09	20679.7	899.09	20737.7	898.49
20795.3	898.04	20800.3	898.04	20916	898.64	20921	898.64	21036.7	898.63
21041.7	899.05	21121.7	898.03	21157.3	895	21162.3	895	21207.7	895
21258.76	908.0421	21270.3	910.99	21276.3	910.99	21300	917.92		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17414	.025	19112.8	.031	21276.3	.031

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19119.67	21258.76	537.77	516.56	387.77	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17414	19112.8	911.39	21276.3	21300	910.99

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	907.96	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.41	Wt. n-Val.		0.031	
E.G. Elev (ft)	909.38	Reach Len. (ft)	537.77	516.56	387.77
Crit W.S. (ft)	903.82	Flow Area (sq ft)		23789.32	
E.G. Slope (ft/ft)	0.001600	Area (sq ft)		23789.32	
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	2138.49	Top Width (ft)		2138.49	
Vel Total (ft/s)	9.54	Avg. Vel. (ft/s)		9.54	
Max Chl Dpth (ft)	12.96	Hydr. Depth (ft)		11.12	
Conv. Total (cfs)	5675827.0	Conv. (cfs)		5675827.0	
Length Wtd. (ft)	516.56	Wetted Per. (ft)		2142.21	
Min Ch El (ft)	895.00	Shear (lb/sq ft)		1.11	
Alpha	1.00	Stream Power (lb/ft s)		10.58	
Frctn Loss (ft)	1.10	Cum Volume (acre-ft)	5925.37	65688.68	23745.35
C & E Loss (ft)	0.09	Cum SA (acres)	1583.61	6941.98	6833.79

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19119.67 LB	19654.44	67323.09	6612.68	536.17	29.66	12.37	10.18
19654.44	20189.21	63063.96	6352.07	534.84	27.78	11.88	9.93
20189.21	20723.99	52007.53	5658.77	534.95	22.91	10.58	9.19
20723.99	21258.76 RB	44605.42	5165.79	536.25	19.65	9.67	8.63

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 194.09

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16494.1	917.7	16513.1	915.4	16521.3	916.9	16579	915.6	16617.5	910.5
16684.3	910.1	16713.7	900.2	16839.8	900.4	16871.9	906.8	16985.2	905.6
17152.3	905.3	17327.7	905.4	17487.5	904.9	17534.5	906.5	17551.7	904.3
17594.3	904.5	17836.5	904	18025.9	903.4	18113.4	902.4	18117.1	903.5
18155.3	904.4	18158.2	903.2	18325.9	902	18534.8	901.9	18732.5	900.4
18781.4	901.4	18825.1	912.4	18919.9	914.11	8944.99	906.7006	18949.4	905.4
18997.8	905.3	19030.4	898.3	19190.1	897.4	19308.4	896.3	19461.3	895.8
19569.8	896	19808.5	896.9	20013.3	896.4	20073	896.4	20124.1	900.9
20151.6	901	20196.6	898.4	20298.6	900	20359.8	903.2	20408.6	896.5
20502.1	898.9	20610	898.6	20651.7	900.9	20819.7	902.3	20973.5	900.3
21150.8	898.2	21180.5	899.2	21207.7	896.9	21223.6	900.4	21232.1	900.8
21373.8	891.9	21445.7	892.4	21490.6	898	21552	898.3637	21676.3	899.1
21753.6	898.8	21832	895.1	21875	907.2	21974.4	905	22024.4	908.1
22067.4	906.1	22179.1	906.7	22222.5	901.2	22253.1	908.5	22289.4	905.9
22443.2	906.5	22478.1	905.7	22639	909.7	22737.9	905	22759.4	910.4
22888.7	907	22908.8	908.9	22951.1	910	22971.9	908.9	23192.2	909
23342.9	909.4	23459.2	909.8	23621.9	909.2	23903.5	909.1	24005.9	909
24211.4	909	24365.1	910.4	24381.9	911.2	24390.3	909.5	24600	910.3

24797.6	910.5	25069.7	910.6	25124.5	910.8	25371.6	911.8	25580	910.8
25652.1	912.7	25690.2	912	25699.8	913.8				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16494.1	.025	18919.9	.031	19808.5	.032	21490.6	.043	21875	.043
22639	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18944.99	21552	545	460.74	450	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16494.1	18919.9	916	21552	25699.8	916

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	906.48	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.71	Wt. n-Val.		0.032	
E.G. Elev (ft)	908.19	Reach Len. (ft)	545.00	460.74	450.00
Crit W.S. (ft)	904.24	Flow Area (sq ft)		21662.50	
E.G. Slope (ft/ft)	0.002975	Area (sq ft)	6175.11	21662.50	2874.94
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	5496.88	Top Width (ft)	2074.60	2606.28	816.00
Vel Total (ft/s)	10.48	Avg. Vel. (ft/s)		10.48	
Max Chl Dpth (ft)	14.58	Hydr. Depth (ft)		8.31	
Conv. Total (cfs)	4161615.5	Conv. (cfs)		4161615.5	
Length Wtd. (ft)	460.74	Wetted Per. (ft)		2609.27	
Min Ch El (ft)	891.90	Shear (lb/sq ft)		1.54	
Alpha	1.00	Stream Power (lb/ft s)		16.16	
Frctn Loss (ft)	1.08	Cum Volume (acre-ft)	5887.25	65419.18	23732.55
C & E Loss (ft)	0.18	Cum SA (acres)	1570.80	6913.85	6830.16

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18944.99 LB	19596.74	63648.60	5753.19	651.93	28.04	8.84	11.06
19596.74	20248.50	66802.63	5986.46	652.04	29.43	9.19	11.16
20248.50	20900.25	35094.92	4103.76	652.41	15.46	6.30	8.55
20900.25	21552.00 RB	61453.86	5819.09	652.90	27.07	8.93	10.56

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 194.01

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16680.8	908.9	16774.3	908.3	16788.6	905.5	16810.7	904	16851.9	904
16877.5	908.4	16945.6	904.9	17136.4	905.2	17333.4	904.6	17473.3	903.7
17527	904.3	17536.8	905.6	17553	904.1	17693.8	904	17796.6	904.1
17940.8	904	18102.8	902.9	18146.7	903.7	18165.9	901.6	18232.3	899.6
18408.7	900.3	18575.1	900.5	18687.3	901.4	18729.4	911.9	18769.5	912.8
18832.5	911.3	18849.3	9905.9	9606	18880.9	896	19146.1	895.9	19557
19616.5	898.1	19700.5	894.7	19985.3	895.7	20183.2	896.4	20270.1	901.1
20328.8	901.5	20374.8	897.7	20479.5	894.8	20578.7	896.6	20675	895.7
20712.6	898.8	20878	899.5	20946.1	898.5	20996.4	895.5	21025.8	897.5
21086.1	894.1	21160.7	897.8	21276	898.2	21353.7	900.3	21500.4	897.4
21533.4	899.7	21674.8	899.3	21837.2	896.5	21899.8	895.1	21911	897.726
21949.7	906.8	21986.2	905.1	22057.4	905.7	22117.8	904.4	22177.9	905.1
22218.9	900.7	22249.5	909.1	22279.8	903.3	22420.9	905.7	22444.3	905.7
22469.3	907.8	22614.7	907.7	22722.3	910.6	22807.4	904	22827.2	911.7

18814.12	18898.55	286.41	163.69	84.43	0.13	1.94	1.75
18898.55	18982.97	942.71	334.65	84.50	0.42	3.96	2.82
18982.97	19067.40	752.88	292.40	84.49	0.33	3.46	2.57
19067.40 LB	19944.00	63545.99	9484.04	880.59	27.99	10.82	6.70
19944.00	20820.60	82403.15	9283.23	876.83	36.30	10.59	8.88
20820.60	21697.20	32854.05	6476.50	877.15	14.47	7.39	5.07
21697.20	22573.80 RB	16406.77	8899.46	878.74	7.23	10.15	1.84
22573.80	23023.88	2805.21	2379.22	450.53	1.24	5.29	1.18
23023.88	23473.96	3707.22	1933.01	450.20	1.63	4.29	1.92
23473.96	23924.04	10336.23	1775.06	450.09	4.55	3.94	5.82
23924.04	24374.12	1413.76	506.89	450.10	0.62	1.13	2.79
24374.12	24824.20	432.17	393.08	393.59	0.19	1.00	1.10
24824.20	25274.28	979.54	677.68	450.13	0.43	1.51	1.45
25274.28	25724.36	3851.70	1197.46	446.23	1.70	2.72	3.22
25724.36	26174.44	5531.69	1165.54	401.64	2.44	2.90	4.75

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 197.16

INPUT
Description: Station 24130 Interpolated to provide point for change in 'n' value
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18108.5	937.1	18137.3	930.2	18144.2	931.5	18162.7	930.7	18223.9	931.4
18237.8	928.5	18417	929.5	18587.4	926.7	18778.2	926.8	18941.4	922.4
18974.1	918.9	19135.2	915.1	19155.8	915.9	19190.1	913.4	19343.5	914.6
19509.6	914.9	19662.5	917.9	19753.8	916.7	19870.6	918.8	20027.5	917.3
20480.8	917	20631	915.1	20703.5	915.8	20795.3	914.6	20851.7	919.4
20883.3	914.2	20936.5	913.9	21110.4	921.6	21302.7	921.6	21458	921.5
21623.9	921	21687.7	913.7	21903.9	913.9	22051.5	916.6	22052.8	915
22238.1	914.1	22267.8	914.1	22371.7	922.7	22461	924.1	22506.1	922
22523.2	919.6	22545.9	919.5	22557	922.9	22623.1	925.7	22676	922.6
22699.9	922.8	22707.3	924.8	22768.1	926.5	22940.9	923	23015.6	924.8
23204.3	924.2	23378.9	924.3	23533.6	924.1	23685.6	925.2	23912.3	924
24062.6	924.9	24072.1	926.4	24130	926.35	24313.5	926.2	24527.9	926
24707.1	925.9	24865	926.7	24958.4	926.8	24969	924.4	24997.4	925.9
25166.9	924.7	25394.9	925.1	25400.4	926.9	25428.7	927.5	25436.5	917.9
25451.4	918.1	25462.3	925.5	25485.5	927	25494.4	925.3	25654.1	925.4
25664.3	925.4	25853.2	926	25924.9	926.1	26148.2	925.8	26228.3	925.9
26440.6	926.5	26597.5	926.7	26761.9	929.1	26817.5	930.2	26872.4	937.7
26963.9	937.7	27118.9	936.4	27188.1	937.7	27343.3	930.8	27401.5	931
27430.1	936	27508.7	936.2	27534.3	930.5	27765.3	931.3	27922.4	931.4
28041.2	932.8	28062	934.7						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18108.5	.032	18778.2	.032	21623.9	.15	22461	.15	23015.6	.025
24130	.043	25428.7	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18778.2	22461	560	499.71	435	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
25662	28062	936

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	927.60	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.44	Wt. n-Val.	0.032	0.041	0.037
E.G. Elev (ft)	928.03	Reach Len. (ft)	560.00	499.71	435.00
Crit W.S. (ft)	922.08	Flow Area (sq ft)	185.74	37260.55	8308.51
E.G. Slope (ft/ft)	0.001054	Area (sq ft)	185.74	37260.55	9769.69
Q Total (cfs)	227000.00	Flow (cfs)	232.65	205384.80	21382.54
Top Width (ft)	8125.95	Top Width (ft)	245.30	3682.80	4197.85
Vel Total (ft/s)	4.96	Avg. Vel. (ft/s)	1.25	5.51	2.57
Max Chl Dpth (ft)	14.20	Hydr. Depth (ft)	0.76	10.12	2.60
Conv. Total (cfs)	6990990.0	Conv. (cfs)	7165.0	6325300.0	658524.8
Length Wtd. (ft)	492.19	Wetted Per. (ft)	245.31	3685.66	3210.01
Min Ch El (ft)	913.40	Shear (lb/sq ft)	0.05	0.67	0.17
Alpha	1.14	Stream Power (lb/ft s)	0.06	3.67	0.44
Frctn Loss (ft)	0.50	Cum Volume (acre-ft)	6946.23	76364.98	27170.77
C & E Loss (ft)	0.01	Cum SA (acres)	1899.57	7923.36	7702.76

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18510.32	18554.97	1.86	4.00	22.07	0.00	0.18	0.47
18554.97	18599.61	35.86	31.30	44.65	0.02	0.70	1.15
18599.61	18644.26	52.13	39.18	44.65	0.02	0.88	1.33
18644.26	18688.91	49.84	38.13	44.65	0.02	0.85	1.31
18688.91	18733.55	47.58	37.09	44.65	0.02	0.83	1.28
18733.55	18778.20	45.37	36.04	44.65	0.02	0.81	1.26
18778.20 LB	19698.90	66494.51	9408.77	921.13	29.29	10.22	7.07
19698.90	20619.60	68227.75	9553.54	920.74	30.06	10.38	7.14
20619.60	21540.30	52167.81	8135.32	921.51	22.98	8.84	6.41
21540.30	22461.00 RB	18494.71	10162.92	922.27	8.15	11.04	1.82
22461.00	22834.40	1006.43	1355.49	374.58	0.44	3.63	0.74
22834.40	23207.80	2876.04	1246.64	373.44	1.27	3.34	2.31
23207.80	23581.20	5327.52	1255.74	373.40	2.35	3.36	4.24
23581.20	23954.60	4372.37	1115.37	373.41	1.93	2.99	3.92
23954.60	24328.00	1741.67	677.86	373.52	0.77	1.82	2.57
24328.00	24701.40	868.50	585.55	373.40	0.38	1.57	1.48
24701.40	25074.80	749.67	536.25	373.71	0.33	1.44	1.40
25074.80	25448.20	2712.04	1021.92	378.26	1.19	2.74	2.65
25448.20	25821.60	1728.29	513.69	216.28	0.76	2.40	3.36

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 197.07

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18156.8	935.6	18180.1	930.2	18362.2	925.3	18423.5	928.7	18602.8	925.5
18786	923.4	18795	921.1	18808.7	923.3	18842	923.3	18878.7	917.5
18947.4	916	19044.7	920.7	19059.4	918.4	19092.9	923.8	19120.5	916
19354	914.9	19373.3	914.8	19404.2	920.3	19462.9	921.4	19541.2	915.1
19704.5	915.1	19850.5	917.8	19957	916.4	20276.5	917	20465.2	914.9
20616.3	914.8	20694.2	916.1	20773.9	915.7	21011.7	913.9	21168.4	917.1
21182.3	919.7	21373.7	919.2	21432.9	919.1	21484.6	914	21649.1	913.2
21812.6	914.4	21837	913.5	21936.9	923.6	22044.5	921.3	22092.4	924.5
22239.5	923	22292.1	924.2	22399.3	915.7	22509.5	920.4	22529.4	924.2
22608.4	924.6	22698.8	920.6	22959.3	923.5	23007.4	922.2	23276.8	923.9
23442.1	922.9	23446.9	922.8	23630.4	922.9	23697	922.9	23858	922.9
24027.3	924.1	24073	926.9	24172.8	926.8	24369.6	926.3	24553.4	925.1
24729.6	925.2	24912.9	925.2	25105.3	924.7	25322.7	923.9	25342.4	924.1
25366.8	926.3	25374.7	918.7	25391	918.8	25402.4	925.6	25427.8	926.9
25437.5	924.6	25515.7	925.5	25693.7	925.7	25722.1	925.7	25983.4	926.7
26005	926.7	26209.5	926.7	26374	926.5	26551.9	926.6	26707.4	930.4
26797.9	930.6	26818.6	935.5	26827.5	935.8	26846.2	930.2	26862.4	932
27030.1	932.1	27100.2	931.7	27147.7	934	27308.3	932.3	27500.3	930.8
27515.1	931.9	27545.8	936.8	27568.3	930.5	27782.7	931.4	27968.1	931.2
28024	934.3								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18156.8	.032	18842	.032	21168.4	.15	22608.4	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18842	22608.4	605	484.35	345	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18156.8	18423.5	935	25427.8	28024	935

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	927.13	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.39	Wt. n-Val.	0.032	0.041	0.025
E.G. Elev (ft)	927.52	Reach Len. (ft)	605.00	484.35	345.00
Crit W.S. (ft)	921.77	Flow Area (sq ft)	804.77	36770.43	8617.98
E.G. Slope (ft/ft)	0.000968	Area (sq ft)	897.30	36770.43	9644.58
Q Total (cfs)	227000.00	Flow (cfs)	2101.39	191382.86	33515.76
Top Width (ft)	8163.29	Top Width (ft)	431.65	3766.40	3965.23
Vel Total (ft/s)	4.91	Avg. Vel. (ft/s)	2.61	5.20	3.89
Max Chl Dpth (ft)	13.93	Hydr. Depth (ft)	2.43	9.76	3.06
Conv. Total (cfs)	7297822.5	Conv. (cfs)	67557.6	6152767.0	1077498.0

Length Wtd. (ft)	467.19	Wetted Per. (ft)	331.08	3771.50	2824.70
Min Ch El (ft)	913.20	Shear (lb/sq ft)	0.15	0.59	0.18
Alpha	1.04	Stream Power (lb/ft s)	0.38	3.07	0.72
Frctn Loss (ft)	0.50	Cum Volume (acre-ft)	6939.27	75940.34	27073.83
C & E Loss (ft)	0.01	Cum SA (acres)	1895.21	7880.64	7662.00

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18476.56	18522.24	0.28	1.05	10.83	0.00	0.10	0.26
18522.24	18567.92	24.59	27.45	45.69	0.01	0.60	0.90
18567.92	18613.60	101.64	64.32	45.69	0.04	1.41	1.58
18613.60	18659.28	184.98	92.12	45.68	0.08	2.02	2.01
18659.28	18704.96	271.79	116.05	45.68	0.12	2.54	2.34
18704.96	18750.64	371.42	139.96	45.68	0.16	3.06	2.65
18750.64	18796.32	544.38	176.52	45.99	0.24	3.86	3.08
18796.32	18842.00	602.29	187.31	45.84	0.27	4.10	3.22
18842.00 LB	19783.60	63821.99	9510.87	944.64	28.12	10.10	6.71
19783.60	20725.20	72885.40	10286.56	941.64	32.11	10.92	7.09
20725.20	21666.80	47289.62	10388.04	942.14	20.83	11.03	4.55
21666.80	22608.40 RB	7385.79	6584.96	943.08	3.25	6.99	1.12
22608.40	22969.44	8459.46	1771.45	361.15	3.73	4.91	4.78
22969.44	23330.48	6055.34	1449.32	361.06	2.67	4.01	4.18
23330.48	23691.52	6407.70	1499.32	361.04	2.82	4.15	4.27
23691.52	24052.56	5554.18	1376.16	361.09	2.45	3.81	4.04
24052.56	24413.60	228.42	202.83	361.08	0.10	0.56	1.13
24413.60	24774.64	1616.62	656.20	361.04	0.71	1.82	2.46
24774.64	25135.68	2074.84	762.19	361.04	0.91	2.11	2.72
25135.68	25496.72	3119.26	900.52	297.19	1.37	3.08	3.46

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 196.98

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18215.3	936.9	18273	924.3	18469.1	924	18645.3	924.3	18768.6	924.6
18918.1	916.7	19068.3	919.3	19092.4	924.4	19159.7	922.9	19188.7	912.5
19428.2	913.3	19483.9	916.8	19694.4	917.7	19861.6	918.9	20028.4	915.4
20056.3	915.2	20222.5	915.4	20297.3	917.4	20405.6	915.8	20447	917.1
20576.1	914.6	20597.3	912.3	20765.1	916.1	20804.3	911.7	20818.9	912.1
20994	911.1	21004.5	915	21026.5	911	21121.2	911.5	21143.2	917.7
21235.2	923.8	21393.2	921.3	21560.4	921.1	21594.4	920	21602.3	916.4
21625.5	921.5	21639.9	919.5	21747.4	922.4	21905.9	919.8	21957.2	922.6
22117.5	921.1	22239.2	920.7	22308.1	917.4	22316.6	919	22507.1	920.3
22741.2	923.1	22928.8	921.9	23051.7	922.4	23248.3	923.5	23493.4	922.9
23715.5	923.2	23884.5	923	24043	926.2	24071.2	926.7	24094	925
24150.9	925.4	24333.9	925.5	24510.9	925.4	24547.7	925.2	24791.6	924.8
24954.2	924.5	25118.1	923.8	25293.5	925.4	25330.9	926	25341.9	918.7
25355.8	919.8	25367.3	928	25392.2	927.9	25402.2	925.2	25594.7	925.8
25797.7	926.3	25954.8	926.2	26140	926.1	26349.9	926.3	26534.8	926.4
26555.9	926.7	26582.7	930.3	26770	931.3	26782.3	931.2	26800	935.5
26824.6	932.2	26852.5	924	26908.3	924	26932.4	932.4	26957.1	930
27053.3	932.3	27253.5	932.3	27381.6	933	27438.5	930	27501.2	933.5
27513.4	936.5	27524	936.2	27540.7	931.1	27714.4	930.5	27963.4	932.5
28002	933.2								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18215.3	.032	18768.6	.032	21026.5	.15	22507.1	.025	22741.2	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18768.6	22741.2	600	490.37	290	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
25367.3	28002	935

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	926.52	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.49	Wt. n-Val.	0.032	0.038	0.025
E.G. Elev (ft)	927.01	Reach Len. (ft)	600.00	490.37	290.00
Crit W.S. (ft)	922.50	Flow Area (sq ft)	1149.84	33896.02	6597.63
E.G. Slope (ft/ft)	0.001205	Area (sq ft)	1149.84	33896.02	7265.53
Q Total (cfs)	227000.00	Flow (cfs)	3203.11	196908.08	26888.81
Top Width (ft)	8307.66	Top Width (ft)	505.78	3972.60	3829.28
Vel Total (ft/s)	5.45	Avg. Vel. (ft/s)	2.79	5.81	4.08
Max Chl Dpth (ft)	15.52	Hydr. Depth (ft)	2.27	8.53	2.53
Conv. Total (cfs)	6540093.5	Conv. (cfs)	92284.8	5673115.5	774693.2
Length Wtd. (ft)	469.53	Wetted Per. (ft)	506.02	3979.88	2616.11
Min Ch El (ft)	911.00	Shear (lb/sq ft)	0.17	0.64	0.19
Alpha	1.06	Stream Power (lb/ft s)	0.48	3.72	0.77
Frctn Loss (ft)	0.80	Cum Volume (acre-ft)	6925.05	75547.47	27006.87
C & E Loss (ft)	0.02	Cum SA (acres)	1888.70	7837.61	7631.13

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18252.19	18289.07	111.44	47.22	26.49	0.05	1.80	2.36
18289.07	18325.96	232.98	83.91	36.89	0.10	2.27	2.78
18325.96	18362.85	242.69	85.99	36.89	0.11	2.33	2.82
18362.85	18399.73	252.56	88.07	36.89	0.11	2.39	2.87
18399.73	18436.62	262.58	90.15	36.89	0.12	2.44	2.91
18436.62	18473.51	272.61	92.20	36.89	0.12	2.50	2.96
18473.51	18510.39	269.59	91.58	36.88	0.12	2.48	2.94
18510.39	18547.28	258.34	89.27	36.89	0.11	2.42	2.89
18547.28	18584.17	247.26	86.96	36.89	0.11	2.36	2.84
18584.17	18621.05	236.38	84.64	36.89	0.10	2.29	2.79
18621.05	18657.94	225.43	82.27	36.89	0.10	2.23	2.74
18657.94	18694.83	211.47	79.17	36.89	0.09	2.15	2.67
18694.83	18731.71	196.94	75.86	36.89	0.09	2.06	2.60
18731.71	18768.60	182.82	72.55	36.89	0.08	1.97	2.52
18768.60 LB	19761.75	63994.56	9150.61	995.86	28.19	9.21	6.99
19761.75	20754.90	79362.38	10401.85	993.44	34.96	10.47	7.63
20754.90	21748.05	42044.68	8757.29	997.08	18.52	8.82	4.80
21748.05	22741.20 RB	11506.47	5586.27	993.51	5.07	5.62	2.06
22741.20	23091.92	7563.00	1453.07	350.73	3.33	4.14	5.20
23091.92	23442.64	5304.27	1174.48	350.72	2.34	3.35	4.52
23442.64	23793.36	5605.36	1214.03	350.72	2.47	3.46	4.62
23793.36	24144.08	2328.97	706.55	338.38	1.03	2.09	3.30
24144.08	24494.80	793.67	375.71	350.72	0.35	1.07	2.11
24494.80	24845.52	1406.82	529.68	350.72	0.62	1.51	2.66
24845.52	25196.24	2695.50	782.45	350.73	1.19	2.23	3.44
25196.24	25546.96	1191.23	361.66	173.39	0.52	2.14	3.29

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 196.88

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17999.6	934.3	18059.2	928.8	18218.9	928.2	18385.9	925.2	18543.4	924.2
18618.4	922.9	18631.1	919.2	18697.5	924.6	18737.5	918.6	18916.3	921.7
19080.4	917.3	19118.8	915.3	19170.8	917.6	19204	914.5	19409.2	913.5
19484.5	914.1	19527.4	919.7	19692.9	918.9	19737.5	919	19819.1	915.4
19932.4	919.9	19957.2	914.2	20023.8	916.2	20054.2	918.7	20114.8	915.1
20239.7	913.6	20358.6	916.5	20402.5	916.2	20453.9	913.2	20601.3	917.4
20631.6	914.9	20700.8	916.5	20721.2	911.3	20746.6	911.5	20983.4	911.6
21059.7	910.8	21089.1	920.8	21269.7	921.5	21428.6	921	21498.9	918
21538.4	920.8	21566.6	918.3	21592.8	921.1	21762.5	921.6	21846.6	920.3

22024	920.1	22046.1	918.5	22067	920.3	22165.8	920.7	22235.2	917.3
22404	923.3	22605.4	922.3	22771.6	922	22945.1	923.1	23205.5	923.5
23370.6	922.8	23396.6	923	23592.9	924	23800.1	923.2	23975.2	923.8
24143.9	925.4	24307.1	924.7	24533.2	924.9	24605.6	925.2	24827.5	923.8
24983.1	923.8	25165.5	923.3	25225.3	924.7	25271.2	927.6	25280.2	918.7
25308.3	920.1	25325.3	928.9	25361.2	927.7	25370.6	925.5	25483	926.1
25847.8	926.6	26008.7	927	26216.4	926.6	26286	926.6	26445.1	926.6
26620.4	930.1	26701.4	929	26790.8	931.6	26805.7	935.4	26857.6	924
26922	924.9	26936.6	927.5	27112.9	931.7	27190.8	932.5	27372.6	930.3
27497.3	931.4	27516.6	936.5	27542.1	930.8	27733.1	931.4	27965.6	932
28009.9	933								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17999.6	.043	18697.5	.043	19080.4	.032	20746.6	.15	20983.4	.15
22404	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18697.5	22404	610	502.13	370	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
25271.2	28009.9	935

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	925.49	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.70	Wt. n-Val.	0.043	0.046	0.025
E.G. Elev (ft)	926.19	Reach Len. (ft)	610.00	502.13	370.00
Crit W.S. (ft)	922.48	Flow Area (sq ft)	567.10	29243.93	5102.63
E.G. Slope (ft/ft)	0.002584	Area (sq ft)	567.10	29243.93	5398.18
Q Total (cfs)	227000.00	Flow (cfs)	1433.54	202748.27	22818.21
Top Width (ft)	6987.95	Top Width (ft)	327.76	3706.50	2953.69
Vel Total (ft/s)	6.50	Avg. Vel. (ft/s)	2.53	6.93	4.47
Max Chl Dpth (ft)	14.69	Hydr. Depth (ft)	1.73	7.89	1.80
Conv. Total (cfs)	4465490.0	Conv. (cfs)	28200.3	3988415.5	448874.4
Length Wtd. (ft)	489.67	Wetted Per. (ft)	328.52	3712.09	2833.88
Min Ch El (ft)	910.80	Shear (lb/sq ft)	0.28	1.27	0.29
Alpha	1.06	Stream Power (lb/ft s)	0.70	8.81	1.30
Frctn Loss (ft)	0.93	Cum Volume (acre-ft)	6913.23	75192.08	26964.71
C & E Loss (ft)	0.04	Cum SA (acres)	1882.96	7794.39	7608.55

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18325.29	18371.81	0.00	0.04	2.07	0.00	0.02	0.09
18371.81	18418.34	9.61	15.06	46.53	0.00	0.32	0.64
18418.34	18464.87	30.23	29.96	46.53	0.01	0.64	1.01
18464.87	18511.39	56.71	43.70	46.53	0.02	0.94	1.30
18511.39	18557.92	92.47	58.60	46.53	0.04	1.26	1.58
18557.92	18604.45	190.77	90.50	46.53	0.08	1.95	2.11
18604.45	18650.97	708.08	199.79	47.12	0.31	4.29	3.54
18650.97	18697.50	345.68	129.45	46.68	0.15	2.78	2.67
18697.50 LB	19624.13	69278.32	7419.12	927.78	30.52	8.01	9.34
19624.13	20550.75	90111.13	8603.23	927.85	39.70	9.28	10.47
20550.75	21477.38	36042.45	8403.87	929.13	15.88	9.07	4.29
21477.38	22404.00 RB	7316.38	4817.71	927.34	3.22	5.20	1.52
22404.00	22777.73	6351.04	1118.23	373.73	2.80	2.99	5.68
22777.73	23151.45	4834.76	949.40	373.73	2.13	2.54	5.09
23151.45	23525.18	3954.99	841.61	373.73	1.74	2.25	4.70
23525.18	23898.91	3005.66	713.82	373.73	1.32	1.91	4.21
23898.91	24272.63	857.21	336.26	373.74	0.38	0.90	2.55
24272.63	24646.36	454.14	229.69	373.73	0.20	0.61	1.98
24646.36	25020.09	1830.18	530.05	373.73	0.81	1.42	3.45
25020.09	25393.81	1530.20	383.57	217.76	0.67	1.76	3.99

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 196.79

INPUT

Description:

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17706	933.3	17721.2	930.2	17801.2	930.3	17838.2	927.2	18025.3	925.9
18262.6	921.7	18299.6	918.4	18359.1	925	18454.1	924.4	18463.2	920.9
18477.3	918.6	18525.9	923	18529.6	921	18575.6	921.2	18598.4	918.5
18667.3	920.3	18736.8	916.6	18747.2	914.4	18881.6	916.9	18946.3	911.9
19066.6	913.6	19092	915.6	19226.4	912.3	19594.3	911.9	19610.3	914
19630.7	912.1	19829.3	914.8	20002.5	916.2	20015.4	916.6	20042.8	912.1
20244.3	912.7	20327	913.6	20493.9	912	20516.7	914.3	20541.3	913.2
20593.1	915.8	20636	914	20644.3	911.5	20658.1	910.7	20849.1	911.4
21017.1	911.4	21032.8	920.9	21220.9	919.6	21401.7	919.8	21579.9	919.6
21753.8	919	21858.1	921.3	22020.4	915.1	22147	921.3	22345.8	921.5
22433.3	921.5	22607.5	921.9	22639.2	921.9	22890.5	921.3	23079.4	922.4
23252	921.6	23487.5	921.6	23748.7	923.1	23923.2	923.8	23940.6	925.3
24042.4	924.5	24260.7	924.5	24489.2	924.2	24722.3	923.2	24931.8	923.9
24978.1	926.8	24986.7	918.3	25012.7	919	25025.2	927.2	25061.6	927.8
25081	923.6	25251.1	922.9	25287.5	925.2	25374.7	924.1	25616.7	925.2
25766.9	925.8	26024.2	926.8	26065.9	926.9	26274.6	926.8	26464.8	928.3
26598.1	930.1	26610.3	928.3	26794.9	929.3	26943.4	930.9	26971.7	923.3
27149.6	922.6	27263.7	923.2	27332.2	930.5	27382.4	930.8	27560	930.6
27754.7	930.4	27913.9	931.1	28133.9	929.7	28209.4	931.2	28383	931.4
28460	931.8								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17706	.15	18667.3	.15	19092	.032	20849.1	.15	22147	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18667.3	22147	530	454.29	375	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
24978.1	28460	932

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	924.65	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.56	Wt. n-Val.	0.150	0.042	0.025
E.G. Elev (ft)	925.22	Reach Len. (ft)	530.00	454.29	375.00
Crit W.S. (ft)	920.21	Flow Area (sq ft)	1516.57	32750.29	5371.67
E.G. Slope (ft/ft)	0.001461	Area (sq ft)	1516.57	32750.29	6399.11
Q Total (cfs)	227000.00	Flow (cfs)	1213.75	203713.52	22072.74
Top Width (ft)	7419.09	Top Width (ft)	513.16	3479.70	3426.23
Vel Total (ft/s)	5.73	Avg. Vel. (ft/s)	0.80	6.22	4.11
Max Chl Dpth (ft)	13.95	Hydr. Depth (ft)	2.96	9.41	1.98
Conv. Total (cfs)	5939324.0	Conv. (cfs)	31757.1	5330046.5	577520.5
Length Wtd. (ft)	444.93	Wetted Per. (ft)	515.40	3484.60	2706.85
Min Ch El (ft)	910.70	Shear (lb/sq ft)	0.27	0.86	0.18
Alpha	1.11	Stream Power (lb/ft s)	0.21	5.33	0.74
Frctn Loss (ft)	0.56	Cum Volume (acre-ft)	6898.64	74834.77	26914.61
C & E Loss (ft)	0.05	Cum SA (acres)	1877.08	7752.97	7581.46

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18090.52	18154.61	6.65	30.57	58.78	0.00	0.52	0.22
18154.61	18218.69	47.53	103.01	64.10	0.02	1.61	0.46
18218.69	18282.78	132.04	190.27	64.17	0.06	2.97	0.69
18282.78	18346.87	227.45	264.11	64.44	0.10	4.12	0.86
18346.87	18410.95	0.97	4.58	9.15	0.00	0.50	0.21
18410.95	18475.04	31.42	79.09	61.58	0.01	1.30	0.40
18475.04	18539.13	199.70	244.85	64.82	0.09	3.82	0.82
18539.13	18603.21	232.91	267.57	64.25	0.10	4.18	0.87
18603.21	18667.30	335.07	332.52	64.11	0.15	5.19	1.01
18667.30 LB	19537.23	56378.54	9416.37	870.60	24.84	10.82	5.99
19537.23	20407.15	85483.67	9684.79	870.56	37.66	11.13	8.83
20407.15	21277.07	56268.40	8889.48	873.22	24.79	10.22	6.33
21277.07	22147.00 RB	5582.92	4759.65	870.22	2.46	5.47	1.17
22147.00	22567.87	6301.12	1325.50	420.87	2.78	3.15	4.75
22567.87	22988.73	5837.51	1266.09	420.87	2.57	3.01	4.61
22988.73	23409.60	5093.79	1166.69	420.87	2.24	2.77	4.37
23409.60	23830.47	3631.84	952.37	420.87	1.60	2.26	3.81

23830.47	24251.33	161.41	133.57	330.88	0.07	0.40	1.21
24251.33	24672.20	327.46	224.82	420.87	0.14	0.53	1.46
24672.20	25093.07	719.62	302.64	271.63	0.32	1.11	2.38

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 196.7

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17573.9	932	17644.9	926	17782.7	924.3	17843.1	922.4	18020.3	923.8
18134.6	924.5	18267.5	919.8	18319.9	922.2	18331.2	919.8	18435.6	921
18556.8	918.9	18641.7	915.4	18711.6	911.7	18760.8	915.2	18869.5	912.4
18902.2	916.4	18965.3	911.7	19049.6	914.9	19154.6	912.3	19175.7	915
19236.9	915.6	19292.7	913.2	19488.6	911.8	19652.7	911.1	19862.7	912.2
19880.8	911.7	19929.7	915.3	19950	910.9	20122.4	911.3	20202	915.8
20219.3	909.6	20273.5	912.8	20434.4	909.3	20550.4	909.5	20737.4	909.3
20923.4	909.4	20968	919.2	21188.4	916.4	21194.2	914.8	21385.7	915.8
21544.3	914.9	21731.4	920.1	21896.3	920.4	21959.9	916.5	22031	920.5
22071.7	919	22279.4	920.6	22401.8	920.7	22565.2	920.6	22751.7	921
22937.2	921	23104.9	919.5	23207.4	921	23369.2	921	23560	921.7
23702.6	922.1	23758.8	920.3	23813.6	922.7	23873.1	921.4	24075.4	922.4
24329.1	921.2	24500.6	923.8	24552.9	924.6	24562.3	916.6	24587.3	917.2
24606.7	926	24641.2	927.6	24659	921.7	24856.9	922.3	24937.4	922.2
25096.4	922.9	25304.3	923.4	25463	923.6	25572.3	923.9	25904.3	924.3
26004	924.5	26226	925.7	26288.1	925	26368.3	927.5	26422.1	926.5
26480.7	928.5	26504.7	927.5	26710.9	928.6	26853.9	928.6	27041.9	929.2
27067.7	929.4	27307.6	930.4	27485.5	929.7	27715.8	929.6	27810.9	930.7
27853.4	928.8	28035.2	930.1	28210	930.3	28363.1	930.8	28616.3	931.3
28793.9	932								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17573.9	.15	18435.6	.15	18760.8	.032	19236.9	.15	19929.7	.03
20968	.15	22031	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18435.6	22031	500	505.46	520	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
24641	28793.9	931

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	924.20	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.40	Wt. n-Val.	0.150	0.047	0.025
E.G. Elev (ft)	924.60	Reach Len. (ft)	500.00	505.46	520.00
Crit W.S. (ft)	918.53	Flow Area (sq ft)	1134.27	36875.48	7882.18
E.G. Slope (ft/ft)	0.001111	Area (sq ft)	1134.27	36875.48	9163.23
Q Total (cfs)	227000.00	Flow (cfs)	676.70	193032.34	33290.95
Top Width (ft)	7903.59	Top Width (ft)	592.45	3595.40	3715.74
Vel Total (ft/s)	4.95	Avg. Vel. (ft/s)	0.60	5.23	4.22
Max Chl Dpth (ft)	14.90	Hydr. Depth (ft)	1.91	10.26	3.10
Conv. Total (cfs)	6809464.0	Conv. (cfs)	20299.5	5790514.5	998649.8
Length Wtd. (ft)	507.84	Wetted Per. (ft)	592.87	3600.05	2549.67
Min Ch El (ft)	909.30	Shear (lb/sq ft)	0.13	0.71	0.21
Alpha	1.06	Stream Power (lb/ft s)	0.08	3.72	0.91
Frctn Loss (ft)	0.48	Cum Volume (acre-ft)	6882.51	74471.70	26847.62
C & E Loss (ft)	0.01	Cum SA (acres)	1870.35	7716.07	7550.71

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17746.24	17803.69	0.65	5.00	17.85	0.00	0.28	0.13
17803.69	17861.13	28.99	77.73	57.47	0.01	1.35	0.37
17861.13	17918.58	31.85	82.23	57.45	0.01	1.43	0.39
17918.58	17976.03	16.87	56.16	57.45	0.01	0.98	0.30
17976.03	18033.47	6.01	30.24	57.45	0.00	0.53	0.20

18033.47	18090.92	0.75	8.37	52.28	0.00	0.16	0.09
18090.92	18148.37	0.03	0.50	5.31	0.00	0.09	0.06
18148.37	18205.81	23.84	69.14	57.48	0.01	1.20	0.34
18205.81	18263.26	123.91	185.85	57.48	0.05	3.24	0.67
18263.26	18320.71	125.98	187.75	57.52	0.06	3.27	0.67
18320.71	18378.15	174.38	228.45	57.68	0.08	3.98	0.76
18378.15	18435.60	143.43	202.85	57.45	0.06	3.53	0.71
18435.60 LB	19334.45	40244.13	8290.62	899.94	17.73	9.22	4.85
19334.45	20233.30	45406.02	11029.16	900.70	20.00	12.27	4.12
20233.30	21132.15	99871.70	11302.54	900.04	44.00	12.57	8.84
21132.15	22031.00 RB	7510.48	6253.16	899.38	3.31	6.96	1.20
22031.00	22481.86	8892.91	1812.08	450.89	3.92	4.02	4.91
22481.86	22932.72	6574.46	1511.66	450.86	2.90	3.35	4.35
22932.72	23383.58	7572.12	1645.41	450.88	3.34	3.65	4.60
23383.58	23834.44	4344.63	1179.08	450.95	1.91	2.62	3.68
23834.44	24285.30	3522.74	1039.61	450.88	1.55	2.31	3.39
24285.30	24736.16	2384.10	694.34	295.21	1.05	2.39	3.43

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 196.61

INPUT
Description: Left Bank Channel Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17396.9	932.5	17455.1	926.1	17620.5	921.5	17767.1	921.2	17925.9	923.5
18029.4	924.1	18068	917.7	18118.7	922	18135.9	919.4	18190	919.3372
18308.1	919.2	18351.1	920.3	18393.8	912.3	18520.1	911.8	18587	916.4
18830.4	913.6	18867.7	910.5	18908.2	913.2	19068.6	911.9	19184.6	911.7
19243.5	915.9	19277.6	920	19410.5	919.1	19463.6	915.9	19538	919
19637.8	917	19679.3	914.3	19695.4	916.1	19727.8	914.7	19752	911.4
19769.6	913.1	19799.3	910.9	19824.7	910.9	20032.8	911.1	20185.2	910.7
20212.5	915.7	20231.9	909.7	20557.8	909	20759.4	908.9	20830.2	908.5
20862.7	918.3	20886.1	914.2	21052.1	913.5	21221.6	917.9	21253.8	918.4
21288.4	916.8	21446.1	918.3	21586.6	917.9	21614.8	916.8	21713.6	918.2
21758.5	911.8	21818.3	918.5	21975	918.8	22127.6	916.8	22268.6	917.5
22429.9	918.6	22576.9	918.5	22742.1	918.7	22948.5	918.6	22988.7	918.6
23203.9	920.2	23345.9	920.5	23543.6	919	23599.2	921.6	23778.5	920.2
23885	922.3	23896	916.7	23913.6	916.6	23929.5	925.9	23953.1	925.6
23979.3	919.8	24167.1	921	24325.1	921.6	24437	921.8	24677.6	922.4
24902	922.1	24969.1	924.6	25050.2	923	25250.5	923.7	25268.7	923.8
25472.8	923.7	25616.2	923.6	25869.9	924.5	26056.2	924	26089.8	926.3
26108.9	925	26253.3	927.2	26411.4	927.1	26597	927	26691.9	927.4
26905.6	927.5	27056.9	927.5	27182	927.8	27344.7	927.6	27510.3	928.2
27671.9	932.1	27674	932.2						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17396.9	.043	18351.1	.043	19538	.03	20862.7	.15	21975	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18190	21975	530	508.32	535	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23929.5	27674	931

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	923.73	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.39	Wt. n-Val.	0.043	0.039	0.025
E.G. Elev (ft)	924.12	Reach Len. (ft)	530.00	508.32	535.00
Crit W.S. (ft)	919.12	Flow Area (sq ft)	1258.47	35953.24	8994.78
E.G. Slope (ft/ft)	0.000811	Area (sq ft)	1258.47	35953.24	11135.65
Q Total (cfs)	227000.00	Flow (cfs)	2286.67	182591.02	42122.32
Top Width (ft)	7797.35	Top Width (ft)	584.37	3785.00	3427.98
Vel Total (ft/s)	4.91	Avg. Vel. (ft/s)	1.82	5.08	4.68
Max Chl Dpth (ft)	15.23	Hydr. Depth (ft)	2.15	9.50	4.61
Conv. Total (cfs)	7972141.5	Conv. (cfs)	80306.8	6412517.0	1479317.6
Length Wtd. (ft)	513.24	Wetted Per. (ft)	585.29	3791.47	1954.19
Min Ch El (ft)	908.50	Shear (lb/sq ft)	0.11	0.48	0.23
Alpha	1.03	Stream Power (lb/ft s)	0.20	2.44	1.09
Frctn Loss (ft)	0.38	Cum Volume (acre-ft)	6868.78	74049.16	26726.46
C & E Loss (ft)	0.01	Cum SA (acres)	1863.60	7673.25	7508.08

22866	913.7	22921.5	910	23001.1	910.2	23016.4	908.9	23095.4	908.7
23235.3	908.6	23316.5	908.5	23578.1	909.5	23626.5	909.6	23805.8	909.7
23945.7	909.8	24044.6	909.5	24192.9	909.3	24341.5	909.1	24387	910.7
24394.7	908.8	24551.2	909.6	24627	909.6	24775.9	909.7	24930.5	910.1
25043.2	910.2	25285.8	910.6	25330.2	910.7	25499.9	910.7	25618.5	910.9
25660.9	912.2	25700.4	911.3	25710.3	913.4				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16680.8	.025	18832.5	.031	20374.8	.032	21276	.043	21949.7	.043
22866	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18849.39	21911	455	378.07	400	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16680.8	18832.5	912	21911	25710.3	912

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	905.82	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.11	Wt. n-Val.		0.033	
E.G. Elev (ft)	906.93	Reach Len. (ft)	455.00	378.07	400.00
Crit W.S. (ft)	902.57	Flow Area (sq ft)		26851.27	
E.G. Slope (ft/ft)	0.001899	Area (sq ft)	4911.25	26851.27	684.62
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	5422.55	Top Width (ft)	1852.83	3061.16	508.55
Vel Total (ft/s)	8.45	Avg. Vel. (ft/s)		8.45	
Max Chl Dpth (ft)	11.72	Hydr. Depth (ft)		8.77	
Conv. Total (cfs)	5208885.0	Conv. (cfs)		5208885.0	
Length Wtd. (ft)	378.08	Wetted Per. (ft)		3064.12	
Min Ch El (ft)	894.10	Shear (lb/sq ft)		1.04	
Alpha	1.00	Stream Power (lb/ft s)		8.78	
Frctn Loss (ft)	0.54	Cum Volume (acre-ft)	5817.90	65162.61	23714.16
C & E Loss (ft)	0.11	Cum SA (acres)	1546.24	6883.88	6823.31

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18849.39 LB	19614.79	70859.25	7451.53	766.53	31.22	9.74	9.51
19614.79	20380.20	63461.62	6972.33	765.76	27.96	9.11	9.10
20380.20	21145.60	57727.85	6713.90	765.92	25.43	8.77	8.60
21145.60	21911.00 RB	34951.30	5713.51	765.90	15.40	7.46	6.12

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 193.93

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17144.2	920.2	17170.7	908.8	17187.5	904.1	17224.3	905.8	17246.5	903.1
17370.6	902.8	17516.5	902.7	17634.6	902.6	17790.6	902.6	17894.2	902.4
18045.6	902	18160.3	902.7	18205.6	900	18274	900.3	18395	900.2
18529.9	900.9	18582.5	899.9	18624.1	910.8	18689.4	911	18724.5	909.6
18740.4	3905.6078	18765.6	899.3	18776.3	895.1	18915.7	894.5	19090.2	894.1
19446.1	894.5	19575.9	894.7	19708.8	894.8	19749.3	896	19861.1	894.7
19984.8	894.8	20102.8	895.2	20184.8	895.5	20308.2	895.8	20358.2	898.9
20402.3	897	20513.1	894.4	20661.6	895.9	20740.1	897.7	20796.4	895.3
20855.3	895.6	20925	899.9	20954.2	894.3	21094.4	895.8	21133.9	894.6
21200.3	898	21322.1	896.5	21367.7	898.8	21411.7	899.4	21446.2	895.5
21553.9	895.3	21590.6	899	21714	898.9	21832.1	897.4	21930.6	895.9
22015.8	898.2	22046.5	897.2	22119.5	900.5	22163.5	904.5	22178.5	899.8
22203.9	7905.6078	22214.9	908.1	22258	903.8	22386.6	908.6	22500.9	909.4
22556.1	909.1	22590.2	910.9	22720.9	909.1	22741.4	911.3	22794.3	911.2
22883.3	904.2	22905	912.9	22958.3	909.9	22979	911.4	23121.3	908.9
23214.3	908.9	23402.1	909.5	23610.3	908.4	23665.3	908.4	23901.4	908.7
24007.4	909	24162.3	909.1	24248.7	908.6	24360.9	909.7	24381.2	911
24396.9	908.2	24419.9	909.5	24547.9	909.4	24703.8	909.1	24848.4	909.1

24959.6	909.7	25159.4	910.5	25283.3	910.4	25435.8	909.5	25560.5	909.5
25662.7	911.8	25703.2	911.2	25708.9	912.7				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17144.2	.025	18724.5	.031	20661.6	.032	21590.6	.043	22214.9	.043
22905	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18740.43	22163.5	355	384.58	425	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17144.2	18724.5	918	22215	25708.9	918

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	905.53	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.75	Wt. n-Val.		0.032	0.043
E.G. Elev (ft)	906.28	Reach Len. (ft)	355.00	384.58	425.00
Crit W.S. (ft)	901.11	Flow Area (sq ft)		32560.90	122.72
E.G. Slope (ft/ft)	0.001111	Area (sq ft)	4955.21	32560.90	191.33
Q Total (cfs)	227000.00	Flow (cfs)		226708.77	291.23
Top Width (ft)	4960.41	Top Width (ft)	1413.56	3422.76	124.09
Vel Total (ft/s)	6.95	Avg. Vel. (ft/s)		6.96	2.37
Max Chl Dpth (ft)	11.43	Hydr. Depth (ft)		9.51	3.06
Conv. Total (cfs)	6810642.0	Conv. (cfs)		6801904.0	8737.8
Length Wtd. (ft)	384.61	Wetted Per. (ft)		3426.18	41.50
Min Ch El (ft)	894.10	Shear (lb/sq ft)		0.66	0.21
Alpha	1.00	Stream Power (lb/ft s)		4.59	0.49
Frctn Loss (ft)	0.43	Cum Volume (acre-ft)	5766.37	64904.79	23710.14
C & E Loss (ft)	0.00	Cum SA (acres)	1529.18	6855.74	6820.41

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18740.43 LB	19596.20	72233.16	9257.71	857.03	31.82	10.82	7.80
19596.20	20451.96	63787.34	8587.82	855.95	28.10	10.04	7.43
20451.96	21307.73	56918.34	8124.68	856.65	25.07	9.49	7.01
21307.73	22163.50 RB	33769.93	6590.68	856.56	14.88	7.70	5.12
22163.50	22399.86	291.23	122.72	41.50	0.13	3.06	2.37

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 193.86

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17460.6	920	17535.6	908.4	17536.3	907.5	17571.8	901.7	17619.1	903.8
17670.6	901.1	17810.3	901.3	18019.7	900.5	18136.3	900.6	18154.2	903.4
18213.4	900	18357.1	899.8	18419.3	900.1	18452.8	898.3	18482.4	900.1
18524.6	908.5	18621.7	908.5	18632.83	905.1952	18670.2	894.1	18824.6	894.1
18899.6	893.8	18934.5	895.9	18990.5	895.5	19034.9	892.9	19259.4	894.5
19403.4	896.5	19560.8	893.9	19641.6	893.7	19672.1	895.6	19686.6	894.1
19826.8	894.1	19868.6	894.7	19991.8	893.6	20100.5	895	20241	894.6
20431.1	893.9	20472.8	899.2	20548.3	893.7	20629.1	896.4	20767.7	894.2
20894.5	893.6	20918.1	894.8	20954.1	892	20978.2	894.8	21007.4	900.2
21052.8	896.6	21190.2	897.7	21298.2	899.1	21451.5	895.4	21512.9	895.3
21546.2	901.2	21720.3	898	21885.5	896.9	22061.4	898	22078.3	899.1
22115.51	905.194	22118.6	905.7	22150.5	900.5	22190.3	907	22196.1	905.7
22234.5	903.3	22314.5	907.8	22398.1	907	22493.3	909.1	22550.3	907.3
22641	910.6	22781	910.4	22863	915.6	22960.9	903.2	22979.2	911.7
23048.5	911.8	23061.2	909.3	23070.1	910.5	23073.2	908.6	23140.1	910.6
23191.8	907.6	23324.3	910.5	23332.3	909.3	23349	910.7	23365.2	908
23371.3	908	23582.3	908.1	23723.7	908.1	23872.8	908.5	24108.5	908.5
24156	908.5	24345.2	909.3	24395.4	909	24611.7	908.2	24675.9	908.4
24851.8	908.9	24873	909	25081.4	908.9	25149.5	909.2	25295.4	909.7
25439.1	909.1	25564.7	909.4	25671.2	910.7				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17460.6	.025	18621.7	.031	20100.5	.032	21546.2	.043	22118.6	.043
22863	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18632.8	322115.51	445	430.34	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17460.6	18621.7	915	22118.6	25671.2	915

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	905.11	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.75	Wt. n-Val.		0.032	
E.G. Elev (ft)	905.85	Reach Len. (ft)	445.00	430.34	500.00
Crit W.S. (ft)	900.72	Flow Area (sq ft)		32754.51	
E.G. Slope (ft/ft)	0.001114	Area (sq ft)	4004.21	32754.51	203.53
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	4575.15	Top Width (ft)	956.61	3481.85	136.68
Vel Total (ft/s)	6.93	Avg. Vel. (ft/s)		6.93	
Max Chl Dpth (ft)	13.11	Hydr. Depth (ft)		9.41	
Conv. Total (cfs)	6802233.0	Conv. (cfs)		6802233.0	
Length Wtd. (ft)	430.34	Wetted Per. (ft)		3486.47	
Min Ch El (ft)	892.00	Shear (lb/sq ft)		0.65	
Alpha	1.00	Stream Power (lb/ft s)		4.53	
Frctn Loss (ft)	0.45	Cum Volume (acre-ft)	5729.86	64616.46	23708.22
C & E Loss (ft)	0.04	Cum SA (acres)	1519.52	6825.26	6819.14

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18632.83 LB	19503.50	68068.54	8998.13	872.15	29.99	10.34	7.56
19503.50	20374.17	72499.59	9391.89	870.83	31.94	10.79	7.72
20374.17	21244.84	56502.56	8201.86	872.22	24.89	9.42	6.89
21244.84	22115.51 RB	29929.30	6162.64	871.27	13.18	7.08	4.86

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 193.78

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18041.9	919.6	18135.3	899.6	18189.9	900.7	18208.8	899.8	18231.1	901.9
18287.6	904.6	18407.8	901.3	18419.5	901.7	18429.8	900.5	18449.6	896
18460.8	895.8	18520.1	908.4	18602.8	907.3	18611.0	2904.8	18651.5	892.6
18819	892.9	19000	892.7	19213	892.2	19256.2	895.7	19383.3	895.6
19456.9	892.9	19574.7	894.4	19582.8	894.9	19605.1	893.1	19732.5	893.3
19764.8	894.9	19807	893.1	19896.9	893.5	20057.3	893.4	20195.1	892.8
20298.5	893.6	20491.7	893.5	20518.1	893.3	20565.3	897.2	20771.5	892.4
20867.7	897.2	20902.4	892.3	21016.5	893.5	21061.7	897	21185.2	895.1
21281.7	893.5	21402	894.9	21480.7	895.7	21544.4	900.1	21594.7	898
21749.2	897.7	21858.1	898.5	21961.7	895	21964.1	895.8	22063	897.9
22092.3	896.7	22160.9	901.7	22175.37	904.819	22194.3	908.9	22228.5	905.8
22240.4	907	22271.3	902.3	22322	902.6	22343.5	901	22360.6	901.8
22379.5	904.9	22386.5	907.3	22394	908.1	22517.2	909.6	22659.9	910
22768.3	910.4	22816.4	910.1	22837.7	911.3	22965.5	912.7	23020.2	907.3
23055.9	902.5	23076.2	910	23101	912.8	23132.6	907.3	23268.3	907.4
23350.3	910.3	23359.2	911.3	23368	907.9	23381.5	907.7	23496.1	908
23599.6	908.2	23733.4	908.2	23873.2	908.1	23952	908	24168.8	908
24331.9	908	24372.7	908	24506.8	908.1	24713	908.4	24730.8	908.5
24898.1	908.2	24907.9	908.2	25139.4	908.2	25340.6	908.5	25434.8	908.3
25456.1	909.7	25511.4	907.6	25536	910.4				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18041.9	.025	18602.8	.031	20565.3	.043	22194.3	.043	22965.5	.025

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

18611.0	222175.37	750	341.33	430	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18041.9	18602.8	915	22194.3	25536	915

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	904.75	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.62	Wt. n-Val.		0.034	
E.G. Elev (ft)	905.37	Reach Len. (ft)	750.00	341.33	430.00
Crit W.S. (ft)	899.61	Flow Area (sq ft)		35874.94	
E.G. Slope (ft/ft)	0.000970	Area (sq ft)	1277.11	35874.94	308.86
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	4101.58	Top Width (ft)	391.65	3563.78	146.15
Vel Total (ft/s)	6.33	Avg. Vel. (ft/s)		6.33	
Max Chl Dpth (ft)	12.55	Hydr. Depth (ft)		10.07	
Conv. Total (cfs)	7288318.0	Conv. (cfs)		7288318.0	
Length Wtd. (ft)	341.33	Wetted Per. (ft)		3567.75	
Min Ch El (ft)	892.20	Shear (lb/sq ft)		0.61	
Alpha	1.00	Stream Power (lb/ft s)		3.85	
Frctn Loss (ft)	0.36	Cum Volume (acre-ft)	5702.88	64277.45	23705.28
C & E Loss (ft)	0.01	Cum SA (acres)	1512.63	6790.46	6817.52

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18611.02 LB	19502.11	73916.08	9953.64	892.84	32.56	11.17	7.43
19502.11	20393.20	75485.87	10072.83	891.27	33.25	11.30	7.49
20393.20	21284.28	49695.42	9100.55	891.94	21.89	10.21	5.46
21284.28	22175.37 RB	27902.63	6747.92	891.71	12.29	7.58	4.13

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 193.71

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18741.9	910	18747.4	906.4	18756.78	904.369	18778.8	899.6	18783.6	897.9
18791.9	891.3	18980.3	891.4	19065	891.5	19203.8	891.6	19233.7	895.9
19310.2	896.4	19408.5	895.3	19437.5	891.4	19535.9	892.4	19568	895.9
19613.8	896.1	19637.6	893.9	19725.1	896.2	19761.2	892.9	19850.7	892.6
19879.9	894.8	19912.9	893.2	20108.4	892.5	20155.6	892.4	20208.8	893.4
20268.1	892.5	20451	893.1	20503.4	897.8	20601.5	892.8	20796.3	892.4
20839.4	892.5	20872.8	893.8	20890.9	892.4	20912.3	893.5	20919.3	892.3
21052	893.5	21059.1	892.8	21098.4	892.5	21117.2	895.1	21208	896.6
21300.2	893.9	21463.7	893.9	21505.7	896.4	21586	896.8	21626.9	899.9
21760.3	898.3	21930.9	898.1	21991.1	898.3	22037.4	896	22106.7	896.8
22164.6	900.4	22187.72	904.3	694 22197.8	906.1	22246.3	906.2	22269.6	905.2
22424	907.7	22514.9	909	22552.8	908.4	22635.9	909.2	22689	910.8
22923.5	910.9	22994.5	910.4	23046.1	917.5	23052.7	913.9	23065.1	914.8
23088.9	897.3	23119.3	898.6	23129.5	902.7	23138.6	903.6	23143	905.4
23161.2	910.2	23205.6	908.3	23286.3	908.7	23338.3	907.8	23366.3	909.6
23376.5	907.5	23379.9	908.4	23449.7	908.9	23580.8	909	23672.1	909.1
23828.8	908.9	23929.1	908.9	24139.2	908.5	24202.5	908.5	24401.2	908.6
24441.4	908.7	24617.2	908.6	24691.7	908.9	24859.3	908.9	24922.6	908.7
25159.6	908.6	25201.7	908.5	25351.1	909.1	25493.1	908.5	25543.3	907.4
25709.6	909.4	25862	909.1	25922	909.5				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18741.9	.031	18747.4	.031	20451	.043	22197.8	.043	23046.1	.025

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

18756.78	22187.72	515	362.07	410	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22197.8	25922	909

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	904.31	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.70	Wt. n-Val.		0.035	
E.G. Elev (ft)	905.00	Reach Len. (ft)	515.00	362.07	410.00
Crit W.S. (ft)	899.44	Flow Area (sq ft)		33917.27	
E.G. Slope (ft/ft)	0.001157	Area (sq ft)		33917.27	274.97
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	3491.22	Top Width (ft)		3430.27	60.95
Vel Total (ft/s)	6.69	Avg. Vel. (ft/s)		6.69	
Max Chl Dpth (ft)	13.01	Hydr. Depth (ft)		9.89	
Conv. Total (cfs)	6674145.0	Conv. (cfs)		6674145.0	
Length Wtd. (ft)	362.07	Wetted Per. (ft)		3436.10	
Min Ch El (ft)	891.30	Shear (lb/sq ft)		0.71	
Alpha	1.00	Stream Power (lb/ft s)		4.77	
Frctn Loss (ft)	0.43	Cum Volume (acre-ft)	5691.89	64004.01	23702.39
C & E Loss (ft)	0.01	Cum SA (acres)	1509.26	6763.06	6816.49

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18756.78 LB	19614.52	75910.67	9479.51	861.32	33.44	11.06	8.01
19614.52	20472.25	75410.74	9462.76	858.24	33.22	11.03	7.97
20472.25	21329.98	50111.89	8979.61	858.47	22.08	10.47	5.58
21329.98	22187.72 RB	25566.70	5995.39	858.07	11.26	6.99	4.26

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 193.65

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18919.7	921	18927.8	916.4	18945.2	3903.8	618964.5	890	18985	890
19093.2	890.2	19277.4	891.1	19291.5	893.3	19339.9	895.2	19436.3	892.1
19481.6	891.7	19516.9	890.6	19542.5	891.1	19584.1	894.6	19670.9	895.1
19716.3	893.9	19800	896.3	19885.9	896.6	19997.9	892.1	20126.1	892.4
20304.9	892.4	20515	892.5	20626.2	891.7	20662.2	891.7	20688.4	893.8
20714.7	891.3	20738.7	891	20876.4	892.5	20897.4	892.7	20920.3	896
20945.8	891.8	21001.4	891.4	21011.8	893.4	21036.7	895.8	21174.8	893
21210.3	892.9	21321	895.4	21351.3	896.9	21417.4	892.7	21441.7	892.3
21486.3	894.3	21615.4	893	21692.2	894.1	21727.6	899.7	21841.6	898.9
21964.5	897.8	22139.2	897.8	22186	898.2	22238.1	905.4	22314.7	906.2
22440.3	907.8	22606.7	908.6	22738	910.3	22890.8	910	23042	909.1
23077.4	908.7	23105.2	911.7	23115	911.8	23119.2	911	23123.6	914.8
23135.8	913.2	23137.5	911	23149.6	912.5	23176.7	897.4	23202.3	898.3
23205.3	899.2	23215.9	904.7	23224.6	903.3	23232.3	908.1	23272	906.4
23387.6	906.4	23519.1	907.6	23636.3	908.1	23789.2	907.8	23910.7	907.7
24039.7	908.8	24181	908.7	24345	908.5	24455	908.7	24503.5	909.1
24609.4	906.9	24652.6	906.2	24672.4	907.2	24679.1	908.6	24692.8	906.4
24705.3	906.8	24845.4	907.7	24928.1	908.2	25063.2	908.2	25175.3	908
25269	908	25411.6	908	25577.9	907.4	25684.3	906.5	25698.1	907.8
25700.4	908.8	25715	909.7						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18919.7	.031	20662.2	.043	22238.1	.043	23123.6	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18945.23	22186	460	556.82	605	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22186	25715	920

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	903.80	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.76	Wt. n-Val.		0.035	

E.G. Elev (ft)	904.56	Reach Len. (ft)	460.00	556.82	605.00
Crit W.S. (ft)	899.04	Flow Area (sq ft)		32397.34	
E.G. Slope (ft/ft)	0.001228	Area (sq ft)		32397.34	339.05
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	3334.07	Top Width (ft)		3240.68	93.38
Vel Total (ft/s)	7.01	Avg. Vel. (ft/s)		7.01	
Max Chl Dpth (ft)	13.80	Hydr. Depth (ft)		10.00	
Conv. Total (cfs)	6477499.5	Conv. (cfs)		6477499.5	
Length Wtd. (ft)	556.82	Wetted Per. (ft)		3247.55	
Min Ch El (ft)	890.00	Shear (lb/sq ft)		0.76	
Alpha	1.00	Stream Power (lb/ft s)		5.36	
Frctn Loss (ft)	0.72	Cum Volume (acre-ft)	5691.89	63728.41	23699.50
C & E Loss (ft)	0.01	Cum SA (acres)	1509.26	6735.33	6815.77

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18945.23 LB	19755.42	78183.68	9261.07	815.02	34.44	11.43	8.44
19755.42	20565.62	68532.27	8537.31	810.30	30.19	10.54	8.03
20565.62	21375.81	52894.89	8605.20	811.44	23.30	10.62	6.15
21375.81	22186.00 RB	27389.17	5993.75	810.79	12.07	7.40	4.57

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 193.54

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19062.5	916	19075	913.6	19092	908.7	19116.6	899.1	19138.9	898.2
19154.2	896.9	19176.7	889.8	19391.5	890.1	19490.6	890.6	19520.1	894.4
19567.9	895.9	19655	894.7	19756.2	895.5	19891.7	894.4	19996.9	892.3
20070.1	894.7	20083.8	894.5	20119.9	892.5	20385.8	891.4	20494.3	891.3
20580.5	891.3	20595.2	891.2	20727.2	891	21129	890.6	21160.9	897
21275.9	895.1	21385.3	894.8	21440.1	895.6	21480.5	893	21534.6	895
21582.7	895.8	21655.8	894.4	21711.5	894.2	21753.3	891.9	21809.6	891.1
21860.2	897.8	21990.1	897.9	22005.9	897.4	22031.9	899.2	22057	898.9
22149.8	896.5	22205.2	896	22211.4	896.8	22244.2	897.8	22292.2	902.7
22312	901.5	22374	902.2	22389.3	903.9	22437.3	904	22484.9	905.1
22545.8	904.6	22659.7	908.7	22682.8	909	22736	910.8	22820.5	911.2
22882.5	910.2	22990.3	910.2	23135.1	909.7	23203.1	908.4	23225	912.1
23247.3	913.7	23263.4	902.6	23279.6	904	23290.5	896.9	23324.1	899.5
23334	902.7	23344.5	901.7	23350.5	905.2	23355.1	907	23367.8	906.8
23386.8	904.5	23481.7	906.2	23525.8	906.5	23635.2	908.1	23729.4	908.1
23842.2	908.2	24017.5	907.5	24059.7	907.4	24192.8	907.7	24357.9	908.3
24459.9	908.3	24570.9	907.6	24611.1	908.1	24682.3	906.4	24691.7	907.1
24702.9	904.8	24735	906.7	24866	906	24969.9	906.4	25038.1	907.3
25240.9	907.4	25300.4	907.4	25475.5	907.4	25548.8	907.1	25637.9	906.7
25694	908.3								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
19062.5	.031	19116.6	.031	21160.9	.043	22292.2	.043	23225	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19116.6	22292.2	470	473.96	570	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22437.3	25694	913

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	902.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.90	Wt. n-Val.	0.031	0.033	0.043
E.G. Elev (ft)	903.82	Reach Len. (ft)	470.00	473.96	570.00
Crit W.S. (ft)	898.85	Flow Area (sq ft)	18.78	29861.44	85.66
E.G. Slope (ft/ft)	0.001382	Area (sq ft)	18.78	29861.44	300.19
Q Total (cfs)	227000.00	Flow (cfs)	49.21	226843.08	107.72
Top Width (ft)	3343.41	Top Width (ft)	9.81	3175.60	158.00

Vel Total (ft/s)	7.58	Avg. Vel. (ft/s)	2.62	7.60	1.26
Max Chl Dpth (ft)	13.13	Hydr. Depth (ft)	1.91	9.40	0.97
Conv. Total (cfs)	6106622.5	Conv. (cfs)	1323.8	6102401.0	2897.9
Length Wtd. (ft)	473.98	Wetted Per. (ft)	10.53	3178.90	88.44
Min Ch El (ft)	889.80	Shear (lb/sq ft)	0.15	0.81	0.08
Alpha	1.00	Stream Power (lb/ft s)	0.40	6.16	0.11
Frctn Loss (ft)	0.71	Cum Volume (acre-ft)	5691.79	63330.49	23695.06
C & E Loss (ft)	0.01	Cum SA (acres)	1509.21	6694.32	6814.02

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19105.78	19109.39	1.22	1.32	2.79	0.00	0.51	0.93
19109.39	19112.99	12.92	6.19	3.87	0.01	1.72	2.09
19112.99	19116.60	35.07	11.27	3.87	0.02	3.12	3.11
19116.60 LB	19910.50	63609.11	7808.65	795.36	28.02	9.84	8.15
19910.50	20704.40	75198.25	8627.71	794.01	33.13	10.87	8.72
20704.40	21498.30	63362.67	8042.91	794.65	27.91	10.13	7.88
21498.30	22292.20 RB	24673.04	5382.17	794.88	10.87	6.78	4.58
22292.20	22518.99	107.72	85.66	88.44	0.05	0.97	1.26

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 193.45

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18539.7	913	18644.2	910.7	18690.3	910.5	18695.7	911.7	18720.2	904.5
18739.3	907.9	18751	908.6	18776.8	906	18852.2	904.2	18915.8	904
18958	907.4	18978.9	902.295	19027.6	890.4	19091.1	891.9	19119.1	889.8
19150.5	889.9	19569.9	891.2	19635.6	889.4	19808.7	893.8	19916	892.8
19970.1	894.8	20118.6	894.4	20160.4	894.7	20199.2	891.8	20376.8	890.7
20441.4	890.3	20472.3	892	20525.3	891	20577.8	893.6	20659.6	892.8
20727.3	890.4	20977.8	889.1	21072.8	888.9	21112.3	892.1	21222.3	895.7
21280.5	896.4	21383.7	894.7	21459	894.7	21533	897.4	21703.5	895.8
21770.8	896.7	21809.8	893.6	21903.7	893.3	21951.5	898.7	22031.2	895.8
22122.9	896.3	22153.4	891.6	22210.7	897.2	22222	899.2	22312.93	902.2941
22366	904.1	22468.4	900.3	22509.2	904.3	22553.4	901.6	22689.7	904.1
22785.6	908.3	22838	911.4	22895.2	909.5	22959	909.7	22992.9	909.1
23026.5	910.1	23071.9	915.8	23108.1	906	23128.7	906.8	23153	897.5
23206.5	898	23226.5	903.9	23232.6	906.5	23250.7	906.4	23265	911.8
23274.1	912.4	23303.3	911.5	23314.8	910	23332.6	911.3	23351.4	910.8
23366.1	906.6	23414.8	904.8	23519.7	905.7	23722	906.9	23882.3	906.3
24036.3	906.5	24290.6	906.3	24453.8	906.6	24657.3	906.4	24684.4	905.6
24708.8	907.1	24721.9	905.1	24837.2	906.2	25020.7	906.9	25252.9	906.6
25511.5	907.3	25523.4	907.3	25670.3	907.3	25756.7	907.2	25903.5	905.2
25937.3	906	25954.3	908.1	25966	908.4				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18539.7	.025	18958	.031	20472.3	.043	22366	.043	23071.9	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18978.92	22312.93	515	497.87	540	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22366	25966	910

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	902.25	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.86	Wt. n-Val.		0.035	
E.G. Elev (ft)	903.10	Reach Len. (ft)	515.00	497.87	540.00
Crit W.S. (ft)	898.16	Flow Area (sq ft)		30532.67	
E.G. Slope (ft/ft)	0.001619	Area (sq ft)		30532.67	385.78
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	3530.89	Top Width (ft)		3332.44	198.45
Vel Total (ft/s)	7.43	Avg. Vel. (ft/s)		7.43	

Max Chl Dpth (ft)	13.35	Hydr. Depth (ft)		9.16		
Conv. Total (cfs)	5640745.0	Conv. (cfs)		5640745.0		
Length Wtd. (ft)	498.07	Wetted Per. (ft)		3335.98		
Min Ch El (ft)	888.90	Shear (lb/sq ft)		0.93		
Alpha	1.00	Stream Power (lb/ft s)		6.88		
Frctn Loss (ft)	0.68	Cum Volume (acre-ft)	5691.69	63001.93	23690.58	
C & E Loss (ft)	0.02	Cum SA (acres)	1509.16	6658.92	6811.69	

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18978.90 LB	19812.41	87583.03	9265.07	834.92	38.58	11.12	9.45
19812.41	20645.91	63791.77	7950.01	833.79	28.10	9.54	8.02
20645.91	21479.42	53531.14	8386.62	833.77	23.58	10.06	6.38
21479.42	22312.93 RB	22094.07	4930.97	833.50	9.73	5.93	4.48

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 193.36

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17978.2	912.1	18056	910.3	18091.7	908.3	18102.4	904.7	18116.2	909.1
18150.8	910.7	18164.9	906.8	18339	904.9	18463.5	904.3	18604.9	904.6
18759.3	902.1	18798.7	904.41	18810.97	901.6	18836.3	896	18882.4	890.6
18977	889.8	19017	893	19051.9	892.6	19064.1	891.3	19269	890.7
19423.2	890.3	19574.9	889.8	19773.7	891.7	19876.5	894	20028.6	894.4
20074.1	894.5	20233.7	891	20386.5	890.4	20526.7	893.3	20590.6	893.5
20745	889.5	20864.8	888.9	21113.4	888.7	21169.2	890.7	21206.8	896.7
21345.9	895.7	21496.5	893.7	21651.4	891	21792.6	896.5	21845.7	897.6
21884.4	894.9	22022.5	897.8	22047.9	896.7	22116.5	897.5	22171	895.5
22237.3	899.8	22351.3	900.2	22374.3	899.1	22406.5	899.6	22432.1	891.2
22450.7	893.3	22475.1	902	22506.2	900	22628.6	899.7	22666.9	902.8
22718.2	904.8	22737.2	907	22787.4	908.5	22803	907.2	22809.6	904.9
22831.8	907.6	22848.1	897.8	22876.7	898	22892.6	903.9	22907.8	904.2
22938	910.1	23026.9	906.8	23122.7	908.1	23145.1	903.5	23201.7	904.3
23391.1	905.1	23428.7	905.4	23565.2	905.5	23749.9	905.9	23879.9	906.3
23956.8	906.1	24176	906	24344.2	906.7	24484.8	906.7	24673.8	906.3
24725.2	905.4	24737.1	905.8	24750.5	904.3	24768.8	906	24954.4	906.2
25082.2	906.1	25236.8	906.6	25281.7	906.5	25473	906.5	25487.1	906.5
25623.2	906.4	25640.5	906.3	25804.1	905	25841.9	904.3	25872.7	906.7
25882.5	904.9	25914	908.3						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17978.2	.025	18798.7	.032	19064.1	.029	21113.4	.043	22351.3	.043
22938	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18810.97	22351.3	660	606.52	575	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22803	25914	910

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	901.61	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.79	Wt. n-Val.		0.031	0.043
E.G. Elev (ft)	902.41	Reach Len. (ft)	660.00	606.52	575.00
Crit W.S. (ft)	897.56	Flow Area (sq ft)		31362.75	807.25
E.G. Slope (ft/ft)	0.001162	Area (sq ft)		31362.75	943.19
Q Total (cfs)	227000.00	Flow (cfs)		224873.69	2126.31
Top Width (ft)	3878.70	Top Width (ft)		3540.13	338.57
Vel Total (ft/s)	7.06	Avg. Vel. (ft/s)		7.17	2.63
Max Chl Dpth (ft)	12.91	Hydr. Depth (ft)		8.86	2.75
Conv. Total (cfs)	6660118.0	Conv. (cfs)		6597732.5	62385.4
Length Wtd. (ft)	606.31	Wetted Per. (ft)		3542.43	296.94
Min Ch El (ft)	888.70	Shear (lb/sq ft)		0.64	0.20

Alpha	1.02	Stream Power (lb/ft s)		4.60	0.52
Frctn Loss (ft)	0.83	Cum Volume (acre-ft)	5691.69	62648.21	23682.34
C & E Loss (ft)	0.01	Cum SA (acres)	1509.16	6619.64	6808.36

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18810.97 LB	19696.05	76902.04	9372.26	886.03	33.88	10.59	8.21
19696.05	20581.14	60890.34	8052.99	885.18	26.82	9.10	7.56
20581.14	21466.22	67891.90	8835.02	885.66	29.91	9.98	7.68
21466.22	22351.30 RB	19189.44	5102.48	885.56	8.45	5.76	3.76
22351.30	22588.81	1957.83	710.36	233.42	0.86	3.08	2.76
22588.81	22826.33	168.48	96.88	63.52	0.07	1.53	1.74

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 193.24

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17704.2	910.3	17726.8	906.4	17739.7	908.5	17763.2	909.1	17774.5	905.2
17851.5	903.5	18043.3	902.8	18237.2	902.1	18450.3	901.6	18597.3	901.3
18670.2	901.6	18700.6	903.2	18708.77	900.7	7766 18733.3	893.5	18776.7	891.9
18848.7	893.3	18890	889.6	18923.4	892.9	18957.3	888	18995.4	890.2
19142.3	889.6	19184.9	889.7	19212.4	893.4	19278.5	889.2	19437	889.4
19621.1	889.9	19667.3	891.4	19713.4	890.3	19859.9	892.8	19960.7	890.4
20040.3	895.3	20162.1	893.1	20224.3	890.6	20263.5	893	20422.8	891.3
20591.5	888.6	20701.9	891	20740.6	888.9	20918.3	889	21092.7	889
21236.3	891.1	21264.4	893.3	21382.4	891.6	21450.1	895.7	21529.1	895.4
21575.5	898	21743.7	898.4	21911.2	897	22070.5	896.7	22225.1	895.5
22313.6	897	22469.9	900.1	22626.8	898.1	22817.7	900.5	22893.6	908.3
23044	908.7	23077.4	908.2	23110	913	23114.9	910.7	23117.8	905.7
23135.3	907	23150.1	898.2	23180.4	898.9	23196.7	905	23226	906.5
23237.8	905.3	23240	903.4	23308.8	904.7	23473.5	905.4	23696.3	905.9
23718.8	905.9	23924.8	905.5	23974.7	905.5	24127.1	905.4	24322.8	905.6
24472.5	905.6	24486.8	904	24510.6	904.1	24515.9	902.6	24526.4	904.9
24700.2	904.6	24824.9	904.8	25068.2	904.7	25167.1	904.7	25319.8	904.6
25347.5	904.8	25538.3	905.6	25701.1	905.9	25777.1	904.6	25924	908.4
25976.1	906.1	26008.3	907.5	26054.7	905.7	26060.9	909.1	26064.6	908.7
26066.9	906.4	26068.5	909.3						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17704.2	.025	18700.6	.032	19278.5	.029	20591.5	.043	22469.9	.043
23110	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18708.77	22469.9	410	430.76	480	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22920	26068.5	910

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	900.72	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.85	Wt. n-Val.		0.033	0.043
E.G. Elev (ft)	901.57	Reach Len. (ft)	410.00	430.76	480.00
Crit W.S. (ft)	897.03	Flow Area (sq ft)		30570.74	526.90
E.G. Slope (ft/ft)	0.001645	Area (sq ft)		30570.74	602.57
Q Total (cfs)	227000.00	Flow (cfs)		226030.19	969.82
Top Width (ft)	4150.35	Top Width (ft)		3760.95	389.40
Vel Total (ft/s)	7.30	Avg. Vel. (ft/s)		7.39	1.84
Max Chl Dpth (ft)	12.72	Hydr. Depth (ft)		8.13	1.51
Conv. Total (cfs)	5597678.5	Conv. (cfs)		5573763.5	23915.2
Length Wtd. (ft)	430.95	Wetted Per. (ft)		3764.03	350.02
Min Ch El (ft)	888.00	Shear (lb/sq ft)		0.83	0.15
Alpha	1.02	Stream Power (lb/ft s)		6.17	0.28
Frctn Loss (ft)	0.78	Cum Volume (acre-ft)	5691.69	62217.03	23672.13

C & E Loss (ft)	0.01	Cum SA (acres)	1509.16	6568.81	6803.56

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18708.77 LB	19649.05	85555.40	9588.04	942.34	37.69	10.20	8.92
19649.05	20589.34	71779.25	8374.82	940.68	31.62	8.91	8.57
20589.34	21529.62	59041.11	9425.11	940.60	26.01	10.02	6.26
21529.62	22469.90 RB	9654.42	3182.76	940.41	4.25	3.38	3.03
22469.90	22709.81	848.99	429.31	239.93	0.37	1.79	1.98
22709.81	22949.71	120.83	97.59	110.09	0.05	0.89	1.24

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 193.16

INPUT
Description: Left Channel Bank Station Interpolated

FLOW FULLY EXPANDED
(END 4:1 TRANSITION)

Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17457.1	914.9	17583.5	907.6	17603.2	908	17621	905.4	17642.4	909.3
17661.4	909.1	17682.6	904.6	17932.6	900.6	18081.2	902	18263.3	901.3
18460.8	900.3	18633.3	902.5	18643.03	899.8864	18666.8	893.5	18810.5	892.7
18956.4	889.2	18998.3	893.6	19030	890.6	19198.3	889.9	19198.5	891.8
19232.6	890.5	19241.4	892.3	19268.9	889.5	19408.1	890	19639.4	890.3
19706.4	893.5	19849.7	890.7	20006.4	889.5	20010.8	892.4	20018.3	893.9
20140.7	890.4	20173.8	891.4	20224.2	889	20321.6	889.8	20348.1	887.5
20451.6	892.2	20513.9	889.6	20840.5	887.6	20880.4	897.1	20971.5	884.8
21022.4	885	21112.1	889.7	21124.5	885.1	21178.1	892.1	21188.2	895.9
21210	892.8	21256.5	891.2	21330.7	897.8	21510.9	897.3	21747.5	897.6
21946.2	895	22168.9	893.5	22237.9	895	22304.5	899	22390.2	896.3
22543.9	900.1	22732.5	897.3	22804.4	898	22860.5	904	22981.3	906.5
23134.3	905.1	23152	907	23165	911.1	23179.8	906	23193.5	906.6
23206.5	898.1	23240.5	900.3	23251.7	905.1	23280.3	906.2	23292.4	903
23304.6	904.8	23354.8	904.3	23539.7	904.7	23543.4	904.7	23803.6	905.6
23839.5	905.5	24030.8	905.3	24279.1	905.4	24465.8	905.3	24552.6	904.5
24857.8	905.4	25108	904.8	25128.2	904.8	25349.1	904.8	25587.8	905.3
25784.1	905.3	25865.5	904.8	25953.1	906.1	25973.1	902.3	26013.7	904.9
26051.7	904.4	26070.6	908.2	26088.1	905.7	26100.3	910	26111.6	910.6
26120.1	905.6	26241	910.7						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17457.1	.025	18633.3	.032	19030	.029	20513.9	.043	22543.9	.043
23165	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18643.03	22543.9	440	478.38	605	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17457.1	18263.3	913	22981.3	26241	913

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	899.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.94	Wt. n-Val.		0.033	0.043
E.G. Elev (ft)	900.78	Reach Len. (ft)	440.00	478.38	605.00
Crit W.S. (ft)	896.53	Flow Area (sq ft)		28980.50	389.23
E.G. Slope (ft/ft)	0.002011	Area (sq ft)		28980.50	414.79
Q Total (cfs)	227000.00	Flow (cfs)		226210.42	789.58
Top Width (ft)	4179.21	Top Width (ft)		3889.96	289.26

Vel Total (ft/s)	7.73	Avg. Vel. (ft/s)		7.81	2.03
Max Chl Dpth (ft)	15.03	Hydr. Depth (ft)		7.45	1.50
Conv. Total (cfs)	5061505.5	Conv. (cfs)		5043900.0	17605.5
Length Wtd. (ft)	478.95	Wetted Per. (ft)		3899.61	259.92
Min Ch El (ft)	884.80	Shear (lb/sq ft)		0.93	0.19
Alpha	1.02	Stream Power (lb/ft s)		7.28	0.38
Frctn Loss (ft)	0.62	Cum Volume (acre-ft)	5691.69	61922.58	23666.53
C & E Loss (ft)	0.10	Cum SA (acres)	1509.16	6530.98	6799.82

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18643.03 LB	19618.25	80368.03	8610.33	978.34	35.40	8.83	9.33
19618.25	20593.46	84338.11	8915.21	976.73	37.15	9.14	9.46
20593.46	21568.68	49733.67	8074.85	979.80	21.91	8.28	6.16
21568.68	22543.90 RB	11770.62	3380.12	964.74	5.19	3.50	3.48
22543.90	22790.37	709.05	346.80	228.63	0.31	1.52	2.04
22790.37	23036.85	80.54	42.43	31.28	0.04	1.36	1.90

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 193.07

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17608	911.3	17723.7	908.6	17798.2	904.9	17944.5	904.3	18133.7	900.4
18203.9	901	18212.8	900.1	18228	901.2	18350.5	900.1	18565.9	899.1
18646.8	900.8	18675.3	893.6	18818.2	890.5	18862.4	891	18893.6	887.7
18990.2	887.6	19041.3	891.2	19076.2	887.2	19203	887.6	19375.9	888
19669.6	888.3	19800.7	888.8	19858.1	888.5	19977.8	887.7	20028.8	889.7
20071	885.4	20200.5	887.8	20320.3	886.9	20401.5	885.9	20418.9	883.9
20496.9	883.9	20683.7	884.1	20843.6	884.6	20942.6	886.4	20977.2	884
21054.4	888	21190.4	891.8	21246.6	891.9	21314.7	896.4	21475.8	896.5
21596.3	897	21665.9	894.7	21714.7	890.6	21763.7	897	21882.2	894.9
21915.4	894	21998.8	896.4	22028.7	895.3	22056.7	892.1	22090.1	894.3
22119.3	891.7	22166.7	894.7	22349.9	895.5	22424	894.8	22544.8	898.7
22560.4	899.9	22651	897.8	22815.7	895.6	22902.2	898.5	22954.3	904.6
23082.5	904.1	23152.8	904.5	23167	906.4	23178.9	903.9	23195.7	905.4
23209.5	897.9	23241.7	897.9	23257.4	904.5	23274	904.6	23318.6	902.1
23350.6	903	23361	901.1	23385.9	903.1	23549.3	903.8	23598.3	902.7
23715.6	902.1	23988.8	900.4	24095.8	900	24376.5	900.7	24429.4	900.7
24558	900.8	24673.8	900.6	24707.1	901.9	24749.8	900.7	24826.7	901
24993.1	902.1	25152.4	902	25436	901.4	25523.5	901.4	25668.6	901.2
25785.8	901.3	25893	904.9	25960.4	905.2	25985.6	903	26056.4	903.4
26110	908.5								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17608	.025	18646.8	.032	19800.7	.029	20683.7	.043	22560.4	.043
23274	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18646.8	22560.4	495	530.32	605	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22954.3	26110	910

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	899.45	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.60	Wt. n-Val.	0.025	0.033	0.043
E.G. Elev (ft)	900.06	Reach Len. (ft)	495.00	530.32	605.00

Crit W.S. (ft)	893.80	Flow Area (sq ft)	16.31	36113.03	723.82
E.G. Slope (ft/ft)	0.000903	Area (sq ft)	16.31	36113.03	778.88
Q Total (cfs)	227000.00	Flow (cfs)	9.15	225724.13	1266.73
Top Width (ft)	4364.42	Top Width (ft)	92.62	3902.44	369.36
Vel Total (ft/s)	6.16	Avg. Vel. (ft/s)	0.56	6.25	1.75
Max Chl Dpth (ft)	15.55	Hydr. Depth (ft)	0.18	9.25	2.19
Conv. Total (cfs)	7555337.5	Conv. (cfs)	304.5	7512872.0	42161.2
Length Wtd. (ft)	531.69	Wetted Per. (ft)	92.62	3905.82	330.75
Min Ch El (ft)	883.90	Shear (lb/sq ft)	0.01	0.52	0.12
Alpha	1.02	Stream Power (lb/ft s)	0.01	3.26	0.22
Frctn Loss (ft)	0.45	Cum Volume (acre-ft)	5691.61	61565.15	23658.24
C & E Loss (ft)	0.02	Cum SA (acres)	1508.69	6488.19	6795.24

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18439.04	18508.29	0.15	0.77	18.25	0.00	0.04	0.20
18508.29	18577.55	8.93	15.26	69.26	0.00	0.22	0.59
18577.55	18646.80	0.06	0.27	5.11	0.00	0.05	0.23
18646.80 LB	19625.20	67111.59	10203.09	974.36	29.56	10.49	6.58
19625.20	20603.60	98947.57	12248.58	978.81	43.59	12.52	8.08
20603.60	21582.00	48106.29	9422.02	978.80	21.19	9.63	5.11
21582.00	22560.40 RB	11558.68	4239.34	973.85	5.09	4.36	2.73
22560.40	22797.04	734.55	442.61	217.35	0.32	2.04	1.66
22797.04	23033.68	532.19	281.21	113.40	0.23	2.48	1.89

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 192.97

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18073.4	919	18101.2	898.9	18137.8	901.8	18157.4	900	18241.6	899.2
18432.6	898.8	18443.5	898.8	18654.7	899	18764.6	897.8	18894.6	898.3
18966.4	898.3	18992.7	891.9	19094.3	887.6	19149.9	887.2	19406	887.2
19651.2	887.1	19773.5	887.1	19899.8	887.5	20007.4	886.7	20100.2	884.8
20141.7	886.7	20168.1	885.2	20494.2	884.4	20652.7	884.1	20733.7	883
20764.3	886.6	20845.7	889	21018.2	885.2	21068.5	888.9	21157.8	888.5
21202.7	893.5	21336.1	891.1	21452.1	891.9	21496.9	893.1	21504.1	891.3
21531.4	893.1	21599.9	888.8	21635.9	893.2	21663.6	891.9	21750.3	893.4
21766.3	892.6	21800.8	894.1	21908.9	890.2	21924.5	888.7	22001.4	891.4
22042	890.4	22075.2	893.8	22099.8	890.3	22177.2	893.8	22254.2	894.8
22295.7	892.8	22354	894.1	22385	891.2	22501.9	890.9	22539.5	898.9
22586.8	894.5	22688.4	896.4	22844.3	895.9	22916.3	895.8	23040.6	896.6
23098.7	896.5	23204.9	896.7	23280.2	896.4	23297.5	901.3	23300.2	899.5
23313.6	900.7	23326	895.9	23357.7	896.7	23373.6	902.2	23506.7	902.4
23517.9	900.3	23563.7	901.4	23730.2	901.2	23816.2	900.7	24044.7	901.2
24139.7	901.4	24410.7	901.2	24429.6	901.2	24602	901.2	24673.7	901.1
24779.9	899.8	24815.7	902	24827.6	900.2	24855.2	901.9	24943.6	900.8
25131.2	901.6	25172	901.7	25325	901.5	25507	901.5	25700.6	902
25846	902.1	25958.1	903.8	25976	904	26094.8	908.5	26154.3	907.1
26204	910.1								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18073.4	.025	18966.4	.029	20494.2	.043	22539.5	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18966.4	22539.5	495	491.43	525	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18073.4	18900	915	23297.5	26204	915

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	899.04	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.54	Wt. n-Val.	0.025	0.034	0.025
E.G. Elev (ft)	899.58	Reach Len. (ft)	495.00	491.43	525.00

Crit W.S. (ft)	893.58	Flow Area (sq ft)	49.23	36774.82	2113.34
E.G. Slope (ft/ft)	0.000806	Area (sq ft)	299.19	36774.82	2220.91
Q Total (cfs)	227000.00	Flow (cfs)	68.06	219821.30	7110.64
Top Width (ft)	5020.78	Top Width (ft)	651.07	3573.10	796.61
Vel Total (ft/s)	5.83	Avg. Vel. (ft/s)	1.38	5.98	3.36
Max Chl Dpth (ft)	16.04	Hydr. Depth (ft)	0.74	10.29	2.82
Conv. Total (cfs)	7995438.5	Conv. (cfs)	2397.2	7742589.0	250452.3
Length Wtd. (ft)	492.66	Wetted Per. (ft)	66.40	3577.35	750.62
Min Ch El (ft)	883.00	Shear (lb/sq ft)	0.04	0.52	0.14
Alpha	1.03	Stream Power (lb/ft s)	0.05	3.09	0.48
Frctn Loss (ft)	0.42	Cum Volume (acre-ft)	5689.81	61121.47	23637.41
C & E Loss (ft)	0.01	Cum SA (acres)	1504.46	6442.69	6787.15

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18847.33	18906.87	7.04	5.09	6.87	0.00	0.74	1.38
18906.87	18966.40	61.02	44.14	59.53	0.03	0.74	1.38
18966.40 LB	19859.68	72857.88	10121.06	894.14	32.10	11.33	7.20
19859.68	20752.95	91565.98	12411.56	893.52	40.34	13.89	7.38
20752.95	21646.22	34736.16	8221.25	894.58	15.30	9.20	4.23
21646.22	22539.50 RB	20661.28	6020.96	895.11	9.10	6.74	3.43
22539.50	22783.80	2609.23	742.23	244.52	1.15	3.04	3.52
22783.80	23028.10	2575.22	736.14	244.30	1.13	3.01	3.50
23028.10	23272.40	1842.57	602.18	244.30	0.81	2.46	3.06
23272.40	23516.70	83.62	32.80	17.49	0.04	1.92	2.55

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 192.88

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17937.3	910.1	17968.1	900.1	17970.3	897.4	17974.2	896.4	17984.2	899.4
18116.2	897.1	18220.6	898.8	18387.7	898.3	18605.5	898.6	18644.3	898.6
18807.6	898.5	18961.8	898.2	19105.5	897.8	19162.6	895.9	19219.4	898
19266.9	886.8	19578.7	886.1	19816	885.7	19859.6	890.1	19893.7	888.3
19925.8	889.9	20005.4	887.5	20022.9	888.6	20069.4	885.5	20200.3	884
20275.5	883.9	20578.2	883.7	20735.8	883.8	20862.7	887.9	21012.5	887.5
21092.2	887.8	21132.1	891.8	21174.2	892.8	21185.6	889.4	21228.8	891.7
21370.9	891.3	21443.9	890.7	21464.4	888	21502.4	888.1	21559	892.9
21620.9	890.2	21703.2	891.9	21760.1	888.2	21817.1	888.4	21867.2	891.4
21950.7	890.6	22005.7	892.2	22116.9	890.4	22172.3	892.1	22256.5	892.5
22307.3	893.9	22314.7	892.4	22360.4	893.6	22419.6	890.4	22463.6	891.7
22500.6	899	22533.5	897.2	22545	894.4	22573.2	896.3	22601	894.9
22762.7	895.6	22785	895.5	22972.2	896.7	23120.4	895.6	23155.5	894.8
23169	897.4	23302.9	896	23534.9	896.4	23646.2	896.1	23844.4	899.2
24013.7	900.3	24029.7	900.5	24165.5	900.6	24296	900.7	24432.7	900.7
24600.8	900.7	24665.9	900.9	24796.4	901	24958.4	900.1	24984.1	901.7
24994.5	900.5	25025.5	902.7	25055.4	900	25061.3	900.5	25287.3	901.1
25443.4	903	25529.1	902.3	25712.1	902.4	25907.1	902	26035.5	902.8
26050.2	902.7	26063.2	907.2	26109.1	907.2	26136.7	903.5	26224.3	905.1
26258	908.7								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17937.3	.032	18220.6	.025	19219.4	.029	20578.2	.043	22500.6	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19219.4	22500.6	415	496.28	760	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
17937.3	18644.3	908

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	898.53	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.62	Wt. n-Val.	0.025	0.034	0.025

E.G. Elev (ft)	899.15	Reach Len. (ft)	415.00	496.28	760.00
Crit W.S. (ft)	893.45	Flow Area (sq ft)	290.62	33753.04	3001.77
E.G. Slope (ft/ft)	0.000924	Area (sq ft)	454.84	33753.04	3001.77
Q Total (cfs)	227000.00	Flow (cfs)	385.57	217105.58	9508.87
Top Width (ft)	5459.53	Top Width (ft)	888.28	3278.82	1292.43
Vel Total (ft/s)	6.13	Avg. Vel. (ft/s)	1.33	6.43	3.17
Max Chl Dpth (ft)	14.83	Hydr. Depth (ft)	0.63	10.29	2.32
Conv. Total (cfs)	7466886.0	Conv. (cfs)	12682.8	7141421.0	312782.5
Length Wtd. (ft)	514.47	Wetted Per. (ft)	461.92	3283.15	1293.19
Min Ch El (ft)	883.70	Shear (lb/sq ft)	0.04	0.59	0.13
Alpha	1.07	Stream Power (lb/ft s)	0.05	3.82	0.42
Frctn Loss (ft)	0.41	Cum Volume (acre-ft)	5685.53	60723.63	23605.94
C & E Loss (ft)	0.01	Cum SA (acres)	1495.72	6404.04	6774.56

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18706.56	18792.03	0.02	0.36	34.48	0.00	0.01	0.06
18792.03	18877.51	1.72	7.30	85.47	0.00	0.09	0.24
18877.51	18962.98	10.27	21.35	85.47	0.00	0.25	0.48
18962.98	19048.45	27.69	38.71	85.47	0.01	0.45	0.72
19048.45	19133.93	76.75	71.37	85.49	0.03	0.83	1.08
19133.93	19219.40	269.12	151.53	85.53	0.12	1.77	1.78
19219.40 LB	20039.70	71531.73	9281.76	822.02	31.51	11.32	7.71
20039.70	20860.00	93016.45	11626.70	820.44	40.98	14.17	8.00
20860.00	21680.30	30436.09	7038.87	821.53	13.41	8.58	4.32
21680.30	22500.60 RB	22121.32	5805.71	819.16	9.75	7.10	3.81
22500.60	22751.09	2587.35	714.92	242.39	1.14	2.96	3.62
22751.09	23001.59	1957.71	612.79	250.50	0.86	2.45	3.19
23001.59	23252.08	1762.23	575.55	250.76	0.78	2.30	3.06
23252.08	23502.57	1817.32	586.03	250.50	0.80	2.34	3.10
23502.57	23753.07	1367.24	494.06	250.51	0.60	1.97	2.77
23753.07	24003.56	16.99	18.42	48.54	0.01	0.38	0.92

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 192.78

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17836.7	918.6	17884.9	905.9	17900.3	900.2	17925.8	895.3	17940.1	898.2
17955.7	898.8	18000.8	897.2	18113.6	896.2	18135.4	898.2	18143.8	900.6
18163.3	896.5	18182.7	900.5	18441.9	897.9	18719.1	897.3	18904.8	897.2
19141.2	897	19281.4	896.9	19307.3	899.1	19327	897.4	19363.5	891.7
19385.2	885.3	19721.9	884.1	20054.5	883.4	20078.8	886.6	20107	883.9
20147.2	886	20180	884.4	20206.9	884.4	20422.2	883.8	20507.1	884.8
20555.2	883.6	20740.6	884.2	20820.7	883.3	20890.8	887.8	21085.7	890.2
21191.4	890.7	21328.8	889	21474.3	890.6	21543.8	886.8	21603.8	888.3
21662.3	892	21715.4	890.9	21808.9	890.7	21836.6	889.5	21873.4	889.8
21936.6	887.6	21967.8	889.6	22083.2	887.5	22150.3	897.1	22176.8	896.2
22186.9	893.5	22420.8	894.3	22634.2	894.4	22856.8	895.3	22950.1	895.6
22956.8	896.9	22976.7	894.9	23013.3	894.7	23210.9	894.9	23220.8	894.9
23402.1	894.3	23607.8	894	23677.1	894.4	23721.1	896.5	23827.6	895.6
24068.7	896.3	24181.1	897.3	24277.3	896.3	24364.2	897.9	24380.3	897.4
24396.1	901.4	24421.6	901.7	24442	896.1	24495.8	897.7	24520.5	900.6
24542.9	901	24555.2	899.4	24585.2	900.9	24701.5	900.8	24884.9	900.7
25115.7	901.2	25152	901.2	25439.1	901.7	25629.5	902.4	25706.8	902.7
25940.3	903.5	26112.2	904.8	26123.8	907.1	26165	909.3	26166.4	908.4
26189.1	908.5	26214.4	905.2	26249.4	907.3	26299.7	906.7	26318.1	909.6
26344	910.2								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17836.7	.032	18182.7	.025	19307.3	.029	20890.8	.043	22150.3	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19307.3	22150.3	410	473.4	635	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17836.7	19000	915	24396.1	26344	915

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	898.14	Element			
Vel Head (ft)	0.59	Wt. n-Val.	0.025	0.032	0.025
E.G. Elev (ft)	898.73	Reach Len. (ft)	410.00	473.40	635.00
Crit W.S. (ft)	892.60	Flow Area (sq ft)	327.47	31871.47	6704.33
E.G. Slope (ft/ft)	0.000708	Area (sq ft)	985.27	31871.47	6779.24
Q Total (cfs)	227000.00	Flow (cfs)	554.03	204381.02	22064.94
Top Width (ft)	6212.14	Top Width (ft)	1082.45	2831.84	2297.85
Vel Total (ft/s)	5.83	Avg. Vel. (ft/s)	1.69	6.41	3.29
Max Chl Dpth (ft)	14.84	Hydr. Depth (ft)	1.11	11.25	3.00
Conv. Total (cfs)	8530118.0	Conv. (cfs)	20819.3	7680150.5	829147.9
Length Wtd. (ft)	493.85	Wetted Per. (ft)	296.01	2834.96	2233.69
Min Ch El (ft)	883.30	Shear (lb/sq ft)	0.05	0.50	0.13
Alpha	1.12	Stream Power (lb/ft s)	0.08	3.19	0.44
Frctn Loss (ft)	0.34	Cum Volume (acre-ft)	5678.67	60349.80	23520.61
C & E Loss (ft)	0.00	Cum SA (acres)	1486.33	6369.23	6743.24

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18915.14	19013.18	21.63	13.48	13.18	0.01	1.02	1.60
19013.18	19111.22	173.45	104.90	98.04	0.08	1.07	1.65
19111.22	19209.26	195.55	112.72	98.04	0.09	1.15	1.73
19209.26	19307.30	163.39	96.37	86.75	0.07	1.11	1.70
19307.30 LB	20018.05	68716.25	9116.65	700.99	30.27	13.03	7.54
20018.05	20728.80	77874.31	9884.38	711.21	34.31	13.91	7.88
20728.80	21439.55	34981.72	6875.70	710.93	15.41	9.67	5.09
21439.55	22150.30 RB	22808.76	5994.74	711.84	10.05	8.43	3.80
22150.30	22429.88	4111.53	1098.40	279.95	1.81	3.93	3.74
22429.88	22709.46	3775.42	1043.06	279.58	1.66	3.73	3.62
22709.46	22989.04	2475.92	810.05	279.81	1.09	2.90	3.06
22989.04	23268.62	3127.97	931.72	279.58	1.38	3.33	3.36
23268.62	23548.20	3870.71	1058.77	279.58	1.71	3.79	3.66
23548.20	23827.78	2724.49	857.70	279.64	1.20	3.07	3.18
23827.78	24107.36	1465.32	591.14	279.58	0.65	2.11	2.48
24107.36	24386.94	513.57	313.49	275.97	0.23	1.14	1.64

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 192.69

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17820	920.3	17862.5	900.3	17950.3	896.7	18131	896.6	18283.5	896.4
18322.5	898.8	18344.7	897.6	18360.7	899.4	18400.7	897.1	18494.5	897.5
18678.5	897.8	18679.1	897.8	18883.9	897.3	18933.3	898	19143.9	897.3
19277	896.5	19287.9	897.2	19322.8	897.2	19369.7	888.2	19412.6	889
19459.7	888.2	19485.4	885.3	19683	884.8	19820.8	884.5	20209	883.7
20430.5	884.1	20594.3	882.7	20629.1	883.9	20678.1	883	20812.5	883.2
20839.7	883.8	20842.4	884.3	20854.6	884.1	20921.7	886.9	20958.7	886.7
21029.5	889.7	21077.7	888.9	21115.4	889.5	21203.9	889	21340.3	886.1
21416.8	890.5	21486	888.4	21550.1	889.7	21598.7	889.1	21616.9	887.7
21689.2	887.1	21746	884.3	21770.3	889.9	21792.1	895.8	21813.7	895.1
21833.3	892.6	21885	891.3	22074.3	892.1	22101.2	892.1	22106.8	892.8
22265.1	893	22491.5	893.5	22650	894.4	22814	895.3	22972.2	895.2
23015.3	896.4	23025.5	895	23072.7	894.3	23301.2	895	23424.3	895.2
23579.6	894.4	23589.8	894.4	23840.6	894.9	23976.9	894.3	24121.6	894.2
24193.6	893.6	24211	895.8	24238.2	894.7	24250.9	895.5	24309.4	895.1
24498.4	896	24570.4	895.5	24772.1	896.2	24911.7	896.4	24932.3	897.3
24956.1	901	24978.4	903.5	24990.6	896.7	25026	898.4	25036.8	902.9
25048.1	903.8	25072.9	901.7	25247.4	902.7	25417.1	903	25455.5	903.8
25698.4	904.3	25894.9	904.9	26088.5	905	26234.5	904.5	26244	907.2
26291	910.2								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17820	.032	17950.3	.025	19322.8	.029	21029.5	.043	21792.1	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19322.8	21792.1	450	487.89	560	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17820	18933.3	918	24978.4	26291	918

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	897.80	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.59	Wt. n-Val.	0.025	0.031	0.025
E.G. Elev (ft)	898.38	Reach Len. (ft)	450.00	487.89	560.00
Crit W.S. (ft)	892.38	Flow Area (sq ft)	188.21	29262.93	10396.69
E.G. Slope (ft/ft)	0.000677	Area (sq ft)	762.92	29262.93	10410.34
Q Total (cfs)	227000.00	Flow (cfs)	200.58	191117.70	35681.71
Top Width (ft)	6883.03	Top Width (ft)	1245.47	2469.30	3168.25
Vel Total (ft/s)	5.70	Avg. Vel. (ft/s)	1.07	6.53	3.43
Max Chl Dpth (ft)	15.10	Hydr. Depth (ft)	0.57	11.85	3.31
Conv. Total (cfs)	8725764.0	Conv. (cfs)	7710.2	7346467.0	1371586.8
Length Wtd. (ft)	505.18	Wetted Per. (ft)	328.91	2472.31	3144.02
Min Ch El (ft)	882.70	Shear (lb/sq ft)	0.02	0.50	0.14
Alpha	1.16	Stream Power (lb/ft s)	0.03	3.27	0.48
Frctn Loss (ft)	0.37	Cum Volume (acre-ft)	5670.44	60017.60	23395.32
C & E Loss (ft)	0.03	Cum SA (acres)	1475.37	6340.42	6703.40

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18922.05	19022.24	0.23	1.33	28.32	0.00	0.05	0.17
19022.24	19122.43	14.11	26.12	100.19	0.01	0.26	0.54
19122.43	19222.61	69.19	67.80	100.19	0.03	0.68	1.02
19222.61	19322.80	117.06	92.96	100.21	0.05	0.93	1.26
19322.80 LB	19940.13	50129.21	7283.43	618.36	22.08	11.80	6.88
19940.13	20557.45	66232.04	8602.66	617.33	29.18	13.94	7.70
20557.45	21174.78	50956.49	7473.86	617.55	22.45	12.11	6.82
21174.78	21792.10 RB	23799.98	5902.98	619.08	10.48	9.56	4.03
21792.10	22092.03	7744.84	1685.95	300.11	3.41	5.62	4.59
22092.03	22391.95	6016.25	1448.61	299.97	2.65	4.83	4.15
22391.95	22691.88	4313.23	1186.35	299.93	1.90	3.96	3.64
22691.88	22991.81	2212.51	794.82	299.94	0.97	2.65	2.78
22991.81	23291.73	2738.07	903.36	300.04	1.21	3.01	3.03
23291.73	23591.66	2549.96	865.47	299.93	1.12	2.89	2.95
23591.66	23891.59	2909.94	936.83	299.93	1.28	3.12	3.11
23891.59	24191.51	3619.50	1067.88	299.93	1.59	3.56	3.39
24191.51	24491.44	1896.34	724.75	300.12	0.84	2.42	2.62
24491.44	24791.37	1322.51	583.68	299.93	0.58	1.95	2.27
24791.37	25091.29	358.57	199.00	144.20	0.16	1.38	1.80

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 192.6

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17485.7	914.5	17534.8	906.5	17555.8	904.8	17588	906.5	17669.3	898.6
17680.9	896.4	17695.3	899	17720.4	899.6	17756.1	896.2	17885.7	895
17906	897.4	18100.2	897.7	18449.8	898.3	18563.1	896.9	18683.9	898.9
18816.9	899	18922.4	897	19051.6	897.9	19072.8	892.2	19094.2	891.2
19096.5	890.2	19234.6	896.5	19242.3	897.7	19262.2	895.8	19289.1	895.1
19312.8	896.6	19339.7	892.2	19409.7	888.7	19441.5	885.5	19560	887
19602.8	886.4	19790.5	886	20112.9	885.1	20329.3	884.5	20373.5	886.1
20498.3	885.2	20522.8	883.7	20759	884.4	20938.1	885	20948.7	887
21026.9	887.9	21080.3	885.8	21219.5	889	21284.6	887.1	21374.6	884.3
21403.8	885.9	21406	887.3	21448.4	889.9	21500.1	887.1	21536.3	890
21619.8	889.1	21630.1	889.7	21698.6	886.3	21886.4	888.1	21900.2	890.7

21972.4	889.8	22013	892.4	22076.7	890.9	22272.1	891.5	22462.1	891.8
22711.1	892.6	22896.3	893	23163.2	894.6	23245.3	895.4	23272.2	896.1
23294.3	890	23335	889.1	23394.8	896.4	23482	893.2	23707.7	894.4
23892.7	894.5	24185.8	894.4	24404.9	893.1	24459.7	893.8	24470.2	895.2
24500.5	893.6	24516	894.5	24740.4	895.3	24993.7	895.7	25054.6	897.5
25091.1	901.9	25096.9	898.9	25104.9	896.8	25137.9	897.2	25151.7	904.2
25167.5	904.7	25176.1	901.8	25372	903.1	25612.8	904.3	25847.6	904.2
25946.6	904.4	26180.3	905.2	26385.4	905.7	26414.3	905.8	26423.6	908.3
26449	910.6								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17485.7	.032	17756.1	.025	19312.8	.029	20373.5	.043	21536.3	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19312.8	21536.3	520	500.22	475	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17485.7	19242.3	912	24720	26449	912

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	897.49	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.50	Wt. n-Val.	0.025	0.035	0.025
E.G. Elev (ft)	897.99	Reach Len. (ft)	520.00	500.22	475.00
Crit W.S. (ft)	892.82	Flow Area (sq ft)	108.59	25318.46	15330.25
E.G. Slope (ft/ft)	0.000798	Area (sq ft)	1211.07	25318.46	15950.46
Q Total (cfs)	227000.00	Flow (cfs)	248.12	153367.00	73384.88
Top Width (ft)	6445.00	Top Width (ft)	667.41	2223.50	3554.09
Vel Total (ft/s)	5.57	Avg. Vel. (ft/s)	2.29	6.06	4.79
Max Chl Dpth (ft)	13.79	Hydr. Depth (ft)	1.59	11.39	4.82
Conv. Total (cfs)	8033781.5	Conv. (cfs)	8781.3	5427828.0	2597172.3
Length Wtd. (ft)	493.08	Wetted Per. (ft)	68.42	2225.27	3185.70
Min Ch El (ft)	883.70	Shear (lb/sq ft)	0.08	0.57	0.24
Alpha	1.04	Stream Power (lb/ft s)	0.18	3.44	1.15
Frctn Loss (ft)	0.43	Cum Volume (acre-ft)	5660.25	59711.93	23225.87
C & E Loss (ft)	0.02	Cum SA (acres)	1465.49	6314.14	6660.18

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19190.99	19312.80	248.12	108.59	68.42	0.11	1.59	2.29
19312.80 LB	19868.68	38986.64	5725.02	556.49	17.17	10.30	6.81
19868.68	20424.55	50788.67	6817.52	555.91	22.37	12.26	7.45
20424.55	20980.43	37827.78	7119.30	556.11	16.66	12.81	5.31
20980.43	21536.30 RB	25763.87	5656.61	556.75	11.35	10.18	4.55
21536.30	21863.81	21496.07	3113.76	327.63	9.47	9.51	6.90
21863.81	22191.33	12179.50	2214.99	327.86	5.37	6.76	5.50
22191.33	22518.84	9609.42	1920.55	327.51	4.23	5.86	5.00
22518.84	22846.35	7390.25	1640.61	327.51	3.26	5.01	4.50
22846.35	23173.87	4644.18	1241.53	327.52	2.05	3.79	3.74
23173.87	23501.38	4633.46	1241.85	328.87	2.04	3.79	3.73
23501.38	23828.89	3915.26	1120.64	327.52	1.72	3.42	3.49
23828.89	24156.41	3193.43	991.66	327.51	1.41	3.03	3.22
24156.41	24483.92	4379.37	1198.73	327.63	1.93	3.66	3.65
24483.92	24811.43	1943.95	645.94	236.13	0.86	2.74	3.01

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 192.51

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17519.2	910.3	17522.4	909.2	17530.7	900.3	17547	894.9	17564	898.8
17593.6	898.6	17613.2	895.6	17661.5	894.5	17886.1	895.9	18078.4	895.1
18173.3	894.4	18257.4	898.5	18277.7	896.3	18396	897.1	18555.6	895.9
18726.2	896.6	18893	896.1	18986.3	896.2	19003.2	893.4	19044.7	897.7
19116.2	896.3	19234.6	896.9	19281.8	891.8	19329.7	889.6	19369.4	886.2

19458.5	885.5	19500.3	889.9	19728.2	886.1	19780.9	885.9	20014.9	885.4
20279.3	885.1	20485.1	884.5	20672.7	883.9	20773.1	885.2	20793.5	883.3
20991.4	884.5	21012.1	887.6	21123.4	886.3	21149.6	888	21162.3	886.4
21221.2	890	21323.2	889.2	21416.4	884.3	21486	892	21668.8	891
21804.8	890.9	21828.7	887.7	21868.3	887	21917	891	21923.1	889.9
22122.4	889.1	22167.6	888.7	22299.4	891.7	22471.5	890.8	22563.7	892.1
22578	891.3	22592	892.3	22838	893.1	23028.7	893.8	23074.9	893.8
23253	893.8	23466.9	894.6	23610.3	894.3	23787.9	895	23975.7	895.5
24148.3	892.9	24343.8	893.2	24478.6	893.1	24649	892.3	24697.3	895.2
24728.4	892	24747.4	893.9	24938.6	894.5	25111.7	894.6	25230.5	896.5
25246.3	895.6	25298.8	900.9	25312.2	895.9	25349.6	896.7	25360.9	903.2
25538.7	903	25732.8	904.8	25856.3	907.1	25886.7	904.5	26150.8	905.4
26324.9	906.2	26487.6	906.9	26520.7	903.8	26532.4	907.3	26575.1	906.8
26587.7	909.3	26653.2	910.4	26669.5	906.9	26731	905.2	26769.6	909
26783.2	911.6								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17519.2	.032	17613.2	.025	19234.6	.065	19500.3	.026	20793.5	.043
21486	.043	21917	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19234.6	21486	520	447.28	535	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17519.2	19232	910	24460	26783.2	910

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	896.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.68	Wt. n-Val.		0.031	0.028
E.G. Elev (ft)	897.54	Reach Len. (ft)	520.00	447.28	535.00
Crit W.S. (ft)	893.11	Flow Area (sq ft)		23833.74	12677.74
E.G. Slope (ft/ft)	0.000954	Area (sq ft)	1475.27	23833.74	14888.67
Q Total (cfs)	227000.00	Flow (cfs)		171682.13	55317.87
Top Width (ft)	7532.66	Top Width (ft)	1468.61	2251.02	3813.02
Vel Total (ft/s)	6.22	Avg. Vel. (ft/s)		7.20	4.36
Max Chl Dpth (ft)	13.56	Hydr. Depth (ft)		10.59	4.26
Conv. Total (cfs)	7349100.0	Conv. (cfs)		5558190.0	1790910.0
Length Wtd. (ft)	470.90	Wetted Per. (ft)		2252.92	2974.62
Min Ch El (ft)	883.30	Shear (lb/sq ft)		0.63	0.25
Alpha	1.14	Stream Power (lb/ft s)		4.54	1.11
Frctn Loss (ft)	0.50	Cum Volume (acre-ft)	5644.21	59429.71	23057.73
C & E Loss (ft)	0.00	Cum SA (acres)	1452.74	6288.45	6620.02

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19234.60 LB	19797.45	27546.02	4905.94	563.21	12.13	8.72	5.61
19797.45	20360.30	57831.99	6472.89	562.85	25.48	11.50	8.93
20360.30	20923.15	60800.62	7094.71	562.95	26.78	12.60	8.57
20923.15	21486.00 RB	25503.52	5360.20	563.91	11.24	9.52	4.76
21486.00	21839.15	6566.11	2060.66	353.36	2.89	5.84	3.19
21839.15	22192.29	16042.57	2722.78	353.42	7.07	7.71	5.89
22192.29	22545.44	11273.25	2058.00	353.18	4.97	5.83	5.48
22545.44	22898.59	6493.14	1478.09	353.21	2.86	4.19	4.39
22898.59	23251.73	4037.95	1111.46	353.15	1.78	3.15	3.63
23251.73	23604.88	2863.56	904.36	353.15	1.26	2.56	3.17
23604.88	23958.03	1797.92	684.01	353.15	0.79	1.94	2.63
23958.03	24311.17	4016.53	1107.95	353.17	1.77	3.14	3.63
24311.17	24664.32	2226.83	550.43	148.83	0.98	3.70	4.05

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 192.42

INPUT
Description: Left Bank Channel Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

17244.5	910.3	17314.9	899.3	17462.8	898	17497.6	895.4	17537.5	895.6
17538.7	897.2	17545.4	896.8	17549.4	894.2	17568.7	897.4	17594.8	897
17613.8	894.2	17784.7	896	17897.3	896.2	18078.7	896.1	18259.8	895.4
18426	895.7	18453.4	895.3	18462.6	898.2	18617.3	896.8	18836.1	897
18966.3	896.3	18974	895.2	18987.2	897.4	19005	894.9	19044.8	897.9
19086.7	895.9	19112	896.5	864 19112.5	896.6	19155.2	891.6	19198.3	891
19274.6	886.2	19395.3	886.5	19441.2	889.6	19523.8	888.2	19574	889.4
19803.5	884.4	19838.9	885.8	20345.1	885	20641	884.5	20672.6	884.2
20737.6	887.3	20809.4	885.5	20863.5	886.2	20902.1	883.2	21083.9	885.5
21135.2	887	21182.3	883.7	21215.1	884.4	21315	891.8	21354.2	888
21465.2	887.5	21556.2	884.3	21657.3	890.5	21776.6	890.6	21861.3	889.3
22040.6	890.4	22094.8	889	22180	889.9	22206.1	888	22374	889.4
22557.1	890.4	22740.6	890.6	22848.1	892.7	22878.5	891.6	23069.2	892.6
23328.9	893.1	23540.3	894	23819.8	895.5	24014.9	895	24209.8	896.4
24393.3	895.3	24539.2	896.2	24551.1	895.2	24625.4	896.1	24868.2	893.7
25076.6	893.6	25186.8	892.1	25212.3	893.3	25231.9	897.1	25305.4	896.1
25323.8	898.2	25363.4	897.3	25400.3	901.1	25416.8	901.6	25427.9	896.6
25461.7	896.6	25481.9	901.1	25519.1	901.5	25721.8	902	25792.2	902.2
26034.3	902.6	26221.8	903.5	26361.7	903.9	26528.8	904.5	26720.8	905.5
26758.6	907.1	26801	910.8						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17244.5	.032	17613.8	.025	19044.8	.065	19838.9	.026	20863.5	.043
21315	.043	22180	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19112	21315	450	496.15	480	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17244.5	19112	910	24140	26801	910

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	896.36	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.67	Wt. n-Val.		0.034	0.033
E.G. Elev (ft)	897.03	Reach Len. (ft)	450.00	496.15	480.00
Crit W.S. (ft)	892.53	Flow Area (sq ft)		22308.40	13903.67
E.G. Slope (ft/ft)	0.001201	Area (sq ft)	669.09	22308.40	15593.41
Q Total (cfs)	227000.00	Flow (cfs)		160108.05	66891.96
Top Width (ft)	7135.52	Top Width (ft)	1010.91	2200.49	3924.12
Vel Total (ft/s)	6.27	Avg. Vel. (ft/s)		7.18	4.81
Max Chl Dpth (ft)	13.16	Hydr. Depth (ft)		10.14	4.92
Conv. Total (cfs)	6550535.0	Conv. (cfs)		4620235.0	1930300.3
Length Wtd. (ft)	492.02	Wetted Per. (ft)		2201.79	2825.60
Min Ch El (ft)	883.20	Shear (lb/sq ft)		0.76	0.37
Alpha	1.10	Stream Power (lb/ft s)		5.45	1.77
Frctn Loss (ft)	0.64	Cum Volume (acre-ft)	5631.41	59192.82	22870.54
C & E Loss (ft)	0.02	Cum SA (acres)	1437.94	6265.60	6572.50

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19112.00 LB	19662.75	12889.00	4198.40	548.83	5.68	7.66	3.07
19662.75	20213.50	46565.79	5935.47	550.81	20.51	10.78	7.85
20213.50	20764.25	62201.85	6238.85	550.83	27.40	11.33	9.97
20764.25	21315.00 RB	38451.38	5935.66	551.32	16.94	10.78	6.48
21315.00	21680.73	14766.29	3205.51	366.16	6.50	8.76	4.61
21680.73	22046.47	8518.89	2303.39	365.75	3.75	6.30	3.70
22046.47	22412.20	16035.11	2657.44	365.83	7.06	7.27	6.03
22412.20	22777.93	13567.20	2199.44	365.74	5.98	6.01	6.17
22777.93	23143.67	7342.17	1521.68	365.77	3.23	4.16	4.83
23143.67	23509.40	4655.77	1157.73	365.74	2.05	3.17	4.02
23509.40	23875.13	1463.74	578.22	365.74	0.64	1.58	2.53
23875.13	24240.87	542.80	280.25	264.87	0.24	1.06	1.94

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 192.33

INPUT
Description: Left Bank Channel Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17338.2	910.3	17374.5	901.3	17382.6	900.2	17490.7	899.7	17533.9	896.1
17549.9	898.5	17574.8	898.8	17586.6	895.5	17621.3	898.2	17736.9	895.1
17966.1	895.8	18187.4	896.1	18371.1	895.7	18569.1	895.9	18724.1	895.6
18761.7	895.7	18773.8	898	18820	896.6	18841.4	897.3	18859.3	895.3
18863.2	897.3	18891.2	894.9	18898.9	896.2	18911.8	896.3	18918.2	3895.8662
18978.5	891.8	19068.8	890.9	19123.2	886.5	19281.1	885.8	19312.6	889
19477.7	888.5	19728.8	885.1	19772.1	886.8	19838.3	885	19983.3	885.5
20784.3	885.1	20902	885.8	20936.5	884.2	21187.2	885.5	21258	884.7
21310.4	890.3	21314	889.7	21490.6	890.2	21642.1	890.6	21798.2	890.5
21962	891.3	22177.4	890.9	22344.5	888.2	22444.1	889.9	22561.5	890
22626.4	888.3	22679.4	888.2	22738.9	889.7	22922.3	890.3	23098.7	892.3
23248.8	892.7	23409	892.9	23560.3	893.6	23567.6	892.8	23782.8	894.5
23989	895.6	24104.1	895.8	24266.2	895.7	24375.1	894.9	24416.8	897.1
24466	896.5	24473	894.6	24503.9	893.6	24530.1	895	24716.2	894
24960.5	893.1	25167	892.5	25267.8	890.2	25316.1	891.3	25343.9	897.1
25371.5	898.2	25421.8	897.8	25443.8	902.1	25459	903.7	25473.2	896.9
25508.2	896.9	25519.7	901.9	25539	899.6	25584.3	899.7	25840.1	901.7
25942.9	902.3	26212.8	903.5	26458	904.4	26616.2	904.8	26836.9	904.6
26871.5	905.7	26908.3	909.5	26957.9	910.4	26977.3	906.3	27027.3	908.1
27101.7	908.3	27111	910.9						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17338.2	.032	17736.9	.025	18863.2	.025	18978.5	.065	19477.7	.026
20902	.043	21310.4	.043	22561.5	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18918.23	21310.4	500	507.53	495	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17338.2	18911.8	910	24104.1	27111	910

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	895.51	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.86	Wt. n-Val.		0.031	0.034
E.G. Elev (ft)	896.37	Reach Len. (ft)	500.00	507.53	495.00
Crit W.S. (ft)	892.55	Flow Area (sq ft)		21983.34	11236.42
E.G. Slope (ft/ft)	0.001425	Area (sq ft)	34.63	21983.34	13262.90
Q Total (cfs)	227000.00	Flow (cfs)		177837.22	49162.77
Top Width (ft)	6174.76	Top Width (ft)	163.88	2386.93	3623.95
Vel Total (ft/s)	6.83	Avg. Vel. (ft/s)		8.09	4.38
Max Chl Dpth (ft)	11.31	Hydr. Depth (ft)		9.21	4.22
Conv. Total (cfs)	6013431.0	Conv. (cfs)		4711065.5	1302365.4
Length Wtd. (ft)	504.46	Wetted Per. (ft)		2387.83	2662.46
Min Ch El (ft)	884.20	Shear (lb/sq ft)		0.82	0.38
Alpha	1.19	Stream Power (lb/ft s)		6.63	1.64
Frctn Loss (ft)	0.61	Cum Volume (acre-ft)	5627.78	58940.57	22711.55
C & E Loss (ft)	0.09	Cum SA (acres)	1431.87	6239.47	6530.92

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18918.23 LB	19516.27	14174.92	3979.75	593.28	6.24	6.71	3.56
19516.27	20114.32	56208.23	5761.89	598.12	24.76	9.63	9.76
20114.32	20712.36	62096.83	6116.51	598.04	27.36	10.23	10.15
20712.36	21310.40 RB	45357.20	6125.19	598.39	19.98	10.24	7.41
21310.40	21697.11	7486.05	2048.04	386.76	3.30	5.30	3.66
21697.11	22083.81	5959.43	1786.03	386.71	2.63	4.62	3.34
22083.81	22470.52	8509.18	2211.63	386.74	3.75	5.72	3.85
22470.52	22857.23	14940.15	2358.35	386.75	6.58	6.10	6.33
22857.23	23243.93	7901.09	1527.79	386.72	3.48	3.95	5.17
23243.93	23630.64	3660.22	962.88	386.75	1.61	2.49	3.80
23630.64	24017.35	706.69	341.71	342.03	0.31	1.00	2.07

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 192.23

INPUT
Description: CROSSES COTTON LN. ALIGNMENT AT CENTERLINE OF 100 YR FLOW

Left Channel Bank Station Interpolated

Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17064.2	915.3	17143.9	909.2	17220.4	912.3	17259.4	910.3	17289.5	904.8
17290.5	903.6	17353.8	906.6	17432.8	902.3	17491.7	909	17574.8	912.4
17762.6	898.2	17778.2	895.1	17799.9	898.4	17832.6	899.5	17850.5	894.6
18094.7	894.7	18267.4	894.1	18274	895.8	18477.9	895.3	18667.8	895.3
18791.4	895.3	18794.1	895.0112	18834.4	890.7	18878.4	889.6	18919.7	885.7
19160.2	885.6	19198.8	888.9	19403.9	887.4	19447.3	885.9	19665.1	886.3
19765.1	888	19810	884.9	19869.5	884.9	20068.6	884.7	20388.9	884.8
20405.3	884.9	20692	885.5	20881.8	884.8	20959.7	883.9	21172.4	883.8
21307.3	883.7	21311	885.7	21337.8	884	21348.1	886.1	21363.8	885.7
21376.2	883.8	21533.9	885.8	21572	891.9	21600.5	888.5	21787.4	888.9
21986.9	889.6	22180.1	889.3	22412.9	889.2	22600	889.2	22637.6	890.7
22666.8	887.7	22866.3	888.1	22991.7	887.1	23094	890.3	23203.8	890.7
23392.6	891.8	23497.4	893.1	23626.4	891.9	23814.1	893.5	24026.1	894.2
24063.4	894.2	24259.9	893.9	24460.5	894.8	24659.7	895.7	24711	895.1
24734.5	892.1	24802.7	891.9	25016.3	891.6	25206.9	890.9	25342.2	892
25377.4	898.3	25479.6	896.9	25501.8	902.2	25517.7	902.2	25529.6	896.6
25565	896.6	25576	900.3	25617.2	898.7	25670	900.1	25864.8	901.1
26128.5	902.2	26328.6	903.4	26406.3	903.8	26615.7	904.5	26808.7	904.8
26868.3	905.7	27013.2	908.1	27071.1	910.4	27106.1	907.5	27240.3	907.7
27270.8	909	27278.5	910.6						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17064.2	.032	17850.5	.025	18791.4	.065	19447.3	.026	20692	.043
21572	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18794.1	21572	510	514.6	590	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17064.2	18765	910	24660	27278.5	910

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	895.13	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.55	Wt. n-Val.	0.065	0.034	0.025
E.G. Elev (ft)	895.67	Reach Len. (ft)	510.00	514.60	590.00
Crit W.S. (ft)	891.32	Flow Area (sq ft)	0.06	26384.47	12499.63
E.G. Slope (ft/ft)	0.001027	Area (sq ft)	244.82	26384.47	14734.14
Q Total (cfs)	227000.00	Flow (cfs)	0.01	164824.19	62175.79
Top Width (ft)	6814.10	Top Width (ft)	424.22	2777.90	3611.98
Vel Total (ft/s)	5.84	Avg. Vel. (ft/s)	0.11	6.25	4.97
Max Chl Dpth (ft)	11.43	Hydr. Depth (ft)	0.06	9.50	4.22
Conv. Total (cfs)	7084135.5	Conv. (cfs)	0.2	5143775.0	1940360.1
Length Wtd. (ft)	537.68	Wetted Per. (ft)	1.09	2780.05	2961.43
Min Ch El (ft)	883.70	Shear (lb/sq ft)	0.00	0.61	0.27
Alpha	1.03	Stream Power (lb/ft s)	0.00	3.80	1.35
Frctn Loss (ft)	0.62	Cum Volume (acre-ft)	5626.17	58658.80	22552.48
C & E Loss (ft)	0.01	Cum SA (acres)	1428.50	6209.38	6489.80

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18678.77	18794.10	0.01	0.06	1.09	0.00	0.06	0.11
18794.10 LB	19488.57	17265.31	5381.01	695.07	7.61	7.75	3.21
19488.57	20183.05	54615.35	6630.31	694.60	24.06	9.55	8.24
20183.05	20877.53	53547.19	6996.82	694.48	23.59	10.07	7.65
20877.53	21572.00 RB	39396.36	7376.34	695.90	17.36	10.62	5.34
21572.00	21952.43	12626.08	2321.65	380.64	5.56	6.10	5.44
21952.43	22332.87	11413.52	2184.71	380.43	5.03	5.74	5.22
22332.87	22713.30	12367.71	2292.98	380.62	5.45	6.03	5.39

22713.30	23093.73	16231.03	2698.82	380.49	7.15	7.09	6.01
23093.73	23474.17	5907.29	1471.57	380.44	2.60	3.87	4.01
23474.17	23854.60	2642.75	908.20	380.45	1.16	2.39	2.91
23854.60	24235.03	742.07	423.85	380.43	0.33	1.11	1.75
24235.03	24615.47	245.34	197.85	297.93	0.11	0.66	1.24

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 192.13

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16803.1	906.4	17010.3	904.3	17109.6	902.6	17140.6	900.1	17345.3	898.7
17454.4	895.4	17480.1	901.2	17501.2	899.9	17516.6	894.8	17533	892.7
17754.5	893.9	17981.7	894.2	18193.7	893.6	18392.9	895.1	18573.9	893.9
18681.9	895.1	18683.83	894.5372	18703.5	888.8	18731.4	890.2	18774	888.3
18815.6	888.4	18887.5	884.9	18906.6	887.2	19088.4	885.6	19111.7	887.6
19163	888.4	19206.5	887	19341.1	888.6	19522.3	885.5	19574.9	884.6
19619.1	889.1	19651.1	888.8	19670.9	885.6	19818.7	885.4	20275.6	884.5
20282.8	886.9	20321.5	886.5	20330.9	884.4	20546.4	884.6	20653.3	884.6
20838.2	889.5	20968.5	886.7	21060	887.8	21095.2	885	21178.1	883.5
21397.2	883.6	21495.7	883.6	21518	886.7	21690.3	883.1	21816	892.5
21851.5	887.5	21858.3	888.6	22098.8	889.1	22317.4	889.5	22551.6	888.4
22770.8	888.5	22912.4	889.4	22923.6	887.5	23152.9	888.2	23340.6	888.3
23525.9	890.4	23707.2	891.4	23906	891.8	24049.7	892.2	24060.8	893.5
24107.8	891.5	24357.7	892.4	24540.6	892.6	24563.4	891.3	24601.2	891.8
24791.6	890.7	24915.6	890.6	24948.6	892.7	24990.9	890.2	25181.3	890.1
25229.6	891.8	25237.2	890.7	25260.5	893.9	25337.1	893.7	25401.4	896.8
25426.3	890.8	25496.6	897	25508.3	896	25572.9	898.5	25582.2	897.1
25615.3	897.7	25626.7	902.2	25643.7	901.2	25654.6	897.6	25945.3	899
26205.3	899.8	26236.4	899.9	26470	901.4	26721.3	901.8	26914.6	901.5
26990.3	899.5	27072.2	906.8						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16803.1	.032	17533	.025	18681.9	.065	19651.1	.026	20275.6	.043
21816	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18683.83	21816	480	480.35	490	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16803.1	18681.9	905	24680	27072.2	905

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	894.54	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.51	Wt. n-Val.		0.040	0.025
E.G. Elev (ft)	895.04	Reach Len. (ft)	480.00	480.35	490.00
Crit W.S. (ft)	891.07	Flow Area (sq ft)		26752.71	13038.31
E.G. Slope (ft/ft)	0.001300	Area (sq ft)	639.07	26752.71	15395.17
Q Total (cfs)	227000.00	Flow (cfs)		150269.05	76730.95
Top Width (ft)	7680.99	Top Width (ft)	952.52	3132.17	3596.30
Vel Total (ft/s)	5.70	Avg. Vel. (ft/s)		5.62	5.89
Max Chl Dpth (ft)	11.44	Hydr. Depth (ft)		8.54	4.55
Conv. Total (cfs)	6296292.0	Conv. (cfs)		4168008.0	2128284.0
Length Wtd. (ft)	483.42	Wetted Per. (ft)		3135.39	2864.78
Min Ch El (ft)	883.10	Shear (lb/sq ft)		0.69	0.37
Alpha	1.00	Stream Power (lb/ft s)		3.89	2.17
Frctn Loss (ft)	0.49	Cum Volume (acre-ft)	5621.00	58344.93	22348.44
C & E Loss (ft)	0.02	Cum SA (acres)	1420.44	6174.47	6440.99

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18683.83 LB	19466.87	16551.17	5493.79	784.31	7.29	7.02	3.01
19466.87	20249.91	56125.29	7095.48	783.54	24.72	9.06	7.91
20249.91	21032.96	35295.41	6637.23	783.77	15.55	8.48	5.32

21032.96	21816.00 RB	42297.19	7526.21	783.77	18.63	9.61	5.62
21816.00	22166.41	12160.42	1936.00	350.85	5.36	5.52	6.28
22166.41	22516.83	11578.61	1878.93	350.41	5.10	5.36	6.16
22516.83	22867.24	13905.33	2097.14	350.42	6.13	5.98	6.63
22867.24	23217.65	15617.19	2248.84	350.57	6.88	6.42	6.94
23217.65	23568.07	11807.85	1901.19	350.43	5.20	5.43	6.21
23568.07	23918.48	4796.45	1107.31	350.42	2.11	3.16	4.33
23918.48	24268.89	3314.73	887.25	350.53	1.46	2.53	3.74
24268.89	24619.31	2781.75	798.60	350.46	1.23	2.28	3.48
24619.31	24969.72	768.61	183.05	60.69	0.34	3.02	4.20

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 192.04

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16825.8	903.3	16862	900.1	17011	896.4	17158.8	896.7	17181.2	894.7
17203.6	899.3	17231.4	898.9	17247.3	892.8	17418.7	892.9	17590.5	893
17833.3	893.2	18068.3	892.6	18270.8	891.9	18436	894.1	18607.1	893.9
18656.4	889.4	18790.7	886.3	18967.2	886.5	19004.6	889.1	19019.7	886.3
19147.6	887.2	19167.2	889.8	19216.4	887.9	19259.3	889.5	19416.2	886.1
19538.2	884	19542.6	885	19551.2	883.8	19918	884.3	20097.5	884.3
20267.4	884.2	20283.3	885.8	20362.5	885.8	20549.6	882	20606.2	888.2
20809.3	888.1	20899.1	887.5	20930.3	884.2	20975.8	884.8	21068.2	888.5
21269.7	888.1	21293.6	885.7	21385	885.9	21396.9	883	21608.6	883.1
21721.8	884.6	21729.4	886.5	21749.1	883.8	21776.7	883.5	21789.7	885.7
21839.5	885.5	21861	883.1	21889.3	883.9	21940.8	883.2	21974.8	888
22073.2	889.7	22111.6	888.3	22287	887.9	22474.3	888.6	22727.3	887.7
22892.9	888.3	23089.9	887.9	23259.7	888.7	23429.6	887.9	23633.6	888.9
23749.1	889	23914.6	891	24171.9	891.1	24351.5	891.8	24582	890.2
24829.1	889.5	24970.6	891	24985.4	894.3	25017	894.7	25043.1	889.9
25084.8	896	25140.6	895	25163.6	897.3	25394.9	896	25561.3	895.7
25657.5	896.9	25666.3	898.9	25717.4	900.6	25721.8	897.1	25758	897.5
25773.1	900.8	25788.4	900.7	25799.3	896	26018.2	897.4	26228.5	897.9
26244.8	897.9	26481.6	898.3	26662	898.8	26868	898.4	27035	898.9
27087	903.2								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16825.8	.032	17203.6	.025	18607.1	.065	19259.3	.026	20283.3	.043
21385	.025	22073.2	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18607.1	22073.2	570	526.05	485	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16825.8	18607.1	902	24985.4	27087	902

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	894.08	Element			
Vel Head (ft)	0.45	Wt. n-Val.		0.031	0.025
E.G. Elev (ft)	894.53	Reach Len. (ft)	570.00	526.05	485.00
Crit W.S. (ft)	890.72	Flow Area (sq ft)		28498.04	13991.77
E.G. Slope (ft/ft)	0.000820	Area (sq ft)	1489.98	28498.04	14099.18
Q Total (cfs)	227000.00	Flow (cfs)		159170.63	67829.38
Top Width (ft)	7776.54	Top Width (ft)	1347.86	3466.10	2962.58
Vel Total (ft/s)	5.34	Avg. Vel. (ft/s)		5.59	4.85
Max Chl Dpth (ft)	12.08	Hydr. Depth (ft)		8.22	4.81
Conv. Total (cfs)	7925494.0	Conv. (cfs)		5557294.5	2368199.8
Length Wtd. (ft)	514.56	Wetted Per. (ft)		3469.48	2911.63
Min Ch El (ft)	882.00	Shear (lb/sq ft)		0.42	0.25
Alpha	1.01	Stream Power (lb/ft s)		2.35	1.19
Frctn Loss (ft)	0.41	Cum Volume (acre-ft)	5609.27	58040.30	22182.55
C & E Loss (ft)	0.02	Cum SA (acres)	1407.77	6138.09	6404.10

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18607.10 LB	19473.63	18071.21	5653.26	867.40	7.96	6.52	3.20
19473.63	20340.15	61827.90	8463.23	866.81	27.24	9.77	7.31
20340.15	21206.67	24788.95	6540.34	867.16	10.92	7.55	3.79
21206.67	22073.20 RB	54482.57	7841.21	868.11	24.00	9.05	6.95
22073.20	22407.45	10492.60	1962.44	334.28	4.62	5.87	5.35
22407.45	22741.71	10539.87	1967.68	334.25	4.64	5.89	5.36
22741.71	23075.96	10907.75	2008.61	334.26	4.81	6.01	5.43
23075.96	23410.21	10220.35	1931.68	334.26	4.50	5.78	5.29
23410.21	23744.47	9491.46	1847.80	334.26	4.18	5.53	5.14
23744.47	24078.72	4623.89	1200.23	334.26	2.04	3.59	3.85
24078.72	24412.97	2894.69	906.18	334.26	1.28	2.71	3.19
24412.97	24747.23	4866.40	1237.60	334.26	2.14	3.70	3.93
24747.23	25081.48	3792.36	929.55	237.55	1.67	3.92	4.08

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 191.94

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16743.4	902.7	16774.7	902.3	16818	898.9	16832	899.3	16854.8	904.1
16903.1	900.8	17052.9	896.5	17176.2	896.7	17267.1	893.8	17312.3	890.1
17575.6	892.1	17661.3	893.7	18059.5	892.9	18367.4	892.4	18532.2	892.5
18559.9	894.2	18561.44	893.7	18565.3	892.5	18570.4	888	18615.8	889
18657.8	887.6	18807.6	887.9	18833	884.6	19058.5	885	19146.6	884.1
19163.9	887.8	19199.8	888.4	19227.2	886.4	19332	886.4	19354.9	888
19394.6	885.2	19437.3	887.5	19452.3	882.1	19629.9	882.6	20048.7	882.9
20150	883.3	20407.5	883.1	20493.5	883.4	20510.1	887.6	20676.7	888.1
20750.6	887.2	21016.1	886.6	21082.3	886.2	21121.1	884.1	21295.4	886.8
21548.1	886.5	21577.6	886.1	21593.7	882.8	21891.2	883.1	21923.4	885.3
21996.2	882.9	22229.4	881.4	22247.4	881.4	22248.4	882.4	22248.8	881.4
22293	887.8	22345.5	888.9	22381.8	887.3	22597.6	888.2	22824.8	888.2
23077.2	888.9	23319	888.9	23346.7	890	23372.9	889	23390.8	884.3
23407.7	885.1	23421.2	890.1	23462.5	887.4	23718.1	889	23901.2	886
24066.9	890.5	24260.5	889.4	24551.2	891.8	24799.6	889.2	24815.8	889.5
24830.3	893	24850.5	892.9	24866.5	887.9	24920	893.5	24978	892.1
25206.1	893.2	25239.4	894	25246.1	895.7	25345	894.6	25571.5	895.5
25711.5	894.9	25803.9	900.3	25810.7	895.9	25846.2	895.9	25857.2	901.2
25875.3	900.4	25886.8	896	26165.5	897.2	26441.8	897.7	26811.5	898.5
27006.9	898	27105.3	902.7						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16743.4	.032	17267.1	.025	18559.9	.065	19437.3	.026	20510.1	.043
22293	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18561.44	22293	560	524.69	495	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16743.4	18559.9	902	24920	27105.3	902

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	893.71	Element			
Vel Head (ft)	0.38	Wt. n-Val.		0.036	0.025
E.G. Elev (ft)	894.10	Reach Len. (ft)	560.00	524.69	495.00
Crit W.S. (ft)	889.76	Flow Area (sq ft)		33156.46	12506.81
E.G. Slope (ft/ft)	0.000793	Area (sq ft)	1549.77	33156.46	12807.83
Q Total (cfs)	227000.00	Flow (cfs)		167809.25	59190.76
Top Width (ft)	7949.84	Top Width (ft)	1283.81	3731.55	2934.47
Vel Total (ft/s)	4.97	Avg. Vel. (ft/s)		5.06	4.73
Max Chl Dpth (ft)	12.31	Hydr. Depth (ft)		8.89	4.76
Conv. Total (cfs)	8061241.0	Conv. (cfs)		5959254.5	2101986.8
Length Wtd. (ft)	518.29	Wetted Per. (ft)		3737.94	2630.29
Min Ch El (ft)	881.40	Shear (lb/sq ft)		0.44	0.24
Alpha	1.00	Stream Power (lb/ft s)		2.22	1.11
Frctn Loss (ft)	0.44	Cum Volume (acre-ft)	5589.38	57668.01	22032.75
C & E Loss (ft)	0.00	Cum SA (acres)	1390.55	6094.63	6371.27

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18561.44 LB	19494.33	20213.54	7024.75	936.65	8.90	7.53	2.88
19494.33	20427.22	79259.79	10114.92	932.89	34.92	10.84	7.84
20427.22	21360.11	27113.08	6768.03	933.50	11.94	7.25	4.01
21360.11	22293.00 RB	41222.85	9248.77	934.90	18.16	9.91	4.46
22293.00	22613.82	9795.95	1861.67	320.87	4.32	5.80	5.26
22613.82	22934.64	8854.66	1752.07	320.82	3.90	5.46	5.05
22934.64	23255.46	7393.67	1572.40	320.82	3.26	4.90	4.70
23255.46	23576.28	9046.60	1778.41	322.47	3.99	5.54	5.09
23576.28	23897.10	9586.08	1837.58	320.85	4.22	5.73	5.22
23897.10	24217.92	6734.50	1486.85	320.88	2.97	4.63	4.53
24217.92	24538.74	3826.45	1059.09	320.83	1.69	3.30	3.61
24538.74	24859.56	3269.40	964.71	321.69	1.44	3.01	3.39
24859.56	25180.38	683.44	194.03	61.06	0.30	3.21	3.52

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 191.84

INPUT
Description:

Eliminate vertical ineffective area in rt. overbank by coding out GR

data between and below sta, elev. 23554.5, 888.5 and 24089, 888.5

Station Elevation Data num= 93

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16434.8	900	16563.3	899.5	16578.1	897.4	16589.9	901.3	16613.5	901.3
16639	899.2	17001.7	897	17270.8	893.7	17403.4	893.2	17643.7	891.8
17923.4	892.4	18222.2	892.3	18457.8	891.6	18504	893.1	18532.5	887.2
18796.4	887.9	18878.4	889.2	18911.6	884.5	18937.5	884.4	18940.1	886.1
18973.7	886.5	18977.3	884.1	19010.2	885.6	19011.5	884.1	19023.9	887.6
19035.6	886.6	19195.5	884	19261.1	888.1	19297.9	887.3	19389.6	889.8
19414.2	885.9	19456.9	888.5	19472.9	881.6	19803.9	881.9	19872.3	884.5
19931.1	883.8	20001	882.3	20139.7	882.5	20392.2	882.8	20483.7	883
20502.1	886.5	20811.4	888.7	21056.9	888.1	21243.8	885.2	21408.3	885.6
21433.5	884	21654.7	885.2	21662.4	884.2	21917.5	883	22173.9	881.7
22464.2	880.8	22520.4	883.7	22600.5	884.8	22631	889	22885.7	888.2
23159.3	888.6	23554.5	888.5	24089	888.5	24167.8	894.2	24236.7	894.1
24342.8	889.9	24601.4	890.4	24868.8	891.3	25173.5	892.8	25298.7	891.8
25342.8	892.3	25349.3	895.3	25591.5	896	25841.7	895.5	25853.9	897.1
25864.1	896.5	25871.8	898.9	25887.4	899.1	25897.3	895.9	25931.9	895.9
25944.9	898.9	25959.4	899.5	25968.3	895.7	26224.3	895.8	26506.6	896.7
26765.6	897.4	26992.5	897.7	27026.1	900.9	27038.7	900.2	27070.5	901.4
27096.8	897.4	27156.5	896.8	27206.5	899	27219.4	897.1	27483	898.3
27752.4	899.6	27964.7	899.5	27978.9	900.8				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16434.8	.032	17403.4	.025	18504	.065	19456.9	.026	20502.1	.043
22631	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18504	22631	510	495.05	540	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	893.25	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.40	Wt. n-Val.	0.025	0.036	0.025
E.G. Elev (ft)	893.66	Reach Len. (ft)	510.00	495.05	540.00

Crit W.S. (ft)		Flow Area (sq ft)	1124.30	35027.98	9199.67
E.G. Slope (ft/ft)	0.000904	Area (sq ft)	1124.30	35027.98	9199.67
Q Total (cfs)	227000.00	Flow (cfs)	2037.08	183849.20	41113.72
Top Width (ft)	7852.67	Top Width (ft)	1115.12	4127.00	2610.55
Vel Total (ft/s)	5.01	Avg. Vel. (ft/s)	1.81	5.25	4.47
Max Chl Dpth (ft)	12.45	Hydr. Depth (ft)	1.01	8.49	3.52
Conv. Total (cfs)	7548659.5	Conv. (cfs)	67741.2	6113722.5	1367196.0
Length Wtd. (ft)	503.31	Wetted Per. (ft)	1115.15	4133.36	2611.01
Min Ch El (ft)	880.80	Shear (lb/sq ft)	0.06	0.48	0.20
Alpha	1.04	Stream Power (lb/ft s)	0.10	2.51	0.89
Frctn Loss (ft)	0.42	Cum Volume (acre-ft)	5572.19	57257.36	21907.71
C & E Loss (ft)	0.02	Cum SA (acres)	1375.13	6047.30	6339.76

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17262.48	17400.43	0.03	0.25	11.55	0.00	0.02	0.10
17400.43	17538.37	60.99	60.61	137.95	0.03	0.44	1.01
17538.37	17676.32	327.43	167.22	137.95	0.14	1.21	1.96
17676.32	17814.27	338.58	170.62	137.95	0.15	1.24	1.98
17814.27	17952.21	217.49	130.82	137.95	0.10	0.95	1.66
17952.21	18090.16	194.72	122.43	137.95	0.09	0.89	1.59
18090.16	18228.11	212.03	128.84	137.95	0.09	0.93	1.65
18228.11	18366.05	311.85	162.40	137.95	0.14	1.18	1.92
18366.05	18504.00	373.98	181.12	137.97	0.16	1.31	2.06
18504.00 LB	19535.75	20685.94	6788.77	1037.18	9.11	6.58	3.05
19535.75	20567.50	86164.30	10727.54	1032.15	37.96	10.40	8.03
20567.50	21599.25	24005.00	6713.36	1031.83	10.57	6.51	3.58
21599.25	22631.00 RB	52993.95	10798.31	1032.19	23.35	10.47	4.91
22631.00	22987.53	8424.21	1692.70	356.53	3.71	4.75	4.98
22987.53	23344.05	8364.09	1685.43	356.53	3.68	4.73	4.96
23344.05	23700.58	8398.57	1689.60	356.53	3.70	4.74	4.97
23700.58	24057.11	8445.01	1695.20	356.53	3.72	4.75	4.98
24057.11	24413.63	2329.37	682.84	253.45	1.03	2.70	3.41
24413.63	24770.16	3527.08	1003.95	356.53	1.55	2.82	3.51
24770.16	25126.69	1292.15	549.61	356.53	0.57	1.54	2.35
25126.69	25483.21	333.23	200.34	218.40	0.15	0.92	1.66

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 191.75

INPUT
Description:

Eliminate vertical ineffective area in rt. overbank by coding out GR

data between and below sta, elev. 22812, 888.5 and 24274.1, 888.5

Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16397.4	898.9	16416.4	895.9	16455.3	894.9	16469.8	898.1	16492.1	898.9
16510.3	893.4	16567.2	896.2	16576.2	894.3	16851.8	891.3	16910	889.8
17133.9	891.3	17465.5	891.7	17705.5	891.6	17934.7	891.5	18167.8	893.1
18384.3	891.1	18451	891.8	18485.1	886.2	18711.7	885.6	18782.7	888.2
18876.6	887.5	18915.5	883	18981.8	885.5	19001.5	883.5	19139.6	883.2
19169.6	886.5	19177.8	883.1	19287.3	883.7	19295	888.1	19341.5	886.5
19360.5	889	19377.3	885.5	19529.2	890.3	19560.9	882	19715.8	882.1
20042.3	881.4	20383.4	881.3	20441.3	885.6	20687.8	887.3	20948.8	887.4
21010.7	886.8	21025.6	884.5	21143.7	885.3	21159.2	883.6	21232	886.3
21447.4	886	21599.9	881.7	21946.7	882.2	22174.2	884.3	22399.5	883.8
22528.8	883.1	22558.1	880.4	22774.5	880.9	22812	888.5	24274.1	888.5
24493.8	889.2	24775.5	889.7	24901.5	890.1	25116.7	889.9	25369.7	891.2

25427.8	892.3	25442.9	896.5	25687.1	895.2	25821.4	894.8	25876.9	897.8
25885.8	895.3	25905.6	898.7	25932.1	898.7	25945.3	893.2	25975.7	894.1
25983.9	899.5	26002.7	898.9	26014.3	894.6	26290.1	895.9	26539.4	895.1
26760.1	896.3	26804.2	895.9	26899.2	898.1	26936.2	896.1	27058.4	897.6
27070.8	896.6	27112.7	896.7	27371.3	896.1	27462.4	896.4	27687.4	896.6
27963.1	896.5	28181	898	28249.9	897.9	28257.3	899.5		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16397.4	.032	16567.2	.025	18451	.065	19529.2	.026	20687.8	.043
22812	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18451	22812	580	545.07	560	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
16397.4	16570	898

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	892.88	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.33	Wt. n-Val.	0.025	0.037	0.025
E.G. Elev (ft)	893.21	Reach Len. (ft)	580.00	545.07	560.00
Crit W.S. (ft)	888.66	Flow Area (sq ft)	2233.78	38008.45	9904.39
E.G. Slope (ft/ft)	0.000788	Area (sq ft)	2233.78	38008.45	9904.39
Q Total (cfs)	227000.00	Flow (cfs)	4514.81	182363.20	40121.98
Top Width (ft)	8667.08	Top Width (ft)	1688.20	4361.00	2617.88
Vel Total (ft/s)	4.53	Avg. Vel. (ft/s)	2.02	4.80	4.05
Max Chl Dpth (ft)	12.48	Hydr. Depth (ft)	1.32	8.72	3.78
Conv. Total (cfs)	8086628.5	Conv. (cfs)	160835.2	6496491.0	1429302.1
Length Wtd. (ft)	548.28	Wetted Per. (ft)	1688.25	4367.09	2617.98
Min Ch El (ft)	880.40	Shear (lb/sq ft)	0.07	0.43	0.19
Alpha	1.05	Stream Power (lb/ft s)	0.13	2.05	0.75
Frctn Loss (ft)	0.38	Cum Volume (acre-ft)	5552.53	56842.34	21789.30
C & E Loss (ft)	0.01	Cum SA (acres)	1358.72	5999.07	6307.35

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16671.21	16808.12	57.62	55.95	101.40	0.03	0.55	1.03
16808.12	16945.03	765.64	297.89	136.93	0.34	2.18	2.57
16945.03	17081.93	892.80	326.64	136.91	0.39	2.39	2.73
17081.93	17218.84	465.16	220.89	136.91	0.20	1.61	2.11
17218.84	17355.75	364.62	190.86	136.91	0.16	1.39	1.91
17355.75	17492.65	297.27	168.85	136.91	0.13	1.23	1.76
17492.65	17629.56	291.52	166.88	136.91	0.13	1.22	1.75
17629.56	17766.47	314.73	174.74	136.91	0.14	1.28	1.80
17766.47	17903.37	339.49	182.86	136.91	0.15	1.34	1.86
17903.37	18040.28	244.97	150.34	136.91	0.11	1.10	1.63
18040.28	18177.19	22.68	31.20	95.35	0.01	0.33	0.73
18177.19	18314.09	72.41	69.19	122.39	0.03	0.57	1.05
18314.09	18451.00	385.88	197.47	136.91	0.17	1.44	1.95
18451.00 LB	19541.25	17799.10	7617.15	1094.23	7.84	6.99	2.34
19541.25	20631.50	84246.30	11212.63	1091.08	37.11	10.28	7.51
20631.50	21721.75	30102.67	8061.70	1090.64	13.26	7.39	3.73
21721.75	22812.00 RB	50215.13	11116.97	1091.15	22.12	10.20	4.52
22812.00	23175.02	6914.17	1589.72	363.02	3.05	4.38	4.35
23175.02	23538.04	6914.21	1589.73	363.02	3.05	4.38	4.35
23538.04	23901.06	6914.17	1589.72	363.02	3.05	4.38	4.35
23901.06	24264.08	6914.17	1589.72	363.02	3.05	4.38	4.35
24264.08	24627.10	5619.33	1403.74	363.02	2.48	3.87	4.00
24627.10	24990.12	3837.64	1116.65	363.02	1.69	3.08	3.44
24990.12	25353.14	2831.36	930.41	363.02	1.25	2.56	3.04
25353.14	25716.16	176.95	94.72	76.83	0.08	1.23	1.87

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 191.65

INPUT

Description:

Eliminate vertical ineffective area in rt. overbank by coding out GR

data between and below sta, elev. 23213, 888.8 and 24253, 888.7

Station Elevation Data num= 90

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16063.7	902.8	16164.6	896.2	16274.6	895	16295	892.5	16308.1	898.4
16532.3	890.3	16829.6	890.4	17133.6	890.2	17158.9	890.2	17429.2	889.6
17703.1	890.1	17965.6	890.3	18197.2	889.7	18412.7	891.5	18468.7	884.6
18666.6	886.7	18789.6	885	19001.7	888.5	19024.3	882.6	19121.3	883.7
19168.8	883.3	19180.8	881.8	19256.7	882.9	19497.7	880.5	19514.8	880.7
19530.2	886.4	19577.8	886.6	19616.7	888.7	19622	885.6	19638.1	880.7
19764.5	879.7	20214.8	879.9	20457.1	882.9	20490.3	886.1	20713	886.6
20910.5	886.1	20958.6	883.9	21178.8	886.1	21392.1	885.4	21457.8	885.5
21477.1	883.6	21655.1	882.6	21675	885.4	21712.7	882.8	21946.2	882.5
22051.6	881.5	22069.4	884.1	22313.5	886.4	22538.9	882.9	22792.4	882.7
22838.7	881.3	22932.3	883.2	22945.2	880.2	23139.2	880.4	23140.3	879.1
23182.4	887	23213	888.8	24253	888.7	24297.1	889.2	24303.9	887.5
24543	888.7	24765.9	890.4	24986.2	892.5	24997.1	889.7	25026	891.7
25053.2	891.3	25088.9	896.7	25104.5	892.5	25125.4	892.7	25147.6	896.5
25187.9	893.5	25404.8	892.9	25625.2	893.2	25692.5	891.4	25982.7	891.2
26137.9	892.5	26155.2	896.1	26172.5	896.7	26187.1	893.9	26217.3	894.1
26230	897.8	26254	897.9	26271.2	894.5	26507.5	894.6	26582.2	899.1
26620.6	894.2	26835.3	894	27057	894.5	27290.8	895.5	27493.1	898.1

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16063.7	.032	16532.3	.025	18412.7	.065	19121.3	.026	20490.3	.043
23213	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18412.7	23213	510	480.24	360	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16063.7	16500	901	24986.2	27493.1	901

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	892.53	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.30	Wt. n-Val.	0.025	0.035	0.025
E.G. Elev (ft)	892.83	Reach Len. (ft)	510.00	480.24	360.00
Crit W.S. (ft)	887.63	Flow Area (sq ft)	4495.25	42883.82	6077.63
E.G. Slope (ft/ft)	0.000599	Area (sq ft)	4510.87	42883.82	6665.12
Q Total (cfs)	227000.00	Flow (cfs)	11548.24	195351.25	20100.52
Top Width (ft)	9081.97	Top Width (ft)	1942.41	4800.30	2339.26
Vel Total (ft/s)	4.25	Avg. Vel. (ft/s)	2.57	4.56	3.31
Max Chl Dpth (ft)	13.43	Hydr. Depth (ft)	2.35	8.93	3.43
Conv. Total (cfs)	9273013.0	Conv. (cfs)	471748.8	7980153.0	821111.6
Length Wtd. (ft)	473.51	Wetted Per. (ft)	1912.73	4806.93	1773.43
Min Ch El (ft)	879.10	Shear (lb/sq ft)	0.09	0.33	0.13
Alpha	1.06	Stream Power (lb/ft s)	0.23	1.52	0.42
Frctn Loss (ft)	0.30	Cum Volume (acre-ft)	5507.63	56336.23	21682.79
C & E Loss (ft)	0.01	Cum SA (acres)	1334.55	5941.75	6275.49

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16376.90	16533.50	90.07	55.83	33.52	0.04	1.67	1.61
16533.50	16690.10	842.43	344.92	156.60	0.37	2.20	2.44
16690.10	16846.70	809.70	336.81	156.60	0.36	2.15	2.40
16846.70	17003.30	835.74	343.27	156.60	0.37	2.19	2.43
17003.30	17159.90	901.28	359.18	156.60	0.40	2.29	2.51
17159.90	17316.50	1044.14	392.33	156.60	0.46	2.51	2.66

17316.50	17473.10	1277.83	442.87	156.60	0.56	2.83	2.89
17473.10	17629.70	1187.41	423.80	156.60	0.52	2.71	2.80
17629.70	17786.30	1001.82	382.71	156.60	0.44	2.44	2.62
17786.30	17942.90	909.57	361.16	156.60	0.40	2.31	2.52
17942.90	18099.50	957.80	372.53	156.60	0.42	2.38	2.57
18099.50	18256.10	1152.20	416.21	156.60	0.51	2.66	2.77
18256.10	18412.70	538.18	263.61	156.61	0.24	1.68	2.04
18412.70 LB	19612.77	39070.56	9461.85	1202.50	17.21	7.88	4.13
19612.77	20812.85	81250.80	12429.38	1201.83	35.79	10.36	6.54
20812.85	22012.93	33773.14	9864.09	1200.52	14.88	8.22	3.42
22012.93	23213.00 RB	41256.84	11128.50	1202.08	18.17	9.27	3.71
23213.00	23498.34	3587.77	1068.03	285.34	1.58	3.74	3.36
23498.34	23783.68	3631.71	1075.86	285.34	1.60	3.77	3.38
23783.68	24069.02	3675.86	1083.69	285.34	1.62	3.80	3.39
24069.02	24354.36	3977.49	1136.54	285.55	1.75	3.98	3.50
24354.36	24639.70	4036.50	1146.29	285.35	1.78	4.02	3.52
24639.70	24925.04	1178.36	547.60	285.35	0.52	1.92	2.15
24925.04	25210.38	12.81	19.62	61.16	0.01	0.32	0.65

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 191.55

INPUT
Description:

Eliminate vertical ineffective area in main channel and rt. overbank

by coding out GR data between and below sta/elev. 23529, 889.2 and

24477.3, 889.2

Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16003.3	900.1	16035.1	899	16071.1	893.5	16154.7	894.3	16169.2	890.8
16189.4	895.2	16225.8	893.8	16253.9	889.9	16554.8	890.3	16725	889.8
16941.7	888.6	17142.3	890	17203.6	889.8	17220	887.9	17441.1	888.9
17699.5	889.1	17821.4	888.9	18093.5	889.9	18310.6	890.1	18357.1	890.3
18411	884.9	18618	885.4	18672.6	886.8	18881.8	884.6	19093.7	887.2
19246.1	885.5	19286.5	876.5	19355.9	883.7	19372.8	882.4	19405.4	884.2
19438	881.5	19645.9	883.7	19714	879.9	19770.8	879.9	20278.9	879.1
20321.8	883.3	20526.8	884.3	20755.4	887.1	20793.7	883.5	20828.3	886.4
20848.1	883.2	20904.8	883.5	20920.7	886	21094.7	886.3	21123	884.7
21359.8	885.8	21564.7	882.2	21707.6	884.3	21717.3	882.5	21889	882.4
22114.9	882.2	22138	885.1	22402.3	884.7	22642	886	22847.6	883.2
23064.7	881.5	23221.1	881.4	23462.5	879.3	23503.4	887.2	23530	889.2
24477.3	889.2	24722.3	889.2	24882.2	890.8	24981.6	896	24991.5	890.6
25047.1	896.3	25061	892.5	25281	893.2	25494.6	894.1	25783.5	892.4
25863	893.9	25889.2	891.4	26105.6	892	26304.9	891.9	26385.9	893
26418	899.7	26453.1	899.4	26459.9	896.6	26474	899.8	26499.2	898.9
26507.3	893	26541	892.9	26558.8	896.8	26576.2	896.5	26613.3	893.2
26947.9	894.1	27181.5	894.7	27470.8	895.4	27672.7	895	27841.1	895.4
28050.1	896.3								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16003.3	.032	16554.8	.025	18357.1	.065	19405.4	.026	20321.8	.043
23530	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18357.1	23530	515	490.48	575	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16003.3	16260	898	24981.6	28050.1	898

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	892.24	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.28	Wt. n-Val.	0.025	0.038	0.025
E.G. Elev (ft)	892.52	Reach Len. (ft)	515.00	490.48	575.00
Crit W.S. (ft)	887.36	Flow Area (sq ft)	5895.45	45045.42	4009.38
E.G. Slope (ft/ft)	0.000669	Area (sq ft)	5938.66	45045.42	4209.88
Q Total (cfs)	227000.00	Flow (cfs)	17789.24	196664.19	12546.57
Top Width (ft)	9154.45	Top Width (ft)	2132.71	5172.90	1848.83
Vel Total (ft/s)	4.13	Avg. Vel. (ft/s)	3.02	4.37	3.13
Max Chl Dpth (ft)	15.74	Hydr. Depth (ft)	2.81	8.71	2.91
Conv. Total (cfs)	8779305.0	Conv. (cfs)	688005.1	7606057.0	485242.8
Length Wtd. (ft)	495.78	Wetted Per. (ft)	2097.22	5177.20	1379.87
Min Ch El (ft)	876.50	Shear (lb/sq ft)	0.12	0.36	0.12
Alpha	1.04	Stream Power (lb/ft s)	0.35	1.59	0.38
Frctn Loss (ft)	0.33	Cum Volume (acre-ft)	5446.46	55851.54	21637.85
C & E Loss (ft)	0.00	Cum SA (acres)	1310.69	5886.78	6258.18

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16160.22	16317.14	270.67	131.35	57.14	0.12	2.30	2.06
16317.14	16474.06	668.26	338.41	156.92	0.29	2.16	1.97
16474.06	16630.98	686.65	318.06	156.92	0.30	2.03	2.16
16630.98	16787.90	1045.10	381.63	156.92	0.46	2.43	2.74
16787.90	16944.82	1674.79	506.44	156.92	0.74	3.23	3.31
16944.82	17101.74	1545.58	482.62	156.92	0.68	3.08	3.20
17101.74	17258.66	1430.28	460.81	157.03	0.63	2.94	3.10
17258.66	17415.58	2213.47	598.68	156.92	0.98	3.82	3.70
17415.58	17572.50	1748.39	519.67	156.92	0.77	3.31	3.36
17572.50	17729.42	1642.10	500.48	156.92	0.72	3.19	3.28
17729.42	17886.34	1695.56	510.20	156.92	0.75	3.25	3.32
17886.34	18043.26	1335.85	442.18	156.92	0.59	2.82	3.02
18043.26	18200.18	980.78	367.36	156.92	0.43	2.34	2.67
18200.18	18357.10	851.76	337.55	156.92	0.38	2.15	2.52
18357.10 LB	19650.32	31665.71	9760.57	1295.14	13.95	7.55	3.24
19650.32	20943.55	81471.71	12982.63	1294.29	35.89	10.04	6.28
20943.55	22236.78	38744.07	10666.13	1293.67	17.07	8.25	3.63
22236.78	23530.00 RB	44782.71	11636.09	1294.09	19.73	9.00	3.85
23530.00	23831.34	2935.82	917.56	301.34	1.29	3.04	3.20
23831.34	24132.68	2935.82	917.56	301.34	1.29	3.04	3.20
24132.68	24434.02	2935.82	917.56	301.34	1.29	3.04	3.20
24434.02	24735.36	2931.27	916.70	301.34	1.29	3.04	3.20
24735.36	25036.70	807.83	340.01	174.51	0.36	1.95	2.38

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 191.46

INPUT
Description:

Eliminate vertical ineffective area in rt. overbank by coding out GR

data between and below sta, elev. 23859.3, 890 and 24613.7, 890

Station Elevation Data num= 92

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15929	901.4	15939.9	898.9	16132.6	896.2	16273.1	894	16325.6	895.1
16340.8	890.8	16361.4	894.4	16481.6	890.7	16578.3	892.1	16610	889.7
16637.1	891.2	16854.8	889	16929	888.8	17249.7	889	17442.1	890.5
17507.7	886.3	17766.5	886.5	18057	889.4	18167.3	886.7	18193	883.2
18300	883.3	18460.7	883.6	18687.7	886.3	18891.5	883.7	19115.7	885
19336.1	886.1	19499.6	886.6	19606	880.2	19679.9	882.2	19721.7	879.2
19893	879.4	20097.2	880.1	20162.6	880.3	20355.4	880.5	20384	886.3
20686.7	885.3	20898.1	885.3	20922.7	883.7	20996.4	885.8	21035.8	883.9

21075.9	886.4	21276	886	21387.9	886.4	21587.8	882.4	21659.5	882.3
21952.5	881.7	22159.2	882.7	22290.8	885.5	22486.2	885.2	22690.4	885.6
22860.1	883.5	22899.7	885.4	22931.6	882.6	23170	883.7	23386.5	883
23511.6	882.3	23537.8	879	23575.2	881.5	23785.7	880.2	23812	880.3
23858.1	887.6	23859	890	24613.7	890	24701.3	890.3	24720.6	896.8
24735.4	896.9	24749.4	891.1	24766.5	893.3	24771.3	895.7	24793.6	896.2
24802.1	894.6	24811.8	898.4	24896.1	893.5	25212.8	892.9	25476.7	892.3
25733.9	891.7	25991.7	891.9	26062.7	892.2	26152.3	896.8	26189.7	890.6
26458.5	892.2	26656	892	26809.2	891.9	26845.5	895.5	26853.4	893.6
26923.3	895.6	26942.8	893.2	27170	894.4	27367.1	894.6	27743	894.3
27954.5	895.4	28068.5	895.2						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15929	.032	16578.3	.025	18057	.025	18687.7	.065	19499.6	.026
20384	.043	23859	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18300	23859	515	512.91	480	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15929	16600	900	24735.4	28068.5	900

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	891.92	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.28	Wt. n-Val.	0.025	0.036	0.025
E.G. Elev (ft)	892.19	Reach Len. (ft)	515.00	512.91	480.00
Crit W.S. (ft)	887.30	Flow Area (sq ft)	6399.59	46070.72	1603.87
E.G. Slope (ft/ft)	0.000647	Area (sq ft)	6494.36	46070.72	1797.58
Q Total (cfs)	227000.00	Flow (cfs)	24337.03	198952.27	3710.70
Top Width (ft)	8873.23	Top Width (ft)	1852.99	5559.00	1461.24
Vel Total (ft/s)	4.20	Avg. Vel. (ft/s)	3.80	4.32	2.31
Max Chl Dpth (ft)	12.92	Hydr. Depth (ft)	3.76	8.29	1.89
Conv. Total (cfs)	8923405.0	Conv. (cfs)	956692.5	7820844.0	145868.1
Length Wtd. (ft)	512.37	Wetted Per. (ft)	1700.51	5562.95	847.36
Min Ch El (ft)	879.00	Shear (lb/sq ft)	0.15	0.33	0.08
Alpha	1.02	Stream Power (lb/ft s)	0.58	1.44	0.18
Frctn Loss (ft)	0.35	Cum Volume (acre-ft)	5372.96	55338.56	21598.20
C & E Loss (ft)	0.00	Cum SA (acres)	1287.13	5826.36	6236.34

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16561.27	16719.33	249.10	151.05	119.41	0.11	1.27	1.65
16719.33	16877.40	914.48	368.75	158.07	0.40	2.33	2.48
16877.40	17035.47	1445.27	485.28	158.07	0.64	3.07	2.98
17035.47	17193.53	1390.29	474.12	158.07	0.61	3.00	2.93
17193.53	17351.60	1141.83	421.30	158.07	0.50	2.67	2.71
17351.60	17509.67	1053.81	401.63	158.20	0.46	2.54	2.62
17509.67	17667.73	3880.19	877.68	158.07	1.71	5.55	4.42
17667.73	17825.80	3622.14	842.18	158.07	1.60	5.33	4.30
17825.80	17983.87	2278.30	637.67	158.07	1.00	4.03	3.57
17983.87	18141.93	1582.94	512.55	158.10	0.70	3.24	3.09
18141.93	18300.00	6778.71	1227.38	158.31	2.99	7.76	5.52
18300.00 LB	19689.75	39789.70	10151.88	1390.03	17.53	7.30	3.92
19689.75	21079.50	75905.95	12774.06	1390.62	33.44	9.19	5.94
21079.50	22469.25	38600.03	11062.32	1389.82	17.00	7.96	3.49
22469.25	23859.00 RB	44656.55	12082.46	1392.47	19.67	8.69	3.70
23859.00	24139.63	1251.60	537.46	280.63	0.55	1.92	2.33
24139.63	24420.27	1251.61	537.46	280.63	0.55	1.92	2.33
24420.27	24700.90	1201.47	524.44	280.63	0.53	1.87	2.29
24700.90	24981.53	6.02	4.52	5.46	0.00	0.87	1.33

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 191.36

INPUT
Description:

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16334	897.8	16425.9	897	16498.2	899	16506.1	895	16510	890.4
16531.8	894.9	16839.1	891.6	16924.6	888	16956.6	890.6	17034.6	890.8
17092.2	884.9	17132.9	890.2	17165.7	886.2	17557.5	887.4	17759.1	889.1
17769.7	886.2	18107.7	885.9	18312.3	886.2	18342.5	881.8	18634.4	883.5
18940	885.7	19249.9	885.1	19425.8	884.4	19680.7	886.5	19715.5	879.2
19898.4	879.6	20344.5	880.1	20461.9	885.2	20782.3	885.8	20850.2	883.8
20954.5	886.1	21241.1	885.3	21346.1	885.7	21359.2	887.4	21422	885.3
21571.3	884.4	21590.5	882.4	21632.9	883.4	21648.9	881.6	21946.1	881.2
21965	884.3	22142.3	884.5	22159	882.1	22464.7	885.8	22712.3	885.9
22738.3	883.2	22905.3	883	22936.1	885.9	23004.6	882.1	23045.1	885.3
23071.8	882.5	23096.8	884.7	23386.1	882.8	23427.1	883.3	23455.3	880.7
23495.7	883.2	23533.7	879.9	23757	882.9	23909.4	880	24008.6	886
24051.4	884.8	24089.7	880	24110	887.4	24148.8	882.4	24169	884.1
24443.3	886.4	24555.1	893.6	24571	897.5	24590	898	24606	890.5
24625.6	890.5	24638.2	897.3	24753.2	894.7	25047	894.7	25081.8	891.9
25389.8	891.7	25731.2	891.2	25853.7	891	25945.5	893.9	26001.2	889.7
26301.9	889.3	26411.2	888.8	26434.7	891.4	26811	891	27106	890.8
27131.5	892.3	27152.5	896.3	27167.3	896.4	27175.1	891.8	27209.6	892.7
27216	896.3	27234.5	896.6	27250.9	893.6	27582.9	894.5	27870	895.3
27982	895.3								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16334	.032	17034.6	.025	18312.3	.065	19680.7	.026	20461.9	.043
24110	.043	24590	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18312.3	24110	515	498.89	560	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16334	16900	898	24590	27982	898

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	891.57	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.27	Wt. n-Val.	0.025	0.039	0.043
E.G. Elev (ft)	891.84	Reach Len. (ft)	515.00	498.89	560.00
Crit W.S. (ft)	887.19	Flow Area (sq ft)	6281.06	46420.25	2368.59
E.G. Slope (ft/ft)	0.000732	Area (sq ft)	6361.33	46420.25	3801.22
Q Total (cfs)	227000.00	Flow (cfs)	27909.70	192006.44	7083.85
Top Width (ft)	9251.37	Top Width (ft)	1479.20	5797.70	1974.48
Vel Total (ft/s)	4.12	Avg. Vel. (ft/s)	4.44	4.14	2.99
Max Chl Dpth (ft)	12.37	Hydr. Depth (ft)	4.45	8.01	5.73
Conv. Total (cfs)	8387787.0	Conv. (cfs)	1031280.3	7094754.0	261752.6
Length Wtd. (ft)	502.13	Wetted Per. (ft)	1413.72	5802.73	414.17
Min Ch El (ft)	879.20	Shear (lb/sq ft)	0.20	0.37	0.26
Alpha	1.01	Stream Power (lb/ft s)	0.90	1.51	0.78
Frctn Loss (ft)	0.32	Cum Volume (acre-ft)	5296.97	54794.03	21567.35
C & E Loss (ft)	0.01	Cum SA (acres)	1267.43	5759.49	6217.41

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16861.55	16993.43	350.42	181.86	93.56	0.15	1.95	1.93
16993.43	17125.32	1485.60	397.84	132.47	0.65	3.02	3.73
17125.32	17257.21	2629.62	603.43	132.19	1.16	4.58	4.36
17257.21	17389.09	2941.68	644.83	131.89	1.30	4.89	4.56
17389.09	17520.98	2547.90	591.56	131.89	1.12	4.49	4.31
17520.98	17652.87	2014.94	513.87	131.89	0.89	3.90	3.92
17652.87	17784.75	1509.83	432.68	132.28	0.67	3.28	3.49
17784.75	17916.64	3518.10	717.91	131.89	1.55	5.44	4.90
17916.64	18048.53	3645.10	733.35	131.89	1.61	5.56	4.97
18048.53	18180.41	3721.74	742.57	131.89	1.64	5.63	5.01
18180.41	18312.30	3544.83	721.18	131.89	1.56	5.47	4.92
18312.30 LB	19761.73	28327.36	10509.26	1450.53	12.48	7.25	2.70
19761.73	21211.15	75952.48	12524.94	1449.59	33.46	8.64	6.06
21211.15	22660.57	39206.95	10943.02	1450.24	17.27	7.55	3.58
22660.57	24110.00 RB	48519.59	12443.03	1452.38	21.37	8.58	3.90
24110.00	24368.13	5670.75	1748.53	258.53	2.50	6.77	3.24
24368.13	24626.27	1413.11	620.06	155.64	0.62	3.99	2.28

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 191.27

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16501.2	902.2	16590.7	901.5	16606.9	898.4	16660.8	898.9	16663.7	894.5
16668.3	890.8	16678.5	888.8	16698.7	891.7	16757	886.9	16899.8	887.2
17117.4	885.7	17157.1	885.6	17415.2	885.5	17557.7	886.4	17754.1	886.1
17983.4	886.4	18020.3	888.9	18088.1	888.7	18101.7	886.2	18297.3	885.9
18419.8	885.5	18500.8	887.8	18547.3	880.3	18683.1	880.3	18906.9	882.2
19026	884.7	19215.1	884.3	19232.8	884.9	19281.5	882.3	19463.7	883.7
19484.3	885.2	19632	885.8	19667.6	879	19993.5	879.4	20363.1	880.1
20394.4	880.3	20414	883.6	20603.3	883.7	20789.1	884.8	20975.9	885.4
21046.9	883.7	21071.8	886.1	21225.3	883.7	21259	886	21425.3	884.1
21630	883.6	21650.4	881.6	21968.2	882	22159.1	881.5	22283.4	881.8
22376	885.2	22544.2	881.9	22749.6	883.4	22941.3	884.5	23143.1	883.5
23334.3	881.7	23450.8	883.1	23463.9	879.7	23635.2	880	23835.5	883
24049.5	880	24103.4	881.6	24117.6	879.1	24214.3	879.8	24251.8	889.7
24310.7	888.9	24350.4	890.5	24390.3	897.1	24413	898.3	24429.2	889.5
24449.9	890.2	24465.2	896.7	24541.6	894.1	24761.6	895	24964.7	894.7
25153.2	894.5	25342.8	893.2	25582.1	891.8	25692.7	894.5	25739.2	889.7
25995.4	890	26315.8	888.8	26505.7	888.9	26695.6	889.6	26932.8	890.1
27145.5	890.9	27364.2	889.7	27549.3	889.9	27604.3	891.6	27633.3	896.5
27653.2	896.8	27659.6	893.8	27696.5	894.2	27721.9	896.6	27734.4	893.9
27937	894.9								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16501.2	.025	18500.8	.065	19632	.026	20414	.043	24251.8	.043
24413	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18500.8	24251.8	540	507.2	500	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
24413	27937	900

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	891.28	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.23	Wt. n-Val.	0.025	0.040	0.043
E.G. Elev (ft)	891.51	Reach Len. (ft)	540.00	507.20	500.00
Crit W.S. (ft)	886.20	Flow Area (sq ft)	8845.34	50430.79	181.08
E.G. Slope (ft/ft)	0.000560	Area (sq ft)	8845.34	50430.79	3065.01
Q Total (cfs)	227000.00	Flow (cfs)	35792.88	190992.08	215.05
Top Width (ft)	9575.89	Top Width (ft)	1825.05	5751.00	1999.84
Vel Total (ft/s)	3.82	Avg. Vel. (ft/s)	4.05	3.79	1.19
Max Chl Dpth (ft)	12.28	Hydr. Depth (ft)	4.85	8.77	1.75
Conv. Total (cfs)	9596053.0	Conv. (cfs)	1513085.4	8073877.0	9090.8
Length Wtd. (ft)	512.58	Wetted Per. (ft)	1826.13	5755.17	103.41
Min Ch El (ft)	879.00	Shear (lb/sq ft)	0.17	0.31	0.06
Alpha	1.01	Stream Power (lb/ft s)	0.68	1.16	0.07
Frctn Loss (ft)	0.28	Cum Volume (acre-ft)	5207.08	54239.41	21523.22
C & E Loss (ft)	0.00	Cum SA (acres)	1247.90	5693.36	6191.86

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16634.51	16767.81	463.84	200.31	92.78	0.20	2.18	2.32
16767.81	16901.12	2033.55	562.06	133.31	0.90	4.22	3.62
16901.12	17034.43	2306.71	606.22	133.31	1.02	4.55	3.81
17034.43	17167.73	3094.34	723.06	133.31	1.36	5.42	4.28
17167.73	17301.04	3369.98	761.04	133.31	1.48	5.71	4.43
17301.04	17434.35	3411.83	766.69	133.31	1.50	5.75	4.45
17434.35	17567.65	2921.40	698.54	133.31	1.29	5.24	4.18
17567.65	17700.96	2698.20	666.00	133.31	1.19	5.00	4.05

17700.96	17834.27	2821.07	684.03	133.31	1.24	5.13	4.12
17834.27	17967.57	2690.00	664.78	133.31	1.19	4.99	4.05
17967.57	18100.88	1286.04	427.34	133.61	0.57	3.21	3.01
18100.88	18234.19	2865.18	690.46	133.32	1.26	5.18	4.15
18234.19	18367.49	3087.12	722.04	133.31	1.36	5.42	4.28
18367.49	18500.80	2743.56	672.76	133.34	1.21	5.05	4.08
18500.80 LB	19938.55	45281.98	12878.81	1439.17	19.95	8.96	3.52
19938.55	21376.30	55795.43	11879.98	1438.27	24.58	8.26	4.70
21376.30	22814.05	42158.26	12352.85	1437.95	18.57	8.59	3.41
22814.05	24251.80 RB	47756.43	13319.16	1439.78	21.04	9.26	3.59
24251.80	24497.48	215.05	181.08	103.41	0.09	1.75	1.19

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 191.17

INPUT
Description: Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16315.6	900.3	16480.6	899.6	16689.4	890.1	16823.1	887.6	16839.9	884.4
16848.1	885.5	16853.7	889.8	16889.3	884.2	16960	884.2	17185	885.2
17523.8	886.1	17751.7	885.6	17955.5	886	18176.2	885.6	18331.9	885.2
18419.9	888.1	18662.9	888.9	18905.3	886.5	18941.2	887.2	18983	879.6
19195.9	882.9	19295.8	883.6	19374	881.1	19609.1	884.4	19652.9	880.1
19950	880.5	20471.2	879.3	20500	883	20703.7	882.3	20910.1	884.3
20995.8	882.3	21032.7	884.6	21252	884.4	21278.3	881.3	21348.4	882.5
21371.7	880.8	21525.8	882.8	21590.2	881	21649.2	884.2	21683.1	882
21701.6	884.3	21719.1	881.7	21771.4	881.3	21979.4	880.8	22197.9	881.8
22454.4	882	22472.7	880.3	22560.1	879.8	22588.1	882.9	22728.8	883.1
22929.8	881.8	23139.4	882.8	23342.4	880.7	23446.7	882.6	23465.2	879.9
23668.5	880.6	23874.7	881.8	24084.6	879.3	24128.1	6890.9	908 24139	893.9
24150	893.9	24160.8	897.1	24184.9	896.6	24207.1	889.2	24224.8	890.4
24238.3	895.2	24399.9	890.8	24608.5	894.1	24814	894.2	24922.3	895.2
25096.9	895.1	25141.3	891.7	25345	895.8	25363.6	895.8	25381.1	893.3
25586.9	891.2	25622.8	893.4	25735.2	890.2	25895.8	890.7	26097.1	889.5
26152.6	889.4	26397.7	889.6	26625	890.3	26834.4	889.6	27058.7	889.5
27314.9	890.1	27431.2	890.4	27654.6	890.7	27864.8	891.2	27890.9	891.9
27931	897	27937.6	893.5	27970.3	893.7	27980.2	896.2	28001.3	897.2
28012.2	893	28053	893.5						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16315.6	.032	16853.7	.025	18419.9	.065	18941.2	.065	19609.1	.026
20500	.043	24139	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18941.2	24128.16	520	505.85	395	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
24160.8	28053	900

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	890.99	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.24	Wt. n-Val.	0.027	0.039	
E.G. Elev (ft)	891.22	Reach Len. (ft)	520.00	505.85	395.00
Crit W.S. (ft)	885.68	Flow Area (sq ft)	10467.70	47914.34	
E.G. Slope (ft/ft)	0.000542	Area (sq ft)	10467.70	47914.34	2036.25
Q Total (cfs)	227000.00	Flow (cfs)	38688.62	188311.39	
Top Width (ft)	9570.13	Top Width (ft)	2271.32	5186.95	2111.85
Vel Total (ft/s)	3.89	Avg. Vel. (ft/s)	3.70	3.93	
Max Chl Dpth (ft)	11.69	Hydr. Depth (ft)	4.61	9.24	
Conv. Total (cfs)	9748586.0	Conv. (cfs)	1661494.9	8087091.5	
Length Wtd. (ft)	508.40	Wetted Per. (ft)	2273.71	5191.12	
Min Ch El (ft)	879.30	Shear (lb/sq ft)	0.16	0.31	
Alpha	1.00	Stream Power (lb/ft s)	0.58	1.23	
Frctn Loss (ft)	0.27	Cum Volume (acre-ft)	5087.37	53666.86	21493.94
C & E Loss (ft)	0.00	Cum SA (acres)	1222.51	5629.68	6168.26

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16665.68	16840.72	707.12	383.73	171.20	0.31	2.25	1.84
16840.72	17015.76	4754.83	1056.38	177.01	2.09	6.04	4.50
17015.76	17190.80	4978.81	1076.79	175.04	2.19	6.15	4.62
17190.80	17365.84	4181.98	969.81	175.04	1.84	5.54	4.31
17365.84	17540.88	3618.31	889.12	175.04	1.59	5.08	4.07
17540.88	17715.92	3663.97	895.84	175.04	1.61	5.12	4.09
17715.92	17890.96	3849.23	922.74	175.04	1.70	5.27	4.17
17890.96	18066.00	3612.87	888.32	175.04	1.59	5.07	4.07
18066.00	18241.04	3952.88	937.57	175.04	1.74	5.36	4.22
18241.04	18416.08	3595.42	885.83	175.09	1.58	5.06	4.06
18416.08	18591.12	479.66	457.56	175.04	0.21	2.61	1.05
18591.12	18766.16	409.56	426.81	175.05	0.18	2.44	0.96
18766.16	18941.20	884.04	677.23	175.05	0.39	3.87	1.31
18941.20 LB	20237.94	55714.26	12449.61	1297.73	24.54	9.60	4.48
20237.94	21534.68	45826.20	11150.94	1297.35	20.19	8.60	4.11
21534.68	22831.42	42127.82	11943.54	1297.51	18.56	9.21	3.53
22831.42	24128.16 RB	44643.06	12370.26	1298.52	19.67	9.54	3.61

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 191.08

INPUT
Description: Right Channel Bank Station Interpolated
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16419.8	894.6	16442.3	894.5	16503.4	890	16682.1	885.1	16695.6	883
16709.7	889.5	16864.3	884.1	16979.6	886.9	17269.5	884.6	17562.1	884.4
17830.5	884.6	18085.7	885.8	18311.2	885.5	18511	886.6	18535.6	888.8
18554.1	886.8	18771.4	888.3	18986	882.8	19052.4	888.8	19303.5	889.1
19309.2	889.4	19352	879.9	19522.3	881.1	19565.5	885.7	19626.3	882
19950.1	881.4	20245.9	880.7	20600.5	878.9	20639.7	879.7	20671	883.5
20714.6	877.3	20774.6	881.4	20991.6	881.8	21074.6	880.8	21093.7	882.8
21249.3	881.8	21259.8	881.3	21308.2	879.8	21350.5	882.6	21584	881.9
21708.1	882.9	21730.5	880.4	21758.6	882.2	21856.6	881	21872.1	883.4
22107.5	880.9	22327.1	880.7	22598	881.5	22833.9	880.1	22863.1	881.8
22961.7	879.6	22981.7	883.4	23228.8	882.4	23369.9	879.6	23417.2	882.1
23452.8	880.2	23670.1	879.1	23689.3	881.9	23704.1	878.6	23731.3	881.6
23968.6	878.8	24058.9	879.5	24101.1	2890.7	156 24118	895.2	24134.1	896.5
24147.4	889.7	24179.5	893.4	24427.2	893.5	24546.9	893.4	24567.9	891.2
24803.6	893.7	24860.5	892.3	25084.6	891.4	25122.1	891.9	25188	895.2
25210.9	890.6	25477	891.8	25711.4	891.7	25818.2	892.2	25939.5	888.6
26190.2	888.5	26390	888.2	26609.2	888.4	26708.9	888.8	27051.8	888
27145.5	888.1	27392.4	888.4	27663.6	889.6	27934	890.6	28177.5	891.3
28189.9	891.9	28228.2	898.3	28242.4	893.9	28276.3	894.9	28280.5	897
28306	896								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16419.8	.032	16979.6	.025	18535.6	.065	19309.2	.065	19565.5	.026
20671	.043	24118	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19309.2	24101.12	475	483.82	435	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16419.8	16660	897	24134.1	28306	897

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	890.71	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.24	Wt. n-Val.	0.029	0.038	
E.G. Elev (ft)	890.95	Reach Len. (ft)	475.00	483.82	435.00
Crit W.S. (ft)	885.40	Flow Area (sq ft)	12578.50	45485.23	
E.G. Slope (ft/ft)	0.000523	Area (sq ft)	13029.65	45485.23	4117.10
Q Total (cfs)	227000.00	Flow (cfs)	43111.00	183889.00	
Top Width (ft)	9748.11	Top Width (ft)	2815.46	4791.91	2140.73
Vel Total (ft/s)	3.91	Avg. Vel. (ft/s)	3.43	4.04	
Max Chl Dpth (ft)	13.41	Hydr. Depth (ft)	4.75	9.49	
Conv. Total (cfs)	9924236.0	Conv. (cfs)	1884774.1	8039462.0	
Length Wtd. (ft)	482.33	Wetted Per. (ft)	2651.50	4797.58	

Min Ch El (ft)	877.30	Shear (lb/sq ft)	0.15	0.31	
Alpha	1.01	Stream Power (lb/ft s)	0.53	1.25	
Frctn Loss (ft)	0.24	Cum Volume (acre-ft)	4947.12	53124.55	21466.04
C & E Loss (ft)	0.00	Cum SA (acres)	1192.15	5571.74	6148.98

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16612.43	16805.05	1368.03	544.53	146.71	0.60	3.75	2.51
16805.05	16997.68	3212.38	1001.57	192.70	1.42	5.20	3.21
16997.68	17190.31	3431.13	909.10	192.63	1.51	4.72	3.77
17190.31	17382.93	5127.20	1156.84	192.63	2.26	6.01	4.43
17382.93	17575.56	5486.41	1204.80	192.63	2.42	6.25	4.55
17575.56	17768.19	5450.69	1200.09	192.63	2.40	6.23	4.54
17768.19	17960.81	4994.91	1138.83	192.63	2.20	5.91	4.39
17960.81	18153.44	3927.70	985.89	192.63	1.73	5.12	3.98
18153.44	18346.07	3915.52	984.05	192.63	1.72	5.11	3.98
18346.07	18538.69	2967.62	833.60	192.75	1.31	4.33	3.56
18538.69	18731.32	720.33	632.31	192.72	0.32	3.28	1.14
18731.32	18923.95	996.86	768.34	192.68	0.44	3.99	1.30
18923.95	19116.57	1267.79	888.01	192.92	0.56	4.61	1.43
19116.57	19309.20	244.40	330.52	192.63	0.11	1.72	0.74
19309.20 LB	20507.18	57984.93	11296.84	1199.39	25.54	9.43	5.13
20507.18	21705.16	43735.50	11156.39	1199.04	19.27	9.31	3.92
21705.16	22903.14	39881.39	11309.33	1198.45	17.57	9.44	3.53
22903.14	24101.12 RB	42287.20	11722.68	1200.70	18.63	9.79	3.61

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 190.99

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16293.2	896.5	16445.3	890.1	16501.6	887.3	16538.3	888.7	16600.3	887.7
16642.7	883.5	16656.9	887.8	16680.6	888.1	16697.5	884.7	16863.4	884.5
16986.1	884.7	16993	887.7	17141.1	887.2	17265.3	887.5	17315.2	884.5
17474.2	885.7	17645.1	886.2	17801.3	886.7	17900.2	885.1	18153.3	886
18345.3	886.2	18530.3	886.4	18657.1	887.8	18676.1	885.4	18778	888.7
18932.4	887.4	19050.9	884.5	19084.1	881.8	19145.1	888.5	19188.6	886.8
19332.7	888	19442.8	888.4	19487.1	881.2	19542	883.1	19582.4	878.3
19622.6	882	19678	878.4	20012.2	878	20404.8	878	20594.3	878
20689.1	881.9	20787.1	882.4	20806.3	879.6	20939.2	878.3	20958.6	880.1
21000.9	878.3	21049.7	878.4	21063	881.6	21211.5	880.9	21350	881.3
21384.7	883.3	21410.4	881.5	21429	883.1	21489.3	880.2	21568.7	880.8
21586.5	882.2	21729.6	883	21867	883.7	22013.1	882.2	22122.1	882
22145.6	880.4	22282.8	881.8	22414.5	881.3	22436.3	879.3	22614.2	879.1
22768.3	878.5	22874.5	880.6	22887.5	882.6	22967.5	879.5	23109.9	879
23243.4	880.5	23277.3	877.6	23295.8	880.9	23437.6	879.6	23450	877.4
23599.2	877.6	23737.6	876.8	23823.5	878.2	23868.5	889.6	23932.5	890.7
23952	896.1	23963.5	895.3	23972.5	890	23987.9	890.1	24005.3	895.2
24029.8	891.6	24182.3	891.3	24327.3	892.1	24493.8	891.4	24668.6	890.7
24753.3	891.7	24755.4	893.5	24825.5	891.1	24905.1	891.9	24975.6	894.1
24989.6	892.7								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16293.2	.032	16993	.025	18778	.065	19442.8	.026	20787.1	.15
21063	.043	23868.5	.043	23952	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19442.8	23868.5	460	502.34	575	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16293.2	16620	895	23952	24989.6	895

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	890.47	Element	Left OB	Channel	Right OB

Vel Head (ft)	0.25	Wt. n-Val.	0.029	0.037	0.043
E.G. Elev (ft)	890.72	Reach Len. (ft)	460.00	502.34	575.00
Crit W.S. (ft)	884.26	Flow Area (sq ft)	11806.58	46428.52	21.89
E.G. Slope (ft/ft)	0.000457	Area (sq ft)	12212.55	46428.52	28.73
Q Total (cfs)	227000.00	Flow (cfs)	33504.02	193486.70	9.26
Top Width (ft)	7499.84	Top Width (ft)	3006.23	4425.70	67.91
Vel Total (ft/s)	3.90	Avg. Vel. (ft/s)	2.84	4.17	0.42
Max Chl Dpth (ft)	13.67	Hydr. Depth (ft)	4.18	10.49	0.43
Conv. Total (cfs)	10615770.0	Conv. (cfs)	1566832.4	9048504.0	433.3
Length Wtd. (ft)	495.13	Wetted Per. (ft)	2825.39	4430.46	50.47
Min Ch El (ft)	876.80	Shear (lb/sq ft)	0.12	0.30	0.01
Alpha	1.05	Stream Power (lb/ft s)	0.34	1.25	0.01
Frctn Loss (ft)	0.23	Cum Volume (acre-ft)	4809.49	52614.11	21445.34
C & E Loss (ft)	0.00	Cum SA (acres)	1160.40	5520.55	6137.95

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16503.17	16713.15	1114.26	419.83	94.23	0.49	4.51	2.65
16713.15	16923.12	3952.48	1236.47	209.97	1.74	5.89	3.20
16923.12	17133.09	2325.27	816.71	210.60	1.02	3.89	2.85
17133.09	17343.07	2445.39	799.50	210.06	1.08	3.81	3.06
17343.07	17553.04	3894.32	1056.82	209.98	1.72	5.03	3.68
17553.04	17763.01	2903.80	886.17	209.97	1.28	4.22	3.28
17763.01	17972.99	3431.34	979.55	209.99	1.51	4.67	3.50
17972.99	18182.96	3524.38	995.38	209.98	1.55	4.74	3.54
18182.96	18392.93	3026.93	908.52	209.97	1.33	4.33	3.33
18392.93	18602.91	2630.41	835.13	209.98	1.16	3.98	3.15
18602.91	18812.88	1677.02	649.23	210.18	0.74	3.09	2.58
18812.88	19022.85	725.36	684.03	210.00	0.32	3.26	1.06
19022.85	19232.83	1367.52	1001.64	210.49	0.60	4.77	1.37
19232.83	19442.80	485.52	537.58	209.98	0.21	2.56	0.90
19442.80 LB	20549.23	80489.53	12880.89	1107.61	35.46	11.64	6.25
20549.23	21655.65	33803.89	10862.09	1107.54	14.89	9.82	3.11
21655.65	22762.07	32913.74	10182.76	1106.59	14.50	9.20	3.23
22762.07	23868.50 RB	46279.54	12502.78	1108.72	20.39	11.30	3.70
23868.50	23943.24	9.26	21.89	50.47	0.00	0.43	0.42

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 190.89

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16503.2	899.9	16535.8	894.6	16657	885.5	16665.3	883.5	16702	887.4
16710.3	884.6	16943.5	884.3	17198.5	884	17277	885.2	17282.5	887.1
17513.2	886.2	17732	884.9	17974.7	885.7	18208.9	885.2	18478.4	885.7
18715.8	885.3	18827.1	885.2	18931.1	891.9	19028.7	888.5	19143.1	886.8
19216	881.2	19271.6	887	19324.8	885.1	19585.6	888.4	19645.1	876.4
19839.4	877.8	20196.7	877.4	20479.4	877.1	20599.8	877.8	20762.2	881.6
20895	882.3	20951.8	879.2	21085.2	877.4	21102.7	879.7	21166.2	880.7
21177.6	877.4	21264.1	879.8	21417.2	882.1	21444.8	879.6	21650.5	881.5
21851.6	881	21896.2	882	21919.7	879.1	21957	882.3	22045.5	879.3
22247.1	882.1	22451.3	882.6	22654.5	883.6	22850	881.8	22864.7	881.3
22879.7	877.8	23129.7	877.4	23366.2	877	23580.2	876.2	23775.3	878.3
23830	889.8	23900.7	889.7	23926.4	895.9	23935.2	889.6	23955.6	889.4
23969.7	894.7	23990.9	891	24229.8	891.9	24458.6	891.5	24606.6	890
24692	893.6	24709.3	889.1	24961.9	890.7	25267.9	890.7	25345.9	890.4
25552.9	890.5	25831.8	889.9	26047.1	889.4	26318.7	889.2	26359.2	888.2
26390.8	891.1	26461.5	888	26709.1	886.2	26913.8	888.2	27105.7	887.4
27122.5	885.3	27335.6	886.2	27561.9	886.9	27925	888	28158	888.9
28371.7	889.6	28576.5	889.9	28697.5	890.3	28737.2	895	28745.9	893.3
28777.1	893.3	28787.9	896.3	28806.5	897.3	28827.5	893	29052.8	893.1
29056.5	893.1								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16503.2	.025	18931.1	.065	19585.6	.026	20762.2	.15	21085.2	.043

22850 .065 23830 .051

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19585.6	23830	420	469.24	485	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23926.4	29056.5	898

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	890.25	Element			
Vel Head (ft)	0.23	Wt. n-Val.	0.027	0.040	0.051
E.G. Elev (ft)	890.48	Reach Len. (ft)	420.00	469.24	485.00
Crit W.S. (ft)	883.86	Flow Area (sq ft)	13412.59	45777.09	35.82
E.G. Slope (ft/ft)	0.000474	Area (sq ft)	13412.59	45777.09	6222.21
Q Total (cfs)	227000.00	Flow (cfs)	43826.44	183159.42	14.13
Top Width (ft)	10458.57	Top Width (ft)	2918.76	4244.40	3295.40
Vel Total (ft/s)	3.83	Avg. Vel. (ft/s)	3.27	4.00	0.39
Max Chl Dpth (ft)	14.05	Hydr. Depth (ft)	4.60	10.79	0.49
Conv. Total (cfs)	10426945.0	Conv. (cfs)	2013109.6	8413186.0	649.1
Length Wtd. (ft)	458.65	Wetted Per. (ft)	2920.96	4248.58	73.04
Min Ch El (ft)	876.20	Shear (lb/sq ft)	0.14	0.32	0.01
Alpha	1.02	Stream Power (lb/ft s)	0.44	1.28	0.01
Frctn Loss (ft)	0.21	Cum Volume (acre-ft)	4674.19	52082.45	21404.09
C & E Loss (ft)	0.00	Cum SA (acres)	1129.12	5470.56	6115.76

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16503.20	16708.69	1165.70	400.52	115.92	0.51	3.48	2.91
16708.69	16914.19	4864.23	1186.90	205.58	2.14	5.78	4.10
16914.19	17119.68	5233.52	1239.96	205.49	2.31	6.03	4.22
17119.68	17325.17	4233.91	1092.58	205.82	1.87	5.32	3.88
17325.17	17530.67	2333.65	763.76	205.50	1.03	3.72	3.06
17530.67	17736.16	3526.78	978.50	205.50	1.55	4.76	3.60
17736.16	17941.65	3820.02	1026.53	205.49	1.68	5.00	3.72
17941.65	18147.15	3464.56	968.10	205.49	1.53	4.71	3.58
18147.15	18352.64	3743.02	1014.06	205.49	1.65	4.93	3.69
18352.64	18558.13	3384.32	954.58	205.49	1.49	4.65	3.55
18558.13	18763.63	3637.68	996.84	205.49	1.60	4.85	3.65
18763.63	18969.12	1554.96	516.35	141.99	0.69	3.64	3.01
18969.12	19174.61	438.51	487.84	196.22	0.19	2.49	0.90
19174.61	19380.11	1745.06	1139.17	205.95	0.77	5.54	1.53
19380.11	19585.60	680.50	646.89	205.51	0.30	3.15	1.05
19585.60 LB	20646.70	89190.88	13314.08	1062.32	39.29	12.55	6.70
20646.70	21707.80	31188.92	10551.21	1062.03	13.74	9.94	2.96
21707.80	22768.90	27705.40	8925.28	1061.50	12.21	8.41	3.10
22768.90	23830.00 RB	35074.24	12986.51	1062.72	15.45	12.24	2.70
23830.00	24178.43	14.13	35.82	73.04	0.01	0.49	0.39

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 190.8

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16505.6	900.4	16604	882.9	16646.6	885	16867.3	884.2	17123.9	884.3
17321.3	884	17518.7	883.5	17564.6	884.1	17588.2	886.7	17786	885.8
18002.7	884.9	18208	885.5	18287.5	883.9	18633.8	883.9	18850.2	884.1
18983.9	887.4	19038.1	885.9	19243.1	885.1	19316.3	880.4	19386.5	886.5
19594.1	886.7	19602.3	887.9	19622.6	875.8	19878.4	876	20161.6	876.1
20513.1	876.4	20585.2	876.3	20665.9	880.9	20864.1	881.9	20991.2	880.6
21088.3	878.7	21132.3	880	21152.4	876.7	21254.1	876.8	21279.9	881.6
21377.4	879.2	21386	880.9	21450.6	879.4	21479.6	882.7	21517.1	879.8
21615.4	881.5	21663.5	880.1	21776.7	881.5	21788.5	879	21986.9	881
22185.3	882.5	22385	881.6	22590	881.3	22759.2	880	22793	881.2
22822.6	877.9	23026.6	880.3	23237.4	878.7	23445.9	877.5	23481.4	881.2
23528.6	877.5	23563.8	877.2	23591.8	879.7	23612.9	877	23689.5	877.8

23724	887.9	23881.2	889.2	23890.2	894.1	23898.4	894	23908.9	889.4
23926.6	889.8	23935	894.5	23963.3	891.4	24167.6	891	24369.8	893.7
24430.1	890.7	24439.9	891.8	24451.6	889.5	24696	889.5	24912.5	888.6
25215.2	888.5	25475.4	888.8	25672	889.1	25963.1	888.4	26269.8	888.1
26492.4	888.1	26691.1	887.1	26900	884.7	27126.7	886.4	27363.6	887.7
27390.3	887.7	27402.2	884.6	27496.2	885.2	27704.6	885.8	27946.4	886.4
28175.1	886.7	28425.6	888.6	28694.2	888.3	28898	890.8	28910.1	891
28922	894								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16505.6	.025	18983.9	.065	19602.3	.026	20665.9	.15	21132.3	.043
22385	.065	23724	.065	23935	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19602.3	23724	470	477.66	410	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23890.2	28922	900

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	890.05	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.22	Wt. n-Val.	0.028	0.040	0.065
E.G. Elev (ft)	890.27	Reach Len. (ft)	470.00	477.66	410.00
Crit W.S. (ft)	883.72	Flow Area (sq ft)	15956.37	44773.60	236.37
E.G. Slope (ft/ft)	0.000435	Area (sq ft)	15956.37	44773.60	10530.67
Q Total (cfs)	227000.00	Flow (cfs)	53848.24	173004.94	146.83
Top Width (ft)	11726.60	Top Width (ft)	3038.50	4121.70	4566.40
Vel Total (ft/s)	3.72	Avg. Vel. (ft/s)	3.37	3.86	0.62
Max Chl Dpth (ft)	14.25	Hydr. Depth (ft)	5.25	10.86	1.49
Conv. Total (cfs)	10882297.0	Conv. (cfs)	2581465.0	8293793.5	7038.9
Length Wtd. (ft)	475.54	Wetted Per. (ft)	3039.92	4129.07	158.98
Min Ch El (ft)	875.80	Shear (lb/sq ft)	0.14	0.29	0.04
Alpha	1.02	Stream Power (lb/ft s)	0.48	1.14	0.03
Frctn Loss (ft)	0.21	Cum Volume (acre-ft)	4532.60	51594.73	21310.82
C & E Loss (ft)	0.00	Cum SA (acres)	1100.40	5425.50	6071.99

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16505.60	16712.05	2653.57	741.78	148.93	1.17	5.00	3.58
16712.05	16918.49	4518.95	1163.39	206.45	1.99	5.64	3.88
16918.49	17124.94	4726.58	1195.18	206.45	2.08	5.79	3.95
17124.94	17331.39	4889.46	1219.72	206.45	2.15	5.91	4.01
17331.39	17537.83	5474.37	1305.29	206.45	2.41	6.32	4.19
17537.83	17744.28	2686.77	851.85	206.59	1.18	4.13	3.15
17744.28	17950.73	3109.64	929.68	206.45	1.37	4.50	3.34
17950.73	18157.17	3644.80	1022.61	206.45	1.61	4.95	3.56
18157.17	18363.62	4294.37	1128.39	206.46	1.89	5.47	3.81
18363.62	18570.07	5226.70	1269.52	206.45	2.30	6.15	4.12
18570.07	18776.51	5162.35	1260.12	206.45	2.27	6.10	4.10
18776.51	18982.96	3588.86	1013.24	206.49	1.58	4.91	3.54
18982.96	19189.41	1052.80	859.26	206.47	0.46	4.16	1.23
19189.41	19395.85	2064.19	1290.88	206.86	0.91	6.25	1.60
19395.85	19602.30	754.89	705.49	206.53	0.33	3.42	1.07
19602.30 LB	20632.73	96622.59	14177.83	1033.84	42.57	13.76	6.82
20632.73	21663.15	24491.68	10138.46	1031.78	10.79	9.84	2.42
21663.15	22693.57	25223.60	9114.37	1030.72	11.11	8.85	2.77
22693.57	23724.00 RB	26666.99	11342.93	1032.73	11.75	11.01	2.35
23724.00	24070.53	146.83	236.37	158.98	0.06	1.49	0.62

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 190.71

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

16760.6	900.7	16766.3	899.7	16790.6	904.1	16817.7	896.9	16827.2	889.9
16869.6	884.2	16924.6	880.9	17157.1	883.7	17406.7	883.9	17698.9	884.1
17948.5	885.4	18228.2	884.6	18567.5	884.4	18860.3	884.2	19027.5	883.1
19049.9	886.9	19098	883.9	19264.6	885.4	19480	880.6	19533.2	885.3
19603.4	885	19623.4	891.3	19639.8	883.9	19676.3	875.3	20207.3	875.5
20569	875.6	20589.5	882.2	20657.6	879.5	20766.6	879.7	20881.7	877.2
21074.3	880.4	21116.6	877	21249.7	881	21265.4	875.6	21385.3	876.4
21427.3	878	21446.4	881.1	21501.1	879.8	21516.4	877.9	21567	881
21582.9	878.1	21700.6	879.1	21755.2	881	22005.8	881.7	22065.5	883.2
22087.6	881.1	22318	882.4	22473.1	880	22616.6	881.2	22647	879.1
22687	881.2	22722.7	878.2	22909.4	881.3	23019	880	23070.4	882
23212.3	877.3	23579.5	878.1	23602.8	879.1	23630	885.8	23865.1	885.1
23914.2	885.3	23929.7	893	23944.5	893.7	23951.5	889.8	23970.6	888.9
23981	893	24121.2	890.8	24192.3	893.1	24218.7	890.2	24477	887.7
24699.9	887.9	24946.3	888.2	25195.4	887.7	25435.5	887.4	25711.9	886.9
25977.2	887.2	26288	886.7	26579	886.5	26820.2	887.3	27066.6	884.7
27319.1	885.6	27577.3	886.8	27663.3	884.4	27988.2	885.5	28221.6	886
28485.8	886.1	28810.3	887.2	29052.5	889.3	29089	890.1	29119.8	894.8
29132.7	889.5	29165.2	893.2	29175.8	896.1	29186.1	896.4	29209	890.9
29459.6	893								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16760.6	.025	19049.9	.065	19623.4	.026	20589.5	.15	21249.7	.043
22687	.065	23630	.065	23981	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19623.4	23630	595	475.57	575	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23944.5	29459.6	900

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	889.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.22	Wt. n-Val.	0.029	0.041	0.065
E.G. Elev (ft)	890.06	Reach Len. (ft)	595.00	475.57	575.00
Crit W.S. (ft)	883.40	Flow Area (sq ft)	15979.65	44385.07	1281.42
E.G. Slope (ft/ft)	0.000443	Area (sq ft)	15979.65	44385.07	15898.42
Q Total (cfs)	227000.00	Flow (cfs)	55789.39	169567.69	1642.91
Top Width (ft)	11934.90	Top Width (ft)	2791.15	4003.37	5140.38
Vel Total (ft/s)	3.68	Avg. Vel. (ft/s)	3.49	3.82	1.28
Max Chl Dpth (ft)	14.54	Hydr. Depth (ft)	5.73	11.09	4.37
Conv. Total (cfs)	10789695.0	Conv. (cfs)	2651764.3	8059840.0	78090.4
Length Wtd. (ft)	503.43	Wetted Per. (ft)	2793.07	4010.09	294.41
Min Ch El (ft)	875.30	Shear (lb/sq ft)	0.16	0.31	0.12
Alpha	1.03	Stream Power (lb/ft s)	0.55	1.17	0.15
Frctn Loss (ft)	0.23	Cum Volume (acre-ft)	4360.31	51105.89	21186.44
C & E Loss (ft)	0.00	Cum SA (acres)	1068.95	5380.95	6026.31

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16760.60	16951.45	3121.18	755.31	124.30	1.37	6.10	4.13
16951.45	17142.31	6760.51	1425.66	190.87	2.98	7.47	4.74
17142.31	17333.16	4802.85	1161.23	190.85	2.12	6.08	4.14
17333.16	17524.01	4600.49	1131.62	190.85	2.03	5.93	4.07
17524.01	17714.87	4426.89	1105.80	190.85	1.95	5.79	4.00
17714.87	17905.72	3652.21	985.26	190.86	1.61	5.16	3.71
17905.72	18096.57	3048.31	884.00	190.85	1.34	4.63	3.45
18096.57	18287.43	3600.21	976.81	190.85	1.59	5.12	3.69
18287.43	18478.28	3856.52	1017.97	190.85	1.70	5.33	3.79
18478.28	18669.13	3996.09	1039.92	190.85	1.76	5.45	3.84
18669.13	18859.99	4154.25	1064.42	190.85	1.83	5.58	3.90
18859.99	19050.84	4708.83	1148.44	191.18	2.07	6.02	4.10
19050.84	19241.69	1372.51	971.85	190.95	0.60	5.09	1.41
19241.69	19432.55	1855.72	1164.52	190.90	0.82	6.10	1.59
19432.55	19623.40	1832.77	1146.83	187.19	0.81	6.16	1.60
19623.40 LB	20625.05	93871.14	13772.71	1001.76	41.35	13.79	6.82
20625.05	21626.70	23563.89	11230.82	1003.60	10.38	11.21	2.10
21626.70	22628.35	26793.91	8728.97	1001.86	11.80	8.71	3.07
22628.35	23630.00 RB	25338.79	10652.57	1002.86	11.16	10.64	2.38

23630.00	24018.64	1642.91	1281.42	294.41	0.72	4.37	1.28

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 190.62

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17913.4	897.7	17955.4	894.9	18001	885	18037.1	879	18166.6	879.5
18387.1	882.7	18519.1	883	18744.9	883.3	18960.3	883.4	19135.9	882.6
19161.5	880.9	19199.8	886.9	19227.9	884.2	19442	881.7	19604.9	881.9
19615.6	884.1	19623.5	889.8	19642.3	881.5	19675.9	875.1	19754.7	874.4
20214.9	874.7	20414.3	874.7	20570.8	875	20590.4	881.8	20780.9	876.9
21006.3	880.2	21136.9	882.7	21213.3	877.2	21389.1	878.5	21595.6	878.8
21644.3	879.6	21656.9	878.1	21882.6	881.5	21931.4	882	22042.6	880.4
22090.5	881.2	22290.8	881.2	22359.2	881.9	22391.7	880	22478	881.8
22694.6	878.1	22932	876	22941.6	878.5	23281.4	874.6	23480	872.2
23514.7	881	23556	885.2	23709	885.4	23722.4	889.6	23742.2	888
23750	884.1	23770	885.8	23779.3	891.7	23797.5	887.7	23815.8	892.2
23827.8	892.2	23844.7	887.8	23918.3	891.3	23929.9	888.6	23946.6	891.1
23958	886.3	24024.1	887.8	24146.6	885.1	24154.2	889.7	24214.6	886.4
24453.9	887.8	24757.4	887.6	24946	887.6	25143.8	888	25214.2	887.9
25491.4	887.1	25773.1	887.9	25872.4	888.2	26115	887.3	26148.7	887.2
26400.2	886.5	26563.7	887.5	26682.6	885.1	26905.3	884.8	26927	888.1
26935.1	885.4	26941.6	887.2	26986.2	884.1	27195.4	884.4	27275.2	884.7
27291.3	880.7	27608.1	882.2	27826.9	883.1	28104.9	884.2	28309.3	884.5
28350.1	884.6	28558	885.3	28677.7	885.7	28903.4	887	29103.6	888.3
29299.6	888.1								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17913.4	.025	19199.8	.065	19623.5	.026	20590.4	.15	21389.1	.043
22478	.065	23480	.065	23918.3	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19623.5	23480	350	502.72	510	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23722.4	29299.6	895

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	889.59	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.24	Wt. n-Val.	0.029	0.043	0.065
E.G. Elev (ft)	889.83	Reach Len. (ft)	350.00	502.72	510.00
Crit W.S. (ft)	882.51	Flow Area (sq ft)	11691.73	45276.98	1402.99
E.G. Slope (ft/ft)	0.000459	Area (sq ft)	11691.73	45276.98	20470.03
Q Total (cfs)	227000.00	Flow (cfs)	46869.18	177927.09	2203.73
Top Width (ft)	11214.01	Top Width (ft)	1643.35	3856.02	5714.64
Vel Total (ft/s)	3.89	Avg. Vel. (ft/s)	4.01	3.93	1.57
Max Chl Dpth (ft)	17.39	Hydr. Depth (ft)	7.11	11.74	5.79
Conv. Total (cfs)	10594170.0	Conv. (cfs)	2187401.0	8303920.0	102848.8
Length Wtd. (ft)	476.51	Wetted Per. (ft)	1647.02	3860.41	244.32
Min Ch El (ft)	872.20	Shear (lb/sq ft)	0.20	0.34	0.16
Alpha	1.02	Stream Power (lb/ft s)	0.82	1.32	0.26
Frctn Loss (ft)	0.26	Cum Volume (acre-ft)	4171.32	50616.45	20946.41
C & E Loss (ft)	0.00	Cum SA (acres)	1038.66	5338.05	5954.66

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17913.40	18027.41	796.46	227.64	48.40	0.35	4.79	3.50
18027.41	18141.41	6964.17	1178.45	114.14	3.07	10.34	5.91
18141.41	18255.42	6159.04	1094.22	114.02	2.71	9.60	5.63
18255.42	18369.43	4521.24	908.99	114.02	1.99	7.97	4.97
18369.43	18483.43	3482.23	777.14	114.01	1.53	6.82	4.48

18483.43	18597.44	3271.66	748.59	114.01	1.44	6.57	4.37
18597.44	18711.45	3142.59	730.73	114.01	1.38	6.41	4.30
18711.45	18825.45	3039.55	716.25	114.01	1.34	6.28	4.24
18825.45	18939.46	2993.64	709.75	114.01	1.32	6.23	4.22
18939.46	19053.47	3105.13	725.49	114.01	1.37	6.36	4.28
19053.47	19167.47	3731.83	810.46	114.14	1.64	7.11	4.60
19167.47	19281.48	1224.95	587.82	114.54	0.54	5.16	2.08
19281.48	19395.49	1295.00	761.62	114.01	0.57	6.68	1.70
19395.49	19509.49	1660.12	884.01	114.01	0.73	7.75	1.88
19509.49	19623.50	1481.58	830.57	115.71	0.65	7.30	1.78
19623.50 LB	20587.63	101890.93	14015.82	966.95	44.89	14.54	7.27
20587.63	21551.75	15004.13	10109.45	964.60	6.61	10.49	1.48
21551.75	22515.88	27199.06	8629.88	964.35	11.98	8.95	3.15
22515.88	23480.00 RB	33832.94	12521.84	964.52	14.90	12.99	2.70
23480.00	23867.97	2203.73	1402.99	244.32	0.97	5.79	1.57

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 190.53

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18233.1	902.1	18280.1	885	18347.8	879.4	18525.2	883.3	18748.7	882.3
18976.8	882.7	19167.5	882.8	19309.1	883.4	19343.5	886.9	19376.8	882.4
19520.2	881.3	19697.6	876.9	19773	874.1	20104.9	874.9	20273.8	875.2
20564.4	875.6	20588.7	880.5	20804	877.3	21024.7	880.2	21180.6	882.1
21227	875.5	21464	878.2	21577.5	877	21589	878.6	21615.9	876.6
21804.8	878	21973.1	876.7	22011.7	880.3	22187.3	878.8	22233.6	879.7
22251	877.6	22277.6	879.8	22324.9	880.3	22376.4	875.6	22555	875.5
22609	878.1	22792.7	878.7	22833.7	877.1	22863.3	879.4	22894.8	878.2
22924.9	879.2	23039.1	878.5	23063.6	875.2	23320.3	876.2	23427.6	885.1
23465	887.5	23497.9	891	23511.2	884	23531	885	23547.6	890.9
23559.1	891.4	23567.2	887.3	23587.2	890.8	23686.5	889	23692.9	887.5
23718.4	890.1	23729	886.3	23793.8	887	24008.7	886.7	24276.5	887.1
24411.1	887.4	24694.7	887.5	24841.5	887.3	25059.6	886.7	25240.7	887.2
25530.7	886.2	25653	886.3	25904.9	886.1	26142.7	886.4	26361.4	886.7
26592.6	885.7	26791.2	885.6	26988.4	885.4	27197.5	885.4	27213	886.5
27394.8	884.7	27570.5	882.6	27576.4	880.5	27788.4	882.6	27987.4	882.8
28175.5	882.7	28295.9	883.9	28488.9	885.4	28685.1	885	28962.6	887
29127.5	887.1	29323.6	887.6	29544	889.3	29591	890.2	29622	893.6
29628.8	891.6	29659.2	892.2	29671.8	895.4	29714	891.3	29983	892.5
30012.1	892.6								

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18233.1	.043	18748.7	.025	19343.5	.065	19773	.026	20588.7	.15
21464	.043	22609	.15	23320.3	.15	23559.1	.025		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19343.5	23320.3	380	493.96	450	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23497.9	30012.1	900

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	889.29	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.27	Wt. n-Val.	0.031	0.048	0.150
E.G. Elev (ft)	889.56	Reach Len. (ft)	380.00	493.96	450.00
Crit W.S. (ft)	882.14	Flow Area (sq ft)	7180.80	46650.20	1054.18
E.G. Slope (ft/ft)	0.000668	Area (sq ft)	7180.80	46650.20	21025.28
Q Total (cfs)	227000.00	Flow (cfs)	31216.00	194843.69	940.30
Top Width (ft)	11133.06	Top Width (ft)	1075.20	3976.80	6081.06
Vel Total (ft/s)	4.14	Avg. Vel. (ft/s)	4.35	4.18	0.89
Max Chl Dpth (ft)	15.19	Hydr. Depth (ft)	6.68	11.73	6.53
Conv. Total (cfs)	8784235.0	Conv. (cfs)	1207967.6	7539880.0	36386.9
Length Wtd. (ft)	484.80	Wetted Per. (ft)	1076.41	3979.51	162.08
Min Ch El (ft)	874.10	Shear (lb/sq ft)	0.28	0.49	0.27
Alpha	1.03	Stream Power (lb/ft s)	1.21	2.04	0.24
Frctn Loss (ft)	0.34	Cum Volume (acre-ft)	4095.50	50085.98	20703.49

C & E Loss (ft) 0.00 Cum SA (acres) 1027.74 5292.85 5885.61

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18233.10	18307.13	402.97	171.51	39.67	0.18	4.42	2.35
18307.13	18381.15	2455.99	651.57	74.17	1.08	8.80	3.77
18381.15	18455.18	2249.62	617.72	74.05	0.99	8.34	3.64
18455.18	18529.21	1568.15	497.46	74.04	0.69	6.72	3.15
18529.21	18603.23	1362.15	457.11	74.03	0.60	6.17	2.98
18603.23	18677.26	1486.13	481.64	74.03	0.65	6.51	3.09
18677.26	18751.29	1656.41	506.14	74.03	0.73	6.84	3.27
18751.29	18825.31	2834.13	512.41	74.03	1.25	6.92	5.53
18825.31	18899.34	2746.16	502.81	74.03	1.21	6.79	5.46
18899.34	18973.37	2659.24	493.20	74.03	1.17	6.66	5.39
18973.37	19047.39	2600.60	486.64	74.03	1.15	6.57	5.34
19047.39	19121.42	2575.07	483.77	74.03	1.13	6.54	5.32
19121.42	19195.45	2536.82	479.45	74.03	1.12	6.48	5.29
19195.45	19269.47	2369.02	460.16	74.03	1.04	6.22	5.15
19269.47	19343.50	1713.59	379.25	74.21	0.75	5.12	4.52
19343.50 LB	20337.70	82909.48	12281.78	994.61	36.52	12.35	6.75
20337.70	21331.90	37991.30	11116.28	995.22	16.74	11.18	3.42
21331.90	22326.10	44422.03	11120.08	994.82	19.57	11.18	3.99
22326.10	23320.30 RB	29520.82	12132.05	994.86	13.00	12.20	2.43
23320.30	23766.42	940.30	1054.18	162.08	0.41	6.53	0.89

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 190.43

INPUT
Description:

Eliminate vertical ineffective area in main channel by coding out GR

data between and below sta, elev. 22018, 876.2 and 22616, 876.2 -

22774, 876.2 and 23180, 876.2

Station Elevation Data num= 92

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18066.2	901.7	18136.2	893.8	18162.1	893.8	18167.3	891.3	18191.4	887.5
18242.9	887.2	18254.5	885.5	18487	882.5	18589	879.6	18698.5	879.7
18860.3	883.2	19037.1	883.1	19168.3	877	19353.7	877.4	19408.1	878.8
19632.2	876.3	19684.7	874.2	19868	874.4	20263.5	875.2	20430.6	875.7
20559.9	876.5	20574.9	879.7	20672.3	876.8	20804.2	878.7	21021.3	880
21216.1	882.4	21243	881.6	21278.4	875.1	21355.6	875.3	21379.5	876.9
21402.8	875.2	21458.5	878.5	21657.6	878.5	21838	878.9	21985.1	877.6
22018	876.2	22616	876.2	22700.3	877.4	22774	876.2	23180	876.2
23247.5	879.3	23288.9	887.1	23455	890.5	23501.9	890.1	23554.9	887.3
23686.2	885.9	23692.8	888.9	23712.5	884.5	23724.9	885.6	23730.7	888.6
23843.9	886.8	24038.1	887.6	24164.2	887.8	24359	888	24422.3	888
24692.4	887.4	24926.8	887.3	25070.2	887.2	25276.6	886.1	25329.9	886.1
25594.1	886.2	25656.6	886.2	25855.2	886.4	26049.9	886.1	26258.2	886.1
26430.2	885.3	26621.6	885.9	26791.5	885.8	26964.4	885.7	27134.5	884.4
27356.4	885.8	27587.9	884	27756.3	882.3	27795.5	881.9	27799.9	880.2
27996.8	882.6	28225.4	884	28417.4	884.6	28600.8	883.7	28842.3	885.4
29064	886	29283.3	887	29486.8	888.1	29664.7	889.4	29764.4	890
29783.5	891.9	29788.5	894.6	29808.5	893.9	29816.6	890.4	29995.5	895.3
30161.4	895.9	30231.1	894.7						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18066.2	.15	19037.1	.15	19632.2	.026	20574.9	.15	21216.1	.043
22616	.15	23288.9	.15	23455	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19037.1	23288.9	495	497.76	360	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18066.2	18250	900	23455	30231.1	900

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	888.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.30	Wt. n-Val.	0.150	0.047	0.150
E.G. Elev (ft)	889.22	Reach Len. (ft)	495.00	497.76	360.00
Crit W.S. (ft)	881.51	Flow Area (sq ft)	5208.37	50099.55	81.36
E.G. Slope (ft/ft)	0.000728	Area (sq ft)	5311.86	50099.55	18643.18
Q Total (cfs)	227000.00	Flow (cfs)	4907.37	222072.17	20.46
Top Width (ft)	11271.26	Top Width (ft)	854.74	4251.80	6164.72
Vel Total (ft/s)	4.10	Avg. Vel. (ft/s)	0.94	4.43	0.25
Max Chl Dpth (ft)	14.73	Hydr. Depth (ft)	6.62	11.78	0.91
Conv. Total (cfs)	8410916.0	Conv. (cfs)	181830.3	8228327.5	758.2
Length Wtd. (ft)	497.65	Wetted Per. (ft)	787.25	4254.10	89.18
Min Ch El (ft)	874.20	Shear (lb/sq ft)	0.30	0.54	0.04
Alpha	1.15	Stream Power (lb/ft s)	0.28	2.37	0.01
Frctn Loss (ft)	0.46	Cum Volume (acre-ft)	4041.01	49537.43	20498.60
C & E Loss (ft)	0.00	Cum SA (acres)	1019.32	5246.19	5822.36

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18195.65	18260.38	19.56	34.29	10.43	0.01	3.30	0.57
18260.38	18325.11	162.63	253.63	64.73	0.07	3.92	0.64
18325.11	18389.83	224.41	307.69	64.73	0.10	4.75	0.73
18389.83	18454.56	293.90	361.75	64.73	0.13	5.59	0.81
18454.56	18519.29	382.75	423.90	64.74	0.17	6.55	0.90
18519.29	18584.01	563.84	534.86	64.75	0.25	8.26	1.05
18584.01	18648.74	686.09	601.60	64.73	0.30	9.29	1.14
18648.74	18713.47	675.13	595.81	64.73	0.30	9.21	1.13
18713.47	18778.19	556.87	530.84	64.74	0.25	8.20	1.05
18778.19	18842.92	407.62	440.21	64.74	0.18	6.80	0.93
18842.92	18907.65	311.33	374.46	64.73	0.14	5.79	0.83
18907.65	18972.37	309.98	373.48	64.73	0.14	5.77	0.83
18972.37	19037.10	313.26	375.85	64.73	0.14	5.81	0.83
19037.10 LB	20100.05	69589.26	13191.06	1063.17	30.66	12.41	5.28
20100.05	21163.00	61976.36	12076.17	1063.36	27.30	11.36	5.13
21163.00	22225.95	54012.48	11795.46	1063.81	23.79	11.10	4.58
22225.95	23288.90 RB	36494.06	13036.87	1063.77	16.08	12.26	2.80
23288.90	23751.71	20.46	81.36	89.18	0.01	0.91	0.25

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 190.34

INPUT
Description:

Eliminate vertical ineffective area in main channel by coding out GR

data between and below sta, elev. 21998, 876.2 and 22935, 876.2

Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

18103.2	905.1	18131.9	903.1	18151.3	899.3	18164.1	894.5	18228.7	887.6
18457.9	882.5	18701.4	878.1	18894.7	877.7	19071.1	877.1	19233.7	876.8
19423.9	876.2	19529	877	19597.7	873	19621.6	878.7	19730.8	877.7
20275.9	874.8	20543.1	873.7	20560.1	877.9	20720.8	877.7	20735.5	877.8
20924.5	878.6	21030.2	879.8	21255.3	880.6	21308	880.1	21329.3	874.3
21528.9	877.6	21549.5	876.3	21578.2	878.9	21642.6	875	21687.3	878.8
21799.2	878.7	21893.3	875.7	21941.7	879.3	21959.2	874.9	21983.9	876.4
21991	874.9	21993.6	876.7	21998	876.2	22935	876.2	23008.4	885.6
23172	886.7	23282	889.8	23319.3	887.1	23517.2	886.4	23741.2	887
23942.4	885.6	23975.8	888.5	23982.9	883.3	24000.1	884.2	24008.3	888
24201.4	887	24242.7	887	24453.4	888.1	24467.9	888.1	24743.2	887.5
24826.6	887.7	25014.6	887.8	25221.9	887.5	25456.5	887.1	25589.6	886.8
25750.1	886.3	25913.7	885.9	26031.9	886.3	26213.1	886	26315.1	885.9
26515.2	885.8	26682.8	886.1	26888.3	885.9	27054.8	885	27295.9	884.1
27471.6	886	27675.4	885.4	27884	883.6	28051.1	883.7	28238.5	881.1
28462.7	881.9	28688.6	883	28901	883.8	29146	885	29380.9	885.9
29672.4	887	29862.6	887.1	30026.7	889.8	30070.4	894.2	30077.5	889.9
30105.9	891.7	30117.4	894.3	30138.4	894	30169.7	890.9	30392.2	892.7
30468.5	892.5								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18103.2	.15	18228.7	.15	19621.6	.026	20560.1	.15	21308	.043
21998	.15	23008.4	.15	23282	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18228.7	23008.4	500	507.25	505	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23282	30468.5	900

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	888.47	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.29	Wt. n-Val.	0.150	0.059	0.150
E.G. Elev (ft)	888.77	Reach Len. (ft)	500.00	507.25	505.00
Crit W.S. (ft)	881.35	Flow Area (sq ft)	3.57	52260.45	435.85
E.G. Slope (ft/ft)	0.001191	Area (sq ft)	3.57	52260.45	18409.92
Q Total (cfs)	227000.00	Flow (cfs)	0.70	226768.86	230.44
Top Width (ft)	11659.78	Top Width (ft)	8.18	4779.70	6871.90
Vel Total (ft/s)	4.31	Avg. Vel. (ft/s)	0.20	4.34	0.53
Max Chl Dpth (ft)	15.47	Hydr. Depth (ft)	0.44	10.93	1.92
Conv. Total (cfs)	6578914.0	Conv. (cfs)	20.3	6572215.0	6678.7
Length Wtd. (ft)	507.24	Wetted Per. (ft)	8.22	4784.49	226.55
Min Ch El (ft)	873.00	Shear (lb/sq ft)	0.03	0.81	0.14
Alpha	1.01	Stream Power (lb/ft s)	0.01	3.52	0.08
Frctn Loss (ft)	0.50	Cum Volume (acre-ft)	4010.81	48952.59	20345.48
C & E Loss (ft)	0.00	Cum SA (acres)	1014.42	5194.59	5768.49

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18220.33	18228.70	0.70	3.57	8.22	0.00	0.44	0.20
18228.70 LB	19423.63	16300.24	10919.43	1195.03	7.18	9.14	1.49
19423.63	20618.55	131258.92	14899.20	1196.24	57.82	12.47	8.81
20618.55	21813.47	44707.27	12244.21	1196.18	19.69	10.25	3.65
21813.47	23008.40 RB	34502.43	14197.60	1197.04	15.20	11.88	2.43
23008.40	23505.74	230.44	435.85	226.55	0.10	1.92	0.53

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 190.24

INPUT
Description:

Eliminate vertical ineffective area in main channel by coding out GR

data between and below sta, elev. 19491, 873.8 and
20547, 873.8 -

21613, 876.2 and 22842, 876.2

Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17851.9	904	17930.9	889.7	18129.1	886	18233.2	882.9	18289.2	884.6
18460.2	882.5	18694.9	879.2	18883	878.4	19186.8	876.9	19295.2	879.2
19463.7	876.2	19491	873.8	20547	873.8	20562.4	876.9	20880.1	878.2
21034.9	878.7	21206.6	879	21270.5	875.6	21301.2	879.4	21416.7	879.6
21458.4	873	21485.9	873.1	21506.1	876	21603.6	876.8	21613	876.2
22842	876.2	22894	885.3	23112.4	886.4	23147.1	891.4	23238.1	886.2
23440.5	887.3	23616.5	885.9	23791.2	886.4	23969	885.9	24022.5	888.4
24065.6	883.6	24077	889.9	24112.8	888	24115.1	885.9	24140	884.8
24352	886.2	24554.4	885.6	24730.8	886.1	24971.8	885	25224.1	885.1
25396.3	885.1	25575.2	884	25817.8	884.4	26015.7	884.3	26063.3	884.3
26252.1	885	26432	885.1	26699.1	885.4	26881.7	885.6	26948.8	884
26960.9	885.5	27171.2	885.9	27384.9	885.5	27605.5	885.4	27852	885.4
28130	884.3	28304	882.4	28316.9	882.1	28327.7	878.6	28340.7	881.2
28357.4	878.7	28377.9	880.7	28571.9	880.6	28757.8	882.5	28940.1	882.4
29058.3	882.6	29371.9	883.8	29568.1	885.7	29725	887.1	30056.6	887.9
30245.4	888.4	30359	891.2	30383.3	894	30390.3	889.8	30434.8	895.1
30479.8	890.6	30661	892						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17851.9	.15	18289.2	.15	19463.7	.026	20562.4	.15	21613	.065
22894	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18289.2	22894	450	487.35	450	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23147.1	30661	901

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	887.97	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.30	Wt. n-Val.	0.150	0.049	0.025
E.G. Elev (ft)	888.26	Reach Len. (ft)	450.00	487.35	450.00
Crit W.S. (ft)	880.83	Flow Area (sq ft)	705.44	51159.20	470.48
E.G. Slope (ft/ft)	0.000828	Area (sq ft)	705.44	51159.20	21126.01
Q Total (cfs)	227000.00	Flow (cfs)	385.86	225314.92	1299.22
Top Width (ft)	11920.92	Top Width (ft)	265.37	4604.80	7050.74
Vel Total (ft/s)	4.34	Avg. Vel. (ft/s)	0.55	4.40	2.76
Max Chl Dpth (ft)	14.97	Hydr. Depth (ft)	2.66	11.11	2.05
Conv. Total (cfs)	7887221.0	Conv. (cfs)	13407.0	7828672.0	45142.1
Length Wtd. (ft)	486.75	Wetted Per. (ft)	265.46	4607.18	229.38
Min Ch El (ft)	873.00	Shear (lb/sq ft)	0.14	0.57	0.11
Alpha	1.03	Stream Power (lb/ft s)	0.08	2.53	0.29
Frctn Loss (ft)	0.58	Cum Volume (acre-ft)	4006.74	48350.44	20116.31
C & E Loss (ft)	0.02	Cum SA (acres)	1012.85	5139.95	5687.78

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17997.67	18026.82	0.00	0.08	2.99	0.00	0.03	0.02
18026.82	18055.97	1.09	9.56	29.16	0.00	0.33	0.11
18055.97	18085.13	5.55	25.43	29.16	0.00	0.87	0.22
18085.13	18114.28	12.46	41.29	29.16	0.01	1.42	0.30
18114.28	18143.43	22.13	58.31	29.16	0.01	2.00	0.38
18143.43	18172,59	39.38	82.39	29.17	0.02	2.83	0.48
18172.59	18201.74	61.54	107.71	29.17	0.03	3.69	0.57

18201.74	18230.89	87.48	133.01	29.17	0.04	4.56	0.66
18230.89	18260.05	91.51	136.65	29.17	0.04	4.69	0.67
18260.05	18289.20	64.72	111.01	29.17	0.03	3.81	0.58
18289.20 LB	19440.40	11682.82	9817.92	1151.29	5.15	8.53	1.19
19440.40	20591.60	149757.70	16097.44	1151.62	65.97	13.98	9.30
20591.60	21742.80	19135.97	11936.28	1152.28	8.43	10.37	1.60
21742.80	22894.00 RB	44738.43	13307.56	1151.99	19.71	11.56	3.36
22894.00	23411.80	1299.22	470.48	229.38	0.57	2.05	2.76

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 190.15

INPUT
Description:

Eliminate vertical ineffective area in main channel by coding out GR

data between and below sta, elev. 19488, 873.8 and 19804, 873.8 -

22091, 876.2 and 22610, 876.2

Station Elevation Data num= 94

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16806.6	895	17001.3	892.2	17194.4	890.7	17383.4	890	17563.4	888
17757.7	886	17953.6	885	18123.7	883	18294.6	883.8	18474.6	880.6
18714.3	879	18891.7	877	19222.4	874.7	19377.1	875.8	19414.4	877.6
19477.4	875.8	19488	873.8	19804	873.8	20526.1	881.2	20569.7	884.6
20576.8	878.8	20599	875.8	20828.2	877.7	20911.5	877.7	21024.6	885.6
21112.2	885.4	21256	879.7	21301.9	884.8	21370.7	882.8	21444.7	878.6
21612.8	881.3	21689.9	877.9	21736.1	883.2	21843.1	878.4	21913.1	880.7
21939.8	877.8	22019.3	878.2	22091	876.2	22610	876.2	22645.1	879.2
22803	883.8	23018.6	885.5	23098.1	884.3	23135	886.2	23141.2	882.2
23173.2	885	23186.6	887.7	23212.3	887.7	23222	890.4	23317	885.2
23511.1	882.9	23536.2	882.9	23716.4	883.4	23844.4	883.4	24080.5	883.7
24313.8	884	24484.1	884.4	24703.6	883.7	24977.6	884.5	25177.1	884.8
25382.6	884.9	25588.6	884.9	25813.3	884.7	25870.1	885.4	25882.9	883.3
26059.1	883.9	26338.7	884.5	26441.5	884.7	26682.8	884.8	26950.7	885.1
27143.1	885.8	27353.5	884.8	27589.6	884	27835.6	883.8	28110.7	884.3
28326.7	884	28509.8	882.1	28584.4	880.5	28592.5	878.4	28603.6	882
28621.4	879.2	28630.7	880.6	28831.9	881.3	29070.5	882.5	29302.1	884.4
29567.5	884.1	29637.6	884.6	29821.9	885.5	30074.7	886.3	30277.2	887
30460.3	887.7	30632.9	887.7	30805.6	891.5	30809	891.9		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16806.6	.15	18294.6	.15	19414.4	.026	20569.7	.15	21612.8	.065
22803	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18294.6	22803	495	507.16	520	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16806.6	18000	893	23222	30809	893

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	887.20	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.46	Wt. n-Val.	0.150	0.051	0.025
E.G. Elev (ft)	887.67	Reach Len. (ft)	495.00	507.16	520.00
Crit W.S. (ft)	882.18	Flow Area (sq ft)	1080.03	40302.65	951.73
E.G. Slope (ft/ft)	0.001867	Area (sq ft)	1599.00	40302.65	22216.49
Q Total (cfs)	227000.00	Flow (cfs)	1099.17	221414.23	4486.59

Top Width (ft)	12593.38	Top Width (ft)	653.82	4508.40	7431.16
Vel Total (ft/s)	5.36	Avg. Vel. (ft/s)	1.02	5.49	4.71
Max Chl Dpth (ft)	13.40	Hydr. Depth (ft)	3.67	8.94	2.50
Conv. Total (cfs)	5253267.5	Conv. (cfs)	25437.1	5124001.0	103829.4
Length Wtd. (ft)	507.71	Wetted Per. (ft)	294.61	4512.91	382.72
Min Ch El (ft)	873.80	Shear (lb/sq ft)	0.43	1.04	0.29
Alpha	1.04	Stream Power (lb/ft s)	0.43	5.72	1.37
Frctn Loss (ft)	0.85	Cum Volume (acre-ft)	3994.84	47838.80	19892.43
C & E Loss (ft)	0.01	Cum SA (acres)	1008.10	5088.97	5612.98

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17997.00	18096.20	302.33	318.86	96.21	0.13	3.31	0.95
18096.20	18195.40	433.13	400.51	99.20	0.19	4.04	1.08
18195.40	18294.60	363.71	360.66	99.20	0.16	3.64	1.01
18294.60 LB	19421.70	20087.78	10374.40	1127.20	8.85	9.20	1.94
19421.70	20548.80	144479.64	12080.93	1127.42	63.65	10.72	11.96
20548.80	21675.90	12840.96	7586.86	1130.34	5.66	6.73	1.69
21675.90	22803.00 RB	44005.86	10260.47	1127.94	19.39	9.10	4.29
22803.00	23336.73	4486.59	951.73	382.72	1.98	2.50	4.71

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 190.05

INPUT
Description:

Eliminate vertical ineffective area in main channel by coding out GR

data between and below sta, elev. 19489, 873.8 and 19867.6, 873.8

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18021.5	897.3	18058.5	887.4	18085.3	885	18275.3	883.8	18288.1	881.9
18290.5	880	18467.7	876.8	18489.7	876.9	18704.3	877.1	18854.7	874.9
19057.5	876.9	19245.1	875	19365.6	877.7	19479.9	875.4	19489	873.8
19867.6	873.8	20084.3	876.3	20197.1	877.6	20549.3	878.5	20578.7	882.9
20768	884.3	20957.8	883.5	21134.8	882.3	21239.8	881.9	21272.4	876.8
21444.4	877	21523.1	879.8	21651.4	878.4	21666.8	879.7	21688	876.8
21737.8	876.1	21806.6	879	21829.8	876.7	21855.4	876.9	22072	877.5
22311.6	877.5	22480.7	877	22509.2	883.3	22535.9	885.3	22569.2	882.5
22739.2	881.6	22845.7	882.2	23076.5	883.2	23272	883.4	23435.8	884.3
23460	886.2	23468.1	882.7	23547.3	884.4	23560.6	881.4	23757.2	882.9
23901.3	883	24191	882.3	24227.9	882.3	24507.8	882.9	24676.6	882.9
24842.3	882.9	24849.1	884.7	25144.7	884.7	25169.4	884.5	25418.2	884.2
25588.9	884.2	25763.4	884.5	25981.2	884.6	26148.7	883.9	26181.8	885.5
26220.4	883.7	26443.1	884.3	26640	884.8	26868.5	884.2	27024.2	884.5
27228	885	27434.2	885.3	27614	882.6	27636.7	882.7	27850.6	881.4
28041.9	883	28216.3	880	28220.5	879.9	28461	880.7	28664.6	881.4
28832.4	882.4	28879	882.1	28888.6	878.1	28902.4	882	29132.1	881.3
29280.2	881.3	29459.1	882.4	29682.4	883.6	29886.8	884.6	30090.5	885.3
30149.3	885.6	30425	886.8	30744.9	887.6	30913.7	889.4	31090.1	888.9
31126	892								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18021.5	.15	18275.3	.15	19365.6	.026	20578.7	.043	22535.9	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18275.3	22535.9	465	479.19	475	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23460	31126	895

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	886.29	Element			
Vel Head (ft)	0.52	Wt. n-Val.	0.150	0.042	0.025
E.G. Elev (ft)	886.81	Reach Len. (ft)	465.00	479.19	475.00
Crit W.S. (ft)	881.77	Flow Area (sq ft)	368.63	35988.85	3106.93
E.G. Slope (ft/ft)	0.001498	Area (sq ft)	368.63	35988.85	23504.30
Q Total (cfs)	227000.00	Flow (cfs)	209.38	210750.25	16040.37
Top Width (ft)	12237.21	Top Width (ft)	204.42	4260.60	7772.19
Vel Total (ft/s)	5.75	Avg. Vel. (ft/s)	0.57	5.86	5.16
Max Chl Dpth (ft)	12.49	Hydr. Depth (ft)	1.80	8.45	3.36
Conv. Total (cfs)	5864213.5	Conv. (cfs)	5408.9	5444425.0	414379.4
Length Wtd. (ft)	478.87	Wetted Per. (ft)	204.48	4263.67	924.30
Min Ch El (ft)	873.80	Shear (lb/sq ft)	0.17	0.79	0.31
Alpha	1.02	Stream Power (lb/ft s)	0.10	4.62	1.62
Frctn Loss (ft)	0.82	Cum Volume (acre-ft)	3983.66	47394.68	19619.54
C & E Loss (ft)	0.00	Cum SA (acres)	1003.23	5037.92	5522.23

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18055.34	18072.26	0.00	0.08	1.38	0.00	0.06	0.06
18072.26	18089.18	4.70	14.28	16.97	0.00	0.84	0.33
18089.18	18106.10	10.56	23.16	16.92	0.00	1.37	0.46
18106.10	18123.02	11.97	24.97	16.92	0.01	1.48	0.48
18123.02	18139.94	13.45	26.78	16.92	0.01	1.58	0.50
18139.94	18156.86	14.99	28.59	16.92	0.01	1.69	0.52
18156.86	18173.78	16.61	30.40	16.92	0.01	1.80	0.55
18173.78	18190.70	18.29	32.21	16.92	0.01	1.90	0.57
18190.70	18207.62	20.03	34.01	16.92	0.01	2.01	0.59
18207.62	18224.54	21.83	35.82	16.92	0.01	2.12	0.61
18224.54	18241.46	23.70	37.63	16.92	0.01	2.22	0.63
18241.46	18258.38	25.63	39.44	16.92	0.01	2.33	0.65
18258.38	18275.30	27.62	41.25	16.92	0.01	2.44	0.67
18275.30 LB	19340.45	17396.98	10226.62	1066.04	7.66	9.60	1.70
19340.45	20405.60	118990.99	11418.30	1065.34	52.42	10.72	10.42
20405.60	21470.75	25724.81	5387.93	1065.90	11.33	5.06	4.77
21470.75	22535.90 RB	48637.50	8955.99	1066.39	21.43	8.41	5.43
22535.90	23108.57	12154.35	2195.73	572.80	5.35	3.83	5.54
23108.57	23681.25	3886.00	911.20	351.50	1.71	2.59	4.26

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 189.96

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18200.2	892.1	18305.9	894	18345.1	892.4	18393.4	880	18445	874.9
18639.3	875.5	18664.1	875.5	18837.7	874.7	19078.8	873.8	19313.8	877.5
19345.7	876	19454.7	883.6	19492.8	877.6	19690.7	877.7	19909.4	878.2
19978.4	878	20168.7	877.7	20358	877.8	20456.1	878	20617.1	878
20647.6	884.2	20816.8	882	20871.1	879.1	21038.2	882.7	21209	876.4
21235.3	874.3	21390.9	876.7	21547.4	878	21573.7	875	21675.2	878.4
21835	874.8	21881.5	874.6	22171.3	873.8	22364.7	873.7	22522.6	874
22534.4	876.8	22548.5	882.6	22581.4	880.8	22863.5	881.6	22894.1	881.7
23199.4	882	23357.2	884.2	23526.6	884.8	23586.7	886.6	23595.7	882.8
23641.9	884.4	23692.6	881.6	23823.4	883.5	23859.6	881.5	24075.2	882.3
24311.2	882.8	24452.6	883.2	24708.6	881.9	24749	881.8	24950.9	881.9
25088.6	883	25115.6	881.8	25130.1	884.9	25350.9	884.1	25625.3	884.1
25841.2	883.9	26130.7	883.8	26311.2	885.3	26443.6	884.3	26514.8	882
26717.6	882.9	26858	882.9	27103	882.7	27172.8	882.7	27344.4	882.7
27526.2	882.8	27718.9	882.5	27906.1	882.4	28010	882.4	28219.9	883
28375.6	882.9	28628.2	881.3	28794.2	881.2	28952.5	880.3	29090	879.6
29150.8	880.4	29157.5	878.2	29172.5	879.6	29329	881.1	29521	880.2
29564.7	880.2	29728.7	883.6	29947.7	884.2	29980.4	884.2	30243.3	884.4
30516.9	885.3	30694.8	885.8	30951.6	887	31205.1	887.1	31360.2	888.8
31381	892.8								

Manning's n Values num= 5

18103.7	.15	18290.7	.15	19398.7	.027	20792.2	.065	23055.2	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18347.5	22800	495	513.89	450	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22916	32213	889

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	883.59	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.44	Wt. n-Val.		0.048	0.065
E.G. Elev (ft)	884.04	Reach Len. (ft)	495.00	513.89	450.00
Crit W.S. (ft)	878.19	Flow Area (sq ft)		41832.59	937.70
E.G. Slope (ft/ft)	0.001498	Area (sq ft)		41832.59	35437.08
Q Total (cfs)	227000.00	Flow (cfs)		223672.64	3327.36
Top Width (ft)	12707.01	Top Width (ft)		4452.36	8254.65
Vel Total (ft/s)	5.31	Avg. Vel. (ft/s)		5.35	3.55
Max Chl Dpth (ft)	13.69	Hydr. Depth (ft)		9.40	8.08
Conv. Total (cfs)	5864863.0	Conv. (cfs)		5778896.0	85967.0
Length Wtd. (ft)	513.42	Wetted Per. (ft)		4459.26	116.76
Min Ch El (ft)	869.90	Shear (lb/sq ft)		0.88	0.75
Alpha	1.01	Stream Power (lb/ft s)		4.69	2.67
Frctn Loss (ft)	0.68	Cum Volume (acre-ft)	3981.09	46138.99	18506.56
C & E Loss (ft)	0.00	Cum SA (acres)	1001.91	4891.08	5196.46

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18347.50 LB	19460.63	15872.61	8809.07	1115.64	6.99	7.91	1.80
19460.63	20573.75	104261.33	10793.19	1113.15	45.93	9.70	9.66
20573.75	21686.88	52997.80	10384.82	1116.28	23.35	9.33	5.10
21686.88	22800.00 RB	50540.89	11845.51	1114.19	22.26	10.64	4.27
22800.00	23427.53	3327.36	937.70	116.76	1.47	8.08	3.55

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 189.68

INPUT
Description: Right Bank Channel Station Interpolated
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17815.9	896	17930.1	890	18109.7	887.3	18153.7	880	18359.5	870.8
18625.2	877	18741.9	875	18789.3	880.1	18824.3	876.2	18856.8	879.6
19112.3	878.5	19236.6	882.3	19298.5	878.2	19329.4	878.6	19389.7	874.5
19682.8	872.8	19961.1	871.8	20230.4	873.6	20268.2	872.8	20272.7	875.1
20415.7	871.8	20767.4	872.4	20818.9	873.4	20880.2	878.4	20993.4	873.4
21016.7	870.6	21146.7	873.4	21167.3	870.8	21204.3	873.1	21485	871.9
21662.3	871.7	21714.4	874.6	21743	871.1	21961.5	867.4	22061.7	873.8
22064.9	871.6	22068.1	864.9	22077.8	871.5	22119.4	871.1	22124.5	865.2
22197.7	872.9	22227.6	864.6	22244.3	871.9	22261.6	869.3	22301	871
22305.1	868.5	22305.2	866.7	22326.6	872.5	22387.4	873.6	22422.4	866.1
22422.7	867.8	22467.9	874.3	22616.6	872.1	22716.5	873.6	22770	873.8875
22977	875	23310.4	877.9	23606.1	877.8	23870.7	881.6	23900.6	884.4
23909.9	877.1	23922.4	877.9	23932.7	883	24033.3	881	24359.9	880.6
24623.2	880.1	24890.4	879.5	25200.6	879.9	25206	879.9	25508.4	879.6
25808.7	880.6	26139.6	880.4	26466.2	881.8	26783.9	881.1	27140.1	880.3
27461.9	878.8	27497.2	880.7	27507.2	874.8	27517.1	879.3	27560.4	877.5
27827.4	876.4	28123.3	876.7	28495.7	877.6	28766.5	877.1	28823	878.1
29110.7	877.3	29585.8	879.8	29846	879.1	30110.2	880.1	30158.8	879.6
30177.4	877.4	30473.7	879.1	30745.7	882.6	31076	883.2	31370.7	883.1
31443.7	885.7								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17815.9	.15	18153.7	.15	18789.3	.032	19236.6	.027	20880.2	.065
22977	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.

18153.7 22770 495 502.76 400 .1 .3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22770	31443.7	894

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	882.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.43	Wt. n-Val.	0.150	0.044	
E.G. Elev (ft)	883.35	Reach Len. (ft)	495.00	502.76	400.00
Crit W.S. (ft)	877.20	Flow Area (sq ft)	25.83	43377.80	
E.G. Slope (ft/ft)	0.001172	Area (sq ft)	25.83	43377.80	30722.78
Q Total (cfs)	227000.00	Flow (cfs)	11.19	226988.81	
Top Width (ft)	12768.76	Top Width (ft)	17.65	4616.30	8134.82
Vel Total (ft/s)	5.23	Avg. Vel. (ft/s)	0.43	5.23	
Max Chl Dpth (ft)	18.33	Hydr. Depth (ft)	1.46	9.40	
Conv. Total (cfs)	6631587.0	Conv. (cfs)	327.0	6631260.0	
Length Wtd. (ft)	502.76	Wetted Per. (ft)	17.89	4638.34	
Min Ch El (ft)	864.60	Shear (lb/sq ft)	0.11	0.68	
Alpha	1.00	Stream Power (lb/ft s)	0.05	3.58	
Frctn Loss (ft)	0.59	Cum Volume (acre-ft)	3980.94	45636.36	18164.82
C & E Loss (ft)	0.00	Cum SA (acres)	1001.81	4837.59	5111.81

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18131.18	18153.70	11.19	25.83	17.89	0.00	1.46	0.43
18153.70 LB	19307.77	13582.99	6856.02	1155.23	5.98	5.94	1.98
19307.77	20461.85	94956.80	11187.83	1154.83	41.83	9.69	8.49
20461.85	21615.93	64350.72	11724.29	1154.84	28.35	10.16	5.49
21615.93	22770.00 RB	54098.30	13609.66	1173.44	23.83	11.79	3.97

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 189.58

INPUT
Description:

Eliminate vertical ineffective area in main channel by coding out GR

data between and below sta.'s, elev.'s 21894, 868.1 and 22043, 868.1

22158, 868.1 and 22163, 868.1 - 22221, 868.1 and 22535, 868.1

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18052.1	898.6	18099.7	890	18112.3	885	18150.1	885	18198.8	880
18206.7	876.6	18459.7	872.2	18662.5	877.3	18917.4	877.5	18993.7	876.5
19055.9	880	19282.5	879.9	19323.5	877.6	19361.1	879.3	19371	874.1
19541.7	872.7	19907.2	871.5	20268.6	870.1	20306.4	869.9	20308.5	871.8
20324.3	873.6	20381.7	871.4	20621.2	872.2	20729.9	871.2	20744.1	875.7
20996.5	875.7	21145.9	870.9	21224.6	873.3	21248.8	869.9	21525.5	869.8
21734.6	874.8	21769.5	872.1	21814.5	872.3	21894	868.1	22043	868.1
22045.8	869.3	22132.2	869.4	22157.9	872.8	22158	868.1	22163	868.1
22165.6	867.7	22194.4	871.5	22206.1	871.3	22221	868.1	22535	868.1
22613.2	872.5	22700	872.2556	22897.3	871.7	23081.2	873.3	23188	876.6
23486.2	877.6	23839.5	878.3	24048.2	883.5	24052.8	878	24066.4	877.8
24079.9	883.9	24129	881.8	24355.5	880.8	24709.9	880.1	24953.6	881
25120.9	878.4	25130.2	880.4	25321.5	879	25574.9	879.4	25633.7	879.4
26000.7	880.8	26026.3	880.8	26308.4	880.9	26458.2	879.7	26686.7	880.5
26859.8	881.2	27110.4	881.6	27149.2	881.5	27404	880.7	27637.6	879.8
27832.2	880.5	27841.2	874.7	27852.9	878.8	28137.4	877.8	28362.7	877.3
28682.2	877.6	28988.2	876.8	29156.2	879	29441.3	878.3	29557.3	878.8
29808.5	879.3	30088.9	880	30406.2	878.8	30490.7	880.8	30508.5	878.4
30741.9	879.9	31068.9	881	31107.4	881.3	31412.4	883.3	31707.4	883.1
31774.5	886.1								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18052.1	.15	18198.8	.15	18917.4	.032	19361.1	.027	20744.1	.065
23188	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18198.8	22700	495	495.44	550	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22700	31774.5	896

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	882.33	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.44	Wt. n-Val.	0.150	0.045	
E.G. Elev (ft)	882.77	Reach Len. (ft)	495.00	495.44	550.00
Crit W.S. (ft)	876.55	Flow Area (sq ft)	26.42	42818.04	
E.G. Slope (ft/ft)	0.001162	Area (sq ft)	26.42	42818.04	27201.18
Q Total (cfs)	227000.00	Flow (cfs)	9.84	226990.17	
Top Width (ft)	13000.03	Top Width (ft)	22.69	4501.20	8476.15
Vel Total (ft/s)	5.30	Avg. Vel. (ft/s)	0.37	5.30	
Max Chl Dpth (ft)	14.63	Hydr. Depth (ft)	1.16	9.51	
Conv. Total (cfs)	6660414.0	Conv. (cfs)	288.7	6660125.5	
Length Wtd. (ft)	495.44	Wetted Per. (ft)	22.80	4511.53	
Min Ch El (ft)	867.70	Shear (lb/sq ft)	0.08	0.69	
Alpha	1.00	Stream Power (lb/ft s)	0.03	3.65	
Frctn Loss (ft)	0.51	Cum Volume (acre-ft)	3980.64	45138.94	17898.87
C & E Loss (ft)	0.01	Cum SA (acres)	1001.58	4784.97	5035.54

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18169.46	18179.24	0.04	0.50	3.14	0.00	0.16	0.09
18179.24	18189.02	2.05	8.05	9.83	0.00	0.82	0.25
18189.02	18198.80	7.74	17.87	9.83	0.00	1.83	0.43
18198.80 LB	19324.10	10526.21	6180.31	1126.27	4.64	5.49	1.70
19324.10	20449.40	102884.89	11566.96	1127.51	45.32	10.28	8.89
20449.40	21574.70	56251.99	11198.11	1126.37	24.78	9.95	5.02
21574.70	22700.00 RB	57327.09	13872.66	1131.38	25.25	12.33	4.13

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 189.49

INPUT
Description:

Eliminate vertical ineffective area in main channel by coding out GR

data between and below sta, elev. 22367, 868.1 and 22657, 868.1

Station Elevation Data num= 94

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18254.6	895.3	18276	890	18302.2	880	18334	875	18547.4	872.8
18651.8	876.2	18892.2	875.9	18974.9	875	19044.2	878.3	19315.8	880.3
19334.5	872.4	19703.8	870.9	19994.2	869.7	20079	869.3	20317.6	869.3
20672.7	870.4	20755.5	873.9	20934.1	875	20985	871.8	21085.2	872.6
21117.9	869.2	21356.8	869.4	21601	870.2	21778.7	871.8	21803.5	868.6
21947.6	872.2	22005.9	868.9	22162.1	867.7	22247.1	870.8	22330.1	863.4
22358.8	870.3	22367	868.1	22640	868.1	22657	868.1	22684.9	871.8
22912.9	871.5	23155.3	871.2	23249	871.8	23339	876	23390.1	874.1
23603.1	875.2	23816.8	876.1	24035.5	877.9	24254.9	880.6	24293.3	883.5
24299	878	24316.5	880.4	24320.7	882.5	24346.5	883.7	24452.4	881.2
24708.9	881.4	24784	881	25110.8	879.8	25139.7	879.7	25441.9	878.3

25617.8	878.3	25847.3	878.4	25849.5	878.4	26093.2	879.4	26118.1	879.6
26530.4	881	26761.5	880.7	26853.7	883	26882.5	880.8	27206.1	881.4
27430.4	880.2	27672	879.7	27957.4	879.7	28104.3	879.8	28142.7	878.3
28154.1	880.7	28164.1	875.6	28176.6	879.3	28192.9	877.2	28433	877.9
28511.1	878	28759.7	878.1	28989.3	877.4	29245.5	877.6	29449.9	877.6
29457.7	879.6	29539.4	877.9	29773	878.7	29884.4	878.8	30094.6	879.5
30339.5	879.7	30586.1	880.8	30801.8	881.1	30867.5	878.7	31105.9	879.8
31329.1	881.6	31555.9	882.8	31827.1	883.4	31951	884.2		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18254.6	.15	18302.2	.15	18892.2	.032	19315.8	.027	20755.5	.065
23339	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18302.2	22640	490	500.67	450	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22640	31951	893

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	881.83	Element			
Vel Head (ft)	0.41	Wt. n-Val.	0.150	0.043	
E.G. Elev (ft)	882.25	Reach Len. (ft)	490.00	500.67	450.00
Crit W.S. (ft)	875.50	Flow Area (sq ft)	4.41	44086.10	
E.G. Slope (ft/ft)	0.000924	Area (sq ft)	4.41	44086.10	28129.37
Q Total (cfs)	227000.00	Flow (cfs)	1.20	226998.80	
Top Width (ft)	12884.24	Top Width (ft)	4.81	4337.80	8541.63
Vel Total (ft/s)	5.15	Avg. Vel. (ft/s)	0.27	5.15	
Max Chl Dpth (ft)	18.43	Hydr. Depth (ft)	0.92	10.16	
Conv. Total (cfs)	7468462.5	Conv. (cfs)	39.4	7468423.0	
Length Wtd. (ft)	500.65	Wetted Per. (ft)	5.14	4342.17	
Min Ch El (ft)	863.40	Shear (lb/sq ft)	0.05	0.59	
Alpha	1.00	Stream Power (lb/ft s)	0.01	3.02	
Frctn Loss (ft)	0.47	Cum Volume (acre-ft)	3980.47	44644.73	17549.56
C & E Loss (ft)	0.00	Cum SA (acres)	1001.43	4734.71	4928.10

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18295.85	18299.03	0.06	0.51	1.75	0.00	0.31	0.12
18299.03	18302.20	1.14	3.90	3.40	0.00	1.23	0.29
18302.20 LB	19386.65	13698.86	6163.54	1086.60	6.03	5.68	2.22
19386.65	20471.10	106926.38	12537.90	1084.46	47.10	11.56	8.53
20471.10	21555.55	54682.43	11642.72	1084.81	24.09	10.74	4.70
21555.55	22640.00 RB	51691.14	13741.94	1086.30	22.77	12.67	3.76

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 189.39

INPUT
Description: Right Bank Channel Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18305.7	890	18376.1	872.9	18391.2	877.5	18556.8	874.6	18789.9	876.2
19016.7	877	19137.4	879.5	19245.1	876.4	19304.3	875.3	19324.9	872.3
19559.1	872.8	19632.3	875.4	19866.5	868.7	20229.6	868.1	20491.1	868.1
20619.4	866.8	20645.3	871.6	20866.2	871.2	21102.8	869.2	21136.1	873
21192.9	870	21275.1	870	21309.5	867.9	21581.7	868.4	21823.6	868.7
22125.1	869.3	22178.8	872.2	22302.5	870.7	22347.8	867.1	22560	868.9265
22603.4	869.3	22624	869.6	22632	866	22693.4	876	22722.1	872.3
22951.6	870.2	23113	872.2	23158.6	869.6	23162.9	871.3	23178.3	869.4
23189.2	873.2	23237.8	871.8	23324	874.6	23553.3	873.7	23776.4	876.7
24000.1	877.2	24307.4	877.4	24533.3	880.9	24561.2	882.7	24567.5	877.5
24577.3	878.6	24589	883.7	24641.1	881.2	24905.1	881.4	25054.1	880.8
25338.9	879.8	25387.6	879.6	25621.5	879.6	25847.8	878.9	25921.9	877.8
26248.3	878.7	26261.7	878.8	26671.9	880.2	26677.1	880.3	26953	880.6
27179	880.9	27217.3	880.9	27496.3	880.6	27508.7	880.6	27822	879.2

27841.9	879.1	28223.2	878.1	28458.1	878.2	28476.4	879.6	28484.7	876
28499.8	878.7	28601.7	877.3	28851.7	877.8	28931.6	877.8	29237.2	878.9
29466.7	878.3	29732.1	877.6	30084	878.4	30381.1	878.5	30617.5	878.8
30884.3	879.5	31072.5	879	31092.1	881.7	31131.6	880.8	31141.6	878.9
31153	880.2	31424.7	881.4	31491.7	880.4	31818.7	882.7	31940.5	883.1
32167.5	883.6	32300	885.2						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18305.7	.032	18391.2	.032	19137.4	.027	20645.3	.065	23324	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18391.2	22560	470	448.35	180	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22560	32300	888

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	881.33	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.44	Wt. n-Val.	0.032	0.041	
E.G. Elev (ft)	881.78	Reach Len. (ft)	470.00	448.35	180.00
Crit W.S. (ft)	875.06	Flow Area (sq ft)	238.99	42224.01	
E.G. Slope (ft/ft)	0.000939	Area (sq ft)	238.99	42224.01	27620.21
Q Total (cfs)	227000.00	Flow (cfs)	945.89	226054.11	
Top Width (ft)	13061.58	Top Width (ft)	49.82	4168.80	8842.96
Vel Total (ft/s)	5.35	Avg. Vel. (ft/s)	3.96	5.35	
Max Chl Dpth (ft)	15.33	Hydr. Depth (ft)	4.80	10.13	
Conv. Total (cfs)	7408507.5	Conv. (cfs)	30870.5	7377637.0	
Length Wtd. (ft)	448.40	Wetted Per. (ft)	51.51	4170.33	
Min Ch El (ft)	866.80	Shear (lb/sq ft)	0.27	0.59	
Alpha	1.00	Stream Power (lb/ft s)	1.08	3.18	
Frctn Loss (ft)	0.42	Cum Volume (acre-ft)	3979.10	44148.71	17261.60
C & E Loss (ft)	0.00	Cum SA (acres)	1001.12	4685.82	4838.31

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18339.90	18345.60	1.71	2.16	4.34	0.00	0.51	0.79
18345.60	18351.30	17.30	9.78	5.86	0.01	1.72	1.77
18351.30	18357.00	46.37	17.68	5.87	0.02	3.10	2.62
18357.00	18362.70	85.76	25.57	5.86	0.04	4.49	3.35
18362.70	18368.40	134.26	33.46	5.86	0.06	5.87	4.01
18368.40	18374.10	191.16	41.36	5.87	0.08	7.25	4.62
18374.10	18379.80	222.55	45.49	5.93	0.10	7.98	4.89
18379.80	18385.50	155.00	36.70	5.96	0.07	6.44	4.22
18385.50	18391.20	91.76	26.79	5.96	0.04	4.70	3.42
18391.20 LB	19433.40	25148.50	5514.92	1042.53	11.08	5.29	4.56
19433.40	20475.60	97987.38	11744.18	1042.34	43.17	11.27	8.34
20475.60	21517.80	55809.58	12143.77	1043.02	24.59	11.65	4.60
21517.80	22560.00 RB	47108.67	12821.14	1042.44	20.75	12.30	3.67

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 189.31

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18205.1	894.8	18268	894.8	18293.9	889.8	18309.2	884.8	18330.5	884.8
18345.35	881.0031	18387.6	870.2	18389.8	872.6	18505	874.4	18520.5	872
18671.1	876.7	18702.5	873.4	18735.3	876.8	18768.7	873.5	18831.4	877.2
19162.5	877.4	19352.8	875.7	19385	870.2	19456.4	871.4	19478.5	868.7
19569.8	875.5	19629.7	868	19665	872.3	19700	872.9	19746.5	867.6
19868.7	870	19959.6	868.6	20540.9	865.8	20562.2	871.2	20639.4	872.4
20735.5	872	20847	867.9	20893.4	872.5	20954.5	868.7	20994.7	870.3
21033.8	867.1	21065.1	869.6	21376	866.3	21480.2	869.2	21536.5	866.6
21578.7	870.7	21880	868.6	22026	868.4	22065.3	869.8	22084.4	868.1
22409.6	868.1	22500	867.7777	22521.8	867.7	22586.6	874	22600.6	868.4

22657	876	22681.6	870.3	22931.6	870.5	23060.1	867.3	23088.1	868.3
23105	877.5	23127.5	871.6	23217.3	872.6	23243.2	881.5	23253.5	881.8
23289.9	872	23620.1	872.9	24002.9	876.1	24041.3	876.2	24342.9	878.4
24694.5	877.6	24773.7	883.2	24778.8	877.5	24791.9	878.6	24804.5	883.1
25172.4	881	25500.8	879.9	25925	878.8	26077.8	879.5	26097.6	877.9
26447.7	878.8	26855.2	879.3	27171.2	880.4	27655.9	880.2	28045.9	879.1
28380.7	878.2	28687	879	28697.5	879.2	28705.6	875.7	29167.6	877
29557.4	877.1	29865.6	878	30003.2	880.1	30086.2	877.4	30432	877.8
30733.1	879.2	31095	879.6	31351.3	882.6	31370.9	879.3	31390.4	879.2
31396	880.8	31944.6	882.8	32341	885.6				

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18205.1	.15	18330.5	.15	18671.1	.032	19569.8	.027	20639.4	.065
23105	.05	23253.5	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18345.35	22500	500	485.98	210	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22500	32341	893

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	880.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.44	Wt. n-Val.		0.043	
E.G. Elev (ft)	881.35	Reach Len. (ft)	500.00	485.98	210.00
Crit W.S. (ft)	874.44	Flow Area (sq ft)		42774.26	
E.G. Slope (ft/ft)	0.000951	Area (sq ft)		42774.26	28347.98
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	12478.11	Top Width (ft)		4154.30	8323.81
Vel Total (ft/s)	5.31	Avg. Vel. (ft/s)		5.31	
Max Chl Dpth (ft)	15.11	Hydr. Depth (ft)		10.30	
Conv. Total (cfs)	7359645.0	Conv. (cfs)		7359645.0	
Length Wtd. (ft)	485.98	Wetted Per. (ft)		4161.37	
Min Ch El (ft)	865.80	Shear (lb/sq ft)		0.61	
Alpha	1.00	Stream Power (lb/ft s)		3.24	
Frctn Loss (ft)	0.48	Cum Volume (acre-ft)	3977.81	43711.28	17145.96
C & E Loss (ft)	0.00	Cum SA (acres)	1000.85	4642.98	4802.84

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18345.35 LB	19384.01	14685.39	5396.73	1042.07	6.47	5.20	2.72
19384.01	20422.68	105194.20	12247.98	1040.18	46.34	11.79	8.59
20422.68	21461.34	59854.06	12414.31	1040.08	26.37	11.95	4.82
21461.34	22500.00 RB	47266.32	12715.24	1039.04	20.82	12.24	3.72

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 189.22

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18203.8	896.5	18262.5	897.3	18262.8	894.9	18270.2	889.3	18281.1	884.8
18287.72	880.5897	18300.6	872.4	18388.9	872.9	18413.6	869.5	18629.5	874.3
18714.6	871.8	18900.4	877	19247.5	877.5	19270.8	874.8	19483.3	876.4
19568.7	872.2	19602.1	867.8	19808.2	870.9	19834.4	867	20309.9	864.9
20425.6	864.7	20449.3	874	20494.6	876.3	20513.9	869.4	20593.9	873.6
20808.9	867	20882.2	870.5	20956.9	866.8	21021.4	869	21181.3	868.2
21235.4	866.1	21318.8	866.3	21354.3	868.3	21790.1	867.7	21926	869.9
21943	868	22128.8	868.9	22398.6	867.4	22415.2	873.3	22440	869.5208
22446.7	868.5	22582.6	868.9	22617.2	871.8	22747.3	872.4	22760.3	869.8
22815	876.9	22892	872.7	22973.6	873.4	22981.5	874.9	23026.1	870.9
23098.5	873.5	23115.3	886	23131.7	887.1	23144	890.6	23160.4	878.3
23170.5	874	23428.1	871.5	23470.9	872.6	23493.1	880.6	23512.2	876.4
23514.4	872.4	23606.1	872.3	23959.8	872.3	24262.7	875.2	24613.2	876
24969.5	879.5	24994.1	882.3	25001.7	877.4	25015.6	878	25025.5	882.5

25523.6	880.7	25963.3	878.8	26307.4	879.5	26322.8	876.3	26810.2	879.2
27317.6	880.5	27552.3	879.8	27613.6	882.9	27661.4	880.6	28074.6	879.8
28691.5	878.4	28928.1	879.3	28938.6	875.3	28949.4	878.9	29012.2	877.2
29450.4	877.5	29891.5	877.9	30195.5	877.2	30227	878.7	30237.3	880.6
30265.5	878.2	30622.3	878.5	30992.3	879.5	31486.3	878.7	31582	882.9
31655.2	879.8	32159.1	884.7	32292	885.5				

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18203.8	.15	18281.1	.15	18629.5	.032	19483.3	.027	20494.6	.065
22815	.051	23493.1	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18287.72	22440	505	510.45	180	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22440	32292	895

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	880.43	Element			
Vel Head (ft)	0.45	Wt. n-Val.		0.044	
E.G. Elev (ft)	880.87	Reach Len. (ft)	505.00	510.45	180.00
Crit W.S. (ft)	873.97	Flow Area (sq ft)		42385.77	
E.G. Slope (ft/ft)	0.001026	Area (sq ft)		42385.77	25988.69
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	12435.68	Top Width (ft)		4152.02	8283.66
Vel Total (ft/s)	5.36	Avg. Vel. (ft/s)		5.36	
Max Chl Dpth (ft)	15.73	Hydr. Depth (ft)		10.21	
Conv. Total (cfs)	7088214.5	Conv. (cfs)		7088214.5	
Length Wtd. (ft)	510.45	Wetted Per. (ft)		4160.60	
Min Ch El (ft)	864.70	Shear (lb/sq ft)		0.65	
Alpha	1.00	Stream Power (lb/ft s)		3.49	
Frctn Loss (ft)	0.52	Cum Volume (acre-ft)	3977.81	43236.23	17014.99
C & E Loss (ft)	0.00	Cum SA (acres)	1000.85	4596.65	4762.81

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18287.72 LB	19325.79	17066.06	6052.41	1040.70	7.52	5.83	2.82
19325.79	20363.86	110067.98	11905.11	1038.78	48.49	11.47	9.25
20363.86	21401.93	51620.71	11889.87	1041.61	22.74	11.45	4.34
21401.93	22440.00 RB	48245.24	12538.37	1039.50	21.25	12.08	3.85

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 189.12

INPUT
Description: Right Bank Channel Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18160.7	895.1	18162.7	889.9	18174.4	880	18187.8	874.9	18308.9	869.7
18472.2	872.4	18497.7	870.4	18540.8	874.8	18677.8	876.5	18939.6	873.2
19108.4	876.9	19296.9	874	19514.5	876.7	19554.4	875.7	19626.6	868.7
19909.9	866.7	20424.7	863.1	20477	873.1	20509.1	865.8	20647.1	868.5
20669.6	865.8	20718.7	869.4	20753.4	866.6	20781.5	872	20817.5	870.3
20845.1	866.8	21074.9	866.4	21119.5	868.3	21158.6	866	21462.3	867.7
21721.5	868	21799.2	869.2	22077.8	869.1	22309.4	869.5	22370	870.2521
22535	872.3	22593.2	868.8	22635	873.4	22864.5	872.2	23094.9	872.5
23333.2	873.5	23484.2	873.5	23501.4	882.7	23536.3	882.8	23549.2	872.6
23790	872.6	24028.2	872.9	24199.9	872.4	24494.2	875.8	24839.7	877.6
25139.7	877.6	25234.2	881.9	25238.7	877.2	25252.5	877.9	25262.7	882.6
25484.9	881.5	25582.5	881.6	25856.8	880.7	25918.8	880.6	26223.3	879.2
26456.9	877.8	26552.4	881.1	26568.8	876	26866.6	878.6	26983	878.7
27253	879	27416.8	879.4	27688.2	880.5	27858.5	882.3	27935.5	881.1
28178.2	880.1	28340.9	879.5	28574.9	878.8	28597.5	878.7	28872.5	879
29100.6	878.1	29159.7	877.9	29174.7	879.6	29183.4	875.2	29195.5	878.9
29299.4	877.2	29606.6	877.8	29965.4	877.3	30205.1	877.2	30383.7	878.3
30481.3	880.8	30504.4	877.5	30761.5	879.1	31055.7	878.1	31242	879.3

31489.9	879.7	31733.5	879.4	31829.4	882.8	31868.6	879.5	32001.8	882.4
32195.3	881.7	32424	884.1						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18160.7	.15	18174.4	.15	18540.8	.032	19514.5	.027	20477	.065
22635	.052	23536.3	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18174.4	22370	575	514.2	130	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22370	32424	893

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	879.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.44	Wt. n-Val.		0.044	
E.G. Elev (ft)	880.35	Reach Len. (ft)	575.00	514.20	130.00
Crit W.S. (ft)	873.35	Flow Area (sq ft)		42484.43	
E.G. Slope (ft/ft)	0.000998	Area (sq ft)		42484.43	23666.33
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	11929.29	Top Width (ft)		4195.36	7733.92
Vel Total (ft/s)	5.34	Avg. Vel. (ft/s)		5.34	
Max Chl Dpth (ft)	16.81	Hydr. Depth (ft)		10.13	
Conv. Total (cfs)	7183861.5	Conv. (cfs)		7183861.5	
Length Wtd. (ft)	514.20	Wetted Per. (ft)		4200.30	
Min Ch El (ft)	863.10	Shear (lb/sq ft)		0.63	
Alpha	1.00	Stream Power (lb/ft s)		3.37	
Frctn Loss (ft)	0.47	Cum Volume (acre-ft)	3977.81	42738.96	16912.39
C & E Loss (ft)	0.01	Cum SA (acres)	1000.85	4547.74	4729.71

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18174.40 LB	19223.30	16612.77	6109.63	1050.11	7.32	5.83	2.72
19223.30	20272.20	93216.13	10794.36	1049.29	41.06	10.29	8.64
20272.20	21321.10	74200.02	13732.66	1051.99	32.69	13.09	5.40
21321.10	22370.00 RB	42971.09	11847.77	1048.92	18.93	11.30	3.63

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 189.02

INPUT
Description: Right Bank Channel Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17401.1	885	17440	888.4	17828.4	877	18179.1	872.7	18308.8	870.9
18347.3	868.7	18416.1	874.3	18499.5	873.3	18526.3	870.7	18620.6	868.7
18682.8	875.8	18778.2	876.8	18889.8	872.8	19002.2	874	19377.6	873.2
19523.7	874.6	19560.1	867.8	19836.9	864.4	19843.4	865.6	20424.3	863.7
20486.9	863.4	20519.7	874.3	20701.5	868.5	20736.1	865.9	20783.4	870.9
20861.1	866.1	20896.8	870.5	20908.7	867.2	20978.1	865.2	21046.2	869.7
21086.3	869.7	21119.2	865.6	21281.8	864.7	21338.5	867.4	21548.5	866.7
21580.7	869.3	21862.2	869.3	21910.4	871.2	21965.2	868.4	22002.1	870.6
22272.4	869.5	22310	869.7567	22624	871.9	22812.7	872.8	22826	878.2
22830.9	876.6	22843	877	22865.7	872.2	23256.1	872.8	23655.7	873.8
23683.6	873.2	23726.2	895.2	23766	901.3	23783.3	892.7	23810.1	871.9
23824	873.8	23832.6	877.3	23866.9	877	23878.8	873.7	24322.5	872.6
24417	872.1	24720.7	876	25133.6	877.3	25422.6	880.6	25436.4	882.3
25443.6	877.1	25456.8	878.8	25465.6	882.7	26053.6	880.4	26482.5	879.8
26760.3	880.9	26780.5	877.2	27165.8	877.9	27784.4	878.8	28040.9	881.7
28052.6	880.8	28061.7	882.3	28079.6	879.7	28655	879.9	29039.1	877.9
29367.8	878.1	29380.6	879.6	29391	875.5	29403.1	878.4	29414.1	876.8
29839.9	877.1	30319.8	877	30596.6	877.7	30645	876.8	30684.9	878.5
30689	880.7	30709	877.6	31225.3	878.8	31715.5	880	31972	880
32040	882	32418.3	882.4						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17401.1	.15	17828.4	.15	18416.1	.032	19523.7	.027	20519.7	.065
22826	.065	23766	.025						

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

17828.4	22310	650	549.14	235	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17401.1	17828.4	898	22310	32418.3	898

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	879.45	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.42	Wt. n-Val.		0.040	
E.G. Elev (ft)	879.87	Reach Len. (ft)	650.00	549.14	235.00
Crit W.S. (ft)	873.36	Flow Area (sq ft)		43575.76	
E.G. Slope (ft/ft)	0.000849	Area (sq ft)	102.48	43575.76	22373.00
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	11303.51	Top Width (ft)	83.56	4481.60	6738.35
Vel Total (ft/s)	5.21	Avg. Vel. (ft/s)		5.21	
Max Chl Dpth (ft)	16.05	Hydr. Depth (ft)		9.72	
Conv. Total (cfs)	7789274.0	Conv. (cfs)		7789274.0	
Length Wtd. (ft)	549.14	Wetted Per. (ft)		4487.21	
Min Ch El (ft)	863.40	Shear (lb/sq ft)		0.51	
Alpha	1.00	Stream Power (lb/ft s)		2.68	
Frctn Loss (ft)	0.40	Cum Volume (acre-ft)	3977.13	42231.02	16843.69
C & E Loss (ft)	0.02	Cum SA (acres)	1000.30	4496.53	4708.12

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17828.40 LB	18948.80	17885.15	6758.29	1121.37	7.88	6.03	2.65
18948.80	20069.20	80302.94	10616.43	1121.17	35.38	9.48	7.56
20069.20	21189.60	89045.34	14022.37	1123.92	39.23	12.52	6.35
21189.60	22310.00 RB	39766.57	12178.67	1120.75	17.52	10.87	3.27

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 188.92

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17681.9	888.1	17714.1	9879.2444	17729.3	875.1	17911.2	871.6	18159.2	871.3
18351	867.9	18382.6	870.2	18574.4	870.4	18620.6	874.2	18905.1	872
18962.8	871.2	19026	873.6	19069.9	869.9	19096.6	874.9	19185.1	873
19193.6	871.4	19317.8	873.7	19399.6	872	19428.7	865.8	19678.7	865.8
19854.2	865.8	20312.8	864.1	20572.3	863.3	20591	868.1	20610.1	870
20722	868.2	20790.4	871.2	20858.1	869.4	20879.8	871.8	21103.7	865.9
21175.4	866.5	21191.5	868.2	21220.3	865.9	21441.9	866.5	21531	869.2
21776.6	867	22020.2	869.2	22199	869	22245.3	872.1	22270	872.1
22459.4	872.1	22531.2	874	22633	881	22887.6	880.1	23124.5	880.1
23372.5	879.8	23655.4	879.8	23930.8	879.6	24170.3	879.2	24431.8	879
24614.8	878	24721.5	880.3	24973	878.5	25236.1	880.2	25486.8	881.4
25637	879.9	25653.7	882.1	25659.2	876	25666.9	876.4	25678.7	882.1
25744.7	883.7	25799.7	880	25859.2	882	26155	879.2	26377	879.9
26721.3	879.7	26949.7	880.2	27016.1	877.9	27245.5	878.7	27492	879.8
27754.9	879.1	28039.4	879.6	28262	879.3	28283.1	880.5	28506.9	878.7
28797	878.7	28861.6	878.5	29128	877.9	29374	878	29582	877.3
29593.7	879.2	29605.3	874.4	29618.5	877.9	29660.6	876.5	29685.6	877.6
29908.5	876.5	29973.8	876.7	30244	877.4	30324.6	877.4	30569.1	877.1
30800.4	877.9	31066.7	878	31402.5	879.3	31674.2	880.3	31948.4	880.5
32078.5	879	32307.3	881.9	32416	882.6				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17681.9	.15	18159.2	.032	19399.6	.027	20610.1	.065	22633	.025

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

17714.19	22270	650	550.91	225	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22270	32416	886

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	879.09	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.37	Wt. n-Val.		0.038	
E.G. Elev (ft)	879.46	Reach Len. (ft)	650.00	550.91	225.00
Crit W.S. (ft)	872.77	Flow Area (sq ft)		46764.32	
E.G. Slope (ft/ft)	0.000629	Area (sq ft)		46764.32	6157.70
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	8692.28	Top Width (ft)		4555.26	4137.03
Vel Total (ft/s)	4.85	Avg. Vel. (ft/s)		4.85	
Max Chl Dpth (ft)	15.79	Hydr. Depth (ft)		10.27	
Conv. Total (cfs)	9049130.0	Conv. (cfs)		9049130.0	
Length Wtd. (ft)	550.91	Wetted Per. (ft)		4559.01	
Min Ch El (ft)	863.30	Shear (lb/sq ft)		0.40	
Alpha	1.00	Stream Power (lb/ft s)		1.96	
Frctn Loss (ft)	0.32	Cum Volume (acre-ft)	3976.37	41661.58	16766.73
C & E Loss (ft)	0.01	Cum SA (acres)	999.68	4439.57	4678.78

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17714.19 LB	18853.14	27899.90	8453.80	1139.25	12.29	7.43	3.30
18853.14	19992.09	74490.43	11371.88	1140.49	32.82	9.98	6.55
19992.09	21131.05	88374.50	14245.08	1139.97	38.93	12.51	6.20
21131.05	22270.00 RB	36235.16	12693.55	1139.30	15.96	11.14	2.85

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 188.81

INPUT
Description: Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17608.2	891.5	17639.8	878.6	17654.8	881.2	17697.3	875.2	17702.3	872.7
17733	870.1	17813.1	867.5	17934.9	872.3	18194.5	870.5	18426.1	866.8
18544.3	869.8	18668.4	869.8	18746.6	872.9	19031.9	872	19319.1	869.4
19379.1	870.6	19401.2	863.5	19426.1	866.6	19462.5	864.1	19823	865.1
19978.3	865.1	20008.6	863.5	20125.9	866	20341.1	865.1	20660.9	864
20682.6	869.3	20741.6	868.4	20795.4	865.2	21030.7	866	21057.6	863.6
21353.3	865.8	21656.2	865.4	21730.6	869.4	21960	868.6	22008.1	866.6
22162.1	873.6	22204.5	8878.9	9711	22223	881.3	22343.7	878.6	22432.4	872.8
22641.3	872.6	22914.7	872.5	23155.9	873	23172.6	876	23243	873.3
23587.3	873.3	23837.4	874.1	24282.2	873.7	24536.2	872.8	24743.8	874.3
24806.1	872.7	24922.5	875.2	25296.7	877.4	25558.2	876.8	25807.3	877.4
25819	878.1	25830.2	881.8	25841.3	882.3	25846.2	875.9	25862.7	877.9
25874	882.3	25889.2	882.7	25923.7	878.8	26072.6	879.5	26256.1	876.9
26563.8	877.8	26904.7	878.2	27116.1	877.6	27180.1	880.5	27260.9	878.1
27513.2	878.5	27754.2	877.4	27831.3	880.5	27871.8	878.4	28176.9	879
28253.7	879.2	28283.2	881.9	28297.9	877.7	28559.1	878.5	28822.1	879.3
29204.4	878.5	29481.1	878.3	29748.8	877.1	29791.3	877.9	29807.1	872.6
29827.3	877.7	30107.2	877.2	30405.5	877.3	30713.8	878.6	30970.4	878.3
31125.4	878.4	31389.6	877.9	31661.5	880	31941.8	881.1	32243	881.8
32508.2	884.5	32593	883.6						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17608.2	.15	17654.8	.15	18194.5	.032	19379.1	.028	20682.6	.065
22223	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17654.82	22204.58	790	612.89	215	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22223	32593	890

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	878.80	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.32	Wt. n-Val.	0.150	0.039	
E.G. Elev (ft)	879.12	Reach Len. (ft)	790.00	612.89	215.00
Crit W.S. (ft)	871.65	Flow Area (sq ft)	0.17	50142.85	
E.G. Slope (ft/ft)	0.000542	Area (sq ft)	0.17	50142.85	19468.09
Q Total (cfs)	227000.00	Flow (cfs)	0.01	227000.00	
Top Width (ft)	12640.88	Top Width (ft)	1.68	4531.49	8107.71
Vel Total (ft/s)	4.53	Avg. Vel. (ft/s)	0.05	4.53	
Max Chl Dpth (ft)	15.30	Hydr. Depth (ft)	0.10	11.07	
Conv. Total (cfs)	9749174.0	Conv. (cfs)	0.4	9749174.0	
Length Wtd. (ft)	612.89	Wetted Per. (ft)	1.74	4535.70	
Min Ch El (ft)	863.50	Shear (lb/sq ft)	0.00	0.37	
Alpha	1.00	Stream Power (lb/ft s)	0.00	1.69	
Frctn Loss (ft)	0.41	Cum Volume (acre-ft)	3976.37	41048.78	16700.55
C & E Loss (ft)	0.01	Cum SA (acres)	999.66	4382.11	4647.16

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17639.27	17642.37	0.01	0.17	1.74	0.00	0.10	0.05
17642.37	17654.80						
17654.80 LB	18792.25	30327.69	9672.16	1121.70	13.36	8.63	3.14
18792.25	19929.69	72921.92	12070.70	1138.86	32.12	10.61	6.04
19929.69	21067.13	88184.20	15290.28	1138.36	38.85	13.44	5.77
21067.13	22204.58 RB	35566.20	13109.70	1136.77	15.67	11.54	2.71

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 188.7

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17683.7	893.1	17693.2	888.3	17700.9	880.6	17705.1	2878.5	009 17721.2	870.5
17735.2	867.2	17748.4	869.7	17957.6	867.1	18031.3	869.2	18100.9	868.2
18185.6	872.6	18385.6	871.2	18512.9	867.5	18709.4	872.3	18782.6	868.9
18885.3	871.3	19088.7	869.2	19273.4	867.9	19306.9	864.2	19571.2	864.8
19773.6	866.1	19907.1	869.1	20104.1	863.8	20163.3	866.1	20447.1	865
20594	867.5	20617.2	863.3	20628.2	865.7	20682.9	869.8	20832.2	870.5
20958.3	868.3	21006.4	864.4	21234.8	865.2	21401.8	867.4	21606.6	868
21818.8	868.4	21886.1	866.7	21960.7	873.9	21978.2	871.3	22006.9	873.5
22041.4	8878.5	004 22056	880.6	22138.2	879.2	22161.2	874.1	22456.1	873.1
22682.4	873.1	22989.4	872.9	23206.5	872.7	23301.5	873	23331.2	875.2
23574.2	873.9	23798.1	873.7	24013.4	873.2	24226.3	873	24437.5	872.8
24662	872.9	24899.4	872	25108.7	876.4	25180	876.8	25409.7	875.5
25722.9	876.1	25925	878.2	25952.7	880.9	25958.2	875.8	25969.6	876.3
25981.4	882.3	26077.1	879	26372.1	878.5	26614.3	879.2	26834.7	878
27100.6	878.5	27314.7	880.1	27406.5	878.4	27641.1	878.1	27898.9	877.8
28126.6	878.8	28336.4	878.6	28541.6	878.3	28686.2	876.6	28702.3	878.1
28929.8	878.3	29145.6	877.8	29473.8	876.8	29678.2	876.5	29883.8	877.2
29939.7	877.1	29954.5	871.6	29970.2	877.3	30303.7	876.3	30573.4	877.1
30847.9	877.2	31112.6	877.5	31427.7	878.2	31637.4	879.2	31922.5	880.6
32125.6	881.4	32373.3	881.8	32454	882.6				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17683.7	.15	17693.2	.15	18385.6	.043	19273.4	.028	20594	.065
22056	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17705.12	22041.48	635	542.71	410	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22056	32454	890

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	878.31	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.39	Wt. n-Val.		0.042	
E.G. Elev (ft)	878.70	Reach Len. (ft)	635.00	542.71	410.00
Crit W.S. (ft)	872.21	Flow Area (sq ft)		45040.55	
E.G. Slope (ft/ft)	0.000859	Area (sq ft)		45040.55	19638.90
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	11806.77	Top Width (ft)		4334.64	7472.13
Vel Total (ft/s)	5.04	Avg. Vel. (ft/s)		5.04	
Max Chl Dpth (ft)	15.01	Hydr. Depth (ft)		10.39	
Conv. Total (cfs)	7745945.5	Conv. (cfs)		7745945.5	
Length Wtd. (ft)	542.71	Wetted Per. (ft)		4339.86	
Min Ch El (ft)	863.30	Shear (lb/sq ft)		0.56	
Alpha	1.00	Stream Power (lb/ft s)		2.80	
Frctn Loss (ft)	0.44	Cum Volume (acre-ft)	3976.37	40379.16	16604.04
C & E Loss (ft)	0.00	Cum SA (acres)	999.65	4319.73	4608.71

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17705.12 LB	18789.21	21303.36	9183.54	1086.52	9.38	8.47	2.32
18789.21	19873.30	84650.66	11990.39	1084.37	37.29	11.06	7.06
19873.30	20957.39	82993.48	12203.79	1085.05	36.56	11.26	6.80
20957.39	22041.48 RB	38052.50	11662.83	1083.92	16.76	10.77	3.26

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 188.59

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17700.9	881.2	17736.4	892.1	17747.2	890.6	17756.5	880.6	17764.88	78.0974
17790	870.5	17959.1	869	18043.8	865.6	18168.3	872.8	18344.1	870.3
18405.6	867.5	18632.1	872.6	18820.7	867.3	18898.2	869.1	18922.9	867.1
18939.5	870.2	18960.7	867	19130.4	866.1	19178.7	870.4	19220.2	866.6
19320.9	871.5	19349.4	869.1	19372.6	862.7	19636	866.3	19689.9	861.5
19720.8	865.3	19950.6	863	20047.6	865.7	20070.1	861.4	20494.4	864.6
20602.2	866.3	20635.1	863.8	20698	868.5	20743.8	866.4	20780.6	868.5
20855	867.4	20888.6	864.7	21163.4	866.7	21216.5	865.1	21345.7	867.1
21660.3	865.8	21803.8	866.7	21870.6	874.1	21899.8	871.8	21931.5	875.6
21939.66	878.0991	21947.5	880.5	22001.6	879.8	22019.3	873	22150.2	872.1
22281.9	875.6	22621.7	874.7	23015.1	871.9	23333.4	871.4	23532.6	871.9
23935.3	872.7	24299.5	873.4	24677.9	873.4	25011.8	872.5	25144.3	871.6
25287.1	877.2	25601.4	877.7	25972	878.4	26006.7	877.4	26024.1	880.4
26027.6	875.6	26042.7	876	26053.8	881.3	26072.8	881.1	26089.1	877.6
26129.7	879.7	26459.1	880.5	26766.8	880.1	27084.6	880.1	27410.6	878.7
27828.6	879.2	28150.3	880.1	28166.5	880.7	28176.7	878.8	28538.9	879.1
28728.7	877.7	28803.7	880.3	29126.8	879.1	29453.5	877.7	29864.5	878.6
30156.1	879.2	30165.8	874.1	30178.4	878.4	30387.8	876.3	30760.5	879.9
30800	880	30865.5	875.8	30896.3	875.7	30955.5	879.3	31358.1	879.8
31414.3	878.5	31466.3	881.6	31910	882.5				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17700.9	.065	17747.2	.065	19372.6	.028	20602.2	.065	21947.5	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17764.82	1939.66	510	493.58	390	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
21947.5	31910	890

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	877.88	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.38	Wt. n-Val.		0.041	
E.G. Elev (ft)	878.26	Reach Len. (ft)	510.00	493.58	390.00
Crit W.S. (ft)	871.17	Flow Area (sq ft)		45762.22	

E.G. Slope (ft/ft)	0.000752	Area (sq ft)		45762.22	16459.78
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	8503.89	Top Width (ft)		4173.43	4330.46
Vel Total (ft/s)	4.96	Avg. Vel. (ft/s)		4.96	
Max Chl Dpth (ft)	16.48	Hydr. Depth (ft)		10.97	
Conv. Total (cfs)	8277399.0	Conv. (cfs)		8277399.0	
Length Wtd. (ft)	493.58	Wetted Per. (ft)		4179.66	
Min Ch El (ft)	861.40	Shear (lb/sq ft)		0.51	
Alpha	1.00	Stream Power (lb/ft s)		2.55	
Frctn Loss (ft)	0.38	Cum Volume (acre-ft)	3976.37	39813.51	16434.16
C & E Loss (ft)	0.00	Cum SA (acres)	999.65	4266.73	4553.16

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17764.80 LB	18808.52	20483.21	8250.03	1044.58	9.02	7.91	2.48
18808.52	19852.23	69480.05	12094.66	1046.28	30.61	11.59	5.74
19852.23	20895.95	101610.43	13958.79	1044.68	44.76	13.37	7.28
20895.95	21939.66 RB	35426.31	11458.74	1044.12	15.61	10.99	3.09

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 188.5

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17952.5	891.2	17975.2	880.5	17985.9	877.7263	18003.6	873.2	18093.7	868.6
18306.9	865.7	18331.5	868.5	18612	869.2	18636.5	870.8	18795.5	868
18840.8	863.5	19008.3	869.1	19087	866	19164.4	868.7	19179.8	866.1
19218.2	870.1	19334.8	869.7	19381.5	863.3	19627	864.6	19659.7	860.5
19778	863.6	19904.2	860.6	19952.7	863.2	20123.7	862.1	20390.1	864
20433.7	868.7	20537.9	865.9	20581.6	861.3	20722.3	863.8	20825	862.8
20889.7	865.2	20988.2	866	21057.6	863.5	21108.4	866.8	21229.7	863.9
21315.4	865.2	21593.3	863.7	21667	866.8	21699	866.2	21762	876.2
21809	873.1	21830	873.6472	21870.4	874.7	21907.8	880.1	21947.6	879.3
21970.2	871.9	22362.1	870.7	22438.2	875.4	22471.8	872.6	22855.6	871.9
22857.9	871.9	23197.4	872	23596.6	871.8	23755.3	871.5	24238.8	873
24588.4	872.5	24874.9	872.5	25251.9	872.4	25522.1	875.4	25914.4	877.6
26100.4	877.8	26154	876.1	26166.8	880.9	26179	880.7	26182.9	875.9
26195.2	875.7	26205.5	881.7	26244.7	878.2	26305.9	880.2	26591.6	880.6
26623.1	880.6	26919.5	880	26959.1	880	27323.4	880	27656.2	878.5
27712.9	878	27726.5	880.2	27726.8	878.6	27770.6	880.7	27838.6	879.1
28213.5	878.9	28599.1	879.5	28905.8	878.4	28980.5	881.5	29295.3	879
29593.3	879.2	29929.6	878	30215.6	877.7	30375.7	881.1	30388.7	875
30399.9	880.4	30426.9	878.3	30742.2	878.5	31040.4	879.2	31430.4	878.8
31704.9	882.4	31865	880.9	32021	882.9				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17952.5	.065	19381.5	.028	20433.7	.065	21907.8	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17985.99	21830	790	581.55	245	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
21830	32021	887

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	877.49	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.40	Wt. n-Val.		0.043	
E.G. Elev (ft)	877.88	Reach Len. (ft)	790.00	581.55	245.00
Crit W.S. (ft)	870.31	Flow Area (sq ft)		44919.65	
E.G. Slope (ft/ft)	0.000785	Area (sq ft)		44919.65	19085.30
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	7918.12	Top Width (ft)		3843.07	4075.05
Vel Total (ft/s)	5.05	Avg. Vel. (ft/s)		5.05	
Max Chl Dpth (ft)	16.99	Hydr. Depth (ft)		11.69	

Conv. Total (cfs)	8101847.0	Conv. (cfs)		8101847.0	
Length Wtd. (ft)	581.55	Wetted Per. (ft)		3847.47	
Min Ch El (ft)	860.50	Shear (lb/sq ft)		0.57	
Alpha	1.00	Stream Power (lb/ft s)		2.89	
Frctn Loss (ft)	0.37	Cum Volume (acre-ft)	3976.37	39299.75	16275.04
C & E Loss (ft)	0.00	Cum SA (acres)	999.65	4221.31	4515.54

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17985.99 LB	18946.99	24682.62	8807.70	961.26	10.87	9.17	2.80
18946.99	19908.00	79035.48	11699.39	962.35	34.82	12.17	6.76
19908.00	20869.00	87470.17	13396.90	961.67	38.53	13.94	6.53
20869.00	21830.00 RB	35811.75	11015.65	962.19	15.78	11.46	3.25

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 188.39

INPUT
Description: BEGIN 1:1 TRANSITION TO BRIDGE

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18183	888.3	18214.8	880.4	18219.9	877.3875	18232.2	870.3	18242.8	868.2
18338.1	863.5	18555.1	867.6	18713.4	864.4	18871	870.7	19003.9	865.5
19161.2	865.6	19179.7	863.9	19276.5	868.3	19362.2	861.6	19635.3	860.8
19867.5	860.8	20129.9	861.3	20165.1	860.7	20403	862.2	20644	861
20689.4	864.5	20713.6	863	20749.3	869.8	20863.4	863.4	21090.6	865.9
21171.5	861.9	21210.2	865.7	21270.3	862.1	21439.4	865.6	21603.9	864.5
21698.4	875.3	21760	874.8509	21863	874.1	21938.7	880.3	21956.8	879.6
21976.8	872.4	22220.2	872.4	22456.5	872	22752.5	872.3	22982.8	872.6
23189.4	872.6	23439.6	871.7	23692.1	871.7	23922.7	871.3	24173.2	872.7
24445.7	872.7	24718.2	873	24953.5	873	25204.4	871.3	25455.2	871.5
25515.5	871.5	25626.4	875.7	25908.5	877.3	26133.6	877.3	26234.9	877
26261.4	875.4	26273.1	877.2	26285.1	881.9	26296.6	883.1	26301.6	876.1
26314.1	876.5	26323	881.4	26341.1	880.7	26359.5	877.7	26656.9	879.8
26934.3	879.5	27191.3	879.2	27448.8	879.2	27677.2	879.3	27908.2	878.7
27933.8	879	27943.6	881.1	27982.4	878.5	28210.6	878.8	28440.3	879.2
28733.9	879.2	28963	879.5	29150.4	882	29216.6	880.1	29224.5	874.8
29236.5	880.5	29289.1	877.8	29545.5	878.4	29919.2	878.4	30144.8	878.7
30412.9	879.1	30507.8	879	30517.7	880.8	30527.7	879.4	30533.7	881.1
30821.4	880.1	31050.2	880.8	31316.3	880.3	31630.1	879.3	31926	879.9
31999.8	883.1	32272.5	884.1	32297	884.4				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18183	.15	18214.8	.15	19276.5	.026	20749.3	.065	21938.7	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18219.99	21760	705	536.34	280	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
21760	32297	886

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	877.13	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.39	Wt. n-Val.		0.038	
E.G. Elev (ft)	877.51	Reach Len. (ft)	705.00	536.34	280.00
Crit W.S. (ft)	868.98	Flow Area (sq ft)		45552.48	
E.G. Slope (ft/ft)	0.000520	Area (sq ft)		45552.48	18347.38
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	7696.38	Top Width (ft)		3539.56	4156.82
Vel Total (ft/s)	4.98	Avg. Vel. (ft/s)		4.98	
Max Chl Dpth (ft)	16.43	Hydr. Depth (ft)		12.87	
Conv. Total (cfs)	9952208.0	Conv. (cfs)		9952208.0	
Length Wtd. (ft)	536.34	Wetted Per. (ft)		3544.54	

Min Ch El (ft)	860.70	Shear (lb/sq ft)		0.42	
Alpha	1.00	Stream Power (lb/ft s)		2.08	
Frctn Loss (ft)	0.26	Cum Volume (acre-ft)	3976.37	38695.82	16169.77
C & E Loss (ft)	0.01	Cum SA (acres)	999.65	4172.03	4492.39

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18219.99 LB	19104.99	10158.71	9351.79	887.01	4.48	10.57	1.09
19104.99	19990.00	93293.13	13114.04	885.44	41.10	14.82	7.11
19990.00	20875.00	96891.11	12989.79	886.02	42.68	14.68	7.46
20875.00	21760.00 RB	26657.03	10096.87	886.06	11.74	11.41	2.64

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 188.29

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18244	885.4	18266.4	881.5	18355.9	880.3	18370.7	877.0516	18379.2	875.2
18392.2	868.2	18404.3	870.2	18528.5	866.2	18634.8	866.6	18804.2	863.9
19004.2	867.9	19223.3	864.7	19241	860.7	19602.1	860.8	19893.5	861.2
20119.1	862.5	20155	868.3	20242.1	864.6	20313.2	864.4	20418.4	862.6
20456.6	859.6	20473.6	861	20520.1	860.1	20540.3	865	20577.8	859.9
20605.8	869.4	20647.8	864.9	20774.5	862.5	20982.3	866.1	21068.6	862.1
21139.6	864.6	21491.6	864.7	21506.8	864.4	21587.3	874.8	21600	874.7214
21797.3	873.5	21871.2	880.2	21886.5	879.5	21905.2	872.9	22321.3	872.4
22601.4	872.6	22962.3	872.8	23435	872.6	23731.4	872.5	23999.3	870.8
24276.9	872.4	24557.8	872.3	24661.2	872.2	24686	874.4	24953.8	872.8
25217.3	872.2	25419.5	872.2	25497.3	875.7	25597.5	872.1	25817.6	875.8
26152.9	876.7	26275.3	876.6	26285.7	882.5	26299	883	26304.3	876.2
26319	876.1	26330.3	881.5	26367.6	877.9	26411.8	880	26713.5	880.5
27091	879.4	27521.9	879.9	27830.4	879.5	27985	880.6	27986.7	879.1
28026	879.4	28044.1	880.8	28489.9	880	28771.7	879.4	28996.7	877.5
29002.5	881.1	29241.2	876.6	29301.1	879.9	29307.9	875.7	29323	879.5
29339.7	877.3	29613.4	878.2	29894.1	877.8	30242.1	878	30503.1	877.8
30590.3	879	30602.2	882.1	30611.5	879.2	30619.3	881.3	30632	878.1
30666.8	880.7	30984	880	31294	880.2	31756.8	880.6	32026.5	878.9
32055.1	878.7	32070.6	881.7	32101	882.8				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18244	.15	18355.9	.15	19223.3	.026	21587.3	.065	21871.2	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18370.74	21600	505	492.53	310	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
21600	32101	884

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	876.77	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.48	Wt. n-Val.		0.031	
E.G. Elev (ft)	877.25	Reach Len. (ft)	505.00	492.53	310.00
Crit W.S. (ft)	869.30	Flow Area (sq ft)		40856.84	
E.G. Slope (ft/ft)	0.000439	Area (sq ft)		40856.84	16972.49
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	7876.98	Top Width (ft)		3227.96	4649.02
Vel Total (ft/s)	5.56	Avg. Vel. (ft/s)		5.56	
Max Chl Dpth (ft)	17.17	Hydr. Depth (ft)		12.66	
Conv. Total (cfs)	10829100.0	Conv. (cfs)		10829100.0	
Length Wtd. (ft)	492.53	Wetted Per. (ft)		3235.00	
Min Ch El (ft)	859.60	Shear (lb/sq ft)		0.35	
Alpha	1.00	Stream Power (lb/ft s)		1.92	
Frctn Loss (ft)	0.31	Cum Volume (acre-ft)	3976.37	38163.86	16056.25
C & E Loss (ft)	0.02	Cum SA (acres)	999.65	4130.37	4464.08

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18370.74 LB	19178.05	7943.13	8215.22	808.26	3.50	10.19	0.97
19178.05	19985.37	90557.49	12563.57	807.77	39.89	15.56	7.21
19985.37	20792.69	70430.81	10645.42	810.82	31.03	13.19	6.62
20792.69	21600.00 RB	58068.58	9432.63	808.15	25.58	11.68	6.16

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 188.2

INPUT
Description: Left and Right Bank Channel Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18202.1	884.1	18292.2	882.8	18364.8	884.9	18481.2	880.3	18517.5	870.1
18656.4	865.2	18668.5	869.4	18700	868.8	918	18959.8	864.7	19103.9	867.3
19127.9	861	19303.3	859.3	19579.2	861.6	19818.3	861.2	19932	861.3
19971.9	859.4	20039	862.3	20082.8	859.6	20097	864.3	20135.8	860
20352	865.7	20387.9	859.3	20412.2	862.1	20465.3	859.7	20706.5	864.1
20891.9	861.2	21134.1	862.5	21232.4	874.7	21280	874.183	21481	872
21602	872.7	21652.9	880.4	21696.5	878.8	21718.1	872.7	22013.9	873.5
22319.8	871.8	22552.9	872.5	22791.9	873.9	22854.8	871.8	22934	873.2
23168	873.1	23187.6	873.1	23502.4	872.6	23512.1	872.6	23892.5	872.2
24135.9	871.3	24219.2	872	24453.8	872.1	24691.3	872.5	24794.9	871.8
24812.5	874.3	25118.6	872.1	25362.1	872.2	25635.8	873.6	25892.1	877
26124.2	876.3	26142.4	881.2	26155.8	881	26160.3	876.2	26172.1	875.7
26190.2	882.2	26255.1	879.9	26277.8	881.6	26559.1	881.6	26906.3	880.9
27019.2	880.3	27325.4	879.4	27457.7	879	27731	879	27979.4	879.7
28323.1	880.5	28566.5	879.4	28798.1	880.1	28887.2	878.2	29119.4	878.6
29138.4	880.3	29373.1	877.7	29429.2	879.6	29438	875.6	29451.9	880.6
29469	877.7	29678.4	878.6	29955.6	879.2	30014.2	879.1	30389.6	878.6
30704.5	879.1	30750.7	880.7	30757.7	878.8	31041	880.2	31048.4	880.2
31312.4	880.9	31321	880.9	31577.2	880.6	31611.9	880.6	31883.3	881.8
32123.6	879.8	32423.1	882.1	32447	882.4				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18202.1	.043	18481.2	.15	19103.9	.03	20352	.065	21652.9	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18700	21280	620	525.06	340	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18202.1	18700	881	21280	32447	881

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	876.25	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.67	Wt. n-Val.		0.040	
E.G. Elev (ft)	876.92	Reach Len. (ft)	620.00	525.06	340.00
Crit W.S. (ft)	868.80	Flow Area (sq ft)		34648.83	
E.G. Slope (ft/ft)	0.000962	Area (sq ft)	1594.38	34648.83	15768.39
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	7276.72	Top Width (ft)	204.39	2580.00	4492.33
Vel Total (ft/s)	6.55	Avg. Vel. (ft/s)		6.55	
Max Chl Dpth (ft)	16.95	Hydr. Depth (ft)		13.43	
Conv. Total (cfs)	7318398.5	Conv. (cfs)		7318398.5	
Length Wtd. (ft)	525.06	Wetted Per. (ft)		2583.75	
Min Ch El (ft)	859.30	Shear (lb/sq ft)		0.81	
Alpha	1.00	Stream Power (lb/ft s)		5.28	
Frctn Loss (ft)	0.52	Cum Volume (acre-ft)	3967.12	37736.99	15939.75
C & E Loss (ft)	0.04	Cum SA (acres)	998.46	4097.53	4431.56

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18700.00 LB	19345.00	42270.15	7748.56	645.88	18.62	12.01	5.46
19345.00	19990.00	92933.70	9849.57	645.07	40.94	15.27	9.44
19990.00	20635.00	62966.62	9286.70	647.01	27.74	14.40	6.78
20635.00	21280.00 RB	28829.54	7764.01	645.80	12.70	12.04	3.71

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 188.1

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18347.4	882.4	18572.7	878.8	18758.4	878.7	18775.8	876.6	18941.3	878
18969.12	875.562	19094.2	864.6	19118.1	860.9	19192.9	861	19412.6	861.5
19528.9	860.9	19600.5	855.8	19728.6	861.4	19774.5	856.4	19832	862.5
19890.5	862.7	19949.7	866.3	19988.2	860	20045.1	864.2	20057.9	857
20120.8	859.8	20135	858.4	20312.5	858.6	20340	862.6	20360.2	860.2
20434.8	861.4	20503.2	860.3	20731.2	861.2	20768.8	860.6	20853.2	867.3
20859.8	865	20890.9	866.7	21000	867.5096	21120	868.4	21317.1	869.2
21327.3	867.2	21462.4	872.2	21504.3	879.5	21594.5	880.9	21619.2	871.9
21838.1	872.4	22088.8	872.5	22346.6	873.3	22618.3	871.8	22871.4	872.1
23110.7	870.9	23328.5	870.5	23654	870.7	23910.7	870.9	24128.5	870.9
24346.8	871.9	24634.3	872.8	24851.6	875.3	24992.5	871.3	25315.1	871.8
25537.8	872.1	25759.5	873.2	25996.2	877.1	26048.2	876.8	26058.8	880.9
26068.9	880.8	26074.6	874.4	26085.1	874.9	26105.2	881.1	26162	877.4
26406	877.8	26697.1	877	26922.7	877.5	27143.8	876.8	27491.2	877.8
27752.4	879.2	28017.5	879.7	28234.9	879	28483	879.6	28715.8	879.3
28936	879.3	29185.5	877.4	29421.8	877	29550.5	878.6	29564.2	874.3
29579.5	879.2	29599.5	879.9	29632.4	878.2	29794.7	878.4	30073.8	878.4
30120	878.5	30375.2	879.2	30599.9	880.4	30849.7	879.1	30888.1	881.5
30961.6	879.1	31200.2	879.4	31417.6	879.4	31470.1	879.5	31848.8	879.2
32174	880.6	32428.3	881.4	32616	881.2				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18347.4	.065	18941.3	.065	19118.1	.03	20340	.043	21504.3	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18969.12	21000	196.03	193.81	246.03	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
21000	32616	880

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	875.32	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.04	Wt. n-Val.		0.033	
E.G. Elev (ft)	876.37	Reach Len. (ft)	196.03	193.81	246.03
Crit W.S. (ft)	868.72	Flow Area (sq ft)		27700.83	
E.G. Slope (ft/ft)	0.001003	Area (sq ft)		27700.83	17256.39
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	6806.14	Top Width (ft)		2028.15	4777.99
Vel Total (ft/s)	8.19	Avg. Vel. (ft/s)		8.19	
Max Chl Dpth (ft)	19.52	Hydr. Depth (ft)		13.66	
Conv. Total (cfs)	7168888.0	Conv. (cfs)		7168888.0	
Length Wtd. (ft)	193.81	Wetted Per. (ft)		2033.76	
Min Ch El (ft)	855.80	Shear (lb/sq ft)		0.85	
Alpha	1.00	Stream Power (lb/ft s)		6.99	
Frctn Loss (ft)	0.16	Cum Volume (acre-ft)	3955.78	37361.22	15810.86
C & E Loss (ft)	0.03	Cum SA (acres)	997.01	4069.76	4395.38

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18969.12 LB	19476.84	48753.55	6021.92	505.75	21.48	11.92	8.10
19476.84	19984.56	71626.23	7566.68	509.19	31.55	14.90	9.47
19984.56	20492.28	70348.49	7872.70	510.39	30.99	15.51	8.94
20492.28	21000.00 RB	36271.72	6239.54	508.43	15.98	12.29	5.81

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 188.07

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 62

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17738.5	884	19088.5	887.43	19098	881.18	19104.8	876.53	19107.54	875.3834
19134.7	864.01	19178	855	19198	855	19455.6	855	19545.9	856.01
19569.5	855.82	19573.5	855.82	19633	855.06	19687	857.81	19691	857.81
19749.5	858.51	19805.5	860.06	19809.5	860.06	19867.6	863.15	19923.2	863.25
19927.3	863.25	19980.7	858.53	20041.4	857.23	20045.5	857.23	20070.5	856.68
20159.2	855	20163.2	855	20224.3	857.42	20278	856.74	20282	856.74
20335.5	857.58	20395.5	855.35	20399.5	855.35	20472.7	855	20517.5	855
20527.6	856.08	20562.1	858.91	20631.4	862.4	20635.4	862.4	20686.6	865.43
20749.1	866.47	20753.1	866.47	20842.4	867.7	20858.72	875.3825	20865.3	878.48
20869	879.9	20881.8	886.15	21833.8	885.6	21858	872.6	22095.6	872.7
22385.2	874.2	22632.4	871.9	22983.9	873.1	23006.6	870	24233.4	868.7
24410.3	870.8	24443.1	868.9	25188.3	871.9	25395.5	871.9	25667.1	873.1
25840.4	873.1	25851.7	879.3						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17738.5	.065	19107.54	.032	20858.72	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19107.54	20858.72	33	33	33	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17738.5	19098	881	20865.3	25851.7	881

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	875.24	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.93	Wt. n-Val.		0.032	
E.G. Elev (ft)	876.18	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	866.17	Flow Area (sq ft)		29270.75	
E.G. Slope (ft/ft)	0.000655	Area (sq ft)		29270.75	16533.94
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	5741.78	Top Width (ft)		1750.55	3991.23
Vel Total (ft/s)	7.76	Avg. Vel. (ft/s)		7.76	
Max Chl Dpth (ft)	20.24	Hydr. Depth (ft)		16.72	
Conv. Total (cfs)	8868118.0	Conv. (cfs)		8868118.0	
Length Wtd. (ft)	0.00	Wetted Per. (ft)		1756.33	
Min Ch El (ft)	855.00	Shear (lb/sq ft)		0.68	
Alpha	1.00	Stream Power (lb/ft s)		5.29	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	3955.78	37234.48	15715.44
C & E Loss (ft)	0.01	Cum SA (acres)	997.01	4061.36	4370.61

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19107.54 LB	19545.33	68077.42	8223.22	440.65	29.99	18.80	8.28
19545.33	19983.13	53251.42	7080.51	438.19	23.46	16.17	7.52
19983.13	20420.93	67482.77	8159.82	437.93	29.73	18.64	8.27
20420.93	20858.72 RB	38188.39	5807.19	439.56	16.82	13.27	6.58

Warning - Divided flow computed for this cross-section.

BRIDGE RIVER: RIVER-1

REACH: Reach-1 RS: 188.055

INPUT
Description: Bridge #2 (Tuthill)
Distance from Upstream XS = 0
Deck/Roadway Width = 33
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =
Upstream Deck/Roadway Coordinates
num= 18

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
19088.5	894.85	894.85	19100.52	895	887.3	19218.52	896.08	888.38
19336.52	897.01	889.3	19454.52	897.78	889.9	19572.52	898.4	890.7
19690.52	898.87	891.1	19808.52	899.18	891.2	19926.52	899.33	891.63
20044.52	899.33	891.6	20162.52	899.18	891.2	20280.52	898.87	891.17
20398.52	898.4	890.7	20516.52	897.78	889.9	20634.52	897.01	889.31
20752.52	896.08	888.3	20870.52	895	887.3	20881.8	894.85	894.85

Upstream Bridge Cross Section Data
Station Elevation Data num= 62

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17738.5	884	19088.5	887.43	19098	881.18	19104.8	876.5	19107.5	4875.3834
19134.7	864.01	19178	855	19198	855	19455.6	855	19545.9	856.01
19569.5	855.82	19573.5	855.82	19633	855.06	19687	857.81	19691	857.81
19749.5	858.51	19805.5	860.06	19809.5	860.06	19867.6	863.15	19923.2	863.25
19927.3	863.25	19980.7	858.53	20041.4	857.23	20045.5	857.23	20070.5	856.68
20159.2	855	20163.2	855	20224.3	857.42	20278	856.74	20282	856.74
20335.5	857.58	20395.5	855.35	20399.5	855.35	20472.7	855	20517.5	855
20527.6	856.08	20562.1	858.91	20631.4	862.4	20635.4	862.4	20686.6	865.43
20749.1	866.47	20753.1	866.47	20842.4	867.7	20858.7	2875.3825	20865.3	878.48
20869	879.9	20881.8	886.15	21833.8	885.6	21858	872.6	22095.6	872.7
22385.2	874.2	22632.4	871.9	22983.9	873.1	23006.6	870	24233.4	868.7
24410.3	870.8	24443.1	868.9	25188.3	871.9	25395.5	871.9	25667.1	873.1
25840.4	873.1	25851.7	879.3						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17738.5	.065	19107.54	.032	20858.72	.025

Bank Sta: Left	Right	Coeff Contr.	Expan.
19107.54	20858.72	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17738.5	19098	881	20865.3	25851.7	881

Downstream Deck/Roadway Coordinates
num= 18

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
19088.5	894.85	894.85	19100.52	895	887.3	19218.52	896.08	888.38
19336.52	897.01	889.3	19454.52	897.78	889.9	19572.52	898.4	890.7
19690.52	898.87	891.1	19808.52	899.18	891.2	19926.52	899.33	891.63
20044.52	899.33	891.6	20162.52	899.18	891.2	20280.52	898.87	891.17
20398.52	898.4	890.7	20516.52	897.78	889.9	20634.52	897.01	889.31
20752.52	896.08	888.3	20870.52	895	887.3	20881.8	894.85	894.85

Downstream Bridge Cross Section Data
Station Elevation Data num= 62

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17738.5	884	19088.5	887.43	19098	881.18	19104.8	876.5	19107.5	1875.3956
19134.7	864.01	19178	855	19198	855	19455.6	855	19545.9	856.01
19569.5	855.82	19573.5	855.82	19633	855.06	19687	857.81	19691	857.81
19749.5	858.51	19805.5	860.06	19809.5	860.06	19867.6	863.15	19923.2	863.25
19927.3	863.25	19980.7	858.53	20041.4	857.23	20045.5	857.23	20070.5	856.68
20159.2	855	20163.2	855	20224.3	857.42	20278	856.74	20282	856.74
20335.5	857.58	20395.5	855.35	20399.5	855.35	20472.7	855	20517.5	855
20527.6	856.08	20562.1	858.91	20631.4	862.4	20635.4	862.4	20686.6	865.43
20749.1	866.47	20753.1	866.47	20842.4	867.7	20858.9	1875.4717	20865.3	878.48
20869	879.9	20881.8	886.15	21833.8	885.6	21858	872.6	22095.6	872.7
22385.2	874.2	22632.4	871.9	22983.9	873.1	23006.6	870	24233.4	868.7
24410.3	870.8	24443.1	868.9	25188.3	871.9	25395.5	871.9	25667.1	873.1
25840.4	873.1	25851.7	879.3						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17738.5	.065	19107.51	.032	20858.91	.025

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Bank Sta: Left   Right    Coeff Contr.   Expan.
      19107.5120858.91             .1       .3
Ineffective Flow     num=        2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
 17738.5   19098  881.18 20865.3 25851.7     881

Upstream Embankment side slope                =       0 horiz. to 1.0 vertical
Downstream Embankment side slope              =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins           =
Energy head used in spillway design           =
Spillway height used in design                =
Weir crest shape                              = Broad Crested

Number of Piers =  14

Pier Data
Pier Station     Upstream= 19218.5    Downstream= 19218.5
Upstream     num=        2
    Width   Elev    Width   Elev
        4     854       4     892
Downstream     num=        2
    Width   Elev    Width   Elev
        4     854       4     892

Pier Data
Pier Station     Upstream= 19336.2    Downstream= 19336.2
Upstream     num=        2
    Width   Elev    Width   Elev
        4     854       4     892
Downstream     num=        2
    Width   Elev    Width   Elev
        4     854       4     892

Pier Data
Pier Station     Upstream= 19453.6    Downstream= 19453.6
Upstream     num=        2
    Width   Elev    Width   Elev
        4     854       4     892
Downstream     num=        2
    Width   Elev    Width   Elev
        4     854       4     892

Pier Data
Pier Station     Upstream= 19571.5    Downstream= 19571.5
Upstream     num=        2
    Width   Elev    Width   Elev
        4     854       4     892
Downstream     num=        2
    Width   Elev    Width   Elev
        4     854       4     892

Pier Data
Pier Station     Upstream=   19689    Downstream=   19689
Upstream     num=        2
    Width   Elev    Width   Elev
        4     854       4     892
Downstream     num=        2
    Width   Elev    Width   Elev
        4     854       4     892

Pier Data
Pier Station     Upstream= 19807.5    Downstream= 19807.5
Upstream     num=        2
    Width   Elev    Width   Elev
        4     854       4     892
Downstream     num=        2
    Width   Elev    Width   Elev
        4     854       4     892

Pier Data
Pier Station     Upstream= 19925.3    Downstream= 19925.3
Upstream     num=        2
    Width   Elev    Width   Elev
        4     854       4     892
Downstream     num=        2
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    Width   Elev    Width   Elev
       4     854       4     892

 Pier Data
 Pier Station     Upstream= 20043.4    Downstream= 20043.4
 Upstream     num=       2
    Width   Elev    Width   Elev
       4     854       4     892
 Downstream     num=       2
    Width   Elev    Width   Elev
       4     854       4     892

 Pier Data
 Pier Station     Upstream= 20161.2    Downstream= 20161.2
 Upstream     num=       2
    Width   Elev    Width   Elev
       4     854       4     892
 Downstream     num=       2
    Width   Elev    Width   Elev
       4     854       4     892

 Pier Data
 Pier Station     Upstream=   20280    Downstream=   20280
 Upstream     num=       2
    Width   Elev    Width   Elev
       4     854       4     892
 Downstream     num=       2
    Width   Elev    Width   Elev
       4     854       4     892

 Pier Data
 Pier Station     Upstream= 20397.5    Downstream= 20397.5
 Upstream     num=       2
    Width   Elev    Width   Elev
       4     854       4     892
 Downstream     num=       2
    Width   Elev    Width   Elev
       4     854       4     892

 Pier Data
 Pier Station     Upstream= 20515.5    Downstream= 20515.5
 Upstream     num=       2
    Width   Elev    Width   Elev
       4     854       4     892
 Downstream     num=       2
    Width   Elev    Width   Elev
       4     854       4     892

 Pier Data
 Pier Station     Upstream= 20633.4    Downstream= 20633.4
 Upstream     num=       2
    Width   Elev    Width   Elev
       4     854       4     892
 Downstream     num=       2
    Width   Elev    Width   Elev
       4     854       4     892

 Pier Data
 Pier Station     Upstream= 20751.1    Downstream= 20751.1
 Upstream     num=       2
    Width   Elev    Width   Elev
       4     854       4     892
 Downstream     num=       2
    Width   Elev    Width   Elev
       4     854       4     892

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
      Energy
      Momentum                Cd   =      .32
      Yarnell                 KVal =       .9
Selected Low Flow Methods = Highest Energy Answer

High Flow Method
      Energy Only
```

Additional Bridge Parameters
Add Friction component to Momentum
Do not add Weight component to Momentum
Class B flow critical depth computations use critical depth inside the bridge at the downstream end
Criteria to check for pressure flow = Upstream water surface

BRIDGE OUTPUT Profile #PF#1
Opening : Bridge #1

E.G. US. (ft)	876.18	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	875.24	E.G. Elev (ft)	876.17	876.14
Q Total (cfs)	227000.00	W.S. Elev (ft)	875.16	875.12
Q Bridge (cfs)	227000.00	Crit W.S. (ft)	866.41	866.40
Q Weir (cfs)		Max Chl Dpth (ft)	20.16	20.12
Weir Sta Lft (ft)		Vel Total (ft/s)	8.06	8.08
Weir Sta Rgt (ft)		Flow Area (sq ft)	28157.30	28092.68
Weir Submerg		Froude # Chl	0.35	0.35
Weir Max Depth (ft)		Specif Force (cu ft)	305314.09	304371.94
Min Top Rd (ft)	881.00	Hydr Depth (ft)	16.62	16.58
Min El Prs (ft)	894.85	W.P. Total (ft)	2184.15	2182.90
Delta EG (ft)	0.06	Conv. Total (cfs)	7188551.5	7163825.0
Delta WS (ft)	0.07	Top Width (ft)	1694.18	1694.01
BR Open Area (sq ft)	53945.39	Frctn Loss (ft)	0.03	0.00
BR Open Vel (ft/s)	8.08	C & E Loss (ft)	0.00	0.02
Coef of Q		Shear Total (lb/sq ft)	0.80	0.81
Br Sel Mthd	Energy only	Power Total (lb/ft s)	6.47	6.52

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 188.04

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 62

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17738.5	884	19088.5	887.43	19098	881.18	19104.8	876.53	19107.5	1875.3956
19134.7	864.01	19178	855	19198	855	19455.6	855	19545.9	856.01
19569.5	855.82	19573.5	855.82	19633	855.06	19687	857.81	19691	857.81
19749.5	858.51	19805.5	860.06	19809.5	860.06	19867.6	863.15	19923.2	863.25
19927.3	863.25	19980.7	858.53	20041.4	857.23	20045.5	857.23	20070.5	856.68
20159.2	855	20163.2	855	20224.3	857.42	20278	856.74	20282	856.74
20335.5	857.58	20395.5	855.35	20399.5	855.35	20472.7	855	20517.5	855
20527.6	856.08	20562.1	858.91	20631.4	862.4	20635.4	862.4	20686.6	865.43
20749.1	866.47	20753.1	866.47	20842.4	867.7	20858.9	1875.4	7 20865.3	878.48
20869	879.9	20881.8	886.15	21833.8	885.6	21858	872.6	22095.6	872.7
22385.2	874.2	22632.4	871.9	22983.9	873.1	23006.6	870	24233.4	868.7
24410.3	870.8	24443.1	868.9	25188.3	871.9	25395.5	871.9	25667.1	873.1
25840.4	873.1	25851.7	879.3						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17738.5	.065	19107.51	.032	20858.91	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19107.5	20858.91	256.03	256.92	271.03	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17738.5	19098	881.18	20865.3	25851.7	881

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	875.17	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.94	Wt. n-Val.		0.032	
E.G. Elev (ft)	876.11	Reach Len. (ft)	256.03	256.92	271.03
Crit W.S. (ft)	866.18	Flow Area (sq ft)		29147.25	
E.G. Slope (ft/ft)	0.000664	Area (sq ft)		29147.25	16252.33
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	5741.20	Top Width (ft)		1750.23	3990.97
Vel Total (ft/s)	7.79	Avg. Vel. (ft/s)		7.79	
Max Chl Dpth (ft)	20.17	Hydr. Depth (ft)		16.65	
Conv. Total (cfs)	8807009.0	Conv. (cfs)		8807009.0	
Length Wtd. (ft)	256.92	Wetted Per. (ft)		1755.98	
Min Ch El (ft)	855.00	Shear (lb/sq ft)		0.69	
Alpha	1.00	Stream Power (lb/ft s)		5.36	

Frctn Loss (ft)	0.26	Cum Volume (acre-ft)	3955.78	37213.17	15715.44
C & E Loss (ft)	0.07	Cum SA (acres)	997.01	4060.07	4370.61

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19107.51 LB	19545.36	68138.67	8192.85	440.49	30.02	18.73	8.32
19545.36	19983.21	53233.54	7050.50	438.24	23.45	16.10	7.55
19983.21	20421.06	67529.84	8130.25	437.99	29.75	18.57	8.31
20421.06	20858.91 RB	38097.96	5773.65	439.25	16.78	13.21	6.60

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 188

INPUT
Description: Left and Right Bank Channel Station Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17809.5	882.7	18032.2	871.3	18276.6	870.2	18423.8	868.3	18503	871.2
18526.5	867.4	18545	871.2	18580.9	873.5	18792	877.1	19009.2	876.1
19064.73	874.4347	19095.9	873.5	19119.6	871	19135.5	866.6	19146.6	858.5
19191.6	863.6	19215.5	863.4	19613.8	858.8	19662.5	860.8	19687.5	858.6
19855.8	864.2	19952.9	858.3	20053.8	859.2	20309.5	860.5	20360.5	866.1
20417.8	863.3	20632.7	864.6	20848.7	868.3	21040	868.4297	21143.7	868.5
21354.6	868.6	21579.2	869	21617.4	867.8	21647.5	872.3	21867.1	872.3
22088	871.9	22301.1	871.9	22378.5	873.3	22407.2	870.1	22631.3	869.9
22874.1	869.8	22916.6	869.1	23000.5	869.7	23239.4	869.1	23543.4	869.4
23676.7	869.4	23898.3	868.7	24195.4	868.8	24409.2	868.8	24443	871.4
24470.7	869.3	24810.4	870.5	25085.2	871.2	25305.8	872.1	25559.6	872.3
25738.2	874.4	25745.9	878.9	25763.1	878.1	25772.8	872	25787.1	872.2
25796.4	879.8	25832.3	875.5	26004.6	875.3	26202.5	878.7	26529.2	878
26570.7	878	26857.9	878	27071.1	877.7	27120.8	874.8	27140.6	877.1
27366	877.5	27646.8	878.2	27689.4	878.3	28007.8	878.6	28238.9	879
28350.4	879.7	28686.3	877.1	28911.9	877.4	28974.7	877.3	29188.7	878.1
29434.6	878.8	29673.3	878.9	29685.9	876.3	29706.7	879.6	29717	872.7
29732.6	878	29953.2	876.6	30214.9	877.6	30455.5	878.5	30815.7	879.1
31029.5	879.8	31098.8	877.7	31381.4	878.8	31701.5	878.6	31992	879
32205.1	879.2	32566.2	880.8	32782.3	881.9				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17809.5	.065	19009.2	.03	20360.5	.032	21647.5	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19064.73	21040	505	526.41	545	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17809.5	19009.2	880	21040	32782.3	880

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	874.13	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.65	Wt. n-Val.		0.030	
E.G. Elev (ft)	875.78	Reach Len. (ft)	505.00	526.41	545.00
Crit W.S. (ft)	870.25	Flow Area (sq ft)		21996.45	
E.G. Slope (ft/ft)	0.001704	Area (sq ft)	2248.72	21996.45	18288.69
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	7307.91	Top Width (ft)	641.02	1965.15	4701.74
Vel Total (ft/s)	10.32	Avg. Vel. (ft/s)		10.32	

Max Chl Dpth (ft)	15.83	Hydr. Depth (ft)		11.19	
Conv. Total (cfs)	5498806.5	Conv. (cfs)		5498806.5	
Length Wtd. (ft)	526.41	Wetted Per. (ft)		1969.67	
Min Ch El (ft)	858.30	Shear (lb/sq ft)		1.19	
Alpha	1.00	Stream Power (lb/ft s)		12.26	
Frctn Loss (ft)	0.84	Cum Volume (acre-ft)	3949.17	37062.34	15607.98
C & E Loss (ft)	0.08	Cum SA (acres)	995.13	4049.12	4343.57

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19064.73 LB	19558.55	55663.37	5468.16	487.39	24.52	11.30	10.18
19558.55	20052.37	79543.11	6812.15	494.24	35.04	13.79	11.68
20052.37	20546.18	65907.08	6106.64	494.20	29.03	12.37	10.79
20546.18	21040.00 RB	25886.46	3609.51	493.85	11.40	7.31	7.17

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 187.91

INPUT
Description: Right Bank Channel Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18003.2	880.8	18217.8	877.8	18433.4	878.6	18691.1	876.2	18803.4	875.2
18947.3	870.3	19049.7	868.7	19105.1	869.8	19184.5	863.3	19212.2	858.4
19285	858.5	19608	859.2	19815.6	860.6	19824.7	858.2	19913.6	856.5
20023.9	864.1	20081.6	865.6	20095.6	861.6	20145.5	859.6	20158.6	857.4
20452.6	861.1	20492.7	866.6	20615.2	868.4	20861.3	867.1	21099.5	868.7
21319.3	868.7	21500	869.0129	21608.1	869.2	21635.5	868.2	21671.2	873.1
21690.3	870.8	21772.7	870.2	22007.1	870	22113.4	870	22353.1	869.6
22602.5	869.4	22851.6	868.8	23024.5	870.7	23040.3	867.5	23057.7	868.3
23061.7	870.4	23279.5	869.2	23505.4	869.3	23813.2	869.3	24023.9	868.7
24242.8	869	24448.9	868.9	24457.2	870.9	24605.1	871.6	24644.2	877.8
24660	870.5	24676.7	871.1	24696.7	878.4	24770.5	874.1	25041.4	874.9
25398.2	874.9	25628	874.8	25855.6	873.6	25946.5	873.2	26134.7	877.2
26290.9	876.9	26509.7	876.8	26695.5	876.7	26935.7	876.6	27193.9	876.4
27489.9	877.6	27760.5	877.8	28014.6	877.5	28227.1	878	28397.1	877.8
28412	875.2	28462.3	877	28463.1	878.5	28497.2	874.1	28548.8	877.9
28817.1	876.3	29100.5	877	29394.7	877.3	29675.7	876.8	29699.8	877.3
29714.9	876.2	29719.9	878	29740	877.2	29751.4	870.8	29766	877
30036.6	877.7	30409.7	877.7	30488.1	877.7	30717.4	878.1	30951.8	878.5
31075.8	878.9	31384	877.4	31731.1	878.3	32092.9	879.7	32309.3	880
32596	880.4	32822.9	881.5						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18003.2	.065	19105.1	.03	20615.2	.032	21671.2	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19105.1	21500	430	456.46	505	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18003.2	19105.1	880	21500	32822.9	880

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	873.47	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.40	Wt. n-Val.		0.030	
E.G. Elev (ft)	874.87	Reach Len. (ft)	430.00	456.46	505.00
Crit W.S. (ft)	870.00	Flow Area (sq ft)		23939.93	
E.G. Slope (ft/ft)	0.001493	Area (sq ft)	788.50	23939.93	12304.25
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	5878.22	Top Width (ft)	250.97	2394.90	3232.35
Vel Total (ft/s)	9.48	Avg. Vel. (ft/s)		9.48	
Max Chl Dpth (ft)	16.97	Hydr. Depth (ft)		10.00	
Conv. Total (cfs)	5874699.5	Conv. (cfs)		5874699.5	
Length Wtd. (ft)	456.46	Wetted Per. (ft)		2397.41	
Min Ch El (ft)	856.50	Shear (lb/sq ft)		0.93	
Alpha	1.00	Stream Power (lb/ft s)		8.83	

Frctn Loss (ft)	0.69	Cum Volume (acre-ft)	3931.56	36784.78	15416.60
C & E Loss (ft)	0.04	Cum SA (acres)	989.95	4022.77	4293.94

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19105.10 LB	19703.82	86508.59	8052.71	599.42	38.11	13.45	10.74
19703.82	20302.55	88237.34	8152.74	600.13	38.87	13.62	10.82
20302.55	20901.28	36935.25	4773.36	599.13	16.27	7.97	7.74
20901.28	21500.00 RB	15318.82	2961.13	598.73	6.75	4.95	5.17

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 187.82

INPUT
Description: Right Bank Channel Station Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17839.6	880	18098.9	878.8	18327.4	875.4	18552.6	874.2	18811.8	874.9
19033.6	871	19077.1	867.9	19134.4	868.8	19145.8	862.9	19155.6	860.7
19175.2	864.6	19197.8	858.5	19588.8	857.9	19735.3	861.4	19775.8	855.4
19919.3	859.8	19963.5	865.9	20108.8	867.7	20137	863.8	20204.4	865.2
20241.3	857.4	20549.2	860.6	20575.2	868.8	20758.1	865.4	21181.5	867.1
21213.2	867.3	21453.2	867.8	21600	868.7401	21656.2	869.1	21920	870.6688
21975.7	871	22232.9	869.6	22484.8	870	22730.4	868.6	22858.1	868.7
22968.7	866.2	22980.6	868.4	23209.7	868.5	23330.2	868.7	23571.1	868.3
23636.6	867.3	23671.5	871.9	23919.3	873	24172.8	873	24428	872.6
24475.9	875.3	24487.1	868.3	24499.5	869.1	24509.5	874.5	24769.5	874.1
25027.3	873.4	25282.1	873.5	25526.2	873.8	25764.8	874.1	25787.5	875.4
25804.5	872.3	25925.4	872.8	26069.3	876.4	26357.6	876	26608.7	875.9
26869.9	876.6	27226.6	876.2	27613.3	876.2	27866.4	877	28133.4	877.3
28329.4	877.1	28413.5	874.4	28472.8	875.3	28484.7	871.5	28521.6	875.2
28809.1	876.2	29099.3	876.1	29466.7	876.4	29693.7	874.9	29703	873.5
29716.1	876.9	29734.1	876.1	29744.8	869.5	29764.5	875.2	29781.8	874.8
29797.2	876.7	29999.7	877.1	30226.9	876.9	30459.3	876.9	30789.8	877.2
31033.1	877.8	31065.3	875.2	31067.5	876.4	31083.3	874.7	31121.1	876.3
31358.4	877.3	31630.3	877.3	31653.3	877	31884	877.6	32131	878
32435.6	878.9	32662.4	879.9	32821.1	879.9				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17839.6	.065	19134.4	.03	20575.2	.032	21975.7	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19134.4	21920	475	490.95	375	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17839.6	19134.4	878	21920	32821.1	878

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	872.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.27	Wt. n-Val.		0.030	
E.G. Elev (ft)	874.14	Reach Len. (ft)	475.00	490.95	375.00
Crit W.S. (ft)	869.57	Flow Area (sq ft)		25095.98	
E.G. Slope (ft/ft)	0.001529	Area (sq ft)	507.36	25095.98	6949.21
Q Total (cfs)	227000.00	Flow (cfs)		227000.00	
Top Width (ft)	5329.13	Top Width (ft)	207.19	2785.60	2336.34
Vel Total (ft/s)	9.05	Avg. Vel. (ft/s)		9.05	
Max Chl Dpth (ft)	17.47	Hydr. Depth (ft)		9.01	
Conv. Total (cfs)	5805135.0	Conv. (cfs)		5805135.0	
Length Wtd. (ft)	487.50	Wetted Per. (ft)		2791.88	
Min Ch El (ft)	855.40	Shear (lb/sq ft)		0.86	
Alpha	1.00	Stream Power (lb/ft s)		7.76	
Frctn Loss (ft)	0.72	Cum Volume (acre-ft)	3925.17	36527.86	15305.00
C & E Loss (ft)	0.04	Cum SA (acres)	987.69	3995.63	4261.66

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19134.40 LB	19830.80	109464.74	9818.37	699.78	48.22	14.10	11.15
19830.80	20527.20	74595.03	7792.08	697.98	32.86	11.19	9.57
20527.20	21223.60	29419.64	4581.18	697.70	12.96	6.58	6.42
21223.60	21920.00 RB	13520.60	2904.36	696.41	5.96	4.17	4.66

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 187.73

INPUT
Description:
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17304.3	880.2	17535	877.6	17680.2	877	17706.8	879.2	17828.6	875.7
18074	874.3	18329.8	874.9	18553.6	873.3	18646.5	873.9	18784.7	869.4
18836.3	866	18944.4	869	18980.6	868.1	19064.3	870.9	19070.1	869.3
19109.6	869	19133.5	860.6	19148.6	863	19162.9	858.6	19568.6	858.2
19658.3	859.2	19748.3	855.4	19823	858.1	19846.8	862	19892.8	864.6
20038.4	866.2	20206.8	866.7	20249.3	858.1	20358.4	860.4	20380.9	856.1
20432.1	857	20679.3	860.9	20707.9	865.4	20982.3	866.8	21196	867.5
21229.5	867.8	21339.7	865.3	21556.2	869.5	21640.8	868.6	21682	869.6345
21732.4	870.9	21985.2	870.2	22286.3	867.7	22533	866.5	22757.7	866.4
22970.7	865.6	23038.6	865	23091.2	870.8	23302	870.5	23529	870.9
23862.3	871.7	24081.2	871.9	24335.7	872.8	24455.8	874	24464.8	867.4
24474.1	866.9	24488.2	874.3	24869.8	872.5	24873.8	872.5	25101.2	872.5
25305.5	873.1	25557.7	873.2	25769.2	873.5	25779.8	870.7	26047.5	872.5
26195.5	872	26423.7	872.7	26680.6	872.5	26941.4	871.9	27129.5	871.3
27372.3	874.7	27607.2	872	27931.8	873	28166.3	873.4	28268	875.6
28477.7	871.1	28693.5	872.1	28755	872	29051.6	872.6	29285.3	872.4
29519.2	872.2	29716.7	872	29727.6	867.2	29749.7	871.6	30054	873.5
30458.1	873.2	30472.4	872.8	30751.4	872.4	30931.4	875.6	31107.6	873.3
31274.8	875.3	31561.4	875	31780.9	875.4	32095.8	876	32310.5	876.3
32663.3	878.1	32804.6	878.6						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17304.3	.065	19064.3	.03	20707.9	.032	21732.4	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19064.3	21732.4	490	474.38	280	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17304.3	18800	878	22520	32804.6	878

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	872.25	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.12	Wt. n-Val.	0.065	0.030	0.025
E.G. Elev (ft)	873.37	Reach Len. (ft)	490.00	474.38	280.00
Crit W.S. (ft)	869.23	Flow Area (sq ft)	1060.54	24256.36	2618.01
E.G. Slope (ft/ft)	0.001448	Area (sq ft)	1236.38	24256.36	7985.41
Q Total (cfs)	227000.00	Flow (cfs)	2328.75	211481.94	13189.31
Top Width (ft)	7251.92	Top Width (ft)	367.07	2668.10	4216.76
Vel Total (ft/s)	8.13	Avg. Vel. (ft/s)	2.20	8.72	5.04
Max Chl Dpth (ft)	16.85	Hydr. Depth (ft)	4.01	9.09	3.32
Conv. Total (cfs)	5964879.0	Conv. (cfs)	61192.6	5557111.0	346575.4
Length Wtd. (ft)	451.04	Wetted Per. (ft)	264.48	2672.93	787.61
Min Ch El (ft)	855.40	Shear (lb/sq ft)	0.36	0.82	0.30
Alpha	1.10	Stream Power (lb/ft s)	0.80	7.15	1.51
Frctn Loss (ft)	0.49	Cum Volume (acre-ft)	3915.66	36249.74	15240.71
C & E Loss (ft)	0.13	Cum SA (acres)	984.56	3964.89	4233.45

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)

18712.30	18829.63	346.33	143.21	29.70	0.15	4.83	2.42
18829.63	18946.97	1352.05	561.87	117.39	0.60	4.79	2.41
18946.97	19064.30	630.37	355.46	117.39	0.28	3.03	1.77
19064.30 LB	19731.33	86905.34	8533.16	669.60	38.28	12.79	10.18
19731.33	20398.35	55879.81	6543.70	668.79	24.62	9.81	8.54
20398.35	21065.38	54559.06	6200.41	667.42	24.03	9.30	8.80
21065.38	21732.40 RB	14137.69	2979.10	667.13	6.23	4.47	4.75
21732.40	22470.55	11265.40	2342.82	738.16	4.96	3.17	4.81
22470.55	23208.69	1923.92	275.18	49.45	0.85	5.56	6.99

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 187.64

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17435	878.6	17689.2	877	17936	874.2	18206.4	871.3	18235	872.4
18474.6	869.2	18698.6	867.9	18932.1	866.3	19149.8	866.7	19181.5	857.5
19335	857.4	19700.7	858.1	19752.4	865.4	19814.2	859.8	19887.2	867.1
19903.1	864.6	20007.7	862.1	20056.6	866.1	20138.7	863.5	20171.4	858.9
20209.7	858.7	20219	856.1	20288.3	856.9	20309.7	861.8	20379.3	864
20407.7	858.2	20798.8	860.6	20811.5	867.2	20961.2	864.8	21264.7	866.4
21306.9	861.3	21386.2	863	21444.1	861.5	21475.9	863.5	21553.3	863.1
21594.2	868.1	21882.5	867.8	22187.5	865.1	22291.1	868.1	22317.1	866
22627.9	865.6	22872.9	866.8	23093.2	868.5	23155.1	870.2	23272.7	872.6
23393.2	871.9	23658.2	872.6	23900.4	872.1	24164	873.5	24436.5	871.7
24440.7	870.5	24451.2	873.4	24470.7	874.3	24482.9	867.5	24491.3	867.4
24503.9	874.2	24722.1	871.5	25001.2	870.7	25242.1	871.1	25486.9	871.4
25759.8	871	25918.9	870.6	26089	872.6	26333.7	871.9	26572.2	872.5
26808.3	873.2	27069.2	872.9	27289.9	872	27601.3	872.5	27832.6	872.5
28078.8	872.6	28296.7	873.5	28515.6	870.8	28780.9	871.3	28784.3	871.3
29024.4	871.1	29047.1	871.1	29303.8	871.4	29530.7	872.1	29733.3	872.6
29743.4	867	29765.4	871.4	30055.6	872.7	30381.8	872.4	30598.2	872.7
30858.7	873.2	31077.7	873.3	31366.4	873.8	31447.1	873.9	31696.4	874.6
31916.3	875.6	32225.3	876.6	32532.3	877.4	32561.9	877.4	32820.6	877.8
32822.9	877.8								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17435	.065	19149.8	.03	20811.5	.032	21594.2	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19149.8	21594.2	510	513.43	105	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17435	18600	876	23100	32822.9	876

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	872.07	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.68	Wt. n-Val.	0.065	0.030	0.025
E.G. Elev (ft)	872.75	Reach Len. (ft)	510.00	513.43	105.00
Crit W.S. (ft)	868.36	Flow Area (sq ft)	2754.53	25718.30	7979.24
E.G. Slope (ft/ft)	0.000847	Area (sq ft)	3502.59	25718.30	10605.49
Q Total (cfs)	227000.00	Flow (cfs)	5365.47	179687.20	41947.33
Top Width (ft)	8099.08	Top Width (ft)	981.37	2444.40	4673.30
Vel Total (ft/s)	6.23	Avg. Vel. (ft/s)	1.95	6.99	5.26
Max Chl Dpth (ft)	15.97	Hydr. Depth (ft)	5.01	10.52	5.30
Conv. Total (cfs)	7800190.0	Conv. (cfs)	184368.7	6174424.5	1441397.0
Length Wtd. (ft)	449.46	Wetted Per. (ft)	549.81	2451.48	1505.95
Min Ch El (ft)	856.10	Shear (lb/sq ft)	0.26	0.55	0.28
Alpha	1.13	Stream Power (lb/ft s)	0.52	3.88	1.47
Frctn Loss (ft)	0.40	Cum Volume (acre-ft)	3889.01	35977.63	15180.96
C & E Loss (ft)	0.01	Cum SA (acres)	976.98	3937.06	4204.88

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)

18578.20	18692.52	579.98	357.46	92.52	0.26	3.86	1.62
18692.52	18806.84	929.98	516.43	114.32	0.41	4.52	1.80
18806.84	18921.16	1213.96	605.97	114.32	0.53	5.30	2.00
18921.16	19035.48	1361.34	649.09	114.32	0.60	5.68	2.10
19035.48	19149.80	1280.21	625.59	114.32	0.56	5.47	2.05
19149.80 LB	19760.90	68540.28	8388.87	612.96	30.19	13.73	8.17
19760.90	20372.00	40066.32	6080.29	613.38	17.65	9.95	6.59
20372.00	20983.10	46113.66	6495.25	613.33	20.31	10.63	7.10
20983.10	21594.20 RB	24966.88	4753.88	611.82	11.00	7.78	5.25
21594.20	22342.78	18976.54	3753.37	748.72	8.36	5.01	5.06
22342.78	23091.36	22850.80	4195.68	748.59	10.07	5.60	5.45
23091.36	23839.94	120.04	30.20	8.64	0.05	3.50	3.97

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 187.54

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 99

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16484.8	877.9	16720.4	875.2	16962.7	874	17132.8	873.4	17191.8	869.1
17315.9	872.3	17515.6	868.9	17555.7	866.5	17670.1	876.6	17919.1	874.6
18157.5	873.9	18409.3	872.9	18661.3	872.7	18902.8	870.7	19070	866.8175
19100.9	866.1	19135.1	857.4	19373.1	857.8	19665	858.1	19679.2	857.5
19716.3	867.2	19783.7	865.5	19797.3	863.2	19949.8	865.4	20027.4	858.6
20171.3	855.9	20187.2	860.7	20276.4	863.7	20365.5	859.2	20599.8	860
20870	860.3	20894.3	861.7	20898.1	865.8	20919.5	865	20942.2	867.3
21114	864.9	21415.4	865.2	21438.8	863.5	21455.9	864.7	21770	865.8915
21820	866.0811	21904.1	866.4	22202.1	865.7	22472.7	865.2	22562.5	865.1
22606.9	867.6	22875.3	867.9	23072.2	870	23134.7	872.5	23396.4	872.1
23673.7	872.1	23978.2	871.8	24256.8	872	24351.6	870.1	24376.6	874.2
24387.1	867.4	24397.4	868.2	24408.9	873.4	24423.9	873.4	24431.1	869.9
24542.5	871.9	24896.1	871.7	25235.4	871.3	25484.5	871.2	25758.3	871.5
26027.8	870.4	26298.1	870.9	26317.8	871.1	26556.9	871.5	26598.5	871.4
26870.3	871.1	26906.2	871	27168.5	871.1	27308.1	871.1	27564.2	871.8
27817	871.5	28080.3	871.8	28316	871.5	28704.4	871.3	28988.1	871.1
29265	871.7	29570.1	872.2	29642.7	872	29654.1	866.7	29677.1	871.6
29926	872.6	30215.4	872.5	30569.5	872.7	30823.4	873.4	31078.7	872.8
31261.5	873.9	31547.9	874.2	31603.2	874.3	31873.6	874.8	31903.5	874.9
32162	876.5	32410.6	877	32706.9	877.2	32735.3	877.3		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16484.8	.065	18902.8	.03	20942.2	.025	21904.1	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19070	21904.1	445	444.68	420	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16484.8	18560	876	23134.7	32735.3	876

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	871.57	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.77	Wt. n-Val.	0.030	0.029	0.025
E.G. Elev (ft)	872.34	Reach Len. (ft)	445.00	444.68	420.00
Crit W.S. (ft)	867.68	Flow Area (sq ft)	516.68	26983.83	5685.50
E.G. Slope (ft/ft)	0.000939	Area (sq ft)	1188.30	26983.83	7229.30
Q Total (cfs)	227000.00	Flow (cfs)	1442.45	196465.27	29092.29
Top Width (ft)	8488.08	Top Width (ft)	657.13	2834.10	4996.85
Vel Total (ft/s)	6.84	Avg. Vel. (ft/s)	2.79	7.28	5.12
Max Chl Dpth (ft)	15.67	Hydr. Depth (ft)	1.89	9.52	4.71
Conv. Total (cfs)	7407070.5	Conv. (cfs)	47067.4	6410714.0	949289.0
Length Wtd. (ft)	441.78	Wetted Per. (ft)	272.72	2839.97	1207.55
Min Ch El (ft)	855.90	Shear (lb/sq ft)	0.11	0.56	0.28
Alpha	1.05	Stream Power (lb/ft s)	0.31	4.06	1.41
Frctn Loss (ft)	0.36	Cum Volume (acre-ft)	3861.54	35667.03	15159.46
C & E Loss (ft)	0.06	Cum SA (acres)	967.39	3905.95	4193.22

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18725.31	18897.65	16.25	41.68	100.33	0.01	0.42	0.39
18897.65	19070.00	1426.19	475.01	172.39	0.63	2.76	3.00
19070.00 LB	19778.53	69383.58	8655.14	710.90	30.57	12.22	8.02
19778.53	20487.05	54339.25	7470.53	709.93	23.94	10.54	7.27
20487.05	21195.57	45502.25	6436.54	710.50	20.05	9.08	7.07
21195.57	21904.10 RB	27240.18	4421.62	708.63	12.00	6.24	6.16
21904.10	22626.18	23562.26	4188.16	722.15	10.38	5.80	5.63
22626.18	23348.26	5530.04	1497.33	485.40	2.44	3.09	3.69

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 187.45

INPUT
Description:

Eliminate vertical ineffective area in lt. overbank by coding out GR

data between and below sta, elev. 18459, 864.4 and 18742, 864.4

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17315.3	879.4	17578.6	873.9	17848.5	873.8	17936.1	874.8	18125.2	869.6
18151.9	871	18459	864.4	18742	864.4	18778.8	865.7	18844.5	858.7
18892.4	856.2	18962.7	862	19016	857.7	19030.1	860.8	19045.8	860
19068.6	864.6	19095.8	857.2	19300.1	856.9	19676.2	856.3	19698.8	857.1
19707.4	855.3	19746.9	868.3	19881.5	866.5	19917.3	859.5	19971.1	855.3
20100.9	857.9	20116.6	861.4	20283.4	862.3	20322.6	858.6	20399.9	862.3
20415.9	865.2	20460.4	859.2	20473.1	861.9	20487.2	859.3	20510.2	859.2
20529.4	861.9	20542.4	859.7	20823.4	860.7	20861.9	861.1	20881	865.2
21040	867.1	21191.6	864.1	21434.9	863.9	21736.5	865.7	871 21786.5	866.1
22091.4	866	22353.6	865.4	22530.2	864.7	22549.9	868	22728.1	866.2
22741.7	869.8	22992	868.9	23094.1	872.4	23468.9	872	23745.8	871.8
24192.5	871.7	24323.3	870.6	24338.5	872.7	24347.8	867.3	24362.1	868
24370.1	873	24381.9	872.1	24406.3	876.2	24418.4	869	24492	871.5
24969.9	870.7	25231.5	870.8	25521.1	870.4	25803.1	871	26192.1	870.2
26569.5	870.8	26883	869.9	27146.1	871	27468.5	871	27747.3	871.2
28032.1	871.4	28293.4	871	28675.8	871.4	28971.8	871.3	29306.6	872
29571.6	871.7	29614.2	871.3	29623.3	866.4	29638.5	871.3	29931.4	872.6
30324.5	872.3	30625.6	872.8	30896.6	873.3	31247.4	872.7	31541.2	873.6
31841.8	874.7	32127.8	875.5	32289.8	875.4	32322.5	876.8	32706.4	878.6
32898.9	879.2								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17315.3	.065	18778.8	.03	21040	.025	21786.5	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19030.1	21786.5	495	500.61	480	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17315.3	18340	875	23094.1	32898.9	875

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	871.35	Element			
Vel Head (ft)	0.57	Wt. n-Val.	0.038	0.029	0.025
E.G. Elev (ft)	871.92	Reach Len. (ft)	495.00	500.61	480.00
Crit W.S. (ft)	866.99	Flow Area (sq ft)	5784.18	27351.43	5697.55
E.G. Slope (ft/ft)	0.000722	Area (sq ft)	6313.50	27351.43	8097.29
Q Total (cfs)	227000.00	Flow (cfs)	25950.53	176398.28	24651.18
Top Width (ft)	9339.73	Top Width (ft)	968.48	2756.40	5614.85
Vel Total (ft/s)	5.85	Avg. Vel. (ft/s)	4.49	6.45	4.33
Max Chl Dpth (ft)	16.05	Hydr. Depth (ft)	8.38	9.92	4.46
Conv. Total (cfs)	8448238.0	Conv. (cfs)	965798.6	6564998.5	917440.8
Length Wtd. (ft)	498.12	Wetted Per. (ft)	691.34	2763.73	1277.72

Min Ch El (ft)	855.30	Shear (lb/sq ft)	0.38	0.45	0.20
Alpha	1.07	Stream Power (lb/ft s)	1.69	2.88	0.87
Frctn Loss (ft)	0.37	Cum Volume (acre-ft)	3823.23	35389.69	15085.58
C & E Loss (ft)	0.01	Cum SA (acres)	959.08	3877.41	4142.06

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18229.86	18344.18	30.46	18.54	4.18	0.01	4.44	1.64
18344.18	18458.50	1268.64	652.68	114.35	0.56	5.71	1.94
18458.50	18572.82	1760.30	794.34	114.32	0.78	6.95	2.22
18572.82	18687.14	1760.31	794.35	114.32	0.78	6.95	2.22
18687.14	18801.46	2060.31	768.31	114.47	0.91	6.72	2.68
18801.46	18915.78	10292.53	1443.06	114.71	4.53	12.62	7.13
18915.78	19030.10	8777.99	1312.90	114.99	3.87	11.48	6.69
19030.10 LB	19719.20	74503.50	9758.24	691.39	32.82	14.16	7.63
19719.20	20408.30	40905.68	6813.12	692.23	18.02	9.89	6.00
20408.30	21097.40	35266.88	6165.06	690.98	15.54	8.95	5.72
21097.40	21786.50 RB	25722.25	4615.00	689.13	11.33	6.70	5.57
21786.50	22527.33	20112.27	4189.73	740.83	8.86	5.66	4.80
22527.33	23268.15	4538.91	1507.82	536.89	2.00	2.81	3.01

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 187.36

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17063.3	877.9	17372.9	874.3	17627.4	873.1	17699.5	873.7	17751.1	873.2
17805.6	870.6	17998.1	870.1	18249.4	867.2	18497.8	868.1	18748.1	864.5
18951.6	868.5	18981.1	862.5	19047.6	862.9	19077.3	856.6	19648.5	856.6
19732.2	856.9	19741.3	854.8	19804.9	853.7	19859.9	859.4	19928.2	860.2
19969.4	856.1	20216.7	859.2	20292.7	862.2	20437	861	20472.9	865.7
20517.9	859	20895.3	859.8	20909.5	866.5	21202.7	863.6	21384.8	863.9
21393.7	865.4	21410.6	865.6	21421.6	863.6	21674.6	866	21913.6	866.2
22208.9	866	22459	865	22493.4	865.1	22516.3	867.2	22693.9	867.5
22705	871.1	22945.6	869.2	23032.2	871.1	23040.5	874.5	23101.5	869.3
23498.7	870.7	23733.8	870.5	23967.1	869.6	24212.6	869.5	24274.3	871.7
24303.5	873.8	24315.8	867.2	24330	868.7	24334.6	872.7	24350.9	873
24364.9	869.6	24388.8	868.9	24623.7	870.5	24898.8	870.6	25337.3	869.7
25625.1	869.2	25892.6	870.3	26176.3	869.8	26428.7	870	26701.5	869.9
26969.3	869.8	27033.1	869.8	27328.9	871	27637.1	871.3	27645.2	871.3
27914.3	870.5	28152	871.5	28509.7	870.6	28846	871.8	29176.8	872
29463.2	872.4	29579	871.3	29598.4	867.1	29606.8	871.3	29854.7	872.7
29895.7	872.7	30171.8	872.4	30344.3	872.9	30642.8	872.8	30880.2	873.1
30926.9	871.6	30937.1	870	30983.8	872.6	31227.6	873.1	31523.8	873.4
31879.2	874.4	32147.5	875.5	32480.5	877.5	32518.4	877.6	32780.9	878.4
32784.7	878.5								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17063.3	.065	18951.6	.03	20909.5	.025	21674.6	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18951.6	21674.6	590	610	690	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17063.3	18340	875	22705	32784.7	875

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	870.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.70	Wt. n-Val.	0.065	0.029	0.025
E.G. Elev (ft)	871.53	Reach Len. (ft)	590.00	610.00	690.00
Crit W.S. (ft)	866.50	Flow Area (sq ft)	2490.11	28739.22	4800.05
E.G. Slope (ft/ft)	0.000766	Area (sq ft)	3444.20	28739.22	8622.97
Q Total (cfs)	227000.00	Flow (cfs)	4016.33	200958.80	22024.88
Top Width (ft)	9688.89	Top Width (ft)	1150.79	2723.00	5815.09

Vel Total (ft/s)	6.30	Avg. Vel. (ft/s)	1.61	6.99	4.59
Max Chl Dpth (ft)	17.13	Hydr. Depth (ft)	4.07	10.55	4.66
Conv. Total (cfs)	8202879.0	Conv. (cfs)	145134.2	7261853.0	795891.9
Length Wtd. (ft)	616.17	Wetted Per. (ft)	611.67	2727.74	1030.19
Min Ch El (ft)	853.70	Shear (lb/sq ft)	0.19	0.50	0.22
Alpha	1.14	Stream Power (lb/ft s)	0.31	3.52	1.02
Frctn Loss (ft)	0.65	Cum Volume (acre-ft)	3767.78	35067.38	14993.45
C & E Loss (ft)	0.03	Cum SA (acres)	947.04	3845.93	4079.09

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18322.17	18448.05	436.26	335.47	108.05	0.19	3.10	1.30
18448.05	18573.94	505.74	389.68	125.89	0.22	3.10	1.30
18573.94	18699.83	1024.86	595.33	125.90	0.45	4.73	1.72
18699.83	18825.71	1409.33	720.74	125.91	0.62	5.73	1.96
18825.71	18951.60	640.16	448.90	125.91	0.28	3.57	1.43
18951.60 LB	19632.35	67565.76	8924.42	682.02	29.76	13.11	7.57
19632.35	20313.10	66864.32	8866.46	681.58	29.46	13.02	7.54
20313.10	20993.85	42293.11	6626.50	683.06	18.63	9.73	6.38
20993.85	21674.60 RB	24235.63	4321.84	681.08	10.68	6.35	5.61
21674.60	22415.27	17004.19	3608.18	740.68	7.49	4.87	4.71
22415.27	23155.95	5020.67	1191.87	289.51	2.21	4.13	4.21

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 187.24

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18406.8	876.9	18516.7	865.1	18772.2	867.2	18840	865.8	18963	867.1
19039	856.8	19450.8	856.7	19588.6	856.4	19589.3	854.9	19607.5	861
19645.6	857.1	19656.2	853.8	19660.8	855.8	19821.3	854.2	19847.2	860.8
20057.6	855.8	20088	865.1	20241.9	865	20306.5	859.7	20357.2	860.3
20378.2	856.3	20585.8	857.7	20629.3	860	20647.7	863	20680.5	858.6
20772.6	864.3	20850.3	862.4	20971	862.9	21060.1	861.7	21142.9	862.9
21274.3	859.9	21369.3	869.5	21552.8	864.7	21874	865	22108	865.8
22329.5	867.3	22552.9	868.9	22819.6	870.9	22982.2	869.1	22992.1	871.8
23020.7	869.6	23250.9	871	23471.7	871.1	23678.2	870.3	23956.1	870.3
24102.5	868.8	24121.5	873.7	24128.8	871.6	24136.7	866.3	24149.9	866
24161.3	873	24173.4	872.9	24188.5	868.6	24243.2	870.6	24549.2	870.6
24562	870.6	24778	870.5	24795.3	870.4	25022.7	870.1	25294.8	869.9
25521.2	869.4	25867.4	869.2	25896.3	869.2	26202.6	869.6	26401.2	869.4
26685.9	868.9	26975.4	868.9	27289.9	869.2	27525.9	869.8	27615.8	870.1
27875.6	869.9	28154.3	870.2	28187.3	870	28196.2	871.9	28204.8	868.4
28251.1	871.7	28304.8	868.2	28528.1	869	28778.4	871.3	29056.5	870.8
29296.6	869.8	29524.4	870.7	29538.3	869.1	29548.5	865.4	29568.7	870.1
29593.9	868	29827.9	869.2	30109.8	869.3	30429.1	870.1	30667.1	869
30877.8	869	30915.2	871	31156.8	871.5	31363	873.1	31634.5	873.6
31822	874								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18406.8	.065	18963	.065	18963	.03	20647.7	.065	21369.3	.065
21874	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18963	21369.3	475	481.03	515	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22819.6	31822	875

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	869.81	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.04	Wt. n-Val.	0.065	0.033	0.038
E.G. Elev (ft)	870.85	Reach Len. (ft)	475.00	481.03	515.00
Crit W.S. (ft)	866.21	Flow Area (sq ft)	1676.08	24617.18	4281.53
E.G. Slope (ft/ft)	0.001547	Area (sq ft)	1676.08	24617.18	6807.85
Q Total (cfs)	227000.00	Flow (cfs)	3419.61	208705.98	14874.40
Top Width (ft)	8204.85	Top Width (ft)	490.17	2406.30	5308.39
Vel Total (ft/s)	7.42	Avg. Vel. (ft/s)	2.04	8.48	3.47
Max Chl Dpth (ft)	16.01	Hydr. Depth (ft)	3.42	10.23	3.28
Conv. Total (cfs)	5770677.0	Conv. (cfs)	86931.5	5305616.0	378129.4
Length Wtd. (ft)	484.00	Wetted Per. (ft)	490.45	2414.28	1305.01
Min Ch El (ft)	853.80	Shear (lb/sq ft)	0.33	0.99	0.32
Alpha	1.21	Stream Power (lb/ft s)	0.67	8.35	1.10
Frctn Loss (ft)	0.58	Cum Volume (acre-ft)	3733.11	34693.79	14871.24
C & E Loss (ft)	0.11	Cum SA (acres)	935.93	3810.01	3990.99

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18443.88	18480.96	1.79	3.55	8.17	0.00	0.44	0.50
18480.96	18518.04	187.41	106.07	37.29	0.08	2.86	1.77
18518.04	18555.12	407.17	168.58	37.08	0.18	4.55	2.42
18555.12	18592.20	362.71	157.28	37.08	0.16	4.24	2.31
18592.20	18629.28	320.32	145.98	37.08	0.14	3.94	2.19
18629.28	18666.36	280.07	134.68	37.08	0.12	3.63	2.08
18666.36	18703.44	242.00	123.37	37.08	0.11	3.33	1.96
18703.44	18740.52	206.20	112.08	37.08	0.09	3.02	1.84
18740.52	18777.60	173.93	101.20	37.08	0.08	2.73	1.72
18777.60	18814.68	215.54	115.10	37.09	0.09	3.10	1.87
18814.68	18851.76	303.49	141.34	37.09	0.13	3.81	2.15
18851.76	18888.84	287.49	136.81	37.08	0.13	3.69	2.10
18888.84	18925.92	238.42	122.28	37.08	0.11	3.30	1.95
18925.92	18963.00	193.09	107.75	37.08	0.09	2.91	1.79
18963.00 LB	19564.57	77895.82	7481.06	602.27	34.32	12.44	10.41
19564.57	20166.15	68556.87	6950.63	606.93	30.20	11.55	9.86
20166.15	20767.73	48103.05	5910.33	602.94	21.19	9.82	8.14
20767.73	21369.30 RB	14150.24	4275.15	602.14	6.23	7.11	3.31
21369.30	22066.15	9865.29	2951.46	696.91	4.35	4.24	3.34
22066.15	22762.99	5009.09	1330.07	608.10	2.21	2.19	3.77

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 187.15

INPUT
Description: Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18115.2	878.9	18172.5	875.2	18194.2	871.9	18357.1	875.6	18397.9	867.1
18539.9	863.4	18619	867.9	18646.1	865.7	18686.6	868.7	18760.4	863.4
18803.3	862.9	18914.9	865.7	18938	864.3	18965.7	858.1	19020.5	855.7
19330.4	853.5	19548.1	854.8	19821.9	853.2	19855.5	861.8	20059.3	854.9
20223.2	854.5	20245.1	862.2	20287.4	862.2	20325.4	864.6	20352	864
20378	857	20587.9	860.6	20612	863.6	20868.5	861.1	21139.2	865.5
21390	861	21428.5	861.5	21438.5	864.2	21482.4	859.5	21500	860.4631
21582.9	865	21592.8	863.5	21721.3	865.2	21744.9	868.7	21788.7	865.3
21805.1	861.7	22060.1	862.1	22351.9	865.7	22690	868.2	22912.4	869.8
22958.3	867	22972.5	871.9	23275.4	870.3	23563.1	870.1	23877.6	869.9
23909.3	869.9	23932.3	866.6	23964.1	873.1	23971	871.6	23981.1	866.4
23992	866.9	24000.5	872.3	24012.6	871.5	24026.9	866.3	24079.6	869.3
24364.3	870.2	24626.6	870.4	24923.1	869.5	25198.4	868.7	25474.6	868.7
25768.4	868.1	26033.1	867.5	26391	868.3	26560.8	868.4	26862.5	867.7
26909.7	867.8	27284.7	868.6	27299.8	868.7	27589.5	870.2	27618.4	870.2
27915.4	868.9	28166	869.1	28181.2	870.7	28186.2	867.8	28473.8	870.1
28850.9	870.3	29153.6	870.9	29423.2	870.5	29519.6	868.1	29531.1	865.7
29557.1	870.4	29894	869.3	30194.3	869.1	30471.8	869.5	30815.6	869.4
31089	871.8	31091.1	871.9	31351.9	872.8	31385	872.8	31676	873.5
31949.9	874	32128.2	874.2						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18115.2	.065	18686.6	.03	20612	.065	21744.9	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18686.6	21500	495	501.33	500	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22912.4	32128.2	875

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	869.48	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.68	Wt. n-Val.	0.065	0.033	0.030
E.G. Elev (ft)	870.16	Reach Len. (ft)	495.00	501.33	500.00
Crit W.S. (ft)	864.95	Flow Area (sq ft)	1081.19	28919.32	6062.79
E.G. Slope (ft/ft)	0.000967	Area (sq ft)	1081.19	28919.32	9810.20
Q Total (cfs)	227000.00	Flow (cfs)	1803.74	199455.30	25740.96
Top Width (ft)	8794.44	Top Width (ft)	300.11	2813.40	5680.94
Vel Total (ft/s)	6.29	Avg. Vel. (ft/s)	1.67	6.90	4.25
Max Chl Dpth (ft)	16.28	Hydr. Depth (ft)	3.60	10.28	4.43
Conv. Total (cfs)	7299995.5	Conv. (cfs)	58005.8	6414197.0	827792.5
Length Wtd. (ft)	501.16	Wetted Per. (ft)	300.73	2818.89	1368.53
Min Ch El (ft)	853.20	Shear (lb/sq ft)	0.22	0.62	0.27
Alpha	1.11	Stream Power (lb/ft s)	0.36	4.27	1.14
Frctn Loss (ft)	0.45	Cum Volume (acre-ft)	3718.08	34398.19	14773.00
C & E Loss (ft)	0.03	Cum SA (acres)	931.62	3781.19	3926.03

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18381.85	18419.95	80.20	72.29	33.71	0.04	2.16	1.11
18419.95	18458.04	199.89	131.33	38.11	0.09	3.45	1.52
18458.04	18496.13	304.74	169.14	38.11	0.13	4.44	1.80
18496.13	18534.23	426.55	206.95	38.11	0.19	5.43	2.06
18534.23	18572.32	406.59	201.17	38.15	0.18	5.28	2.02
18572.32	18610.41	171.72	119.94	38.15	0.08	3.15	1.43
18610.41	18648.51	120.54	97.05	38.20	0.05	2.55	1.24
18648.51	18686.60	93.52	83.33	38.20	0.04	2.19	1.12
18686.60 LB	19389.95	57615.23	7675.04	704.37	25.38	10.91	7.51
19389.95	20093.30	86576.37	9800.43	704.56	38.14	13.93	8.83
20093.30	20796.65	43536.88	6748.51	705.90	19.18	9.59	6.45
20796.65	21500.00 RB	11726.83	4695.35	704.07	5.17	6.68	2.50
21500.00	22208.55	20778.60	4427.04	709.59	9.15	6.25	4.69
22208.55	22917.09	4962.37	1635.75	658.95	2.19	2.48	3.03

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 187.06

INPUT
Description: APPROX. ALIGNMENT OF AIRPORT RD. Left
and Right Channel Bank Stations Interpolated

Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18210.8	871.4	18290.6	875.3	18352.9	87118358.98	869.126	18367.5	866.5	
18403.5	862.1	18448.7	864.9	18553.8	862.5	18764.6	862.9	18814.5	865.2
18856.3	861.9	18915.2	863.6	18958.5	856.8	19169.6	853.6	19224.3	853.5
19406.8	858.8	19472.7	856.9	19487.6	854.5	19545.3	854.1	19862.7	852.6
19941.3	851.9	20131.2	859.6	20160.1	855.8	20219.3	855.5	20266.6	862.9
20298.4	857.6	20347.8	860.6	20462.4	856.7	20556.6	857	20600.6	861.7
20810.8	862.5	21041.5	862.4	21268.3	861	21319.2	865.8	21522.6	858.8
21542859.5872		21640.9	863.6	21801.3	862.6	21842.6	860.8	21892	868.5
22116.5	866	22357	864	22637.8	866.4	22907.5	867.9	22980.3	868.3
22991.1	871	23214.5	869.8	23431.8	871.2	23596.3	871.3	23861.3	871.5
24028	871.7	24241	869.7	24300.5	870.2	24305.7	868	24518.8	869.7
24783.5	868.8	25120.4	868.9	25481.8	868.7	25743.3	870	25962.3	870.3

26012.7	870.2	26031.8	865.3	26043.7	870.1	26062.1	869.6	26070.8	867.3
26286.8	868.5	26545.6	868.1	26770.3	867.8	26875.6	868.9	26889.2	866.8
27011.8	867.5	27223.3	867.8	27475.2	868.2	27696.5	869.2	27869.2	869
27906.8	867.1	28134.9	868.7	28180.4	869.9	28193.2	867.8	28204.3	869.5
28419	868.4	28648.8	868	28878.9	868.5	29180.1	868.5	29403.7	869.2
29538.3	867.8	29551.8	866	29590	869.8	29861	870.5	30119.2	870.3
30420.5	869.4	30723.8	869.5	30940.5	871	31333.4	873	31421.4	872.9
31652.9	873.4	31941.8	874.1	32114.9	874.9				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18210.8	.065	18352.9	.065	18814.5	.028	20266.6	.065	21319.2	.025
21892	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18358.98	21542	495	491.11	445	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
24028	32114.9	875

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	869.09	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.59	Wt. n-Val.		0.033	0.025
E.G. Elev (ft)	869.69	Reach Len. (ft)	495.00	491.11	445.00
Crit W.S. (ft)	864.34	Flow Area (sq ft)		32079.11	5318.15
E.G. Slope (ft/ft)	0.000821	Area (sq ft)		32079.11	8556.11
Q Total (cfs)	227000.00	Flow (cfs)		203451.94	23548.05
Top Width (ft)	8894.93	Top Width (ft)		3182.92	5712.02
Vel Total (ft/s)	6.07	Avg. Vel. (ft/s)		6.34	4.43
Max Chl Dpth (ft)	17.19	Hydr. Depth (ft)		10.08	3.69
Conv. Total (cfs)	7921971.0	Conv. (cfs)		7100178.0	821792.8
Length Wtd. (ft)	483.86	Wetted Per. (ft)		3186.95	1442.33
Min Ch El (ft)	851.90	Shear (lb/sq ft)		0.52	0.19
Alpha	1.03	Stream Power (lb/ft s)		3.27	0.84
Frctn Loss (ft)	0.38	Cum Volume (acre-ft)	3711.93	34047.17	14667.60
C & E Loss (ft)	0.02	Cum SA (acres)	929.91	3746.69	3860.64

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18358.98 LB	19154.73	32682.29	6297.73	797.18	14.40	7.92	5.19
19154.73	19950.49	106046.77	11712.80	796.07	46.72	14.72	9.05
19950.49	20746.25	45714.71	8561.41	797.58	20.14	10.76	5.34
20746.25	21542.00 RB	19008.17	5507.16	796.12	8.37	6.92	3.45
21542.00	22246.86	15166.25	3116.14	705.60	6.68	4.42	4.87
22246.86	22951.72	8340.21	2175.80	704.88	3.67	3.09	3.83
22951.72	23656.58	41.59	26.20	31.85	0.02	0.83	1.59

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 186.97

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17703.7	876.1	17935.8	874.1	18118.3	867.1	18218.2	867.5	18239.6	864
18467	863.4	18711.5	863.7	18859.1	861.3	18893.5	856.3	19200.8	853.4
19248.7	854.2	19275.1	857.1	19412.8	857	19490.4	860.7	19525.6	853
19907	852.3	19928	851.9	19961.2	858.6	20003.2	855.3	20066.4	858.5
20144.7	853.3	20163.8	857.7	20283.4	855.8	20354.6	857.1	20397.9	863.6
20539.2	861.3	20696.7	854	20772.2	866	21016.2	869.2	21239.8	864.1
21274.4	858.3	21465.1	862.8	21504.1	876	21600	861.3	21936.9	860.8
22028.9	861	22284.2	860.9	22521.6	862.2	22790.8	866.3	22971.2	867.9
22982	867.7	22992.5	871	23037.1	869.2	23225.8	868.6	23320.1	870.3
23563.9	869.3	23610	868.3	23862.7	868.4	24031	870.8	24262	869.2
24529.7	868.1	24852.4	867.6	25085.9	866.5	25361.3	866.2	25586.6	866
25802.5	866.2	25964.8	867.4	25984	870.2	25988.4	864.7	25999.7	864.2
26017.3	869.9	26031.7	869.3	26085.8	866.2	26338.8	867.1	26425.6	867.1

26680.8	867.2	26855.4	867.8	26877	856.7	26902.7	869.3	26924.2	868.6
26928.8	866.8	27225.8	866.8	27568.5	866.8	27790.3	867.8	28043.3	869.5
28228.7	866.4	28281.9	868.3	28305.2	866.5	28524.5	867.7	28767.4	868.3
29027.4	868.6	29055	867.6	29270.8	869.2	29643	870.1	29861.6	869.9
30077.2	870.6	30381.7	870.2	30626.6	871.6	30686	871.5	30883.6	871.5
30898.5	872.5	30916.7	869.3	31134.8	871.2	31489.5	872.3	31774.4	873.6
32015	874.3								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17703.7	.065	18218.2	.028	20397.9	.15	21504.1	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18218.2	21504.1	480	487.74	595	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17703.7	18218.2	875	22971.2	32015	875

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	868.75	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.54	Wt. n-Val.		0.032	0.025
E.G. Elev (ft)	869.29	Reach Len. (ft)	480.00	487.74	595.00
Crit W.S. (ft)	864.01	Flow Area (sq ft)		29930.75	8704.80
E.G. Slope (ft/ft)	0.000764	Area (sq ft)	180.12	29930.75	16089.79
Q Total (cfs)	227000.00	Flow (cfs)		179121.70	47878.30
Top Width (ft)	9764.19	Top Width (ft)	142.88	3210.24	6411.07
Vel Total (ft/s)	5.88	Avg. Vel. (ft/s)		5.98	5.50
Max Chl Dpth (ft)	16.85	Hydr. Depth (ft)		9.32	6.13
Conv. Total (cfs)	8214844.0	Conv. (cfs)		6482188.5	1732655.5
Length Wtd. (ft)	505.50	Wetted Per. (ft)		3216.80	1420.40
Min Ch El (ft)	851.90	Shear (lb/sq ft)		0.44	0.29
Alpha	1.00	Stream Power (lb/ft s)		2.65	1.61
Frctn Loss (ft)	0.45	Cum Volume (acre-ft)	3710.91	33697.61	14541.71
C & E Loss (ft)	0.01	Cum SA (acres)	929.10	3710.65	3798.72

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18218.20 LB	19039.67	28696.75	5668.13	822.15	12.64	6.90	5.06
19039.67	19861.15	94604.91	11597.85	822.57	41.68	14.12	8.16
19861.15	20682.63	53263.84	9162.74	823.72	23.46	11.15	5.81
20682.63	21504.10 RB	2556.18	3502.03	748.37	1.13	4.70	0.73
21504.10	22204.83	29428.04	4865.83	653.99	12.96	7.45	6.05
22204.83	22905.55	18320.79	3764.16	700.77	8.07	5.37	4.87
22905.55	23606.28	129.50	74.81	65.65	0.06	1.14	1.73

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 186.87

INPUT
Description:

FLOW FULLY EXPANDED HERE (4:1 TRANSITION)

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18052.9	876.5	18194.5	871.3	18248.3	863.7	18267.8	863.3	18303	866.1
18577.8	859.3	18691.2	861.6	18700.2	863.1	18732.1	859	18852.8	865.2
18908.8	862.9	18929.7	856	19249	853.8	19445.3	852.7	19456.1	857.6
19524.6	859.9	19616.4	852.6	19890.4	854.2	20088.8	854	20124.7	856.2
20280.7	858.5	20382.1	857.8	20400	859.7	20443	858.9	20573.5	860.4
20709.2	855.3	20845.8	865.7	21062.4	868.4	21231.2	862.2	21295.9	862.7

21330.9	861	21366.9	863.6	21416.9	856.8	21510.3	860.5	21569	873.5
21605.4	874.2	21610	871.4	21612.8	871.7	21632.8	862.8	21655.6	860
21918.2	862.9	22271.4	864.5	22481.1	864.1	22703.6	865.9	22978.5	866.8
23040.5	866.1	23052.6	869.2	23151.1	867.6	23489	868.4	23648.2	868
23951.3	869.4	24254	868.9	24318.8	869.7	24328.2	868.2	24366.7	869.4
24372.4	866.8	24383.5	868.6	24663.7	868.4	24987.5	867.8	25244.5	866.4
25530.6	867.3	25781.1	865.9	25961.3	866.4	25979.9	869.4	25985.1	862.9
26000.9	864.7	26014.7	869.1	26035.6	868.9	26052.5	865.9	26312.7	865.6
26340.5	865.5	26644.8	864	26925.4	865	26944.3	855.9	26970	866.4
26993.2	867.3	27015.3	865	27470.2	864.5	27751.3	864.9	28035.3	864.9
28289.9	864.6	28373.2	866.7	28397.8	864.6	28663.2	864.7	28982.8	865.7
29261.9	865.9	29516.5	865.8	29689.6	865.1	29984.5	866.8	30320	867.8
30663.2	868.3	30946.1	868.1	31212.3	869.9	31607.3	871.4	31863.8	874.5
31916	874.2								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18052.9	.065	18303	.065	18852.8	.028	20400	.15	21605.4	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18303	21605.4	500	494.14	440	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23052.2	31916	875

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	868.18	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.65	Wt. n-Val.	0.065	0.034	0.025
E.G. Elev (ft)	868.83	Reach Len. (ft)	500.00	494.14	440.00
Crit W.S. (ft)	863.59	Flow Area (sq ft)	284.96	29962.67	5679.37
E.G. Slope (ft/ft)	0.001044	Area (sq ft)	284.96	29962.67	19800.28
Q Total (cfs)	227000.00	Flow (cfs)	464.72	199175.72	27359.55
Top Width (ft)	11030.13	Top Width (ft)	86.43	3218.55	7725.16
Vel Total (ft/s)	6.32	Avg. Vel. (ft/s)	1.63	6.65	4.82
Max Chl Dpth (ft)	15.58	Hydr. Depth (ft)	3.30	9.31	3.98
Conv. Total (cfs)	7025509.0	Conv. (cfs)	14382.9	6164365.0	846761.1
Length Wtd. (ft)	489.87	Wetted Per. (ft)	86.86	3224.09	1429.53
Min Ch El (ft)	852.60	Shear (lb/sq ft)	0.21	0.61	0.26
Alpha	1.04	Stream Power (lb/ft s)	0.35	4.03	1.25
Frctn Loss (ft)	0.65	Cum Volume (acre-ft)	3708.35	33362.30	14296.59
C & E Loss (ft)	0.02	Cum SA (acres)	927.84	3674.66	3702.17

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18202.96	18219.63	0.16	0.66	3.09	0.00	0.22	0.24
18219.63	18236.31	24.98	26.84	16.84	0.01	1.61	0.93
18236.31	18252.98	108.72	64.79	16.79	0.05	3.89	1.68
18252.98	18269.65	151.98	79.01	16.68	0.07	4.74	1.92
18269.65	18286.33	117.80	67.88	16.72	0.05	4.07	1.74
18286.33	18303.00	61.08	45.77	16.73	0.03	2.75	1.33
18303.00 LB	19128.60	32977.82	6370.44	827.41	14.53	7.72	5.18
19128.60	19954.20	112095.76	11439.27	827.00	49.38	13.86	9.80
19954.20	20779.80	51286.51	8862.33	826.11	22.59	10.73	5.79
20779.80	21605.40 RB	2815.63	3290.62	743.57	1.24	4.44	0.86
21605.40	22292.77	20026.49	3617.08	673.40	8.82	5.38	5.54
22292.77	22980.15	7046.66	1948.75	687.38	3.10	2.84	3.62
22980.15	23667.52	286.41	113.55	68.74	0.13	1.66	2.52

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 186.78

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18267.8	883.7	18275.5	882.2	18316.6	865.7	18388.5	862.8	18576.8	861.8
18620.4	859.8	18684.6	860.1	18701.5	857.9	18772.5	858	18797.9	863

18865.5	863.4	18895.3	856.5	18941.7	859.5	18965.8	859.8	19001.7	865.8
19053.4	863.9	19076.7	855.4	19354.1	854	19451.9	854.1	19479.9	856.6
19635.4	851.7	19929.6	853.6	20206.9	855.9	20230.1	855.2	20258.5	857.2
20272.2	853.9	20297.8	853.9	20350.6	866.3	20444.6	856.5	20517.2	858.9
20545.8	857.2	20913.6	864.8	21055	863.6	21199.3	855.2	21274.5	865
21350.2	860	21612	862.1	21670.6	858.5	21847.9	857.7	22049.2	866.7
22200.3	869.8	22348.8	863.4	22620.9	865.5	22817.4	855.8	22910.6	858.1
22940.8	865.1	23146.3	865.9	23155	868.7	23232.9	866.6	23542.6	866.8
23760.8	868.9	23770.6	867.9	23774.2	869.7	23833.9	868	24141.7	868.1
24418.2	868.3	24426.3	867.1	24461.8	869.2	24471.3	866	24804	866.8
25091.6	866.8	25371.1	866	25728.7	866.8	25977.8	863.8	26019.3	864.9
26039.7	868.6	26046.4	863	26057.2	863.6	26071.4	868.3	26094.3	868.3
26112.1	864.7	26459.6	864.8	26794.8	864.1	27033.3	864.9	27054.3	856.9
27079.7	867.5	27157.1	864.6	27579.3	865.2	27865.9	864.7	28219.4	865.5
28390.8	865.6	28401.1	864.1	28590.7	864.8	28653.7	863.3	28978.4	867.4
29303.9	866.1	29608.3	866.2	29902.7	867	30224.8	867.4	30566.3	868.5
30873.8	868.4	31087.8	870.7	31107.6	869	31395.4	870.4	31643.4	874.3
31832	873.9								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18267.8	.15	18388.5	.15	18797.9	.028	20350.6	.15	21612	.15
23155	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18388.5	21612	460	460.85	500	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23155	31832	875

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	867.28	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.87	Wt. n-Val.	0.150	0.036	0.150
E.G. Elev (ft)	868.16	Reach Len. (ft)	460.00	460.85	500.00
Crit W.S. (ft)	863.40	Flow Area (sq ft)	221.19	28582.52	6821.99
E.G. Slope (ft/ft)	0.001739	Area (sq ft)	221.19	28582.52	16487.28
Q Total (cfs)	227000.00	Flow (cfs)	185.94	218321.83	8492.23
Top Width (ft)	10624.71	Top Width (ft)	75.84	3223.50	7325.37
Vel Total (ft/s)	6.37	Avg. Vel. (ft/s)	0.84	7.64	1.24
Max Chl Dpth (ft)	15.58	Hydr. Depth (ft)	2.92	8.87	5.03
Conv. Total (cfs)	5442962.5	Conv. (cfs)	4458.5	5234879.0	203625.0
Length Wtd. (ft)	462.67	Wetted Per. (ft)	76.21	3230.96	1359.21
Min Ch El (ft)	851.70	Shear (lb/sq ft)	0.32	0.96	0.55
Alpha	1.38	Stream Power (lb/ft s)	0.26	7.34	0.68
Frctn Loss (ft)	0.88	Cum Volume (acre-ft)	3705.44	33030.23	14113.32
C & E Loss (ft)	0.00	Cum SA (acres)	926.91	3638.12	3626.16

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18308.03	18316.08	0.68	2.35	3.69	0.00	0.69	0.29
18316.08	18324.13	7.68	13.83	8.09	0.00	1.72	0.56
18324.13	18332.17	10.33	16.49	8.05	0.00	2.05	0.63
18332.17	18340.22	13.20	19.10	8.05	0.01	2.37	0.69
18340.22	18348.27	16.34	21.71	8.05	0.01	2.70	0.75
18348.27	18356.31	19.75	24.32	8.05	0.01	3.02	0.81
18356.31	18364.36	23.40	26.93	8.05	0.01	3.35	0.87
18364.36	18372.41	27.31	29.54	8.05	0.01	3.67	0.92
18372.41	18380.45	31.45	32.16	8.05	0.01	4.00	0.98
18380.45	18388.50	35.82	34.77	8.05	0.02	4.32	1.03
18388.50 LB	19194.38	28661.09	5673.69	809.48	12.63	7.04	5.05
19194.38	20000.25	135079.00	10978.75	806.07	59.51	13.62	12.30
20000.25	20806.13	48896.48	7436.41	808.45	21.54	9.23	6.58
20806.13	21612.00 RB	5685.26	4493.66	806.96	2.50	5.58	1.27
21612.00	22293.33	4233.77	3094.66	500.60	1.87	6.19	1.37
22293.33	22974.67	4086.92	3429.65	682.46	1.80	5.03	1.19
22974.67	23656.00	171.53	297.67	176.15	0.08	1.69	0.58

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 186.69

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18198.8	877.1	18253.9	862	18500	862	18688	860.7	18765.5	857.8
18904.5	860.9	18922.1	858	18995.1	856.5	19015.7	860.6	19175.5	864.8
19210.3	862.2	19233.4	854.5	19529.6	854.1	19769	853.4	19826.7	853.1
19864.3	850.5	20143.8	853	20369.8	855	20398.1	866.1	20432.3	856.1
20695.7	857.2	20782.7	857.1	20974.5	866.7	21128.7	866.1	21245.1	854.3
21313.4	863.6	21418.2	861.7	21625.2	862.8	21801	859.8	21906.4	856.1
22023	863.5	22072.3	860.2	22169.8	862.7	22424.4	860.5	22547.6	867.4
22667	860.2	22818.7	857.4	23028	856.6	23039.8	856.2	23081.4	863.8
23190.8	865.4	23207	866.7	23232.2	864.7	23255.4	867.2	23307.2	866
23553.4	865.9	23810.5	866.7	24112.1	867.1	24337.8	867.3	24545	867
24561.1	864.9	24833.8	866.5	24916.9	866.5	25142	866.4	25355.8	865.5
25628.2	866	25862.4	866	26070	868.8	26074.9	868.7	26080.2	863
26087.4	863.2	26106.9	869.1	26130.3	868.2	26148.9	864.3	26286.5	865
26510.1	864.6	26547.9	864.5	26822.7	865.3	27069	863.5	27130.4	865.7
27148.5	857.7	27176.9	867.5	27202.8	867.4	27204.9	865.3	27479.3	865
27700.5	865.7	27932.5	865.4	28268	865.4	28481	866.4	28490.1	866.8
28501.2	863	28523	866.6	28762.6	866.1	28921.4	866.5	29175.5	866.6
29259.6	866.8	29515.3	867.7	29768.5	867.2	29889.4	867.7	30126.7	868.1
30443.7	868	30722.3	868.6	30945.2	870.4	31162.6	871.3	31372.5	872.9
31600.9	873.7								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18198.8	.15	18253.9	.15	19175.5	.028	20398.1	.15	21625.2	.15
23207	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18253.9	21625.2	420	455.31	480	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23207	31600.9	875

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	866.36	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.92	Wt. n-Val.	0.150	0.038	0.150
E.G. Elev (ft)	867.27	Reach Len. (ft)	420.00	455.31	480.00
Crit W.S. (ft)	862.92	Flow Area (sq ft)	34.68	27158.35	8760.45
E.G. Slope (ft/ft)	0.002069	Area (sq ft)	34.68	27158.35	12596.35
Q Total (cfs)	227000.00	Flow (cfs)	25.64	214360.38	12614.00
Top Width (ft)	8858.90	Top Width (ft)	15.91	3276.97	5566.02
Vel Total (ft/s)	6.31	Avg. Vel. (ft/s)	0.74	7.89	1.44
Max Chl Dpth (ft)	15.86	Hydr. Depth (ft)	2.18	8.29	5.68
Conv. Total (cfs)	4990249.5	Conv. (cfs)	563.7	4712386.5	277299.5
Length Wtd. (ft)	456.56	Wetted Per. (ft)	16.49	3284.25	1543.32
Min Ch El (ft)	850.50	Shear (lb/sq ft)	0.27	1.07	0.73
Alpha	1.48	Stream Power (lb/ft s)	0.20	8.43	1.06
Frctn Loss (ft)	0.91	Cum Volume (acre-ft)	3704.09	32735.38	13946.40
C & E Loss (ft)	0.01	Cum SA (acres)	926.42	3603.73	3552.17

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18235.53	18239.21	0.02	0.20	1.26	0.00	0.17	0.11
18239.21	18242.88	1.02	3.07	3.81	0.00	0.84	0.33
18242.88	18246.55	3.79	6.77	3.81	0.00	1.84	0.56
18246.55	18250.23	7.83	10.46	3.81	0.00	2.85	0.75
18250.23	18253.90	12.98	14.17	3.81	0.01	3.86	0.92
18253.90 LB	19096.72	7026.41	4867.77	843.60	3.10	5.78	1.44
19096.72	19939.55	119310.91	9551.58	844.29	52.56	11.33	12.49
19939.55	20782.38	83985.58	9408.42	846.37	37.00	11.16	8.93
20782.38	21625.20 RB	4037.45	3330.57	749.98	1.78	4.45	1.21
21625.20	22290.25	5354.69	3745.07	665.52	2.36	5.63	1.43
22290.25	22955.29	5533.13	3735.61	629.59	2.44	5.94	1.48
22955.29	23620.34	1726.18	1279.78	248.21	0.76	5.17	1.35

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 186.61

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17706.6	872.5	17962.4	868.9	18178.9	865	18224.9	867.3	18241.6	865.4703
18275.1	861.8	18558.1	861.5	18649.2	863.1	18750.7	860.2	18802.1	856.8
18993.6	861.8	19076	862.1	19255.1	854.9	19285.9	857.9	19303.2	852.6
19608.2	852.5	19719.2	853.8	19747.8	856.9	19782.8	853.3	19919.5	853.7
19946.7	849.6	20429.6	853.5	20482.5	853.7	20541.7	862.3	20757.5	855.8
20927.9	853.1	21015.3	863.1	21085	864.9	21182.7	852.9	21265.9	862
21495.7	863.9	21636.7	859	21735.6	865	21803.7	863.3	21915.7	855.4
22097.6	860.5	22386.1	866	22486.6	867	22554.7	859.1	22614.2	858.3
22658.8	855.5	22915.2	860.1	22956.2	859.8	23054.1	856.4	23066.4	860.1
23071.4	857.2	23093.8	857.3	23108.6	861.1	23140.6	859.5	23299.4	865.8
23325.1	864	23346	867.5	23725.7	866.7	23943	868	23952.3	866.4
24204.4	867.2	24602.1	866	24649.3	867	24656.3	864.8	24925.3	866.3
25273.5	866.5	25525.8	865.4	25806.4	866.2	26027.8	866.8	26046	868
26050.3	863.1	26059.9	862.6	26083.3	868	26101.6	867.7	26112.1	864.5
26414.9	864.6	26683.9	865.1	26958.3	865.7	27163.4	865.8	27231.5	867.6
27253	858.3	27277.1	867.2	27297.6	866.6	27301.5	868.4	27321.8	865.6
27574.6	865.3	27818.3	865.6	28163.6	865.7	28418.2	865.5	28590.9	867.6
28599.6	863.2	28612.1	866.2	29008.6	866.3	29061.6	866.5	29385.1	866.2
29629.6	866.5	29884.2	868	30210.7	868.8	30503.6	868.4	30848.4	869.7
31091.6	872	31110.5	872						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17706.6	.15	18224.9	.15	19285.9	.028	20541.7	.15	21735.6	.15
23346	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18241.6	21735.6	295	290.56	220	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17706.6	18224.9	870	23346	31110.5	870

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	865.47	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.89	Wt. n-Val.		0.037	0.150
E.G. Elev (ft)	866.36	Reach Len. (ft)	295.00	290.56	220.00
Crit W.S. (ft)	862.00	Flow Area (sq ft)		27920.05	7699.17
E.G. Slope (ft/ft)	0.001906	Area (sq ft)	8.28	27920.05	8431.75
Q Total (cfs)	227000.00	Flow (cfs)		216612.95	10387.04
Top Width (ft)	6230.21	Top Width (ft)	35.35	3493.98	2700.88
Vel Total (ft/s)	6.37	Avg. Vel. (ft/s)		7.76	1.35
Max Chl Dpth (ft)	15.87	Hydr. Depth (ft)		7.99	5.33
Conv. Total (cfs)	5199253.0	Conv. (cfs)		4961346.0	237906.9
Length Wtd. (ft)	286.35	Wetted Per. (ft)		3499.02	1446.69
Min Ch El (ft)	849.60	Shear (lb/sq ft)		0.95	0.63
Alpha	1.42	Stream Power (lb/ft s)		7.37	0.85
Frctn Loss (ft)	0.48	Cum Volume (acre-ft)	3703.88	32447.52	13830.54
C & E Loss (ft)	0.12	Cum SA (acres)	926.18	3568.34	3506.63

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18241.60 LB	19115.10	4386.67	3809.84	873.95	1.93	4.36	1.15
19115.10	19988.60	112017.32	10170.99	875.22	49.35	11.64	11.01
19988.60	20862.10	94800.93	9616.29	874.25	41.76	11.01	9.86
20862.10	21735.60 RB	5408.01	4322.93	875.61	2.38	4.95	1.25
21735.60	22360.59	3278.85	2789.94	623.02	1.44	4.48	1.18
22360.59	22985.59	5203.74	3333.59	486.30	2.29	6.86	1.56
22985.59	23610.58	1904.45	1575.65	337.36	0.84	4.70	1.21

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 186.55

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18001.2	868.5	18093.9	867.9	18112.1	874.6	18128.8	863.7	18254.1	860.2
18496.1	859.1	18711.8	859.4	18955.9	859.2	19127.1	861.7	19240.3	856.8
19271.4	859.6	19288.6	852.9	19432.7	856	19480.5	851.1	19686.9	852.1
19882.4	854.4	19928.6	852.7	19966.2	853.3	19979.8	850	20250.3	851.7
20532.7	853.7	20567.5	863.1	20647.3	855.4	20705.7	852.5	20733.2	853.6
20769.3	852	20879.2	854.8	21084.9	853.3	21116.3	857.9	21202.6	852.4
21282.7	859.7	21348.4	857.4	21387.2	858.7	21622.2	855.3	21735.8	853.5
21951.3	861.1	22155.8	857.8	22293.9	862.7	22462	861.7	22478.7	862.9
22614.3	853.9	22677	853	22818.3	857.1	22871.4	854.7	22965.9	856.1
23019.2	853.4	23066.9	853.7	23084.1	851.6	23118.7	856	23131	861.8
23316.7	861.4	23343.3	864.7	23433.4	864.2	23640.8	863.9	23849.4	865.1
23856	865.1	24264.2	864.6	24380.7	864.5	24719.4	864.2	25011.8	864.7
25305	864.9	25551	864.7	25843.9	864.5	26007.8	866.4	26039.6	870
26050.2	861.3	26062.4	862.2	26071.9	869.6	26091.8	870	26149.4	862.6
26510.9	863.9	26812.8	864.1	27100.5	863.9	27301.9	864.2	27621.8	864.4
27830.7	864.3	28072.8	864.4	28305.7	864.4	28567.6	864.3	28626.2	865.1
28650.5	867.3	28660.2	863	28672.5	866.5	28794.3	864.4	28993.8	866.6
29053.1	866.7	29395.2	867	29440.4	867.1	29700.1	867.9	29931.5	868.4
30173.6	867.7	30377.8	869	30627.1	869	30879.8	869.6	31084.2	870.4
31174.2	872.2								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18001.2	.15	18128.8	.15	19271.4	.028	20567.5	.15	21951.3	.15
23131	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18128.8	21951.3	475	489.65	675	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23343.3	31174.2	870

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	865.26	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.51	Wt. n-Val.	0.150	0.045	0.121
E.G. Elev (ft)	865.76	Reach Len. (ft)	475.00	489.65	675.00
Crit W.S. (ft)	860.33	Flow Area (sq ft)	1.86	35609.73	9532.30
E.G. Slope (ft/ft)	0.001493	Area (sq ft)	1.86	35609.73	14325.62
Q Total (cfs)	227000.00	Flow (cfs)	0.54	210286.06	16713.40
Top Width (ft)	10443.70	Top Width (ft)	2.39	3822.50	6618.81
Vel Total (ft/s)	5.03	Avg. Vel. (ft/s)	0.29	5.91	1.75
Max Chl Dpth (ft)	15.26	Hydr. Depth (ft)	0.78	9.32	6.85
Conv. Total (cfs)	5875660.0	Conv. (cfs)	13.9	5443037.0	432609.0
Length Wtd. (ft)	500.75	Wetted Per. (ft)	2.85	3827.67	1394.57
Min Ch El (ft)	850.00	Shear (lb/sq ft)	0.06	0.87	0.64
Alpha	1.29	Stream Power (lb/ft s)	0.02	5.12	1.12
Frctn Loss (ft)	0.78	Cum Volume (acre-ft)	3703.85	32235.64	13773.08
C & E Loss (ft)	0.01	Cum SA (acres)	926.05	3543.94	3483.09

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18120.29	18128.80	0.54	1.86	2.85	0.00	0.78	0.29
18128.80 LB	19084.43	6114.26	5180.06	955.69	2.69	5.42	1.18
19084.43	20040.05	105797.79	10598.28	957.85	46.61	11.09	9.98
20040.05	20995.68	84259.76	11270.71	957.42	37.12	11.79	7.48
20995.68	21951.30 RB	14114.25	8560.67	956.70	6.22	8.96	1.65
21951.30	22566.16	2943.02	2902.98	615.21	1.30	4.72	1.01
22566.16	23181.02	10988.10	6066.94	616.87	4.84	9.87	1.81
23181.02	23795.88	2782.27	562.38	162.48	1.23	3.47	4.95

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 186.46

INPUT
Description:

Eliminate vertical ineffective area in rt. overbank by coding out GR

data between and below sta, elev. 22973, 851.1 and 23071, 851.1

Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15785.1	872.5	16067.1	871	16286	870.3	16498.2	869.4	16746.6	867.6
17152.2	866.2	17370.8	864.9	17587.9	869.2	17639.7	872.6	17866.7	869.3
17921.2	866.1	17937.4	862.1	17984.8	863.6	18200	860.5	18210.9	860.4
18547.4	859.7	18768.8	859.3	18991	860.9	19059.5	863.1	19122.1	857.4
19243.7	859.1	19258.1	853.6	19308.1	852	19410.8	854.1	19599	852.5
19690.6	853.4	19716.8	850.9	19909.8	852.2	20554.9	853.3	20590.7	853.3
20609.3	864	20631.5	859.4	20633.6	861.2	20647.6	858.4	20691.2	856.3
20694.5	854.7	20784.6	849.9	21022.4	852.3	21127.8	853.3	21299.7	850.7
21518.5	852.5	21718.4	851.4	21794	854.6	21991.1	856.5	22181.4	863.6
22262.6	860.9	22407.6	862	22624.9	860.1	22867	855.8	22954.4	855.1
22973	851.1	23071	851.1	23147	856.4	23177	863.2	23307.1	860.8
23310.6	862.5	23502.3	863.9	23825.5	864.4	24046.2	864.3	24267.7	864.5
24510.5	864.2	24739.6	863.2	25066.6	863.4	25317.1	863.9	25602.8	863.4
25657.4	864.2	25710	868.4	25717.6	861.2	25729.9	861.1	25742.8	868
25771.7	868.2	25784.2	863.6	26094.9	863.1	26149.9	864.3	26372	862.5
26612.8	862.2	26865.5	862.9	27106.3	862.8	27400.5	863.3	27688.7	864
27772.4	864	27984.8	863.6	28028.4	863.7	28351.3	864.6	28360.9	864.6
28584.8	864.9	28768.9	866.5	28777.3	861.8	28825.4	866.8	29052.3	865.5
29361	866.8	29672.7	868.1	29939	868.2	30156.1	868.9	30529.8	869.8
30828.8	869.8	31063.6	870.4						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15785.1	.15	17984.8	.15	19059.5	.028	20609.3	.15	22181.4	.15
23177	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18200	22181.4	475	494.75	460	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23502.3	31063.6	870

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	864.49	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.49	Wt. n-Val.	0.150	0.049	0.126
E.G. Elev (ft)	864.98	Reach Len. (ft)	475.00	494.75	460.00
Crit W.S. (ft)	858.65	Flow Area (sq ft)	608.46	37696.33	6805.42
E.G. Slope (ft/ft)	0.001631	Area (sq ft)	608.46	37696.33	11199.42
Q Total (cfs)	227000.00	Flow (cfs)	421.59	216083.25	10495.17
Top Width (ft)	10296.28	Top Width (ft)	272.28	3981.40	6042.60
Vel Total (ft/s)	5.03	Avg. Vel. (ft/s)	0.69	5.73	1.54
Max Chl Dpth (ft)	14.59	Hydr. Depth (ft)	2.23	9.47	5.15
Conv. Total (cfs)	5620263.5	Conv. (cfs)	10438.2	5349977.0	259848.5
Length Wtd. (ft)	493.06	Wetted Per. (ft)	272.62	3987.99	1322.79
Min Ch El (ft)	849.90	Shear (lb/sq ft)	0.23	0.96	0.52
Alpha	1.24	Stream Power (lb/ft s)	0.16	5.52	0.81
Frctn Loss (ft)	0.86	Cum Volume (acre-ft)	3700.52	31823.63	13575.31
C & E Loss (ft)	0.00	Cum SA (acres)	924.55	3500.08	3384.99

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta	Right Sta	Flow	Area	W.P.	% Conv.	Hydr D.	Velocity

(ft)	(ft)	(cfs)	(sq ft)	(ft)		(ft)	(ft/s)
17878.01	18039.01	77.07	158.31	111.60	0.03	1.42	0.49
18039.01	18200.00	344.52	450.16	161.01	0.15	2.80	0.77
18200.00 LB	19195.35	8951.45	4535.55	995.66	3.94	4.56	1.97
19195.35	20190.70	124783.16	11521.97	996.55	54.97	11.58	10.83
20190.70	21186.05	63100.80	11366.86	1000.19	27.80	11.42	5.55
21186.05	22181.40 RB	19247.83	10271.96	995.58	8.48	10.32	1.87
22181.40	22773.55	1919.83	2218.80	592.23	0.85	3.75	0.87
22773.55	23365.69	8236.71	4437.92	593.95	3.63	7.49	1.86
23365.69	23957.84	338.63	148.70	136.61	0.15	1.09	2.28

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 186.36

INPUT
Description:

Eliminate vertical ineffective area in rt. overbank by coding out GR

data between and below sta, elev. 23002, 851.1 and 23131, 851.1

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16815.1	866.7	16885.9	864.1	16935.4	864.3	16962.2	874.3	16983	875.4
17021.2	864.9	17384.5	863.3	17653.3	861.9	17907.9	861.3	18199.6	860.5
18274.1	863	18302.4	858.6	18618.1	857.8	18851.8	857.5	18914.6	856.8
18994.3	860.5	19144.2	863.2	19200.6	862.1	19209.2	864.2	19215	858.6
19260.1	852.2	19373.2	851.4	19393.9	855.1	19570.6	853.4	19619.6	854.5
19662	850.2	19898.5	851.9	19960.9	851.9	20473	852.4	20657.5	852.7
20678.9	857.7	20687.5	861.6	20846.9	862.6	20871.1	861.3	20928	853.7
21150.4	849.2	21384.6	853.2	21468.2	851.1	21697.8	853.8	21949.9	853.6
22133.6	852.4	22369.4	860.5	22644.8	859.1	22877.9	857.4	22950.7	858
23002	851.1	23131	851.1	23180.6	855.1	23222	862.6	23466.7	861.1
23515.6	860	23564.2	863.8	23652.3	861.8	24056.1	863.6	24109.5	863.6
24345.8	863.3	24374.8	863.4	24642.7	863.4	24900.7	863	25195.4	863
25446.5	863.5	25519.3	868.2	25529.7	861.1	25537	861	25558.8	866.9
25577.9	867.6	25595.7	863.6	25835.2	862.9	26123.3	862.5	26247.3	864
26253.1	861.3	26490.7	861.8	26768.3	862.9	27007.1	862.6	27054	862.4
27314	863	27544.4	863.4	27790.7	864	28058.5	863.9	28309.2	864.3
28545.4	864.1	28813.2	863.8	28861.6	866.2	28874.1	861.7	29250.5	866.3
29549.5	866.3	29830.9	867.3	30091.5	868.2	30192.7	865.2	30225.2	869.2
30465.3	869.4	30702.3	869.2	30948.2	870.3	31189.7	870.9	31438.4	872.5
31628.5	873.4								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16815.1	.15	18274.1	.15	19209.2	.028	20846.9	.15	22369.4	.15
23222	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18274.1	22369.4	450	470.98	385	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16815.1	17900	870	23564.2	31628.5	870

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	863.60	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.52	Wt. n-Val.	0.150	0.049	0.120
E.G. Elev (ft)	864.11	Reach Len. (ft)	450.00	470.98	385.00
Crit W.S. (ft)	858.54	Flow Area (sq ft)	941.72	36501.38	6171.89
E.G. Slope (ft/ft)	0.001886	Area (sq ft)	1709.05	36501.38	9062.03
Q Total (cfs)	227000.00	Flow (cfs)	749.63	215383.39	10866.97
Top Width (ft)	10231.30	Top Width (ft)	956.63	4092.20	5182.47
Vel Total (ft/s)	5.20	Avg. Vel. (ft/s)	0.80	5.90	1.76
Max Chl Dpth (ft)	14.40	Hydr. Depth (ft)	2.52	8.92	5.18

Conv. Total (cfs)	5227126.5	Conv. (cfs)	17261.7	4959631.0	250233.6
Length Wtd. (ft)	467.47	Wetted Per. (ft)	374.14	4098.12	1193.65
Min Ch El (ft)	849.20	Shear (lb/sq ft)	0.30	1.05	0.61
Alpha	1.23	Stream Power (lb/ft s)	0.24	6.19	1.07
Frctn Loss (ft)	0.84	Cum Volume (acre-ft)	3687.89	31402.26	13468.33
C & E Loss (ft)	0.00	Cum SA (acres)	917.85	3454.23	3325.72

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17885.03	17982.30	149.79	196.41	82.30	0.07	2.39	0.76
17982.30	18079.57	208.49	256.07	97.27	0.09	2.63	0.81
18079.57	18176.83	244.87	282.01	97.27	0.11	2.90	0.87
18176.83	18274.10	146.48	207.23	97.31	0.06	2.13	0.71
18274.10 LB	19297.93	13140.27	5108.79	1023.84	5.79	5.01	2.57
19297.93	20321.75	132654.89	11566.17	1024.40	58.44	11.30	11.47
20321.75	21345.57	49957.90	9766.20	1025.86	22.01	9.54	5.12
21345.57	22369.40 RB	19630.35	10060.22	1024.02	8.65	9.83	1.95
22369.40	22986.67	3495.96	3008.66	617.61	1.54	4.87	1.16
22986.67	23603.95	7371.00	3163.23	576.04	3.25	5.50	2.33

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 186.27

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17016.7	860.1	17192.4	872.2	17241.5	863.8	17425.7	862.5	17439.4	862.4
17626.1	862	17895.9	859.9	18153.7	859.3	18344.6	861.1	18366.9	862
18386.7	858	18632.5	858.5	18845.6	856.4	19007	856.6	19128	860.8
19145.5	863	19181.4	855.9	19288	851.1	19477.6	851.9	19679	852
19792.1	853.3	19960.3	849.8	20071.8	850.2	20547.4	852.3	20709.6	852.9
20733.9	858.8	20745.7	855.9	20886.6	857.8	21130.4	857	21264.9	850.6
21506.5	850.9	21713.3	852.2	21843.7	850.4	21977	849.9	22046.1	854.6
22116.3	852.5	22252.3	851.6	22433.5	857.6	22476.8	860.8	22608.6	858.8
22800.2	859.1	22994.9	861.1	23025.4	862.8	23045.6	852.6	23115.9	851.1
23232.4	854.4	23274	862.8	23462.8	860.9	23606.3	859.2	23690.5	862.1
23945.5	861.8	24176.2	862.1	24455.2	862.2	24710.1	862.9	24970	863.1
25163.9	863.8	25355.2	863.4	25398.5	866.5	25409.7	860	25436.7	868.5
25443.7	869	25453.5	863.8	25712.5	864.3	25946	864.1	26165.9	863.5
26330.3	863.9	26337.1	860.7	26556.3	861	26827.1	861.8	27053.1	861.9
27342.8	862.8	27528.7	862.3	27814.8	862.6	28049.2	862.9	28317.7	863.2
28573.2	863.6	28814.4	863.7	28930.5	864.4	28948.4	866.1	28961.4	860.7
29011.1	865.5	29286.8	865.3	29346.4	865.5	29586.3	865.6	29640.3	865.6
29875.3	866.6	30069.9	866.7	30261.5	866.4	30303.8	868.4	30322.1	866
30459.2	868	30714.1	867.6	30725.1	867.6	30946.9	868.5	30956.3	868.5
31146.3	869.2								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17016.7	.15	18366.9	.15	19145.5	.028	20733.9	.15	22476.8	.15
23274	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18366.9	22476.8	395	425.61	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17016.7	17920	870	23606.3	31146.3	870

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	862.75	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.52	Wt. n-Val.	0.150	0.047	0.116
E.G. Elev (ft)	863.27	Reach Len. (ft)	395.00	425.61	500.00
Crit W.S. (ft)	857.88	Flow Area (sq ft)	1255.28	37187.09	4418.23
E.G. Slope (ft/ft)	0.001728	Area (sq ft)	1971.24	37187.09	6484.09
Q Total (cfs)	227000.00	Flow (cfs)	1028.88	218723.92	7247.21
Top Width (ft)	8893.70	Top Width (ft)	1014.76	4106.62	3772.32

Vel Total (ft/s)	5.30	Avg. Vel. (ft/s)	0.82	5.88	1.64
Max Chl Dpth (ft)	12.95	Hydr. Depth (ft)	2.81	9.06	3.93
Conv. Total (cfs)	5461499.0	Conv. (cfs)	24754.2	5262381.0	174364.0
Length Wtd. (ft)	427.86	Wetted Per. (ft)	446.93	4109.71	1126.42
Min Ch El (ft)	849.80	Shear (lb/sq ft)	0.30	0.98	0.42
Alpha	1.19	Stream Power (lb/ft s)	0.25	5.74	0.69
Frctn Loss (ft)	0.75	Cum Volume (acre-ft)	3668.88	31003.90	13399.63
C & E Loss (ft)	0.01	Cum SA (acres)	907.67	3409.91	3286.15

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17916.83	18006.85	218.76	260.97	86.85	0.10	3.00	0.84
18006.85	18096.86	253.20	289.01	90.01	0.11	3.21	0.88
18096.86	18186.87	271.55	301.40	90.02	0.12	3.35	0.90
18186.87	18276.89	190.95	244.00	90.02	0.08	2.71	0.78
18276.89	18366.90	94.41	159.91	90.03	0.04	1.78	0.59
18366.90 LB	19394.38	27096.25	6121.73	1025.58	11.94	5.98	4.43
19394.38	20421.85	129393.45	11660.85	1027.53	57.00	11.35	11.10
20421.85	21449.33	41560.77	8781.32	1028.70	18.31	8.55	4.73
21449.33	22476.80 RB	20673.46	10623.19	1027.90	9.11	10.34	1.95
22476.80	23054.77	1658.03	1851.97	579.42	0.73	3.21	0.90
23054.77	23632.73	5589.19	2566.26	547.00	2.46	4.70	2.18

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 186.19

INPUT
Description:

Eliminate vertical ineffective area in lt. overbank and main channel

by coding out GR data between and below sta/elev. 21652, 850.5 and

21830, 850.5

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16703.7	869.7	16899.6	868.3	17036.3	866.8	17153.4	867.2	17163.6	863.6
17364.2	864.6	17407.2	857.7	17630.7	856.5	17827.8	855.2	17931.7	861.5
18142.1	860.4	18362.6	859.2	18448.2	860.6	18485.2	856.4	18691.3	857.7
18787	856.9	18816.8	855	19062.4	854	19091.4	859.2	19208.2	850.2
19366	851	19388.5	854	19528.1	852.1	19718.8	853.7	19910.8	851.1
20040.2	848.9	20139	850.8	20659.3	851.5	20796.5	851.7	20814.7	862.6
20876	856.5	21112.3	858.9	21317.5	855.9	21466.1	857.7	21652	850.5
21830	850.5	21834.3	850.7	22105.3	850.6	22320.5	851.1	22403.2	850.7
22594.2	858.2	22805.7	859.4	22915.2	860.8	23027	858.9	23066.7	850.9
23129.5	854	23197.2	851.1	23262.7	853.6	23290	861.3	23323.3	861.3
23329	859.8	23515.5	859.9	23701.6	859.9	23956.9	861.3	24162.9	861.3
24391.8	862.3	24632.2	862	24851.2	863.2	25044.7	863.5	25238.9	863.6
25423.7	865.4	25438.6	866.1	25446.2	860.7	25483.7	866.1	25515.7	863.6
25700.5	864.1	25896.1	863.3	26128.7	862.1	26376.9	861.8	26424.8	863.2
26472.2	860.2	26661.6	860.8	26859	861.6	27048.5	861.6	27211.5	861.5
27428.8	861.7	27699.4	861.2	27958.9	861.9	28228.4	862.9	28501.8	862.6
28793.5	862.8	28996.4	862.1	29028.9	862.5	29053.9	863.9	29059.5	858.9
29087.5	865.1	29181.8	862.5	29387.8	864	29691.4	865.5	30005.3	865.8
30217	866.3	30417.1	867.3	30660.3	868.9	30924.5	867.8	31128.4	869.4

31332 869.7

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16703.7	.065	18448.2	.065	19091.4	.028	20814.7	.15	22594.2	.15
23290	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18448.2	22594.2	520	513.3	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16703.7	17931.7	865	23736.9	31332	865

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	861.94	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.57	Wt. n-Val.	0.065	0.043	0.093
E.G. Elev (ft)	862.51	Reach Len. (ft)	520.00	513.30	500.00
Crit W.S. (ft)	857.64	Flow Area (sq ft)	856.96	35439.41	4233.20
E.G. Slope (ft/ft)	0.001769	Area (sq ft)	3570.38	35439.41	5614.44
Q Total (cfs)	227000.00	Flow (cfs)	1154.71	218461.61	7383.66
Top Width (ft)	8599.91	Top Width (ft)	1067.45	4138.31	3394.14
Vel Total (ft/s)	5.60	Avg. Vel. (ft/s)	1.35	6.16	1.74
Max Chl Dpth (ft)	13.04	Hydr. Depth (ft)	1.66	8.56	3.70
Conv. Total (cfs)	5397306.5	Conv. (cfs)	27455.3	5194292.0	175559.0
Length Wtd. (ft)	512.96	Wetted Per. (ft)	516.52	4143.15	1144.97
Min Ch El (ft)	848.90	Shear (lb/sq ft)	0.18	0.94	0.41
Alpha	1.17	Stream Power (lb/ft s)	0.25	5.82	0.71
Frctn Loss (ft)	0.90	Cum Volume (acre-ft)	3643.75	30649.09	13330.19
C & E Loss (ft)	0.01	Cum SA (acres)	898.23	3369.63	3245.02

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17866.70	17983.00	18.43	29.67	51.30	0.01	0.58	0.62
17983.00	18099.30	106.93	118.21	116.30	0.05	1.02	0.90
18099.30	18215.60	234.81	189.50	116.30	0.10	1.63	1.24
18215.60	18331.90	405.25	262.91	116.30	0.18	2.26	1.54
18331.90	18448.20	389.31	256.67	116.31	0.17	2.21	1.52
18448.20 LB	19484.70	47581.53	7418.43	1037.83	20.96	7.16	6.41
19484.70	20521.20	115275.61	10873.19	1036.57	50.78	10.49	10.60
20521.20	21557.70	34376.01	6362.00	1032.03	15.14	6.18	5.40
21557.70	22594.20 RB	21228.47	10785.79	1036.72	9.35	10.41	1.97
22594.20	23176.72	2488.89	2399.83	583.47	1.10	4.12	1.04
23176.72	23759.24	4894.78	1833.37	561.51	2.16	3.27	2.67

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 186.1

INPUT
Description: APPROX. ALIGNMENT OF DEAN RD. AND WATERMAN WASH

Eliminate vertical ineffective area in main channel by coding out GR

data between and below sta, elev. 22412, 850.5 and 22604, 850.5

Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16805.3	871.5	16962.3	871.6	17082.5	869	17184.5	859.5	17571.3	857.7

17671.9	858	17698.5	862	17750.3	859.8	18003.1	859.2	18271.6	857.7
18575.7	858.8	18697.6	857.8	18706.6	856.2	18712.9	858.6	18764.9	851
18783.7	850.8	18818.4	853.7	18959.6	853.4	19038.1	855.2	19099.5	847.9
19155.9	846.4	19192.9	848.1	19200.1	850.6	19232.6	852.5	19346.2	851.7
19438.7	853.2	19693.4	851.4	19957	848.8	20218.2	850	20418.7	850.5
20781	851.4	20883.6	851.7	20901.2	861.7	21019.5	859	21238.5	857.1
21437.8	858.5	21659.2	853.5	21926.5	853.8	22173.4	853.6	22412	850.5
22604	850.5	22701.4	856.4	22759.4	857.2	22814.1	854.9	23000.2	857
23084.6	858.8	23134.4	849.2	23272.4	852.7	23277.3	851.5	23421	861
23675.9	860.2	23820.2	859.8	24103.3	861.6	24395.9	861.9	24681.1	863.1
24960.8	863.1	25369.2	864	25537.7	865.2	25545.8	859	25558.9	860.1
25567.6	865.8	25587.2	865	25591.6	862.4	25615.4	865.2	25618	862.8
25891	861.7	26150.9	861.1	26495	860.6	26770.3	860.3	26937	864.5
27246.6	863.4	27518.1	862	27771.3	862.3	27827.1	863.8	27833.9	856.7
27862.4	864.3	27913.1	862.1	28166.8	861.7	28499.3	863.2	28780.2	862.3
28834.1	862.2	28860.2	865.4	28936.4	862.6	29179	862.3	29258.2	864.7
29272.6	860.8	29289.8	865	29669.8	864.6	29960.8	865.7	30260.6	864.8
30492.2	867.2	30849	869.9	31134.3	870.4	31398	870.6	31414	870.7

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16805.3	.065	18575.7	.065	19438.7	.028	20901.2	.15	22759.4	.15
23421	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18575.7	22759.4	520	506.66	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16805.3	17698.5	870	24103.3	31414	870

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	861.07	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.53	Wt. n-Val.	0.065	0.043	0.135
E.G. Elev (ft)	861.60	Reach Len. (ft)	520.00	506.66	500.00
Crit W.S. (ft)	856.64	Flow Area (sq ft)	1974.10	33458.84	4377.10
E.G. Slope (ft/ft)	0.001747	Area (sq ft)	3296.27	33458.84	4702.05
Q Total (cfs)	210000.00	Flow (cfs)	3294.22	200511.34	6194.44
Top Width (ft)	7461.56	Top Width (ft)	1379.84	4154.84	1926.88
Vel Total (ft/s)	5.28	Avg. Vel. (ft/s)	1.67	5.99	1.42
Max Chl Dpth (ft)	14.67	Hydr. Depth (ft)	2.31	8.05	3.47
Conv. Total (cfs)	5024566.5	Conv. (cfs)	78819.1	4797536.0	148211.2
Length Wtd. (ft)	506.71	Wetted Per. (ft)	855.26	4159.90	1261.53
Min Ch El (ft)	846.40	Shear (lb/sq ft)	0.25	0.88	0.38
Alpha	1.24	Stream Power (lb/ft s)	0.42	5.26	0.54
Frctn Loss (ft)	0.53	Cum Volume (acre-ft)	3602.77	30243.15	13270.98
C & E Loss (ft)	0.07	Cum SA (acres)	883.62	3320.77	3214.48

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17631.49	17749.51	11.79	17.91	29.07	0.01	0.62	0.66
17749.51	17867.54	189.20	165.80	118.03	0.09	1.40	1.14
17867.54	17985.57	256.20	198.88	118.03	0.12	1.69	1.29
17985.57	18103.59	370.53	248.17	118.03	0.18	2.10	1.49
18103.59	18221.62	582.31	325.49	118.03	0.28	2.76	1.79
18221.62	18339.65	760.41	382.01	118.03	0.36	3.24	1.99
18339.65	18457.67	635.81	343.11	118.03	0.30	2.91	1.85
18457.67	18575.70	487.95	292.73	118.03	0.23	2.48	1.67
18575.70 LB	19621.63	40368.37	8459.46	1048.20	19.22	8.09	4.77
19621.63	20667.55	122033.28	11335.15	1045.94	58.11	10.84	10.77
20667.55	21713.47	23840.68	5102.37	1019.63	11.35	5.02	4.67
21713.47	22759.40 RB	14269.00	8561.84	1046.13	6.79	8.19	1.67
22759.40	23336.37	5235.92	3735.65	578.29	2.49	6.47	1.40
23336.37	23913.35	916.50	605.68	577.16	0.44	1.05	1.51
23913.35	24490.32	42.03	35.78	106.08	0.02	0.34	1.17

Warning - Divided flow computed for this cross-section.

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 186

INPUT
Description:

Eliminate vertical ineffective area in main channel by coding out GR

data between and below sta, elev. 22458, 850.5 and 22839, 850.5

Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17007.6	871.7	17054	868.1	17100.8	867.5	17165.2	864.1	17180	860.5
17410.9	858.7	17779.1	858	18075.8	854.9	18320.8	853.4	18357.8	855
18396.9	848.9	18559.2	852.9	18592.8	858.1	18603.3	857.4	18639	849.7
18743.7	850.8	18771.8	854.1	18860.2	854.3	18905.1	846.8	18906.8	852.3
18924.3	856.4	18951.4	849.7	18964.4	848.2	18972.2	851.5	19076	846.9
19152.5	849.2	19160.9	845.8	19170.6	848	19258.2	849	19275.9	852.1
19524.2	849.1	19720.5	847.5	19914.7	851.2	20178.8	849.6	20215.9	850.5
20583.7	849.8	20914.3	848.7	20939	852.3	21037.2	848.8	21086.8	850.1
21108.1	856	21347.4	856.6	21591.6	855.5	21780.8	856.5	21994.6	850.1
22253.5	853.3	22458	850.5	22839	850.5	22869	856.2	23113.3	856.6
23378.8	856.1	23610.6	856.3	23850.8	856.2	23931.8	858.8	23954.4	862.3
24195.6	860.8	24457.1	861.6	24532.2	861.3	24571.7	865.1	24581.7	857.4
24621.6	864.7	24648.5	862.2	24977.4	861.1	25298.6	861	25565.9	860
25861.2	859.8	26104	859.8	26337.6	859.7	26587.6	858.6	26735.6	858.5
26773.7	860.4	26931.1	857.5	27182.8	862	27260.6	864.3	27286.3	861.3
27522.5	861.6	27774.2	863.3	27921.1	862.3	27952.8	862.9	27958.1	858.9
27966.9	858.7	27981.4	863.7	28089.2	862.3	28328	863.8	28561.4	864.7
28807.9	864.3	29062.4	864.6	29290.6	863.9	29372	865.5	29607.5	866.2
29945.6	866.5	30206.3	867.7	30454.5	868.1	30711	869.5	30827	870.5

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17007.6	.065	18592.8	.065	18924.3	.029	21108.1	.15	22869	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18592.8	22869	520	507.87	520	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17007.6	17560	870	23954.4	30827	870

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	860.70	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.30	Wt. n-Val.	0.065	0.039	0.025
E.G. Elev (ft)	861.00	Reach Len. (ft)	520.00	507.87	520.00
Crit W.S. (ft)	855.15	Flow Area (sq ft)	5756.77	39653.37	4585.40
E.G. Slope (ft/ft)	0.000700	Area (sq ft)	6329.15	39653.37	6699.50
Q Total (cfs)	210000.00	Flow (cfs)	10940.39	180094.67	18964.95
Top Width (ft)	8534.58	Top Width (ft)	1413.61	4276.20	2844.77
Vel Total (ft/s)	4.20	Avg. Vel. (ft/s)	1.90	4.54	4.14
Max Chl Dpth (ft)	14.90	Hydr. Depth (ft)	5.57	9.27	4.27
Conv. Total (cfs)	7936233.5	Conv. (cfs)	413454.6	6806063.5	716715.4
Length Wtd. (ft)	509.71	Wetted Per. (ft)	1033.78	4287.18	1075.24
Min Ch El (ft)	845.80	Shear (lb/sq ft)	0.24	0.40	0.19
Alpha	1.10	Stream Power (lb/ft s)	0.46	1.84	0.77
Frctn Loss (ft)	0.34	Cum Volume (acre-ft)	3545.31	29817.96	13205.55
C & E Loss (ft)	0.00	Cum SA (acres)	866.95	3271.73	3187.10

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17536.00	17641.68	186.18	192.64	81.68	0.09	2.36	0.97
17641.68	17747.36	271.96	268.06	105.68	0.13	2.54	1.01
17747.36	17853.04	351.47	312.66	105.69	0.17	2.96	1.12
17853.04	17958.72	586.34	425.04	105.69	0.28	4.02	1.38
17958.72	18064.40	878.49	541.72	105.69	0.42	5.13	1.62
18064.40	18170.08	1157.43	639.19	105.68	0.55	6.05	1.81
18170.08	18275.76	1371.98	707.85	105.68	0.65	6.70	1.94
18275.76	18381.44	1478.26	741.15	106.00	0.70	7.01	1.99
18381.44	18487.12	2977.93	1127.79	105.89	1.42	10.67	2.64
18487.12	18592.80	1680.33	800.67	106.10	0.80	7.58	2.10
18592.80 LB	19661.85	62713.30	11050.78	1078.16	29.86	10.34	5.68
19661.85	20730.90	76767.52	11597.62	1069.10	36.56	10.85	6.62
20730.90	21799.95	29542.33	7275.21	1070.21	14.07	6.81	4.06
21799.95	22869.00 RB	11071.51	9729.75	1069.71	5.27	9.10	1.14
22869.00	23399.53	9567.06	2299.19	530.53	4.56	4.33	4.16
23399.53	23930.07	9373.58	2271.25	530.57	4.46	4.28	4.13
23930.07	24460.60	24.33	14.96	14.13	0.01	1.07	1.63

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 185.9

INPUT
Description:

Eliminate vertical ineffective area in lt. and rt. overbanks and main

channel by coding out GR data between and below sta.'s, elev.'s

18235.1, 853.7 and 18395, 853.7 - 22419.9, 850.5 and 22820, 850.5

Station Elevation Data num= 94

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17044.9	873.1	17288.5	870.3	17309.3	867.3	17349	856.9	17719.7	854.8
18034.7	854.5	18235.1	853.7	18395	853.7	18405	853.8	18467.7	856.6
18721.1	856.4	18857.8	853.4	18868.8	851.1	18883.8	855.2	18886.1	853.3
18897.2	852.7	18918.7	847.1	18931.3	847.7	18934.6	845.4	19075.3	849.9
19082.6	845.7	19116.5	848.7	19159.7	845.3	19167.1	851.7	19203.7	850.9
19210.4	849	19212.2	846.3	19226.4	849.9	19336.2	849.7	19569.1	847.8
19617.9	850.3	19785.8	849.1	19815.7	847.3	20070.4	850.9	20184.6	851.7
20232.9	849.5	20640.5	849.5	20895.9	849.7	20931	852.5	20957.8	850.4
21220.3	850.6	21255.1	850.9	21277.1	857.4	21602.7	856.3	21891.4	855
21902	854.9	22160.2	851.8	22419.9	850.5	22820	850.5	22863.3	857.3
23110.3	855.8	23357.6	855.8	23792.2	855.5	24036	856	24082.3	862.7
24157.7	859.8	24494.7	859.9	24648.9	859.2	24693.7	863	24702.1	857.6
24725.2	863.4	24757.6	860.1	25124.5	860.2	25401.9	859.1	25820.8	859.2
26191.5	858.6	26436.1	859	26719.3	858.3	26854.6	858.4	26873.3	859.9
26877.8	862.5	26952.2	857	27236.9	861.7	27372.5	864.1	27400.8	861.6
27676.1	862.2	28004.2	862.3	28066.3	864.8	28073	858.7	28081.5	858.3
28095.5	863.2	28356.8	863.6	28629.8	863.9	28906.9	864.7	29188	864.7
29425.9	865	29964.5	865.5	30032	866.8	30278.8	865.5	30537.4	867.2
30818.6	870	31119.4	871.2	31183.6	871.4	31465	872.9		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17044.9	.065	18034.7	.065	18721.1	.029	21277.1	.15	22863.3	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18721.1	22863.3	525	521.25	620	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
24082.3	31465	870

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	860.34	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.31	Wt. n-Val.	0.065	0.036	0.025
E.G. Elev (ft)	860.66	Reach Len. (ft)	525.00	521.25	620.00
Crit W.S. (ft)	855.12	Flow Area (sq ft)	7156.26	37716.98	5284.24
E.G. Slope (ft/ft)	0.000645	Area (sq ft)	7156.26	37716.98	8487.69
Q Total (cfs)	210000.00	Flow (cfs)	12422.10	176184.28	21393.62
Top Width (ft)	9646.78	Top Width (ft)	1385.24	4142.20	4119.34
Vel Total (ft/s)	4.19	Avg. Vel. (ft/s)	1.74	4.67	4.05
Max Chl Dpth (ft)	15.04	Hydr. Depth (ft)	5.17	9.11	4.39
Conv. Total (cfs)	8268841.5	Conv. (cfs)	489125.4	6937333.0	842383.3
Length Wtd. (ft)	529.09	Wetted Per. (ft)	1385.75	4153.09	1203.03
Min Ch El (ft)	845.30	Shear (lb/sq ft)	0.21	0.37	0.18
Alpha	1.15	Stream Power (lb/ft s)	0.36	1.71	0.72
Frctn Loss (ft)	0.39	Cum Volume (acre-ft)	3464.82	29366.92	13114.90
C & E Loss (ft)	0.01	Cum SA (acres)	850.24	3222.66	3145.53

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17268.39	17380.14	155.45	132.56	44.73	0.07	2.99	1.17
17380.14	17491.89	622.95	439.76	111.75	0.30	3.94	1.42
17491.89	17603.63	798.77	510.50	111.75	0.38	4.57	1.56
17603.63	17715.38	991.67	581.25	111.75	0.47	5.20	1.71
17715.38	17827.13	1118.55	624.79	111.75	0.53	5.59	1.79
17827.13	17938.87	1154.40	636.73	111.75	0.55	5.70	1.81
17938.87	18050.62	1191.73	649.01	111.75	0.57	5.81	1.84
18050.62	18162.37	1303.60	684.91	111.75	0.62	6.13	1.90
18162.37	18274.11	1455.44	731.71	111.75	0.69	6.55	1.99
18274.11	18385.86	1490.62	742.27	111.75	0.71	6.64	2.01
18385.86	18497.61	935.38	561.35	111.81	0.45	5.02	1.67
18497.61	18609.35	590.29	425.78	111.75	0.28	3.81	1.39
18609.35	18721.10	613.22	435.62	111.75	0.29	3.90	1.41
18721.10 LB	19756.65	67722.27	10924.44	1044.61	32.25	10.55	6.20
19756.65	20792.20	70045.65	11109.58	1035.68	33.36	10.73	6.30
20792.20	21827.75	29239.52	6885.21	1036.69	13.92	6.65	4.25
21827.75	22863.30 RB	9176.87	8797.76	1036.10	4.37	8.50	1.04
22863.30	23436.75	9516.83	2421.78	573.45	4.53	4.22	3.93
23436.75	24010.19	11299.41	2684.55	573.45	5.38	4.68	4.21
24010.19	24583.64	577.36	177.90	56.13	0.27	3.19	3.25

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 185.81

INPUT
Description:

Eliminate vertical ineffective area in lt. overbank and main channel

by coding out GR data between and below sta.'s, elev.'s 17687, 853.3

18100, 853.3 - 22300, 850.5 and 22867, 850.5

Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17237.1	870.8	17277.1	859.9	17316.7	856.1	17585.6	854.4	17687	853.3
18100	853.3	18121.1	856.7	18246.3	848.8	18282.3	854	18333.1	853.1
18373.8	859.4	18431.8	856.4	18753.3	853.9	18883.1	854.6	18907.7	851.9
18934.4	856.9	18972.5	857.4	18982.2	860.5	19006.6	848.9	19029	846.8
19041.4	849	19129.5	846.4	19138.9	843.6	19170.6	848	19262.1	848
19280.5	845.9	19332.8	847.8	19631.6	848.4	19728.2	852.2	20049.4	851.5

20070.5	852.2	20089.6	855.2	20160.6	855.8	20241.2	848.5	20504.9	848
20853.9	847.6	20880.3	850.5	20934.5	847.6	20979.1	853.4	21200.3	851.9
21268.2	849.9	21348	850.8	21385.9	857.6	21715.3	857.3	21774.2	855.5
21828.7	857.3	21969.9	852.1	22168.9	855.7	22300	850.5	22867	850.5
22899.7	856.2	22919.8	857.7	22958.4	855.1	23429.9	856.2	23720	857
24058.5	857.2	24141.6	861.8	24232.4	864.2	24238.4	861.2	24536.8	861.3
24759.1	864.2	24784.3	868.1	24792.8	861	24798.9	860.7	24818.4	866.4
24861.7	863.1	25150.1	863.1	25194.5	859.1	25229.1	858.8	25306.5	863.1
25579.3	861.8	25882.6	861.8	26220.9	862.1	26498	861.4	26826.7	860.4
26990.5	861.8	27244	862.1	27246.2	860.2	27546.7	860.5	27850.3	861.3
28146.7	860.7	28194.8	863.1	28199.6	856.8	28209.6	856.4	28224.5	863.3
28577.2	862.1	28991.1	862	29328.6	862.4	29592.4	865.9	29658.9	864.1
30001.3	865.6	30344.2	866.3	30617	867.4	30996	869.1	31244.8	869.5

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17237.1	.065	18373.8	.029	21385.9	.15	22919.8	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18373.8	22919.8	505	506.15	650	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23520	31244.8	870

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	859.89	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.37	Wt. n-Val.	0.065	0.035	0.025
E.G. Elev (ft)	860.26	Reach Len. (ft)	505.00	506.15	650.00
Crit W.S. (ft)	855.30	Flow Area (sq ft)	6426.11	36631.69	2453.22
E.G. Slope (ft/ft)	0.000863	Area (sq ft)	6426.11	36631.69	4190.35
Q Total (cfs)	210000.00	Flow (cfs)	14016.16	185033.00	10950.83
Top Width (ft)	6909.37	Top Width (ft)	1096.56	4542.79	1270.01
Vel Total (ft/s)	4.61	Avg. Vel. (ft/s)	2.18	5.05	4.46
Max Chl Dpth (ft)	16.29	Hydr. Depth (ft)	5.86	8.06	4.09
Conv. Total (cfs)	7147381.0	Conv. (cfs)	477042.1	6297625.5	372713.2
Length Wtd. (ft)	509.85	Wetted Per. (ft)	1098.14	4550.31	600.29
Min Ch El (ft)	843.60	Shear (lb/sq ft)	0.32	0.43	0.22
Alpha	1.12	Stream Power (lb/ft s)	0.69	2.19	0.98
Frctn Loss (ft)	0.63	Cum Volume (acre-ft)	3382.97	28922.09	13024.67
C & E Loss (ft)	0.02	Cum SA (acres)	835.29	3170.70	3107.17

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17237.10	17312.88	56.59	60.95	35.80	0.03	1.71	0.93
17312.88	17388.66	495.98	302.64	75.80	0.24	3.99	1.64
17388.66	17464.44	601.07	339.59	75.78	0.29	4.48	1.77
17464.44	17540.22	711.95	375.90	75.78	0.34	4.96	1.89
17540.22	17616.00	837.20	414.29	75.78	0.40	5.47	2.02
17616.00	17691.78	1039.72	471.80	75.78	0.50	6.23	2.20
17691.78	17767.56	1142.15	499.16	75.78	0.54	6.59	2.29
17767.56	17843.34	1142.12	499.14	75.78	0.54	6.59	2.29
17843.34	17919.12	1142.15	499.16	75.78	0.54	6.59	2.29
17919.12	17994.90	1142.12	499.14	75.78	0.54	6.59	2.29
17994.90	18070.68	1142.12	499.14	75.78	0.54	6.59	2.29
18070.68	18146.46	778.73	397.35	76.10	0.37	5.24	1.96
18146.46	18222.24	1316.24	543.93	75.93	0.63	7.18	2.42
18222.24	18298.02	1761.34	648.75	76.21	0.84	8.56	2.71
18298.02	18373.80	706.68	375.19	76.27	0.34	4.95	1.88
18373.80 LB	19510.30	54592.86	9120.10	1138.06	26.00	8.05	5.99
19510.30	20646.80	73580.48	10905.29	1137.15	35.04	9.60	6.75
20646.80	21783.30	47358.80	8046.25	1137.79	22.55	7.08	5.89
21783.30	22919.80 RB	9500.85	8560.05	1137.31	4.52	7.53	1.11
22919.80	23474.80	10314.39	2294.99	555.09	4.91	4.14	4.49
23474.80	24029.80	636.43	158.22	45.20	0.30	3.50	4.02

Warning - Divided flow computed for this cross-section.

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 185.71

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17061	872.5	17090.5	861.9	17163.8	858.3	17506.5	858	17793.4	856.7
18020.9	853.7	18058.5	855.2	18172	854.7	18350.4	856.8	18364.5	861
18381.7	857.7	18475.7	855.8	18494.9	846.8	18562.8	846.8	18582.9	849.6
18606.6	847.1	18645.9	852	18700.6	847.5	18778.8	846.8	18797.8	849.5
18801.2	846.3	18814	850.2	18880.8	850.1	18892.8	854.7	18909	854.1
18922.2	849.4	18951.7	852.9	18982.6	847.7	19006.3	846	19021.6	850.2
19061.6	853.4	19065.6	855.1	19101.2	846.1	19144.8	848.1	19313.4	846.7
19339.7	850.2	19486.9	848.5	19556.6	851.9	19843.4	851.2	20144.4	854.1
20243.9	849.8	20482.9	848.1	20772.4	847.3	20810.8	849.2	20960.6	846.8
21237	850.9	21263.9	856	21588.8	861.4	21691.9	857.1	21762.6	860.8
21860.9	855.3	22141	858	22230.5	856.6	22328.3	851.2	22372.3	852.2
22623.9	849.9	22829.8	852.1	22920.9	849.7	22968.6	855.5	23265.8	859.6
23631.4	861.1	23913.5	862.6	24204.9	862.9	24364.9	864.1	24471.7	862.4
24810.9	862.3	24887.2	864.6	24910.5	866.6	24916.9	861.2	24943.2	866.3
24967.7	862.9	25415.4	862.7	25800.6	862	26107.8	861.6	26393.5	860.3
26675.9	860.4	26984.6	862.7	27001.8	862.2	27008.9	857	27016.4	856.8
27028.3	861.1	27311	860.6	27656.3	859.7	27944.9	861.2	28329.9	860.9
28642.4	861.6	28952.6	862.1	29239.2	863.3	29533.6	863.6	29672.3	862.8
29749	865.8	30130.7	866	30429.8	866.1	30808.4	868	31023.9	868.5
31409	872.2								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17061	.065	18381.7	.065	18892.8	.029	20810.8	.15	22968.6	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18381.7	22968.6	525	521.31	525	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22968.6	31409	870

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	859.04	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.57	Wt. n-Val.	0.065	0.042	
E.G. Elev (ft)	859.61	Reach Len. (ft)	525.00	521.31	525.00
Crit W.S. (ft)	854.74	Flow Area (sq ft)	2905.10	33430.49	
E.G. Slope (ft/ft)	0.001898	Area (sq ft)	2905.10	33430.49	479.86
Q Total (cfs)	210000.00	Flow (cfs)	5179.03	204820.95	
Top Width (ft)	5812.36	Top Width (ft)	1216.15	4323.16	273.05
Vel Total (ft/s)	5.78	Avg. Vel. (ft/s)	1.78	6.13	
Max Chl Dpth (ft)	13.04	Hydr. Depth (ft)	2.39	7.73	
Conv. Total (cfs)	4819784.0	Conv. (cfs)	118865.8	4700918.0	
Length Wtd. (ft)	521.40	Wetted Per. (ft)	1216.69	4334.46	
Min Ch El (ft)	846.00	Shear (lb/sq ft)	0.28	0.91	
Alpha	1.10	Stream Power (lb/ft s)	0.50	5.60	
Frctn Loss (ft)	0.80	Cum Volume (acre-ft)	3328.88	28515.04	12989.83
C & E Loss (ft)	0.01	Cum SA (acres)	821.88	3119.19	3095.66

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17061.00	17149.05	0.00	0.00	0.30	0.00	0.01	0.03
17149.05	17237.09	41.36	62.11	88.06	0.02	0.71	0.67
17237.09	17325.14	55.57	74.14	88.05	0.03	0.84	0.75
17325.14	17413.19	64.31	80.93	88.04	0.03	0.92	0.79
17413.19	17501.23	73.54	87.71	88.05	0.04	1.00	0.84
17501.23	17589.28	102.46	107.02	88.05	0.05	1.22	0.96
17589.28	17677.33	164.34	142.10	88.05	0.08	1.61	1.16
17677.33	17765.37	237.49	177.23	88.05	0.11	2.01	1.34
17765.37	17853.42	361.23	227.94	88.05	0.17	2.59	1.58

17853.42	17941.47	658.37	326.77	88.05	0.31	3.71	2.01
17941.47	18029.51	1028.36	427.03	88.06	0.49	4.85	2.41
18029.51	18117.56	782.51	362.48	88.07	0.37	4.12	2.16
18117.56	18205.61	805.84	368.89	88.05	0.38	4.19	2.18
18205.61	18293.65	576.08	301.61	88.05	0.27	3.43	1.91
18293.65	18381.70	227.56	159.13	71.70	0.11	2.23	1.43
18381.70 LB	19528.42	83769.95	10856.15	1156.49	39.89	9.47	7.72
19528.42	20675.15	87312.58	9562.57	1146.87	41.58	8.34	9.13
20675.15	21821.88	24943.40	6543.87	883.72	11.88	7.41	3.81
21821.88	22968.60 RB	8795.04	6467.90	1147.38	4.19	5.64	1.36

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 185.61

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17081.2	874.6	17110.5	864.9	17139.8	859.2	17184.3	856.4	17531.5	856.8
17785.3	855.9	17876	856.6	17926.9	852.2	18085.7	855.8	18391.2	856
18602	855.5	18619.2	845.8	18829.2	846.6	19029.5	844.9	19357.6	848.5
19596.6	851.2	19624.4	850.9	19648.4	847.6	19674	850.2	19902.3	850.2
20131.1	851.4	20167.5	846.9	20399.4	847.3	20604.9	848.5	20811.3	849.9
20902	848.8	20950.8	847.5	21031.7	849.3	21082.6	857.1	21288.2	859.4
21480.5	857.8	21732.8	861.4	21821.2	855.9	21906.5	857.5	22004.9	854.4
22181.8	855.1	22390.2	851.3	22607.7	852.5	22876.8	852	22954.1	851.2
23059.3	856.4	23201.9	855.2	23211.4	858.2	23423.6	859	23721.7	861.1
23952.8	862.6	24092.1	863.7	24099.6	861.9	24331	861.5	24556.6	863.5
24757.3	865	24917.1	863.1	24993.8	865.9	25001.7	868.9	25017.1	870.3
25028.3	860.4	25045.3	864.9	25050.2	868.4	25070.3	868.3	25078.1	864.3
25287.9	864	25531.4	863.4	25762.9	860.9	25970.8	864	26209.5	861.6
26483.6	861.1	26698.2	861.8	26906.8	860.4	27119.8	860.7	27145.8	862
27162.2	855.2	27172.2	861.5	27218.7	859.1	27274.7	860.3	27325.7	858.4
27456.7	861	27718	860.2	27993.5	861.3	28321.5	861	28529.8	860.8
28765	860.8	29052.2	861.1	29266	861.6	29512.4	860.9	29721.8	860.8
29809.9	859.4	29879.3	861.1	29889.4	865.3	29902.9	862.6	29925	863.8
29961.7	861.2	30186.3	860.8	30419.1	861.8	30628	863.2	30843.9	864.4
30869	864.5								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17081.2	.065	18391.2	.065	18602	.029	21082.6	.15	23059.3	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18391.2	23059.3	410	410.24	405	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
24099.6	30869	870

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	858.11	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.69	Wt. n-Val.	0.065	0.032	0.025
E.G. Elev (ft)	858.80	Reach Len. (ft)	410.00	410.24	405.00
Crit W.S. (ft)	854.35	Flow Area (sq ft)	2684.13	30519.93	343.37
E.G. Slope (ft/ft)	0.001257	Area (sq ft)	2684.13	30519.93	360.35
Q Total (cfs)	210000.00	Flow (cfs)	3651.83	205103.75	1244.42
Top Width (ft)	5513.00	Top Width (ft)	1234.13	4115.39	163.48
Vel Total (ft/s)	6.26	Avg. Vel. (ft/s)	1.36	6.72	3.62
Max Chl Dpth (ft)	13.21	Hydr. Depth (ft)	2.17	7.42	2.26
Conv. Total (cfs)	5922260.0	Conv. (cfs)	102986.0	5784179.5	35094.3
Length Wtd. (ft)	410.22	Wetted Per. (ft)	1234.42	4119.58	152.28
Min Ch El (ft)	844.90	Shear (lb/sq ft)	0.17	0.58	0.18
Alpha	1.13	Stream Power (lb/ft s)	0.23	3.91	0.64
Frctn Loss (ft)	0.56	Cum Volume (acre-ft)	3295.20	28132.37	12984.77
C & E Loss (ft)	0.01	Cum SA (acres)	807.11	3068.69	3093.03

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta	Right Sta	Flow	Area	W.P.	% Conv.	Hydr D.	Velocity

(ft)	(ft)	(cfs)	(sq ft)	(ft)		(ft)	(ft/s)
17081.20	17168.53	1.56	4.14	11.49	0.00	0.36	0.38
17168.53	17255.87	140.62	138.89	87.36	0.07	1.59	1.01
17255.87	17343.20	139.27	138.07	87.33	0.07	1.58	1.01
17343.20	17430.53	124.82	129.28	87.33	0.06	1.48	0.97
17430.53	17517.87	111.00	120.49	87.33	0.05	1.38	0.92
17517.87	17605.20	117.17	124.47	87.33	0.06	1.43	0.94
17605.20	17692.53	161.83	151.08	87.33	0.08	1.73	1.07
17692.53	17779.87	212.93	178.12	87.33	0.10	2.04	1.20
17779.87	17867.20	191.99	167.40	87.34	0.09	1.92	1.15
17867.20	17954.53	678.67	357.41	87.53	0.32	4.09	1.90
17954.53	18041.87	737.21	375.29	87.35	0.35	4.30	1.96
18041.87	18129.20	310.15	223.23	87.35	0.15	2.56	1.39
18129.20	18216.53	252.03	197.08	87.33	0.12	2.26	1.28
18216.53	18303.87	241.48	192.09	87.33	0.11	2.20	1.26
18303.87	18391.20	231.11	187.10	87.33	0.11	2.14	1.24
18391.20 LB	19558.22	94768.84	11051.21	1169.61	45.13	9.47	8.58
19558.22	20725.25	81605.85	10485.84	1167.67	38.86	8.99	7.78
20725.25	21892.28	22966.29	3253.58	615.05	10.94	5.30	7.06
21892.28	23059.30 RB	5762.79	5729.31	1167.25	2.74	4.91	1.01
23059.30	23579.95	1244.42	343.37	152.28	0.59	2.26	3.62

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 185.53

INPUT
Description: Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17158.1	871.1	17193.9	870.3	17209.1	858.3	17287.4	856.3	17491.4	856.7
17724.7	856.8	17850.1	857.1	17879.8	851.7	18086.3	854.3	18161.4	856.6
18461.6	855.6	18713	854.8	18779.8	854.6	18798.6	845	19005	847.1
19202.5	845.5	19431	849.6	19632.6	850.4	19761.8	847.5	19856	849.7
19896.5	847.3	19958.9	850.7	20004.9	848.8	20064.9	849.4	20084.4	846.3
20575.9	846.2	20823.1	846.2	20942.6	848.8	20976.8	854.2	21192.8	856.3
21340.2	859.3	21379.1	857	21579.9	857.8	21777.5	858	21876.6	859.3
21965.1	852.7	22050.3	855.3	22163.8	853.7	22283	855.3	22505.7	851.2
22642.4	852.6	22784.5	850.7	22922.7	854.5	23084.2	850.7	23170.4	3857.4438
23180.1	858.2	23241.9	858	23272	855.4	23562.9	860.5	23799.2	861.9
24085.4	863.1	24282.4	864.8	24473.8	862	24653.4	865.5	24674.2	862.5
24867.7	864	24999.3	863.1	25015.8	868.2	25023.3	868.3	25036	860.4
25047.8	862.9	25056.5	868.1	25070.5	868	25079.8	865.2	25161.1	863.6
25371.3	863.2	25653.6	863.4	25904.8	860.6	26106.3	861.2	26456.4	861.2
26657.8	861.1	26938.8	860.7	27150.6	860.4	27289.3	860.4	27296	855.1
27315	859.9	27508.2	859.6	27598.6	861.3	27797.1	857	27991.6	857.3
28199.4	858	28403.8	858.6	28598.9	858.3	28794	858.1	28991.7	857.8
29204.3	857.5	29433.8	857.5	29628	857.8	29828.4	860.1	29930.5	860.6
29934.8	858.5	29944.1	862	30157.6	861	30393.8	861.2	30623.7	862.9
30772	865.5	30869	864.6						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17158.1	.065	18161.4	.065	18779.8	.029	20976.8	.15	23180.1	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18161.4	23170.43	340	385.26	285	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23180.1	30869	870

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	857.44	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.79	Wt. n-Val.	0.065	0.032	
E.G. Elev (ft)	858.23	Reach Len. (ft)	340.00	385.26	285.00
Crit W.S. (ft)	854.12	Flow Area (sq ft)	1599.70	29061.68	
E.G. Slope (ft/ft)	0.001480	Area (sq ft)	1599.70	29061.68	222.41
Q Total (cfs)	210000.00	Flow (cfs)	2035.59	207964.41	
Top Width (ft)	5804.37	Top Width (ft)	918.78	4475.44	410.15
Vel Total (ft/s)	6.85	Avg. Vel. (ft/s)	1.27	7.16	
Max Chl Dpth (ft)	12.44	Hydr. Depth (ft)	1.74	6.49	
Conv. Total (cfs)	5457932.5	Conv. (cfs)	52905.4	5405027.0	
Length Wtd. (ft)	384.87	Wetted Per. (ft)	919.33	4479.46	

Min Ch El (ft)	845.00	Shear (lb/sq ft)	0.16	0.60	
Alpha	1.08	Stream Power (lb/ft s)	0.20	4.29	
Frctn Loss (ft)	0.55	Cum Volume (acre-ft)	3275.04	27851.81	12982.06
C & E Loss (ft)	0.00	Cum SA (acres)	796.98	3028.24	3090.36

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17224.99	17291.87	14.20	30.71	49.27	0.01	0.62	0.46
17291.87	17358.76	47.42	71.53	66.89	0.02	1.07	0.66
17358.76	17425.65	38.13	62.76	66.89	0.02	0.94	0.61
17425.65	17492.53	29.67	53.99	66.89	0.01	0.81	0.55
17492.53	17559.42	25.03	48.76	66.89	0.01	0.73	0.51
17559.42	17626.31	23.42	46.84	66.89	0.01	0.70	0.50
17626.31	17693.19	21.84	44.92	66.89	0.01	0.67	0.49
17693.19	17760.08	19.35	41.78	66.89	0.01	0.62	0.46
17760.08	17826.97	12.44	32.05	66.89	0.01	0.48	0.39
17826.97	17893.85	216.59	178.47	67.37	0.10	2.67	1.21
17893.85	17960.74	650.28	344.18	66.89	0.31	5.15	1.89
17960.74	18027.63	482.77	287.85	66.89	0.23	4.30	1.68
18027.63	18094.51	334.35	230.92	66.90	0.16	3.45	1.45
18094.51	18161.40	120.10	124.95	66.92	0.06	1.87	0.96
18161.40 LB	19413.66	66655.25	7969.08	1254.62	31.74	6.36	8.36
19413.66	20665.91	106572.20	12014.45	1252.77	50.75	9.59	8.87
20665.91	21918.17	29342.92	3701.68	719.20	13.97	5.15	7.93
21918.17	23170.43 RB	5394.05	5376.46	1252.87	2.57	4.29	1.00

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 185.46

INPUT
Description: Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17150.8	871	17254.9	865.6	17265.4	866.4	17284.9	857.7	17506.7	856.4
17775.8	857	17847.4	856	17885.7	851.8	18131.7	855.3	18380.9	853.7
18608.6	853.4	18787.2	853.3	18868.8	848.5	19077.8	851.7	19106.4	844.2
19327.2	846.5	19574.1	848.8	19807.3	848.2	19854.2	845.4	19915.8	845.5
20183	845.8	20450.8	846	20783	846.9	20917.1	846.7	20947.9	854.5
21178.4	855.2	21459.3	860.2	21485.4	860.7	21587.1	855.1	21729.7	854.9
21852.9	858.5	21949.8	856.9	22020.6	858.2	22110.5	852.7	22322.9	855.2
22384.2	853.7	22397.5	848.8	22659.3	850.4	22874.1	853.1	23039.5	850.6
23067.5	855.5	23089.09	856.884	23145.5	860.5	23282.4	860.5	23323.1	855
23374.8	855.2	23437.2	861.7	23469.4	857.7	23726.9	859.1	23750.5	862.2
23996.5	861.2	24280.5	862.8	24503.1	862.9	24721	863.8	24732.3	862.5
24754.2	865.5	24789.4	865.5	24799	862.6	25028.9	863.6	25112.8	862.5
25134.7	868	25142.5	860.3	25154	862.4	25163.7	867.5	25183.1	867.4
25201.2	863.9	25519.3	862.7	25749	862.6	26027.2	860.5	26071.7	860.5
26081	862	26331.7	861.1	26600.2	860.4	26825.2	859.3	27186.1	859.4
27408.3	860.1	27418.9	861.1	27428.3	856.1	27433.3	855.5	27441.4	860.8
27718.1	858.7	27891.7	858.9	28156.3	857.5	28464.5	857	28713.6	857.2
28942.3	857.9	29177.9	858.5	29445.5	858.9	29665.9	859.7	29893.3	860.1
30053.1	860.9	30061.4	860	30066	862	30300	862.1	30571.8	863.7
30792.2	865	30795	865						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17150.8	.065	18131.7	.043	19077.8	.026	20947.9	.15	23145.5	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18131.723	089.09	490	446.49	615	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23145.5	30795	865

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	856.88	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.80	Wt. n-Val.	0.065	0.030	

E.G. Elev (ft)	857.68	Reach Len. (ft)	490.00	446.49	615.00
Crit W.S. (ft)	853.85	Flow Area (sq ft)	1035.24	28930.79	
E.G. Slope (ft/ft)	0.001361	Area (sq ft)	1035.24	28930.79	126.48
Q Total (cfs)	210000.00	Flow (cfs)	1623.66	208376.34	
Top Width (ft)	5169.21	Top Width (ft)	647.56	4431.24	90.41
Vel Total (ft/s)	7.01	Avg. Vel. (ft/s)	1.57	7.20	
Max Chl Dpth (ft)	12.68	Hydr. Depth (ft)	1.60	6.53	
Conv. Total (cfs)	5692853.0	Conv. (cfs)	44015.4	5648837.5	
Length Wtd. (ft)	446.90	Wetted Per. (ft)	647.82	4435.10	
Min Ch El (ft)	844.20	Shear (lb/sq ft)	0.14	0.55	
Alpha	1.05	Stream Power (lb/ft s)	0.21	3.99	
Frctn Loss (ft)	0.59	Cum Volume (acre-ft)	3264.76	27595.35	12980.92
C & E Loss (ft)	0.01	Cum SA (acres)	790.87	2988.85	3088.73

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17412.37	17477.77	1.82	8.46	53.72	0.00	0.16	0.22
17477.77	17543.16	11.55	27.74	65.39	0.01	0.42	0.42
17543.16	17608.55	7.61	21.59	65.39	0.00	0.33	0.35
17608.55	17673.95	2.88	12.06	65.39	0.00	0.18	0.24
17673.95	17739.34	0.30	2.79	50.03	0.00	0.06	0.11
17739.34	17804.73	0.60	2.98	20.66	0.00	0.14	0.20
17804.73	17870.13	58.44	73.45	65.53	0.03	1.12	0.80
17870.13	17935.52	615.39	301.53	65.49	0.29	4.61	2.04
17935.52	18000.91	468.01	255.72	65.40	0.22	3.91	1.83
18000.91	18066.31	297.57	194.88	65.40	0.14	2.98	1.53
18066.31	18131.70	159.47	134.03	65.40	0.08	2.05	1.19
18131.70 LB	19371.05	46548.79	7139.70	1240.50	22.17	5.76	6.52
19371.05	20610.39	124478.75	12612.29	1239.44	59.28	10.18	9.87
20610.39	21849.74	32264.48	4223.28	906.62	15.36	4.66	7.64
21849.74	23089.09 RB	5084.33	4955.53	1048.53	2.42	4.73	1.03

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 185.38

INPUT
Description: Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17362.8	868.1	17377.7	858	17432.7	855.2	17691.2	855.9	17917.7	851.6
18145.4	853.4	18250.3	850.3	18325.8	852.9	18367.3	848.7	18656.8	848.6
18911.5	851.6	19167.9	852.2	19269.6	850.7	19284.2	849.1	19304.6	843.1
19509.2	846.9	19605.1	847.8	19813.3	843.8	19845.5	843.7	20606	845.8
20684.5	845.9	20936.5	846.3	20963.7	855.2	21198.3	857.2	21271.3	853.4
21337.1	853.9	21468	858.8	21671.8	859.6	21729.3	855.9	21940.7	856.9
22174.2	857.1	22259.7	852.4	22403.5	855.5	22453.2	851.9	22492.2	846.4
22570.7	849.7	22834	850.7	22958	849.1	23012.09	856.3	169 23032.2	859
23138	861	23227.3	855.6	23462.2	854	23537.8	855.6	23614.2	861.3
23634.3	857.7	23886.9	857.8	23903.7	863	23922.2	861	24129.6	860.6
24360.4	862.7	24614.8	862.6	24835.1	862	24886.2	862.3	24891.9	860.8
24954.6	863.1	25155	862.8	25194.1	861.2	25207	866.2	25219.9	866.4
25225.1	860.3	25241.1	862.5	25248.8	867.3	25269.5	867.1	25294.4	863.4
25520.7	862.6	25839	861.9	26059.5	861.8	26267.7	860	26470.4	860.2
26747.7	859.8	26974	859	27238.5	859.4	27473.2	859.2	27540.2	858.8
27585.4	860.9	27594.8	855.2	27603.6	855	27609.5	860.5	27667.9	856.2
27759.5	859.3	27975	859.3	28024.3	856.1	28274	856.5	28514.8	856.6
28733	857.8	28969.6	858.1	29208.9	858.7	29436	859.1	29647.3	859.3
29849.8	859.4	30068	860	30234.7	860.5	30242.8	863.6	30458.1	863.7
30658.3	864	30868	865.2						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17362.8	.065	18145.4	.043	19167.9	.026	21198.3	.15	23032.2	.15
23138	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18145.423	012.09	490	498.2	605	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23138	30868	865

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	856.32	Element			
Vel Head (ft)	0.76	Wt. n-Val.	0.065	0.030	
E.G. Elev (ft)	857.08	Reach Len. (ft)	490.00	498.20	605.00
Crit W.S. (ft)	852.79	Flow Area (sq ft)	1661.05	29468.45	
E.G. Slope (ft/ft)	0.001296	Area (sq ft)	1661.05	29468.45	506.73
Q Total (cfs)	210000.00	Flow (cfs)	2354.73	207645.27	
Top Width (ft)	5276.47	Top Width (ft)	734.64	4053.98	487.85
Vel Total (ft/s)	6.75	Avg. Vel. (ft/s)	1.42	7.05	
Max Chl Dpth (ft)	13.22	Hydr. Depth (ft)	2.26	7.27	
Conv. Total (cfs)	5833325.0	Conv. (cfs)	65409.1	5767916.0	
Length Wtd. (ft)	498.15	Wetted Per. (ft)	734.72	4058.12	
Min Ch El (ft)	843.10	Shear (lb/sq ft)	0.18	0.59	
Alpha	1.08	Stream Power (lb/ft s)	0.26	4.14	
Frctn Loss (ft)	0.59	Cum Volume (acre-ft)	3249.59	27296.06	12976.45
C & E Loss (ft)	0.03	Cum SA (acres)	783.09	2945.36	3084.64

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17362.80	17414.97	0.07	0.45	4.22	0.00	0.11	0.15
17414.97	17467.15	30.81	48.67	52.19	0.01	0.93	0.63
17467.15	17519.32	31.94	49.72	52.17	0.02	0.95	0.64
17519.32	17571.49	24.44	42.35	52.17	0.01	0.81	0.58
17571.49	17623.67	17.77	34.98	52.17	0.01	0.67	0.51
17623.67	17675.84	11.98	27.61	52.17	0.01	0.53	0.43
17675.84	17728.01	17.73	34.94	52.18	0.01	0.67	0.51
17728.01	17780.19	76.61	84.06	52.18	0.04	1.61	0.91
17780.19	17832.36	170.27	135.74	52.18	0.08	2.60	1.25
17832.36	17884.53	291.50	187.41	52.18	0.14	3.59	1.56
17884.53	17936.71	422.76	234.23	52.18	0.20	4.49	1.80
17936.71	17988.88	402.73	227.50	52.18	0.19	4.36	1.77
17988.88	18041.05	341.27	205.99	52.18	0.16	3.95	1.66
18041.05	18093.23	283.93	184.46	52.17	0.14	3.54	1.54
18093.23	18145.40	230.91	162.95	52.18	0.11	3.12	1.42
18145.40 LB	19362.07	35999.51	7515.24	1217.97	17.14	6.18	4.79
19362.07	20578.75	136832.25	13549.75	1216.74	65.16	11.14	10.10
20578.75	21795.42	30626.00	4262.38	776.53	14.58	5.50	7.19
21795.42	23012.09 RB	4187.52	4141.08	846.89	1.99	4.90	1.01

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 185.28

INPUT
Description: Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17072.3	862.6	17182.6	860.7	17229.9	856.4	17267.2	859.4	17315.5	859.5
17348.2	852.6	17380.9	860.3	17553.3	854.7	17819.1	854.3	17842.7	854.1
17880.2	847.5	18151.9	848.9	18570.8	850.1	18836.6	851.8	19138.5	852.6
19406.5	850.5	19426.3	848.7	19427.8	843.9	19745.6	846.1	19838.4	841.5
20175.1	842	20466.4	843.7	20802.3	844.8	20965.7	845.3	21034.3	858.8
21209.5	855.2	21367	857.9	21491.5	851.8	21677.5	855.7	21740.8	855.2
21819.3	858.2	22100.4	854.8	22191.2	856	22238.8	853.7	22318.2	858.6
22387.7	859	22420.3	852.6	22465.4	853.8	22528.6	851	22573.3	846.6
22701.4	849.6	22887.7	847.4	23005.6	853	23018.1	9855.7	9902	23024.1	857.1
23269.2	856.3	23626.1	856.9	23763.1	857	23798.5	860.2	23816.3	854.9
24060.1	855.6	24073	855.6	24095.1	861.4	24107.7	862.2	24121.3	859.9
24394.8	861.2	24737.5	861.5	24999.5	860.7	25080.2	860.4	25138.8	862.8
25292.2	859.9	25295.8	863.6	25300.7	865.7	25312.1	864.7	25319.5	859.8
25332.5	860.9	25341.6	866.9	25362	865.6	25377.7	862.5	25613.5	862.4
25928.9	861.9	26251.8	860.9	26484.6	859.6	26718.1	859.4	26974.4	858.4
27241.2	859	27517.1	858.8	27764.6	859.5	27778.7	860.9	27787.9	854.8
27794	854.9	27804	859.3	27822.8	859.6	27834.6	856.9	28084.4	859.1
28168.8	858.6	28181	856.1	28426.9	856	28675.5	856.2	28907.8	857.1

29012.2	855	29253.3	860.2	29503.6	860.7	29749.6	861.9	29993	862.9
30227.7	862.3	30364	864.5						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17072.3	.065	17842.7	.065	19406.5	.026	21034.3	.15	23024.1	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17842.7	23018.19	490	481.96	495	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17072.3	17380.9	865	23024.1	30364	865

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	855.79	Element			
Vel Head (ft)	0.67	Wt. n-Val.	0.065	0.032	
E.G. Elev (ft)	856.46	Reach Len. (ft)	490.00	481.96	495.00
Crit W.S. (ft)	851.77	Flow Area (sq ft)	399.02	31915.41	
E.G. Slope (ft/ft)	0.001092	Area (sq ft)	444.77	31915.40	173.21
Q Total (cfs)	210000.00	Flow (cfs)	347.03	209652.97	
Top Width (ft)	5131.70	Top Width (ft)	351.66	4433.99	346.04
Vel Total (ft/s)	6.50	Avg. Vel. (ft/s)	0.87	6.57	
Max Chl Dpth (ft)	14.29	Hydr. Depth (ft)	1.24	7.20	
Conv. Total (cfs)	6354997.5	Conv. (cfs)	10501.9	6344495.5	
Length Wtd. (ft)	481.98	Wetted Per. (ft)	323.01	4440.73	
Min Ch El (ft)	841.50	Shear (lb/sq ft)	0.08	0.49	
Alpha	1.02	Stream Power (lb/ft s)	0.07	3.22	
Frctn Loss (ft)	0.46	Cum Volume (acre-ft)	3237.75	26945.03	12971.72
C & E Loss (ft)	0.08	Cum SA (acres)	776.98	2896.82	3078.85

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17483.18	17534.54	1.01	3.57	14.83	0.00	0.24	0.28
17534.54	17585.90	37.39	51.12	51.37	0.02	1.00	0.73
17585.90	17637.26	49.57	60.54	51.36	0.02	1.18	0.82
17637.26	17688.62	55.11	64.51	51.36	0.03	1.26	0.85
17688.62	17739.98	60.87	68.48	51.36	0.03	1.33	0.89
17739.98	17791.34	66.87	72.45	51.36	0.03	1.41	0.92
17791.34	17842.70	76.21	78.36	51.36	0.04	1.53	0.97
17842.70 LB	19136.57	17203.07	7249.68	1294.46	8.19	5.60	2.37
19136.57	20430.45	130579.23	13880.54	1297.62	62.18	10.73	9.41
20430.45	21724.32	58499.52	6923.63	967.25	27.86	7.17	8.45
21724.32	23018.19 RB	3371.14	3861.56	881.40	1.61	4.39	0.87

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 185.19

INPUT
Description: Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17152.9	864.5	17275.8	865.1	17288.1	866.6	17300	865	17356	865.1
17389.6	854.3	17480.1	853.3	17695.7	853.8	17722.7	849.1	17794.1	848.8
17938.9	844	18239.8	846.3	18396.4	847.7	18490.3	850.5	18588.5	849.4
18668.9	841.4	18799.9	839.4	19099	840.9	19274.1	847.7	19323.5	851.4
19402.4	850.5	19430.6	848.4	19440.2	843.8	19711.9	844.6	19796.6	844
20170	843.6	20591.2	842.9	20829	843.2	20914.9	843.3	20956.7	854.4
21051.6	858.3	21364.6	854	21593	853.9	21689.9	850.5	21953.1	856.6
22156.5	858	22214.6	854.1	22250.3	859.3	22487.6	858.1	22537.8	857.2
22581	860.3	22603	853.6	22627.7	853	22727.9	845.9	22976.1	849
23046.1	846.8	23088.5	849.1	23131.1	855.669	23131.3	855.7	23429.8	856.7
23717.3	856.6	23944.9	858.5	23969.5	861.8	23985.8	854.3	24248.5	855.1
24297.7	860.8	24545.1	860.4	24793.9	860.6	25031.9	861	25049.7	859.9
25061.5	863.1	25148.6	862.5	25171.3	865.1	25192.3	859.4	25220.8	864
25317.6	864.8	25327.6	862.1	25642.3	862.2	25804.4	860.5	25994.8	861.9
26188.8	859.4	26550	860.4	26635.8	859.3	26658.3	856.7	26961.7	858.3
27218.6	857.8	27509.2	857.5	27880.4	857.1	27912.7	856.4	27919.4	858.4

27947.4	858.6	27957.4	851.8	27968.3	852.8	27974.5	857.5	28003.5	855
28259.8	854.8	28531.8	855.2	28775.9	856.2	29048.4	857.6	29287.2	859.9
29591.4	860.8	29828	862.3	30085.2	863	30370	863.1	30580.1	864.7
30679.2	867	30697	865.5						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17152.9	.065	17695.7	.065	19323.5	.026	21051.6	.15	23131.3	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17695.7	23131.1	485	477.45	420	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23969.5	30697	865

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	855.52	Element			
Vel Head (ft)	0.41	Wt. n-Val.	0.065	0.038	
E.G. Elev (ft)	855.93	Reach Len. (ft)	485.00	477.45	420.00
Crit W.S. (ft)	849.35	Flow Area (sq ft)	581.20	40629.14	
E.G. Slope (ft/ft)	0.000828	Area (sq ft)	581.20	40629.14	577.98
Q Total (cfs)	210000.00	Flow (cfs)	581.27	209418.72	
Top Width (ft)	5714.25	Top Width (ft)	309.88	4504.30	900.07
Vel Total (ft/s)	5.10	Avg. Vel. (ft/s)	1.00	5.15	
Max Chl Dpth (ft)	16.12	Hydr. Depth (ft)	1.88	9.02	
Conv. Total (cfs)	7297175.5	Conv. (cfs)	20198.3	7276977.0	
Length Wtd. (ft)	477.46	Wetted Per. (ft)	310.08	4509.57	
Min Ch El (ft)	839.40	Shear (lb/sq ft)	0.10	0.47	
Alpha	1.02	Stream Power (lb/ft s)	0.10	2.40	
Frctn Loss (ft)	0.39	Cum Volume (acre-ft)	3231.98	26543.70	12967.46
C & E Loss (ft)	0.02	Cum SA (acres)	773.26	2847.38	3071.77

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17370.02	17406.21	17.32	24.00	20.58	0.01	1.18	0.72
17406.21	17442.39	51.49	57.85	36.19	0.02	1.60	0.89
17442.39	17478.58	74.70	72.32	36.19	0.04	2.00	1.03
17478.58	17514.77	86.11	78.75	36.19	0.04	2.18	1.09
17514.77	17550.95	80.68	75.73	36.19	0.04	2.09	1.07
17550.95	17587.14	75.35	72.69	36.19	0.04	2.01	1.04
17587.14	17623.33	70.18	69.66	36.19	0.03	1.92	1.01
17623.33	17659.51	65.16	66.62	36.19	0.03	1.84	0.98
17659.51	17695.70	60.28	63.59	36.19	0.03	1.76	0.95
17695.70 LB	19054.55	44726.24	14234.03	1359.81	21.30	10.48	3.14
19054.55	20413.40	106376.17	14882.71	1360.25	50.66	10.95	7.15
20413.40	21772.25	54845.86	7624.90	1089.94	26.12	7.01	7.19
21772.25	23131.10 RB	3470.45	3887.49	699.57	1.65	5.57	0.89

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 185.1

INPUT
Description: APPROX. ALIGNMENT OF RAINBOW RD.
Left Channel Bank
Station Interpolated

Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17525.4	864.7	17561.2	863.6	17609.3	5855.1846	17616.7	853.9	17639.8	845.8
17748.7	846.4	17820.4	843.1	18010.7	842.9	18257.6	840.5	18334.9	838.5
18554.1	842.5	18749.4	841.8	18940.4	842	19062.4	846.2	19251.2	843.3
19339.3	854.9	19417.6	856.3	19444.1	843.7	19592.2	843.8	20088.9	843.2
20307.2	842.6	20626.8	842.4	20734	842.6	20779.4	850.1	20877.5	851.5
21099.6	851.7	21317	851.6	21546.6	852.4	21747.2	852.8	21863.5	850
22061.2	856.3	22185.2	858.7	22221	853.8	22248.8	858.2	22452.8	858.8
22635	858	22698.3	850.6	22743.6	850.8	22764	846.1	22967.8	846.9

23042	848.5	23096.7	851.9	23288.7	849.9	23454.3	854.3	23655.5	855
23852.9	855	24052.9	854.7	24106.1	857.4	24128.2	862.3	24342.7	861.2
24586.6	861.1	24724.2	861.1	24934	861.2	25168.7	862	25379.9	862
25414	862.1	25429.5	860	25453.4	861.5	25453.5	858.6	25465.3	860.8
25476.7	858.6	25497.5	862.5	25767.8	861.5	25999.7	860	26170.7	859.3
26416.2	859.1	26608.3	859.2	26761.6	857.9	26776	854.4	26799.6	853.1
26811.1	854.4	26812.1	852.8	27038.7	852.8	27249.9	852.8	27440.1	852.4
27670.2	852.3	27882.6	852.6	27917.5	855.7	28073.8	853.5	28113.8	855.4
28120.7	848.4	28129.5	850.1	28138	856.1	28161.6	852.6	28366.5	853.5
28582.7	854	28815.8	854.9	29043.3	856.4	29245.2	857.6	29442.3	860.2
29634.8	860.1	29838.4	860.9	30042.4	862.2	30248.1	863.2	30474.7	864
30672.9	864.3	30697	864.3						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17525.4	.065	17561.2	.065	19417.6	.026	20877.5	.15	23454.3	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17609.35	23454.3	575	544.41	415	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23454.3	30697	860

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	855.19	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.33	Wt. n-Val.		0.042	
E.G. Elev (ft)	855.52	Reach Len. (ft)	575.00	544.41	415.00
Crit W.S. (ft)	848.27	Flow Area (sq ft)		45508.93	
E.G. Slope (ft/ft)	0.000789	Area (sq ft)	0.00	45508.93	4247.50
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	7806.43	Top Width (ft)		5166.35	2640.08
Vel Total (ft/s)	4.61	Avg. Vel. (ft/s)		4.61	
Max Chl Dpth (ft)	16.69	Hydr. Depth (ft)		8.81	
Conv. Total (cfs)	7478567.0	Conv. (cfs)		7478567.0	
Length Wtd. (ft)	544.41	Wetted Per. (ft)		5173.38	
Min Ch El (ft)	838.50	Shear (lb/sq ft)		0.43	
Alpha	1.00	Stream Power (lb/ft s)		2.00	
Frctn Loss (ft)	0.52	Cum Volume (acre-ft)	3228.74	26071.63	12944.19
C & E Loss (ft)	0.01	Cum SA (acres)	771.54	2794.38	3054.71

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17609.35 LB	19070.59	63832.09	18456.12	1462.95	30.40	12.63	3.46
19070.59	20531.82	115388.51	15596.36	1399.96	54.95	11.17	7.40
20531.82	21993.06	27142.80	7062.97	1461.97	12.93	4.83	3.84
21993.06	23454.30 RB	3636.59	4393.48	848.50	1.73	5.19	0.83

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 185

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17508.6	858.1	17588.3	858	17642.3	862.7	17648.1	861.9	17660.5	2854.5007
17662.2	853.5	17687.8	843	17735.1	844.1	17743.1	842.2	17811	840.7
17871	843.9	17970	841.1	18021.8	843.8	18108.3	843.7	18151.5	839.1
18426.9	836.6	18445.6	836.6	18509.3	842.6	18566.3	842	18616	853.4
18820.8	857.4	19165.6	854.4	19377.9	852.9	19394	855.9	19419.3	841.7
19549.9	844.7	19741.4	846.2	20628.6	842.2	20640.7	842	20670.1	848.8
20837.7	853.6	21060	851.9	21222.5	852.6	21286	849.9	21498.7	850
21600	851.9	21634.5	850.7	21730.9	852	21938.5	847.4	22135.8	855.2
22218	852.5	22261.6	852.4	22278.1	855.3	22430.8	853.8	22510.2	847.4
22744.5	851.6	22899.2	845.4	23129.3	848.9	23352.1	847.2	23508.2	845
23545	852.6	23583.5	850.6	23819	851.7	24012.5	851.7	24049.1	849.9
24139.5	860.2	24208.7	859.7	24283.9	855.5	24487	854.6	24719.9	855
24837.5	855	25089.9	854.9	25233.1	855.3	25339.9	857.8	25461.2	857.1

25481.4	855.3	25575.1	855.3	25885.9	855.4	26087.5	855.5	26313.8	854.5
26531.2	854.3	26788.3	854.3	26968	853.4	26985.1	850.9	27205.6	851.9
27420.4	851.9	27630.4	851.2	27843.2	851.6	28049.5	851.9	28247.1	853
28284.1	855.4	28293.1	847.9	28304.2	849.8	28310.1	854.8	28351.5	851.5
28570.3	853.1	28774.9	854.5	29012.5	854.9	29273.2	856.1	29498.9	857.4
29572.6	858.1	29580.1	860.2	29782.9	860.1	29997.4	860.9	30205.1	861.5
30484	863.5	30493	863.6						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17508.6	.065	17648.1	.065	19394	.028	20837.7	.15	22430.8	.025
23545	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17660.52	23545	505	516.75	555	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23545	30493	860

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	854.50	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.48	Wt. n-Val.		0.038	
E.G. Elev (ft)	854.98	Reach Len. (ft)	505.00	516.75	555.00
Crit W.S. (ft)	849.48	Flow Area (sq ft)		37874.30	
E.G. Slope (ft/ft)	0.001193	Area (sq ft)		37874.30	6200.69
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	8256.58	Top Width (ft)		5268.35	2988.23
Vel Total (ft/s)	5.54	Avg. Vel. (ft/s)		5.54	
Max Chl Dpth (ft)	17.90	Hydr. Depth (ft)		7.19	
Conv. Total (cfs)	6079136.0	Conv. (cfs)		6079136.0	
Length Wtd. (ft)	516.75	Wetted Per. (ft)		5279.15	
Min Ch El (ft)	836.60	Shear (lb/sq ft)		0.53	
Alpha	1.00	Stream Power (lb/ft s)		2.96	
Frctn Loss (ft)	0.88	Cum Volume (acre-ft)	3228.74	25550.58	12894.42
C & E Loss (ft)	0.03	Cum SA (acres)	771.54	2729.17	3027.90

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17660.52 LB	19131.64	51519.07	12631.31	1016.54	24.53	12.48	4.08
19131.64	20602.76	100347.99	12367.41	1442.44	47.78	8.60	8.11
20602.76	22073.88	10298.10	5587.82	1472.24	4.90	3.80	1.84
22073.88	23545.00 RB	47834.84	7287.75	1347.94	22.78	5.41	6.56

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 184.9

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17265.8	865.2	17307.8	861.8	17389.2	861.7	17456.1	857.8	17472.4	861.3
17620.6	857	17625.6	855.2	17668.1	854.4	17670.8	853.6	954 17675.6	852.5
17676.3	854.2	17690.1	851.6	17704.1	843.2	17874.6	840.3	17942.1	841.7
17977.7	837	18019.7	843.1	18092.5	836.5	18135.9	838.8	18174.2	837
18453.7	840.3	18483	843.8	18527.4	844.2	18561.8	850.8	18815.2	853.6
19098.7	853	19293.1	853	19302.5	845.1	19312.3	839.8	19582.5	840.5
19866.4	845.1	20210.7	850.3	20457.4	850.4	20478.6	857.5	20500.2	853
20538.1	849	20585.2	840.9	20628.3	848.7	20647.5	848.4	20722	854.1
20777	847.6	21070.4	846.9	21192.2	850.6	21205.3	846.7	21327.5	843
21355.3	839.8	21431.6	845.9	21681.3	851.1	22002.9	848.1	22188.5	847.8
22379.6	850	22478.4	849.5	22598.4	853.3	22709.8	852	22728	850.3

22750.6	843.3	22938.2	844.5	22982.6	840.7	22997.2	837.3	23030.8	840.4
23096.9	840.4	23136.9	845.7	23178	840.2	23475.2	841.7	23522.7	842.5
23562.89	853.6962	23564.7	854.2	23720	854	23996.3	852.7	24382.7	853.5
24452.5	857.1	24515.8	853.4	24904.3	854.5	25269.7	854.5	25587.4	854.9
25805.7	854.6	26078.2	854.8	26447	854.3	26891.2	853.7	27123.4	852.2
27157.2	850.2	27556.9	851	27926.7	851	28203.3	850.5	28443.1	853.9
28452	847.1	28463.2	848.7	28469.5	853.2	28497.7	850.9	28783	851.8
29091.1	855.1	29423.9	856.2	29704.6	857.3	29754.6	860.9	30055.1	859.9
30367.5	861	30692.5	862.3	30984	864.1				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17265.8	.065	17620.6	.065	19293.1	.028	20722	.15	23564.7	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17670.8	23562.89	680	473.98	445	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23564.7	30984	865

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	853.70	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.37	Wt. n-Val.		0.059	
E.G. Elev (ft)	854.07	Reach Len. (ft)	680.00	473.98	445.00
Crit W.S. (ft)	847.76	Flow Area (sq ft)		43122.86	
E.G. Slope (ft/ft)	0.002625	Area (sq ft)	0.00	43122.86	5020.69
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	8618.30	Top Width (ft)	0.01	5850.90	2767.39
Vel Total (ft/s)	4.87	Avg. Vel. (ft/s)		4.87	
Max Chl Dpth (ft)	17.20	Hydr. Depth (ft)		7.37	
Conv. Total (cfs)	4098983.5	Conv. (cfs)		4098983.5	
Length Wtd. (ft)	473.98	Wetted Per. (ft)		5868.87	
Min Ch El (ft)	836.50	Shear (lb/sq ft)		1.20	
Alpha	1.00	Stream Power (lb/ft s)		5.86	
Frctn Loss (ft)	0.97	Cum Volume (acre-ft)	3228.74	25070.14	12822.94
C & E Loss (ft)	0.01	Cum SA (acres)	771.54	2663.22	2991.23

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17670.88 LB	19143.88	56356.82	12110.35	1475.67	26.84	8.24	4.65
19143.88	20616.89	114921.77	10750.92	1449.73	54.72	7.45	10.69
20616.89	22089.89	15244.55	8429.63	1466.29	7.26	5.76	1.81
22089.89	23562.89 RB	23476.85	11831.97	1477.18	11.18	8.03	1.98

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 184.81

INPUT
Description: Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17481.3	872.4	17513.8	865.2	17515.1	862.1	17534.8	861	17767.5	854.5
17807.7	854.5	17821.42	852.6387	17833.5	851	17848.3	842.3	17902.9	836.7
17910.3	838.4	18016.6	838.2	18036.6	835.5	18080.4	839.4	18140	840.5
18212.3	837.2	18389.1	835.4	18443.5	841.2	18466.3	845.7	18535.7	847.1
18566.2	852.6	18872.7	851.4	19115.6	852.3	19220.6	850.8	19241.9	839.6
19482	840.2	19570.8	840.2	19860.7	844.9	20006.6	846.5	20348.3	851.1
20463.7	852.3	20488.6	855.9	20509.5	851.3	20535.4	849.5	20550.4	845.3
20592.2	840.3	20620.2	850.5	20873.6	847	21107.2	846	21302.3	841
21439.2	846.9	21679.9	846.7	21916.1	849.6	22159.1	847.4	22401.4	848.3
22633.4	849.9	22810	850.6	22900.8	843.1	23104.4	840.6	23167.4	836.1
23248.8	838.7	23349.3	839.4	23381.6	844.8	23407.5	838.3	23430.9	840.3
23474.02	852.6403	23491	857.5	23576.4	851.5	23871.6	852.3	24102.2	852.3
24332.6	852.8	24536.9	852.6	24597.9	855.1	24647	853.2	25029.2	853.4
25302.1	852.5	25641.4	852.4	25831.1	851.2	26024.1	854.4	26324.7	854.5
26687.6	853.3	26985.3	852.7	27227.9	852.1	27301.8	849.5	27620.2	849.9
27855.3	850.7	28129.5	850	28447.7	849.6	28580.1	852.9	28590.9	847.2

28599.4	847.7	28609.5	852.4	28845.8	852	29079	854	29338.5	854.8
29585	855.9	29830.9	857.6	29874.1	860.5	30147.6	860.1	30382.9	860.6
30630.1	861.9	30917.1	862.5	31164.9	863.3	31190.7	864.2	31205.3	867.4
31588.9	869.7	31608.5	869.8	31842.1	872.2				

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17481.3	.065	17534.8	.065	19115.6	.028	20348.3	.15	21916.1	.025
22810	.037	23491	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17821.4	223474.02	685	505.87	570	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23491	31842.1	865

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	852.64	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.44	Wt. n-Val.		0.043	
E.G. Elev (ft)	853.09	Reach Len. (ft)	685.00	505.87	570.00
Crit W.S. (ft)	847.53	Flow Area (sq ft)		39242.43	
E.G. Slope (ft/ft)	0.001645	Area (sq ft)	0.00	39242.43	4257.33
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	8921.62	Top Width (ft)	0.03	5615.27	3306.31
Vel Total (ft/s)	5.35	Avg. Vel. (ft/s)		5.35	
Max Chl Dpth (ft)	17.24	Hydr. Depth (ft)		6.99	
Conv. Total (cfs)	5178336.0	Conv. (cfs)		5178336.0	
Length Wtd. (ft)	505.87	Wetted Per. (ft)		5629.56	
Min Ch El (ft)	835.40	Shear (lb/sq ft)		0.72	
Alpha	1.00	Stream Power (lb/ft s)		3.83	
Frctn Loss (ft)	0.52	Cum Volume (acre-ft)	3228.74	24622.03	12775.54
C & E Loss (ft)	0.02	Cum SA (acres)	771.54	2600.84	2960.21

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17821.42 LB	19234.57	35923.61	10167.01	1419.64	17.11	7.19	3.53
19234.57	20647.72	84635.34	10426.70	1379.77	40.30	7.58	8.12
20647.72	22060.87	13363.79	8334.32	1413.39	6.36	5.90	1.60
22060.87	23474.02 RB	76077.29	10314.41	1416.76	36.23	7.30	7.38

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 184.71

INPUT
Description: Left Bank Channel Station Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17701.8	865.2	17754.2	865.2	17794.5	855.7	17803.1	855.8	17934.3	842.4
17953.6	844.3	17970	842.9747	18013	839.5	18182.2	836.5	18199.9	839.6
18266	838.4	18322.6	841.4	18362.4	841.2	18378.1	838.8	18426.7	836.1
18473.2	852.6	18779.8	851.2	18976.5	850.3	19159.2	849.6	19208.8	849.5
19226.8	839.3	19254.9	839.3	19437.8	839.1	19535.1	839.1	19882.8	838.8
20062.6	840.3	20445.7	849.1	20466.4	848.9	20498.3	854.5	20620.7	840.6
20640.9	848.8	20879.1	847.9	21116.4	848.1	21297.4	841.6	21384.3	845.6
21570.1	844.4	21772.4	844.4	22004.7	845.7	22187.1	843.4	22277.8	844.6
22334.6	843	22504.7	844	22668.5	845.5	22683.4	847	22799.3	839.2
22984.3	839.7	23119.1	836.9	23141.9	842.9	23280.4	842.4	23310.7	847.4
23322.87	852.1723	23326	853.4	23570.5	851.9	23791.7	852.5	24003.7	852.6
24058.2	852.8	24280.1	853.7	24474.1	853.7	24647.7	853.2	24895.8	853.7
24987.2	853.5	25181.1	852.7	25250	852.5	25531	851.2	25551.5	851.2
25794	851.7	26016.7	852	26089.9	852	26266	852	26453.9	851.9

26634	851.3	26692.9	851.1	26955.5	850.7	27001	850.7	27198.6	851
27385	850.4	27565.9	849.6	27738.6	849.9	28041.8	849.6	28236.2	849.4
28410.9	849.6	28629.7	849	28709.2	852	28720.5	846.6	28743.2	851.4
28972	850.5	29143	850.7	29159.7	855	29342.8	855.2	29517.1	856.1
29747.8	856.3	29931.4	856.7	30102.1	858.8	30300.7	859.9	30478.8	860.4
30652.3	860.5	30828.9	862	30985	863.1				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17701.8	.065	17803.1	.065	19208.8	.028	20640.9	.15	22004.7	.025
23326	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17970	23322.87	640	480.91	605	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17701.8	17970	860	23326	30985	860

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	852.18	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.37	Wt. n-Val.		0.034	
E.G. Elev (ft)	852.55	Reach Len. (ft)	640.00	480.91	605.00
Crit W.S. (ft)	846.44	Flow Area (sq ft)		43083.39	
E.G. Slope (ft/ft)	0.000700	Area (sq ft)	778.39	43083.39	5540.49
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	9333.10	Top Width (ft)	131.43	5225.38	3976.29
Vel Total (ft/s)	4.87	Avg. Vel. (ft/s)		4.87	
Max Chl Dpth (ft)	16.08	Hydr. Depth (ft)		8.25	
Conv. Total (cfs)	7934755.0	Conv. (cfs)		7934755.0	
Length Wtd. (ft)	480.91	Wetted Per. (ft)		5237.01	
Min Ch El (ft)	836.10	Shear (lb/sq ft)		0.36	
Alpha	1.00	Stream Power (lb/ft s)		1.75	
Frctn Loss (ft)	0.31	Cum Volume (acre-ft)	3222.62	24144.00	12711.44
C & E Loss (ft)	0.02	Cum SA (acres)	770.50	2537.89	2912.56

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17970.00 LB	19308.22	23778.99	8501.57	1250.67	11.32	6.83	2.80
19308.22	20646.43	90486.84	13547.99	1307.18	43.09	10.39	6.68
20646.43	21984.65	7471.89	8387.14	1338.44	3.56	6.27	0.89
21984.65	23322.87 RB	88262.28	12646.69	1340.73	42.03	9.45	6.98

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 184.62

INPUT
Description: Left and Right Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17810.5	858.3	17845.8	860.2	17854.7	857.4	17930.7	858.1	17944	855.3
18073.6	852.2	18075.5	3851.9	122 18096.4	848.8	18118.3	838.6	18166.7	837.1
18194.3	839.8	18219.8	835.4	18249.1	835.8	18261.4	839	18394.5	835.6
18466.9	838.4	18554.4	838	18618.5	848.5	18831.9	847.9	19088.7	848.8
19149.9	848.1	19176.8	838.2	19416.8	838.9	19693.7	838.9	20015.7	838.5
20136.9	838.6	20318.9	846	20628	844.7	20659.7	841.5	20665.2	847.9
20674.1	844.1	20685	847.6	20928.7	847.3	21102.8	844.6	21139.9	841.9
21275.1	845.5	21369.4	843.5	21591.8	845.1	21721	842.8	21924.1	844.2
22135.2	843.7	22379.2	842.7	22552.2	844.5	22745.6	840.6	22775.1	841.9
22788.2	834.6	22811.7	835.6	22830.6	840.8	23056	841.8	23270.8	840.5
23288.1	843	23309.8	8851.9	142 23314	853.6	23362.9	851.8	23539.2	851.7
23757.8	852	23985	852	24280.8	852.8	24509.6	852.9	24712.5	852.9
24894.4	853.9	25121	851.7	25128.1	851.7	25136.2	849.2	25376.3	848.8
25610	848.8	25830.7	849.8	26083.2	849	26285.2	849	26496.2	849
26721.8	848.1	26934.5	848.1	26962.7	848.7	27049	852.3	27074.3	849.9
27290.2	853.1	27492.2	852.8	27512.9	848.6	27752.3	848.5	27967.4	849
28302.5	849.5	28538.2	850	28791.5	849.3	28870.2	851.4	28878.9	845.3
28892.2	846.5	28897.5	850.7	29069.7	850.5	29092.9	852.1	29287.8	851

29311.4	855.7	29547.2	856	29762.1	856.2	30002.7	856.5	30205.4	859.1
30245.5	861.9	30261	859.8	30283	860.9				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17810.5	.043	17944	.043	19088.7	.025	20665.2	.15	22775.1	.025
23314	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18075.5	323309.88	490	508.57	385	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23314	30283	860

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	851.92	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.30	Wt. n-Val.		0.037	
E.G. Elev (ft)	852.21	Reach Len. (ft)	490.00	508.57	385.00
Crit W.S. (ft)	845.78	Flow Area (sq ft)		48015.40	
E.G. Slope (ft/ft)	0.000593	Area (sq ft)	0.00	48015.40	9929.76
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	9432.42	Top Width (ft)	0.04	5234.35	4198.03
Vel Total (ft/s)	4.37	Avg. Vel. (ft/s)		4.37	
Max Chl Dpth (ft)	17.32	Hydr. Depth (ft)		9.17	
Conv. Total (cfs)	8621550.0	Conv. (cfs)		8621550.0	
Length Wtd. (ft)	508.57	Wetted Per. (ft)		5249.95	
Min Ch El (ft)	834.60	Shear (lb/sq ft)		0.34	
Alpha	1.00	Stream Power (lb/ft s)		1.48	
Frctn Loss (ft)	0.34	Cum Volume (acre-ft)	3216.90	23641.13	12604.01
C & E Loss (ft)	0.01	Cum SA (acres)	769.54	2480.15	2855.79

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18075.53 LB	19384.12	53989.50	12007.67	1314.75	25.71	9.18	4.50
19384.12	20692.71	99799.73	14160.05	1313.17	47.52	10.82	7.05
20692.71	22001.29	8234.83	9262.95	1308.81	3.92	7.08	0.89
22001.29	23309.88 RB	47975.95	12584.73	1313.23	22.85	9.62	3.81

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 184.53

INPUT
Description: Right Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18333.6	865.2	18397.5	850.2	18437.2	845.8	18470	835.4	18507.1	835.5
18534.5	839.4	18613.7	836.3	18669.7	839.2	18718.3	835.4	18880.3	838.5
18940.2	847.8	19138.5	847.7	19157.2	847.7	19172.3	837.9	19442.5	838.6
19459.7	840.8	19620.5	840.8	19644.1	838.7	19763	838.6	20082.9	838.4
20247.9	839	20700.6	840.6	20703.6	839.1	20716	846.9	20792.6	845.2
20793.6	846.3	20933.5	847.4	21172.8	845.6	21226	843.3	21294.9	843.1
21313.1	840.9	21455.6	843.8	21698.1	844.8	21891.5	842.4	22048.4	841
22150.1	844.5	22215.6	841.3	22236.8	842.4	22309.3	841.2	22378.7	844.6
22401.4	840.2	22589.2	840.4	22675.2	842.9	22699	834.3	22730.5	836.1
22744.7	840.1	22937.8	840.6	23132.5	840.6	23311.5	842.2	23333.6	3851.5943
23336	852.6	23520.2	850.7	23761.5	851.8	23821.1	851.5	24035.8	851.3
24271.5	852.3	24505.1	852.3	24701.5	852.1	24940.9	852.7	25020.8	852.8
25215.7	850.1	25270.2	851.6	25293.4	848.8	25582.7	848.4	25905.2	848.1
26136.8	848.5	26318.3	849.1	26508	848.7	26762.4	849.1	26883.8	848.9
26936.6	851.5	26998.7	848.2	27145.8	853.8	27351.9	853	27534.3	852.4
27594.2	852.4	27721.1	847.3	27902.2	848.1	27934	848.3	28117.7	849.3
28348.9	848.9	28602	849.9	28827	850	28992.1	850.8	29001.6	845.2
29008.8	845.6	29016.8	850.8	29228.5	850.4	29399.5	850.4	29427.2	855.1
29612.5	856	29794.5	856.9	30000.6	857.4	30192.8	857.9	30316.2	858.6
30324.9	860.8	30397	863.2						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18333.6	.043	18397.5	.043	18940.2	.028	20933.5	.15	23336	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18397.52	23333.63	480	508.72	420	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23336	30397	860

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	851.60	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.27	Wt. n-Val.	0.043	0.046	
E.G. Elev (ft)	851.87	Reach Len. (ft)	480.00	508.72	420.00
Crit W.S. (ft)	844.67	Flow Area (sq ft)	4.16	50139.38	
E.G. Slope (ft/ft)	0.000744	Area (sq ft)	4.16	50139.38	9190.00
Q Total (cfs)	210000.00	Flow (cfs)	3.04	209996.95	
Top Width (ft)	9303.57	Top Width (ft)	5.96	4936.13	4361.48
Vel Total (ft/s)	4.19	Avg. Vel. (ft/s)	0.73	4.19	
Max Chl Dpth (ft)	17.30	Hydr. Depth (ft)	0.70	10.16	
Conv. Total (cfs)	7698077.5	Conv. (cfs)	111.4	7697966.0	
Length Wtd. (ft)	508.72	Wetted Per. (ft)	6.12	4950.53	
Min Ch El (ft)	834.30	Shear (lb/sq ft)	0.03	0.47	
Alpha	1.00	Stream Power (lb/ft s)	0.02	1.97	
Frctn Loss (ft)	0.42	Cum Volume (acre-ft)	3216.88	23068.14	12519.51
C & E Loss (ft)	0.01	Cum SA (acres)	769.51	2420.78	2817.97

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18388.98	18393.24	0.10	0.34	1.74	0.00	0.20	0.28
18393.24	18397.50	2.94	3.83	4.38	0.00	0.90	0.77
18397.50 LB	19631.53	78112.84	13569.90	1240.28	37.20	11.00	5.76
19631.53	20865.57	104678.81	14287.76	1237.20	49.85	11.58	7.33
20865.57	22099.60	10654.42	9342.17	1234.31	5.07	7.57	1.14
22099.60	23333.63 RB	16550.88	12939.56	1238.75	7.88	10.49	1.28

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 184.43

INPUT
Description: Left and Right Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19020.1	860.31	19038.6	851.0911	19062	839.5	19089.9	837.9	19263	842.5
19286.6	843.2	19302	837.3	19540.2	837.9	19564.2	840.3	19583.7	837.9
19705.8	841	19739	838.2	19938	838.1	20009.5	838	20227.9	837.8
20378.1	838.5	20648.5	839.9	20724.8	841.1	20732.1	842.8	20786.3	842.4
20797.3	844.2	20797.6	845.5	20806.3	846.9	21006.4	845.1	21178.3	844
21367.5	839.6	21613.9	840.2	21725.3	842.9	21884.5	842.5	22005.8	843.2
22033.7	839.7	22061.8	839.4	22083.8	842.1	22263	843.5	22403.1	842.5
22434.2	838.5	22515.3	840.9	22545.4	839.4	22754.9	839.5	22781.4	839.5
22794.5	834.4	22820.1	834.3	22852.4	838.5	23031	839.2	23202.6	840.8
23230.48	851.0913	23232.4	851.8	23444.4	850.1	23507.5	850.4	23682.9	850.6
23715.5	850.7	23919.8	850.9	24168.2	851.3	24413.4	852.1	24458.1	851
24489.2	847.6	24681.9	848.8	24925.5	848.9	25105.2	847.7	25209.3	848.4
25383.6	849	25616	848.7	25636.5	848.7	25810.6	847.9	26105.5	848.2
26336.1	848	26414.5	847.8	26466.6	850.4	26492.2	848.5	26685.8	848.3
26772.6	849	26816.7	852.5	26988.6	853.9	27160.9	853.3	27167.4	853.3
27355.4	852.5	27535.2	850.9	27607.9	851.5	27780.9	847.5	27981.9	848.4
28194	848.4	28391.3	848	28661.1	848.5	28868.9	848.9	29043.1	848.4
29108.6	850.4	29118.7	845.2	29127.3	846	29133.4	850.2	29335.8	850.5
29506.5	851.1	29535.5	855.3	29748.5	855.9	29921.2	857.2	30133.5	858.6
30305.4	858.6	30468	863.9	30494.6	862.8				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19020.1	.028	20806.3	.15	23232.4	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19038.6	523230.48	310	505.74	440	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23232.4	30494.6	860

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	851.10	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.35	Wt. n-Val.		0.046	
E.G. Elev (ft)	851.45	Reach Len. (ft)	310.00	505.74	440.00
Crit W.S. (ft)	844.52	Flow Area (sq ft)		44458.66	
E.G. Slope (ft/ft)	0.000911	Area (sq ft)	0.00	44458.66	10688.63
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	9187.85	Top Width (ft)	0.02	4191.83	4996.00
Vel Total (ft/s)	4.72	Avg. Vel. (ft/s)		4.72	
Max Chl Dpth (ft)	16.80	Hydr. Depth (ft)		10.61	
Conv. Total (cfs)	6957015.0	Conv. (cfs)		6957015.0	
Length Wtd. (ft)	505.70	Wetted Per. (ft)		4201.59	
Min Ch El (ft)	834.30	Shear (lb/sq ft)		0.60	
Alpha	1.00	Stream Power (lb/ft s)		2.84	
Frctn Loss (ft)	0.47	Cum Volume (acre-ft)	3216.86	22515.76	12423.68
C & E Loss (ft)	0.01	Cum SA (acres)	769.47	2367.48	2772.85

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19038.65 LB	20086.61	108060.83	12793.94	1052.31	51.46	12.21	8.45
20086.61	21134.57	72037.99	10340.50	1049.47	34.30	9.87	6.97
21134.57	22182.52	13180.27	9896.39	1048.43	6.28	9.44	1.33
22182.52	23230.48 RB	16720.91	11427.83	1051.37	7.96	10.90	1.46

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 184.33

INPUT
Description: Right Bank Station Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19243.8	861.1	19270.5	849.3	19330	845.3	19383.5	838.6	19491.2	837.1
19658.9	838.2	19876.3	838.1	19954.5	838	20567.4	837.2	20712.4	837.7
20742.2	844.2	20902.3	843.3	21026.3	843.3	21167.5	840.5	21278.4	842.3
21498.7	838.3	21627.9	841.4	21790.6	841.2	21943.3	841.8	22053.5	845.6
22169.4	842.9	22318.5	848.7	22453.2	850.3	22468.2	846.1	22480.5	840.6
22619.7	837	22806.7	836.7	22962	839.2	22986.5	831.9	23013.9	833
23037.7	842	23067.4	841.9	23089.9	846.8	23135	845.827	7 23150.2	845.5
23187	848.6	23270.2	848.4	23285.4	3850.5	101 23286.8	850.7	23318.4	851
23345.8	849.3	23503.3	849.1	23661.8	849.3	23836.7	850.8	23996.9	851.4
24204	849.5	24361.9	849.7	24372.8	847.3	24596.2	847.7	24816.2	848.5
24881.2	848.8	25069.1	848.8	25224.6	848.2	25381.4	847.5	25562.2	847.6
25578.1	847.7	25806.9	848	26003.7	846.9	26272	847.9	26459.9	847.4
26529	847.4	26535.6	849	26609.7	849.3	26618	850.5	26680	847.4
26721.8	853.1	26768.3	852.9	26929.1	852.7	26960.6	852.7	27136.9	852.6
27289.6	852.6	27366.2	851.6	27398.9	849.7	27468.5	848.1	27479.2	850.3
27565.6	848.6	27596.8	851.9	27675	847.5	27843	847.2	27877.7	847.9
27887	846.6	28118.1	848	28311.3	848.4	28573.6	847.4	28657.4	848.6
28889.8	848.5	29142.9	848.3	29219.9	850.5	29228.2	845.8	29238	845
29247	851.3	29354.6	850.6	29364.5	852	29517.7	851.5	29606.7	851.8
29632.7	855.3	29845.1	856.5	29999	857.7				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
19243.8	.026	19270.5	.026	20742.2	.065	21627.9	.15	23318.4	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19270.5	23135	515	499.71	320	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23318.4	29999	860

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	850.51	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.45	Wt. n-Val.	0.026	0.041	0.150
E.G. Elev (ft)	850.96	Reach Len. (ft)	515.00	499.71	320.00
Crit W.S. (ft)	844.41	Flow Area (sq ft)	1.66	38949.73	384.28
E.G. Slope (ft/ft)	0.000969	Area (sq ft)	1.66	38949.73	11356.65
Q Total (cfs)	210000.00	Flow (cfs)	1.99	209776.80	221.22
Top Width (ft)	8926.20	Top Width (ft)	2.74	3864.50	5058.96
Vel Total (ft/s)	5.34	Avg. Vel. (ft/s)	1.20	5.39	0.58
Max Chl Dpth (ft)	18.61	Hydr. Depth (ft)	0.60	10.08	2.55
Conv. Total (cfs)	6744623.5	Conv. (cfs)	63.8	6737455.0	7104.9
Length Wtd. (ft)	499.62	Wetted Per. (ft)	2.99	3871.19	150.71
Min Ch El (ft)	831.90	Shear (lb/sq ft)	0.03	0.61	0.15
Alpha	1.02	Stream Power (lb/ft s)	0.04	3.28	0.09
Frctn Loss (ft)	0.51	Cum Volume (acre-ft)	3216.85	22031.56	12312.34
C & E Loss (ft)	0.00	Cum SA (acres)	769.46	2320.71	2722.07

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19266.94	19268.72	0.11	0.20	1.05	0.00	0.21	0.53
19268.72	19270.50	1.88	1.45	1.95	0.00	0.82	1.29
19270.50 LB	20236.63	105059.90	11411.78	966.69	50.03	11.81	9.21
20236.63	21202.75	73212.52	10044.56	966.86	34.86	10.40	7.29
21202.75	22168.88	19614.81	8640.31	966.31	9.34	8.94	2.27
22168.88	23135.00 RB	11889.57	8853.07	971.33	5.66	9.16	1.34
23135.00	23592.60	221.22	384.28	150.71	0.11	2.55	0.58

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 *RS: 184.24*

INPUT
Description: Right Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18844.8	860.3	18931.3	859.2	19049.2	855.3	19174.1	844.9	19272.7	848
19431.5	847.9	19445.7	841.9	19467.1	836.8	19619.1	837.6	19885.4	838
20076	837.7	20313.9	837.4	20631.3	837	20645.2	841.7	20829.3	841.8
20979.6	839.6	20990.5	834.2	20998.6	832.2	21047	839.1	21115.6	831.7
21127.8	835.2	21146.6	835.6	21157.2	831.5	21188.4	840.6	21271.6	843
21319.5	842.2	21336.2	843.7	21338.3	839.6	21375.1	841.3	21381.2	843.9
21514.2	842.2	21516.7	837.9	21561.9	841.5	21732.3	839.7	21937.2	841.4
22047.2	842.6	22157.2	846.4	22279.6	845.8	22358.5	847.4	22412.1	845.7
22505	845.7	22569.5	839.1	22652.8	837.2	22674.9	832.3	22823.7	835.1
22884.5	837.5	22911.3	841.5	23054	840.6	23074.94	849.9	23080.9	852.6
23202.6	848.4	23413.7	849.4	23671.7	849.6	23881.5	850	24047.9	849.6
24257.1	849.6	24420	848.6	24540.5	847.7	24698.2	847.9	24725	847.8
24918.9	848.5	24930	848.5	25105.8	848.5	25306.3	848.2	25556.9	848
25718.1	847.7	25854.8	848.1	26083.7	847.9	26376.9	847.8	26591.2	846.3
26641.4	848.4	26784.4	849.2	26848.1	853.6	27029.6	851.2	27242.3	848.5
27305.2	847.4	27467.4	847.3	27740.5	847.2	27953.8	846.8	28138.9	846.2
28321	846.6	28495.2	848	28744.3	848.6	28997.5	848.8	29203.5	848.9
29293.5	850.1	29318.3	851.4	29327.1	845.7	29336.8	844.9	29344.7	851.1
29521.3	851.2	29678.7	852.4	29740.4	855.7	29898.3	856.7	30060.7	857.6
30270.3	860	30375	860.2						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18844.8	.032	19272.7	.026	20645.2	.043	21732.3	.15	23080.9	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19272.72	23074.94	505	504.24	520	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18844.8	19272.7	860	23080.9	30375	860

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	849.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.50	Wt. n-Val.		0.039	
E.G. Elev (ft)	850.45	Reach Len. (ft)	505.00	504.24	520.00
Crit W.S. (ft)	844.01	Flow Area (sq ft)		37173.43	
E.G. Slope (ft/ft)	0.001063	Area (sq ft)	498.67	37173.43	10090.16
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	9732.12	Top Width (ft)	159.28	3802.24	5770.60
Vel Total (ft/s)	5.65	Avg. Vel. (ft/s)		5.65	
Max Chl Dpth (ft)	18.45	Hydr. Depth (ft)		9.78	
Conv. Total (cfs)	6439614.0	Conv. (cfs)		6439614.0	
Length Wtd. (ft)	504.24	Wetted Per. (ft)		3819.01	
Min Ch El (ft)	831.50	Shear (lb/sq ft)		0.65	
Alpha	1.00	Stream Power (lb/ft s)		3.65	
Frctn Loss (ft)	0.49	Cum Volume (acre-ft)	3213.89	21594.93	12233.56
C & E Loss (ft)	0.00	Cum SA (acres)	768.50	2276.73	2682.29

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19272.70 LB	20223.26	87642.41	9916.19	952.38	41.73	10.43	8.84
20223.26	21173.82	85263.27	11112.27	955.70	40.60	11.69	7.67
21173.82	22124.38	26145.79	7992.77	957.05	12.45	8.41	3.27
22124.38	23074.94 RB	10948.53	8152.19	953.88	5.21	8.58	1.34

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 184.14

INPUT
Description: Left and Right Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18514.6	861.7	18742.9	858.9	18903.4	845.8	18996	849.5	18997.92	849.4472
19094.2	846.8	19300.3	845.9	19361.1	845.6	19396.4	836.2	19552.4	836.4
19992.9	837	20277	837.4	20504.5	837.6	20570.2	837.3	20587.1	842.2
20658.9	841.7	20697	839	20757.7	841.2	20802	838.5	20850.4	844.7
20941.9	842.4	21027.6	843.6	21069.2	836.3	21153.8	836.2	21153.9	834.1
21182.6	842.4	21197.5	831.8	21210.2	839.8	21291.4	838.6	21298.8	834.4
21299.8	832.3	21322	837.3	21326.7	833.1	21328.8	835.6	21350.8	840.9
21423.1	833	21448.8	839.2	21455.3	831	21484.8	832.2	21514.1	840.2
21547.1	838.7	21564.5	841.2	21632.6	840.2	21691.2	844.3	21902.4	839.7
22048.2	843.1	22268.2	844.3	22322.2	842.8	22419.5	849	22560.8	850
22606.9	832	22842.4	836.1	22964.5	838.9	22992.19	849.4484	22996	850.9
23249.6	849.7	23478.4	850	23657.9	849.9	23838.3	849.5	24034.1	849.5
24312.5	849.5	24529.8	848.6	24676.3	847.4	24879.7	848	24946	848.2
25125.8	848.1	25307.7	848	25492.7	849.3	25535.2	847	25736.7	846.2
25934.3	847.9	26175.6	847.9	26230.1	847.8	26507.5	848.9	26660.3	846.4
26767.1	850	26783.8	848	26837.3	850.1	26879.1	848.7	26889.8	850.7
26897.1	848.3	27135.9	848.9	27356	849.2	27541	849.5	27762.9	849
27981.3	849	28169.1	847.6	28396.8	848.5	28603.1	849.3	28696.5	849.5
28921.2	849.3	29191.9	849.9	29395.6	852.9	29611.2	855.3	29799	856.1
29981.5	856.9	30182	857.8	30396	859.5				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18514.6	.043	18996	.043	19361.1	.026	20587.1	.043	21902.4	.15
22996	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18997.92	22992.19	490	493.72	440	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18514.6	18996	860	22996	30396	860

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	849.46	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.49	Wt. n-Val.	0.000	0.037	
E.G. Elev (ft)	849.95	Reach Len. (ft)	490.00	493.72	440.00

Crit W.S. (ft)	843.52	Flow Area (sq ft)	0.00	37396.79	
E.G. Slope (ft/ft)	0.000909	Area (sq ft)	249.96	37396.79	4890.51
Q Total (cfs)	210000.00	Flow (cfs)	0.00	210000.00	
Top Width (ft)	8559.61	Top Width (ft)	137.05	3916.87	4505.69
Vel Total (ft/s)	5.62	Avg. Vel. (ft/s)	0.04	5.62	
Max Chl Dpth (ft)	18.46	Hydr. Depth (ft)	0.01	9.55	
Conv. Total (cfs)	6966114.0	Conv. (cfs)	0.0	6966114.0	
Length Wtd. (ft)	493.72	Wetted Per. (ft)	0.54	3947.59	
Min Ch El (ft)	831.00	Shear (lb/sq ft)		0.54	
Alpha	1.00	Stream Power (lb/ft s)		3.02	
Frctn Loss (ft)	0.50	Cum Volume (acre-ft)	3209.55	21163.33	12144.15
C & E Loss (ft)	0.01	Cum SA (acres)	766.79	2232.06	2620.96

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18965.70	18997.92	0.00	0.00	0.54	0.00	0.01	0.04
18997.92 LB	19996.49	76698.33	9017.78	999.84	36.52	9.03	8.51
19996.49	20995.05	77030.81	10271.25	999.91	36.68	10.29	7.50
20995.05	21993.62	46328.49	10150.31	1021.14	22.06	10.16	4.56
21993.62	22992.19 RB	9942.37	7957.46	926.70	4.73	8.64	1.25

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 184.05

INPUT
Description: APPROX. ALIGNMENT OF WATSON RD.
Left and Right Bank Stations
Interpolated

Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18408.6	857.9	18759.4	846.5	18771.1	849	18829.4	851.4	18994.3	849.2
19001.4	4848.7987	19061.9	845.4	19086.4	846.3	19097.5	843.7	19120.3	847.4
19242.3	843.8	19343.8	844.4	19379.2	836.2	19462.2	836.3	20011.6	836.8
20395.3	837.1	20540.6	837.3	20556.6	846.3	20764.9	843.1	21005	844.7
21145.8	841.9	21175.9	838	21258.3	839.6	21300.2	837	21306.9	833.7
21308.4	838	21311.6	841	21331.6	830.9	21331.7	835.4	21350	836.4
21359	830.1	21387.3	830.5	21389	837.6	21398.7	840.1	21427.9	835.1
21430	841.5	21450.3	833.6	21450.5	831.8	21459.8	834.8	21473	835.7
21473.3	833.9	21498.1	840.4	21566.9	839.9	21580.1	834.9	21581	832.9
21613.3	838.1	21637.8	833.4	21649.4	836.7	21721.6	838.4	21722.9	842.3
22068.3	842.8	22137	842.6	22248	845.4	22310.7	842.3	22366.2	842.6
22428	850	22618.2	849.2	22651.6	840.1	22693.5	837.2	22725.2	832.2
22765.1	833.4	22788.1	838	22860.8	836.1	23010.9	84323034.63	848.7995	
23051	852.8	23465	851.6	23875.5	852.1	23949.4	852.1	24055.5	848.4
24151.3	851.6	24382.7	851.7	24447.1	849.4	24580	851.8	24954.8	850.7
25376.8	851.5	25766.9	849.1	26041.1	851.9	26092.4	838.8	26122.2	840.3
26172.5	852.4	26236.4	850.7	26304.3	847.5	26675.2	848.9	26978.8	850.7
26993.1	846.9	27377.6	848.7	27756.4	847.9	28116.2	848.1	28225.9	848.7
28229.6	842.7	28241.3	842.5	28252.1	849.7	28374.2	847.2	28952.6	848.7
29347.5	852.6	29758.5	856.4	29973.3	856.6				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18408.6	.043	18994.3	.043	19343.8	.026	20556.6	.15	21005	.043
22428	.15	23051	.025	26236.4	.043	26978.8	.032		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19001.4	423034.63	505	504.2	475	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18408.6	18829.4	855	23051	29973.3	855

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	848.82	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.62	Wt. n-Val.	0.000	0.036	0.000

E.G. Elev (ft)	849.44	Reach Len. (ft)	505.00	504.20	475.00
Crit W.S. (ft)	844.16	Flow Area (sq ft)	0.00	33280.43	0.00
E.G. Slope (ft/ft)	0.001151	Area (sq ft)	95.19	33280.43	2490.97
Q Total (cfs)	210000.00	Flow (cfs)	0.00	210000.00	0.00
Top Width (ft)	6354.23	Top Width (ft)	82.48	3831.71	2440.04
Vel Total (ft/s)	6.31	Avg. Vel. (ft/s)	0.05	6.31	0.01
Max Chl Dpth (ft)	18.72	Hydr. Depth (ft)	0.01	8.69	0.01
Conv. Total (cfs)	6189620.0	Conv. (cfs)	0.0	6189620.0	0.0
Length Wtd. (ft)	504.20	Wetted Per. (ft)	0.33	3876.81	0.07
Min Ch El (ft)	830.10	Shear (lb/sq ft)		0.62	
Alpha	1.00	Stream Power (lb/ft s)		3.89	
Frctn Loss (ft)	0.53	Cum Volume (acre-ft)	3207.61	20762.79	12106.87
C & E Loss (ft)	0.03	Cum SA (acres)	765.55	2188.15	2585.88

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18961.92	19001.44	0.00	0.00	0.33	0.00	0.01	0.05
19001.44 LB	20009.74	84859.47	9226.59	1010.00	40.41	9.15	9.20
20009.74	21018.04	65005.86	8469.74	1010.69	30.96	8.40	7.68
21018.04	22026.33	46321.77	9279.57	1045.80	22.06	9.20	4.99
22026.33	23034.63 RB	13812.91	6304.53	810.32	6.58	7.81	2.19

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 183.96

INPUT
Description: Right Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18803.4	857.2	18900.5	853.7	18994	846.5	19100.4	846.1	19110.8	844.2
19223	847.4	19272.1	844.1	19297.9	844.7	19309.3	842.7	19320.5	836.2
19373.5	838.2	19378.2	835.9	19719.8	836.5	20170.5	837	20510.7	837.2
20522.5	844.1	20568.5	841.6	20916	840.2	20963.1	844.3	21017.4	839.9
21056.1	842.8	21270.9	843.2	21277.5	840.1	21315.4	831.7	21383.2	832.7
21397.3	841.5	21401.8	838.7	21405.7	830.7	21525.3	841.6	21537.8	834.8
21542.5	840.3	21580.7	841	21604.4	833.1	21614.1	840.1	21626.4	836.9
21658.7	836.6	21661.6	838.4	21684.8	837.6	21689.1	835.8	21702.4	837.8
22028.8	839.5	22070.3	839.9	22153.4	834.9	22238.2	838.7	22306.8	846.9
22413.6	844.8	22480.1	839.7	22618.8	842.3	22736.1	836.8	22835.1	840.6
22869.4	832.2	22900.9	833.9	22933.7	839.3	22983.3	836.8	23016.07	848.3315
23022.8	850.7	23359.9	850.4	23821.9	851.4	24009	850	24035.4	853.1
24066.9	851.7	24077.4	850.3	24173	850.9	24185.3	849.5	24534.2	850.2
24905.3	850.3	25050	848.9	25097.5	851.7	25105	848.6	25496	849.7
25738	850.7	25769.8	845.4	26147	846.4	26374.4	847.7	26423.5	850.7
26661.1	848.9	26770.7	853.2	27007.5	851.3	27028.7	848.7	27122.5	851.3
27137.7	846.6	27330.1	848.7	27718.2	848.1	28038.3	848	28220.2	849.4
28244.6	851.7	28247.3	847.8	28263.8	849.1	28265.5	845.7	28282.2	843.2
28288.3	848.5	28417.9	846.1	28776.8	848.6	29098.6	850	29484.6	851.9
29816.5	856	29976	857.3						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18803.4	.043	19223	.026	20522.5	.15	21270.9	.043	23022.8	.025
25738	.043	27007.5	.032	28244.6	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19223	23016.07	480	485.76	550	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23022.8	29976	855

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	848.35	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.53	Wt. n-Val.	0.043	0.036	0.000
E.G. Elev (ft)	848.88	Reach Len. (ft)	480.00	485.76	550.00
Crit W.S. (ft)	843.18	Flow Area (sq ft)	560.96	35826.41	0.00
E.G. Slope (ft/ft)	0.000953	Area (sq ft)	560.96	35826.41	2111.79

Q Total (cfs)	210000.00	Flow (cfs)	1016.49	208983.50	0.00
Top Width (ft)	5853.65	Top Width (ft)	253.09	3793.07	1807.49
Vel Total (ft/s)	5.77	Avg. Vel. (ft/s)	1.81	5.83	0.05
Max Chl Dpth (ft)	17.65	Hydr. Depth (ft)	2.22	9.45	0.01
Conv. Total (cfs)	6802775.5	Conv. (cfs)	32928.3	6769847.0	0.0
Length Wtd. (ft)	485.75	Wetted Per. (ft)	253.38	3822.49	0.07
Min Ch El (ft)	830.70	Shear (lb/sq ft)	0.13	0.56	
Alpha	1.02	Stream Power (lb/ft s)	0.24	3.25	
Frctn Loss (ft)	0.61	Cum Volume (acre-ft)	3203.81	20362.84	12081.77
C & E Loss (ft)	0.02	Cum SA (acres)	763.61	2144.02	2562.72

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18943.27	18971.24	0.01	0.07	1.33	0.00	0.05	0.14
18971.24	18999.21	34.96	31.99	28.04	0.02	1.14	1.09
18999.21	19027.19	83.55	53.91	27.97	0.04	1.93	1.55
19027.19	19055.16	91.28	56.85	27.97	0.04	2.03	1.61
19055.16	19083.13	99.29	59.79	27.97	0.05	2.14	1.66
19083.13	19111.11	137.86	72.98	28.15	0.07	2.61	1.89
19111.11	19139.08	253.03	104.82	27.98	0.12	3.75	2.41
19139.08	19167.05	169.78	82.50	27.98	0.08	2.95	2.06
19167.05	19195.03	100.37	60.19	27.99	0.05	2.15	1.67
19195.03	19223.00	46.37	37.87	27.98	0.02	1.35	1.22
19223.00 LB	20171.27	90386.71	10418.19	950.88	43.04	10.99	8.68
20171.27	21119.54	38675.49	8001.78	950.67	18.42	8.44	4.83
21119.54	22067.80	45123.04	9453.23	967.97	21.49	9.97	4.77
22067.80	23016.07 RB	34798.27	7953.20	952.97	16.57	8.39	4.38

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 183.86

INPUT
Description:

Eliminate vertical ineffective area in main channel by coding out GR

data between and below sta, elev. 22848, 837.4 and 22913, 837.4

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18950.1	859.3	19063.3	846.7	19139.4	843.5	19212.4	844.5	19236.7	840.6
19251.1	841.4	19255.9	844.2	19341.6	843.2	19359.4	835.4	19598.5	836
19868.8	836.5	20087.5	836.8	20261.5	836.9	20497.7	837.2	20510.3	846.3
20596.9	841.4	20754.6	838.6	20915.2	839.5	21050.4	838.1	21077.9	841.8
21101.1	842.5	21120	837.4	21289.8	839.4	21328.1	842.9	21442.1	843
21466.6	838.7	21534.9	838.7	21604.7	831.5	21605.5	834.4	21608.9	837.3
21650.4	838.9	21660.4	835.2	21703.2	837.7	21706.4	836.5	21742.9	837.5
21756.9	835.1	21819.7	842.9	21823.3	844.7	22104.3	845.2	22226.5	846.3
22444.9	841.6	22507.4	841.8	22565.5	836.3	22654.4	839.4	22753	837.9
22829.9	842.4	22848	837.4	22913	837.4	22939	846.5	23166.7	850.2
23263.3	850.4	23307.9	848	23533.6	848.6	23751.3	849.5	23797.7	849.5
24014	849.5	24213.9	849.8	24223.2	851.4	24246.7	847.9	24485.9	848.7
24716	848.7	25041.2	848.6	25209.3	849.1	25255.8	850.3	25282.2	845.6
25527.8	847.3	25773.9	847.1	25906	849.7	25928.5	843.8	25981.4	846.2
26222.6	846.4	26464.7	847.3	26646	850	26865.4	849.8	27105.9	847.5
27283.6	849.9	27301.5	846.2	27582.7	847.7	27795.1	847.4	27851.1	848.9
27859.5	843	27869.8	841.7	27893.6	847.5	28137.4	847.2	28370.5	847.3
28591.4	847.2	28810.3	848.7	29098.8	850.5	29328.4	851.3	29616.2	852.9
29780.8	854.3	29909.9	857.2	29971.4	855.2	30220.7	856.7	30312.9	856.8
30357	859.1								

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18950.1	.043	19063.3	.043	19341.6	.026	20510.3	.15	21442.1	.043
22939	.025	25906	.043	27283.6	.032	28591.4	.025		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19063.3	22939	475	485.05	550	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23263.3	30357	855

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	847.49	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.75	Wt. n-Val.	0.043	0.036	0.025
E.G. Elev (ft)	848.25	Reach Len. (ft)	475.00	485.05	550.00
Crit W.S. (ft)	843.62	Flow Area (sq ft)	2.83	30128.81	30.42
E.G. Slope (ft/ft)	0.001729	Area (sq ft)	2.83	30128.81	1429.76
Q Total (cfs)	210000.00	Flow (cfs)	2.19	209950.63	47.18
Top Width (ft)	6125.54	Top Width (ft)	7.14	3875.70	2242.71
Vel Total (ft/s)	6.96	Avg. Vel. (ft/s)	0.77	6.97	1.55
Max Chl Dpth (ft)	15.99	Hydr. Depth (ft)	0.40	7.77	0.50
Conv. Total (cfs)	5050513.0	Conv. (cfs)	52.7	5049325.5	1134.7
Length Wtd. (ft)	485.06	Wetted Per. (ft)	7.18	3891.59	61.20
Min Ch El (ft)	831.50	Shear (lb/sq ft)	0.04	0.84	0.05
Alpha	1.00	Stream Power (lb/ft s)	0.03	5.82	0.08
Frctn Loss (ft)	1.08	Cum Volume (acre-ft)	3200.70	19995.09	12059.41
C & E Loss (ft)	0.03	Cum SA (acres)	762.17	2101.26	2537.15

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19055.75	19063.30	2.19	2.83	7.18	0.00	0.40	0.77
19063.30 LB	20032.23	95792.16	8782.33	971.73	45.62	9.06	10.91
20032.23	21001.15	61590.29	8563.62	972.04	29.33	8.84	7.19
21001.15	21970.07	28354.51	7386.93	976.16	13.50	7.62	3.84
21970.07	22939.00 RB	24213.69	5395.93	971.66	11.53	5.57	4.49
22939.00	23433.53	47.18	30.42	61.20	0.02	0.50	1.55

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 183.77

INPUT
Description:

Eliminate vertical ineffective area in rt. overbank by coding out GR

data between and below sta, elev. 22803, 837.4 and 22875.3, 837.4

Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18950.7	859.4	18976.9	859	19031.6	854.5	19101.1	846.2	19160.1	847.1
19179.66	845.98	19209	844.3	19227.3	839.1	19259.4	844.8	19284.5	846
19327.3	841.7	19363.9	841.4	19379.9	834.8	19585.7	835.3	19741.8	835.5
20095.2	836.2	20236.9	836.6	20441.2	837.1	20465.1	840.2	20475.7	844.4
20510.7	845.9	20607.7	842.2	20802	841.1	21080.6	840.6	21173.2	840.1
21218.7	840.6	21255.2	835.2	21339.6	837.7	21358.3	836.9	21378.2	840.2
21435.2	836.3	21492.4	840.2	21549.2	836	21596.2	835.7	21611.2	833
21658.7	834.2	21689.9	837.3	21795.9	834.8	21803.9	839.8	21818.5	841.4
21871.8	839.1	21889.5	836.4	21894	841.5	21945.9	840.2	22036	843.9

22123	844.8	22148.6	847.2	22312.4	846.5	22350.9	848.4	22417.3	846.3		
22588	849.6	22640.2	835.9	22791	840.9	22803	837.4	22875	837.4		
22942.2	837.5	23107.1	1845.9799	23107.5	846	23339.9	847.6	23555.1	849.3		
23871.6	847.8	24084.4	847.6	24318.2	847.4	24478.3	849.7	24519.8	847.8		
24728.9	847.8	24950.3	846.7	25123.7	849.1	25344.2	848.7	25588.7	847.9		
25802.8	846.5	25986	847	26026.1	844.2	26069	847.8	26104.2	846.2		
26412.3	846.7	26744.6	846.6	27006.3	846.6	27274.6	846.5	27421.3	849.3		
27432.3	842.9	27440.1	842.9	27457.1	848.5	27572.5	845.7	27872.7	846.3		
28074.8	846.5	28275	847.5	28491.2	847.8	28692	848.6	28714.3	848.4		
28720	849.8	28988.1	850.5	29206.3	851.7	29464.5	852.3	29764.6	854		
29983.9	854.2	30151.4	857.1								

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18950.7	.043	19160.1	.043	19363.9	.026	20510.7	.15	21492.4	.043
22588	.15	22875	.065	23339.9	.065	26069	.025		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19179.6	23107.11	515	511.32	540	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23555.1	30151.4	855

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	846.05	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.09	Wt. n-Val.	0.043	0.038	0.065
E.G. Elev (ft)	847.13	Reach Len. (ft)	515.00	511.32	540.00
Crit W.S. (ft)	843.30	Flow Area (sq ft)	0.04	25098.27	0.18
E.G. Slope (ft/ft)	0.002982	Area (sq ft)	0.04	25098.27	125.53
Q Total (cfs)	210000.00	Flow (cfs)	0.01	209999.97	0.02
Top Width (ft)	3729.46	Top Width (ft)	1.16	3462.21	266.09
Vel Total (ft/s)	8.37	Avg. Vel. (ft/s)	0.20	8.37	0.11
Max Chl Dpth (ft)	13.05	Hydr. Depth (ft)	0.03	7.25	0.03
Conv. Total (cfs)	3845801.0	Conv. (cfs)	0.1	3845800.5	0.4
Length Wtd. (ft)	511.32	Wetted Per. (ft)	1.17	3474.08	7.16
Min Ch El (ft)	833.00	Shear (lb/sq ft)	0.01	1.34	0.00
Alpha	1.00	Stream Power (lb/ft s)	0.00	11.25	0.00
Frctn Loss (ft)	1.31	Cum Volume (acre-ft)	3200.69	19687.61	12049.59
C & E Loss (ft)	0.10	Cum SA (acres)	762.13	2060.40	2521.31

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19164.40	19179.66	0.01	0.04	1.17	0.00	0.03	0.20
19179.66 LB	20161.52	124258.52	8815.00	984.69	59.17	8.98	14.10
20161.52	21143.38	39787.96	5695.16	982.97	18.95	5.80	6.99
21143.38	22125.25	36743.56	7239.91	987.63	17.50	7.37	5.08
22125.25	23107.11 RB	9209.93	3348.19	518.78	4.39	6.48	2.75
23107.11	23576.73	0.02	0.18	7.16	0.00	0.03	0.11

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 183.67

INPUT
Description:

Eliminate vertical ineffective area in rt. overbank by coding out GR

data between and below sta, elev. 22775, 837.4 and 23039, 837.4

Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19177.2	859.7	19207.6	849.8	19240.75	844.8	544 19275.3	839.7	19323.2	840.1
19335.5	834.4	19488.6	835.5	19644.5	835.3	19855.7	835.8	20026.6	835.3
20097.8	835.3	20489.8	835.6	20496.6	844.4	20571.2	840.9	20775.1	839.9
20913.9	838.2	21090.2	837.1	21248.9	837.6	21288.3	836.9	21332.1	827.2
21381.1	831.4	21404.9	836.7	21421	837	21451.2	830.1	21497.7	828.5
21518.7	830.6	21645.2	830.7	21692	834.3	21877.5	835.3	21921.3	837.2
22090.9	834.8	22133.5	835.3	22181.9	842.9	22339.2	845.3	22410.1	844.5
22478.5	847.8	22652	847.4	22701	848.1	22722.3	839.2	22764.4	840
22775	837.4	23039	837.4	23129.8	838.2	23224.4	843.5	23317.77	844.854
23383	845.8	23585.8	848.6	23684.8	848.7	23747.5	847.2	23816.2	850
23824.3	846.1	23907.2	849.2	24061	848.7	24189.1	850	24412.5	848.4
24506.1	847	24659.7	847.9	24760.5	847.3	24856.7	844.3	25023.9	847.8
25107.4	849.2	25321.7	848.1	25536.8	846.8	25691.6	846.9	25785.3	847
25824.4	844.5	25978.3	848.4	26152.2	847.1	26180	849	26226.9	846.3
26395	846.8	26582.5	846.8	26740	846.8	26859.1	846.7	27093.6	846.2
27251.2	846.7	27401.9	845.7	27472	846.1	27554.8	848.3	27565.4	842.8
27572.2	842.7	27586.5	847	27780.4	846.1	27970.5	846.7	28200.4	847
28315	847	28471	847.3	28643.1	848.1	28814.2	848.3	28854.8	849.6
28861.3	851.1	29072.8	851.1	29229.5	852	29268.3	852	29428.2	852.1
29691.1	854.2	29892.1	855	29923	855.2				

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
19177.2	.026	19207.6	.026	20496.6	.15	21421	.043	22701	.15
23383	.065	26180	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19240.75	23317.77	475	489.05	585	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23585.8	29923	855

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	844.96	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.77	Wt. n-Val.	0.026	0.040	0.150
E.G. Elev (ft)	845.73	Reach Len. (ft)	475.00	489.05	585.00
Crit W.S. (ft)	841.05	Flow Area (sq ft)	0.04	29816.28	0.39
E.G. Slope (ft/ft)	0.002219	Area (sq ft)	0.04	29816.28	51.66
Q Total (cfs)	210000.00	Flow (cfs)	0.01	209999.95	0.03
Top Width (ft)	3840.39	Top Width (ft)	0.71	3735.78	103.90
Vel Total (ft/s)	7.04	Avg. Vel. (ft/s)	0.38	7.04	0.07
Max Chl Dpth (ft)	17.76	Hydr. Depth (ft)	0.05	7.98	0.05
Conv. Total (cfs)	4458385.5	Conv. (cfs)	0.3	4458384.5	0.5
Length Wtd. (ft)	489.05	Wetted Per. (ft)	0.72	3747.05	7.33
Min Ch El (ft)	827.20	Shear (lb/sq ft)	0.01	1.10	0.01
Alpha	1.00	Stream Power (lb/ft s)	0.00	7.76	0.00
Frctn Loss (ft)	0.85	Cum Volume (acre-ft)	3200.69	19365.30	12048.50
C & E Loss (ft)	0.04	Cum SA (acres)	762.12	2018.16	2519.02

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19236.51	19240.75	0.01	0.04	0.72	0.00	0.05	0.38
19240.75 LB	20260.00	107260.64	9293.35	1020.90	51.08	9.12	11.54
20260.00	21279.26	32540.36	6855.68	1023.68	15.50	6.73	4.75
21279.26	22298.52	65195.29	10213.29	1022.80	31.05	10.02	6.38
22298.52	23317.77 RB	5003.65	3453.96	679.67	2.38	5.09	1.45
23317.77	23758.12	0.03	0.39	7.33	0.00	0.05	0.07

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 183.58

INPUT
Description:

Eliminate vertical ineffective area in rt. overbank by coding out GR

data betweeen and below sta, elev. 22975, 837.4 and 23302, 837.4

Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18803.8	856.6	18956.4	846	18987.2	846.9	19022.8	844.7	19184.3	848
19220.9	844.7	19221.92	844.0661	19224.6	842.4	19251.2	838.4	19284.1	838.2
19293.7	833	19483.8	833.8	19732.9	834	19755.6	834	19926	834.2
20162.4	834.7	20290.7	835.4	20468.8	835.4	20476.1	841.9	20560.9	840.3
20794.2	838.3	20868.1	837.6	21084.3	835.6	21271.9	835.6	21325.1	828.8
21345.6	830.2	21369.5	827.3	21417.4	830.3	21522.9	827.6	21725.3	830.7
21760.5	834.7	21981.9	837.2	22210	834.3	22348.9	835	22469	844.2
22659.7	847.2	22828.6	847.2	22874.4	846.7	22938.4	839.1	22975	837.4
23302	837.4	23434.8	843.7	23485.2	843.2	23499.93	844.0654	23563.5	847.8
23687.6	847.4	23810.4	850.4	23885.2	843.1	23933	848.3	23972.5	847.2
24146.1	846.8	24345.2	847.9	24517.5	848.5	24723.2	847.9	24876.5	845.1
25047.1	847	25223.6	845.7	25396.1	844.8	25451.6	843.7	25518	846.3
25684	845.4	25910.7	848.2	26041.4	849.3	26214.4	848.2	26278.3	846.7
26331.5	848.6	26349.4	846	26540	845.9	26729.8	846.9	26733.6	846.9
26926.9	846.4	27155.8	845.8	27362.8	846.9	27552.1	846.9	27692.4	846.2
27702.6	840.7	27710.9	841.2	27723.6	848.5	27774.8	845.6	27949.6	846.4
28228.2	846.6	28260.3	846.7	28463.3	847	28646.6	847.4	28834.8	848.2
29006.1	848.6	29175.9	851	29265.7	851.7	29487.9	854.4	29608.6	854.3
29814.3	854.3	29843.1	854.6	30028.7	855.4	30294	855.8	30328.3	857.2
30344.4	859	30376.1	858.8						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18803.8	.032	19184.3	.026	20476.1	.15	21271.9	.043	22659.7	.15
22975	.065	23563.5	.065	26331.5	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19221.92	23499.93	495	493.31	545	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23810.4	30376.1	855

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	844.21	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.63	Wt. n-Val.	0.026	0.038	0.065
E.G. Elev (ft)	844.84	Reach Len. (ft)	495.00	493.31	545.00
Crit W.S. (ft)	839.72	Flow Area (sq ft)	0.02	33017.86	0.17
E.G. Slope (ft/ft)	0.001401	Area (sq ft)	0.02	33017.86	68.30
Q Total (cfs)	210000.00	Flow (cfs)	0.01	209999.97	0.03
Top Width (ft)	3935.12	Top Width (ft)	0.23	3852.19	82.70
Vel Total (ft/s)	6.36	Avg. Vel. (ft/s)	0.33	6.36	0.15
Max Chl Dpth (ft)	16.91	Hydr. Depth (ft)	0.07	8.57	0.07
Conv. Total (cfs)	5610116.0	Conv. (cfs)	0.1	5610115.0	0.7
Length Wtd. (ft)	493.90	Wetted Per. (ft)	0.27	3858.74	2.45
Min Ch El (ft)	827.30	Shear (lb/sq ft)	0.01	0.75	0.01
Alpha	1.00	Stream Power (lb/ft s)	0.00	4.76	0.00
Frctn Loss (ft)	0.63	Cum Volume (acre-ft)	3200.69	19012.58	12047.69
C & E Loss (ft)	0.05	Cum SA (acres)	762.11	1975.56	2517.76

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19194.04	19221.92	0.01	0.02	0.27	0.00	0.07	0.33
19221.92 LB	20291.42	101240.52	10446.34	1071.60	48.21	9.77	9.69
20291.42	21360.93	29118.62	7903.83	1072.61	13.87	7.39	3.68
21360.93	22430.43	72152.78	11523.28	1070.22	34.36	10.77	6.26
22430.43	23499.93 RB	7488.05	3144.40	644.31	3.57	4.89	2.38
23499.93	23958.34	0.03	0.17	2.45	0.00	0.07	0.15

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 183.49

INPUT
Description:

Eliminate vertical ineffective area in rt. overbank by coding out GR

data between and below sta, elev. 23182, 837.4 and 23245, 837.4

Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19103.6	854.9	19115	853.2	19120.8	854.9	19165.9	855	19172.1	850
19202.77	843.5394	19213.4	841.3	19239.5	839.8	19251.6	831.5	19469.6	832.1
19700	832.8	20348.6	835	20453.8	835.2	20474.2	842.9	20575	838.7
20749	836.5	20899.4	832.6	21092.4	833.7	21255.1	833.9	21357.4	826.9
21425.8	829.2	21549.6	827.1	21710.3	831.4	21776.5	832.7	21876.9	830.7
21922.2	834.5	22033.6	834.4	22112.1	837.4	22251.1	834.4	22481.3	832.6
22673.8	840.1	22751.2	846.1	22803.7	846.3	22872.2	837.5	23060	836.1
23167.7	842.9	23179	839.1	23182	837.4	23245	837.4	23250.3	838
23299	839.5	23457.4	837.4	23549.5	835.8	23644.3	841.32	3666.04	843.5378
23691.9	846.2	23741.3	845.7	23790.2	847.4	23812.7	846.2	23921.2	846.5
24016.2	845.1	24069	849.4	24093.1	847.9	24256.4	846.4	24440.3	847.1
24621.3	846.8	24803.9	846.2	24970.6	843.6	25139.1	846.5	25341.7	843.6
25526.3	845.9	25630.9	847.7	25912	847.7	26140	847.5	26300.8	847.4
26418.2	844.7	26464	847.2	26483.7	845.2	26657.2	845.7	26821.3	846.1
27082.7	846.3	27264.6	846.1	27368.9	845.8	27524.9	846.3	27682.8	846
27738.7	846	27746.5	844.6	27791.5	847.1	27825.5	847	27837.4	839.7
27844.8	840.5	27858.9	846.6	27888.5	844.2	28040.9	845.6	28096.5	845.9
28247	846.2	28496.1	846.7	28688.6	847.8	28819.8	848.3	28979.6	848.4
29133.7	848.4	29140.6	851.2	29234.8	851	29412.6	851.8	29685.6	853.4
29784.3	854.1	29938	854.8	29985.3	855				

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
19103.6	.026	19120.8	.026	20474.2	.15	21425.8	.043	22751.2	.15
23299	.065	23691.9	.065	26464	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19202.77	23299	510	506.57	525	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23691.9	29985.3	850

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	843.70	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.46	Wt. n-Val.	0.026	0.042	0.065
E.G. Elev (ft)	844.16	Reach Len. (ft)	510.00	506.57	525.00
Crit W.S. (ft)	838.31	Flow Area (sq ft)	0.06	37450.50	2001.11
E.G. Slope (ft/ft)	0.001166	Area (sq ft)	0.06	37450.50	2053.91
Q Total (cfs)	210000.00	Flow (cfs)	0.02	205177.92	4822.05
Top Width (ft)	4409.96	Top Width (ft)	0.75	3992.50	416.71
Vel Total (ft/s)	5.32	Avg. Vel. (ft/s)	0.36	5.48	2.41
Max Chl Dpth (ft)	16.80	Hydr. Depth (ft)	0.08	9.38	5.43
Conv. Total (cfs)	6150436.0	Conv. (cfs)	0.6	6009208.0	141227.2
Length Wtd. (ft)	507.07	Wetted Per. (ft)	0.77	3999.58	368.91
Min Ch El (ft)	826.90	Shear (lb/sq ft)	0.01	0.68	0.39
Alpha	1.04	Stream Power (lb/ft s)	0.00	3.73	0.95
Frctn Loss (ft)	0.50	Cum Volume (acre-ft)	3200.69	18613.56	12034.41
C & E Loss (ft)	0.02	Cum SA (acres)	762.11	1931.14	2514.64

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)

19196.16	19202.77	0.02	0.06	0.77	0.00	0.08	0.36
19202.77 LB	20226.83	97967.63	10649.48	1026.91	46.65	10.40	9.20
20226.83	21250.88	25228.79	8417.91	1025.62	12.01	8.22	3.00
21250.88	22274.94	62130.50	12147.64	1024.69	29.59	11.86	5.11
22274.94	23299.00 RB	19851.02	6235.46	922.36	9.45	6.78	3.18
23299.00	23744.75	4822.05	2001.11	368.91	2.30	5.43	2.41

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 183.39

INPUT
Description: Left Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19042.7	856.8	19063.5	852.4	19103.7	847.4	19122.62	843.0379	19139.7	839.1
19174.5	837.8	19184.5	831.5	19368.6	831.5	19762.7	831.5	20461.8	834
20475.2	840.7	20535.5	835.6	20713.9	835.5	20874.2	834.4	20912.4	834.1
21094.4	835.4	21270.7	834.8	21300.9	836.7	21345.5	827.4	21502.6	826.9
21643.5	830.7	21761.1	830.7	21929.9	833.5	22059.3	830.8	22119.4	835.3
22246.5	836	22396.8	834.3	22437.8	834.8	22489	827	22522.2	828.5
22578.3	837.4	22704.1	833.7	22799.8	830.6	22843.2	830.9	22966	839.3
23038.5	839.2	23188.4	841.6	23248.3	843.1	23310.5	837.3	23478.1	837.8
23707.6	837.9	23806.9	837.8	23857.1	844.7	23936	843.5	24006.2	844.6
24069.2	843.4	24111	847.9	24172	845.9	24369.7	846.1	24480	845.5
24615.5	846.4	24840.4	843.8	24861.5	843.7	24992.7	841.7	24998.6	841.6
25170.5	842	25301.3	846.9	25427	847.6	25579.9	846.6	25663.4	846.5
25831	845.8	25949.2	845.6	26124.8	845.4	26353	847.4	26484.7	846.4
26615.8	844.8	26642.6	844.6	26802	843.6	27008.2	844.8	27240.4	844.5
27284.5	844.7	27430.4	844.7	27646.3	844.8	27852.8	844.2	27884	844.1
27887.5	845.4	27958.1	846.6	27966.4	839.9	27978.4	840.8	27994.8	845.6
28041.8	844.3	28232.5	845.4	28405.5	845.5	28482.3	845.7	28680.5	846.4
28711.4	846.6	28953.2	848	29091.6	849.6	29104	849.7	29232.2	849.6
29269.8	852.6	29318.5	851	29451.8	852.2	29514.6	852.6	29714.8	853
29898.2	854.2	29989	854.7						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
19042.7	.026	19103.7	.026	20475.2	.15	21300.9	.043	22246.5	.065
22966	.065	26802	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19122.62	22966	495	492.34	530	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23857.1	29989	850

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	843.24	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.40	Wt. n-Val.	0.026	0.039	0.065
E.G. Elev (ft)	843.64	Reach Len. (ft)	495.00	492.34	530.00
Crit W.S. (ft)	837.41	Flow Area (sq ft)	0.09	39346.15	3791.77
E.G. Slope (ft/ft)	0.000830	Area (sq ft)	0.09	39346.15	4199.09
Q Total (cfs)	210000.00	Flow (cfs)	0.03	203392.88	6607.10
Top Width (ft)	5061.24	Top Width (ft)	0.88	3843.38	1216.98
Vel Total (ft/s)	4.87	Avg. Vel. (ft/s)	0.35	5.17	1.74
Max Chl Dpth (ft)	16.34	Hydr. Depth (ft)	0.10	10.24	4.31
Conv. Total (cfs)	7288801.5	Conv. (cfs)	1.1	7059477.5	229322.9
Length Wtd. (ft)	493.50	Wetted Per. (ft)	0.90	3850.51	881.17
Min Ch El (ft)	826.90	Shear (lb/sq ft)	0.01	0.53	0.22
Alpha	1.10	Stream Power (lb/ft s)	0.00	2.74	0.39
Frctn Loss (ft)	0.36	Cum Volume (acre-ft)	3200.69	18167.02	11996.73
C & E Loss (ft)	0.01	Cum SA (acres)	762.10	1885.58	2504.80

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19117.29	19122.62	0.03	0.09	0.90	0.00	0.10	0.35
19122.62 LB	20083.46	86810.96	10660.49	963.14	41.34	11.09	8.14

20083.46	21044.31	33714.32	8326.24	962.65	16.05	8.67	4.05
21044.31	22005.15	52978.33	11272.48	961.96	25.23	11.73	4.70
22005.15	22966.00 RB	29889.26	9086.95	962.76	14.23	9.46	3.29
22966.00	23434.20	2519.29	1669.80	468.51	1.20	3.57	1.51
23434.20	23902.40	4087.81	2121.98	412.66	1.95	5.15	1.93

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 183.3

INPUT
Description:

Eliminate vertical ineffective area in main channel by coding out GR

data between and below sta, elev. 20514, 836.1 and 21640, 836.1

Station Elevation Data num= 93

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18650.1	852.5	18737	848.6	18790.5	848.7	18860.2	844.5	18924	842.4
18984.3	843.4	19015.1	837.2	19030.9	836.5	19042.3	829.9	19242.1	831.1
19338.5	831.4	19507.2	831.4	19706.6	831.4	19796.9	831.4	20183.3	831.4
20330.4	831.4	20473.4	831.4	20491.2	838.7	20514	836.1	21340	836.1
21350.5	836.5	21478.8	827.6	21541.6	827.7	21559.9	830.5	21582.2	828.2
21636.7	828.5	21831.2	827.7	21967.6	829	22136.5	830.5	22286.8	830.1
22359.9	833.8	22396.1	827	22420.3	825.7	22426.1	831.3	22427	833.6
22532.5	834.6	22720.9	831.6	22826	832	22879	840.9	23112.3	846.5
23223	846.6	23267.1	839.8	23297.9	838.9	23333.5	835.7	23500.6	835.7
23696.1	837.8	23884.7	839.9	23988.8	847.1	24126	843.9	24172.2	848.2
24390.6	845.7	24536.4	846.3	24590.8	846.6	24819.6	842.1	24977.9	842.1
25137	845.4	25262.8	842.6	25345.4	843.3	25346.1	846	25392.7	844.6
25419	846.1	25429.9	841.1	25433.1	843.4	25460.3	841.3	25646.2	843.2
25885	843.4	26124.3	842.8	26176.6	841.8	26431	841.7	26651.7	840.9
26730.8	841.9	26740.6	844.4	26779.1	841.1	27033.6	842.1	27238.2	841.8
27424.6	841.7	27642.9	841.8	27838.7	842.3	27992.1	841.8	28066.4	843.9
28090.2	846.2	28111.4	843.8	28119.5	840.5	28132.5	841.8	28143.5	845.8
28359.1	844.8	28594.5	846.2	28607.6	846.3	28836.9	847.3	29046.5	848.6
29230.9	849.7	29380.8	850.3	29458.5	853				

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18650.1	.026	18984.3	.026	20491.2	.15	21559.9	.043	22532.5	.065
22879	.065	25419	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18984.3	22879	510	499.99	495	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23988.8	29458.5	850

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	842.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.36	Wt. n-Val.	0.026	0.038	0.065
E.G. Elev (ft)	843.27	Reach Len. (ft)	510.00	499.99	495.00
Crit W.S. (ft)	836.63	Flow Area (sq ft)	11.89	41641.96	3666.73
E.G. Slope (ft/ft)	0.000640	Area (sq ft)	11.89	41641.96	6168.07
Q Total (cfs)	210000.00	Flow (cfs)	6.93	203685.08	6307.99
Top Width (ft)	7129.14	Top Width (ft)	46.43	3892.28	3190.44
Vel Total (ft/s)	4.63	Avg. Vel. (ft/s)	0.58	4.89	1.72
Max Chl Dpth (ft)	17.21	Hydr. Depth (ft)	0.26	10.70	4.79
Conv. Total (cfs)	8304024.0	Conv. (cfs)	273.9	8054313.5	249436.8
Length Wtd. (ft)	499.74	Wetted Per. (ft)	46.44	3902.25	765.70
Min Ch El (ft)	825.70	Shear (lb/sq ft)	0.01	0.43	0.19
Alpha	1.08	Stream Power (lb/ft s)	0.01	2.08	0.33
Frctn Loss (ft)	0.29	Cum Volume (acre-ft)	3200.62	17709.33	11933.66
C & E Loss (ft)	0.02	Cum SA (acres)	761.83	1841.86	2477.98

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18895.18	18917.46	0.48	1.34	9.02	0.00	0.15	0.36
18917.46	18939.74	5.84	8.65	22.29	0.00	0.39	0.68
18939.74	18962.02	0.60	1.90	15.14	0.00	0.13	0.32
18962.02	18984.30						
18984.30 LB	19957.98	80185.25	11023.11	973.61	38.18	11.35	7.27
19957.98	20931.65	46929.76	9044.25	975.26	22.35	9.29	5.19
20931.65	21905.32	32341.26	10534.35	974.33	15.40	10.82	3.07
21905.32	22879.00 RB	44228.81	11040.23	979.05	21.06	11.34	4.01
22879.00	23317.63	292.09	322.11	154.89	0.14	2.08	0.91
23317.63	23756.27	5363.23	2800.35	438.71	2.55	6.38	1.92
23756.27	24194.90	652.67	544.26	172.09	0.31	3.16	1.20

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 183.2

INPUT
Description:

Eliminate vertical ineffective area in main channel by coding out GR

data between and below sta, elev. 20601.9, 836.1 and 21564.1, 836.1

Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18453.2	852.4	18565.5	851.3	18716.2	844.5	18757.1	839.5	18781.7	840.8
18802.4	845.1	18860.7	847.7	18903.8	844.5	18909.1	3842.4	3376	18920.6
18934.1	829.7	19096.8	829.8	19283.6	830.2	19434.2	831.3	19586.3	831
19768	831.3	19946.6	831	19955.2	831	20305.4	831.3	20379.8	831.3
20544.5	831.4	20559.3	839.1	20601.9	836.1	21564.1	836.1	21618.8	827.7
21813.4	826.9	21860.4	827	22051	830.4	22300.8	828.8	22432	828.3
22467.8	825.5	22631.8	830.4	22751.1	827.6	22899.4	832.2	22943	843.1
23094.4	841.3	23280.2	843.5	23313.6	843.4	23341.3	836.9	23416.7	832.4
23598	832.6	23784.3	832.9	23941	835.4	24042.3	831.9	24122.5	841.4
24172.7	839.8	24217.2	841.9	24225.6	840	24308.4	843.2	24462.1	841.6
24484	841.5	24668.5	839.6	24893	840	24978.8	841.7	24992.7	843.7
25149.9	841.4	25350.1	843	25465.2	845.8	25601	845.9	25615.3	841.8
25845.1	842	26067.3	841.5	26162.8	841.5	26341.4	841.4	26534.2	841.5
26711.6	841.2	26864.1	841.1	26905.7	840.9	27010.6	841.9	27162	842.1
27252.8	842.2	27487.4	841.6	27668.5	842	27836.9	842.4	27996.1	842.5
28147.4	841	28243.4	843.3	28254.5	846.1	28284.2	844.7	28295.7	840.5
28309.9	841.9	28321.9	845.7	28540.8	846.1	28733.9	847.4	28894.2	848
29003.8	850.1	29067.9	845.1	29174.5	851.2	29334.2	851.2	29533.6	851.5
29599	853.2								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18453.2	.028	18860.7	.028	20559.3	.15	21860.4	.043	22943	.065
25601	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18909.13	22943	475	495.51	600	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18453.2	18860.7	850	24308.4	29599	850

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	842.68	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.28	Wt. n-Val.	0.028	0.039	0.065
E.G. Elev (ft)	842.96	Reach Len. (ft)	475.00	495.51	600.00

Crit W.S. (ft)	835.27	Flow Area (sq ft)	0.08	44676.01	7563.33
E.G. Slope (ft/ft)	0.000522	Area (sq ft)	112.29	44676.01	11478.24
Q Total (cfs)	210000.00	Flow (cfs)	0.02	195049.11	14950.88
Top Width (ft)	8807.27	Top Width (ft)	60.32	4032.20	4714.76
Vel Total (ft/s)	4.02	Avg. Vel. (ft/s)	0.29	4.37	1.98
Max Chl Dpth (ft)	17.18	Hydr. Depth (ft)	0.12	11.08	6.24
Conv. Total (cfs)	9189961.0	Conv. (cfs)	1.0	8535684.0	654276.2
Length Wtd. (ft)	504.08	Wetted Per. (ft)	0.68	4039.62	1213.08
Min Ch El (ft)	825.50	Shear (lb/sq ft)	0.00	0.36	0.20
Alpha	1.11	Stream Power (lb/ft s)	0.00	1.57	0.40
Frctn Loss (ft)	0.29	Cum Volume (acre-ft)	3199.89	17213.95	11833.40
C & E Loss (ft)	0.00	Cum SA (acres)	761.20	1796.38	2433.07

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18878.74	18909.13	0.02	0.08	0.68	0.00	0.12	0.29
18909.13 LB	19917.60	75490.96	11988.26	1011.65	35.95	11.89	6.30
19917.60	20926.07	46481.68	9650.32	1010.46	22.13	9.57	4.82
20926.07	21934.53	13756.33	9635.49	1009.12	6.55	9.55	1.43
21934.53	22943.00 RB	59320.12	13401.94	1008.40	28.25	13.31	4.43
22943.00	23386.73	420.75	556.46	303.78	0.20	1.84	0.76
23386.73	23830.47	10303.40	4412.21	443.79	4.91	9.94	2.34
23830.47	24274.20	4224.44	2586.31	444.69	2.01	5.83	1.63
24274.20	24717.93	2.30	8.36	20.81	0.00	0.40	0.27

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 183.11

INPUT
Description: APPROX. ALIGNMENT OF APACHE RD.
Left Bank Station
Interpolated

Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18463	854.7	18485.4	849.5	18499.9	844.8	18647.2	842.2	18783	842.9
18793.1	842.1268	18803.9	841.3	18818.3	842.2	18870.3	836.2	18880.7	829.6
18899.1	829.6	19037.4	829.3	19185.5	829.2	19358.7	830.2	19515.9	829.9
19662	830.3	19810.4	830.7	19998.3	831.1	20102.8	830.7	20136.7	832
20308.9	831.2	20573.6	831.4	20583.4	838.8	20616.8	835.9	20769.3	836
20852.5	836	21038.1	837.4	21171.7	838.7	21402.2	836.2	21610.6	836
21770.1	835.1	21825.4	824.4	21933.7	828.8	22086.1	827.7	22240.8	830.2
22435.1	831.8	22598.8	829.3	22758.8	828.5	22894	828.3	22935.1	824
22954.9	824.8	22973.2	831.5	22986.4	839.3	23068.4	837.3	23123.8	840
23266.7	842.1	23347.5	840.4	23386.8	832.7	23427.5	833.7	23558.4	830
23696.9	831.2	23886.5	833.7	24050.3	831.7	24148.5	839.2	24261.7	837.7
24405	839.5	24536.7	839.3	24644.7	842.2	24859.5	843.8	25080.4	842.1
25191	839.8	25349.6	842.3	25495.5	845.7	25637.9	844.4	25821.7	843
25996.1	842.3	26080.6	841	26254.7	840.9	26440.5	840.7	26588.4	839.7
26792.5	839.5	26940.5	840.6	27026.9	845.4	27054	841.2	27063	836.6
27075.1	836.7	27085.5	841	27103.4	838.4	27137.3	840.6	27341.5	840.8
27543.6	840.5	27763.5	840.3	27785.5	840.5	27930.6	841.5	28102	841.9
28291.4	842.7	28413	842.6	28444	846.1	28474.2	844.6	28596.8	846.6
28760.5	847.2	28982.3	848.9	29206.1	849.9	29433.4	850.4	29636.9	851.8
29748.3	852.1	29787.2	854.5						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18463	.032	18783	.028	20583.4	.15	22435.1	.043	22986.4	.065
28444	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18793.1	22986.4	480	494.4	555	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
24350	29787.2	850

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	842.40	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.27	Wt. n-Val.	0.032	0.041	0.065
E.G. Elev (ft)	842.67	Reach Len. (ft)	480.00	494.40	555.00
Crit W.S. (ft)	835.10	Flow Area (sq ft)	5.39	43661.39	9417.67
E.G. Slope (ft/ft)	0.000625	Area (sq ft)	5.39	43661.39	14261.71
Q Total (cfs)	210000.00	Flow (cfs)	1.39	190495.78	19502.83
Top Width (ft)	8418.23	Top Width (ft)	53.15	4193.30	4171.78
Vel Total (ft/s)	3.96	Avg. Vel. (ft/s)	0.26	4.36	2.07
Max Chl Dpth (ft)	18.40	Hydr. Depth (ft)	0.10	10.41	6.91
Conv. Total (cfs)	8401980.0	Conv. (cfs)	55.5	7621627.5	780297.1
Length Wtd. (ft)	499.84	Wetted Per. (ft)	53.17	4203.02	1364.87
Min Ch El (ft)	824.00	Shear (lb/sq ft)	0.00	0.41	0.27
Alpha	1.13	Stream Power (lb/ft s)	0.00	1.77	0.56
Frctn Loss (ft)	0.25	Cum Volume (acre-ft)	3199.25	16711.51	11656.13
C & E Loss (ft)	0.00	Cum SA (acres)	760.58	1749.60	2371.86

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18617.05	18639.05	0.01	0.08	3.07	0.00	0.03	0.09
18639.05	18661.06	0.96	3.28	22.01	0.00	0.15	0.29
18661.06	18683.07	0.27	1.54	22.01	0.00	0.07	0.18
18683.07	18705.07	0.00	0.02	2.53	0.00	0.01	0.04
18705.07	18771.09						
18771.09	18793.10	0.15	0.48	3.55	0.00	0.14	0.31
18793.10 LB	19841.43	83936.42	12319.86	1050.65	39.97	11.75	6.81
19841.43	20889.75	55658.73	10160.47	1050.96	26.50	9.69	5.48
20889.75	21938.07	6735.77	7420.47	1049.47	3.21	7.08	0.91
21938.07	22986.40 RB	44164.86	13760.58	1051.94	21.03	13.13	3.21
22986.40	23439.79	1802.04	1542.23	454.27	0.86	3.40	1.17
23439.79	23893.17	12179.62	4850.18	453.46	5.80	10.70	2.51
23893.17	24346.56	5506.05	3012.84	453.70	2.62	6.65	1.83
24346.56	24799.95	15.12	12.42	3.44	0.01	3.61	1.22

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 183.02

INPUT
Description:

Eliminate vertical ineffective area in main channel by coding out GR

data between and below sta, elev. 22743, 824.4 and 22781, 824.4

Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18402.5	853.8	18538.7	851.5	18622.9	849.6	18635.9	9841.8599	18645.9	836
18660.9	834.9	18672.2	829.3	18689.1	829.3	19038	829.5	19206.1	829.9
19343.4	830.1	19508.6	830.4	19711.9	830.7	19920.8	831.1	20064.9	831.5
20247.3	832.8	20400.9	832.3	20521.1	832.1	20533.7	838.9	20589.5	836.7
20868.9	837	20946.6	836.7	21311.3	834.8	21338.4	833.5	21519.9	837.7
21719.7	838.1	21854.8	832.2	21912	825.9	21974.5	825.7	21991.9	823.5
22072.8	826.2	22227.2	827.1	22425.5	828.2	22576.8	828.3	22734	826
22743	824.4	22781	824.4	22793.3	826.9	22876.8	826.7	22918.2	839
23075.9	839.8	23136.6	840.4	23152	839.1	23161.2	841.1	23200.5	829
23338.7	831.4	23481.3	830.8	23663.5	832.2	23734.8	830.5	23869.8	830.2
23984.2	837.6	24149	839.9	24289.5	843.6	24421.7	843.1	24498.2	839
24522.6	842.6	24662.7	842.9	24797.8	842.6	24945.4	842.7	25095.1	843.1
25247.1	842.2	25402.7	841.2	25570	840.1	25775	839.8	25952.8	840.6
26135.1	840.5	26289.9	839.8	26426.4	839.7	26578.7	839.1	26729	839.5
26795.9	841.1	27026	840.8	27088.3	840.6	27100.1	836.9	27118.9	839.8
27129.8	839	27166.2	841.3	27325	840.9	27461.9	841.8	27559.2	842

27727	841	27807.6	840.8	27961.8	841.4	28177.7	843.3	28271.1	844.8
28410.5	844.7	28508	846.5	28572.5	846.7	28722	847.6	28911.9	848.5
29124.5	849.9	29129.2	849.9	29335.6	851	29521.2	852.2	29684.9	852.4
29770.8	852.6	29792	851.5						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18402.5	.028	18622.9	.028	20533.7	.15	21719.7	.043	22918.2	.065
28508	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18635.99	22918.2	525	494.5	385	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
24289.5	29792	850

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	842.15	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.26	Wt. n-Val.	0.028	0.036	0.065
E.G. Elev (ft)	842.41	Reach Len. (ft)	525.00	494.50	385.00
Crit W.S. (ft)	834.59	Flow Area (sq ft)	0.07	45074.61	10028.02
E.G. Slope (ft/ft)	0.000421	Area (sq ft)	0.07	45074.61	14467.01
Q Total (cfs)	210000.00	Flow (cfs)	0.02	191801.53	18198.45
Top Width (ft)	8472.26	Top Width (ft)	0.50	4282.21	4189.55
Vel Total (ft/s)	3.81	Avg. Vel. (ft/s)	0.27	4.26	1.81
Max Chl Dpth (ft)	18.65	Hydr. Depth (ft)	0.15	10.53	7.62
Conv. Total (cfs)	10229212.0	Conv. (cfs)	1.0	9342755.0	886456.3
Length Wtd. (ft)	485.06	Wetted Per. (ft)	0.58	4289.88	1318.79
Min Ch El (ft)	823.50	Shear (lb/sq ft)	0.00	0.28	0.20
Alpha	1.16	Stream Power (lb/ft s)	0.00	1.18	0.36
Frctn Loss (ft)	0.21	Cum Volume (acre-ft)	3199.22	16207.94	11473.11
C & E Loss (ft)	0.01	Cum SA (acres)	760.29	1701.50	2318.60

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18620.42	18635.99	0.02	0.07	0.58	0.00	0.15	0.27
18635.99 LB	19706.54	73463.32	12938.81	1073.51	34.98	12.09	5.68
19706.54	20777.09	44556.31	9802.89	1072.32	21.22	9.16	4.55
20777.09	21847.65	5793.15	6356.99	1070.76	2.76	5.94	0.91
21847.65	22918.20 RB	67988.73	15975.91	1073.29	32.38	14.92	4.26
22918.20	23376.45	4509.09	2954.74	460.37	2.15	6.45	1.53
23376.45	23834.71	11063.75	5053.78	458.28	5.27	11.03	2.19
23834.71	24292.96	2625.61	2019.51	400.14	1.25	5.05	1.30

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 182.92

INPUT
Description:

Eliminate vertical ineffective area in main channel by coding our GR

data between and below sta.'s, elev.'s 22104, 824.4 and 22325, 824.4

22644, 824.4 and 22691, 824.4

Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18429.9	853.2	18463.4	849.7	18472.69	841.968	18480.1	835.8	18483	829.8
18567.6	829	18880.3	829.2	19052.4	831	19228	830	19398.1	831.5
19564.1	830.5	19772	830.7	19948.4	832	20192.8	831.8	20391.6	832.1
20421.3	830.1	20509.3	831.9	20531.8	837.7	20589.4	833.5	20815.9	835.7
21235	836.1	21240.9	836.1	21402.5	834.5	21591.9	836.2	21734	837
21814.8	831.9	22000	832.3	22013	832.5	22063.7	827.9	22104	824.4

22325	824.4	22357.3	827.6	22534.1	827.6	22591.6	827.5	22607.1	824.9
22632.2	826.5	22644	824.4	22691	824.4	22698	826.3	22768.9	825.2
22941.9	831.6	23005.5	834	23073.9	833.4	23134.9	830.6	23290.6	832.5
23446.1	830	23592.6	832.5	23636.5	828.8	23816.5	833.2	23870.1	838.9
24031	840	24216.1	842.8	24374	841.5	24429.2	842.6	24465	836.4
24484.1	838.5	24495	837.8	24525.1	841.6	24704.2	840.9	24711.2	840.9
24882.5	840.8	25056.4	840.9	25229.6	839.1	25407.7	840.9	25574.7	840.6
25605.9	840.6	25767	840.4	25965	841	26158.1	839.3	26355.5	838.6
26465.4	836.6	26649	839	26871	839.1	27039.1	840	27063.6	842.5
27080.1	840.7	27089.1	837.2	27099.4	836.6	27112.3	841.4	27126.5	840.1
27319.3	842.2	27518.1	841.8	27680.8	841.7	27889.4	842.1	28057.2	842
28218	846.6	28281.8	844.2	28447.9	844.9	28503.3	846.7	28509.7	845.4
28647.2	847.7	28817.3	848.3	29022.1	849	29090.1	849.6	29262.4	851.4
29518.9	851.3	29600	851.3						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18429.9	.03	18463.4	.03	20531.8	.15	22013	.043	23005.5	.065
28218	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18472.69	23005.5	505	496.47	490	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
24216.1	29600	850

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	841.97	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.23	Wt. n-Val.		0.039	0.065
E.G. Elev (ft)	842.20	Reach Len. (ft)	505.00	496.47	490.00
Crit W.S. (ft)	834.61	Flow Area (sq ft)		48192.19	9352.57
E.G. Slope (ft/ft)	0.000436	Area (sq ft)		48192.19	15229.13
Q Total (cfs)	210000.00	Flow (cfs)		192005.47	17994.52
Top Width (ft)	9008.12	Top Width (ft)		4532.81	4475.31
Vel Total (ft/s)	3.65	Avg. Vel. (ft/s)		3.98	1.92
Max Chl Dpth (ft)	17.57	Hydr. Depth (ft)		10.63	8.09
Conv. Total (cfs)	10054604.0	Conv. (cfs)		9193043.0	861560.7
Length Wtd. (ft)	495.96	Wetted Per. (ft)		4541.40	1156.17
Min Ch El (ft)	824.40	Shear (lb/sq ft)		0.29	0.22
Alpha	1.11	Stream Power (lb/ft s)		1.15	0.42
Frctn Loss (ft)	0.24	Cum Volume (acre-ft)	3199.22	15678.55	11341.88
C & E Loss (ft)	0.00	Cum SA (acres)	760.29	1651.47	2280.31

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18472.69 LB	19605.89	71566.70	13398.73	1139.22	34.08	11.82	5.34
19605.89	20739.09	48784.34	11183.65	1134.19	23.23	9.87	4.36
20739.09	21872.30	5295.15	7362.98	1133.39	2.52	6.50	0.72
21872.30	23005.50 RB	66359.27	16246.84	1134.60	31.60	14.34	4.08
23005.50	23445.13	8907.92	4450.21	439.73	4.24	10.12	2.00
23445.13	23884.77	8780.93	4413.79	440.17	4.18	10.04	1.99
23884.77	24324.40	305.67	488.56	276.27	0.15	1.77	0.63

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 182.83

INPUT
Description:

Eliminate vertical ineffective area in main channel by coding out GR

data between and below sta.'s, elev.'s 22392.7, 824.4 and 22467,

824.4 - 22775, 824.4 and 22885, 824.4

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18410.4	849.81	18416.67	841.7281	18419.1	838.6	18428.6	829	18567.9	828.9
18644.2	828.8	18978.8	828.9	19130.9	829.7	19323	830	19467.7	830
19616.1	830.5	19767.1	829.4	19800.7	829.7	19813.9	833.4	19865.3	832.2
19886.2	833.4	19902	829.7	20034.5	831.3	20076.1	829	20224.3	829.9
20357	830.5	20493.8	831.1	20525.9	837.4	20595.3	832.6	20668.3	831.7
20782.6	833.4	20956.5	834.1	21116.1	834.6	21416.3	835.6	21648	836
21704.8	836.9	21771.3	830.7	21988	831.5	22150	832.5	22299.6	834.6
22370.2	833.8	22392.7	824.4	22467	824.4	22493	827.1	22630.3	825.6
22764.2	824.9	22775	824.4	22885	824.4	22924.1	837.8	23059	840.6
23145.5	840.2	23175.5	828	23193.6	829.6	23273.7	826.7	23444.9	828.3
23580.7	831.6	23661.4	838.6	23819.9	837.1	23932.4	842.5	24109.3	840.8
24190	835	24335.5	843	24474	837.9	24520.3	840.7	24717.8	840.3
24893.7	841.5	25031.2	841	25184.8	841.4	25317.7	841.2	25450.6	839.6
25579.8	839.6	25714.3	840.9	25881.4	840	26034.7	839.9	26105.6	837.1
26123.9	838.6	26302.9	839	26518.9	838.5	26666.5	836.9	26818.3	836.4
26961.8	834.1	27027.8	834.1	27039.1	840.6	27068.1	841.5	27077.6	836.7
27087.1	836.5	27100.6	841.1	27250.4	841.4	27283.9	841.5	27479.7	841.1
27577.5	841	27741.2	841.1	27813.6	839.6	27996.6	841.6	28159	842.9
28366.6	843.2	28432.2	844.2	28490	848.2	28514.2	847.1	28637.3	847.6
28788	848.3								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18410.4	.03	20525.9	.15	21988	.043	22370.2	.065	23059	.065
28490	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18416.67	23059	530	491.48	390	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23932.4	28788	845

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	841.72	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.24	Wt. n-Val.		0.042	0.065
E.G. Elev (ft)	841.96	Reach Len. (ft)	530.00	491.48	390.00
Crit W.S. (ft)	834.26	Flow Area (sq ft)		48634.53	7068.31
E.G. Slope (ft/ft)	0.000530	Area (sq ft)		48634.53	14947.73
Q Total (cfs)	210000.00	Flow (cfs)		194856.91	15143.10
Top Width (ft)	9440.12	Top Width (ft)		4642.33	4797.79
Vel Total (ft/s)	3.77	Avg. Vel. (ft/s)		4.01	2.14
Max Chl Dpth (ft)	17.32	Hydr. Depth (ft)		10.48	8.25
Conv. Total (cfs)	9124745.0	Conv. (cfs)		8466760.0	657985.3
Length Wtd. (ft)	484.34	Wetted Per. (ft)		4654.36	860.18
Min Ch El (ft)	824.40	Shear (lb/sq ft)		0.35	0.27
Alpha	1.07	Stream Power (lb/ft s)		1.38	0.58
Frctn Loss (ft)	0.24	Cum Volume (acre-ft)	3199.22	15126.77	11172.15
C & E Loss (ft)	0.00	Cum SA (acres)	760.29	1599.18	2228.15

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18416.67 LB	19577.25	86356.61	14277.67	1166.12	41.12	12.30	6.05
19577.25	20737.84	62141.39	12441.52	1162.44	29.59	10.72	4.99
20737.84	21898.42	7310.13	8508.18	1160.89	3.48	7.33	0.86
21898.42	23059.00 RB	39048.78	13407.15	1164.91	18.59	11.55	2.91
23059.00	23440.93	9667.41	4045.60	384.45	4.60	10.59	2.39
23440.93	23822.87	5297.73	2813.65	382.29	2.52	7.37	1.88
23822.87	24204.80	177.96	209.05	93.44	0.08	2.24	0.85

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 182.74

INPUT
Description:

Eliminate vertical ineffective area in main channel by coding out GR

data between and below sta, elev. 22603, 824.7 and 22815, 824.7

Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18343.3	858.2	18369.84	841.486	18390.3	828.6	18634.3	828.4	18900	828.9
19093.7	828.6	19287.8	828.9	19475.7	827.7	19654.5	829.4	19873.4	830.1
20058.1	831.2	20251.7	831.1	20436.5	829.9	20459.7	837.1	20518.6	830.6
20706.6	830	20906.7	830.8	21106.1	832.8	21233	834.3	21486.7	836.1
21691.2	837.6	21758.6	829.5	21902.8	831.1	21947.4	830.1	22132.3	831.8
22304.4	832	22468.3	832.4	22522.7	828.4	22572.9	827.8	22603	824.7
22815	824.7	22860.9	827.3	22886.2	830	22913	837.9	22935.6	840.8
22956.8	840.5	23004.9	827.9	23172.4	825.8	23304.8	831	23362.6	836.8
23509.9	842.4	23525.5	838.9	23647.6	834.3	23829	835.8	23861	837.5
24050.7	841.2	24177.4	837.9	24360	840.7	24406.5	839	24422.4	836.7
24470.4	840	24688.2	841.8	24918	842.7	25102.7	839.1	25311.6	838.3
25514.1	838.7	25710.9	839	25776.7	840.1	25873.6	844	25906.9	840.4
26102.5	837.9	26293.6	836.8	26346.2	837.3	26350.5	839.2	26389.9	844.1
26417.6	836.5	26478.4	836	26661.9	836.7	26853.1	836.3	26912.6	836
26933	844.7	26958.9	845.9	26977.5	840.5	27007	839.4	27014.3	835.1
27042.8	840.9	27233.4	842	27279	842.1	27573.3	841.7	27849.2	842.4
28032.9	842.4	28203.8	843.9	28395.2	847.9	28435	847.9	28440.3	845.5
28496	847.8	28666.8	849	28705.5	849.3	28971.9	849.9	29168.7	851.3
29466.8	852.3	29666.2	853.8	29703.2	853.2	29764.7	855.8	29947	856.9

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18343.3	.03	20459.7	.15	22132.3	.043	22935.6	.065	28435	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18369.84	22935.6	510	492.12	480	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23800	29947	850

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	841.49	Element			
Vel Head (ft)	0.23	Wt. n-Val.		0.041	0.065
E.G. Elev (ft)	841.71	Reach Len. (ft)	510.00	492.12	480.00
Crit W.S. (ft)	833.83	Flow Area (sq ft)		49808.79	6889.72
E.G. Slope (ft/ft)	0.000475	Area (sq ft)		49808.79	15021.96
Q Total (cfs)	210000.00	Flow (cfs)		195609.53	14390.46
Top Width (ft)	8251.17	Top Width (ft)		4565.76	3685.41
Vel Total (ft/s)	3.70	Avg. Vel. (ft/s)		3.93	2.09
Max Chl Dpth (ft)	16.79	Hydr. Depth (ft)		10.91	8.24
Conv. Total (cfs)	9630544.0	Conv. (cfs)		8970601.0	659942.5
Length Wtd. (ft)	491.54	Wetted Per. (ft)		4573.35	838.77
Min Ch El (ft)	824.70	Shear (lb/sq ft)		0.32	0.24
Alpha	1.07	Stream Power (lb/ft s)		1.27	0.51
Frctn Loss (ft)	0.32	Cum Volume (acre-ft)	3199.22	14571.41	11037.99
C & E Loss (ft)	0.00	Cum SA (acres)	760.29	1547.23	2190.18

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18369.84 LB	19511.28	85967.93	14611.47	1145.17	40.94	12.80	5.88
19511.28	20652.72	59127.07	12553.32	1142.90	28.16	11.00	4.71
20652.72	21794.16	8065.18	9267.35	1141.96	3.84	8.12	0.87
21794.16	22935.60 RB	42449.36	13376.65	1143.32	20.21	11.72	3.17
22935.60	23403.03	12066.78	5148.89	469.49	5.75	11.02	2.34
23403.03	23870.45	2323.68	1740.84	369.28	1.11	4.72	1.33

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 182.64

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18435.4	850	18459.7	840	18473.2	828.6	18734	828.4	18960.1	828
19145.7	827.6	19304.2	827.5	19520.2	827.6	19714.7	830	19881.2	829.8
20005.6	831.6	20059.9	829.4	20090.4	833	20219.1	831.4	20240.5	829.4
20371.3	829.6	20395.3	835.2	20408	836	20453.5	831.2	20688.7	830.5
20888.6	830.1	21129.6	830.2	21277	834.1	21472	835.7	21665.5	835.2
21725	834.8	21743.6	831.6	21784.9	828.2	21917.3	827.8	22005.8	832.5
22196.3	831.2	22337.7	833.8	22436.1	828.8	22624	828.6	22651	828.6
22683.1	824.7	22776.9	824.5	22816.9	827.3	22848.2	825.7	22953.4	825.7
22979.3	831.4	23040.9	829.5	23092.6	837.6	23105.1	841.8	23299.8	838.4
23332.9	834.6	23541.5	835.9	23744.3	838.1	23938.8	839.9	24215.5	842.1
24377.1	839	24400.1	835	24419.1	839.6	24635.6	840.5	24842.6	840.5
25030	838.9	25220.1	836.8	25265.4	836	25377.9	840.7	25587.1	839.4
25749.9	836.7	25789.9	844.7	25806.2	844.4	25833.7	837.8	25897.7	836.3
26097.8	836.5	26286.4	836.8	26340.4	840.2	26351.8	843.3	26366.8	844.3
26379.3	838.3	26471	840.2	26551.3	844.6	26708.2	844.9	26797	841
26884	840.1	26896.7	843.8	26922.9	844.5	26939.1	842	26961	842.3
26977.4	835.3	26986.4	834.8	27000.6	839.8	27135.7	841.3	27281.8	836.8
27374.3	842.4	27645.5	844.6	27974.5	844.8	28176.3	846	28338.6	846.1
28356.5	845.2	28360	847.3	28593.7	847.7	28782.8	847.9	28995.9	849.5
29188	851.7								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18435.4	.03	18459.7	.03	20005.6	.15	23105.1	.043	24215.5	.065
28360	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18459.7	23105.1	520	498.71	500	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
23640	29188	845

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	841.15	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.24	Wt. n-Val.	0.030	0.057	0.043
E.G. Elev (ft)	841.39	Reach Len. (ft)	520.00	498.71	500.00
Crit W.S. (ft)	833.75	Flow Area (sq ft)	1.61	51209.95	2065.45
E.G. Slope (ft/ft)	0.000933	Area (sq ft)	1.61	51209.95	9003.10
Q Total (cfs)	210000.00	Flow (cfs)	1.59	204370.06	5628.34
Top Width (ft)	8211.61	Top Width (ft)	2.79	4643.46	3565.35
Vel Total (ft/s)	3.94	Avg. Vel. (ft/s)	0.99	3.99	2.72
Max Chl Dpth (ft)	16.65	Hydr. Depth (ft)	0.57	11.03	4.15
Conv. Total (cfs)	6875323.0	Conv. (cfs)	52.2	6691001.0	184269.8
Length Wtd. (ft)	498.74	Wetted Per. (ft)	3.02	4651.94	497.90
Min Ch El (ft)	824.50	Shear (lb/sq ft)	0.03	0.64	0.24
Alpha	1.01	Stream Power (lb/ft s)	0.03	2.56	0.66
Frctn Loss (ft)	0.40	Cum Volume (acre-ft)	3199.21	14000.78	10905.62
C & E Loss (ft)	0.00	Cum SA (acres)	760.27	1495.21	2150.23

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18456.46	18458.08	0.14	0.28	1.27	0.00	0.24	0.49
18458.08	18459.70	1.46	1.32	1.75	0.00	0.82	1.10
18459.70 LB	19621.05	126903.61	15193.78	1165.53	60.43	13.08	8.35
19621.05	20782.40	43092.84	12111.64	1162.65	20.52	10.43	3.56
20782.40	21943.75	13771.76	10515.02	1161.86	6.56	9.05	1.31

21943.75	23105.10 RB	20601.86	13389.50	1161.89	9.81	11.55	1.54
23105.10	23510.63	3731.50	1435.96	368.52	1.78	3.90	2.60
23510.63	23916.15	1896.83	629.49	129.38	0.90	4.87	3.01

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 182.55

INPUT
Description: Left Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18613.2	850.1	18629.5	838.5	18647.7	835	18664.5	840.4	18812.6	846.5
18921.3	845.1	18958.25	840.7198	19039.4	831.1	19056.9	827.3	19265.6	827.4
19458.1	828.4	19827.4	829.5	19970.6	831.6	20019.1	833	20042	831.2
20182.5	833.4	20194.5	830.7	20338.6	829.9	20422.3	829.9	20443.4	834.8
20487.1	830.8	20623.4	828.5	20786.1	828	21024.3	829.2	21162.4	831.6
21299.5	832.5	21446.7	832.2	21466.8	832.4	21694.5	834.4	21794.6	835.3
21857.1	826	21989.4	831.5	22178.2	831.9	22244.1	832.5	22280.4	828.2
22420.9	829.3	22459.8	826.2	22616.3	827.3	22655.5	828.7	22676.1	825.7
22826.1	824.6	22898.3	822.6	23005.2	822.7	23148.7	822.7	23200.7	826.5
23256	838.1	23403.7	836.8	23534.5	836.1	23539.4	833.3	23580.8	831.8
23722.5	838.1	23945	839.2	24154	838	24295.6	838.5	24375.9	838.5
24512.5	838.1	24606.2	838.2	24760.8	838.7	24929.5	839.8	25075.2	836.5
25215.7	836.7	25278.2	835.1	25466.2	837.7	25609.9	836.3	25760.2	837.6
25772.5	837.1	25774.2	835.3	25784	832.1	25791.9	831.3	25808.6	836.9
25948.9	837.1	26101.2	836.7	26177.2	837.3	26350.9	835.1	26409	836.4
26423	837.9	26453.3	834.1	26602.2	835.8	26712.5	839.6	26739.1	847
26925.6	838.9	27063.1	838.7	27222.6	839.5	27428.4	841.8	27509.3	842.4
27740.8	842.3	27889	842.9	28152.3	843.7	28211	844.1	28384.2	845
28425.9	845.4	28435.3	843.1	28494	847.1	28692	848	28859.2	848.8
28903.7	849	28934.5	849.2						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18613.2	.032	18812.6	.03	18921.3	.03	20443.4	.15	22244.1	.043
23256	.043	23945	.065	28494	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18958.25	23256	520	507.96	525	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18613.2	18812.6	845	23640	28934.5	845

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	840.72	Element			
Vel Head (ft)	0.27	Wt. n-Val.		0.047	0.043
E.G. Elev (ft)	840.99	Reach Len. (ft)	520.00	507.96	525.00
Crit W.S. (ft)	833.40	Flow Area (sq ft)		48560.70	1858.87
E.G. Slope (ft/ft)	0.000692	Area (sq ft)	127.63	48560.70	12766.06
Q Total (cfs)	210000.00	Flow (cfs)		205171.50	4828.49
Top Width (ft)	8252.03	Top Width (ft)	45.85	4297.74	3908.44
Vel Total (ft/s)	4.17	Avg. Vel. (ft/s)		4.23	2.60
Max Chl Dpth (ft)	18.12	Hydr. Depth (ft)		11.30	4.84
Conv. Total (cfs)	7982959.5	Conv. (cfs)		7799408.5	183550.8
Length Wtd. (ft)	508.91	Wetted Per. (ft)		4302.76	384.84
Min Ch El (ft)	822.60	Shear (lb/sq ft)		0.49	0.21
Alpha	1.01	Stream Power (lb/ft s)		2.06	0.54
Frctn Loss (ft)	0.39	Cum Volume (acre-ft)	3198.44	13429.65	10780.68
C & E Loss (ft)	0.01	Cum SA (acres)	759.98	1444.03	2107.33

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18958.25 LB	20032.69	79744.80	12172.15	1075.49	37.97	11.33	6.55
20032.69	21107.13	33411.81	11619.92	1075.57	15.91	10.81	2.88
21107.13	22181.56	10220.40	9319.08	1075.27	4.87	8.67	1.10
22181.56	23256.00 RB	81794.48	15449.55	1076.44	38.95	14.38	5.29
23256.00	23634.57	4719.48	1824.05	379.40	2.25	4.82	2.59

23634.57	24013.13	109.02	34.82	5.44	0.05	6.41	3.13

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 182.45

INPUT
Description: 182.45
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19224.1	850.2	19261.6	837.6	19284.1	827.3	19451.4	827.7	19602.3	828.1
19935.8	829.3	19953	829.4	19961.3	831.2	20089.7	831.7	20097.7	829.6
20223.8	831.5	20271.6	830.2	20288.9	831.9	20307.7	829.7	20409.2	827.4
20461.8	834.9	20667.7	824.5	20725.8	821.4	20884.2	826.7	20981.7	826.5
21061.4	823.6	21190.9	831.6	21320	832.7	21394.1	835	21552.7	832.8
21702.7	832.6	21782.7	834.9	21848	828.4	22003.9	830.1	22163.8	829.5
22213.9	826	22266.6	826.3	22312	828.6	22386	830.3	22424.3	826.9
22450.1	829.2	22462.4	828.2	22566.8	829	22586.9	825.1	22674.2	824.9
22691.5	827.2	22769.3	825.7	22793	827	22858.3	838.8	22952.4	836.3
23116.9	834.5	23272	834.3	23466.8	834.4	23622.5	836.9	23759.2	833.3
23771.4	828.9	23785.6	829.5	23806	833.9	23997.6	836.3	24204.6	839
24361.9	839.8	24530.9	840	24596.6	841.2	24810.1	839.5	24983.2	837.8
25144.9	837.1	25298.5	833.5	25504.7	834.7	25672	834.3	25853.3	835.8
25859.5	830.7	25870.6	830.2	25887.7	835.2	25903.5	836.5	25911.3	834.4
26125.3	835.6	26230.3	836.3	26406	836.1	26498.4	836.1	26731.2	836.7
26937.8	837.5	27125.7	837.6	27163.2	838.1	27168.7	839.3	27175.5	838.1
27199.6	839.6	27222.8	838.1	27422.7	840	27503.6	840.8	27668.1	841.5
27913.3	843.1	27985.6	843.2	28215.7	844.3	28429.3	844.7	28479.1	844.5
28525.2	847.1	28692.4	847.1	28820.5	848.3	28826.7	849.7	28858.5	847.8
28950.6	849.1								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
19224.1	.03	19261.6	.03	20307.7	.065	22163.8	.043	22858.3	.043
25672	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19261.6	22858.3	490	493.26	510	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
24050	28950.6	845

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	840.26	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.34	Wt. n-Val.	0.030	0.045	0.043
E.G. Elev (ft)	840.60	Reach Len. (ft)	490.00	493.26	510.00
Crit W.S. (ft)	833.62	Flow Area (sq ft)	10.51	39848.63	6156.49
E.G. Slope (ft/ft)	0.000846	Area (sq ft)	10.51	39848.63	16953.67
Q Total (cfs)	210000.00	Flow (cfs)	17.66	191506.38	18475.97
Top Width (ft)	8025.08	Top Width (ft)	7.91	3596.70	4420.47
Vel Total (ft/s)	4.56	Avg. Vel. (ft/s)	1.68	4.81	3.00
Max Chl Dpth (ft)	18.86	Hydr. Depth (ft)	1.33	11.08	5.17
Conv. Total (cfs)	7220724.5	Conv. (cfs)	607.2	6584832.0	635285.2
Length Wtd. (ft)	494.47	Wetted Per. (ft)	8.34	3603.50	1193.08
Min Ch El (ft)	821.40	Shear (lb/sq ft)	0.07	0.58	0.27
Alpha	1.05	Stream Power (lb/ft s)	0.11	2.81	0.82
Frctn Loss (ft)	0.46	Cum Volume (acre-ft)	3197.61	12914.17	10601.58
C & E Loss (ft)	0.02	Cum SA (acres)	759.66	1398.00	2057.14

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19251.60	19254.10	0.01	0.03	0.43	0.00	0.07	0.20
19254.10	19256.60	1.12	1.39	2.64	0.00	0.56	0.80
19256.60	19259.10	5.18	3.49	2.64	0.00	1.40	1.48
19259.10	19261.60	11.35	5.59	2.64	0.01	2.24	2.03
19261.60 LB	20160.78	72781.72	10149.45	901.90	34.66	11.29	7.17
20160.78	21059.95	45185.14	11302.14	900.45	21.52	12.57	4.00
21059.95	21959.13	21046.15	7659.70	899.84	10.02	8.52	2.75

21959.13	22858.30 RB	52493.35	10737.35	901.31	25.00	11.94	4.89
22858.30	23264.45	5407.93	1917.41	406.20	2.58	4.72	2.82
23264.45	23670.61	6318.64	2105.08	406.19	3.01	5.18	3.00
23670.61	24076.76	6749.40	2133.99	380.69	3.21	5.62	3.16

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 182.36

INPUT
Description: 182.36
Left Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19206.8	853.1	19249.4	853.8	19363.3	846.2	19366.7	843.9	19382.9	843.7
19396.16	839.5952	19427.8	829.8	19448.6	830.7	19466.5	826.8	19695	827.9
19906.9	828.6	20073.9	829.2	20158.6	831.3	20319.9	828.7	20421	827.7
20452.9	836.4	20520.8	834.8	20564.5	831.4	20660	830	20672.4	826.5
20780.7	823.8	20923.4	834.7	21035	832.8	21257.1	833.4	21434.9	833.5
21616.8	832.7	21681.7	834.9	21771.9	829.8	21816.3	833.3	21987.8	831.9
22114.3	831.1	22141.9	829.5	22162.5	825.4	22279.6	828.2	22393.4	824.6
22523	825.1	22539.6	827.6	22543.2	825.7	22692.1	823.6	22784.1	828.6
22838.7	838.5	22849.8	837.1	22933.5	842.1	22973.4	847.6	23000.6	843.5
23109.3	845.8	23139.5	836.7	23273.8	833.6	23319	835.1	23368.6	833.8
23420.5	835.3	23596.6	833.7	23639.5	833.5	23668.6	830.3	23683.8	830.9
23692.1	827.1	23702.5	826.5	23718.6	832.5	23752.5	831.1	23795.5	832.8
23971.2	834.1	24037.7	838.1	24168.5	837.4	24267.9	838.8	24454.4	836.8
24612.7	837.2	24825.4	835.4	25089.9	832.5	25235.9	832.5	25409.6	832.6
25590	834	25823.3	834.2	25860.5	832.7	25913.2	834.2	25923.7	829.5
25933.7	830.5	25947	835.5	25967.5	833.5	26163.1	835.1	26531.5	836.1
26720.6	836.3	26769.9	836.6	26989.2	838	27085.1	838	27205.7	840.5
27251.9	842.3	27414.8	841.1	27570.2	839.8	27773	842.7	27910	843.8
27999.8	847.2	28170.1	846.8	28369.9	845.4	28542.7	847.1	28576.2	850.3
28651.6	849.1	28669.8	850.4						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
19206.8	.029	19382.9	.029	20452.9	.043	22838.7	.065	25947	.025
27773	.037								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19396.16	22838.7	490	493.32	590	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
24230	28669.8	850

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	839.59	Element			
Vel Head (ft)	0.52	Wt. n-Val.		0.037	0.065
E.G. Elev (ft)	840.12	Reach Len. (ft)	490.00	493.32	590.00
Crit W.S. (ft)	834.68	Flow Area (sq ft)		33307.33	5589.63
E.G. Slope (ft/ft)	0.001040	Area (sq ft)		33307.33	18188.70
Q Total (cfs)	210000.00	Flow (cfs)		198035.52	11964.50
Top Width (ft)	7527.51	Top Width (ft)		3442.54	4084.97
Vel Total (ft/s)	5.40	Avg. Vel. (ft/s)		5.95	2.14
Max Chl Dpth (ft)	15.99	Hydr. Depth (ft)		9.68	4.85
Conv. Total (cfs)	6511191.0	Conv. (cfs)		6140224.0	370967.3
Length Wtd. (ft)	503.30	Wetted Per. (ft)		3449.36	1155.97
Min Ch El (ft)	823.60	Shear (lb/sq ft)		0.63	0.31
Alpha	1.15	Stream Power (lb/ft s)		3.73	0.67
Frctn Loss (ft)	0.54	Cum Volume (acre-ft)	3197.55	12499.97	10395.86
C & E Loss (ft)	0.02	Cum SA (acres)	759.61	1358.15	2007.35

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19396.16 LB	20256.79	72345.13	9214.72	862.60	34.45	10.71	7.85
20256.79	21117.43	42497.89	7836.70	862.92	20.24	9.11	5.42
21117.43	21978.06	21791.17	5676.98	860.96	10.38	6.60	3.84

21978.06	22838.70 RB	61401.32	10578.93	862.88	29.24	12.29	5.80
22838.70	23227.44	592.18	429.68	151.01	0.28	2.86	1.38
23227.44	23616.18	4160.64	2020.53	388.82	1.98	5.20	2.06
23616.18	24004.92	6755.85	2708.56	390.98	3.22	6.97	2.49
24004.92	24393.66	455.83	430.86	225.15	0.22	1.91	1.06

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 182.27

INPUT
Description: 182.27
Left Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19017.2	850.1	19040.8	847.5	19060.2	842.7	19091.5	840.6	19257.5	840.8
19311.71	839.0978	19362.6	837.5	19407.8	833	19493.6	830.9	19505.4	827.1
19715.1	827.6	19970	828.3	20202	828.9	20363.6	830.2	20461.4	831
20479.4	829	20496.9	828.7	20527.1	831.7	20688.2	828.2	20887.6	832.3
21053.1	833.2	21208.2	832.9	21305.1	835.8	21363.6	834.8	21448.2	829.3
21526	828.4	21611.9	831	21840.1	830	21958.6	829.3	22074.7	826.7
22240.6	825.8	22366.8	824.2	22406.9	833.2	22438.8	834.1	22599.8	831.5
22738.4	834	22794.3	836.6	22826.4	841.5	22837.9	837.5	22889.2	837.4
22924.7	834.7	22940.2	838.7	22947.1	834.7	22968.4	833.1	23158.3	832.9
23245.5	833	23248.7	834.5	23265.6	833.8	23287.2	843	23332.1	831.1
23388	836.3	23583.7	831.9	23644.9	832.9	23671.6	835.9	23686	834.7
23688.3	835.7	23702.1	830.1	23704.8	828	23714.9	825.9	23733.4	832.6
23852.8	831.2	24100.3	836.4	24197.1	837.7	24358.6	835.5	24539.4	834.5
24700.3	833.4	24888.4	832.1	25067	832.2	25233.3	832.8	25456	832.5
25665.6	832.3	25766.3	831.1	25942.4	832.4	26008.7	833.9	26014.6	829.3
26023.6	829.6	26041.8	834.9	26281.9	836	26342.9	836.3	26515.3	836.9
26583	837.1	26808.4	838.4	26811.8	838.4	27015.8	839	27277.7	840.2
27342.9	842.2	27361.8	841.1	27529	842.3	27703.7	842.9	28009.8	842.2
28188	843.9	28223.1	849.7	28241.9	849.6	28411.4	848.6	28602.2	848
28655.8	847.7	28669.6	850.4						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
19017.2	.029	19715.1	.029	20496.9	.043	23158.3	.043	26281.9	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19311.71	22826.4	485	496.27	550	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
24800	28669.6	845

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	839.09	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.47	Wt. n-Val.		0.036	0.043
E.G. Elev (ft)	839.56	Reach Len. (ft)	485.00	496.27	550.00
Crit W.S. (ft)	834.89	Flow Area (sq ft)		30770.08	9543.42
E.G. Slope (ft/ft)	0.001090	Area (sq ft)		30770.08	20011.63
Q Total (cfs)	210000.00	Flow (cfs)		178606.59	31393.40
Top Width (ft)	7678.09	Top Width (ft)		3498.84	4179.26
Vel Total (ft/s)	5.21	Avg. Vel. (ft/s)		5.80	3.29
Max Chl Dpth (ft)	14.89	Hydr. Depth (ft)		8.79	4.91
Conv. Total (cfs)	6361406.0	Conv. (cfs)		5410424.0	950981.8
Length Wtd. (ft)	505.72	Wetted Per. (ft)		3501.69	1951.29
Min Ch El (ft)	824.20	Shear (lb/sq ft)		0.60	0.33
Alpha	1.12	Stream Power (lb/ft s)		3.47	1.09
Frctn Loss (ft)	0.47	Cum Volume (acre-ft)	3197.55	12137.13	10137.16
C & E Loss (ft)	0.02	Cum SA (acres)	759.61	1318.84	1951.38

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19311.71 LB	20190.38	66073.47	8566.25	879.45	31.46	9.75	7.71
20190.38	21069.05	42548.36	7484.62	879.03	20.26	8.52	5.68
21069.05	21947.73	29593.49	6699.41	878.95	14.09	7.62	4.42

21947.73	22826.40 RB	40391.27	8019.80	864.26	19.23	9.29	5.04
22826.40	23215.95	5926.81	1873.00	384.65	2.82	4.90	3.16
23215.95	23605.49	6065.75	1866.74	368.41	2.89	5.11	3.25
23605.49	23995.04	10300.31	2632.60	393.22	4.90	6.76	3.91
23995.04	24384.59	2406.23	1096.14	389.59	1.15	2.81	2.20
24384.59	24774.13	6082.96	1912.13	389.55	2.90	4.91	3.18
24774.13	25163.68	611.36	162.82	25.87	0.29	6.29	3.75

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 182.17

INPUT
Description: 182.17
Left Bank Channel Station Interpolated

Station Elevation Data num= 92

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18580.5	847.8	18619.4	844.9	18630.2	842.3	18786.7	844.1	18808.6	839.9
18916.3	840.2	18943	838.3	18972.9	840	18994.4	837.7	19115.8	839.8
19154.2	830.4	19228.8	828.9	19270	835.66	19273.9	836.3	19388.5	831.2
19414.3	828.4	19432.4	830.7	19516.1	830.7	19530.1	826.4	19882.5	827.2
20327.6	827.6	20521.2	827.5	20555.8	832.4	20594.4	828.9	20874.7	835.7
20932	833.3	20952.4	835	21013.9	828.9	21228.5	831.6	21502.2	827
21554.8	826.7	21589.7	830.3	21794.1	829.7	21878.4	826.8	21894.6	824.3
22044.7	825.5	22055.7	823.2	22309.9	831.1	22378.5	831.9	22465.8	831
22570	834.9	22643	843.3	22666.2	847.8	22692.8	848	22769.2	840
22808.2	838.7	22839.4	841.2	22851.9	838.6	23033.7	841.1	23082.3	838.8
23104.9	840.7	23397.8	838.6	23405.4	841.9	23425.3	834.3	23525	830.6
23629.8	831	23657.4	833.2	23673	832.1	23687.1	824.7	23707.2	830.4
23985.1	833.5	24273.8	834.2	24534.6	830.8	24788	832.2	24936.3	833.7
25090.2	831.2	25372.8	832.8	25695.3	833.2	25971.1	834.8	26052	834.5
26056.3	829.3	26072.3	830.4	26089.7	836	26483.4	837.3	26743	839.1
26933.4	838	27153.7	839.2	27462.3	840.9	27735.6	842	27808.6	841.4
27847.2	843.9	28160.3	845.6	28420.1	847.8	28449.2	849.4	28464.2	841.3
28482.4	841.1	28501.7	849.7	28554.8	847.6	28632.7	850.6	28805.2	853.8
28827.3	851.4	28882.1	851.8						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18580.5	.037	19115.8	.037	19388.5	.03	20327.6	.032	21794.1	.065
22570	.065	22839.4	.043	26089.7	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19270	22570	450	471.44	525	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18580.5	19270	850	25380	28882.1	850

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	838.68	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.39	Wt. n-Val.		0.036	0.043
E.G. Elev (ft)	839.07	Reach Len. (ft)	450.00	471.44	525.00
Crit W.S. (ft)	833.99	Flow Area (sq ft)		31382.92	12612.04
E.G. Slope (ft/ft)	0.000810	Area (sq ft)	1111.71	31382.92	17301.87
Q Total (cfs)	210000.00	Flow (cfs)		167521.89	42478.10
Top Width (ft)	7088.33	Top Width (ft)	227.38	3300.00	3560.95
Vel Total (ft/s)	4.77	Avg. Vel. (ft/s)		5.34	3.37
Max Chl Dpth (ft)	15.48	Hydr. Depth (ft)		9.51	6.25
Conv. Total (cfs)	7378223.0	Conv. (cfs)		5885780.5	1492442.4
Length Wtd. (ft)	486.63	Wetted Per. (ft)		3303.05	2020.32
Min Ch El (ft)	823.20	Shear (lb/sq ft)		0.48	0.32
Alpha	1.10	Stream Power (lb/ft s)		2.56	1.06
Frctn Loss (ft)	0.34	Cum Volume (acre-ft)	3191.37	11783.08	9901.59
C & E Loss (ft)	0.04	Cum SA (acres)	758.35	1280.11	1902.52

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)

19270.00 LB	20095.00	56434.52	8384.66	826.11	26.87	10.16	6.73
20095.00	20920.00	43295.61	7333.92	825.63	20.62	8.89	5.90
20920.00	21745.00	40837.05	7257.93	825.63	19.45	8.80	5.63
21745.00	22570.00 RB	26954.72	8406.40	825.69	12.84	10.19	3.21
22570.00	22990.81	61.10	62.30	39.21	0.03	1.60	0.98
22990.81	23411.61	0.05	0.44	11.25	0.00	0.04	0.11
23411.61	23832.42	11235.98	3065.43	422.21	5.35	7.32	3.67
23832.42	24253.23	6588.01	2222.30	420.82	3.14	5.28	2.96
24253.23	24674.03	9391.38	2749.11	420.83	4.47	6.53	3.42
24674.03	25094.84	8652.56	2617.24	420.84	4.12	6.22	3.31
25094.84	25515.65	6549.01	1895.20	285.16	3.12	6.65	3.46

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 182.08

INPUT
Description: 182.08
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18533.4	848.4	18557.2	843.3	18605.8	840.2	18834.9	839.8	18901.5	838.7
18951.3	834.2	19000.4	838.6	19030	839	19079.7	834	19107	827.1
19350.7	832.6	19436.5	831.6	19456.7	829.3	19482	830.9	19544.3	828.1
19564.6	830.2	19582	826.3	19806.9	826.6	20040.3	827	20232.7	827.2
20402.2	827.4	20623.8	827.5	20645.7	831.6	20816.6	829.9	21017.3	830.7
21090.1	831.1	21179.9	828.7	21358	829	21542.9	828.4	21591.9	828.3
21617.6	825.7	21732.6	825.1	21747.9	827.2	21814	826.1	21861.4	829.5
21893.7	829.8	21921.1	825.2	22018.1	825.1	22050.3	832.6	22080.8	830.4
22144	835.5	22371.6	834.2	22385.2	833.8	22593	835.2	22790.9	836.2
22808.1	837.7	22851.5	845.6	22870	832	23113.1	831	23164	828
23356.3	829.5	23438.9	831.4	23638.3	831.5	23681.1	830.2	23698.6	826.3
23707.8	826.3	23730.2	830.6	23875.8	833.3	23975.6	834.4	24240.4	832.5
24443.3	832.4	24620.8	833.8	24680.1	831.5	24701.2	832.4	24941.4	832.7
25037.1	832.6	25262.6	832.5	25478.9	832.9	25726.8	832.2	25745.5	831.8
25782.4	832.6	25790.6	831.4	25957.1	833.5	26013.2	832.6	26038.1	834
26046.2	836	26062.3	836	26069.7	831.1	26079.7	832.2	26091.4	836.4
26125.4	837.5	26187.8	835.4	26412.5	836	26508.2	836.2	26788.3	837.3
26980.7	838.4	27098.8	838.8	27310.3	840.2	27570.9	841.1	27768.7	841.8
27827.9	842.5	27856.5	845.1	27891.7	844	28088.5	846.9	28287.4	845.7
28443.4	846.6								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18533.4	.037	19030	.037	19436.5	.03	20402.2	.037	21179.9	.065
22144	.065	23638.3	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19030	22144	505	509.1	485	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
25800	28443.4	845

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	838.43	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.26	Wt. n-Val.	0.037	0.039	0.034
E.G. Elev (ft)	838.69	Reach Len. (ft)	505.00	509.10	485.00
Crit W.S. (ft)	833.71	Flow Area (sq ft)	198.58	30592.19	20981.28
E.G. Slope (ft/ft)	0.000612	Area (sq ft)	198.58	30592.19	24149.34
Q Total (cfs)	210000.00	Flow (cfs)	324.03	132933.83	76742.14
Top Width (ft)	7997.81	Top Width (ft)	93.95	3108.31	4795.55
Vel Total (ft/s)	4.06	Avg. Vel. (ft/s)	1.63	4.35	3.66
Max Chl Dpth (ft)	13.33	Hydr. Depth (ft)	2.11	9.84	5.82
Conv. Total (cfs)	8489204.0	Conv. (cfs)	13098.8	5373821.0	3102284.3
Length Wtd. (ft)	500.75	Wetted Per. (ft)	94.33	3112.60	3610.28
Min Ch El (ft)	825.10	Shear (lb/sq ft)	0.08	0.38	0.22
Alpha	1.02	Stream Power (lb/ft s)	0.13	1.63	0.81
Frctn Loss (ft)	0.34	Cum Volume (acre-ft)	3184.60	11447.71	9651.80
C & E Loss (ft)	0.01	Cum SA (acres)	756.69	1245.43	1852.16

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18897.57	18930.68	30.44	30.92	26.27	0.01	1.18	0.98
18930.68	18963.79	228.10	113.75	33.24	0.11	3.44	2.01
18963.79	18996.89	65.48	53.79	33.24	0.03	1.62	1.22
18996.89	19030.00	0.02	0.11	1.59	0.00	0.07	0.15
19030.00 LB	19808.50	34853.50	6951.59	774.74	16.60	9.00	5.01
19808.50	20587.00	51757.56	8790.39	778.50	24.65	11.29	5.89
20587.00	21365.50	24044.21	6630.20	778.92	11.45	8.52	3.63
21365.50	22144.00 RB	22278.58	8220.01	780.44	10.61	10.56	2.71
22144.00	22563.96	2179.42	1593.89	419.97	1.04	3.80	1.37
22563.96	22983.92	2014.74	1450.09	373.04	0.96	3.91	1.39
22983.92	23403.88	8626.79	3639.17	420.07	4.11	8.67	2.37
23403.88	23823.84	12105.23	3140.54	420.84	5.76	7.48	3.85
23823.84	24243.80	8875.54	2086.36	419.98	4.23	4.97	4.25
24243.80	24663.76	10997.40	2372.75	420.00	5.24	5.65	4.63
24663.76	25083.72	11849.54	2481.41	419.99	5.64	5.91	4.78
25083.72	25503.68	11442.08	2429.77	419.96	5.45	5.79	4.71
25503.68	25923.64	8651.37	1787.29	296.42	4.12	6.03	4.84

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 181.99

INPUT
Description: 181.99
Left Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18503.3	842.3	18647.5	841.5	18752.4	841.6	18809.7	854.2	18843.32	838.022
18860.2	829.9	18883.2	826.5	18984.8	826.7	19040	829.4	19159.1	829
19192.1	831.8	19215.1	830.6	19219.9	828.9	19360.2	831.2	19457	831.8
19511.1	829	19587.7	829.3	19604.7	826.2	19912.6	826.5	20021.5	826.4
20271.9	826.6	20502.4	826.7	20721.7	826.7	20765.1	831	20927.3	830.2
21123	828.7	21205.9	828.1	21239.2	830.9	21385.3	830.9	21419.4	830.5
21455.9	825.7	21564.4	825.2	21591	831.5	21673.4	829.2	21844.7	830.8
22004.1	831.5	22293.5	833.6	22489.7	834.3	22684.7	833.1	22872.5	833.2
22897.1	833.4	23108.4	835.2	23307.2	834.8	23371.7	834.3	23499.2	835.6
23557.8	835.4	23685.1	833.6	23753.5	833.8	23791.5	830	23857	826.8
23871.7	823.2	23885.9	824.7	23917.1	832.6	23996.3	832	24250.3	831.7
24316.9	832.3	24477.9	832.4	24611.3	832.6	24669.2	832.6	24689.1	830.7
24711.5	831.6	24915.9	832.4	24978.2	832.8	25210.9	833.9	25224.2	834
25538	832.6	25709.9	832.5	25818.8	832.8	25831	831.1	26051.3	832.1
26063.9	835.4	26072.3	833.9	26085.7	836.5	26098.7	835.9	26110.7	830.2
26120.3	830.4	26136.4	836.9	26176.3	837.1	26204.9	834.7	26340.3	835.6
26524.1	836.5	26736.8	837.3	26814	837.8	26996.4	838.7	27151	840.5
27348.6	840.3	27400	842.6	27404.5	844.2	27476.8	842.6	27617.2	844.2
27631.3	844.4	27839.3	845	27874.9	845.2	28051.9	845.7	28226.5	846.3
28268.9	846.6	28480.2	848.3						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18503.3	.037	18809.7	.037	19360.2	.029	20502.4	.037	21239.2	.15
21591	.15	23996.3	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18843.32	21591	370	443.58	390	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
26140	28480.2	850

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	838.02	Element			
Vel Head (ft)	0.33	Wt. n-Val.		0.035	0.043
E.G. Elev (ft)	838.35	Reach Len. (ft)	370.00	443.58	390.00
Crit W.S. (ft)	834.03	Flow Area (sq ft)		26989.48	24009.07
E.G. Slope (ft/ft)	0.000736	Area (sq ft)		26989.48	25135.59
Q Total (cfs)	210000.00	Flow (cfs)		141296.33	68703.66
Top Width (ft)	8015.01	Top Width (ft)		2747.67	5267.33
Vel Total (ft/s)	4.12	Avg. Vel. (ft/s)		5.24	2.86
Max Chl Dpth (ft)	14.82	Hydr. Depth (ft)		9.82	5.28
Conv. Total (cfs)	7738836.0	Conv. (cfs)		5206996.0	2531839.8

Length Wtd. (ft)	427.00	Wetted Per. (ft)		2752.05	4554.46
Min Ch El (ft)	825.20	Shear (lb/sq ft)		0.45	0.24
Alpha	1.25	Stream Power (lb/ft s)		2.36	0.69
Frctn Loss (ft)	0.36	Cum Volume (acre-ft)	3183.45	11111.22	9377.43
C & E Loss (ft)	0.01	Cum SA (acres)	756.14	1211.21	1796.14

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18843.32 LB	19530.24	27693.72	5836.10	689.62	13.19	8.50	4.75
19530.24	20217.16	54312.88	7792.68	687.20	25.86	11.34	6.97
20217.16	20904.08	41915.60	7149.97	687.13	19.96	10.41	5.86
20904.08	21591.00 RB	17374.15	6210.73	688.10	8.27	9.04	2.80
21591.00	22050.28	3432.17	3393.68	459.32	1.63	7.39	1.01
22050.28	22509.56	1619.84	2162.72	459.29	0.77	4.71	0.75
22509.56	22968.84	1550.82	2106.95	459.29	0.74	4.59	0.74
22968.84	23428.12	874.21	1493.78	459.29	0.42	3.25	0.59
23428.12	23887.40	1873.90	2362.01	460.13	0.89	5.14	0.79
23887.40	24346.68	12098.50	2863.26	460.22	5.76	6.23	4.23
24346.68	24805.96	13737.71	2662.03	459.39	6.54	5.80	5.16
24805.96	25265.24	10676.81	2288.18	459.29	5.08	4.98	4.67
25265.24	25724.52	11023.92	2332.52	459.28	5.25	5.08	4.73
25724.52	26183.80	11815.76	2343.92	418.97	5.63	5.64	5.04

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 181.9

INPUT
Description: 181.9
Left Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17817.2	845.6	17902.8	848.6	17917.6	845	17934.1	838	18071.9	831.7
18101.6	840.2	18146.5	838.4	18281.1	838.9	18368.1	838.5	18440.7	843.5
18589.3	840.9	18610.12	837.5	18455	18670.6	827.8	18729.6	826.2	18750.1	828.9
18906.2	827.9	18955.9	833	19108.9	832.6	19281.5	831.8	19334.9	832.8
19400.3	829.7	19544.5	828.6	19576.2	829.9	19592.3	829.2	19609.9	826.2
19631.1	826.2	20584.7	826.4	20802.5	826.5	20816.8	827.2	20837.8	830.4
21080	829.8	21150.2	829.8	21170.6	826.2	21267.6	825.7	21296.9	833.4
21330.9	830.8	21441.4	831.4	21688.5	831.2	21745.8	830.9	21905.4	830.8
21970.5	830.8	22314.3	831.7	22553.5	831.9	22699.4	832	22846.7	832.9
22992.5	835.4	23032.2	836.1	23189.6	833.9	23358.6	834.7	23477.2	836.3
23627.8	832.6	23665	837.5	23751.6	835.6	23802.2	830.8	23921.5	826
23933.6	823.7	23946	825	23963.2	832.5	24111	831.5	24154	836
24298.9	837.1	24463.5	833.6	24618.7	833.3	24861.4	831.5	24990.7	832.3
25316.7	832.6	25364.3	832.6	25532.9	833.1	25681.4	833	25837.7	832.1
25873.1	832.4	25883.3	831	26094.6	831.7	26108.6	832.3	26117.6	835.7
26124.7	834.5	26153	836.5	26166.2	828.4	26174.1	829	26193.1	837.9
26234.9	837	26255.9	834.2	26355	835.8	26498.6	836.8	26657.8	837.5
26810.5	837.8	27016.3	838.5	27256.5	839.3	27400	840	27458.4	843.6
27645.9	844.5	27672.4	844.7	27856.4	846.5	27872.9	846.5	28097.9	846.7
28143.4	847.1	28472.7	848.5						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17817.2	.037	18589.3	.037	19400.3	.029	20802.5	.15	21296.9	.15
24111	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18610.12	21296.9	270	414.11	590	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17817.2	18440.7	845	26193.1	28472.7	845

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	837.54	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.43	Wt. n-Val.		0.035	0.052
E.G. Elev (ft)	837.97	Reach Len. (ft)	270.00	414.11	590.00
Crit W.S. (ft)	834.17	Flow Area (sq ft)		24624.03	23781.98
E.G. Slope (ft/ft)	0.000997	Area (sq ft)	432.71	24624.03	24322.19
Q Total (cfs)	210000.00	Flow (cfs)		148763.92	61236.08
Top Width (ft)	8199.19	Top Width (ft)	148.17	2686.75	5364.27

Vel Total (ft/s)	4.34	Avg. Vel. (ft/s)		6.04	2.57
Max Chl Dpth (ft)	13.84	Hydr. Depth (ft)		9.16	4.86
Conv. Total (cfs)	6649166.0	Conv. (cfs)		4710266.5	1938899.3
Length Wtd. (ft)	465.54	Wetted Per. (ft)		2689.95	4903.56
Min Ch El (ft)	825.70	Shear (lb/sq ft)		0.57	0.30
Alpha	1.48	Stream Power (lb/ft s)		3.44	0.78
Frctn Loss (ft)	0.38	Cum Volume (acre-ft)	3181.61	10848.43	9156.03
C & E Loss (ft)	0.01	Cum SA (acres)	755.51	1183.54	1748.55

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18610.12 LB	19281.81	20610.05	4549.47	672.91	9.81	6.77	4.53
19281.81	19953.51	45937.57	6350.06	672.08	21.88	9.45	7.23
19953.51	20625.21	60900.13	7524.67	671.70	29.00	11.20	8.09
20625.21	21296.90 RB	21316.16	6199.83	673.27	10.15	9.23	3.44
21296.90	21775.29	3080.89	3006.85	478.49	1.47	6.29	1.02
21775.29	22253.67	3267.37	3114.49	478.39	1.56	6.51	1.05
22253.67	22732.06	2616.04	2725.56	478.39	1.25	5.70	0.96
22732.06	23210.45	1090.64	1612.47	478.43	0.52	3.37	0.68
23210.45	23688.83	742.12	1280.24	478.77	0.35	2.68	0.58
23688.83	24167.22	3470.10	2858.76	480.81	1.65	5.98	1.21
24167.22	24645.61	4202.40	1236.21	478.43	2.00	2.58	3.40
24645.61	25123.99	14053.67	2550.67	478.39	6.69	5.33	5.51
25123.99	25602.38	11875.23	2305.49	478.39	5.65	4.82	5.15
25602.38	26080.77	14607.27	2610.69	478.49	6.96	5.46	5.60
26080.77	26559.15	2230.35	480.56	116.58	1.06	4.31	4.64

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 181.82

INPUT
Description: 181.82
Left Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17708.4	845.9	17735.6	846.9	17778.8	844.1	17841.4	844.2	17842.5	845.8
18004.8	841.5	18071.8	840.3	18216.1	840.4	18262.2	840.5	18275.59	837.1899
18306.7	829.5	18349.3	826	18404.7	828.9	18557.6	829.6	18707.1	830.1
18784.7	829.3	18839	832	18992.1	829.5	19118.6	831.6	19245.5	830.2
19261.2	827.4	19281.6	827.1	19302.3	829.4	19448	828.8	19594.2	828.3
19613.6	825.5	19832.6	825.6	20199.9	824.9	20305.2	826.3	20515.3	826.4
20658.2	826	20812.2	826.3	20983.5	826.4	20993	832.5	21142.7	833.4
21233.9	832.4	21478.8	832.6	21547.9	832.9	21740.7	831.7	21759	831.6
21915	832.2	22214.2	833.3	22351.7	833.2	22666.4	832.6	22846.3	833
23032.8	832.7	23228.6	833.1	23502.1	835.3	23674.8	835.4	23715.7	836.1
23750.8	831.7	23789.3	830.4	23796.7	826.9	23811	828.4	23819.8	831.4
23830.8	831.2	23844.2	824.1	23870.7	826.1	23898.3	830.2	24104.5	831.5
24267.3	830.6	24570.6	831.6	24759.1	831.4	24819	832.5	24860.5	832
25024.7	832.8	25145.8	833	25372.7	833.1	25510.1	832.6	25665.3	831.7
25832.1	831.4	25974.3	831.9	26156.7	832.7	26194.3	832.3	26224.6	835.2
26229.2	832.9	26242.6	835.8	26261.8	836	26271.1	827.8	26279.2	828.3
26298.3	836.8	26338.1	837.6	26361.8	834.8	26382.9	835.5	26560.2	836.3
26628.9	836.7	26928.6	837.9	26995.3	838.3	27181.6	839.7	27350.6	839.9
27500.9	840.6	27564.4	844.2	27755.6	844.5	27937.2	845.4	28056.4	845.8
28256.5	848	28291	848.8						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17708.4	.037	18262.2	.037	19448	.029	20993	.15	24104.5	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18275.59	20993	400	463.36	390	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
26338.1	28291	845

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	837.18	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.39	Wt. n-Val.		0.031	0.045
E.G. Elev (ft)	837.58	Reach Len. (ft)	400.00	463.36	390.00
Crit W.S. (ft)	833.70	Flow Area (sq ft)		25713.86	25118.50
E.G. Slope (ft/ft)	0.000690	Area (sq ft)		25713.86	25489.70
Q Total (cfs)	210000.00	Flow (cfs)		148441.61	61558.38
Top Width (ft)	8450.20	Top Width (ft)		2717.39	5732.81
Vel Total (ft/s)	4.13	Avg. Vel. (ft/s)		5.77	2.45
Max Chl Dpth (ft)	13.08	Hydr. Depth (ft)		9.46	4.72
Conv. Total (cfs)	7995786.0	Conv. (cfs)		5651940.0	2343845.8
Length Wtd. (ft)	443.47	Wetted Per. (ft)		2721.05	5334.23
Min Ch El (ft)	824.90	Shear (lb/sq ft)		0.41	0.20
Alpha	1.48	Stream Power (lb/ft s)		2.35	0.50
Frctn Loss (ft)	0.33	Cum Volume (acre-ft)	3180.27	10609.16	8818.69
C & E Loss (ft)	0.00	Cum SA (acres)	755.06	1157.86	1673.39

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18275.59 LB	18954.94	19994.63	5017.04	680.58	9.52	7.39	3.99
18954.94	19634.29	24297.18	5312.01	679.96	11.57	7.82	4.57
19634.29	20313.65	55607.43	8001.79	679.36	26.48	11.78	6.95
20313.65	20993.00 RB	48542.39	7383.02	681.14	23.12	10.87	6.57
20993.00	21479.53	1522.22	2175.39	486.54	0.72	4.47	0.70
21479.53	21966.07	1818.50	2420.36	486.54	0.87	4.97	0.75
21966.07	22452.60	1356.41	2029.94	486.54	0.65	4.17	0.67
22452.60	22939.13	1459.22	2120.91	486.53	0.69	4.36	0.69
22939.13	23425.67	1215.63	1900.78	486.54	0.58	3.91	0.64
23425.67	23912.20	1334.84	2016.79	490.35	0.64	4.15	0.66
23912.20	24398.73	10687.10	3045.49	486.54	5.09	6.26	3.51
24398.73	24885.27	13297.84	2725.41	486.55	6.33	5.60	4.88
24885.27	25371.80	8695.17	2112.15	486.54	4.14	4.34	4.12
25371.80	25858.33	11295.09	2471.12	486.54	5.38	5.08	4.57
25858.33	26344.87	8876.35	2100.13	465.03	4.23	4.57	4.23

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 181.74

INPUT
Description: 181.74
Left Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17284.5	849	17325.1	843.8	17341.8	843.8	17397.4	836.8	17408.5	839.8
17417.6	839.6	17557.8	840.1	17719.3	838.1	17855.8	837.9	17895.6	840
18030.4	839.5	18119	837.218	120.498	36.8571	18166.8	826.2	18334.2	826.7
18364.1	830.3	18438.5	831.9	18546.5	827.9	18650.4	829.3	18784.8	833.8
18929.9	827.4	18990.4	825.6	19010.2	829.5	19144.4	830.4	19222.7	828.7
19282	830.8	19344.5	827.7	19481.5	829.3	19541.9	827.3	19643.9	828.7
19667.8	826.5	19710.6	827	19718.4	824.7	19899.3	825.1	20213.1	826.1
20381.9	828.4	20516.8	828.3	20692.8	826.8	20828.6	826.7	21098.6	828
21215.5	828.8	21228.1	833	21386.9	830.7	21532.3	829.6	21578.3	829.4
21756	829.1	21800.7	829.5	22212.7	829.8	22280.6	829.9	22931.2	831.5
23186	832.1	23236.6	832.5	23396.1	833.2	23633.4	834	23791.8	834.4
23927.6	835.2	24033.6	835.4	24089.7	830.1	24099.4	824.5	24145.2	828.3
24292.1	831.5	24427.6	832.7	24612.5	832.8	24770.8	832.5	24921.3	831.7
25061	832.4	25256.6	832.8	25306	833	25577.4	832.4	25614.7	832.1
25800.3	832.2	25866.3	832.3	26055.2	831.2	26211.2	832.1	26351.1	832.2
26376	835.5	26381.3	833.1	26415.5	837	26420	833.4	26424	827.8
26432.6	828.2	26452.2	837.9	26515.1	835	26539.7	836.2	26758.8	837.2
26947.9	838.7	26959.9	838.9	27239.4	840.4	27441.3	841.4	27545.2	842.2
27679.4	843	27757.9	843.3	28028.6	844.5	28146	845.7	28327.2	846.5
28465.1	847.2	28681	848.9						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17284.5	.037	18119	.037	19541.9	.029	21228.1	.15	24292.1	.025

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

18120.49	21228.1		890	625.63	375	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17284.5	17895.6	845	26120	28681	845

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	836.85	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.40	Wt. n-Val.		0.031	0.060
E.G. Elev (ft)	837.25	Reach Len. (ft)	890.00	625.63	375.00
Crit W.S. (ft)	833.42	Flow Area (sq ft)		27494.69	25119.93
E.G. Slope (ft/ft)	0.000787	Area (sq ft)	0.01	27494.69	26683.06
Q Total (cfs)	210000.00	Flow (cfs)		157704.38	52295.63
Top Width (ft)	8535.90	Top Width (ft)	0.59	3107.58	5427.73
Vel Total (ft/s)	3.99	Avg. Vel. (ft/s)		5.74	2.08
Max Chl Dpth (ft)	12.35	Hydr. Depth (ft)		8.85	5.14
Conv. Total (cfs)	7487266.0	Conv. (cfs)		5622736.0	1864530.1
Length Wtd. (ft)	577.86	Wetted Per. (ft)		3111.07	4893.89
Min Ch El (ft)	824.70	Shear (lb/sq ft)		0.43	0.25
Alpha	1.62	Stream Power (lb/ft s)		2.49	0.52
Frctn Loss (ft)	0.47	Cum Volume (acre-ft)	3180.27	10326.16	8585.13
C & E Loss (ft)	0.00	Cum SA (acres)	755.05	1126.88	1623.43

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18120.49 LB	18897.39	23496.66	5608.29	778.58	11.19	7.22	4.19
18897.39	19674.29	30472.47	6339.28	777.63	14.51	8.16	4.81
19674.29	20451.20	58278.90	8351.30	777.25	27.75	10.75	6.98
20451.20	21228.10 RB	45456.34	7195.82	777.60	21.65	9.26	6.32
21228.10	21724.96	3070.16	3217.27	496.88	1.46	6.48	0.95
21724.96	22221.82	3716.69	3608.11	496.86	1.77	7.26	1.03
22221.82	22718.68	3074.51	3219.96	496.86	1.46	6.48	0.95
22718.68	23215.54	2175.30	2616.36	496.86	1.04	5.27	0.83
23215.54	23712.40	1081.29	1720.09	496.87	0.51	3.46	0.63
23712.40	24209.26	1328.96	1949.68	498.78	0.63	3.92	0.68
24209.26	24706.12	8307.81	2307.35	496.88	3.96	4.64	3.60
24706.12	25202.98	10333.32	2274.26	496.87	4.92	4.58	4.54
25202.98	25699.84	9161.57	2115.81	496.86	4.36	4.26	4.33
25699.84	26196.70	10046.02	2091.05	420.16	4.78	4.98	4.80

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 181.62

INPUT
Description: 181.62
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16983	842.4	16995.3	841.9	17020.3	836.7	17087.7	837.7	17111.4	834.5
17130.1	834.4	17317.8	834.1	17522.9	835	17701.5	834.8	17939.5	835.2
18118.4	834.2	18155.7	828.4	18176.1	822.8	18250.2	823.6	18398.4	828.3
18424.9	824.3	18538.5	826.1	18555.8	828.2	18600	828.8	18691.2	825.5
18793.7	826.2	18839.5	824.5	19009.4	826.8	19173.2	828.6	19385.7	830.7
19549.8	829.5	19692.9	826.1	19699.6	824.1	19998.8	825.6	20103.5	826.1
20291.3	826.9	20470.8	826.8	20650.1	828.4	20778.4	826.3	21004.6	827.1
21196.6	827.7	21368.6	828.4	21375	832.5	21445.3	830.3	21633.3	830.5
21711	830.6	21992.5	830.5	22041.9	830.6	22427.4	832.2	22503.2	831.6
22782.7	832.1	22994	832.1	23179.8	832.3	23369.8	831.4	23538.1	830
23795.9	831.5	24036.4	835.5	24223.8	835.4	24232.6	835	24245.1	839
24262.2	830.1	24269.3	830.1	24281	824.1	24312.2	825.6	24357.7	831.9
24488	832.1	24648.6	832.6	24810.4	833.6	24971.5	833.4	25051	832.9
25065.3	834.1	25112.5	831.9	25185.5	831.6	25353.4	832.3	25385.4	832.6
25597.6	833	25623.9	832.9	25941.4	832.8	25946.7	832.8	26177.9	832.6
26223.2	832.8	26237.9	830.9	26467.9	832.4	26492.5	835	26500.8	833
26510.7	836.5	26535.4	837.7	26540.2	828.5	26550.6	827.7	26569.5	838.1
26647.9	836	26820.1	837.2	26851.4	837.4	27121.3	838.5	27193.4	838.8
27417.7	840.1	27553.1	840.8	27751.2	841.4	27926.7	843.3	28199.3	845
28443.8	846.7								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16983	.037	18118.4	.037	19549.8	.029	21368.6	.15	21375	.15
24488	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18118.4	21375	680	551.52	380	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
25780	28443.8	845

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	836.33	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.45	Wt. n-Val.	0.037	0.033	0.073
E.G. Elev (ft)	836.77	Reach Len. (ft)	680.00	551.52	380.00
Crit W.S. (ft)	831.98	Flow Area (sq ft)	1665.56	30481.56	19159.85
E.G. Slope (ft/ft)	0.000847	Area (sq ft)	1665.56	30481.56	22168.14
Q Total (cfs)	210000.00	Flow (cfs)	2697.60	176743.16	30559.25
Top Width (ft)	9488.54	Top Width (ft)	1020.55	3256.60	5211.39
Vel Total (ft/s)	4.09	Avg. Vel. (ft/s)	1.62	5.80	1.59
Max Chl Dpth (ft)	13.53	Hydr. Depth (ft)	1.63	9.36	4.36
Conv. Total (cfs)	7217321.5	Conv. (cfs)	92711.6	6074343.5	1050266.5
Length Wtd. (ft)	528.29	Wetted Per. (ft)	1020.68	3260.03	4395.38
Min Ch El (ft)	822.80	Shear (lb/sq ft)	0.09	0.49	0.23
Alpha	1.71	Stream Power (lb/ft s)	0.14	2.87	0.37
Frctn Loss (ft)	0.41	Cum Volume (acre-ft)	3163.25	9909.82	8374.86
C & E Loss (ft)	0.01	Cum SA (acres)	744.62	1081.17	1577.64

Warning - Divided flow computed for this cross-section.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17058.69	17134.39	84.57	55.81	36.66	0.04	1.53	1.52
17134.39	17210.08	274.34	151.11	75.69	0.13	2.00	1.82
17210.08	17285.77	302.61	160.27	75.69	0.14	2.12	1.89
17285.77	17361.47	313.55	163.72	75.69	0.15	2.16	1.92
17361.47	17437.16	246.31	141.65	75.69	0.12	1.87	1.74
17437.16	17512.85	177.84	116.50	75.69	0.08	1.54	1.53
17512.85	17588.55	145.37	103.23	75.69	0.07	1.36	1.41
17588.55	17664.24	160.06	109.37	75.69	0.08	1.44	1.46
17664.24	17739.93	170.81	113.72	75.69	0.08	1.50	1.50
17739.93	17815.63	152.01	106.03	75.69	0.07	1.40	1.43
17815.63	17891.32	129.70	96.40	75.69	0.06	1.27	1.35
17891.32	17967.01	114.65	89.52	75.69	0.05	1.18	1.28
17967.01	18042.71	169.29	113.11	75.69	0.08	1.49	1.50
18042.71	18118.40	256.51	145.14	75.69	0.12	1.92	1.77
18118.40 LB	18932.55	44566.68	8408.49	815.98	21.22	10.33	5.30
18932.55	19746.70	31758.09	6493.30	814.51	15.12	7.98	4.89
19746.70	20560.85	56068.23	8330.51	814.16	26.70	10.23	6.73
20560.85	21375.00 RB	44350.15	7249.26	815.38	21.12	8.90	6.12
21375.00	21846.25	2439.19	2688.30	471.29	1.16	5.70	0.91
21846.25	22317.51	2241.74	2555.46	471.25	1.07	5.42	0.88
22317.51	22788.76	1606.02	2092.04	471.26	0.76	4.44	0.77
22788.76	23260.01	1457.30	1973.55	471.25	0.69	4.19	0.74
23260.01	23731.27	2268.79	2573.94	471.26	1.08	5.46	0.88
23731.27	24202.52	592.14	1149.70	471.29	0.28	2.44	0.52
24202.52	24673.77	4409.13	2219.82	461.44	2.10	4.85	1.99
24673.77	25145.03	5428.88	1482.83	471.36	2.59	3.15	3.66
25145.03	25616.28	7915.08	1859.09	471.26	3.77	3.94	4.26
25616.28	26087.53	2200.99	565.11	163.72	1.05	3.45	3.89

Warning - Divided flow computed for this cross-section.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 181.51

INPUT
Description: 181.51
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16541.8	841	16580.7	842.5	16592.9	835.7	16623.6	834.3	16723.4	835.7
16758.5	831.8	16805	833.6	17015	833.5	17207.4	834.3	17266.3	834.5
17415.8	834.3	17584.5	834.5	17599	834.5	17734.3	835.4	17858.6	835.1
17945	835.4	18051.8	832.9	18090.7	824.6	18211.2	824.1	18302.5	820.9
18359.3	830.1	18475	827.9	18524.8	824.8	18645.8	826.3	18780.5	826.1
18923.1	827	19050.7	829.7	19187.7	830.9	19312.4	828.8	19432.1	830.8
19521.1	825.7	19528.5	824.1	19795.4	824.7	19928.6	824.9	20055.7	825.2
20173	825.3	20288.9	826.6	20308.6	825.8	20435.2	826.2	20553	826.2
20668.9	825.7	20721.4	825.6	20945.7	826.2	21149	827	21423.3	828
21433	831.6	21574.9	829.8	21775.2	831	21924.7	831.2	22069.6	830.9
22259.3	831.1	22567.5	830.8	22766.1	830.6	22905.4	831.9	23095.7	831.9
23260.8	832.2	23565.6	831.5	23745.3	830.8	23920.1	830.2	24066.9	831.2
24156	832.4	24212.5	836.8	24269.1	837.7	24322.9	835	24377.2	834.8
24394.6	831.9	24415.7	831.7	24456.9	826.2	24476	822.4	24491.7	827.2
24625	833.4	24743.9	832.4	24890.1	832	24923	832.1	25110.8	831.5
25163.8	831.4	25462.2	831.2	25588.5	831	25744.3	831.8	25952.2	832.6
26077.9	833.1	26300.5	833.9	26459.3	833.9	26608.1	834.6	26697.7	838
26707.2	834.4	26722.8	838.1	26800.5	837.7	26991.7	838.7	27067.9	838.9
27389	840.3	27439.4	840.4	27735.2	841.1	27872.7	842	27955.2	840.3
27999	842.9								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16541.8	.037	18051.8	.037	19312.4	.03	21433	.15	24625	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18051.8	21433	630	521.13	435	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16541.8	16723.4	842.9	25740	27999	842.9

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	835.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.40	Wt. n-Val.	0.037	0.032	0.070
E.G. Elev (ft)	836.35	Reach Len. (ft)	630.00	521.13	435.00
Crit W.S. (ft)	831.59	Flow Area (sq ft)	2210.26	31908.95	19565.37
E.G. Slope (ft/ft)	0.000707	Area (sq ft)	2334.58	31908.95	21910.70
Q Total (cfs)	210000.00	Flow (cfs)	3314.24	175854.16	30831.59
Top Width (ft)	9959.62	Top Width (ft)	1459.35	3381.20	5119.06
Vel Total (ft/s)	3.91	Avg. Vel. (ft/s)	1.50	5.51	1.58
Max Chl Dpth (ft)	15.05	Hydr. Depth (ft)	1.66	9.44	4.65
Conv. Total (cfs)	7896236.5	Conv. (cfs)	124619.3	6612314.5	1159302.5
Length Wtd. (ft)	509.74	Wetted Per. (ft)	1328.69	3384.06	4206.74
Min Ch El (ft)	820.90	Shear (lb/sq ft)	0.07	0.42	0.21
Alpha	1.69	Stream Power (lb/ft s)	0.11	2.29	0.32
Frctn Loss (ft)	0.30	Cum Volume (acre-ft)	3132.03	9514.85	8182.59
C & E Loss (ft)	0.05	Cum SA (acres)	725.26	1039.15	1532.58

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16642.47	16743.13	31.80	26.61	19.86	0.02	1.35	1.20
16743.13	16843.80	588.49	293.54	100.80	0.28	2.92	2.00
16843.80	16944.47	424.18	241.06	100.67	0.20	2.39	1.76
16944.47	17045.13	432.19	243.79	100.67	0.21	2.42	1.77
17045.13	17145.80	345.58	213.17	100.67	0.16	2.12	1.62
17145.80	17246.47	240.77	171.62	100.67	0.11	1.70	1.40
17246.47	17347.13	195.01	151.23	100.67	0.09	1.50	1.29
17347.13	17447.80	219.97	162.56	100.67	0.10	1.61	1.35
17447.80	17548.47	206.46	156.49	100.67	0.10	1.55	1.32
17548.47	17649.13	168.63	138.60	100.67	0.08	1.38	1.22
17649.13	17749.80	67.48	80.00	100.67	0.03	0.79	0.84
17749.80	17850.47	56.06	71.58	100.67	0.03	0.71	0.78
17850.47	17951.13	55.76	71.35	100.67	0.03	0.71	0.78
17951.13	18051.80	281.84	188.65	100.69	0.13	1.87	1.49
18051.80 LB	18897.10	41636.70	8460.84	847.10	19.83	10.01	4.92
18897.10	19742.40	33248.21	6727.68	845.69	15.83	7.96	4.94
19742.40	20587.70	55187.92	8827.16	845.32	26.28	10.44	6.25
20587.70	21433.00 RB	45781.36	7893.27	845.95	21.80	9.34	5.80
21433.00	21870.73	1851.47	2324.39	437.75	0.88	5.31	0.80

21870.73	22308.47	1623.20	2147.92	437.73	0.77	4.91	0.76
22308.47	22746.20	1739.18	2238.72	437.73	0.83	5.11	0.78
22746.20	23183.93	1303.35	1882.93	437.74	0.62	4.30	0.69
23183.93	23621.67	1208.97	1799.88	437.73	0.58	4.11	0.67
23621.67	24059.40	1813.23	2295.45	437.74	0.86	5.24	0.79
24059.40	24497.13	967.63	1418.86	337.29	0.46	4.23	0.68
24497.13	24934.87	4510.89	1792.37	437.88	2.15	4.09	2.52
24934.87	25372.60	8202.06	1937.57	437.73	3.91	4.43	4.23
25372.60	25810.33	7611.60	1727.28	367.40	3.62	4.70	4.41

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 181.41

INPUT
Description: 181.41
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16069.4	844	16126.4	837.9	16149.4	838.6	16166.7	836.3	16257.5	835
16297.5	832.8	16343.7	834.7	16401.1	831	16595	832.1	16821	831.8
17083.3	832.5	17123.1	832.4	17324	832.3	17515.2	832.2	17626.4	829.3
17809.5	830.6	17978.2	830.9	18003.4	821.3	18061.4	821.3	18114.5	827.6
18154.2	828.4	18243.7	825.6	18368.8	827.7	18405.5	824.4	18484.6	825.8
18511.6	823.2	18601.2	823.9	18635.4	826	18699.3	824.6	18879.9	830.2
18966.8	828.4	19000.6	831.8	19056	829.3	19229.4	832.6	19262.6	826.6
19324.3	830.4	19351.7	825.2	19441.1	825.3	19444.7	823.4	19881.5	825.4
20076.9	825.5	20325.9	826.9	20618.8	826	20714.1	825.6	21095	826.5
21368.1	827.1	21376	831.6	21450.6	829.7	21705.9	832	21806.4	832.4
22230.5	833.7	22275	833.7	22590.7	829.3	22628.7	829.4	22954.7	833.7
23010.8	833.5	23387.7	833.3	23410.6	833.2	23914.6	833.1	23928.9	833
24138.6	829.5	24142.3	829.5	24324.5	831.6	24335.3	834.1	24434.1	834.7
24470.6	832.2	24500.8	834.6	24533.2	828	24542.6	827.7	24558.3	822.6
24572.3	822.6	24637.1	831.1	24710.4	827.9	24965.8	829.7	24988.6	829.7
25390.8	828.8	25455.5	829	25657.1	829.4	25714.8	831.5	25773.9	829.6
25996.2	830.4	26072.8	831	26414.8	831.8	26653.2	834	26786	837.2
26788.9	835	26806.1	837.5	27043.8	837.2	27212	838.4	27500	839.3
27616.3	839.6	27841.5	840.5	28040.2	841.2	28081	842.5	28113.5	846.4
28378	846.1								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16069.4	.037	17978.2	.037	19229.4	.031	21376	.15	24637.1	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17978.2	21376	495	497.47	435	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
26130	28378	845

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	835.76	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.25	Wt. n-Val.	0.037	0.033	0.041
E.G. Elev (ft)	836.00	Reach Len. (ft)	495.00	497.47	435.00
Crit W.S. (ft)	831.25	Flow Area (sq ft)	6925.12	32001.15	21292.83
E.G. Slope (ft/ft)	0.000507	Area (sq ft)	6925.12	32001.15	23261.37
Q Total (cfs)	210000.00	Flow (cfs)	15520.71	145968.86	48510.44
Top Width (ft)	10527.54	Top Width (ft)	1773.48	3397.80	5356.26
Vel Total (ft/s)	3.49	Avg. Vel. (ft/s)	2.24	4.56	2.28
Max Chl Dpth (ft)	14.46	Hydr. Depth (ft)	3.90	9.42	4.48
Conv. Total (cfs)	9330061.0	Conv. (cfs)	689567.4	6485230.0	2155263.5
Length Wtd. (ft)	482.85	Wetted Per. (ft)	1773.75	3403.56	4756.79
Min Ch El (ft)	821.30	Shear (lb/sq ft)	0.12	0.30	0.14
Alpha	1.32	Stream Power (lb/ft s)	0.28	1.36	0.32
Frctn Loss (ft)	0.25	Cum Volume (acre-ft)	3065.07	9132.56	7957.04
C & E Loss (ft)	0.00	Cum SA (acres)	701.89	998.60	1480.27

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)

16196.65	16323.91	165.15	157.88	119.28	0.08	1.32	1.05
16323.91	16451.16	828.83	426.70	127.39	0.39	3.35	1.94
16451.16	16578.41	1164.72	523.11	127.26	0.55	4.11	2.23
16578.41	16705.67	988.63	474.10	127.25	0.47	3.73	2.09
16705.67	16832.92	1060.01	494.36	127.25	0.50	3.88	2.14
16832.92	16960.17	1001.22	477.72	127.25	0.48	3.75	2.10
16960.17	17087.43	855.00	434.54	127.25	0.41	3.41	1.97
17087.43	17214.68	832.05	427.51	127.25	0.40	3.36	1.95
17214.68	17341.93	862.60	436.86	127.25	0.41	3.43	1.97
17341.93	17469.19	890.14	445.17	127.25	0.42	3.50	2.00
17469.19	17596.44	1220.26	537.98	127.28	0.58	4.23	2.27
17596.44	17723.69	2248.20	776.20	127.27	1.07	6.10	2.90
17723.69	17850.95	1806.39	680.68	127.25	0.86	5.35	2.65
17850.95	17978.20	1597.52	632.30	127.25	0.76	4.97	2.53
17978.20 LB	18827.65	36774.03	8723.43	852.09	17.51	10.27	4.22
18827.65	19677.10	29266.94	6804.58	851.37	13.94	8.01	4.30
19677.10	20526.55	41660.77	8444.19	849.46	19.84	9.94	4.93
20526.55	21376.00 RB	38267.07	8028.96	850.64	18.22	9.45	4.77
21376.00	21842.80	1274.42	2110.76	466.84	0.61	4.52	0.60
21842.80	22309.60	496.07	1198.30	466.80	0.24	2.57	0.41
22309.60	22776.40	1472.95	2302.33	466.84	0.70	4.93	0.64
22776.40	23243.20	522.11	1235.67	466.81	0.25	2.65	0.42
23243.20	23710.00	484.03	1180.76	466.80	0.23	2.53	0.41
23710.00	24176.80	936.80	1754.85	466.83	0.45	3.76	0.53
24176.80	24643.60	1497.70	2237.77	469.32	0.71	4.79	0.67
24643.60	25110.40	14478.75	3096.09	466.87	6.89	6.63	4.68
25110.40	25577.20	14615.71	3113.44	466.80	6.96	6.67	4.69
25577.20	26044.00	11203.22	2654.49	466.87	5.33	5.69	4.22
26044.00	26510.80	1528.74	408.41	86.00	0.73	4.75	3.74

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 181.32

INPUT
Description: 181.32
Station Elevation Data num= 93

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15808.1	844.8	15935.1	837.5	15963.3	833.8	16047.6	836.1	16231.8	836.6
16268.4	834.7	16343.2	836.1	16573.7	834.7	16846.3	833.8	16883.1	835.5
16915.3	836.7	17093.1	831	17359.8	831.3	17577.6	832.1	17785.2	830.8
17847	831.4	18032.4	828.3	18245.8	826.8	18364.8	824.9	18402.5	821.4
18481.6	821.3	18509.5	824.4	18557.9	822.4	18728.3	824	18893.3	827.1
18924	830.7	19093.9	831.2	19225.2	830.3	19263.8	824.9	19446.6	827
19503.9	825.5	19505.2	822.8	19515.4	822.8	19949.4	824.7	20119.9	825.6
20328.2	825	20521	826.2	20586.1	824.5	20896.7	825.9	21084.8	826.4
21245	826.6	21259.9	832.3	21469.7	830.2	21670.7	830.9	21868.4	831.1
22036.1	831.2	22238.4	831.8	22476.5	831.8	22696.2	831.9	22880.4	827.5
23049.5	829	23247.4	828.1	23559.5	829.3	23701	829.8	23874	829.9
24075.3	830.3	24315.1	830.7	24560.3	830.7	24692.5	827	24720.3	831.9
24752.9	825.8	24760.2	821.8	24775.5	821.2	24827	830.8	24961.7	827.8
25138.6	828.7	25285.1	828.8	25536.4	828.5	25711.3	829.7	25876	831.7
25883.1	830.4	25908.3	832.9	25938.9	830.9	26195.2	832.6	26357.6	833.1
26538.4	834.3	26709.2	837.1	26882.6	836.7	26917.9	835.8	26932.4	839.1
26974.4	836.4	26986.1	837.9	27057.6	837	27220.5	838.4	27484.5	839.3
27670.6	840.1	27985.8	841.2	28224.4	842.1	28266.1	841.9	28299.9	846.6
28505.5	845.3	28728.8	846	28896.4	846.5				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15808.1	.037	17847	.037	19263.8	.03	21259.9	.03	21469.7	.15
24827	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17847	21259.9	495	493.37	550	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
15808.1	16231.8	845

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	835.49	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.27	Wt. n-Val.	0.037	0.032	0.057
E.G. Elev (ft)	835.76	Reach Len. (ft)	495.00	493.37	550.00

Crit W.S. (ft)	830.84	Flow Area (sq ft)	3853.68	32499.97	27821.83
E.G. Slope (ft/ft)	0.000509	Area (sq ft)	3917.08	32499.97	27821.83
Q Total (cfs)	210000.00	Flow (cfs)	7924.23	153207.28	48868.50
Top Width (ft)	10230.38	Top Width (ft)	1466.25	3412.90	5351.23
Vel Total (ft/s)	3.27	Avg. Vel. (ft/s)	2.06	4.71	1.76
Max Chl Dpth (ft)	14.29	Hydr. Depth (ft)	2.77	9.52	5.20
Conv. Total (cfs)	9305808.0	Conv. (cfs)	351149.4	6789131.0	2165527.8
Length Wtd. (ft)	505.39	Wetted Per. (ft)	1391.47	3416.77	5354.66
Min Ch El (ft)	821.30	Shear (lb/sq ft)	0.09	0.30	0.17
Alpha	1.60	Stream Power (lb/ft s)	0.18	1.43	0.29
Frctn Loss (ft)	0.20	Cum Volume (acre-ft)	3003.47	8764.24	7701.98
C & E Loss (ft)	0.01	Cum SA (acres)	683.48	959.71	1426.81

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16215.88	16351.81	10.81	22.82	57.63	0.01	0.40	0.47
16351.81	16487.73	1.39	6.01	44.49	0.00	0.14	0.23
16487.73	16623.66	59.36	89.38	135.93	0.03	0.66	0.66
16623.66	16759.59	157.67	160.62	135.93	0.08	1.18	0.98
16759.59	16895.51	176.49	165.34	123.39	0.08	1.34	1.07
16895.51	17031.44	100.96	98.70	78.51	0.05	1.26	1.02
17031.44	17167.37	1213.65	546.59	135.96	0.58	4.02	2.22
17167.37	17303.29	1374.38	588.88	135.93	0.65	4.33	2.33
17303.29	17439.22	1264.14	560.07	135.93	0.60	4.12	2.26
17439.22	17575.15	1033.38	496.27	135.93	0.49	3.65	2.08
17575.15	17711.07	1105.97	516.91	135.93	0.53	3.80	2.14
17711.07	17847.00	1426.04	602.07	135.93	0.68	4.43	2.37
17847.00 LB	18700.22	33256.02	8178.66	853.65	15.84	9.59	4.07
18700.22	19553.45	27483.90	6766.21	855.57	13.09	7.93	4.06
19553.45	20406.68	50891.65	9307.10	853.24	24.23	10.91	5.47
20406.68	21259.90 RB	41575.72	8248.00	854.31	19.80	9.67	5.04
21259.90	21769.00	3294.12	2330.00	509.11	1.57	4.58	1.41
21769.00	22278.10	1150.19	2124.06	509.10	0.55	4.17	0.54
22278.10	22787.20	1004.75	1958.61	509.13	0.48	3.85	0.51
22787.20	23296.30	2766.69	3596.62	509.14	1.32	7.06	0.77
23296.30	23805.40	2271.28	3194.99	509.10	1.08	6.28	0.71
23805.40	24314.50	1678.51	2664.77	509.10	0.80	5.23	0.63
24314.50	24823.60	2282.62	3211.86	512.01	1.09	6.31	0.71
24823.60	25332.70	15364.65	3440.00	509.20	7.32	6.76	4.47
25332.70	25841.80	13451.04	3170.10	509.11	6.41	6.23	4.24
25841.80	26350.90	4981.99	1747.29	509.42	2.37	3.43	2.85
26350.90	26860.00	622.65	383.53	260.25	0.30	1.47	1.62

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 181.23

INPUT
Description: 181.23
Station Elevation Data num= 94

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15632.1	848.8	15653.2	843.6	15665.7	842.5	15666.5	840.6	15679.5	835.6
15719.4	834.9	15765.6	841.4	15823	836.8	15886.5	841.9	15965.5	834
16197.9	837.1	16213.4	836.3	16218.5	832.4	16250.5	833.8	16293.8	829.8
16332.6	832.9	16394.9	830.2	16622.3	830.1	16872.2	830.4	16882.3	830.4
17276.3	830.7	17522.2	830.8	17671.9	831	17707.5	823.1	17913.2	825.7
18131.7	825.1	18340.4	825.6	18482.4	827	18513.8	822.2	18731.4	823.7
18938	824.7	19115.9	825	19160.7	826.5	19310	824.8	19475.8	826.4
19492.1	823.9	19601.5	825.4	19605.5	822.6	19891	822.8	20113.2	824.3
20259.7	824.7	20295.4	823.2	20566.1	823.3	20775.5	824.1	20990.2	824.5
20999.8	831.8	21260.5	831.1	21575.8	828.5	21868.7	830.8	21915.4	830.6
22114.4	829.6	22366.1	830.8	22582.2	830.7	22813.9	830.1	23030.2	828.8
23269	828.1	23513	827.2	23742.9	829.4	23950.6	830.3	24283.7	830.7
24549.7	830.4	24772.3	829.9	24811.5	826.4	24848.1	825.9	24855.2	824.2
24899	829.9	24930.8	830.4	24990.1	826.9	25004.2	821	25019.4	820.1
25046	828.5	25259.8	827.9	25327.6	828.4	25567.3	828.3	25834.1	830.1
26036.7	830.5	26280.2	831.1	26508.5	832.7	26601.1	833.4	26857.3	834.5
27093.8	835.7	27461.8	838.6	27515.5	839.8	27775.1	842.6	27816.2	842.6
28147.8	841.9	28194.3	842	28417.3	843.2	28459.6	844.6	28466.1	843.1

28472.3 845.7 28559.9 844.3 28790.3 846.8 28938.2 846.2

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15632.1	.032	17671.9	.032	19310	.029	20999.8	.029	21260.5	.15
25046	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17671.9	20999.8	425	513.06	200	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
15632.1	16197.9	845

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	835.33	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.22	Wt. n-Val.	0.032	0.030	0.064
E.G. Elev (ft)	835.55	Reach Len. (ft)	425.00	513.06	200.00
Crit W.S. (ft)	829.45	Flow Area (sq ft)	6788.98	36496.94	31822.74
E.G. Slope (ft/ft)	0.000307	Area (sq ft)	6869.99	36496.94	31822.74
Q Total (cfs)	210000.00	Flow (cfs)	15407.33	154949.38	39643.31
Top Width (ft)	10946.62	Top Width (ft)	1597.74	3327.90	6020.98
Vel Total (ft/s)	2.80	Avg. Vel. (ft/s)	2.27	4.25	1.25
Max Chl Dpth (ft)	15.23	Hydr. Depth (ft)	4.66	10.97	5.29
Conv. Total (cfs)	11977965.0	Conv. (cfs)	878801.9	8837991.0	2261172.5
Length Wtd. (ft)	444.22	Wetted Per. (ft)	1458.62	3332.79	6024.40
Min Ch El (ft)	822.20	Shear (lb/sq ft)	0.09	0.21	0.10
Alpha	1.79	Stream Power (lb/ft s)	0.20	0.89	0.13
Frctn Loss (ft)	0.12	Cum Volume (acre-ft)	2942.18	8373.51	7325.44
C & E Loss (ft)	0.01	Cum SA (acres)	666.07	921.54	1355.02

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16176.05	16312.03	559.56	317.33	98.63	0.27	3.26	1.76
16312.03	16448.02	1217.30	575.43	136.11	0.58	4.23	2.12
16448.02	16584.01	1707.83	704.79	135.99	0.81	5.18	2.42
16584.01	16719.99	1709.09	705.11	135.99	0.81	5.19	2.42
16719.99	16855.98	1625.07	684.09	135.99	0.77	5.03	2.38
16855.98	16991.97	1553.77	665.92	135.99	0.74	4.90	2.33
16991.97	17127.95	1499.82	651.95	135.99	0.71	4.79	2.30
17127.95	17263.94	1446.22	637.87	135.99	0.69	4.69	2.27
17263.94	17399.93	1403.53	626.51	135.99	0.67	4.61	2.24
17399.93	17535.91	1375.12	618.87	135.99	0.65	4.55	2.22
17535.91	17671.90	1310.00	601.11	135.99	0.62	4.42	2.18
17671.90 LB	18503.88	31213.36	8291.61	833.11	14.86	9.97	3.76
18503.88	19335.85	36743.88	9123.53	832.14	17.50	10.97	4.03
19335.85	20167.83	43554.05	9545.33	833.07	20.74	11.47	4.56
20167.83	20999.80 RB	43438.08	9536.47	834.47	20.68	11.46	4.55
20999.80	21529.03	2744.49	2444.44	529.24	1.31	4.62	1.12
21529.03	22058.25	1444.60	2917.06	529.24	0.69	5.51	0.50
22058.25	22587.48	1207.07	2619.00	529.23	0.57	4.95	0.46
22587.48	23116.71	1484.61	2965.26	529.23	0.71	5.60	0.50
23116.71	23645.93	2381.08	3936.96	529.23	1.13	7.44	0.60
23645.93	24175.16	1395.54	2857.21	529.23	0.66	5.40	0.49
24175.16	24704.39	1169.92	2570.32	529.23	0.56	4.86	0.46
24704.39	25233.61	6321.38	3986.58	532.57	3.01	7.53	1.59
25233.61	25762.84	12301.22	3598.93	529.23	5.86	6.80	3.42
25762.84	26292.07	6979.00	2561.41	529.23	3.32	4.84	2.72
26292.07	26821.29	2153.84	1265.13	529.24	1.03	2.39	1.70
26821.29	27350.52	60.55	100.46	199.49	0.03	0.50	0.60

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 181.13

INPUT
Description: 181.13
Station Elevation Data num= 93

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

15825.2	848.6	15848.8	845	15858.3	840.6	15904.7	834.4	16150.5	835.3
16162	836.2	16176.9	829.1	16303.3	832	16546.7	828.7	16775.3	829.9
16965.9	829.8	17151	829.6	17355.9	829.8	17531.2	829.9	17649.5	829.9
17683.6	822.3	17722.7	824.9	17851.9	823.8	17888	826.2	18025.8	824.1
18229.1	824.3	18416.2	824.8	18615.8	824	18670.3	824.1	18716.3	826.4
18791.8	824.4	18814.8	822.1	18860.8	821.7	18909.9	825.6	19100	826.9
19162.4	824.7	19284.4	826.5	19318.5	822.9	19359.4	824.6	19570.4	824.1
19573.2	821.8	19614.7	821.9	19836.1	822	19944.5	822.5	20195.5	823.3
20235.4	823.4	20506.1	822.3	20654.6	822.1	20887.1	822.1	20901.2	830.6
21217.7	829.9	21407.4	828.9	21664.8	828.3	21828.9	828	22008.2	826.1
22188.2	826.6	22358.4	827.1	22368	827.2	22617.5	827.9	22637	827.9
23064.3	828	23293.4	827.9	23335.9	827.8	23583.1	827.7	23758.7	826.9
23977.4	828.2	24146.9	829.1	24482.9	829.3	24710.5	829.4	24921.6	829.6
24957.3	824.3	25001	830.5	25130.2	828.3	25139.6	821.4	25151	820.8
25187	827.3	25485.7	828.5	25643.6	828.9	25861.5	829.7	26143.9	829.9
26209.6	830.3	26443.8	831.9	26520.5	832.1	26719.8	833.7	26979.4	834.4
27157.5	835.2	27427.3	837.5	27492	837.9	27667.6	839.8	27730.2	840.2
27938.2	840.3	28024.1	840.9	28265.4	841.8	28444.9	842.4	28565.3	843.6
28666.6	846	28838.5	846.9	28882.9	847				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15825.2	.032	17649.5	.032	19284.4	.029	20901.2	.029	21217.7	.15
25187	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17649.5	20901.2	595	496.11	560	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15825.2	16162	845	26800	28882.9	845

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	835.23	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.19	Wt. n-Val.	0.032	0.030	0.073
E.G. Elev (ft)	835.41	Reach Len. (ft)	595.00	496.11	560.00
Crit W.S. (ft)	829.00	Flow Area (sq ft)	7924.23	37151.83	38086.41
E.G. Slope (ft/ft)	0.000256	Area (sq ft)	8019.95	37151.83	38353.89
Q Total (cfs)	210000.00	Flow (cfs)	17961.13	148717.92	43320.96
Top Width (ft)	11228.28	Top Width (ft)	1717.23	3251.70	6259.35
Vel Total (ft/s)	2.53	Avg. Vel. (ft/s)	2.27	4.00	1.14
Max Chl Dpth (ft)	14.43	Hydr. Depth (ft)	5.33	11.43	6.46
Conv. Total (cfs)	13126164.0	Conv. (cfs)	1122670.5	9295694.0	2707800.0
Length Wtd. (ft)	520.38	Wetted Per. (ft)	1486.90	3256.55	5902.55
Min Ch El (ft)	821.70	Shear (lb/sq ft)	0.09	0.18	0.10
Alpha	1.89	Stream Power (lb/ft s)	0.19	0.73	0.12
Frctn Loss (ft)	0.14	Cum Volume (acre-ft)	2869.54	7939.78	7164.33
C & E Loss (ft)	0.00	Cum SA (acres)	649.90	882.79	1326.82

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16068.44	16190.06	230.75	118.01	27.40	0.11	4.54	1.96
16190.06	16311.68	1077.18	539.92	121.65	0.51	4.44	2.00
16311.68	16433.30	968.25	506.44	121.63	0.46	4.16	1.91
16433.30	16554.92	1685.78	706.34	121.63	0.80	5.81	2.39
16554.92	16676.54	1861.55	749.63	121.62	0.89	6.16	2.48
16676.54	16798.16	1557.20	673.48	121.62	0.74	5.54	2.31
16798.16	16919.78	1479.41	653.08	121.62	0.70	5.37	2.27
16919.78	17041.40	1514.89	662.44	121.62	0.72	5.45	2.29
17041.40	17163.02	1573.41	677.67	121.62	0.75	5.57	2.32
17163.02	17284.64	1565.38	675.60	121.62	0.75	5.55	2.32
17284.64	17406.26	1511.95	661.66	121.62	0.72	5.44	2.29
17406.26	17527.88	1476.07	652.20	121.62	0.70	5.36	2.26
17527.88	17649.50	1459.31	647.75	121.62	0.69	5.33	2.25
17649.50 LB	18462.43	31079.79	8653.90	813.95	14.80	10.65	3.59
18462.43	19275.35	29183.74	8330.64	813.34	13.90	10.25	3.50
19275.35	20088.27	43161.13	9934.83	813.98	20.55	12.22	4.34
20088.27	20901.20 RB	45293.23	10232.46	815.29	21.57	12.59	4.43
20901.20	21433.31	4266.65	2844.81	532.12	2.03	5.35	1.50
21433.31	21965.43	2144.20	3787.30	532.12	1.02	7.12	0.57
21965.43	22497.54	2855.55	4497.62	532.12	1.36	8.45	0.63

22497.54	23029.65	2252.01	3900.41	532.11	1.07	7.33	0.58
23029.65	23561.77	2269.47	3918.52	532.11	1.08	7.36	0.58
23561.77	24093.88	2361.75	4013.38	532.12	1.12	7.54	0.59
24093.88	24625.99	1619.62	3200.49	532.11	0.77	6.01	0.51
24625.99	25158.11	1827.54	3449.40	535.35	0.87	6.48	0.53
25158.11	25690.22	11983.31	3814.03	532.58	5.71	7.17	3.14
25690.22	26222.33	8395.45	2931.60	532.12	4.00	5.51	2.86
26222.33	26754.45	3274.66	1666.40	532.13	1.56	3.13	1.97
26754.45	27286.56	70.77	62.46	45.55	0.03	1.37	1.13

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 181.04

INPUT
Description: 181.04
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15505.5	837.8	15530	841.7	15586.1	842.9	15613.6	840.4	15659.6	834.3
15735.7	837.1	15835.5	832.7	15868.3	835.2	15973.5	832.7	16055.7	835.2
16092.8	831.2	16114.7	838.6	16159.6	832.9	16247.4	828.2	16473.9	827.7
16841.2	829.4	17249.9	829.3	17470	830.5	17508.8	826.4	17565.3	825.8
17640.5	830.5	17897.1	828.7	17989.6	830.1	18055.7	822.6	18295.8	825.1
18517.3	824.5	18669.9	825.2	18683	822.3	18774.9	826.2	18846.9	825
18887.2	822.1	18918.9	822.1	18949.8	826.1	18961.8	825.7	18994.1	820.8
19099.9	826.3	19123	823.2	19155.3	826.3	19329.2	826.8	19404.1	825
19457.5	820.7	19614.8	823.7	19619.7	821	19631.9	821.1	19865.8	821.9
19947.6	822.3	20518.2	824.2	20616.2	824.3	20745.5	820.6	20757.2	825
20790.2	823.5	20864.2	824.2	20956.9	831	21193.8	829.9	21418.1	828.2
21653.1	828.2	21817.1	824.9	22063.2	825	22323	827.6	22656.4	829.5
22793	829.7	23017.3	830	23135.1	829.9	23387.9	829.8	23614	829.1
23672	829.1	23967.9	829	24073.5	829	24362.8	829.4	24647.3	828.6
24702.1	826.5	24935.4	829.1	25035.6	830.2	25063.1	824.5	25098.3	826.5
25108.7	831	25191.3	827.3	25201.9	821.3	25213.3	821.1	25230	824.9
25420.3	828.3	25618.7	827.9	25949.6	829.3	26192	829.7	26427.9	830.7
26670.5	832.1	26721.4	832.4	27006.7	833.5	27230.7	833.8	27322.8	835.2
27384.6	837.7	27630.4	837.7	27866.7	839	28132	840.3	28466.6	842.2
28650	843.4								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15505.5	.032	17989.6	.032	19404.1	.029	20956.9	.15	25230	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17989.6	20956.9	250	229.74	230	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15505.5	16200	840	26860	28650	840

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	835.08	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.19	Wt. n-Val.	0.032	0.030	0.071
E.G. Elev (ft)	835.27	Reach Len. (ft)	250.00	229.74	230.00
Crit W.S. (ft)	829.29	Flow Area (sq ft)	10981.86	33234.72	37004.49
E.G. Slope (ft/ft)	0.000279	Area (sq ft)	11549.39	33234.72	37652.79
Q Total (cfs)	210000.00	Flow (cfs)	28558.35	137203.23	44238.42
Top Width (ft)	11511.06	Top Width (ft)	2185.63	2967.30	6358.12
Vel Total (ft/s)	2.59	Avg. Vel. (ft/s)	2.60	4.13	1.20
Max Chl Dpth (ft)	14.48	Hydr. Depth (ft)	6.14	11.20	6.27
Conv. Total (cfs)	12566461.0	Conv. (cfs)	1708940.1	8210281.0	2647240.0
Length Wtd. (ft)	232.92	Wetted Per. (ft)	1790.06	2971.45	5906.93
Min Ch El (ft)	820.60	Shear (lb/sq ft)	0.11	0.19	0.11
Alpha	1.85	Stream Power (lb/ft s)	0.28	0.81	0.13
Frctn Loss (ft)	0.07	Cum Volume (acre-ft)	2735.89	7538.96	6675.77
C & E Loss (ft)	0.00	Cum SA (acres)	623.24	847.37	1245.72

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)

16167.93	16333.53	2321.45	867.00	133.60	1.11	6.49	2.68
16333.53	16499.14	3454.62	1199.25	165.61	1.65	7.24	2.88
16499.14	16664.75	3173.23	1139.65	165.61	1.51	6.88	2.78
16664.75	16830.35	2606.34	1012.72	165.61	1.24	6.12	2.57
16830.35	16995.96	2318.87	944.14	165.61	1.10	5.70	2.46
16995.96	17161.57	2345.27	950.57	165.61	1.12	5.74	2.47
17161.57	17327.17	2303.07	940.28	165.61	1.10	5.68	2.45
17327.17	17492.78	1914.27	841.79	165.73	0.91	5.08	2.27
17492.78	17658.39	3635.93	1237.34	165.85	1.73	7.47	2.94
17658.39	17823.99	2045.68	875.74	165.61	0.97	5.29	2.34
17823.99	17989.60	2439.66	973.38	165.62	1.16	5.88	2.51
17989.60 LB	18731.43	29153.61	7830.38	742.63	13.88	10.56	3.72
18731.43	19473.25	28538.32	7658.03	743.31	13.59	10.32	3.73
19473.25	20215.07	44977.99	9574.11	742.55	21.42	12.91	4.70
20215.07	20956.90 RB	34533.25	8172.19	742.97	16.44	11.02	4.23
20956.90	21469.77	1387.29	2805.80	512.88	0.66	5.47	0.49
21469.77	21982.65	2870.85	4340.81	512.91	1.37	8.46	0.66
21982.65	22495.52	2827.06	4300.90	512.89	1.35	8.39	0.66
22495.52	23008.39	1422.87	2848.74	512.88	0.68	5.55	0.50
23008.39	23521.27	1304.74	2704.38	512.87	0.62	5.27	0.48
23521.27	24034.14	1617.05	3076.01	512.87	0.77	6.00	0.53
24034.14	24547.01	1581.58	3035.34	512.87	0.75	5.92	0.52
24547.01	25059.89	1976.67	3471.44	513.45	0.94	6.77	0.57
25059.89	25572.76	10931.95	4071.80	516.05	5.21	7.94	2.68
25572.76	26085.63	10600.68	3243.87	512.88	5.05	6.32	3.27
26085.63	26598.51	6402.21	2396.97	512.88	3.05	4.67	2.67
26598.51	27111.38	1315.48	708.43	261.50	0.63	2.71	1.86

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 180.99

INPUT
Description: 180.99
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16004.8	845.9	16057.7	840.5	16074.2	835.3	16116.7	829.2	16137	835
16183	833.6	16195	831	16240.2	827.9	16384	826.2	16581.9	828.6
16815.8	829.1	17038.1	828.7	17231	828.7	17288.8	826	17498.5	827.5
17774.9	826.2	18001.9	829.1	18291	829.9	18331.4	829	18387.9	822.7
18622	824.6	18711.7	822.9	18797	827.6	18856.2	824.2	18966.7	825.5
18992	821.6	19083.9	824.8	19286.4	826.2	19447.5	825.3	19476.4	826.7
19521.9	820.7	19588.7	822.8	19593.2	821	20050.2	822.4	20160.3	822.8
20474.9	824.1	20670.9	823.8	20713.4	824	20732.3	835.8	20784.2	819.6
20911	822.8	20973.2	829.2	21223.1	829	21329.9	831.4	21551.6	828
21845.7	825.8	21938.6	824.3	22015.4	821.3	22043.9	824.1	22136.9	824.7
22352.1	825.7	22428.3	825.6	22669.3	826.8	22753.5	827.7	23025	827.5
23131.4	827.3	23433.5	826.9	23464.6	826.8	23781.5	829.1	23814.3	829.1
24098.3	830.7	24112.7	830.8	24338.9	827.6	24522.2	829.2	24819.4	826.6
24872.8	826.3	24948.7	832	25074.3	831.2	25129	825.3	25165.4	826.3
25171.5	828.5	25231.1	831.2	25251	827.1	25267	827.1	25269.9	819.8
25287.6	821.8	25301.7	826.7	25534.4	828.1	25768.5	827.6	26038.6	828.3
26229.1	830.6	26529.4	831.5	26804.5	832.5	27109.9	833.9	27340.6	834.4
27387.3	835.2	27448.9	838	27694.6	837.4	27967.9	839.2	28075.7	839.2
28287.9	840.8	28529.6	841.4	28724.2	844	28759.8	846.3	28773.6	845
28856.9	846.1								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16004.8	.032	18291	.032	19521.9	.029	20732.3	.029	20911	.029
20911	.15	25301.7	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18291	20732.3	250	272.51	230	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16004.8	16480	840	26950	28856.9	840

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	835.02	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.19	Wt. n-Val.	0.032	0.030	0.070
E.G. Elev (ft)	835.20	Reach Len. (ft)	250.00	272.51	230.00
Crit W.S. (ft)	829.39	Flow Area (sq ft)	12442.54	27263.25	42965.59

E.G. Slope (ft/ft)	0.000298	Area (sq ft)	14873.82	27263.25	43414.74
Q Total (cfs)	210000.00	Flow (cfs)	36046.98	116088.27	57864.74
Top Width (ft)	11296.82	Top Width (ft)	2214.84	2440.05	6641.93
Vel Total (ft/s)	2.54	Avg. Vel. (ft/s)	2.90	4.26	1.35
Max Chl Dpth (ft)	15.42	Hydr. Depth (ft)	6.87	11.17	6.91
Conv. Total (cfs)	12164162.0	Conv. (cfs)	2088006.0	6724364.5	3351791.0
Length Wtd. (ft)	256.49	Wetted Per. (ft)	1811.10	2445.00	6225.58
Min Ch El (ft)	820.70	Shear (lb/sq ft)	0.13	0.21	0.13
Alpha	1.85	Stream Power (lb/ft s)	0.37	0.88	0.17
Frctn Loss (ft)	0.08	Cum Volume (acre-ft)	2660.06	7379.42	6461.75
C & E Loss (ft)	0.00	Cum SA (acres)	610.62	833.11	1211.40

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16462.04	16614.45	2648.91	924.88	134.46	1.26	6.88	2.86
16614.45	16766.87	2516.24	942.90	152.41	1.20	6.19	2.67
16766.87	16919.28	2390.37	914.31	152.41	1.14	6.00	2.61
16919.28	17071.69	2549.61	950.39	152.41	1.21	6.24	2.68
17071.69	17224.11	2606.66	963.09	152.41	1.24	6.32	2.71
17224.11	17376.52	4026.73	1250.43	152.48	1.92	8.20	3.22
17376.52	17528.93	3767.93	1201.38	152.42	1.79	7.88	3.14
17528.93	17681.35	3878.58	1222.42	152.41	1.85	8.02	3.17
17681.35	17833.76	4305.14	1301.41	152.42	2.05	8.54	3.31
17833.76	17986.17	3160.46	1081.14	152.43	1.50	7.09	2.92
17986.17	18138.59	2233.61	877.85	152.41	1.06	5.76	2.54
18138.59	18291.00	1962.75	812.34	152.41	0.93	5.33	2.42
18291.00 LB	18901.32	23643.90	6264.66	610.94	11.26	10.26	3.77
18901.32	19511.65	22493.96	6080.40	611.03	10.71	9.96	3.70
19511.65	20121.98	39716.34	8068.36	610.80	18.91	13.22	4.92
20121.98	20732.30 RB	30234.04	6849.84	612.23	14.40	11.25	4.41
20732.30	21273.94	10768.84	4450.15	541.87	5.13	8.25	2.42
21273.94	21815.58	2021.52	3530.40	541.69	0.96	6.52	0.57
21815.58	22357.22	4410.16	5638.23	541.85	2.10	10.41	0.78
22357.22	22898.86	3048.83	4517.36	541.65	1.45	8.34	0.67
22898.86	23440.50	2702.92	4202.44	541.64	1.29	7.76	0.64
23440.50	23982.14	2036.05	3545.51	541.65	0.97	6.55	0.57
23982.14	24523.78	1662.77	3139.87	541.67	0.79	5.80	0.53
24523.78	25065.42	1903.15	3405.32	541.87	0.91	6.29	0.56
25065.42	25607.06	9679.58	4055.89	548.73	4.61	7.49	2.39
25607.06	26148.70	13387.96	3745.78	541.65	6.38	6.92	3.57
26148.70	26690.34	5125.22	2105.43	541.65	2.44	3.89	2.43
26690.34	27231.98	1117.79	629.23	259.66	0.53	2.42	1.78

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 180.94

INPUT
Description: 180.94
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15919.6	840	15956.1	842.8	16010.7	840.4	16063.2	830.1	16091.1	834.8
16102.1	833	16126.4	834.2	16137.2	830.3	16351.3	826.6	16540.6	825.5
16760	828	16904.1	829.4	17070.8	827.4	17117.8	825.3	17367.6	827.6
17427.6	827.7	17652.3	827.7	17881.8	828.5	17961	828.9	18179.3	828.7
18339.2	829	18515.6	826.7	18644.1	824.7	18680.5	822.2	18800.6	824.1
18838.6	822.9	18883.9	826.5	19014.1	824.4	19029.1	821	19080.6	825.4
19156.1	826.7	19167.4	821.4	19252.3	826.6	19429.9	825.8	19516.3	823.2
19524.9	825.3	19539.7	825.2	19557.5	821.6	20014.7	823.1	20438.9	823.7
20623.8	823.7	20716.1	823.7	20726.2	829.8	20824.4	822.8	20831.7	821
20997.6	826	21012.9	827.5	21022	826.4	21188.9	828.6	21362.7	828.9
21528.7	828.3	21711.8	828.8	21905.3	826	22068.2	827.9	22259.5	828.3
22437.8	827.1	22672	827.2	22844	826.7	23053	826.5	23230.8	825.6
23413.2	825.5	23575.3	826.9	23754.1	826	23950.2	826.2	24114.1	825.8
24323.9	826.4	24499.7	828.6	24578.9	825.3	24646.6	826.2	24701.5	824.3
24780.2	830.5	24810.4	829.1	24992.1	831.1	25183.8	829.3	25297.8	828.6
25311.9	830.8	25326.2	827.2	25340.4	827.7	25346.9	820.7	25360.9	819.8
25378	828.7	25659.2	827.3	25904.5	828.8	26126	829.4	26289.7	829.9
26462.1	830.1	26703.1	832.6	27015.8	833.5	27253.4	834.5	27417.3	834.8

27522.1	837.9	27551.4	836.2	27804.3	837.8	28024.2	839.1	28197.1	840
28495.2	841.5								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15919.6	.032	18339.2	.032	19429.9	.029	20726.2	.032	21188.9	.15
25378	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18339.2	20726.2	540	479.73	405	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15919.6	16787	840	27000	28495.2	840

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	834.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.20	Wt. n-Val.	0.032	0.030	0.070
E.G. Elev (ft)	835.12	Reach Len. (ft)	540.00	479.73	405.00
Crit W.S. (ft)	829.82	Flow Area (sq ft)	10752.08	25631.24	44204.38
E.G. Slope (ft/ft)	0.000334	Area (sq ft)	15997.61	25631.24	44493.16
Q Total (cfs)	210000.00	Flow (cfs)	33141.86	113116.99	63741.15
Top Width (ft)	11382.99	Top Width (ft)	2300.60	2387.00	6695.39
Vel Total (ft/s)	2.61	Avg. Vel. (ft/s)	3.08	4.41	1.44
Max Chl Dpth (ft)	15.13	Hydr. Depth (ft)	6.93	10.74	7.05
Conv. Total (cfs)	11495533.0	Conv. (cfs)	1814206.1	6192096.0	3489231.0
Length Wtd. (ft)	462.64	Wetted Per. (ft)	1552.28	2391.59	6280.88
Min Ch El (ft)	821.00	Shear (lb/sq ft)	0.14	0.22	0.15
Alpha	1.86	Stream Power (lb/ft s)	0.44	0.99	0.21
Frctn Loss (ft)	0.16	Cum Volume (acre-ft)	2571.47	7213.97	6229.67
C & E Loss (ft)	0.00	Cum SA (acres)	597.66	818.02	1176.19

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16726.13	16887.44	1756.08	620.38	100.44	0.84	6.18	2.83
16887.44	17048.75	2925.01	1018.38	161.32	1.39	6.31	2.87
17048.75	17210.05	5060.49	1415.12	161.36	2.41	8.77	3.58
17210.05	17371.36	4372.23	1296.13	161.31	2.08	8.04	3.37
17371.36	17532.67	3677.94	1168.38	161.31	1.75	7.24	3.15
17532.67	17693.97	3648.27	1162.71	161.31	1.74	7.21	3.14
17693.97	17855.28	3310.93	1096.96	161.31	1.58	6.80	3.02
17855.28	18016.59	2843.66	1001.26	161.31	1.35	6.21	2.84
18016.59	18177.89	2801.40	992.31	161.31	1.33	6.15	2.82
18177.89	18339.20	2745.84	980.45	161.31	1.31	6.08	2.80
18339.20 LB	18935.95	21254.26	5624.14	597.05	10.12	9.42	3.78
18935.95	19532.70	23419.13	5899.46	598.97	11.15	9.89	3.97
19532.70	20129.45	36809.46	7371.09	597.11	17.53	12.35	4.99
20129.45	20726.20 RB	31634.18	6736.56	598.45	15.06	11.29	4.70
20726.20	21244.13	15665.19	4622.04	518.63	7.46	8.92	3.39
21244.13	21762.07	1959.61	3270.85	517.94	0.93	6.32	0.60
21762.07	22280.00	2596.85	3872.87	517.96	1.24	7.48	0.67
22280.00	22797.93	2704.96	3968.75	517.94	1.29	7.66	0.68
22797.93	23315.87	3322.53	4489.92	517.94	1.58	8.67	0.74
23315.87	23833.80	3401.27	4553.48	517.94	1.62	8.79	0.75
23833.80	24351.73	3422.13	4570.20	517.94	1.63	8.82	0.75
24351.73	24869.67	2660.50	3930.68	518.33	1.27	7.59	0.68
24869.67	25387.60	1789.42	2920.96	523.84	0.85	5.64	0.61
25387.60	25905.53	13674.35	3581.06	517.94	6.51	6.91	3.82
25905.53	26423.47	9129.57	2810.19	517.94	4.35	5.43	3.25
26423.47	26941.40	3285.86	1522.16	517.95	1.56	2.94	2.16
26941.40	27459.33	128.92	91.23	58.60	0.06	1.56	1.41

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 180.85

INPUT
Description: 180.85
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15715.8	843.4	15838	837.1	15849.7	830.9	15876.1	835.1	15894.9	835.6
15917.5	831	15928.1	831.3	15972.1	827.8	16187.5	828.3	16400	826.2
16643.3	826.1	16877.2	829.7	16907.5	829.7	16933.5	824	16978.4	824.8

17179.5	825.7	17392.8	827.2	17596.9	827.1	17811.9	827.6	18092.3	828
18251.3	829.2	18326.9	826.3	18461.4	830.7	18714.9	830	18770	830.5
18801.1	833.3	18846.6	833	18881.8	824.6	18966	823.3	19166.1	825.8
19343.1	827.2	19436.6	826.9	19461.1	824.7	19511	827.4	19538.4	827.1
19548.2	821.8	19754.8	822.4	19998.9	822.5	20081.2	822.7	20320.6	823.1
20634.6	823	20716.5	823	20727.3	834.2	20763.1	830.2	20957.2	830.3
21166	829.2	21386	826.8	21474.8	827.5	21710.2	825.8	21811.1	825.5
22095.5	825.8	22370	825.3	22682.9	825.9	22871.1	826.5	23203.9	826.4
23477.7	826.6	23691.1	825.8	23983.7	826.1	24098.2	826.9	24325.8	825.6
24510.9	826.1	24577.8	829.8	24776.6	829.7	24979.1	828.6	25172.6	829.7
25377.7	828.8	25396.3	827.6	25402	828.9	25410	825	25438.2	825.3
25448.7	820	25475.1	821.5	25502.7	827	25587.2	826	25782.3	826.5
25793.6	826.5	26022.6	827	26028.6	827	26274.7	827.4	26400.6	827.4
26448.4	830.3	26506.1	829.1	26753.6	830.9	26780.1	831.1	27108.7	832.3
27135.4	832.4	27364	833.6	27543	833.6	27724.6	836	27925.5	837.6
27981.2	838.2	28200.6	839.3	28243.4	839.3	28497.1	840.8	28750.4	841.5
28890.2	842.6								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15715.8	.032	18846.6	.032	19461.1	.029	20727.3	.043	20957.2	.032
21386	.15	24577.8	.043	25502.7	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18846.6	20727.3	535	524.58	545	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15715.8	17316	840	27083	28890.2	840

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	834.75	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.21	Wt. n-Val.	0.032	0.030	0.062
E.G. Elev (ft)	834.96	Reach Len. (ft)	535.00	524.58	545.00
Crit W.S. (ft)	830.03	Flow Area (sq ft)	9563.15	20454.14	46492.93
E.G. Slope (ft/ft)	0.000377	Area (sq ft)	20559.35	20454.14	47276.82
Q Total (cfs)	210000.00	Flow (cfs)	29240.61	98118.25	82641.14
Top Width (ft)	11762.36	Top Width (ft)	2978.98	1880.70	6902.68
Vel Total (ft/s)	2.74	Avg. Vel. (ft/s)	3.06	4.80	1.78
Max Chl Dpth (ft)	14.75	Hydr. Depth (ft)	6.25	10.88	7.32
Conv. Total (cfs)	10817366.0	Conv. (cfs)	1506220.9	5054195.5	4256950.0
Length Wtd. (ft)	534.83	Wetted Per. (ft)	1530.86	1888.00	6359.12
Min Ch El (ft)	821.80	Shear (lb/sq ft)	0.15	0.25	0.17
Alpha	1.76	Stream Power (lb/ft s)	0.45	1.22	0.31
Frctn Loss (ft)	0.23	Cum Volume (acre-ft)	2344.88	6960.20	5803.05
C & E Loss (ft)	0.01	Cum SA (acres)	564.93	794.52	1112.97

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17176.84	17385.56	1885.24	545.70	69.56	0.90	7.84	3.45
17385.56	17594.28	5363.16	1585.84	208.72	2.55	7.60	3.38
17594.28	17803.00	5147.14	1547.21	208.72	2.45	7.41	3.33
17803.00	18011.72	4693.31	1463.84	208.72	2.23	7.01	3.21
18011.72	18220.44	4108.01	1351.42	208.72	1.96	6.47	3.04
18220.44	18429.16	4340.05	1397.01	208.83	2.07	6.69	3.11
18429.16	18637.88	2106.36	905.19	208.74	1.00	4.34	2.33
18637.88	18846.60	1597.34	766.93	208.85	0.76	3.67	2.08
18846.60 LB	19316.78	17694.58	4418.32	471.19	8.43	9.40	4.00
19316.78	19786.95	23021.58	4891.34	471.69	10.96	10.40	4.71
19786.95	20257.13	29887.86	5699.32	470.18	14.23	12.12	5.24
20257.13	20727.30 RB	27514.20	5445.15	474.93	13.10	11.58	5.05
20727.30	21271.49	6190.99	2654.64	544.43	2.95	4.88	2.33
21271.49	21815.69	5483.05	4380.74	544.21	2.61	8.05	1.25
21815.69	22359.88	4073.25	4975.19	544.19	1.94	9.14	0.82
22359.88	22904.07	3889.88	4839.58	544.19	1.85	8.89	0.80
22904.07	23448.27	3456.43	4508.39	544.19	1.65	8.28	0.77
23448.27	23992.46	3724.25	4714.87	544.20	1.77	8.66	0.79
23992.46	24536.65	3645.89	4655.24	544.24	1.74	8.55	0.78
24536.65	25080.85	5643.14	2974.50	544.26	2.69	5.47	1.90
25080.85	25625.04	11552.36	3919.87	547.14	5.50	7.20	2.95
25625.04	26169.23	19721.08	4374.35	544.19	9.39	8.04	4.51

26169.23	26713.43	12313.71	3297.78	544.30	5.86	6.06	3.73
26713.43	27257.62	2947.14	1197.78	369.58	1.40	3.24	2.46

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 180.75

INPUT
Description: 180.75
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15321.8	840	15493	835.4	15534	836.3	15557.4	833.5	15736.5	832.4
15752.5	834.5	15769	831.7	15963	832.8	15974	830.2	16164.4	830
16192.6	824.9	16431.4	826	16618.1	826	16669	821.1	16674	827.1
16688.3	827.9	16702.8	822.8	16956.3	823.6	17118.5	826.6	17415.1	826.9
17726.2	827.6	17949.4	827.6	18186.2	828	18289.6	828.1	18368.6	825
18429	830.4	18493.5	827	18766.8	829.4	18910	827.1	19011.2	831.1
19055.3	822.5	19160.3	823.1	19196.2	825.6	19277.7	824.7	19322.9	826.5
19339.9	823.4	19361.9	826.5	19445.1	826.2	19460.5	821.4	19920.9	822.4
20136.6	822.9	20385.2	823.1	20579.4	822.9	20601.7	832.9	20673.2	828.7
20820.6	826.8	20867.1	828.1	20893.5	824.7	21194	826.6	21325	828
21707.2	825.8	21923.5	824.9	22055.9	824.1	22236.1	828.7	22386.9	828.7
22611.3	825.5	22633.4	825.4	22926.2	825.3	22942.6	825.3	23279.5	820.2
23497	822.2	23719.9	821.5	23853.7	821	23917.1	823.6	23958.1	822.3
24054	830	24435.8	829.1	24524.1	828.5	24557.5	826.3	24584.5	829.3
24603.9	827.7	24937.7	829.1	25248.3	826.5	25290.8	824.3	25394.4	826.6
25411.6	824.4	25429.4	826.1	25435.4	821	25450.7	820.5	25470	827.2
25769.7	826.6	25797.5	826.8	26021.9	827.9	26111.6	828.3	26385.7	828.5
26621.9	830.1	26769.1	831.3	27066.4	832.2	27335	833.6	27552.9	834.4
27640.8	837.6	27888.4	837.8	28155.7	838.4	28407.1	840	28688.9	840.9
28779.3	842								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15321.8	.032	19011.2	.03	20136.6	.065	20601.7	.065	20893.5	.032
21194	.15	24524.1	.043	25470	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19011.2	20601.7	710	508.13	590	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15321.8	17747	842	26761	28779.3	842

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	834.54	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.18	Wt. n-Val.	0.032	0.036	0.067
E.G. Elev (ft)	834.72	Reach Len. (ft)	710.00	508.13	590.00
Crit W.S. (ft)	829.53	Flow Area (sq ft)	8276.35	17971.62	49649.30
E.G. Slope (ft/ft)	0.000476	Area (sq ft)	23868.40	17971.62	51063.46
Q Total (cfs)	210000.00	Flow (cfs)	29349.85	82292.18	98357.97
Top Width (ft)	12008.02	Top Width (ft)	3462.49	1590.50	6955.04
Vel Total (ft/s)	2.77	Avg. Vel. (ft/s)	3.55	4.58	1.98
Max Chl Dpth (ft)	14.34	Hydr. Depth (ft)	6.55	11.30	8.06
Conv. Total (cfs)	9620517.0	Conv. (cfs)	1344574.8	3769968.0	4505974.0
Length Wtd. (ft)	567.30	Wetted Per. (ft)	1264.70	1594.83	6163.86
Min Ch El (ft)	821.40	Shear (lb/sq ft)	0.19	0.34	0.24
Alpha	1.54	Stream Power (lb/ft s)	0.69	1.53	0.47
Frctn Loss (ft)	0.30	Cum Volume (acre-ft)	2072.05	6728.83	5187.86
C & E Loss (ft)	0.04	Cum SA (acres)	525.38	773.61	1026.28

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17535.44	17781.40	878.49	238.71	34.40	0.42	6.94	3.68
17781.40	18027.36	6250.03	1701.76	245.96	2.98	6.92	3.67
18027.36	18273.32	5794.06	1626.14	245.96	2.76	6.61	3.56
18273.32	18519.28	6339.19	1717.37	246.35	3.02	6.98	3.69
18519.28	18765.24	5252.29	1533.15	245.97	2.50	6.23	3.43
18765.24	19011.20	4835.79	1459.21	246.06	2.30	5.93	3.31
19011.20 LB	19408.82	18882.92	3864.35	399.08	8.99	9.72	4.89
19408.82	19806.45	27905.06	4881.22	398.36	13.29	12.28	5.72

19806.45	20204.07	24390.45	4751.76	397.63	11.61	11.95	5.13
20204.07	20601.70 RB	11113.75	4474.28	399.76	5.29	11.25	2.48
20601.70	21146.87	12880.05	4102.90	545.55	6.13	7.53	3.14
21146.87	21692.05	4565.85	4117.71	545.19	2.17	7.55	1.11
21692.05	22237.22	4527.73	4922.05	545.24	2.16	9.03	0.92
22237.22	22782.39	3352.63	4109.96	545.20	1.60	7.54	0.82
22782.39	23327.57	6522.74	6127.31	545.21	3.11	11.24	1.06
23327.57	23872.74	8298.94	7079.79	545.20	3.95	12.99	1.17
23872.74	24417.91	2704.11	3613.52	545.54	1.29	6.63	0.75
24417.91	24963.09	7228.89	3331.55	545.48	3.44	6.11	2.17
24963.09	25508.26	13470.54	4369.03	548.50	6.41	8.01	3.08
25508.26	26053.43	19595.53	4045.79	545.18	9.33	7.42	4.84
26053.43	26598.61	13157.26	3185.73	545.18	6.27	5.84	4.13
26598.61	27143.78	2053.70	643.94	162.40	0.98	3.97	3.19

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 180.65

INPUT
Description: 180.65
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15062.7	840.7	15096.4	837.3	15245.9	836.9	15306	835.1	15509.1	836
15538.2	834.3	15631.7	835.6	15645.8	833.8	15835.4	834.9	15852.2	831
16042.4	832.1	16059.8	828.7	16192.8	828.1	16244.6	829.7	16264.1	825.5
16469.3	827	16550.9	820.6	16561.4	825.7	16587	822.4	16852.6	824.7
17087.9	825.3	17288.3	826	17572.3	826.4	17779.4	827.5	18020.8	827.7
18265.2	826.9	18407.5	825.2	18451.9	828.8	18665.9	828.7	18738	829.2
18751.2	831	18789.2	825.2	18985.1	830	19180.6	822.7	19238.7	823.5
19306	826.6	19334.3	824	19346.7	820.9	19665.3	821.3	19871.9	822.5
20089.9	824.3	20210.2	824.1	20218	821.4	20507.4	821.6	20603.2	821.3
20622.2	829.5	20850.3	829.2	21083.3	825.6	21143	830.3	21342.5	828.5
21408.9	829.8	21592.5	829.7	21798	826.3	22060.2	825.1	22222.1	823.2
22613.4	826	22955.2	825.2	23009.8	824.8	23331.8	819.8	23623	828.8
23736.1	828.4	23838.9	822	23878	821.3	23928.7	827.2	24130.9	826.8
24251	828.4	24290	822.3	24320.1	827.4	24534.8	827.5	24763.8	827.6
24981.2	827.9	25186.7	824.7	25398.4	824	25414.4	819	25425.6	819.3
25438	825.6	25480.8	824.3	25788.9	826.8	26060.1	828.8	26262.5	829.3
26518.1	829	26566.5	829.3	26814.4	831.3	26932.6	832.3	27137.7	833.5
27394.7	835.3	27604.2	836.7	27614.6	834.9	27666.3	839.4	27673.3	835.6
27685.8	839.5	27699.7	837	27753.1	838.3	27989.3	839.9	28177.5	840.8
28413.5	841.6								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15062.7	.032	18985.1	.032	19346.7	.031	20622.2	.065	20850.3	.032
21143	.15	24320.1	.043	25438	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18985.1	20622.2	465	483.21	485	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15062.7	18165	841	25913	28413.5	841

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	834.08	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.31	Wt. n-Val.	0.032	0.031	0.070
E.G. Elev (ft)	834.39	Reach Len. (ft)	465.00	483.21	485.00
Crit W.S. (ft)	829.47	Flow Area (sq ft)	5220.53	18423.70	41538.78
E.G. Slope (ft/ft)	0.000573	Area (sq ft)	22618.35	18423.70	46385.95
Q Total (cfs)	210000.00	Flow (cfs)	19910.17	106382.43	83707.41
Top Width (ft)	11432.36	Top Width (ft)	3196.81	1637.10	6598.45
Vel Total (ft/s)	3.22	Avg. Vel. (ft/s)	3.81	5.77	2.02
Max Chl Dpth (ft)	15.08	Hydr. Depth (ft)	6.37	11.25	7.85
Conv. Total (cfs)	8776639.0	Conv. (cfs)	832116.1	4446096.0	3498427.0
Length Wtd. (ft)	482.53	Wetted Per. (ft)	820.88	1639.97	5295.06
Min Ch El (ft)	820.90	Shear (lb/sq ft)	0.23	0.40	0.28
Alpha	1.92	Stream Power (lb/ft s)	0.87	2.32	0.57
Frctn Loss (ft)	0.33	Cum Volume (acre-ft)	1693.20	6516.55	4527.90
C & E Loss (ft)	0.03	Cum SA (acres)	471.11	754.79	934.50

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17939.13	18200.62	981.47	246.17	35.62	0.47	6.91	3.99
18200.62	18462.11	8302.16	1968.09	261.65	3.95	7.53	4.22
18462.11	18723.61	4628.87	1385.84	261.49	2.20	5.30	3.34
18723.61	18985.10	5997.69	1620.43	262.12	2.86	6.20	3.70
18985.10 LB	19394.38	18748.20	3776.89	409.99	8.93	9.23	4.96
19394.38	19803.65	32599.72	5221.41	409.28	15.52	12.76	6.24
19803.65	20212.92	24035.86	4349.56	409.44	11.45	10.63	5.53
20212.92	20622.20 RB	30998.63	5075.83	411.27	14.76	12.40	6.11
20622.20	21141.62	9019.10	2996.54	519.63	4.29	5.77	3.01
21141.62	21661.04	1569.03	2400.87	519.45	0.75	4.62	0.65
21661.04	22180.46	4071.68	4272.93	519.45	1.94	8.23	0.95
22180.46	22699.88	5046.96	4860.42	519.43	2.40	9.36	1.04
22699.88	23219.30	5241.71	4972.15	519.45	2.50	9.57	1.05
23219.30	23738.72	5275.02	4991.58	519.58	2.51	9.61	1.06
23738.72	24258.14	3855.15	4137.04	520.06	1.84	7.96	0.93
24258.14	24777.56	9200.29	3582.14	520.24	4.38	6.90	2.57
24777.56	25296.98	12412.45	3940.95	519.45	5.91	7.59	3.15
25296.98	25816.40	24771.06	4734.80	521.73	11.80	9.12	5.23
25816.40	26335.82	3244.98	649.34	96.60	1.55	6.72	5.00

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 180.56

INPUT
Description: 180.56
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14713.1	839	14916.1	837.6	15175.7	836.2	15280	835.7	15507.7	835.7
15710.2	834.6	15770.9	835.5	15899.6	833.7	16074.2	828.9	16293.6	828
16519.2	825.1	16647.3	824.4	16683.6	819.8	16713.5	819.6	16728.8	824.7
16745.9	824.1	16755.7	821.7	16992.6	825.3	17227.6	826.1	17456.5	825
17552	825.1	17780.5	826.5	18010.7	827.9	18231.2	826.9	18445.8	827.1
18550.3	825.6	18593.4	827.9	18712.6	825.7	18949	828	19038.5	831.1
19244.3	826.4	19276.4	821.6	19368.3	825.5	19378.5	820.5	19660.4	820.8
19901.3	823	20140.7	823.6	20326.9	823.2	20331.8	820.7	20563.6	821
20713.2	821	20727	830.5	20931.4	830.4	21157.2	825.7	21404	827.8
21627.6	828.3	21818	827.3	22070.3	825.5	22382.2	821.6	22543.2	822
22779.3	823.4	22997.5	825.3	23254.2	825.1	23539.8	827.2	23863.4	827.6
24061.6	826.3	24126	820.2	24186.9	826	24391.9	824.5	24617.9	826.6
24875.6	827.4	25084.1	826.1	25306.3	825.9	25336.4	824.2	25353.6	826
25383.9	824.9	25398.3	826.5	25430.3	824	25440.5	818.8	25454	819
25474	827.3	25494.1	824.6	25763.5	825.9	25891.5	828.4	26116.4	827.8
26319.6	829.2	26375.2	828.6	26393.5	830	26402.7	828.2	26412.7	830.3
26454.9	830.2	26661.4	830.7	26689.2	831	26990	832.8	27030.1	833.1
27269.7	834.9	27482.2	835	27720.5	836.3	27752	834.7	27762.3	838.3
27804.3	837.6	27810.3	834.9	27824.2	841	27837.8	837.7	28130.9	839.7
28265.3	840.7								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14713.1	.032	19038.5	.032	20727	.065	21157.2	.032	21404	.15
24126	.043	25474	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19038.5	20727	505	492.85	490	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14713.1	18614	841	25513	28265.3	841

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	833.62	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.41	Wt. n-Val.	0.032	0.032	0.076
E.G. Elev (ft)	834.03	Reach Len. (ft)	505.00	492.85	490.00
Crit W.S. (ft)	829.32	Flow Area (sq ft)	2656.45	18214.05	36627.37
E.G. Slope (ft/ft)	0.000817	Area (sq ft)	22362.17	18214.05	43687.58
Q Total (cfs)	210000.00	Flow (cfs)	11970.80	117772.44	80256.77
Top Width (ft)	11197.04	Top Width (ft)	3136.04	1688.50	6372.50
Vel Total (ft/s)	3.65	Avg. Vel. (ft/s)	4.51	6.47	2.19

Max Chl Dpth (ft)	14.82	Hydr. Depth (ft)	6.26	10.79	7.65
Conv. Total (cfs)	7347465.0	Conv. (cfs)	418833.5	4120613.5	2808018.0
Length Wtd. (ft)	492.61	Wetted Per. (ft)	424.58	1693.72	4790.13
Min Ch El (ft)	820.50	Shear (lb/sq ft)	0.32	0.55	0.39
Alpha	1.98	Stream Power (lb/ft s)	1.44	3.55	0.85
Frctn Loss (ft)	0.57	Cum Volume (acre-ft)	1453.12	6313.34	4026.46
C & E Loss (ft)	0.15	Cum SA (acres)	437.30	736.34	862.29

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18461.78	18750.14	4834.42	981.84	136.16	2.30	7.21	4.92
18750.14	19038.50	7136.39	1674.61	288.42	3.40	5.81	4.26
19038.50 LB	19460.63	17984.59	3419.26	423.78	8.56	8.10	5.26
19460.63	19882.75	36353.73	5207.70	422.13	17.31	12.34	6.98
19882.75	20304.88	26868.90	4343.73	422.13	12.79	10.29	6.19
20304.88	20727.00 RB	36565.20	5243.36	425.68	17.41	12.42	6.97
20727.00	21229.55	6119.71	2457.08	502.60	2.91	4.89	2.49
21229.55	21732.11	6879.27	2975.54	502.56	3.28	5.92	2.31
21732.11	22234.66	4187.15	3849.25	502.57	1.99	7.66	1.09
22234.66	22737.21	8017.41	5683.86	502.57	3.82	11.31	1.41
22737.21	23239.77	5426.89	4497.30	502.56	2.58	8.95	1.21
23239.77	23742.32	3627.69	3531.82	502.56	1.73	7.03	1.03
23742.32	24244.87	7513.97	3823.18	503.12	3.58	7.61	1.97
24244.87	24747.43	15375.10	3969.54	502.57	7.32	7.90	3.87
24747.43	25249.98	12558.12	3515.61	502.56	5.98	7.00	3.57
25249.98	25752.53	10551.47	2324.19	266.45	5.02	8.84	4.54

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 180.47

INPUT
Description: 180.47
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14801.7	839	14808.1	836.9	14832.8	842.4	14917.8	837.8	15151.4	836.5
15556	832.8	15781.8	830.1	15809.3	832.3	15828.9	829.6	16088.4	828
16352.4	826.7	16557.4	826.2	16569.6	830.6	16585.9	830.9	16619.5	824.6
16849.8	824.5	17105	824.4	17340.7	824.3	17566.7	824.1	17919.2	825.2
18170.8	826.8	18396.6	827.4	18623.8	826.3	18881.1	826.8	18902.1	831.6
18927.1	824.9	18952.9	824.2	18992.3	827.8	19084.8	826.8	19115.7	828.7
19207.8	824.1	19265.7	829	19301.9	825.6	19323.5	827.3	19339.4	820.3
19349.3	820.2	19649.6	819.8	19890.4	822.6	20140.3	822.4	20378.6	822.1
20731.7	821	20736.7	827.1	20747.2	831.3	20795.7	828.1	21080	829.3
21136.4	827.9	21171.2	824.5	21227.3	827.5	21368	828.9	21446.5	827.6
21485.5	829.4	21810.9	825.7	22077.7	823.9	22223.7	823.2	22479.1	820.2
22516.3	820.6	22743.6	823.2	22991.7	823.7	23242.7	823.5	23528.5	825.5
23773.4	823.7	24089.7	824.6	24207.2	824.6	24261	821	24526.7	825.4
24782	825.3	25032.4	826.9	25299.2	825.4	25351.3	828	25381.7	823
25393.7	817.2	25408.2	817.9	25425.4	822.4	25444.7	824.3	25663.9	824.5
25718.9	822.6	25851.4	827	26106.9	827.4	26333.3	828	26499.8	828.9
26506	827.8	26535.5	830.9	26545.2	828.1	26599.7	830.1	26933.7	831.3
26948.6	831.4	27330.4	832.6	27602.5	834.7	27842.6	835.7	27856.9	835.5
27905.3	839.1	27912.6	834.2	27931.9	839.4	28210.2	840.9	28487.8	841.4
28867.3	844.5								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14801.7	.032	19323.5	.033	20731.7	.065	20747.2	.065	21227.3	.032
21368	.15	25444.7	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19323.5	20747.2	530	498.37	455	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14801.7	18968	844.5	25046	28867.3	844.5

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	832.40	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.91	Wt. n-Val.	0.032	0.034	0.137
E.G. Elev (ft)	833.31	Reach Len. (ft)	530.00	498.37	455.00
Crit W.S. (ft)	829.09	Flow Area (sq ft)	1957.36	15471.77	32025.88
E.G. Slope (ft/ft)	0.001767	Area (sq ft)	22325.96	15471.77	42228.30
Q Total (cfs)	210000.00	Flow (cfs)	11898.49	141124.39	56977.13
Top Width (ft)	11675.86	Top Width (ft)	3733.75	1423.70	6518.42
Vel Total (ft/s)	4.25	Avg. Vel. (ft/s)	6.08	9.12	1.78
Max Chl Dpth (ft)	15.20	Hydr. Depth (ft)	5.51	10.87	7.45
Conv. Total (cfs)	4995169.5	Conv. (cfs)	283023.6	3356858.3	1355287.6
Length Wtd. (ft)	489.54	Wetted Per. (ft)	356.21	1428.89	4299.47
Min Ch El (ft)	819.80	Shear (lb/sq ft)	0.61	1.19	0.82
Alpha	3.26	Stream Power (lb/ft s)	3.69	10.90	1.46
Frctn Loss (ft)	1.25	Cum Volume (acre-ft)	1194.08	6122.77	3543.23
C & E Loss (ft)	0.38	Cum SA (acres)	397.48	718.74	789.78

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18720.59	19022.05	1635.68	280.18	54.15	0.78	5.18	5.84
19022.05	19323.50	10262.82	1677.18	302.06	4.89	5.56	6.12
19323.50 LB	19679.43	42685.84	4350.08	357.40	20.33	12.22	9.81
19679.43	20035.35	33480.37	3753.95	355.94	15.94	10.55	8.92
20035.35	20391.27	31127.86	3593.33	355.92	14.82	10.10	8.66
20391.27	20747.20 RB	33830.36	3774.40	359.62	16.11	10.60	8.96
20747.20	21288.54	6243.20	2251.43	541.71	2.97	4.16	2.77
21288.54	21829.88	3974.08	2491.99	541.42	1.89	4.60	1.59
21829.88	22371.22	8033.46	4674.41	541.36	3.83	8.63	1.72
22371.22	22912.56	10870.60	5604.55	541.37	5.18	10.35	1.94
22912.56	23453.90	7893.28	4625.26	541.35	3.76	8.54	1.71
23453.90	23995.24	6996.62	4302.45	541.35	3.33	7.95	1.63
23995.24	24536.58	8088.57	4694.11	541.50	3.85	8.67	1.72
24536.58	25077.92	4877.28	3381.67	509.43	2.32	6.64	1.44

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 180.37

INPUT
Description: 180.37
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14708.2	836.9	14717.1	836.1	14736.4	839	14804.4	835.3	15141	834.6
15502.8	831.6	15747.1	829.7	15784.3	831	15802.7	827.6	16016.7	826.7
16326.3	825.9	16589.9	825.6	16727.4	826.5	16757.1	822.9	16795.5	824.5
16836.2	829.3	16852.3	824.3	17113.1	824.4	17335.4	824.3	17562.6	825.8
17797.4	823	18045.6	823.4	18222.4	827	18451.1	827.2	18677.6	827.9
18699.3	827	18733.2	832.9	18767.6	825.6	18994.3	825.1	19208.3	825.7

19272.4	829.5	19315.4	826.6	19327.4	829.5	19334.1	818.4	19634.6	820
19871.1	821.5	20081.3	821.3	20309.9	819.7	20364	819.9	20585.7	820.8
20738.1	821.5	20762.3	819.3	20779.6	820.2	20796.2	830.5	20819.8	827.9
20893.9	828	21051.5	824.6	21252.7	830.3	21524.5	827.9	21745.9	825.8
21937.6	825	22219.2	821.2	22350.7	814.4	22531.7	824.1	22609.5	825.5
22876.7	823.6	23113.2	821.5	23245.8	824.3	23500.4	824.4	23740.2	824.3
23988.7	825.1	24226.2	824.2	24268.8	821.3	24322.7	823.9	24573.7	825.4
24805.4	825.1	25066.4	826.5	25194.6	826.5	25224.6	824.6	25276.8	828.6
25291	823.3	25302.6	823	25317.7	817.1	25330.7	817.4	25348.2	825.6
25392.8	822.8	25657.9	824.9	25716.7	823.6	25840.9	827.1	26064.6	826.9
26281.8	827.5	26559	828.6	26586.6	832.6	26589.6	828.5	26598.2	830.3
26640.5	828	26683.3	829.8	26901.1	830.3	27161.5	832.4	27457.5	834.4
27765.4	835.9	27930.1	838.2	27938.6	836.7	27987.9	839.9	27994	835
27996	835.5								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14708.2	.037	18222.4	.031	19327.4	.031	20796.2	.065	21252.7	.15
25291	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19327.4	20796.2	540	510.23	470	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14708.2	19327.4	839.9	24593	27996	839.9

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	829.50	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.18	Wt. n-Val.		0.031	0.144
E.G. Elev (ft)	831.68	Reach Len. (ft)	540.00	510.23	470.00
Crit W.S. (ft)	828.39	Flow Area (sq ft)		13244.20	18817.45
E.G. Slope (ft/ft)	0.003973	Area (sq ft)	13605.10	13244.20	25978.34
Q Total (cfs)	210000.00	Flow (cfs)		172776.95	37223.04
Top Width (ft)	10676.11	Top Width (ft)	3499.35	1467.18	5709.57
Vel Total (ft/s)	6.55	Avg. Vel. (ft/s)		13.05	1.98
Max Chl Dpth (ft)	15.10	Hydr. Depth (ft)		9.03	5.13
Conv. Total (cfs)	3331497.5	Conv. (cfs)		2740981.0	590516.6
Length Wtd. (ft)	499.61	Wetted Per. (ft)		1476.24	3669.57
Min Ch El (ft)	818.40	Shear (lb/sq ft)		2.23	1.27
Alpha	3.28	Stream Power (lb/ft s)		29.03	2.52
Frctn Loss (ft)	1.27	Cum Volume (acre-ft)	975.49	5958.50	3187.01
C & E Loss (ft)	0.43	Cum SA (acres)	353.48	702.20	725.92

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19327.40 LB	19694.60	51215.10	3690.42	373.46	24.39	10.05	13.88
19694.60	20061.80	37765.28	3053.21	367.20	17.98	8.31	12.37
20061.80	20429.00	44229.21	3356.81	367.21	21.06	9.14	13.18
20429.00	20796.20 RB	39567.37	3143.77	368.36	18.84	8.60	12.59
20796.20	21276.19	2656.84	1053.99	419.32	1.27	2.51	2.52
21276.19	21756.17	688.50	769.34	412.74	0.33	1.86	0.89
21756.17	22236.16	5037.98	2697.55	480.04	2.40	5.62	1.87
22236.16	22716.15	10025.22	4077.63	480.41	4.77	8.50	2.46
22716.15	23196.13	6316.36	3089.50	480.02	3.01	6.44	2.04
23196.13	23676.12	4430.96	2497.46	480.00	2.11	5.20	1.77
23676.12	24156.11	3902.49	2314.21	479.99	1.86	4.82	1.69
24156.11	24636.09	4164.70	2317.78	437.06	1.98	5.31	1.80

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less

than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 180.28

INPUT
Description: 180.28
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14858.7	833.5	15122.5	832.2	15426.7	831.3	15620.3	830.8	15755.7	829.2
15764.6	826.3	15987.2	825.1	16247.4	825.7	16483.3	826	16664.2	825.4
16704.8	827.9	16746.5	821.5	16777.3	821.7	16817.2	828.4	16842.2	823.8
16970.9	825	17024.8	823.8	17276.1	824.3	17492.7	823.1	17710.8	824.7
18047.9	825.3	18241.4	823.8	18454.9	824.7	18650.9	826.1	18776.7	826.6
18802.7	831.6	18818.5	832.1	18851.8	826.1	19073.6	825.3	19258.2	825.1
19289.4	829.7	19297.9	829.1	19309.6	823.8	19377.7	824.7	19401.3	827.4
19411.6	817.6	19644.5	818.6	19910.1	819.9	20140.5	819.7	20409.8	819.3
20603.6	819.2	20821.8	821.2	20845.6	820.6	20857.1	817.7	20892.9	818.5
20910.6	829.6	20943.8	827	21232.8	825.9	21480.8	824.1	21688.6	822.3
21893.7	822.2	22096.4	818.8	22171.2	813.1	22366.9	819.8	22569.9	821.1
22844.3	819.7	23065.8	823.5	23270.4	824.5	23466.4	822.7	23669.2	823.9
23875.8	823.8	24069.4	822.4	24272.1	822.6	24490.3	824.3	24722.4	826.3
24989.5	827	25104	825.3	25191	825.8	25199.8	827.3	25223.6	824.7
25241	817	25256.8	818.2	25271.1	825.5	25313.3	823.5	25508	824.2
25699.3	824.2	26017.1	826.3	26275.2	827.4	26318.1	827.8	26536.2	827.1
26647.5	828	26677.5	829.8	26683	828	26707	831.5	26725.7	828.8
26771.3	830.2	26970.6	830.6	27024	830.9	27294.7	832.9	27488.4	833.8
27745.7	836.1	28000.7	837.1	28077.5	840.1	28084.6	835.5	28106.8	839.4
28165	840.4								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14858.7	.037	19401.3	.031	20821.8	.065	21480.8	.065	25223.6	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19401.3	21480.8	505	507.8	505	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14858.7	19401.3	840.4	24129	28165	840.4

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	829.23	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.75	Wt. n-Val.		0.033	0.065
E.G. Elev (ft)	829.98	Reach Len. (ft)	505.00	507.80	505.00
Crit W.S. (ft)	826.13	Flow Area (sq ft)		16705.04	19932.34
E.G. Slope (ft/ft)	0.001770	Area (sq ft)	15145.39	16705.04	29727.81
Q Total (cfs)	210000.00	Flow (cfs)		136382.28	73617.72
Top Width (ft)	10885.45	Top Width (ft)	3594.62	2074.23	5216.59
Vel Total (ft/s)	5.73	Avg. Vel. (ft/s)		8.16	3.69
Max Chl Dpth (ft)	16.13	Hydr. Depth (ft)		8.05	7.53
Conv. Total (cfs)	4991550.0	Conv. (cfs)		3241709.5	1749840.6
Length Wtd. (ft)	507.02	Wetted Per. (ft)		2081.72	2648.63
Min Ch El (ft)	817.60	Shear (lb/sq ft)		0.89	0.83
Alpha	1.46	Stream Power (lb/ft s)		7.24	3.07
Frctn Loss (ft)	0.91	Cum Volume (acre-ft)	797.28	5783.10	2886.49
C & E Loss (ft)	0.00	Cum SA (acres)	309.51	681.46	666.97

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19401.30 LB	19921.18	51704.64	5417.28	523.80	24.62	10.42	9.54
19921.18	20441.05	45494.01	5001.85	519.88	21.66	9.62	9.10
20441.05	20960.93	35176.79	4470.50	518.17	16.75	8.69	7.87
20960.93	21480.80 RB	4006.89	1815.41	519.88	1.91	3.49	2.21
21480.80	21926.41	9500.56	2925.05	445.63	4.52	6.56	3.25
21926.41	22372.03	23786.36	5074.74	445.97	11.33	11.39	4.69
22372.03	22817.64	15386.10	3906.24	445.62	7.33	8.77	3.94
22817.64	23263.25	9798.95	2979.89	445.65	4.67	6.69	3.29

23263.25	23708.87	7574.54	2553.27	445.63	3.61	5.73	2.97
23708.87	24154.48	7571.18	2493.16	420.14	3.61	5.93	3.04

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 180.18

INPUT
Description: 180.18
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14868.5	830.7	15056.9	830	15247.2	829.4	15479.1	826.8	15651.9	828.4
15737.4	828.4	15746.4	825	15750.6	826.4	15810.5	824.1	16009.7	824.4
16199.7	824.7	16387.8	825.3	16589.3	826.3	16683.1	824.9	16693.9	826.4
16713.3	821.7	16752.2	822.7	16780.3	829.5	16798	829.5	16809.7	824.6
17000.3	826	17193.9	827.7	17384	826.5	17501.9	827.2	17638.6	823.7
17829.2	825.3	17915.1	827.2	18110.6	825.8	18195.3	824.1	18419.3	823.9
18425.9	823.9	18649.2	823.9	18855	823	18893.6	829.7	18905.6	830.3
18930.5	823.7	19129.8	823	19329.1	823.5	19458.4	823.4	19471.8	825.2
19502	818.5	19529.3	818.8	19531.9	817.1	19832.4	818	20143.9	818.8
20335	821	20567.5	819.4	20779.5	819.7	20990.8	817.7	21006	817.7
21018.9	826.4	21225	824	21545.8	821	21577.2	821.1	21811.5	819.1
21848.7	818.6	21916	809.9	22016.1	815.1	22341.1	818.9	22374.6	818.4
22753	820.6	22971.7	823.5	22995.6	823.7	23188.5	824.1	23353.1	822.4
23495.4	824.7	23698.6	822.1	23921.6	822.1	24145.3	821.3	24338.1	823.2
24677.7	825.1	24955	825.8	25139.7	824.7	25152.1	817.9	25166.6	817
25176.7	819.8	25189.8	826	25217	823.5	25241.4	823.6	25251	821.8
25262.6	823.6	25492.9	824.5	25733.7	825.1	25978.3	825.4	26169.5	827
26399.4	828.1	26624.3	829.5	26768.2	830.4	26774.6	828.9	26780.2	830.6
26979.1	831.2	27214.2	832.7	27469.9	834.2	27681.8	835.4	27912.4	836.1
27982	836.6								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14868.5	.037	19471.8	.029	20990.8	.065	22016.1	.065	25189.8	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19471.8	22016.1	490	495.76	490	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14868.5	19471.8	836.6	23646	27982	836.6

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	828.32	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.75	Wt. n-Val.		0.035	0.065
E.G. Elev (ft)	829.07	Reach Len. (ft)	490.00	495.76	490.00
Crit W.S. (ft)	824.68	Flow Area (sq ft)		21998.74	11885.56
E.G. Slope (ft/ft)	0.001808	Area (sq ft)	12792.51	21998.74	22937.35
Q Total (cfs)	210000.00	Flow (cfs)		166551.09	43448.91
Top Width (ft)	10945.18	Top Width (ft)	3981.75	2544.30	4419.13
Vel Total (ft/s)	6.20	Avg. Vel. (ft/s)		7.57	3.66
Max Chl Dpth (ft)	18.42	Hydr. Depth (ft)		8.65	7.29
Conv. Total (cfs)	4938156.0	Conv. (cfs)		3916453.8	1021702.3
Length Wtd. (ft)	495.00	Wetted Per. (ft)		2548.97	1629.99
Min Ch El (ft)	809.90	Shear (lb/sq ft)		0.97	0.82
Alpha	1.26	Stream Power (lb/ft s)		7.38	3.01
Frctn Loss (ft)	0.67	Cum Volume (acre-ft)	635.34	5557.51	2581.21
C & E Loss (ft)	0.07	Cum SA (acres)	265.59	654.54	611.12

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19471.80 LB	20107.88	65130.26	6470.10	637.32	31.01	10.17	10.07
20107.88	20743.95	48179.27	5395.39	636.09	22.94	8.48	8.93
20743.95	21380.03	26713.69	4009.37	638.77	12.72	6.30	6.66
21380.03	22016.10 RB	26527.86	6123.88	636.79	12.63	9.63	4.33
22016.10	22413.83	19784.48	4388.79	397.75	9.42	11.03	4.51
22413.83	22811.55	12823.38	3383.33	397.74	6.11	8.51	3.79
22811.55	23209.28	5332.46	1998.49	397.74	2.54	5.02	2.67

23209.28	23607.01	4937.13	1908.26	397.76	2.35	4.80	2.59
23607.01	24004.73	571.47	206.69	39.00	0.27	5.30	2.76

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 180.09

INPUT
Description: 180.09
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15120.6	828.7	15295.9	828.4	15511.6	827.9	15688.8	826.5	15724.1	825.4
15727.3	823.8	15732	826.2	15905.5	824.7	16081.9	824.8	16273.4	824.9
16460	825.3	16647.9	826.1	16678.3	826.3	16702.3	818.2	16737.3	818.2
16776.6	825.5	16804.7	823.4	16998.2	825.4	17177.6	826.3	17355.4	825.5
17556	826.3	17766.6	826	18025.5	822.6	18268.4	824.6	18447.1	825
18539.6	824.1	18706.3	824	18837	823.7	18896.7	822.9	18939	827.6
18955.4	827.1	19000.2	830.2	19011	826.9	19084.2	822.5	19301.5	822.8
19448.8	822.9	19476.7	830.1	19504.3	830.3	19522.1	824.1	19537.6	825.2
19562	815.5	19586.6	815.4	20197.3	814.6	20375.3	816.2	20556	817.5
20739.2	818.3	20905.7	818	21022.8	815.6	21033	824.1	21071.1	822.2
21375	818.2	21475.1	817	21722.1	816.9	21787.7	816.7	22216.6	816.5
22395.9	818.3	22630.3	819.2	22746	819.5	23135.2	818.4	23324	821.8
23522.2	821.5	23692	822	23874.3	823	23935.2	822.9	24171.5	822.7
24301.7	822.9	24483.6	823.2	24675.3	823.7	24870.1	823.4	25042.2	824.8
25064.6	825.1	25076.3	816	25086.9	816.9	25104.9	824.8	25145.3	825.8
25156	821.9	25366.1	823.6	25552.4	824.8	25786	825.5	25964	824.9
26130	827.3	26369.1	828.5	26613.6	827.5	26817.7	829.7	27020.7	831.6
27053.4	833.3	27162	832.6	27359.5	834.5	27532.1	834.8	27708.5	837.7
27908.1	837.4	27945.9	837.3	28143.4	837.5	28200.4	838.2	28209.3	841.7
28433	840.7								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15120.6	.037	19537.6	.029	20905.7	.065	22746	.065	25145.3	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19537.6	22746	155	156.48	160	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15120.6	19537.6	841.7	23167.8	28433	841.7

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	827.82	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.51	Wt. n-Val.		0.040	0.065
E.G. Elev (ft)	828.33	Reach Len. (ft)	155.00	156.48	160.00
Crit W.S. (ft)	822.19	Flow Area (sq ft)		34021.90	3750.12
E.G. Slope (ft/ft)	0.001058	Area (sq ft)	12090.28	34021.90	17149.29
Q Total (cfs)	210000.00	Flow (cfs)		198030.78	11969.23
Top Width (ft)	10734.71	Top Width (ft)	3930.27	3208.40	3596.03
Vel Total (ft/s)	5.56	Avg. Vel. (ft/s)		5.82	3.19
Max Chl Dpth (ft)	13.22	Hydr. Depth (ft)		10.60	8.89
Conv. Total (cfs)	6455059.0	Conv. (cfs)		6087144.5	367914.6
Length Wtd. (ft)	156.63	Wetted Per. (ft)		3213.47	421.81
Min Ch El (ft)	814.60	Shear (lb/sq ft)		0.70	0.59
Alpha	1.05	Stream Power (lb/ft s)		4.07	1.87
Frctn Loss (ft)	0.17	Cum Volume (acre-ft)	495.39	5238.72	2355.74
C & E Loss (ft)	0.03	Cum SA (acres)	221.09	621.80	566.04

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19537.60 LB	20339.70	90720.59	10107.87	803.96	43.20	12.60	8.98
20339.70	21141.80	51808.33	7809.70	805.27	24.67	9.74	6.63
21141.80	21943.90	27793.87	8059.68	802.13	13.24	10.05	3.45
21943.90	22746.00 RB	27707.95	8044.65	802.11	13.19	10.03	3.44
22746.00	23125.13	10689.21	3357.86	379.13	5.09	8.86	3.18
23125.13	23504.27	1280.02	392.26	42.67	0.61	9.19	3.26

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 180.06

INPUT
Description: 180.06
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15155.3	827.7	15392.6	826.3	15631.5	825.6	15710.2	825.4	15714.6	823.5
15720.5	825.4	15908.2	824.5	16101.1	824.3	16287.9	824.4	16493.7	825.4
16667.1	826.4	16699.9	818.3	16721.1	818	16778.8	825.8	16790.5	825.4
16801.2	822.2	16976.8	824.6	17161.8	826.3	17340.3	825.6	17689.6	825.4
17867.9	825	18084.6	825.1	18194.4	820.8	18600.8	821.1	18632.9	821.1
18852.7	823	18883.3	822.4	18930.9	826.8	19097.5	827.9	19146.7	822.2
19329.4	823.4	19445	827.3	19465.7	829.6	19506.6	829.4	19544.3	825.3
19563.3	825.3	19576	815.1	19704.2	815.3	20018.7	814.7	20239.8	814.4
20438.6	816.8	20621.6	815.8	20840.1	815.3	20943.4	815.2	20959.5	823.5
20970.1	823	21146.1	821.3	21245.6	819.7	21466.3	820.9	21490.3	820.9
21875.7	818.2	22076.7	817.4	22403.9	817.4	22419	817.5	22799.5	818.9
22809	818.9	23188.4	818.2	23342.8	819.6	23579.4	822.1	23658.4	822.2
23837.9	822.4	24039.8	821.6	24281.6	820.6	24472.1	822.6	24515.3	822.7
24770.8	825.1	24945.1	826.3	24971.2	822.9	25001.2	822.3	25039.1	823.1
25051.4	815.5	25058	815.7	25077.3	824.9	25117.8	826.1	25135.9	820.9
25154.1	819.3	25197.8	822.3	25414.2	823.5	25661.6	824.1	25917.1	824.1
26099.7	827.1	26118.2	827.2	26389	827.1	26621	827.5	26799.8	829.1
26922.4	832.1	27061.6	832.6	27076.1	834.5	27112.6	832.9	27287.7	832.9
27522.8	834.2	27641.5	834.4	27657.8	838.8	27683	837	27860.7	836.8
27984	837.1								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15155.3	.037	19544.3	.029	20943.4	.065	22809	.065	25154.1	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19544.3	22809	156	157.22	166	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15155.3	19544.3	838.8	23004	27984	838.8

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	827.52	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.60	Wt. n-Val.		0.038	0.065
E.G. Elev (ft)	828.12	Reach Len. (ft)	156.00	157.22	166.00
Crit W.S. (ft)	822.47	Flow Area (sq ft)		32526.24	1716.63
E.G. Slope (ft/ft)	0.001158	Area (sq ft)	13162.68	32526.24	17545.03
Q Total (cfs)	210000.00	Flow (cfs)		204305.66	5694.33
Top Width (ft)	11301.23	Top Width (ft)	4221.92	3264.70	3814.61
Vel Total (ft/s)	6.13	Avg. Vel. (ft/s)		6.28	3.32
Max Chl Dpth (ft)	13.12	Hydr. Depth (ft)		9.96	8.80
Conv. Total (cfs)	6170178.0	Conv. (cfs)		6002868.0	167309.8
Length Wtd. (ft)	157.34	Wetted Per. (ft)		3270.37	195.00
Min Ch El (ft)	814.40	Shear (lb/sq ft)		0.72	0.64
Alpha	1.03	Stream Power (lb/ft s)		4.52	2.11
Frctn Loss (ft)	0.27	Cum Volume (acre-ft)	450.46	5119.19	2292.02
C & E Loss (ft)	0.07	Cum SA (acres)	206.59	610.18	552.43

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19544.30 LB	20360.48	92331.51	10017.89	819.77	43.97	12.27	9.22
20360.48	21176.65	64177.89	8132.73	818.22	30.56	9.96	7.89
21176.65	21992.82	19816.29	6446.58	816.20	9.44	7.90	3.07
21992.82	22809.00 RB	27979.96	7929.04	816.18	13.32	9.71	3.53
22809.00	23154.00	5694.33	1716.63	195.00	2.71	8.80	3.32

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 180.04

INPUT
Description: 180.03
Left and Right Bank Stations Interpolated
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17151.5	832	18172.9	834	19238.8	837.5	19238.9	830.75	19241.6	830.25
19246.43	827.0129	19251	823.95	19399	823.53	19408	823.53	19563.6	818.97
19572.6	818.97	19614.5	811.12	19728.3	815.28	19737.3	815.28	19892.9	815.14
19901.9	815.14	20057.6	815	20066.6	815	20222.2	814.86	20231.2	814.86
20365.3	812.89	20386.8	820.51	20395.8	820.51	20551.5	823.84	20560.5	823.84
20665.8	823.8	20716.1	824.31	20725.1	824.31	20880.8	822.77	20889.8	822.77
21045.4	822.01	21054.4	822.01	21210.1	819.79	21219.1	819.79	21374.7	818.85
21383.7	818.85	21465.8	818.42	21539.4	818.28	21548.4	818.28	21704	818.4
21713	818.4	21868.7	818.32	21877.7	818.32	22033.3	818.33	22042.3	818.33
22198	818.5	22207	818.5	22362.6	818.32	22371.6	818.32	22527.3	818.61
22536.3	818.61	22691.9	819.52	22700.9	819.52	22846	820.34	22856.02	827.0154
22861.1	830.4	22863.7	830.9	22863.8	837.65	23184	836	24281.3	834

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17151.5	.043	19238.9	.03	20716.1	.065	22863.7	.065

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19246.43	22856.02	118	118	118	.3	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	826.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.84	Wt. n-Val.		0.042	
E.G. Elev (ft)	827.79	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	823.51	Flow Area (sq ft)		28597.36	
E.G. Slope (ft/ft)	0.002694	Area (sq ft)		28597.36	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	3609.40	Top Width (ft)		3609.40	
Vel Total (ft/s)	7.34	Avg. Vel. (ft/s)		7.34	
Max Chl Dpth (ft)	15.83	Hydr. Depth (ft)		7.92	
Conv. Total (cfs)	4045791.0	Conv. (cfs)		4045791.0	
Length Wtd. (ft)	0.00	Wetted Per. (ft)		3614.58	
Min Ch El (ft)	811.12	Shear (lb/sq ft)		1.33	
Alpha	1.00	Stream Power (lb/ft s)		9.77	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	426.89	5008.88	2258.59
C & E Loss (ft)	0.04	Cum SA (acres)	199.03	597.77	545.16

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19246.43 LB	20148.83	96478.39	8515.61	904.09	45.94	9.44	11.33
20148.83	21051.22	45532.42	5602.17	903.77	21.68	6.21	8.13
21051.22	21953.62	33413.03	7162.44	902.42	15.91	7.94	4.67
21953.62	22856.02 RB	34576.16	7317.13	904.31	16.46	8.11	4.73

BRIDGE RIVER: RIVER-1
REACH: Reach-1 RS: 180.025

INPUT
Description: Bridge # 1 (SR 85)
Distance from Upstream XS = 0
Deck/Roadway Width = 118
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =
Upstream Deck/Roadway Coordinates
num= 27

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
17151.5	832	832	18172.9	834	834	19238.8	837.5	837.5
19238.8	837.5	830.75	19399.1	838.33	831.58	19563.6	839.19	832.44

19728.3	840.04	833.29	19892.9	840.9	834.15	20057.6	841.76	835.01
20222.2	842.61	835.86	20386.8	843.47	836.72	20551.5	844.37	837.62
20716.1	845.16	838.41	20880.8	845.73	838.98	21045.4	845.95	839.2
21219.1	845.8	839.05	21383.7	845.3	838.55	21548.4	844.48	837.73
21713	843.63	836.88	21877.7	842.77	836.02	22042.3	841.92	835.17
22207	841.06	834.31	22371.6	840.21	833.46	22536.3	839.35	832.6
22700.9	838.5	831.75	22861.1	837.66	830.91	22861.1	837.66	837.66

Upstream Bridge Cross Section Data
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17151.5	832	18172.9	834	19238.8	837.5	19238.9	830.75	19241.6	830.25
19246.4	3827.0129	19251	823.95	19399	823.53	19408	823.53	19563.6	818.97
19572.6	818.97	19614.5	811.12	19728.3	815.28	19737.3	815.28	19892.9	815.14
19901.9	815.14	20057.6	815	20066.6	815	20222.2	814.86	20231.2	814.86
20365.3	812.89	20386.8	820.51	20395.8	820.51	20551.5	823.84	20560.5	823.84
20665.8	823.8	20716.1	824.31	20725.1	824.31	20880.8	822.77	20889.8	822.77
21045.4	822.01	21054.4	822.01	21210.1	819.79	21219.1	819.79	21374.7	818.85
21383.7	818.85	21465.8	818.42	21539.4	818.28	21548.4	818.28	21704	818.4
21713	818.4	21868.7	818.32	21877.7	818.32	22033.3	818.33	22042.3	818.33
22198	818.5	22207	818.5	22362.6	818.32	22371.6	818.32	22527.3	818.61
22536.3	818.61	22691.9	819.52	22700.9	819.52	22846	820.3422856.02	827.0154	
22861.1	830.4	22863.7	830.9	22863.8	837.65	23184	836	24281.3	834

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17151.5	.043	19238.9	.03	20716.1	.065	22863.7	.065

Bank Sta: Left	Right	Coeff Contr.	Expan.
19246.4322856.02		.3	.3

Downstream Deck/Roadway Coordinates
num= 27

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
17151.5	832	832	18172.9	834	834	19238.8	837.5	837.5
19238.8	837.5	830.75	19399.1	838.33	831.58	19563.6	839.19	832.44
19728.3	840.04	833.29	19892.9	840.9	834.15	20057.6	841.76	835.01
20222.2	842.61	835.86	20386.8	843.47	836.72	20551.5	844.37	837.62
20716.1	845.16	838.41	20880.8	845.73	838.98	21045.4	845.95	839.2
21219.1	845.8	839.05	21383.7	845.3	838.55	21548.4	844.48	837.73
21713	843.63	836.88	21877.7	842.77	836.02	22042.3	841.92	835.17
22207	841.06	834.31	22371.6	840.21	833.46	22536.3	839.35	832.6
22700.9	838.5	831.75	22861.1	837.66	830.91	22861.1	837.66	837.66

Downstream Bridge Cross Section Data
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17151.5	832	18172.9	834	19238.8	837.5	19238.9	830.75	19241.6	830.25
19247.7	3826.1412	19251	823.95	19399	823.53	19408	823.53	19563.6	818.97
19572.6	818.97	19614.5	811.12	19728.3	815.28	19737.3	815.28	19892.9	815.14
19901.9	815.14	20057.6	815	20066.6	815	20222.2	814.86	20231.2	814.86
20365.3	812.89	20386.8	820.51	20395.8	820.51	20551.5	823.84	20560.5	823.84
20665.8	823.8	20716.1	824.31	20725.1	824.31	20880.8	822.77	20889.8	822.77
21045.4	822.01	21054.4	822.01	21210.1	819.79	21219.1	819.79	21374.7	818.85
21383.7	818.85	21465.8	818.42	21539.4	818.28	21548.4	818.28	21704	818.4
21713	818.4	21868.7	818.32	21877.7	818.32	22033.3	818.33	22042.3	818.33
22198	818.5	22207	818.5	22362.6	818.32	22371.6	818.32	22527.3	818.61
22536.3	818.61	22691.9	819.52	22700.9	819.52	22846	820.3422854.71	826.1436	
22861.1	830.4	22863.7	830.9	22863.8	837.65	23184	836	24281.3	834

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17151.5	.043	19238.9	.03	20716.1	.065	22863.7	.065

Bank Sta: Left	Right	Coeff Contr.	Expan.
19247.7322854.71		.3	.3

Upstream Embankment side slope = horiz. to 1.0 vertical
Downstream Embankment side slope = horiz. to 1.0 vertical
Maximum allowable submergence for weir flow = .95
Elevation at which weir flow begins =
Energy head used in spillway design =
Spillway height used in design =
Weir crest shape = Broad Crested

Number of Piers = 22

```
Pier Data
Pier Station     Upstream= 19403.6    Downstream= 19403.6
Upstream     num=       2
    Width   Elev    Width   Elev
       9  823.53       9  831.61
Downstream     num=       2
    Width   Elev    Width   Elev
       9  823.53       9  831.61

Pier Data
Pier Station     Upstream= 19568.1    Downstream= 19568.1
Upstream     num=       2
    Width   Elev    Width   Elev
       9  818.97       9  832.47
Downstream     num=       2
    Width   Elev    Width   Elev
       9  818.97       9  832.47

Pier Data
Pier Station     Upstream= 19732.8    Downstream= 19732.8
Upstream     num=       2
    Width   Elev    Width   Elev
       9  815.28       9  833.32
Downstream     num=       2
    Width   Elev    Width   Elev
       9  815.28       9  833.32

Pier Data
Pier Station     Upstream= 19732.8    Downstream= 19732.8
Upstream     num=       2
    Width   Elev    Width   Elev
       9  815.28       9  833.32
Downstream     num=       2
    Width   Elev    Width   Elev
       9  815.28       9  833.32

Pier Data
Pier Station     Upstream= 19897.4    Downstream= 19897.4
Upstream     num=       2
    Width   Elev    Width   Elev
       9  815.14       9  834.13
Downstream     num=       2
    Width   Elev    Width   Elev
       9  815.14       9  834.13

Pier Data
Pier Station     Upstream= 20062.1    Downstream= 20062.1
Upstream     num=       2
    Width   Elev    Width   Elev
       9     815       9  835.03
Downstream     num=       2
    Width   Elev    Width   Elev
       9     815       9  835.03

Pier Data
Pier Station     Upstream= 20226.7    Downstream= 20226.7
Upstream     num=       2
    Width   Elev    Width   Elev
       9  814.86       9  835.89
Downstream     num=       2
    Width   Elev    Width   Elev
       9  814.86       9  835.89

Pier Data
Pier Station     Upstream= 20391.3    Downstream= 20391.3
Upstream     num=       2
    Width   Elev    Width   Elev
       9  820.51       9  836.75
Downstream     num=       2
    Width   Elev    Width   Elev
       9  820.51       9  836.75

Pier Data
Pier Station     Upstream=   20556    Downstream=   20556
Upstream     num=       2
```

```
    Width   Elev    Width   Elev
       9  823.84       9   837.6
Downstream     num=        2
    Width   Elev    Width   Elev
       9  823.84       9   837.6

Pier Data
Pier Station     Upstream= 20720.6    Downstream= 20720.6
Upstream     num=        2
    Width   Elev    Width   Elev
       9  824.31       9  838.43
Downstream     num=        2
    Width   Elev    Width   Elev
       9  824.31       9  838.43

Pier Data
Pier Station     Upstream= 20885.3    Downstream= 20885.3
Upstream     num=        2
    Width   Elev    Width   Elev
       9  822.77       9  838.99
Downstream     num=        2
    Width   Elev    Width   Elev
       9  822.77       9  838.99

Pier Data
Pier Station     Upstream= 21049.9    Downstream= 21049.9
Upstream     num=        2
    Width   Elev    Width   Elev
       9  822.01       9   839.2
Downstream     num=        2
    Width   Elev    Width   Elev
       9  822.01       9   839.2

Pier Data
Pier Station     Upstream= 21214.6    Downstream= 21214.6
Upstream     num=        2
    Width   Elev    Width   Elev
       9  819.79       9  839.06
Downstream     num=        2
    Width   Elev    Width   Elev
       9  819.79       9  839.06

Pier Data
Pier Station     Upstream= 21379.2    Downstream= 21379.2
Upstream     num=        2
    Width   Elev    Width   Elev
       9  818.85       9  838.57
Downstream     num=        2
    Width   Elev    Width   Elev
       9  818.85       9  838.57

Pier Data
Pier Station     Upstream= 21543.9    Downstream= 21543.9
Upstream     num=        2
    Width   Elev    Width   Elev
       9  818.28       9  837.76
Downstream     num=        2
    Width   Elev    Width   Elev
       9  818.28       9  837.76

Pier Data
Pier Station     Upstream= 21708.5    Downstream= 21708.5
Upstream     num=        2
    Width   Elev    Width   Elev
       9   818.4       9   836.9
Downstream     num=        2
    Width   Elev    Width   Elev
       9   818.4       9   836.9

Pier Data
Pier Station     Upstream= 21873.2    Downstream= 21873.2
Upstream     num=        2
    Width   Elev    Width   Elev
       9  818.32       9  836.05
Downstream     num=        2
    Width   Elev    Width   Elev
```

```
        9  818.32        9  836.05

 Pier Data
 Pier Station     Upstream= 22037.8    Downstream= 22037.8
 Upstream     num=        2
     Width   Elev    Width   Elev
        9  818.33        9  835.19
 Downstream     num=        2
     Width   Elev    Width   Elev
        9  818.33        9  835.19

 Pier Data
 Pier Station     Upstream= 22202.5    Downstream= 22202.5
 Upstream     num=        2
     Width   Elev    Width   Elev
        9   818.5        9  834.34
 Downstream     num=        2
     Width   Elev    Width   Elev
        9   818.5        9  834.34

 Pier Data
 Pier Station     Upstream= 22367.1    Downstream= 22367.1
 Upstream     num=        2
     Width   Elev    Width   Elev
        9  818.32        9  833.48
 Downstream     num=        2
     Width   Elev    Width   Elev
        9  818.32        9  833.48

 Pier Data
 Pier Station     Upstream= 22531.8    Downstream= 22531.8
 Upstream     num=        2
     Width   Elev    Width   Elev
        9  818.61        9  832.63
 Downstream     num=        2
     Width   Elev    Width   Elev
        9  818.61        9  832.63

 Pier Data
 Pier Station     Upstream= 22696.4    Downstream= 22696.4
 Upstream     num=        2
     Width   Elev    Width   Elev
        9  819.52        9  831.77
 Downstream     num=        2
     Width   Elev    Width   Elev
        9  819.52        9  831.77

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
       Energy
       Momentum                Cd   =     1.2
       Yarnell                 KVal =    1.05
Selected Low Flow Methods = Highest Energy Answer

High Flow Method
       Energy Only

Additional Bridge Parameters
       Add Friction component to Momentum
       Do not add Weight component to Momentum
       Class B flow critical depth computations use critical depth
           inside the bridge at the downstream end
       Criteria to check for pressure flow = Upstream water surface

BRIDGE OUTPUT    Profile #PF#1
Opening : Bridge #1

  E.G. US. (ft)                 827.79   Element                 Inside BR US  Inside BR DS
  W.S. US. (ft)                 826.95   E.G. Elev (ft)               827.75        827.17
  Q Total (cfs)             210000.00   W.S. Elev (ft)               826.77        825.95
  Q Bridge (cfs)            210000.00   Crit W.S. (ft)               823.78        823.78
  Q Weir (cfs)                          Max Chl Dpth (ft)             15.65         14.83
  Weir Sta Lft (ft)                     Vel Total (ft/s)               7.92          8.85
  Weir Sta Rgt (ft)                     Flow Area (sq ft)          26527.36      23724.26
  Weir Submerg                          Froude # Chl                   0.50          0.59
```

Weir Max Depth (ft)		Specif Force (cu ft)	170681.14	156179.53
Min Top Rd (ft)	830.40	Hydr Depth (ft)	7.76	6.94
Min El Prs (ft)	839.20	W.P. Total (ft)	3743.13	3705.74
Delta EG (ft)	0.66	Conv. Total (cfs)	3491429.8	2938414.0
Delta WS (ft)	0.89	Top Width (ft)	3419.87	3417.41
BR Open Area (sq ft)	56270.44	Frctn Loss (ft)	0.50	0.00
BR Open Vel (ft/s)	8.85	C & E Loss (ft)	0.07	0.05
Coef of Q		Shear Total (lb/sq ft)	1.60	2.04
Br Sel Mthd	Energy only	Power Total (lb/ft s)	12.67	18.07

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 180.01

INPUT
Description: 180.02
Left and Right Bank Stations Interpolated
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17151.5	832	18172.9	834	19238.8	837.5	19238.9	830.75	19241.6	830.25
19247.73	826.1412	19251	823.95	19399	823.53	19408	823.53	19563.6	818.97
19572.6	818.97	19614.5	811.12	19728.3	815.28	19737.3	815.28	19892.9	815.14
19901.9	815.14	20057.6	815	20066.6	815	20222.2	814.86	20231.2	814.86
20365.3	812.89	20386.8	820.51	20395.8	820.51	20551.5	823.84	20560.5	823.84
20665.8	823.8	20716.1	824.31	20725.1	824.31	20880.8	822.77	20889.8	822.77
21045.4	822.01	21054.4	822.01	21210.1	819.79	21219.1	819.79	21374.7	818.85
21383.7	818.85	21465.8	818.42	21539.4	818.28	21548.4	818.28	21704	818.4
21713	818.4	21868.7	818.32	21877.7	818.32	22033.3	818.33	22042.3	818.33
22198	818.5	22207	818.5	22362.6	818.32	22371.6	818.32	22527.3	818.61
22536.3	818.61	22691.9	819.52	22700.9	819.52	22846	820.3422854.71826.1436		
22861.1	830.4	22863.7	830.9	22863.8	837.65	23184	836	24281.3	834

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17151.5	.043	19238.9	.03	20716.1	.065	22863.7	.065

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19247.7322854.71		441	487.1	601	.3	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	826.06	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.06	Wt. n-Val.		0.042	
E.G. Elev (ft)	827.12	Reach Len. (ft)	441.00	487.10	601.00
Crit W.S. (ft)		Flow Area (sq ft)		25391.19	
E.G. Slope (ft/ft)	0.003941	Area (sq ft)		25391.19	
Q Total (cfs)	210000.00	Flow (cfs)		210000.00	
Top Width (ft)	3606.74	Top Width (ft)		3606.74	
Vel Total (ft/s)	8.27	Avg. Vel. (ft/s)		8.27	
Max Chl Dpth (ft)	14.94	Hydr. Depth (ft)		7.04	
Conv. Total (cfs)	3345023.5	Conv. (cfs)		3345023.5	
Length Wtd. (ft)	492.95	Wetted Per. (ft)		3611.38	
Min Ch El (ft)	811.12	Shear (lb/sq ft)		1.73	
Alpha	1.00	Stream Power (lb/ft s)		14.31	
Frctn Loss (ft)	1.29	Cum Volume (acre-ft)	426.89	4940.82	2258.59
C & E Loss (ft)	0.12	Cum SA (acres)	199.03	588.51	545.16

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19247.73 LB	20149.48	98866.16	7721.63	903.14	47.08	8.56	12.80
20149.48	21051.22	43690.64	4793.06	903.12	20.81	5.32	9.12
21051.22	21952.96	33019.13	6355.50	901.76	15.72	7.05	5.20
21952.96	22854.71 RB	34424.07	6521.01	903.36	16.39	7.23	5.28

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less

than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 179.91

INPUT
Description: 179.91
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14718.4	835.1	14909.5	834.4	15073.5	828.2	15267.1	825.9	15305.5	827.4
15314.4	822.7	15555.2	824	15775.9	823.3	16010.8	823.5	16214	823.7
16450.5	823.7	16655.5	823.6	16868.4	823.2	16964.1	822.9	17012.4	817.3
17169.7	822.9	17366.3	824	17370.9	822.2	17470.5	825.1	17598.5	824.3
17630.1	819	17651.2	823.4	17730.6	824.7	17760.8	820.8	18016.3	822.4
18222.7	823.1	18411.2	822.7	18635.1	823.5	18857.1	823.2	19037.8	823.7
19083.2	819.5	19123.9	822.8	19217.5	822.3	19270.4	818.8	19462.2	817.7
19569.4	812.9	19886.2	813.5	19981.2	813.7	20165.7	814.1	20514.4	814.8
20518.5	814.9	20534.3	821.3	20543.2	818.7	20735.9	820.6	20969.2	819.8
21167.8	820	21402.1	819.5	21657.7	819.8	21751.2	817	21936.1	816.2
22215.8	816.5	22425.6	815.1	22490.5	815.1	22532.6	817.3	22744	818.1
22936.2	817.2	23151.7	818	23340.6	818.7	23570.3	820.7	23754.5	821.8
23965.9	822.9	24134.3	821.2	24394	822.7	24613.3	823.6	24815.2	824.5
24864.5	818.5	24908.1	818.8	24928.4	814.4	24965.2	819.4	25006	822.4
25151.2	823	25211.7	817.1	25302.6	821.5	25558.5	823.1	25723.7	821
25734.9	818.2	25758.5	821.4	25949.3	822.8	26034.3	822.8	26091.1	824.8
26148.4	824.5	26203.1	831.7	26316.1	826.7	26353.1	829.9	26372.4	817.6
26404.4	818.5	26442.5	831.1	26570.6	829.1	26863.6	831.1	27019.6	830
27029.1	832	27100.7	831.4	27380.7	833.2	27443.1	833.6	27738.8	834
27972	835.6								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14718.4	.043	19217.5	.029	20514.4	.065	22532.6	.065	26316.1	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19217.5	22532.6	405	409.73	405	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14718.4	18670	835.6	23400	27972	835.6

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	825.04	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.67	Wt. n-Val.	0.043	0.038	0.065
E.G. Elev (ft)	825.72	Reach Len. (ft)	405.00	409.73	405.00
Crit W.S. (ft)	821.67	Flow Area (sq ft)	1157.58	26752.29	6203.65
E.G. Slope (ft/ft)	0.001864	Area (sq ft)	7807.89	26752.29	15079.98
Q Total (cfs)	210000.00	Flow (cfs)	2843.96	184426.64	22729.39
Top Width (ft)	10895.12	Top Width (ft)	3896.63	3315.10	3683.40
Vel Total (ft/s)	6.16	Avg. Vel. (ft/s)	2.46	6.89	3.66
Max Chl Dpth (ft)	12.14	Hydr. Depth (ft)	2.11	8.07	7.15
Conv. Total (cfs)	4863804.0	Conv. (cfs)	65869.0	4271500.0	526434.9
Length Wtd. (ft)	409.15	Wetted Per. (ft)	547.83	3317.07	867.41
Min Ch El (ft)	812.90	Shear (lb/sq ft)	0.25	0.94	0.83
Alpha	1.14	Stream Power (lb/ft s)	0.60	6.47	3.05
Frctn Loss (ft)	1.01	Cum Volume (acre-ft)	387.36	4649.28	2154.56
C & E Loss (ft)	0.15	Cum SA (acres)	179.30	549.81	519.75

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18617.62	18917.56	905.11	427.75	247.56	0.43	1.73	2.12
18917.56	19217.50	1938.85	729.83	300.27	0.92	2.43	2.66
19217.50 LB	20046.28	82042.53	8158.21	829.00	39.07	9.84	10.06
20046.28	20875.05	58937.80	6903.85	830.41	28.07	8.33	8.54
20875.05	21703.82	13046.89	4392.80	828.80	6.21	5.30	2.97
21703.82	22532.60 RB	30399.43	7297.43	828.86	14.48	8.81	4.17

22532.60	22895.23	9873.21	2656.13	362.63	4.70	7.32	3.72
22895.23	23257.85	9825.68	2648.45	362.63	4.68	7.30	3.71
23257.85	23620.48	3030.51	899.08	142.15	1.44	6.32	3.37

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 179.84

INPUT
Description: 179.84
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15015.1	842.5	15095.6	830.9	15242.1	829.1	15318.3	832.4	15358.2	825.6
15557.6	826.5	15569.9	823.7	15793.9	824.9	16041.2	823.7	16247.3	823
16453.9	823.1	16673.2	823.1	16768.5	823.1	16793.5	820.3	16831.4	822.8
17042.4	823.4	17098.1	817.2	17164.7	819.7	17297.6	820.9	17333.2	817.3
17446.2	821.5	17673.8	823.3	17800.8	821.4	17867.4	822.4	17894.5	818.7
18085.7	818.8	18293.1	820.8	18511.4	821.9	18771.4	823.5	18983.3	824
19096.5	820.3	19109.3	818.3	19313.2	817.6	19393.2	815.8	19472.3	816.8
19483.3	815.3	19567.9	817.4	19634.2	812.4	19801.5	812.6	20149.2	812.8
20557.4	813.8	20591	821.6	20633.2	824.2	20701.9	817.7	20708.4	819.6
20878.2	822.2	21206.8	819.2	21342	818	21527.8	819.9	21796	819.6
21936.6	817.4	22187.7	818.4	22307	819.2	22480	815	22598.9	818.6
22805.3	818.2	23048.3	817.9	23251.9	818.7	23489.2	819.8	23675.2	823
23913.9	822.1	24138.8	820.5	24369.2	821.8	24572.8	824	24708.4	826
24804.5	817.2	24821	813.2	24880	821.1	25166.3	820.9	25327	818.7
25534	821.7	25716.5	822.8	25742.7	818.7	25780.5	822.1	25852.9	821.6
25916.6	826.9	25961.7	823.1	25980.5	825.6	25995.5	811.1	26012.6	811.8
26039.8	824.8	26323	824.6	26542	826.7	26817.1	827.4	27049.2	828.7
27080.5	830.7	27115.1	828.1	27374.2	831.6	27673	833.6	27977.9	835
28200.1	836.8	28372.9	837.9	28666.9	841.5	28768.1	841.9	28997.8	843.5

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15015.1	.032	16768.5	.043	18983.3	.03	20557.4	.065	22307	.065
26323	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18983.3	22307	395	399.92	394	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15015.1	18240	843.5	23850	28997.8	843.5

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	823.40	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.16	Wt. n-Val.	0.043	0.034	0.065
E.G. Elev (ft)	824.56	Reach Len. (ft)	395.00	399.92	394.00
Crit W.S. (ft)	821.94	Flow Area (sq ft)	783.22	20129.44	6733.07
E.G. Slope (ft/ft)	0.003412	Area (sq ft)	4696.01	20129.44	11512.70
Q Total (cfs)	210000.00	Flow (cfs)	2089.20	183904.19	24006.61
Top Width (ft)	9319.02	Top Width (ft)	2626.72	3284.04	3408.26
Vel Total (ft/s)	7.60	Avg. Vel. (ft/s)	2.67	9.14	3.57
Max Chl Dpth (ft)	12.30	Hydr. Depth (ft)	1.52	6.13	4.36
Conv. Total (cfs)	3595191.5	Conv. (cfs)	35767.1	3148432.3	410992.3
Length Wtd. (ft)	399.18	Wetted Per. (ft)	515.55	3286.15	1543.14
Min Ch El (ft)	812.40	Shear (lb/sq ft)	0.32	1.30	0.93
Alpha	1.29	Stream Power (lb/ft s)	0.86	11.92	3.31
Frctn Loss (ft)	1.10	Cum Volume (acre-ft)	329.24	4428.79	2030.94
C & E Loss (ft)	0.09	Cum SA (acres)	148.98	518.77	486.78

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18189.66	18454.21	1591.38	505.65	214.21	0.76	2.36	3.15
18454.21	18718.75	496.10	273.40	264.55	0.24	1.03	1.81

18718.75	18983.30	1.73	4.16	36.79	0.00	0.11	0.42
18983.30 LB	19814.23	57611.71	5612.11	813.19	27.43	6.91	10.27
19814.23	20645.15	104435.13	7926.16	810.51	49.73	9.79	13.18
20645.15	21476.07	8206.46	2796.76	831.50	3.91	3.37	2.93
21476.07	22307.00 RB	13650.88	3794.41	830.95	6.50	4.57	3.60
22307.00	22753.05	10566.87	2638.67	446.16	5.03	5.92	4.00
22753.05	23199.11	8743.04	2354.92	446.06	4.16	5.28	3.71
23199.11	23645.16	4551.12	1591.69	446.08	2.17	3.57	2.86
23645.16	24091.21	145.58	147.79	204.85	0.07	0.72	0.99

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 179.76

INPUT
Description: 179.76
Station Elevation Data num= 94

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15008.2	830.7	15034.5	826.3	15057.9	827.8	15081	835.7	15310.5	828.9
15545.5	828	15647.9	827.8	15657.8	823.7	15669.8	826.7	15894.5	823.5
16129.9	822.7	16356.6	822.1	16615.9	822.8	16821.3	822.7	16846.6	820.3
16893.4	823.6	17128.4	823	17238.9	820.9	17274.9	817.4	17366.3	815.8
17485	820.8	17735	822	17809.1	822.1	17947	822	17970.8	817.3
18003.6	819.5	18150.7	818	18397.2	820.8	18604.5	820.2	18672.9	823
18767.9	821.7	18838.5	814.6	19123.7	811.6	19252.2	813.5	19267.7	810
19293.1	809.5	19316.6	818.2	19435.9	819.7	19450.7	815.7	19623	814
19677.7	814.3	19690.8	812.3	20067	812.6	20636.6	813.1	20650.8	819.1
20691.3	809.8	20754.1	811.7	20792.3	819	20823.8	817.6	20987	822.1
21315.6	820	21554.8	817.2	21625.9	815.2	21871.5	817.5	22101	818.5
22325.3	819.5	22447.2	818.4	22478.6	810.9	22565.3	810.9	22598.2	819.1
22646.2	816.5	22874	818.1	23123.6	818.3	23394.2	818.3	23657.4	820.4
23894.2	821.7	24173.3	821.9	24425.4	823.2	24645.1	823.7	24722.1	815.1
24734.1	811.6	24769.5	816.9	24801.7	819.3	25067	821.4	25156.9	822.7
25189.8	818.3	25216.1	823.9	25280.2	821.3	25543.8	820.9	25752.4	819.7
25796	826.9	25856.7	822.5	25868.6	823.6	25881.1	810.9	25893.6	812.1
25916.6	823.9	26556.6	824.6	26779	826	26999.2	827.3	27248.5	830.2
27474.5	830.9	27901.6	833.4	28150.6	836.2	28192.2	836.4		

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15008.2	.032	17238.9	.043	18767.9	.043	19293.1	.028	20636.6	.065
22101	.065	25916.6	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18767.9	22101	395	401.33	395	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15008.2	17850	836.4	23800	28192.2	836.4

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	822.51	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.86	Wt. n-Val.	0.043	0.035	0.065
E.G. Elev (ft)	823.36	Reach Len. (ft)	395.00	401.33	395.00
Crit W.S. (ft)	820.26	Flow Area (sq ft)	2070.87	23040.42	7419.40
E.G. Slope (ft/ft)	0.002297	Area (sq ft)	3747.79	23040.42	10445.58
Q Total (cfs)	210000.00	Flow (cfs)	6304.56	181994.94	21700.51
Top Width (ft)	8548.59	Top Width (ft)	1923.55	3333.10	3291.94
Vel Total (ft/s)	6.46	Avg. Vel. (ft/s)	3.04	7.90	2.92
Max Chl Dpth (ft)	13.01	Hydr. Depth (ft)	2.38	6.91	4.37
Conv. Total (cfs)	4381734.0	Conv. (cfs)	131547.2	3797397.3	452789.8
Length Wtd. (ft)	400.46	Wetted Per. (ft)	870.33	3339.29	1700.98
Min Ch El (ft)	809.50	Shear (lb/sq ft)	0.34	0.99	0.63
Alpha	1.33	Stream Power (lb/ft s)	1.04	7.82	1.83
Frctn Loss (ft)	0.95	Cum Volume (acre-ft)	290.95	4230.62	1931.64
C & E Loss (ft)	0.03	Cum SA (acres)	128.35	488.40	456.48

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17765.31	18015.96	643.66	286.23	166.49	0.31	1.72	2.25
18015.96	18266.61	3685.60	960.51	250.66	1.76	3.83	3.84
18266.61	18517.25	1434.56	545.29	250.66	0.68	2.18	2.63
18517.25	18767.90	540.74	278.83	202.52	0.26	1.38	1.94
18767.90 LB	19601.18	48803.18	6594.70	836.16	23.24	7.91	7.40
19601.18	20434.45	92977.88	8124.61	833.43	44.28	9.75	11.44
20434.45	21267.72	27706.17	4279.86	836.36	13.19	5.14	6.47
21267.72	22101.00 RB	12507.69	4041.24	833.33	5.96	4.85	3.10
22101.00	22507.08	5077.36	1797.04	406.97	2.42	4.43	2.83
22507.08	22913.16	8837.02	2506.34	407.16	4.21	6.17	3.53
22913.16	23319.24	4752.68	1725.66	406.08	2.26	4.25	2.75
23319.24	23725.32	2874.54	1276.26	406.09	1.37	3.14	2.25
23725.32	24131.40	158.91	114.11	74.68	0.08	1.53	1.39

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 179.68

INPUT
Description: 179.68
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14702.3	841.1	14852.5	829.7	15072.8	827.7	15293.8	826.6	15530.4	823.8
15775.6	823.5	16017.7	823.1	16232.1	822.6	16475.9	822	16701.2	821.7
16762.2	821.2	16807.2	824	17031.1	822.3	17262.9	823.3	17293.3	823.8
17340.7	819.9	17419.3	821.2	17504.2	816.1	17651.9	818.9	17869.6	819
18080	818.1	18300.2	821.7	18530.6	816.3	18746.5	812	18902.1	809
19034.6	812	19063.2	808.3	19096.2	810.9	19121.4	816	19227	816.4
19306.7	820.5	19317.9	817.9	19409.2	820.4	19590.6	818.7	19608.2	814
19659	811.8	19849.3	811.9	20661.7	812.1	20679	818.3	20709.2	816.7
20742.6	817.5	20808	810.9	20965.1	813.3	21048.6	811.2	21083.2	819.4
21310.5	821.3	21367.9	823.1	21515.2	818.1	21590	818.9	21766	815.2
21876.3	818.2	22151.8	817.7	22384.4	819.5	22489.9	820.2	22510.7	811.1
22620	811.1	22653.2	819.1	22991.6	817.4	23297.8	817.5	23513.9	817.5
23628.2	819.8	23694.6	822.2	23972.1	821.5	24252.8	821	24496.1	822.3
24578.5	821.8	24615.1	816.7	24632	817.5	24655.3	811.8	24767.8	821.5
25000.8	821.6	25078.5	823.8	25198.5	821.4	25427.1	820.9	25660.6	820.6
25788.2	822.2	25813.9	826.4	25840.3	826.3	25862.1	821.1	25881.7	821.5
25897.3	809.8	25907.4	811	25933.4	824	25955.8	823.8	26249	822.1
26554.1	823.8	26894.3	825.5	27164.8	826.7	27469.3	830.1	27688.3	831.2
27932.2	833.2	28172.3	834.8	28392.2	836.3	28528.5	836.8	28667.6	841.3

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14702.3	.032	17419.3	.043	18300.2	.043	19608.2	.029	20965.1	.065
21590	.065	25840.3	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18300.2	21590	425	494.98	570	.3	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14702.3	17419.3	841.3	23694.6	28667.6	841.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	821.43	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.95	Wt. n-Val.	0.043	0.033	0.065
E.G. Elev (ft)	822.39	Reach Len. (ft)	425.00	494.98	570.00
Crit W.S. (ft)	819.54	Flow Area (sq ft)	2304.47	21494.48	8041.53
E.G. Slope (ft/ft)	0.002432	Area (sq ft)	2391.96	21494.48	9527.32
Q Total (cfs)	210000.00	Flow (cfs)	7548.36	180165.47	22286.17
Top Width (ft)	7358.48	Top Width (ft)	994.07	3176.19	3188.23
Vel Total (ft/s)	6.60	Avg. Vel. (ft/s)	3.28	8.38	2.77
Max Chl Dpth (ft)	13.13	Hydr. Depth (ft)	2.67	6.77	3.86
Conv. Total (cfs)	4258265.0	Conv. (cfs)	153061.5	3653296.8	451906.7
Length Wtd. (ft)	498.04	Wetted Per. (ft)	864.80	3180.85	2086.39
Min Ch El (ft)	808.30	Shear (lb/sq ft)	0.40	1.03	0.59
Alpha	1.41	Stream Power (lb/ft s)	1.33	8.60	1.62
Frctn Loss (ft)	1.12	Cum Volume (acre-ft)	263.12	4025.47	1841.08
C & E Loss (ft)	0.01	Cum SA (acres)	115.12	458.41	427.10

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17340.76	17580.62	2308.05	588.54	161.49	1.10	3.65	3.92
17580.62	17820.48	2088.36	649.31	239.87	0.99	2.71	3.22
17820.48	18060.34	2157.23	662.06	239.86	1.03	2.76	3.26
18060.34	18300.20	994.73	404.55	223.58	0.47	1.81	2.46
18300.20 LB	19122.65	40217.91	6205.80	812.09	19.15	7.65	6.48
19122.65	19945.10	39985.65	4617.69	823.56	19.04	5.61	8.66
19945.10	20767.55	76594.30	7252.51	823.71	36.47	8.82	10.56
20767.55	21590.00 RB	23367.61	3418.49	721.49	11.13	4.75	6.84
21590.00	22061.84	5446.98	1924.76	471.92	2.59	4.08	2.83
22061.84	22533.68	3635.09	1512.40	473.75	1.73	3.21	2.40
22533.68	23005.52	6982.33	2235.66	472.79	3.32	4.74	3.12
23005.52	23477.36	5191.36	1869.92	471.84	2.47	3.96	2.78
23477.36	23949.20	1030.41	498.79	196.09	0.49	2.54	2.07

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 179.59

INPUT
Description: 179.59
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14631.8	835.1	14710.3	828.6	14794	832.4	14857.5	826	15008.8	825.4
15042.9	830.2	15113.9	824.6	15375.7	822.8	15761.3	821.6	16090.5	821.8
16342.9	822.2	16612.6	822.2	16821.2	822.5	16849.5	820.5	16864.7	822.9
17140.8	821.9	17414.9	822	17617.5	822.4	17662.9	808.8	17702.3	814.9
17784.8	815.2	17865.2	819.8	17993	814.3	18194.4	817.6	18510.2	814.1
18685.3	814.9	18780.5	812.1	18847.4	808.2	18917.2	810.3	18995.7	809
19096.6	816.3	19398.1	819	19546.2	818.1	19570.5	811.2	19592.1	811.1
19948	811.2	20194.6	811.1	20705.6	811.1	20714.7	818.5	20891.9	814.5
20905.5	812.3	21161.8	811	21296.9	812.5	21310.6	809.6	21371.9	809.7
21401	817.9	21454.8	819.8	21697.8	815.3	21810.6	818.6	22091.7	818.2
22350.2	817.8	22471.8	819.5	22501.9	817.1	22530.8	811.4	22571.6	811.4
22599.5	816.4	22857.4	818.8	23060.7	820.2	23370.3	816.8	23405.3	817
23423	819.4	23702.7	821.7	23929.3	821.2	24011.6	816.9	24211.5	818.5
24233.9	816.3	24290.6	821.2	24415.5	820.7	24457.7	816.1	24472.9	816.1
24513.9	812.7	24617.1	821.7	24996.2	822.5	25130	819.2	25449.6	820.3
25773.9	819.4	25895.7	821.2	25919.1	825.6	25962.8	823.4	25969.7	819.9
25986.9	820.5	25998.7	809.7	26012.1	810.3	26036.1	822	26056.8	823.2
26387.9	822.1	26732.9	822.8	27029	825.4	27284.5	826.4	27343.6	828.2
27351.1	826	27472.7	829.1	27740.1	830.4	28200.1	833.2	28251.9	833.7

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14631.8	.032	17865.2	.032	17993	.043	19570.5	.028	21296.9	.065
21401	.065	25962.8	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17865.2	21401	455	504.22	540	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14631.8	17617.5	835.1	23702.7	28251.9	835.1

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	820.33	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.93	Wt. n-Val.	0.032	0.032	0.065
E.G. Elev (ft)	821.26	Reach Len. (ft)	455.00	504.22	540.00
Crit W.S. (ft)	817.94	Flow Area (sq ft)	1218.16	24274.87	4907.12
E.G. Slope (ft/ft)	0.002096	Area (sq ft)	1218.16	24274.87	7125.25
Q Total (cfs)	210000.00	Flow (cfs)	7583.48	193475.45	8941.05
Top Width (ft)	7238.87	Top Width (ft)	240.78	3535.80	3462.30
Vel Total (ft/s)	6.91	Avg. Vel. (ft/s)	6.23	7.97	1.82
Max Chl Dpth (ft)	12.13	Hydr. Depth (ft)	5.06	6.87	2.30

Conv. Total (cfs)	4587239.5	Conv. (cfs)	165653.6	4226277.5	195308.3
Length Wtd. (ft)	508.39	Wetted Per. (ft)	243.07	3541.70	2136.03
Min Ch El (ft)	808.20	Shear (lb/sq ft)	0.66	0.90	0.30
Alpha	1.26	Stream Power (lb/ft s)	4.08	7.15	0.55
Frctn Loss (ft)	0.97	Cum Volume (acre-ft)	245.50	3765.42	1732.13
C & E Loss (ft)	0.07	Cum SA (acres)	109.09	420.28	383.59

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17434.08	17649.64	474.51	95.23	26.32	0.23	3.78	4.98
17649.64	17865.20	7108.97	1122.93	216.74	3.39	5.21	6.33
17865.20 LB	18749.15	18916.18	4140.00	884.14	9.01	4.68	4.57
18749.15	19633.10	28275.91	5093.83	885.36	13.46	5.76	5.55
19633.10	20517.05	86268.75	8125.39	883.95	41.08	9.19	10.62
20517.05	21401.00 RB	60014.63	6915.65	888.25	28.58	7.82	8.68
21401.00	21857.73	2287.07	1217.68	456.85	1.09	2.67	1.88
21857.73	22314.45	1566.97	970.41	456.73	0.75	2.12	1.61
22314.45	22771.18	3637.47	1609.99	457.84	1.73	3.53	2.26
22771.18	23227.91	533.91	508.64	456.75	0.25	1.11	1.05
23227.91	23684.63	915.65	600.40	307.87	0.44	1.95	1.53

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 179.5

INPUT
Description: 179.5
Left Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14198.2	832.4	14488.2	830.1	14526.1	828.4	14543.3	832.4	14552	829.1
14873.9	826.9	14964.4	825.8	14992.6	821.3	15016.7	827	15030.6	827.7
15036.9	822.8	15090.6	825	15381.6	821.7	15687.7	820.5	15973.5	821.5
16259.2	821.4	16555.3	821	16847.9	822.2	16942.9	818.3	16957.3	821.8
17245.5	820.9	17532.2	822.1	17836.9	820	17842.36	819.5	403 17865.4	817.6
17892.8	812.8	17990.4	812.5	18116.8	808.6	18445.8	813.3	18740.8	814.8
18941.2	808.8	18963.4	811	19196.8	819.8	19470.1	816.4	19487.8	813.3
19593.6	812.1	19609.5	810.2	19764.1	810.1	20175.7	810.1	20390.9	810.4
20767.1	810.5	20776.7	816	20852.5	814.6	20916.9	816.3	20999.7	812.4
21127.2	814.8	21421.8	810.6	21514.4	812.4	21575	808.5	21697	817.9
21736.2	819.1	22130	815.4	22414.4	816.6	22454.3	811.7	22553.7	811.7
22590	816	22901.2	815.9	23287.1	815.8	23405.5	822.1	23435.8	812.7
23475	819.1	23482.9	817.9	23679.2	820.5	23740.1	815.6	23808.3	820.5
23878.6	822.9	24212	821.7	24306.3	821	24325.6	816.4	24341	816.8
24370.9	813	24398.7	817.9	24443.1	816.6	24496.9	818.8	24962.5	820.5
25337.5	820.9	25678.8	820.5	25973.7	819.6	26022.2	827	26065.9	824.9
26074.5	822.1	26091.4	823.8	26103.5	810.7	26118.3	812.6	26138.5	824.5
26156.2	824	26165.9	820.6	26312.5	823.2	26381	821.2	26857.6	823.4
27189.1	825.4	27472.5	826.9	27482.2	830	27769.9	829.8	27981.4	830
28001.3	832.3	28230.8	833.5						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14198.2	.032	17836.9	.043	19470.1	.028	20767.1	.032	20916.9	.028
21575	.065	26065.9	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17842.36	20916.9	465	506.43	535	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14198.2	17532.2	833.5	23405.5	28230.8	833.5

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	819.51	Element	Left OB	Channel	Right OB

Vel Head (ft)	0.71	Wt. n-Val.		0.032	0.039
E.G. Elev (ft)	820.22	Reach Len. (ft)	465.00	506.43	535.00
Crit W.S. (ft)	816.84	Flow Area (sq ft)		21783.03	11027.66
E.G. Slope (ft/ft)	0.001738	Area (sq ft)	20.94	21783.03	12328.46
Q Total (cfs)	210000.00	Flow (cfs)		159555.36	50444.64
Top Width (ft)	6226.24	Top Width (ft)	34.54	3043.52	3148.19
Vel Total (ft/s)	6.40	Avg. Vel. (ft/s)		7.32	4.57
Max Chl Dpth (ft)	11.01	Hydr. Depth (ft)		7.16	4.52
Conv. Total (cfs)	5036897.5	Conv. (cfs)		3826971.5	1209926.1
Length Wtd. (ft)	513.68	Wetted Per. (ft)		3046.38	2441.32
Min Ch El (ft)	808.60	Shear (lb/sq ft)		0.78	0.49
Alpha	1.12	Stream Power (lb/ft s)		5.68	2.24
Frctn Loss (ft)	0.78	Cum Volume (acre-ft)	239.03	3498.86	1611.54
C & E Loss (ft)	0.07	Cum SA (acres)	107.66	382.20	342.61

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17842.36 LB	18610.99	31044.66	5716.77	768.90	14.78	7.44	5.43
18610.99	19379.63	14304.99	3533.45	738.31	6.81	4.79	4.05
19379.63	20148.27	56780.61	6230.63	769.03	27.04	8.11	9.11
20148.27	20916.90 RB	57425.06	6302.17	770.13	27.35	8.20	9.11
20916.90	21404.49	22445.92	3036.35	487.74	10.69	6.23	7.39
21404.49	21892.09	15070.99	2431.72	488.13	7.18	4.99	6.20
21892.09	22379.68	3352.29	1607.98	487.60	1.60	3.30	2.08
22379.68	22867.27	6021.98	2286.19	488.15	2.87	4.69	2.63
22867.27	23354.87	3553.48	1665.32	487.69	1.69	3.42	2.13
23354.87	23842.46	0.01	0.11	2.01	0.00	0.05	0.13

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 179.4

INPUT
Description: 179.4
Left Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14523.1	829.6	14800.4	827.2	15056.3	825	15077.7	820.5	15103.5	825.7
15120.5	826.2	15132.2	821.7	15145.6	824.5	15419.8	820	15726	819.8
16002.5	819.7	16317.3	820.9	16605.1	821.3	16943.8	820.9	17010	821.3
17037.1	817.6	17051.7	821.7	17327.1	820.5	17607.5	819.4	17784.8	820.1
17787.45	818.8629	17816.7	805.2	18153.2	810.7	18305.3	812.7	18374.6	811.7
18662.9	815.1	18937.2	808.5	19149.7	815	19255.2	813.7	19312.1	816.2
19410.7	816.6	19417.9	813.5	19472.1	812.8	19484.2	808.9	19592.3	809.2
19898.1	809.8	19973.6	810.5	20417.3	808.6	20490.6	808.4	20830.5	808.3
20846.4	815.5	20949.3	813.4	20978.5	814.4	21012.8	811.4	21306.5	813
21608	811.1	21629.5	807.8	21793.3	812.5	21828.9	808.6	21870	815
22076.8	809.5	22347.1	813.5	22460.1	812	22502.9	815.2	22602.4	814.5
22738.5	816.9	23015.1	814.6	23215	813.7	23283.6	815.8	23287.5	814
23320.1	815.8	23336.7	818.9	23406.3	821.4	23743.6	819.8	23780.5	822
23857.1	816.3	23881.4	825	23924.4	822.4	24073.1	822.8	24079.8	819.6
24104.7	819.8	24117.6	813.1	24144.6	811.1	24161.4	817.9	24232.2	813.6
24352	820.5	24730	820.5	25049.4	820.3	25170.4	822.6	25544.3	820.5
25832.2	822.3	26103.8	823	26168.9	826.3	26183.4	822.6	26201.6	822.1
26214.9	809	26228.9	810.7	26248.8	822.9	26476.3	824.7	26510.5	820.9
26890.6	823.7	27194	825.6	27528.7	827	27586.3	827.2	27594.9	829.2
27957	829.7	27987	830.1						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14523.1	.065	17784.8	.065	19410.7	.028	20846.4	.043	21012.8	.028
21608	.065	26168.9	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17787.45	20846.4	240	262.49	280	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14523.1	17784.5	830.1	23406.3	27987	830.1

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	818.88	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.49	Wt. n-Val.	0.000	0.036	0.045
E.G. Elev (ft)	819.38	Reach Len. (ft)	240.00	262.49	280.00
Crit W.S. (ft)	815.27	Flow Area (sq ft)	0.00	25044.88	14441.46
E.G. Slope (ft/ft)	0.001345	Area (sq ft)	8.97	25044.88	15479.66
Q Total (cfs)	210000.00	Flow (cfs)	0.00	153800.88	56199.13
Top Width (ft)	5859.99	Top Width (ft)	14.02	3058.95	2787.02
Vel Total (ft/s)	5.32	Avg. Vel. (ft/s)	0.04	6.14	3.89
Max Chl Dpth (ft)	13.68	Hydr. Depth (ft)	0.01	8.19	5.80
Conv. Total (cfs)	5725453.5	Conv. (cfs)	0.0	4193236.8	1532216.8
Length Wtd. (ft)	267.91	Wetted Per. (ft)	0.05	3065.13	2492.45
Min Ch El (ft)	805.20	Shear (lb/sq ft)		0.69	0.49
Alpha	1.12	Stream Power (lb/ft s)		4.21	1.89
Frctn Loss (ft)	0.31	Cum Volume (acre-ft)	238.87	3226.64	1440.78
C & E Loss (ft)	0.03	Cum SA (acres)	107.40	346.72	306.17

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17787.45 LB	18552.19	22592.74	6525.47	767.85	10.76	8.53	3.46
18552.19	19316.93	12947.49	4665.44	764.99	6.17	6.10	2.78
19316.93	20081.66	49609.88	6190.74	766.00	23.62	8.10	8.01
20081.66	20846.40 RB	68650.73	7663.23	766.30	32.69	10.02	8.96
20846.40	21322.44	16653.99	2864.73	476.21	7.93	6.02	5.81
21322.44	21798.48	19282.07	3633.89	476.40	9.18	7.63	5.31
21798.48	22274.52	10759.78	3491.37	476.81	5.12	7.33	3.08
22274.52	22750.56	5019.00	2208.32	476.20	2.39	4.64	2.27
22750.56	23226.60	3726.33	1846.75	476.06	1.77	3.88	2.02
23226.60	23702.64	757.97	396.40	110.77	0.36	3.60	1.91

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 179.35

INPUT
Description: 179.35
Left Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14411	832.3	14642.3	830.9	14857.3	828.1	15065.5	826.9	15101.7	825.9
15125.3	820.1	15150.5	825.5	15171.6	825.3	15182.4	820.8	15194.4	823.9
15414.9	820.3	15625.6	820	15923.1	819.4	16143.3	820	16364.4	819.9
16668.2	819.9	16752.8	819.9	16973.1	819.8	17184.8	818.7	17393.8	819.3
17599.6	818.4	17638.7	819.9	17644.33	818.6	17687.5	808.7	17964.9	807.2
18177.4	810.1	18377	812.2	18452.3	811.8	18532.6	815.8	18785.9	815.7
18841	813.9	18862.4	810.2	18871.7	811.8	18948.4	807.7	19191.3	814.3
19288.4	813.4	19318.8	815.5	19420.8	814.8	19433.7	808.5	19741.3	808.7
19975.4	808.9	20227.6	808.5	20358.8	808.2	20833	811	20854	811.3
20856.8	813.3	20908.8	816	20940.4	813.2	21000	814.1	21042.4	811
21263.7	811.2	21542.7	811.2	21675	808.9	21748.8	811.4	21758	807.8
21822.1	811.5	21996.5	809.5	22054.7	810.9	22220.4	809.6	22435.8	810
22563.9	815.1	22783.6	814.3	22898.9	816	23137.4	814	23217.8	812.3
23259.5	809.3	23349.9	817.6	23364.7	820.9	23612.3	818.9	23864.6	819.3
23990.2	821	24070.3	809.6	24087.3	816.1	24144.5	814.1	24202.5	820.8
24407.7	819	24639	819.1	24920.4	820.5	25180.1	819.8	25403.8	819.5
25648.8	821.6	26001.6	820	26152.8	821.3	26228.6	825.5	26238.8	821.1
26253.3	822.8	26272	808.9	26290.8	810	26309.3	822.8	26515.3	823.2
26588.6	821.3	26927.6	823.7	27141.9	824.1	27380.1	825	27597.4	827
27811.6	830	27961.1	831.1						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14411	.065	17638.7	.065	19420.8	.028	20908.8	.065	21042.4	.028
21758	.065	22563.9	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17644.33	20908.8	240	261.22	275	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14411	17638.7	832.3	23364.6	27961.1	832.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	818.66	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.38	Wt. n-Val.	0.001	0.037	0.038
E.G. Elev (ft)	819.04	Reach Len. (ft)	240.00	261.22	275.00
Crit W.S. (ft)	814.34	Flow Area (sq ft)	0.01	26389.63	16250.78
E.G. Slope (ft/ft)	0.000980	Area (sq ft)	8.36	26389.63	17222.12
Q Total (cfs)	210000.00	Flow (cfs)	0.00	136173.73	73826.27
Top Width (ft)	5997.45	Top Width (ft)	65.44	3264.47	2667.54
Vel Total (ft/s)	4.92	Avg. Vel. (ft/s)	0.06	5.16	4.54
Max Chl Dpth (ft)	11.46	Hydr. Depth (ft)	0.02	8.08	6.64
Conv. Total (cfs)	6707187.0	Conv. (cfs)	0.0	4349251.0	2357936.0
Length Wtd. (ft)	265.38	Wetted Per. (ft)	0.22	3268.67	2447.71
Min Ch El (ft)	807.20	Shear (lb/sq ft)		0.49	0.41
Alpha	1.01	Stream Power (lb/ft s)		2.55	1.85
Frctn Loss (ft)	0.27	Cum Volume (acre-ft)	238.83	3071.67	1335.67
C & E Loss (ft)	0.00	Cum SA (acres)	107.18	327.67	288.64

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17428.78	17644.33	0.00	0.01	0.22	0.00	0.02	0.06
17644.33 LB	18460.45	22578.09	7365.71	817.29	10.75	9.03	3.07
18460.45	19276.57	9732.28	4444.76	816.89	4.63	5.45	2.19
19276.57	20092.68	51189.15	7193.09	817.65	24.38	8.81	7.12
20092.68	20908.80 RB	52674.23	7386.07	816.84	25.08	9.05	7.13
20908.80	21378.95	17578.86	3216.92	470.40	8.37	6.84	5.46
21378.95	21849.11	22825.95	3845.29	471.00	10.87	8.18	5.94
21849.11	22319.26	11894.49	3996.20	470.18	5.66	8.50	2.98
22319.26	22789.41	9044.03	2697.81	470.26	4.31	5.74	3.35
22789.41	23259.57	9934.71	2022.05	470.30	4.73	4.30	4.91
23259.57	23729.72	2548.21	472.51	95.57	1.21	4.97	5.39

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 179.3

INPUT
Description: 179.3
Left Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14539.8	832.8	14727.1	832.3	14937	828.4	15107.7	826.6	15138.4	822.1
15157.5	825.2	15285.2	823.8	15291.4	821.5	15495.8	818	15683.8	817.4
15882.2	817.6	16107	818.4	16309.8	819	16501.7	819.5	16690.7	819.3
16881.5	818.6	17084.2	821.2	17191.2	820.4	17206.3	817.9	17215.8	820
17281.2	819.6	17298.6	815.8	17325.9	817.9	17549.7	820.3	17568.6	820.6
17573.63	818.3223	17598.2	807.2	17912.8	807.1	18114.4	811.6	18239	811.4
18379.7	819.5	18487.7	814.5	18633.4	815	18768.6	807.5	18814.8	810.7
18905	811.7	19035.2	806.8	19157.6	812.2	19361.7	814.7	19409.5	815.5
19446.2	808.4	19459	808.3	19712.3	808.5	19931.8	808.7	20278	808.4
20472.4	808.5	20958.5	810.4	21157.3	811.5	21338.5	810.8	21561.5	811.3
21719	809.2	21847.2	809.8	21866.9	806.8	21900.6	807.1	21934.8	812.2
22129.3	812.4	22172.9	812.3	22368.9	811.4	22569.9	812.4	22853	813
23048	812.8	23153.3	815.8	23413.2	816.4	23537	812.1	23605.3	819.8
23809.9	817.5	23915.9	817.2	24002.6	812	24024	809.6	24055.6	813.5
24068.8	812.9	24126.3	821.6	24145.1	821.4	24361.1	818.3	24564.9	819.9
24766.2	819.2	25010.4	818.3	25269.7	817.2	25592.1	819.5	25779.5	820.2
26066.9	822.6	26221.4	823	26272.4	825.4	26296	822	26304.5	822.6
26325.5	808.9	26345.1	809.2	26363.8	820.6	26383.4	822.1	26602.8	822.2
26866.6	823.8	26947.6	824.4	27223.5	824.7	27225.8	824.7	27416.1	825.4
27659.6	827.2	27771.4	831.4						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14539.8	.065	17568.6	.065	19409.5	.027	20958.5	.065	21157.3	.027
21719	.065	26272.4	.025						

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
17573.63 21157.3 230 258.47 280 .1 .3
Ineffective Flow num= 2
Sta L Sta R Elev Sta L Sta R Elev
14539.8 17568.6 832.8 23605.3 27771.4 832.8

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	818.38	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.39	Wt. n-Val.	0.000	0.037	0.044
E.G. Elev (ft)	818.77	Reach Len. (ft)	230.00	258.47	280.00
Crit W.S. (ft)	814.18	Flow Area (sq ft)	0.00	29130.67	14657.25
E.G. Slope (ft/ft)	0.001042	Area (sq ft)	460.67	29130.67	16257.03
Q Total (cfs)	210000.00	Flow (cfs)	0.00	157002.80	52997.20
Top Width (ft)	7576.31	Top Width (ft)	716.56	3540.00	3319.74
Vel Total (ft/s)	4.80	Avg. Vel. (ft/s)	0.06	5.39	3.62
Max Chl Dpth (ft)	11.58	Hydr. Depth (ft)	0.03	8.23	6.02
Conv. Total (cfs)	6504193.5	Conv. (cfs)	0.0	4862745.5	1641447.8
Length Wtd. (ft)	262.60	Wetted Per. (ft)	0.14	3543.99	2436.50
Min Ch El (ft)	806.80	Shear (lb/sq ft)		0.53	0.39
Alpha	1.09	Stream Power (lb/ft s)		2.88	1.42
Frctn Loss (ft)	0.33	Cum Volume (acre-ft)	237.53	2905.20	1229.99
C & E Loss (ft)	0.01	Cum SA (acres)	105.02	307.27	269.74

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17371.38	17573.63	0.00	0.00	0.14	0.00	0.03	0.06
17573.63 LB	18469.55	20297.62	6871.14	854.97	9.67	8.06	2.95
18469.55	19365.46	15372.22	5927.08	896.49	7.32	6.62	2.59
19365.46	20261.38	66981.72	8418.94	896.61	31.90	9.40	7.96
20261.38	21157.30 RB	54351.22	7913.52	895.92	25.88	8.83	6.87
21157.30	21598.24	20949.77	3213.52	440.94	9.98	7.29	6.52
21598.24	22039.18	15083.21	3671.31	441.56	7.18	8.33	4.11
22039.18	22480.12	7045.86	2831.15	440.94	3.36	6.42	2.49
22480.12	22921.06	5853.94	2533.21	440.94	2.79	5.75	2.31
22921.06	23362.00	2771.74	1617.59	440.98	1.32	3.67	1.71
23362.00	23802.94	1292.69	790.47	231.13	0.62	3.43	1.64

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 179.25

INPUT
Description: 179.25
Left Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14621.1	831.1	14834	829.3	15081.2	827.9	15140.1	823.7	15157.5	826.5
15332.5	822.3	15406.6	822.3	15410.6	819.9	15417.5	821.9	15522.3	820.9
15730.4	817.2	15938.5	817.3	16213.4	819.2	16437	819.4	16668.2	819.5
16891.9	819.5	17039.1	818.8	17180.7	819.8	17295.2	819.5	17376.6	813.4
17399.7	818.3	17520.6	820.3	17526.6	817.8	17552.9	807.1	17795.4	808.4
17912.8	811.3	18008.6	810	18053	811.9	18255.1	811.1	18379.2	816.7
18616.1	813.4	18776.7	807.8	18862.3	811.1	19010.6	810.4	19055.2	806.3
19222.6	809.2	19304.5	808.4	19373.5	815.4	19388.2	815.2	19704.9	808.9
19914.8	809.7	20125.3	807.5	20326.6	807.3	20735.7	809.1	20960.8	809.6
21199.8	810.4	21408	811.8	21633.8	811.2	21842.9	809.3	21921.8	808.5
21967.2	810.4	22320.5	812.2	22492.5	812.2	22700.4	811.8	22925	811.8
22993.6	809.9	23135.7	816	23217.6	816.4	23255.3	807.5	23400.2	808.1
23422.3	819.2	23639.5	813.6	23724.6	810.7	23850	815.2	23971.5	815.8
24234.2	818.4	24335.1	813.8	24410	824.4	24446	824.3	24462.9	818.1
24487.8	819.5	24514.9	808.8	24555.5	809.4	24617	820.4	24702.2	821.2
24781.3	818.3	24999.9	818	25247.3	819.3	25578.3	818.7	25923.8	819.9
26164.6	819.9	26280.6	821.8	26302.9	825.5	26344.5	824.2	26372	819.4
26376.9	814.1	26384.8	808.7	26404.8	810.6	26427	822.6	26644.8	823.1
26887	824.3	27101.6	824.5	27238.9	825.2	27465.7	826.4	27676.9	828.1
27777.5	828.1	27791.3	832.7						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14621.1	.032	17520.6	.065	19388.2	.028	20960.8	.065	21199.8	.03
21408	.03	21633.8	.15	24335.1	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17526.64	21408	230	259.41	280	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14621.1	17520.6	832.7	24000	27791.3	832.7

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	817.93	Element			
Vel Head (ft)	0.49	Wt. n-Val.	0.065	0.039	0.107
E.G. Elev (ft)	818.43	Reach Len. (ft)	230.00	259.41	280.00
Crit W.S. (ft)	814.13	Flow Area (sq ft)	0.01	30346.45	15054.62
E.G. Slope (ft/ft)	0.001554	Area (sq ft)	371.41	30346.45	16416.57
Q Total (cfs)	210000.00	Flow (cfs)	0.00	182423.63	27576.37
Top Width (ft)	7307.68	Top Width (ft)	422.83	3881.36	3003.50
Vel Total (ft/s)	4.63	Avg. Vel. (ft/s)	0.12	6.01	1.83
Max Chl Dpth (ft)	11.63	Hydr. Depth (ft)	0.05	7.82	5.93
Conv. Total (cfs)	5327951.5	Conv. (cfs)	0.0	4628306.0	699645.6
Length Wtd. (ft)	262.56	Wetted Per. (ft)	0.27	3884.53	2544.07
Min Ch El (ft)	806.30	Shear (lb/sq ft)	0.00	0.76	0.57
Alpha	1.49	Stream Power (lb/ft s)	0.00	4.55	1.05
Frctn Loss (ft)	0.31	Cum Volume (acre-ft)	235.34	2728.74	1124.98
C & E Loss (ft)	0.05	Cum SA (acres)	102.02	285.25	249.41

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17332.94	17526.64	0.00	0.01	0.27	0.00	0.05	0.12
17526.64 LB	18496.98	21207.23	6611.25	972.68	10.10	6.81	3.21
18496.98	19467.32	24564.10	7022.87	971.10	11.70	7.24	3.50
19467.32	20437.66	76944.01	8634.52	970.40	36.64	8.90	8.91
20437.66	21408.00 RB	59708.30	8077.82	970.35	28.43	8.32	7.39
21408.00	21833.55	12128.91	2978.41	425.56	5.78	7.00	4.07
21833.55	22259.11	4699.18	3159.63	425.60	2.24	7.42	1.49
22259.11	22684.66	3148.07	2484.45	425.55	1.50	5.84	1.27
22684.66	23110.21	3404.23	2604.16	425.69	1.62	6.12	1.31
23110.21	23535.77	2472.67	2048.24	377.27	1.18	5.48	1.21
23535.77	23961.32	1673.93	1701.03	425.72	0.80	4.00	0.98
23961.32	24386.87	49.39	78.71	38.68	0.02	2.03	0.63

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 179.2

INPUT
Description: 179.2
Left Bank Station Interpolated
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14710.2	829.7	14917.8	826.5	15126.9	823.1	15208.4	821.8	15242.9	825.3
15354.6	823.6	15369.3	821.2	15403.2	822.5	15446.6	818.2	15664.2	817.7
16019.3	817.4	16230.1	818.1	16433.6	818.3	16703.1	817.8	16904.4	818.1
16968.4	815.6	17096.1	819.1	17199.2	818.4	17216.5	816.3	17353.5	816.5
17398.1	811.1	17421.4	811.1	17444.9	817.8	17491.4	818.3	17494.25	817.5876
17531.4	808.3	17635.7	805.4	17894.6	807.7	18127.5	810.4	18287.9	808.5
18447.4	815.5	18561.1	813.8	18698.5	810.4	18756.3	811.1	18851.9	807.7
19055.9	809.5	19093.4	803.8	19279.2	808.7	19376.7	808.5	19437.1	811.7
19790	808.4	20036.8	809.6	20259.6	807.8	20303.3	806.3	20520.5	807.3
20645.8	808.2	21065.6	809.2	21268.3	808.6	21480	809.3	21670.8	807.1
22001.2	810.3	22466.3	811.8	22776.9	815	22951.5	815.7	23008.8	809.4
23230.9	814.9	23239.3	814.9	23500.6	818.5	23709.9	818.2	23843	811.7
23867.6	816.1	23898.1	809.8	24074.9	816.2	24171	815.2	24213	821.5
24233.5	822.3	24251.5	817	24268.9	817	24281.7	808.5	24304.7	808.2
24322	818.7	24354.9	821.4	24410	817.6	24540.6	817.3	25044.8	816.6
25100.3	820.7	25149.4	818.7	25464.7	818.2	26166.8	819	26335.9	821.2

26362.9	825.9	26407.2	823.3	26430.8	820.4	26442.7	808.6	26463.7	809
26485.6	823.1	26518.1	823.7	26534.4	821.7	26738.4	823.5	26857.2	825.8
27075.3	827.8	27380	827	27429.8	826.6	27630.9	826.8	27670.3	828

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14710.2	.025	16019.3	.032	17491.4	.065	19437.1	.028	21065.6	.032
21480	.032	22001.2	.15	24354.9	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17494.25	21480	490	497.05	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14710.2	17491.4	829.7	24233.5	27670.3	829.7

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	817.73	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.34	Wt. n-Val.	0.065	0.039	0.054
E.G. Elev (ft)	818.07	Reach Len. (ft)	490.00	497.05	500.00
Crit W.S. (ft)	812.72	Flow Area (sq ft)	0.04	34978.57	13193.85
E.G. Slope (ft/ft)	0.000923	Area (sq ft)	822.04	34978.57	14292.01
Q Total (cfs)	210000.00	Flow (cfs)	0.01	173408.45	36591.54
Top Width (ft)	8029.78	Top Width (ft)	843.34	3985.75	3200.69
Vel Total (ft/s)	4.36	Avg. Vel. (ft/s)	0.12	4.96	2.77
Max Chl Dpth (ft)	13.93	Hydr. Depth (ft)	0.07	8.78	5.42
Conv. Total (cfs)	6913436.0	Conv. (cfs)	0.2	5708801.0	1204634.6
Length Wtd. (ft)	497.39	Wetted Per. (ft)	0.60	3987.89	2435.40
Min Ch El (ft)	803.80	Shear (lb/sq ft)	0.00	0.51	0.31
Alpha	1.14	Stream Power (lb/ft s)	0.00	2.50	0.87
Frctn Loss (ft)	0.49	Cum Volume (acre-ft)	232.19	2534.23	1026.29
C & E Loss (ft)	0.01	Cum SA (acres)	98.67	261.83	229.47

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17308.65	17494.25	0.01	0.04	0.60	0.00	0.07	0.12
17494.25 LB	18490.69	25002.52	8584.99	997.82	11.91	8.62	2.91
18490.69	19487.13	24628.01	8292.14	997.14	11.73	8.32	2.97
19487.13	20483.56	63074.95	9019.43	996.49	30.04	9.05	6.99
20483.56	21480.00 RB	60702.97	9082.01	996.44	28.91	9.11	6.68
21480.00	21892.69	24693.02	3940.13	412.71	11.76	9.55	6.27
21892.69	22305.37	7077.97	2975.63	412.69	3.37	7.21	2.38
22305.37	22718.06	1940.44	2164.05	412.70	0.92	5.24	0.90
22718.06	23130.75	1327.75	1724.06	413.07	0.63	4.18	0.77
23130.75	23543.43	374.51	723.24	314.29	0.18	2.30	0.52
23543.43	23956.12	789.79	1012.35	237.89	0.38	4.28	0.78
23956.12	24368.81	388.04	654.38	232.04	0.18	2.82	0.59

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 179.11

INPUT
Description: 179.11
Left Bank Station Interpolated
Station Elevation Data num= 94

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14600.4	827.5	14832.1	824.9	15075.9	822.9	15247.7	820.5	15279	817.6
15305	822.2	15367.1	820	15389.4	816.8	15577.2	816.8	15785.4	816.5
16119.7	817.9	16327.4	817.8	16532.8	817.5	16718.6	817.3	16934.2	817.3
17117.1	817.4	17354.4	815.4	17394.2	817.6	17557.8	816.2	17584.8	819.2
17591.99	816.9	421 17621.1	807.8	17675.9	804.9	17705.8	805.2	17901	806.4
18119.9	808.3	18273.4	809.7	18412.6	816.4	18679.2	812	18968	806.5
19242.2	806.1	19301.8	806.4	19664.8	806.7	19897.7	808.3	20083.7	807.6
20313	808.4	20325.8	806.7	21022.4	806.8	21211.7	806.9	21482.2	808.4
21555.9	810.1	21607.1	809.8	21629	811.7	21807	809.3	22233	809.2
22576.9	810.6	22815.1	813.1	22901.7	816.1	23116.1	816.6	23185.3	808.9
23385.2	813.3	23571.2	817.1	23616.9	811	23668.1	812.2	23678.7	818.1
23720.8	812.8	23731.8	814.4	23919.9	809.6	23957.4	808	24011.4	815.3

24114.5	816.4	24134.8	821.2	24159.6	820.6	24175.9	816.8	24187.9	817.8
24192.9	814.5	24197.9	808.5	24218.5	808.2	24237.9	817.7	24260.5	820.8
24315.3	817.3	24440	817.6	25119.5	816.5	25205.1	820.2	25226.1	817.6
25312.1	817.5	26160.6	818.3	26354.7	818.9	26421.5	819	26461.7	825.8
26502.6	824.8	26516.6	820.2	26531.8	821.2	26547.4	808.8	26562	809.1
26589.7	823.5	26605.1	824.1	26630	821.4	26848.5	821.3	26860	823.4
27042.8	824.7	27284.2	824.8	27553.7	825.4	27735.4	827.2		

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14600.4	.025	16119.7	.032	17584.8	.065	19664.8	.028	21022.4	.032
21629	.15	24260.5	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17591.99	21629	425	425.8	425	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14600.4	17584.8	827.5	24134.8	27735.4	827.5

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	817.15	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.42	Wt. n-Val.	0.065	0.039	0.150
E.G. Elev (ft)	817.58	Reach Len. (ft)	425.00	425.80	425.00
Crit W.S. (ft)	812.05	Flow Area (sq ft)	0.07	36867.94	12860.53
E.G. Slope (ft/ft)	0.001036	Area (sq ft)	490.87	36867.94	13521.65
Q Total (cfs)	210000.00	Flow (cfs)	0.01	197676.64	12323.34
Top Width (ft)	7945.46	Top Width (ft)	915.37	4037.01	2993.08
Vel Total (ft/s)	4.22	Avg. Vel. (ft/s)	0.16	5.36	0.96
Max Chl Dpth (ft)	12.25	Hydr. Depth (ft)	0.11	9.13	5.19
Conv. Total (cfs)	6525176.0	Conv. (cfs)	0.4	6142261.5	382914.3
Length Wtd. (ft)	425.74	Wetted Per. (ft)	0.71	4038.99	2482.85
Min Ch El (ft)	804.90	Shear (lb/sq ft)	0.01	0.59	0.33
Alpha	1.52	Stream Power (lb/ft s)	0.00	3.16	0.32
Frctn Loss (ft)	0.43	Cum Volume (acre-ft)	224.80	2124.32	866.66
C & E Loss (ft)	0.02	Cum SA (acres)	88.78	216.05	193.93

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17392.55	17591.99	0.01	0.07	0.71	0.00	0.11	0.16
17591.99 LB	18601.24	21951.79	7714.70	1010.94	10.45	7.64	2.85
18601.24	19610.50	31313.07	9541.00	1009.32	14.91	9.45	3.28
19610.50	20619.75	73614.50	9818.25	1009.37	35.05	9.73	7.50
20619.75	21629.00 RB	70797.28	9793.99	1009.36	33.71	9.70	7.23
21629.00	22036.09	3357.32	2990.00	407.11	1.60	7.34	1.12
22036.09	22443.19	3649.88	3143.67	407.10	1.74	7.72	1.16
22443.19	22850.28	2164.10	2297.47	407.13	1.03	5.64	0.94
22850.28	23257.37	648.12	1114.98	407.57	0.31	2.74	0.58
23257.37	23664.47	997.40	1444.10	407.58	0.47	3.55	0.69
23664.47	24071.56	1494.14	1826.89	400.15	0.71	4.59	0.82
24071.56	24478.65	12.38	43.43	46.22	0.01	0.94	0.29

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 179.03

INPUT
Description: 179.03
Left Bank Station Interpolated
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14605.7	825.5	14622.8	829.4	14631.5	825.5	14834.8	823.8	14933.3	824.7
15100.2	823.1	15178.5	817.5	15221.9	823.5	15325.6	816.5	15346.2	816.7
15551.8	817.2	15807.8	817.3	16029	817.7	16187.4	818.4	16451.9	817.3
16672.2	816.1	16873.6	817.6	16958.6	817.8	17048.4	813.9	17255.6	816.5
17509.3	817.6	17642.9	819	17765.9	817.6	17770.5	9816.5	004 17815.8	805.9
17914.2	808.9	18123	802.8	18189.6	805.7	18422.2	807.6	18554.2	811.8
18777	808.1	18821.7	807.6	19074.3	806.6	19170.3	807.8	19345.3	803.9
19708.8	806	19955.8	808	20168.4	806.8	20273.4	806	21039.4	807.2

21288.2	808.9	21593.5	812	21800	813.7	21831.6	808.1	22074	809.3
22283.5	809.7	22589.4	810.4	22721.7	811.8	22731.2	810.4	22755.7	814.5
22800.5	818.3	23040.9	824.4	23181.6	820.8	23230.9	813.4	23365.7	808.5
23430.5	815.1	23462.8	810.7	23499	810.8	23538.5	817.7	23592.8	811.9
23763.4	813.9	23872.7	812.6	23998.6	808.1	24032.3	809.3	24079.4	816.7
24091.1	814.8	24101.5	816.1	24114	808.1	24135.4	808.2	24151.4	817.3
24179.8	820.6	24257.4	817.2	24376.6	817.4	24660.8	817.4	24907.6	817.2
25127.7	817.3	25219.3	817.1	25237.9	818.9	25245.1	817.1	25269.3	820.1
25291.9	818	25495.9	818.3	25737.1	818.7	26025.6	819.1	26064.5	819.1
26273.2	819.2	26479.1	819.9	26570.5	824.5	26581.8	821.3	26597.1	821.9
26613	810.6	26627.5	810	26651.9	821.7	26855.5	823	26953.6	823.2
26983.8	825.2								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14605.7	.025	16187.4	.032	17765.9	.065	19708.8	.028	21039.4	.032
21800	.032	22074	.15	24179.8	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17770.59	21800	420	416.83	415	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14605.7	17642.9	829.4	24157.7	26983.8	829.4

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	816.76	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.37	Wt. n-Val.	0.065	0.041	0.081
E.G. Elev (ft)	817.13	Reach Len. (ft)	420.00	416.83	415.00
Crit W.S. (ft)	811.63	Flow Area (sq ft)	0.15	37229.38	10984.72
E.G. Slope (ft/ft)	0.000978	Area (sq ft)	501.29	37229.38	11152.88
Q Total (cfs)	210000.00	Flow (cfs)	0.03	189246.08	20753.89
Top Width (ft)	6573.63	Top Width (ft)	596.71	4029.41	1947.51
Vel Total (ft/s)	4.36	Avg. Vel. (ft/s)	0.18	5.08	1.89
Max Chl Dpth (ft)	13.96	Hydr. Depth (ft)	0.13	9.24	5.75
Conv. Total (cfs)	6714596.5	Conv. (cfs)	0.9	6051005.0	663590.6
Length Wtd. (ft)	416.69	Wetted Per. (ft)	1.15	4031.05	1918.56
Min Ch El (ft)	802.80	Shear (lb/sq ft)	0.01	0.56	0.35
Alpha	1.25	Stream Power (lb/ft s)	0.00	2.87	0.66
Frctn Loss (ft)	0.41	Cum Volume (acre-ft)	219.96	1762.17	746.29
C & E Loss (ft)	0.01	Cum SA (acres)	81.40	176.63	169.82

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17559.60	17770.59	0.03	0.15	1.15	0.00	0.13	0.18
17770.59 LB	18777.94	28132.80	9096.19	1008.88	13.40	9.03	3.09
18777.94	19785.29	40827.05	10753.28	1007.42	19.44	10.67	3.80
19785.29	20792.65	77432.82	10068.68	1007.37	36.87	10.00	7.69
20792.65	21800.00 RB	42853.38	7311.23	1007.38	20.41	7.26	5.86
21800.00	22145.59	12768.70	2669.33	346.08	6.08	7.72	4.78
22145.59	22491.17	2709.86	2409.93	345.59	1.29	6.97	1.12
22491.17	22836.76	1493.30	1575.11	291.76	0.71	5.41	0.95
22836.76	23182.35						
23182.35	23527.93	1416.20	1584.94	320.86	0.67	4.96	0.89
23527.93	23873.52	822.79	1159.71	331.82	0.39	3.50	0.71
23873.52	24219.11	1543.06	1585.71	282.46	0.73	5.73	0.97

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 178.95

INPUT
Description: 178.95
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14685.4	825.6	14688.6	825.4	14817.1	823.8	14980.2	822.5	15077.3	819
15096	823.3	15118	823.1	15140	819.5	15199.2	817.1	15341.8	816.7
15402.4	816.7	15581.6	817	15633.8	817	15765.6	817.2	15927.7	817.6
16064	817.4	16185.8	815.7	16248.9	817.5	16411.3	818	16575.2	816.2

16702.1	815.8	16828.8	817.6	16967	814.1	17088	814.7	17265.3	816.6
17273.5	816.8	17389.5	816.9	17580.6	817.1	17716.2	816.7	17863.5	816
17985.4	816.1	18026.2	817.3	18074.2	814.4	18170	813.6	18208.7	803.9
18218.9	800.1	18325.6	799.6	18504.4	803.7	18666.7	804.7	18706.7	804.7
18823.4	805.2	18932.6	807.6	19133	808.4	19235.6	809.2	19351.8	807.4
19432.6	804.8	19739.8	805	19818.5	806.3	19868.7	809.1	19995.5	809.2
20132.1	808.9	20162.8	805.4	21014.2	806	21147.9	806	21285.6	807.1
21459	808.8	21701.5	810.8	21820.5	811.2	21944	812.5	22048.5	812.7
22094.6	808.6	22251	811.1	22388	811.1	22590	811.2	22747.3	810.3
22827.3	809.7	22968.6	815.9	23115.6	810.6	23179.3	808.4	23300.5	809.5
23399.8	810.5	23416.7	808.2	23484	807.3	23594	811.4	23713.4	811.9
23892.4	813.7	23983	813.8	24029.9	808.5	24051.6	812.3	24181.7	816.5
24220.7	815.1	24278.5	815.4	24416.3	815.8	25055.4	816.4	25273.2	815.8
25338	817.6	25483.7	817.5	25633.2	818.1	26051.9	818.6	26533.4	819
26542.7	819.4	26549.3	821.7	26564.7	820.6	26585	825.6	26599.1	823.9

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14685.4	.025	16248.9	.032	18170	.065	19739.8	.028	21014.2	.032
21944	.032	22094.6	.15	24181.7	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18170	21944	465	470.2	470	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14685.4	18026.2	825.6	24181.7	26599.1	825.6

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	816.29	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.42	Wt. n-Val.	0.032	0.040	0.126
E.G. Elev (ft)	816.71	Reach Len. (ft)	465.00	470.20	470.00
Crit W.S. (ft)	811.02	Flow Area (sq ft)	248.73	36687.21	11139.39
E.G. Slope (ft/ft)	0.001010	Area (sq ft)	791.63	36687.21	11488.44
Q Total (cfs)	210000.00	Flow (cfs)	574.25	197201.77	12223.98
Top Width (ft)	7852.44	Top Width (ft)	903.71	3774.00	3174.72
Vel Total (ft/s)	4.37	Avg. Vel. (ft/s)	2.31	5.38	1.10
Max Chl Dpth (ft)	16.69	Hydr. Depth (ft)	1.96	9.72	4.99
Conv. Total (cfs)	6607465.5	Conv. (cfs)	18068.2	6204780.5	384616.9
Length Wtd. (ft)	470.08	Wetted Per. (ft)	127.12	3776.34	2232.57
Min Ch El (ft)	799.60	Shear (lb/sq ft)	0.12	0.61	0.31
Alpha	1.43	Stream Power (lb/ft s)	0.28	3.29	0.35
Frctn Loss (ft)	0.48	Cum Volume (acre-ft)	213.73	1408.51	638.44
C & E Loss (ft)	0.01	Cum SA (acres)	74.17	139.29	145.42

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17937.69	18170.00	574.25	248.73	127.12	0.27	1.96	2.31
18170.00 LB	19113.50	41783.99	11143.58	945.46	19.90	11.81	3.75
19113.50	20057.00	38458.49	8786.38	943.65	18.31	9.31	4.38
20057.00	21000.50	77109.87	9703.03	943.70	36.72	10.28	7.95
21000.50	21944.00 RB	39849.42	7054.21	943.53	18.98	7.48	5.65
21944.00	22254.34	3492.72	1669.63	310.54	1.66	5.38	2.09
22254.34	22564.68	1452.70	1602.40	310.34	0.69	5.16	0.91
22564.68	22875.02	1710.69	1767.66	310.39	0.81	5.70	0.97
22875.02	23185.36	841.52	1155.13	310.56	0.40	3.72	0.73
23185.36	23495.70	2577.03	2260.68	310.52	1.23	7.28	1.14
23495.70	23806.04	1415.46	1577.78	310.41	0.67	5.08	0.90
23806.04	24116.38	717.53	1050.37	311.01	0.34	3.38	0.68
24116.38	24426.72	16.32	55.74	58.79	0.01	0.95	0.29

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 178.86

INPUT
Description: 178.86
Station Elevation Data num= 94

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

14602.5	827.5	14696.5	826	14716.8	821.6	14739.5	827.1	14764.5	823.7
14941	822.2	14968.7	821.6	14985.8	818.9	15009.2	824.3	15031.6	824.1
15068.3	819.4	15077.5	820.4	15106.7	817.7	15129.9	817.6	15315.5	817.9
15545.7	817.5	15763	817.1	15844.3	817.1	15974.8	817.4	16117.3	817.4
16242.9	816.4	16423.1	816.4	16496.1	816.6	16831.4	815.2	16976.4	812.8
17140.3	815.8	17268.3	816.5	17420.3	816.9	17466.3	816.9	17603.3	816.1
17763.8	815.5	17866.1	814.5	18007.6	810.6	18078.3	809.5	18235.9	810
18361.2	809	18443.5	810	18452.7	811.5	18463.3	807.2	18469.1	802.9
18546.1	800.9	18724.4	800.6	18895.2	804.8	19047.1	803.9	19101.7	804.7
19335.6	807.8	19563.3	808.2	19647.3	807.5	19797	806.2	19934.8	805.6
20711.3	805.2	20776	805.1	21297.8	807	21393.3	808.6	21635.6	808.1
21796.6	808.1	21891.7	812.5	22049.9	810.9	22207.9	809.1	22371.3	808.7
22518.8	809.4	22970.7	810.3	23074.2	812.1	23160.7	814.9	23252.8	813.2
23395.3	813.4	23500.8	812.5	23686.2	811.3	23780.4	811	23808.9	807.1
23856.5	809.7	24108.5	815.6	24146.2	814.3	24671.4	815	25365	815.4
25432.2	817.3	26171.6	818.1	26442.9	818.4	26588.6	818.5	26643.9	819
26664.9	821.1	26684.8	825.1	26726.9	823.6	26735.6	821	26751	822.3
26763.5	812.3	26781.4	811.6	26799.2	823.4	26933	823.3	27097.2	823.9
27117.7	825	27253.3	825.5	27382.1	826	27465.9	826.5		

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14602.5	.025	16423.1	.032	17866.1	.065	18452.7	.065	19563.3	.026
20776	.065	21891.7	.065	24146.2	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18452.7	21891.7	470	477.98	485	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14602.5	17700	827.5	24108.5	27465.9	827.5

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	815.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.38	Wt. n-Val.	0.065	0.042	0.065
E.G. Elev (ft)	816.21	Reach Len. (ft)	470.00	477.98	485.00
Crit W.S. (ft)	810.87	Flow Area (sq ft)	3290.51	34159.52	10437.05
E.G. Slope (ft/ft)	0.001052	Area (sq ft)	3855.57	34159.52	11621.51
Q Total (cfs)	210000.00	Flow (cfs)	7425.99	180836.64	21737.36
Top Width (ft)	8198.97	Top Width (ft)	1242.76	3439.00	3517.22
Vel Total (ft/s)	4.39	Avg. Vel. (ft/s)	2.26	5.29	2.08
Max Chl Dpth (ft)	15.23	Hydr. Depth (ft)	4.37	9.93	4.71
Conv. Total (cfs)	6473994.5	Conv. (cfs)	228932.6	5574930.5	670131.2
Length Wtd. (ft)	478.46	Wetted Per. (ft)	752.90	3441.50	2217.31
Min Ch El (ft)	800.60	Shear (lb/sq ft)	0.29	0.65	0.31
Alpha	1.29	Stream Power (lb/ft s)	0.65	3.45	0.64
Frctn Loss (ft)	0.37	Cum Volume (acre-ft)	188.92	1026.14	513.76
C & E Loss (ft)	0.02	Cum SA (acres)	62.71	100.36	109.32

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17682.66	17939.34	319.27	269.79	239.37	0.15	1.13	1.18
17939.34	18196.02	3218.71	1424.73	256.71	1.53	5.55	2.26
18196.02	18452.70	3888.02	1595.98	256.81	1.85	6.22	2.44
18452.70 LB	19312.45	41371.56	10560.23	862.11	19.70	12.28	3.92
19312.45	20172.20	54151.49	7798.81	859.76	25.79	9.07	6.94
20172.20	21031.95	65285.60	8974.22	859.75	31.09	10.44	7.27
21031.95	21891.70 RB	20027.95	6826.23	859.87	9.54	7.94	2.93
21891.70	22263.31	4174.72	1951.36	371.63	1.99	5.25	2.14
22263.31	22634.93	6263.68	2489.15	371.62	2.98	6.70	2.52
22634.93	23006.54	4930.83	2156.29	371.62	2.35	5.80	2.29
23006.54	23378.15	1316.62	976.48	371.68	0.63	2.63	1.35
23378.15	23749.77	2312.18	1368.89	371.62	1.10	3.68	1.69
23749.77	24121.38	2739.34	1494.89	359.14	1.30	4.17	1.83

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 178.77

INPUT
Description: 178.77
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14564.3	827.3	14723.5	822.4	14770.1	820.5	14791.8	822.6	14831.3	818.6
14833.2	822.6	14859.3	818.4	14937	821.7	14998.6	818.9	15027	821.4
15183.9	819.8	15307.3	815.2	15395.8	815.4	15454.7	817.4	15499.5	821.5
15611.2	820.5	16312.8	818.4	16370.1	815.2	16503.6	812.6	16594.1	815
16721	814.9	16878.1	814.7	16899.6	814.7	17077	814.3	17174.6	814
17295.2	813.2	17446.5	813.1	17594.3	812	17658.4	812.2	17737.8	814.9
17764.8	806.8	17852.4	812.2	17970.6	809.5	18118.5	809.7	18241.9	808.9
18275.3	809.3	18417.8	809.6	18501.4	809.9	18550.5	806.5	18679.8	800
18779.1	803.6	18859.1	802.1	18924.6	803.7	18995.8	801.2	19142	803.7
19198	803.9	19442.9	805.5	19566.9	804.5	19720.1	806.3	20056.9	804.7
20062.2	806.2	21488	804.1	21558.7	804.6	21690.2	806.3	21708	806.6
21723.8	804.1	21806	809.9	21834.3	805.3	21978.4	805.2	22223.8	807.7
22390.7	808.3	22434.1	807.1	22517.4	804.5	22534.2	808.1	22676.9	808.8
22766.6	809.8	23113	808.3	23145.5	808.1	23175.7	805.9	23200.1	812.8
23381.8	813.5	23554.7	813.9	23579	808	23616.2	810.3	23714.8	809.1
23843.6	810.3	24074.8	813.1	24220.9	814.9	24243.8	816.2	24263.8	813.8
24818.6	814.2	25346.2	814.5	25472.8	814.7	25518.6	817.3	25593.7	817.2
26485.7	818.2	26697.8	819.2	26776.8	822.3	26797.2	825.4		

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14564.3	.025	16370.1	.032	17852.4	.065	18501.4	.065	19720.1	.027
21488	.027	21806	.065	24243.8	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18501.4	21806	445	444.41	440	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14564.3	17594.3	827.3	24243.8	26797.2	827.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	815.51	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.32	Wt. n-Val.	0.055	0.036	0.065
E.G. Elev (ft)	815.83	Reach Len. (ft)	445.00	444.41	440.00
Crit W.S. (ft)	809.61	Flow Area (sq ft)	4774.35	35458.71	14437.05
E.G. Slope (ft/ft)	0.000588	Area (sq ft)	6698.07	35458.71	16016.52
Q Total (cfs)	210000.00	Flow (cfs)	9576.32	174160.27	26263.41
Top Width (ft)	9204.34	Top Width (ft)	2236.70	3304.60	3663.04
Vel Total (ft/s)	3.84	Avg. Vel. (ft/s)	2.01	4.91	1.82
Max Chl Dpth (ft)	15.51	Hydr. Depth (ft)	5.26	10.73	5.95
Conv. Total (cfs)	8660551.0	Conv. (cfs)	394934.4	7182494.5	1083121.8
Length Wtd. (ft)	443.63	Wetted Per. (ft)	908.54	3305.69	2428.30
Min Ch El (ft)	800.00	Shear (lb/sq ft)	0.19	0.39	0.22
Alpha	1.40	Stream Power (lb/ft s)	0.39	1.93	0.40
Frctn Loss (ft)	0.27	Cum Volume (acre-ft)	131.99	644.18	359.90
C & E Loss (ft)	0.02	Cum SA (acres)	43.94	63.37	69.35

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17451.51	17713.98	794.28	349.69	119.71	0.38	2.92	2.27
17713.98	17976.45	3050.88	1261.70	263.87	1.45	4.81	2.42
17976.45	18238.93	2875.87	1584.89	262.48	1.37	6.04	1.81
18238.93	18501.40	2855.28	1578.07	262.48	1.36	6.01	1.81
18501.40 LB	19327.55	29603.66	10086.24	826.60	14.10	12.21	2.94
19327.55	20153.70	36887.08	8330.60	826.38	17.57	10.08	4.43
20153.70	20979.85	51550.98	8303.10	826.15	24.55	10.05	6.21
20979.85	21806.00 RB	56118.52	8738.75	826.57	26.72	10.58	6.42
21806.00	22138.75	7446.73	3223.59	333.13	3.55	9.69	2.31
22138.75	22471.49	5304.47	2628.87	332.79	2.53	7.90	2.02
22471.49	22804.24	4581.93	2408.83	333.16	2.18	7.24	1.90
22804.24	23136.99	3923.13	2193.53	332.75	1.87	6.59	1.79
23136.99	23469.73	1175.76	1065.85	333.78	0.56	3.20	1.10
23469.73	23802.48	2292.76	1590.71	333.54	1.09	4.78	1.44
23802.48	24135.23	1486.10	1225.19	332.77	0.71	3.68	1.21
24135.23	24467.97	52.55	100.48	96.39	0.03	1.04	0.52

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 178.68

INPUT
Description: 178.68
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14468.8	824.3	14500.8	823.9	14690.9	822.1	14833.3	820.8	15004.2	820.3
15151.3	818.8	15186.3	815.5	15351.4	815.5	15564.5	815.2	15613.9	815.4
15768.1	815.3	15845	815.3	15982.5	815.3	16152	814.9	16289.5	814.8
16416.9	816.7	16431.3	813.7	16609.9	813.1	16699.7	813	16863.6	812.9
16931.7	813	17124.2	812.3	17166.1	812.2	17392.1	811.5	17611.5	811.1
17750.4	811.5	17784.8	812.6	17798.2	808.9	17830.1	808.6	17870.9	812.1
18022.1	808.1	18181.7	808.6	18306.5	810.1	18358.3	813	18493.8	801.8
18557.6	797.6	18701.2	802.8	18861.1	804.1	19018.5	801.3	19100.1	804.8
19257.2	803.9	19279.7	805	19469	807.3	20283.1	803.4	20295.9	807
21260	805.5	21329.4	806.3	21601.4	806.8	21698.2	804.5	21721.7	809.4
21740.9	810.1	21759.9	815.6	21799.7	811.2	21808	811.8	21828	818.3
21908.5	803.7	22004.9	802.8	22190.8	804.8	22327	804.9	22446.4	805.2
22638.5	806.4	22676.6	807	22986.8	805.5	23063.6	805.6	23126.7	810.4
23209	805.9	23251.9	812.7	23318.1	813.4	23344.7	805	23391	813.3
23416.4	813.7	23441.9	810.9	23756.5	810.9	23944.3	810.5	24159.2	810
24242	809.2	24283.8	815.9	24317.2	813.8	24551.3	813.5	24777	814.2
25113.2	814.4	25238.1	814.6	25436.7	816.1	25564.2	816	25578.5	818
25595.6	817.4	25883.2	816.8	25909.9	816.8	26105.5	817.2	26338.9	818.1
26417.6	818.4	26568.2	819.9	26710.4	820.3	26824.5	823.8	26865.7	827.9
26889	827.8								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14468.8	.025	16416.9	.032	17870.9	.065	18358.3	.065	19469	.028
21260	.065	21759.9	.065	23391	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18358.3	21759.9	360	378.34	390	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14468.8	17392.1	827.9	24283.8	26889	827.9

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	815.29	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.24	Wt. n-Val.	0.047	0.040	0.052
E.G. Elev (ft)	815.54	Reach Len. (ft)	360.00	378.34	390.00
Crit W.S. (ft)	809.37	Flow Area (sq ft)	4844.02	34060.75	18085.48
E.G. Slope (ft/ft)	0.000622	Area (sq ft)	7455.86	34060.75	19279.93
Q Total (cfs)	210000.00	Flow (cfs)	11285.07	147887.81	50827.12
Top Width (ft)	9291.94	Top Width (ft)	2363.20	3400.54	3528.19
Vel Total (ft/s)	3.68	Avg. Vel. (ft/s)	2.33	4.34	2.81
Max Chl Dpth (ft)	17.69	Hydr. Depth (ft)	5.01	10.02	7.26
Conv. Total (cfs)	8419437.0	Conv. (cfs)	452447.3	5929200.5	2037789.3
Length Wtd. (ft)	379.95	Wetted Per. (ft)	967.02	3403.18	2496.94
Min Ch El (ft)	797.60	Shear (lb/sq ft)	0.19	0.39	0.28
Alpha	1.14	Stream Power (lb/ft s)	0.45	1.69	0.79
Frctn Loss (ft)	0.25	Cum Volume (acre-ft)	59.69	289.56	181.63
C & E Loss (ft)	0.01	Cum SA (acres)	20.45	29.16	33.03

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17321.10	17580.40	2166.06	746.86	188.30	1.03	3.97	2.90
17580.40	17839.70	3464.25	1126.05	259.86	1.65	4.34	3.08
17839.70	18099.00	2900.30	1470.87	259.47	1.38	5.67	1.97
18099.00	18358.30	2754.47	1500.24	259.39	1.31	5.79	1.84
18358.30 LB	19208.70	30826.95	10281.31	851.20	14.68	12.09	3.00
19208.70	20059.10	39236.41	8072.74	850.45	18.68	9.49	4.86
20059.10	20909.50	47668.68	8055.92	850.90	22.70	9.47	5.92
20909.50	21759.90 RB	30155.75	7650.78	850.63	14.36	9.01	3.94
21759.90	22101.84	6877.28	2818.53	315.21	3.27	8.99	2.44

22101.84	22443.78	9774.14	3595.51	341.95	4.65	10.52	2.72
22443.78	22785.72	7682.08	3111.73	341.95	3.66	9.10	2.47
22785.72	23127.66	7570.43	3085.16	342.13	3.60	9.02	2.45
23127.66	23469.60	3263.73	1679.35	344.79	1.55	4.91	1.94
23469.60	23811.54	5958.46	1505.94	341.94	2.84	4.40	3.96
23811.54	24153.48	7090.65	1671.62	341.94	3.38	4.89	4.24
24153.48	24495.42	2610.37	617.64	127.03	1.24	4.88	4.23

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: RIVER-1
REACH: Reach-1 RS: 178.61

INPUT
Description: 178.61
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14528.7	824.3	14600.4	823.6	14814.3	821.3	15026.4	819.7	15166.3	818.2
15216.2	819	15284.9	814.9	15497.7	814.6	15721.2	814.7	15777.2	814.9
15957.9	815.7	16149.5	815.3	16293.5	814.9	16342.4	814.9	16475.1	815
16632.6	813.2	16765.4	811.8	16988.4	812.4	17151.9	811.9	17364.2	812.5
17537.5	812.4	17692.1	811.5	17767.2	811.3	17796.9	808.1	17889.4	811.5
18004.9	806.7	18176.7	808.2	18312.7	810.6	18365.7	814.1	18504	797.4
18663.3	802.7	18842.9	802.2	19039.5	804.5	19152.3	803.4	19183.7	805.5
19290	804.1	19310.1	806.2	19311.9	807.6	19318.3	802.3	19336.9	802.3
19491.8	802.2	19508.6	806.9	19554.1	806.9	19693	806.2	20520.3	802.3
20539.6	807.6	21104	806.8	21144.4	807.3	21475.7	807.9	21642.1	808.1
21647.5	807.3	21680.2	814.1	21764	803.4	21807.5	808.1	21994	808.2
22136.5	807.8	22207.3	803.7	22349	803.4	22501.6	804.3	22656	805
22835.5	805.4	22971.9	805.6	23060.9	803.9	23079.1	807.7	23079.2	809.1
23115.4	803.8	23164.8	809.5	23261.5	808.9	23299	812.1	23342.5	809.4
23498.8	809.3	23734	809.4	23796.4	809.3	24040.5	809.2	24154	809.3
24302.3	809.7	24389.3	815.4	24423.7	814	24543.5	814.4	24778.7	813.6
24927.1	813.5	25220	814	25315.8	814.1	25449.6	814.2	25587.3	815.3
25766.6	817.4	25998.2	818.7	26009.3	818.7	26260.1	818.7	26357.7	819
26557.1	820.2	26707.4	819.9	26865	820.6	26899.5	821.8	26942	828.4
26995.3	824.5								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14528.7	.025	16475.1	.032	17889.4	.065	18365.7	.065	19336.9	.027
21104	.065	21680.2	.065	23164.8	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18365.7	21680.2	0	0	0	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14528.7	17364.2	828.42	3409.84	26995.3	827.18

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	814.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.30	Wt. n-Val.	0.050	0.038	0.059
E.G. Elev (ft)	815.28	Reach Len. (ft)			
Crit W.S. (ft)	809.41	Flow Area (sq ft)	4683.12	32615.29	14894.34
E.G. Slope (ft/ft)	0.000694	Area (sq ft)	6989.62	32615.29	21294.27
Q Total (cfs)	210000.00	Flow (cfs)	10780.57	157310.56	41908.87
Top Width (ft)	9749.97	Top Width (ft)	2585.10	3314.50	3850.37
Vel Total (ft/s)	4.02	Avg. Vel. (ft/s)	2.30	4.82	2.81
Max Chl Dpth (ft)	17.58	Hydr. Depth (ft)	4.68	9.84	8.61
Conv. Total (cfs)	7974327.0	Conv. (cfs)	409370.4	5973551.5	1591405.0
Length Wtd. (ft)		Wetted Per. (ft)	1001.98	3320.32	1733.35
Min Ch El (ft)	797.40	Shear (lb/sq ft)	0.20	0.43	0.37
Alpha	1.19	Stream Power (lb/ft s)	0.47	2.05	1.05
Frctn Loss (ft)		Cum Volume (acre-ft)			
C & E Loss (ft)		Cum SA (acres)			

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17342.50	17598.30	1373.87	606.15	234.10	0.65	2.59	2.27

17598.30		17854.10	3285.30	1059.99	256.01	1.56	4.14	3.10
17854.10		18109.90	3638.31	1646.23	255.93	1.73	6.44	2.21
18109.90		18365.70	2483.08	1370.75	255.94	1.18	5.36	1.81
18365.70	LB	19194.32	30879.07	9868.28	829.81	14.70	11.91	3.13
19194.32		20022.95	50019.53	8332.35	831.78	23.82	10.06	6.00
20022.95		20851.57	55604.17	8288.59	829.35	26.48	10.00	6.71
20851.57		21680.20	RB 20807.79	6126.08	829.39	9.91	7.39	3.40
21680.20		22034.54	5382.15	2474.66	355.27	2.56	6.98	2.17
22034.54		22388.88	9368.47	3447.83	354.46	4.46	9.73	2.72
22388.88		22743.22	10532.66	3698.37	354.34	5.02	10.44	2.85
22743.22		23097.56	9111.33	3397.58	356.25	4.34	9.59	2.68
23097.56		23451.90	7514.26	1875.90	313.02	3.58	6.01	4.01

Warning - Divided flow computed for this cross-section.

Profile Output Table - Standard Table 1

Reach	River Sta	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Reach-1	178.61	210000.00	797.40	814.98	809.41	815.28	0.000694	4.82	52192.75	9749.97	0.27
Reach-1	178.68	210000.00	797.60	815.29	809.37	815.54	0.000622	4.34	56990.25	9291.94	0.24
Reach-1	178.77	210000.00	800.00	815.51	809.61	815.83	0.000588	4.91	54670.12	9204.34	0.26
Reach-1	178.86	210000.00	800.60	815.83	810.87	816.21	0.001052	5.29	47887.07	8198.97	0.30
Reach-1	178.95	210000.00	799.60	816.29	811.02	816.71	0.001010	5.38	48075.32	7852.44	0.30
Reach-1	179.03	210000.00	802.80	816.76	811.63	817.13	0.000978	5.08	48214.25	6573.63	0.29
Reach-1	179.11	210000.00	804.90	817.15	812.05	817.58	0.001036	5.36	49728.54	7945.46	0.31
Reach-1	179.2	210000.00	803.80	817.73	812.72	818.07	0.000923	4.96	48172.46	8029.78	0.29
Reach-1	179.25	210000.00	806.30	817.93	814.13	818.43	0.001554	6.01	45401.09	7307.68	0.38
Reach-1	179.3	210000.00	806.80	818.38	814.18	818.77	0.001042	5.39	43787.92	7576.31	0.33
Reach-1	179.35	210000.00	807.20	818.66	814.34	819.04	0.000980	5.16	42640.42	5997.45	0.32
Reach-1	179.4	210000.00	805.20	818.88	815.27	819.38	0.001345	6.14	39486.33	5859.99	0.38
Reach-1	179.5	210000.00	808.60	819.51	816.84	820.22	0.001738	7.32	32810.69	6226.24	0.48
Reach-1	179.59	210000.00	808.20	820.33	817.94	821.26	0.002096	7.97	30400.14	7238.87	0.54
Reach-1	179.68	210000.00	808.30	821.43	819.54	822.39	0.002432	8.38	31840.48	7358.48	0.57
Reach-1	179.76	210000.00	809.50	822.51	820.26	823.36	0.002297	7.90	32530.69	8548.59	0.53
Reach-1	179.84	210000.00	812.40	823.40	821.94	824.56	0.003412	9.14	27645.73	9319.02	0.65
Reach-1	179.91	210000.00	812.90	825.04	821.67	825.72	0.001864	6.89	34113.52	10895.12	0.43
Reach-1	180.01	210000.00	811.12	826.06		827.12	0.003941	8.27	25391.19	3606.74	0.55
Reach-1	180.025	Bridge									
Reach-1	180.04	210000.00	811.12	826.95	823.51	827.79	0.002694	7.34	28597.36	3609.40	0.46
Reach-1	180.06	210000.00	814.40	827.52	822.47	828.12	0.001158	6.28	34242.87	11301.23	0.35
Reach-1	180.09	210000.00	814.60	827.82	822.19	828.33	0.001058	5.82	37772.02	10734.71	0.32
Reach-1	180.18	210000.00	809.90	828.32	824.68	829.07	0.001808	7.57	33884.30	10945.18	0.45
Reach-1	180.28	210000.00	817.60	829.23	826.13	829.98	0.001770	8.16	36637.38	10885.45	0.51
Reach-1	180.37	210000.00	818.40	829.50	828.39	831.68	0.003973	13.05	32061.66	10676.11	0.77
Reach-1	180.47	210000.00	819.80	832.40	829.09	833.31	0.001767	9.12	49455.00	11675.86	0.49
Reach-1	180.56	210000.00	820.50	833.62	829.32	834.03	0.000817	6.47	57497.88	11197.04	0.35
Reach-1	180.65	210000.00	820.90	834.08	829.47	834.39	0.000573	5.77	65183.02	11432.36	0.30
Reach-1	180.75	210000.00	821.40	834.54	829.53	834.72	0.000476	4.58	75897.27	12008.02	0.24
Reach-1	180.85	210000.00	821.80	834.75	830.03	834.96	0.000377	4.80	76510.21	11762.36	0.26
Reach-1	180.94	210000.00	821.00	834.93	829.82	835.12	0.000334	4.41	80587.70	11382.99	0.24
Reach-1	180.99	210000.00	820.70	835.02	829.39	835.20	0.000298	4.26	82671.38	11296.82	0.22
Reach-1	181.04	210000.00	820.60	835.08	829.29	835.27	0.000279	4.13	81221.07	11511.06	0.22
Reach-1	181.13	210000.00	821.70	835.23	829.00	835.41	0.000256	4.00	83162.47	11228.28	0.21
Reach-1	181.23	210000.00	822.20	835.33	829.45	835.55	0.000307	4.25	75108.66	10946.62	0.23
Reach-1	181.32	210000.00	821.30	835.49	830.84	835.76	0.000509	4.71	64175.47	10230.38	0.27
Reach-1	181.41	210000.00	821.30	835.76	831.25	836.00	0.000507	4.56	60219.10	10527.54	0.26
Reach-1	181.51	210000.00	820.90	835.95	831.59	836.35	0.000707	5.51	53684.59	9959.62	0.32
Reach-1	181.62	210000.00	822.80	836.33	831.98	836.77	0.000847	5.80	51306.97	9488.54	0.33
Reach-1	181.74	210000.00	824.70	836.85	833.42	837.25	0.000787	5.74	52614.62	8535.90	0.34
Reach-1	181.82	210000.00	824.90	837.18	833.70	837.58	0.000690	5.77	50832.36	8450.20	0.33
Reach-1	181.9	210000.00	825.70	837.54	834.17	837.97	0.000997	6.04	48406.01	8199.19	0.35
Reach-1	181.99	210000.00	825.20	838.02	834.03	838.35	0.000736	5.24	50998.55	8015.01	0.29
Reach-1	182.08	210000.00	825.10	838.43	833.71	838.69	0.000612	4.35	51772.05	7997.81	0.24

Reach-1	182.17	210000.00	823.20	838.68	833.99	839.07	0.000810	5.34	43994.96	7088.33	0.31
Reach-1	182.27	210000.00	824.20	839.09	834.89	839.56	0.001090	5.80	40313.50	7678.09	0.34
Reach-1	182.36	210000.00	823.60	839.59	834.68	840.12	0.001040	5.95	38896.96	7527.51	0.34
Reach-1	182.45	210000.00	821.40	840.26	833.62	840.60	0.000846	4.81	46015.63	8025.08	0.25
Reach-1	182.55	210000.00	822.60	840.72	833.40	840.99	0.000692	4.23	50419.57	8252.03	0.22
Reach-1	182.64	210000.00	824.50	841.15	833.75	841.39	0.000933	3.99	53277.00	8211.61	0.21
Reach-1	182.74	210000.00	824.70	841.49	833.83	841.71	0.000475	3.93	56698.51	8251.17	0.21
Reach-1	182.83	210000.00	824.40	841.72	834.26	841.96	0.000530	4.01	55702.84	9440.12	0.22
Reach-1	182.92	210000.00	824.40	841.97	834.61	842.20	0.000436	3.98	57544.77	9008.12	0.22
Reach-1	183.02	210000.00	823.50	842.15	834.59	842.41	0.000421	4.26	55102.70	8472.26	0.23
Reach-1	183.11	210000.00	824.00	842.40	835.10	842.67	0.000625	4.36	53084.45	8418.23	0.24
Reach-1	183.2	210000.00	825.50	842.68	835.27	842.96	0.000522	4.37	52239.41	8807.27	0.23
Reach-1	183.3	210000.00	825.70	842.91	836.63	843.27	0.000640	4.89	45320.57	7129.14	0.26
Reach-1	183.39	210000.00	826.90	843.24	837.41	843.64	0.000830	5.17	43138.02	5061.24	0.28
Reach-1	183.49	210000.00	826.90	843.70	838.31	844.16	0.001166	5.48	39451.67	4409.96	0.32
Reach-1	183.58	210000.00	827.30	844.21	839.72	844.84	0.001401	6.36	33018.05	3935.12	0.38
Reach-1	183.67	210000.00	827.20	844.96	841.05	845.73	0.002219	7.04	29816.71	3840.39	0.44
Reach-1	183.77	210000.00	833.00	846.05	843.30	847.13	0.002982	8.37	25098.48	3729.46	0.55
Reach-1	183.86	210000.00	831.50	847.49	843.62	848.25	0.001729	6.97	30162.06	6125.54	0.44
Reach-1	183.96	210000.00	830.70	848.35	843.18	848.88	0.000953	5.83	36387.37	5853.65	0.33
Reach-1	184.05	210000.00	830.10	848.82	844.16	849.44	0.001151	6.31	33280.43	6354.23	0.38
Reach-1	184.14	210000.00	831.00	849.46	843.52	849.95	0.000909	5.62	37396.80	8559.61	0.32
Reach-1	184.24	210000.00	831.50	849.95	844.01	850.45	0.001063	5.65	37173.43	9732.12	0.32
Reach-1	184.33	210000.00	831.90	850.51	844.41	850.96	0.000969	5.39	39335.67	8926.20	0.30
Reach-1	184.43	210000.00	834.30	851.10	844.52	851.45	0.000911	4.72	44458.66	9187.85	0.26
Reach-1	184.53	210000.00	834.30	851.60	844.67	851.87	0.000744	4.19	50143.55	9303.57	0.23
Reach-1	184.62	210000.00	834.60	851.92	845.78	852.21	0.000593	4.37	48015.40	9432.42	0.25
Reach-1	184.71	210000.00	836.10	852.18	846.44	852.55	0.000700	4.87	43083.39	9333.10	0.30
Reach-1	184.81	210000.00	835.40	852.64	847.53	853.09	0.001645	5.35	39242.43	8921.62	0.36
Reach-1	184.9	210000.00	836.50	853.70	847.76	854.07	0.002625	4.87	43122.86	8618.30	0.32
Reach-1	185	210000.00	836.60	854.50	849.48	854.98	0.001193	5.54	37874.30	8256.58	0.36
Reach-1	185.1	210000.00	838.50	855.19	848.27	855.52	0.000789	4.61	45508.93	7806.43	0.27
Reach-1	185.19	210000.00	839.40	855.52	849.35	855.93	0.000828	5.15	41210.34	5714.25	0.30
Reach-1	185.28	210000.00	841.50	855.79	851.77	856.46	0.001092	6.57	32314.43	5131.70	0.43
Reach-1	185.38	210000.00	843.10	856.32	852.79	857.08	0.001296	7.05	31129.49	5276.47	0.46
Reach-1	185.46	210000.00	844.20	856.88	853.85	857.68	0.001361	7.20	29966.03	5169.21	0.50
Reach-1	185.53	210000.00	845.00	857.44	854.12	858.23	0.001480	7.16	30661.38	5804.37	0.49
Reach-1	185.61	210000.00	844.90	858.11	854.35	858.80	0.001257	6.72	33547.44	5513.00	0.43
Reach-1	185.71	210000.00	846.00	859.04	854.74	859.61	0.001898	6.13	36335.59	5812.36	0.39
Reach-1	185.81	210000.00	843.60	859.89	855.30	860.26	0.000863	5.05	45511.02	6909.37	0.31
Reach-1	185.9	210000.00	845.30	860.34	855.12	860.66	0.000645	4.67	50157.49	9646.78	0.27
Reach-1	186	210000.00	845.80	860.70	855.15	861.00	0.000700	4.54	49995.54	8534.58	0.26
Reach-1	186.1	210000.00	846.40	861.07	856.64	861.60	0.001747	5.99	39810.04	7461.56	0.37
Reach-1	186.19	227000.00	848.90	861.94	857.64	862.51	0.001769	6.16	40529.57	8599.91	0.37
Reach-1	186.27	227000.00	849.80	862.75	857.88	863.27	0.001728	5.88	42860.61	8893.70	0.34
Reach-1	186.36	227000.00	849.20	863.60	858.54	864.11	0.001886	5.90	43614.99	10231.30	0.35
Reach-1	186.46	227000.00	849.90	864.49	858.65	864.98	0.001631	5.73	45110.21	10296.28	0.33
Reach-1	186.55	227000.00	850.00	865.26	860.33	865.76	0.001493	5.91	45143.88	10443.70	0.34
Reach-1	186.61	227000.00	849.60	865.47	862.00	866.36	0.001906	7.76	35619.22	6230.21	0.48
Reach-1	186.69	227000.00	850.50	866.36	862.92	867.27	0.002069	7.89	35953.47	8858.90	0.48
Reach-1	186.78	227000.00	851.70	867.28	863.40	868.16	0.001739	7.64	35625.70	10624.71	0.45

Reach-1	186.87	227000.00	852.60	868.18	863.59	868.83	0.001044	6.65	35927.00	11030.13	0.38
Reach-1	186.97	227000.00	851.90	868.75	864.01	869.29	0.000764	5.98	38635.55	9764.19	0.35
Reach-1	187.06	227000.00	851.90	869.09	864.34	869.69	0.000821	6.34	37397.26	8894.93	0.35
Reach-1	187.15	227000.00	853.20	869.48	864.95	870.16	0.000967	6.90	36063.31	8794.44	0.38
Reach-1	187.24	227000.00	853.80	869.81	866.21	870.85	0.001547	8.48	30574.78	8204.85	0.47
Reach-1	187.36	227000.00	853.70	870.83	866.50	871.53	0.000766	6.99	36029.39	9688.89	0.38
Reach-1	187.45	227000.00	855.30	871.35	866.99	871.92	0.000722	6.45	38833.16	9339.73	0.36
Reach-1	187.54	227000.00	855.90	871.57	867.68	872.34	0.000939	7.28	33186.02	8488.08	0.42
Reach-1	187.64	227000.00	856.10	872.07	868.36	872.75	0.000847	6.99	36452.07	8099.08	0.38
Reach-1	187.73	227000.00	855.40	872.25	869.23	873.37	0.001448	8.72	27934.91	7251.92	0.51
Reach-1	187.82	227000.00	855.40	872.87	869.57	874.14	0.001529	9.05	25095.98	5329.13	0.53
Reach-1	187.91	227000.00	856.50	873.47	870.00	874.87	0.001493	9.48	23939.93	5878.22	0.53
Reach-1	188	227000.00	858.30	874.13	870.25	875.78	0.001704	10.32	21996.45	7307.91	0.54
Reach-1	188.04	227000.00	855.00	875.17	866.18	876.11	0.000664	7.79	29147.25	5741.20	0.34
Reach-1	188.055	Bridge									
Reach-1	188.07	227000.00	855.00	875.24	866.17	876.18	0.000655	7.76	29270.75	5741.78	0.33
Reach-1	188.1	227000.00	855.80	875.32	868.72	876.37	0.001003	8.19	27700.83	6806.14	0.39
Reach-1	188.2	227000.00	859.30	876.25	868.80	876.92	0.000962	6.55	34648.83	7276.72	0.32
Reach-1	188.29	227000.00	859.60	876.77	869.30	877.25	0.000439	5.56	40856.84	7876.98	0.28
Reach-1	188.39	227000.00	860.70	877.13	868.98	877.51	0.000520	4.98	45552.48	7696.38	0.24
Reach-1	188.5	227000.00	860.50	877.49	870.31	877.88	0.000785	5.05	44919.65	7918.12	0.26
Reach-1	188.59	227000.00	861.40	877.88	871.17	878.26	0.000752	4.96	45762.22	8503.89	0.26
Reach-1	188.7	227000.00	863.30	878.31	872.21	878.70	0.000859	5.04	45040.55	11806.77	0.28
Reach-1	188.81	227000.00	863.50	878.80	871.65	879.12	0.000542	4.53	50143.02	12640.88	0.24
Reach-1	188.92	227000.00	863.30	879.09	872.77	879.46	0.000629	4.85	46764.32	8692.28	0.27
Reach-1	189.02	227000.00	863.40	879.45	873.36	879.87	0.000849	5.21	43575.76	11303.51	0.29
Reach-1	189.12	227000.00	863.10	879.91	873.35	880.35	0.000998	5.34	42484.43	11929.29	0.30
Reach-1	189.22	227000.00	864.70	880.43	873.97	880.87	0.001026	5.36	42385.77	12435.68	0.30
Reach-1	189.31	227000.00	865.80	880.91	874.44	881.35	0.000951	5.31	42774.26	12478.11	0.29
Reach-1	189.39	227000.00	866.80	881.33	875.06	881.78	0.000939	5.35	42463.00	13061.58	0.30
Reach-1	189.49	227000.00	863.40	881.83	875.50	882.25	0.000924	5.15	44090.51	12884.24	0.28
Reach-1	189.58	227000.00	867.70	882.33	876.55	882.77	0.001162	5.30	42844.46	13000.03	0.30
Reach-1	189.68	227000.00	864.60	882.93	877.20	883.35	0.001172	5.23	43403.64	12768.76	0.30
Reach-1	189.77	227000.00	869.90	883.59	878.19	884.04	0.001498	5.35	42770.29	12707.01	0.31
Reach-1	189.87	227000.00	872.50	884.40	880.35	885.00	0.002047	6.19	36791.65	12160.45	0.38
Reach-1	189.96	227000.00	873.70	885.43	881.25	885.99	0.001993	5.94	38049.70	12150.47	0.36
Reach-1	190.05	227000.00	873.80	886.29	881.77	886.81	0.001498	5.86	39464.40	12237.21	0.36
Reach-1	190.15	227000.00	873.80	887.20	882.18	887.67	0.001867	5.49	42334.41	12593.38	0.32
Reach-1	190.24	227000.00	873.00	887.97	880.83	888.26	0.000828	4.40	52335.12	11920.92	0.23
Reach-1	190.34	227000.00	873.00	888.47	881.35	888.77	0.001191	4.34	52699.86	11659.78	0.23
Reach-1	190.43	227000.00	874.20	888.93	881.51	889.22	0.000728	4.43	55389.29	11271.26	0.23
Reach-1	190.53	227000.00	874.10	889.29	882.14	889.56	0.000668	4.18	54885.18	11133.06	0.21
Reach-1	190.62	227000.00	872.20	889.59	882.51	889.83	0.000459	3.93	58371.70	11214.01	0.20
Reach-1	190.71	227000.00	875.30	889.84	883.40	890.06	0.000443	3.82	61646.14	11934.90	0.20
Reach-1	190.8	227000.00	875.80	890.05	883.72	890.27	0.000435	3.86	60966.34	11726.60	0.21
Reach-1	190.89	227000.00	876.20	890.25	883.86	890.48	0.000474	4.00	59225.50	10458.57	0.21
Reach-1	190.99	227000.00	876.80	890.47	884.26	890.72	0.000457	4.17	58256.98	7499.84	0.23
Reach-1	191.08	227000.00	877.30	890.71	885.40	890.95	0.000523	4.04	58063.73	9748.11	0.23
Reach-1	191.17	227000.00	879.30	890.99	885.68	891.22	0.000542	3.93	58382.05	9570.13	0.23
Reach-1	191.27	227000.00	879.00	891.28	886.20	891.51	0.000560	3.79	59457.21	9575.89	0.23
Reach-1	191.36	227000.00	879.20	891.57	887.19	891.84	0.000732	4.14	55069.91	9251.37	0.26

Reach-1	191.46	227000.00	879.00	891.92	887.30	892.19	0.000647	4.32	54074.18	8873.23	0.26
Reach-1	191.55	227000.00	876.50	892.24	887.36	892.52	0.000669	4.37	54950.25	9154.45	0.26
Reach-1	191.65	227000.00	879.10	892.53	887.63	892.83	0.000599	4.56	53456.70	9081.97	0.27
Reach-1	191.75	227000.00	880.40	892.88	888.66	893.21	0.000788	4.80	50146.62	8667.08	0.29
Reach-1	191.84	227000.00	880.80	893.25		893.66	0.000904	5.25	45351.95	7852.67	0.32
Reach-1	191.94	227000.00	881.40	893.71	889.76	894.10	0.000793	5.06	45663.27	7949.84	0.30
Reach-1	192.04	227000.00	882.00	894.08	890.72	894.53	0.000820	5.59	42489.81	7776.54	0.34
Reach-1	192.13	227000.00	883.10	894.54	891.07	895.04	0.001300	5.62	39791.02	7680.99	0.34
Reach-1	192.23	227000.00	883.70	895.13	891.32	895.67	0.001027	6.25	38884.16	6814.10	0.36
Reach-1	192.33	227000.00	884.20	895.51	892.55	896.37	0.001425	8.09	33219.76	6174.76	0.47
Reach-1	192.42	227000.00	883.20	896.36	892.53	897.03	0.001201	7.18	36212.07	7135.52	0.40
Reach-1	192.51	227000.00	883.30	896.86	893.11	897.54	0.000954	7.20	36511.48	7532.66	0.39
Reach-1	192.6	227000.00	883.70	897.49	892.82	897.99	0.000798	6.06	40757.29	6445.00	0.32
Reach-1	192.69	227000.00	882.70	897.80	892.38	898.38	0.000677	6.53	39847.83	6883.03	0.33
Reach-1	192.78	227000.00	883.30	898.14	892.60	898.73	0.000708	6.41	38903.27	6212.14	0.34
Reach-1	192.88	227000.00	883.70	898.53	893.45	899.15	0.000924	6.43	37045.43	5459.53	0.35
Reach-1	192.97	227000.00	883.00	899.04	893.58	899.58	0.000806	5.98	38937.39	5020.78	0.33
Reach-1	193.07	227000.00	883.90	899.45	893.80	900.06	0.000903	6.25	36853.16	4364.42	0.36
Reach-1	193.16	227000.00	884.80	899.83	896.53	900.78	0.002011	7.81	29369.73	4179.21	0.50
Reach-1	193.24	227000.00	888.00	900.72	897.03	901.57	0.001645	7.39	31097.64	4150.35	0.46
Reach-1	193.36	227000.00	888.70	901.61	897.56	902.41	0.001162	7.17	32170.00	3878.70	0.42
Reach-1	193.45	227000.00	888.90	902.25	898.16	903.10	0.001619	7.43	30532.67	3530.89	0.43
Reach-1	193.54	227000.00	889.80	902.93	898.85	903.82	0.001382	7.60	29965.88	3343.41	0.44
Reach-1	193.65	227000.00	890.00	903.80	899.04	904.56	0.001228	7.01	32397.34	3334.07	0.39
Reach-1	193.71	227000.00	891.30	904.31	899.44	905.00	0.001157	6.69	33917.27	3491.22	0.38
Reach-1	193.78	227000.00	892.20	904.75	899.61	905.37	0.000970	6.33	35874.94	4101.58	0.35
Reach-1	193.86	227000.00	892.00	905.11	900.72	905.85	0.001114	6.93	32754.51	4575.15	0.40
Reach-1	193.93	227000.00	894.10	905.53	901.11	906.28	0.001111	6.96	32683.62	4960.41	0.40
Reach-1	194.01	227000.00	894.10	905.82	902.57	906.93	0.001899	8.45	26851.27	5422.55	0.50
Reach-1	194.09	227000.00	891.90	906.48	904.24	908.19	0.002975	10.48	21662.50	5496.88	0.64
Reach-1	194.18	227000.00	895.00	907.96	903.82	909.38	0.001600	9.54	23789.32	2138.49	0.50
Reach-1	194.195	Bridge									
Reach-1	194.21	227000.00	895.00	908.21	903.81	909.56	0.001488	9.33	24318.30	2140.38	0.49
Reach-1	194.29	227000.00	896.20	909.44	904.95	910.32	0.001108	7.68	30594.80	5971.81	0.41
Reach-1	194.4	227000.00	896.00	910.30	904.74	910.94	0.000737	6.63	36875.15	6723.23	0.34
Reach-1	194.53	227000.00	895.20	910.85	905.15	911.43	0.000705	6.23	38108.61	6517.01	0.33
Reach-1	194.62	227000.00	896.00	911.20	905.57	911.77	0.000669	6.19	37758.55	5479.46	0.33
Reach-1	194.72	227000.00	895.70	911.50	905.77	912.15	0.000730	6.57	35986.42	5073.57	0.34
Reach-1	194.81	227000.00	896.00	911.82	905.80	912.51	0.000713	6.78	35166.63	5293.04	0.35
Reach-1	194.91	227000.00	896.90	912.00	907.56	913.10	0.001318	8.47	27706.14	5040.15	0.46
Reach-1	195	227000.00	897.00	912.50	908.21	913.88	0.001543	9.44	24477.49	4604.55	0.50
Reach-1	195.09	227000.00	898.80	913.08	909.12	914.85	0.001863	10.68	21256.15	3920.72	0.55
Reach-1	195.13	227000.00	900.00	913.77	908.61	915.27	0.001364	9.81	23143.99	2264.89	0.48
Reach-1	195.145	Bridge									
Reach-1	195.16	227000.00	900.00	914.00	908.60	915.44	0.001290	9.64	23543.40	2349.52	0.47
Reach-1	195.19	227000.00	900.70	914.03	910.24	915.85	0.001972	10.82	20970.23	4225.84	0.56
Reach-1	195.28	227000.00	901.30	915.59	910.16	916.57	0.000977	8.10	29587.26	5475.49	0.40
Reach-1	195.38	227000.00	900.40	916.21	910.78	917.12	0.001027	7.76	30363.51	4278.13	0.40
Reach-1	195.47	227000.00	902.10	916.66	911.84	917.69	0.001251	8.23	28035.39	4438.29	0.43
Reach-1	195.56	227000.00	901.40	917.37	911.74	918.28	0.001024	7.82	29900.62	4158.55	0.40
Reach-1	195.66	227000.00	903.10	917.84	912.19	918.81	0.001046	8.19	29676.28	4497.46	0.41

Reach-1	195.75	227000.00	903.40	918.05	914.95	919.72	0.001959	10.86	23542.18	4757.00	0.56
Reach-1	195.85	227000.00	904.50	918.83	915.90	920.86	0.002090	12.05	23847.59	5310.50	0.59
Reach-1	195.94	227000.00	904.50	920.43	916.07	921.77	0.001415	10.27	29999.80	6890.08	0.49
Reach-1	196.04	227000.00	904.50	921.84	914.66	922.29	0.000565	5.98	44213.99	8620.20	0.28
Reach-1	196.13	227000.00	904.90	922.23	915.08	922.54	0.000445	4.85	51926.48	8406.05	0.24
Reach-1	196.23	227000.00	906.00	922.44	916.53	922.80	0.000562	5.31	51364.71	7889.84	0.27
Reach-1	196.32	227000.00	906.20	922.82	916.59	923.09	0.000535	4.26	53974.94	7678.84	0.23
Reach-1	196.42	227000.00	907.30	923.06	917.67	923.39	0.000622	4.69	50490.67	7326.66	0.26
Reach-1	196.51	227000.00	908.20	923.38	918.16	923.73	0.000688	4.77	48370.16	7401.71	0.27
Reach-1	196.61	227000.00	908.50	923.73	919.12	924.12	0.000811	5.08	46206.48	7797.35	0.29
Reach-1	196.7	227000.00	909.30	924.20	918.53	924.60	0.001111	5.23	45891.93	7903.59	0.29
Reach-1	196.79	227000.00	910.70	924.65	920.21	925.22	0.001461	6.22	39638.53	7419.09	0.36
Reach-1	196.88	227000.00	910.80	925.49	922.48	926.19	0.002584	6.93	34913.67	6987.95	0.43
Reach-1	196.98	227000.00	911.00	926.52	922.50	927.01	0.001205	5.81	41643.49	8307.66	0.35
Reach-1	197.07	227000.00	913.20	927.13	921.77	927.52	0.000968	5.20	46193.19	8163.29	0.29
Reach-1	197.16	227000.00	913.40	927.60	922.08	928.03	0.001054	5.51	45754.80	8125.95	0.31
Reach-1	197.26	227000.00	913.00	928.21	923.38	928.67	0.001596	5.72	45528.54	8289.01	0.32
Reach-1	197.35	227000.00	914.20	929.10	925.18	929.50	0.001835	4.87	45641.52	8213.71	0.29
Reach-1	197.45	227000.00	915.60	929.90	925.58	930.27	0.001312	5.13	48168.83	9096.73	0.31
Reach-1	197.54	227000.00	916.10	930.58	926.08	930.87	0.001111	4.50	52303.25	9460.48	0.26
Reach-1	197.64	227000.00	918.20	931.22	927.29	931.57	0.001430	4.84	48980.73	9880.41	0.30
Reach-1	197.74	227000.00	919.10	931.97	928.12	932.44	0.001822	5.76	42840.23	9129.12	0.36
Reach-1	197.83	227000.00	919.60	932.78	928.84	933.26	0.001478	5.84	42646.81	9992.46	0.36
Reach-1	197.92	227000.00	920.60	933.47	929.31	933.98	0.001425	6.04	42601.14	9936.79	0.36
Reach-1	198.02	227000.00	922.80	934.16	930.97	934.85	0.001900	6.94	37034.85	9122.57	0.43
Reach-1	198.11	227000.00	922.40	935.23	932.50	935.93	0.003079	7.14	36679.20	9036.81	0.45
Reach-1	198.2	227000.00	918.80	936.54	932.69	937.00	0.001661	5.82	42825.33	10589.79	0.34
Reach-1	198.26	227000.00	918.70	937.03	933.39	937.47	0.001570	5.63	43334.40	11953.60	0.33
Reach-1	198.3	227000.00	921.70	937.03	936.53	938.34	0.008027	9.58	25881.23	7281.21	0.66
Reach-1	198.34	227000.00	922.70	938.52	934.69	938.96	0.001299	5.75	45613.43	12378.75	0.34
Reach-1	198.4	227000.00	921.50	938.93	934.53	939.39	0.001193	5.84	46579.78	11548.40	0.33
Reach-1	198.49	227000.00	921.61	939.53	933.02	939.82	0.000647	4.66	56054.63	12882.72	0.24
Reach-1	198.59	227000.00	922.00	939.82	933.04	940.11	0.000507	4.55	53944.67	12882.21	0.24
Reach-1	198.65	227000.00	922.00	939.99	933.24	940.30	0.000566	4.72	51960.83	12666.70	0.24
Reach-1	198.73	227000.00	922.08	940.19	932.51	940.57	0.000762	5.24	49067.66	12151.19	0.26
Reach-1	198.79	227000.00	922.10	940.38	932.25	940.86	0.000818	5.69	44631.09	12116.36	0.28
Reach-1	198.86	227000.00	922.71	940.74	933.56	941.18	0.000897	5.51	44758.31	10849.07	0.28
Reach-1	198.96	227000.00	924.43	941.22	934.99	941.74	0.001145	6.10	40491.72	9796.48	0.31
Reach-1	199.07	227000.00	923.50	941.91	935.91	942.58	0.001848	6.83	35736.86	8991.24	0.34
Reach-1	199.19	227000.00	925.90	943.26	937.25	944.07	0.002446	7.32	33385.09	7509.69	0.38
Reach-1	199.195	Bridge									
Reach-1	199.20	227000.00	925.73	943.66	937.25	944.39	0.002107	6.94	35310.14	7890.73	0.35
Reach-1	199.34	227000.00	929.50	945.29	939.65	945.87	0.002075	6.48	40067.63	9690.13	0.34
Reach-1	199.44	227000.00	931.70	946.38	940.84	946.86	0.001774	5.78	43714.53	10377.87	0.31
Reach-1	199.53	211250.00	932.70	947.38	941.36	947.72	0.001654	4.73	45685.33	10779.36	0.26
Reach-1	199.63	195500.00	930.90	948.38	941.57	948.62	0.001826	3.47	52349.54	11803.19	0.19
Reach-1	199.72	195500.00	930.60	949.02	942.09	949.22	0.000866	3.58	54560.56	11429.19	0.19
Reach-1	199.82	179750.00	931.20	949.63	943.22	949.86	0.002023	3.48	48974.49	10830.53	0.19

Profile Output Table - Standard Table 2

Reach	River Sta	E.G. Elev (ft)	W.S. Elev (ft)	Vel Head (ft)	Frctn Loss (ft)	C & E Loss (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Top Width (ft)
Reach-1	178.61	815.28	814.98	0.30			10780.57	157310.56	41908.87	9749.97
Reach-1	178.68	815.54	815.29	0.24	0.25	0.01	11285.07	147887.81	50827.12	9291.94
Reach-1	178.77	815.83	815.51	0.32	0.27	0.02	9576.32	174160.27	26263.41	9204.34
Reach-1	178.86	816.21	815.83	0.38	0.37	0.02	7425.99	180836.64	21737.36	8198.97
Reach-1	178.95	816.71	816.29	0.42	0.48	0.01	574.25	197201.77	12223.98	7852.44
Reach-1	179.03	817.13	816.76	0.37	0.41	0.01	0.03	189246.08	20753.89	6573.63
Reach-1	179.11	817.58	817.15	0.42	0.43	0.02	0.01	197676.64	12323.34	7945.46
Reach-1	179.2	818.07	817.73	0.34	0.49	0.01	0.01	173408.45	36591.54	8029.78
Reach-1	179.25	818.43	817.93	0.49	0.31	0.05	0.00	182423.63	27576.37	7307.68
Reach-1	179.3	818.77	818.38	0.39	0.33	0.01	0.00	157002.80	52997.20	7576.31
Reach-1	179.35	819.04	818.66	0.38	0.27	0.00	0.00	136173.73	73826.27	5997.45
Reach-1	179.4	819.38	818.88	0.49	0.31	0.03	0.00	153800.88	56199.13	5859.99
Reach-1	179.5	820.22	819.51	0.71	0.78	0.07		159555.36	50444.64	6226.24
Reach-1	179.59	821.26	820.33	0.93	0.97	0.07	7583.48	193475.45	8941.05	7238.87
Reach-1	179.68	822.39	821.43	0.95	1.12	0.01	7548.36	180165.47	22286.17	7358.48
Reach-1	179.76	823.36	822.51	0.86	0.95	0.03	6304.56	181994.94	21700.51	8548.59
Reach-1	179.84	824.56	823.40	1.16	1.10	0.09	2089.20	183904.19	24006.61	9319.02
Reach-1	179.91	825.72	825.04	0.67	1.01	0.15	2843.96	184426.64	22729.39	10895.12
Reach-1	180.01	827.12	826.06	1.06	1.29	0.12		210000.00		3606.74
Reach-1	180.025	Bridge								
Reach-1	180.04	827.79	826.95	0.84	0.00	0.04		210000.00		3609.40
Reach-1	180.06	828.12	827.52	0.60	0.27	0.07		204305.66	5694.33	11301.23
Reach-1	180.09	828.33	827.82	0.51	0.17	0.03		198030.78	11969.23	10734.71
Reach-1	180.18	829.07	828.32	0.75	0.67	0.07		166551.09	43448.91	10945.18
Reach-1	180.28	829.98	829.23	0.75	0.91	0.00		136382.28	73617.72	10885.45
Reach-1	180.37	831.68	829.50	2.18	1.27	0.43		172776.95	37223.04	10676.11
Reach-1	180.47	833.31	832.40	0.91	1.25	0.38	11898.49	141124.39	56977.13	11675.86
Reach-1	180.56	834.03	833.62	0.41	0.57	0.15	11970.80	117772.44	80256.77	11197.04
Reach-1	180.65	834.39	834.08	0.31	0.33	0.03	19910.17	106382.43	83707.41	11432.36
Reach-1	180.75	834.72	834.54	0.18	0.30	0.04	29349.85	82292.18	98357.97	12008.02
Reach-1	180.85	834.96	834.75	0.21	0.23	0.01	29240.61	98118.25	82641.14	11762.36
Reach-1	180.94	835.12	834.93	0.20	0.16	0.00	33141.86	113116.99	63741.15	11382.99
Reach-1	180.99	835.20	835.02	0.19	0.08	0.00	36046.98	116088.27	57864.74	11296.82
Reach-1	181.04	835.27	835.08	0.19	0.07	0.00	28558.35	137203.23	44238.42	11511.06
Reach-1	181.13	835.41	835.23	0.19	0.14	0.00	17961.13	148717.92	43320.96	11228.28
Reach-1	181.23	835.55	835.33	0.22	0.12	0.01	15407.33	154949.38	39643.31	10946.62
Reach-1	181.32	835.76	835.49	0.27	0.20	0.01	7924.23	153207.28	48868.50	10230.38
Reach-1	181.41	836.00	835.76	0.25	0.25	0.00	15520.71	145968.86	48510.44	10527.54
Reach-1	181.51	836.35	835.95	0.40	0.30	0.05	3314.24	175854.16	30831.59	9959.62
Reach-1	181.62	836.77	836.33	0.45	0.41	0.01	2697.60	176743.16	30559.25	9488.54
Reach-1	181.74	837.25	836.85	0.40	0.47	0.00		157704.38	52295.63	8535.90
Reach-1	181.82	837.58	837.18	0.39	0.33	0.00		148441.61	61558.38	8450.20
Reach-1	181.9	837.97	837.54	0.43	0.38	0.01		148763.92	61236.08	8199.19
Reach-1	181.99	838.35	838.02	0.33	0.36	0.01		141296.33	68703.66	8015.01

Reach-1	182.08	838.69	838.43	0.26	0.34	0.01	324.03	132933.83	76742.14	7997.81
Reach-1	182.17	839.07	838.68	0.39	0.34	0.04		167521.89	42478.10	7088.33
Reach-1	182.27	839.56	839.09	0.47	0.47	0.02		178606.59	31393.40	7678.09
Reach-1	182.36	840.12	839.59	0.52	0.54	0.02		198035.52	11964.50	7527.51
Reach-1	182.45	840.60	840.26	0.34	0.46	0.02	17.66	191506.38	18475.97	8025.08
Reach-1	182.55	840.99	840.72	0.27	0.39	0.01		205171.50	4828.49	8252.03
Reach-1	182.64	841.39	841.15	0.24	0.40	0.00	1.59	204370.06	5628.34	8211.61
Reach-1	182.74	841.71	841.49	0.23	0.32	0.00		195609.53	14390.46	8251.17
Reach-1	182.83	841.96	841.72	0.24	0.24	0.00		194856.91	15143.10	9440.12
Reach-1	182.92	842.20	841.97	0.23	0.24	0.00		192005.47	17994.52	9008.12
Reach-1	183.02	842.41	842.15	0.26	0.21	0.01	0.02	191801.53	18198.45	8472.26
Reach-1	183.11	842.67	842.40	0.27	0.25	0.00	1.39	190495.78	19502.83	8418.23
Reach-1	183.2	842.96	842.68	0.28	0.29	0.00	0.02	195049.11	14950.88	8807.27
Reach-1	183.3	843.27	842.91	0.36	0.29	0.02	6.93	203685.08	6307.99	7129.14
Reach-1	183.39	843.64	843.24	0.40	0.36	0.01	0.03	203392.88	6607.10	5061.24
Reach-1	183.49	844.16	843.70	0.46	0.50	0.02	0.02	205177.92	4822.05	4409.96
Reach-1	183.58	844.84	844.21	0.63	0.63	0.05	0.01	209999.97	0.03	3935.12
Reach-1	183.67	845.73	844.96	0.77	0.85	0.04	0.01	209999.95	0.03	3840.39
Reach-1	183.77	847.13	846.05	1.09	1.31	0.10	0.01	209999.97	0.02	3729.46
Reach-1	183.86	848.25	847.49	0.75	1.08	0.03	2.19	209950.63	47.18	6125.54
Reach-1	183.96	848.88	848.35	0.53	0.61	0.02	1016.49	208983.50	0.00	5853.65
Reach-1	184.05	849.44	848.82	0.62	0.53	0.03	0.00	210000.00	0.00	6354.23
Reach-1	184.14	849.95	849.46	0.49	0.50	0.01	0.00	210000.00		8559.61
Reach-1	184.24	850.45	849.95	0.50	0.49	0.00		210000.00		9732.12
Reach-1	184.33	850.96	850.51	0.45	0.51	0.00	1.99	209776.80	221.22	8926.20
Reach-1	184.43	851.45	851.10	0.35	0.47	0.01		210000.00		9187.85
Reach-1	184.53	851.87	851.60	0.27	0.42	0.01	3.04	209996.95		9303.57
Reach-1	184.62	852.21	851.92	0.30	0.34	0.01		210000.00		9432.42
Reach-1	184.71	852.55	852.18	0.37	0.31	0.02		210000.00		9333.10
Reach-1	184.81	853.09	852.64	0.44	0.52	0.02		210000.00		8921.62
Reach-1	184.9	854.07	853.70	0.37	0.97	0.01		210000.00		8618.30
Reach-1	185	854.98	854.50	0.48	0.88	0.03		210000.00		8256.58
Reach-1	185.1	855.52	855.19	0.33	0.52	0.01		210000.00		7806.43
Reach-1	185.19	855.93	855.52	0.41	0.39	0.02	581.27	209418.72		5714.25
Reach-1	185.28	856.46	855.79	0.67	0.46	0.08	347.03	209652.97		5131.70
Reach-1	185.38	857.08	856.32	0.76	0.59	0.03	2354.73	207645.27		5276.47
Reach-1	185.46	857.68	856.88	0.80	0.59	0.01	1623.66	208376.34		5169.21
Reach-1	185.53	858.23	857.44	0.79	0.55	0.00	2035.59	207964.41		5804.37
Reach-1	185.61	858.80	858.11	0.69	0.56	0.01	3651.83	205103.75	1244.42	5513.00
Reach-1	185.71	859.61	859.04	0.57	0.80	0.01	5179.03	204820.95		5812.36
Reach-1	185.81	860.26	859.89	0.37	0.63	0.02	14016.16	185033.00	10950.83	6909.37
Reach-1	185.9	860.66	860.34	0.31	0.39	0.01	12422.10	176184.28	21393.62	9646.78
Reach-1	186	861.00	860.70	0.30	0.34	0.00	10940.39	180094.67	18964.95	8534.58
Reach-1	186.1	861.60	861.07	0.53	0.53	0.07	3294.22	200511.34	6194.44	7461.56
Reach-1	186.19	862.51	861.94	0.57	0.90	0.01	1154.71	218461.61	7383.66	8599.91
Reach-1	186.27	863.27	862.75	0.52	0.75	0.01	1028.88	218723.92	7247.21	8893.70
Reach-1	186.36	864.11	863.60	0.52	0.84	0.00	749.63	215383.39	10866.97	10231.30
Reach-1	186.46	864.98	864.49	0.49	0.86	0.00	421.59	216083.25	10495.17	10296.28
Reach-1	186.55	865.76	865.26	0.51	0.78	0.01	0.54	210286.06	16713.40	10443.70
Reach-1	186.61	866.36	865.47	0.89	0.48	0.12		216612.95	10387.04	6230.21
Reach-1	186.69	867.27	866.36	0.92	0.91	0.01	25.64	214360.38	12614.00	8858.90

Reach-1	186.78	868.16	867.28	0.87	0.88	0.00	185.94	218321.83	8492.23	10624.71
Reach-1	186.87	868.83	868.18	0.65	0.65	0.02	464.72	199175.72	27359.55	11030.13
Reach-1	186.97	869.29	868.75	0.54	0.45	0.01		179121.70	47878.30	9764.19
Reach-1	187.06	869.69	869.09	0.59	0.38	0.02		203451.94	23548.05	8894.93
Reach-1	187.15	870.16	869.48	0.68	0.45	0.03	1803.74	199455.30	25740.96	8794.44
Reach-1	187.24	870.85	869.81	1.04	0.58	0.11	3419.61	208705.98	14874.40	8204.85
Reach-1	187.36	871.53	870.83	0.70	0.65	0.03	4016.33	200958.80	22024.88	9688.89
Reach-1	187.45	871.92	871.35	0.57	0.37	0.01	25950.53	176398.28	24651.18	9339.73
Reach-1	187.54	872.34	871.57	0.77	0.36	0.06	1442.45	196465.27	29092.29	8488.08
Reach-1	187.64	872.75	872.07	0.68	0.40	0.01	5365.47	179687.20	41947.33	8099.08
Reach-1	187.73	873.37	872.25	1.12	0.49	0.13	2328.75	211481.94	13189.31	7251.92
Reach-1	187.82	874.14	872.87	1.27	0.72	0.04		227000.00		5329.13
Reach-1	187.91	874.87	873.47	1.40	0.69	0.04		227000.00		5878.22
Reach-1	188	875.78	874.13	1.65	0.84	0.08		227000.00		7307.91
Reach-1	188.04	876.11	875.17	0.94	0.26	0.07		227000.00		5741.20
Reach-1	188.055	Bridge								
Reach-1	188.07	876.18	875.24	0.93	0.00	0.01		227000.00		5741.78
Reach-1	188.1	876.37	875.32	1.04	0.16	0.03		227000.00		6806.14
Reach-1	188.2	876.92	876.25	0.67	0.52	0.04		227000.00		7276.72
Reach-1	188.29	877.25	876.77	0.48	0.31	0.02		227000.00		7876.98
Reach-1	188.39	877.51	877.13	0.39	0.26	0.01		227000.00		7696.38
Reach-1	188.5	877.88	877.49	0.40	0.37	0.00		227000.00		7918.12
Reach-1	188.59	878.26	877.88	0.38	0.38	0.00		227000.00		8503.89
Reach-1	188.7	878.70	878.31	0.39	0.44	0.00		227000.00		11806.77
Reach-1	188.81	879.12	878.80	0.32	0.41	0.01	0.01	227000.00		12640.88
Reach-1	188.92	879.46	879.09	0.37	0.32	0.01		227000.00		8692.28
Reach-1	189.02	879.87	879.45	0.42	0.40	0.02		227000.00		11303.51
Reach-1	189.12	880.35	879.91	0.44	0.47	0.01		227000.00		11929.29
Reach-1	189.22	880.87	880.43	0.45	0.52	0.00		227000.00		12435.68
Reach-1	189.31	881.35	880.91	0.44	0.48	0.00		227000.00		12478.11
Reach-1	189.39	881.78	881.33	0.44	0.42	0.00	945.89	226054.11		13061.58
Reach-1	189.49	882.25	881.83	0.41	0.47	0.00	1.20	226998.80		12884.24
Reach-1	189.58	882.77	882.33	0.44	0.51	0.01	9.84	226990.17		13000.03
Reach-1	189.68	883.35	882.93	0.43	0.59	0.00	11.19	226988.81		12768.76
Reach-1	189.77	884.04	883.59	0.44	0.68	0.00		223672.64	3327.36	12707.01
Reach-1	189.87	885.00	884.40	0.59	0.92	0.05		223626.19	3373.81	12160.45
Reach-1	189.96	885.99	885.43	0.55	0.99	0.00	48.47	209219.91	17731.64	12150.47
Reach-1	190.05	886.81	886.29	0.52	0.82	0.00	209.38	210750.25	16040.37	12237.21
Reach-1	190.15	887.67	887.20	0.46	0.85	0.01	1099.17	221414.23	4486.59	12593.38
Reach-1	190.24	888.26	887.97	0.30	0.58	0.02	385.86	225314.92	1299.22	11920.92
Reach-1	190.34	888.77	888.47	0.29	0.50	0.00	0.70	226768.86	230.44	11659.78
Reach-1	190.43	889.22	888.93	0.30	0.46	0.00	4907.37	222072.17	20.46	11271.26
Reach-1	190.53	889.56	889.29	0.27	0.34	0.00	31216.00	194843.69	940.30	11133.06
Reach-1	190.62	889.83	889.59	0.24	0.26	0.00	46869.18	177927.09	2203.73	11214.01
Reach-1	190.71	890.06	889.84	0.22	0.23	0.00	55789.39	169567.69	1642.91	11934.90
Reach-1	190.8	890.27	890.05	0.22	0.21	0.00	53848.24	173004.94	146.83	11726.60
Reach-1	190.89	890.48	890.25	0.23	0.21	0.00	43826.44	183159.42	14.13	10458.57
Reach-1	190.99	890.72	890.47	0.25	0.23	0.00	33504.02	193486.70	9.26	7499.84
Reach-1	191.08	890.95	890.71	0.24	0.24	0.00	43111.00	183889.00		9748.11
Reach-1	191.17	891.22	890.99	0.24	0.27	0.00	38688.62	188311.39		9570.13
Reach-1	191.27	891.51	891.28	0.23	0.28	0.00	35792.88	190992.08	215.05	9575.89

Reach-1	191.36	891.84	891.57	0.27	0.32	0.01	27909.70	192006.44	7083.85	9251.37
Reach-1	191.46	892.19	891.92	0.28	0.35	0.00	24337.03	198952.27	3710.70	8873.23
Reach-1	191.55	892.52	892.24	0.28	0.33	0.00	17789.24	196664.19	12546.57	9154.45
Reach-1	191.65	892.83	892.53	0.30	0.30	0.01	11548.24	195351.25	20100.52	9081.97
Reach-1	191.75	893.21	892.88	0.33	0.38	0.01	4514.81	182363.20	40121.98	8667.08
Reach-1	191.84	893.66	893.25	0.40	0.42	0.02	2037.08	183849.20	41113.72	7852.67
Reach-1	191.94	894.10	893.71	0.38	0.44	0.00		167809.25	59190.76	7949.84
Reach-1	192.04	894.53	894.08	0.45	0.41	0.02		159170.63	67829.38	7776.54
Reach-1	192.13	895.04	894.54	0.51	0.49	0.02		150269.05	76730.95	7680.99
Reach-1	192.23	895.67	895.13	0.55	0.62	0.01	0.01	164824.19	62175.79	6814.10
Reach-1	192.33	896.37	895.51	0.86	0.61	0.09		177837.22	49162.77	6174.76
Reach-1	192.42	897.03	896.36	0.67	0.64	0.02		160108.05	66891.96	7135.52
Reach-1	192.51	897.54	896.86	0.68	0.50	0.00		171682.13	55317.87	7532.66
Reach-1	192.6	897.99	897.49	0.50	0.43	0.02	248.12	153367.00	73384.88	6445.00
Reach-1	192.69	898.38	897.80	0.59	0.37	0.03	200.58	191117.70	35681.71	6883.03
Reach-1	192.78	898.73	898.14	0.59	0.34	0.00	554.03	204381.02	22064.94	6212.14
Reach-1	192.88	899.15	898.53	0.62	0.41	0.01	385.57	217105.58	9508.87	5459.53
Reach-1	192.97	899.58	899.04	0.54	0.42	0.01	68.06	219821.30	7110.64	5020.78
Reach-1	193.07	900.06	899.45	0.60	0.45	0.02	9.15	225724.13	1266.73	4364.42
Reach-1	193.16	900.78	899.83	0.94	0.62	0.10		226210.42	789.58	4179.21
Reach-1	193.24	901.57	900.72	0.85	0.78	0.01		226030.19	969.82	4150.35
Reach-1	193.36	902.41	901.61	0.79	0.83	0.01		224873.69	2126.31	3878.70
Reach-1	193.45	903.10	902.25	0.86	0.68	0.02		227000.00		3530.89
Reach-1	193.54	903.82	902.93	0.90	0.71	0.01	49.21	226843.08	107.72	3343.41
Reach-1	193.65	904.56	903.80	0.76	0.72	0.01		227000.00		3334.07
Reach-1	193.71	905.00	904.31	0.70	0.43	0.01		227000.00		3491.22
Reach-1	193.78	905.37	904.75	0.62	0.36	0.01		227000.00		4101.58
Reach-1	193.86	905.85	905.11	0.75	0.45	0.04		227000.00		4575.15
Reach-1	193.93	906.28	905.53	0.75	0.43	0.00		226708.77	291.23	4960.41
Reach-1	194.01	906.93	905.82	1.11	0.54	0.11		227000.00		5422.55
Reach-1	194.09	908.19	906.48	1.71	1.08	0.18		227000.00		5496.88
Reach-1	194.18	909.38	907.96	1.41	1.10	0.09		227000.00		2138.49
Reach-1	194.195	Bridge								
Reach-1	194.21	909.56	908.21	1.35	0.00	0.05		227000.00		2140.38
Reach-1	194.29	910.32	909.44	0.88	0.62	0.14	7148.47	211359.30	8492.24	5971.81
Reach-1	194.4	910.94	910.30	0.64	0.55	0.07	14318.94	208211.81	4469.25	6723.23
Reach-1	194.53	911.43	910.85	0.58	0.47	0.02	16312.82	210622.84	64.35	6517.01
Reach-1	194.62	911.77	911.20	0.57	0.34	0.00	23855.58	203144.42		5479.46
Reach-1	194.72	912.15	911.50	0.64	0.35	0.02	15220.88	211779.13		5073.57
Reach-1	194.81	912.51	911.82	0.69	0.35	0.02	6741.13	219190.19	1068.70	5293.04
Reach-1	194.91	913.10	912.00	1.10	0.47	0.12	2171.32	223788.47	1040.20	5040.15
Reach-1	195	913.88	912.50	1.38	0.70	0.08		225910.03	1089.96	4604.55
Reach-1	195.09	914.85	913.08	1.77	0.85	0.12		227000.00		3920.72
Reach-1	195.13	915.27	913.77	1.49	0.39	0.03		227000.00		2264.89
Reach-1	195.145	Bridge								
Reach-1	195.16	915.44	914.00	1.44	0.00	0.01		227000.00		2349.52
Reach-1	195.19	915.85	914.03	1.82	0.29	0.11		227000.00		4225.84
Reach-1	195.28	916.57	915.59	0.98	0.64	0.08		216141.66	10858.34	5475.49
Reach-1	195.38	917.12	916.21	0.91	0.54	0.01		217842.53	9157.47	4278.13
Reach-1	195.47	917.69	916.66	1.03	0.54	0.04		221545.52	5454.48	4438.29
Reach-1	195.56	918.28	917.37	0.92	0.58	0.01		210949.83	16050.18	4158.55

Reach-1	195.66	918.81	917.84	0.98	0.51	0.02	80.69	206517.11	20402.19	4497.46
Reach-1	195.75	919.72	918.05	1.66	0.70	0.21		199928.94	27071.07	4757.00
Reach-1	195.85	920.86	918.83	2.03	1.03	0.11		201876.81	25123.18	5310.50
Reach-1	195.94	921.77	920.43	1.35	0.84	0.07		180169.16	46830.83	6890.08
Reach-1	196.04	922.29	921.84	0.45	0.42	0.09		145529.44	81470.55	8620.20
Reach-1	196.13	922.54	922.23	0.32	0.24	0.01		163002.34	63997.67	8406.05
Reach-1	196.23	922.80	922.44	0.37	0.25	0.02		177501.64	49498.38	7889.84
Reach-1	196.32	923.09	922.82	0.28	0.28	0.01	3065.44	171581.27	52353.29	7678.84
Reach-1	196.42	923.39	923.06	0.32	0.28	0.01	2136.35	188612.80	36250.85	7326.66
Reach-1	196.51	923.73	923.38	0.35	0.33	0.01	1733.97	186853.55	38412.47	7401.71
Reach-1	196.61	924.12	923.73	0.39	0.38	0.01	2286.67	182591.02	42122.32	7797.35
Reach-1	196.7	924.60	924.20	0.40	0.48	0.01	676.70	193032.34	33290.95	7903.59
Reach-1	196.79	925.22	924.65	0.56	0.56	0.05	1213.75	203713.52	22072.74	7419.09
Reach-1	196.88	926.19	925.49	0.70	0.93	0.04	1433.54	202748.27	22818.21	6987.95
Reach-1	196.98	927.01	926.52	0.49	0.80	0.02	3203.11	196908.08	26888.81	8307.66
Reach-1	197.07	927.52	927.13	0.39	0.50	0.01	2101.39	191382.86	33515.76	8163.29
Reach-1	197.16	928.03	927.60	0.44	0.50	0.01	232.65	205384.80	21382.54	8125.95
Reach-1	197.26	928.67	928.21	0.45	0.63	0.00	2732.52	195209.97	29057.51	8289.01
Reach-1	197.35	929.50	929.10	0.40	0.83	0.01	4153.60	157226.39	65620.00	8213.71
Reach-1	197.45	930.27	929.90	0.37	0.77	0.00	3284.14	186243.14	37472.72	9096.73
Reach-1	197.54	930.87	930.58	0.30	0.60	0.01	893.79	174959.53	51146.67	9460.48
Reach-1	197.64	931.57	931.22	0.34	0.68	0.01	1603.85	175980.92	49415.21	9880.41
Reach-1	197.74	932.44	931.97	0.47	0.84	0.04	2105.61	197629.72	27264.68	9129.12
Reach-1	197.83	933.26	932.78	0.48	0.81	0.00	3224.14	196451.95	27323.91	9992.46
Reach-1	197.92	933.98	933.47	0.52	0.71	0.01	1277.17	201331.28	24391.55	9936.79
Reach-1	198.02	934.85	934.16	0.69	0.82	0.05	1041.70	205439.11	20519.18	9122.57
Reach-1	198.11	935.93	935.23	0.70	1.08	0.00	133.88	191647.03	35219.10	9036.81
Reach-1	198.2	937.00	936.54	0.46	1.04	0.02	180.99	170365.78	56453.21	10589.79
Reach-1	198.26	937.47	937.03	0.44	0.47	0.00	0.02	167816.67	59183.30	11953.60
Reach-1	198.3	938.34	937.03	1.31	0.61	0.26	0.01	200771.28	26228.71	7281.21
Reach-1	198.34	938.96	938.52	0.44	0.53	0.09	14.20	174687.25	52298.56	12378.75
Reach-1	198.4	939.39	938.93	0.46	0.42	0.01		187948.17	39051.84	11548.40
Reach-1	198.49	939.82	939.53	0.29	0.42	0.02		176214.19	50785.81	12882.72
Reach-1	198.59	940.11	939.82	0.29	0.29	0.00		171354.38	55645.63	12882.21
Reach-1	198.65	940.30	939.99	0.31	0.18	0.01		174004.69	52995.32	12666.70
Reach-1	198.73	940.57	940.19	0.38	0.26	0.02		192271.05	34728.95	12151.19
Reach-1	198.79	940.86	940.38	0.48	0.26	0.03		214558.06	12441.93	12116.36
Reach-1	198.86	941.18	940.74	0.43	0.31	0.00		197171.50	29828.50	10849.07
Reach-1	198.96	941.74	941.22	0.53	0.54	0.03		193141.11	33858.90	9796.48
Reach-1	199.07	942.58	941.91	0.67	0.80	0.04		200877.27	26122.74	8991.24
Reach-1	199.19	944.07	943.26	0.81	1.45	0.04		219221.53	7778.47	7509.69
Reach-1	199.195	Bridge								
Reach-1	199.20	944.39	943.66	0.73	0.00	0.02		219553.30	7446.71	7890.73
Reach-1	199.34	945.87	945.29	0.59	1.47	0.01	0.01	197781.09	29218.90	9690.13
Reach-1	199.44	946.86	946.38	0.48	0.97	0.01		201838.44	25161.57	10377.87
Reach-1	199.53	947.72	947.38	0.33	0.85	0.01		183586.31	27663.69	10779.36
Reach-1	199.63	948.62	948.38	0.24	0.89	0.01		156852.47	38647.53	11803.19
Reach-1	199.72	949.22	949.02	0.20	0.60	0.00		178282.67	17217.33	11429.19
Reach-1	199.82	949.86	949.63	0.23	0.63	0.01		157949.50	21800.51	10830.53

ERRORS WARNINGS AND NOTES

Errors Warnings and Notes for Plan : Method 1 FW

River: RIVER-1 Reach: Reach-1 RS: 199.82 Profile: PF#1
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: RIVER-1 Reach: Reach-1 RS: 199.72 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: RIVER-1 Reach: Reach-1 RS: 199.53 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: RIVER-1 Reach: Reach-1 RS: 199.44 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: RIVER-1 Reach: Reach-1 RS: 199.34 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: RIVER-1 Reach: Reach-1 RS: 199.20 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: RIVER-1 Reach: Reach-1 RS: 199.195 Profile: PF#1
Note - Yarnell answer is not valid if the water surface is above the low chord or if there is weir flow. The Yarnell answer has been disregarded.
Note - Momentum answer is not valid if the water surface is above the low chord or if there is weir flow. The momentum answer has been disregarded.
River: RIVER-1 Reach: Reach-1 RS: 199.19 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: RIVER-1 Reach: Reach-1 RS: 199.07 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: RIVER-1 Reach: Reach-1 RS: 198.96 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: RIVER-1 Reach: Reach-1 RS: 198.86 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: RIVER-1 Reach: Reach-1 RS: 198.79 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: RIVER-1 Reach: Reach-1 RS: 198.73 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: RIVER-1 Reach: Reach-1 RS: 198.65 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: RIVER-1 Reach: Reach-1 RS: 198.59 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: RIVER-1 Reach: Reach-1 RS: 198.49 Profile: PF#1
Warning - Divided flow computed for this cross-section.

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River: RIVER-1  Reach: Reach-1     RS: 198.4     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 198.34     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 198.3     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 198.26     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 198.2     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 198.11     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 198.02     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 197.92     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 197.83     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 197.74     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 197.64     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 197.54     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 197.45     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 197.35     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 197.26     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 197.07     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 196.98     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 196.88     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 196.79     Profile: PF#1
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      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 196.7     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 196.61     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 196.51     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 196.42     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 196.32     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 196.23     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 196.13     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 196.04     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 195.94     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
River: RIVER-1  Reach: Reach-1     RS: 195.85     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 195.75     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
River: RIVER-1  Reach: Reach-1     RS: 195.66     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 195.56     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 195.47     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 195.38     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 195.28     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 195.19     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 195.16     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
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      Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: RIVER-1  Reach: Reach-1     RS: 195.145     Profile: PF#1
      Note -    Momentum answer is not valid if the water surface is above the low chord or if there is weir flow.  The momentum
                answer has been disregarded.
River: RIVER-1  Reach: Reach-1     RS: 195.13     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 195.09     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 195     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 194.91     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 194.81     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 194.72     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 194.62     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 194.53     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 194.4     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 194.29     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 194.18     Profile: PF#1
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 194.09     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 194.01     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 193.93     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 193.86     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 193.78     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 193.71     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 193.65     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 193.54     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 193.45     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 193.36     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
```

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River: RIVER-1  Reach: Reach-1     RS: 193.24     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 193.16     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 193.07     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 192.97     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 192.88     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 192.78     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 192.69     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 192.6     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 192.51     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 192.42     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 192.33     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 192.23     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 192.13     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 192.04     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 191.94     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 191.84     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 191.75     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 191.65     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 191.55     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 191.46     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 191.36     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 191.27     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 191.17     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 191.08     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 190.99     Profile: PF#1
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      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 190.89     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 190.8     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 190.71     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 190.62     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: RIVER-1  Reach: Reach-1     RS: 190.53     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 190.43     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 190.34     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 190.24     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 190.15     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 189.96     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 189.87     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 189.77     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 189.68     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 189.58     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 189.49     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 189.39     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 189.31     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 189.22     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 189.12     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 189.02     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 188.92     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 188.81     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 188.7     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 188.59     Profile: PF#1
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      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 188.5     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 188.39     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 188.29     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 188.2     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 188.1     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 188.07     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 188.04     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 188     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 187.91     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 187.82     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 187.73     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 187.64     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 187.54     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 187.45     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 187.36     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 187.24     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 187.15     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 187.06     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 186.97     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 186.87     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 186.78     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
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River: RIVER-1  Reach: Reach-1     RS: 186.69     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 186.61     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 186.55     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 186.46     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 186.36     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 186.27     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: RIVER-1  Reach: Reach-1     RS: 186.19     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 186.1     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 186     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 185.9     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 185.81     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 185.71     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 185.61     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 185.53     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 185.46     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 185.38     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 185.28     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 185.19     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 185.1     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 185     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 184.9     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 184.81     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
```

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      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 184.71     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 184.62     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 184.53     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 184.43     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 184.33     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 184.24     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 184.14     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 184.05     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 183.96     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 183.86     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 183.77     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 183.67     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 183.58     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 183.49     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 183.39     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 183.3     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 183.2     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 183.11     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 183.02     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 182.92     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 182.83     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 182.74     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
```

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                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 182.64     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 182.55     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 182.45     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 182.36     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 182.27     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 182.17     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 182.08     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 181.9     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 181.82     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 181.74     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 181.62     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Note -    Manning's n values were composited to a single value in the main channel.
River: RIVER-1  Reach: Reach-1     RS: 181.51     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 181.41     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 181.32     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 181.23     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 181.13     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 181.04     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 180.99     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 180.85     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 180.65     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 180.56     Profile: PF#1
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: RIVER-1  Reach: Reach-1     RS: 180.47     Profile: PF#1
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
```

This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.
River: RIVER-1 Reach: Reach-1 RS: 180.37 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: RIVER-1 Reach: Reach-1 RS: 180.28 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: RIVER-1 Reach: Reach-1 RS: 180.18 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: RIVER-1 Reach: Reach-1 RS: 180.09 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: RIVER-1 Reach: Reach-1 RS: 180.06 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: RIVER-1 Reach: Reach-1 RS: 180.01 Profile: PF#1
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: RIVER-1 Reach: Reach-1 RS: 179.91 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: RIVER-1 Reach: Reach-1 RS: 179.84 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: RIVER-1 Reach: Reach-1 RS: 179.76 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: RIVER-1 Reach: Reach-1 RS: 179.68 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: RIVER-1 Reach: Reach-1 RS: 179.59 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: RIVER-1 Reach: Reach-1 RS: 179.5 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: RIVER-1 Reach: Reach-1 RS: 179.4 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: RIVER-1 Reach: Reach-1 RS: 179.35 Profile: PF#1
Warning - Divided flow computed for this cross-section.

```
River: RIVER-1  Reach: Reach-1     RS: 179.3     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 179.25     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 179.2     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 179.11     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 179.03     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 178.95     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 178.86     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 178.77     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 178.68     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: RIVER-1  Reach: Reach-1     RS: 178.61     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
```