FLOOD INSURANCE STUDY
FOR
TRILBY WASH

COMMUNITY: UNINCORPORATED AREA OF MARICOPA COUNTY
COUNTY: MARICOPA
STATE: ARIZONA

PREPARED FOR:

FLOOD CONTROL DISTRICT
OF MARICOPA COUNTY
2801 W. DURANGO STREET
PHOENIX, ARIZONA 85009
CONTRACT FCD 90-24
P&D TECHNOLOGIES PROJECT NO. 10320.00

TECHNICAL DATA NOTEBOOK

BOOK 3 OF 3

Registered Professional Engineer (Civil)
CERTIFICATE NO.
10290
RAMESH I.
PATEL
Date Signed 2/26/92
ARIZONA, U.S.A.

SUBMITTED BY:

P&D TECHNOLOGIES
1702 E. HIGHLAND AVENUE
SUITE 200
PHOENIX, AZ 85016
(602) 264-3335

FEBRUARY 1992

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Property of
Flood Control District of MC Library
Please Return to
2801 W. Durango
Phoenix, AZ 85009

4.7 FINAL RESULTS/COMPUTER RUNS

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2801 W. Durango
Phoenix, AZ 85009

HEC-2 OUTPUT TRILBY WASH MAIN CHANNEL

==========
B O S S H E C - 2 (tm)
==========

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Version : 2.50
Serial Number : 0010169.200

Licensed to P & D Technologies

PROGRAM ORIGIN :

Boss Hec-2 (tm) is an enhanced version of the U.S. Army Corps of Engineers Hydrologic Engineering Center HEC-2 program for water-surface profile computations. Program based upon the September 1990 version, updated on August 1991.

DISCLAIMER :

Boss Hec-2 (tm) is a complex program which requires engineering expertise to use correctly. Boss Corporation assumes absolutely no responsibility for the correct use of this program. All results obtained should be carefully examined by an experienced professional engineer to determine if they are reasonable and accurate.

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PROJECT DESCRIPTION :

PROJECT TITLE : TRILBY WASH; GRAND AVENUE TO C.A.P.
PROJECT NUMBER : P&D No. 10320.00; FCD No. 90-24
DESCRIPTION : MAIN CHANNEL; ENCROACHED
ENGINEER : RAMESH I. PATEL, P.E., L.S.
DATE OF RUN : 10/21/1991
TIME OF RUN : 1:34 pm

==========
B O S S H E C - 2 (tm)
==========

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Version : 2.50
Serial Number : 0010169.200

Licensed to P & D Technologies

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PROJECT DESCRIPTION :

PROJECT TITLE : TRILBY WASH; GRAND AVENUE TO C.A.P.
PROJECT NUMBER : P&D No. 10320.00; FCD No. 90-24
DESCRIPTION : MAIN CHANNEL; ENCROACHED
ENGINEER : RAMESH I. PATEL, P.E., L.S.
DATE OF RUN : 11/21/1991
TIME OF RUN : 2:03 pm

T1 P&D No. 10320.00; FCD No. 90-24
T2 TRILBY WASH; GRAND AVENUE TO C.A.P.
T3 MAIN CHANNEL; ENCROACHED

JOB PARAMETERS :

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0	2	0	0	0.008933	0	0.0	0.0	1545.51	

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15

USER-DEFINED SUMMARY TABLES (J3) :

110 200

NC	0.015	0.015	0.015	0.0	0.0					
QT	2	3851.0	3851.0							
ET			9.1						9932.0	10068.0
LOCATED IN CAP OVERCHUTE - S. EDGE OF DIST BSN										
X1	10.445	7	9932.19	10067.81	0.0	0.0	0.0	1.0	0.0	0
GR	1549.6	9931.0	1549.6	9932.19	1542.57	9932.2	1542.6	10000.0	1542.6	10067.8
GR	1549.6	10067.81	1549.6	10069.0						
ET			9.1						9932.0	10068.0
LOCATED IN CAP OVERCHUTE @ N EDGE DIST. BASIN										
X1	10.45	7	9932.19	10067.81	27.2	27.2	27.2	1.0	0.0	0
GR	1551.7	9931.0	1551.7	9932.19	1544.73	9932.2	1544.81	10000.8	1544.73	10067.80
GR	1551.7	10067.81	1551.73	10069.0						
NC	0.0	0.0	0.0	0.1	0.3					
ET			9.1						9932.0	10068.0
LOCATED @ ANG PT ON N. SIDE OF OVERCHUTE 26'S.										
X1	10.468	7	9932.19	10067.81	96.0	96.0	96.0	1.0	0.0	0
GR	1551.8	9931.0	1551.8	9932.19	1544.85	9932.2	1544.86	10000.8	1544.8	10067.8
GR	1551.8	10067.81	1551.8	10069.0						
NC	0.0	0.0	0.0	0.3	0.5					
ET			9.1						9920.0	10080.0
LOCATED ON N. MOST EDGE OF CAP OVERCHUTE										

```
X1   10.473       7   9920.64  10079.36      26.0      26.0      26.0       1.0       0.0         0
GR   1551.9  9919.5    1551.9   9920.64    1544.8   9920.65   1544.87   10000.0   1544.82  10079.35
GR   1551.8 10079.36   1551.8   10080.5

NC    0.085   0.090     0.055       0.6       0.8
ET                        9.1                                                     9910.9   10090.3
END CAP OVERCHUTE; BEGIN SECTS THRU NAT. GND.

X1   10.474      28   9919.6   10079.9      10.0      10.0       5.0       1.0       0.0         0
GR   1554.1  9877.3    1553.9   9884.1    1553.9   9888.4   1554.0    9894.6    1553.7    9899.1
GR   1549.7  9909.0    1545.9   9919.6    1545.4   9931.5   1545.5    9942.2    1545.6    9953.1
GR   1545.7  9967.0    1545.3   9974.6    1545.4   9984.4   1545.0    9995.4    1545.0   10000.0
GR   1545.0 10000.1    1544.9  10017.6    1544.9  10027.7   1545.1   10039.0    1545.1   10048.6
GR   1545.3 10056.6    1545.5  10062.7    1545.6  10070.9   1545.7   10079.9    1551.1   10096.9
GR   1553.3 10106.5    1553.8  10116.3    1554.0  10118.9

NC      0.0     0.0       0.0       0.3       0.5
ET                        9.1                                                     9895.4   10110.5
X1   10.479      43   9901.8   10103.2      30.0      45.0      25.6       1.0       0.0         0
GR   1554.8  9806.8    1554.7   9824.4    1554.5   9841.2   1554.5    9851.0    1554.5    9861.0
GR   1554.6  9873.1    1554.2   9881.6    1551.5   9891.3   1546.3    9901.8    1545.6    9906.8
GR   1545.7  9918.2    1546.2   9933.3    1546.1   9947.8   1546.4    9961.9    1546.5    9971.4
GR   1545.9  9978.6    1545.3   9984.6    1544.9   9994.0   1545.0   10000.0    1545.0   10000.1
GR   1544.9 10009.6    1545.0  10017.6    1544.9  10025.8   1544.7   10032.9    1544.9   10040.3
GR   1545.4 10045.8    1545.9  10050.6    1546.2  10059.5   1546.1   10066.5    1546.1   10076.2
GR   1545.8 10081.7    1545.9  10089.6    1546.1  10097.3   1546.6   10103.2    1550.7   10113.6
GR   1552.7 10121.9    1554.1  10129.1    1554.3  10136.0   1554.3   10144.6    1554.3   10155.2
GR   1554.6 10165.9    1554.8  10176.3    1554.9  10183.2

NC      0.0     0.0       0.0       0.1       0.3
ET                        9.1                                                     9910.0   10080.0
X1   10.528      51   9960.9   10060.7     235.0     290.0     260.0       1.0       0.0         0
GR   1552.0  9715.0    1550.4   9753.9    1550.6   9759.6   1550.7    9768.5    1550.9    9783.3
GR   1550.8  9791.3    1550.4   9798.3    1549.9   9803.8   1549.0    9811.8    1547.8    9821.5
GR   1547.5  9824.8    1547.    9832.6    1548.3   9843.8   1548.3    9853.5    1547.9    9861.1
GR   1546.9  9868.3    1547.0   9875.4    1547.7   9885.1   1547.9    9894.5    1548.1    9902.5
GR   1548.2  9909.5    1548.3   9924.3    1548.3   9936.9   1548.3    9948.9    1548.3    9960.9
GR   1548.1  9969.7    1547.0   9978.9    1545.1   9982.9   1544.9    9991.4    1544.6   10000.0
GR   1544.6 10000.1    1544.6  10009.6    1544.9  10020.5   1545.2   10028.1    1545.4   10033.9
GR   1547.5 10043.6    1549.0  10052.1    1549.6  10060.7   1549.6   10068.4    1549.7   10079.5
GR   1549.7 10089.1    1550.0  10097.4    1550.3  10102.1   1550.9   10113.5    1551.4   10122.0
GR   1552.2 10129.2    1552.4  10136.7    1552.7  10145.9   1552.8   10155.0    1552.9   10165.5
GR   1552.8 10168.7

ET                        9.1                                                     9886.0   10074.0
X1   10.592      63   9970.4   10029.0     350.0     345.0     340.0       1.0       0.0         0
GR   1554.2  9746.2    1553.9   9754.7    1553.8   9763.3   1553.9    9773.9    1553.6    9782.8
GR   1552.7  9791.7    1552.4   9801.7    1551.9   9813.3   1551.4    9822.4    1550.9    9827.4
GR   1550.5  9834.4    1550.4   9848.0    1550.3   9861.7   1550.1    9871.2    1550.1    9885.6
GR   1549.8  9898.9    1549.6   9911.5    1549.7   9925.5   1549.7    9937.9    1548.8    9949.2
GR   1548.4  9952.5    1549.2   9959.4    1550.0   9970.4   1549.7    9980.3    1547.5    9988.2
GR   1545.6  9990.4    1545.7  10000.0    1545.7  10000.1   1545.7   10008.8    1546.8   10012.5
```

```
GR   1547.9   10014.6   1548.8   10017.1   1549.2   10020.4   1549.7   10023.0   1550.4   10029.0
GR   1550.2   10036.8   1549.1   10046.8   1548.8   10053.9   1547.2   10058.8   1547.9   10063.8
GR   1549.9   10074.4   1549.7   10084.2   1548.4   10088.6   1548.1   10095.1   1547.9   10098.5
GR   1549.4   10104.3   1550.3   10111.2   1550.7   10120.6   1550.0   10127.9   1549.8   10140.5
GR   1549.5   10147.1   1549.5   10157.5   1549.3   10164.6   1549.2   10175.5   1549.9   10184.6
GR   1550.9   10202.1   1551.9   10226.1   1551.4   10244.6   1551.4   10257.1   1551.5   10267.7
GR   1552.0   10280.6   1553.    10294.9   1554.4   10312.9

ET                      9.1                                                      9902.0   10080.6
X1   10.683        46   9942.1   10023.6   505.0    475.0    480.0     1.0      0.0      0
GR   1559.2    9673.8   1559.2    9687.4   1559.2   9703.4   1559.2   9717.8   1558.6    9733.6
GR   1558.0    9747.0   1557.3    9757.3   1556.8   9765.0   1556.8   9774.9   1556.5    9785.5
GR   1556.7    9795.5   1556.5    9803.8   1555.7   9812.2   1554.8   9819.6   1554.0    9827.4
GR   1553.3    9841.2   1552.5    9863.5   1552.6   9879.4   1553.1   9893.7   1553.2    9902.0
GR   1552.7    9912.7   1551.9    9914.8   1552.7   9921.8   1553.2   9933.6   1553.3    9942.1
GR   1552.9    9949.4   1549.5    9959.9   1549.6   9975.1   1549.3   9991.5   1548.5    9998.0
GR   1549.0   10000.0   1549.0   10000.1   1548.4  10004.1   1548.1  10010.5   1551.2   10015.0
GR   1552.7   10020.1   1552.8   10023.6   1552.3  10025.7   1551.2  10029.8   1550.3   10035.0
GR   1550.6   10038.8   1550.9   10043.0   1551.6  10050.1   1552.9  10060.7   1555.1   10080.4
GR   1556.4   10089.2

NC    0.085    0.090    0.055    0.0       0.0
ET              7.1      9.1                                   9942.5   10121.7   9943.0   10122.0
"n" VALUES MODIFIED PER CROSS SECT. REV 4/4/91

X1   10.761        62   9982.0   10092.7   380.0    465.0    410.0     1.0      0.0      0
GR   1559.5    9809.1   1559.5    9820.0   1559.6   9823.2   1559.4   9834.2   1558.8    9844.6
GR   1558.0    9854.8   1557.2    9867.1   1556.7   9876.5   1555.7   9885.1   1555.2    9894.7
GR   1554.8    9905.0   1554.7    9909.6   1554.9   9918.2   1556.0   9928.9   1557.2    9942.5
GR   1557.2    9951.6   1555.8    9963.3   1554.9   9972.5   1554.6   9982.0   1554.0    9985.3
GR   1550.8    9989.3   1551.2   10000.0   1551.2  10000.1   1551.3  10007.1   1551.8   10011.3
GR   1553.2   10016.6   1553.6   10021.4   1553.6  10026.5   1553.7  10029.8   1553.3   10034.1
GR   1552.3   10040.5   1552.3   10043.5   1553.1  10048.8   1553.9  10053.9   1554.0   10057.6
GR   1553.7   10061.9   1553.2   10065.5   1553.0  10071.1   1554.0  10078.9   1555.6   10092.7
GR   1556.4   10107.9   1556.5   10121.7   1553.5  10188.8   1553.5  10199.5   1553.5   10206.0
GR   1553.3   10210.1   1552.7   10215.9   1552.3  10218.9   1553.1  10222.1   1553.6   10227.8
GR   1553.8   10234.8   1553.5   10239.4   1553.1  10243.7   1553.2  10250.8   1554.7   10260.3
GR   1555.4   10274.1   1554.4   10282.8   1554.2  10285.9   1554.7  10293.5   1555.5   10301.2
GR   1557.1   10310.8   1560.8   10324.1

NC    0.085    0.090    0.055    0.0       0.0
ET                      9.1                                                      9969.0   10105.0
N VALUE MODIFIED FROM PT 59, SECTION 9

X1   10.815        45   9972.9   10083.6   295.0    300.0    285.0     1.0      0.0      0
GR   1563.5    9844.2   1563.0    9861.8   1562.3   9868.9   1561.9   9878.6   1561.4    9886.9
GR   1561.0    9895.9   1560.4    9904.9   1560.2   9917.5   1559.9   9927.1   1559.5    9935.6
GR   1559.0    9943.3   1557.7    9950.1   1556.7   9953.6   1556.4   9959.6   1556.5    9965.0
GR   1556.7    9969.4   1556.5    9972.9   1552.9   9976.2   1552.8   9979.7   1552.6    9990.2
GR   1553.4    9994.8   1553.8    9999.3   1553.5  10000.0   1553.5  10000.1   1554.1   10002.3
GR   1555.0   10005.0   1555.7   10009.0   1555.0  10013.3   1553.5  10016.7   1553.2   10021.1
GR   1553.6   10028.6   1554.3   10036.6   1554.4  10045.3   1554.0  10051.9   1553.8   10059.0
```

```
GR   1554.2   10065.4   1555.2   10071.7   1555.9   10078.1   1556.1   10083.6   1556.2   10091.0
GR   1557.5   10104.9   1558.4   10112.1   1558.7   10122.1   1558.9   10129.2   1562.3   10165.1

NC    0.085    0.090    0.050     0.0      0.0
QT        2   3805.0   3805.0
ET                      9.1                                                      9952.0   10088.0
N PT. 58; Q=3805 CFS FROM FCD

X1   10.876      35    9967.0   10017.3   320.0     34.0    320.0     1.0      0.0      0
GR   1564.4   9899.5   1564.5    9920.2   1564.6   9928.6   1564.5   9934.3   1563.2   9941.7
GR   1560.9   9952.9   1559.4    9961.0   1558.1   9967.0   1554.4   9973.4   1554.8   9980.1
GR   1555.0   9985.3   1555.0    9991.8   1555.0   9998.8   1555.4   10000.0  1555.4   10000.1
GR   1556.3   10003.2  1557.5    10008.5  1558.7   10017.3  1558.1   10020.3  1557.6   10023.8
GR   1558.1   10031.2  1557.9    10036.9  1557.8   10041.6  1557.8   10043.6  1557.3   10047.8
GR   1555.9   10050.7  1555.9    10053.9  1556.9   10058.3  1558.3   10063.2  1558.2   10066.1
GR   1557.3   10071.1  1558.1    10076.2  1561.7   10090.5  1563.0   10099.3  1563.0   10104.4

NH       5    0.080    9904.0    0.055    9927.4   0.090    9959.8   0.055    10011.3  0.090
NH   10212.
ET                      9.1                                                      9834.0   10090.0
N PT. 57; "ISLAND"

X1   10.945      66    9940.3   10038.9   365.0    370.0    365.0     1.0      0.0      0
GR   1567.0   9796.2   1566.9    9802.6   1566.6   9810.1   1566.3   9817.0   1565.5   9822.9
GR   1564.5   9829.3   1564.4    9833.6   1563.9   9839.2   1563.3   9844.0   1561.7   9849.3
GR   1561.5   9858.9   1561.0    9867.5   1560.6   9876.5   1560.3   9883.9   1560.3   9892.2
GR   1560.4   9900.1   1560.3    9904.0   1559.8   9907.5   1558.5   9912.3   1558.2   9915.4
GR   1558.8   9917.9   1560.3    9922.9   1560.8   9927.4   1560.9   9932.9   1560.9   9940.3
GR   1560.6   9945.1   1560.6    9950.7   1560.2   9959.8   1558.8   9966.8   1557.1   9972.0
GR   1557.3   9980.2   1557.2    9988.8   1557.3   9996.6   1557.4   10000.0  1557.4   10000.1
GR   1557.9   10003.2  1558.6    10006.3  1559.1   10011.3  1558.9   10017.4  1558.7   10020.7
GR   1558.2   10026.6  1558.6    10031.6  1559.8   10038.9  1560.2   10046.2  1560.2   10052.5
GR   1560.9   10060.9  1561.6    10069.2  1562.0   10076.8  1562.6   10084.0  1563.0   10089.5
GR   1563.0   10095.7  1562.6    10101.1  1562.3   10106.3  1562.5   10112.4  1562.8   10121.2
GR   1563.3   10131.3  1563.9    10141.2  1564.3   10150.2  1565.3   10161.1  1566.3   10169.6
GR   1567.0   10178.5  1567.2    10185.2  1567.4   10192.6  1567.3   10200.2  1567.4   10204.0
GR   1567.6   10212.0

NC    0.080    0.080    0.05      0.0      0.0
ET                      9.1                                                      9950.0   10107.0
N PT. 56

X1   11.006      40    9979.0   10041.0   315.0    350.0    325.0     1.0      0.0      0
GR   1566.1   9916.1   1564.8    9937.6   1563.9   9943.9   1563.0   9950.1   1562.0   9958.8
GR   1562.0   9965.8   1562.2    9972.2   1562.3   9979.0   1562.0   9983.4   1560.3   9989.3
GR   1558.2   9993.7   1558.4    9998.6   1558.8   10000.0  1558.8   10000.1  1559.0   10006.5
GR   1559.5   10012.4  1559.6    10018.7  1559.6   10023.5  1561.0   10029.3  1562.1   10034.9
GR   1562.5   10041.0  1562.5    10047.3  1562.5   10051.1  1561.8   10055.2  1560.9   10060.9
GR   1560.7   10066.1  1560.9    10069.5  1562.6   10075.3  1563.0   10081.2  1563.2   10087.9
GR   1563.3   10095.8  1563.4    10099.6  1563.4   10104.2  1562.0   10110.0  1561.0   10165.0
GR   1562.0   10200.0  1564.0    10220.0  1566.0   10225.0  1568.0   10235.0  1568.1   10250.0
```

```
ET                      9.1                                                     9938.0    10132.0
X1   11.062       61   9978.7   10023.1     310.0     275.0     295.0     1.0      0.0          0
GR   1568.3   9820.0   1567.7    9864.0    1567.5    9872.2    1566.7  9879.9   1564.3     9890.6
GR   1563.5   9896.6   1563.4    9903.7    1562.4    9909.6    1562.4  9914.8   1561.2     9920.4
GR   1561.4   9923.3   1563.5    9928.9    1563.7    9937.7    1563.6  9942.2   1563.3     9946.7
GR   1563.9   9954.3   1563.7    9961.6    1563.4    9966.0    1563.6  9972.3   1563.9     9978.7
GR   1563.0   9982.2   1560.0    9986.4    1560.2    9995.6    1560.5 10000.0   1560.5    10000.1
GR   1560.6  10005.1   1560.6   10006.8    1560.2   10010.6    1561.8 10015.5   1564.1    10023.1
GR   1564.1  10028.9   1564.3   10034.3    1564.5   10040.4    1564.2 10048.1   1564.0    10056.7
GR   1563.9  10062.7   1564.2   10068.6    1563.9   10071.5    1561.9 10077.6   1562.1    10082.4
GR   1561.8  10085.6   1561.4   10088.1    1563.4   10092.9    1564.0 10096.5   1564.1    10102.2
GR   1563.9  10107.2   1563.7   10113.7    1563.8   10122.3    1563.9 10131.8   1563.6    10140.2
GR   1563.7  10146.9   1563.6   10158.2    1563.4   10166.7    1562.9 10172.9   1563.1    10181.3
GR   1563.1  10191.4   1563.3   10201.5    1563.8   10211.7    1564.8 10222.3   1566.2    10234.1
GR   1567.0  10241.6

ET                      9.1                                                     9894.0    10069.0
X1   11.118       52   9964.4   10060.4     320.0     270.0     295.0     1.0      0.0          0
GR   1570.6   9756.1   1568.5    9794.6    1566.8    9804.1    1565.6  9810.8   1565.0     9818.3
GR   1565.3   9838.5   1565.4    9850.3    1565.7    9861.9    1565.7  9869.5   1565.4     9880.2
GR   1565.0   9893.6   1564.6    9905.2    1563.8    9913.5    1564.5  9920.3   1564.7     9930.1
GR   1564.2   9935.3   1564.5    9940.7    1565.4    9948.1    1565.7  9956.1   1565.9     9964.4
GR   1565.7   9971.2   1565.2    9977.6    1561.6    9988.1    1561.4  9998.8   1561.1    10000.0
GR   1561.1  10000.1   1561.4   10007.8    1562.4   10016.5    1562.9 10022.5   1563.6    10027.3
GR   1563.3  10029.6   1563.0   10032.0    1563.9   10037.2    1564.9 10043.2   1565.4    10051.1
GR   1565.7  10060.4   1565.6   10068.8    1565.1   10075.3    1564.5 10080.7   1565.2    10086.3
GR   1565.4  10091.0   1565.1   10097.4    1565.6   10107.7    1566.3 10117.5   1566.3    10128.3
GR   1566.1  10137.3   1565.8   10146.1    1566.1   10155.1    1566.7 10164.7   1567.8    10177.0
GR   1569.5  10196.1   1570.6   10209.0

NC    0.080    0.085    0.055       0.0       0.0
ET                      9.1                                                     9913.0    10044.0
"n" VALUE MODIFIED PER X-SECT REVIEW 4/4/91

X1   11.190       51   9989.5   10039.5     420.0     335.0     380.0     1.0      0.0          0
GR   1571.5   9841.6   1571.4    9848.3    1570.7    9854.1    1570.6  9859.1   1570.8     9865.3
GR   1570.8   9870.4   1570.7    9876.2    1569.8    9881.3    1569.2  9885.3   1568.5     9890.1
GR   1567.7   9893.5   1567.2    9896.3    1567.1    9899.0    1566.3  9903.0   1566.6     9907.6
GR   1567.2   9913.3   1567.3    9916.8    1567.2    9919.6    1567.0  9922.9   1566.3     9926.0
GR   1566.2   9928.6   1566.8    9934.1    1567.0    9938.1    1566.9  9948.5   1566.8     9953.7
GR   1566.8   9958.9   1566.6    9962.9    1565.9    9967.9    1565.0  9972.0   1565.0     9974.6
GR   1565.5   9976.8   1566.1    9979.2    1566.6    9983.0    1566.6  9985.8   1566.5     9989.5
GR   1566.1   9992.1   1565.4    9994.5    1563.8    9998.1    1563.7 10000.0   1563.7    10000.1
GR   1563.6  10008.3   1563.5   10014.0    1563.5   10019.1    1563.7 10024.3   1565.8    10030.3
GR   1568.8  10039.5   1570.4   10045.2    1572.8   10051.8    1573.6 10055.1   1573.7    10058.9
GR   1573.7  10064.1

NC    0.085    0.085    0.055       0.0       0.0
ET                      9.1                                                     9881.0    10054.0
N PT. 54

X1   11.259       43   9976.1   10039.5     310.0     395.0     365.0     1.0      0.0          0
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GR   1573.5    9764.4   1572.0   9799.4   1570.0   9814.4   1568.8   9834.4   1571.4   9859.4
GR   1571.2    9863.3   1571.5   9868.1   1571.9   9874.2   1572.0   9881.4   1571.8   9896.6
GR   1571.1    9904.2   1569.7   9910.9   1568.7   9916.2   1568.9   9920.7   1568.9   9923.7
GR   1568.7    9925.9   1567.4   9930.2   1566.3   9932.7   1566.3   9937.0   1566.5   9940.9
GR   1567.4    9944.3   1568.3   9947.1   1568.9   9951.8   1569.2   9960.2   1569.2   9968.1
GR   1569.3    9976.1   1569.1   9982.8   1567.6   9988.4   1566.5   9990.8   1566.1  10000.0
GR   1566.1   10000.1   1566.1  10005.1   1566.5  10009.3   1567.6  10012.5   1568.2  10016.1
GR   1568.0   10018.8   1567.4  10022.8   1568.1  10028.4   1569.0  10033.9   1569.2  10039.5
GR   1573.1   10054.4   1574.2  10062.7   1574.3  10068.1

NC    0.085     0.085    0.050     0.0       0.0
ET                       9.1                                                   9908.0  10065.0
"n" VALUE MODIFIED PER X-SECT REVIEW 4/4/91

X1   11.351      62     9969.6  10030.3    460.0    515.0    485.0     1.0      0.0       0
GR   1578.6    9600.0   1578.0   9660.0   1577.0   9705.0   1576.0   9760.0   1575.0   9770.0
GR   1574.0    9780.0   1573.6   9800.6   1573.6   9807.5   1573.2   9814.7   1573.2   9821.9
GR   1573.0    9828.5   1572.9   9834.7   1572.9   9841.7   1572.9   9849.9   1573.0   9857.7
GR   1573.0    9865.4   1573.1   9872.6   1573.5   9879.6   1574.0   9887.2   1574.4   9894.7
GR   1574.4    9894.7   1574.4   9908.3   1574.1   9914.6   1573.1   9920.1   1571.6   9929.1
GR   1571.2    9932.3   1571.6   9938.0   1571.6   9944.9   1571.1   9950.5   1570.1   9956.6
GR   1571.0    9960.9   1572.0   9966.4   1572.0   9969.6   1571.0   9973.6   1568.3   9977.7
GR   1568.4    9982.1   1568.8   9989.7   1569.1   9996.8   1568.9  10000.0   1568.9  10000.1
GR   1569.4   10006.2   1569.8  10011.5   1570.5  10017.5   1571.4  10025.0   1571.9  10030.3
GR   1571.7   10037.3   1571.5  10043.1   1571.5  10048.7   1572.7  10055.8   1574.2  10064.6
GR   1575.3   10077.1   1577.5  10091.4   1578.3  10097.7   1578.6  10104.5   1578.6  10112.3
GR   1578.6   10119.3   1578.6  10127.8   1578.4  10134.8   1578.3  10141.7   1578.5  10148.7
GR   1578.9   10156.0   1578.9  10161.3

NC    0.080     0.080    0.050     0.0       0.0
ET                       9.1                                                   9908.0  10136.0
N VALUES SET = TO PT. 52, SECTION 20

X1   11.426      69     9969.6  10030.9    440.0    370.0    395.0     1.0      0.0       0
GR   1578.7    9827.4   1574.8   9839.4   1574.7   9846.6   1574.8   9853.2   1574.4   9860.7
GR   1574.1    9867.0   1573.8   9875.8   1573.0   9883.3   1573.6   9888.5   1573.6   9894.9
GR   1573.8    9901.4   1574.2   9908.3   1574.1   9915.3   1574.3   9923.3   1574.3   9933.1
GR   1573.8    9939.1   1572.9   9946.6   1572.9   9953.7   1573.3   9960.4   1573.5   9963.9
GR   1573.6    9969.6   1572.9   9975.8   1571.5   9984.1   1571.5   9991.1   1571.1   9996.2
GR   1570.7   10000.0   1570.7  10000.1   1570.7  10006.7   1571.1  10014.0   1571.3  10018.2
GR   1572.0   10021.9   1573.9  10030.9   1574.3  10037.5   1574.8  10046.0   1574.6  10052.8
GR   1574.6   10059.9   1575.3  10068.0   1575.7  10074.7   1575.8  10080.9   1575.3  10086.4
GR   1575.0   10089.6   1575.0  10095.2   1574.8  10098.3   1574.6  10103.3   1575.1  10111.7
GR   1576.2   10121.5   1576.7  10128.1   1577.0  10136.3   1576.9  10144.3   1576.7  10152.7
GR   1575.7   10159.5   1574.4  10165.6   1574.1  10176.0   1573.9  10187.5   1574.0  10201.8
GR   1574.9   10211.5   1575.8  10220.1   1575.9  10225.5   1575.1  10231.7   1574.2  10238.1
GR   1574.1   10247.2   1574.1  10255.1   1574.0  10262.6   1573.9  10279.0   1573.8  10294.0
GR   1574.3   10308.1   1576.2  10324.9   1578.5  10345.8   1580.5  10366.2

NC    0.085     0.085    0.050     0.0       0.0
ET                       9.1                                                   9847.0  10030.0
```

N PT. 52

X1	11.515	36	9935.2	10015.1	500.0	460.0	470.0	1.0	0.0	0
GR	1582.2	9785.0	1580.8	9800.6	1580.0	9812.6	1579.2	9820.7	1577.4	9829.3
GR	1577.4	9841.2	1576.9	9847.3	1576.9	9854.0	1576.8	9859.0	1575.4	9863.8
GR	1575.1	9869.9	1576.0	9875.2	1577.0	9883.0	1577.1	9891.8	1576.9	9897.2
GR	1577.1	9905.1	1576.8	9911.7	1576.3	9921.3	1576.0	9929.8	1576.4	9935.2
GR	1576.2	9939.3	1574.7	9948.0	1574.1	9955.7	1574.4	9962.1	1575.2	9968.0
GR	1575.4	9976.4	1575.0	9981.2	1573.6	9988.9	1573.6	9997.1	1573.9	10000.0
GR	1573.9	10000.1	1574.4	10007.1	1575.9	10015.1	1577.6	10022.0	1578.3	10027.9
GR	1582.6	10042.0								
NH	5	0.080	9889.4	0.070	9927.2	0.060	9971.8	0.055	10013.0	0.08
NH	10190.									
ET			9.1						9886.0	10042.0

N PT. 51

X1	11.554	57	9971.8	10013.0	175.0	225.0	205.0	1.0	0.0	0
GR	1583.7	9828.0	1582.4	9835.0	1581.2	9844.5	1579.9	9852.0	1578.5	9858.5
GR	1578.4	9870.1	1578.2	9879.0	1578.3	9886.1	1578.2	9889.4	1576.4	9897.0
GR	1576.3	9902.3	1576.6	9907.4	1577.9	9916.3	1578.6	9922.4	1578.5	9927.2
GR	1577.8	9932.8	1577.1	9937.6	1576.1	9946.2	1575.9	9953.8	1575.9	9961.2
GR	1576.7	9967.7	1577.5	9971.8	1577.4	9978.1	1576.6	9982.4	1575.7	9987.1
GR	1575.6	9992.8	1575.4	10000.0	1575.4	10000.1	1575.7	10003.0	1577.0	10005.7
GR	1578.3	10009.9	1578.8	10013.0	1578.8	10017.7	1578.3	10020.1	1578.9	10025.2
GR	1580.6	10035.9	1580.9	10042.4	1579.9	10048.2	1579.3	10052.3	1578.7	10060.2
GR	1578.6	10071.0	1578.4	10082.6	1578.3	10090.9	1579.0	10099.9	1580.2	10109.3
GR	1580.1	10114.1	1579.4	10120.9	1578.9	10129.6	1578.8	10138.5	1579.1	10150.2
GR	1579.3	10157.0	1579.1	10162.5	1580.0	10168.2	1582.3	10178.0	1582.8	10184.8
GR	1582.9	10189.9	1582.8	10190.4						
NH	5	0.080	9881.5	0.070	9920.6	0.060	9963.8	0.050	10028.1	0.080
NH	10210.									
ET			9.1						9921.0	10061.0
X1	11.626	35	9963.8	10028.1	375.0	395.0	380.0	1.0	0.0	0
GR	1587.5	9855.6	1587.1	9869.0	1586.7	9881.5	1581.4	9897.6	1580.7	9906.9
GR	1581.3	9914.0	1581.5	9920.6	1580.1	9932.1	1579.8	9934.4	1578.5	9935.9
GR	1578.5	9939.8	1579.6	9944.0	1581.4	9959.4	1581.4	9963.8	1577.4	9968.3
GR	1577.1	9976.2	1576.9	9982.4	1576.8	9998.0	1577.0	10000.0	1577.0	10000.1
GR	1578.2	10013.7	1580.6	10024.6	1580.7	10028.1	1580.4	10033.4	1580.8	10044.9
GR	1580.8	10053.9	1581.0	10060.9	1580.6	10065.4	1580.8	10081.3	1580.8	10089.5
GR	1580.6	10095.3	1580.9	10103.2	1580.9	10103.3	1582.0	10155.0	1584.0	10210.0
NC	0.080	0.085	0.060	0.1	0.3					
ET			9.1						9920.0	10064.0

N PT. 50; PATTON RD CULVERT CROSSING; SECT 1

X1	11.688	39	9963.5	10048.1	360.0	315.0	330.0	1.0	0.0	0
GR	1588.0	9711.6	1588.0	9721.9	1587.7	9725.0	1587.6	9740.0	1587.9	9743.2
GR	1587.3	9747.2	1587.6	9754.8	1587.2	9762.8	1586.2	9776.3	1585.0	9804.2
GR	1583.6	9820.9	1583.5	9832.7	1584.1	9839.9	1584.0	9845.8	1584.8	9857.8
GR	1583.5	9864.9	1583.3	9883.0	1583.4	9892.6	1583.6	9898.3	1583.3	9909.9

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GR   1582.8    9928.6    1583.5    9936.6    1583.4    9943.9    1582.9    9951.5    1582.8    9963.5
GR   1582.3    9973.2    1581.9    9980.4    1578.8    9987.4    1578.7   10000.0    1578.7   10000.1
GR   1579.2   10024.6    1581.7   10030.8    1581.4   10039.9    1582.9   10048.1    1583.5   10058.4
GR   1584.4   10064.2    1584.6   10073.1    1586.6   10084.2    1588.2   10098.7

NC    0.085    0.085     0.050     0.6       0.8
ET                        9.11                                                        9894.0   10085.0
PATTON ROAD CULVERT CROSSING; SECTION 2

X1   11.722      18      9930.0   10050.0    160.0     200.0     180.0      1.0       0.0         0
X3      10     0.0        0.0       0.0       0.0       0.0       0.0      0.0       0.0
GR   1588.0   9620.0    1586.0    9740.0    1585.5    9790.0    1586.0    9830.0    1586.4    9870.0
GR   1585.1   9894.0    1583.9    9919.0    1582.5    9930.0    1581.1    9959.0    1578.9    9966.0
GR   1578.9  10000.0    1578.5   10034.0    1580.5   10042.0    1582.2   10050.0    1583.9   10085.0
GR   1585.1  10122.0    1586.2   10172.0    1586.9   10188.0

ET                        9.11                                                        9885.0   10095.0
SC    8.032    0.80       3.0       0.0       5.66      0.0      60.0       2.3    1578.6    1578.4
PATTON ROAD CULVERT XING; SECT 3; N PT. 48,MOD

X1   11.734      21      9928.3   10077.0     60.0      60.0      60.0      1.0       0.0         0
X2     0.0     0.0          2       0.0       0.0       0.0         0      0.0       0.0
X3      10     0.0        0.0       0.0       0.0       0.0       0.0      0.0       0.0
BT     -19    9630.0    1588.0       0.0    9677.0    1587.4       0.0   9734.0    1586.8       0.0
BT            9781.1    1586.3       0.0    9799.7    1586.4       0.0   9815.5    1586.5       0.0
BT            9834.5    1586.6       0.0    9868.1    1586.5       0.0   9870.0    1586.3       0.0
BT            9909.5    1586.6       0.0    9928.3    1586.6       0.0   9966.0    1586.6       0.0
BT           10000.0    1586.4       0.0   10034.0    1585.9       0.0  10077.0    1584.9       0.0
BT           10094.5    1585.2       0.0   10122.0    1585.7       0.0  10167.0    1586.5       0.0
BT           10188.0    1587.1       0.0
GR   1588.0   9630.0    1587.4    9677.0    1586.8    9734.0    1585.7    9781.1    1586.1    9799.7
GR   1586.4   9815.5    1586.2    9834.5    1586.5    9868.1    1586.3    9870.0    1586.6    9909.5
GR   1582.8   9928.3    1579.0    9966.0    1579.0   10000.0    1579.0   10034.0    1584.9   10077.0
GR   1585.2  10094.5    1585.7   10122.0    1586.5   10167.0    1587.1   10188.0    1587.8   10194.0
GR   1588.2  10216.1

NC    0.080    0.080     0.050     0.0       0.0
QT        2   3756.0    3756.0
ET                        9.1                                                         9843.0   10023.0
N VAL MOD FROM PT. 47; Q=3756 CFS FROM FCD

X1   11.811      24      9953.6   10022.8    480.0     365.0     410.0      1.0       0.0         0
X3      10     0.0        0.0       0.0       0.0       0.0       0.0      0.0       0.0
GR   1591.9   9827.1    1589.0    9844.7    1587.2    9853.0    1587.5    9881.8    1588.0    9898.6
GR   1588.5   9921.3    1587.2    9927.9    1587.4    9934.6    1587.4    9943.9    1587.0    9953.6
GR   1585.6   9960.5    1586.4    9967.3    1586.2    9976.2    1585.6    9987.4    1583.2    9991.3
GR   1582.9  10000.0    1582.9   10000.1    1583.3   10013.6    1585.5   10018.5    1589.4   10022.8
GR   1590.8  10033.9    1592.0   10043.4    1592.1   10054.2    1592.1   10066.9

NC      0.0      0.0       0.0       0.1       0.3
ET                        9.1                                                         9957.0   10140.0
X1   11.876      33      9978.9   10051.6    295.0     390.0     340.0      1.0       0.0         0
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GR   1594.5    9939.8   1593.6   9949.3   1592.9   9960.5   1590.5   9974.3   1590.0   9978.9
GR   1585.0    9986.3   1584.6  10000.0   1584.6  10000.1   1585.5  10008.6   1586.0  10013.3
GR   1589.9   10022.8   1590.9  10030.1   1591.3  10041.7   1592.1  10051.6   1591.9  10060.7
GR   1589.9   10069.3   1589.0  10080.4   1588.4  10091.4   1589.4  10099.6   1589.3  10111.2
GR   1589.4   10119.7   1589.3  10131.5   1589.5  10144.2   1589.9  10154.9   1589.5  10165.8
GR   1587.9   10169.1   1587.7  10179.1   1589.0  10183.4   1590.0  10194.2   1589.3  10199.6
GR   1589.5   10203.6   1591.8  10213.8   1594.8  10226.4

NC    0.080    0.085    0.055    0.0      0.0
ET                      9.1                                                   9925.0  10159.0
N PT. 46

X1   11.960      34    9962.6  10061.5   455.0    430.0    445.0      1.0      0.0       0
GR   1597.0    9893.6   1595.6   9919.1   1594.0   9936.9   1592.9   9962.6   1588.6   9975.0
GR   1588.2    9986.4   1588.4  10000.0   1588.4  10000.1   1588.6  10012.2   1589.0  10021.5
GR   1591.4   10036.0   1592.9  10044.8   1593.2  10061.5   1593.2  10074.1   1593.3  10083.9
GR   1593.2   10094.1   1592.7  10105.8   1592.1  10115.1   1593.0  10123.2   1593.1  10128.6
GR   1592.5   10135.1   1592.9  10144.6   1592.9  10151.9   1592.7  10159.0   1592.4  10163.9
GR   1592.8   10175.3   1590.7  10189.0   1591.2  10197.6   1592.6  10204.1   1593.3  10212.4
GR   1595.0   10225.1   1596.5  10238.9   1597.0  10260.5   1597.1  10277.5

NC      0.0      0.0      0.0      0.0      0.0
NH        5     0.08   9865.0     0.05   9883.8     0.08   9976.3     0.05  10053.2    0.085
NH   10075.
ET                      9.1                                                   9926.0  10058.0
N PT. 45

X1   12.041      51    9976.3  10053.2   490.0    390.0    430.0      1.0      0.0       0
GR   1599.2    9768.7   1599.1   9773.2   1599.1   9778.1   1598.5   9784.8   1597.9   9791.3
GR   1596.7    9800.2   1596.2   9809.7   1595.9   9823.3   1595.4   9828.9   1596.0   9835.1
GR   1596.1    9844.1   1596.0   9849.3   1595.3   9855.1   1594.8   9861.2   1594.5   9865.0
GR   1592.0    9870.4   1592.1   9874.8   1593.5   9878.8   1594.9   9883.8   1594.9   9888.0
GR   1594.9    9892.4   1594.9   9898.4   1594.9   9904.2   1595.5   9910.7   1595.8   9916.9
GR   1596.2    9921.7   1596.7   9926.1   1596.7   9932.1   1596.6   9938.4   1596.3   9944.8
GR   1595.2    9952.1   1595.1   9961.0   1595.9   9965.9   1595.9   9971.1   1596.0   9976.3
GR   1595.8    9981.0   1595.2   9986.6   1591.9   9993.7   1591.8  10000.0   1591.8  10000.1
GR   1591.7   10009.3   1592.4  10019.3   1592.7  10027.7   1592.5  10034.5   1592.6  10039.8
GR   1592.8   10044.8   1593.0  10048.3   1596.2  10053.2   1599.0  10062.3   1599.4  10069.0
GR   1599.4   10075.0

NC    0.070    0.080    0.060    0.0      0.0
ET                      9.1                                                   9923.0  10063.0
N PT. 43

X1   12.128      32    9937.4  10049.9   445.0    475.0    460.0      1.0      0.0       0
GR   1601.6    9881.2   1601.8   9886.2   1601.1   9895.4   1599.4   9904.7   1598.5   9923.3
GR   1597.9    9931.6   1597.8   9937.4   1594.7   9941.8   1594.9   9945.5   1594.5   9948.9
GR   1593.6    9952.5   1594.9   9958.5   1597.3   9965.3   1597.9   9968.3   1596.3   9976.3
GR   1595.7    9988.5   1595.2  10000.0   1595.2  10000.1   1595.4  10010.7   1595.4  10019.0
GR   1595.3   10027.3   1596.4  10034.9   1597.9  10041.4   1599.2  10049.9   1598.6  10057.1
GR   1600.0   10063.4   1600.8  10071.2   1601.0  10082.3   1601.3  10093.1   1601.5  10101.8
GR   1601.2   10107.7   1601.1  10119.6
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NH      5     0.080    9975.3    0.055   10041.1    0.080   10139.9    0.055   10202.7    0.080
NH  10439.
ET                       9.1                                                    9977.0   10197.0
X1  12.174       45    9981.6   10041.1     250.0    245.0     240.0      1.0      0.0        0
GR  1604.9   9927.1    1604.4    9938.8    1603.6   9948.9    1603.0   9964.7    1604.1   9975.3
GR  1599.4   9981.6    1596.9    9988.0    1597.1   9997.8    1597.0  10000.0    1597.6  10023.5
GR  1597.9  10029.1    1599.8   10035.5    1600.0  10041.1    1599.8  10048.0    1599.8  10054.8
GR  1599.2  10059.2    1598.5   10066.8    1598.3  10073.7    1598.9  10082.7    1600.0  10089.6
GR  1600.1  10094.7    1599.3   10102.1    1600.3  10108.5    1600.7  10114.8    1600.3  10121.1
GR  1600.0  10125.9    1600.5   10132.4    1600.6  10139.9    1599.4  10148.4    1597.9  10154.0
GR  1598.3  10181.2    1599.6   10189.4    1601.0  10196.9    1601.0  10202.7    1600.6  10210.0
GR  1600.0  10216.3    1600.3   10227.9    1601.3  10239.3    1601.3  10248.4    1600.6  10260.2
GR  1600.4  10273.0    1600.4   10279.2    1600.5  10354.2    1602.0  10381.2    1604.0  10439.2

NC   0.085    0.085     0.055       0.0       0.0
ET                       9.1                                                    9892.0   10068.0
N PT. 42; "ISLAND", MODIFIED

X1  12.249       53    9931.4   10034.5     405.0    395.0     395.0      1.0      0.0        0
GR  1605.9   9600.5    1605.9    9608.7    1605.9   9618.6    1605.8   9626.7    1605.4   9632.0
GR  1605.1   9641.8    1605.1    9656.6    1605.4   9668.5    1605.1   9678.8    1605.3   9689.1
GR  1605.4   9707.1    1605.3    9718.3    1604.7   9726.9    1604.1   9734.6    1604.3   9741.3
GR  1604.7   9747.3    1604.8    9753.5    1605.0   9763.8    1605.1   9772.9    1604.5   9785.2
GR  1604.2   9795.2    1604.0    9803.9    1603.7   9813.9    1603.0   9821.1    1603.3   9833.5
GR  1603.4   9843.4    1603.2    9849.4    1602.6   9855.5    1602.7   9861.2    1603.6   9868.5
GR  1603.7   9874.9    1603.6    9891.5    1603.3   9898.4    1603.0   9904.6    1603.0   9914.1
GR  1603.2   9922.7    1603.3    9931.4    1602.9   9936.7    1600.1   9948.8    1599.9   9982.8
GR  1599.9  10000.0    1599.9   10000.1    1599.9  10007.2    1600.4  10012.4    1601.3  10018.6
GR  1601.6  10026.6    1601.9   10034.5    1601.9  10041.9    1602.2  10048.1    1602.5  10053.4
GR  1604.3  10065.0    1606.2   10078.8    1606.4  10088.2

NC   0.085    0.085     0.060       0.0       0.0
ET                       9.1                                                    9902.0   10064.0
N PT. 41

X1  12.325       43    9935.7   10019.2     400.0    415.0     405.0      1.0      0.0        0
GR  1609.4   9849.9    1607.3    9872.2    1605.8   9893.2    1605.0   9893.2    1605.7   9902.3
GR  1605.2   9907.6    1603.8    9914.3    1603.9   9920.0    1604.8   9926.2    1605.2   9935.7
GR  1604.7   9942.3    1604.5    9950.8    1604.3   9960.2    1603.8   9964.7    1602.3   9970.1
GR  1601.1  10000.0    1601.2   10000.1    1601.2  10000.2    1601.4  10004.9    1603.0  10008.7
GR  1605.0  10019.2    1605.0   10027.5    1605.0  10032.1    1604.8  10040.3    1604.5  10044.4
GR  1605.2  10049.5    1606.7   10059.1    1606.9  10064.1    1606.8  10071.0    1606.1  10080.1
GR  1605.5  10089.7    1605.4   10101.2    1605.6  10106.2    1606.2  10115.8    1606.9  10129.2
GR  1607.1  10141.4    1607.4   10155.6    1607.8  10169.5    1608.2  10178.7    1608.7  10186.9
GR  1608.9  10195.9    1609.7   10205.5    1610.3  10214.3

NC   0.080    0.095     0.055       0.0       0.0
ET                       9.1                                                    9898.0   10091.0
N PT. 40

X1  12.395       52    9949.5   10053.6     315.0     40.0     370.0      1.0      0.0        0
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GR   1610.2    9831.8   1610.3    9831.9   1610.3    9832.0   1610.3    9832.1   1610.0    9845.0
GR   1609.5    9858.0   1608.9    9871.8   1608.5    9884.3   1608.0    9898.3   1607.     9910.0
GR   1608.1    9915.3   1608.6    9927.1   1608.7    9938.2   1608.6    9949.5   1608.2    9957.6
GR   1607.6    9966.6   1607.3    9971.6   1604.3    9981.3   1604.1    9993.2   1603.9   10000.0
GR   1603.9   10000.1   1604.0   10008.8   1604.3   10016.6   1604.5   10020.4   1604.5   10024.2
GR   1604.5   10027.0   1605.2   10032.0   1606.8   10043.5   1607.3   10053.6   1607.3   10065.2
GR   1607.3   10074.0   1607.3   10085.6   1607.4   10090.9   1607.2   10099.1   1606.7   10106.9
GR   1606.0   10113.4   1605.7   10119.5   1605.4   10126.8   1605.7   10130.4   1607.0   10137.4
GR   1607.5   10145.4   1607.8   10157.8   1607.9   10167.8   1607.8   10176.6   1607.9   10187.6
GR   1608.1   10196.5   1608.3   10206.1   1609.5   10217.3   1610.3   10228.7   1610.6   10239.5
GR   1611.0   10252.3   1611.0   10263.0

NC    0.080    0.080    0.050       0.1       0.3
QT        2   3706.0   3706.0
ET                        9.1                                                   9898.0   10062.0
N PT. 39; Q=3706 CFS FROM FCD

X1   12.484       58   9966.6   10061.3     460.0     485.0     465.0       1.0      0.0        0
GR   1614.1    9610.0   1614.0    9640.0   1613.2    9662.6   1613.3    9668.4   1612.9    9678.4
GR   1612.7    9689.0   1612.6    9696.5   1612.7    9707.1   1612.8    9713.3   1612.6    9721.7
GR   1613.0    9732.9   1613.0    9745.1   1613.2    9755.9   1613.2    9766.8   1613.1    9777.7
GR   1613.2    9787.6   1613.3    9796.5   1613.4    9804.2   1613.2    9815.9   1613.2    9826.6
GR   1613.1    9837.7   1612.9    9848.0   1612.8    9851.3   1612.2    9858.0   1613.1    9863.6
GR   1613.2    9871.8   1613.2    9881.2   1613.5    9892.5   1613.5    9902.6   1613.4    9912.3
GR   1613.3    9925.3   1613.2    9939.2   1612.9    9955.5   1613.0    9966.6   1611.5    9971.9
GR   1609.7    9978.8   1607.2    9983.3   1607.2    9995.3   1607.1   10000.0   1607.1   10000.1
GR   1607.6   10006.9   1608.3   10011.1   1608.4   10018.6   1609.1   10024.1   1610.6   10034.2
GR   1611.2   10044.7   1613.3   10061.3   1612.9   10075.5   1612.6   10085.8   1612.5   10094.7
GR   1612.8   10102.9   1613.3   10119.3   1614.1   10137.5   1615.0   10159.5   1614.9   10177.3
GR   1615.6   10209.6   1615.6   10231.4   1615.6   10240.4

NC    0.080    0.080    0.060       0.0       0.0
ET                        9.1                                                   9930.0   10061.0
N PT. 38

X1   12.568       64   9969.2   10043.5     495.0     405.0     445.0       1.0      0.0        0
GR   1619.3    9735.4   1619.3    9740.4   1619.2    9744.5   1618.9    9751.0   1618.6    9755.9
GR   1618.7    9762.6   1618.8    9768.2   1618.4    9776.4   1618.0    9783.0   1618.0    9788.4
GR   1618.1    9792.5   1618.5    9796.7   1618.2    9801.7   1618.0    9807.6   1617.9    9817.0
GR   1617.9    9829.4   1617.7    9837.2   1617.5    9842.2   1617.5    9847.3   1617.3    9852.7
GR   1617.1    9859.1   1617.1    9869.6   1617.1    9879.9   1617.0    9891.5   1617.2    9901.2
GR   1617.1    9905.9   1616.7    9912.7   1616.9    9919.4   1617.2    9922.7   1617.6    9927.6
GR   1617.6    9929.8   1616.9    9933.3   1614.7    9942.5   1613.1    9951.2   1613.2    9954.4
GR   1613.5    9957.8   1614.3    9961.8   1615.0    9966.2   1615.1    9969.2   1615.1    9972.7
GR   1615.1    9976.6   1614.7    9980.2   1613.6    9983.7   1612.2    9990.4   1611.5    9995.8
GR   1610.9   10000.0   1610.9   10000.1   1610.9   10015.0   1610.9   10018.5   1611.2   10024.6
GR   1614.2   10030.6   1615.7   10036.8   1616.0   10043.5   1616.3   10050.9   1616.9   10061.2
GR   1616.9   10064.2   1617.3   10070.4   1617.8   10079.2   1618.2   10088.4   1618.3   10097.4
GR   1618.6   10107.1   1618.6   10116.5   1618.6   10126.9   1618.8   10138.9

ET                        9.1                                                   9928.0   10066.0
X1   12.650       36   9958.7   10042.9     415.0     460.0     435.0       1.0      0.0        0
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GR   1622.0    9720.0   1621.5   9750.0   1621.0   9810.0   1620.5   9860.0   1620.1   9917.7
GR   1620.2    9928.5   1619.9   9941.1   1619.5   9952.0   1618.9   9958.7   1618.3   9967.4
GR   1617.6    9974.6   1613.9   9983.9   1613.9  10000.0   1613.9  10000.1   1614.0  10010.7
GR   1614.3   10014.4   1615.5  10019.5   1617.9  10027.2   1618.8  10034.1   1619.3  10042.9
GR   1619.3   10052.3   1619.7  10058.0   1620.2  10065.5   1620.3  10074.0   1620.2  10084.6
GR   1619.9   10093.9   1619.6  10102.2   1619.7  10111.7   1619.9  10120.5   1620.1  10130.7
GR   1620.5   10144.9   1620.8  10160.5   1621.5  10176.7   1622.1  10194.8   1622.3  10209.1
GR   1622.3   10218.1

NC     0.080     0.080    0.040      0.0      0.0
ET                        9.1                                                 9912.0  10081.0
N PT. 36

X1   12.734      49     9972.3  10031.9    450.0    390.0    445.0      1.0      0.0       0
GR   1625.0    9760.0   1624.0   9810.0   1622.5   9825.0   1624.0   9855.0   1625.0   9901.6
GR   1625.0    9901.7   1625.0   9901.8   1624.9   9912.2   1624.5   9922.4   1624.0   9937.4
GR   1622.9    9951.9   1622.9   9962.2   1623.2   9972.3   1623.0   9976.2   1621.6   9984.2
GR   1616.4    9992.2   1616.3  10000.0   1616.3  10000.1   1616.6  10007.2   1617.0  10012.0
GR   1618.2   10016.8   1621.0  10024.2   1623.2  10031.9   1623.2  10042.2   1623.3  10056.0
GR   1623.4   10063.5   1623.4  10070.3   1623.4  10080.5   1623.0  10084.5   1620.0  10090.5
GR   1619.9   10093.5   1621.7  10097.4   1621.8  10100.0   1620.0  10103.8   1619.1  10105.5
GR   1621.8   10109.8   1623.3  10117.9   1623.3  10127.0   1623.9  10141.6   1623.9  10154.0
GR   1624.2   10164.6   1624.1  10176.6   1624.1  10186.3   1624.4  10195.2   1624.5  10206.3
GR   1624.6   10220.0   1624.7  10231.3   1624.7  10246.2   1625.1  10259.3

NC     0.080     0.080    0.050      0.0      0.0
ET                        9.1                                                 9942.0  10062.0
N PT. 35

X1   12.822      81     9976.5  10040.7    450.0    485.0    460.0      1.0      0.0       0
GR   1630.3    9533.2   1630.3   9541.6   1630.2   9546.2   1629.9   9554.2   1628.8   9567.0
GR   1628.5    9577.1   1628.5   9590.0   1628.4   9600.5   1627.7   9615.7   1628.1   9631.3
GR   1628.2    9648.4   1628.5   9662.6   1628.7   9673.6   1628.4   9686.1   1628.3   9692.0
GR   1627.8    9700.4   1628.3   9709.5   1628.1   9715.4   1627.8   9723.0   1627.8   9731.2
GR   1628.1    9741.1   1628.0   9745.5   1627.4   9754.6   1627.4   9767.8   1627.3   9779.7
GR   1627.3    9791.6   1627.2   9800.8   1627.5   9813.3   1627.8   9819.6   1627.2   9826.7
GR   1626.9    9832.6   1627.4   9843.7   1627.5   9854.9   1627.7   9868.6   1627.6   9875.4
GR   1627.5    9884.4   1627.6   9898.6   1627.7   9914.3   1627.8   9927.0   1627.8   9941.9
GR   1627.1    9950.9   1625.6   9958.9   1626.7   9967.8   1626.8   9976.5   1625.1   9983.1
GR   1622.4    9990.0   1620.3   9995.7   1620.5  10000.0   1620.5  10000.1   1620.7  10007.9
GR   1621.3   10016.4   1622.0  10019.7   1625.6  10031.0   1627.1  10040.7   1627.2  10052.3
GR   1627.3   10061.7   1627.3  10073.1   1627.2  10082.1   1627.2  10097.3   1627.3  10117.0
GR   1627.3   10133.4   1627.2  10147.3   1627.3  10159.6   1628.0  10176.0   1628.3  10189.5
GR   1628.5   10204.5   1628.4  10214.5   1627.7  10225.5   1627.4  10237.3   1627.5  10254.8
GR   1627.5   10272.2   1627.4  10288.0   1627.4  10295.9   1627.3  10298.4   1628.0  10305.0
GR   1627.0   10315.0   1628.0  10325.0   1628.4  10358.0   1627.8  10400.0   1628.0  10405.0
GR   1630.0   10475.0

ET                        9.1                                                 9920.0  10057.0
X1   12.909      52     9921.6  10055.9    475.0    465.0    460.0      1.0      0.0       0
GR   1634.8    9652.1   1634.7   9662.9   1634.0   9673.3   1632.5   9685.8   1631.4   9696.3
GR   1630.9    9708.2   1630.7   9720.6   1630.0   9732.3   1630.7   9739.9   1630.9   9752.9
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GR   1631.1    9766.4   1630.8   9775.8   1630.6   9784.8   1630.7   9797.0   1630.6   9813.9
GR   1630.9    9838.1   1631.0   9871.5   1630.8   9895.0   1630.8   9908.1   1630.8   9921.6
GR   1630.2    9926.6   1625.7   9940.0   1625.7   9955.1   1626.5   9960.1   1626.4   9962.7
GR   1625.6    9968.3   1626.4   9974.9   1626.9   9981.4   1626.6   9987.4   1626.0   9991.4
GR   1625.0    9997.4   1624.8  10000.0   1624.8  10000.1   1625.3  10005.4   1626.2  10011.8
GR   1626.3   10017.7   1626.1  10023.1   1626.3  10028.5   1626.0  10031.6   1625.9  10034.8
GR   1627.9   10042.4   1630.3  10055.9   1630.5  10071.1   1630.5  10086.3   1630.9  10102.5
GR   1630.8   10114.1   1630.8  10120.0   1631.4  10133.1   1631.7  10149.6   1631.8  10166.5
GR   1631.9   10184.8   1631.9  10201.5

ET                        9.1                                                   9928.0  10054.0
X1   13.000       53   9929.2  10052.4    510.0    470.0    480.0      1.0      0.0      0
GR   1636.7    9805.9   1636.7   9810.1   1636.5   9813.7   1635.6   9824.6   1634.8   9839.5
GR   1634.4    9849.0   1634.2   9852.5   1634.8   9864.9   1635.2   9878.0   1635.2   9885.6
GR   1634.3    9892.8   1632.9   9897.8   1632.9   9903.3   1633.0   9910.9   1632.4   9919.0
GR   1633.2    9922.5   1634.0   9929.2   1633.3   9933.6   1632.0   9938.7   1630.8   9941.1
GR   1630.5    9946.2   1630.7   9960.5   1630.8   9976.3   1630.4   9992.0   1630.0  10000.0
GR   1630.0   10000.1   1629.8  10011.7   1630.6  10021.6   1631.6  10029.9   1631.8  10037.0
GR   1632.1   10041.2   1632.8  10045.7   1633.3  10052.4   1633.2  10055.5   1632.9  10058.1
GR   1633.0   10062.6   1633.4  10065.7   1635.0  10074.7   1635.4  10088.4   1635.2  10099.8
GR   1634.8   10109.7   1634.7  10118.0   1634.9  10124.5   1635.4  10136.3   1635.8  10148.8
GR   1635.9   10160.1   1636.0  10173.2   1635.8  10184.7   1635.7  10191.8   1636.4  10201.1
GR   1637.2   10213.8   1637.8  10227.5   1637.9  10240.8

NH        5      0.080   9889.1      0.050  10025.9      0.080  10051.9      0.050  10089.5      0.080
NH   10172.
ET                        9.1                                                   9888.0  10109.0
X1   13.079       41   9889.1  10025.9    430.0    425.0    420.0      1.0      0.0      0
GR   1641.6    9830.5   1640.9   9836.0   1637.5   9844.2   1636.9   9856.1   1636.7   9867.3
GR   1637.0    9875.2   1637.0   9889.1   1636.8   9895.5   1635.9   9901.7   1634.5   9909.1
GR   1634.8    9917.3   1635.3   9925.2   1635.2   9935.6   1634.8   9945.2   1634.8   9954.3
GR   1634.6    9965.0   1634.2   9975.5   1634.2   9984.6   1633.6   9991.6   1633.4  10000.0
GR   1633.4   10000.1   1633.4  10008.9   1633.7  10014.6   1636.2  10019.6   1637.2  10025.9
GR   1637.3   10035.3   1637.3  10043.8   1637.1  10051.9   1636.4  10058.3   1635.3  10064.6
GR   1633.4   10072.0   1633.3  10078.0   1633.5  10083.8   1636.5  10089.5   1637.9  10097.7
GR   1638.3   10106.1   1639.3  10118.4   1640.1  10131.9   1640.6  10146.2   1640.6  10157.7
GR   1640.6   10172.2

NC     0.080      0.080   0.060      0.0      0.0
ET                        9.1                                                   9932.0  10430.0
N PT. 34

X1   13.141       68   9968.7  10093.3    300.0    390.0    325.0      1.0      0.0      0
GR   1643.4    9893.0   1643.3   9913.3   1643.3   9919.9   1642.8   9925.0   1641.0   9932.6
GR   1639.6    9940.9   1639.5   9950.3   1639.5   9961.7   1639.5   9968.7   1639.4   9979.5
GR   1638.9    9984.7   1636.8   9992.0   1636.4  10000.0   1636.4  10000.1   1636.2  10008.4
GR   1636.5   10015.2   1636.7  10022.3   1636.9  10032.0   1636.8  10036.2   1637.3  10044.4
GR   1637.3   10049.4   1638.4  10056.9   1638.8  10063.5   1639.0  10070.9   1639.4  10078.1
GR   1640.3   10085.5   1640.6  10093.3   1640.5  10101.8   1640.5  10109.7   1641.0  10119.1
GR   1641.3   10129.1   1640.9  10138.5   1640.8  10147.7   1640.8  10160.2   1640.8  10173.4
GR   1640.7   10189.3   1640.4  10205.8   1640.5  10227.1   1640.7  10238.0   1640.8  10251.5
GR   1640.8   10261.6   1639.7  10267.4   1639.2  10273.2   1639.3  10281.1   1639.0  10287.4
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GR	1639.8	10294.6	1640.0	10303.4	1640.3	10320.4	1639.8	10330.7	1639.4	10342.1
GR	1639.0	10348.2	1639.0	10355.9	1639.4	10367.3	1639.7	10378.6	1639.7	10385.6
GR	1639.2	10391.3	1637.6	10397.7	1636.7	10401.3	1639.0	10408.1	1640.2	10417.4
GR	1641.3	10431.1	1641.5	10443.4	1642.1	10455.2	1642.7	10466.3	1643.0	10478.5
GR	1643.2	10490.5	1643.2	10507.6	1643.3	10521.5				
ET			9.1						9979.0	10680.0
X1	13.223	97	9980.5	10086.8	450.0	425.0	435.0	1.0	0.0	0
GR	1645.5	9924.8	1645.4	9946.2	1645.3	9956.9	1645.3	9968.0	1644.9	9980.5
GR	1643.3	9984.1	1639.7	9986.5	1639.8	9993.8	1640.0	10000.0	1640.0	10008.2
GR	1640.3	10015.5	1640.9	10021.6	1641.5	10026.6	1641.7	10032.4	1641.3	10037.5
GR	1640.4	10042.5	1640.5	10059.8	1640.9	10064.2	1643.6	10069.8	1644.7	10078.5
GR	1644.8	10086.8	1643.0	10094.8	1642.8	10103.5	1642.7	10125.1	1642.4	10133.0
GR	1642.0	10143.1	1642.5	10152.0	1643.2	10162.0	1643.1	10172.7	1644.1	10182.1
GR	1645.1	10195.7	1645.1	10206.8	1644.8	10219.3	1644.8	10228.3	1644.1	10236.4
GR	1642.5	10244.5	1642.7	10252.4	1643.1	10264.3	1643.2	10268.0	1642.9	10293.6
GR	1642.4	10298.9	1641.5	10305.4	1641.9	10313.6	1643.5	10320.1	1644.2	10327.5
GR	1644.4	10335.8	1644.4	10343.3	1644.3	10352.4	1644.2	10368.7	1644.1	10382.6
GR	1644.0	10398.4	1643.8	10407.3	1643.5	10416.8	1643.5	10429.7	1643.5	10439.2
GR	1643.7	10450.1	1644.8	10458.7	1646.0	10471.1	1645.9	10476.1	1645.5	10485.7
GR	1644.9	10497.9	1644.9	10510.3	1645.1	10526.6	1645.1	10543.6	1644.8	10554.6
GR	1644.3	10565.4	1644.0	10575.3	1643.9	10586.0	1643.9	10598.0	1643.9	10610.3
GR	1644.0	10617.7	1643.7	10623.4	1643.1	10631.7	1641.6	10641.0	1640.8	10646.4
GR	1642.2	10653.0	1643.2	10664.0	1643.6	10677.8	1643.6	10686.0	1643.2	10696.9
GR	1642.8	10708.7	1642.9	10720.2	1642.9	10727.6	1643.0	10739.2	1642.9	10757.0
GR	1642.9	10770.7	1642.9	10795.7	1643.0	10812.7	1642.8	10816.9	1642.2	10824.8
GR	1642.7	10836.0	1643.4	10849.0	1644.4	10860.8	1644.4	10868.0	1644.4	10885.0
GR	1644.2	10904.5	1646.0	10985.0						
NC	0.085	0.085	0.060	0.0	0.0					
ET			9.1						9886.0	10607.0
N PT. 33										
X1	13.286	95	9927.4	10053.8	400.0	295.0	330.0	1.0	0.0	0
GR	1648.2	9775.8	1648.2	9796.8	1648.2	9815.1	1648.2	9832.2	1648.0	9851.5
GR	1647.9	9868.2	1646.7	9885.0	1646.4	9889.8	1646.9	9900.3	1646.5	9914.4
GR	1646.5	9927.4	1645.7	9938.6	1643.7	9948.5	1643.5	9961.4	1643.1	9982.6
GR	1643.1	10000.0	1643.1	10000.1	1642.5	10007.4	1643.3	10014.0	1644.5	10022.0
GR	1645.1	10030.8	1645.7	10039.9	1646.7	10053.8	1646.7	10061.9	1645.8	10070.6
GR	1644.0	10078.5	1644.0	10084.6	1645.0	10095.0	1645.6	10115.7	1645.7	10127.8
GR	1645.9	10140.5	1645.9	10155.8	1645.8	10175.8	1645.7	10193.7	1645.6	10210.1
GR	1645.4	10227.1	1645.4	10241.2	1645.4	10253.5	1645.2	10266.7	1644.8	10278.6
GR	1644.8	10287.0	1645.0	10296.7	1644.9	10308.8	1644.9	10321.8	1644.7	10328.2
GR	1644.3	10335.2	1644.8	10343.3	1646.2	10354.2	1646.8	10365.3	1646.9	10374.4
GR	1646.6	10385.5	1646.3	10397.1	1645.9	10409.5	1645.6	10419.9	1645.2	10432.5
GR	1644.4	10444.2	1644.9	10456.4	1645.2	10471.7	1645.1	10488.7	1644.8	10502.5
GR	1644.0	10515.9	1641.8	10528.6	1641.9	10532.7	1643.4	10537.3	1645.0	10549.0
GR	1644.6	10557.6	1643.8	10569.5	1644.1	10577.2	1644.8	10583.6	1644.9	10606.5
GR	1644.7	10629.4	1644.4	10646.6	1644.1	10663.1	1643.8	10677.8	1644.2	10697.4
GR	1644.4	10712.0	1644.4	10728.6	1644.4	10746.8	1645.0	10762.3	1646.3	10778.9
GR	1646.5	10785.5	1646.2	10796.5	1646.2	10797.1	1646.0	10810.0	1646.3	10830.0
GR	1646.0	10840.0	1644.0	10870.0	1643.8	10875.0	1644.0	10880.0	1646.0	10890.0

GR	1646.2	10910.0	1646.0	10930.0	1645.9	10935.0	1646.0	10940.0	1648.0	10970.0
ET		7.1	9.1					10533.0	9900.0	10360.0
X1	13.354	97	9932.1	10015.8	360.0	365.0	360.0	1.0	0.0	0
GR	1651.9	9871.2	1651.7	9879.9	1650.9	9885.3	1650.7	9892.0	1650.6	9897.4
GR	1650.2	9903.9	1649.7	9910.0	1649.5	9915.3	1649.5	9920.5	1649.5	9927.7
GR	1649.5	9932.1	1649.3	9936.4	1648.6	9942.1	1646.9	9948.9	1646.7	9959.0
GR	1645.9	9979.2	1645.9	9998.7	1646.3	10000.0	1646.3	10000.1	1647.1	10006.9
GR	1647.5	10009.5	1649.7	10015.8	1651.5	10027.0	1651.8	10037.6	1652.0	10045.1
GR	1652.0	10051.9	1651.1	10060.1	1650.9	10072.9	1650.8	10083.0	1651.0	10093.0
GR	1651.6	10100.5	1651.9	10104.3	1651.9	10109.7	1651.6	10117.8	1651.3	10126.5
GR	1651.2	10137.7	1651.1	10144.7	1650.9	10157.3	1650.7	10168.5	1650.6	10181.4
GR	1650.5	10194.0	1650.6	10204.1	1650.6	10211.9	1650.7	10217.5	1650.1	10226.1
GR	1649.9	10233.9	1649.8	10248.4	1649.6	10262.9	1649.9	10274.4	1649.8	10280.8
GR	1648.2	10286.7	1646.1	10292.0	1646.4	10298.2	1646.1	10301.1	1646.8	10305.9
GR	1649.5	10311.7	1649.6	10319.2	1649.6	10327.1	1649.5	10334.2	1649.6	10338.6
GR	1650.7	10348.0	1651.8	10359.0	1651.8	10364.0	1651.9	10371.6	1651.9	10375.8
GR	1651.2	10385.2	1651.2	10393.0	1651.2	10399.1	1650.7	10408.3	1650.3	10417.2
GR	1649.9	10424.3	1649.3	10431.9	1648.7	10437.5	1647.9	10442.7	1649.1	10450.2
GR	1650.1	10459.2	1650.2	10463.3	1650.0	10468.9	1649.3	10476.1	1649.5	10482.6
GR	1650.1	10489.8	1650.8	10497.1	1651.4	10507.6	1651.4	10516.5	1651.7	10527.4
GR	1651.8	10533.0	1651.4	10540.4	1651.0	10548.4	1650.9	10556.6	1650.6	10565.8
GR	1650.6	10565.9	1650.0	10590.0	1648.0	10710.0	1647.8	10715.0	1648.0	10720.0
GR	1650.0	10810.0	1651.6	10900.0						
ET		7.1	9.1				9740.0	10570.0	9920.0	10340.0
X1	13.435	71	9963.7	10056.7	430.0	440.0	430.0	1.0	0.0	0
GR	1654.2	9723.3	1654.4	9737.1	1654.5	9748.8	1654.2	9813.2	1654.1	9828.8
GR	1653.5	9842.2	1653.4	9855.0	1653.3	9864.0	1652.7	9877.3	1653.1	9890.0
GR	1653.4	9904.3	1654.1	9917.0	1654.1	9926.4	1653.1	9935.6	1652.4	9951.3
GR	1653.3	9958.3	1653.3	9963.7	1652.7	9970.0	1651.1	9978.5	1650.1	9983.6
GR	1649.0	9991.2	1648.3	10000.0	1648.3	10000.1	1648.3	10016.4	1648.3	10027.8
GR	1648.3	10040.3	1650.0	10046.7	1652.0	10056.7	1652.3	10068.3	1653.3	10077.5
GR	1654.0	10089.8	1654.0	10102.2	1653.8	10115.8	1653.6	10134.7	1653.3	10148.5
GR	1652.2	10163.7	1652.7	10175.6	1652.4	10180.8	1652.2	10190.4	1652.0	10198.4
GR	1651.0	10203.6	1649.7	10206.9	1650.7	10209.5	1652.9	10220.0	1653.4	10228.9
GR	1653.2	10238.3	1653.2	10251.6	1653.1	10265.7	1653.0	10280.5	1653.2	10290.8
GR	1653.5	10298.0	1654.1	10306.2	1654.3	10317.0	1654.5	10328.0	1654.9	10339.3
GR	1654.9	10344.5	1654.9	10344.6	1654.0	10355.0	1652.5	10410.0	1654.0	10430.0
GR	1654.3	10455.0	1654.0	10480.0	1653.8	10500.0	1654.0	10520.0	1655.1	10570.0
GR	1654.0	10630.0	1652.0	10695.0	1651.9	10700.0	1652.0	10705.0	1654.0	10720.0
GR	1655.2	10790.0								
ET		7.1	9.1				9800.0		9926.0	10310.0
X1	13.519	75	9961.6	10065.5	450.0	440.0	440.0	1.0	0.0	0
GR	1656.0	9755.0	1657.0	9799.7	1657.0	9812.4	1656.9	9826.7	1656.8	9838.9
GR	1656.8	9855.6	1656.7	9867.4	1656.8	9880.6	1657.0	9892.5	1657.1	9904.6
GR	1657.2	9917.8	1657.3	9926.5	1657.3	9926.6	1657.3	9926.7	1657.3	9926.8
GR	1657.0	9935.9	1656.3	9945.0	1655.6	9953.5	1655.4	9961.6	1654.5	9970.2
GR	1653.2	9978.9	1652.2	9984.3	1650.9	9988.2	1650.7	10000.0	1650.7	10000.1
GR	1650.5	10012.5	1650.6	10023.8	1651.0	10030.0	1653.7	10038.4	1656.8	10055.2
GR	1657.6	10065.5	1657.7	10074.3	1657.5	10083.6	1657.5	10091.2	1657.5	10098.7

GR	1656.9	10111.7	1656.4	10123.2	1655.5	10133.3	1655.0	10141.7	1654.5	10148.9
GR	1655.0	10156.3	1655.7	10167.3	1655.9	10176.2	1655.5	10185.8	1654.4	10190.2
GR	1654.2	10195.9	1655.4	10199.3	1656.4	10207.6	1656.4	10212.8	1655.9	10218.8
GR	1655.4	10224.6	1655.7	10234.0	1655.7	10252.5	1655.7	10270.1	1655.4	10283.1
GR	1655.6	10295.0	1655.6	10302.0	1655.5	10327.5	1655.4	10343.8	1656.0	10358.1
GR	1656.5	10374.9	1657.0	10388.0	1657.0	10401.4	1657.0	10415.3	1657.5	10432.7
GR	1657.7	10448.9	1657.8	10467.2	1657.9	10487.4	1657.7	10508.6	1657.8	10521.3
GR	1658.0	10539.3	1658.4	10557.2	1659.1	10570.8	1659.3	10584.6	1659.4	10604.7
NC	0.085	0.085	0.055	0.0	0.0					
ET		7.1	9.1				9830.0		9897.0	10200.0
N PT. 603										
X1	13.603	64	9965.1	10057.5	450.0	575.0	445.0	1.0	0.0	0
GR	1659.3	9781.2	1659.5	9789.7	1659.0	9801.6	1659.2	9809.4	1659.8	9823.9
GR	1659.6	9836.0	1659.3	9848.3	1659.4	9863.1	1659.6	9874.4	1660.0	9887.0
GR	1660.3	9897.4	1660.2	9912.1	1660.0	9922.1	1659.2	9929.4	1657.9	9937.7
GR	1657.1	9946.4	1656.9	9957.8	1656.9	9965.1	1656.6	9969.6	1652.4	9974.7
GR	1652.7	9984.8	1652.7	9995.5	1653.1	10000.0	1653.1	10000.1	1653.7	10011.3
GR	1653.9	10020.6	1654.3	10025.4	1657.3	10037.0	1659.5	10051.0	1659.7	10057.5
GR	1659.0	10065.9	1658.9	10076.5	1659.8	10086.6	1660.2	10091.7	1659.9	10098.5
GR	1659.7	10107.8	1659.6	10121.4	1659.9	10130.1	1659.2	10136.5	1658.3	10147.5
GR	1658.6	10155.6	1658.9	10164.0	1659.0	10171.8	1657.9	10178.2	1658.3	10183.0
GR	1659.0	10190.2	1659.1	10201.3	1659.3	10216.6	1659.3	10230.8	1659.0	10242.7
GR	1659.6	10255.4	1659.9	10268.6	1659.8	10282.8	1660.0	10295.5	1660.5	10315.0
GR	1660.5	10323.7	1660.0	10340.0	1659.8	10380.0	1660.0	10400.0	1660.2	10440.0
GR	1660.0	10485.0	1659.8	10500.0	1660.0	10515.0	1662.0	10600.0		
NC	0.080	0.090	0.055	0.0	0.0					
ET		7.1	9.1				9816.9		9880.0	10310.0
N PT. 30										
X1	13.691	59	9930.9	10033.1	440.0	510.0	465.0	1.0	0.0	0
GR	1661.4	9701.5	1661.4	9715.8	1661.4	9739.0	1661.3	9767.7	1661.4	9795.6
GR	1662.3	9816.9	1662.1	9837.9	1662.3	9852.5	1662.0	9865.7	1662.0	9876.8
GR	1662.0	9892.7	1661.8	9903.0	1662.1	9913.1	1662.1	9920.4	1661.6	9930.9
GR	1660.6	9940.6	1658.9	9949.1	1657.4	9958.5	1656.3	9983.1	1656.2	9994.2
GR	1655.9	9998.7	1656.2	10000.0	1656.2	10000.1	1657.8	10005.9	1660.1	10011.8
GR	1662.1	10021.8	1662.5	10033.1	1661.9	10043.9	1661.6	10051.5	1662.6	10057.9
GR	1662.7	10069.6	1662.3	10083.8	1662.1	10091.8	1661.9	10096.3	1662.2	10110.8
GR	1662.5	10122.3	1662.8	10146.8	1662.9	10175.6	1662.9	10184.3	1662.9	10204.4
GR	1663.0	10221.5	1663.1	10237.4	1662.9	10249.3	1662.9	10257.1	1662.3	10280.0
GR	1664.0	10320.0	1664.5	10380.0	1664.0	10455.0	1662.0	10460.0	1661.0	10465.0
GR	1662.0	10470.0	1662.1	10480.0	1661.9	10490.0	1664.0	10530.0	1666.0	10590.0
GR	1665.8	10620.0	1666.0	10640.0	1667.0	10690.0	1666.0	10730.0		
ET			9.1						9948.0	10415.0
X1	13.761	48	9958.7	10068.2	395.0	350.0	370.0	1.0	0.0	0
GR	1666.1	9660.0	1666.0	9665.0	1665.0	9700.0	1665.5	9740.0	1665.2	9780.0
GR	1665.4	9800.0	1665.3	9820.0	1666.0	9900.0	1666.1	9925.0	1666.0	9938.9
GR	1666.1	9948.4	1665.6	9958.7	1663.8	9968.3	1662.6	9976.5	1659.4	10000.0
GR	1659.5	10000.2	1659.9	10011.1	1659.9	10021.1	1659.8	10031.3	1659.9	10035.5

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GR   1661.1   10044.4   1662.2   10056.5   1663.1   10068.2   1663.3   10080.9   1663.0   10091.2
GR   1663.2   10100.0   1664.3   10109.4   1665.1   10122.2   1665.3   10134.1   1665.5   10144.5
GR   1665.5   10157.3   1665.6   10166.6   1665.3   10285.0   1666.0   10385.0   1666.3   10415.0
GR   1666.0   10440.0   1665.9   10460.0   1666.0   10475.0   1665.8   10515.0   1666.0   10565.0
GR   1664.0   10630.0   1663.2   10640.0   1664.0   10650.0   1666.0   10700.0   1665.0   10780.0
GR   1666.0   10810.0   1668.0   10940.0   1668.4   10960.0

NC    0.080    0.080    0.050     0.0      0.0
ET                      9.1                                                    9944.0   10525.0
N PT. 29

X1   13.841       52   9961.4   10032.1   450.0    375.0    420.0     1.0      0.0      0
GR   1668.7   9843.0   1668.6    9855.4   1668.6   9870.5   1668.7   9881.3   1668.8   9888.3
GR   1668.6   9896.8   1668.3    9905.3   1668.4   9915.9   1668.7   9926.6   1668.8   9936.2
GR   1670.0   9942.1   1670.0    9944.2   1669.6   9952.1   1669.2   9961.4   1667.9   9970.2
GR   1664.6   9977.6   1662.2    9983.3   1662.3   9989.0   1662.6   9995.4   1662.7   10000.0
GR   1662.7   10000.1  1663.1    10007.1  1664.3   10011.8  1666.5   10017.0  1668.2   10023.7
GR   1669.3   10032.1  1669.7    10041.6  1669.7   10049.7  1669.7   10056.9  1669.1   10067.3
GR   1669.2   10080.6  1669.2    10093.9  1669.0   10105.4  1669.0   10117.1  1669.0   10131.1
GR   1668.8   10142.4  1668.8    10159.9  1668.6   10169.7  1668.6   10174.5  1668.9   10182.1
GR   1668.9   10183.3  1667.0    10270.0  1667.5   10350.0  1666.8   10430.0  1668.0   10525.0
GR   1666.0   10700.0  1665.4    10705.0  1666.0   10720.0  1668.0   10870.0  1667.9   10910.0
GR   1668.0   10920.0  1670.0    11010.0

NC    0.070    0.070    0.055     0.0      0.0
ET                 7.1    9.1                                   9730.0        9821.0   10360.0
N PT. 28; NEAR LONE MTN. ROAD

X1   13.912       66   9966.8   10057.4   355.0    385.0    375.0     1.0      0.0      0
GR   1670.7   9677.3   1670.7    9700.3   1670.6   9713.0   1670.7   9723.5   1670.9   9736.2
GR   1670.9   9753.0   1670.8    9769.2   1670.8   9789.8   1670.9   9807.2   1671.0   9821.0
GR   1671.1   9839.1   1671.1    9844.5   1670.2   9851.6   1667.3   9860.0   1667.8   9866.8
GR   1669.4   9873.3   1669.9    9878.0   1669.7   9886.3   1669.6   9894.1   1669.6   9905.0
GR   1669.4   9915.0   1669.2    9932.7   1668.5   9938.9   1667.9   9944.0   1668.7   9951.4
GR   1669.1   9966.8   1668.7    9972.3   1667.7   9980.9   1667.3   9992.1   1667.1   10000.0
GR   1667.1   10000.1  1667.3    10011.5  1667.6   10020.5  1667.7   10025.6  1667.5   10031.2
GR   1667.2   10037.8  1667.5    10043.2  1668.2   10050.2  1669.7   10057.4  1670.5   10065.0
GR   1671.1   10079.3  1671.3    10086.0  1670.9   10096.9  1670.8   10106.7  1670.9   10119.7
GR   1671.1   10133.4  1671.0    10144.8  1670.9   10156.3  1670.7   10168.7  1670.7   10169.4
GR   1670.0   10185.0  1669.7    10190.0  1670.0   10195.0  1670.2   10235.0  1670.0   10260.0
GR   1669.5   10285.0  1669.8    10300.0  1669.8   10350.0  1669.4   10500.0  1670.0   10540.0
GR   1671.2   10600.0  1672.0    10620.0  1672.3   10650.0  1672.0   10740.0  1673.2   10825.0
GR   1672.0   10940.0

NC    0.070    0.070    0.050     0.0      0.0
ET                      9.1                                                    9912.0   10325.0
X1   13.987       93   9922.5   10056.6   400.0    415.0    400.0     1.0      0.0      0
GR   1674.2   9480.3   1674.3    9498.2   1674.3   9512.8   1674.4   9525.6   1674.2   9537.2
GR   1674.1   9546.4   1674.1    9561.8   1674.2   9576.8   1674.2   9592.6   1674.2   9606.4
GR   1674.1   9620.2   1674.1    9634.3   1674.1   9644.2   1674.2   9656.2   1674.1   9666.9
GR   1673.6   9677.2   1673.4    9685.8   1673.3   9696.1   1673.3   9705.7   1673.6   9715.9
GR   1673.6   9728.9   1673.5    9737.7   1673.2   9746.9   1673.3   9757.2   1673.4   9774.0
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GR	1673.4	9789.2	1673.6	9803.2	1673.6	9811.4	1673.4	9821.6	1673.4	9831.2
GR	1673.5	9842.6	1673.5	9863.6	1673.9	9881.1	1674.0	9897.4	1674.1	9911.8
GR	1674.0	9922.5	1673.1	9932.6	1672.6	9942.3	1672.1	9950.9	1671.3	9959.7
GR	1670.2	9970.3	1669.3	9986.1	1668.7	9997.9	1668.8	10000.0	1668.8	10000.1
GR	1668.9	10007.3	1669.9	10014.0	1670.0	10016.0	1670.2	10021.4	1671.9	10026.5
GR	1673.5	10035.5	1674.0	10045.5	1674.2	10056.6	1673.8	10070.8	1673.8	10079.1
GR	1673.8	10093.1	1673.9	10104.9	1673.6	10117.0	1673.6	10126.2	1673.6	10139.9
GR	1673.5	10159.0	1673.4	10182.4	1672.9	10198.5	1672.4	10210.0	1672.6	10216.3
GR	1673.1	10231.5	1673.2	10242.0	1672.9	10251.1	1672.6	10257.5	1673.0	10268.0
GR	1672.8	10282.0	1673.2	10296.4	1673.2	10302.8	1672.8	10313.1	1673.6	10324.6
GR	1673.2	10336.9	1673.4	10349.1	1673.1	10365.7	1673.1	10386.0	1673.2	10413.9
GR	1673.1	10450.5	1672.8	10482.8	1672.7	10505.3	1672.9	10526.6	1673.0	10537.8
GR	1674.0	10630.0	1674.3	10670.0	1674.0	10700.0	1673.5	10720.0	1674.0	10750.0
GR	1674.0	10780.0	1674.6	10815.0	1674.7	10930.0				
ET			9.1						9911.0	10370.0
X1	14.076	55	9987.4	10080.2	480.0	470.0	470.0	1.0	0.0	0
GR	1679.2	9865.1	1679.1	9886.4	1679.1	9896.8	1678.5	9906.7	1676.9	9916.6
GR	1676.7	9926.4	1676.7	9936.3	1676.5	9953.1	1676.2	9961.2	1675.8	9970.1
GR	1676.2	9978.0	1676.9	9984.4	1676.8	9987.4	1672.6	9995.0	1672.3	10000.0
GR	1672.3	10000.1	1672.3	10013.9	1672.4	10033.1	1672.8	10041.0	1673.4	10047.6
GR	1674.8	10053.8	1676.3	10063.0	1676.8	10071.8	1677.1	10080.2	1676.5	10086.0
GR	1676.5	10093.9	1677.1	10109.2	1677.5	10121.5	1676.9	10132.6	1676.6	10142.8
GR	1676.4	10155.6	1676.5	10169.0	1676.5	10184.2	1675.9	10197.5	1675.9	10207.9
GR	1676.2	10225.3	1676.3	10243.5	1676.4	10262.9	1676.1	10274.3	1676.4	10287.9
GR	1676.6	10307.1	1676.6	10318.5	1676.0	10324.5	1676.0	10324.6	1676.0	10340.0
GR	1675.5	10345.0	1676.0	10350.0	1677.0	10410.0	1676.0	10535.0	1678.0	10610.0
GR	1678.5	10625.0	1678.0	10640.0	1677.2	10850.0	1678.0	10900.0	1678.6	10940.0
ET			9.1						9878.0	10330.0
X1	14.126	57	9972.4	10059.4	275.0	250.0	260.0	1.0	0.0	0
GR	1681.4	9858.0	1679.0	9882.6	1678.6	9895.1	1678.7	9901.2	1678.5	9909.8
GR	1677.5	9917.2	1676.9	9924.0	1677.2	9932.5	1677.0	9941.5	1676.7	9948.8
GR	1677.0	9961.3	1677.1	9972.4	1676.6	9980.0	1674.6	9989.9	1673.8	10000.0
GR	1673.8	10000.1	1673.8	10022.3	1674.0	10028.9	1675.9	10037.0	1676.8	10042.0
GR	1677.6	10048.7	1679.2	10059.4	1678.4	10063.6	1677.9	10070.7	1678.2	10081.8
GR	1678.5	10095.8	1678.8	10107.6	1678.8	10112.8	1678.1	10119.2	1678.5	10127.5
GR	1678.8	10133.5	1678.4	10136.6	1678.7	10144.0	1679.0	10156.6	1678.9	10164.6
GR	1678.2	10169.4	1678.2	10179.2	1678.4	10188.1	1678.2	10197.1	1678.4	10211.0
GR	1678.5	10223.4	1678.4	10234.9	1678.4	10249.0	1678.4	10260.7	1678.5	10272.6
GR	1678.5	10272.7	1678.0	10290.0	1677.1	10300.0	1678.0	10310.0	1679.1	10355.0
GR	1679.2	10410.0	1679.5	10475.0	1678.0	10550.0	1677.6	10555.0	1678.0	10600.0
GR	1680.0	10685.0	1680.4	10710.0						
NC	0.070	0.070	0.055	0.0	0.0					
ET			9.1						9861.0	10200.0
X1	14.197	76	9918.2	10057.3	380.0	370.0	375.0	1.0	0.0	0
GR	1684.5	9748.7	1683.4	9787.9	1682.7	9796.1	1681.8	9804.6	1681.2	9811.4
GR	1681.4	9815.6	1681.8	9819.6	1682.6	9828.9	1682.6	9836.1	1682.0	9844.0
GR	1681.8	9850.4	1682.7	9860.5	1682.7	9867.5	1682.5	9873.2	1682.1	9882.5
GR	1681.7	9888.8	1681.9	9894.8	1681.9	9902.4	1681.8	9911.8	1681.9	9918.2
GR	1681.7	9921.4	1680.5	9928.7	1680.1	9935.5	1679.1	9940.1	1677.3	9944.9

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GR   1677.0    9961.0   1679.0   9966.7   1679.2   9967.8   1679.2   9973.1   1678.1   9980.6
GR   1677.8    9990.1   1677.4   9999.8   1677.5  10000.0   1677.5  10000.1   1677.7  10010.7
GR   1677.8   10018.4   1678.4  10023.8   1680.2  10032.7   1681.3  10046.1   1681.6  10057.3
GR   1682.2   10073.4   1682.8  10083.2   1682.8  10091.4   1682.3  10100.2   1682.3  10107.1
GR   1682.3   10117.5   1682.3  10127.4   1682.2  10137.4   1682.3  10145.4   1682.0  10149.7
GR   1681.6   10155.3   1681.6  10167.6   1682.5  10172.6   1682.5  10181.8   1682.3  10193.7
GR   1682.4   10201.5   1682.1  10211.3   1682.0  10227.9   1682.1  10241.9   1682.2  10252.6
GR   1682.1   10265.5   1682.1  10274.9   1682.1  10291.7   1681.8  10323.7   1682.3  10388.0
GR   1682.0   10430.0   1682.0  10480.0   1682.2  10520.0   1682.0  10560.0   1681.0  10674.0
GR   1681.5   10710.0   1681.2  10770.0   1681.6  10840.0   1681.3  10875.0   1682.0  10900.0
GR   1683.1   10960.0

NC    0.080    0.080    0.050     0.0       0.0
QT        2   3322.0   3322.0
ET              7.1      9.1                                9762.3  10165.4   9766.0  10150.0
N PT. 27 - Q=3322 CFS FROM FCD

X1   14.310       70   9974.7  10032.7    600.0    690.0    600.0      1.0      0.0       0
GR   1680.1   9604.0   1679.9   9617.0   1680.7   9621.9   1683.7   9630.9   1684.0   9634.3
GR   1684.4   9641.4   1684.6   9652.8   1685.2   9664.3   1684.5   9671.7   1684.3   9683.2
GR   1684.7   9694.5   1685.1   9708.6   1685.6   9726.9   1686.6   9743.8   1687.7   9754.0
GR   1688.2   9762.3   1686.2   9793.2   1686.0   9805.9   1685.7   9817.1   1685.3   9828.2
GR   1685.8   9838.9   1686.1   9850.8   1686.2   9865.3   1686.2   9881.7   1685.2   9893.2
GR   1685.5   9903.2   1686.5   9916.3   1686.6   9931.5   1686.7   9943.7   1686.3   9956.1
GR   1685.9   9967.5   1686.0   9974.7   1685.8   9979.1   1682.0   9989.0   1681.7   9996.0
GR   1681.6  10000.0   1681.6  10000.1   1681.7  10008.3   1683.3  10013.3   1685.6  10025.0
GR   1686.9  10032.7   1687.0  10043.3   1686.9  10055.4   1686.9  10066.6   1687.0  10081.1
GR   1686.6  10091.2   1685.7  10097.3   1686.5  10105.8   1686.7  10113.3   1685.9  10121.0
GR   1685.2  10127.1   1686.1  10134.0   1686.9  10144.9   1687.5  10156.0   1688.1  10165.4
GR   1688.0  10176.8   1687.9  10190.2   1687.8  10203.5   1687.8  10223.3   1687.5  10242.1
GR   1687.3  10257.8   1687.1  10272.6   1686.8  10293.8   1686.8  10305.6   1686.9  10322.3
GR   1686.8  10341.3   1686.9  10359.7   1686.8  10374.0   1686.7  10390.9   1686.7  10406.5

NC    0.085    0.085    0.050     0.0       0.0
ET              7.1      9.1                                9767.3  10200.0   9898.0  10199.0
N PT. 26

X1   14.396       62   9968.8  10036.1    465.0    430.0    455.0      1.0      0.0       0
GR   1683.9   9615.0   1686.0   9625.0   1688.0   9675.0   1690.0   9720.0   1690.6   9767.3
GR   1689.7   9780.4   1689.3   9791.3   1689.2   9802.2   1689.1   9813.7   1689.1   9826.5
GR   1689.5   9843.3   1689.8   9859.8   1690.2   9874.5   1690.5   9886.3   1691.0   9897.4
GR   1691.0   9897.5   1691.0   9897.6   1691.0   9897.7   1690.9   9908.5   1690.6   9918.0
GR   1689.7   9929.5   1689.3   9938.5   1688.5   9944.9   1689.0   9950.3   1689.7   9957.0
GR   1689.4   9968.8   1688.2   9977.3   1685.9   9984.1   1685.0   9993.0   1684.8  10000.0
GR   1685.0  10000.1   1685.0  10000.2   1685.3  10007.9   1685.7  10017.3   1687.7  10025.6
GR   1689.2  10036.1   1689.8  10050.6   1689.8  10059.9   1690.3  10072.8   1690.3  10084.5
GR   1690.4  10096.7   1690.3  10111.6   1689.8  10124.3   1690.0  10133.8   1689.9  10141.7
GR   1688.9  10152.4   1689.3  10161.8   1690.1  10174.3   1690.6  10187.8   1691.1  10199.3
GR   1691.1  10211.2   1691.3  10228.3   1691.2  10240.6   1691.2  10258.7   1691.3  10273.3
GR   1691.2  10287.8   1691.1  10303.3   1691.1  10317.9   1690.7  10329.6   1690.8  10340.8
GR   1690.4  10353.9   1690.6  10366.7
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ET                      9.1                                                  9881.0   10041.0
X1   14.481       61   9924.3  10024.6    465.0    400.0    445.0     1.0      0.0         0
GR   1696.7   9568.4   1696.7   9580.8   1696.7   9594.8   1696.1  9608.7   1695.1    9621.2
GR   1694.6   9636.1   1694.1   9648.7   1693.8   9660.2   1693.2  9667.0   1693.9    9674.2
GR   1694.0   9678.4   1693.4   9686.3   1693.3   9696.6   1693.2  9708.8   1693.2    9720.0
GR   1694.0   9730.3   1694.0   9739.8   1693.9   9746.1   1693.0  9754.8   1691.9    9762.8
GR   1693.1   9770.0   1693.7   9779.3   1694.0   9788.5   1693.7  9797.4   1693.4    9808.9
GR   1693.2   9821.1   1693.1   9830.2   1691.9   9839.5   1692.2  9846.2   1693.3    9857.4
GR   1693.8   9867.4   1693.8   9880.7   1693.7   9895.6   1693.7  9904.9   1693.8    9916.3
GR   1693.7   9924.3   1693.1   9931.8   1691.9   9938.8   1691.5  9945.5   1691.5    9955.1
GR   1691.5   9960.6   1690.5   9969.8   1689.6   9979.0   1689.0  9988.8   1688.7   10000.0
GR   1688.7  10000.1   1688.8  10006.3   1689.5  10008.6   1692.0 10013.1   1694.2   10024.6
GR   1694.5  10040.6   1694.2  10054.0   1694.0  10064.5   1694.1 10090.2   1694.0   10115.0
GR   1693.4  10205.2   1692.8  10285.3   1693.3  10297.4   1693.0 10311.5   1694.0   10337.6
GR   1696.0  10445.8

ET                      9.1                                                  9909.0   10069.0
X1   14.569       53   9934.7  10035.3    450.0    485.0    465.0     1.0      0.0         0
GR   1699.2   9613.3   1698.5   9662.1   1698.2   9674.2   1697.8  9688.0   1698.1    9702.4
GR   1698.2   9717.1   1698.2   9735.2   1697.8   9751.4   1697.4  9764.2   1697.6    9776.8
GR   1697.2   9790.5   1697.0   9806.7   1696.7   9825.6   1696.2  9843.0   1696.2    9857.9
GR   1696.8   9873.5   1696.9   9892.6   1697.0   9909.2   1696.8  9923.5   1697.2    9934.7
GR   1696.8   9941.9   1696.3   9954.3   1695.7   9967.5   1694.2  9975.8   1693.0    9987.7
GR   1692.0   9998.5   1691.6  10000.0   1691.6  10000.1   1691.7 10006.9   1692.4   10011.0
GR   1695.3  10017.9   1695.6  10021.9   1694.6  10025.6   1694.7 10030.1   1696.3   10035.3
GR   1696.3  10047.6   1696.6  10068.7   1696.6  10083.4   1696.9 10101.3   1696.9   10119.7
GR   1697.1  10129.8   1696.8  10141.5   1696.6  10154.2   1696.5 10170.4   1697.1   10188.8
GR   1697.1  10197.4   1697.3  10209.2   1697.7  10225.5   1698.2 10239.6   1698.9   10255.8
GR   1699.1  10269.7   1700.7  10284.9   1700.7  10299.0

NC    0.085    0.085    0.050      0.0      0.0
ET                      9.1                                                  9932.0   10088.0
N PT. 25

X1   14.656       50   9973.0  10043.3    460.0    475.0    460.0     1.0      0.0         0
GR   1704.4   9819.9   1704.0   9833.9   1703.7   9851.8   1703.7  9870.1   1703.1    9889.7
GR   1701.7   9904.6   1701.0   9915.7   1700.6   9932.3   1699.8  9943.5   1699.5    9961.3
GR   1699.6   9973.0   1699.4   9981.6   1698.0   9988.7   1695.9  9995.3   1695.4   10000.0
GR   1695.4  10000.1   1695.5  10007.4   1695.7  10015.1   1695.3 10024.3   1696.0   10030.4
GR   1699.4  10036.4   1700.6  10043.3   1700.6  10051.9   1699.7 10059.9   1699.8   10070.5
GR   1700.7  10088.4   1701.0  10111.4   1701.1  10128.5   1701.2 10140.3   1701.3   10156.7
GR   1701.2  10168.1   1700.7  10178.9   1700.3  10185.6   1699.1 10191.1   1699.9   10195.3
GR   1700.9  10204.4   1701.0  10209.5   1700.9  10212.7   1701.3 10224.5   1701.6   10238.4
GR   1701.9  10253.0   1701.5  10260.3   1701.7  10267.6   1701.8 10280.9   1702.0   10295.4
GR   1702.9  10307.6   1704.4  10322.3   1705.4  10338.4   1705.7 10348.2   1705.6   10358.3

NC    0.085    0.085    0.050      0.0      0.0
ET                      9.1                                                  9964.0   10113.0
N PT. 24

X1   14.711       54   9971.3  10103.5    305.0    260.0    290.0     1.0      0.0         0
GR   1705.7   9778.4   1703.5   9813.8   1702.8   9825.5   1702.7  9832.4   1702.7    9846.7
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GR   1702.5    9855.2   1703.1   9863.6   1702.9   9869.0   1698.1   9877.7   1698.3   9881.1
GR   1700.0    9883.6   1701.6   9889.0   1702.4   9896.8   1701.7   9903.0   1700.4   9908.2
GR   1701.3    9918.1   1702.4   9932.7   1702.8   9955.3   1702.8   9963.7   1702.4   9971.3
GR   1702.0    9980.5   1698.1   9994.3   1698.0   9999.9   1698.2  10000.0   1698.2  10000.1
GR   1698.2   10007.0   1698.9  10012.7   1700.7  10019.4   1701.1  10029.4   1701.2  10039.5
GR   1701.2   10047.9   1700.5  10056.0   1699.8  10060.3   1700.5  10065.7   1700.1  10068.9
GR   1698.8   10075.5   1698.0  10088.1   1698.2  10092.0   1700.7  10099.3   1702.3  10103.5
GR   1702.7   10112.6   1702.7  10129.8   1702.5  10141.1   1702.7  10156.9   1702.7  10186.1
GR   1702.7   10210.5   1702.7  10225.3   1702.2  10243.7   1701.9  10247.3   1702.4  10259.5
GR   1702.4   10272.1   1702.3  10280.2   1704.0  10310.0   1705.0  10370.0

NH       5      0.085   9960.1      0.050  10011.4      0.085  10055.4      0.050  10091.8      0.085
NH   10487.
ET                        9.1                                                      9938.0   10102.0
N PT. 23; "ISLAND"

X1   14.754       87   9939.6  10035.8    225.0    255.0    230.0      1.0      0.0        0
GR   1709.2    9505.3   1709.4   9521.9   1709.4   9538.5   1709.5   9555.8   1709.5   9569.7
GR   1709.0    9583.9   1708.1   9595.1   1708.3   9604.7   1708.6   9611.3   1708.7   9623.2
GR   1708.6    9635.7   1708.1   9647.4   1706.3   9658.3   1705.7   9671.6   1705.2   9680.6
GR   1704.8    9693.1   1704.8   9704.9   1703.7   9715.2   1703.0   9718.8   1703.3   9720.4
GR   1704.1    9728.3   1704.3   9738.1   1704.4   9744.6   1704.5   9751.0   1704.0   9755.9
GR   1700.8    9763.6   1701.6   9766.1   1703.8   9771.4   1704.9   9775.8   1705.0   9783.4
GR   1705.0    9793.7   1704.8   9802.9   1704.6   9822.3   1704.0   9833.2   1704.3   9841.3
GR   1704.5    9854.7   1704.4   9866.2   1704.6   9880.8   1704.5   9893.3   1704.5   9904.8
GR   1704.6    9918.9   1704.7   9931.1   1704.9   9939.6   1704.2   9950.6   1702.9   9960.1
GR   1701.3    9966.1   1702.0   9972.3   1703.1   9978.0   1702.8   9982.6   1700.3   9987.6
GR   1700.3    9996.4   1700.0  10000.0   1700.0  10000.1   1700.5  10008.0   1700.8  10011.4
GR   1703.3   10018.0   1704.2  10026.4   1704.7  10035.8   1704.7  10045.5   1704.2  10055.4
GR   1703.3   10064.0   1704.1  10070.6   1704.1  10075.7   1703.6  10084.6   1704.4  10091.8
GR   1704.5   10102.4   1704.6  10114.9   1704.6  10128.8   1704.5  10141.9   1704.6  10150.9
GR   1704.9   10164.4   1705.1  10176.4   1705.4  10193.8   1705.3  10214.1   1705.0  10233.0
GR   1705.1   10258.3   1705.0  10280.0   1705.1  10315.3   1705.1  10348.2   1705.3  10363.1
GR   1705.3   10389.0   1705.3  10413.2   1705.9  10428.2   1706.6  10444.5   1706.9  10462.4
GR   1707.1   10484.8   1707.1  10487.0

NC    0.085      0.085      0.050      0.0      0.0
ET                        9.1                                                      9883.0   10115.0
N VALUES MODIFIED FROM PT. 23, SECTION 68

X1   14.845       69   9905.5  10033.6    480.0    500.0    480.0      1.0      0.0        0
GR   1711.9    9459.8   1711.3   9480.3   1710.5   9491.4   1710.2   9505.6   1709.4   9520.7
GR   1709.3    9533.5   1709.0   9548.4   1709.0   9566.6   1708.7   9582.3   1708.5   9597.2
GR   1708.1    9607.5   1707.4   9618.3   1707.7   9623.9   1707.8   9631.9   1708.1   9650.5
GR   1708.3    9664.4   1707.9   9678.1   1708.2   9685.7   1708.1   9689.4   1706.7   9696.7
GR   1707.7    9702.8   1708.5   9712.8   1708.6   9726.0   1708.6   9749.1   1708.7   9766.7
GR   1708.8    9787.7   1708.9   9814.2   1709.0   9835.1   1708.0   9853.1   1707.9   9870.4
GR   1707.9    9887.3   1707.8   9905.5   1707.0   9922.1   1705.6   9935.0   1705.7   9941.5
GR   1707.1    9947.9   1707.8   9959.5   1707.8   9969.6   1707.5   9979.1   1703.9   9991.4
GR   1703.9   10000.0   1703.9  10000.1   1703.9  10000.2   1704.8  10012.8   1705.6  10020.7
GR   1706.6   10028.0   1707.3  10033.6   1707.0  10039.5   1705.8  10046.2   1706.6  10052.6
GR   1707.4   10064.5   1708.0  10081.0   1708.2  10100.5   1708.3  10115.1   1708.9  10135.3
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GR   1709.3   10149.9   1708.9   10167.0   1708.6   10180.8   1708.3   10195.9   1707.9   10202.6
GR   1708.5   10211.2   1709.5   10223.4   1710.0   10236.9   1710.2   10251.7   1710.3   10264.7
GR   1710.7   10280.4   1711.0   10294.8   1711.6   10307.2   1712.0   10315.2

NC    0.080    0.080    0.050     0.0      0.0
ET                      9.1                                                     9883.0   10076.0
N PT. 22

X1   14.937      53    9939.7   10028.1   500.0     480.0     485.0     1.0      0.0        0
GR   1717.2   9612.3   1716.5    9620.3   1715.4    9630.9   1714.5   9641.4   1713.6   9651.7
GR   1713.6   9664.4   1713.8    9674.1   1714.4    9685.3   1714.9   9696.5   1714.9   9706.0
GR   1714.2   9716.2   1713.8    9726.9   1713.4    9741.4   1712.5   9755.4   1711.1   9765.1
GR   1711.6   9769.6   1712.7    9776.2   1712.3    9782.5   1710.7   9788.1   1711.4   9793.8
GR   1712.8   9803.3   1711.1    9868.6   1710.2    9873.9   1711.8   9882.6   1711.4   9896.2
GR   1711.1   9907.1   1711.6    9920.6   1711.7    9932.7   1712.3   9939.7   1711.6   9948.2
GR   1709.8   9958.4   1709.8    9967.2   1710.0    9974.6   1708.9   9982.8   1707.6   9991.1
GR   1707.6   9999.9   1707.3   10000.0   1707.3   10000.1   1707.5   10009.0  1709.3   10017.6
GR   1711.3  10028.1   1710.9   10032.4   1709.5   10040.6   1710.8   10048.7  1711.2   10061.5
GR   1712.1  10075.6   1713.6   10096.0   1713.6   10103.8   1713.1   10111.4  1713.5   10124.4
GR   1714.0  10138.9   1714.8   10152.8   1714.8   10165.7

ET                      9.1                                                     9883.0   10111.0
X1   14.976      46    9955.0   10035.9   205.0     225.0     205.0     1.0      0.0        0
GR   1718.4   9637.2   1718.4    9644.8   1717.9    9655.4   1716.9   9666.2   1716.4   9677.9
GR   1714.3   9691.0   1713.4    9705.0   1713.4    9718.4   1713.2   9731.9   1713.3   9744.7
GR   1713.7   9754.9   1714.3    9771.2   1714.4    9785.7   1714.4   9796.5   1713.4   9811.2
GR   1712.5   9822.1   1713.2    9829.8   1713.7    9843.7   1713.6   9857.3   1713.4   9869.8
GR   1713.3   9882.8   1713.9    9897.2   1714.1    9911.3   1714.2   9925.4   1714.2   9941.1
GR   1713.8   9955.0   1713.0    9961.5   1710.9    9970.8   1709.1   9975.4   1709.8   9984.4
GR   1709.0   9994.6   1709.1   10000.0   1709.1   10000.1   1710.1   10009.9  1711.8   10015.4
GR   1712.8  10023.5   1713.4   10035.9   1713.3   10050.2   1713.8   10059.7  1713.0   10070.7
GR   1712.4  10081.1   1712.8   10091.0   1714.2   10110.5   1714.6   10129.8  1714.8   10147.3
GR   1716.0  10166.1

NC    0.070    0.070    0.065     0.0      0.0
QT        2   3035.0   3035.0
ET                      9.1                                                     9896.0   10148.0
N PT. 21; REV. Q=3035 FROM FCD

X1   15.044      50    9969.3   10048.9   405.0     335.0     360.0     1.0      0.0        0
GR   1719.7   9819.4   1719.7    9829.1   1719.3    9839.9   1718.4   9853.3   1717.2   9864.9
GR   1715.0   9874.8   1715.7    9884.8   1716.4    9896.1   1716.3   9910.3   1716.2   9928.6
GR   1716.2   9945.2   1716.8    9961.1   1716.8    9969.3   1716.0   9977.1   1713.1   9986.4
GR   1712.8   9995.6   1712.9   10000.0   1712.9   10000.1   1713.3   10013.7  1713.3   10022.1
GR   1714.2  10030.9   1715.3   10039.9   1716.1   10048.9   1715.8   10053.4  1716.7   10062.8
GR   1716.8  10079.1   1717.0   10097.7   1717.4   10116.3   1717.5   10135.9  1717.6   10148.1
GR   1717.3  10159.0   1717.1   10171.1   1716.8   10182.5   1716.7   10191.1  1716.7   10201.5
GR   1716.7  10213.5   1716.7   10230.0   1716.5   10249.0   1716.2   10261.6  1715.9   10271.6
GR   1716.4  10280.6   1716.8   10294.3   1716.9   10307.8   1717.3   10324.5  1717.7   10338.7
GR   1718.1  10355.5   1718.1   10371.2   1718.0   10371.7   1720.0   10481.7  1720.0   10516.7

NH        4    0.055   9762.1     0.085   9879.8     0.055  10031.7     0.085  10161.8
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 ET                      9.1                                                  9810.0    10032.0
N PT. 20

 X1   15.118        50  9879.8  10031.7     340.0     410.0     390.0     1.0     0.0         0
 GR   1722.1    9580.0  1720.0   9615.0    1718.0    9650.0    1717.9  9670.0  1718.0    9675.0
 GR   1720.1    9762.1  1720.1   9775.2    1719.9    9789.0    1719.8  9809.6  1719.0    9826.1
 GR   1719.0    9828.1  1719.1   9838.0    1719.2    9851.0    1719.3  9858.7  1718.9    9867.5
 GR   1719.7    9874.2  1720.6   9879.8    1720.3    9887.1    1720.0  9896.9  1719.8    9909.3
 GR   1719.5    9921.0  1719.2   9929.4    1718.9    9936.9    1718.3  9945.0  1717.8    9952.6
 GR   1717.9    9970.6  1718.0   9979.3    1717.8    9991.4    1717.5 10000.0  1717.5   10000.1
 GR   1717.8   10006.8  1718.8  10010.4    1719.4   10015.4    1720.1 10023.4  1720.4   10031.7
 GR   1720.3   10043.6  1720.3  10052.4    1720.2   10058.5    1720.3 10065.5  1720.2   10074.3
 GR   1720.4   10083.4  1721.0  10091.6    1721.0   10096.9    1721.5 10105.2  1722.2   10116.2
 GR   1722.2   10125.3  1722.5  10134.6    1722.7   10142.8    1722.7 10151.4  1722.7   10161.8

 NH       3      0.075  9976.1      0.055  10122.5     0.075  10331.1
 ET                      9.1                                                  9920.0    10133.0
N PT. 19

 X1   15.208        49  9976.1  10122.5     425.0     520.0     475.0     1.0     0.0         0
 GR   1725.6     9800.  1724.0     9828.    1723.7     9840.    1724.0  9850.  1724.8     9920.
 GR   1724.0     9960.  1723.9     9963.6   1723.8    9971.7    1724.0  9976.1  1721.8    9982.6
 GR   1720.9    9986.1  1720.9     9993.9   1720.9   10000.0    1720.9 10000.1  1721.2   10006.5
 GR   1722.0   10011.3  1723.1    10017.9   1723.5   10025.6    1723.7 10032.5  1723.8   10038.8
 GR   1723.5   10046.2  1722.7    10052.4   1721.7   10056.4    1722.2 10061.6  1722.8   10066.5
 GR   1722.8   10073.4  1722.5    10079.5   1722.8   10083.6    1723.7 10089.4  1723.8   10093.7
 GR   1723.5   10098.8  1722.6    10104.6   1722.0   10109.3    1722.3 10112.8  1723.3   10116.3
 GR   1724.1   10122.5  1724.4    10132.5   1724.5   10150.5    1724.5 10170.7  1724.5   10191.3
 GR   1724.6   10209.6  1724.7    10229.6   1725.0   10250.1    1725.2 10272.8  1725.2   10290.5
 GR   1725.7   10303.8  1726.6    10313.2   1727.1   10322.1    1727.4 10331.1

 NC    0.075      0.075  0.055      0.0       0.0
 ET                      9.1                                                  9959.0    10126.0
 X1   15.298        50  9975.5  10064.8     515.0     450.0     475.0     1.0     0.0         0
 GR   1730.7    9931.0  1730.7   9931.4    1730.7    9939.6    1730.5  9946.9  1730.3    9954.8
 GR   1729.8    9962.2  1728.5   9969.1    1728.3    9975.5    1727.6  9982.4  1726.6    9989.2
 GR   1725.1    9994.2  1724.9  10000.0    1724.9   10000.1    1725.0 10007.6  1725.0   10015.3
 GR   1725.8   10020.8  1726.2  10025.7    1726.4   10034.1    1726.4 10041.2  1727.2   10046.8
 GR   1727.5   10052.6  1727.8  10061.1    1727.9   10064.8    1727.9 10075.0  1728.0   10084.3
 GR   1727.5   10091.1  1727.4  10099.1    1727.6   10106.0    1727.9 10115.4  1728.0   10126.3
 GR   1727.9   10135.4  1727.8  10146.2    1727.7   10155.5    1727.8 10163.6  1727.6   10176.6
 GR   1727.8   10186.5  1728.1  10195.5    1727.6   10203.4    1727.8 10212.2  1727.8   10220.1
 GR   1727.4   10228.6  1728.2  10236.7    1728.2   10246.5    1728.7 10260.2  1729.3   10275.0
 GR   1730.0   10292.7  1731.0  10308.9    1731.2   10320.2    1731.3 10331.6  1731.5   10343.9

 NH       9      0.10  9750.1      0.06   9782.3      0.10   9836.2     0.06  9901.8      0.10
 NH  9982.4      0.05 10033.0      0.10  10044.3      0.05  10065.3     0.10 10218.0
 ET                      9.1                                                  9836.0    10130.0
N PT. 18; "ISLAND"

 X1   15.379        50  9964.8  10072.9     450.0     415.0     430.0     1.0     0.0         0
 GR   1734.9    9708.9  1734.9   9708.9    1734.7    9724.6    1733.6  9738.0  1731.6    9750.1
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GR   1729.1    9759.0   1730.0    9762.8   1730.5    9768.7   1729.9    9775.1   1731.1    9782.3
GR   1732.6    9797.2   1733.0    9810.3   1732.8    9823.5   1732.2    9836.2   1731.3    9848.6
GR   1730.7    9858.2   1728.9    9868.1   1729.3    9870.9   1730.7    9880.7   1731.4    9895.4
GR   1731.6    9901.8   1730.9    9911.9   1731.3    9919.8   1730.6    9927.6   1731.1    9936.0
GR   1731.6    9949.6   1731.8    9964.8   1731.6    9975.3   1731.3    9982.4   1729.4    9993.1
GR   1729.3    9999.9   1729.1   10000.0   1729.1   10000.1   1729.3   10008.2   1728.9   10016.0
GR   1729.1   10023.0   1730.5   10033.0   1731.1   10040.6   1730.6   10044.3   1729.3   10052.5
GR   1729.4   10058.6   1730.5   10065.3   1731.1   10072.9   1731.2   10084.4   1732.1   10115.0
GR   1732.8   10144.2   1734.0   10181.3   1734.4   10196.2   1734.9   10215.2   1734.9   10218.0

NH       5       0.10   9770.0       0.06   9829.0       0.10   9975.2       0.05  10057.8       0.10
NH   10318.
ET                      9.1                                                        9742.0   10094.0
N VALUE MODOFIED FROM PT. 18, SECTION 76

X1   15.443        51   9975.2   10057.8    335.0       355.0    335.0       1.0       0.0          0
GR   1736.5    9705.0   1736.0    9740.0   1734.0    9770.0   1732.0    9801.7   1733.0    9811.0
GR   1733.8    9829.0   1734.3    9869.0   1734.7    9886.2   1734.7    9903.5   1734.7    9921.5
GR   1734.9    9938.9   1734.7    9954.8   1734.9    9965.9   1734.9    9975.2   1733.3    9980.8
GR   1732.0    9986.7   1731.8    9999.3   1731.6   10000.0   1731.6   10000.1   1731.9   10008.4
GR   1732.4   10013.6   1733.6   10020.4   1734.0   10026.4   1733.9   10031.9   1732.4   10038.1
GR   1731.8   10042.7   1732.0   10047.5   1733.2   10053.0   1734.0   10057.8   1733.6   10063.4
GR   1733.4   10070.0   1734.0   10079.4   1735.4   10089.0   1736.8   10100.8   1736.8   10112.9
GR   1736.7   10123.7   1736.5   10133.8   1736.1   10146.5   1736.0   10157.3   1735.9   10167.3
GR   1735.6   10170.9   1734.5   10176.3   1735.2   10183.3   1735.8   10195.8   1736.4   10213.1
GR   1736.6   10229.9   1737.0   10248.7   1737.8   10274.6   1738.1   10294.4   1738.3   10310.8
GR   1738.3   10318.3

NH       9       0.10   9577.5       0.06   9643.0       0.10   9699.7       0.06   9764.9       0.10
NH   9978.6       0.06  10037.0       0.10  10124.7       0.06  10176.0       0.10  10353.4
ET                      9.1                                                        9914.0   10249.0
N PT. 17

X1   15.500        81   9978.6   10176.0    300.0       295.0    300.0       1.0       0.0          0
GR   1739.6    9418.7   1739.6    9434.2   1739.4    9452.8   1739.4    9471.4   1739.1    9486.2
GR   1739.0    9500.5   1738.9    9515.1   1738.9    9528.2   1738.8    9541.4   1738.8    9553.4
GR   1738.3    9566.3   1738.7    9577.5   1738.3    9582.6   1737.7    9592.8   1736.6    9601.5
GR   1736.5    9605.7   1736.3    9610.3   1735.6    9614.4   1737.2    9620.2   1737.8    9627.8
GR   1738.2    9635.0   1738.0    9643.0   1737.5    9654.4   1737.3    9665.3   1737.3    9678.5
GR   1737.3    9688.3   1737.0    9699.7   1736.3    9709.8   1736.0    9719.5   1736.0    9725.2
GR   1736.5    9729.5   1736.4    9735.1   1736.4    9742.6   1737.2    9751.3   1737.8    9764.9
GR   1737.5    9780.7   1737.3    9793.1   1737.6    9805.8   1738.0    9819.7   1738.6    9840.3
GR   1738.7    9861.0   1738.9    9879.8   1739.0    9913.5   1738.2    9935.8   1737.5    9956.0
GR   1737.7    9970.4   1737.7    9978.6   1734.9    9989.6   1734.9    9999.7   1734.6   10000.0
GR   1734.6   10000.1   1735.7   10007.2   1736.5   10015.0   1737.4   10026.1   1737.9   10037.0
GR   1737.6   10046.0   1736.9   10058.3   1736.1   10065.4   1736.3   10076.9   1736.9   10089.7
GR   1736.5   10102.6   1736.6   10112.6   1737.0   10118.6   1737.2   10124.7   1736.9   10132.8
GR   1734.9   10143.0   1734.2   10149.8   1733.9   10156.3   1733.9   10161.2   1735.5   10168.1
GR   1736.6   10176.0   1736.7   10183.2   1735.9   10191.3   1735.9   10200.6   1736.8   10214.4
GR   1737.7   10231.3   1738.9   10252.4   1739.5   10276.2   1739.7   10299.7   1740.1   10327.0
GR   1740.6   10353.4
```

NH	7	0.10	9908.7	0.06	9949.4	0.10	9982.3	0.06	10020.6	0.10
NH	10068.	0.06	10144.2	0.10	10507.3					
ET			9.1						9784.0	10198.0
X1	15.581	90	9982.3	10144.2	380.0	460.0	430.0	1.0	0.0	0
GR	1742.9	9430.9	1742.9	9431.0	1742.9	9431.1	1742.9	9431.2	1742.9	9442.3
GR	1742.6	9456.4	1742.4	9472.8	1741.6	9487.2	1740.6	9506.0	1740.6	9520.1
GR	1740.1	9533.2	1740.5	9542.0	1740.8	9552.7	1739.8	9560.8	1740.4	9572.5
GR	1741.0	9585.0	1740.8	9601.9	1741.2	9615.3	1741.0	9628.0	1740.2	9640.3
GR	1740.2	9645.8	1740.9	9657.5	1740.7	9669.5	1740.9	9681.2	1741.2	9699.2
GR	1741.1	9714.2	1740.8	9731.2	1740.8	9748.1	1741.1	9766.0	1741.4	9784.2
GR	1741.2	9803.5	1741.1	9823.3	1741.3	9843.9	1741.4	9866.8	1741.5	9888.3
GR	1741.5	9908.7	1740.7	9921.4	1740.4	9928.0	1738.5	9935.0	1740.2	9942.5
GR	1741.3	9949.4	1741.3	9956.4	1740.9	9973.0	1741.0	9982.3	1738.8	9990.9
GR	1738.8	9998.5	1738.8	10000.0	1738.8	10000.1	1739.6	10006.9	1740.8	10013.8
GR	1741.3	10020.6	1741.3	10029.9	1741.4	10047.2	1741.6	10062.2	1741.6	10068.8
GR	1740.8	10079.4	1739.3	10088.8	1737.5	10096.2	1737.2	10106.8	1737.6	10114.7
GR	1739.2	10120.4	1739.6	10126.9	1739.7	10134.4	1740.2	10144.2	1739.8	10152.9
GR	1740.1	10162.5	1740.5	10169.9	1741.3	10178.7	1741.7	10190.3	1741.8	10198.1
GR	1741.3	10209.9	1739.8	10217.8	1739.2	10222.9	1740.3	10228.6	1740.8	10238.5
GR	1741.0	10248.8	1741.2	10261.0	1740.9	10272.6	1740.8	10287.0	1741.3	10303.3
GR	1741.5	10320.1	1741.7	10341.3	1742.0	10358.8	1743.2	10375.6	1744.0	10391.2
GR	1744.9	10409.0	1744.9	10423.7	1745.2	10437.5	1745.3	10451.7	1745.7	10507.3
NH	7	0.10	9882.6	0.06	10019.0	0.10	10108.2	0.06	10169.3	0.10
NH	10290.	0.06	10420.0	0.10	10620.0					
ET			9.1						9889.0	10230.0
X1	15.637	58	9975.9	10019.0	285.0	300.0	295.0	1.0	0.0	0
GR	1745.6	9808.4	1745.6	9823.7	1745.6	9842.1	1745.6	9857.2	1745.6	9871.1
GR	1745.2	9882.6	1744.4	9891.7	1742.2	9901.7	1742.5	9905.6	1744.3	9926.7
GR	1742.4	9946.8	1742.7	9951.6	1744.3	9961.0	1744.7	9975.9	1744.4	9983.1
GR	1742.4	9989.9	1742.2	9998.6	1742.0	10000.0	1742.0	10000.1	1742.7	10007.2
GR	1743.9	10012.8	1745.0	10019.0	1745.2	10025.6	1745.2	10033.1	1745.9	10061.0
GR	1745.3	10090.2	1744.7	10100.0	1743.8	10108.2	1743.5	10124.4	1741.9	10130.9
GR	1739.4	10137.8	1739.4	10143.7	1739.5	10150.6	1740.3	10156.2	1741.7	10162.7
GR	1742.5	10169.3	1742.6	10175.6	1742.5	10182.0	1742.7	10188.2	1743.2	10194.5
GR	1743.7	10201.2	1744.2	10209.4	1744.7	10216.7	1744.8	10225.2	1745.0	10230.0
GR	1744.0	10255.0	1744.0	10290.0	1742.0	10335.0	1740.0	10360.0	1741.8	10380.0
GR	1742.0	10400.0	1744.0	10420.0	1744.5	10440.0	1744.0	10460.0	1743.6	10490.0
GR	1744.0	10520.0	1746.0	10550.0	1747.0	10620.0				
NH	5	0.10	9929.7	0.06	10015.0	0.10	10260.0	0.06	10360.6	0.10
NH	10515.									
ET			9.1						9929.0	10388.0
X1	15.683	59	9929.7	10015.0	235.0	255.0	245.0	1.0	0.0	0
GR	1748.9	9830.0	1748.0	9895.0	1747.0	9929.7	1746.0	9945.0	1745.0	9951.7
GR	1746.4	9959.0	1746.9	9966.7	1747.1	9970.6	1747.0	9978.4	1746.4	9986.0
GR	1744.4	9994.2	1744.1	10000.0	1744.1	10000.1	1744.8	10005.7	1746.0	10010.0
GR	1748.0	10015.0	1748.2	10030.0	1748.0	10040.0	1747.8	10060.0	1748.0	10080.0
GR	1748.1	10090.0	1748.0	10095.0	1748.0	10145.0	1748.3	10170.0	1748.0	10215.0
GR	1746.8	10221.0	1746.4	10235.3	1746.1	10248.0	1745.8	10260.0	1744.7	10269.6
GR	1742.9	10277.8	1741.1	10285.3	1741.0	10292.4	1741.4	10298.6	1742.5	10301.6
GR	1744.1	10305.4	1744.9	10309.8	1744.6	10315.3	1743.0	10322.5	1741.9	10329.6

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GR   1741.7   10335.4   1742.0   10339.4   1743.8   10344.1   1745.2   10352.3   1745.5   10360.6
GR   1746.3   10369.4   1746.9   10378.0   1747.0   10387.5   1747.0   10397.2   1746.5   10407.9
GR   1746.2   10422.5   1746.0   10435.2   1746.2   10444.7   1746.3   10452.8   1746.5   10466.3
GR   1746.8   10470.0   1748.0   10480.0   1748.1   10502.3   1748.2   10515.0

NH       7       0.08   9977.2       0.06  10028.1       0.08  10173.3       0.06  10212.1       0.08
NH   10371.       0.06  10545.2       0.08  10795.0
QT       2     1275.0   1150.0
ET                 7.1      9.1                                          10247.9   9857.0   10226.0
N PT. 16; START SPLIT FLOW Q=1275 CFS - MAIN

X1   15.749        91   9977.2   10028.1       355.0       345.0       345.0       1.0       0.0        0
GR   1752.3    9740.0   1752.0    9778.0   1750.7    9792.6   1750.2    9800.7   1747.9    9807.2
GR   1747.7    9811.6   1749.5    9815.5   1750.8    9822.8   1750.7    9830.4   1750.9    9846.5
GR   1751.2    9856.8   1750.9    9861.1   1749.3    9869.1   1749.5    9874.1   1750.8    9882.2
GR   1750.8    9894.3   1751.0    9908.2   1750.8    9918.9   1750.9    9931.1   1751.1    9940.5
GR   1751.2    9950.4   1751.3    9958.7   1751.6    9967.6   1751.6    9977.2   1751.2    9982.7
GR   1748.7    9992.4   1748.1    9996.9   1748.2   10000.0   1748.2   10000.1   1748.6   10004.8
GR   1750.4   10008.4   1751.8   10013.5   1752.1   10028.1   1751.8   10057.5   1751.4   10081.4
GR   1751.5   10107.6   1751.5   10126.5   1750.7   10145.5   1750.3   10155.9   1750.8   10169.2
GR   1750.7   10173.3   1745.7   10183.3   1750.1   10191.9   1750.5   10196.6   1750.9   10212.1
GR   1751.4   10222.8   1752.6   10234.9   1753.1   10247.9   1752.0   10262.0   1751.8   10283.9
GR   1751.6   10293.2   1751.3   10311.3   1751.4   10324.1   1751.0   10343.2   1750.5   10356.7
GR   1749.9   10371.6   1749.6   10382.0   1748.7   10396.4   1747.8   10400.1   1748.6   10407.2
GR   1749.1   10412.0   1748.7   10416.5   1745.6   10423.6   1745.4   10427.7   1745.7   10434.1
GR   1746.8   10441.3   1747.5   10449.6   1748.3   10457.3   1748.4   10465.3   1748.5   10474.7
GR   1748.2   10483.1   1746.7   10490.1   1746.6   10495.2   1747.4   10500.5   1747.5   10505.9
GR   1747.2   10509.3   1748.7   10518.2   1748.8   10524.7   1748.8   10531.3   1749.1   10545.2
GR   1750.5   10565.9   1750.7   10573.6   1750.7   10585.1   1750.7   10598.3   1750.0   10630.0
GR   1748.0   10690.0   1747.0   10700.0   1748.0   10710.0   1750.0   10720.0   1752.0   10730.0
GR   1753.6   10795.0

NH       7       0.08   9960.2       0.06  10026.9       0.08  10159.0       0.06  10259.3       0.08
NH   10771.       0.06  10847.3       0.08  11010.0
ET                 7.1      9.1                                          10425.1   9907.0   10339.0
X1   15.842        82   9960.2   10026.9       505.0       495.0       495.0       1.0       0.0        0
GR   1758.0    9765.0   1756.5    9850.0   1757.0    9892.0   1757.3    9906.6   1757.2    9925.6
GR   1756.9    9937.2   1756.4    9943.8   1756.7    9951.4   1756.8    9960.2   1755.6    9967.1
GR   1755.5    9975.1   1755.3    9979.6   1754.4    9987.2   1754.2   10000.0   1754.2   10007.4
GR   1755.4   10011.9   1757.2   10018.1   1757.5   10026.9   1757.5   10040.2   1757.4   10052.1
GR   1757.1   10066.1   1757.1   10079.0   1756.8   10159.0   1754.6   10167.2   1755.1   10174.1
GR   1755.9   10180.2   1755.8   10185.6   1756.1   10191.4   1756.6   10201.3   1756.7   10210.5
GR   1756.6   10221.1   1756.2   10231.5   1755.0   10237.1   1754.3   10242.9   1755.6   10248.9
GR   1756.9   10259.3   1756.9   10271.8   1756.5   10287.7   1756.4   10316.1   1756.6   10329.7
GR   1757.5   10341.9   1759.4   10425.1   1759.4   10432.2   1758.3   10449.2   1757.6   10469.2
GR   1756.9   10482.2   1751.8   10626.4   1751.6   10630.7   1753.1   10639.0   1753.1   10646.7
GR   1752.4   10656.7   1751.5   10663.4   1751.1   10666.9   1752.1   10672.7   1753.7   10681.7
GR   1753.8   10690.6   1754.0   10702.1   1753.9   10720.6   1753.5   10733.7   1753.2   10744.0
GR   1753.0   10756.4   1752.7   10766.1   1752.9   10771.9   1752.2   10778.2   1751.0   10784.5
GR   1752.3   10790.4   1752.9   10796.5   1753.1   10803.9   1753.1   10812.2   1752.2   10817.3
GR   1750.7   10823.5   1749.1   10830.5   1748.6   10838.1   1749.5   10843.2   1751.4   10847.3
GR   1752.8   10855.3   1754.9   10863.8   1755.3   10868.3   1755.7   10879.9   1756.0   10885.0
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GR	1756.5	10970.0	1756.0	11010.0						
NH	5	0.08	9974.5	0.06	10068.3	0.08	10940.0	0.06	10999.0	0.08
NH	11080.									
ET		7.1	9.1					10430.5	9910.0	10308.0
X1	15.890	96	9974.5	10068.3	250.0	275.0	250.0	1.0	0.0	0
GR	1760.8	9704.7	1759.6	9797.4	1759.4	9804.0	1759.4	9817.7	1759.5	9832.0
GR	1759.5	9847.1	1759.5	9864.0	1759.5	9882.3	1759.7	9897.7	1759.8	9913.0
GR	1759.8	9931.3	1760.1	9948.1	1760.3	9964.6	1760.5	9974.5	1760.3	9981.4
GR	1759.7	9986.6	1757.0	9993.0	1757.0	9999.9	1756.5	10000.0	1756.5	10000.1
GR	1756.9	10004.6	1758.4	10009.8	1760.2	10017.6	1760.2	10026.5	1760.0	10037.6
GR	1759.0	10045.7	1759.0	10050.5	1758.3	10055.1	1758.8	10061.6	1760.0	10068.3
GR	1759.9	10076.1	1759.5	10087.6	1759.4	10099.9	1759.5	10111.2	1760.2	10122.4
GR	1760.8	10132.7	1760.8	10145.4	1760.2	10155.0	1759.6	10163.3	1758.1	10170.2
GR	1759.6	10177.1	1760.2	10181.9	1760.2	10190.8	1760.2	10203.7	1759.8	10213.4
GR	1759.6	10223.5	1759.1	10230.1	1758.4	10236.9	1758.6	10241.3	1759.7	10245.7
GR	1759.8	10255.7	1759.9	10268.3	1760.4	10281.9	1760.4	10293.3	1762.3	10430.5
GR	1760.9	10542.7	1756.8	10656.1	1756.1	10665.2	1757.0	10671.6	1755.6	10680.5
GR	1756.7	10687.0	1756.9	10693.2	1756.5	10707.3	1756.5	10716.4	1756.3	10728.1
GR	1756.6	10738.4	1756.8	10751.9	1757.2	10765.3	1757.4	10778.2	1757.3	10793.2
GR	1756.6	10804.7	1756.0	10814.5	1756.6	10823.6	1756.4	10833.0	1755.7	10840.5
GR	1756.4	10849.2	1756.9	10856.6	1756.8	10866.3	1756.7	10879.4	1756.8	10892.6
GR	1756.9	10906.0	1756.6	10919.6	1756.1	10931.6	1755.8	10940.0	1755.7	10949.2
GR	1755.2	10959.4	1752.3	10969.1	1752.0	10979.9	1752.1	10989.8	1754.7	10995.4
GR	1757.9	10999.0	1758.6	11009.3	1758.6	11021.9	1758.0	11040.0	1757.0	11065.0
GR	1758.0	11080.0								
NH	5	0.08	9982.7	0.06	10051.2	0.08	10847.8	0.06	10998.5	0.08
NH	11147.									
ET		7.1	9.1				9691.0	10468.7	9919.0	10337.0
X1	15.898	97	9982.7	10087.6	45.0	45.0	45.0	1.0	0.0	0
GR	1759.0	9525.5	1759.1	9533.3	1759.8	9555.4	1759.6	9580.8	1759.8	9601.5
GR	1760.2	9620.6	1760.5	9639.7	1760.4	9647.1	1759.8	9654.4	1760.4	9666.5
GR	1761.0	9691.0	1760.6	9719.7	1760.4	9743.6	1759.7	9832.5	1760.0	9886.9
GR	1760.3	9904.5	1760.2	9919.4	1760.6	9934.2	1760.6	9949.4	1760.3	9966.1
GR	1760.5	9973.6	1760.8	9982.7	1760.0	9986.6	1757.4	9992.4	1757.4	9999.9
GR	1757.3	10000.0	1757.6	10007.1	1759.8	10011.4	1760.5	10018.1	1760.7	10030.3
GR	1760.4	10039.1	1759.0	10051.2	1759.1	10056.3	1760.1	10062.2	1760.3	10068.3
GR	1760.4	10079.1	1760.5	10087.6	1760.0	10095.9	1760.1	10104.5	1760.6	10113.8
GR	1761.2	10123.7	1761.2	10133.5	1760.7	10143.4	1759.8	10153.9	1758.7	10159.3
GR	1760.0	10166.2	1760.4	10173.3	1760.4	10185.0	1760.4	10192.2	1760.5	10208.2
GR	1760.4	10228.4	1760.4	10245.0	1760.6	10265.3	1760.5	10271.4	1760.0	10282.9
GR	1758.8	10292.1	1759.6	10298.3	1760.3	10308.7	1760.8	10320.3	1763.7	10468.7
GR	1760.7	10528.4	1763.9	10569.8	1758.4	10641.6	1760.0	10772.0	1761.1	10791.8
GR	1759.7	10825.2	1759.5	10834.6	1759.8	10847.8	1760.1	10859.8	1760.1	10872.8
GR	1759.5	10884.1	1758.5	10895.0	1756.8	10904.9	1756.9	10916.2	1757.6	10919.9
GR	1759.2	10930.7	1759.1	10935.2	1758.4	10945.3	1756.2	10954.8	1757.0	10961.0
GR	1756.8	10965.1	1754.3	10971.9	1754.6	10978.4	1755.6	10983.5	1757.9	10990.8
GR	1759.6	10998.5	1759.3	11006.7	1759.5	11017.0	1759.5	11023.2	1759.4	11036.3
GR	1759.8	11048.6	1760.2	11061.7	1761.2	11079.8	1762.2	11099.7	1762.7	11117.3
GR	1763.3	11133.8	1763.3	11147.5						

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NH       7      0.08    9937.6     0.06   10006.6     0.08   10797.9     0.06   10835.4     0.08
NH   10881.      0.06   10924.0     0.08   10976.9
ET              7.1       9.1                                        10455.8    9913.0   10358.0
X1   15.932       88    9937.6   10006.6     195.0     175.0     180.0      1.0      0.0         0
GR   1763.8   9750.6    1763.2    9768.5    1762.3    9781.9    1762.0    9798.8   1761.9    9810.9
GR   1761.9   9826.2    1762.2    9840.5    1762.4    9856.9    1762.6    9874.2   1762.8    9893.7
GR   1763.0   9913.0    1762.7    9928.7    1762.7    9937.6    1762.7    9945.3   1761.6    9955.0
GR   1760.5   9963.5    1760.1    9974.9    1759.7    9982.1    1760.0   10000.0   1760.0   10000.1
GR   1760.9  10002.2    1762.0   10006.6    1762.0   10016.6    1762.2   10033.3   1762.7   10055.1
GR   1762.7  10075.3    1762.7   10096.6    1762.6   10112.4    1762.3   10123.6   1761.6   10129.4
GR   1761.1  10137.8    1761.7   10141.9    1761.8   10144.9    1761.2   10150.9   1762.4   10158.8
GR   1763.0  10167.1    1762.8   10177.5    1762.8   10186.3    1762.9   10198.8   1762.8   10211.5
GR   1762.8  10234.4    1762.5   10250.6    1762.4   10265.6    1762.4   10279.5   1762.0   10286.4
GR   1761.4  10296.6    1761.9   10309.5    1762.3   10320.5    1762.1   10332.3   1762.3   10342.7
GR   1762.9  10355.7    1763.4   10368.6    1764.7   10398.1    1765.2   10421.4   1765.8   10455.8
GR   1764.0  10500.0    1765.3   10525.0    1764.0   10560.0    1762.0   10580.0   1760.0   10605.0
GR   1762.0  10620.0    1762.5   10630.0    1762.0   10640.0    1761.0   10660.0   1762.0   10700.0
GR   1764.0  10722.0    1764.4   10739.8    1764.3   10754.5    1763.9   10768.2   1763.9   10781.8
GR   1763.9  10792.7    1763.8   10797.9    1761.7   10806.9    1760.2   10814.7   1760.0   10819.8
GR   1760.7  10825.0    1763.2   10830.4    1763.8   10835.4    1764.1   10853.5   1763.8   10862.1
GR   1763.6  10871.3    1763.4   10881.4    1762.9   10892.2    1760.7   10901.1   1760.1   10907.1
GR   1763.1  10924.0    1764.1   10953.7    1765.2   10976.9

NH       5      0.08    9964.6     0.06   10036.6     0.08   10560.4     0.06   10622.4     0.08
NH   10995.
ET              7.1       9.1                                        10159.1    9878.0   10148.0
X1   16.021       88    9964.6   10036.6     515.0     450.0     470.0      1.0      0.0         0
GR   1770.3   9679.3    1768.5    9731.4    1768.3    9749.4    1768.3    9768.5   1768.0    9785.3
GR   1768.0   9802.3    1767.8    9813.4    1767.4    9819.2    1768.4    9828.8   1768.2    9845.1
GR   1768.2   9858.2    1767.9    9867.2    1768.4    9878.6    1768.3    9898.2   1768.3    9914.2
GR   1767.9   9922.2    1766.2    9928.9    1766.2    9932.8    1767.3    9938.1   1767.6    9944.9
GR   1768.6   9955.6    1768.7    9964.6    1768.0    9974.8    1765.6    9985.3   1765.3    9996.9
GR   1765.0  10000.0    1765.0   10000.1    1765.4   10006.9    1767.3   10013.9   1767.7   10016.8
GR   1768.1  10024.8    1768.3   10036.6    1768.2   10049.1    1768.4   10064.6   1768.7   10079.2
GR   1768.8  10098.4    1768.8   10118.7    1768.3   10134.7    1768.9   10146.8   1770.0   10159.1
GR   1769.6  10170.9    1769.0   10182.5    1768.5   10192.1    1768.3   10200.8   1769.2   10236.1
GR   1767.4  10254.1    1768.3   10261.4    1768.7   10273.0    1768.7   10284.7   1768.3   10294.4
GR   1769.0  10302.0    1768.5   10306.5    1767.2   10313.0    1767.3   10318.6   1768.9   10324.8
GR   1769.8  10341.3    1771.6   10362.5    1771.6   10378.7    1771.4   10393.6   1770.5   10407.1
GR   1769.3  10459.9    1770.3   10499.6    1770.5   10511.0    1769.5   10522.2   1769.9   10536.8
GR   1770.0  10549.3    1770.2   10560.4    1769.6   10571.8    1768.0   10580.6   1766.7   10588.4
GR   1766.6  10595.0    1768.0   10603.6    1769.7   10615.2    1769.9   10622.4   1769.4   10633.6
GR   1768.9  10647.2    1769.1   10656.0    1770.7   10670.2    1771.2   10679.5   1771.2   10688.1
GR   1770.0  10710.0    1769.7   10760.0    1770.0   10790.0    1771.3   10830.0   1770.0   10875.0
GR   1768.0  10925.0    1770.0   10970.0    1770.4   10995.0

NH       5      0.08    9969.8     0.06   10045.6     0.08   10329.9     0.06   10385.7     0.08
NH   10760.
QT       2    1875.0    1750.0
ET              7.1       9.1                                        10258.6    9917.0   10236.0
SPLIT FLOW - Q=1875 CFS - MAIN CHANNEL
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X1    16.112      63    9969.8   10045.6     510.0     475.0     480.0       1.0       0.0         0
GR    1775.1   9660.    1774.0    9688.    1773.0    9696.    1774.0    9703.    1776.0    9710.
GR    1776.3   9721.1   1776.1    9729.9   1775.7    9739.8   1775.3    9748.0   1774.5    9756.4
GR    1774.3   9766.4   1774.2    9777.7   1773.7    9789.8   1773.5    9804.1   1773.1    9813.5
GR    1773.9   9916.9   1773.3    9924.6   1772.5    9931.8   1772.8    9941.3   1773.5    9951.3
GR    1773.7   9960.5   1774.0    9969.8   1773.0    9975.6   1771.1    9983.4   1769.6    9991.7
GR    1769.7  10000.0   1769.7   10000.1   1769.7   10008.7   1770.3   10013.0   1772.8   10017.3
GR    1774.0  10045.6   1773.4   10069.5   1772.4   10088.5   1772.7   10109.1   1773.9   10184.8
GR    1773.2  10212.5   1773.7   10224.8   1774.5   10236.7   1774.9   10247.7   1775.0   10258.6
GR    1774.9  10269.7   1774.5   10278.7   1773.7   10289.8   1773.2   10304.3   1772.7   10317.5
GR    1772.1  10329.9   1770.9   10341.3   1769.6   10352.3   1769.3   10360.5   1769.1   10367.2
GR    1770.5  10374.2   1771.7   10385.7   1772.1   10399.3   1772.4   10424.7   1771.6   10447.3
GR    1772.1  10483.7   1774.3   10531.5   1774.0   10560.0   1772.0   10590.0   1770.0   10640.0
GR    1772.0  10710.0   1773.0   10735.0   1772.0   10760.0

NH         5      0.08    9978.2       0.06  10033.1       0.08  10175.9       0.06  10221.8       0.08
NH     10370.
QT         2    1875.0    2995.0
ET                 7.1       9.1                                          10050.2    9926.0   10252.0
X1    16.164      53    9978.2   10033.1     240.0     315.0     275.0       1.0       0.0         0
GR    1778.0   9650.0   1778.0    9675.0   1776.0    9685.0   1774.5    9700.0   1776.0    9715.0
GR    1776.8   9725.7   1776.9    9735.7   1776.7    9748.8   1776.7    9761.9   1776.4    9776.0
GR    1776.4   9790.6   1776.4    9807.2   1776.5    9820.1   1776.4    9839.9   1776.3    9860.6
GR    1776.4   9882.5   1776.4    9897.5   1776.9    9919.2   1777.1    9934.0   1777.3    9948.5
GR    1777.4   9964.6   1777.4    9978.2   1777.1    9985.2   1772.9    9990.6   1772.6   10000.0
GR    1772.6  10000.1   1772.9   10007.2   1773.9   10011.8   1776.6   10016.2   1777.6   10022.5
GR    1778.0  10033.1   1778.2   10050.2   1778.2   10067.1   1778.2   10084.5   1778.2   10098.0
GR    1778.2  10111.2   1777.3   10125.6   1776.9   10139.2   1777.1   10153.2   1777.3   10165.1
GR    1777.0  10175.9   1775.4   10184.7   1773.7   10194.5   1773.4   10204.3   1774.0   10210.6
GR    1776.3  10221.8   1777.2   10235.0   1777.4   10251.6   1777.4   10265.2   1777.4   10279.5
GR    1777.9  10309.8   1778.0   10320.0   1778.4   10370.0

NC      0.08      0.08      0.06       0.0       0.0
QT         2    2995.0    2995.0
ET                 7.1       9.1                                          10115.1    9926.0   10080.0
END SPLIT FLOW - Q=2995 CFS

X1    16.254      45    9933.9   10039.8     475.0     485.0     475.0       1.0       0.0         0
GR    1783.8   9680.0   1783.3    9730.0   1783.7    9775.0   1782.3    9805.0   1783.2    9830.0
GR    1783.2   9918.0   1783.5    9925.7   1782.9    9933.9   1780.5    9944.3   1779.3    9956.8
GR    1778.6   9968.7   1778.4    9980.8   1777.8    9988.8   1777.2    9994.1   1776.9   10000.0
GR    1776.9  10000.1   1777.5   10007.3   1779.1   10014.1   1779.9   10023.9   1781.4   10031.2
GR    1782.1  10039.8   1782.0   10044.7   1781.7   10049.6   1782.7   10057.9   1783.0   10069.5
GR    1783.5  10082.9   1783.6   10101.1   1783.7   10115.5   1783.2   10129.9   1782.4   10144.5
GR    1781.9  10164.4   1781.6   10179.5   1781.8   10197.7   1782.3   10214.4   1782.0   10230.5
GR    1782.0  10280.0   1780.0   10360.0   1778.0   10370.0   1777.0   10380.0   1778.0   10385.0
GR    1780.0  10400.0   1780.5   10425.0   1780.2   10440.0   1782.0   10460.0   1784.0   10530.0

NH         5    0.080    9888.2       0.050  9956.2       0.080  9977.8       0.050  10010.5       0.080
NH     10129.
ET                       9.1                                                        9889.0   10011.0
```

N PT. 15

X1	16.345	27	9977.8	10010.5	480.0	485.0	480.0	1.0	0.0	0
GR	1789.1	9864.3	1789.3	9876.5	1789.3	9881.9	1788.4	9888.2	1784.8	9899.8
GR	1785.2	9907.9	1785.3	9912.9	1785.4	9917.6	1784.5	9926.6	1784.3	9933.2
GR	1783.4	9937.3	1783.4	9947.3	1784.1	9956.2	1784.2	9966.7	1784.2	9977.8
GR	1783.4	9985.5	1782.4	9993.1	1782.5	10000.0	1782.5	10000.1	1782.8	10005.5
GR	1789.0	10010.5	1788.7	10016.2	1788.4	10044.1	1788.3	10068.6	1788.3	10086.9
GR	1788.7	10107.4	1789.0	10129.0						
NC	0.080	0.080	0.050	0.0	0.0					
ET			9.1						9935.0	10053.0

N PT. 14

X1	16.421	44	9963.7	10022.7	410.0	400.0	400.0	1.0	0.0	0
GR	1794.8	9829.7	1794.8	9829.8	1794.8	9829.9	1794.8	9845.4	1794.5	9858.9
GR	1794.4	9875.2	1794.3	9894.0	1794.3	9907.6	1794.3	9920.8	1793.8	9933.2
GR	1791.3	9942.8	1790.3	9949.6	1790.8	9954.6	1791.0	9963.7	1790.1	9973.0
GR	1789.5	9982.1	1788.8	9993.9	1788.4	10000.0	1788.4	10000.1	1788.4	10008.9
GR	1791.6	10016.6	1791.9	10022.7	1791.3	10029.9	1791.4	10038.9	1792.8	10053.2
GR	1792.8	10066.2	1792.7	10088.0	1792.3	10101.4	1792.4	10116.3	1792.6	10134.6
GR	1792.9	10151.7	1792.8	10170.1	1792.5	10190.5	1793.0	10200.0	1792.3	10293.0
GR	1792.0	10330.0	1791.9	10340.0	1792.0	10350.0	1792.5	10400.0	1792.0	10440.0
GR	1791.9	10445.0	1792.0	10456.0	1794.0	10480.0	1795.0	10510.0		
NC	0.08	0.080	0.065	0.0	0.0					
ET			9.1						9853.0	10063.0

N PT. 13

X1	16.481	44	9955.7	10016.6	290.0	365.0	315.0	1.0	0.0	0
GR	1799.1	9772.2	1799.1	9772.3	1799.1	9772.4	1798.9	9787.2	1798.3	9798.3
GR	1797.7	9807.6	1795.6	9815.7	1796.2	9820.8	1796.6	9823.2	1795.6	9828.1
GR	1793.7	9833.5	1794.3	9842.3	1795.0	9852.7	1794.5	9863.3	1794.8	9878.9
GR	1795.0	9896.4	1795.2	9908.3	1795.1	9923.4	1794.9	9935.9	1795.2	9946.2
GR	1795.1	9955.7	1793.6	9967.6	1792.4	9979.2	1791.4	9989.7	1791.6	10000.0
GR	1791.6	10000.1	1792.2	10004.0	1793.8	10009.5	1795.0	10016.6	1794.6	10028.4
GR	1794.7	10037.8	1795.0	10050.8	1795.7	10058.2	1797.2	10063.2	1797.2	10074.4
GR	1796.9	10088.8	1796.7	10104.0	1796.6	10113.6	1796.3	10123.5	1795.5	10133.6
GR	1796.3	10146.9	1797.5	10161.3	1797.9	10175.9	1798.2	10193.2		
NC	0.065	0.080	0.050	0.0	0.0					
ET			9.1						9979.0	10089.0

N PT. 12

X1	16.551	48	9979.2	10054.7	380.0	335.0	370.0	1.0	0.0	0
GR	1802.6	9966.0	1802.6	9966.1	1802.6	9966.2	1802.6	9966.3	1802.0	9972.2
GR	1800.9	9979.2	1796.6	9987.4	1796.4	9994.9	1796.3	10000.0	1796.3	10000.1
GR	1796.5	10005.9	1797.9	10011.5	1798.0	10014.0	1797.6	10017.7	1797.0	10020.4
GR	1797.6	10023.5	1798.5	10030.2	1799.0	10034.6	1798.7	10039.3	1798.5	10042.7
GR	1798.9	10049.0	1799.4	10054.7	1798.8	10059.7	1798.5	10065.5	1798.8	10073.8
GR	1799.1	10082.5	1799.4	10088.8	1799.3	10094.2	1798.8	10099.0	1798.6	10105.3
GR	1798.5	10112.7	1798.5	10119.5	1798.4	10126.2	1798.6	10138.8	1798.9	10150.0

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 GR   1798.8   10157.4   1798.8   10167.4   1798.6   10180.8   1798.6   10187.4   1799.0   10195.6
 GR   1799.0   10205.3   1799.1   10216.5   1798.4   10224.5   1798.3   10228.6   1798.8   10233.8
 GR   1799.7   10239.8   1800.0   10260.0   1801.1   10300.0

 NC    0.080    0.075    0.050     0.0      0.0
 ET                      9.1                                                      9837.0   10097.0
N PT. 11

 X1   16.628      40    9954.4   10019.4   455.0     365.0    410.0     1.0      0.0        0
 GR   1806.9   9744.5   1806.5    9772.5   1805.7    9783.0   1805.4   9806.3   1805.2    9818.0
 GR   1805.9   9828.0   1805.9    9837.4   1805.9    9847.5   1805.7   9856.1   1804.9    9865.4
 GR   1804.4   9873.4   1804.4    9881.5   1804.4    9890.7   1804.5   9898.7   1804.3    9906.3
 GR   1804.0   9918.7   1804.0    9926.1   1804.3    9935.1   1804.2   9944.2   1803.5    9954.4
 GR   1802.3   9964.0   1801.6    9978.5   1801.0   10000.0   1801.0  10000.1   1801.2   10006.5
 GR   1802.6  10013.5   1803.8   10019.4   1803.8   10028.1   1804.1  10041.8   1804.7   10056.7
 GR   1805.2  10071.5   1805.3   10085.2   1805.0   10096.9   1805.0  10130.0   1804.2   10175.0
 GR   1804.0  10180.0   1803.2   10187.0   1804.0   10198.0   1806.0  10217.0   1807.2   10255.0

 NC    0.080    0.080    0.050     0.0      0.0
 ET                      9.1                                                      9933.0   10060.0
N PT. 10

 X1   16.714      26    9939.7   10014.5   380.0     505.0    450.0     1.0      0.0        0
 GR   1811.1   9773.8   1810.4    9860.5   1810.0    9893.9   1809.7   9917.9   1809.4    9928.2
 GR   1809.5   9933.3   1808.5    9939.7   1806.6    9949.9   1806.1   9960.6   1806.0    9971.1
 GR   1805.9   9983.6   1805.5   10000.0   1805.5   10000.1   1805.8  10004.4   1807.3   10007.0
 GR   1808.0  10014.5   1808.0   10022.6   1807.7   10032.0   1807.1  10040.5   1806.9   10047.1
 GR   1807.5  10051.9   1810.1   10056.3   1811.4   10064.5   1812.1  10074.1   1812.1   10082.8
 GR   1812.3  10097.3

 NC    0.080    0.080    0.055     0.0      0.0
 ET                      9.1                                                      9893.0   10041.0
N PT. 9

 X1   16.788      43    9947.1   10021.0   410.0     390.0    390.0     1.0      0.0        0
 GR   1815.5   9675.0   1814.3    9705.0   1816.0    9729.0   1816.2   9733.4   1816.2    9744.8
 GR   1815.8   9757.1   1815.7    9771.0   1815.5    9784.9   1815.5   9796.6   1815.7    9808.9
 GR   1815.7   9820.1   1815.9    9834.6   1816.0    9852.2   1815.8   9864.2   1815.4    9876.3
 GR   1815.5   9886.8   1815.5    9892.6   1814.5    9899.4   1812.5   9904.5   1813.2    9910.4
 GR   1812.9   9915.4   1812.4    9923.3   1812.6    9935.7   1812.6   9947.1   1812.1    9954.5
 GR   1811.2   9963.1   1810.9    9970.7   1810.2    9980.3   1809.1   9987.5   1808.9   10000.0
 GR   1808.9  10000.1   1809.1   10006.7   1811.0   10013.7   1813.2  10021.0   1814.0   10030.2
 GR   1814.0  10041.3   1814.6   10051.7   1815.5   10062.9   1816.4  10074.3   1817.4   10087.9
 GR   1817.6  10100.0   1817.8   10116.6   1817.7   10128.1

 NC    0.070    0.080    0.045     0.0      0.0
 ET                      9.1                                                      9981.0   10108.0
N PT. 8

 X1   16.861      44    9981.8   10055.6   365.0     435.0    390.0     1.0      0.0        0
 GR   1820.6   9805.    1820.0    9855.    1818.0    9915.    1818.9   9941.3   1819.6    9955.4
 GR   1819.8   9970.2   1819.6    9981.8   1817.8    9984.5   1813.0   9988.8   1812.9   10000.0
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GR   1812.9   10000.1   1812.9   10008.4   1813.0   10012.2   1814.5   10020.1   1815.5   10031.2
GR   1816.0   10043.9   1816.5   10055.6   1816.7   10064.1   1816.8   10075.3   1817.0   10083.8
GR   1816.8   10091.0   1816.3   10097.9   1817.3   10103.3   1817.9   10108.3   1817.9   10112.7
GR   1817.7   10119.0   1817.9   10127.7   1818.0   10136.5   1818.0   10146.1   1818.1   10154.1
GR   1818.2   10163.6   1818.2   10170.4   1818.2   10178.1   1817.4   10187.6   1817.9   10194.3
GR   1818.6   10204.6   1819.2   10213.7   1819.4   10224.0   1820.2   10234.2   1821.2   10244.5
GR   1821.9   10255.0   1822.3   10265.4   1822.3   10277.1   1822.5   10292.8

NC    0.085    0.070    0.045     0.0       0.0
ET                      9.1                                                     9960.0   10032.0
N PT. 7

X1   16.936      32    9966.1   10025.4    445.0    345.0    395.0      1.0      0.0        0
GR   1825.5   9854.8   1825.5    9854.9   1825.5   9855.0   1825.5   9867.0   1825.1   9893.6
GR   1824.4   9905.7   1823.1    9916.8   1821.4   9924.6   1819.7   9927.9   1821.8   9933.0
GR   1822.5   9942.6   1823.2    9952.0   1823.8   9960.3   1823.3   9966.1   1820.7   9974.6
GR   1817.7   9983.0   1817.1   10000.0   1817.1   10000.1   1817.1   10013.5   1819.9   10019.1
GR   1821.9   10025.4  1822.2   10031.5   1821.7   10040.0   1822.2   10055.2   1822.7   10075.8
GR   1822.7   10093.5  1823.0   10107.2   1823.6   10121.6   1823.6   10134.9   1823.9   10152.1
GR   1824.2   10169.2  1824.6   10185.3

NC    0.080    0.080    0.045     0.0       0.0
ET                      9.1                                                     9910.0   10080.0
N PT. 6

X1   17.011      22    9970.0   10039.0    345.0    445.0    395.0      1.0      0.0        0
X3        0     0.0       0.0       0.0      0.0      0.0      0.0      0.0      0.0
GR   1828.0    9750.   1826.6     9828.   1827.6    9910.   1826.0    9970.   1821.6   9985.7
GR   1821.3   9996.7   1821.4   10000.0   1821.4   10000.1   1821.8   10008.8   1821.9   10015.3
GR   1822.0   10019.8  1824.0   10025.5   1825.1   10032.1   1825.8   10039.0   1825.9   10045.4
GR   1825.7   10052.9  1825.6   10059.1   1825.5   10068.0   1826.2   10073.5   1827.5   10079.5
GR   1829.7   10085.3  1830.6   10092.4

ET                      9.1                                                     9935.0   10037.0
X1   17.046      25    9955.2   10025.8    210.0    180.0    185.0      1.0      0.0        0
GR   1831.6   9898.8   1831.6    9898.8   1831.6   9898.9   1831.6   9899.0   1830.8   9910.0
GR   1829.9   9921.9   1829.2    9932.9   1828.5   9941.1   1826.7   9948.6   1824.7   9955.2
GR   1824.2   9963.2   1824.0    9972.7   1823.4   9984.6   1823.2   10000.0  1823.2   10000.1
GR   1823.6   10015.1  1825.8   10019.2   1827.1   10025.8   1828.9   10036.5   1829.0   10049.4
GR   1830.7   10059.3  1831.3   10068.5   1831.5   10078.4   1831.6   10091.0   1831.6   10109.1

ET                      9.1                                                     9962.0   10056.0
X1   17.135      23    9982.3   10016.3    495.0    470.0    470.0      1.0      0.0        0
GR   1835.6   9893.4   1835.6    9913.5   1835.5   9925.3   1834.8   9936.3   1833.8   9943.9
GR   1834.9   9952.3   1835.5    9961.6   1834.6   9970.3   1831.8   9982.3   1828.0   9989.3
GR   1827.5   10000.0  1827.5   10000.1   1827.5   10005.8   1829.5   10010.5   1832.4   10016.3
GR   1832.8   10025.1  1833.3   10040.2   1833.7   10056.2   1833.7   10069.9   1833.7   10079.7
GR   1834.5   10090.6  1835.8   10099.9   1835.9   10110.8

NC    0.085    0.085    0.050     0.0       0.0
ET                      9.1                                                     9942.0   10110.0
```

N PT. 5

X1	17.200	35	9976.8	10022.6	365.0	330.0	345.0	1.0	0.0	0
GR	1841.3	9886.1	1840.8	9922.4	1839.7	9937.0	1839.0	9951.9	1837.5	9964.2
GR	1836.8	9976.8	1836.2	9980.8	1833.6	9990.0	1833.3	10000.0	1833.3	10000.1
GR	1833.6	10010.6	1835.0	10016.0	1836.8	10022.6	1837.5	10032.5	1837.5	10040.7
GR	1836.8	10051.9	1836.3	10065.0	1836.2	10076.4	1836.6	10086.2	1837.8	10098.6
GR	1838.2	10109.6	1838.2	10117.7	1838.1	10127.8	1837.9	10139.6	1837.6	10153.1
GR	1837.1	10163.9	1836.7	10175.0	1837.0	10183.5	1837.4	10193.1	1838.2	10207.4
GR	1838.9	10220.8	1839.6	10233.6	1840.1	10244.2	1840.2	10255.5	1840.2	10267.9
NC	0.080	0.080	0.050	0.1	0.3					
QT	2	2785.0	2785.0							
ET			9.1						9955.0	10043.0

OVERLAP PREVIOUS STUDY; NEW Q=2785 CFS PER FCD

X1	17.262	22	9966.1	10039.9	300.0	355.0	325.0	1.0	0.0	0
GR	1844.5	9822.2	1843.8	9849.3	1843.2	9865.8	1842.7	9883.1	1841.6	9898.9
GR	1841.6	9916.0	1842.0	9929.7	1842.5	9939.2	1842.6	9955.2	1841.9	9966.1
GR	1840.6	9976.3	1838.5	9986.3	1838.5	9994.6	1837.9	10000.0	1837.9	10000.1
GR	1837.5	10017.2	1837.6	10025.7	1839.8	10033.6	1842.5	10039.9	1843.4	10050.4
GR	1844.6	10067.7	1844.7	10079.0						
ET			9.1						9970.0	10065.0
X1	17.319	43	9977.1	10042.5	260.0	300.0	300.0	1.0	0.0	0
GR	1846.4	9836.3	1846.4	9864.3	1846.4	9877.7	1846.0	9890.9	1845.0	9906.1
GR	1844.6	9924.3	1844.4	9937.5	1844.4	9954.4	1844.4	9967.9	1843.6	9977.1
GR	1841.0	9984.2	1840.6	9992.4	1840.8	10000.0	1840.8	10000.1	1841.4	10010.4
GR	1842.7	10020.1	1843.2	10030.5	1843.4	10042.5	1843.8	10053.2	1843.5	10061.4
GR	1843.4	10077.3	1843.8	10091.0	1844.8	10105.8	1845.1	10115.8	1845.1	10122.7
GR	1844.3	10136.9	1844.2	10150.5	1844.8	10161.9	1845.2	10175.7	1845.4	10187.2
GR	1845.2	10198.6	1845.0	10212.4	1845.0	10231.6	1844.9	10248.6	1844.6	10267.7
GR	1844.6	10289.6	1844.7	10309.9	1846.1	10327.1	1847.2	10343.3	1848.6	10358.9
GR	1849.3	10373.8	1849.6	10387.1	1849.6	10401.4				
ET			9.1						9955.0	10051.0
X1	17.364	32	9966.5	10031.7	200.0	260.0	240.0	1.0	0.0	0
GR	1849.8	9749.5	1849.9	9766.9	1849.6	9784.7	1849.4	9804.7	1849.2	9824.4
GR	1849.0	9840.9	1848.3	9856.5	1848.4	9868.7	1848.7	9881.2	1848.5	9896.8
GR	1848.4	9913.5	1848.3	9928.1	1848.3	9941.0	1848.0	9954.5	1847.3	9966.5
GR	1846.3	9977.4	1845.6	9984.9	1843.7	9993.8	1843.8	10000.0	1843.8	10000.1
GR	1843.3	10010.4	1844.3	10015.1	1846.5	10022.5	1847.2	10031.7	1846.8	10041.0
GR	1847.6	10051.1	1848.1	10065.6	1849.0	10083.6	1849.2	10101.2	1849.7	10116.2
GR	1849.8	10132.5	1850.1	10147.9						
NC	0.0	0.0	0.0	0.3	0.5					
ET			9.1						9967.0	10089.0

N VALUES AND COEFF. FROM R\PREVIOUS WLB STUDY

X1	17.425	36	9970.2	10025.9	300.0	325.0	320.0	1.0	0.0	0
GR	1855.6	9955.4	1855.6	9955.5	1855.2	9960.3	1852.0	9970.2	1849.1	9978.4
GR	1845.7	9983.1	1845.7	9987.5	1846.1	9994.2	1847.2	9999.9	1846.4	10000.0

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GR   1846.4   10000.1   1848.3   10006.1   1849.8   10011.3   1849.5   10017.4   1850.3   10025.9
GR   1850.6   10035.0   1850.5   10045.0   1850.2   10055.3   1850.7   10065.0   1852.0   10073.2
GR   1852.9   10081.6   1853.1   10088.6   1852.1   10095.0   1852.0   10106.5   1852.3   10129.3
GR   1852.3   10146.2   1852.3   10165.9   1851.9   10183.5   1852.0   10199.2   1852.1   10215.3
GR   1852.3   10231.3   1852.4   10248.0   1852.8   10262.6   1853.3   10277.6   1854.1   10287.7
GR   1854.2   10295.6

NC    0.080     0.080    0.050      0.0       0.0
ET                         9.1                                                   9890.0   10037.0
N VALUES FROM PREVIOSUS STUDY BY OTHERS

X1   17.476        30   9893.7   10027.4     270.0     270.0     270.0       1.0      0.0        0
GR   1859.4    9816.8   1859.4    9838.8    1859.1    9854.7    1858.6    9869.2   1858.3    9879.8
GR   1857.2    9887.0   1851.5    9893.7    1850.8    9908.5    1851.4    9920.3   1851.1    9932.3
GR   1851.4    9942.6   1851.2    9952.7    1851.1    9965.9    1850.3    9975.6   1849.0    9982.5
GR   1849.1    9988.5   1848.9   10000.0    1848.9   10000.1    1849.4   10009.2   1850.3   10012.6
GR   1850.1   10020.4   1851.5   10027.4    1856.3   10040.2    1859.8   10051.7   1859.7   10061.2
GR   1859.4   10070.8   1859.8   10083.6    1859.6   10096.8    1860.0   10115.7   1860.0   10134.8
     STATUS: Analyzing profile 1.

     STATUS: Analyzing cross-section reach 10.445.

     WARNING: (3720) Critical depth has been assumed.
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LOCATED IN CAP OVERCHUTE - S. EDGE OF DIST BSN

Cross Section Number SECNO	Left Overbank Manning XNL	Channel Manning n XNCH	Right Overbank Manning XNR	Flow Depth DEPTH (ft)	Water Surface Elevation CWSEL (ft MSL)	Critical W. S. Elevation CRIWS (ft MSL)	Known W. S. Elevation WSELK (ft MSL)
Energy Gradient SLOPE (ft/ft)	Left Overbank Length XLOBL (ft)	Channel Length XLCH (ft)	Right Overbank Length XLOBR (ft)	Energy Gradient Elevation EG (ft MSL)	Weighted Velocity Head HV (ft)	Friction Energy Loss HL (ft)	Other Energy Loss OLOSS (ft)
Cummul-ative Volume VOL (acre-ft)	Left Overbank Area ALOB (sq ft)	Channel Area ACH (sq ft)	Right Overbank Area AROB (sq ft)	Bridge Deck Area CORAR (sq ft)	Left Bank Elevation LTBNK (ft MSL)	Right Bank Elevation RTBNK (ft MSL)	Number of Balance Trials ITRIAL
Total Flow Q (cfs)	Left Overbank Flow QLOB (cfs)	Channel Flow QCH (cfs)	Right Overbank Flow QROB (cfs)	Computed W. S. Top Width TOPWD (ft)	Left W. S. Station SSTA (ft)	Right W. S. Station ENDST (ft)	Number of Crit Dpth Trials IDC
Flow Travel Time TIME (hrs)	Left Overbank Velocity VLOB (ft/s)	Channel Mean Velocity VCH (ft/s)	Right Overbank Velocity VROB (ft/s)	Length Weighted Manning n WTN	Cummul. Surface Area TWA (acres)	Minimum C. S. Elevation ELMIN (ft MSL)	Number of Other Trials ICONT
10.445	.000	.015	.000	2.94	1545.51	1545.51	1545.51
.002451	0	0	0	1546.98	1.47	.00	.00
.00	0	395	0	.00	1549.60	1549.60	0
3851	0	3850	0	135.6	9932.20	10067.80	5
.00	.00	9.74	.00	.000	.0	1542.57	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	10.445
Total Discharge (cfs, Q)	3851
Computed Water Surface Elevation (ft MSL, CWSEL)	1545.51

Station (ft) = 9932.2 10067.8
Flow (%) = 100.0
Area (sq ft) = 395.6
Vel (ft/s) = 9.74
Depth (ft) = 2.92

STATUS: Analyzing cross-section reach 10.450.

WARNING: (3685) 20 trials attempted in balancing assumed water surface elevation (WSEL) and computed water surface elevation (CWSEL).

WARNING: (3693) It is probable that critical depth has been crossed.

WARNING: (3720) Critical depth has been assumed.

LOCATED IN CAP OVERCHUTE @ N EDGE DIST. BASIN

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
10.450	.000	.015	.000	2.96	1547.69	1547.69	.00
.002443	27	27	27	1549.16	1.47	.07	.00
.25	0	396	0	.00	1551.70	1551.70	20
3851	0	3850	0	135.6	9932.20	10067.80	5
.00	.00	9.72	.00	.000	.1	1544.73	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 10.450
Total Discharge (cfs, Q) 3851
Computed Water Surface Elevation (ft MSL, CWSEL) 1547.69

Station (ft) = 9932.2 10067.8
Flow (%) = 100.0
Area (sq ft) = 396.0
Vel (ft/s) = 9.72
Depth (ft) = 2.92

Contraction Coefficient (CCHV) .100

Expansion Coefficient (CEHV) .300

STATUS: Analyzing cross-section reach 10.468.

LOCATED @ ANG PT ON N. SIDE OF OVERCHUTE 26'S.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
10.468	.000	.015	.000	3.56	1548.36	.00	.00
.001334	96	96	96	1549.37	1.01	.17	.05
1.21	0	476	0	.00	1551.80	1551.80	4
3851	0	3850	0	135.6	9932.20	10067.80	0
.00	.00	8.08	.00	.000	.4	1544.80	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 10.468
Total Discharge (cfs, Q) 3851
Computed Water Surface Elevation (ft MSL, CWSEL) 1548.36

Station (ft) = 9932.2 10067.8
Flow (%) = 100.0
Area (sq ft) = 476.4
Vel (ft/s) = 8.08
Depth (ft) = 3.51

Contraction Coefficient (CCHV) .300

Expansion Coefficient (CEHV) .500

STATUS: Analyzing cross-section reach 10.473.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 1.56

10.473	.000	.015	.000	4.22	1549.02	.00	.00
.000550	26	26	26	1549.54	.53	.02	.15
1.55	0	662	0	.00	1551.90	1551.80	3
3851	0	3850	0	158.7	9920.64	10079.36	0
.01	.00	5.82	.00	.000	.5	1544.80	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 10.473
Total Discharge (cfs, Q) 3851
Computed Water Surface Elevation (ft MSL, CWSEL) 1549.02

Station (ft) = 9920.6 10079.4
Flow (%) = 100.0
Area (sq ft) = 662.0
Vel (ft/s) = 5.82
Depth (ft) = 4.17

Contraction Coefficient (CCHV) .600

Expansion Coefficient (CEHV) .800

STATUS: Analyzing cross-section reach 10.474.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) .24

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
10.474	.085	.055	.090	4.10	1549.00	.00	.00
.009843	10	5	10	1549.63	.63	.01	.08
1.62	13	591	17	.00	1545.90	1545.70	2
3851	29	3782	38	179.4	9910.94	10090.30	0
.01	2.23	6.40	2.22	.000	.5	1544.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 10.474
Total Discharge (cfs, Q) 3851
Computed Water Surface Elevation (ft MSL, CWSEL) 1549.00

Station (ft) = 9910.9 9919.6 10079.9 10090.3
Flow (%) = .8 98.2 1.0
Area (sq ft) = 13.4 591.2 17.2
Vel (ft/s) = 2.23 6.40 2.22
Depth (ft) = 1.55 3.69 1.65

Contraction Coefficient (CCHV) .300

Expansion Coefficient (CEHV) .500

STATUS: Analyzing cross-section reach 10.479.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
10.479	.085	.055	.090	4.81	1549.51	.00	.00
.005714	30	25	45	1549.89	.38	.19	.07
2.05	10	766	10	.00	1546.30	1546.60	2
3851	17	3816	16	215.3	9895.30	10110.60	0
.01	1.69	4.98	1.53	.000	.6	1544.70	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 10.479
Total Discharge (cfs, Q) 3851
Computed Water Surface Elevation (ft MSL, CWSEL) 1549.51

Station (ft) =	9895.3	9901.8	10103.2	10110.6
Flow (%) =	.5	99.1	.4	
Area (sq ft) =	10.5	766.9	10.8	
Vel (ft/s) =	1.69	4.98	1.53	
Depth (ft) =	1.61	3.81	1.46	

Contraction Coefficient (CCHV) .100

Expansion Coefficient (CEHV) .300

STATUS: Analyzing cross-section reach 10.528.

10.528	.085	.055	.090	6.36	1550.96	.00	.00
.005274	235	260	290	1551.30	.34	1.41	.00
7.27	480	466	54	.00	1548.30	1549.60	2
3851	1232	2546	71	374.2	9740.31	10114.50	0
.02	2.57	5.46	1.32	.000	2.3	1544.60	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 10.528
Total Discharge (cfs, Q) 3851
Computed Water Surface Elevation (ft MSL, CWSEL) 1550.96

Station (ft) =	9740.3	9824.8	9843.8	9861.1	9875.4	9894.5
Flow (%) =	3.2	5.0	3.1	4.3	4.8	
Area (sq ft) =	67.2	66.0	47.5	54.1	64.7	
Vel (ft/s) =	1.83	2.91	2.49	3.08	2.87	
Depth (ft) =	.80	3.47	2.75	3.78	3.39	

Station (ft) =	9894.5	9924.3	9948.9	9960.9	10060.7	10114.5
Flow (%) =	5.5	4.1	2.0	66.1	1.9	
Area (sq ft) =	83.4	65.4	31.9	466.8	54.2	
Vel (ft/s) =	2.52	2.44	2.44	5.46	1.32	
Depth (ft) =	2.80	2.66	2.66	4.68	1.01	

STATUS: Analyzing cross-section reach 10.592.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
10.592	.085	.055	.090	7.13	1552.73	.00	.00
.004155	350	340	345	1552.92	.19	1.60	.02
16.72	436	287	658	.00	1550.00	1550.40	2
3851	978	1421	1451	499.7	9791.37	10291.09	0
.05	2.24	4.94	2.20	.000	5.8	1545.60	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 10.592
Total Discharge (cfs, Q) 3851
Computed Water Surface Elevation (ft MSL, CWSEL) 1552.73

Station (ft) =	9791.4	9848.0	9871.2	9898.9	9925.5	9949.2
Flow (%) =	3.0	3.0	4.3	5.0	4.9	
Area (sq ft) =	71.7	56.7	74.9	81.4	77.0	
Vel (ft/s) =	1.62	2.05	2.19	2.38	2.48	
Depth (ft) =	1.27	2.44	2.71	3.06	3.25	

Station (ft) =	9949.2	9970.4	10029.0	10053.9	10063.8	10084.2
Flow (%) =	5.1	36.9	4.5	3.9	4.3	
Area (sq ft) =	75.2	287.9	76.7	49.1	69.4	
Vel (ft/s) =	2.64	4.94	2.28	3.04	2.41	
Depth (ft) =	3.55	4.91	3.08	4.96	3.40	

Station (ft) =	10084.2	10095.1	10111.2	10140.5	10157.5	10175.5
Flow (%) =	3.2	4.0	3.8	3.2	3.9	
Area (sq ft) =	45.3	59.7	74.1	54.0	61.6	
Vel (ft/s) =	2.74	2.58	1.99	2.30	2.42	
Depth (ft) =	4.16	3.71	2.53	3.18	3.42	

Station (ft) =	10175.5	10202.1	10280.6	10291.1
Flow (%) =	3.7	3.0	.1	
Area (sq ft) =	69.8	95.0	3.8	
Vel (ft/s) =	2.05	1.22	.54	
Depth (ft) =	2.62	1.21	.37	

STATUS: Analyzing cross-section reach 10.683.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
10.683	.085	.055	.090	7.02	1555.12	.00	.00
.007358	505	480	475	1555.64	.52	2.62	.10
29.02	256	406	158	.00	1553.30	1552.80	2
3851	646	2706	498	263.6	9816.94	10080.56	0
.08	2.52	6.66	3.15	.000	10.1	1548.10	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 10.683
Total Discharge (cfs, Q) 3851
Computed Water Surface Elevation (ft MSL, CWSEL) 1555.12

Station (ft) =	9816.9	9863.5	9893.7	9921.8	9942.1	10023.6
Flow (%) =	4.5	5.2	4.5	2.6	70.3	
Area (sq ft) =	76.0	73.4	65.3	41.6	406.3	
Vel (ft/s) =	2.28	2.72	2.65	2.42	6.66	
Depth (ft) =	1.63	2.43	2.32	2.05	4.99	

Station (ft) =	10023.6	10035.0	10043.0	10060.7	10080.6
Flow (%) =	3.7	3.6	4.7	.9	
Area (sq ft) =	42.0	36.1	58.0	22.1	
Vel (ft/s) =	3.39	3.86	3.15	1.52	
Depth (ft) =	3.68	4.52	3.27	1.11	

STATUS: Analyzing cross-section reach 10.761.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 9942.50
Right Encroachment Station (ft, STENCR) 10121.70
Encroachment Method (TYPE) 1
Width or Percent Target 179.200

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
10.761	.085	.055	.090	7.19	1557.99	.00	.00
.006907	380	410	465	1558.60	.60	2.93	.02
36.10	79	548	51	.00	1554.60	1555.60	2
3851	207	3541	102	179.2	9942.50	10121.70	0
.10	2.59	6.46	1.98	.000	12.2	1550.80	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 10.761
Total Discharge (cfs, Q) 3851
Computed Water Surface Elevation (ft MSL, CWSEL) 1557.99

Station (ft) =	9942.5	9951.6	9963.3	9972.5	9982.0	10092.7
Flow (%) =	.2	.9	1.7	2.5	92.0	
Area (sq ft) =	7.2	17.5	24.3	30.8	548.6	
Vel (ft/s) =	1.18	1.89	2.77	3.18	6.46	
Depth (ft) =	.79	1.49	2.64	3.24	4.96	

Station (ft) =	10092.7	10107.9	10121.7
Flow (%) =	1.7	.9	
Area (sq ft) =	30.3	21.3	
Vel (ft/s) =	2.17	1.71	
Depth (ft) =	1.99	1.54	

STATUS: Analyzing cross-section reach 10.815.

10.815	.085	.055	.090	7.13	1559.73	.00	.00
.004390	295	285	300	1560.17	.44	1.56	.02
41.00	83	621	101	.00	1556.50	1556.10	2
3851	188	3462	199	207.1	9930.78	10137.93	0
.11	2.25	5.57	1.97	.000	13.4	1552.60	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 10.815
Total Discharge (cfs, Q) 3851
Computed Water Surface Elevation (ft MSL, CWSEL) 1559.73

Station (ft) =	9930.8	9965.0	9972.9	10083.6	10104.9	10137.9
Flow (%) =	3.3	1.6	89.9	4.1	1.1	
Area (sq ft) =	59.2	24.7	621.7	66.5	34.7	
Vel (ft/s) =	2.15	2.47	5.57	2.35	1.26	
Depth (ft) =	1.73	3.13	5.62	3.12	1.05	

STATUS: Analyzing cross-section reach 10.876.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) .55

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
10.876	.085	.050	.090	6.71	1561.11	.00	.00
.014113	320	320	34	1562.41	1.30	1.98	.26
44.77	22	262	226	.00	1558.10	1558.70	2
3805	67	2736	1001	136.3	9951.86	10088.17	0
.12	3.04	10.43	4.42	.000	14.3	1554.40	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 10.876
Total Discharge (cfs, Q) 3805
Computed Water Surface Elevation (ft MSL, CWSEL) 1561.11

Station (ft) =	9951.9	9967.0	10017.3	10031.2	10041.6	10050.7
Flow (%) =	1.8	71.9	4.8	3.7	4.3	
Area (sq ft) =	22.1	262.4	43.7	33.1	34.7	
Vel (ft/s) =	3.04	10.43	4.20	4.24	4.68	
Depth (ft) =	1.46	5.22	3.14	3.18	3.81	

Station (ft) =	10050.7	10058.3	10071.1	10088.2
Flow (%) =	5.5	4.8	3.2	
Area (sq ft) =	37.4	42.3	35.4	
Vel (ft/s) =	5.63	4.30	3.45	
Depth (ft) =	4.92	3.31	2.08	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 10.945.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 2.17

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
10.945	.069	.063	.090	7.27	1564.37	.00	.00
.002997	365	365	370	1564.57	.20	2.06	.11
51.84	370	563	236	.00	1560.90	1559.80	2
3805	1072	2315	416	317.1	9833.91	10150.99	0
.15	2.89	4.11	1.76	.000	16.2	1557.10	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 10.945
Total Discharge (cfs, Q) 3805
Computed Water Surface Elevation (ft MSL, CWSEL) 1564.37

Station (ft) =	9833.9	9867.5	9883.9	9900.1	9912.3	9917.9
Flow (%) =	3.4	3.9	4.5	5.5	4.2	
Area (sq ft) =	68.3	61.2	65.6	55.9	33.4	
Vel (ft/s) =	1.90	2.45	2.58	3.73	4.81	
Depth (ft) =	2.03	3.73	4.05	4.58	5.96	

Station (ft) =	9917.9	9927.4	9940.3	9959.8	10011.3	10038.9
Flow (%) =	4.2	2.5	4.3	45.1	11.4	
Area (sq ft) =	41.3	45.1	74.7	335.1	153.7	
Vel (ft/s) =	3.89	2.08	2.21	5.12	2.83	
Depth (ft) =	4.35	3.49	3.83	6.51	5.57	

Station (ft) =	10038.9	10052.5	10069.2	10112.4	10151.0
Flow (%) =	3.6	3.2	3.1	1.1	
Area (sq ft) =	58.2	58.0	82.1	38.6	
Vel (ft/s) =	2.38	2.08	1.42	1.06	
Depth (ft) =	4.28	3.47	1.90	1.00	

STATUS: Analyzing cross-section reach 11.006.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
11.006	.080	.050	.080	7.24	1565.44	.00	.00
.004019	315	325	350	1565.74	.30	1.14	.03
60.35	115	326	616	.00	1562.30	1562.50	3
3805	271	1844	1688	296.7	9926.91	10223.62	0
.17	2.35	5.64	2.74	.000	18.6	1558.20	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 11.006
Total Discharge (cfs, Q) 3805
Computed Water Surface Elevation (ft MSL, CWSEL) 1565.44

Station (ft) =	9926.9	9965.8	9979.0	10041.0	10060.9	10069.5
Flow (%) =	4.2	2.9	48.5	4.6	3.4	
Area (sq ft) =	72.5	43.2	326.9	66.6	40.0	
Vel (ft/s) =	2.21	2.59	5.64	2.65	3.28	
Depth (ft) =	1.86	3.27	5.27	3.35	4.65	

Station (ft) =	10069.5	10087.9	10165.0	10200.0	10223.6
Flow (%) =	3.3	19.5	10.7	2.8	
Area (sq ft) =	52.8	267.7	138.1	51.5	
Vel (ft/s) =	2.40	2.77	2.94	2.07	
Depth (ft) =	2.87	3.47	3.95	2.18	

STATUS: Analyzing cross-section reach 11.062.

11.062	.080	.050	.080	6.66	1566.66	.00	.00
.004086	310	295	275	1566.92	.25	1.17	.00
67.73	314	242	624	.00	1563.90	1564.10	2
3805	841	1392	1571	358.4	9880.06	10238.45	0
.19	2.68	5.74	2.52	.000	20.7	1560.00	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 11.062
Total Discharge (cfs, Q) 3805
Computed Water Surface Elevation (ft MSL, CWSEL) 1566.66

Station (ft) =	9880.1	9909.6	9920.4	9928.9	9946.7	9966.0
Flow (%) =	4.7	4.2	3.3	3.6	3.8	
Area (sq ft) =	74.1	49.4	39.1	55.0	57.9	
Vel (ft/s) =	2.39	3.25	3.23	2.52	2.47	
Depth (ft) =	2.51	4.57	4.61	3.09	3.00	

Station (ft) =	9966.0	9978.7	10023.1	10048.1	10068.6	10082.4
Flow (%) =	2.5	36.6	3.3	3.2	4.1	
Area (sq ft) =	38.6	242.4	59.8	53.7	52.9	
Vel (ft/s) =	2.49	5.74	2.13	2.26	2.93	
Depth (ft) =	3.04	5.46	2.39	2.62	3.83	

Station (ft) =	10082.4	10092.9	10113.7	10131.8	10158.2	10172.9
Flow (%) =	4.1	3.5	3.3	5.1	3.4	
Area (sq ft) =	48.2	57.5	51.8	78.7	48.7	
Vel (ft/s) =	3.21	2.34	2.39	2.46	2.64	
Depth (ft) =	4.59	2.76	2.86	2.98	3.31	

Station (ft) =	10172.9	10191.4	10211.7	10238.4
Flow (%) =	4.9	4.6	1.9	
Area (sq ft) =	66.8	66.7	39.8	
Vel (ft/s) =	2.79	2.63	1.78	
Depth (ft) =	3.61	3.29	1.49	

STATUS: Analyzing cross-section reach 11.118.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
11.118	.080	.050	.080	6.80	1567.90	.00	.00
.004466	320	295	270	1568.19	.29	1.26	.01
75.42	444	420	233	.00	1565.90	1565.70	2
3805	1097	2221	486	380.1	9797.97	10178.08	0
.21	2.47	5.28	2.09	.000	23.2	1561.10	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	11.118
Total Discharge (cfs, Q)	3805
Computed Water Surface Elevation (ft MSL, CWSEL)	1567.90

Station (ft) =	9798.0	9838.5	9861.9	9893.6	9913.5	9930.1
Flow (%) =	5.3	3.4	4.6	4.9	4.3	
Area (sq ft) =	89.7	57.3	77.9	66.6	57.8	
Vel (ft/s) =	2.27	2.26	2.27	2.78	2.85	
Depth (ft) =	2.21	2.45	2.46	3.35	3.48	

Station (ft) =	9930.1	9948.1	9964.4	10060.4	10080.7	10107.7
Flow (%) =	4.2	2.0	58.4	3.2	4.6	
Area (sq ft) =	58.9	36.2	420.6	52.1	72.4	
Vel (ft/s) =	2.74	2.11	5.28	2.35	2.40	
Depth (ft) =	3.27	2.22	4.38	2.57	2.68	

Station (ft) =	10107.7	10146.1	10178.1
Flow (%) =	3.3	1.7	
Area (sq ft) =	68.7	39.9	
Vel (ft/s) =	1.84	1.62	
Depth (ft) =	1.79	1.25	

STATUS: Analyzing cross-section reach 11.190.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) .65

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
11.190	.080	.055	.085	6.62	1570.12	.00	.00
.010525	420	380	335	1570.89	.77	2.56	.14
83.18	353	269	3	.00	1566.50	1568.80	2
3805	1540	2260	4	164.8	9879.45	10044.23	0
.23	4.35	8.38	1.33	.000	25.6	1563.50	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	11.190
Total Discharge (cfs, Q)	3805
Computed Water Surface Elevation (ft MSL, CWSEL)	1570.12

Station (ft) =	9879.4	9903.0	9913.3	9926.0	9934.1	9948.5
Flow (%) =	4.1	4.0	4.1	3.6	5.0	
Area (sq ft) =	45.1	35.3	38.9	30.0	46.0	
Vel (ft/s) =	3.45	4.33	4.01	4.56	4.13	
Depth (ft) =	1.91	3.43	3.06	3.71	3.19	

Station (ft) =	9948.5	9958.9	9967.9	9974.6	9983.0	9989.5
Flow (%) =	3.8	3.9	4.6	4.6	2.7	
Area (sq ft) =	34.3	33.1	32.5	35.5	23.1	
Vel (ft/s) =	4.23	4.53	5.42	4.94	4.44	
Depth (ft) =	3.30	3.68	4.85	4.22	3.56	

Station (ft) =	9989.5	10039.5	10044.2
Flow (%) =	59.4	.1	
Area (sq ft) =	269.7	3.1	
Vel (ft/s) =	8.38	1.33	
Depth (ft) =	5.39	.66	

STATUS: Analyzing cross-section reach 11.259.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 1.41

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
11.259	.085	.055	.085	6.94	1573.04	.00	.00
.005282	310	365	395	1573.40	.36	2.47	.04
89.18	571	341	28	.00	1569.30	1569.20	2
3805	1713	2037	54	279.1	9775.06	10054.18	0
.25	3.00	5.97	1.92	.000	27.3	1566.10	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	11.259
Total Discharge (cfs, Q)	3805
Computed Water Surface Elevation (ft MSL, CWSEL)	1573.04

Station (ft) =	9775.1	9834.4	9859.4	9910.9	9920.7	9930.2
Flow (%) =	7.7	5.0	3.6	3.3	3.9	
Area (sq ft) =	116.2	73.6	78.2	39.5	43.2	
Vel (ft/s) =	2.51	2.60	1.76	3.20	3.45	
Depth (ft) =	1.96	2.94	1.52	4.03	4.55	

Station (ft) =	9930.2	9937.0	9940.9	9947.1	9960.2	9976.1
Flow (%) =	5.1	3.1	3.7	4.7	5.0	
Area (sq ft) =	44.5	25.9	35.3	54.4	60.7	
Vel (ft/s) =	4.36	4.49	3.96	3.28	3.10	
Depth (ft) =	6.54	6.64	5.69	4.15	3.82	

Station (ft) =	9976.1	10039.5	10054.2
Flow (%) =	53.5	1.4	
Area (sq ft) =	341.0	28.2	
Vel (ft/s) =	5.97	1.92	
Depth (ft) =	5.38	1.92	

STATUS: Analyzing cross-section reach 11.351.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
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11.351	.085	.050	.085	7.15	1575.45	.00	.00
.005083	460	485	515	1575.90	.46	2.47	.03
99.43	479	345	120	.00	1572.00	1571.90	3
3805	1179	2304	321	312.6	9765.51	10078.07	0
.28	2.46	6.67	2.67	.000	30.5	1568.30	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 11.351
Total Discharge (cfs, Q) 3805
Computed Water Surface Elevation (ft MSL, CWSEL) 1575.45

Station (ft) =	9765.5	9814.7	9841.7	9865.4	9908.3	9932.3
Flow (%) =	3.3	3.8	3.6	3.3	3.8	
Area (sq ft) =	72.0	65.0	59.2	68.8	58.6	
Vel (ft/s) =	1.73	2.24	2.30	1.81	2.45	
Depth (ft) =	1.46	2.41	2.50	1.60	2.44	

Station (ft) =	9932.3	9944.9	9956.6	9966.4	9969.6	10030.3
Flow (%) =	4.1	4.7	3.7	.8	60.6	
Area (sq ft) =	49.6	52.5	42.8	11.0	345.4	
Vel (ft/s) =	3.11	3.38	3.31	2.85	6.67	
Depth (ft) =	3.94	4.49	4.37	3.45	5.69	

Station (ft) =	10030.3	10043.1	10055.8	10078.1
Flow (%) =	3.8	3.5	1.1	
Area (sq ft) =	47.9	45.9	26.4	
Vel (ft/s) =	3.00	2.93	1.63	
Depth (ft) =	3.74	3.61	1.19	

STATUS: Analyzing cross-section reach 11.426.

11.426	.080	.050	.080	6.51	1577.21	.00	.00
.002719	440	395	370	1577.39	.18	1.46	.03
110.58	440	333	686	.00	1573.60	1573.90	2
3805	950	1592	1261	502.0	9832.00	10334.04	0
.31	2.16	4.77	1.84	.000	34.3	1570.70	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 11.426
Total Discharge (cfs, Q) 3805
Computed Water Surface Elevation (ft MSL, CWSEL) 1577.21

Station (ft) =	9832.0	9867.0	9883.3	9901.4	9923.3	9946.6
Flow (%) =	3.7	3.4	4.0	3.6	4.3	
Area (sq ft) =	80.9	57.2	66.2	67.5	76.3	
Vel (ft/s) =	1.76	2.24	2.30	2.05	2.15	
Depth (ft) =	2.31	3.51	3.66	3.08	3.28	

Station (ft) =	9946.6	9960.4	9969.6	10030.9	10052.8	10095.2
Flow (%) =	3.9	2.1	41.9	3.0	3.5	
Area (sq ft) =	58.1	34.2	333.8	60.1	85.2	
Vel (ft/s) =	2.52	2.32	4.77	1.91	1.57	
Depth (ft) =	4.21	3.71	5.44	2.74	2.01	

Station (ft) =	10095.2	10165.6	10187.5	10211.5	10247.2	10279.0
Flow (%) =	3.2	3.7	3.9	3.5	5.6	
Area (sq ft) =	88.0	67.6	73.3	78.0	101.6	
Vel (ft/s) =	1.40	2.06	2.04	1.70	2.10	
Depth (ft) =	1.25	3.09	3.05	2.19	3.19	

Station (ft) =	10279.0	10308.1	10334.0
Flow (%) =	5.3	1.4	
Area (sq ft) =	94.8	37.4	
Vel (ft/s) =	2.13	1.40	
Depth (ft) =	3.26	1.44	

STATUS: Analyzing cross-section reach 11.515.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) .50

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
11.515	.085	.050	.085	5.45	1579.05	.00	.00
.010922	500	470	460	1579.89	.84	2.30	.20
122.03	262	347	23	.00	1576.40	1575.90	1
3805	877	2864	63	209.0	9821.37	10030.39	0
.33	3.34	8.24	2.71	.000	38.2	1573.60	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 11.515
Total Discharge (cfs, Q) 3805
Computed Water Surface Elevation (ft MSL, CWSEL) 1579.05

Station (ft) =	9821.4	9854.0	9869.9	9883.0	9905.1	9921.3
Flow (%) =	3.6	5.0	3.8	3.5	3.2	
Area (sq ft) =	52.4	48.5	38.6	45.1	38.0	
Vel (ft/s) =	2.63	3.91	3.78	2.94	3.24	
Depth (ft) =	1.61	3.05	2.94	2.04	2.35	

Station (ft) =	9921.3	9935.2	10015.1	10030.4
Flow (%) =	3.9	75.3	1.7	
Area (sq ft) =	40.2	347.6	23.4	
Vel (ft/s) =	3.70	8.24	2.71	
Depth (ft) =	2.89	4.35	1.53	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 11.554.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

11.554	.066	.055	.080	5.79	1581.19	.00	.00
.006079	175	205	225	1581.50	.32	1.56	.05
125.60	450	190	311	.00	1577.50	1578.80	2
3805	1955	1099	749	328.6	9844.63	10173.22	0
.34	4.34	5.78	2.40	.000	39.4	1575.40	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 11.554
Total Discharge (cfs, Q) 3805
Computed Water Surface Elevation (ft MSL, CWSEL) 1581.19

Station (ft) =	9844.6	9870.1	9886.1	9897.0	9902.3	9916.3
Flow (%) =	3.2	3.6	3.9	3.2	6.7	
Area (sq ft) =	49.2	46.4	39.1	25.6	59.1	
Vel (ft/s) =	2.51	2.95	3.75	4.73	4.32	

Depth (ft)	=	1.93	2.90	3.59	4.83	4.22

Station (ft) =	9916.3	9932.8	9946.2	9953.8	9961.2	9967.7
Flow (%) =	4.4	7.7	6.0	6.0	4.6	
Area (sq ft) =	47.4	57.3	39.4	39.1	31.7	
Vel (ft/s) =	3.55	5.08	5.78	5.85	5.53	
Depth (ft) =	2.87	4.27	5.18	5.28	4.88	

Station (ft) =	9967.7	9971.8	10013.0	10048.2	10071.0	10090.9
Flow (%) =	2.1	28.9	3.1	3.4	4.1	
Area (sq ft) =	16.7	190.4	53.2	51.0	54.5	
Vel (ft/s) =	4.87	5.78	2.20	2.51	2.84	
Depth (ft) =	4.08	4.62	1.51	2.24	2.74	

Station (ft) =	10090.9	10120.9	10150.2	10173.2
Flow (%) =	3.0	4.2	2.0	
Area (sq ft) =	52.2	64.4	36.6	
Vel (ft/s) =	2.20	2.45	2.10	
Depth (ft) =	1.74	2.20	1.59	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 11.626.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
11.626	.062	.050	.080	6.51	1583.31	.00	.00
.005772	375	380	395	1583.82	.51	2.26	.06
133.53	186	348	314	.00	1581.40	1580.70	3
3805	675	2382	747	299.3	9891.79	10191.07	0
.36	3.61	6.84	2.38	.000	42.2	1576.80	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	11.626
Total Discharge (cfs, Q)	3805
Computed Water Surface Elevation (ft MSL, CWSEL)	1583.31

Station (ft) =	9891.8	9920.6	9934.4	9939.8	9959.4	9963.8
Flow (%) =	3.8	3.5	3.3	6.5	.6	
Area (sq ft) =	55.6	36.6	25.0	61.2	8.4	
Vel (ft/s) =	2.59	3.62	5.03	4.06	2.90	
Depth (ft) =	1.93	2.65	4.63	3.12	1.91	

Station (ft) =	9963.8	10028.1	10044.9	10065.4	10089.5	10155.0
Flow (%) =	62.6	3.3	3.4	4.3	7.9	
Area (sq ft) =	348.5	45.8	50.8	62.1	131.9	
Vel (ft/s) =	6.84	2.75	2.58	2.65	2.28	
Depth (ft) =	5.42	2.73	2.48	2.58	2.01	

Station (ft) =	10155.0	10191.1
Flow (%) =	.7	
Area (sq ft) =	23.7	
Vel (ft/s) =	1.06	
Depth (ft) =	.66	

Contraction Coefficient (CCHV) .100

Expansion Coefficient (CEHV) .300

STATUS: Analyzing cross-section reach 11.688.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
11.688	.080	.060	.085	6.86	1585.56	.00	.00
.007967	360	330	315	1586.07	.52	2.25	.00
139.91	322	434	45	.00	1582.80	1582.90	2
3805	867	2833	104	287.1	9791.28	10078.40	0
.38	2.69	6.52	2.29	.000	44.4	1578.70	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 11.688
Total Discharge (cfs, Q) 3805
Computed Water Surface Elevation (ft MSL, CWSEL) 1585.56

Station (ft) =	9791.3	9839.9	9883.0	9909.9	9928.6	9951.5
Flow (%) =	3.6	4.5	4.1	3.8	4.0	
Area (sq ft) =	60.9	71.7	57.3	46.9	52.9	
Vel (ft/s) =	2.23	2.41	2.75	3.06	2.90	
Depth (ft) =	1.25	1.66	2.13	2.51	2.31	

Station (ft) =	9951.5	9963.5	10048.1	10078.4
Flow (%) =	2.7	74.5	2.7	
Area (sq ft) =	32.5	434.8	45.5	
Vel (ft/s) =	3.22	6.52	2.29	
Depth (ft) =	2.71	5.14	1.50	

Contraction Coefficient (CCHV) .600

Expansion Coefficient (CEHV) .800

STATUS: Analyzing cross-section reach 11.722.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 2.28

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
11.722	.085	.050	.085	8.04	1586.54	.00	.00
.001530	160	180	200	1586.77	.23	.53	.17
144.09	200	807	243	.00	1582.50	1582.20	2
3805	171	3330	303	472.2	9707.61	10179.77	0
.39	.86	4.12	1.25	.000	46.0	1578.50	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 11.722
Total Discharge (cfs, Q) 3805
Computed Water Surface Elevation (ft MSL, CWSEL) 1586.54

Station (ft) =	9707.6	9740.0	9790.0	9830.0	9870.0	9894.0
Flow (%) =	.1	.6	.5	.1	.3	
Area (sq ft) =	8.7	39.5	31.6	13.6	19.0	
Vel (ft/s) =	.29	.58	.58	.33	.58	
Depth (ft) =	.27	.79	.79	.34	.79	

Station (ft) =	9894.0	9919.0	9930.0	10050.0	10085.0	10122.0
Flow (%) =	1.5	1.5	87.5	5.0	2.2	
Area (sq ft) =	51.0	36.7	807.4	122.1	75.5	
Vel (ft/s) =	1.10	1.52	4.12	1.57	1.10	
Depth (ft) =	2.04	3.34	6.73	3.49	2.04	

Station (ft) =	10122.0	10172.0	10179.8
Flow (%) =	.7	.0	
Area (sq ft) =	44.5	1.3	
Vel (ft/s) =	.63	.21	
Depth (ft) =	.89	.17	

STATUS: Special culvert analysis being performed.

CULVERT DESCRIPTION :

Number of Identical Culverts (CUNO)	8
Culvert Mannings n (CUNV)	.032
Culvert Entrance Loss Coefficient (ENTLC)	.800
Pipe Culvert Diameter (ft, RISE)	5.66
Culvert Length (ft, CULVLN)	60.00
Culvert Opening Upstream Invert (ft MSL, ELCHU)	1578.60
Culvert Opening Downstream Invert (ft MSL, ELCHD)	1578.40
Roadway Length (ft, RDLEN)	.00
Roadway Weir Flow Discharge Coefficient (COFQ)	3.00

Chart # 2 - corrugated metal pipe culvert

Scale # 3 - pipe projecting from fill

WARNING: (5130) Inlet control energy grade line elevation 1601.41 ft MSL may be too large if inlet controls.

WARNING: (5135) Outlet control energy grade line elevation 1602.79 ft MSL may be too large if outlet controls.

STATUS: Analyzing cross-section reach 11.734.

STATUS: Special culvert outlet control and weir flow.

Energy Gradient Elevation (ft MSL, EG) 1587.76

CULVERT ANALYSIS RESULTS :

Inlet Control Energy Grade Line Elevation (ft MSL, EGIC)	1601.41
Outlet Control Energy Grade Line Elevation (ft MSL, EGOC)	1602.79
Water Surface Drop Through Culvert (ft, H4)	.98
Total Weir Flow (cfs, QWEIR)	2745.
Total Culvert Flow (cfs, QCULV)	1042.
Mean Channel Velocity (fps, VCH)	3.19
Culvert Opening Area (sq ft, ACULV)	201.3
Top of Roadway Elevation (ft MSL, ELTRD)	1584.90
Roadway Weir Length (ft, WEIRLN)	539.0

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
11.734	.085	.050	.085	8.61	1587.61	.00	.00
.000821	60	60	60	1587.76	.14	.98	.00
146.05	319	1082	190	.00	1582.80	1584.90	2
3805	207	3453	144	532.2	9660.25	10192.40	0
.40	.65	3.19	.76	.000	46.6	1579.00	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	11.734
Total Discharge (cfs, Q)	3805
Computed Water Surface Elevation (ft MSL, CWSEL)	1587.61

Station (ft) =	9660.2	9868.1	9928.3	10077.0	10167.0	10192.4
Flow (%) =	3.3	2.2	90.8	3.6	.2	
Area (sq ft) =	216.2	103.1	1082.4	172.5	18.2	
Vel (ft/s) =	.58	.80	3.19	.79	.42	
Depth (ft) =	1.04	1.71	7.28	1.92	.72	

STATUS: Analyzing cross-section reach 11.811.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (3685) 20 trials attempted in balancing assumed water surface elevation (WSEL) and computed water surface elevation (CWSEL).

WARNING: (3693) It is probable that critical depth has been crossed.

WARNING: (3720) Critical depth has been assumed.

STATUS: (3495) Overbank area assumed noneffective.

Left Overbank Elevation (ft, XLBEL) 1587.00
Right Overbank Elevation (ft, RBEL) 1589.40

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
11.811	.080	.050	.000	6.42	1589.32	1589.32	.00
.018229	480	410	365	1590.74	1.42	.92	1.02
156.11	180	299	0	.00	1587.00	1589.40	20
3756	647	3108	0	180.0	9842.73	10022.72	19
.41	3.60	10.38	.00	.000	50.2	1582.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 11.811
Total Discharge (cfs, Q) 3756
Computed Water Surface Elevation (ft MSL, CWSEL) 1589.32

Station (ft) =	9842.7	9853.0	9881.8	9898.6	9921.3	9927.9
Flow (%) =	.8	6.0	2.4	1.7	.8	
Area (sq ft) =	10.5	56.9	26.5	24.4	9.7	
Vel (ft/s) =	2.76	3.95	3.39	2.63	3.21	
Depth (ft) =	1.02	1.97	1.57	1.07	1.47	

Station (ft) =	9927.9	9934.6	9943.9	9953.6	10022.8
Flow (%) =	1.4	1.8	2.3	82.8	
Area (sq ft) =	13.6	17.9	20.6	299.4	
Vel (ft/s) =	4.01	3.88	4.14	10.38	
Depth (ft) =	2.02	1.92	2.12	4.33	

Contraction Coefficient (CCHV) .100

Expansion Coefficient (CEHV) .300

STATUS: Analyzing cross-section reach 11.876.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 2.12

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
11.876	.080	.050	.080	8.55	1593.15	.00	.00
.004054	295	340	390	1593.45	.31	2.60	.11
162.07	33	368	589	.00	1590.00	1592.10	4
3756	62	2009	1684	262.9	9956.52	10219.46	0
.43	1.83	5.46	2.86	.000	52.0	1584.60	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 11.876
Total Discharge (cfs, Q) 3756
Computed Water Surface Elevation (ft MSL, CWSEL) 1593.15

Station (ft) =	9956.5	9978.9	10051.6	10080.4	10091.4	10111.2
Flow (%) =	1.7	53.5	4.5	4.2	6.2	
Area (sq ft) =	33.8	368.2	70.8	48.9	78.9	
Vel (ft/s) =	1.83	5.46	2.37	3.20	2.97	
Depth (ft) =	1.51	5.06	2.46	4.45	3.98	

Station (ft) =	10111.2	10131.5	10144.2	10165.8	10179.1	10194.2
Flow (%) =	5.9	3.6	5.4	6.3	4.7	
Area (sq ft) =	77.1	47.6	74.5	68.2	60.0	
Vel (ft/s) =	2.88	2.85	2.70	3.48	2.96	
Depth (ft) =	3.80	3.75	3.45	5.13	3.98	

Station (ft) =	10194.2	10213.8	10219.5
Flow (%) =	4.0	.1	
Area (sq ft) =	59.4	3.8	
Vel (ft/s) =	2.50	.89	
Depth (ft) =	3.03	.67	

STATUS: Analyzing cross-section reach 11.960.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
11.960	.080	.055	.085	6.90	1595.10	.00	.00
.005157	455	445	430	1595.48	.38	2.00	.02
171.72	49	493	386	.00	1592.90	1593.20	4
3756	84	2771	899	301.3	9924.68	10226.01	0
.46	1.73	5.62	2.33	.000	54.8	1588.20	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 11.960
Total Discharge (cfs, Q) 3756
Computed Water Surface Elevation (ft MSL, CWSEL) 1595.10

Station (ft) =	9924.7	9962.6	10061.5	10094.1	10115.1	10144.6
Flow (%) =	2.3	73.8	3.1	3.0	4.1	
Area (sq ft) =	49.1	493.0	60.9	50.2	69.4	
Vel (ft/s) =	1.73	5.62	1.90	2.26	2.22	
Depth (ft) =	1.29	4.99	1.87	2.39	2.35	

Station (ft) =	10144.6	10175.3	10189.0	10197.6	10226.0
Flow (%) =	4.4	3.4	3.1	2.9	
Area (sq ft) =	73.3	45.9	35.7	50.7	
Vel (ft/s) =	2.25	2.79	3.24	2.12	
Depth (ft) =	2.39	3.35	4.15	1.79	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 12.041.

12.041	.067	.050	.085	5.92	1597.62	.00	.00
.007152	490	430	390	1598.16	.54	2.63	.05
180.08	382	355	3	.00	1596.00	1596.20	2
3756	1314	2437	3	264.4	9793.37	10057.82	0
.48	3.43	6.86	1.14	.000	57.7	1591.70	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 12.041
Total Discharge (cfs, Q) 3756
Computed Water Surface Elevation (ft MSL, CWSEL) 1597.62

Station (ft) =	9793.4	9835.1	9861.2	9870.4	9874.8	9878.8
Flow (%) =	3.3	3.2	4.9	5.2	3.5	
Area (sq ft) =	58.6	49.4	34.9	24.5	19.3	
Vel (ft/s) =	2.11	2.46	5.31	7.90	6.90	
Depth (ft) =	1.40	1.89	3.79	5.57	4.82	

Station (ft) =	9878.8	9888.0	9904.2	9938.4	9965.9	9976.3
Flow (%) =	3.5	3.6	3.1	3.6	1.0	
Area (sq ft) =	28.5	44.1	52.5	53.5	17.6	
Vel (ft/s) =	4.56	3.06	2.25	2.53	2.23	
Depth (ft) =	3.10	2.72	1.54	1.95	1.70	

Station (ft) =	9976.3	10053.2	10057.8
Flow (%) =	64.9	.1	
Area (sq ft) =	355.1	3.3	
Vel (ft/s) =	6.86	1.14	
Depth (ft) =	4.62	.71	

STATUS: Analyzing cross-section reach 12.128.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
12.128	.070	.060	.080	7.33	1600.93	.00	.00
.007309	445	460	475	1601.47	.54	3.30	.00
187.48	83	561	29	.00	1597.80	1599.20	2
3756	263	3428	63	182.0	9896.33	10078.36	0
.50	3.15	6.10	2.16	.000	60.0	1593.60	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	12.128
Total Discharge (cfs, Q)	3756
Computed Water Surface Elevation (ft MSL, CWSEL)	1600.93

Station (ft) =	9896.3	9904.7	9923.3	9931.6	9937.4	10049.9
Flow (%) =	.3	2.8	2.1	1.8	91.3	
Area (sq ft) =	6.4	36.8	22.7	17.9	561.7	
Vel (ft/s) =	1.50	2.86	3.54	3.84	6.10	
Depth (ft) =	.76	1.98	2.73	3.08	4.99	

Station (ft) =	10049.9	10057.1	10063.4	10071.2	10078.4
Flow (%) =	1.0	.6	.1	.0	
Area (sq ft) =	14.6	10.3	4.1	.5	
Vel (ft/s) =	2.54	2.16	1.04	.26	
Depth (ft) =	2.03	1.63	.53	.06	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 12.174.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
12.174	.055	.055	.070	5.70	1602.60	.00	.00
.004184	250	240	245	1602.81	.21	1.31	.03
192.58	6	286	861	.00	1599.40	1600.00	2
3756	14	1413	2328	421.2	9977.31	10398.51	0
.52	2.06	4.94	2.70	.000	61.7	1596.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 12.174
Total Discharge (cfs, Q) 3756
Computed Water Surface Elevation (ft MSL, CWSEL) 1602.60

Station (ft) =		9977.3	9981.6	10041.1	10059.2	10073.7	10089.6
Flow (%)	=	.4	37.6	3.3	4.6	4.4	
Area (sq ft)	=	6.8	286.2	51.3	57.4	57.7	
Vel (ft/s)	=	2.06	4.94	2.40	3.01	2.85	
Depth (ft)	=	1.60	4.81	2.83	3.96	3.63	

Station (ft) =		10089.6	10108.5	10139.9	10154.0	10181.2	10189.4
Flow (%)	=	3.3	3.7	4.4	15.5	3.3	
Area (sq ft)	=	52.3	68.8	44.2	122.3	29.9	
Vel (ft/s)	=	2.36	2.03	3.77	4.76	4.11	
Depth (ft)	=	2.77	2.19	3.13	4.50	3.65	

Station (ft) =		10189.4	10216.3	10248.4	10279.2	10354.2	10398.5
Flow (%)	=	3.4	3.1	3.0	8.6	1.5	
Area (sq ft)	=	54.1	60.7	59.9	161.0	41.5	
Vel (ft/s)	=	2.36	1.90	1.89	2.00	1.35	
Depth (ft)	=	2.01	1.89	1.94	2.15	.94	

STATUS: Analyzing cross-section reach 12.249.

STATUS: (3265) Divided flow.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) .63

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
12.249	.085	.055	.085	4.87	1604.77	.00	.00
.010610	405	395	395	1605.45	.67	2.50	.14
201.03	206	428	67	.00	1603.30	1601.90	2
3756	467	3074	214	314.8	9725.85	10068.44	0
.54	2.26	7.17	3.16	.000	65.1	1599.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 12.249
Total Discharge (cfs, Q) 3756
Computed Water Surface Elevation (ft MSL, CWSEL) 1604.77

Station (ft) =	9725.8	9843.4	9868.5	9914.1	9931.4	10034.5
Flow (%) =	3.8	3.1	3.7	1.8	81.9	
Area (sq ft) =	73.1	44.2	61.9	27.6	428.5	
Vel (ft/s) =	1.95	2.65	2.26	2.46	7.17	
Depth (ft) =	.62	1.76	1.36	1.60	4.16	

Station (ft) =	10034.5	10048.1	10068.4
Flow (%) =	3.6	2.1	
Area (sq ft) =	38.1	29.6	
Vel (ft/s) =	3.58	2.62	
Depth (ft) =	2.81	1.45	

STATUS: Analyzing cross-section reach 12.325.

12.325	.085	.060	.085	7.16	1608.26	.00	.00
.005936	400	405	415	1608.63	.37	3.15	.03
208.67	187	434	314	.00	1605.20	1605.00	3
3756	526	2473	755	317.7	9861.98	10179.72	0
.56	2.80	5.69	2.40	.000	68.0	1601.10	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 12.325
Total Discharge (cfs, Q) 3756
Computed Water Surface Elevation (ft MSL, CWSEL) 1608.26

Station (ft) =	9862.0	9902.3	9914.3	9926.2	9935.7	10019.2
Flow (%) =	3.8	3.2	4.6	2.4	65.9	
Area (sq ft) =	67.4	40.1	49.4	31.0	434.5	
Vel (ft/s) =	2.11	3.01	3.48	2.96	5.69	
Depth (ft) =	1.67	3.34	4.15	3.26	5.20	

Station (ft) =	10019.2	10032.1	10044.4	10064.1	10101.2	10129.2
Flow (%) =	3.3	3.5	3.1	5.2	3.6	
Area (sq ft) =	42.1	42.4	46.9	82.2	59.4	
Vel (ft/s) =	2.96	3.07	2.50	2.36	2.27	
Depth (ft) =	3.26	3.45	2.38	2.22	2.12	

Station (ft) =	10129.2	10179.7
Flow (%) =	1.5	
Area (sq ft) =	41.4	
Vel (ft/s) =	1.32	
Depth (ft) =	.82	

STATUS: Analyzing cross-section reach 12.395.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
12.395	.080	.055	.095	6.08	1609.98	.00	.00
.005777	315	370	40	1610.31	.33	1.68	.00
213.98	144	450	430	.00	1608.60	1607.30	2
3756	285	2450	1019	378.6	9845.55	10224.12	0
.58	1.97	5.43	2.37	.000	69.6	1603.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	12.395
Total Discharge (cfs, Q)	3756
Computed Water Surface Elevation (ft MSL, CWSEL)	1609.98

Station (ft) =	9845.5	9910.0	9949.5	10053.6	10074.0	10099.1
Flow (%) =	4.4	3.2	65.2	3.3	4.1	
Area (sq ft) =	82.9	61.9	451.0	54.6	67.0	
Vel (ft/s) =	1.99	1.95	5.43	2.29	2.29	
Depth (ft) =	1.29	1.57	4.33	2.68	2.67	

Station (ft) =	10099.1	10113.4	10126.8	10137.4	10167.8	10196.5
Flow (%) =	3.3	4.8	3.2	4.1	3.1	
Area (sq ft) =	47.2	57.5	41.3	72.0	59.8	
Vel (ft/s) =	2.64	3.14	2.94	2.12	1.94	
Depth (ft) =	3.30	4.29	3.90	2.37	2.08	

Station (ft) =	10196.5	10224.1
Flow (%) =	1.2	
Area (sq ft) =	30.8	
Vel (ft/s) =	1.48	
Depth (ft) =	1.11	

Contraction Coefficient (CCHV) .100

Expansion Coefficient (CEHV) .300

STATUS: Analyzing cross-section reach 12.484.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (7185) Critical depth has been crossed, therefore critical depth has been assumed for the current cross-section.

WARNING: (3720) Critical depth has been assumed.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
12.484	.080	.050	.080	6.62	1613.72	1613.72	.00
.012294	460	465	485	1614.70	.98	3.79	.19
222.97	198	391	51	.00	1613.00	1613.30	3
3706	324	3286	95	481.1	9647.84	10128.91	8
.60	1.64	8.40	1.86	.000	74.2	1607.10	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	12.484
Total Discharge (cfs, Q)	3706
Computed Water Surface Elevation (ft MSL, CWSEL)	1613.72

Station (ft) =	9647.8	9732.9	9858.0	9966.6	10061.3	10128.9
Flow (%) =	3.4	3.1	2.2	88.7	2.6	
Area (sq ft) =	67.0	75.6	55.6	391.3	51.1	
Vel (ft/s) =	1.90	1.54	1.44	8.40	1.86	
Depth (ft) =	.79	.60	.51	4.13	.76	

STATUS: Analyzing cross-section reach 12.568.

STATUS: (3265) Divided flow.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
12.568	.080	.060	.080	7.54	1618.44	.00	.00
.007359	495	445	405	1618.97	.53	4.23	.04
230.38	290	413	62	.00	1615.10	1616.00	3
3706	843	2728	134	324.8	9775.57	10101.94	0
.62	2.90	6.60	2.14	.000	78.6	1610.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 12.568
Total Discharge (cfs, Q) 3706
Computed Water Surface Elevation (ft MSL, CWSEL) 1618.44

Station (ft) =	9775.6	9879.9	9919.4	9951.2	9957.8	9966.2
Flow (%) =	3.1	3.1	7.3	4.4	3.8	
Area (sq ft) =	75.4	56.7	79.5	34.2	34.8	
Vel (ft/s) =	1.53	2.03	3.41	4.77	4.09	
Depth (ft) =	.72	1.43	2.50	5.19	4.15	

Station (ft) =	9966.2	9969.2	10043.5	10070.4	10101.9
Flow (%) =	1.0	73.6	3.2	.4	
Area (sq ft) =	10.2	413.6	48.8	13.9	
Vel (ft/s) =	3.60	6.60	2.42	1.17	
Depth (ft) =	3.39	5.57	1.82	.44	

STATUS: Analyzing cross-section reach 12.650.

12.650	.080	.060	.080	7.70	1621.60	.00	.00
.007120	415	435	460	1622.11	.51	3.14	.00
238.46	209	456	192	.00	1618.90	1619.30	2
3706	381	2913	411	435.3	9744.28	10179.58	0
.64	1.82	6.38	2.14	.000	82.3	1613.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 12.650
Total Discharge (cfs, Q) 3706
Computed Water Surface Elevation (ft MSL, CWSEL) 1621.60

Station (ft) =	9744.3	9917.7	9952.0	9958.7	10042.9	10065.5
Flow (%) =	5.8	3.3	1.2	78.6	3.1	
Area (sq ft) =	138.0	55.7	16.0	456.6	45.9	
Vel (ft/s) =	1.55	2.18	2.80	6.38	2.54	
Depth (ft) =	.80	1.63	2.40	5.42	2.03	

Station (ft) =	10065.5	10102.2	10130.7	10179.6
Flow (%) =	3.1	3.1	1.7	
Area (sq ft) =	55.4	50.6	40.5	
Vel (ft/s) =	2.08	2.31	1.56	
Depth (ft) =	1.51	1.77	.83	

STATUS: Analyzing cross-section reach 12.734.

STATUS: (3265) Divided flow.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
12.734	.080	.040	.080	8.13	1624.43	1624.33	.00
.007951	450	445	390	1625.61	1.18	3.30	.20
245.80	108	309	206	.00	1623.20	1623.20	4
3706	190	2980	534	360.0	9788.62	10198.26	8
.66	1.76	9.64	2.59	.000	86.2	1616.30	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	12.734
Total Discharge (cfs, Q)	3706
Computed Water Surface Elevation (ft MSL, CWSEL)	1624.43

Station (ft) =	9788.6	9951.9	9972.3	10031.9	10090.5	10097.4
Flow (%) =	3.4	1.7	80.4	4.4	3.0	
Area (sq ft) =	78.7	29.6	309.1	76.9	27.6	
Vel (ft/s) =	1.62	2.13	9.64	2.11	4.07	
Depth (ft) =	.48	1.45	5.19	1.31	4.00	

Station (ft) =	10097.4	10109.8	10198.3
Flow (%) =	4.6	2.4	
Area (sq ft) =	45.8	56.2	
Vel (ft/s) =	3.72	1.60	
Depth (ft) =	3.69	.64	

STATUS: Analyzing cross-section reach 12.822.

STATUS: (3265) Divided flow.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
12.822	.080	.050	.080	8.20	1628.50	1628.44	.00
.007314	450	460	485	1629.18	.68	3.53	.05
254.34	314	348	311	.00	1626.80	1627.10	4
3706	528	2680	497	826.8	9576.96	10422.65	5
.68	1.68	7.70	1.60	.000	92.6	1620.30	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	12.822
Total Discharge (cfs, Q)	3706
Computed Water Surface Elevation (ft MSL, CWSEL)	1628.50

Station (ft) =	9577.0	9791.6	9843.7	9927.0	9967.8	9976.5
Flow (%) =	3.7	3.0	3.0	3.6	1.0	
Area (sq ft) =	103.4	62.1	75.1	58.2	15.3	
Vel (ft/s) =	1.32	1.81	1.49	2.28	2.31	
Depth (ft) =	.48	1.19	.90	1.43	1.75	

Station (ft) =	9976.5	10040.7	10097.3	10147.3	10272.2	10405.0
Flow (%) =	72.3	3.7	3.1	3.6	3.0	
Area (sq ft) =	348.2	72.3	61.9	88.5	84.0	
Vel (ft/s) =	7.70	1.87	1.83	1.51	1.34	
Depth (ft) =	5.42	1.28	1.24	.71	.63	

Station (ft) =	10405.0	10422.6
Flow (%) =	.1	
Area (sq ft) =	4.4	
Vel (ft/s) =	.63	
Depth (ft) =	.25	

STATUS: Analyzing cross-section reach 12.909.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
12.909	.080	.050	.080	6.59	1631.39	.00	.00
.004644	475	460	465	1631.86	.47	2.66	.02
263.87	132	627	53	.00	1630.80	1630.30	2
3706	123	3526	56	436.3	9696.58	10132.84	0
.70	.94	5.62	1.05	.000	99.4	1624.80	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 12.909
Total Discharge (cfs, Q) 3706
Computed Water Surface Elevation (ft MSL, CWSEL) 1631.39

Station (ft) =	9696.6	9908.1	9921.6	10055.9	10132.8
Flow (%) =	3.1	.2	95.2	1.5	
Area (sq ft) =	124.1	7.9	627.9	53.1	
Vel (ft/s) =	.94	.89	5.62	1.05	
Depth (ft) =	.59	.59	4.68	.69	

STATUS: Analyzing cross-section reach 13.000.

STATUS: (3265) Divided flow.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) .59

13.000	.080	.050	.080	4.80	1634.60	.00	.00
.013326	510	480	470	1635.53	.93	3.53	.14
271.27	58	437	24	.00	1634.00	1633.30	2
3706	163	3479	62	198.6	9844.23	10072.45	0
.72	2.78	7.95	2.60	.000	103.0	1629.80	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 13.000
Total Discharge (cfs, Q) 3706
Computed Water Surface Elevation (ft MSL, CWSEL) 1634.60

Station (ft) =	9844.2	9919.0	9929.2	10052.4	10072.5
Flow (%) =	3.5	.9	93.9	1.7	
Area (sq ft) =	45.8	13.0	437.4	24.0	
Vel (ft/s) =	2.83	2.61	7.95	2.60	
Depth (ft) =	.61	1.28	3.55	1.20	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 13.079.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 1.58

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
13.079	.080	.050	.053	5.27	1638.57	.00	.00
.005335	430	420	425	1638.95	.39	3.37	.05
277.58	73	517	191	.00	1637.00	1637.20	2
3706	134	2715	855	267.8	9841.61	10109.45	0
.74	1.84	5.25	4.46	.000	105.2	1633.30	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 13.079
Total Discharge (cfs, Q) 3706
Computed Water Surface Elevation (ft MSL, CWSEL) 1638.57

Station (ft) =	9841.6	9889.1	10025.9	10064.6	10072.0	10078.0
Flow (%) =	3.6	73.3	4.5	4.7	5.5	
Area (sq ft) =	73.0	517.6	63.2	31.2	31.3	
Vel (ft/s) =	1.84	5.25	2.62	5.55	6.53	
Depth (ft) =	1.54	3.78	1.63	4.22	5.22	

Station (ft) =	10078.0	10083.8	10097.7	10109.5
Flow (%) =	5.3	3.1	.1	
Area (sq ft) =	30.0	31.6	4.4	
Vel (ft/s) =	6.49	3.60	.77	
Depth (ft) =	5.17	2.27	.38	

STATUS: Analyzing cross-section reach 13.141.

STATUS: (3265) Divided flow.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) .64

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
13.141	.080	.060	.080	5.03	1641.23	.00	.00
.012856	300	325	390	1641.66	.43	2.69	.01
283.99	55	404	372	.00	1639.50	1640.60	2
3706	158	2484	1063	494.2	9931.65	10430.15	0
.76	2.86	6.14	2.85	.000	108.4	1636.20	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 13.141
Total Discharge (cfs, Q) 3706
Computed Water Surface Elevation (ft MSL, CWSEL) 1641.23

Station (ft) =	9931.7	9961.7	9968.7	10093.3	10251.5	10287.4
Flow (%) =	3.3	1.0	67.1	3.2	3.9	
Area (sq ft) =	43.2	12.1	404.6	80.7	48.9	
Vel (ft/s) =	2.81	3.03	6.14	1.47	2.96	
Depth (ft) =	1.44	1.72	3.25	.51	1.36	

Station (ft) =	10287.4	10330.7	10355.9	10378.6	10397.7	10408.1
Flow (%) =	3.8	4.2	3.6	3.7	4.9	
Area (sq ft) =	55.1	48.0	42.0	38.9	37.6	
Vel (ft/s) =	2.53	3.27	3.19	3.49	4.84	
Depth (ft) =	1.27	1.90	1.85	2.03	3.62	

Station (ft) =	10408.1	10430.2
Flow (%) =	1.4	
Area (sq ft) =	21.6	
Vel (ft/s) =	2.43	
Depth (ft) =	.98	

STATUS: Analyzing cross-section reach 13.223.

STATUS: (3265) Divided flow.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 1.57

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
13.223	.000	.060	.080	5.21	1644.91	.00	.00
.005241	450	435	425	1645.05	.14	3.37	.03
295.26	0	375	1082	.00	1644.90	1644.80	2
3706	0	1529	2176	857.5	9980.15	10936.32	0
.80	.01	4.08	2.01	.000	115.0	1639.70	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 13.223
Total Discharge (cfs, Q) 3706
Computed Water Surface Elevation (ft MSL, CWSEL) 1644.91

Station (ft) =	9980.1	10086.8	10125.1	10143.1	10172.7	10264.3
Flow (%) =	41.3	4.1	3.1	3.9	3.9	
Area (sq ft) =	375.2	72.3	46.0	63.1	77.0	
Vel (ft/s) =	4.08	2.12	2.52	2.26	1.87	
Depth (ft) =	3.53	1.89	2.56	2.13	.84	

Station (ft) =	10264.3	10298.9	10313.6	10416.8	10598.0	10641.0
Flow (%) =	3.7	3.5	3.4	3.3	3.1	
Area (sq ft) =	66.2	45.6	92.2	85.9	62.0	
Vel (ft/s) =	2.08	2.85	1.37	1.44	1.88	
Depth (ft) =	1.91	3.10	.89	.47	1.44	

Station (ft) =	10641.0	10653.0	10696.9	10727.6	10757.0	10795.7
Flow (%) =	3.6	3.7	3.5	3.3	4.5	
Area (sq ft) =	42.6	72.4	61.1	57.7	77.8	
Vel (ft/s) =	3.10	1.92	2.13	2.11	2.14	
Depth (ft) =	3.55	1.65	1.99	1.96	2.01	

Station (ft) =	10795.7	10824.8	10849.0	10936.3
Flow (%) =	3.6	3.1	1.2	
Area (sq ft) =	60.8	51.8	47.5	
Vel (ft/s) =	2.21	2.25	.97	
Depth (ft) =	2.09	2.14	.54	

STATUS: Analyzing cross-section reach 13.286.

STATUS: (3265) Divided flow.

PROJECT TITLE : TRILBY WASH; GRAND AVENUE TO C.A.P.
PROJECT NUMBER : P&D No. 10320.00; FCD No. 90-24 11/21/1991

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
13.286	.085	.060	.085	4.84	1646.64	.00	.00
.005688	400	330	295	1646.73	.09	1.68	.00
306.01	3	305	1325	.00	1646.50	1646.70	3
3706	1	1031	2673	1018.2	9885.92	10949.63	0
.84	.33	3.37	2.02	.000	121.5	1641.80	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 13.286
Total Discharge (cfs, Q) 3706
Computed Water Surface Elevation (ft MSL, CWSEL) 1646.64

Station (ft) =	9885.9	9927.4	10053.8	10095.0	10193.7	10266.7
Flow (%) =	.0	27.8	3.2	3.3	3.4	
Area (sq ft) =	3.3	305.8	55.6	93.7	86.2	
Vel (ft/s) =	.33	3.37	2.12	1.31	1.48	
Depth (ft) =	.08	2.43	1.35	.95	1.18	

Station (ft) =	10266.7	10308.8	10343.3	10456.4	10502.5	10528.6
Flow (%) =	3.7	3.7	4.2	3.5	5.9	
Area (sq ft) =	72.4	66.4	94.0	73.1	77.6	
Vel (ft/s) =	1.89	2.05	1.64	1.80	2.80	
Depth (ft) =	1.72	1.92	.83	1.59	2.97	

Station (ft) =	10528.6	10537.3	10569.5	10606.5	10646.6	10677.8
Flow (%) =	3.6	4.6	4.4	4.4	5.2	
Area (sq ft) =	38.0	73.5	75.8	78.2	79.1	
Vel (ft/s) =	3.49	2.30	2.16	2.06	2.46	
Depth (ft) =	4.37	2.28	2.05	1.95	2.53	

Station (ft) =	10677.8	10697.4	10728.6	10762.3	10870.0	10930.0
Flow (%) =	3.5	4.4	4.2	3.6	3.2	
Area (sq ft) =	51.8	71.4	70.9	92.6	65.5	
Vel (ft/s) =	2.52	2.29	2.17	1.44	1.82	
Depth (ft) =	2.64	2.29	2.10	.86	1.09	

Station (ft) =	10930.0	10949.6
Flow (%) =	.2	
Area (sq ft) =	10.0	
Vel (ft/s) =	.90	
Depth (ft) =	.51	

STATUS: Analyzing cross-section reach 13.354.

STATUS: (3265) Divided flow.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (7185) Critical depth has been crossed, therefore critical depth has been assumed for the current cross-section.

WARNING: (3720) Critical depth has been assumed.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
13.354	.085	.060	.085	4.54	1650.44	1650.44	.00
.026136	360	360	365	1651.45	1.01	3.83	.27
315.11	23	291	231	.00	1649.50	1649.70	2
3706	59	2664	981	324.3	9899.99	10493.35	11
.85	2.51	9.14	4.25	.000	127.1	1645.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 13.354
Total Discharge (cfs, Q) 3706
Computed Water Surface Elevation (ft MSL, CWSEL) 1650.44

Station (ft) =	9900.0	9932.1	10015.8	10292.0	10298.2	10305.9
Flow (%) =	1.6	71.9	5.7	5.1	6.1	
Area (sq ft) =	23.7	291.5	62.9	26.0	31.3	
Vel (ft/s) =	2.51	9.14	3.33	7.34	7.16	
Depth (ft) =	.74	3.48	.23	4.19	4.07	

Station (ft) =	10305.9	10334.2	10442.7	10482.6	10493.4
Flow (%) =	3.0	3.1	3.2	.3	
Area (sq ft) =	32.9	35.2	37.7	5.2	
Vel (ft/s) =	3.40	3.28	3.18	1.95	
Depth (ft) =	1.16	.32	.94	.49	

STATUS: Analyzing cross-section reach 13.435.

STATUS: (3265) Divided flow.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 2.58

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9740.00
Right Encroachment Station (ft, STENCR)	10570.00
Encroachment Method (TYPE)	1
Width or Percent Target	830.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
13.435	.085	.060	.085	6.53	1654.83	.00	.00
.003916	430	430	440	1655.05	.22	3.52	.08
324.92	247	490	681	.00	1653.30	1652.00	6
3706	334	2288	1082	809.6	9740.00	10557.71	0
.89	1.35	4.67	1.59	.000	132.8	1648.30	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	13.435
Total Discharge (cfs, Q)	3706
Computed Water Surface Elevation (ft MSL, CWSEL)	1654.83

Station (ft) =	9740.0	9877.3	9951.3	9963.7	10056.7	10089.8
Flow (%) =	3.5	4.6	1.0	61.8	3.1	
Area (sq ft) =	113.8	111.6	22.1	490.3	64.3	
Vel (ft/s) =	1.14	1.52	1.62	4.67	1.80	
Depth (ft) =	.83	1.51	1.78	5.27	1.94	

Station (ft) =	10089.8	10163.7	10190.4	10206.9	10228.9	10280.5
Flow (%) =	3.5	3.4	3.5	3.5	3.6	
Area (sq ft) =	94.9	64.5	53.9	58.8	86.1	
Vel (ft/s) =	1.37	1.97	2.42	2.21	1.54	
Depth (ft) =	1.28	2.41	3.27	2.67	1.67	

Station (ft) =	10280.5	10410.0	10520.0	10557.7
Flow (%) =	5.2	3.1	.3	
Area (sq ft) =	140.8	102.8	15.6	
Vel (ft/s) =	1.37	1.11	.61	
Depth (ft) =	1.09	.93	.41	

STATUS: Analyzing cross-section reach 13.519.

STATUS: (3265) Divided flow.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) .67

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9800.00
Right Encroachment Station (ft, STENCR)	10604.70
Encroachment Method (TYPE)	1
Width or Percent Target	-9800.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
13.519	.085	.060	.085	6.64	1657.14	.00	.00
.008782	450	440	440	1657.60	.46	2.48	.07
336.68	56	436	408	.00	1655.40	1657.60	4
3706	74	2721	909	552.3	9800.00	10420.30	0
.91	1.32	6.23	2.23	.000	139.7	1650.50	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	13.519
Total Discharge (cfs, Q)	3706
Computed Water Surface Elevation (ft MSL, CWSEL)	1657.14

Station (ft) =	9800.0	9961.6	10065.5	10148.9	10176.2	10199.3
Flow (%) =	2.0	73.4	3.2	3.3	3.5	
Area (sq ft) =	56.1	436.7	51.5	49.4	47.7	
Vel (ft/s) =	1.32	6.23	2.30	2.50	2.74	
Depth (ft) =	.35	4.45	.62	1.81	2.06	

Station (ft) =	10199.3	10252.5	10295.0	10327.5	10374.9	10420.3
Flow (%) =	3.8	3.9	3.1	3.5	.2	
Area (sq ft) =	70.5	65.7	51.4	63.3	9.4	
Vel (ft/s) =	2.02	2.19	2.23	2.06	.68	
Depth (ft) =	1.33	1.55	1.58	1.33	.21	

STATUS: Analyzing cross-section reach 13.603.

STATUS: (3265) Divided flow.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9830.00
Right Encroachment Station (ft, STENCR)	10600.00
Encroachment Method (TYPE)	1
Width or Percent Target	-9830.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
13.603	.085	.055	.085	7.94	1660.34	.00	.00
.005433	450	445	575	1660.79	.46	3.19	.00
347.33	160	493	314	.00	1656.90	1659.70	2
3706	336	2961	408	679.5	9830.00	10529.53	0
.94	2.10	6.00	1.30	.000	147.1	1652.40	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	13.603
Total Discharge (cfs, Q)	3706
Computed Water Surface Elevation (ft MSL, CWSEL)	1660.34

Station (ft) =	9830.0	9946.4	9965.1	10057.5	10155.6	10201.3
Flow (%) =	4.1	5.0	79.9	3.6	3.6	
Area (sq ft) =	96.9	63.2	493.9	94.3	73.6	
Vel (ft/s) =	1.57	2.90	6.00	1.42	1.80	
Depth (ft) =	.83	3.38	5.34	.96	1.61	

Station (ft) =	10201.3	10380.0	10529.5
Flow (%) =	3.1	.7	
Area (sq ft) =	101.9	45.1	
Vel (ft/s) =	1.12	.62	
Depth (ft) =	.57	.30	

STATUS: Analyzing cross-section reach 13.691.

STATUS: (3265) Divided flow.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9816.90
Right Encroachment Station (ft, STENCR)	10730.00
Encroachment Method (TYPE)	1
Width or Percent Target	-9816.900

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
13.691	.080	.055	.090	7.38	1663.28	.00	.00
.007850	440	465	510	1663.86	.58	3.03	.04
357.24	139	473	237	.00	1661.60	1662.50	2
3706	262	3122	320	545.7	9816.90	10516.33	0
.96	1.88	6.60	1.35	.000	154.0	1655.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	13.691
Total Discharge (cfs, Q)	3706
Computed Water Surface Elevation (ft MSL, CWSEL)	1663.28

Station (ft) =	9816.9	9876.8	9920.4	9930.9	10033.1	10110.8
Flow (%) =	3.2	3.0	.8	84.3	3.5	
Area (sq ft) =	67.7	56.7	15.0	473.3	81.7	
Vel (ft/s) =	1.77	1.96	2.09	6.60	1.57	
Depth (ft) =	1.13	1.30	1.43	4.63	1.05	

Station (ft) =	10110.8	10470.0	10516.3
Flow (%) =	3.5	1.7	
Area (sq ft) =	112.3	43.3	
Vel (ft/s) =	1.15	1.47	
Depth (ft) =	.31	.94	

STATUS: Analyzing cross-section reach 13.761.

STATUS: (3265) Divided flow.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
13.761	.080	.055	.090	6.56	1665.96	.00	.00
.005900	395	370	350	1666.37	.41	2.50	.02
365.37	119	508	455	.00	1665.60	1663.10	2
3706	114	2926	664	984.7	9666.50	10808.71	0
.98	.96	5.75	1.46	.000	160.4	1659.40	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 13.761
Total Discharge (cfs, Q) 3706
Computed Water Surface Elevation (ft MSL, CWSEL) 1665.96

Station (ft) =	9666.5	9895.1	9958.7	10068.2	10091.2	10122.2
Flow (%) =	3.1	.0	79.0	4.3	3.6	
Area (sq ft) =	118.6	1.3	508.6	63.9	62.0	
Vel (ft/s) =	.96	.45	5.75	2.51	2.14	
Depth (ft) =	.52	.02	4.64	2.78	2.00	

Station (ft) =	10122.2	10630.0	10698.9	10808.7
Flow (%) =	4.5	4.5	1.1	
Area (sq ft) =	183.7	95.0	50.4	
Vel (ft/s) =	.91	1.74	.78	
Depth (ft) =	.36	1.38	.46	

STATUS: Analyzing cross-section reach 13.841.

STATUS: (3265) Divided flow.

13.841	.080	.050	.080	6.48	1668.68	.00	.00
.006872	450	420	375	1668.95	.26	2.56	.01
376.27	9	245	1078	.00	1669.20	1669.30	2
3706	4	1477	2223	898.5	9844.98	10950.78	0
1.01	.54	6.01	2.06	.000	168.8	1662.20	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 13.841
Total Discharge (cfs, Q) 3706
Computed Water Surface Elevation (ft MSL, CWSEL) 1668.68

Station (ft) =	9845.0	9926.0	10032.1	10350.0	10430.0	10525.0
Flow (%) =	.1	39.9	8.5	6.8	6.0	
Area (sq ft) =	9.2	246.0	180.1	122.7	122.0	
Vel (ft/s) =	.54	6.01	1.74	2.05	1.82	
Depth (ft) =	.11	3.94	.57	1.53	1.28	

Station (ft) =	10525.0	10700.0	10720.0	10870.0	10950.8
Flow (%) =	17.3	5.1	14.9	1.5	
Area (sq ft) =	294.7	59.7	252.6	47.2	
Vel (ft/s) =	2.18	3.19	2.18	1.14	
Depth (ft) =	1.68	2.98	1.68	.58	

STATUS: Analyzing cross-section reach 13.912.

STATUS: (3265) Divided flow.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9730.00
Right Encroachment Station (ft, STENCR)	10940.00
Encroachment Method (TYPE)	1
Width or Percent Target	-9730.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
13.912	.070	.055	.070	4.14	1671.24	.00	.00
.006409	355	375	385	1671.46	.22	2.51	.00
387.50	297	319	626	.00	1669.10	1669.70	2
3706	794	1600	1310	868.2	9730.00	10601.24	0
1.04	2.67	5.00	2.09	.000	176.5	1667.10	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	13.912
Total Discharge (cfs, Q)	3706
Computed Water Surface Elevation (ft MSL, CWSEL)	1671.24

Station (ft) =	9730.0	9866.8	9894.1	9932.7	9951.4	9966.8
Flow (%) =	5.5	3.4	4.8	4.8	2.9	
Area (sq ft) =	90.0	49.2	70.0	52.3	36.2	
Vel (ft/s) =	2.28	2.59	2.53	3.38	3.00	
Depth (ft) =	.66	1.80	1.81	2.79	2.35	

Station (ft) =	9966.8	10057.4	10235.0	10285.0	10350.0	10500.0
Flow (%) =	43.2	4.9	3.7	5.8	15.8	
Area (sq ft) =	319.9	115.4	66.2	96.5	247.4	
Vel (ft/s) =	5.00	1.58	2.07	2.21	2.37	
Depth (ft) =	3.53	.65	1.32	1.48	1.65	

Station (ft) =	10500.0	10540.0	10601.2
Flow (%) =	3.8	1.3	
Area (sq ft) =	62.0	39.0	
Vel (ft/s) =	2.28	1.27	
Depth (ft) =	1.55	.64	

STATUS: Analyzing cross-section reach 13.987.

STATUS: (3265) Divided flow.

STATUS: (3280) For cross-section 13.99, ends have been extended vertically .04 feet in order to calculate the hydraulic cross-section properties.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
13.987	.070	.050	.070	5.54	1674.24	.00	.00
.009060	400	400	415	1674.55	.31	3.06	.03
398.83	184	379	613	.00	1674.00	1674.20	3
3706	290	2141	1273	1252.2	9480.30	10793.99	0
1.07	1.58	5.64	2.08	.000	186.5	1668.70	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	13.987
Total Discharge (cfs, Q)	3706
Computed Water Surface Elevation (ft MSL, CWSEL)	1674.24

Station (ft) =	9480.3	9757.2	9842.6	9922.5	10056.6	10198.5
Flow (%) =	3.4	3.2	1.2	57.8	3.7	
Area (sq ft) =	81.7	67.9	34.5	379.6	87.6	
Vel (ft/s) =	1.55	1.74	1.33	5.64	1.58	
Depth (ft) =	.30	.80	.43	2.83	.62	

Station (ft) =	10198.5	10231.5	10268.0	10313.1	10386.0	10450.5
Flow (%) =	3.7	3.1	3.5	4.0	4.1	
Area (sq ft) =	50.4	46.9	56.0	73.3	70.3	
Vel (ft/s) =	2.69	2.41	2.34	2.04	2.14	
Depth (ft) =	1.53	1.29	1.24	1.01	1.09	

Station (ft) =	10450.5	10505.3	10537.8	10630.0	10794.0
Flow (%) =	5.1	3.1	3.0	1.1	
Area (sq ft) =	75.2	45.1	68.2	40.1	
Vel (ft/s) =	2.50	2.52	1.65	1.01	
Depth (ft) =	1.37	1.39	.74	.24	

STATUS: Analyzing cross-section reach 14.076.

STATUS: (3265) Divided flow.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
14.076	.070	.050	.070	5.48	1677.78	.00	.00
.006375	480	470	470	1678.10	.33	3.55	.00
411.53	94	363	715	.00	1676.80	1677.10	3
3706	193	2118	1394	878.0	9911.17	10886.06	0
1.10	2.05	5.83	1.95	.000	198.0	1672.30	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	14.076
Total Discharge (cfs, Q)	3706
Computed Water Surface Elevation (ft MSL, CWSEL)	1677.78

Station (ft) =	9911.2	9970.1	9987.4	10080.2	10155.6	10197.5
Flow (%) =	3.7	1.5	57.2	3.2	3.3	
Area (sq ft) =	69.8	24.7	363.1	69.8	58.2	
Vel (ft/s) =	1.99	2.21	5.83	1.70	2.12	
Depth (ft) =	1.18	1.43	3.91	.93	1.39	

Station (ft) =	10197.5	10225.3	10262.9	10307.1	10340.0	10410.0
Flow (%) =	3.3	3.3	3.6	3.1	5.6	
Area (sq ft) =	49.6	55.5	62.7	49.8	96.9	
Vel (ft/s) =	2.49	2.20	2.15	2.27	2.14	
Depth (ft) =	1.78	1.48	1.42	1.51	1.38	

Station (ft) =	10410.0	10535.0	10850.0	10886.1
Flow (%) =	8.6	3.4	.2	
Area (sq ft) =	159.6	102.9	10.4	
Vel (ft/s) =	2.00	1.22	.74	
Depth (ft) =	1.28	.33	.29	

STATUS: Analyzing cross-section reach 14.126.

STATUS: (3265) Divided flow.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
14.126	.070	.050	.070	5.66	1679.46	.00	.00
.007130	275	260	250	1679.87	.41	1.74	.02
418.04	167	352	518	.00	1677.10	1679.20	2
3706	496	2232	976	771.7	9877.94	10661.81	0
1.12	2.97	6.34	1.88	.000	202.8	1673.80	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 14.126
Total Discharge (cfs, Q) 3706
Computed Water Surface Elevation (ft MSL, CWSEL) 1679.46

Station (ft) =	9877.9	9932.5	9948.8	9972.4	10059.4	10119.2
Flow (%) =	4.6	3.6	5.3	60.2	3.2	
Area (sq ft) =	68.0	40.2	59.2	352.2	62.4	
Vel (ft/s) =	2.48	3.28	3.31	6.34	1.91	
Depth (ft) =	1.25	2.47	2.51	4.05	1.04	

Station (ft) =	10119.2	10197.1	10260.7	10300.0	10355.0	10555.0
Flow (%) =	3.5	3.4	3.1	3.3	3.1	
Area (sq ft) =	72.7	67.3	51.9	59.7	84.9	
Vel (ft/s) =	1.79	1.86	2.24	2.02	1.34	
Depth (ft) =	.93	1.06	1.32	1.09	.42	

Station (ft) =	10555.0	10600.0	10661.8
Flow (%) =	5.0	1.8	
Area (sq ft) =	74.5	45.0	
Vel (ft/s) =	2.51	1.45	
Depth (ft) =	1.65	.73	

STATUS: Analyzing cross-section reach 14.197.

STATUS: (3265) Divided flow.

14.197	.070	.055	.070	5.43	1682.43	.00	.00
.008833	380	375	370	1682.83	.40	2.96	.00
426.91	46	481	505	.00	1681.90	1681.60	3
3706	67	2782	855	1061.4	9798.65	10923.43	0
1.14	1.45	5.78	1.69	.000	210.6	1677.00	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	14.197
Total Discharge (cfs, Q)	3706
Computed Water Surface Elevation (ft MSL, CWSEL)	1682.43

Station (ft) =	9798.7	9918.2	10057.3	10388.0	10674.0	10770.0
Flow (%) =	1.8	75.1	3.1	7.0	6.2	
Area (sq ft) =	46.9	481.7	102.2	165.6	107.2	
Vel (ft/s) =	1.45	5.78	1.11	1.58	2.15	
Depth (ft) =	.39	3.46	.31	.58	1.12	

Station (ft) =	10770.0	10840.0	10923.4
Flow (%) =	4.0	2.8	
Area (sq ft) =	72.1	58.8	
Vel (ft/s) =	2.03	1.77	
Depth (ft) =	1.03	.70	

STATUS: Analyzing cross-section reach 14.310.

STATUS: (3280) For cross-section 14.31, ends have been extended vertically 1.25 feet in order to calculate the hydraulic cross-section properties.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9762.30
Right Encroachment Station (ft, STENCR)	10165.40
Encroachment Method (TYPE)	1
Width or Percent Target	403.101

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
14.310	.080	.050	.080	8.05	1687.95	.00	.00
.009535	600	600	690	1688.51	.56	5.64	.05
440.16	371	250	166	.00	1686.00	1686.90	4
3322	1029	1904	388	397.0	9766.10	10163.11	0
1.17	2.77	7.59	2.33	.000	221.7	1679.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 14.310
Total Discharge (cfs, Q) 3322
Computed Water Surface Elevation (ft MSL, CWSEL) 1687.95

Station (ft) =	9766.1	9805.9	9828.2	9850.8	9881.7	9903.2
Flow (%) =	3.1	4.8	4.6	4.4	5.1	
Area (sq ft) =	47.3	50.8	49.6	54.9	52.0	
Vel (ft/s) =	2.20	3.15	3.07	2.66	3.27	
Depth (ft) =	1.19	2.28	2.19	1.78	2.42	

Station (ft) =	9903.2	9931.5	9967.5	9974.7	10032.7	10091.2
Flow (%) =	3.6	4.0	1.3	57.3	3.4	
Area (sq ft) =	46.9	55.1	14.4	250.8	60.8	
Vel (ft/s) =	2.58	2.44	2.88	7.59	1.86	
Depth (ft) =	1.66	1.53	2.00	4.32	1.04	

Station (ft) =	10091.2	10121.0	10144.9	10163.1
Flow (%) =	3.8	4.0	.4	
Area (sq ft) =	49.7	46.4	10.0	
Vel (ft/s) =	2.56	2.90	1.37	
Depth (ft) =	1.67	1.94	.55	

STATUS: Analyzing cross-section reach 14.396.

STATUS: (3280) For cross-section 14.40, ends have been extended vertically .87 feet in order to calculate the hydraulic cross-section properties.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 9767.30
Right Encroachment Station (ft, STENCR) 10200.00
Encroachment Method (TYPE) 1
Width or Percent Target 432.700

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
14.396	.085	.050	.085	7.57	1691.47	.00	.00
.006043	465	455	430	1691.93	.46	3.41	.01
449.01	341	329	239	.00	1689.40	1689.20	3
3322	707	2173	441	432.7	9767.30	10200.00	0
1.19	2.07	6.60	1.84	.000	226.0	1683.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 14.396
Total Discharge (cfs, Q) 3322
Computed Water Surface Elevation (ft MSL, CWSEL) 1691.47

Station (ft) =	9767.3	9802.2	9826.5	9859.8	9929.5	9950.3
Flow (%) =	3.9	4.1	4.3	3.1	3.6	
Area (sq ft) =	62.8	56.9	66.4	70.3	48.8	
Vel (ft/s) =	2.04	2.40	2.16	1.46	2.42	
Depth (ft) =	1.80	2.34	1.99	1.01	2.35	

Station (ft) =	9950.3	9968.8	10036.1	10072.8	10133.8	10161.8
Flow (%) =	2.4	65.4	3.7	3.7	3.7	
Area (sq ft) =	36.8	329.4	62.3	76.7	56.3	
Vel (ft/s) =	2.15	6.60	1.95	1.60	2.20	
Depth (ft) =	1.99	4.90	1.70	1.26	2.01	

Station (ft) =	10161.8	10200.0
Flow (%) =	2.2	
Area (sq ft) =	44.5	
Vel (ft/s) =	1.64	
Depth (ft) =	1.16	

STATUS: Analyzing cross-section reach 14.481.

14.481	.085	.050	.085	5.87	1694.57	.00	.00
.007906	465	445	400	1694.98	.41	3.04	.01
458.57	315	362	308	.00	1693.70	1694.20	2
3322	578	2233	509	731.5	9636.89	10368.35	0
1.22	1.83	6.17	1.65	.000	231.8	1688.70	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 14.481
Total Discharge (cfs, Q) 3322
Computed Water Surface Elevation (ft MSL, CWSEL) 1694.57

Station (ft) =	9636.9	9720.0	9770.0	9830.2	9857.4	9924.3
Flow (%) =	3.8	3.7	3.2	4.3	2.4	
Area (sq ft) =	77.9	60.8	64.0	56.5	56.6	
Vel (ft/s) =	1.63	2.00	1.67	2.55	1.40	
Depth (ft) =	.94	1.22	1.06	2.08	.85	

Station (ft) =	9924.3	10024.6	10205.2	10285.3	10337.6	10368.4
Flow (%) =	67.2	4.4	7.1	3.7	.2	
Area (sq ft) =	362.1	115.9	117.6	66.3	8.7	
Vel (ft/s) =	6.17	1.25	2.01	1.84	.67	
Depth (ft) =	3.61	.64	1.47	1.27	.28	

STATUS: Analyzing cross-section reach 14.569.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
14.569	.085	.050	.085	6.64	1698.24	.00	.00
.007939	450	465	485	1698.67	.43	3.69	.01
468.66	255	367	275	.00	1697.20	1696.30	3
3322	484	2285	551	567.5	9672.85	10240.37	0
1.25	1.90	6.22	2.01	.000	238.7	1691.60	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 14.569
Total Discharge (cfs, Q) 3322
Computed Water Surface Elevation (ft MSL, CWSEL) 1698.24

Station (ft) =	9672.9	9825.6	9857.9	9892.6	9934.7	10035.3
Flow (%) =	3.8	4.4	3.4	3.0	68.8	
Area (sq ft) =	86.2	61.3	53.5	54.2	367.3	
Vel (ft/s) =	1.46	2.39	2.09	1.84	6.22	
Depth (ft) =	.56	1.90	1.54	1.29	3.65	

Station (ft) =	10035.3	10068.7	10101.3	10154.2	10188.8	10240.4
Flow (%) =	4.3	3.2	4.1	3.4	1.6	
Area (sq ft) =	61.4	50.6	71.5	53.6	37.9	
Vel (ft/s) =	2.34	2.09	1.91	2.09	1.42	
Depth (ft) =	1.84	1.55	1.35	1.55	.73	

STATUS: Analyzing cross-section reach 14.656.

STATUS: (3265) Divided flow.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
14.656	.085	.050	.085	6.58	1701.88	.00	.00
.008831	460	460	475	1702.64	.76	3.87	.10
477.02	109	335	225	.00	1699.60	1700.60	2
3322	270	2618	433	382.6	9902.69	10286.65	0
1.27	2.47	7.80	1.92	.000	243.8	1695.30	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	14.656
Total Discharge (cfs, Q)	3322
Computed Water Surface Elevation (ft MSL, CWSEL)	1701.88

Station (ft) =	9902.7	9961.3	9973.0	10043.3	10070.5	10111.4
Flow (%) =	5.8	2.4	78.8	3.5	3.2	
Area (sq ft) =	82.5	27.3	335.5	47.4	52.8	
Vel (ft/s) =	2.33	2.89	7.80	2.43	2.00	
Depth (ft) =	1.41	2.33	4.77	1.74	1.29	

Station (ft) =	10111.4	10191.1	10286.6
Flow (%) =	3.6	2.8	
Area (sq ft) =	71.5	53.5	
Vel (ft/s) =	1.68	1.71	
Depth (ft) =	.90	.56	

STATUS: Analyzing cross-section reach 14.711.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 1.56

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
14.711	.085	.050	.085	6.01	1704.01	.00	.00
.003645	305	290	260	1704.25	.24	1.56	.05
482.88	305	531	282	.00	1702.40	1702.30	2
3322	559	2387	374	505.1	9805.58	10310.65	0
1.29	1.83	4.49	1.33	.000	246.7	1698.00	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 14.711
Total Discharge (cfs, Q) 3322
Computed Water Surface Elevation (ft MSL, CWSEL) 1704.01

Station (ft) =	9805.6	9877.7	9883.6	9908.2	9932.7	9971.3
Flow (%) =	4.4	3.0	3.5	3.8	2.1	
Area (sq ft) =	97.8	31.9	60.6	62.8	52.8	
Vel (ft/s) =	1.50	3.13	1.95	2.01	1.30	
Depth (ft) =	1.36	5.41	2.46	2.56	1.37	

Station (ft) =	9971.3	10103.5	10186.1	10243.7	10310.0
Flow (%) =	71.9	4.4	3.2	3.7	
Area (sq ft) =	531.5	112.8	80.1	89.2	
Vel (ft/s) =	4.49	1.30	1.32	1.36	
Depth (ft) =	4.02	1.37	1.39	1.34	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 14.754.

WARNING: (7185) Critical depth has been crossed, therefore critical depth has been assumed for the current cross-section.

WARNING: (3720) Critical depth has been assumed.

14.754	.085	.049	.065	5.43	1705.43	1705.43	.00
.014456	225	230	255	1706.03	.60	1.50	.11
487.95	271	285	202	.00	1704.90	1704.70	3
3322	684	2147	489	740.0	9676.45	10416.46	9
1.30	2.52	7.52	2.41	.000	250.1	1700.00	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 14.754
Total Discharge (cfs, Q) 3322
Computed Water Surface Elevation (ft MSL, CWSEL) 1705.43

Station (ft) =	9676.5	9728.3	9763.6	9771.4	9841.3	9893.3
Flow (%) =	3.8	5.1	3.4	3.2	3.1	
Area (sq ft) =	50.3	54.5	25.0	54.6	49.7	
Vel (ft/s) =	2.51	3.09	4.50	1.92	2.04	
Depth (ft) =	.97	1.54	3.21	.78	.96	

Station (ft) =	9893.3	9939.6	9960.1	10011.4	10035.8	10064.0
Flow (%) =	2.1	2.1	58.2	4.3	3.2	
Area (sq ft) =	38.0	27.5	212.5	45.6	31.2	
Vel (ft/s) =	1.86	2.55	9.10	3.15	3.36	
Depth (ft) =	.82	1.34	4.14	1.87	1.11	

Station (ft) =	10064.0	10084.6	10128.8	10315.3	10416.5
Flow (%) =	4.7	3.3	3.0	.5	
Area (sq ft) =	32.3	43.2	75.2	21.0	
Vel (ft/s) =	4.83	2.56	1.34	.82	
Depth (ft) =	1.57	.98	.40	.21	

STATUS: Analyzing cross-section reach 14.845.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 1.70

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
14.845	.085	.050	.085	5.77	1709.67	.00	.00
.005015	480	480	500	1709.91	.23	3.84	.04
498.83	482	435	277	.00	1707.80	1707.30	4
3322	753	2060	508	712.4	9515.60	10228.00	0
1.34	1.56	4.73	1.83	.000	258.2	1703.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 14.845
Total Discharge (cfs, Q) 3322
Computed Water Surface Elevation (ft MSL, CWSEL) 1709.67

Station (ft) =	9515.6	9618.3	9650.5	9696.7	9749.1	9853.1
Flow (%) =	3.5	3.3	4.0	3.4	3.4	
Area (sq ft) =	88.4	59.2	76.5	70.3	95.1	
Vel (ft/s) =	1.31	1.87	1.75	1.59	1.18	
Depth (ft) =	.86	1.84	1.65	1.34	.91	

Station (ft) =	9853.1	9887.3	9905.5	10033.6	10052.6	10081.0
Flow (%) =	3.2	1.8	62.0	4.7	4.2	
Area (sq ft) =	59.7	33.1	435.3	59.0	64.3	
Vel (ft/s) =	1.79	1.85	4.73	2.64	2.16	
Depth (ft) =	1.74	1.82	3.40	3.10	2.26	

Station (ft) =	10081.0	10135.3	10223.4	10228.0
Flow (%) =	3.4	3.1	.0	
Area (sq ft) =	73.0	80.5	.4	
Vel (ft/s) =	1.53	1.26	.24	
Depth (ft) =	1.34	.91	.09	

STATUS: Analyzing cross-section reach 14.937.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) .65

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
14.937	.080	.050	.080	5.67	1712.97	.00	.00
.012049	500	485	480	1713.65	.68	3.61	.13
509.23	235	316	102	.00	1712.30	1711.30	3
3322	585	2395	341	339.5	9748.02	10087.50	0
1.36	2.49	7.58	3.32	.000	264.2	1707.30	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 14.937
Total Discharge (cfs, Q) 3322
Computed Water Surface Elevation (ft MSL, CWSEL) 1712.97

Station (ft) =	9748.0	9793.8	9868.6	9896.2	9920.6	9939.7
Flow (%) =	3.5	4.6	4.4	3.5	1.6	
Area (sq ft) =	48.1	75.2	48.2	40.7	22.9	
Vel (ft/s) =	2.42	2.05	3.01	2.87	2.32	
Depth (ft) =	1.05	1.01	1.75	1.67	1.20	

Station (ft) =		9939.7	10028.1	10040.6	10061.5	10087.5
Flow (%)	=	72.1	3.5	5.2	1.6	
Area (sq ft)	=	316.2	30.8	48.2	23.9	
Vel (ft/s)	=	7.58	3.75	3.60	2.18	
Depth (ft)	=	3.58	2.46	2.30	.92	

STATUS: Analyzing cross-section reach 14.976.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
14.976	.080	.050	.080	6.14	1715.14	.00	.00
.007288	205	205	225	1715.59	.45	1.91	.02
512.89	377	333	165	.00	1713.80	1713.40	2
3322	787	2155	379	466.8	9685.77	10152.61	0
1.37	2.09	6.47	2.30	.000	266.1	1709.00	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	14.976
Total Discharge (cfs, Q)	3322
Computed Water Surface Elevation (ft MSL, CWSEL)	1715.14

Station (ft) =		9685.8	9731.9	9771.2	9822.1	9843.7	9882.8
Flow (%)	=	4.5	3.8	3.7	3.0	4.3	
Area (sq ft)	=	68.4	59.4	61.5	41.1	64.0	
Vel (ft/s)	=	2.17	2.14	2.00	2.46	2.21	
Depth (ft)	=	1.48	1.51	1.21	1.90	1.64	

Station (ft) =		9882.8	9941.1	9955.0	10035.9	10070.7	10091.0
Flow (%)	=	3.6	.8	64.9	4.1	4.4	
Area (sq ft)	=	66.9	15.8	333.4	59.8	50.5	
Vel (ft/s)	=	1.78	1.73	6.47	2.28	2.91	
Depth (ft)	=	1.15	1.14	4.12	1.72	2.49	

Station (ft) =		10091.0	10152.6
Flow (%)	=	2.9	
Area (sq ft)	=	54.8	
Vel (ft/s)	=	1.76	
Depth (ft)	=	.89	

STATUS: Analyzing cross-section reach 15.044.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.044	.070	.065	.070	5.31	1718.11	.00	.00
.007940	405	360	335	1718.37	.26	2.77	.02
520.30	202	316	363	.00	1716.80	1716.10	3
3035	587	1609	837	521.7	9856.09	10377.83	0
1.40	2.91	5.09	2.30	.000	270.3	1712.80	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 15.044
Total Discharge (cfs, Q) 3035
Computed Water Surface Elevation (ft MSL, CWSEL) 1718.11

Station (ft) =	9856.1	9884.8	9910.3	9928.6	9945.2	9969.3
Flow (%) =	5.5	4.6	3.2	3.0	3.0	
Area (sq ft) =	51.5	48.3	34.1	31.7	36.4	
Vel (ft/s) =	3.22	2.90	2.86	2.91	2.50	
Depth (ft) =	1.80	1.89	1.86	1.91	1.51	

Station (ft) =	9969.3	10048.9	10079.1	10135.9	10191.1	10230.0
Flow (%) =	53.0	4.4	3.2	3.1	4.3	
Area (sq ft) =	316.5	49.4	52.5	50.0	54.9	
Vel (ft/s) =	5.09	2.68	1.85	1.87	2.38	
Depth (ft) =	3.98	1.64	.92	.91	1.41	

Station (ft) =	10230.0	10261.6	10280.6	10324.5	10377.8
Flow (%) =	4.4	3.8	4.0	.5	
Area (sq ft) =	50.9	38.3	54.6	12.8	
Vel (ft/s) =	2.61	3.02	2.22	1.12	
Depth (ft) =	1.61	2.01	1.24	.24	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.118.

15.118	.061	.055	.085	3.56	1721.06	.00	.00
.007463	340	390	410	1721.26	.20	2.88	.01
527.89	512	329	43	.00	1720.60	1720.40	2
3035	1692	1288	53	500.7	9597.26	10097.97	0
1.42	3.31	3.91	1.23	.000	274.7	1717.50	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 15.118
Total Discharge (cfs, Q) 3035
Computed Water Surface Elevation (ft MSL, CWSEL) 1721.06

Station (ft) =	9597.3	9650.0	9670.0	9762.1	9826.1	9851.0
Flow (%) =	9.5	10.2	24.1	4.7	3.8	
Area (sq ft) =	81.7	62.3	191.0	79.8	49.0	
Vel (ft/s) =	3.52	4.98	3.82	1.79	2.37	
Depth (ft) =	1.55	3.11	2.07	1.25	1.97	

Station (ft) =	9851.0	9874.2	9879.8	10031.7	10098.0
Flow (%) =	3.2	.2	42.5	1.8	
Area (sq ft) =	43.1	5.1	329.7	43.4	
Vel (ft/s) =	2.28	1.41	3.91	1.23	
Depth (ft) =	1.86	.91	2.17	.65	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.208.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
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15.208	.075	.055	.075	4.46	1725.36	.00	.00
.013283	425	475	520	1725.82	.46	4.48	.08
536.14	178	397	110	.00	1724.00	1724.10	4
3035	432	2390	212	490.5	9804.23	10294.72	0
1.45	2.42	6.02	1.91	.000	280.0	1720.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 15.208
Total Discharge (cfs, Q) 3035
Computed Water Surface Elevation (ft MSL, CWSEL) 1725.36

Station (ft) =	9804.2	9850.0	9920.0	9963.6	9976.1	10122.5
Flow (%) =	4.2	4.9	3.3	1.8	78.8	
Area (sq ft) =	49.3	67.1	43.4	18.6	397.1	
Vel (ft/s) =	2.60	2.22	2.30	2.98	6.02	
Depth (ft) =	1.08	.96	1.00	1.49	2.71	

Station (ft) =	10122.5	10170.7	10229.6	10294.7
Flow (%) =	3.2	3.0	.7	
Area (sq ft) =	44.8	46.7	19.4	
Vel (ft/s) =	2.19	1.96	1.16	
Depth (ft) =	.93	.79	.30	

STATUS: Analyzing cross-section reach 15.298.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.298	.075	.055	.075	5.12	1730.02	.00	.00
.007176	515	475	450	1730.34	.31	4.50	.01
544.12	16	325	447	.00	1728.30	1727.90	3
3035	33	1759	1241	334.3	9958.84	10293.14	0
1.48	1.99	5.40	2.77	.000	284.5	1724.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	15.298
Total Discharge (cfs, Q)	3035
Computed Water Surface Elevation (ft MSL, CWSEL)	1730.02

Station (ft) =	9958.8	9975.5	10064.8	10084.3	10099.1	10115.4
Flow (%) =	1.1	58.0	3.7	3.6	3.8	
Area (sq ft) =	16.8	325.7	41.0	36.1	38.8	
Vel (ft/s) =	1.99	5.40	2.76	3.05	3.00	
Depth (ft) =	1.01	3.65	2.10	2.44	2.38	

Station (ft) =	10115.4	10135.4	10155.5	10176.6	10195.5	10212.2
Flow (%) =	3.7	4.2	4.7	3.9	3.6	
Area (sq ft) =	41.5	44.7	48.7	41.7	37.7	
Vel (ft/s) =	2.73	2.86	2.93	2.85	2.89	
Depth (ft) =	2.08	2.22	2.31	2.21	2.26	

Station (ft) =	10212.2	10228.6	10246.5	10293.1
Flow (%) =	3.7	3.2	2.7	
Area (sq ft) =	38.2	35.9	43.5	
Vel (ft/s) =	2.95	2.68	1.86	
Depth (ft) =	2.33	2.01	.93	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.379.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.379	.069	.052	.100	4.25	1733.15	.00	.00
.007116	450	430	415	1733.42	.27	3.08	.00
552.11	409	325	91	.00	1731.80	1731.10	3
3035	1278	1614	142	414.3	9740.72	10155.05	0
1.51	3.12	4.96	1.56	.000	288.2	1728.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 15.379
Total Discharge (cfs, Q) 3035
Computed Water Surface Elevation (ft MSL, CWSEL) 1733.15

Station (ft) =	9740.7	9759.0	9768.7	9782.3	9858.2	9868.1
Flow (%) =	3.6	4.6	5.2	5.2	5.1	
Area (sq ft) =	32.2	30.8	38.0	73.6	33.2	
Vel (ft/s) =	3.37	4.50	4.12	2.15	4.63	
Depth (ft) =	1.76	3.18	2.79	.97	3.35	

Station (ft) =	9868.1	9880.7	9895.4	9919.8	9949.6	9964.8
Flow (%) =	6.5	3.5	3.3	4.1	1.2	
Area (sq ft) =	42.2	30.9	46.0	61.0	22.1	
Vel (ft/s) =	4.68	3.42	2.19	2.03	1.61	
Depth (ft) =	3.35	2.10	1.88	2.05	1.45	

Station (ft) =	9964.8	9982.4	10033.0	10044.3	10065.3	10072.9
Flow (%) =	1.5	35.4	1.9	13.1	1.3	
Area (sq ft) =	27.3	182.8	26.4	70.9	17.9	
Vel (ft/s) =	1.68	5.87	2.20	5.61	2.21	
Depth (ft) =	1.55	3.61	2.33	3.38	2.35	

Station (ft) =	10072.9	10115.0	10155.1
Flow (%) =	4.0	.7	
Area (sq ft) =	68.9	22.4	
Vel (ft/s) =	1.76	.94	
Depth (ft) =	1.64	.56	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.443.

STATUS: (3265) Divided flow.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
15.443	.073	.050	.100	4.27	1735.87	.00	.00
.009979	335	335	355	1736.27	.41	2.81	.04
558.11	387	260	76	.00	1734.90	1734.00	2
3035	1225	1650	158	381.2	9741.94	10197.83	0
1.53	3.16	6.34	2.08	.000	291.2	1731.60	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 15.443
Total Discharge (cfs, Q) 3035
Computed Water Surface Elevation (ft MSL, CWSEL) 1735.87

Station (ft) =	9741.9	9801.7	9811.0	9829.0	9869.0	9921.5
Flow (%) =	16.2	5.7	6.6	5.3	3.7	
Area (sq ft) =	117.2	31.3	44.5	72.8	64.9	
Vel (ft/s) =	4.19	5.54	4.52	2.21	1.72	
Depth (ft) =	1.96	3.37	2.47	1.82	1.24	

Station (ft) =	9921.5	9975.2	10057.8	10079.4	10197.8
Flow (%) =	2.9	54.4	4.0	1.3	
Area (sq ft) =	56.6	260.5	47.6	28.9	
Vel (ft/s) =	1.54	6.34	2.52	1.35	
Depth (ft) =	1.05	3.15	2.21	.24	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.500.

STATUS: (3265) Divided flow.

15.500	.071	.066	.100	4.83	1738.73	.00	.00
.007519	300	300	295	1738.88	.15	2.58	.03
564.17	423	486	127	.00	1737.70	1736.60	3
3035	1031	1734	269	636.5	9555.28	10249.36	0
1.56	2.44	3.56	2.10	.000	294.7	1733.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 15.500
Total Discharge (cfs, Q) 3035
Computed Water Surface Elevation (ft MSL, CWSEL) 1738.73

Station (ft) =	9555.3	9610.3	9620.2	9678.5	9709.8	9719.5
Flow (%) =	4.3	3.2	3.5	4.2	3.3	
Area (sq ft) =	47.0	24.9	64.0	52.9	25.0	
Vel (ft/s) =	2.75	3.92	1.68	2.41	4.04	
Depth (ft) =	.86	2.51	1.10	1.69	2.58	

Station (ft) =	9719.5	9729.5	9742.6	9764.9	9840.3	9978.6
Flow (%) =	3.5	3.7	3.2	3.1	1.9	
Area (sq ft) =	26.2	30.2	33.5	71.4	47.9	
Vel (ft/s) =	4.08	3.75	2.89	1.34	1.19	
Depth (ft) =	2.62	2.31	1.50	.95	.35	

Station (ft) =	9978.6	10037.0	10124.7	10176.0	10200.6	10231.3
Flow (%) =	18.5	11.0	27.6	4.8	3.9	
Area (sq ft) =	144.3	168.5	173.8	60.9	57.8	
Vel (ft/s) =	3.90	1.99	4.81	2.38	2.02	
Depth (ft) =	2.47	1.92	3.39	2.48	1.88	

Station (ft) =	10231.3	10249.4
Flow (%) =	.3	
Area (sq ft) =	9.3	
Vel (ft/s) =	.83	
Depth (ft) =	.51	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.581.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.581	.091	.056	.100	4.93	1742.13	.00	.00
.008990	380	430	460	1742.29	.16	3.41	.00
574.73	607	349	239	.00	1741.00	1740.20	3
3035	1146	1465	423	883.2	9477.53	10360.72	0
1.59	1.89	4.19	1.76	.000	301.8	1737.20	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	15.581
Total Discharge (cfs, Q)	3035
Computed Water Surface Elevation (ft MSL, CWSEL)	1742.13

Station (ft) =	9477.5	9533.2	9560.8	9601.9	9645.8	9699.2
Flow (%) =	3.9	3.1	4.0	3.3	3.9	
Area (sq ft) =	67.2	47.0	62.7	58.0	69.8	
Vel (ft/s) =	1.77	2.02	1.92	1.75	1.70	
Depth (ft) =	1.21	1.70	1.53	1.32	1.31	

Station (ft) =	9699.2	9748.1	9823.3	9921.4	9935.0	9942.5
Flow (%) =	3.0	3.4	3.6	3.8	3.2	
Area (sq ft) =	57.6	73.1	78.3	29.3	20.9	
Vel (ft/s) =	1.58	1.40	1.39	3.99	4.57	
Depth (ft) =	1.18	.97	.80	2.15	2.79	

Station (ft) =	9942.5	9982.3	10020.6	10062.2	10144.2	10162.5
Flow (%) =	2.5	12.4	1.2	34.7	3.1	
Area (sq ft) =	43.7	90.7	31.0	228.1	39.6	
Vel (ft/s) =	1.77	4.14	1.16	4.62	2.36	
Depth (ft) =	1.10	2.37	.74	2.78	2.16	

Station (ft) =	10162.5	10222.9	10261.0	10341.3	10360.7
Flow (%) =	4.1	3.4	3.3	.1	
Area (sq ft) =	67.8	54.7	72.7	5.2	
Vel (ft/s) =	1.81	1.88	1.39	.60	
Depth (ft) =	1.12	1.44	.90	.27	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.637.

STATUS: (3265) Divided flow.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.637	.060	.060	.063	5.19	1744.59	.00	.00
.008045	285	295	300	1744.82	.23	2.51	.02
581.52	93	56	663	.00	1744.70	1745.00	2
3035	253	162	2618	523.7	9889.49	10528.91	0
1.62	2.71	2.86	3.95	.000	306.6	1739.40	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	15.637
Total Discharge (cfs, Q)	3035
Computed Water Surface Elevation (ft MSL, CWSEL)	1744.59

Station (ft) =	9889.5	9926.7	9951.6	9972.0	10019.0	10137.8
Flow (%) =	4.3	3.3	.8	5.4	7.3	
Area (sq ft) =	47.1	34.8	11.9	56.8	57.7	
Vel (ft/s) =	2.76	2.85	2.10	2.86	3.82	
Depth (ft) =	1.27	1.40	.58	1.48	.49	

Station (ft) =	10137.8	10143.7	10150.6	10156.2	10162.7	10175.6
Flow (%) =	6.7	7.7	5.4	4.0	3.1	
Area (sq ft) =	30.6	35.5	26.3	23.4	29.3	
Vel (ft/s) =	6.66	6.62	6.19	5.13	3.22	
Depth (ft) =	5.19	5.14	4.69	3.59	2.27	

Station (ft) =	10175.6	10255.0	10335.0	10360.0	10380.0	10400.0
Flow (%) =	3.1	7.8	15.4	12.9	7.6	
Area (sq ft) =	54.3	92.5	89.9	73.9	53.9	
Vel (ft/s) =	1.71	2.56	5.20	5.29	4.30	
Depth (ft) =	.68	1.16	3.59	3.69	2.69	

Station (ft) =	10400.0	10420.0	10528.9
Flow (%) =	3.2	2.1	
Area (sq ft) =	31.9	64.1	
Vel (ft/s) =	3.02	1.02	
Depth (ft) =	1.59	.59	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.683.

STATUS: (3265) Divided flow.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.683	.000	.060	.062	5.95	1746.95	.00	.00
.013399	235	245	255	1747.51	.56	2.59	.10
585.41	0	80	448	.00	1747.00	1748.00	2
3035	0	249	2785	306.0	9930.47	10471.25	0
1.63	.00	3.10	6.22	.000	309.0	1741.00	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	15.683
Total Discharge (cfs, Q)	3035
Computed Water Surface Elevation (ft MSL, CWSEL)	1746.95

Station (ft) =	9930.5	10015.0	10269.6	10277.8	10285.3	10292.4
Flow (%) =	8.2	3.4	5.2	10.0	12.9	
Area (sq ft) =	80.4	42.2	25.8	37.1	41.9	
Vel (ft/s) =	3.10	2.45	6.06	8.17	9.36	
Depth (ft) =	1.14	.17	3.15	4.95	5.90	

Station (ft) =	10292.4	10298.6	10301.6	10309.8	10322.5	10329.6
Flow (%) =	10.8	4.0	4.8	6.5	8.2	
Area (sq ft) =	35.6	15.0	24.6	34.8	31.9	
Vel (ft/s) =	9.19	8.04	5.88	5.64	7.75	
Depth (ft) =	5.75	5.00	3.01	2.74	4.50	

Station (ft) =	10329.6	10335.4	10339.4	10344.1	10352.3	10435.2
Flow (%) =	8.4	5.7	4.4	3.4	3.3	
Area (sq ft) =	29.9	20.4	19.0	20.1	47.3	
Vel (ft/s) =	8.55	8.48	6.96	5.16	2.11	
Depth (ft) =	5.15	5.10	4.05	2.45	.57	

Station (ft) =	10435.2	10471.2
Flow (%) =	1.0	
Area (sq ft) =	22.4	
Vel (ft/s) =	1.32	
Depth (ft) =	.62	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.749.

STATUS: (3265) Divided flow.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) .48

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.749	.080	.060	.064	6.28	1751.68	.00	.00
.010326	355	345	345	1751.84	.16	4.29	.04
589.18	198	70	149	.00	1751.60	1752.10	3
1275	478	274	522	392.6	9781.57	10225.65	0
1.66	2.41	3.89	3.50	.000	311.8	1745.40	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 15.749
Total Discharge (cfs, Q) 1275
Computed Water Surface Elevation (ft MSL, CWSEL) 1751.68

Station (ft) =	9781.6	9807.2	9811.6	9815.5	9830.4	9869.1
Flow (%) =	6.8	6.2	3.5	3.2	5.5	
Area (sq ft) =	32.5	17.1	12.0	18.3	36.1	
Vel (ft/s) =	2.68	4.66	3.75	2.22	1.93	
Depth (ft) =	1.27	3.88	3.08	1.23	.93	

Station (ft) =	9869.1	9882.2	9918.9	9977.2	10013.5	10155.9
Flow (%) =	5.3	3.9	3.0	21.5	3.8	
Area (sq ft) =	23.8	29.9	28.3	70.7	35.3	
Vel (ft/s) =	2.86	1.65	1.36	3.89	1.36	
Depth (ft) =	1.82	.82	.49	1.97	.25	

Station (ft) =	10155.9	10183.3	10191.9	10212.1	10225.6
Flow (%) =	17.6	14.4	4.6	.6	
Area (sq ft) =	53.7	32.5	21.7	6.1	
Vel (ft/s) =	4.18	5.65	2.67	1.19	
Depth (ft) =	1.96	3.78	1.08	.45	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.842.

STATUS: (3265) Divided flow.

15.842	.080	.060	.064	8.68	1757.28	.00	.00
.012514	505	495	495	1757.49	.21	5.64	.01
593.88	59	126	217	.00	1756.80	1757.50	4
1275	75	571	628	491.8	9805.69	10338.95	0
1.70	1.27	4.51	2.89	.000	316.8	1748.60	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 15.842
Total Discharge (cfs, Q) 1275
Computed Water Surface Elevation (ft MSL, CWSEL) 1757.28

Station (ft) =	9805.7	9892.0	9960.2	10026.9	10167.2	10174.1
Flow (%) =	3.9	2.0	44.8	6.0	6.6	
Area (sq ft) =	39.7	19.7	126.6	42.7	16.8	
Vel (ft/s) =	1.25	1.30	4.51	1.78	5.00	
Depth (ft) =	.46	.29	2.10	.30	2.43	

Station (ft) =	10174.1	10180.2	10191.4	10221.1	10237.1	10242.9
Flow (%) =	3.5	4.2	3.9	4.7	6.3	
Area (sq ft) =	10.9	15.5	21.7	18.6	15.3	
Vel (ft/s) =	4.05	3.44	2.30	3.21	5.26	
Depth (ft) =	1.78	1.38	.73	1.16	2.63	

Station (ft) =	10242.9	10248.9	10287.7	10316.1	10338.9
Flow (%) =	5.3	3.8	3.4	1.7	
Area (sq ft) =	14.0	24.8	23.6	13.8	
Vel (ft/s) =	4.80	1.97	1.84	1.59	
Depth (ft) =	2.33	.64	.83	.60	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.890.

STATUS: (3265) Divided flow.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.890	.080	.060	.080	8.61	1760.61	.00	.00
.012329	250	250	275	1760.73	.12	3.23	.01
596.64	198	144	176	.00	1760.50	1760.00	5
1275	374	521	378	569.3	9719.71	10308.15	0
1.72	1.89	3.62	2.15	.000	320.0	1752.00	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 15.890
Total Discharge (cfs, Q) 1275
Computed Water Surface Elevation (ft MSL, CWSEL) 1760.61

Station (ft) =	9719.7	9797.4	9817.7	9847.1	9864.0	9882.3
Flow (%) =	4.0	4.3	5.8	3.2	3.5	
Area (sq ft) =	39.1	23.8	33.2	18.7	20.2	
Vel (ft/s) =	1.30	2.30	2.24	2.21	2.21	
Depth (ft) =	.50	1.17	1.13	1.11	1.11	

Station (ft) =	9882.3	9913.0	9948.1	9974.5	10068.3	10099.9
Flow (%) =	4.4	3.4	.7	40.9	4.7	
Area (sq ft) =	28.6	25.8	8.7	144.1	29.7	
Vel (ft/s) =	1.97	1.69	1.03	3.62	2.03	
Depth (ft) =	.93	.73	.33	1.54	.94	

Station (ft) =	10099.9	10122.4	10170.2	10181.9	10230.1	10236.9
Flow (%) =	3.5	3.7	3.2	4.4	3.1	
Area (sq ft) =	21.5	20.7	15.5	32.2	12.6	
Vel (ft/s) =	2.05	2.29	2.67	1.75	3.10	
Depth (ft) =	.96	.43	1.32	.67	1.86	

Station (ft) =	10236.9	10245.7	10281.9	10308.2
Flow (%) =	3.8	3.1	.2	
Area (sq ft) =	15.7	24.3	3.9	
Vel (ft/s) =	3.06	1.64	.61	
Depth (ft) =	1.78	.67	.15	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.898.

STATUS: (3265) Divided flow.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9691.00
Right Encroachment Station (ft, STENCR)	10468.70
Encroachment Method (TYPE)	1
Width or Percent Target	777.700

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
15.898	.080	.062	.080	6.83	1761.13	.00	.00
.009319	45	45	45	1761.21	.08	.48	.00
597.22	259	156	192	.00	1760.80	1760.50	2
1275	459	469	345	633.6	9691.00	10337.04	0
1.73	1.77	3.00	1.80	.000	320.6	1754.30	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 15.898
Total Discharge (cfs, Q) 1275
Computed Water Surface Elevation (ft MSL, CWSEL) 1761.13

Station (ft) =	9691.0	9832.5	9886.9	9919.4	9966.1	9982.7
Flow (%) =	16.3	11.5	4.1	3.2	1.0	
Area (sq ft) =	120.1	69.5	30.3	30.1	9.8	
Vel (ft/s) =	1.73	2.11	1.71	1.35	1.29	
Depth (ft) =	.85	1.28	.93	.64	.59	

Station (ft) =	9982.7	10051.2	10087.6	10113.8	10159.3	10173.3
Flow (%) =	31.0	5.8	3.2	3.5	3.4	
Area (sq ft) =	117.1	39.4	23.8	23.4	18.8	
Vel (ft/s) =	3.37	1.89	1.70	1.93	2.29	
Depth (ft) =	1.71	1.08	.91	.52	1.35	

Station (ft) =	10173.3	10228.4	10271.4	10292.1	10308.7	10337.0
Flow (%) =	4.2	3.0	4.5	4.5	.8	
Area (sq ft) =	38.3	28.3	26.0	24.2	9.4	
Vel (ft/s) =	1.41	1.36	2.21	2.37	1.04	
Depth (ft) =	.69	.66	1.25	1.46	.33	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.932.

15.932	.080	.060	.080	3.31	1763.01	.00	.00
.012639	195	180	175	1763.21	.21	1.97	.04
599.47	95	149	218	.00	1762.70	1762.00	2
1275	166	695	412	587.2	9771.34	10358.52	0
1.75	1.75	4.65	1.89	.000	323.2	1759.70	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 15.932
Total Discharge (cfs, Q) 1275
Computed Water Surface Elevation (ft MSL, CWSEL) 1763.01

Station (ft) =	9771.3	9810.9	9840.5	9928.7	9937.6	10006.6
Flow (%) =	4.6	5.2	3.1	.2	54.6	
Area (sq ft) =	31.1	30.7	31.1	2.8	149.7	
Vel (ft/s) =	1.90	2.15	1.27	.96	4.65	
Depth (ft) =	.79	1.04	.35	.31	2.17	

Station (ft) =	10006.6	10033.3	10123.6	10137.8	10150.9	10250.6
Flow (%) =	4.0	3.5	4.2	4.1	3.1	
Area (sq ft) =	25.3	37.0	20.1	19.4	29.7	
Vel (ft/s) =	2.02	1.20	2.69	2.72	1.31	
Depth (ft) =	.95	.41	1.41	1.48	.30	

Station (ft) =	10250.6	10296.6	10309.5	10342.7	10358.5
Flow (%) =	5.3	3.5	4.1	.5	
Area (sq ft) =	35.8	17.5	28.0	5.5	
Vel (ft/s) =	1.90	2.56	1.87	1.13	
Depth (ft) =	.78	1.36	.84	.35	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 16.021.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
16.021	.080	.060	.080	4.03	1769.03	.00	.00
.012564	515	470	450	1769.24	.21	6.02	.00
604.42	229	152	51	.00	1768.70	1768.30	5
1275	507	696	70	432.4	9715.90	10148.32	0
1.78	2.21	4.56	1.37	.000	328.8	1765.00	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 16.021
Total Discharge (cfs, Q) 1275
Computed Water Surface Elevation (ft MSL, CWSEL) 1769.03

Station (ft) =	9715.9	9768.5	9802.3	9819.2	9845.1	9867.2
Flow (%) =	3.5	5.2	4.0	3.5	3.0	
Area (sq ft) =	29.6	32.5	20.9	22.9	19.8	
Vel (ft/s) =	1.52	2.03	2.42	1.96	1.94	
Depth (ft) =	.56	.96	1.24	.88	.90	

Station (ft) =	9867.2	9898.2	9928.9	9932.8	9938.1	9955.6
Flow (%) =	3.2	6.1	3.6	3.4	4.0	
Area (sq ft) =	23.5	32.6	11.1	12.1	20.8	
Vel (ft/s) =	1.75	2.39	4.17	3.56	2.42	
Depth (ft) =	.76	1.06	2.84	2.29	1.19	

Station (ft) =	9955.6	9964.6	10036.6	10079.2	10148.3
Flow (%) =	.3	54.6	3.6	2.0	
Area (sq ft) =	3.5	152.8	28.3	23.4	
Vel (ft/s) =	1.10	4.56	1.62	1.07	
Depth (ft) =	.39	2.12	.66	.34	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 16.112.

STATUS: (3265) Divided flow.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 1.62

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
16.112	.080	.060	.080	5.38	1774.48	.00	.00
.010340	510	480	475	1774.69	.22	5.45	.00
610.46	215	202	220	.00	1774.00	1774.00	5
1875	414	974	485	507.7	9675.83	10236.37	0
1.82	1.93	4.80	2.20	.000	334.1	1769.10	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 16.112
Total Discharge (cfs, Q) 1875
Computed Water Surface Elevation (ft MSL, CWSEL) 1774.48

Station (ft) =	9675.8	9804.1	9916.9	9941.3	9969.8	10045.6
Flow (%) =	3.3	11.3	4.8	2.8	52.0	
Area (sq ft) =	40.3	112.2	35.5	27.2	202.9	
Vel (ft/s) =	1.52	1.89	2.53	1.92	4.80	
Depth (ft) =	.31	.99	1.45	.95	2.68	

Station (ft) =	10045.6	10088.5	10109.1	10184.8	10224.8	10236.4
Flow (%) =	5.7	6.2	10.0	3.8	.2	
Area (sq ft) =	48.6	39.7	89.2	38.4	4.5	
Vel (ft/s) =	2.19	2.93	2.11	1.84	1.01	
Depth (ft) =	1.13	1.93	1.18	.96	.39	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 16.164.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
16.164	.080	.060	.000	5.14	1777.74	.00	.00
.015458	240	275	315	1778.06	.31	3.33	.03
613.93	365	136	0	.00	1777.40	1778.00	2
1875	1060	814	0	350.0	9676.29	10026.28	0
1.84	2.90	5.97	.00	.000	336.7	1772.60	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	16.164
Total Discharge (cfs, Q)	1875
Computed Water Surface Elevation (ft MSL, CWSEL)	1777.74

Station (ft) =	9676.3	9700.0	9715.0	9735.7	9761.9	9790.6
Flow (%) =	9.3	8.4	3.2	3.2	5.3	
Area (sq ft) =	45.0	37.4	23.3	26.0	36.4	
Vel (ft/s) =	3.87	4.23	2.55	2.30	2.71	
Depth (ft) =	1.90	2.49	1.13	.99	1.27	

Station (ft) =	9790.6	9807.2	9839.9	9860.6	9882.5	9897.5
Flow (%) =	3.3	6.2	4.4	4.7	3.0	
Area (sq ft) =	22.3	42.3	28.8	30.5	20.1	
Vel (ft/s) =	2.81	2.74	2.88	2.88	2.81	
Depth (ft) =	1.34	1.29	1.39	1.39	1.34	

Station (ft) =	9897.5	9919.2	9978.2	10033.1
Flow (%) =	3.1	2.5	43.5	
Area (sq ft) =	23.7	29.8	136.4	
Vel (ft/s) =	2.45	1.54	5.97	
Depth (ft) =	1.09	.51	2.84	

STATUS: Analyzing cross-section reach 16.254.

STATUS: (3265) Divided flow.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 1.90

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
16.254	.080	.060	.080	6.49	1783.39	.00	.00
.010895	475	475	485	1784.04	.65	5.88	.10
619.48	47	435	32	.00	1782.90	1782.10	4
2995	51	2878	65	312.1	9721.35	10079.86	0
1.86	1.07	6.60	2.03	.000	340.3	1776.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 16.254
Total Discharge (cfs, Q) 2995
Computed Water Surface Elevation (ft MSL, CWSEL) 1783.39

Station (ft) =	9721.3	9933.9	10039.8	10079.9
Flow (%) =	1.7	96.1	2.2	
Area (sq ft) =	47.9	435.8	32.2	
Vel (ft/s) =	1.07	6.60	2.03	
Depth (ft) =	.23	4.12	.80	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 16.345.

16.345	.056	.050	.000	5.68	1788.08	.00	.00
.008902	480	480	485	1788.76	.68	4.72	.01
624.87	309	152	0	.00	1784.20	1789.00	3
2995	1845	1149	0	120.6	9889.21	10009.76	0
1.88	5.96	7.54	.00	.000	342.7	1782.40	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 16.345
Total Discharge (cfs, Q) 2995
Computed Water Surface Elevation (ft MSL, CWSEL) 1788.08

Station (ft) =	9889.2	9907.9	9917.6	9926.6	9933.2	9937.3
Flow (%) =	7.2	5.0	5.6	5.4	4.2	
Area (sq ft) =	42.4	27.0	28.2	24.3	17.4	
Vel (ft/s) =	5.06	5.56	5.99	6.69	7.23	
Depth (ft) =	2.27	2.79	3.14	3.69	4.24	

Station (ft) =	9937.3	9947.3	9956.2	9966.7	9977.8	10010.5
Flow (%) =	12.3	9.6	6.0	6.2	38.4	
Area (sq ft) =	46.9	38.6	41.3	43.1	152.5	
Vel (ft/s) =	7.85	7.44	4.37	4.33	7.54	
Depth (ft) =	4.69	4.34	3.94	3.89	4.77	

STATUS: Analyzing cross-section reach 16.421.

WARNING: (7185) Critical depth has been crossed, therefore critical depth has been assumed for the current cross-section.

WARNING: (3720) Critical depth has been assumed.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
16.421	.080	.050	.080	5.02	1793.42	1793.42	.00
.012552	410	400	400	1794.04	.62	4.23	.01
630.42	63	220	452	.00	1791.00	1791.90	3
2995	237	1757	999	538.4	9934.65	10473.08	9
1.90	3.72	7.96	2.21	.000	345.8	1788.40	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	16.421
Total Discharge (cfs, Q)	2995
Computed Water Surface Elevation (ft MSL, CWSEL)	1793.42

Station (ft) =	9934.6	9954.6	9963.7	10022.7	10038.9	10101.4
Flow (%) =	5.0	3.0	58.7	3.5	3.6	
Area (sq ft) =	40.9	23.0	220.8	31.8	54.1	
Vel (ft/s) =	3.64	3.86	7.96	3.27	1.99	
Depth (ft) =	2.05	2.52	3.74	1.96	.87	

Station (ft) =	10101.4	10170.1	10293.0	10330.0	10400.0	10440.0
Flow (%) =	3.4	5.5	3.8	7.2	3.6	
Area (sq ft) =	55.0	94.1	47.1	88.1	46.9	
Vel (ft/s) =	1.85	1.74	2.44	2.44	2.32	
Depth (ft) =	.80	.77	1.27	1.26	1.17	

Station (ft) =	10440.0	10473.1
Flow (%) =	2.8	
Area (sq ft) =	35.7	
Vel (ft/s) =	2.34	
Depth (ft) =	1.08	

STATUS: Analyzing cross-section reach 16.481.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
16.481	.080	.065	.080	5.82	1797.22	.00	.00
.009519	290	315	365	1797.57	.35	3.50	.03
636.03	323	263	161	.00	1795.10	1795.00	2
2995	1024	1547	422	348.7	9809.40	10158.09	0
1.92	3.17	5.88	2.62	.000	349.3	1791.40	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	16.481
Total Discharge (cfs, Q)	2995
Computed Water Surface Elevation (ft MSL, CWSEL)	1797.22

Station (ft) =	9809.4	9842.3	9852.7	9878.9	9896.4	9923.4
Flow (%) =	6.5	3.1	7.5	4.3	5.6	
Area (sq ft) =	61.9	26.9	66.6	40.8	56.8	
Vel (ft/s) =	3.15	3.41	3.38	3.19	2.98	
Depth (ft) =	1.88	2.58	2.54	2.33	2.10	

Station (ft) =	9923.4	9946.2	9955.7	10016.6	10028.4	10050.8
Flow (%) =	5.2	2.0	51.7	3.1	6.1	
Area (sq ft) =	50.4	19.8	263.2	28.7	55.3	
Vel (ft/s) =	3.07	2.96	5.88	3.28	3.31	
Depth (ft) =	2.21	2.08	4.32	2.43	2.47	

Station (ft) =	10050.8	10133.6	10158.1
Flow (%) =	3.4	1.5	
Area (sq ft) =	54.2	22.9	
Vel (ft/s) =	1.87	1.94	
Depth (ft) =	.66	.94	

STATUS: Analyzing cross-section reach 16.551.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
16.551	.065	.050	.080	4.65	1800.95	.00	.00
.011680	380	370	335	1801.40	.45	3.80	.03
641.86	0	234	437	.00	1800.90	1799.40	3
2995	0	1579	1415	315.6	9978.90	10294.46	0
1.94	.02	6.74	3.23	.000	351.9	1796.30	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 16.551
Total Discharge (cfs, Q) 2995
Computed Water Surface Elevation (ft MSL, CWSEL) 1800.95

Station (ft) =	9978.9	10054.7	10073.8	10094.2	10112.7	10126.2
Flow (%) =	52.7	4.7	3.7	4.7	4.1	
Area (sq ft) =	234.3	41.6	36.7	41.0	33.4	
Vel (ft/s) =	6.74	3.39	2.98	3.43	3.67	
Depth (ft) =	3.10	2.18	1.80	2.22	2.47	

Station (ft) =	10126.2	10138.8	10157.4	10180.8	10195.6	10216.5
Flow (%) =	3.8	4.5	5.9	3.8	4.2	
Area (sq ft) =	30.8	40.1	51.6	33.1	40.1	
Vel (ft/s) =	3.65	3.35	3.40	3.44	3.10	
Depth (ft) =	2.45	2.16	2.20	2.24	1.92	

Station (ft) =	10216.5	10228.6	10260.0	10294.5
Flow (%) =	3.3	4.0	.7	
Area (sq ft) =	28.2	44.8	16.3	
Vel (ft/s) =	3.54	2.70	1.22	
Depth (ft) =	2.33	1.43	.47	

STATUS: Analyzing cross-section reach 16.628.

STATUS: (3265) Divided flow.

16.628	.080	.050	.075	4.69	1805.69	1805.67	.00
.013380	455	410	365	1806.46	.77	4.97	.10
647.58	140	246	213	.00	1803.50	1803.80	5
2995	365	2051	578	398.9	9783.92	10214.04	5
1.96	2.60	8.33	2.71	.000	355.1	1801.00	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 16.628
Total Discharge (cfs, Q) 2995
Computed Water Surface Elevation (ft MSL, CWSEL) 1805.69

Station (ft) =	9783.9	9898.7	9926.1	9954.4	10019.4	10041.8
Flow (%) =	3.7	3.9	4.5	68.5	4.6	
Area (sq ft) =	53.6	41.4	45.7	246.3	40.2	
Vel (ft/s) =	2.09	2.84	2.97	8.33	3.39	
Depth (ft) =	.47	1.51	1.61	3.79	1.80	

Station (ft) =	10041.8	10096.9	10175.0	10198.0	10214.0
Flow (%) =	3.0	5.3	5.5	.9	
Area (sq ft) =	42.4	71.7	45.5	13.5	
Vel (ft/s) =	2.12	2.22	3.63	2.04	
Depth (ft) =	.77	.92	1.98	.84	

STATUS: Analyzing cross-section reach 16.714.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
16.714	.080	.050	.080	5.18	1810.68	.00	.00
.009041	380	450	505	1811.41	.73	4.95	.00
653.42	69	323	126	.00	1808.50	1808.00	3
2995	113	2413	468	234.6	9825.36	10059.98	0
1.98	1.62	7.46	3.69	.000	358.4	1805.50	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 16.714
Total Discharge (cfs, Q) 2995
Computed Water Surface Elevation (ft MSL, CWSEL) 1810.68

Station (ft) =	9825.4	9939.7	10014.5	10032.0	10040.5	10047.1
Flow (%) =	3.8	80.6	5.6	3.6	3.4	
Area (sq ft) =	69.9	323.6	48.4	27.9	24.3	
Vel (ft/s) =	1.62	7.46	3.48	3.90	4.21	
Depth (ft) =	.61	4.33	2.76	3.28	3.68	

Station (ft) =	10047.1	10060.0
Flow (%) =	3.0	
Area (sq ft) =	26.1	
Vel (ft/s) =	3.40	
Depth (ft) =	2.03	

STATUS: Analyzing cross-section reach 16.788.

STATUS: (3265) Divided flow.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
16.788	.080	.055	.080	5.91	1814.81	.00	.00
.013386	410	390	390	1815.73	.92	4.27	.06
657.78	103	316	25	.00	1812.60	1813.20	2
2995	348	2595	51	177.1	9692.22	10054.33	0
1.99	3.37	8.19	2.00	.000	360.3	1808.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	16.788
Total Discharge (cfs, Q)	2995
Computed Water Surface Elevation (ft MSL, CWSEL)	1814.81

Station (ft) =	9692.2	9923.3	9935.7	9947.1	10021.0	10054.3
Flow (%) =	5.0	3.6	3.1	86.7	1.7	
Area (sq ft) =	49.6	28.7	25.2	316.8	25.7	
Vel (ft/s) =	3.00	3.76	3.65	8.19	2.00	
Depth (ft) =	.21	2.31	2.21	4.29	.77	

STATUS: Analyzing cross-section reach 16.861.

STATUS: (3265) Divided flow.

16.861	.070	.045	.080	6.10	1819.00	.00	.00
.008138	365	390	435	1819.78	.78	4.03	.01
662.37	29	317	212	.00	1819.60	1816.50	2
2995	36	2467	491	286.3	9884.99	10210.67	0
2.01	1.24	7.76	2.31	.000	362.4	1812.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 16.861
Total Discharge (cfs, Q) 2995
Computed Water Surface Elevation (ft MSL, CWSEL) 1819.00

Station (ft) =	9885.0	9943.3	10055.6	10075.3	10091.0	10108.3
Flow (%) =	1.2	82.4	4.5	3.0	3.3	
Area (sq ft) =	29.6	317.9	45.6	33.0	35.8	
Vel (ft/s) =	1.24	7.76	2.93	2.75	2.78	
Depth (ft) =	.51	4.36	2.32	2.10	2.07	

Station (ft) =	10108.3	10163.6	10210.7
Flow (%) =	3.3	2.3	
Area (sq ft) =	57.4	41.0	
Vel (ft/s) =	1.73	1.66	
Depth (ft) =	1.04	.87	

STATUS: Analyzing cross-section reach 16.936.

STATUS: (3265) Divided flow.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (7185) Critical depth has been crossed, therefore critical depth has been assumed for the current cross-section.

WARNING: (3720) Critical depth has been assumed.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
16.936	.085	.045	.070	6.20	1823.30	1823.30	.00
.012365	445	395	345	1824.69	1.38	3.88	.18
666.57	45	271	75	.00	1823.30	1821.90	2
2995	121	2694	178	186.8	9915.07	10114.47	8
2.02	2.65	9.92	2.37	.000	364.4	1817.10	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 16.936
Total Discharge (cfs, Q) 2995
Computed Water Surface Elevation (ft MSL, CWSEL) 1823.30

Station (ft) =	9915.1	9933.0	9966.1	10025.4	10055.2	10114.5
Flow (%) =	3.1	1.0	90.0	3.8	2.2	
Area (sq ft) =	30.5	15.4	271.7	39.7	35.6	
Vel (ft/s) =	3.06	1.85	9.92	2.86	1.82	
Depth (ft) =	1.70	.47	4.58	1.33	.60	

STATUS: Analyzing cross-section reach 17.011.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
17.011	.080	.045	.080	6.34	1827.64	1827.04	.00
.007775	345	395	445	1828.56	.92	3.83	.05
670.71	125	327	70	.00	1826.00	1825.80	4
2995	154	2667	173	309.9	9769.96	10079.87	8
2.03	1.23	8.14	2.45	.000	366.6	1821.30	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	17.011
Total Discharge (cfs, Q)	2995
Computed Water Surface Elevation (ft MSL, CWSEL)	1827.64

Station (ft) =	9770.0	9828.0	9910.0	9970.0	10039.0	10045.4
Flow (%) =	1.1	1.6	2.5	89.1	.9	
Area (sq ft) =	30.2	44.4	50.5	327.6	11.5	
Vel (ft/s) =	1.06	1.09	1.46	8.14	2.42	
Depth (ft) =	.52	.54	.84	4.75	1.79	

Station (ft) =	10045.4	10052.9	10059.1	10068.0	10073.5	10079.5
Flow (%) =	1.1	1.1	1.7	.8	.2	
Area (sq ft) =	13.8	12.3	18.6	9.9	4.8	
Vel (ft/s) =	2.46	2.59	2.68	2.40	1.38	
Depth (ft) =	1.84	1.99	2.09	1.79	.79	

STATUS: Analyzing cross-section reach 17.046.

17.046	.080	.045	.080	5.78	1828.98	.00	.00
.007345	210	185	180	1829.99	1.01	1.40	.03
672.71	33	351	10	.00	1824.70	1827.10	3
2995	94	2883	16	111.8	9935.44	10047.27	0
2.04	2.84	8.20	1.50	.000	367.6	1823.20	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 17.046
Total Discharge (cfs, Q) 2995
Computed Water Surface Elevation (ft MSL, CWSEL) 1828.98

Station (ft) =	9935.4	9941.1	9948.6	9955.2	10025.8	10036.5
Flow (%) =	.0	.7	2.5	96.3	.5	
Area (sq ft) =	1.4	10.4	21.7	351.7	10.5	
Vel (ft/s) =	.62	1.94	3.42	8.20	1.56	
Depth (ft) =	.24	1.38	3.28	4.98	.98	

Station (ft) =	10036.5	10047.3
Flow (%) =	.0	
Area (sq ft) =	.4	
Vel (ft/s) =	.19	
Depth (ft) =	.04	

STATUS: Analyzing cross-section reach 17.135.

STATUS: (3265) Divided flow.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (3685) 20 trials attempted in balancing assumed water surface elevation (WSEL) and computed water surface elevation (CWSEL).

WARNING: (3693) It is probable that critical depth has been crossed.

WARNING: (3720) Critical depth has been assumed.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
17.135	.080	.045	.080	7.87	1835.37	1835.37	.00
.009770	495	470	470	1836.94	1.57	3.97	.17
677.13	49	223	145	.00	1831.80	1832.40	20
2995	116	2460	418	166.3	9927.32	10096.83	11
2.05	2.33	11.01	2.88	.000	369.1	1827.50	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 17.135
Total Discharge (cfs, Q) 2995
Computed Water Surface Elevation (ft MSL, CWSEL) 1835.37

Station (ft) =	9927.3	9982.3	10016.3	10040.2	10069.9	10096.8
Flow (%) =	3.9	82.1	6.7	4.8	2.5	
Area (sq ft) =	49.9	223.4	59.4	52.8	32.9	
Vel (ft/s) =	2.33	11.01	3.38	2.70	2.28	
Depth (ft) =	.91	6.57	2.49	1.78	1.22	

STATUS: Analyzing cross-section reach 17.200.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

17.200	.085	.050	.085	6.17	1839.47	.00	.00
.008094	365	345	330	1840.07	.60	3.03	.10
681.44	46	229	414	.00	1836.80	1836.80	2
2995	109	1776	1109	289.5	9941.83	10231.28	0
2.07	2.33	7.74	2.68	.000	370.9	1833.30	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 17.200
Total Discharge (cfs, Q) 2995
Computed Water Surface Elevation (ft MSL, CWSEL) 1839.47

Station (ft) =	9941.8	9976.8	10022.6	10040.7	10065.0	10076.4
Flow (%) =	3.6	59.3	3.5	6.5	4.2	
Area (sq ft) =	46.7	229.6	39.2	64.3	36.7	
Vel (ft/s) =	2.33	7.74	2.64	3.03	3.43	
Depth (ft) =	1.34	5.01	2.16	2.65	3.22	

Station (ft) =	10076.4	10086.2	10109.6	10153.1	10175.0	10193.1
Flow (%) =	3.3	3.7	4.4	4.8	4.2	
Area (sq ft) =	30.1	44.4	64.3	51.5	44.1	
Vel (ft/s) =	3.32	2.46	2.06	2.79	2.86	
Depth (ft) =	3.07	1.90	1.48	2.35	2.44	

Station (ft) =	10193.1	10231.3
Flow (%) =	2.5	
Area (sq ft) =	39.3	
Vel (ft/s) =	1.87	
Depth (ft) =	1.03	

Contraction Coefficient (CCHV) .100

Expansion Coefficient (CEHV) .300

STATUS: Analyzing cross-section reach 17.262.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (7185) Critical depth has been crossed, therefore critical depth has been assumed for the current cross-section.

WARNING: (3720) Critical depth has been assumed.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
17.262	.080	.050	.080	5.23	1842.73	1842.73	.00
.018018	300	325	355	1844.10	1.37	3.77	.23
685.37	53	278	0	.00	1841.90	1842.50	2
2785	115	2669	0	160.5	9882.06	10042.58	15
2.08	2.14	9.57	.59	.000	372.6	1837.50	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	17.262
Total Discharge (cfs, Q)	2785
Computed Water Surface Elevation (ft MSL, CWSEL)	1842.73

Station (ft) =	9882.1	9898.9	9916.0	9929.7	9939.2	9955.2
Flow (%) =	.6	1.9	1.1	.3	.1	
Area (sq ft) =	9.2	19.3	12.7	4.6	2.9	
Vel (ft/s) =	1.73	2.71	2.38	1.53	.80	
Depth (ft) =	.54	1.13	.93	.48	.18	

Station (ft) =	9955.2	9966.1	10039.9	10042.6
Flow (%) =	.3	95.8	.0	
Area (sq ft) =	5.2	278.8	.3	
Vel (ft/s) =	1.53	9.57	.59	
Depth (ft) =	.48	3.78	.12	

STATUS: Analyzing cross-section reach 17.319.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 1.97

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
17.319	.080	.050	.080	5.76	1846.36	.00	.00
.004659	260	300	300	1846.64	.28	2.43	.11
689.63	149	286	495	.00	1843.60	1843.40	3
2785	279	1546	959	452.1	9878.90	10330.98	0
2.10	1.86	5.40	1.94	.000	374.6	1840.60	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 17.319
Total Discharge (cfs, Q) 2785
Computed Water Surface Elevation (ft MSL, CWSEL) 1846.36

Station (ft) =	9878.9	9937.5	9967.9	9977.1	10042.5	10061.4
Flow (%) =	4.0	4.3	1.8	55.5	4.6	
Area (sq ft) =	68.4	59.7	21.7	286.4	51.8	
Vel (ft/s) =	1.64	1.99	2.24	5.40	2.48	
Depth (ft) =	1.17	1.96	2.36	4.38	2.74	

Station (ft) =	10061.4	10077.3	10091.0	10115.8	10150.5	10187.2
Flow (%) =	4.3	3.4	3.1	4.1	3.1	
Area (sq ft) =	46.3	37.9	44.7	61.1	52.3	
Vel (ft/s) =	2.59	2.50	1.91	1.88	1.65	
Depth (ft) =	2.91	2.76	1.80	1.76	1.43	

Station (ft) =	10187.2	10248.6	10289.6	10327.1	10331.0
Flow (%) =	4.3	4.5	3.0	.0	
Area (sq ft) =	79.8	69.4	51.4	.5	
Vel (ft/s) =	1.52	1.80	1.63	.33	
Depth (ft) =	1.30	1.69	1.37	.13	

STATUS: Analyzing cross-section reach 17.364.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (3685) 20 trials attempted in balancing assumed water surface elevation (WSEL) and computed water surface elevation (CWSEL).

WARNING: (3693) It is probable that critical depth has been crossed.

WARNING: (3720) Critical depth has been assumed.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
17.364	.080	.050	.080	5.95	1849.25	1849.25	.00
.014030	200	240	260	1850.27	1.02	1.80	.22
693.46	114	261	77	.00	1847.30	1847.20	20
2785	241	2312	231	283.2	9819.53	10102.68	8
2.11	2.11	8.83	3.00	.000	376.6	1843.30	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 17.364
Total Discharge (cfs, Q) 2785
Computed Water Surface Elevation (ft MSL, CWSEL) 1849.25

Station (ft) =	9819.5	9913.5	9954.5	9966.5	10031.7	10051.1
Flow (%) =	3.4	3.1	2.1	83.0	5.5	
Area (sq ft) =	55.1	40.2	19.2	261.9	41.6	
Vel (ft/s) =	1.74	2.18	3.01	8.83	3.66	
Depth (ft) =	.59	.98	1.60	4.02	2.15	

Station (ft) =	10051.1	10102.7
Flow (%) =	2.8	
Area (sq ft) =	35.5	
Vel (ft/s) =	2.23	
Depth (ft) =	.69	

Contraction Coefficient (CCHV) .300

Expansion Coefficient (CEHV) .500

STATUS: Analyzing cross-section reach 17.425.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
17.425	.080	.050	.080	7.44	1853.14	.00	.00
.008795	300	320	325	1853.87	.73	3.51	.09
697.19	2	272	287	.00	1852.00	1850.30	2
2785	2	2113	668	306.0	9966.68	10272.73	0
2.12	1.16	7.76	2.32	.000	378.8	1845.70	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 17.425
Total Discharge (cfs, Q) 2785
Computed Water Surface Elevation (ft MSL, CWSEL) 1853.14

Station (ft) =	9966.7	9970.2	10025.9	10045.0	10055.3	10065.0
Flow (%) =	.1	75.9	6.0	3.6	3.1	
Area (sq ft) =	2.0	272.5	50.3	28.7	26.1	
Vel (ft/s) =	1.16	7.76	3.32	3.45	3.36	
Depth (ft) =	.57	4.89	2.64	2.79	2.69	

Station (ft) =	10065.0	10129.3	10199.2	10262.6	10272.7
Flow (%) =	4.0	4.2	3.1	.0	
Area (sq ft) =	59.9	67.6	53.5	1.7	
Vel (ft/s) =	1.86	1.72	1.60	.53	
Depth (ft) =	.93	.97	.84	.17	

STATUS: Analyzing cross-section reach 17.476.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 1.65

17.476	.080	.050	.080	6.12	1855.02	.00	.00
.003245	270	270	270	1855.34	.32	1.36	.12
700.86	7	599	16	.00	1851.50	1851.50	3
2785	9	2751	24	147.2	9889.56	10036.79	0
2.14	1.29	4.59	1.48	.000	380.2	1848.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 17.476
Total Discharge (cfs, Q) 2785
Computed Water Surface Elevation (ft MSL, CWSEL) 1855.02

Station (ft) =	9889.6	9893.7	10027.4	10036.8
Flow (%) =	.3	98.8	.9	
Area (sq ft) =	7.3	599.2	16.5	
Vel (ft/s) =	1.29	4.59	1.48	
Depth (ft) =	1.76	4.48	1.76	

T1 P&D No. 10320.00; FCD No. 90-24
T2 TRILBY WASH; GRAND AVENUE TO C.A.P.
T3 MAIN CHANNEL; ENCROACHED

JOB PARAMETERS :

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0	3	0	0	0.008933	0	0.0	0.0	1545.51	

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15

STATUS: Analyzing profile 2.

STATUS: Analyzing cross-section reach 10.445.

WARNING: (3720) Critical depth has been assumed.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9932.00
Right Encroachment Station (ft, STENCR)	10068.00
Encroachment Method (TYPE)	1
Width or Percent Target	136.000

LOCATED IN CAP OVERCHUTE - S. EDGE OF DIST BSN

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
10.445	.000	.015	.000	2.94	1545.51	1545.51	1545.51
.002451	0	0	0	1546.98	1.47	.00	.00
.00	0	395	0	.00	1549.60	1549.60	0
3851	0	3850	0	135.6	9932.20	10067.80	5
.00	.00	9.74	.00	.000	.0	1542.57	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 10.445
Total Discharge (cfs, Q) 3851
Computed Water Surface Elevation (ft MSL, CWSEL) 1545.51

Station (ft) = 9932.2 10067.8
Flow (%) = 100.0
Area (sq ft) = 395.6
Vel (ft/s) = 9.74
Depth (ft) = 2.92

STATUS: Analyzing cross-section reach 10.450.

WARNING: (3685) 20 trials attempted in balancing assumed water surface elevation (WSEL) and computed water surface elevation (CWSEL).

WARNING: (3693) It is probable that critical depth has been crossed.

WARNING: (3720) Critical depth has been assumed.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 9932.00
Right Encroachment Station (ft, STENCR) 10068.00
Encroachment Method (TYPE) 1
Width or Percent Target 136.000

10.450	.000	.015	.000	2.96	1547.69	1547.69	1547.69
.002443	27	27	27	1549.16	1.47	.07	.00
.25	0	396	0	.00	1551.70	1551.70	20
3851	0	3850	0	135.6	9932.20	10067.80	5
.00	.00	9.72	.00	.000	.1	1544.73	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 10.450
Total Discharge (cfs, Q) 3851
Computed Water Surface Elevation (ft MSL, CWSEL) 1547.69

Station (ft) = 9932.2 10067.8
Flow (%) = 100.0
Area (sq ft) = 396.0
Vel (ft/s) = 9.72
Depth (ft) = 2.92

Contraction Coefficient (CCHV) .100

Expansion Coefficient (CEHV) .300

STATUS: Analyzing cross-section reach 10.468.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 9932.00
Right Encroachment Station (ft, STENCR) 10068.00
Encroachment Method (TYPE) 1
Width or Percent Target 136.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
10.468	.000	.015	.000	3.56	1548.36	.00	1548.36
.001334	96	96	96	1549.37	1.01	.17	.05
1.21	0	476	0	.00	1551.80	1551.80	4
3851	0	3850	0	135.6	9932.20	10067.80	0
.00	.00	8.08	.00	.000	.4	1544.80	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 10.468
Total Discharge (cfs, Q) 3851
Computed Water Surface Elevation (ft MSL, CWSEL) 1548.36

Station (ft) = 9932.2 10067.8
Flow (%) = 100.0
Area (sq ft) = 476.4
Vel (ft/s) = 8.08
Depth (ft) = 3.51

Contraction Coefficient (CCHV) .300

Expansion Coefficient (CEHV) .500

STATUS: Analyzing cross-section reach 10.473.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 1.56

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 9920.00
Right Encroachment Station (ft, STENCR) 10080.00
Encroachment Method (TYPE) 1
Width or Percent Target 160.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
10.473	.000	.015	.000	4.22	1549.02	.00	1549.02
.000550	26	26	26	1549.54	.53	.02	.15
1.55	0	662	0	.00	1551.90	1551.80	3
3851	0	3850	0	158.7	9920.64	10079.36	0
.01	.00	5.82	.00	.000	.5	1544.80	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 10.473
Total Discharge (cfs, Q) 3851
Computed Water Surface Elevation (ft MSL, CWSEL) 1549.02

Station (ft) = 9920.6 10079.4
Flow (%) = 100.0
Area (sq ft) = 662.0
Vel (ft/s) = 5.82
Depth (ft) = 4.17

Contraction Coefficient (CCHV) .600

Expansion Coefficient (CEHV) .800

STATUS: Analyzing cross-section reach 10.474.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) .24

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9910.90
Right Encroachment Station (ft, STENCR)	10090.30
Encroachment Method (TYPE)	1
Width or Percent Target	179.399

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
10.474	.085	.055	.090	4.10	1549.00	.00	1549.00
.009843	10	5	10	1549.63	.63	.01	.08
1.62	13	591	17	.00	1545.90	1545.70	2
3851	29	3782	38	179.4	9910.94	10090.30	0
.01	2.23	6.40	2.22	.000	.5	1544.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	10.474
Total Discharge (cfs, Q)	3851
Computed Water Surface Elevation (ft MSL, CWSEL)	1549.00

Station (ft) =	9910.9	9919.6	10079.9	10090.3
Flow (%) =	.8	98.2	1.0	
Area (sq ft) =	13.4	591.2	17.2	
Vel (ft/s) =	2.23	6.40	2.22	
Depth (ft) =	1.55	3.69	1.65	

Contraction Coefficient (CCHV) .300

Expansion Coefficient (CEHV) .500

STATUS: Analyzing cross-section reach 10.479.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9895.40
Right Encroachment Station (ft, STENCR)	10110.50
Encroachment Method (TYPE)	1
Width or Percent Target	215.100

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
10.479	.085	.055	.090	4.81	1549.51	.00	1549.51
.005713	30	25	45	1549.89	.38	.19	.07
2.05	10	766	10	.00	1546.30	1546.60	2
3851	17	3816	16	215.1	9895.40	10110.50	0
.01	1.70	4.98	1.54	.000	.6	1544.70	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	10.479
Total Discharge (cfs, Q)	3851
Computed Water Surface Elevation (ft MSL, CWSEL)	1549.51

Station (ft) =	9895.4	9901.8	10103.2	10110.5
Flow (%) =	.5	99.1	.4	
Area (sq ft) =	10.4	766.9	10.8	
Vel (ft/s) =	1.70	4.98	1.54	
Depth (ft) =	1.63	3.81	1.48	

Contraction Coefficient (CCHV)	.100
Expansion Coefficient (CEHV)	.300

STATUS: Analyzing cross-section reach 10.528.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9910.00
Right Encroachment Station (ft, STENCR)	10080.00
Encroachment Method (TYPE)	1
Width or Percent Target	170.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
10.528	.085	.055	.090	6.48	1551.08	.00	1550.96
.008450	235	260	290	1551.76	.69	1.78	.09
6.30	142	478	27	.00	1548.30	1549.60	2
3851	437	3360	53	170.0	9910.00	10080.00	0
.02	3.08	7.02	1.91	.000	1.8	1544.60	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 10.528
Total Discharge (cfs, Q) 3851
Computed Water Surface Elevation (ft MSL, CWSEL) 1551.08

Station (ft) =	9910.0	9924.3	9936.9	9948.9	9960.9	10060.7
Flow (%) =	3.0	2.9	2.7	2.7	87.3	
Area (sq ft) =	40.4	35.0	33.3	33.3	478.6	
Vel (ft/s) =	2.84	3.17	3.17	3.17	7.02	
Depth (ft) =	2.83	2.78	2.78	2.78	4.80	

Station (ft) =	10060.7	10068.4	10079.5	10080.0
Flow (%) =	.6	.8	.0	
Area (sq ft) =	11.4	15.8	.7	
Vel (ft/s) =	1.97	1.92	.78	
Depth (ft) =	1.48	1.43	1.38	

STATUS: Analyzing cross-section reach 10.592.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 9886.00
Right Encroachment Station (ft, STENCR) 10074.00
Encroachment Method (TYPE) 1
Width or Percent Target 188.000

10.592	.085	.055	.090	8.03	1553.63	.00	1552.73
.005194	350	340	345	1554.03	.39	2.24	.03
12.38	345	340	205	.00	1550.00	1550.40	2
3851	1096	2104	650	188.0	9886.00	10074.00	0
.04	3.17	6.18	3.16	.000	3.2	1545.60	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	10.592
Total Discharge (cfs, Q)	3851
Computed Water Surface Elevation (ft MSL, CWSEL)	1553.63

Station (ft) =	9886.0	9898.9	9911.5	9925.5	9937.9	9949.2
Flow (%) =	3.2	4.0	4.6	4.0	4.3	
Area (sq ft) =	47.6	49.6	55.8	48.8	49.5	
Vel (ft/s) =	2.56	3.14	3.17	3.14	3.37	
Depth (ft) =	3.69	3.93	3.98	3.93	4.38	

Station (ft) =	9949.2	9959.4	9970.4	10029.0	10046.8	10058.8
Flow (%) =	4.7	3.7	54.6	4.9	5.5	
Area (sq ft) =	50.0	44.4	340.7	65.8	60.9	
Vel (ft/s) =	3.62	3.19	6.18	2.85	3.47	
Depth (ft) =	4.90	4.03	5.81	3.70	5.07	

Station (ft) =	10058.8	10063.8	10074.0
Flow (%) =	3.1	3.4	
Area (sq ft) =	30.4	48.7	
Vel (ft/s) =	3.94	2.71	
Depth (ft) =	6.08	4.77	

STATUS: Analyzing cross-section reach 10.683.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9902.00
Right Encroachment Station (ft, STENCR)	10080.60
Encroachment Method (TYPE)	1
Width or Percent Target	178.600

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
10.683	.085	.055	.090	7.93	1556.03	.00	1555.12
.004895	505	480	475	1556.49	.46	2.44	.02
21.91	126	479	209	.00	1553.30	1552.80	3
3851	321	2912	616	178.6	9902.00	10080.60	0
.06	2.54	6.07	2.94	.000	5.2	1548.10	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 10.683
Total Discharge (cfs, Q) 3851
Computed Water Surface Elevation (ft MSL, CWSEL) 1556.03

Station (ft) =	9902.0	9921.8	9942.1	10023.6	10035.0	10043.0
Flow (%) =	4.4	3.9	75.6	4.3	4.0	
Area (sq ft) =	66.8	59.9	479.9	52.3	43.3	
Vel (ft/s) =	2.56	2.52	6.07	3.18	3.56	
Depth (ft) =	3.37	2.95	5.89	4.58	5.42	

Station (ft) =	10043.0	10060.7	10080.6
Flow (%) =	5.8	1.9	
Area (sq ft) =	73.9	40.1	
Vel (ft/s) =	3.01	1.83	
Depth (ft) =	4.18	2.01	

STATUS: Analyzing cross-section reach 10.761.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 9943.00
Right Encroachment Station (ft, STENCR) 10122.00
Encroachment Method (TYPE) 1
Width or Percent Target 179.000

10.761	.085	.055	.090	7.39	1558.19	.00	1557.99
.005963	380	410	465	1558.74	.55	2.23	.02
29.21	87	570	57	.00	1554.60	1555.60	2
3851	219	3514	116	179.0	9943.00	10122.00	0
.08	2.52	6.16	2.01	.000	6.9	1550.80	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 10.761
Total Discharge (cfs, Q) 3851
Computed Water Surface Elevation (ft MSL, CWSEL) 1558.19

Station (ft) =	9943.0	9951.6	9963.3	9972.5	9982.0	10092.7
Flow (%) =	.3	1.0	1.8	2.6	91.3	
Area (sq ft) =	8.5	19.8	26.2	32.7	570.7	
Vel (ft/s) =	1.25	1.91	2.70	3.08	6.16	
Depth (ft) =	.99	1.69	2.84	3.44	5.16	

Station (ft) =	10092.7	10107.9	10121.7	10122.0
Flow (%) =	1.9	1.2	.0	
Area (sq ft) =	33.3	24.1	.5	
Vel (ft/s) =	2.15	1.85	.51	
Depth (ft) =	2.19	1.74	1.70	

STATUS: Analyzing cross-section reach 10.815.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9969.00
Right Encroachment Station (ft, STENCR)	10105.00
Encroachment Method (TYPE)	1
Width or Percent Target	136.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
10.815	.085	.055	.090	7.16	1559.76	.00	1559.73
.004801	295	285	300	1560.27	.51	1.53	.00
33.89	12	625	67	.00	1556.50	1556.10	2
3851	29	3655	165	136.0	9969.00	10105.00	0
.10	2.41	5.85	2.46	.000	8.0	1552.60	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	10.815
Total Discharge (cfs, Q)	3851
Computed Water Surface Elevation (ft MSL, CWSEL)	1559.76

Station (ft) =	9969.0	9969.4	9972.9	10083.6	10091.0	10104.9
Flow (%) =	.0	.7	94.9	1.9	2.4	
Area (sq ft) =	1.2	11.1	625.2	26.7	40.4	
Vel (ft/s) =	.61	2.61	5.85	2.69	2.32	
Depth (ft) =	3.07	3.16	5.65	3.61	2.91	

Station (ft) =	10104.9	10105.0
Flow (%) =		.0
Area (sq ft) =		.2
Vel (ft/s) =		.24
Depth (ft) =		2.25

STATUS: Analyzing cross-section reach 10.876.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) .62

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9952.00
Right Encroachment Station (ft, STENCR)	10088.00
Encroachment Method (TYPE)	1
Width or Percent Target	136.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
10.876	.085	.050	.090	6.89	1561.29	.00	1561.11
.012342	320	320	34	1562.47	1.18	2.00	.20
37.44	24	271	239	.00	1558.10	1558.70	2
3805	74	2709	1021	136.0	9952.00	10088.00	0
.11	2.99	9.98	4.27	.000	8.7	1554.40	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	10.876
Total Discharge (cfs, Q)	3805
Computed Water Surface Elevation (ft MSL, CWSEL)	1561.29

Station (ft) =		9952.0	9967.0	10017.3	10031.2	10041.6	10050.7
Flow (%)	=	1.9	71.2	5.0	3.8	4.3	
Area (sq ft)	=	24.8	271.6	46.2	35.0	36.3	
Vel (ft/s)	=	2.99	9.98	4.08	4.12	4.52	
Depth (ft)	=	1.65	5.40	3.33	3.36	3.99	

Station (ft) =	10050.7	10058.3	10071.1	10088.0
Flow (%) =	5.5	4.9	3.4	
Area (sq ft) =	38.8	44.7	38.5	
Vel (ft/s) =	5.40	4.17	3.36	
Depth (ft) =	5.11	3.49	2.28	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 10.945.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 1.98

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9834.00
Right Encroachment Station (ft, STENCR)	10090.00
Encroachment Method (TYPE)	1
Width or Percent Target	256.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
10.945	.069	.063	.090	7.28	1564.38	.00	1564.37
.003135	365	365	370	1564.59	.22	2.03	.10
44.30	371	564	160	.00	1560.90	1559.80	2
3805	1099	2371	333	256.0	9834.00	10090.00	0
.13	2.96	4.21	2.08	.000	10.3	1557.10	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	10.945
Total Discharge (cfs, Q)	3805
Computed Water Surface Elevation (ft MSL, CWSEL)	1564.38

Station (ft) =	9834.0	9867.5	9883.9	9900.1	9912.3	9917.9
Flow (%) =	3.5	4.0	4.6	5.6	4.3	
Area (sq ft) =	68.5	61.3	65.7	55.9	33.4	
Vel (ft/s) =	1.95	2.51	2.64	3.82	4.93	
Depth (ft) =	2.05	3.74	4.05	4.59	5.96	

Station (ft) =	9917.9	9927.4	9940.3	9959.8	10011.3	10038.9
Flow (%) =	4.3	2.5	4.4	46.2	11.7	
Area (sq ft) =	41.4	45.1	74.8	335.4	153.9	
Vel (ft/s) =	3.99	2.13	2.26	5.24	2.90	
Depth (ft) =	4.35	3.50	3.83	6.51	5.57	

Station (ft) =	10038.9	10052.5	10069.2	10090.0
Flow (%) =	3.7	3.3	1.8	
Area (sq ft) =	58.3	58.1	43.9	
Vel (ft/s) =	2.44	2.13	1.54	
Depth (ft) =	4.28	3.48	2.11	

STATUS: Analyzing cross-section reach 11.006.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) .62

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9950.00
Right Encroachment Station (ft, STENCR)	10107.00
Encroachment Method (TYPE)	1
Width or Percent Target	157.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
11.006	.080	.050	.080	7.34	1565.54	.00	1565.44
.008047	315	325	350	1566.32	.78	1.55	.17
50.81	95	332	207	.00	1562.30	1562.50	2
3805	354	2690	759	157.0	9950.00	10107.00	0
.15	3.70	8.08	3.67	.000	11.9	1558.20	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	11.006
Total Discharge (cfs, Q)	3805
Computed Water Surface Elevation (ft MSL, CWSEL)	1565.54

Station (ft) =	9950.0	9965.8	9979.0	10041.0	10055.2	10066.1
Flow (%) =	5.0	4.4	70.7	4.2	5.7	
Area (sq ft) =	51.5	44.4	333.0	44.7	48.6	
Vel (ft/s) =	3.66	3.74	8.08	3.57	4.50	
Depth (ft) =	3.26	3.37	5.37	3.14	4.46	

Station (ft) =	10066.1	10075.3	10095.8	10107.0
Flow (%) =	4.3	4.1	1.7	
Area (sq ft) =	38.1	50.7	25.1	
Vel (ft/s) =	4.26	3.05	2.54	
Depth (ft) =	4.14	2.47	2.25	

STATUS: Analyzing cross-section reach 11.062.

STATUS: (3280) For cross-section 11.06, ends have been extended vertically .64 feet in order to calculate the hydraulic cross-section properties.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9938.00
Right Encroachment Station (ft, STENCR)	10132.00
Encroachment Method (TYPE)	1
Width or Percent Target	194.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
11.062	.080	.050	.080	7.64	1567.64	.00	1566.66
.004577	310	295	275	1568.08	.44	1.73	.03
55.85	163	285	430	.00	1563.90	1564.10	2
3805	499	1938	1367	194.0	9938.00	10132.00	0
.16	3.06	6.78	3.18	.000	13.0	1560.00	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	11.062
Total Discharge (cfs, Q)	3805
Computed Water Surface Elevation (ft MSL, CWSEL)	1567.64

Station (ft) =	9938.0	9954.3	9966.0	9978.7	10023.1	10040.4
Flow (%) =	5.1	3.8	4.3	50.9	4.4	
Area (sq ft) =	66.3	46.0	51.0	285.7	58.9	
Vel (ft/s) =	2.91	3.13	3.17	6.78	2.84	
Depth (ft) =	4.07	3.93	4.01	6.43	3.40	

Station (ft) =	10040.4	10056.7	10068.6	10077.6	10085.6	10092.9
Flow (%) =	4.2	3.4	3.4	4.7	4.0	
Area (sq ft) =	55.8	43.3	39.3	45.3	40.3	
Vel (ft/s) =	2.85	2.97	3.30	3.99	3.80	
Depth (ft) =	3.42	3.64	4.37	5.66	5.51	

Station (ft) =	10092.9	10107.2	10122.3	10132.0
Flow (%) =	4.2	4.8	2.9	
Area (sq ft) =	52.8	58.4	36.7	
Vel (ft/s) =	3.00	3.10	3.00	
Depth (ft) =	3.69	3.87	3.79	

STATUS: Analyzing cross-section reach 11.118.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9894.00
Right Encroachment Station (ft, STENCR)	10069.00
Encroachment Method (TYPE)	1
Width or Percent Target	175.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
11.118	.080	.050	.080	7.81	1568.91	.00	1567.90
.003812	320	295	270	1569.31	.40	1.23	.00
61.65	289	517	28	.00	1565.90	1565.70	2
3805	834	2901	69	175.0	9894.00	10069.00	0
.18	2.88	5.60	2.47	.000	14.3	1561.10	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	11.118
Total Discharge (cfs, Q)	3805
Computed Water Surface Elevation (ft MSL, CWSEL)	1568.91

Station (ft) =	9894.0	9905.2	9913.5	9920.3	9930.1	9935.3
Flow (%) =	2.9	3.3	2.7	3.4	1.9	
Area (sq ft) =	46.1	39.1	32.4	42.2	23.2	
Vel (ft/s) =	2.41	3.21	3.23	3.04	3.10	
Depth (ft) =	4.12	4.71	4.76	4.31	4.46	

Station (ft) =	9935.3	9940.7	9948.1	9956.1	9964.4	10060.4
Flow (%) =	2.0	2.2	1.8	1.7	76.2	
Area (sq ft) =	24.6	29.3	26.9	25.8	517.7	
Vel (ft/s) =	3.15	2.86	2.57	2.44	5.60	
Depth (ft) =	4.56	3.96	3.36	3.11	5.39	

Station (ft) =	10060.4	10068.8	10069.0
Flow (%) =	1.8	.0	
Area (sq ft) =	27.4	.7	
Vel (ft/s) =	2.52	.38	
Depth (ft) =	3.26	3.32	

STATUS: Analyzing cross-section reach 11.190.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) .69

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9913.00
Right Encroachment Station (ft, STENCR)	10044.00
Encroachment Method (TYPE)	1
Width or Percent Target	131.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
11.190	.080	.055	.085	7.28	1570.78	.00	1570.12
.007979	420	380	335	1571.49	.71	2.09	.09
68.32	324	302	6	.00	1566.50	1568.80	2
3805	1413	2381	10	131.0	9913.00	10044.00	0
.20	4.36	7.88	1.69	.000	15.7	1563.50	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 11.190
Total Discharge (cfs, Q) 3805
Computed Water Surface Elevation (ft MSL, CWSEL) 1570.78

Station (ft) =	9913.0	9922.9	9934.1	9948.5	9958.9	9967.9
Flow (%) =	3.5	5.5	5.9	4.5	4.5	
Area (sq ft) =	35.5	48.1	55.4	41.1	39.0	
Vel (ft/s) =	3.79	4.36	4.07	4.15	4.40	
Depth (ft) =	3.58	4.30	3.84	3.96	4.33	

Station (ft) =	9967.9	9974.6	9979.2	9985.8	9989.5	10039.5
Flow (%) =	5.0	3.1	3.3	1.8	62.6	
Area (sq ft) =	36.9	24.1	28.5	15.7	302.4	
Vel (ft/s) =	5.13	4.92	4.39	4.34	7.88	
Depth (ft) =	5.51	5.24	4.32	4.23	6.05	

Station (ft) =	10039.5	10044.0
Flow (%) =	.3	
Area (sq ft) =	6.1	
Vel (ft/s) =	1.69	
Depth (ft) =	1.35	

STATUS: Analyzing cross-section reach 11.259.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 9881.00
Right Encroachment Station (ft, STENCR) 10054.00
Encroachment Method (TYPE) 1
Width or Percent Target 173.000

11.259	.085	.055	.085	7.26	1573.36	.00	1573.04
.005767	310	365	395	1573.84	.48	2.33	.02
73.7[illegible]	381	361	32	.00	1569.30	1569.20	[illegible]
3805	1391	2341	72	173.0	9881.00	10054.00	0
.21	3.65	6.48	2.20	.000	16.9	1566.10	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	11.259
Total Discharge (cfs, Q)	3805
Computed Water Surface Elevation (ft MSL, CWSEL)	1573.36

Station (ft) =	9881.0	9910.9	9920.7	9930.2	9937.0	9940.9
Flow (%) =	3.2	3.9	4.6	5.8	3.4	
Area (sq ft) =	57.1	42.6	46.2	46.6	27.1	
Vel (ft/s) =	2.13	3.52	3.77	4.70	4.84	
Depth (ft) =	1.91	4.34	4.87	6.86	6.96	

Station (ft) =	9940.9	9947.1	9960.2	9976.1	10039.5	10054.0
Flow (%) =	4.2	5.5	5.9	61.5	1.9	
Area (sq ft) =	37.2	58.6	65.7	361.1	32.8	
Vel (ft/s) =	4.28	3.60	3.42	6.48	2.20	
Depth (ft) =	6.00	4.47	4.13	5.70	2.26	

STATUS: Analyzing cross-section reach 11.351.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9908.00
Right Encroachment Station (ft, STENCR)	10065.00
Encroachment Method (TYPE)	1
Width or Percent Target	157.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
11.351	.085	.050	.085	7.60	1575.90	.00	1575.45
.005135	460	485	515	1576.48	.58	2.61	.03
82.11	242	372	127	.00	1572.00	1571.90	3
3805	787	2629	387	157.0	9908.00	10065.00	0
.24	3.25	7.06	3.04	.000	18.7	1568.30	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	11.351
Total Discharge (cfs, Q)	3805
Computed Water Surface Elevation (ft MSL, CWSEL)	1575.90

Station (ft) =	9908.0	9929.1	9938.0	9950.5	9956.6	9966.4
Flow (%) =	3.6	3.6	4.9	3.2	4.4	
Area (sq ft) =	55.4	40.0	55.1	32.3	47.2	
Vel (ft/s) =	2.49	3.40	3.37	3.77	3.55	
Depth (ft) =	2.63	4.50	4.41	5.30	4.82	

Station (ft) =	9966.4	9969.6	10030.3	10043.1	10055.8	10065.0
Flow (%) =	1.0	69.1	4.6	4.3	1.3	
Area (sq ft) =	12.5	372.7	53.6	51.6	22.2	
Vel (ft/s) =	3.10	7.06	3.26	3.18	2.20	
Depth (ft) =	3.90	6.14	4.19	4.06	2.42	

STATUS: Analyzing cross-section reach 11.426.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9908.00
Right Encroachment Station (ft, STENCR)	10136.00
Encroachment Method (TYPE)	1
Width or Percent Target	228.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
11.426	.080	.050	.080	7.19	1577.89	.00	1577.21
.004026	440	395	370	1578.31	.43	1.82	.02
89.75	256	375	279	.00	1573.60	1573.90	2
3805	787	2359	658	228.0	9908.00	10136.00	0
.26	3.07	6.28	2.35	.000	20.4	1570.70	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	11.426
Total Discharge (cfs, Q)	3805
Computed Water Surface Elevation (ft MSL, CWSEL)	1577.89

Station (ft) =	9908.0	9923.3	9939.1	9953.7	9963.9	9969.6
Flow (%) =	4.1	4.3	6.1	4.1	2.0	
Area (sq ft) =	56.8	58.2	69.4	47.8	24.7	
Vel (ft/s) =	2.78	2.81	3.33	3.30	3.13	
Depth (ft) =	3.71	3.68	4.76	4.68	4.34	

Station (ft) =	9969.6	10030.9	10046.0	10059.9	10080.9	10103.3
Flow (%) =	62.0	3.8	3.1	3.1	3.9	
Area (sq ft) =	375.6	53.4	45.0	53.0	63.0	
Vel (ft/s) =	6.28	2.74	2.58	2.20	2.36	
Depth (ft) =	6.13	3.53	3.24	2.53	2.81	

Station (ft) =	10103.3	10128.1	10136.0
Flow (%) =	3.2	.2	
Area (sq ft) =	56.9	8.2	
Vel (ft/s) =	2.13	1.13	
Depth (ft) =	2.30	1.04	

STATUS: Analyzing cross-section reach 11.515.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9847.00
Right Encroachment Station (ft, STENCR)	10030.00
Encroachment Method (TYPE)	1
Width or Percent Target	183.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
11.515	.085	.050	.085	6.41	1580.01	.00	1579.05
.005362	500	470	460	1580.54	.53	2.20	.03
98.99	309	423	37	.00	1576.40	1575.90	2
3805	921	2792	90	183.0	9847.00	10030.00	0
.28	2.98	6.59	2.41	.000	22.7	1573.60	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	11.515
Total Discharge (cfs, Q)	3805
Computed Water Surface Elevation (ft MSL, CWSEL)	1580.01

Station (ft) =	9847.0	9863.8	9875.2	9891.8	9911.7	9929.8
Flow (%) =	4.2	4.9	3.9	4.2	5.3	
Area (sq ft) =	56.4	52.7	53.5	60.3	66.1	
Vel (ft/s) =	2.82	3.54	2.80	2.68	3.04	
Depth (ft) =	3.36	4.62	3.22	3.03	3.65	

Station (ft) =	9929.8	9935.2	10015.1	10030.0
Flow (%) =	1.7	73.4	2.4	
Area (sq ft) =	20.6	423.8	37.6	
Vel (ft/s) =	3.12	6.59	2.41	
Depth (ft) =	3.81	5.30	2.52	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 11.554.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9886.00
Right Encroachment Station (ft, STENCR)	10042.00
Encroachment Method (TYPE)	1
Width or Percent Target	156.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
11.554	.064	.055	.080	5.88	1581.28	.00	1581.19
.009601	175	205	225	1581.94	.66	1.36	.04
102.03	364	194	51	.00	1577.50	1578.80	2
3805	2217	1434	152	156.0	9886.00	10042.00	0
.29	6.08	7.37	2.96	.000	23.4	1575.40	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	11.554
Total Discharge (cfs, Q)	3805
Computed Water Surface Elevation (ft MSL, CWSEL)	1581.28

Station (ft) =	9886.0	9897.0	9902.3	9907.4	9916.3	9927.2
Flow (%) =	5.1	4.1	3.8	4.9	3.5	
Area (sq ft) =	40.6	26.1	24.6	35.9	31.6	
Vel (ft/s) =	4.77	6.03	5.94	5.23	4.23	
Depth (ft) =	3.69	4.93	4.83	4.03	2.90	

Station (ft) =	9927.2	9937.6	9946.2	9953.8	9961.2	9967.7
Flow (%) =	5.2	7.2	7.8	7.8	6.0	
Area (sq ft) =	35.9	40.3	40.1	39.8	32.4	
Vel (ft/s) =	5.54	6.76	7.36	7.45	7.04	
Depth (ft) =	3.46	4.68	5.28	5.38	4.98	

Station (ft) =	9967.7	9971.8	10013.0	10035.9	10042.0
Flow (%) =	2.8	37.7	3.9	.1	
Area (sq ft) =	17.1	194.7	48.3	3.3	
Vel (ft/s) =	6.22	7.37	3.09	1.16	
Depth (ft) =	4.18	4.72	2.11	.54	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 11.626.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9921.00
Right Encroachment Station (ft, STENCR)	10061.00
Encroachment Method (TYPE)	1
Width or Percent Target	140.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
11.626	.060	.050	.080	7.17	1583.97	.00	1583.31
.005426	375	380	395	1584.62	.65	2.68	.00
107.56	158	390	107	.00	1581.40	1580.70	2
3805	684	2798	322	140.0	9921.00	10061.00	0
.31	4.31	7.16	3.00	.000	24.7	1576.80	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	11.626
Total Discharge (cfs, Q)	3805
Computed Water Surface Elevation (ft MSL, CWSEL)	1583.97

Station (ft) =	9921.0	9932.1	9939.8	9959.4	9963.8	10028.1
Flow (%) =	3.2	5.1	8.7	1.0	73.5	
Area (sq ft) =	35.5	37.8	74.1	11.3	391.0	
Vel (ft/s) =	3.44	5.14	4.44	3.42	7.16	
Depth (ft) =	3.20	4.91	3.78	2.57	6.08	

Station (ft) =	10028.1	10044.9	10060.9	10061.0
Flow (%) =	4.6	3.8	.0	
Area (sq ft) =	56.9	50.1	.3	
Vel (ft/s) =	3.08	2.93	.29	
Depth (ft) =	3.39	3.13	2.98	

Contraction Coefficient (CCHV) .100

Expansion Coefficient (CEHV) .300

STATUS: Analyzing cross-section reach 11.688.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9920.00
Right Encroachment Station (ft, STENCR)	10064.00
Encroachment Method (TYPE)	1
Width or Percent Target	144.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
11.688	.080	.060	.085	7.41	1586.11	.00	1585.56
.007508	360	330	315	1586.74	.63	2.11	.00
112.60	132	481	42	.00	1582.80	1582.90	2
3805	428	3258	117	144.0	9920.00	10064.00	0
.32	3.25	6.77	2.80	.000	25.8	1578.70	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	11.688
Total Discharge (cfs, Q)	3805
Computed Water Surface Elevation (ft MSL, CWSEL)	1586.11

Station (ft) =	9920.0	9928.6	9936.6	9943.9	9951.5	9963.5
Flow (%) =	2.1	2.1	1.6	2.0	3.6	
Area (sq ft) =	27.4	23.6	19.4	22.5	39.1	
Vel (ft/s) =	2.84	3.31	3.09	3.31	3.54	
Depth (ft) =	3.19	2.96	2.66	2.96	3.26	

Station (ft) =	9963.5	10048.1	10058.4	10064.0
Flow (%) =	85.6	2.4	.7	
Area (sq ft) =	481.3	29.9	12.2	
Vel (ft/s) =	6.77	3.08	2.11	
Depth (ft) =	5.69	2.91	2.17	

Contraction Coefficient (CCHV) .600

Expansion Coefficient (CEHV) .800

STATUS: Analyzing cross-section reach 11.722.

STATUS: (3280) For cross-section 11.72, ends have been extended vertically .31 feet in order to calculate the hydraulic cross-section properties.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 2.51

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9894.00
Right Encroachment Station (ft, STENCR)	10085.00
Encroachment Method (TYPE)	1
Width or Percent Target	191.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
11.722	.085	.050	.085	8.71	1587.21	.00	1586.54
.001195	160	180	200	1587.43	.22	.44	.25
116.31	111	887	145	.00	1582.50	1582.20	2
3805	142	3448	214	191.0	9894.00	10085.00	0
.34	1.27	3.88	1.47	.000	26.5	1578.50	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	11.722
Total Discharge (cfs, Q)	3805
Computed Water Surface Elevation (ft MSL, CWSEL)	1587.21

Station (ft) =	9894.0	9919.0	9930.0	10050.0	10085.0
Flow (%) =	2.0	1.8	90.6	5.6	
Area (sq ft) =	67.8	44.1	887.9	145.6	
Vel (ft/s) =	1.11	1.52	3.88	1.47	
Depth (ft) =	2.71	4.01	7.40	4.16	

STATUS: Special culvert analysis being performed.

CULVERT DESCRIPTION :

Number of Identical Culverts (CUNO)	8
Culvert Mannings n (CUNV)	.032
Culvert Entrance Loss Coefficient (ENTLC)	.800
Pipe Culvert Diameter (ft, RISE)	5.66
Culvert Length (ft, CULVLN)	60.00
Culvert Opening Upstream Invert (ft MSL, ELCHU)	1578.60
Culvert Opening Downstream Invert (ft MSL, ELCHD)	1578.40
Roadway Length (ft, RDLEN)	.00
Roadway Weir Flow Discharge Coefficient (COFQ)	3.00

Chart # 2 - corrugated metal pipe culvert

Scale # 3 - pipe projecting from fill

WARNING: (5130) Inlet control energy grade line elevation 1601.41 ft MSL may be too large if inlet controls.

WARNING: (5135) Outlet control energy grade line elevation 1603.46 ft MSL may be too large if outlet controls.

STATUS: Analyzing cross-section reach 11.734.

BRIDGE ENCROACHMENT DESCRIPTION :

Left Encroachment Station (ft, STENCL)	9885.00
Right Encroachment Station (ft, STENCR)	10095.00

STATUS: Special culvert outlet control and weir flow.

Energy Gradient Elevation (ft MSL, EG) 1588.72

STATUS: (3280) For cross-section 11.73, ends have been extended vertically .39 feet in order to calculate the hydraulic cross-section properties.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO)	1.41

CULVERT ANALYSIS RESULTS :

Inlet Control Energy Grade Line Elevation (ft MSL, EGIC)	1601.41
Outlet Control Energy Grade Line Elevation (ft MSL, EGOC)	1603.46
Water Surface Drop Through Culvert (ft, H4)	1.29
Total Weir Flow (cfs, QWEIR)	2678.
Total Culvert Flow (cfs, QCULV)	1159.
Mean Channel Velocity (fps, VCH)	2.96
Culvert Opening Area (sq ft, ACULV)	201.3
Top of Roadway Elevation (ft MSL, ELTRD)	1584.90
Roadway Weir Length (ft, WEIRLN)	210.0

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9885.00
Right Encroachment Station (ft, STENCR)	10095.00
Encroachment Method (TYPE)	1
Width or Percent Target	210.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
11.734	.085	.050	.085	9.59	1588.59	.00	1587.61
.000598	60	60	60	1588.72	.13	1.29	.00
118.08	124	1227	63	.00	1582.80	1584.90	2
3805	109	3633	61	210.0	9885.00	10095.00	0
.34	.89	2.96	.97	.000	26.8	1579.00	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 11.734
Total Discharge (cfs, Q) 3805
Computed Water Surface Elevation (ft MSL, CWSEL) 1588.59

Station (ft) =	9885.0	9909.5	9928.3	10077.0	10094.5	10095.0
Flow (%) =	.9	2.0	95.5	1.6	.0	
Area (sq ft) =	51.0	73.1	1227.1	61.9	1.7	
Vel (ft/s) =	.66	1.04	2.96	.99	.25	
Depth (ft) =	2.08	3.89	8.25	3.54	3.38	

STATUS: Analyzing cross-section reach 11.811.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (7185) Critical depth has been crossed, therefore critical depth has been assumed for the current cross-section.

WARNING: (3720) Critical depth has been assumed.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 9843.00
Right Encroachment Station (ft, STENCR) 10023.00
Encroachment Method (TYPE) 1
Width or Percent Target 180.000

STATUS: (3495) Overbank area assumed noneffective.

Left Overbank Elevation (ft, XLBEL) 1587.00
Right Overbank Elevation (ft, RBEL) 1589.40

11.811	.080	.050	.000	6.43	1589.33	1589.33	1589.32
.018140	480	410	365	1590.74	1.41	[illegible]	[illegible]3
127.21	180	299	0	.00	1587.00	1589.40	2
3756	649	3106	0	179.7	9843.00	10022.72	23
.36	3.60	10.36	.00	.000	28.7	1582.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 11.811
Total Discharge (cfs, Q) 3756
Computed Water Surface Elevation (ft MSL, CWSEL) 1589.33

Station (ft) =	9843.0	9853.0	9881.8	9898.6	9921.3	9927.9
Flow (%) =	.8	6.0	2.4	1.7	.8	
Area (sq ft) =	10.5	57.0	26.5	24.5	9.8	
Vel (ft/s) =	2.77	3.94	3.39	2.63	3.21	
Depth (ft) =	1.05	1.98	1.58	1.08	1.48	

Station (ft) =	9927.9	9934.6	9943.9	9953.6	10022.8
Flow (%) =	1.5	1.9	2.3	82.7	
Area (sq ft) =	13.6	17.9	20.7	299.7	
Vel (ft/s) =	4.01	3.88	4.14	10.36	
Depth (ft) =	2.03	1.93	2.13	4.34	

Contraction Coefficient (CCHV) .100

Expansion Coefficient (CEHV) .300

STATUS: Analyzing cross-section reach 11.876.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 1.83

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 9957.00
Right Encroachment Station (ft, STENCR) 10140.00
Encroachment Method (TYPE) 1
Width or Percent Target 183.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
11.876	.080	.050	.080	8.83	1593.43	.00	1593.15
.005405	295	340	390	1593.94	.50	3.10	.09
132.14	40	389	333	.00	1590.00	1592.10	3
3756	91	2547	1117	183.0	9957.00	10140.00	0
.37	2.27	6.54	3.35	.000	30.1	1584.60	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 11.876
Total Discharge (cfs, Q) 3756
Computed Water Surface Elevation (ft MSL, CWSEL) 1593.43

Station (ft) =	9957.0	9978.9	10051.6	10080.4	10091.4	10099.6
Flow (%) =	2.4	67.8	6.1	5.3	3.7	
Area (sq ft) =	40.2	389.4	79.2	52.1	37.2	
Vel (ft/s) =	2.27	6.54	2.89	3.85	3.73	
Depth (ft) =	1.84	5.36	2.75	4.74	4.54	

Station (ft) =	10099.6	10111.2	10119.7	10131.5	10140.0
Flow (%) =	4.4	3.2	4.5	2.5	
Area (sq ft) =	47.4	34.8	48.3	34.6	
Vel (ft/s) =	3.49	3.49	3.49	2.69	
Depth (ft) =	4.09	4.09	4.09	4.07	

STATUS: Analyzing cross-section reach 11.960.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 9925.00
Right Encroachment Station (ft, STENCR) 10159.00
Encroachment Method (TYPE) 1
Width or Percent Target 234.000

11.960	.080	.055	.085	7.47	1595.67	.00	1595.10
.004269	455	445	430	1596.06	.39	2.12	.01
140.49	70	549	268	.00	1592.90	1593.20	4
3756	135	3023	596	234.0	9925.00	10159.00	0
.40	1.91	5.50	2.22	.000	32.2	1588.20	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 11.960
Total Discharge (cfs, Q) 3756
Computed Water Surface Elevation (ft MSL, CWSEL) 1595.67

Station (ft) =	9925.0	9962.6	10061.5	10083.9	10105.8	10123.2
Flow (%) =	3.6	80.5	3.0	3.2	3.7	
Area (sq ft) =	70.7	549.8	54.9	56.6	55.7	
Vel (ft/s) =	1.91	5.50	2.08	2.15	2.48	
Depth (ft) =	1.88	5.56	2.45	2.58	3.20	

Station (ft) =	10123.2	10144.6	10159.0
Flow (%) =	3.7	2.2	
Area (sq ft) =	61.1	40.6	
Vel (ft/s) =	2.30	2.04	
Depth (ft) =	2.85	2.82	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 12.041.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) .62

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9926.00
Right Encroachment Station (ft, STENCR)	10058.00
Encroachment Method (TYPE)	1
Width or Percent Target	132.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
12.041	.080	.050	.085	6.25	1597.95	.00	1597.62
.011261	490	430	390	1599.11	1.17	2.82	.23
147.26	99	380	4	.00	1596.00	1596.20	2
3756	320	3427	8	132.0	9926.00	10058.00	0
.41	3.22	9.02	1.75	.000	34.1	1591.70	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 12.041
Total Discharge (cfs, Q) 3756
Computed Water Surface Elevation (ft MSL, CWSEL) 1597.95

Station (ft) =	9926.0	9952.1	9965.9	9976.3	10053.2	10058.0
Flow (%) =	3.0	3.7	1.8	91.2	.2	
Area (sq ft) =	41.4	36.9	21.0	380.2	4.8	
Vel (ft/s) =	2.75	3.79	3.15	9.02	1.75	
Depth (ft) =	1.59	2.67	2.02	4.94	1.01	

STATUS: Analyzing cross-section reach 12.128.

STATUS: (3280) For cross-section 12.13, ends have been extended vertically .73 feet in order to calculate the hydraulic cross-section properties.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 1.60

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 9923.00
Right Encroachment Station (ft, STENCR) 10063.00
Encroachment Method (TYPE) 1
Width or Percent Target 140.000

12.128	.070	.060	.080	8.22	1601.82	.00	1600.93
.004372	445	460	475	1602.24	.41	3.05	.08
153.77	54	662	36	.00	1597.80	1599.20	1
3756	181	3493	81	140.0	9923.00	10063.00	0
.44	3.35	5.27	2.25	.000	35.5	1593.60	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	12.128
Total Discharge (cfs, Q)	3756
Computed Water Surface Elevation (ft MSL, CWSEL)	1601.82

Station (ft) =	9923.0	9923.3	9931.6	9937.4	10049.9	10057.1
Flow (%) =	.0	2.7	2.2	93.0	1.4	
Area (sq ft) =	1.0	30.1	23.1	662.7	21.1	
Vel (ft/s) =	.59	3.31	3.52	5.27	2.51	
Depth (ft) =	3.32	3.63	3.98	5.89	2.93	

Station (ft) =	10057.1	10063.0
Flow (%) =	.8	
Area (sq ft) =	15.2	
Vel (ft/s) =	1.89	
Depth (ft) =	2.57	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 12.174.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9977.00
Right Encroachment Station (ft, STENCR)	10197.00
Encroachment Method (TYPE)	1
Width or Percent Target	220.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
12.174	.055	.055	.066	6.10	1603.00	.00	1602.60
.004522	250	240	245	1603.32	.32	1.07	.01
158.32	8	310	563	.00	1599.40	1600.00	2
3756	20	1678	2057	220.0	9977.00	10197.00	0
.45	2.34	5.41	3.65	.000	36.5	1596.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 12.174
Total Discharge (cfs, Q) 3756
Computed Water Surface Elevation (ft MSL, CWSEL) 1603.00

Station (ft) =	9977.0	9981.6	10041.1	10054.8	10066.8	10082.7
Flow (%) =	.5	44.7	3.1	3.9	6.4	
Area (sq ft) =	8.7	310.0	43.1	46.9	71.3	
Vel (ft/s) =	2.34	5.41	2.68	3.10	3.39	
Depth (ft) =	1.88	5.21	3.15	3.91	4.48	

Station (ft) =	10082.7	10102.1	10121.1	10139.9	10154.0	10181.2
Flow (%) =	4.7	3.4	3.2	5.6	18.6	
Area (sq ft) =	63.9	51.9	49.9	49.8	133.2	
Vel (ft/s) =	2.76	2.45	2.40	4.23	5.24	
Depth (ft) =	3.29	2.73	2.65	3.53	4.90	

Station (ft) =	10181.2	10189.4	10197.0
Flow (%) =	4.0	1.9	
Area (sq ft) =	33.2	20.4	
Vel (ft/s) =	4.58	3.45	
Depth (ft) =	4.05	2.69	

STATUS: Analyzing cross-section reach 12.249.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 9892.00
Right Encroachment Station (ft, STENCR) 10068.00
Encroachment Method (TYPE) 1
Width or Percent Target 176.000

12.249	.085	.055	.085	5.28	1605.18	.00	1604.77
.008895	405	395	395	1605.87	.68	2.44	.11
165.19	79	470	8[illegible]	.00	1603.30	1601.90	2
3756	205	3292	258	176.0	9892.00	10068.00	0
.47	2.59	6.99	3.18	.000	38.3	1599.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	12.249
Total Discharge (cfs, Q)	3756
Computed Water Surface Elevation (ft MSL, CWSEL)	1605.18

Station (ft) =	9892.0	9898.4	9904.6	9914.1	9922.7	9931.4
Flow (%) =	.6	.9	1.5	1.3	1.1	
Area (sq ft) =	11.2	12.6	20.7	17.9	16.8	
Vel (ft/s) =	2.06	2.64	2.77	2.69	2.56	
Depth (ft) =	1.74	2.03	2.18	2.08	1.93	

Station (ft) =	9931.4	10034.5	10041.9	10048.1	10053.4	10065.0
Flow (%) =	87.7	2.4	1.8	1.3	1.3	
Area (sq ft) =	470.7	24.3	19.4	15.0	20.7	
Vel (ft/s) =	6.99	3.64	3.53	3.30	2.41	
Depth (ft) =	4.57	3.28	3.13	2.83	1.78	

Station (ft) =	10065.0	10068.0
Flow (%) =	.1	
Area (sq ft) =	2.0	
Vel (ft/s) =	1.15	
Depth (ft) =	.68	

STATUS: Analyzing cross-section reach 12.325.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9902.00
Right Encroachment Station (ft, STENCR)	10064.00
Encroachment Method (TYPE)	1
Width or Percent Target	162.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
12.325	.085	.060	.085	7.41	1608.51	.00	1608.26
.006779	400	405	415	1609.02	.51	3.13	.02
171.52	129	454	142	.00	1605.20	1605.00	1
3756	457	2850	448	162.0	9902.00	10064.00	0
.49	3.53	6.27	3.16	.000	39.9	1601.10	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 12.325
Total Discharge (cfs, Q) 3756
Computed Water Surface Elevation (ft MSL, CWSEL) 1608.51

Station (ft) =	9902.0	9914.3	9926.2	9935.7	10019.2	10032.1
Flow (%) =	3.9	5.4	2.9	75.9	4.0	
Area (sq ft) =	43.8	52.3	33.3	454.6	45.2	
Vel (ft/s) =	3.31	3.85	3.32	6.27	3.32	
Depth (ft) =	3.56	4.39	3.50	5.44	3.50	

Station (ft) =	10032.1	10044.4	10059.1	10064.0
Flow (%) =	4.1	3.4	.4	
Area (sq ft) =	45.3	43.1	8.4	
Vel (ft/s) =	3.43	2.98	1.70	
Depth (ft) =	3.69	2.93	1.70	

STATUS: Analyzing cross-section reach 12.395.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 9898.00
Right Encroachment Station (ft, STENCR) 10091.00
Encroachment Method (TYPE) 1
Width or Percent Target 193.000

12.395	.080	.055	.095	6.72	1610.62	.00	1609.98
.005869	315	370	40	1611.10	.48	2.08	.00
176.68	124	517	123	.00	1608.60	1607.30	2
3756	322	3104	328	193.0	9898.00	10091.00	0
.51	2.60	6.00	2.65	.000	41.0	1603.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 12.395
Total Discharge (cfs, Q) 3756
Computed Water Surface Elevation (ft MSL, CWSEL) 1610.62

Station (ft) =	9898.0	9898.3	9910.0	9915.3	9927.1	9938.2
Flow (%) =	.0	2.9	1.3	1.7	1.3	
Area (sq ft) =	.8	36.5	16.2	26.7	21.8	
Vel (ft/s) =	.59	3.03	2.96	2.45	2.23	
Depth (ft) =	2.61	3.12	3.07	2.27	1.97	

Station (ft) =	9938.2	9949.5	10053.6	10065.2	10074.0	10085.6
Flow (%) =	1.3	82.7	2.7	2.1	2.7	
Area (sq ft) =	22.2	517.3	38.5	29.2	38.5	
Vel (ft/s) =	2.23	6.00	2.66	2.66	2.66	
Depth (ft) =	1.97	4.97	3.32	3.32	3.32	

Station (ft) =	10085.6	10090.9	10091.0
Flow (%) =	1.2	.0	
Area (sq ft) =	17.3	.3	
Vel (ft/s) =	2.64	.25	
Depth (ft) =	3.27	3.22	

Contraction Coefficient (CCHV) .100

Expansion Coefficient (CEHV) .300

STATUS: Analyzing cross-section reach 12.484.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) .68

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9898.00
Right Encroachment Station (ft, STENCR)	10062.00
Encroachment Method (TYPE)	1
Width or Percent Target	164.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
12.484	.080	.050	.080	6.86	1613.96	.00	1613.72
.012318	460	465	485	1615.12	1.16	3.82	.20
183.27	51	414	0	.00	1613.00	1613.30	2
3706	89	3615	0	164.0	9898.00	10062.00	0
.52	1.75	8.73	1.01	.000	42.9	1607.10	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 12.484
Total Discharge (cfs, Q) 3706
Computed Water Surface Elevation (ft MSL, CWSEL) 1613.96

Station (ft) =	9898.0	9902.6	9912.3	9925.3	9939.2	9955.5
Flow (%) =	.1	.2	.3	.4	.8	
Area (sq ft) =	2.1	5.0	8.0	9.9	14.9	
Vel (ft/s) =	1.16	1.32	1.49	1.65	1.94	
Depth (ft) =	.46	.51	.61	.71	.91	

Station (ft) =	9955.5	9966.6	10061.3	10062.0
Flow (%) =	.6	97.6	.0	
Area (sq ft) =	11.2	414.1	.5	
Vel (ft/s) =	2.08	8.73	1.01	
Depth (ft) =	1.01	4.37	.67	

STATUS: Analyzing cross-section reach 12.568.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 9930.00
Right Encroachment Station (ft, STENCR) 10061.00
Encroachment Method (TYPE) 1
Width or Percent Target 131.000

12.568	.080	.060	.080	7.83	1618.73	.00	1618.44
.007234	495	445	405	1619.34	.61	4.17	.05
188.99	158	434	40	.00	1615.10	1616.00	3
3706	657	2941	107	131.0	9930.00	10061.00	0
.54	4.15	6.76	2.63	.000	44.5	1610.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	12.568
Total Discharge (cfs, Q)	3706
Computed Water Surface Elevation (ft MSL, CWSEL)	1618.73

Station (ft) =	9930.0	9933.3	9942.5	9951.2	9954.4	9957.8
Flow (%) =	.2	2.3	5.1	2.4	2.4	
Area (sq ft) =	4.9	26.9	42.0	17.8	18.3	
Vel (ft/s) =	1.67	3.17	4.46	4.97	4.84	
Depth (ft) =	1.50	2.93	4.83	5.58	5.38	

Station (ft) =	9957.8	9961.8	9966.2	9969.2	10043.5	10050.9
Flow (%) =	2.3	1.9	1.1	79.4	1.5	
Area (sq ft) =	19.3	17.9	11.0	435.0	19.1	
Vel (ft/s) =	4.45	4.00	3.76	6.76	2.97	
Depth (ft) =	4.83	4.08	3.68	5.85	2.58	

Station (ft) =	10050.9	10061.0
Flow (%) =	1.4	
Area (sq ft) =	21.5	
Vel (ft/s) =	2.34	
Depth (ft) =	2.13	

STATUS: Analyzing cross-section reach 12.650.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9928.00
Right Encroachment Station (ft, STENCR)	10066.00
Encroachment Method (TYPE)	1
Width or Percent Target	138.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
12.650	.080	.060	.080	8.03	1621.93	.00	1621.60
.007782	415	435	460	1622.62	.69	3.25	.02
195.16	67	484	54	.00	1618.90	1619.30	3
3706	185	3363	156	138.0	9928.00	10066.00	0
.56	2.77	6.94	2.89	.000	45.8	1613.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 12.650
Total Discharge (cfs, Q) 3706
Computed Water Surface Elevation (ft MSL, CWSEL) 1621.93

Station (ft) =	9928.0	9928.5	9941.1	9952.0	9958.7	10042.9
Flow (%) =	.0	1.6	1.8	1.6	90.8	
Area (sq ft) =	.9	23.7	24.3	18.3	484.5	
Vel (ft/s) =	.87	2.49	2.79	3.19	6.94	
Depth (ft) =	1.73	1.88	2.23	2.73	5.75	

Station (ft) =	10042.9	10052.3	10058.0	10065.5	10066.0
Flow (%) =	2.1	1.1	1.0	.0	
Area (sq ft) =	24.7	13.8	14.8	.9	
Vel (ft/s) =	3.12	2.95	2.58	.87	
Depth (ft) =	2.63	2.43	1.98	1.72	

STATUS: Analyzing cross-section reach 12.734.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 9912.00
Right Encroachment Station (ft, STENCR) 10081.00
Encroachment Method (TYPE) 1
Width or Percent Target 169.000

12.734	.080	.040	.080	8.56	1624.86	1624.51	1624.43
.007889	450	445	390	1626.32	1.46	3.47	.23
200.63	69	334	76	.00	1623.20	1623.20	4
3706	150	3388	167	167.7	9913.32	10081.00	8
.57	2.16	10.13	2.20	.000	47.3	1616.30	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	12.734
Total Discharge (cfs, Q)	3706
Computed Water Surface Elevation (ft MSL, CWSEL)	1624.86

Station (ft) =	9913.3	9922.4	9937.4	9951.9	9962.2	9972.3
Flow (%) =	.0	.3	1.1	1.4	1.2	
Area (sq ft) =	1.6	9.1	20.4	20.1	18.2	
Vel (ft/s) =	.52	1.18	2.07	2.58	2.45	
Depth (ft) =	.18	.61	1.41	1.96	1.81	

Station (ft) =	9972.3	10031.9	10042.2	10056.0	10063.5	10070.3
Flow (%) =	91.4	1.1	1.4	.7	.6	
Area (sq ft) =	334.6	17.1	22.2	11.3	9.9	
Vel (ft/s) =	10.13	2.31	2.26	2.17	2.12	
Depth (ft) =	5.61	1.66	1.61	1.51	1.46	

Station (ft) =	10070.3	10080.5	10081.0
Flow (%) =	.8	.0	
Area (sq ft) =	14.9	.7	
Vel (ft/s) =	2.12	.85	
Depth (ft) =	1.46	1.48	

STATUS: Analyzing cross-section reach 12.822.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9942.00
Right Encroachment Station (ft, STENCR)	10062.00
Encroachment Method (TYPE)	1
Width or Percent Target	120.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
12.822	.080	.050	.080	8.72	1629.02	.00	1628.50
.008514	450	460	485	1630.13	1.11	3.77	.04
205.82	80	381	38	.00	1626.80	1627.10	2
3706	245	3362	98	120.0	9942.00	10062.00	0
.59	3.05	8.82	2.53	.000	48.9	1620.30	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 12.822
Total Discharge (cfs, Q) 3706
Computed Water Surface Elevation (ft MSL, CWSEL) 1629.02

Station (ft) =	9942.0	9950.9	9958.9	9967.8	9976.5	10040.7
Flow (%) =	.8	1.9	2.4	1.6	90.7	
Area (sq ft) =	14.0	21.3	25.5	19.7	381.2	
Vel (ft/s) =	2.12	3.26	3.44	2.96	8.82	
Depth (ft) =	1.57	2.67	2.87	2.27	5.94	

Station (ft) =	10040.7	10052.3	10061.7	10062.0
Flow (%) =	1.5	1.1	.0	
Area (sq ft) =	21.7	16.6	.5	
Vel (ft/s) =	2.60	2.51	.69	
Depth (ft) =	1.87	1.77	1.72	

STATUS: Analyzing cross-section reach 12.909.

STATUS: (3280) For cross-section 12.91, ends have been extended vertically .17 feet in order to calculate the hydraulic cross-section properties.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 1.62

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 9920.00
Right Encroachment Station (ft, STENCR) 10057.00
Encroachment Method (TYPE) 1
Width or Percent Target 137.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
12.909	.080	.050	.080	7.27	1632.07	.00	1631.39
.003248	475	460	465	1632.48	.41	2.29	.07
212.30	2	719	1	.00	1630.80	1630.30	3
3706	1	3702	1	137.0	9920.00	10057.00	0
.61	.84	5.14	.82	.000	50.2	1624.80	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 12.909
Total Discharge (cfs, Q) 3706
Computed Water Surface Elevation (ft MSL, CWSEL) 1632.07

Station (ft) =	9920.0	9921.6	10055.9	10057.0
Flow (%) =	.0	99.9	.0	
Area (sq ft) =	2.0	719.7	1.9	
Vel (ft/s) =	.84	5.14	.82	
Depth (ft) =	1.27	5.36	1.76	

STATUS: Analyzing cross-section reach 13.000.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) .45

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 9928.00
Right Encroachment Station (ft, STENCR) 10054.00
Encroachment Method (TYPE) 1
Width or Percent Target 126.000

13.000	.080	.050	.080	4.72	1634.52	.00	1634.60
.016195	510	480	470	1635.68	1.16	2.98	.22
218.66	0	428	2	.00	1634.00	1633.30	2
3706	0	3701	3	126.0	9928.00	10054.00	0
.63	1.24	8.64	1.86	.000	51.7	1629.80	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	13.000
Total Discharge (cfs, Q)	3706
Computed Water Surface Elevation (ft MSL, CWSEL)	1634.52

Station (ft) =	9928.0	9929.2	10052.4	10054.0
Flow (%) =	.0	99.9	.1	
Area (sq ft) =	.7	428.2	2.0	
Vel (ft/s) =	1.24	8.64	1.86	
Depth (ft) =	.60	3.48	1.25	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 13.079.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO)	1.83

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9888.00
Right Encroachment Station (ft, STENCR)	10109.00
Encroachment Method (TYPE)	1
Width or Percent Target	221.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
13.079	.080	.050	.053	5.47	1638.77	.00	1638.57
.004812	430	420	425	1639.15	.38	3.39	.08
224.39	1	544	208	.00	1637.00	1637.20	2
3706	1	2808	895	221.0	9888.00	10109.00	0
.65	.99	5.16	4.30	.000	53.4	1633.30	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 13.079
Total Discharge (cfs, Q) 3706
Computed Water Surface Elevation (ft MSL, CWSEL) 1638.77

Station (ft) =	9888.0	9889.1	10025.9	10064.6	10072.0	10078.0
Flow (%) =	.1	75.8	5.0	4.8	5.6	
Area (sq ft) =	1.9	544.7	70.9	32.7	32.5	
Vel (ft/s) =	.99	5.16	2.63	5.44	6.36	
Depth (ft) =	1.77	3.98	1.83	4.42	5.42	

Station (ft) =	10078.0	10083.8	10097.7	10109.0
Flow (%) =	5.3	3.3	.2	
Area (sq ft) =	31.2	34.4	6.7	
Vel (ft/s) =	6.32	3.53	.93	
Depth (ft) =	5.37	2.47	.59	

STATUS: Analyzing cross-section reach 13.141.

STATUS: (3265) Divided flow.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) .62

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 9932.00
Right Encroachment Station (ft, STENCR) 10430.00
Encroachment Method (TYPE) 1
Width or Percent Target 498.000

13.141	.080	.060	.080	5.04	1641.24	.00	1641.23
.012499	300	325	390	1641.67	.42	2.50	.01
230.77	55	407	37	.00	1639.50	1640.60	3
3706	159	2475	1071	494.8	9932.00	10430.00	0
.67	2.84	6.08	2.82	.000	56.3	1636.20	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	13.141
Total Discharge (cfs, Q)	3706
Computed Water Surface Elevation (ft MSL, CWSEL)	1641.24

Station (ft) =	9932.0	9961.7	9968.7	10093.3	10238.0	10287.4
Flow (%) =	3.3	1.0	66.8	3.1	4.2	
Area (sq ft) =	43.7	12.2	407.1	77.1	56.3	
Vel (ft/s) =	2.80	3.01	6.08	1.49	2.74	
Depth (ft) =	1.47	1.74	3.27	.53	1.14	

Station (ft) =	10287.4	10320.4	10348.2	10367.3	10391.3	10401.3
Flow (%) =	3.0	3.4	3.8	3.2	4.1	
Area (sq ft) =	43.7	43.5	40.6	40.2	32.9	
Vel (ft/s) =	2.57	2.86	3.44	2.93	4.59	
Depth (ft) =	1.32	1.57	2.12	1.67	3.29	

Station (ft) =	10401.3	10417.4	10430.0
Flow (%) =	4.0	.3	
Area (sq ft) =	38.4	6.8	
Vel (ft/s) =	3.87	1.37	
Depth (ft) =	2.38	.54	

STATUS: Analyzing cross-section reach 13.223.

STATUS: (3265) Divided flow.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 1.43

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9979.00
Right Encroachment Station (ft, STENCR)	10680.00
Encroachment Method (TYPE)	1
Width or Percent Target	701.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
13.223	.080	.060	.080	5.43	1645.13	.00	1644.91
.006083	450	435	425	1645.33	.20	3.64	.02
240.95	0	399	820	.00	1644.90	1644.80	2
3706	0	1829	1876	670.2	9979.00	10680.00	0
.71	.48	4.58	2.29	.000	62.1	1639.70	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 13.223
Total Discharge (cfs, Q) 3706
Computed Water Surface Elevation (ft MSL, CWSEL) 1645.13

Station (ft) =	9979.0	9980.5	10086.8	10125.1	10143.1	10162.0
Flow (%) =	.0	49.4	5.4	3.9	3.6	
Area (sq ft) =	.3	399.5	81.0	50.2	48.6	
Vel (ft/s) =	.48	4.58	2.45	2.87	2.74	
Depth (ft) =	.22	3.76	2.12	2.79	2.57	

Station (ft) =	10162.0	10244.5	10264.3	10293.6	10313.6	10382.6
Flow (%) =	3.4	3.2	3.9	5.2	3.3	
Area (sq ft) =	69.5	46.7	60.9	62.1	73.4	
Vel (ft/s) =	1.80	2.57	2.36	3.10	1.65	
Depth (ft) =	.84	2.36	2.08	3.11	1.06	

Station (ft) =	10382.6	10429.7	10586.0	10641.0	10653.0	10677.8
Flow (%) =	3.1	3.2	4.9	4.2	3.3	
Area (sq ft) =	63.6	78.1	86.7	45.3	50.9	
Vel (ft/s) =	1.80	1.53	2.09	3.48	2.37	
Depth (ft) =	1.35	.50	1.58	3.77	2.05	

Station (ft) =	10677.8	10680.0
Flow (%) =	.1	
Area (sq ft) =	3.4	
Vel (ft/s) =	1.36	
Depth (ft) =	1.54	

STATUS: Analyzing cross-section reach 13.286.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 9886.00
Right Encroachment Station (ft, STENCR) 10607.00
Encroachment Method (TYPE) 1
Width or Percent Target 721.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
13.286	.085	.060	.085	5.26	1647.06	.00	1646.64
.005858	400	330	295	1647.19	.13	1.85	.01
250.19	18	358	1035	.00	1646.50	1646.70	3
3706	15	1359	2331	721.0	9886.00	10607.00	0
.74	.80	3.79	2.25	.000	66.9	1641.80	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 13.286
Total Discharge (cfs, Q) 3706
Computed Water Surface Elevation (ft MSL, CWSEL) 1647.06

Station (ft) =	9886.0	9927.4	10053.8	10095.0	10140.5	10210.1
Flow (%) =	.4	36.7	4.5	3.4	3.8	
Area (sq ft) =	18.8	358.7	72.4	69.6	88.6	
Vel (ft/s) =	.80	3.79	2.31	1.80	1.58	
Depth (ft) =	.45	2.84	1.76	1.53	1.27	

Station (ft) =	10210.1	10253.5	10287.0	10321.8	10343.3	10432.5
Flow (%) =	3.5	3.8	4.5	3.5	3.3	
Area (sq ft) =	70.4	66.8	74.6	52.7	82.2	
Vel (ft/s) =	1.85	2.13	2.22	2.44	1.49	
Depth (ft) =	1.62	1.99	2.14	2.45	.92	

Station (ft) =	10432.5	10456.4	10488.7	10515.9	10528.6	10537.3
Flow (%) =	3.6	3.6	4.2	4.9	4.2	
Area (sq ft) =	55.9	63.3	64.8	52.8	41.7	
Vel (ft/s) =	2.36	2.10	2.40	3.43	3.76	
Depth (ft) =	2.34	1.96	2.38	4.16	4.79	

Station (ft) =	10537.3	10557.6	10577.2	10606.5	10607.0
Flow (%) =	3.6	4.3	4.2	.0	
Area (sq ft) =	52.9	58.0	67.4	1.1	
Vel (ft/s) =	2.54	2.76	2.33	.73	
Depth (ft) =	2.61	2.96	2.30	2.16	

STATUS: Analyzing cross-section reach 13.354.

STATUS: (3265) Divided flow.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (7185) Critical depth has been crossed, therefore critical depth has been assumed for the current cross-section.

WARNING: (3720) Critical depth has been assumed.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9900.00
Right Encroachment Station (ft, STENCR)	10360.00
Encroachment Method (TYPE)	1
Width or Percent Target	460.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
13.354	.085	.060	.085	4.61	1650.51	1650.51	1650.44
.027407	360	360	365	1651.66	1.14	3.97	.30
258.13	25	297	169	.00	1649.50	1649.70	5
3706	69	2820	815	249.3	9900.00	10346.38	11
.75	2.70	9.49	4.82	.000	71.0	1645.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	13.354
Total Discharge (cfs, Q)	3706
Computed Water Surface Elevation (ft MSL, CWSEL)	1650.51

Station (ft) =	9900.0	9932.1	10015.8	10286.7	10298.2	10305.9
Flow (%) =	1.9	76.1	3.4	8.4	6.4	
Area (sq ft) =	26.0	297.3	50.4	44.2	31.8	
Vel (ft/s) =	2.70	9.49	2.49	7.03	7.42	
Depth (ft) =	.81	3.55	.19	3.85	4.14	

Station (ft) =	10305.9	10334.2	10346.4
Flow (%) =	3.4	.5	
Area (sq ft) =	34.9	7.8	
Vel (ft/s) =	3.58	2.31	
Depth (ft) =	1.23	.64	

STATUS: Analyzing cross-section reach 13.435.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 2.62

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9920.00
Right Encroachment Station (ft, STENCR)	10340.00
Encroachment Method (TYPE)	1
Width or Percent Target	420.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
13.435	.085	.060	.085	6.80	1655.10	.00	1654.83
.004001	430	430	440	1655.37	.27	3.62	.09
266.31	82	515	550	.00	1653.30	1652.00	6
3706	144	2518	1043	420.0	9920.00	10340.00	0
.78	1.75	4.88	1.90	.000	74.3	1648.30	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	13.435
Total Discharge (cfs, Q)	3706
Computed Water Surface Elevation (ft MSL, CWSEL)	1655.10

Station (ft) =	9920.0	9958.3	9963.7	10056.7	10077.5	10148.5
Flow (%) =	3.5	.4	68.0	3.2	3.6	
Area (sq ft) =	73.0	9.7	515.9	55.5	97.4	
Vel (ft/s) =	1.76	1.64	4.88	2.14	1.38	
Depth (ft) =	1.91	1.80	5.55	2.67	1.37	

Station (ft) =	10148.5	10175.6	10198.4	10209.5	10228.9	10265.7
Flow (%) =	3.7	3.8	3.6	3.1	3.2	
Area (sq ft) =	67.4	64.3	47.2	52.1	69.9	
Vel (ft/s) =	2.03	2.21	2.84	2.19	1.70	
Depth (ft) =	2.49	2.82	4.25	2.69	1.90	

Station (ft) =	10265.7	10306.2	10340.0
Flow (%) =	3.4	.5	
Area (sq ft) =	74.4	22.2	
Vel (ft/s) =	1.68	.89	
Depth (ft) =	1.84	.66	

STATUS: Analyzing cross-section reach 13.519.

STATUS: (3265) Divided flow.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9926.00
Right Encroachment Station (ft, STENCR)	10310.00
Encroachment Method (TYPE)	1
Width or Percent Target	384.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
13.519	.085	.060	.085	6.89	1657.39	.00	1657.14
.008015	450	440	440	1657.84	.45	2.42	.05
276.45	36	460	358	.00	1655.40	1657.60	3
3706	70	2785	849	345.6	9926.00	10310.00	0
.80	1.94	6.05	2.37	.000	78.2	1650.50	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	13.519
Total Discharge (cfs, Q)	3706
Computed Water Surface Elevation (ft MSL, CWSEL)	1657.39

Station (ft) =	9926.0	9961.6	10065.5	10148.9	10167.3	10195.9
Flow (%) =	1.9	75.2	3.9	3.1	4.2	
Area (sq ft) =	36.3	460.8	62.4	41.9	58.6	
Vel (ft/s) =	1.94	6.05	2.31	2.73	2.63	
Depth (ft) =	1.02	4.56	.75	2.28	2.05	

Station (ft) =	10195.9	10234.0	10270.1	10302.0	10310.0
Flow (%) =	3.6	3.6	3.7	.8	
Area (sq ft) =	61.0	60.9	58.8	14.4	
Vel (ft/s) =	2.20	2.22	2.35	2.02	
Depth (ft) =	1.60	1.69	1.84	1.80	

STATUS: Analyzing cross-section reach 13.603.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9897.00
Right Encroachment Station (ft, STENCR)	10200.00
Encroachment Method (TYPE)	1
Width or Percent Target	303.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
13.603	.085	.055	.085	8.04	1660.44	.00	1660.34
.005590	450	445	575	1660.95	.50	3.09	.02
285.73	118	503	180	.00	1656.90	1659.70	2
3706	305	3099	301	303.0	9897.00	10200.00	0
.83	2.57	6.16	1.67	.000	82.0	1652.40	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	13.603
Total Discharge (cfs, Q)	3706
Computed Water Surface Elevation (ft MSL, CWSEL)	1660.44

Station (ft) =	9897.0	9957.8	9965.1	10057.5	10147.5	10183.0
Flow (%) =	6.1	2.1	83.6	3.3	3.6	
Area (sq ft) =	93.0	25.9	503.2	88.1	66.0	
Vel (ft/s) =	2.44	3.04	6.16	1.41	1.99	
Depth (ft) =	1.53	3.54	5.45	.98	1.86	

Station (ft) =	10183.0	10200.0
Flow (%) =	1.2	
Area (sq ft) =	26.6	
Vel (ft/s) =	1.70	
Depth (ft) =	1.57	

STATUS: Analyzing cross-section reach 13.691.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9880.00
Right Encroachment Station (ft, STENCR)	10310.00
Encroachment Method (TYPE)	1
Width or Percent Target	430.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
13.691	.080	.055	.090	7.52	1663.42	.00	1663.28
.007784	440	465	510	1664.04	.62	3.06	.03
294.29	74	487	211	.00	1661.60	1662.50	1
3706	155	3264	285	426.4	9880.00	10306.35	0
.85	2.08	6.70	1.35	.000	86.1	1655.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 13.691
Total Discharge (cfs, Q) 3706
Computed Water Surface Elevation (ft MSL, CWSEL) 1663.42

Station (ft) =	9880.0	9920.4	9930.9	10033.1	10096.3	10221.5
Flow (%) =	3.2	1.0	88.1	3.2	3.1	
Area (sq ft) =	58.2	16.5	487.4	72.5	90.5	
Vel (ft/s) =	2.05	2.21	6.70	1.65	1.27	
Depth (ft) =	1.44	1.57	4.77	1.15	.72	

Station (ft) =	10221.5	10306.4
Flow (%) =	1.4	
Area (sq ft) =	48.5	
Vel (ft/s) =	1.05	
Depth (ft) =	.57	

STATUS: Analyzing cross-section reach 13.761.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 9948.00
Right Encroachment Station (ft, STENCR) 10415.00
Encroachment Method (TYPE) 1
Width or Percent Target 467.000

13.761	.080	.055	.090	6.72	1666.12	.00	1665.96
.006326	395	370	350	1666.63	.51	2.58	.01
300.98	2	526	294	.00	1665.60	1663.10	2
3706	1	3213	490	449.4	9948.00	10397.39	0
.87	.62	6.10	1.67	.000	89.7	1659.40	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	13.761
Total Discharge (cfs, Q)	3706
Computed Water Surface Elevation (ft MSL, CWSEL)	1666.12

Station (ft) =	9948.0	9958.7	10068.2	10091.2	10109.4	10285.0
Flow (%) =	.0	86.7	4.9	3.4	3.9	
Area (sq ft) =	2.8	526.8	67.8	48.9	129.9	
Vel (ft/s) =	.62	6.10	2.70	2.55	1.12	
Depth (ft) =	.26	4.81	2.95	2.69	.74	

Station (ft) =	10285.0	10397.4
Flow (%) =	1.0	
Area (sq ft) =	48.2	
Vel (ft/s) =	.79	
Depth (ft) =	.43	

STATUS: Analyzing cross-section reach 13.841.

STATUS: (3265) Divided flow.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9944.00
Right Encroachment Station (ft, STENCR)	10525.00
Encroachment Method (TYPE)	1
Width or Percent Target	581.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
13.841	.080	.050	.080	7.05	1669.25	.00	1668.68
.009285	450	420	375	1669.72	.47	3.09	.00
308.97	0	283	650	.00	1669.20	1669.30	2
3706	0	2016	1689	531.7	9960.26	10525.00	0
.89	.02	7.11	2.60	.000	94.0	1662.20	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 13.841
Total Discharge (cfs, Q) 3706
Computed Water Surface Elevation (ft MSL, CWSEL) 1669.25

Station (ft) =	9960.3	10032.1	10270.0	10350.0	10430.0	10525.0
Flow (%) =	54.4	7.4	12.3	13.3	12.7	
Area (sq ft) =	283.6	147.4	159.9	167.9	175.7	
Vel (ft/s) =	7.11	1.85	2.84	2.93	2.67	
Depth (ft) =	4.03	.62	2.00	2.10	1.85	

STATUS: Analyzing cross-section reach 13.912.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 1.45

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 9821.00
Right Encroachment Station (ft, STENCR) 10360.00
Encroachment Method (TYPE) 1
Width or Percent Target 539.000

13.912	.070	.055	.070	4.77	1671.87	.00	1671.24
.004426	355	375	385	1672.08	.21	2.33	.03
318.27	354	376	483	.00	1669.10	1669.70	2
3706	977	1748	979	539.0	9821.00	10360.00	0
.92	2.76	4.64	2.03	.000	98.7	1667.10	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 13.912
Total Discharge (cfs, Q) 3706
Computed Water Surface Elevation (ft MSL, CWSEL) 1671.87

Station (ft) =	9821.0	9860.0	9873.3	9905.0	9932.7	9944.0
Flow (%) =	3.1	4.7	4.5	4.9	3.2	
Area (sq ft) =	54.2	50.8	70.0	69.4	37.5	
Vel (ft/s) =	2.10	3.46	2.39	2.61	3.15	
Depth (ft) =	1.39	3.82	2.21	2.51	3.32	

Station (ft) =	9944.0	9966.8	10057.4	10133.4	10190.0	10235.0
Flow (%) =	6.0	47.2	3.1	3.1	4.6	
Area (sq ft) =	72.4	376.9	77.5	68.4	81.3	
Vel (ft/s) =	3.06	4.64	1.49	1.68	2.10	
Depth (ft) =	3.17	4.16	1.02	1.21	1.81	

Station (ft) =	10235.0	10285.0	10350.0	10360.0
Flow (%) =	5.8	8.6	1.1	
Area (sq ft) =	97.7	137.4	20.9	
Vel (ft/s) =	2.22	2.33	2.03	
Depth (ft) =	1.95	2.11	2.09	

STATUS: Analyzing cross-section reach 13.987.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) .59

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9912.00
Right Encroachment Station (ft, STENCR)	10325.00
Encroachment Method (TYPE)	1
Width or Percent Target	413.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
13.987	.070	.050	.070	5.73	1674.43	.00	1674.24
.012921	400	400	415	1675.05	.62	2.84	.12
327.26	3	404	303	.00	1674.00	1674.20	2
3706	4	2847	853	413.0	9912.00	10325.00	0
.94	1.24	7.03	2.81	.000	103.2	1668.70	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 13.987
Total Discharge (cfs, Q) 3706
Computed Water Surface Elevation (ft MSL, CWSEL) 1674.43

Station (ft) =	9912.0	9922.5	10056.6	10159.0	10198.5	10216.3
Flow (%) =	.1	76.8	3.7	3.0	3.2	
Area (sq ft) =	4.0	404.9	70.9	43.5	32.6	
Vel (ft/s) =	1.24	7.03	1.94	2.60	3.61	
Depth (ft) =	.38	3.02	.69	1.10	1.83	

Station (ft) =	10216.3	10242.0	10268.0	10296.4	10325.0
Flow (%) =	3.1	3.5	3.5	2.9	
Area (sq ft) =	37.4	40.4	42.0	37.0	
Vel (ft/s) =	3.12	3.25	3.13	2.87	
Depth (ft) =	1.46	1.55	1.48	1.29	

STATUS: Analyzing cross-section reach 14.076.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 1.64

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 9911.00
Right Encroachment Station (ft, STENCR) 10370.00
Encroachment Method (TYPE) 1
Width or Percent Target 459.000

14.076	.070	.050	.070	5.95	1678.25	.00	1677.78
.004787	480	470	470	1678.56	.31	3.48	.03
336.91	130	407	535	.00	1676.80	1677.10	3
3706	281	2221	1203	459.0	9911.00	10370.00	0
.97	2.15	5.46	2.25	.000	107.9	1672.30	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	14.076
Total Discharge (cfs, Q)	3706
Computed Water Surface Elevation (ft MSL, CWSEL)	1678.25

Station (ft) =	9911.0	9953.1	9978.0	9987.4	10080.2	10132.6
Flow (%) =	3.3	3.5	.8	59.9	3.3	
Area (sq ft) =	62.4	53.2	15.1	407.2	67.8	
Vel (ft/s) =	1.93	2.44	2.02	5.46	1.79	
Depth (ft) =	1.48	2.14	1.61	4.39	1.29	

Station (ft) =	10132.6	10169.0	10197.5	10225.3	10262.9	10287.9
Flow (%) =	3.5	3.3	4.3	4.5	3.1	
Area (sq ft) =	61.9	53.9	62.8	73.3	50.0	
Vel (ft/s) =	2.10	2.25	2.53	2.29	2.33	
Depth (ft) =	1.70	1.89	2.26	1.95	2.00	

Station (ft) =	10287.9	10324.5	10345.0	10370.0
Flow (%) =	3.7	3.3	3.4	
Area (sq ft) =	64.2	47.4	54.2	
Vel (ft/s) =	2.14	2.57	2.36	
Depth (ft) =	1.75	2.31	2.17	

STATUS: Analyzing cross-section reach 14.126.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9878.00
Right Encroachment Station (ft, STENCR)	10330.00
Encroachment Method (TYPE)	1
Width or Percent Target	452.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
14.126	.070	.050	.070	5.84	1679.64	.00	1679.46
.007049	275	260	250	1680.10	.46	1.49	.05
342.75	184	367	346	.00	1677.10	1679.20	3
3706	568	2388	748	452.0	9878.00	10330.00	0
.98	3.08	6.49	2.16	.000	110.6	1673.80	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 14.126
Total Discharge (cfs, Q) 3706
Computed Water Surface Elevation (ft MSL, CWSEL) 1679.64

Station (ft) =	9878.0	9924.0	9941.5	9961.3	9972.4	10059.4
Flow (%) =	3.5	4.0	5.3	2.6	64.4	
Area (sq ft) =	55.9	44.8	55.2	28.7	368.0	
Vel (ft/s) =	2.29	3.34	3.53	3.36	6.49	
Depth (ft) =	1.22	2.56	2.79	2.59	4.23	

Station (ft) =	10059.4	10107.6	10179.2	10223.4	10272.6	10300.0
Flow (%) =	3.5	3.8	3.3	3.3	3.1	
Area (sq ft) =	61.3	74.9	57.2	59.6	45.0	
Vel (ft/s) =	2.14	1.89	2.12	2.03	2.53	
Depth (ft) =	1.27	1.05	1.29	1.21	1.64	

Station (ft) =	10300.0	10330.0
Flow (%) =	3.2	
Area (sq ft) =	48.7	
Vel (ft/s) =	2.47	
Depth (ft) =	1.62	

STATUS: Analyzing cross-section reach 14.197.

STATUS: (3265) Divided flow.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 9861.00
Right Encroachment Station (ft, STENCR) 10200.00
Encroachment Method (TYPE) 1
Width or Percent Target 339.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
14.197	.070	.055	.070	5.72	1682.72	.00	1682.43
.010814	380	375	370	1683.40	.67	3.24	.06
349.31	35	522	69	.00	1681.90	1681.60	2
3706	66	3523	115	328.1	9861.00	10200.00	0
1.00	1.88	6.75	1.65	.000	113.9	1677.00	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 14.197
Total Discharge (cfs, Q) 3706
Computed Water Surface Elevation (ft MSL, CWSEL) 1682.72

Station (ft) =	9861.0	9918.2	10057.3	10193.7	10200.0
Flow (%) =	1.8	95.1	3.0	.1	
Area (sq ft) =	35.5	522.3	67.6	2.4	
Vel (ft/s) =	1.88	6.75	1.67	1.12	
Depth (ft) =	.62	3.76	.50	.38	

STATUS: Analyzing cross-section reach 14.310.

STATUS: (3280) For cross-section 14.31, ends have been extended vertically 1.53 feet in order to calculate the hydraulic cross-section properties.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 9766.00
Right Encroachment Station (ft, STENCR) 10150.00
Encroachment Method (TYPE) 1
Width or Percent Target 384.000

14.310	.080	.050	.080	8.32	1688.22	.00	1687.95
.006850	600	600	690	1688.64	.42	5.22	.03
360.04	429	266	194	.00	1686.00	1686.90	2
3322	1099	1790	432	384.0	9766.00	10150.00	0
1.04	2.56	6.71	2.23	.000	119.1	1679.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	14.310
Total Discharge (cfs, Q)	3322
Computed Water Surface Elevation (ft MSL, CWSEL)	1688.22

Station (ft) =	9766.0	9805.9	9828.2	9850.8	9881.7	9903.2
Flow (%) =	3.7	4.9	4.7	4.8	5.2	
Area (sq ft) =	58.4	57.0	55.9	63.5	57.9	
Vel (ft/s) =	2.08	2.88	2.82	2.49	2.98	
Depth (ft) =	1.46	2.56	2.47	2.06	2.69	

Station (ft) =	9903.2	9931.5	9967.5	9974.7	10032.7	10081.1
Flow (%) =	4.0	4.5	1.3	53.9	3.4	
Area (sq ft) =	54.8	65.1	16.4	267.0	62.6	
Vel (ft/s) =	2.41	2.30	2.66	6.71	1.83	
Depth (ft) =	1.94	1.81	2.28	4.60	1.29	

Station (ft) =	10081.1	10105.8	10127.1	10150.0
Flow (%) =	3.2	3.3	3.1	
Area (sq ft) =	45.3	43.5	42.8	
Vel (ft/s) =	2.34	2.52	2.39	
Depth (ft) =	1.83	2.04	1.87	

STATUS: Analyzing cross-section reach 14.396.

STATUS: (3280) For cross-section 14.40, ends have been extended vertically .84 feet in order to calculate the hydraulic cross-section properties.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9898.00
Right Encroachment Station (ft, STENCR)	10199.00
Encroachment Method (TYPE)	1
Width or Percent Target	301.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
14.396	.085	.050	.085	7.54	1691.44	.00	1691.47
.008419	465	455	430	1692.17	.73	3.44	.09
368.15	111	327	235	.00	1689.40	1689.20	2
3322	270	2544	507	301.0	9898.00	10199.00	0
1.05	2.43	7.76	2.15	.000	122.6	1683.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 14.396
Total Discharge (cfs, Q) 3322
Computed Water Surface Elevation (ft MSL, CWSEL) 1691.44

Station (ft) =	9898.0	9944.9	9968.8	10036.1	10059.9	10111.6
Flow (%) =	4.0	4.1	76.6	3.1	3.3	
Area (sq ft) =	60.4	50.9	327.9	43.4	60.9	
Vel (ft/s) =	2.21	2.68	7.76	2.40	1.80	
Depth (ft) =	1.29	2.13	4.87	1.83	1.18	

Station (ft) =	10111.6	10152.4	10174.3	10199.0
Flow (%) =	4.4	3.4	1.0	
Area (sq ft) =	66.0	43.8	21.5	
Vel (ft/s) =	2.24	2.58	1.52	
Depth (ft) =	1.62	2.00	.87	

STATUS: Analyzing cross-section reach 14.481.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 9881.00
Right Encroachment Station (ft, STENCR) 10041.00
Encroachment Method (TYPE) 1
Width or Percent Target 160.000

14.481	.085	.050	.085	6.53	1695.23	.00	1694.57
.008955	465	445	400	1696.04	.80	3.84	.02
374.11	65	429	14	.00	1693.70	1694.20	2
3322	138	3161	22	160.0	9881.00	10041.00	0
1.07	2.13	7.36	1.52	.000	124.9	1688.70	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 14.481
Total Discharge (cfs, Q) 3322
Computed Water Surface Elevation (ft MSL, CWSEL) 1695.23

Station (ft) =	9881.0	9895.6	9904.9	9916.3	9924.3	10024.6
Flow (%) =	1.3	1.0	1.1	.8	95.2	
Area (sq ft) =	21.8	14.3	17.0	11.9	429.6	
Vel (ft/s) =	2.03	2.21	2.16	2.16	7.36	
Depth (ft) =	1.49	1.54	1.49	1.49	4.28	

Station (ft) =	10024.6	10040.6	10041.0
Flow (%) =	.7	.0	
Area (sq ft) =	14.3	.3	
Vel (ft/s) =	1.53	.67	
Depth (ft) =	.89	.75	

STATUS: Analyzing cross-section reach 14.569.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9909.00
Right Encroachment Station (ft, STENCR)	10069.00
Encroachment Method (TYPE)	1
Width or Percent Target	160.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
14.569	.085	.050	.085	7.45	1699.05	.00	1698.24
.006749	450	465	485	1699.66	.61	3.60	.02
380.00	54	449	89	.00	1697.20	1696.30	2
3322	126	2950	244	160.0	9909.00	10069.00	0
1.09	2.35	6.56	2.74	.000	126.6	1691.60	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	14.569
Total Discharge (cfs, Q)	3322
Computed Water Surface Elevation (ft MSL, CWSEL)	1699.05

Station (ft) =	9909.0	9923.5	9934.7	10035.3	10047.6	10068.7
Flow (%) =	2.2	1.6	88.8	2.9	4.5	
Area (sq ft) =	31.2	23.0	449.4	33.8	54.9	
Vel (ft/s) =	2.37	2.32	6.56	2.82	2.72	
Depth (ft) =	2.15	2.05	4.47	2.75	2.60	

Station (ft) =	10068.7	10069.0
Flow (%) =		.0
Area (sq ft) =		.7
Vel (ft/s) =		.59
Depth (ft) =		2.45

STATUS: Analyzing cross-section reach 14.656.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9932.00
Right Encroachment Station (ft, STENCR)	10088.00
Encroachment Method (TYPE)	1
Width or Percent Target	156.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
14.656	.085	.050	.085	6.96	1702.26	.00	1701.88
.007830	460	460	475	1703.06	.80	3.35	.06
386.10	101	362	93	.00	1699.60	1700.60	2
3322	289	2800	231	156.0	9932.00	10088.00	0
1.11	2.85	7.73	2.49	.000	128.3	1695.30	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	14.656
Total Discharge (cfs, Q)	3322
Computed Water Surface Elevation (ft MSL, CWSEL)	1702.26

Station (ft) =	9932.0	9943.5	9961.3	9973.0	10043.3	10051.9
Flow (%) =		1.7	4.1	2.9	84.3	.9
Area (sq ft) =		23.6	46.4	31.7	362.2	14.3
Vel (ft/s) =		2.46	2.93	3.01	7.73	2.17
Depth (ft) =		2.05	2.61	2.71	5.15	1.66

Station (ft) =	10051.9	10059.9	10070.5	10088.0
Flow (%) =		1.3	2.3	2.5
Area (sq ft) =		16.9	26.6	35.3
Vel (ft/s) =		2.53	2.86	2.33
Depth (ft) =		2.11	2.51	2.02

STATUS: Analyzing cross-section reach 14.711.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9964.00
Right Encroachment Station (ft, STENCR)	10113.00
Encroachment Method (TYPE)	1
Width or Percent Target	149.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
14.711	.085	.050	.085	6.40	1704.40	.00	1704.01
.005006	305	290	260	1704.88	.48	1.79	.03
389.98	13	583	17	.00	1702.40	1702.30	2
3322	21	3267	33	149.0	9964.00	10113.00	0
1.13	1.61	5.60	1.85	.000	129.3	1698.00	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	14.711
Total Discharge (cfs, Q)	3322
Computed Water Surface Elevation (ft MSL, CWSEL)	1704.40

Station (ft) =	9964.0	9971.3	10103.5	10112.6	10113.0
Flow (%) =	.6	98.4	1.0	.0	
Area (sq ft) =	13.2	583.3	17.3	.7	
Vel (ft/s) =	1.61	5.60	1.90	.58	
Depth (ft) =	1.81	4.41	1.90	1.70	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 14.754.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) .58

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9938.00
Right Encroachment Station (ft, STENCR)	10102.00
Encroachment Method (TYPE)	1
Width or Percent Target	164.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
14.754	.085	.051	.057	5.96	1705.96	.00	1705.43
.014956	225	230	255	1706.88	.92	1.87	.13
392.85	1	336	119	.00	1704.90	1704.70	2
3322	2	2752	567	164.0	9938.00	10102.00	0
1.13	1.59	8.17	4.77	.000	130.1	1700.00	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 14.754
Total Discharge (cfs, Q) 3322
Computed Water Surface Elevation (ft MSL, CWSEL) 1705.96

Station (ft) =	9938.0	9939.6	9960.1	10011.4	10035.8	10064.0
Flow (%) =	.1	3.7	72.4	6.7	5.7	
Area (sq ft) =	1.7	38.4	239.8	58.6	46.2	
Vel (ft/s) =	1.59	3.24	10.03	3.78	4.10	
Depth (ft) =	1.08	1.88	4.67	2.40	1.64	

Station (ft) =	10064.0	10075.7	10084.6	10102.0
Flow (%) =	4.4	3.4	3.6	
Area (sq ft) =	24.4	18.8	29.6	
Vel (ft/s) =	5.95	5.98	4.06	
Depth (ft) =	2.09	2.11	1.70	

STATUS: Analyzing cross-section reach 14.845.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 1.79

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 9883.00
Right Encroachment Station (ft, STENCR) 10115.00
Encroachment Method (TYPE) 1
Width or Percent Target 232.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
14.845	.085	.050	.085	6.41	1710.31	.00	1709.67
.004678	480	480	500	1710.66	.34	3.72	.06
399.86	55	517	226	.00	1707.80	1707.30	3
3322	114	2658	549	232.0	9883.00	10115.00	0
1.16	2.07	5.13	2.42	.000	132.3	1703.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 14.845
Total Discharge (cfs, Q) 3322
Computed Water Surface Elevation (ft MSL, CWSEL) 1710.31

Station (ft) =	9883.0	9887.3	9905.5	10033.6	10039.5	10046.2
Flow (%) =	.5	2.9	80.0	1.4	2.3	
Area (sq ft) =	10.4	44.9	517.9	18.7	26.2	
Vel (ft/s) =	1.60	2.18	5.13	2.58	2.94	
Depth (ft) =	2.41	2.46	4.04	3.16	3.91	

Station (ft) =	10046.2	10052.6	10064.5	10081.0	10100.5	10115.0
Flow (%) =	2.4	3.2	2.9	2.6	1.6	
Area (sq ft) =	26.3	39.4	43.1	43.2	29.9	
Vel (ft/s) =	3.05	2.65	2.27	2.03	1.78	
Depth (ft) =	4.11	3.31	2.61	2.21	2.07	

STATUS: Analyzing cross-section reach 14.937.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) .66

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 9883.00
Right Encroachment Station (ft, STENCR) 10076.00
Encroachment Method (TYPE) 1
Width or Percent Target 193.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
14.937	.080	.050	.080	6.02	1713.32	.00	1712.97
.010676	500	485	480	1714.06	.74	3.29	.12
407.45	101	346	114	.00	1712.30	1711.30	3
3322	285	2631	404	193.0	9883.00	10076.00	0
1.18	2.81	7.59	3.53	.000	134.7	1707.30	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 14.937
Total Discharge (cfs, Q) 3322
Computed Water Surface Elevation (ft MSL, CWSEL) 1713.32

Station (ft) =	9883.0	9896.2	9907.1	9920.6	9932.7	9939.7
Flow (%) =	1.8	2.1	2.4	1.6	.6	
Area (sq ft) =	22.8	22.6	26.6	20.2	9.3	
Vel (ft/s) =	2.57	3.12	3.02	2.70	2.31	
Depth (ft) =	1.73	2.07	1.97	1.67	1.32	

Station (ft) =	9939.7	10028.1	10032.4	10040.6	10048.7	10061.5
Flow (%) =	79.2	.9	3.1	3.2	3.0	
Area (sq ft) =	346.9	9.6	25.6	25.7	29.7	
Vel (ft/s) =	7.59	3.26	4.06	4.11	3.36	
Depth (ft) =	3.92	2.22	3.12	3.17	2.32	

Station (ft) =	10061.5	10075.6	10076.0
Flow (%) =	1.9	.0	
Area (sq ft) =	23.6	.5	
Vel (ft/s) =	2.70	.87	
Depth (ft) =	1.67	1.21	

STATUS: Analyzing cross-section reach 14.976.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 9883.00
Right Encroachment Station (ft, STENCR) 10111.00
Encroachment Method (TYPE) 1
Width or Percent Target 228.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
14.976	.080	.050	.080	6.39	1715.39	.00	1715.14
.008922	205	205	225	1716.09	.70	2.02	.00
410.29	100	353	161	.00	1713.80	1713.40	3
3322	216	2628	477	228.0	9883.00	10111.00	0
1.19	2.16	7.44	2.96	.000	135.7	1709.00	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 14.976
Total Discharge (cfs, Q) 3322
Computed Water Surface Elevation (ft MSL, CWSEL) 1715.39

Station (ft) =	9883.0	9911.3	9955.0	10035.9	10059.7	10081.1
Flow (%) =	3.1	3.4	79.1	3.9	4.7	
Area (sq ft) =	44.8	55.3	353.4	46.6	49.8	
Vel (ft/s) =	2.28	2.06	7.44	2.75	3.11	
Depth (ft) =	1.58	1.27	4.37	1.96	2.33	

Station (ft) =	10081.1	10110.5	10111.0
Flow (%) =	5.8	.0	
Area (sq ft) =	64.4	.6	
Vel (ft/s) =	3.02	.87	
Depth (ft) =	2.19	1.18	

STATUS: Analyzing cross-section reach 15.044.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 9896.00
Right Encroachment Station (ft, STENCR) 10148.00
Encroachment Method (TYPE) 1
Width or Percent Target 252.000

15.044	.070	.065	.070	5.94	1718.74	.00	1718.11
.007506	405	360	335	1719.09	.35	2.97	.04
415.82	173	366	171	.00	1716.80	1716.10	2
3035	568	1999	467	252.0	9896.00	10148.00	0
1.21	3.27	5.45	2.73	.000	137.7	1712.80	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	15.044
Total Discharge (cfs, Q)	3035
Computed Water Surface Elevation (ft MSL, CWSEL)	1718.74

Station (ft) =	9896.0	9910.3	9928.6	9945.2	9961.1	9969.3
Flow (%) =	3.7	5.1	4.8	3.7	1.5	
Area (sq ft) =	34.2	45.6	42.2	35.6	15.9	
Vel (ft/s) =	3.27	3.38	3.42	3.15	2.86	
Depth (ft) =	2.39	2.49	2.54	2.24	1.94	

Station (ft) =	9969.3	10048.9	10062.8	10079.1	10097.7	10135.9
Flow (%) =	65.9	4.1	3.1	3.1	4.1	
Area (sq ft) =	366.6	36.0	32.5	34.2	54.0	
Vel (ft/s) =	5.45	3.46	2.91	2.76	2.33	
Depth (ft) =	4.61	2.59	1.99	1.84	1.41	

Station (ft) =	10135.9	10148.0
Flow (%) =	.9	
Area (sq ft) =	14.4	
Vel (ft/s) =	1.95	
Depth (ft) =	1.19	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.118.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9810.00
Right Encroachment Station (ft, STENCR)	10032.00
Encroachment Method (TYPE)	1
Width or Percent Target	222.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
15.118	.085	.055	.085	4.39	1721.89	.00	1721.06
.009288	340	390	410	1722.29	.40	3.18	.01
421.69	181	455	0	.00	1720.60	1720.40	2
3035	573	2461	0	222.0	9810.00	10032.00	0
1.24	3.15	5.41	.67	.000	139.8	1717.50	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 15.118
Total Discharge (cfs, Q) 3035
Computed Water Surface Elevation (ft MSL, CWSEL) 1721.89

Station (ft) =	9810.0	9826.1	9838.0	9851.0	9867.5	9879.8
Flow (%) =	3.8	3.8	3.9	4.9	2.6	
Area (sq ft) =	40.3	33.9	35.6	44.9	27.1	
Vel (ft/s) =	2.86	3.39	3.30	3.28	2.90	
Depth (ft) =	2.50	2.85	2.74	2.72	2.20	

Station (ft) =	9879.8	10031.7	10032.0
Flow (%) =	81.1	.0	
Area (sq ft) =	455.3	.4	
Vel (ft/s) =	5.41	.67	
Depth (ft) =	3.00	1.49	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.208.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 9920.00
Right Encroachment Station (ft, STENCR) 10133.00
Encroachment Method (TYPE) 1
Width or Percent Target 213.000

15.208	.075	.055	.075	5.10	1726.00	.00	1725.36
.008425	425	475	520	1726.44	.44	4.14	.01
428.34	98	492	18	.00	1724.00	1724.10	2
3035	260	2726	47	213.0	9920.00	10133.00	0
1.26	2.64	5.54	2.58	.000	142.1	1720.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 15.208
Total Discharge (cfs, Q) 3035
Computed Water Surface Elevation (ft MSL, CWSEL) 1726.00

Station (ft) =	9920.0	9960.0	9976.1	10122.5	10133.0
Flow (%) =	5.2	3.4	89.8	1.6	
Area (sq ft) =	64.4	34.2	492.6	18.4	
Vel (ft/s) =	2.45	3.01	5.54	2.58	
Depth (ft) =	1.61	2.12	3.36	1.75	

STATUS: Analyzing cross-section reach 15.298.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9959.00
Right Encroachment Station (ft, STENCR)	10126.00
Encroachment Method (TYPE)	1
Width or Percent Target	167.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
15.298	.075	.055	.075	5.41	1730.31	.00	1730.02
.010416	515	475	450	1730.93	.62	4.43	.05
434.54	21	351	155	.00	1728.30	1727.90	2
3035	57	2402	575	167.0	9959.00	10126.00	0
1.28	2.65	6.84	3.70	.000	144.2	1724.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	15.298
Total Discharge (cfs, Q)	3035
Computed Water Surface Elevation (ft MSL, CWSEL)	1730.31

Station (ft) =	9959.0	9962.2	9969.1	9975.5	10064.8	10075.0
Flow (%) =	.0	.6	1.3	79.2	2.9	
Area (sq ft) =	1.3	8.0	12.2	351.1	24.6	
Vel (ft/s) =	1.04	2.21	3.11	6.84	3.64	
Depth (ft) =	.40	1.16	1.91	3.93	2.41	

Station (ft) =	10075.0	10084.3	10091.1	10099.1	10106.0	10115.4
Flow (%) =	2.6	2.2	3.1	2.6	3.0	
Area (sq ft) =	22.0	17.4	22.9	19.4	24.1	
Vel (ft/s) =	3.59	3.78	4.08	4.03	3.78	
Depth (ft) =	2.36	2.56	2.86	2.81	2.56	

Station (ft) =	10115.4	10126.0
Flow (%) =	2.6	
Area (sq ft) =	25.0	
Vel (ft/s) =	3.14	
Depth (ft) =	2.36	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.379.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 1.44

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9836.00
Right Encroachment Station (ft, STENCR)	10130.00
Encroachment Method (TYPE)	1
Width or Percent Target	294.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.379	.072	.054	.100	4.85	1733.75	.00	1733.15
.005056	450	430	415	1734.00	.24	3.03	.04
441.43	351	390	116	.00	1731.80	1731.10	3
3035	1035	1798	200	294.0	9836.00	10130.00	0
1.31	2.95	4.61	1.72	.000	146.5	1728.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	15.379
Total Discharge (cfs, Q)	3035
Computed Water Surface Elevation (ft MSL, CWSEL)	1733.75

Station (ft) =	9836.0	9858.2	9868.1	9880.7	9895.4	9911.9
Flow (%) =	5.3	5.6	7.2	4.5	3.1	
Area (sq ft) =	51.6	39.2	49.8	39.8	39.7	
Vel (ft/s) =	3.12	4.36	4.40	3.42	2.34	
Depth (ft) =	2.33	3.96	3.96	2.71	2.41	

Station (ft) =	9911.9	9936.0	9964.8	9982.4	10033.0	10044.3
Flow (%) =	4.6	3.8	2.2	38.6	2.4	
Area (sq ft) =	67.3	64.0	37.9	213.4	33.2	
Vel (ft/s) =	2.09	1.80	1.76	5.49	2.16	
Depth (ft) =	2.79	2.22	2.16	4.22	2.94	

Station (ft) =	10044.3	10065.3	10072.9	10115.0	10130.0
Flow (%) =	14.5	1.6	5.7	.9	
Area (sq ft) =	83.6	22.5	94.4	22.1	
Vel (ft/s) =	5.27	2.17	1.82	1.30	
Depth (ft) =	3.98	2.96	2.24	1.48	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.443.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9742.00
Right Encroachment Station (ft, STENCR)	10094.00
Encroachment Method (TYPE)	1
Width or Percent Target	352.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.443	.073	.050	.100	4.32	1735.92	.00	1735.87
.009495	335	335	355	1736.32	.39	2.27	.05
447.55	398	264	61	.00	1734.90	1734.00	2
3035	1242	1651	141	351.4	9742.00	10093.37	0
1.33	3.12	6.24	2.29	.000	149.0	1731.60	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	15.443
Total Discharge (cfs, Q)	3035
Computed Water Surface Elevation (ft MSL, CWSEL)	1735.92

Station (ft) =	9742.0	9801.7	9811.0	9829.0	9869.0	9921.5
Flow (%) =	16.3	5.7	6.7	5.4	3.8	
Area (sq ft) =	120.1	31.8	45.3	74.8	67.4	
Vel (ft/s) =	4.12	5.46	4.47	2.20	1.72	
Depth (ft) =	2.01	3.42	2.52	1.87	1.28	

Station (ft) =	9921.5	9975.2	10057.8	10079.4	10093.4
Flow (%) =	3.0	54.4	4.0	.7	
Area (sq ft) =	59.2	264.5	48.7	12.8	
Vel (ft/s) =	1.55	6.24	2.49	1.55	
Depth (ft) =	1.10	3.20	2.25	.92	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.500.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9914.00
Right Encroachment Station (ft, STENCR)	10249.00
Encroachment Method (TYPE)	1
Width or Percent Target	335.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.500	.100	.067	.100	5.16	1739.06	.00	1738.73
.010665	300	300	295	1739.34	.28	3.01	.01
452.69	66	551	152	.00	1737.70	1736.60	4
3035	113	2507	413	335.0	9914.00	10249.00	0
1.35	1.71	4.55	2.72	.000	151.3	1733.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	15.500
Total Discharge (cfs, Q)	3035
Computed Water Surface Elevation (ft MSL, CWSEL)	1739.06

Station (ft) =	9914.0	9970.4	9978.6	10037.0	10124.7	10176.0
Flow (%) =	3.1	.7	27.2	17.1	38.3	
Area (sq ft) =	55.5	11.1	163.6	197.4	190.7	
Vel (ft/s) =	1.68	1.88	5.04	2.63	6.10	
Depth (ft) =	.98	1.36	2.80	2.25	3.72	

Station (ft) =	10176.0	10191.3	10200.6	10214.4	10249.0
Flow (%) =	3.8	3.2	3.7	3.0	
Area (sq ft) =	39.7	29.4	37.4	45.6	
Vel (ft/s) =	2.90	3.30	2.98	1.97	
Depth (ft) =	2.59	3.16	2.71	1.32	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.581.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9784.00
Right Encroachment Station (ft, STENCR)	10198.00
Encroachment Method (TYPE)	1
Width or Percent Target	414.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.581	.080	.059	.100	5.62	1742.82	.00	1742.13
.007193	380	430	460	1743.04	.21	3.69	.01
460.88	345	461	111	.00	1741.00	1740.20	3
3035	816	1975	242	414.0	9784.00	10198.00	0
1.39	2.37	4.28	2.18	.000	154.9	1737.20	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	15.581
Total Discharge (cfs, Q)	3035
Computed Water Surface Elevation (ft MSL, CWSEL)	1742.82

Station (ft) =	9784.0	9823.3	9866.8	9921.4	9935.0	9942.5
Flow (%) =	3.6	3.8	5.1	5.4	4.1	
Area (sq ft) =	63.0	67.4	78.7	38.7	26.1	
Vel (ft/s) =	1.72	1.69	1.96	4.24	4.74	
Depth (ft) =	1.60	1.55	1.44	2.85	3.48	

Station (ft) =	9942.5	9973.0	9982.3	10020.6	10062.2	10144.2
Flow (%) =	3.9	1.1	17.0	3.2	45.0	
Area (sq ft) =	53.7	17.5	117.2	59.7	284.8	
Vel (ft/s) =	2.21	1.92	4.39	1.60	4.79	
Depth (ft) =	1.76	1.88	3.06	1.44	3.47	

Station (ft) =	10144.2	10162.5	10190.3	10198.0
Flow (%) =	4.4	3.3	.3	
Area (sq ft) =	52.2	51.1	8.3	
Vel (ft/s) =	2.54	1.96	1.22	
Depth (ft) =	2.86	1.84	1.08	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.637.

STATUS: (3265) Divided flow.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9889.00
Right Encroachment Station (ft, STENCR)	10230.00
Encroachment Method (TYPE)	1
Width or Percent Target	341.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
15.637	.060	.060	.066	5.96	1745.36	.00	1744.59
.011820	285	295	300	1745.77	.41	2.67	.06
466.00	159	88	354	.00	1744.70	1745.00	1
3035	673	383	1978	292.2	9889.00	10230.00	0
1.40	4.23	4.32	5.58	.000	157.3	1739.40	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	15.637
Total Discharge (cfs, Q)	3035
Computed Water Surface Elevation (ft MSL, CWSEL)	1745.36

Station (ft) =	9889.0	9901.7	9926.7	9946.8	9961.0	9975.9
Flow (%) =	3.0	7.8	5.6	4.7	1.0	
Area (sq ft) =	22.7	52.8	40.2	30.8	12.7	
Vel (ft/s) =	4.05	4.50	4.26	4.59	2.41	
Depth (ft) =	1.79	2.11	2.00	2.17	.85	

Station (ft) =	9975.9	10019.0	10124.4	10137.8	10143.7	10150.6
Flow (%) =	12.6	4.1	10.6	10.2	11.8	
Area (sq ft) =	88.8	43.2	49.6	35.1	40.7	
Vel (ft/s) =	4.32	2.90	6.49	8.84	8.79	
Depth (ft) =	2.06	.41	3.70	5.95	5.90	

Station (ft) =	10150.6	10156.2	10162.7	10169.3	10182.0	10194.5
Flow (%) =	8.3	6.6	4.2	3.8	3.2	
Area (sq ft) =	30.5	28.3	21.4	35.5	32.2	
Vel (ft/s) =	8.28	7.07	5.88	3.21	3.04	
Depth (ft) =	5.45	4.35	3.25	2.80	2.57	

Station (ft) =	10194.5	10230.0
Flow (%) =	2.4	
Area (sq ft) =	38.0	
Vel (ft/s) =	1.90	
Depth (ft) =	1.07	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.683.

STATUS: (3265) Divided flow.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9929.00
Right Encroachment Station (ft, STENCR)	10388.00
Encroachment Method (TYPE)	1
Width or Percent Target	459.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.683	.100	.060	.062	6.65	1747.65	.00	1746.95
.006920	235	245	255	1748.01	.36	2.23	.01
469.64	0	138	523	.00	1747.00	1748.00	1
3035	0	391	2643	256.4	9929.00	10388.00	0
1.42	.60	2.84	5.05	.000	158.9	1741.00	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	15.683
Total Discharge (cfs, Q)	3035
Computed Water Surface Elevation (ft MSL, CWSEL)	1747.65

Station (ft) =	9929.0	9929.7	10015.0	10269.6	10277.8	10285.3
Flow (%) =	.0	12.9	5.6	5.2	9.0	
Area (sq ft) =	.4	138.1	78.2	31.6	42.4	
Vel (ft/s) =	.60	2.84	2.16	4.98	6.42	
Depth (ft) =	.64	1.64	.31	3.85	5.65	

Station (ft) =	10285.3	10292.4	10298.6	10301.6	10309.8	10322.5
Flow (%) =	11.2	9.4	3.6	4.8	6.8	
Area (sq ft) =	46.9	40.0	17.1	30.4	43.7	
Vel (ft/s) =	7.25	7.13	6.31	4.83	4.69	
Depth (ft) =	6.60	6.45	5.70	3.71	3.44	

Station (ft) =	10322.5	10329.6	10335.4	10339.4	10344.1	10352.3
Flow (%) =	7.5	7.5	5.1	4.1	3.7	
Area (sq ft) =	36.9	33.9	23.2	22.3	25.8	
Vel (ft/s) =	6.14	6.69	6.64	5.56	4.39	
Depth (ft) =	5.20	5.85	5.80	4.75	3.15	

Station (ft) =	10352.3	10369.4	10388.0
Flow (%) =	3.2	.6	
Area (sq ft) =	34.5	16.0	
Vel (ft/s) =	2.79	1.14	
Depth (ft) =	2.02	.86	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.749.

STATUS: (3265) Divided flow.

WARNING: (3685) 20 trials attempted in balancing assumed water surface elevation (WSEL) and computed water surface elevation (CWSEL).

WARNING: (3693) It is probable that critical depth has been crossed.

WARNING: (3720) Critical depth has been assumed.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9857.00
Right Encroachment Station (ft, STENCR)	10226.00
Encroachment Method (TYPE)	1
Width or Percent Target	369.000

PROJECT TITLE : TRILBY WASH; GRAND AVENUE TO C.A.P.

PROJECT NUMBER : P&D No. 10320.00; FCD No. 90-24 11/21/1991

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
15.749	.080	.060	.062	5.91	1751.31	1751.31	1751.68
.028204	355	345	345	1751.84	.53	3.22	.05
473.12	57	58	102	.00	1751.60	1752.10	20
1150	160	365	624	222.8	9857.00	10220.96	12
1.43	2.81	6.27	6.12	.000	160.8	1745.40	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 15.749
Total Discharge (cfs, Q) 1150
Computed Water Surface Elevation (ft MSL, CWSEL) 1751.31

Station (ft) =	9857.0	9869.1	9874.1	9894.3	9959.1	10013.5
Flow (%) =	3.1	4.0	3.9	3.0	31.8	
Area (sq ft) =	10.8	9.6	15.7	21.0	58.3	
Vel (ft/s) =	3.28	4.81	2.86	1.64	6.27	
Depth (ft) =	.89	1.91	.77	.32	1.91	

Station (ft) =	10013.5	10169.2	10183.3	10191.9	10212.1	10221.0
Flow (%) =	4.9	22.7	22.3	4.2	.2	
Area (sq ft) =	23.1	33.5	29.4	14.3	1.8	
Vel (ft/s) =	2.42	7.81	8.73	3.40	1.09	
Depth (ft) =	.15	2.37	3.41	.71	.21	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.842.

STATUS: (3280) For cross-section 15.84, ends have been extended vertically 1.55 feet in order to calculate the hydraulic cross-section properties.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 2.11

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9907.00
Right Encroachment Station (ft, STENCR)	10339.00
Encroachment Method (TYPE)	1
Width or Percent Target	432.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.842	.080	.060	.065	8.95	1757.55	.00	1757.28
.006325	505	495	495	1757.66	.11	5.78	.04
477.05	32	143	296	.00	1756.80	1757.50	6
1150	37	470	642	432.0	9907.00	10339.00	0
1.49	1.17	3.27	2.17	.000	164.5	1748.60	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	15.842
Total Discharge (cfs, Q)	1150
Computed Water Surface Elevation (ft MSL, CWSEL)	1757.55

Station (ft) =	9907.0	9960.2	10026.9	10159.0	10167.2	10174.1
Flow (%) =	3.3	40.9	5.1	3.8	6.2	
Area (sq ft) =	32.0	143.8	60.0	15.2	18.6	
Vel (ft/s) =	1.17	3.27	.98	2.90	3.81	
Depth (ft) =	.60	2.16	.45	1.85	2.70	

Station (ft) =	10174.1	10180.2	10191.4	10210.5	10231.5	10242.9
Flow (%) =	3.4	4.4	3.6	3.8	8.7	
Area (sq ft) =	12.5	18.5	20.2	21.5	27.8	
Vel (ft/s) =	3.16	2.75	2.06	2.02	3.61	
Depth (ft) =	2.05	1.65	1.06	1.02	2.43	

Station (ft) =	10242.9	10248.9	10271.8	10316.1	10339.0
Flow (%) =	5.0	3.5	5.8	2.4	
Area (sq ft) =	15.6	21.7	44.8	19.9	
Vel (ft/s) =	3.67	1.87	1.50	1.39	
Depth (ft) =	2.60	.95	1.01	.87	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.890.

STATUS: (3265) Divided flow.

STATUS: (3280) For cross-section 15.89, ends have been extended vertically 2.45 feet in order to calculate the hydraulic cross-section properties.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) .48

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9910.00
Right Encroachment Station (ft, STENCR)	10308.00
Encroachment Method (TYPE)	1
Width or Percent Target	398.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.890	.080	.060	.080	8.45	1760.45	.00	1760.61
.027683	250	250	275	1760.75	.29	3.03	.05
479.39	26	129	142	.00	1760.50	1760.00	3
1150	53	662	434	358.3	9910.00	10296.87	0
1.50	1.98	5.11	3.04	.000	166.9	1752.00	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	15.890
Total Discharge (cfs, Q)	1150
Computed Water Surface Elevation (ft MSL, CWSEL)	1760.45

Station (ft) =	9910.0	9948.1	9972.0	10068.3	10099.9	10111.2
Flow (%) =	4.2	.5	57.6	5.9	3.0	
Area (sq ft) =	22.3	4.7	129.5	24.8	11.3	
Vel (ft/s) =	2.15	1.14	5.11	2.72	3.09	
Depth (ft) =	.58	.20	1.41	.79	1.00	

Station (ft) =	10111.2	10170.2	10177.1	10223.5	10236.9	10241.3
Flow (%) =	6.2	4.0	3.4	6.5	3.6	
Area (sq ft) =	23.3	11.0	20.0	18.8	8.6	
Vel (ft/s) =	3.04	4.16	1.96	3.96	4.82	
Depth (ft) =	.40	1.60	.43	1.40	1.95	

Station (ft) =	10241.3	10255.7	10296.9
Flow (%) =	3.3	2.0	
Area (sq ft) =	12.7	12.3	
Vel (ft/s) =	2.96	1.83	
Depth (ft) =	.88	.30	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.898.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 1.70

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9919.00
Right Encroachment Station (ft, STENCR)	10337.00
Encroachment Method (TYPE)	1
Width or Percent Target	418.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.898	.080	.062	.080	7.03	1761.33	.00	1761.13
.009629	45	45	45	1761.45	.11	.69	.02
479.79	52	177	240	.00	1760.80	1760.50	1
1150	85	582	482	418.0	9919.00	10337.00	0
1.51	1.61	3.28	2.00	.000	167.3	1754.30	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	15.898
Total Discharge (cfs, Q)	1150
Computed Water Surface Elevation (ft MSL, CWSEL)	1761.33

Station (ft) =	9919.0	9949.4	9973.6	9982.7	10051.2	10087.6
Flow (%) =	3.5	3.2	.7	41.9	8.7	
Area (sq ft) =	25.2	21.6	6.1	130.7	46.6	
Vel (ft/s) =	1.60	1.69	1.40	3.69	2.15	
Depth (ft) =	.83	.89	.68	1.91	1.28	

Station (ft) =	10087.6	10104.5	10153.9	10166.2	10192.2	10228.4
Flow (%) =	3.5	4.0	6.2	4.0	4.6	
Area (sq ft) =	19.9	29.5	24.8	25.5	31.7	
Vel (ft/s) =	2.04	1.57	2.88	1.81	1.67	
Depth (ft) =	1.18	.60	2.02	.98	.88	

Station (ft) =	10228.4	10265.3	10292.1	10298.3	10320.3	10337.0
Flow (%) =	4.6	7.0	3.4	4.0	.5	
Area (sq ft) =	32.1	34.8	13.2	23.3	6.0	
Vel (ft/s) =	1.66	2.32	3.00	1.98	.92	
Depth (ft) =	.87	1.30	2.13	1.06	.36	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.932.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9913.00
Right Encroachment Station (ft, STENCR)	10358.00
Encroachment Method (TYPE)	1
Width or Percent Target	445.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.932	.080	.060	.080	3.39	1763.09	.00	1763.01
.010783	195	180	175	1763.29	.20	1.82	.03
481.60	7	155	250	.00	1762.70	1762.00	3
1150	6	687	455	445.0	9913.00	10358.00	0
1.52	.90	4.41	1.82	.000	169.1	1759.70	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	15.932
Total Discharge (cfs, Q)	1150
Computed Water Surface Elevation (ft MSL, CWSEL)	1763.09

Station (ft) =	9913.0	9937.6	10006.6	10033.3	10096.6	10137.8
Flow (%) =	.6	59.8	4.8	3.3	6.4	
Area (sq ft) =	7.5	156.0	27.7	30.8	35.7	
Vel (ft/s) =	.90	4.41	1.98	1.23	2.06	
Depth (ft) =	.30	2.26	1.04	.49	.87	

Station (ft) =	10137.8	10150.9	10211.5	10279.5	10296.6	10309.5
Flow (%) =	4.7	3.1	3.7	4.0	4.0	
Area (sq ft) =	20.6	24.6	33.6	20.5	18.7	
Vel (ft/s) =	2.61	1.44	1.28	2.22	2.47	
Depth (ft) =	1.57	.41	.49	1.20	1.45	

Station (ft) =	10309.5	10332.3	10358.0
Flow (%) =	3.5	2.2	
Area (sq ft) =	21.6	16.2	
Vel (ft/s) =	1.86	1.54	
Depth (ft) =	.95	.63	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 16.021.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9878.00
Right Encroachment Station (ft, STENCR)	10148.00
Encroachment Method (TYPE)	1
Width or Percent Target	270.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
16.021	.080	.060	.080	4.06	1769.06	.00	1769.03
.015529	515	470	450	1769.37	.31	6.04	.03
485.45	95	154	54	.00	1768.70	1768.30	4
1150	277	787	84	270.0	9878.00	10148.00	0
1.55	2.90	5.10	1.56	.000	172.9	1765.00	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	16.021
Total Discharge (cfs, Q)	1150
Computed Water Surface Elevation (ft MSL, CWSEL)	1769.06

Station (ft) =	9878.0	9914.2	9928.9	9932.8	9938.1	9944.9
Flow (%) =	4.3	5.7	4.5	4.2	3.0	
Area (sq ft) =	26.4	21.1	11.1	12.2	10.9	
Vel (ft/s) =	1.87	3.11	4.66	3.99	3.17	
Depth (ft) =	.73	1.44	2.86	2.31	1.61	

Station (ft) =	9944.9	9964.6	10036.6	10064.6	10146.8	10148.0
Flow (%) =	2.4	68.5	3.7	3.6	.0	
Area (sq ft) =	13.9	154.4	21.8	32.2	.1	
Vel (ft/s) =	1.99	5.10	1.96	1.29	.50	
Depth (ft) =	.71	2.14	.78	.39	.10	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 16.112.

STATUS: (3280) For cross-section 16.11, ends have been extended vertically 2.63 feet in order to calculate the hydraulic cross-section properties.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 1.95

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9917.00
Right Encroachment Station (ft, STENCR)	10236.00
Encroachment Method (TYPE)	1
Width or Percent Target	319.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
16.112	.080	.060	.080	5.53	1774.63	.00	1774.48
.009462	510	480	475	1774.87	.24	5.49	.01
490.12	70	214	249	.00	1774.00	1774.00	6
1750	162	1022	564	319.0	9917.00	10236.00	0
1.59	2.30	4.77	2.26	.000	176.2	1769.10	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	16.112
Total Discharge (cfs, Q)	1750
Computed Water Surface Elevation (ft MSL, CWSEL)	1774.63

Station (ft) =	9917.0	9941.3	9969.8	10045.6	10088.5	10109.1
Flow (%) =	5.7	3.6	58.5	7.1	7.2	
Area (sq ft) =	39.1	31.6	214.5	55.1	42.9	
Vel (ft/s) =	2.54	2.01	4.77	2.25	2.94	
Depth (ft) =	1.61	1.11	2.83	1.29	2.08	

Station (ft) =	10109.1	10184.8	10212.5	10236.0
Flow (%) =	12.6	3.3	2.1	
Area (sq ft) =	100.8	29.9	20.7	
Vel (ft/s) =	2.19	1.90	1.77	
Depth (ft) =	1.33	1.08	.88	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 16.164.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9926.00
Right Encroachment Station (ft, STENCR)	10252.00
Encroachment Method (TYPE)	1
Width or Percent Target	326.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
16.164	.080	.060	.064	5.77	1778.37	.00	1777.74
.017579	240	275	315	1778.94	.57	3.97	.10
493.65	57	169	295	.00	1777.40	1778.00	3
2995	147	1151	1696	326.0	9926.00	10252.00	0
1.60	2.58	6.78	5.73	.000	178.4	1772.60	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	16.164
Total Discharge (cfs, Q)	2995
Computed Water Surface Elevation (ft MSL, CWSEL)	1778.37

Station (ft) =	9926.0	9964.6	9978.2	10033.1	10153.2	10184.7
Flow (%) =	3.9	1.1	38.4	4.5	6.0	
Area (sq ft) =	43.9	13.2	169.9	60.2	46.1	
Vel (ft/s) =	2.63	2.41	6.78	2.26	3.87	
Depth (ft) =	1.14	.97	3.09	.50	1.47	

Station (ft) =	10184.7	10194.5	10204.3	10210.6	10221.8	10251.6
Flow (%) =	9.9	14.8	9.0	8.5	3.9	
Area (sq ft) =	37.4	47.2	29.4	36.0	39.1	
Vel (ft/s) =	7.94	9.37	9.15	7.06	3.02	
Depth (ft) =	3.82	4.82	4.67	3.22	1.31	

Station (ft) =	10251.6	10252.0
Flow (%) =		.0
Area (sq ft) =		.4
Vel (ft/s) =		1.06
Depth (ft) =		.97

STATUS: Analyzing cross-section reach 16.254.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 1.49

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9926.00
Right Encroachment Station (ft, STENCR)	10080.00
Encroachment Method (TYPE)	1
Width or Percent Target	154.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
16.254	.080	.060	.080	6.91	1783.81	.00	1783.39
.007901	475	475	485	1784.35	.54	5.41	.00
499.46	4	480	49	.00	1782.90	1782.10	4
2995	5	2887	101	154.0	9926.00	10080.00	0
1.63	1.17	6.01	2.06	.000	181.0	1776.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	16.254
Total Discharge (cfs, Q)	2995
Computed Water Surface Elevation (ft MSL, CWSEL)	1783.81

Station (ft) =	9926.0	9933.9	10039.8	10044.7	10049.6	10057.9
Flow (%) =	.2	96.4	.7	.8	1.0	
Area (sq ft) =	4.9	480.9	8.6	9.6	13.4	
Vel (ft/s) =	1.17	6.01	2.41	2.58	2.26	
Depth (ft) =	.62	4.54	1.76	1.96	1.61	

Station (ft) =	10057.9	10069.5	10080.0
Flow (%) =	.6	.3	
Area (sq ft) =	11.2	6.5	
Vel (ft/s) =	1.61	1.16	
Depth (ft) =	.96	.62	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 16.345.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9889.00
Right Encroachment Station (ft, STENCR)	10011.00
Encroachment Method (TYPE)	1
Width or Percent Target	122.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
16.345	.056	.050	.000	5.54	1787.94	.00	1788.08
.010050	480	480	485	1788.68	.74	4.26	.06
504.86	296	147	0	.00	1784.20	1789.00	3
2995	1831	1163	0	120.0	9889.69	10009.64	0
1.65	6.18	7.87	.00	.000	182.5	1782.40	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	16.345
Total Discharge (cfs, Q)	2995
Computed Water Surface Elevation (ft MSL, CWSEL)	1787.94

Station (ft) =	9889.7	9907.9	9917.6	9926.6	9933.2	9937.3
Flow (%) =	6.9	4.9	5.5	5.4	4.2	
Area (sq ft) =	39.7	25.6	26.9	23.4	16.8	
Vel (ft/s) =	5.23	5.69	6.16	6.92	7.50	
Depth (ft) =	2.18	2.64	2.99	3.54	4.09	

Station (ft) =	9937.3	9947.3	9956.2	9966.7	9977.8	10010.5
Flow (%) =	12.4	9.6	6.0	6.2	38.8	
Area (sq ft) =	45.4	37.3	39.8	41.5	147.8	
Vel (ft/s) =	8.17	7.73	4.53	4.49	7.87	
Depth (ft) =	4.54	4.19	3.79	3.74	4.64	

STATUS: Analyzing cross-section reach 16.421.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (7185) Critical depth has been crossed, therefore critical depth has been assumed for the current cross-section.

WARNING: (3720) Critical depth has been assumed.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9935.00
Right Encroachment Station (ft, STENCR)	10053.00
Encroachment Method (TYPE)	1
Width or Percent Target	118.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
16.421	.080	.050	.080	5.13	1793.53	1793.53	1793.42
.021949	410	400	400	1795.05	1.52	5.77	.23
508.54	66	227	53	.00	1791.00	1791.90	6
2995	338	2437	218	118.0	9935.00	10053.00	11
1.66	5.05	10.73	4.06	.000	183.6	1788.40	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	16.421
Total Discharge (cfs, Q)	2995
Computed Water Surface Elevation (ft MSL, CWSEL)	1793.53

Station (ft) =	9935.0	9942.8	9949.6	9954.6	9963.7	10022.7
Flow (%) =	1.0	3.3	2.8	4.2	81.4	
Area (sq ft) =	9.5	18.6	14.9	24.0	227.2	
Vel (ft/s) =	3.02	5.34	5.68	5.25	10.73	
Depth (ft) =	1.22	2.73	2.98	2.63	3.85	

Station (ft) =	10022.7	10029.9	10038.9	10053.0
Flow (%) =	2.0	3.0	2.3	
Area (sq ft) =	13.9	19.6	20.3	
Vel (ft/s) =	4.26	4.63	3.38	
Depth (ft) =	1.93	2.18	1.44	

STATUS: Analyzing cross-section reach 16.481.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 1.95

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9853.00
Right Encroachment Station (ft, STENCR)	10063.00
Encroachment Method (TYPE)	1
Width or Percent Target	210.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
16.481	.080	.065	.080	6.67	1798.07	.00	1797.22
.005796	290	315	365	1798.36	.29	3.19	.12
512.60	319	314	140	.00	1795.10	1795.00	4
2995	949	1623	421	210.0	9853.00	10063.00	0
1.68	2.97	5.17	3.00	.000	184.8	1791.40	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	16.481
Total Discharge (cfs, Q)	2995
Computed Water Surface Elevation (ft MSL, CWSEL)	1798.07

Station (ft) =	9853.0	9863.3	9878.9	9896.4	9908.3	9923.4
Flow (%) =	3.0	5.7	5.7	3.5	4.3	
Area (sq ft) =	34.3	53.4	55.5	35.4	44.1	
Vel (ft/s) =	2.65	3.21	3.05	2.92	2.89	
Depth (ft) =	3.33	3.42	3.17	2.97	2.92	

Station (ft) =	9923.4	9935.9	9946.2	9955.7	10016.6	10028.4
Flow (%) =	3.8	3.1	2.7	54.2	4.0	
Area (sq ft) =	38.4	31.1	27.8	314.3	38.6	
Vel (ft/s) =	2.99	2.96	2.89	5.17	3.12	
Depth (ft) =	3.07	3.02	2.92	5.16	3.27	

Station (ft) =	10028.4	10037.8	10050.8	10063.0
Flow (%) =	3.4	4.3	2.3	
Area (sq ft) =	32.2	41.9	28.1	
Vel (ft/s) =	3.21	3.08	2.46	
Depth (ft) =	3.42	3.22	2.30	

STATUS: Analyzing cross-section reach 16.551.

STATUS: (3280) For cross-section 16.55, ends have been extended vertically .06 feet in order to calculate the hydraulic cross-section properties.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (7185) Critical depth has been crossed, therefore critical depth has been assumed for the current cross-section.

WARNING: (3720) Critical depth has been assumed.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9979.00
Right Encroachment Station (ft, STENCR)	10089.00
Encroachment Method (TYPE)	1
Width or Percent Target	110.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
16.551	.065	.050	.080	4.86	1801.16	1801.16	1800.95
.025505	380	370	335	1802.67	1.51	3.90	.37
517.23	0	249	77	.00	1800.90	1799.40	3
2995	0	2601	393	110.0	9979.00	10089.00	19
1.69	.04	10.41	5.10	.000	186.2	1796.30	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 16.551
Total Discharge (cfs, Q) 2995
Computed Water Surface Elevation (ft MSL, CWSEL) 1801.16

Station (ft) =	9979.0	10054.7	10059.7	10065.5	10073.8	10082.5
Flow (%) =	86.9	1.6	2.7	3.8	3.2	
Area (sq ft) =	250.0	10.3	14.5	20.8	19.2	
Vel (ft/s) =	10.41	4.77	5.47	5.47	5.02	
Depth (ft) =	3.31	2.06	2.51	2.51	2.21	

Station (ft) =	10082.5	10088.8	10089.0
Flow (%) =	1.8	.0	
Area (sq ft) =	12.0	.4	
Vel (ft/s) =	4.56	.94	
Depth (ft) =	1.91	1.76	

STATUS: Analyzing cross-section reach 16.628.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 2.09

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 9837.00
Right Encroachment Station (ft, STENCR) 10097.00
Encroachment Method (TYPE) 1
Width or Percent Target 260.000

16.628	.080	.050	.075	5.68	1806.68	.00	1805.69
.005835	455	410	365	1807.14	.46	4.36	.11
522.14	244	310	159	.00	1803.50	1803.80	5
2995	596	1993	405	260.0	9837.00	10097.00	0
1.71	2.44	6.42	2.54	.000	187.9	1801.00	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	16.628
Total Discharge (cfs, Q)	2995
Computed Water Surface Elevation (ft MSL, CWSEL)	1806.68

Station (ft) =	9837.0	9881.5	9898.7	9918.7	9935.1	9954.4
Flow (%) =	4.1	3.2	4.2	3.8	4.6	
Area (sq ft) =	63.2	38.8	48.7	42.6	50.9	
Vel (ft/s) =	1.96	2.44	2.57	2.68	2.72	
Depth (ft) =	1.42	2.25	2.43	2.60	2.64	

Station (ft) =	9954.4	10019.4	10041.8	10071.5	10097.0
Flow (%) =	66.6	6.2	4.8	2.5	
Area (sq ft) =	310.7	62.4	59.5	37.6	
Vel (ft/s) =	6.42	3.00	2.43	1.95	
Depth (ft) =	4.78	2.79	2.00	1.47	

STATUS: Analyzing cross-section reach 16.714.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) .63

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9933.00
Right Encroachment Station (ft, STENCR)	10060.00
Encroachment Method (TYPE)	1
Width or Percent Target	127.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
16.714	.080	.050	.080	4.71	1810.21	.00	1810.68
.014520	380	450	505	1811.25	1.05	3.94	.18
527.87	7	288	106	.00	1808.50	1808.00	3
2995	19	2525	449	124.0	9933.00	10057.02	0
1.73	2.48	8.76	4.24	.000	189.9	1805.50	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 16.714
Total Discharge (cfs, Q) 2995
Computed Water Surface Elevation (ft MSL, CWSEL) 1810.21

Station (ft) =	9933.0	9939.7	10014.5	10022.6	10032.0	10040.5
Flow (%) =	.7	84.3	2.3	2.9	3.6	
Area (sq ft) =	8.0	288.4	17.9	22.2	23.9	
Vel (ft/s) =	2.48	8.76	3.80	3.97	4.45	
Depth (ft) =	1.19	3.86	2.21	2.36	2.81	

Station (ft) =	10040.5	10047.1	10051.9	10056.3
Flow (%) =	3.5	2.2	.5	
Area (sq ft) =	21.2	14.5	6.2	
Vel (ft/s) =	4.87	4.65	2.55	
Depth (ft) =	3.21	3.01	1.41	

STATUS: Analyzing cross-section reach 16.788.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 9893.00
Right Encroachment Station (ft, STENCR) 10041.00
Encroachment Method (TYPE) 1
Width or Percent Target 148.000

16.788	.080	.055	.080	6.27	1815.17	.00	1814.81
.009865	410	390	390	1815.92	.75	4.64	.03
531.88	116	343	27	.00	1812.60	1813.20	4
2995	386	2548	60	146.2	9894.83	10041.00	0
1.74	3.31	7.42	2.22	.000	191.1	1808.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 16.788
Total Discharge (cfs, Q) 2995
Computed Water Surface Elevation (ft MSL, CWSEL) 1815.17

Station (ft) =	9894.8	9899.4	9904.5	9910.4	9915.4	9923.3
Flow (%) =	.0	.7	1.5	1.1	2.3	
Area (sq ft) =	1.5	8.5	13.7	10.6	19.9	
Vel (ft/s) =	.88	2.48	3.22	3.04	3.41	
Depth (ft) =	.34	1.67	2.32	2.12	2.52	

Station (ft) =	9923.3	9935.7	9947.1	10021.0	10030.2	10041.0
Flow (%) =	3.9	3.4	85.1	1.2	.8	
Area (sq ft) =	33.1	29.3	343.4	14.5	12.7	
Vel (ft/s) =	3.55	3.46	7.42	2.49	1.91	
Depth (ft) =	2.67	2.57	4.65	1.57	1.17	

STATUS: Analyzing cross-section reach 16.861.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9981.00
Right Encroachment Station (ft, STENCR)	10108.00
Encroachment Method (TYPE)	1
Width or Percent Target	127.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
16.861	.000	.045	.080	6.01	1818.91	.00	1819.00
.010223	365	390	435	1819.94	1.03	3.93	.08
535.97	0	310	108	.00	1819.60	1816.50	2
2995	0	2662	332	125.1	9982.85	10108.00	0
1.76	.00	8.58	3.06	.000	192.3	1812.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	16.861
Total Discharge (cfs, Q)	2995
Computed Water Surface Elevation (ft MSL, CWSEL)	1818.91

Station (ft) =	9982.9	10055.6	10064.1	10075.3	10083.8	10091.0
Flow (%) =	88.9	2.1	2.5	1.7	1.4	
Area (sq ft) =	310.5	19.5	24.1	17.0	14.4	
Vel (ft/s) =	8.58	3.27	3.13	2.98	2.98	
Depth (ft) =	4.27	2.30	2.15	2.00	2.00	

Station (ft) =	10091.0	10097.9	10103.3	10108.0
Flow (%) =	1.8	1.2	.4	
Area (sq ft) =	16.2	11.3	6.2	
Vel (ft/s) =	3.31	3.04	1.97	
Depth (ft) =	2.35	2.10	1.32	

STATUS: Analyzing cross-section reach 16.936.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9960.00
Right Encroachment Station (ft, STENCR)	10032.00
Encroachment Method (TYPE)	1
Width or Percent Target	72.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
16.936	.000	.045	.070	6.12	1823.22	.00	1823.30
.015875	445	395	345	1825.14	1.91	4.93	.26
539.05	0	266	7	.00	1823.30	1821.90	2
2995	0	2973	21	65.6	9966.35	10032.00	0
1.77	.00	11.14	2.86	.000	193.2	1817.10	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	16.936
Total Discharge (cfs, Q)	2995
Computed Water Surface Elevation (ft MSL, CWSEL)	1823.22

Station (ft) =	9966.4	10025.4	10031.5	10032.0
Flow (%) =	99.3	.7	.0	
Area (sq ft) =	266.9	7.1	.5	
Vel (ft/s) =	11.14	2.97	1.29	
Depth (ft) =	4.52	1.17	1.04	

STATUS: Analyzing cross-section reach 17.011.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 1.65

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9910.00
Right Encroachment Station (ft, STENCR)	10080.00
Encroachment Method (TYPE)	1
Width or Percent Target	170.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
17.011	.080	.045	.080	6.76	1828.06	.00	1827.64
.005834	345	395	445	1828.83	.77	3.58	.11
542.67	75	356	87	.00	1826.00	1825.80	2
2995	124	2658	212	170.0	9910.00	10080.00	0
1.78	1.65	7.46	2.42	.000	194.2	1821.30	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	17.011
Total Discharge (cfs, Q)	2995
Computed Water Surface Elevation (ft MSL, CWSEL)	1828.06

Station (ft) =	9910.0	9970.0	10039.0	10045.4	10052.9	10059.1
Flow (%) =	4.1	88.8	1.1	1.4	1.3	
Area (sq ft) =	75.5	356.4	14.1	16.9	14.9	
Vel (ft/s) =	1.65	7.46	2.41	2.44	2.55	
Depth (ft) =	1.26	5.17	2.21	2.26	2.41	

Station (ft) =	10059.1	10068.0	10073.5	10079.5	10080.0
Flow (%) =	2.0	1.0	.4	.0	
Area (sq ft) =	22.3	12.1	7.3	.2	
Vel (ft/s) =	2.62	2.39	1.59	.57	
Depth (ft) =	2.51	2.21	1.21	.46	

STATUS: Analyzing cross-section reach 17.046.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9935.00
Right Encroachment Station (ft, STENCR)	10037.00
Encroachment Method (TYPE)	1
Width or Percent Target	102.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
17.046	.080	.045	.080	5.89	1829.09	.00	1828.98
.006797	210	185	180	1830.05	.96	1.17	.06
544.66	35	359	11	.00	1824.70	1827.10	3
2995	98	2877	18	102.0	9935.00	10037.00	0
1.79	2.77	8.00	1.60	.000	194.8	1823.20	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	17.046
Total Discharge (cfs, Q)	2995
Computed Water Surface Elevation (ft MSL, CWSEL)	1829.09

Station (ft) =	9935.0	9941.1	9948.6	9955.2	10025.8	10036.5
Flow (%) =	.0	.7	2.5	96.1	.6	
Area (sq ft) =	2.0	11.2	22.4	359.5	11.7	
Vel (ft/s) =	.73	1.96	3.36	8.00	1.61	
Depth (ft) =	.33	1.49	3.39	5.09	1.09	

STATUS: Analyzing cross-section reach 17.135.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (3685) 20 trials attempted in balancing assumed water surface elevation (WSEL) and computed water surface elevation (CWSEL).

WARNING: (3693) It is probable that critical depth has been crossed.

WARNING: (3720) Critical depth has been assumed.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9962.00
Right Encroachment Station (ft, STENCR)	10056.00
Encroachment Method (TYPE)	1
Width or Percent Target	94.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
17.135	.080	.045	.080	7.68	1835.18	1835.18	1835.37
.012436	495	470	470	1837.24	2.05	4.23	.33
548.62	25	217	81	.00	1831.80	1832.40	20
2995	77	2644	272	91.3	9964.66	10056.00	11
1.80	3.06	12.18	3.34	.000	195.9	1827.50	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	17.135
Total Discharge (cfs, Q)	2995
Computed Water Surface Elevation (ft MSL, CWSEL)	1835.18

Station (ft) =	9964.7	9970.3	9982.3	10016.3	10025.1	10040.2
Flow (%) =	.0	2.6	88.3	3.0	3.7	
Area (sq ft) =	1.6	23.8	217.0	22.7	32.2	
Vel (ft/s) =	.91	3.21	12.18	3.90	3.43	
Depth (ft) =	.29	1.98	6.38	2.58	2.13	

Station (ft) =	10040.2	10056.0
Flow (%) =	2.5	
Area (sq ft) =	26.6	
Vel (ft/s) =	2.76	
Depth (ft) =	1.69	

STATUS: Analyzing cross-section reach 17.200.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9942.00
Right Encroachment Station (ft, STENCR)	10110.00
Encroachment Method (TYPE)	1
Width or Percent Target	168.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
17.200	.085	.050	.085	6.65	1839.95	.00	1839.47
.007648	365	345	330	1840.67	.72	3.30	.13
552.13	63	251	257	.00	1836.80	1836.80	2
2995	161	2011	822	168.0	9942.00	10110.00	0
1.82	2.54	8.00	3.20	.000	196.9	1833.30	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	17.200
Total Discharge (cfs, Q)	2995
Computed Water Surface Elevation (ft MSL, CWSEL)	1839.95

Station (ft) =	9942.0	9976.8	10022.6	10040.7	10051.9	10065.0
Flow (%) =	5.4	67.2	4.7	3.2	5.1	
Area (sq ft) =	63.4	251.6	47.9	31.4	44.6	
Vel (ft/s) =	2.54	8.00	2.93	3.04	3.46	
Depth (ft) =	1.82	5.49	2.65	2.80	3.40	

Station (ft) =	10065.0	10076.4	10086.2	10098.6	10110.0
Flow (%) =	5.2	4.1	3.4	1.7	
Area (sq ft) =	42.2	34.8	34.1	22.2	
Vel (ft/s) =	3.66	3.56	2.99	2.34	
Depth (ft) =	3.70	3.55	2.75	1.95	

Contraction Coefficient (CCHV)	.100
Expansion Coefficient (CEHV)	.300

STATUS: Analyzing cross-section reach 17.262.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) .65

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9955.00
Right Encroachment Station (ft, STENCR)	10043.00
Encroachment Method (TYPE)	1
Width or Percent Target	88.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
17.262	.080	.050	.080	5.46	1842.96	.00	1842.73
.015883	300	325	355	1844.32	1.35	3.46	.19
555.47	7	296	1	.00	1841.90	1842.50	2
2785	14	2769	1	88.0	9955.00	10043.00	0
1.82	1.85	9.36	1.07	.000	197.9	1837.50	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	17.262
Total Discharge (cfs, Q)	2785
Computed Water Surface Elevation (ft MSL, CWSEL)	1842.96

Station (ft) =	9955.0	9966.1	10039.9	10043.0
Flow (%) =	.5	99.4	.0	
Area (sq ft) =	7.8	296.0	1.0	
Vel (ft/s) =	1.87	9.36	1.07	
Depth (ft) =	.70	4.01	.33	

STATUS: Analyzing cross-section reach 17.319.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9970.00
Right Encroachment Station (ft, STENCR)	10065.00
Encroachment Method (TYPE)	1
Width or Percent Target	95.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
17.319	.080	.050	.080	6.27	1846.87	.00	1846.36
.008269	260	300	300	1847.71	.84	3.34	.05
557.93	21	319	73	.00	1843.60	1843.40	2
2785	59	2469	256	95.0	9970.00	10065.00	0
1.84	2.81	7.73	3.49	.000	198.5	1840.60	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	17.319
Total Discharge (cfs, Q)	2785
Computed Water Surface Elevation (ft MSL, CWSEL)	1846.87

Station (ft) =	9970.0	9977.1	10042.5	10053.2	10061.4	10065.0
Flow (%) =	2.1	88.7	4.7	3.5	1.1	
Area (sq ft) =	21.0	319.3	35.0	26.4	12.2	
Vel (ft/s) =	2.81	7.73	3.72	3.68	2.44	
Depth (ft) =	2.96	4.88	3.27	3.22	3.38	

STATUS: Analyzing cross-section reach 17.364.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) .69

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9955.00
Right Encroachment Station (ft, STENCR)	10051.00
Encroachment Method (TYPE)	1
Width or Percent Target	96.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
17.364	.080	.050	.080	5.96	1849.26	.00	1849.25
.017122	200	240	260	1850.64	1.38	2.77	.16
559.97	18	262	41	.00	1847.30	1847.20	2
2785	58	2565	161	96.0	9955.00	10051.00	0
1.84	3.13	9.77	3.87	.000	199.0	1843.30	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	17.364
Total Discharge (cfs, Q)	2785
Computed Water Surface Elevation (ft MSL, CWSEL)	1849.26

Station (ft) =	9955.0	9966.5	10031.7	10041.0	10051.0
Flow (%) =	2.1	92.1	3.2	2.6	
Area (sq ft) =	18.7	262.6	21.0	20.6	
Vel (ft/s) =	3.13	9.77	4.18	3.55	
Depth (ft) =	1.62	4.03	2.26	2.06	

Contraction Coefficient (CCHV)	.300
Expansion Coefficient (CEHV)	.500

STATUS: Analyzing cross-section reach 17.425.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 1.49

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9967.00
Right Encroachment Station (ft, STENCR)	10089.00
Encroachment Method (TYPE)	1
Width or Percent Target	122.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
17.425	.080	.050	.080	7.88	1853.58	.00	1853.14
.007700	300	320	325	1854.36	.78	3.54	.18
562.83	3	296	154	.00	1852.00	1850.30	2
2785	5	2282	497	122.0	9967.00	10089.00	0
1.86	1.48	7.69	3.23	.000	199.8	1845.70	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	17.425
Total Discharge (cfs, Q)	2785
Computed Water Surface Elevation (ft MSL, CWSEL)	1853.58

Station (ft) =	9967.0	9970.2	10025.9	10035.0	10045.0	10055.3
Flow (%) =	.2	81.9	3.6	3.7	4.2	
Area (sq ft) =	3.4	296.9	28.4	30.3	33.2	
Vel (ft/s) =	1.48	7.69	3.48	3.41	3.56	
Depth (ft) =	1.06	5.33	3.13	3.03	3.23	

Station (ft) =	10055.3	10065.0	10073.2	10081.6	10088.6	10089.0
Flow (%) =	3.8	1.8	.6	.2	.0	
Area (sq ft) =	30.3	18.3	9.5	4.0	.2	
Vel (ft/s) =	3.48	2.76	1.76	1.13	.58	
Depth (ft) =	3.13	2.23	1.13	.58	.51	

STATUS: Analyzing cross-section reach 17.476.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 1.73

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9890.00
Right Encroachment Station (ft, STENCR)	10037.00
Encroachment Method (TYPE)	1
Width or Percent Target	147.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
17.476	.080	.050	.080	6.44	1855.34	.00	1855.02
.002568	270	270	270	1855.62	.28	1.11	.15
566.32	8	642	19	.00	1851.50	1851.50	3
2785	10	2746	27	147.0	9890.00	10037.00	0
1.87	1.24	4.28	1.43	.000	200.6	1848.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	17.476
Total Discharge (cfs, Q)	2785
Computed Water Surface Elevation (ft MSL, CWSEL)	1855.34

Station (ft) =	9890.0	9893.7	10027.4	10037.0
Flow (%) =	.4	98.6	1.0	
Area (sq ft) =	8.4	642.1	19.6	
Vel (ft/s) =	1.24	4.28	1.43	
Depth (ft) =	2.27	4.80	2.04	

SPECIAL NOTE :

An asterisk (*) to the left of the cross-section number indicates a special note is present in the SUMMARY OF WARNING AND STATUS MESSAGES section.

SUMMARY PRINTOUT TABLE 110 : TRILBY WASH; GRAND AVENUE TO C.A.P.
MAIN CHANNEL; ENCROACHED
P&D No. 10320.00; FCD No. 90-24

	Cross-Section Number SECNO	Computed W. S. Elevation (ft MSL) CWSEL	W.S. Elev Diff per Know/Comp (ft) DIFKWS	Energy Gradient Elevation (ft MSL) EG	Water Surface Top Width (ft) TOPWID	Left Overbank Flow (cfs) QLOB	Channel Flow (cfs) QCH	Right Overbank Flow (cfs) QROB	Encroach. Target Requested PERENC	Left Encroach. Station (ft) STENCL	Left Bank Station (ft) STCHL	Right Bank Station (ft) STCHR
*	10.445	1545.51	.00	1546.98	135.61	.00	3851.00	.00	.00	.00	9932.19	10067.81
*	10.445	1545.51	.00	1546.98	135.61	.00	3851.00	.00	136.00	9932.00	9932.19	10067.81
*	10.450	1547.69	.00	1549.16	135.61	.00	3851.00	.00	.00	.00	9932.19	10067.81
*	10.450	1547.69	.00	1549.16	135.61	.00	3851.00	.00	136.00	9932.00	9932.19	10067.81
	10.468	1548.36	.00	1549.37	135.61	.00	3851.00	.00	.00	.00	9932.19	10067.81
	10.468	1548.36	.00	1549.37	135.61	.00	3851.00	.00	136.00	9932.00	9932.19	10067.81
*	10.473	1549.02	.00	1549.54	158.71	.00	3851.00	.00	.00	.00	9920.64	10079.36
*	10.473	1549.02	.00	1549.54	158.71	.00	3851.00	.00	160.00	9920.00	9920.64	10079.36
*	10.474	1549.00	.00	1549.63	179.36	29.99	3782.93	38.08	.00	.00	9919.60	10079.90
*	10.474	1549.00	.00	1549.63	179.36	29.99	3782.94	38.07	179.40	9910.90	9919.60	10079.90
	10.479	1549.51	.00	1549.89	215.30	17.63	3816.86	16.52	.00	.00	9901.80	10103.20
	10.479	1549.51	.00	1549.89	215.10	17.72	3816.68	16.60	215.10	9895.40	9901.80	10103.20
	10.528	1550.96	.00	1551.30	374.20	1232.85	2546.75	71.40	.00	.00	9960.90	10060.70
	10.528	1551.08	.12	1551.76	170.00	437.52	3360.09	53.39	170.00	9910.00	9960.90	10060.70
	10.592	1552.73	.00	1552.92	499.71	978.35	1421.55	1451.10	.00	.00	9970.40	10029.00
	10.592	1553.63	.90	1554.03	188.00	1096.26	2104.14	650.60	188.00	9886.00	9970.40	10029.00
	10.683	1555.12	.00	1555.64	263.61	646.21	2706.53	498.27	.00	.00	9942.10	10023.60
	10.683	1556.03	.90	1556.49	178.60	321.89	2912.84	616.27	178.60	9902.00	9942.10	10023.60
	10.761	1557.99	.00	1558.60	179.20	207.04	3541.64	102.32	179.20	9942.50	9982.00	10092.70
	10.761	1558.19	.20	1558.74	179.00	219.89	3514.67	116.43	179.00	9943.00	9982.00	10092.70
	10.815	1559.73	.00	1560.17	207.15	188.55	3462.68	199.77	.00	.00	9972.90	10083.60

	Cross-Section Number SECNO	Computed W. S. Elevation (ft MSL) CWSEL	W.S. Elev Diff per Know/Comp (ft) DIFKWS	Energy Gradient Elevation (ft MSL) EG	Water Surface Top Width (ft) TOPWID	Left Overbank Flow (cfs) QLOB	Channel Flow (cfs) QCH	Right Overbank Flow (cfs) QROB	Encroach. Target Requested PERENC	Left Encroach. Station (ft) STENCL	Left Bank Station (ft) STCHL	Right Bank Station (ft) STCHR
	10.815	1559.76	.03	1560.27	136.00	29.55	3655.52	165.94	136.00	9969.00	9972.90	10083.60
*	10.876	1561.11	.00	1562.41	136.31	67.13	2736.15	1001.72	.00	.00	9967.00	10017.30
*	10.876	1561.29	.18	1562.47	136.00	74.15	2709.12	1021.74	136.00	9952.00	9967.00	10017.30
*	10.945	1564.37	.00	1564.57	317.08	1072.72	2315.53	416.75	.00	.00	9940.30	10038.90
*	10.945	1564.38	.01	1564.59	256.00	1099.64	2371.83	333.53	256.00	9834.00	9940.30	10038.90
	11.006	1565.44	.00	1565.74	296.70	271.95	1844.20	1688.85	.00	.00	9979.00	10041.00
*	11.006	1565.54	.09	1566.32	157.00	354.80	2690.65	759.54	157.00	9950.00	9979.00	10041.00
	11.062	1566.66	.00	1566.92	358.38	841.52	1392.07	1571.41	.00	.00	9978.70	10023.10
	11.062	1567.64	.98	1568.08	194.00	499.10	1938.12	1367.77	194.00	9938.00	9978.70	10023.10
	11.118	1567.90	.00	1568.19	380.11	1097.25	2221.01	486.74	.00	.00	9964.40	10060.40
	11.118	1568.91	1.02	1569.31	175.00	834.47	2901.30	69.23	175.00	9894.00	9964.40	10060.40
*	11.190	1570.12	.00	1570.89	164.78	1540.27	2260.56	4.18	.00	.00	9989.50	10039.50
*	11.190	1570.78	.66	1571.49	131.00	1413.15	2381.59	10.26	131.00	9913.00	9989.50	10039.50
*	11.259	1573.04	.00	1573.40	279.13	1713.32	2037.47	54.21	.00	.00	9976.10	10039.50
	11.259	1573.36	.32	1573.84	173.00	1391.03	2341.72	72.24	173.00	9881.00	9976.10	10039.50
	11.351	1575.45	.00	1575.90	312.55	1179.28	2304.42	321.30	.00	.00	9969.60	10030.30
	11.351	1575.90	.45	1576.48	157.00	787.84	2629.30	387.86	157.00	9908.00	9969.60	10030.30
	11.426	1577.21	.00	1577.39	502.04	950.76	1592.93	1261.31	.00	.00	9969.60	10030.90
	11.426	1577.89	.68	1578.31	228.00	787.45	2359.33	658.21	228.00	9908.00	9969.60	10030.90
*	11.515	1579.05	.00	1579.89	209.02	877.42	2864.06	63.51	.00	.00	9935.20	10015.10
	11.515	1580.01	.96	1580.54	183.00	921.72	2792.48	90.79	183.00	9847.00	9935.20	10015.10
	11.554	1581.19	.00	1581.50	328.59	1955.32	1099.98	749.70	.00	.00	9971.80	10013.00
	11.554	1581.28	.09	1581.94	156.00	2217.38	1434.70	152.92	156.00	9886.00	9971.80	10013.00
	11.626	1583.31	.00	1583.82	299.28	675.02	2382.54	747.43	.00	.00	9963.80	10028.10
	11.626	1583.97	.66	1584.62	140.00	684.82	2798.04	322.14	140.00	9921.00	9963.80	10028.10
	11.688	1585.56	.00	1586.07	287.12	867.40	2833.28	104.32	.00	.00	9963.50	10048.10
	11.688	1586.11	.55	1586.74	144.00	428.59	3258.54	117.86	144.00	9920.00	9963.50	10048.10
*	11.722	1586.54	.00	1586.77	472.16	171.50	3330.09	303.41	.00	.00	9930.00	10050.00
*	11.722	1587.21	.67	1587.43	191.00	142.32	3448.48	214.19	191.00	9894.00	9930.00	10050.00

	Cross-Section Number SECNO	Computed W. S. Elevation (ft MSL) CWSEL	W.S. Elev Diff per Know/Comp (ft) DIFKWS	Energy Gradient Elevation (ft MSL) EG	Water Surface Top Width (ft) TOPWID	Left Overbank Flow (cfs) QLOB	Channel Flow (cfs) QCH	Right Overbank Flow (cfs) QROB	Encroach. Target Requested PERENC	Left Encroach. Station (ft) STENCL	Left Bank Station (ft) STCHL	Right Bank Station (ft) STCHR
	11.734	1587.61	.00	1587.76	532.16	207.23	3453.12	144.65	.00	.00	9928.30	10077.00
*	11.734	1588.59	.97	1588.72	210.00	109.77	3633.38	61.85	210.00	9885.00	9928.30	10077.00
*	11.811	1589.32	.00	1590.74	179.99	647.84	3108.16	.00	.00	.00	9953.60	10022.80
*	11.811	1589.33	.00	1590.74	179.72	649.39	3106.61	.00	180.00	9843.00	9953.60	10022.80
*	11.876	1593.15	.00	1593.45	262.94	62.06	2009.37	1684.57	.00	.00	9978.90	10051.60
*	11.876	1593.43	.29	1593.94	183.00	91.35	2547.01	1117.63	183.00	9957.00	9978.90	10051.60
	11.960	1595.10	.00	1595.48	301.33	84.80	2771.64	899.55	.00	.00	9962.60	10061.50
	11.960	1595.67	.57	1596.06	234.00	135.24	3023.76	596.99	234.00	9925.00	9962.60	10061.50
	12.041	1597.62	.00	1598.16	264.45	1314.79	2437.46	3.75	.00	.00	9976.30	10053.20
*	12.041	1597.95	.32	1599.11	132.00	320.27	3427.27	8.46	132.00	9926.00	9976.30	10053.20
	12.128	1600.93	.00	1601.47	182.03	263.57	3428.73	63.70	.00	.00	9937.40	10049.90
*	12.128	1601.82	.90	1602.24	140.00	181.43	3493.11	81.47	140.00	9923.00	9937.40	10049.90
	12.174	1602.60	.00	1602.81	421.20	14.12	1413.21	2328.67	.00	.00	9981.60	10041.10
	12.174	1603.00	.41	1603.32	220.00	20.29	1678.59	2057.12	220.00	9977.00	9981.60	10041.10
*	12.249	1604.77	.00	1605.45	314.85	467.52	3074.42	214.06	.00	.00	9931.40	10034.50
	12.249	1605.18	.41	1605.87	176.00	205.02	3292.38	258.60	176.00	9892.00	9931.40	10034.50
	12.325	1608.26	.00	1608.63	317.74	526.29	2473.77	755.94	.00	.00	9935.70	10019.20
	12.325	1608.51	.25	1609.02	162.00	457.23	2850.28	448.50	162.00	9902.00	9935.70	10019.20
	12.395	1609.98	.00	1610.31	378.58	285.79	2450.51	1019.70	.00	.00	9949.50	10053.60
	12.395	1610.62	.64	1611.10	193.00	322.94	3104.57	328.49	193.00	9898.00	9949.50	10053.60
*	12.484	1613.72	.00	1614.70	481.07	324.09	3286.64	95.27	.00	.00	9966.60	10061.30
*	12.484	1613.96	.24	1615.12	164.00	89.55	3615.98	.47	164.00	9898.00	9966.60	10061.30
	12.568	1618.44	.00	1618.97	324.75	843.44	2728.17	134.39	.00	.00	9969.20	10043.50
	12.568	1618.73	.29	1619.34	131.00	657.60	2941.36	107.03	131.00	9930.00	9969.20	10043.50
	12.650	1621.60	.00	1622.11	435.30	381.01	2913.70	411.29	.00	.00	9958.70	10042.90
	12.650	1621.93	.33	1622.62	138.00	185.83	3363.27	156.90	138.00	9928.00	9958.70	10042.90
	12.734	1624.43	.00	1625.61	360.00	190.75	2980.28	534.97	.00	.00	9972.30	10031.90
	12.734	1624.86	.43	1626.32	167.68	150.33	3388.55	167.12	169.00	9912.00	9972.30	10031.90
	12.822	1628.50	.00	1629.18	826.75	528.40	2680.24	497.36	.00	.00	9976.50	10040.70
	12.822	1629.02	.51	1630.13	120.00	245.44	3362.26	98.30	120.00	9942.00	9976.50	10040.70

	Cross-Section Number SECNO	Computed W. S. Elevation (ft MSL) CWSEL	W.S. Elev Diff per Know/Comp (ft) DIFKWS	Energy Gradient Elevation (ft MSL) EG	Water Surface Top Width (ft) TOPWID	Left Overbank Flow (cfs) QLOB	Channel Flow (cfs) QCH	Right Overbank Flow (cfs) QROB	Encroach. Target Requested PERENC	Left Encroach. Station (ft) STENCL	Left Bank Station (ft) STCHL	Right Bank Station (ft) STCHR
	12.909	1631.39	.00	1631.86	436.25	123.53	3526.42	56.05	.00	.00	9921.60	10055.90
*	12.909	1632.07	.68	1632.48	137.00	1.71	3702.70	1.58	137.00	9920.00	9921.60	10055.90
*	13.000	1634.60	.00	1635.53	198.61	163.83	3479.71	62.46	.00	.00	9929.20	10052.40
*	13.000	1634.52	-.08	1635.68	126.00	.89	3701.40	3.71	126.00	9928.00	9929.20	10052.40
*	13.079	1638.57	.00	1638.95	267.84	134.60	2715.43	855.97	.00	.00	9889.10	10025.90
*	13.079	1638.77	.20	1639.15	221.00	1.94	2808.39	895.67	221.00	9888.00	9889.10	10025.90
*	13.141	1641.23	.00	1641.66	494.19	158.03	2484.89	1063.08	.00	.00	9968.70	10093.30
*	13.141	1641.24	.02	1641.67	494.82	159.12	2475.18	1071.71	498.00	9932.00	9968.70	10093.30
*	13.223	1644.91	.00	1645.05	857.53	.00	1529.77	2176.23	.00	.00	9980.50	10086.80
*	13.223	1645.13	.22	1645.33	670.19	.16	1829.79	1876.06	701.00	9979.00	9980.50	10086.80
	13.286	1646.64	.00	1646.73	1018.21	1.10	1031.10	2673.80	.00	.00	9927.40	10053.80
	13.286	1647.06	.42	1647.19	721.00	15.01	1359.69	2331.30	721.00	9886.00	9927.40	10053.80
*	13.354	1650.44	.00	1651.45	324.26	59.65	2664.65	981.70	10533.00	.00	9932.10	10015.80
*	13.354	1650.51	.07	1651.66	249.33	69.97	2820.31	815.72	460.00	9900.00	9932.10	10015.80
*	13.435	1654.83	.00	1655.05	809.61	334.45	2288.82	1082.73	830.00	9740.00	9963.70	10056.70
*	13.435	1655.10	.27	1655.37	420.00	144.65	2518.33	1043.02	420.00	9920.00	9963.70	10056.70
*	13.519	1657.14	.00	1657.60	552.33	74.14	2721.93	909.93	-9800.00	9800.00	9961.60	10065.50
	13.519	1657.39	.25	1657.84	345.57	70.55	2785.91	849.54	384.00	9926.00	9961.60	10065.50
	13.603	1660.34	.00	1660.79	679.50	336.01	2961.54	408.44	-9830.00	9830.00	9965.10	10057.50
	13.603	1660.44	.10	1660.95	303.00	305.80	3099.13	301.07	303.00	9897.00	9965.10	10057.50
	13.691	1663.28	.00	1663.86	545.75	262.83	3122.48	320.70	-9816.90	9816.90	9930.90	10033.10
	13.691	1663.42	.14	1664.04	426.35	155.61	3264.82	285.57	430.00	9880.00	9930.90	10033.10
	13.761	1665.96	.00	1666.37	984.68	114.82	2926.28	664.90	.00	.00	9958.70	10068.20
	13.761	1666.12	.17	1666.63	449.39	1.76	3213.47	490.77	467.00	9948.00	9958.70	10068.20
	13.841	1668.68	.00	1668.95	898.55	4.94	1477.45	2223.60	.00	.00	9961.40	10032.10
	13.841	1669.25	.56	1669.72	531.74	.00	2016.26	1689.74	581.00	9944.00	9961.40	10032.10
	13.912	1671.24	.00	1671.46	868.18	794.92	1600.66	1310.42	-9730.00	9730.00	9966.80	10057.40
*	13.912	1671.87	.63	1672.08	539.00	977.35	1748.73	979.92	539.00	9821.00	9966.80	10057.40
	13.987	1674.24	.00	1674.55	1252.21	290.82	2141.65	1273.52	.00	.00	9922.50	10056.60
*	13.987	1674.43	.19	1675.05	413.00	4.93	2847.68	853.38	413.00	9912.00	9922.50	10056.60

	Cross-Section Number SECNO	Computed W. S. Elevation (ft MSL) CWSEL	W.S. Elev Diff per Know/Comp (ft) DIFKWS	Energy Gradient Elevation (ft MSL) EG	Water Surface Top Width (ft) TOPWID	Left Overbank Flow (cfs) QLOB	Channel Flow (cfs) QCH	Right Overbank Flow (cfs) QROB	Encroach. Target Requested PERENC	Left Encroach. Station (ft) STENCL	Left Bank Station (ft) STCHL	Right Bank Station (ft) STCHR
	14.076	1677.78	.00	1678.10	877.98	193.31	2118.25	1394.43	.00	.00	9987.40	10080.20
*	14.076	1678.25	.47	1678.56	459.00	281.03	2221.65	1203.33	459.00	9911.00	9987.40	10080.20
	14.126	1679.46	.00	1679.87	771.73	496.72	2232.64	976.64	.00	.00	9972.40	10059.40
	14.126	1679.64	.18	1680.10	452.00	568.77	2388.37	748.86	452.00	9878.00	9972.40	10059.40
	14.197	1682.43	.00	1682.83	1061.43	67.84	2782.83	855.33	.00	.00	9918.20	10057.30
	14.197	1682.72	.29	1683.40	328.13	66.63	3523.70	115.67	339.00	9861.00	9918.20	10057.30
	14.310	1687.95	.00	1688.51	397.02	1029.40	1904.07	388.53	403.10	9762.30	9974.70	10032.70
	14.310	1688.22	.27	1688.64	384.00	1099.38	1790.39	432.23	384.00	9766.00	9974.70	10032.70
	14.396	1691.47	.00	1691.93	432.70	707.90	2173.02	441.08	432.70	9767.30	9968.80	10036.10
	14.396	1691.44	-.03	1692.17	301.00	270.08	2544.60	507.32	301.00	9898.00	9968.80	10036.10
	14.481	1694.57	.00	1694.98	731.46	578.85	2233.50	509.65	.00	.00	9924.30	10024.60
	14.481	1695.23	.67	1696.04	160.00	138.44	3161.48	22.08	160.00	9881.00	9924.30	10024.60
	14.569	1698.24	.00	1698.67	567.52	484.34	2285.68	551.99	.00	.00	9934.70	10035.30
	14.569	1699.05	.81	1699.66	160.00	126.94	2950.29	244.77	160.00	9909.00	9934.70	10035.30
	14.656	1701.88	.00	1702.64	382.57	270.82	2618.09	433.09	.00	.00	9973.00	10043.30
	14.656	1702.26	.38	1703.06	156.00	289.34	2800.68	231.98	156.00	9932.00	9973.00	10043.30
*	14.711	1704.01	.00	1704.25	505.07	559.85	2387.93	374.22	.00	.00	9971.30	10103.50
	14.711	1704.40	.39	1704.88	149.00	21.23	3267.50	33.26	149.00	9964.00	9971.30	10103.50
*	14.754	1705.43	.00	1706.03	740.00	684.56	2147.88	489.56	.00	.00	9939.60	10035.80
*	14.754	1705.96	.53	1706.88	164.00	2.75	2752.02	567.24	164.00	9938.00	9939.60	10035.80
*	14.845	1709.67	.00	1709.91	712.39	753.18	2060.55	508.27	.00	.00	9905.50	10033.60
*	14.845	1710.31	.64	1710.66	232.00	114.48	2658.31	549.21	232.00	9883.00	9905.50	10033.60
*	14.937	1712.97	.00	1713.65	339.48	585.86	2395.02	341.12	.00	.00	9939.70	10028.10
*	14.937	1713.32	.35	1714.06	193.00	285.48	2631.66	404.86	193.00	9883.00	9939.70	10028.10
	14.976	1715.14	.00	1715.59	466.84	787.19	2155.56	379.25	.00	.00	9955.00	10035.90
	14.976	1715.39	.25	1716.09	228.00	216.02	2628.38	477.60	228.00	9883.00	9955.00	10035.90
	15.044	1718.11	.00	1718.37	521.74	587.42	1609.95	837.63	.00	.00	9969.30	10048.90
	15.044	1718.74	.63	1719.09	252.00	568.00	1999.77	467.23	252.00	9896.00	9969.30	10048.90
	15.118	1721.06	.00	1721.26	500.72	1692.98	1288.59	53.42	.00	.00	9879.80	10031.70
	15.118	1721.89	.83	1722.29	222.00	573.42	2461.28	.30	222.00	9810.00	9879.80	10031.70

	Cross-Section Number SECNO	Computed W. S. Elevation (ft MSL) CWSEL	W.S. Elev Diff per Know/Comp (ft) DIFKWS	Energy Gradient Elevation (ft MSL) EG	Water Surface Top Width (ft) TOPWID	Left Overbank Flow (cfs) QLOB	Channel Flow (cfs) QCH	Right Overbank Flow (cfs) QROB	Encroach. Target Requested PERENC	Left Encroach. Station (ft) STENCL	Left Bank Station (ft) STCHL	Right Bank Station (ft) STCHR
	15.208	1725.36	.00	1725.82	490.49	432.24	2390.71	212.05	.00	.00	9976.10	10122.50
	15.208	1726.00	.65	1726.44	213.00	260.66	2726.89	47.45	213.00	9920.00	9976.10	10122.50
	15.298	1730.02	.00	1730.34	334.30	33.53	1759.98	1241.49	.00	.00	9975.50	10064.80
	15.298	1730.31	.29	1730.93	167.00	57.12	2402.65	575.23	167.00	9959.00	9975.50	10064.80
	15.379	1733.15	.00	1733.42	414.33	1278.72	1614.02	142.26	.00	.00	9964.80	10072.90
*	15.379	1733.75	.60	1734.00	294.00	1035.73	1798.87	200.40	294.00	9836.00	9964.80	10072.90
	15.443	1735.87	.00	1736.27	381.21	1225.45	1650.59	158.95	.00	.00	9975.20	10057.80
	15.443	1735.92	.06	1736.32	351.37	1242.39	1651.48	141.14	352.00	9742.00	9975.20	10057.80
	15.500	1738.73	.00	1738.88	636.53	1031.54	1734.22	269.24	.00	.00	9978.60	10176.00
	15.500	1739.06	.33	1739.34	335.00	114.00	2507.98	413.02	335.00	9914.00	9978.60	10176.00
	15.581	1742.13	.00	1742.29	883.20	1146.23	1465.55	423.21	.00	.00	9982.30	10144.20
	15.581	1742.82	.69	1743.04	414.00	816.38	1975.75	242.87	414.00	9784.00	9982.30	10144.20
	15.637	1744.59	.00	1744.82	523.69	253.95	162.76	2618.29	.00	.00	9975.90	10019.00
	15.637	1745.36	.76	1745.77	292.23	673.25	383.51	1978.24	341.00	9889.00	9975.90	10019.00
	15.683	1746.95	.00	1747.51	305.95	.00	249.44	2785.56	.00	.00	9929.70	10015.00
	15.683	1747.65	.70	1748.01	256.39	.27	391.58	2643.15	459.00	9929.00	9929.70	10015.00
*	15.749	1751.68	.00	1751.84	392.63	478.05	274.75	522.19	10247.90	.00	9977.20	10028.10
*	15.749	1751.31	-.36	1751.84	222.77	160.50	365.40	624.10	369.00	9857.00	9977.20	10028.10
	15.842	1757.28	.00	1757.49	491.85	75.22	571.48	628.29	10425.10	.00	9960.20	10026.90
*	15.842	1757.55	.27	1757.66	432.00	37.50	470.19	642.31	432.00	9907.00	9960.20	10026.90
	15.890	1760.61	.00	1760.73	569.30	374.74	521.65	378.61	10430.50	.00	9974.50	10068.30
*	15.890	1760.45	-.15	1760.75	358.30	53.26	662.19	434.55	398.00	9910.00	9974.50	10068.30
	15.898	1761.13	.00	1761.21	633.59	459.80	469.58	345.62	777.70	9691.00	9982.70	10087.60
*	15.898	1761.33	.21	1761.45	418.00	85.31	582.43	482.26	418.00	9919.00	9982.70	10087.60
	15.932	1763.01	.00	1763.21	587.18	166.95	695.63	412.42	10455.80	.00	9937.60	10006.60
	15.932	1763.09	.09	1763.29	445.00	6.71	687.78	455.51	445.00	9913.00	9937.60	10006.60
	16.021	1769.03	.00	1769.24	432.42	507.54	696.50	70.95	10159.10	.00	9964.60	10036.60
	16.021	1769.06	.03	1769.37	270.00	277.94	787.60	84.46	270.00	9878.00	9964.60	10036.60
*	16.112	1774.48	.00	1774.69	507.71	414.80	974.71	485.49	10258.60	.00	9969.80	10045.60
*	16.112	1774.63	.15	1774.87	319.00	162.91	1022.90	564.18	319.00	9917.00	9969.80	10045.60

	Cross-Section Number SECNO	Computed W. S. Elevation (ft MSL) CWSEL	W.S. Elev Diff per Know/Comp (ft) DIFKWS	Energy Gradient Elevation (ft MSL) EG	Water Surface Top Width (ft) TOPWID	Left Overbank Flow (cfs) QLOB	Channel Flow (cfs) QCH	Right Overbank Flow (cfs) QROB	Encroach. Target Requested PERENC	Left Encroach. Station (ft) STENCL	Left Bank Station (ft) STCHL	Right Bank Station (ft) STCHR
	16.164	1777.74	.00	1778.06	349.99	1060.16	814.84	.00	10050.20	.00	9978.20	10033.10
	16.164	1778.37	.63	1778.94	326.00	147.17	1151.28	1696.55	326.00	9926.00	9978.20	10033.10
*	16.254	1783.39	.00	1784.04	312.08	51.13	2878.48	65.39	10115.10	.00	9933.90	10039.80
*	16.254	1783.81	.43	1784.35	154.00	5.75	2887.91	101.34	154.00	9926.00	9933.90	10039.80
	16.345	1788.08	.00	1788.76	120.56	1845.31	1149.69	.00	.00	.00	9977.80	10010.50
	16.345	1787.94	-.14	1788.68	119.96	1831.51	1163.49	.00	122.00	9889.00	9977.80	10010.50
*	16.421	1793.42	.00	1794.04	538.44	237.26	1757.82	999.92	.00	.00	9963.70	10022.70
*	16.421	1793.53	.11	1795.05	118.00	338.19	2437.90	218.91	118.00	9935.00	9963.70	10022.70
	16.481	1797.22	.00	1797.57	348.69	1024.24	1547.98	422.77	.00	.00	9955.70	10016.60
*	16.481	1798.07	.85	1798.36	210.00	949.59	1623.62	421.80	210.00	9853.00	9955.70	10016.60
	16.551	1800.95	.00	1801.40	315.57	.00	1579.85	1415.15	.00	.00	9979.20	10054.70
*	16.551	1801.16	.21	1802.67	110.00	.00	2601.23	393.76	110.00	9979.00	9979.20	10054.70
	16.628	1805.69	.00	1806.46	398.85	365.50	2051.03	578.46	.00	.00	9954.40	10019.40
*	16.628	1806.68	.99	1807.14	260.00	596.07	1993.83	405.10	260.00	9837.00	9954.40	10019.40
	16.714	1810.68	.00	1811.41	234.62	113.20	2413.78	468.02	.00	.00	9939.70	10014.50
*	16.714	1810.21	-.47	1811.25	124.02	19.81	2525.73	449.46	127.00	9933.00	9939.70	10014.50
	16.788	1814.81	.00	1815.73	177.05	348.30	2595.28	51.42	.00	.00	9947.10	10021.00
	16.788	1815.17	.36	1815.92	146.17	386.06	2548.75	60.19	148.00	9893.00	9947.10	10021.00
	16.861	1819.00	.00	1819.78	286.31	36.75	2467.01	491.23	.00	.00	9981.80	10055.60
	16.861	1818.91	-.09	1819.94	125.15	.00	2662.14	332.85	127.00	9981.00	9981.80	10055.60
*	16.936	1823.30	.00	1824.69	186.77	121.81	2695.00	178.20	.00	.00	9966.10	10025.40
	16.936	1823.22	-.08	1825.14	65.64	.00	2973.09	21.91	72.00	9960.00	9966.10	10025.40
	17.011	1827.64	.00	1828.56	309.91	154.13	2667.05	173.82	.00	.00	9970.00	10039.00
*	17.011	1828.06	.42	1828.83	170.00	124.25	2658.11	212.64	170.00	9910.00	9970.00	10039.00
	17.046	1828.98	.00	1829.99	111.84	95.00	2883.50	16.50	.00	.00	9955.20	10025.80
	17.046	1829.09	.11	1830.05	102.00	98.75	2877.38	18.86	102.00	9935.00	9955.20	10025.80
*	17.135	1835.37	.00	1836.94	166.27	116.27	2460.02	418.70	.00	.00	9982.30	10016.30
*	17.135	1835.18	-.19	1837.24	91.34	77.94	2644.38	272.68	94.00	9962.00	9982.30	10016.30
	17.200	1839.47	.00	1840.07	289.46	109.04	1776.50	1109.45	.00	.00	9976.80	10022.60
	17.200	1839.95	.48	1840.67	168.00	161.24	2011.51	822.25	168.00	9942.00	9976.80	10022.60

	Cross-Section Number SECNO	Computed W. S. Elevation (ft MSL) CWSEL	W.S. Elev Diff per Know/Comp (ft) DIFKWS	Energy Gradient Elevation (ft MSL) EG	Water Surface Top Width (ft) TOPWID	Left Overbank Flow (cfs) QLOB	Channel Flow (cfs) QCH	Right Overbank Flow (cfs) QROB	Encroach. Target Requested PERENC	Left Encroach. Station (ft) STENCL	Left Bank Station (ft) STCHL	Right Bank Station (ft) STCHR
*	17.262	1842.73	.00	1844.10	160.53	115.66	2669.15	.18	.00	.00	9966.10	10039.90
*	17.262	1842.96	.23	1844.32	88.00	14.52	2769.38	1.10	88.00	9955.00	9966.10	10039.90
*	17.319	1846.36	.00	1846.64	452.09	279.32	1546.01	959.67	.00	.00	9977.10	10042.50
	17.319	1846.87	.50	1847.71	95.00	59.08	2469.17	256.75	95.00	9970.00	9977.10	10042.50
*	17.364	1849.25	.00	1850.27	283.15	241.23	2312.21	231.56	.00	.00	9966.50	10031.70
*	17.364	1849.26	.01	1850.64	96.00	58.40	2565.45	161.15	96.00	9955.00	9966.50	10031.70
	17.425	1853.14	.00	1853.87	306.05	2.32	2113.91	668.78	.00	.00	9970.20	10025.90
*	17.425	1853.58	.44	1854.36	122.00	5.03	2282.23	497.74	122.00	9967.00	9970.20	10025.90
*	17.476	1855.02	.00	1855.34	147.23	9.38	2751.21	24.41	.00	.00	9893.70	10027.40
*	17.476	1855.34	.32	1855.62	147.00	10.41	2746.60	27.99	147.00	9890.00	9893.70	10027.40

SUMMARY OF WARNING AND STATUS MESSAGES :

Section 10.445, profile 1, critical depth assumed.

Section 10.445, profile 2, critical depth assumed.

Section 10.45, profile 1, critical depth assumed.

Section 10.45, profile 1, probable minimum specific energy.

Section 10.45, profile 1, 20 trials attempted to balance water surface elevation.

Section 10.45, profile 2, critical depth assumed.

Section 10.45, profile 2, probable minimum specific energy.

Section 10.45, profile 2, 20 trials attempted to balance water surface elevation.

Section 10.473, profile 1, conveyance change outside acceptable range.

Section 10.473, profile 2, conveyance change outside acceptable range.

Section 10.474, profile 1, conveyance change outside acceptable range.

Section 10.474, profile 2, conveyance change outside acceptable range.

Section 10.876, profile 1, conveyance change outside acceptable range.

Section 10.876, profile 2, conveyance change outside acceptable range.

Section 10.945, profile 1, conveyance change outside acceptable range.

Section 10.945, profile 2, conveyance change outside acceptable range.

Section 11.006, profile 2, conveyance change outside acceptable range.

Section 11.19, profile 1, conveyance change outside acceptable range.

Section 11.19, profile 2, conveyance change outside acceptable range.

Section 11.259, profile 1, conveyance change outside acceptable range.

Section 11.515, profile 1, conveyance change outside acceptable range.

Section 11.722, profile 1, conveyance change outside acceptable range.

Section 11.722, profile 2, conveyance change outside acceptable range.

Section 11.734, profile 2, conveyance change outside acceptable range.

Section 11.811, profile 1, critical depth assumed.

Section 11.811, profile 1, probable minimum specific energy.

Section 11.811, profile 1, 20 trials attempted to balance water surface elevation.

Section 11.811, profile 2, critical depth assumed.

Section 11.811, profile 2, minimum specific energy.

Section 11.876, profile 1, conveyance change outside acceptable range.

Section 11.876, profile 2, conveyance change outside acceptable range.

Section 12.041, profile 2, conveyance change outside acceptable range.

Section 12.128, profile 2, conveyance change outside acceptable range.

Section 12.249, profile 1, conveyance change outside acceptable range.

Section 12.484, profile 1, critical depth assumed.

Section 12.484, profile 1, minimum specific energy.

Section 12.484, profile 2, conveyance change outside acceptable range.

Section 12.909, profile 2, conveyance change outside acceptable range.

Section 13, profile 1, conveyance change outside acceptable range.

Section 13, profile 2, conveyance change outside acceptable range.

Section 13.079, profile 1, conveyance change outside acceptable range.

Section 13.079, profile 2, conveyance change outside acceptable range.

Section 13.141, profile 1, conveyance change outside acceptable range.

Section 13.141, profile 2, conveyance change outside acceptable range.

Section 13.223, profile 1, conveyance change outside acceptable range.

Section 13.223, profile 2, conveyance change outside acceptable range.

Section 13.354, profile 1, critical depth assumed.

Section 13.354, profile 1, minimum specific energy.

Section 13.354, profile 2, critical depth assumed.

Section 13.354, profile 2, minimum specific energy.

Section 13.435, profile 1, conveyance change outside acceptable range.

Section 13.435, profile 2, conveyance change outside acceptable range.

Section 13.519, profile 1, conveyance change outside acceptable range.

Section 13.912, profile 2, conveyance change outside acceptable range.

Section 13.987, profile 2, conveyance change outside acceptable range.

Section 14.076, profile 2, conveyance change outside acceptable range.

Section 14.711, profile 1, conveyance change outside acceptable range.

Section 14.754, profile 1, critical depth assumed.

Section 14.754, profile 1, minimum specific energy.

Section 14.754, profile 2, conveyance change outside acceptable range.

Section 14.845, profile 1, conveyance change outside acceptable range.

Section 14.845, profile 2, conveyance change outside acceptable range.

Section 14.937, profile 1, conveyance change outside acceptable range.

Section 14.937, profile 2, conveyance change outside acceptable range.

Section 15.379, profile 2, conveyance change outside acceptable range.

Section 15.749, profile 1, conveyance change outside acceptable range.

Section 15.749, profile 2, critical depth assumed.

Section 15.749, profile 2, probable minimum specific energy.

Section 15.749, profile 2, 20 trials attempted to balance water surface elevation.

Section 15.842, profile 2, conveyance change outside acceptable range.

Section 15.89, profile 2, conveyance change outside acceptable range.

Section 15.898, profile 2, conveyance change outside acceptable range.

Section 16.112, profile 1, conveyance change outside acceptable range.

Section 16.112, profile 2, conveyance change outside acceptable range.

Section 16.254, profile 1, conveyance change outside acceptable range.

Section 16.254, profile 2, conveyance change outside acceptable range.

Section 16.421, profile 1, critical depth assumed.

Section 16.421, profile 1, minimum specific energy.

Section 16.421, profile 2, critical depth assumed.

Section 16.421, profile 2, minimum specific energy.

Section 16.481, profile 2, conveyance change outside acceptable range.

Section 16.551, profile 2, critical depth assumed.

Section 16.551, profile 2, minimum specific energy.

Section 16.628, profile 2, conveyance change outside acceptable range.

Section 16.714, profile 2, conveyance change outside acceptable range.

Section 16.936, profile 1, critical depth assumed.

Section 16.936, profile 1, minimum specific energy.

Section 17.011, profile 2, conveyance change outside acceptable range.

Section 17.135, profile 1, critical depth assumed.

Section 17.135, profile 1, probable minimum specific energy.

Section 17.135, profile 1, 20 trials attempted to balance water surface elevation.

Section 17.135, profile 2, critical depth assumed.

Section 17.135, profile 2, probable minimum specific energy.

Section 17.135, profile 2, 20 trials attempted to balance water surface elevation.

Section 17.262, profile 1, critical depth assumed.

Section 17.262, profile 1, minimum specific energy.

Section 17.262, profile 2, conveyance change outside acceptable range.

Section 17.319, profile 1, conveyance change outside acceptable range.

Section 17.364, profile 1, critical depth assumed.

Section 17.364, profile 1, probable minimum specific energy.

Section 17.364, profile 1, 20 trials attempted to balance water surface elevation.

Section 17.364, profile 2, conveyance change outside acceptable range.

Section 17.425, profile 2, conveyance change outside acceptable range.

Section 17.476, profile 1, conveyance change outside acceptable range.

Section 17.476, profile 2, conveyance change outside acceptable range.

105 Warning and status message(s) generated

SUMMARY PRINTOUT TABLE 200 : TRILBY WASH; GRAND AVENUE TO C.A.P.
---------- MAIN CHANNEL; ENCROACHED
P&D No. 10320.00; FCD No. 90-24

Profile Number 2

Cross-Section Number	Floodway Width (ft)	Floodway Section Area (sq ft)	Floodway Mean Velocity (ft/s)	W. S. Elevation with Floodway (ft MSL)	W. S. Elevation without Floodway (ft MSL)	W. S. Elevation Diffrence (ft)
10.445	136.	396.	9.7	1545.5	1545.5	.0
10.450	136.	396.	9.7	1547.7	1547.7	.0
10.468	136.	476.	8.1	1548.4	1548.4	.0
10.473	159.	662.	5.8	1549.0	1549.0	.0
10.474	179.	622.	6.2	1549.0	1549.0	.0
10.479	215.	788.	4.9	1549.5	1549.5	.0
10.528	170.	649.	5.9	1551.1	1551.0	.1
10.592	188.	892.	4.3	1553.6	1552.7	.9
10.683	179.	816.	4.7	1556.0	1555.1	.9
10.761	179.	716.	5.4	1558.2	1558.0	.2
10.815	136.	705.	5.5	1559.7	1559.7	.0
10.876	136.	536.	7.1	1561.3	1561.1	.2
10.945	256.	1096.	3.5	1564.4	1564.4	.0
11.006	157.	636.	6.0	1565.5	1565.4	.1
11.062	194.	880.	4.3	1567.7	1566.7	1.0
11.118	175.	835.	4.6	1568.9	1567.9	1.0
11.190	131.	633.	6.0	1570.8	1570.1	.7
11.259	173.	775.	4.9	1573.3	1573.0	.3
11.351	157.	743.	5.1	1575.9	1575.4	.5
11.426	228.	912.	4.2	1577.9	1577.2	.7
11.515	183.	771.	4.9	1580.1	1579.1	1.0
11.554	156.	611.	6.2	1581.3	1581.2	.1
11.626	140.	657.	5.8	1584.0	1583.3	.7
11.688	144.	655.	5.8	1586.2	1585.6	.6
11.722	191.	1145.	3.3	1587.2	1586.5	.7
11.734	210.	1415.	2.7	1588.6	1587.6	1.0
11.811	180.	480.	7.8	1589.3	1589.3	.0
11.876	183.	763.	4.9	1593.4	1593.1	.3
11.960	234.	889.	4.2	1595.7	1595.1	.6
12.041	132.	484.	7.8	1597.9	1597.6	.3
12.128	140.	753.	5.0	1601.8	1600.9	.9
12.174	220.	882.	4.3	1603.0	1602.6	.4
12.249	176.	631.	5.9	1605.2	1604.8	.4
12.325	162.	726.	5.2	1608.6	1608.3	.3
12.395	193.	765.	4.9	1610.6	1610.0	.6
12.484	164.	466.	8.0	1613.9	1613.7	.2
12.568	131.	634.	5.8	1618.7	1618.4	.3
12.650	138.	606.	6.1	1621.9	1621.6	.3
12.734	168.	480.	7.7	1624.8	1624.4	.4

12.822	120.	501.	7.4	1629.0	1628.5	.5
12.909	137.	724.	5.1	1632.1	1631.4	.7
13.000	126.	431.	8.6	1634.5	1634.6	-.1

SUMMARY PRINTOUT TABLE 200 : TRILBY WASH; GRAND AVENUE TO C.A.P.
---------- MAIN CHANNEL; ENCROACHED
P&D No. 10320.00; FCD No. 90-24

Profile Number 2

Cross-Section Number	Floodway Width (ft)	Floodway Section Area (sq ft)	Floodway Mean Velocity (ft/s)	W. S. Elevation with Floodway (ft MSL)	W. S. Elevation without Floodway (ft MSL)	W. S. Elevation Diffrence (ft)
13.079	221.	755.	4.9	1638.8	1638.6	.2
13.141	498.	842.	4.4	1641.2	1641.2	.0
13.223	701.	1220.	3.0	1645.1	1644.9	.2
13.286	721.	1413.	2.6	1647.0	1646.6	.4
13.354	446.	492.	7.5	1650.5	1650.4	.1
13.435	420.	1149.	3.2	1655.1	1654.8	.3
13.519	384.	855.	4.3	1657.4	1657.1	.3
13.603	303.	803.	4.6	1660.4	1660.3	.1
13.691	426.	773.	4.8	1663.4	1663.3	.1
13.761	449.	824.	4.5	1666.2	1666.0	.2
13.841	565.	935.	4.0	1669.3	1668.7	.6
13.912	539.	1214.	3.1	1671.8	1671.2	.6
13.987	413.	713.	5.2	1674.4	1674.2	.2
14.076	459.	1073.	3.5	1678.3	1677.8	.5
14.126	452.	899.	4.1	1679.7	1679.5	.2
14.197	339.	628.	5.9	1682.7	1682.4	.3
14.310	384.	890.	3.7	1688.3	1688.0	.3
14.396	301.	675.	4.9	1691.5	1691.5	.0
14.481	160.	509.	6.5	1695.3	1694.6	.7
14.569	160.	593.	5.6	1699.0	1698.2	.8
14.656	156.	557.	6.0	1702.3	1701.9	.4
14.711	149.	615.	5.4	1704.4	1704.0	.4
14.754	164.	458.	7.3	1705.9	1705.4	.5
14.845	232.	800.	4.2	1710.3	1709.7	.6
14.937	193.	563.	5.9	1713.3	1713.0	.3
14.976	228.	615.	5.4	1715.3	1715.1	.2
15.044	252.	711.	4.3	1718.7	1718.1	.6
15.118	222.	638.	4.8	1721.9	1721.1	.8
15.208	213.	610.	5.0	1726.0	1725.4	.6
15.298	167.	528.	5.7	1730.3	1730.0	.3
15.379	294.	858.	3.5	1733.7	1733.1	.6
15.443	351.	725.	4.2	1736.0	1735.9	.1
15.500	335.	770.	3.9	1739.0	1738.7	.3
15.581	414.	919.	3.3	1742.8	1742.1	.7
15.637	341.	603.	5.0	1745.4	1744.6	.8
15.683	459.	662.	4.6	1747.6	1746.9	.7

15.749	364.	217.	5.3	1751.3	1751.7	-.4
15.842	432.	472.	2.4	1757.6	1757.3	.3
15.890	387.	299.	3.8	1760.4	1760.6	-.2
15.898	418.	471.	2.4	1761.3	1761.1	.2
15.932	445.	413.	2.8	1763.1	1763.0	.1
16.021	270.	304.	3.8	1769.0	1769.0	.0

SUMMARY PRINTOUT TABLE 200 : TRILBY WASH; GRAND AVENUE TO C.A.P.
---------- MAIN CHANNEL; ENCROACHED
P&D No. 10320.00; FCD No. 90-24

Profile Number 2

Cross-Section Number	Floodway Width (ft)	Floodway Section Area (sq ft)	Floodway Mean Velocity (ft/s)	W. S. Elevation with Floodway (ft MSL)	W. S. Elevation without Floodway (ft MSL)	W. S. Elevation Diffrence (ft)
16.112	319.	535.	3.3	1774.7	1774.5	.2
16.164	326.	523.	5.7	1778.3	1777.7	.6
16.254	154.	535.	5.6	1783.8	1783.4	.4
16.345	120.	444.	6.7	1788.0	1788.1	-.1
16.421	118.	348.	8.6	1793.5	1793.4	.1
16.481	210.	775.	3.9	1798.0	1797.2	.8
16.551	110.	327.	9.2	1801.1	1800.9	.2
16.628	260.	714.	4.2	1806.7	1805.7	1.0
16.714	124.	402.	7.4	1810.2	1810.7	-.5
16.788	146.	487.	6.1	1815.2	1814.8	.4
16.861	125.	419.	7.1	1818.9	1819.0	-.1
16.936	66.	275.	10.9	1823.2	1823.3	-.1
17.011	170.	520.	5.8	1828.0	1827.6	.4
17.046	102.	407.	7.4	1829.1	1829.0	.1
17.135	91.	324.	9.2	1835.2	1835.4	-.2
17.200	168.	572.	5.2	1840.0	1839.5	.5
17.262	88.	305.	9.1	1842.9	1842.7	.2
17.319	95.	414.	6.7	1846.9	1846.4	.5
17.364	96.	323.	8.6	1849.2	1849.2	.0
17.425	122.	455.	6.1	1853.5	1853.1	.4
17.476	147.	670.	4.2	1855.3	1855.0	.3

END OF OUTPUT

HEC-2 OUTPUT WEST CHANNEL AT SPLIT - TRILBY WASH

==========
B O S S H E C - 2 (tm)
==========

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PROGRAM ORIGIN :

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PROJECT DESCRIPTION :

PROJECT TITLE : TRILBY WASH; GRAND AVENUE TO C.A.P.
PROJECT NUMBER : P&D No. 10320.00; FCD No. 90-24
DESCRIPTION : WEST CHANNEL; ENCROACHED
ENGINEER : RAMESH I. PATEL, P.E., L.S.
DATE OF RUN : 10/21/1991
TIME OF RUN : 4:25 pm

T1 P&D No. 10320.00; FCD No. 90-24
T2 TRILBY WASH; GRAND AVENUE TO C.A.P.
T3 WEST CHANNEL; ENCROACHED

JOB PARAMETERS :

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0	2	0	0	0.000000	0	0.0	0.0	1742.13	

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15

USER-DEFINED SUMMARY TABLES (J3) :

110 200

NC	0.075	0.075	0.055	0.6	0.8					
NH	7	0.10	9908.7	0.06	9949.4	0.10	9982.3	0.06	10020.6	0.10
NH	10068.	0.06	10144.2	0.10	10507.3					
QT	2	3035.0	3035.0							
ET			9.1						9784.0	10198.0
X1	15.581	90	9982.3	10144.2	0.0	0.0	0.0	1.0	0.0	0
GR	1742.9	9430.9	1742.9	9431.0	1742.9	9431.1	1742.9	9431.2	1742.9	9442.3
GR	1742.6	9456.4	1742.4	9472.8	1741.6	9487.2	1740.6	9506.0	1740.6	9520.1
GR	1740.1	9533.2	1740.5	9542.0	1740.8	9552.7	1739.8	9560.8	1740.4	9572.5
GR	1741.0	9585.0	1740.8	9601.9	1741.2	9615.3	1741.0	9628.0	1740.2	9640.3
GR	1740.2	9645.8	1740.9	9657.5	1740.7	9669.5	1740.9	9681.2	1741.2	9699.2
GR	1741.1	9714.2	1740.8	9731.2	1740.8	9748.1	1741.1	9766.0	1741.4	9784.2
GR	1741.2	9803.5	1741.1	9823.3	1741.3	9843.9	1741.4	9866.8	1741.5	9888.3
GR	1741.5	9908.7	1740.7	9921.4	1740.4	9928.0	1738.5	9935.0	1740.2	9942.5
GR	1741.3	9949.4	1741.3	9956.4	1740.9	9973.0	1741.0	9982.3	1738.8	9990.9
GR	1738.8	9998.5	1738.8	10000.0	1738.8	10000.1	1739.6	10006.9	1740.8	10013.8
GR	1741.3	10020.6	1741.3	10029.9	1741.4	10047.2	1741.6	10062.2	1741.6	10068.8
GR	1740.8	10079.4	1739.3	10088.8	1737.5	10096.2	1737.2	10106.8	1737.6	10114.7
GR	1739.2	10120.4	1739.6	10126.9	1739.7	10134.4	1740.2	10144.2	1739.8	10152.9
GR	1740.1	10162.5	1740.5	10169.9	1741.3	10178.7	1741.7	10190.3	1741.8	10198.1
GR	1741.3	10209.9	1739.8	10217.8	1739.2	10222.9	1740.3	10228.6	1740.8	10238.5
GR	1741.0	10248.8	1741.2	10261.0	1740.9	10272.6	1740.8	10287.0	1741.3	10303.3
GR	1741.5	10320.1	1741.7	10341.3	1742.0	10358.8	1743.2	10375.6	1744.0	10391.2
GR	1744.9	10409.0	1744.9	10423.7	1745.2	10437.5	1745.3	10451.7	1745.7	10507.3
NH	7	0.10	9882.6	0.06	10019.0	0.10	10108.2	0.06	10169.3	0.10
NH	10290.	0.06	10420.0	0.10	10620.0					
ET			9.1						9889.0	10230.0

```
X1    15.637       58   9975.9  10019.0    285.0    300.0    295.0      1.0      0.0        0
GR    1745.6   9808.4   1745.6   9823.7   1745.6   9842.1   1745.6   9857.2   1745.6   9871.1
GR    1745.2   9882.6   1744.4   9891.7   1742.2   9901.7   1742.5   9905.6   1744.3   9926.7
GR    1742.4   9946.8   1742.7   9951.6   1744.3   9961.0   1744.7   9975.9   1744.4   9983.1
GR    1742.4   9989.9   1742.2   9998.6   1742.0  10000.0   1742.0  10000.1   1742.7  10007.2
GR    1743.9  10012.8   1745.0  10019.0   1745.2  10025.6   1745.2  10033.1   1745.9  10061.0
GR    1745.3  10090.2   1744.7  10100.0   1743.8  10108.2   1743.5  10124.4   1741.9  10130.9
GR    1739.4  10137.8   1739.4  10143.7   1739.5  10150.6   1740.3  10156.2   1741.7  10162.7
GR    1742.5  10169.3   1742.6  10175.6   1742.5  10182.0   1742.7  10188.2   1743.2  10194.5
GR    1743.7  10201.2   1744.2  10209.4   1744.7  10216.7   1744.8  10225.2   1745.0  10230.0
GR    1744.0  10255.0   1744.0  10290.0   1742.0  10335.0   1740.0  10360.0   1741.8  10380.0
GR    1742.0  10400.0   1744.0  10420.0   1744.5  10440.0   1744.0  10460.0   1743.6  10490.0
GR    1744.0  10520.0   1746.0  10550.0   1747.0  10620.0

NH         5      0.10   9929.7      0.06  10015.0      0.10  10260.0      0.06  10360.6      0.10
NH     10515.
ET                        9.1                                                   9929.0  10388.0
X1    15.683       59   9929.7  10015.0    235.0    255.0    245.0      1.0      0.0        0
GR    1748.9   9830.0   1748.0   9895.0   1747.0   9929.7   1746.0   9945.0   1745.0   9951.7
GR    1746.4   9959.0   1746.9   9966.7   1747.1   9970.6   1747.0   9978.4   1746.4   9986.0
GR    1744.4   9994.2   1744.1  10000.0   1744.1  10000.1   1744.8  10005.7   1746.0  10010.0
GR    1748.0  10015.0   1748.2  10030.0   1748.0  10040.0   1747.8  10060.0   1748.0  10080.0
GR    1748.1  10090.0   1748.0  10095.0   1748.0  10145.0   1748.3  10170.0   1748.0  10215.0
GR    1746.8  10221.0   1746.4  10235.3   1746.1  10248.0   1745.8  10260.0   1744.7  10269.6
GR    1742.9  10277.8   1741.1  10285.3   1741.0  10292.4   1741.4  10298.6   1742.5  10301.6
GR    1744.1  10305.4   1744.9  10309.8   1744.6  10315.3   1743.0  10322.5   1741.9  10329.6
GR    1741.7  10335.4   1742.0  10339.4   1743.8  10344.1   1745.2  10352.3   1745.5  10360.6
GR    1746.3  10369.4   1746.9  10378.0   1747.0  10387.5   1747.0  10397.2   1746.5  10407.9
GR    1746.2  10422.5   1746.0  10435.2   1746.2  10444.7   1746.3  10452.8   1746.5  10466.3
GR    1746.8  10470.0   1748.0  10480.0   1748.1  10502.3   1748.2  10515.0

NH         7      0.08   9977.2      0.06  10028.1      0.08  10173.3      0.06  10212.1      0.08
NH     10371.     0.06  10545.2      0.08  10795.0
QT         2    1745.0   1870.0
ET                  7.1      9.1                            10247.9  10795.0  10356.0  10580.0
N PT. 16 - START SPLIT FLOW - Q=1745 CFS WEST

X1    15.749       91  10412.0  10474.7    380.0    370.0    370.0      1.0      0.0        0
GR    1752.3   9740.0   1752.0   9778.0   1750.7   9792.6   1750.2   9800.7   1747.9   9807.2
GR    1747.7   9811.6   1749.5   9815.5   1750.8   9822.8   1750.7   9830.4   1750.9   9846.5
GR    1751.2   9856.8   1750.9   9861.1   1749.3   9869.1   1749.5   9874.1   1750.8   9882.2
GR    1750.8   9894.3   1751.0   9908.2   1750.8   9918.9   1750.9   9931.1   1751.1   9940.5
GR    1751.2   9950.4   1751.3   9958.7   1751.6   9967.6   1751.6   9977.2   1751.2   9982.7
GR    1748.7   9992.4   1748.1   9996.9   1748.2  10000.0   1748.2  10000.1   1748.6  10004.8
GR    1750.4  10008.4   1751.8  10013.5   1752.1  10028.1   1751.8  10057.5   1751.4  10081.4
GR    1751.5  10107.6   1751.5  10126.5   1750.7  10145.5   1750.3  10155.9   1750.8  10169.2
GR    1750.7  10173.3   1745.7  10183.3   1750.1  10191.9   1750.5  10196.6   1750.9  10212.1
GR    1751.4  10222.8   1752.6  10234.9   1753.1  10247.9   1752.0  10262.0   1751.8  10283.9
GR    1751.6  10293.2   1751.3  10311.3   1751.4  10324.1   1751.0  10343.2   1750.5  10356.7
GR    1749.9  10371.6   1749.6  10382.0   1748.7  10396.4   1747.8  10400.1   1748.6  10407.2
GR    1749.1  10412.0   1748.7  10416.5   1745.6  10423.6   1745.4  10427.7   1745.7  10434.1
GR    1746.8  10441.3   1747.5  10449.6   1748.3  10457.3   1748.4  10465.3   1748.5  10474.7
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GR   1748.2   10483.1   1746.7   10490.1   1746.6   10495.2   1747.4   10500.5   1747.5   10505.9
GR   1747.2   10509.3   1748.7   10518.2   1748.8   10524.7   1748.8   10531.3   1749.1   10545.2
GR   1750.5   10565.9   1750.7   10573.6   1750.7   10585.1   1750.7   10598.3   1750.0   10630.0
GR   1748.0   10690.0   1747.0   10700.0   1748.0   10710.0   1750.0   10720.0   1752.0   10730.0
GR   1753.6   10795.0

NH        7       0.08    9960.2       0.06   10026.9       0.08   10159.0       0.06   10259.3       0.08
NH   10771.       0.06   10847.3       0.08   10970.0
ET              7.1       9.1                                     10432.2                  10566.0   10860.0
X1   15.842       81   10803.9   10847.3     460.0     445.0     450.0       1.0       0.0       0
GR   1758.0    9765.0   1756.5    9850.0   1757.0    9892.0   1757.3    9906.6   1757.2    9925.6
GR   1756.9    9937.2   1756.4    9943.8   1756.7    9951.4   1756.8    9960.2   1755.6    9967.1
GR   1755.5    9975.1   1755.3    9979.6   1754.4    9987.2   1754.2   10000.0   1754.2   10007.4
GR   1755.4   10011.9   1757.2   10018.1   1757.5   10026.9   1757.5   10040.2   1757.4   10052.1
GR   1757.1   10066.1   1757.1   10079.0   1756.8   10159.0   1754.6   10167.2   1755.1   10174.1
GR   1755.9   10180.2   1755.8   10185.6   1756.1   10191.4   1756.6   10201.3   1756.7   10210.5
GR   1756.6   10221.1   1756.2   10231.5   1755.0   10237.1   1754.3   10242.9   1755.6   10248.9
GR   1756.9   10259.3   1756.9   10271.8   1756.5   10287.7   1756.4   10316.1   1756.6   10329.7
GR   1757.5   10341.9   1759.4   10425.1   1759.4   10432.2   1758.3   10449.2   1757.6   10469.2
GR   1756.9   10482.2   1751.8   10626.4   1751.6   10630.7   1753.1   10639.0   1753.1   10646.7
GR   1752.4   10656.7   1751.5   10663.4   1751.1   10666.9   1752.1   10672.7   1753.7   10681.7
GR   1753.8   10690.6   1754.0   10702.1   1753.9   10720.6   1753.5   10733.7   1753.2   10744.0
GR   1753.0   10756.4   1752.7   10766.1   1752.9   10771.9   1752.2   10778.2   1751.0   10784.5
GR   1752.3   10790.4   1752.9   10796.5   1753.1   10803.9   1753.1   10812.2   1752.2   10817.3
GR   1750.7   10823.5   1749.1   10830.5   1748.6   10838.1   1749.5   10843.2   1751.4   10847.3
GR   1752.8   10855.3   1754.9   10863.8   1755.3   10868.3   1755.7   10879.9   1756.0   10885.0
GR   1756.5   10970.0

NH        5       0.08    9974.5       0.06   10068.3       0.08   10940.0       0.06   10999.0       0.08
NH   11080.
ET              7.1       9.1                                     10430.5   11009.3   10631.0   11000.0
X1   15.890       96   10940.0   10999.0     315.0     325.0     320.0       1.0       0.0       0
GR   1760.8    9704.7   1759.6    9797.4   1759.4    9804.0   1759.4    9817.7   1759.5    9832.0
GR   1759.5    9847.1   1759.5    9864.0   1759.5    9882.3   1759.7    9897.7   1759.8    9913.0
GR   1759.8    9931.3   1760.1    9948.1   1760.3    9964.6   1760.5    9974.5   1760.3    9981.4
GR   1759.7    9986.6   1757.0    9993.0   1757.0    9999.9   1756.5   10000.0   1756.5   10000.1
GR   1756.9   10004.6   1758.4   10009.8   1760.2   10017.6   1760.2   10026.5   1760.0   10037.6
GR   1759.0   10045.7   1759.0   10050.5   1758.3   10055.1   1758.8   10061.6   1760.0   10068.3
GR   1759.9   10076.1   1759.5   10087.6   1759.4   10099.9   1759.5   10111.2   1760.2   10122.4
GR   1760.8   10132.7   1760.8   10145.4   1760.2   10155.0   1759.6   10163.3   1758.1   10170.2
GR   1759.6   10177.1   1760.2   10181.9   1760.2   10190.8   1760.2   10203.7   1759.8   10213.4
GR   1759.6   10223.5   1759.1   10230.1   1758.4   10236.9   1758.6   10241.3   1759.7   10245.7
GR   1759.8   10255.7   1759.9   10268.3   1760.4   10281.9   1760.4   10293.3   1762.3   10430.5
GR   1760.9   10542.7   1756.8   10656.1   1756.1   10665.2   1757.0   10671.6   1755.6   10680.5
GR   1756.7   10687.0   1756.9   10693.2   1756.5   10707.3   1756.5   10716.4   1756.3   10728.1
GR   1756.6   10738.4   1756.8   10751.9   1757.2   10765.3   1757.4   10778.2   1757.3   10793.2
GR   1756.6   10804.7   1756.0   10814.5   1756.6   10823.6   1756.4   10833.0   1755.7   10840.5
GR   1756.4   10849.2   1756.9   10856.6   1756.8   10866.3   1756.7   10879.4   1756.8   10892.6
GR   1756.9   10906.0   1756.6   10919.6   1756.1   10931.6   1755.8   10940.0   1755.7   10949.2
GR   1755.2   10959.4   1752.3   10969.1   1752.0   10979.9   1752.1   10989.8   1754.7   10995.4
GR   1757.9   10999.0   1758.6   11009.3   1758.6   11021.9   1758.0   11040.0   1757.0   11065.0
GR   1758.0   11080.0
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NH       5     0.08    9982.7     0.06   10051.2     0.08   10847.8     0.06   10998.5     0.08
NH   11147.
QT       2   1145.0    1270.0
ET             7.1       9.1                          10791.8            10817.0   11057.0
Q=1145 CFS - WEST CHANNEL

X1  15.898      97   10872.8   10998.5     285.0     320.0     300.0       1.0       0.0       0
GR  1759.0  9525.5    1759.1    9533.3    1759.8    9555.4    1759.6    9580.8    1759.8    9601.5
GR  1760.2  9620.6    1760.5    9639.7    1760.4    9647.1    1759.8    9654.4    1760.4    9666.5
GR  1761.0  9691.0    1760.6    9719.7    1760.4    9743.6    1759.7    9832.5    1760.0    9886.9
GR  1760.3  9904.5    1760.2    9919.4    1760.6    9934.2    1760.6    9949.4    1760.3    9966.1
GR  1760.5  9973.6    1760.8    9982.7    1760.0    9986.6    1757.4    9992.4    1757.4    9999.9
GR  1757.3 10000.0    1757.6   10007.1    1759.8   10011.4    1760.5   10018.1    1760.7   10030.3
GR  1760.4 10039.1    1759.0   10051.2    1759.1   10056.3    1760.1   10062.2    1760.3   10068.3
GR  1760.4 10079.1    1760.5   10087.6    1760.0   10095.9    1760.1   10104.5    1760.6   10113.8
GR  1761.2 10123.7    1761.2   10133.5    1760.7   10143.4    1759.8   10153.9    1758.7   10159.3
GR  1760.0 10166.2    1760.4   10173.3    1760.4   10185.0    1760.4   10192.2    1760.5   10208.2
GR  1760.4 10228.4    1760.4   10245.0    1760.6   10265.3    1760.5   10271.4    1760.0   10282.9
GR  1758.8 10292.1    1759.6   10298.3    1760.3   10308.7    1760.8   10320.3    1763.7   10468.7
GR  1760.7 10528.4    1763.9   10569.8    1758.4   10641.6    1760.0   10772.0    1761.1   10791.8
GR  1759.7 10825.2    1759.5   10834.6    1759.8   10847.8    1760.1   10859.8    1760.1   10872.8
GR  1759.5 10884.1    1758.5   10895.0    1756.8   10904.9    1756.9   10916.2    1757.6   10919.9
GR  1759.2 10930.7    1759.1   10935.2    1758.4   10945.3    1756.2   10954.8    1757.0   10961.0
GR  1756.8 10965.1    1754.3   10971.9    1754.6   10978.4    1755.6   10983.5    1757.9   10990.8
GR  1759.6 10998.5    1759.3   11006.7    1759.5   11017.0    1759.5   11023.2    1759.4   11036.3
GR  1759.8 11048.6    1760.2   11061.7    1761.2   11079.8    1762.2   11099.7    1762.7   11117.3
GR  1763.3 11133.8    1763.3   11147.5

NH       7     0.08    9937.6     0.06   10006.6     0.08   10797.9     0.06   10835.4     0.08
NH   10881.     0.06   10924.0     0.08   10976.9
QT       2   1120.0    1245.0
ET             7.1       9.1                          10739.8            10797.0   10942.0
Q=1120 CFS

X1  15.932      88   10797.9   10835.4     245.0     290.0     260.0       1.0       0.0       0
GR  1763.8  9750.6    1763.2    9768.5    1762.3    9781.9    1762.0    9798.8    1761.9    9810.9
GR  1761.9  9826.2    1762.2    9840.5    1762.4    9856.9    1762.6    9874.2    1762.8    9893.7
GR  1763.0  9913.0    1762.7    9928.7    1762.7    9937.6    1762.7    9945.3    1761.6    9955.0
GR  1760.5  9963.5    1760.1    9974.9    1759.7    9982.1    1760.0   10000.0    1760.0   10000.1
GR  1760.9 10002.2    1762.0   10006.6    1762.0   10016.6    1762.2   10033.3    1762.7   10055.1
GR  1762.7 10075.3    1762.7   10096.6    1762.6   10112.4    1762.3   10123.6    1761.6   10129.4
GR  1761.1 10137.8    1761.7   10141.9    1761.8   10144.9    1761.2   10150.9    1762.4   10158.8
GR  1763.0 10167.1    1762.8   10177.5    1762.8   10186.3    1762.9   10198.8    1762.8   10211.5
GR  1762.8 10234.4    1762.5   10250.6    1762.4   10265.6    1762.4   10279.5    1762.0   10286.4
GR  1761.4 10296.6    1761.9   10309.5    1762.3   10320.5    1762.1   10332.3    1762.3   10342.7
GR  1762.9 10355.7    1763.4   10368.6    1764.7   10398.1    1765.2   10421.4    1765.8   10455.8
GR  1764.0 10500.0    1765.3   10525.0    1764.0   10560.0    1762.0   10580.0    1760.0   10605.0
GR  1762.0 10620.0    1762.5   10630.0    1762.0   10640.0    1761.0   10660.0    1762.0   10700.0
GR  1764.0 10722.0    1764.4   10739.8    1764.3   10754.5    1763.9   10768.2    1763.9   10781.8
GR  1763.9 10792.7    1763.8   10797.9    1761.7   10806.9    1760.2   10814.7    1760.0   10819.8
GR  1760.7 10825.0    1763.2   10830.4    1763.8   10835.4    1764.1   10853.5    1763.8   10862.1
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GR   1763.6   10871.3   1763.4   10881.4   1762.9   10892.2   1760.7   10901.1   1760.1   10907.1
GR   1763.1   10924.0   1764.1   10953.7   1765.2   10976.9

NH       5       0.08   9964.6       0.06  10036.6       0.08  10560.4       0.06  10622.4       0.08
NH   10995.
ET               7.1      9.1                                10378.7   10679.2   10398.0   10677.0
X1   16.021       88  10560.4   10622.4     480.0     490.0     490.0       1.0       0.0         0
GR   1770.3   9679.3   1768.5    9731.4   1768.3    9749.4   1768.3    9768.5   1768.0    9785.3
GR   1768.0   9802.3   1767.8    9813.4   1767.4    9819.2   1768.4    9828.8   1768.2    9845.1
GR   1768.2   9858.2   1767.9    9867.2   1768.4    9878.6   1768.3    9898.2   1768.3    9914.2
GR   1767.9   9922.2   1766.2    9928.9   1766.2    9932.8   1767.3    9938.1   1767.6    9944.9
GR   1768.6   9955.6   1768.7    9964.6   1768.0    9974.8   1765.6    9985.3   1765.3    9996.9
GR   1765.0  10000.0   1765.0   10000.1   1765.4   10006.9   1767.3   10013.9   1767.7   10016.8
GR   1768.1  10024.8   1768.3   10036.6   1768.2   10049.1   1768.4   10064.6   1768.7   10079.2
GR   1768.8  10098.4   1768.8   10118.7   1768.3   10134.7   1768.9   10146.8   1770.0   10159.1
GR   1769.6  10170.9   1769.0   10182.5   1768.5   10192.1   1768.3   10200.8   1769.2   10236.1
GR   1767.4  10254.1   1768.3   10261.4   1768.7   10273.0   1768.7   10284.7   1768.3   10294.4
GR   1769.0  10302.0   1768.5   10306.5   1767.2   10313.0   1767.3   10318.6   1768.9   10324.8
GR   1769.8  10341.3   1771.6   10362.5   1771.6   10378.7   1771.4   10393.6   1770.5   10407.1
GR   1769.3  10459.9   1770.3   10499.6   1770.5   10511.0   1769.5   10522.2   1769.9   10536.8
GR   1770.0  10549.3   1770.2   10560.4   1769.6   10571.8   1768.0   10580.6   1766.7   10588.4
GR   1766.6  10595.0   1768.0   10603.6   1769.7   10615.2   1769.9   10622.4   1769.4   10633.6
GR   1768.9  10647.2   1769.1   10656.0   1770.7   10670.2   1771.2   10679.5   1771.2   10688.1
GR   1770.0  10710.0   1769.7   10760.0   1770.0   10790.0   1771.3   10830.0   1770.0   10875.0
GR   1768.0  10925.0   1770.0   10970.0   1770.4   10995.0

NH       5       0.08   9969.8       0.06  10045.6       0.08  10329.9       0.06  10385.7       0.08
NH   10735.
ET               7.1      9.1                                10258.6   10531.5   10307.0   10425.0
X1   16.112       62  10329.9   10385.7     230.0     200.0     210.0       1.0       0.0         0
GR   1775.1    9660.   1774.0    9688.   1773.0    9696.   1774.0    9703.   1776.0    9710.
GR   1776.3   9721.1   1776.1    9729.9   1775.7    9739.8   1775.3    9748.0   1774.5    9756.4
GR   1774.3   9766.4   1774.2    9777.7   1773.7    9789.8   1773.5    9804.1   1773.1    9813.5
GR   1773.9   9916.9   1773.3    9924.6   1772.5    9931.8   1772.8    9941.3   1773.5    9951.3
GR   1773.7   9960.5   1774.0    9969.8   1773.0    9975.6   1771.1    9983.4   1769.6    9991.7
GR   1769.7  10000.0   1769.7   10000.1   1769.7   10008.7   1770.3   10013.0   1772.8   10017.3
GR   1774.0  10045.6   1773.4   10069.5   1772.4   10088.5   1772.7   10109.1   1773.9   10184.8
GR   1773.2  10212.5   1773.7   10224.8   1774.5   10236.7   1774.9   10247.7   1775.0   10258.6
GR   1774.9  10269.7   1774.5   10278.7   1773.7   10289.8   1773.2   10304.3   1772.7   10317.5
GR   1772.1  10329.9   1770.9   10341.3   1769.6   10352.3   1769.3   10360.5   1769.1   10367.2
GR   1770.5  10374.2   1771.7   10385.7   1772.1   10399.3   1772.4   10424.7   1771.6   10447.3
GR   1772.1  10483.7   1774.3   10531.5   1774.0   10560.0   1772.0   10590.0   1770.0   10640.0
GR   1772.0  10710.0   1773.0   10735.0

NH       5       0.08   9978.2       0.06  10033.1       0.08  10175.9       0.06  10221.8       0.08
NH   10370.
QT       2     1120.0   2995.0
ET               7.1      9.1                                10050.2                 9926.0   10252.0
X1   16.164       53  10175.9   10221.8     380.0     410.0     400.0       1.0       0.0         0
GR   1778.0   9650.0   1778.0    9675.0   1776.0    9685.0   1774.5    9700.0   1776.0    9715.0
GR   1776.8   9725.7   1776.9    9735.7   1776.7    9748.8   1776.7    9761.9   1776.4    9776.0
GR   1776.4   9790.6   1776.4    9807.2   1776.5    9820.1   1776.4    9839.9   1776.3    9860.6
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GR    1776.4     9882.5     1776.4     9897.5     1776.9     9919.2     1777.1     9934.0     1777.3     9948.5
GR    1777.4     9964.6     1777.4     9978.2     1777.1     9985.2     1772.9     9990.6     1772.6    10000.0
GR    1772.6    10000.1     1772.9    10007.2     1773.9    10011.8     1776.6    10016.2     1777.6    10022.5
GR    1778.0    10033.1     1778.2    10050.2     1778.2    10067.1     1778.2    10084.5     1778.2    10098.0
GR    1778.2    10111.2     1777.3    10125.6     1776.9    10139.2     1777.1    10153.2     1777.3    10165.1
GR    1777.0    10175.9     1775.4    10184.7     1773.7    10194.5     1773.4    10204.3     1774.0    10210.6
GR    1776.3    10221.8     1777.2    10235.0     1777.4    10251.6     1777.4    10265.2     1777.4    10279.5
GR    1777.9    10309.8     1778.0    10320.0     1778.4    10370.0

NC      0.08       0.08       0.06       0.0        0.0
QT         2     2995.0     2995.0
ET                  7.1        9.1                                                10115.5     9926.0    10080.0
Q=2995 CFS - END SPLIT FLOW

X1    16.254         45     9933.9    10039.8      475.0      475.0      485.0        1.0        0.0          0
GR    1783.8     9680.0     1783.3     9730.0     1783.7     9775.0     1782.3     9805.0     1783.2     9830.0
GR    1783.2     9918.0     1783.5     9925.7     1782.9     9933.9     1780.5     9944.3     1779.3     9956.8
GR    1778.6     9968.7     1778.4     9980.8     1777.8     9988.8     1777.2     9994.1     1776.9    10000.0
GR    1776.9    10000.1     1777.5    10007.3     1779.1    10014.1     1779.9    10023.9     1781.4    10031.2
GR    1782.1    10039.8     1782.0    10044.7     1781.7    10049.6     1782.7    10057.9     1783.0    10069.5
GR    1783.5    10082.9     1783.6    10101.1     1783.7    10115.5     1783.2    10129.9     1782.4    10144.5
GR    1781.9    10164.4     1781.6    10179.5     1781.8    10197.7     1782.3    10214.4     1782.0    10230.5
GR    1782.0    10280.0     1780.0    10360.0     1778.0    10370.0     1777.0    10380.0     1778.0    10385.0
GR    1780.0    10400.0     1780.5    10425.0     1780.2    10440.0     1782.0    10460.0     1784.0    10530.0
      STATUS: Analyzing profile 1.

  Contraction Coefficient (CCHV)                                          .600

  Expansion Coefficient (CEHV)                                            .800

      STATUS: (1490) NH card used.

      STATUS: Analyzing cross-section reach 15.581.
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Cross Section Number SECNO	Left Overbank Manning XNL	Channel Manning n XNCH	Right Overbank Manning XNR	Flow Depth DEPTH (ft)	Water Surface Elevation CWSEL (ft MSL)	Critical W. S. Elevation CRIWS (ft MSL)	Known W. S. Elevation WSELK (ft MSL)
Energy Gradient SLOPE (ft/ft)	Left Overbank Length XLOBL (ft)	Channel Length XLCH (ft)	Right Overbank Length XLOBR (ft)	Energy Gradient Elevation EG (ft MSL)	Weighted Velocity Head HV (ft)	Friction Energy Loss HL (ft)	Other Energy Loss OLOSS (ft)
Cummul-ative Volume VOL (acre-ft)	Left Overbank Area ALOB (sq ft)	Channel Area ACH (sq ft)	Right Overbank Area AROB (sq ft)	Bridge Deck Area CORAR (sq ft)	Left Bank Elevation LTBNK (ft MSL)	Right Bank Elevation RTBNK (ft MSL)	Number of Balance Trials ITRIAL
Total Flow Q (cfs)	Left Overbank Flow QLOB (cfs)	Channel Flow QCH (cfs)	Right Overbank Flow QROB (cfs)	Computed W. S. Top Width TOPWD (ft)	Left W. S. Station SSTA (ft)	Right W. S. Station ENDST (ft)	Number of Crit Dpth Trials IDC
Flow Travel Time TIME (hrs)	Left Overbank Velocity VLOB (ft/s)	Channel Mean Velocity VCH (ft/s)	Right Overbank Velocity VROB (ft/s)	Length Weighted Manning n WTN	Cummul. Surface Area TWA (acres)	Minimum C. S. Elevation ELMIN (ft MSL)	Number of Other Trials ICONT
15.581	.090	.056	.100	4.93	1742.13	.00	1742.13
.009119	0	0	0	1742.29	.16	.00	.00
.00	603	348	238	.00	1741.00	1740.20	0
3035	1143	1468	422	883.0	9477.66	10360.62	0
.00	1.89	4.21	1.77	.000	.0	1737.20	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 15.581
Total Discharge (cfs, Q) 3035
Computed Water Surface Elevation (ft MSL, CWSEL) 1742.13

Station (ft) =	9477.7	9533.2	9560.8	9601.9	9645.8	9699.2
Flow (%) =	3.9	3.1	4.0	3.3	3.9	
Area (sq ft) =	66.8	46.8	62.4	57.7	69.4	
Vel (ft/s) =	1.78	2.02	1.92	1.75	1.71	
Depth (ft) =	1.20	1.69	1.52	1.31	1.30	

Station (ft) =	9699.2	9766.0	9843.9	9928.0	9942.5	9982.3
Flow (%) =	4.1	3.1	3.8	5.9	2.5	
Area (sq ft) =	78.4	70.6	68.8	39.6	43.4	
Vel (ft/s) =	1.59	1.33	1.68	4.53	1.78	
Depth (ft) =	1.17	.91	.82	2.73	1.09	

Station (ft) =	9982.3	10020.6	10062.2	10144.2	10162.5	10222.9
Flow (%) =	12.4	1.2	34.8	3.1	4.0	
Area (sq ft) =	90.4	30.7	227.5	39.5	67.4	
Vel (ft/s) =	4.16	1.16	4.65	2.37	1.82	
Depth (ft) =	2.36	.74	2.77	2.16	1.12	

Station (ft) =	10222.9	10261.0	10341.3	10360.6
Flow (%) =	3.4	3.3	.1	
Area (sq ft) =	54.4	72.1	5.0	
Vel (ft/s) =	1.89	1.39	.60	
Depth (ft) =	1.43	.90	.26	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.637.

STATUS: (3265) Divided flow.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.637	.060	.060	.063	5.21	1744.61	.00	.00
.007831	285	295	300	1744.83	.22	2.49	.05
6.79	95	57	671	.00	1744.70	1745.00	2
3035	256	162	2615	526.5	9889.27	10529.21	0
.02	2.69	2.82	3.90	.000	4.7	1739.40	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	15.637
Total Discharge (cfs, Q)	3035
Computed Water Surface Elevation (ft MSL, CWSEL)	1744.61

Station (ft) =	9889.3	9926.7	9951.6	9972.7	10019.0	10137.8
Flow (%) =	4.3	3.3	.8	5.4	7.3	
Area (sq ft) =	47.8	35.3	12.3	57.6	58.4	
Vel (ft/s) =	2.74	2.83	2.08	2.82	3.78	
Depth (ft) =	1.28	1.42	.58	1.48	.49	

Station (ft) =	10137.8	10143.7	10150.6	10156.2	10162.7	10175.6
Flow (%) =	6.7	7.7	5.3	3.9	3.1	
Area (sq ft) =	30.8	35.6	26.4	23.5	29.6	
Vel (ft/s) =	6.59	6.55	6.12	5.08	3.20	
Depth (ft) =	5.21	5.16	4.71	3.61	2.29	

Station (ft) =	10175.6	10255.0	10335.0	10360.0	10380.0	10400.0
Flow (%) =	3.1	7.9	15.3	12.8	7.6	
Area (sq ft) =	55.4	94.1	90.3	74.3	54.3	
Vel (ft/s) =	1.69	2.54	5.15	5.24	4.26	
Depth (ft) =	.70	1.18	3.61	3.71	2.71	

Station (ft) =	10400.0	10420.0	10529.2
Flow (%) =	3.2	2.2	
Area (sq ft) =	32.3	66.2	
Vel (ft/s) =	3.01	1.02	
Depth (ft) =	1.61	.61	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.683.

STATUS: (3265) Divided flow.

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.683	.100	.060	.062	6.02	1747.02	.00	.00
.012455	235	245	255	1747.54	.52	2.47	.24
10.78	0	85	465	.00	1747.00	1748.00	2
3035	0	255	2779	327.6	9929.02	10471.83	0
.03	.02	2.99	5.98	.000	7.2	1741.00	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	15.683
Total Discharge (cfs, Q)	3035
Computed Water Surface Elevation (ft MSL, CWSEL)	1747.02

Station (ft) =	9929.0	10015.0	10269.6	10277.8	10285.3	10292.4
Flow (%) =	8.4	3.6	5.2	9.9	12.7	
Area (sq ft) =	85.5	45.7	26.4	37.6	42.4	
Vel (ft/s) =	2.99	2.40	5.93	7.95	9.10	
Depth (ft) =	1.14	.18	3.22	5.02	5.97	

Station (ft) =	10292.4	10298.6	10301.6	10309.8	10322.5	10329.6
Flow (%) =	10.6	3.9	4.8	6.5	8.1	
Area (sq ft) =	36.1	15.2	25.2	35.7	32.4	
Vel (ft/s) =	8.93	7.82	5.75	5.52	7.55	
Depth (ft) =	5.82	5.07	3.08	2.81	4.57	

Station (ft) =	10329.6	10335.4	10339.4	10344.1	10352.3	10435.2
Flow (%) =	8.3	5.6	4.3	3.5	3.5	
Area (sq ft) =	30.3	20.7	19.4	20.7	52.5	
Vel (ft/s) =	8.31	8.25	6.79	5.07	2.05	
Depth (ft) =	5.22	5.17	4.12	2.52	.63	

Station (ft) =	10435.2	10471.8
Flow (%) =	1.1	
Area (sq ft) =	24.9	
Vel (ft/s) =	1.35	
Depth (ft) =	.68	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.749.

STATUS: (3265) Divided flow.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	10247.90
Right Encroachment Station (ft, STENCR)	10795.00
Encroachment Method (TYPE)	1
Width or Percent Target	547.100

N PT. 16 - START SPLIT FLOW - Q=1745 CFS WEST

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.749	.060	.060	.068	5.15	1750.55	.00	.00
.004240	380	370	370	1750.68	.13	2.90	.23
15.84	67	201	369	.00	1749.10	1748.50	2
1745	146	701	896	330.9	10355.18	10722.78	0
.07	2.18	3.48	2.43	.000	10.0	1745.40	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 15.749
Total Discharge (cfs, Q) 1745
Computed Water Surface Elevation (ft MSL, CWSEL) 1750.55

Station (ft) =	10355.2	10396.4	10407.2	10412.0	10474.7	10490.1
Flow (%) =	3.3	4.1	1.1	40.2	7.1	
Area (sq ft) =	33.9	25.3	8.2	201.6	40.3	
Vel (ft/s) =	1.68	2.82	2.29	3.48	3.08	
Depth (ft) =	.82	2.34	1.71	3.22	2.62	

Station (ft) =	10490.1	10495.2	10500.5	10505.9	10518.2	10531.3
Flow (%) =	4.6	4.0	3.3	6.2	3.2	
Area (sq ft) =	19.9	18.8	16.8	34.1	23.3	
Vel (ft/s) =	4.00	3.73	3.43	3.18	2.37	
Depth (ft) =	3.91	3.56	3.11	2.77	1.78	

Station (ft) =	10531.3	10565.9	10690.0	10700.0	10710.0	10722.8
Flow (%) =	3.7	8.9	4.4	4.4	1.5	
Area (sq ft) =	38.0	100.4	30.6	30.6	16.3	
Vel (ft/s) =	1.71	1.55	2.54	2.54	1.55	
Depth (ft) =	1.10	.81	3.06	3.06	1.28	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.842.

STATUS: (3265) Divided flow.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) .50

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	10432.20
Right Encroachment Station (ft, STENCR)	10970.00
Encroachment Method (TYPE)	1
Width or Percent Target	-10432.200

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.842	.073	.060	.080	5.30	1753.90	.00	.00
.017234	460	450	445	1754.36	.45	3.42	.26
21.15	236	133	16	.00	1753.10	1751.40	2
1745	779	909	55	271.4	10566.73	10859.79	0
.10	3.30	6.79	3.30	.000	13.1	1748.60	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	15.842
Total Discharge (cfs, Q)	1745
Computed Water Surface Elevation (ft MSL, CWSEL)	1753.90

Station (ft) =	10566.7	10626.4	10639.0	10663.4	10672.7	10756.4
Flow (%) =	9.1	4.7	5.4	5.7	3.2	
Area (sq ft) =	63.0	22.5	31.0	22.5	29.5	
Vel (ft/s) =	2.53	3.62	3.04	4.38	1.92	
Depth (ft) =	1.06	1.78	1.27	2.42	.35	

Station (ft) =	10756.4	10778.2	10784.5	10790.4	10803.9	10847.3
Flow (%) =	4.7	4.7	4.2	3.0	52.1	
Area (sq ft) =	25.3	14.6	13.3	14.7	133.9	
Vel (ft/s) =	3.27	5.62	5.51	3.50	6.79	
Depth (ft) =	1.16	2.31	2.26	1.09	3.09	

Station (ft) =	10847.3	10859.8
Flow (%) =	3.2	
Area (sq ft) =	17.0	
Vel (ft/s) =	3.30	
Depth (ft) =	1.36	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.890.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 1.48

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	10430.50
Right Encroachment Station (ft, STENCR)	11009.30
Encroachment Method (TYPE)	1
Width or Percent Target	578.800

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
15.890	.080	.060	.000	5.71	1757.71	.00	.00
.007865	315	320	325	1758.01	.30	3.57	.09
24.52	315	224	0	.00	1755.80	1757.90	4
1745	567	1177	0	367.8	10631.02	10998.78	0
.12	1.80	5.24	.00	.000	15.5	1752.00	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	15.890
Total Discharge (cfs, Q)	1745
Computed Water Surface Elevation (ft MSL, CWSEL)	1757.71

Station (ft) =	10631.0	10680.5	10707.3	10738.4	10804.7	10823.6
Flow (%) =	4.1	3.1	4.3	3.2	3.1	
Area (sq ft) =	42.7	29.9	39.2	42.4	26.6	
Vel (ft/s) =	1.68	1.82	1.92	1.32	2.07	
Depth (ft) =	.86	1.12	1.26	.64	1.41	

Station (ft) =	10823.6	10849.2	10892.6	10931.6	10940.0	10999.0
Flow (%) =	4.8	3.8	4.1	2.0	67.5	
Area (sq ft) =	38.2	41.3	40.8	14.8	224.6	
Vel (ft/s) =	2.17	1.60	1.73	2.40	5.24	
Depth (ft) =	1.49	.95	1.05	1.76	3.82	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.898.

STATUS: (3265) Divided flow.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	10791.80
Right Encroachment Station (ft, STENCR)	11147.50
Encroachment Method (TYPE)	1
Width or Percent Target	-10791.800

Q=1145 CFS - WEST CHANNEL

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.898	.079	.060	.080	5.75	1760.05	.00	.00
.006537	285	300	320	1760.25	.20	2.17	.06
27.53	12	306	29	.00	1760.10	1759.60	3
1145	9	1105	29	224.0	10816.85	11056.78	0
.14	.76	3.61	1.02	.000	17.4	1754.30	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	15.898
Total Discharge (cfs, Q)	1145
Computed Water Surface Elevation (ft MSL, CWSEL)	1760.05

Station (ft) =	10816.9	10857.8	10998.5	11056.8
Flow (%) =	.8	96.6	2.6	
Area (sq ft) =	12.2	306.3	29.4	
Vel (ft/s) =	.76	3.61	1.02	
Depth (ft) =	.30	2.46	.50	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.932.

STATUS: (3265) Divided flow.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (7185) Critical depth has been crossed, therefore critical depth has been assumed for the current cross-section.

WARNING: (3720) Critical depth has been assumed.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	10739.80
Right Encroachment Station (ft, STENCR)	10976.90
Encroachment Method (TYPE)	1
Width or Percent Target	-10739.800

Q=1120 CFS

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.932	.000	.060	.060	4.00	1763.70	1763.70	.00
.031240	245	260	290	1764.44	.75	3.27	.44
29.09	0	76	85	.00	1763.80	1763.80	4
1120	0	537	582	111.1	10798.34	10941.74	16
.15	.00	7.06	6.80	.000	18.5	1759.70	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	15.932
Total Discharge (cfs, Q)	1120
Computed Water Surface Elevation (ft MSL, CWSEL)	1763.70

Station (ft) =	10798.3	10835.4	10881.4	10892.2	10901.1	10907.1
Flow (%) =	48.0	.3	1.5	9.9	17.1	
Area (sq ft) =	76.2	2.2	5.9	16.9	19.8	
Vel (ft/s) =	7.06	1.38	2.93	6.58	9.67	
Depth (ft) =	2.10	.05	.55	1.90	3.30	

Station (ft) =	10907.1	10924.0	10941.7
Flow (%) =	22.5	.7	
Area (sq ft) =	35.4	5.3	
Vel (ft/s) =	7.10	1.47	
Depth (ft) =	2.10	.30	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 16.021.

STATUS: (3280) For cross-section 16.02, ends have been extended vertically .68 feet in order to calculate the hydraulic cross-section properties.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 2.08

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	10378.70
Right Encroachment Station (ft, STENCR)	10679.20
Encroachment Method (TYPE)	1
Width or Percent Target	300.500

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
16.021	.080	.060	.080	6.08	1771.08	.00	.00
.007244	480	490	490	1771.24	.16	6.45	.35
32.34	180	159	78	.00	1770.20	1769.90	6
1120	317	628	174	278.9	10398.37	10677.31	0
.20	1.75	3.94	2.21	.000	20.7	1765.00	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	16.021
Total Discharge (cfs, Q)	1120
Computed Water Surface Elevation (ft MSL, CWSEL)	1771.08

Station (ft) =	10398.4	10459.9	10499.6	10536.8	10560.4	10622.4
Flow (%) =	10.0	8.5	6.2	3.7	56.1	
Area (sq ft) =	65.0	50.9	40.1	25.1	159.6	
Vel (ft/s) =	1.73	1.87	1.73	1.65	3.94	
Depth (ft) =	1.06	1.28	1.08	1.06	2.57	

Station (ft) =	10622.4	10647.2	10656.0	10677.3
Flow (%) =	8.6	4.2	2.7	
Area (sq ft) =	42.3	18.3	18.1	
Vel (ft/s) =	2.28	2.58	1.67	
Depth (ft) =	1.71	2.08	.85	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 16.112.

STATUS: (3280) For cross-section 16.11, ends have been extended vertically .08 feet in order to calculate the hydraulic cross-section properties.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	10258.60
Right Encroachment Station (ft, STENCR)	10531.50
Encroachment Method (TYPE)	1
Width or Percent Target	272.900

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
16.112	.080	.060	.080	3.98	1773.08	.00	.00
.013620	230	210	200	1773.47	.38	2.04	.18
34.04	10	150	117	.00	1772.10	1771.70	4
1120	15	842	261	197.7	10307.37	10505.07	0
.21	1.50	5.59	2.23	.000	21.8	1769.10	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	16.112
Total Discharge (cfs, Q)	1120
Computed Water Surface Elevation (ft MSL, CWSEL)	1773.08

Station (ft) =	10307.4	10329.9	10385.7	10399.3	10424.7	10447.3
Flow (%) =	1.4	75.2	3.5	3.6	5.0	
Area (sq ft) =	10.4	150.8	16.1	21.2	24.5	
Vel (ft/s) =	1.50	5.59	2.42	1.92	2.29	
Depth (ft) =	.46	2.70	1.18	.83	1.08	

Station (ft) =	10447.3	10483.7	10505.1
Flow (%) =	10.0	1.3	
Area (sq ft) =	44.9	10.5	
Vel (ft/s) =	2.49	1.35	
Depth (ft) =	1.23	.49	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 16.164.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	10050.20
Right Encroachment Station (ft, STENCR)	10370.00
Encroachment Method (TYPE)	1
Width or Percent Target	-10050.200

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
16.164	.080	.060	.080	5.46	1778.06	.00	.00
.011439	380	400	410	1778.51	.45	4.99	.06
36.57	52	155	62	.00	1777.00	1776.30	5
1120	97	917	104	214.3	10113.41	10327.75	0
.23	1.85	5.92	1.67	.000	23.7	1772.60	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	16.164
Total Discharge (cfs, Q)	1120
Computed Water Surface Elevation (ft MSL, CWSEL)	1778.06

Station (ft) =	10113.4	10153.2	10175.9	10221.8	10235.0	10265.2
Flow (%) =	5.4	3.3	82.0	3.7	3.1	
Area (sq ft) =	32.6	20.1	155.1	17.3	21.7	
Vel (ft/s) =	1.87	1.83	5.92	2.38	1.60	
Depth (ft) =	.82	.89	3.38	1.31	.72	

Station (ft) =	10265.2	10327.8
Flow (%) =	2.6	
Area (sq ft) =	23.3	
Vel (ft/s) =	1.23	
Depth (ft) =	.37	

STATUS: Analyzing cross-section reach 16.254.

STATUS: (3265) Divided flow.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 2.73

Q=2995 CFS - END SPLIT FLOW

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
16.254	.080	.060	.080	6.48	1783.38	.00	.00
.010953	475	485	475	1784.04	.66	5.36	.16
40.91	46	435	31	.00	1782.90	1782.10	4
2995	50	2879	65	310.5	9721.88	10079.72	0
.25	1.07	6.62	2.04	.000	26.6	1776.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 16.254
Total Discharge (cfs, Q) 2995
Computed Water Surface Elevation (ft MSL, CWSEL) 1783.38

Station (ft) =	9721.9	9933.9	10039.8	10079.7
Flow (%) =	1.7	96.2	2.2	
Area (sq ft) =	47.0	435.3	31.9	
Vel (ft/s) =	1.07	6.62	2.04	
Depth (ft) =	.22	4.11	.80	

T1 P&D No. 10320.00; FCD No. 90-24
T2 TRILBY WASH; GRAND AVENUE TO C.A.P.
T3 WEST CHANNEL; ENCROACHED

JOB PARAMETERS :

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0	3	0	0	0.000000	0	0.0	0.0	1742.82	

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15

STATUS: Analyzing profile 2.

Contraction Coefficient (CCHV) .600

Expansion Coefficient (CEHV) .800

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.581.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9784.00
Right Encroachment Station (ft, STENCR)	10198.00
Encroachment Method (TYPE)	1
Width or Percent Target	414.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.581	.080	.059	.100	5.62	1742.82	.00	1742.13
.007275	0	0	0	1743.04	.22	.00	.00
.00	343	460	111	.00	1741.00	1740.20	0
3035	814	1977	242	414.0	9784.00	10198.00	0
.00	2.37	4.30	2.18	.000	.0	1737.20	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	15.581
Total Discharge (cfs, Q)	3035
Computed Water Surface Elevation (ft MSL, CWSEL)	1742.82

Station (ft) =	9784.0	9823.3	9866.8	9921.4	9935.0	9942.5
Flow (%) =	3.6	3.7	5.1	5.4	4.1	
Area (sq ft) =	62.7	67.0	78.2	38.6	26.0	
Vel (ft/s) =	1.73	1.69	1.96	4.25	4.76	
Depth (ft) =	1.60	1.54	1.43	2.84	3.47	

Station (ft) =	9942.5	9973.0	9982.3	10020.6	10062.2	10144.2
Flow (%) =	3.9	1.1	17.0	3.1	45.0	
Area (sq ft) =	53.5	17.4	116.8	59.4	284.1	
Vel (ft/s) =	2.21	1.92	4.41	1.61	4.81	
Depth (ft) =	1.75	1.87	3.05	1.43	3.46	

Station (ft) =	10144.2	10162.5	10190.3	10198.0
Flow (%) =	4.4	3.3	.3	
Area (sq ft) =	52.1	50.9	8.2	
Vel (ft/s) =	2.54	1.97	1.22	
Depth (ft) =	2.85	1.83	1.07	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.637.

STATUS: (3265) Divided flow.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9889.00
Right Encroachment Station (ft, STENCR)	10230.00
Encroachment Method (TYPE)	1
Width or Percent Target	341.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.637	.060	.060	.066	6.00	1745.40	.00	1744.61
.011057	285	295	300	1745.79	.39	2.61	.14
5.16	164	91	363	.00	1744.70	1745.00	2
3035	682	387	1964	297.2	9889.00	10230.00	0
.02	4.16	4.25	5.40	.000	2.4	1739.40	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	15.637
Total Discharge (cfs, Q)	3035
Computed Water Surface Elevation (ft MSL, CWSEL)	1745.40

Station (ft) =	9889.0	9901.7	9926.7	9946.8	9961.0	9975.9
Flow (%) =	3.1	7.9	5.7	4.7	1.1	
Area (sq ft) =	23.4	54.2	41.3	31.6	13.5	
Vel (ft/s) =	3.99	4.43	4.20	4.52	2.44	
Depth (ft) =	1.85	2.17	2.06	2.23	.91	

Station (ft) =	9975.9	10019.0	10124.4	10137.8	10143.7	10150.6
Flow (%) =	12.8	4.3	10.5	10.0	11.6	
Area (sq ft) =	91.2	46.6	50.4	35.4	41.1	
Vel (ft/s) =	4.25	2.79	6.33	8.60	8.56	
Depth (ft) =	2.12	.44	3.76	6.01	5.96	

Station (ft) =		10150.6	10156.2	10162.7	10169.3	10182.0	10194.5
Flow (%)	=	8.2	6.5	4.1	3.8	3.2	
Area (sq ft)	=	30.8	28.6	21.8	36.3	32.9	
Vel (ft/s)	=	8.07	6.89	5.75	3.14	2.98	
Depth (ft)	=	5.51	4.41	3.31	2.86	2.63	

Station (ft) =		10194.5	10230.0
Flow (%)	=	2.5	
Area (sq ft)	=	40.0	
Vel (ft/s)	=	1.88	
Depth (ft)	=	1.13	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.683.

STATUS: (3265) Divided flow.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9929.00
Right Encroachment Station (ft, STENCR)	10388.00
Encroachment Method (TYPE)	1
Width or Percent Target	459.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.683	.100	.060	.062	6.63	1747.63	.00	1747.02
.007069	235	245	255	1747.99	.37	2.20	.01
8.83	0	136	519	.00	1747.00	1748.00	1
3035	0	387	2647	256.2	9929.00	10388.00	0
.03	.60	2.84	5.10	.000	4.0	1741.00	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	15.683
Total Discharge (cfs, Q)	3035
Computed Water Surface Elevation (ft MSL, CWSEL)	1747.63

Station (ft) =	9929.0	9929.7	10015.0	10269.6	10277.8	10285.3
Flow (%) =	.0	12.8	5.5	5.2	9.0	
Area (sq ft) =	.4	136.2	77.0	31.4	42.2	
Vel (ft/s) =	.60	2.84	2.17	5.02	6.47	
Depth (ft) =	.62	1.61	.30	3.83	5.63	

Station (ft) =	10285.3	10292.4	10298.6	10301.6	10309.8	10322.5
Flow (%) =	11.3	9.4	3.6	4.8	6.8	
Area (sq ft) =	46.7	39.9	17.0	30.2	43.4	
Vel (ft/s) =	7.31	7.19	6.36	4.86	4.72	
Depth (ft) =	6.58	6.43	5.68	3.69	3.42	

Station (ft) =	10322.5	10329.6	10335.4	10339.4	10344.1	10352.3
Flow (%) =	7.5	7.5	5.1	4.1	3.7	
Area (sq ft) =	36.8	33.8	23.1	22.2	25.7	
Vel (ft/s) =	6.19	6.74	6.69	5.61	4.41	
Depth (ft) =	5.18	5.83	5.78	4.73	3.13	

Station (ft) =	10352.3	10369.4	10388.0
Flow (%) =	3.1	.6	
Area (sq ft) =	34.1	15.6	
Vel (ft/s) =	2.80	1.13	
Depth (ft) =	2.00	.84	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.749.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) .58

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	10356.00
Right Encroachment Station (ft, STENCR)	10580.00
Encroachment Method (TYPE)	1
Width or Percent Target	224.000

N PT. 16 - START SPLIT FLOW - Q=1745 CFS WEST

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.749	.060	.060	.061	5.10	1750.50	.00	1750.55
.008012	380	370	370	1750.79	.29	2.74	.05
13.53	64	198	186	.00	1749.10	1748.50	2
1870	189	937	742	209.3	10356.66	10565.96	0
.06	2.95	4.73	3.99	.000	6.0	1745.40	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 15.749
Total Discharge (cfs, Q) 1870
Computed Water Surface Elevation (ft MSL, CWSEL) 1750.50

Station (ft) =	10356.7	10396.4	10407.2	10412.0	10474.7	10483.1
Flow (%) =	3.8	5.0	1.3	50.2	3.6	
Area (sq ft) =	31.8	24.7	7.9	198.2	18.1	
Vel (ft/s) =	2.25	3.81	3.09	4.73	3.69	
Depth (ft) =	.80	2.28	1.65	3.16	2.15	

Station (ft) =	10483.1	10490.1	10495.2	10500.5	10505.9	10518.2
Flow (%) =	5.2	5.7	5.0	4.1	7.7	
Area (sq ft) =	21.4	19.6	18.6	16.5	33.4	
Vel (ft/s) =	4.59	5.45	5.07	4.66	4.31	
Depth (ft) =	3.05	3.85	3.50	3.05	2.72	

Station (ft) =	10518.2	10531.3	10545.2	10566.0
Flow (%) =	3.9	3.4	1.0	
Area (sq ft) =	22.6	21.6	14.5	
Vel (ft/s) =	3.19	2.97	1.31	
Depth (ft) =	1.73	1.55	.70	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.842.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 10566.00
Right Encroachment Station (ft, STENCR) 10860.00
Encroachment Method (TYPE) 1
Width or Percent Target 294.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.842	.074	.060	.080	5.79	1754.39	.00	1753.90
.009154	460	450	445	1754.66	.27	3.87	.01
18.61	349	154	23	.00	1753.10	1751.40	4
1870	962	843	63	294.0	10566.00	10860.00	0
.09	2.75	5.45	2.77	.000	8.6	1748.60	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 15.842
Total Discharge (cfs, Q) 1870
Computed Water Surface Elevation (ft MSL, CWSEL) 1754.39

Station (ft) =	10566.0	10626.4	10639.0	10656.7	10666.9	10672.7
Flow (%) =	11.5	4.7	3.3	5.0	3.0	
Area (sq ft) =	91.9	28.5	26.3	27.2	16.2	
Vel (ft/s) =	2.34	3.07	2.33	3.42	3.49	
Depth (ft) =	1.52	2.26	1.49	2.66	2.79	

Station (ft) =	10672.7	10733.7	10766.1	10778.2	10784.5	10790.4
Flow (%) =	3.5	4.7	3.8	4.4	3.9	
Area (sq ft) =	42.0	41.7	20.8	17.6	16.2	
Vel (ft/s) =	1.56	2.13	3.40	4.64	4.57	
Depth (ft) =	.69	1.29	1.72	2.79	2.74	

Station (ft) =	10790.4	10803.9	10847.3	10860.0
Flow (%) =	3.7	45.1	3.4	
Area (sq ft) =	21.2	154.8	23.1	
Vel (ft/s) =	3.22	5.45	2.77	
Depth (ft) =	1.57	3.57	1.82	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.890.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 10631.00
Right Encroachment Station (ft, STENCR) 11000.00
Encroachment Method (TYPE) 1
Width or Percent Target 369.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.890	.080	.060	.000	5.57	1757.57	.00	1757.71
.011208	315	320	325	1758.00	.43	3.21	.13
22.31	273	216	0	.00	1755.80	1757.90	3
1870	545	1324	0	363.8	10634.86	10998.63	0
.10	2.00	6.12	.00	.000	11.0	1752.00	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 15.890
Total Discharge (cfs, Q) 1870
Computed Water Surface Elevation (ft MSL, CWSEL) 1757.57

Station (ft) =	10634.9	10680.5	10716.4	10751.9	10823.6	10849.2
Flow (%) =	3.7	3.9	4.0	4.3	4.5	
Area (sq ft) =	36.1	35.9	36.9	45.4	34.6	
Vel (ft/s) =	1.90	2.01	2.04	1.78	2.44	
Depth (ft) =	.79	1.00	1.04	.63	1.35	

Station (ft) =	10849.2	10892.6	10931.6	10940.0	10999.0
Flow (%) =	3.2	3.6	2.0	70.8	
Area (sq ft) =	35.3	35.4	13.6	216.5	
Vel (ft/s) =	1.72	1.90	2.71	6.12	
Depth (ft) =	.81	.91	1.62	3.69	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.898.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 10817.00
Right Encroachment Station (ft, STENCR) 11057.00
Encroachment Method (TYPE) 1
Width or Percent Target 240.000

Q=1145 CFS - WEST CHANNEL

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.898	.075	.060	.080	6.04	1760.34	.00	1760.05
.005194	285	300	320	1760.52	.17	2.36	.15
25.40	28	343	46	.00	1760.10	1759.60	2
1270	27	1187	55	240.0	10817.00	11057.00	0
.13	.97	3.46	1.18	.000	13.0	1754.30	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 15.898
Total Discharge (cfs, Q) 1270
Computed Water Surface Elevation (ft MSL, CWSEL) 1760.34

Station (ft) =	10817.0	10872.8	10998.5	11036.3	11057.0
Flow (%) =	2.1	93.5	3.4	1.0	
Area (sq ft) =	28.0	343.6	34.1	12.7	
Vel (ft/s) =	.97	3.46	1.25	1.00	
Depth (ft) =	.50	2.73	.90	.61	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.932.

STATUS: (3265) Divided flow.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (7185) Critical depth has been crossed, therefore critical depth has been assumed for the current cross-section.

WARNING: (3720) Critical depth has been assumed.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 10797.00
Right Encroachment Station (ft, STENCR) 10942.00
Encroachment Method (TYPE) 1
Width or Percent Target 145.000

Q=1120 CFS

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.932	.080	.060	.060	4.14	1763.84	1763.84	1763.70
.031278	245	260	290	1764.60	.76	2.79	.47
27.22	0	81	96	.00	1763.80	1763.80	3
1245	0	586	658	121.5	10797.00	10942.00	14
.14	.03	7.21	6.83	.000	14.1	1759.70	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 15.932
Total Discharge (cfs, Q) 1245
Computed Water Surface Elevation (ft MSL, CWSEL) 1763.84

Station (ft) =	10797.0	10835.4	10901.1	10907.1	10924.0	10942.0
Flow (%) =	47.1	12.7	16.5	22.5	1.2	
Area (sq ft) =	81.4	30.3	20.6	37.8	7.8	
Vel (ft/s) =	7.21	5.24	9.94	7.41	1.87	
Depth (ft) =	2.17	.46	3.44	2.24	.43	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 16.021.

STATUS: (3280) For cross-section 16.02, ends have been extended vertically .80 feet in order to calculate the hydraulic cross-section properties.

STATUS: (3301) The velocity head difference for current and previous cross-sections exceeded the allowable specified by HVINS.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 2.09

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 10398.00
Right Encroachment Station (ft, STENCR) 10677.00
Encroachment Method (TYPE) 1
Width or Percent Target 279.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
16.021	.080	.060	.080	6.20	1771.20	.00	1771.08
.007182	480	490	490	1771.37	.17	6.41	.36
30.75	200	167	85	.00	1770.20	1769.90	7
1245	373	675	195	279.0	10398.00	10677.00	0
.18	1.86	4.04	2.29	.000	16.4	1765.00	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 16.021
Total Discharge (cfs, Q) 1245
Computed Water Surface Elevation (ft MSL, CWSEL) 1771.20

Station (ft) =	10398.0	10459.9	10499.6	10536.8	10560.4	10622.4
Flow (%) =	10.6	8.8	6.6	4.0	54.3	
Area (sq ft) =	72.5	55.7	44.6	27.9	167.1	
Vel (ft/s) =	1.83	1.97	1.83	1.77	4.04	
Depth (ft) =	1.17	1.40	1.20	1.18	2.70	

Station (ft) =	10622.4	10647.2	10656.0	10677.0
Flow (%) =	8.7	4.2	2.9	
Area (sq ft) =	45.3	19.4	20.7	
Vel (ft/s) =	2.38	2.67	1.75	
Depth (ft) =	1.83	2.20	.99	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 16.112.

STATUS: (3280) For cross-section 16.11, ends have been extended vertically .34 feet in order to calculate the hydraulic cross-section properties.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) .66

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	10307.00
Right Encroachment Station (ft, STENCR)	10425.00
Encroachment Method (TYPE)	1
Width or Percent Target	118.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
16.112	.080	.060	.080	4.23	1773.33	.00	1773.08
.016591	230	210	200	1773.93	.59	2.22	.34
32.43	16	165	47	.00	1772.10	1771.70	3
1245	33	1081	130	118.0	10307.00	10425.00	0
.19	2.03	6.55	2.74	.000	17.3	1769.10	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	16.112
Total Discharge (cfs, Q)	1245
Computed Water Surface Elevation (ft MSL, CWSEL)	1773.33

Station (ft) =	10307.0	10317.5	10329.9	10385.7	10399.3	10424.7
Flow (%) =	.5	2.1	86.9	4.8	5.6	
Area (sq ft) =	4.6	11.7	165.2	19.6	27.7	
Vel (ft/s) =	1.37	2.29	6.55	3.05	2.53	
Depth (ft) =	.44	.94	2.96	1.44	1.09	

Station (ft) =	10424.7	10425.0
Flow (%) =	.0	
Area (sq ft) =	.3	
Vel (ft/s) =	.89	
Depth (ft) =	.95	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 16.164.

STATUS: (3280) For cross-section 16.16, ends have been extended vertically .19 feet in order to calculate the hydraulic cross-section properties.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 2.89

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9926.00
Right Encroachment Station (ft, STENCR)	10252.00
Encroachment Method (TYPE)	1
Width or Percent Target	326.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
16.164	.065	.060	.080	5.99	1778.59	.00	1778.06
.011519	380	400	410	1779.04	.45	5.03	.09
36.13	369	179	46	.00	1777.00	1776.30	5
2995	1698	1173	123	326.0	9926.00	10252.00	0
.21	4.60	6.54	2.68	.000	19.3	1772.60	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	16.164
Total Discharge (cfs, Q)	2995
Computed Water Surface Elevation (ft MSL, CWSEL)	1778.59

Station (ft) =	9926.0	9964.6	9990.6	10000.0	10007.2	10011.8
Flow (%) =	4.2	5.7	15.8	12.1	6.3	
Area (sq ft) =	52.5	44.9	54.9	42.1	23.9	
Vel (ft/s) =	2.38	3.78	8.62	8.62	7.85	
Depth (ft) =	1.36	1.73	5.84	5.84	5.19	

Station (ft) =	10011.8	10022.5	10139.2	10165.1	10175.9	10221.8
Flow (%) =	3.7	4.3	3.4	1.3	39.2	
Area (sq ft) =	24.1	72.9	38.8	15.6	179.3	
Vel (ft/s) =	4.60	1.77	2.62	2.54	6.54	
Depth (ft) =	2.25	.62	1.50	1.44	3.91	

Station (ft) =	10221.8	10251.6	10252.0
Flow (%) =	4.1	.0	
Area (sq ft) =	45.7	.5	
Vel (ft/s) =	2.70	.89	
Depth (ft) =	1.53	1.19	

STATUS: Analyzing cross-section reach 16.254.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	9926.00
Right Encroachment Station (ft, STENCR)	10080.00
Encroachment Method (TYPE)	1
Width or Percent Target	154.000

Q=2995 CFS - END SPLIT FLOW

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
16.254	.080	.060	.080	6.69	1783.59	.00	1783.38
.009502	475	485	475	1784.20	.61	5.03	.13
42.18	3	457	40	.00	1782.90	1782.10	4
2995	3	2909	82	154.0	9926.00	10080.00	0
.24	.97	6.37	2.06	.000	22.0	1776.90	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	16.254
Total Discharge (cfs, Q)	2995
Computed Water Surface Elevation (ft MSL, CWSEL)	1783.59

Station (ft) =	9926.0	9933.9	10039.8	10044.7	10049.6	10057.9
Flow (%) =	.1	97.1	.6	.7	.9	
Area (sq ft) =	3.1	457.0	7.5	8.5	11.5	
Vel (ft/s) =	.97	6.37	2.41	2.61	2.24	
Depth (ft) =	.40	4.32	1.54	1.74	1.39	

Station (ft) =	10057.9	10069.5	10080.0
Flow (%) =	.4	.1	
Area (sq ft) =	8.5	4.1	
Vel (ft/s) =	1.48	.96	
Depth (ft) =	.74	.39	

SPECIAL NOTE :

An asterisk (*) to the left of the cross-section number indicates a special note is present in the SUMMARY OF WARNING AND STATUS MESSAGES section.

SUMMARY PRINTOUT TABLE 110 : TRILBY WASH; GRAND AVENUE TO C.A.P.
WEST CHANNEL; ENCROACHED
P&D No. 10320.00; FCD No. 90-24

	Cross-Section Number SECNO	Computed W. S. Elevation (ft MSL) CWSEL	W.S. Elev Diff per Know/Comp (ft) DIFKWS	Energy Gradient Elevation (ft MSL) EG	Water Surface Top Width (ft) TOPWID	Left Overbank Flow (cfs) QLOB	Channel Flow (cfs) QCH	Right Overbank Flow (cfs) QROB	Encroach. Target Requested PERENC	Left Encroach. Station (ft) STENCL	Left Bank Station (ft) STCHL	Right Bank Station (ft) STCHR
	15.581	1742.13	.00	1742.29	882.96	1143.91	1468.76	422.33	.00	.00	9982.30	10144.20
	15.581	1742.82	.69	1743.04	414.00	814.76	1977.59	242.64	414.00	9784.00	9982.30	10144.20
	15.637	1744.61	.00	1744.83	526.47	256.71	162.53	2615.76	.00	.00	9975.90	10019.00
	15.637	1745.40	.79	1745.79	297.21	682.61	387.98	1964.41	341.00	9889.00	9975.90	10019.00
	15.683	1747.02	.00	1747.54	327.61	.00	255.65	2779.35	.00	.00	9929.70	10015.00
	15.683	1747.63	.61	1747.99	256.22	.26	387.03	2647.70	459.00	9929.00	9929.70	10015.00
	15.749	1750.55	.00	1750.68	330.86	146.88	701.97	896.15	547.10	10247.90	10412.00	10474.70
*	15.749	1750.50	-.04	1750.79	209.30	189.95	937.81	742.24	224.00	10356.00	10412.00	10474.70
*	15.842	1753.90	.00	1754.36	271.36	779.34	909.69	55.97	-10432.20	10432.20	10803.90	10847.30
	15.842	1754.39	.49	1754.66	294.00	962.49	843.62	63.88	294.00	10566.00	10803.90	10847.30
*	15.890	1757.71	.00	1758.01	367.77	567.68	1177.32	.00	578.80	10430.50	10940.00	10999.00
	15.890	1757.57	-.13	1758.00	363.76	545.56	1324.44	.00	369.00	10631.00	10940.00	10999.00
	15.898	1760.05	.00	1760.25	223.97	9.34	1105.79	29.88	-10791.80	10791.80	10872.80	10998.50
	15.898	1760.34	.29	1760.52	240.00	27.30	1187.43	55.28	240.00	10817.00	10872.80	10998.50
*	15.932	1763.70	.00	1764.44	111.13	.00	537.92	582.08	-10739.80	10739.80	10797.90	10835.40
*	15.932	1763.84	.14	1764.60	121.55	.00	586.53	658.46	145.00	10797.00	10797.90	10835.40
*	16.021	1771.08	.00	1771.24	278.94	317.58	628.32	174.10	300.50	10378.70	10560.40	10622.40
*	16.021	1771.20	.12	1771.37	279.00	373.52	675.79	195.70	279.00	10398.00	10560.40	10622.40
	16.112	1773.08	.00	1773.47	197.70	15.65	842.52	261.82	272.90	10258.60	10329.90	10385.70
*	16.112	1773.33	.25	1773.93	118.00	33.09	1081.71	130.20	118.00	10307.00	10329.90	10385.70
	16.164	1778.06	.00	1778.51	214.34	97.77	917.92	104.31	-10050.20	10050.20	10175.90	10221.80

	Cross-Section Number SECNO	Computed W. S. Elevation (ft MSL) CWSEL	W.S. Elev Diff per Know/Comp (ft) DIFKWS	Energy Gradient Elevation (ft MSL) EG	Water Surface Top Width (ft) TOPWID	Left Overbank Flow (cfs) QLOB	Channel Flow (cfs) QCH	Right Overbank Flow (cfs) QROB	Encroach. Target Requested PERENC	Left Encroach. Station (ft) STENCL	Left Bank Station (ft) STCHL	Right Bank Station (ft) STCHR
*	16.164	1778.59	.53	1779.04	326.00	1698.22	1173.19	123.59	326.00	9926.00	10175.90	10221.80
*	16.254	1783.38	.00	1784.04	310.47	50.16	2879.84	65.00	10115.50	.00	9933.90	10039.80
	16.254	1783.59	.20	1784.20	154.00	3.04	2909.27	82.69	154.00	9926.00	9933.90	10039.80

SUMMARY OF WARNING AND STATUS MESSAGES :

Section 15.749, profile 2, conveyance change outside acceptable range.

Section 15.842, profile 1, conveyance change outside acceptable range.

Section 15.89, profile 1, conveyance change outside acceptable range.

Section 15.932, profile 1, critical depth assumed.

Section 15.932, profile 1, minimum specific energy.

Section 15.932, profile 2, critical depth assumed.

Section 15.932, profile 2, minimum specific energy.

Section 16.021, profile 1, conveyance change outside acceptable range.

Section 16.021, profile 2, conveyance change outside acceptable range.

Section 16.112, profile 2, conveyance change outside acceptable range.

Section 16.164, profile 2, conveyance change outside acceptable range.

Section 16.254, profile 1, conveyance change outside acceptable range.

12 Warning and status message(s) generated

SUMMARY PRINTOUT TABLE 200 : TRILBY WASH; GRAND AVENUE TO C.A.P.
---------- WEST CHANNEL; ENCROACHED
P&D No. 10320.00; FCD No. 90-24

Profile Number 2

Cross-Section Number	Floodway Width (ft)	Floodway Section Area (sq ft)	Floodway Mean Velocity (ft/s)	W. S. Elevation with Floodway (ft MSL)	W. S. Elevation without Floodway (ft MSL)	W. S. Elevation Diffrence (ft)
15.581	414.	915.	3.3	1742.8	1742.1	.7
15.637	341.	619.	4.9	1745.4	1744.6	.8
15.683	459.	656.	4.6	1747.6	1747.0	.6
15.749	209.	449.	4.2	1750.5	1750.5	.0
15.842	294.	527.	3.5	1754.4	1753.9	.5
15.890	364.	490.	3.8	1757.6	1757.7	-.1
15.898	240.	418.	3.0	1760.4	1760.1	.3
15.932	145.	178.	7.0	1763.8	1763.7	.1
16.021	279.	453.	2.7	1771.2	1771.1	.1
16.112	118.	229.	5.4	1773.4	1773.1	.3
16.164	326.	595.	5.0	1778.6	1778.1	.5
16.254	154.	500.	6.0	1783.6	1783.4	.2

COMPUTATION ABORTED BY USER

HEC-2 OUTPUT MIDDLE CHANNEL AT SPLIT - TRILBY WASH

==========
B O S S H E C - 2 (tm)
==========

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Version : 2.50
Serial Number : 0010169.200

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PROGRAM ORIGIN :

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PROJECT DESCRIPTION :

PROJECT TITLE : TRILBY WASH; GRAND AVENUE TO C.A.P.
PROJECT NUMBER : P&D No. 10320.00; FCD No. 90-24
DESCRIPTION : MIDDLE CHANNEL; ENCROACHED
ENGINEER : RAMESH I. PATEL, P.E., L.S.
DATE OF RUN : 10/21/1991
TIME OF RUN : 5:19 pm

T1 P&D No. 10320.00; FCD No. 90-24
T2 TRILBY WASH; GRAND AVENUE TO C.A.P.
T3 MIDDLE CHANNEL; ENCROACHED

JOB PARAMETERS :

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0	2	0	0	0.000000	0	0.0	0.0	1753.90	

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15

USER-DEFINED SUMMARY TABLES (J3) :

110 200

NC	0.08	0.08	0.06	0.6	0.8					
NH	7	0.08	9960.2	0.06	10026.9	0.08	10159.0	0.06	10259.3	0.08
NH	10771.	0.06	10847.3	0.08	10970.0					
QT	2	1745.0	1870.0							
ET		7.1	9.1				10432.2		10566.0	10860.0

Q=1745 CFS

X1	15.842	81	10803.9	10847.3	0.0	0.0	0.0	1.0	0.0	0
GR	1758.0	9765.0	1756.5	9850.0	1757.0	9892.0	1757.3	9906.6	1757.2	9925.6
GR	1756.9	9937.2	1756.4	9943.8	1756.7	9951.4	1756.8	9960.2	1755.6	9967.1
GR	1755.5	9975.1	1755.3	9979.6	1754.4	9987.2	1754.2	10000.0	1754.2	10007.4
GR	1755.4	10011.9	1757.2	10018.1	1757.5	10026.9	1757.5	10040.2	1757.4	10052.1
GR	1757.1	10066.1	1757.1	10079.0	1756.8	10159.0	1754.6	10167.2	1755.1	10174.1
GR	1755.9	10180.2	1755.8	10185.6	1756.1	10191.4	1756.6	10201.3	1756.7	10210.5
GR	1756.6	10221.1	1756.2	10231.5	1755.0	10237.1	1754.3	10242.9	1755.6	10248.9
GR	1756.9	10259.3	1756.9	10271.8	1756.5	10287.7	1756.4	10316.1	1756.6	10329.7
GR	1757.5	10341.9	1759.4	10425.1	1759.4	10432.2	1758.3	10449.2	1757.6	10469.2
GR	1756.9	10482.2	1751.8	10626.4	1751.6	10630.7	1753.1	10639.0	1753.1	10646.7
GR	1752.4	10656.7	1751.5	10663.4	1751.1	10666.9	1752.1	10672.7	1753.7	10681.7
GR	1753.8	10690.6	1754.0	10702.1	1753.9	10720.6	1753.5	10733.7	1753.2	10744.0
GR	1753.0	10756.4	1752.7	10766.1	1752.9	10771.9	1752.2	10778.2	1751.0	10784.5
GR	1752.3	10790.4	1752.9	10796.5	1753.1	10803.9	1753.1	10812.2	1752.2	10817.3
GR	1750.7	10823.5	1749.1	10830.5	1748.6	10838.1	1749.5	10843.2	1751.4	10847.3
GR	1752.8	10855.3	1754.9	10863.8	1755.3	10868.3	1755.7	10879.9	1756.0	10885.0
GR	1756.5	10970.0								

NH	5	0.08	9974.5	0.06	10068.3	0.08	10940.0	0.06	10999.0	0.08
NH	11080.									

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ET              7.1       9.1                                  10430.5   11009.3   10631.0   11000.0
X1    15.890     96   10656.1   10751.9     270.0     290.0     290.0       1.0       0.0         0
GR    1760.8 9704.7    1759.6    9797.4    1759.4    9804.0    1759.4    9817.7    1759.5    9832.0
GR    1759.5 9847.1    1759.5    9864.0    1759.5    9882.3    1759.7    9897.7    1759.8    9913.0
GR    1759.8 9931.3    1760.1    9948.1    1760.3    9964.6    1760.5    9974.5    1760.3    9981.4
GR    1759.7 9986.6    1757.0    9993.0    1757.0    9999.9    1756.5   10000.0    1756.5   10000.1
GR    1756.9 10004.6   1758.4   10009.8    1760.2   10017.6    1760.2   10026.5    1760.0   10037.6
GR    1759.0 10045.7   1759.0   10050.5    1758.3   10055.1    1758.8   10061.6    1760.0   10068.3
GR    1759.9 10076.1   1759.5   10087.6    1759.4   10099.9    1759.5   10111.2    1760.2   10122.4
GR    1760.8 10132.7   1760.8   10145.4    1760.2   10155.0    1759.6   10163.3    1758.1   10170.2
GR    1759.6 10177.1   1760.2   10181.9    1760.2   10190.8    1760.2   10203.7    1759.8   10213.4
GR    1759.6 10223.5   1759.1   10230.1    1758.4   10236.9    1758.6   10241.3    1759.7   10245.7
GR    1759.8 10255.7   1759.9   10268.3    1760.4   10281.9    1760.4   10293.3    1762.3   10430.5
GR    1760.9 10542.7   1756.8   10656.1    1756.1   10665.2    1757.0   10671.6    1755.6   10680.5
GR    1756.7 10687.0   1756.9   10693.2    1756.5   10707.3    1756.5   10716.4    1756.3   10728.1
GR    1756.6 10738.4   1756.8   10751.9    1757.2   10765.3    1757.4   10778.2    1757.3   10793.2
GR    1756.6 10804.7   1756.0   10814.5    1756.6   10823.6    1756.4   10833.0    1755.7   10840.5
GR    1756.4 10849.2   1756.9   10856.6    1756.8   10866.3    1756.7   10879.4    1756.8   10892.6
GR    1756.9 10906.0   1756.6   10919.6    1756.1   10931.6    1755.8   10940.0    1755.7   10949.2
GR    1755.2 10959.4   1752.3   10969.1    1752.0   10979.9    1752.1   10989.8    1754.7   10995.4
GR    1757.9 10999.0   1758.6   11009.3    1758.6   11021.9    1758.0   11040.0    1757.0   11065.0
GR    1758.0 11080.0

NH         5     0.08   9982.7      0.06   10051.2      0.08   10847.8      0.06   10998.5      0.08
NH    11147.
QT         2    600.0    600.0
ET              7.1       9.1                                  10468.7   10791.8   10621.0   10773.0
Q=600 CFS - MIDDLE CHANNEL

X1    15.898     97   10641.6   10772.0     150.0     200.0     180.0       1.0       0.0         0
GR    1759.0 9525.5    1759.1    9533.3    1759.8    9555.4    1759.6    9580.8    1759.8    9601.5
GR    1760.2 9620.6    1760.5    9639.7    1760.4    9647.1    1759.8    9654.4    1760.4    9666.5
GR    1761.0 9691.0    1760.6    9719.7    1760.4    9743.6    1759.7    9832.5    1760.0    9886.9
GR    1760.3 9904.5    1760.2    9919.4    1760.6    9934.2    1760.6    9949.4    1760.3    9966.1
GR    1760.5 9973.6    1760.8    9982.7    1760.0    9986.6    1757.4    9992.4    1757.4    9999.9
GR    1757.3 10000.0   1757.6   10007.1    1759.8   10011.4    1760.5   10018.1    1760.7   10030.3
GR    1760.4 10039.1   1759.0   10051.2    1759.1   10056.3    1760.1   10062.2    1760.3   10068.3
GR    1760.4 10079.1   1760.5   10087.6    1760.0   10095.9    1760.1   10104.5    1760.6   10113.8
GR    1761.2 10123.7   1761.2   10133.5    1760.7   10143.4    1759.8   10153.9    1758.7   10159.3
GR    1760.0 10166.2   1760.4   10173.3    1760.4   10185.0    1760.4   10192.2    1760.5   10208.2
GR    1760.4 10228.4   1760.4   10245.0    1760.6   10265.3    1760.5   10271.4    1760.0   10282.9
GR    1758.8 10292.1   1759.6   10298.3    1760.3   10308.7    1760.8   10320.3    1763.7   10468.7
GR    1760.7 10528.4   1763.9   10569.8    1758.4   10641.6    1760.0   10772.0    1761.1   10791.8
GR    1759.7 10825.2   1759.5   10834.6    1759.8   10847.8    1760.1   10859.8    1760.1   10872.8
GR    1759.5 10884.1   1758.5   10895.0    1756.8   10904.9    1756.9   10916.2    1757.6   10919.9
GR    1759.2 10930.7   1759.1   10935.2    1758.4   10945.3    1756.2   10954.8    1757.0   10961.0
GR    1756.8 10965.1   1754.3   10971.9    1754.6   10978.4    1755.6   10983.5    1757.9   10990.8
GR    1759.6 10998.5   1759.3   11006.7    1759.5   11017.0    1759.5   11023.2    1759.4   11036.3
GR    1759.8 11048.6   1760.2   11061.7    1761.2   11079.8    1762.2   11099.7    1762.7   11117.3
GR    1763.3 11133.8   1763.3   11147.5

NH         7     0.08   9937.6      0.06   10006.6      0.08   10797.9      0.06   10835.4      0.08
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NH   10881.     0.06   10924.0     0.08   10976.9
ET              7.1       9.1                          10455.8   10739.8   10565.0   10716.0
X1   15.932      88    10580.0   10700.0     165.0     210.0     190.0       1.0       0.0         0
GR   1763.8   9750.6    1763.2    9768.5    1762.3    9781.9    1762.0    9798.8    1761.9    9810.9
GR   1761.9   9826.2    1762.2    9840.5    1762.4    9856.9    1762.6    9874.2    1762.8    9893.7
GR   1763.0   9913.0    1762.7    9928.7    1762.7    9937.6    1762.7    9945.3    1761.6    9955.0
GR   1760.5   9963.5    1760.1    9974.9    1759.7    9982.1    1760.0   10000.0    1760.0   10000.1
GR   1760.9  10002.2    1762.0   10006.6    1762.0   10016.6    1762.2   10033.3    1762.7   10055.1
GR   1762.7  10075.3    1762.7   10096.6    1762.6   10112.4    1762.3   10123.6    1761.6   10129.4
GR   1761.1  10137.8    1761.7   10141.9    1761.8   10144.9    1761.2   10150.9    1762.4   10158.8
GR   1763.0  10167.1    1762.8   10177.5    1762.8   10186.3    1762.9   10198.8    1762.8   10211.5
GR   1762.8  10234.4    1762.5   10250.6    1762.4   10265.6    1762.4   10279.5    1762.0   10286.4
GR   1761.4  10296.6    1761.9   10309.5    1762.3   10320.5    1762.1   10332.3    1762.3   10342.7
GR   1762.9  10355.7    1763.4   10368.6    1764.7   10398.1    1765.2   10421.4    1765.8   10455.8
GR   1764.0  10500.0    1765.3   10525.0    1764.0   10560.0    1762.0   10580.0    1760.0   10605.0
GR   1762.0  10620.0    1762.5   10630.0    1762.0   10640.0    1761.0   10660.0    1762.0   10700.0
GR   1764.0  10722.0    1764.4   10739.8    1764.3   10754.5    1763.9   10768.2    1763.9   10781.8
GR   1763.9  10792.7    1763.8   10797.9    1761.7   10806.9    1760.2   10814.7    1760.0   10819.8
GR   1760.7  10825.0    1763.2   10830.4    1763.8   10835.4    1764.1   10853.5    1763.8   10862.1
GR   1763.6  10871.3    1763.4   10881.4    1762.9   10892.2    1760.7   10901.1    1760.1   10907.1
GR   1763.1  10924.0    1764.1   10953.7    1765.2   10976.9

NH       5      0.08    9964.6      0.06   10036.6      0.08   10560.4      0.06   10622.4      0.08
NH   10995.
ET              7.1       9.1                          10159.1   10378.7   10170.0   10338.0
X1   16.021      88    10200.8   10324.8     530.0     525.0     530.0       1.0       0.0         0
GR   1770.3   9679.3    1768.5    9731.4    1768.3    9749.4    1768.3    9768.5    1768.0    9785.3
GR   1768.0   9802.3    1767.8    9813.4    1767.4    9819.2    1768.4    9828.8    1768.2    9845.1
GR   1768.2   9858.2    1767.9    9867.2    1768.4    9878.6    1768.3    9898.2    1768.3    9914.2
GR   1767.9   9922.2    1766.2    9928.9    1766.2    9932.8    1767.3    9938.1    1767.6    9944.9
GR   1768.6   9955.6    1768.7    9964.6    1768.0    9974.8    1765.6    9985.3    1765.3    9996.9
GR   1765.0  10000.0    1765.0   10000.1    1765.4   10006.9    1767.3   10013.9    1767.7   10016.8
GR   1768.1  10024.8    1768.3   10036.6    1768.2   10049.1    1768.4   10064.6    1768.7   10079.2
GR   1768.8  10098.4    1768.8   10118.7    1768.3   10134.7    1768.9   10146.8    1770.0   10159.1
GR   1769.6  10170.9    1769.0   10182.5    1768.5   10192.1    1768.3   10200.8    1769.2   10236.1
GR   1767.4  10254.1    1768.3   10261.4    1768.7   10273.0    1768.7   10284.7    1768.3   10294.4
GR   1769.0  10302.0    1768.5   10306.5    1767.2   10313.0    1767.3   10318.6    1768.9   10324.8
GR   1769.8  10341.3    1771.6   10362.5    1771.6   10378.7    1771.4   10393.6    1770.5   10407.1
GR   1769.3  10459.9    1770.3   10499.6    1770.5   10511.0    1769.5   10522.2    1769.9   10536.8
GR   1770.0  10549.3    1770.2   10560.4    1769.6   10571.8    1768.0   10580.6    1766.7   10588.4
GR   1766.6  10595.0    1768.0   10603.6    1769.7   10615.2    1769.9   10622.4    1769.4   10633.6
GR   1768.9  10647.2    1769.1   10656.0    1770.7   10670.2    1771.2   10679.5    1771.2   10688.1
GR   1770.0  10710.0    1769.7   10760.0    1770.0   10790.0    1771.3   10830.0    1770.0   10875.0
GR   1768.0  10925.0    1770.0   10970.0    1770.4   10995.0

NH       5      0.08    9969.8      0.06   10045.6      0.08   10329.9      0.06   10385.7      0.08
NH   10735.
QT       2    1875.0    1750.0
ET              7.1       9.1                                   10258.6    9917.0   10236.0
Q=1875 CFS

X1   16.112      62    9969.8   10045.6     420.0     390.0     405.0       1.0       0.0         0
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GR	1775.1	9660.	1774.0	9688.	1773.0	9696.	1774.0	9703.	1776.0	9710.
GR	1776.3	9721.1	1776.1	9729.9	1775.7	9739.8	1775.3	9748.0	1774.5	9756.4
GR	1774.3	9766.4	1774.2	9777.7	1773.7	9789.8	1773.5	9804.1	1773.1	9813.5
GR	1773.9	9916.9	1773.3	9924.6	1772.5	9931.8	1772.8	9941.3	1773.5	9951.3
GR	1773.7	9960.5	1774.0	9969.8	1773.0	9975.6	1771.1	9983.4	1769.6	9991.7
GR	1769.7	10000.0	1769.7	10000.1	1769.7	10008.7	1770.3	10013.0	1772.8	10017.3
GR	1774.0	10045.6	1773.4	10069.5	1772.4	10088.5	1772.7	10109.1	1773.9	10184.8
GR	1773.2	10212.5	1773.7	10224.8	1774.5	10236.7	1774.9	10247.7	1775.0	10258.6
GR	1774.9	10269.7	1774.5	10278.7	1773.7	10289.8	1773.2	10304.3	1772.7	10317.5
GR	1772.1	10329.9	1770.9	10341.3	1769.6	10352.3	1769.3	10360.5	1769.1	10367.2
GR	1770.5	10374.2	1771.7	10385.7	1772.1	10399.3	1772.4	10424.7	1771.6	10447.3
GR	1772.1	10483.7	1774.3	10531.5	1774.0	10560.0	1772.0	10590.0	1770.0	10640.0
GR	1772.0	10710.0	1773.0	10735.0						

STATUS: Analyzing profile 1.

Contraction Coefficient (CCHV) .600

Expansion Coefficient (CEHV) .800

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.842.

STATUS: (3265) Divided flow.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	10432.20
Right Encroachment Station (ft, STENCR)	10970.00
Encroachment Method (TYPE)	1
Width or Percent Target	-10432.200

Q=1745 CFS

Cross Section Number SECNO	Left Overbank Manning XNL	Channel Manning n XNCH	Right Overbank Manning XNR	Flow Depth DEPTH (ft)	Water Surface Elevation CWSEL (ft MSL)	Critical W. S. Elevation CRIWS (ft MSL)	Known W. S. Elevation WSELK (ft MSL)
Energy Gradient SLOPE (ft/ft)	Left Overbank Length XLOBL (ft)	Channel Length XLCH (ft)	Right Overbank Length XLOBR (ft)	Energy Gradient Elevation EG (ft MSL)	Weighted Velocity Head HV (ft)	Friction Energy Loss HL (ft)	Other Energy Loss OLOSS (ft)
Cummul-ative Volume VOL (acre-ft)	Left Overbank Area ALOB (sq ft)	Channel Area ACH (sq ft)	Right Overbank Area AROB (sq ft)	Bridge Deck Area CORAR (sq ft)	Left Bank Elevation LTBNK (ft MSL)	Right Bank Elevation RTBNK (ft MSL)	Number of Balance Trials ITRIAL
Total Flow Q (cfs)	Left Overbank Flow QLOB (cfs)	Channel Flow QCH (cfs)	Right Overbank Flow QROB (cfs)	Computed W. S. Top Width TOPWD (ft)	Left W. S. Station SSTA (ft)	Right W. S. Station ENDST (ft)	Number of Crit Dpth Trials IDC
Flow Travel Time TIME (hrs)	Left Overbank Velocity VLOB (ft/s)	Channel Mean Velocity VCH (ft/s)	Right Overbank Velocity VROB (ft/s)	Length Weighted Manning n WTN	Cummul. Surface Area TWA (acres)	Minimum C. S. Elevation ELMIN (ft MSL)	Number of Other Trials ICONT
15.842	.073	.060	.080	5.30	1753.90	.00	.00
.017539	0	0	0	1754.36	.46	.00	.00
.00	234	133	16	.00	1753.10	1751.40	0
1745	776	912	55	268.5	10567.02	10859.75	0
.00	3.32	6.84	3.32	.000	.0	1748.60	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	15.842
Total Discharge (cfs, Q)	1745
Computed Water Surface Elevation (ft MSL, CWSEL)	1753.90

Station (ft) =	10567.0	10626.4	10639.0	10663.4	10672.7	10756.4
Flow (%) =	9.1	4.7	5.4	5.7	3.2	
Area (sq ft) =	62.3	22.3	30.7	22.4	28.8	
Vel (ft/s) =	2.54	3.64	3.06	4.40	1.93	
Depth (ft) =	1.05	1.77	1.26	2.41	.34	

Station (ft) =	10756.4	10778.2	10784.5	10790.4	10803.9	10847.3
Flow (%) =	4.7	4.7	4.2	2.9	52.3	
Area (sq ft) =	25.1	14.5	13.3	14.6	133.5	
Vel (ft/s) =	3.27	5.65	5.54	3.51	6.84	
Depth (ft) =	1.15	2.30	2.25	1.08	3.08	

Station (ft) =	10847.3	10859.8
Flow (%) =	3.2	
Area (sq ft) =	16.8	
Vel (ft/s) =	3.32	
Depth (ft) =	1.35	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.890.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 1.46

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	10430.50
Right Encroachment Station (ft, STENCR)	11009.30
Encroachment Method (TYPE)	1
Width or Percent Target	578.800

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.890	.080	.080	.064	5.58	1757.58	.00	.00
.008231	270	290	290	1757.81	.23	3.31	.14
2.87	8	102	384	.00	1756.80	1756.80	3
1745	7	179	1557	364.2	10634.44	10998.64	0
.02	.90	1.76	4.05	.000	2.1	1752.00	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 15.890
Total Discharge (cfs, Q) 1745
Computed Water Surface Elevation (ft MSL, CWSEL) 1757.58

Station (ft) =	10634.4	10656.1	10751.9	10823.6	10849.2	10892.6
Flow (%) =	.4	10.3	4.1	4.2	3.1	
Area (sq ft) =	8.5	102.3	46.5	35.0	35.9	
Vel (ft/s) =	.90	1.76	1.53	2.10	1.49	
Depth (ft) =	.39	1.07	.65	1.37	.83	

Station (ft) =	10892.6	10931.6	10949.2	10959.4	10969.1	10979.9
Flow (%) =	3.4	5.1	4.6	11.4	23.3	
Area (sq ft) =	36.0	30.6	21.8	37.2	58.7	
Vel (ft/s) =	1.64	2.90	3.72	5.35	6.94	
Depth (ft) =	.92	1.74	2.13	3.83	5.43	

Station (ft) =	10979.9	10989.8	10995.4	10998.6
Flow (%) =	22.1	7.3	.6	
Area (sq ft) =	54.8	23.4	4.7	
Vel (ft/s) =	7.03	5.47	2.36	
Depth (ft) =	5.53	4.18	1.44	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.898.

STATUS: (3235) The computed slope of the energy grade line exceeded .10, and critical depth has probably been crossed.

WARNING: (7185) Critical depth has been crossed, therefore critical depth has been assumed for the current cross-section.

WARNING: (3720) Critical depth has been assumed.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	10468.70
Right Encroachment Station (ft, STENCR)	10791.80
Encroachment Method (TYPE)	1
Width or Percent Target	323.100

Q=600 CFS - MIDDLE CHANNEL

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.898	.080	.080	.000	5.68	1759.98	1759.98	.00
.102729	150	180	200	1760.38	.40	2.31	.14
4.22	16	101	0	.00	1758.40	1760.00	2
600	82	517	0	149.4	10620.98	10770.35	5
.03	5.08	5.09	.00	.000	3.2	1754.30	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	15.898
Total Discharge (cfs, Q)	600
Computed Water Surface Elevation (ft MSL, CWSEL)	1759.98

Station (ft) =	10621.0	10641.6	10772.0
Flow (%) =	13.8	86.2	
Area (sq ft) =	16.3	101.7	
Vel (ft/s) =	5.08	5.09	
Depth (ft) =	.79	.79	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.932.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 4.07

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	10455.80
Right Encroachment Station (ft, STENCR)	10739.80
Encroachment Method (TYPE)	1
Width or Percent Target	284.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.932	.080	.080	.080	3.80	1763.50	.00	.00
.006202	165	190	210	1763.58	.08	3.01	.19
5.05	11	243	12	.00	1762.00	1762.00	6
600	13	571	14	151.3	10565.08	10716.41	0
.05	1.20	2.34	1.20	.000	3.8	1759.70	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	15.932
Total Discharge (cfs, Q)	600
Computed Water Surface Elevation (ft MSL, CWSEL)	1763.50

Station (ft) =	10565.1	10580.0	10700.0	10716.4
Flow (%) =	2.2	95.3	2.4	
Area (sq ft) =	11.1	244.0	12.2	
Vel (ft/s) =	1.20	2.34	1.20	
Depth (ft) =	.75	2.03	.75	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 16.021.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) .46

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	10159.10
Right Encroachment Station (ft, STENCR)	10378.70
Encroachment Method (TYPE)	1
Width or Percent Target	219.601

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
16.021	.080	.080	.080	4.62	1769.62	.00	.00
.028951	530	530	525	1769.81	.19	6.14	.08
7.75	22	147	4	.00	1768.30	1768.90	7
600	68	524	7	167.8	10170.22	10338.06	0
.10	2.99	3.54	1.60	.000	5.7	1765.00	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 16.021
Total Discharge (cfs, Q) 600
Computed Water Surface Elevation (ft MSL, CWSEL) 1769.62

Station (ft) =	10170.2	10192.1	10200.8	10324.8	10338.1
Flow (%) =	5.0	6.4	87.4	1.3	
Area (sq ft) =	12.1	10.6	147.9	4.8	
Vel (ft/s) =	2.45	3.61	3.54	1.60	
Depth (ft) =	.55	1.22	1.19	.36	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 16.112.

STATUS: (3265) Divided flow.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 5.39

16.112	.080	.060	.080	5.41	1774.51	.00	.00
.009726	420	405	390	1774.72	.21	4.89	.02
11.60	222	205	226	.00	1774.00	1774.00	10
1875	422	962	489	510.3	9675.07	10236.92	0
.13	1.90	4.69	2.17	.000	8.9	1769.10	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 16.112
Total Discharge (cfs, Q) 1875
Computed Water Surface Elevation (ft MSL, CWSEL) 1774.51

Station (ft) =		9675.1	9804.1	9916.9	9941.3	9969.8	10045.6
Flow (%)	=	3.4	11.5	4.8	2.8	51.4	
Area (sq ft)	=	42.6	115.6	36.2	28.0	205.1	
Vel (ft/s)	=	1.50	1.86	2.48	1.90	4.69	
Depth (ft)	=	.33	1.02	1.48	.98	2.71	

Station (ft) =		10045.6	10088.5	10109.1	10184.8	10224.8	10236.9
Flow (%)	=	5.7	6.2	10.1	3.8	.3	
Area (sq ft)	=	49.9	40.3	91.4	39.5	4.9	
Vel (ft/s)	=	2.15	2.87	2.08	1.82	1.01	
Depth (ft)	=	1.16	1.96	1.21	.99	.40	

T1 P&D No. 10320.00; FCD No. 90-24
T2 TRILBY WASH; GRAND AVENUE TO C.A.P.
T3 MIDDLE CHANNEL; ENCROACHED

JOB PARAMETERS :

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0	3	0	0	0.000000	0	0.0	0.0	1754.39	

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15

STATUS: Analyzing profile 2.

Contraction Coefficient (CCHV) .600

Expansion Coefficient (CEHV) .800

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.842.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	10566.00
Right Encroachment Station (ft, STENCR)	10860.00
Encroachment Method (TYPE)	1
Width or Percent Target	294.000

Q=1745 CFS

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.842	.074	.060	.080	5.79	1754.39	.00	1753.90
.009161	0	0	0	1754.66	.27	.00	.00
.00	349	154	23	.00	1753.10	1751.40	0
1870	962	843	63	294.0	10566.00	10860.00	0
.00	2.75	5.45	2.77	.000	.0	1748.60	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 15.842
Total Discharge (cfs, Q) 1870
Computed Water Surface Elevation (ft MSL, CWSEL) 1754.39

Station (ft) =	10566.0	10626.4	10639.0	10656.7	10666.9	10672.7
Flow (%) =	11.5	4.7	3.3	5.0	3.0	
Area (sq ft) =	91.9	28.5	26.3	27.2	16.2	
Vel (ft/s) =	2.34	3.08	2.33	3.42	3.49	
Depth (ft) =	1.52	2.26	1.49	2.66	2.79	

Station (ft) =	10672.7	10733.7	10766.1	10778.2	10784.5	10790.4
Flow (%) =	3.5	4.7	3.8	4.4	4.0	
Area (sq ft) =	41.9	41.6	20.8	17.6	16.2	
Vel (ft/s) =	1.56	2.13	3.40	4.64	4.57	
Depth (ft) =	.69	1.29	1.72	2.79	2.74	

Station (ft) =	10790.4	10803.9	10847.3	10860.0
Flow (%) =	3.7	45.1	3.4	
Area (sq ft) =	21.2	154.7	23.1	
Vel (ft/s) =	3.23	5.45	2.77	
Depth (ft) =	1.57	3.57	1.82	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.890.

STATUS: (3265) Divided flow.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	10631.00
Right Encroachment Station (ft, STENCR)	11000.00
Encroachment Method (TYPE)	1
Width or Percent Target	369.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.890	.080	.080	.063	5.40	1757.40	.00	1757.58
.012481	270	290	290	1757.76	.36	3.03	.07
3.10	4	84	338	.00	1756.80	1756.80	3
1870	4	160	1704	358.3	10639.58	10998.43	0
.02	.93	1.90	5.03	.000	2.1	1752.00	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	15.890
Total Discharge (cfs, Q)	1870
Computed Water Surface Elevation (ft MSL, CWSEL)	1757.40

Station (ft) =	10639.6	10656.1	10751.9	10823.6	10849.2	10919.6
Flow (%) =	.2	8.6	3.1	3.8	3.6	
Area (sq ft) =	4.9	84.4	33.2	30.3	44.0	
Vel (ft/s) =	.93	1.90	1.77	2.36	1.52	
Depth (ft) =	.30	.88	.46	1.18	.62	

Station (ft) =	10919.6	10940.0	10949.2	10959.4	10969.1	10979.9
Flow (%) =	3.2	3.1	4.6	12.1	25.3	
Area (sq ft) =	24.7	15.2	19.9	35.4	56.7	
Vel (ft/s) =	2.39	3.86	4.31	6.37	8.35	
Depth (ft) =	1.21	1.65	1.95	3.65	5.25	

Station (ft) =	10979.9	10989.8	10995.4	10998.4
Flow (%) =	24.0	7.8	.6	
Area (sq ft) =	52.9	22.4	4.1	
Vel (ft/s) =	8.46	6.53	2.78	
Depth (ft) =	5.35	4.00	1.35	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.898.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) .23

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	10621.00
Right Encroachment Station (ft, STENCR)	10773.00
Encroachment Method (TYPE)	1
Width or Percent Target	152.000

Q=600 CFS - MIDDLE CHANNEL

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.898	.080	.080	.080	6.11	1760.41	.00	1759.98
.024493	150	180	200	1760.58	.17	2.70	.12
4.43	25	157	0	.00	1758.40	1760.00	4
600	81	517	0	152.0	10621.00	10773.00	0
.03	3.26	3.29	1.24	.000	3.2	1754.30	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	15.898
Total Discharge (cfs, Q)	600
Computed Water Surface Elevation (ft MSL, CWSEL)	1760.41

Station (ft) =	10621.0	10641.6	10772.0	10773.0
Flow (%) =	13.6	86.3	.1	
Area (sq ft) =	25.1	157.2	.4	
Vel (ft/s) =	3.26	3.29	1.24	
Depth (ft) =	1.22	1.21	.38	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 15.932.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 1.59

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	10565.00
Right Encroachment Station (ft, STENCR)	10716.00
Encroachment Method (TYPE)	1
Width or Percent Target	151.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
15.932	.080	.080	.080	3.55	1763.25	.00	1763.50
.009693	165	190	210	1763.36	.11	2.75	.04
5.32	7	214	8	.00	1762.00	1762.00	4
600	10	578	11	146.2	10567.52	10713.73	0
.05	1.33	2.69	1.33	.000	3.9	1759.70	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO)	15.932
Total Discharge (cfs, Q)	600
Computed Water Surface Elevation (ft MSL, CWSEL)	1763.25

Station (ft) =	10567.5	10580.0	10700.0	10713.7
Flow (%) =	1.7	96.4	1.9	
Area (sq ft) =	7.8	214.8	8.6	
Vel (ft/s) =	1.33	2.69	1.33	
Depth (ft) =	.62	1.79	.62	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 16.021.

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL)	10170.00
Right Encroachment Station (ft, STENCR)	10338.00
Encroachment Method (TYPE)	1
Width or Percent Target	168.000

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
---	---	---	---	---	---	---	---
16.021	.080	.080	.080	4.83	1769.83	.00	1769.62
.016461	530	530	525	1769.96	.13	6.58	.02
8.00	29	173	7	.00	1768.30	1768.90	6
600	73	514	12	168.0	10170.00	10338.00	0
.10	2.51	2.97	1.62	.000	5.8	1765.00	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 16.021
Total Discharge (cfs, Q) 600
Computed Water Surface Elevation (ft MSL, CWSEL) 1769.83

Station (ft) =	10170.0	10192.1	10200.8	10324.8	10338.0
Flow (%) =	5.9	6.3	85.8	2.0	
Area (sq ft) =	16.7	12.4	173.3	7.5	
Vel (ft/s) =	2.13	3.02	2.97	1.62	
Depth (ft) =	.75	1.43	1.40	.57	

STATUS: (1490) NH card used.

STATUS: Analyzing cross-section reach 16.112.

STATUS: (3280) For cross-section 16.11, ends have been extended vertically 1.56 feet in order to calculate the hydraulic cross-section properties.

WARNING: (3302) Conveyance change is outside of acceptable range.

Upstream to Downstream Conveyance Ratio (KRATIO) 3.63

STATUS: (3470) Encroachment computation information follows:

Left Encroachment Station (ft, STENCL) 9917.00
Right Encroachment Station (ft, STENCR) 10236.00
Encroachment Method (TYPE) 1
Width or Percent Target 319.000

Q=1875 CFS

SECNO	XNL	XNCH	XNR	DEPTH	CWSEL	CRIWS	WSELK
SLOPE	XLOBL	XLCH	XLOBR	EG	HV	HL	OLOSS
VOL	ALOB	ACH	AROB	CORAR	LTBNK	RTBNK	ITRIAL
Q	QLOB	QCH	QROB	TOPWD	SSTA	ENDST	IDC
TIME	VLOB	VCH	VROB	WTN	TWA	ELMIN	ICONT
16.112	.080	.060	.080	5.46	1774.56	.00	1774.51
.010634	420	405	390	1774.83	.26	4.76	.11
11.34	67	209	236	.00	1774.00	1774.00	6
1750	159	1041	549	319.0	9917.00	10236.00	0
.13	2.37	4.97	2.33	.000	8.0	1769.10	0

FLOW DISTRIBUTION :

Cross-Section Number (SECNO) 16.112
Total Discharge (cfs, Q) 1750
Computed Water Surface Elevation (ft MSL, CWSEL) 1774.56

Station (ft) =	9917.0	9941.3	9969.8	10045.6	10088.5	10109.1
Flow (%) =	5.6	3.5	59.5	6.9	7.2	
Area (sq ft) =	37.5	29.6	209.3	52.2	41.5	
Vel (ft/s) =	2.63	2.05	4.97	2.31	3.05	
Depth (ft) =	1.54	1.04	2.76	1.22	2.01	

Station (ft) =	10109.1	10184.8	10212.5	10236.0
Flow (%) =	12.2	3.1	2.0	
Area (sq ft) =	95.6	28.0	19.1	
Vel (ft/s) =	2.24	1.93	1.80	
Depth (ft) =	1.26	1.01	.81	

SPECIAL NOTE :

An asterisk (*) to the left of the cross-section number indicates a special note is present in the SUMMARY OF WARNING AND STATUS MESSAGES section.

SUMMARY PRINTOUT TABLE 110 : TRILBY WASH; GRAND AVENUE TO C.A.P.
MIDDLE CHANNEL; ENCROACHED
P&D No. 10320.00; FCD No. 90-24

	Cross-Section Number SECNO	Computed W. S. Elevation (ft MSL) CWSEL	W.S. Elev Diff per Know/Comp (ft) DIFKWS	Energy Gradient Elevation (ft MSL) EG	Water Surface Top Width (ft) TOPWID	Left Overbank Flow (cfs) QLOB	Channel Flow (cfs) QCH	Right Overbank Flow (cfs) QROB	Encroach. Target Requested PERENC	Left Encroach. Station (ft) STENCL	Left Bank Station (ft) STCHL	Right Bank Station (ft) STCHR
	15.842	1753.90	.00	1754.36	268.48	776.65	912.49	55.86	-10432.20	10432.20	10803.90	10847.30
	15.842	1754.39	.49	1754.66	294.00	962.38	843.74	63.88	294.00	10566.00	10803.90	10847.30
*	15.890	1757.58	.00	1757.81	364.21	7.65	179.63	1557.72	578.80	10430.50	10656.10	10751.90
	15.890	1757.40	-.18	1757.76	358.25	4.57	160.77	1704.66	369.00	10631.00	10656.10	10751.90
*	15.898	1759.98	.00	1760.38	149.37	82.70	517.30	.00	323.10	10468.70	10641.60	10772.00
*	15.898	1760.41	.43	1760.58	152.00	81.76	517.77	.47	152.00	10621.00	10641.60	10772.00
*	15.932	1763.50	.00	1763.58	151.32	13.34	571.98	14.68	284.00	10455.80	10580.00	10700.00
*	15.932	1763.25	-.25	1763.36	146.21	10.37	578.21	11.41	151.00	10565.00	10580.00	10700.00
*	16.021	1769.62	.00	1769.81	167.84	68.21	524.10	7.68	219.60	10159.10	10200.80	10324.80
	16.021	1769.83	.20	1769.96	168.00	73.13	514.75	12.12	168.00	10170.00	10200.80	10324.80
*	16.112	1774.51	.00	1774.72	510.30	422.23	962.96	489.81	10258.60	.00	9969.80	10045.60
*	16.112	1774.56	.05	1774.83	319.00	159.28	1041.03	549.69	319.00	9917.00	9969.80	10045.60

SUMMARY OF WARNING AND STATUS MESSAGES :

Section 15.89, profile 1, conveyance change outside acceptable range.

Section 15.898, profile 1, critical depth assumed.

Section 15.898, profile 1, slope too steep.

Section 15.898, profile 1, minimum specific energy.

Section 15.898, profile 2, conveyance change outside acceptable range.

Section 15.932, profile 1, conveyance change outside acceptable range.

Section 15.932, profile 2, conveyance change outside acceptable range.

Section 16.021, profile 1, conveyance change outside acceptable range.

Section 16.112, profile 1, conveyance change outside acceptable range.

Section 16.112, profile 2, conveyance change outside acceptable range.

10 Warning and status message(s) generated

SUMMARY PRINTOUT TABLE 200 : TRILBY WASH; GRAND AVENUE TO C.A.P.
---------- MIDDLE CHANNEL; ENCROACHED
P&D No. 10320.00; FCD No. 90-24

Profile Number 2

Cross-Section Number	Floodway Width (ft)	Floodway Section Area (sq ft)	Floodway Mean Velocity (ft/s)	W. S. Elevation with Floodway (ft MSL)	W. S. Elevation without Floodway (ft MSL)	W. S. Elevation Diffrence (ft)
15.842	294.	527.	3.5	1754.4	1753.9	.5
15.890	359.	428.	4.4	1757.4	1757.6	-.2
15.898	152.	183.	3.3	1760.4	1760.0	.4
15.932	146.	231.	2.6	1763.3	1763.5	-.2
16.021	168.	210.	2.9	1769.8	1769.6	.2
16.112	319.	513.	3.4	1774.6	1774.5	.1

END OF OUTPUT

4.8 FINAL MODELING

SECTION 5: EROSION/SEDIMENT TRANSPORT

SECTION 6: REFERENCE MATERIALS

6.1 OTHER PUBLISHED FLOOD STUDIES

1) **National Flood Insurance Program; 4/15/88; Flood Insurance Rate Maps (FIRM), all or portions of the following: Map Numbers 04013C690 D and 04013C0695 D; corresponding to Panel Numbers 690 and 695 or 4350, respectively; Maricopa County, Arizona and Incorporated Areas: Federal Emergency Management Agency (FEMA).**

2) **National Flood Insurance Program; 9/4/91; Flood Insurance Rate Maps (FIRM), all or portions of the following: Map Numbers 04013C0679 E, 04013C0687 E, and 04013C1110 E; corresponding to Panel Numbers 679, 687 and 1110 or 4350, respectively; Maricopa County, Arizona and Incorporated Areas: Federal Emergency Management Agency (FEMA).**

6.2 PREVIOUS FEMA STUDIES

1) Harris-Toups, Associates; 1/79; Flood Insurance Study Approximate Study Unincorporated Area of Maricopa County, Arizona: Prepared for the U.S. Department of Housing and Urban Development, Federal Insurance Administration; unpublished.

2) National Flood Insurance Program; 4/15/88; Flood Insurance Rate Maps (FIRM), all or portions of the following: Map Numbers 04013C690 D and 04013C0695 D; corresponding to Panel Numbers 690 and 695 or 4350, respectively; Maricopa County, Arizona and Incorporated Areas: Federal Emergency Management Agency (FEMA).

3) National Flood Insurance Program; 9/4/91; Flood Insurance Rate Maps (FIRM), all or portions of the following: Map Numbers 04013C0679 E, 04013C0687 E, and 04013C1110 E; corresponding to Panel Numbers 679, 687 and 1110 or 4350, respectively; Maricopa County, Arizona and Incorporated Areas: Federal Emergency Management Agency (FEMA).

4) The WLB Group, Inc.; 4/21/88; 50- and 100- Year EHC-1 Computer Models for the Wittmann Area Drainage Master Study (ADMS): Prepared for The Flood Control District of Maricopa County; Phoenix, AZ; unpublished

5) The WLB Group, Inc.; 3/89; Wittmann Area Drainage Master Study Part A: Hydrology and Hydraulics: Prepared for The Flood Control District of Maricopa County: Phoenix, AZ; unpublished.

6) The WLB Group, Inc.; 3/89; Wittmann Area Drainage Master Study Part B: Stormwater Management Plans: Prepared for The Flood Control District of Maricopa County; Phoenix, AZ; unpublished.

7) The WLB Group, Inc.; 3/89; Addendum to the Wittmann ADMS, Effects of Floodplain Encroachment and Channelization on Stormwater Runoff: Prepared for The Flood Control District of Maricopa County; Phoenix, AZ; unpublished.

8) U.S. Army, Corps of Engineers, Los Angeles District; 11/53; Design Memorandum No. 1 Hydrology and Hydraulic Design for Trilby Wash Detention Basin and Outlet Channel: Department of the Army; Los Angeles, CA; unpublished.

9) U.S. Army, Corps of Engineers, Los Angeles District; 1/73; Trilby Wash Detention Basin Lower Agua Fria River, Maricopa County, Arizona: Department of the Army; Los Angeles, CA; unpublished.

SECTION 7: CROSS-REFERENCED AND LABELING INFORMATION

7.1 OTHER STUDIES IMPACTED

This study matches the flood plain and floodway map for Wittmann ADMS (Area between McMicken Dam and C.A.P.) prepared by WLB Groups, Inc. at down stream end (down stream of cross-section 10.445) of this project (Map No. 04013C1110E dated Sept. 4, 1991).

This study also matches the flood plain and floodway map for Wittmann ADMS (Circle City area) prepared by WLB Groups, Inc. at upstream end (upstream of cross-section 17.262) of this project (Map No. 04013C679E & 04013C687E dated Sept. 4, 1991).

The comparison of these two study at upstream end are shown below.

TABLE: COMPARISON OF WLB'S & P&D'S STUDY

CROSS SECTION	FLOOD PLAIN				FLOODWAY			
	WIDTH		W.S. ELEV.		WIDTH		W.S. ELEV.	
	WLB'S	P&D'S	WLB'S	P&D'S	WLB'S	P&D'S	WLB'S	P&D'S
17.262	475.1	160.5	1844.83	1842.73	75	88	1844.83	1842.96
17.319	487.5	452.1	1846.89	1846.36	89	95	1847.75	1846.87
17.364	312.6	283.2	1849.98	1849.25	95	96	1849.54	1849.26
17.425	275.6	306.1	1853.41	1853.14	121	122	1854.16	1853.58
17.476	140.2	147.2	1855.03	1855.02	142	147	1855.39	1855.34

We believe P&D's study is more accurate due to the following reasons:

- P&D's study is based on 1" = 200' scale and 2' contour interval compared to WLB's study being based on 1" = 400' scale and 4' contour interval.

- P&D's cross-sections are digitized compared to WLB's cross-sections which are entered manually.

- **WLB's study starts at cross-section 17.262. They have used assumed starting water surface elevation at that cross-section. P&D's water surface elevation are calculated with HEC-2 program from down stream end.**

It should be noted that there is significant difference in water surface elevations between these two studies at cross-section 17.262 (WLB's beginning cross-section) but at the end of our study at cross-section 17.476, the water surface elevations are fairly close to that of WLB's study.

7.2 KEY TO CROSS-SECTION LABELING

KEY TO CROSS-SECTION (XS) LABELING

Prepared by:
SC: _____
TEC: _____

Community Name MARICOPA COUNTY
State ARIZONA

Date prepared:
SC: FEB 92
TEC: _____

Stream Name TRILBY WASH
Run Date

Field Survey Section No.	XS Letter Draft FIS	Computer Stationing	EPA Reach File No. (If Available)	XS Letter Final FIS
1	A	10.445		
1.5	B	10.45		
2	C	10.468		
3	D	10.473		
4	E	10.474		
5	F	10.479		
6	G	10.528		
7	H	10.592		
8	I	10.683		
9	J	10.761		
10	K	10.815		
11	L	10.876		
12	M	10.945		
13	N	11.006		
14	O	11.062		
15	P	11.118		
16	Q	11.190		

KEY TO CROSS-SECTION (XS) LABELING

Prepared by:
SC: RIP
TEC:

Community Name MARICOPA COUNTY
State ARIZONA

Date prepared:
SC:
TEC:

Stream Name TRILBY WASH
Run Date

Field Survey Section No.	XS Letter Draft FIS	Computer Stationing	EPA Reach File No. (If Available)	XS Letter Final FIS
17	R	11.259		
18	S	11.351		
19	T	11.426		
20	U	11.515		
21	V	11.554		
22	W	11.626		
23	X	11.688		
25	Y	11.722		
27	Z	11.734		
29	AA	11.811		
30	AB	11.876		
31	AC	11.960		
32	AD	12.041		
33	AE	12.128		
34	AF	12.174		
35	AG	12.249		
36	AH	12.325		

KEY TO CROSS-SECTION (XS) LABELING

Prepared by:
SC: _____
TEC: _____

Community Name MARICOPA COUNTY
State ARIZONA

Date prepared:
SC: _____
TEC: _____

Stream Name
Run Date TRILBY WASH

Field Survey Section No.	XS Letter Draft FIS	Computer Stationing	EPA Reach File No. (If Available)	XS Letter Final FIS
37	AI	12.395		
38	AJ	12.484		
39	AK	12.568		
40	AL	12.650		
41	AM	12.734		
42	AN	12.822		
43	AO	12.909		
44	AP	13.00		
45	AQ	13.079		
46	AR	13.141		
47	AS	13.223		
48	AT	13.286		
49	AU	13.354		
50	AV	13.435		
51	AW	13.519		
52	AX	13.603		
53	AY	13.691		

KEY TO CROSS-SECTION (XS) LABELING

Prepared by:
SC: _____
TEC: _____

Community Name MARICOPA COUNTY
State ARIZONA

Date prepared:
SC: _____
TEC: _____

Stream Name
Run Date TRILBY WASH

Field Survey Section No.	XS Letter Draft FIS	Computer Stationing	EPA Reach File No. (If Available)	XS Letter Final FIS
54	AZ	13.761		
55	BA	13.841		
56	BB	13.912		
57	BC	13.987		
58	BD	14.076		
59	BE	14.126		
60	BF	14.197		
62	BG	14.31		
63	BH	14.396		
64	BI	14.481		
65	BJ	15.569		
66	BK	14.656		
67	BL	14.711		
68	BM	14.754		
69	BN	14.845		
70	BO	14.937		
71	BP	14.976		

KEY TO CROSS-SECTION (XS) LABELING

Prepared by:
SC: _____
TEC: _____

Community Name MARICOPA COUNTY
State ARIZONA

Date prepared:
SC: _____
TEC: _____

Stream Name
Run Date TRILBY WASH

Field Survey Section No.	XS Letter Draft FIS	Computer Stationing	EPA Reach File No. (If Available)	XS Letter Final FIS
72	BQ	15.044		
73	BR	15.118		
74	BS	15.208		
75	BT	15.298		
76	BU	15.379		
77	BV	15.443		
78	BW	15.50		
79	BX	15.581		
80	BY	15.637		
81	BZ	15.683		
82	CA	15.749		
83	CB	15.842		
84	CC	15.890		
85	CD	15.898		
86	CE	15.932		
87	CF	16.021		
88	CG	16.112		

KEY TO CROSS-SECTION (XS) LABELING

Prepared by:
SC: _____
TEC: _____

Community Name MARICOPA COUNTY
State ARIZONA

Date prepared:
SC: _____
TEC: _____

Stream Name
Run Date TRILBY WASH

Field Survey Section No.	XS Letter Draft FIS	Computer Stationing	EPA Reach File No. (If Available)	XS Letter Final FIS
89	CH	16.164		
92	CI	16.254		
93	CJ	16.345		
94	CK	16.421		
95	CL	16.481		
96	CM	16.551		
97	CN	16.628		
98	CO	16.714		
99	CP	16.788		
100	CQ	16.861		
101	CR	16.936		
102	CS	17.011		
103	CT	17.046		
104	CU	17.135		
105	CV	17.200		
106	CW	17.262		
107	CX	17.319		

KEY TO CROSS-SECTION (XS) LABELING

Prepared by:
SC: _____
TEC: _____

Community Name MARICOPA COUNTY
State ARIZONA

Date prepared:
SC: _____
TEC: _____

Stream Name
Run Date TRILBY WASH

Field Survey Section No.	XS Letter Draft FIS	Computer Stationing	EPA Reach File No. (If Available)	XS Letter Final FIS
108	CY	17.364		
109	CZ	17.425		
110	DA	17.476		

SECTION 8: DRAFT FIS REPORT-REVISED TEXT

FLOOD INSURANCE STUDY
FOR
TRILBY WASH

FROM THE CAP AQUEDUCT TO GRAND AVENUE NEAR CIRCLE CITY
MARICOPA COUNTY, ARIZONA

SUBMITTED TO:

FLOOD CONTROL DISTRICT
OF MARICOPA COUNTY
2801 WEST DURANGO STREET
PHOENIX, ARIZONA 85009

CONTRACT FCD 90-24
P&D TECHNOLOGIES PROJECT NO. 10320.00

Registered Professional Engineer (Civil)
CERTIFICATE NO.
10290
RAMESH I.
PATEL
Date Signed 2/12/92
ARIZONA, U.S.A.

PREPARED BY:

P&D TECHNOLOGIES
1702 EAST HIGHLAND AVENUE
SUITE 200
PHOENIX, ARIZONA 85016
(602) 264-3335

FEBRUARY 6, 1992

Community Number 040037

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EXHIBITS

Exhibit 1 -	Flood Profiles
Exhibit 2 -	Flood Insurance Rate Maps
Exhibit 3 -	Elevation Reference Marks
Exhibit 4 -	Drainage Map

Registered Professional Engineer (Civil)
CERTIFICATE NO.
10290
RAMESH I.
PATEL
Date Signed 2/12/92
ARIZONA, U.S.A.

APPENDICES

(Bound Separately - 2 Books)

Appendix A:	A Hydrologic Analysis of Trilby Wash Watershed	Book 1 of 2
Appendix B:	HEC-2 Output Trilby Wash Main Channel	Book 1 of 2
Appendix C:	HEC-2 Output West Channel at Split - Trilby Wash	Book 2 of 2
Appendix D:	HEC-2 Output Middle Channel at Split - Trilby Wash	Book 2 of 2
Appendix E:	Manning's 'N' Value Determination Report	Book 2 of 2
Appendix F:	Summary of Existing Data	Book 2 of 2

FLOOD INSURANCE STUDY

FOR

TRILBY WASH

FROM CAP AQUEDUCT TO GRAND AVENUE NEAR CIRCLE CITY

MARICOPA COUNTY, ARIZONA

This is to certify that all work accomplished in the conduct of this study was done in accordance with the Statement of Work and General Provision of Contract FCD 90-24, and all amendments thereto, together with all such modifications, either written or oral, as the Project Officers and/or the Contracting Officer or their representatives have directed, as such modifications affect this contract, and that all such work has been accomplished in accordance with sound and accepted engineering practice with the contract provision or respective phases of the work.

Signed: Ramesh I. Patel.

Ramesh I. Patel, P.E. L.S.
Project Manager
P&D Technologies

Signed: _____

Fred E. Fleet, P.E.
Associate Vice President
P&D Technologies

FLOOD INSURANCE STUDY
FOR
TRILBY WASH
From the Central Arizona Project Aqueduct to Grand Avenue near Circle City
MARICOPA COUNTY, ARIZONA

1.0 INTRODUCTION

1.1 Purpose of Study

This Floodplain Delineation Study investigates the existence and severity of flood hazards for Trilby Wash from Central Arizona Project Aqueduct to Grand Avenue, Near Circle City, Maricopa County, Arizona, and aids in the administration of the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. This study has developed flood risk data for study area that will be used to establish actuarial flood insurance rates and assist the Maricopa County Flood Control District and local officials in their efforts to promote sound floodplain management. Minimum floodplain management requirements for participation in the National Flood Insurance Program (NFIP) are set forth in Federal Regulations at 44 CFR, 60.3. In some states or communities, floodplain management criteria or regulations may exist that are more restrictive or comprehensive than the minimum Federal requirements; in such cases, the more restrictive criteria take precedence, and the state (or other jurisdictional agency) will be able to explain them.

1.2 Authority and Acknowledgements

The sources of authority for this Flood Insurance Study are the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973.

The hydraulic analysis for this study was prepared by P&D Technologies, the study contractor, for the Flood Control District of Maricopa County (FCD of MC), under Contract No. 90-24. The Coordination Officer at the Flood Control District is Besian Khatiblou, P.E. The Project Manager representing P&D Technologies is Ramesh I. Patel, P.E. This study was completed in February, 1992.

The hydrology data used in this study was supplied to P&D Technologies by the Flood Control District of Maricopa County. The hydrology information was taken, in part, from the Wittmann Area Drainage Master Study (ADMS) dated March, 1989. The Wittmann ADMS has been approved by FEMA and will become effective September 4, 1991.

1.3 Coordination

On June 5, 1990, an initial Consultation and Coordination Officer (CCO) meeting was held with representatives of the FCD of MC and the study contractor at the site. Coordination with the Flood Control District of Maricopa County produced a variety of information pertaining to floodplain regulations, available community maps, flood history and other data. This information is provided in report form, entitled: "Summary of Existing Data." A copy is included in Appendix 'F' of this report.

The following agencies were contacted for information and comments during the study:

- Arizona Department of Water Resources (ADWR);
- Arizona State Land Department (ASLD);
- Bureau of Land Management (BLM);
- Bureau of Reclamation (BOR);
- Central Arizona Water Conservation District (CAWCD);
- Cooper Aerial Mapping Company;
- Federal Emergency Management Agency (FEMA);
- Kenney Aerial Mapping Company;
- Luke Air Force Base, Engineering Division;
- Maricopa County Highway Department (MCHD);
- Soil Conservation Service (SCS);
- U.S. Army Corps of Engineers;
- U.S. Geological Survey (USGS); and finally,
- WLB Group (Private Consultant).

Vertical control data used to establish the network of elevation reference marks were provided by the WLB Group, Inc. and the Flood Control District of Maricopa County. P&D Technologies was also responsible for the field survey and aerial mapping.

The results of the study were submitted to the Flood Control District of Maricopa County for review on February 6, 1992. The study was acceptable to the county.

2.0 AREA STUDIED

2.1 Scope of Study

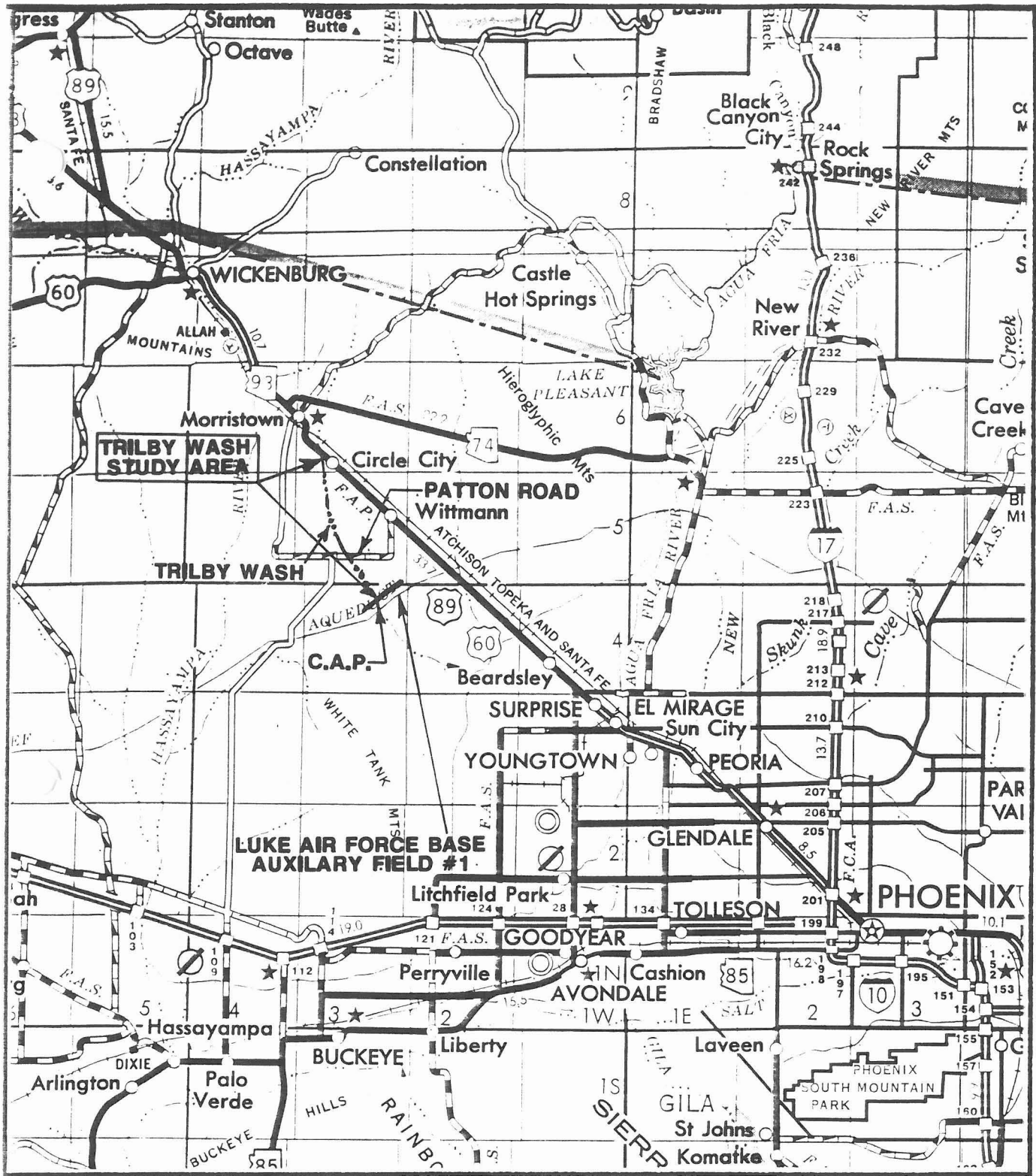
This Flood Insurance Study encompasses Trilby Wash in the unincorporated area of Maricopa County, Arizona. The project consists of topographic mapping and floodplain/floodway delineation for approximately 6.7 River Miles of Trilby Wash. The downstream study limits are the Central Arizona Project (CAP) Aqueduct, the upstream limits being Grand Avenue near Circle City. This project encompasses approximately 520 acres (0.81 sq. mile) area within the floodplain and approximate 230 acres (0.36 sq. miles) within the floodway. Riverine flooding of the Trilby Wash was studied by detailed methods for the entire reach. All of the reaches studied were delineated for the 100-year flood using detailed methods. There are a few prominent features in this study area, those of note are: Circle City, Patton Road and the CAP Aqueduct. Luke Air Force Base Auxiliary Field Number 1 is located to the southeast of this project boundary. The area of study is shown on the Vicinity Map as Figure 1.

P&D Technologies was responsible for the field survey as well as the establishment of ground control. All elevations are referenced to the National Geodetic Vertical Datum of 1929 (NGVD). Elevation reference marks used in this study are shown on the Flood Insurance Rate maps. A listing of the elevation reference marks (ERMS) for this study are included in Exhibit 3.

2.2 Study Area Description

The Trilby Wash is located in the central portion of Maricopa County in the Central Arizona Desert, approximately 30 miles northwest of Metropolitan Phoenix. It is situated approximately 2 miles west of the Wittmann. The watershed is characterized with broad slopes prone to sheet flow and with few small incised channels as tributaries. Trilby Wash carries flow southeasterly into the McMicken Dam Storage Basin. The slope of Trilby Wash is approximately 1% to the southeast. The flow line elevation ranges from 1543 at down stream to 1849 at upstream end. The only Community adjacent to the Trilby Wash is Circle City which consists of a small residential subdivision development. Circle City attracts predominantly a retired population due to its climate and peaceful setting. The city has an estimated population of less than 500 people. It is estimated that the population of the town will increase due to a proposed subdivision.

The climate of the study area is arid. The average annual precipitation is approximately 7.4 inches; with an average annual snowfall of 0 inches for this area (Harris-Toups, 1979). This area frequently experiences long periods of no rainfall. Rainfall normally occurs in two seasons. One season, primarily results from local convective storms, lasts from July to Mid-September, the other season mainly formed by cyclonic (frontal) storms extends from December through March.



TRLIBY WASH STUDY AREA
MARICOPA COUNTY ARIZONA

APPROXIMATE SCALE

10 0 10 20 30 40

SCALE 1"=500'

VICINITY MAP

FIGURE 1

The land within the watershed is virtually in its natural state. Natural vegetation is sparse with plant species being typical to desert areas. Cacti, along with other desert shrubs, grow throughout the watershed. Scattered trees, such as palo verde and mesquite, exist among the shrubs. The vegetation tends to be thicker along and adjacent to the stream courses.

Trilby Wash and its tributaries drain most of the unincorporated Circle City. The river has its headwaters in the Wickenburg Mountains to the north of Circle City. For more detailed hydrology information, the reader is urged to refer to the previous report entitled: "Wittmann Area Drainage Master Study", dated 3/89 (References 15 and 16).

2.3 Principal Flood Problems

Riverine flooding is the major hazard in this area. The flooding is characterized by: unconfined flow over broad, relatively low relief areas that have developed a system of branching channels; overbank flows that spread laterally, and flows collecting in depressions to form ponding areas.

Ponding is the result of runoff or flows collecting in a depression that may have no outlet. Impoundments behind manmade obstructions such as: levees, road fills, railroad grades, canal banks, and other similar structures are included in this type of flooding as long as they are not backwater from a defined channel, or do not exceed 3.0 feet in depth (FEMA 37).

Sheet runoff is the broad, relatively unconfined downslope movement of water across sloping terrain that results from many sources, including intense rainfall, overflow from a channel that crosses a drainage divide, and/or overflow from a perched channel onto lower elevations. Generally, it enters a channel or drainage system that intersects its flow, but occasionally it dissipates before reaching a channel (FEMA, 37).

The C.A.P. overchute and Patton Road Crossing are the two major man-made obstructions to the floodwater from the natural water courses.

The Patton Road Crossing has 8 - 68 inch corrugated metal pipe culverts under the roadway and will cause backwater effects to the area immediately north of the Patton Road Crossing during the 100 year event.

Some small areas of sheet flow and ponding were identified through examination of topographic maps, field survey and field reconnaissance. They occur predominantly in adjacent tributary areas as well as behind Patton Road and the CAP aqueduct.

There are several areas of lateral flooding which occurs in this reach of Trilby Wash. In these areas the flow is not contained in the banks and under current conditions physically leaves the watershed reach.

Flood damage has not been repeated in the study area because the study area is presently undeveloped.

2.4 Flood Protection Measures

Future demands associated with development will intensify the need for flood protection measures. No major structural flood protection measures exist or are planned for the study area. A small water stock pond is located on a tributary to the Trilby Wash approximately 2 miles upstream of the CAP. It should not be considered as a flood control structure because it provides no significant protection from flooding. The adoption of this study by Maricopa County will provide a tool to manage future development encroachments into the 100-year floodway and to assure that approved encroachments into the flood fringe wil be adequately protected from flood damage.

3.0 ENGINEERING METHODS

For the flooding source studied in detail in the study area, standard hydraulic study methods were used to determine the flood hazard data required for this study. The 100-year flood event is selected for the basis of this study. This event has a 1 percent chance of being equaled or exceeded during any one year. The analysis reported herein reflects flooding potentials based on existing conditions in the community at this time.

In the areas of lateral flooding where flow is not contained within the banks under natural conditions, Encroachment Method 1, which specifies the location of encroachment for a given cross-section, is used to calculate the flood profile under natural condition. This methodology allows for future development and result in the most conservative water surface elevation profile.

3.1 Hydrologic Analyses

Hydrologic analysis were conducted to establish the 100 year discharges at critical points along the main branch of Trilby Wash. The U.S. Army Corps of Engineers (COE) HEC-1 Computer Program was the basis of model. The peak discharge values were provided by the Flood Control District of Maricopa County and are based on the Wittmann Area Drainage Master Study (ADMS) (References 15 and 16). Peak discharge values for the Trilby Wash as shown in Table 1 were received from the Flood Control District of Maricopa County. Drainage Map Exhibit 4 located in the map pocket at the end of this report shows the location of the critical points. The detailed Hydrologic Analysis of Trilby Wash prepared by Flood Control District of Maricopa County's Hydrology Division (Dated Aug. 1991) is included in Appendix 'A' (bound separately) of this report.

TABLE 1
SUMMARY OF DISCHARGES
TRILBY WASH
(GRAND AVENUE TO CAP AQUEDUCT)

CONCENTRATION POINT	WITTMANN ADMS DISCHARGE-CFS	FCD DETAIL DISCHARGE-CFS
Sta. 17.262	2,785	2,785
63B2	* -----	2,995
63B3	* -----	3,020
63B	3,035	3,035
63C	3,322	3,322
C631	* -----	3,706
C632	* -----	3,756
C633	* -----	3,805
63	3,851	3,851
Sta. 10.444	3,845	3,845
Sta. 10.382	3,780	3,780

* Concentration Points of the Trilby Wash FIS Concerns.

3.2 Hydraulic Analyses

Using the hydrology information obtained from the FCD of MC, an analyses of the hydraulic characteristics of flooding were carried out. Computation of the water surface elevations were calculated only for the 100 year storm, per contract. Water-surface elevations were computed using the new version, 4.6.0 of the HEC-2 computer program dated February, 1991 (Reference 22).

The starting water-surface elevation for the HEC-2 Model was assumed at a critical depth. This is due to the fact that the starting cross section is located in the concrete CAP overchute structure. Channel and overbank roughness coefficients (Manning's "n" values) used in the hydraulic computations were chosen by engineering judgment and were based on field observations of the stream and floodplain areas. The channel "n" values for Trilby Wash ranged from 0.045 to 0.075, and the overbank "n" values

ranged from 0.065 to 0.10. The Manning's "n" values are discussed in a detailed in Manning's 'n' Value Determination Report. Manning's 'n' Value Determination Report is included in APPENDIX 'E' of this study.

Cross section data for the analyses were determined by obtaining digitized cross sections from topographic maps, at a scale of 1" = 200 feet and 2-foot contour intervals, prepared specifically for this project by Cooper Aerial Mapping of Phoenix, Inc. The Patton Road Culvert Crossing and C.A.P. overchute were surveyed to obtain elevation data and structural geometry. Copies of these two (2) "as-built" drawings are included as a part of Exhibit 2 and 3 of Appendix 'E' - Manning's 'n' Value Determination Report. Locations of selected cross-sections used in the hydraulic analysis are shown on the flood profiles (Exhibit 1) and on the Flood Insurance Rate Maps (Exhibit 2).

Contraction and expansion coefficient values of 0.1 and 0.3, respectively, were used for gradual transitions.

The hydraulic analysis for this study was based on unobstructed flow. The flood elevations shown are thus considered valid only if hydraulic structures remain unobstructed, operate properly, and do not fail.

Test run for Encroachment Method 4, which is based on equal conveyance reduction from each side of the floodplain, was run to begin encroachment. Final encroachment was done with the use of Encroachment Method 1. Encroachment was set such that the maximum increase in flood height was limited to 1 foot, provided that the severe flow velocity distributions; unwarranted water depths in the floodway fringe and undulating flow boundaries were not produced.

4.0 FLOODPLAIN MANAGEMENT APPLICATIONS

This Flood Insurance Study provides 100-year water surface elevations as well as delineations of the 100-year floodplain and floodway boundaries in order to assist communities and regulatory agencies in developing floodplain management regulations. The goal of floodplain management is to reduce the loss of life, property and damage resulting from flooding.

4.1 Floodplain Boundaries

The term floodplain is defined by FEMA "as the lowland and relatively flat area adjoining inland and coastal waters, and those other areas subject to flooding" (Reference 7). The purpose of this study and the resulting maps is to delineate topographic areas that are at risk of being flooded during the 100-year storm event, under existing conditions. For Trilby Wash, the 100-year Floodplain boundaries have been determined using the flood elevations determined at each cross section.

Between cross sections, the boundaries were interpolated with the topographic maps. The 100-year floodplain boundaries are shown on the Flood Insurance Rate Maps (Exhibit 2).

4.2 Floodways

The following excerpt is taken, in part, from FEMA 37, Reference 6:

Encroachment on floodplains, such as structures and fill, reduces flood-carrying capacity, increases flood heights and velocities. As a result, it also increases flood hazards in areas beyond the encroachment itself. One aspect of floodplain management involves balancing the economic gain from floodplain development against the resulting increase in flood hazard. Therefore, a floodway is used as a tool to assist local communities in this aspect of floodplain management. Under this concept, the area of the 100-year floodplain is divided into two parts: a floodway and floodway fringe. The floodway is the channel of a stream, plus any adjacent floodplain areas, that must be kept free of encroachment so that the 100-year flood can be carried without substantial increases in flood heights. Minimum federal standards limit such increases to 1.0 foot, provided that hazardous velocities are not produced.

The floodway delineation for this study was computed with the use of Encroachment Method 1 for the entire 6.7 River Mile Reach of Trilby Wash. Floodway widths were computed at cross sections; thus between cross sections, the floodway boundaries were interpolated. In cases where the floodway and 100-year floodplain boundaries are either very close together or collinear, only the floodway boundary is shown. The results of the floodway computations are tabulated in (Table 2).

The area between the floodway and 100-year floodplain boundaries is termed the floodway fringe. The floodway fringe encompasses the portion of the floodplain that could be completely obstructed without increasing the water-surface elevation of the 100-year flood by more than 1.0 foot at any point. The typical relationships between the floodway and the floodplain development are shown in Figure 2.

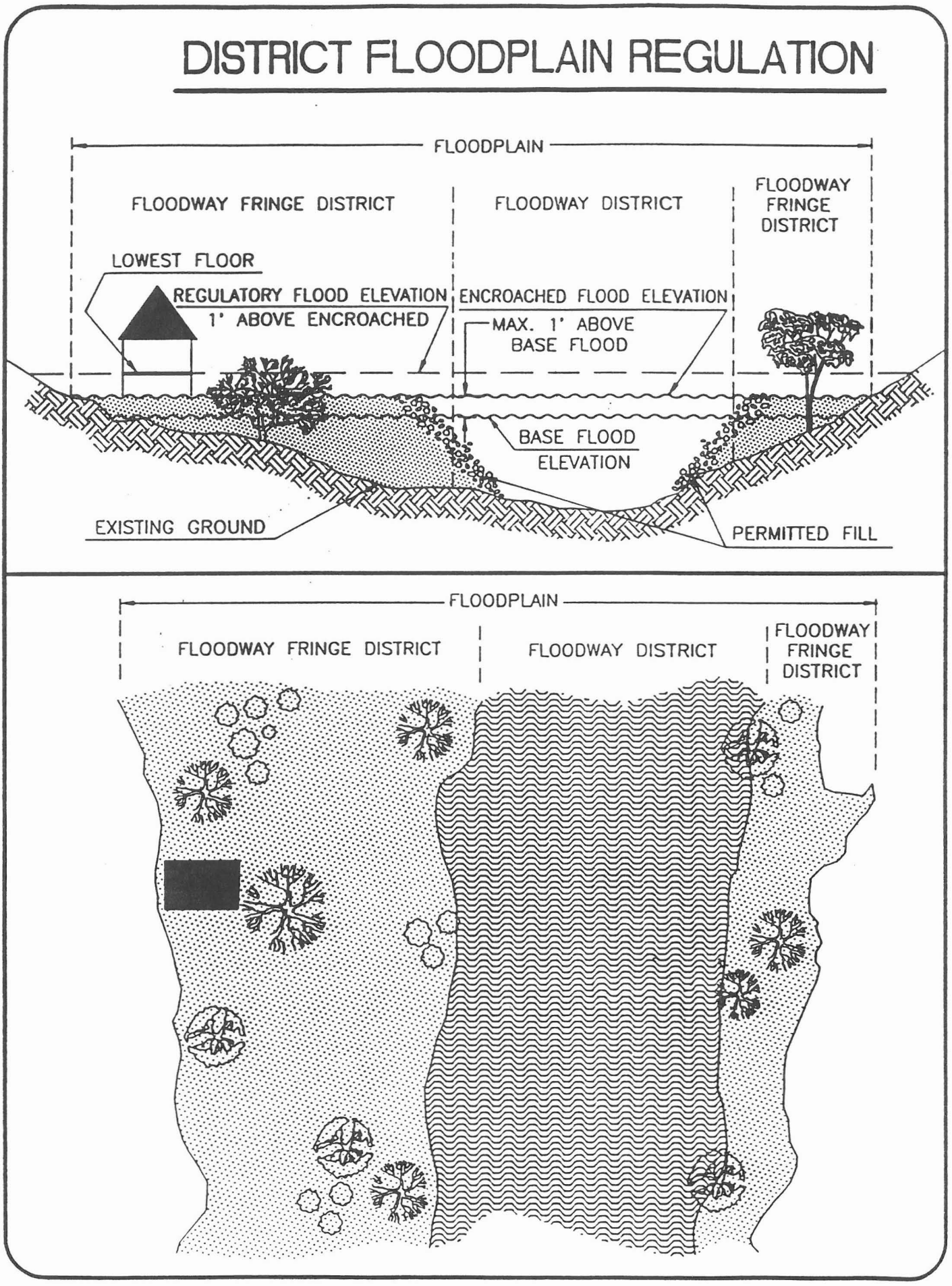


FIGURE 2. FLOODWAY SCHEMATIC

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NGVD)			
CROSS SECTION	DISTANCE (1)	WIDTH (FEET)	SECTION AREA (SQ.FT.)	MEAN VELOCITY (FT/S)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	55,150	136	396	9.7	1545.5	1545.5	1545.5	.0
B	55,177	136	396	9.7	1547.7	1547.7	1547.7	.0
C	55,273	136	476	8.1	1548.4	1548.4	1548.4	.0
D	55,299	159	662	5.8	1549.0	1549.0	1549.0	.0
E	55,304	179	622	6.2	1549.0	1549.0	1549.0	.0
F	55,330	215	788	4.9	1549.5	1549.5	1549.5	.0
G	55,590	170	649	5.9	1551.0	1551.0	1551.1	.1
H	55,930	188	892	4.3	1552.7	1552.7	1553.6	.9
I	56,410	179	816	4.7	1555.1	1555.1	1556.0	.9
J	56,820	179	716	5.4	1558.0	1558.0	1558.2	.2
K	57,105	136	705	5.5	1559.7	1559.7	1559.7	.0
L	57,425	136	536	7.1	1561.1	1561.1	1561.3	.2
M	57,790	256	1096	3.5	1564.4	1564.4	1564.4	.0
N	58,115	157	636	6.0	1565.4	1565.4	1565.5	.1
O	58,410	194	880	4.3	1566.7	1566.7	1567.7	1.0
P	58,705	175	835	4.6	1567.9	1567.9	1568.9	1.0
Q	59,085	131	633	6.0	1570.1	1570.1	1570.8	.7

TABLE 2	FEDERAL EMERGENCY MANAGEMENT AGENCY MARICOPA COUNTY (UNINCORPORATED) MARICOPA COUNTY, ARIZONA	FLOODWAY DATA TRILBY WASH - MAIN CHANNEL

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NGVD)			
CROSS SECTION	DISTANCE (1)	WIDTH (FEET)	SECTION AREA (SQ.FT.)	MEAN VELOCITY (FT/S)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
R	59,450	173	775	4.9	1573.0	1573.0	1573.3	.3
S	59,935	157	743	5.1	1575.4	1575.4	1575.9	.5
T	60,330	228	912	4.2	1577.2	1577.2	1577.9	.7
U	60,800	183	771	4.9	1579.1	1579.1	1580.1	1.0
V	61,005	156	611	6.2	1581.2	1581.2	1581.3	.1
W	61,385	140	657	5.8	1583.3	1583.3	1584.0	.7
X	61,715	144	655	5.8	1585.6	1585.6	1586.2	.6
Y	61,895	191	1145	3.3	1586.5	1586.5	1587.2	.7
Z	61,955	210	1415	2.7	1587.6	1587.6	1588.6	1.0
AA	62,365	180	480	7.8	1589.3	1589.3	1589.3	.0
AB	62,705	183	763	4.9	1593.1	1593.1	1593.4	.3
AC	63,150	234	889	4.2	1595.1	1595.1	1595.7	.6
AD	63,580	132	484	7.8	1597.6	1597.6	1597.9	.3
AE	64,040	140	753	5.0	1600.9	1600.9	1601.8	.9
AF	64,280	220	882	4.3	1602.6	1602.6	1603.0	.4
AG	64,675	176	631	5.9	1604.8	1604.8	1605.2	.4
AH	65,080	162	726	5.2	1608.3	1608.3	1608.6	.3

TABLE 2	FEDERAL EMERGENCY MANAGEMENT AGENCY MARICOPA COUNTY (UNINCORPORATED) MARICOPA COUNTY, ARIZONA	FLOODWAY DATA TRILBY WASH - MAIN CHANNEL

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NGVD)			
CROSS SECTION	DISTANCE (1)	WIDTH (FEET)	SECTION AREA (SQ.FT.)	MEAN VELOCITY (FT/S)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
AI	65,450	193	765	4.9	1610.0	1610.0	1610.6	.6
AJ	65,915	164	466	8.0	1613.7	1613.7	1613.9	.2
AK	66,360	131	634	5.8	1618.4	1618.4	1618.7	.3
AL	66,795	138	606	6.1	1621.6	1621.6	1621.9	.3
AM	67,240	168	480	7.7	1624.4	1624.4	1624.8	.4
AN	67,700	120	501	7.4	1628.5	1628.5	1629.0	.5
AO	68,160	137	724	5.1	1631.4	1631.4	1632.1	.7
AP	68,640	126	431	8.6	1634.6	1634.6	1634.5	-.1
AQ	69,060	221	755	4.9	1638.6	1638.6	1638.8	.2
AR	69,385	498	842	4.4	1641.2	1641.2	1641.2	.0
AS	69,820	701	1220	3.0	1644.9	1644.9	1645.1	.2
AT	70,150	721	1413	2.6	1646.6	1646.6	1647.0	.4
AU	70,510	446	492	7.5	1650.4	1650.4	1650.5	.1
AV	70,940	420	1149	3.2	1654.8	1654.8	1655.1	.3
AW	71,380	384	855	4.3	1657.1	1657.1	1657.4	.3
AX	71,825	303	803	4.6	1660.3	1660.3	1660.4	.1
AY	72,290	426	773	4.8	1663.3	1663.3	1663.4	.1

TABLE 2	FEDERAL EMERGENCY MANAGEMENT AGENCY MARICOPA COUNTY (UNINCORPORATED) MARICOPA COUNTY, ARIZONA	FLOODWAY DATA TRILBY WASH - MAIN CHANNEL

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NGVD)			
CROSS SECTION	DISTANCE (1)	WIDTH (FEET)	SECTION AREA (SQ.FT.)	MEAN VELOCITY (FT/S)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
AZ	72,660	449	824	4.5	1666.0	1666.0	1666.2	.2
BA	73,080	565	935	4.0	1668.7	1668.7	1669.3	.6
BB	73,455	539	1214	3.1	1671.2	1671.2	1671.8	.6
BC	73,855	413	713	5.2	1674.2	1674.2	1674.4	.2
BD	74,325	459	1073	3.5	1677.8	1677.8	1678.3	.5
BE	74,585	452	899	4.1	1679.5	1679.5	1679.7	.2
BF	74,960	339	628	5.9	1682.4	1682.4	1682.7	.3
BG	75,560	384	890	3.7	1688.0	1688.0	1688.3	.3
BH	76,015	301	675	4.9	1691.5	1691.5	1691.5	.0
BI	76,460	160	509	6.5	1694.6	1694.6	1695.3	.7
BJ	76,925	160	593	5.6	1698.2	1698.2	1699.0	.8
BK	77,385	156	557	6.0	1701.9	1701.9	1702.3	.4
BL	77,675	149	615	5.4	1704.0	1704.0	1704.4	.4
BM	77,905	164	458	7.3	1705.4	1705.4	1705.9	.5
BN	78,385	232	800	4.2	1709.7	1709.7	1710.3	.6
BO	78,870	193	563	5.9	1713.0	1713.0	1713.3	.3
BP	79,075	228	615	5.4	1715.1	1715.1	1715.3	.2

TABLE 2	FEDERAL EMERGENCY MANAGEMENT AGENCY MARICOPA COUNTY (UNINCORPORATED) MARICOPA COUNTY, ARIZONA	FLOODWAY DATA TRILBY WASH - MAIN CHANNEL

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NGVD)			
CROSS SECTION	DISTANCE (1)	WIDTH (FEET)	SECTION AREA (SQ.FT.)	MEAN VELOCITY (FT/S)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
BQ	79,435	252	711	4.3	1718.1	1718.1	1718.7	.6
BR	79,825	222	638	4.8	1721.1	1721.1	1721.9	.8
BS	80,300	213	610	5.0	1725.4	1725.4	1726.0	.6
BT	80,775	167	528	5.7	1730.0	1730.0	1730.3	.3
BU	81,205	294	858	3.5	1733.1	1733.1	1733.7	.6
BV	81,540	351	725	4.2	1735.9	1735.9	1736.0	.1
BW	81,840	335	770	3.9	1738.7	1738.7	1739.0	.3
BX	82,270	414	919	3.3	1742.1	1742.1	1742.8	.7
BY	82,565	341	603	5.0	1744.6	1744.6	1745.4	.8
BZ	82,810	459	662	4.6	1746.9	1746.9	1747.6	.7
CA	83,155	364	217	5.3	1751.7	1751.7	1751.3	-.4
CB	83,650	432	472	2.4	1757.3	1757.3	1757.6	.3
CC	83,900	387	299	3.8	1760.6	1760.6	1760.4	-.2
CD	83,945	418	471	2.4	1761.1	1761.1	1761.3	.2
CE	84,125	445	413	2.8	1763.0	1763.0	1763.1	.1
CF	84,595	270	304	3.8	1769.0	1769.0	1769.0	.0
CG	85,075	319	535	3.3	1774.5	1774.5	1774.7	.2

TABLE 2	FEDERAL EMERGENCY MANAGEMENT AGENCY MARICOPA COUNTY (UNINCORPORATED) MARICOPA COUNTY, ARIZONA	FLOODWAY DATA TRILBY WASH - MAIN CHANNEL

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NGVD)			
CROSS SECTION	DISTANCE (1)	WIDTH (FEET)	SECTION AREA (SQ.FT.)	MEAN VELOCITY (FT/S)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
CH	85,350	326	523	5.7	1777.7	1777.7	1778.3	.6
CI	85,825	154	535	5.6	1783.4	1783.4	1783.8	.4
CJ	86,305	120	444	6.7	1788.1	1788.1	1788.0	-.1
CK	86,705	118	348	8.6	1793.4	1793.4	1793.5	.1
CL	87,020	210	775	3.9	1797.2	1797.2	1798.0	.8
CM	87,390	110	327	9.2	1800.9	1800.9	1801.1	.2
CN	87,800	260	714	4.2	1805.7	1805.7	1806.7	1.0
CO	88,250	124	402	7.4	1810.7	1810.7	1810.2	-.5
CP	88,640	146	487	6.1	1814.8	1814.8	1815.2	.4
CQ	89,030	125	419	7.1	1819.0	1819.0	1818.9	-.1
CR	89,425	66	275	10.9	1823.3	1823.3	1823.2	-.1
CS	89,820	170	520	5.8	1827.6	1827.6	1828.0	.4
CT	90,005	102	407	7.4	1829.0	1829.0	1829.1	.1
CU	90,475	91	324	9.2	1835.4	1835.4	1835.2	-.2
CV	90,820	168	572	5.2	1839.5	1839.5	1840.0	.5
CW	91,145	88	305	9.1	1842.7	1842.7	1842.9	.2
CX	91,445	95	414	6.7	1846.4	1846.4	1846.9	.5

TABLE 2	FEDERAL EMERGENCY MANAGEMENT AGENCY MARICOPA COUNTY (UNINCORPORATED) MARICOPA COUNTY, ARIZONA	FLOODWAY DATA TRILBY WASH - MAIN CHANNEL

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NGVD)			
CROSS SECTION	DISTANCE (1)	WIDTH (FEET)	SECTION AREA (SQ.FT.)	MEAN VELOCITY (FT/S)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
CY	91,685	96	323	8.6	1849.2	1849.2	1849.2	.0
CZ	92,005	122	455	6.1	1853.1	1853.1	1853.5	.4
DA	92,275	147	670	4.2	1855.0	1855.0	1855.3	.3

TABLE 2	FEDERAL EMERGENCY MANAGEMENT AGENCY MARICOPA COUNTY (UNINCORPORATED) MARICOPA COUNTY, ARIZONA	FLOODWAY DATA TRILBY WASH - MAIN CHANNEL

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NGVD)			
CROSS SECTION	DISTANCE (1)	WIDTH (FEET)	SECTION AREA (SQ.FT.)	MEAN VELOCITY (FT/S)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
CB	83,560	294	527	3.5	1753.9	1753.9	1754.4	.5
CC	83,850	359	428	4.4	1757.6	1757.6	1757.4	-.2
CD	84,030	152	183	3.3	1760.0	1760.0	1760.4	.4
CE	84,220	146	231	2.6	1763.5	1763.5	1763.3	-.2
CF	84,750	168	210	2.9	1769.6	1769.6	1769.8	.2
CG	85,115	319	513	3.4	1774.5	1774.5	1774.6	.1

TABLE 2	FEDERAL EMERGENCY MANAGEMENT AGENCY MARICOPA COUNTY (UNINCORPORATED) MARICOPA COUNTY, ARIZONA	FLOODWAY DATA MIDDLE CHANNEL AT SPLIT - TRILBY WASH

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NGVD)			
CROSS SECTION	DISTANCE (1)	WIDTH (FEET)	SECTION AREA (SQ.FT.)	MEAN VELOCITY (FT/S)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
BX	82,270	414	915	3.3	1742.1	1742.1	1742.8	.7
BY	82,565	341	619	4.9	1744.6	1744.6	1745.4	.8
BZ	82,810	459	656	4.6	1747.0	1747.0	1747.6	.6
CA	83,180	209	449	4.2	1750.5	1750.5	1750.5	.0
CB	83,630	294	527	3.5	1753.9	1753.9	1754.4	.5
CC	83,950	364	490	3.8	1757.7	1757.7	1757.6	-.1
CD	84,250	240	418	3.0	1760.1	1760.1	1760.4	.3
CE	84,510	145	178	7.0	1763.7	1763.7	1763.8	.1
CF	85,000	279	453	2.7	1771.1	1771.1	1771.2	.1
CG	85,210	118	229	5.4	1773.1	1773.1	1773.4	.3
CH	85,610	326	595	5.0	1778.1	1778.1	1778.6	.5
CI	86,095	154	500	6.0	1783.4	1783.4	1783.6	.2

TABLE 2	FEDERAL EMERGENCY MANAGEMENT AGENCY MARICOPA COUNTY (UNINCORPORATED) MARICOPA COUNTY, ARIZONA	FLOODWAY DATA WEST CHANNEL AT SPLIT - TRILBY WASH

5.0 INSURANCE APPLICATION

The 100-year floodplain and floodway boundaries are shown on the Flood Insurance Rate Maps (Exhibit 2). On these maps, the 100-year floodplain boundary corresponds to the boundary of the areas of special flood hazards zones. Small areas within the floodplain boundaries may lie above the flood elevations but are not shown.

The following information included in both this Section (5.0) and Section 6.0 was defined in FEMA 37, Reference 6. For flood insurance rating purposes, the flood insurance zone designations were assigned based on the results and interpretation of this engineering analyses. There are a total of nine (9) zones listed in the FEMA publication, of which five (5) apply to this study reach of the Trilby Wash. These zones are as follows:

Zone AE

Zone AE is the flood insurance rate zone that corresponds to the 100-year floodplains that are determined in the flood Insurance Study by detailed methods. In most instances, whole-foot base flood elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

Zone X

Zone X is the flood insurance rate zone that corresponds to areas outside the 500-year floodplain, areas within the 500-year floodplain, areas of 100-year flooding where average depths are less than 1 foot, areas of 100-year flooding where the contributing drainage area is less than 1 square mile, and areas protected from the 100-year flood by levees. No base flood elevations or depths are shown within this zone.

Zone B

Zone B is the flood insurance rate zone that corresponds to areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood.

6.0 FLOOD INSURANCE RATE MAP

The Flood Insurance Rate Map is designed as a convenient reference when obtaining flood insurance and floodplain management information. For flood insurance applications, the map designates flood insurance rate zones as described in Section 5.0 and, in the 100-year floodplains that were studied by detailed methods, shows selected whole-foot base flood elevations or average depths. Insurance agents use the zones and base flood elevations in conjunction with information on structures and their contents to assign premium rates for flood insurance policies. For floodplain management applications, the map shows by tints, screens, and symbols, the 100-year floodplains, the floodways, and the locations of selected cross sections used in the hydraulic analyses and floodway computations.

7.0 OTHER STUDIES

The number of other hydrologic/hydraulic studies that have been done in this area is limited to three. The other studies that have been completed include:

1) Flood Insurance Study, Approximate Study for the Unincorporated Area of Maricopa County, Arizona, 1979, prepared by Harris - Toups, Associates;

2) Work done by the Bureau of Reclamation (BOR) for sizing the Trilby Wash/CAP Flume Crossing. This work is unpublished and was obtained via phone conversations and FAX transmittals; and finally,

3) The Wittmann area Drainage Master Study, 1989, prepared by The WLB Group, Inc. under contract with the FCD of Maricopa County.

8.0 LOCATION OF DATA

Information concerning the pertinent data used in the preparation of this study can be obtained by contacting either:

1) The Flood Control District of Maricopa County
   c/o Mr. Besian Khatiblou, P.E.
   2801 W. Durango Street
   Phoenix, Arizona 85009
   (602) 506-1501

   and/or

2) The Department of Water Resources (DWR)
   Archive File Department
   15 South 15th Avenue
   Phoenix, Arizona 85007
   (602) 542-1541

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8) Harris-Toups, Associates; 1/79; Flood Insurance Study Approximate Study Unincorporated Area of Maricopa County, Arizona: Prepared for the U.S. Department of Housing and Urban Development, Federal Insurance Administration; unpublished.

9) Hoggan, Daniel, H.; 1989; Computer Assisted Floodplain Hydrology and Hydraulics, Featuring the U.S. Army Corps of Engineers' HEC-1 and HEC-2 Software Systems: McGraw-Hill Publishing Company; New York; 518 p.

10) Hoggan, Daniel, H.; 1989; Computer Assisted Floodplain Hydrology and Hydraulics, Featuring the U.S. Army Corps of Engineers' HEC-1 and HEC-2 Software Systems, Authors's Appendix B - Workshop Problem Solutions: McGraw-Hill Publishing Company; New York; 54 p.

11) National Flood Insurance Program; 4/15/88; Flood Insurance Rate Maps (FIRM), all or portions of the following: Map Numbers 04013C1125 D and 04013C0695 D; corresponding to Panel Numbers 1125 and 695 of 4350, respectively; Maricopa County, Arizona and Incorporated Areas: Federal Emergency Management Agency (FEMA).

12) National Flood Insurance Program; 5/11/90 (Rev.); Flood Insurance Rate Maps (FIRM), all or portions of the following: Map Numbers 04013C0679 E, 04013C0687 E, and 04013C1110 E; corresponding to Panel Numbers 679, 687 and 1110 of 4350, respectively; Maricopa County, Arizona and Incorporated Areas: Federal Emergency Management Agency (FEMA).

13) National Oceanic and Atmospheric Administration (NOAA); 1973; Precipitation-Frequency Atlas of the Western United States, Volume VIII-Arizona: U.S. Department of Commerce; Silver Springs, MD;41 p.

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20) U.S. Army, Corps of Engineers, Los Angles District; 1/73; Trilby Wash Detention Basin Lower Agua Fria River, Maricopa County, Arizona: Department of the Army; Los Angeles, CA; unpublished

21) U.S. Army, Corps of Engineers, Water Resources Support Center, The Hydrologic Engineering Center; 4/82; Application of the HEC-2 Split Flow Option, Training Document No. 18: Department of the Army; Davis, CA; 19 p.

22) U.S. Army, Corps of Engineers, Water Resources Support Center, The Hydrologic Engineering Center; 2/87; COED (Corps of Engineers Editor): Department of the Army; Davis, CA. (Portions of the software have been updated 9/90 and 2/91).

23) U.S. Army, Corps of Engineers, Water Resources Support Center, The Hydrologic Engineering Center; Version 9/88 (Updated 9/90); HEC-2 Water Surface Profiles, User's Manual and corresponding software: Department of the Army; Davis, CA; 40 p. (Portions of the software have been updated in Version 4.6.0.; February, 1991).

24) U.S. Army, Corps of Engineers, Water Resources Support Center, The Hydrologic Engineering Center; 2/90; Computing Water Surface Profiles with HEC-2 on a Personal Computer, Training Document No. 26: Department of the Army; Davis, CA; 61 p.

25) U.S.G.S. Quadrangle Maps of Arizona: Wittmann (1981) and White Tank Mountains, N.E. (1978); Denver, Colorado.

EXHIBIT 1

FLOOD PROFILES

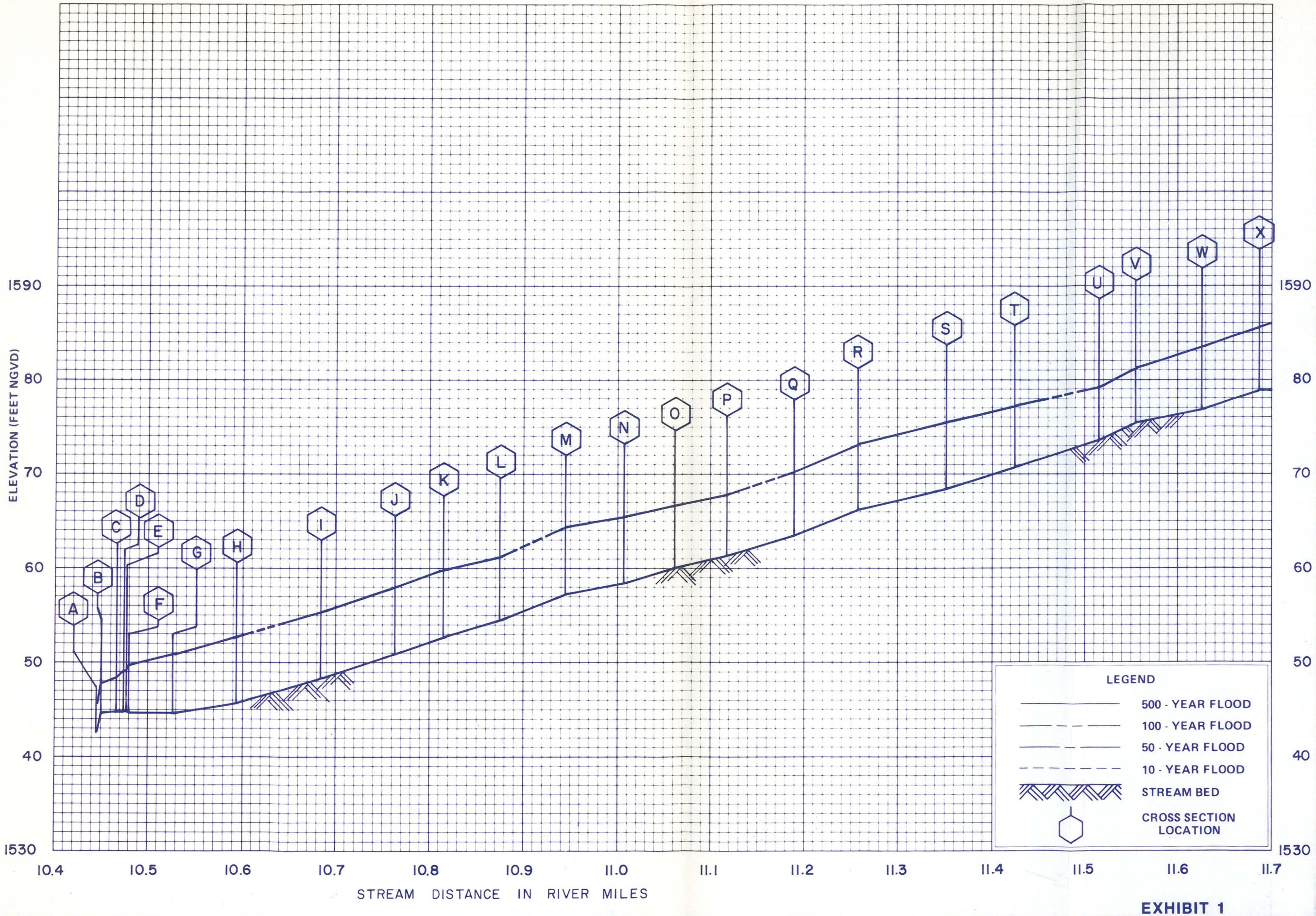

EXHIBIT 1

FLOOD PROFILES

TRILBY WASH

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLOOD CONTROL DISTRICT
MARICOPA COUNTY, ARIZONA

SHT 1 OF 8

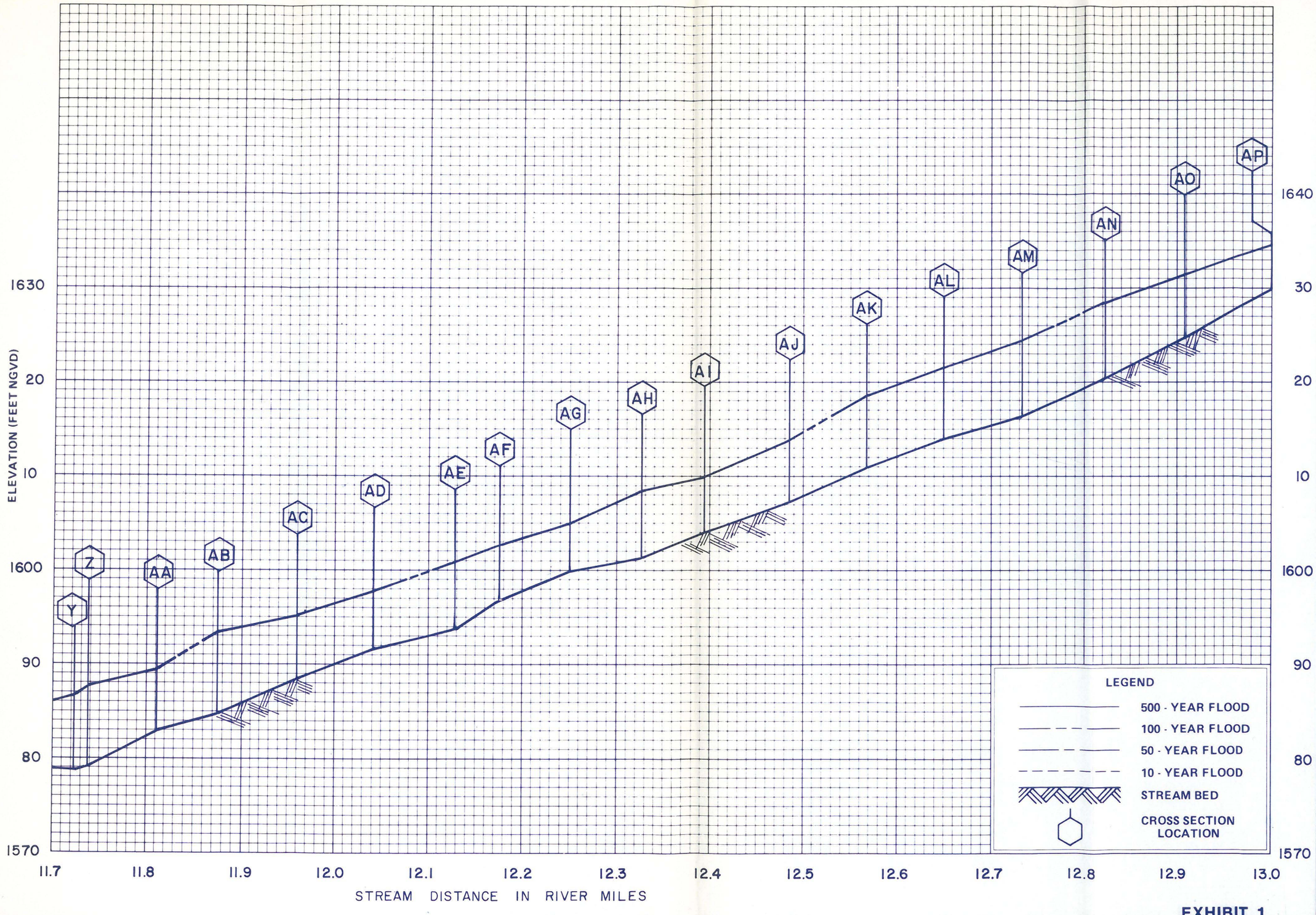

EXHIBIT 1

FLOOD PROFILES

TRILBY WASH

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLOOD CONTROL DISTRICT
MARICOPA COUNTY, ARIZONA

SHT 2 OF 8

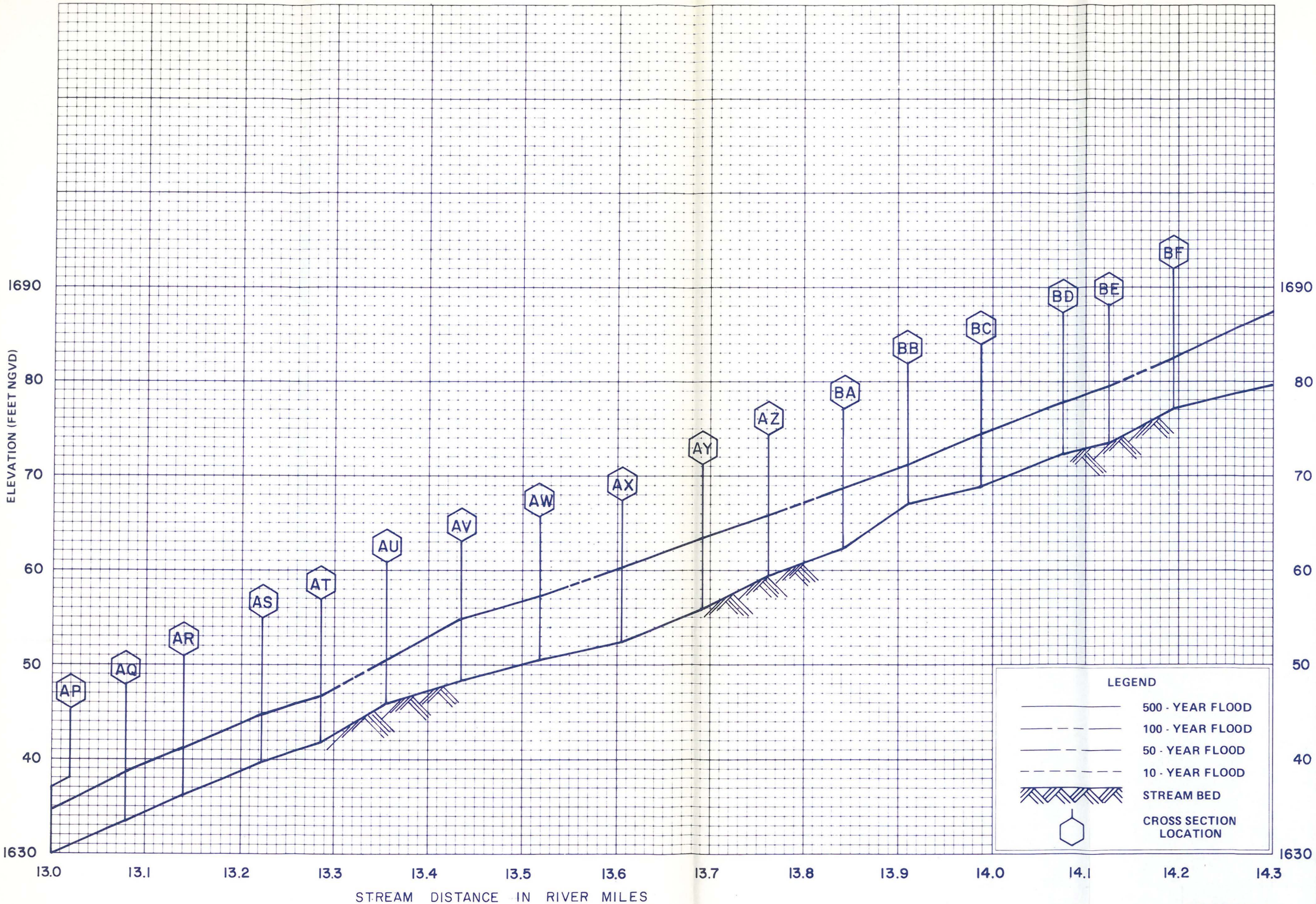

EXHIBIT 1

FLOOD PROFILES

TRILBY WASH

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLOOD CONTROL DISTRICT
MARICOPA COUNTY, ARIZONA

SHT 3 OF 8

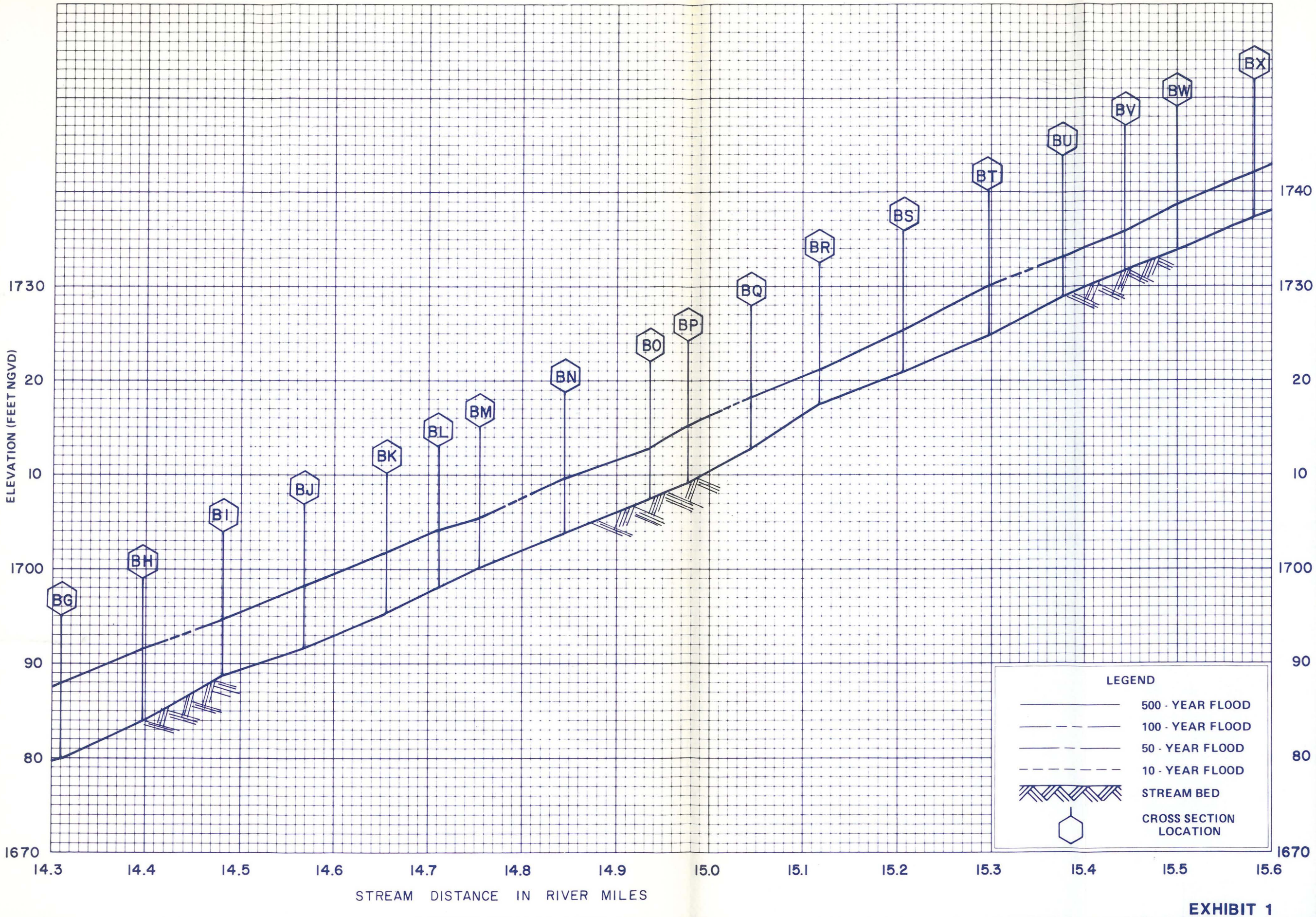

EXHIBIT 1

FLOOD PROFILES

TRILBY WASH

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLOOD CONTROL DISTRICT
MARICOPA COUNTY, ARIZONA

SHT 4 OF 8

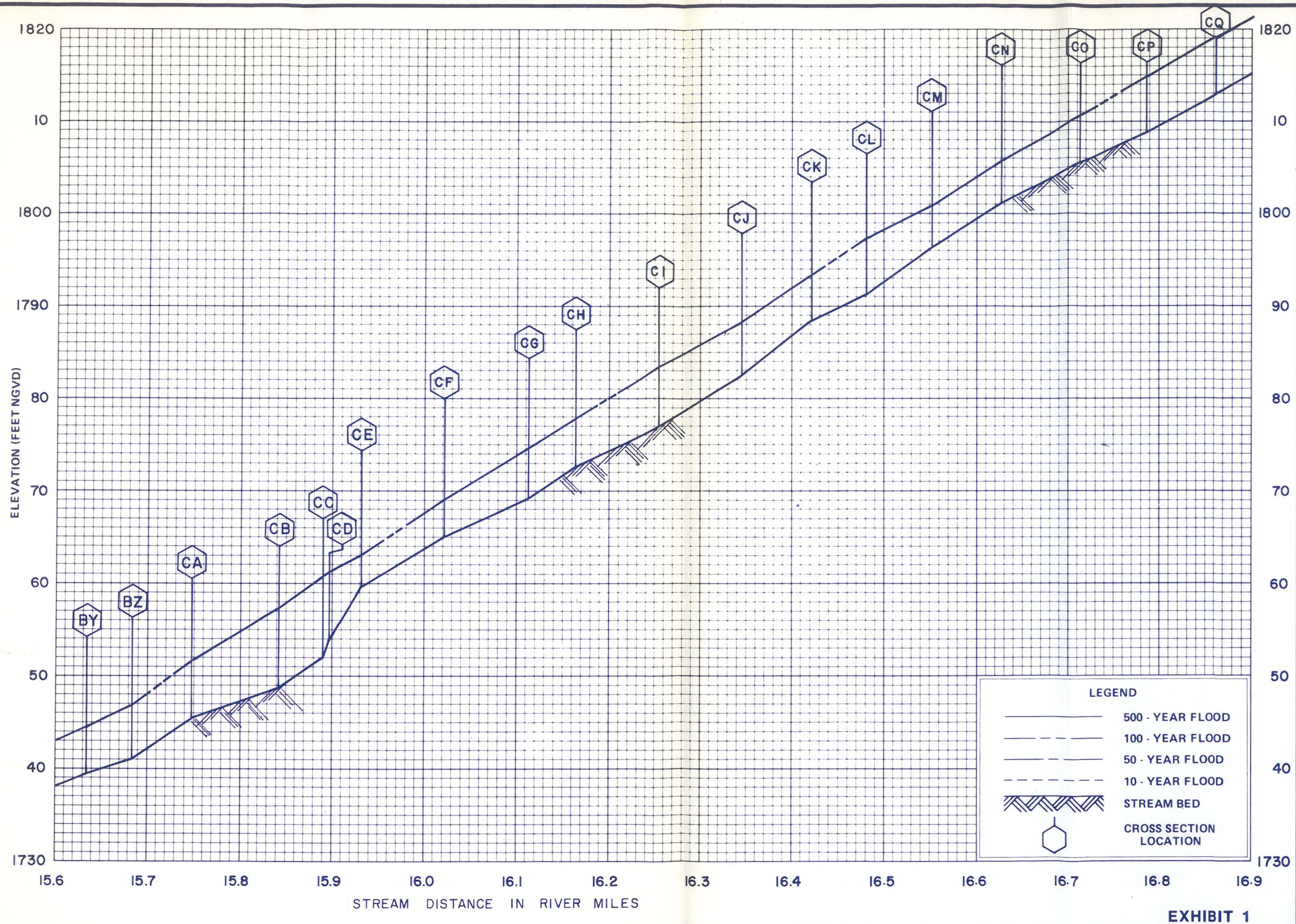

EXHIBIT 1

FLOOD PROFILES

TRILBY WASH

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLOOD CONTROL DISTRICT
MARICOPA COUNTY, ARIZONA

SHT 5 OF 8

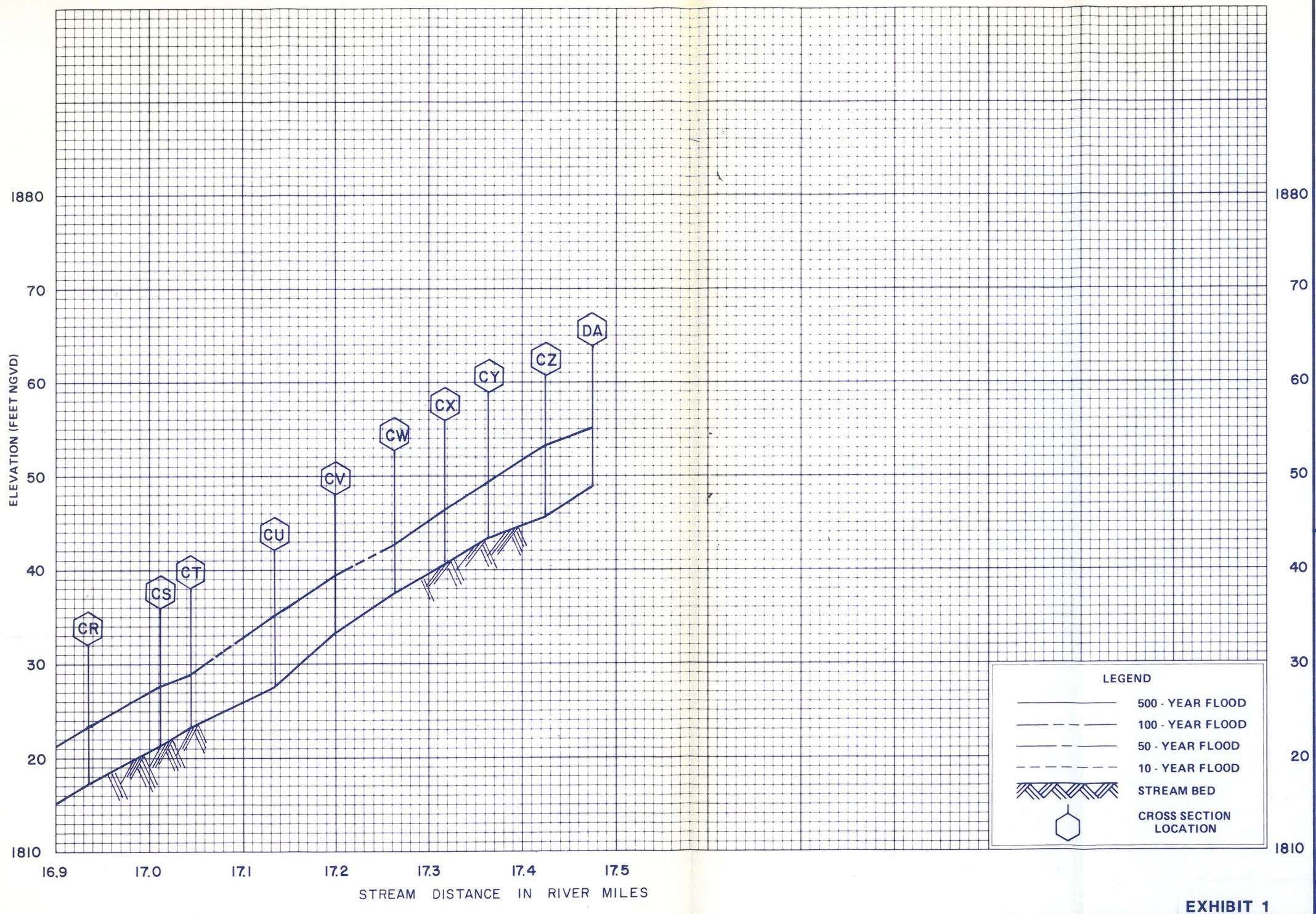

EXHIBIT 1

FLOOD PROFILES

TRILBY WASH

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLOOD CONTROL DISTRICT
MARICOPA COUNTY, ARIZONA

SHT 6 OF 8

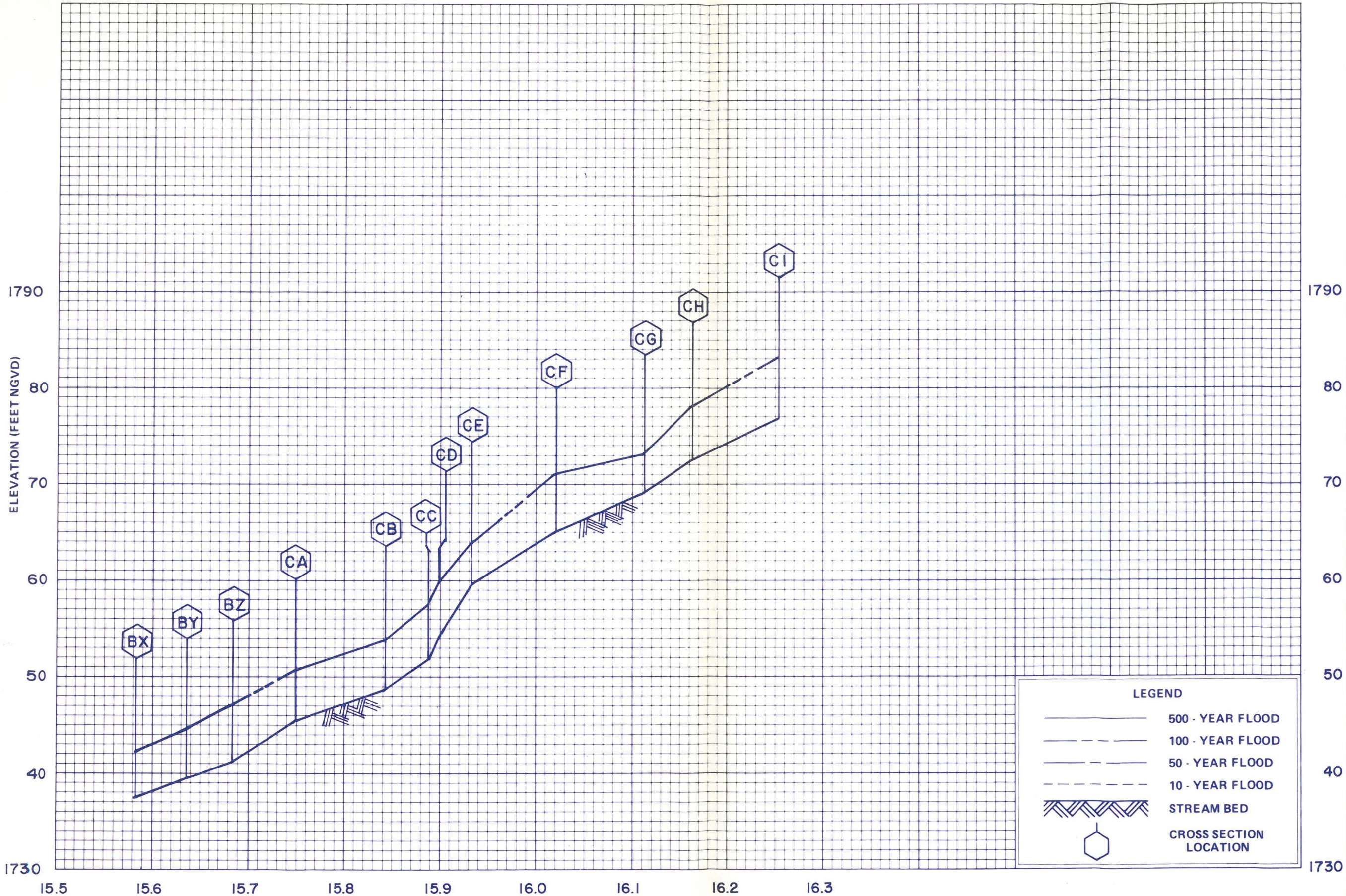

EXHIBIT 1

FLOOD PROFILES

WEST CHANNEL AT SPLIT-TRILBY WASH

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLOOD CONTROL DISTRICT

MARICOPA COUNTY, ARIZONA

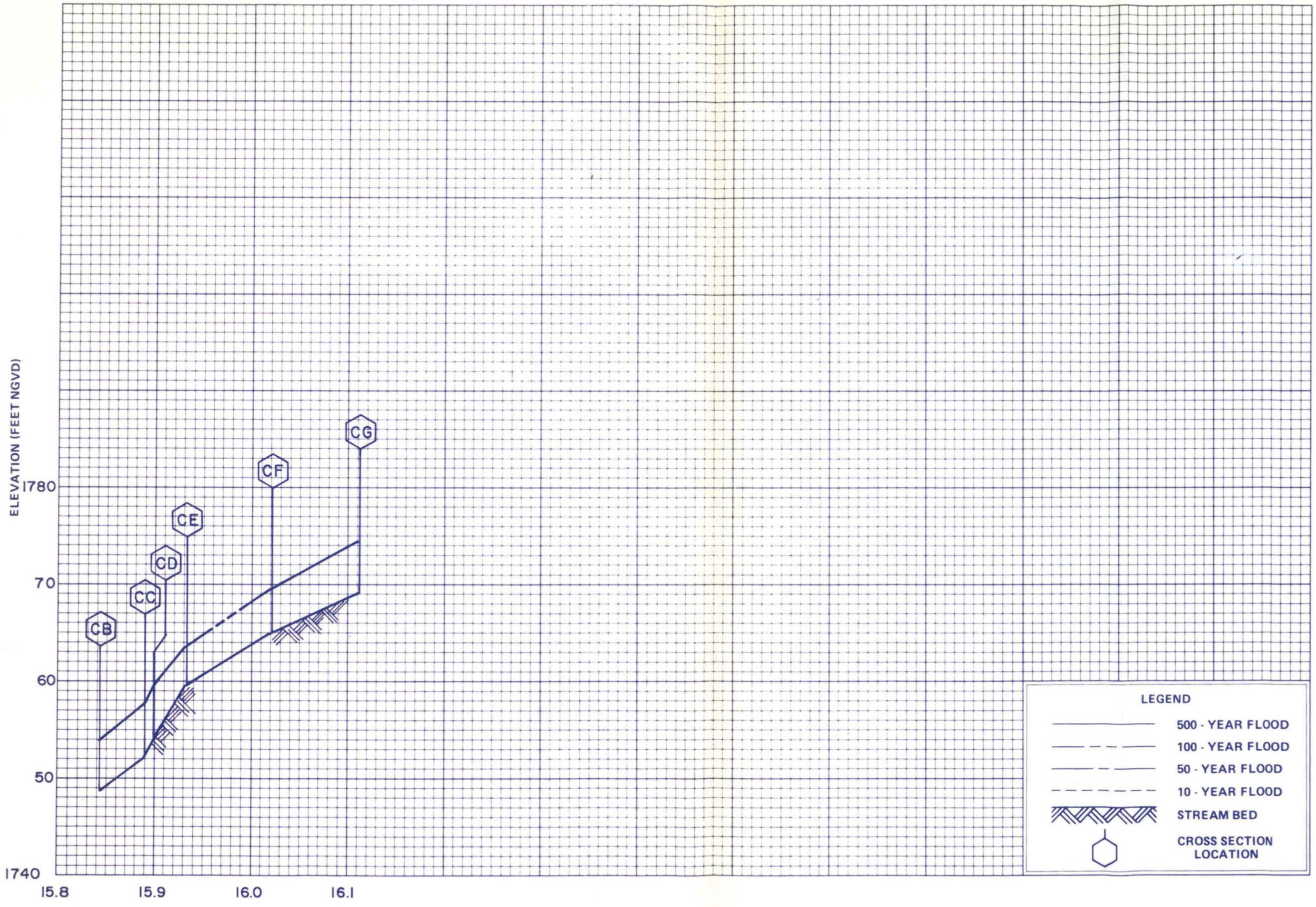

EXHIBIT 1

FLOOD PROFILES

MIDDLE CHANNEL AT SPLIT-TRILBY WASH

FEDERAL EMERGENCY MANAGEMENT AGENCY
FLOOD CONTROL DISTRICT
MARICOPA COUNTY, ARIZONA

SHT 8 OF8

FLOOD INSURANCE RATE MAP (9 SHEETS)
ARE INCLUDED IN SECTION 2.5
(HYDRAULIC ANALYSIS MAP)

EXHIBIT 2

FLOOD INSURANCE RATE MAPS