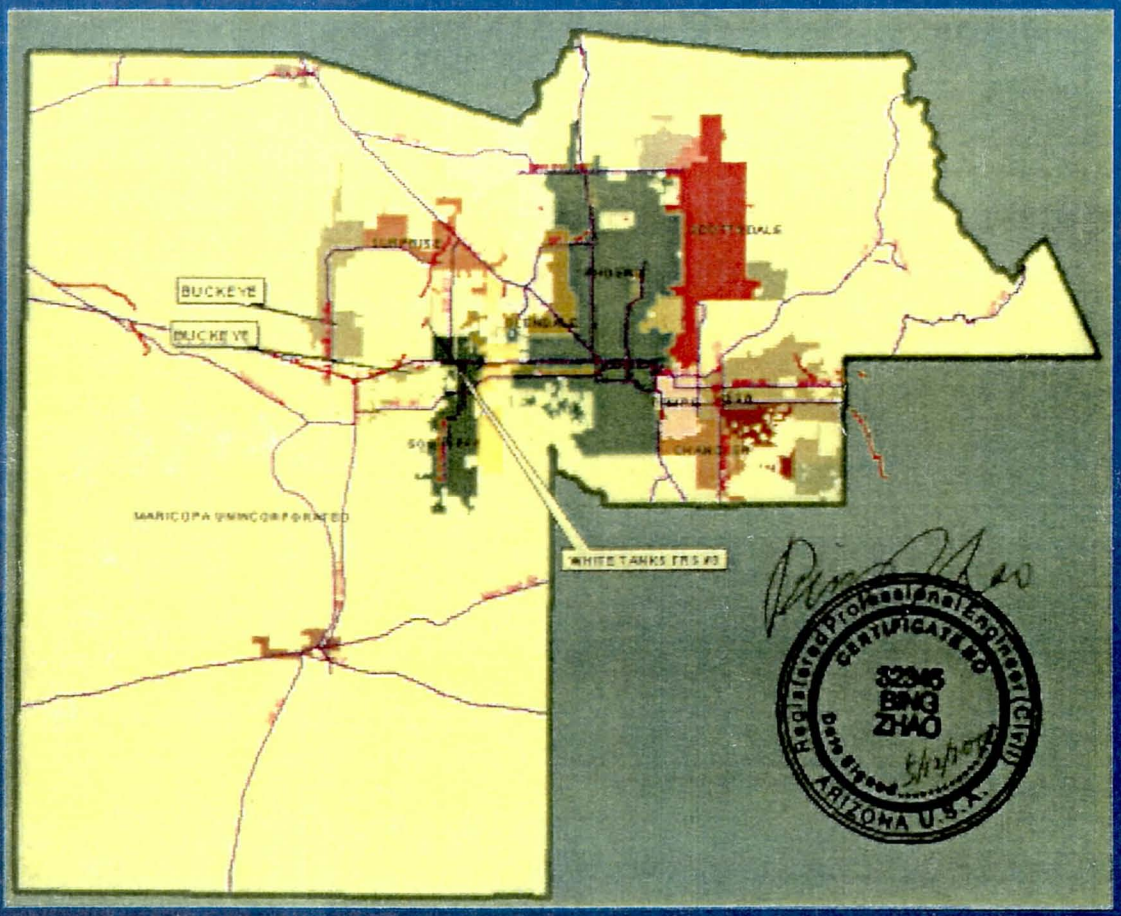
Hydrologic Analysis
for
White Tanks Flood Retarding Structure No. 3 Watershed



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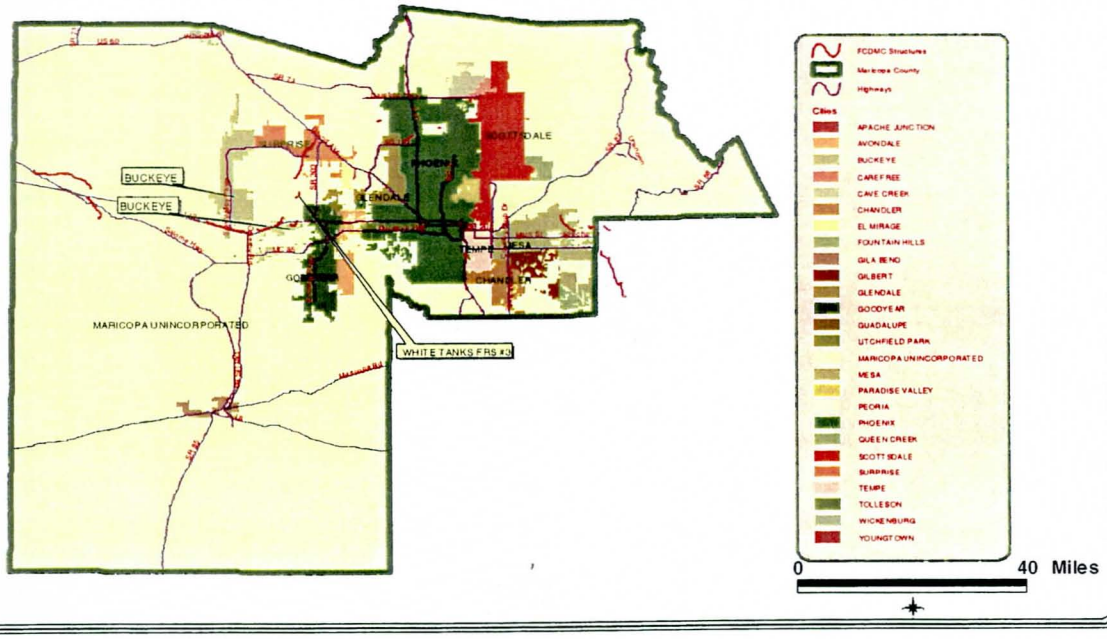
INTRODUCTION

White Tanks Flood Retarding Structure No.3 (White Tanks No.3) is an earthen dam located about 20 miles west of Phoenix, Maricopa County, Arizona (Figure 1). It was constructed by the Natural Resources Conservation Services (NRCS) in 1954 to protect farmland and irrigation facilities from 100-year storm runoff from the White Tanks Mountains. White Tanks No.3 is owned and maintained by the Flood Control District of Maricopa County (FCDMC). The Arizona Department of Water Resources (ADWR) conducts annual inspections

Figure 1. Vicinity Map for White Tanks No.3

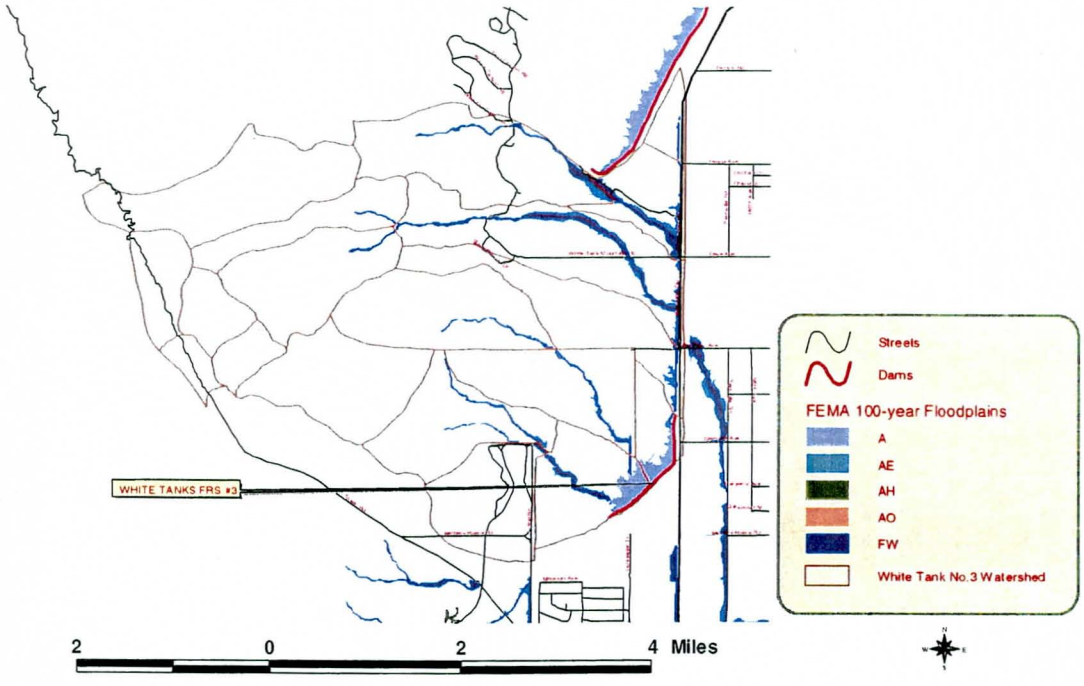


of the dam.

The dam embankment crest has a width of 10 feet and a length of 7667 feet. The embankment crest elevation is 1216 feet. The hydraulic height of the dam is 28.8 feet. The emergency spillway crest elevation is 1210 feet. The dam has three principal outlets (two 48" corrugated metal pipes and one 24" corrugated metal pipe). The White Tanks No. 3 watershed

with an area of about 20.5 square miles consists of mountainous and foothill areas within the White Tanks Mountains (WLB, 1994). Land slopes range from 1% in the foothills to more than 100% in the steepest mountainous areas. The floodplains and streets in or around White Tanks No.3 watershed can be seen in Figure 2.

Figure 2. Floodplains in White Tanks No.3 Watershed.



Since White Tanks No.3 was constructed in 1954, the dam crest has settled approximately 3.6 feet at the north end of the dam crest (Dames & Moore, 1998). This settlement is due to regional land subsidence caused by excessive groundwater withdrawal in the adjacent areas. Recently, FCDMC started a new project to modify White Tanks No.3 in order to address dam safety issues. This hydrologic study will compute the runoff volume of the 100-year 24-hour storm for the planning and design for White Tanks No.3 modification project. This

study has two parts. Part 1 is a Preliminary Hydrologic Analysis, and Part 2 is a Final Hydrologic Analysis. In Part 1, adjustment of saturated hydraulic conductivity is discussed to account for the rock fragments within the soils. Four HEC-1 models are developed to correspond to four assumed volumetric rock percentages within the soils. In Part 2, more issues related to infiltration and HEC-1 modeling are discussed such as the impact of slope on infiltration. A final HEC-1 model is developed in Part 2 by using the soil survey information published in the NRCS Soil Survey (Camp, 1986; Hartman, 1977). A verification study is also performed to verify the HEC-1 model.

PART 1 PRELIMINARY HYDROLOGIC ANALYSIS

1.1 PURPOSE

The purpose of the preliminary hydrologic analysis is to develop preliminary hydrologic models (HEC-1 models) for White Tanks No.3 modification project. Because rock fragments within the soil matrix affect the infiltration, adjustment of saturated hydraulic conductivity is discussed in this analysis. Four HEC-1 models are developed, corresponding to four assumed volumetric rock fragment percentages within the soils.

1.2 PREVIOUS HYDROLOGIC MODELS

There have been several hydrologic models developed in the past. Two major ones are discussed here. In 1994, WLB developed an HEC-1 hydrologic model for White Tanks No.3 watershed as a part of White Tanks Area Drainage Master Study. NRCS (1998) developed a TR-20 hydrologic model for the White Tanks No.3 watershed. Recently, the FCDMC project team for the White Tanks No.3 modification project decided that an HEC-1 model should be used for planning and design because it is the model required by FCDMC's 1998 Consultant Guideline (FCDMC, 1998).

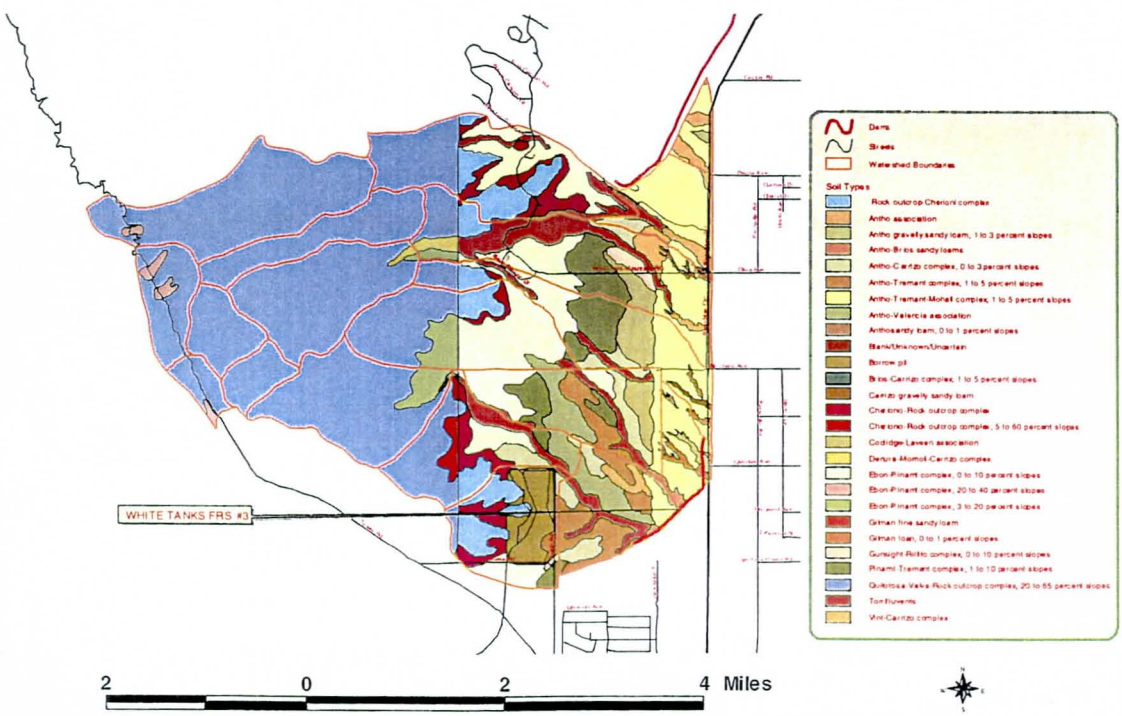
1.3 SATURATED HYDRAULIC CONDUCTIVITY PROBLEMS IN WLB'S HEC-1 MODEL

The runoff volume computed from WLB's HEC-1 model is much smaller than that from NRCS' TR-20 model (WLB's HEC-1: 850 ac-ft; NRCS' TR-20: 2205 ac-ft). Therefore, an investigation was conducted by FCDMC staff and Dames & Moore staff. It was found that the

saturated hydraulic conductivity (i.e. infiltration rate when soil is saturated) values for some soil types are much higher than the values documented in the FCDMC Drainage Design Hydrology Manual (Sabol et al., 1995). This might be due to the methodology difference in estimating the saturated hydraulic conductivity between the current FCDMC Drainage Design Hydrology Manual and the procedures WLB used in 1994. Therefore, WLB's HEC-1 model should be updated based on the current FCDMC's estimation of the saturated hydraulic conductivity.

In addition, it was also found that even if the current FCDMC Drainage Design Hydrology Manual was used, the saturated hydraulic conductivity values for four soil types used in WLB's HEC-1 model were still too high when compared with NRCS' soil hydrologic group classification. These four soil types are Quilotosa-Vaiva-Rock Outcrop complex soil (0.4 in/hr), Rock Outcrop-Cherioni complex soil (0.4 in/hr), Cherioni-Rock Outcrop complex soil (0.29 in/hr), and Cherioni-Rock Outcrop complex soil with 5 to 60 percent slope (0.33 in/hr). Figure 3

Figure 3. Soil Types for White Tanks No.3 Watershed.



shows the soil type distribution. In the NRCS' TR-20 model, all these four soil types are classified as soil type D by NRCS standard, which has very low saturated hydraulic conductivity (usually less than 0.05 in/hr). Since these four soil types cover more than 50% watershed area, it is very important to evaluate the hydraulic conductivity for these soil types.

1.4 FIELD TRIP FOR SOIL TYPE EVALUATION

A field trip was conducted on March 16, 1999 to evaluate the soil types. Participants in the field visit were Amir Motamedi and Bing Zhao of FCDMC, Todd Ringsmuth of Dames & Moore, and Robert Rice, a sub-consultant (soil scientist). During the field trip, observations of the road cuts on Tower Road in the mountaineous areas revealed that the amount of rock material within the soil-rock matrix to be in the 50 to 70 percent range, suggesting that Quilotosa-Vaiva-Rock Outcrop complex soil, Rock Outcrop-Cherioni complex soil, Cherioni-Rock Outcrop complex soil, and Cherioni-Rock Outcrop complex soil with 5 to 60 percent slope have high rock percentage in the soil-rock matrix. Based on Robert Rice (soil scientist), the hydraulic conductivity for these four soil types should be decreased to reflect the rock material within the soil-rock matrix. The rock material within the soil-rock matrix was never considered in the FCDMC's Drainage Design Manual as a factor to decrease the saturated hydraulic conductivity.

1.5 ADJUSTMENT OF SATURATED HYDRAULIC CONDUCTIVITY

Based on the field trip, Dames & Moore made two recommendations to decrease the saturated hydraulic conductivity values of Quilotosa-Vaiva-Rock Outcrop complex soil (0.4 in/hr), Rock Outcrop-Cherioni complex soil (0.4 in/hr), Cherioni-Rock Outcrop complex soil (0.29 in/hr), and Cherioni-Rock Outcrop complex soil with 5 to 60 percent slope (0.33 in/hr)

(Dames & Moore, April, 1999). The first recommendation was to conduct field infiltration tests to estimate the hydraulic conductivity of the soil-rock matrix. This approach may not be favorable due to general inaccessibility and difficulty of transporting water into the upper regions of the watershed. The second recommendation was to decrease the hydraulic conductivity by using a relationship developed by Bouwer and Rice (1984):

$$K_b = K_s e_b / e_s \qquad (1)$$

in which K_b is the saturated hydraulic conductivity of soil-rock matrix, K_s is the saturated hydraulic conductivity of soil material, e_b is the void ratio of the soil-rock matrix, and e_s is the void ratio of soil material. Please see Dames & Moore's memorandum in Appendix 2 for more details.

Based on Eq. (1) and other fundamental volume and weight relationships in soil science, a more useful equation is derived by Bing Zhao of FCDMC to express the saturated hydraulic conductivity of the soil-rock matrix as a function of the saturated hydraulic conductivity of soil material, rock percentage within the soil-rock matrix, and soil porosity as follows (see Appendix 1 for detailed derivation):

$$K_b = K_s \frac{(1-r)(1-\Phi)}{1-\Phi+r\Phi} \qquad (2)$$

in which K_b is the saturated hydraulic conductivity of the soil-rock matrix, K_s is the saturated hydraulic conductivity of the soil material, r is the volumetric rock percentage within the soil-rock matrix, and Φ is the soil porosity.

As mentioned earlier, the value of K_s is 0.4 in/hr for Quilotosa-Vaiva-Rock Outcrop complex soil type and Rock Outcrop-Cherioni complex soil type (Sabol et al., 1995). Since Quilotasa-Viava-Rock Outcrop complex soil and Rock Outcrop-Cherioni complex soil are sandy

loam, the porosity Φ for sandy loam can be used. Based on Rawls et al. (1983), the porosity Φ for sandy loam is 0.5. Therefore, Eq. (2) for Quilotasa-Vaiva-Rock Outcrop complex soil and Rock Outcrop-Cherioni complex soil can be simplified as

$$K_b = 0.4\frac{1-r}{1+r} \tag{3}$$

in which r is the volumetric rock percentage within the soil-rock matrix.

Since Cherioni-Rock Outcrop complex soil (0.29 in/hr) and Cherioni-Rock Outcrop complex soil with 5 to 60 percent slope (0.33 in/hr) are both sandy loam, porosity $\Phi = 0.5$ should be used (Rawls et al., 1983). Eq. (2) for Cherioni-Rock Outcrop complex soil (0.29 in/hr) can be simplified as

$$K_b = 0.29\frac{1-r}{1+r} \tag{4}$$

Eq. (2) for Cherioni-Rock Outcrop complex soil with 5 to 60 percent slope (0.33 in/hr) can be simplified as

$$K_b = 0.33\frac{1-r}{1+r} \tag{5}$$

1.6 HEC-1 HYDROLOGIC MODELS

Four HEC-1 models are developed in this preliminary hydrologic analysis by modifying the WLB's HEC-1 model. The four HEC-1 models assume four volumetric rock percentages for each of the four soil types: Quilotosa-Vaiva-Rock Outcrop complex soil, Rock Outcrop-Cherioni complex soil, Cherioni-Rock Outcrop complex soil, and Cherioni-Rock Outcrop complex soil

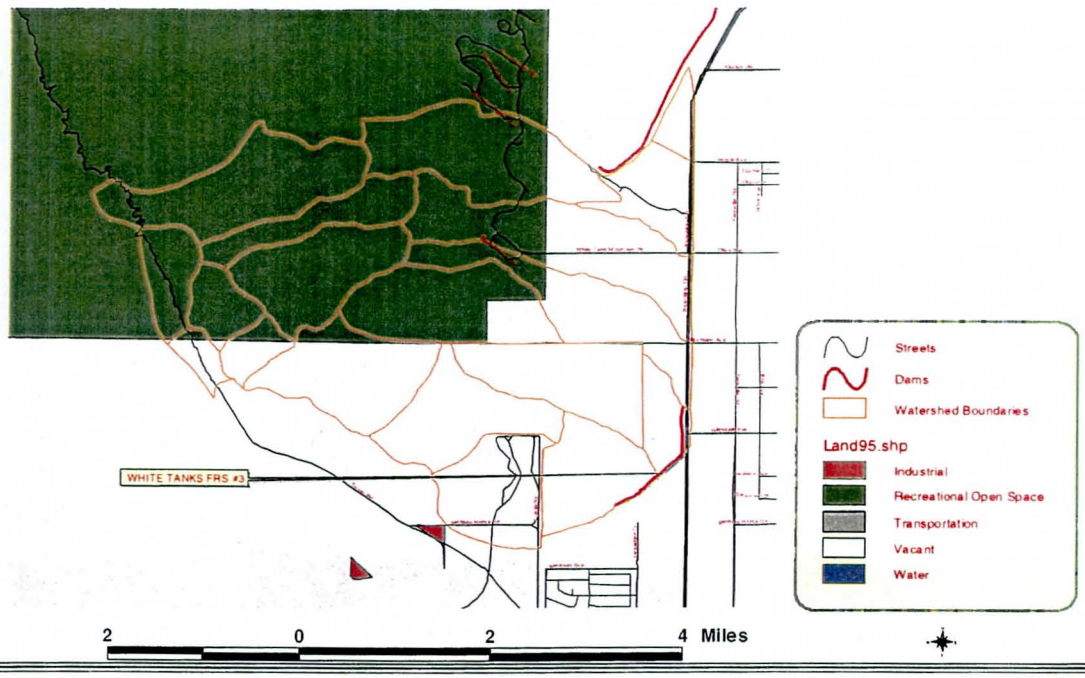
with 5 to 60 percent slope. The volumetric rock percentages assumed in this hydrologic analysis are 0%, 50%, 70%, and 95%. For example, the reduced saturated hydraulic conductivity values for Quilotosa-Vaiva-Rock Outcrop complex soil and Rock Outcrop-Cherioni complex soil are 0.4 in/hr, 0.13 in/hr, 0.07 in/hr, and 0.01 in/hr, respectively for 0%, 50%, 70%, and 95% volumetric rock percentages. Table 1 shows the decreased saturated hydraulic conductivities for each of the four soil types.

Table 1. Decreased Saturated Hydraulic Conductivities for Different Soils under Different Volumetric Rock Percentage with Soil-Rock Matrix

	HEC-1 Model 1 0% rock	HEC-1 Model 2 50% rock	HEC-1 Model 3 70% rock	HEC-1 Model 4 95% rock
Quilotosa-Vaiva-Rock Outcrop complex soil	0.4 in/hr	0.13 in/hr	0.07 in/hr	0.01 in/hr
Rock Outcrop-Cherioni complex soil,	0.4 in/hr	0.13 in/hr	0.07 in/hr	0.01 in/hr
Cherioni-Rock Outcrop complex soil	0.29 in/hr	0.094 in/hr	0.051 in/hr	0.0073 in/hr
Cherioni-Rock Outcrop complex soil with 5 to 60 percent slope	0.33 in/hr	0.1073 in//hr	0.058 in/hr	0.0083 in/hr

The only differences among these four HEC-1 models are the different values in LG cards (Green-Ampt rainfall infiltration parameters). Figure 4 shows the watershed boundary and land use distribution in the watershed area. The boundary is the same as WLB's watershed boundary. Watershed Modeling System (WMS 5.1) is used to significantly speed up the estimation process for the Green-Ampt rainfall infiltration parameters for each sub-basin. A computer program developed by using PERL language is used to update the Green-Ampt parameters. The land use and soil maps in GIS shape file format are imported into WMS to compute the Green-Ampt rainfall infiltration parameters. The parameters for land use types and soil types are based on the GIS database at FCDMC. The land use table and soil type table are also imported into WMS. For different volumetric rock percentages, only the saturated hydraulic conductivity for

Figure 4. Land Uses for White Tanks No.3 Watershed.



Quilotosa-Vaiva-Rock Outcrop complex soil, Rock Outcrop-Cherioni complex soil, Cherioni-Rock Outcrop complex soil, and Cherioni-Rock Outcrop complex soil with 5 to 60 percent slope in the soil type table needs to be changed. The land use table and soil table can be seen in Appendix 3.1.

The purpose for the 0% volumetric rock percentage HEC-1 model is to build a base model to compare the results with WLB's HEC-1 model. The HEC-1 models for 50% and 70% volumetric rock percentages correspond to the field observation on the road cuts during the March 16, 1999 field trip. The HEC-1 model of 95% volumetric rock percentage is to obtain conservative results. for basin/dam. The final model will be developed after field/lab test is finished for estimating the volumetric rock percentages for the four soil types (see Part 2 of this report for the final model).

All four HEC-1 models are based on the following assumptions:

1. All flow from the north inlet channel will be carried to the reservoir (i.e., no flow breakout to the east).
2. The borrow pit in sub-basin 16 is filled up with soil. The saturated hydraulic conductivity in

the pit's adjacent area is used for the filled pit (0.4 in/hr).

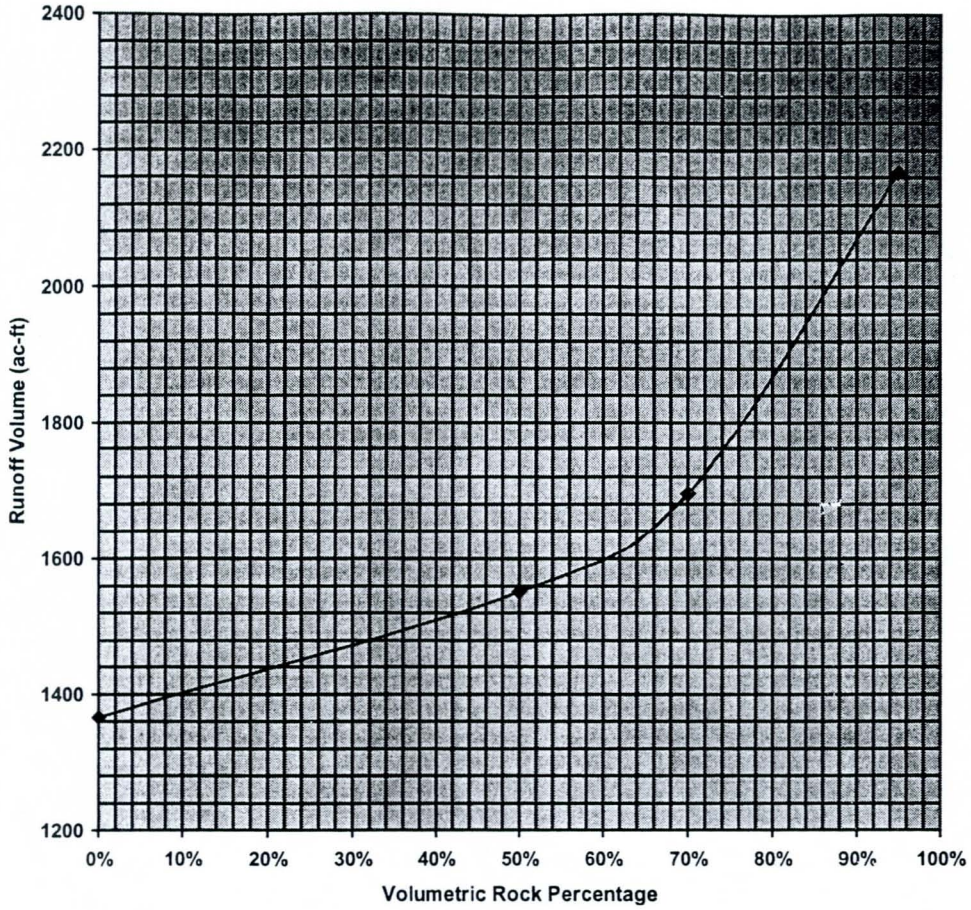
1.7 RESULTS

HEC-1 version 4.1 (version of July, 1997) is used to run the four HEC-1 models. Table 2 shows the results from these four HEC-1 models and the previous models (WLB's and NRCS' models). Figure 5 shows the relationship between the runoff volume and the volumetric rock percentage.

Table 2. 100-year 24-hour Runoff Volume, Peak Discharge, and Time-to-peak for White Tanks No.3 Watershed

	WLB's HEC-1 Model (1994)	NRCS TR-20 Model (1998)	FCDMC HEC-1 Model 1 (**0%** volumetric rock)	FCDMC HEC-1 Model 2 (**50%** volumetric rock)	FCDMC HEC-1 Model 3 (**70%** volumetric rock)	FCDMC HEC-1 Model 4 (**95%** volumetric rock)
HEC-1/TR-20 Input File Name	t:\biz\wt#3 spillway\wt3fut1.dat	t:\biz\wt#3 spillway\nrcs hydrology\wt 100yr.dat	t:\biz\wt#3 spillway\futex n.dat	t:\biz\wt#3 spillway\futex 50n.dat	t:\biz\wt#3 spillway\futex 70n.dat	t:\biz\wt#3 spillway\futex 95n.dat
Watershed Runoff Volume (ac-ft)	850 ac-ft	2205 ac-ft	1366ac-ft	1552 ac-ft	1695 ac-ft	2167 ac-ft
Reservoir Inflow Peak Discharge (cfs)	8115 cfs	10823 cfs	13711 cfs	15733 cfs	16761 cfs	18426 cfs
Reservoir Inflow Time-to-peak (hours)	13 hr	12.5 hr	12.92 hr	12.92 hr	12.83 hr	12.83 hr

Figure 5. White Tank No.3 Runoff Volume (ac-ft) versus Volumetric Rock Percentage



1.8 DISCUSSIONS AND RECOMMENDATION

Table 2 shows that the runoff volume of FCDMC's HEC-1 model of 0% rock (volumetric percentage) within Quilotosa-Vaiva-Rock Outcrop complex soil, Rock Outcrop-Cherioni complex soil, Cherioni-Rock Outcrop complex soil, and Cherioni-Rock Outcrop complex soil with 5 to 60 percent slope is higher than that of WLB's HEC-1 model. This is because the saturated hydraulic conductivity values used by WLB in 1994 are higher than the values documented in the current Maricopa Drainage Design Manual, Hydrology (Sabol et al., 1995). Table 2 shows that the runoff volumes of FCDMC HEC-1 models are smaller than the runoff

volume of NRCS TR-20 model. It can be also observed in Table 2 that the runoff volume varies from different volumetric rock percentages within Quilotosa-Vaiva-Rock Outcrop complex soil, Rock Outcrop-Cherioni complex soil, Cherioni-Rock Outcrop complex soil, and Cherioni-Rock Outcrop complex soil with 5 to 60 percent slope.

It should be pointed out that 50% and 70% volumetric rock are based on the observation of road cuts during one field trip (March 16, 1999), and the road cuts locations are along Tower Road near the watershed boundary at high elevations. It is recommended to collect more soil samples (see Part 2 of this report) of the Quilotosa-Vaiva-Rock Outcrop complex soil, Rock Outcrop-Cherioni complex soil, Cherioni-Rock Outcrop complex soil, and Cherioni-Rock Outcrop complex soil with 5 to 60 percent slope in the watershed to obtain a more representative value of the volumetric rock percentage. As shown in Figure 5, the runoff volume varies significantly due to changes in rock percentages, therefore, more literature and soil samples are needed to justify the use of rock percentages to finalize the White Tanks No. 3 HEC-1 model (see Part 2 of this report).

PART 2: FINAL HYDROLOGIC ANALYSIS

2.1 PURPOSE

A final HEC-1 is developed in this Final Hydrologic Analysis (Part 2) for White Tanks No.3 modification planning and design. In this analysis, issues related to infiltration are discussed in more detail. The rock percentages within the soil matrix for the final hydrologic design are based on NRCS Soil Survey of Aguila-Carefree Area, Parts of Maricopa and Pinal Counties, Arizona (Camp, 1986) and NRCS Soil Survey of Maricopa County, Arizona, Central Part (Hartman, 1977). A verification study is also performed to verify the HEC-1 model.

2.2 IMPORTANT ISSUES IN WHITE TANKS NO.3 HEC-1 MODELING

2.2.1. Issues Related to Infiltration

White Tanks No.3 watershed is a typical southwest semiarid mountainous watershed. Half of the watershed has a slope larger than 25%. The infiltration rate for the mountainous soils is affected by many factors. Some of the important factors are vegetation cover, slope gradient , rock cover, rock percentage within the soil matrix, and bedrock. Since the Green-Ampt infiltration method is used in the HEC-1 modeling, it is important to understand how the Green-Ampt infiltration method used in the HEC-1 modeling deals with these factors. The vegetation cover and rock outcrop cover factors are already included in the Green-Ampt infiltration parameter estimation process documented in the FCDMC's Drainage Design Manual (George, et al., 1995). However, the slope gradient, bedrock, and rock percentage within the soil matrix can not be handled directly by the HEC-1's Green-Ampt infiltration method.

The theorectical research by Philip (1991) shows that the characteristics of infilration normal to the hillslope are very similar to those of infiltration from a horizontal surface. The extensive research by Wilcox et al. (1988) based on the data collected in the Guadalupe

Mountains of New Mexico (steep slopes) shows that the infiltration rate is positively related to slope gradient because interflow increases with increases in slope. In other words, larger slope will cause higher infiltration rate, thus less surface runoff. Therefore, if the HEC-1's Green-Ampt infiltration method is used, the runoff volume should be larger than the actual one because the White Tanks Mountains have steep slopes and the HEC-1's Green-Ampt infiltration method does not consider slope impact on infiltration. Thus, the reservoir or detention basin design will be more conservative if the runoff volume is adopted.

The bedrock also affects the infiltration volume. In this report, the depth-to-bedrock is defined as the vertical distance measured from ground surface to the bedrock surface. The depth-to-bedrock for the mountainous soils ranges from 6" to 18" (major portion is 18"). The depth-to-bedrock for the foothill soils is larger than 5 feet. All infiltrated water on the mountainous areas will eventually flow downslope, as interflow, to the footfill areas very slowly, and then will infiltrate into the ground through the foothill soils. As discussed above, even though HEC-1's Green-Ampt method does not model the slope gradient and the bedrock, it should not affect the detention basin design. However, the rock percentages within the mountainous soils will significantly change the infiltration rate, thus the runoff volume will be higher for a higher rock percentage as discussed in Part 1 of the hydrologic study. The final rock percentage will be selected in Section 2.3.

2.2.2. Issues Related to HEC-1 Modeling

There are three issued related to HEC-1 modeling. The first one is channel loss in channel routing (RL cards). The second one is the watershed runoff volume estimation from index storms (JD cards). The third one is the estimation of routing steps (NSTEPS) in channel routing.

In this study (Part 2), an HEC-1 model is developed by modifying the HEC-1 model developed in Preliminary Hydrologic Analysis (PART 1). The HEC-1 model in Part 1 was based

on WLB's HEC-1 model as discussed in Part 1. In Part 1's HEC-1 and WLB's HEC-1 model, the channel loss was included in channel routing by using RL cards. In this final study (Part 2), the channel loss cards (RL cards) are removed from the HEC-1 model because the estimation of channel loss in WLB's study is subject to great uncertainties, and the future development along the washes, which was not considered in WLB's study, may reduce the channel loss significantly.

Although the HEC-1 model computes the total runoff volume for the whole watershed, the watershed runoff volume should be computed by adding the runoff volumes for all individual sub-basins because there may be a problem in HEC-1's log-based interpolation associated with JD cards (index storm hydrographs). It has been found that the computed total runoff volume for the whole watershed is about 3% less than the sum of the runoff volumes for all individual sub-basins for White Tanks No.3 watershed. The reason could be due to the interpolation algorithm used in HEC-1 associated with index storms' hydrographs (JD cards).

NSTEPS values for routing reaches are estimated by an iterative process. The estimation of NSTEPS is usually performed as the last step in HEC-1 model development. The iterative process for estimating NSTEPS is as following. Estimation of NSTEPS for each routing reach must proceed from upstream to downstream. The criterion for estimating NSTEPS is that the final estimated NSTEPS satisfies

$$NSTEPS = \Delta TP/NMIN$$

where ΔTP is the difference in time-to-peak between the inflow and outflow hydrographs for the routing reach and NMIN is the computation time step specified in IT card in HEC-1 models. One may start with any initial guess for NSTEPS. The initial guess may be obtained by assuming a velocity (V in ft/s) and using L/(V*NMIN*60) where L is the reach length (feet). The initial guess may be simply assumed by an arbitrary number. After the initial guess is obtained, it is entered into the HEC-1 model. Then, the HEC-1 model is run. The difference in time-to-peak

between the inflow and outflow hydrographs is found from the HEC-1 output file. Then, the next NSTEPS is estimated by using above equation. Check if the two consecutive NSTEPS are the same or close enough. If yes, NSTEPS for this routing reach is found. If not, the found NSTEPS is entered into the HEC-1 model, and the HEC-1 model is run. This iterative process is continued until two consecutive NSTEPS are the same or close enough. The aforementioned iterative process is performed for each routing reach from upstream to downstream.

2.3 ROCK FRAGMENTS PERCENTAGES (VOLUMETRIC) FOR MOUNTAINOUS COMPLEX SOILS

2.3.1 NRCS Soil Survey

The rock fragments percentages (volumetric) within the soils in mountainous areas are based on NRCS Soil Survey of Aguila-Carefree Area, Parts of Maricopa and Pinal Counties, Arizona (Camp, 1986) and NRCS Soil Survey of Maricopa County, Arizona, Central Part (Hartman, 1977). As discussed in Part 1 of this study, there are four major complex soils in mountainous areas: Quilotosa-Vaiva-Rock Outcrop complex soil, Rock Outcrop-Cherioni complex soil, Cherioni-Rock Outcrop complex soil, and Cherioni-Rock Outcrop Complex soil with 5 to 60 percent slope. Quilotosa-Vaiva-Rock Outcrop complex soil and Cherioni-Rock Outcrop Complex soil with 5 to 60 percent slope are documented in Camp (1986). Rock Outcrop-Cherioni complex soil and Cherioni-Rock Outcrop complex soil are documented in Hartman (1977). As can be seen in Table 1 of Part 1, these soils' saturated hydraulic conductivities for zero rock fragments percentage are 0.4 in/hr, 0.4 in/hr, 0.29 in/hr, and 0.33 in/hr, respectively. The volumetric rock fragments percentages within these soils, which are obtained from Table 13 of NRCS Soil Survey (Camp, 1986) and Table 5 of NRCS Soil Survey (Hartman, 1977), will be used in conjunction with Equations (3), (4), and (5) in Part 1 to modify saturated hydraulic conductivities.

Table 13 of NRCS Soil Survey (Camp, 1986) and Table 5 of NRCS Soil Survey (Hartman, 1977) document the sieve passing percentages for sieve No.4 (4.75 mm), sieve No. 10 (2.00 mm), sieve No. 40 (0.425 mm), and sieve No. 200 (0.075 mm). They also document the percentages for rock fragements greater than 3 inches. Based on Chapter 3 of Agriculture Handbook No.18 (United States Department of Agriculture, 1993), particles larger than 2 mm in diameter are considered as rock fragments (pebbles, cobbles, stones, and boulders). Particles smaller than 2 mm in diameter are considered as fine earth. Based on Agriculture Handbook No.18, the passing percentages for rock fragments are based on volume, and the passing percentages for fine earth are based on weight. The following table is abstracted from Table 13 of NRCS Soil Survey (Camp, 1986) and Table 5 of NRCS Soil Survey (Hartman, 1977).

Table 3. Passing Percentages for Soils in Mountainous Areas

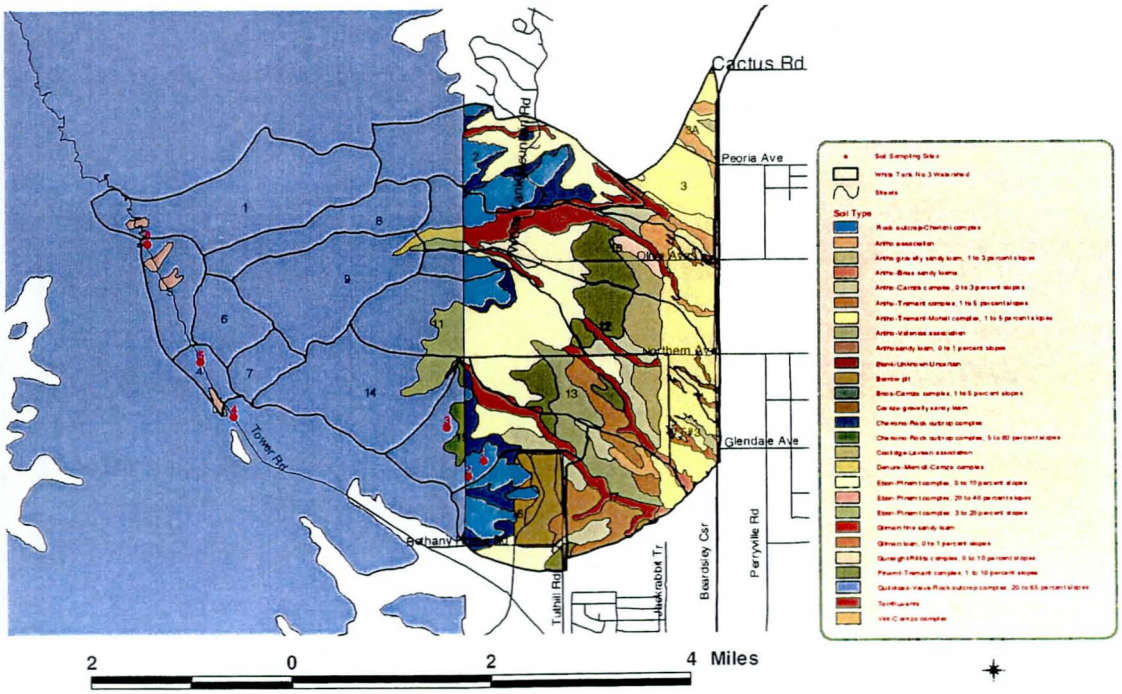
	Percentage passing sieve number			
Soil Types	**No. 4 (4.75 mm)**	**No. 10 (2.00 mm)**	**No. 40 (0.425 mm)**	**No. 200 (0.075 mm)**
Quilotosa (0-2 inches deep)	30-35% (in volume)	20-25% (in volume)	10-20% (in weight)	5-10% (in weight)
Quilotosa (2-14 inches deep)	30-35% (in volume)	20-25% (in volume)	10-20% (in weight)	5-10% (in weight)
Vaiva (0-3 inches deep)	45-55% (in volume)	40-50% (in volume)	35-45% (in weight)	25-40% (in weight)
Vaiva (3-11 inches deep)	25-40% (in volume)	15-35% (in volume)	10-30% (in weight)	5-25% (in weight)
Cherioni (0-1 inches deep) for Cherioni-Rock Outcrop Complex Soil with 5 to 60% Slope (Camp, 1986)	35-45% (in volume)	30-40% (in volume)	25-40% (in weight)	15-30% (in weight)
Cherioni (1-10 inches deep) for Cherioni-Rock Outcrop Complex Soil with 5 to 60% Slope (Camp, 1986)	30-60% (in volume)	25-50% (in volume)	15-25% (in weight)	5-15% (in weight)
Cherioni (0-6 inches deep) for Cherioni-Rock Outcrop Complex Soil or Rock Outcrop-Cheironi Complex Soil (Hartman, 1977)	40-65% (in volume)	30-50% (in volume)	20-40% (in weight)	15-30% (in weight)

Note: Lower value of the sieve pass range percent will be used, which corresponds to a higher rock percentage value, thus higher runoff volume.

2.3.2 Verification Field Trip

Although NRCS soil survey books are accepted throughout the United States, FCDMC and NRCS still conducted a 1-day field trip to White Tanks No.3 watershed to evaluate or confirm the rock percentages within the soils in mountainous areas. The purpose of the field trip was not to sample all watersheds but to spot-check the values documented in NRCS soil survey books. The field trip crew included both FCDMC and NRCS staff. Mr. Philip Camp participated in the field trip. Mr. Camp is the author of NRCS 1986 soil survey book for Aguila-Carefree Area, Parts of Maricopa and Pinal Counties, Arizona. During the field trip, NRCS staff first demonstrated how NRCS samples the volumetric rock percentage within the soil using Sieve

Figure 6. Soil Sampling Sites for Estimating Volumetric Rock Percentages within Soils.



No.10 (2 mm). Then, the FCDMC staff finished six samplings in the watershed. The sampling sites can be found in Figure 6.

The sampling results and the comparison with what are published in NRCS soil survey

books can be found in Table 4. As can been seen in Table 4, the percentage for rocks larger than 2 mm in diameter at sampling site No.2 is within the range documented in NRCS soil survey books. For sampling sites No.1, 3, 4, 5, and 6, the percentages for rocks larger than 2 mm in diameter are lower than the values in NRCS soil survey books. If the values in NRCS soil survey books are to be used to modify the satureated hydraulic conductivities, then lower satureated hydraulic conductivies will be found, which gives higher runoff volume. Thus, the results will be more conservative for the detention basin design.

Table 4. Volumetric Rock Percentage Comparison between Field Sampling and NRCS Survey Books (using Sieve No.10)

Sampling Site	Complex Soil Types	Volumetric Rock Percentage by Field Sampling (using Sieve No.10)	Volumetric Rock Percentage based on NRCS Survey Books
1	Rock Outcrop-Cherioni complex soil	40%	50% to 70% (Hartman, 1977)
2	Rock Outcrop-Cherioni complex soil	55%	50% to 70% (Hartman, 1977)
3	Quilotosa-Vaiva-Rock Outcrop complex soil	33%	68%-79%* (Camp, 1986)
4	Quilotosa-Vaiva-Rock Outcrop complex soil	65%	68%-79%*(Camp, 1986)
5	Quilotosa-Vaiva-Rock Outcrop complex soil	55%	68%-79%*(Camp, 1986)
6	Quilotosa-Vaiva-Rock Outcrop complex soil	50%	68%-79%*(Camp, 1986)

*: The rock percentages are computed by averaging the representative percentage values of Quilotosa and Vaiva soils. The representative percentage value is computed by depth-based weighted-averaging the percentages at different depths. For example, the representative sieving passing percentage range for Vaiva soil type for passing siever No.4 is computed by 45%*3/11+25%*8/11=30% and 55%*3/11+40%*8/11=44%.

2.3.3 Rock Percentages of Complex Soils

Equation (1) in Part 1, which was developed by Bouwer and Rice (1984), is used to modify the saturated hydraulic conductivities for Quilotosa-Vaiva-Rock Outcrop complex soil, Rock

Outcrop-Cherioni complex soil, Cherioni-Rock Outcrop complex soil, and Cherioni-Rock Outcrop Complex soil with 5 to 60 percent slope. Equation (1) was developed by studying various sand-gravel mixtures in laboratory permeameters. The gravel particles had a diameter of 1.5 cm. To be more consistent with the gravel size used in the laboratory by Bouwer and Rice (1984), the volumetric rock fragments for sieve No. 4 (4.75 mm) will be used in conjunction with Equation (1). The volumetric rock fragments percentages are computed by substracting the passing percentages for No.4 by 100%. It should be pointed out that the rock fragments defined by 4.75 mm or larger diameter are larger than the rock fragments defined by 1.5 cm. In another word, using 4.75 mm for Equation (1) will yield a higher runoff volulme for the HEC-1 modeling.

As can be observed in Table 3, there is a range for the passing percentages for sieve No.4 (4.75 mm). For example, Quilotasa (0-2 inches deep) has a range from 30% to 35% passing percentages. In this study, the smaller value of the range will be selected to be more conservative for the detention basin design (a smaller value corresponds to a higher rock percentage, thus higher runoff volume). For example, 30% passing percentage will be used for Quilotosa (0-2 inches deep). Therefore, 70% is the corresponding rock fragment percentage in volume for Quilotosa (0-2 inces deep). Table 5 shows the selected values for the rock fragments for different soils.

Table 5. Volumetric Rock Fragment Percentages for Soils in Mountainous Areas

Soil Types	Passing Percentage for Rock Fragments	Rock Fragment Percentage Range	Selected Rock FragmentPercentages
Quilotosa (0-2 inches deep)	30-35% (in volume)	70-65% (in volume)	70% (in volume)
Quilotosa (2-14 inches deep)	30-35% (in volume)	70-65% (in volume)	70% (in volume)
Vaiva (0-3 inches deep)	45-55% (in volume)	55-45% (in volume)	55% (in volume)
Vaiva (3-11 inches deep)	25-40% (in volume)	75-60% (in volume)	75% (in volume)
Cherioni (0-1 inches deep) for Cherioni-Rock Outcrop Complex Soil with 5 to 60% Slope (Camp, 1986)	35-45% (in volume)	65-55% (in volume)	65% (in volume)
Cherioni (1-10 inches deep) for Cherioni-Rock Outcrop Complex Soil with 5 to 60% Slope (Camp, 1986)	30-60% (in volume)	70-40% (in volume)	70% (in volume)
Cherioni (0-6 inches deep) for Cherioni-Rock Outcrop Complex Soil or Rock Outcrop-Cherioni Complex Soil (Hartman, 1977)	40-65% (in volume)	60-35% (in volume)	60% (in volume)

As can be seen in Table 5, some soil types have two selected rock fragment percentages corrsponding to two different depth ranges. For example, Vaiva located 0-3 inches below the ground surface has 55% rock fragments while Vaiva located 3-11 inches below the ground surface has 75% rock fragment. Therefore, a depth-based-weighted-averaging method is applied to find the representative rock fragment percentage. For example, the representative rock fragment percentage for Vaiva is computed by 55%*3/11+75%*8/11 = 70%. The representative rock fragment percentage for Quilotosa is computed by 70%*2/14+70%*12/14 = 70%. The representative rock fragment percentage for Cherioni with Cherioni-Rock Outcrop Complex Soil with 5 to 60% Slope is computed by 65%*1/10+70%*9/10 = 70%. No weighted-average is necessary for Cherioni within Cherioni-Rock Outcrop Complex Soil or or Rock Outcrop-

Cherioni Complex Soil. The final rock fragment percentage in the Quilotosa-Vaiva-Rock Outcrop complex soil is computed by averaging the rock fragments of Quilotosa and Vaiva, yielding 70%. Table 6 shows the rock fragments for the four complex soils and the corresponding depths from ground surface to bedrock surface.

Table 6. Volumetric Rock Fragment Percentages for Complex Soils in Mountainous Areas (to be used in conjunction with Eqs. (3)-(5) to compute the saturated hydraulic conductivities)

Complex Soil Types	Rock FragmentPercentages	Depth from Ground Surface to Bedrock Surface
Quilotosa-Vaiva-Rock Outcrop complex soil (Camp, 1986)	70% (in volume)	18 inches for Quilotosa (unweathered bedrock) 17 inches for Vaiva (unweathered bedrock)
Rock Outcrop-Cherioni Complex Soi (Hartman, 1977)l	60% (in volume)	6-12 inches (Silica-lime cemented hardpan bedrock))
Cherioni-Rock Outcrop Complex Soil (Hartman, 1977)	60% (in volume)	6-12 inches (Silica-lime cemented hardpan bedrock)
Cherioni-Rock Outcrop Complex soil with 5 to 60 percent slope (Camp, 1986)	70% (in volume)	13 inches (unweathered bedrock)

2.3.4 Saturated Hydraulic Conductivities

Equations (3)-(5) in Part 1 and Table 6 are used to compute the saturated hydraulic conductivities which can be seen in Table 7.

Table 7. Saturated Hydraulic Conductivities for Mountainous Complex Soils

Complex Soil Types	0% Rock Fragments	Final Rock Fragments based on Table 5
Quilotosa-Vaiva-Rock Outcrop Complex Soil	0.4 in/hr	0.0706 in/hr
Rock Outcrop-Cherioni Complex Soil	0.4 in/hr	0.1 in/hr
Cherioni-Rock Outcrop Complex Soil	0.29 in/hr	0.0725 in/hr
Cherioni-Rock Outcrop Complex Soil with 5 to 60 Percent Slope	0.33 in/hr	0.058 in/hr

2.4. HEC-1 Hydrologic Model and Results

An HEC-1 model is developed in this final hydrologic analysis by modifying the WLB's HEC-1 model. The volumetric rock percentages for each of the four complex soil types are from Table 7. As in Part 1 (Preliminary Hydrologic Analysis), Watershed Modeling System (WMS 6.0) is used to speed up the setup process of the HEC-1 model. A computer program developed by using PERL language is used to update the Green-Ampt parameters. Same land use and soil type GIS shape files are used as in the Preliminary Hydrologic Analysis. The land use table and soil type table are imported into WMS. However, the soil type table used in the final hydrologic analysis is different from that in the preliminary hydrologic analysis in that the saturated conductivities in the final hydrologic analysis are based on Table 7. The land use table and soil type table can be seen in Appendix 3.2.

In WLB's HEC-1 model and Part 1's HEC-1 model, the channel loss was included in channel routing by using RL cards. In Part 2, the channel loss cards (RL cards) are removed from the HEC-1 model because the estimation of channel loss is subject to great uncertainties, and the future development along the washes may reduce the channel loss significantly.

The HEC-1 model in this study (Part 2) is also based on the following assumptions used in Part 1 (Preliminary Hydrologic Analysis):

1. All flow from north inlet channel will be carried to the reservoir (i.e., no flow breakout to the east).
2. The borrow pit in sub-basin 16 is filled up with soil. The saturated hydraulic conductivity in the pit's adjacent area is used for the filled pit (0.4 in/hr).

HEC-1 version 4.1 (version of July, 1997) is used to run the HEC-1 model. The runoff volume for each sub-basin can be found in Table 7. It should be pointed out that although the

HEC-1 model computes the total runoff volume for the whole watershed, the total runoff volume should be computed by adding the runoff volumes for individual sub-basins because there is a problem in HEC-1 interpolation associated with JD cards (index storms). The 100-year, 24-hour watershed runoff volume is computed as **1968 ac-ft** by summing up the runoff volumes for all sub-basins. More detailed results can be found in Appendix 4.5. The descriptions of all digital files (HEC-1 and WMS) used in Final Hydrologic Analysis can be found in Appendix 5.2.2. All digital files are contained in the attached CD.

Table 8. Runoff Volumes for Individual Sub-basins

Sub-basin Name	Runoff Volume (acre-ft)
1	229
2	207
3	49
3A	17
4	35
5	84
6	53
7	37
8	96
9	164
10	149
11	164
12	104
13	82
14	170
15	127
16	112
17	61
WT3	28
Total Runoff Volume	1968 ac-ft

2.5. HEC-1 MODEL VERIFICATION

2.5.1 Verification using USGS Regression Equation

Although USGS regional regression equations for the 100-year peak discharge are subject to great uncertainty, they can be used to check if the results by HEC-1 model are reasonable. The 100-year peak discharge computed by the USGS regression equation (Thomas et al., 1995) is compared with the 100-year peak discharge computed by the HEC-1 model. The USGS regression equation for the 100-year peak discharge is

$$Q_{100} = 10^{(6.55-3.17\,\mathrm{AREA}^{-0.11})}(\mathrm{ELEV}/1000)^{-0.454} \qquad (6)$$

in which AREA is the drainage area in square miles and ELEV is the mean basin elevation in feet. The drainage area for White Tanks No.3 is 20.5 square miles. The mean basin elevation is computed as 1900 ft by using WMS. Therefore, the 100-year peak discharge is computed as 14111 cfs by Equation (6). The 100-year 24-hour peak discharge based on the HEC-1 model is 16687 cfs, which is about 18% higher than the USGS regression equation 100-year peak discharge. Because 16687 cfs is much lower than the maximum value in the envelope curve of the USGS regression equation and the USGS regression equation for 100-year storm has 39% standard error, the HEC-1 model's results can be considered consistent with the results by the USGS regression equation.

2.5.2. Verification using Historical Storms

2.5.2.1. Historical Storms in White Tanks No.3 Watershed

Historical storms are used to verify the final hydrologic model. There have been several major storms in the White Tanks No.3 watershed. The largest recorded storm occurred on

Saturday, September 5, 1970. It is reported that 4.5" of precipitation was recorded in a gauge near the intersection of Jackrabbit Road (195th Avenue) and West Indian School Road (SCS, 1970). However, the center of the storm was not in the White Tanks No.3 watershed. White Tanks No.3 received an inflow of approximately 350 acre-feet. Based on a SCS 1970 Memorandum, the reservoir was emptied in a matter of a few days through seepage into the ground.

There are two rain gages in the watershed. However, both of them are located on the edge of the watershed. One is located on White Tanks Mountain east peak, the other one is located on the White Tanks No.3 Dam. Since the FCDMC's Automated Local Evaluation in Real Time (ALERT) rainfall/water level gage (ID: 5415) was installed by FCDMC on White Tanks No.3 Dam in March, 1986, there have been several major storms. Table 9 lists the information on the 1970 storm and some selected ALERT-recorded storms.

The storms documented in Table 9 are used for verification. The purpose of verification is to compare the computed runoff volume with the measured runoff volume. Since the two ALERT gages are almost on the boundary of the watershed, an average process should be used to compute the average rainfall depth over the entire watershed. Different weights are assigned to the two gages when the rainfall depths are computed. Three kinds of weighting schemes are used. The first one is to assign 0.5 to both gages. The second one is to assign 0.1 to White Tanks No.3 Dam rain gage and 0.9 to White Tanks Mountain East Peak rain gage. The third one is to assign 0.9 to White Tanks No.3 Dam rain gage and 0.1 to White Tanks Mountain East Peak rain gage. The rainfall temporal distribution recorded in White Tanks No.3 East Peak gage is used as the rainfall temporal distribution in the HEC-1 model. Because there are three different weighting schemes for each historical storm, thus, there are three HEC-1 models for each storm. Therefore, there are twelve HEC-1 models for verification purpose.

Table 9. Historical Storms in White Tanks No.3 Watershed

Date(s) of Storm	09/05/1970	09/18/1992 To 09/19/1992	01/09/1993	02/16/1998 To 02/17/1998	03/31/1999 To 04/01/1999
Rainfall Depth (inches) at White Tank No.3 Dam ALERT Gage (ID: 5415 installed in 1986)	N/A	0.67 inches within 1 hr and 15 min (from 11:45 PM of 9/18/92 to 01:00 AM of 9/19/92)	1.88 inches within 17 hrs (from 06:45 AM to 11:45 PM)	1.96 inches with 14 hrs and 30 min (from 09:30 AM of 2/16/98 to 12:00 AM of 2/17/98)	1.22 inches within 11 hours 15 min (09:00 PM of 3/31/99 to 08:15 AM of 4/1/99)
Rainfall Depth (inches) at White Tank Mountain E. Peak ALERT Gage (ID: 5430, installed in 1980)	N/A	0.43 inches within 2 hrs and 30 min within (from 10:00 PM of 9/18/92 to 00:30 AM of 9/19/92)	1.48 inches within 16 hrs and 15 min (from 06:45 AM to 11:00 PM)	3.12 inches with 18 hrs and 15 min (09:45 AM of 2/16/98 to 04:00 AM 02/17/98)	0.79 inches within time periods of 2 hrs and 2 hrs 15 min (from 08:00 PM of 3/31/99 to 10:30PM of 4/1/99; from 10:15 AM of 4/1/99 to 12:30 PM of 4/1/99)
Runoff Volume (ac-ft) Recorded at the End of Storm	350 ac-ft	247 ac-ft (7.4% of full storage*)	249 ac-ft (7.5% of full storage*)	130 ac-ft (3.9% of full storage*)	137 ac-ft (4.1% of full storage*)
Drawdown Time to Zero Staff Gage at 1190.07' (124 ac-ft)	N/A	23 hr	23 hr	17 hours	8 hours
Decrease in Water Depth (feet) During Drawdown Time (to Zero Staff Gage at 1190.07'	N/A	2.6 feet	2.6 feet	0.25 feet	0.52 feet
Infiltration Rate (in/hr)	N/A	1.36 in/hr	1.36 in/hr	0.176 in/hr	0.78 in/hr
Pre-storm Soil Condition	N/A	Wet	Wet	Wet	Dry

* full storage is the storage volume below the spillway crest elevation

2.5.2.2. Verification Results Using Historical Storms

Since the antecedent moisture content condition for the soils is dry for the storm in 1999 and is wet for storms in 1992, 1993, and 1998, the Green-Ampt parameters are re-computed by

using WMS 5.1, and then transferred to the HEC-1 models by the computer program developed by using PERL. Table 10 shows the final HEC-1 results for runoff volumes. It may be noted that the watershed runoff volume should be computed by summing up the runoff volumes for individual sub-basins in HEC-1 results because of interpolation problem associated with index storms in HEC-1 modeling. However, since the difference between the sum and the HEC-1-directly-computed watershed runoff volume is about 3%, the verification results only show the watershed runoff volume directly computed in HEC-1 modeling.

Table 10 shows the comparison between the computed and measured runoff volumes. It should be pointed out that the runoff volumes computed by the HEC-1 models are based on assumed different weights assigned to the two gages. Because HEC-1 is based on unit hydrograph theory, one of the assumptions for unit hydrograph theory is that the rainfall excess must be uniform, which may not be true in reality. Since there are only two gages on the edge of the watershed, the actual rainfall depth and pattern for the watershed are not known. Therefore, the comparison of the computed and measured runoff volume can only serve as a reference. However, since the HEC-1 model is used to size the detention basin, over-estimation of the runoff volume by the HEC-1 modeling is "better" than under-estimation. As can be seen in Table 10, the HEC-1 model (v92_3wt.dat) gives a very good estimate for 1992 storm's measured runoff volume. The other two models for the 1992 storm under-estimate the runoff volume. For the 1993 and 1998 storms, the HEC-1 models significantly over-estimate the runoff volume. For the 1999 storm, v99_1dr.dat gives a good estimate. The other two models for the 1999 storm either under-estimate or over-estimate the runoff volume by 20%. Overall, it can be observed in Table 10 that nine of twelve HEC-1 models give larger runoff volumes than the measured runoff volumes. Therefore, the HEC-1 modeling gives conservative estimate for detention basin design. All digital files related to verification study can be found in the attached CD.

Table 10. Computed and Measured Runoff Volumes for Historical Storms in White Tanks No.3.

Verification Historical Storms	Weights Assigned to Two Rainfall Gages	HEC-1 file name (t:\biz\wt#3 spillway)	Computed Runoff Volume (ac-ft)	Measured Runoff Volume (ac-ft)
09/18/1992 To 09/19/1992	0.5 to both gages	v92_1wt.dat	163	247
	0.1 to WT Dam 0.9 to WT E. Peak	v92_2wt.dat	89	
	0.9 to WT Dam 0.1 to WT E. Peak	v92_3wt.dat	248	
01/09/1993	0.5 to both gages	v93_1wt.dat	818	249
	0.1 to WT Dam 0.9 to WT E. Peak	v93_2wt.dat	698	
	0.9 to WT Dam 0.1 to WT E. Peak	v93_3wt.dat	940	
02/16/1998 To 02/17/1998	0.5 to both gages	v98_1wt.dat	1035	130
	0.1 to WT Dam 0.9 to WT E. Peak	v98_2wt.dat	1390	
	0.9 to WT Dam 0.1 to WT E. Peak	v98_3wt.dat	720	
03/31/1999 To 04/01/1999	0.5 to both gages	v99_1dr.dat	139	137
	0.1 to WT Dam 0.9 to WT E. Peak	v99_2dr.dat	112	
	0.9 to WT Dam 0.1 to WT E. Peak	v99_3dr.dat	167	

2.6 DISCUSSIONS AND RECOMMENDATION

In this analysis (Final Hydrologic Analysis), a final HEC-1 model was developed to compute the runoff volume for White Tanks No.3 modification planning and design. The runoff volume for the 100-year, 24-hour storm is **1968 acre-ft**, which is recommended to be used in the planning and design. It should be pointed out that the runoff volumes for any concentration points should be computed by manually adding the interpolated runoff volumes of the individual

upstream sub-basins. Direct reading the runoff volume for the concentration points from HEC-1 output file may under-estimate the runoff volume. In the Final Hydrologic Analysis, many issues related to infiltration and HEC-1 modeling were also discussed. Verification based on USGS regression equation and HEC-1 modeling was also performed to support the Final Hydrologic Analysis. The verification results justify the final HEC-1 model.

SUMMARY AND CONCLUSIONS

This hydrologic study has two parts. Part 1 is the Preliminary Hydrologic Analysis, and Part 2 is the Final Hydrologic Analysis. In Part 1, four different HEC-1 models were developed by modifying the WLB's HEC-1 model. These four different HEC-1 models correspond to four different volumetric rock percentages within the soils of White Tanks Mountains. In Part 2, the NRCS soil survey information was used to finalize the HEC-1 model. The runoff volume for the 100-year, 24-hour storm is **1968 acre-ft**. Verification analysis of the final HEC-1 model was also performed in Part 2. It should be pointed out that the runoff volumes for other concentration points should be computed by manually adding the interpolated runoff volumes of the individual upstream sub-basins. Direct reading the runoff volume for the concentration points from HEC-1 output file may under-estimate the runoff volume.

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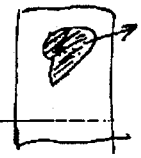
APPENDIX 1 DERIVATION FOR HYDRAULIC CONDUCTIVITY AS A FUNCTION OF VOLUMETRIC ROCK PERCENTAGE WITHIN SOIL-ROCK MATRIX

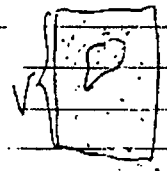
$\frac{e_b}{e_s} =$



$\gamma \cdot V$ ind. of

$$e_b = \frac{V_{v,\,matrix}}{V_{s,\,matrix}} = \cancel{V_{v,\,soil}}$$

$$e_s = \frac{V_{v,\,soil}}{V_{s,\,soil}}$$



$$\frac{1}{e_s} = \frac{V_{s,\,soil}}{V_{v,\,soil}}$$

$$\frac{1}{e_s} + 1 = \frac{V}{V_{v,\,soil}}$$

$$\frac{1+e_s}{e_s} = \frac{V}{V_{v,\,soil}}$$

$$V_{v,\,matrix} = V_{v,\,soil} - (\gamma \cdot V) \cdot x$$

$$= V_{v,\,soil} - \gamma \cdot V \cdot \frac{e_s}{1+e_s} \cdot x$$

$$\frac{V_{v,\,soil}}{V} = \frac{e_s}{1+e_s} \Rightarrow = x$$

$$\therefore V = \frac{(1+e_s)\,V_{v,\,soil}}{e_s} = x\,V_{v,\,soil}$$

$$\therefore V_{v,\,matrix} = V_{v,\,soil} - \frac{e_s}{1+e_s} \cdot (\gamma V_T)$$

$$V_{s,\,matrix} = \gamma V + (V_{s,\,soil} - \gamma)$$

$$e_s = \frac{V_{v,\,soil}}{V_{s,\,soil}} \Rightarrow 1 + e_s = \frac{V}{V_{s,\,soil}} \Rightarrow V_{s,\,soil} = \frac{V}{1+e_s}$$

$$\therefore \gamma = \frac{\gamma V}{1+e_s}$$

$$\therefore V_{s,\,matrix} = \gamma V + \left(V_{s,\,soil} - \frac{\gamma V}{1+e_s}\right)$$

$$\therefore e_b = \frac{V_{v,matrix}}{V_{s,matrix}} = \frac{V_{v,soil} - \frac{e_s}{1+e_s}\gamma V}{\gamma V + V_{s,soil} - \frac{\gamma V}{1+e_s}}$$

$$1 - \frac{1}{1+e_s} = \frac{1+e_s-1}{1+e_s} = \frac{e_s}{1+e_s}$$

$$\therefore e_b = \frac{V_{v,soil} - \frac{e_s}{1+e_s}\gamma V}{V_{s,soil} + \frac{e_s}{1+e_s}\gamma V}$$

$$= \frac{e_s - \frac{e_s \gamma V}{(1+e_s)V_{s,soil}}}{1 + \frac{e_s}{1+e_s}\gamma V \frac{1}{V_{s,soil}}}$$

$$\because e_s = \frac{V_{v,soil}}{V_{s,soil}} \quad \therefore 1+e_s = \frac{V}{V_{s,soil}}$$

$$\therefore e_b = \frac{e_s - \frac{e_s \gamma}{1+e_s} \cdot \frac{1+e_s}{1}}{1 + \frac{e_s}{1+e_s}\gamma \cdot \frac{1+e_s}{1}}$$

$$= \frac{e_s(1-\gamma)}{\frac{(1+e_s)^2 + e_s\gamma}{(1+e_s)^2}}$$

2

$$= \frac{e_s\frac{[(1+e_s)^2-\gamma]}{(1+e_s)^2}}{\frac{(1+e_s)^2+e_s\gamma}{(1+e_s)^2}} = \frac{e_s[(1+e_s)^2-\gamma]}{(1+e_s)^2+e_s\gamma}$$

$$\therefore \frac{e_b}{e_s} = \frac{(1+e_s)^2-\gamma}{(1+e_s)^2+e_s\gamma}$$

$$e_b = \frac{e_s - e_s\gamma}{1+e_s\gamma}$$

$$\therefore \frac{e_b}{e_s} = \frac{1-\gamma}{1+e_s\gamma}$$

rock percentage

$$\therefore K_b = K_s\frac{e_b}{e_s} = K_s \times \frac{1-\gamma}{1+e_s\gamma}$$

$$e_s = \frac{V_{v,\,sol}}{V_{s,\,sol}} \Rightarrow \frac{1}{e_s} = \frac{V_{s,\,sol}}{V_{v,\,sol}} \Rightarrow \frac{1+e_s}{e_s} = \frac{V}{V_{v,\,sol}}$$

$$\therefore \frac{V_{void}}{V_{total}} = \frac{e_s}{1+e_s} = p \Rightarrow p + e_s p = e_s$$

$$\Rightarrow p = e_s(1-p) \Rightarrow e_s = \frac{p}{1-p}$$

rock %

$$K_b = K_s \times \frac{1-\gamma}{1+\gamma\times\frac{p}{1-p}} = K_s \times \frac{(1-\gamma)(1-p)}{1-p+\gamma p}$$

pore %

3

Based on Rawls,

Sandy loam $K = 0.41$ cm/hr, $\phi = 0.5$

$$e_s = \frac{\phi}{1-\phi} = \frac{0.5}{1-0.5} = 1.0$$

Void ratio

$\phi \uparrow \Rightarrow K_b \downarrow$

$$\frac{1-\gamma}{1+\frac{\gamma\phi}{1-\phi}\left(\frac{1}{\gamma}-1\right)}$$

$$\boxed{K_b = K_s \times \frac{(1-\gamma)(1-\phi)}{1-\phi+\gamma\phi}} = 0.4 \times \frac{(1-\gamma)\times 0.5}{1-0.5+\gamma\times 0.5} =$$

$$= \frac{0.2\,(1-\gamma)}{0.5+\gamma\times 0.5} = \frac{2(1-\gamma)}{5(1+\gamma)} = 0.4 \times \frac{1-\gamma}{1+\gamma}$$

$$\cancel{K_b = K_s \frac{(1-\gamma)(1-\phi)}{1+\phi(\gamma-1)}}$$

4

APPENDIX 2 SOIL SURVEY AND REVIEW OF WATERSHED CONDITIONS

Memorandum

DAMES & MOORE
A DAMES & MOORE GROUP COMPANY

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Phoenix, Arizona 85020
602 371 1110 Tel
602 861 7431 Fax

Action	Info	File
Tom Renckly - FCDMC	Sandy Gourlay – D&M	15448-005-022, 1.3, 3.3

From Todd Ringsmuth/Robert Rice

Date April 26, 1999

Subject White Tanks FRS #3 – Soil Survey and Review of Watershed Conditions

This memorandum provides a summary of the March 16, 1999 field visit to evaluate soil types and conditions in the White Tanks FRS #3 watershed. Participants in the field visit were Amir Motamendi and Bing Zhao of the Flood Control District of Maricopa County (District), Todd Ringsmuth of Dames & Moore, and Robert Rice, consultant.

The objective of the field visit was to evaluate the soil types and potential infiltration rates in the higher elevations of the watershed. The evaluation was performed to develop an approach for estimating saturated hydraulic conductivity values, or soil infiltration rates, for use with the Green-Ampt Equation. Methods for adjusting soil infiltration rates are provided with recommendations for estimating runoff for the watershed.

SUMMARY OF FIELD VISIT

A number of stops were made along the road that travels through the upper reaches of the watershed. At each stop, road cuts and the ground surface were evaluated to understand soil types, soil cover, and percent of rock outcrop. The road cuts were examined to understand the makeup of the soil-rock matrix and how the presence of rock (gravel and boulders) within the soil might limit infiltration rates. In general, the following discussion of observations applies to all stops.

NRCS Soil Surveys identify the soil as very gravely loam with slopes of 3 to 25 percent and about 20 percent rock outcrop. The soil type of interest is described by two separate NRCS Soil Surveys: Quilotosa-Valva-Rock outcrop complex in the *"Soil Survey of Aguila-Carefree Area, Parts of Maricopa and Pinal Counties, Arizona"*, and Rock outcrop-Cherioni complex in the *"Soil Survey of Maricopa County, Arizona-Central Part"* (see Figure 1). The Quilatosa and Cherioni complexes comprise approximately 44 and 5 percent of the watershed, respectively. Thus, 49 percent of the watershed consists of the rock outcrop evaluated during the field visit.

The rock outcrop was observed to be near 60 to 70 percent, with some locations covered by nearly 100 percent rock outcrop. Observations of the road cuts revealed the amount of rock

material in the soil-rock matrix to be in the 50 to 70 percent range. The depth of the soil-rock matrix was relatively shallow and generally less than 45 cm. In some locations the depth was less than 20 cm. Vegetation was minimal and usually less than 30 percent. In areas where the slopes were flatter, the soil depth was greater, on the order of 0.5 to 1.0 meter, and the rock present in the soil-rock matrix was lower (20 to 30 percent). In areas where the slopes were steeper, the rock outcrop and exposure was also the greatest, and the soil depth was the least. The soil within the soil-rock matrix varied from coarse sand to loam.

The combination of high rock exposure, shallow soil depth, and steep slopes would indicate less infiltration and more runoff. Accounting for the presence of rock in the soil-rock matrix will reduce the total pore space and water holding capacity of the soil. The hydraulic conductivity of the soil-rock matrix will be lower than that of the finer material between the rock.

It was also observed that the roughness of the terrain and rock outcrops serve as micro retention basins, thus capturing some rainfall and reducing runoff. However, this would be difficult to quantify beyond performing large scale runoff measurements of the watershed, which would require estimation of numerous other variables that affect runoff. While the Green-Ampt Equation for estimating runoff may not account for the affect of micro retention basins, the NRCS Runoff Curve Number method may include such factors in the generalized runoff curve number.

RECOMMENDATIONS FOR ADJUSTING HYDRAULIC CONDUCTIVITY

One of the variables used by the Green-Ampt Equation to estimate runoff is the saturated hydraulic conductivity (XKSAT). The estimated XKSAT values developed by the District for the rock outcrop complex of the White Tanks FRS #3 watershed are presented on Figure 2. The XKSAT for the rock outcrop complexes are more representative of the gravelly loam and appear to neglect the presence of rock in the soil-rock matrix. The following options are available for adjusting the XKSAT values for the areas covered by the soil-rock matrix.

Field Infiltration Tests

The best method for estimating the hydraulic conductivity of the soil-rock matrix would be to perform in situ infiltration tests using an infiltrometer. This approach may not be favorable due to general inaccessibility and difficulty of transporting the necessary supplies (i.e., water) into the upper regions of the watershed. Additional runoff adjustments must still be made to account for the percent of the watershed covered by the rock-outcrop, which can be estimated from field observations.

Soil-Rock Matrix Relationship

A relationship exists to allow adjustment of the soil hydraulic conductivity based on the rock content in the soil-rock matrix (Bouwer and Rice, 1984). The relationship is provided below.

$K_b = K_s\, e_b / e_s$

where: K_b = Hydraulic conductivity of soil-rock matrix

K_s = Hydraulic conductivity of soil material

e_b = Void ratio (volume of voids to volumes of solids) of the soil-rock matrix

e_s = Void ratio of soil material.

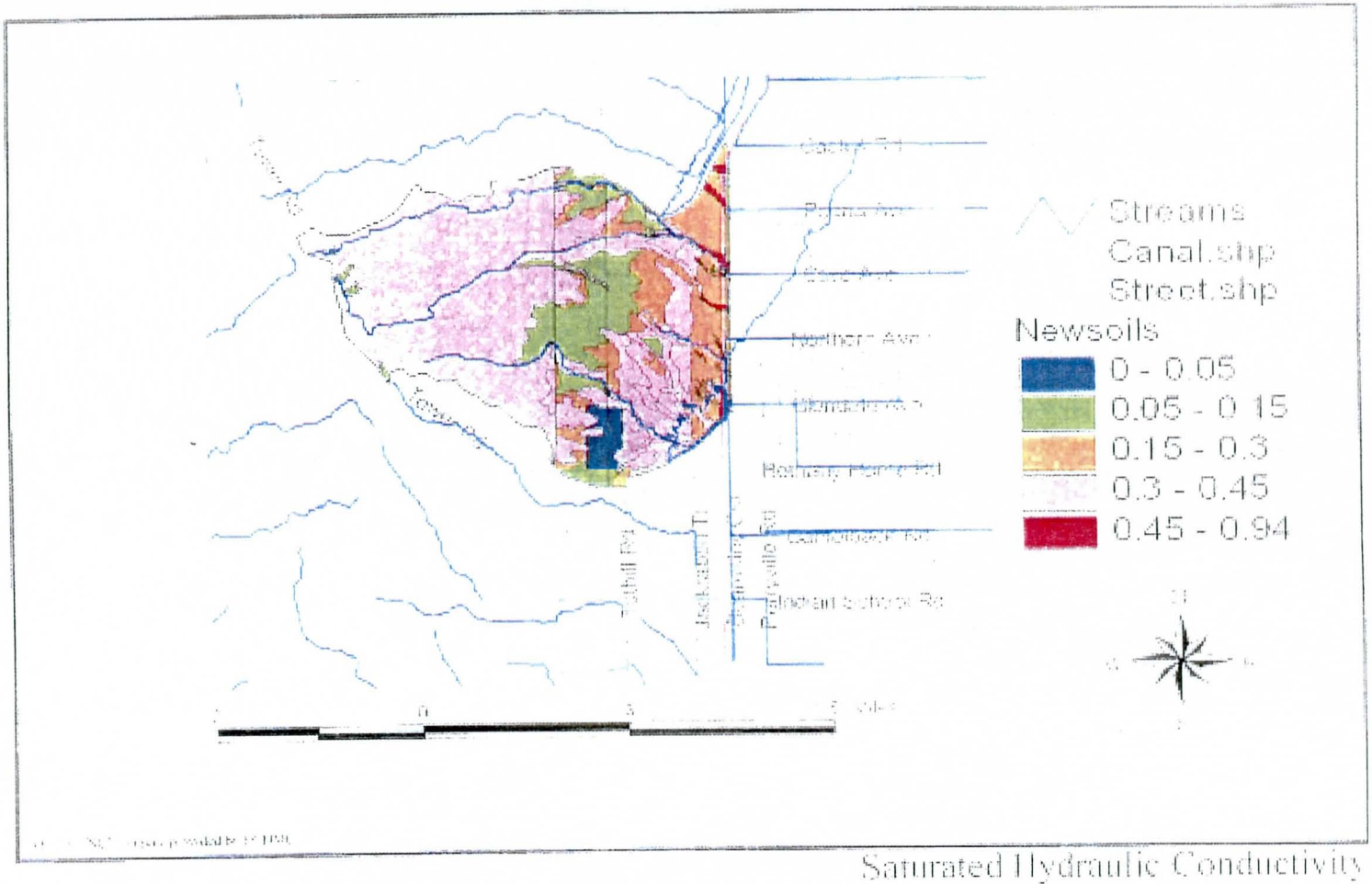
For example, a 50 percent rock content and 30 percent pore space in the soil would reduce the K_b by a factor of 2.4. The relationship can be used with the following approaches:

1. Adjust the XKSAT values based on rock content and measured hydraulic conductivity of the soil. The XKSAT value of the soil can be estimated using District references or developed from additional field sampling and laboratory tests. The rock content would be estimated from field samples and laboratory tests.
2. In the absence of field data, the XKSAT values should be revised and the District should run sensitivity analyses with varying rock content values. A range of rock content values could be developed from field observations.

The water holding capacity of the soil should also be corrected for the volume fraction of the rock. As discussed in the previous option, additional runoff adjustments must still be made to account for the percent of the watershed covered by the rock-outcrop, which can be estimated from field observations.

REFERENCES

Bouwer and Rice, 1984. "Hydraulic Properties of Stony Vadose Zones." Dr. Herman Bouwer and Robert Rice. Groundwater, Volume 22, Issue No. 6, pp. 696-705. December, 1984.



Saturated Hydraulic Conductivity
XKSAT (in/hr)
Wilmington Tank Farm
Figure

© DAMES & MOORE

Watershed Soil Types

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APPENDIX 3 LAND USE AND SOIL TABLES

3.1 PRELIMINARY HYDROLOGIC ANALYSIS

Land Use Table (imported into WMS)

The following ASCII file is for land use table. The IDs must correspond to the IDs in the shape files. The format for each row is:
ID,land use description,initial abstraction,effective impervious area %, vegetation over %, Antecedent Soil Moisture Condition

```
9,"Industrial",0.15,55.0,60.0,"normal"
~
17,"Recreational Open Space",0.35,0.0,25.0,"normal"
21,"Transportation",0.35,0.0,10.0,"normal"
22,"Vacant",0.35,0.0,25.0,"normal"
24,"Water",0.0,0.0,0.0,"wet"
```

Soil Table (imported into WMS); Note: XSAT is saturated hydraulic conductivity

The following ASCII file is for soil table. The Ids must correspond to the Ids in the shape files. The format for each row is:
ID,soil description,XSAT,Rock Outcrop %,effective impervious area %

```
47,"Brios-Carrizo complex, 1 to 5 percent slopes",0.94,0,100
~
55,"Cheriono-Rock outcrop complex, 5 to 60 percent slopes",XSAT1,15,100
66,"Denure-Momoli-Carrizo complex",0.34,0,100
85,"Ebon-Pinamt complex, 3 to 20 percent slopes",0.06,0,100
86,"Ebon-Pinamt complex, 20 to 40 percent slopes",0.06,0,100
137,"Quilotosa-Vaiva-Rock outcrop complex, 20 to 65 percent slopes",XSAT2,20,100
164,"Anthosandy loam, 0 to 1 percent slopes",0.38,0,100
168,"Antho gravelly sandy loam, 1 to 3 percent slopes",0.4,0,100
169,"Antho-Brios sandy loams",0.39,0,100
172,"Antho-Carrizo complex, 0 to 3 percent slopes",0.4,0,100
173,"Antho-Tremant complex, 1 to 5 percent slopes",0.38,0,100
174,"Antho-Tremant-Mohall complex, 1 to 5 percent slopes",0.27,0,100
175,"Antho association",0.4,0,100
176,"Antho-Valencia association",0.39,0,100
185,"Carrizo gravelly sandy loam",0.4,0,100
193,"Cheriono-Rock outcrop complex",XSAT3,20,100
197,"Coolidge-Laveen association",0.39,0,100
200,"Ebon-Pinamt complex, 0 to 10 percent slopes",0.12,0,100
207,"Gilman fine sandy loam",0.26,0,100
209,"Gilman loan, 0 to 1 percent slopes",0.25,0,100
225,"Gunsight-Rillito complex, 0 to 10 percent slopes",0.26,0,100
255,"Pinamt-Tremant complex, 1 to 10 percent slopes",0.2,0,100
262,"Rock outcrop-Cherioni complex",XSAT4,65,100
264,"Torrifluvents",0.4,0,100
288,"Vint-Carrizo complex",0.63,0,100
294,"Lakes, ponds, reservoirs - intermittent",0,0,100
296,"Borrow pit",0.4,0,100
```

XSAT1, XSAT2, XSAT3, and XSAT4 are found in the following table:

	wt3soil2.tbl (0% rock)	futex50.tbl (50% rock)	futex70.tbl (70% rock)	futex95.tbl (95% rock)
Quilotosa-Vaiva-Rock Outcrop complex soil (**XSAT2**)	0.4 in/hr	0.13 in/hr	0.07 in/hr	0.01 in/hr
Rock Outcrop-Cherioni complex soil (**XSAT4**)	0.4 in/hr	0.13 in/hr	0.07 in/hr	0.01 in/hr
Cheriono-Rock Outcrop complex soil (**XSAT3**)	0.29 in/hr	0.094 in/hr	0.051 in/hr	0.0073 in/hr
Cheriono-Rock Outcrop complex soil with 5 to 60 percent slope (**XSAT1**)	0.33 in/hr	0.1073 in//hr	0.058 in/hr	0.0083 in/hr

3.2 FINAL HYDROLOGIC ANALYSIS

Land Use Table (imported into WMS)

The following ASCII file is for land use table. The IDs must correspond to the IDs in the shape files. The format for each row is:
ID,land use description,initial abstraction,effective impervious area %, vegetation over %, Antecedent Soil Moisture Condition

```
9,"Industrial",0.15,55.0,60.0,"normal"

17,"Recreational Open Space",0.35,0.0,25.0,"normal"
21,"Transportation",0.35,0.0,10.0,"normal"
22,"Vacant",0.35,0.0,25.0,"normal"
24,"Water",0.0,0.0,0.0,"wet"
```

Soil Table (imported into WMS)

```
47,"Brios-Carrizo complex, 1 to 5 percent slopes",0.94,0,100
55,"Cheriono-Rock outcrop complex, 5 to 60 percent slopes",0.058,15,100
66,"Denure-Momoli-Carrizo complex",0.34,0,100
85,"Ebon-Pinamt complex, 3 to 20 percent slopes",0.06,0,100
86,"Ebon-Pinamt complex, 20 to 40 percent slopes",0.06,0,100
137,"Quilotosa-Vaiva-Rock outcrop complex, 20 to 65 percent
slopes",0.0706,20,100
164,"Anthosandy loam, 0 to 1 percent slopes",0.38,0,100
168,"Antho gravelly sandy loam, 1 to 3 percent slopes",0.4,0,100
169,"Antho-Brios sandy loams",0.39,0,100
172,"Antho-Carrizo complex, 0 to 3 percent slopes",0.4,0,100
173,"Antho-Tremant complex, 1 to 5 percent slopes",0.38,0,100
174,"Antho-Tremant-Mohall complex, 1 to 5 percent slopes",0.27,0,100
175,"Antho association",0.4,0,100
176,"Antho-Valencia association",0.39,0,100
185,"Carrizo gravelly sandy loam",0.4,0,100
193,"Cheriono-Rock outcrop complex",0.0725,20,100
197,"Coolidge-Laveen association",0.39,0,100
200,"Ebon-Pinamt complex, 0 to 10 percent slopes",0.12,0,100
207,"Gilman fine sandy loam",0.26,0,100
209,"Gilman loan, 0 to 1 percent slopes",0.25,0,100
225,"Gunsight-Rillito complex, 0 to 10 percent slopes",0.26,0,100
255,"Pinamt-Tremant complex, 1 to 10 percent slopes",0.2,0,100
```

```
262,"Rock outcrop-Cherioni complex",0.1,65,100
264,"Torrifluvents",0.4,0,100
288,"Vint-Carrizo complex",0.63,0,100
294,"Lakes, ponds, reservoirs - intermittent",0,0,100
296,"Borrow pit",0.4,0,100
```

APPENDIX 4 HEC-1 OUTPUT FILES

APPENDIX 4.1 0% VOLUMETRIC ROCK (T:\BIZ\WT#3 SPILLWAY\FUTEXN.OUT)

```
1*************************************                    *************************************
*                                   *                    *                                   *
*  FLOOD HYDROGRAPH PACKAGE  (HEC-1)*                    *  U.S. ARMY CORPS OF ENGINEERS     *
*            JUL  1997              *                    *  HYDROLOGIC ENGINEERING CENTER    *
*          VERSION 4.1              *                    *        609 SECOND STREET          *
*                                   *                    *     DAVIS, CALIFORNIA 95616       *
*  RUN DATE  20OCT99  TIME  19:20:04*                    *        (916) 756-1104             *
*                                   *                    *                                   *
*************************************                    *************************************

                                        X     X  XXXXXXX   XXXXX          X
                                        X     X  X        X     X        XX
                                        X     X  X        X              X
                                        XXXXXXX  XXXX     X        XXXXX  X
                                        X     X  X        X              X
                                        X     X  X        X     X        X
                                        X     X  XXXXXXX   XXXXX         XXX

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                          HEC-1 INPUT                                                    PAGE  1

      LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

         1          ID          White Tanks #3 future condition (Beardsley Canal Wash Improvement)
         2          ID          May, 1999, FCDMC
         3          ID          Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999
         4          ID          zero % rock in soil-rock-matrix
         5          ID
         6          ID          WHITE TANKS/ AGUA FRIA AREA DRAINAGE MASTER PLAN
         7          ID          FINAL HYDROLOGY RUN FOR WHITE TANKS ADMP ---- ENTIRE WATERSHED
         8          ID          100-YEAR, 24-HOUR STORM                    FILE: WTADMP5.24
         9          ID          THIS MODEL INCORPORATES FUTURE CHANNELS OR CHANNEL IMPROVEMENTS ALONG:
        10          ID          -BEARDSLEY CANAL WASH,WHITE TANKS NO. 3 TO PEORIA AV.
        11          ID          -TUTHILL DIKE WASH,WHITE TANKS NO. 4 TO APPROX. 1/2 MILE NORTH OF
        12          ID           CAMELBACK ROAD
        13          ID          -JACKRABBIT TRAIL WASH,WHITE TANKS NO. 4 TO WHITE TANKS NO. 3
        14          ID          -DYSART DRAIN,AGUA FRIA RIVER TO REEMS ROAD
        15          ID          -REEMS ROAD CHANNEL,NORTHERN AV. TO BELL ROAD
        16          ID          -WADDEL ROAD CHANNEL,DYSART ROAD TO  REEMS ROAD
        17          ID          - I-10 (INTERSTATE-10) CHANNEL,ESTRELLA FREEWAY TO 191ST AV.
        18          ID          -BULLARD WASH,GILA RIVER TO APPROX. 1/4 MILE SOUTH OF LOWER BUKEYE RD.
        19          ID          -ESTRELLA FREEWAY CHANNEL,GILA RIVER TO BELL ROAD.
        20          ID          -CAMELBACK ROAD CHANNEL,AGUA FRIA RIVER TO LITCHFIELD ROAD
        21          ID          IT ALSO ASSUMES THAT THE SUN CITY GRAND PROJECT,NORTH OF BELL ROAD
        22          ID          (SEE FIURE 9.2), WILL RETAIN ONSITE FLOWS AND BLEED OFF TO THE
        23          ID           EXISTING BELL ROAD CHANNEL
        24          ID
        25          ID
                    *DIAGRAM
        26          IT       5                    300
        27          IO       5
        28          IN      15
        29          JD    4.03    .001
        30          PC    .000    .002    .005    .008    .011    .014    .017    .020    .023    .026
        31          PC    .029    .032    .035    .038    .041    .044    .048    .052    .056    .060
        32          PC    .064    .068    .072    .076    .080    .085    .090    .095    .100    .105
        33          PC    .110    .115    .120    .126    .133    .140    .147    .155    .163    .172
        34          PC    .181    .191    .203    .218    .236    .257    .283    .387    .663    .707
        35          PC    .735    .758    .776    .791    .804    .815    .825    .834    .842    .849
        36          PC    .856    .863    .869    .875    .881    .887    .893    .898    .903    .908
        37          PC    .913    .918    .922    .926    .930    .934    .938    .942    .946    .950
        38          PC    .953    .956    .959    .962    .965    .968    .971    .974    .977    .980
        39          PC    .983    .986    .989    .992    .995    .998    1.00   1.000   1.000   1.000
        40          JD    3.99      10
        41          JD    3.83      50
        42          JD    3.76     100
        43          JD    3.70     200

        44          KK       1
        45          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 1.
        46          BA    1.94
        47          LG    0.35    0.25   3.987   0.458  19.802
        48          UI    182.    326.    742.    974.   1186.   1502.   2185.   1957.   1537.   1243.
        49          UI    989.    751.    417.    308.    230.    182.     64.     56.     56.     56.
        50          UI     56.      0.      0.      0.      0.      0.      0.      0.      0.      0.
        51          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
1                                          HEC-1 INPUT                                                    PAGE  2

      LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

        52          KK    RCP1
        53          KM        ROUTE FLOW FROM CP1 TO CP2.
        54          RL                    1    1428
        55          RS       5           -1       0
        56          RC     .06     .04     .06   17800   .0469
        57          RX    1000    1125    1300    1390    1405    1490    1590    1750
        58          RY    1440    1439    1437    1428    1428    1439    1442    1444

        59          KK       2
        60          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 2.
        61          BA    1.82
        62          LG    0.35    0.25   4.602   0.326  21.855
        63          UI    115.    115.    259.    442.    556.    642.    727.    849.   1013.   1346.
        64          UI   1419.   1145.    985.    864.    735.    634.    545.    405.    268.    202.
        65          UI    189.    144.    115.    103.     35.     35.     35.     35.     35.     35.
        66          UI     35.      0.      0.      0.      0.      0.      0.      0.      0.      0.
        67          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

        68          KK     CP2
        69          KM        ADD HYDROGRAPHS AT CP2.
        70          HC       2

        71          KK    RCP2
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 72          KM        ROUTE COMBINED HYDROGRAPHS AT CP2 TO CP3.
 73          RL                    . 1.5    1298
 74          RS       2              -1       0
 75          RC     .06     .035     .06    4500    .0111
 76          RX    1000     1100    1350    1705     1735    1780    1850    2000
 77          RY    1304     1302    1302    1298     1298    1303    1302    1305

 78          KK      3A
 79          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 3A
 80          BA     .29
 81          LG   0.336     0.24    4.14   0.432        0
 82          UI     34.      89.    165.    212.     286.    410.    314.    242.    182.    124.
 83          UI     62.      48.     33.     10.      10.     10.     10.      0.      0.      0.
 84          UI      0.       0.      0.      0.       0.      0.      0.      0.      0.      0.

 85          KK   RCP3A
 86          KM        ROUTE FLOW FROM CP3A TO CP3
 87          RL                    1.5    1284
 88          RS       2              -1       0
 89          RC     .03      .03     .05    5300    .0060
 90          RX    1000     1023    1032    1046     1058    1067    1250    1540
 91          RY    1289     1288    1286    1284     1284    1286    1288    1291

 92          KK       3
 93          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 3.
 94          BA     .81
 95          LG   0.339    0.242   4.441   0.362        0
 96          UI     91.     228.    430.    554.     725.   1088.    908.    700.    535.    396.
 97          UI    205.     152.     95.     57.      28.     28.     28.      0.      0.      0.
 98          UI      0.       0.      0.      0.       0.      0.      0.      0.      0.      0.
1                                                HEC-1 INPUT                                          PAGE  3
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 99          KK   I1CP3
100          KM        ADD HYDROGRAPHS AT CP3.
101          HC       2

102          KK     CP3
103          KM        ADD HYDROGRAPHS AT CP3.
104          HC       2

105          KK    RCP3
106          KM        ROUTE FLOW FROM CP3 TO CP10.
107          RL                       2    1245
108          RS       2              -1       0
109          RC     .05      .03     .05    5280    .0083
110          RX    1010     1015    1020    1050     1100    1275    1580    1750
111          RY    1251     1249    1249    1245     1245    1250    1250    1254

112          KK       4
113          KM        RUNOFF HYDROGRAPH FORM SUB-BASIN 4.
114          BA     .30
115          LG    0.35     0.25   4.265   0.405   18.504
116          UI     48.     192.    287.    444.     512.    346.    236.    115.     67.     35.
117          UI     14.      14.      0.      0.       0.      0.      0.      0.      0.      0.
118          UI      0.       0.      0.      0.       0.      0.      0.      0.      0.      0.

119          KK       5
120          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 5.
121          BA     .72
122          LG    0.35     0.25   4.357   0.383   17.926
123          UI    110.     437.    658.    992.    1242.    849.    591.    315.    174.    101.
124          UI     34.      34.     34.      0.       0.      0.      0.      0.      0.      0.
125          UI      0.       0.      0.      0.       0.      0.      0.      0.      0.      0.

126          KK     CP5
127          KM        ADD HYDROGRAPHS AT CP5.
128          HC       2

129          KK    RCP5
130          KM        ROUTE COMBINED HYDROGRAPHS AT CP5 TO CP7.
131          RL                       .5    2800
132          RS       1              -1       0
133          RC     .08      .05     .08    4800    .0833
134          RX     955      970     985    1000     1020    1035    1050    1065
135          RY    2815     2810    2805    2800     2800    2805    2810    2815

136          KK       6
137          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 6.
138          BA     .45
139          LG    0.35     0.25    3.95   0.467       20
140          UI    204.     622.   1139.    837.     427.    155.     54.     33.      0.      0.
141          UI      0.       0.      0.      0.       0.      0.      0.      0.      0.      0.
1                                                HEC-1 INPUT                                          PAGE  4
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

142          KK   I1CP7
143          KM        ADD HYDROGRAPHS AT CP7.
144          HC       2

145          KK       7
146          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 7.
147          BA     .31
148          LG    0.35     0.25    3.95   0.467       20
149          UI    126.     387.    716.    606.     343.    129.     52.     22.      0.      0.
150          UI      0.       0.      0.      0.       0.      0.      0.      0.      0.      0.

151          KK     CP7
152          KM        ADD HYDROGRAPHS AT CP7.
153          HC       2

154          KK    RCP7
155          KM        ROUTE COMBINED HYDROGRAPHS AT CP7 TO CP9.
156          RL                       .5    1838
157          RS       3              -1       0
158          RC     .08      .05     .08   10200   .07745
159          RX    1000     1045    1120    1195     1230    1300    1350    1450
160          RY    1910     1880    1850    1838     1838    1850    1880    1910

161          KK       9
162          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 9.
163          BA    1.40
164          LG    0.35     0.25   3.977    0.46   19.572
165          UI    155.     381.    727.    935.    1216.   1832.   1591.   1224.    938.    705.
166          UI    386.     261.    177.    115.      47.     47.     47.     47.      0.      0.
167          UI      0.       0.      0.      0.       0.      0.      0.      0.      0.      0.

168          KK   I1CP9
169          KM        ADD HYDROGRAPHS AT CP9.
170          HC       2

171          KK       8
172          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 8.
173          BA     .81
```

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 174          LG    0.35    0.25    3.95   0.467      20
 175          UI    102.    313.    535.    703.   1054.   1140.    822.    608.    421.    208.
 176          UI    147.     96.     31.     31.     31.      0.      0.      0.      0.      0.
 177          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

 178          KK     CP9
 179          KM        ADD HYDROGRAPHS AT CP9.
 180          HC       2

 181          KK    RCP9
 182          KM        ROUTE COMBINED HYDROGRAPHS AT CP9 TO CP10.
 183          RL                     1.5    1308
 184          RS       8              -1       0
 185          RC     .06    .035     .06   19200   .0232
 186          RX    1000    1085    1310    1395    1415    1450    1630    1665
 187          RY    1317    1314    1311    1308    1308    1314    1314    1317
1                                          HEC-1 INPUT                                          PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 188          KK      10
 189          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 10.
 190          BA    2.02
 191          LG   0.347   0.248   4.645   0.316    4.52
 192          UI    119.    119.    218.    427.    546.    632.    708.    812.    929.   1148.
 193          UI   1499.   1393.   1156.   1006.    894.    765.    669.    577.    475.    325.
 194          UI    210.    201.    193.    119.    119.     86.     36.     36.     36.     36.
 195          UI     36.     36.     36.     36.      0.      0.      0.      0.      0.      0.
 196          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

 197          KK  I1CP10
 198          KM        ADD HYDROGRAPHS AT CP10
 199          HC       2

 200          KK    CP10
 201          KM        ADD HYDROGRAPHS AT CP10
 202          HC       2

 203          KK   RCP10
 204          KM        ROUTE FLOW AT CP10 TO CP12.
 205          RL                     2.0    1211
 206          RS       1              -1       0
 207          RC     .03     .03     .05    3500   .0057
 208          RX     995    1000    1020    1055    1085    1165    1250    1330
 209          RY    1221    1220    1220    1211    1211    1218    1220    1222

 210          KK      12
 211          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 12.
 212          BA    1.38
 213          LG   0.346   0.247   4.702   0.303   5.217
 214          UI    111.    129.    393.    535.    636.    758.    930.   1311.   1277.   1008.
 215          UI    850.    697.    574.    445.    264.    191.    169.    111.     92.     34.
 216          UI     34.     34.     34.     34.     34.      0.      0.      0.      0.      0.
 217          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

 218          KK    CP12
 219          KM        ADD HYDROGRAPHS AT CP12.
 220          HC       2

 221          KK   RCP12
 222          KM        ROUTE COMBINED HYDROGRAPHS AT CP12 TO CPWT3
 223          RL                     2.0    1196
 224          RS       2              -1       0
 225          RC     .03     .03     .04    4800   .0031
 226          RX     995    1000    1020    1080    1200    1530    1665    1760
 227          RY    1211    1211    1210    1196    1196    1200    1204    1204

 228          KK      11
 229          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 11.
 230          BA    1.56
 231          LG    0.35    0.25   5.235   0.241  13.299
 232          UI    143.    245.    571.    755.    913.   1142.   1648.   1623.   1254.   1026.
 233          UI    821.    643.    394.    248.    210.    143.     86.     44.     44.     44.
 234          UI     44.      0.      0.      0.      0.      0.      0.      0.      0.      0.
1                                          HEC-1 INPUT                                          PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 235          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

 236          KK   RCP11
 237          KM        ROUTE HYROGRAPH FROM CP11 TO CP13.
 238          RL                     1.5    1196
 239          RS       3              -1       0
 240          RC     .06    .035     .06   10200   .0098
 241          RX    1000    1070    1300    1480    1510    1525    1555    1600
 242          RY    1233    1232    1230    1222    1222    1230    1232    1233

 243          KK      13
 244          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 13.
 245          BA    1.30
 246          LG    0.35    0.25    4.62   0.322       0
 247          UI    120.    210.    485.    639.    774.    973.   1416.   1333.   1039.    847.
 248          UI    674.    527.    303.    206.    167.    120.     60.     37.     37.     37.
 249          UI     37.      0.      0.      0.      0.      0.      0.      0.      0.      0.
 250          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

 251          KK    CP13
 252          KM        ADD HYDROGRAPHS AT CP13.
 253          HC       2

 254          KK   RCP13
 255          KM        ROUTE COMBINED HYDROGRAPHS AT CP13 TO CP17
 256          RL                     1.5    1222
 257          RS       2              -1       0
 258          RC     .03     .03     .04    2400   .0042
 259          RX    1000    1025    1040    1065    1085    1110    1175    1200
 260          RY    1206    1198    1196    1194    1194    1198    1198    1201

 261          KK      14
 262          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 14.
 263          BA    1.47
 264          LG    0.35    0.25   4.288   0.399  18.195
 265          UI    166.    421.    790.   1019.   1341.   1998.   1636.   1264.    961.    699.
 266          UI    362.    274.    166.     93.     51.     51.     51.      0.      0.      0.
 267          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

 268          KK   RCP14
 269          KM        ROUTE FLOW FROM CP14 TO CP15.
 270          RL                     2.0    1194
 271          RS       4              -1       0
 272          RC     .06    .035     .06    8800  .02556
 273          RX    1000    1030    1075    1200    1220    1280    1415    1480
 274          RY    1296    1295    1294    1288    1288    1294    1296    1300

 275          KK      15
 276          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 15.
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 277          BA    1.26
 278          LG    0.35    0.25   4.356   0.384   15.67
 279          UI    130.    281.    577.    747.    938.   1321.   1552.   1156.    920.    713.
 280          UI    519.    277.    217.    138.     93.     40.     40.     40.     40.      0.
 281          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
 282          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
1                                                HEC-1 INPUT                                          PAGE  7
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 283          KK  I1CP15
 284          KM        ADD HYDROGRAPHS AT CP15
 285          HC       2

 286          KK      16
 287          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 16.
 288          BA    1.13
 289          LG    0.35    0.25   4.408   0.371  19.953
 290          UI    115.    240.    503.    652.    814.   1126.   1393.   1049.    839.    655.
 291          UI    497.    268.    194.    137.    101.     35.     35.     35.     35.      0.
 292          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
 293          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              * KK  SR16
              * KM      STORAGE ROUTE THROUGH THE CATERPILLAR DETENTION BASIN IN SUBWATERSHED
              * RS     1    STOR       0       0
              * SV     0       1      31     114     270     502     807    1319    1388      14
              * SQ     0                                                                       1
              * SE  1198    1200    1210    1220    1230    1240    1250    1260    1261      12

 294          KK    CP15
 295          KM        ADD HYDROGRAPHS AT CP15.
 296          HC       2

 297          KK   RCP15
 298          KM        ROUTE COMBINED HYDROGRAPHS AT CP15 TO CP17.
 299          RL                     2.0    1226
 300          RS       3              -1       0
 301          RC     .06    .035     .06    6800   .0079
 302          RX    1000    1310    1380    1540    1640    1670    1700    1910
 303          RY    1234    1232    1228    1226    1226    1228    1232    1235

 304          KK      17
 305          KM        RUNOFFF HYDROGRAPH FROM SUB-BASIN 17.
 306          BA    1.07
 307          LG    0.35    0.25   4.121   0.438       0
 308          UI    117.    254.    572.    810.   1052.   1196.    753.    635.    540.    450.
 309          UI    353.    287.    254.    194.    149.    129.    103.     90.     64.     57.
 310          UI     57.     26.     22.     22.     22.     22.     22.     22.      0.      0.
 311          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

 312          KK  I1CP17
 313          KM        ADD HYDROGRAPHS AT CP17.
 314          HC       2

 315          KK    CP17
 316          KM        ADD HYDROGRAPHS AT CP17.
 317          HC       2

 318          KK   RCP17
 319          KM        ROUTE FLOW FROM CP17 TO CPWT3
 320          RL                     2.0    1182
 321          RS       2              -1       0
 322          RC     .06     .04     .04    1600   .0022
 323          RX    1000    1220    1280    1470    1530    1660    1680    1685
1                                                HEC-1 INPUT                                          PAGE  8
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 324          RY    1196    1194    1190    1182    1182    1210    1211    1212

 325          KK     WT3
 326          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN WT3
 327          BA     .44
 328          LG   0.344   0.246   4.577    0.33       0
 329          UI     36.     44.    128.    175.    207.    249.    308.    436.    399.    318.
 330          UI    267.    220.    179.    133.     78.     61.     49.     36.     23.     11.
 331          UI     11.     11.     11.     11.      0.      0.      0.      0.      0.      0.
 332          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

 333          KK  I1CWT3
 334          KM        ADD HYDROGRAPHS AT CPWT3
 335          HC       2

 336          KK   CPWT3
 337          KO       1
 338          KM        ADD HYDROGRAPHS AT CPWT3
 339          HC       2

 340          KK   SRWT3
 341          KM        STORAGE ROUTE THROUGH WHITE TANKS STRUCTURE #3.
 342          KO       3
 343          RS       1    STOR       0       0
 344          SV       0       1      14      42      91     203     466     958    1704    2716
 345          SV    3012    3325    3657    4006
 346          SQ       0       0       0       0       0       0       0       0       0       0
 347          SQ       0    3550    9000   17600
 348          SE    1174    1176    1180    1184    1188    1192    1196    1200    1204    1208
 349          SE    1209    1210    1211    1212
 350          SS    1209       0       0       0
 351          ST  1212.1    7667     2.2     1.5
 352          SW    1000    1995    3000    4000    4988    6008    7007
 353          SE  1212.1  1212.4 1212.63 1213.32 1214.72 1214.94  1214.8
 354          ZZ
1
        SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE     (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.     (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

   44          1
               V
               V
   52        RCP1
               .
               .
   59          .           2
               .           .
               .           .
   68         CP2...........
               V
               V
   71        RCP2
               .
               .
   78          .          3A
               .           V
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 85          .        V
             .      RCP3A
             .        .
 92          .        .          3
             .        .          .
             .        .          .
 99          .      I1CP3.........
             .        .
102        CP3.........
            V         .
            V         .
105       RCP3
             .
             .
112          .        4
             .        .
             .        .
119          .        .          5
             .        .          .
             .        .          .
126          .      CP5.........
             .        V
             .        V
129          .      RCP5
             .        .
             .        .
136          .        .          6
             .        .          .
             .        .          .
142          .      I1CP7.........
             .        .
             .        .
145          .        .          7
             .        .          .
             .        .          .
151          .      CP7.........
             .        V
             .        V
154          .      RCP7
             .        .
             .        .
161          .        .          9
             .        .          .
             .        .          .
168          .      I1CP9.........
             .        .
             .        .
171          .        .          8
             .        .          .
             .        .          .
178          .      CP9.........
             .        V
             .        V
181          .      RCP9
             .        .
             .        .
188          .        .         10
             .        .          .
             .        .          .
197          .     I1CP10........
             .        .
             .        .
200       CP10.........
            V         .
            V         .
203      RCP10
             .
             .
210          .       12
             .        .
             .        .
218       CP12.........
            V
            V
221      RCP12
             .
             .
228          .       11
             .        V
             .        V
236          .     RCP11
             .        .
             .        .
243          .        .         13
             .        .          .
             .        .          .
251          .      CP13........
             .        V
             .        V
254          .     RCP13
             .        .
             .        .
261          .        .         14
             .        .          V
             .        .          V
268          .        .       RCP14
             .        .          .
             .        .          .
275          .        .          .         15
             .        .          .          .
             .        .          .          .
283          .        .     I1CP15........
             .        .          .
             .        .          .
286          .        .          .         16
             .        .          .          .
             .        .          .          .
294          .        .       CP15........
             .        .          V
             .        .          V
297          .        .       RCP15
             .        .          .
             .        .          .
304          .        .          .         17
             .        .          .          .
             .        .          .          .
312          .        .     I1CP17........
             .        .          .
             .        .          .
315          .      CP17........
             .        V
             .        V
318          .     RCP17
             .        .
             .        .
325          .        .        WT3
```

```
                     .         .         .
                     .         .         .
333                  .      I1CWT3.........
                     .         .
                     .         .
336              CPWT3..........
                     V
                     V
340              SRWT3

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION
1****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*             JUL   1997                *
*           VERSION 4.1                 *
*                                       *
*  RUN DATE   20OCT99  TIME  19:20:04   *
*                                       *
*****************************************

*****************************************
*                                       *
*   U.S. ARMY CORPS OF ENGINEERS        *
*   HYDROLOGIC ENGINEERING CENTER       *
*        609 SECOND STREET              *
*     DAVIS, CALIFORNIA 95616           *
*          (916) 756-1104               *
*                                       *
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White Tanks #3 future condition (Beardsley Canal Wash Improvement)
May, 1999, FCDMC
Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999
zero % rock in soil-rock-matrix

WHITE TANKS/ AGUA FRIA AREA DRAINAGE MASTER PLAN
FINAL HYDROLOGY RUN FOR WHITE TANKS ADMP ---- ENTIRE WATERSHED
100-YEAR, 24-HOUR STORM                    FILE: WTADMP5.24
THIS MODEL INCORPORATES FUTURE CHANNELS OR CHANNEL IMPROVEMENTS ALONG:
-BEARDSLEY CANAL WASH,WHITE TANKS NO. 3 TO PEORIA AV.
-TUTHILL DIKE WASH,WHITE TANKS NO. 4 TO APPROX. 1/2 MILE NORTH OF
 CAMELBACK ROAD
-JACKRABBIT TRAIL WASH,WHITE TANKS NO. 4 TO WHITE TANKS NO. 3
-DYSART DRAIN,AGUA FRIA RIVER TO REEMS ROAD
-REEMS ROAD CHANNEL,NORTHERN AV. TO BELL ROAD
-WADDEL ROAD CHANNEL,DYSART ROAD TO  REEMS ROAD
- I-10 (INTERSTATE-I0) CHANNEL,ESTRELLA FREEWAY TO 191ST AV.
-BULLARD WASH,GILA RIVER TO APPROX. 1/4 MILE SOUTH OF LOWER BUKEYE RD.
-ESTRELLA FREEWAY CHANNEL,GILA RIVER TO BELL ROAD.
-CAMELBACK ROAD CHANNEL,AGUA FRIA RIVER TO LITCHFIELD ROAD
IT ALSO ASSUMES THAT THE SUN CITY GRAND PROJECT,NORTH OF BELL ROAD
(SEE FIURE 9.2), WILL RETAIN ONSITE FLOWS AND BLEED OFF TO THE
 EXISTING BELL ROAD CHANNEL
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27 IO        OUTPUT CONTROL VARIABLES
                   IPRNT          5  PRINT CONTROL
                   IPLOT          0  PLOT CONTROL
                   QSCAL         0.  HYDROGRAPH PLOT SCALE

   IT        HYDROGRAPH TIME DATA
                    NMIN          5  MINUTES IN COMPUTATION INTERVAL
                   IDATE     1    0  STARTING DATE
                   ITIME       0000  STARTING TIME
                      NQ        300  NUMBER OF HYDROGRAPH ORDINATES
                  NDDATE     2    0  ENDING DATE
                  NDTIME       0055  ENDING TIME
                   ICENT         19  CENTURY MARK

              COMPUTATION INTERVAL     .08 HOURS
                   TOTAL TIME BASE   24.92 HOURS

        ENGLISH UNITS
          DRAINAGE AREA          SQUARE MILES
          PRECIPITATION DEPTH    INCHES
          LENGTH, ELEVATION      FEET
          FLOW                   CUBIC FEET PER SECOND
          STORAGE VOLUME         ACRE-FEET
          SURFACE AREA           ACRES
          TEMPERATURE            DEGREES FAHRENHEIT

29 JD        INDEX STORM NO. 1
                    STRM       4.03  PRECIPITATION DEPTH
                    TRDA        .00  TRANSPOSITION DRAINAGE AREA

30 PI          PRECIPITATION PATTERN
                  .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                  .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
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                  .00     .00     .00     .00     .00     .00     .00     .01     .00     .01
                  .01     .01     .01     .01     .01     .01     .01     .01     .03     .03
                  .03     .09     .09     .09     .01     .01     .01     .01     .01     .01
                  .01     .01     .01     .01     .01     .01     .00     .00     .00     .00
                  .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
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                  .00     .00     .00     .00     .00     .00     .00     .00     .00

40 JD        INDEX STORM NO. 2
                    STRM       3.99  PRECIPITATION DEPTH
                    TRDA      10.00  TRANSPOSITION DRAINAGE AREA

 0 PI          PRECIPITATION PATTERN
                  .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                  .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                  .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
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                .00      .00      .00      .00      .00      .00      .00      .01      .00      .01
                .01      .01      .01      .01      .01      .01      .01      .01      .03      .03
                .03      .09      .09      .09      .01      .01      .01      .01      .01      .01
                .01      .01      .01      .01      .01      .01      .00      .00      .00      .00
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41 JD       INDEX STORM NO. 3
                 STRM       3.83  PRECIPITATION DEPTH
                 TRDA      50.00  TRANSPOSITION DRAINAGE AREA

 0 PI         PRECIPITATION PATTERN
                .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
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                .01      .01      .01      .01      .01      .01      .01      .01      .03      .03
                .03      .09      .09      .09      .01      .01      .01      .01      .01      .01
                .01      .01      .01      .01      .01      .01      .00      .00      .00      .00
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42 JD       INDEX STORM NO. 4
                 STRM       3.76  PRECIPITATION DEPTH
                 TRDA     100.00  TRANSPOSITION DRAINAGE AREA

 0 PI         PRECIPITATION PATTERN
                .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
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                .00      .00      .00      .00      .00      .00      .00      .01      .00      .01
                .01      .01      .01      .01      .01      .01      .01      .01      .03      .03
                .03      .09      .09      .09      .01      .01      .01      .01      .01      .01
                .01      .01      .01      .01      .01      .01      .00      .00      .00      .00
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43 JD       INDEX STORM NO. 5
                 STRM       3.70  PRECIPITATION DEPTH
                 TRDA     200.00  TRANSPOSITION DRAINAGE AREA

 0 PI         PRECIPITATION PATTERN
                .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
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                .00      .00      .00      .00      .00      .00      .00      .01      .00      .01
                .01      .01      .01      .01      .01      .01      .01      .01      .03      .03
                .03      .09      .09      .09      .01      .01      .01      .01      .01      .01
                .01      .01      .01      .01      .01      .01      .00      .00      .00      .00
                .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
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                .00      .00      .00      .00      .00      .00      .00      .00
        WARNING EXCESS AT PONDING LESS THAN ZERO FOR PERIOD. EXCESS SET TO ZERO

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                *          *
336 KK          *   CPWT3  *
                *          *
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337 KO          OUTPUT CONTROL VARIABLES
                     IPRNT          1  PRINT CONTROL
                     IPLOT          0  PLOT CONTROL
                     QSCAL         0.  HYDROGRAPH PLOT SCALE
                           ADD HYDROGRAPHS AT CPWT3

339 HC          HYDROGRAPH COMBINATION
                     ICOMP          2  NUMBER OF HYDROGRAPHS TO COMBINE
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HYDROGRAPH AT CPWT3
TRANSPOSITION AREA .0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	2.	1		1230	151	7816.	1		1845	226	19.
1		0005	2	0.	1		0620	77	2.	1		1235	152	9970.	1		1850	227	17.
1		0010	3	0.	1		0625	78	2.	1		1240	153	11970.	1		1855	228	16.
1		0015	4	0.	1		0630	79	2.	1		1245	154	13563.	1		1900	229	14.
1		0020	5	0.	1		0635	80	2.	1		1250	155	14408.	1		1905	230	13.
1		0025	6	0.	1		0640	81	2.	1		1255	156	14349.	1		1910	231	12.
1		0030	7	0.	1		0645	82	2.	1		1300	157	13667.	1		1915	232	10.
1		0035	8	0.	1		0650	83	2.	1		1305	158	12581.	1		1920	233	9.
1		0040	9	0.	1		0655	84	2.	1		1310	159	11276.	1		1925	234	8.
1		0045	10	0.	1		0700	85	2.	1		1315	160	9854.	1		1930	235	7.
1		0050	11	0.	1		0705	86	2.	1		1320	161	8522.	1		1935	236	5.
1		0055	12	0.	1		0710	87	2.	1		1325	162	7469.	1		1940	237	4.
1		0100	13	0.	1		0715	88	2.	1		1330	163	6553.	1		1945	238	4.
1		0105	14	0.	1		0720	89	3.	1		1335	164	5658.	1		1950	239	4.
1		0110	15	0.	1		0725	90	3.	1		1340	165	4848.	1		1955	240	4.
1		0115	16	0.	1		0730	91	3.	1		1345	166	4189.	1		2000	241	4.
1		0120	17	0.	1		0735	92	3.	1		1350	167	3613.	1		2005	242	4.
1		0125	18	0.	1		0740	93	3.	1		1355	168	3089.	1		2010	243	3.
1		0130	19	0.	1		0745	94	3.	1		1400	169	2643.	1		2015	244	3.
1		0135	20	0.	1		0750	95	3.	1		1405	170	2290.	1		2020	245	3.
1		0140	21	0.	1		0755	96	3.	1		1410	171	1983.	1		2025	246	3.
1		0145	22	0.	1		0800	97	3.	1		1415	172	1705.	1		2030	247	3.
1		0150	23	0.	1		0805	98	3.	1		1420	173	1462.	1		2035	248	3.
1		0155	24	0.	1		0810	99	4.	1		1425	174	1267.	1		2040	249	3.
1		0200	25	0.	1		0815	100	4.	1		1430	175	1118.	1		2045	250	3.
1		0205	26	0.	1		0820	101	4.	1		1435	176	1008.	1		2050	251	3.
1		0210	27	0.	1		0825	102	4.	1		1440	177	906.	1		2055	252	3.
1		0215	28	0.	1		0830	103	4.	1		1445	178	812.	1		2100	253	3.
1		0220	29	0.	1		0835	104	4.	1		1450	179	728.	1		2105	254	3.
1		0225	30	0.	1		0840	105	4.	1		1455	180	652.	1		2110	255	2.
1		0230	31	0.	1		0845	106	4.	1		1500	181	585.	1		2115	256	2.
1		0235	32	0.	1		0850	107	4.	1		1505	182	525.	1		2120	257	2.
1		0240	33	0.	1		0855	108	4.	1		1510	183	472.	1		2125	258	2.
1		0245	34	0.	1		0900	109	4.	1		1515	184	425.	1		2130	259	2.
1		0250	35	0.	1		0905	110	4.	1		1520	185	383.	1		2135	260	2.
1		0255	36	0.	1		0910	111	4.	1		1525	186	348.	1		2140	261	2.
1		0300	37	0.	1		0915	112	5.	1		1530	187	320.	1		2145	262	2.
1		0305	38	0.	1		0920	113	5.	1		1535	188	302.	1		2150	263	2.
1		0310	39	0.	1		0925	114	5.	1		1540	189	284.	1		2155	264	1.
1		0315	40	0.	1		0930	115	6.	1		1545	190	266.	1		2200	265	1.
1		0320	41	0.	1		0935	116	7.	1		1550	191	249.	1		2205	266	1.
1		0325	42	0.	1		0940	117	7.	1		1555	192	233.	1		2210	267	1.
1		0330	43	0.	1		0945	118	8.	1		1600	193	217.	1		2215	268	1.
1		0335	44	0.	1		0950	119	9.	1		1605	194	202.	1		2220	269	1.
1		0340	45	0.	1		0955	120	10.	1		1610	195	187.	1		2225	270	1.
1		0345	46	0.	1		1000	121	11.	1		1615	196	174.	1		2230	271	1.
1		0350	47	0.	1		1005	122	13.	1		1620	197	162.	1		2235	272	1.
1		0355	48	0.	1		1010	123	14.	1		1625	198	150.	1		2240	273	1.
1		0400	49	0.	1		1015	124	15.	1		1630	199	140.	1		2245	274	1.
1		0405	50	0.	1		1020	125	16.	1		1635	200	130.	1		2250	275	1.
1		0410	51	0.	1		1025	126	17.	1		1640	201	121.	1		2255	276	1.
1		0415	52	0.	1		1030	127	19.	1		1645	202	113.	1		2300	277	1.
1		0420	53	0.	1		1035	128	21.	1		1650	203	105.	1		2305	278	1.
1		0425	54	0.	1		1040	129	23.	1		1655	204	98.	1		2310	279	1.
1		0430	55	0.	1		1045	130	27.	1		1700	205	91.	1		2315	280	1.
1		0435	56	0.	1		1050	131	30.	1		1705	206	85.	1		2320	281	0.
1		0440	57	0.	1		1055	132	34.	1		1710	207	79.	1		2325	282	0.
1		0445	58	0.	1		1100	133	38.	1		1715	208	74.	1		2330	283	0.
1		0450	59	0.	1		1105	134	42.	1		1720	209	69.	1		2335	284	0.
1		0455	60	0.	1		1110	135	47.	1		1725	210	65.	1		2340	285	0.
1		0500	61	0.	1		1115	136	52.	1		1730	211	60.	1		2345	286	0.
1		0505	62	1.	1		1120	137	57.	1		1735	212	56.	1		2350	287	0.
1		0510	63	1.	1		1125	138	63.	1		1740	213	52.	1		2355	288	0.
1		0515	64	1.	1		1130	139	70.	1		1745	214	49.	2		0000	289	0.
1		0520	65	1.	1		1135	140	80.	1		1750	215	45.	2		0005	290	0.
1		0525	66	1.	1		1140	141	94.	1		1755	216	42.	2		0010	291	0.
1		0530	67	1.	1		1145	142	123.	1		1800	217	39.	2		0015	292	0.
1		0535	68	1.	1		1150	143	182.	1		1805	218	36.	2		0020	293	0.
1		0540	69	1.	1		1155	144	283.	1		1810	219	33.	2		0025	294	0.
1		0545	70	1.	1		1200	145	509.	1		1815	220	31.	2		0030	295	0.
1		0550	71	1.	1		1205	146	989.	1		1820	221	28.	2		0035	296	0.
1		0555	72	1.	1		1210	147	1719.	1		1825	222	26.	2		0040	297	0.
1		0600	73	2.	1		1215	148	2797.	1		1830	223	24.	2		0045	298	0.
1		0605	74	2.	1		1220	149	4117.	1		1835	224	22.	2		0050	299	0.
1		0610	75	2.	1		1225	150	5793.	1		1840	225	20.	2		0055	300	0.

PEAK FLOW (CFS)	TIME (HR)	MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
+ 14408.	12.83	(CFS) 2825.	711.	685.	685.
		(INCHES) 1.282	1.292	1.292	1.292
		(AC-FT) 1401.	1411.	1411.	1411.

CUMULATIVE AREA = 20.48 SQ MI

HYDROGRAPH AT CPWT3
TRANSPOSITION AREA 10.0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	2.	1		1230	151	7633.	1		1845	226	18.
1		0005	2	0.	1		0620	77	2.	1		1235	152	9763.	1		1850	227	16.

1	0010	3	0.	*	1	0625	78	2.	*	1	1240	153	11725.	*	1	1855	228	15.
1	0015	4	0.	*	1	0630	79	2.	*	1	1245	154	13278.	*	1	1900	229	13.
1	0020	5	0.	*	1	0635	80	2.	*	1	1250	155	14157.	*	1	1905	230	12.
1	0025	6	0.	*	1	0640	81	2.	*	1	1255	156	14120.	*	1	1910	231	11.
1	0030	7	0.	*	1	0645	82	2.	*	1	1300	157	13460.	*	1	1915	232	9.
1	0035	8	0.	*	1	0650	83	2.	*	1	1305	158	12401.	*	1	1920	233	8.
1	0040	9	0.	*	1	0655	84	2.	*	1	1310	159	11116.	*	1	1925	234	7.
1	0045	10	0.	*	1	0700	85	2.	*	1	1315	160	9719.	*	1	1930	235	6.
1	0050	11	0.	*	1	0705	86	2.	*	1	1320	161	8419.	*	1	1935	236	4.
1	0055	12	0.	*	1	0710	87	2.	*	1	1325	162	7403.	*	1	1940	237	4.
1	0100	13	0.	*	1	0715	88	2.	*	1	1330	163	6488.	*	1	1945	238	4.
1	0105	14	0.	*	1	0720	89	2.	*	1	1335	164	5601.	*	1	1950	239	4.
1	0110	15	0.	*	1	0725	90	3.	*	1	1340	165	4800.	*	1	1955	240	4.
1	0115	16	0.	*	1	0730	91	3.	*	1	1345	166	4153.	*	1	2000	241	4.
1	0120	17	0.	*	1	0735	92	3.	*	1	1350	167	3579.	*	1	2005	242	3.
1	0125	18	0.	*	1	0740	93	3.	*	1	1355	168	3061.	*	1	2010	243	3.
1	0130	19	0.	*	1	0745	94	3.	*	1	1400	169	2619.	*	1	2015	244	3.
1	0135	20	0.	*	1	0750	95	3.	*	1	1405	170	2272.	*	1	2020	245	3.
1	0140	21	0.	*	1	0755	96	3.	*	1	1410	171	1966.	*	1	2025	246	3.
1	0145	22	0.	*	1	0800	97	3.	*	1	1415	172	1690.	*	1	2030	247	3.
1	0150	23	0.	*	1	0805	98	3.	*	1	1420	173	1449.	*	1	2035	248	3.
1	0155	24	0.	*	1	0810	99	3.	*	1	1425	174	1257.	*	1	2040	249	3.
1	0200	25	0.	*	1	0815	100	4.	*	1	1430	175	1111.	*	1	2045	250	3.
1	0205	26	0.	*	1	0820	101	4.	*	1	1435	176	1001.	*	1	2050	251	3.
1	0210	27	0.	*	1	0825	102	4.	*	1	1440	177	899.	*	1	2055	252	3.
1	0215	28	0.	*	1	0830	103	4.	*	1	1445	178	806.	*	1	2100	253	3.
1	0220	29	0.	*	1	0835	104	4.	*	1	1450	179	722.	*	1	2105	254	2.
1	0225	30	0.	*	1	0840	105	4.	*	1	1455	180	647.	*	1	2110	255	2.
1	0230	31	0.	*	1	0845	106	4.	*	1	1500	181	580.	*	1	2115	256	2.
1	0235	32	0.	*	1	0850	107	4.	*	1	1505	182	520.	*	1	2120	257	2.
1	0240	33	0.	*	1	0855	108	4.	*	1	1510	183	468.	*	1	2125	258	2.
1	0245	34	0.	*	1	0900	109	4.	*	1	1515	184	421.	*	1	2130	259	2.
1	0250	35	0.	*	1	0905	110	4.	*	1	1520	185	380.	*	1	2135	260	2.
1	0255	36	0.	*	1	0910	111	4.	*	1	1525	186	345.	*	1	2140	261	2.
1	0300	37	0.	*	1	0915	112	4.	*	1	1530	187	318.	*	1	2145	262	2.
1	0305	38	0.	*	1	0920	113	5.	*	1	1535	188	300.	*	1	2150	263	2.
1	0310	39	0.	*	1	0925	114	5.	*	1	1540	189	282.	*	1	2155	264	1.
1	0315	40	0.	*	1	0930	115	5.	*	1	1545	190	264.	*	1	2200	265	1.
1	0320	41	0.	*	1	0935	116	6.	*	1	1550	191	247.	*	1	2205	266	1.
1	0325	42	0.	*	1	0940	117	7.	*	1	1555	192	230.	*	1	2210	267	1.
1	0330	43	0.	*	1	0945	118	8.	*	1	1600	193	214.	*	1	2215	268	1.
1	0335	44	0.	*	1	0950	119	9.	*	1	1605	194	199.	*	1	2220	269	1.
1	0340	45	0.	*	1	0955	120	10.	*	1	1610	195	185.	*	1	2225	270	1.
1	0345	46	0.	*	1	1000	121	11.	*	1	1615	196	172.	*	1	2230	271	1.
1	0350	47	0.	*	1	1005	122	12.	*	1	1620	197	160.	*	1	2235	272	1.
1	0355	48	0.	*	1	1010	123	13.	*	1	1625	198	148.	*	1	2240	273	1.
1	0400	49	0.	*	1	1015	124	14.	*	1	1630	199	138.	*	1	2245	274	1.
1	0405	50	0.	*	1	1020	125	15.	*	1	1635	200	128.	*	1	2250	275	1.
1	0410	51	0.	*	1	1025	126	17.	*	1	1640	201	119.	*	1	2255	276	1.
1	0415	52	0.	*	1	1030	127	18.	*	1	1645	202	111.	*	1	2300	277	1.
1	0420	53	0.	*	1	1035	128	19.	*	1	1650	203	103.	*	1	2305	278	1.
1	0425	54	0.	*	1	1040	129	22.	*	1	1655	204	96.	*	1	2310	279	0.
1	0430	55	0.	*	1	1045	130	25.	*	1	1700	205	89.	*	1	2315	280	0.
1	0435	56	0.	*	1	1050	131	28.	*	1	1705	206	83.	*	1	2320	281	0.
1	0440	57	0.	*	1	1055	132	32.	*	1	1710	207	78.	*	1	2325	282	0.
1	0445	58	0.	*	1	1100	133	36.	*	1	1715	208	72.	*	1	2330	283	0.
1	0450	59	0.	*	1	1105	134	40.	*	1	1720	209	67.	*	1	2335	284	0.
1	0455	60	0.	*	1	1110	135	45.	*	1	1725	210	63.	*	1	2340	285	0.
1	0500	61	0.	*	1	1115	136	50.	*	1	1730	211	59.	*	1	2345	286	0.
1	0505	62	0.	*	1	1120	137	55.	*	1	1735	212	55.	*	1	2350	287	0.
1	0510	63	1.	*	1	1125	138	61.	*	1	1740	213	51.	*	1	2355	288	0.
1	0515	64	1.	*	1	1130	139	67.	*	1	1745	214	47.	*	2	0000	289	0.
1	0520	65	1.	*	1	1135	140	77.	*	1	1750	215	44.	*	2	0005	290	0.
1	0525	66	1.	*	1	1140	141	91.	*	1	1755	216	40.	*	2	0010	291	0.
1	0530	67	1.	*	1	1145	142	120.	*	1	1800	217	37.	*	2	0015	292	0.
1	0535	68	1.	*	1	1150	143	177.	*	1	1805	218	34.	*	2	0020	293	0.
1	0540	69	1.	*	1	1155	144	276.	*	1	1810	219	32.	*	2	0025	294	0.
1	0545	70	1.	*	1	1200	145	493.	*	1	1815	220	29.	*	2	0030	295	0.
1	0550	71	1.	*	1	1205	146	965.	*	1	1820	221	27.	*	2	0035	296	0.
1	0555	72	1.	*	1	1210	147	1672.	*	1	1825	222	25.	*	2	0040	297	0.
1	0600	73	1.	*	1	1215	148	2732.	*	1	1830	223	23.	*	2	0045	298	0.
1	0605	74	2.	*	1	1220	149	4026.	*	1	1835	224	21.	*	2	0050	299	0.
1	0610	75	2.	*	1	1225	150	5668.	*	1	1840	225	19.	*	2	0055	300	0.

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PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
+ 14157.	12.83	(CFS)	2781.	700.	675.	675.
		(INCHES)	1.263	1.272	1.272	1.272
		(AC-FT)	1379.	1389.	1389.	1389.

CUMULATIVE AREA = 20.48 SQ MI

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HYDROGRAPH AT CPWT3
TRANSPOSITION AREA 50.0 SQ MI

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DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	*	1		0615	76	1.	*	1		1230	151	6910.	*	1		1845	226	14.
1		0005	2	0.	*	1		0620	77	1.	*	1		1235	152	8936.	*	1		1850	227	12.
1		0010	3	0.	*	1		0625	78	2.	*	1		1240	153	10753.	*	1		1855	228	11.
1		0015	4	0.	*	1		0630	79	2.	*	1		1245	154	12138.	*	1		1900	229	10.
1		0020	5	0.	*	1		0635	80	2.	*	1		1250	155	13137.	*	1		1905	230	8.
1		0025	6	0.	*	1		0640	81	2.	*	1		1255	156	13202.	*	1		1910	231	7.
1		0030	7	0.	*	1		0645	82	2.	*	1		1300	157	12636.	*	1		1915	232	6.
1		0035	8	0.	*	1		0650	83	2.	*	1		1305	158	11684.	*	1		1920	233	4.
1		0040	9	0.	*	1		0655	84	2.	*	1		1310	159	10478.	*	1		1925	234	4.
1		0045	10	0.	*	1		0700	85	2.	*	1		1315	160	9184.	*	1		1930	235	4.
1		0050	11	0.	*	1		0705	86	2.	*	1		1320	161	8017.	*	1		1935	236	4.
1		0055	12	0.	*	1		0710	87	2.	*	1		1325	162	7136.	*	1		1940	237	4.
1		0100	13	0.	*	1		0715	88	2.	*	1		1330	163	6230.	*	1		1945	238	4.
1		0105	14	0.	*	1		0720	89	2.	*	1		1335	164	5373.	*	1		1950	239	3.
1		0110	15	0.	*	1		0725	90	2.	*	1		1340	165	4612.	*	1		1955	240	3.
1		0115	16	0.	*	1		0730	91	2.	*	1		1345	166	4004.	*	1		2000	241	3.
1		0120	17	0.	*	1		0735	92	2.	*	1		1350	167	3443.	*	1		2005	242	3.
1		0125	18	0.	*	1		0740	93	2.	*	1		1355	168	2946.	*	1		2010	243	3.
1		0130	19	0.	*	1		0745	94	3.	*	1		1400	169	2523.	*	1		2015	244	3.
1		0135	20	0.	*	1		0750	95	3.	*	1		1405	170	2197.	*	1		2020	245	3.
1		0140	21	0.	*	1		0755	96	3.	*	1		1410	171	1897.	*	1		2025	246	3.
1		0145	22	0.	*	1		0800	97	3.	*	1		1415	172	1629.	*	1		2030	247	3.
1		0150	23	0.	*	1		0805	98	3.	*	1		1420	173	1399.	*	1		2035	248	3.
1		0155	24	0.	*	1		0810	99	3.	*	1		1425	174	1218.	*	1		2040	249	2.
1		0200	25	0.	*	1		0815	100	3.	*	1		1430	175	1081.	*	1		2045	250	2.
1		0205	26	0.	*	1		0820	101	3.	*	1		1435	176	972.	*	1		2050	251	2.
1		0210	27	0.	*	1		0825	102	3.	*	1		1440	177	871.	*	1		2055	252	2.
1		0215	28	0.	*	1		0830	103	3.	*	1		1445	178	780.	*	1		2100	253	2.
1		0220	29	0.	*	1		0835	104	4.	*	1		1450	179	699.	*	1		2105	254	2.
1		0225	30	0.	*	1		0840	105	4.	*	1		1455	180	625.	*	1		2110	255	2.
1		0230	31	0.	*	1		0845	106	4.	*	1		1500	181	560.	*	1		2115	256	2.
1		0235	32	0.	*	1		0850	107	4.	*	1		1505	182	502.	*	1		2120	257	2.

1	0240	33	0.	*	1	0855	108	4.	*	1	1510	183	451.	*	1	2125	258	2.
1	0245	34	0.	*	1	0900	109	4.	*	1	1515	184	405.	*	1	2130	259	2.
1	0250	35	0.	*	1	0905	110	4.	*	1	1520	185	365.	*	1	2135	260	2.
1	0255	36	0.	*	1	0910	111	4.	*	1	1525	186	333.	*	1	2140	261	1.
1	0300	37	0.	*	1	0915	112	4.	*	1	1530	187	310.	*	1	2145	262	1.
1	0305	38	0.	*	1	0920	113	4.	*	1	1535	188	291.	*	1	2150	263	1.
1	0310	39	0.	*	1	0925	114	4.	*	1	1540	189	273.	*	1	2155	264	1.
1	0315	40	0.	*	1	0930	115	4.	*	1	1545	190	255.	*	1	2200	265	1.
1	0320	41	0.	*	1	0935	116	5.	*	1	1550	191	238.	*	1	2205	266	1.
1	0325	42	0.	*	1	0940	117	5.	*	1	1555	192	221.	*	1	2210	267	1.
1	0330	43	0.	*	1	0945	118	6.	*	1	1600	193	205.	*	1	2215	268	1.
1	0335	44	0.	*	1	0950	119	7.	*	1	1605	194	190.	*	1	2220	269	1.
1	0340	45	0.	*	1	0955	120	8.	*	1	1610	195	176.	*	1	2225	270	1.
1	0345	46	0.	*	1	1000	121	9.	*	1	1615	196	163.	*	1	2230	271	1.
1	0350	47	0.	*	1	1005	122	10.	*	1	1620	197	151.	*	1	2235	272	0.
1	0355	48	0.	*	1	1010	123	11.	*	1	1625	198	140.	*	1	2240	273	0.
1	0400	49	0.	*	1	1015	124	12.	*	1	1630	199	130.	*	1	2245	274	0.
1	0405	50	0.	*	1	1020	125	13.	*	1	1635	200	120.	*	1	2250	275	0.
1	0410	51	0.	*	1	1025	126	14.	*	1	1640	201	111.	*	1	2255	276	0.
1	0415	52	0.	*	1	1030	127	15.	*	1	1645	202	103.	*	1	2300	277	0.
1	0420	53	0.	*	1	1035	128	17.	*	1	1650	203	96.	*	1	2305	278	0.
1	0425	54	0.	*	1	1040	129	18.	*	1	1655	204	89.	*	1	2310	279	0.
1	0430	55	0.	*	1	1045	130	19.	*	1	1700	205	82.	*	1	2315	280	0.
1	0435	56	0.	*	1	1050	131	21.	*	1	1705	206	76.	*	1	2320	281	0.
1	0440	57	0.	*	1	1055	132	24.	*	1	1710	207	71.	*	1	2325	282	0.
1	0445	58	0.	*	1	1100	133	28.	*	1	1715	208	66.	*	1	2330	283	0.
1	0450	59	0.	*	1	1105	134	32.	*	1	1720	209	61.	*	1	2335	284	0.
1	0455	60	0.	*	1	1110	135	36.	*	1	1725	210	56.	*	1	2340	285	0.
1	0500	61	0.	*	1	1115	136	40.	*	1	1730	211	52.	*	1	2345	286	0.
1	0505	62	0.	*	1	1120	137	45.	*	1	1735	212	48.	*	1	2350	287	0.
1	0510	63	0.	*	1	1125	138	51.	*	1	1740	213	44.	*	1	2355	288	0.
1	0515	64	0.	*	1	1130	139	57.	*	1	1745	214	41.	*	2	0000	289	0.
1	0520	65	0.	*	1	1135	140	66.	*	1	1750	215	37.	*	2	0005	290	0.
1	0525	66	0.	*	1	1140	141	80.	*	1	1755	216	34.	*	2	0010	291	0.
1	0530	67	1.	*	1	1145	142	105.	*	1	1800	217	31.	*	2	0015	292	0.
1	0535	68	1.	*	1	1150	143	158.	*	1	1805	218	28.	*	2	0020	293	0.
1	0540	69	1.	*	1	1155	144	247.	*	1	1810	219	26.	*	2	0025	294	0.
1	0545	70	1.	*	1	1200	145	436.	*	1	1815	220	24.	*	2	0030	295	0.
1	0550	71	1.	*	1	1205	146	862.	*	1	1820	221	22.	*	2	0035	296	0.
1	0555	72	1.	*	1	1210	147	1491.	*	1	1825	222	20.	*	2	0040	297	0.
1	0600	73	1.	*	1	1215	148	2475.	*	1	1830	223	18.	*	2	0045	298	0.
1	0605	74	1.	*	1	1220	149	3663.	*	1	1835	224	17.	*	2	0050	299	0.
1	0610	75	1.	*	1	1225	150	5166.	*	1	1840	225	15.	*	2	0055	300	0.

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
13202.	12.92	(CFS)	2608.	656.	632.	632.
		(INCHES)	1.184	1.192	1.192	1.192
		(AC-FT)	1293.	1302.	1302.	1302.

CUMULATIVE AREA = 20.48 SQ MI

HYDROGRAPH AT CPWT3
TRANSPOSITION AREA 100.0 SQ MI

DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	*	1		0615	76	1.	*	1		1230	151	6606.	*	1		1845	226	12.
1		0005	2	0.	*	1		0620	77	1.	*	1		1235	152	8565.	*	1		1850	227	11.
1		0010	3	0.	*	1		0625	78	1.	*	1		1240	153	10323.	*	1		1855	228	9.
1		0015	4	0.	*	1		0630	79	1.	*	1		1245	154	11693.	*	1		1900	229	8.
1		0020	5	0.	*	1		0635	80	2.	*	1		1250	155	12647.	*	1		1905	230	6.
1		0025	6	0.	*	1		0640	81	2.	*	1		1255	156	12790.	*	1		1910	231	5.
1		0030	7	0.	*	1		0645	82	2.	*	1		1300	157	12277.	*	1		1915	232	4.
1		0035	8	0.	*	1		0650	83	2.	*	1		1305	158	11368.	*	1		1920	233	4.
1		0040	9	0.	*	1		0655	84	2.	*	1		1310	159	10196.	*	1		1925	234	4.
1		0045	10	0.	*	1		0700	85	2.	*	1		1315	160	8957.	*	1		1930	235	4.
1		0050	11	0.	*	1		0705	86	2.	*	1		1320	161	7870.	*	1		1935	236	4.
1		0055	12	0.	*	1		0710	87	2.	*	1		1325	162	7002.	*	1		1940	237	4.
1		0100	13	0.	*	1		0715	88	2.	*	1		1330	163	6108.	*	1		1945	238	3.
1		0105	14	0.	*	1		0720	89	2.	*	1		1335	164	5269.	*	1		1950	239	3.
1		0110	15	0.	*	1		0725	90	2.	*	1		1340	165	4532.	*	1		1955	240	3.
1		0115	16	0.	*	1		0730	91	2.	*	1		1345	166	3936.	*	1		2000	241	3.
1		0120	17	0.	*	1		0735	92	2.	*	1		1350	167	3382.	*	1		2005	242	3.
1		0125	18	0.	*	1		0740	93	2.	*	1		1355	168	2894.	*	1		2010	243	3.
1		0130	19	0.	*	1		0745	94	2.	*	1		1400	169	2484.	*	1		2015	244	3.
1		0135	20	0.	*	1		0750	95	2.	*	1		1405	170	2162.	*	1		2020	245	3.
1		0140	21	0.	*	1		0755	96	3.	*	1		1410	171	1866.	*	1		2025	246	3.
1		0145	22	0.	*	1		0800	97	3.	*	1		1415	172	1602.	*	1		2030	247	2.
1		0150	23	0.	*	1		0805	98	3.	*	1		1420	173	1376.	*	1		2035	248	2.
1		0155	24	0.	*	1		0810	99	3.	*	1		1425	174	1200.	*	1		2040	249	2.
1		0200	25	0.	*	1		0815	100	3.	*	1		1430	175	1068.	*	1		2045	250	2.
1		0205	26	0.	*	1		0820	101	3.	*	1		1435	176	959.	*	1		2050	251	2.
1		0210	27	0.	*	1		0825	102	3.	*	1		1440	177	859.	*	1		2055	252	2.
1		0215	28	0.	*	1		0830	103	3.	*	1		1445	178	769.	*	1		2100	253	2.
1		0220	29	0.	*	1		0835	104	3.	*	1		1450	179	688.	*	1		2105	254	2.
1		0225	30	0.	*	1		0840	105	3.	*	1		1455	180	616.	*	1		2110	255	2.
1		0230	31	0.	*	1		0845	106	3.	*	1		1500	181	551.	*	1		2115	256	2.
1		0235	32	0.	*	1		0850	107	4.	*	1		1505	182	494.	*	1		2120	257	2.
1		0240	33	0.	*	1		0855	108	4.	*	1		1510	183	443.	*	1		2125	258	2.
1		0245	34	0.	*	1		0900	109	4.	*	1		1515	184	398.	*	1		2130	259	2.
1		0250	35	0.	*	1		0905	110	4.	*	1		1520	185	359.	*	1		2135	260	1.
1		0255	36	0.	*	1		0910	111	4.	*	1		1525	186	327.	*	1		2140	261	1.
1		0300	37	0.	*	1		0915	112	4.	*	1		1530	187	306.	*	1		2145	262	1.
1		0305	38	0.	*	1		0920	113	4.	*	1		1535	188	287.	*	1		2150	263	1.
1		0310	39	0.	*	1		0925	114	4.	*	1		1540	189	269.	*	1		2155	264	1.
1		0315	40	0.	*	1		0930	115	4.	*	1		1545	190	251.	*	1		2200	265	1.
1		0320	41	0.	*	1		0935	116	4.	*	1		1550	191	234.	*	1		2205	266	1.
1		0325	42	0.	*	1		0940	117	5.	*	1		1555	192	217.	*	1		2210	267	1.
1		0330	43	0.	*	1		0945	118	5.	*	1		1600	193	201.	*	1		2215	268	1.
1		0335	44	0.	*	1		0950	119	6.	*	1		1605	194	187.	*	1		2220	269	1.
1		0340	45	0.	*	1		0955	120	7.	*	1		1610	195	173.	*	1		2225	270	0.
1		0345	46	0.	*	1		1000	121	8.	*	1		1615	196	160.	*	1		2230	271	0.
1		0350	47	0.	*	1		1005	122	9.	*	1		1620	197	148.	*	1		2235	272	0.
1		0355	48	0.	*	1		1010	123	10.	*	1		1625	198	137.	*	1		2240	273	0.
1		0400	49	0.	*	1		1015	124	11.	*	1		1630	199	126.	*	1		2245	274	0.
1		0405	50	0.	*	1		1020	125	12.	*	1		1635	200	117.	*	1		2250	275	0.
1		0410	51	0.	*	1		1025	126	13.	*	1		1640	201	108.	*	1		2255	276	0.
1		0415	52	0.	*	1		1030	127	14.	*	1		1645	202	100.	*	1		2300	277	0.
1		0420	53	0.	*	1		1035	128	16.	*	1		1650	203	93.	*	1		2305	278	0.
1		0425	54	0.	*	1		1040	129	17.	*	1		1655	204	86.	*	1		2310	279	0.
1		0430	55	0.	*	1		1045	130	18.	*	1		1700	205	79.	*	1		2315	280	0.
1		0435	56	0.	*	1		1050	131	19.	*	1		1705	206	73.	*	1		2320	281	0.
1		0440	57	0.	*	1		1055	132	21.	*	1		1710	207	68.	*	1		2325	282	0.
1		0445	58	0.	*	1		1100	133	24.	*	1		1715	208	63.	*	1		2330	283	0.
1		0450	59	0.	*	1		1105	134	28.	*	1		1720	209	58.	*	1		2335	284	0.
1		0455	60	0.	*	1		1110	135	32.	*	1		1725	210	53.	*	1		2340	285	0.
1		0500	61	0.	*	1		1115	136	36.	*	1		1730	211	49.	*	1		2345	286	0.
1		0505	62	0.	*	1		1120	137	41.	*	1		1735	212	45.	*	1		2350	287	0.

1	0510	63	0.	*	1	1125	138	47.	*	1	1740	213	41.	*	1	2355	288	0.
1	0515	64	0.	*	1	1130	139	53.	*	1	1745	214	38.	*	2	0000	289	0.
1	0520	65	0.	*	1	1135	140	62.	*	1	1750	215	34.	*	2	0005	290	0.
1	0525	66	0.	*	1	1140	141	74.	*	1	1755	216	31.	*	2	0010	291	0.
1	0530	67	0.	*	1	1145	142	99.	*	1	1800	217	29.	*	2	0015	292	0.
1	0535	68	1.	*	1	1150	143	149.	*	1	1805	218	26.	*	2	0020	293	0.
1	0540	69	1.	*	1	1155	144	235.	*	1	1810	219	24.	*	2	0025	294	0.
1	0545	70	1.	*	1	1200	145	415.	*	1	1815	220	22.	*	2	0030	295	0.
1	0550	71	1.	*	1	1205	146	815.	*	1	1820	221	20.	*	2	0035	296	0.
1	0555	72	1.	*	1	1210	147	1416.	*	1	1825	222	18.	*	2	0040	297	0.
1	0600	73	1.	*	1	1215	148	2365.	*	1	1830	223	16.	*	2	0045	298	0.
1	0605	74	1.	*	1	1220	149	3502.	*	1	1835	224	15.	*	2	0050	299	0.
1	0610	75	1.	*	1	1225	150	4944.	*	1	1840	225	13.	*	2	0055	300	0.

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
		(CFS)				
12790.	12.92		2533.	637.	613.	613.
		(INCHES)	1.150	1.157	1.157	1.157
		(AC-FT)	1256.	1263.	1263.	1263.

CUMULATIVE AREA = 20.48 SQ MI

HYDROGRAPH AT CPWT3
TRANSPOSITION AREA 200.0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	1.	1		1230	151	6347.	1		1845	226	10.
1		0005	2	0.	1		0620	77	1.	1		1235	152	8250.	1		1850	227	9.
1		0010	3	0.	1		0625	78	1.	1		1240	153	9965.	1		1855	228	8.
1		0015	4	0.	1		0630	79	1.	1		1245	154	11316.	1		1900	229	6.
1		0020	5	0.	1		0635	80	1.	1		1250	155	12219.	1		1905	230	5.
1		0025	6	0.	1		0640	81	1.	1		1255	156	12432.	1		1910	231	4.
1		0030	7	0.	1		0645	82	1.	1		1300	157	11969.	1		1915	232	4.
1		0035	8	0.	1		0650	83	2.	1		1305	158	11099.	1		1920	233	4.
1		0040	9	0.	1		0655	84	2.	1		1310	159	9956.	1		1925	234	4.
1		0045	10	0.	1		0700	85	2.	1		1315	160	8767.	1		1930	235	4.
1		0050	11	0.	1		0705	86	2.	1		1320	161	7748.	1		1935	236	3.
1		0055	12	0.	1		0710	87	2.	1		1325	162	6884.	1		1940	237	3.
1		0100	13	0.	1		0715	88	2.	1		1330	163	6001.	1		1945	238	3.
1		0105	14	0.	1		0720	89	2.	1		1335	164	5177.	1		1950	239	3.
1		0110	15	0.	1		0725	90	2.	1		1340	165	4462.	1		1955	240	3.
1		0115	16	0.	1		0730	91	2.	1		1345	166	3876.	1		2000	241	3.
1		0120	17	0.	1		0735	92	2.	1		1350	167	3329.	1		2005	242	3.
1		0125	18	0.	1		0740	93	2.	1		1355	168	2849.	1		2010	243	3.
1		0130	19	0.	1		0745	94	2.	1		1400	169	2451.	1		2015	244	3.
1		0135	20	0.	1		0750	95	2.	1		1405	170	2131.	1		2020	245	2.
1		0140	21	0.	1		0755	96	2.	1		1410	171	1839.	1		2025	246	2.
1		0145	22	0.	1		0800	97	3.	1		1415	172	1578.	1		2030	247	2.
1		0150	23	0.	1		0805	98	3.	1		1420	173	1357.	1		2035	248	2.
1		0155	24	0.	1		0810	99	3.	1		1425	174	1186.	1		2040	249	2.
1		0200	25	0.	1		0815	100	3.	1		1430	175	1056.	1		2045	250	2.
1		0205	26	0.	1		0820	101	3.	1		1435	176	948.	1		2050	251	2.
1		0210	27	0.	1		0825	102	3.	1		1440	177	849.	1		2055	252	2.
1		0215	28	0.	1		0830	103	3.	1		1445	178	759.	1		2100	253	2.
1		0220	29	0.	1		0835	104	3.	1		1450	179	679.	1		2105	254	2.
1		0225	30	0.	1		0840	105	3.	1		1455	180	608.	1		2110	255	2.
1		0230	31	0.	1		0845	106	3.	1		1500	181	544.	1		2115	256	2.
1		0235	32	0.	1		0850	107	3.	1		1505	182	487.	1		2120	257	2.
1		0240	33	0.	1		0855	108	3.	1		1510	183	437.	1		2125	258	1.
1		0245	34	0.	1		0900	109	3.	1		1515	184	392.	1		2130	259	1.
1		0250	35	0.	1		0905	110	4.	1		1520	185	354.	1		2135	260	1.
1		0255	36	0.	1		0910	111	4.	1		1525	186	322.	1		2140	261	1.
1		0300	37	0.	1		0915	112	4.	1		1530	187	303.	1		2145	262	1.
1		0305	38	0.	1		0920	113	4.	1		1535	188	284.	1		2150	263	1.
1		0310	39	0.	1		0925	114	4.	1		1540	189	266.	1		2155	264	1.
1		0315	40	0.	1		0930	115	4.	1		1545	190	248.	1		2200	265	1.
1		0320	41	0.	1		0935	116	4.	1		1550	191	230.	1		2205	266	1.
1		0325	42	0.	1		0940	117	4.	1		1555	192	214.	1		2210	267	1.
1		0330	43	0.	1		0945	118	5.	1		1600	193	198.	1		2215	268	1.
1		0335	44	0.	1		0950	119	5.	1		1605	194	183.	1		2220	269	0.
1		0340	45	0.	1		0955	120	6.	1		1610	195	169.	1		2225	270	0.
1		0345	46	0.	1		1000	121	7.	1		1615	196	157.	1		2230	271	0.
1		0350	47	0.	1		1005	122	8.	1		1620	197	145.	1		2235	272	0.
1		0355	48	0.	1		1010	123	9.	1		1625	198	134.	1		2240	273	0.
1		0400	49	0.	1		1015	124	10.	1		1630	199	123.	1		2245	274	0.
1		0405	50	0.	1		1020	125	11.	1		1635	200	114.	1		2250	275	0.
1		0410	51	0.	1		1025	126	12.	1		1640	201	105.	1		2255	276	0.
1		0415	52	0.	1		1030	127	13.	1		1645	202	97.	1		2300	277	0.
1		0420	53	0.	1		1035	128	15.	1		1650	203	90.	1		2305	278	0.
1		0425	54	0.	1		1040	129	16.	1		1655	204	83.	1		2310	279	0.
1		0430	55	0.	1		1045	130	17.	1		1700	205	77.	1		2315	280	0.
1		0435	56	0.	1		1050	131	18.	1		1705	206	71.	1		2320	281	0.
1		0440	57	0.	1		1055	132	20.	1		1710	207	65.	1		2325	282	0.
1		0445	58	0.	1		1100	133	22.	1		1715	208	60.	1		2330	283	0.
1		0450	59	0.	1		1105	134	25.	1		1720	209	55.	1		2335	284	0.
1		0455	60	0.	1		1110	135	29.	1		1725	210	51.	1		2340	285	0.
1		0500	61	0.	1		1115	136	33.	1		1730	211	47.	1		2345	286	0.
1		0505	62	0.	1		1120	137	38.	1		1735	212	43.	1		2350	287	0.
1		0510	63	0.	1		1125	138	43.	1		1740	213	39.	1		2355	288	0.
1		0515	64	0.	1		1130	139	49.	1		1745	214	35.	2		0000	289	0.
1		0520	65	0.	1		1135	140	58.	1		1750	215	32.	2		0005	290	0.
1		0525	66	0.	1		1140	141	70.	1		1755	216	29.	2		0010	291	0.
1		0530	67	0.	1		1145	142	93.	1		1800	217	26.	2		0015	292	0.
1		0535	68	0.	1		1150	143	142.	1		1805	218	24.	2		0020	293	0.
1		0540	69	1.	1		1155	144	224.	1		1810	219	22.	2		0025	294	0.
1		0545	70	1.	1		1200	145	396.	1		1815	220	20.	2		0030	295	0.
1		0550	71	1.	1		1205	146	774.	1		1820	221	18.	2		0035	296	0.
1		0555	72	1.	1		1210	147	1357.	1		1825	222	17.	2		0040	297	0.
1		0600	73	1.	1		1215	148	2265.	1		1830	223	15.	2		0045	298	0.
1		0605	74	1.	1		1220	149	3363.	1		1835	224	13.	2		0050	299	0.
1		0610	75	1.	1		1225	150	4753.	1		1840	225	12.	2		0055	300	0.

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
		(CFS)				
12432.	12.92		2468.	620.	598.	598.
		(INCHES)	1.120	1.127	1.127	1.127
		(AC-FT)	1224.	1231.	1231.	1231.

CUMULATIVE AREA = 20.48 SQ MI

INTERPOLATED HYDROGRAPH AT CPWT3

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	2.	1		1230	151	7311.	1		1845	226	16.
1		0005	2	0.	1		0620	77	2.	1		1235	152	9395.	1		1850	227	14.
1		0010	3	0.	1		0625	78	2.	1		1240	153	11292.	1		1855	228	13.
1		0015	4	0.	1		0630	79	2.	1		1245	154	12770.	1		1900	229	12.
1		0020	5	0.	1		0635	80	2.	1		1250	155	13703.	1		1905	230	10.
1		0025	6	0.	1		0640	81	2.	1		1255	156	13711.	1		1910	231	9.
1		0030	7	0.	1		0645	82	2.	1		1300	157	13093.	1		1915	232	8.
1		0035	8	0.	1		0650	83	2.	1		1305	158	12082.	1		1920	233	6.
1		0040	9	0.	1		0655	84	2.	1		1310	159	10832.	1		1925	234	6.
1		0045	10	0.	1		0700	85	2.	1		1315	160	9481.	1		1930	235	5.
1		0050	11	0.	1		0705	86	2.	1		1320	161	8240.	1		1935	236	4.
1		0055	12	0.	1		0710	87	2.	1		1325	162	7284.	1		1940	237	4.
1		0100	13	0.	1		0715	88	2.	1		1330	163	6373.	1		1945	238	4.
1		0105	14	0.	1		0720	89	2.	1		1335	164	5499.	1		1950	239	4.
1		0110	15	0.	1		0725	90	2.	1		1340	165	4716.	1		1955	240	4.
1		0115	16	0.	1		0730	91	2.	1		1345	166	4087.	1		2000	241	3.
1		0120	17	0.	1		0735	92	3.	1		1350	167	3518.	1		2005	242	3.
1		0125	18	0.	1		0740	93	3.	1		1355	168	3009.	1		2010	243	3.
1		0130	19	0.	1		0745	94	3.	1		1400	169	2576.	1		2015	244	3.
1		0135	20	0.	1		0750	95	3.	1		1405	170	2238.	1		2020	245	3.
1		0140	21	0.	1		0755	96	3.	1		1410	171	1935.	1		2025	246	3.
1		0145	22	0.	1		0800	97	3.	1		1415	172	1663.	1		2030	247	3.
1		0150	23	0.	1		0805	98	3.	1		1420	173	1427.	1		2035	248	3.
1		0155	24	0.	1		0810	99	3.	1		1425	174	1240.	1		2040	249	3.
1		0200	25	0.	1		0815	100	3.	1		1430	175	1097.	1		2045	250	3.
1		0205	26	0.	1		0820	101	3.	1		1435	176	988.	1		2050	251	3.
1		0210	27	0.	1		0825	102	4.	1		1440	177	887.	1		2055	252	2.
1		0215	28	0.	1		0830	103	4.	1		1445	178	795.	1		2100	253	2.
1		0220	29	0.	1		0835	104	4.	1		1450	179	712.	1		2105	254	2.
1		0225	30	0.	1		0840	105	4.	1		1455	180	637.	1		2110	255	2.
1		0230	31	0.	1		0845	106	4.	1		1500	181	571.	1		2115	256	2.
1		0235	32	0.	1		0850	107	4.	1		1505	182	512.	1		2120	257	2.
1		0240	33	0.	1		0855	108	4.	1		1510	183	460.	1		2125	258	2.
1		0245	34	0.	1		0900	109	4.	1		1515	184	414.	1		2130	259	2.
1		0250	35	0.	1		0905	110	4.	1		1520	185	373.	1		2135	260	2.
1		0255	36	0.	1		0910	111	4.	1		1525	186	339.	1		2140	261	2.
1		0300	37	0.	1		0915	112	4.	1		1530	187	314.	1		2145	262	2.
1		0305	38	0.	1		0920	113	4.	1		1535	188	296.	1		2150	263	1.
1		0310	39	0.	1		0925	114	5.	1		1540	189	278.	1		2155	264	1.
1		0315	40	0.	1		0930	115	5.	1		1545	190	260.	1		2200	265	1.
1		0320	41	0.	1		0935	116	5.	1		1550	191	243.	1		2205	266	1.
1		0325	42	0.	1		0940	117	6.	1		1555	192	226.	1		2210	267	1.
1		0330	43	0.	1		0945	118	7.	1		1600	193	210.	1		2215	268	1.
1		0335	44	0.	1		0950	119	8.	1		1605	194	195.	1		2220	269	1.
1		0340	45	0.	1		0955	120	9.	1		1610	195	181.	1		2225	270	1.
1		0345	46	0.	1		1000	121	10.	1		1615	196	168.	1		2230	271	1.
1		0350	47	0.	1		1005	122	11.	1		1620	197	156.	1		2235	272	1.
1		0355	48	0.	1		1010	123	12.	1		1625	198	145.	1		2240	273	1.
1		0400	49	0.	1		1015	124	13.	1		1630	199	134.	1		2245	274	1.
1		0405	50	0.	1		1020	125	14.	1		1635	200	125.	1		2250	275	0.
1		0410	51	0.	1		1025	126	16.	1		1640	201	116.	1		2255	276	0.
1		0415	52	0.	1		1030	127	17.	1		1645	202	107.	1		2300	277	0.
1		0420	53	0.	1		1035	128	18.	1		1650	203	100.	1		2305	278	0.
1		0425	54	0.	1		1040	129	20.	1		1655	204	93.	1		2310	279	0.
1		0430	55	0.	1		1045	130	22.	1		1700	205	86.	1		2315	280	0.
1		0435	56	0.	1		1050	131	25.	1		1705	206	80.	1		2320	281	0.
1		0440	57	0.	1		1055	132	28.	1		1710	207	75.	1		2325	282	0.
1		0445	58	0.	1		1100	133	32.	1		1715	208	69.	1		2330	283	0.
1		0450	59	0.	1		1105	134	36.	1		1720	209	64.	1		2335	284	0.
1		0455	60	0.	1		1110	135	41.	1		1725	210	60.	1		2340	285	0.
1		0500	61	0.	1		1115	136	45.	1		1730	211	56.	1		2345	286	0.
1		0505	62	0.	1		1120	137	51.	1		1735	212	52.	1		2350	287	0.
1		0510	63	0.	1		1125	138	56.	1		1740	213	48.	1		2355	288	0.
1		0515	64	0.	1		1130	139	62.	1		1745	214	44.	2		0000	289	0.
1		0520	65	1.	1		1135	140	72.	1		1750	215	41.	2		0005	290	0.
1		0525	66	1.	1		1140	141	86.	1		1755	216	38.	2		0010	291	0.
1		0530	67	1.	1		1145	142	113.	1		1800	217	35.	2		0015	292	0.
1		0535	68	1.	1		1150	143	169.	1		1805	218	32.	2		0020	293	0.
1		0540	69	1.	1		1155	144	263.	1		1810	219	29.	2		0025	294	0.
1		0545	70	1.	1		1200	145	468.	1		1815	220	27.	2		0030	295	0.
1		0550	71	1.	1		1205	146	919.	1		1820	221	25.	2		0035	296	0.
1		0555	72	1.	1		1210	147	1591.	1		1825	222	23.	2		0040	297	0.
1		0600	73	1.	1		1215	148	2618.	1		1830	223	21.	2		0045	298	0.
1		0605	74	1.	1		1220	149	3864.	1		1835	224	19.	2		0050	299	0.
1		0610	75	1.	1		1225	150	5444.	1		1840	225	17.	2		0055	300	0.

PEAK FLOW (CFS)	TIME (HR)	MAXIMUM AVERAGE FLOW	6-HR	24-HR	72-HR	24.92-HR
13711.	12.92	(CFS)	2704.	681.	656.	656.
		(INCHES)	1.228	1.236	1.236	1.236
		(AC-FT)	1341.	1350.	1350.	1350.

CUMULATIVE AREA = 20.48 SQ MI

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*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

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            *            *
340 KK      *    SRWT3   *
            *            *
            **************

342 KO          OUTPUT CONTROL VARIABLES
                      IPRNT          3  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE

              HYDROGRAPH ROUTING DATA

320 RL          ROUTING LOSSES
                      QLOSS        .00  INITIAL LOSS
                      CLOSS        .00  ADDITIONAL FRACTION LOST

343 RS          STORAGE ROUTING
                       NSTPS          1  NUMBER OF SUBREACHES
                        ITYP        STOR  TYPE OF INITIAL CONDITION
                      RSVRIC        .00  INITIAL CONDITION
                           X        .00 WORKING R AND D COEFFICIENT

344 SV            STORAGE          .0      1.0     14.0     42.0     91.0    203.0    466.0    958.0   1704.0   2716.0
                                 3012.0   3325.0   3657.0   4006.0

346 SQ          DISCHARGE          0.       0.       0.       0.       0.       0.       0.       0.       0.       0.
                                   0.    3550.    9000.   17600.
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348 SE          ELEVATION     1174.00   1176.00   1180.00   1184.00   1188.00   1192.00   1196.00   1200.00   1204.00   1208.00
                              1209.00   1210.00   1211.00   1212.00

350 SS          SPILLWAY
                      CREL     1209.00  SPILLWAY CREST ELEVATION
                     SPWID        .00  SPILLWAY WIDTH
                      COQW        .00  WEIR COEFFICIENT
                      EXPW       1.50  EXPONENT OF HEAD

351 ST          TOP OF DAM
                     TOPEL     1212.10  ELEVATION AT TOP OF DAM
                    DAMWID     7667.00  DAM WIDTH
                      COQD       2.20  WEIR COEFFICIENT
                      EXPD       1.50  EXPONENT OF HEAD

    SW          DAM WIDTH     1000.00   1995.00   3000.00   4000.00   4988.00   6008.00   7007.00
    SE          ELEVATION     1212.10   1212.40   1212.63   1213.32   1214.72   1214.94   1214.80
                                                                  ***

                                          COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

                                                (INCLUDING FLOW OVER DAM)

            STORAGE        .00      1.00     14.00     42.00     91.00    203.00    466.00    958.00   1704.00   2716.00
            OUTFLOW        .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
          ELEVATION    1174.00   1176.00   1180.00   1184.00   1188.00   1192.00   1196.00   1200.00   1204.00   1208.00

            STORAGE    3012.00   3325.00   3657.00   4006.00
            OUTFLOW        .00   3550.00   9000.00  17600.00
          ELEVATION    1209.00   1210.00   1211.00   1212.00

     ***            ***            ***            ***            ***

                     HYDROGRAPH AT STATION    SRWT3
                   TRANSPOSITION AREA       .0 SQ MI

 PEAK OUTFLOW IS        0. AT TIME    .00 HOURS

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                      6-HR       24-HR       72-HR     24.92-HR
+   (CFS)       (HR)
                          (CFS)
+       0.       .00                   0.          0.          0.          0.
                       (INCHES)      .000        .000        .000        .000
                        (AC-FT)        0.          0.          0.          0.

 PEAK STORAGE   TIME                         MAXIMUM AVERAGE STORAGE
                                      6-HR       24-HR       72-HR     24.92-HR
+  (AC-FT)      (HR)
    1411.     21.83                  1411.        689.        663.        663.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                      6-HR       24-HR       72-HR     24.92-HR
+   (FEET)      (HR)
  1202.43     21.83                 1202.43     1189.07     1188.51     1188.51

                   CUMULATIVE AREA =   20.48 SQ MI

     ***            ***            ***            ***            ***

                     HYDROGRAPH AT STATION    SRWT3
                   TRANSPOSITION AREA      10.0 SQ MI

 PEAK OUTFLOW IS        0. AT TIME    .00 HOURS

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                      6-HR       24-HR       72-HR     24.92-HR
+   (CFS)       (HR)
                          (CFS)
+       0.       .00                   0.          0.          0.          0.
                       (INCHES)      .000        .000        .000        .000
                        (AC-FT)        0.          0.          0.          0.

 PEAK STORAGE   TIME                         MAXIMUM AVERAGE STORAGE
                                      6-HR       24-HR       72-HR     24.92-HR
+  (AC-FT)      (HR)
    1389.     21.75                  1389.        678.        653.        653.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                      6-HR       24-HR       72-HR     24.92-HR
+   (FEET)      (HR)
  1202.31     21.75                 1202.31     1188.99     1188.44     1188.44

                   CUMULATIVE AREA =   20.48 SQ MI

     ***            ***            ***            ***            ***

                     HYDROGRAPH AT STATION    SRWT3
                   TRANSPOSITION AREA      50.0 SQ MI

 PEAK OUTFLOW IS        0. AT TIME    .00 HOURS

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                      6-HR       24-HR       72-HR     24.92-HR
+   (CFS)       (HR)
                          (CFS)
+       0.       .00                   0.          0.          0.          0.
                       (INCHES)      .000        .000        .000        .000
                        (AC-FT)        0.          0.          0.          0.

 PEAK STORAGE   TIME                         MAXIMUM AVERAGE STORAGE
                                      6-HR       24-HR       72-HR     24.92-HR
+  (AC-FT)      (HR)
    1302.     21.50                  1301.        634.        611.        611.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                      6-HR       24-HR       72-HR     24.92-HR
+   (FEET)      (HR)
  1201.84     21.50                 1201.84     1188.69     1188.15     1188.15

                   CUMULATIVE AREA =   20.48 SQ MI

     ***            ***            ***            ***            ***

                     HYDROGRAPH AT STATION    SRWT3
                   TRANSPOSITION AREA     100.0 SQ MI

 PEAK OUTFLOW IS        0. AT TIME    .00 HOURS

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
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                                        6-HR        24-HR       72-HR      24.92-HR
+   (CFS)        (HR)
                                (CFS)
+       0.        .00                    0.          0.          0.           0.
                            (INCHES)   .000        .000        .000         .000
                            (AC-FT)      0.          0.          0.           0.

 PEAK STORAGE   TIME                              MAXIMUM AVERAGE STORAGE
                                        6-HR        24-HR       72-HR      24.92-HR
+  (AC-FT)       (HR)
     1263.     21.42                  1263.        615.        593.         593.

  PEAK STAGE    TIME                              MAXIMUM AVERAGE STAGE
                                        6-HR        24-HR       72-HR      24.92-HR
+   (FEET)       (HR)
   1201.64     21.42                 1201.63     1188.55     1188.02      1188.02

                            CUMULATIVE AREA =   20.48 SQ MI

      ***                ***          ***          ***          ***

                        HYDROGRAPH AT STATION    SRWT3
                       TRANSPOSITION AREA    200.0 SQ MI

 PEAK OUTFLOW IS        0. AT TIME    .00 HOURS

  PEAK FLOW     TIME                              MAXIMUM AVERAGE FLOW
                                        6-HR        24-HR       72-HR      24.92-HR
+   (CFS)        (HR)
                                (CFS)
+       0.        .00                    0.          0.          0.           0.
                            (INCHES)   .000        .000        .000         .000
                            (AC-FT)      0.          0.          0.           0.

 PEAK STORAGE   TIME                              MAXIMUM AVERAGE STORAGE
                                        6-HR        24-HR       72-HR      24.92-HR
+  (AC-FT)       (HR)
     1231.     21.25                  1230.        599.        577.         577.

  PEAK STAGE    TIME                              MAXIMUM AVERAGE STAGE
                                        6-HR        24-HR       72-HR      24.92-HR
+   (FEET)       (HR)
   1201.46     21.25                 1201.46     1188.45     1187.92      1187.92

                            CUMULATIVE AREA =   20.48 SQ MI

      ***                ***          ***          ***          ***


                        INTERPOLATED HYDROGRAPH AT    SRWT3

  PEAK FLOW     TIME                              MAXIMUM AVERAGE FLOW
                                        6-HR        24-HR       72-HR      24.92-HR
+   (CFS)        (HR)
                                (CFS)
+       0.        .00                    0.          0.          0.           0.
                            (INCHES)   .000        .000        .000         .000
                            (AC-FT)      0.          0.          0.           0.

                            CUMULATIVE AREA =   20.48 SQ MI

1
                                        RUNOFF SUMMARY
                                FLOW IN CUBIC FEET PER SECOND
                              TIME IN HOURS,  AREA IN SQUARE MILES

                                    PEAK   TIME OF    AVERAGE FLOW FOR MAXIMUM PERIOD    BASIN    MAXIMUM    TIME OF
+        OPERATION        STATION   FLOW    PEAK                                       AREA     STAGE     MAX STAGE
                                                        6-HOUR     24-HOUR     72-HOUR
         HYDROGRAPH AT
+                            1     2081.   12.42        294.        85.         82.      1.94
         ROUTED TO
+                          RCP1    1823.   12.75        283.        76.         73.      1.94
         HYDROGRAPH AT
+                            2     1576.   12.75        300.        87.         84.      1.82
         2 COMBINED AT
+                           CP2    3396.   12.75        583.       163.        157.      3.76
         ROUTED TO
+                          RCP2    3135.   12.92        570.       154.        149.      3.76
         HYDROGRAPH AT
+                           3A      339.   12.33         34.        9.          8.       .29
         ROUTED TO
+                         RCP3A     268.   12.50         32.        8.          8.       .29
         HYDROGRAPH AT
+                            3     959.   12.33        100.        25.         24.       .81
         2 COMBINED AT
+                         I1CP3    1159.   12.42        132.        33.         32.      1.10
         2 COMBINED AT
+                           CP3    3443.   12.83        701.       187.        180.      4.86
         ROUTED TO
+                          RCP3    3286.   13.00        682.       174.        168.      4.86
         HYDROGRAPH AT
+                            4      449.   12.17         46.        13.         13.       .30
         HYDROGRAPH AT
+                            5     1076.   12.25        110.        32.         30.       .72
         2 COMBINED AT
+                           CP5    1523.   12.25        156.        45.         43.      1.02
         ROUTED TO
+                          RCP5    1466.   12.25        154.        43.         42.      1.02
         HYDROGRAPH AT
+                            6      856.   12.08         68.        20.         19.       .45
         2 COMBINED AT
+                         I1CP7    2055.   12.17        222.        63.         61.      1.47
         HYDROGRAPH AT
+                            7      571.   12.08         47.        14.         13.       .31
         2 COMBINED AT
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+                    CP7      2591.  12.17      269.      77.      74.      1.78
     ROUTED TO
+                   RCP7      2276.  12.33      262.      70.      67.      1.78
     HYDROGRAPH AT
+                      9      1682.  12.33      212.      61.      59.      1.40
     2 COMBINED AT
+                  I1CP9      3954.  12.33      474.     131.     127.      3.18
     HYDROGRAPH AT
+                      8      1049.  12.25      123.      36.      34.       .81
     2 COMBINED AT
+                    CP9      4998.  12.33      596.     167.     161.      3.99
     ROUTED TO
+                   RCP9      4198.  12.75      568.     147.     142.      3.99
     HYDROGRAPH AT
+                     10      1550.  12.75      275.      72.      69.      2.02
     2 COMBINED AT
+                 I1CP10      5742.  12.75      842.     219.     210.      6.01
     2 COMBINED AT
+                   CP10      8511.  12.75     1517.     391.     377.     10.87
     ROUTED TO
+                  RCP10      8345.  12.83     1508.     386.     371.     10.87
     HYDROGRAPH AT
+                     12      1354.  12.50      192.      50.      48.      1.38
     2 COMBINED AT
+                   CP12      9093.  12.83     1691.     434.     418.     12.25
     ROUTED TO
+                  RCP12      8598.  13.00     1647.     414.     398.     12.25
     HYDROGRAPH AT
+                     11      1797.  12.42      248.      68.      66.      1.56
     ROUTED TO
+                  RCP11      1498.  12.75      247.      68.      66.      1.56
     HYDROGRAPH AT
+                     13      1367.  12.42      165.      41.      40.      1.30
     2 COMBINED AT
+                   CP13      2429.  12.58      411.     109.     105.      2.86
     ROUTED TO
+                  RCP13      2400.  12.67      411.     109.     105.      2.86
     HYDROGRAPH AT
+                     14      1825.  12.33      223.      64.      62.      1.47
     ROUTED TO
+                  RCP14      1679.  12.50      223.      64.      62.      1.47
     HYDROGRAPH AT
+                     15      1463.  12.42      187.      53.      51.      1.26
     2 COMBINED AT
+                 I1CP15      2972.  12.50      410.     117.     113.      2.73
     HYDROGRAPH AT
+                     16      1333.  12.42      178.      51.      50.      1.13
     2 COMBINED AT
+                   CP15      4300.  12.42      587.     168.     162.      3.86
     ROUTED TO
+                  RCP15      3796.  12.67      542.     136.     131.      3.86
     HYDROGRAPH AT
+                     17      1027.  12.25      123.      31.      30.      1.07
     2 COMBINED AT
+                 I1CP17      4258.  12.58      665.     167.     161.      4.93
     2 COMBINED AT
+                   CP17      6631.  12.67     1075.     276.     266.      7.79
     ROUTED TO
+                  RCP17      6508.  12.75     1068.     270.     260.      7.79
     HYDROGRAPH AT
+                    WT3       421.  12.50       56.      14.      13.       .44
     2 COMBINED AT
+                 I1CWT3      6850.  12.67     1123.     284.     273.      8.23
     2 COMBINED AT
+                  CPWT3     13711.  12.92     2704.     681.     656.     20.48
     ROUTED TO
+                  SRWT3         0.    .00        0.       0.       0.     20.48
1                 SUMMARY OF DAM OVERTOPPING/BREACH ANALYSIS FOR STATION    SRWT3
                 (PEAKS SHOWN ARE FOR INTERNAL TIME STEP USED  DURING BREACH FORMATION)

PLAN  1 ..............                INITIAL VALUE     SPILLWAY CREST     TOP OF DAM
                          ELEVATION       1174.00           1209.00          1212.10
                          STORAGE              0.              3012.             4041.
                          OUTFLOW              0.                 0.            18460.

                RATIO     MAXIMUM      MAXIMUM     MAXIMUM    MAXIMUM    DURATION    TIME OF     TIME OF
                  OF     RESERVOIR     DEPTH       STORAGE    OUTFLOW    OVER TOP   MAX OUTFLOW  FAILURE
                 PMF      W.S.ELEV    OVER DAM      AC-FT       CFS       HOURS       HOURS       HOURS

                1.00      1202.43        .00        1411.        0.        .00         .00         .00

PLAN  2 ..............                INITIAL VALUE     SPILLWAY CREST     TOP OF DAM
                          ELEVATION       1174.00           1209.00          1212.10
                          STORAGE              0.              3012.             4041.
                          OUTFLOW              0.                 0.            18460.

                RATIO     MAXIMUM      MAXIMUM     MAXIMUM    MAXIMUM    DURATION    TIME OF     TIME OF
                  OF     RESERVOIR     DEPTH       STORAGE    OUTFLOW    OVER TOP   MAX OUTFLOW  FAILURE
                 PMF      W.S.ELEV    OVER DAM      AC-FT       CFS       HOURS       HOURS       HOURS

                1.00      1202.31        .00        1389.        0.        .00         .00         .00
```

PLAN 3 .....

	INITIAL VALUE	SPILLWAY CREST	TOP OF DAM
ELEVATION	1174.00	1209.00	1212.10
STORAGE	0.	3012.	4041.
OUTFLOW	0.	0.	18460.

RATIO OF PMF	MAXIMUM RESERVOIR W.S.ELEV	MAXIMUM DEPTH OVER DAM	MAXIMUM STORAGE AC-FT	MAXIMUM OUTFLOW CFS	DURATION OVER TOP HOURS	TIME OF MAX OUTFLOW HOURS	TIME OF FAILURE HOURS
1.00	1201.84	.00	1302.	0.	.00	.00	.00

PLAN 4 .....

	INITIAL VALUE	SPILLWAY CREST	TOP OF DAM
ELEVATION	1174.00	1209.00	1212.10
STORAGE	0.	3012.	4041.
OUTFLOW	0.	0.	18460.

RATIO OF PMF	MAXIMUM RESERVOIR W.S.ELEV	MAXIMUM DEPTH OVER DAM	MAXIMUM STORAGE AC-FT	MAXIMUM OUTFLOW CFS	DURATION OVER TOP HOURS	TIME OF MAX OUTFLOW HOURS	TIME OF FAILURE HOURS
1.00	1201.64	.00	1263.	0.	.00	.00	.00

PLAN 5 .....

	INITIAL VALUE	SPILLWAY CREST	TOP OF DAM
ELEVATION	1174.00	1209.00	1212.10
STORAGE	0.	3012.	4041.
OUTFLOW	0.	0.	18460.

RATIO OF PMF	MAXIMUM RESERVOIR W.S.ELEV	MAXIMUM DEPTH OVER DAM	MAXIMUM STORAGE AC-FT	MAXIMUM OUTFLOW CFS	DURATION OVER TOP HOURS	TIME OF MAX OUTFLOW HOURS	TIME OF FAILURE HOURS
1.00	1201.46	.00	1231.	0.	.00	.00	.00

*** NORMAL END OF HEC-1 ***

APPENDIX 4.2 50% VOLUMETRIC ROCK (T:\BIZ\WT#3 SPILLWAY\FUTEX50N.OUT)

```
1*************************************
*                                   *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)*
*            JUL   1997             *
*          VERSION 4.1              *
*                                   *
* RUN DATE   20OCT99  TIME  19:20:19 *
*                                   *
*************************************
```

```
*************************************
*                                   *
*   U.S. ARMY CORPS OF ENGINEERS    *
*   HYDROLOGIC ENGINEERING CENTER   *
*         609 SECOND STREET         *
*      DAVIS, CALIFORNIA 95616      *
*          (916) 756-1104           *
*                                   *
*************************************
```

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

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVS: NEW FINITE DIFFERENCE ALGORITHM

```
1                                          HEC-1 INPUT                                                    PAGE  1

  LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

    1           ID          White Tanks #3 future condition (Beardsley Canal Wash Improvement)
    2           ID          May, 1999, FCDMC
    3           ID          Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999
    4           ID          50% rock in the soils
    5           ID
    6           ID          WHITE TANKS/ AGUA FRIA AREA DRAINAGE MASTER PLAN
    7           ID          FINAL HYDROLOGY RUN FOR WHITE TANKS ADMP ---- ENTIRE WATERSHED
    8           ID          100-YEAR, 24-HOUR STORM                    FILE: WTADMP5.24
    9           ID          THIS MODEL INCORPORATES FUTURE CHANNELS OR CHANNEL IMPROVEMENTS ALONG:
   10           ID          -BEARDSLEY CANAL WASH,WHITE TANKS NO. 3 TO PEORIA AV.
   11           ID          -TUTHILL DIKE WASH,WHITE TANKS NO. 4 TO APPROX. 1/2 MILE NORTH OF
   12           ID           CAMELBACK ROAD
   13           ID          -JACKRABBIT TRAIL WASH,WHITE TANKS NO. 4 TO WHITE TANKS NO. 3
   14           ID          -DYSART DRAIN,AGUA FRIA RIVER TO REEMS ROAD
   15           ID          -REEMS ROAD CHANNEL,NORTHERN AV. TO BELL ROAD
   16           ID          -WADDEL ROAD CHANNEL,DYSART ROAD TO  REEMS ROAD
   17           ID          - I-10 (INTERSTATE-10) CHANNEL,ESTRELLA FREEWAY TO 191ST AV.
   18           ID          -BULLARD WASH,GILA RIVER TO APPROX. 1/4 MILE SOUTH OF LOWER BUKEYE RD.
   19           ID          -ESTRELLA FREEWAY CHANNEL,GILA RIVER TO BELL ROAD.
   20           ID          -CAMELBACK ROAD CHANNEL,AGUA FRIA RIVER TO LITCHFIELD ROAD
   21           ID          IT ALSO ASSUMES THAT THE SUN CITY GRAND PROJECT,NORTH OF BELL ROAD
   22           ID          (SEE FIURE 9.2), WILL RETAIN ONSITE FLOWS AND BLEED OFF TO THE
   23           ID           EXISTING BELL ROAD CHANNEL
   24           ID
   25           ID
                *DIAGRAM
   26           IT       5                    300
   27           IO       5
   28           IN      15
   29           JD    4.03    .001
   30           PC    .000    .002    .005    .008    .011    .014    .017    .020    .023    .026
   31           PC    .029    .032    .035    .038    .041    .044    .048    .052    .056    .060
   32           PC    .064    .068    .072    .076    .080    .085    .090    .095    .100    .105
   33           PC    .110    .115    .120    .126    .133    .140    .147    .155    .163    .172
   34           PC    .181    .191    .203    .218    .236    .257    .283    .387    .663    .707
   35           PC    .735    .758    .776    .791    .804    .815    .825    .834    .842    .849
   36           PC    .856    .863    .869    .875    .881    .887    .893    .898    .903    .908
   37           PC    .913    .918    .922    .926    .930    .934    .938    .942    .946    .950
   38           PC    .953    .956    .959    .962    .965    .968    .971    .974    .977    .980
   39           PC    .983    .986    .989    .992    .995    .998    1.00   1.000   1.000   1.000
   40           JD    3.99      10
   41           JD    3.83      50
   42           JD    3.76     100
   43           JD    3.70     200

   44           KK       1
   45           KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 1.
   46           BA    1.94
   47           LG    0.35   0.208    6.42   0.151  19.802
   48           UI    182.    326.    742.    974.   1186.   1502.   2185.   1957.   1537.   1243.
   49           UI    989.    751.    417.    308.    230.    182.     64.     56.     56.     56.
   50           UI     56.      0.      0.      0.      0.      0.      0.      0.      0.      0.
   51           UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
1                                          HEC-1 INPUT                                                    PAGE  2

  LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

   52           KK    RCP1
   53           KM        ROUTE FLOW FROM CP1 TO CP2.
   54           RL                     1    1428
   55           RS       5            -1       0
   56           RC     .06     .04     .06   17800   .0469
   57           RX    1000    1125    1300    1390    1405    1490    1590    1750
   58           RY    1440    1439    1437    1428    1428    1439    1442    1444

   59           KK       2
   60           KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 2.
   61           BA    1.82
   62           LG    0.35   0.219   6.308   0.157  21.855
   63           UI    115.    115.    259.    442.    556.    642.    727.    849.   1013.   1346.
   64           UI   1419.   1145.    985.    864.    735.    634.    545.    405.    268.    202.
   65           UI    189.    144.    115.    103.     35.     35.     35.     35.     35.     35.
   66           UI     35.      0.      0.      0.      0.      0.      0.      0.      0.      0.
   67           UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

   68           KK     CP2
   69           KM        ADD HYDROGRAPHS AT CP2.
   70           HC       2

   71           KK    RCP2
   72           KM        ROUTE COMBINED HYDROGRAPHS AT CP2 TO CP3.
   73           RL                   1.5    1298
   74           RS       2            -1       0
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 75          RC     .06    .035     .06    4500   .0111
 76          RX    1000    1100    1350    1705    1735    1780    1850    2000
 77          RY    1304    1302    1302    1298    1298    1303    1302    1305

 78          KK      3A
 79          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 3A
 80          BA     .29
 81          LG   0.336    0.24    4.14   0.432       0
 82          UI     34.     89.    165.     212.    286.    410.    314.    242.    182.    124.
 83          UI     62.     48.     33.      10.     10.     10.     10.     0.      0.      0.
 84          UI      0.      0.      0.      0.      0.      0.      0.     0.      0.      0.

 85          KK   RCP3A
 86          KM        ROUTE FLOW FROM CP3A TO CP3
 87          RL                   1.5    1284
 88          RS      2             -1       0
 89          RC     .03     .03     .05    5300   .0060
 90          RX    1000    1023    1032    1046    1058    1067    1250    1540
 91          RY    1289    1288    1286    1284    1284    1286    1288    1291

 92          KK      3
 93          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 3.
 94          BA     .81
 95          LG   0.339   0.242   4.441   0.362       0
 96          UI     91.    228.    430.    554.    725.   1088.    908.    700.    535.    396.
 97          UI    205.    152.     95.     57.     28.     28.     28.     0.      0.      0.
 98          UI      0.      0.      0.      0.      0.      0.      0.     0.      0.      0.
1                                          HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 99          KK   I1CP3
100          KM        ADD HYDROGRAPHS AT CP3.
101          HC      2

102          KK    CP3
103          KM        ADD HYDROGRAPHS AT CP3.
104          HC      2

105          KK    RCP3
106          KM        ROUTE FLOW FROM CP3 TO CP10.
107          RL                     2    1245
108          RS      2             -1       0
109          RC     .05     .03     .05    5280   .0083
110          RX    1010    1015    1020    1050    1100    1275    1580    1750
111          RY    1251    1249    1249    1245    1245    1250    1250    1254

112          KK      4
113          KM        RUNOFF HYDROGRAPH FORM SUB-BASIN 4.
114          BA     .30
115          LG    0.35   0.195   6.546   0.143  18.504
116          UI     48.    192.    287.    444.    512.    346.    236.    115.     67.     35.
117          UI     14.     14.      0.      0.      0.      0.      0.     0.      0.      0.
118          UI      0.      0.      0.      0.      0.      0.      0.     0.      0.      0.

119          KK      5
120          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 5.
121          BA     .72
122          LG    0.35    0.19     6.6    0.14  17.926
123          UI    110.    437.    658.    992.   1242.    849.    591.    315.    174.    101.
124          UI     34.     34.     34.      0.      0.      0.      0.     0.      0.      0.
125          UI      0.      0.      0.      0.      0.      0.      0.     0.      0.      0.

126          KK    CP5
127          KM        ADD HYDROGRAPHS AT CP5.
128          HC      2

129          KK    RCP5
130          KM        ROUTE COMBINED HYDROGRAPHS AT CP5 TO CP7.
131          RL                      .5    2800
132          RS      1             -1       0
133          RC     .08     .05     .08    4800   .0833
134          RX     955     970     985    1000    1020    1035    1050    1065
135          RY    2815    2810    2805    2800    2800    2805    2810    2815

136          KK      6
137          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 6.
138          BA     .45
139          LG    0.35    0.21     6.4   0.152      20
140          UI    204.    622.   1139.    837.    427.    155.     54.     33.      0.      0.
141          UI      0.      0.      0.      0.      0.      0.      0.     0.      0.      0.
1                                          HEC-1 INPUT                                          PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

142          KK   I1CP7
143          KM        ADD HYDROGRAPHS AT CP7.
144          HC      2

145          KK      7
146          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 7.
147          BA     .31
148          LG    0.35    0.21     6.4   0.152      20
149          UI    126.    387.    716.    606.    343.    129.     52.     22.      0.      0.
150          UI      0.      0.      0.      0.      0.      0.      0.     0.      0.      0.

151          KK    CP7
152          KM        ADD HYDROGRAPHS AT CP7.
153          HC      2

154          KK    RCP7
155          KM        ROUTE COMBINED HYDROGRAPHS AT CP7 TO CP9.
156          RL                      .5    1838
157          RS      3             -1       0
158          RC     .08     .05     .08   10200  .07745
159          RX    1000    1045    1120    1195    1230    1300    1350    1450
160          RY    1910    1880    1850    1838    1838    1850    1880    1910

161          KK      9
162          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 9.
163          BA    1.40
164          LG    0.35   0.213   6.373   0.153  19.572
165          UI    155.    381.    727.    935.   1216.   1832.   1591.   1224.    938.    705.
166          UI    386.    261.    177.    115.     47.     47.     47.     47.      0.      0.
167          UI      0.      0.      0.      0.      0.      0.      0.     0.      0.      0.

168          KK   I1CP9
169          KM        ADD HYDROGRAPHS AT CP9.
170          HC      2

171          KK      8
172          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 8.
173          BA     .81
174          LG    0.35    0.21     6.4   0.152      20
175          UI    102.    313.    535.    703.   1054.   1140.    822.    608.    421.    208.
176          UI    147.     96.     31.     31.     31.      0.      0.     0.      0.      0.
```

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177          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

178          KK     CP9
179          KM        ADD HYDROGRAPHS AT CP9.
180          HC       2

181          KK    RCP9
182          KM        ROUTE COMBINED HYDROGRAPHS AT CP9 TO CP10.
183          RL                     1.5    1308
184          RS       8              -1       0
185          RC     .06    .035     .06   19200   .0232
186          RX    1000    1085    1310    1395    1415    1450    1630    1665
187          RY    1317    1314    1311    1308    1308    1314    1314    1317
1                                         HEC-1 INPUT                                                    PAGE  5

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

188          KK      10
189          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 10.
190          BA    2.02
191          LG   0.347   0.248   4.972   0.271    4.52
192          UI    119.    119.    218.    427.    546.    632.    708.    812.    929.   1148.
193          UI   1499.   1393.   1156.   1006.    894.    765.    669.    577.    475.    325.
194          UI    210.    201.    193.    119.    119.     86.     36.     36.     36.     36.
195          UI     36.     36.     36.     36.      0.      0.      0.      0.      0.      0.
196          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

197          KK  I1CP10
198          KM        ADD HYDROGRAPHS AT CP10
199          HC       2

200          KK    CP10
201          KM        ADD HYDROGRAPHS AT CP10
202          HC       2

203          KK   RCP10
204          KM        ROUTE FLOW AT CP10 TO CP12.
205          RL                     2.0    1211
206          RS       1              -1       0
207          RC     .03     .03     .05    3500   .0057
208          RX     995    1000    1020    1055    1085    1165    1250    1330
209          RY    1221    1220    1220    1211    1211    1218    1220    1222

210          KK      12
211          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 12.
212          BA    1.38
213          LG   0.346   0.247   5.089   0.258   5.217
214          UI    111.    129.    393.    535.    636.    758.    930.   1311.   1277.   1008.
215          UI    850.    697.    574.    445.    264.    191.    169.    111.     92.     34.
216          UI     34.     34.     34.     34.     34.      0.      0.      0.      0.      0.
217          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

218          KK    CP12
219          KM        ADD HYDROGRAPHS AT CP12.
220          HC       2

221          KK   RCP12
222          KM        ROUTE COMBINED HYDROGRAPHS AT CP12 TO CPWT3
223          RL                     2.0    1196
224          RS       2              -1       0
225          RC     .03     .03     .04    4800   .0031
226          RX     995    1000    1020    1080    1200    1530    1665    1760
227          RY    1211    1211    1210    1196    1196    1200    1204    1204

228          KK      11
229          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 11.
230          BA    1.56
231          LG    0.35   0.188   6.619   0.139  13.299
232          UI    143.    245.    571.    755.    913.   1142.   1648.   1623.   1254.   1026.
233          UI    821.    643.    394.    248.    210.    143.     86.     44.     44.     44.
234          UI     44.      0.      0.      0.      0.      0.      0.      0.      0.      0.
1                                         HEC-1 INPUT                                                    PAGE  6

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

235          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

236          KK   RCP11
237          KM        ROUTE HYROGRAPH FROM CP11 TO CP13.
238          RL                     1.5    1196
239          RS       3              -1       0
240          RC     .06    .035     .06   10200   .0098
241          RX    1000    1070    1300    1480    1510    1525    1555    1600
242          RY    1233    1232    1230    1222    1222    1230    1232    1233

243          KK      13
244          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 13.
245          BA    1.30
246          LG    0.35    0.25    4.62   0.322       0
247          UI    120.    210.    485.    639.    774.    973.   1416.   1333.   1039.    847.
248          UI    674.    527.    303.    206.    167.    120.     60.     37.     37.     37.
249          UI     37.      0.      0.      0.      0.      0.      0.      0.      0.      0.
250          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

251          KK    CP13
252          KM        ADD HYDROGRAPHS AT CP13.
253          HC       2

254          KK   RCP13
255          KM        ROUTE COMBINED HYDROGRAPHS AT CP13 TO CP17
256          RL                     1.5    1222
257          RS       2              -1       0
258          RC     .03     .03     .04    2400   .0042
259          RX    1000    1025    1040    1065    1085    1110    1175    1200
260          RY    1206    1198    1196    1194    1194    1198    1198    1201

261          KK      14
262          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 14.
263          BA    1.47
264          LG    0.35   0.196   6.538   0.144  18.195
265          UI    166.    421.    790.   1019.   1341.   1998.   1636.   1264.    961.    699.
266          UI    362.    274.    166.     93.     51.     51.     51.      0.      0.      0.
267          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

268          KK   RCP14
269          KM        ROUTE FLOW FROM CP14 TO CP15.
270          RL                     2.0    1194
271          RS       4              -1       0
272          RC     .06    .035     .06    8800  .02556
273          RX    1000    1030    1075    1200    1220    1280    1415    1480
274          RY    1296    1295    1294    1288    1288    1294    1296    1300

275          KK      15
276          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 15.
277          BA    1.26
278          LG    0.35    0.25   5.744   0.193   15.67
279          UI    130.    281.    577.    747.    938.   1321.   1552.   1156.    920.    713.
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 280          UI    519.    277.    217.    138.     93.     40.     40.     40.     40.      0.
 281          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
 282          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
1                                          HEC-1 INPUT                                          PAGE  7
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 283          KK  I1CP15
 284          KM        ADD HYDROGRAPHS AT CP15
 285          HC       2

 286          KK      16
 287          KO       1
 288          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 16.
 289          BA    1.13
 290          LG    0.35    0.25   5.343   0.228  19.953
 291          UI    115.    240.    503.    652.    814.   1126.   1393.   1049.    839.    655.
 292          UI    497.    268.    194.    137.    101.     35.     35.     35.     35.      0.
 293          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
 294          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              * KK   SR16
              * KM      STORAGE ROUTE THROUGH THE CATERPILLAR DETENTION BASIN IN SUBWATERSHED
              * RS     1     STOR       0       0
              * SV     0       1      31     114     270     502     807    1319    1388      14
              * SQ     0                                                                       1
              * SE  1198    1200    1210    1220    1230    1240    1250    1260    1261      12

 295          KK    CP15
 296          KO       1
 297          KM        ADD HYDROGRAPHS AT CP15.
 298          HC       2

 299          KK   RCP15
 300          KM        ROUTE COMBINED HYDROGRAPHS AT CP15 TO CP17.
 301          RL                     2.0    1226
 302          RS       3              -1       0
 303          RC     .06    .035     .06    6800   .0079
 304          RX    1000    1310    1380    1540    1640    1670    1700    1910
 305          RY    1234    1232    1228    1226    1226    1228    1232    1235

 306          KK      17
 307          KM        RUNOFFF HYDROGRAPH FROM SUB-BASIN 17.
 308          BA    1.07
 309          LG    0.35    0.25   4.121   0.438       0
 310          UI    117.    254.    572.    810.   1052.   1196.    753.    635.    540.    450.
 311          UI    353.    287.    254.    194.    149.    129.    103.     90.     64.     57.
 312          UI     57.     26.     22.     22.     22.     22.     22.     22.      0.      0.
 313          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

 314          KK  I1CP17
 315          KM        ADD HYDROGRAPHS AT CP17.
 316          HC       2

 317          KK    CP17
 318          KM        ADD HYDROGRAPHS AT CP17.
 319          HC       2
1                                          HEC-1 INPUT                                          PAGE  8
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 320          KK   RCP17
 321          KM        ROUTE FLOW FROM CP17 TO CPWT3
 322          RL                     2.0    1182
 323          RS       2              -1       0
 324          RC     .06     .04     .04    1600   .0022
 325          RX    1000    1220    1280    1470    1530    1660    1680    1685
 326          RY    1196    1194    1190    1182    1182    1210    1211    1212

 327          KK     WT3
 328          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN WT3
 329          BA     .44
 330          LG   0.344   0.246   4.577    0.33       0
 331          UI     36.     44.    128.    175.    207.    249.    308.    436.    399.    318.
 332          UI    267.    220.    179.    133.     78.     61.     49.     36.     23.     11.
 333          UI     11.     11.     11.     11.      0.      0.      0.      0.      0.      0.
 334          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

 335          KK  I1CWT3
 336          KM        ADD HYDROGRAPHS AT CPWT3
 337          HC       2

 338          KK   CPWT3
 339          KO       1
 340          KM        ADD HYDROGRAPHS AT CPWT3
 341          HC       2

 342          KK   SRWT3
 343          KM        STORAGE ROUTE THROUGH WHITE TANKS STRUCTURE #3.
 344          KO       3
 345          RS       1    STOR       0       0
 346          SV       0       1      14      42      91     203     466     958    1704    2716
 347          SV    3012    3325    3657    4006
 348          SQ       0       0       0       0       0       0       0       0       0       0
 349          SQ       0    3550    9000   17600
 350          SE    1174    1176    1180    1184    1188    1192    1196    1200    1204    1208
 351          SE    1209    1210    1211    1212
 352          SS    1209       0       0       0
 353          ST  1212.1    7667     2.2     1.5
 354          SW    1000    1995    3000    4000    4988    6008    7007
 355          SE  1212.1  1212.4 1212.63 1213.32 1214.72 1214.94  1214.8
 356          ZZ
1
          SCHEMATIC DIAGRAM OF STREAM NETWORK
INPUT
 LINE     (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

  NO.     (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

   44          1
               V
               V
   52        RCP1
               .
               .
   59          .           2
               .           .
               .           .
   68         CP2............
               V
               V
   71        RCP2
               .
               .
   78          .          3A
               .           V
               .           V
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 85          .       RCP3A
             .         .
 92          .         .          3
             .         .          .
 99          .      I1CP3..........
             .         .
102       CP3..........
            V
            V
105      RCP3
             .
112          .          4
             .         .
119          .         .          5
             .         .          .
126          .       CP5..........
             .         V
             .         V
129          .      RCP5
             .         .
136          .         .          6
             .         .          .
142          .      I1CP7..........
             .         .
145          .         .          7
             .         .          .
151          .       CP7..........
             .         V
             .         V
154          .      RCP7
             .         .
161          .         .          9
             .         .          .
168          .      I1CP9..........
             .         .
171          .         .          8
             .         .          .
178          .       CP9..........
             .         V
             .         V
181          .      RCP9
             .         .
188          .         .         10
             .         .          .
197          .     I1CP10..........
             .         .
200       CP10..........
            V
            V
203      RCP10
             .
210          .         12
             .         .
218       CP12..........
            V
            V
221      RCP12
             .
228          .         11
             .         V
             .         V
236          .      RCP11
             .         .
243          .         .         13
             .         .          .
251          .      CP13..........
             .         V
             .         V
254          .      RCP13
             .         .
261          .         .         14
             .         .          V
             .         .          V
268          .         .      RCP14
             .         .          .
275          .         .          .          15
             .         .          .           .
283          .         .    I1CP15..........
             .         .          .
286          .         .          .          16
             .         .          .           .
295          .         .      CP15..........
             .         .          V
             .         .          V
299          .         .      RCP15
             .         .          .
306          .         .          .          17
             .         .          .           .
314          .         .    I1CP17..........
             .         .          .
317          .      CP17..........
             .         V
             .         V
320          .      RCP17
             .         .
327          .         .        WT3
             .         .          .
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 335            .        I1CWT3............
                .        .
                .        .
 338       CPWT3............
                V
                V
 342       SRWT3

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION
1*************************************
*                                   *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)*
*              JUL   1997           *
*            VERSION 4.1            *
*                                   *
*  RUN DATE   20OCT99  TIME  19:20:19*
*                                   *
*************************************

*************************************
*                                   *
*   U.S. ARMY CORPS OF ENGINEERS    *
*   HYDROLOGIC ENGINEERING CENTER   *
*         609 SECOND STREET         *
*      DAVIS, CALIFORNIA 95616      *
*          (916) 756-1104           *
*                                   *
*************************************

                    White Tanks #3 future condition (Beardsley Canal Wash Improvement)
                    May, 1999, FCDMC
                    Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999
                    50% rock in the soils

                    WHITE TANKS/ AGUA FRIA AREA DRAINAGE MASTER PLAN
                    FINAL HYDROLOGY RUN FOR WHITE TANKS ADMP ---- ENTIRE WATERSHED
                    100-YEAR, 24-HOUR STORM                    FILE: WTADMP5.24
                    THIS MODEL INCORPORATES FUTURE CHANNELS OR CHANNEL IMPROVEMENTS ALONG:
                    -BEARDSLEY CANAL WASH,WHITE TANKS NO. 3 TO PEORIA AV.
                    -TUTHILL DIKE WASH,WHITE TANKS NO. 4 TO APPROX. 1/2 MILE NORTH OF
                     CAMELBACK ROAD
                    -JACKRABBIT TRAIL WASH,WHITE TANKS NO. 4 TO WHITE TANKS NO. 3
                    -DYSART DRAIN,AGUA FRIA RIVER TO REEMS ROAD
                    -REEMS ROAD CHANNEL,NORTHERN AV. TO BELL ROAD
                    -WADDEL ROAD CHANNEL,DYSART ROAD TO  REEMS ROAD
                    - I-10 (INTERSTATE-I0) CHANNEL,ESTRELLA FREEWAY TO 191ST AV.
                    -BULLARD WASH,GILA RIVER TO APPROX. 1/4 MILE SOUTH OF LOWER BUKEYE RD.
                    -ESTRELLA FREEWAY CHANNEL,GILA RIVER TO BELL ROAD.
                    -CAMELBACK ROAD CHANNEL,AGUA FRIA RIVER TO LITCHFIRLD ROAD
                    IT ALSO ASSUMES THAT THE SUN CITY GRAND PROJECT,NORTH OF BELL ROAD
                    (SEE FIURE 9.2), WILL RETAIN ONSITE FLOWS AND BLEED OFF TO THE
                     EXISTING BELL ROAD CHANNEL

 27 IO          OUTPUT CONTROL VARIABLES
                      IPRNT          5  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE

    IT          HYDROGRAPH TIME DATA
                       NMIN          5  MINUTES IN COMPUTATION INTERVAL
                      IDATE      1   0  STARTING DATE
                      ITIME       0000  STARTING TIME
                         NQ        300  NUMBER OF HYDROGRAPH ORDINATES
                     NDDATE      2   0  ENDING DATE
                     NDTIME       0055  ENDING TIME
                      ICENT         19  CENTURY MARK

                 COMPUTATION INTERVAL     .08 HOURS
                      TOTAL TIME BASE   24.92 HOURS

         ENGLISH UNITS
              DRAINAGE AREA          SQUARE MILES
              PRECIPITATION DEPTH    INCHES
              LENGTH, ELEVATION      FEET
              FLOW                   CUBIC FEET PER SECOND
              STORAGE VOLUME         ACRE-FEET
              SURFACE AREA           ACRES
              TEMPERATURE            DEGREES FAHRENHEIT

 29 JD          INDEX STORM NO. 1
                       STRM       4.03  PRECIPITATION DEPTH
                       TRDA        .00  TRANSPOSITION DRAINAGE AREA

 30 PI            PRECIPITATION PATTERN
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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                      .01       .01       .01       .01       .01       .01       .01       .01       .03       .03
                      .03       .09       .09       .09       .01       .01       .01       .01       .01       .01
                      .01       .01       .01       .01       .01       .01       .00       .00       .00       .00
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                      .00       .00       .00       .00       .00       .00       .00       .00

 40 JD          INDEX STORM NO. 2
                       STRM       3.99  PRECIPITATION DEPTH
                       TRDA      10.00  TRANSPOSITION DRAINAGE AREA

  0 PI            PRECIPITATION PATTERN
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
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41 JD INDEX STORM NO. 3
STRM 3.83 PRECIPITATION DEPTH
TRDA 50.00 TRANSPOSITION DRAINAGE AREA

0 PI PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
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42 JD INDEX STORM NO. 4
STRM 3.76 PRECIPITATION DEPTH
TRDA 100.00 TRANSPOSITION DRAINAGE AREA

0 PI PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
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43 JD INDEX STORM NO. 5
STRM 3.70 PRECIPITATION DEPTH
TRDA 200.00 TRANSPOSITION DRAINAGE AREA

0 PI PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

WARNING EXCESS AT PONDING LESS THAN ZERO FOR PERIOD. EXCESS SET TO ZERO

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              **************
              *            *
286 KK        *     16     *
              *            *
              **************

287 KO          OUTPUT CONTROL VARIABLES
                     IPRNT          1  PRINT CONTROL
                     IPLOT          0  PLOT CONTROL
                     QSCAL         0.  HYDROGRAPH PLOT SCALE
                            RUNOFF HYDROGRAPH FROM SUB-BASIN 16.

              SUBBASIN RUNOFF DATA

289 BA          SUBBASIN CHARACTERISTICS
                     TAREA       1.13  SUBBASIN AREA

290 LG          GREEN AND AMPT LOSS RATE
                     STRTL        .35  STARTING LOSS
                       DTH        .25  MOISTURE DEFICIT
                      PSIF       5.34  WETTING FRONT SUCTION
                     XKSAT        .23  HYDRAULIC CONDUCTIVITY
                     RTIMP      19.95  PERCENT IMPERVIOUS AREA

288 UI          INPUT UNITGRAPH,  19 ORDINATES,  VOLUME = 1.00
                   115.0     240.0     503.0     652.0     814.0    1126.0    1393.0    1049.0     839.0     655.0
                   497.0     268.0     194.0     137.0     101.0      35.0      35.0      35.0      35.0
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HYDROGRAPH AT 16
TRANSPOSITION AREA .0 SQ MI

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DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	*	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1		0000	1	.00	.00	.00	0.	*	1		1230	151	.04	.03	.01	1321.
1		0005	2	.00	.00	.00	0.	*	1		1235	152	.03	.02	.01	1050.
1		0010	3	.00	.00	.00	0.	*	1		1240	153	.03	.02	.01	840.
1		0015	4	.00	.00	.00	0.	*	1		1245	154	.03	.02	.01	631.
1		0020	5	.00	.00	.00	1.	*	1		1250	155	.02	.02	.00	451.
1		0025	6	.00	.00	.00	1.	*	1		1255	156	.02	.02	.00	311.
1		0030	7	.00	.00	.00	2.	*	1		1300	157	.02	.02	.00	238.
1		0035	8	.00	.00	.00	3.	*	1		1305	158	.02	.02	.00	174.
1		0040	9	.00	.00	.00	4.	*	1		1310	159	.02	.02	.00	128.
1		0045	10	.00	.00	.00	5.	*	1		1315	160	.02	.02	.00	97.
1		0050	11	.00	.00	.00	5.	*	1		1320	161	.02	.01	.00	87.
1		0055	12	.00	.00	.00	6.	*	1		1325	162	.02	.01	.00	71.
1		0100	13	.00	.00	.00	6.	*	1		1330	163	.02	.01	.00	56.
1		0105	14	.00	.00	.00	6.	*	1		1335	164	.01	.01	.00	42.
1		0110	15	.00	.00	.00	7.	*	1		1340	165	.01	.01	.00	39.
1		0115	16	.00	.00	.00	7.	*	1		1345	166	.01	.01	.00	36.
1		0120	17	.00	.00	.00	7.	*	1		1350	167	.01	.01	.00	33.
1		0125	18	.00	.00	.00	7.	*	1		1355	168	.01	.01	.00	32.
1		0130	19	.00	.00	.00	7.	*	1		1400	169	.01	.01	.00	30.
1		0135	20	.00	.00	.00	7.	*	1		1405	170	.01	.01	.00	29.
1		0140	21	.00	.00	.00	7.	*	1		1410	171	.01	.01	.00	27.
1		0145	22	.00	.00	.00	7.	*	1		1415	172	.01	.01	.00	26.
1		0150	23	.00	.00	.00	7.	*	1		1420	173	.01	.01	.00	25.
1		0155	24	.00	.00	.00	7.	*	1		1425	174	.01	.01	.00	24.
1		0200	25	.00	.00	.00	7.	*	1		1430	175	.01	.01	.00	23.
1		0205	26	.00	.00	.00	7.	*	1		1435	176	.01	.01	.00	22.
1		0210	27	.00	.00	.00	7.	*	1		1440	177	.01	.01	.00	21.
1		0215	28	.00	.00	.00	7.	*	1		1445	178	.01	.01	.00	21.
1		0220	29	.00	.00	.00	7.	*	1		1450	179	.01	.01	.00	20.
1		0225	30	.00	.00	.00	7.	*	1		1455	180	.01	.01	.00	19.
1		0230	31	.00	.00	.00	7.	*	1		1500	181	.01	.01	.00	19.
1		0235	32	.00	.00	.00	7.	*	1		1505	182	.01	.01	.00	18.
1		0240	33	.00	.00	.00	7.	*	1		1510	183	.01	.01	.00	17.
1		0245	34	.00	.00	.00	7.	*	1		1515	184	.01	.01	.00	17.
1		0250	35	.00	.00	.00	7.	*	1		1520	185	.01	.01	.00	17.
1		0255	36	.00	.00	.00	7.	*	1		1525	186	.01	.01	.00	17.
1		0300	37	.00	.00	.00	7.	*	1		1530	187	.01	.01	.00	16.
1		0305	38	.00	.00	.00	7.	*	1		1535	188	.01	.01	.00	16.
1		0310	39	.00	.00	.00	7.	*	1		1540	189	.01	.01	.00	16.
1		0315	40	.00	.00	.00	7.	*	1		1545	190	.01	.01	.00	15.
1		0320	41	.00	.00	.00	7.	*	1		1550	191	.01	.01	.00	15.
1		0325	42	.00	.00	.00	7.	*	1		1555	192	.01	.01	.00	15.
1		0330	43	.00	.00	.00	7.	*	1		1600	193	.01	.01	.00	15.
1		0335	44	.00	.00	.00	7.	*	1		1605	194	.01	.01	.00	14.
1		0340	45	.00	.00	.00	7.	*	1		1610	195	.01	.01	.00	14.
1		0345	46	.00	.00	.00	7.	*	1		1615	196	.01	.01	.00	14.
1		0350	47	.01	.00	.00	7.	*	1		1620	197	.01	.01	.00	14.
1		0355	48	.01	.00	.00	7.	*	1		1625	198	.01	.01	.00	14.
1		0400	49	.01	.00	.00	7.	*	1		1630	199	.01	.01	.00	14.
1		0405	50	.01	.00	.00	7.	*	1		1635	200	.01	.01	.00	14.
1		0410	51	.01	.00	.00	8.	*	1		1640	201	.01	.01	.00	14.
1		0415	52	.01	.00	.00	8.	*	1		1645	202	.01	.01	.00	14.
1		0420	53	.01	.00	.00	8.	*	1		1650	203	.01	.01	.00	14.
1		0425	54	.01	.00	.00	9.	*	1		1655	204	.01	.01	.00	13.
1		0430	55	.01	.00	.00	9.	*	1		1700	205	.01	.01	.00	13.
1		0435	56	.01	.00	.00	9.	*	1		1705	206	.01	.01	.00	13.
1		0440	57	.01	.00	.00	9.	*	1		1710	207	.01	.01	.00	12.
1		0445	58	.01	.00	.00	9.	*	1		1715	208	.01	.01	.00	12.
1		0450	59	.01	.00	.00	9.	*	1		1720	209	.01	.01	.00	12.
1		0455	60	.01	.00	.00	9.	*	1		1725	210	.01	.01	.00	12.
1		0500	61	.01	.00	.00	9.	*	1		1730	211	.01	.01	.00	12.
1		0505	62	.01	.00	.00	9.	*	1		1735	212	.01	.01	.00	12.
1		0510	63	.01	.00	.00	9.	*	1		1740	213	.01	.01	.00	12.
1		0515	64	.01	.00	.00	9.	*	1		1745	214	.01	.01	.00	12.
1		0520	65	.01	.00	.00	9.	*	1		1750	215	.01	.00	.00	12.
1		0525	66	.01	.00	.00	9.	*	1		1755	216	.01	.00	.00	12.
1		0530	67	.01	.00	.00	9.	*	1		1800	217	.01	.00	.00	11.
1		0535	68	.01	.00	.00	9.	*	1		1805	218	.01	.00	.00	11.
1		0540	69	.01	.00	.00	9.	*	1		1810	219	.01	.00	.00	11.
1		0545	70	.01	.00	.00	9.	*	1		1815	220	.01	.00	.00	11.
1		0550	71	.01	.00	.00	9.	*	1		1820	221	.01	.00	.00	10.
1		0555	72	.01	.00	.00	9.	*	1		1825	222	.01	.00	.00	10.
1		0600	73	.01	.00	.00	9.	*	1		1830	223	.01	.00	.00	10.
1		0605	74	.01	.01	.00	9.	*	1		1835	224	.01	.00	.00	10.
1		0610	75	.01	.01	.00	9.	*	1		1840	225	.01	.00	.00	10.
1		0615	76	.01	.01	.00	10.	*	1		1845	226	.01	.00	.00	10.
1		0620	77	.01	.01	.00	10.	*	1		1850	227	.01	.00	.00	9.
1		0625	78	.01	.01	.00	10.	*	1		1855	228	.01	.00	.00	9.
1		0630	79	.01	.01	.00	10.	*	1		1900	229	.01	.00	.00	9.
1		0635	80	.01	.01	.00	11.	*	1		1905	230	.01	.00	.00	9.
1		0640	81	.01	.01	.00	11.	*	1		1910	231	.01	.00	.00	9.
1		0645	82	.01	.01	.00	11.	*	1		1915	232	.01	.00	.00	9.
1		0650	83	.01	.01	.00	11.	*	1		1920	233	.01	.00	.00	9.
1		0655	84	.01	.01	.00	11.	*	1		1925	234	.01	.00	.00	9.
1		0700	85	.01	.01	.00	12.	*	1		1930	235	.01	.00	.00	9.
1		0705	86	.01	.01	.00	12.	*	1		1935	236	.01	.00	.00	9.
1		0710	87	.01	.01	.00	12.	*	1		1940	237	.01	.00	.00	9.
1		0715	88	.01	.01	.00	12.	*	1		1945	238	.01	.00	.00	9.

1	0720	89	.01	.01	.00	12.	*	1	1950	239	.00	.00	.00	9.
1	0725	90	.01	.01	.00	12.	*	1	1955	240	.00	.00	.00	9.
1	0730	91	.01	.01	.00	12.	*	1	2000	241	.00	.00	.00	9.
1	0735	92	.01	.01	.00	12.	*	1	2005	242	.00	.00	.00	9.
1	0740	93	.01	.01	.00	12.	*	1	2010	243	.00	.00	.00	9.
1	0745	94	.01	.01	.00	12.	*	1	2015	244	.00	.00	.00	8.
1	0750	95	.01	.01	.00	12.	*	1	2020	245	.00	.00	.00	8.
1	0755	96	.01	.01	.00	12.	*	1	2025	246	.00	.00	.00	8.
1	0800	97	.01	.01	.00	12.	*	1	2030	247	.00	.00	.00	8.
1	0805	98	.01	.01	.00	12.	*	1	2035	248	.00	.00	.00	7.
1	0810	99	.01	.01	.00	12.	*	1	2040	249	.00	.00	.00	7.
1	0815	100	.01	.01	.00	12.	*	1	2045	250	.00	.00	.00	7.
1	0820	101	.01	.01	.00	12.	*	1	2050	251	.00	.00	.00	7.
1	0825	102	.01	.01	.00	12.	*	1	2055	252	.00	.00	.00	7.
1	0830	103	.01	.01	.00	13.	*	1	2100	253	.00	.00	.00	7.
1	0835	104	.01	.01	.00	13.	*	1	2105	254	.00	.00	.00	7.
1	0840	105	.01	.01	.00	14.	*	1	2110	255	.00	.00	.00	7.
1	0845	106	.01	.01	.00	14.	*	1	2115	256	.00	.00	.00	7.
1	0850	107	.01	.01	.00	15.	*	1	2120	257	.00	.00	.00	7.
1	0855	108	.01	.01	.00	15.	*	1	2125	258	.00	.00	.00	7.
1	0900	109	.01	.01	.00	16.	*	1	2130	259	.00	.00	.00	7.
1	0905	110	.01	.01	.00	16.	*	1	2135	260	.00	.00	.00	7.
1	0910	111	.01	.01	.00	16.	*	1	2140	261	.00	.00	.00	7.
1	0915	112	.01	.01	.00	16.	*	1	2145	262	.00	.00	.00	7.
1	0920	113	.01	.01	.00	17.	*	1	2150	263	.00	.00	.00	7.
1	0925	114	.01	.01	.00	17.	*	1	2155	264	.00	.00	.00	7.
1	0930	115	.01	.01	.00	17.	*	1	2200	265	.00	.00	.00	7.
1	0935	116	.01	.01	.00	18.	*	1	2205	266	.00	.00	.00	7.
1	0940	117	.01	.01	.00	18.	*	1	2210	267	.00	.00	.00	7.
1	0945	118	.01	.01	.00	18.	*	1	2215	268	.00	.00	.00	7.
1	0950	119	.01	.01	.00	19.	*	1	2220	269	.00	.00	.00	7.
1	0955	120	.01	.01	.00	19.	*	1	2225	270	.00	.00	.00	7.
1	1000	121	.01	.01	.00	19.	*	1	2230	271	.00	.00	.00	7.
1	1005	122	.01	.01	.00	20.	*	1	2235	272	.00	.00	.00	7.
1	1010	123	.01	.01	.00	20.	*	1	2240	273	.00	.00	.00	7.
1	1015	124	.01	.01	.00	21.	*	1	2245	274	.00	.00	.00	7.
1	1020	125	.02	.01	.00	21.	*	1	2250	275	.00	.00	.00	7.
1	1025	126	.02	.01	.00	22.	*	1	2255	276	.00	.00	.00	7.
1	1030	127	.02	.01	.00	22.	*	1	2300	277	.00	.00	.00	7.
1	1035	128	.02	.02	.00	23.	*	1	2305	278	.00	.00	.00	7.
1	1040	129	.02	.02	.00	24.	*	1	2310	279	.00	.00	.00	7.
1	1045	130	.02	.02	.00	25.	*	1	2315	280	.00	.00	.00	7.
1	1050	131	.02	.02	.00	27.	*	1	2320	281	.00	.00	.00	7.
1	1055	132	.02	.02	.00	28.	*	1	2325	282	.00	.00	.00	7.
1	1100	133	.02	.02	.00	30.	*	1	2330	283	.00	.00	.00	7.
1	1105	134	.03	.02	.01	32.	*	1	2335	284	.00	.00	.00	7.
1	1110	135	.03	.02	.01	34.	*	1	2340	285	.00	.00	.00	7.
1	1115	136	.03	.02	.01	37.	*	1	2345	286	.00	.00	.00	7.
1	1120	137	.03	.03	.01	39.	*	1	2350	287	.00	.00	.00	7.
1	1125	138	.03	.03	.01	41.	*	1	2355	288	.00	.00	.00	7.
1	1130	139	.03	.03	.01	44.	*	2	0000	289	.00	.00	.00	7.
1	1135	140	.14	.04	.10	57.	*	2	0005	290	.00	.00	.00	7.
1	1140	141	.14	.04	.10	82.	*	2	0010	291	.00	.00	.00	6.
1	1145	142	.14	.04	.10	132.	*	2	0015	292	.00	.00	.00	6.
1	1150	143	.37	.04	.33	222.	*	2	0020	293	.00	.00	.00	5.
1	1155	144	.37	.04	.34	357.	*	2	0025	294	.00	.00	.00	4.
1	1200	145	.37	.03	.34	582.	*	2	0030	295	.00	.00	.00	3.
1	1205	146	.06	.03	.03	831.	*	2	0035	296	.00	.00	.00	2.
1	1210	147	.06	.03	.03	1048.	*	2	0040	297	.00	.00	.00	2.
1	1215	148	.06	.03	.03	1235.	*	2	0045	298	.00	.00	.00	1.
1	1220	149	.04	.03	.01	1420.	*	2	0050	299	.00	.00	.00	1.
1	1225	150	.04	.03	.01	1457.	*	2	0055	300	.00	.00	.00	1.

****

TOTAL RAINFALL = 4.03, TOTAL LOSS = 2.18, TOTAL EXCESS = 1.85

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
+ 1457.	12.42	(CFS)	196.	56.	54.	54.
		(INCHES)	1.610	1.842	1.844	1.844
		(AC-FT)	97.	111.	111.	111.

CUMULATIVE AREA = 1.13 SQ MI

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HYDROGRAPH AT 16
TRANSPOSITION AREA 10.0 SQ MI

****

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	*	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1		0000	1	.00	.00	.00	0.	*	1		1230	151	.04	.03	.01	1304.
1		0005	2	.00	.00	.00	0.	*	1		1235	152	.03	.02	.01	1036.
1		0010	3	.00	.00	.00	0.	*	1		1240	153	.03	.02	.01	828.
1		0015	4	.00	.00	.00	0.	*	1		1245	154	.03	.02	.01	622.
1		0020	5	.00	.00	.00	1.	*	1		1250	155	.02	.02	.00	444.
1		0025	6	.00	.00	.00	1.	*	1		1255	156	.02	.02	.00	307.
1		0030	7	.00	.00	.00	2.	*	1		1300	157	.02	.02	.00	234.
1		0035	8	.00	.00	.00	3.	*	1		1305	158	.02	.02	.00	172.
1		0040	9	.00	.00	.00	4.	*	1		1310	159	.02	.02	.00	126.
1		0045	10	.00	.00	.00	4.	*	1		1315	160	.02	.02	.00	96.
1		0050	11	.00	.00	.00	5.	*	1		1320	161	.02	.01	.00	86.
1		0055	12	.00	.00	.00	6.	*	1		1325	162	.02	.01	.00	70.
1		0100	13	.00	.00	.00	6.	*	1		1330	163	.02	.01	.00	55.
1		0105	14	.00	.00	.00	6.	*	1		1335	164	.01	.01	.00	41.
1		0110	15	.00	.00	.00	7.	*	1		1340	165	.01	.01	.00	38.
1		0115	16	.00	.00	.00	7.	*	1		1345	166	.01	.01	.00	36.
1		0120	17	.00	.00	.00	7.	*	1		1350	167	.01	.01	.00	33.
1		0125	18	.00	.00	.00	7.	*	1		1355	168	.01	.01	.00	31.
1		0130	19	.00	.00	.00	7.	*	1		1400	169	.01	.01	.00	30.
1		0135	20	.00	.00	.00	7.	*	1		1405	170	.01	.01	.00	28.
1		0140	21	.00	.00	.00	7.	*	1		1410	171	.01	.01	.00	27.
1		0145	22	.00	.00	.00	7.	*	1		1415	172	.01	.01	.00	26.
1		0150	23	.00	.00	.00	7.	*	1		1420	173	.01	.01	.00	25.
1		0155	24	.00	.00	.00	7.	*	1		1425	174	.01	.01	.00	24.
1		0200	25	.00	.00	.00	7.	*	1		1430	175	.01	.01	.00	23.
1		0205	26	.00	.00	.00	7.	*	1		1435	176	.01	.01	.00	22.
1		0210	27	.00	.00	.00	7.	*	1		1440	177	.01	.01	.00	21.
1		0215	28	.00	.00	.00	7.	*	1		1445	178	.01	.01	.00	20.
1		0220	29	.00	.00	.00	7.	*	1		1450	179	.01	.01	.00	20.
1		0225	30	.00	.00	.00	7.	*	1		1455	180	.01	.01	.00	19.
1		0230	31	.00	.00	.00	7.	*	1		1500	181	.01	.01	.00	18.
1		0235	32	.00	.00	.00	7.	*	1		1505	182	.01	.01	.00	18.
1		0240	33	.00	.00	.00	7.	*	1		1510	183	.01	.01	.00	17.
1		0245	34	.00	.00	.00	7.	*	1		1515	184	.01	.01	.00	17.
1		0250	35	.00	.00	.00	7.	*	1		1520	185	.01	.01	.00	17.
1		0255	36	.00	.00	.00	7.	*	1		1525	186	.01	.01	.00	16.
1		0300	37	.00	.00	.00	7.	*	1		1530	187	.01	.01	.00	16.
1		0305	38	.00	.00	.00	7.	*	1		1535	188	.01	.01	.00	16.
1		0310	39	.00	.00	.00	7.	*	1		1540	189	.01	.01	.00	16.
1		0315	40	.00	.00	.00	7.	*	1		1545	190	.01	.01	.00	15.
1		0320	41	.00	.00	.00	7.	*	1		1550	191	.01	.01	.00	15.

1	0325	42	.00	.00	.00	7.	*	1	1555	192	.01	.01	.00	15.
1	0330	43	.00	.00	.00	7.	*	1	1600	193	.01	.01	.00	14.
1	0335	44	.00	.00	.00	7.	*	1	1605	194	.01	.01	.00	14.
1	0340	45	.00	.00	.00	7.	*	1	1610	195	.01	.01	.00	14.
1	0345	46	.00	.00	.00	7.	*	1	1615	196	.01	.01	.00	14.
1	0350	47	.01	.00	.00	7.	*	1	1620	197	.01	.01	.00	14.
1	0355	48	.01	.00	.00	7.	*	1	1625	198	.01	.01	.00	14.
1	0400	49	.01	.00	.00	7.	*	1	1630	199	.01	.01	.00	14.
1	0405	50	.01	.00	.00	7.	*	1	1635	200	.01	.01	.00	14.
1	0410	51	.01	.00	.00	8.	*	1	1640	201	.01	.01	.00	14.
1	0415	52	.01	.00	.00	8.	*	1	1645	202	.01	.01	.00	14.
1	0420	53	.01	.00	.00	8.	*	1	1650	203	.01	.01	.00	13.
1	0425	54	.01	.00	.00	9.	*	1	1655	204	.01	.01	.00	13.
1	0430	55	.01	.00	.00	9.	*	1	1700	205	.01	.01	.00	13.
1	0435	56	.01	.00	.00	9.	*	1	1705	206	.01	.01	.00	13.
1	0440	57	.01	.00	.00	9.	*	1	1710	207	.01	.01	.00	12.
1	0445	58	.01	.00	.00	9.	*	1	1715	208	.01	.01	.00	12.
1	0450	59	.01	.00	.00	9.	*	1	1720	209	.01	.01	.00	12.
1	0455	60	.01	.00	.00	9.	*	1	1725	210	.01	.01	.00	12.
1	0500	61	.01	.00	.00	9.	*	1	1730	211	.01	.01	.00	12.
1	0505	62	.01	.00	.00	9.	*	1	1735	212	.01	.01	.00	12.
1	0510	63	.01	.00	.00	9.	*	1	1740	213	.01	.01	.00	12.
1	0515	64	.01	.00	.00	9.	*	1	1745	214	.01	.01	.00	12.
1	0520	65	.01	.00	.00	9.	*	1	1750	215	.01	.00	.00	12.
1	0525	66	.01	.00	.00	9.	*	1	1755	216	.01	.00	.00	11.
1	0530	67	.01	.00	.00	9.	*	1	1800	217	.01	.00	.00	11.
1	0535	68	.01	.00	.00	9.	*	1	1805	218	.01	.00	.00	11.
1	0540	69	.01	.00	.00	9.	*	1	1810	219	.01	.00	.00	11.
1	0545	70	.01	.00	.00	9.	*	1	1815	220	.01	.00	.00	11.
1	0550	71	.01	.00	.00	9.	*	1	1820	221	.01	.00	.00	10.
1	0555	72	.01	.00	.00	9.	*	1	1825	222	.01	.00	.00	10.
1	0600	73	.01	.00	.00	9.	*	1	1830	223	.01	.00	.00	10.
1	0605	74	.01	.01	.00	9.	*	1	1835	224	.01	.00	.00	10.
1	0610	75	.01	.01	.00	9.	*	1	1840	225	.01	.00	.00	9.
1	0615	76	.01	.01	.00	9.	*	1	1845	226	.01	.00	.00	9.
1	0620	77	.01	.01	.00	10.	*	1	1850	227	.01	.00	.00	9.
1	0625	78	.01	.01	.00	10.	*	1	1855	228	.01	.00	.00	9.
1	0630	79	.01	.01	.00	10.	*	1	1900	229	.01	.00	.00	9.
1	0635	80	.01	.01	.00	11.	*	1	1905	230	.01	.00	.00	9.
1	0640	81	.01	.01	.00	11.	*	1	1910	231	.01	.00	.00	9.
1	0645	82	.01	.01	.00	11.	*	1	1915	232	.01	.00	.00	9.
1	0650	83	.01	.01	.00	11.	*	1	1920	233	.01	.00	.00	9.
1	0655	84	.01	.01	.00	11.	*	1	1925	234	.01	.00	.00	9.
1	0700	85	.01	.01	.00	11.	*	1	1930	235	.01	.00	.00	9.
1	0705	86	.01	.01	.00	11.	*	1	1935	236	.01	.00	.00	9.
1	0710	87	.01	.01	.00	12.	*	1	1940	237	.01	.00	.00	9.
1	0715	88	.01	.01	.00	12.	*	1	1945	238	.01	.00	.00	9.
1	0720	89	.01	.01	.00	12.	*	1	1950	239	.00	.00	.00	9.
1	0725	90	.01	.01	.00	12.	*	1	1955	240	.00	.00	.00	9.
1	0730	91	.01	.01	.00	12.	*	1	2000	241	.00	.00	.00	9.
1	0735	92	.01	.01	.00	12.	*	1	2005	242	.00	.00	.00	9.
1	0740	93	.01	.01	.00	12.	*	1	2010	243	.00	.00	.00	9.
1	0745	94	.01	.01	.00	12.	*	1	2015	244	.00	.00	.00	8.
1	0750	95	.01	.01	.00	12.	*	1	2020	245	.00	.00	.00	8.
1	0755	96	.01	.01	.00	12.	*	1	2025	246	.00	.00	.00	8.
1	0800	97	.01	.01	.00	12.	*	1	2030	247	.00	.00	.00	7.
1	0805	98	.01	.01	.00	12.	*	1	2035	248	.00	.00	.00	7.
1	0810	99	.01	.01	.00	12.	*	1	2040	249	.00	.00	.00	7.
1	0815	100	.01	.01	.00	12.	*	1	2045	250	.00	.00	.00	7.
1	0820	101	.01	.01	.00	12.	*	1	2050	251	.00	.00	.00	7.
1	0825	102	.01	.01	.00	12.	*	1	2055	252	.00	.00	.00	7.
1	0830	103	.01	.01	.00	13.	*	1	2100	253	.00	.00	.00	7.
1	0835	104	.01	.01	.00	13.	*	1	2105	254	.00	.00	.00	7.
1	0840	105	.01	.01	.00	14.	*	1	2110	255	.00	.00	.00	7.
1	0845	106	.01	.01	.00	14.	*	1	2115	256	.00	.00	.00	7.
1	0850	107	.01	.01	.00	15.	*	1	2120	257	.00	.00	.00	7.
1	0855	108	.01	.01	.00	15.	*	1	2125	258	.00	.00	.00	7.
1	0900	109	.01	.01	.00	16.	*	1	2130	259	.00	.00	.00	7.
1	0905	110	.01	.01	.00	16.	*	1	2135	260	.00	.00	.00	7.
1	0910	111	.01	.01	.00	16.	*	1	2140	261	.00	.00	.00	7.
1	0915	112	.01	.01	.00	16.	*	1	2145	262	.00	.00	.00	7.
1	0920	113	.01	.01	.00	16.	*	1	2150	263	.00	.00	.00	7.
1	0925	114	.01	.01	.00	17.	*	1	2155	264	.00	.00	.00	7.
1	0930	115	.01	.01	.00	17.	*	1	2200	265	.00	.00	.00	7.
1	0935	116	.01	.01	.00	17.	*	1	2205	266	.00	.00	.00	7.
1	0940	117	.01	.01	.00	18.	*	1	2210	267	.00	.00	.00	7.
1	0945	118	.01	.01	.00	18.	*	1	2215	268	.00	.00	.00	7.
1	0950	119	.01	.01	.00	19.	*	1	2220	269	.00	.00	.00	7.
1	0955	120	.01	.01	.00	19.	*	1	2225	270	.00	.00	.00	7.
1	1000	121	.01	.01	.00	19.	*	1	2230	271	.00	.00	.00	7.
1	1005	122	.01	.01	.00	20.	*	1	2235	272	.00	.00	.00	7.
1	1010	123	.01	.01	.00	20.	*	1	2240	273	.00	.00	.00	7.
1	1015	124	.01	.01	.00	20.	*	1	2245	274	.00	.00	.00	7.
1	1020	125	.02	.01	.00	21.	*	1	2250	275	.00	.00	.00	7.
1	1025	126	.02	.01	.00	21.	*	1	2255	276	.00	.00	.00	7.
1	1030	127	.02	.01	.00	22.	*	1	2300	277	.00	.00	.00	7.
1	1035	128	.02	.02	.00	23.	*	1	2305	278	.00	.00	.00	7.
1	1040	129	.02	.02	.00	24.	*	1	2310	279	.00	.00	.00	7.
1	1045	130	.02	.02	.00	25.	*	1	2315	280	.00	.00	.00	7.
1	1050	131	.02	.02	.00	27.	*	1	2320	281	.00	.00	.00	7.
1	1055	132	.02	.02	.00	28.	*	1	2325	282	.00	.00	.00	7.
1	1100	133	.02	.02	.00	30.	*	1	2330	283	.00	.00	.00	7.
1	1105	134	.03	.02	.01	32.	*	1	2335	284	.00	.00	.00	7.
1	1110	135	.03	.02	.01	34.	*	1	2340	285	.00	.00	.00	7.
1	1115	136	.03	.02	.01	36.	*	1	2345	286	.00	.00	.00	7.
1	1120	137	.03	.03	.01	39.	*	1	2350	287	.00	.00	.00	7.
1	1125	138	.03	.03	.01	41.	*	1	2355	288	.00	.00	.00	7.
1	1130	139	.03	.03	.01	43.	*	2	0000	289	.00	.00	.00	7.
1	1135	140	.14	.04	.10	57.	*	2	0005	290	.00	.00	.00	6.
1	1140	141	.14	.04	.10	81.	*	2	0010	291	.00	.00	.00	6.
1	1145	142	.14	.04	.10	130.	*	2	0015	292	.00	.00	.00	6.
1	1150	143	.37	.04	.33	219.	*	2	0020	293	.00	.00	.00	5.
1	1155	144	.37	.04	.33	352.	*	2	0025	294	.00	.00	.00	4.
1	1200	145	.37	.03	.33	574.	*	2	0030	295	.00	.00	.00	3.
1	1205	146	.06	.03	.02	819.	*	2	0035	296	.00	.00	.00	2.
1	1210	147	.06	.03	.03	1033.	*	2	0040	297	.00	.00	.00	2.
1	1215	148	.06	.03	.03	1219.	*	2	0045	298	.00	.00	.00	1.
1	1220	149	.04	.03	.01	1401.	*	2	0050	299	.00	.00	.00	1.
1	1225	150	.04	.03	.01	1438.	*	2	0055	300	.00	.00	.00	1.
							*							

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TOTAL RAINFALL = 3.99, TOTAL LOSS = 2.16, TOTAL EXCESS = 1.83

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 1438.	12.42		193.	55.	53.	53.
		(INCHES)	1.589	1.819	1.820	1.820
		(AC-FT)	96.	110.	110.	110.

CUMULATIVE AREA = 1.13 SQ MI

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HYDROGRAPH AT 16

TRANSPOSITION AREA 50.0 SQ MI

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1		0000	1	.00	.00	.00	0.	1		1230	151	.04	.03	.01	1236.
1		0005	2	.00	.00	.00	0.	1		1235	152	.03	.02	.01	979.
1		0010	3	.00	.00	.00	0.	1		1240	153	.03	.02	.01	782.
1		0015	4	.00	.00	.00	0.	1		1245	154	.03	.02	.01	587.
1		0020	5	.00	.00	.00	1.	1		1250	155	.02	.02	.00	419.
1		0025	6	.00	.00	.00	1.	1		1255	156	.02	.02	.00	289.
1		0030	7	.00	.00	.00	2.	1		1300	157	.02	.02	.00	221.
1		0035	8	.00	.00	.00	3.	1		1305	158	.02	.02	.00	162.
1		0040	9	.00	.00	.00	4.	1		1310	159	.02	.02	.00	120.
1		0045	10	.00	.00	.00	4.	1		1315	160	.02	.02	.00	91.
1		0050	11	.00	.00	.00	5.	1		1320	161	.02	.01	.00	82.
1		0055	12	.00	.00	.00	6.	1		1325	162	.02	.01	.00	67.
1		0100	13	.00	.00	.00	6.	1		1330	163	.02	.01	.00	53.
1		0105	14	.00	.00	.00	6.	1		1335	164	.01	.01	.00	39.
1		0110	15	.00	.00	.00	6.	1		1340	165	.01	.01	.00	37.
1		0115	16	.00	.00	.00	6.	1		1345	166	.01	.01	.00	34.
1		0120	17	.00	.00	.00	7.	1		1350	167	.01	.01	.00	32.
1		0125	18	.00	.00	.00	7.	1		1355	168	.01	.01	.00	30.
1		0130	19	.00	.00	.00	7.	1		1400	169	.01	.01	.00	29.
1		0135	20	.00	.00	.00	7.	1		1405	170	.01	.01	.00	27.
1		0140	21	.00	.00	.00	7.	1		1410	171	.01	.01	.00	26.
1		0145	22	.00	.00	.00	7.	1		1415	172	.01	.01	.00	25.
1		0150	23	.00	.00	.00	7.	1		1420	173	.01	.01	.00	24.
1		0155	24	.00	.00	.00	7.	1		1425	174	.01	.01	.00	23.
1		0200	25	.00	.00	.00	7.	1		1430	175	.01	.01	.00	22.
1		0205	26	.00	.00	.00	7.	1		1435	176	.01	.01	.00	21.
1		0210	27	.00	.00	.00	7.	1		1440	177	.01	.01	.00	20.
1		0215	28	.00	.00	.00	7.	1		1445	178	.01	.01	.00	20.
1		0220	29	.00	.00	.00	7.	1		1450	179	.01	.01	.00	19.
1		0225	30	.00	.00	.00	7.	1		1455	180	.01	.01	.00	18.
1		0230	31	.00	.00	.00	7.	1		1500	181	.01	.01	.00	18.
1		0235	32	.00	.00	.00	7.	1		1505	182	.01	.01	.00	17.
1		0240	33	.00	.00	.00	7.	1		1510	183	.01	.01	.00	17.
1		0245	34	.00	.00	.00	7.	1		1515	184	.01	.01	.00	16.
1		0250	35	.00	.00	.00	7.	1		1520	185	.01	.01	.00	16.
1		0255	36	.00	.00	.00	7.	1		1525	186	.01	.01	.00	16.
1		0300	37	.00	.00	.00	7.	1		1530	187	.01	.01	.00	16.
1		0305	38	.00	.00	.00	7.	1		1535	188	.01	.01	.00	15.
1		0310	39	.00	.00	.00	7.	1		1540	189	.01	.01	.00	15.
1		0315	40	.00	.00	.00	7.	1		1545	190	.01	.01	.00	15.
1		0320	41	.00	.00	.00	7.	1		1550	191	.01	.01	.00	14.
1		0325	42	.00	.00	.00	7.	1		1555	192	.01	.01	.00	14.
1		0330	43	.00	.00	.00	7.	1		1600	193	.01	.01	.00	14.
1		0335	44	.00	.00	.00	7.	1		1605	194	.01	.01	.00	14.
1		0340	45	.00	.00	.00	7.	1		1610	195	.01	.01	.00	14.
1		0345	46	.00	.00	.00	7.	1		1615	196	.01	.01	.00	13.
1		0350	47	.01	.00	.00	7.	1		1620	197	.01	.01	.00	13.
1		0355	48	.01	.00	.00	7.	1		1625	198	.01	.01	.00	13.
1		0400	49	.01	.00	.00	7.	1		1630	199	.01	.01	.00	13.
1		0405	50	.01	.00	.00	7.	1		1635	200	.01	.01	.00	13.
1		0410	51	.01	.00	.00	7.	1		1640	201	.01	.01	.00	13.
1		0415	52	.01	.00	.00	8.	1		1645	202	.01	.01	.00	13.
1		0420	53	.01	.00	.00	8.	1		1650	203	.01	.01	.00	13.
1		0425	54	.01	.00	.00	8.	1		1655	204	.01	.01	.00	13.
1		0430	55	.01	.00	.00	8.	1		1700	205	.01	.01	.00	12.
1		0435	56	.01	.00	.00	9.	1		1705	206	.01	.01	.00	12.
1		0440	57	.01	.00	.00	9.	1		1710	207	.01	.01	.00	12.
1		0445	58	.01	.00	.00	9.	1		1715	208	.01	.01	.00	12.
1		0450	59	.01	.00	.00	9.	1		1720	209	.01	.01	.00	11.
1		0455	60	.01	.00	.00	9.	1		1725	210	.01	.01	.00	11.
1		0500	61	.01	.00	.00	9.	1		1730	211	.01	.01	.00	11.
1		0505	62	.01	.00	.00	9.	1		1735	212	.01	.01	.00	11.
1		0510	63	.01	.00	.00	9.	1		1740	213	.01	.01	.00	11.
1		0515	64	.01	.00	.00	9.	1		1745	214	.01	.01	.00	11.
1		0520	65	.01	.00	.00	9.	1		1750	215	.01	.00	.00	11.
1		0525	66	.01	.00	.00	9.	1		1755	216	.01	.00	.00	11.
1		0530	67	.01	.00	.00	9.	1		1800	217	.01	.00	.00	11.
1		0535	68	.01	.00	.00	9.	1		1805	218	.01	.00	.00	11.
1		0540	69	.01	.00	.00	9.	1		1810	219	.01	.00	.00	11.
1		0545	70	.01	.00	.00	9.	1		1815	220	.01	.00	.00	10.
1		0550	71	.01	.00	.00	9.	1		1820	221	.01	.00	.00	10.
1		0555	72	.01	.00	.00	9.	1		1825	222	.01	.00	.00	10.
1		0600	73	.01	.00	.00	9.	1		1830	223	.01	.00	.00	9.
1		0605	74	.01	.01	.00	9.	1		1835	224	.01	.00	.00	9.
1		0610	75	.01	.01	.00	9.	1		1840	225	.01	.00	.00	9.
1		0615	76	.01	.01	.00	9.	1		1845	226	.01	.00	.00	9.
1		0620	77	.01	.01	.00	9.	1		1850	227	.01	.00	.00	9.
1		0625	78	.01	.01	.00	9.	1		1855	228	.01	.00	.00	9.
1		0630	79	.01	.01	.00	10.	1		1900	229	.01	.00	.00	9.
1		0635	80	.01	.01	.00	10.	1		1905	230	.01	.00	.00	9.
1		0640	81	.01	.01	.00	10.	1		1910	231	.01	.00	.00	9.
1		0645	82	.01	.01	.00	11.	1		1915	232	.01	.00	.00	9.
1		0650	83	.01	.01	.00	11.	1		1920	233	.01	.00	.00	9.
1		0655	84	.01	.01	.00	11.	1		1925	234	.01	.00	.00	9.
1		0700	85	.01	.01	.00	11.	1		1930	235	.01	.00	.00	9.
1		0705	86	.01	.01	.00	11.	1		1935	236	.01	.00	.00	9.
1		0710	87	.01	.01	.00	11.	1		1940	237	.01	.00	.00	9.
1		0715	88	.01	.01	.00	11.	1		1945	238	.01	.00	.00	9.
1		0720	89	.01	.01	.00	11.	1		1950	239	.00	.00	.00	9.
1		0725	90	.01	.01	.00	11.	1		1955	240	.00	.00	.00	9.
1		0730	91	.01	.01	.00	11.	1		2000	241	.00	.00	.00	9.
1		0735	92	.01	.01	.00	11.	1		2005	242	.00	.00	.00	9.
1		0740	93	.01	.01	.00	11.	1		2010	243	.00	.00	.00	8.
1		0745	94	.01	.01	.00	11.	1		2015	244	.00	.00	.00	8.
1		0750	95	.01	.01	.00	11.	1		2020	245	.00	.00	.00	8.
1		0755	96	.01	.01	.00	11.	1		2025	246	.00	.00	.00	7.
1		0800	97	.01	.01	.00	11.	1		2030	247	.00	.00	.00	7.
1		0805	98	.01	.01	.00	11.	1		2035	248	.00	.00	.00	7.
1		0810	99	.01	.01	.00	11.	1		2040	249	.00	.00	.00	7.
1		0815	100	.01	.01	.00	11.	1		2045	250	.00	.00	.00	7.
1		0820	101	.01	.01	.00	12.	1		2050	251	.00	.00	.00	7.
1		0825	102	.01	.01	.00	12.	1		2055	252	.00	.00	.00	7.
1		0830	103	.01	.01	.00	12.	1		2100	253	.00	.00	.00	7.
1		0835	104	.01	.01	.00	13.	1		2105	254	.00	.00	.00	7.
1		0840	105	.01	.01	.00	13.	1		2110	255	.00	.00	.00	7.
1		0845	106	.01	.01	.00	14.	1		2115	256	.00	.00	.00	7.
1		0850	107	.01	.01	.00	14.	1		2120	257	.00	.00	.00	7.
1		0855	108	.01	.01	.00	15.	1		2125	258	.00	.00	.00	7.
1		0900	109	.01	.01	.00	15.	1		2130	259	.00	.00	.00	7.
1		0905	110	.01	.01	.00	15.	1		2135	260	.00	.00	.00	7.
1		0910	111	.01	.01	.00	15.	1		2140	261	.00	.00	.00	7.
1		0915	112	.01	.01	.00	16.	1		2145	262	.00	.00	.00	7.
1		0920	113	.01	.01	.00	16.	1		2150	263	.00	.00	.00	7.
1		0925	114	.01	.01	.00	16.	1		2155	264	.00	.00	.00	7.
1		0930	115	.01	.01	.00	16.	1		2200	265	.00	.00	.00	7.
1		0935	116	.01	.01	.00	17.	1		2205	266	.00	.00	.00	7.
1		0940	117	.01	.01	.00	17.	1		2210	267	.00	.00	.00	7.
1		0945	118	.01	.01	.00	17.	1		2215	268	.00	.00	.00	7.
1		0950	119	.01	.01	.00	18.	1		2220	269	.00	.00	.00	7.
1		0955	120	.01	.01	.00	18.	1		2225	270	.00	.00	.00	7.
1		1000	121	.01	.01	.00	19.	1		2230	271	.00	.00	.00	7.
1		1005	122	.01	.01	.00	19.	1		2235	272	.00	.00	.00	7.

1	1010	123	.01	.01	.00	19.	*	1	2240	273	.00	.00	.00	7.
1	1015	124	.01	.01	.00	20.	*	1	2245	274	.00	.00	.00	7.
1	1020	125	.02	.01	.00	20.	*	1	2250	275	.00	.00	.00	7.
1	1025	126	.02	.01	.00	21.	*	1	2255	276	.00	.00	.00	7.
1	1030	127	.02	.01	.00	21.	*	1	2300	277	.00	.00	.00	7.
1	1035	128	.02	.02	.00	22.	*	1	2305	278	.00	.00	.00	7.
1	1040	129	.02	.02	.00	23.	*	1	2310	279	.00	.00	.00	7.
1	1045	130	.02	.02	.00	24.	*	1	2315	280	.00	.00	.00	7.
1	1050	131	.02	.02	.00	26.	*	1	2320	281	.00	.00	.00	7.
1	1055	132	.02	.02	.00	27.	*	1	2325	282	.00	.00	.00	7.
1	1100	133	.02	.02	.00	29.	*	1	2330	283	.00	.00	.00	7.
1	1105	134	.03	.02	.01	31.	*	1	2335	284	.00	.00	.00	7.
1	1110	135	.03	.02	.01	33.	*	1	2340	285	.00	.00	.00	7.
1	1115	136	.03	.02	.01	35.	*	1	2345	286	.00	.00	.00	7.
1	1120	137	.03	.03	.01	37.	*	1	2350	287	.00	.00	.00	7.
1	1125	138	.03	.03	.01	39.	*	1	2355	288	.00	.00	.00	7.
1	1130	139	.03	.03	.01	42.	*	2	0000	289	.00	.00	.00	6.
1	1135	140	.13	.04	.09	54.	*	2	0005	290	.00	.00	.00	6.
1	1140	141	.13	.04	.09	77.	*	2	0010	291	.00	.00	.00	6.
1	1145	142	.13	.04	.09	122.	*	2	0015	292	.00	.00	.00	5.
1	1150	143	.35	.04	.31	206.	*	2	0020	293	.00	.00	.00	5.
1	1155	144	.35	.04	.32	331.	*	2	0025	294	.00	.00	.00	4.
1	1200	145	.35	.04	.32	541.	*	2	0030	295	.00	.00	.00	3.
1	1205	146	.06	.03	.02	773.	*	2	0035	296	.00	.00	.00	2.
1	1210	147	.06	.03	.02	977.	*	2	0040	297	.00	.00	.00	2.
1	1215	148	.06	.03	.02	1153.	*	2	0045	298	.00	.00	.00	1.
1	1220	149	.04	.03	.01	1328.	*	2	0050	299	.00	.00	.00	1.
1	1225	150	.04	.03	.01	1363.	*	2	0055	300	.00	.00	.00	0.

****

TOTAL RAINFALL = 3.83, TOTAL LOSS = 2.10, TOTAL EXCESS = 1.73

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
+ 1363.	12.42	(CFS)	183.	52.	51.	51.
		(INCHES)	1.504	1.725	1.726	1.726
		(AC-FT)	91.	104.	104.	104.

CUMULATIVE AREA = 1.13 SQ MI

****

HYDROGRAPH AT 16
TRANSPOSITION AREA 100.0 SQ MI

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DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	*	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1		0000	1	.00	.00	.00	0.	*	1		1230	151	.04	.03	.01	1206.
1		0005	2	.00	.00	.00	0.	*	1		1235	152	.03	.02	.01	955.
1		0010	3	.00	.00	.00	0.	*	1		1240	153	.03	.02	.01	761.
1		0015	4	.00	.00	.00	0.	*	1		1245	154	.03	.02	.01	571.
1		0020	5	.00	.00	.00	1.	*	1		1250	155	.02	.02	.00	407.
1		0025	6	.00	.00	.00	1.	*	1		1255	156	.02	.02	.00	281.
1		0030	7	.00	.00	.00	2.	*	1		1300	157	.02	.02	.00	215.
1		0035	8	.00	.00	.00	3.	*	1		1305	158	.02	.02	.00	158.
1		0040	9	.00	.00	.00	4.	*	1		1310	159	.02	.02	.00	117.
1		0045	10	.00	.00	.00	4.	*	1		1315	160	.02	.02	.00	88.
1		0050	11	.00	.00	.00	5.	*	1		1320	161	.02	.01	.00	80.
1		0055	12	.00	.00	.00	5.	*	1		1325	162	.02	.01	.00	66.
1		0100	13	.00	.00	.00	6.	*	1		1330	163	.02	.01	.00	52.
1		0105	14	.00	.00	.00	6.	*	1		1335	164	.01	.01	.00	38.
1		0110	15	.00	.00	.00	6.	*	1		1340	165	.01	.01	.00	36.
1		0115	16	.00	.00	.00	6.	*	1		1345	166	.01	.01	.00	33.
1		0120	17	.00	.00	.00	6.	*	1		1350	167	.01	.01	.00	31.
1		0125	18	.00	.00	.00	6.	*	1		1355	168	.01	.01	.00	30.
1		0130	19	.00	.00	.00	6.	*	1		1400	169	.01	.01	.00	28.
1		0135	20	.00	.00	.00	7.	*	1		1405	170	.01	.01	.00	27.
1		0140	21	.00	.00	.00	7.	*	1		1410	171	.01	.01	.00	25.
1		0145	22	.00	.00	.00	7.	*	1		1415	172	.01	.01	.00	24.
1		0150	23	.00	.00	.00	7.	*	1		1420	173	.01	.01	.00	23.
1		0155	24	.00	.00	.00	7.	*	1		1425	174	.01	.01	.00	22.
1		0200	25	.00	.00	.00	7.	*	1		1430	175	.01	.01	.00	22.
1		0205	26	.00	.00	.00	7.	*	1		1435	176	.01	.01	.00	21.
1		0210	27	.00	.00	.00	7.	*	1		1440	177	.01	.01	.00	20.
1		0215	28	.00	.00	.00	7.	*	1		1445	178	.01	.01	.00	19.
1		0220	29	.00	.00	.00	7.	*	1		1450	179	.01	.01	.00	19.
1		0225	30	.00	.00	.00	7.	*	1		1455	180	.01	.01	.00	18.
1		0230	31	.00	.00	.00	7.	*	1		1500	181	.01	.01	.00	17.
1		0235	32	.00	.00	.00	7.	*	1		1505	182	.01	.01	.00	17.
1		0240	33	.00	.00	.00	7.	*	1		1510	183	.01	.01	.00	16.
1		0245	34	.00	.00	.00	7.	*	1		1515	184	.01	.01	.00	16.
1		0250	35	.00	.00	.00	7.	*	1		1520	185	.01	.01	.00	16.
1		0255	36	.00	.00	.00	7.	*	1		1525	186	.01	.01	.00	15.
1		0300	37	.00	.00	.00	7.	*	1		1530	187	.01	.01	.00	15.
1		0305	38	.00	.00	.00	7.	*	1		1535	188	.01	.01	.00	15.
1		0310	39	.00	.00	.00	7.	*	1		1540	189	.01	.01	.00	15.
1		0315	40	.00	.00	.00	7.	*	1		1545	190	.01	.01	.00	14.
1		0320	41	.00	.00	.00	7.	*	1		1550	191	.01	.01	.00	14.
1		0325	42	.00	.00	.00	7.	*	1		1555	192	.01	.01	.00	14.
1		0330	43	.00	.00	.00	7.	*	1		1600	193	.01	.01	.00	14.
1		0335	44	.00	.00	.00	7.	*	1		1605	194	.01	.01	.00	13.
1		0340	45	.00	.00	.00	7.	*	1		1610	195	.01	.01	.00	13.
1		0345	46	.00	.00	.00	7.	*	1		1615	196	.01	.01	.00	13.
1		0350	47	.01	.00	.00	7.	*	1		1620	197	.01	.01	.00	13.
1		0355	48	.01	.00	.00	7.	*	1		1625	198	.01	.01	.00	13.
1		0400	49	.01	.00	.00	7.	*	1		1630	199	.01	.01	.00	13.
1		0405	50	.01	.00	.00	7.	*	1		1635	200	.01	.01	.00	13.
1		0410	51	.01	.00	.00	7.	*	1		1640	201	.01	.01	.00	13.
1		0415	52	.01	.00	.00	7.	*	1		1645	202	.01	.01	.00	13.
1		0420	53	.01	.00	.00	8.	*	1		1650	203	.01	.01	.00	13.
1		0425	54	.01	.00	.00	8.	*	1		1655	204	.01	.01	.00	13.
1		0430	55	.01	.00	.00	8.	*	1		1700	205	.01	.01	.00	12.
1		0435	56	.01	.00	.00	8.	*	1		1705	206	.01	.01	.00	12.
1		0440	57	.01	.00	.00	9.	*	1		1710	207	.01	.01	.00	12.
1		0445	58	.01	.00	.00	9.	*	1		1715	208	.01	.01	.00	11.
1		0450	59	.01	.00	.00	9.	*	1		1720	209	.01	.01	.00	11.
1		0455	60	.01	.00	.00	9.	*	1		1725	210	.01	.01	.00	11.
1		0500	61	.01	.00	.00	9.	*	1		1730	211	.01	.01	.00	11.
1		0505	62	.01	.00	.00	9.	*	1		1735	212	.01	.01	.00	11.
1		0510	63	.01	.00	.00	9.	*	1		1740	213	.01	.01	.00	11.
1		0515	64	.01	.00	.00	9.	*	1		1745	214	.01	.01	.00	11.
1		0520	65	.01	.00	.00	9.	*	1		1750	215	.01	.00	.00	11.
1		0525	66	.01	.00	.00	9.	*	1		1755	216	.01	.00	.00	11.
1		0530	67	.01	.00	.00	9.	*	1		1800	217	.01	.00	.00	11.
1		0535	68	.01	.00	.00	9.	*	1		1805	218	.01	.00	.00	11.
1		0540	69	.01	.00	.00	9.	*	1		1810	219	.01	.00	.00	10.
1		0545	70	.01	.00	.00	9.	*	1		1815	220	.01	.00	.00	10.
1		0550	71	.01	.00	.00	9.	*	1		1820	221	.01	.00	.00	10.
1		0555	72	.01	.00	.00	9.	*	1		1825	222	.01	.00	.00	9.
1		0600	73	.01	.00	.00	9.	*	1		1830	223	.01	.00	.00	9.
1		0605	74	.01	.01	.00	9.	*	1		1835	224	.01	.00	.00	9.
1		0610	75	.01	.01	.00	9.	*	1		1840	225	.01	.00	.00	9.

1	0615	76	.01	.01	.00	9.	*	1	1845	226	.01	.00	.00	9.
1	0620	77	.01	.01	.00	9.	*	1	1850	227	.01	.00	.00	9.
1	0625	78	.01	.01	.00	9.	*	1	1855	228	.01	.00	.00	9.
1	0630	79	.01	.01	.00	10.	*	1	1900	229	.01	.00	.00	9.
1	0635	80	.01	.01	.00	10.	*	1	1905	230	.01	.00	.00	9.
1	0640	81	.01	.01	.00	10.	*	1	1910	231	.01	.00	.00	9.
1	0645	82	.01	.01	.00	10.	*	1	1915	232	.01	.00	.00	9.
1	0650	83	.01	.01	.00	11.	*	1	1920	233	.01	.00	.00	9.
1	0655	84	.01	.01	.00	11.	*	1	1925	234	.01	.00	.00	9.
1	0700	85	.01	.01	.00	11.	*	1	1930	235	.01	.00	.00	9.
1	0705	86	.01	.01	.00	11.	*	1	1935	236	.01	.00	.00	9.
1	0710	87	.01	.01	.00	11.	*	1	1940	237	.01	.00	.00	9.
1	0715	88	.01	.01	.00	11.	*	1	1945	238	.01	.00	.00	9.
1	0720	89	.01	.01	.00	11.	*	1	1950	239	.00	.00	.00	9.
1	0725	90	.01	.01	.00	11.	*	1	1955	240	.00	.00	.00	9.
1	0730	91	.01	.01	.00	11.	*	1	2000	241	.00	.00	.00	9.
1	0735	92	.01	.01	.00	11.	*	1	2005	242	.00	.00	.00	8.
1	0740	93	.01	.01	.00	11.	*	1	2010	243	.00	.00	.00	8.
1	0745	94	.01	.01	.00	11.	*	1	2015	244	.00	.00	.00	8.
1	0750	95	.01	.01	.00	11.	*	1	2020	245	.00	.00	.00	8.
1	0755	96	.01	.01	.00	11.	*	1	2025	246	.00	.00	.00	7.
1	0800	97	.01	.01	.00	11.	*	1	2030	247	.00	.00	.00	7.
1	0805	98	.01	.01	.00	11.	*	1	2035	248	.00	.00	.00	7.
1	0810	99	.01	.01	.00	11.	*	1	2040	249	.00	.00	.00	7.
1	0815	100	.01	.01	.00	11.	*	1	2045	250	.00	.00	.00	7.
1	0820	101	.01	.01	.00	11.	*	1	2050	251	.00	.00	.00	7.
1	0825	102	.01	.01	.00	12.	*	1	2055	252	.00	.00	.00	7.
1	0830	103	.01	.01	.00	12.	*	1	2100	253	.00	.00	.00	7.
1	0835	104	.01	.01	.00	12.	*	1	2105	254	.00	.00	.00	7.
1	0840	105	.01	.01	.00	13.	*	1	2110	255	.00	.00	.00	7.
1	0845	106	.01	.01	.00	13.	*	1	2115	256	.00	.00	.00	7.
1	0850	107	.01	.01	.00	14.	*	1	2120	257	.00	.00	.00	7.
1	0855	108	.01	.01	.00	14.	*	1	2125	258	.00	.00	.00	7.
1	0900	109	.01	.01	.00	15.	*	1	2130	259	.00	.00	.00	7.
1	0905	110	.01	.01	.00	15.	*	1	2135	260	.00	.00	.00	7.
1	0910	111	.01	.01	.00	15.	*	1	2140	261	.00	.00	.00	7.
1	0915	112	.01	.01	.00	15.	*	1	2145	262	.00	.00	.00	7.
1	0920	113	.01	.01	.00	16.	*	1	2150	263	.00	.00	.00	7.
1	0925	114	.01	.01	.00	16.	*	1	2155	264	.00	.00	.00	7.
1	0930	115	.01	.01	.00	16.	*	1	2200	265	.00	.00	.00	7.
1	0935	116	.01	.01	.00	16.	*	1	2205	266	.00	.00	.00	7.
1	0940	117	.01	.01	.00	17.	*	1	2210	267	.00	.00	.00	7.
1	0945	118	.01	.01	.00	17.	*	1	2215	268	.00	.00	.00	7.
1	0950	119	.01	.01	.00	17.	*	1	2220	269	.00	.00	.00	7.
1	0955	120	.01	.01	.00	18.	*	1	2225	270	.00	.00	.00	7.
1	1000	121	.01	.01	.00	18.	*	1	2230	271	.00	.00	.00	7.
1	1005	122	.01	.01	.00	19.	*	1	2235	272	.00	.00	.00	7.
1	1010	123	.01	.01	.00	19.	*	1	2240	273	.00	.00	.00	7.
1	1015	124	.01	.01	.00	19.	*	1	2245	274	.00	.00	.00	7.
1	1020	125	.02	.01	.00	20.	*	1	2250	275	.00	.00	.00	7.
1	1025	126	.02	.01	.00	20.	*	1	2255	276	.00	.00	.00	7.
1	1030	127	.02	.01	.00	21.	*	1	2300	277	.00	.00	.00	7.
1	1035	128	.02	.02	.00	22.	*	1	2305	278	.00	.00	.00	7.
1	1040	129	.02	.02	.00	22.	*	1	2310	279	.00	.00	.00	7.
1	1045	130	.02	.02	.00	24.	*	1	2315	280	.00	.00	.00	7.
1	1050	131	.02	.02	.00	25.	*	1	2320	281	.00	.00	.00	7.
1	1055	132	.02	.02	.00	27.	*	1	2325	282	.00	.00	.00	7.
1	1100	133	.02	.02	.00	28.	*	1	2330	283	.00	.00	.00	7.
1	1105	134	.03	.02	.01	30.	*	1	2335	284	.00	.00	.00	7.
1	1110	135	.03	.02	.01	32.	*	1	2340	285	.00	.00	.00	7.
1	1115	136	.03	.02	.01	34.	*	1	2345	286	.00	.00	.00	7.
1	1120	137	.03	.03	.01	36.	*	1	2350	287	.00	.00	.00	7.
1	1125	138	.03	.03	.01	39.	*	1	2355	288	.00	.00	.00	6.
1	1130	139	.03	.03	.01	41.	*	2	0000	289	.00	.00	.00	6.
1	1135	140	.13	.04	.09	53.	*	2	0005	290	.00	.00	.00	6.
1	1140	141	.13	.04	.09	75.	*	2	0010	291	.00	.00	.00	6.
1	1145	142	.13	.04	.09	119.	*	2	0015	292	.00	.00	.00	5.
1	1150	143	.35	.04	.31	200.	*	2	0020	293	.00	.00	.00	5.
1	1155	144	.35	.04	.31	322.	*	2	0025	294	.00	.00	.00	4.
1	1200	145	.35	.04	.31	527.	*	2	0030	295	.00	.00	.00	3.
1	1205	146	.06	.03	.02	753.	*	2	0035	296	.00	.00	.00	2.
1	1210	147	.06	.03	.02	952.	*	2	0040	297	.00	.00	.00	2.
1	1215	148	.06	.03	.02	1125.	*	2	0045	298	.00	.00	.00	1.
1	1220	149	.04	.03	.01	1295.	*	2	0050	299	.00	.00	.00	1.
1	1225	150	.04	.03	.01	1330.	*	2	0055	300	.00	.00	.00	0.
							*							

****

TOTAL RAINFALL = 3.76, TOTAL LOSS = 2.07, TOTAL EXCESS = 1.69

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)	(CFS)				
+ 1330.	12.42		178.	51.	49.	49.
		(INCHES)	1.467	1.683	1.685	1.685
		(AC-FT)	88.	101.	102.	102.

CUMULATIVE AREA = 1.13 SQ MI

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HYDROGRAPH AT 16
TRANSPOSITION AREA 200.0 SQ MI

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DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	*	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1		0000	1	.00	.00	.00	0.	*	1		1230	151	.03	.03	.01	1180.
1		0005	2	.00	.00	.00	0.	*	1		1235	152	.03	.02	.01	933.
1		0010	3	.00	.00	.00	0.	*	1		1240	153	.03	.02	.01	744.
1		0015	4	.00	.00	.00	0.	*	1		1245	154	.03	.02	.01	558.
1		0020	5	.00	.00	.00	1.	*	1		1250	155	.02	.02	.00	398.
1		0025	6	.00	.00	.00	1.	*	1		1255	156	.02	.02	.00	274.
1		0030	7	.00	.00	.00	2.	*	1		1300	157	.02	.02	.00	210.
1		0035	8	.00	.00	.00	3.	*	1		1305	158	.02	.01	.00	154.
1		0040	9	.00	.00	.00	3.	*	1		1310	159	.02	.01	.00	114.
1		0045	10	.00	.00	.00	4.	*	1		1315	160	.02	.01	.00	87.
1		0050	11	.00	.00	.00	5.	*	1		1320	161	.02	.01	.00	79.
1		0055	12	.00	.00	.00	5.	*	1		1325	162	.02	.01	.00	64.
1		0100	13	.00	.00	.00	6.	*	1		1330	163	.02	.01	.00	51.
1		0105	14	.00	.00	.00	6.	*	1		1335	164	.01	.01	.00	38.
1		0110	15	.00	.00	.00	6.	*	1		1340	165	.01	.01	.00	35.
1		0115	16	.00	.00	.00	6.	*	1		1345	166	.01	.01	.00	33.
1		0120	17	.00	.00	.00	6.	*	1		1350	167	.01	.01	.00	31.
1		0125	18	.00	.00	.00	6.	*	1		1355	168	.01	.01	.00	29.
1		0130	19	.00	.00	.00	6.	*	1		1400	169	.01	.01	.00	28.
1		0135	20	.00	.00	.00	6.	*	1		1405	170	.01	.01	.00	26.
1		0140	21	.00	.00	.00	6.	*	1		1410	171	.01	.01	.00	25.
1		0145	22	.00	.00	.00	6.	*	1		1415	172	.01	.01	.00	24.
1		0150	23	.00	.00	.00	6.	*	1		1420	173	.01	.01	.00	23.
1		0155	24	.00	.00	.00	6.	*	1		1425	174	.01	.01	.00	22.
1		0200	25	.00	.00	.00	6.	*	1		1430	175	.01	.01	.00	21.
1		0205	26	.00	.00	.00	6.	*	1		1435	176	.01	.01	.00	20.
1		0210	27	.00	.00	.00	6.	*	1		1440	177	.01	.01	.00	20.
1		0215	28	.00	.00	.00	6.	*	1		1445	178	.01	.01	.00	19.

1	0220	29	.00	.00	.00	6.	*	1	1450	179	.01	.01	.00	18.
1	0225	30	.00	.00	.00	6.	*	1	1455	180	.01	.01	.00	18.
1	0230	31	.00	.00	.00	6.	*	1	1500	181	.01	.01	.00	17.
1	0235	32	.00	.00	.00	6.	*	1	1505	182	.01	.01	.00	16.
1	0240	33	.00	.00	.00	6.	*	1	1510	183	.01	.01	.00	16.
1	0245	34	.00	.00	.00	6.	*	1	1515	184	.01	.01	.00	16.
1	0250	35	.00	.00	.00	6.	*	1	1520	185	.01	.01	.00	15.
1	0255	36	.00	.00	.00	6.	*	1	1525	186	.01	.01	.00	15.
1	0300	37	.00	.00	.00	6.	*	1	1530	187	.01	.01	.00	15.
1	0305	38	.00	.00	.00	6.	*	1	1535	188	.01	.01	.00	15.
1	0310	39	.00	.00	.00	6.	*	1	1540	189	.01	.01	.00	15.
1	0315	40	.00	.00	.00	6.	*	1	1545	190	.01	.01	.00	14.
1	0320	41	.00	.00	.00	6.	*	1	1550	191	.01	.01	.00	14.
1	0325	42	.00	.00	.00	6.	*	1	1555	192	.01	.01	.00	14.
1	0330	43	.00	.00	.00	6.	*	1	1600	193	.01	.01	.00	13.
1	0335	44	.00	.00	.00	6.	*	1	1605	194	.01	.01	.00	13.
1	0340	45	.00	.00	.00	6.	*	1	1610	195	.01	.01	.00	13.
1	0345	46	.00	.00	.00	6.	*	1	1615	196	.01	.01	.00	13.
1	0350	47	.00	.00	.00	6.	*	1	1620	197	.01	.01	.00	13.
1	0355	48	.00	.00	.00	7.	*	1	1625	198	.01	.01	.00	13.
1	0400	49	.00	.00	.00	7.	*	1	1630	199	.01	.01	.00	13.
1	0405	50	.00	.00	.00	7.	*	1	1635	200	.01	.00	.00	13.
1	0410	51	.00	.00	.00	7.	*	1	1640	201	.01	.00	.00	13.
1	0415	52	.00	.00	.00	7.	*	1	1645	202	.01	.00	.00	13.
1	0420	53	.00	.00	.00	8.	*	1	1650	203	.01	.00	.00	13.
1	0425	54	.00	.00	.00	8.	*	1	1655	204	.01	.00	.00	12.
1	0430	55	.00	.00	.00	8.	*	1	1700	205	.01	.00	.00	12.
1	0435	56	.00	.00	.00	8.	*	1	1705	206	.01	.00	.00	12.
1	0440	57	.00	.00	.00	8.	*	1	1710	207	.01	.00	.00	11.
1	0445	58	.00	.00	.00	8.	*	1	1715	208	.01	.00	.00	11.
1	0450	59	.00	.00	.00	8.	*	1	1720	209	.01	.00	.00	11.
1	0455	60	.00	.00	.00	9.	*	1	1725	210	.01	.00	.00	11.
1	0500	61	.00	.00	.00	9.	*	1	1730	211	.01	.00	.00	11.
1	0505	62	.00	.00	.00	9.	*	1	1735	212	.01	.00	.00	11.
1	0510	63	.00	.00	.00	9.	*	1	1740	213	.01	.00	.00	11.
1	0515	64	.00	.00	.00	9.	*	1	1745	214	.01	.00	.00	11.
1	0520	65	.00	.00	.00	9.	*	1	1750	215	.00	.00	.00	11.
1	0525	66	.00	.00	.00	9.	*	1	1755	216	.00	.00	.00	11.
1	0530	67	.00	.00	.00	9.	*	1	1800	217	.00	.00	.00	11.
1	0535	68	.00	.00	.00	9.	*	1	1805	218	.00	.00	.00	10.
1	0540	69	.00	.00	.00	9.	*	1	1810	219	.00	.00	.00	10.
1	0545	70	.00	.00	.00	9.	*	1	1815	220	.00	.00	.00	10.
1	0550	71	.00	.00	.00	9.	*	1	1820	221	.00	.00	.00	10.
1	0555	72	.00	.00	.00	9.	*	1	1825	222	.00	.00	.00	9.
1	0600	73	.00	.00	.00	9.	*	1	1830	223	.00	.00	.00	9.
1	0605	74	.01	.00	.00	9.	*	1	1835	224	.00	.00	.00	9.
1	0610	75	.01	.00	.00	9.	*	1	1840	225	.00	.00	.00	9.
1	0615	76	.01	.00	.00	9.	*	1	1845	226	.00	.00	.00	9.
1	0620	77	.01	.00	.00	9.	*	1	1850	227	.00	.00	.00	9.
1	0625	78	.01	.00	.00	9.	*	1	1855	228	.00	.00	.00	9.
1	0630	79	.01	.00	.00	9.	*	1	1900	229	.00	.00	.00	9.
1	0635	80	.01	.00	.00	10.	*	1	1905	230	.00	.00	.00	9.
1	0640	81	.01	.00	.00	10.	*	1	1910	231	.00	.00	.00	9.
1	0645	82	.01	.00	.00	10.	*	1	1915	232	.00	.00	.00	9.
1	0650	83	.01	.00	.00	10.	*	1	1920	233	.00	.00	.00	9.
1	0655	84	.01	.00	.00	11.	*	1	1925	234	.00	.00	.00	9.
1	0700	85	.01	.00	.00	11.	*	1	1930	235	.00	.00	.00	9.
1	0705	86	.01	.00	.00	11.	*	1	1935	236	.00	.00	.00	9.
1	0710	87	.01	.00	.00	11.	*	1	1940	237	.00	.00	.00	9.
1	0715	88	.01	.00	.00	11.	*	1	1945	238	.00	.00	.00	9.
1	0720	89	.01	.00	.00	11.	*	1	1950	239	.00	.00	.00	9.
1	0725	90	.01	.00	.00	11.	*	1	1955	240	.00	.00	.00	8.
1	0730	91	.01	.00	.00	11.	*	1	2000	241	.00	.00	.00	8.
1	0735	92	.01	.00	.00	11.	*	1	2005	242	.00	.00	.00	8.
1	0740	93	.01	.00	.00	11.	*	1	2010	243	.00	.00	.00	8.
1	0745	94	.01	.00	.00	11.	*	1	2015	244	.00	.00	.00	8.
1	0750	95	.01	.00	.00	11.	*	1	2020	245	.00	.00	.00	7.
1	0755	96	.01	.00	.00	11.	*	1	2025	246	.00	.00	.00	7.
1	0800	97	.01	.00	.00	11.	*	1	2030	247	.00	.00	.00	7.
1	0805	98	.01	.01	.00	11.	*	1	2035	248	.00	.00	.00	7.
1	0810	99	.01	.01	.00	11.	*	1	2040	249	.00	.00	.00	7.
1	0815	100	.01	.01	.00	11.	*	1	2045	250	.00	.00	.00	7.
1	0820	101	.01	.01	.00	11.	*	1	2050	251	.00	.00	.00	7.
1	0825	102	.01	.01	.00	11.	*	1	2055	252	.00	.00	.00	6.
1	0830	103	.01	.01	.00	12.	*	1	2100	253	.00	.00	.00	6.
1	0835	104	.01	.01	.00	12.	*	1	2105	254	.00	.00	.00	6.
1	0840	105	.01	.01	.00	13.	*	1	2110	255	.00	.00	.00	6.
1	0845	106	.01	.01	.00	13.	*	1	2115	256	.00	.00	.00	6.
1	0850	107	.01	.01	.00	14.	*	1	2120	257	.00	.00	.00	6.
1	0855	108	.01	.01	.00	14.	*	1	2125	258	.00	.00	.00	6.
1	0900	109	.01	.01	.00	14.	*	1	2130	259	.00	.00	.00	6.
1	0905	110	.01	.01	.00	15.	*	1	2135	260	.00	.00	.00	6.
1	0910	111	.01	.01	.00	15.	*	1	2140	261	.00	.00	.00	6.
1	0915	112	.01	.01	.00	15.	*	1	2145	262	.00	.00	.00	6.
1	0920	113	.01	.01	.00	15.	*	1	2150	263	.00	.00	.00	6.
1	0925	114	.01	.01	.00	16.	*	1	2155	264	.00	.00	.00	6.
1	0930	115	.01	.01	.00	16.	*	1	2200	265	.00	.00	.00	6.
1	0935	116	.01	.01	.00	16.	*	1	2205	266	.00	.00	.00	6.
1	0940	117	.01	.01	.00	17.	*	1	2210	267	.00	.00	.00	6.
1	0945	118	.01	.01	.00	17.	*	1	2215	268	.00	.00	.00	6.
1	0950	119	.01	.01	.00	17.	*	1	2220	269	.00	.00	.00	6.
1	0955	120	.01	.01	.00	18.	*	1	2225	270	.00	.00	.00	6.
1	1000	121	.01	.01	.00	18.	*	1	2230	271	.00	.00	.00	6.
1	1005	122	.01	.01	.00	18.	*	1	2235	272	.00	.00	.00	6.
1	1010	123	.01	.01	.00	19.	*	1	2240	273	.00	.00	.00	6.
1	1015	124	.01	.01	.00	19.	*	1	2245	274	.00	.00	.00	6.
1	1020	125	.01	.01	.00	19.	*	1	2250	275	.00	.00	.00	6.
1	1025	126	.01	.01	.00	20.	*	1	2255	276	.00	.00	.00	6.
1	1030	127	.01	.01	.00	20.	*	1	2300	277	.00	.00	.00	6.
1	1035	128	.02	.01	.00	21.	*	1	2305	278	.00	.00	.00	6.
1	1040	129	.02	.01	.00	22.	*	1	2310	279	.00	.00	.00	6.
1	1045	130	.02	.01	.00	23.	*	1	2315	280	.00	.00	.00	6.
1	1050	131	.02	.02	.00	25.	*	1	2320	281	.00	.00	.00	6.
1	1055	132	.02	.02	.00	26.	*	1	2325	282	.00	.00	.00	6.
1	1100	133	.02	.02	.00	28.	*	1	2330	283	.00	.00	.00	6.
1	1105	134	.03	.02	.01	30.	*	1	2335	284	.00	.00	.00	6.
1	1110	135	.03	.02	.01	32.	*	1	2340	285	.00	.00	.00	6.
1	1115	136	.03	.02	.01	34.	*	1	2345	286	.00	.00	.00	6.
1	1120	137	.03	.03	.01	36.	*	1	2350	287	.00	.00	.00	6.
1	1125	138	.03	.03	.01	38.	*	1	2355	288	.00	.00	.00	6.
1	1130	139	.03	.03	.01	40.	*	2	0000	289	.00	.00	.00	6.
1	1135	140	.13	.04	.08	52.	*	2	0005	290	.00	.00	.00	6.
1	1140	141	.13	.04	.09	73.	*	2	0010	291	.00	.00	.00	6.
1	1145	142	.13	.04	.09	116.	*	2	0015	292	.00	.00	.00	5.
1	1150	143	.34	.04	.30	195.	*	2	0020	293	.00	.00	.00	5.
1	1155	144	.34	.04	.30	314.	*	2	0025	294	.00	.00	.00	4.
1	1200	145	.34	.04	.30	515.	*	2	0030	295	.00	.00	.00	3.
1	1205	146	.05	.04	.02	736.	*	2	0035	296	.00	.00	.00	2.
1	1210	147	.05	.03	.02	930.	*	2	0040	297	.00	.00	.00	2.
1	1215	148	.05	.03	.02	1100.	*	2	0045	298	.00	.00	.00	1.
1	1220	149	.03	.03	.01	1267.	*	2	0050	299	.00	.00	.00	1.
1	1225	150	.03	.03	.01	1301.	*	2	0055	300	.00	.00	.00	0.

****

TOTAL RAINFALL = 3.70, TOTAL LOSS = 2.05, TOTAL EXCESS = 1.65

PEAK FLOW TIME MAXIMUM AVERAGE FLOW

+ (CFS)	(HR)		6-HR	24-HR	72-HR	24.92-HR
		(CFS)				
+ 1301.	12.42		174.	50.	48.	48.
		(INCHES)	1.435	1.648	1.649	1.649
		(AC-FT)	86.	99.	99.	99.

CUMULATIVE AREA = 1.13 SQ MI

INTERPOLATED HYDROGRAPH AT 16

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	10.	1		1230	151	1308.	1		1845	226	9.
1		0005	2	0.	1		0620	77	10.	1		1235	152	1039.	1		1850	227	9.
1		0010	3	0.	1		0625	78	10.	1		1240	153	831.	1		1855	228	9.
1		0015	4	0.	1		0630	79	10.	1		1245	154	624.	1		1900	229	9.
1		0020	5	1.	1		0635	80	11.	1		1250	155	446.	1		1905	230	9.
1		0025	6	1.	1		0640	81	11.	1		1255	156	308.	1		1910	231	9.
1		0030	7	2.	1		0645	82	11.	1		1300	157	235.	1		1915	232	9.
1		0035	8	3.	1		0650	83	11.	1		1305	158	172.	1		1920	233	9.
1		0040	9	4.	1		0655	84	11.	1		1310	159	127.	1		1925	234	9.
1		0045	10	4.	1		0700	85	11.	1		1315	160	96.	1		1930	235	9.
1		0050	11	5.	1		0705	86	12.	1		1320	161	87.	1		1935	236	9.
1		0055	12	6.	1		0710	87	12.	1		1325	162	70.	1		1940	237	9.
1		0100	13	6.	1		0715	88	12.	1		1330	163	55.	1		1945	238	9.
1		0105	14	6.	1		0720	89	12.	1		1335	164	41.	1		1950	239	9.
1		0110	15	7.	1		0725	90	12.	1		1340	165	38.	1		1955	240	9.
1		0115	16	7.	1		0730	91	12.	1		1345	166	36.	1		2000	241	9.
1		0120	17	7.	1		0735	92	12.	1		1350	167	33.	1		2005	242	9.
1		0125	18	7.	1		0740	93	12.	1		1355	168	31.	1		2010	243	9.
1		0130	19	7.	1		0745	94	12.	1		1400	169	30.	1		2015	244	8.
1		0135	20	7.	1		0750	95	12.	1		1405	170	28.	1		2020	245	8.
1		0140	21	7.	1		0755	96	12.	1		1410	171	27.	1		2025	246	8.
1		0145	22	7.	1		0800	97	12.	1		1415	172	26.	1		2030	247	7.
1		0150	23	7.	1		0805	98	12.	1		1420	173	25.	1		2035	248	7.
1		0155	24	7.	1		0810	99	12.	1		1425	174	24.	1		2040	249	7.
1		0200	25	7.	1		0815	100	12.	1		1430	175	23.	1		2045	250	7.
1		0205	26	7.	1		0820	101	12.	1		1435	176	22.	1		2050	251	7.
1		0210	27	7.	1		0825	102	12.	1		1440	177	21.	1		2055	252	7.
1		0215	28	7.	1		0830	103	13.	1		1445	178	21.	1		2100	253	7.
1		0220	29	7.	1		0835	104	13.	1		1450	179	20.	1		2105	254	7.
1		0225	30	7.	1		0840	105	14.	1		1455	180	19.	1		2110	255	7.
1		0230	31	7.	1		0845	106	14.	1		1500	181	18.	1		2115	256	7.
1		0235	32	7.	1		0850	107	15.	1		1505	182	18.	1		2120	257	7.
1		0240	33	7.	1		0855	108	15.	1		1510	183	17.	1		2125	258	7.
1		0245	34	7.	1		0900	109	16.	1		1515	184	17.	1		2130	259	7.
1		0250	35	7.	1		0905	110	16.	1		1520	185	17.	1		2135	260	7.
1		0255	36	7.	1		0910	111	16.	1		1525	186	16.	1		2140	261	7.
1		0300	37	7.	1		0915	112	16.	1		1530	187	16.	1		2145	262	7.
1		0305	38	7.	1		0920	113	17.	1		1535	188	16.	1		2150	263	7.
1		0310	39	7.	1		0925	114	17.	1		1540	189	16.	1		2155	264	7.
1		0315	40	7.	1		0930	115	17.	1		1545	190	15.	1		2200	265	7.
1		0320	41	7.	1		0935	116	18.	1		1550	191	15.	1		2205	266	7.
1		0325	42	7.	1		0940	117	18.	1		1555	192	15.	1		2210	267	7.
1		0330	43	7.	1		0945	118	18.	1		1600	193	14.	1		2215	268	7.
1		0335	44	7.	1		0950	119	19.	1		1605	194	14.	1		2220	269	7.
1		0340	45	7.	1		0955	120	19.	1		1610	195	14.	1		2225	270	7.
1		0345	46	7.	1		1000	121	19.	1		1615	196	14.	1		2230	271	7.
1		0350	47	7.	1		1005	122	20.	1		1620	197	14.	1		2235	272	7.
1		0355	48	7.	1		1010	123	20.	1		1625	198	14.	1		2240	273	7.
1		0400	49	7.	1		1015	124	21.	1		1630	199	14.	1		2245	274	7.
1		0405	50	7.	1		1020	125	21.	1		1635	200	14.	1		2250	275	7.
1		0410	51	8.	1		1025	126	21.	1		1640	201	14.	1		2255	276	7.
1		0415	52	8.	1		1030	127	22.	1		1645	202	14.	1		2300	277	7.
1		0420	53	8.	1		1035	128	23.	1		1650	203	14.	1		2305	278	7.
1		0425	54	9.	1		1040	129	24.	1		1655	204	13.	1		2310	279	7.
1		0430	55	9.	1		1045	130	25.	1		1700	205	13.	1		2315	280	7.
1		0435	56	9.	1		1050	131	27.	1		1705	206	13.	1		2320	281	7.
1		0440	57	9.	1		1055	132	28.	1		1710	207	12.	1		2325	282	7.
1		0445	58	9.	1		1100	133	30.	1		1715	208	12.	1		2330	283	7.
1		0450	59	9.	1		1105	134	32.	1		1720	209	12.	1		2335	284	7.
1		0455	60	9.	1		1110	135	34.	1		1725	210	12.	1		2340	285	7.
1		0500	61	9.	1		1115	136	36.	1		1730	211	12.	1		2345	286	7.
1		0505	62	9.	1		1120	137	39.	1		1735	212	12.	1		2350	287	7.
1		0510	63	9.	1		1125	138	41.	1		1740	213	12.	1		2355	288	7.
1		0515	64	9.	1		1130	139	44.	1		1745	214	12.	2		0000	289	7.
1		0520	65	9.	1		1135	140	57.	1		1750	215	12.	2		0005	290	6.
1		0525	66	9.	1		1140	141	81.	1		1755	216	12.	2		0010	291	6.
1		0530	67	9.	1		1145	142	130.	1		1800	217	11.	2		0015	292	6.
1		0535	68	9.	1		1150	143	220.	1		1805	218	11.	2		0020	293	5.
1		0540	69	9.	1		1155	144	353.	1		1810	219	11.	2		0025	294	4.
1		0545	70	9.	1		1200	145	576.	1		1815	220	11.	2		0030	295	3.
1		0550	71	9.	1		1205	146	822.	1		1820	221	10.	2		0035	296	2.
1		0555	72	9.	1		1210	147	1037.	1		1825	222	10.	2		0040	297	2.
1		0600	73	9.	1		1215	148	1223.	1		1830	223	10.	2		0045	298	1.
1		0605	74	9.	1		1220	149	1406.	1		1835	224	10.	2		0050	299	1.
1		0610	75	9.	1		1225	150	1442.	1		1840	225	10.	2		0055	300	1.

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)	(CFS)				
+ 1442.	12.42		194.	55.	53.	53.
		(INCHES)	1.594	1.824	1.826	1.826
		(AC-FT)	96.	110.	110.	110.

CUMULATIVE AREA = 1.13 SQ MI

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295 KK          **************
                *            *
                *     CP15   *
                *            *
                **************

296 KO          OUTPUT CONTROL VARIABLES
                      IPRNT          1  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE
                           ADD HYDROGRAPHS AT CP15.

298 HC          HYDROGRAPH COMBINATION
                      ICOMP          2  NUMBER OF HYDROGRAPHS TO COMBINE
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HYDROGRAPH AT CP15
TRANSPOSITION AREA .0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	29.	1		1230	151	4800.	1		1845	226	31.
1		0005	2	0.	1		0620	77	29.	1		1235	152	4175.	1		1850	227	30.
1		0010	3	0.	1		0625	78	30.	1		1240	153	3503.	1		1855	228	30.
1		0015	4	1.	1		0630	79	30.	1		1245	154	2757.	1		1900	229	30.
1		0020	5	2.	1		0635	80	31.	1		1250	155	2102.	1		1905	230	29.
1		0025	6	3.	1		0640	81	32.	1		1255	156	1564.	1		1910	231	29.
1		0030	7	4.	1		0645	82	32.	1		1300	157	1198.	1		1915	232	29.
1		0035	8	6.	1		0650	83	33.	1		1305	158	916.	1		1920	233	29.
1		0040	9	8.	1		0655	84	34.	1		1310	159	695.	1		1925	234	29.
1		0045	10	10.	1		0700	85	34.	1		1315	160	538.	1		1930	235	29.
1		0050	11	11.	1		0705	86	34.	1		1320	161	453.	1		1935	236	29.
1		0055	12	13.	1		0710	87	35.	1		1325	162	371.	1		1940	237	29.
1		0100	13	14.	1		0715	88	35.	1		1330	163	295.	1		1945	238	29.
1		0105	14	16.	1		0720	89	35.	1		1335	164	226.	1		1950	239	29.
1		0110	15	17.	1		0725	90	35.	1		1340	165	190.	1		1955	240	28.
1		0115	16	18.	1		0730	91	35.	1		1345	166	162.	1		2000	241	28.
1		0120	17	18.	1		0735	92	35.	1		1350	167	143.	1		2005	242	28.
1		0125	18	19.	1		0740	93	36.	1		1355	168	133.	1		2010	243	27.
1		0130	19	20.	1		0745	94	36.	1		1400	169	125.	1		2015	244	27.
1		0135	20	20.	1		0750	95	36.	1		1405	170	116.	1		2020	245	26.
1		0140	21	20.	1		0755	96	36.	1		1410	171	108.	1		2025	246	25.
1		0145	22	21.	1		0800	97	36.	1		1415	172	101.	1		2030	247	25.
1		0150	23	21.	1		0805	98	36.	1		1420	173	95.	1		2035	248	24.
1		0155	24	21.	1		0810	99	36.	1		1425	174	89.	1		2040	249	24.
1		0200	25	21.	1		0815	100	36.	1		1430	175	84.	1		2045	250	23.
1		0205	26	21.	1		0820	101	37.	1		1435	176	80.	1		2050	251	23.
1		0210	27	21.	1		0825	102	37.	1		1440	177	76.	1		2055	252	23.
1		0215	28	21.	1		0830	103	38.	1		1445	178	72.	1		2100	253	22.
1		0220	29	21.	1		0835	104	39.	1		1450	179	69.	1		2105	254	22.
1		0225	30	21.	1		0840	105	40.	1		1455	180	66.	1		2110	255	22.
1		0230	31	21.	1		0845	106	42.	1		1500	181	63.	1		2115	256	22.
1		0235	32	21.	1		0850	107	43.	1		1505	182	61.	1		2120	257	22.
1		0240	33	21.	1		0855	108	44.	1		1510	183	59.	1		2125	258	22.
1		0245	34	21.	1		0900	109	45.	1		1515	184	57.	1		2130	259	22.
1		0250	35	21.	1		0905	110	46.	1		1520	185	56.	1		2135	260	22.
1		0255	36	21.	1		0910	111	47.	1		1525	186	55.	1		2140	261	22.
1		0300	37	21.	1		0915	112	48.	1		1530	187	53.	1		2145	262	22.
1		0305	38	21.	1		0920	113	49.	1		1535	188	52.	1		2150	263	22.
1		0310	39	21.	1		0925	114	50.	1		1540	189	51.	1		2155	264	21.
1		0315	40	21.	1		0930	115	51.	1		1545	190	50.	1		2200	265	21.
1		0320	41	21.	1		0935	116	52.	1		1550	191	49.	1		2205	266	21.
1		0325	42	21.	1		0940	117	53.	1		1555	192	48.	1		2210	267	21.
1		0330	43	21.	1		0945	118	54.	1		1600	193	47.	1		2215	268	21.
1		0335	44	21.	1		0950	119	55.	1		1605	194	46.	1		2220	269	21.
1		0340	45	21.	1		0955	120	56.	1		1610	195	46.	1		2225	270	21.
1		0345	46	21.	1		1000	121	57.	1		1615	196	45.	1		2230	271	21.
1		0350	47	22.	1		1005	122	58.	1		1620	197	45.	1		2235	272	21.
1		0355	48	22.	1		1010	123	59.	1		1625	198	44.	1		2240	273	21.
1		0400	49	22.	1		1015	124	61.	1		1630	199	44.	1		2245	274	21.
1		0405	50	22.	1		1020	125	62.	1		1635	200	44.	1		2250	275	21.
1		0410	51	23.	1		1025	126	63.	1		1640	201	43.	1		2255	276	21.
1		0415	52	23.	1		1030	127	65.	1		1645	202	43.	1		2300	277	21.
1		0420	53	24.	1		1035	128	67.	1		1650	203	42.	1		2305	278	21.
1		0425	54	25.	1		1040	129	69.	1		1655	204	42.	1		2310	279	21.
1		0430	55	25.	1		1045	130	72.	1		1700	205	41.	1		2315	280	21.
1		0435	56	26.	1		1050	131	76.	1		1705	206	40.	1		2320	281	21.
1		0440	57	26.	1		1055	132	79.	1		1710	207	40.	1		2325	282	21.
1		0445	58	27.	1		1100	133	84.	1		1715	208	39.	1		2330	283	21.
1		0450	59	27.	1		1105	134	89.	1		1720	209	39.	1		2335	284	21.
1		0455	60	27.	1		1110	135	94.	1		1725	210	38.	1		2340	285	21.
1		0500	61	28.	1		1115	136	99.	1		1730	211	38.	1		2345	286	21.
1		0505	62	28.	1		1120	137	106.	1		1735	212	37.	1		2350	287	21.
1		0510	63	28.	1		1125	138	112.	1		1740	213	37.	1		2355	288	21.
1		0515	64	28.	1		1130	139	119.	1		1745	214	37.	2		0000	289	21.
1		0520	65	28.	1		1135	140	149.	1		1750	215	36.	2		0005	290	21.
1		0525	66	28.	1		1140	141	206.	1		1755	216	36.	2		0010	291	20.
1		0530	67	28.	1		1145	142	319.	1		1800	217	36.	2		0015	292	19.
1		0535	68	29.	1		1150	143	527.	1		1805	218	35.	2		0020	293	17.
1		0540	69	29.	1		1155	144	858.	1		1810	219	35.	2		0025	294	16.
1		0545	70	29.	1		1200	145	1448.	1		1815	220	34.	2		0030	295	14.
1		0550	71	29.	1		1205	146	2173.	1		1820	221	33.	2		0035	296	12.
1		0555	72	29.	1		1210	147	2959.	1		1825	222	33.	2		0040	297	10.
1		0600	73	29.	1		1215	148	3786.	1		1830	223	32.	2		0045	298	8.
1		0605	74	29.	1		1220	149	4575.	1		1835	224	31.	2		0050	299	7.
1		0610	75	29.	1		1225	150	4963.	1		1840	225	31.	2		0055	300	6.

PEAK FLOW (CFS)	TIME (HR)	MAXIMUM AVERAGE FLOW	6-HR	24-HR	72-HR	24.92-HR
+ 4963.	12.42	(CFS)	687.	193.	186.	186.
		(INCHES)	1.654	1.861	1.863	1.863
		(AC-FT)	340.	383.	383.	383.

CUMULATIVE AREA = 3.86 SQ MI

HYDROGRAPH AT CP15
TRANSPOSITION AREA 10.0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	29.	1		1230	151	4740.	1		1845	226	30.
1		0005	2	0.	1		0620	77	29.	1		1235	152	4121.	1		1850	227	30.
1		0010	3	0.	1		0625	78	30.	1		1240	153	3456.	1		1855	228	30.
1		0015	4	1.	1		0630	79	30.	1		1245	154	2720.	1		1900	229	29.
1		0020	5	2.	1		0635	80	31.	1		1250	155	2075.	1		1905	230	29.
1		0025	6	3.	1		0640	81	32.	1		1255	156	1542.	1		1910	231	29.
1		0030	7	4.	1		0645	82	32.	1		1300	157	1182.	1		1915	232	29.
1		0035	8	6.	1		0650	83	33.	1		1305	158	903.	1		1920	233	29.
1		0040	9	8.	1		0655	84	33.	1		1310	159	685.	1		1925	234	29.
1		0045	10	9.	1		0700	85	34.	1		1315	160	530.	1		1930	235	29.
1		0050	11	11.	1		0705	86	34.	1		1320	161	447.	1		1935	236	28.
1		0055	12	13.	1		0710	87	34.	1		1325	162	366.	1		1940	237	28.
1		0100	13	14.	1		0715	88	34.	1		1330	163	290.	1		1945	238	28.
1		0105	14	15.	1		0720	89	35.	1		1335	164	222.	1		1950	239	28.
1		0110	15	17.	1		0725	90	35.	1		1340	165	187.	1		1955	240	28.
1		0115	16	17.	1		0730	91	35.	1		1345	166	160.	1		2000	241	28.
1		0120	17	18.	1		0735	92	35.	1		1350	167	142.	1		2005	242	28.
1		0125	18	19.	1		0740	93	35.	1		1355	168	132.	1		2010	243	27.
1		0130	19	19.	1		0745	94	35.	1		1400	169	123.	1		2015	244	27.
1		0135	20	20.	1		0750	95	35.	1		1405	170	115.	1		2020	245	26.

1	0140	21	20.	*	1	0755	96	35.	*	1	1410	171	107.	*	1	2025	246	25.
1	0145	22	21.	*	1	0800	97	35.	*	1	1415	172	100.	*	1	2030	247	25.
1	0150	23	21.	*	1	0805	98	35.	*	1	1420	173	94.	*	1	2035	248	24.
1	0155	24	21.	*	1	0810	99	36.	*	1	1425	174	88.	*	1	2040	249	24.
1	0200	25	21.	*	1	0815	100	36.	*	1	1430	175	83.	*	1	2045	250	23.
1	0205	26	21.	*	1	0820	101	36.	*	1	1435	176	79.	*	1	2050	251	23.
1	0210	27	21.	*	1	0825	102	37.	*	1	1440	177	75.	*	1	2055	252	22.
1	0215	28	21.	*	1	0830	103	38.	*	1	1445	178	71.	*	1	2100	253	22.
1	0220	29	21.	*	1	0835	104	39.	*	1	1450	179	68.	*	1	2105	254	22.
1	0225	30	21.	*	1	0840	105	40.	*	1	1455	180	65.	*	1	2110	255	22.
1	0230	31	21.	*	1	0845	106	41.	*	1	1500	181	63.	*	1	2115	256	22.
1	0235	32	21.	*	1	0850	107	42.	*	1	1505	182	60.	*	1	2120	257	22.
1	0240	33	21.	*	1	0855	108	44.	*	1	1510	183	58.	*	1	2125	258	21.
1	0245	34	21.	*	1	0900	109	44.	*	1	1515	184	57.	*	1	2130	259	21.
1	0250	35	21.	*	1	0905	110	45.	*	1	1520	185	55.	*	1	2135	260	21.
1	0255	36	21.	*	1	0910	111	46.	*	1	1525	186	54.	*	1	2140	261	21.
1	0300	37	21.	*	1	0915	112	47.	*	1	1530	187	53.	*	1	2145	262	21.
1	0305	38	21.	*	1	0920	113	48.	*	1	1535	188	52.	*	1	2150	263	21.
1	0310	39	21.	*	1	0925	114	49.	*	1	1540	189	51.	*	1	2155	264	21.
1	0315	40	21.	*	1	0930	115	50.	*	1	1545	190	49.	*	1	2200	265	21.
1	0320	41	21.	*	1	0935	116	51.	*	1	1550	191	48.	*	1	2205	266	21.
1	0325	42	21.	*	1	0940	117	52.	*	1	1555	192	47.	*	1	2210	267	21.
1	0330	43	21.	*	1	0945	118	53.	*	1	1600	193	46.	*	1	2215	268	21.
1	0335	44	21.	*	1	0950	119	54.	*	1	1605	194	46.	*	1	2220	269	21.
1	0340	45	21.	*	1	0955	120	55.	*	1	1610	195	45.	*	1	2225	270	21.
1	0345	46	21.	*	1	1000	121	56.	*	1	1615	196	45.	*	1	2230	271	21.
1	0350	47	21.	*	1	1005	122	58.	*	1	1620	197	44.	*	1	2235	272	21.
1	0355	48	21.	*	1	1010	123	59.	*	1	1625	198	44.	*	1	2240	273	21.
1	0400	49	22.	*	1	1015	124	60.	*	1	1630	199	44.	*	1	2245	274	21.
1	0405	50	22.	*	1	1020	125	61.	*	1	1635	200	43.	*	1	2250	275	21.
1	0410	51	22.	*	1	1025	126	62.	*	1	1640	201	43.	*	1	2255	276	21.
1	0415	52	23.	*	1	1030	127	64.	*	1	1645	202	43.	*	1	2300	277	21.
1	0420	53	24.	*	1	1035	128	66.	*	1	1650	203	42.	*	1	2305	278	21.
1	0425	54	25.	*	1	1040	129	69.	*	1	1655	204	42.	*	1	2310	279	21.
1	0430	55	25.	*	1	1045	130	71.	*	1	1700	205	41.	*	1	2315	280	21.
1	0435	56	26.	*	1	1050	131	75.	*	1	1705	206	40.	*	1	2320	281	21.
1	0440	57	26.	*	1	1055	132	79.	*	1	1710	207	39.	*	1	2325	282	21.
1	0445	58	26.	*	1	1100	133	83.	*	1	1715	208	39.	*	1	2330	283	21.
1	0450	59	27.	*	1	1105	134	88.	*	1	1720	209	38.	*	1	2335	284	21.
1	0455	60	27.	*	1	1110	135	93.	*	1	1725	210	38.	*	1	2340	285	21.
1	0500	61	27.	*	1	1115	136	98.	*	1	1730	211	37.	*	1	2345	286	21.
1	0505	62	28.	*	1	1120	137	105.	*	1	1735	212	37.	*	1	2350	287	21.
1	0510	63	28.	*	1	1125	138	111.	*	1	1740	213	37.	*	1	2355	288	21.
1	0515	64	28.	*	1	1130	139	117.	*	1	1745	214	36.	*	2	0000	289	21.
1	0520	65	28.	*	1	1135	140	148.	*	1	1750	215	36.	*	2	0005	290	20.
1	0525	66	28.	*	1	1140	141	204.	*	1	1755	216	36.	*	2	0010	291	20.
1	0530	67	28.	*	1	1145	142	314.	*	1	1800	217	35.	*	2	0015	292	19.
1	0535	68	28.	*	1	1150	143	519.	*	1	1805	218	35.	*	2	0020	293	17.
1	0540	69	28.	*	1	1155	144	843.	*	1	1810	219	34.	*	2	0025	294	16.
1	0545	70	28.	*	1	1200	145	1425.	*	1	1815	220	34.	*	2	0030	295	14.
1	0550	71	28.	*	1	1205	146	2139.	*	1	1820	221	33.	*	2	0035	296	12.
1	0555	72	28.	*	1	1210	147	2915.	*	1	1825	222	32.	*	2	0040	297	10.
1	0600	73	28.	*	1	1215	148	3731.	*	1	1830	223	32.	*	2	0045	298	8.
1	0605	74	28.	*	1	1220	149	4513.	*	1	1835	224	31.	*	2	0050	299	7.
1	0610	75	29.	*	1	1225	150	4900.	*	1	1840	225	31.	*	2	0055	300	6.

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
4900.	12.42	(CFS)	677.	191.	184.	184.
		(INCHES)	1.631	1.837	1.838	1.838
		(AC-FT)	336.	378.	378.	378.

CUMULATIVE AREA = 3.86 SQ MI

HYDROGRAPH AT CP15
TRANSPOSITION AREA 50.0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	28.	1		1230	151	4496.	1		1845	226	29.
1		0005	2	0.	1		0620	77	28.	1		1235	152	3906.	1		1850	227	29.
1		0010	3	0.	1		0625	78	28.	1		1240	153	3272.	1		1855	228	28.
1		0015	4	1.	1		0630	79	29.	1		1245	154	2575.	1		1900	229	28.
1		0020	5	2.	1		0635	80	30.	1		1250	155	1967.	1		1905	230	28.
1		0025	6	3.	1		0640	81	30.	1		1255	156	1454.	1		1910	231	28.
1		0030	7	4.	1		0645	82	31.	1		1300	157	1116.	1		1915	232	28.
1		0035	8	6.	1		0650	83	31.	1		1305	158	850.	1		1920	233	28.
1		0040	9	7.	1		0655	84	32.	1		1310	159	641.	1		1925	234	27.
1		0045	10	9.	1		0700	85	32.	1		1315	160	497.	1		1930	235	27.
1		0050	11	11.	1		0705	86	33.	1		1320	161	423.	1		1935	236	27.
1		0055	12	12.	1		0710	87	33.	1		1325	162	344.	1		1940	237	27.
1		0100	13	14.	1		0715	88	33.	1		1330	163	271.	1		1945	238	27.
1		0105	14	15.	1		0720	89	33.	1		1335	164	207.	1		1950	239	27.
1		0110	15	16.	1		0725	90	33.	1		1340	165	175.	1		1955	240	27.
1		0115	16	17.	1		0730	91	34.	1		1345	166	152.	1		2000	241	27.
1		0120	17	18.	1		0735	92	34.	1		1350	167	136.	1		2005	242	26.
1		0125	18	18.	1		0740	93	34.	1		1355	168	127.	1		2010	243	26.
1		0130	19	19.	1		0745	94	34.	1		1400	169	119.	1		2015	244	25.
1		0135	20	19.	1		0750	95	34.	1		1405	170	110.	1		2020	245	25.
1		0140	21	19.	1		0755	96	34.	1		1410	171	103.	1		2025	246	24.
1		0145	22	20.	1		0800	97	34.	1		1415	172	96.	1		2030	247	24.
1		0150	23	20.	1		0805	98	34.	1		1420	173	90.	1		2035	248	23.
1		0155	24	20.	1		0810	99	34.	1		1425	174	84.	1		2040	249	23.
1		0200	25	20.	1		0815	100	34.	1		1430	175	80.	1		2045	250	22.
1		0205	26	20.	1		0820	101	35.	1		1435	176	75.	1		2050	251	22.
1		0210	27	20.	1		0825	102	35.	1		1440	177	72.	1		2055	252	22.
1		0215	28	20.	1		0830	103	36.	1		1445	178	68.	1		2100	253	21.
1		0220	29	20.	1		0835	104	37.	1		1450	179	65.	1		2105	254	21.
1		0225	30	20.	1		0840	105	38.	1		1455	180	63.	1		2110	255	21.
1		0230	31	20.	1		0845	106	39.	1		1500	181	60.	1		2115	256	21.
1		0235	32	20.	1		0850	107	41.	1		1505	182	58.	1		2120	257	21.
1		0240	33	20.	1		0855	108	42.	1		1510	183	56.	1		2125	258	21.
1		0245	34	20.	1		0900	109	43.	1		1515	184	54.	1		2130	259	21.
1		0250	35	20.	1		0905	110	44.	1		1520	185	53.	1		2135	260	21.
1		0255	36	20.	1		0910	111	44.	1		1525	186	52.	1		2140	261	20.
1		0300	37	20.	1		0915	112	45.	1		1530	187	51.	1		2145	262	20.
1		0305	38	20.	1		0920	113	46.	1		1535	188	50.	1		2150	263	20.
1		0310	39	20.	1		0925	114	47.	1		1540	189	49.	1		2155	264	20.
1		0315	40	20.	1		0930	115	48.	1		1545	190	47.	1		2200	265	20.
1		0320	41	20.	1		0935	116	49.	1		1550	191	46.	1		2205	266	20.
1		0325	42	20.	1		0940	117	50.	1		1555	192	45.	1		2210	267	20.
1		0330	43	20.	1		0945	118	51.	1		1600	193	45.	1		2215	268	20.
1		0335	44	20.	1		0950	119	52.	1		1605	194	44.	1		2220	269	20.
1		0340	45	20.	1		0955	120	53.	1		1610	195	43.	1		2225	270	20.
1		0345	46	20.	1		1000	121	54.	1		1615	196	43.	1		2230	271	20.
1		0350	47	20.	1		1005	122	55.	1		1620	197	42.	1		2235	272	20.
1		0355	48	21.	1		1010	123	56.	1		1625	198	42.	1		2240	273	20.
1		0400	49	21.	1		1015	124	58.	1		1630	199	42.	1		2245	274	20.
1		0405	50	21.	1		1020	125	59.	1		1635	200	42.	1		2250	275	20.

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0410	51	22.	1		1025	126	60.	1		1640	201	41.	1		2255	276	20.
1		0415	52	22.	1		1030	127	62.	1		1645	202	41.	1		2300	277	20.
1		0420	53	23.	1		1035	128	64.	1		1650	203	40.	1		2305	278	20.
1		0425	54	24.	1		1040	129	66.	1		1655	204	40.	1		2310	279	20.
1		0430	55	24.	1		1045	130	69.	1		1700	205	39.	1		2315	280	20.
1		0435	56	25.	1		1050	131	72.	1		1705	206	38.	1		2320	281	20.
1		0440	57	25.	1		1055	132	75.	1		1710	207	38.	1		2325	282	20.
1		0445	58	25.	1		1100	133	80.	1		1715	208	37.	1		2330	283	20.
1		0450	59	26.	1		1105	134	85.	1		1720	209	37.	1		2335	284	20.
1		0455	60	26.	1		1110	135	89.	1		1725	210	36.	1		2340	285	20.
1		0500	61	26.	1		1115	136	95.	1		1730	211	36.	1		2345	286	20.
1		0505	62	26.	1		1120	137	100.	1		1735	212	35.	1		2350	287	20.
1		0510	63	27.	1		1125	138	106.	1		1740	213	35.	1		2355	288	20.
1		0515	64	27.	1		1130	139	113.	1		1745	214	35.	2		0000	289	20.
1		0520	65	27.	1		1135	140	141.	1		1750	215	35.	2		0005	290	20.
1		0525	66	27.	1		1140	141	193.	1		1755	216	34.	2		0010	291	19.
1		0530	67	27.	1		1145	142	296.	1		1800	217	34.	2		0015	292	18.
1		0535	68	27.	1		1150	143	487.	1		1805	218	34.	2		0020	293	16.
1		0540	69	27.	1		1155	144	788.	1		1810	219	33.	2		0025	294	15.
1		0545	70	27.	1		1200	145	1338.	1		1815	220	32.	2		0030	295	13.
1		0550	71	27.	1		1205	146	2006.	1		1820	221	32.	2		0035	296	11.
1		0555	72	27.	1		1210	147	2743.	1		1825	222	31.	2		0040	297	10.
1		0600	73	27.	1		1215	148	3515.	1		1830	223	30.	2		0045	298	8.
1		0605	74	27.	1		1220	149	4262.	1		1835	224	30.	2		0050	299	7.
1		0610	75	27.	1		1225	150	4643.	1		1840	225	29.	2		0055	300	5.

PEAK FLOW (CFS)	TIME (HR)	MAXIMUM AVERAGE FLOW	6-HR	24-HR	72-HR	24.92-HR
4643.	12.42	(CFS)	640.	181.	174.	174.
		(INCHES)	1.542	1.740	1.741	1.741
		(AC-FT)	318.	358.	358.	358.

CUMULATIVE AREA = 3.86 SQ MI

HYDROGRAPH AT CP15
TRANSPOSITION AREA 100.0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	27.	1		1230	151	4390..	1		1845	226	28.
1		0005	2	0.	1		0620	77	27.	1		1235	152	3812.	1		1850	227	28.
1		0010	3	0.	1		0625	78	28.	1		1240	153	3193.	1		1855	228	28.
1		0015	4	1.	1		0630	79	28.	1		1245	154	2514.	1		1900	229	28.
1		0020	5	2.	1		0635	80	29.	1		1250	155	1921.	1		1905	230	27.
1		0025	6	2.	1		0640	81	30.	1		1255	156	1417.	1		1910	231	27.
1		0030	7	4.	1		0645	82	30.	1		1300	157	1090.	1		1915	232	27.
1		0035	8	6.	1		0650	83	31.	1		1305	158	827.	1		1920	233	27.
1		0040	9	7.	1		0655	84	31.	1		1310	159	623.	1		1925	234	27.
1		0045	10	9.	1		0700	85	32.	1		1315	160	483.	1		1930	235	27.
1		0050	11	11.	1		0705	86	32.	1		1320	161	413.	1		1935	236	27.
1		0055	12	12.	1		0710	87	32.	1		1325	162	334.	1		1940	237	27.
1		0100	13	13.	1		0715	88	32.	1		1330	163	263.	1		1945	238	27.
1		0105	14	15.	1		0720	89	33.	1		1335	164	201.	1		1950	239	27.
1		0110	15	16.	1		0725	90	33.	1		1340	165	170.	1		1955	240	27.
1		0115	16	16.	1		0730	91	33.	1		1345	166	148.	1		2000	241	26.
1		0120	17	17.	1		0735	92	33.	1		1350	167	134.	1		2005	242	26.
1		0125	18	18.	1		0740	93	33.	1		1355	168	125.	1		2010	243	26.
1		0130	19	18.	1		0745	94	33.	1		1400	169	116.	1		2015	244	25.
1		0135	20	19.	1		0750	95	33.	1		1405	170	108.	1		2020	245	24.
1		0140	21	19.	1		0755	96	33.	1		1410	171	100.	1		2025	246	24.
1		0145	22	19.	1		0800	97	33.	1		1415	172	94.	1		2030	247	23.
1		0150	23	20.	1		0805	98	33.	1		1420	173	88.	1		2035	248	23.
1		0155	24	20.	1		0810	99	34.	1		1425	174	83.	1		2040	249	22.
1		0200	25	20.	1		0815	100	34.	1		1430	175	78.	1		2045	250	22.
1		0205	26	20.	1		0820	101	34.	1		1435	176	74.	1		2050	251	21.
1		0210	27	20.	1		0825	102	35.	1		1440	177	70.	1		2055	252	21.
1		0215	28	20.	1		0830	103	36.	1		1445	178	67.	1		2100	253	21.
1		0220	29	20.	1		0835	104	37.	1		1450	179	64.	1		2105	254	21.
1		0225	30	20.	1		0840	105	38.	1		1455	180	61.	1		2110	255	21.
1		0230	31	20.	1		0845	106	39.	1		1500	181	59.	1		2115	256	20.
1		0235	32	20.	1		0850	107	40.	1		1505	182	57.	1		2120	257	20.
1		0240	33	20.	1		0855	108	41.	1		1510	183	55.	1		2125	258	20.
1		0245	34	20.	1		0900	109	42.	1		1515	184	53.	1		2130	259	20.
1		0250	35	20.	1		0905	110	43.	1		1520	185	52.	1		2135	260	20.
1		0255	36	20.	1		0910	111	44.	1		1525	186	51.	1		2140	261	20.
1		0300	37	20.	1		0915	112	44.	1		1530	187	50.	1		2145	262	20.
1		0305	38	20.	1		0920	113	45.	1		1535	188	49.	1		2150	263	20.
1		0310	39	20.	1		0925	114	46.	1		1540	189	48.	1		2155	264	20.
1		0315	40	20.	1		0930	115	47.	1		1545	190	47.	1		2200	265	20.
1		0320	41	20.	1		0935	116	48.	1		1550	191	45.	1		2205	266	20.
1		0325	42	20.	1		0940	117	49.	1		1555	192	45.	1		2210	267	20.
1		0330	43	20.	1		0945	118	50.	1		1600	193	44.	1		2215	268	20.
1		0335	44	20.	1		0950	119	51.	1		1605	194	43.	1		2220	269	20.
1		0340	45	20.	1		0955	120	52.	1		1610	195	43.	1		2225	270	20.
1		0345	46	20.	1		1000	121	53.	1		1615	196	42.	1		2230	271	20.
1		0350	47	20.	1		1005	122	54.	1		1620	197	42.	1		2235	272	20.
1		0355	48	20.	1		1010	123	55.	1		1625	198	41.	1		2240	273	20.
1		0400	49	20.	1		1015	124	56.	1		1630	199	41.	1		2245	274	20.
1		0405	50	21.	1		1020	125	58.	1		1635	200	41.	1		2250	275	20.
1		0410	51	21.	1		1025	126	59.	1		1640	201	40.	1		2255	276	20.
1		0415	52	22.	1		1030	127	60.	1		1645	202	40.	1		2300	277	20.
1		0420	53	22.	1		1035	128	62.	1		1650	203	40.	1		2305	278	20.
1		0425	54	23.	1		1040	129	65.	1		1655	204	39.	1		2310	279	20.
1		0430	55	24.	1		1045	130	67.	1		1700	205	38.	1		2315	280	20.
1		0435	56	24.	1		1050	131	71.	1		1705	206	38.	1		2320	281	20.
1		0440	57	25.	1		1055	132	74.	1		1710	207	37.	1		2325	282	20.
1		0445	58	25.	1		1100	133	78.	1		1715	208	37.	1		2330	283	20.
1		0450	59	25.	1		1105	134	83.	1		1720	209	36.	1		2335	284	20.
1		0455	60	26.	1		1110	135	88.	1		1725	210	36.	1		2340	285	20.
1		0500	61	26.	1		1115	136	93.	1		1730	211	35.	1		2345	286	20.
1		0505	62	26.	1		1120	137	99.	1		1735	212	35.	1		2350	287	20.
1		0510	63	26.	1		1125	138	104.	1		1740	213	35.	1		2355	288	20.
1		0515	64	26.	1		1130	139	111.	1		1745	214	34.	2		0000	289	20.
1		0520	65	26.	1		1135	140	138.	1		1750	215	34.	2		0005	290	19.
1		0525	66	27.	1		1140	141	189.	1		1755	216	34.	2		0010	291	19.
1		0530	67	27.	1		1145	142	288.	1		1800	217	33.	2		0015	292	17.
1		0535	68	27.	1		1150	143	474.	1		1805	218	33.	2		0020	293	16.
1		0540	69	27.	1		1155	144	766.	1		1810	219	32.	2		0025	294	15.
1		0545	70	27.	1		1200	145	1301.	1		1815	220	32.	2		0030	295	13.
1		0550	71	27.	1		1205	146	1950.	1		1820	221	31.	2		0035	296	11.
1		0555	72	27.	1		1210	147	2670.	1		1825	222	30.	2		0040	297	9.
1		0600	73	27.	1		1215	148	3422.	1		1830	223	30.	2		0045	298	8.
1		0605	74	27.	1		1220	149	4153.	1		1835	224	29.	2		0050	299	7.
1		0610	75	27.	1		1225	150	4531.	1		1840	225	29.	2		0055	300	5.

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW	6-HR	24-HR	72-HR	24.92-HR

+ (CFS)	(HR)					
		(CFS)				
+ 4531.	12.42		625.	176.	170.	170.
		(INCHES)	1.504	1.698	1.699	1.699
		(AC-FT)	310.	350.	350.	350.

CUMULATIVE AREA = 3.86 SQ MI

HYDROGRAPH AT CP15
TRANSPOSITION AREA 200.0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	27.	1		1230	151	4299.	1		1845	226	28.
1		0005	2	0.	1		0620	77	27.	1		1235	152	3732.	1		1850	227	28.
1		0010	3	0.	1		0625	78	27.	1		1240	153	3125.	1		1855	228	27.
1		0015	4	1.	1		0630	79	28.	1		1245	154	2463.	1		1900	229	27.
1		0020	5	1.	1		0635	80	29.	1		1250	155	1880.	1		1905	230	27.
1		0025	6	2.	1		0640	81	29.	1		1255	156	1386.	1		1910	231	27.
1		0030	7	4.	1		0645	82	30.	1		1300	157	1067.	1		1915	232	27.
1		0035	8	6.	1		0650	83	30.	1		1305	158	808.	1		1920	233	27.
1		0040	9	7.	1		0655	84	31.	1		1310	159	608.	1		1925	234	26.
1		0045	10	9.	1		0700	85	31.	1		1315	160	472.	1		1930	235	26.
1		0050	11	10.	1		0705	86	31.	1		1320	161	404.	1		1935	236	26.
1		0055	12	12.	1		0710	87	32.	1		1325	162	326.	1		1940	237	26.
1		0100	13	13.	1		0715	88	32.	1		1330	163	256.	1		1945	238	26.
1		0105	14	14.	1		0720	89	32.	1		1335	164	195.	1		1950	239	26.
1		0110	15	15.	1		0725	90	32.	1		1340	165	166.	1		1955	240	26.
1		0115	16	16.	1		0730	91	32.	1		1345	166	145.	1		2000	241	26.
1		0120	17	17.	1		0735	92	33.	1		1350	167	132.	1		2005	242	26.
1		0125	18	18.	1		0740	93	33.	1		1355	168	123.	1		2010	243	25.
1		0130	19	18.	1		0745	94	33.	1		1400	169	114.	1		2015	244	25.
1		0135	20	18.	1		0750	95	33.	1		1405	170	106.	1		2020	245	24.
1		0140	21	19.	1		0755	96	33.	1		1410	171	99.	1		2025	246	23.
1		0145	22	19.	1		0800	97	33.	1		1415	172	92.	1		2030	247	23.
1		0150	23	19.	1		0805	98	33.	1		1420	173	86.	1		2035	248	22.
1		0155	24	19.	1		0810	99	33.	1		1425	174	81.	1		2040	249	22.
1		0200	25	19.	1		0815	100	33.	1		1430	175	77.	1		2045	250	21.
1		0205	26	20.	1		0820	101	34.	1		1435	176	73.	1		2050	251	21.
1		0210	27	20.	1		0825	102	34.	1		1440	177	69.	1		2055	252	21.
1		0215	28	20.	1		0830	103	35.	1		1445	178	66.	1		2100	253	21.
1		0220	29	20.	1		0835	104	36.	1		1450	179	63.	1		2105	254	20.
1		0225	30	20.	1		0840	105	37.	1		1455	180	60.	1		2110	255	20.
1		0230	31	20.	1		0845	106	38.	1		1500	181	58.	1		2115	256	20.
1		0235	32	20.	1		0850	107	39.	1		1505	182	56.	1		2120	257	20.
1		0240	33	20.	1		0855	108	40.	1		1510	183	54.	1		2125	258	20.
1		0245	34	20.	1		0900	109	41.	1		1515	184	53.	1		2130	259	20.
1		0250	35	20.	1		0905	110	42.	1		1520	185	51.	1		2135	260	20.
1		0255	36	20.	1		0910	111	43.	1		1525	186	50.	1		2140	261	20.
1		0300	37	20.	1		0915	112	44.	1		1530	187	49.	1		2145	262	20.
1		0305	38	20.	1		0920	113	45.	1		1535	188	48.	1		2150	263	20.
1		0310	39	20.	1		0925	114	45.	1		1540	189	47.	1		2155	264	20.
1		0315	40	20.	1		0930	115	46.	1		1545	190	46.	1		2200	265	20.
1		0320	41	20.	1		0935	116	47.	1		1550	191	45.	1		2205	266	20.
1		0325	42	20.	1		0940	117	48.	1		1555	192	44.	1		2210	267	20.
1		0330	43	20.	1		0945	118	49.	1		1600	193	43.	1		2215	268	20.
1		0335	44	20.	1		0950	119	50.	1		1605	194	42.	1		2220	269	20.
1		0340	45	20.	1		0955	120	51.	1		1610	195	42.	1		2225	270	20.
1		0345	46	20.	1		1000	121	52.	1		1615	196	41.	1		2230	271	20.
1		0350	47	20.	1		1005	122	53.	1		1620	197	41.	1		2235	272	20.
1		0355	48	20.	1		1010	123	55.	1		1625	198	41.	1		2240	273	20.
1		0400	49	20.	1		1015	124	56.	1		1630	199	40.	1		2245	274	20.
1		0405	50	20.	1		1020	125	57.	1		1635	200	40.	1		2250	275	20.
1		0410	51	21.	1		1025	126	58.	1		1640	201	40.	1		2255	276	20.
1		0415	52	21.	1		1030	127	60.	1		1645	202	39.	1		2300	277	20.
1		0420	53	22.	1		1035	128	61.	1		1650	203	39.	1		2305	278	20.
1		0425	54	23.	1		1040	129	64.	1		1655	204	39.	1		2310	279	20.
1		0430	55	23.	1		1045	130	66.	1		1700	205	38.	1		2315	280	20.
1		0435	56	24.	1		1050	131	70.	1		1705	206	37.	1		2320	281	20.
1		0440	57	24.	1		1055	132	73.	1		1710	207	36.	1		2325	282	20.
1		0445	58	25.	1		1100	133	77.	1		1715	208	36.	1		2330	283	20.
1		0450	59	25.	1		1105	134	82.	1		1720	209	35.	1		2335	284	20.
1		0455	60	25.	1		1110	135	86.	1		1725	210	35.	1		2340	285	20.
1		0500	61	25.	1		1115	136	91.	1		1730	211	35.	1		2345	286	20.
1		0505	62	26.	1		1120	137	97.	1		1735	212	34.	1		2350	287	20.
1		0510	63	26.	1		1125	138	103.	1		1740	213	34.	1		2355	288	20.
1		0515	64	26.	1		1130	139	109.	1		1745	214	34.	2		0000	289	19.
1		0520	65	26.	1		1135	140	135.	1		1750	215	34.	2		0005	290	19.
1		0525	66	26.	1		1140	141	185.	1		1755	216	33.	2		0010	291	18.
1		0530	67	26.	1		1145	142	281.	1		1800	217	33.	2		0015	292	17.
1		0535	68	26.	1		1150	143	462.	1		1805	218	32.	2		0020	293	16.
1		0540	69	26.	1		1155	144	748.	1		1810	219	32.	2		0025	294	14.
1		0545	70	26.	1		1200	145	1269.	1		1815	220	31.	2		0030	295	13.
1		0550	71	26.	1		1205	146	1902.	1		1820	221	31.	2		0035	296	11.
1		0555	72	26.	1		1210	147	2607.	1		1825	222	30.	2		0040	297	9.
1		0600	73	26.	1		1215	148	3343.	1		1830	223	29.	2		0045	298	8.
1		0605	74	26.	1		1220	149	4060.	1		1835	224	29.	2		0050	299	6.
1		0610	75	26.	1		1225	150	4435.	1		1840	225	28.	2		0055	300	5.

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 4435.	12.42		611.	173.	166.	166.
		(INCHES)	1.472	1.662	1.663	1.663
		(AC-FT)	303.	342.	342.	342.

CUMULATIVE AREA = 3.86 SQ MI

INTERPOLATED HYDROGRAPH AT CP15

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	29.	1		1230	151	4746.	1		1845	226	30.
1		0005	2	0.	1		0620	77	29.	1		1235	152	4126.	1		1850	227	30.
1		0010	3	0.	1		0625	78	30.	1		1240	153	3461.	1		1855	228	30.
1		0015	4	1.	1		0630	79	30.	1		1245	154	2724.	1		1900	229	29.
1		0020	5	2.	1		0635	80	31.	1		1250	155	2078.	1		1905	230	29.
1		0025	6	3.	1		0640	81	32.	1		1255	156	1544.	1		1910	231	29.
1		0030	7	4.	1		0645	82	32.	1		1300	157	1183.	1		1915	232	29.
1		0035	8	6.	1		0650	83	33.	1		1305	158	904.	1		1920	233	29.
1		0040	9	8.	1		0655	84	33.	1		1310	159	686.	1		1925	234	29.
1		0045	10	9.	1		0700	85	34.	1		1315	160	530.	1		1930	235	29.
1		0050	11	11.	1		0705	86	34.	1		1320	161	448.	1		1935	236	28.
1		0055	12	13.	1		0710	87	34.	1		1325	162	366.	1		1940	237	28.
1		0100	13	14.	1		0715	88	35.	1		1330	163	290.	1		1945	238	28.

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0105	14	15.	1		0720	89	35.	1		1335	164	223.	1		1950	239	28.
1		0110	15	17.	1		0725	90	35.	1		1340	165	187.	1		1955	240	28.
1		0115	16	17.	1		0730	91	35.	1		1345	166	160.	1		2000	241	28.
1		0120	17	18.	1		0735	92	35.	1		1350	167	142.	1		2005	242	28.
1		0125	18	19.	1		0740	93	35.	1		1355	168	132.	1		2010	243	27.
1		0130	19	19.	1		0745	94	35.	1		1400	169	124.	1		2015	244	27.
1		0135	20	20.	1		0750	95	35.	1		1405	170	115.	1		2020	245	26.
1		0140	21	20.	1		0755	96	35.	1		1410	171	107.	1		2025	246	25.
1		0145	22	21.	1		0800	97	35.	1		1415	172	100.	1		2030	247	25.
1		0150	23	21.	1		0805	98	35.	1		1420	173	94.	1		2035	248	24.
1		0155	24	21.	1		0810	99	36.	1		1425	174	88.	1		2040	249	24.
1		0200	25	21.	1		0815	100	36.	1		1430	175	83.	1		2045	250	23.
1		0205	26	21.	1		0820	101	36.	1		1435	176	79.	1		2050	251	23.
1		0210	27	21.	1		0825	102	37.	1		1440	177	75.	1		2055	252	23.
1		0215	28	21.	1		0830	103	38.	1		1445	178	72.	1		2100	253	22.
1		0220	29	21.	1		0835	104	39.	1		1450	179	68.	1		2105	254	22.
1		0225	30	21.	1		0840	105	40.	1		1455	180	65.	1		2110	255	22.
1		0230	31	21.	1		0845	106	41.	1		1500	181	63.	1		2115	256	22.
1		0235	32	21.	1		0850	107	42.	1		1505	182	60.	1		2120	257	22.
1		0240	33	21.	1		0855	108	44.	1		1510	183	58.	1		2125	258	22.
1		0245	34	21.	1		0900	109	45.	1		1515	184	57.	1		2130	259	21.
1		0250	35	21.	1		0905	110	45.	1		1520	185	55.	1		2135	260	21.
1		0255	36	21.	1		0910	111	46.	1		1525	186	54.	1		2140	261	21.
1		0300	37	21.	1		0915	112	47.	1		1530	187	53.	1		2145	262	21.
1		0305	38	21.	1		0920	113	48.	1		1535	188	52.	1		2150	263	21.
1		0310	39	21.	1		0925	114	49.	1		1540	189	51.	1		2155	264	21.
1		0315	40	21.	1		0930	115	50.	1		1545	190	49.	1		2200	265	21.
1		0320	41	21.	1		0935	116	51.	1		1550	191	48.	1		2205	266	21.
1		0325	42	21.	1		0940	117	52.	1		1555	192	47.	1		2210	267	21.
1		0330	43	21.	1		0945	118	53.	1		1600	193	47.	1		2215	268	21.
1		0335	44	21.	1		0950	119	54.	1		1605	194	46.	1		2220	269	21.
1		0340	45	21.	1		0955	120	55.	1		1610	195	45.	1		2225	270	21.
1		0345	46	21.	1		1000	121	56.	1		1615	196	45.	1		2230	271	21.
1		0350	47	21.	1		1005	122	58.	1		1620	197	44.	1		2235	272	21.
1		0355	48	21.	1		1010	123	59.	1		1625	198	44.	1		2240	273	21.
1		0400	49	22.	1		1015	124	60.	1		1630	199	44.	1		2245	274	21.
1		0405	50	22.	1		1020	125	61.	1		1635	200	43.	1		2250	275	21.
1		0410	51	22.	1		1025	126	63.	1		1640	201	43.	1		2255	276	21.
1		0415	52	23.	1		1030	127	64.	1		1645	202	43.	1		2300	277	21.
1		0420	53	24.	1		1035	128	66.	1		1650	203	42.	1		2305	278	21.
1		0425	54	25.	1		1040	129	69.	1		1655	204	42.	1		2310	279	21.
1		0430	55	25.	1		1045	130	72.	1		1700	205	41.	1		2315	280	21.
1		0435	56	26.	1		1050	131	75.	1		1705	206	40.	1		2320	281	21.
1		0440	57	26.	1		1055	132	79.	1		1710	207	39.	1		2325	282	21.
1		0445	58	27.	1		1100	133	83.	1		1715	208	39.	1		2330	283	21.
1		0450	59	27.	1		1105	134	88.	1		1720	209	38.	1		2335	284	21.
1		0455	60	27.	1		1110	135	93.	1		1725	210	38.	1		2340	285	21.
1		0500	61	27.	1		1115	136	99.	1		1730	211	37.	1		2345	286	21.
1		0505	62	28.	1		1120	137	105.	1		1735	212	37.	1		2350	287	21.
1		0510	63	28.	1		1125	138	111.	1		1740	213	37.	1		2355	288	21.
1		0515	64	28.	1		1130	139	118.	1		1745	214	36.	2		0000	289	21.
1		0520	65	28.	1		1135	140	148.	1		1750	215	36.	2		0005	290	20.
1		0525	66	28.	1		1140	141	204.	1		1755	216	36.	2		0010	291	20.
1		0530	67	28.	1		1145	142	315.	1		1800	217	35.	2		0015	292	19.
1		0535	68	28.	1		1150	143	519.	1		1805	218	35.	2		0020	293	17.
1		0540	69	28.	1		1155	144	844.	1		1810	219	34.	2		0025	294	16.
1		0545	70	28.	1		1200	145	1427.	1		1815	220	34.	2		0030	295	14.
1		0550	71	28.	1		1205	146	2142.	1		1820	221	33.	2		0035	296	12.
1		0555	72	28.	1		1210	147	2920.	1		1825	222	32.	2		0040	297	10.
1		0600	73	28.	1		1215	148	3737.	1		1830	223	32.	2		0045	298	8.
1		0605	74	28.	1		1220	149	4519.	1		1835	224	31.	2		0050	299	7.
1		0610	75	29.	1		1225	150	4906.	1		1840	225	31.	2		0055	300	6.

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
		(CFS)				
4906.	12.42		678.	191.	184.	184.
		(INCHES)	1.634	1.839	1.841	1.841
		(AC-FT)	336.	379.	379.	379.

CUMULATIVE AREA = 3.86 SQ MI

338 KK **CPWT3**

339 KO OUTPUT CONTROL VARIABLES
IPRNT 1 PRINT CONTROL
IPLOT 0 PLOT CONTROL
QSCAL 0. HYDROGRAPH PLOT SCALE
ADD HYDROGRAPHS AT CPWT3

341 HC HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

HYDROGRAPH AT CPWT3
TRANSPOSITION AREA .0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	2.	1		1230	151	8913.	1		1845	226	19.
1		0005	2	0.	1		0620	77	2.	1		1235	152	11487.	1		1850	227	17.
1		0010	3	0.	1		0625	78	2.	1		1240	153	13872.	1		1855	228	16.
1		0015	4	0.	1		0630	79	2.	1		1245	154	15636.	1		1900	229	14.
1		0020	5	0.	1		0635	80	2.	1		1250	155	16338.	1		1905	230	13.
1		0025	6	0.	1		0640	81	2.	1		1255	156	16402.	1		1910	231	12.
1		0030	7	0.	1		0645	82	2.	1		1300	157	15632.	1		1915	232	10.
1		0035	8	0.	1		0650	83	2.	1		1305	158	14338.	1		1920	233	9.
1		0040	9	0.	1		0655	84	2.	1		1310	159	12848.	1		1925	234	8.
1		0045	10	0.	1		0700	85	2.	1		1315	160	11336.	1		1930	235	7.
1		0050	11	0.	1		0705	86	2.	1		1320	161	9790.	1		1935	236	5.
1		0055	12	0.	1		0710	87	2.	1		1325	162	8411.	1		1940	237	4.
1		0100	13	0.	1		0715	88	2.	1		1330	163	7338.	1		1945	238	4.
1		0105	14	0.	1		0720	89	3.	1		1335	164	6420.	1		1950	239	4.
1		0110	15	0.	1		0725	90	3.	1		1340	165	5539.	1		1955	240	4.
1		0115	16	0.	1		0730	91	3.	1		1345	166	4747.	1		2000	241	4.
1		0120	17	0.	1		0735	92	3.	1		1350	167	4115.	1		2005	242	4.
1		0125	18	0.	1		0740	93	3.	1		1355	168	3552.	1		2010	243	3.
1		0130	19	0.	1		0745	94	3.	1		1400	169	3045.	1		2015	244	3.
1		0135	20	0.	1		0750	95	3.	1		1405	170	2614.	1		2020	245	3.
1		0140	21	0.	1		0755	96	3.	1		1410	171	2271.	1		2025	246	3.

1	0145	22	0.	*	1	0800	97	3.	*	1	1415	172	1967.	*	1	2030	247	3.
1	0150	23	0.	*	1	0805	98	3.	*	1	1420	173	1693.	*	1	2035	248	3.
1	0155	24	0.	*	1	0810	99	4.	*	1	1425	174	1455.	*	1	2040	249	3.
1	0200	25	0.	*	1	0815	100	4.	*	1	1430	175	1266.	*	1	2045	250	3.
1	0205	26	0.	*	1	0820	101	4.	*	1	1435	176	1120.	*	1	2050	251	3.
1	0210	27	0.	*	1	0825	102	4.	*	1	1440	177	1012.	*	1	2055	252	3.
1	0215	28	0.	*	1	0830	103	4.	*	1	1445	178	910.	*	1	2100	253	3.
1	0220	29	0.	*	1	0835	104	4.	*	1	1450	179	816.	*	1	2105	254	3.
1	0225	30	0.	*	1	0840	105	4.	*	1	1455	180	730.	*	1	2110	255	2.
1	0230	31	0.	*	1	0845	106	4.	*	1	1500	181	653.	*	1	2115	256	2.
1	0235	32	0.	*	1	0850	107	4.	*	1	1505	182	583.	*	1	2120	257	2.
1	0240	33	0.	*	1	0855	108	4.	*	1	1510	183	522.	*	1	2125	258	2.
1	0245	34	0.	*	1	0900	109	4.	*	1	1515	184	468.	*	1	2130	259	2.
1	0250	35	0.	*	1	0905	110	4.	*	1	1520	185	421.	*	1	2135	260	2.
1	0255	36	0.	*	1	0910	111	4.	*	1	1525	186	379.	*	1	2140	261	2.
1	0300	37	0.	*	1	0915	112	5.	*	1	1530	187	344.	*	1	2145	262	2.
1	0305	38	0.	*	1	0920	113	5.	*	1	1535	188	317.	*	1	2150	263	2.
1	0310	39	0.	*	1	0925	114	5.	*	1	1540	189	298.	*	1	2155	264	1.
1	0315	40	0.	*	1	0930	115	6.	*	1	1545	190	280.	*	1	2200	265	1.
1	0320	41	0.	*	1	0935	116	7.	*	1	1550	191	262.	*	1	2205	266	1.
1	0325	42	0.	*	1	0940	117	7.	*	1	1555	192	244.	*	1	2210	267	1.
1	0330	43	0.	*	1	0945	118	8.	*	1	1600	193	228.	*	1	2215	268	1.
1	0335	44	0.	*	1	0950	119	9.	*	1	1605	194	212.	*	1	2220	269	1.
1	0340	45	0.	*	1	0955	120	10.	*	1	1610	195	197.	*	1	2225	270	1.
1	0345	46	0.	*	1	1000	121	11.	*	1	1615	196	182.	*	1	2230	271	1.
1	0350	47	0.	*	1	1005	122	13.	*	1	1620	197	169.	*	1	2235	272	1.
1	0355	48	0.	*	1	1010	123	14.	*	1	1625	198	157.	*	1	2240	273	1.
1	0400	49	0.	*	1	1015	124	15.	*	1	1630	199	145.	*	1	2245	274	1.
1	0405	50	0.	*	1	1020	125	16.	*	1	1635	200	135.	*	1	2250	275	1.
1	0410	51	0.	*	1	1025	126	17.	*	1	1640	201	125.	*	1	2255	276	1.
1	0415	52	0.	*	1	1030	127	19.	*	1	1645	202	116.	*	1	2300	277	1.
1	0420	53	0.	*	1	1035	128	21.	*	1	1650	203	108.	*	1	2305	278	1.
1	0425	54	0.	*	1	1040	129	23.	*	1	1655	204	101.	*	1	2310	279	1.
1	0430	55	0.	*	1	1045	130	27.	*	1	1700	205	94.	*	1	2315	280	1.
1	0435	56	0.	*	1	1050	131	30.	*	1	1705	206	87.	*	1	2320	281	0.
1	0440	57	0.	*	1	1055	132	34.	*	1	1710	207	81.	*	1	2325	282	0.
1	0445	58	0.	*	1	1100	133	38.	*	1	1715	208	76.	*	1	2330	283	0.
1	0450	59	0.	*	1	1105	134	42.	*	1	1720	209	71.	*	1	2335	284	0.
1	0455	60	0.	*	1	1110	135	47.	*	1	1725	210	66.	*	1	2340	285	0.
1	0500	61	0.	*	1	1115	136	52.	*	1	1730	211	61.	*	1	2345	286	0.
1	0505	62	1.	*	1	1120	137	57.	*	1	1735	212	57.	*	1	2350	287	0.
1	0510	63	1.	*	1	1125	138	63.	*	1	1740	213	53.	*	1	2355	288	0.
1	0515	64	1.	*	1	1130	139	70.	*	1	1745	214	49.	*	2	0000	289	0.
1	0520	65	1.	*	1	1135	140	80.	*	1	1750	215	46.	*	2	0005	290	0.
1	0525	66	1.	*	1	1140	141	94.	*	1	1755	216	43.	*	2	0010	291	0.
1	0530	67	1.	*	1	1145	142	123.	*	1	1800	217	39.	*	2	0015	292	0.
1	0535	68	1.	*	1	1150	143	183.	*	1	1805	218	36.	*	2	0020	293	0.
1	0540	69	1.	*	1	1155	144	285.	*	1	1810	219	34.	*	2	0025	294	0.
1	0545	70	1.	*	1	1200	145	520.	*	1	1815	220	31.	*	2	0030	295	0.
1	0550	71	1.	*	1	1205	146	1019.	*	1	1820	221	29.	*	2	0035	296	0.
1	0555	72	1.	*	1	1210	147	1805.	*	1	1825	222	26.	*	2	0040	297	0.
1	0600	73	2.	*	1	1215	148	2982.	*	1	1830	223	24.	*	2	0045	298	0.
1	0605	74	2.	*	1	1220	149	4520.	*	1	1835	224	22.	*	2	0050	299	0.
1	0610	75	2.	*	1	1225	150	6501.	*	1	1840	225	20.	*	2	0055	300	0.

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
+ 16402.	12.92	(CFS)	3207.	807.	777.	777.
		(INCHES)	1.456	1.466	1.466	1.466
		(AC-FT)	1590.	1601.	1601.	1601.

CUMULATIVE AREA = 20.48 SQ MI

HYDROGRAPH AT CPWT3
TRANSPOSITION AREA 10.0 SQ MI

DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	*	1		0615	76	2.	*	1		1230	151	8729.	*	1		1845	226	18.
1		0005	2	0.	*	1		0620	77	2.	*	1		1235	152	11238.	*	1		1850	227	16.
1		0010	3	0.	*	1		0625	78	2.	*	1		1240	153	13593.	*	1		1855	228	15.
1		0015	4	0.	*	1		0630	79	2.	*	1		1245	154	15379.	*	1		1900	229	13.
1		0020	5	0.	*	1		0635	80	2.	*	1		1250	155	16095.	*	1		1905	230	12.
1		0025	6	0.	*	1		0640	81	2.	*	1		1255	156	16171.	*	1		1910	231	11.
1		0030	7	0.	*	1		0645	82	2.	*	1		1300	157	15414.	*	1		1915	232	9.
1		0035	8	0.	*	1		0650	83	2.	*	1		1305	158	14145.	*	1		1920	233	8.
1		0040	9	0.	*	1		0655	84	2.	*	1		1310	159	12692.	*	1		1925	234	7.
1		0045	10	0.	*	1		0700	85	2.	*	1		1315	160	11192.	*	1		1930	235	6.
1		0050	11	0.	*	1		0705	86	2.	*	1		1320	161	9666.	*	1		1935	236	4.
1		0055	12	0.	*	1		0710	87	2.	*	1		1325	162	8317.	*	1		1940	237	4.
1		0100	13	0.	*	1		0715	88	2.	*	1		1330	163	7272.	*	1		1945	238	4.
1		0105	14	0.	*	1		0720	89	2.	*	1		1335	164	6355.	*	1		1950	239	4.
1		0110	15	0.	*	1		0725	90	3.	*	1		1340	165	5480.	*	1		1955	240	4.
1		0115	16	0.	*	1		0730	91	3.	*	1		1345	166	4696.	*	1		2000	241	4.
1		0120	17	0.	*	1		0735	92	3.	*	1		1350	167	4074.	*	1		2005	242	3.
1		0125	18	0.	*	1		0740	93	3.	*	1		1355	168	3513.	*	1		2010	243	3.
1		0130	19	0.	*	1		0745	94	3.	*	1		1400	169	3011.	*	1		2015	244	3.
1		0135	20	0.	*	1		0750	95	3.	*	1		1405	170	2585.	*	1		2020	245	3.
1		0140	21	0.	*	1		0755	96	3.	*	1		1410	171	2247.	*	1		2025	246	3.
1		0145	22	0.	*	1		0800	97	3.	*	1		1415	172	1944.	*	1		2030	247	3.
1		0150	23	0.	*	1		0805	98	3.	*	1		1420	173	1672.	*	1		2035	248	3.
1		0155	24	0.	*	1		0810	99	3.	*	1		1425	174	1438.	*	1		2040	249	3.
1		0200	25	0.	*	1		0815	100	4.	*	1		1430	175	1252.	*	1		2045	250	3.
1		0205	26	0.	*	1		0820	101	4.	*	1		1435	176	1110.	*	1		2050	251	3.
1		0210	27	0.	*	1		0825	102	4.	*	1		1440	177	1002.	*	1		2055	252	3.
1		0215	28	0.	*	1		0830	103	4.	*	1		1445	178	901.	*	1		2100	253	3.
1		0220	29	0.	*	1		0835	104	4.	*	1		1450	179	807.	*	1		2105	254	2.
1		0225	30	0.	*	1		0840	105	4.	*	1		1455	180	722.	*	1		2110	255	2.
1		0230	31	0.	*	1		0845	106	4.	*	1		1500	181	645.	*	1		2115	256	2.
1		0235	32	0.	*	1		0850	107	4.	*	1		1505	182	577.	*	1		2120	257	2.
1		0240	33	0.	*	1		0855	108	4.	*	1		1510	183	516.	*	1		2125	258	2.
1		0245	34	0.	*	1		0900	109	4.	*	1		1515	184	463.	*	1		2130	259	2.
1		0250	35	0.	*	1		0905	110	4.	*	1		1520	185	415.	*	1		2135	260	2.
1		0255	36	0.	*	1		0910	111	4.	*	1		1525	186	374.	*	1		2140	261	2.
1		0300	37	0.	*	1		0915	112	4.	*	1		1530	187	340.	*	1		2145	262	2.
1		0305	38	0.	*	1		0920	113	5.	*	1		1535	188	314.	*	1		2150	263	2.
1		0310	39	0.	*	1		0925	114	5.	*	1		1540	189	296.	*	1		2155	264	1.
1		0315	40	0.	*	1		0930	115	5.	*	1		1545	190	277.	*	1		2200	265	1.
1		0320	41	0.	*	1		0935	116	6.	*	1		1550	191	259.	*	1		2205	266	1.
1		0325	42	0.	*	1		0940	117	7.	*	1		1555	192	242.	*	1		2210	267	1.
1		0330	43	0.	*	1		0945	118	8.	*	1		1600	193	225.	*	1		2215	268	1.
1		0335	44	0.	*	1		0950	119	9.	*	1		1605	194	209.	*	1		2220	269	1.
1		0340	45	0.	*	1		0955	120	10.	*	1		1610	195	194.	*	1		2225	270	1.
1		0345	46	0.	*	1		1000	121	11.	*	1		1615	196	180.	*	1		2230	271	1.
1		0350	47	0.	*	1		1005	122	12.	*	1		1620	197	167.	*	1		2235	272	1.
1		0355	48	0.	*	1		1010	123	13.	*	1		1625	198	155.	*	1		2240	273	1.
1		0400	49	0.	*	1		1015	124	14.	*	1		1630	199	143.	*	1		2245	274	1.
1		0405	50	0.	*	1		1020	125	15.	*	1		1635	200	133.	*	1		2250	275	1.
1		0410	51	0.	*	1		1025	126	17.	*	1		1640	201	123.	*	1		2255	276	1.

1	0415	52	0.	*	1	1030	127	18.	*	1	1645	202	114.	*	1	2300	277	1.
1	0420	53	0.	*	1	1035	128	19.	*	1	1650	203	106.	*	1	2305	278	1.
1	0425	54	0.	*	1	1040	129	22.	*	1	1655	204	99.	*	1	2310	279	0.
1	0430	55	0.	*	1	1045	130	25.	*	1	1700	205	92.	*	1	2315	280	0.
1	0435	56	0.	*	1	1050	131	28.	*	1	1705	206	85.	*	1	2320	281	0.
1	0440	57	0.	*	1	1055	132	32.	*	1	1710	207	80.	*	1	2325	282	0.
1	0445	58	0.	*	1	1100	133	36.	*	1	1715	208	74.	*	1	2330	283	0.
1	0450	59	0.	*	1	1105	134	40.	*	1	1720	209	69.	*	1	2335	284	0.
1	0455	60	0.	*	1	1110	135	45.	*	1	1725	210	64.	*	1	2340	285	0.
1	0500	61	0.	*	1	1115	136	50.	*	1	1730	211	60.	*	1	2345	286	0.
1	0505	62	0.	*	1	1120	137	55.	*	1	1735	212	55.	*	1	2350	287	0.
1	0510	63	1.	*	1	1125	138	61.	*	1	1740	213	51.	*	1	2355	288	0.
1	0515	64	1.	*	1	1130	139	67.	*	1	1745	214	48.	*	2	0000	289	0.
1	0520	65	1.	*	1	1135	140	77.	*	1	1750	215	44.	*	2	0005	290	0.
1	0525	66	1.	*	1	1140	141	92.	*	1	1755	216	41.	*	2	0010	291	0.
1	0530	67	1.	*	1	1145	142	120.	*	1	1800	217	38.	*	2	0015	292	0.
1	0535	68	1.	*	1	1150	143	178.	*	1	1805	218	35.	*	2	0020	293	0.
1	0540	69	1.	*	1	1155	144	278.	*	1	1810	219	32.	*	2	0025	294	0.
1	0545	70	1.	*	1	1200	145	504.	*	1	1815	220	30.	*	2	0030	295	0.
1	0550	71	1.	*	1	1205	146	992.	*	1	1820	221	27.	*	2	0035	296	0.
1	0555	72	1.	*	1	1210	147	1757.	*	1	1825	222	25.	*	2	0040	297	0.
1	0600	73	1.	*	1	1215	148	2916.	*	1	1830	223	23.	*	2	0045	298	0.
1	0605	74	2.	*	1	1220	149	4415.	*	1	1835	224	21.	*	2	0050	299	0.
1	0610	75	2.	*	1	1225	150	6358.	*	1	1840	225	19.	*	2	0055	300	0.

PEAK FLOW (CFS)	TIME (HR)	MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
+ 16171.	12.92	(CFS) 3160.	795.	766.	766.
		(INCHES) 1.434	1.444	1.444	1.444
		(AC-FT) 1567.	1577.	1577.	1577.

CUMULATIVE AREA = 20.48 SQ MI

HYDROGRAPH AT CPWT3
TRANSPOSITION AREA 50.0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	1.	1		1230	151	7990.	1		1845	226	14.
1		0005	2	0.	1		0620	77	1.	1		1235	152	10314.	1		1850	227	12.
1		0010	3	0.	1		0625	78	2.	1		1240	153	12527.	1		1855	228	11.
1		0015	4	0.	1		0630	79	2.	1		1245	154	14300.	1		1900	229	10.
1		0020	5	0.	1		0635	80	2.	1		1250	155	15149.	1		1905	230	8.
1		0025	6	0.	1		0640	81	2.	1		1255	156	15188.	1		1910	231	7.
1		0030	7	0.	1		0645	82	2.	1		1300	157	14532.	1		1915	232	6.
1		0035	8	0.	1		0650	83	2.	1		1305	158	13387.	1		1920	233	4.
1		0040	9	0.	1		0655	84	2.	1		1310	159	12079.	1		1925	234	4.
1		0045	10	0.	1		0700	85	2.	1		1315	160	10610.	1		1930	235	4.
1		0050	11	0.	1		0705	86	2.	1		1320	161	9165.	1		1935	236	4.
1		0055	12	0.	1		0710	87	2.	1		1325	162	7932.	1		1940	237	4.
1		0100	13	0.	1		0715	88	2.	1		1330	163	7004.	1		1945	238	4.
1		0105	14	0.	1		0720	89	2.	1		1335	164	6092.	1		1950	239	3.
1		0110	15	0.	1		0725	90	2.	1		1340	165	5243.	1		1955	240	3.
1		0115	16	0.	1		0730	91	2.	1		1345	166	4500.	1		2000	241	3.
1		0120	17	0.	1		0735	92	2.	1		1350	167	3907.	1		2005	242	3.
1		0125	18	0.	1		0740	93	2.	1		1355	168	3355.	1		2010	243	3.
1		0130	19	0.	1		0745	94	3.	1		1400	169	2874.	1		2015	244	3.
1		0135	20	0.	1		0750	95	3.	1		1405	170	2472.	1		2020	245	3.
1		0140	21	0.	1		0755	96	3.	1		1410	171	2150.	1		2025	246	3.
1		0145	22	0.	1		0800	97	3.	1		1415	172	1855.	1		2030	247	3.
1		0150	23	0.	1		0805	98	3.	1		1420	173	1593.	1		2035	248	3.
1		0155	24	0.	1		0810	99	3.	1		1425	174	1371.	1		2040	249	2.
1		0200	25	0.	1		0815	100	3.	1		1430	175	1200.	1		2045	250	2.
1		0205	26	0.	1		0820	101	3.	1		1435	176	1069.	1		2050	251	2.
1		0210	27	0.	1		0825	102	3.	1		1440	177	963.	1		2055	252	2.
1		0215	28	0.	1		0830	103	3.	1		1445	178	863.	1		2100	253	2.
1		0220	29	0.	1		0835	104	4.	1		1450	179	773.	1		2105	254	2.
1		0225	30	0.	1		0840	105	4.	1		1455	180	690.	1		2110	255	2.
1		0230	31	0.	1		0845	106	4.	1		1500	181	616.	1		2115	256	2.
1		0235	32	0.	1		0850	107	4.	1		1505	182	551.	1		2120	257	2.
1		0240	33	0.	1		0855	108	4.	1		1510	183	492.	1		2125	258	2.
1		0245	34	0.	1		0900	109	4.	1		1515	184	441.	1		2130	259	2.
1		0250	35	0.	1		0905	110	4.	1		1520	185	395.	1		2135	260	2.
1		0255	36	0.	1		0910	111	4.	1		1525	186	357.	1		2140	261	1.
1		0300	37	0.	1		0915	112	4.	1		1530	187	324.	1		2145	262	1.
1		0305	38	0.	1		0920	113	4.	1		1535	188	304.	1		2150	263	1.
1		0310	39	0.	1		0925	114	4.	1		1540	189	285.	1		2155	264	1.
1		0315	40	0.	1		0930	115	4.	1		1545	190	267.	1		2200	265	1.
1		0320	41	0.	1		0935	116	5.	1		1550	191	249.	1		2205	266	1.
1		0325	42	0.	1		0940	117	5.	1		1555	192	231.	1		2210	267	1.
1		0330	43	0.	1		0945	118	6.	1		1600	193	215.	1		2215	268	1.
1		0335	44	0.	1		0950	119	7.	1		1605	194	199.	1		2220	269	1.
1		0340	45	0.	1		0955	120	8.	1		1610	195	184.	1		2225	270	1.
1		0345	46	0.	1		1000	121	9.	1		1615	196	170.	1		2230	271	1.
1		0350	47	0.	1		1005	122	10.	1		1620	197	157.	1		2235	272	0.
1		0355	48	0.	1		1010	123	11.	1		1625	198	146.	1		2240	273	0.
1		0400	49	0.	1		1015	124	12.	1		1630	199	135.	1		2245	274	0.
1		0405	50	0.	1		1020	125	13.	1		1635	200	124.	1		2250	275	0.
1		0410	51	0.	1		1025	126	14.	1		1640	201	115.	1		2255	276	0.
1		0415	52	0.	1		1030	127	15.	1		1645	202	107.	1		2300	277	0.
1		0420	53	0.	1		1035	128	17.	1		1650	203	99.	1		2305	278	0.
1		0425	54	0.	1		1040	129	18.	1		1655	204	91.	1		2310	279	0.
1		0430	55	0.	1		1045	130	19.	1		1700	205	84.	1		2315	280	0.
1		0435	56	0.	1		1050	131	21.	1		1705	206	78.	1		2320	281	0.
1		0440	57	0.	1		1055	132	24.	1		1710	207	72.	1		2325	282	0.
1		0445	58	0.	1		1100	133	28.	1		1715	208	67.	1		2330	283	0.
1		0450	59	0.	1		1105	134	32.	1		1720	209	62.	1		2335	284	0.
1		0455	60	0.	1		1110	135	36.	1		1725	210	57.	1		2340	285	0.
1		0500	61	0.	1		1115	136	40.	1		1730	211	53.	1		2345	286	0.
1		0505	62	0.	1		1120	137	45.	1		1735	212	49.	1		2350	287	0.
1		0510	63	0.	1		1125	138	51.	1		1740	213	45.	1		2355	288	0.
1		0515	64	0.	1		1130	139	57.	1		1745	214	41.	2		0000	289	0.
1		0520	65	0.	1		1135	140	66.	1		1750	215	38.	2		0005	290	0.
1		0525	66	0.	1		1140	141	80.	1		1755	216	35.	2		0010	291	0.
1		0530	67	1.	1		1145	142	106.	1		1800	217	32.	2		0015	292	0.
1		0535	68	1.	1		1150	143	159.	1		1805	218	29.	2		0020	293	0.
1		0540	69	1.	1		1155	144	250.	1		1810	219	26.	2		0025	294	0.
1		0545	70	1.	1		1200	145	443.	1		1815	220	24.	2		0030	295	0.
1		0550	71	1.	1		1205	146	887.	1		1820	221	22.	2		0035	296	0.
1		0555	72	1.	1		1210	147	1565.	1		1825	222	20.	2		0040	297	0.
1		0600	73	1.	1		1215	148	2646.	1		1830	223	18.	2		0045	298	0.
1		0605	74	1.	1		1220	149	4009.	1		1835	224	17.	2		0050	299	0.
1		0610	75	1.	1		1225	150	5794.	1		1840	225	15.	2		0055	300	0.

PEAK FLOW (CFS)	TIME (HR)	MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR

+	15188.	12.92	(CFS)	2971.	747.	719.	719.
			(INCHES)	1.349	1.356	1.356	1.356
			(AC-FT)	1473.	1481.	1481.	1481.

CUMULATIVE AREA = 20.48 SQ MI

HYDROGRAPH AT CPWT3
TRANSPOSITION AREA 100.0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	1.	1		1230	151	7667.	1		1845	226	12.
1		0005	2	0.	1		0620	77	1.	1		1235	152	9946.	1		1850	227	11.
1		0010	3	0.	1		0625	78	1.	1		1240	153	12070.	1		1855	228	9.
1		0015	4	0.	1		0630	79	1.	1		1245	154	13814.	1		1900	229	8.
1		0020	5	0.	1		0635	80	2.	1		1250	155	14726.	1		1905	230	7.
1		0025	6	0.	1		0640	81	2.	1		1255	156	14753.	1		1910	231	5.
1		0030	7	0.	1		0645	82	2.	1		1300	157	14138.	1		1915	232	4.
1		0035	8	0.	1		0650	83	2.	1		1305	158	13076.	1		1920	233	4.
1		0040	9	0.	1		0655	84	2.	1		1310	159	11796.	1		1925	234	4.
1		0045	10	0.	1		0700	85	2.	1		1315	160	10352.	1		1930	235	4.
1		0050	11	0.	1		0705	86	2.	1		1320	161	8951.	1		1935	236	4.
1		0055	12	0.	1		0710	87	2.	1		1325	162	7777.	1		1940	237	4.
1		0100	13	0.	1		0715	88	2.	1		1330	163	6879.	1		1945	238	3.
1		0105	14	0.	1		0720	89	2.	1		1335	164	5975.	1		1950	239	3.
1		0110	15	0.	1		0725	90	2.	1		1340	165	5137.	1		1955	240	3.
1		0115	16	0.	1		0730	91	2.	1		1345	166	4417.	1		2000	241	3.
1		0120	17	0.	1		0735	92	2.	1		1350	167	3831.	1		2005	242	3.
1		0125	18	0.	1		0740	93	2.	1		1355	168	3286.	1		2010	243	3.
1		0130	19	0.	1		0745	94	2.	1		1400	169	2813.	1		2015	244	3.
1		0135	20	0.	1		0750	95	2.	1		1405	170	2425.	1		2020	245	3.
1		0140	21	0.	1		0755	96	3.	1		1410	171	2107.	1		2025	246	3.
1		0145	22	0.	1		0800	97	3.	1		1415	172	1816.	1		2030	247	2.
1		0150	23	0.	1		0805	98	3.	1		1420	173	1557.	1		2035	248	2.
1		0155	24	0.	1		0810	99	3.	1		1425	174	1341.	1		2040	249	2.
1		0200	25	0.	1		0815	100	3.	1		1430	175	1177.	1		2045	250	2.
1		0205	26	0.	1		0820	101	3.	1		1435	176	1052.	1		2050	251	2.
1		0210	27	0.	1		0825	102	3.	1		1440	177	945.	1		2055	252	2.
1		0215	28	0.	1		0830	103	3.	1		1445	178	847.	1		2100	253	2.
1		0220	29	0.	1		0835	104	3.	1		1450	179	757.	1		2105	254	2.
1		0225	30	0.	1		0840	105	3.	1		1455	180	676.	1		2110	255	2.
1		0230	31	0.	1		0845	106	3.	1		1500	181	604.	1		2115	256	2.
1		0235	32	0.	1		0850	107	4.	1		1505	182	539.	1		2120	257	2.
1		0240	33	0.	1		0855	108	4.	1		1510	183	482.	1		2125	258	2.
1		0245	34	0.	1		0900	109	4.	1		1515	184	431.	1		2130	259	2.
1		0250	35	0.	1		0905	110	4.	1		1520	185	387.	1		2135	260	1.
1		0255	36	0.	1		0910	111	4.	1		1525	186	349.	1		2140	261	1.
1		0300	37	0.	1		0915	112	4.	1		1530	187	319.	1		2145	262	1.
1		0305	38	0.	1		0920	113	4.	1		1535	188	300.	1		2150	263	1.
1		0310	39	0.	1		0925	114	4.	1		1540	189	280.	1		2155	264	1.
1		0315	40	0.	1		0930	115	4.	1		1545	190	262.	1		2200	265	1.
1		0320	41	0.	1		0935	116	4.	1		1550	191	244.	1		2205	266	1.
1		0325	42	0.	1		0940	117	5.	1		1555	192	227.	1		2210	267	1.
1		0330	43	0.	1		0945	118	5.	1		1600	193	210.	1		2215	268	1.
1		0335	44	0.	1		0950	119	6.	1		1605	194	194.	1		2220	269	1.
1		0340	45	0.	1		0955	120	7.	1		1610	195	180.	1		2225	270	0.
1		0345	46	0.	1		1000	121	8.	1		1615	196	166.	1		2230	271	0.
1		0350	47	0.	1		1005	122	9.	1		1620	197	153.	1		2235	272	0.
1		0355	48	0.	1		1010	123	10.	1		1625	198	142.	1		2240	273	0.
1		0400	49	0.	1		1015	124	11.	1		1630	199	131.	1		2245	274	0.
1		0405	50	0.	1		1020	125	12.	1		1635	200	121.	1		2250	275	0.
1		0410	51	0.	1		1025	126	13.	1		1640	201	112.	1		2255	276	0.
1		0415	52	0.	1		1030	127	14.	1		1645	202	103.	1		2300	277	0.
1		0420	53	0.	1		1035	128	16.	1		1650	203	95.	1		2305	278	0.
1		0425	54	0.	1		1040	129	17.	1		1655	204	88.	1		2310	279	0.
1		0430	55	0.	1		1045	130	18.	1		1700	205	81.	1		2315	280	0.
1		0435	56	0.	1		1050	131	19.	1		1705	206	75.	1		2320	281	0.
1		0440	57	0.	1		1055	132	21.	1		1710	207	69.	1		2325	282	0.
1		0445	58	0.	1		1100	133	24.	1		1715	208	64.	1		2330	283	0.
1		0450	59	0.	1		1105	134	28.	1		1720	209	59.	1		2335	284	0.
1		0455	60	0.	1		1110	135	32.	1		1725	210	54.	1		2340	285	0.
1		0500	61	0.	1		1115	136	36.	1		1730	211	50.	1		2345	286	0.
1		0505	62	0.	1		1120	137	41.	1		1735	212	46.	1		2350	287	0.
1		0510	63	0.	1		1125	138	47.	1		1740	213	42.	1		2355	288	0.
1		0515	64	0.	1		1130	139	53.	1		1745	214	38.	2		0000	289	0.
1		0520	65	0.	1		1135	140	62.	1		1750	215	35.	2		0005	290	0.
1		0525	66	0.	1		1140	141	74.	1		1755	216	32.	2		0010	291	0.
1		0530	67	0.	1		1145	142	99.	1		1800	217	29.	2		0015	292	0.
1		0535	68	1.	1		1150	143	150.	1		1805	218	26.	2		0020	293	0.
1		0540	69	1.	1		1155	144	237.	1		1810	219	24.	2		0025	294	0.
1		0545	70	1.	1		1200	145	421.	1		1815	220	22.	2		0030	295	0.
1		0550	71	1.	1		1205	146	839.	1		1820	221	20.	2		0035	296	0.
1		0555	72	1.	1		1210	147	1487.	1		1825	222	18.	2		0040	297	0.
1		0600	73	1.	1		1215	148	2527.	1		1830	223	17.	2		0045	298	0.
1		0605	74	1.	1		1220	149	3837.	1		1835	224	15.	2		0050	299	0.
1		0610	75	1.	1		1225	150	5560.	1		1840	225	13.	2		0055	300	0.

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)	(CFS)				
+ 14753.	12.92		2888.	726.	699.	699.
		(INCHES)	1.311	1.318	1.318	1.318
		(AC-FT)	1432.	1440.	1440.	1440.

CUMULATIVE AREA = 20.48 SQ MI

HYDROGRAPH AT CPWT3
TRANSPOSITION AREA 200.0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	1.	1		1230	151	7391.	1		1845	226	11.
1		0005	2	0.	1		0620	77	1.	1		1235	152	9633.	1		1850	227	9.
1		0010	3	0.	1		0625	78	1.	1		1240	153	11702.	1		1855	228	8.
1		0015	4	0.	1		0630	79	1.	1		1245	154	13389.	1		1900	229	6.
1		0020	5	0.	1		0635	80	1.	1		1250	155	14347.	1		1905	230	5.
1		0025	6	0.	1		0640	81	1.	1		1255	156	14394.	1		1910	231	4.
1		0030	7	0.	1		0645	82	1.	1		1300	157	13808.	1		1915	232	4.
1		0035	8	0.	1		0650	83	2.	1		1305	158	12801.	1		1920	233	4.
1		0040	9	0.	1		0655	84	2.	1		1310	159	11543.	1		1925	234	4.
1		0045	10	0.	1		0700	85	2.	1		1315	160	10129.	1		1930	235	4.
1		0050	11	0.	1		0705	86	2.	1		1320	161	8774.	1		1935	236	3.
1		0055	12	0.	1		0710	87	2.	1		1325	162	7660.	1		1940	237	3.
1		0100	13	0.	1		0715	88	2.	1		1330	163	6763.	1		1945	238	3.

1	0105	14	0.	*	1	0720	89	2.	*	1	1335	164	5868.	*	1	1950	239	3.
1	0110	15	0.	*	1	0725	90	2.	*	1	1340	165	5044.	*	1	1955	240	3.
1	0115	16	0.	*	1	0730	91	2.	*	1	1345	166	4346.	*	1	2000	241	3.
1	0120	17	0.	*	1	0735	92	2.	*	1	1350	167	3764.	*	1	2005	242	3.
1	0125	18	0.	*	1	0740	93	2.	*	1	1355	168	3226.	*	1	2010	243	3.
1	0130	19	0.	*	1	0745	94	2.	*	1	1400	169	2762.	*	1	2015	244	3.
1	0135	20	0.	*	1	0750	95	2.	*	1	1405	170	2385.	*	1	2020	245	2.
1	0140	21	0.	*	1	0755	96	2.	*	1	1410	171	2070.	*	1	2025	246	2.
1	0145	22	0.	*	1	0800	97	3.	*	1	1415	172	1782.	*	1	2030	247	2.
1	0150	23	0.	*	1	0805	98	3.	*	1	1420	173	1527.	*	1	2035	248	2.
1	0155	24	0.	*	1	0810	99	3.	*	1	1425	174	1317.	*	1	2040	249	2.
1	0200	25	0.	*	1	0815	100	3.	*	1	1430	175	1158.	*	1	2045	250	2.
1	0205	26	0.	*	1	0820	101	3.	*	1	1435	176	1037.	*	1	2050	251	2.
1	0210	27	0.	*	1	0825	102	3.	*	1	1440	177	931.	*	1	2055	252	2.
1	0215	28	0.	*	1	0830	103	3.	*	1	1445	178	833.	*	1	2100	253	2.
1	0220	29	0.	*	1	0835	104	3.	*	1	1450	179	744.	*	1	2105	254	2.
1	0225	30	0.	*	1	0840	105	3.	*	1	1455	180	664.	*	1	2110	255	2.
1	0230	31	0.	*	1	0845	106	3.	*	1	1500	181	593.	*	1	2115	256	2.
1	0235	32	0.	*	1	0850	107	3.	*	1	1505	182	529.	*	1	2120	257	2.
1	0240	33	0.	*	1	0855	108	3.	*	1	1510	183	473.	*	1	2125	258	1.
1	0245	34	0.	*	1	0900	109	3.	*	1	1515	184	423.	*	1	2130	259	1.
1	0250	35	0.	*	1	0905	110	4.	*	1	1520	185	379.	*	1	2135	260	1.
1	0255	36	0.	*	1	0910	111	4.	*	1	1525	186	343.	*	1	2140	261	1.
1	0300	37	0.	*	1	0915	112	4.	*	1	1530	187	315.	*	1	2145	262	1.
1	0305	38	0.	*	1	0920	113	4.	*	1	1535	188	295.	*	1	2150	263	1.
1	0310	39	0.	*	1	0925	114	4.	*	1	1540	189	276.	*	1	2155	264	1.
1	0315	40	0.	*	1	0930	115	4.	*	1	1545	190	258.	*	1	2200	265	1.
1	0320	41	0.	*	1	0935	116	4.	*	1	1550	191	240.	*	1	2205	266	1.
1	0325	42	0.	*	1	0940	117	4.	*	1	1555	192	222.	*	1	2210	267	1.
1	0330	43	0.	*	1	0945	118	5.	*	1	1600	193	206.	*	1	2215	268	1.
1	0335	44	0.	*	1	0950	119	5.	*	1	1605	194	190.	*	1	2220	269	0.
1	0340	45	0.	*	1	0955	120	6.	*	1	1610	195	176.	*	1	2225	270	0.
1	0345	46	0.	*	1	1000	121	7.	*	1	1615	196	162.	*	1	2230	271	0.
1	0350	47	0.	*	1	1005	122	8.	*	1	1620	197	150.	*	1	2235	272	0.
1	0355	48	0.	*	1	1010	123	9.	*	1	1625	198	138.	*	1	2240	273	0.
1	0400	49	0.	*	1	1015	124	10.	*	1	1630	199	127.	*	1	2245	274	0.
1	0405	50	0.	*	1	1020	125	11.	*	1	1635	200	118.	*	1	2250	275	0.
1	0410	51	0.	*	1	1025	126	12.	*	1	1640	201	108.	*	1	2255	276	0.
1	0415	52	0.	*	1	1030	127	13.	*	1	1645	202	100.	*	1	2300	277	0.
1	0420	53	0.	*	1	1035	128	15.	*	1	1650	203	92.	*	1	2305	278	0.
1	0425	54	0.	*	1	1040	129	16.	*	1	1655	204	85.	*	1	2310	279	0.
1	0430	55	0.	*	1	1045	130	17.	*	1	1700	205	78.	*	1	2315	280	0.
1	0435	56	0.	*	1	1050	131	18.	*	1	1705	206	72.	*	1	2320	281	0.
1	0440	57	0.	*	1	1055	132	20.	*	1	1710	207	67.	*	1	2325	282	0.
1	0445	58	0.	*	1	1100	133	22.	*	1	1715	208	61.	*	1	2330	283	0.
1	0450	59	0.	*	1	1105	134	25.	*	1	1720	209	56.	*	1	2335	284	0.
1	0455	60	0.	*	1	1110	135	29.	*	1	1725	210	52.	*	1	2340	285	0.
1	0500	61	0.	*	1	1115	136	33.	*	1	1730	211	47.	*	1	2345	286	0.
1	0505	62	0.	*	1	1120	137	38.	*	1	1735	212	43.	*	1	2350	287	0.
1	0510	63	0.	*	1	1125	138	43.	*	1	1740	213	39.	*	1	2355	288	0.
1	0515	64	0.	*	1	1130	139	49.	*	1	1745	214	36.	*	2	0000	289	0.
1	0520	65	0.	*	1	1135	140	58.	*	1	1750	215	32.	*	2	0005	290	0.
1	0525	66	0.	*	1	1140	141	70.	*	1	1755	216	29.	*	2	0010	291	0.
1	0530	67	0.	*	1	1145	142	94.	*	1	1800	217	27.	*	2	0015	292	0.
1	0535	68	0.	*	1	1150	143	143.	*	1	1805	218	24.	*	2	0020	293	0.
1	0540	69	1.	*	1	1155	144	226.	*	1	1810	219	22.	*	2	0025	294	0.
1	0545	70	1.	*	1	1200	145	402.	*	1	1815	220	20.	*	2	0030	295	0.
1	0550	71	1.	*	1	1205	146	798.	*	1	1820	221	18.	*	2	0035	296	0.
1	0555	72	1.	*	1	1210	147	1422.	*	1	1825	222	17.	*	2	0040	297	0.
1	0600	73	1.	*	1	1215	148	2427.	*	1	1830	223	15.	*	2	0045	298	0.
1	0605	74	1.	*	1	1220	149	3694.	*	1	1835	224	13.	*	2	0050	299	0.
1	0610	75	1.	*	1	1225	150	5365.	*	1	1840	225	12.	*	2	0055	300	0.

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
		(CFS)				
14394.	12.92		2818.	708.	682.	682.
		(INCHES)	1.279	1.286	1.286	1.286
		(AC-FT)	1398.	1404.	1404.	1404.

CUMULATIVE AREA = 20.48 SQ MI

INTERPOLATED HYDROGRAPH AT CPWT3

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	2.	1		1230	151	8400.	1		1845	226	16.
1		0005	2	0.	1		0620	77	2.	1		1235	152	10826.	1		1850	227	14.
1		0010	3	0.	1		0625	78	2.	1		1240	153	13118.	1		1855	228	13.
1		0015	4	0.	1		0630	79	2.	1		1245	154	14899.	1		1900	229	12.
1		0020	5	0.	1		0635	80	2.	1		1250	155	15673.	1		1905	230	10.
1		0025	6	0.	1		0640	81	2.	1		1255	156	15733.	1		1910	231	9.
1		0030	7	0.	1		0645	82	2.	1		1300	157	15021.	1		1915	232	8.
1		0035	8	0.	1		0650	83	2.	1		1305	158	13807.	1		1920	233	6.
1		0040	9	0.	1		0655	84	2.	1		1310	159	12419.	1		1925	234	6.
1		0045	10	0.	1		0700	85	2.	1		1315	160	10933.	1		1930	235	5.
1		0050	11	0.	1		0705	86	2.	1		1320	161	9443.	1		1935	236	4.
1		0055	12	0.	1		0710	87	2.	1		1325	162	8145.	1		1940	237	4.
1		0100	13	0.	1		0715	88	2.	1		1330	163	7152.	1		1945	238	4.
1		0105	14	0.	1		0720	89	2.	1		1335	164	6238.	1		1950	239	4.
1		0110	15	0.	1		0725	90	2.	1		1340	165	5374.	1		1955	240	4.
1		0115	16	0.	1		0730	91	2.	1		1345	166	4609.	1		2000	241	3.
1		0120	17	0.	1		0735	92	3.	1		1350	167	4000.	1		2005	242	3.
1		0125	18	0.	1		0740	93	3.	1		1355	168	3443.	1		2010	243	3.
1		0130	19	0.	1		0745	94	3.	1		1400	169	2950.	1		2015	244	3.
1		0135	20	0.	1		0750	95	3.	1		1405	170	2534.	1		2020	245	3.
1		0140	21	0.	1		0755	96	3.	1		1410	171	2204.	1		2025	246	3.
1		0145	22	0.	1		0800	97	3.	1		1415	172	1905.	1		2030	247	3.
1		0150	23	0.	1		0805	98	3.	1		1420	173	1637.	1		2035	248	3.
1		0155	24	0.	1		0810	99	3.	1		1425	174	1408.	1		2040	249	3.
1		0200	25	0.	1		0815	100	3.	1		1430	175	1229.	1		2045	250	3.
1		0205	26	0.	1		0820	101	3.	1		1435	176	1092.	1		2050	251	3.
1		0210	27	0.	1		0825	102	4.	1		1440	177	985.	1		2055	252	2.
1		0215	28	0.	1		0830	103	4.	1		1445	178	884.	1		2100	253	2.
1		0220	29	0.	1		0835	104	4.	1		1450	179	792.	1		2105	254	2.
1		0225	30	0.	1		0840	105	4.	1		1455	180	708.	1		2110	255	2.
1		0230	31	0.	1		0845	106	4.	1		1500	181	632.	1		2115	256	2.
1		0235	32	0.	1		0850	107	4.	1		1505	182	565.	1		2120	257	2.
1		0240	33	0.	1		0855	108	4.	1		1510	183	506.	1		2125	258	2.
1		0245	34	0.	1		0900	109	4.	1		1515	184	453.	1		2130	259	2.
1		0250	35	0.	1		0905	110	4.	1		1520	185	406.	1		2135	260	2.
1		0255	36	0.	1		0910	111	4.	1		1525	186	366.	1		2140	261	2.
1		0300	37	0.	1		0915	112	4.	1		1530	187	333.	1		2145	262	2.
1		0305	38	0.	1		0920	113	4.	1		1535	188	310.	1		2150	263	1.
1		0310	39	0.	1		0925	114	5.	1		1540	189	291.	1		2155	264	1.
1		0315	40	0.	1		0930	115	5.	1		1545	190	272.	1		2200	265	1.
1		0320	41	0.	1		0935	116	5.	1		1550	191	255.	1		2205	266	1.
1		0325	42	0.	1		0940	117	6.	1		1555	192	237.	1		2210	267	1.
1		0330	43	0.	1		0945	118	7.	1		1600	193	220.	1		2215	268	1.
1		0335	44	0.	1		0950	119	8.	1		1605	194	205.	1		2220	269	1.

1	0340	45	0.	*	1	0955	120	9.	*	1	1610	195	190.	*	1	2225	270	1.
1	0345	46	0.	*	1	1000	121	10.	*	1	1615	196	176.	*	1	2230	271	1.
1	0350	47	0.	*	1	1005	122	11.	*	1	1620	197	163.	*	1	2235	272	1.
1	0355	48	0.	*	1	1010	123	12.	*	1	1625	198	151.	*	1	2240	273	1.
1	0400	49	0.	*	1	1015	124	13.	*	1	1630	199	139.	*	1	2245	274	1.
1	0405	50	0.	*	1	1020	125	14.	*	1	1635	200	129.	*	1	2250	275	0.
1	0410	51	0.	*	1	1025	126	16.	*	1	1640	201	120.	*	1	2255	276	0.
1	0415	52	0.	*	1	1030	127	17.	*	1	1645	202	111.	*	1	2300	277	0.
1	0420	53	0.	*	1	1035	128	18.	*	1	1650	203	103.	*	1	2305	278	0.
1	0425	54	0.	*	1	1040	129	20.	*	1	1655	204	95.	*	1	2310	279	0.
1	0430	55	0.	*	1	1045	130	22.	*	1	1700	205	89.	*	1	2315	280	0.
1	0435	56	0.	*	1	1050	131	25.	*	1	1705	206	82.	*	1	2320	281	0.
1	0440	57	0.	*	1	1055	132	28.	*	1	1710	207	76.	*	1	2325	282	0.
1	0445	58	0.	*	1	1100	133	32.	*	1	1715	208	71.	*	1	2330	283	0.
1	0450	59	0.	*	1	1105	134	36.	*	1	1720	209	66.	*	1	2335	284	0.
1	0455	60	0.	*	1	1110	135	41.	*	1	1725	210	61.	*	1	2340	285	0.
1	0500	61	0.	*	1	1115	136	45.	*	1	1730	211	57.	*	1	2345	286	0.
1	0505	62	0.	*	1	1120	137	51.	*	1	1735	212	52.	*	1	2350	287	0.
1	0510	63	0.	*	1	1125	138	56.	*	1	1740	213	49.	*	1	2355	288	0.
1	0515	64	0.	*	1	1130	139	62.	*	1	1745	214	45.	*	2	0000	289	0.
1	0520	65	1.	*	1	1135	140	72.	*	1	1750	215	41.	*	2	0005	290	0.
1	0525	66	1.	*	1	1140	141	86.	*	1	1755	216	38.	*	2	0010	291	0.
1	0530	67	1.	*	1	1145	142	114.	*	1	1800	217	35.	*	2	0015	292	0.
1	0535	68	1.	*	1	1150	143	170.	*	1	1805	218	32.	*	2	0020	293	0.
1	0540	69	1.	*	1	1155	144	266.	*	1	1810	219	29.	*	2	0025	294	0.
1	0545	70	1.	*	1	1200	145	476.	*	1	1815	220	27.	*	2	0030	295	0.
1	0550	71	1.	*	1	1205	146	945.	*	1	1820	221	25.	*	2	0035	296	0.
1	0555	72	1.	*	1	1210	147	1671.	*	1	1825	222	23.	*	2	0040	297	0.
1	0600	73	1.	*	1	1215	148	2796.	*	1	1830	223	21.	*	2	0045	298	0.
1	0605	74	1.	*	1	1220	149	4234.	*	1	1835	224	19.	*	2	0050	299	0.
1	0610	75	1.	*	1	1225	150	6107.	*	1	1840	225	17.	*	2	0055	300	0.
				*					*					*				

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PEAK FLOW (CFS)	TIME (HR)	MAXIMUM AVERAGE FLOW	6-HR	24-HR	72-HR	24.92-HR
+		(CFS)				
+ 15733.	12.92		3075.	774.	745.	745.
		(INCHES)	1.396	1.405	1.405	1.405
		(AC-FT)	1525.	1534.	1534.	1534.

CUMULATIVE AREA = 20.48 SQ MI

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            *            *
342 KK      *    SRWT3   *
            *            *
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344 KO          OUTPUT CONTROL VARIABLES
                      IPRNT          3  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE

                HYDROGRAPH ROUTING DATA

322 RL          ROUTING LOSSES
                      QLOSS        .00  INITIAL LOSS
                      CLOSS        .00  ADDITIONAL FRACTION LOST

345 RS          STORAGE ROUTING
                      NSTPS          1  NUMBER OF SUBREACHES
                       ITYP       STOR  TYPE OF INITIAL CONDITION
                     RSVRIC        .00  INITIAL CONDITION
                          X        .00 WORKING R AND D COEFFICIENT

346 SV            STORAGE          .0       1.0      14.0      42.0      91.0     203.0     466.0     958.0    1704.0    2716.0
                                3012.0    3325.0    3657.0    4006.0

348 SQ          DISCHARGE          0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
                                    0.     3550.     9000.    17600.

350 SE          ELEVATION       1174.00   1176.00   1180.00   1184.00   1188.00   1192.00   1196.00   1200.00   1204.00   1208.00
                                1209.00   1210.00   1211.00   1212.00

352 SS          SPILLWAY
                       CREL     1209.00  SPILLWAY CREST ELEVATION
                      SPWID        .00  SPILLWAY WIDTH
                       COQW        .00  WEIR COEFFICIENT
                       EXPW       1.50  EXPONENT OF HEAD

353 ST          TOP OF DAM
                      TOPEL     1212.10  ELEVATION AT TOP OF DAM
                     DAMWID     7667.00  DAM WIDTH
                       COQD       2.20  WEIR COEFFICIENT
                       EXPD       1.50  EXPONENT OF HEAD

    SW          DAM WIDTH       1000.00   1995.00   3000.00   4000.00   4988.00   6008.00   7007.00
    SE          ELEVATION       1212.10   1212.40   1212.63   1213.32   1214.72   1214.94   1214.80
                                                                   ***

                                          COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

                                                (INCLUDING FLOW OVER DAM)

          STORAGE        .00      1.00     14.00     42.00     91.00    203.00    466.00    958.00   1704.00   2716.00
          OUTFLOW        .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
        ELEVATION    1174.00   1176.00   1180.00   1184.00   1188.00   1192.00   1196.00   1200.00   1204.00   1208.00

          STORAGE    3012.00   3325.00   3657.00   4006.00
          OUTFLOW        .00   3550.00   9000.00  17600.00
        ELEVATION    1209.00   1210.00   1211.00   1212.00

     ***            ***            ***            ***            ***

                     HYDROGRAPH AT STATION    SRWT3
                   TRANSPOSITION AREA        .0 SQ MI

PEAK OUTFLOW IS        0. AT TIME    .00 HOURS
```

PEAK FLOW (CFS)	TIME (HR)	MAXIMUM AVERAGE FLOW	6-HR	24-HR	72-HR	24.92-HR
+		(CFS)				
+ 0.	.00		0.	0.	0.	0.
		(INCHES)	.000	.000	.000	.000
		(AC-FT)	0.	0.	0.	0.

PEAK STORAGE TIME MAXIMUM AVERAGE STORAGE

		6-HR	24-HR	72-HR	24.92-HR
+ (AC-FT)	(HR)				
1601.	21.83	1600.	781.	753.	753.

PEAK STAGE TIME — MAXIMUM AVERAGE STAGE

		6-HR	24-HR	72-HR	24.92-HR
+ (FEET)	(HR)				
1203.45	21.83	1203.44	1189.57	1189.00	1189.00

CUMULATIVE AREA = 20.48 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION SRWT3
TRANSPOSITION AREA 10.0 SQ MI

PEAK OUTFLOW IS 0. AT TIME .00 HOURS

PEAK FLOW TIME — MAXIMUM AVERAGE FLOW

		6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)				
		(CFS)			
+ 0.	.00	0.	0.	0.	0.
		(INCHES) .000	.000	.000	.000
		(AC-FT) 0.	0.	0.	0.

PEAK STORAGE TIME — MAXIMUM AVERAGE STORAGE

		6-HR	24-HR	72-HR	24.92-HR
+ (AC-FT)	(HR)				
1577.	21.75	1577.	770.	741.	741.

PEAK STAGE TIME — MAXIMUM AVERAGE STAGE

		6-HR	24-HR	72-HR	24.92-HR
+ (FEET)	(HR)				
1203.32	21.75	1203.32	1189.49	1188.92	1188.92

CUMULATIVE AREA = 20.48 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION SRWT3
TRANSPOSITION AREA 50.0 SQ MI

PEAK OUTFLOW IS 0. AT TIME .00 HOURS

PEAK FLOW TIME — MAXIMUM AVERAGE FLOW

		6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)				
		(CFS)			
+ 0.	.00	0.	0.	0.	0.
		(INCHES) .000	.000	.000	.000
		(AC-FT) 0.	0.	0.	0.

PEAK STORAGE TIME — MAXIMUM AVERAGE STORAGE

		6-HR	24-HR	72-HR	24.92-HR
+ (AC-FT)	(HR)				
1481.	21.50	1481.	723.	696.	696.

PEAK STAGE TIME — MAXIMUM AVERAGE STAGE

		6-HR	24-HR	72-HR	24.92-HR
+ (FEET)	(HR)				
1202.81	21.50	1202.80	1189.18	1188.62	1188.62

CUMULATIVE AREA = 20.48 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION SRWT3
TRANSPOSITION AREA 100.0 SQ MI

PEAK OUTFLOW IS 0. AT TIME .00 HOURS

PEAK FLOW TIME — MAXIMUM AVERAGE FLOW

		6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)				
		(CFS)			
+ 0.	.00	0.	0.	0.	0.
		(INCHES) .000	.000	.000	.000
		(AC-FT) 0.	0.	0.	0.

PEAK STORAGE TIME — MAXIMUM AVERAGE STORAGE

		6-HR	24-HR	72-HR	24.92-HR
+ (AC-FT)	(HR)				
1440.	21.42	1440.	702.	676.	676.

PEAK STAGE TIME — MAXIMUM AVERAGE STAGE

		6-HR	24-HR	72-HR	24.92-HR
+ (FEET)	(HR)				
1202.58	21.42	1202.58	1189.04	1188.49	1188.49

CUMULATIVE AREA = 20.48 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION SRWT3
TRANSPOSITION AREA 200.0 SQ MI

PEAK OUTFLOW IS 0. AT TIME .00 HOURS

PEAK FLOW TIME — MAXIMUM AVERAGE FLOW

		6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)				
		(CFS)			
+ 0.	.00	0.	0.	0.	0.
		(INCHES) .000	.000	.000	.000
		(AC-FT) 0.	0.	0.	0.

PEAK STORAGE TIME — MAXIMUM AVERAGE STORAGE

		6-HR	24-HR	72-HR	24.92-HR
+ (AC-FT)	(HR)				
1404.	21.25	1404.	685.	659.	659.

PEAK STAGE TIME — MAXIMUM AVERAGE STAGE

		6-HR	24-HR	72-HR	24.92-HR
+ (FEET)	(HR)				
1202.39	21.25	1202.39	1188.92	1188.37	1188.37

CUMULATIVE AREA = 20.48 SQ MI

*** *** *** *** ***

INTERPOLATED HYDROGRAPH AT SRWT3

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
+ 0.	.00	(CFS)	0.	0.	0.	0.
		(INCHES)	.000	.000	.000	.000
		(AC-FT)	0.	0.	0.	0.

CUMULATIVE AREA = 20.48 SQ MI

1

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	1	2483.	12.42	360.	102.	98.	1.94		
+	ROUTED TO	RCP1	2222.	12.67	349.	92.	89.	1.94		
+	HYDROGRAPH AT	2	1763.	12.75	340.	97.	94.	1.82		
+	2 COMBINED AT	CP2	3973.	12.75	688.	189.	182.	3.76		
+	ROUTED TO	RCP2	3740.	12.83	674.	180.	174.	3.76		
+	HYDROGRAPH AT	3A	339.	12.33	34.	9.	8.	.29		
+	ROUTED TO	RCP3A	268.	12.50	32.	8.	8.	.29		
+	HYDROGRAPH AT	3	959.	12.33	100.	25.	24.	.81		
+	2 COMBINED AT	I1CP3	1159.	12.42	132.	33.	32.	1.10		
+	2 COMBINED AT	CP3	4050.	12.83	805.	213.	205.	4.86		
+	ROUTED TO	RCP3	3855.	13.00	786.	200.	193.	4.86		
+	HYDROGRAPH AT	4	518.	12.17	56.	16.	15.	.30		
+	HYDROGRAPH AT	5	1234.	12.25	135.	38.	36.	.72		
+	2 COMBINED AT	CP5	1750.	12.25	191.	53.	52.	1.02		
+	ROUTED TO	RCP5	1705.	12.25	190.	52.	50.	1.02		
+	HYDROGRAPH AT	6	971.	12.08	84.	24.	23.	.45		
+	2 COMBINED AT	I1CP7	2398.	12.17	273.	76.	73.	1.47		
+	HYDROGRAPH AT	7	651.	12.08	57.	16.	16.	.31		
+	2 COMBINED AT	CP7	3009.	12.17	330.	92.	89.	1.78		
+	ROUTED TO	RCP7	2682.	12.33	323.	85.	82.	1.78		
+	HYDROGRAPH AT	9	1990.	12.33	259.	73.	71.	1.40		
+	2 COMBINED AT	I1CP9	4667.	12.33	581.	158.	153.	3.18		
+	HYDROGRAPH AT	8	1239.	12.25	150.	43.	41.	.81		
+	2 COMBINED AT	CP9	5896.	12.33	731.	201.	193.	3.99		
+	ROUTED TO	RCP9	5027.	12.75	702.	181.	174.	3.99		
+	HYDROGRAPH AT	10	1601.	12.75	285.	74.	71.	2.02		
+	2 COMBINED AT	I1CP10	6623.	12.75	986.	255.	245.	6.01		
+	2 COMBINED AT	CP10	9915.	12.75	1764.	453.	436.	10.87		
+	ROUTED TO	RCP10	9718.	12.83	1756.	447.	431.	10.87		
+	HYDROGRAPH AT	12	1396.	12.50	199.	52.	50.	1.38		
+	2 COMBINED AT	CP12	10497.	12.83	1944.	497.	479.	12.25		
+	ROUTED TO	RCP12	10023.	13.00	1899.	477.	459.	12.25		
+	HYDROGRAPH AT	11	1967.	12.42	282.	77.	74.	1.56		
+	ROUTED TO	RCP11	1666.	12.75	281.	77.	74.	1.56		
+	HYDROGRAPH AT	13	1367.	12.42	165.	41.	40.	1.30		

```
          2 COMBINED AT
+                    CP13     2599.   12.58        446.        118.        113.       2.86
          ROUTED TO
+                   RCP13     2564.   12.67        446.        118.        113.       2.86
          HYDROGRAPH AT
+                      14     2135.   12.33        273.         77.         74.       1.47
          ROUTED TO
+                   RCP14     1985.   12.50        273.         76.         74.       1.47
          HYDROGRAPH AT
+                      15     1636.   12.42        213.         59.         57.       1.26
          2 COMBINED AT
+                  I1CP15     3468.   12.42        485.        136.        131.       2.73
          HYDROGRAPH AT
+                      16     1442.   12.42        194.         55.         53.       1.13
          2 COMBINED AT
+                    CP15     4906.   12.42        678.        191.        184.       3.86
          ROUTED TO
+                   RCP15     4377.   12.67        633.        159.        153.       3.86
          HYDROGRAPH AT
+                      17     1027.   12.25        123.         31.         30.       1.07
          2 COMBINED AT
+                  I1CP17     4909.   12.58        756.        190.        183.       4.93
          2 COMBINED AT
+                    CP17     7379.   12.58       1200.        307.        296.       7.79
          ROUTED TO
+                   RCP17     7391.   12.67       1192.        301.        290.       7.79
          HYDROGRAPH AT
+                     WT3      421.   12.50         56.         14.         13.        .44
          2 COMBINED AT
+                  I1CWT3     7741.   12.67       1248.        315.        303.       8.23
          2 COMBINED AT
+                   CPWT3    15733.   12.92       3075.        774.        745.      20.48
          ROUTED TO
+                   SRWT3        0.     .00          0.          0.          0.      20.48
1                   SUMMARY OF DAM OVERTOPPING/BREACH ANALYSIS FOR STATION    SRWT3
                 (PEAKS SHOWN ARE FOR INTERNAL TIME STEP USED  DURING BREACH FORMATION)

PLAN  1 ..............                INITIAL VALUE     SPILLWAY CREST     TOP OF DAM
                          ELEVATION       1174.00           1209.00          1212.10
                          STORAGE              0.              3012.             4041.
                          OUTFLOW              0.                 0.            18460.

                RATIO     MAXIMUM      MAXIMUM    MAXIMUM    MAXIMUM    DURATION     TIME OF     TIME OF
                  OF     RESERVOIR      DEPTH     STORAGE    OUTFLOW    OVER TOP    MAX OUTFLOW   FAILURE
                 PMF     W.S.ELEV     OVER DAM     AC-FT       CFS       HOURS         HOURS       HOURS

                1.00     1203.45          .00      1601.        0.        .00           .00         .00

PLAN  2 ..............                INITIAL VALUE     SPILLWAY CREST     TOP OF DAM
                          ELEVATION       1174.00           1209.00          1212.10
                          STORAGE              0.              3012.             4041.
                          OUTFLOW              0.                 0.            18460.

                RATIO     MAXIMUM      MAXIMUM    MAXIMUM    MAXIMUM    DURATION     TIME OF     TIME OF
                  OF     RESERVOIR      DEPTH     STORAGE    OUTFLOW    OVER TOP    MAX OUTFLOW   FAILURE
                 PMF     W.S.ELEV     OVER DAM     AC-FT       CFS       HOURS         HOURS       HOURS

                1.00     1203.32          .00      1577.        0.        .00           .00         .00

PLAN  3 ..............                INITIAL VALUE     SPILLWAY CREST     TOP OF DAM
                          ELEVATION       1174.00           1209.00          1212.10
                          STORAGE              0.              3012.             4041.
                          OUTFLOW              0.                 0.            18460.

                RATIO     MAXIMUM      MAXIMUM    MAXIMUM    MAXIMUM    DURATION     TIME OF     TIME OF
                  OF     RESERVOIR      DEPTH     STORAGE    OUTFLOW    OVER TOP    MAX OUTFLOW   FAILURE
                 PMF     W.S.ELEV     OVER DAM     AC-FT       CFS       HOURS         HOURS       HOURS

                1.00     1202.81          .00      1481.        0.        .00           .00         .00

PLAN  4 ..............                INITIAL VALUE     SPILLWAY CREST     TOP OF DAM
                          ELEVATION       1174.00           1209.00          1212.10
                          STORAGE              0.              3012.             4041.
                          OUTFLOW              0.                 0.            18460.

                RATIO     MAXIMUM      MAXIMUM    MAXIMUM    MAXIMUM    DURATION     TIME OF     TIME OF
                  OF     RESERVOIR      DEPTH     STORAGE    OUTFLOW    OVER TOP    MAX OUTFLOW   FAILURE
                 PMF     W.S.ELEV     OVER DAM     AC-FT       CFS       HOURS         HOURS       HOURS

                1.00     1202.58          .00      1440.        0.        .00           .00         .00

PLAN  5 ..............                INITIAL VALUE     SPILLWAY CREST     TOP OF DAM
                          ELEVATION       1174.00           1209.00          1212.10
                          STORAGE              0.              3012.             4041.
                          OUTFLOW              0.                 0.            18460.

                RATIO     MAXIMUM      MAXIMUM    MAXIMUM    MAXIMUM    DURATION     TIME OF     TIME OF
                  OF     RESERVOIR      DEPTH     STORAGE    OUTFLOW    OVER TOP    MAX OUTFLOW   FAILURE
                 PMF     W.S.ELEV     OVER DAM     AC-FT       CFS       HOURS         HOURS       HOURS

                1.00     1202.39          .00      1404.        0.        .00           .00         .00

*** NORMAL END OF HEC-1 ***
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APPENDIX 4.3 70% VOLUMETRIC ROCK (T:\BIZ\WT#3 SPILLWAY\FUTEX70N.OUT)

```
1*************************************                    *************************************
*                                   *                    *                                   *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                    *   U.S. ARMY CORPS OF ENGINEERS    *
*             JUL   1997            *                    *   HYDROLOGIC ENGINEERING CENTER   *
*           VERSION 4.1             *                    *         609 SECOND STREET         *
*                                   *                    *      DAVIS, CALIFORNIA 95616      *
*  RUN DATE   20OCT99  TIME  19:20:33 *                    *         (916) 756-1104            *
*                                   *                    *                                   *
*************************************                    *************************************

                                        X     X  XXXXXXX   XXXXX          X
                                        X     X  X        X     X        XX
                                        X     X  X        X              X
                                        XXXXXXX  XXXX     X        XXXXX X
                                        X     X  X        X              X
                                        X     X  X        X     X        X
                                        X     X  XXXXXXX   XXXXX        XXX


THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                          HEC-1 INPUT                                                    PAGE  1

      LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

        1           ID          White Tanks #3 future condition (Beardsley Canal Wash Improvement)
        2           ID          May, 1999, FCDMC
        3           ID          Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999
        4           ID          70% rock in the soils
        5           ID
        6           ID          WHITE TANKS/ AGUA FRIA AREA DRAINAGE MASTER PLAN
        7           ID          FINAL HYDROLOGY RUN FOR WHITE TANKS ADMP ---- ENTIRE WATERSHED
        8           ID          100-YEAR, 24-HOUR STORM                    FILE: WTADMPS.24
        9           ID          THIS MODEL INCORPORATES FUTURE CHANNELS OR CHANNEL IMPROVEMENTS ALONG:
       10           ID          -BEARDSLEY CANAL WASH,WHITE TANKS NO. 3 TO PEORIA AV.
       11           ID          -TUTHILL DIKE WASH,WHITE TANKS NO. 4 TO APPROX. 1/2 MILE NORTH OF
       12           ID           CAMELBACK ROAD
       13           ID          -JACKRABBIT TRAIL WASH,WHITE TANKS NO. 4 TO WHITE TANKS NO. 3
       14           ID          -DYSART DRAIN,AGUA FRIA RIVER TO REEMS ROAD
       15           ID          -REEMS ROAD CHANNEL,NORTHERN AV. TO BELL ROAD
       16           ID          -WADDEL ROAD CHANNEL,DYSART ROAD TO  REEMS ROAD
       17           ID          - I-10 (INTERSTATE-10) CHANNEL,ESTRELLA FREEWAY TO 191ST AV.
       18           ID          -BULLARD WASH,GILA RIVER TO APPROX. 1/4 MILE SOUTH OF LOWER BUKEYE RD.
       19           ID          -ESTRELLA FREEWAY CHANNEL,GILA RIVER TO BELL ROAD.
       20           ID          -CAMELBACK ROAD CHANNEL,AGUA FRIA RIVER TO LITCHFIELD ROAD
       21           ID          IT ALSO ASSUMES THAT THE SUN CITY GRAND PROJECT,NORTH OF BELL ROAD
       22           ID          (SEE FIURE 9.2), WILL RETAIN ONSITE FLOWS AND BLEED OFF TO THE
       23           ID           EXISTING BELL ROAD CHANNEL
       24           ID
       25           ID
                    *DIAGRAM
       26           IT       5                    300
       27           IO       5
       28           IN      15
       29           JD    4.03    .001
       30           PC    .000    .002    .005    .008    .011    .014    .017    .020    .023    .026
       31           PC    .029    .032    .035    .038    .041    .044    .048    .052    .056    .060
       32           PC    .064    .068    .072    .076    .080    .085    .090    .095    .100    .105
       33           PC    .110    .115    .120    .126    .133    .140    .147    .155    .163    .172
       34           PC    .181    .191    .203    .218    .236    .257    .283    .387    .663    .707
       35           PC    .735    .758    .776    .791    .804    .815    .825    .834    .842    .849
       36           PC    .856    .863    .869    .875    .881    .887    .893    .898    .903    .908
       37           PC    .913    .918    .922    .926    .930    .934    .938    .942    .946    .950
       38           PC    .953    .956    .959    .962    .965    .968    .971    .974    .977    .980
       39           PC    .983    .986    .989    .992    .995    .998    1.00   1.000   1.000   1.000
       40           JD    3.99      10
       41           JD    3.83      50
       42           JD    3.76     100
       43           JD    3.70     200

       44           KK       1
       45           KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 1.
       46           BA    1.94
       47           LG    0.35    0.15   8.004   0.082  19.802
       48           UI    182.    326.    742.    974.   1186.   1502.   2185.   1957.   1537.   1243.
       49           UI    989.    751.    417.    308.    230.    182.     64.     56.     56.     56.
       50           UI     56.      0.      0.      0.      0.      0.      0.      0.      0.      0.
       51           UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
1                                          HEC-1 INPUT                                                    PAGE  2

      LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

       52           KK    RCP1
       53           KM        ROUTE FLOW FROM CP1 TO CP2.
       54           RL                  1    1428
       55           RS       5         -1       0
       56           RC     .06     .04     .06   17800   .0469
       57           RX    1000    1125    1300    1390    1405    1490    1590    1750
       58           RY    1440    1439    1437    1428    1428    1439    1442    1444

       59           KK       2
       60           KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 2.
       61           BA    1.82
       62           LG    0.35    0.15   7.297   0.105  21.855
       63           UI    115.    115.    259.    442.    556.    642.    727.    849.   1013.   1346.
       64           UI   1419.   1145.    985.    864.    735.    634.    545.    405.    268.    202.
       65           UI    189.    144.    115.    103.     35.     35.     35.     35.     35.     35.
       66           UI     35.      0.      0.      0.      0.      0.      0.      0.      0.      0.
       67           UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

       68           KK     CP2
       69           KM        ADD HYDROGRAPHS AT CP2.
       70           HC       2

       71           KK    RCP2
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 72          KM        ROUTE COMBINED HYDROGRAPHS AT CP2 TO CP3.
 73          RL                     1.5    1298
 74          RS      2               -1       0
 75          RC    .06     .035     .06    4500    .0111
 76          RX   1000    1100    1350    1705    1735    1780    1850    2000
 77          RY   1304    1302    1302    1298    1298    1303    1302    1305

 78          KK     3A
 79          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 3A
 80          BA    .29
 81          LG  0.336    0.24    4.14   0.432       0
 82          UI    34.     89.    165.    212.    286.    410.    314.    242.    182.    124.
 83          UI    62.     48.     33.     10.     10.     10.     10.      0.      0.      0.
 84          UI     0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

 85          KK   RCP3A
 86          KM        ROUTE FLOW FROM CP3A TO CP3
 87          RL                     1.5    1284
 88          RS      2               -1       0
 89          RC    .03     .03     .05    5300    .0060
 90          RX   1000    1023    1032    1046    1058    1067    1250    1540
 91          RY   1289    1288    1286    1284    1284    1286    1288    1291

 92          KK      3
 93          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 3.
 94          BA    .81
 95          LG  0.339   0.242   4.441   0.362       0
 96          UI    91.    228.    430.    554.    725.   1088.    908.    700.    535.    396.
 97          UI   205.    152.     95.     57.     28.     28.     28.      0.      0.      0.
 98          UI     0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
1                                          HEC-1 INPUT                                          PAGE  3
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 99          KK   I1CP3
100          KM        ADD HYDROGRAPHS AT CP3.
101          HC      2

102          KK    CP3
103          KM        ADD HYDROGRAPHS AT CP3.
104          HC      2

105          KK    RCP3
106          KM        ROUTE FLOW FROM CP3 TO CP10.
107          RL                       2    1245
108          RS      2               -1       0
109          RC    .05     .03     .05    5280    .0083
110          RX   1010    1015    1020    1050    1100    1275    1580    1750
111          RY   1251    1249    1249    1245    1245    1250    1250    1254

112          KK      4
113          KM        RUNOFF HYDROGRAPH FORM SUB-BASIN 4.
114          BA    .30
115          LG   0.35    0.15   8.032   0.081  18.504
116          UI    48.    192.    287.    444.    512.    346.    236.    115.     67.     35.
117          UI    14.     14.      0.      0.      0.      0.      0.      0.      0.      0.
118          UI     0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

119          KK      5
120          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 5.
121          BA    .72
122          LG   0.35    0.15   8.044    0.08  17.926
123          UI   110.    437.    658.    992.   1242.    849.    591.    315.    174.    101.
124          UI    34.     34.     34.      0.      0.      0.      0.      0.      0.      0.
125          UI     0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

126          KK    CP5
127          KM        ADD HYDROGRAPHS AT CP5.
128          HC      2

129          KK    RCP5
130          KM        ROUTE COMBINED HYDROGRAPHS AT CP5 TO CP7.
131          RL                      .5    2800
132          RS      1               -1       0
133          RC    .08     .05     .08    4800    .0833
134          RX    955     970     985    1000    1020    1035    1050    1065
135          RY   2815    2810    2805    2800    2800    2805    2810    2815

136          KK      6
137          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 6.
138          BA    .45
139          LG   0.35    0.15       8   0.082      20
140          UI   204.    622.   1139.    837.    427.    155.     54.     33.      0.      0.
141          UI     0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
1                                          HEC-1 INPUT                                          PAGE  4
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

142          KK   I1CP7
143          KM        ADD HYDROGRAPHS AT CP7.
144          HC      2

145          KK      7
146          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 7.
147          BA    .31
148          LG   0.35    0.15       8   0.082      20
149          UI   126.    387.    716.    606.    343.    129.     52.     22.      0.      0.
150          UI     0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

151          KK    CP7
152          KM        ADD HYDROGRAPHS AT CP7.
153          HC      2

154          KK    RCP7
155          KM        ROUTE COMBINED HYDROGRAPHS AT CP7 TO CP9.
156          RL                      .5    1838
157          RS      3               -1       0
158          RC    .08     .05     .08   10200   .07745
159          RX   1000    1045    1120    1195    1230    1300    1350    1450
160          RY   1910    1880    1850    1838    1838    1850    1880    1910

161          KK      9
162          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 9.
163          BA   1.40
164          LG   0.35    0.15   7.933   0.084  19.572
165          UI   155.    381.    727.    935.   1216.   1832.   1591.   1224.    938.    705.
166          UI   386.    261.    177.    115.     47.     47.     47.     47.      0.      0.
167          UI     0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

168          KK   I1CP9
169          KM        ADD HYDROGRAPHS AT CP9.
170          HC      2

171          KK      8
172          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 8.
173          BA    .81
```

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 174          LG    0.35    0.15       8   0.082      20
 175          UI    102.    313.    535.    703.   1054.   1140.    822.    608.    421.    208.
 176          UI    147.     96.     31.     31.     31.      0.      0.      0.      0.      0.
 177          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

 178          KK     CP9
 179          KM        ADD HYDROGRAPHS AT CP9.
 180          HC       2

 181          KK    RCP9
 182          KM        ROUTE COMBINED HYDROGRAPHS AT CP9 TO CP10.
 183          RL                     1.5    1308
 184          RS       8              -1       0
 185          RC     .06    .035     .06   19200   .0232
 186          RX    1000    1085    1310    1395    1415    1450    1630    1665
 187          RY    1317    1314    1311    1308    1308    1314    1314    1317
1                                          HEC-1 INPUT                                          PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 188          KK      10
 189          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 10.
 190          BA    2.02
 191          LG   0.347   0.248   5.159   0.249    4.52
 192          UI    119.    119.    218.    427.    546.    632.    708.    812.    929.   1148.
 193          UI   1499.   1393.   1156.   1006.    894.    765.    669.    577.    475.    325.
 194          UI    210.    201.    193.    119.    119.     86.     36.     36.     36.     36.
 195          UI     36.     36.     36.     36.      0.      0.      0.      0.      0.      0.
 196          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

 197          KK  I1CP10
 198          KM        ADD HYDROGRAPHS AT CP10
 199          HC       2

 200          KK    CP10
 201          KM        ADD HYDROGRAPHS AT CP10
 202          HC       2

 203          KK   RCP10
 204          KM        ROUTE FLOW AT CP10 TO CP12.
 205          RL                     2.0    1211
 206          RS       1              -1       0
 207          RC     .03     .03     .05    3500   .0057
 208          RX     995    1000    1020    1055    1085    1165    1250    1330
 209          RY    1221    1220    1220    1211    1211    1218    1220    1222

 210          KK      12
 211          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 12.
 212          BA    1.38
 213          LG   0.346   0.247   5.277   0.236   5.217
 214          UI    111.    129.    393.    535.    636.    758.    930.   1311.   1277.   1008.
 215          UI    850.    697.    574.    445.    264.    191.    169.    111.     92.     34.
 216          UI     34.     34.     34.     34.     34.      0.      0.      0.      0.      0.
 217          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

 218          KK    CP12
 219          KM        ADD HYDROGRAPHS AT CP12.
 220          HC       2

 221          KK   RCP12
 222          KM        ROUTE COMBINED HYDROGRAPHS AT CP12 TO CPWT3
 223          RL                     2.0    1196
 224          RS       2              -1       0
 225          RC     .03     .03     .04    4800   .0031
 226          RX     995    1000    1020    1080    1200    1530    1665    1760
 227          RY    1211    1211    1210    1196    1196    1200    1204    1204

 228          KK      11
 229          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 11.
 230          BA    1.56
 231          LG    0.35    0.15   7.363   0.103  13.299
 232          UI    143.    245.    571.    755.    913.   1142.   1648.   1623.   1254.   1026.
 233          UI    821.    643.    394.    248.    210.    143.     86.     44.     44.     44.
 234          UI     44.      0.      0.      0.      0.      0.      0.      0.      0.      0.
1                                          HEC-1 INPUT                                          PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 235          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

 236          KK   RCP11
 237          KM        ROUTE HYROGRAPH FROM CP11 TO CP13.
 238          RL                     1.5    1196
 239          RS       3              -1       0
 240          RC     .06    .035     .06   10200   .0098
 241          RX    1000    1070    1300    1480    1510    1525    1555    1600
 242          RY    1233    1232    1230    1222    1222    1230    1232    1233

 243          KK      13
 244          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 13.
 245          BA    1.30
 246          LG    0.35    0.25    4.62   0.322       0
 247          UI    120.    210.    485.    639.    774.    973.   1416.   1333.   1039.    847.
 248          UI    674.    527.    303.    206.    167.    120.     60.     37.     37.     37.
 249          UI     37.      0.      0.      0.      0.      0.      0.      0.      0.      0.
 250          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

 251          KK    CP13
 252          KM        ADD HYDROGRAPHS AT CP13.
 253          HC       2

 254          KK   RCP13
 255          KM        ROUTE COMBINED HYDROGRAPHS AT CP13 TO CP17
 256          RL                     1.5    1222
 257          RS       2              -1       0
 258          RC     .03     .03     .04    2400   .0042
 259          RX    1000    1025    1040    1065    1085    1110    1175    1200
 260          RY    1206    1198    1196    1194    1194    1198    1198    1201

 261          KK      14
 262          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 14.
 263          BA    1.47
 264          LG    0.35    0.15   7.996   0.082  18.195
 265          UI    166.    421.    790.   1019.   1341.   1998.   1636.   1264.    961.    699.
 266          UI    362.    274.    166.     93.     51.     51.     51.      0.      0.      0.
 267          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

 268          KK   RCP14
 269          KM        ROUTE FLOW FROM CP14 TO CP15.
 270          RL                     2.0    1194
 271          RS       4              -1       0
 272          RC     .06    .035     .06    8800  .02556
 273          RX    1000    1030    1075    1200    1220    1280    1415    1480
 274          RY    1296    1295    1294    1288    1288    1294    1296    1300

 275          KK      15
 276          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 15.
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 277          BA    1.26
 278          LG    0.35    0.177    6.728    0.133    15.67
 279          UI    130.     281.     577.     747.     938.   1321.   1552.   1156.    920.    713.
 280          UI    519.     277.     217.     138.      93.     40.     40.     40.     40.      0.
 281          UI      0.       0.       0.       0.       0.      0.      0.      0.      0.      0.
 282          UI      0.       0.       0.       0.       0.      0.      0.      0.      0.      0.
1                                                HEC-1 INPUT                                          PAGE  7
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 283          KK  I1CP15
 284          KM        ADD HYDROGRAPHS AT CP15
 285          HC       2

 286          KK      16
 287          KO       1
 288          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 16.
 289          BA    1.13
 290          LG    0.35    0.25    6.002    0.175  19.953
 291          UI    115.     240.     503.     652.     814.   1126.   1393.   1049.    839.    655.
 292          UI    497.     268.     194.     137.     101.     35.     35.     35.     35.      0.
 293          UI      0.       0.       0.       0.       0.      0.      0.      0.      0.      0.
 294          UI      0.       0.       0.       0.       0.      0.      0.      0.      0.      0.
              * KK  SR16
              * KM      STORAGE ROUTE THROUGH THE CATERPILLAR DETENTION BASIN IN SUBWATERSHED
              * RS     1    STOR       0       0
              * SV     0       1      31     114     270     502     807    1319    1388      14
              * SQ     0                                                                        1
              * SE  1198    1200    1210    1220    1230    1240    1250    1260    1261      12

 295          KK    CP15
 296          KO       1
 297          KM        ADD HYDROGRAPHS AT CP15.
 298          HC       2

 299          KK   RCP15
 300          KM        ROUTE COMBINED HYDROGRAPHS AT CP15 TO CP17.
 301          RL                     2.0    1226
 302          RS       3              -1       0
 303          RC     .06     .035     .06    6800   .0079
 304          RX    1000    1310    1380    1540    1640    1670    1700    1910
 305          RY    1234    1232    1228    1226    1226    1228    1232    1235

 306          KK      17
 307          KM        RUNOFFF HYDROGRAPH FROM SUB-BASIN 17.
 308          BA    1.07
 309          LG    0.35    0.25    4.121    0.438       0
 310          UI    117.     254.     572.     810.    1052.   1196.    753.    635.    540.    450.
 311          UI    353.     287.     254.     194.     149.    129.    103.     90.     64.     57.
 312          UI     57.      26.      22.      22.      22.     22.     22.     22.      0.      0.
 313          UI      0.       0.       0.       0.       0.      0.      0.      0.      0.      0.

 314          KK  I1CP17
 315          KM        ADD HYDROGRAPHS AT CP17.
 316          HC       2

 317          KK    CP17
 318          KM        ADD HYDROGRAPHS AT CP17.
 319          HC       2
1                                                HEC-1 INPUT                                          PAGE  8
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 320          KK   RCP17
 321          KM        ROUTE FLOW FROM CP17 TO CPWT3
 322          RL                     2.0    1182
 323          RS       2              -1       0
 324          RC     .06      .04     .04    1600   .0022
 325          RX    1000    1220    1280    1470    1530    1660    1680    1685
 326          RY    1196    1194    1190    1182    1182    1210    1211    1212

 327          KK     WT3
 328          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN WT3
 329          BA     .44
 330          LG   0.344   0.246    4.577    0.33       0
 331          UI     36.      44.     128.     175.     207.    249.    308.    436.    399.    318.
 332          UI    267.     220.     179.     133.      78.     61.     49.     36.     23.     11.
 333          UI     11.      11.      11.      11.       0.      0.      0.      0.      0.      0.
 334          UI      0.       0.       0.       0.       0.      0.      0.      0.      0.      0.

 335          KK  I1CWT3
 336          KM        ADD HYDROGRAPHS AT CPWT3
 337          HC       2

 338          KK   CPWT3
 339          KO       1
 340          KM        ADD HYDROGRAPHS AT CPWT3
 341          HC       2

 342          KK   SRWT3
 343          KM        STORAGE ROUTE THROUGH WHITE TANKS STRUCTURE #3.
 344          KO       3
 345          RS       1    STOR       0       0
 346          SV       0       1      14      42      91     203     466     958    1704    2716
 347          SV    3012    3325    3657    4006
 348          SQ       0       0       0       0       0       0       0       0       0       0
 349          SQ       0    3550    9000   17600
 350          SE    1174    1176    1180    1184    1188    1192    1196    1200    1204    1208
 351          SE    1209    1210    1211    1212
 352          SS    1209       0       0       0
 353          ST  1212.1    7667     2.2     1.5
 354          SW    1000    1995    3000    4000    4988    6008    7007
 355          SE  1212.1  1212.4 1212.63 1213.32 1214.72 1214.94  1214.8
 356          ZZ
1
          SCHEMATIC DIAGRAM OF STREAM NETWORK
INPUT
 LINE     (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

  NO.     (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

  44          1
              V
              V
  52        RCP1
              .
              .
  59          .          2
              .          .
              .          .
  68         CP2...........
              V
              V
  71        RCP2
              .
              .
```

```
 78          .          3A
            ..           V
             .           V
 85          .       RCP3A
             .           .
 92          .           .           3
             .           .           .
             .           .           .
 99          .       I1CP3............
             .           .
102        CP3............
            V            .
            V            .
105       RCP3           .
             .           .
112          .           4
             .           .
             .           .
119          .           .           5
             .           .           .
             .           .           .
126          .        CP5............
             .           V
             .           V
129          .       RCP5
             .           .
             .           .
136          .           .           6
             .           .           .
             .           .           .
142          .       I1CP7............
             .           .
             .           .
145          .           .           7
             .           .           .
             .           .           .
151          .        CP7............
             .           V
             .           V
154          .       RCP7
             .           .
             .           .
161          .           .           9
             .           .           .
             .           .           .
168          .       I1CP9............
             .           .
             .           .
171          .           .           8
             .           .           .
             .           .           .
178          .        CP9............
             .           V
             .           V
181          .       RCP9
             .           .
             .           .
188          .           .          10
             .           .           .
             .           .           .
197          .      I1CP10............
             .           .
             .           .
200       CP10............
            V            .
            V            .
203      RCP10           .
             .           .
210          .          12
             .           .
             .           .
218       CP12............
            V            .
            V            .
221      RCP12           .
             .           .
228          .          11
             .           V
             .           V
236          .      RCP11
             .           .
             .           .
243          .           .          13
             .           .           .
             .           .           .
251          .       CP13............
             .           V
             .           V
254          .      RCP13
             .           .
             .           .
261          .           .          14
             .           .           V
             .           .           V
268          .           .       RCP14
             .           .           .
             .           .           .
275          .           .           .          15
             .           .           .           .
             .           .           .           .
283          .           .      I1CP15............
             .           .           .
             .           .           .
286          .           .           .          16
             .           .           .           .
             .           .           .           .
295          .           .        CP15............
             .           .           V
             .           .           V
299          .           .       RCP15
             .           .           .
             .           .           .
306          .           .           .          17
             .           .           .           .
             .           .           .           .
314          .           .      I1CP17............
             .           .           .
             .           .           .
317          .       CP17............
             .           V
             .           V
320          .      RCP17
             .           .
```

```
 327              .         .         WT3
                  .         .          .
                  .         .          .
 335              .      I1CWT3...........
                  .         .
                  .         .
 338           CPWT3...........
                  V
                  V
 342           SRWT3

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION
```

```
1***************************************
*                                     *
*  FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
*           JUL    1997               *
*         VERSION 4.1                 *
*                                     *
* RUN DATE   20OCT99  TIME  19:20:33  *
*                                     *
***************************************
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***************************************
*                                     *
*   U.S. ARMY CORPS OF ENGINEERS      *
*  HYDROLOGIC ENGINEERING CENTER      *
*       609 SECOND STREET             *
*    DAVIS, CALIFORNIA 95616          *
*        (916) 756-1104               *
*                                     *
***************************************
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White Tanks #3 future condition (Beardsley Canal Wash Improvement)
May, 1999, FCDMC
Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999
70% rock in the soils

WHITE TANKS/ AGUA FRIA AREA DRAINAGE MASTER PLAN
FINAL HYDROLOGY RUN FOR WHITE TANKS ADMP ---- ENTIRE WATERSHED
100-YEAR, 24-HOUR STORM                       FILE: WTADMP5.24
THIS MODEL INCORPORATES FUTURE CHANNELS OR CHANNEL IMPROVEMENTS ALONG:
-BEARDSLEY CANAL WASH,WHITE TANKS NO. 3 TO PEORIA AV.
-TUTHILL DIKE WASH,WHITE TANKS NO. 4 TO APPROX. 1/2 MILE NORTH OF
 CAMELBACK ROAD
-JACKRABBIT TRAIL WASH,WHITE TANKS NO. 4 TO WHITE TANKS NO. 3
-DYSART DRAIN,AGUA FRIA RIVER TO REEMS ROAD
-REEMS ROAD CHANNEL,NORTHERN AV. TO BELL ROAD
-WADDEL ROAD CHANNEL,DYSART ROAD TO  REEMS ROAD
- I-10 (INTERSTATE-I0) CHANNEL,ESTRELLA FREEWAY TO 191ST AV.
-BULLARD WASH,GILA RIVER TO APPROX. 1/4 MILE SOUTH OF LOWER BUKEYE RD.
-ESTRELLA FREEWAY CHANNEL,GILA RIVER TO BELL ROAD.
-CAMELBACK ROAD CHANNEL,AGUA FRIA RIVER TO LITCHFIELD ROAD
IT ALSO ASSUMES THAT THE SUN CITY GRAND PROJECT,NORTH OF BELL ROAD
(SEE FIURE 9.2), WILL RETAIN ONSITE FLOWS AND BLEED OFF TO THE
EXISTING BELL ROAD CHANNEL
```

```
 27 IO          OUTPUT CONTROL VARIABLES
                      IPRNT           5  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE

    IT          HYDROGRAPH TIME DATA
                       NMIN           5  MINUTES IN COMPUTATION INTERVAL
                      IDATE      1    0  STARTING DATE
                      ITIME        0000  STARTING TIME
                         NQ         300  NUMBER OF HYDROGRAPH ORDINATES
                     NDDATE      2    0  ENDING DATE
                     NDTIME        0055  ENDING TIME
                      ICENT          19  CENTURY MARK

                COMPUTATION INTERVAL      .08 HOURS
                     TOTAL TIME BASE    24.92 HOURS

        ENGLISH UNITS
             DRAINAGE AREA           SQUARE MILES
             PRECIPITATION DEPTH     INCHES
             LENGTH, ELEVATION       FEET
             FLOW                    CUBIC FEET PER SECOND
             STORAGE VOLUME          ACRE-FEET
             SURFACE AREA            ACRES
             TEMPERATURE             DEGREES FAHRENHEIT

 29 JD          INDEX STORM NO. 1
                      STRM        4.03  PRECIPITATION DEPTH
                      TRDA         .00  TRANSPOSITION DRAINAGE AREA

 30 PI            PRECIPITATION PATTERN
```

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

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 40 JD          INDEX STORM NO. 2
                      STRM        3.99  PRECIPITATION DEPTH
                      TRDA       10.00  TRANSPOSITION DRAINAGE AREA

  0 PI            PRECIPITATION PATTERN
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

41 JD INDEX STORM NO. 3
STRM 3.83 PRECIPITATION DEPTH
TRDA 50.00 TRANSPOSITION DRAINAGE AREA

0 PI PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

42 JD INDEX STORM NO. 4
STRM 3.76 PRECIPITATION DEPTH
TRDA 100.00 TRANSPOSITION DRAINAGE AREA

0 PI PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

43 JD INDEX STORM NO. 5
STRM 3.70 PRECIPITATION DEPTH
TRDA 200.00 TRANSPOSITION DRAINAGE AREA

0 PI PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

WARNING EXCESS AT PONDING LESS THAN ZERO FOR PERIOD. EXCESS SET TO ZERO
WARNING EXCESS AT PONDING LESS THAN ZERO FOR PERIOD. EXCESS SET TO ZERO
WARNING EXCESS AT PONDING LESS THAN ZERO FOR PERIOD. EXCESS SET TO ZERO

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WARNING EXCESS AT PONDING LESS THAN ZERO FOR PERIOD. EXCESS SET TO ZERO

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            **************
            *            *
286 KK      *        16  *
            *            *
            **************

287 KO          OUTPUT CONTROL VARIABLES
                     IPRNT          1  PRINT CONTROL
                     IPLOT          0  PLOT CONTROL
                     QSCAL         0.  HYDROGRAPH PLOT SCALE
                              RUNOFF HYDROGRAPH FROM SUB-BASIN 16.

              SUBBASIN RUNOFF DATA

289 BA          SUBBASIN CHARACTERISTICS
                     TAREA       1.13  SUBBASIN AREA

290 LG          GREEN AND AMPT LOSS RATE
                     STRTL        .35  STARTING LOSS
                       DTH        .25  MOISTURE DEFICIT
                      PSIF       6.00  WETTING FRONT SUCTION
                     XKSAT        .17  HYDRAULIC CONDUCTIVITY
                     RTIMP      19.95  PERCENT IMPERVIOUS AREA

288 UI          INPUT UNITGRAPH,  19 ORDINATES,  VOLUME = 1.00
                    115.0     240.0     503.0     652.0     814.0    1126.0    1393.0    1049.0     839.0     655.0
                    497.0     268.0     194.0     137.0     101.0      35.0      35.0      35.0      35.0
                                                                  ***
*****************************************************************************************************************************

                                                HYDROGRAPH AT        16
                                            TRANSPOSITION AREA       .0 SQ MI
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DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	*	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1		0000	1	.00	.00	.00	0.	*	1		1230	151	.04	.03	.01	1366.
1		0005	2	.00	.00	.00	0.	*	1		1235	152	.03	.02	.01	1093.
1		0010	3	.00	.00	.00	0.	*	1		1240	153	.03	.02	.01	880.
1		0015	4	.00	.00	.00	0.	*	1		1245	154	.03	.02	.01	668.
1		0020	5	.00	.00	.00	1.	*	1		1250	155	.02	.02	.00	483.
1		0025	6	.00	.00	.00	1.	*	1		1255	156	.02	.02	.00	339.
1		0030	7	.00	.00	.00	2.	*	1		1300	157	.02	.02	.00	260.
1		0035	8	.00	.00	.00	3.	*	1		1305	158	.02	.02	.00	190.
1		0040	9	.00	.00	.00	4.	*	1		1310	159	.02	.02	.00	140.
1		0045	10	.00	.00	.00	5.	*	1		1315	160	.02	.02	.00	105.
1		0050	11	.00	.00	.00	5.	*	1		1320	161	.02	.01	.00	93.
1		0055	12	.00	.00	.00	6.	*	1		1325	162	.02	.01	.00	75.
1		0100	13	.00	.00	.00	6.	*	1		1330	163	.02	.01	.00	58.
1		0105	14	.00	.00	.00	6.	*	1		1335	164	.01	.01	.00	43.
1		0110	15	.00	.00	.00	7.	*	1		1340	165	.01	.01	.00	40.
1		0115	16	.00	.00	.00	7.	*	1		1345	166	.01	.01	.00	37.
1		0120	17	.00	.00	.00	7.	*	1		1350	167	.01	.01	.00	34.
1		0125	18	.00	.00	.00	7.	*	1		1355	168	.01	.01	.00	32.
1		0130	19	.00	.00	.00	7.	*	1		1400	169	.01	.01	.00	30.
1		0135	20	.00	.00	.00	7.	*	1		1405	170	.01	.01	.00	29.
1		0140	21	.00	.00	.00	7.	*	1		1410	171	.01	.01	.00	27.
1		0145	22	.00	.00	.00	7.	*	1		1415	172	.01	.01	.00	26.
1		0150	23	.00	.00	.00	7.	*	1		1420	173	.01	.01	.00	25.
1		0155	24	.00	.00	.00	7.	*	1		1425	174	.01	.01	.00	24.
1		0200	25	.00	.00	.00	7.	*	1		1430	175	.01	.01	.00	23.
1		0205	26	.00	.00	.00	7.	*	1		1435	176	.01	.01	.00	22.
1		0210	27	.00	.00	.00	7.	*	1		1440	177	.01	.01	.00	21.
1		0215	28	.00	.00	.00	7.	*	1		1445	178	.01	.01	.00	21.
1		0220	29	.00	.00	.00	7.	*	1		1450	179	.01	.01	.00	20.
1		0225	30	.00	.00	.00	7.	*	1		1455	180	.01	.01	.00	19.
1		0230	31	.00	.00	.00	7.	*	1		1500	181	.01	.01	.00	19.
1		0235	32	.00	.00	.00	7.	*	1		1505	182	.01	.01	.00	18.
1		0240	33	.00	.00	.00	7.	*	1		1510	183	.01	.01	.00	17.
1		0245	34	.00	.00	.00	7.	*	1		1515	184	.01	.01	.00	17.
1		0250	35	.00	.00	.00	7.	*	1		1520	185	.01	.01	.00	17.
1		0255	36	.00	.00	.00	7.	*	1		1525	186	.01	.01	.00	17.
1		0300	37	.00	.00	.00	7.	*	1		1530	187	.01	.01	.00	16.
1		0305	38	.00	.00	.00	7.	*	1		1535	188	.01	.01	.00	16.
1		0310	39	.00	.00	.00	7.	*	1		1540	189	.01	.01	.00	16.
1		0315	40	.00	.00	.00	7.	*	1		1545	190	.01	.01	.00	15.
1		0320	41	.00	.00	.00	7.	*	1		1550	191	.01	.01	.00	15.
1		0325	42	.00	.00	.00	7.	*	1		1555	192	.01	.01	.00	15.
1		0330	43	.00	.00	.00	7.	*	1		1600	193	.01	.01	.00	15.
1		0335	44	.00	.00	.00	7.	*	1		1605	194	.01	.01	.00	14.
1		0340	45	.00	.00	.00	7.	*	1		1610	195	.01	.01	.00	14.
1		0345	46	.00	.00	.00	7.	*	1		1615	196	.01	.01	.00	14.
1		0350	47	.01	.00	.00	7.	*	1		1620	197	.01	.01	.00	14.
1		0355	48	.01	.00	.00	7.	*	1		1625	198	.01	.01	.00	14.
1		0400	49	.01	.00	.00	7.	*	1		1630	199	.01	.01	.00	14.
1		0405	50	.01	.00	.00	7.	*	1		1635	200	.01	.01	.00	14.
1		0410	51	.01	.00	.00	8.	*	1		1640	201	.01	.01	.00	14.
1		0415	52	.01	.00	.00	8.	*	1		1645	202	.01	.01	.00	14.
1		0420	53	.01	.00	.00	8.	*	1		1650	203	.01	.01	.00	14.
1		0425	54	.01	.00	.00	9.	*	1		1655	204	.01	.01	.00	13.
1		0430	55	.01	.00	.00	9.	*	1		1700	205	.01	.01	.00	13.
1		0435	56	.01	.00	.00	9.	*	1		1705	206	.01	.01	.00	13.
1		0440	57	.01	.00	.00	9.	*	1		1710	207	.01	.01	.00	12.
1		0445	58	.01	.00	.00	9.	*	1		1715	208	.01	.01	.00	12.
1		0450	59	.01	.00	.00	9.	*	1		1720	209	.01	.01	.00	12.
1		0455	60	.01	.00	.00	9.	*	1		1725	210	.01	.01	.00	12.
1		0500	61	.01	.00	.00	9.	*	1		1730	211	.01	.01	.00	12.
1		0505	62	.01	.00	.00	9.	*	1		1735	212	.01	.01	.00	12.
1		0510	63	.01	.00	.00	9.	*	1		1740	213	.01	.01	.00	12.
1		0515	64	.01	.00	.00	9.	*	1		1745	214	.01	.01	.00	12.
1		0520	65	.01	.00	.00	9.	*	1		1750	215	.01	.00	.00	12.
1		0525	66	.01	.00	.00	9.	*	1		1755	216	.01	.00	.00	12.
1		0530	67	.01	.00	.00	9.	*	1		1800	217	.01	.00	.00	11.
1		0535	68	.01	.00	.00	9.	*	1		1805	218	.01	.00	.00	11.
1		0540	69	.01	.00	.00	9.	*	1		1810	219	.01	.00	.00	11.
1		0545	70	.01	.00	.00	9.	*	1		1815	220	.01	.00	.00	11.
1		0550	71	.01	.00	.00	9.	*	1		1820	221	.01	.00	.00	10.
1		0555	72	.01	.00	.00	9.	*	1		1825	222	.01	.00	.00	10.
1		0600	73	.01	.00	.00	9.	*	1		1830	223	.01	.00	.00	10.
1		0605	74	.01	.01	.00	9.	*	1		1835	224	.01	.00	.00	10.
1		0610	75	.01	.01	.00	9.	*	1		1840	225	.01	.00	.00	10.
1		0615	76	.01	.01	.00	10.	*	1		1845	226	.01	.00	.00	10.
1		0620	77	.01	.01	.00	10.	*	1		1850	227	.01	.00	.00	9.
1		0625	78	.01	.01	.00	10.	*	1		1855	228	.01	.00	.00	9.
1		0630	79	.01	.01	.00	10.	*	1		1900	229	.01	.00	.00	9.
1		0635	80	.01	.01	.00	11.	*	1		1905	230	.01	.00	.00	9.
1		0640	81	.01	.01	.00	11.	*	1		1910	231	.01	.00	.00	9.
1		0645	82	.01	.01	.00	11.	*	1		1915	232	.01	.00	.00	9.

1	0650	83	.01	.01	.00	11.	*	1	1920	233	.01	.00	.00	9.
1	0655	84	.01	.01	.00	11.	*	1	1925	234	.01	.00	.00	9.
1	0700	85	.01	.01	.00	12.	*	1	1930	235	.01	.00	.00	9.
1	0705	86	.01	.01	.00	12.	*	1	1935	236	.01	.00	.00	9.
1	0710	87	.01	.01	.00	12.	*	1	1940	237	.01	.00	.00	9.
1	0715	88	.01	.01	.00	12.	*	1	1945	238	.01	.00	.00	9.
1	0720	89	.01	.01	.00	12.	*	1	1950	239	.00	.00	.00	9.
1	0725	90	.01	.01	.00	12.	*	1	1955	240	.00	.00	.00	9.
1	0730	91	.01	.01	.00	12.	*	1	2000	241	.00	.00	.00	9.
1	0735	92	.01	.01	.00	12.	*	1	2005	242	.00	.00	.00	9.
1	0740	93	.01	.01	.00	12.	*	1	2010	243	.00	.00	.00	9.
1	0745	94	.01	.01	.00	12.	*	1	2015	244	.00	.00	.00	8.
1	0750	95	.01	.01	.00	12.	*	1	2020	245	.00	.00	.00	8.
1	0755	96	.01	.01	.00	12.	*	1	2025	246	.00	.00	.00	8.
1	0800	97	.01	.01	.00	12.	*	1	2030	247	.00	.00	.00	8.
1	0805	98	.01	.01	.00	12.	*	1	2035	248	.00	.00	.00	7.
1	0810	99	.01	.01	.00	12.	*	1	2040	249	.00	.00	.00	7.
1	0815	100	.01	.01	.00	12.	*	1	2045	250	.00	.00	.00	7.
1	0820	101	.01	.01	.00	12.	*	1	2050	251	.00	.00	.00	7.
1	0825	102	.01	.01	.00	12.	*	1	2055	252	.00	.00	.00	7.
1	0830	103	.01	.01	.00	13.	*	1	2100	253	.00	.00	.00	7.
1	0835	104	.01	.01	.00	13.	*	1	2105	254	.00	.00	.00	7.
1	0840	105	.01	.01	.00	14.	*	1	2110	255	.00	.00	.00	7.
1	0845	106	.01	.01	.00	14.	*	1	2115	256	.00	.00	.00	7.
1	0850	107	.01	.01	.00	15.	*	1	2120	257	.00	.00	.00	7.
1	0855	108	.01	.01	.00	15.	*	1	2125	258	.00	.00	.00	7.
1	0900	109	.01	.01	.00	16.	*	1	2130	259	.00	.00	.00	7.
1	0905	110	.01	.01	.00	16.	*	1	2135	260	.00	.00	.00	7.
1	0910	111	.01	.01	.00	16.	*	1	2140	261	.00	.00	.00	7.
1	0915	112	.01	.01	.00	16.	*	1	2145	262	.00	.00	.00	7.
1	0920	113	.01	.01	.00	17.	*	1	2150	263	.00	.00	.00	7.
1	0925	114	.01	.01	.00	17.	*	1	2155	264	.00	.00	.00	7.
1	0930	115	.01	.01	.00	17.	*	1	2200	265	.00	.00	.00	7.
1	0935	116	.01	.01	.00	18.	*	1	2205	266	.00	.00	.00	7.
1	0940	117	.01	.01	.00	18.	*	1	2210	267	.00	.00	.00	7.
1	0945	118	.01	.01	.00	18.	*	1	2215	268	.00	.00	.00	7.
1	0950	119	.01	.01	.00	19.	*	1	2220	269	.00	.00	.00	7.
1	0955	120	.01	.01	.00	19.	*	1	2225	270	.00	.00	.00	7.
1	1000	121	.01	.01	.00	19.	*	1	2230	271	.00	.00	.00	7.
1	1005	122	.01	.01	.00	20.	*	1	2235	272	.00	.00	.00	7.
1	1010	123	.01	.01	.00	20.	*	1	2240	273	.00	.00	.00	7.
1	1015	124	.01	.01	.00	21.	*	1	2245	274	.00	.00	.00	7.
1	1020	125	.02	.01	.00	21.	*	1	2250	275	.00	.00	.00	7.
1	1025	126	.02	.01	.00	22.	*	1	2255	276	.00	.00	.00	7.
1	1030	127	.02	.01	.00	22.	*	1	2300	277	.00	.00	.00	7.
1	1035	128	.02	.02	.00	23.	*	1	2305	278	.00	.00	.00	7.
1	1040	129	.02	.02	.00	24.	*	1	2310	279	.00	.00	.00	7.
1	1045	130	.02	.02	.00	25.	*	1	2315	280	.00	.00	.00	7.
1	1050	131	.02	.02	.00	27.	*	1	2320	281	.00	.00	.00	7.
1	1055	132	.02	.02	.00	28.	*	1	2325	282	.00	.00	.00	7.
1	1100	133	.02	.02	.00	30.	*	1	2330	283	.00	.00	.00	7.
1	1105	134	.03	.02	.01	32.	*	1	2335	284	.00	.00	.00	7.
1	1110	135	.03	.02	.01	34.	*	1	2340	285	.00	.00	.00	7.
1	1115	136	.03	.02	.01	37.	*	1	2345	286	.00	.00	.00	7.
1	1120	137	.03	.03	.01	39.	*	1	2350	287	.00	.00	.00	7.
1	1125	138	.03	.03	.01	41.	*	1	2355	288	.00	.00	.00	7.
1	1130	139	.03	.03	.01	44.	*	2	0000	289	.00	.00	.00	7.
1	1135	140	.14	.03	.11	58.	*	2	0005	290	.00	.00	.00	7.
1	1140	141	.14	.03	.11	84.	*	2	0010	291	.00	.00	.00	6.
1	1145	142	.14	.03	.11	137.	*	2	0015	292	.00	.00	.00	6.
1	1150	143	.37	.03	.34	232.	*	2	0020	293	.00	.00	.00	5.
1	1155	144	.37	.03	.34	372.	*	2	0025	294	.00	.00	.00	4.
1	1200	145	.37	.03	.34	604.	*	2	0030	295	.00	.00	.00	3.
1	1205	146	.06	.03	.03	861.	*	2	0035	296	.00	.00	.00	2.
1	1210	147	.06	.03	.03	1084.	*	2	0040	297	.00	.00	.00	2.
1	1215	148	.06	.03	.03	1276.	*	2	0045	298	.00	.00	.00	1.
1	1220	149	.04	.03	.01	1463.	*	2	0050	299	.00	.00	.00	1.
1	1225	150	.04	.03	.01	1501.	*	2	0055	300	.00	.00	.00	1.

****

TOTAL RAINFALL = 4.03, TOTAL LOSS = 2.12, TOTAL EXCESS = 1.91

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)	(CFS)				
+ 1501.	12.42		203.	58.	56.	56.
		(INCHES)	1.673	1.905	1.906	1.906
		(AC-FT)	101.	115.	115.	115.

CUMULATIVE AREA = 1.13 SQ MI

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HYDROGRAPH AT 16
TRANSPOSITION AREA 10.0 SQ MI

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DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	*	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1		0000	1	.00	.00	.00	0.	*	1		1230	151	.04	.03	.01	1348.
1		0005	2	.00	.00	.00	0.	*	1		1235	152	.03	.02	.01	1078.
1		0010	3	.00	.00	.00	0.	*	1		1240	153	.03	.02	.01	868.
1		0015	4	.00	.00	.00	0.	*	1		1245	154	.03	.02	.01	658.
1		0020	5	.00	.00	.00	1.	*	1		1250	155	.02	.02	.00	475.
1		0025	6	.00	.00	.00	1.	*	1		1255	156	.02	.02	.00	333.
1		0030	7	.00	.00	.00	2.	*	1		1300	157	.02	.02	.00	255.
1		0035	8	.00	.00	.00	3.	*	1		1305	158	.02	.02	.00	187.
1		0040	9	.00	.00	.00	4.	*	1		1310	159	.02	.02	.00	137.
1		0045	10	.00	.00	.00	4.	*	1		1315	160	.02	.02	.00	103.
1		0050	11	.00	.00	.00	5.	*	1		1320	161	.02	.01	.00	91.
1		0055	12	.00	.00	.00	6.	*	1		1325	162	.02	.01	.00	74.
1		0100	13	.00	.00	.00	6.	*	1		1330	163	.02	.01	.00	57.
1		0105	14	.00	.00	.00	6.	*	1		1335	164	.01	.01	.00	43.
1		0110	15	.00	.00	.00	7.	*	1		1340	165	.01	.01	.00	39.
1		0115	16	.00	.00	.00	7.	*	1		1345	166	.01	.01	.00	36.
1		0120	17	.00	.00	.00	7.	*	1		1350	167	.01	.01	.00	33.
1		0125	18	.00	.00	.00	7.	*	1		1355	168	.01	.01	.00	32.
1		0130	19	.00	.00	.00	7.	*	1		1400	169	.01	.01	.00	30.
1		0135	20	.00	.00	.00	7.	*	1		1405	170	.01	.01	.00	28.
1		0140	21	.00	.00	.00	7.	*	1		1410	171	.01	.01	.00	27.
1		0145	22	.00	.00	.00	7.	*	1		1415	172	.01	.01	.00	26.
1		0150	23	.00	.00	.00	7.	*	1		1420	173	.01	.01	.00	25.
1		0155	24	.00	.00	.00	7.	*	1		1425	174	.01	.01	.00	24.
1		0200	25	.00	.00	.00	7.	*	1		1430	175	.01	.01	.00	23.
1		0205	26	.00	.00	.00	7.	*	1		1435	176	.01	.01	.00	22.
1		0210	27	.00	.00	.00	7.	*	1		1440	177	.01	.01	.00	21.
1		0215	28	.00	.00	.00	7.	*	1		1445	178	.01	.01	.00	20.
1		0220	29	.00	.00	.00	7.	*	1		1450	179	.01	.01	.00	20.
1		0225	30	.00	.00	.00	7.	*	1		1455	180	.01	.01	.00	19.
1		0230	31	.00	.00	.00	7.	*	1		1500	181	.01	.01	.00	18.
1		0235	32	.00	.00	.00	7.	*	1		1505	182	.01	.01	.00	18.
1		0240	33	.00	.00	.00	7.	*	1		1510	183	.01	.01	.00	17.
1		0245	34	.00	.00	.00	7.	*	1		1515	184	.01	.01	.00	17.
1		0250	35	.00	.00	.00	7.	*	1		1520	185	.01	.01	.00	17.

1	0255	36	.00	.00	.00	7.	*	1	1525	186	.01	.01	.00	16.
1	0300	37	.00	.00	.00	7.	*	1	1530	187	.01	.01	.00	16.
1	0305	38	.00	.00	.00	7.	*	1	1535	188	.01	.01	.00	16.
1	0310	39	.00	.00	.00	7.	*	1	1540	189	.01	.01	.00	16.
1	0315	40	.00	.00	.00	7.	*	1	1545	190	.01	.01	.00	15.
1	0320	41	.00	.00	.00	7.	*	1	1550	191	.01	.01	.00	15.
1	0325	42	.00	.00	.00	7.	*	1	1555	192	.01	.01	.00	15.
1	0330	43	.00	.00	.00	7.	*	1	1600	193	.01	.01	.00	14.
1	0335	44	.00	.00	.00	7.	*	1	1605	194	.01	.01	.00	14.
1	0340	45	.00	.00	.00	7.	*	1	1610	195	.01	.01	.00	14.
1	0345	46	.00	.00	.00	7.	*	1	1615	196	.01	.01	.00	14.
1	0350	47	.01	.00	.00	7.	*	1	1620	197	.01	.01	.00	14.
1	0355	48	.01	.00	.00	7.	*	1	1625	198	.01	.01	.00	14.
1	0400	49	.01	.00	.00	7.	*	1	1630	199	.01	.01	.00	14.
1	0405	50	.01	.00	.00	7.	*	1	1635	200	.01	.01	.00	14.
1	0410	51	.01	.00	.00	8.	*	1	1640	201	.01	.01	.00	14.
1	0415	52	.01	.00	.00	8.	*	1	1645	202	.01	.01	.00	14.
1	0420	53	.01	.00	.00	8.	*	1	1650	203	.01	.01	.00	13.
1	0425	54	.01	.00	.00	9.	*	1	1655	204	.01	.01	.00	13.
1	0430	55	.01	.00	.00	9.	*	1	1700	205	.01	.01	.00	13.
1	0435	56	.01	.00	.00	9.	*	1	1705	206	.01	.01	.00	13.
1	0440	57	.01	.00	.00	9.	*	1	1710	207	.01	.01	.00	12.
1	0445	58	.01	.00	.00	9.	*	1	1715	208	.01	.01	.00	12.
1	0450	59	.01	.00	.00	9.	*	1	1720	209	.01	.01	.00	12.
1	0455	60	.01	.00	.00	9.	*	1	1725	210	.01	.01	.00	12.
1	0500	61	.01	.00	.00	9.	*	1	1730	211	.01	.01	.00	12.
1	0505	62	.01	.00	.00	9.	*	1	1735	212	.01	.01	.00	12.
1	0510	63	.01	.00	.00	9.	*	1	1740	213	.01	.01	.00	12.
1	0515	64	.01	.00	.00	9.	*	1	1745	214	.01	.01	.00	12.
1	0520	65	.01	.00	.00	9.	*	1	1750	215	.01	.00	.00	12.
1	0525	66	.01	.00	.00	9.	*	1	1755	216	.01	.00	.00	11.
1	0530	67	.01	.00	.00	9.	*	1	1800	217	.01	.00	.00	11.
1	0535	68	.01	.00	.00	9.	*	1	1805	218	.01	.00	.00	11.
1	0540	69	.01	.00	.00	9.	*	1	1810	219	.01	.00	.00	11.
1	0545	70	.01	.00	.00	9.	*	1	1815	220	.01	.00	.00	11.
1	0550	71	.01	.00	.00	9.	*	1	1820	221	.01	.00	.00	10.
1	0555	72	.01	.00	.00	9.	*	1	1825	222	.01	.00	.00	10.
1	0600	73	.01	.00	.00	9.	*	1	1830	223	.01	.00	.00	10.
1	0605	74	.01	.01	.00	9.	*	1	1835	224	.01	.00	.00	10.
1	0610	75	.01	.01	.00	9.	*	1	1840	225	.01	.00	.00	9.
1	0615	76	.01	.01	.00	9.	*	1	1845	226	.01	.00	.00	9.
1	0620	77	.01	.01	.00	10.	*	1	1850	227	.01	.00	.00	9.
1	0625	78	.01	.01	.00	10.	*	1	1855	228	.01	.00	.00	9.
1	0630	79	.01	.01	.00	10.	*	1	1900	229	.01	.00	.00	9.
1	0635	80	.01	.01	.00	11.	*	1	1905	230	.01	.00	.00	9.
1	0640	81	.01	.01	.00	11.	*	1	1910	231	.01	.00	.00	9.
1	0645	82	.01	.01	.00	11.	*	1	1915	232	.01	.00	.00	9.
1	0650	83	.01	.01	.00	11.	*	1	1920	233	.01	.00	.00	9.
1	0655	84	.01	.01	.00	11.	*	1	1925	234	.01	.00	.00	9.
1	0700	85	.01	.01	.00	11.	*	1	1930	235	.01	.00	.00	9.
1	0705	86	.01	.01	.00	11.	*	1	1935	236	.01	.00	.00	9.
1	0710	87	.01	.01	.00	12.	*	1	1940	237	.01	.00	.00	9.
1	0715	88	.01	.01	.00	12.	*	1	1945	238	.01	.00	.00	9.
1	0720	89	.01	.01	.00	12.	*	1	1950	239	.00	.00	.00	9.
1	0725	90	.01	.01	.00	12.	*	1	1955	240	.00	.00	.00	9.
1	0730	91	.01	.01	.00	12.	*	1	2000	241	.00	.00	.00	9.
1	0735	92	.01	.01	.00	12.	*	1	2005	242	.00	.00	.00	9.
1	0740	93	.01	.01	.00	12.	*	1	2010	243	.00	.00	.00	9.
1	0745	94	.01	.01	.00	12.	*	1	2015	244	.00	.00	.00	8.
1	0750	95	.01	.01	.00	12.	*	1	2020	245	.00	.00	.00	8.
1	0755	96	.01	.01	.00	12.	*	1	2025	246	.00	.00	.00	8.
1	0800	97	.01	.01	.00	12.	*	1	2030	247	.00	.00	.00	7.
1	0805	98	.01	.01	.00	12.	*	1	2035	248	.00	.00	.00	7.
1	0810	99	.01	.01	.00	12.	*	1	2040	249	.00	.00	.00	7.
1	0815	100	.01	.01	.00	12.	*	1	2045	250	.00	.00	.00	7.
1	0820	101	.01	.01	.00	12.	*	1	2050	251	.00	.00	.00	7.
1	0825	102	.01	.01	.00	12.	*	1	2055	252	.00	.00	.00	7.
1	0830	103	.01	.01	.00	13.	*	1	2100	253	.00	.00	.00	7.
1	0835	104	.01	.01	.00	13.	*	1	2105	254	.00	.00	.00	7.
1	0840	105	.01	.01	.00	14.	*	1	2110	255	.00	.00	.00	7.
1	0845	106	.01	.01	.00	14.	*	1	2115	256	.00	.00	.00	7.
1	0850	107	.01	.01	.00	15.	*	1	2120	257	.00	.00	.00	7.
1	0855	108	.01	.01	.00	15.	*	1	2125	258	.00	.00	.00	7.
1	0900	109	.01	.01	.00	16.	*	1	2130	259	.00	.00	.00	7.
1	0905	110	.01	.01	.00	16.	*	1	2135	260	.00	.00	.00	7.
1	0910	111	.01	.01	.00	16.	*	1	2140	261	.00	.00	.00	7.
1	0915	112	.01	.01	.00	16.	*	1	2145	262	.00	.00	.00	7.
1	0920	113	.01	.01	.00	16.	*	1	2150	263	.00	.00	.00	7.
1	0925	114	.01	.01	.00	17.	*	1	2155	264	.00	.00	.00	7.
1	0930	115	.01	.01	.00	17.	*	1	2200	265	.00	.00	.00	7.
1	0935	116	.01	.01	.00	17.	*	1	2205	266	.00	.00	.00	7.
1	0940	117	.01	.01	.00	18.	*	1	2210	267	.00	.00	.00	7.
1	0945	118	.01	.01	.00	18.	*	1	2215	268	.00	.00	.00	7.
1	0950	119	.01	.01	.00	19.	*	1	2220	269	.00	.00	.00	7.
1	0955	120	.01	.01	.00	19.	*	1	2225	270	.00	.00	.00	7.
1	1000	121	.01	.01	.00	19.	*	1	2230	271	.00	.00	.00	7.
1	1005	122	.01	.01	.00	20.	*	1	2235	272	.00	.00	.00	7.
1	1010	123	.01	.01	.00	20.	*	1	2240	273	.00	.00	.00	7.
1	1015	124	.01	.01	.00	20.	*	1	2245	274	.00	.00	.00	7.
1	1020	125	.02	.01	.00	21.	*	1	2250	275	.00	.00	.00	7.
1	1025	126	.02	.01	.00	21.	*	1	2255	276	.00	.00	.00	7.
1	1030	127	.02	.01	.00	22.	*	1	2300	277	.00	.00	.00	7.
1	1035	128	.02	.02	.00	23.	*	1	2305	278	.00	.00	.00	7.
1	1040	129	.02	.02	.00	24.	*	1	2310	279	.00	.00	.00	7.
1	1045	130	.02	.02	.00	25.	*	1	2315	280	.00	.00	.00	7.
1	1050	131	.02	.02	.00	27.	*	1	2320	281	.00	.00	.00	7.
1	1055	132	.02	.02	.00	28.	*	1	2325	282	.00	.00	.00	7.
1	1100	133	.02	.02	.00	30.	*	1	2330	283	.00	.00	.00	7.
1	1105	134	.03	.02	.01	32.	*	1	2335	284	.00	.00	.00	7.
1	1110	135	.03	.02	.01	34.	*	1	2340	285	.00	.00	.00	7.
1	1115	136	.03	.02	.01	36.	*	1	2345	286	.00	.00	.00	7.
1	1120	137	.03	.03	.01	39.	*	1	2350	287	.00	.00	.00	7.
1	1125	138	.03	.03	.01	41.	*	1	2355	288	.00	.00	.00	7.
1	1130	139	.03	.03	.01	43.	*	2	0000	289	.00	.00	.00	7.
1	1135	140	.14	.03	.10	57.	*	2	0005	290	.00	.00	.00	6.
1	1140	141	.14	.03	.11	83.	*	2	0010	291	.00	.00	.00	6.
1	1145	142	.14	.03	.11	135.	*	2	0015	292	.00	.00	.00	6.
1	1150	143	.37	.03	.34	229.	*	2	0020	293	.00	.00	.00	5.
1	1155	144	.37	.03	.34	367.	*	2	0025	294	.00	.00	.00	4.
1	1200	145	.37	.03	.34	596.	*	2	0030	295	.00	.00	.00	3.
1	1205	146	.06	.03	.03	850.	*	2	0035	296	.00	.00	.00	2.
1	1210	147	.06	.03	.03	1070.	*	2	0040	297	.00	.00	.00	2.
1	1215	148	.06	.03	.03	1260.	*	2	0045	298	.00	.00	.00	1.
1	1220	149	.04	.03	.01	1445.	*	2	0050	299	.00	.00	.00	1.
1	1225	150	.04	.03	.01	1483.	*	2	0055	300	.00	.00	.00	1.

****

TOTAL RAINFALL = 3.99, TOTAL LOSS = 2.10, TOTAL EXCESS = 1.89

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 1483.	12.42		201.	57.	55.	55.
		(INCHES)	1.651	1.880	1.882	1.882
		(AC-FT)	99.	113.	113.	113.

CUMULATIVE AREA = 1.13 SQ MI

HYDROGRAPH AT 16
TRANSPOSITION AREA 50.0 SQ MI

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	*	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1		0000	1	.00	.00	.00	0.	*	1		1230	151	.04	.03	.01	1278.
1		0005	2	.00	.00	.00	0.	*	1		1235	152	.03	.02	.01	1020.
1		0010	3	.00	.00	.00	0.	*	1		1240	153	.03	.02	.01	819.
1		0015	4	.00	.00	.00	0.	*	1		1245	154	.03	.02	.01	618.
1		0020	5	.00	.00	.00	1.	*	1		1250	155	.02	.02	.00	444.
1		0025	6	.00	.00	.00	1.	*	1		1255	156	.02	.02	.00	309.
1		0030	7	.00	.00	.00	2.	*	1		1300	157	.02	.02	.00	237.
1		0035	8	.00	.00	.00	3.	*	1		1305	158	.02	.02	.00	173.
1		0040	9	.00	.00	.00	4.	*	1		1310	159	.02	.02	.00	127.
1		0045	10	.00	.00	.00	4.	*	1		1315	160	.02	.02	.00	96.
1		0050	11	.00	.00	.00	5.	*	1		1320	161	.02	.01	.00	86.
1		0055	12	.00	.00	.00	6.	*	1		1325	162	.02	.01	.00	69.
1		0100	13	.00	.00	.00	6.	*	1		1330	163	.02	.01	.00	54.
1		0105	14	.00	.00	.00	6.	*	1		1335	164	.01	.01	.00	40.
1		0110	15	.00	.00	.00	6.	*	1		1340	165	.01	.01	.00	37.
1		0115	16	.00	.00	.00	6.	*	1		1345	166	.01	.01	.00	34.
1		0120	17	.00	.00	.00	7.	*	1		1350	167	.01	.01	.00	32.
1		0125	18	.00	.00	.00	7.	*	1		1355	168	.01	.01	.00	30.
1		0130	19	.00	.00	.00	7.	*	1		1400	169	.01	.01	.00	29.
1		0135	20	.00	.00	.00	7.	*	1		1405	170	.01	.01	.00	27.
1		0140	21	.00	.00	.00	7.	*	1		1410	171	.01	.01	.00	26.
1		0145	22	.00	.00	.00	7.	*	1		1415	172	.01	.01	.00	25.
1		0150	23	.00	.00	.00	7.	*	1		1420	173	.01	.01	.00	24.
1		0155	24	.00	.00	.00	7.	*	1		1425	174	.01	.01	.00	23.
1		0200	25	.00	.00	.00	7.	*	1		1430	175	.01	.01	.00	22.
1		0205	26	.00	.00	.00	7.	*	1		1435	176	.01	.01	.00	21.
1		0210	27	.00	.00	.00	7.	*	1		1440	177	.01	.01	.00	20.
1		0215	28	.00	.00	.00	7.	*	1		1445	178	.01	.01	.00	20.
1		0220	29	.00	.00	.00	7.	*	1		1450	179	.01	.01	.00	19.
1		0225	30	.00	.00	.00	7.	*	1		1455	180	.01	.01	.00	18.
1		0230	31	.00	.00	.00	7.	*	1		1500	181	.01	.01	.00	18.
1		0235	32	.00	.00	.00	7.	*	1		1505	182	.01	.01	.00	17.
1		0240	33	.00	.00	.00	7.	*	1		1510	183	.01	.01	.00	17.
1		0245	34	.00	.00	.00	7.	*	1		1515	184	.01	.01	.00	16.
1		0250	35	.00	.00	.00	7.	*	1		1520	185	.01	.01	.00	16.
1		0255	36	.00	.00	.00	7.	*	1		1525	186	.01	.01	.00	16.
1		0300	37	.00	.00	.00	7.	*	1		1530	187	.01	.01	.00	16.
1		0305	38	.00	.00	.00	7.	*	1		1535	188	.01	.01	.00	15.
1		0310	39	.00	.00	.00	7.	*	1		1540	189	.01	.01	.00	15.
1		0315	40	.00	.00	.00	7.	*	1		1545	190	.01	.01	.00	15.
1		0320	41	.00	.00	.00	7.	*	1		1550	191	.01	.01	.00	14.
1		0325	42	.00	.00	.00	7.	*	1		1555	192	.01	.01	.00	14.
1		0330	43	.00	.00	.00	7.	*	1		1600	193	.01	.01	.00	14.
1		0335	44	.00	.00	.00	7.	*	1		1605	194	.01	.01	.00	14.
1		0340	45	.00	.00	.00	7.	*	1		1610	195	.01	.01	.00	14.
1		0345	46	.00	.00	.00	7.	*	1		1615	196	.01	.01	.00	13.
1		0350	47	.01	.00	.00	7.	*	1		1620	197	.01	.01	.00	13.
1		0355	48	.01	.00	.00	7.	*	1		1625	198	.01	.01	.00	13.
1		0400	49	.01	.00	.00	7.	*	1		1630	199	.01	.01	.00	13.
1		0405	50	.01	.00	.00	7.	*	1		1635	200	.01	.01	.00	13.
1		0410	51	.01	.00	.00	7.	*	1		1640	201	.01	.01	.00	13.
1		0415	52	.01	.00	.00	8.	*	1		1645	202	.01	.01	.00	13.
1		0420	53	.01	.00	.00	8.	*	1		1650	203	.01	.01	.00	13.
1		0425	54	.01	.00	.00	8.	*	1		1655	204	.01	.01	.00	13.
1		0430	55	.01	.00	.00	8.	*	1		1700	205	.01	.01	.00	12.
1		0435	56	.01	.00	.00	9.	*	1		1705	206	.01	.01	.00	12.
1		0440	57	.01	.00	.00	9.	*	1		1710	207	.01	.01	.00	12.
1		0445	58	.01	.00	.00	9.	*	1		1715	208	.01	.01	.00	12.
1		0450	59	.01	.00	.00	9.	*	1		1720	209	.01	.01	.00	11.
1		0455	60	.01	.00	.00	9.	*	1		1725	210	.01	.01	.00	11.
1		0500	61	.01	.00	.00	9.	*	1		1730	211	.01	.01	.00	11.
1		0505	62	.01	.00	.00	9.	*	1		1735	212	.01	.01	.00	11.
1		0510	63	.01	.00	.00	9.	*	1		1740	213	.01	.01	.00	11.
1		0515	64	.01	.00	.00	9.	*	1		1745	214	.01	.01	.00	11.
1		0520	65	.01	.00	.00	9.	*	1		1750	215	.01	.00	.00	11.
1		0525	66	.01	.00	.00	9.	*	1		1755	216	.01	.00	.00	11.
1		0530	67	.01	.00	.00	9.	*	1		1800	217	.01	.00	.00	11.
1		0535	68	.01	.00	.00	9.	*	1		1805	218	.01	.00	.00	11.
1		0540	69	.01	.00	.00	9.	*	1		1810	219	.01	.00	.00	11.
1		0545	70	.01	.00	.00	9.	*	1		1815	220	.01	.00	.00	10.
1		0550	71	.01	.00	.00	9.	*	1		1820	221	.01	.00	.00	10.
1		0555	72	.01	.00	.00	9.	*	1		1825	222	.01	.00	.00	10.
1		0600	73	.01	.00	.00	9.	*	1		1830	223	.01	.00	.00	9.
1		0605	74	.01	.01	.00	9.	*	1		1835	224	.01	.00	.00	9.
1		0610	75	.01	.01	.00	9.	*	1		1840	225	.01	.00	.00	9.
1		0615	76	.01	.01	.00	9.	*	1		1845	226	.01	.00	.00	9.
1		0620	77	.01	.01	.00	9.	*	1		1850	227	.01	.00	.00	9.
1		0625	78	.01	.01	.00	9.	*	1		1855	228	.01	.00	.00	9.
1		0630	79	.01	.01	.00	10.	*	1		1900	229	.01	.00	.00	9.
1		0635	80	.01	.01	.00	10.	*	1		1905	230	.01	.00	.00	9.
1		0640	81	.01	.01	.00	10.	*	1		1910	231	.01	.00	.00	9.
1		0645	82	.01	.01	.00	11.	*	1		1915	232	.01	.00	.00	9.
1		0650	83	.01	.01	.00	11.	*	1		1920	233	.01	.00	.00	9.
1		0655	84	.01	.01	.00	11.	*	1		1925	234	.01	.00	.00	9.
1		0700	85	.01	.01	.00	11.	*	1		1930	235	.01	.00	.00	9.
1		0705	86	.01	.01	.00	11.	*	1		1935	236	.01	.00	.00	9.
1		0710	87	.01	.01	.00	11.	*	1		1940	237	.01	.00	.00	9.
1		0715	88	.01	.01	.00	11.	*	1		1945	238	.01	.00	.00	9.
1		0720	89	.01	.01	.00	11.	*	1		1950	239	.00	.00	.00	9.
1		0725	90	.01	.01	.00	11.	*	1		1955	240	.00	.00	.00	9.
1		0730	91	.01	.01	.00	11.	*	1		2000	241	.00	.00	.00	9.
1		0735	92	.01	.01	.00	11.	*	1		2005	242	.00	.00	.00	9.
1		0740	93	.01	.01	.00	11.	*	1		2010	243	.00	.00	.00	8.
1		0745	94	.01	.01	.00	11.	*	1		2015	244	.00	.00	.00	8.
1		0750	95	.01	.01	.00	11.	*	1		2020	245	.00	.00	.00	8.
1		0755	96	.01	.01	.00	11.	*	1		2025	246	.00	.00	.00	7.
1		0800	97	.01	.01	.00	11.	*	1		2030	247	.00	.00	.00	7.
1		0805	98	.01	.01	.00	11.	*	1		2035	248	.00	.00	.00	7.
1		0810	99	.01	.01	.00	11.	*	1		2040	249	.00	.00	.00	7.
1		0815	100	.01	.01	.00	11.	*	1		2045	250	.00	.00	.00	7.
1		0820	101	.01	.01	.00	12.	*	1		2050	251	.00	.00	.00	7.
1		0825	102	.01	.01	.00	12.	*	1		2055	252	.00	.00	.00	7.
1		0830	103	.01	.01	.00	12.	*	1		2100	253	.00	.00	.00	7.
1		0835	104	.01	.01	.00	13.	*	1		2105	254	.00	.00	.00	7.
1		0840	105	.01	.01	.00	13.	*	1		2110	255	.00	.00	.00	7.
1		0845	106	.01	.01	.00	14.	*	1		2115	256	.00	.00	.00	7.
1		0850	107	.01	.01	.00	14.	*	1		2120	257	.00	.00	.00	7.
1		0855	108	.01	.01	.00	15.	*	1		2125	258	.00	.00	.00	7.
1		0900	109	.01	.01	.00	15.	*	1		2130	259	.00	.00	.00	7.
1		0905	110	.01	.01	.00	15.	*	1		2135	260	.00	.00	.00	7.
1		0910	111	.01	.01	.00	15.	*	1		2140	261	.00	.00	.00	7.
1		0915	112	.01	.01	.00	16.	*	1		2145	262	.00	.00	.00	7.
1		0920	113	.01	.01	.00	16.	*	1		2150	263	.00	.00	.00	7.
1		0925	114	.01	.01	.00	16.	*	1		2155	264	.00	.00	.00	7.
1		0930	115	.01	.01	.00	16.	*	1		2200	265	.00	.00	.00	7.
1		0935	116	.01	.01	.00	17.	*	1		2205	266	.00	.00	.00	7.

1	0940	117	.01	.01	.00	17.	*	1	2210	267	.00	.00	.00	7.
1	0945	118	.01	.01	.00	17.	*	1	2215	268	.00	.00	.00	7.
1	0950	119	.01	.01	.00	18.	*	1	2220	269	.00	.00	.00	7.
1	0955	120	.01	.01	.00	18.	*	1	2225	270	.00	.00	.00	7.
1	1000	121	.01	.01	.00	19.	*	1	2230	271	.00	.00	.00	7.
1	1005	122	.01	.01	.00	19.	*	1	2235	272	.00	.00	.00	7.
1	1010	123	.01	.01	.00	19.	*	1	2240	273	.00	.00	.00	7.
1	1015	124	.01	.01	.00	20.	*	1	2245	274	.00	.00	.00	7.
1	1020	125	.02	.01	.00	20.	*	1	2250	275	.00	.00	.00	7.
1	1025	126	.02	.01	.00	21.	*	1	2255	276	.00	.00	.00	7.
1	1030	127	.02	.01	.00	21.	*	1	2300	277	.00	.00	.00	7.
1	1035	128	.02	.02	.00	22.	*	1	2305	278	.00	.00	.00	7.
1	1040	129	.02	.02	.00	23.	*	1	2310	279	.00	.00	.00	7.
1	1045	130	.02	.02	.00	24.	*	1	2315	280	.00	.00	.00	7.
1	1050	131	.02	.02	.00	26.	*	1	2320	281	.00	.00	.00	7.
1	1055	132	.02	.02	.00	27.	*	1	2325	282	.00	.00	.00	7.
1	1100	133	.02	.02	.00	29.	*	1	2330	283	.00	.00	.00	7.
1	1105	134	.03	.02	.01	31.	*	1	2335	284	.00	.00	.00	7.
1	1110	135	.03	.02	.01	33.	*	1	2340	285	.00	.00	.00	7.
1	1115	136	.03	.02	.01	35.	*	1	2345	286	.00	.00	.00	7.
1	1120	137	.03	.03	.01	37.	*	1	2350	287	.00	.00	.00	7.
1	1125	138	.03	.03	.01	39.	*	1	2355	288	.00	.00	.00	7.
1	1130	139	.03	.03	.01	42.	*	2	0000	289	.00	.00	.00	6.
1	1135	140	.13	.03	.10	55.	*	2	0005	290	.00	.00	.00	6.
1	1140	141	.13	.03	.10	79.	*	2	0010	291	.00	.00	.00	6.
1	1145	142	.13	.03	.10	128.	*	2	0015	292	.00	.00	.00	5.
1	1150	143	.35	.03	.32	216.	*	2	0020	293	.00	.00	.00	5.
1	1155	144	.35	.03	.32	347.	*	2	0025	294	.00	.00	.00	4.
1	1200	145	.35	.03	.32	564.	*	2	0030	295	.00	.00	.00	3.
1	1205	146	.06	.03	.03	805.	*	2	0035	296	.00	.00	.00	2.
1	1210	147	.06	.03	.03	1014.	*	2	0040	297	.00	.00	.00	2.
1	1215	148	.06	.03	.03	1195.	*	2	0045	298	.00	.00	.00	1.
1	1220	149	.04	.03	.01	1371.	*	2	0050	299	.00	.00	.00	1.
1	1225	150	.04	.03	.01	1407.	*	2	0055	300	.00	.00	.00	0.
							*							

****

TOTAL RAINFALL = 3.83, TOTAL LOSS = 2.04, TOTAL EXCESS = 1.79

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)	(CFS)				
+ 1407.	12.42		190.	54.	52.	52.
		(INCHES)	1.562	1.782	1.783	1.783
		(AC-FT)	94.	107.	107.	107.

CUMULATIVE AREA = 1.13 SQ MI

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HYDROGRAPH AT 16
TRANSPOSITION AREA 100.0 SQ MI

****

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	*	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1		0000	1	.00	.00	.00	0.	*	1		1230	151	.04	.03	.01	1248.
1		0005	2	.00	.00	.00	0.	*	1		1235	152	.03	.02	.01	994.
1		0010	3	.00	.00	.00	0.	*	1		1240	153	.03	.02	.01	797.
1		0015	4	.00	.00	.00	0.	*	1		1245	154	.03	.02	.01	601.
1		0020	5	.00	.00	.00	1.	*	1		1250	155	.02	.02	.00	430.
1		0025	6	.00	.00	.00	1.	*	1		1255	156	.02	.02	.00	299.
1		0030	7	.00	.00	.00	2.	*	1		1300	157	.02	.02	.00	228.
1		0035	8	.00	.00	.00	3.	*	1		1305	158	.02	.02	.00	167.
1		0040	9	.00	.00	.00	4.	*	1		1310	159	.02	.02	.00	123.
1		0045	10	.00	.00	.00	4.	*	1		1315	160	.02	.02	.00	93.
1		0050	11	.00	.00	.00	5.	*	1		1320	161	.02	.01	.00	83.
1		0055	12	.00	.00	.00	5.	*	1		1325	162	.02	.01	.00	67.
1		0100	13	.00	.00	.00	6.	*	1		1330	163	.02	.01	.00	53.
1		0105	14	.00	.00	.00	6.	*	1		1335	164	.01	.01	.00	39.
1		0110	15	.00	.00	.00	6.	*	1		1340	165	.01	.01	.00	36.
1		0115	16	.00	.00	.00	6.	*	1		1345	166	.01	.01	.00	34.
1		0120	17	.00	.00	.00	6.	*	1		1350	167	.01	.01	.00	31.
1		0125	18	.00	.00	.00	6.	*	1		1355	168	.01	.01	.00	30.
1		0130	19	.00	.00	.00	6.	*	1		1400	169	.01	.01	.00	28.
1		0135	20	.00	.00	.00	7.	*	1		1405	170	.01	.01	.00	27.
1		0140	21	.00	.00	.00	7.	*	1		1410	171	.01	.01	.00	25.
1		0145	22	.00	.00	.00	7.	*	1		1415	172	.01	.01	.00	24.
1		0150	23	.00	.00	.00	7.	*	1		1420	173	.01	.01	.00	23.
1		0155	24	.00	.00	.00	7.	*	1		1425	174	.01	.01	.00	22.
1		0200	25	.00	.00	.00	7.	*	1		1430	175	.01	.01	.00	22.
1		0205	26	.00	.00	.00	7.	*	1		1435	176	.01	.01	.00	21.
1		0210	27	.00	.00	.00	7.	*	1		1440	177	.01	.01	.00	20.
1		0215	28	.00	.00	.00	7.	*	1		1445	178	.01	.01	.00	19.
1		0220	29	.00	.00	.00	7.	*	1		1450	179	.01	.01	.00	19.
1		0225	30	.00	.00	.00	7.	*	1		1455	180	.01	.01	.00	18.
1		0230	31	.00	.00	.00	7.	*	1		1500	181	.01	.01	.00	17.
1		0235	32	.00	.00	.00	7.	*	1		1505	182	.01	.01	.00	17.
1		0240	33	.00	.00	.00	7.	*	1		1510	183	.01	.01	.00	16.
1		0245	34	.00	.00	.00	7.	*	1		1515	184	.01	.01	.00	16.
1		0250	35	.00	.00	.00	7.	*	1		1520	185	.01	.01	.00	16.
1		0255	36	.00	.00	.00	7.	*	1		1525	186	.01	.01	.00	15.
1		0300	37	.00	.00	.00	7.	*	1		1530	187	.01	.01	.00	15.
1		0305	38	.00	.00	.00	7.	*	1		1535	188	.01	.01	.00	15.
1		0310	39	.00	.00	.00	7.	*	1		1540	189	.01	.01	.00	15.
1		0315	40	.00	.00	.00	7.	*	1		1545	190	.01	.01	.00	14.
1		0320	41	.00	.00	.00	7.	*	1		1550	191	.01	.01	.00	14.
1		0325	42	.00	.00	.00	7.	*	1		1555	192	.01	.01	.00	14.
1		0330	43	.00	.00	.00	7.	*	1		1600	193	.01	.01	.00	14.
1		0335	44	.00	.00	.00	7.	*	1		1605	194	.01	.01	.00	13.
1		0340	45	.00	.00	.00	7.	*	1		1610	195	.01	.01	.00	13.
1		0345	46	.00	.00	.00	7.	*	1		1615	196	.01	.01	.00	13.
1		0350	47	.01	.00	.00	7.	*	1		1620	197	.01	.01	.00	13.
1		0355	48	.01	.00	.00	7.	*	1		1625	198	.01	.01	.00	13.
1		0400	49	.01	.00	.00	7.	*	1		1630	199	.01	.01	.00	13.
1		0405	50	.01	.00	.00	7.	*	1		1635	200	.01	.01	.00	13.
1		0410	51	.01	.00	.00	7.	*	1		1640	201	.01	.01	.00	13.
1		0415	52	.01	.00	.00	7.	*	1		1645	202	.01	.01	.00	13.
1		0420	53	.01	.00	.00	8.	*	1		1650	203	.01	.01	.00	13.
1		0425	54	.01	.00	.00	8.	*	1		1655	204	.01	.01	.00	13.
1		0430	55	.01	.00	.00	8.	*	1		1700	205	.01	.01	.00	12.
1		0435	56	.01	.00	.00	8.	*	1		1705	206	.01	.01	.00	12.
1		0440	57	.01	.00	.00	9.	*	1		1710	207	.01	.01	.00	12.
1		0445	58	.01	.00	.00	9.	*	1		1715	208	.01	.01	.00	11.
1		0450	59	.01	.00	.00	9.	*	1		1720	209	.01	.01	.00	11.
1		0455	60	.01	.00	.00	9.	*	1		1725	210	.01	.01	.00	11.
1		0500	61	.01	.00	.00	9.	*	1		1730	211	.01	.01	.00	11.
1		0505	62	.01	.00	.00	9.	*	1		1735	212	.01	.01	.00	11.
1		0510	63	.01	.00	.00	9.	*	1		1740	213	.01	.01	.00	11.
1		0515	64	.01	.00	.00	9.	*	1		1745	214	.01	.01	.00	11.
1		0520	65	.01	.00	.00	9.	*	1		1750	215	.01	.00	.00	11.
1		0525	66	.01	.00	.00	9.	*	1		1755	216	.01	.00	.00	11.
1		0530	67	.01	.00	.00	9.	*	1		1800	217	.01	.00	.00	11.
1		0535	68	.01	.00	.00	9.	*	1		1805	218	.01	.00	.00	11.
1		0540	69	.01	.00	.00	9.	*	1		1810	219	.01	.00	.00	10.

1	0545	70	.01	.00	.00	9.	*	1	1815	220	.01	.00	.00	10.
1	0550	71	.01	.00	.00	9.	*	1	1820	221	.01	.00	.00	10.
1	0555	72	.01	.00	.00	9.	*	1	1825	222	.01	.00	.00	9.
1	0600	73	.01	.00	.00	9.	*	1	1830	223	.01	.00	.00	9.
1	0605	74	.01	.01	.00	9.	*	1	1835	224	.01	.00	.00	9.
1	0610	75	.01	.01	.00	9.	*	1	1840	225	.01	.00	.00	9.
1	0615	76	.01	.01	.00	9.	*	1	1845	226	.01	.00	.00	9.
1	0620	77	.01	.01	.00	9.	*	1	1850	227	.01	.00	.00	9.
1	0625	78	.01	.01	.00	9.	*	1	1855	228	.01	.00	.00	9.
1	0630	79	.01	.01	.00	10.	*	1	1900	229	.01	.00	.00	9.
1	0635	80	.01	.01	.00	10.	*	1	1905	230	.01	.00	.00	9.
1	0640	81	.01	.01	.00	10.	*	1	1910	231	.01	.00	.00	9.
1	0645	82	.01	.01	.00	10.	*	1	1915	232	.01	.00	.00	9.
1	0650	83	.01	.01	.00	11.	*	1	1920	233	.01	.00	.00	9.
1	0655	84	.01	.01	.00	11.	*	1	1925	234	.01	.00	.00	9.
1	0700	85	.01	.01	.00	11.	*	1	1930	235	.01	.00	.00	9.
1	0705	86	.01	.01	.00	11.	*	1	1935	236	.01	.00	.00	9.
1	0710	87	.01	.01	.00	11.	*	1	1940	237	.01	.00	.00	9.
1	0715	88	.01	.01	.00	11.	*	1	1945	238	.01	.00	.00	9.
1	0720	89	.01	.01	.00	11.	*	1	1950	239	.00	.00	.00	9.
1	0725	90	.01	.01	.00	11.	*	1	1955	240	.00	.00	.00	9.
1	0730	91	.01	.01	.00	11.	*	1	2000	241	.00	.00	.00	9.
1	0735	92	.01	.01	.00	11.	*	1	2005	242	.00	.00	.00	8.
1	0740	93	.01	.01	.00	11.	*	1	2010	243	.00	.00	.00	8.
1	0745	94	.01	.01	.00	11.	*	1	2015	244	.00	.00	.00	8.
1	0750	95	.01	.01	.00	11.	*	1	2020	245	.00	.00	.00	8.
1	0755	96	.01	.01	.00	11.	*	1	2025	246	.00	.00	.00	7.
1	0800	97	.01	.01	.00	11.	*	1	2030	247	.00	.00	.00	7.
1	0805	98	.01	.01	.00	11.	*	1	2035	248	.00	.00	.00	7.
1	0810	99	.01	.01	.00	11.	*	1	2040	249	.00	.00	.00	7.
1	0815	100	.01	.01	.00	11.	*	1	2045	250	.00	.00	.00	7.
1	0820	101	.01	.01	.00	11.	*	1	2050	251	.00	.00	.00	7.
1	0825	102	.01	.01	.00	12.	*	1	2055	252	.00	.00	.00	7.
1	0830	103	.01	.01	.00	12.	*	1	2100	253	.00	.00	.00	7.
1	0835	104	.01	.01	.00	12.	*	1	2105	254	.00	.00	.00	7.
1	0840	105	.01	.01	.00	13.	*	1	2110	255	.00	.00	.00	7.
1	0845	106	.01	.01	.00	13.	*	1	2115	256	.00	.00	.00	7.
1	0850	107	.01	.01	.00	14.	*	1	2120	257	.00	.00	.00	7.
1	0855	108	.01	.01	.00	14.	*	1	2125	258	.00	.00	.00	7.
1	0900	109	.01	.01	.00	15.	*	1	2130	259	.00	.00	.00	7.
1	0905	110	.01	.01	.00	15.	*	1	2135	260	.00	.00	.00	7.
1	0910	111	.01	.01	.00	15.	*	1	2140	261	.00	.00	.00	7.
1	0915	112	.01	.01	.00	15.	*	1	2145	262	.00	.00	.00	7.
1	0920	113	.01	.01	.00	16.	*	1	2150	263	.00	.00	.00	7.
1	0925	114	.01	.01	.00	16.	*	1	2155	264	.00	.00	.00	7.
1	0930	115	.01	.01	.00	16.	*	1	2200	265	.00	.00	.00	7.
1	0935	116	.01	.01	.00	16.	*	1	2205	266	.00	.00	.00	7.
1	0940	117	.01	.01	.00	17.	*	1	2210	267	.00	.00	.00	7.
1	0945	118	.01	.01	.00	17.	*	1	2215	268	.00	.00	.00	7.
1	0950	119	.01	.01	.00	17.	*	1	2220	269	.00	.00	.00	7.
1	0955	120	.01	.01	.00	18.	*	1	2225	270	.00	.00	.00	7.
1	1000	121	.01	.01	.00	18.	*	1	2230	271	.00	.00	.00	7.
1	1005	122	.01	.01	.00	19.	*	1	2235	272	.00	.00	.00	7.
1	1010	123	.01	.01	.00	19.	*	1	2240	273	.00	.00	.00	7.
1	1015	124	.01	.01	.00	19.	*	1	2245	274	.00	.00	.00	7.
1	1020	125	.02	.01	.00	20.	*	1	2250	275	.00	.00	.00	7.
1	1025	126	.02	.01	.00	20.	*	1	2255	276	.00	.00	.00	7.
1	1030	127	.02	.01	.00	21.	*	1	2300	277	.00	.00	.00	7.
1	1035	128	.02	.02	.00	22.	*	1	2305	278	.00	.00	.00	7.
1	1040	129	.02	.02	.00	22.	*	1	2310	279	.00	.00	.00	7.
1	1045	130	.02	.02	.00	24.	*	1	2315	280	.00	.00	.00	7.
1	1050	131	.02	.02	.00	25.	*	1	2320	281	.00	.00	.00	7.
1	1055	132	.02	.02	.00	27.	*	1	2325	282	.00	.00	.00	7.
1	1100	133	.02	.02	.00	28.	*	1	2330	283	.00	.00	.00	7.
1	1105	134	.03	.02	.01	30.	*	1	2335	284	.00	.00	.00	7.
1	1110	135	.03	.02	.01	32.	*	1	2340	285	.00	.00	.00	7.
1	1115	136	.03	.02	.01	34.	*	1	2345	286	.00	.00	.00	7.
1	1120	137	.03	.03	.01	36.	*	1	2350	287	.00	.00	.00	7.
1	1125	138	.03	.03	.01	39.	*	1	2355	288	.00	.00	.00	6.
1	1130	139	.03	.03	.01	41.	*	2	0000	289	.00	.00	.00	6.
1	1135	140	.13	.04	.09	54.	*	2	0005	290	.00	.00	.00	6.
1	1140	141	.13	.03	.10	77.	*	2	0010	291	.00	.00	.00	6.
1	1145	142	.13	.03	.10	125.	*	2	0015	292	.00	.00	.00	5.
1	1150	143	.35	.03	.31	210.	*	2	0020	293	.00	.00	.00	5.
1	1155	144	.35	.03	.31	338.	*	2	0025	294	.00	.00	.00	4.
1	1200	145	.35	.03	.32	550.	*	2	0030	295	.00	.00	.00	3.
1	1205	146	.06	.03	.03	785.	*	2	0035	296	.00	.00	.00	2.
1	1210	147	.06	.03	.03	989.	*	2	0040	297	.00	.00	.00	2.
1	1215	148	.06	.03	.03	1166.	*	2	0045	298	.00	.00	.00	1.
1	1220	149	.04	.03	.01	1339.	*	2	0050	299	.00	.00	.00	1.
1	1225	150	.04	.03	.01	1374.	*	2	0055	300	.00	.00	.00	0.
							*							

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TOTAL RAINFALL = 3.76, TOTAL LOSS = 2.01, TOTAL EXCESS = 1.75

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 1374.	12.42		185.	53.	51.	51.
		(INCHES)	1.522	1.739	1.740	1.740
		(AC-FT)	92.	105.	105.	105.

CUMULATIVE AREA = 1.13 SQ MI

****

HYDROGRAPH AT 16
TRANSPOSITION AREA 200.0 SQ MI

****

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	*	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
								*								
1		0000	1	.00	.00	.00	0.	*	1		1230	151	.03	.03	.01	1222.
1		0005	2	.00	.00	.00	0.	*	1		1235	152	.03	.02	.01	972.
1		0010	3	.00	.00	.00	0.	*	1		1240	153	.03	.02	.01	779.
1		0015	4	.00	.00	.00	0.	*	1		1245	154	.03	.02	.01	586.
1		0020	5	.00	.00	.00	1.	*	1		1250	155	.02	.02	.00	419.
1		0025	6	.00	.00	.00	1.	*	1		1255	156	.02	.02	.00	290.
1		0030	7	.00	.00	.00	2.	*	1		1300	157	.02	.02	.00	222.
1		0035	8	.00	.00	.00	3.	*	1		1305	158	.02	.01	.00	162.
1		0040	9	.00	.00	.00	3.	*	1		1310	159	.02	.01	.00	119.
1		0045	10	.00	.00	.00	4.	*	1		1315	160	.02	.01	.00	90.
1		0050	11	.00	.00	.00	5.	*	1		1320	161	.02	.01	.00	81.
1		0055	12	.00	.00	.00	5.	*	1		1325	162	.02	.01	.00	66.
1		0100	13	.00	.00	.00	6.	*	1		1330	163	.02	.01	.00	51.
1		0105	14	.00	.00	.00	6.	*	1		1335	164	.01	.01	.00	38.
1		0110	15	.00	.00	.00	6.	*	1		1340	165	.01	.01	.00	36.
1		0115	16	.00	.00	.00	6.	*	1		1345	166	.01	.01	.00	33.
1		0120	17	.00	.00	.00	6.	*	1		1350	167	.01	.01	.00	31.
1		0125	18	.00	.00	.00	6.	*	1		1355	168	.01	.01	.00	29.
1		0130	19	.00	.00	.00	6.	*	1		1400	169	.01	.01	.00	28.
1		0135	20	.00	.00	.00	6.	*	1		1405	170	.01	.01	.00	26.
1		0140	21	.00	.00	.00	6.	*	1		1410	171	.01	.01	.00	25.
1		0145	22	.00	.00	.00	6.	*	1		1415	172	.01	.01	.00	24.

1	0150	23	.00	.00	.00	6.	*	1	1420	173	.01	.01	.00	23.
1	0155	24	.00	.00	.00	6.	*	1	1425	174	.01	.01	.00	22.
1	0200	25	.00	.00	.00	6.	*	1	1430	175	.01	.01	.00	21.
1	0205	26	.00	.00	.00	6.	*	1	1435	176	.01	.01	.00	20.
1	0210	27	.00	.00	.00	6.	*	1	1440	177	.01	.01	.00	20.
1	0215	28	.00	.00	.00	6.	*	1	1445	178	.01	.01	.00	19.
1	0220	29	.00	.00	.00	6.	*	1	1450	179	.01	.01	.00	18.
1	0225	30	.00	.00	.00	6.	*	1	1455	180	.01	.01	.00	18.
1	0230	31	.00	.00	.00	6.	*	1	1500	181	.01	.01	.00	17.
1	0235	32	.00	.00	.00	6.	*	1	1505	182	.01	.01	.00	16.
1	0240	33	.00	.00	.00	6.	*	1	1510	183	.01	.01	.00	16.
1	0245	34	.00	.00	.00	6.	*	1	1515	184	.01	.01	.00	16.
1	0250	35	.00	.00	.00	6.	*	1	1520	185	.01	.01	.00	15.
1	0255	36	.00	.00	.00	6.	*	1	1525	186	.01	.01	.00	15.
1	0300	37	.00	.00	.00	6.	*	1	1530	187	.01	.01	.00	15.
1	0305	38	.00	.00	.00	6.	*	1	1535	188	.01	.01	.00	15.
1	0310	39	.00	.00	.00	6.	*	1	1540	189	.01	.01	.00	15.
1	0315	40	.00	.00	.00	6.	*	1	1545	190	.01	.01	.00	14.
1	0320	41	.00	.00	.00	6.	*	1	1550	191	.01	.01	.00	14.
1	0325	42	.00	.00	.00	6.	*	1	1555	192	.01	.01	.00	14.
1	0330	43	.00	.00	.00	6.	*	1	1600	193	.01	.01	.00	13.
1	0335	44	.00	.00	.00	6.	*	1	1605	194	.01	.01	.00	13.
1	0340	45	.00	.00	.00	6.	*	1	1610	195	.01	.01	.00	13.
1	0345	46	.00	.00	.00	6.	*	1	1615	196	.01	.01	.00	13.
1	0350	47	.00	.00	.00	6.	*	1	1620	197	.01	.01	.00	13.
1	0355	48	.00	.00	.00	7.	*	1	1625	198	.01	.01	.00	13.
1	0400	49	.00	.00	.00	7.	*	1	1630	199	.01	.01	.00	13.
1	0405	50	.00	.00	.00	7.	*	1	1635	200	.01	.00	.00	13.
1	0410	51	.00	.00	.00	7.	*	1	1640	201	.01	.00	.00	13.
1	0415	52	.00	.00	.00	7.	*	1	1645	202	.01	.00	.00	13.
1	0420	53	.00	.00	.00	8.	*	1	1650	203	.01	.00	.00	13.
1	0425	54	.00	.00	.00	8.	*	1	1655	204	.01	.00	.00	12.
1	0430	55	.00	.00	.00	8.	*	1	1700	205	.01	.00	.00	12.
1	0435	56	.00	.00	.00	8.	*	1	1705	206	.01	.00	.00	12.
1	0440	57	.00	.00	.00	8.	*	1	1710	207	.01	.00	.00	11.
1	0445	58	.00	.00	.00	8.	*	1	1715	208	.01	.00	.00	11.
1	0450	59	.00	.00	.00	8.	*	1	1720	209	.01	.00	.00	11.
1	0455	60	.00	.00	.00	9.	*	1	1725	210	.01	.00	.00	11.
1	0500	61	.00	.00	.00	9.	*	1	1730	211	.01	.00	.00	11.
1	0505	62	.00	.00	.00	9.	*	1	1735	212	.01	.00	.00	11.
1	0510	63	.00	.00	.00	9.	*	1	1740	213	.01	.00	.00	11.
1	0515	64	.00	.00	.00	9.	*	1	1745	214	.01	.00	.00	11.
1	0520	65	.00	.00	.00	9.	*	1	1750	215	.00	.00	.00	11.
1	0525	66	.00	.00	.00	9.	*	1	1755	216	.00	.00	.00	11.
1	0530	67	.00	.00	.00	9.	*	1	1800	217	.00	.00	.00	11.
1	0535	68	.00	.00	.00	9.	*	1	1805	218	.00	.00	.00	10.
1	0540	69	.00	.00	.00	9.	*	1	1810	219	.00	.00	.00	10.
1	0545	70	.00	.00	.00	9.	*	1	1815	220	.00	.00	.00	10.
1	0550	71	.00	.00	.00	9.	*	1	1820	221	.00	.00	.00	10.
1	0555	72	.00	.00	.00	9.	*	1	1825	222	.00	.00	.00	9.
1	0600	73	.00	.00	.00	9.	*	1	1830	223	.00	.00	.00	9.
1	0605	74	.01	.00	.00	9.	*	1	1835	224	.00	.00	.00	9.
1	0610	75	.01	.00	.00	9.	*	1	1840	225	.00	.00	.00	9.
1	0615	76	.01	.00	.00	9.	*	1	1845	226	.00	.00	.00	9.
1	0620	77	.01	.00	.00	9.	*	1	1850	227	.00	.00	.00	9.
1	0625	78	.01	.00	.00	9.	*	1	1855	228	.00	.00	.00	9.
1	0630	79	.01	.00	.00	9.	*	1	1900	229	.00	.00	.00	9.
1	0635	80	.01	.00	.00	10.	*	1	1905	230	.00	.00	.00	9.
1	0640	81	.01	.00	.00	10.	*	1	1910	231	.00	.00	.00	9.
1	0645	82	.01	.00	.00	10.	*	1	1915	232	.00	.00	.00	9.
1	0650	83	.01	.00	.00	10.	*	1	1920	233	.00	.00	.00	9.
1	0655	84	.01	.00	.00	11.	*	1	1925	234	.00	.00	.00	9.
1	0700	85	.01	.00	.00	11.	*	1	1930	235	.00	.00	.00	9.
1	0705	86	.01	.00	.00	11.	*	1	1935	236	.00	.00	.00	9.
1	0710	87	.01	.00	.00	11.	*	1	1940	237	.00	.00	.00	9.
1	0715	88	.01	.00	.00	11.	*	1	1945	238	.00	.00	.00	9.
1	0720	89	.01	.00	.00	11.	*	1	1950	239	.00	.00	.00	9.
1	0725	90	.01	.00	.00	11.	*	1	1955	240	.00	.00	.00	8.
1	0730	91	.01	.00	.00	11.	*	1	2000	241	.00	.00	.00	8.
1	0735	92	.01	.00	.00	11.	*	1	2005	242	.00	.00	.00	8.
1	0740	93	.01	.00	.00	11.	*	1	2010	243	.00	.00	.00	8.
1	0745	94	.01	.00	.00	11.	*	1	2015	244	.00	.00	.00	8.
1	0750	95	.01	.00	.00	11.	*	1	2020	245	.00	.00	.00	7.
1	0755	96	.01	.00	.00	11.	*	1	2025	246	.00	.00	.00	7.
1	0800	97	.01	.00	.00	11.	*	1	2030	247	.00	.00	.00	7.
1	0805	98	.01	.01	.00	11.	*	1	2035	248	.00	.00	.00	7.
1	0810	99	.01	.01	.00	11.	*	1	2040	249	.00	.00	.00	7.
1	0815	100	.01	.01	.00	11.	*	1	2045	250	.00	.00	.00	7.
1	0820	101	.01	.01	.00	11.	*	1	2050	251	.00	.00	.00	7.
1	0825	102	.01	.01	.00	11.	*	1	2055	252	.00	.00	.00	6.
1	0830	103	.01	.01	.00	12.	*	1	2100	253	.00	.00	.00	6.
1	0835	104	.01	.01	.00	12.	*	1	2105	254	.00	.00	.00	6.
1	0840	105	.01	.01	.00	13.	*	1	2110	255	.00	.00	.00	6.
1	0845	106	.01	.01	.00	13.	*	1	2115	256	.00	.00	.00	6.
1	0850	107	.01	.01	.00	14.	*	1	2120	257	.00	.00	.00	6.
1	0855	108	.01	.01	.00	14.	*	1	2125	258	.00	.00	.00	6.
1	0900	109	.01	.01	.00	14.	*	1	2130	259	.00	.00	.00	6.
1	0905	110	.01	.01	.00	15.	*	1	2135	260	.00	.00	.00	6.
1	0910	111	.01	.01	.00	15.	*	1	2140	261	.00	.00	.00	6.
1	0915	112	.01	.01	.00	15.	*	1	2145	262	.00	.00	.00	6.
1	0920	113	.01	.01	.00	15.	*	1	2150	263	.00	.00	.00	6.
1	0925	114	.01	.01	.00	16.	*	1	2155	264	.00	.00	.00	6.
1	0930	115	.01	.01	.00	16.	*	1	2200	265	.00	.00	.00	6.
1	0935	116	.01	.01	.00	16.	*	1	2205	266	.00	.00	.00	6.
1	0940	117	.01	.01	.00	17.	*	1	2210	267	.00	.00	.00	6.
1	0945	118	.01	.01	.00	17.	*	1	2215	268	.00	.00	.00	6.
1	0950	119	.01	.01	.00	17.	*	1	2220	269	.00	.00	.00	6.
1	0955	120	.01	.01	.00	18.	*	1	2225	270	.00	.00	.00	6.
1	1000	121	.01	.01	.00	18.	*	1	2230	271	.00	.00	.00	6.
1	1005	122	.01	.01	.00	18.	*	1	2235	272	.00	.00	.00	6.
1	1010	123	.01	.01	.00	19.	*	1	2240	273	.00	.00	.00	6.
1	1015	124	.01	.01	.00	19.	*	1	2245	274	.00	.00	.00	6.
1	1020	125	.01	.01	.00	19.	*	1	2250	275	.00	.00	.00	6.
1	1025	126	.01	.01	.00	20.	*	1	2255	276	.00	.00	.00	6.
1	1030	127	.01	.01	.00	20.	*	1	2300	277	.00	.00	.00	6.
1	1035	128	.02	.01	.00	21.	*	1	2305	278	.00	.00	.00	6.
1	1040	129	.02	.01	.00	22.	*	1	2310	279	.00	.00	.00	6.
1	1045	130	.02	.01	.00	23.	*	1	2315	280	.00	.00	.00	6.
1	1050	131	.02	.02	.00	25.	*	1	2320	281	.00	.00	.00	6.
1	1055	132	.02	.02	.00	26.	*	1	2325	282	.00	.00	.00	6.
1	1100	133	.02	.02	.00	28.	*	1	2330	283	.00	.00	.00	6.
1	1105	134	.03	.02	.01	30.	*	1	2335	284	.00	.00	.00	6.
1	1110	135	.03	.02	.01	32.	*	1	2340	285	.00	.00	.00	6.
1	1115	136	.03	.02	.01	34.	*	1	2345	286	.00	.00	.00	6.
1	1120	137	.03	.03	.01	36.	*	1	2350	287	.00	.00	.00	6.
1	1125	138	.03	.03	.01	38.	*	1	2355	288	.00	.00	.00	6.
1	1130	139	.03	.03	.01	40.	*	2	0000	289	.00	.00	.00	6.
1	1135	140	.13	.04	.09	53.	*	2	0005	290	.00	.00	.00	6.
1	1140	141	.13	.03	.09	76.	*	2	0010	291	.00	.00	.00	6.
1	1145	142	.13	.03	.09	122.	*	2	0015	292	.00	.00	.00	5.
1	1150	143	.34	.03	.31	205.	*	2	0020	293	.00	.00	.00	5.
1	1155	144	.34	.03	.31	330.	*	2	0025	294	.00	.00	.00	4.
1	1200	145	.34	.03	.31	537.	*	2	0030	295	.00	.00	.00	3.
1	1205	146	.05	.03	.02	767.	*	2	0035	296	.00	.00	.00	2.
1	1210	147	.05	.03	.03	968.	*	2	0040	297	.00	.00	.00	2.
1	1215	148	.05	.03	.03	1141.	*	2	0045	298	.00	.00	.00	1.
1	1220	149	.03	.03	.01	1311.	*	2	0050	299	.00	.00	.00	1.
1	1225	150	.03	.03	.01	1346.	*	2	0055	300	.00	.00	.00	0.

TOTAL RAINFALL = 3.70, TOTAL LOSS = 1.99, TOTAL EXCESS = 1.71

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1346.	12.42	(CFS)	181.	52.	50.	50.
		(INCHES)	1.489	1.702	1.703	1.703
		(AC-FT)	90.	103.	103.	103.

CUMULATIVE AREA = 1.13 SQ MI

INTERPOLATED HYDROGRAPH AT 16

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	10.	1		1230	151	1352.	1		1845	226	9.
1		0005	2	0.	1		0620	77	10.	1		1235	152	1082.	1		1850	227	9.
1		0010	3	0.	1		0625	78	10.	1		1240	153	871.	1		1855	228	9.
1		0015	4	0.	1		0630	79	10.	1		1245	154	661.	1		1900	229	9.
1		0020	5	1.	1		0635	80	11.	1		1250	155	477.	1		1905	230	9.
1		0025	6	1.	1		0640	81	11.	1		1255	156	334.	1		1910	231	9.
1		0030	7	2.	1		0645	82	11.	1		1300	157	256.	1		1915	232	9.
1		0035	8	3.	1		0650	83	11.	1		1305	158	188.	1		1920	233	9.
1		0040	9	4.	1		0655	84	11.	1		1310	159	138.	1		1925	234	9.
1		0045	10	4.	1		0700	85	11.	1		1315	160	104.	1		1930	235	9.
1		0050	11	5.	1		0705	86	12.	1		1320	161	92.	1		1935	236	9.
1		0055	12	6.	1		0710	87	12.	1		1325	162	74.	1		1940	237	9.
1		0100	13	6.	1		0715	88	12.	1		1330	163	57.	1		1945	238	9.
1		0105	14	6.	1		0720	89	12.	1		1335	164	43.	1		1950	239	9.
1		0110	15	7.	1		0725	90	12.	1		1340	165	39.	1		1955	240	9.
1		0115	16	7.	1		0730	91	12.	1		1345	166	36.	1		2000	241	9.
1		0120	17	7.	1		0735	92	12.	1		1350	167	33.	1		2005	242	9.
1		0125	18	7.	1		0740	93	12.	1		1355	168	32.	1		2010	243	9.
1		0130	19	7.	1		0745	94	12.	1		1400	169	30.	1		2015	244	8.
1		0135	20	7.	1		0750	95	12.	1		1405	170	28.	1		2020	245	8.
1		0140	21	7.	1		0755	96	12.	1		1410	171	27.	1		2025	246	8.
1		0145	22	7.	1		0800	97	12.	1		1415	172	26.	1		2030	247	7.
1		0150	23	7.	1		0805	98	12.	1		1420	173	25.	1		2035	248	7.
1		0155	24	7.	1		0810	99	12.	1		1425	174	24.	1		2040	249	7.
1		0200	25	7.	1		0815	100	12.	1		1430	175	23.	1		2045	250	7.
1		0205	26	7.	1		0820	101	12.	1		1435	176	22.	1		2050	251	7.
1		0210	27	7.	1		0825	102	12.	1		1440	177	21.	1		2055	252	7.
1		0215	28	7.	1		0830	103	13.	1		1445	178	21.	1		2100	253	7.
1		0220	29	7.	1		0835	104	13.	1		1450	179	20.	1		2105	254	7.
1		0225	30	7.	1		0840	105	14.	1		1455	180	19.	1		2110	255	7.
1		0230	31	7.	1		0845	106	14.	1		1500	181	18.	1		2115	256	7.
1		0235	32	7.	1		0850	107	15.	1		1505	182	18.	1		2120	257	7.
1		0240	33	7.	1		0855	108	15.	1		1510	183	17.	1		2125	258	7.
1		0245	34	7.	1		0900	109	16.	1		1515	184	17.	1		2130	259	7.
1		0250	35	7.	1		0905	110	16.	1		1520	185	17.	1		2135	260	7.
1		0255	36	7.	1		0910	111	16.	1		1525	186	16.	1		2140	261	7.
1		0300	37	7.	1		0915	112	16.	1		1530	187	16.	1		2145	262	7.
1		0305	38	7.	1		0920	113	17.	1		1535	188	16.	1		2150	263	7.
1		0310	39	7.	1		0925	114	17.	1		1540	189	16.	1		2155	264	7.
1		0315	40	7.	1		0930	115	17.	1		1545	190	15.	1		2200	265	7.
1		0320	41	7.	1		0935	116	18.	1		1550	191	15.	1		2205	266	7.
1		0325	42	7.	1		0940	117	18.	1		1555	192	15.	1		2210	267	7.
1		0330	43	7.	1		0945	118	18.	1		1600	193	14.	1		2215	268	7.
1		0335	44	7.	1		0950	119	19.	1		1605	194	14.	1		2220	269	7.
1		0340	45	7.	1		0955	120	19.	1		1610	195	14.	1		2225	270	7.
1		0345	46	7.	1		1000	121	19.	1		1615	196	14.	1		2230	271	7.
1		0350	47	7.	1		1005	122	20.	1		1620	197	14.	1		2235	272	7.
1		0355	48	7.	1		1010	123	20.	1		1625	198	14.	1		2240	273	7.
1		0400	49	7.	1		1015	124	21.	1		1630	199	14.	1		2245	274	7.
1		0405	50	7.	1		1020	125	21.	1		1635	200	14.	1		2250	275	7.
1		0410	51	8.	1		1025	126	21.	1		1640	201	14.	1		2255	276	7.
1		0415	52	8.	1		1030	127	22.	1		1645	202	14.	1		2300	277	7.
1		0420	53	8.	1		1035	128	23.	1		1650	203	14.	1		2305	278	7.
1		0425	54	9.	1		1040	129	24.	1		1655	204	13.	1		2310	279	7.
1		0430	55	9.	1		1045	130	25.	1		1700	205	13.	1		2315	280	7.
1		0435	56	9.	1		1050	131	27.	1		1705	206	13.	1		2320	281	7.
1		0440	57	9.	1		1055	132	28.	1		1710	207	12.	1		2325	282	7.
1		0445	58	9.	1		1100	133	30.	1		1715	208	12.	1		2330	283	7.
1		0450	59	9.	1		1105	134	32.	1		1720	209	12.	1		2335	284	7.
1		0455	60	9.	1		1110	135	34.	1		1725	210	12.	1		2340	285	7.
1		0500	61	9.	1		1115	136	36.	1		1730	211	12.	1		2345	286	7.
1		0505	62	9.	1		1120	137	39.	1		1735	212	12.	1		2350	287	7.
1		0510	63	9.	1		1125	138	41.	1		1740	213	12.	1		2355	288	7.
1		0515	64	9.	1		1130	139	44.	1		1745	214	12.	2		0000	289	7.
1		0520	65	9.	1		1135	140	58.	1		1750	215	12.	2		0005	290	6.
1		0525	66	9.	1		1140	141	84.	1		1755	216	12.	2		0010	291	6.
1		0530	67	9.	1		1145	142	136.	1		1800	217	11.	2		0015	292	6.
1		0535	68	9.	1		1150	143	230.	1		1805	218	11.	2		0020	293	5.
1		0540	69	9.	1		1155	144	368.	1		1810	219	11.	2		0025	294	4.
1		0545	70	9.	1		1200	145	598.	1		1815	220	11.	2		0030	295	3.
1		0550	71	9.	1		1205	146	853.	1		1820	221	10.	2		0035	296	2.
1		0555	72	9.	1		1210	147	1073.	1		1825	222	10.	2		0040	297	2.
1		0600	73	9.	1		1215	148	1264.	1		1830	223	10.	2		0045	298	1.
1		0605	74	9.	1		1220	149	1449.	1		1835	224	10.	2		0050	299	1.
1		0610	75	9.	1		1225	150	1487.	1		1840	225	10.	2		0055	300	1.

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1487.	12.42	(CFS)	201.	57.	55.	55.
		(INCHES)	1.656	1.886	1.888	1.888
		(AC-FT)	100.	114.	114.	114.

CUMULATIVE AREA = 1.13 SQ MI

295 KK

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*           *
*    CP15   *
*           *
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296 KO OUTPUT CONTROL VARIABLES

IPRNT	1	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE

ADD HYDROGRAPHS AT CP15.

298 HC HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

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HYDROGRAPH AT CP15
TRANSPOSITION AREA .0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	29.	1		1230	151	5060.	1		1845	226	31.
1		0005	2	0.	1		0620	77	29.	1		1235	152	4428.	1		1850	227	30.
1		0010	3	0.	1		0625	78	30.	1		1240	153	3748.	1		1855	228	30.
1		0015	4	1.	1		0630	79	30.	1		1245	154	2987.	1		1900	229	30.
1		0020	5	2.	1		0635	80	31.	1		1250	155	2310.	1		1905	230	29.
1		0025	6	3.	1		0640	81	32.	1		1255	156	1767.	1		1910	231	29.
1		0030	7	4.	1		0645	82	32.	1		1300	157	1383.	1		1915	232	29.
1		0035	8	6.	1		0650	83	33.	1		1305	158	1077.	1		1920	233	29.
1		0040	9	8.	1		0655	84	34.	1		1310	159	851.	1		1925	234	29.
1		0045	10	10.	1		0700	85	34.	1		1315	160	676.	1		1930	235	29.
1		0050	11	11.	1		0705	86	34.	1		1320	161	565.	1		1935	236	29.
1		0055	12	13.	1		0710	87	35.	1		1325	162	468.	1		1940	237	29.
1		0100	13	14.	1		0715	88	35.	1		1330	163	391.	1		1945	238	29.
1		0105	14	16.	1		0720	89	35.	1		1335	164	317.	1		1950	239	29.
1		0110	15	17.	1		0725	90	35.	1		1340	165	273.	1		1955	240	28.
1		0115	16	18.	1		0730	91	35.	1		1345	166	235.	1		2000	241	28.
1		0120	17	18.	1		0735	92	35.	1		1350	167	204.	1		2005	242	28.
1		0125	18	19.	1		0740	93	36.	1		1355	168	180.	1		2010	243	27.
1		0130	19	20.	1		0745	94	36.	1		1400	169	160.	1		2015	244	27.
1		0135	20	20.	1		0750	95	36.	1		1405	170	144.	1		2020	245	26.
1		0140	21	20.	1		0755	96	36.	1		1410	171	133.	1		2025	246	25.
1		0145	22	21.	1		0800	97	36.	1		1415	172	125.	1		2030	247	25.
1		0150	23	21.	1		0805	98	36.	1		1420	173	118.	1		2035	248	24.
1		0155	24	21.	1		0810	99	36.	1		1425	174	112.	1		2040	249	24.
1		0200	25	21.	1		0815	100	36.	1		1430	175	105.	1		2045	250	23.
1		0205	26	21.	1		0820	101	37.	1		1435	176	98.	1		2050	251	23.
1		0210	27	21.	1		0825	102	37.	1		1440	177	91.	1		2055	252	23.
1		0215	28	21.	1		0830	103	38.	1		1445	178	85.	1		2100	253	22.
1		0220	29	21.	1		0835	104	39.	1		1450	179	79.	1		2105	254	22.
1		0225	30	21.	1		0840	105	40.	1		1455	180	74.	1		2110	255	22.
1		0230	31	21.	1		0845	106	42.	1		1500	181	70.	1		2115	256	22.
1		0235	32	21.	1		0850	107	43.	1		1505	182	66.	1		2120	257	22.
1		0240	33	21.	1		0855	108	44.	1		1510	183	62.	1		2125	258	22.
1		0245	34	21.	1		0900	109	45.	1		1515	184	60.	1		2130	259	22.
1		0250	35	21.	1		0905	110	46.	1		1520	185	58.	1		2135	260	22.
1		0255	36	21.	1		0910	111	47.	1		1525	186	56.	1		2140	261	22.
1		0300	37	21.	1		0915	112	48.	1		1530	187	54.	1		2145	262	22.
1		0305	38	21.	1		0920	113	49.	1		1535	188	53.	1		2150	263	22.
1		0310	39	21.	1		0925	114	50.	1		1540	189	52.	1		2155	264	21.
1		0315	40	21.	1		0930	115	51.	1		1545	190	50.	1		2200	265	21.
1		0320	41	21.	1		0935	116	52.	1		1550	191	49.	1		2205	266	21.
1		0325	42	21.	1		0940	117	53.	1		1555	192	48.	1		2210	267	21.
1		0330	43	21.	1		0945	118	54.	1		1600	193	47.	1		2215	268	21.
1		0335	44	21.	1		0950	119	55.	1		1605	194	46.	1		2220	269	21.
1		0340	45	21.	1		0955	120	56.	1		1610	195	46.	1		2225	270	21.
1		0345	46	21.	1		1000	121	57.	1		1615	196	45.	1		2230	271	21.
1		0350	47	22.	1		1005	122	58.	1		1620	197	45.	1		2235	272	21.
1		0355	48	22.	1		1010	123	59.	1		1625	198	44.	1		2240	273	21.
1		0400	49	22.	1		1015	124	61.	1		1630	199	44.	1		2245	274	21.
1		0405	50	22.	1		1020	125	62.	1		1635	200	44.	1		2250	275	21.
1		0410	51	23.	1		1025	126	63.	1		1640	201	43.	1		2255	276	21.
1		0415	52	23.	1		1030	127	65.	1		1645	202	43.	1		2300	277	21.
1		0420	53	24.	1		1035	128	67.	1		1650	203	42.	1		2305	278	21.
1		0425	54	25.	1		1040	129	69.	1		1655	204	42.	1		2310	279	21.
1		0430	55	25.	1		1045	130	72.	1		1700	205	41.	1		2315	280	21.
1		0435	56	26.	1		1050	131	76.	1		1705	206	40.	1		2320	281	21.
1		0440	57	26.	1		1055	132	79.	1		1710	207	40.	1		2325	282	21.
1		0445	58	27.	1		1100	133	84.	1		1715	208	39.	1		2330	283	21.
1		0450	59	27.	1		1105	134	89.	1		1720	209	39.	1		2335	284	21.
1		0455	60	27.	1		1110	135	94.	1		1725	210	38.	1		2340	285	21.
1		0500	61	28.	1		1115	136	100.	1		1730	211	38.	1		2345	286	21.
1		0505	62	28.	1		1120	137	108.	1		1735	212	37.	1		2350	287	21.
1		0510	63	28.	1		1125	138	117.	1		1740	213	37.	1		2355	288	21.
1		0515	64	28.	1		1130	139	129.	1		1745	214	37.	2		0000	289	21.
1		0520	65	28.	1		1135	140	169.	1		1750	215	36.	2		0005	290	21.
1		0525	66	28.	1		1140	141	241.	1		1755	216	36.	2		0010	291	20.
1		0530	67	28.	1		1145	142	382.	1		1800	217	36.	2		0015	292	19.
1		0535	68	29.	1		1150	143	643.	1		1805	218	35.	2		0020	293	17.
1		0540	69	29.	1		1155	144	1022.	1		1810	219	35.	2		0025	294	16.
1		0545	70	29.	1		1200	145	1648.	1		1815	220	34.	2		0030	295	14.
1		0550	71	29.	1		1205	146	2436.	1		1820	221	33.	2		0035	296	12.
1		0555	72	29.	1		1210	147	3244.	1		1825	222	33.	2		0040	297	10.
1		0600	73	29.	1		1215	148	4069.	1		1830	223	32.	2		0045	298	8.
1		0605	74	29.	1		1220	149	4863.	1		1835	224	31.	2		0050	299	7.
1		0610	75	29.	1		1225	150	5230.	1		1840	225	31.	2		0055	300	6.

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
5230.	12.42	(CFS)	756.	210.	203.	203.
		(INCHES)	1.820	2.027	2.029	2.029
		(AC-FT)	375.	417.	418.	418.

CUMULATIVE AREA = 3.86 SQ MI

HYDROGRAPH AT CP15
TRANSPOSITION AREA 10.0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	29.	1		1230	151	5000.	1		1845	226	30.
1		0005	2	0.	1		0620	77	29.	1		1235	152	4375.	1		1850	227	30.
1		0010	3	0.	1		0625	78	30.	1		1240	153	3702.	1		1855	228	30.
1		0015	4	1.	1		0630	79	30.	1		1245	154	2950.	1		1900	229	29.
1		0020	5	2.	1		0635	80	31.	1		1250	155	2282.	1		1905	230	29.
1		0025	6	3.	1		0640	81	32.	1		1255	156	1744.	1		1910	231	29.
1		0030	7	4.	1		0645	82	32.	1		1300	157	1363.	1		1915	232	29.
1		0035	8	6.	1		0650	83	33.	1		1305	158	1062.	1		1920	233	29.
1		0040	9	8.	1		0655	84	33.	1		1310	159	838.	1		1925	234	29.
1		0045	10	9.	1		0700	85	34.	1		1315	160	665.	1		1930	235	29.
1		0050	11	11.	1		0705	86	34.	1		1320	161	556.	1		1935	236	28.
1		0055	12	13.	1		0710	87	34.	1		1325	162	461.	1		1940	237	28.
1		0100	13	14.	1		0715	88	34.	1		1330	163	384.	1		1945	238	28.
1		0105	14	15.	1		0720	89	35.	1		1335	164	311.	1		1950	239	28.

1	0110	15	17.	*	1	0725	90	35.	*	1	1340	165	267.	*	1	1955	240	28.
1	0115	16	17.	*	1	0730	91	35.	*	1	1345	166	231.	*	1	2000	241	28.
1	0120	17	18.	*	1	0735	92	35.	*	1	1350	167	200.	*	1	2005	242	28.
1	0125	18	19.	*	1	0740	93	35.	*	1	1355	168	176.	*	1	2010	243	27.
1	0130	19	19.	*	1	0745	94	35.	*	1	1400	169	157.	*	1	2015	244	27.
1	0135	20	20.	*	1	0750	95	35.	*	1	1405	170	142.	*	1	2020	245	26.
1	0140	21	20.	*	1	0755	96	35.	*	1	1410	171	131.	*	1	2025	246	25.
1	0145	22	21.	*	1	0800	97	35.	*	1	1415	172	124.	*	1	2030	247	25.
1	0150	23	21.	*	1	0805	98	35.	*	1	1420	173	117.	*	1	2035	248	24.
1	0155	24	21.	*	1	0810	99	36.	*	1	1425	174	110.	*	1	2040	249	24.
1	0200	25	21.	*	1	0815	100	36.	*	1	1430	175	103.	*	1	2045	250	23.
1	0205	26	21.	*	1	0820	101	36.	*	1	1435	176	96.	*	1	2050	251	23.
1	0210	27	21.	*	1	0825	102	37.	*	1	1440	177	89.	*	1	2055	252	22.
1	0215	28	21.	*	1	0830	103	38.	*	1	1445	178	83.	*	1	2100	253	22.
1	0220	29	21.	*	1	0835	104	39.	*	1	1450	179	78.	*	1	2105	254	22.
1	0225	30	21.	*	1	0840	105	40.	*	1	1455	180	73.	*	1	2110	255	22.
1	0230	31	21.	*	1	0845	106	41.	*	1	1500	181	68.	*	1	2115	256	22.
1	0235	32	21.	*	1	0850	107	42.	*	1	1505	182	65.	*	1	2120	257	22.
1	0240	33	21.	*	1	0855	108	44.	*	1	1510	183	62.	*	1	2125	258	21.
1	0245	34	21.	*	1	0900	109	44.	*	1	1515	184	59.	*	1	2130	259	21.
1	0250	35	21.	*	1	0905	110	45.	*	1	1520	185	57.	*	1	2135	260	21.
1	0255	36	21.	*	1	0910	111	46.	*	1	1525	186	55.	*	1	2140	261	21.
1	0300	37	21.	*	1	0915	112	47.	*	1	1530	187	54.	*	1	2145	262	21.
1	0305	38	21.	*	1	0920	113	48.	*	1	1535	188	52.	*	1	2150	263	21.
1	0310	39	21.	*	1	0925	114	49.	*	1	1540	189	51.	*	1	2155	264	21.
1	0315	40	21.	*	1	0930	115	50.	*	1	1545	190	50.	*	1	2200	265	21.
1	0320	41	21.	*	1	0935	116	51.	*	1	1550	191	48.	*	1	2205	266	21.
1	0325	42	21.	*	1	0940	117	52.	*	1	1555	192	47.	*	1	2210	267	21.
1	0330	43	21.	*	1	0945	118	53.	*	1	1600	193	47.	*	1	2215	268	21.
1	0335	44	21.	*	1	0950	119	54.	*	1	1605	194	46.	*	1	2220	269	21.
1	0340	45	21.	*	1	0955	120	55.	*	1	1610	195	45.	*	1	2225	270	21.
1	0345	46	21.	*	1	1000	121	56.	*	1	1615	196	45.	*	1	2230	271	21.
1	0350	47	21.	*	1	1005	122	58.	*	1	1620	197	44.	*	1	2235	272	21.
1	0355	48	21.	*	1	1010	123	59.	*	1	1625	198	44.	*	1	2240	273	21.
1	0400	49	22.	*	1	1015	124	60.	*	1	1630	199	44.	*	1	2245	274	21.
1	0405	50	22.	*	1	1020	125	61.	*	1	1635	200	43.	*	1	2250	275	21.
1	0410	51	22.	*	1	1025	126	62.	*	1	1640	201	43.	*	1	2255	276	21.
1	0415	52	23.	*	1	1030	127	64.	*	1	1645	202	43.	*	1	2300	277	21.
1	0420	53	24.	*	1	1035	128	66.	*	1	1650	203	42.	*	1	2305	278	21.
1	0425	54	25.	*	1	1040	129	69.	*	1	1655	204	42.	*	1	2310	279	21.
1	0430	55	25.	*	1	1045	130	71.	*	1	1700	205	41.	*	1	2315	280	21.
1	0435	56	26.	*	1	1050	131	75.	*	1	1705	206	40.	*	1	2320	281	21.
1	0440	57	26.	*	1	1055	132	79.	*	1	1710	207	39.	*	1	2325	282	21.
1	0445	58	26.	*	1	1100	133	83.	*	1	1715	208	39.	*	1	2330	283	21.
1	0450	59	27.	*	1	1105	134	88.	*	1	1720	209	38.	*	1	2335	284	21.
1	0455	60	27.	*	1	1110	135	93.	*	1	1725	210	38.	*	1	2340	285	21.
1	0500	61	27.	*	1	1115	136	99.	*	1	1730	211	37.	*	1	2345	286	21.
1	0505	62	28.	*	1	1120	137	107.	*	1	1735	212	37.	*	1	2350	287	21.
1	0510	63	28.	*	1	1125	138	115.	*	1	1740	213	37.	*	1	2355	288	21.
1	0515	64	28.	*	1	1130	139	126.	*	1	1745	214	36.	*	2	0000	289	21.
1	0520	65	28.	*	1	1135	140	165.	*	1	1750	215	36.	*	2	0005	290	20.
1	0525	66	28.	*	1	1140	141	236.	*	1	1755	216	36.	*	2	0010	291	20.
1	0530	67	28.	*	1	1145	142	373.	*	1	1800	217	35.	*	2	0015	292	19.
1	0535	68	28.	*	1	1150	143	627.	*	1	1805	218	35.	*	2	0020	293	17.
1	0540	69	28.	*	1	1155	144	1003.	*	1	1810	219	34.	*	2	0025	294	16.
1	0545	70	28.	*	1	1200	145	1622.	*	1	1815	220	34.	*	2	0030	295	14.
1	0550	71	28.	*	1	1205	146	2399.	*	1	1820	221	33.	*	2	0035	296	12.
1	0555	72	28.	*	1	1210	147	3198.	*	1	1825	222	32.	*	2	0040	297	10.
1	0600	73	28.	*	1	1215	148	4016.	*	1	1830	223	32.	*	2	0045	298	8.
1	0605	74	28.	*	1	1220	149	4802.	*	1	1835	224	31.	*	2	0050	299	7.
1	0610	75	29.	*	1	1225	150	5168.	*	1	1840	225	31.	*	2	0055	300	6.

PEAK FLOW (CFS)	TIME (HR)	MAXIMUM AVERAGE FLOW	6-HR	24-HR	72-HR	24.92-HR
5168.	12.42	(CFS)	745.	208.	200.	200.
		(INCHES)	1.795	2.001	2.002	2.002
		(AC-FT)	370.	412.	412.	412.

CUMULATIVE AREA = 3.86 SQ MI

HYDROGRAPH AT CP15
TRANSPOSITION AREA 50.0 SQ MI

DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	*	1		0615	76	28.	*	1		1230	151	4760.	*	1		1845	226	29.
1		0005	2	0.	*	1		0620	77	28.	*	1		1235	152	4162.	*	1		1850	227	29.
1		0010	3	0.	*	1		0625	78	28.	*	1		1240	153	3518.	*	1		1855	228	28.
1		0015	4	1.	*	1		0630	79	29.	*	1		1245	154	2801.	*	1		1900	229	28.
1		0020	5	2.	*	1		0635	80	30.	*	1		1250	155	2168.	*	1		1905	230	28.
1		0025	6	3.	*	1		0640	81	30.	*	1		1255	156	1648.	*	1		1910	231	28.
1		0030	7	4.	*	1		0645	82	31.	*	1		1300	157	1286.	*	1		1915	232	28.
1		0035	8	6.	*	1		0650	83	31.	*	1		1305	158	1002.	*	1		1920	233	28.
1		0040	9	7.	*	1		0655	84	32.	*	1		1310	159	785.	*	1		1925	234	27.
1		0045	10	9.	*	1		0700	85	32.	*	1		1315	160	620.	*	1		1930	235	27.
1		0050	11	11.	*	1		0705	86	33.	*	1		1320	161	519.	*	1		1935	236	27.
1		0055	12	12.	*	1		0710	87	33.	*	1		1325	162	432.	*	1		1940	237	27.
1		0100	13	14.	*	1		0715	88	33.	*	1		1330	163	358.	*	1		1945	238	27.
1		0105	14	15.	*	1		0720	89	33.	*	1		1335	164	288.	*	1		1950	239	27.
1		0110	15	16.	*	1		0725	90	33.	*	1		1340	165	246.	*	1		1955	240	27.
1		0115	16	17.	*	1		0730	91	34.	*	1		1345	166	212.	*	1		2000	241	27.
1		0120	17	18.	*	1		0735	92	34.	*	1		1350	167	183.	*	1		2005	242	26.
1		0125	18	18.	*	1		0740	93	34.	*	1		1355	168	162.	*	1		2010	243	26.
1		0130	19	19.	*	1		0745	94	34.	*	1		1400	169	145.	*	1		2015	244	25.
1		0135	20	19.	*	1		0750	95	34.	*	1		1405	170	132.	*	1		2020	245	25.
1		0140	21	19.	*	1		0755	96	34.	*	1		1410	171	124.	*	1		2025	246	24.
1		0145	22	20.	*	1		0800	97	34.	*	1		1415	172	117.	*	1		2030	247	24.
1		0150	23	20.	*	1		0805	98	34.	*	1		1420	173	110.	*	1		2035	248	23.
1		0155	24	20.	*	1		0810	99	34.	*	1		1425	174	103.	*	1		2040	249	23.
1		0200	25	20.	*	1		0815	100	34.	*	1		1430	175	96.	*	1		2045	250	22.
1		0205	26	20.	*	1		0820	101	35.	*	1		1435	176	89.	*	1		2050	251	22.
1		0210	27	20.	*	1		0825	102	35.	*	1		1440	177	83.	*	1		2055	252	22.
1		0215	28	20.	*	1		0830	103	36.	*	1		1445	178	77.	*	1		2100	253	21.
1		0220	29	20.	*	1		0835	104	37.	*	1		1450	179	72.	*	1		2105	254	21.
1		0225	30	20.	*	1		0840	105	38.	*	1		1455	180	68.	*	1		2110	255	21.
1		0230	31	20.	*	1		0845	106	39.	*	1		1500	181	64.	*	1		2115	256	21.
1		0235	32	20.	*	1		0850	107	41.	*	1		1505	182	61.	*	1		2120	257	21.
1		0240	33	20.	*	1		0855	108	42.	*	1		1510	183	58.	*	1		2125	258	21.
1		0245	34	20.	*	1		0900	109	43.	*	1		1515	184	56.	*	1		2130	259	21.
1		0250	35	20.	*	1		0905	110	44.	*	1		1520	185	54.	*	1		2135	260	21.
1		0255	36	20.	*	1		0910	111	44.	*	1		1525	186	53.	*	1		2140	261	20.
1		0300	37	20.	*	1		0915	112	45.	*	1		1530	187	51.	*	1		2145	262	20.
1		0305	38	20.	*	1		0920	113	46.	*	1		1535	188	50.	*	1		2150	263	20.
1		0310	39	20.	*	1		0925	114	47.	*	1		1540	189	49.	*	1		2155	264	20.
1		0315	40	20.	*	1		0930	115	48.	*	1		1545	190	48.	*	1		2200	265	20.
1		0320	41	20.	*	1		0935	116	49.	*	1		1550	191	46.	*	1		2205	266	20.
1		0325	42	20.	*	1		0940	117	50.	*	1		1555	192	45.	*	1		2210	267	20.
1		0330	43	20.	*	1		0945	118	51.	*	1		1600	193	45.	*	1		2215	268	20.
1		0335	44	20.	*	1		0950	119	52.	*	1		1605	194	44.	*	1		2220	269	20.

1	0340	45	20.	*	1	0955	120	53.	*	1	1610	195	43.	*	1	2225	270	20.
1	0345	46	20.	*	1	1000	121	54.	*	1	1615	196	43.	*	1	2230	271	20.
1	0350	47	20.	*	1	1005	122	55.	*	1	1620	197	42.	*	1	2235	272	20.
1	0355	48	21.	*	1	1010	123	56.	*	1	1625	198	42.	*	1	2240	273	20.
1	0400	49	21.	*	1	1015	124	58.	*	1	1630	199	42.	*	1	2245	274	20.
1	0405	50	21.	*	1	1020	125	59.	*	1	1635	200	42.	*	1	2250	275	20.
1	0410	51	22.	*	1	1025	126	60.	*	1	1640	201	41.	*	1	2255	276	20.
1	0415	52	22.	*	1	1030	127	62.	*	1	1645	202	41.	*	1	2300	277	20.
1	0420	53	23.	*	1	1035	128	64.	*	1	1650	203	40.	*	1	2305	278	20.
1	0425	54	24.	*	1	1040	129	66.	*	1	1655	204	40.	*	1	2310	279	20.
1	0430	55	24.	*	1	1045	130	69.	*	1	1700	205	39.	*	1	2315	280	20.
1	0435	56	25.	*	1	1050	131	72.	*	1	1705	206	38.	*	1	2320	281	20.
1	0440	57	25.	*	1	1055	132	75.	*	1	1710	207	38.	*	1	2325	282	20.
1	0445	58	25.	*	1	1100	133	80.	*	1	1715	208	37.	*	1	2330	283	20.
1	0450	59	26.	*	1	1105	134	85.	*	1	1720	209	37.	*	1	2335	284	20.
1	0455	60	26.	*	1	1110	135	89.	*	1	1725	210	36.	*	1	2340	285	20.
1	0500	61	26.	*	1	1115	136	95.	*	1	1730	211	36.	*	1	2345	286	20.
1	0505	62	26.	*	1	1120	137	101.	*	1	1735	212	35.	*	1	2350	287	20.
1	0510	63	27.	*	1	1125	138	108.	*	1	1740	213	35.	*	1	2355	288	20.
1	0515	64	27.	*	1	1130	139	117.	*	1	1745	214	35.	*	2	0000	289	20.
1	0520	65	27.	*	1	1135	140	151.	*	1	1750	215	35.	*	2	0005	290	20.
1	0525	66	27.	*	1	1140	141	215.	*	1	1755	216	34.	*	2	0010	291	19.
1	0530	67	27.	*	1	1145	142	338.	*	1	1800	217	34.	*	2	0015	292	18.
1	0535	68	27.	*	1	1150	143	564.	*	1	1805	218	34.	*	2	0020	293	16.
1	0540	69	27.	*	1	1155	144	925.	*	1	1810	219	33.	*	2	0025	294	15.
1	0545	70	27.	*	1	1200	145	1515.	*	1	1815	220	32.	*	2	0030	295	13.
1	0550	71	27.	*	1	1205	146	2250.	*	1	1820	221	32.	*	2	0035	296	11.
1	0555	72	27.	*	1	1210	147	3014.	*	1	1825	222	31.	*	2	0040	297	10.
1	0600	73	27.	*	1	1215	148	3803.	*	1	1830	223	30.	*	2	0045	298	8.
1	0605	74	27.	*	1	1220	149	4554.	*	1	1835	224	30.	*	2	0050	299	7.
1	0610	75	27.	*	1	1225	150	4918.	*	1	1840	225	29.	*	2	0055	300	5.

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PEAK FLOW (CFS)	TIME (HR)	MAXIMUM AVERAGE FLOW (CFS)	6-HR	24-HR	72-HR	24.92-HR
+ 4918.	12.42		704.	196.	189.	189.
		(INCHES)	1.696	1.893	1.894	1.894
		(AC-FT)	349.	390.	390.	390.

CUMULATIVE AREA = 3.86 SQ MI

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HYDROGRAPH AT CP15
TRANSPOSITION AREA 100.0 SQ MI

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DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	27.	1		1230	151	4654.	1		1845	226	28.
1		0005	2	0.	1		0620	77	27.	1		1235	152	4068.	1		1850	227	28.
1		0010	3	0.	1		0625	78	28.	1		1240	153	3437.	1		1855	228	28.
1		0015	4	1.	1		0630	79	28.	1		1245	154	2736.	1		1900	229	28.
1		0020	5	2.	1		0635	80	29.	1		1250	155	2118.	1		1905	230	27.
1		0025	6	2.	1		0640	81	30.	1		1255	156	1607.	1		1910	231	27.
1		0030	7	4.	1		0645	82	30.	1		1300	157	1252.	1		1915	232	27.
1		0035	8	6.	1		0650	83	31.	1		1305	158	976.	1		1920	233	27.
1		0040	9	7.	1		0655	84	31.	1		1310	159	762.	1		1925	234	27.
1		0045	10	9.	1		0700	85	32.	1		1315	160	601.	1		1930	235	27.
1		0050	11	11.	1		0705	86	32.	1		1320	161	503.	1		1935	236	27.
1		0055	12	12.	1		0710	87	32.	1		1325	162	421.	1		1940	237	27.
1		0100	13	13.	1		0715	88	32.	1		1330	163	347.	1		1945	238	27.
1		0105	14	15.	1		0720	89	33.	1		1335	164	278.	1		1950	239	27.
1		0110	15	16.	1		0725	90	33.	1		1340	165	238.	1		1955	240	27.
1		0115	16	16.	1		0730	91	33.	1		1345	166	204.	1		2000	241	26.
1		0120	17	17.	1		0735	92	33.	1		1350	167	176.	1		2005	242	26.
1		0125	18	18.	1		0740	93	33.	1		1355	168	155.	1		2010	243	26.
1		0130	19	18.	1		0745	94	33.	1		1400	169	140.	1		2015	244	25.
1		0135	20	19.	1		0750	95	33.	1		1405	170	128.	1		2020	245	24.
1		0140	21	19.	1		0755	96	33.	1		1410	171	122.	1		2025	246	24.
1		0145	22	19.	1		0800	97	33.	1		1415	172	114.	1		2030	247	23.
1		0150	23	20.	1		0805	98	33.	1		1420	173	107.	1		2035	248	23.
1		0155	24	20.	1		0810	99	34.	1		1425	174	100.	1		2040	249	22.
1		0200	25	20.	1		0815	100	34.	1		1430	175	93.	1		2045	250	22.
1		0205	26	20.	1		0820	101	34.	1		1435	176	86.	1		2050	251	21.
1		0210	27	20.	1		0825	102	35.	1		1440	177	81.	1		2055	252	21.
1		0215	28	20.	1		0830	103	36.	1		1445	178	75.	1		2100	253	21.
1		0220	29	20.	1		0835	104	37.	1		1450	179	70.	1		2105	254	21.
1		0225	30	20.	1		0840	105	38.	1		1455	180	66.	1		2110	255	21.
1		0230	31	20.	1		0845	106	39.	1		1500	181	63.	1		2115	256	20.
1		0235	32	20.	1		0850	107	40.	1		1505	182	59.	1		2120	257	20.
1		0240	33	20.	1		0855	108	41.	1		1510	183	57.	1		2125	258	20.
1		0245	34	20.	1		0900	109	42.	1		1515	184	55.	1		2130	259	20.
1		0250	35	20.	1		0905	110	43.	1		1520	185	53.	1		2135	260	20.
1		0255	36	20.	1		0910	111	44.	1		1525	186	52.	1		2140	261	20.
1		0300	37	20.	1		0915	112	44.	1		1530	187	50.	1		2145	262	20.
1		0305	38	20.	1		0920	113	45.	1		1535	188	49.	1		2150	263	20.
1		0310	39	20.	1		0925	114	46.	1		1540	189	48.	1		2155	264	20.
1		0315	40	20.	1		0930	115	47.	1		1545	190	47.	1		2200	265	20.
1		0320	41	20.	1		0935	116	48.	1		1550	191	46.	1		2205	266	20.
1		0325	42	20.	1		0940	117	49.	1		1555	192	45.	1		2210	267	20.
1		0330	43	20.	1		0945	118	50.	1		1600	193	44.	1		2215	268	20.
1		0335	44	20.	1		0950	119	51.	1		1605	194	43.	1		2220	269	20.
1		0340	45	20.	1		0955	120	52.	1		1610	195	43.	1		2225	270	20.
1		0345	46	20.	1		1000	121	53.	1		1615	196	42.	1		2230	271	20.
1		0350	47	20.	1		1005	122	54.	1		1620	197	42.	1		2235	272	20.
1		0355	48	20.	1		1010	123	55.	1		1625	198	41.	1		2240	273	20.
1		0400	49	20.	1		1015	124	56.	1		1630	199	41.	1		2245	274	20.
1		0405	50	21.	1		1020	125	58.	1		1635	200	41.	1		2250	275	20.
1		0410	51	21.	1		1025	126	59.	1		1640	201	40.	1		2255	276	20.
1		0415	52	22.	1		1030	127	60.	1		1645	202	40.	1		2300	277	20.
1		0420	53	22.	1		1035	128	62.	1		1650	203	40.	1		2305	278	20.
1		0425	54	23.	1		1040	129	65.	1		1655	204	39.	1		2310	279	20.
1		0430	55	24.	1		1045	130	67.	1		1700	205	38.	1		2315	280	20.
1		0435	56	24.	1		1050	131	71.	1		1705	206	38.	1		2320	281	20.
1		0440	57	25.	1		1055	132	74.	1		1710	207	37.	1		2325	282	20.
1		0445	58	25.	1		1100	133	78.	1		1715	208	37.	1		2330	283	20.
1		0450	59	25.	1		1105	134	83.	1		1720	209	36.	1		2335	284	20.
1		0455	60	26.	1		1110	135	88.	1		1725	210	36.	1		2340	285	20.
1		0500	61	26.	1		1115	136	93.	1		1730	211	35.	1		2345	286	20.
1		0505	62	26.	1		1120	137	99.	1		1735	212	35.	1		2350	287	20.
1		0510	63	26.	1		1125	138	105.	1		1740	213	35.	1		2355	288	20.
1		0515	64	26.	1		1130	139	113.	1		1745	214	34.	2		0000	289	20.
1		0520	65	26.	1		1135	140	146.	1		1750	215	34.	2		0005	290	19.
1		0525	66	27.	1		1140	141	206.	1		1755	216	34.	2		0010	291	19.
1		0530	67	27.	1		1145	142	324.	1		1800	217	33.	2		0015	292	17.
1		0535	68	27.	1		1150	143	539.	1		1805	218	33.	2		0020	293	16.
1		0540	69	27.	1		1155	144	892.	1		1810	219	32.	2		0025	294	15.
1		0545	70	27.	1		1200	145	1468.	1		1815	220	32.	2		0030	295	13.
1		0550	71	27.	1		1205	146	2185.	1		1820	221	31.	2		0035	296	11.
1		0555	72	27.	1		1210	147	2933.	1		1825	222	30.	2		0040	297	9.
1		0600	73	27.	1		1215	148	3709.	1		1830	223	30.	2		0045	298	8.
1		0605	74	27.	1		1220	149	4445.	1		1835	224	29.	2		0050	299	7.

1	0610	75	27.	*	1	1225	150	4808.	*	1	1840	225	29.	*	2	0055	300	5.

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
4808.	12.42	(CFS)	686.	192.	185.	185.
		(INCHES)	1.653	1.846	1.848	1.848
		(AC-FT)	340.	380.	380.	380.

CUMULATIVE AREA = 3.86 SQ MI

HYDROGRAPH AT CP15
TRANSPOSITION AREA 200.0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	27.	1		1230	151	4564.	1		1845	226	28.
1		0005	2	0.	1		0620	77	27.	1		1235	152	3987.	1		1850	227	28.
1		0010	3	0.	1		0625	78	27.	1		1240	153	3367.	1		1855	228	27.
1		0015	4	1.	1		0630	79	28.	1		1245	154	2680.	1		1900	229	27.
1		0020	5	1.	1		0635	80	29.	1		1250	155	2076.	1		1905	230	27.
1		0025	6	2.	1		0640	81	29.	1		1255	156	1571.	1		1910	231	27.
1		0030	7	4.	1		0645	82	30.	1		1300	157	1223.	1		1915	232	27.
1		0035	8	6.	1		0650	83	30.	1		1305	158	954.	1		1920	233	27.
1		0040	9	7.	1		0655	84	31.	1		1310	159	743.	1		1925	234	26.
1		0045	10	9.	1		0700	85	31.	1		1315	160	585.	1		1930	235	26.
1		0050	11	10.	1		0705	86	31.	1		1320	161	490.	1		1935	236	26.
1		0055	12	12.	1		0710	87	32.	1		1325	162	411.	1		1940	237	26.
1		0100	13	13.	1		0715	88	32.	1		1330	163	338.	1		1945	238	26.
1		0105	14	14.	1		0720	89	32.	1		1335	164	270.	1		1950	239	26.
1		0110	15	15.	1		0725	90	32.	1		1340	165	230.	1		1955	240	26.
1		0115	16	16.	1		0730	91	32.	1		1345	166	197.	1		2000	241	26.
1		0120	17	17.	1		0735	92	33.	1		1350	167	170.	1		2005	242	26.
1		0125	18	18.	1		0740	93	33.	1		1355	168	150.	1		2010	243	25.
1		0130	19	18.	1		0745	94	33.	1		1400	169	136.	1		2015	244	25.
1		0135	20	18.	1		0750	95	33.	1		1405	170	126.	1		2020	245	24.
1		0140	21	19.	1		0755	96	33.	1		1410	171	119.	1		2025	246	23.
1		0145	22	19.	1		0800	97	33.	1		1415	172	112.	1		2030	247	23.
1		0150	23	19.	1		0805	98	33.	1		1420	173	104.	1		2035	248	22.
1		0155	24	19.	1		0810	99	33.	1		1425	174	97.	1		2040	249	22.
1		0200	25	19.	1		0815	100	33.	1		1430	175	90.	1		2045	250	21.
1		0205	26	20.	1		0820	101	34.	1		1435	176	84.	1		2050	251	21.
1		0210	27	20.	1		0825	102	34.	1		1440	177	78.	1		2055	252	21.
1		0215	28	20.	1		0830	103	35.	1		1445	178	73.	1		2100	253	21.
1		0220	29	20.	1		0835	104	36.	1		1450	179	69.	1		2105	254	20.
1		0225	30	20.	1		0840	105	37.	1		1455	180	65.	1		2110	255	20.
1		0230	31	20.	1		0845	106	38.	1		1500	181	61.	1		2115	256	20.
1		0235	32	20.	1		0850	107	39.	1		1505	182	58.	1		2120	257	20.
1		0240	33	20.	1		0855	108	40.	1		1510	183	56.	1		2125	258	20.
1		0245	34	20.	1		0900	109	41.	1		1515	184	54.	1		2130	259	20.
1		0250	35	20.	1		0905	110	42.	1		1520	185	52.	1		2135	260	20.
1		0255	36	20.	1		0910	111	43.	1		1525	186	51.	1		2140	261	20.
1		0300	37	20.	1		0915	112	44.	1		1530	187	49.	1		2145	262	20.
1		0305	38	20.	1		0920	113	45.	1		1535	188	48.	1		2150	263	20.
1		0310	39	20.	1		0925	114	45.	1		1540	189	47.	1		2155	264	20.
1		0315	40	20.	1		0930	115	46.	1		1545	190	46.	1		2200	265	20.
1		0320	41	20.	1		0935	116	47.	1		1550	191	45.	1		2205	266	20.
1		0325	42	20.	1		0940	117	48.	1		1555	192	44.	1		2210	267	20.
1		0330	43	20.	1		0945	118	49.	1		1600	193	43.	1		2215	268	20.
1		0335	44	20.	1		0950	119	50.	1		1605	194	42.	1		2220	269	20.
1		0340	45	20.	1		0955	120	51.	1		1610	195	42.	1		2225	270	20.
1		0345	46	20.	1		1000	121	52.	1		1615	196	41.	1		2230	271	20.
1		0350	47	20.	1		1005	122	53.	1		1620	197	41.	1		2235	272	20.
1		0355	48	20.	1		1010	123	55.	1		1625	198	41.	1		2240	273	20.
1		0400	49	20.	1		1015	124	56.	1		1630	199	40.	1		2245	274	20.
1		0405	50	20.	1		1020	125	57.	1		1635	200	40.	1		2250	275	20.
1		0410	51	21.	1		1025	126	58.	1		1640	201	40.	1		2255	276	20.
1		0415	52	21.	1		1030	127	60.	1		1645	202	39.	1		2300	277	20.
1		0420	53	22.	1		1035	128	61.	1		1650	203	39.	1		2305	278	20.
1		0425	54	23.	1		1040	129	64.	1		1655	204	39.	1		2310	279	20.
1		0430	55	23.	1		1045	130	66.	1		1700	205	38.	1		2315	280	20.
1		0435	56	24.	1		1050	131	70.	1		1705	206	37.	1		2320	281	20.
1		0440	57	24.	1		1055	132	73.	1		1710	207	36.	1		2325	282	20.
1		0445	58	25.	1		1100	133	77.	1		1715	208	36.	1		2330	283	20.
1		0450	59	25.	1		1105	134	82.	1		1720	209	35.	1		2335	284	20.
1		0455	60	25.	1		1110	135	86.	1		1725	210	35.	1		2340	285	20.
1		0500	61	25.	1		1115	136	91.	1		1730	211	35.	1		2345	286	20.
1		0505	62	26.	1		1120	137	97.	1		1735	212	34.	1		2350	287	20.
1		0510	63	26.	1		1125	138	103.	1		1740	213	34.	1		2355	288	20.
1		0515	64	26.	1		1130	139	111.	1		1745	214	34.	2		0000	289	19.
1		0520	65	26.	1		1135	140	142.	1		1750	215	34.	2		0005	290	19.
1		0525	66	26.	1		1140	141	200.	1		1755	216	33.	2		0010	291	18.
1		0530	67	26.	1		1145	142	314.	1		1800	217	33.	2		0015	292	17.
1		0535	68	26.	1		1150	143	523.	1		1805	218	32.	2		0020	293	16.
1		0540	69	26.	1		1155	144	863.	1		1810	219	32.	2		0025	294	14.
1		0545	70	26.	1		1200	145	1428.	1		1815	220	31.	2		0030	295	13.
1		0550	71	26.	1		1205	146	2129.	1		1820	221	31.	2		0035	296	11.
1		0555	72	26.	1		1210	147	2863.	1		1825	222	30.	2		0040	297	9.
1		0600	73	26.	1		1215	148	3628.	1		1830	223	29.	2		0045	298	8.
1		0605	74	26.	1		1220	149	4351.	1		1835	224	29.	2		0050	299	6.
1		0610	75	26.	1		1225	150	4713.	1		1840	225	28.	2		0055	300	5.

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
4713.	12.42	(CFS)	671.	188.	181.	181.
		(INCHES)	1.616	1.807	1.808	1.808
		(AC-FT)	333.	372.	372.	372.

CUMULATIVE AREA = 3.86 SQ MI

INTERPOLATED HYDROGRAPH AT CP15

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	29.	1		1230	151	5006.	1		1845	226	30.
1		0005	2	0.	1		0620	77	29.	1		1235	152	4381.	1		1850	227	30.
1		0010	3	0.	1		0625	78	30.	1		1240	153	3707.	1		1855	228	30.
1		0015	4	1.	1		0630	79	30.	1		1245	154	2953.	1		1900	229	29.
1		0020	5	2.	1		0635	80	31.	1		1250	155	2285.	1		1905	230	29.
1		0025	6	3.	1		0640	81	32.	1		1255	156	1746.	1		1910	231	29.
1		0030	7	4.	1		0645	82	32.	1		1300	157	1365.	1		1915	232	29.

1	0035	8	6.	*	1	0650	83	33.	*	1	1305	158	1064.	*	1	1920	233	29.
1	0040	9	8.	*	1	0655	84	33.	*	1	1310	159	840.	*	1	1925	234	29.
1	0045	10	9.	*	1	0700	85	34.	*	1	1315	160	666.	*	1	1930	235	29.
1	0050	11	11.	*	1	0705	86	34.	*	1	1320	161	557.	*	1	1935	236	28.
1	0055	12	13.	*	1	0710	87	34.	*	1	1325	162	462.	*	1	1940	237	28.
1	0100	13	14.	*	1	0715	88	35.	*	1	1330	163	385.	*	1	1945	238	28.
1	0105	14	15.	*	1	0720	89	35.	*	1	1335	164	312.	*	1	1950	239	28.
1	0110	15	17.	*	1	0725	90	35.	*	1	1340	165	268.	*	1	1955	240	28.
1	0115	16	17.	*	1	0730	91	35.	*	1	1345	166	231.	*	1	2000	241	28.
1	0120	17	18.	*	1	0735	92	35.	*	1	1350	167	200.	*	1	2005	242	28.
1	0125	18	19.	*	1	0740	93	35.	*	1	1355	168	177.	*	1	2010	243	27.
1	0130	19	19.	*	1	0745	94	35.	*	1	1400	169	157.	*	1	2015	244	27.
1	0135	20	20.	*	1	0750	95	35.	*	1	1405	170	142.	*	1	2020	245	26.
1	0140	21	20.	*	1	0755	96	35.	*	1	1410	171	131.	*	1	2025	246	25.
1	0145	22	21.	*	1	0800	97	35.	*	1	1415	172	124.	*	1	2030	247	25.
1	0150	23	21.	*	1	0805	98	35.	*	1	1420	173	117.	*	1	2035	248	24.
1	0155	24	21.	*	1	0810	99	36.	*	1	1425	174	110.	*	1	2040	249	24.
1	0200	25	21.	*	1	0815	100	36.	*	1	1430	175	103.	*	1	2045	250	23.
1	0205	26	21.	*	1	0820	101	36.	*	1	1435	176	96.	*	1	2050	251	23.
1	0210	27	21.	*	1	0825	102	37.	*	1	1440	177	89.	*	1	2055	252	23.
1	0215	28	21.	*	1	0830	103	38.	*	1	1445	178	83.	*	1	2100	253	22.
1	0220	29	21.	*	1	0835	104	39.	*	1	1450	179	78.	*	1	2105	254	22.
1	0225	30	21.	*	1	0840	105	40.	*	1	1455	180	73.	*	1	2110	255	22.
1	0230	31	21.	*	1	0845	106	41.	*	1	1500	181	69.	*	1	2115	256	22.
1	0235	32	21.	*	1	0850	107	42.	*	1	1505	182	65.	*	1	2120	257	22.
1	0240	33	21.	*	1	0855	108	44.	*	1	1510	183	62.	*	1	2125	258	22.
1	0245	34	21.	*	1	0900	109	45.	*	1	1515	184	59.	*	1	2130	259	21.
1	0250	35	21.	*	1	0905	110	45.	*	1	1520	185	57.	*	1	2135	260	21.
1	0255	36	21.	*	1	0910	111	46.	*	1	1525	186	55.	*	1	2140	261	21.
1	0300	37	21.	*	1	0915	112	47.	*	1	1530	187	54.	*	1	2145	262	21.
1	0305	38	21.	*	1	0920	113	48.	*	1	1535	188	52.	*	1	2150	263	21.
1	0310	39	21.	*	1	0925	114	49.	*	1	1540	189	51.	*	1	2155	264	21.
1	0315	40	21.	*	1	0930	115	50.	*	1	1545	190	50.	*	1	2200	265	21.
1	0320	41	21.	*	1	0935	116	51.	*	1	1550	191	48.	*	1	2205	266	21.
1	0325	42	21.	*	1	0940	117	52.	*	1	1555	192	47.	*	1	2210	267	21.
1	0330	43	21.	*	1	0945	118	53.	*	1	1600	193	47.	*	1	2215	268	21.
1	0335	44	21.	*	1	0950	119	54.	*	1	1605	194	46.	*	1	2220	269	21.
1	0340	45	21.	*	1	0955	120	55.	*	1	1610	195	45.	*	1	2225	270	21.
1	0345	46	21.	*	1	1000	121	56.	*	1	1615	196	45.	*	1	2230	271	21.
1	0350	47	21.	*	1	1005	122	58.	*	1	1620	197	44.	*	1	2235	272	21.
1	0355	48	21.	*	1	1010	123	59.	*	1	1625	198	44.	*	1	2240	273	21.
1	0400	49	22.	*	1	1015	124	60.	*	1	1630	199	44.	*	1	2245	274	21.
1	0405	50	22.	*	1	1020	125	61.	*	1	1635	200	43.	*	1	2250	275	21.
1	0410	51	22.	*	1	1025	126	63.	*	1	1640	201	43.	*	1	2255	276	21.
1	0415	52	23.	*	1	1030	127	64.	*	1	1645	202	43.	*	1	2300	277	21.
1	0420	53	24.	*	1	1035	128	66.	*	1	1650	203	42.	*	1	2305	278	21.
1	0425	54	25.	*	1	1040	129	69.	*	1	1655	204	42.	*	1	2310	279	21.
1	0430	55	25.	*	1	1045	130	72.	*	1	1700	205	41.	*	1	2315	280	21.
1	0435	56	26.	*	1	1050	131	75.	*	1	1705	206	40.	*	1	2320	281	21.
1	0440	57	26.	*	1	1055	132	79.	*	1	1710	207	39.	*	1	2325	282	21.
1	0445	58	27.	*	1	1100	133	83.	*	1	1715	208	39.	*	1	2330	283	21.
1	0450	59	27.	*	1	1105	134	88.	*	1	1720	209	38.	*	1	2335	284	21.
1	0455	60	27.	*	1	1110	135	93.	*	1	1725	210	38.	*	1	2340	285	21.
1	0500	61	27.	*	1	1115	136	99.	*	1	1730	211	37.	*	1	2345	286	21.
1	0505	62	28.	*	1	1120	137	107.	*	1	1735	212	37.	*	1	2350	287	21.
1	0510	63	28.	*	1	1125	138	115.	*	1	1740	213	37.	*	1	2355	288	21.
1	0515	64	28.	*	1	1130	139	127.	*	1	1745	214	36.	*	2	0000	289	21.
1	0520	65	28.	*	1	1135	140	166.	*	1	1750	215	36.	*	2	0005	290	20.
1	0525	66	28.	*	1	1140	141	236.	*	1	1755	216	36.	*	2	0010	291	20.
1	0530	67	28.	*	1	1145	142	374.	*	1	1800	217	35.	*	2	0015	292	19.
1	0535	68	28.	*	1	1150	143	629.	*	1	1805	218	35.	*	2	0020	293	17.
1	0540	69	28.	*	1	1155	144	1005.	*	1	1810	219	34.	*	2	0025	294	16.
1	0545	70	28.	*	1	1200	145	1624.	*	1	1815	220	34.	*	2	0030	295	14.
1	0550	71	28.	*	1	1205	146	2403.	*	1	1820	221	33.	*	2	0035	296	12.
1	0555	72	28.	*	1	1210	147	3203.	*	1	1825	222	32.	*	2	0040	297	10.
1	0600	73	28.	*	1	1215	148	4022.	*	1	1830	223	32.	*	2	0045	298	8.
1	0605	74	28.	*	1	1220	149	4808.	*	1	1835	224	31.	*	2	0050	299	7.
1	0610	75	29.	*	1	1225	150	5175.	*	1	1840	225	31.	*	2	0055	300	6.

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PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
+ 5175.	12.42	(CFS)	746.	208.	200.	200.
		(INCHES)	1.798	2.003	2.005	2.005
		(AC-FT)	370.	412.	413.	413.

CUMULATIVE AREA = 3.86 SQ MI

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            *           *
338 KK      *    CPWT3  *
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339 KO OUTPUT CONTROL VARIABLES

IPRNT	1	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE

ADD HYDROGRAPHS AT CPWT3

341 HC HYDROGRAPH COMBINATION

ICOMP	2	NUMBER OF HYDROGRAPHS TO COMBINE

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HYDROGRAPH AT CPWT3
TRANSPOSITION AREA .0 SQ MI

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DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	*	1		0615	76	2.	*	1		1230	151	9904.	*	1		1845	226	19.
1		0005	2	0.	*	1		0620	77	2.	*	1		1235	152	12751.	*	1		1850	227	18.
1		0010	3	0.	*	1		0625	78	2.	*	1		1240	153	15249.	*	1		1855	228	16.
1		0015	4	0.	*	1		0630	79	2.	*	1		1245	154	16823.	*	1		1900	229	15.
1		0020	5	0.	*	1		0635	80	2.	*	1		1250	155	17481.	*	1		1905	230	13.
1		0025	6	0.	*	1		0640	81	2.	*	1		1255	156	17389.	*	1		1910	231	12.
1		0030	7	0.	*	1		0645	82	2.	*	1		1300	157	16615.	*	1		1915	232	11.
1		0035	8	0.	*	1		0650	83	2.	*	1		1305	158	15268.	*	1		1920	233	9.
1		0040	9	0.	*	1		0655	84	2.	*	1		1310	159	13682.	*	1		1925	234	8.
1		0045	10	0.	*	1		0700	85	2.	*	1		1315	160	12083.	*	1		1930	235	7.
1		0050	11	0.	*	1		0705	86	2.	*	1		1320	161	10509.	*	1		1935	236	6.
1		0055	12	0.	*	1		0710	87	2.	*	1		1325	162	9032.	*	1		1940	237	4.
1		0100	13	0.	*	1		0715	88	2.	*	1		1330	163	7822.	*	1		1945	238	4.
1		0105	14	0.	*	1		0720	89	3.	*	1		1335	164	6927.	*	1		1950	239	4.
1		0110	15	0.	*	1		0725	90	3.	*	1		1340	165	6054.	*	1		1955	240	4.

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0115	16	0.	1		0730	91	3.	1		1345	166	5246.	1		2000	241	4.
1		0120	17	0.	1		0735	92	3.	1		1350	167	4541.	1		2005	242	4.
1		0125	18	0.	1		0740	93	3.	1		1355	168	3985.	1		2010	243	3.
1		0130	19	0.	1		0745	94	3.	1		1400	169	3472.	1		2015	244	3.
1		0135	20	0.	1		0750	95	3.	1		1405	170	3017.	1		2020	245	3.
1		0140	21	0.	1		0755	96	3.	1		1410	171	2626.	1		2025	246	3.
1		0145	22	0.	1		0800	97	3.	1		1415	172	2312.	1		2030	247	3.
1		0150	23	0.	1		0805	98	3.	1		1420	173	2034.	1		2035	248	3.
1		0155	24	0.	1		0810	99	4.	1		1425	174	1783.	1		2040	249	3.
1		0200	25	0.	1		0815	100	4.	1		1430	175	1563.	1		2045	250	3.
1		0205	26	0.	1		0820	101	4.	1		1435	176	1374.	1		2050	251	3.
1		0210	27	0.	1		0825	102	4.	1		1440	177	1223.	1		2055	252	3.
1		0215	28	0.	1		0830	103	4.	1		1445	178	1102.	1		2100	253	3.
1		0220	29	0.	1		0835	104	4.	1		1450	179	1004.	1		2105	254	3.
1		0225	30	0.	1		0840	105	4.	1		1455	180	909.	1		2110	255	2.
1		0230	31	0.	1		0845	106	4.	1		1500	181	820.	1		2115	256	2.
1		0235	32	0.	1		0850	107	4.	1		1505	182	738.	1		2120	257	2.
1		0240	33	0.	1		0855	108	4.	1		1510	183	664.	1		2125	258	2.
1		0245	34	0.	1		0900	109	4.	1		1515	184	598.	1		2130	259	2.
1		0250	35	0.	1		0905	110	4.	1		1520	185	538.	1		2135	260	2.
1		0255	36	0.	1		0910	111	4.	1		1525	186	486.	1		2140	261	2.
1		0300	37	0.	1		0915	112	5.	1		1530	187	438.	1		2145	262	2.
1		0305	38	0.	1		0920	113	5.	1		1535	188	396.	1		2150	263	2.
1		0310	39	0.	1		0925	114	5.	1		1540	189	359.	1		2155	264	1.
1		0315	40	0.	1		0930	115	6.	1		1545	190	327.	1		2200	265	1.
1		0320	41	0.	1		0935	116	7.	1		1550	191	307.	1		2205	266	1.
1		0325	42	0.	1		0940	117	7.	1		1555	192	288.	1		2210	267	1.
1		0330	43	0.	1		0945	118	8.	1		1600	193	270.	1		2215	268	1.
1		0335	44	0.	1		0950	119	9.	1		1605	194	252.	1		2220	269	1.
1		0340	45	0.	1		0955	120	10.	1		1610	195	234.	1		2225	270	1.
1		0345	46	0.	1		1000	121	11.	1		1615	196	218.	1		2230	271	1.
1		0350	47	0.	1		1005	122	13.	1		1620	197	202.	1		2235	272	1.
1		0355	48	0.	1		1010	123	14.	1		1625	198	187.	1		2240	273	1.
1		0400	49	0.	1		1015	124	15.	1		1630	199	172.	1		2245	274	1.
1		0405	50	0.	1		1020	125	16.	1		1635	200	159.	1		2250	275	1.
1		0410	51	0.	1		1025	126	17.	1		1640	201	147.	1		2255	276	1.
1		0415	52	0.	1		1030	127	19.	1		1645	202	136.	1		2300	277	1.
1		0420	53	0.	1		1035	128	21.	1		1650	203	126.	1		2305	278	1.
1		0425	54	0.	1		1040	129	23.	1		1655	204	117.	1		2310	279	1.
1		0430	55	0.	1		1045	130	27.	1		1700	205	108.	1		2315	280	1.
1		0435	56	0.	1		1050	131	30.	1		1705	206	100.	1		2320	281	0.
1		0440	57	0.	1		1055	132	34.	1		1710	207	93.	1		2325	282	0.
1		0445	58	0.	1		1100	133	38.	1		1715	208	86.	1		2330	283	0.
1		0450	59	0.	1		1105	134	42.	1		1720	209	79.	1		2335	284	0.
1		0455	60	0.	1		1110	135	47.	1		1725	210	74.	1		2340	285	0.
1		0500	61	0.	1		1115	136	52.	1		1730	211	68.	1		2345	286	0.
1		0505	62	1.	1		1120	137	57.	1		1735	212	63.	1		2350	287	0.
1		0510	63	1.	1		1125	138	63.	1		1740	213	59.	1		2355	288	0.
1		0515	64	1.	1		1130	139	70.	1		1745	214	54.	2		0000	289	0.
1		0520	65	1.	1		1135	140	80.	1		1750	215	50.	2		0005	290	0.
1		0525	66	1.	1		1140	141	95.	1		1755	216	46.	2		0010	291	0.
1		0530	67	1.	1		1145	142	125.	1		1800	217	43.	2		0015	292	0.
1		0535	68	1.	1		1150	143	186.	1		1805	218	39.	2		0020	293	0.
1		0540	69	1.	1		1155	144	292.	1		1810	219	36.	2		0025	294	0.
1		0545	70	1.	1		1200	145	546.	1		1815	220	33.	2		0030	295	0.
1		0550	71	1.	1		1205	146	1080.	1		1820	221	30.	2		0035	296	0.
1		0555	72	1.	1		1210	147	1955.	1		1825	222	28.	2		0040	297	0.
1		0600	73	2.	1		1215	148	3256.	1		1830	223	25.	2		0045	298	0.
1		0605	74	2.	1		1220	149	5024.	1		1835	224	23.	2		0050	299	0.
1		0610	75	2.	1		1225	150	7259.	1		1840	225	21.	2		0055	300	0.

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
		(CFS)				
17481.	12.83		3506.	882.	850.	850.
		(INCHES)	1.592	1.602	1.602	1.602
		(AC-FT)	1739.	1750.	1750.	1750.

CUMULATIVE AREA = 20.48 SQ MI

HYDROGRAPH AT CPWT3
TRANSPOSITION AREA 10.0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	2.	1		1230	151	9688.	1		1845	226	18.
1		0005	2	0.	1		0620	77	2.	1		1235	152	12477.	1		1850	227	17.
1		0010	3	0.	1		0625	78	2.	1		1240	153	14958.	1		1855	228	15.
1		0015	4	0.	1		0630	79	2.	1		1245	154	16555.	1		1900	229	14.
1		0020	5	0.	1		0635	80	2.	1		1250	155	17219.	1		1905	230	12.
1		0025	6	0.	1		0640	81	2.	1		1255	156	17166.	1		1910	231	11.
1		0030	7	0.	1		0645	82	2.	1		1300	157	16398.	1		1915	232	10.
1		0035	8	0.	1		0650	83	2.	1		1305	158	15071.	1		1920	233	8.
1		0040	9	0.	1		0655	84	2.	1		1310	159	13518.	1		1925	234	7.
1		0045	10	0.	1		0700	85	2.	1		1315	160	11948.	1		1930	235	6.
1		0050	11	0.	1		0705	86	2.	1		1320	161	10386.	1		1935	236	5.
1		0055	12	0.	1		0710	87	2.	1		1325	162	8929.	1		1940	237	4.
1		0100	13	0.	1		0715	88	2.	1		1330	163	7746.	1		1945	238	4.
1		0105	14	0.	1		0720	89	2.	1		1335	164	6867.	1		1950	239	4.
1		0110	15	0.	1		0725	90	3.	1		1340	165	5997.	1		1955	240	4.
1		0115	16	0.	1		0730	91	3.	1		1345	166	5194.	1		2000	241	4.
1		0120	17	0.	1		0735	92	3.	1		1350	167	4498.	1		2005	242	3.
1		0125	18	0.	1		0740	93	3.	1		1355	168	3946.	1		2010	243	3.
1		0130	19	0.	1		0745	94	3.	1		1400	169	3435.	1		2015	244	3.
1		0135	20	0.	1		0750	95	3.	1		1405	170	2984.	1		2020	245	3.
1		0140	21	0.	1		0755	96	3.	1		1410	171	2596.	1		2025	246	3.
1		0145	22	0.	1		0800	97	3.	1		1415	172	2287.	1		2030	247	3.
1		0150	23	0.	1		0805	98	3.	1		1420	173	2009.	1		2035	248	3.
1		0155	24	0.	1		0810	99	3.	1		1425	174	1759.	1		2040	249	3.
1		0200	25	0.	1		0815	100	4.	1		1430	175	1541.	1		2045	250	3.
1		0205	26	0.	1		0820	101	4.	1		1435	176	1355.	1		2050	251	3.
1		0210	27	0.	1		0825	102	4.	1		1440	177	1207.	1		2055	252	3.
1		0215	28	0.	1		0830	103	4.	1		1445	178	1089.	1		2100	253	3.
1		0220	29	0.	1		0835	104	4.	1		1450	179	991.	1		2105	254	2.
1		0225	30	0.	1		0840	105	4.	1		1455	180	896.	1		2110	255	2.
1		0230	31	0.	1		0845	106	4.	1		1500	181	808.	1		2115	256	2.
1		0235	32	0.	1		0850	107	4.	1		1505	182	727.	1		2120	257	2.
1		0240	33	0.	1		0855	108	4.	1		1510	183	653.	1		2125	258	2.
1		0245	34	0.	1		0900	109	4.	1		1515	184	588.	1		2130	259	2.
1		0250	35	0.	1		0905	110	4.	1		1520	185	529.	1		2135	260	2.
1		0255	36	0.	1		0910	111	4.	1		1525	186	477.	1		2140	261	2.
1		0300	37	0.	1		0915	112	4.	1		1530	187	430.	1		2145	262	2.
1		0305	38	0.	1		0920	113	5.	1		1535	188	388.	1		2150	263	2.
1		0310	39	0.	1		0925	114	5.	1		1540	189	352.	1		2155	264	1.
1		0315	40	0.	1		0930	115	5.	1		1545	190	322.	1		2200	265	1.
1		0320	41	0.	1		0935	116	6.	1		1550	191	303.	1		2205	266	1.
1		0325	42	0.	1		0940	117	7.	1		1555	192	284.	1		2210	267	1.
1		0330	43	0.	1		0945	118	8.	1		1600	193	266.	1		2215	268	1.
1		0335	44	0.	1		0950	119	9.	1		1605	194	248.	1		2220	269	1.
1		0340	45	0.	1		0955	120	10.	1		1610	195	230.	1		2225	270	1.

1	0345	46	0.	*	1	1000	121	11.	*	1	1615	196	214.	*	1	2230	271	1.
1	0350	47	0.	*	1	1005	122	12.	*	1	1620	197	198.	*	1	2235	272	1.
1	0355	48	0.	*	1	1010	123	13.	*	1	1625	198	183.	*	1	2240	273	1.
1	0400	49	0.	*	1	1015	124	14.	*	1	1630	199	169.	*	1	2245	274	1.
1	0405	50	0.	*	1	1020	125	15.	*	1	1635	200	156.	*	1	2250	275	1.
1	0410	51	0.	*	1	1025	126	17.	*	1	1640	201	144.	*	1	2255	276	1.
1	0415	52	0.	*	1	1030	127	18.	*	1	1645	202	133.	*	1	2300	277	1.
1	0420	53	0.	*	1	1035	128	19.	*	1	1650	203	123.	*	1	2305	278	1.
1	0425	54	0.	*	1	1040	129	22.	*	1	1655	204	114.	*	1	2310	279	0.
1	0430	55	0.	*	1	1045	130	25.	*	1	1700	205	105.	*	1	2315	280	0.
1	0435	56	0.	*	1	1050	131	28.	*	1	1705	206	97.	*	1	2320	281	0.
1	0440	57	0.	*	1	1055	132	32.	*	1	1710	207	90.	*	1	2325	282	0.
1	0445	58	0.	*	1	1100	133	36.	*	1	1715	208	84.	*	1	2330	283	0.
1	0450	59	0.	*	1	1105	134	40.	*	1	1720	209	77.	*	1	2335	284	0.
1	0455	60	0.	*	1	1110	135	45.	*	1	1725	210	72.	*	1	2340	285	0.
1	0500	61	0.	*	1	1115	136	50.	*	1	1730	211	66.	*	1	2345	286	0.
1	0505	62	0.	*	1	1120	137	55.	*	1	1735	212	61.	*	1	2350	287	0.
1	0510	63	1.	*	1	1125	138	61.	*	1	1740	213	57.	*	1	2355	288	0.
1	0515	64	1.	*	1	1130	139	67.	*	1	1745	214	52.	*	2	0000	289	0.
1	0520	65	1.	*	1	1135	140	77.	*	1	1750	215	48.	*	2	0005	290	0.
1	0525	66	1.	*	1	1140	141	92.	*	1	1755	216	44.	*	2	0010	291	0.
1	0530	67	1.	*	1	1145	142	121.	*	1	1800	217	41.	*	2	0015	292	0.
1	0535	68	1.	*	1	1150	143	181.	*	1	1805	218	37.	*	2	0020	293	0.
1	0540	69	1.	*	1	1155	144	284.	*	1	1810	219	34.	*	2	0025	294	0.
1	0545	70	1.	*	1	1200	145	527.	*	1	1815	220	31.	*	2	0030	295	0.
1	0550	71	1.	*	1	1205	146	1049.	*	1	1820	221	29.	*	2	0035	296	0.
1	0555	72	1.	*	1	1210	147	1897.	*	1	1825	222	26.	*	2	0040	297	0.
1	0600	73	1.	*	1	1215	148	3171.	*	1	1830	223	24.	*	2	0045	298	0.
1	0605	74	2.	*	1	1220	149	4901.	*	1	1835	224	22.	*	2	0050	299	0.
1	0610	75	2.	*	1	1225	150	7091.	*	1	1840	225	20.	*	2	0055	300	0.

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PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
+ 17219.	12.83	(CFS)	3455.	869.	837.	837.
		(INCHES)	1.568	1.578	1.578	1.578
		(AC-FT)	1713.	1723.	1723.	1723.

CUMULATIVE AREA = 20.48 SQ MI

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HYDROGRAPH AT CPWT3
TRANSPOSITION AREA 50.0 SQ MI

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DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	*	1		0615	76	1.	*	1		1230	151	8846.	*	1		1845	226	14.
1		0005	2	0.	*	1		0620	77	1.	*	1		1235	152	11378.	*	1		1850	227	13.
1		0010	3	0.	*	1		0625	78	2.	*	1		1240	153	13765.	*	1		1855	228	11.
1		0015	4	0.	*	1		0630	79	2.	*	1		1245	154	15483.	*	1		1900	229	10.
1		0020	5	0.	*	1		0635	80	2.	*	1		1250	155	16190.	*	1		1905	230	9.
1		0025	6	0.	*	1		0640	81	2.	*	1		1255	156	16252.	*	1		1910	231	7.
1		0030	7	0.	*	1		0645	82	2.	*	1		1300	157	15517.	*	1		1915	232	6.
1		0035	8	0.	*	1		0650	83	2.	*	1		1305	158	14287.	*	1		1920	233	5.
1		0040	9	0.	*	1		0655	84	2.	*	1		1310	159	12862.	*	1		1925	234	4.
1		0045	10	0.	*	1		0700	85	2.	*	1		1315	160	11400.	*	1		1930	235	4.
1		0050	11	0.	*	1		0705	86	2.	*	1		1320	161	9897.	*	1		1935	236	4.
1		0055	12	0.	*	1		0710	87	2.	*	1		1325	162	8544.	*	1		1940	237	4.
1		0100	13	0.	*	1		0715	88	2.	*	1		1330	163	7481.	*	1		1945	238	4.
1		0105	14	0.	*	1		0720	89	2.	*	1		1335	164	6602.	*	1		1950	239	3.
1		0110	15	0.	*	1		0725	90	2.	*	1		1340	165	5749.	*	1		1955	240	3.
1		0115	16	0.	*	1		0730	91	2.	*	1		1345	166	4973.	*	1		2000	241	3.
1		0120	17	0.	*	1		0735	92	2.	*	1		1350	167	4324.	*	1		2005	242	3.
1		0125	18	0.	*	1		0740	93	2.	*	1		1355	168	3784.	*	1		2010	243	3.
1		0130	19	0.	*	1		0745	94	3.	*	1		1400	169	3283.	*	1		2015	244	3.
1		0135	20	0.	*	1		0750	95	3.	*	1		1405	170	2849.	*	1		2020	245	3.
1		0140	21	0.	*	1		0755	96	3.	*	1		1410	171	2481.	*	1		2025	246	3.
1		0145	22	0.	*	1		0800	97	3.	*	1		1415	172	2184.	*	1		2030	247	3.
1		0150	23	0.	*	1		0805	98	3.	*	1		1420	173	1911.	*	1		2035	248	3.
1		0155	24	0.	*	1		0810	99	3.	*	1		1425	174	1666.	*	1		2040	249	2.
1		0200	25	0.	*	1		0815	100	3.	*	1		1430	175	1455.	*	1		2045	250	2.
1		0205	26	0.	*	1		0820	101	3.	*	1		1435	176	1281.	*	1		2050	251	2.
1		0210	27	0.	*	1		0825	102	3.	*	1		1440	177	1145.	*	1		2055	252	2.
1		0215	28	0.	*	1		0830	103	3.	*	1		1445	178	1038.	*	1		2100	253	2.
1		0220	29	0.	*	1		0835	104	4.	*	1		1450	179	940.	*	1		2105	254	2.
1		0225	30	0.	*	1		0840	105	4.	*	1		1455	180	847.	*	1		2110	255	2.
1		0230	31	0.	*	1		0845	106	4.	*	1		1500	181	761.	*	1		2115	256	2.
1		0235	32	0.	*	1		0850	107	4.	*	1		1505	182	683.	*	1		2120	257	2.
1		0240	33	0.	*	1		0855	108	4.	*	1		1510	183	613.	*	1		2125	258	2.
1		0245	34	0.	*	1		0900	109	4.	*	1		1515	184	551.	*	1		2130	259	2.
1		0250	35	0.	*	1		0905	110	4.	*	1		1520	185	495.	*	1		2135	260	2.
1		0255	36	0.	*	1		0910	111	4.	*	1		1525	186	445.	*	1		2140	261	1.
1		0300	37	0.	*	1		0915	112	4.	*	1		1530	187	400.	*	1		2145	262	1.
1		0305	38	0.	*	1		0920	113	4.	*	1		1535	188	361.	*	1		2150	263	1.
1		0310	39	0.	*	1		0925	114	4.	*	1		1540	189	328.	*	1		2155	264	1.
1		0315	40	0.	*	1		0930	115	4.	*	1		1545	190	307.	*	1		2200	265	1.
1		0320	41	0.	*	1		0935	116	5.	*	1		1550	191	287.	*	1		2205	266	1.
1		0325	42	0.	*	1		0940	117	5.	*	1		1555	192	269.	*	1		2210	267	1.
1		0330	43	0.	*	1		0945	118	6.	*	1		1600	193	250.	*	1		2215	268	1.
1		0335	44	0.	*	1		0950	119	7.	*	1		1605	194	232.	*	1		2220	269	1.
1		0340	45	0.	*	1		0955	120	8.	*	1		1610	195	215.	*	1		2225	270	1.
1		0345	46	0.	*	1		1000	121	9.	*	1		1615	196	199.	*	1		2230	271	1.
1		0350	47	0.	*	1		1005	122	10.	*	1		1620	197	184.	*	1		2235	272	0.
1		0355	48	0.	*	1		1010	123	11.	*	1		1625	198	169.	*	1		2240	273	0.
1		0400	49	0.	*	1		1015	124	12.	*	1		1630	199	156.	*	1		2245	274	0.
1		0405	50	0.	*	1		1020	125	13.	*	1		1635	200	144.	*	1		2250	275	0.
1		0410	51	0.	*	1		1025	126	14.	*	1		1640	201	133.	*	1		2255	276	0.
1		0415	52	0.	*	1		1030	127	15.	*	1		1645	202	122.	*	1		2300	277	0.
1		0420	53	0.	*	1		1035	128	17.	*	1		1650	203	113.	*	1		2305	278	0.
1		0425	54	0.	*	1		1040	129	18.	*	1		1655	204	104.	*	1		2310	279	0.
1		0430	55	0.	*	1		1045	130	19.	*	1		1700	205	96.	*	1		2315	280	0.
1		0435	56	0.	*	1		1050	131	21.	*	1		1705	206	88.	*	1		2320	281	0.
1		0440	57	0.	*	1		1055	132	24.	*	1		1710	207	81.	*	1		2325	282	0.
1		0445	58	0.	*	1		1100	133	28.	*	1		1715	208	75.	*	1		2330	283	0.
1		0450	59	0.	*	1		1105	134	32.	*	1		1720	209	69.	*	1		2335	284	0.
1		0455	60	0.	*	1		1110	135	36.	*	1		1725	210	63.	*	1		2340	285	0.
1		0500	61	0.	*	1		1115	136	40.	*	1		1730	211	58.	*	1		2345	286	0.
1		0505	62	0.	*	1		1120	137	45.	*	1		1735	212	53.	*	1		2350	287	0.
1		0510	63	0.	*	1		1125	138	51.	*	1		1740	213	49.	*	1		2355	288	0.
1		0515	64	0.	*	1		1130	139	57.	*	1		1745	214	45.	*	2		0000	289	0.
1		0520	65	0.	*	1		1135	140	66.	*	1		1750	215	41.	*	2		0005	290	0.
1		0525	66	0.	*	1		1140	141	80.	*	1		1755	216	37.	*	2		0010	291	0.
1		0530	67	1.	*	1		1145	142	106.	*	1		1800	217	34.	*	2		0015	292	0.
1		0535	68	1.	*	1		1150	143	160.	*	1		1805	218	31.	*	2		0020	293	0.
1		0540	69	1.	*	1		1155	144	253.	*	1		1810	219	28.	*	2		0025	294	0.
1		0545	70	1.	*	1		1200	145	454.	*	1		1815	220	25.	*	2		0030	295	0.
1		0550	71	1.	*	1		1205	146	926.	*	1		1820	221	23.	*	2		0035	296	0.
1		0555	72	1.	*	1		1210	147	1667.	*	1		1825	222	21.	*	2		0040	297	0.
1		0600	73	1.	*	1		1215	148	2849.	*	1		1830	223	19.	*	2		0045	298	0.
1		0605	74	1.	*	1		1220	149	4399.	*	1		1835	224	18.	*	2		0050	299	0.
1		0610	75	1.	*	1		1225	150	6419.	*	1		1840	225	16.	*	2		0055	300	0.

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
+ 16252.	12.92	(CFS)	3248.	816.	786.	786.
		(INCHES)	1.474	1.482	1.482	1.482
		(AC-FT)	1611.	1619.	1619.	1619.

CUMULATIVE AREA = 20.48 SQ MI

HYDROGRAPH AT CPWT3
TRANSPOSITION AREA 100.0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	1.	1		1230	151	8488.	1		1845	226	13.
1		0005	2	0.	1		0620	77	1.	1		1235	152	10930.	1		1850	227	11.
1		0010	3	0.	1		0625	78	1.	1		1240	153	13212.	1		1855	228	10.
1		0015	4	0.	1		0630	79	1.	1		1245	154	15019.	1		1900	229	8.
1		0020	5	0.	1		0635	80	2.	1		1250	155	15754.	1		1905	230	7.
1		0025	6	0.	1		0640	81	2.	1		1255	156	15831.	1		1910	231	5.
1		0030	7	0.	1		0645	82	2.	1		1300	157	15131.	1		1915	232	4.
1		0035	8	0.	1		0650	83	2.	1		1305	158	13948.	1		1920	233	4.
1		0040	9	0.	1		0655	84	2.	1		1310	159	12588.	1		1925	234	4.
1		0045	10	0.	1		0700	85	2.	1		1315	160	11146.	1		1930	235	4.
1		0050	11	0.	1		0705	86	2.	1		1320	161	9679.	1		1935	236	4.
1		0055	12	0.	1		0710	87	2.	1		1325	162	8377.	1		1940	237	4.
1		0100	13	0.	1		0715	88	2.	1		1330	163	7363.	1		1945	238	3.
1		0105	14	0.	1		0720	89	2.	1		1335	164	6486.	1		1950	239	3.
1		0110	15	0.	1		0725	90	2.	1		1340	165	5641.	1		1955	240	3.
1		0115	16	0.	1		0730	91	2.	1		1345	166	4876.	1		2000	241	3.
1		0120	17	0.	1		0735	92	2.	1		1350	167	4250.	1		2005	242	3.
1		0125	18	0.	1		0740	93	2.	1		1355	168	3712.	1		2010	243	3.
1		0130	19	0.	1		0745	94	2.	1		1400	169	3216.	1		2015	244	3.
1		0135	20	0.	1		0750	95	2.	1		1405	170	2789.	1		2020	245	3.
1		0140	21	0.	1		0755	96	3.	1		1410	171	2433.	1		2025	246	3.
1		0145	22	0.	1		0800	97	3.	1		1415	172	2138.	1		2030	247	2.
1		0150	23	0.	1		0805	98	3.	1		1420	173	1867.	1		2035	248	2.
1		0155	24	0.	1		0810	99	3.	1		1425	174	1626.	1		2040	249	2.
1		0200	25	0.	1		0815	100	3.	1		1430	175	1418.	1		2045	250	2.
1		0205	26	0.	1		0820	101	3.	1		1435	176	1252.	1		2050	251	2.
1		0210	27	0.	1		0825	102	3.	1		1440	177	1118.	1		2055	252	2.
1		0215	28	0.	1		0830	103	3.	1		1445	178	1016.	1		2100	253	2.
1		0220	29	0.	1		0835	104	3.	1		1450	179	918.	1		2105	254	2.
1		0225	30	0.	1		0840	105	3.	1		1455	180	826.	1		2110	255	2.
1		0230	31	0.	1		0845	106	3.	1		1500	181	742.	1		2115	256	2.
1		0235	32	0.	1		0850	107	4.	1		1505	182	666.	1		2120	257	2.
1		0240	33	0.	1		0855	108	4.	1		1510	183	597.	1		2125	258	2.
1		0245	34	0.	1		0900	109	4.	1		1515	184	535.	1		2130	259	2.
1		0250	35	0.	1		0905	110	4.	1		1520	185	481.	1		2135	260	1.
1		0255	36	0.	1		0910	111	4.	1		1525	186	432.	1		2140	261	1.
1		0300	37	0.	1		0915	112	4.	1		1530	187	388.	1		2145	262	1.
1		0305	38	0.	1		0920	113	4.	1		1535	188	351.	1		2150	263	1.
1		0310	39	0.	1		0925	114	4.	1		1540	189	320.	1		2155	264	1.
1		0315	40	0.	1		0930	115	4.	1		1545	190	300.	1		2200	265	1.
1		0320	41	0.	1		0935	116	4.	1		1550	191	281.	1		2205	266	1.
1		0325	42	0.	1		0940	117	5.	1		1555	192	262.	1		2210	267	1.
1		0330	43	0.	1		0945	118	5.	1		1600	193	244.	1		2215	268	1.
1		0335	44	0.	1		0950	119	6.	1		1605	194	226.	1		2220	269	1.
1		0340	45	0.	1		0955	120	7.	1		1610	195	209.	1		2225	270	0.
1		0345	46	0.	1		1000	121	8.	1		1615	196	193.	1		2230	271	0.
1		0350	47	0.	1		1005	122	9.	1		1620	197	178.	1		2235	272	0.
1		0355	48	0.	1		1010	123	10.	1		1625	198	164.	1		2240	273	0.
1		0400	49	0.	1		1015	124	11.	1		1630	199	151.	1		2245	274	0.
1		0405	50	0.	1		1020	125	12.	1		1635	200	139.	1		2250	275	0.
1		0410	51	0.	1		1025	126	13.	1		1640	201	128.	1		2255	276	0.
1		0415	52	0.	1		1030	127	14.	1		1645	202	118.	1		2300	277	0.
1		0420	53	0.	1		1035	128	16.	1		1650	203	108.	1		2305	278	0.
1		0425	54	0.	1		1040	129	17.	1		1655	204	100.	1		2310	279	0.
1		0430	55	0.	1		1045	130	18.	1		1700	205	92.	1		2315	280	0.
1		0435	56	0.	1		1050	131	19.	1		1705	206	84.	1		2320	281	0.
1		0440	57	0.	1		1055	132	21.	1		1710	207	77.	1		2325	282	0.
1		0445	58	0.	1		1100	133	24.	1		1715	208	71.	1		2330	283	0.
1		0450	59	0.	1		1105	134	28.	1		1720	209	65.	1		2335	294	0.
1		0455	60	0.	1		1110	135	32.	1		1725	210	60.	1		2340	285	0.
1		0500	61	0.	1		1115	136	36.	1		1730	211	55.	1		2345	286	0.
1		0505	62	0.	1		1120	137	41.	1		1735	212	50.	1		2350	287	0.
1		0510	63	0.	1		1125	138	47.	1		1740	213	46.	1		2355	288	0.
1		0515	64	0.	1		1130	139	53.	1		1745	214	42.	2		0000	289	0.
1		0520	65	0.	1		1135	140	62.	1		1750	215	38.	2		0005	290	0.
1		0525	66	0.	1		1140	141	75.	1		1755	216	34.	2		0010	291	0.
1		0530	67	0.	1		1145	142	99.	1		1800	217	31.	2		0015	292	0.
1		0535	68	1.	1		1150	143	151.	1		1805	218	28.	2		0020	293	0.
1		0540	69	1.	1		1155	144	240.	1		1810	219	26.	2		0025	294	0.
1		0545	70	1.	1		1200	145	429.	1		1815	220	23.	2		0030	295	0.
1		0550	71	1.	1		1205	146	870.	1		1820	221	21.	2		0035	296	0.
1		0555	72	1.	1		1210	147	1570.	1		1825	222	19.	2		0040	297	0.
1		0600	73	1.	1		1215	148	2711.	1		1830	223	17.	2		0045	298	0.
1		0605	74	1.	1		1220	149	4187.	1		1835	224	16.	2		0050	299	0.
1		0610	75	1.	1		1225	150	6135.	1		1840	225	14.	2		0055	300	0.

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
+ 15831.	12.92	(CFS)	3158.	793.	764.	764.
		(INCHES)	1.434	1.441	1.441	1.441
		(AC-FT)	1566.	1574.	1574.	1574.

CUMULATIVE AREA = 20.48 SQ MI

HYDROGRAPH AT CPWT3
TRANSPOSITION AREA 200.0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	1.	1		1230	151	8179.	1		1845	226	11.
1		0005	2	0.	1		0620	77	1.	1		1235	152	10553.	1		1850	227	10.
1		0010	3	0.	1		0625	78	1.	1		1240	153	12787.	1		1855	228	8.
1		0015	4	0.	1		0630	79	1.	1		1245	154	14593.	1		1900	229	7.
1		0020	5	0.	1		0635	80	1.	1		1250	155	15390.	1		1905	230	5.
1		0025	6	0.	1		0640	81	1.	1		1255	156	15453.	1		1910	231	4.
1		0030	7	0.	1		0645	82	1.	1		1300	157	14797.	1		1915	232	4.

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0035	8	0.	1		0650	83	2.	1		1305	158	13662.	1		1920	233	4.
1		0040	9	0.	1		0655	84	2.	1		1310	159	12355.	1		1925	234	4.
1		0045	10	0.	1		0700	85	2.	1		1315	160	10925.	1		1930	235	4.
1		0050	11	0.	1		0705	86	2.	1		1320	161	9490.	1		1935	236	3.
1		0055	12	0.	1		0710	87	2.	1		1325	162	8232.	1		1940	237	3.
1		0100	13	0.	1		0715	88	2.	1		1330	163	7262.	1		1945	238	3.
1		0105	14	0.	1		0720	89	2.	1		1335	164	6386.	1		1950	239	3.
1		0110	15	0.	1		0725	90	2.	1		1340	165	5550.	1		1955	240	3.
1		0115	16	0.	1		0730	91	2.	1		1345	166	4795.	1		2000	241	3.
1		0120	17	0.	1		0735	92	2.	1		1350	167	4185.	1		2005	242	3.
1		0125	18	0.	1		0740	93	2.	1		1355	168	3649.	1		2010	243	3.
1		0130	19	0.	1		0745	94	2.	1		1400	169	3159.	1		2015	244	3.
1		0135	20	0.	1		0750	95	2.	1		1405	170	2737.	1		2020	245	2.
1		0140	21	0.	1		0755	96	2.	1		1410	171	2391.	1		2025	246	2.
1		0145	22	0.	1		0800	97	3.	1		1415	172	2098.	1		2030	247	2.
1		0150	23	0.	1		0805	98	3.	1		1420	173	1829.	1		2035	248	2.
1		0155	24	0.	1		0810	99	3.	1		1425	174	1591.	1		2040	249	2.
1		0200	25	0.	1		0815	100	3.	1		1430	175	1387.	1		2045	250	2.
1		0205	26	0.	1		0820	101	3.	1		1435	176	1226.	1		2050	251	2.
1		0210	27	0.	1		0825	102	3.	1		1440	177	1098.	1		2055	252	2.
1		0215	28	0.	1		0830	103	3.	1		1445	178	996.	1		2100	253	2.
1		0220	29	0.	1		0835	104	3.	1		1450	179	899.	1		2105	254	2.
1		0225	30	0.	1		0840	105	3.	1		1455	180	808.	1		2110	255	2.
1		0230	31	0.	1		0845	106	3.	1		1500	181	725.	1		2115	256	2.
1		0235	32	0.	1		0850	107	3.	1		1505	182	650.	1		2120	257	2.
1		0240	33	0.	1		0855	108	3.	1		1510	183	582.	1		2125	258	1.
1		0245	34	0.	1		0900	109	3.	1		1515	184	522.	1		2130	259	1.
1		0250	35	0.	1		0905	110	4.	1		1520	185	468.	1		2135	260	1.
1		0255	36	0.	1		0910	111	4.	1		1525	186	420.	1		2140	261	1.
1		0300	37	0.	1		0915	112	4.	1		1530	187	378.	1		2145	262	1.
1		0305	38	0.	1		0920	113	4.	1		1535	188	342.	1		2150	263	1.
1		0310	39	0.	1		0925	114	4.	1		1540	189	314.	1		2155	264	1.
1		0315	40	0.	1		0930	115	4.	1		1545	190	294.	1		2200	265	1.
1		0320	41	0.	1		0935	116	4.	1		1550	191	275.	1		2205	266	1.
1		0325	42	0.	1		0940	117	4.	1		1555	192	256.	1		2210	267	1.
1		0330	43	0.	1		0945	118	5.	1		1600	193	238.	1		2215	268	1.
1		0335	44	0.	1		0950	119	5.	1		1605	194	220.	1		2220	269	0.
1		0340	45	0.	1		0955	120	6.	1		1610	195	204.	1		2225	270	0.
1		0345	46	0.	1		1000	121	7.	1		1615	196	188.	1		2230	271	0.
1		0350	47	0.	1		1005	122	8.	1		1620	197	173.	1		2235	272	0.
1		0355	48	0.	1		1010	123	9.	1		1625	198	159.	1		2240	273	0.
1		0400	49	0.	1		1015	124	10.	1		1630	199	146.	1		2245	274	0.
1		0405	50	0.	1		1020	125	11.	1		1635	200	135.	1		2250	275	0.
1		0410	51	0.	1		1025	126	12.	1		1640	201	124.	1		2255	276	0.
1		0415	52	0.	1		1030	127	13.	1		1645	202	114.	1		2300	277	0.
1		0420	53	0.	1		1035	128	15.	1		1650	203	105.	1		2305	278	0.
1		0425	54	0.	1		1040	129	16.	1		1655	204	96.	1		2310	279	0.
1		0430	55	0.	1		1045	130	17.	1		1700	205	88.	1		2315	280	0.
1		0435	56	0.	1		1050	131	18.	1		1705	206	81.	1		2320	281	0.
1		0440	57	0.	1		1055	132	20.	1		1710	207	74.	1		2325	282	0.
1		0445	58	0.	1		1100	133	22.	1		1715	208	68.	1		2330	283	0.
1		0450	59	0.	1		1105	134	25.	1		1720	209	62.	1		2335	284	0.
1		0455	60	0.	1		1110	135	29.	1		1725	210	57.	1		2340	285	0.
1		0500	61	0.	1		1115	136	33.	1		1730	211	52.	1		2345	286	0.
1		0505	62	0.	1		1120	137	38.	1		1735	212	47.	1		2350	287	0.
1		0510	63	0.	1		1125	138	43.	1		1740	213	43.	1		2355	288	0.
1		0515	64	0.	1		1130	139	49.	1		1745	214	39.	2		0000	289	0.
1		0520	65	0.	1		1135	140	58.	1		1750	215	35.	2		0005	290	0.
1		0525	66	0.	1		1140	141	70.	1		1755	216	32.	2		0010	291	0.
1		0530	67	0.	1		1145	142	94.	1		1800	217	29.	2		0015	292	0.
1		0535	68	0.	1		1150	143	143.	1		1805	218	26.	2		0020	293	0.
1		0540	69	1.	1		1155	144	228.	1		1810	219	24.	2		0025	294	0.
1		0545	70	1.	1		1200	145	409.	1		1815	220	21.	2		0030	295	0.
1		0550	71	1.	1		1205	146	825.	1		1820	221	19.	2		0035	296	0.
1		0555	72	1.	1		1210	147	1493.	1		1825	222	18.	2		0040	297	0.
1		0600	73	1.	1		1215	148	2594.	1		1830	223	16.	2		0045	298	0.
1		0605	74	1.	1		1220	149	4016.	1		1835	224	14.	2		0050	299	0.
1		0610	75	1.	1		1225	150	5894.	1		1840	225	13.	2		0055	300	0.

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
15453.	12.92	(CFS)	3082.	774.	746.	746.
		(INCHES)	1.399	1.406	1.406	1.406
		(AC-FT)	1528.	1535.	1535.	1535.

CUMULATIVE AREA = 20.48 SQ MI

INTERPOLATED HYDROGRAPH AT CPWT3

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	2.	1		1230	151	9313.	1		1845	226	17.
1		0005	2	0.	1		0620	77	2.	1		1235	152	11988.	1		1850	227	15.
1		0010	3	0.	1		0625	78	2.	1		1240	153	14426.	1		1855	228	14.
1		0015	4	0.	1		0630	79	2.	1		1245	154	16078.	1		1900	229	12.
1		0020	5	0.	1		0635	80	2.	1		1250	155	16761.	1		1905	230	11.
1		0025	6	0.	1		0640	81	2.	1		1255	156	16759.	1		1910	231	9.
1		0030	7	0.	1		0645	82	2.	1		1300	157	16006.	1		1915	232	8.
1		0035	8	0.	1		0650	83	2.	1		1305	158	14722.	1		1920	233	7.
1		0040	9	0.	1		0655	84	2.	1		1310	159	13226.	1		1925	234	6.
1		0045	10	0.	1		0700	85	2.	1		1315	160	11704.	1		1930	235	5.
1		0050	11	0.	1		0705	86	2.	1		1320	161	10168.	1		1935	236	4.
1		0055	12	0.	1		0710	87	2.	1		1325	162	8758.	1		1940	237	4.
1		0100	13	0.	1		0715	88	2.	1		1330	163	7628.	1		1945	238	4.
1		0105	14	0.	1		0720	89	2.	1		1335	164	6749.	1		1950	239	4.
1		0110	15	0.	1		0725	90	2.	1		1340	165	5887.	1		1955	240	4.
1		0115	16	0.	1		0730	91	2.	1		1345	166	5095.	1		2000	241	3.
1		0120	17	0.	1		0735	92	3.	1		1350	167	4421.	1		2005	242	3.
1		0125	18	0.	1		0740	93	3.	1		1355	168	3874.	1		2010	243	3.
1		0130	19	0.	1		0745	94	3.	1		1400	169	3367.	1		2015	244	3.
1		0135	20	0.	1		0750	95	3.	1		1405	170	2923.	1		2020	245	3.
1		0140	21	0.	1		0755	96	3.	1		1410	171	2545.	1		2025	246	3.
1		0145	22	0.	1		0800	97	3.	1		1415	172	2241.	1		2030	247	3.
1		0150	23	0.	1		0805	98	3.	1		1420	173	1965.	1		2035	248	3.
1		0155	24	0.	1		0810	99	3.	1		1425	174	1718.	1		2040	249	3.
1		0200	25	0.	1		0815	100	3.	1		1430	175	1502.	1		2045	250	3.
1		0205	26	0.	1		0820	101	3.	1		1435	176	1322.	1		2050	251	3.
1		0210	27	0.	1		0825	102	4.	1		1440	177	1179.	1		2055	252	2.
1		0215	28	0.	1		0830	103	4.	1		1445	178	1066.	1		2100	253	2.
1		0220	29	0.	1		0835	104	4.	1		1450	179	968.	1		2105	254	2.
1		0225	30	0.	1		0840	105	4.	1		1455	180	874.	1		2110	255	2.
1		0230	31	0.	1		0845	106	4.	1		1500	181	787.	1		2115	256	2.
1		0235	32	0.	1		0850	107	4.	1		1505	182	707.	1		2120	257	2.
1		0240	33	0.	1		0855	108	4.	1		1510	183	635.	1		2125	258	2.
1		0245	34	0.	1		0900	109	4.	1		1515	184	571.	1		2130	259	2.
1		0250	35	0.	1		0905	110	4.	1		1520	185	514.	1		2135	260	2.
1		0255	36	0.	1		0910	111	4.	1		1525	186	463.	1		2140	261	2.
1		0300	37	0.	1		0915	112	4.	1		1530	187	417.	1		2145	262	2.
1		0305	38	0.	1		0920	113	4.	1		1535	188	376.	1		2150	263	1.

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  1   0310  39     0.  *  1   0925 114      5.  *  1   1540 189    341.  *  1   2155 264      1.
  1   0315  40     0.  *  1   0930 115      5.  *  1   1545 190    315.  *  1   2200 265      1.
  1   0320  41     0.  *  1   0935 116      5.  *  1   1550 191    296.  *  1   2205 266      1.
  1   0325  42     0.  *  1   0940 117      6.  *  1   1555 192    277.  *  1   2210 267      1.
  1   0330  43     0.  *  1   0945 118      7.  *  1   1600 193    259.  *  1   2215 268      1.
  1   0335  44     0.  *  1   0950 119      8.  *  1   1605 194    241.  *  1   2220 269      1.
  1   0340  45     0.  *  1   0955 120      9.  *  1   1610 195    224.  *  1   2225 270      1.
  1   0345  46     0.  *  1   1000 121     10.  *  1   1615 196    207.  *  1   2230 271      1.
  1   0350  47     0.  *  1   1005 122     11.  *  1   1620 197    191.  *  1   2235 272      1.
  1   0355  48     0.  *  1   1010 123     12.  *  1   1625 198    177.  *  1   2240 273      1.
  1   0400  49     0.  *  1   1015 124     13.  *  1   1630 199    163.  *  1   2245 274      1.
  1   0405  50     0.  *  1   1020 125     14.  *  1   1635 200    151.  *  1   2250 275      0.
  1   0410  51     0.  *  1   1025 126     16.  *  1   1640 201    139.  *  1   2255 276      0.
  1   0415  52     0.  *  1   1030 127     17.  *  1   1645 202    128.  *  1   2300 277      0.
  1   0420  53     0.  *  1   1035 128     18.  *  1   1650 203    118.  *  1   2305 278      0.
  1   0425  54     0.  *  1   1040 129     20.  *  1   1655 204    109.  *  1   2310 279      0.
  1   0430  55     0.  *  1   1045 130     22.  *  1   1700 205    101.  *  1   2315 280      0.
  1   0435  56     0.  *  1   1050 131     25.  *  1   1705 206     93.  *  1   2320 281      0.
  1   0440  57     0.  *  1   1055 132     28.  *  1   1710 207     86.  *  1   2325 282      0.
  1   0445  58     0.  *  1   1100 133     32.  *  1   1715 208     80.  *  1   2330 283      0.
  1   0450  59     0.  *  1   1105 134     36.  *  1   1720 209     74.  *  1   2335 284      0.
  1   0455  60     0.  *  1   1110 135     41.  *  1   1725 210     68.  *  1   2340 285      0.
  1   0500  61     0.  *  1   1115 136     45.  *  1   1730 211     63.  *  1   2345 286      0.
  1   0505  62     0.  *  1   1120 137     51.  *  1   1735 212     58.  *  1   2350 287      0.
  1   0510  63     0.  *  1   1125 138     56.  *  1   1740 213     53.  *  1   2355 288      0.
  1   0515  64     0.  *  1   1130 139     63.  *  1   1745 214     49.  *  2   0000 289      0.
  1   0520  65     1.  *  1   1135 140     73.  *  1   1750 215     45.  *  2   0005 290      0.
  1   0525  66     1.  *  1   1140 141     87.  *  1   1755 216     41.  *  2   0010 291      0.
  1   0530  67     1.  *  1   1145 142    114.  *  1   1800 217     38.  *  2   0015 292      0.
  1   0535  68     1.  *  1   1150 143    172.  *  1   1805 218     34.  *  2   0020 293      0.
  1   0540  69     1.  *  1   1155 144    270.  *  1   1810 219     31.  *  2   0025 294      0.
  1   0545  70     1.  *  1   1200 145    494.  *  1   1815 220     29.  *  2   0030 295      0.
  1   0550  71     1.  *  1   1205 146    994.  *  1   1820 221     26.  *  2   0035 296      0.
  1   0555  72     1.  *  1   1210 147   1795.  *  1   1825 222     24.  *  2   0040 297      0.
  1   0600  73     1.  *  1   1215 148   3028.  *  1   1830 223     22.  *  2   0045 298      0.
  1   0605  74     1.  *  1   1220 149   4677.  *  1   1835 224     20.  *  2   0050 299      0.
  1   0610  75     1.  *  1   1225 150   6792.  *  1   1840 225     18.  *  2   0055 300      0.
                                          *                                   *
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 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR      24.92-HR
+   (CFS)       (HR)
                                  (CFS)
+   16761.     12.83              3363.         845.         814.         814.
                             (INCHES)         1.527        1.535        1.535        1.535
                              (AC-FT)         1667.        1677.        1677.        1677.

                          CUMULATIVE AREA =   20.48 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


              **************
              *            *
  342 KK      *    SRWT3   *
              *            *
              **************

  344 KO          OUTPUT CONTROL VARIABLES
                        IPRNT          3  PRINT CONTROL
                        IPLOT          0  PLOT CONTROL
                        QSCAL         0.  HYDROGRAPH PLOT SCALE

                HYDROGRAPH ROUTING DATA

  322 RL          ROUTING LOSSES
                        QLOSS        .00  INITIAL LOSS
                        CLOSS        .00  ADDITIONAL FRACTION LOST

  345 RS          STORAGE ROUTING
                       NSTPS          1  NUMBER OF SUBREACHES
                        ITYP       STOR  TYPE OF INITIAL CONDITION
                       RSVRIC        .00  INITIAL CONDITION
                            X        .00 WORKING R AND D COEFFICIENT

  346 SV            STORAGE          .0       1.0      14.0      42.0      91.0     203.0     466.0     958.0    1704.0    2716.0
                                 3012.0    3325.0    3657.0    4006.0

  348 SQ          DISCHARGE          0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
                                     0.     3550.     9000.    17600.

  350 SE          ELEVATION     1174.00   1176.00   1180.00   1184.00   1188.00   1192.00   1196.00   1200.00   1204.00   1208.00
                                1209.00   1210.00   1211.00   1212.00

  352 SS          SPILLWAY
                       CREL     1209.00  SPILLWAY CREST ELEVATION
                       SPWID        .00  SPILLWAY WIDTH
                        COQW        .00  WEIR COEFFICIENT
                        EXPW       1.50  EXPONENT OF HEAD

  353 ST          TOP OF DAM
                       TOPEL     1212.10  ELEVATION AT TOP OF DAM
                      DAMWID     7667.00  DAM WIDTH
                        COQD       2.20  WEIR COEFFICIENT
                        EXPD       1.50  EXPONENT OF HEAD

      SW          DAM WIDTH     1000.00   1995.00   3000.00   4000.00   4988.00   6008.00   7007.00
      SE          ELEVATION     1212.10   1212.40   1212.63   1213.32   1214.72   1214.94   1214.80
                                                                  ***

                                          COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

                                                (INCLUDING FLOW OVER DAM)

            STORAGE        .00      1.00     14.00     42.00     91.00    203.00    466.00    958.00   1704.00   2716.00
            OUTFLOW        .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
          ELEVATION    1174.00   1176.00   1180.00   1184.00   1188.00   1192.00   1196.00   1200.00   1204.00   1208.00

            STORAGE    3012.00   3325.00   3657.00   4006.00
            OUTFLOW        .00   3550.00   9000.00  17600.00
          ELEVATION    1209.00   1210.00   1211.00   1212.00

      ***            ***            ***            ***            ***

                       HYDROGRAPH AT STATION    SRWT3
                      TRANSPOSITION AREA        .0 SQ MI

 PEAK OUTFLOW IS        0. AT TIME    .00 HOURS

 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR      24.92-HR
+   (CFS)       (HR)
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                                  (CFS)
+        0.        .00                 0.          0.          0.          0.
                              (INCHES)       .000        .000        .000        .000
                               (AC-FT)         0.          0.          0.          0.

 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                       6-HR       24-HR       72-HR     24.92-HR
+  (AC-FT)      (HR)
     1749.     21.33                  1749.        853.        821.        821.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                       6-HR       24-HR       72-HR     24.92-HR
+   (FEET)      (HR)
   1204.18     21.33                1204.18     1189.95     1189.36     1189.36

                          CUMULATIVE AREA =   20.48 SQ MI

      ***                 ***          ***         ***         ***

                          HYDROGRAPH AT STATION    SRWT3
                         TRANSPOSITION AREA     10.0 SQ MI

 PEAK OUTFLOW IS          0. AT TIME    .00 HOURS

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                       6-HR       24-HR       72-HR     24.92-HR
+   (CFS)       (HR)
                                  (CFS)
+        0.        .00                 0.          0.          0.          0.
                              (INCHES)       .000        .000        .000        .000
                               (AC-FT)         0.          0.          0.          0.

 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                       6-HR       24-HR       72-HR     24.92-HR
+  (AC-FT)      (HR)
     1723.     21.25                  1723.        840.        809.        809.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                       6-HR       24-HR       72-HR     24.92-HR
+   (FEET)      (HR)
   1204.08     21.25                1204.08     1189.87     1189.28     1189.28

                          CUMULATIVE AREA =   20.48 SQ MI

      ***                 ***          ***         ***         ***

                          HYDROGRAPH AT STATION    SRWT3
                         TRANSPOSITION AREA     50.0 SQ MI

 PEAK OUTFLOW IS          0. AT TIME    .00 HOURS

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                       6-HR       24-HR       72-HR     24.92-HR
+   (CFS)       (HR)
                                  (CFS)
+        0.        .00                 0.          0.          0.          0.
                              (INCHES)       .000        .000        .000        .000
                               (AC-FT)         0.          0.          0.          0.

 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                       6-HR       24-HR       72-HR     24.92-HR
+  (AC-FT)      (HR)
     1619.     21.50                  1619.        789.        760.        760.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                       6-HR       24-HR       72-HR     24.92-HR
+   (FEET)      (HR)
   1203.54     21.50                1203.54     1189.54     1188.96     1188.96

                          CUMULATIVE AREA =   20.48 SQ MI

      ***                 ***          ***         ***         ***

                          HYDROGRAPH AT STATION    SRWT3
                         TRANSPOSITION AREA    100.0 SQ MI

 PEAK OUTFLOW IS          0. AT TIME    .00 HOURS

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                       6-HR       24-HR       72-HR     24.92-HR
+   (CFS)       (HR)
                                  (CFS)
+        0.        .00                 0.          0.          0.          0.
                              (INCHES)       .000        .000        .000        .000
                               (AC-FT)         0.          0.          0.          0.

 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                       6-HR       24-HR       72-HR     24.92-HR
+  (AC-FT)      (HR)
     1574.     21.42                  1573.        766.        738.        738.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                       6-HR       24-HR       72-HR     24.92-HR
+   (FEET)      (HR)
   1203.30     21.42                1203.30     1189.40     1188.83     1188.83

                          CUMULATIVE AREA =   20.48 SQ MI

      ***                 ***          ***         ***         ***

                          HYDROGRAPH AT STATION    SRWT3
                         TRANSPOSITION AREA    200.0 SQ MI

 PEAK OUTFLOW IS          0. AT TIME    .00 HOURS

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                       6-HR       24-HR       72-HR     24.92-HR
+   (CFS)       (HR)
                                  (CFS)
+        0.        .00                 0.          0.          0.          0.
                              (INCHES)       .000        .000        .000        .000
                               (AC-FT)         0.          0.          0.          0.

 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                       6-HR       24-HR       72-HR     24.92-HR
+  (AC-FT)      (HR)
     1535.     21.25                  1535.        747.        720.        720.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                       6-HR       24-HR       72-HR     24.92-HR
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+   (FEET)      (HR)
    1203.10     21.25                1203.09     1189.27     1188.71     1188.71

                          CUMULATIVE AREA =   20.48 SQ MI

        ***             ***            ***            ***            ***


                          INTERPOLATED HYDROGRAPH AT    SRWT3

  PEAK FLOW      TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR        72-HR      24.92-HR
+   (CFS)        (HR)
                                   (CFS)
+      0.         .00                 0.           0.           0.           0.
                                 (INCHES)       .000         .000         .000         .000
                                 (AC-FT)          0.           0.           0.           0.

                          CUMULATIVE AREA =   20.48 SQ MI

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RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	1	2644.	12.42	414.	115.	111.	1.94		
+	ROUTED TO	RCP1	2396.	12.67	402.	106.	102.	1.94		
+	HYDROGRAPH AT	2	1884.	12.75	377.	107.	103.	1.82		
+	2 COMBINED AT	CP2	4259.	12.67	778.	212.	204.	3.76		
+	ROUTED TO	RCP2	4038.	12.83	764.	203.	195.	3.76		
+	HYDROGRAPH AT	3A	339.	12.33	34.	9.	8.	.29		
+	ROUTED TO	RCP3A	268.	12.50	32.	8.	8.	.29		
+	HYDROGRAPH AT	3	959.	12.33	100.	25.	24.	.81		
+	2 COMBINED AT	I1CP3	1159.	12.42	132.	33.	32.	1.10		
+	2 COMBINED AT	CP3	4347.	12.83	895.	236.	227.	4.86		
+	ROUTED TO	RCP3	4183.	12.92	875.	222.	214.	4.86		
+	HYDROGRAPH AT	4	541.	12.17	64.	18.	17.	.30		
+	HYDROGRAPH AT	5	1284.	12.25	153.	42.	41.	.72		
+	2 COMBINED AT	CP5	1822.	12.25	216.	60.	58.	1.02		
+	ROUTED TO	RCP5	1779.	12.25	215.	59.	56.	1.02		
+	HYDROGRAPH AT	6	1010.	12.08	96.	27.	26.	.45		
+	2 COMBINED AT	I1CP7	2518.	12.17	311.	85.	82.	1.47		
+	HYDROGRAPH AT	7	677.	12.08	66.	18.	18.	.31		
+	2 COMBINED AT	CP7	3155.	12.17	376.	104.	100.	1.78		
+	ROUTED TO	RCP7	2826.	12.33	370.	97.	93.	1.78		
+	HYDROGRAPH AT	9	2111.	12.33	297.	83.	80.	1.40		
+	2 COMBINED AT	I1CP9	4933.	12.33	666.	180.	173.	3.18		
+	HYDROGRAPH AT	8	1309.	12.25	173.	48.	46.	.81		
+	2 COMBINED AT	CP9	6230.	12.33	838.	228.	219.	3.99		
+	ROUTED TO	RCP9	5356.	12.75	808.	207.	200.	3.99		
+	HYDROGRAPH AT	10	1626.	12.75	290.	75.	73.	2.02		
+	2 COMBINED AT	I1CP10	6977.	12.75	1097.	282.	272.	6.01		
+	2 COMBINED AT	CP10	10618.	12.75	1964.	503.	484.	10.87		
+	ROUTED TO	RCP10	10406.	12.83	1955.	497.	479.	10.87		
+	HYDROGRAPH AT	12	1418.	12.50	203.	53.	51.	1.38		
+	2 COMBINED AT	CP12	11201.	12.83	2146.	547.	527.	12.25		
+	ROUTED TO	RCP12	10733.	13.00	2100.	527.	508.	12.25		
+	HYDROGRAPH AT	11	2045.	12.42	308.	83.	80.	1.56		

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          ROUTED TO
+                    RCP11    1748.  12.75      307.      83.      80.    1.56
          HYDROGRAPH AT
+                       13    1367.  12.42      165.      41.      40.    1.30
          2 COMBINED AT
+                     CP13    2693.  12.58      471.     124.     120.    2.86
          ROUTED TO
+                    RCP13    2666.  12.67      471.     124.     119.    2.86
          HYDROGRAPH AT
+                       14    2244.  12.33      310.      86.      83.    1.47
          ROUTED TO
+                    RCP14    2095.  12.50      310.      86.      83.    1.47
          HYDROGRAPH AT
+                       15    1743.  12.42      236.      65.      63.    1.26
          2 COMBINED AT
+                   I1CP15    3692.  12.42      546.     151.     145.    2.73
          HYDROGRAPH AT
+                       16    1487.  12.42      201.      57.      55.    1.13
          2 COMBINED AT
+                     CP15    5175.  12.42      746.     208.     200.    3.86
          ROUTED TO
+                    RCP15    4681.  12.58      700.     176.     169.    3.86
          HYDROGRAPH AT
+                       17    1027.  12.25      123.      31.      30.    1.07
          2 COMBINED AT
+                   I1CP17    5217.  12.58      823.     207.     199.    4.93
          2 COMBINED AT
+                     CP17    7790.  12.58     1292.     330.     318.    7.79
          ROUTED TO
+                    RCP17    7793.  12.67     1285.     324.     312.    7.79
          HYDROGRAPH AT
+                      WT3     421.  12.50       56.      14.      13.     .44
          2 COMBINED AT
+                   I1CWT3    8144.  12.67     1340.     338.     326.    8.23
          2 COMBINED AT
+                    CPWT3   16761.  12.83     3363.     845.     814.   20.48
          ROUTED TO
+                    SRWT3       0.    .00        0.       0.       0.   20.48
1                   SUMMARY OF DAM OVERTOPPING/BREACH ANALYSIS FOR STATION    SRWT3
                 (PEAKS SHOWN ARE FOR INTERNAL TIME STEP USED  DURING BREACH FORMATION)

PLAN  1 ..............                INITIAL VALUE     SPILLWAY CREST     TOP OF DAM
                          ELEVATION       1174.00           1209.00          1212.10
                          STORAGE              0.              3012.             4041.
                          OUTFLOW              0.                 0.            18460.

              RATIO    MAXIMUM    MAXIMUM    MAXIMUM    MAXIMUM    DURATION    TIME OF     TIME OF
               OF     RESERVOIR   DEPTH     STORAGE    OUTFLOW    OVER TOP    MAX OUTFLOW  FAILURE
              PMF     W.S.ELEV   OVER DAM    AC-FT      CFS        HOURS       HOURS       HOURS

              1.00     1204.18     .00       1749.       0.        .00         .00         .00

PLAN  2 ..............                INITIAL VALUE     SPILLWAY CREST     TOP OF DAM
                          ELEVATION       1174.00           1209.00          1212.10
                          STORAGE              0.              3012.             4041.
                          OUTFLOW              0.                 0.            18460.

              RATIO    MAXIMUM    MAXIMUM    MAXIMUM    MAXIMUM    DURATION    TIME OF     TIME OF
               OF     RESERVOIR   DEPTH     STORAGE    OUTFLOW    OVER TOP    MAX OUTFLOW  FAILURE
              PMF     W.S.ELEV   OVER DAM    AC-FT      CFS        HOURS       HOURS       HOURS

              1.00     1204.08     .00       1723.       0.        .00         .00         .00

PLAN  3 ..............                INITIAL VALUE     SPILLWAY CREST     TOP OF DAM
                          ELEVATION       1174.00           1209.00          1212.10
                          STORAGE              0.              3012.             4041.
                          OUTFLOW              0.                 0.            18460.

              RATIO    MAXIMUM    MAXIMUM    MAXIMUM    MAXIMUM    DURATION    TIME OF     TIME OF
               OF     RESERVOIR   DEPTH     STORAGE    OUTFLOW    OVER TOP    MAX OUTFLOW  FAILURE
              PMF     W.S.ELEV   OVER DAM    AC-FT      CFS        HOURS       HOURS       HOURS

              1.00     1203.54     .00       1619.       0.        .00         .00         .00

PLAN  4 ..............                INITIAL VALUE     SPILLWAY CREST     TOP OF DAM
                          ELEVATION       1174.00           1209.00          1212.10
                          STORAGE              0.              3012.             4041.
                          OUTFLOW              0.                 0.            18460.

              RATIO    MAXIMUM    MAXIMUM    MAXIMUM    MAXIMUM    DURATION    TIME OF     TIME OF
               OF     RESERVOIR   DEPTH     STORAGE    OUTFLOW    OVER TOP    MAX OUTFLOW  FAILURE
              PMF     W.S.ELEV   OVER DAM    AC-FT      CFS        HOURS       HOURS       HOURS

              1.00     1203.30     .00       1574.       0.        .00         .00         .00

PLAN  5 ..............                INITIAL VALUE     SPILLWAY CREST     TOP OF DAM
                          ELEVATION       1174.00           1209.00          1212.10
                          STORAGE              0.              3012.             4041.
                          OUTFLOW              0.                 0.            18460.

              RATIO    MAXIMUM    MAXIMUM    MAXIMUM    MAXIMUM    DURATION    TIME OF     TIME OF
               OF     RESERVOIR   DEPTH     STORAGE    OUTFLOW    OVER TOP    MAX OUTFLOW  FAILURE
              PMF     W.S.ELEV   OVER DAM    AC-FT      CFS        HOURS       HOURS       HOURS

              1.00     1203.10     .00       1535.       0.        .00         .00         .00

*** NORMAL END OF HEC-1 ***
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APPENDIX 4.4 95% VOLUMETRIC ROCK (T:\BIZ\WT#3 SPILLWAY\FUTEX95N.OUT)

```
1*************************************
*                                   *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)*
*            JUL   1997             *
*          VERSION 4.1              *
*                                   *
*  RUN DATE   20OCT99  TIME  19:20:47 *
*                                   *
*************************************
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```
*************************************
*                                   *
*    U.S. ARMY CORPS OF ENGINEERS   *
*    HYDROLOGIC ENGINEERING CENTER  *
*          609 SECOND STREET        *
*       DAVIS, CALIFORNIA 95616     *
*          (916) 756-1104           *
*                                   *
*************************************
```

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

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

```
1                                          HEC-1 INPUT                                                    PAGE  1

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  1           ID          White Tanks #3 future condition (Beardsley Canal Wash Improvement)
  2           ID          May, 1999, FCDMC
  3           ID          Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999
  4           ID          95% rock in the soils
  5           ID
  6           ID          WHITE TANKS/ AGUA FRIA AREA DRAINAGE MASTER PLAN
  7           ID          FINAL HYDROLOGY RUN FOR WHITE TANKS ADMP ---- ENTIRE WATERSHED
  8           ID          100-YEAR, 24-HOUR STORM                    FILE: WTADMP5.24
  9           ID          THIS MODEL INCORPORATES FUTURE CHANNELS OR CHANNEL IMPROVEMENTS ALONG:
 10           ID          -BEARDSLEY CANAL WASH,WHITE TANKS NO. 3 TO PEORIA AV.
 11           ID          -TUTHILL DIKE WASH,WHITE TANKS NO. 4 TO APPROX. 1/2 MILE NORTH OF
 12           ID           CAMELBACK ROAD
 13           ID          -JACKRABBIT TRAIL WASH,WHITE TANKS NO. 4 TO WHITE TANKS NO. 3
 14           ID          -DYSART DRAIN,AGUA FRIA RIVER TO REEMS ROAD
 15           ID          -REEMS ROAD CHANNEL,NORTHERN AV. TO BELL ROAD
 16           ID          -WADDEL ROAD CHANNEL,DYSART ROAD TO  REEMS ROAD
 17           ID          - I-10 (INTERSTATE-10) CHANNEL,ESTRELLA FREEWAY TO 191ST AV.
 18           ID          -BULLARD WASH,GILA RIVER TO APPROX. 1/4 MILE SOUTH OF LOWER BUKEYE RD.
 19           ID          -ESTRELLA FREEWAY CHANNEL,GILA RIVER TO BELL ROAD.
 20           ID          -CAMELBACK ROAD CHANNEL,AGUA FRIA RIVER TO LITCHFIELD ROAD
 21           ID          IT ALSO ASSUMES THAT THE SUN CITY GRAND PROJECT,NORTH OF BELL ROAD
 22           ID          (SEE FIURE 9.2), WILL RETAIN ONSITE FLOWS AND BLEED OFF TO THE
 23           ID           EXISTING BELL ROAD CHANNEL
 24           ID
 25           ID
              *DIAGRAM
 26           IT       5                    300
 27           IO       5
 28           IN      15
 29           JD    4.03    .001
 30           PC    .000    .002    .005    .008    .011    .014    .017    .020    .023    .026
 31           PC    .029    .032    .035    .038    .041    .044    .048    .052    .056    .060
 32           PC    .064    .068    .072    .076    .080    .085    .090    .095    .100    .105
 33           PC    .110    .115    .120    .126    .133    .140    .147    .155    .163    .172
 34           PC    .181    .191    .203    .218    .236    .257    .283    .387    .663    .707
 35           PC    .735    .758    .776    .791    .804    .815    .825    .834    .842    .849
 36           PC    .856    .863    .869    .875    .881    .887    .893    .898    .903    .908
 37           PC    .913    .918    .922    .926    .930    .934    .938    .942    .946    .950
 38           PC    .953    .956    .959    .962    .965    .968    .971    .974    .977    .980
 39           PC    .983    .986    .989    .992    .995    .998   1.00   1.000   1.000   1.000
 40           JD    3.99      10
 41           JD    3.83      50
 42           JD    3.76     100
 43           JD    3.70     200

 44           KK       1
 45           KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 1.
 46           BA    1.94
 47           LG    0.35   0.051  12.379   0.012  19.802
 48           UI    182.    326.    742.    974.   1186.   1502.   2185.   1957.   1537.   1243.
 49           UI    989.    751.    417.    308.    230.    182.    64.     56.     56.     56.
 50           UI    56.      0.      0.      0.      0.      0.      0.      0.      0.      0.
 51           UI     0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
1                                          HEC-1 INPUT                                                    PAGE  2

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 52           KK    RCP1
 53           KM        ROUTE FLOW FROM CP1 TO CP2.
 54           RL                     1    1428
 55           RS       5            -1       0
 56           RC     .06     .04     .06   17800   .0469
 57           RX    1000    1125    1300    1390    1405    1490    1590    1750
 58           RY    1440    1439    1437    1428    1428    1439    1442    1444

 59           KK       2
 60           KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 2.
 61           BA    1.82
 62           LG    0.35   0.116    10.6    0.03  21.855
 63           UI    115.    115.    259.    442.    556.    642.    727.    849.   1013.   1346.
 64           UI   1419.   1145.    985.    864.    735.    634.    545.    405.    268.    202.
 65           UI    189.    144.    115.    103.     35.     35.     35.     35.     35.     35.
 66           UI     35.      0.      0.      0.      0.      0.      0.      0.      0.      0.
 67           UI     0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

 68           KK    CP2
 69           KM        ADD HYDROGRAPHS AT CP2.
 70           HC       2

 71           KK    RCP2
 72           KM        ROUTE COMBINED HYDROGRAPHS AT CP2 TO CP3.
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 73          RL                      1.5    1298
 74          RS      2                -1       0
 75          RC    .06     .035      .06    4500   .0111
 76          RX   1000     1100     1350    1705    1735    1780    1850    2000
 77          RY   1304     1302     1302    1298    1298    1303    1302    1305

 78          KK      3A
 79          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 3A
 80          BA    .29
 81          LG  0.336    0.24     4.14   0.432       0
 82          UI    34.     89.     165.     212.     286.     410.     314.     242.     182.     124.
 83          UI    62.     48.      33.      10.      10.      10.      10.      0.       0.       0.
 84          UI     0.      0.       0.       0.       0.       0.       0.      0.       0.       0.

 85          KK   RCP3A
 86          KM        ROUTE FLOW FROM CP3A TO CP3
 87          RL                      1.5    1284
 88          RS      2                -1       0
 89          RC    .03      .03      .05    5300   .0060
 90          RX   1000     1023     1032    1046    1058    1067    1250    1540
 91          RY   1289     1288     1286    1284    1284    1286    1288    1291

 92          KK      3
 93          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 3.
 94          BA    .81
 95          LG  0.339    0.242    4.441   0.362       0
 96          UI    91.     228.     430.     554.     725.    1088.     908.     700.     535.     396.
 97          UI   205.     152.      95.      57.      28.      28.      28.      0.       0.       0.
 98          UI     0.       0.       0.       0.       0.       0.       0.      0.       0.       0.
1                                              HEC-1 INPUT                                          PAGE  3
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 99          KK   I1CP3
100          KM        ADD HYDROGRAPHS AT CP3.
101          HC      2

102          KK     CP3
103          KM        ADD HYDROGRAPHS AT CP3.
104          HC      2

105          KK    RCP3
106          KM        ROUTE FLOW FROM CP3 TO CP10.
107          RL                      2    1245
108          RS      2                -1       0
109          RC    .05      .03      .05    5280   .0083
110          RX   1010     1015     1020    1050    1100    1275    1580    1750
111          RY   1251     1249     1249    1245    1245    1250    1250    1254

112          KK      4
113          KM        RUNOFF HYDROGRAPH FORM SUB-BASIN 4.
114          BA    .30
115          LG   0.35    0.057   12.228   0.013  18.504
116          UI    48.     192.     287.     444.     512.     346.     236.     115.      67.      35.
117          UI    14.      14.       0.       0.       0.       0.       0.      0.       0.       0.
118          UI     0.       0.       0.       0.       0.       0.       0.      0.       0.       0.

119          KK      5
120          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 5.
121          BA    .72
122          LG   0.35    0.06    12.155   0.014  17.926
123          UI   110.     437.     658.     992.    1242.     849.     591.     315.     174.     101.
124          UI    34.      34.      34.       0.       0.       0.       0.      0.       0.       0.
125          UI     0.       0.       0.       0.       0.       0.       0.      0.       0.       0.

126          KK     CP5
127          KM        ADD HYDROGRAPHS AT CP5.
128          HC      2

129          KK    RCP5
130          KM        ROUTE COMBINED HYDROGRAPHS AT CP5 TO CP7.
131          RL                      .5    2800
132          RS      1                -1       0
133          RC    .08      .05      .08    4800   .0833
134          RX    955      970      985    1000    1020    1035    1050    1065
135          RY   2815     2810     2805    2800    2800    2805    2810    2815

136          KK      6
137          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 6.
138          BA    .45
139          LG   0.35    0.05     12.4   0.012      20
140          UI   204.     622.    1139.     837.    427.     155.      54.      33.       0.       0.
141          UI     0.       0.       0.       0.       0.       0.       0.      0.       0.       0.
1                                              HEC-1 INPUT                                          PAGE  4
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

142          KK   I1CP7
143          KM        ADD HYDROGRAPHS AT CP7.
144          HC      2

145          KK      7
146          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 7.
147          BA    .31
148          LG   0.35    0.05     12.4   0.012      20
149          UI   126.     387.     716.     606.     343.     129.      52.      22.       0.       0.
150          UI     0.       0.       0.       0.       0.       0.       0.      0.       0.       0.

151          KK     CP7
152          KM        ADD HYDROGRAPHS AT CP7.
153          HC      2

154          KK    RCP7
155          KM        ROUTE COMBINED HYDROGRAPHS AT CP7 TO CP9.
156          RL                      .5    1838
157          RS      3                -1       0
158          RC    .08      .05      .08   10200  .07745
159          RX   1000     1045     1120    1195    1230    1300    1350    1450
160          RY   1910     1880     1850    1838    1838    1850    1880    1910

161          KK      9
162          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 9.
163          BA   1.40
164          LG   0.35    0.053   12.319   0.012  19.572
165          UI   155.     381.     727.     935.    1216.    1832.    1591.    1224.     938.     705.
166          UI   386.     261.     177.     115.      47.      47.      47.      47.       0.       0.
167          UI     0.       0.       0.       0.       0.       0.       0.      0.       0.       0.

168          KK   I1CP9
169          KM        ADD HYDROGRAPHS AT CP9.
170          HC      2

171          KK      8
172          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 8.
173          BA    .81
174          LG   0.35    0.05     12.4   0.012      20
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175          UI    102.    313.    535.    703.   1054.   1140.    822.    608.    421.    208.
176          UI    147.     96.     31.     31.     31.      0.      0.      0.      0.      0.
177          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

178          KK     CP9
179          KM       ADD HYDROGRAPHS AT CP9.
180          HC       2

181          KK    RCP9
182          KM        ROUTE COMBINED HYDROGRAPHS AT CP9 TO CP10.
183          RL                    1.5    1308
184          RS       8             -1       0
185          RC     .06     .035     .06   19200   .0232
186          RX    1000    1085    1310    1395    1415    1450    1630    1665
187          RY    1317    1314    1311    1308    1308    1314    1314    1317
1                                          HEC-1 INPUT                                          PAGE  5
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

188          KK      10
189          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 10.
190          BA    2.02
191          LG   0.347   0.248   5.753   0.192    4.52
192          UI    119.    119.    218.    427.    546.    632.    708.    812.    929.   1148.
193          UI   1499.   1393.   1156.   1006.    894.    765.    669.    577.    475.    325.
194          UI    210.    201.    193.    119.    119.     86.     36.     36.     36.     36.
195          UI     36.     36.     36.     36.      0.      0.      0.      0.      0.      0.
196          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

197          KK  I1CP10
198          KM        ADD HYDROGRAPHS AT CP10
199          HC       2

200          KK    CP10
201          KM        ADD HYDROGRAPHS AT CP10
202          HC       2

203          KK   RCP10
204          KM        ROUTE FLOW AT CP10 TO CP12.
205          RL                    2.0    1211
206          RS       1             -1       0
207          RC     .03     .03     .05    3500   .0057
208          RX     995    1000    1020    1055    1085    1165    1250    1330
209          RY    1221    1220    1220    1211    1211    1218    1220    1222

210          KK      12
211          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 12.
212          BA    1.38
213          LG   0.346   0.247   5.939   0.178   5.217
214          UI    111.    129.    393.    535.    636.    758.    930.   1311.   1277.   1008.
215          UI    850.    697.    574.    445.    264.    191.    169.    111.     92.     34.
216          UI     34.     34.     34.     34.     34.      0.      0.      0.      0.      0.
217          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

218          KK    CP12
219          KM        ADD HYDROGRAPHS AT CP12.
220          HC       2

221          KK   RCP12
222          KM        ROUTE COMBINED HYDROGRAPHS AT CP12 TO CPWT3
223          RL                    2.0    1196
224          RS       2             -1       0
225          RC     .03     .03     .04    4800   .0031
226          RX     995    1000    1020    1080    1200    1530    1665    1760
227          RY    1211    1211    1210    1196    1196    1200    1204    1204

228          KK      11
229          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 11.
230          BA    1.56
231          LG    0.35   0.138   9.946   0.039  13.299
232          UI    143.    245.    571.    755.    913.   1142.   1648.   1623.   1254.   1026.
233          UI    821.    643.    394.    248.    210.    143.     86.     44.     44.     44.
234          UI     44.      0.      0.      0.      0.      0.      0.      0.      0.      0.
1                                          HEC-1 INPUT                                          PAGE  6
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

235          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

236          KK   RCP11
237          KM        ROUTE HYROGRAPH FROM CP11 TO CP13.
238          RL                    1.5    1196
239          RS       3             -1       0
240          RC     .06     .035     .06   10200   .0098
241          RX    1000    1070    1300    1480    1510    1525    1555    1600
242          RY    1233    1232    1230    1222    1222    1230    1232    1233

243          KK      13
244          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 13.
245          BA    1.30
246          LG    0.35    0.25    4.62   0.322       0
247          UI    120.    210.    485.    639.    774.    973.   1416.   1333.   1039.    847.
248          UI    674.    527.    303.    206.    167.    120.     60.     37.     37.     37.
249          UI     37.      0.      0.      0.      0.      0.      0.      0.      0.      0.
250          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

251          KK    CP13
252          KM        ADD HYDROGRAPHS AT CP13.
253          HC       2

254          KK   RCP13
255          KM        ROUTE COMBINED HYDROGRAPHS AT CP13 TO CP17
256          RL                    1.5    1222
257          RS       2             -1       0
258          RC     .03     .03     .04    2400   .0042
259          RX    1000    1025    1040    1065    1085    1110    1175    1200
260          RY    1206    1198    1196    1194    1194    1198    1198    1201

261          KK      14
262          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 14.
263          BA    1.47
264          LG    0.35    0.06  12.167   0.014  18.195
265          UI    166.    421.    790.   1019.   1341.   1998.   1636.   1264.    961.    699.
266          UI    362.    274.    166.     93.     51.     51.     51.      0.      0.      0.
267          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

268          KK   RCP14
269          KM        ROUTE FLOW FROM CP14 TO CP15.
270          RL                    2.0    1194
271          RS       4             -1       0
272          RC     .06     .035     .06    8800  .02556
273          RX    1000    1030    1075    1200    1220    1280    1415    1480
274          RY    1296    1295    1294    1288    1288    1294    1296    1300

275          KK      15
276          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 15.
277          BA    1.26
```

```
 278          LG    0.35   0.139   9.914    0.04   15.67
 279          UI    130.    281.    577.    747.    938.   1321.   1552.   1156.    920.    713.
 280          UI    519.    277.    217.    138.     93.     40.     40.     40.     40.      0.
 281          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
 282          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
1                                                HEC-1 INPUT                                                    PAGE  7
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 283          KK  I1CP15
 284          KM        ADD HYDROGRAPHS AT CP15
 285          HC       2

 286          KK      16
 287          KO       1
 288          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 16.
 289          BA    1.13
 290          LG    0.35    0.15   8.216   0.075  19.953
 291          UI    115.    240.    503.    652.    814.   1126.   1393.   1049.    839.    655.
 292          UI    497.    268.    194.    137.    101.     35.     35.     35.     35.      0.
 293          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
 294          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              * KK  SR16
              * KM      STORAGE ROUTE THROUGH THE CATERPILLAR DETENTION BASIN IN SUBWATERSHED
              * RS     1    STOR       0       0
              * SV     0       1      31     114     270     502     807    1319    1388      14
              * SQ     0                                                                       1
              * SE  1198    1200    1210    1220    1230    1240    1250    1260    1261      12

 295          KK    CP15
 296          KO       1
 297          KM        ADD HYDROGRAPHS AT CP15.
 298          HC       2

 299          KK   RCP15
 300          KM        ROUTE COMBINED HYDROGRAPHS AT CP15 TO CP17.
 301          RL                      2.0    1226
 302          RS       3               -1       0
 303          RC     .06     .035     .06    6800   .0079
 304          RX    1000    1310    1380    1540    1640    1670    1700    1910
 305          RY    1234    1232    1228    1226    1226    1228    1232    1235

 306          KK      17
 307          KM        RUNOFFF HYDROGRAPH FROM SUB-BASIN 17.
 308          BA    1.07
 309          LG    0.35    0.25   4.121   0.438       0
 310          UI    117.    254.    572.    810.   1052.   1196.    753.    635.    540.    450.
 311          UI    353.    287.    254.    194.    149.    129.    103.     90.     64.     57.
 312          UI     57.     26.     22.     22.     22.     22.     22.     22.      0.      0.
 313          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

 314          KK  I1CP17
 315          KM        ADD HYDROGRAPHS AT CP17.
 316          HC       2

 317          KK    CP17
 318          KM        ADD HYDROGRAPHS AT CP17.
 319          HC       2
1                                                HEC-1 INPUT                                                    PAGE  8
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 320          KK   RCP17
 321          KM        ROUTE FLOW FROM CP17 TO CPWT3
 322          RL                      2.0    1182
 323          RS       2               -1       0
 324          RC     .06     .04     .04    1600   .0022
 325          RX    1000    1220    1280    1470    1530    1660    1680    1685
 326          RY    1196    1194    1190    1182    1182    1210    1211    1212

 327          KK     WT3
 328          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN WT3
 329          BA     .44
 330          LG   0.344   0.246   4.577    0.33       0
 331          UI     36.     44.    128.    175.    207.    249.    308.    436.    399.    318.
 332          UI    267.    220.    179.    133.     78.     61.     49.     36.     23.     11.
 333          UI     11.     11.     11.     11.      0.      0.      0.      0.      0.      0.
 334          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

 335          KK  I1CWT3
 336          KM        ADD HYDROGRAPHS AT CPWT3
 337          HC       2

 338          KK   CPWT3
 339          KO       1
 340          KM        ADD HYDROGRAPHS AT CPWT3
 341          HC       2

 342          KK   SRWT3
 343          KM        STORAGE ROUTE THROUGH WHITE TANKS STRUCTURE #3.
 344          KO       3
 345          RS       1    STOR       0       0
 346          SV       0       1      14      42      91     203     466     958    1704    2716
 347          SV    3012    3325    3657    4006
 348          SQ       0       0       0       0       0       0       0       0       0       0
 349          SQ       0    3550    9000   17600
 350          SE    1174    1176    1180    1184    1188    1192    1196    1200    1204    1208
 351          SE    1209    1210    1211    1212
 352          SS    1209       0       0       0
 353          ST  1212.1    7667     2.2     1.5
 354          SW    1000    1995    3000    4000    4988    6008    7007
 355          SE  1212.1  1212.4 1212.63 1213.32 1214.72 1214.94  1214.8
 356          ZZ
1
          SCHEMATIC DIAGRAM OF STREAM NETWORK
INPUT
 LINE     (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

  NO.     (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

   44          1
               V
               V
   52        RCP1
               .
               .
   59          .          2
               .          .
               .          .
   68         CP2.........
               V
               V
   71        RCP2
               .
               .
   78          .         3A
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                 .          V
                 .          V
 85              .       RCP3A
                 .          .
                 .          .
 92              .          .          3
                 .          .          .
                 .          .          .
 99              .       I1CP3...........
                 .          .
                 .          .
102           CP3...........
                V
                V
105           RCP3
                 .
                 .
112              .          4
                 .          .
                 .          .
119              .          .          5
                 .          .          .
                 .          .          .
126              .        CP5...........
                 .          V
                 .          V
129              .       RCP5
                 .          .
                 .          .
136              .          .          6
                 .          .          .
                 .          .          .
142              .      I1CP7...........
                 .          .
                 .          .
145              .          .          7
                 .          .          .
                 .          .          .
151              .        CP7...........
                 .          V
                 .          V
154              .       RCP7
                 .          .
                 .          .
161              .          .          9
                 .          .          .
                 .          .          .
168              .      I1CP9...........
                 .          .
                 .          .
171              .          .          8
                 .          .          .
                 .          .          .
178              .        CP9...........
                 .          V
                 .          V
181              .       RCP9
                 .          .
                 .          .
188              .          .         10
                 .          .          .
                 .          .          .
197              .     I1CP10...........
                 .          .
                 .          .
200           CP10...........
                V
                V
203           RCP10
                 .
                 .
210              .         12
                 .          .
                 .          .
218           CP12...........
                V
                V
221           RCP12
                 .
                 .
228              .         11
                 .          V
                 .          V
236              .      RCP11
                 .          .
                 .          .
243              .          .         13
                 .          .          .
                 .          .          .
251              .       CP13...........
                 .          V
                 .          V
254              .      RCP13
                 .          .
                 .          .
261              .          .         14
                 .          .          V
                 .          .          V
268              .          .      RCP14
                 .          .          .
                 .          .          .
275              .          .          .         15
                 .          .          .          .
                 .          .          .          .
283              .          .   I1CP15...........
                 .          .          .
                 .          .          .
286              .          .          .         16
                 .          .          .          .
                 .          .          .          .
295              .          .      CP15...........
                 .          .          V
                 .          .          V
299              .          .      RCP15
                 .          .          .
                 .          .          .
306              .          .          .         17
                 .          .          .          .
                 .          .          .          .
314              .          .   I1CP17...........
                 .          .          .
                 .          .          .
317              .       CP17...........
                 .          V
                 .          V
320              .      RCP17
                 .          .
                 .          .
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327             .           .            WT3
                .           .             .
                .           .             .
335             .       I1CWT3............
                .           .
                .           .
338          CPWT3..........
                V
                V
342          SRWT3

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION
```

```
1**************************************
*                                     *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1) *
*             JUL   1997              *
*           VERSION 4.1               *
*                                     *
* RUN DATE   20OCT99  TIME  19:20:47  *
*                                     *
***************************************
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***************************************
*                                     *
*   U.S. ARMY CORPS OF ENGINEERS      *
*   HYDROLOGIC ENGINEERING CENTER     *
*        609 SECOND STREET            *
*     DAVIS, CALIFORNIA 95616         *
*          (916) 756-1104             *
*                                     *
***************************************
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White Tanks #3 future condition (Beardsley Canal Wash Improvement)
May, 1999, FCDMC
Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999
95% rock in the soils

WHITE TANKS/ AGUA FRIA AREA DRAINAGE MASTER PLAN
FINAL HYDROLOGY RUN FOR WHITE TANKS ADMP ---- ENTIRE WATERSHED
100-YEAR, 24-HOUR STORM                    FILE: WTADMP5.24
THIS MODEL INCORPORATES FUTURE CHANNELS OR CHANNEL IMPROVEMENTS ALONG:
-BEARDSLEY CANAL WASH,WHITE TANKS NO. 3 TO PEORIA AV.
-TUTHILL DIKE WASH,WHITE TANKS NO. 4 TO APPROX. 1/2 MILE NORTH OF
 CAMELBACK ROAD
-JACKRABBIT TRAIL WASH,WHITE TANKS NO. 4 TO WHITE TANKS NO. 3
-DYSART DRAIN,AGUA FRIA RIVER TO REEMS ROAD
-REEMS ROAD CHANNEL,NORTHERN AV. TO BELL ROAD
-WADDEL ROAD CHANNEL,DYSART ROAD TO  REEMS ROAD
- I-10 (INTERSTATE-I0) CHANNEL,ESTRELLA FREEWAY TO 191ST AV.
-BULLARD WASH,GILA RIVER TO APPROX. 1/4 MILE SOUTH OF LOWER BUKEYE RD.
-ESTRELLA FREEWAY CHANNEL,GILA RIVER TO BELL ROAD.
-CAMELBACK ROAD CHANNEL,AGUA FRIA RIVER TO LITCHFIELD ROAD
IT ALSO ASSUMES THAT THE SUN CITY GRAND PROJECT,NORTH OF BELL ROAD
(SEE FIURE 9.2), WILL RETAIN ONSITE FLOWS AND BLEED OFF TO THE
 EXISTING BELL ROAD CHANNEL
```

```
27 IO        OUTPUT CONTROL VARIABLES
                   IPRNT          5  PRINT CONTROL
                   IPLOT          0  PLOT CONTROL
                   QSCAL         0.  HYDROGRAPH PLOT SCALE

   IT        HYDROGRAPH TIME DATA
                    NMIN          5  MINUTES IN COMPUTATION INTERVAL
                   IDATE      1   0  STARTING DATE
                   ITIME       0000  STARTING TIME
                      NQ        300  NUMBER OF HYDROGRAPH ORDINATES
                  NDDATE      2   0  ENDING DATE
                  NDTIME       0055  ENDING TIME
                   ICENT         19  CENTURY MARK

              COMPUTATION INTERVAL     .08 HOURS
                   TOTAL TIME BASE   24.92 HOURS

       ENGLISH UNITS
          DRAINAGE AREA          SQUARE MILES
          PRECIPITATION DEPTH    INCHES
          LENGTH, ELEVATION      FEET
          FLOW                   CUBIC FEET PER SECOND
          STORAGE VOLUME         ACRE-FEET
          SURFACE AREA           ACRES
          TEMPERATURE            DEGREES FAHRENHEIT

29 JD        INDEX STORM NO. 1
                   STRM        4.03  PRECIPITATION DEPTH
                   TRDA         .00  TRANSPOSITION DRAINAGE AREA

30 PI          PRECIPITATION PATTERN
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00		

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40 JD        INDEX STORM NO. 2
                   STRM        3.99  PRECIPITATION DEPTH
                   TRDA       10.00  TRANSPOSITION DRAINAGE AREA

 0 PI          PRECIPITATION PATTERN
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
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                    .00     .00     .00     .00     .00     .00     .00     .01     .00     .01
                    .01     .01     .01     .01     .01     .01     .01     .01     .03     .03
                    .03     .09     .09     .09     .01     .01     .01     .01     .01     .01
                    .01     .01     .01     .01     .01     .01     .00     .00     .00     .00
                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
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                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
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                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                    .00     .00     .00     .00     .00     .00     .00     .00

41 JD         INDEX STORM NO. 3
                    STRM        3.83  PRECIPITATION DEPTH
                    TRDA       50.00  TRANSPOSITION DRAINAGE AREA

 0 PI            PRECIPITATION PATTERN
                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                    .00     .00     .00     .00     .00     .00     .00     .01     .00     .01
                    .01     .01     .01     .01     .01     .01     .01     .01     .03     .03
                    .03     .09     .09     .09     .01     .01     .01     .01     .01     .01
                    .01     .01     .01     .01     .01     .01     .00     .00     .00     .00
                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                    .00     .00     .00     .00     .00     .00     .00     .00

42 JD         INDEX STORM NO. 4
                    STRM        3.76  PRECIPITATION DEPTH
                    TRDA      100.00  TRANSPOSITION DRAINAGE AREA

 0 PI            PRECIPITATION PATTERN
                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
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                    .00     .00     .00     .00     .00     .00     .00     .01     .00     .01
                    .01     .01     .01     .01     .01     .01     .01     .01     .03     .03
                    .03     .09     .09     .09     .01     .01     .01     .01     .01     .01
                    .01     .01     .01     .01     .01     .01     .00     .00     .00     .00
                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
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                    .00     .00     .00     .00     .00     .00     .00     .00

43 JD         INDEX STORM NO. 5
                    STRM        3.70  PRECIPITATION DEPTH
                    TRDA      200.00  TRANSPOSITION DRAINAGE AREA

 0 PI            PRECIPITATION PATTERN
                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                    .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
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                    .00     .00     .00     .00     .00     .00     .00     .01     .00     .01
                    .01     .01     .01     .01     .01     .01     .01     .01     .03     .03
                    .03     .09     .09     .09     .01     .01     .01     .01     .01     .01
                    .01     .01     .01     .01     .01     .01     .00     .00     .00     .00
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                    .00     .00     .00     .00     .00     .00     .00     .00
        WARNING EXCESS AT PONDING LESS THAN ZERO FOR PERIOD. EXCESS SET TO ZERO
        WARNING EXCESS AT PONDING LESS THAN ZERO FOR PERIOD. EXCESS SET TO ZERO
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          *            *
286 KK    *        16  *
          *            *
          **************

287 KO          OUTPUT CONTROL VARIABLES
                      IPRNT          1  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE
                            RUNOFF HYDROGRAPH FROM SUB-BASIN 16.

              SUBBASIN RUNOFF DATA

289 BA          SUBBASIN CHARACTERISTICS
                      TAREA       1.13  SUBBASIN AREA

290 LG          GREEN AND AMPT LOSS RATE
                      STRTL        .35  STARTING LOSS
                       DTH         .15  MOISTURE DEFICIT
                       PSIF       8.22  WETTING FRONT SUCTION
                      XKSAT        .08  HYDRAULIC CONDUCTIVITY
                      RTIMP      19.95  PERCENT IMPERVIOUS AREA

288 UI          INPUT UNITGRAPH,  19 ORDINATES,  VOLUME = 1.00
                   115.0     240.0     503.0     652.0     814.0    1126.0    1393.0    1049.0     839.0     655.0
                   497.0     268.0     194.0     137.0     101.0      35.0      35.0      35.0      35.0
                                                                   ***
*****************************************************************************************************************************

                                                HYDROGRAPH AT       16
                                            TRANSPOSITION AREA      .0 SQ MI
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DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	*	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1		0000	1	.00	.00	.00	0.	*	1		1230	151	.04	.01	.03	1506.
1		0005	2	.00	.00	.00	0.	*	1		1235	152	.03	.01	.02	1231.
1		0010	3	.00	.00	.00	0.	*	1		1240	153	.03	.01	.02	1016.
1		0015	4	.00	.00	.00	0.	*	1		1245	154	.03	.01	.02	801.
1		0020	5	.00	.00	.00	1.	*	1		1250	155	.02	.01	.01	611.
1		0025	6	.00	.00	.00	1.	*	1		1255	156	.02	.01	.01	463.
1		0030	7	.00	.00	.00	2.	*	1		1300	157	.02	.01	.01	379.
1		0035	8	.00	.00	.00	3.	*	1		1305	158	.02	.01	.01	303.
1		0040	9	.00	.00	.00	4.	*	1		1310	159	.02	.01	.01	245.
1		0045	10	.00	.00	.00	5.	*	1		1315	160	.02	.01	.01	202.
1		0050	11	.00	.00	.00	5.	*	1		1320	161	.02	.01	.01	179.
1		0055	12	.00	.00	.00	6.	*	1		1325	162	.02	.01	.01	152.
1		0100	13	.00	.00	.00	6.	*	1		1330	163	.02	.01	.01	126.
1		0105	14	.00	.00	.00	6.	*	1		1335	164	.01	.01	.00	102.
1		0110	15	.00	.00	.00	7.	*	1		1340	165	.01	.01	.00	91.
1		0115	16	.00	.00	.00	7.	*	1		1345	166	.01	.01	.00	80.
1		0120	17	.00	.00	.00	7.	*	1		1350	167	.01	.01	.00	71.
1		0125	18	.00	.00	.00	7.	*	1		1355	168	.01	.01	.00	63.
1		0130	19	.00	.00	.00	7.	*	1		1400	169	.01	.01	.00	56.
1		0135	20	.00	.00	.00	7.	*	1		1405	170	.01	.01	.00	49.
1		0140	21	.00	.00	.00	7.	*	1		1410	171	.01	.01	.00	43.
1		0145	22	.00	.00	.00	7.	*	1		1415	172	.01	.01	.00	38.
1		0150	23	.00	.00	.00	7.	*	1		1420	173	.01	.01	.00	34.
1		0155	24	.00	.00	.00	7.	*	1		1425	174	.01	.01	.00	30.
1		0200	25	.00	.00	.00	7.	*	1		1430	175	.01	.01	.00	28.
1		0205	26	.00	.00	.00	7.	*	1		1435	176	.01	.01	.00	25.
1		0210	27	.00	.00	.00	7.	*	1		1440	177	.01	.01	.00	24.
1		0215	28	.00	.00	.00	7.	*	1		1445	178	.01	.01	.00	22.
1		0220	29	.00	.00	.00	7.	*	1		1450	179	.01	.01	.00	21.
1		0225	30	.00	.00	.00	7.	*	1		1455	180	.01	.01	.00	20.
1		0230	31	.00	.00	.00	7.	*	1		1500	181	.01	.01	.00	19.
1		0235	32	.00	.00	.00	7.	*	1		1505	182	.01	.01	.00	18.
1		0240	33	.00	.00	.00	7.	*	1		1510	183	.01	.01	.00	18.
1		0245	34	.00	.00	.00	7.	*	1		1515	184	.01	.01	.00	17.
1		0250	35	.00	.00	.00	7.	*	1		1520	185	.01	.01	.00	17.
1		0255	36	.00	.00	.00	7.	*	1		1525	186	.01	.01	.00	17.
1		0300	37	.00	.00	.00	7.	*	1		1530	187	.01	.01	.00	16.
1		0305	38	.00	.00	.00	7.	*	1		1535	188	.01	.01	.00	16.
1		0310	39	.00	.00	.00	7.	*	1		1540	189	.01	.01	.00	16.
1		0315	40	.00	.00	.00	7.	*	1		1545	190	.01	.01	.00	15.
1		0320	41	.00	.00	.00	7.	*	1		1550	191	.01	.01	.00	15.
1		0325	42	.00	.00	.00	7.	*	1		1555	192	.01	.01	.00	15.
1		0330	43	.00	.00	.00	7.	*	1		1600	193	.01	.01	.00	15.
1		0335	44	.00	.00	.00	7.	*	1		1605	194	.01	.01	.00	14.
1		0340	45	.00	.00	.00	7.	*	1		1610	195	.01	.01	.00	14.
1		0345	46	.00	.00	.00	7.	*	1		1615	196	.01	.01	.00	14.
1		0350	47	.01	.00	.00	7.	*	1		1620	197	.01	.01	.00	14.
1		0355	48	.01	.00	.00	7.	*	1		1625	198	.01	.01	.00	14.
1		0400	49	.01	.00	.00	7.	*	1		1630	199	.01	.01	.00	14.
1		0405	50	.01	.00	.00	7.	*	1		1635	200	.01	.01	.00	14.
1		0410	51	.01	.00	.00	8.	*	1		1640	201	.01	.01	.00	14.
1		0415	52	.01	.00	.00	8.	*	1		1645	202	.01	.01	.00	14.
1		0420	53	.01	.00	.00	8.	*	1		1650	203	.01	.01	.00	14.
1		0425	54	.01	.00	.00	9.	*	1		1655	204	.01	.01	.00	13.
1		0430	55	.01	.00	.00	9.	*	1		1700	205	.01	.01	.00	13.
1		0435	56	.01	.00	.00	9.	*	1		1705	206	.01	.01	.00	13.
1		0440	57	.01	.00	.00	9.	*	1		1710	207	.01	.01	.00	12.
1		0445	58	.01	.00	.00	9.	*	1		1715	208	.01	.01	.00	12.
1		0450	59	.01	.00	.00	9.	*	1		1720	209	.01	.01	.00	12.
1		0455	60	.01	.00	.00	9.	*	1		1725	210	.01	.01	.00	12.
1		0500	61	.01	.00	.00	9.	*	1		1730	211	.01	.01	.00	12.
1		0505	62	.01	.00	.00	9.	*	1		1735	212	.01	.01	.00	12.
1		0510	63	.01	.00	.00	9.	*	1		1740	213	.01	.01	.00	12.
1		0515	64	.01	.00	.00	9.	*	1		1745	214	.01	.01	.00	12.
1		0520	65	.01	.00	.00	9.	*	1		1750	215	.01	.00	.00	12.
1		0525	66	.01	.00	.00	9.	*	1		1755	216	.01	.00	.00	12.
1		0530	67	.01	.00	.00	9.	*	1		1800	217	.01	.00	.00	11.
1		0535	68	.01	.00	.00	9.	*	1		1805	218	.01	.00	.00	11.
1		0540	69	.01	.00	.00	9.	*	1		1810	219	.01	.00	.00	11.
1		0545	70	.01	.00	.00	9.	*	1		1815	220	.01	.00	.00	11.
1		0550	71	.01	.00	.00	9.	*	1		1820	221	.01	.00	.00	10.
1		0555	72	.01	.00	.00	9.	*	1		1825	222	.01	.00	.00	10.
1		0600	73	.01	.00	.00	9.	*	1		1830	223	.01	.00	.00	10.
1		0605	74	.01	.01	.00	9.	*	1		1835	224	.01	.00	.00	10.
1		0610	75	.01	.01	.00	9.	*	1		1840	225	.01	.00	.00	10.
1		0615	76	.01	.01	.00	10.	*	1		1845	226	.01	.00	.00	10.
1		0620	77	.01	.01	.00	10.	*	1		1850	227	.01	.00	.00	9.
1		0625	78	.01	.01	.00	10.	*	1		1855	228	.01	.00	.00	9.
1		0630	79	.01	.01	.00	10.	*	1		1900	229	.01	.00	.00	9.
1		0635	80	.01	.01	.00	11.	*	1		1905	230	.01	.00	.00	9.
1		0640	81	.01	.01	.00	11.	*	1		1910	231	.01	.00	.00	9.
1		0645	82	.01	.01	.00	11.	*	1		1915	232	.01	.00	.00	9.
1		0650	83	.01	.01	.00	11.	*	1		1920	233	.01	.00	.00	9.
1		0655	84	.01	.01	.00	11.	*	1		1925	234	.01	.00	.00	9.
1		0700	85	.01	.01	.00	12.	*	1		1930	235	.01	.00	.00	9.

1	0705	86	.01	.01	.00	12.	*	1	1935	236	.01	.00	.00	9.
1	0710	87	.01	.01	.00	12.	*	1	1940	237	.01	.00	.00	9.
1	0715	88	.01	.01	.00	12.	*	1	1945	238	.01	.00	.00	9.
1	0720	89	.01	.01	.00	12.	*	1	1950	239	.00	.00	.00	9.
1	0725	90	.01	.01	.00	12.	*	1	1955	240	.00	.00	.00	9.
1	0730	91	.01	.01	.00	12.	*	1	2000	241	.00	.00	.00	9.
1	0735	92	.01	.01	.00	12.	*	1	2005	242	.00	.00	.00	9.
1	0740	93	.01	.01	.00	12.	*	1	2010	243	.00	.00	.00	9.
1	0745	94	.01	.01	.00	12.	*	1	2015	244	.00	.00	.00	8.
1	0750	95	.01	.01	.00	12.	*	1	2020	245	.00	.00	.00	8.
1	0755	96	.01	.01	.00	12.	*	1	2025	246	.00	.00	.00	8.
1	0800	97	.01	.01	.00	12.	*	1	2030	247	.00	.00	.00	8.
1	0805	98	.01	.01	.00	12.	*	1	2035	248	.00	.00	.00	7.
1	0810	99	.01	.01	.00	12.	*	1	2040	249	.00	.00	.00	7.
1	0815	100	.01	.01	.00	12.	*	1	2045	250	.00	.00	.00	7.
1	0820	101	.01	.01	.00	12.	*	1	2050	251	.00	.00	.00	7.
1	0825	102	.01	.01	.00	12.	*	1	2055	252	.00	.00	.00	7.
1	0830	103	.01	.01	.00	13.	*	1	2100	253	.00	.00	.00	7.
1	0835	104	.01	.01	.00	13.	*	1	2105	254	.00	.00	.00	7.
1	0840	105	.01	.01	.00	14.	*	1	2110	255	.00	.00	.00	7.
1	0845	106	.01	.01	.00	14.	*	1	2115	256	.00	.00	.00	7.
1	0850	107	.01	.01	.00	15.	*	1	2120	257	.00	.00	.00	7.
1	0855	108	.01	.01	.00	15.	*	1	2125	258	.00	.00	.00	7.
1	0900	109	.01	.01	.00	16.	*	1	2130	259	.00	.00	.00	7.
1	0905	110	.01	.01	.00	16.	*	1	2135	260	.00	.00	.00	7.
1	0910	111	.01	.01	.00	16.	*	1	2140	261	.00	.00	.00	7.
1	0915	112	.01	.01	.00	16.	*	1	2145	262	.00	.00	.00	7.
1	0920	113	.01	.01	.00	17.	*	1	2150	263	.00	.00	.00	7.
1	0925	114	.01	.01	.00	17.	*	1	2155	264	.00	.00	.00	7.
1	0930	115	.01	.01	.00	17.	*	1	2200	265	.00	.00	.00	7.
1	0935	116	.01	.01	.00	18.	*	1	2205	266	.00	.00	.00	7.
1	0940	117	.01	.01	.00	18.	*	1	2210	267	.00	.00	.00	7.
1	0945	118	.01	.01	.00	18.	*	1	2215	268	.00	.00	.00	7.
1	0950	119	.01	.01	.00	19.	*	1	2220	269	.00	.00	.00	7.
1	0955	120	.01	.01	.00	19.	*	1	2225	270	.00	.00	.00	7.
1	1000	121	.01	.01	.00	19.	*	1	2230	271	.00	.00	.00	7.
1	1005	122	.01	.01	.00	20.	*	1	2235	272	.00	.00	.00	7.
1	1010	123	.01	.01	.00	20.	*	1	2240	273	.00	.00	.00	7.
1	1015	124	.01	.01	.00	21.	*	1	2245	274	.00	.00	.00	7.
1	1020	125	.02	.01	.00	21.	*	1	2250	275	.00	.00	.00	7.
1	1025	126	.02	.01	.00	22.	*	1	2255	276	.00	.00	.00	7.
1	1030	127	.02	.01	.00	22.	*	1	2300	277	.00	.00	.00	7.
1	1035	128	.02	.02	.00	23.	*	1	2305	278	.00	.00	.00	7.
1	1040	129	.02	.02	.00	24.	*	1	2310	279	.00	.00	.00	7.
1	1045	130	.02	.02	.00	25.	*	1	2315	280	.00	.00	.00	7.
1	1050	131	.02	.02	.01	27.	*	1	2320	281	.00	.00	.00	7.
1	1055	132	.02	.02	.01	30.	*	1	2325	282	.00	.00	.00	7.
1	1100	133	.02	.02	.01	33.	*	1	2330	283	.00	.00	.00	7.
1	1105	134	.03	.02	.01	38.	*	1	2335	284	.00	.00	.00	7.
1	1110	135	.03	.01	.01	43.	*	1	2340	285	.00	.00	.00	7.
1	1115	136	.03	.01	.01	51.	*	1	2345	286	.00	.00	.00	7.
1	1120	137	.03	.01	.02	62.	*	1	2350	287	.00	.00	.00	7.
1	1125	138	.03	.01	.02	73.	*	1	2355	288	.00	.00	.00	7.
1	1130	139	.03	.01	.02	86.	*	2	0000	289	.00	.00	.00	7.
1	1135	140	.14	.01	.13	113.	*	2	0005	290	.00	.00	.00	7.
1	1140	141	.14	.01	.13	152.	*	2	0010	291	.00	.00	.00	6.
1	1145	142	.14	.01	.13	219.	*	2	0015	292	.00	.00	.00	6.
1	1150	143	.37	.01	.36	329.	*	2	0020	293	.00	.00	.00	5.
1	1155	144	.37	.01	.36	482.	*	2	0025	294	.00	.00	.00	4.
1	1200	145	.37	.01	.36	725.	*	2	0030	295	.00	.00	.00	3.
1	1205	146	.06	.01	.05	993.	*	2	0035	296	.00	.00	.00	2.
1	1210	147	.06	.01	.05	1222.	*	2	0040	297	.00	.00	.00	2.
1	1215	148	.06	.01	.05	1418.	*	2	0045	298	.00	.00	.00	1.
1	1220	149	.04	.01	.03	1606.	*	2	0050	299	.00	.00	.00	1.
1	1225	150	.04	.01	.03	1644.	*	2	0055	300	.00	.00	.00	1.

****

TOTAL RAINFALL = 4.03, TOTAL LOSS = 1.76, TOTAL EXCESS = 2.27

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)	(CFS)				
+ 1644.	12.42		247.	69.	66.	66.
		(INCHES)	2.033	2.265	2.266	2.266
		(AC-FT)	123.	136.	137.	137.

CUMULATIVE AREA = 1.13 SQ MI

****

HYDROGRAPH AT 16
TRANSPOSITION AREA 10.0 SQ MI

****

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	*	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1		0000	1	.00	.00	.00	0.	*	1		1230	151	.04	.01	.03	1490.
1		0005	2	.00	.00	.00	0.	*	1		1235	152	.03	.01	.02	1217.
1		0010	3	.00	.00	.00	0.	*	1		1240	153	.03	.01	.02	1004.
1		0015	4	.00	.00	.00	0.	*	1		1245	154	.03	.01	.02	791.
1		0020	5	.00	.00	.00	1.	*	1		1250	155	.02	.01	.01	604.
1		0025	6	.00	.00	.00	1.	*	1		1255	156	.02	.01	.01	457.
1		0030	7	.00	.00	.00	2.	*	1		1300	157	.02	.01	.01	374.
1		0035	8	.00	.00	.00	3.	*	1		1305	158	.02	.01	.01	299.
1		0040	9	.00	.00	.00	4.	*	1		1310	159	.02	.01	.01	241.
1		0045	10	.00	.00	.00	4.	*	1		1315	160	.02	.01	.01	198.
1		0050	11	.00	.00	.00	5.	*	1		1320	161	.02	.01	.01	176.
1		0055	12	.00	.00	.00	6.	*	1		1325	162	.02	.01	.01	149.
1		0100	13	.00	.00	.00	6.	*	1		1330	163	.02	.01	.01	124.
1		0105	14	.00	.00	.00	6.	*	1		1335	164	.01	.01	.00	100.
1		0110	15	.00	.00	.00	7.	*	1		1340	165	.01	.01	.00	89.
1		0115	16	.00	.00	.00	7.	*	1		1345	166	.01	.01	.00	78.
1		0120	17	.00	.00	.00	7.	*	1		1350	167	.01	.01	.00	69.
1		0125	18	.00	.00	.00	7.	*	1		1355	168	.01	.01	.00	61.
1		0130	19	.00	.00	.00	7.	*	1		1400	169	.01	.01	.00	54.
1		0135	20	.00	.00	.00	7.	*	1		1405	170	.01	.01	.00	47.
1		0140	21	.00	.00	.00	7.	*	1		1410	171	.01	.01	.00	41.
1		0145	22	.00	.00	.00	7.	*	1		1415	172	.01	.01	.00	37.
1		0150	23	.00	.00	.00	7.	*	1		1420	173	.01	.01	.00	32.
1		0155	24	.00	.00	.00	7.	*	1		1425	174	.01	.01	.00	29.
1		0200	25	.00	.00	.00	7.	*	1		1430	175	.01	.01	.00	27.
1		0205	26	.00	.00	.00	7.	*	1		1435	176	.01	.01	.00	25.
1		0210	27	.00	.00	.00	7.	*	1		1440	177	.01	.01	.00	23.
1		0215	28	.00	.00	.00	7.	*	1		1445	178	.01	.01	.00	22.
1		0220	29	.00	.00	.00	7.	*	1		1450	179	.01	.01	.00	20.
1		0225	30	.00	.00	.00	7.	*	1		1455	180	.01	.01	.00	19.
1		0230	31	.00	.00	.00	7.	*	1		1500	181	.01	.01	.00	19.
1		0235	32	.00	.00	.00	7.	*	1		1505	182	.01	.01	.00	18.
1		0240	33	.00	.00	.00	7.	*	1		1510	183	.01	.01	.00	17.
1		0245	34	.00	.00	.00	7.	*	1		1515	184	.01	.01	.00	17.
1		0250	35	.00	.00	.00	7.	*	1		1520	185	.01	.01	.00	17.
1		0255	36	.00	.00	.00	7.	*	1		1525	186	.01	.01	.00	16.
1		0300	37	.00	.00	.00	7.	*	1		1530	187	.01	.01	.00	16.
1		0305	38	.00	.00	.00	7.	*	1		1535	188	.01	.01	.00	16.

1	0310	39	.00	.00	.00	7.	*
1	0315	40	.00	.00	.00	7.	*
1	0320	41	.00	.00	.00	7.	*
1	0325	42	.00	.00	.00	7.	*
1	0330	43	.00	.00	.00	7.	*
1	0335	44	.00	.00	.00	7.	*
1	0340	45	.00	.00	.00	7.	*
1	0345	46	.00	.00	.00	7.	*
1	0350	47	.01	.00	.00	7.	*
1	0355	48	.01	.00	.00	7.	*
1	0400	49	.01	.00	.00	7.	*
1	0405	50	.01	.00	.00	7.	*
1	0410	51	.01	.00	.00	8.	*
1	0415	52	.01	.00	.00	8.	*
1	0420	53	.01	.00	.00	8.	*
1	0425	54	.01	.00	.00	9.	*
1	0430	55	.01	.00	.00	9.	*
1	0435	56	.01	.00	.00	9.	*
1	0440	57	.01	.00	.00	9.	*
1	0445	58	.01	.00	.00	9.	*
1	0450	59	.01	.00	.00	9.	*
1	0455	60	.01	.00	.00	9.	*
1	0500	61	.01	.00	.00	9.	*
1	0505	62	.01	.00	.00	9.	*
1	0510	63	.01	.00	.00	9.	*
1	0515	64	.01	.00	.00	9.	*
1	0520	65	.01	.00	.00	9.	*
1	0525	66	.01	.00	.00	9.	*
1	0530	67	.01	.00	.00	9.	*
1	0535	68	.01	.00	.00	9.	*
1	0540	69	.01	.00	.00	9.	*
1	0545	70	.01	.00	.00	9.	*
1	0550	71	.01	.00	.00	9.	*
1	0555	72	.01	.00	.00	9.	*
1	0600	73	.01	.00	.00	9.	*
1	0605	74	.01	.01	.00	9.	*
1	0610	75	.01	.01	.00	9.	*
1	0615	76	.01	.01	.00	9.	*
1	0620	77	.01	.01	.00	10.	*
1	0625	78	.01	.01	.00	10.	*
1	0630	79	.01	.01	.00	10.	*
1	0635	80	.01	.01	.00	11.	*
1	0640	81	.01	.01	.00	11.	*
1	0645	82	.01	.01	.00	11.	*
1	0650	83	.01	.01	.00	11.	*
1	0655	84	.01	.01	.00	11.	*
1	0700	85	.01	.01	.00	11.	*
1	0705	86	.01	.01	.00	11.	*
1	0710	87	.01	.01	.00	12.	*
1	0715	88	.01	.01	.00	12.	*
1	0720	89	.01	.01	.00	12.	*
1	0725	90	.01	.01	.00	12.	*
1	0730	91	.01	.01	.00	12.	*
1	0735	92	.01	.01	.00	12.	*
1	0740	93	.01	.01	.00	12.	*
1	0745	94	.01	.01	.00	12.	*
1	0750	95	.01	.01	.00	12.	*
1	0755	96	.01	.01	.00	12.	*
1	0800	97	.01	.01	.00	12.	*
1	0805	98	.01	.01	.00	12.	*
1	0810	99	.01	.01	.00	12.	*
1	0815	100	.01	.01	.00	12.	*
1	0820	101	.01	.01	.00	12.	*
1	0825	102	.01	.01	.00	12.	*
1	0830	103	.01	.01	.00	13.	*
1	0835	104	.01	.01	.00	13.	*
1	0840	105	.01	.01	.00	14.	*
1	0845	106	.01	.01	.00	14.	*
1	0850	107	.01	.01	.00	15.	*
1	0855	108	.01	.01	.00	15.	*
1	0900	109	.01	.01	.00	16.	*
1	0905	110	.01	.01	.00	16.	*
1	0910	111	.01	.01	.00	16.	*
1	0915	112	.01	.01	.00	16.	*
1	0920	113	.01	.01	.00	16.	*
1	0925	114	.01	.01	.00	17.	*
1	0930	115	.01	.01	.00	17.	*
1	0935	116	.01	.01	.00	17.	*
1	0940	117	.01	.01	.00	18.	*
1	0945	118	.01	.01	.00	18.	*
1	0950	119	.01	.01	.00	19.	*
1	0955	120	.01	.01	.00	19.	*
1	1000	121	.01	.01	.00	19.	*
1	1005	122	.01	.01	.00	20.	*
1	1010	123	.01	.01	.00	20.	*
1	1015	124	.01	.01	.00	20.	*
1	1020	125	.02	.01	.00	21.	*
1	1025	126	.02	.01	.00	21.	*
1	1030	127	.02	.01	.00	22.	*
1	1035	128	.02	.02	.00	23.	*
1	1040	129	.02	.02	.00	24.	*
1	1045	130	.02	.02	.00	25.	*
1	1050	131	.02	.02	.01	27.	*
1	1055	132	.02	.02	.01	29.	*
1	1100	133	.02	.02	.01	32.	*
1	1105	134	.03	.02	.01	37.	*
1	1110	135	.03	.02	.01	42.	*
1	1115	136	.03	.01	.01	50.	*
1	1120	137	.03	.01	.02	60.	*
1	1125	138	.03	.01	.02	70.	*
1	1130	139	.03	.01	.02	83.	*
1	1135	140	.14	.01	.12	110.	*
1	1140	141	.14	.01	.12	148.	*
1	1145	142	.14	.01	.12	215.	*
1	1150	143	.37	.01	.35	324.	*
1	1155	144	.37	.01	.35	475.	*
1	1200	145	.37	.01	.35	716.	*
1	1205	146	.06	.01	.05	981.	*
1	1210	147	.06	.01	.05	1208.	*
1	1215	148	.06	.01	.05	1402.	*
1	1220	149	.04	.01	.02	1588.	*
1	1225	150	.04	.01	.03	1626.	*
							*

1	1540	189	.01	.01	.00	16.
1	1545	190	.01	.01	.00	15.
1	1550	191	.01	.01	.00	15.
1	1555	192	.01	.01	.00	15.
1	1600	193	.01	.01	.00	14.
1	1605	194	.01	.01	.00	14.
1	1610	195	.01	.01	.00	14.
1	1615	196	.01	.01	.00	14.
1	1620	197	.01	.01	.00	14.
1	1625	198	.01	.01	.00	14.
1	1630	199	.01	.01	.00	14.
1	1635	200	.01	.01	.00	14.
1	1640	201	.01	.01	.00	14.
1	1645	202	.01	.01	.00	14.
1	1650	203	.01	.01	.00	13.
1	1655	204	.01	.01	.00	13.
1	1700	205	.01	.01	.00	13.
1	1705	206	.01	.01	.00	13.
1	1710	207	.01	.01	.00	12.
1	1715	208	.01	.01	.00	12.
1	1720	209	.01	.01	.00	12.
1	1725	210	.01	.01	.00	12.
1	1730	211	.01	.01	.00	12.
1	1735	212	.01	.01	.00	12.
1	1740	213	.01	.01	.00	12.
1	1745	214	.01	.01	.00	12.
1	1750	215	.01	.00	.00	12.
1	1755	216	.01	.00	.00	11.
1	1800	217	.01	.00	.00	11.
1	1805	218	.01	.00	.00	11.
1	1810	219	.01	.00	.00	11.
1	1815	220	.01	.00	.00	11.
1	1820	221	.01	.00	.00	10.
1	1825	222	.01	.00	.00	10.
1	1830	223	.01	.00	.00	10.
1	1835	224	.01	.00	.00	10.
1	1840	225	.01	.00	.00	9.
1	1845	226	.01	.00	.00	9.
1	1850	227	.01	.00	.00	9.
1	1855	228	.01	.00	.00	9.
1	1900	229	.01	.00	.00	9.
1	1905	230	.01	.00	.00	9.
1	1910	231	.01	.00	.00	9.
1	1915	232	.01	.00	.00	9.
1	1920	233	.01	.00	.00	9.
1	1925	234	.01	.00	.00	9.
1	1930	235	.01	.00	.00	9.
1	1935	236	.01	.00	.00	9.
1	1940	237	.01	.00	.00	9.
1	1945	238	.01	.00	.00	9.
1	1950	239	.00	.00	.00	9.
1	1955	240	.00	.00	.00	9.
1	2000	241	.00	.00	.00	9.
1	2005	242	.00	.00	.00	9.
1	2010	243	.00	.00	.00	9.
1	2015	244	.00	.00	.00	8.
1	2020	245	.00	.00	.00	8.
1	2025	246	.00	.00	.00	8.
1	2030	247	.00	.00	.00	7.
1	2035	248	.00	.00	.00	7.
1	2040	249	.00	.00	.00	7.
1	2045	250	.00	.00	.00	7.
1	2050	251	.00	.00	.00	7.
1	2055	252	.00	.00	.00	7.
1	2100	253	.00	.00	.00	7.
1	2105	254	.00	.00	.00	7.
1	2110	255	.00	.00	.00	7.
1	2115	256	.00	.00	.00	7.
1	2120	257	.00	.00	.00	7.
1	2125	258	.00	.00	.00	7.
1	2130	259	.00	.00	.00	7.
1	2135	260	.00	.00	.00	7.
1	2140	261	.00	.00	.00	7.
1	2145	262	.00	.00	.00	7.
1	2150	263	.00	.00	.00	7.
1	2155	264	.00	.00	.00	7.
1	2200	265	.00	.00	.00	7.
1	2205	266	.00	.00	.00	7.
1	2210	267	.00	.00	.00	7.
1	2215	268	.00	.00	.00	7.
1	2220	269	.00	.00	.00	7.
1	2225	270	.00	.00	.00	7.
1	2230	271	.00	.00	.00	7.
1	2235	272	.00	.00	.00	7.
1	2240	273	.00	.00	.00	7.
1	2245	274	.00	.00	.00	7.
1	2250	275	.00	.00	.00	7.
1	2255	276	.00	.00	.00	7.
1	2300	277	.00	.00	.00	7.
1	2305	278	.00	.00	.00	7.
1	2310	279	.00	.00	.00	7.
1	2315	280	.00	.00	.00	7.
1	2320	281	.00	.00	.00	7.
1	2325	282	.00	.00	.00	7.
1	2330	283	.00	.00	.00	7.
1	2335	284	.00	.00	.00	7.
1	2340	285	.00	.00	.00	7.
1	2345	286	.00	.00	.00	7.
1	2350	287	.00	.00	.00	7.
1	2355	288	.00	.00	.00	7.
2	0000	289	.00	.00	.00	7.
2	0005	290	.00	.00	.00	6.
2	0010	291	.00	.00	.00	6.
2	0015	292	.00	.00	.00	6.
2	0020	293	.00	.00	.00	5.
2	0025	294	.00	.00	.00	4.
2	0030	295	.00	.00	.00	3.
2	0035	296	.00	.00	.00	2.
2	0040	297	.00	.00	.00	2.
2	0045	298	.00	.00	.00	1.
2	0050	299	.00	.00	.00	1.
2	0055	300	.00	.00	.00	1.

****

TOTAL RAINFALL = 3.99, TOTAL LOSS = 1.75, TOTAL EXCESS = 2.24

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
* (CFS)	(HR)					
		(CFS)				
* 1626.	12.42		244.	68.	65.	65.
		(INCHES)	2.005	2.235	2.236	2.236
		(AC-FT)	121.	135.	135.	135.

CUMULATIVE AREA = 1.13 SQ MI

HYDROGRAPH AT 16
TRANSPOSITION AREA 50.0 SQ MI

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1		0000	1	.00	.00	.00	0.
1		0005	2	.00	.00	.00	0.
1		0010	3	.00	.00	.00	0.
1		0015	4	.00	.00	.00	0.
1		0020	5	.00	.00	.00	1.
1		0025	6	.00	.00	.00	1.
1		0030	7	.00	.00	.00	2.
1		0035	8	.00	.00	.00	3.
1		0040	9	.00	.00	.00	4.
1		0045	10	.00	.00	.00	4.
1		0050	11	.00	.00	.00	5.
1		0055	12	.00	.00	.00	6.
1		0100	13	.00	.00	.00	6.
1		0105	14	.00	.00	.00	6.
1		0110	15	.00	.00	.00	6.
1		0115	16	.00	.00	.00	6.
1		0120	17	.00	.00	.00	7.
1		0125	18	.00	.00	.00	7.
1		0130	19	.00	.00	.00	7.
1		0135	20	.00	.00	.00	7.
1		0140	21	.00	.00	.00	7.
1		0145	22	.00	.00	.00	7.
1		0150	23	.00	.00	.00	7.
1		0155	24	.00	.00	.00	7.
1		0200	25	.00	.00	.00	7.
1		0205	26	.00	.00	.00	7.
1		0210	27	.00	.00	.00	7.
1		0215	28	.00	.00	.00	7.
1		0220	29	.00	.00	.00	7.
1		0225	30	.00	.00	.00	7.
1		0230	31	.00	.00	.00	7.
1		0235	32	.00	.00	.00	7.
1		0240	33	.00	.00	.00	7.
1		0245	34	.00	.00	.00	7.
1		0250	35	.00	.00	.00	7.
1		0255	36	.00	.00	.00	7.
1		0300	37	.00	.00	.00	7.
1		0305	38	.00	.00	.00	7.
1		0310	39	.00	.00	.00	7.
1		0315	40	.00	.00	.00	7.
1		0320	41	.00	.00	.00	7.
1		0325	42	.00	.00	.00	7.
1		0330	43	.00	.00	.00	7.
1		0335	44	.00	.00	.00	7.
1		0340	45	.00	.00	.00	7.
1		0345	46	.00	.00	.00	7.
1		0350	47	.01	.00	.00	7.
1		0355	48	.01	.00	.00	7.
1		0400	49	.01	.00	.00	7.
1		0405	50	.01	.00	.00	7.
1		0410	51	.01	.00	.00	7.
1		0415	52	.01	.00	.00	8.
1		0420	53	.01	.00	.00	8.
1		0425	54	.01	.00	.00	8.
1		0430	55	.01	.00	.00	8.
1		0435	56	.01	.00	.00	9.
1		0440	57	.01	.00	.00	9.
1		0445	58	.01	.00	.00	9.
1		0450	59	.01	.00	.00	9.
1		0455	60	.01	.00	.00	9.
1		0500	61	.01	.00	.00	9.
1		0505	62	.01	.00	.00	9.
1		0510	63	.01	.00	.00	9.
1		0515	64	.01	.00	.00	9.
1		0520	65	.01	.00	.00	9.
1		0525	66	.01	.00	.00	9.
1		0530	67	.01	.00	.00	9.
1		0535	68	.01	.00	.00	9.
1		0540	69	.01	.00	.00	9.
1		0545	70	.01	.00	.00	9.
1		0550	71	.01	.00	.00	9.
1		0555	72	.01	.00	.00	9.
1		0600	73	.01	.00	.00	9.
1		0605	74	.01	.01	.00	9.
1		0610	75	.01	.01	.00	9.
1		0615	76	.01	.01	.00	9.
1		0620	77	.01	.01	.00	9.
1		0625	78	.01	.01	.00	9.
1		0630	79	.01	.01	.00	10.
1		0635	80	.01	.01	.00	10.
1		0640	81	.01	.01	.00	10.
1		0645	82	.01	.01	.00	11.
1		0650	83	.01	.01	.00	11.
1		0655	84	.01	.01	.00	11.
1		0700	85	.01	.01	.00	11.
1		0705	86	.01	.01	.00	11.
1		0710	87	.01	.01	.00	11.
1		0715	88	.01	.01	.00	11.
1		0720	89	.01	.01	.00	11.
1		0725	90	.01	.01	.00	11.
1		0730	91	.01	.01	.00	11.
1		0735	92	.01	.01	.00	11.
1		0740	93	.01	.01	.00	11.
1		0745	94	.01	.01	.00	11.
1		0750	95	.01	.01	.00	11.
1		0755	96	.01	.01	.00	11.
1		0800	97	.01	.01	.00	11.
1		0805	98	.01	.01	.00	11.
1		0810	99	.01	.01	.00	11.
1		0815	100	.01	.01	.00	11.
1		0820	101	.01	.01	.00	12.
1		0825	102	.01	.01	.00	12.
1		0830	103	.01	.01	.00	12.
1		0835	104	.01	.01	.00	13.
1		0840	105	.01	.01	.00	13.
1		0845	106	.01	.01	.00	14.
1		0850	107	.01	.01	.00	14.
1		0855	108	.01	.01	.00	15.
1		0900	109	.01	.01	.00	15.
1		0905	110	.01	.01	.00	15.
1		0910	111	.01	.01	.00	15.
1		0915	112	.01	.01	.00	16.
1		0920	113	.01	.01	.00	16.
1		0925	114	.01	.01	.00	16.
1		0930	115	.01	.01	.00	16.
1		0935	116	.01	.01	.00	17.
1		0940	117	.01	.01	.00	17.
1		0945	118	.01	.01	.00	17.
1		0950	119	.01	.01	.00	18.

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1		1230	151	.04	.01	.02	1423.
1		1235	152	.03	.01	.02	1161.
1		1240	153	.03	.01	.02	957.
1		1245	154	.03	.01	.02	753.
1		1250	155	.02	.01	.01	573.
1		1255	156	.02	.01	.01	433.
1		1300	157	.02	.01	.01	353.
1		1305	158	.02	.01	.01	281.
1		1310	159	.02	.01	.01	226.
1		1315	160	.02	.01	.01	185.
1		1320	161	.02	.01	.01	163.
1		1325	162	.02	.01	.01	137.
1		1330	163	.02	.01	.01	113.
1		1335	164	.01	.01	.00	90.
1		1340	165	.01	.01	.00	80.
1		1345	166	.01	.01	.00	70.
1		1350	167	.01	.01	.00	61.
1		1355	168	.01	.01	.00	54.
1		1400	169	.01	.01	.00	47.
1		1405	170	.01	.01	.00	41.
1		1410	171	.01	.01	.00	36.
1		1415	172	.01	.01	.00	32.
1		1420	173	.01	.01	.00	29.
1		1425	174	.01	.01	.00	26.
1		1430	175	.01	.01	.00	24.
1		1435	176	.01	.01	.00	23.
1		1440	177	.01	.01	.00	21.
1		1445	178	.01	.01	.00	20.
1		1450	179	.01	.01	.00	19.
1		1455	180	.01	.01	.00	18.
1		1500	181	.01	.01	.00	18.
1		1505	182	.01	.01	.00	17.
1		1510	183	.01	.01	.00	17.
1		1515	184	.01	.01	.00	16.
1		1520	185	.01	.01	.00	16.
1		1525	186	.01	.01	.00	16.
1		1530	187	.01	.01	.00	16.
1		1535	188	.01	.01	.00	15.
1		1540	189	.01	.01	.00	15.
1		1545	190	.01	.01	.00	15.
1		1550	191	.01	.01	.00	14.
1		1555	192	.01	.01	.00	14.
1		1600	193	.01	.01	.00	14.
1		1605	194	.01	.01	.00	14.
1		1610	195	.01	.01	.00	14.
1		1615	196	.01	.01	.00	13.
1		1620	197	.01	.01	.00	13.
1		1625	198	.01	.01	.00	13.
1		1630	199	.01	.01	.00	13.
1		1635	200	.01	.01	.00	13.
1		1640	201	.01	.01	.00	13.
1		1645	202	.01	.01	.00	13.
1		1650	203	.01	.01	.00	13.
1		1655	204	.01	.01	.00	13.
1		1700	205	.01	.01	.00	12.
1		1705	206	.01	.01	.00	12.
1		1710	207	.01	.01	.00	12.
1		1715	208	.01	.01	.00	12.
1		1720	209	.01	.01	.00	11.
1		1725	210	.01	.01	.00	11.
1		1730	211	.01	.01	.00	11.
1		1735	212	.01	.01	.00	11.
1		1740	213	.01	.01	.00	11.
1		1745	214	.01	.01	.00	11.
1		1750	215	.01	.00	.00	11.
1		1755	216	.01	.00	.00	11.
1		1800	217	.01	.00	.00	11.
1		1805	218	.01	.00	.00	11.
1		1810	219	.01	.00	.00	11.
1		1815	220	.01	.00	.00	10.
1		1820	221	.01	.00	.00	10.
1		1825	222	.01	.00	.00	10.
1		1830	223	.01	.00	.00	9.
1		1835	224	.01	.00	.00	9.
1		1840	225	.01	.00	.00	9.
1		1845	226	.01	.00	.00	9.
1		1850	227	.01	.00	.00	9.
1		1855	228	.01	.00	.00	9.
1		1900	229	.01	.00	.00	9.
1		1905	230	.01	.00	.00	9.
1		1910	231	.01	.00	.00	9.
1		1915	232	.01	.00	.00	9.
1		1920	233	.01	.00	.00	9.
1		1925	234	.01	.00	.00	9.
1		1930	235	.01	.00	.00	9.
1		1935	236	.01	.00	.00	9.
1		1940	237	.01	.00	.00	9.
1		1945	238	.01	.00	.00	9.
1		1950	239	.00	.00	.00	9.
1		1955	240	.00	.00	.00	9.
1		2000	241	.00	.00	.00	9.
1		2005	242	.00	.00	.00	9.
1		2010	243	.00	.00	.00	8.
1		2015	244	.00	.00	.00	8.
1		2020	245	.00	.00	.00	8.
1		2025	246	.00	.00	.00	7.
1		2030	247	.00	.00	.00	7.
1		2035	248	.00	.00	.00	7.
1		2040	249	.00	.00	.00	7.
1		2045	250	.00	.00	.00	7.
1		2050	251	.00	.00	.00	7.
1		2055	252	.00	.00	.00	7.
1		2100	253	.00	.00	.00	7.
1		2105	254	.00	.00	.00	7.
1		2110	255	.00	.00	.00	7.
1		2115	256	.00	.00	.00	7.
1		2120	257	.00	.00	.00	7.
1		2125	258	.00	.00	.00	7.
1		2130	259	.00	.00	.00	7.
1		2135	260	.00	.00	.00	7.
1		2140	261	.00	.00	.00	7.
1		2145	262	.00	.00	.00	7.
1		2150	263	.00	.00	.00	7.
1		2155	264	.00	.00	.00	7.
1		2200	265	.00	.00	.00	7.
1		2205	266	.00	.00	.00	7.
1		2210	267	.00	.00	.00	7.
1		2215	268	.00	.00	.00	7.
1		2220	269	.00	.00	.00	7.

1	0955	120	.01	.01	.00	18.	*	1	2225	270	.00	.00	.00	7.
1	1000	121	.01	.01	.00	19.	*	1	2230	271	.00	.00	.00	7.
1	1005	122	.01	.01	.00	19.	*	1	2235	272	.00	.00	.00	7.
1	1010	123	.01	.01	.00	19.	*	1	2240	273	.00	.00	.00	7.
1	1015	124	.01	.01	.00	20.	*	1	2245	274	.00	.00	.00	7.
1	1020	125	.02	.01	.00	20.	*	1	2250	275	.00	.00	.00	7.
1	1025	126	.02	.01	.00	21.	*	1	2255	276	.00	.00	.00	7.
1	1030	127	.02	.01	.00	21.	*	1	2300	277	.00	.00	.00	7.
1	1035	128	.02	.02	.00	22.	*	1	2305	278	.00	.00	.00	7.
1	1040	129	.02	.02	.00	23.	*	1	2310	279	.00	.00	.00	7.
1	1045	130	.02	.02	.00	24.	*	1	2315	280	.00	.00	.00	7.
1	1050	131	.02	.02	.01	26.	*	1	2320	281	.00	.00	.00	7.
1	1055	132	.02	.02	.01	27.	*	1	2325	282	.00	.00	.00	7.
1	1100	133	.02	.02	.01	30.	*	1	2330	283	.00	.00	.00	7.
1	1105	134	.03	.02	.01	33.	*	1	2335	284	.00	.00	.00	7.
1	1110	135	.03	.02	.01	37.	*	1	2340	285	.00	.00	.00	7.
1	1115	136	.03	.02	.01	43.	*	1	2345	286	.00	.00	.00	7.
1	1120	137	.03	.02	.02	51.	*	1	2350	287	.00	.00	.00	7.
1	1125	138	.03	.01	.02	60.	*	1	2355	288	.00	.00	.00	7.
1	1130	139	.03	.01	.02	72.	*	2	0000	289	.00	.00	.00	6.
1	1135	140	.13	.01	.12	97.	*	2	0005	290	.00	.00	.00	6.
1	1140	141	.13	.01	.12	133.	*	2	0010	291	.00	.00	.00	6.
1	1145	142	.13	.01	.12	197.	*	2	0015	292	.00	.00	.00	5.
1	1150	143	.35	.01	.34	302.	*	2	0020	293	.00	.00	.00	5.
1	1155	144	.35	.01	.34	447.	*	2	0025	294	.00	.00	.00	4.
1	1200	145	.35	.01	.34	679.	*	2	0030	295	.00	.00	.00	3.
1	1205	146	.06	.01	.04	934.	*	2	0035	296	.00	.00	.00	2.
1	1210	147	.06	.01	.04	1152.	*	2	0040	297	.00	.00	.00	2.
1	1215	148	.06	.01	.04	1338.	*	2	0045	298	.00	.00	.00	1.
1	1220	149	.04	.01	.02	1517.	*	2	0050	299	.00	.00	.00	1.
1	1225	150	.04	.01	.02	1553.	*	2	0055	300	.00	.00	.00	0.
							*							

****

TOTAL RAINFALL = 3.83, TOTAL LOSS = 1.71, TOTAL EXCESS = 2.12

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 1553.	12.42		230.	64.	62.	62.
		(INCHES)	1.895	2.116	2.117	2.117
		(AC-FT)	114.	128.	128.	128.

CUMULATIVE AREA = 1.13 SQ MI

****

HYDROGRAPH AT 16
TRANSPOSITION AREA 100.0 SQ MI

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DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	*	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
								*								
1		0000	1	.00	.00	.00	0.	*	1		1230	151	.04	.01	.02	1394.
1		0005	2	.00	.00	.00	0.	*	1		1235	152	.03	.01	.02	1137.
1		0010	3	.00	.00	.00	0.	*	1		1240	153	.03	.01	.02	936.
1		0015	4	.00	.00	.00	0.	*	1		1245	154	.03	.01	.02	736.
1		0020	5	.00	.00	.00	1.	*	1		1250	155	.02	.01	.01	560.
1		0025	6	.00	.00	.00	1.	*	1		1255	156	.02	.01	.01	422.
1		0030	7	.00	.00	.00	2.	*	1		1300	157	.02	.01	.01	343.
1		0035	8	.00	.00	.00	3.	*	1		1305	158	.02	.01	.01	273.
1		0040	9	.00	.00	.00	4.	*	1		1310	159	.02	.01	.01	219.
1		0045	10	.00	.00	.00	4.	*	1		1315	160	.02	.01	.01	179.
1		0050	11	.00	.00	.00	5.	*	1		1320	161	.02	.01	.01	158.
1		0055	12	.00	.00	.00	5.	*	1		1325	162	.02	.01	.01	132.
1		0100	13	.00	.00	.00	6.	*	1		1330	163	.02	.01	.01	109.
1		0105	14	.00	.00	.00	6.	*	1		1335	164	.01	.01	.00	86.
1		0110	15	.00	.00	.00	6.	*	1		1340	165	.01	.01	.00	76.
1		0115	16	.00	.00	.00	6.	*	1		1345	166	.01	.01	.00	66.
1		0120	17	.00	.00	.00	6.	*	1		1350	167	.01	.01	.00	57.
1		0125	18	.00	.00	.00	6.	*	1		1355	168	.01	.01	.00	51.
1		0130	19	.00	.00	.00	6.	*	1		1400	169	.01	.01	.00	44.
1		0135	20	.00	.00	.00	7.	*	1		1405	170	.01	.01	.00	38.
1		0140	21	.00	.00	.00	7.	*	1		1410	171	.01	.01	.00	34.
1		0145	22	.00	.00	.00	7.	*	1		1415	172	.01	.01	.00	30.
1		0150	23	.00	.00	.00	7.	*	1		1420	173	.01	.01	.00	27.
1		0155	24	.00	.00	.00	7.	*	1		1425	174	.01	.01	.00	25.
1		0200	25	.00	.00	.00	7.	*	1		1430	175	.01	.01	.00	23.
1		0205	26	.00	.00	.00	7.	*	1		1435	176	.01	.01	.00	22.
1		0210	27	.00	.00	.00	7.	*	1		1440	177	.01	.01	.00	21.
1		0215	28	.00	.00	.00	7.	*	1		1445	178	.01	.01	.00	20.
1		0220	29	.00	.00	.00	7.	*	1		1450	179	.01	.01	.00	19.
1		0225	30	.00	.00	.00	7.	*	1		1455	180	.01	.01	.00	18.
1		0230	31	.00	.00	.00	7.	*	1		1500	181	.01	.01	.00	17.
1		0235	32	.00	.00	.00	7.	*	1		1505	182	.01	.01	.00	17.
1		0240	33	.00	.00	.00	7.	*	1		1510	183	.01	.01	.00	16.
1		0245	34	.00	.00	.00	7.	*	1		1515	184	.01	.01	.00	16.
1		0250	35	.00	.00	.00	7.	*	1		1520	185	.01	.01	.00	16.
1		0255	36	.00	.00	.00	7.	*	1		1525	186	.01	.01	.00	15.
1		0300	37	.00	.00	.00	7.	*	1		1530	187	.01	.01	.00	15.
1		0305	38	.00	.00	.00	7.	*	1		1535	188	.01	.01	.00	15.
1		0310	39	.00	.00	.00	7.	*	1		1540	189	.01	.01	.00	15.
1		0315	40	.00	.00	.00	7.	*	1		1545	190	.01	.01	.00	14.
1		0320	41	.00	.00	.00	7.	*	1		1550	191	.01	.01	.00	14.
1		0325	42	.00	.00	.00	7.	*	1		1555	192	.01	.01	.00	14.
1		0330	43	.00	.00	.00	7.	*	1		1600	193	.01	.01	.00	14.
1		0335	44	.00	.00	.00	7.	*	1		1605	194	.01	.01	.00	13.
1		0340	45	.00	.00	.00	7.	*	1		1610	195	.01	.01	.00	13.
1		0345	46	.00	.00	.00	7.	*	1		1615	196	.01	.01	.00	13.
1		0350	47	.01	.00	.00	7.	*	1		1620	197	.01	.01	.00	13.
1		0355	48	.01	.00	.00	7.	*	1		1625	198	.01	.01	.00	13.
1		0400	49	.01	.00	.00	7.	*	1		1630	199	.01	.01	.00	13.
1		0405	50	.01	.00	.00	7.	*	1		1635	200	.01	.01	.00	13.
1		0410	51	.01	.00	.00	7.	*	1		1640	201	.01	.01	.00	13.
1		0415	52	.01	.00	.00	7.	*	1		1645	202	.01	.01	.00	13.
1		0420	53	.01	.00	.00	8.	*	1		1650	203	.01	.01	.00	13.
1		0425	54	.01	.00	.00	8.	*	1		1655	204	.01	.01	.00	13.
1		0430	55	.01	.00	.00	8.	*	1		1700	205	.01	.01	.00	12.
1		0435	56	.01	.00	.00	8.	*	1		1705	206	.01	.01	.00	12.
1		0440	57	.01	.00	.00	9.	*	1		1710	207	.01	.01	.00	12.
1		0445	58	.01	.00	.00	9.	*	1		1715	208	.01	.01	.00	11.
1		0450	59	.01	.00	.00	9.	*	1		1720	209	.01	.01	.00	11.
1		0455	60	.01	.00	.00	9.	*	1		1725	210	.01	.01	.00	11.
1		0500	61	.01	.00	.00	9.	*	1		1730	211	.01	.01	.00	11.
1		0505	62	.01	.00	.00	9.	*	1		1735	212	.01	.01	.00	11.
1		0510	63	.01	.00	.00	9.	*	1		1740	213	.01	.01	.00	11.
1		0515	64	.01	.00	.00	9.	*	1		1745	214	.01	.01	.00	11.
1		0520	65	.01	.00	.00	9.	*	1		1750	215	.01	.00	.00	11.
1		0525	66	.01	.00	.00	9.	*	1		1755	216	.01	.00	.00	11.
1		0530	67	.01	.00	.00	9.	*	1		1800	217	.01	.00	.00	11.
1		0535	68	.01	.00	.00	9.	*	1		1805	218	.01	.00	.00	11.
1		0540	69	.01	.00	.00	9.	*	1		1810	219	.01	.00	.00	10.
1		0545	70	.01	.00	.00	9.	*	1		1815	220	.01	.00	.00	10.
1		0550	71	.01	.00	.00	9.	*	1		1820	221	.01	.00	.00	10.
1		0555	72	.01	.00	.00	9.	*	1		1825	222	.01	.00	.00	9.

1	0600	73	.01	.00	.00	9.	*	1	1830	223	.01	.00	.00	9.
1	0605	74	.01	.01	.00	9.	*	1	1835	224	.01	.00	.00	9.
1	0610	75	.01	.01	.00	9.	*	1	1840	225	.01	.00	.00	9.
1	0615	76	.01	.01	.00	9.	*	1	1845	226	.01	.00	.00	9.
1	0620	77	.01	.01	.00	9.	*	1	1850	227	.01	.00	.00	9.
1	0625	78	.01	.01	.00	9.	*	1	1855	228	.01	.00	.00	9.
1	0630	79	.01	.01	.00	10.	*	1	1900	229	.01	.00	.00	9.
1	0635	80	.01	.01	.00	10.	*	1	1905	230	.01	.00	.00	9.
1	0640	81	.01	.01	.00	10.	*	1	1910	231	.01	.00	.00	9.
1	0645	82	.01	.01	.00	10.	*	1	1915	232	.01	.00	.00	9.
1	0650	83	.01	.01	.00	11.	*	1	1920	233	.01	.00	.00	9.
1	0655	84	.01	.01	.00	11.	*	1	1925	234	.01	.00	.00	9.
1	0700	85	.01	.01	.00	11.	*	1	1930	235	.01	.00	.00	9.
1	0705	86	.01	.01	.00	11.	*	1	1935	236	.01	.00	.00	9.
1	0710	87	.01	.01	.00	11.	*	1	1940	237	.01	.00	.00	9.
1	0715	88	.01	.01	.00	11.	*	1	1945	238	.01	.00	.00	9.
1	0720	89	.01	.01	.00	11.	*	1	1950	239	.00	.00	.00	9.
1	0725	90	.01	.01	.00	11.	*	1	1955	240	.00	.00	.00	9.
1	0730	91	.01	.01	.00	11.	*	1	2000	241	.00	.00	.00	9.
1	0735	92	.01	.01	.00	11.	*	1	2005	242	.00	.00	.00	8.
1	0740	93	.01	.01	.00	11.	*	1	2010	243	.00	.00	.00	8.
1	0745	94	.01	.01	.00	11.	*	1	2015	244	.00	.00	.00	8.
1	0750	95	.01	.01	.00	11.	*	1	2020	245	.00	.00	.00	8.
1	0755	96	.01	.01	.00	11.	*	1	2025	246	.00	.00	.00	7.
1	0800	97	.01	.01	.00	11.	*	1	2030	247	.00	.00	.00	7.
1	0805	98	.01	.01	.00	11.	*	1	2035	248	.00	.00	.00	7.
1	0810	99	.01	.01	.00	11.	*	1	2040	249	.00	.00	.00	7.
1	0815	100	.01	.01	.00	11.	*	1	2045	250	.00	.00	.00	7.
1	0820	101	.01	.01	.00	11.	*	1	2050	251	.00	.00	.00	7.
1	0825	102	.01	.01	.00	12.	*	1	2055	252	.00	.00	.00	7.
1	0830	103	.01	.01	.00	12.	*	1	2100	253	.00	.00	.00	7.
1	0835	104	.01	.01	.00	12.	*	1	2105	254	.00	.00	.00	7.
1	0840	105	.01	.01	.00	13.	*	1	2110	255	.00	.00	.00	7.
1	0845	106	.01	.01	.00	13.	*	1	2115	256	.00	.00	.00	7.
1	0850	107	.01	.01	.00	14.	*	1	2120	257	.00	.00	.00	7.
1	0855	108	.01	.01	.00	14.	*	1	2125	258	.00	.00	.00	7.
1	0900	109	.01	.01	.00	15.	*	1	2130	259	.00	.00	.00	7.
1	0905	110	.01	.01	.00	15.	*	1	2135	260	.00	.00	.00	7.
1	0910	111	.01	.01	.00	15.	*	1	2140	261	.00	.00	.00	7.
1	0915	112	.01	.01	.00	15.	*	1	2145	262	.00	.00	.00	7.
1	0920	113	.01	.01	.00	16.	*	1	2150	263	.00	.00	.00	7.
1	0925	114	.01	.01	.00	16.	*	1	2155	264	.00	.00	.00	7.
1	0930	115	.01	.01	.00	16.	*	1	2200	265	.00	.00	.00	7.
1	0935	116	.01	.01	.00	16.	*	1	2205	266	.00	.00	.00	7.
1	0940	117	.01	.01	.00	17.	*	1	2210	267	.00	.00	.00	7.
1	0945	118	.01	.01	.00	17.	*	1	2215	268	.00	.00	.00	7.
1	0950	119	.01	.01	.00	17.	*	1	2220	269	.00	.00	.00	7.
1	0955	120	.01	.01	.00	18.	*	1	2225	270	.00	.00	.00	7.
1	1000	121	.01	.01	.00	18.	*	1	2230	271	.00	.00	.00	7.
1	1005	122	.01	.01	.00	19.	*	1	2235	272	.00	.00	.00	7.
1	1010	123	.01	.01	.00	19.	*	1	2240	273	.00	.00	.00	7.
1	1015	124	.01	.01	.00	19.	*	1	2245	274	.00	.00	.00	7.
1	1020	125	.02	.01	.00	20.	*	1	2250	275	.00	.00	.00	7.
1	1025	126	.02	.01	.00	20.	*	1	2255	276	.00	.00	.00	7.
1	1030	127	.02	.01	.00	21.	*	1	2300	277	.00	.00	.00	7.
1	1035	128	.02	.02	.00	22.	*	1	2305	278	.00	.00	.00	7.
1	1040	129	.02	.02	.00	22.	*	1	2310	279	.00	.00	.00	7.
1	1045	130	.02	.02	.00	24.	*	1	2315	280	.00	.00	.00	7.
1	1050	131	.02	.02	.00	25.	*	1	2320	281	.00	.00	.00	7.
1	1055	132	.02	.02	.01	27.	*	1	2325	282	.00	.00	.00	7.
1	1100	133	.02	.02	.01	29.	*	1	2330	283	.00	.00	.00	7.
1	1105	134	.03	.02	.01	32.	*	1	2335	284	.00	.00	.00	7.
1	1110	135	.03	.02	.01	35.	*	1	2340	285	.00	.00	.00	7.
1	1115	136	.03	.02	.01	40.	*	1	2345	286	.00	.00	.00	7.
1	1120	137	.03	.02	.02	47.	*	1	2350	287	.00	.00	.00	7.
1	1125	138	.03	.01	.02	55.	*	1	2355	288	.00	.00	.00	6.
1	1130	139	.03	.01	.02	66.	*	2	0000	289	.00	.00	.00	6.
1	1135	140	.13	.01	.12	91.	*	2	0005	290	.00	.00	.00	6.
1	1140	141	.13	.01	.12	127.	*	2	0010	291	.00	.00	.00	6.
1	1145	142	.13	.01	.12	189.	*	2	0015	292	.00	.00	.00	5.
1	1150	143	.35	.01	.33	292.	*	2	0020	293	.00	.00	.00	5.
1	1155	144	.35	.01	.33	435.	*	2	0025	294	.00	.00	.00	4.
1	1200	145	.35	.01	.33	662.	*	2	0030	295	.00	.00	.00	3.
1	1205	146	.06	.01	.04	913.	*	2	0035	296	.00	.00	.00	2.
1	1210	147	.06	.01	.04	1127.	*	2	0040	297	.00	.00	.00	2.
1	1215	148	.06	.01	.04	1310.	*	2	0045	298	.00	.00	.00	1.
1	1220	149	.04	.01	.02	1485.	*	2	0050	299	.00	.00	.00	1.
1	1225	150	.04	.01	.02	1522.	*	2	0055	300	.00	.00	.00	0.

****

TOTAL RAINFALL = 3.76, TOTAL LOSS = 1.69, TOTAL EXCESS = 2.07

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
+ 1522.	12.42	(CFS)	225.	63.	60.	60.
		(INCHES)	1.847	2.064	2.065	2.065
		(AC-FT)	111.	124.	124.	124.

CUMULATIVE AREA = 1.13 SQ MI

****

HYDROGRAPH AT 16
TRANSPOSITION AREA 200.0 SQ MI

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DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	*	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1		0000	1	.00	.00	.00	0.	*	1		1230	151	.03	.01	.02	1369.
1		0005	2	.00	.00	.00	0.	*	1		1235	152	.03	.01	.02	1116.
1		0010	3	.00	.00	.00	0.	*	1		1240	153	.03	.01	.02	919.
1		0015	4	.00	.00	.00	0.	*	1		1245	154	.03	.01	.02	722.
1		0020	5	.00	.00	.00	1.	*	1		1250	155	.02	.01	.01	548.
1		0025	6	.00	.00	.00	1.	*	1		1255	156	.02	.01	.01	413.
1		0030	7	.00	.00	.00	2.	*	1		1300	157	.02	.01	.01	335.
1		0035	8	.00	.00	.00	3.	*	1		1305	158	.02	.01	.01	266.
1		0040	9	.00	.00	.00	3.	*	1		1310	159	.02	.01	.01	213.
1		0045	10	.00	.00	.00	4.	*	1		1315	160	.02	.01	.01	174.
1		0050	11	.00	.00	.00	5.	*	1		1320	161	.02	.01	.00	153.
1		0055	12	.00	.00	.00	5.	*	1		1325	162	.02	.01	.00	128.
1		0100	13	.00	.00	.00	6.	*	1		1330	163	.02	.01	.00	105.
1		0105	14	.00	.00	.00	6.	*	1		1335	164	.01	.01	.00	83.
1		0110	15	.00	.00	.00	6.	*	1		1340	165	.01	.01	.00	73.
1		0115	16	.00	.00	.00	6.	*	1		1345	166	.01	.01	.00	63.
1		0120	17	.00	.00	.00	6.	*	1		1350	167	.01	.01	.00	55.
1		0125	18	.00	.00	.00	6.	*	1		1355	168	.01	.01	.00	48.
1		0130	19	.00	.00	.00	6.	*	1		1400	169	.01	.01	.00	42.
1		0135	20	.00	.00	.00	6.	*	1		1405	170	.01	.01	.00	36.
1		0140	21	.00	.00	.00	6.	*	1		1410	171	.01	.01	.00	32.
1		0145	22	.00	.00	.00	6.	*	1		1415	172	.01	.01	.00	29.
1		0150	23	.00	.00	.00	6.	*	1		1420	173	.01	.01	.00	26.
1		0155	24	.00	.00	.00	6.	*	1		1425	174	.01	.01	.00	24.
1		0200	25	.00	.00	.00	6.	*	1		1430	175	.01	.01	.00	23.

1	0205	26	.00	.00	.00	6.	*	1	1435	176	.01	.01	.00	21.
1	0210	27	.00	.00	.00	6.	*	1	1440	177	.01	.01	.00	20.
1	0215	28	.00	.00	.00	6.	*	1	1445	178	.01	.01	.00	19.
1	0220	29	.00	.00	.00	6.	*	1	1450	179	.01	.01	.00	18.
1	0225	30	.00	.00	.00	6.	*	1	1455	180	.01	.01	.00	18.
1	0230	31	.00	.00	.00	6.	*	1	1500	181	.01	.01	.00	17.
1	0235	32	.00	.00	.00	6.	*	1	1505	182	.01	.01	.00	16.
1	0240	33	.00	.00	.00	6.	*	1	1510	183	.01	.01	.00	16.
1	0245	34	.00	.00	.00	6.	*	1	1515	184	.01	.01	.00	16.
1	0250	35	.00	.00	.00	6.	*	1	1520	185	.01	.01	.00	15.
1	0255	36	.00	.00	.00	6.	*	1	1525	186	.01	.01	.00	15.
1	0300	37	.00	.00	.00	6.	*	1	1530	187	.01	.01	.00	15.
1	0305	38	.00	.00	.00	6.	*	1	1535	188	.01	.01	.00	15.
1	0310	39	.00	.00	.00	6.	*	1	1540	189	.01	.01	.00	15.
1	0315	40	.00	.00	.00	6.	*	1	1545	190	.01	.01	.00	14.
1	0320	41	.00	.00	.00	6.	*	1	1550	191	.01	.01	.00	14.
1	0325	42	.00	.00	.00	6.	*	1	1555	192	.01	.01	.00	14.
1	0330	43	.00	.00	.00	6.	*	1	1600	193	.01	.01	.00	13.
1	0335	44	.00	.00	.00	6.	*	1	1605	194	.01	.01	.00	13.
1	0340	45	.00	.00	.00	6.	*	1	1610	195	.01	.01	.00	13.
1	0345	46	.00	.00	.00	6.	*	1	1615	196	.01	.01	.00	13.
1	0350	47	.00	.00	.00	6.	*	1	1620	197	.01	.01	.00	13.
1	0355	48	.00	.00	.00	7.	*	1	1625	198	.01	.01	.00	13.
1	0400	49	.00	.00	.00	7.	*	1	1630	199	.01	.01	.00	13.
1	0405	50	.00	.00	.00	7.	*	1	1635	200	.01	.00	.00	13.
1	0410	51	.00	.00	.00	7.	*	1	1640	201	.01	.00	.00	13.
1	0415	52	.00	.00	.00	7.	*	1	1645	202	.01	.00	.00	13.
1	0420	53	.00	.00	.00	8.	*	1	1650	203	.01	.00	.00	13.
1	0425	54	.00	.00	.00	8.	*	1	1655	204	.01	.00	.00	12.
1	0430	55	.00	.00	.00	8.	*	1	1700	205	.01	.00	.00	12.
1	0435	56	.00	.00	.00	8.	*	1	1705	206	.01	.00	.00	12.
1	0440	57	.00	.00	.00	8.	*	1	1710	207	.01	.00	.00	11.
1	0445	58	.00	.00	.00	8.	*	1	1715	208	.01	.00	.00	11.
1	0450	59	.00	.00	.00	8.	*	1	1720	209	.01	.00	.00	11.
1	0455	60	.00	.00	.00	9.	*	1	1725	210	.01	.00	.00	11.
1	0500	61	.00	.00	.00	9.	*	1	1730	211	.01	.00	.00	11.
1	0505	62	.00	.00	.00	9.	*	1	1735	212	.01	.00	.00	11.
1	0510	63	.00	.00	.00	9.	*	1	1740	213	.01	.00	.00	11.
1	0515	64	.00	.00	.00	9.	*	1	1745	214	.01	.00	.00	11.
1	0520	65	.00	.00	.00	9.	*	1	1750	215	.00	.00	.00	11.
1	0525	66	.00	.00	.00	9.	*	1	1755	216	.00	.00	.00	11.
1	0530	67	.00	.00	.00	9.	*	1	1800	217	.00	.00	.00	11.
1	0535	68	.00	.00	.00	9.	*	1	1805	218	.00	.00	.00	10.
1	0540	69	.00	.00	.00	9.	*	1	1810	219	.00	.00	.00	10.
1	0545	70	.00	.00	.00	9.	*	1	1815	220	.00	.00	.00	10.
1	0550	71	.00	.00	.00	9.	*	1	1820	221	.00	.00	.00	10.
1	0555	72	.00	.00	.00	9.	*	1	1825	222	.00	.00	.00	9.
1	0600	73	.00	.00	.00	9.	*	1	1830	223	.00	.00	.00	9.
1	0605	74	.01	.00	.00	9.	*	1	1835	224	.00	.00	.00	9.
1	0610	75	.01	.00	.00	9.	*	1	1840	225	.00	.00	.00	9.
1	0615	76	.01	.00	.00	9.	*	1	1845	226	.00	.00	.00	9.
1	0620	77	.01	.00	.00	9.	*	1	1850	227	.00	.00	.00	9.
1	0625	78	.01	.00	.00	9.	*	1	1855	228	.00	.00	.00	9.
1	0630	79	.01	.00	.00	9.	*	1	1900	229	.00	.00	.00	9.
1	0635	80	.01	.00	.00	10.	*	1	1905	230	.00	.00	.00	9.
1	0640	81	.01	.00	.00	10.	*	1	1910	231	.00	.00	.00	9.
1	0645	82	.01	.00	.00	10.	*	1	1915	232	.00	.00	.00	9.
1	0650	83	.01	.00	.00	10.	*	1	1920	233	.00	.00	.00	9.
1	0655	84	.01	.00	.00	11.	*	1	1925	234	.00	.00	.00	9.
1	0700	85	.01	.00	.00	11.	*	1	1930	235	.00	.00	.00	9.
1	0705	86	.01	.00	.00	11.	*	1	1935	236	.00	.00	.00	9.
1	0710	87	.01	.00	.00	11.	*	1	1940	237	.00	.00	.00	9.
1	0715	88	.01	.00	.00	11.	*	1	1945	238	.00	.00	.00	9.
1	0720	89	.01	.00	.00	11.	*	1	1950	239	.00	.00	.00	9.
1	0725	90	.01	.00	.00	11.	*	1	1955	240	.00	.00	.00	8.
1	0730	91	.01	.00	.00	11.	*	1	2000	241	.00	.00	.00	8.
1	0735	92	.01	.00	.00	11.	*	1	2005	242	.00	.00	.00	8.
1	0740	93	.01	.00	.00	11.	*	1	2010	243	.00	.00	.00	8.
1	0745	94	.01	.00	.00	11.	*	1	2015	244	.00	.00	.00	8.
1	0750	95	.01	.00	.00	11.	*	1	2020	245	.00	.00	.00	7.
1	0755	96	.01	.00	.00	11.	*	1	2025	246	.00	.00	.00	7.
1	0800	97	.01	.00	.00	11.	*	1	2030	247	.00	.00	.00	7.
1	0805	98	.01	.01	.00	11.	*	1	2035	248	.00	.00	.00	7.
1	0810	99	.01	.01	.00	11.	*	1	2040	249	.00	.00	.00	7.
1	0815	100	.01	.01	.00	11.	*	1	2045	250	.00	.00	.00	7.
1	0820	101	.01	.01	.00	11.	*	1	2050	251	.00	.00	.00	7.
1	0825	102	.01	.01	.00	11.	*	1	2055	252	.00	.00	.00	6.
1	0830	103	.01	.01	.00	12.	*	1	2100	253	.00	.00	.00	6.
1	0835	104	.01	.01	.00	12.	*	1	2105	254	.00	.00	.00	6.
1	0840	105	.01	.01	.00	13.	*	1	2110	255	.00	.00	.00	6.
1	0845	106	.01	.01	.00	13.	*	1	2115	256	.00	.00	.00	6.
1	0850	107	.01	.01	.00	14.	*	1	2120	257	.00	.00	.00	6.
1	0855	108	.01	.01	.00	14.	*	1	2125	258	.00	.00	.00	6.
1	0900	109	.01	.01	.00	14.	*	1	2130	259	.00	.00	.00	6.
1	0905	110	.01	.01	.00	15.	*	1	2135	260	.00	.00	.00	6.
1	0910	111	.01	.01	.00	15.	*	1	2140	261	.00	.00	.00	6.
1	0915	112	.01	.01	.00	15.	*	1	2145	262	.00	.00	.00	6.
1	0920	113	.01	.01	.00	15.	*	1	2150	263	.00	.00	.00	6.
1	0925	114	.01	.01	.00	16.	*	1	2155	264	.00	.00	.00	6.
1	0930	115	.01	.01	.00	16.	*	1	2200	265	.00	.00	.00	6.
1	0935	116	.01	.01	.00	16.	*	1	2205	266	.00	.00	.00	6.
1	0940	117	.01	.01	.00	17.	*	1	2210	267	.00	.00	.00	6.
1	0945	118	.01	.01	.00	17.	*	1	2215	268	.00	.00	.00	6.
1	0950	119	.01	.01	.00	17.	*	1	2220	269	.00	.00	.00	6.
1	0955	120	.01	.01	.00	18.	*	1	2225	270	.00	.00	.00	6.
1	1000	121	.01	.01	.00	18.	*	1	2230	271	.00	.00	.00	6.
1	1005	122	.01	.01	.00	18.	*	1	2235	272	.00	.00	.00	6.
1	1010	123	.01	.01	.00	19.	*	1	2240	273	.00	.00	.00	6.
1	1015	124	.01	.01	.00	19.	*	1	2245	274	.00	.00	.00	6.
1	1020	125	.01	.01	.00	19.	*	1	2250	275	.00	.00	.00	6.
1	1025	126	.01	.01	.00	20.	*	1	2255	276	.00	.00	.00	6.
1	1030	127	.01	.01	.00	20.	*	1	2300	277	.00	.00	.00	6.
1	1035	128	.02	.01	.00	21.	*	1	2305	278	.00	.00	.00	6.
1	1040	129	.02	.01	.00	22.	*	1	2310	279	.00	.00	.00	6.
1	1045	130	.02	.01	.00	23.	*	1	2315	280	.00	.00	.00	6.
1	1050	131	.02	.02	.00	25.	*	1	2320	281	.00	.00	.00	6.
1	1055	132	.02	.02	.00	26.	*	1	2325	282	.00	.00	.00	6.
1	1100	133	.02	.02	.01	28.	*	1	2330	283	.00	.00	.00	6.
1	1105	134	.03	.02	.01	31.	*	1	2335	284	.00	.00	.00	6.
1	1110	135	.03	.02	.01	34.	*	1	2340	285	.00	.00	.00	6.
1	1115	136	.03	.02	.01	38.	*	1	2345	286	.00	.00	.00	6.
1	1120	137	.03	.02	.02	44.	*	1	2350	287	.00	.00	.00	6.
1	1125	138	.03	.02	.02	52.	*	1	2355	288	.00	.00	.00	6.
1	1130	139	.03	.01	.02	62.	*	2	0000	289	.00	.00	.00	6.
1	1135	140	.13	.01	.11	86.	*	2	0005	290	.00	.00	.00	6.
1	1140	141	.13	.01	.11	121.	*	2	0010	291	.00	.00	.00	6.
1	1145	142	.13	.01	.11	183.	*	2	0015	292	.00	.00	.00	5.
1	1150	143	.34	.01	.33	284.	*	2	0020	293	.00	.00	.00	5.
1	1155	144	.34	.01	.33	424.	*	2	0025	294	.00	.00	.00	4.
1	1200	145	.34	.01	.33	648.	*	2	0030	295	.00	.00	.00	3.
1	1205	146	.05	.01	.04	895.	*	2	0035	296	.00	.00	.00	2.
1	1210	147	.05	.01	.04	1106.	*	2	0040	297	.00	.00	.00	2.
1	1215	148	.05	.01	.04	1286.	*	2	0045	298	.00	.00	.00	1.
1	1220	149	.03	.01	.02	1459.	*	2	0050	299	.00	.00	.00	1.
1	1225	150	.03	.01	.02	1494.	*	2	0055	300	.00	.00	.00	0.
							*							

TOTAL RAINFALL = 3.70, TOTAL LOSS = 1.67, TOTAL EXCESS = 2.03

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
+ 1494.	12.42	(CFS)	220.	61.	59.	59.
		(INCHES)	1.807	2.020	2.021	2.021
		(AC-FT)	109.	122.	122.	122.

CUMULATIVE AREA = 1.13 SQ MI

INTERPOLATED HYDROGRAPH AT 16

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	10.	1		1230	151	1494.	1		1845	226	9.
1		0005	2	0.	1		0620	77	10.	1		1235	152	1220.	1		1850	227	9.
1		0010	3	0.	1		0625	78	10.	1		1240	153	1007.	1		1855	228	9.
1		0015	4	0.	1		0630	79	10.	1		1245	154	793.	1		1900	229	9.
1		0020	5	1.	1		0635	80	11.	1		1250	155	606.	1		1905	230	9.
1		0025	6	1.	1		0640	81	11.	1		1255	156	459.	1		1910	231	9.
1		0030	7	2.	1		0645	82	11.	1		1300	157	375.	1		1915	232	9.
1		0035	8	3.	1		0650	83	11.	1		1305	158	300.	1		1920	233	9.
1		0040	9	4.	1		0655	84	11.	1		1310	159	242.	1		1925	234	9.
1		0045	10	4.	1		0700	85	11.	1		1315	160	199.	1		1930	235	9.
1		0050	11	5.	1		0705	86	12.	1		1320	161	177.	1		1935	236	9.
1		0055	12	6.	1		0710	87	12.	1		1325	162	150.	1		1940	237	9.
1		0100	13	6.	1		0715	88	12.	1		1330	163	124.	1		1945	238	9.
1		0105	14	6.	1		0720	89	12.	1		1335	164	100.	1		1950	239	9.
1		0110	15	7.	1		0725	90	12.	1		1340	165	89.	1		1955	240	9.
1		0115	16	7.	1		0730	91	12.	1		1345	166	79.	1		2000	241	9.
1		0120	17	7.	1		0735	92	12.	1		1350	167	69.	1		2005	242	9.
1		0125	18	7.	1		0740	93	12.	1		1355	168	61.	1		2010	243	9.
1		0130	19	7.	1		0745	94	12.	1		1400	169	54.	1		2015	244	8.
1		0135	20	7.	1		0750	95	12.	1		1405	170	47.	1		2020	245	8.
1		0140	21	7.	1		0755	96	12.	1		1410	171	42.	1		2025	246	8.
1		0145	22	7.	1		0800	97	12.	1		1415	172	37.	1		2030	247	7.
1		0150	23	7.	1		0805	98	12.	1		1420	173	33.	1		2035	248	7.
1		0155	24	7.	1		0810	99	12.	1		1425	174	30.	1		2040	249	7.
1		0200	25	7.	1		0815	100	12.	1		1430	175	27.	1		2045	250	7.
1		0205	26	7.	1		0820	101	12.	1		1435	176	25.	1		2050	251	7.
1		0210	27	7.	1		0825	102	12.	1		1440	177	23.	1		2055	252	7.
1		0215	28	7.	1		0830	103	13.	1		1445	178	22.	1		2100	253	7.
1		0220	29	7.	1		0835	104	13.	1		1450	179	20.	1		2105	254	7.
1		0225	30	7.	1		0840	105	14.	1		1455	180	19.	1		2110	255	7.
1		0230	31	7.	1		0845	106	14.	1		1500	181	19.	1		2115	256	7.
1		0235	32	7.	1		0850	107	15.	1		1505	182	18.	1		2120	257	7.
1		0240	33	7.	1		0855	108	15.	1		1510	183	17.	1		2125	258	7.
1		0245	34	7.	1		0900	109	16.	1		1515	184	17.	1		2130	259	7.
1		0250	35	7.	1		0905	110	16.	1		1520	185	17.	1		2135	260	7.
1		0255	36	7.	1		0910	111	16.	1		1525	186	16.	1		2140	261	7.
1		0300	37	7.	1		0915	112	16.	1		1530	187	16.	1		2145	262	7.
1		0305	38	7.	1		0920	113	17.	1		1535	188	16.	1		2150	263	7.
1		0310	39	7.	1		0925	114	17.	1		1540	189	16.	1		2155	264	7.
1		0315	40	7.	1		0930	115	17.	1		1545	190	15.	1		2200	265	7.
1		0320	41	7.	1		0935	116	18.	1		1550	191	15.	1		2205	266	7.
1		0325	42	7.	1		0940	117	18.	1		1555	192	15.	1		2210	267	7.
1		0330	43	7.	1		0945	118	18.	1		1600	193	14.	1		2215	268	7.
1		0335	44	7.	1		0950	119	19.	1		1605	194	14.	1		2220	269	7.
1		0340	45	7.	1		0955	120	19.	1		1610	195	14.	1		2225	270	7.
1		0345	46	7.	1		1000	121	19.	1		1615	196	14.	1		2230	271	7.
1		0350	47	7.	1		1005	122	20.	1		1620	197	14.	1		2235	272	7.
1		0355	48	7.	1		1010	123	20.	1		1625	198	14.	1		2240	273	7.
1		0400	49	7.	1		1015	124	21.	1		1630	199	14.	1		2245	274	7.
1		0405	50	7.	1		1020	125	21.	1		1635	200	14.	1		2250	275	7.
1		0410	51	8.	1		1025	126	21.	1		1640	201	14.	1		2255	276	7.
1		0415	52	8.	1		1030	127	22.	1		1645	202	14.	1		2300	277	7.
1		0420	53	8.	1		1035	128	23.	1		1650	203	14.	1		2305	278	7.
1		0425	54	9.	1		1040	129	24.	1		1655	204	13.	1		2310	279	7.
1		0430	55	9.	1		1045	130	25.	1		1700	205	13.	1		2315	280	7.
1		0435	56	9.	1		1050	131	27.	1		1705	206	13.	1		2320	281	7.
1		0440	57	9.	1		1055	132	29.	1		1710	207	12.	1		2325	282	7.
1		0445	58	9.	1		1100	133	33.	1		1715	208	12.	1		2330	283	7.
1		0450	59	9.	1		1105	134	37.	1		1720	209	12.	1		2335	284	7.
1		0455	60	9.	1		1110	135	43.	1		1725	210	12.	1		2340	285	7.
1		0500	61	9.	1		1115	136	50.	1		1730	211	12.	1		2345	286	7.
1		0505	62	9.	1		1120	137	60.	1		1735	212	12.	1		2350	287	7.
1		0510	63	9.	1		1125	138	71.	1		1740	213	12.	1		2355	288	7.
1		0515	64	9.	1		1130	139	84.	1		1745	214	12.	2		0000	289	7.
1		0520	65	9.	1		1135	140	111.	1		1750	215	12.	2		0005	290	6.
1		0525	66	9.	1		1140	141	149.	1		1755	216	12.	2		0010	291	6.
1		0530	67	9.	1		1145	142	216.	1		1800	217	11.	2		0015	292	6.
1		0535	68	9.	1		1150	143	325.	1		1805	218	11.	2		0020	293	5.
1		0540	69	9.	1		1155	144	476.	1		1810	219	11.	2		0025	294	4.
1		0545	70	9.	1		1200	145	718.	1		1815	220	11.	2		0030	295	3.
1		0550	71	9.	1		1205	146	984.	1		1820	221	10.	2		0035	296	2.
1		0555	72	9.	1		1210	147	1211.	1		1825	222	10.	2		0040	297	2.
1		0600	73	9.	1		1215	148	1405.	1		1830	223	10.	2		0045	298	1.
1		0605	74	9.	1		1220	149	1592.	1		1835	224	10.	2		0050	299	1.
1		0610	75	9.	1		1225	150	1630.	1		1840	225	10.	2		0055	300	1.

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
+ 1630.	12.42	(CFS)	244.	68.	66.	66.
		(INCHES)	2.012	2.242	2.243	2.243
		(AC-FT)	121.	135.	135.	135.

CUMULATIVE AREA = 1.13 SQ MI

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            **************
            *            *
295 KK      *    CP15    *
            *            *
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296 KO          OUTPUT CONTROL VARIABLES
                     IPRNT          1  PRINT CONTROL
                     IPLOT          0  PLOT CONTROL
                     QSCAL         0.  HYDROGRAPH PLOT SCALE
                           ADD HYDROGRAPHS AT CP15.

298 HC          HYDROGRAPH COMBINATION
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ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

HYDROGRAPH AT CP15
TRANSPOSITION AREA .0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	29.	1		1230	151	5463.	1		1845	226	63.
1		0005	2	0.	1		0620	77	29.	1		1235	152	4814.	1		1850	227	61.
1		0010	3	0.	1		0625	78	30.	1		1240	153	4125.	1		1855	228	60.
1		0015	4	1.	1		0630	79	30.	1		1245	154	3357.	1		1900	229	59.
1		0020	5	2.	1		0635	80	31.	1		1250	155	2660.	1		1905	230	58.
1		0025	6	3.	1		0640	81	32.	1		1255	156	2114.	1		1910	231	57.
1		0030	7	4.	1		0645	82	32.	1		1300	157	1723.	1		1915	232	56.
1		0035	8	6.	1		0650	83	33.	1		1305	158	1395.	1		1920	233	56.
1		0040	9	8.	1		0655	84	34.	1		1310	159	1167.	1		1925	234	55.
1		0045	10	10.	1		0700	85	34.	1		1315	160	989.	1		1930	235	55.
1		0050	11	11.	1		0705	86	34.	1		1320	161	864.	1		1935	236	55.
1		0055	12	13.	1		0710	87	35.	1		1325	162	746.	1		1940	237	55.
1		0100	13	14.	1		0715	88	35.	1		1330	163	644.	1		1945	238	55.
1		0105	14	16.	1		0720	89	35.	1		1335	164	556.	1		1950	239	55.
1		0110	15	17.	1		0725	90	35.	1		1340	165	508.	1		1955	240	54.
1		0115	16	18.	1		0730	91	35.	1		1345	166	465.	1		2000	241	54.
1		0120	17	18.	1		0735	92	35.	1		1350	167	423.	1		2005	242	54.
1		0125	18	19.	1		0740	93	36.	1		1355	168	389.	1		2010	243	53.
1		0130	19	20.	1		0745	94	36.	1		1400	169	358.	1		2015	244	52.
1		0135	20	20.	1		0750	95	36.	1		1405	170	329.	1		2020	245	51.
1		0140	21	20.	1		0755	96	36.	1		1410	171	304.	1		2025	246	50.
1		0145	22	21.	1		0800	97	36.	1		1415	172	283.	1		2030	247	49.
1		0150	23	21.	1		0805	98	36.	1		1420	173	263.	1		2035	248	48.
1		0155	24	21.	1		0810	99	36.	1		1425	174	246.	1		2040	249	46.
1		0200	25	21.	1		0815	100	36.	1		1430	175	231.	1		2045	250	45.
1		0205	26	21.	1		0820	101	37.	1		1435	176	216.	1		2050	251	43.
1		0210	27	21.	1		0825	102	37.	1		1440	177	204.	1		2055	252	42.
1		0215	28	21.	1		0830	103	38.	1		1445	178	192.	1		2100	253	41.
1		0220	29	21.	1		0835	104	40.	1		1450	179	181.	1		2105	254	40.
1		0225	30	21.	1		0840	105	41.	1		1455	180	171.	1		2110	255	39.
1		0230	31	21.	1		0845	106	44.	1		1500	181	162.	1		2115	256	38.
1		0235	32	21.	1		0850	107	46.	1		1505	182	153.	1		2120	257	37.
1		0240	33	21.	1		0855	108	49.	1		1510	183	146.	1		2125	258	37.
1		0245	34	21.	1		0900	109	52.	1		1515	184	140.	1		2130	259	37.
1		0250	35	21.	1		0905	110	55.	1		1520	185	135.	1		2135	260	37.
1		0255	36	21.	1		0910	111	59.	1		1525	186	130.	1		2140	261	36.
1		0300	37	21.	1		0915	112	63.	1		1530	187	127.	1		2145	262	36.
1		0305	38	21.	1		0920	113	67.	1		1535	188	123.	1		2150	263	36.
1		0310	39	21.	1		0925	114	71.	1		1540	189	120.	1		2155	264	36.
1		0315	40	21.	1		0930	115	74.	1		1545	190	117.	1		2200	265	36.
1		0320	41	21.	1		0935	116	78.	1		1550	191	113.	1		2205	266	36.
1		0325	42	21.	1		0940	117	82.	1		1555	192	111.	1		2210	267	36.
1		0330	43	21.	1		0945	118	86.	1		1600	193	109.	1		2215	268	36.
1		0335	44	21.	1		0950	119	90.	1		1605	194	107.	1		2220	269	36.
1		0340	45	21.	1		0955	120	94.	1		1610	195	105.	1		2225	270	36.
1		0345	46	21.	1		1000	121	98.	1		1615	196	103.	1		2230	271	36.
1		0350	47	22.	1		1005	122	102.	1		1620	197	102.	1		2235	272	36.
1		0355	48	22.	1		1010	123	106.	1		1625	198	101.	1		2240	273	36.
1		0400	49	22.	1		1015	124	111.	1		1630	199	100.	1		2245	274	36.
1		0405	50	22.	1		1020	125	116.	1		1635	200	99.	1		2250	275	37.
1		0410	51	23.	1		1025	126	125.	1		1640	201	98.	1		2255	276	37.
1		0415	52	23.	1		1030	127	133.	1		1645	202	97.	1		2300	277	37.
1		0420	53	24.	1		1035	128	141.	1		1650	203	96.	1		2305	278	37.
1		0425	54	25.	1		1040	129	150.	1		1655	204	94.	1		2310	279	37.
1		0430	55	25.	1		1045	130	162.	1		1700	205	93.	1		2315	280	37.
1		0435	56	26.	1		1050	131	178.	1		1705	206	91.	1		2320	281	37.
1		0440	57	26.	1		1055	132	196.	1		1710	207	89.	1		2325	282	37.
1		0445	58	27.	1		1100	133	219.	1		1715	208	87.	1		2330	283	37.
1		0450	59	27.	1		1105	134	246.	1		1720	209	85.	1		2335	284	37.
1		0455	60	27.	1		1110	135	275.	1		1725	210	83.	1		2340	285	37.
1		0500	61	28.	1		1115	136	309.	1		1730	211	82.	1		2345	286	37.
1		0505	62	28.	1		1120	137	347.	1		1735	212	80.	1		2350	287	37.
1		0510	63	28.	1		1125	138	387.	1		1740	213	79.	1		2355	288	37.
1		0515	64	28.	1		1130	139	430.	1		1745	214	77.	2		0000	289	37.
1		0520	65	28.	1		1135	140	503.	1		1750	215	76.	2		0005	290	36.
1		0525	66	28.	1		1140	141	604.	1		1755	216	75.	2		0010	291	35.
1		0530	67	28.	1		1145	142	771.	1		1800	217	74.	2		0015	292	34.
1		0535	68	29.	1		1150	143	1046.	1		1805	218	73.	2		0020	293	32.
1		0540	69	29.	1		1155	144	1457.	1		1810	219	73.	2		0025	294	30.
1		0545	70	29.	1		1200	145	2111.	1		1815	220	71.	2		0030	295	28.
1		0550	71	29.	1		1205	146	2891.	1		1820	221	70.	2		0035	296	24.
1		0555	72	29.	1		1210	147	3712.	1		1825	222	69.	2		0040	297	21.
1		0600	73	29.	1		1215	148	4516.	1		1830	223	67.	2		0045	298	19.
1		0605	74	29.	1		1220	149	5293.	1		1835	224	66.	2		0050	299	16.
1		0610	75	29.	1		1225	150	5640.	1		1840	225	64.	2		0055	300	13.

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
5640.	12.42	(CFS)	963.	274.	264.	264.
		(INCHES)	2.320	2.635	2.637	2.637
		(AC-FT)	478.	543.	543.	543.

CUMULATIVE AREA = 3.86 SQ MI

HYDROGRAPH AT CP15
TRANSPOSITION AREA 10.0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	29.	1		1230	151	5402.	1		1845	226	62.
1		0005	2	0.	1		0620	77	29.	1		1235	152	4765.	1		1850	227	60.
1		0010	3	0.	1		0625	78	30.	1		1240	153	4082.	1		1855	228	59.
1		0015	4	1.	1		0630	79	30.	1		1245	154	3321.	1		1900	229	58.
1		0020	5	2.	1		0635	80	31.	1		1250	155	2631.	1		1905	230	57.
1		0025	6	3.	1		0640	81	32.	1		1255	156	2093.	1		1910	231	56.
1		0030	7	4.	1		0645	82	32.	1		1300	157	1704.	1		1915	232	55.
1		0035	8	6.	1		0650	83	33.	1		1305	158	1379.	1		1920	233	55.
1		0040	9	8.	1		0655	84	33.	1		1310	159	1154.	1		1925	234	55.
1		0045	10	9.	1		0700	85	34.	1		1315	160	977.	1		1930	235	54.
1		0050	11	11.	1		0705	86	34.	1		1320	161	853.	1		1935	236	54.
1		0055	12	13.	1		0710	87	34.	1		1325	162	736.	1		1940	237	54.
1		0100	13	14.	1		0715	88	34.	1		1330	163	635.	1		1945	238	54.
1		0105	14	15.	1		0720	89	35.	1		1335	164	548.	1		1950	239	54.
1		0110	15	17.	1		0725	90	35.	1		1340	165	502.	1		1955	240	54.
1		0115	16	17.	1		0730	91	35.	1		1345	166	458.	1		2000	241	53.
1		0120	17	18.	1		0735	92	35.	1		1350	167	417.	1		2005	242	53.

1	0125	18	19.	*	1	0740	93	35.	*	1	1355	168	383.	*	1	2010	243	52.
1	0130	19	19.	*	1	0745	94	35.	*	1	1400	169	352.	*	1	2015	244	52.
1	0135	20	20.	*	1	0750	95	35.	*	1	1405	170	323.	*	1	2020	245	51.
1	0140	21	20.	*	1	0755	96	35.	*	1	1410	171	299.	*	1	2025	246	49.
1	0145	22	21.	*	1	0800	97	35.	*	1	1415	172	277.	*	1	2030	247	48.
1	0150	23	21.	*	1	0805	98	35.	*	1	1420	173	258.	*	1	2035	248	47.
1	0155	24	21.	*	1	0810	99	36.	*	1	1425	174	241.	*	1	2040	249	45.
1	0200	25	21.	*	1	0815	100	36.	*	1	1430	175	226.	*	1	2045	250	44.
1	0205	26	21.	*	1	0820	101	36.	*	1	1435	176	212.	*	1	2050	251	42.
1	0210	27	21.	*	1	0825	102	37.	*	1	1440	177	200.	*	1	2055	252	41.
1	0215	28	21.	*	1	0830	103	38.	*	1	1445	178	189.	*	1	2100	253	40.
1	0220	29	21.	*	1	0835	104	39.	*	1	1450	179	178.	*	1	2105	254	39.
1	0225	30	21.	*	1	0840	105	41.	*	1	1455	180	168.	*	1	2110	255	38.
1	0230	31	21.	*	1	0845	106	43.	*	1	1500	181	159.	*	1	2115	256	37.
1	0235	32	21.	*	1	0850	107	45.	*	1	1505	182	151.	*	1	2120	257	37.
1	0240	33	21.	*	1	0855	108	48.	*	1	1510	183	143.	*	1	2125	258	36.
1	0245	34	21.	*	1	0900	109	51.	*	1	1515	184	137.	*	1	2130	259	36.
1	0250	35	21.	*	1	0905	110	54.	*	1	1520	185	132.	*	1	2135	260	36.
1	0255	36	21.	*	1	0910	111	57.	*	1	1525	186	128.	*	1	2140	261	36.
1	0300	37	21.	*	1	0915	112	61.	*	1	1530	187	124.	*	1	2145	262	36.
1	0305	38	21.	*	1	0920	113	65.	*	1	1535	188	121.	*	1	2150	263	36.
1	0310	39	21.	*	1	0925	114	68.	*	1	1540	189	118.	*	1	2155	264	36.
1	0315	40	21.	*	1	0930	115	72.	*	1	1545	190	115.	*	1	2200	265	36.
1	0320	41	21.	*	1	0935	116	76.	*	1	1550	191	111.	*	1	2205	266	36.
1	0325	42	21.	*	1	0940	117	80.	*	1	1555	192	109.	*	1	2210	267	36.
1	0330	43	21.	*	1	0945	118	84.	*	1	1600	193	107.	*	1	2215	268	36.
1	0335	44	21.	*	1	0950	119	88.	*	1	1605	194	105.	*	1	2220	269	36.
1	0340	45	21.	*	1	0955	120	92.	*	1	1610	195	103.	*	1	2225	270	36.
1	0345	46	21.	*	1	1000	121	96.	*	1	1615	196	101.	*	1	2230	271	36.
1	0350	47	21.	*	1	1005	122	100.	*	1	1620	197	100.	*	1	2235	272	36.
1	0355	48	21.	*	1	1010	123	104.	*	1	1625	198	99.	*	1	2240	273	36.
1	0400	49	22.	*	1	1015	124	108.	*	1	1630	199	98.	*	1	2245	274	36.
1	0405	50	22.	*	1	1020	125	113.	*	1	1635	200	97.	*	1	2250	275	36.
1	0410	51	22.	*	1	1025	126	120.	*	1	1640	201	96.	*	1	2255	276	36.
1	0415	52	23.	*	1	1030	127	129.	*	1	1645	202	95.	*	1	2300	277	36.
1	0420	53	24.	*	1	1035	128	138.	*	1	1650	203	94.	*	1	2305	278	36.
1	0425	54	25.	*	1	1040	129	147.	*	1	1655	204	93.	*	1	2310	279	36.
1	0430	55	25.	*	1	1045	130	159.	*	1	1700	205	91.	*	1	2315	280	36.
1	0435	56	26.	*	1	1050	131	174.	*	1	1705	206	89.	*	1	2320	281	36.
1	0440	57	26.	*	1	1055	132	192.	*	1	1710	207	87.	*	1	2325	282	36.
1	0445	58	26.	*	1	1100	133	214.	*	1	1715	208	86.	*	1	2330	283	36.
1	0450	59	27.	*	1	1105	134	241.	*	1	1720	209	84.	*	1	2335	284	36.
1	0455	60	27.	*	1	1110	135	269.	*	1	1725	210	82.	*	1	2340	285	36.
1	0500	61	27.	*	1	1115	136	302.	*	1	1730	211	80.	*	1	2345	286	36.
1	0505	62	28.	*	1	1120	137	340.	*	1	1735	212	79.	*	1	2350	287	36.
1	0510	63	28.	*	1	1125	138	378.	*	1	1740	213	78.	*	1	2355	288	36.
1	0515	64	28.	*	1	1130	139	422.	*	1	1745	214	76.	*	2	0000	289	36.
1	0520	65	28.	*	1	1135	140	493.	*	1	1750	215	75.	*	2	0005	290	36.
1	0525	66	28.	*	1	1140	141	593.	*	1	1755	216	74.	*	2	0010	291	35.
1	0530	67	28.	*	1	1145	142	759.	*	1	1800	217	73.	*	2	0015	292	33.
1	0535	68	28.	*	1	1150	143	1030.	*	1	1805	218	72.	*	2	0020	293	32.
1	0540	69	28.	*	1	1155	144	1437.	*	1	1810	219	72.	*	2	0025	294	30.
1	0545	70	28.	*	1	1200	145	2085.	*	1	1815	220	70.	*	2	0030	295	27.
1	0550	71	28.	*	1	1205	146	2856.	*	1	1820	221	69.	*	2	0035	296	24.
1	0555	72	28.	*	1	1210	147	3669.	*	1	1825	222	68.	*	2	0040	297	21.
1	0600	73	28.	*	1	1215	148	4465.	*	1	1830	223	66.	*	2	0045	298	18.
1	0605	74	28.	*	1	1220	149	5235.	*	1	1835	224	65.	*	2	0050	299	15.
1	0610	75	29.	*	1	1225	150	5579.	*	1	1840	225	63.	*	2	0055	300	13.

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
5579.	12.42	(CFS)	951.	270.	260.	260.
		(INCHES)	2.291	2.601	2.603	2.603
		(AC-FT)	472.	535.	536.	536.

CUMULATIVE AREA = 3.86 SQ MI

HYDROGRAPH AT CP15
TRANSPOSITION AREA 50.0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	28.	1		1230	151	5167.	1		1845	226	58.
1		0005	2	0.	1		0620	77	28.	1		1235	152	4561.	1		1850	227	57.
1		0010	3	0.	1		0625	78	28.	1		1240	153	3908.	1		1855	228	56.
1		0015	4	1.	1		0630	79	29.	1		1245	154	3177.	1		1900	229	54.
1		0020	5	2.	1		0635	80	30.	1		1250	155	2522.	1		1905	230	54.
1		0025	6	3.	1		0640	81	30.	1		1255	156	2002.	1		1910	231	53.
1		0030	7	4.	1		0645	82	31.	1		1300	157	1626.	1		1915	232	52.
1		0035	8	6.	1		0650	83	31.	1		1305	158	1317.	1		1920	233	52.
1		0040	9	7.	1		0655	84	32.	1		1310	159	1101.	1		1925	234	51.
1		0045	10	9.	1		0700	85	32.	1		1315	160	928.	1		1930	235	51.
1		0050	11	11.	1		0705	86	33.	1		1320	161	808.	1		1935	236	51.
1		0055	12	12.	1		0710	87	33.	1		1325	162	695.	1		1940	237	51.
1		0100	13	14.	1		0715	88	33.	1		1330	163	599.	1		1945	238	51.
1		0105	14	15.	1		0720	89	33.	1		1335	164	519.	1		1950	239	50.
1		0110	15	16.	1		0725	90	33.	1		1340	165	473.	1		1955	240	50.
1		0115	16	17.	1		0730	91	34.	1		1345	166	430.	1		2000	241	50.
1		0120	17	18.	1		0735	92	34.	1		1350	167	390.	1		2005	242	50.
1		0125	18	18.	1		0740	93	34.	1		1355	168	357.	1		2010	243	49.
1		0130	19	19.	1		0745	94	34.	1		1400	169	328.	1		2015	244	49.
1		0135	20	19.	1		0750	95	34.	1		1405	170	300.	1		2020	245	47.
1		0140	21	19.	1		0755	96	34.	1		1410	171	278.	1		2025	246	46.
1		0145	22	20.	1		0800	97	34.	1		1415	172	258.	1		2030	247	45.
1		0150	23	20.	1		0805	98	34.	1		1420	173	240.	1		2035	248	44.
1		0155	24	20.	1		0810	99	34.	1		1425	174	224.	1		2040	249	42.
1		0200	25	20.	1		0815	100	34.	1		1430	175	211.	1		2045	250	41.
1		0205	26	20.	1		0820	101	35.	1		1435	176	198.	1		2050	251	40.
1		0210	27	20.	1		0825	102	35.	1		1440	177	187.	1		2055	252	38.
1		0215	28	20.	1		0830	103	36.	1		1445	178	176.	1		2100	253	37.
1		0220	29	20.	1		0835	104	37.	1		1450	179	166.	1		2105	254	36.
1		0225	30	20.	1		0840	105	39.	1		1455	180	156.	1		2110	255	35.
1		0230	31	20.	1		0845	106	40.	1		1500	181	148.	1		2115	256	35.
1		0235	32	20.	1		0850	107	42.	1		1505	182	139.	1		2120	257	34.
1		0240	33	20.	1		0855	108	44.	1		1510	183	133.	1		2125	258	34.
1		0245	34	20.	1		0900	109	46.	1		1515	184	127.	1		2130	259	34.
1		0250	35	20.	1		0905	110	48.	1		1520	185	122.	1		2135	260	33.
1		0255	36	20.	1		0910	111	51.	1		1525	186	118.	1		2140	261	33.
1		0300	37	20.	1		0915	112	54.	1		1530	187	115.	1		2145	262	33.
1		0305	38	20.	1		0920	113	57.	1		1535	188	113.	1		2150	263	33.
1		0310	39	20.	1		0925	114	60.	1		1540	189	111.	1		2155	264	33.
1		0315	40	20.	1		0930	115	64.	1		1545	190	108.	1		2200	265	33.
1		0320	41	20.	1		0935	116	67.	1		1550	191	105.	1		2205	266	33.
1		0325	42	20.	1		0940	117	71.	1		1555	192	103.	1		2210	267	33.
1		0330	43	20.	1		0945	118	75.	1		1600	193	100.	1		2215	268	33.
1		0335	44	20.	1		0950	119	79.	1		1605	194	98.	1		2220	269	33.
1		0340	45	20.	1		0955	120	83.	1		1610	195	96.	1		2225	270	33.
1		0345	46	20.	1		1000	121	87.	1		1615	196	94.	1		2230	271	33.
1		0350	47	20.	1		1005	122	91.	1		1620	197	93.	1		2235	272	33.

1	0355	48	21.	*	1	1010	123	95.	*	1	1625	198	91.	*	1	2240	273	33.
1	0400	49	21.	*	1	1015	124	99.	*	1	1630	199	90.	*	1	2245	274	33.
1	0405	50	21.	*	1	1020	125	103.	*	1	1635	200	89.	*	1	2250	275	33.
1	0410	51	22.	*	1	1025	126	108.	*	1	1640	201	88.	*	1	2255	276	34.
1	0415	52	22.	*	1	1030	127	113.	*	1	1645	202	87.	*	1	2300	277	34.
1	0420	53	23.	*	1	1035	128	121.	*	1	1650	203	86.	*	1	2305	278	34.
1	0425	54	24.	*	1	1040	129	132.	*	1	1655	204	85.	*	1	2310	279	34.
1	0430	55	24.	*	1	1045	130	144.	*	1	1700	205	84.	*	1	2315	280	34.
1	0435	56	25.	*	1	1050	131	157.	*	1	1705	206	83.	*	1	2320	281	34.
1	0440	57	25.	*	1	1055	132	173.	*	1	1710	207	82.	*	1	2325	282	34.
1	0445	58	25.	*	1	1100	133	193.	*	1	1715	208	80.	*	1	2330	283	34.
1	0450	59	26.	*	1	1105	134	218.	*	1	1720	209	79.	*	1	2335	284	34.
1	0455	60	26.	*	1	1110	135	244.	*	1	1725	210	77.	*	1	2340	285	34.
1	0500	61	26.	*	1	1115	136	274.	*	1	1730	211	76.	*	1	2345	286	34.
1	0505	62	26.	*	1	1120	137	309.	*	1	1735	212	74.	*	1	2350	287	34.
1	0510	63	27.	*	1	1125	138	345.	*	1	1740	213	73.	*	1	2355	288	34.
1	0515	64	27.	*	1	1130	139	386.	*	1	1745	214	72.	*	2	0000	289	34.
1	0520	65	27.	*	1	1135	140	455.	*	1	1750	215	71.	*	2	0005	290	33.
1	0525	66	27.	*	1	1140	141	551.	*	1	1755	216	70.	*	2	0010	291	32.
1	0530	67	27.	*	1	1145	142	709.	*	1	1800	217	69.	*	2	0015	292	31.
1	0535	68	27.	*	1	1150	143	969.	*	1	1805	218	68.	*	2	0020	293	29.
1	0540	69	27.	*	1	1155	144	1355.	*	1	1810	219	67.	*	2	0025	294	27.
1	0545	70	27.	*	1	1200	145	1981.	*	1	1815	220	66.	*	2	0030	295	25.
1	0550	71	27.	*	1	1205	146	2720.	*	1	1820	221	65.	*	2	0035	296	22.
1	0555	72	27.	*	1	1210	147	3495.	*	1	1825	222	64.	*	2	0040	297	19.
1	0600	73	27.	*	1	1215	148	4257.	*	1	1830	223	63.	*	2	0045	298	17.
1	0605	74	27.	*	1	1220	149	5004.	*	1	1835	224	61.	*	2	0050	299	14.
1	0610	75	27.	*	1	1225	150	5337.	*	1	1840	225	60.	*	2	0055	300	12.
				*					*					*				

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)					
		(CFS)				
+ 5337.	12.42		903.	256.	247.	247.
		(INCHES)	2.174	2.465	2.466	2.466
		(AC-FT)	448.	507.	508.	508.

CUMULATIVE AREA = 3.86 SQ MI

HYDROGRAPH AT CP15
TRANSPOSITION AREA 100.0 SQ MI

DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	*	1		0615	76	27.	*	1		1230	151	5066.	*	1		1845	226	57.
1		0005	2	0.	*	1		0620	77	27.	*	1		1235	152	4471.	*	1		1850	227	55.
1		0010	3	0.	*	1		0625	78	28.	*	1		1240	153	3831.	*	1		1855	228	54.
1		0015	4	1.	*	1		0630	79	28.	*	1		1245	154	3114.	*	1		1900	229	53.
1		0020	5	2.	*	1		0635	80	29.	*	1		1250	155	2474.	*	1		1905	230	52.
1		0025	6	2.	*	1		0640	81	30.	*	1		1255	156	1962.	*	1		1910	231	51.
1		0030	7	4.	*	1		0645	82	30.	*	1		1300	157	1592.	*	1		1915	232	51.
1		0035	8	6.	*	1		0650	83	31.	*	1		1305	158	1290.	*	1		1920	233	50.
1		0040	9	7.	*	1		0655	84	31.	*	1		1310	159	1078.	*	1		1925	234	50.
1		0045	10	9.	*	1		0700	85	32.	*	1		1315	160	906.	*	1		1930	235	49.
1		0050	11	11.	*	1		0705	86	32.	*	1		1320	161	788.	*	1		1935	236	49.
1		0055	12	12.	*	1		0710	87	32.	*	1		1325	162	678.	*	1		1940	237	49.
1		0100	13	13.	*	1		0715	88	32.	*	1		1330	163	584.	*	1		1945	238	49.
1		0105	14	15.	*	1		0720	89	33.	*	1		1335	164	507.	*	1		1950	239	49.
1		0110	15	16.	*	1		0725	90	33.	*	1		1340	165	461.	*	1		1955	240	49.
1		0115	16	16.	*	1		0730	91	33.	*	1		1345	166	418.	*	1		2000	241	49.
1		0120	17	17.	*	1		0735	92	33.	*	1		1350	167	379.	*	1		2005	242	48.
1		0125	18	18.	*	1		0740	93	33.	*	1		1355	168	346.	*	1		2010	243	48.
1		0130	19	18.	*	1		0745	94	33.	*	1		1400	169	317.	*	1		2015	244	47.
1		0135	20	19.	*	1		0750	95	33.	*	1		1405	170	290.	*	1		2020	245	46.
1		0140	21	19.	*	1		0755	96	33.	*	1		1410	171	269.	*	1		2025	246	45.
1		0145	22	19.	*	1		0800	97	33.	*	1		1415	172	249.	*	1		2030	247	44.
1		0150	23	20.	*	1		0805	98	33.	*	1		1420	173	232.	*	1		2035	248	43.
1		0155	24	20.	*	1		0810	99	34.	*	1		1425	174	217.	*	1		2040	249	41.
1		0200	25	20.	*	1		0815	100	34.	*	1		1430	175	204.	*	1		2045	250	40.
1		0205	26	20.	*	1		0820	101	34.	*	1		1435	176	191.	*	1		2050	251	38.
1		0210	27	20.	*	1		0825	102	35.	*	1		1440	177	181.	*	1		2055	252	37.
1		0215	28	20.	*	1		0830	103	36.	*	1		1445	178	170.	*	1		2100	253	36.
1		0220	29	20.	*	1		0835	104	37.	*	1		1450	179	160.	*	1		2105	254	35.
1		0225	30	20.	*	1		0840	105	38.	*	1		1455	180	151.	*	1		2110	255	34.
1		0230	31	20.	*	1		0845	106	39.	*	1		1500	181	143.	*	1		2115	256	34.
1		0235	32	20.	*	1		0850	107	41.	*	1		1505	182	135.	*	1		2120	257	33.
1		0240	33	20.	*	1		0855	108	42.	*	1		1510	183	128.	*	1		2125	258	33.
1		0245	34	20.	*	1		0900	109	44.	*	1		1515	184	122.	*	1		2130	259	33.
1		0250	35	20.	*	1		0905	110	46.	*	1		1520	185	118.	*	1		2135	260	32.
1		0255	36	20.	*	1		0910	111	48.	*	1		1525	186	114.	*	1		2140	261	32.
1		0300	37	20.	*	1		0915	112	51.	*	1		1530	187	112.	*	1		2145	262	32.
1		0305	38	20.	*	1		0920	113	54.	*	1		1535	188	110.	*	1		2150	263	32.
1		0310	39	20.	*	1		0925	114	57.	*	1		1540	189	108.	*	1		2155	264	32.
1		0315	40	20.	*	1		0930	115	60.	*	1		1545	190	106.	*	1		2200	265	32.
1		0320	41	20.	*	1		0935	116	64.	*	1		1550	191	103.	*	1		2205	266	32.
1		0325	42	20.	*	1		0940	117	67.	*	1		1555	192	100.	*	1		2210	267	32.
1		0330	43	20.	*	1		0945	118	71.	*	1		1600	193	98.	*	1		2215	268	32.
1		0335	44	20.	*	1		0950	119	75.	*	1		1605	194	96.	*	1		2220	269	32.
1		0340	45	20.	*	1		0955	120	79.	*	1		1610	195	94.	*	1		2225	270	32.
1		0345	46	20.	*	1		1000	121	83.	*	1		1615	196	92.	*	1		2230	271	32.
1		0350	47	20.	*	1		1005	122	87.	*	1		1620	197	90.	*	1		2235	272	32.
1		0355	48	20.	*	1		1010	123	91.	*	1		1625	198	89.	*	1		2240	273	32.
1		0400	49	20.	*	1		1015	124	95.	*	1		1630	199	87.	*	1		2245	274	32.
1		0405	50	21.	*	1		1020	125	99.	*	1		1635	200	86.	*	1		2250	275	32.
1		0410	51	21.	*	1		1025	126	103.	*	1		1640	201	85.	*	1		2255	276	32.
1		0415	52	22.	*	1		1030	127	108.	*	1		1645	202	84.	*	1		2300	277	32.
1		0420	53	22.	*	1		1035	128	114.	*	1		1650	203	84.	*	1		2305	278	33.
1		0425	54	23.	*	1		1040	129	123.	*	1		1655	204	83.	*	1		2310	279	33.
1		0430	55	24.	*	1		1045	130	136.	*	1		1700	205	82.	*	1		2315	280	33.
1		0435	56	24.	*	1		1050	131	150.	*	1		1705	206	80.	*	1		2320	281	33.
1		0440	57	25.	*	1		1055	132	165.	*	1		1710	207	79.	*	1		2325	282	33.
1		0445	58	25.	*	1		1100	133	185.	*	1		1715	208	78.	*	1		2330	283	33.
1		0450	59	25.	*	1		1105	134	208.	*	1		1720	209	77.	*	1		2335	284	33.
1		0455	60	26.	*	1		1110	135	233.	*	1		1725	210	75.	*	1		2340	285	33.
1		0500	61	26.	*	1		1115	136	262.	*	1		1730	211	74.	*	1		2345	286	33.
1		0505	62	26.	*	1		1120	137	295.	*	1		1735	212	72.	*	1		2350	287	33.
1		0510	63	26.	*	1		1125	138	330.	*	1		1740	213	71.	*	1		2355	288	33.
1		0515	64	26.	*	1		1130	139	370.	*	1		1745	214	70.	*	2		0000	289	33.
1		0520	65	26.	*	1		1135	140	438.	*	1		1750	215	69.	*	2		0005	290	32.
1		0525	66	27.	*	1		1140	141	532.	*	1		1755	216	68.	*	2		0010	291	31.
1		0530	67	27.	*	1		1145	142	688.	*	1		1800	217	67.	*	2		0015	292	30.
1		0535	68	27.	*	1		1150	143	942.	*	1		1805	218	67.	*	2		0020	293	28.
1		0540	69	27.	*	1		1155	144	1319.	*	1		1810	219	66.	*	2		0025	294	27.
1		0545	70	27.	*	1		1200	145	1935.	*	1		1815	220	65.	*	2		0030	295	24.
1		0550	71	27.	*	1		1205	146	2660.	*	1		1820	221	63.	*	2		0035	296	21.
1		0555	72	27.	*	1		1210	147	3419.	*	1		1825	222	62.	*	2		0040	297	19.
1		0600	73	27.	*	1		1215	148	4168.	*	1		1830	223	61.	*	2		0045	298	16.
1		0605	74	27.	*	1		1220	149	4901.	*	1		1835	224	60.	*	2		0050	299	13.
1		0610	75	27.	*	1		1225	150	5232.	*	1		1840	225	58.	*	2		0055	300	11.
					*						*						*					

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
+ 5232.	12.42	(CFS)	882.	250.	241.	241.
		(INCHES)	2.123	2.405	2.407	2.407
		(AC-FT)	437.	495.	496.	496.

CUMULATIVE AREA = 3.86 SQ MI

HYDROGRAPH AT CP15
TRANSPOSITION AREA 200.0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	27.	1		1230	151	4979.	1		1845	226	55.
1		0005	2	0.	1		0620	77	27.	1		1235	152	4394.	1		1850	227	54.
1		0010	3	0.	1		0625	78	27.	1		1240	153	3764.	1		1855	228	53.
1		0015	4	1.	1		0630	79	28.	1		1245	154	3060.	1		1900	229	52.
1		0020	5	1.	1		0635	80	29.	1		1250	155	2432.	1		1905	230	51.
1		0025	6	2.	1		0640	81	29.	1		1255	156	1927.	1		1910	231	50.
1		0030	7	4.	1		0645	82	30.	1		1300	157	1563.	1		1915	232	49.
1		0035	8	6.	1		0650	83	30.	1		1305	158	1267.	1		1920	233	49.
1		0040	9	7.	1		0655	84	31.	1		1310	159	1057.	1		1925	234	49.
1		0045	10	9.	1		0700	85	31.	1		1315	160	888.	1		1930	235	48.
1		0050	11	10.	1		0705	86	31.	1		1320	161	771.	1		1935	236	48.
1		0055	12	12.	1		0710	87	32.	1		1325	162	662.	1		1940	237	48.
1		0100	13	13.	1		0715	88	32.	1		1330	163	571.	1		1945	238	48.
1		0105	14	14.	1		0720	89	32.	1		1335	164	496.	1		1950	239	48.
1		0110	15	15.	1		0725	90	32.	1		1340	165	450.	1		1955	240	48.
1		0115	16	16.	1		0730	91	32.	1		1345	166	408.	1		2000	241	47.
1		0120	17	17.	1		0735	92	33.	1		1350	167	369.	1		2005	242	47.
1		0125	18	18.	1		0740	93	33.	1		1355	168	337.	1		2010	243	47.
1		0130	19	18.	1		0745	94	33.	1		1400	169	308.	1		2015	244	46.
1		0135	20	18.	1		0750	95	33.	1		1405	170	282.	1		2020	245	45.
1		0140	21	19.	1		0755	96	33.	1		1410	171	261.	1		2025	246	44.
1		0145	22	19.	1		0800	97	33.	1		1415	172	242.	1		2030	247	43.
1		0150	23	19.	1		0805	98	33.	1		1420	173	225.	1		2035	248	41.
1		0155	24	19.	1		0810	99	33.	1		1425	174	211.	1		2040	249	40.
1		0200	25	19.	1		0815	100	33.	1		1430	175	198.	1		2045	250	39.
1		0205	26	20.	1		0820	101	34.	1		1435	176	186.	1		2050	251	37.
1		0210	27	20.	1		0825	102	34.	1		1440	177	175.	1		2055	252	36.
1		0215	28	20.	1		0830	103	35.	1		1445	178	165.	1		2100	253	35.
1		0220	29	20.	1		0835	104	36.	1		1450	179	155.	1		2105	254	34.
1		0225	30	20.	1		0840	105	37.	1		1455	180	147.	1		2110	255	33.
1		0230	31	20.	1		0845	106	38.	1		1500	181	138.	1		2115	256	33.
1		0235	32	20.	1		0850	107	40.	1		1505	182	130.	1		2120	257	32.
1		0240	33	20.	1		0855	108	41.	1		1510	183	124.	1		2125	258	32.
1		0245	34	20.	1		0900	109	43.	1		1515	184	119.	1		2130	259	32.
1		0250	35	20.	1		0905	110	44.	1		1520	185	114.	1		2135	260	31.
1		0255	36	20.	1		0910	111	46.	1		1525	186	111.	1		2140	261	31.
1		0300	37	20.	1		0915	112	48.	1		1530	187	109.	1		2145	262	31.
1		0305	38	20.	1		0920	113	51.	1		1535	188	107.	1		2150	263	31.
1		0310	39	20.	1		0925	114	54.	1		1540	189	105.	1		2155	264	31.
1		0315	40	20.	1		0930	115	57.	1		1545	190	103.	1		2200	265	31.
1		0320	41	20.	1		0935	116	60.	1		1550	191	100.	1		2205	266	31.
1		0325	42	20.	1		0940	117	64.	1		1555	192	98.	1		2210	267	31.
1		0330	43	20.	1		0945	118	67.	1		1600	193	96.	1		2215	268	31.
1		0335	44	20.	1		0950	119	71.	1		1605	194	94.	1		2220	269	31.
1		0340	45	20.	1		0955	120	75.	1		1610	195	92.	1		2225	270	31.
1		0345	46	20.	1		1000	121	79.	1		1615	196	90.	1		2230	271	31.
1		0350	47	20.	1		1005	122	83.	1		1620	197	88.	1		2235	272	31.
1		0355	48	20.	1		1010	123	87.	1		1625	198	87.	1		2240	273	31.
1		0400	49	20.	1		1015	124	91.	1		1630	199	85.	1		2245	274	31.
1		0405	50	20.	1		1020	125	95.	1		1635	200	84.	1		2250	275	31.
1		0410	51	21.	1		1025	126	100.	1		1640	201	83.	1		2255	276	32.
1		0415	52	21.	1		1030	127	104.	1		1645	202	83.	1		2300	277	32.
1		0420	53	22.	1		1035	128	110.	1		1650	203	82.	1		2305	278	32.
1		0425	54	23.	1		1040	129	117.	1		1655	204	81.	1		2310	279	32.
1		0430	55	23.	1		1045	130	129.	1		1700	205	80.	1		2315	280	32.
1		0435	56	24.	1		1050	131	144.	1		1705	206	79.	1		2320	281	32.
1		0440	57	24.	1		1055	132	159.	1		1710	207	77.	1		2325	282	32.
1		0445	58	25.	1		1100	133	178.	1		1715	208	76.	1		2330	283	32.
1		0450	59	25.	1		1105	134	200.	1		1720	209	75.	1		2335	284	32.
1		0455	60	25.	1		1110	135	224.	1		1725	210	73.	1		2340	285	32.
1		0500	61	25.	1		1115	136	252.	1		1730	211	72.	1		2345	286	32.
1		0505	62	26.	1		1120	137	284.	1		1735	212	71.	1		2350	287	32.
1		0510	63	26.	1		1125	138	318.	1		1740	213	70.	1		2355	288	32.
1		0515	64	26.	1		1130	139	357.	1		1745	214	69.	2		0000	289	32.
1		0520	65	26.	1		1135	140	423.	1		1750	215	68.	2		0005	290	31.
1		0525	66	26.	1		1140	141	516.	1		1755	216	67.	2		0010	291	30.
1		0530	67	26.	1		1145	142	669.	1		1800	217	66.	2		0015	292	29.
1		0535	68	26.	1		1150	143	919.	1		1805	218	65.	2		0020	293	28.
1		0540	69	26.	1		1155	144	1288.	1		1810	219	64.	2		0025	294	26.
1		0545	70	26.	1		1200	145	1896.	1		1815	220	63.	2		0030	295	23.
1		0550	71	26.	1		1205	146	2609.	1		1820	221	62.	2		0035	296	21.
1		0555	72	26.	1		1210	147	3354.	1		1825	222	61.	2		0040	297	18.
1		0600	73	26.	1		1215	148	4091.	1		1830	223	59.	2		0045	298	15.
1		0605	74	26.	1		1220	149	4812.	1		1835	224	58.	2		0050	299	13.
1		0610	75	26.	1		1225	150	5141.	1		1840	225	57.	2		0055	300	11.

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
+ 5141.	12.42	(CFS)	863.	244.	236.	236.
		(INCHES)	2.080	2.355	2.357	2.357
		(AC-FT)	428.	485.	485.	485.

CUMULATIVE AREA = 3.86 SQ MI

INTERPOLATED HYDROGRAPH AT CP15

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	29.	1		1230	151	5408.	1		1845	226	62.
1		0005	2	0.	1		0620	77	29.	1		1235	152	4770.	1		1850	227	61.
1		0010	3	0.	1		0625	78	30.	1		1240	153	4086.	1		1855	228	59.
1		0015	4	1.	1		0630	79	30.	1		1245	154	3325.	1		1900	229	58.
1		0020	5	2.	1		0635	80	31.	1		1250	155	2634.	1		1905	230	57.
1		0025	6	3.	1		0640	81	32.	1		1255	156	2095.	1		1910	231	56.
1		0030	7	4.	1		0645	82	32.	1		1300	157	1706.	1		1915	232	56.
1		0035	8	6.	1		0650	83	33.	1		1305	158	1381.	1		1920	233	55.
1		0040	9	8.	1		0655	84	33.	1		1310	159	1156.	1		1925	234	55.
1		0045	10	9.	1		0700	85	34.	1		1315	160	978.	1		1930	235	54.

1	0050	11	11.	*	1	0705	86	34.	*	1	1320	161	854.	*	1	1935	236	54.
1	0055	12	13.	*	1	0710	87	34.	*	1	1325	162	737.	*	1	1940	237	54.
1	0100	13	14.	*	1	0715	88	35.	*	1	1330	163	636.	*	1	1945	238	54.
1	0105	14	15.	*	1	0720	89	35.	*	1	1335	164	549.	*	1	1950	239	54.
1	0110	15	17.	*	1	0725	90	35.	*	1	1340	165	502.	*	1	1955	240	54.
1	0115	16	17.	*	1	0730	91	35.	*	1	1345	166	459.	*	1	2000	241	53.
1	0120	17	18.	*	1	0735	92	35.	*	1	1350	167	418.	*	1	2005	242	53.
1	0125	18	19.	*	1	0740	93	35.	*	1	1355	168	383.	*	1	2010	243	53.
1	0130	19	19.	*	1	0745	94	35.	*	1	1400	169	352.	*	1	2015	244	52.
1	0135	20	20.	*	1	0750	95	35.	*	1	1405	170	324.	*	1	2020	245	51.
1	0140	21	20.	*	1	0755	96	35.	*	1	1410	171	300.	*	1	2025	246	50.
1	0145	22	21.	*	1	0800	97	35.	*	1	1415	172	278.	*	1	2030	247	48.
1	0150	23	21.	*	1	0805	98	35.	*	1	1420	173	258.	*	1	2035	248	47.
1	0155	24	21.	*	1	0810	99	36.	*	1	1425	174	242.	*	1	2040	249	45.
1	0200	25	21.	*	1	0815	100	36.	*	1	1430	175	227.	*	1	2045	250	44.
1	0205	26	21.	*	1	0820	101	36.	*	1	1435	176	213.	*	1	2050	251	42.
1	0210	27	21.	*	1	0825	102	37.	*	1	1440	177	201.	*	1	2055	252	41.
1	0215	28	21.	*	1	0830	103	38.	*	1	1445	178	189.	*	1	2100	253	40.
1	0220	29	21.	*	1	0835	104	39.	*	1	1450	179	178.	*	1	2105	254	39.
1	0225	30	21.	*	1	0840	105	41.	*	1	1455	180	169.	*	1	2110	255	38.
1	0230	31	21.	*	1	0845	106	43.	*	1	1500	181	160.	*	1	2115	256	37.
1	0235	32	21.	*	1	0850	107	45.	*	1	1505	182	151.	*	1	2120	257	37.
1	0240	33	21.	*	1	0855	108	48.	*	1	1510	183	144.	*	1	2125	258	36.
1	0245	34	21.	*	1	0900	109	51.	*	1	1515	184	138.	*	1	2130	259	36.
1	0250	35	21.	*	1	0905	110	54.	*	1	1520	185	132.	*	1	2135	260	36.
1	0255	36	21.	*	1	0910	111	57.	*	1	1525	186	128.	*	1	2140	261	36.
1	0300	37	21.	*	1	0915	112	61.	*	1	1530	187	124.	*	1	2145	262	36.
1	0305	38	21.	*	1	0920	113	65.	*	1	1535	188	121.	*	1	2150	263	36.
1	0310	39	21.	*	1	0925	114	69.	*	1	1540	189	118.	*	1	2155	264	36.
1	0315	40	21.	*	1	0930	115	73.	*	1	1545	190	115.	*	1	2200	265	36.
1	0320	41	21.	*	1	0935	116	77.	*	1	1550	191	111.	*	1	2205	266	36.
1	0325	42	21.	*	1	0940	117	80.	*	1	1555	192	109.	*	1	2210	267	36.
1	0330	43	21.	*	1	0945	118	84.	*	1	1600	193	107.	*	1	2215	268	36.
1	0335	44	21.	*	1	0950	119	88.	*	1	1605	194	105.	*	1	2220	269	36.
1	0340	45	21.	*	1	0955	120	92.	*	1	1610	195	103.	*	1	2225	270	36.
1	0345	46	21.	*	1	1000	121	96.	*	1	1615	196	102.	*	1	2230	271	36.
1	0350	47	21.	*	1	1005	122	100.	*	1	1620	197	100.	*	1	2235	272	36.
1	0355	48	21.	*	1	1010	123	104.	*	1	1625	198	99.	*	1	2240	273	36.
1	0400	49	22.	*	1	1015	124	108.	*	1	1630	199	98.	*	1	2245	274	36.
1	0405	50	22.	*	1	1020	125	114.	*	1	1635	200	97.	*	1	2250	275	36.
1	0410	51	22.	*	1	1025	126	121.	*	1	1640	201	96.	*	1	2255	276	36.
1	0415	52	23.	*	1	1030	127	130.	*	1	1645	202	95.	*	1	2300	277	36.
1	0420	53	24.	*	1	1035	128	138.	*	1	1650	203	94.	*	1	2305	278	36.
1	0425	54	25.	*	1	1040	129	147.	*	1	1655	204	93.	*	1	2310	279	36.
1	0430	55	25.	*	1	1045	130	159.	*	1	1700	205	91.	*	1	2315	280	36.
1	0435	56	26.	*	1	1050	131	174.	*	1	1705	206	89.	*	1	2320	281	36.
1	0440	57	26.	*	1	1055	132	192.	*	1	1710	207	87.	*	1	2325	282	36.
1	0445	58	27.	*	1	1100	133	215.	*	1	1715	208	86.	*	1	2330	283	36.
1	0450	59	27.	*	1	1105	134	241.	*	1	1720	209	84.	*	1	2335	284	36.
1	0455	60	27.	*	1	1110	135	270.	*	1	1725	210	82.	*	1	2340	285	36.
1	0500	61	27.	*	1	1115	136	303.	*	1	1730	211	81.	*	1	2345	286	36.
1	0505	62	28.	*	1	1120	137	341.	*	1	1735	212	79.	*	1	2350	287	36.
1	0510	63	28.	*	1	1125	138	379.	*	1	1740	213	78.	*	1	2355	288	36.
1	0515	64	28.	*	1	1130	139	422.	*	1	1745	214	76.	*	2	0000	289	36.
1	0520	65	28.	*	1	1135	140	494.	*	1	1750	215	75.	*	2	0005	290	36.
1	0525	66	28.	*	1	1140	141	595.	*	1	1755	216	74.	*	2	0010	291	35.
1	0530	67	28.	*	1	1145	142	760.	*	1	1800	217	73.	*	2	0015	292	34.
1	0535	68	28.	*	1	1150	143	1032.	*	1	1805	218	73.	*	2	0020	293	32.
1	0540	69	28.	*	1	1155	144	1439.	*	1	1810	219	72.	*	2	0025	294	30.
1	0545	70	28.	*	1	1200	145	2088.	*	1	1815	220	71.	*	2	0030	295	27.
1	0550	71	28.	*	1	1205	146	2860.	*	1	1820	221	69.	*	2	0035	296	24.
1	0555	72	28.	*	1	1210	147	3673.	*	1	1825	222	68.	*	2	0040	297	21.
1	0600	73	28.	*	1	1215	148	4470.	*	1	1830	223	67.	*	2	0045	298	18.
1	0605	74	28.	*	1	1220	149	5241.	*	1	1835	224	65.	*	2	0050	299	15.
1	0610	75	29.	*	1	1225	150	5585.	*	1	1840	225	64.	*	2	0055	300	13.

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
5585.	12.42	(CFS)	952.	270.	261.	261.
		(INCHES)	2.294	2.605	2.606	2.606
		(AC-FT)	472.	536.	537.	537.

CUMULATIVE AREA = 3.86 SQ MI

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338 KK          *************
                *           *
                *   CPWT3   *
                *           *
                *************

339 KO          OUTPUT CONTROL VARIABLES
                      IPRNT          1  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE
                           ADD HYDROGRAPHS AT CPWT3

341 HC          HYDROGRAPH COMBINATION
                      ICOMP          2  NUMBER OF HYDROGRAPHS TO COMBINE
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HYDROGRAPH AT CPWT3
TRANSPOSITION AREA .0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	2.	1		1230	151	12457.	1		1845	226	252.
1		0005	2	0.	1		0620	77	2.	1		1235	152	15308.	1		1850	227	246.
1		0010	3	0.	1		0625	78	2.	1		1240	153	17503.	1		1855	228	240.
1		0015	4	0.	1		0630	79	2.	1		1245	154	18763.	1		1900	229	235.
1		0020	5	0.	1		0635	80	2.	1		1250	155	19090.	1		1905	230	229.
1		0025	6	0.	1		0640	81	2.	1		1255	156	18742.	1		1910	231	223.
1		0030	7	0.	1		0645	82	2.	1		1300	157	17933.	1		1915	232	216.
1		0035	8	0.	1		0650	83	2.	1		1305	158	16526.	1		1920	233	210.
1		0040	9	0.	1		0655	84	2.	1		1310	159	14827.	1		1925	234	204.
1		0045	10	0.	1		0700	85	2.	1		1315	160	13114.	1		1930	235	198.
1		0050	11	0.	1		0705	86	2.	1		1320	161	11491.	1		1935	236	191.
1		0055	12	0.	1		0710	87	2.	1		1325	162	9961.	1		1940	237	185.
1		0100	13	0.	1		0715	88	2.	1		1330	163	8632.	1		1945	238	179.
1		0105	14	0.	1		0720	89	3.	1		1335	164	7613.	1		1950	239	173.
1		0110	15	0.	1		0725	90	3.	1		1340	165	6794.	1		1955	240	167.
1		0115	16	0.	1		0730	91	3.	1		1345	166	5997.	1		2000	241	162.
1		0120	17	0.	1		0735	92	3.	1		1350	167	5277.	1		2005	242	157.
1		0125	18	0.	1		0740	93	3.	1		1355	168	4663.	1		2010	243	152.

1	0130	19	0.	*	1	0745	94	3.	*	1	1400	169	4154.	*	1	2015	244	148.
1	0135	20	0.	*	1	0750	95	3.	*	1	1405	170	3707.	*	1	2020	245	143.
1	0140	21	0.	*	1	0755	96	3.	*	1	1410	171	3304.	*	1	2025	246	140.
1	0145	22	0.	*	1	0800	97	3.	*	1	1415	172	2947.	*	1	2030	247	136.
1	0150	23	0.	*	1	0805	98	3.	*	1	1420	173	2647.	*	1	2035	248	132.
1	0155	24	0.	*	1	0810	99	4.	*	1	1425	174	2415.	*	1	2040	249	129.
1	0200	25	0.	*	1	0815	100	4.	*	1	1430	175	2207.	*	1	2045	250	126.
1	0205	26	0.	*	1	0820	101	4.	*	1	1435	176	2020.	*	1	2050	251	123.
1	0210	27	0.	*	1	0825	102	4.	*	1	1440	177	1852.	*	1	2055	252	120.
1	0215	28	0.	*	1	0830	103	4.	*	1	1445	178	1701.	*	1	2100	253	117.
1	0220	29	0.	*	1	0835	104	4.	*	1	1450	179	1564.	*	1	2105	254	114.
1	0225	30	0.	*	1	0840	105	4.	*	1	1455	180	1441.	*	1	2110	255	111.
1	0230	31	0.	*	1	0845	106	4.	*	1	1500	181	1331.	*	1	2115	256	108.
1	0235	32	0.	*	1	0850	107	4.	*	1	1505	182	1235.	*	1	2120	257	104.
1	0240	33	0.	*	1	0855	108	4.	*	1	1510	183	1156.	*	1	2125	258	100.
1	0245	34	0.	*	1	0900	109	4.	*	1	1515	184	1089.	*	1	2130	259	97.
1	0250	35	0.	*	1	0905	110	4.	*	1	1520	185	1028.	*	1	2135	260	93.
1	0255	36	0.	*	1	0910	111	5.	*	1	1525	186	972.	*	1	2140	261	89.
1	0300	37	0.	*	1	0915	112	5.	*	1	1530	187	916.	*	1	2145	262	84.
1	0305	38	0.	*	1	0920	113	5.	*	1	1535	188	862.	*	1	2150	263	80.
1	0310	39	0.	*	1	0925	114	6.	*	1	1540	189	811.	*	1	2155	264	76.
1	0315	40	0.	*	1	0930	115	8.	*	1	1545	190	764.	*	1	2200	265	72.
1	0320	41	0.	*	1	0935	116	9.	*	1	1550	191	720.	*	1	2205	266	68.
1	0325	42	0.	*	1	0940	117	11.	*	1	1555	192	682.	*	1	2210	267	64.
1	0330	43	0.	*	1	0945	118	13.	*	1	1600	193	647.	*	1	2215	268	61.
1	0335	44	0.	*	1	0950	119	15.	*	1	1605	194	616.	*	1	2220	269	57.
1	0340	45	0.	*	1	0955	120	23.	*	1	1610	195	587.	*	1	2225	270	54.
1	0345	46	0.	*	1	1000	121	33.	*	1	1615	196	562.	*	1	2230	271	51.
1	0350	47	0.	*	1	1005	122	43.	*	1	1620	197	538.	*	1	2235	272	48.
1	0355	48	0.	*	1	1010	123	55.	*	1	1625	198	516.	*	1	2240	273	46.
1	0400	49	0.	*	1	1015	124	68.	*	1	1630	199	495.	*	1	2245	274	44.
1	0405	50	0.	*	1	1020	125	82.	*	1	1635	200	476.	*	1	2250	275	42.
1	0410	51	0.	*	1	1025	126	97.	*	1	1640	201	458.	*	1	2255	276	40.
1	0415	52	0.	*	1	1030	127	113.	*	1	1645	202	442.	*	1	2300	277	39.
1	0420	53	0.	*	1	1035	128	129.	*	1	1650	203	427.	*	1	2305	278	37.
1	0425	54	0.	*	1	1040	129	146.	*	1	1655	204	413.	*	1	2310	279	36.
1	0430	55	0.	*	1	1045	130	165.	*	1	1700	205	401.	*	1	2315	280	35.
1	0435	56	0.	*	1	1050	131	183.	*	1	1705	206	389.	*	1	2320	281	34.
1	0440	57	0.	*	1	1055	132	203.	*	1	1710	207	379.	*	1	2325	282	33.
1	0445	58	0.	*	1	1100	133	224.	*	1	1715	208	370.	*	1	2330	283	32.
1	0450	59	0.	*	1	1105	134	247.	*	1	1720	209	361.	*	1	2335	284	31.
1	0455	60	0.	*	1	1110	135	275.	*	1	1725	210	352.	*	1	2340	285	30.
1	0500	61	0.	*	1	1115	136	306.	*	1	1730	211	345.	*	1	2345	286	30.
1	0505	62	1.	*	1	1120	137	343.	*	1	1735	212	337.	*	1	2350	287	29.
1	0510	63	1.	*	1	1125	138	398.	*	1	1740	213	330.	*	1	2355	288	29.
1	0515	64	1.	*	1	1130	139	455.	*	1	1745	214	323.	*	2	0000	289	29.
1	0520	65	1.	*	1	1135	140	518.	*	1	1750	215	316.	*	2	0005	290	28.
1	0525	66	1.	*	1	1140	141	592.	*	1	1755	216	309.	*	2	0010	291	28.
1	0530	67	1.	*	1	1145	142	698.	*	1	1800	217	304.	*	2	0015	292	28.
1	0535	68	1.	*	1	1150	143	897.	*	1	1805	218	298.	*	2	0020	293	28.
1	0540	69	1.	*	1	1155	144	1179.	*	1	1810	219	293.	*	2	0025	294	27.
1	0545	70	1.	*	1	1200	145	1635.	*	1	1815	220	287.	*	2	0030	295	27.
1	0550	71	1.	*	1	1205	146	2406.	*	1	1820	221	281.	*	2	0035	296	27.
1	0555	72	1.	*	1	1210	147	3588.	*	1	1825	222	276.	*	2	0040	297	27.
1	0600	73	2.	*	1	1215	148	5203.	*	1	1830	223	270.	*	2	0045	298	27.
1	0605	74	2.	*	1	1220	149	7240.	*	1	1835	224	264.	*	2	0050	299	26.
1	0610	75	2.	*	1	1225	150	9677.	*	1	1840	225	258.	*	2	0055	300	26.

PEAK FLOW (CFS)	TIME (HR)	MAXIMUM AVERAGE FLOW	6-HR	24-HR	72-HR	24.92-HR
+ 19090.	12.83	(CFS)	4288.	1125.	1083.	1083.
		(INCHES)	1.947	2.042	2.042	2.042
		(AC-FT)	2127.	2231.	2231.	2231.

CUMULATIVE AREA = 20.48 SQ MI

HYDROGRAPH AT CPWT3
TRANSPOSITION AREA 10.0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	2.	1		1230	151	12229.	1		1845	226	247.
1		0005	2	0.	1		0620	77	2.	1		1235	152	15048.	1		1850	227	241.
1		0010	3	0.	1		0625	78	2.	1		1240	153	17254.	1		1855	228	235.
1		0015	4	0.	1		0630	79	2.	1		1245	154	18505.	1		1900	229	229.
1		0020	5	0.	1		0635	80	2.	1		1250	155	18851.	1		1905	230	223.
1		0025	6	0.	1		0640	81	2.	1		1255	156	18530.	1		1910	231	217.
1		0030	7	0.	1		0645	82	2.	1		1300	157	17726.	1		1915	232	211.
1		0035	8	0.	1		0650	83	2.	1		1305	158	16335.	1		1920	233	205.
1		0040	9	0.	1		0655	84	2.	1		1310	159	14661.	1		1925	234	199.
1		0045	10	0.	1		0700	85	2.	1		1315	160	12974.	1		1930	235	192.
1		0050	11	0.	1		0705	86	2.	1		1320	161	11376.	1		1935	236	186.
1		0055	12	0.	1		0710	87	2.	1		1325	162	9859.	1		1940	237	180.
1		0100	13	0.	1		0715	88	2.	1		1330	163	8550.	1		1945	238	174.
1		0105	14	0.	1		0720	89	2.	1		1335	164	7557.	1		1950	239	169.
1		0110	15	0.	1		0725	90	3.	1		1340	165	6736.	1		1955	240	163.
1		0115	16	0.	1		0730	91	3.	1		1345	166	5943.	1		2000	241	158.
1		0120	17	0.	1		0735	92	3.	1		1350	167	5229.	1		2005	242	153.
1		0125	18	0.	1		0740	93	3.	1		1355	168	4622.	1		2010	243	148.
1		0130	19	0.	1		0745	94	3.	1		1400	169	4116.	1		2015	244	144.
1		0135	20	0.	1		0750	95	3.	1		1405	170	3673.	1		2020	245	139.
1		0140	21	0.	1		0755	96	3.	1		1410	171	3271.	1		2025	246	136.
1		0145	22	0.	1		0800	97	3.	1		1415	172	2918.	1		2030	247	132.
1		0150	23	0.	1		0805	98	3.	1		1420	173	2623.	1		2035	248	129.
1		0155	24	0.	1		0810	99	3.	1		1425	174	2392.	1		2040	249	125.
1		0200	25	0.	1		0815	100	4.	1		1430	175	2184.	1		2045	250	122.
1		0205	26	0.	1		0820	101	4.	1		1435	176	1998.	1		2050	251	119.
1		0210	27	0.	1		0825	102	4.	1		1440	177	1831.	1		2055	252	116.
1		0215	28	0.	1		0830	103	4.	1		1445	178	1681.	1		2100	253	113.
1		0220	29	0.	1		0835	104	4.	1		1450	179	1545.	1		2105	254	110.
1		0225	30	0.	1		0840	105	4.	1		1455	180	1423.	1		2110	255	107.
1		0230	31	0.	1		0845	106	4.	1		1500	181	1314.	1		2115	256	104.
1		0235	32	0.	1		0850	107	4.	1		1505	182	1220.	1		2120	257	100.
1		0240	33	0.	1		0855	108	4.	1		1510	183	1143.	1		2125	258	97.
1		0245	34	0.	1		0900	109	4.	1		1515	184	1076.	1		2130	259	93.
1		0250	35	0.	1		0905	110	4.	1		1520	185	1017.	1		2135	260	89.
1		0255	36	0.	1		0910	111	4.	1		1525	186	960.	1		2140	261	85.
1		0300	37	0.	1		0915	112	5.	1		1530	187	903.	1		2145	262	81.
1		0305	38	0.	1		0920	113	5.	1		1535	188	849.	1		2150	263	77.
1		0310	39	0.	1		0925	114	6.	1		1540	189	799.	1		2155	264	73.
1		0315	40	0.	1		0930	115	7.	1		1545	190	752.	1		2200	265	69.
1		0320	41	0.	1		0935	116	8.	1		1550	191	709.	1		2205	266	65.
1		0325	42	0.	1		0940	117	10.	1		1555	192	671.	1		2210	267	61.
1		0330	43	0.	1		0945	118	12.	1		1600	193	637.	1		2215	268	57.
1		0335	44	0.	1		0950	119	14.	1		1605	194	606.	1		2220	269	54.
1		0340	45	0.	1		0955	120	18.	1		1610	195	578.	1		2225	270	51.
1		0345	46	0.	1		1000	121	27.	1		1615	196	553.	1		2230	271	48.
1		0350	47	0.	1		1005	122	38.	1		1620	197	529.	1		2235	272	46.
1		0355	48	0.	1		1010	123	49.	1		1625	198	507.	1		2240	273	43.

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0400	49	0.	1		1015	124	62.	1		1630	199	486.	1		2245	274	41.
1		0405	50	0.	1		1020	125	75.	1		1635	200	467.	1		2250	275	39.
1		0410	51	0.	1		1025	126	89.	1		1640	201	450.	1		2255	276	38.
1		0415	52	0.	1		1030	127	104.	1		1645	202	434.	1		2300	277	36.
1		0420	53	0.	1		1035	128	120.	1		1650	203	419.	1		2305	278	35.
1		0425	54	0.	1		1040	129	137.	1		1655	204	406.	1		2310	279	34.
1		0430	55	0.	1		1045	130	155.	1		1700	205	393.	1		2315	280	32.
1		0435	56	0.	1		1050	131	173.	1		1705	206	382.	1		2320	281	31.
1		0440	57	0.	1		1055	132	193.	1		1710	207	372.	1		2325	282	30.
1		0445	58	0.	1		1100	133	213.	1		1715	208	362.	1		2330	283	30.
1		0450	59	0.	1		1105	134	235.	1		1720	209	353.	1		2335	284	29.
1		0455	60	0.	1		1110	135	261.	1		1725	210	345.	1		2340	285	28.
1		0500	61	0.	1		1115	136	291.	1		1730	211	337.	1		2345	286	28.
1		0505	62	0.	1		1120	137	325.	1		1735	212	330.	1		2350	287	27.
1		0510	63	1.	1		1125	138	375.	1		1740	213	323.	1		2355	288	27.
1		0515	64	1.	1		1130	139	433.	1		1745	214	316.	2		0000	289	27.
1		0520	65	1.	1		1135	140	498.	1		1750	215	309.	2		0005	290	26.
1		0525	66	1.	1		1140	141	571.	1		1755	216	304.	2		0010	291	26.
1		0530	67	1.	1		1145	142	675.	1		1800	217	298.	2		0015	292	26.
1		0535	68	1.	1		1150	143	864.	1		1805	218	293.	2		0020	293	26.
1		0540	69	1.	1		1155	144	1145.	1		1810	219	287.	2		0025	294	25.
1		0545	70	1.	1		1200	145	1591.	1		1815	220	282.	2		0030	295	25.
1		0550	71	1.	1		1205	146	2341.	1		1820	221	276.	2		0035	296	25.
1		0555	72	1.	1		1210	147	3507.	1		1825	222	270.	2		0040	297	25.
1		0600	73	1.	1		1215	148	5094.	1		1830	223	264.	2		0045	298	25.
1		0605	74	2.	1		1220	149	7094.	1		1835	224	258.	2		0050	299	24.
1		0610	75	2.	1		1225	150	9507.	1		1840	225	253.	2		0055	300	24.

PEAK FLOW (CFS)	TIME (HR)	MAXIMUM AVERAGE FLOW	6-HR	24-HR	72-HR	24.92-HR
18851.	12.83	(CFS)	4232.	1109.	1068.	1068.
		(INCHES)	1.921	2.013	2.013	2.013
		(AC-FT)	2098.	2199.	2199.	2199.

CUMULATIVE AREA = 20.48 SQ MI

HYDROGRAPH AT CPWT3
TRANSPOSITION AREA 50.0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	1.	1		1230	151	11326.	1		1845	226	223.
1		0005	2	0.	1		0620	77	1.	1		1235	152	13983.	1		1850	227	217.
1		0010	3	0.	1		0625	78	2.	1		1240	153	16256.	1		1855	228	212.
1		0015	4	0.	1		0630	79	2.	1		1245	154	17465.	1		1900	229	206.
1		0020	5	0.	1		0635	80	2.	1		1250	155	17898.	1		1905	230	200.
1		0025	6	0.	1		0640	81	2.	1		1255	156	17686.	1		1910	231	194.
1		0030	7	0.	1		0645	82	2.	1		1300	157	16898.	1		1915	232	189.
1		0035	8	0.	1		0650	83	2.	1		1305	158	15570.	1		1920	233	183.
1		0040	9	0.	1		0655	84	2.	1		1310	159	13996.	1		1925	234	177.
1		0045	10	0.	1		0700	85	2.	1		1315	160	12426.	1		1930	235	172.
1		0050	11	0.	1		0705	86	2.	1		1320	161	10898.	1		1935	236	166.
1		0055	12	0.	1		0710	87	2.	1		1325	162	9449.	1		1940	237	161.
1		0100	13	0.	1		0715	88	2.	1		1330	163	8231.	1		1945	238	156.
1		0105	14	0.	1		0720	89	2.	1		1335	164	7326.	1		1950	239	150.
1		0110	15	0.	1		0725	90	2.	1		1340	165	6505.	1		1955	240	145.
1		0115	16	0.	1		0730	91	2.	1		1345	166	5726.	1		2000	241	140.
1		0120	17	0.	1		0735	92	2.	1		1350	167	5034.	1		2005	242	136.
1		0125	18	0.	1		0740	93	2.	1		1355	168	4458.	1		2010	243	131.
1		0130	19	0.	1		0745	94	3.	1		1400	169	3965.	1		2015	244	127.
1		0135	20	0.	1		0750	95	3.	1		1405	170	3534.	1		2020	245	123.
1		0140	21	0.	1		0755	96	3.	1		1410	171	3139.	1		2025	246	120.
1		0145	22	0.	1		0800	97	3.	1		1415	172	2800.	1		2030	247	116.
1		0150	23	0.	1		0805	98	3.	1		1420	173	2527.	1		2035	248	113.
1		0155	24	0.	1		0810	99	3.	1		1425	174	2300.	1		2040	249	110.
1		0200	25	0.	1		0815	100	3.	1		1430	175	2094.	1		2045	250	107.
1		0205	26	0.	1		0820	101	3.	1		1435	176	1910.	1		2050	251	104.
1		0210	27	0.	1		0825	102	3.	1		1440	177	1746.	1		2055	252	101.
1		0215	28	0.	1		0830	103	3.	1		1445	178	1599.	1		2100	253	98.
1		0220	29	0.	1		0835	104	4.	1		1450	179	1468.	1		2105	254	95.
1		0225	30	0.	1		0840	105	4.	1		1455	180	1351.	1		2110	255	92.
1		0230	31	0.	1		0845	106	4.	1		1500	181	1249.	1		2115	256	89.
1		0235	32	0.	1		0850	107	4.	1		1505	182	1161.	1		2120	257	86.
1		0240	33	0.	1		0855	108	4.	1		1510	183	1091.	1		2125	258	82.
1		0245	34	0.	1		0900	109	4.	1		1515	184	1030.	1		2130	259	79.
1		0250	35	0.	1		0905	110	4.	1		1520	185	970.	1		2135	260	75.
1		0255	36	0.	1		0910	111	4.	1		1525	186	910.	1		2140	261	71.
1		0300	37	0.	1		0915	112	4.	1		1530	187	853.	1		2145	262	67.
1		0305	38	0.	1		0920	113	4.	1		1535	188	800.	1		2150	263	63.
1		0310	39	0.	1		0925	114	4.	1		1540	189	751.	1		2155	264	59.
1		0315	40	0.	1		0930	115	5.	1		1545	190	706.	1		2200	265	55.
1		0320	41	0.	1		0935	116	6.	1		1550	191	667.	1		2205	266	52.
1		0325	42	0.	1		0940	117	7.	1		1555	192	631.	1		2210	267	49.
1		0330	43	0.	1		0945	118	8.	1		1600	193	599.	1		2215	268	46.
1		0335	44	0.	1		0950	119	10.	1		1605	194	569.	1		2220	269	43.
1		0340	45	0.	1		0955	120	12.	1		1610	195	542.	1		2225	270	41.
1		0345	46	0.	1		1000	121	14.	1		1615	196	517.	1		2230	271	38.
1		0350	47	0.	1		1005	122	18.	1		1620	197	494.	1		2235	272	36.
1		0355	48	0.	1		1010	123	26.	1		1625	198	472.	1		2240	273	34.
1		0400	49	0.	1		1015	124	37.	1		1630	199	452.	1		2245	274	32.
1		0405	50	0.	1		1020	125	48.	1		1635	200	434.	1		2250	275	31.
1		0410	51	0.	1		1025	126	60.	1		1640	201	418.	1		2255	276	29.
1		0415	52	0.	1		1030	127	73.	1		1645	202	403.	1		2300	277	28.
1		0420	53	0.	1		1035	128	87.	1		1650	203	389.	1		2305	278	26.
1		0425	54	0.	1		1040	129	102.	1		1655	204	376.	1		2310	279	25.
1		0430	55	0.	1		1045	130	118.	1		1700	205	364.	1		2315	280	24.
1		0435	56	0.	1		1050	131	135.	1		1705	206	353.	1		2320	281	23.
1		0440	57	0.	1		1055	132	152.	1		1710	207	343.	1		2325	282	22.
1		0445	58	0.	1		1100	133	171.	1		1715	208	333.	1		2330	283	21.
1		0450	59	0.	1		1105	134	191.	1		1720	209	324.	1		2335	284	21.
1		0455	60	0.	1		1110	135	212.	1		1725	210	316.	1		2340	285	20.
1		0500	61	0.	1		1115	136	236.	1		1730	211	308.	1		2345	286	20.
1		0505	62	0.	1		1120	137	265.	1		1735	212	302.	1		2350	287	19.
1		0510	63	0.	1		1125	138	299.	1		1740	213	297.	1		2355	288	19.
1		0515	64	0.	1		1130	139	341.	1		1745	214	291.	2		0000	289	18.
1		0520	65	0.	1		1135	140	407.	1		1750	215	286.	2		0005	290	18.
1		0525	66	0.	1		1140	141	483.	1		1755	216	281.	2		0010	291	18.
1		0530	67	1.	1		1145	142	578.	1		1800	217	275.	2		0015	292	18.
1		0535	68	1.	1		1150	143	730.	1		1805	218	270.	2		0020	293	17.
1		0540	69	1.	1		1155	144	1008.	1		1810	219	264.	2		0025	294	17.
1		0545	70	1.	1		1200	145	1416.	1		1815	220	258.	2		0030	295	17.
1		0550	71	1.	1		1205	146	2088.	1		1820	221	252.	2		0035	296	17.
1		0555	72	1.	1		1210	147	3174.	1		1825	222	247.	2		0040	297	17.
1		0600	73	1.	1		1215	148	4650.	1		1830	223	241.	2		0045	298	17.
1		0605	74	1.	1		1220	149	6508.	1		1835	224	235.	2		0050	299	16.
1		0610	75	1.	1		1225	150	8828.	1		1840	225	229.	2		0055	300	16.

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
+ 17898.	12.83	(CFS)	4004.	1045.	1006.	1006.
		(INCHES)	1.818	1.897	1.897	1.897
		(AC-FT)	1985.	2072.	2072.	2072.

CUMULATIVE AREA = 20.48 SQ MI

HYDROGRAPH AT CPWT3
TRANSPOSITION AREA 100.0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	1.	1		1230	151	10950.	1		1845	226	212.
1		0005	2	0.	1		0620	77	1.	1		1235	152	13508.	1		1850	227	207.
1		0010	3	0.	1		0625	78	1.	1		1240	153	15814.	1		1855	228	201.
1		0015	4	0.	1		0630	79	1.	1		1245	154	17007.	1		1900	229	196.
1		0020	5	0.	1		0635	80	2.	1		1250	155	17485.	1		1905	230	190.
1		0025	6	0.	1		0640	81	2.	1		1255	156	17319.	1		1910	231	185.
1		0030	7	0.	1		0645	82	2.	1		1300	157	16533.	1		1915	232	179.
1		0035	8	0.	1		0650	83	2.	1		1305	158	15235.	1		1920	233	174.
1		0040	9	0.	1		0655	84	2.	1		1310	159	13715.	1		1925	234	168.
1		0045	10	0.	1		0700	85	2.	1		1315	160	12192.	1		1930	235	163.
1		0050	11	0.	1		0705	86	2.	1		1320	161	10681.	1		1935	236	158.
1		0055	12	0.	1		0710	87	2.	1		1325	162	9268.	1		1940	237	153.
1		0100	13	0.	1		0715	88	2.	1		1330	163	8092.	1		1945	238	147.
1		0105	14	0.	1		0720	89	2.	1		1335	164	7226.	1		1950	239	142.
1		0110	15	0.	1		0725	90	2.	1		1340	165	6405.	1		1955	240	138.
1		0115	16	0.	1		0730	91	2.	1		1345	166	5633.	1		2000	241	133.
1		0120	17	0.	1		0735	92	2.	1		1350	167	4950.	1		2005	242	128.
1		0125	18	0.	1		0740	93	2.	1		1355	168	4387.	1		2010	243	124.
1		0130	19	0.	1		0745	94	2.	1		1400	169	3901.	1		2015	244	120.
1		0135	20	0.	1		0750	95	2.	1		1405	170	3472.	1		2020	245	116.
1		0140	21	0.	1		0755	96	3.	1		1410	171	3083.	1		2025	246	113.
1		0145	22	0.	1		0800	97	3.	1		1415	172	2750.	1		2030	247	109.
1		0150	23	0.	1		0805	98	3.	1		1420	173	2485.	1		2035	248	106.
1		0155	24	0.	1		0810	99	3.	1		1425	174	2258.	1		2040	249	103.
1		0200	25	0.	1		0815	100	3.	1		1430	175	2054.	1		2045	250	100.
1		0205	26	0.	1		0820	101	3.	1		1435	176	1871.	1		2050	251	97.
1		0210	27	0.	1		0825	102	3.	1		1440	177	1709.	1		2055	252	94.
1		0215	28	0.	1		0830	103	3.	1		1445	178	1563.	1		2100	253	92.
1		0220	29	0.	1		0835	104	3.	1		1450	179	1435.	1		2105	254	89.
1		0225	30	0.	1		0840	105	3.	1		1455	180	1320.	1		2110	255	86.
1		0230	31	0.	1		0845	106	3.	1		1500	181	1220.	1		2115	256	83.
1		0235	32	0.	1		0850	107	4.	1		1505	182	1137.	1		2120	257	79.
1		0240	33	0.	1		0855	108	4.	1		1510	183	1070.	1		2125	258	76.
1		0245	34	0.	1		0900	109	4.	1		1515	184	1010.	1		2130	259	72.
1		0250	35	0.	1		0905	110	4.	1		1520	185	948.	1		2135	260	69.
1		0255	36	0.	1		0910	111	4.	1		1525	186	888.	1		2140	261	65.
1		0300	37	0.	1		0915	112	4.	1		1530	187	831.	1		2145	262	61.
1		0305	38	0.	1		0920	113	4.	1		1535	188	778.	1		2150	263	57.
1		0310	39	0.	1		0925	114	4.	1		1540	189	730.	1		2155	264	54.
1		0315	40	0.	1		0930	115	4.	1		1545	190	687.	1		2200	265	50.
1		0320	41	0.	1		0935	116	5.	1		1550	191	649.	1		2205	266	47.
1		0325	42	0.	1		0940	117	6.	1		1555	192	614.	1		2210	267	44.
1		0330	43	0.	1		0945	118	7.	1		1600	193	582.	1		2215	268	42.
1		0335	44	0.	1		0950	119	8.	1		1605	194	553.	1		2220	269	39.
1		0340	45	0.	1		0955	120	10.	1		1610	195	526.	1		2225	270	37.
1		0345	46	0.	1		1000	121	12.	1		1615	196	501.	1		2230	271	35.
1		0350	47	0.	1		1005	122	14.	1		1620	197	478.	1		2235	272	33.
1		0355	48	0.	1		1010	123	18.	1		1625	198	457.	1		2240	273	31.
1		0400	49	0.	1		1015	124	27.	1		1630	199	438.	1		2245	274	29.
1		0405	50	0.	1		1020	125	37.	1		1635	200	421.	1		2250	275	27.
1		0410	51	0.	1		1025	126	48.	1		1640	201	405.	1		2255	276	26.
1		0415	52	0.	1		1030	127	60.	1		1645	202	390.	1		2300	277	24.
1		0420	53	0.	1		1035	128	74.	1		1650	203	377.	1		2305	278	23.
1		0425	54	0.	1		1040	129	88.	1		1655	204	364.	1		2310	279	22.
1		0430	55	0.	1		1045	130	102.	1		1700	205	352.	1		2315	280	21.
1		0435	56	0.	1		1050	131	118.	1		1705	206	341.	1		2320	281	20.
1		0440	57	0.	1		1055	132	135.	1		1710	207	331.	1		2325	282	19.
1		0445	58	0.	1		1100	133	153.	1		1715	208	321.	1		2330	283	18.
1		0450	59	0.	1		1105	134	172.	1		1720	209	312.	1		2335	284	17.
1		0455	60	0.	1		1110	135	192.	1		1725	210	305.	1		2340	285	17.
1		0500	61	0.	1		1115	136	214.	1		1730	211	299.	1		2345	286	16.
1		0505	62	0.	1		1120	137	240.	1		1735	212	293.	1		2350	287	16.
1		0510	63	0.	1		1125	138	272.	1		1740	213	287.	1		2355	288	15.
1		0515	64	0.	1		1130	139	310.	1		1745	214	282.	2		0000	289	15.
1		0520	65	0.	1		1135	140	361.	1		1750	215	276.	2		0005	290	14.
1		0525	66	0.	1		1140	141	440.	1		1755	216	271.	2		0010	291	14.
1		0530	67	0.	1		1145	142	535.	1		1800	217	265.	2		0015	292	14.
1		0535	68	1.	1		1150	143	677.	1		1805	218	259.	2		0020	293	14.
1		0540	69	1.	1		1155	144	940.	1		1810	219	254.	2		0025	294	14.
1		0545	70	1.	1		1200	145	1339.	1		1815	220	248.	2		0030	295	13.
1		0550	71	1.	1		1205	146	1976.	1		1820	221	242.	2		0035	296	13.
1		0555	72	1.	1		1210	147	3023.	1		1825	222	236.	2		0040	297	13.
1		0600	73	1.	1		1215	148	4453.	1		1830	223	230.	2		0045	298	13.
1		0605	74	1.	1		1220	149	6258.	1		1835	224	224.	2		0050	299	13.
1		0610	75	1.	1		1225	150	8521.	1		1840	225	218.	2		0055	300	13.

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
+ 17485.	12.83	(CFS)	3905.	1017.	979.	979.
		(INCHES)	1.773	1.846	1.846	1.846
		(AC-FT)	1936.	2017.	2017.	2017.

CUMULATIVE AREA = 20.48 SQ MI

HYDROGRAPH AT CPWT3
TRANSPOSITION AREA 200.0 SQ MI

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	1.	1		1230	151	10625.	1		1845	226	204.
1		0005	2	0.	1		0620	77	1.	1		1235	152	13125.	1		1850	227	198.
1		0010	3	0.	1		0625	78	1.	1		1240	153	15416.	1		1855	228	192.
1		0015	4	0.	1		0630	79	1.	1		1245	154	16623.	1		1900	229	187.
1		0020	5	0.	1		0635	80	1.	1		1250	155	17127.	1		1905	230	182.
1		0025	6	0.	1		0640	81	1.	1		1255	156	16998.	1		1910	231	176.
1		0030	7	0.	1		0645	82	1.	1		1300	157	16214.	1		1915	232	171.
1		0035	8	0.	1		0650	83	2.	1		1305	158	14949.	1		1920	233	166.
1		0040	9	0.	1		0655	84	2.	1		1310	159	13476.	1		1925	234	161.
1		0045	10	0.	1		0700	85	2.	1		1315	160	11993.	1		1930	235	156.

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0050	11	0.	1		0705	86	2.	1		1320	161	10500.	1		1935	236	151.
1		0055	12	0.	1		0710	87	2.	1		1325	162	9114.	1		1940	237	146.
1		0100	13	0.	1		0715	88	2.	1		1330	163	7974.	1		1945	238	141.
1		0105	14	0.	1		0720	89	2.	1		1335	164	7140.	1		1950	239	136.
1		0110	15	0.	1		0725	90	2.	1		1340	165	6319.	1		1955	240	131.
1		0115	16	0.	1		0730	91	2.	1		1345	166	5555.	1		2000	241	126.
1		0120	17	0.	1		0735	92	2.	1		1350	167	4880.	1		2005	242	122.
1		0125	18	0.	1		0740	93	2.	1		1355	168	4326.	1		2010	243	118.
1		0130	19	0.	1		0745	94	2.	1		1400	169	3846.	1		2015	244	114.
1		0135	20	0.	1		0750	95	2.	1		1405	170	3419.	1		2020	245	110.
1		0140	21	0.	1		0755	96	2.	1		1410	171	3035.	1		2025	246	106.
1		0145	22	0.	1		0800	97	3.	1		1415	172	2707.	1		2030	247	103.
1		0150	23	0.	1		0805	98	3.	1		1420	173	2449.	1		2035	248	100.
1		0155	24	0.	1		0810	99	3.	1		1425	174	2223.	1		2040	249	97.
1		0200	25	0.	1		0815	100	3.	1		1430	175	2019.	1		2045	250	94.
1		0205	26	0.	1		0820	101	3.	1		1435	176	1838.	1		2050	251	91.
1		0210	27	0.	1		0825	102	3.	1		1440	177	1677.	1		2055	252	89.
1		0215	28	0.	1		0830	103	3.	1		1445	178	1533.	1		2100	253	86.
1		0220	29	0.	1		0835	104	3.	1		1450	179	1406.	1		2105	254	83.
1		0225	30	0.	1		0840	105	3.	1		1455	180	1294.	1		2110	255	80.
1		0230	31	0.	1		0845	106	3.	1		1500	181	1196.	1		2115	256	77.
1		0235	32	0.	1		0850	107	3.	1		1505	182	1118.	1		2120	257	74.
1		0240	33	0.	1		0855	108	3.	1		1510	183	1053.	1		2125	258	71.
1		0245	34	0.	1		0900	109	3.	1		1515	184	991.	1		2130	259	67.
1		0250	35	0.	1		0905	110	4.	1		1520	185	928.	1		2135	260	63.
1		0255	36	0.	1		0910	111	4.	1		1525	186	868.	1		2140	261	60.
1		0300	37	0.	1		0915	112	4.	1		1530	187	812.	1		2145	262	56.
1		0305	38	0.	1		0920	113	4.	1		1535	188	760.	1		2150	263	53.
1		0310	39	0.	1		0925	114	4.	1		1540	189	713.	1		2155	264	49.
1		0315	40	0.	1		0930	115	4.	1		1545	190	671.	1		2200	265	46.
1		0320	41	0.	1		0935	116	4.	1		1550	191	633.	1		2205	266	44.
1		0325	42	0.	1		0940	117	5.	1		1555	192	599.	1		2210	267	41.
1		0330	43	0.	1		0945	118	6.	1		1600	193	567.	1		2215	268	38.
1		0335	44	0.	1		0950	119	7.	1		1605	194	539.	1		2220	269	36.
1		0340	45	0.	1		0955	120	8.	1		1610	195	512.	1		2225	270	34.
1		0345	46	0.	1		1000	121	10.	1		1615	196	487.	1		2230	271	32.
1		0350	47	0.	1		1005	122	12.	1		1620	197	465.	1		2235	272	30.
1		0355	48	0.	1		1010	123	14.	1		1625	198	444.	1		2240	273	28.
1		0400	49	0.	1		1015	124	18.	1		1630	199	426.	1		2245	274	26.
1		0405	50	0.	1		1020	125	27.	1		1635	200	409.	1		2250	275	24.
1		0410	51	0.	1		1025	126	38.	1		1640	201	393.	1		2255	276	23.
1		0415	52	0.	1		1030	127	49.	1		1645	202	379.	1		2300	277	21.
1		0420	53	0.	1		1035	128	61.	1		1650	203	366.	1		2305	278	20.
1		0425	54	0.	1		1040	129	75.	1		1655	204	353.	1		2310	279	19.
1		0430	55	0.	1		1045	130	89.	1		1700	205	342.	1		2315	280	18.
1		0435	56	0.	1		1050	131	104.	1		1705	206	331.	1		2320	281	17.
1		0440	57	0.	1		1055	132	120.	1		1710	207	320.	1		2325	282	16.
1		0445	58	0.	1		1100	133	137.	1		1715	208	311.	1		2330	283	15.
1		0450	59	0.	1		1105	134	155.	1		1720	209	303.	1		2335	284	14.
1		0455	60	0.	1		1110	135	175.	1		1725	210	297.	1		2340	285	14.
1		0500	61	0.	1		1115	136	197.	1		1730	211	291.	1		2345	286	13.
1		0505	62	0.	1		1120	137	221.	1		1735	212	285.	1		2350	287	13.
1		0510	63	0.	1		1125	138	249.	1		1740	213	279.	1		2355	288	12.
1		0515	64	0.	1		1130	139	285.	1		1745	214	274.	2		0000	289	12.
1		0520	65	0.	1		1135	140	332.	1		1750	215	268.	2		0005	290	12.
1		0525	66	0.	1		1140	141	399.	1		1755	216	262.	2		0010	291	11.
1		0530	67	0.	1		1145	142	496.	1		1800	217	257.	2		0015	292	11.
1		0535	68	0.	1		1150	143	634.	1		1805	218	251.	2		0020	293	11.
1		0540	69	1.	1		1155	144	879.	1		1810	219	245.	2		0025	294	11.
1		0545	70	1.	1		1200	145	1274.	1		1815	220	239.	2		0030	295	11.
1		0550	71	1.	1		1205	146	1883.	1		1820	221	233.	2		0035	296	10.
1		0555	72	1.	1		1210	147	2898.	1		1825	222	227.	2		0040	297	10.
1		0600	73	1.	1		1215	148	4283.	1		1830	223	221.	2		0045	298	10.
1		0605	74	1.	1		1220	149	6045.	1		1835	224	215.	2		0050	299	10.
1		0610	75	1.	1		1225	150	8258.	1		1840	225	209.	2		0055	300	10.

PEAK FLOW (CFS)	TIME (HR)	MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
		(CFS)			
17127.	12.83	3820.	993.	957.	957.
		(INCHES) 1.734	1.803	1.803	1.803
		(AC-FT) 1894.	1970.	1970.	1970.

CUMULATIVE AREA = 20.48 SQ MI

INTERPOLATED HYDROGRAPH AT CPWT3

DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	0.	1		0615	76	2.	1		1230	151	11827.	1		1845	226	236.
1		0005	2	0.	1		0620	77	2.	1		1235	152	14574.	1		1850	227	230.
1		0010	3	0.	1		0625	78	2.	1		1240	153	16809.	1		1855	228	224.
1		0015	4	0.	1		0630	79	2.	1		1245	154	18042.	1		1900	229	219.
1		0020	5	0.	1		0635	80	2.	1		1250	155	18426.	1		1905	230	213.
1		0025	6	0.	1		0640	81	2.	1		1255	156	18154.	1		1910	231	207.
1		0030	7	0.	1		0645	82	2.	1		1300	157	17357.	1		1915	232	201.
1		0035	8	0.	1		0650	83	2.	1		1305	158	15994.	1		1920	233	195.
1		0040	9	0.	1		0655	84	2.	1		1310	159	14365.	1		1925	234	189.
1		0045	10	0.	1		0700	85	2.	1		1315	160	12730.	1		1930	235	183.
1		0050	11	0.	1		0705	86	2.	1		1320	161	11163.	1		1935	236	177.
1		0055	12	0.	1		0710	87	2.	1		1325	162	9676.	1		1940	237	172.
1		0100	13	0.	1		0715	88	2.	1		1330	163	8408.	1		1945	238	166.
1		0105	14	0.	1		0720	89	2.	1		1335	164	7454.	1		1950	239	160.
1		0110	15	0.	1		0725	90	2.	1		1340	165	6633.	1		1955	240	155.
1		0115	16	0.	1		0730	91	2.	1		1345	166	5846.	1		2000	241	150.
1		0120	17	0.	1		0735	92	3.	1		1350	167	5142.	1		2005	242	145.
1		0125	18	0.	1		0740	93	3.	1		1355	168	4549.	1		2010	243	141.
1		0130	19	0.	1		0745	94	3.	1		1400	169	4048.	1		2015	244	136.
1		0135	20	0.	1		0750	95	3.	1		1405	170	3611.	1		2020	245	132.
1		0140	21	0.	1		0755	96	3.	1		1410	171	3213.	1		2025	246	128.
1		0145	22	0.	1		0800	97	3.	1		1415	172	2865.	1		2030	247	125.
1		0150	23	0.	1		0805	98	3.	1		1420	173	2580.	1		2035	248	122.
1		0155	24	0.	1		0810	99	3.	1		1425	174	2351.	1		2040	249	118.
1		0200	25	0.	1		0815	100	3.	1		1430	175	2144.	1		2045	250	115.
1		0205	26	0.	1		0820	101	3.	1		1435	176	1959.	1		2050	251	112.
1		0210	27	0.	1		0825	102	4.	1		1440	177	1793.	1		2055	252	109.
1		0215	28	0.	1		0830	103	4.	1		1445	178	1644.	1		2100	253	107.
1		0220	29	0.	1		0835	104	4.	1		1450	179	1511.	1		2105	254	104.
1		0225	30	0.	1		0840	105	4.	1		1455	180	1391.	1		2110	255	100.
1		0230	31	0.	1		0845	106	4.	1		1500	181	1285.	1		2115	256	97.
1		0235	32	0.	1		0850	107	4.	1		1505	182	1194.	1		2120	257	94.
1		0240	33	0.	1		0855	108	4.	1		1510	183	1120.	1		2125	258	90.
1		0245	34	0.	1		0900	109	4.	1		1515	184	1056.	1		2130	259	86.
1		0250	35	0.	1		0905	110	4.	1		1520	185	996.	1		2135	260	83.
1		0255	36	0.	1		0910	111	4.	1		1525	186	938.	1		2140	261	79.
1		0300	37	0.	1		0915	112	4.	1		1530	187	881.	1		2145	262	75.
1		0305	38	0.	1		0920	113	5.	1		1535	188	827.	1		2150	263	71.
1		0310	39	0.	1		0925	114	5.	1		1540	189	777.	1		2155	264	67.
1		0315	40	0.	1		0930	115	6.	1		1545	190	732.	1		2200	265	63.
1		0320	41	0.	1		0935	116	7.	1		1550	191	690.	1		2205	266	59.

1	0325	42	0.	*	1	0940	117	8.	*	1	1555	192	653.	*	1	2210	267	55.	
1	0330	43	0.	*	1	0945	118	10.	*	1	1600	193	620.	*	1	2215	268	52.	
1	0335	44	0.	*	1	0950	119	12.	*	1	1605	194	590.	*	1	2220	269	49.	
1	0340	45	0.	*	1	0955	120	15.	*	1	1610	195	562.	*	1	2225	270	46.	
1	0345	46	0.	*	1	1000	121	21.	*	1	1615	196	537.	*	1	2230	271	44.	
1	0350	47	0.	*	1	1005	122	29.	*	1	1620	197	513.	*	1	2235	272	41.	
1	0355	48	0.	*	1	1010	123	39.	*	1	1625	198	491.	*	1	2240	273	39.	
1	0400	49	0.	*	1	1015	124	50.	*	1	1630	199	471.	*	1	2245	274	37.	
1	0405	50	0.	*	1	1020	125	63.	*	1	1635	200	453.	*	1	2250	275	36.	
1	0410	51	0.	*	1	1025	126	76.	*	1	1640	201	436.	*	1	2255	276	34.	
1	0415	52	0.	*	1	1030	127	91.	*	1	1645	202	420.	*	1	2300	277	32.	
1	0420	53	0.	*	1	1035	128	106.	*	1	1650	203	406.	*	1	2305	278	31.	
1	0425	54	0.	*	1	1040	129	122.	*	1	1655	204	392.	*	1	2310	279	30.	
1	0430	55	0.	*	1	1045	130	138.	*	1	1700	205	380.	*	1	2315	280	29.	
1	0435	56	0.	*	1	1050	131	156.	*	1	1705	206	369.	*	1	2320	281	28.	
1	0440	57	0.	*	1	1055	132	175.	*	1	1710	207	359.	*	1	2325	282	27.	
1	0445	58	0.	*	1	1100	133	194.	*	1	1715	208	349.	*	1	2330	283	26.	
1	0450	59	0.	*	1	1105	134	216.	*	1	1720	209	340.	*	1	2335	284	25.	
1	0455	60	0.	*	1	1110	135	239.	*	1	1725	210	332.	*	1	2340	285	25.	
1	0500	61	0.	*	1	1115	136	267.	*	1	1730	211	324.	*	1	2345	286	24.	
1	0505	62	0.	*	1	1120	137	298.	*	1	1735	212	318.	*	1	2350	287	24.	
1	0510	63	0.	*	1	1125	138	341.	*	1	1740	213	311.	*	1	2355	288	23.	
1	0515	64	0.	*	1	1130	139	392.	*	1	1745	214	305.	*	2	0000	289	23.	
1	0520	65	1.	*	1	1135	140	457.	*	1	1750	215	299.	*	2	0005	290	23.	
1	0525	66	1.	*	1	1140	141	532.	*	1	1755	216	293.	*	2	0010	291	22.	
1	0530	67	1.	*	1	1145	142	632.	*	1	1800	217	288.	*	2	0015	292	22.	
1	0535	68	1.	*	1	1150	143	804.	*	1	1805	218	283.	*	2	0020	293	22.	
1	0540	69	1.	*	1	1155	144	1084.	*	1	1810	219	277.	*	2	0025	294	22.	
1	0545	70	1.	*	1	1200	145	1513.	*	1	1815	220	271.	*	2	0030	295	22.	
1	0550	71	1.	*	1	1205	146	2228.	*	1	1820	221	266.	*	2	0035	296	21.	
1	0555	72	1.	*	1	1210	147	3358.	*	1	1825	222	260.	*	2	0040	297	21.	
1	0600	73	1.	*	1	1215	148	4896.	*	1	1830	223	254.	*	2	0045	298	21.	
1	0605	74	1.	*	1	1220	149	6833.	*	1	1835	224	248.	*	2	0050	299	21.	
1	0610	75	1.	*	1	1225	150	9205.	*	1	1840	225	242.	*	2	0055	300	20.	

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*******************************************************************************************************

  PEAK FLOW      TIME                        MAXIMUM AVERAGE FLOW
                                      6-HR        24-HR       72-HR      24.92-HR
+   (CFS)        (HR)
                              (CFS)
+   18426.       12.83                4130.       1080.       1040.       1040.
                           (INCHES)   1.875       1.961       1.961       1.961
                            (AC-FT)   2048.       2142.       2142.       2142.

                           CUMULATIVE AREA =   20.48 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


            **************
            *            *
 342 KK     *   SRWT3    *
            *            *
            **************

 344 KO          OUTPUT CONTROL VARIABLES
                      IPRNT          3  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE

               HYDROGRAPH ROUTING DATA

 322 RL          ROUTING LOSSES
                      QLOSS        .00  INITIAL LOSS
                      CLOSS        .00  ADDITIONAL FRACTION LOST

 345 RS          STORAGE ROUTING
                      NSTPS          1  NUMBER OF SUBREACHES
                      ITYP        STOR  TYPE OF INITIAL CONDITION
                     RSVRIC        .00  INITIAL CONDITION
                          X        .00  WORKING R AND D COEFFICIENT

 346 SV            STORAGE         .0       1.0      14.0      42.0      91.0     203.0     466.0     958.0    1704.0    2716.0
                               3012.0    3325.0    3657.0    4006.0

 348 SQ          DISCHARGE         0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
                                   0.     3550.     9000.    17600.

 350 SE          ELEVATION    1174.00   1176.00   1180.00   1184.00   1188.00   1192.00   1196.00   1200.00   1204.00   1208.00
                              1209.00   1210.00   1211.00   1212.00

 352 SS          SPILLWAY
                       CREL    1209.00  SPILLWAY CREST ELEVATION
                      SPWID        .00  SPILLWAY WIDTH
                       COQW        .00  WEIR COEFFICIENT
                       EXPW       1.50  EXPONENT OF HEAD

 353 ST          TOP OF DAM
                      TOPEL    1212.10  ELEVATION AT TOP OF DAM
                     DAMWID    7667.00  DAM WIDTH
                       COQD       2.20  WEIR COEFFICIENT
                       EXPD       1.50  EXPONENT OF HEAD

     SW          DAM WIDTH    1000.00   1995.00   3000.00   4000.00   4988.00   6008.00   7007.00
     SE          ELEVATION    1212.10   1212.40   1212.63   1213.32   1214.72   1214.94   1214.80

                                                      ***

                                        COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

                                             (INCLUDING FLOW OVER DAM)

              STORAGE       .00      1.00     14.00     42.00     91.00    203.00    466.00    958.00   1704.00   2716.00
              OUTFLOW       .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
            ELEVATION   1174.00   1176.00   1180.00   1184.00   1188.00   1192.00   1196.00   1200.00   1204.00   1208.00

              STORAGE   3012.00   3325.00   3657.00   4006.00
              OUTFLOW       .00   3550.00   9000.00  17600.00
            ELEVATION   1209.00   1210.00   1211.00   1212.00

       ***          ***          ***          ***          ***

                         HYDROGRAPH AT STATION      SRWT3
                         TRANSPOSITION AREA           .0 SQ MI

 PEAK OUTFLOW IS          0. AT TIME      .00 HOURS

  PEAK FLOW      TIME                        MAXIMUM AVERAGE FLOW
                                      6-HR        24-HR       72-HR      24.92-HR
+   (CFS)        (HR)
                              (CFS)
+      0.         .00                    0.          0.          0.          0.
                           (INCHES)    .000        .000        .000        .000
```

```
                    (AC-FT)        0.          0.          0.          0.

 PEAK STORAGE   TIME                      MAXIMUM AVERAGE STORAGE
                                   6-HR       24-HR       72-HR     24.92-HR
+ (AC-FT)       (HR)
   2230.       24.92              2216.       1062.       1023.       1023.

  PEAK STAGE    TIME                      MAXIMUM AVERAGE STAGE
                                   6-HR       24-HR       72-HR     24.92-HR
+   (FEET)      (HR)
  1206.08      24.92            1206.02     1191.12     1190.49     1190.49

                    CUMULATIVE AREA =   20.48 SQ MI

      ***           ***          ***         ***         ***

                    HYDROGRAPH AT STATION    SRWT3
                   TRANSPOSITION AREA     10.0 SQ MI

 PEAK OUTFLOW IS     0. AT TIME    .00 HOURS

  PEAK FLOW     TIME                      MAXIMUM AVERAGE FLOW
                                   6-HR       24-HR       72-HR     24.92-HR
+   (CFS)       (HR)
                          (CFS)
+       0.        .00              0.          0.          0.          0.
                       (INCHES)   .000        .000        .000        .000
                       (AC-FT)      0.          0.          0.          0.

 PEAK STORAGE   TIME                      MAXIMUM AVERAGE STORAGE
                                   6-HR       24-HR       72-HR     24.92-HR
+ (AC-FT)       (HR)
   2199.       24.92              2185.       1047.       1009.       1009.

  PEAK STAGE    TIME                      MAXIMUM AVERAGE STAGE
                                   6-HR       24-HR       72-HR     24.92-HR
+   (FEET)      (HR)
  1205.96      24.92            1205.90     1191.03     1190.41     1190.41

                    CUMULATIVE AREA =   20.48 SQ MI

      ***           ***          ***         ***         ***

                    HYDROGRAPH AT STATION    SRWT3
                   TRANSPOSITION AREA     50.0 SQ MI

 PEAK OUTFLOW IS     0. AT TIME    .00 HOURS

  PEAK FLOW     TIME                      MAXIMUM AVERAGE FLOW
                                   6-HR       24-HR       72-HR     24.92-HR
+   (CFS)       (HR)
                          (CFS)
+       0.        .00              0.          0.          0.          0.
                       (INCHES)   .000        .000        .000        .000
                       (AC-FT)      0.          0.          0.          0.

 PEAK STORAGE   TIME                      MAXIMUM AVERAGE STORAGE
                                   6-HR       24-HR       72-HR     24.92-HR
+ (AC-FT)       (HR)
   2072.       24.92              2061.        987.        951.        951.

  PEAK STAGE    TIME                      MAXIMUM AVERAGE STAGE
                                   6-HR       24-HR       72-HR     24.92-HR
+   (FEET)      (HR)
  1205.45      24.92            1205.41     1190.68     1190.07     1190.07

                    CUMULATIVE AREA =   20.48 SQ MI

      ***           ***          ***         ***         ***

                    HYDROGRAPH AT STATION    SRWT3
                   TRANSPOSITION AREA    100.0 SQ MI

 PEAK OUTFLOW IS     0. AT TIME    .00 HOURS

  PEAK FLOW     TIME                      MAXIMUM AVERAGE FLOW
                                   6-HR       24-HR       72-HR     24.92-HR
+   (CFS)       (HR)
                          (CFS)
+       0.        .00              0.          0.          0.          0.
                       (INCHES)   .000        .000        .000        .000
                       (AC-FT)      0.          0.          0.          0.

 PEAK STORAGE   TIME                      MAXIMUM AVERAGE STORAGE
                                   6-HR       24-HR       72-HR     24.92-HR
+ (AC-FT)       (HR)
   2016.       24.92              2007.        961.        926.        926.

  PEAK STAGE    TIME                      MAXIMUM AVERAGE STAGE
                                   6-HR       24-HR       72-HR     24.92-HR
+   (FEET)      (HR)
  1205.24      24.92            1205.20     1190.53     1189.92     1189.92

                    CUMULATIVE AREA =   20.48 SQ MI

      ***           ***          ***         ***         ***

                    HYDROGRAPH AT STATION    SRWT3
                   TRANSPOSITION AREA    200.0 SQ MI

 PEAK OUTFLOW IS     0. AT TIME    .00 HOURS

  PEAK FLOW     TIME                      MAXIMUM AVERAGE FLOW
                                   6-HR       24-HR       72-HR     24.92-HR
+   (CFS)       (HR)
                          (CFS)
+       0.        .00              0.          0.          0.          0.
                       (INCHES)   .000        .000        .000        .000
                       (AC-FT)      0.          0.          0.          0.

 PEAK STORAGE   TIME                      MAXIMUM AVERAGE STORAGE
                                   6-HR       24-HR       72-HR     24.92-HR
+ (AC-FT)       (HR)
   1969.       24.92              1960.        939.        905.        905.

  PEAK STAGE    TIME                      MAXIMUM AVERAGE STAGE
                                   6-HR       24-HR       72-HR     24.92-HR
+   (FEET)      (HR)
  1205.05      24.92            1205.01     1190.40     1189.80     1189.80
```

CUMULATIVE AREA = 20.48 SQ MI

*** *** *** *** ***

INTERPOLATED HYDROGRAPH AT SRWT3

	PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
+	0.	.00	(CFS)	0.	0.	0.	0.
			(INCHES)	.000	.000	.000	.000
			(AC-FT)	0.	0.	0.	0.

CUMULATIVE AREA = 20.48 SQ MI

1

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	1	2820.	12.42	552.	166.	160.	1.94		
+	ROUTED TO	RCP1	2579.	12.67	539.	156.	150.	1.94		
+	HYDROGRAPH AT	2	2023.	12.75	464.	130.	125.	1.82		
+	2 COMBINED AT	CP2	4584.	12.67	1003.	286.	275.	3.76		
+	ROUTED TO	RCP2	4381.	12.83	986.	275.	265.	3.76		
+	HYDROGRAPH AT	3A	339.	12.33	34.	9.	8.	.29		
+	ROUTED TO	RCP3A	268.	12.50	32.	8.	8.	.29		
+	HYDROGRAPH AT	3	959.	12.33	100.	25.	24.	.81		
+	2 COMBINED AT	I1CP3	1159.	12.42	132.	33.	32.	1.10		
+	2 COMBINED AT	CP3	4690.	12.83	1117.	308.	296.	4.86		
+	ROUTED TO	RCP3	4547.	12.92	1095.	293.	282.	4.86		
+	HYDROGRAPH AT	4	567.	12.17	85.	25.	24.	.30		
+	HYDROGRAPH AT	5	1346.	12.25	203.	60.	58.	.72		
+	2 COMBINED AT	CP5	1909.	12.25	287.	85.	82.	1.02		
+	ROUTED TO	RCP5	1869.	12.25	285.	84.	81.	1.02		
+	HYDROGRAPH AT	6	1050.	12.08	128.	39.	37.	.45		
+	2 COMBINED AT	I1CP7	2655.	12.17	413.	122.	118.	1.47		
+	HYDROGRAPH AT	7	705.	12.08	88.	27.	26.	.31		
+	2 COMBINED AT	CP7	3319.	12.17	501.	149.	143.	1.78		
+	ROUTED TO	RCP7	2989.	12.33	494.	142.	137.	1.78		
+	HYDROGRAPH AT	9	2239.	12.33	399.	120.	115.	1.40		
+	2 COMBINED AT	I1CP9	5224.	12.33	892.	261.	252.	3.18		
+	HYDROGRAPH AT	8	1382.	12.25	230.	69.	67.	.81		
+	2 COMBINED AT	CP9	6593.	12.33	1121.	331.	319.	3.99		
+	ROUTED TO	RCP9	5715.	12.75	1085.	306.	294.	3.99		
+	HYDROGRAPH AT	10	1700.	12.75	306.	79.	76.	2.02		
+	2 COMBINED AT	I1CP10	7410.	12.75	1390.	385.	371.	6.01		
+	2 COMBINED AT	CP10	11510.	12.75	2473.	675.	650.	10.87		
+	ROUTED TO	RCP10	11286.	12.83	2462.	668.	643.	10.87		
+	HYDROGRAPH AT	12	1481.	12.50	214.	56.	54.	1.38		
+	2 COMBINED AT	CP12	12138.	12.83	2665.	721.	694.	12.25		
+	ROUTED TO	RCP12	11657.	13.00	2614.	692.	667.	12.25		
+	HYDROGRAPH AT	11	2151.	12.42	368.	99.	95.	1.56		
+	ROUTED TO	RCP11	1864.	12.75	366.	98.	95.	1.56		

```
          HYDROGRAPH AT
+                    13     1367.  12.42      165.      41.      40.     1.30
          2 COMBINED AT
+                  CP13     2831.  12.58      531.     139.     134.     2.86
          ROUTED TO
+                 RCP13     2807.  12.67      531.     139.     134.     2.86
          HYDROGRAPH AT
+                    14     2373.  12.33      412.     122.     118.     1.47
          ROUTED TO
+                 RCP14     2230.  12.50      411.     122.     117.     1.47
          HYDROGRAPH AT
+                    15     1871.  12.42      298.      81.      78.     1.26
          2 COMBINED AT
+                I1CP15     3959.  12.42      709.     202.     195.     2.73
          HYDROGRAPH AT
+                    16     1630.  12.42      244.      68.      66.     1.13
          2 COMBINED AT
+                  CP15     5585.  12.42      952.     270.     261.     3.86
          ROUTED TO
+                 RCP15     5130.  12.58      903.     234.     225.     3.86
          HYDROGRAPH AT
+                    17     1027.  12.25      123.      31.      30.     1.07
          2 COMBINED AT
+                I1CP17     5666.  12.58     1026.     265.     255.     4.93
          2 COMBINED AT
+                  CP17     8411.  12.58     1554.     404.     389.     7.79
          ROUTED TO
+                 RCP17     8359.  12.67     1546.     398.     383.     7.79
          HYDROGRAPH AT
+                   WT3      421.  12.50       56.      14.      13.      .44
          2 COMBINED AT
+                I1CWT3     8710.  12.67     1601.     411.     396.     8.23
          2 COMBINED AT
+                 CPWT3    18426.  12.83     4130.    1080.    1040.    20.48
          ROUTED TO
+                 SRWT3        0.    .00        0.       0.       0.    20.48
1                   SUMMARY OF DAM OVERTOPPING/BREACH ANALYSIS FOR STATION    SRWT3
                 (PEAKS SHOWN ARE FOR INTERNAL TIME STEP USED  DURING BREACH FORMATION)

PLAN  1 ..............                INITIAL VALUE     SPILLWAY CREST     TOP OF DAM
                          ELEVATION       1174.00           1209.00          1212.10
                          STORAGE              0.              3012.             4041.
                          OUTFLOW              0.                 0.            18460.

              RATIO    MAXIMUM     MAXIMUM    MAXIMUM    MAXIMUM    DURATION    TIME OF    TIME OF
               OF     RESERVOIR     DEPTH     STORAGE    OUTFLOW    OVER TOP   MAX OUTFLOW  FAILURE
              PMF     W.S.ELEV    OVER DAM     AC-FT       CFS       HOURS        HOURS      HOURS

              1.00     1206.08        .00      2230.        0.        .00          .00        .00

PLAN  2 ..............                INITIAL VALUE     SPILLWAY CREST     TOP OF DAM
                          ELEVATION       1174.00           1209.00          1212.10
                          STORAGE              0.              3012.             4041.
                          OUTFLOW              0.                 0.            18460.

              RATIO    MAXIMUM     MAXIMUM    MAXIMUM    MAXIMUM    DURATION    TIME OF    TIME OF
               OF     RESERVOIR     DEPTH     STORAGE    OUTFLOW    OVER TOP   MAX OUTFLOW  FAILURE
              PMF     W.S.ELEV    OVER DAM     AC-FT       CFS       HOURS        HOURS      HOURS

              1.00     1205.96        .00      2199.        0.        .00          .00        .00

PLAN  3 ..............                INITIAL VALUE     SPILLWAY CREST     TOP OF DAM
                          ELEVATION       1174.00           1209.00          1212.10
                          STORAGE              0.              3012.             4041.
                          OUTFLOW              0.                 0.            18460.

              RATIO    MAXIMUM     MAXIMUM    MAXIMUM    MAXIMUM    DURATION    TIME OF    TIME OF
               OF     RESERVOIR     DEPTH     STORAGE    OUTFLOW    OVER TOP   MAX OUTFLOW  FAILURE
              PMF     W.S.ELEV    OVER DAM     AC-FT       CFS       HOURS        HOURS      HOURS

              1.00     1205.45        .00      2072.        0.        .00          .00        .00

PLAN  4 ..............                INITIAL VALUE     SPILLWAY CREST     TOP OF DAM
                          ELEVATION       1174.00           1209.00          1212.10
                          STORAGE              0.              3012.             4041.
                          OUTFLOW              0.                 0.            18460.

              RATIO    MAXIMUM     MAXIMUM    MAXIMUM    MAXIMUM    DURATION    TIME OF    TIME OF
               OF     RESERVOIR     DEPTH     STORAGE    OUTFLOW    OVER TOP   MAX OUTFLOW  FAILURE
              PMF     W.S.ELEV    OVER DAM     AC-FT       CFS       HOURS        HOURS      HOURS

              1.00     1205.24        .00      2016.        0.        .00          .00        .00

PLAN  5 ..............                INITIAL VALUE     SPILLWAY CREST     TOP OF DAM
                          ELEVATION       1174.00           1209.00          1212.10
                          STORAGE              0.              3012.             4041.
                          OUTFLOW              0.                 0.            18460.

              RATIO    MAXIMUM     MAXIMUM    MAXIMUM    MAXIMUM    DURATION    TIME OF    TIME OF
               OF     RESERVOIR     DEPTH     STORAGE    OUTFLOW    OVER TOP   MAX OUTFLOW  FAILURE
              PMF     W.S.ELEV    OVER DAM     AC-FT       CFS       HOURS        HOURS      HOURS

              1.00     1205.05        .00      1969.        0.        .00          .00        .00

*** NORMAL END OF HEC-1 ***
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APPENDIX 4.5 FINAL HEC-1 MODEL: FUTFINA4.OUT (FINAL HYDROLOGIC ANALYSIS)

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1*************************************
*                                   *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
*            JUL   1997             *
*          VERSION 4.1              *
*                                   *
*  RUN DATE   01MAY00  TIME  15:13:15  *
*                                   *
*************************************
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*************************************
*                                   *
*   U.S. ARMY CORPS OF ENGINEERS    *
*   HYDROLOGIC ENGINEERING CENTER   *
*         609 SECOND STREET         *
*      DAVIS, CALIFORNIA 95616      *
*          (916) 756-1104           *
*                                   *
*************************************
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X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X               X
XXXXXXX  XXXX     X       XXXXX   X
X     X  X        X               X
X     X  X        X     X         X
X     X  XXXXXXX   XXXXX         XXX
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THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

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1                                   HEC-1 INPUT                                          PAGE  1

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  1           ID          White Tanks #3 hydrology
  2           ID          3/28/2000, FCDMC
  3           ID
  4           ID          Assume the inlet improvment will carry all flow to WT No.3
  5           ID
  6           ID          Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999
  7           ID
  8           ID          LG parameters are modified based on the rock fragments
  9           ID          percentages in the soils (from SCS soil book)
 10           ID
 11           ID          RL channel transmission loss cards are removed to account for
 12           ID          possible future channel improvement
 13           ID
 14           ID          WHITE TANKS/ AGUA FRIA AREA DRAINAGE MASTER PLAN
 15           ID          FINAL HYDROLOGY RUN FOR WHITE TANKS ADMP ---- ENTIRE WATERSHED
 16           ID          100-YEAR, 24-HOUR STORM                    FILE: WTADMP5.24
 17           ID          THIS MODEL INCORPORATES FUTURE CHANNELS OR CHANNEL IMPROVEMENTS ALONG:
 18           ID          -BEARDSLEY CANAL WASH,WHITE TANKS NO. 3 TO PEORIA AV.
 19           ID          -TUTHILL DIKE WASH,WHITE TANKS NO. 4 TO APPROX. 1/2 MILE NORTH OF
 20           ID           CAMELBACK ROAD
 21           ID          -JACKRABBIT TRAIL WASH,WHITE TANKS NO. 4 TO WHITE TANKS NO. 3
 22           ID          -DYSART DRAIN,AGUA FRIA RIVER TO REEMS ROAD
 23           ID          -REEMS ROAD CHANNEL,NORTHERN AV. TO BELL ROAD
 24           ID          -WADDEL ROAD CHANNEL,DYSART ROAD TO  REEMS ROAD
 25           ID          - I-10 (INTERSTATE-10) CHANNEL,ESTRELLA FREEWAY TO 191ST AV.
 26           ID          -BULLARD WASH,GILA RIVER TO APPROX. 1/4 MILE SOUTH OF LOWER BUKEYE RD.
 27           ID          -ESTRELLA FREEWAY CHANNEL,GILA RIVER TO BELL ROAD.
 28           ID          -CAMELBACK ROAD CHANNEL,AGUA FRIA RIVER TO LITCHFIELD ROAD
 29           ID          IT ALSO ASSUMES THAT THE SUN CITY GRAND PROJECT,NORTH OF BELL ROAD
 30           ID          (SEE FIURE 9.2), WILL RETAIN ONSITE FLOWS AND BLEED OFF TO THE
 31           ID           EXISTING BELL ROAD CHANNEL
 32           ID
 33           ID
              *DIAGRAM
 34           IT       5                    1000
 35           IO       3
 36           IN      15
 37           JD    4.03    .001
 38           PC    .000    .002    .005    .008    .011    .014    .017    .020    .023    .026
 39           PC    .029    .032    .035    .038    .041    .044    .048    .052    .056    .060
 40           PC    .064    .068    .072    .076    .080    .085    .090    .095    .100    .105
 41           PC    .110    .115    .120    .126    .133    .140    .147    .155    .163    .172
 42           PC    .181    .191    .203    .218    .236    .257    .283    .387    .663    .707
 43           PC    .735    .758    .776    .791    .804    .815    .825    .834    .842    .849
 44           PC    .856    .863    .869    .875    .881    .887    .893    .898    .903    .908
 45           PC    .913    .918    .922    .926    .930    .934    .938    .942    .946    .950
 46           PC    .953    .956    .959    .962    .965    .968    .971    .974    .977    .980
 47           PC    .983    .986    .989    .992    .995    .998    1.00   1.000   1.000   1.000
 48           JD    3.99      10
 49           JD    3.83      50
 50           JD    3.76     100
 51           JD    3.70     200
1                                   HEC-1 INPUT                                          PAGE  2

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 52           KK       1
 53           KM         RUNOFF HYDROGRAPH FROM SUB-BASIN 1.
 54           BA    1.94
 55           LG    0.35    0.15   7.981   0.082  19.802
 56           UI    182.    326.    742.    974.   1186.   1502.   2185.   1957.   1537.   1243.
 57           UI    989.    751.    417.    308.    230.    182.     64.     56.     56.     56.
 58           UI     56.      0.      0.      0.      0.      0.      0.      0.      0.      0.
 59           UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

 60           KK    RCP1
 61           KM         ROUTE FLOW FROM CP1 TO CP2.
              * RL                  1    1428
 62           RS       5             -1       0
 63           RC     .06     .04     .06   17800   .0469
 64           RX    1000    1125    1300    1390    1405    1490    1590    1750
 65           RY    1440    1439    1437    1428    1428    1439    1442    1444

 66           KK       2
 67           KM         RUNOFF HYDROGRAPH FROM SUB-BASIN 2.
 68           BA    1.82
 69           LG    0.35   0.154   6.959   0.119  21.855
```

```
 70          UI    115.    115.    259.    442.    556.    642.    727.    849.   1013.   1346.
 71          UI   1419.   1145.    985.    864.    735.    634.    545.    405.    268.    202.
 72          UI    189.    144.    115.    103.     35.     35.     35.     35.     35.     35.
 73          UI     35.      0.      0.      0.      0.      0.      0.      0.      0.      0.
 74          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

 75          KK     CP2
 76          KM        ADD HYDROGRAPHS AT CP2.
 77          HC       2

 78          KK    RCP2
 79          KM        ROUTE COMBINED HYDROGRAPHS AT CP2 TO CP3.
             * RL                    1.5    1298
 80          RS       2               -1       0
 81          RC     .06    .035     .06    4500   .0111
 82          RX    1000    1100    1350    1705    1735    1780    1850    2000
 83          RY    1304    1302    1302    1298    1298    1303    1302    1305

 84          KK      3A
 85          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 3A
 86          BA     .29
 87          LG   0.336    0.24    4.14   0.432       0
 88          UI     34.     89.    165.    212.    286.    410.    314.    242.    182.    124.
 89          UI     62.     48.     33.     10.     10.     10.     10.      0.      0.      0.
 90          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

 91          KK   RCP3A
 92          KM        ROUTE FLOW FROM CP3A TO CP3
             * RL                    1.5    1284
 93          RS       2               -1       0
 94          RC     .03     .03     .05    5300   .0060
 95          RX    1000    1023    1032    1046    1058    1067    1250    1540
 96          RY    1289    1288    1286    1284    1284    1286    1288    1291
1                                         HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 97          KK       3
 98          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 3.
 99          BA     .81
100          LG   0.339   0.242   4.441   0.362       0
101          UI     91.    228.    430.    554.    725.   1088.    908.    700.    535.    396.
102          UI    205.    152.     95.     57.     28.     28.     28.      0.      0.      0.
103          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

104          KK   I1CP3
105          KM        ADD HYDROGRAPHS AT CP3.
106          HC       2

107          KK     CP3
108          KM        ADD HYDROGRAPHS AT CP3.
109          HC       2

110          KK    RCP3
111          KM        ROUTE FLOW FROM CP3 TO CP10.
             * RL                      2    1245
112          RS       1               -1       0
113          RC     .05     .03     .05    5280   .0083
114          RX    1010    1015    1020    1050    1100    1275    1580    1750
115          RY    1251    1249    1249    1245    1245    1250    1250    1254

116          KK       4
117          KM        RUNOFF HYDROGRAPH FORM SUB-BASIN 4.
118          BA     .30
119          LG    0.35    0.15    8.01   0.081  18.504
120          UI     48.    192.    287.    444.    512.    346.    236.    115.     67.     35.
121          UI     14.     14.      0.      0.      0.      0.      0.      0.      0.      0.
122          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

123          KK       5
124          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 5.
125          BA     .72
126          LG    0.35    0.15   8.023   0.081  17.926
127          UI    110.    437.    658.    992.   1242.    849.    591.    315.    174.    101.
128          UI     34.     34.     34.      0.      0.      0.      0.      0.      0.      0.
129          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

130          KK     CP5
131          KM        ADD HYDROGRAPHS AT CP5.
132          HC       2

133          KK    RCP5
134          KM        ROUTE COMBINED HYDROGRAPHS AT CP5 TO CP7.
             * RL                      .5    2800
135          RS       1               -1       0
136          RC     .08     .05     .08    4800   .0833
137          RX     955     970     985    1000    1020    1035    1050    1065
138          RY    2815    2810    2805    2800    2800    2805    2810    2815
1                                         HEC-1 INPUT                                          PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

139          KK       6
140          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 6.
141          BA     .45
142          LG    0.35    0.15   7.976   0.082      20
143          UI    204.    622.   1139.    837.    427.    155.     54.     33.      0.      0.
144          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

145          KK   I1CP7
146          KM        ADD HYDROGRAPHS AT CP7.
147          HC       2

148          KK       7
149          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 7.
150          BA     .31
151          LG    0.35    0.15   7.976   0.082      20
152          UI    126.    387.    716.    606.    343.    129.     52.     22.      0.      0.
153          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

154          KK     CP7
155          KM        ADD HYDROGRAPHS AT CP7.
156          HC       2

157          KK    RCP7
158          KM        ROUTE COMBINED HYDROGRAPHS AT CP7 TO CP9.
             * RL                      .5    1838
159          RS       2               -1       0
160          RC     .08     .05     .08   10200  .07745
161          RX    1000    1045    1120    1195    1230    1300    1350    1450
162          RY    1910    1880    1850    1838    1838    1850    1880    1910

163          KK       9
164          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 9.
165          BA    1.40
166          LG    0.35    0.15   7.909   0.084  19.572
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 167          UI    155.    381.    727.    935.   1216.   1832.   1591.   1224.    938.    705.
 168          UI    386.    261.    177.    115.    47.     47.     47.     47.      0.      0.
 169          UI      0.      0.      0.      0.     0.      0.      0.      0.      0.      0.

 170          KK   I1CP9
 171          KM        ADD HYDROGRAPHS AT CP9.
 172          HC       2

 173          KK       8
 174          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 8.
 175          BA     .81
 176          LG    0.35    0.15   7.976   0.082      20
 177          UI    102.    313.    535.    703.   1054.   1140.    822.    608.    421.    208.
 178          UI    147.     96.     31.     31.     31.      0.      0.      0.      0.      0.
 179          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
1                                          HEC-1 INPUT                                          PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 180          KK     CP9
 181          KM        ADD HYDROGRAPHS AT CP9.
 182          HC       2

 183          KK    RCP9
 184          KM         ROUTE COMBINED HYDROGRAPHS AT CP9 TO CP10.
              * RL                     1.5    1308
 185          RS       4               -1       0
 186          RC     .06     .035     .06   19200   .0232
 187          RX    1000    1085    1310    1395    1415    1450    1630    1665
 188          RY    1317    1314    1311    1308    1308    1314    1314    1317

 189          KK      10
 190          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 10.
 191          BA    2.02
 192          LG   0.347   0.248   5.124   0.254    4.52
 193          UI    119.    119.    218.    427.    546.    632.    708.    812.    929.   1148.
 194          UI   1499.   1393.   1156.   1006.    894.    765.    669.    577.    475.    325.
 195          UI    210.    201.    193.    119.    119.     86.     36.     36.     36.     36.
 196          UI     36.     36.     36.     36.      0.      0.      0.      0.      0.      0.
 197          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

 198          KK  I1CP10
 199          KM        ADD HYDROGRAPHS AT CP10
 200          HC       2

 201          KK    CP10
 202          KM        ADD HYDROGRAPHS AT CP10
 203          HC       2

 204          KK   RCP10
 205          KM         ROUTE FLOW AT CP10 TO CP12.
              * RL                     2.0    1211
 206          RS       1               -1       0
 207          RC     .03     .03     .05    3500   .0057
 208          RX     995    1000    1020    1055    1085    1165    1250    1330
 209          RY    1221    1220    1220    1211    1211    1218    1220    1222

 210          KK      12
 211          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 12.
 212          BA    1.38
 213          LG   0.346   0.247   5.232   0.241   5.217
 214          UI    111.    129.    393.    535.    636.    758.    930.   1311.   1277.   1008.
 215          UI    850.    697.    574.    445.    264.    191.    169.    111.     92.     34.
 216          UI     34.     34.     34.     34.     34.      0.      0.      0.      0.      0.
 217          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

 218          KK    CP12
 219          KM        ADD HYDROGRAPHS AT CP12.
 220          HC       2
1                                          HEC-1 INPUT                                          PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 221          KK   RCP12
 222          KM         ROUTE COMBINED HYDROGRAPHS AT CP12 TO CPWT3
              * RL                     2.0    1196
 223          RS       2               -1       0
 224          RC     .03     .03     .04    4800   .0031
 225          RX     995    1000    1020    1080    1200    1530    1665    1760
 226          RY    1211    1211    1210    1196    1196    1200    1204    1204

 227          KK      11
 228          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 11.
 229          BA    1.56
 230          LG    0.35    0.15    7.25   0.107  13.299
 231          UI    143.    245.    571.    755.    913.   1142.   1648.   1623.   1254.   1026.
 232          UI    821.    643.    394.    248.    210.    143.     86.     44.     44.     44.
 233          UI     44.      0.      0.      0.      0.      0.      0.      0.      0.      0.
 234          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

 235          KK   RCP11
 236          KM         ROUTE HYROGRAPH FROM CP11 TO CP13.
              * RL                     1.5    1196
 237          RS       4               -1       0
 238          RC     .06     .035     .06   10200   .0098
 239          RX    1000    1070    1300    1480    1510    1525    1555    1600
 240          RY    1233    1232    1230    1222    1222    1230    1232    1233

 241          KK      13
 242          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 13.
 243          BA    1.30
 244          LG    0.35    0.25    4.62   0.322       0
 245          UI    120.    210.    485.    639.    774.    973.   1416.   1333.   1039.    847.
 246          UI    674.    527.    303.    206.    167.    120.     60.     37.     37.     37.
 247          UI     37.      0.      0.      0.      0.      0.      0.      0.      0.      0.
 248          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

 249          KK    CP13
 250          KM        ADD HYDROGRAPHS AT CP13.
 251          HC       2

 252          KK   RCP13
 253          KM         ROUTE COMBINED HYDROGRAPHS AT CP13 TO CP17
              * RL                     1.5    1222
 254          RS       1               -1       0
 255          RC     .03     .03     .04    2400   .0042
 256          RX    1000    1025    1040    1065    1085    1110    1175    1200
 257          RY    1206    1198    1196    1194    1194    1198    1198    1201

 258          KK      14
 259          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 14.
 260          BA    1.47
 261          LG    0.35    0.15    7.974   0.082  18.195
 262          UI    166.    421.    790.   1019.   1341.   1998.   1636.   1264.    961.    699.
 263          UI    362.    274.    166.     93.     51.     51.     51.      0.      0.      0.
 264          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 265          KK   RCP14
 266          KM        ROUTE FLOW FROM CP14 TO CP15.
              * RL                      2.0    1194
 267          RS       2                 -1       0
 268          RC     .06    .035     .06   .8800  .02556
 269          RX    1000    1030    1075    1200    1220    1280    1415    1480
 270          RY    1296    1295    1294    1288    1288    1294    1296    1300

 271          KK      15
 272          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 15.
 273          BA    1.26
 274          LG    0.35   0.194   6.561   0.142   15.67
 275          UI    130.    281.    577.    747.    938.   1321.   1552.   1156.    920.    713.
 276          UI    519.    277.    217.    138.     93.     40.     40.     40.     40.      0.
 277          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
 278          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

 279          KK  I1CP15
 280          KM        ADD HYDROGRAPHS AT CP15
 281          HC       2

 282          KK      16
              * KO     1
 283          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN 16.
 284          BA    1.13
 285          LG    0.35    0.25   5.676   0.201  19.953
 286          UI    115.    240.    503.    652.    814.   1126.   1393.   1049.    839.    655.
 287          UI    497.    268.    194.    137.    101.     35.     35.     35.     35.      0.
 288          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
 289          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              * KK  SR16
              * KM      STORAGE ROUTE THROUGH THE CATERPILLAR DETENTION BASIN IN SUBWATERSHED
              * RS     1    STOR       0       0
              * SV     0       1      31     114     270     502     807    1319    1388      14
              * SQ     0                                                                       1
              * SE  1198    1200    1210    1220    1230    1240    1250    1260    1261      12

 290          KK    CP15
              * KO     1
 291          KM        ADD HYDROGRAPHS AT CP15.
 292          HC       2

 293          KK   RCP15
 294          KM        ROUTE COMBINED HYDROGRAPHS AT CP15 TO CP17.
              * RL                      2.0    1226
 295          RS       2                 -1       0
 296          RC     .06    .035     .06    6800   .0079
 297          RX    1000    1310    1380    1540    1640    1670    1700    1910
 298          RY    1234    1232    1228    1226    1226    1228    1232    1235
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 299          KK      17
 300          KM        RUNOFFF HYDROGRAPH FROM SUB-BASIN 17.
 301          BA    1.07
 302          LG    0.35    0.25   4.121   0.438       0
 303          UI    117.    254.    572.    810.   1052.   1196.    753.    635.    540.    450.
 304          UI    353.    287.    254.    194.    149.    129.    103.     90.     64.     57.
 305          UI     57.     26.     22.     22.     22.     22.     22.     22.      0.      0.
 306          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

 307          KK  I1CP17
 308          KM        ADD HYDROGRAPHS AT CP17.
 309          HC       2

 310          KK    CP17
 311          KM        ADD HYDROGRAPHS AT CP17.
 312          HC       2

 313          KK   RCP17
 314          KM        ROUTE FLOW FROM CP17 TO CPWT3
              * RL                      2.0    1182
 315          RS       1                 -1       0
 316          RC     .06     .04     .04    1600   .0022
 317          RX    1000    1220    1280    1470    1530    1660    1680    1685
 318          RY    1196    1194    1190    1182    1182    1210    1211    1212

 319          KK     WT3
 320          KM        RUNOFF HYDROGRAPH FROM SUB-BASIN WT3
 321          BA     .44
 322          LG   0.344   0.246   4.577    0.33       0
 323          UI     36.     44.    128.    175.    207.    249.    308.    436.    399.    318.
 324          UI    267.    220.    179.    133.     78.     61.     49.     36.     23.     11.
 325          UI     11.     11.     11.     11.      0.      0.      0.      0.      0.      0.
 326          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.

 327          KK  I1CWT3
 328          KM        ADD HYDROGRAPHS AT CPWT3
 329          HC       2

 330          KK   CPWT3
              * KO     1
 331          KM        ADD HYDROGRAPHS AT CPWT3
 332          HC       2
              * KK SRWT3
              * KM      STORAGE ROUTE THROUGH WHITE TANKS STRUCTURE #3.
              * KO     3
              * RS     1    STOR       0       0
              * SV     0       1      14      42      91     203     466     958    1704      27
              * SV  3012    3325    3657    4006
              * SQ     0       0       0       0       0       0       0       0       0
              * SQ     0    3550    9000   17600
              * SE  1174    1176    1180    1184    1188    1192    1196    1200    1204      12
              * SE  1209    1210    1211    1212
              * SS  1209       0       0       0
              * ST1212.1    7667     2.2     1.5
              * SW  1000    1995    3000    4000    4988    6008    7007
              * SE1212.1  1212.4 1212.63 1213.32 1214.72 1214.94  1214.8
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 333          ZZ
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1

SCHEMATIC DIAGRAM OF STREAM NETWORK

INPUT LINE (V) ROUTING (--->) DIVERSION OR PUMP FLOW

NO. (.) CONNECTOR (<---) RETURN OF DIVERTED OR PUMPED FLOW

52 1

```
                V
                V
 60          RCP1
                .
 66             .            2
                .            .
                .            .
 75          CP2............
                V
                V
 78          RCP2
                .
                .
 84             .           3A
                .            V
                .            V
 91             .         RCP3A
                .            .
                .            .
 97             .            .            3
                .            .            .
                .            .            .
104             .        I1CP3............
                .            .
                .            .
107          CP3............
                V
                V
110          RCP3
                .
                .
116             .            4
                .            .
                .            .
123             .            .            5
                .            .            .
                .            .            .
130             .          CP5............
                .            V
                .            V
133             .         RCP5
                .            .
                .            .
139             .            .            6
                .            .            .
                .            .            .
145             .        I1CP7............
                .            .
                .            .
148             .            .            7
                .            .            .
                .            .            .
154             .          CP7............
                .            V
                .            V
157             .         RCP7
                .            .
                .            .
163             .            .            9
                .            .            .
                .            .            .
170             .        I1CP9............
                .            .
                .            .
173             .            .            8
                .            .            .
                .            .            .
180             .          CP9............
                .            V
                .            V
183             .         RCP9
                .            .
                .            .
189             .            .           10
                .            .            .
                .            .            .
198             .       I1CP10............
                .            .
                .            .
201          CP10............
                V
                V
204         RCP10
                .
                .
210             .           12
                .            .
                .            .
218          CP12............
                V
                V
221         RCP12
                .
                .
227             .           11
                .            V
                .            V
235             .        RCP11
                .            .
                .            .
241             .            .           13
                .            .            .
                .            .            .
249             .         CP13............
                .            V
                .            V
252             .        RCP13
                .            .
                .            .
258             .            .           14
                .            .            V
                .            .            V
265             .            .        RCP14
                .            .            .
                .            .            .
271             .            .            .           15
                .            .            .            .
                .            .            .            .
279             .            .      I1CP15............
                .            .            .
                .            .            .
282             .            .            .           16
                .            .            .            .
                .            .            .            .
290             .            .        CP15............
                .            .            V
                .            .            V
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 293          .            .       RCP15
              .            .          .
 299          .            .          .          17
              .            .          .           .
 307          .            .      I1CP17............
              .            .          .
 310          .        CP17............
              .           V
              .           V
 313          .       RCP17
              .            .
 319          .            .         WT3
              .            .          .
 327          .      I1CWT3............
              .            .
 330      CPWT3............
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1*************************************
*                                   *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
*              JUL   1997           *
*           VERSION 4.1             *
*                                   *
*  RUN DATE   01MAY00  TIME  15:13:15  *
*                                   *
*************************************
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```
*************************************
*                                   *
*   U.S. ARMY CORPS OF ENGINEERS    *
*   HYDROLOGIC ENGINEERING CENTER   *
*         609 SECOND STREET         *
*      DAVIS, CALIFORNIA 95616      *
*          (916) 756-1104           *
*                                   *
*************************************
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White Tanks #3 hydrology
3/28/2000, FCDMC

Assume the inlet improvment will carry all flow to WT No.3

Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999

LG parameters are modified based on the rock fragments
percentages in the soils (from SCS soil book)

RL channel transmission loss cards are removed to account for
possible future channel improvement

WHITE TANKS/ AGUA FRIA AREA DRAINAGE MASTER PLAN
FINAL HYDROLOGY RUN FOR WHITE TANKS ADMP ---- ENTIRE WATERSHED
100-YEAR, 24-HOUR STORM                    FILE: WTADMP5.24
THIS MODEL INCORPORATES FUTURE CHANNELS OR CHANNEL IMPROVEMENTS ALONG:
-BEARDSLEY CANAL WASH,WHITE TANKS NO. 3 TO PEORIA AV.
-TUTHILL DIKE WASH,WHITE TANKS NO. 4 TO APPROX. 1/2 MILE NORTH OF
 CAMELBACK ROAD
-JACKRABBIT TRAIL WASH,WHITE TANKS NO. 4 TO WHITE TANKS NO. 3
-DYSART DRAIN,AGUA FRIA RIVER TO REEMS ROAD
-REEMS ROAD CHANNEL,NORTHERN AV. TO BELL ROAD
-WADDEL ROAD CHANNEL,DYSART ROAD TO  REEMS ROAD
- I-10 (INTERSTATE-10) CHANNEL,ESTRELLA FREEWAY TO 191ST AV.
-BULLARD WASH,GILA RIVER TO APPROX. 1/4 MILE SOUTH OF LOWER BUKEYE RD.
-ESTRELLA FREEWAY CHANNEL,GILA RIVER TO BELL ROAD.
-CAMELBACK ROAD CHANNEL,AGUA FRIA RIVER TO LITCHFIELD ROAD
IT ALSO ASSUMES THAT THE SUN CITY GRAND PROJECT,NORTH OF BELL ROAD
(SEE FIURE 9.2), WILL RETAIN ONSITE FLOWS AND BLEED OFF TO THE
 EXISTING BELL ROAD CHANNEL

 35 IO        OUTPUT CONTROL VARIABLES
                    IPRNT          3  PRINT CONTROL
                    IPLOT          0  PLOT CONTROL
                    QSCAL         0.  HYDROGRAPH PLOT SCALE

 36 IN        TIME DATA FOR INPUT TIME SERIES
                    JXMIN         15  TIME INTERVAL IN MINUTES
                   JXDATE      1   0  STARTING DATE
                   JXTIME          0  STARTING TIME

    IT        HYDROGRAPH TIME DATA
                     NMIN          5  MINUTES IN COMPUTATION INTERVAL
                    IDATE      1   0  STARTING DATE
                    ITIME       0000  STARTING TIME
                       NQ       1000  NUMBER OF HYDROGRAPH ORDINATES
                   NDDATE      4   0  ENDING DATE
                   NDTIME       1115  ENDING TIME
                    ICENT         19  CENTURY MARK

              COMPUTATION INTERVAL     .08 HOURS
                 TOTAL TIME BASE   83.25 HOURS

        ENGLISH UNITS
             DRAINAGE AREA          SQUARE MILES
             PRECIPITATION DEPTH    INCHES
             LENGTH, ELEVATION      FEET
             FLOW                   CUBIC FEET PER SECOND
             STORAGE VOLUME         ACRE-FEET
             SURFACE AREA           ACRES
             TEMPERATURE            DEGREES FAHRENHEIT

 37 JD        INDEX STORM NO. 1
                    STRM        4.03  PRECIPITATION DEPTH
                    TRDA         .00  TRANSPOSITION DRAINAGE AREA

 38 PI          PRECIPITATION PATTERN
                   .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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                   .03       .09       .09       .09       .01       .01       .01       .01       .01       .01
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48 JD         INDEX STORM NO. 2
                STRM        3.99  PRECIPITATION DEPTH
                TRDA       10.00  TRANSPOSITION DRAINAGE AREA

 0 PI           PRECIPITATION PATTERN
                .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
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                .03      .09      .09      .09      .01      .01      .01      .01      .01      .01
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49 JD         INDEX STORM NO. 3
                STRM        3.83  PRECIPITATION DEPTH
                TRDA       50.00  TRANSPOSITION DRAINAGE AREA

 0 PI           PRECIPITATION PATTERN
                .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
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50 JD         INDEX STORM NO. 4
                STRM        3.76  PRECIPITATION DEPTH
                TRDA      100.00  TRANSPOSITION DRAINAGE AREA

 0 PI           PRECIPITATION PATTERN
                .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
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51 JD         INDEX STORM NO. 5
                STRM        3.70  PRECIPITATION DEPTH
                TRDA      200.00  TRANSPOSITION DRAINAGE AREA

 0 PI           PRECIPITATION PATTERN
                .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
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.01    .01    .01    .01    .01    .01    .01    .01    .03    .03
.03    .09    .09    .09    .01    .01    .01    .01    .01    .01
.01    .01    .01    .01    .01    .01    .00    .00    .00    .00
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          **************
          *            *
 52 KK    *          1 *
          *            *
          **************
                          RUNOFF HYDROGRAPH FROM SUB-BASIN 1.

            SUBBASIN RUNOFF DATA

 54 BA        SUBBASIN CHARACTERISTICS
                TAREA          1.94  SUBBASIN AREA

 55 LG        GREEN AND AMPT LOSS RATE
                STRTL           .35  STARTING LOSS
                  DTH           .15  MOISTURE DEFICIT
                 PSIF          7.98  WETTING FRONT SUCTION
                XKSAT           .08  HYDRAULIC CONDUCTIVITY
                RTIMP         19.80  PERCENT IMPERVIOUS AREA

 53 UI        INPUT UNITGRAPH,  21 ORDINATES,  VOLUME = 1.00
                182.0    326.0    742.0    974.0   1186.0   1502.0   2185.0   1957.0   1537.0   1243.0
                989.0    751.0    417.0    308.0    230.0    182.0     64.0     56.0     56.0     56.0
                 56.0
                                                                                  ***

    ***          ***          ***          ***          ***

                  HYDROGRAPH AT STATION        1
                TRANSPOSITION AREA        .0 SQ MI

   TOTAL RAINFALL =    4.03, TOTAL LOSS =    1.79, TOTAL EXCESS =    2.24

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                    (CFS)
+    2669.     12.42                 418.        117.         39.          34.
                                 (INCHES)      2.005       2.236       2.237        2.237
                                  (AC-FT)       207.        231.        231.         231.

                  CUMULATIVE AREA =    1.94 SQ MI

    ***          ***          ***          ***          ***

                  HYDROGRAPH AT STATION        1
                TRANSPOSITION AREA     10.0 SQ MI

   TOTAL RAINFALL =    3.99, TOTAL LOSS =    1.78, TOTAL EXCESS =    2.21

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                    (CFS)
+    2639.     12.42                 413.        115.         38.          33.
                                 (INCHES)      1.978       2.206       2.208        2.208
                                  (AC-FT)       205.        228.        228.         228.

                  CUMULATIVE AREA =    1.94 SQ MI

    ***          ***          ***          ***          ***

                  HYDROGRAPH AT STATION        1
                TRANSPOSITION AREA     50.0 SQ MI

   TOTAL RAINFALL =    3.83, TOTAL LOSS =    1.74, TOTAL EXCESS =    2.09

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                    (CFS)
+    2520.     12.42                 390.        109.         36.          31.
                                 (INCHES)      1.869       2.088       2.090        2.090
                                  (AC-FT)       193.        216.        216.         216.

                  CUMULATIVE AREA =    1.94 SQ MI

    ***          ***          ***          ***          ***

                  HYDROGRAPH AT STATION        1
                TRANSPOSITION AREA    100.0 SQ MI

   TOTAL RAINFALL =    3.76, TOTAL LOSS =    1.72, TOTAL EXCESS =    2.04

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                    (CFS)
+    2468.     12.42                 380.        106.         35.          31.
                                 (INCHES)      1.822       2.037       2.039        2.039
                                  (AC-FT)       189.        211.        211.         211.

                  CUMULATIVE AREA =    1.94 SQ MI

    ***          ***          ***          ***          ***

                  HYDROGRAPH AT STATION        1
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                    TRANSPOSITION AREA    200.0 SQ MI

      TOTAL RAINFALL =    3.70, TOTAL LOSS =    1.70, TOTAL EXCESS =    2.00

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                   (CFS)
+    2423.      12.42                372.        104.         35.         30.
                                (INCHES)      1.783       1.994       1.996       1.996
                                 (AC-FT)        184.        206.        207.        207.

                    CUMULATIVE AREA =    1.94 SQ MI

      ***           ***           ***           ***           ***


                    INTERPOLATED HYDROGRAPH AT        1

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                   (CFS)
+    2645.      12.42                414.        115.         38.         33.
                                (INCHES)      1.983       2.211       2.213       2.213
                                 (AC-FT)        205.        229.        229.        229.

                    CUMULATIVE AREA =    1.94 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

            **************
            *            *
  60 KK     *     RCP1   *
            *            *
            **************
                    ROUTE FLOW FROM CP1 TO CP2.

          HYDROGRAPH ROUTING DATA

  62 RS       STORAGE ROUTING
                  NSTPS          5  NUMBER OF SUBREACHES
                   ITYP             TYPE OF INITIAL CONDITION
                 RSVRIC      -1.00  INITIAL CONDITION
                      X        .00  WORKING R AND D COEFFICIENT

  63 RC       NORMAL DEPTH CHANNEL
                    ANL       .060  LEFT OVERBANK N-VALUE
                   ANCH       .040  MAIN CHANNEL N-VALUE
                    ANR       .060  RIGHT OVERBANK N-VALUE
                  RLNTH      17800.  REACH LENGTH
                    SEL      .0469  ENERGY SLOPE
                  ELMAX         .0  MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION

                                  CROSS-SECTION DATA
                      --- LEFT OVERBANK --- + ------ MAIN CHANNEL ------- + --- RIGHT OVERBANK ---
  65 RY     ELEVATION   1440.00   1439.00   1437.00   1428.00   1428.00   1439.00   1442.00   1444.00
  64 RX     DISTANCE    1000.00   1125.00   1300.00   1390.00   1405.00   1490.00   1590.00   1750.00
                                                          ***

                              COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

        STORAGE        .00      7.73     20.60     38.61     61.75     90.03    123.45    162.01    205.70    254.53
        OUTFLOW        .00    112.17    438.31   1030.64   1942.88   3225.33   4925.28   7087.58   9755.03  12968.75
      ELEVATION    1428.00   1428.84   1429.68   1430.53   1431.37   1432.21   1433.05   1433.90   1434.74   1435.58

        STORAGE     308.50    368.71    451.22    561.33    707.10    888.49   1080.68   1283.48   1506.83   1753.37
        OUTFLOW   16768.34  21392.92  27254.93  34217.61  43236.79  54622.88  68029.81  83158.74 100121.10 119183.70
      ELEVATION    1436.42   1437.26   1438.11   1438.95   1439.79   1440.63   1441.47   1442.32   1443.16   1444.00

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN     7088. TO   119184.
                THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
                THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

      ***           ***           ***           ***           ***

                    HYDROGRAPH AT STATION     RCP1
                TRANSPOSITION AREA       .0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                   (CFS)
+    2440.      12.67                418.        117.         39.         34.
                                (INCHES)      2.004       2.234       2.237       2.237
                                 (AC-FT)        207.        231.        231.        231.

  PEAK STORAGE  TIME                          MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
      15.       12.67                  3.          1.          0.          0.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
   1431.69      12.67             1429.12     1428.37     1428.12     1428.11

                    CUMULATIVE AREA =    1.94 SQ MI

      ***           ***           ***           ***           ***

                    HYDROGRAPH AT STATION     RCP1
                TRANSPOSITION AREA      10.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                   (CFS)
+    2411.      12.67                413.        115.         38.         33.
                                (INCHES)      1.977       2.205       2.208       2.208
                                 (AC-FT)        205.        228.        228.        228.

  PEAK STORAGE  TIME                          MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
      14.       12.67                  3.          1.          0.          0.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
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  1431.68     12.67                1429.11     1428.37     1428.12     1428.11

                        CUMULATIVE AREA =    1.94 SQ MI

      ***             ***            ***            ***            ***

                        HYDROGRAPH AT STATION     RCP1
                      TRANSPOSITION AREA     50.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    2294.      12.67       390.        109.         36.          31.
                     (INCHES)     1.868       2.087       2.090       2.090
                      (AC-FT)       193.        216.        216.        216.

 PEAK STORAGE   TIME                         MAXIMUM AVERAGE STORAGE
                                    6-HR       24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
      14.      12.67                 3.          1.          0.          0.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                    6-HR       24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
  1431.60      12.67              1429.06     1428.35     1428.12     1428.10

                        CUMULATIVE AREA =    1.94 SQ MI

      ***             ***            ***            ***            ***

                        HYDROGRAPH AT STATION     RCP1
                      TRANSPOSITION AREA    100.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    2242.      12.67       380.        106.         35.          31.
                     (INCHES)     1.822       2.036       2.039       2.039
                      (AC-FT)       188.        211.        211.        211.

 PEAK STORAGE   TIME                         MAXIMUM AVERAGE STORAGE
                                    6-HR       24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
      14.      12.67                 3.          1.          0.          0.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                    6-HR       24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
  1431.57      12.67              1429.05     1428.35     1428.12     1428.10

                        CUMULATIVE AREA =    1.94 SQ MI

      ***             ***            ***            ***            ***

                        HYDROGRAPH AT STATION     RCP1
                      TRANSPOSITION AREA    200.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    2197.      12.67       372.        104.         35.          30.
                     (INCHES)     1.782       1.993       1.996       1.996
                      (AC-FT)       184.        206.        207.        207.

 PEAK STORAGE   TIME                         MAXIMUM AVERAGE STORAGE
                                    6-HR       24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
      13.      12.67                 3.          1.          0.          0.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                    6-HR       24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
  1431.54      12.67              1429.03     1428.34     1428.11     1428.10

                        CUMULATIVE AREA =    1.94 SQ MI

      ***             ***            ***            ***            ***


                        INTERPOLATED HYDROGRAPH AT     RCP1

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    2416.      12.67       414.        115.         38.          33.
                     (INCHES)     1.982       2.210       2.213       2.213
                      (AC-FT)       205.        229.        229.        229.

                        CUMULATIVE AREA =    1.94 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

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            *            *
  66 KK     *          2 *
            *            *
            **************
                                RUNOFF HYDROGRAPH FROM SUB-BASIN 2.

              SUBBASIN RUNOFF DATA

  68 BA         SUBBASIN CHARACTERISTICS
                      TAREA         1.82  SUBBASIN AREA

  69 LG         GREEN AND AMPT LOSS RATE
                     STRTL          .35  STARTING LOSS
                       DTH          .15  MOISTURE DEFICIT
                      PSIF         6.96  WETTING FRONT SUCTION
                     XKSAT          .12  HYDRAULIC CONDUCTIVITY
                     RTIMP        21.85  PERCENT IMPERVIOUS AREA

  67 UI         INPUT UNITGRAPH,  31 ORDINATES,  VOLUME = 1.00
                    115.0     115.0     259.0     442.0     556.0     642.0     727.0     849.0    1013.0    1346.0
                   1419.0    1145.0     985.0     864.0     735.0     634.0     545.0     405.0     268.0     202.0
                    189.0     144.0     115.0     103.0      35.0      35.0      35.0      35.0      35.0      35.0
                     35.0
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                                                                                  ***
     ***              ***              ***              ***              ***

                        HYDROGRAPH AT STATION        2
                       TRANSPOSITION AREA        .0 SQ MI

     TOTAL RAINFALL =    4.03, TOTAL LOSS =    1.86, TOTAL EXCESS =    2.17

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    1880.      12.75                 373.        106.         35.         30.
                       (INCHES)     1.904       2.158       2.160       2.160
                        (AC-FT)      185.        209.        210.        210.

                       CUMULATIVE AREA =    1.82 SQ MI

     ***              ***              ***              ***              ***

                        HYDROGRAPH AT STATION        2
                       TRANSPOSITION AREA     10.0 SQ MI

     TOTAL RAINFALL =    3.99, TOTAL LOSS =    1.85, TOTAL EXCESS =    2.14

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    1858.      12.75                 368.        104.         35.         30.
                       (INCHES)     1.878       2.129       2.132       2.132
                        (AC-FT)      182.        207.        207.        207.

                       CUMULATIVE AREA =    1.82 SQ MI

     ***              ***              ***              ***              ***

                        HYDROGRAPH AT STATION        2
                       TRANSPOSITION AREA     50.0 SQ MI

     TOTAL RAINFALL =    3.83, TOTAL LOSS =    1.81, TOTAL EXCESS =    2.02

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    1769.      12.75                 348.         99.         33.         28.
                       (INCHES)     1.776       2.017       2.020       2.020
                        (AC-FT)      172.        196.        196.        196.

                       CUMULATIVE AREA =    1.82 SQ MI

     ***              ***              ***              ***              ***

                        HYDROGRAPH AT STATION        2
                       TRANSPOSITION AREA    100.0 SQ MI

     TOTAL RAINFALL =    3.76, TOTAL LOSS =    1.78, TOTAL EXCESS =    1.98

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    1730.      12.75                 339.         96.         32.         28.
                       (INCHES)     1.733       1.970       1.973       1.973
                        (AC-FT)      168.        191.        191.        191.

                       CUMULATIVE AREA =    1.82 SQ MI

     ***              ***              ***              ***              ***

                        HYDROGRAPH AT STATION        2
                       TRANSPOSITION AREA    200.0 SQ MI

     TOTAL RAINFALL =    3.70, TOTAL LOSS =    1.76, TOTAL EXCESS =    1.94

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    1696.      12.75                 332.         94.         32.         27.
                       (INCHES)     1.696       1.929       1.932       1.932
                        (AC-FT)      165.        187.        188.        188.

                       CUMULATIVE AREA =    1.82 SQ MI

     ***              ***              ***              ***              ***


                       INTERPOLATED HYDROGRAPH AT        2

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    1862.      12.75                 369.        104.         35.         30.
                       (INCHES)     1.883       2.134       2.137       2.137
                        (AC-FT)      183.        207.        207.        207.

                       CUMULATIVE AREA =    1.82 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

            **************
            *            *
  75 KK     *     CP2    *
            *            *
            **************
                       ADD HYDROGRAPHS AT CP2.

  77 HC          HYDROGRAPH COMBINATION
                      ICOMP            2  NUMBER OF HYDROGRAPHS TO COMBINE
                                                                      ***
     ***              ***              ***              ***              ***
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                    HYDROGRAPH AT STATION      CP2
                  TRANSPOSITION AREA       .0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR        72-HR      83.25-HR
+   (CFS)       (HR)
                                   (CFS)
+    4303.      12.67                 791.         222.          74.          64.
                                 (INCHES)       1.955        2.197        2.200        2.200
                                  (AC-FT)        392.         440.         441.         441.

                                CUMULATIVE AREA =    3.76 SQ MI

      ***                 ***          ***          ***          ***

                    HYDROGRAPH AT STATION      CP2
                  TRANSPOSITION AREA     10.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR        72-HR      83.25-HR
+   (CFS)       (HR)
                                   (CFS)
+    4252.      12.67                 780.         219.          73.          63.
                                 (INCHES)       1.929        2.168        2.171        2.171
                                  (AC-FT)        387.         435.         435.         435.

                                CUMULATIVE AREA =    3.76 SQ MI

      ***                 ***          ***          ***          ***

                    HYDROGRAPH AT STATION      CP2
                  TRANSPOSITION AREA     50.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR        72-HR      83.25-HR
+   (CFS)       (HR)
                                   (CFS)
+    4048.      12.75                 737.         208.          69.          60.
                                 (INCHES)       1.823        2.053        2.056        2.056
                                  (AC-FT)        366.         412.         412.         412.

                                CUMULATIVE AREA =    3.76 SQ MI

      ***                 ***          ***          ***          ***

                    HYDROGRAPH AT STATION      CP2
                  TRANSPOSITION AREA    100.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR        72-HR      83.25-HR
+   (CFS)       (HR)
                                   (CFS)
+    3961.      12.75                 719.         203.          68.          58.
                                 (INCHES)       1.778        2.004        2.007        2.007
                                  (AC-FT)        357.         402.         402.         402.

                                CUMULATIVE AREA =    3.76 SQ MI

      ***                 ***          ***          ***          ***

                    HYDROGRAPH AT STATION      CP2
                  TRANSPOSITION AREA    200.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR        72-HR      83.25-HR
+   (CFS)       (HR)
                                   (CFS)
+    3886.      12.75                 704.         198.          66.          57.
                                 (INCHES)       1.740        1.962        1.965        1.965
                                  (AC-FT)        349.         393.         394.         394.

                                CUMULATIVE AREA =    3.76 SQ MI

      ***                 ***          ***          ***          ***


                    INTERPOLATED HYDROGRAPH AT      CP2

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR        72-HR      83.25-HR
+   (CFS)       (HR)
                                   (CFS)
+    4257.      12.67                 781.         219.          73.          63.
                                 (INCHES)       1.931        2.171        2.174        2.174
                                  (AC-FT)        387.         435.         436.         436.

                                CUMULATIVE AREA =    3.76 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

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            *            *
  78 KK     *     RCP2   *
            *            *
            **************
                          ROUTE COMBINED HYDROGRAPHS AT CP2 TO CP3.

              HYDROGRAPH ROUTING DATA

  80 RS         STORAGE ROUTING
                      NSTPS          2  NUMBER OF SUBREACHES
                       ITYP             TYPE OF INITIAL CONDITION
                     RSVRIC      -1.00  INITIAL CONDITION
                          X        .00 WORKING R AND D COEFFICIENT

  81 RC         NORMAL DEPTH CHANNEL
                        ANL       .060  LEFT OVERBANK N-VALUE
                       ANCH       .035  MAIN CHANNEL N-VALUE
                        ANR       .060  RIGHT OVERBANK N-VALUE
                      RLNTH      4500.  REACH LENGTH
                        SEL      .0111  ENERGY SLOPE
                       ELMAX         .0  MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION

                                  CROSS-SECTION DATA
                        --- LEFT OVERBANK --- + ------ MAIN CHANNEL ------- + --- RIGHT OVERBANK ---
  83 RY       ELEVATION  1304.00  1302.00  1302.00  1298.00  1298.00  1303.00  1302.00  1305.00
  82 RX       DISTANCE   1000.00  1100.00  1350.00  1705.00  1735.00  1780.00  1850.00  2000.00

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COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	1.83	5.02	9.59	15.53	22.84	31.52	41.57	52.99	65.78
OUTFLOW	.00	32.96	133.09	319.65	611.42	1025.75	1578.94	2286.37	3162.69	4221.97
ELEVATION	1298.00	1298.37	1298.74	1299.11	1299.47	1299.84	1300.21	1300.58	1300.95	1301.32
STORAGE	79.95	96.85	124.00	153.66	185.72	219.37	254.43	290.70	327.71	365.42
OUTFLOW	5477.73	6997.44	9186.34	11758.43	14734.38	18120.15	21861.67	26011.68	30534.23	35399.38
ELEVATION	1301.68	1302.05	1302.42	1302.79	1303.16	1303.53	1303.89	1304.26	1304.63	1305.00

*** *** *** *** ***

HYDROGRAPH AT STATION RCP2
TRANSPOSITION AREA .0 SQ MI

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	83.25-HR
+ (CFS)	(HR)					
		(CFS)	790.	222.	74.	64.
+ 4110.	12.83	(INCHES)	1.954	2.195	2.200	2.200
		(AC-FT)	392.	440.	441.	441.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE 6-HR	24-HR	72-HR	83.25-HR
+ (AC-FT)	(HR)				
32.	12.83	8.	3.	1.	1.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE 6-HR	24-HR	72-HR	83.25-HR
+ (FEET)	(HR)				
1301.28	12.83	1299.25	1298.56	1298.19	1298.16

CUMULATIVE AREA = 3.76 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION RCP2
TRANSPOSITION AREA 10.0 SQ MI

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	83.25-HR
+ (CFS)	(HR)					
		(CFS)	780.	219.	73.	63.
+ 4060.	12.83	(INCHES)	1.928	2.166	2.171	2.171
		(AC-FT)	387.	434.	435.	435.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE 6-HR	24-HR	72-HR	83.25-HR
+ (AC-FT)	(HR)				
32.	12.83	8.	3.	1.	1.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE 6-HR	24-HR	72-HR	83.25-HR
+ (FEET)	(HR)				
1301.26	12.83	1299.24	1298.56	1298.19	1298.16

CUMULATIVE AREA = 3.76 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION RCP2
TRANSPOSITION AREA 50.0 SQ MI

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	83.25-HR
+ (CFS)	(HR)					
		(CFS)	737.	207.	69.	60.
+ 3859.	12.83	(INCHES)	1.823	2.051	2.056	2.056
		(AC-FT)	365.	411.	412.	412.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE 6-HR	24-HR	72-HR	83.25-HR
+ (AC-FT)	(HR)				
31.	12.83	7.	2.	1.	1.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE 6-HR	24-HR	72-HR	83.25-HR
+ (FEET)	(HR)				
1301.19	12.83	1299.21	1298.54	1298.18	1298.16

CUMULATIVE AREA = 3.76 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION RCP2
TRANSPOSITION AREA 100.0 SQ MI

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	83.25-HR
+ (CFS)	(HR)					
		(CFS)	719.	202.	68.	58.
+ 3771.	12.83	(INCHES)	1.778	2.002	2.007	2.007
		(AC-FT)	356.	402.	402.	402.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE 6-HR	24-HR	72-HR	83.25-HR
+ (AC-FT)	(HR)				
30.	12.83	7.	2.	1.	1.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE 6-HR	24-HR	72-HR	83.25-HR
+ (FEET)	(HR)				
1301.16	12.83	1299.20	1298.54	1298.18	1298.16

CUMULATIVE AREA = 3.76 SQ MI

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HYDROGRAPH AT STATION RCP2
TRANSPOSITION AREA 200.0 SQ MI

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	83.25-HR
+ (CFS)	(HR)					
		(CFS)	703.	198.	66.	57.
+ 3694.	12.83	(INCHES)	1.739	1.960	1.965	1.965
		(AC-FT)	349.	393.	394.	394.

```
 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
      30.      12.83                   7.          2.          1.          1.

 PEAK STAGE     TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+  (FEET)       (HR)
   1301.13     12.83               1299.18     1298.53     1298.18     1298.15

                        CUMULATIVE AREA =    3.76 SQ MI

      ***             ***         ***         ***         ***

                        INTERPOLATED HYDROGRAPH AT     RCP2

 PEAK FLOW      TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+  (CFS)        (HR)
                                   (CFS)
+   4065.      12.83                 781.        219.         73.         63.
                                (INCHES)       1.931       2.169       2.174       2.174
                                 (AC-FT)        387.        435.        436.        436.

                        CUMULATIVE AREA =    3.76 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

            **************
            *            *
 84 KK      *      3A    *
            *            *
            **************
                                RUNOFF HYDROGRAPH FROM SUB-BASIN 3A

            SUBBASIN RUNOFF DATA

 86 BA        SUBBASIN CHARACTERISTICS
                  TAREA          .29  SUBBASIN AREA

 87 LG        GREEN AND AMPT LOSS RATE
                  STRTL          .34  STARTING LOSS
                    DTH          .24  MOISTURE DEFICIT
                   PSIF         4.14  WETTING FRONT SUCTION
                  XKSAT          .43  HYDRAULIC CONDUCTIVITY
                  RTIMP          .00  PERCENT IMPERVIOUS AREA

 85 UI        INPUT UNITGRAPH,  17 ORDINATES,  VOLUME = 1.00
                 34.0      89.0     165.0     212.0     286.0     410.0     314.0     242.0     182.0     124.0
                 62.0      48.0      33.0      10.0      10.0      10.0      10.0
                                                                   ***

      ***             ***         ***         ***         ***

                        HYDROGRAPH AT STATION       3A
                      TRANSPOSITION AREA       .0 SQ MI

   TOTAL RAINFALL =    4.03, TOTAL LOSS =    2.93, TOTAL EXCESS =    1.10

 PEAK FLOW      TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+  (CFS)        (HR)
                                   (CFS)
+    342.      12.33                  34.          9.          3.          2.
                                (INCHES)       1.101       1.101       1.101       1.101
                                 (AC-FT)         17.         17.         17.         17.

                        CUMULATIVE AREA =     .29 SQ MI

      ***             ***         ***         ***         ***

                        HYDROGRAPH AT STATION       3A
                      TRANSPOSITION AREA     10.0 SQ MI

   TOTAL RAINFALL =    3.99, TOTAL LOSS =    2.90, TOTAL EXCESS =    1.09

 PEAK FLOW      TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+  (CFS)        (HR)
                                   (CFS)
+    337.      12.33                  34.          8.          3.          2.
                                (INCHES)       1.083       1.083       1.083       1.083
                                 (AC-FT)         17.         17.         17.         17.

                        CUMULATIVE AREA =     .29 SQ MI

      ***             ***         ***         ***         ***

                        HYDROGRAPH AT STATION       3A
                      TRANSPOSITION AREA     50.0 SQ MI

   TOTAL RAINFALL =    3.83, TOTAL LOSS =    2.81, TOTAL EXCESS =    1.02

 PEAK FLOW      TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+  (CFS)        (HR)
                                   (CFS)
+    317.      12.33                  32.          8.          3.          2.
                                (INCHES)       1.014       1.014       1.014       1.014
                                 (AC-FT)         16.         16.         16.         16.

                        CUMULATIVE AREA =     .29 SQ MI

      ***             ***         ***         ***         ***

                        HYDROGRAPH AT STATION       3A
                      TRANSPOSITION AREA    100.0 SQ MI

   TOTAL RAINFALL =    3.76, TOTAL LOSS =    2.78, TOTAL EXCESS =     .98

 PEAK FLOW      TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+  (CFS)        (HR)
                                   (CFS)
+    308.      12.33                  31.          8.          3.          2.
                                (INCHES)        .983        .983        .983        .983
                                 (AC-FT)         15.         15.         15.         15.
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                    CUMULATIVE AREA =     .29 SQ MI

     ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION      3A
                  TRANSPOSITION AREA    200.0 SQ MI

     TOTAL RAINFALL =    3.70, TOTAL LOSS =    2.74, TOTAL EXCESS =     .96

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+     300.     12.33        30.          7.          2.           2.
                      (INCHES)       .956        .956        .956        .956
                       (AC-FT)        15.         15.         15.         15.

                    CUMULATIVE AREA =     .29 SQ MI

     ***            ***            ***            ***            ***


                    INTERPOLATED HYDROGRAPH AT      3A

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+     339.     12.33        34.          9.          3.           2.
                      (INCHES)      1.090       1.090       1.090       1.090
                       (AC-FT)        17.         17.         17.         17.

                    CUMULATIVE AREA =     .29 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


            **************
            *            *
  91 KK     *    RCP3A   *
            *            *
            **************
                    ROUTE FLOW FROM CP3A TO CP3

            HYDROGRAPH ROUTING DATA

  93 RS       STORAGE ROUTING
                  NSTPS          2  NUMBER OF SUBREACHES
                   ITYP             TYPE OF INITIAL CONDITION
                 RSVRIC      -1.00  INITIAL CONDITION
                      X        .00 WORKING R AND D COEFFICIENT

  94 RC       NORMAL DEPTH CHANNEL
                    ANL       .030  LEFT OVERBANK N-VALUE
                   ANCH       .030  MAIN CHANNEL N-VALUE
                    ANR       .050  RIGHT OVERBANK N-VALUE
                  RLNTH      5300.  REACH LENGTH
                    SEL      .0060  ENERGY SLOPE
                  ELMAX         .0  MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION

                                CROSS-SECTION DATA
                     --- LEFT OVERBANK --- + ------ MAIN CHANNEL ------- + --- RIGHT OVERBANK ---
  96 RY     ELEVATION   1289.00   1288.00   1286.00   1284.00   1284.00   1286.00   1288.00   1291.00
  95 RX     DISTANCE    1000.00   1023.00   1032.00   1046.00   1058.00   1067.00   1250.00   1540.00
                                                          ***

                          COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

          STORAGE        .00       .63      1.46      2.47      3.67      5.06      6.87     10.14     14.99     21.43
          OUTFLOW        .00      9.34     32.03     68.06    118.59    184.95    279.73    413.97    594.32    831.71
        ELEVATION    1284.00   1284.37   1284.74   1285.11   1285.47   1285.84   1286.21   1286.58   1286.95   1287.32

          STORAGE      29.45     39.07     50.51     63.93     79.29     96.32    114.93    135.15    156.96    180.36
          OUTFLOW    1135.65   1512.32   1966.73   2525.72   3206.01   4016.49   4951.32   6015.81   7215.37   8555.45
        ELEVATION    1287.68   1288.05   1288.42   1288.79   1289.16   1289.53   1289.89   1290.26   1290.63   1291.00

     ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION    RCP3A
                  TRANSPOSITION AREA       .0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+     275.     12.50        34.          9.          3.           2.
                      (INCHES)      1.101       1.101       1.101       1.101
                       (AC-FT)        17.         17.         17.         17.

 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                    6-HR       24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
       3.     12.50                 1.          0.          0.           0.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                    6-HR       24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
   1286.19     12.50            1284.42     1284.10     1284.03     1284.03

                    CUMULATIVE AREA =     .29 SQ MI

     ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION    RCP3A
                  TRANSPOSITION AREA     10.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+     271.     12.50        34.          8.          3.           2.
                      (INCHES)      1.083       1.083       1.083       1.083
                       (AC-FT)        17.         17.         17.         17.

 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                    6-HR       24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
       3.     12.50                 1.          0.          0.           0.
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  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
  1286.18      12.50              1284.41     1284.10     1284.03     1284.03

                          CUMULATIVE AREA =     .29 SQ MI

      ***                ***          ***          ***          ***

                          HYDROGRAPH AT STATION     RCP3A
                        TRANSPOSITION AREA     50.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                   (CFS)
+    254.      12.50                 32.          8.          3.           2.
                                (INCHES)       1.014       1.014       1.014       1.014
                                 (AC-FT)        16.         16.         16.         16.

 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
      3.       12.50                  0.          0.          0.           0.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
  1286.11      12.50              1284.40     1284.10     1284.03     1284.03

                          CUMULATIVE AREA =     .29 SQ MI

      ***                ***          ***          ***          ***

                          HYDROGRAPH AT STATION     RCP3A
                        TRANSPOSITION AREA    100.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                   (CFS)
+    246.      12.50                 31.          8.          3.           2.
                                (INCHES)        .983        .983        .983        .983
                                 (AC-FT)        15.         15.         15.         15.

 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
      3.       12.50                  0.          0.          0.           0.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
  1286.08      12.50              1284.40     1284.10     1284.03     1284.03

                          CUMULATIVE AREA =     .29 SQ MI

      ***                ***          ***          ***          ***

                          HYDROGRAPH AT STATION     RCP3A
                        TRANSPOSITION AREA    200.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                   (CFS)
+    239.      12.50                 30.          7.          2.           2.
                                (INCHES)        .956        .956        .956        .956
                                 (AC-FT)        15.         15.         15.         15.

 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
      3.       12.50                  0.          0.          0.           0.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
  1286.05      12.50              1284.39     1284.10     1284.03     1284.03

                          CUMULATIVE AREA =     .29 SQ MI

      ***                ***          ***          ***          ***

                          INTERPOLATED HYDROGRAPH AT     RCP3A

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                   (CFS)
+    273.      12.50                 34.          9.          3.           2.
                                (INCHES)       1.090       1.090       1.090       1.090
                                 (AC-FT)        17.         17.         17.         17.

                          CUMULATIVE AREA =     .29 SQ MI

*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

            **************
            *            *
  97 KK     *          3 *
            *            *
            **************
                                  RUNOFF HYDROGRAPH FROM SUB-BASIN 3.

                SUBBASIN RUNOFF DATA

  99 BA           SUBBASIN CHARACTERISTICS
                        TAREA          .81  SUBBASIN AREA

 100 LG           GREEN AND AMPT LOSS RATE
                       STRTL          .34  STARTING LOSS
                         DTH          .24  MOISTURE DEFICIT
                        PSIF         4.44  WETTING FRONT SUCTION
                       XKSAT          .36  HYDRAULIC CONDUCTIVITY
                       RTIMP          .00  PERCENT IMPERVIOUS AREA

  98 UI           INPUT UNITGRAPH,  17 ORDINATES,  VOLUME = 1.00
                      91.0     228.0     430.0     554.0     725.0    1088.0     908.0     700.0     535.0     396.0
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                    205.0     152.0      95.0      57.0      28.0      28.0      28.0
                                                                ***

     ***            ***            ***            ***            ***

                          HYDROGRAPH AT STATION          3
                          TRANSPOSITION AREA        .0 SQ MI

       TOTAL RAINFALL =    4.03, TOTAL LOSS =    2.87, TOTAL EXCESS =    1.16

      PEAK FLOW      TIME                               MAXIMUM AVERAGE FLOW
                                          6-HR          24-HR        72-HR      83.25-HR
  +    (CFS)         (HR)
                               (CFS)
  +     970.        12.33                  101.           25.           8.           7.
                               (INCHES)   1.158          1.158        1.158        1.158
                               (AC-FT)      50.            50.          50.          50.

                          CUMULATIVE AREA =       .81 SQ MI

     ***            ***            ***            ***            ***

                          HYDROGRAPH AT STATION          3
                          TRANSPOSITION AREA      10.0 SQ MI

       TOTAL RAINFALL =    3.99, TOTAL LOSS =    2.85, TOTAL EXCESS =    1.14

      PEAK FLOW      TIME                               MAXIMUM AVERAGE FLOW
                                          6-HR          24-HR        72-HR      83.25-HR
  +    (CFS)         (HR)
                               (CFS)
  +     955.        12.33                   99.           25.           8.           7.
                               (INCHES)   1.139          1.139        1.139        1.139
                               (AC-FT)      49.            49.          49.          49.

                          CUMULATIVE AREA =       .81 SQ MI

        WARNING EXCESS AT PONDING LESS THAN ZERO FOR PERIOD. EXCESS SET TO ZERO
     ***            ***            ***            ***            ***

                          HYDROGRAPH AT STATION          3
                          TRANSPOSITION AREA      50.0 SQ MI

       TOTAL RAINFALL =    3.83, TOTAL LOSS =    2.76, TOTAL EXCESS =    1.07

      PEAK FLOW      TIME                               MAXIMUM AVERAGE FLOW
                                          6-HR          24-HR        72-HR      83.25-HR
  +    (CFS)         (HR)
                               (CFS)
  +     898.        12.33                   93.           23.           8.           7.
                               (INCHES)   1.062          1.062        1.062        1.062
                               (AC-FT)      46.            46.          46.          46.

                          CUMULATIVE AREA =       .81 SQ MI

     ***            ***            ***            ***            ***

                          HYDROGRAPH AT STATION          3
                          TRANSPOSITION AREA     100.0 SQ MI

       TOTAL RAINFALL =    3.76, TOTAL LOSS =    2.72, TOTAL EXCESS =    1.04

      PEAK FLOW      TIME                               MAXIMUM AVERAGE FLOW
                                          6-HR          24-HR        72-HR      83.25-HR
  +    (CFS)         (HR)
                               (CFS)
  +     873.        12.33                   90.           22.           7.           6.
                               (INCHES)   1.031          1.031        1.031        1.031
                               (AC-FT)      45.            45.          45.          45.

                          CUMULATIVE AREA =       .81 SQ MI

     ***            ***            ***            ***            ***

                          HYDROGRAPH AT STATION          3
                          TRANSPOSITION AREA     200.0 SQ MI

       TOTAL RAINFALL =    3.70, TOTAL LOSS =    2.69, TOTAL EXCESS =    1.01

      PEAK FLOW      TIME                               MAXIMUM AVERAGE FLOW
                                          6-HR          24-HR        72-HR      83.25-HR
  +    (CFS)         (HR)
                               (CFS)
  +     852.        12.33                   88.           22.           7.           6.
                               (INCHES)   1.005          1.005        1.005        1.005
                               (AC-FT)      43.            43.          43.          43.

                          CUMULATIVE AREA =       .81 SQ MI
     ***            ***            ***            ***            ***


                          INTERPOLATED HYDROGRAPH AT          3

      PEAK FLOW      TIME                               MAXIMUM AVERAGE FLOW
                                          6-HR          24-HR        72-HR      83.25-HR
  +    (CFS)         (HR)
                               (CFS)
  +     959.        12.33                  100.           25.           8.           7.
                               (INCHES)   1.144          1.144        1.144        1.144
                               (AC-FT)      49.            49.          49.          49.

                          CUMULATIVE AREA =       .81 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

            **************
            *            *
 104 KK     *    I1CP3   *
            *            *
            **************
                                 ADD HYDROGRAPHS AT CP3.

 106 HC          HYDROGRAPH COMBINATION
                      ICOMP            2  NUMBER OF HYDROGRAPHS TO COMBINE
                                                    ***
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     ***            ***            ***            ***            ***

                 HYDROGRAPH AT STATION    I1CP3
               TRANSPOSITION AREA        .0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+    1177.      12.42                 135.        34.         11.         10.
                                (INCHES)       1.143       1.143       1.143       1.143
                                 (AC-FT)         67.         67.         67.         67.

                 CUMULATIVE AREA =    1.10 SQ MI

     ***            ***            ***            ***            ***

                 HYDROGRAPH AT STATION    I1CP3
               TRANSPOSITION AREA      10.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+    1159.      12.42                 133.        33.         11.         10.
                                (INCHES)       1.124       1.124       1.124       1.124
                                 (AC-FT)         66.         66.         66.         66.

                 CUMULATIVE AREA =    1.10 SQ MI

     ***            ***            ***            ***            ***

                 HYDROGRAPH AT STATION    I1CP3
               TRANSPOSITION AREA      50.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+    1087.      12.42                 124.        31.         10.          9.
                                (INCHES)       1.049       1.050       1.050       1.050
                                 (AC-FT)         62.         62.         62.         62.

                 CUMULATIVE AREA =    1.10 SQ MI

     ***            ***            ***            ***            ***

                 HYDROGRAPH AT STATION    I1CP3
               TRANSPOSITION AREA     100.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+    1056.      12.42                 120.        30.         10.          9.
                                (INCHES)       1.018       1.018       1.018       1.018
                                 (AC-FT)         60.         60.         60.         60.

                 CUMULATIVE AREA =    1.10 SQ MI

     ***            ***            ***            ***            ***

                 HYDROGRAPH AT STATION    I1CP3
               TRANSPOSITION AREA     200.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+    1030.      12.42                 117.        29.         10.          8.
                                (INCHES)        .992        .992        .992        .992
                                 (AC-FT)         58.         58.         58.         58.

                 CUMULATIVE AREA =    1.10 SQ MI

     ***            ***            ***            ***            ***


                 INTERPOLATED HYDROGRAPH AT    I1CP3

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+    1164.      12.42                 134.        33.         11.         10.
                                (INCHES)       1.129       1.129       1.129       1.129
                                 (AC-FT)         66.         66.         66.         66.

                 CUMULATIVE AREA =    1.10 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


            **************
            *            *
  107 KK    *     CP3    *
            *            *
            **************
                    ADD HYDROGRAPHS AT CP3.

  109 HC          HYDROGRAPH COMBINATION
                       ICOMP          2  NUMBER OF HYDROGRAPHS TO COMBINE
                                                                  ***
     ***            ***            ***            ***            ***

                 HYDROGRAPH AT STATION      CP3
               TRANSPOSITION AREA        .0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+    4429.      12.83                 926.       256.         85.         74.
                                (INCHES)       1.771       1.957       1.961       1.961
                                 (AC-FT)        459.        507.        508.        508.

                 CUMULATIVE AREA =    4.86 SQ MI
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     ***            ***            ***            ***            ***

                  HYDROGRAPH AT STATION      CP3
                 TRANSPOSITION AREA     10.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                   (CFS)
+   4374.      12.83                 913.        252.         84.         73.
                                 (INCHES)      1.746       1.930       1.934       1.934
                                  (AC-FT)       453.        500.        501.        501.

                  CUMULATIVE AREA =    4.86 SQ MI

     ***            ***            ***            ***            ***

                  HYDROGRAPH AT STATION      CP3
                 TRANSPOSITION AREA     50.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                   (CFS)
+   4153.      12.83                 861.        238.         80.         69.
                                 (INCHES)      1.648       1.825       1.828       1.828
                                  (AC-FT)       427.        473.        474.        474.

                  CUMULATIVE AREA =    4.86 SQ MI

     ***            ***            ***            ***            ***

                  HYDROGRAPH AT STATION      CP3
                 TRANSPOSITION AREA    100.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                   (CFS)
+   4057.      12.83                 839.        233.         78.         67.
                                 (INCHES)      1.606       1.780       1.783       1.783
                                  (AC-FT)       416.        461.        462.        462.

                  CUMULATIVE AREA =    4.86 SQ MI

     ***            ***            ***            ***            ***

                  HYDROGRAPH AT STATION      CP3
                 TRANSPOSITION AREA    200.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                   (CFS)
+   3973.      12.83                 821.        228.         76.         66.
                                 (INCHES)      1.570       1.741       1.745       1.745
                                  (AC-FT)       407.        451.        452.        452.

                  CUMULATIVE AREA =    4.86 SQ MI

     ***            ***            ***            ***            ***


                  INTERPOLATED HYDROGRAPH AT      CP3

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                   (CFS)
+   4378.      12.83                 914.        253.         84.         73.
                                 (INCHES)      1.748       1.932       1.936       1.936
                                  (AC-FT)       453.        501.        502.        502.

                  CUMULATIVE AREA =    4.86 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

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          *            *
110 KK    *     RCP3   *
          *            *
          **************
                    ROUTE FLOW FROM CP3 TO CP10.

        HYDROGRAPH ROUTING DATA

112 RS        STORAGE ROUTING
                 NSTPS          1  NUMBER OF SUBREACHES
                  ITYP             TYPE OF INITIAL CONDITION
                RSVRIC      -1.00  INITIAL CONDITION
                     X        .00 WORKING R AND D COEFFICIENT

113 RC        NORMAL DEPTH CHANNEL
                   ANL       .050  LEFT OVERBANK N-VALUE
                  ANCH       .030  MAIN CHANNEL N-VALUE
                   ANR       .050  RIGHT OVERBANK N-VALUE
                 RLNTH      5280.  REACH LENGTH
                   SEL      .0083  ENERGY SLOPE
                 ELMAX         .0  MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION

                              CROSS-SECTION DATA
                  --- LEFT OVERBANK --- + ------ MAIN CHANNEL ------- + --- RIGHT OVERBANK ---
115 RY     ELEVATION  1251.00  1249.00  1249.00  1245.00  1245.00  1250.00  1250.00  1254.00
114 RX     DISTANCE   1010.00  1015.00  1020.00  1050.00  1100.00  1275.00  1580.00  1750.00
                                                    ***

                        COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

        STORAGE        .00     3.45     8.05    13.81    20.73    28.80    38.02    48.41    59.94    72.78
        OUTFLOW        .00    70.51   244.90   526.26   925.70  1455.31  2127.11  2952.89  3944.12  5139.18
      ELEVATION    1245.00  1245.47  1245.95  1246.42  1246.89  1247.37  1247.84  1248.32  1248.79  1249.26

        STORAGE      86.77   109.56   143.30   178.25   214.38   251.66   290.09   329.69   370.43   412.34
        OUTFLOW    6541.89  8340.90 10838.72 13784.65 17140.83 20884.40 25003.21 29489.48 34338.10 39545.78
      ELEVATION    1249.74  1250.21  1250.68  1251.16  1251.63  1252.10  1252.58  1253.05  1253.53  1254.00

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HYDROGRAPH AT STATION RCP3
TRANSPOSITION AREA .0 SQ MI

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	83.25-HR
+ 4197.	12.92	(CFS)	925.	256.	85.	74.
		(INCHES)	1.769	1.956	1.961	1.961
		(AC-FT)	459.	507.	508.	508.

PEAK STORAGE (AC-FT)	TIME (HR)	MAXIMUM AVERAGE STORAGE 6-HR	24-HR	72-HR	83.25-HR
+ 63.	12.92	18.	6.	2.	2.

PEAK STAGE (FEET)	TIME (HR)	MAXIMUM AVERAGE STAGE 6-HR	24-HR	72-HR	83.25-HR
+ 1248.89	12.92	1246.46	1245.53	1245.18	1245.15

CUMULATIVE AREA = 4.86 SQ MI

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HYDROGRAPH AT STATION RCP3
TRANSPOSITION AREA 10.0 SQ MI

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	83.25-HR
+ 4139.	12.92	(CFS)	912.	252.	84.	73.
		(INCHES)	1.744	1.929	1.934	1.934
		(AC-FT)	452.	500.	501.	501.

PEAK STORAGE (AC-FT)	TIME (HR)	MAXIMUM AVERAGE STORAGE 6-HR	24-HR	72-HR	83.25-HR
+ 62.	12.92	17.	6.	2.	2.

PEAK STAGE (FEET)	TIME (HR)	MAXIMUM AVERAGE STAGE 6-HR	24-HR	72-HR	83.25-HR
+ 1248.87	12.92	1246.44	1245.52	1245.18	1245.15

CUMULATIVE AREA = 4.86 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION RCP3
TRANSPOSITION AREA 50.0 SQ MI

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	83.25-HR
+ 3904.	12.92	(CFS)	860.	238.	80.	69.
		(INCHES)	1.646	1.823	1.828	1.828
		(AC-FT)	427.	473.	474.	474.

PEAK STORAGE (AC-FT)	TIME (HR)	MAXIMUM AVERAGE STORAGE 6-HR	24-HR	72-HR	83.25-HR
+ 59.	12.92	17.	5.	2.	2.

PEAK STAGE (FEET)	TIME (HR)	MAXIMUM AVERAGE STAGE 6-HR	24-HR	72-HR	83.25-HR
+ 1248.77	12.92	1246.40	1245.51	1245.17	1245.15

CUMULATIVE AREA = 4.86 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION RCP3
TRANSPOSITION AREA 100.0 SQ MI

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	83.25-HR
+ 3806.	12.92	(CFS)	838.	232.	78.	67.
		(INCHES)	1.604	1.779	1.783	1.783
		(AC-FT)	416.	461.	462.	462.

PEAK STORAGE (AC-FT)	TIME (HR)	MAXIMUM AVERAGE STORAGE 6-HR	24-HR	72-HR	83.25-HR
+ 58.	12.92	16.	5.	2.	2.

PEAK STAGE (FEET)	TIME (HR)	MAXIMUM AVERAGE STAGE 6-HR	24-HR	72-HR	83.25-HR
+ 1248.72	12.92	1246.38	1245.50	1245.17	1245.15

CUMULATIVE AREA = 4.86 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION RCP3
TRANSPOSITION AREA 200.0 SQ MI

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	83.25-HR
+ 3722.	12.92	(CFS)	820.	227.	76.	66.
		(INCHES)	1.569	1.740	1.745	1.745
		(AC-FT)	407.	451.	452.	452.

PEAK STORAGE (AC-FT)	TIME (HR)	MAXIMUM AVERAGE STORAGE 6-HR	24-HR	72-HR	83.25-HR
+ 57.	12.92	16.	5.	2.	1.

PEAK STAGE (FEET)	TIME (HR)	MAXIMUM AVERAGE STAGE 6-HR	24-HR	72-HR	83.25-HR
+ 1248.68	12.92	1246.37	1245.49	1245.17	1245.14

CUMULATIVE AREA = 4.86 SQ MI

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     ***            ***            ***            ***            ***

                    INTERPOLATED HYDROGRAPH AT     RCP3

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    4144.      12.92                913.        252.         84.         73.
                        (INCHES)    1.746       1.931       1.936       1.936
                         (AC-FT)     453.        501.        502.        502.

                    CUMULATIVE AREA =    4.86 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

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            *            *
 116 KK     *        4   *
            *            *
            **************
                         RUNOFF HYDROGRAPH FORM SUB-BASIN 4.

            SUBBASIN RUNOFF DATA

 118 BA       SUBBASIN CHARACTERISTICS
                TAREA          .30  SUBBASIN AREA

 119 LG       GREEN AND AMPT LOSS RATE
                STRTL          .35  STARTING LOSS
                  DTH          .15  MOISTURE DEFICIT
                 PSIF         8.01  WETTING FRONT SUCTION
                XKSAT          .08  HYDRAULIC CONDUCTIVITY
                RTIMP        18.50  PERCENT IMPERVIOUS AREA

 117 UI       INPUT UNITGRAPH,  12 ORDINATES,  VOLUME =  .99
                48.0     192.0     287.0     444.0     512.0     346.0     236.0     115.0      67.0      35.0
                14.0      14.0
                                                                  ***
     ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION        4
                  TRANSPOSITION AREA        .0 SQ MI

    TOTAL RAINFALL =    4.03, TOTAL LOSS =    1.81, TOTAL EXCESS =    2.22

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+     544.      12.17                 64.         18.          6.          5.
                        (INCHES)    1.988       2.203       2.204       2.204
                         (AC-FT)      32.         35.         35.         35.

                    CUMULATIVE AREA =     .30 SQ MI

     ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION        4
                  TRANSPOSITION AREA     10.0 SQ MI

    TOTAL RAINFALL =    3.99, TOTAL LOSS =    1.80, TOTAL EXCESS =    2.19

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+     538.      12.17                 63.         18.          6.          5.
                        (INCHES)    1.961       2.173       2.174       2.174
                         (AC-FT)      31.         35.         35.         35.

                    CUMULATIVE AREA =     .30 SQ MI

     ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION        4
                  TRANSPOSITION AREA     50.0 SQ MI

    TOTAL RAINFALL =    3.83, TOTAL LOSS =    1.76, TOTAL EXCESS =    2.07

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+     515.      12.17                 60.         17.          6.          5.
                        (INCHES)    1.852       2.056       2.057       2.057
                         (AC-FT)      30.         33.         33.         33.

                    CUMULATIVE AREA =     .30 SQ MI

     ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION        4
                  TRANSPOSITION AREA    100.0 SQ MI

    TOTAL RAINFALL =    3.76, TOTAL LOSS =    1.74, TOTAL EXCESS =    2.02

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+     504.      12.17                 58.         16.          5.          5.
                        (INCHES)    1.805       2.006       2.007       2.007
                         (AC-FT)      29.         32.         32.         32.

                    CUMULATIVE AREA =     .30 SQ MI

     ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION        4
                  TRANSPOSITION AREA    200.0 SQ MI

    TOTAL RAINFALL =    3.70, TOTAL LOSS =    1.72, TOTAL EXCESS =    1.98

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
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+   (CFS)        (HR)
                          (CFS)
+     495.      12.17                57.          16.          5.           5.
                        (INCHES)     1.766        1.963        1.964        1.964
                         (AC-FT)      28.          31.          31.          31.

                        CUMULATIVE AREA =      .30 SQ MI

      ***             ***            ***            ***            ***


                        INTERPOLATED HYDROGRAPH AT        4

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)        (HR)
                          (CFS)
+     541.      12.17                64.          18.          6.           5.
                        (INCHES)     1.971        2.185        2.185        2.185
                         (AC-FT)      32.          35.          35.          35.

                        CUMULATIVE AREA =      .30 SQ MI


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            *            *
  123 KK    *        5   *
            *            *
            **************
                                RUNOFF HYDROGRAPH FROM SUB-BASIN 5.

              SUBBASIN RUNOFF DATA

  125 BA        SUBBASIN CHARACTERISTICS
                      TAREA          .72  SUBBASIN AREA

  126 LG        GREEN AND AMPT LOSS RATE
                      STRTL          .35  STARTING LOSS
                       DTH           .15  MOISTURE DEFICIT
                      PSIF          8.02  WETTING FRONT SUCTION
                     XKSAT           .08  HYDRAULIC CONDUCTIVITY
                     RTIMP         17.93  PERCENT IMPERVIOUS AREA

  124 UI        INPUT UNITGRAPH,  13 ORDINATES,  VOLUME = 1.00
                    110.0     437.0     658.0     992.0    1242.0     849.0     591.0     315.0     174.0     101.0
                     34.0      34.0      34.0
                                                                                  ***
      ***             ***            ***            ***            ***

                        HYDROGRAPH AT STATION        5
                      TRANSPOSITION AREA        .0 SQ MI

    TOTAL RAINFALL =    4.03, TOTAL LOSS =    1.83, TOTAL EXCESS =    2.20

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)        (HR)
                          (CFS)
+    1294.      12.25               154.          43.         14.          12.
                        (INCHES)     1.991        2.200        2.201        2.201
                         (AC-FT)      76.          84.          85.          85.

                        CUMULATIVE AREA =      .72 SQ MI

      ***             ***            ***            ***            ***

                        HYDROGRAPH AT STATION        5
                      TRANSPOSITION AREA     10.0 SQ MI

    TOTAL RAINFALL =    3.99, TOTAL LOSS =    1.82, TOTAL EXCESS =    2.17

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)        (HR)
                          (CFS)
+    1280.      12.25               152.          42.         14.          12.
                        (INCHES)     1.964        2.171        2.172        2.172
                         (AC-FT)      75.          83.          83.          83.

                        CUMULATIVE AREA =      .72 SQ MI

      ***             ***            ***            ***            ***

                        HYDROGRAPH AT STATION        5
                      TRANSPOSITION AREA     50.0 SQ MI

    TOTAL RAINFALL =    3.83, TOTAL LOSS =    1.77, TOTAL EXCESS =    2.06

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)        (HR)
                          (CFS)
+    1223.      12.25               144.          40.         13.          11.
                        (INCHES)     1.855        2.053        2.054        2.054
                         (AC-FT)      71.          79.          79.          79.

                        CUMULATIVE AREA =      .72 SQ MI

      ***             ***            ***            ***            ***

                        HYDROGRAPH AT STATION        5
                      TRANSPOSITION AREA    100.0 SQ MI

    TOTAL RAINFALL =    3.76, TOTAL LOSS =    1.75, TOTAL EXCESS =    2.01

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)        (HR)
                          (CFS)
+    1199.      12.25               140.          39.         13.          11.
                        (INCHES)     1.808        2.003        2.004        2.004
                         (AC-FT)      69.          77.          77.          77.

                        CUMULATIVE AREA =      .72 SQ MI

      ***             ***            ***            ***            ***
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                    HYDROGRAPH AT STATION        5
                  TRANSPOSITION AREA    200.0 SQ MI

     TOTAL RAINFALL =    3.70, TOTAL LOSS =    1.74, TOTAL EXCESS =    1.96

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    1178.      12.25                137.         38.         13.         11.
                        (INCHES)    1.768      1.960       1.961       1.961
                         (AC-FT)     68.         75.         75.         75.

                    CUMULATIVE AREA =     .72 SQ MI

       ***            ***            ***            ***            ***


                    INTERPOLATED HYDROGRAPH AT        5

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    1284.      12.25                153.         42.         14.         12.
                        (INCHES)    1.972      2.179       2.180       2.180
                         (AC-FT)     76.         84.         84.         84.

                    CUMULATIVE AREA =     .72 SQ MI


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            *            *
 130 KK     *     CP5    *
            *            *
            **************
                    ADD HYDROGRAPHS AT CP5.

 132 HC          HYDROGRAPH COMBINATION
                      ICOMP            2  NUMBER OF HYDROGRAPHS TO COMBINE
                                                                   ***

       ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION       CP5
                  TRANSPOSITION AREA        .0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    1836.      12.25                218.         60.         20.         17.
                        (INCHES)    1.990      2.201       2.202       2.202
                         (AC-FT)    108.        120.        120.        120.

                    CUMULATIVE AREA =    1.02 SQ MI

       ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION       CP5
                  TRANSPOSITION AREA     10.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    1816.      12.25                215.         60.         20.         17.
                        (INCHES)    1.963      2.172       2.172       2.172
                         (AC-FT)    107.        118.        118.        118.

                    CUMULATIVE AREA =    1.02 SQ MI

       ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION       CP5
                  TRANSPOSITION AREA     50.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    1736.      12.25                203.         56.         19.         16.
                        (INCHES)    1.854      2.054       2.055       2.055
                         (AC-FT)    101.        112.        112.        112.

                    CUMULATIVE AREA =    1.02 SQ MI

       ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION       CP5
                  TRANSPOSITION AREA    100.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    1701.      12.25                198.         55.         18.         16.
                        (INCHES)    1.807      2.004       2.005       2.005
                         (AC-FT)     98.        109.        109.        109.

                    CUMULATIVE AREA =    1.02 SQ MI

       ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION       CP5
                  TRANSPOSITION AREA    200.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    1671.      12.25                194.         54.         18.         16.
                        (INCHES)    1.767      1.961       1.962       1.962
                         (AC-FT)     96.        107.        107.        107.

                    CUMULATIVE AREA =    1.02 SQ MI
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     ***          ***          ***          ***          ***

                    INTERPOLATED HYDROGRAPH AT      CP5

  PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                            (CFS)
+    1821.      12.25                216.        60.         20.         17.
                          (INCHES)  1.970       2.179       2.180       2.180
                          (AC-FT)   107.        119.        119.        119.

                    CUMULATIVE AREA =    1.02 SQ MI


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            *            *
 133 KK     *     RCP5   *
            *            *
            **************
                    ROUTE COMBINED HYDROGRAPHS AT CP5 TO CP7.

          HYDROGRAPH ROUTING DATA

 135 RS        STORAGE ROUTING
                    NSTPS          1  NUMBER OF SUBREACHES
                     ITYP             TYPE OF INITIAL CONDITION
                   RSVRIC       -1.00  INITIAL CONDITION
                        X         .00 WORKING R AND D COEFFICIENT

 136 RC        NORMAL DEPTH CHANNEL
                      ANL       .080  LEFT OVERBANK N-VALUE
                     ANCH       .050  MAIN CHANNEL N-VALUE
                      ANR       .080  RIGHT OVERBANK N-VALUE
                    RLNTH      4800.  REACH LENGTH
                      SEL      .0833  ENERGY SLOPE
                    ELMAX         .0  MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION

                                CROSS-SECTION DATA
                  --- LEFT OVERBANK --- + ------ MAIN CHANNEL ------- + --- RIGHT OVERBANK ---
 138 RY     ELEVATION  2815.00  2810.00  2805.00  2800.00  2800.00  2805.00  2810.00  2815.00
 137 RX     DISTANCE    955.00   970.00   985.00  1000.00  1020.00  1035.00  1050.00  1065.00
                                                                  ***

                              COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

        STORAGE        .00      1.95      4.30      7.07     10.26     13.85     17.86     22.28     27.11     32.35
        OUTFLOW        .00    120.51    400.73    827.81   1406.58   2145.61   3054.67   4292.57   5803.15   7518.98
      ELEVATION    2800.00   2800.79   2801.58   2802.37   2803.16   2803.95   2804.74   2805.53   2806.32   2807.11

        STORAGE      38.01     44.08     50.56     57.45     64.75     72.47     80.60     89.14     98.09    107.46
        OUTFLOW    9443.60  11580.54  13933.44  16506.09  19302.42  22326.44  25582.26  29074.01  32805.91  36782.61
      ELEVATION    2807.90   2808.69   2809.47   2810.26   2811.05   2811.84   2812.63   2813.42   2814.21   2815.00

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN     4293. TO     36783.
                THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
                THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

     ***          ***          ***          ***          ***

                    HYDROGRAPH AT STATION      RCP5
                  TRANSPOSITION AREA       .0 SQ MI

  PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                            (CFS)
+    1795.      12.25                218.        60.         20.         17.
                          (INCHES)  1.990       2.201       2.202       2.202
                          (AC-FT)   108.        120.        120.        120.

 PEAK STORAGE   TIME                        MAXIMUM AVERAGE STORAGE
                                    6-HR       24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
      12.       12.25                 2.          1.          0.          0.

  PEAK STAGE    TIME                        MAXIMUM AVERAGE STAGE
                                    6-HR       24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
   2803.57      12.25             2800.70     2800.22     2800.07     2800.06

                    CUMULATIVE AREA =    1.02 SQ MI

     ***          ***          ***          ***          ***

                    HYDROGRAPH AT STATION      RCP5
                  TRANSPOSITION AREA     10.0 SQ MI

  PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                            (CFS)
+    1775.      12.25                215.        60.         20.         17.
                          (INCHES)  1.963       2.171       2.172       2.172
                          (AC-FT)   107.        118.        118.        118.

 PEAK STORAGE   TIME                        MAXIMUM AVERAGE STORAGE
                                    6-HR       24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
      12.       12.25                 2.          1.          0.          0.

  PEAK STAGE    TIME                        MAXIMUM AVERAGE STAGE
                                    6-HR       24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
   2803.55      12.25             2800.69     2800.21     2800.07     2800.06

                    CUMULATIVE AREA =    1.02 SQ MI

     ***          ***          ***          ***          ***

                    HYDROGRAPH AT STATION      RCP5
                  TRANSPOSITION AREA     50.0 SQ MI

  PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
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                                  (CFS)
+    1696.      12.25                203.        56.        19.        16.
                            (INCHES)  1.854      2.054      2.055      2.055
                             (AC-FT)   101.       112.       112.       112.

 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR      72-HR     83.25-HR
+  (AC-FT)      (HR)
      12.      12.25                  2.         1.         0.         0.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR      72-HR     83.25-HR
+   (FEET)      (HR)
   2803.47     12.25              2800.66    2800.21    2800.07    2800.06

                            CUMULATIVE AREA =    1.02 SQ MI

      ***             ***            ***            ***            ***

                          HYDROGRAPH AT STATION     RCP5
                         TRANSPOSITION AREA    100.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR      72-HR     83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+    1661.      12.25                198.        55.        18.        16.
                            (INCHES)  1.807      2.003      2.005      2.005
                             (AC-FT)    98.       109.       109.       109.

 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR      72-HR     83.25-HR
+  (AC-FT)      (HR)
      11.      12.25                  2.         1.         0.         0.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR      72-HR     83.25-HR
+   (FEET)      (HR)
   2803.43     12.25              2800.64    2800.20    2800.07    2800.06

                            CUMULATIVE AREA =    1.02 SQ MI

      ***             ***            ***            ***            ***

                          HYDROGRAPH AT STATION     RCP5
                         TRANSPOSITION AREA    200.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR      72-HR     83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+    1631.      12.25                194.        54.        18.        16.
                            (INCHES)  1.767      1.961      1.962      1.962
                             (AC-FT)    96.       107.       107.       107.

 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR      72-HR     83.25-HR
+  (AC-FT)      (HR)
      11.      12.25                  2.         1.         0.         0.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR      72-HR     83.25-HR
+   (FEET)      (HR)
   2803.40     12.25              2800.63    2800.20    2800.07    2800.06

                            CUMULATIVE AREA =    1.02 SQ MI

      ***             ***            ***            ***            ***


                         INTERPOLATED HYDROGRAPH AT     RCP5

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR      72-HR     83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+    1780.      12.25                216.        60.        20.        17.
                            (INCHES)  1.969      2.178      2.180      2.180
                             (AC-FT)   107.       119.       119.       119.

                            CUMULATIVE AREA =    1.02 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

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            *            *
 139 KK     *        6   *
            *            *
            **************
                                RUNOFF HYDROGRAPH FROM SUB-BASIN 6.

              SUBBASIN RUNOFF DATA

 141 BA          SUBBASIN CHARACTERISTICS
                      TAREA          .45  SUBBASIN AREA

 142 LG          GREEN AND AMPT LOSS RATE
                      STRTL          .35  STARTING LOSS
                        DTH          .15  MOISTURE DEFICIT
                       PSIF         7.98  WETTING FRONT SUCTION
                      XKSAT          .08  HYDRAULIC CONDUCTIVITY
                      RTIMP        20.00  PERCENT IMPERVIOUS AREA

 140 UI          INPUT UNITGRAPH,   8 ORDINATES,  VOLUME = 1.00
                     204.0      622.0    1139.0     837.0     427.0     155.0      54.0      33.0
                                                                   ***
      ***             ***            ***            ***            ***

                          HYDROGRAPH AT STATION        6
                         TRANSPOSITION AREA        .0 SQ MI

    TOTAL RAINFALL =    4.03, TOTAL LOSS =    1.78, TOTAL EXCESS =    2.25

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR      72-HR     83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+    1017.      12.08                 97.        27.         9.         8.
                            (INCHES)  2.003      2.236      2.237      2.237
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                                   (AC-FT)        48.         54.          54.          54.

                                   CUMULATIVE AREA =     .45 SQ MI


         ***                ***           ***           ***          ***

                                    HYDROGRAPH AT STATION         6
                                   TRANSPOSITION AREA      10.0 SQ MI

            TOTAL RAINFALL =     3.99, TOTAL LOSS =     1.77, TOTAL EXCESS =     2.22

          PEAK FLOW        TIME                                   MAXIMUM AVERAGE FLOW
                                                 6-HR          24-HR         72-HR       83.25-HR
      +    (CFS)           (HR)
                                        (CFS)
      +     1006.         12.08                   96.           27.           9.            8.
                                   (INCHES)      1.976         2.207         2.207         2.207
                                    (AC-FT)       47.           53.           53.           53.

                                   CUMULATIVE AREA =     .45 SQ MI


         ***                ***           ***           ***          ***

                                    HYDROGRAPH AT STATION         6
                                   TRANSPOSITION AREA      50.0 SQ MI

            TOTAL RAINFALL =     3.83, TOTAL LOSS =     1.73, TOTAL EXCESS =     2.10

          PEAK FLOW        TIME                                   MAXIMUM AVERAGE FLOW
                                                 6-HR          24-HR         72-HR       83.25-HR
      +    (CFS)           (HR)
                                        (CFS)
      +      963.         12.08                   90.           25.           8.            7.
                                   (INCHES)      1.867         2.089         2.089         2.089
                                    (AC-FT)       45.           50.           50.           50.

                                   CUMULATIVE AREA =     .45 SQ MI


         ***                ***           ***           ***          ***

                                    HYDROGRAPH AT STATION         6
                                   TRANSPOSITION AREA     100.0 SQ MI

            TOTAL RAINFALL =     3.76, TOTAL LOSS =     1.71, TOTAL EXCESS =     2.05

          PEAK FLOW        TIME                                   MAXIMUM AVERAGE FLOW
                                                 6-HR          24-HR         72-HR       83.25-HR
      +    (CFS)           (HR)
                                        (CFS)
      +      944.         12.08                   88.           25.           8.            7.
                                   (INCHES)      1.821         2.038         2.039         2.039
                                    (AC-FT)       44.           49.           49.           49.

                                   CUMULATIVE AREA =     .45 SQ MI


         ***                ***           ***           ***          ***

                                    HYDROGRAPH AT STATION         6
                                   TRANSPOSITION AREA     200.0 SQ MI

            TOTAL RAINFALL =     3.70, TOTAL LOSS =     1.70, TOTAL EXCESS =     2.00

          PEAK FLOW        TIME                                   MAXIMUM AVERAGE FLOW
                                                 6-HR          24-HR         72-HR       83.25-HR
      +    (CFS)           (HR)
                                        (CFS)
      +      928.         12.08                   86.           24.           8.            7.
                                   (INCHES)      1.781         1.995         1.995         1.995
                                    (AC-FT)       43.           48.           48.           48.

                                   CUMULATIVE AREA =     .45 SQ MI

         ***                ***           ***           ***          ***


                                   INTERPOLATED HYDROGRAPH AT           6

          PEAK FLOW        TIME                                   MAXIMUM AVERAGE FLOW
                                                 6-HR          24-HR         72-HR       83.25-HR
      +    (CFS)           (HR)
                                        (CFS)
      +     1010.         12.08                   96.           27.           9.            8.
                                   (INCHES)      1.985         2.216         2.217         2.217
                                    (AC-FT)       48.           53.           53.           53.

                                   CUMULATIVE AREA =     .45 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


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                  *            *
    145 KK        *    I1CP7   *
                  *            *
                  **************
                                   ADD HYDROGRAPHS AT CP7.

    147 HC          HYDROGRAPH COMBINATION
                         ICOMP             2  NUMBER OF HYDROGRAPHS TO COMBINE
                                                                        ***

         ***                ***           ***           ***          ***

                                    HYDROGRAPH AT STATION      I1CP7
                                   TRANSPOSITION AREA          .0 SQ MI

          PEAK FLOW        TIME                                   MAXIMUM AVERAGE FLOW
                                                 6-HR          24-HR         72-HR       83.25-HR
      +    (CFS)           (HR)
                                        (CFS)
      +     2542.         12.17                  315.           87.          29.           25.
                                   (INCHES)      1.994         2.211         2.213         2.213
                                    (AC-FT)      156.          173.          173.          173.

                                   CUMULATIVE AREA =    1.47 SQ MI

         ***                ***           ***           ***          ***
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                    HYDROGRAPH AT STATION     I1CP7
                  TRANSPOSITION AREA     10.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+    2513.      12.17             311.         86.         29.          25.
                            (INCHES)      1.967       2.182       2.183       2.183
                             (AC-FT)      154.        171.        171.        171.

                    CUMULATIVE AREA =    1.47 SQ MI

     ***            ***          ***         ***         ***

                    HYDROGRAPH AT STATION     I1CP7
                  TRANSPOSITION AREA     50.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+    2397.      12.17             294.         82.         27.          24.
                            (INCHES)      1.858       2.064       2.066       2.066
                             (AC-FT)      146.        162.        162.        162.

                    CUMULATIVE AREA =    1.47 SQ MI

     ***            ***          ***         ***         ***

                    HYDROGRAPH AT STATION     I1CP7
                  TRANSPOSITION AREA    100.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+    2345.      12.17             286.         80.         27.          23.
                            (INCHES)      1.811       2.014       2.015       2.015
                             (AC-FT)      142.        158.        158.        158.

                    CUMULATIVE AREA =    1.47 SQ MI

     ***            ***          ***         ***         ***

                    HYDROGRAPH AT STATION     I1CP7
                  TRANSPOSITION AREA    200.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+    2301.      12.17             280.         78.         26.          22.
                            (INCHES)      1.771       1.971       1.972       1.972
                             (AC-FT)      139.        155.        155.        155.

                    CUMULATIVE AREA =    1.47 SQ MI

     ***            ***          ***         ***         ***

                    INTERPOLATED HYDROGRAPH AT     I1CP7

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+    2519.      12.17             312.         86.         29.          25.
                            (INCHES)      1.972       2.188       2.189       2.189
                             (AC-FT)      155.        172.        172.        172.

                    CUMULATIVE AREA =    1.47 SQ MI

*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

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            *            *
  148 KK    *          7 *
            *            *
            **************
                    RUNOFF HYDROGRAPH FROM SUB-BASIN 7.

          SUBBASIN RUNOFF DATA

  150 BA        SUBBASIN CHARACTERISTICS
                      TAREA          .31  SUBBASIN AREA

  151 LG        GREEN AND AMPT LOSS RATE
                      STRTL          .35  STARTING LOSS
                        DTH          .15  MOISTURE DEFICIT
                       PSIF         7.98  WETTING FRONT SUCTION
                      XKSAT          .08  HYDRAULIC CONDUCTIVITY
                      RTIMP        20.00  PERCENT IMPERVIOUS AREA

  149 UI        INPUT UNITGRAPH,   8 ORDINATES,  VOLUME =  .99
                   126.0     387.0     716.0     606.0     343.0     129.0      52.0      22.0
                                                                  ***

     ***            ***          ***         ***         ***

                    HYDROGRAPH AT STATION         7
                  TRANSPOSITION AREA        .0 SQ MI

   TOTAL RAINFALL =    4.03, TOTAL LOSS =    1.78, TOTAL EXCESS =    2.25

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+     682.     12.08              67.          19.          6.           5.
                            (INCHES)      1.995       2.227       2.227       2.227
                             (AC-FT)      33.         37.         37.         37.

                    CUMULATIVE AREA =     .31 SQ MI

     ***            ***          ***         ***         ***

                    HYDROGRAPH AT STATION         7
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                    TRANSPOSITION AREA      10.0 SQ MI

      TOTAL RAINFALL =    3.99, TOTAL LOSS =    1.77, TOTAL EXCESS =    2.22

  PEAK FLOW      TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR      83.25-HR
+   (CFS)        (HR)
                                  (CFS)
+     675.       12.08              66.          18.           6.           5.
                                (INCHES)       1.967        2.197        2.198        2.198
                                 (AC-FT)        33.          36.          36.          36.

                    CUMULATIVE AREA =      .31 SQ MI

      ***          ***          ***          ***          ***

                    HYDROGRAPH AT STATION        7
                  TRANSPOSITION AREA      50.0 SQ MI

      TOTAL RAINFALL =    3.83, TOTAL LOSS =    1.73, TOTAL EXCESS =    2.10

  PEAK FLOW      TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR      83.25-HR
+   (CFS)        (HR)
                                  (CFS)
+     646.       12.08              62.          17.           6.           5.
                                (INCHES)       1.859        2.080        2.080        2.080
                                 (AC-FT)        31.          34.          34.          34.

                    CUMULATIVE AREA =      .31 SQ MI

      ***          ***          ***          ***          ***

                    HYDROGRAPH AT STATION        7
                  TRANSPOSITION AREA     100.0 SQ MI

      TOTAL RAINFALL =    3.76, TOTAL LOSS =    1.71, TOTAL EXCESS =    2.05

  PEAK FLOW      TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR      83.25-HR
+   (CFS)        (HR)
                                  (CFS)
+     633.       12.08              60.          17.           6.           5.
                                (INCHES)       1.813        2.029        2.030        2.030
                                 (AC-FT)        30.          34.          34.          34.

                    CUMULATIVE AREA =      .31 SQ MI

      ***          ***          ***          ***          ***

                    HYDROGRAPH AT STATION        7
                  TRANSPOSITION AREA     200.0 SQ MI

      TOTAL RAINFALL =    3.70, TOTAL LOSS =    1.70, TOTAL EXCESS =    2.00

  PEAK FLOW      TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR      83.25-HR
+   (CFS)        (HR)
                                  (CFS)
+     622.       12.08              59.          17.           6.           5.
                                (INCHES)       1.773        1.986        1.987        1.987
                                 (AC-FT)        29.          33.          33.          33.

                    CUMULATIVE AREA =      .31 SQ MI

      ***          ***          ***          ***          ***

                    INTERPOLATED HYDROGRAPH AT        7

  PEAK FLOW      TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR      83.25-HR
+   (CFS)        (HR)
                                  (CFS)
+     677.       12.08              66.          18.           6.           5.
                                (INCHES)       1.978        2.208        2.209        2.209
                                 (AC-FT)        33.          37.          37.          37.

                    CUMULATIVE AREA =      .31 SQ MI

*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

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            *            *
  154 KK    *      CP7   *
            *            *
            **************
                    ADD HYDROGRAPHS AT CP7.

  156 HC          HYDROGRAPH COMBINATION
                       ICOMP          2  NUMBER OF HYDROGRAPHS TO COMBINE
                                                                  ***
      ***          ***          ***          ***          ***

                    HYDROGRAPH AT STATION      CP7
                  TRANSPOSITION AREA        .0 SQ MI

  PEAK FLOW      TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR      83.25-HR
+   (CFS)        (HR)
                                  (CFS)
+    3185.       12.17             382.         106.          35.          31.
                                (INCHES)       1.994        2.214        2.215        2.215
                                 (AC-FT)       189.         210.         210.         210.

                    CUMULATIVE AREA =     1.78 SQ MI

      ***          ***          ***          ***          ***

                    HYDROGRAPH AT STATION      CP7
                  TRANSPOSITION AREA     10.0 SQ MI

  PEAK FLOW      TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR      83.25-HR
+   (CFS)        (HR)
                                  (CFS)
+    3149.       12.17             377.         105.          35.          30.
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                    (INCHES)      1.967       2.184       2.186       2.186
                     (AC-FT)      187.        207.        207.        207.

                    CUMULATIVE AREA =    1.78 SQ MI

      ***           ***          ***          ***          ***

                    HYDROGRAPH AT STATION      CP7
                   TRANSPOSITION AREA     50.0 SQ MI

  PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                   6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    3006.      12.17                356.        99.         33.         29.
                    (INCHES)      1.858       2.067       2.068       2.068
                     (AC-FT)      176.        196.        196.        196.

                    CUMULATIVE AREA =    1.78 SQ MI

      ***           ***          ***          ***          ***

                    HYDROGRAPH AT STATION      CP7
                   TRANSPOSITION AREA    100.0 SQ MI

  PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                   6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    2942.      12.17                347.        97.         32.         28.
                    (INCHES)      1.811       2.016       2.018       2.018
                     (AC-FT)      172.        191.        192.        192.

                    CUMULATIVE AREA =    1.78 SQ MI

      ***           ***          ***          ***          ***

                    HYDROGRAPH AT STATION      CP7
                   TRANSPOSITION AREA    200.0 SQ MI

  PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                   6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    2887.      12.17                339.        94.         32.         27.
                    (INCHES)      1.772       1.973       1.975       1.975
                     (AC-FT)      168.        187.        187.        187.

                    CUMULATIVE AREA =    1.78 SQ MI

      ***           ***          ***          ***          ***


                    INTERPOLATED HYDROGRAPH AT      CP7

  PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                   6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    3156.      12.17                378.       105.         35.         30.
                    (INCHES)      1.972       2.190       2.191       2.191
                     (AC-FT)      187.        208.        208.        208.

                    CUMULATIVE AREA =    1.78 SQ MI


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            *            *
 157 KK     *     RCP7   *
            *            *
            **************
                          ROUTE COMBINED HYDROGRAPHS AT CP7 TO CP9.

              HYDROGRAPH ROUTING DATA

 159 RS         STORAGE ROUTING
                     NSTPS          2  NUMBER OF SUBREACHES
                      ITYP             TYPE OF INITIAL CONDITION
                    RSVRIC      -1.00  INITIAL CONDITION
                         X        .00 WORKING R AND D COEFFICIENT

 160 RC         NORMAL DEPTH CHANNEL
                       ANL       .080  LEFT OVERBANK N-VALUE
                      ANCH       .050  MAIN CHANNEL N-VALUE
                       ANR       .080  RIGHT OVERBANK N-VALUE
                     RLNTH      10200.  REACH LENGTH
                       SEL      .0774  ENERGY SLOPE
                     ELMAX         .0  MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION

                                 CROSS-SECTION DATA
                      --- LEFT OVERBANK --- + ------ MAIN CHANNEL ------- + --- RIGHT OVERBANK ---
 162 RY       ELEVATION   1910.00   1880.00   1850.00   1838.00   1838.00   1850.00   1880.00   1910.00
 161 RX       DISTANCE    1000.00   1045.00   1120.00   1195.00   1230.00   1300.00   1350.00   1450.00

                                                  ***

                                 COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

          STORAGE        .00     51.37    143.37    276.00    440.02    618.42    810.83   1017.25   1237.68   1472.13
          OUTFLOW        .00   3523.31  14429.19  34965.43  72682.05 123269.80 185133.50 258015.70 341792.00 436419.40
        ELEVATION    1838.00   1841.79   1845.58   1849.37   1853.16   1856.95   1860.74   1864.53   1868.32   1872.10

          STORAGE    1720.58   1983.04   2260.45   2554.11   2864.02   3190.18   3532.59   3891.26   4266.18   4657.35
          OUTFLOW  541909.80 658311.30 785456.80 924065.901074269.001236208.001410053.001595989.001794212.002004921.00
        ELEVATION    1875.89   1879.68   1883.47   1887.26   1891.05   1894.84   1898.63   1902.42   1906.21   1910.00

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN    14429. TO  2004921.
                THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
                THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

      ***           ***          ***          ***          ***

                    HYDROGRAPH AT STATION     RCP7
                   TRANSPOSITION AREA       .0 SQ MI

  PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                   6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
```

```
                                  (CFS)
+    2762.      12.33                     382.        106.        35.         31.
                                (INCHES)   1.994       2.214       2.215       2.215
                                 (AC-FT)   189.        210.        210.        210.

 PEAK STORAGE   TIME                                MAXIMUM AVERAGE STORAGE
                                                 6-HR        24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
      20.       12.33                             3.          1.          0.          0.

  PEAK STAGE    TIME                                MAXIMUM AVERAGE STAGE
                                                 6-HR        24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
   1840.97      12.33                          1838.41     1838.11     1838.04     1838.03

                                CUMULATIVE AREA =    1.78 SQ MI

      ***                 ***          ***          ***          ***

                                HYDROGRAPH AT STATION     RCP7
                              TRANSPOSITION AREA     10.0 SQ MI

  PEAK FLOW     TIME                                MAXIMUM AVERAGE FLOW
                                                 6-HR        24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+    2731.      12.33                     377.        105.        35.         30.
                                (INCHES)   1.967       2.184       2.186       2.186
                                 (AC-FT)   187.        207.        207.        207.

 PEAK STORAGE   TIME                                MAXIMUM AVERAGE STORAGE
                                                 6-HR        24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
      20.       12.33                             3.          1.          0.          0.

  PEAK STAGE    TIME                                MAXIMUM AVERAGE STAGE
                                                 6-HR        24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
   1840.94      12.33                          1838.40     1838.11     1838.04     1838.03

                                CUMULATIVE AREA =    1.78 SQ MI

      ***                 ***          ***          ***          ***

                                HYDROGRAPH AT STATION     RCP7
                              TRANSPOSITION AREA     50.0 SQ MI

  PEAK FLOW     TIME                                MAXIMUM AVERAGE FLOW
                                                 6-HR        24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+    2606.      12.33                     356.        99.         33.         29.
                                (INCHES)   1.858       2.067       2.068       2.068
                                 (AC-FT)   176.        196.        196.        196.

 PEAK STORAGE   TIME                                MAXIMUM AVERAGE STORAGE
                                                 6-HR        24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
      19.       12.33                             3.          1.          0.          0.

  PEAK STAGE    TIME                                MAXIMUM AVERAGE STAGE
                                                 6-HR        24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
   1840.80      12.33                          1838.38     1838.10     1838.04     1838.03

                                CUMULATIVE AREA =    1.78 SQ MI

      ***                 ***          ***          ***          ***

                                HYDROGRAPH AT STATION     RCP7
                              TRANSPOSITION AREA    100.0 SQ MI

  PEAK FLOW     TIME                                MAXIMUM AVERAGE FLOW
                                                 6-HR        24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+    2551.      12.33                     347.        96.         32.         28.
                                (INCHES)   1.811       2.016       2.018       2.018
                                 (AC-FT)   172.        191.        192.        192.

 PEAK STORAGE   TIME                                MAXIMUM AVERAGE STORAGE
                                                 6-HR        24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
      19.       12.33                             3.          1.          0.          0.

  PEAK STAGE    TIME                                MAXIMUM AVERAGE STAGE
                                                 6-HR        24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
   1840.74      12.33                          1838.37     1838.10     1838.03     1838.03

                                CUMULATIVE AREA =    1.78 SQ MI

      ***                 ***          ***          ***          ***

                                HYDROGRAPH AT STATION     RCP7
                              TRANSPOSITION AREA    200.0 SQ MI

  PEAK FLOW     TIME                                MAXIMUM AVERAGE FLOW
                                                 6-HR        24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+    2504.      12.33                     339.        94.         32.         27.
                                (INCHES)   1.772       1.973       1.975       1.975
                                 (AC-FT)   168.        187.        187.        187.

 PEAK STORAGE   TIME                                MAXIMUM AVERAGE STORAGE
                                                 6-HR        24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
      18.       12.33                             2.          1.          0.          0.

  PEAK STAGE    TIME                                MAXIMUM AVERAGE STAGE
                                                 6-HR        24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
   1840.69      12.33                          1838.36     1838.10     1838.03     1838.03

                                CUMULATIVE AREA =    1.78 SQ MI

      ***                 ***          ***          ***          ***

                              INTERPOLATED HYDROGRAPH AT     RCP7

  PEAK FLOW     TIME                                MAXIMUM AVERAGE FLOW
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                                        6-HR        24-HR       72-HR      83.25-HR
+   (CFS)        (HR)                  (CFS)
+    2737.      12.33                   377.        105.         35.          30.
                                  (INCHES)      1.972       2.190       2.191       2.191
                                   (AC-FT)       187.        208.        208.        208.

                                  CUMULATIVE AREA =    1.78 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

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            *            *
 163 KK     *     9      *
            *            *
            **************
                                  RUNOFF HYDROGRAPH FROM SUB-BASIN 9.

                SUBBASIN RUNOFF DATA

 165 BA           SUBBASIN CHARACTERISTICS
                      TAREA          1.40  SUBBASIN AREA

 166 LG           GREEN AND AMPT LOSS RATE
                      STRTL          .35  STARTING LOSS
                        DTH          .15  MOISTURE DEFICIT
                       PSIF         7.91  WETTING FRONT SUCTION
                      XKSAT          .08  HYDRAULIC CONDUCTIVITY
                      RTIMP        19.57  PERCENT IMPERVIOUS AREA

 164 UI           INPUT UNITGRAPH,  18 ORDINATES,  VOLUME = 1.00
                      155.0     381.0     727.0     935.0    1216.0    1832.0    1591.0    1224.0     938.0     705.0
                      386.0     261.0     177.0     115.0      47.0      47.0      47.0      47.0
                                                                                   ***
      ***            ***            ***            ***            ***

                        HYDROGRAPH AT STATION        9
                      TRANSPOSITION AREA        .0 SQ MI

    TOTAL RAINFALL =    4.03, TOTAL LOSS =    1.80, TOTAL EXCESS =    2.23

  PEAK FLOW     TIME                                MAXIMUM AVERAGE FLOW
                                        6-HR        24-HR       72-HR      83.25-HR
+   (CFS)        (HR)                  (CFS)
+    2129.      12.33                   301.         84.         28.          24.
                                  (INCHES)      1.997       2.225       2.226       2.226
                                   (AC-FT)       149.        166.        166.        166.

                                  CUMULATIVE AREA =    1.40 SQ MI

      ***            ***            ***            ***            ***

                        HYDROGRAPH AT STATION        9
                      TRANSPOSITION AREA     10.0 SQ MI

    TOTAL RAINFALL =    3.99, TOTAL LOSS =    1.79, TOTAL EXCESS =    2.20

  PEAK FLOW     TIME                                MAXIMUM AVERAGE FLOW
                                        6-HR        24-HR       72-HR      83.25-HR
+   (CFS)        (HR)                  (CFS)
+    2106.      12.33                   297.         83.         28.          24.
                                  (INCHES)      1.969       2.195       2.196       2.196
                                   (AC-FT)       147.        164.        164.        164.

                                  CUMULATIVE AREA =    1.40 SQ MI

      ***            ***            ***            ***            ***

                        HYDROGRAPH AT STATION        9
                      TRANSPOSITION AREA     50.0 SQ MI

    TOTAL RAINFALL =    3.83, TOTAL LOSS =    1.75, TOTAL EXCESS =    2.08

  PEAK FLOW     TIME                                MAXIMUM AVERAGE FLOW
                                        6-HR        24-HR       72-HR      83.25-HR
+   (CFS)        (HR)                  (CFS)
+    2012.      12.33                   280.         78.         26.          23.
                                  (INCHES)      1.861       2.078       2.079       2.079
                                   (AC-FT)       139.        155.        155.        155.

                                  CUMULATIVE AREA =    1.40 SQ MI

      ***            ***            ***            ***            ***

                        HYDROGRAPH AT STATION        9
                      TRANSPOSITION AREA    100.0 SQ MI

    TOTAL RAINFALL =    3.76, TOTAL LOSS =    1.73, TOTAL EXCESS =    2.03

  PEAK FLOW     TIME                                MAXIMUM AVERAGE FLOW
                                        6-HR        24-HR       72-HR      83.25-HR
+   (CFS)        (HR)                  (CFS)
+    1970.      12.33                   273.         76.         25.          22.
                                  (INCHES)      1.815       2.027       2.029       2.029
                                   (AC-FT)       135.        151.        151.        151.

                                  CUMULATIVE AREA =    1.40 SQ MI

      ***            ***            ***            ***            ***

                        HYDROGRAPH AT STATION        9
                      TRANSPOSITION AREA    200.0 SQ MI

    TOTAL RAINFALL =    3.70, TOTAL LOSS =    1.71, TOTAL EXCESS =    1.99

  PEAK FLOW     TIME                                MAXIMUM AVERAGE FLOW
                                        6-HR        24-HR       72-HR      83.25-HR
+   (CFS)        (HR)                  (CFS)
+    1935.      12.33                   267.         75.         25.          22.
                                  (INCHES)      1.775       1.984       1.986       1.986
                                   (AC-FT)       133.        148.        148.        148.

                                  CUMULATIVE AREA =    1.40 SQ MI
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     ***            ***            ***            ***            ***

                    INTERPOLATED HYDROGRAPH AT        9

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                              (CFS)
+    2111.      12.33                297.         83.         28.         24.
                          (INCHES)  1.975      2.201       2.203       2.203
                           (AC-FT)   147.        164.        164.        164.

                    CUMULATIVE AREA =    1.40 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

            **************
            *            *
  170 KK    *     I1CP9  *
            *            *
            **************
                    ADD HYDROGRAPHS AT CP9.

  172 HC          HYDROGRAPH COMBINATION
                       ICOMP          2  NUMBER OF HYDROGRAPHS TO COMBINE
                                                                  ***

     ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION    I1CP9
                  TRANSPOSITION AREA       .0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                              (CFS)
+    4892.      12.33                682.        190.         63.         55.
                          (INCHES)  1.995      2.218       2.220       2.220
                           (AC-FT)   338.        376.        376.        376.

                    CUMULATIVE AREA =    3.18 SQ MI

     ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION    I1CP9
                  TRANSPOSITION AREA     10.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                              (CFS)
+    4837.      12.33                673.        187.         62.         54.
                          (INCHES)  1.968      2.189       2.190       2.190
                           (AC-FT)   334.        371.        371.        371.

                    CUMULATIVE AREA =    3.18 SQ MI

     ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION    I1CP9
                  TRANSPOSITION AREA     50.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                              (CFS)
+    4618.      12.33                636.        177.         59.         51.
                          (INCHES)  1.859      2.072       2.073       2.073
                           (AC-FT)   315.        351.        352.        352.

                    CUMULATIVE AREA =    3.18 SQ MI

     ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION    I1CP9
                  TRANSPOSITION AREA    100.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                              (CFS)
+    4521.      12.33                620.        173.         58.         50.
                          (INCHES)  1.813      2.021       2.022       2.022
                           (AC-FT)   307.        343.        343.        343.

                    CUMULATIVE AREA =    3.18 SQ MI

     ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION    I1CP9
                  TRANSPOSITION AREA    200.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                              (CFS)
+    4439.      12.33                606.        169.         56.         49.
                          (INCHES)  1.773      1.978       1.980       1.980
                           (AC-FT)   301.        335.        336.        336.

                    CUMULATIVE AREA =    3.18 SQ MI

     ***            ***            ***            ***            ***


                    INTERPOLATED HYDROGRAPH AT    I1CP9

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                              (CFS)
+    4844.      12.33                674.        187.         63.         54.
                          (INCHES)  1.971      2.193       2.194       2.194
                           (AC-FT)   334.        372.        372.        372.
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                    CUMULATIVE AREA =    3.18 SQ MI

*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

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            *            *
 173 KK     *        8   *
            *            *
            **************
                         RUNOFF HYDROGRAPH FROM SUB-BASIN 8.

          SUBBASIN RUNOFF DATA

 175 BA       SUBBASIN CHARACTERISTICS
                TAREA          .81  SUBBASIN AREA

 176 LG       GREEN AND AMPT LOSS RATE
                STRTL          .35  STARTING LOSS
                  DTH          .15  MOISTURE DEFICIT
                 PSIF         7.98  WETTING FRONT SUCTION
                XKSAT          .08  HYDRAULIC CONDUCTIVITY
                RTIMP        20.00  PERCENT IMPERVIOUS AREA

 174 UI       INPUT UNITGRAPH,  15 ORDINATES,  VOLUME = 1.00
                102.0     313.0     535.0     703.0    1054.0    1140.0     822.0     608.0     421.0     208.0
                147.0      96.0      31.0      31.0      31.0
                                                                  ***

     ***          ***          ***          ***          ***

                  HYDROGRAPH AT STATION        8
                TRANSPOSITION AREA        .0 SQ MI

   TOTAL RAINFALL =    4.03, TOTAL LOSS =    1.78, TOTAL EXCESS =    2.25

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                   (CFS)
+    1320.     12.25                174.         49.         16.         14.
                                (INCHES)      2.001       2.233       2.235       2.235
                                 (AC-FT)       86.         96.         97.         97.

                                CUMULATIVE AREA =     .81 SQ MI

     ***          ***          ***          ***          ***

                  HYDROGRAPH AT STATION        8
                TRANSPOSITION AREA     10.0 SQ MI

   TOTAL RAINFALL =    3.99, TOTAL LOSS =    1.77, TOTAL EXCESS =    2.22

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                   (CFS)
+    1305.     12.25                172.         48.         16.         14.
                                (INCHES)      1.974       2.204       2.205       2.205
                                 (AC-FT)       85.         95.         95.         95.

                                CUMULATIVE AREA =     .81 SQ MI

     ***          ***          ***          ***          ***

                  HYDROGRAPH AT STATION        8
                TRANSPOSITION AREA     50.0 SQ MI

   TOTAL RAINFALL =    3.83, TOTAL LOSS =    1.73, TOTAL EXCESS =    2.10

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                   (CFS)
+    1248.     12.25                163.         45.         15.         13.
                                (INCHES)      1.865       2.086       2.087       2.087
                                 (AC-FT)       81.         90.         90.         90.

                                CUMULATIVE AREA =     .81 SQ MI

     ***          ***          ***          ***          ***

                  HYDROGRAPH AT STATION        8
                TRANSPOSITION AREA    100.0 SQ MI

   TOTAL RAINFALL =    3.76, TOTAL LOSS =    1.71, TOTAL EXCESS =    2.05

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                   (CFS)
+    1222.     12.25                158.         44.         15.         13.
                                (INCHES)      1.819       2.036       2.037       2.037
                                 (AC-FT)       79.         88.         88.         88.

                                CUMULATIVE AREA =     .81 SQ MI

     ***          ***          ***          ***          ***

                  HYDROGRAPH AT STATION        8
                TRANSPOSITION AREA    200.0 SQ MI

   TOTAL RAINFALL =    3.70, TOTAL LOSS =    1.70, TOTAL EXCESS =    2.00

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                   (CFS)
+    1200.     12.25                155.         43.         14.         13.
                                (INCHES)      1.779       1.993       1.994       1.994
                                 (AC-FT)       77.         86.         86.         86.

                                CUMULATIVE AREA =     .81 SQ MI

     ***          ***          ***          ***          ***

                INTERPOLATED HYDROGRAPH AT        8
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  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                      6-HR        24-HR        72-HR      83.25-HR
+   (CFS)       (HR)
                                    (CFS)
+    1309.      12.25                173.         48.          16.          14.
                                 (INCHES)      1.981        2.212        2.213        2.213
                                  (AC-FT)       86.         96.          96.          96.

                                CUMULATIVE AREA =     .81 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

                 **************
                 *            *
 180 KK          *     CP9    *
                 *            *
                 **************
                              ADD HYDROGRAPHS AT CP9.

 182 HC            HYDROGRAPH COMBINATION
                        ICOMP          2  NUMBER OF HYDROGRAPHS TO COMBINE
                                                                  ***
      ***             ***             ***             ***             ***

                        HYDROGRAPH AT STATION      CP9
                      TRANSPOSITION AREA       .0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                      6-HR        24-HR        72-HR      83.25-HR
+   (CFS)       (HR)
                                    (CFS)
+    6203.      12.33                857.        238.         79.          69.
                                 (INCHES)      1.996        2.221        2.223        2.223
                                  (AC-FT)      425.        473.         473.         473.

                                CUMULATIVE AREA =    3.99 SQ MI

      ***             ***             ***             ***             ***

                        HYDROGRAPH AT STATION      CP9
                      TRANSPOSITION AREA     10.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                      6-HR        24-HR        72-HR      83.25-HR
+   (CFS)       (HR)
                                    (CFS)
+    6134.      12.33                845.        235.         78.          68.
                                 (INCHES)      1.969        2.192        2.193        2.193
                                  (AC-FT)      419.        466.         467.         467.

                                CUMULATIVE AREA =    3.99 SQ MI

      ***             ***             ***             ***             ***

                        HYDROGRAPH AT STATION      CP9
                      TRANSPOSITION AREA     50.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                      6-HR        24-HR        72-HR      83.25-HR
+   (CFS)       (HR)
                                    (CFS)
+    5858.      12.33                798.        223.         74.          64.
                                 (INCHES)      1.861        2.075        2.076        2.076
                                  (AC-FT)      396.        441.         442.         442.

                                CUMULATIVE AREA =    3.99 SQ MI

      ***             ***             ***             ***             ***

                        HYDROGRAPH AT STATION      CP9
                      TRANSPOSITION AREA    100.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                      6-HR        24-HR        72-HR      83.25-HR
+   (CFS)       (HR)
                                    (CFS)
+    5736.      12.33                778.        217.         72.          63.
                                 (INCHES)      1.814        2.024        2.025        2.025
                                  (AC-FT)      386.        431.         431.         431.

                                CUMULATIVE AREA =    3.99 SQ MI

      ***             ***             ***             ***             ***

                        HYDROGRAPH AT STATION      CP9
                      TRANSPOSITION AREA    200.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                      6-HR        24-HR        72-HR      83.25-HR
+   (CFS)       (HR)
                                    (CFS)
+    5632.      12.33                761.        213.         71.          61.
                                 (INCHES)      1.774        1.981        1.982        1.982
                                  (AC-FT)      378.        422.         422.         422.

                                CUMULATIVE AREA =    3.99 SQ MI

      ***             ***             ***             ***             ***


                      INTERPOLATED HYDROGRAPH AT      CP9

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                      6-HR        24-HR        72-HR      83.25-HR
+   (CFS)       (HR)
                                    (CFS)
+    6141.      12.33                846.        235.         79.          68.
                                 (INCHES)      1.972        2.195        2.196        2.196
                                  (AC-FT)      420.        467.         467.         467.

                                CUMULATIVE AREA =    3.99 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***
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                 *            *
183 KK           *     RCP9   *
                 *            *
                 **************

                          ROUTE COMBINED HYDROGRAPHS AT CP9 TO CP10.

                HYDROGRAPH ROUTING DATA

185 RS            STORAGE ROUTING
                       NSTPS          4  NUMBER OF SUBREACHES
                        ITYP             TYPE OF INITIAL CONDITION
                       RSVRIC      -1.00  INITIAL CONDITION
                            X        .00 WORKING R AND D COEFFICIENT

186 RC            NORMAL DEPTH CHANNEL
                         ANL       .060  LEFT OVERBANK N-VALUE
                        ANCH       .035  MAIN CHANNEL N-VALUE
                         ANR       .060  RIGHT OVERBANK N-VALUE
                       RLNTH      19200.  REACH LENGTH
                         SEL      .0232  ENERGY SLOPE
                       ELMAX         .0  MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION

                                   CROSS-SECTION DATA
                        --- LEFT OVERBANK --- + ------ MAIN CHANNEL ------- + --- RIGHT OVERBANK ---
188 RY      ELEVATION  1317.00  1314.00  1311.00  1308.00  1308.00  1314.00  1314.00  1317.00
187 RX      DISTANCE   1000.00  1085.00  1310.00  1395.00  1415.00  1450.00  1630.00  1665.00

                                                    ***

                                  COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

          STORAGE       .00      5.86     15.11     27.73     43.73     63.11     85.86    113.02    147.91    190.80
          OUTFLOW       .00     44.24    167.33    384.68    713.53   1170.28   1770.47   2628.11   3726.14   5044.84
        ELEVATION   1308.00   1308.47   1308.95   1309.42   1309.89   1310.37   1310.84   1311.32   1311.79   1312.26

          STORAGE    241.67    300.55    367.41    454.52    571.58    692.60    817.58    946.51   1079.40   1216.24
          OUTFLOW   6607.34   8434.57  10546.15  13074.22  16332.97  20103.13  24345.95  29042.68  34182.32  39758.07
        ELEVATION   1312.74   1313.21   1313.68   1314.16   1314.63   1315.10   1315.58   1316.05   1316.53   1317.00

     ***          ***          ***          ***          ***

                HYDROGRAPH AT STATION     RCP9
               TRANSPOSITION AREA       .0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    4986.      12.67      856.       238.        79.         69.
                      (INCHES)      1.995       2.217       2.223       2.223
                       (AC-FT)      424.        472.        473.        473.

 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
      47.       12.67               10.          3.          1.          1.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
   1312.24      12.67            1309.49     1308.62     1308.21     1308.18

                CUMULATIVE AREA =    3.99 SQ MI

     ***          ***          ***          ***          ***

                HYDROGRAPH AT STATION     RCP9
               TRANSPOSITION AREA     10.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    4928.      12.67      844.       235.        78.         68.
                      (INCHES)      1.968       2.188       2.193       2.193
                       (AC-FT)      419.        466.        467.        467.

 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
      47.       12.67               10.          3.          1.          1.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
   1312.22      12.67            1309.48     1308.62     1308.21     1308.18

                CUMULATIVE AREA =    3.99 SQ MI

     ***          ***          ***          ***          ***

                HYDROGRAPH AT STATION     RCP9
               TRANSPOSITION AREA     50.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    4695.      12.67      798.       222.        74.         64.
                      (INCHES)      1.859       2.071       2.076       2.076
                       (AC-FT)      396.        441.        442.        442.

 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
      45.       12.67               10.          3.          1.          1.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
   1312.14      12.67            1309.44     1308.60     1308.20     1308.17

                CUMULATIVE AREA =    3.99 SQ MI

     ***          ***          ***          ***          ***

                HYDROGRAPH AT STATION     RCP9
               TRANSPOSITION AREA    100.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
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                                  (CFS)
+    4593.      12.67                      778.        217.         72.          63.
                                (INCHES)    1.813       2.020       2.025        2.025
                                 (AC-FT)    386.        430.        431.         431.

 PEAK STORAGE    TIME                              MAXIMUM AVERAGE STORAGE
                                             6-HR       24-HR       72-HR     83.25-HR
+  (AC-FT)       (HR)
      44.       12.67                        10.         3.          1.           1.

  PEAK STAGE     TIME                              MAXIMUM AVERAGE STAGE
                                             6-HR       24-HR       72-HR     83.25-HR
+   (FEET)       (HR)
   1312.10      12.67                      1309.42     1308.59     1308.20      1308.17

                                CUMULATIVE AREA =    3.99 SQ MI

      ***                ***          ***          ***          ***

                                HYDROGRAPH AT STATION     RCP9
                               TRANSPOSITION AREA    200.0 SQ MI

  PEAK FLOW      TIME                              MAXIMUM AVERAGE FLOW
                                             6-HR       24-HR       72-HR     83.25-HR
+   (CFS)        (HR)
                                  (CFS)
+    4506.      12.67                      761.        212.         71.          61.
                                (INCHES)    1.773       1.977       1.982        1.982
                                 (AC-FT)    377.        421.        422.         422.

 PEAK STORAGE    TIME                              MAXIMUM AVERAGE STORAGE
                                             6-HR       24-HR       72-HR     83.25-HR
+  (AC-FT)       (HR)
      43.       12.67                         9.         3.          1.           1.

  PEAK STAGE     TIME                              MAXIMUM AVERAGE STAGE
                                             6-HR       24-HR       72-HR     83.25-HR
+   (FEET)       (HR)
   1312.07      12.67                      1309.40     1308.58     1308.20      1308.17

                                CUMULATIVE AREA =    3.99 SQ MI

      ***                ***          ***          ***          ***

                               INTERPOLATED HYDROGRAPH AT     RCP9

  PEAK FLOW      TIME                              MAXIMUM AVERAGE FLOW
                                             6-HR       24-HR       72-HR     83.25-HR
+   (CFS)        (HR)
                                  (CFS)
+    4933.      12.67                      846.        235.         79.          68.
                                (INCHES)    1.970       2.191       2.196        2.196
                                 (AC-FT)    419.        466.        467.         467.

                                CUMULATIVE AREA =    3.99 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

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                 *            *
 189 KK          *     10     *
                 *            *
                 **************
                                RUNOFF HYDROGRAPH FROM SUB-BASIN 10.

                 SUBBASIN RUNOFF DATA

 191 BA            SUBBASIN CHARACTERISTICS
                        TAREA          2.02  SUBBASIN AREA

 192 LG            GREEN AND AMPT LOSS RATE
                        STRTL           .35  STARTING LOSS
                          DTH           .25  MOISTURE DEFICIT
                         PSIF          5.12  WETTING FRONT SUCTION
                        XKSAT           .25  HYDRAULIC CONDUCTIVITY
                        RTIMP          4.52  PERCENT IMPERVIOUS AREA

 190 UI            INPUT UNITGRAPH,  34 ORDINATES,  VOLUME = 1.00
                       119.0     119.0     218.0     427.0     546.0     632.0     708.0     812.0     929.0    1148.0
                      1499.0    1393.0    1156.0    1006.0     894.0     765.0     669.0     577.0     475.0     325.0
                       210.0     201.0     193.0     119.0     119.0      86.0      36.0      36.0      36.0      36.0
                        36.0      36.0      36.0      36.0
                                                                                  ***
      ***                ***          ***          ***          ***

                                HYDROGRAPH AT STATION       10
                               TRANSPOSITION AREA        .0 SQ MI

    TOTAL RAINFALL =    4.03, TOTAL LOSS =    2.63, TOTAL EXCESS =    1.40

  PEAK FLOW      TIME                              MAXIMUM AVERAGE FLOW
                                             6-HR       24-HR       72-HR     83.25-HR
+   (CFS)        (HR)
                                  (CFS)
+    1639.      12.75                      293.         76.         25.          22.
                                (INCHES)    1.347       1.400       1.400        1.400
                                 (AC-FT)    145.        151.        151.         151.

                                CUMULATIVE AREA =    2.02 SQ MI

      ***                ***          ***          ***          ***

                                HYDROGRAPH AT STATION       10
                               TRANSPOSITION AREA     10.0 SQ MI

    TOTAL RAINFALL =    3.99, TOTAL LOSS =    2.61, TOTAL EXCESS =    1.38

  PEAK FLOW      TIME                              MAXIMUM AVERAGE FLOW
                                             6-HR       24-HR       72-HR     83.25-HR
+   (CFS)        (HR)
                                  (CFS)
+    1616.      12.75                      288.         75.         25.          22.
                                (INCHES)    1.327       1.379       1.380        1.380
                                 (AC-FT)    143.        149.        149.         149.

                                CUMULATIVE AREA =    2.02 SQ MI
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***          ***          ***          ***          ***

                HYDROGRAPH AT STATION      10
               TRANSPOSITION AREA     50.0 SQ MI

     TOTAL RAINFALL =    3.83, TOTAL LOSS =    2.53, TOTAL EXCESS =    1.30

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+   1523.      12.75                271.        70.         24.         20.
                        (INCHES)   1.248       1.298       1.298       1.298
                         (AC-FT)    134.        140.        140.        140.

                       CUMULATIVE AREA =    2.02 SQ MI

***          ***          ***          ***          ***

                HYDROGRAPH AT STATION      10
               TRANSPOSITION AREA    100.0 SQ MI

     TOTAL RAINFALL =    3.76, TOTAL LOSS =    2.50, TOTAL EXCESS =    1.26

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+   1482.      12.75                263.        69.         23.         20.
                        (INCHES)   1.212       1.261       1.262       1.262
                         (AC-FT)    131.        136.        136.        136.

                       CUMULATIVE AREA =    2.02 SQ MI

***          ***          ***          ***          ***

                HYDROGRAPH AT STATION      10
               TRANSPOSITION AREA    200.0 SQ MI

     TOTAL RAINFALL =    3.70, TOTAL LOSS =    2.47, TOTAL EXCESS =    1.23

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+   1447.      12.75                257.        67.         22.         19.
                        (INCHES)   1.182       1.230       1.231       1.231
                         (AC-FT)    127.        133.        133.        133.

                       CUMULATIVE AREA =    2.02 SQ MI

***          ***          ***          ***          ***


                INTERPOLATED HYDROGRAPH AT      10

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+   1620.      12.75                289.        75.         25.         22.
                        (INCHES)   1.331       1.383       1.384       1.384
                         (AC-FT)    143.        149.        149.        149.

                       CUMULATIVE AREA =    2.02 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

            **************
            *            *
 198 KK     *   I1CP10   *
            *            *
            **************
                        ADD HYDROGRAPHS AT CP10

 200 HC          HYDROGRAPH COMBINATION
                      ICOMP          2  NUMBER OF HYDROGRAPHS TO COMBINE
                                                                  ***
***          ***          ***          ***          ***

                HYDROGRAPH AT STATION   I1CP10
               TRANSPOSITION AREA        .0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+   6588.      12.75               1149.       314.        105.         91.
                        (INCHES)   1.777       1.942       1.946       1.946
                         (AC-FT)    570.        623.        624.        624.

                       CUMULATIVE AREA =    6.01 SQ MI

***          ***          ***          ***          ***

                HYDROGRAPH AT STATION   I1CP10
               TRANSPOSITION AREA     10.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+   6508.      12.75               1133.       310.        103.         89.
                        (INCHES)   1.752       1.916       1.920       1.920
                         (AC-FT)    562.        614.        615.        615.

                       CUMULATIVE AREA =    6.01 SQ MI

***          ***          ***          ***          ***

                HYDROGRAPH AT STATION   I1CP10
               TRANSPOSITION AREA     50.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
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+    6187.      12.75                    1069.        293.         98.          85.
                              (INCHES)   1.653       1.810       1.814        1.814
                               (AC-FT)    530.        580.        582.         582.

                              CUMULATIVE AREA =    6.01 SQ MI

      ***                ***          ***          ***          ***

                          HYDROGRAPH AT STATION   I1CP10
                         TRANSPOSITION AREA    100.0 SQ MI

  PEAK FLOW      TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR       72-HR      83.25-HR
+   (CFS)        (HR)
                              (CFS)
+    6046.      12.75                    1041.        285.         95.          82.
                              (INCHES)   1.611       1.765       1.769        1.769
                               (AC-FT)    516.        566.        567.         567.

                              CUMULATIVE AREA =    6.01 SQ MI

      ***                ***          ***          ***          ***

                          HYDROGRAPH AT STATION   I1CP10
                         TRANSPOSITION AREA    200.0 SQ MI

  PEAK FLOW      TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR       72-HR      83.25-HR
+   (CFS)        (HR)
                              (CFS)
+    5925.      12.75                    1018.        279.         93.          81.
                              (INCHES)   1.574       1.726       1.730        1.730
                               (AC-FT)    505.        553.        554.         554.

                              CUMULATIVE AREA =    6.01 SQ MI

      ***                ***          ***          ***          ***


                          INTERPOLATED HYDROGRAPH AT   I1CP10

  PEAK FLOW      TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR       72-HR      83.25-HR
+   (CFS)        (HR)
                              (CFS)
+    6512.      12.75                    1134.        310.        104.          90.
                              (INCHES)   1.754       1.917       1.921        1.921
                               (AC-FT)    562.        615.        616.         616.

                              CUMULATIVE AREA =    6.01 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


                 **************
                 *            *
  201 KK         *     CP10   *
                 *            *
                 **************
                          ADD HYDROGRAPHS AT CP10

  203 HC              HYDROGRAPH COMBINATION
                            ICOMP            2  NUMBER OF HYDROGRAPHS TO COMBINE
                                                                          ***
      ***                ***          ***          ***          ***

                          HYDROGRAPH AT STATION     CP10
                         TRANSPOSITION AREA       .0 SQ MI

  PEAK FLOW      TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR       72-HR      83.25-HR
+   (CFS)        (HR)
                              (CFS)
+   10334.      12.75                    2073.        569.        190.         165.
                              (INCHES)   1.773       1.948       1.953        1.953
                               (AC-FT)   1028.       1129.       1132.        1132.

                              CUMULATIVE AREA =   10.87 SQ MI

      ***                ***          ***          ***          ***

                          HYDROGRAPH AT STATION     CP10
                         TRANSPOSITION AREA     10.0 SQ MI

  PEAK FLOW      TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR       72-HR      83.25-HR
+   (CFS)        (HR)
                              (CFS)
+   10194.      12.75                    2044.        562.        188.         162.
                              (INCHES)   1.748       1.922       1.926        1.926
                               (AC-FT)   1013.       1114.       1117.        1117.

                              CUMULATIVE AREA =   10.87 SQ MI

      ***                ***          ***          ***          ***

                          HYDROGRAPH AT STATION     CP10
                         TRANSPOSITION AREA     50.0 SQ MI

  PEAK FLOW      TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR       72-HR      83.25-HR
+   (CFS)        (HR)
                              (CFS)
+    9633.      12.75                    1928.        531.        177.         153.
                              (INCHES)   1.649       1.816       1.821        1.821
                               (AC-FT)    956.       1053.       1055.        1055.

                              CUMULATIVE AREA =   10.87 SQ MI

      ***                ***          ***          ***          ***

                          HYDROGRAPH AT STATION     CP10
                         TRANSPOSITION AREA    100.0 SQ MI

  PEAK FLOW      TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR       72-HR      83.25-HR
+   (CFS)        (HR)
```

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                                  (CFS)
+    9388.      12.75                  1879.        518.        173.         150.
                             (INCHES)  1.607       1.771       1.775        1.775
                              (AC-FT)   932.       1027.       1029.        1029.

                          CUMULATIVE AREA =   10.87 SQ MI

      ***              ***              ***              ***              ***

                        HYDROGRAPH AT STATION     CP10
                      TRANSPOSITION AREA    200.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+    9179.      12.83                  1837.        506.        169.         146.
                             (INCHES)  1.571       1.732       1.736        1.736
                              (AC-FT)   911.       1004.       1007.        1007.

                          CUMULATIVE AREA =   10.87 SQ MI

      ***              ***              ***              ***              ***


                        INTERPOLATED HYDROGRAPH AT      CP10

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+   10165.      12.75                  2038.        560.        187.         162.
                             (INCHES)  1.743       1.916       1.921        1.921
                              (AC-FT)   1010.      1111.       1114.        1114.

                          CUMULATIVE AREA =   10.87 SQ MI


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            *            *
 204 KK     *     RCP10  *
            *            *
            **************
                          ROUTE FLOW AT CP10 TO CP12.

              HYDROGRAPH ROUTING DATA

 206 RS         STORAGE ROUTING
                      NSTPS            1  NUMBER OF SUBREACHES
                       ITYP               TYPE OF INITIAL CONDITION
                     RSVRIC        -1.00  INITIAL CONDITION
                          X          .00 WORKING R AND D COEFFICIENT

 207 RC         NORMAL DEPTH CHANNEL
                        ANL        .030  LEFT OVERBANK N-VALUE
                       ANCH        .030  MAIN CHANNEL N-VALUE
                        ANR        .050  RIGHT OVERBANK N-VALUE
                      RLNTH       3500.  REACH LENGTH
                        SEL       .0057  ENERGY SLOPE
                      ELMAX          .0  MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION

                                   CROSS-SECTION DATA
                     --- LEFT OVERBANK --- + ------ MAIN CHANNEL ------- + --- RIGHT OVERBANK ---
 209 RY       ELEVATION   1221.00   1220.00   1220.00   1211.00   1211.00   1218.00   1220.00   1222.00
 208 RX       DISTANCE     995.00   1000.00   1020.00   1055.00   1085.00   1165.00   1250.00   1330.00

                                                  ***

                                   COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

          STORAGE        .00      1.60      3.62      6.04      8.88     12.14     15.80     19.88     24.37     29.27
          OUTFLOW        .00     47.82    161.83    339.69    585.49    904.43   1302.03   1783.84   2355.35   3021.94
        ELEVATION    1211.00   1211.58   1212.16   1212.74   1213.32   1213.89   1214.47   1215.05   1215.63   1216.21

          STORAGE      34.58     40.31     46.45     53.35     61.50     70.89     81.95     94.74    108.71    123.75
          OUTFLOW    3788.89   4661.38   5644.47   6912.76   8335.17   9912.10  11718.48  13813.56  16142.12  18705.92
        ELEVATION    1216.79   1217.37   1217.95   1218.53   1219.11   1219.68   1220.26   1220.84   1221.42   1222.00

      ***              ***              ***              ***              ***

                        HYDROGRAPH AT STATION     RCP10
                      TRANSPOSITION AREA        .0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+   10171.      12.83                  2072.        569.        190.         165.
                             (INCHES)  1.772       1.948       1.953        1.953
                              (AC-FT)   1028.      1129.       1132.        1132.

 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
      72.       12.83                   19.         6.          2.           2.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
   1219.77      12.83                1214.27     1212.32     1211.45      1211.39

                          CUMULATIVE AREA =   10.87 SQ MI

      ***              ***              ***              ***              ***

                        HYDROGRAPH AT STATION     RCP10
                      TRANSPOSITION AREA     10.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+   10035.      12.83                  2043.        562.        188.         162.
                             (INCHES)  1.748       1.921       1.926        1.926
                              (AC-FT)   1013.      1114.       1117.        1117.

 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
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      72.      12.83                19.          6.          2.          2.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
   1219.72     12.83             1214.25     1212.31     1211.44     1211.38

                        CUMULATIVE AREA =   10.87 SQ MI

      ***             ***          ***          ***          ***

                        HYDROGRAPH AT STATION     RCP10
                      TRANSPOSITION AREA     50.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                   (CFS)
+    9486.      12.83             1928.        531.        177.        153.
                            (INCHES)  1.649       1.816       1.821       1.821
                             (AC-FT)   956.       1053.       1055.       1055.

 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
      68.      12.83                18.          6.          2.          2.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
   1219.53     12.83             1214.16     1212.28     1211.43     1211.37

                        CUMULATIVE AREA =   10.87 SQ MI

      ***             ***          ***          ***          ***

                        HYDROGRAPH AT STATION     RCP10
                      TRANSPOSITION AREA    100.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                   (CFS)
+    9248.      12.83             1879.        517.        173.        150.
                            (INCHES)  1.607       1.770       1.775       1.775
                             (AC-FT)   932.       1026.       1029.       1029.

 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
      67.      12.83                17.          6.          2.          2.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
   1219.44     12.83             1214.12     1212.26     1211.43     1211.37

                        CUMULATIVE AREA =   10.87 SQ MI

      ***             ***          ***          ***          ***

                        HYDROGRAPH AT STATION     RCP10
                      TRANSPOSITION AREA    200.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                   (CFS)
+    9042.      12.83             1836.        506.        169.        146.
                            (INCHES)  1.571       1.732       1.736       1.736
                             (AC-FT)   911.       1004.       1007.       1007.

 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
      66.      12.83                17.          6.          2.          2.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
   1219.37     12.83             1214.09     1212.25     1211.42     1211.37

                        CUMULATIVE AREA =   10.87 SQ MI

      ***             ***          ***          ***          ***

                      INTERPOLATED HYDROGRAPH AT     RCP10

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                                   (CFS)
+   10006.      12.83             2037.        560.        187.        162.
                            (INCHES)  1.743       1.916       1.921       1.921
                             (AC-FT)  1010.       1111.       1114.       1114.

                        CUMULATIVE AREA =   10.87 SQ MI

*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

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            *            *
 210 KK     *     12     *
            *            *
            **************
                        RUNOFF HYDROGRAPH FROM SUB-BASIN 12.

          SUBBASIN RUNOFF DATA

 212 BA       SUBBASIN CHARACTERISTICS
                   TAREA        1.38  SUBBASIN AREA

 213 LG       GREEN AND AMPT LOSS RATE
                   STRTL         .35  STARTING LOSS
                     DTH         .25  MOISTURE DEFICIT
                    PSIF        5.23  WETTING FRONT SUCTION
                   XKSAT         .24  HYDRAULIC CONDUCTIVITY
                   RTIMP        5.22  PERCENT IMPERVIOUS AREA
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211 UI          INPUT UNITGRAPH,  25 ORDINATES,  VOLUME = 1.00
                  111.0     129.0     393.0     535.0     636.0     758.0     930.0    1311.0    1277.0    1008.0
                  850.0     697.0     574.0     445.0     264.0     191.0     169.0     111.0      92.0      34.0
                   34.0      34.0      34.0      34.0      34.0
                                                                                  ***

     ***            ***            ***            ***            ***

                     HYDROGRAPH AT STATION        12
                   TRANSPOSITION AREA        .0 SQ MI

     TOTAL RAINFALL =    4.03, TOTAL LOSS =    2.59, TOTAL EXCESS =    1.44

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR     83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+   1428.      12.50                204.         53.          18.          15.
                                (INCHES)      1.375        1.435        1.436        1.436
                                 (AC-FT)        101.         106.         106.         106.

                     CUMULATIVE AREA =    1.38 SQ MI

     ***            ***            ***            ***            ***

                     HYDROGRAPH AT STATION        12
                   TRANSPOSITION AREA     10.0 SQ MI

     TOTAL RAINFALL =    3.99, TOTAL LOSS =    2.57, TOTAL EXCESS =    1.42

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR     83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+   1409.      12.50                201.         53.          18.          15.
                                (INCHES)      1.355        1.415        1.416        1.416
                                 (AC-FT)        100.         104.         104.         104.

                     CUMULATIVE AREA =    1.38 SQ MI

     ***            ***            ***            ***            ***

                     HYDROGRAPH AT STATION        12
                   TRANSPOSITION AREA     50.0 SQ MI

     TOTAL RAINFALL =    3.83, TOTAL LOSS =    2.50, TOTAL EXCESS =    1.33

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR     83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+   1329.      12.50                189.         49.          16.          14.
                                (INCHES)      1.275        1.333        1.333        1.333
                                 (AC-FT)         94.          98.          98.          98.

                     CUMULATIVE AREA =    1.38 SQ MI

     ***            ***            ***            ***            ***

                     HYDROGRAPH AT STATION        12
                   TRANSPOSITION AREA    100.0 SQ MI

     TOTAL RAINFALL =    3.76, TOTAL LOSS =    2.46, TOTAL EXCESS =    1.30

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR     83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+   1294.      12.50                184.         48.          16.          14.
                                (INCHES)      1.240        1.296        1.297        1.297
                                 (AC-FT)         91.          95.          95.          95.

                     CUMULATIVE AREA =    1.38 SQ MI

     ***            ***            ***            ***            ***

                     HYDROGRAPH AT STATION        12
                   TRANSPOSITION AREA    200.0 SQ MI

     TOTAL RAINFALL =    3.70, TOTAL LOSS =    2.43, TOTAL EXCESS =    1.27

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR     83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+   1264.      12.50                180.         47.          16.          14.
                                (INCHES)      1.210        1.265        1.266        1.266
                                 (AC-FT)         89.          93.          93.          93.

                     CUMULATIVE AREA =    1.38 SQ MI

     ***            ***            ***            ***            ***


                   INTERPOLATED HYDROGRAPH AT        12

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR     83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+   1413.      12.50                202.         53.          18.          15.
                                (INCHES)      1.359        1.419        1.420        1.420
                                 (AC-FT)        100.         104.         105.         105.

                     CUMULATIVE AREA =    1.38 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

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            *            *
218 KK      *     CP12   *
            *            *
            **************
                         ADD HYDROGRAPHS AT CP12.

220 HC          HYDROGRAPH COMBINATION
                     ICOMP          2  NUMBER OF HYDROGRAPHS TO COMBINE
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     ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION     CP12
                  TRANSPOSITION AREA        .0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR      83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+   11024.      12.83             2276.        622.         208.         180.
                                (INCHES)      1.727        1.890        1.895        1.895
                                 (AC-FT)      1129.        1234.        1238.        1238.

                    CUMULATIVE AREA =   12.25 SQ MI

     ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION     CP12
                  TRANSPOSITION AREA      10.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR      83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+   10875.      12.83             2244.        614.         205.         177.
                                (INCHES)      1.703        1.864        1.869        1.869
                                 (AC-FT)      1113.        1218.        1221.        1221.

                    CUMULATIVE AREA =   12.25 SQ MI

     ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION     CP12
                  TRANSPOSITION AREA      50.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR      83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+   10276.      12.83             2117.        580.         194.         168.
                                (INCHES)      1.607        1.761        1.766        1.766
                                 (AC-FT)      1050.        1150.        1154.        1154.

                    CUMULATIVE AREA =   12.25 SQ MI

     ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION     CP12
                  TRANSPOSITION AREA     100.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR      83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+   10014.      12.83             2062.        565.         189.         163.
                                (INCHES)      1.565        1.717        1.721        1.721
                                 (AC-FT)      1023.        1121.        1125.        1125.

                    CUMULATIVE AREA =   12.25 SQ MI

     ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION     CP12
                  TRANSPOSITION AREA     200.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR      83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+    9790.      12.83             2016.        553.         185.         160.
                                (INCHES)      1.530        1.679        1.683        1.683
                                 (AC-FT)      999.         1097.        1100.        1100.

                    CUMULATIVE AREA =   12.25 SQ MI

     ***            ***            ***            ***            ***


                  INTERPOLATED HYDROGRAPH AT     CP12

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR      83.25-HR
+   (CFS)       (HR)
                                  (CFS)
+   10799.      12.83             2228.        610.         204.         176.
                                (INCHES)      1.691        1.851        1.856        1.856
                                 (AC-FT)      1105.        1209.        1212.        1212.

                    CUMULATIVE AREA =   12.25 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

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            *            *
 221 KK     *    RCP12   *
            *            *
            **************
                    ROUTE COMBINED HYDROGRAPHS AT CP12 TO CPWT3

          HYDROGRAPH ROUTING DATA

 223 RS       STORAGE ROUTING
                  NSTPS          2  NUMBER OF SUBREACHES
                   ITYP             TYPE OF INITIAL CONDITION
                 RSVRIC      -1.00  INITIAL CONDITION
                      X        .00  WORKING R AND D COEFFICIENT

 224 RC       NORMAL DEPTH CHANNEL
                    ANL       .030  LEFT OVERBANK N-VALUE
                   ANCH       .030  MAIN CHANNEL N-VALUE
                    ANR       .040  RIGHT OVERBANK N-VALUE
                  RLNTH      4800.  REACH LENGTH
                    SEL      .0031  ENERGY SLOPE
                  ELMAX         .0  MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION

                              CROSS-SECTION DATA
          --- LEFT OVERBANK --- + ------ MAIN CHANNEL ------- + --- RIGHT OVERBANK ---
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226 RY	ELEVATION	1211.00	1211.00	1210.00	1196.00	1196.00	1200.00	1204.00	1204.00
225 RX	DISTANCE	995.00	1000.00	1020.00	1080.00	1200.00	1530.00	1665.00	1760.00

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COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	13.42	32.80	58.14	89.43	126.69	168.45	212.83	259.82	309.43
OUTFLOW	.00	251.55	907.16	2011.72	3630.84	5829.81	9185.95	13228.50	17912.86	23235.37
ELEVATION	1196.00	1196.79	1197.58	1198.37	1199.16	1199.95	1200.74	1201.53	1202.32	1203.10
STORAGE	361.64	422.76	485.29	548.13	611.25	674.67	738.39	802.39	866.74	932.16
OUTFLOW	29195.65	35780.98	43404.61	51726.89	60715.80	70346.36	80598.13	91453.90	103004.50	115450.40
ELEVATION	1203.89	1204.68	1205.47	1206.26	1207.05	1207.84	1208.63	1209.42	1210.21	1211.00

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN 60716. TO 115450.
THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

*** *** *** *** ***

HYDROGRAPH AT STATION RCP12
TRANSPOSITION AREA .0 SQ MI

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
+ (CFS)	(HR)		6-HR	24-HR	72-HR	83.25-HR
+ 10676.	13.00	(CFS)	2274.	622.	208.	180.
		(INCHES)	1.726	1.889	1.895	1.895
		(AC-FT)	1128.	1234.	1238.	1238.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
+ (AC-FT)	(HR)	6-HR	24-HR	72-HR	83.25-HR
92.	13.00	26.	8.	3.	2.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
+ (FEET)	(HR)	6-HR	24-HR	72-HR	83.25-HR
1201.03	13.00	1197.89	1196.64	1196.22	1196.19

CUMULATIVE AREA = 12.25 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION RCP12
TRANSPOSITION AREA 10.0 SQ MI

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
+ (CFS)	(HR)		6-HR	24-HR	72-HR	83.25-HR
+ 10529.	13.00	(CFS)	2242.	614.	205.	177.
		(INCHES)	1.702	1.863	1.869	1.869
		(AC-FT)	1112.	1217.	1221.	1221.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
+ (AC-FT)	(HR)	6-HR	24-HR	72-HR	83.25-HR
92.	13.00	26.	8.	3.	2.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
+ (FEET)	(HR)	6-HR	24-HR	72-HR	83.25-HR
1201.00	13.00	1197.87	1196.63	1196.21	1196.18

CUMULATIVE AREA = 12.25 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION RCP12
TRANSPOSITION AREA 50.0 SQ MI

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
+ (CFS)	(HR)		6-HR	24-HR	72-HR	83.25-HR
+ 9942.	13.00	(CFS)	2115.	580.	194.	168.
		(INCHES)	1.606	1.760	1.766	1.766
		(AC-FT)	1049.	1150.	1154.	1154.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
+ (AC-FT)	(HR)	6-HR	24-HR	72-HR	83.25-HR
88.	13.00	25.	8.	3.	2.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
+ (FEET)	(HR)	6-HR	24-HR	72-HR	83.25-HR
1200.88	13.00	1197.82	1196.61	1196.21	1196.18

CUMULATIVE AREA = 12.25 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION RCP12
TRANSPOSITION AREA 100.0 SQ MI

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
+ (CFS)	(HR)		6-HR	24-HR	72-HR	83.25-HR
+ 9684.	13.00	(CFS)	2061.	565.	189.	163.
		(INCHES)	1.564	1.716	1.721	1.721
		(AC-FT)	1022.	1121.	1125.	1125.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
+ (AC-FT)	(HR)	6-HR	24-HR	72-HR	83.25-HR
87.	13.00	25.	7.	3.	2.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
+ (FEET)	(HR)	6-HR	24-HR	72-HR	83.25-HR
1200.83	13.00	1197.80	1196.61	1196.20	1196.18

CUMULATIVE AREA = 12.25 SQ MI

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HYDROGRAPH AT STATION RCP12
TRANSPOSITION AREA 200.0 SQ MI

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  PEAK FLOW      TIME                                  MAXIMUM AVERAGE FLOW
                                          6-HR        24-HR        72-HR      83.25-HR
+   (CFS)        (HR)
                                   (CFS)
+    9459.       13.00                 2014.         553.         185.         160.
                                (INCHES)  1.529        1.678        1.683        1.683
                                 (AC-FT)   999.        1096.        1100.        1100.

 PEAK STORAGE    TIME                                 MAXIMUM AVERAGE STORAGE
                                          6-HR        24-HR        72-HR      83.25-HR
+  (AC-FT)       (HR)
      86.        13.00                   24.           7.           2.           2.

  PEAK STAGE     TIME                                 MAXIMUM AVERAGE STAGE
                                          6-HR        24-HR        72-HR      83.25-HR
+   (FEET)       (HR)
  1200.79        13.00                1197.78      1196.60      1196.20      1196.17

                                CUMULATIVE AREA =   12.25 SQ MI

      ***                ***            ***            ***            ***


                          INTERPOLATED HYDROGRAPH AT     RCP12

  PEAK FLOW      TIME                                  MAXIMUM AVERAGE FLOW
                                          6-HR        24-HR        72-HR      83.25-HR
+   (CFS)        (HR)
                                   (CFS)
+   10455.       13.00                 2226.         609.         204.         176.
                                (INCHES)  1.690        1.850        1.856        1.856
                                 (AC-FT)  1104.        1209.        1212.        1212.

                                CUMULATIVE AREA =   12.25 SQ MI


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            *            *
 227 KK     *     11     *
            *            *
            **************
                                RUNOFF HYDROGRAPH FROM SUB-BASIN 11.

                SUBBASIN RUNOFF DATA

 229 BA           SUBBASIN CHARACTERISTICS
                       TAREA         1.56  SUBBASIN AREA

 230 LG           GREEN AND AMPT LOSS RATE
                       STRTL          .35  STARTING LOSS
                         DTH          .15  MOISTURE DEFICIT
                        PSIF         7.25  WETTING FRONT SUCTION
                       XKSAT          .11  HYDRAULIC CONDUCTIVITY
                       RTIMP        13.30  PERCENT IMPERVIOUS AREA

 228 UI           INPUT UNITGRAPH,  21 ORDINATES,  VOLUME = 1.00
                      143.0     245.0     571.0     755.0     913.0    1142.0    1648.0    1623.0    1254.0    1026.0
                      821.0     643.0     394.0     248.0     210.0     143.0      86.0      44.0      44.0      44.0
                       44.0
                                                                                  ***
      ***                ***            ***            ***            ***

                          HYDROGRAPH AT STATION       11
                        TRANSPOSITION AREA        .0 SQ MI

    TOTAL RAINFALL =    4.03, TOTAL LOSS =    2.03, TOTAL EXCESS =    2.00

  PEAK FLOW      TIME                                  MAXIMUM AVERAGE FLOW
                                          6-HR        24-HR        72-HR      83.25-HR
+   (CFS)        (HR)
                                   (CFS)
+    2059.       12.42                  309.          84.          28.          24.
                                (INCHES)  1.841        1.996        1.997        1.997
                                 (AC-FT)   153.         166.         166.         166.

                                CUMULATIVE AREA =    1.56 SQ MI

      ***                ***            ***            ***            ***

                          HYDROGRAPH AT STATION       11
                        TRANSPOSITION AREA     10.0 SQ MI

    TOTAL RAINFALL =    3.99, TOTAL LOSS =    2.01, TOTAL EXCESS =    1.98

  PEAK FLOW      TIME                                  MAXIMUM AVERAGE FLOW
                                          6-HR        24-HR        72-HR      83.25-HR
+   (CFS)        (HR)
                                   (CFS)
+    2035.       12.42                  305.          83.          28.          24.
                                (INCHES)  1.815        1.968        1.969        1.969
                                 (AC-FT)   151.         164.         164.         164.

                                CUMULATIVE AREA =    1.56 SQ MI

      ***                ***            ***            ***            ***

                          HYDROGRAPH AT STATION       11
                        TRANSPOSITION AREA     50.0 SQ MI

    TOTAL RAINFALL =    3.83, TOTAL LOSS =    1.96, TOTAL EXCESS =    1.87

  PEAK FLOW      TIME                                  MAXIMUM AVERAGE FLOW
                                          6-HR        24-HR        72-HR      83.25-HR
+   (CFS)        (HR)
                                   (CFS)
+    1940.       12.42                  287.          78.          26.          23.
                                (INCHES)  1.713        1.860        1.861        1.861
                                 (AC-FT)   143.         155.         155.         155.

                                CUMULATIVE AREA =    1.56 SQ MI

      ***                ***            ***            ***            ***

                          HYDROGRAPH AT STATION       11
                        TRANSPOSITION AREA    100.0 SQ MI
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      TOTAL RAINFALL =    3.76, TOTAL LOSS =    1.94, TOTAL EXCESS =    1.82

  PEAK FLOW      TIME                                MAXIMUM AVERAGE FLOW
                                          6-HR        24-HR        72-HR      83.25-HR
+   (CFS)        (HR)
                                   (CFS)
+    1898.       12.42                 280.          76.          25.          22.
                                (INCHES)        1.668        1.812        1.813        1.813
                                 (AC-FT)         139.         151.         151.         151.

                                CUMULATIVE AREA =    1.56 SQ MI

      ***                 ***          ***          ***          ***

                                HYDROGRAPH AT STATION        11
                               TRANSPOSITION AREA    200.0 SQ MI

      TOTAL RAINFALL =    3.70, TOTAL LOSS =    1.92, TOTAL EXCESS =    1.78

  PEAK FLOW      TIME                                MAXIMUM AVERAGE FLOW
                                          6-HR        24-HR        72-HR      83.25-HR
+   (CFS)        (HR)
                                   (CFS)
+    1862.       12.42                 273.          74.          25.          21.
                                (INCHES)        1.630        1.772        1.773        1.773
                                 (AC-FT)         136.         147.         147.         147.

                                CUMULATIVE AREA =    1.56 SQ MI

      ***                 ***          ***          ***          ***


                                INTERPOLATED HYDROGRAPH AT        11

  PEAK FLOW      TIME                                MAXIMUM AVERAGE FLOW
                                          6-HR        24-HR        72-HR      83.25-HR
+   (CFS)        (HR)
                                   (CFS)
+    2040.       12.42                 305.          83.          28.          24.
                                (INCHES)        1.820        1.974        1.975        1.975
                                 (AC-FT)         151.         164.         164.         164.

                                CUMULATIVE AREA =    1.56 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


                 *************
                 *           *
235 KK           *    RCP11  *
                 *           *
                 *************
                                ROUTE HYROGRAPH FROM CP11 TO CP13.

                 HYDROGRAPH ROUTING DATA

237 RS             STORAGE ROUTING
                        NSTPS          4  NUMBER OF SUBREACHES
                         ITYP             TYPE OF INITIAL CONDITION
                       RSVRIC      -1.00  INITIAL CONDITION
                            X        .00  WORKING R AND D COEFFICIENT

238 RC             NORMAL DEPTH CHANNEL
                          ANL       .060  LEFT OVERBANK N-VALUE
                         ANCH       .035  MAIN CHANNEL N-VALUE
                          ANR       .060  RIGHT OVERBANK N-VALUE
                        RLNTH      10200.  REACH LENGTH
                          SEL      .0098  ENERGY SLOPE
                        ELMAX         .0  MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION

                                CROSS-SECTION DATA
                        --- LEFT OVERBANK --- + ------ MAIN CHANNEL ------- + --- RIGHT OVERBANK ---
240 RY       ELEVATION   1233.00   1232.00   1230.00   1222.00   1222.00   1230.00   1232.00   1233.00
239 RX       DISTANCE    1000.00   1070.00   1300.00   1480.00   1510.00   1525.00   1555.00   1600.00
                                                                  ***

                                COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

          STORAGE        .00      5.02     11.96     20.81     31.58     44.25     58.84     75.35     93.76    114.09
          OUTFLOW        .00     55.79    196.57    427.81    760.63   1206.57   1776.94   2482.72   3334.51   4342.61
        ELEVATION    1222.00   1222.58   1223.16   1223.74   1224.32   1224.89   1225.47   1226.05   1226.63   1227.21

          STORAGE     136.34    160.49    186.56    214.55    244.58    282.05    329.73    387.60    455.37    532.21
          OUTFLOW    5516.99   6867.37   8403.20  10133.70  12157.62  14826.67  17812.94  21169.19  24953.87  29195.38
        ELEVATION    1227.79   1228.37   1228.95   1229.53   1230.11   1230.68   1231.26   1231.84   1232.42   1233.00

      ***                 ***          ***          ***          ***

                                HYDROGRAPH AT STATION     RCP11
                               TRANSPOSITION AREA        .0 SQ MI

  PEAK FLOW      TIME                                MAXIMUM AVERAGE FLOW
                                          6-HR        24-HR        72-HR      83.25-HR
+   (CFS)        (HR)
                                   (CFS)
+    1827.       12.75                 309.          84.          28.          24.
                                (INCHES)        1.840        1.994        1.997        1.997
                                 (AC-FT)         153.         166.         166.         166.

 PEAK STORAGE    TIME                               MAXIMUM AVERAGE STORAGE
                                          6-HR        24-HR        72-HR      83.25-HR
+  (AC-FT)       (HR)
      15.       12.75                    3.           1.           0.           0.

  PEAK STAGE     TIME                               MAXIMUM AVERAGE STAGE
                                          6-HR        24-HR        72-HR      83.25-HR
+   (FEET)       (HR)
   1225.51      12.75                 1223.00      1222.32      1222.11      1222.09

                                CUMULATIVE AREA =    1.56 SQ MI

      ***                 ***          ***          ***          ***

                                HYDROGRAPH AT STATION     RCP11
                               TRANSPOSITION AREA     10.0 SQ MI

  PEAK FLOW      TIME                                MAXIMUM AVERAGE FLOW
                                          6-HR        24-HR        72-HR      83.25-HR
+   (CFS)        (HR)
                                   (CFS)
```

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+    1803.     12.75                    304.        82.        28.        24.
                          (INCHES)     1.814     1.967      1.969      1.969
                           (AC-FT)     151.       164.       164.       164.

 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                        6-HR       24-HR      72-HR     83.25-HR
+  (AC-FT)      (HR)
      15.      12.75                      3.         1.         0.         0.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                        6-HR       24-HR      72-HR     83.25-HR
+   (FEET)      (HR)
   1225.50     12.75                 1222.99    1222.31    1222.10    1222.09

                          CUMULATIVE AREA =    1.56 SQ MI

      ***              ***            ***            ***            ***

                          HYDROGRAPH AT STATION    RCP11
                        TRANSPOSITION AREA     50.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                        6-HR       24-HR      72-HR     83.25-HR
+   (CFS)       (HR)
                            (CFS)
+    1712.     12.75                    287.        78.        26.        23.
                          (INCHES)     1.711     1.858      1.861      1.861
                           (AC-FT)     142.       155.       155.       155.

 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                        6-HR       24-HR      72-HR     83.25-HR
+  (AC-FT)      (HR)
      14.      12.75                      3.         1.         0.         0.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                        6-HR       24-HR      72-HR     83.25-HR
+   (FEET)      (HR)
   1225.41     12.75                 1222.95    1222.30    1222.10    1222.09

                          CUMULATIVE AREA =    1.56 SQ MI

      ***              ***            ***            ***            ***

                          HYDROGRAPH AT STATION    RCP11
                        TRANSPOSITION AREA    100.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                        6-HR       24-HR      72-HR     83.25-HR
+   (CFS)       (HR)
                            (CFS)
+    1673.     12.75                    280.        76.        25.        22.
                          (INCHES)     1.667     1.811      1.813      1.813
                           (AC-FT)     139.       151.       151.       151.

 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                        6-HR       24-HR      72-HR     83.25-HR
+  (AC-FT)      (HR)
      14.      12.75                      3.         1.         0.         0.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                        6-HR       24-HR      72-HR     83.25-HR
+   (FEET)      (HR)
   1225.37     12.75                 1222.94    1222.30    1222.10    1222.09

                          CUMULATIVE AREA =    1.56 SQ MI

      ***              ***            ***            ***            ***

                          HYDROGRAPH AT STATION    RCP11
                        TRANSPOSITION AREA    200.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                        6-HR       24-HR      72-HR     83.25-HR
+   (CFS)       (HR)
                            (CFS)
+    1639.     12.75                    273.        74.        25.        21.
                          (INCHES)     1.629     1.770      1.773      1.773
                           (AC-FT)     136.       147.       147.       147.

 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                        6-HR       24-HR      72-HR     83.25-HR
+  (AC-FT)      (HR)
      14.      12.75                      3.         1.         0.         0.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                        6-HR       24-HR      72-HR     83.25-HR
+   (FEET)      (HR)
   1225.33     12.75                 1222.93    1222.29    1222.10    1222.08

                          CUMULATIVE AREA =    1.56 SQ MI

      ***              ***            ***            ***            ***


                          INTERPOLATED HYDROGRAPH AT    RCP11

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                        6-HR       24-HR      72-HR     83.25-HR
+   (CFS)       (HR)
                            (CFS)
+    1808.     12.75                    305.        83.        28.        24.
                          (INCHES)     1.819     1.972      1.975      1.975
                           (AC-FT)     151.       164.       164.       164.

                          CUMULATIVE AREA =    1.56 SQ MI

*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

            **************
            *            *
 241 KK     *      13    *
            *            *
            **************
                          RUNOFF HYDROGRAPH FROM SUB-BASIN 13.

            SUBBASIN RUNOFF DATA

 243 BA       SUBBASIN CHARACTERISTICS
                 TAREA        1.30  SUBBASIN AREA
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244 LG          GREEN AND AMPT LOSS RATE
                     STRTL          .35  STARTING LOSS
                       DTH          .25  MOISTURE DEFICIT
                      PSIF         4.62  WETTING FRONT SUCTION
                     XKSAT          .32  HYDRAULIC CONDUCTIVITY
                     RTIMP          .00  PERCENT IMPERVIOUS AREA

242 UI          INPUT UNITGRAPH,  21 ORDINATES,  VOLUME = 1.00
                    120.0     210.0     485.0     639.0     774.0     973.0    1416.0    1333.0    1039.0     847.0
                    674.0     527.0     303.0     206.0     167.0     120.0      60.0      37.0      37.0      37.0
                     37.0
                                                                                   ***

     ***            ***            ***            ***            ***

                      HYDROGRAPH AT STATION       13
                    TRANSPOSITION AREA       .0 SQ MI

   TOTAL RAINFALL =    4.03, TOTAL LOSS =    2.83, TOTAL EXCESS =    1.20

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR     83.25-HR
+   (CFS)       (HR)
                        (CFS)
+   1383.     12.42                 167.         42.          14.          12.
                     (INCHES)     1.195        1.195        1.195        1.195
                      (AC-FT)      83.          83.          83.          83.

                     CUMULATIVE AREA =    1.30 SQ MI

     ***            ***            ***            ***            ***

                      HYDROGRAPH AT STATION       13
                    TRANSPOSITION AREA     10.0 SQ MI

   TOTAL RAINFALL =    3.99, TOTAL LOSS =    2.81, TOTAL EXCESS =    1.18

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR     83.25-HR
+   (CFS)       (HR)
                        (CFS)
+   1363.     12.42                 164.         41.          14.          12.
                     (INCHES)     1.175        1.175        1.175        1.175
                      (AC-FT)      81.          81.          81.          81.

                     CUMULATIVE AREA =    1.30 SQ MI

     ***            ***            ***            ***            ***

                      HYDROGRAPH AT STATION       13
                    TRANSPOSITION AREA     50.0 SQ MI

   TOTAL RAINFALL =    3.83, TOTAL LOSS =    2.73, TOTAL EXCESS =    1.10

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR     83.25-HR
+   (CFS)       (HR)
                        (CFS)
+   1279.     12.42                 153.         38.          13.          11.
                     (INCHES)     1.097        1.097        1.097        1.097
                      (AC-FT)      76.          76.          76.          76.

                     CUMULATIVE AREA =    1.30 SQ MI

     ***            ***            ***            ***            ***

                      HYDROGRAPH AT STATION       13
                    TRANSPOSITION AREA    100.0 SQ MI

   TOTAL RAINFALL =    3.76, TOTAL LOSS =    2.70, TOTAL EXCESS =    1.06

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR     83.25-HR
+   (CFS)       (HR)
                        (CFS)
+   1242.     12.42                 148.         37.          12.          11.
                     (INCHES)     1.062        1.062        1.062        1.062
                      (AC-FT)      74.          74.          74.          74.

                     CUMULATIVE AREA =    1.30 SQ MI

     ***            ***            ***            ***            ***

                      HYDROGRAPH AT STATION       13
                    TRANSPOSITION AREA    200.0 SQ MI

   TOTAL RAINFALL =    3.70, TOTAL LOSS =    2.66, TOTAL EXCESS =    1.04

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR     83.25-HR
+   (CFS)       (HR)
                        (CFS)
+   1211.     12.42                 144.         36.          12.          10.
                     (INCHES)     1.033        1.033        1.033        1.033
                      (AC-FT)      72.          72.          72.          72.

                     CUMULATIVE AREA =    1.30 SQ MI

     ***            ***            ***            ***            ***


                     INTERPOLATED HYDROGRAPH AT       13

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR     83.25-HR
+   (CFS)       (HR)
                        (CFS)
+   1367.     12.42                 165.         41.          14.          12.
                     (INCHES)     1.180        1.180        1.180        1.180
                      (AC-FT)      82.          82.          82.          82.

                     CUMULATIVE AREA =    1.30 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

            *************
            *           *
249 KK      *     CP13  *
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                *            *
                **************
                          ADD HYDROGRAPHS AT CP13.

251 HC          HYDROGRAPH COMBINATION
                     ICOMP            2  NUMBER OF HYDROGRAPHS TO COMBINE
                                                                  ***

     ***            ***             ***             ***             ***

                      HYDROGRAPH AT STATION     CP13
                    TRANSPOSITION AREA       .0 SQ MI

  PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                   6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    2755.     12.58                476.        125.         42.         36.
                        (INCHES)    1.547       1.631       1.632       1.632
                         (AC-FT)     236.        249.        249.        249.

                       CUMULATIVE AREA =    2.86 SQ MI

     ***            ***             ***             ***             ***

                      HYDROGRAPH AT STATION     CP13
                    TRANSPOSITION AREA     10.0 SQ MI

  PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                   6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    2714.     12.58                469.        124.         41.         36.
                        (INCHES)    1.524       1.607       1.608       1.608
                         (AC-FT)     232.        245.        245.        245.

                       CUMULATIVE AREA =    2.86 SQ MI

     ***            ***             ***             ***             ***

                      HYDROGRAPH AT STATION     CP13
                    TRANSPOSITION AREA     50.0 SQ MI

  PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                   6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    2552.     12.58                440.        116.         39.         34.
                        (INCHES)    1.432       1.512       1.513       1.513
                         (AC-FT)     218.        231.        231.        231.

                       CUMULATIVE AREA =    2.86 SQ MI

     ***            ***             ***             ***             ***

                      HYDROGRAPH AT STATION     CP13
                    TRANSPOSITION AREA    100.0 SQ MI

  PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                   6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    2479.     12.58                428.        113.         38.         33.
                        (INCHES)    1.392       1.470       1.472       1.472
                         (AC-FT)     212.        224.        224.        224.

                       CUMULATIVE AREA =    2.86 SQ MI

     ***            ***             ***             ***             ***

                      HYDROGRAPH AT STATION     CP13
                    TRANSPOSITION AREA    200.0 SQ MI

  PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                   6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    2417.     12.58                418.        110.         37.         32.
                        (INCHES)    1.358       1.435       1.436       1.436
                         (AC-FT)     207.        219.        219.        219.

                       CUMULATIVE AREA =    2.86 SQ MI

     ***            ***             ***             ***             ***


                     INTERPOLATED HYDROGRAPH AT     CP13

  PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                   6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    2720.     12.58                470.        124.         41.         36.
                        (INCHES)    1.527       1.610       1.612       1.612
                         (AC-FT)     233.        246.        246.        246.

                       CUMULATIVE AREA =    2.86 SQ MI

*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

                *************
                *           *
252 KK          *    RCP13  *
                *           *
                *************
                          ROUTE COMBINED HYDROGRAPHS AT CP13 TO CP17

                HYDROGRAPH ROUTING DATA

254 RS          STORAGE ROUTING
                     NSTPS            1  NUMBER OF SUBREACHES
                      ITYP               TYPE OF INITIAL CONDITION
                    RSVRIC        -1.00  INITIAL CONDITION
                         X         .00 WORKING R AND D COEFFICIENT

255 RC          NORMAL DEPTH CHANNEL
                       ANL         .030  LEFT OVERBANK N-VALUE
                      ANCH         .030  MAIN CHANNEL N-VALUE
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                    ANR        .040  RIGHT OVERBANK N-VALUE
                  RLNTH       2400.  REACH LENGTH
                    SEL       .0042  ENERGY SLOPE
                  ELMAX          .0  MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION

                                  CROSS-SECTION DATA
                        --- LEFT OVERBANK --- + ------ MAIN CHANNEL ------- + --- RIGHT OVERBANK ---
257 RY     ELEVATION  1206.00  1198.00  1196.00  1194.00  1194.00  1198.00  1198.00  1201.00
256 RX     DISTANCE   1000.00  1025.00  1040.00  1065.00  1085.00  1110.00  1175.00  1200.00

                                                  ***

                                COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

          STORAGE        .00       .90      2.22      3.94      6.04      8.45     11.15     15.66     21.17     26.94
          OUTFLOW        .00     33.77    122.25    271.99    514.70    837.62   1240.68   1803.88   2571.94   3499.22
        ELEVATION    1194.00   1194.63   1195.26   1195.89   1196.53   1197.16   1197.79   1198.42   1199.05   1199.68

          STORAGE      32.95     39.22     45.67     52.18     58.76     65.41     72.13     78.92     85.78     92.70
          OUTFLOW    4576.20   5798.43   7202.91   8752.96  10440.65  12262.42  14215.43  16297.32  18506.14  20840.28
        ELEVATION    1200.32   1200.95   1201.58   1202.21   1202.84   1203.47   1204.11   1204.74   1205.37   1206.00


*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN    12262. TO    20840.
                THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
                THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

     ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION    RCP13
                  TRANSPOSITION AREA      .0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                           (CFS)
+    2681.     12.67                 476.        125.         42.         36.
                         (INCHES)   1.546       1.631       1.632       1.632
                          (AC-FT)    236.        249.        249.        249.

 PEAK STORAGE   TIME                         MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
      22.      12.67                   5.          1.          0.          0.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
   1199.13     12.67                1195.66     1194.54     1194.18     1194.16

                        CUMULATIVE AREA =    2.86 SQ MI

     ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION  , RCP13
                  TRANSPOSITION AREA     10.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                           (CFS)
+    2638.     12.67                 469.        124.         41.         36.
                         (INCHES)   1.523       1.607       1.608       1.608
                          (AC-FT)    232.        245.        245.        245.

 PEAK STORAGE   TIME                         MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
      22.      12.67                   5.          1.          0.          0.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
   1199.10     12.67                1195.65     1194.53     1194.18     1194.15

                        CUMULATIVE AREA =    2.86 SQ MI

     ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION    RCP13
                  TRANSPOSITION AREA     50.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                           (CFS)
+    2471.     12.67                 440.        116.         39.         34.
                         (INCHES)   1.432       1.512       1.513       1.513
                          (AC-FT)    218.        231.        231.        231.

 PEAK STORAGE   TIME                         MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
      20.      12.67                   4.          1.          0.          0.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
   1198.97     12.67                1195.60     1194.52     1194.17     1194.15

                        CUMULATIVE AREA =    2.86 SQ MI

     ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION    RCP13
                  TRANSPOSITION AREA    100.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                           (CFS)
+    2400.     12.67                 428.        113.         38.         33.
                         (INCHES)   1.391       1.470       1.472       1.472
                          (AC-FT)    212.        224.        224.        224.

 PEAK STORAGE   TIME                         MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
      20.      12.67                   4.          1.          0.          0.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
   1198.91     12.67                1195.58     1194.51     1194.17     1194.15
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                    CUMULATIVE AREA =    2.86 SQ MI

      ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION    RCP13
                   TRANSPOSITION AREA    200.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    2340.     12.67                 418.        110.         37.         32.
                        (INCHES)    1.357       1.435       1.436       1.436
                         (AC-FT)     207.        219.        219.        219.

 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
      20.      12.67                   4.          1.          0.          0.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
   1198.86     12.67               1195.56     1194.50     1194.17     1194.15

                    CUMULATIVE AREA =    2.86 SQ MI

      ***            ***            ***            ***            ***


                    INTERPOLATED HYDROGRAPH AT    RCP13

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    2644.     12.67                 470.        124.         41.         36.
                        (INCHES)    1.526       1.610       1.612       1.612
                         (AC-FT)     233.        246.        246.        246.

                    CUMULATIVE AREA =    2.86 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


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            *            *
 258 KK     *        14  *
            *            *
            **************
                          RUNOFF HYDROGRAPH FROM SUB-BASIN 14.

            SUBBASIN RUNOFF DATA

 260 BA          SUBBASIN CHARACTERISTICS
                      TAREA        1.47  SUBBASIN AREA

 261 LG          GREEN AND AMPT LOSS RATE
                     STRTL         .35  STARTING LOSS
                       DTH         .15  MOISTURE DEFICIT
                      PSIF        7.97  WETTING FRONT SUCTION
                     XKSAT         .08  HYDRAULIC CONDUCTIVITY
                     RTIMP       18.19  PERCENT IMPERVIOUS AREA

 259 UI          INPUT UNITGRAPH,  17 ORDINATES,  VOLUME = 1.00
                     166.0     421.0     790.0    1019.0    1341.0    1998.0    1636.0    1264.0     961.0     699.0
                     362.0     274.0     166.0      93.0      51.0      51.0      51.0
                                                                          ***
      ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION       14
                   TRANSPOSITION AREA       .0 SQ MI

    TOTAL RAINFALL =    4.03, TOTAL LOSS =    1.82, TOTAL EXCESS =    2.21

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    2264.     12.33                 314.         87.         29.         25.
                        (INCHES)    1.985       2.196       2.198       2.198
                         (AC-FT)     156.        172.        172.        172.

                    CUMULATIVE AREA =    1.47 SQ MI

      ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION       14
                   TRANSPOSITION AREA     10.0 SQ MI

    TOTAL RAINFALL =    3.99, TOTAL LOSS =    1.81, TOTAL EXCESS =    2.18

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    2239.     12.33                 309.         86.         29.         25.
                        (INCHES)    1.957       2.167       2.168       2.168
                         (AC-FT)     153.        170.        170.        170.

                    CUMULATIVE AREA =    1.47 SQ MI

      ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION       14
                   TRANSPOSITION AREA     50.0 SQ MI

    TOTAL RAINFALL =    3.83, TOTAL LOSS =    1.77, TOTAL EXCESS =    2.06

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    2139.     12.33                 292.         81.         27.         23.
                        (INCHES)    1.849       2.050       2.051       2.051
                         (AC,FT)     145.        161.        161.        161.

                    CUMULATIVE AREA =    1.47 SQ MI
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     ***             ***             ***             ***             ***

                       HYDROGRAPH AT STATION       14
                     TRANSPOSITION AREA    100.0 SQ MI

    TOTAL RAINFALL =    3.76, TOTAL LOSS =    1.75, TOTAL EXCESS =    2.01

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR        72-HR      83.25-HR
+   (CFS)       (HR)
                        (CFS)
+    2095.     12.33                 285.          79.          26.          23.
                     (INCHES)       1.802       2.000        2.001        2.001
                      (AC-FT)        141.        157.         157.         157.

                     CUMULATIVE AREA =    1.47 SQ MI

     ***             ***             ***             ***             ***

                       HYDROGRAPH AT STATION       14
                     TRANSPOSITION AREA    200.0 SQ MI

    TOTAL RAINFALL =    3.70, TOTAL LOSS =    1.73, TOTAL EXCESS =    1.97

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR        72-HR      83.25-HR
+   (CFS)       (HR)
                        (CFS)
+    2057.     12.33                 279.          77.          26.          22.
                     (INCHES)       1.763       1.957        1.958        1.958
                      (AC-FT)        138.        153.         154.         154.

                     CUMULATIVE AREA =    1.47 SQ MI

     ***             ***             ***             ***             ***


                     INTERPOLATED HYDROGRAPH AT       14

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR        72-HR      83.25-HR
+   (CFS)       (HR)
                        (CFS)
+    2244.     12.33                 310.          86.          29.          25.
                     (INCHES)       1.963       2.173        2.174        2.174
                      (AC-FT)        154.        170.         170.         170.

                     CUMULATIVE AREA =    1.47 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


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            *            *
 265 KK     *     RCP14  *
            *            *
            **************
                                ROUTE FLOW FROM CP14 TO CP15.

              HYDROGRAPH ROUTING DATA

 267 RS          STORAGE ROUTING
                      NSTPS          2  NUMBER OF SUBREACHES
                       ITYP             TYPE OF INITIAL CONDITION
                     RSVRIC      -1.00  INITIAL CONDITION
                          X        .00 WORKING R AND D COEFFICIENT

 268 RC          NORMAL DEPTH CHANNEL
                        ANL       .060  LEFT OVERBANK N-VALUE
                       ANCH       .035  MAIN CHANNEL N-VALUE
                        ANR       .060  RIGHT OVERBANK N-VALUE
                      RLNTH      8800.  REACH LENGTH
                        SEL      .0256  ENERGY SLOPE
                      ELMAX         .0  MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION

                                   CROSS-SECTION DATA
                        --- LEFT OVERBANK --- + ------ MAIN CHANNEL ------- + --- RIGHT OVERBANK ---
 270 RY        ELEVATION   1296.00   1295.00   1294.00   1288.00   1288.00   1294.00   1296.00   1300.00
 269 RX        DISTANCE    1000.00   1030.00   1075.00   1200.00   1220.00   1280.00   1415.00   1480.00

                                                   ***

                                   COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

          STORAGE        .00      3.79     10.07     18.84     30.09     43.82     60.04     78.74     99.93    123.60
          OUTFLOW        .00     77.85    303.22    711.42   1339.00   2220.24   3387.41   4871.08   6700.48   8903.64
        ELEVATION    1288.00   1288.63   1289.26   1289.89   1290.53   1291.16   1291.79   1292.42   1293.05   1293.68

          STORAGE     150.58    185.81    229.59    280.87    334.91    390.26    446.93    504.90    564.18    624.77
          OUTFLOW   11834.89  15598.23  19983.92  25095.45  30990.33  37535.29  44704.88  52481.83  60853.76  69811.66
        ELEVATION    1294.32   1294.95   1295.58   1296.21   1296.84   1297.47   1298.11   1298.74   1299.37   1300.00

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN    60854. TO    69812.
                THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
                THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

     ***             ***             ***             ***             ***

                       HYDROGRAPH AT STATION    RCP14
                     TRANSPOSITION AREA       .0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR        72-HR      83.25-HR
+   (CFS)       (HR)
                        (CFS)
+    2020.     12.50                 314.          87.          29.          25.
                     (INCHES)       1.984       2.195        2.198        2.198
                      (AC-FT)        156.        172.         172.         172.

 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                     6-HR        24-HR        72-HR      83.25-HR
+  (AC-FT)      (HR)
      20.      12.50                   4.          1.           0.           0.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR        24-HR        72-HR      83.25-HR
+   (FEET)      (HR)
   1291.01     12.50               1288.85     1288.28      1288.09      1288.08

                     CUMULATIVE AREA =    1.47 SQ MI
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***          ***          ***          ***          ***

                HYDROGRAPH AT STATION    RCP14
             TRANSPOSITION AREA     10.0 SQ MI

 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                              6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                   (CFS)
+   1997.      12.50          309.        86.         29.         25.
                  (INCHES)   1.956       2.165       2.168       2.168
                  (AC-FT)    153.        170.        170.        170.

 PEAK STORAGE  TIME                       MAXIMUM AVERAGE STORAGE
                              6-HR       24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
      20.     12.50             4.          1.          0.          0.

 PEAK STAGE    TIME                        MAXIMUM AVERAGE STAGE
                              6-HR       24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
  1291.00     12.50        1288.84     1288.28     1288.09     1288.08

                CUMULATIVE AREA =    1.47 SQ MI

***          ***          ***          ***          ***

                HYDROGRAPH AT STATION    RCP14
             TRANSPOSITION AREA     50.0 SQ MI

 PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                              6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                   (CFS)
+   1903.      12.50          292.        81.         27.         23.
                  (INCHES)   1.848       2.049       2.051       2.051
                  (AC-FT)    145.        161.        161.        161.

 PEAK STORAGE  TIME                       MAXIMUM AVERAGE STORAGE
                              6-HR       24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
      19.     12.50             4.          1.          0.          0.

 PEAK STAGE    TIME                        MAXIMUM AVERAGE STAGE
                              6-HR       24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
  1290.93     12.50        1288.81     1288.27     1288.09     1288.08

                CUMULATIVE AREA =    1.47 SQ MI

***          ***          ***          ***          ***

                HYDROGRAPH AT STATION    RCP14
             TRANSPOSITION AREA    100.0 SQ MI

 PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                              6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                   (CFS)
+   1862.      12.50          285.        79.         26.         23.
                  (INCHES)   1.801       1.998       2.001       2.001
                  (AC-FT)    141.        157.        157.        157.

 PEAK STORAGE  TIME                       MAXIMUM AVERAGE STORAGE
                              6-HR       24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
      19.     12.50             4.          1.          0.          0.

 PEAK STAGE    TIME                        MAXIMUM AVERAGE STAGE
                              6-HR       24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
  1290.90     12.50        1288.80     1288.26     1288.09     1288.08

                CUMULATIVE AREA =    1.47 SQ MI

***          ***          ***          ***          ***

                HYDROGRAPH AT STATION    RCP14
             TRANSPOSITION AREA    200.0 SQ MI

 PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                              6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                   (CFS)
+   1827.      12.50          279.        77.         26.         22.
                  (INCHES)   1.762       1.956       1.958       1.958
                  (AC-FT)    138.        153.        154.        154.

 PEAK STORAGE  TIME                       MAXIMUM AVERAGE STORAGE
                              6-HR       24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
      19.     12.50             4.          1.          0.          0.

 PEAK STAGE    TIME                        MAXIMUM AVERAGE STAGE
                              6-HR       24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
  1290.88     12.50        1288.78     1288.26     1288.09     1288.07

                CUMULATIVE AREA =    1.47 SQ MI

***          ***          ***          ***          ***


             INTERPOLATED HYDROGRAPH AT    RCP14

 PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                              6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                   (CFS)
+   2002.      12.50          310.        86.         29.         25.
                  (INCHES)   1.962       2.172       2.174       2.174
                  (AC-FT)    154.        170.        170.        170.

                CUMULATIVE AREA =    1.47 SQ MI

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271 KK      *        15  *
            *            *
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                                RUNOFF HYDROGRAPH FROM SUB-BASIN 15.

              SUBBASIN RUNOFF DATA

273 BA          SUBBASIN CHARACTERISTICS
                     TAREA        1.26  SUBBASIN AREA

274 LG          GREEN AND AMPT LOSS RATE
                     STRTL         .35  STARTING LOSS
                       DTH         .19  MOISTURE DEFICIT
                      PSIF        6.56  WETTING FRONT SUCTION
                     XKSAT         .14  HYDRAULIC CONDUCTIVITY
                     RTIMP       15.67  PERCENT IMPERVIOUS AREA

272 UI          INPUT UNITGRAPH,  19 ORDINATES,  VOLUME = 1.00
                    130.0     281.0     577.0     747.0     938.0    1321.0    1552.0    1156.0     920.0     713.0
                    519.0     277.0     217.0     138.0      93.0      40.0      40.0      40.0      40.0
                                                                                   ***

      ***             ***             ***             ***             ***

                        HYDROGRAPH AT STATION       15
                      TRANSPOSITION AREA       .0 SQ MI

    TOTAL RAINFALL =    4.03, TOTAL LOSS =    2.12, TOTAL EXCESS =    1.91

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    1739.     12.42                233.         65.         22.          19.
                        (INCHES)   1.721       1.904       1.905        1.905
                         (AC-FT)    116.        128.        128.         128.

                        CUMULATIVE AREA =    1.26 SQ MI

      ***             ***             ***             ***             ***

                        HYDROGRAPH AT STATION       15
                      TRANSPOSITION AREA     10.0 SQ MI

    TOTAL RAINFALL =    3.99, TOTAL LOSS =    2.11, TOTAL EXCESS =    1.88

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    1718.     12.42                230.         64.         21.          18.
                        (INCHES)   1.697       1.878       1.879        1.879
                         (AC-FT)    114.        126.        126.         126.

                        CUMULATIVE AREA =    1.26 SQ MI

      ***             ***             ***             ***             ***

                        HYDROGRAPH AT STATION       15
                      TRANSPOSITION AREA     50.0 SQ MI

    TOTAL RAINFALL =    3.83, TOTAL LOSS =    2.05, TOTAL EXCESS =    1.78

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    1634.     12.42                217.         60.         20.          17.
                        (INCHES)   1.604       1.777       1.778        1.778
                         (AC-FT)    108.        119.        119.         119.

                        CUMULATIVE AREA =    1.26 SQ MI

      ***             ***             ***             ***             ***

                        HYDROGRAPH AT STATION       15
                      TRANSPOSITION AREA    100.0 SQ MI

    TOTAL RAINFALL =    3.76, TOTAL LOSS =    2.02, TOTAL EXCESS =    1.74

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    1598.     12.42                212.         59.         20.          17.
                        (INCHES)   1.564       1.734       1.735        1.735
                         (AC-FT)    105.        117.        117.         117.

                        CUMULATIVE AREA =    1.26 SQ MI

      ***             ***             ***             ***             ***

                        HYDROGRAPH AT STATION       15
                      TRANSPOSITION AREA    200.0 SQ MI

    TOTAL RAINFALL =    3.70, TOTAL LOSS =    2.00, TOTAL EXCESS =    1.70

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    1566.     12.42                207.         57.         19.          17.
                        (INCHES)   1.530       1.697       1.698        1.698
                         (AC-FT)    103.        114.        114.         114.

                        CUMULATIVE AREA =    1.26 SQ MI

      ***             ***             ***             ***             ***


                        INTERPOLATED HYDROGRAPH AT       15

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    1723.     12.42                231.         64.         21.          18.
                        (INCHES)   1.703       1.884       1.885        1.885
                         (AC-FT)    114.        127.        127.         127.

                        CUMULATIVE AREA =    1.26 SQ MI
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*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

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            *            *
279 KK      *   I1CP15   *
            *            *
            **************
                                ADD HYDROGRAPHS AT CP15

281 HC          HYDROGRAPH COMBINATION
                     ICOMP            2  NUMBER OF HYDROGRAPHS TO COMBINE
                                                                   ***

     ***            ***             ***             ***             ***

                       HYDROGRAPH AT STATION   I1CP15
                     TRANSPOSITION AREA       .0 SQ MI

 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                   6-HR        24-HR       72-HR     83.25-HR
+  (CFS)       (HR)
                        (CFS)
+   3647.     12.42                547.        151.         50.          44.
                      (INCHES)    1.862       2.060       2.063        2.063
                       (AC-FT)     271.        300.        300.         300.

                       CUMULATIVE AREA =    2.73 SQ MI

     ***            ***             ***             ***             ***

                       HYDROGRAPH AT STATION   I1CP15
                     TRANSPOSITION AREA     10.0 SQ MI

 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                   6-HR        24-HR       72-HR     83.25-HR
+  (CFS)       (HR)
                        (CFS)
+   3603.     12.42                539.        149.         50.          43.
                      (INCHES)    1.836       2.032       2.035        2.035
                       (AC-FT)     267.        296.        296.         296.

                       CUMULATIVE AREA =    2.73 SQ MI

     ***            ***             ***             ***             ***

                       HYDROGRAPH AT STATION   I1CP15
                     TRANSPOSITION AREA     50.0 SQ MI

 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                   6-HR        24-HR       72-HR     83.25-HR
+  (CFS)       (HR)
                        (CFS)
+   3426.     12.42                509.        141.         47.          41.
                      (INCHES)    1.735       1.923       1.925        1.925
                       (AC-FT)     253.        280.        280.         280.

                       CUMULATIVE AREA =    2.73 SQ MI

     ***            ***             ***             ***             ***

                       HYDROGRAPH AT STATION   I1CP15
                     TRANSPOSITION AREA    100.0 SQ MI

 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                   6-HR        24-HR       72-HR     83.25-HR
+  (CFS)       (HR)
                        (CFS)
+   3349.     12.42                497.        138.         46.          40.
                      (INCHES)    1.691       1.876       1.878        1.878
                       (AC-FT)     246.        273.        273.         273.

                       CUMULATIVE AREA =    2.73 SQ MI

     ***            ***             ***             ***             ***

                       HYDROGRAPH AT STATION   I1CP15
                     TRANSPOSITION AREA    200.0 SQ MI

 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                   6-HR        24-HR       72-HR     83.25-HR
+  (CFS)       (HR)
                        (CFS)
+   3282.     12.42                486.        135.         45.          39.
                      (INCHES)    1.654       1.836       1.838        1.838
                       (AC-FT)     241.        267.        268.         268.

                       CUMULATIVE AREA =    2.73 SQ MI

     ***            ***             ***             ***             ***


                     INTERPOLATED HYDROGRAPH AT   I1CP15

 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                   6-HR        24-HR       72-HR     83.25-HR
+  (CFS)       (HR)
                        (CFS)
+   3609.     12.42                540.        149.         50.          43.
                      (INCHES)    1.840       2.036       2.039        2.039
                       (AC-FT)     268.        296.        297.         297.

                       CUMULATIVE AREA =    2.73 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

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            *            *
282 KK      *        16  *
            *            *
            **************
                                RUNOFF HYDROGRAPH FROM SUB-BASIN 16.

   SUBBASIN RUNOFF DATA
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284 BA          SUBBASIN CHARACTERISTICS
                     TAREA        1.13  SUBBASIN AREA

285 LG          GREEN AND AMPT LOSS RATE
                     STRTL         .35  STARTING LOSS
                      DTH          .25  MOISTURE DEFICIT
                     PSIF         5.68  WETTING FRONT SUCTION
                     XKSAT         .20  HYDRAULIC CONDUCTIVITY
                     RTIMP       19.95  PERCENT IMPERVIOUS AREA

283 UI          INPUT UNITGRAPH,  19 ORDINATES,  VOLUME = 1.00
                   115.0     240.0     503.0     652.0     814.0    1126.0    1393.0    1049.0     839.0     655.0
                   497.0     268.0     194.0     137.0     101.0      35.0      35.0      35.0      35.0
                                                                                   ***

     ***            ***            ***            ***            ***

                      HYDROGRAPH AT STATION       16
                    TRANSPOSITION AREA       .0 SQ MI

    TOTAL RAINFALL =    4.03, TOTAL LOSS =    2.15, TOTAL EXCESS =    1.88

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                         (CFS)
+    1478.     12.42                 199.         57.         19.         16.
                       (INCHES)     1.639      1.871       1.872       1.872
                        (AC-FT)      99.        113.        113.        113.

                      CUMULATIVE AREA =    1.13 SQ MI

     ***            ***            ***            ***            ***

                      HYDROGRAPH AT STATION       16
                    TRANSPOSITION AREA     10.0 SQ MI

    TOTAL RAINFALL =    3.99, TOTAL LOSS =    2.14, TOTAL EXCESS =    1.85

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                         (CFS)
+    1459.     12.42                 196.         56.         19.         16.
                       (INCHES)     1.616      1.846       1.848       1.848
                        (AC-FT)      97.        111.        111.        111.

                      CUMULATIVE AREA =    1.13 SQ MI

     ***            ***            ***            ***            ***

                      HYDROGRAPH AT STATION       16
                    TRANSPOSITION AREA     50.0 SQ MI

    TOTAL RAINFALL =    3.83, TOTAL LOSS =    2.07, TOTAL EXCESS =    1.76

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                         (CFS)
+    1384.     12.42                 186.         53.         18.         15.
                       (INCHES)     1.530      1.750       1.752       1.752
                        (AC-FT)      92.        105.        106.        106.

                      CUMULATIVE AREA =    1.13 SQ MI

     ***            ***            ***            ***            ***

                      HYDROGRAPH AT STATION       16
                    TRANSPOSITION AREA    100.0 SQ MI

    TOTAL RAINFALL =    3.76, TOTAL LOSS =    2.04, TOTAL EXCESS =    1.72

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                         (CFS)
+    1351.     12.42                 181.         52.         17.         15.
                       (INCHES)     1.493      1.709       1.711       1.711
                        (AC-FT)      90.        103.        103.        103.

                      CUMULATIVE AREA =    1.13 SQ MI

     ***            ***            ***            ***            ***

                      HYDROGRAPH AT STATION       16
                    TRANSPOSITION AREA    200.0 SQ MI

    TOTAL RAINFALL =    3.70, TOTAL LOSS =    2.02, TOTAL EXCESS =    1.68

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                         (CFS)
+    1323.     12.42                 178.         51.         17.         15.
                       (INCHES)     1.461      1.674       1.675       1.675
                        (AC-FT)      88.        101.        101.        101.

                      CUMULATIVE AREA =    1.13 SQ MI

     ***            ***            ***            ***            ***


                      INTERPOLATED HYDROGRAPH AT       16

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                         (CFS)
+    1464.     12.42                 197.         56.         19.         16.
                       (INCHES)     1.622      1.852       1.853       1.853
                        (AC-FT)      98.        112.        112.        112.

                      CUMULATIVE AREA =    1.13 SQ MI

*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

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                *             *
290 KK          *     CP15    *
                *             *
                *************
                          ADD HYDROGRAPHS AT CP15.

292 HC          HYDROGRAPH COMBINATION
                     ICOMP          2  NUMBER OF HYDROGRAPHS TO COMBINE
                                                                  ***

     ***            ***            ***            ***            ***

                     HYDROGRAPH AT STATION     CP15
                   TRANSPOSITION AREA       .0 SQ MI

  PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                   6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                  (CFS)
+    5125.     12.42                746.        208.         69.         60.
                (INCHES)          1.797       2.004       2.007       2.007
                 (AC-FT)           370.        413.        413.        413.

                 CUMULATIVE AREA =    3.86 SQ MI

     ***            ***            ***            ***            ***

                     HYDROGRAPH AT STATION     CP15
                   TRANSPOSITION AREA     10.0 SQ MI

  PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                   6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                  (CFS)
+    5062.     12.42                736.        205.         69.         59.
                (INCHES)          1.772       1.978       1.980       1.980
                 (AC-FT)           365.        407.        408.        408.

                 CUMULATIVE AREA =    3.86 SQ MI

     ***            ***            ***            ***            ***

                     HYDROGRAPH AT STATION     CP15
                   TRANSPOSITION AREA     50.0 SQ MI

  PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                   6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                  (CFS)
+    4811.     12.42                695.        194.         65.         56.
                (INCHES)          1.675       1.872       1.874       1.874
                 (AC-FT)           345.        385.        386.        386.

                 CUMULATIVE AREA =    3.86 SQ MI

     ***            ***            ***            ***            ***

                     HYDROGRAPH AT STATION     CP15
                   TRANSPOSITION AREA    100.0 SQ MI

  PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                   6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                  (CFS)
+    4700.     12.42                678.        190.         63.         55.
                (INCHES)          1.633       1.827       1.829       1.829
                 (AC-FT)           336.        376.        377.        377.

                 CUMULATIVE AREA =    3.86 SQ MI

     ***            ***            ***            ***            ***

                     HYDROGRAPH AT STATION     CP15
                   TRANSPOSITION AREA    200.0 SQ MI

  PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                   6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                  (CFS)
+    4605.     12.42                663.        186.         62.         54.
                (INCHES)          1.597       1.788       1.790       1.790
                 (AC-FT)           329.        368.        369.        369.

                 CUMULATIVE AREA =    3.86 SQ MI

     ***            ***            ***            ***            ***


                 INTERPOLATED HYDROGRAPH AT     CP15

  PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                   6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                  (CFS)
+    5069.     12.42                737.        206.         69.         59.
                (INCHES)          1.774       1.980       1.983       1.983
                 (AC-FT)           365.        408.        408.        408.

                 CUMULATIVE AREA =    3.86 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

                *************
                *             *
293 KK          *     RCP15   *
                *             *
                *************
                          ROUTE COMBINED HYDROGRAPHS AT CP15 TO CP17.

            HYDROGRAPH ROUTING DATA

295 RS          STORAGE ROUTING
                     NSTPS          2  NUMBER OF SUBREACHES
                      ITYP             TYPE OF INITIAL CONDITION
                    RSVRIC       -1.00  INITIAL CONDITION
                         X         .00 WORKING R AND D COEFFICIENT

296 RC          NORMAL DEPTH CHANNEL
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ANL	.060	LEFT OVERBANK N-VALUE
ANCH	.035	MAIN CHANNEL N-VALUE
ANR	.060	RIGHT OVERBANK N-VALUE
RLNTH	6800.	REACH LENGTH
SEL	.0079	ENERGY SLOPE
ELMAX	.0	MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION

CROSS-SECTION DATA

		--- LEFT OVERBANK ---		+ ------ MAIN CHANNEL		------- +	--- RIGHT OVERBANK ---	
298 RY	ELEVATION	1234.00	1232.00	1228.00	1226.00	1226.00	1228.00	1232.00	1235.00
297 RX	DISTANCE	1000.00	1310.00	1380.00	1540.00	1640.00	1670.00	1700.00	1910.00

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COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	9.06	21.44	37.15	56.19	77.81	100.37	123.81	148.12	173.31
OUTFLOW	.00	119.20	418.56	908.03	1609.99	2691.77	4052.44	5639.48	7444.82	9462.62
ELEVATION	1226.00	1226.47	1226.95	1227.42	1227.89	1228.37	1228.84	1229.32	1229.79	1230.26
STORAGE	199.37	226.31	254.12	283.19	318.58	361.85	413.00	472.00	535.60	601.65
OUTFLOW	11688.60	14119.59	16753.21	19475.44	22386.04	25682.39	29352.02	33443.52	38144.60	43246.76
ELEVATION	1230.74	1231.21	1231.68	1232.16	1232.63	1233.10	1233.58	1234.05	1234.53	1235.00

*** *** *** *** ***

HYDROGRAPH AT STATION RCP15
TRANSPOSITION AREA .0 SQ MI

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	83.25-HR
+ (CFS)	(HR)	(CFS)				
+ 4536.	12.58		744.	208.	69.	60.
		(INCHES)	1.793	2.002	2.007	2.007
		(AC-FT)	369.	412.	413.	413.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	83.25-HR
+ (AC-FT)	(HR)				
54.	12.58	13.	4.	1.	1.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	83.25-HR
+ (FEET)	(HR)				
1228.99	12.58	1226.90	1226.31	1226.10	1226.09

CUMULATIVE AREA = 3.86 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION RCP15
TRANSPOSITION AREA 10.0 SQ MI

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	83.25-HR
+ (CFS)	(HR)	(CFS)				
+ 4473.	12.58		734.	205.	69.	59.
		(INCHES)	1.769	1.975	1.980	1.980
		(AC-FT)	364.	407.	408.	408.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	83.25-HR
+ (AC-FT)	(HR)				
53.	12.58	12.	4.	1.	1.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	83.25-HR
+ (FEET)	(HR)				
1228.97	12.58	1226.90	1226.31	1226.10	1226.09

CUMULATIVE AREA = 3.86 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION RCP15
TRANSPOSITION AREA 50.0 SQ MI

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	83.25-HR
+ (CFS)	(HR)	(CFS)				
+ 4205.	12.58		694.	194.	65.	56.
		(INCHES)	1.672	1.870	1.874	1.874
		(AC-FT)	344.	385.	386.	386.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	83.25-HR
+ (AC-FT)	(HR)				
51.	12.58	12.	4.	1.	1.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	83.25-HR
+ (FEET)	(HR)				
1228.89	12.58	1226.87	1226.30	1226.10	1226.09

CUMULATIVE AREA = 3.86 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION RCP15
TRANSPOSITION AREA 100.0 SQ MI

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	83.25-HR
+ (CFS)	(HR)	(CFS)				
+ 4087.	12.58		677.	189.	63.	55.
		(INCHES)	1.630	1.825	1.829	1.829
		(AC-FT)	336.	376.	377.	377.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	83.25-HR
+ (AC-FT)	(HR)				
50.	12.58	12.	4.	1.	1.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	83.25-HR
+ (FEET)	(HR)				
1228.85	12.58	1226.86	1226.30	1226.10	1226.09

CUMULATIVE AREA = 3.86 SQ MI

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     ***            ***            ***            ***            ***

                  HYDROGRAPH AT STATION    RCP15
                 TRANSPOSITION AREA    200.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                              (CFS)
+   3996.      12.67                 662.        185.         62.         54.
                          (INCHES)  1.594       1.786       1.790       1.790
                           (AC-FT)   328.        368.        369.        369.

 PEAK STORAGE   TIME                         MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
     50.      12.67                  12.          4.          1.          1.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
  1228.82      12.67              1226.85     1226.29     1226.10     1226.08

                 CUMULATIVE AREA =    3.86 SQ MI

     ***            ***            ***            ***            ***


                 INTERPOLATED HYDROGRAPH AT    RCP15

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                              (CFS)
+   4479.      12.58                 735.        205.         69.         59.
                          (INCHES)  1.771       1.978       1.983       1.983
                           (AC-FT)   365.        407.        408.        408.

                 CUMULATIVE AREA =    3.86 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

            **************
            *            *
 299 KK     *        17  *
            *            *
            **************
                        RUNOFFF HYDROGRAPH FROM SUB-BASIN 17.

          SUBBASIN RUNOFF DATA

 301 BA       SUBBASIN CHARACTERISTICS
                TAREA        1.07  SUBBASIN AREA

 302 LG       GREEN AND AMPT LOSS RATE
                STRTL         .35  STARTING LOSS
                  DTH         .25  MOISTURE DEFICIT
                 PSIF        4.12  WETTING FRONT SUCTION
                XKSAT         .44  HYDRAULIC CONDUCTIVITY
                RTIMP         .00  PERCENT IMPERVIOUS AREA

 300 UI       INPUT UNITGRAPH,  28 ORDINATES,  VOLUME = 1.00
                117.0     254.0     572.0     810.0    1052.0    1196.0     753.0     635.0     540.0     450.0
                353.0     287.0     254.0     194.0     149.0     129.0     103.0      90.0      64.0      57.0
                 57.0      26.0      22.0      22.0      22.0      22.0      22.0      22.0
                                                                                  ***
     ***            ***            ***            ***            ***

                  HYDROGRAPH AT STATION       17
                 TRANSPOSITION AREA       .0 SQ MI

   TOTAL RAINFALL =    4.03, TOTAL LOSS =    2.94, TOTAL EXCESS =    1.09

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                              (CFS)
+   1039.      12.25                 125.         31.         10.          9.
                          (INCHES)  1.086       1.086       1.086       1.086
                           (AC-FT)    62.         62.         62.         62.

                 CUMULATIVE AREA =    1.07 SQ MI

     ***            ***            ***            ***            ***

                  HYDROGRAPH AT STATION       17
                 TRANSPOSITION AREA     10.0 SQ MI

   TOTAL RAINFALL =    3.99, TOTAL LOSS =    2.92, TOTAL EXCESS =    1.07

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                              (CFS)
+   1023.      12.25                 123.         31.         10.          9.
                          (INCHES)  1.069       1.069       1.069       1.069
                           (AC-FT)    61.         61.         61.         61.

                 CUMULATIVE AREA =    1.07 SQ MI

     ***            ***            ***            ***            ***

                  HYDROGRAPH AT STATION       17
                 TRANSPOSITION AREA     50.0 SQ MI

   TOTAL RAINFALL =    3.83, TOTAL LOSS =    2.83, TOTAL EXCESS =    1.00

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                              (CFS)
+    960.      12.25                 115.         29.         10.          8.
                          (INCHES)   .998        .998        .998        .998
                           (AC-FT)    57.         57.         57.         57.

                 CUMULATIVE AREA =    1.07 SQ MI
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      ***             ***             ***             ***             ***

                        HYDROGRAPH AT STATION       17
                      TRANSPOSITION AREA    100.0 SQ MI

    TOTAL RAINFALL =    3.76, TOTAL LOSS =    2.79, TOTAL EXCESS =     .97

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    932.     12.25                 111.         28.          9.           8.
                        (INCHES)    .967        .967        .967         .967
                         (AC-FT)     55.         55.         55.          55.

                        CUMULATIVE AREA =    1.07 SQ MI

      ***             ***             ***             ***             ***

                        HYDROGRAPH AT STATION       17
                      TRANSPOSITION AREA    200.0 SQ MI

    TOTAL RAINFALL =    3.70, TOTAL LOSS =    2.76, TOTAL EXCESS =     .94

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    908.     12.25                 108.         27.          9.           8.
                        (INCHES)    .940        .940        .940         .940
                         (AC-FT)     54.         54.         54.          54.

                        CUMULATIVE AREA =    1.07 SQ MI

      ***             ***             ***             ***             ***


                        INTERPOLATED HYDROGRAPH AT       17

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+   1027.     12.25                 123.         31.         10.           9.
                        (INCHES)   1.073       1.073       1.073        1.073
                         (AC-FT)     61.         61.         61.          61.

                        CUMULATIVE AREA =    1.07 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


            **************
            *            *
 307 KK     *   I1CP17   *
            *            *
            **************
                          ADD HYDROGRAPHS AT CP17.

 309 HC          HYDROGRAPH COMBINATION
                      ICOMP           2  NUMBER OF HYDROGRAPHS TO COMBINE
                                                                   ***

      ***             ***             ***             ***             ***

                        HYDROGRAPH AT STATION   I1CP17
                      TRANSPOSITION AREA       .0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+   5081.     12.58                 869.        239.         80.          69.
                        (INCHES)   1.640       1.803       1.807        1.807
                         (AC-FT)    431.        474.        475.         475.

                        CUMULATIVE AREA =    4.93 SQ MI

      ***             ***             ***             ***             ***

                        HYDROGRAPH AT STATION   I1CP17
                      TRANSPOSITION AREA     10.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+   5010.     12.58                 857.        236.         79.          68.
                        (INCHES)   1.617       1.779       1.782        1.782
                         (AC-FT)    425.        468.        469.         469.

                        CUMULATIVE AREA =    4.93 SQ MI

      ***             ***             ***             ***             ***

                        HYDROGRAPH AT STATION   I1CP17
                      TRANSPOSITION AREA     50.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+   4709.     12.58                 809.        223.         74.          64.
                        (INCHES)   1.525       1.681       1.684        1.684
                         (AC-FT)    401.        442.        443.         443.

                        CUMULATIVE AREA =    4.93 SQ MI

      ***             ***             ***             ***             ***

                        HYDROGRAPH AT STATION   I1CP17
                      TRANSPOSITION AREA    100.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+   4577.     12.58                 788.        217.         73.          63.
                        (INCHES)   1.486       1.639       1.642        1.642
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                    (AC-FT)      391.        431.        432.        432.

                    CUMULATIVE AREA =    4.93 SQ MI

      ***           ***          ***         ***         ***

                    HYDROGRAPH AT STATION   I1CP17
                  TRANSPOSITION AREA    200.0 SQ MI

  PEAK FLOW     TIME                      MAXIMUM AVERAGE FLOW
                                  6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    4467.     12.58                770.        212.         71.         61.
                        (INCHES)  1.453       1.603       1.606       1.606
                         (AC-FT)   382.        421.        422.        422.

                    CUMULATIVE AREA =    4.93 SQ MI

      ***           ***          ***         ***         ***


                    INTERPOLATED HYDROGRAPH AT   I1CP17

  PEAK FLOW     TIME                      MAXIMUM AVERAGE FLOW
                                  6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    5015.     12.58                858.        236.         79.         68.
                        (INCHES)  1.618       1.781       1.784       1.784
                         (AC-FT)   426.        468.        469.        469.

                    CUMULATIVE AREA =    4.93 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

            *************
            *           *
 310 KK     *    CP17   *
            *           *
            *************
                    ADD HYDROGRAPHS AT CP17.

 312 HC          HYDROGRAPH COMBINATION
                   ICOMP          2  NUMBER OF HYDROGRAPHS TO COMBINE
                                                                  ***
      ***           ***          ***         ***         ***

                    HYDROGRAPH AT STATION     CP17
                  TRANSPOSITION AREA       .0 SQ MI

  PEAK FLOW     TIME                      MAXIMUM AVERAGE FLOW
                                  6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    7659.     12.58               1345.        364.        122.        105.
                        (INCHES)  1.605       1.740       1.743       1.743
                         (AC-FT)   667.        723.        724.        724.

                    CUMULATIVE AREA =    7.79 SQ MI

      ***           ***          ***         ***         ***

                    HYDROGRAPH AT STATION     CP17
                  TRANSPOSITION AREA     10.0 SQ MI

  PEAK FLOW     TIME                      MAXIMUM AVERAGE FLOW
                                  6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    7546.     12.58               1326.        359.        120.        104.
                        (INCHES)  1.582       1.715       1.718       1.718
                         (AC-FT)   657.        713.        714.        714.

                    CUMULATIVE AREA =    7.79 SQ MI

      ***           ***          ***         ***         ***

                    HYDROGRAPH AT STATION     CP17
                  TRANSPOSITION AREA     50.0 SQ MI

  PEAK FLOW     TIME                      MAXIMUM AVERAGE FLOW
                                  6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    7080.     12.58               1249.        339.        113.         98.
                        (INCHES)  1.491       1.619       1.621       1.621
                         (AC-FT)   619.        672.        674.        674.

                    CUMULATIVE AREA =    7.79 SQ MI

      ***           ***          ***         ***         ***

                    HYDROGRAPH AT STATION     CP17
                  TRANSPOSITION AREA    100.0 SQ MI

  PEAK FLOW     TIME                      MAXIMUM AVERAGE FLOW
                                  6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    6888.     12.67               1216.        330.        110.         95.
                        (INCHES)  1.451       1.577       1.579       1.579
                         (AC-FT)   603.        655.        656.        656.

                    CUMULATIVE AREA =    7.79 SQ MI

      ***           ***          ***         ***         ***

                    HYDROGRAPH AT STATION     CP17
                  TRANSPOSITION AREA    200.0 SQ MI

  PEAK FLOW     TIME                      MAXIMUM AVERAGE FLOW
                                  6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    6731.     12.67               1188.        323.        108.         93.
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                    (INCHES)      1.418       1.541       1.544       1.544
                    (AC-FT)        589.        640.        641.        641.

                    CUMULATIVE AREA =    7.79 SQ MI

      ***           ***           ***         ***         ***


                    INTERPOLATED HYDROGRAPH AT     CP17

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    7549.      12.58                1326.        359.        120.        104.
                    (INCHES)      1.583       1.716       1.719       1.719
                    (AC-FT)        658.        713.        714.        714.

                    CUMULATIVE AREA =    7.79 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


            **************
            *            *
 313 KK     *    RCP17   *
            *            *
            **************
                         ROUTE FLOW FROM CP17 TO CPWT3

            HYDROGRAPH ROUTING DATA

 315 RS          STORAGE ROUTING
                      NSTPS          1  NUMBER OF SUBREACHES
                       ITYP             TYPE OF INITIAL CONDITION
                     RSVRIC      -1.00  INITIAL CONDITION
                          X        .00  WORKING R AND D COEFFICIENT

 316 RC          NORMAL DEPTH CHANNEL
                        ANL       .060  LEFT OVERBANK N-VALUE
                       ANCH       .040  MAIN CHANNEL N-VALUE
                        ANR       .040  RIGHT OVERBANK N-VALUE
                      RLNTH      1600.  REACH LENGTH
                        SEL      .0022  ENERGY SLOPE
                      ELMAX         .0  MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION

                                   CROSS-SECTION DATA
                        --- LEFT OVERBANK --- + ------ MAIN CHANNEL ------- + --- RIGHT OVERBANK ---
 318 RY       ELEVATION   1196.00   1194.00   1190.00   1182.00   1182.00   1210.00   1211.00   1212.00
 317 RX       DISTANCE    1000.00   1220.00   1280.00   1470.00   1530.00   1660.00   1680.00   1685.00

                                                  ***

                                   COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

          STORAGE        .00      4.78     12.16     22.14     34.72     49.90     67.33     86.56    108.29    138.86
          OUTFLOW        .00    262.28    980.20   2233.98   4117.41   6720.45  10676.98  15492.28  21072.95  27831.05
        ELEVATION    1182.00   1183.58   1185.16   1186.74   1188.32   1189.89   1191.47   1193.05   1194.63   1196.21

          STORAGE     173.64    208.84    244.47    280.53    317.00    353.91    391.24    428.99    467.22    506.63
          OUTFLOW   36232.72  45884.50  56702.32  68631.69  81633.55  95678.36 110743.00 126809.00 144237.80 163759.80
        ELEVATION    1197.79   1199.37   1200.95   1202.53   1204.11   1205.68   1207.26   1208.84   1210.42   1212.00

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN    45885. TO   163760.
                THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
                THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

      ***           ***           ***         ***         ***

                    HYDROGRAPH AT STATION    RCP17
                  TRANSPOSITION AREA       .0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    7575.      12.67                1345.        364.        122.        105.
                    (INCHES)      1.605       1.740       1.743       1.743
                    (AC-FT)        667.        723.        724.        724.

 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                     6-HR        24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
       54.     12.67                  12.          4.          1.          1.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR        24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
   1190.24     12.67                1184.54     1182.80     1182.27     1182.23

                    CUMULATIVE AREA =    7.79 SQ MI

      ***           ***           ***         ***         ***

                    HYDROGRAPH AT STATION    RCP17
                  TRANSPOSITION AREA     10.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    7462.      12.67                1326.        359.        120.        104.
                    (INCHES)      1.582       1.715       1.718       1.718
                    (AC-FT)        657.        713.        714.        714.

 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                     6-HR        24-HR       72-HR     83.25-HR
+  (AC-FT)      (HR)
       53.     12.67                  12.          4.          1.          1.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR        24-HR       72-HR     83.25-HR
+   (FEET)      (HR)
   1190.19     12.67                1184.52     1182.80     1182.27     1182.23

                    CUMULATIVE AREA =    7.79 SQ MI

      ***           ***           ***         ***         ***

                    HYDROGRAPH AT STATION    RCP17
                  TRANSPOSITION AREA     50.0 SQ MI
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  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR      83.25-HR
+   (CFS)       (HR)
                              (CFS)
+    6969.      12.67         1249.         339.         113.          98.
                         (INCHES)         1.491        1.619        1.621        1.621
                          (AC-FT)          619.         672.         674.         674.

 PEAK STORAGE   TIME                        MAXIMUM AVERAGE STORAGE
                                    6-HR        24-HR        72-HR      83.25-HR
+  (AC-FT)      (HR)
      51.       12.67             12.          3.           1.           1.

  PEAK STAGE    TIME                         MAXIMUM AVERAGE STAGE
                                    6-HR        24-HR        72-HR      83.25-HR
+   (FEET)      (HR)
   1189.99      12.67          1184.44      1182.77      1182.26      1182.22

                         CUMULATIVE AREA =    7.79 SQ MI

      ***             ***          ***          ***          ***

                         HYDROGRAPH AT STATION    RCP17
                       TRANSPOSITION AREA    100.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR      83.25-HR
+   (CFS)       (HR)
                              (CFS)
+    6737.      12.67         1216.         330.         110.          95.
                         (INCHES)         1.451        1.577        1.579        1.579
                          (AC-FT)          603.         655.         656.         656.

 PEAK STORAGE   TIME                        MAXIMUM AVERAGE STORAGE
                                    6-HR        24-HR        72-HR      83.25-HR
+  (AC-FT)      (HR)
      50.       12.67             11.          3.           1.           1.

  PEAK STAGE    TIME                         MAXIMUM AVERAGE STAGE
                                    6-HR        24-HR        72-HR      83.25-HR
+   (FEET)      (HR)
   1189.90      12.67          1184.41      1182.76      1182.25      1182.22

                         CUMULATIVE AREA =    7.79 SQ MI

      ***             ***          ***          ***          ***

                         HYDROGRAPH AT STATION    RCP17
                       TRANSPOSITION AREA    200.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR      83.25-HR
+   (CFS)       (HR)
                              (CFS)
+    6569.      12.67         1188.         323.         108.          93.
                         (INCHES)         1.417        1.541        1.544        1.544
                          (AC-FT)          589.         640.         641.         641.

 PEAK STORAGE   TIME                        MAXIMUM AVERAGE STORAGE
                                    6-HR        24-HR        72-HR      83.25-HR
+  (AC-FT)      (HR)
      49.       12.67             11.          3.           1.           1.

  PEAK STAGE    TIME                         MAXIMUM AVERAGE STAGE
                                    6-HR        24-HR        72-HR      83.25-HR
+   (FEET)      (HR)
   1189.80      12.67          1184.38      1182.75      1182.25      1182.22

                         CUMULATIVE AREA =    7.79 SQ MI

      ***             ***          ***          ***          ***

                         INTERPOLATED HYDROGRAPH AT    RCP17

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR        72-HR      83.25-HR
+   (CFS)       (HR)
                              (CFS)
+    7465.      12.67         1326.         359.         120.         104.
                         (INCHES)         1.583        1.716        1.719        1.719
                          (AC-FT)          658.         713.         714.         714.

                         CUMULATIVE AREA =    7.79 SQ MI

*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

            **************
            *            *
319 KK      *     WT3    *
            *            *
            **************
                         RUNOFF HYDROGRAPH FROM SUB-BASIN WT3

          SUBBASIN RUNOFF DATA

321 BA        SUBBASIN CHARACTERISTICS
                TAREA          .44  SUBBASIN AREA

322 LG        GREEN AND AMPT LOSS RATE
                STRTL          .34  STARTING LOSS
                  DTH          .25  MOISTURE DEFICIT
                 PSIF         4.58  WETTING FRONT SUCTION
                XKSAT          .33  HYDRAULIC CONDUCTIVITY
                RTIMP          .00  PERCENT IMPERVIOUS AREA

320 UI        INPUT UNITGRAPH,  24 ORDINATES,  VOLUME = 1.00
                 36.0      44.0     128.0     175.0     207.0     249.0     308.0     436.0     399.0     318.0
                267.0     220.0     179.0     133.0      78.0      61.0      49.0      36.0      23.0      11.0
                 11.0      11.0      11.0      11.0
                                                                                  ***
      ***             ***          ***          ***          ***

                         HYDROGRAPH AT STATION      WT3
                       TRANSPOSITION AREA       .0 SQ MI

   TOTAL RAINFALL =    4.03, TOTAL LOSS =    2.84, TOTAL EXCESS =    1.19
```

```
  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR        72-HR      83.25-HR
+   (CFS)       (HR)
                                    (CFS)
+     426.     12.50                  56.          14.           5.           4.
                                 (INCHES)       1.192        1.192        1.192        1.192
                                  (AC-FT)         28.          28.          28.          28.

                                 CUMULATIVE AREA =     .44 SQ MI

      ***                 ***            ***          ***          ***

                                 HYDROGRAPH AT STATION      WT3
                                TRANSPOSITION AREA     10.0 SQ MI

    TOTAL RAINFALL =    3.99, TOTAL LOSS =    2.82, TOTAL EXCESS =    1.17

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR        72-HR      83.25-HR
+   (CFS)       (HR)
                                    (CFS)
+     419.     12.50                  55.          14.           5.           4.
                                 (INCHES)       1.172        1.172        1.172        1.172
                                  (AC-FT)         28.          28.          28.          28.

                                 CUMULATIVE AREA =     .44 SQ MI

      ***                 ***            ***          ***          ***

                                 HYDROGRAPH AT STATION      WT3
                                TRANSPOSITION AREA     50.0 SQ MI

    TOTAL RAINFALL =    3.83, TOTAL LOSS =    2.73, TOTAL EXCESS =    1.10

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR        72-HR      83.25-HR
+   (CFS)       (HR)
                                    (CFS)
+     393.     12.50                  52.          13.           4.           4.
                                 (INCHES)       1.094        1.094        1.094        1.094
                                  (AC-FT)         26.          26.          26.          26.

                                 CUMULATIVE AREA =     .44 SQ MI

      ***                 ***            ***          ***          ***

                                 HYDROGRAPH AT STATION      WT3
                                TRANSPOSITION AREA    100.0 SQ MI

    TOTAL RAINFALL =    3.76, TOTAL LOSS =    2.70, TOTAL EXCESS =    1.06

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR        72-HR      83.25-HR
+   (CFS)       (HR)
                                    (CFS)
+     382.     12.50                  50.          13.           4.           4.
                                 (INCHES)       1.059        1.059        1.059        1.059
                                  (AC-FT)         25.          25.          25.          25.

                                 CUMULATIVE AREA =     .44 SQ MI

      ***                 ***            ***          ***          ***

                                 HYDROGRAPH AT STATION      WT3
                                TRANSPOSITION AREA    200.0 SQ MI

    TOTAL RAINFALL =    3.70, TOTAL LOSS =    2.67, TOTAL EXCESS =    1.03

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR        72-HR      83.25-HR
+   (CFS)       (HR)
                                    (CFS)
+     372.     12.50                  49.          12.           4.           4.
                                 (INCHES)       1.031        1.031        1.031        1.031
                                  (AC-FT)         24.          24.          24.          24.

                                 CUMULATIVE AREA =     .44 SQ MI

      ***                 ***            ***          ***          ***


                                 INTERPOLATED HYDROGRAPH AT      WT3

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR        72-HR      83.25-HR
+   (CFS)       (HR)
                                    (CFS)
+     421.     12.50                  56.          14.           5.           4.
                                 (INCHES)       1.179        1.179        1.179        1.179
                                  (AC-FT)         28.          28.          28.          28.

                                 CUMULATIVE AREA =     .44 SQ MI


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            **************
            *            *
  327 KK    *   I1CWT3   *
            *            *
            **************
                                 ADD HYDROGRAPHS AT CPWT3

  329 HC          HYDROGRAPH COMBINATION
                        ICOMP            2  NUMBER OF HYDROGRAPHS TO COMBINE
                                                                      ***

      ***                 ***            ***          ***          ***

                                 HYDROGRAPH AT STATION   I1CWT3
                                TRANSPOSITION AREA       .0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR        72-HR      83.25-HR
+   (CFS)       (HR)
                                    (CFS)
+    7932.     12.67                1401.         379.         126.         109.
                                 (INCHES)       1.583        1.710        1.713        1.713
                                  (AC-FT)        695.         751.         752.         752.
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                    CUMULATIVE AREA =    8.23 SQ MI

     ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION   I1CWT3
                  TRANSPOSITION AREA     10.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    7813.     12.67                1381.        373.        125.        108.
                        (INCHES)    1.560       1.686       1.689       1.689
                         (AC-FT)     685.        740.        741.        741.

                    CUMULATIVE AREA =    8.23 SQ MI

     ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION   I1CWT3
                  TRANSPOSITION AREA     50.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    7298.     12.67                1301.        352.        118.        102.
                        (INCHES)    1.469       1.590       1.593       1.593
                         (AC-FT)     645.        698.        699.        699.

                    CUMULATIVE AREA =    8.23 SQ MI

     ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION   I1CWT3
                  TRANSPOSITION AREA    100.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    7056.     12.67                1266.        343.        114.         99.
                        (INCHES)    1.430       1.549       1.552       1.552
                         (AC-FT)     628.        680.        681.        681.

                    CUMULATIVE AREA =    8.23 SQ MI

     ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION   I1CWT3
                  TRANSPOSITION AREA    200.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    6880.     12.67                1236.        335.        112.         97.
                        (INCHES)    1.397       1.514       1.516       1.516
                         (AC-FT)     613.        664.        666.        666.

                    CUMULATIVE AREA =    8.23 SQ MI

     ***            ***            ***            ***            ***


                    INTERPOLATED HYDROGRAPH AT   I1CWT3

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+    7815.     12.67                1381.        373.        125.        108.
                        (INCHES)    1.561       1.687       1.690       1.690
                         (AC-FT)     685.        740.        742.        742.

                    CUMULATIVE AREA =    8.23 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

            **************
            *            *
330 KK      *    CPWT3   *
            *            *
            **************
                    ADD HYDROGRAPHS AT CPWT3

332 HC          HYDROGRAPH COMBINATION
                  ICOMP           2  NUMBER OF HYDROGRAPHS TO COMBINE
                                                                  ***
     ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION    CPWT3
                  TRANSPOSITION AREA        .0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+   17228.     12.83                3675.       1000.        334.        289.
                        (INCHES)    1.668       1.816       1.822       1.822
                         (AC-FT)    1822.       1984.       1990.       1990.

                    CUMULATIVE AREA =   20.48 SQ MI

     ***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION    CPWT3
                  TRANSPOSITION AREA     10.0 SQ MI

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     83.25-HR
+   (CFS)       (HR)
                          (CFS)
+   16967.     12.83                3623.        986.        330.        285.
                        (INCHES)    1.645       1.791       1.797       1.797
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(AC-FT)	1796.	1957.	1962.	1962.

CUMULATIVE AREA = 20.48 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION CPWT3
TRANSPOSITION AREA 50.0 SQ MI

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	83.25-HR
15966.	12.83	(CFS)	3415.	931.	311.	269.
		(INCHES)	1.551	1.691	1.696	1.696
		(AC-FT)	1694.	1847.	1853.	1853.

CUMULATIVE AREA = 20.48 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION CPWT3
TRANSPOSITION AREA 100.0 SQ MI

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	83.25-HR
15546.	12.83	(CFS)	3326.	908.	303.	262.
		(INCHES)	1.510	1.648	1.653	1.653
		(AC-FT)	1649.	1800.	1806.	1806.

CUMULATIVE AREA = 20.48 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION CPWT3
TRANSPOSITION AREA 200.0 SQ MI

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	83.25-HR
15173.	12.83	(CFS)	3250.	887.	297.	257.
		(INCHES)	1.475	1.611	1.616	1.616
		(AC-FT)	1611.	1760.	1765.	1765.

CUMULATIVE AREA = 20.48 SQ MI

*** *** *** *** ***

INTERPOLATED HYDROGRAPH AT CPWT3

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	83.25-HR
16521.	12.83	(CFS)	3530.	962.	322.	278.
		(INCHES)	1.603	1.747	1.752	1.752
		(AC-FT)	1751.	1908.	1914.	1914.

CUMULATIVE AREA = 20.48 SQ MI

1

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

+	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	1	2645.	12.42	414.	115.	38.	1.94		
+	ROUTED TO	RCP1	2416.	12.67	414.	115.	38.	1.94		
+	HYDROGRAPH AT	2	1862.	12.75	369.	104.	35.	1.82		
+	2 COMBINED AT	CP2	4257.	12.67	781.	219.	73.	3.76		
+	ROUTED TO	RCP2	4065.	12.83	781.	219.	73.	3.76		
+	HYDROGRAPH AT	3A	339.	12.33	34.	9.	3.	.29		
+	ROUTED TO	RCP3A	273.	12.50	34.	9.	3.	.29		
+	HYDROGRAPH AT	3	959.	12.33	100.	25.	8.	.81		
+	2 COMBINED AT	I1CP3	1164.	12.42	134.	33.	11.	1.10		
+	2 COMBINED AT	CP3	4378.	12.83	914.	253.	84.	4.86		
+	ROUTED TO	RCP3	4144.	12.92	913.	252.	84.	4.86		
+	HYDROGRAPH AT	4	541.	12.17	64.	18.	6.	.30		
+	HYDROGRAPH AT	5	1284.	12.25	153.	42.	14.	.72		
+	2 COMBINED AT	CP5	1821.	12.25	216.	60.	20.	1.02		
+	ROUTED TO	RCP5	1780.	12.25	216.	60.	20.	1.02		
+	HYDROGRAPH AT	6	1010.	12.08	96.	27.	9.	.45		
+	2 COMBINED AT	I1CP7	2519.	12.17	312.	86.	29.	1.47		

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+          HYDROGRAPH AT
                      7      677.  12.08        66.       18.        6.       .31
+          2 COMBINED AT
                    CP7     3156.  12.17       378.      105.       35.      1.78
+          ROUTED TO
                   RCP7     2737.  12.33       377.      105.       35.      1.78
+          HYDROGRAPH AT
                      9     2111.  12.33       297.       83.       28.      1.40
+          2 COMBINED AT
                  I1CP9     4844.  12.33       674.      187.       63.      3.18
+          HYDROGRAPH AT
                      8     1309.  12.25       173.       48.       16.       .81
+          2 COMBINED AT
                    CP9     6141.  12.33       846.      235.       79.      3.99
+          ROUTED TO
                   RCP9     4933.  12.67       846.      235.       79.      3.99
+          HYDROGRAPH AT
                     10     1620.  12.75       289.       75.       25.      2.02
+          2 COMBINED AT
                 I1CP10     6512.  12.75      1134.      310.      104.      6.01
+          2 COMBINED AT
                   CP10    10165.  12.75      2038.      560.      187.     10.87
+          ROUTED TO
                  RCP10    10006.  12.83      2037.      560.      187.     10.87
+          HYDROGRAPH AT
                     12     1413.  12.50       202.       53.       18.      1.38
+          2 COMBINED AT
                   CP12    10799.  12.83      2228.      610.      204.     12.25
+          ROUTED TO
                  RCP12    10455.  13.00      2226.      609.      204.     12.25
+          HYDROGRAPH AT
                     11     2040.  12.42       305.       83.       28.      1.56
+          ROUTED TO
                  RCP11     1808.  12.75       305.       83.       28.      1.56
+          HYDROGRAPH AT
                     13     1367.  12.42       165.       41.       14.      1.30
+          2 COMBINED AT
                   CP13     2720.  12.58       470.      124.       41.      2.86
+          ROUTED TO
                  RCP13     2644.  12.67       470.      124.       41.      2.86
+          HYDROGRAPH AT
                     14     2244.  12.33       310.       86.       29.      1.47
+          ROUTED TO
                  RCP14     2002.  12.50       310.       86.       29.      1.47
+          HYDROGRAPH AT
                     15     1723.  12.42       231.       64.       21.      1.26
+          2 COMBINED AT
                 I1CP15     3609.  12.42       540.      149.       50.      2.73
+          HYDROGRAPH AT
                     16     1464.  12.42       197.       56.       19.      1.13
+          2 COMBINED AT
                   CP15     5069.  12.42       737.      206.       69.      3.86
+          ROUTED TO
                  RCP15     4479.  12.58       735.      205.       69.      3.86
+          HYDROGRAPH AT
                     17     1027.  12.25       123.       31.       10.      1.07
+          2 COMBINED AT
                 I1CP17     5015.  12.58       858.      236.       79.      4.93
+          2 COMBINED AT
                   CP17     7549.  12.58      1326.      359.      120.      7.79
+          ROUTED TO
                  RCP17     7465.  12.67      1326.      359.      120.      7.79
+          HYDROGRAPH AT
                    WT3      421.  12.50        56.       14.        5.       .44
+          2 COMBINED AT
                 I1CWT3     7815.  12.67      1381.      373.      125.      8.23
+          2 COMBINED AT
                  CPWT3    16521.  12.83      3530.      962.      322.     20.48

*** NORMAL END OF HEC-1 ***
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APPENDIX 4.6 VERIFICATION HEC-1 MODELS USING HISTORICAL STORMS

Appendix 4.6.1. 09/18/1992-09/19/1992 storm (equal weights to two rain gages)

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1*****************************************
*****************************************
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```
*                                        *                                                  *
*                                        *                                                  *   U.S. ARMY CORPS OF ENGINEERS
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)    *                                                  *   HYDROLOGIC ENGINEERING CENTER
*                                        *                                                  *
*              JUL   1997                *                                                  *         609 SECOND STREET
*                                        *                                                  *
*           VERSION 4.1                  *                                                  *      DAVIS, CALIFORNIA 95616
*                                        *                                                  *
*                                        *                                                  *          (916) 756-1104
*  RUN DATE   05MAY00  TIME  16:59:25    *                                                  *
*                                        *                                                  *
*                                        *                                                  *
*****************************************
****************************************
```

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

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

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1                                                HEC-1 INPUT                                                    PAGE  1

  LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

    1           ID          White Tanks #3 future condition (Beardsley Canal Wash Improvement)
    2           ID          May, 1999, FCDMC
    3           ID          Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999
                *DIAGRAM
    4           IT       5  1JAN94       0     300
    5           IO       5
                * Gage XY Position    100.00000    100.00000 1
    6           PG   crest       0
    7           IN      15  1JAN94       0
                * 92stormWT3DamCrest
    8           PI       0       0       0       0       0       0       0       0    0.04    0.31
    9           PI    0.16    0.08    0.04    0.04       0
                * Gage XY Position    100.00000    102.00000 1
   10           PG   Epeak       0
   11           IN      15  1JAN94       0
                * 92stormEastPeak
   12           PI       0    0.04    0.28    0.04       0       0       0       0       0    0.04
   13           PI       0    0.04       0       0       0

   14           KK       1
   15           KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 1.
                * ko     1       0       0       0       0
   16           BA    1.94
   17           PR   Epeak
   18           PW       1
   19           PT   crest   Epeak
   20           PW     0.5     0.5
   21           LG    0.35       0   7.981   0.082  19.802
                * ui1
   22           UI     182     326     742     974    1186    1502    2185    1957    1537    1243
   23           UI     989     751     417     308     230     182      64      56      56      56
   24           UI      56       0       0       0       0       0       0       0       0       0
   25           UI       0       0       0       0       0       0       0       0       0       0

   26           KK    RCP1   CNAME      1C
   27           KM           ROUTE FLOW FROM CP1 TO CP2.
                * ko     0       0       0       0      22
                * RL     0       0       1    1428
   28           RS       5    STOR      -1       0
   29           RC    0.06    0.04    0.06   17800  0.0469       0
                * rxry1
   30           RX    1000    1125    1300    1390    1405    1490    1590    1750
   31           RY    1440    1439    1437    1428    1428    1439    1442    1444

   32           KK       2
   33           KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 2.
                * ko     0       0       0       0      22
   34           BA    1.82
   35           LG    0.35       0   6.959   0.119  21.855
                * ui2
   36           UI     115     115     259     442     556     642     727     849    1013    1346
   37           UI    1419    1145     985     864     735     634     545     405     268     202
   38           UI     189     144     115     103      35      35      35      35      35      35
   39           UI      35       0       0       0       0       0       0       0       0       0
   40           UI       0       0       0       0       0       0       0       0       0       0
1                                                HEC-1 INPUT                                                    PAGE  2

  LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

   41           KK     CP2   CNAME    RCP2
   42           KM           ADD HYDROGRAPHS AT CP2.
                * ko     0       0       0       0      22
   43           HC       2
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 44          KK    RCP2   CNAME     CP2
 45          KM           ROUTE COMBINED HYDROGRAPHS AT CP2 TO CP3.
             * ko     0       0       0       0      22
             * RL     0       0     1.5    1298
 46          RS       2    STOR      -1       0
 47          RC    0.06   0.035    0.06    4500  0.0111       0
             * rxry2
 48          RX    1000    1100    1350    1705    1735    1780    1850    2000
 49          RY    1304    1302    1302    1298    1298    1303    1302    1305

 50          KK      3A
 51          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 3A
             * ko     0       0       0       0      22
 52          BA    0.29
 53          LG   0.336       0    4.14   0.432       0
             * ui3
 54          UI      34      89     165     212     286     410     314     242     182     124
 55          UI      62      48      33      10      10      10      10       0       0       0
 56          UI       0       0       0       0       0       0       0       0       0       0

 57          KK   RCP3A   CNAME      3C
 58          KM           ROUTE FLOW FROM CP3A TO CP3
             * ko     0       0       0       0      22
             * RL     0       0     1.5    1284
 59          RS       2    STOR      -1       0
 60          RC    0.03    0.03    0.05    5300   0.006       0
             * rxry3
 61          RX    1000    1023    1032    1046    1058    1067    1250    1540
 62          RY    1289    1288    1286    1284    1284    1286    1288    1291

 63          KK       3
 64          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 3.
             * ko     0       0       0       0      22
 65          BA    0.81
 66          LG   0.339       0   4.441   0.362       0
             * ui4
 67          UI      91     228     430     554     725    1088     908     700     535     396
 68          UI     205     152      95      57      28      28      28       0       0       0
 69          UI       0       0       0       0       0       0       0       0       0       0

 70          KK   I1CP3   CNAME      4R
 71          KM           ADD HYDROGRAPHS AT CP3.
             * ko     0       0       0       0      22
 72          HC       2
1                                    HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 73          KK     CP3   CNAME    RCP3
 74          KM           ADD HYDROGRAPHS AT CP3.
             * ko     0       0       0       0      22
 75          HC       2

 76          KK    RCP3   CNAME     CP3
 77          KM           ROUTE FLOW FROM CP3 TO CP10.
             * ko     0       0       0       0      22
             * RL     0       0       2    1245
 78          RS       2    STOR      -1       0
 79          RC    0.05    0.03    0.05    5280  0.0083       0
             * rxry4
 80          RX    1010    1015    1020    1050    1100    1275    1580    1750
 81          RY    1251    1249    1249    1245    1245    1250    1250    1254

 82          KK       4
 83          KM           RUNOFF HYDROGRAPH FORM SUB-BASIN 4.
             * ko     0       0       0       0      22
 84          BA     0.3
 85          LG    0.35       0    8.01   0.081  18.504
             * ui5
 86          UI      48     192     287     444     512     346     236     115      67      35
 87          UI      14      14       0       0       0       0       0       0       0       0
 88          UI       0       0       0       0       0       0       0       0       0       0

 89          KK       5
 90          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 5.
             * ko     0       0       0       0      22
 91          BA    0.72
 92          LG    0.35       0   8.023   0.081  17.926
             * ui6
 93          UI     110     437     658     992    1242     849     591     315     174     101
 94          UI      34      34      34       0       0       0       0       0       0       0
 95          UI       0       0       0       0       0       0       0       0       0       0

 96          KK     CP5   CNAME    RCP5
 97          KM           ADD HYDROGRAPHS AT CP5.
             * ko     0       0       0       0      22
 98          HC       2

 99          KK    RCP5   CNAME     CP5
100          KM           ROUTE COMBINED HYDROGRAPHS AT CP5 TO CP7.
             * ko     0       0       0       0      22
             * RL     0       0     0.5    2800
101          RS       1    STOR      -1       0
102          RC    0.08    0.05    0.08    4800  0.0833       0
             * rxry5
103          RX     955     970     985    1000    1020    1035    1050    1065
104          RY    2815    2810    2805    2800    2800    2805    2810    2815
1                                    HEC-1 INPUT                                          PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

105          KK       6
106          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 6.
             * ko     0       0       0       0      22
107          BA    0.45
108          LG    0.35       0   7.976   0.082      20
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                * ui7
 109            UI      204     622    1139     837     427     155      54      33       0       0
 110            UI        0       0       0       0       0       0       0       0       0       0

 111            KK   I1CP7   CNAME      7R
 112            KM           ADD HYDROGRAPHS AT CP7.
                * ko      0       0       0       0      22
 113            HC        2

 114            KK        7
 115            KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 7.
                * ko      0       0       0       0      22
 116            BA     0.31
 117            LG     0.35       0   7.976   0.082      20
                * ui8
 118            UI      126     387     716     606     343     129      52      22       0       0
 119            UI        0       0       0       0       0       0       0       0       0       0

 120            KK     CP7   CNAME    RCP7
 121            KM           ADD HYDROGRAPHS AT CP7.
                * ko      0       0       0       0      22
 122            HC        2

 123            KK    RCP7   CNAME     CP7
 124            KM           ROUTE COMBINED HYDROGRAPHS AT CP7 TO CP9.
                * ko      0       0       0       0      22
                * RL      0       0     0.5    1838
 125            RS        3    STOR      -1       0
 126            RC     0.08    0.05    0.08   10200  0.0775       0
                * rxry6
 127            RX     1000    1045    1120    1195    1230    1300    1350    1450
 128            RY     1910    1880    1850    1838    1838    1850    1880    1910

 129            KK        9
 130            KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 9.
                * ko      0       0       0       0      22
 131            BA      1.4
 132            LG     0.35       0   7.909   0.084  19.572
                * ui9
 133            UI      155     381     727     935    1216    1832    1591    1224     938     705
 134            UI      386     261     177     115      47      47      47      47       0       0
 135            UI        0       0       0       0       0       0       0       0       0       0

 136            KK   I1CP9   CNAME      9R
 137            KM           ADD HYDROGRAPHS AT CP9.
                * ko      0       0       0       0      22
 138            HC        2
1                                    HEC-1 INPUT                                                PAGE  5

LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 139            KK        8
 140            KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 8.
                * ko      0       0       0       0      22
 141            BA     0.81
 142            LG     0.35       0   7.976   0.082      20
                * ui10
 143            UI      102     313     535     703    1054    1140     822     608     421     208
 144            UI      147      96      31      31      31       0       0       0       0       0
 145            UI        0       0       0       0       0       0       0       0       0       0

 146            KK     CP9   CNAME    RCP9
 147            KM           ADD HYDROGRAPHS AT CP9.
                * ko      0       0       0       0      22
 148            HC        2

 149            KK    RCP9   CNAME     CP9
 150            KM           ROUTE COMBINED HYDROGRAPHS AT CP9 TO CP10.
                * ko      0       0       0       0      22
                * RL      0       0     1.5    1308
 151            RS        8    STOR      -1       0
 152            RC     0.06   0.035    0.06   19200  0.0232       0
                * rxry7
 153            RX     1000    1085    1310    1395    1415    1450    1630    1665
 154            RY     1317    1314    1311    1308    1308    1314    1314    1317

 155            KK       10
 156            KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 10.
                * ko      0       0       0       0      22
 157            BA     2.02
 158            LG    0.347       0   5.124   0.254    4.52
                * ui11
 159            UI      119     119     218     427     546     632     708     812     929    1148
 160            UI     1499    1393    1156    1006     894     765     669     577     475     325
 161            UI      210     201     193     119     119      86      36      36      36      36
 162            UI       36      36      36      36       0       0       0       0       0       0
 163            UI        0       0       0       0       0       0       0       0       0       0

 164            KK  I1CP10   CNAME     11R
 165            KM           ADD HYDROGRAPHS AT CP10
                * ko      0       0       0       0      22
 166            HC        2

 167            KK    CP10   CNAME   RCP10
 168            KM           ADD HYDROGRAPHS AT CP10
                * ko      0       0       0       0      22
 169            HC        2

 170            KK   RCP10   CNAME    CP10
 171            KM           ROUTE FLOW AT CP10 TO CP12.
                * ko      0       0       0       0      22
                * RL      0       0       2    1211
 172            RS        1    STOR      -1       0
 173            RC     0.03    0.03    0.05    3500  0.0057       0
                * rxry8
1                                    HEC-1 INPUT                                                PAGE  6

LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
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174          RX     995    1000    1020    1055    1085    1165    1250    1330
175          RY    1221    1220    1220    1211    1211    1218    1220    1222

176          KK      12
177          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 12.
             * ko     0       0       0       0      22
178          BA    1.38
179          LG   0.346       0   5.232   0.241   5.217
             * ui12
180          UI     111     129     393     535     636     758     930    1311    1277    1008
181          UI     850     697     574     445     264     191     169     111      92      34
182          UI      34      34      34      34      34       0       0       0       0       0
183          UI       0       0       0       0       0       0       0       0       0       0

184          KK    CP12   CNAME   RCP12
185          KM           ADD HYDROGRAPHS AT CP12.
             * ko     0       0       0       0      22
186          HC       2

187          KK   RCP12   CNAME    CP12
188          KM           ROUTE COMBINED HYDROGRAPHS AT CP12 TO CPWT3
             * ko     0       0       0       0      22
             * RL     0       0       2    1196
189          RS       2    STOR      -1       0
190          RC    0.03    0.03    0.04    4800  0.0031       0
             * rxry9
191          RX     995    1000    1020    1080    1200    1530    1665    1760
192          RY    1211    1211    1210    1196    1196    1200    1204    1204

193          KK      11
194          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 11.
             * ko     0       0       0       0      22
195          BA    1.56
196          LG    0.35       0    7.25   0.107  13.299
             * ui13
197          UI     143     245     571     755     913    1142    1648    1623    1254    1026
198          UI     821     643     394     248     210     143      86      44      44      44
199          UI      44       0       0       0       0       0       0       0       0       0
200          UI       0       0       0       0       0       0       0       0       0       0

201          KK   RCP11   CNAME     14C
202          KM           ROUTE HYROGRAPH FROM CP11 TO CP13.
             * ko     0       0       0       0      22
             * RL     0       0     1.5    1196
203          RS       3    STOR      -1       0
204          RC    0.06   0.035    0.06   10200  0.0098       0
             * rxry10
205          RX    1000    1070    1300    1480    1510    1525    1555    1600
206          RY    1233    1232    1230    1222    1222    1230    1232    1233
1                                         HEC-1 INPUT                                                    PAGE  7

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

207          KK      13
208          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 13.
             * ko     0       0       0       0      22
209          BA     1.3
210          LG    0.35       0    4.62   0.322       0
             * ui14
211          UI     120     210     485     639     774     973    1416    1333    1039     847
212          UI     674     527     303     206     167     120      60      37      37      37
213          UI      37       0       0       0       0       0       0       0       0       0
214          UI       0       0       0       0       0       0       0       0       0       0

215          KK    CP13   CNAME   RCP13
216          KM           ADD HYDROGRAPHS AT CP13.
             * ko     0       0       0       0      22
217          HC       2

218          KK   RCP13   CNAME    CP13
219          KM           ROUTE COMBINED HYDROGRAPHS AT CP13 TO CP17
             * ko     0       0       0       0      22
             * RL     0       0     1.5    1222
220          RS       2    STOR      -1       0
221          RC    0.03    0.03    0.04    2400  0.0042       0
             * rxry11
222          RX    1000    1025    1040    1065    1085    1110    1175    1200
223          RY    1206    1198    1196    1194    1194    1198    1198    1201

224          KK      14
225          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 14.
             * ko     0       0       0       0      22
226          BA    1.47
227          LG    0.35       0   7.974   0.082  18.195
             * ui15
228          UI     166     421     790    1019    1341    1998    1636    1264     961     699
229          UI     362     274     166      93      51      51      51       0       0       0
230          UI       0       0       0       0       0       0       0       0       0       0

231          KK   RCP14   CNAME     16C
232          KM           ROUTE FLOW FROM CP14 TO CP15.
             * ko     0       0       0       0      22
             * RL     0       0       2    1194
233          RS       4    STOR      -1       0
234          RC    0.06   0.035    0.06    8800  0.0256       0
             * rxry12
235          RX    1000    1030    1075    1200    1220    1280    1415    1480
236          RY    1296    1295    1294    1288    1288    1294    1296    1300

237          KK      15
238          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 15.
             * ko     0       0       0       0      22
239          BA    1.26
240          LG    0.35       0   6.561   0.142   15.67
             * ui16
241          UI     130     281     577     747     938    1321    1552    1156     920     713
242          UI     519     277     217     138      93      40      40      40      40       0
```

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 243          UI       0       0       0       0       0       0       0       0       0       0
 244          UI       0       0       0       0       0       0       0       0       0       0

 245          KK  I1CP15   CNAME     17R
 246          KM           ADD HYDROGRAPHS AT CP15
              * ko     0       0       0       0      22
 247          HC       2

 248          KK      16
 249          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 16.
              * ko     1       0       0       0       0
 250          BA    1.13
 251          LG    0.35       0   5.676   0.201  19.953
              * ui17
 252          UI     115     240     503     652     814    1126    1393    1049     839     655
 253          UI     497     268     194     137     101      35      35      35      35       0
 254          UI       0       0       0       0       0       0       0       0       0       0
 255          UI       0       0       0       0       0       0       0       0       0       0

 256          KK    CP15   CNAME   RCP15
 257          KM           ADD HYDROGRAPHS AT CP15.
              * ko     0       0       0       0      22
 258          HC       2

 259          KK   RCP15   CNAME    CP15
 260          KM           ROUTE COMBINED HYDROGRAPHS AT CP15 TO CP17.
              * ko     0       0       0       0      22
              * RL     0       0       2    1226
 261          RS       3    STOR      -1       0
 262          RC    0.06   0.035    0.06    6800  0.0079       0
              * SE  1198    1200    1210    1220    1230    1240
 263          RX    1000    1310    1380    1540    1640    1670    1700    1910
 264          RY    1234    1232    1228    1226    1226    1228    1232    1235

 265          KK      17
 266          KM           RUNOFFF HYDROGRAPH FROM SUB-BASIN 17.
              * ko     0       0       0       0      22
 267          BA    1.07
 268          LG    0.35       0   4.121   0.438       0
              * SE  1198    1200    1210    1220    1230    1240
 269          UI     117     254     572     810    1052    1196     753     635     540     450
 270          UI     353     287     254     194     149     129     103      90      64      57
 271          UI      57      26      22      22      22      22      22      22       0       0
 272          UI       0       0       0       0       0       0       0       0       0       0

 273          KK  I1CP17   CNAME     19R
 274          KM           ADD HYDROGRAPHS AT CP17.
              * ko     0       0       0       0      22
 275          HC       2
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 276          KK    CP17   CNAME   RCP17
 277          KM           ADD HYDROGRAPHS AT CP17.
              * ko     0       0       0       0      22
 278          HC       2

 279          KK   RCP17   CNAME    CP17
 280          KM           ROUTE FLOW FROM CP17 TO CPWT3
              * ko     0       0       0       0      22
              * RL     0       0       2    1182
 281          RS       2    STOR      -1       0
 282          RC    0.06    0.04    0.04    1600  0.0022       0
              * SE  1198    1200    1210    1220    1230    1240
 283          RX    1000    1220    1280    1470    1530    1660    1680    1685
 284          RY    1196    1194    1190    1182    1182    1210    1211    1212

 285          KK     WT3
 286          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN WT3
              * ko     0       0       0       0      22
 287          BA    0.44
 288          LG   0.344       0   4.577    0.33       0
              * SE  1198    1200    1210    1220    1230    1240
 289          UI      36      44     128     175     207     249     308     436     399     318
 290          UI     267     220     179     133      78      61      49      36      23      11
 291          UI      11      11      11      11       0       0       0       0       0       0
 292          UI       0       0       0       0       0       0       0       0       0       0

 293          KK  I1CWT3   CNAME     21R
 294          KM           ADD HYDROGRAPHS AT CPWT3
              * ko     0       0       0       0      22
 295          HC       2

 296          KK   CPWT3   CNAME     22R
 297          KM           ADD HYDROGRAPHS AT CPWT3
              * ko     1       0       0       0       0
 298          HC       2

 299          KK     22R   CNAME   CPWT3
              * ko     1       0       0       0       0
 300          RN     22R
 301          ZZ
```

1

SCHEMATIC DIAGRAM OF STREAM NETWORK

```
INPUT
 LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

  NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

  14           1
               V
               V
  26         RCP1
```

```
                .
                .
 32             .          2
                .          .
                .          .
 41          CP2............
               V
               V
 44         RCP2
                .
                .
 50             .         3A
                .          V
                .          V
 57             .      RCP3A
                .          .
                .          .
 63             .          .          3
                .          .          .
                .          .          .
 70             .     I1CP3............
                .          .
                .          .
 73          CP3............
               V
               V
 76         RCP3
                .
                .
 82             .          4
                .          .
                .          .
 89             .          .          5
                .          .          .
                .          .          .
 96             .        CP5............
                .          V
                .          V
 99             .       RCP5
                .          .
                .          .
105             .          .          6
                .          .          .
                .          .          .
111             .     I1CP7............
                .          .
                .          .
114             .          .          7
                .          .          .
                .          .          .
120             .        CP7............
                .          V
                .          V
123             .       RCP7
                .          .
                .          .
129             .          .          9
                .          .          .
                .          .          .
136             .     I1CP9............
                .          .
                .          .
139             .          .          8
                .          .          .
                .          .          .
146             .        CP9............
                .          V
                .          V
149             .       RCP9
                .          .
                .          .
155             .          .         10
                .          .          .
                .          .          .
164             .    I1CP10............
                .          .
                .          .
167          CP10............
               V
               V
170         RCP10
                .
                .
176             .         12
                .          .
                .          .
184          CP12............
               V
               V
187         RCP12
                .
                .
193             .         11
                .          V
                .          V
201             .      RCP11
                .          .
                .          .
207             .          .         13
                .          .          .
                .          .          .
215             .       CP13............
                .          V
                .          V
218             .      RCP13
                .          .
                .          .
224             .          .         14
                .          .          V
```

```
                .          .          V
   231          .          .      RCP14
                .          .          .
   237          .          .          .          15
                .          .          .           .
   245          .          .     I1CP15............
                .          .          .
   248          .          .          .          16
                .          .          .           .
   256          .          .      CP15............
                .          .          V
   259          .          .      RCP15
                .          .          .
   265          .          .          .          17
                .          .          .           .
   273          .          .     I1CP17............
                .          .          .
   276          .       CP17............
                .          V
                .          V
   279          .      RCP17
                .          .
   285          .          .        WT3
                .          .          .
   293          .     I1CWT3............
                .          .
   296      CPWT3............
                V
                V
   299        22R
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1****************************************
****************************************
 *                                      *                                        *
 *                                      *                                        *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                        *   U.S. ARMY CORPS OF ENGINEERS
 *                                      *                                        *
 *              JUL   1997              *                                        *   HYDROLOGIC ENGINEERING CENTER
 *                                      *                                        *
 *           VERSION 4.1                *                                        *         609 SECOND STREET
 *                                      *                                        *
 *                                      *                                        *      DAVIS, CALIFORNIA 95616
 *                                      *                                        *
 *  RUN DATE   05MAY00  TIME  16:59:25  *                                        *          (916) 756-1104
 *                                      *                                        *
 *                                      *                                        *
 *                                      *                                        *
 ****************************************
****************************************
```

```
                                White Tanks #3 future condition (Beardsley Canal Wash Improvement)
                                May, 1999, FCDMC
                                Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999

   5 IO          OUTPUT CONTROL VARIABLES
                       IPRNT           5  PRINT CONTROL
                       IPLOT           0  PLOT CONTROL
                       QSCAL          0.  HYDROGRAPH PLOT SCALE

     IT          HYDROGRAPH TIME DATA
                        NMIN           5  MINUTES IN COMPUTATION INTERVAL
                       IDATE      1JAN94  STARTING DATE
                       ITIME        0000  STARTING TIME
                          NQ         300  NUMBER OF HYDROGRAPH ORDINATES
                      NDDATE      2JAN94  ENDING DATE
                      NDTIME        0055  ENDING TIME
                       ICENT          19  CENTURY MARK

                  COMPUTATION INTERVAL     .08 HOURS
                       TOTAL TIME BASE   24.92 HOURS

          ENGLISH UNITS
               DRAINAGE AREA          SQUARE MILES
               PRECIPITATION DEPTH    INCHES
               LENGTH, ELEVATION      FEET
               FLOW                   CUBIC FEET PER SECOND
               STORAGE VOLUME         ACRE-FEET
               SURFACE AREA           ACRES
               TEMPERATURE            DEGREES FAHRENHEIT
1
                                                RUNOFF SUMMARY
                                        FLOW IN CUBIC FEET PER SECOND
                                      TIME IN HOURS,  AREA IN SQUARE MILES

                                       PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM     TIME OF
         OPERATION        STATION      FLOW    PEAK                                          AREA      STAGE     MAX STAGE
+                                                                6-HOUR     24-HOUR     72-HOUR
         HYDROGRAPH AT
+                               1      272.    1.25          46.         12.         11.       1.94
         ROUTED TO
+                            RCP1      193.    1.75          46.         12.         11.       1.94
```

+								1429.05	1.75
+	HYDROGRAPH AT	2	185.	1.50	41.	10.	10.	1.82	
+	2 COMBINED AT	CP2	338.	1.67	87.	22.	21.	3.76	
+	ROUTED TO	RCP2	295.	2.00	87.	22.	21.	3.76	
+								1299.06	2.00
+	HYDROGRAPH AT	3A	19.	1.17	1.	0.	0.	.29	
+	ROUTED TO	RCP3A	7.	1.67	1.	0.	0.	.29	
+								1284.26	1.67
+	HYDROGRAPH AT	3	52.	1.17	4.	1.	1.	.81	
+	2 COMBINED AT	I1CP3	54.	1.17	6.	1.	1.	1.10	
+	2 COMBINED AT	CP3	302.	2.00	92.	23.	22.	4.86	
+	ROUTED TO	RCP3	274.	2.25	92.	23.	22.	4.86	
+								1246.00	2.25
+	HYDROGRAPH AT	4	56.	1.08	7.	2.	2.	.30	
+	HYDROGRAPH AT	5	133.	1.08	17.	4.	4.	.72	
+	2 COMBINED AT	CP5	190.	1.08	24.	6.	6.	1.02	
+	ROUTED TO	RCP5	156.	1.17	24.	6.	6.	1.02	
+								2800.89	1.17
+	HYDROGRAPH AT	6	113.	.92	11.	3.	3.	.45	
+	2 COMBINED AT	I1CP7	199.	1.08	34.	9.	8.	1.47	
+	HYDROGRAPH AT	7	75.	.92	7.	2.	2.	.31	
+	2 COMBINED AT	CP7	258.	.92	42.	10.	10.	1.78	
+	ROUTED TO	RCP7	241.	1.17	42.	10.	10.	1.78	
+								1838.26	1.17
+	HYDROGRAPH AT	9	220.	1.17	33.	8.	8.	1.40	
+	2 COMBINED AT	I1CP9	461.	1.17	75.	19.	18.	3.18	
+	HYDROGRAPH AT	8	135.	1.08	19.	5.	5.	.81	
+	2 COMBINED AT	CP9	596.	1.17	94.	24.	23.	3.99	
+	ROUTED TO	RCP9	409.	1.83	94.	24.	23.	3.99	
+								1309.46	1.83
+	HYDROGRAPH AT	10	92.	1.58	15.	4.	4.	2.02	
+	2 COMBINED AT	I1CP10	472.	1.83	109.	27.	26.	6.01	
+	2 COMBINED AT	CP10	647.	1.92	201.	51.	49.	10.87	
+	ROUTED TO	RCP10	615.	2.08	200.	51.	49.	10.87	
+								1213.37	2.08
+	HYDROGRAPH AT	12	85.	1.33	11.	3.	3.	1.38	
+	2 COMBINED AT	CP12	626.	2.08	210.	53.	51.	12.25	
+	ROUTED TO	RCP12	540.	2.50	209.	53.	51.	12.25	
+								1197.14	2.50
+	HYDROGRAPH AT	11	173.	1.25	30.	7.	7.	1.56	
+	ROUTED TO	RCP11	97.	1.92	30.	7.	7.	1.56	
+								1222.75	1.92
+	HYDROGRAPH AT	13	59.	1.25	6.	1.	1.	1.30	

```
          2 COMBINED AT
+                          CP13      104.   1.83        36.        9.        9.      2.86
          ROUTED TO
+                         RCP13      100.   2.00        36.        9.        9.      2.86
+                                                                                   1195.11       2.00
          HYDROGRAPH AT
+                            14      229.   1.17        34.        9.        8.      1.47
          ROUTED TO
+                         RCP14      175.   1.50        34.        9.        8.      1.47
+                                                                                   1288.90       1.50
          HYDROGRAPH AT
+                            15      155.   1.25        22.        6.        5.      1.26
          2 COMBINED AT
+                        I1CP15      268.   1.42        56.       14.       14.      2.73
          HYDROGRAPH AT
+                            16      142.   1.25        18.        4.        4.      1.13
          2 COMBINED AT
+                          CP15      371.   1.25        74.       19.       18.      3.86
          ROUTED TO
+                         RCP15      270.   1.83        74.       19.       18.      3.86
+                                                                                   1226.71       1.83
          HYDROGRAPH AT
+                            17       44.   1.17         4.        1.        1.      1.07
          2 COMBINED AT
+                        I1CP17      277.   1.83        78.       20.       19.      4.93
          2 COMBINED AT
+                          CP17      370.   1.83       114.       29.       27.      7.79
          ROUTED TO
+                         RCP17      363.   2.00       114.       29.       27.      7.79
+                                                                                   1183.80       2.00
          HYDROGRAPH AT
+                           WT3       20.   1.33         2.        1.        1.       .44
          2 COMBINED AT
+                        I1CWT3      365.   2.00       116.       29.       28.      8.23
          2 COMBINED AT
+                         CPWT3      792.   2.42       323.       82.       79.     20.48
          ROUTED TO
+                           22R      792.   2.42       323.       82.       79.     20.48

 *** NORMAL END OF HEC-1 ***
```

Appendix 4.6.2. 09/18/1992-09/19/1992 storm (0.1 to Dam gage; 0.9 to E. peak)

```
1*****************************************
*****************************************
 *                                      *                                        *
 *                                      *                                        *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                        *   U.S. ARMY CORPS OF ENGINEERS
 *                                      *                                        *
 *              JUL   1997              *                                        *   HYDROLOGIC ENGINEERING CENTER
 *                                      *                                        *
 *           VERSION 4.1                *                                        *         609 SECOND STREET
 *                                      *                                        *
 *                                      *                                        *       DAVIS, CALIFORNIA 95616
 *                                      *                                        *
 *  RUN DATE   05MAY00  TIME  16:59:36  *                                        *           (916) 756-1104
 *                                      *                                        *
 *                                      *                                        *
 *****************************************
*****************************************

X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X               X
XXXXXXX  XXXX     X        XXXXX  X
X     X  X        X               X
X     X  X        X     X         X
X     X  XXXXXXX   XXXXX         XXX

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
```

```
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                          HEC-1 INPUT                                                    PAGE  1

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  1           ID          White Tanks #3 future condition (Beardsley Canal Wash Improvement)
  2           ID          May, 1999, FCDMC
  3           ID          Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999
              *DIAGRAM
  4           IT       5  1JAN94       0     300
  5           IO       5
              * Gage XY Position    100.00000    100.00000 1
  6           PG   crest       0
  7           IN      15  1JAN94       0
              * 92stormWT3DamCrest
  8           PI       0       0       0       0       0       0       0       0    0.04    0.31
  9           PI    0.16    0.08    0.04    0.04       0
              * Gage XY Position    100.00000    102.00000 1
 10           PG   Epeak       0
 11           IN      15  1JAN94       0
              * 92stormEastPeak
 12           PI       0    0.04    0.28    0.04       0       0       0       0       0    0.04
 13           PI       0    0.04       0       0       0

 14           KK       1
 15           KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 1.
              * ko     1       0       0       0       0
 16           BA    1.94
 17           PR   Epeak
 18           PW       1
 19           PT   crest   Epeak
 20           PW     0.1     0.9
 21           LG    0.35       0   7.981   0.082  19.802
              * ui1
 22           UI     182     326     742     974    1186    1502    2185    1957    1537    1243
 23           UI     989     751     417     308     230     182      64      56      56      56
 24           UI      56       0       0       0       0       0       0       0       0       0
 25           UI       0       0       0       0       0       0       0       0       0       0

 26           KK    RCP1   CNAME      1C
 27           KM           ROUTE FLOW FROM CP1 TO CP2.
              * ko     0       0       0       0      22
              * RL     0       0       1    1428
 28           RS       5    STOR      -1       0
 29           RC    0.06    0.04    0.06   17800  0.0469       0
              * rxry1
 30           RX    1000    1125    1300    1390    1405    1490    1590    1750
 31           RY    1440    1439    1437    1428    1428    1439    1442    1444

 32           KK       2
 33           KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 2.
              * ko     0       0       0       0      22
 34           BA    1.82
 35           LG    0.35       0   6.959   0.119  21.855
              * ui2
 36           UI     115     115     259     442     556     642     727     849    1013    1346
 37           UI    1419    1145     985     864     735     634     545     405     268     202
 38           UI     189     144     115     103      35      35      35      35      35      35
 39           UI      35       0       0       0       0       0       0       0       0       0
 40           UI       0       0       0       0       0       0       0       0       0       0
1                                          HEC-1 INPUT                                                    PAGE  2

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 41           KK     CP2   CNAME    RCP2
 42           KM           ADD HYDROGRAPHS AT CP2.
              * ko     0       0       0       0      22
 43           HC       2

 44           KK    RCP2   CNAME     CP2
 45           KM           ROUTE COMBINED HYDROGRAPHS AT CP2 TO CP3.
              * ko     0       0       0       0      22
              * RL     0       0     1.5    1298
 46           RS       2    STOR      -1       0
 47           RC    0.06   0.035    0.06    4500  0.0111       0
              * rxry2
 48           RX    1000    1100    1350    1705    1735    1780    1850    2000
 49           RY    1304    1302    1302    1298    1298    1303    1302    1305

 50           KK      3A
 51           KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 3A
              * ko     0       0       0       0      22
 52           BA    0.29
 53           LG   0.336       0    4.14   0.432       0
              * ui3
 54           UI      34      89     165     212     286     410     314     242     182     124
 55           UI      62      48      33      10      10      10      10       0       0       0
 56           UI       0       0       0       0       0       0       0       0       0       0

 57           KK   RCP3A   CNAME      3C
 58           KM           ROUTE FLOW FROM CP3A TO CP3
              * ko     0       0       0       0      22
              * RL     0       0     1.5    1284
 59           RS       2    STOR      -1       0
 60           RC    0.03    0.03    0.05    5300   0.006       0
              * rxry3
 61           RX    1000    1023    1032    1046    1058    1067    1250    1540
 62           RY    1289    1288    1286    1284    1284    1286    1288    1291

 63           KK       3
 64           KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 3.
              * ko     0       0       0       0      22
 65           BA    0.81
 66           LG   0.339       0   4.441   0.362       0
```

```
                * ui4
 67             UI      91     228     430     554     725    1088     908     700     535     396
 68             UI     205     152      95      57      28      28      28       0       0       0
 69             UI       0       0       0       0       0       0       0       0       0       0

 70             KK   I1CP3   CNAME      4R
 71             KM           ADD HYDROGRAPHS AT CP3.
                * ko     0       0       0       0      22
 72             HC       2
1                                          HEC-1 INPUT                                          PAGE  3

LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 73             KK     CP3   CNAME    RCP3
 74             KM           ADD HYDROGRAPHS AT CP3.
                * ko     0       0       0       0      22
 75             HC       2

 76             KK    RCP3   CNAME     CP3
 77             KM           ROUTE FLOW FROM CP3 TO CP10.
                * ko     0       0       0       0      22
                * RL     0       0       2    1245
 78             RS       2    STOR      -1       0
 79             RC    0.05    0.03    0.05    5280  0.0083       0
                * rxry4
 80             RX    1010    1015    1020    1050    1100    1275    1580    1750
 81             RY    1251    1249    1249    1245    1245    1250    1250    1254

 82             KK       4
 83             KM           RUNOFF HYDROGRAPH FORM SUB-BASIN 4.
                * ko     0       0       0       0      22
 84             BA     0.3
 85             LG    0.35       0    8.01   0.081  18.504
                * ui5
 86             UI      48     192     287     444     512     346     236     115      67      35
 87             UI      14      14       0       0       0       0       0       0       0       0
 88             UI       0       0       0       0       0       0       0       0       0       0

 89             KK       5
 90             KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 5.
                * ko     0       0       0       0      22
 91             BA    0.72
 92             LG    0.35       0   8.023   0.081  17.926
                * ui6
 93             UI     110     437     658     992    1242     849     591     315     174     101
 94             UI      34      34      34       0       0       0       0       0       0       0
 95             UI       0       0       0       0       0       0       0       0       0       0

 96             KK     CP5   CNAME    RCP5
 97             KM           ADD HYDROGRAPHS AT CP5.
                * ko     0       0       0       0      22
 98             HC       2

 99             KK    RCP5   CNAME     CP5
100             KM           ROUTE COMBINED HYDROGRAPHS AT CP5 TO CP7.
                * ko     0       0       0       0      22
                * RL     0       0     0.5    2800
101             RS       1    STOR      -1       0
102             RC    0.08    0.05    0.08    4800  0.0833       0
                * rxry5
103             RX     955     970     985    1000    1020    1035    1050    1065
104             RY    2815    2810    2805    2800    2800    2805    2810    2815
1                                          HEC-1 INPUT                                          PAGE  4

LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

105             KK       6
106             KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 6.
                * ko     0       0       0       0      22
107             BA    0.45
108             LG    0.35       0   7.976   0.082      20
                * ui7
109             UI     204     622    1139     837     427     155      54      33       0       0
110             UI       0       0       0       0       0       0       0       0       0       0

111             KK   I1CP7   CNAME      7R
112             KM           ADD HYDROGRAPHS AT CP7.
                * ko     0       0       0       0      22
113             HC       2

114             KK       7
115             KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 7.
                * ko     0       0       0       0      22
116             BA    0.31
117             LG    0.35       0   7.976   0.082      20
                * ui8
118             UI     126     387     716     606     343     129      52      22       0       0
119             UI       0       0       0       0       0       0       0       0       0       0

120             KK     CP7   CNAME    RCP7
121             KM           ADD HYDROGRAPHS AT CP7.
                * ko     0       0       0       0      22
122             HC       2

123             KK    RCP7   CNAME     CP7
124             KM           ROUTE COMBINED HYDROGRAPHS AT CP7 TO CP9.
                * ko     0       0       0       0      22
                * RL     0       0     0.5    1838
125             RS       3    STOR      -1       0
126             RC    0.08    0.05    0.08   10200  0.0775       0
                * rxry6
127             RX    1000    1045    1120    1195    1230    1300    1350    1450
128             RY    1910    1880    1850    1838    1838    1850    1880    1910

129             KK       9
130             KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 9.
                * ko     0       0       0       0      22
```

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 131          BA      1.4
 132          LG     0.35       0   7.909   0.084  19.572
              * ui9
 133          UI      155     381     727     935    1216    1832    1591    1224     938     705
 134          UI      386     261     177     115      47      47      47      47       0       0
 135          UI        0       0       0       0       0       0       0       0       0       0

 136          KK   I1CP9   CNAME      9R
 137          KM           ADD HYDROGRAPHS AT CP9.
              * ko      0       0       0       0      22
 138          HC        2
1                                    HEC-1 INPUT                                                PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 139          KK        8
 140          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 8.
              * ko      0       0       0       0      22
 141          BA     0.81
 142          LG     0.35       0   7.976   0.082      20
              * ui10
 143          UI      102     313     535     703    1054    1140     822     608     421     208
 144          UI      147      96      31      31      31       0       0       0       0       0
 145          UI        0       0       0       0       0       0       0       0       0       0

 146          KK      CP9   CNAME    RCP9
 147          KM           ADD HYDROGRAPHS AT CP9.
              * ko      0       0       0       0      22
 148          HC        2

 149          KK     RCP9   CNAME     CP9
 150          KM           ROUTE COMBINED HYDROGRAPHS AT CP9 TO CP10.
              * ko      0       0       0       0      22
              * RL      0       0     1.5    1308
 151          RS        8    STOR      -1       0
 152          RC     0.06   0.035    0.06   19200  0.0232       0
              * rxry7
 153          RX     1000    1085    1310    1395    1415    1450    1630    1665
 154          RY     1317    1314    1311    1308    1308    1314    1314    1317

 155          KK       10
 156          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 10.
              * ko      0       0       0       0      22
 157          BA     2.02
 158          LG    0.347       0   5.124   0.254    4.52
              * ui11
 159          UI      119     119     218     427     546     632     708     812     929    1148
 160          UI     1499    1393    1156    1006     894     765     669     577     475     325
 161          UI      210     201     193     119     119      86      36      36      36      36
 162          UI       36      36      36      36       0       0       0       0       0       0
 163          UI        0       0       0       0       0       0       0       0       0       0

 164          KK  I1CP10   CNAME     11R
 165          KM           ADD HYDROGRAPHS AT CP10
              * ko      0       0       0       0      22
 166          HC        2

 167          KK     CP10   CNAME   RCP10
 168          KM           ADD HYDROGRAPHS AT CP10
              * ko      0       0       0       0      22
 169          HC        2

 170          KK    RCP10   CNAME    CP10
 171          KM           ROUTE FLOW AT CP10 TO CP12.
              * ko      0       0       0       0      22
              * RL      0       0       2    1211
 172          RS        1    STOR      -1       0
 173          RC     0.03    0.03    0.05    3500  0.0057       0
              * rxry8
1                                    HEC-1 INPUT                                                PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 174          RX      995    1000    1020    1055    1085    1165    1250    1330
 175          RY     1221    1220    1220    1211    1211    1218    1220    1222

 176          KK       12
 177          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 12.
              * ko      0       0       0       0      22
 178          BA     1.38
 179          LG    0.346       0   5.232   0.241   5.217
              * ui12
 180          UI      111     129     393     535     636     758     930    1311    1277    1008
 181          UI      850     697     574     445     264     191     169     111      92      34
 182          UI       34      34      34      34      34       0       0       0       0       0
 183          UI        0       0       0       0       0       0       0       0       0       0

 184          KK     CP12   CNAME   RCP12
 185          KM           ADD HYDROGRAPHS AT CP12.
              * ko      0       0       0       0      22
 186          HC        2

 187          KK    RCP12   CNAME    CP12
 188          KM           ROUTE COMBINED HYDROGRAPHS AT CP12 TO CPWT3
              * ko      0       0       0       0      22
              * RL      0       0       2    1196
 189          RS        2    STOR      -1       0
 190          RC     0.03    0.03    0.04    4800  0.0031       0
              * rxry9
 191          RX      995    1000    1020    1080    1200    1530    1665    1760
 192          RY     1211    1211    1210    1196    1196    1200    1204    1204

 193          KK       11
 194          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 11.
              * ko      0       0       0       0      22
 195          BA     1.56
 196          LG     0.35       0    7.25   0.107  13.299
              * ui13
```

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197          UI     143     245     571     755     913    1142    1648    1623    1254    1026
198          UI     821     643     394     248     210     143      86      44      44      44
199          UI      44       0       0       0       0       0       0       0       0       0
200          UI       0       0       0       0       0       0       0       0       0       0

201          KK   RCP11   CNAME     14C
202          KM           ROUTE HYROGRAPH FROM CP11 TO CP13.
             * ko     0       0       0       0      22
             * RL     0       0     1.5    1196
203          RS       3    STOR      -1       0
204          RC    0.06   0.035    0.06   10200  0.0098       0
             * rxry10
205          RX    1000    1070    1300    1480    1510    1525    1555    1600
206          RY    1233    1232    1230    1222    1222    1230    1232    1233
1                                         HEC-1 INPUT                                                    PAGE  7

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

207          KK      13
208          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 13.
             * ko     0       0       0       0      22
209          BA     1.3
210          LG    0.35       0    4.62   0.322       0
             * ui14
211          UI     120     210     485     639     774     973    1416    1333    1039     847
212          UI     674     527     303     206     167     120      60      37      37      37
213          UI      37       0       0       0       0       0       0       0       0       0
214          UI       0       0       0       0       0       0       0       0       0       0

215          KK    CP13   CNAME   RCP13
216          KM           ADD HYDROGRAPHS AT CP13.
             * ko     0       0       0       0      22
217          HC       2

218          KK   RCP13   CNAME    CP13
219          KM           ROUTE COMBINED HYDROGRAPHS AT CP13 TO CP17
             * ko     0       0       0       0      22
             * RL     0       0     1.5    1222
220          RS       2    STOR      -1       0
221          RC    0.03    0.03    0.04    2400  0.0042       0
             * rxry11
222          RX    1000    1025    1040    1065    1085    1110    1175    1200
223          RY    1206    1198    1196    1194    1194    1198    1198    1201

224          KK      14
225          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 14.
             * ko     0       0       0       0      22
226          BA    1.47
227          LG    0.35       0   7.974   0.082  18.195
             * ui15
228          UI     166     421     790    1019    1341    1998    1636    1264     961     699
229          UI     362     274     166      93      51      51      51       0       0       0
230          UI       0       0       0       0       0       0       0       0       0       0

231          KK   RCP14   CNAME     16C
232          KM           ROUTE FLOW FROM CP14 TO CP15.
             * ko     0       0       0       0      22
             * RL     0       0       2    1194
233          RS       4    STOR      -1       0
234          RC    0.06   0.035    0.06    8800  0.0256       0
             * rxry12
235          RX    1000    1030    1075    1200    1220    1280    1415    1480
236          RY    1296    1295    1294    1288    1288    1294    1296    1300

237          KK      15
238          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 15.
             * ko     0       0       0       0      22
239          BA    1.26
240          LG    0.35       0   6.561   0.142   15.67
             * ui16
241          UI     130     281     577     747     938    1321    1552    1156     920     713
242          UI     519     277     217     138      93      40      40      40      40       0
1                                         HEC-1 INPUT                                                    PAGE  8

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

243          UI       0       0       0       0       0       0       0       0       0       0
244          UI       0       0       0       0       0       0       0       0       0       0

245          KK  I1CP15   CNAME     17R
246          KM           ADD HYDROGRAPHS AT CP15
             * ko     0.      0       0       0      22
247          HC       2

248          KK      16
249          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 16.
             * ko     1       0       0       0       0
250          BA    1.13
251          LG    0.35       0   5.676   0.201  19.953
             * ui17
252          UI     115     240     503     652     814    1126    1393    1049     839     655
253          UI     497     268     194     137     101      35      35      35      35       0
254          UI       0       0       0       0       0       0       0       0       0       0
255          UI       0       0       0       0       0       0       0       0       0       0

256          KK    CP15   CNAME   RCP15
257          KM           ADD HYDROGRAPHS AT CP15.
             * ko     0       0       0       0      22
258          HC       2

259          KK   RCP15   CNAME    CP15
260          KM           ROUTE COMBINED HYDROGRAPHS AT CP15 TO CP17.
             * ko     0       0       0       0      22
             * RL     0       0       2    1226
261          RS       3    STOR      -1       0
262          RC    0.06   0.035    0.06    6800  0.0079       0
             * SE  1198    1200    1210    1220    1230    1240
263          RX    1000    1310    1380    1540    1640    1670    1700    1910
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 264          RY    1234    1232    1228    1226    1226    1228    1232    1235

 265          KK      17
 266          KM            RUNOFFF HYDROGRAPH FROM SUB-BASIN 17.
              * ko     0       0       0       0      22
 267          BA    1.07
 268          LG    0.35       0   4.121   0.438       0
              * SE  1198    1200    1210    1220    1230    1240
 269          UI     117     254     572     810    1052    1196     753     635     540     450
 270          UI     353     287     254     194     149     129     103      90      64      57
 271          UI      57      26      22      22      22      22      22      22       0       0
 272          UI       0       0       0       0       0       0       0       0       0       0

 273          KK  I1CP17   CNAME     19R
 274          KM            ADD HYDROGRAPHS AT CP17.
              * ko     0       0       0       0      22
 275          HC       2
1                                          HEC-1 INPUT                                          PAGE  9

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 276          KK    CP17   CNAME   RCP17
 277          KM            ADD HYDROGRAPHS AT CP17.
              * ko     0       0       0       0      22
 278          HC       2

 279          KK   RCP17   CNAME    CP17
 280          KM            ROUTE FLOW FROM CP17 TO CPWT3
              * ko     0       0       0       0      22
              * RL     0       0       2    1182
 281          RS       2    STOR      -1       0
 282          RC    0.06    0.04    0.04    1600  0.0022       0
              * SE  1198    1200    1210    1220    1230    1240
 283          RX    1000    1220    1280    1470    1530    1660    1680    1685
 284          RY    1196    1194    1190    1182    1182    1210    1211    1212

 285          KK     WT3
 286          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN WT3
              * ko     0       0       0       0      22
 287          BA    0.44
 288          LG   0.344       0   4.577    0.33       0
              * SE  1198    1200    1210    1220    1230    1240
 289          UI      36      44     128     175     207     249     308     436     399     318
 290          UI     267     220     179     133      78      61      49      36      23      11
 291          UI      11      11      11      11       0       0       0       0       0       0
 292          UI       0       0       0       0       0       0       0       0       0       0

 293          KK  I1CWT3   CNAME     21R
 294          KM            ADD HYDROGRAPHS AT CPWT3
              * ko     0       0       0       0      22
 295          HC       2

 296          KK   CPWT3   CNAME     22R
 297          KM            ADD HYDROGRAPHS AT CPWT3
              * ko     1       0       0       0       0
 298          HC       2

 299          KK     22R   CNAME   CPWT3
              * ko     1       0       0       0       0
 300          RN     22R
 301          ZZ
1
          SCHEMATIC DIAGRAM OF STREAM NETWORK
INPUT
 LINE     (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

  NO.     (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

   14          1
               V
               V
   26        RCP1
               .
               .
   32          .           2
               .           .
               .           .
   41         CP2...........
               V
               V
   44        RCP2
               .
               .
   50          .          3A
               .           V
               .           V
   57          .       RCP3A
               .           .
               .           .
   63          .           .           3
               .           .           .
               .           .           .
   70          .       I1CP3...........
               .           .
               .           .
   73         CP3...........
               V
               V
   76        RCP3
               .
               .
   82          .           4
               .           .
               .           .
   89          .           .           5
               .           .           .
               .           .           .
   96          .         CP5...........
```

```
                 .          V
                 .          V
 99              .       RCP5
                 .          .
105              .          .          6
                 .          .          .
                 .          .          .
111              .     I1CP7...........
                 .          .
                 .          .
114              .          .          7
                 .          .          .
                 .          .          .
120              .      CP7...........
                 .          V
                 .          V
123              .       RCP7
                 .          .
                 .          .
129              .          .          9
                 .          .          .
                 .          .          .
136              .     I1CP9...........
                 .          .
                 .          .
139              .          .          8
                 .          .          .
                 .          .          .
146              .      CP9...........
                 .          V
                 .          V
149              .       RCP9
                 .          .
                 .          .
155              .          .         10
                 .          .          .
                 .          .          .
164              .    I1CP10...........
                 .          .
                 .          .
167          CP10...........
                V
                V
170         RCP10
                .
                .
176             .         12
                .          .
                .          .
184          CP12...........
                V
                V
187         RCP12
                .
                .
193             .         11
                .          V
                .          V
201             .      RCP11
                .          .
                .          .
207             .          .         13
                .          .          .
                .          .          .
215             .     CP13...........
                .          V
                .          V
218             .      RCP13
                .          .
                .          .
224             .          .         14
                .          .          V
                .          .          V
231             .          .      RCP14
                .          .          .
                .          .          .
237             .          .          .          15
                .          .          .           .
                .          .          .           .
245             .          .   I1CP15...........
                .          .          .
                .          .          .
248             .          .          .          16
                .          .          .           .
                .          .          .           .
256             .          .     CP15...........
                .          .          V
                .          .          V
259             .          .      RCP15
                .          .          .
                .          .          .
265             .          .          .          17
                .          .          .           .
                .          .          .           .
273             .          .   I1CP17...........
                .          .          .
                .          .          .
276             .     CP17...........
                .          V
                .          V
279             .      RCP17
                .          .
                .          .
285             .          .        WT3
                .          .          .
                .          .          .
293             .    I1CWT3...........
                .          .
```

```
  296        CPWT3............
                V
                V
  299          22R

 (***) RUNOFF ALSO COMPUTED AT THIS LOCATION
1*****************************************
*****************************************
 *                                       *                                        *
 *                                       *                                        *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *                                        *   U.S. ARMY CORPS OF ENGINEERS
 *                                       *                                        *
 *              JUL   1997               *                                        *   HYDROLOGIC ENGINEERING CENTER
 *                                       *                                        *
 *           VERSION 4.1                 *                                        *         609 SECOND STREET
 *                                       *                                        *
 *                                       *                                        *       DAVIS, CALIFORNIA 95616
 *                                       *                                        *
 *  RUN DATE   05MAY00  TIME  16:59:36   *                                        *          (916) 756-1104
 *                                       *                                        *
 *                                       *                                        *
 *****************************************
*****************************************
```

```
                                White Tanks #3 future condition (Beardsley Canal Wash Improvement)
                                May, 1999, FCDMC
                                Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999

   5 IO          OUTPUT CONTROL VARIABLES
                       IPRNT          5  PRINT CONTROL
                       IPLOT          0  PLOT CONTROL
                       QSCAL         0.  HYDROGRAPH PLOT SCALE

     IT          HYDROGRAPH TIME DATA
                        NMIN          5  MINUTES IN COMPUTATION INTERVAL
                       IDATE     1JAN94  STARTING DATE
                       ITIME       0000  STARTING TIME
                          NQ        300  NUMBER OF HYDROGRAPH ORDINATES
                      NDDATE     2JAN94  ENDING DATE
                      NDTIME       0055  ENDING TIME
                       ICENT         19  CENTURY MARK

                  COMPUTATION INTERVAL     .08 HOURS
                       TOTAL TIME BASE   24.92 HOURS

         ENGLISH UNITS
              DRAINAGE AREA          SQUARE MILES
              PRECIPITATION DEPTH    INCHES
              LENGTH, ELEVATION      FEET
              FLOW                   CUBIC FEET PER SECOND
              STORAGE VOLUME         ACRE-FEET
              SURFACE AREA           ACRES
              TEMPERATURE            DEGREES FAHRENHEIT
1
                                                RUNOFF SUMMARY
                                        FLOW IN CUBIC FEET PER SECOND
                                      TIME IN HOURS,  AREA IN SQUARE MILES

                                     PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM     TIME OF
          OPERATION        STATION   FLOW    PEAK                                          AREA      STAGE     MAX STAGE
+                                                          6-HOUR     24-HOUR     72-HOUR

          HYDROGRAPH AT
+                                1     142.   1.25          29.         7.          7.       1.94
          ROUTED TO
+                             RCP1      91.   2.00          29.         7.          7.       1.94
+                                                                                                        1428.68       2.00
          HYDROGRAPH AT
+                                2     105.   1.50          25.         6.          6.       1.82
          2 COMBINED AT
+                              CP2     158.   1.75          54.        13.         13.       3.76
          ROUTED TO
+                             RCP2     143.   2.08          53.        13.         13.       3.76
+                                                                                                        1298.76       2.08
          HYDROGRAPH AT
+                               3A       0.   1.17           0.         0.          0.        .29
          ROUTED TO
+                            RCP3A       0.   1.67           0.         0.          0.        .29
+                                                                                                        1284.00       1.67
          HYDROGRAPH AT
+                                3       0.    .00           0.         0.          0.        .81
          2 COMBINED AT
+                            I1CP3       0.   1.67           0.         0.          0.       1.10
          2 COMBINED AT
+                              CP3     143.   2.08          53.        13.         13.       4.86
          ROUTED TO
+                             RCP3     129.   2.42          53.        13.         13.       4.86
+                                                                                                        1245.63       2.42
          HYDROGRAPH AT
+                                4      28.   1.00           4.         1.          1.        .30
          HYDROGRAPH AT
```

+	5	64.	1.00	10.	3.	2.	.72		
2 COMBINED AT +	CP5	91.	1.00	14.	4.	3.	1.02		
ROUTED TO +	RCP5	73.	1.17	14.	4.	3.	1.02		
+								2800.48	1.17
HYDROGRAPH AT +	6	53.	.83	7.	2.	2.	.45		
2 COMBINED AT +	I1CP7	100.	1.08	21.	5.	5.	1.47		
HYDROGRAPH AT +	7	36.	.92	5.	1.	1.	.31		
2 COMBINED AT +	CP7	132.	.92	26.	6.	6.	1.78		
ROUTED TO +	RCP7	123.	1.17	26.	6.	6.	1.78		
+								1838.13	1.17
HYDROGRAPH AT +	9	113.	1.17	20.	5.	5.	1.40		
2 COMBINED AT +	I1CP9	236.	1.17	46.	12.	11.	3.18		
HYDROGRAPH AT +	8	72.	1.08	12.	3.	3.	.81		
2 COMBINED AT +	CP9	302.	1.17	58.	15.	14.	3.99		
ROUTED TO +	RCP9	199.	1.92	58.	15.	14.	3.99		
+								1309.02	1.92
HYDROGRAPH AT +	10	21.	1.58	5.	1.	1.	2.02		
2 COMBINED AT +	I1CP10	213.	1.92	63.	16.	15.	6.01		
2 COMBINED AT +	CP10	291.	2.08	116.	29.	28.	10.87		
ROUTED TO +	RCP10	276.	2.33	115.	29.	28.	10.87		
+								1212.53	2.33
HYDROGRAPH AT +	12	22.	1.33	4.	1.	1.	1.38		
2 COMBINED AT +	CP12	277.	2.33	118.	30.	29.	12.25		
ROUTED TO +	RCP12	218.	3.00	117.	30.	29.	12.25		
+								1196.68	3.00
HYDROGRAPH AT +	11	77.	1.25	16.	4.	4.	1.56		
ROUTED TO +	RCP11	37.	2.17	16.	4.	4.	1.56		
+								1222.38	2.17
HYDROGRAPH AT +	13	0.	.00	0.	0.	0.	1.30		
2 COMBINED AT +	CP13	37.	2.17	16.	4.	4.	2.86		
ROUTED TO +	RCP13	35.	2.42	16.	4.	4.	2.86		
+								1194.64	2.42
HYDROGRAPH AT +	14	112.	1.17	21.	5.	5.	1.47		
ROUTED TO +	RCP14	78.	1.67	21.	5.	5.	1.47		
+								1288.63	1.67
HYDROGRAPH AT +	15	74.	1.17	12.	3.	3.	1.26		
2 COMBINED AT +	I1CP15	111.	1.42	33.	8.	8.	2.73		
HYDROGRAPH AT +	16	81.	1.17	11.	3.	3.	1.13		
2 COMBINED AT +	CP15	181.	1.25	44.	11.	11.	3.86		
ROUTED TO +	RCP15	111.	2.08	44.	11.	11.	3.86		
+								1226.44	2.08
HYDROGRAPH AT +	17	0.	.00	0.	0.	0.	1.07		
2 COMBINED AT +	I1CP17	111.	2.08	44.	11.	11.	4.93		

```
          2 COMBINED AT
+                        CP17      141.    2.17        60.        15.        14.      7.79
          ROUTED TO
+                       RCP17      138.    2.42        60.        15.        14.      7.79
+                                                                                   1182.83        2.42
          HYDROGRAPH AT
+                         WT3        0.     .00         0.         0.         0.       .44
          2 COMBINED AT
+                      I1CWT3      138.    2.42        60.        15.        14.      8.23
          2 COMBINED AT
+                       CPWT3      332.    2.83       176.        45.        43.     20.48
          ROUTED TO
+                         22R      332.    2.83       176.        45.        43.     20.48

 *** NORMAL END OF HEC-1 ***
```

Appendix 4.6.3. 09/18/1992-09/19/1992 storm (0.9 to Dam gage; 0.1 to E. peak)

```
1****************************************
****************************************
 *                                      *                                          *
 *                                      *                                          *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                          *   U.S. ARMY CORPS OF ENGINEERS
 *                                      *                                          *
 *              JUL   1997              *                                          *   HYDROLOGIC ENGINEERING CENTER
 *                                      *                                          *
 *           VERSION 4.1                *                                          *         609 SECOND STREET
 *                                      *                                          *
 *                                      *                                          *       DAVIS, CALIFORNIA 95616
 *                                      *                                          *
 *  RUN DATE   05MAY00  TIME  16:59:51  *                                          *          (916) 756-1104
 *                                      *                                          *
 *                                      *                                          *
 ****************************************
****************************************

                                        X     X  XXXXXXX   XXXXX          X
                                        X     X  X        X     X        XX
                                        X     X  X        X              X
                                        XXXXXXX  XXXX     X        XXXXX  X
                                        X     X  X        X              X
                                        X     X  X        X     X        X
                                        X     X  XXXXXXX   XXXXX        XXX

          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                   HEC-1 INPUT                                                    PAGE  1

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

            1           ID          White Tanks #3 future condition (Beardsley Canal Wash Improvement)
            2           ID          May, 1999, FCDMC
            3           ID          Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999
                        *DIAGRAM
            4           IT       5  1JAN94       0     300
            5           IO       5
                        * Gage XY Position    100.00000    100.00000 1
            6           PG   crest      0
            7           IN      15  1JAN94       0
                        * 92stormWT3DamCrest
            8           PI       0       0       0       0       0       0       0       0    0.04    0.31
            9           PI    0.16    0.08    0.04    0.04       0
                        * Gage XY Position    100.00000    102.00000 1
           10           PG   Epeak      0
           11           IN      15  1JAN94       0
                        * 92stormEastPeak
           12           PI       0    0.04    0.28    0.04       0       0       0       0       0    0.04
           13           PI       0    0.04       0       0       0

           14           KK       1
           15           KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 1.
                        * ko     1       0       0       0       0
           16           BA    1.94
           17           PR   Epeak
           18           PW       1
           19           PT   crest   Epeak
           20           PW     0.9     0.1
```

```
 21          LG    0.35       0   7.981   0.082  19.802
             * ui1
 22          UI     182     326     742     974    1186    1502    2185    1957    1537    1243
 23          UI     989     751     417     308     230     182      64      56      56      56
 24          UI      56       0       0       0       0       0       0       0       0       0
 25          UI       0       0       0       0       0       0       0       0       0       0

 26          KK    RCP1   CNAME      1C
 27          KM           ROUTE FLOW FROM CP1 TO CP2.
             * ko     0       0       0       0      22
             * RL     0       0       1    1428
 28          RS       5    STOR      -1       0
 29          RC    0.06    0.04    0.06   17800  0.0469       0
             * rxry1
 30          RX    1000    1125    1300    1390    1405    1490    1590    1750
 31          RY    1440    1439    1437    1428    1428    1439    1442    1444

 32          KK       2
 33          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 2.
             * ko     0       0       0       0      22
 34          BA    1.82
 35          LG    0.35       0   6.959   0.119  21.855
             * ui2
 36          UI     115     115     259     442     556     642     727     849    1013    1346
 37          UI    1419    1145     985     864     735     634     545     405     268     202
 38          UI     189     144     115     103      35      35      35      35      35      35
 39          UI      35       0       0       0       0       0       0       0       0       0
 40          UI       0       0       0       0       0       0       0       0       0       0
1                                          HEC-1 INPUT                                          PAGE  2

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 41          KK     CP2   CNAME    RCP2
 42          KM           ADD HYDROGRAPHS AT CP2.
             * ko     0       0       0       0      22
 43          HC       2

 44          KK    RCP2   CNAME     CP2
 45          KM           ROUTE COMBINED HYDROGRAPHS AT CP2 TO CP3.
             * ko     0       0       0       0      22
             * RL     0       0     1.5    1298
 46          RS       2    STOR      -1       0
 47          RC    0.06   0.035    0.06    4500  0.0111       0
             * rxry2
 48          RX    1000    1100    1350    1705    1735    1780    1850    2000
 49          RY    1304    1302    1302    1298    1298    1303    1302    1305

 50          KK      3A
 51          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 3A
             * ko     0       0       0       0      22
 52          BA    0.29
 53          LG   0.336       0    4.14   0.432       0
             * ui3
 54          UI      34      89     165     212     286     410     314     242     182     124
 55          UI      62      48      33      10      10      10      10       0       0       0
 56          UI       0       0       0       0       0       0       0       0       0       0

 57          KK   RCP3A   CNAME      3C
 58          KM           ROUTE FLOW FROM CP3A TO CP3
             * ko     0       0       0       0      22
             * RL     0       0     1.5    1284
 59          RS       2    STOR      -1       0
 60          RC    0.03    0.03    0.05    5300   0.006       0
             * rxry3
 61          RX    1000    1023    1032    1046    1058    1067    1250    1540
 62          RY    1289    1288    1286    1284    1284    1286    1288    1291

 63          KK       3
 64          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 3.
             * ko     0       0       0       0      22
 65          BA    0.81
 66          LG   0.339       0   4.441   0.362       0
             * ui4
 67          UI      91     228     430     554     725    1088     908     700     535     396
 68          UI     205     152      95      57      28      28      28       0       0       0
 69          UI       0       0       0       0       0       0       0       0       0       0

 70          KK   I1CP3   CNAME      4R
 71          KM           ADD HYDROGRAPHS AT CP3.
             * ko     0       0       0       0      22
 72          HC       2
1                                          HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 73          KK     CP3   CNAME    RCP3
 74          KM           ADD HYDROGRAPHS AT CP3.
             * ko     0       0       0       0      22
 75          HC       2

 76          KK    RCP3   CNAME     CP3
 77          KM           ROUTE FLOW FROM CP3 TO CP10.
             * ko     0       0       0       0      22
             * RL     0       0       2    1245
 78          RS       2    STOR      -1       0
 79          RC    0.05    0.03    0.05    5280  0.0083       0
             * rxry4
 80          RX    1010    1015    1020    1050    1100    1275    1580    1750
 81          RY    1251    1249    1249    1245    1245    1250    1250    1254

 82          KK       4
 83          KM           RUNOFF HYDROGRAPH FORM SUB-BASIN 4.
             * ko     0       0       0       0      22
 84          BA     0.3
 85          LG    0.35       0    8.01   0.081  18.504
             * ui5
 86          UI      48     192     287     444     512     346     236     115      67      35
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 87          UI      14      14       0       0       0       0       0       0       0       0
 88          UI       0       0       0       0       0       0       0       0       0       0

 89          KK       5
 90          KM              RUNOFF HYDROGRAPH FROM SUB-BASIN 5.
             * ko     0       0       0       0      22
 91          BA    0.72
 92          LG    0.35       0   8.023   0.081  17.926
             * ui6
 93          UI     110     437     658     992    1242     849     591     315     174     101
 94          UI      34      34      34       0       0       0       0       0       0       0
 95          UI       0       0       0       0       0       0       0       0       0       0

 96          KK     CP5   CNAME    RCP5
 97          KM            ADD HYDROGRAPHS AT CP5.
             * ko     0       0       0       0      22
 98          HC       2

 99          KK    RCP5   CNAME     CP5
100          KM            ROUTE COMBINED HYDROGRAPHS AT CP5 TO CP7.
             * ko     0       0       0       0      22
             * RL     0       0     0.5    2800
101          RS       1    STOR      -1       0
102          RC    0.08    0.05    0.08    4800  0.0833       0
             * rxry5
103          RX     955     970     985    1000    1020    1035    1050    1065
104          RY    2815    2810    2805    2800    2800    2805    2810    2815
1                                         HEC-1 INPUT                                                PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

105          KK       6
106          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 6.
             * ko     0       0       0       0      22
107          BA    0.45
108          LG    0.35       0   7.976   0.082      20
             * ui7
109          UI     204     622    1139     837     427     155      54      33       0       0
110          UI       0       0       0       0       0       0       0       0       0       0

111          KK   I1CP7   CNAME      7R
112          KM            ADD HYDROGRAPHS AT CP7.
             * ko     0       0       0       0      22
113          HC       2

114          KK       7
115          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 7.
             * ko     0       0       0       0      22
116          BA    0.31
117          LG    0.35       0   7.976   0.082      20
             * ui8
118          UI     126     387     716     606     343     129      52      22       0       0
119          UI       0       0       0       0       0       0       0       0       0       0

120          KK     CP7   CNAME    RCP7
121          KM            ADD HYDROGRAPHS AT CP7.
             * ko     0       0       0       0      22
122          HC       2

123          KK    RCP7   CNAME     CP7
124          KM            ROUTE COMBINED HYDROGRAPHS AT CP7 TO CP9.
             * ko     0       0       0       0      22
             * RL     0       0     0.5    1838
125          RS       3    STOR      -1       0
126          RC    0.08    0.05    0.08   10200  0.0775       0
             * rxry6
127          RX    1000    1045    1120    1195    1230    1300    1350    1450
128          RY    1910    1880    1850    1838    1838    1850    1880    1910

129          KK       9
130          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 9.
             * ko     0       0       0       0      22
131          BA     1.4
132          LG    0.35       0   7.909   0.084  19.572
             * ui9
133          UI     155     381     727     935    1216    1832    1591    1224     938     705
134          UI     386     261     177     115      47      47      47      47       0       0
135          UI       0       0       0       0       0       0       0       0       0       0

136          KK   I1CP9   CNAME      9R
137          KM            ADD HYDROGRAPHS AT CP9.
             * ko     0       0       0       0      22
138          HC       2
1                                         HEC-1 INPUT                                                PAGE  5

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

139          KK       8
140          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 8.
             * ko     0       0       0       0      22
141          BA    0.81
142          LG    0.35       0   7.976   0.082      20
             * ui10
143          UI     102     313     535     703    1054    1140     822     608     421     208
144          UI     147      96      31      31      31       0       0       0       0       0
145          UI       0       0       0       0       0       0       0       0       0       0

146          KK     CP9   CNAME    RCP9
147          KM            ADD HYDROGRAPHS AT CP9.
             * ko     0       0       0       0      22
148          HC       2

149          KK    RCP9   CNAME     CP9
150          KM            ROUTE COMBINED HYDROGRAPHS AT CP9 TO CP10.
             * ko     0       0       0       0      22
             * RL     0       0     1.5    1308
151          RS       8    STOR      -1       0
```

```
 152          RC    0.06   0.035    0.06   19200  0.0232       0
              * rxry7
 153          RX    1000    1085    1310    1395    1415    1450    1630    1665
 154          RY    1317    1314    1311    1308    1308    1314    1314    1317

 155          KK      10
 156          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 10.
              * ko     0       0       0       0      22
 157          BA    2.02
 158          LG   0.347       0   5.124   0.254    4.52
              * ui11
 159          UI     119     119     218     427     546     632     708     812     929    1148
 160          UI    1499    1393    1156    1006     894     765     669     577     475     325
 161          UI     210     201     193     119     119      86      36      36      36      36
 162          UI      36      36      36      36       0       0       0       0       0       0
 163          UI       0       0       0       0       0       0       0       0       0       0

 164          KK  I1CP10   CNAME     11R
 165          KM            ADD HYDROGRAPHS AT CP10
              * ko     0       0       0       0      22
 166          HC       2

 167          KK    CP10   CNAME   RCP10
 168          KM            ADD HYDROGRAPHS AT CP10
              * ko     0       0       0       0      22
 169          HC       2

 170          KK   RCP10   CNAME    CP10
 171          KM            ROUTE FLOW AT CP10 TO CP12.
              * ko     0       0       0       0      22
              * RL     0       0       2    1211
 172          RS       1    STOR      -1       0
 173          RC    0.03    0.03    0.05    3500  0.0057       0
              * rxry8
1                                   HEC-1 INPUT                                          PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 174          RX     995    1000    1020    1055    1085    1165    1250    1330
 175          RY    1221    1220    1220    1211    1211    1218    1220    1222

 176          KK      12
 177          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 12.
              * ko     0       0       0       0      22
 178          BA    1.38
 179          LG   0.346       0   5.232   0.241   5.217
              * ui12
 180          UI     111     129     393     535     636     758     930    1311    1277    1008
 181          UI     850     697     574     445     264     191     169     111      92      34
 182          UI      34      34      34      34      34       0       0       0       0       0
 183          UI       0       0       0       0       0       0       0       0       0       0

 184          KK    CP12   CNAME   RCP12
 185          KM            ADD HYDROGRAPHS AT CP12.
              * ko     0       0       0       0      22
 186          HC       2

 187          KK   RCP12   CNAME    CP12
 188          KM            ROUTE COMBINED HYDROGRAPHS AT CP12 TO CPWT3
              * ko     0       0       0       0      22
              * RL     0       0       2    1196
 189          RS       2    STOR      -1       0
 190          RC    0.03    0.03    0.04    4800  0.0031       0
              * rxry9
 191          RX     995    1000    1020    1080    1200    1530    1665    1760
 192          RY    1211    1211    1210    1196    1196    1200    1204    1204

 193          KK      11
 194          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 11.
              * ko     0       0       0       0      22
 195          BA    1.56
 196          LG    0.35       0    7.25   0.107  13.299
              * ui13
 197          UI     143     245     571     755     913    1142    1648    1623    1254    1026
 198          UI     821     643     394     248     210     143      86      44      44      44
 199          UI      44       0       0       0       0       0       0       0       0       0
 200          UI       0       0       0       0       0       0       0       0       0       0

 201          KK   RCP11   CNAME     14C
 202          KM            ROUTE HYROGRAPH FROM CP11 TO CP13.
              * ko     0       0       0       0      22
              * RL     0       0     1.5    1196
 203          RS       3    STOR      -1       0
 204          RC    0.06   0.035    0.06   10200  0.0098       0
              * rxry10
 205          RX    1000    1070    1300    1480    1510    1525    1555    1600
 206          RY    1233    1232    1230    1222    1222    1230    1232    1233
1                                   HEC-1 INPUT                                          PAGE  7

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 207          KK      13
 208          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 13.
              * ko     0       0       0       0      22
 209          BA     1.3
 210          LG    0.35       0    4.62   0.322       0
              * ui14
 211          UI     120     210     485     639     774     973    1416    1333    1039     847
 212          UI     674     527     303     206     167     120      60      37      37      37
 213          UI      37       0       0       0       0       0       0       0       0       0
 214          UI       0       0       0       0       0       0       0       0       0       0

 215          KK    CP13   CNAME   RCP13
 216          KM            ADD HYDROGRAPHS AT CP13.
              * ko     0       0       0       0      22
 217          HC       2

 218          KK   RCP13   CNAME    CP13
```

```
 219          KM            ROUTE COMBINED HYDROGRAPHS AT CP13 TO CP17
              * ko      0       0       0       0      22
              * RL      0       0     1.5    1222
 220          RS        2    STOR      -1       0
 221          RC     0.03    0.03    0.04    2400  0.0042       0
              * rxry11
 222          RX     1000    1025    1040    1065    1085    1110    1175    1200
 223          RY     1206    1198    1196    1194    1194    1198    1198    1201

 224          KK       14
 225          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 14.
              * ko      0       0       0       0      22
 226          BA     1.47
 227          LG     0.35       0   7.974   0.082  18.195
              * ui15
 228          UI      166     421     790    1019    1341    1998    1636    1264     961     699
 229          UI      362     274     166      93      51      51       0       0       0       0
 230          UI        0       0       0       0       0       0       0       0       0       0

 231          KK    RCP14   CNAME     16C
 232          KM            ROUTE FLOW FROM CP14 TO CP15.
              * ko      0       0       0       0      22
              * RL      0       0       2    1194
 233          RS        4    STOR      -1       0
 234          RC     0.06   0.035    0.06    8800  0.0256       0
              * rxry12
 235          RX     1000    1030    1075    1200    1220    1280    1415    1480
 236          RY     1296    1295    1294    1288    1288    1294    1296    1300

 237          KK       15
 238          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 15.
              * ko      0       0       0       0      22
 239          BA     1.26
 240          LG     0.35       0   6.561   0.142   15.67
              * ui16
 241          UI      130     281     577     747     938    1321    1552    1156     920     713
 242          UI      519     277     217     138      93      40      40      40      40       0
1                                          HEC-1 INPUT                                          PAGE  8

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 243          UI        0       0       0       0       0       0       0       0       0       0
 244          UI        0       0       0       0       0       0       0       0       0       0

 245          KK   I1CP15   CNAME     17R
 246          KM            ADD HYDROGRAPHS AT CP15
              * ko      0       0       0       0      22
 247          HC        2

 248          KK       16
 249          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 16.
              * ko      1       0       0       0       0
 250          BA     1.13
 251          LG     0.35       0   5.676   0.201  19.953
              * ui17
 252          UI      115     240     503     652     814    1126    1393    1049     839     655
 253          UI      497     268     194     137     101      35      35      35      35       0
 254          UI        0       0       0       0       0       0       0       0       0       0
 255          UI        0       0       0       0       0       0       0       0       0       0

 256          KK     CP15   CNAME   RCP15
 257          KM            ADD HYDROGRAPHS AT CP15.
              * ko      0       0       0       0      22
 258          HC        2

 259          KK    RCP15   CNAME    CP15
 260          KM            ROUTE COMBINED HYDROGRAPHS AT CP15 TO CP17.
              * ko      0       0       0       0      22
              * RL      0       0       2    1226
 261          RS        3    STOR      -1       0
 262          RC     0.06   0.035    0.06    6800  0.0079       0
              * SE   1198    1200    1210    1220    1230    1240
 263          RX     1000    1310    1380    1540    1640    1670    1700    1910
 264          RY     1234    1232    1228    1226    1226    1228    1232    1235

 265          KK       17
 266          KM            RUNOFFF HYDROGRAPH FROM SUB-BASIN 17.
              * ko      0       0       0       0      22
 267          BA     1.07
 268          LG     0.35       0   4.121   0.438       0
              * SE   1198    1200    1210    1220    1230    1240
 269          UI      117     254     572     810    1052    1196     753     635     540     450
 270          UI      353     287     254     194     149     129     103      90      64      57
 271          UI       57      26      22      22      22      22      22      22       0       0
 272          UI        0       0       0       0       0       0       0       0       0       0

 273          KK   I1CP17   CNAME     19R
 274          KM            ADD HYDROGRAPHS AT CP17.
              * ko      0       0       0       0      22
 275          HC        2
1                                          HEC-1 INPUT                                          PAGE  9

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 276          KK     CP17   CNAME   RCP17
 277          KM            ADD HYDROGRAPHS AT CP17.
              * ko      0       0       0       0      22
 278          HC        2

 279          KK    RCP17   CNAME    CP17
 280          KM            ROUTE FLOW FROM CP17 TO CPWT3
              * ko      0       0       0       0      22
              * RL      0       0       2    1182
 281          RS        2    STOR      -1       0
 282          RC     0.06    0.04    0.04    1600  0.0022       0
              * SE   1198    1200    1210    1220    1230    1240
 283          RX     1000    1220    1280    1470    1530    1660    1680    1685
 284          RY     1196    1194    1190    1182    1182    1210    1211    1212
```

```
285          KK     WT3
286          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN WT3
             * ko     0       0       0       0      22
287          BA    0.44
288          LG   0.344       0   4.577    0.33       0
             * SE  1198    1200    1210    1220    1230    1240
289          UI      36      44     128     175     207     249     308     436     399     318
290          UI     267     220     179     133      78      61      49      36      23      11
291          UI      11      11      11      11       0       0       0       0       0       0
292          UI       0       0       0       0       0       0       0       0       0       0

293          KK  I1CWT3   CNAME     21R
294          KM           ADD HYDROGRAPHS AT CPWT3
             * ko     0       0       0       0      22
295          HC       2

296          KK   CPWT3   CNAME     22R
297          KM           ADD HYDROGRAPHS AT CPWT3
             * ko     1       0       0       0       0
298          HC       2

299          KK     22R   CNAME   CPWT3
             * ko     1       0       0       0       0
300          RN     22R
301          ZZ
```

1

SCHEMATIC DIAGRAM OF STREAM NETWORK

```
INPUT
 LINE     (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

  NO.     (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

   14          1
               V
               V
   26       RCP1
               .
               .
   32          .           2
               .           .
               .           .
   41        CP2...........
               V
               V
   44       RCP2
               .
               .
   50          .          3A
               .           V
               .           V
   57          .       RCP3A
               .           .
               .           .
   63          .           .           3
               .           .           .
               .           .           .
   70          .       I1CP3...........
               .           .
               .           .
   73        CP3...........
               V
               V
   76       RCP3
               .
               .
   82          .           4
               .           .
               .           .
   89          .           .           5
               .           .           .
               .           .           .
   96          .         CP5...........
               .           V
               .           V
   99          .        RCP5
               .           .
               .           .
  105          .           .           6
               .           .           .
               .           .           .
  111          .       I1CP7...........
               .           .
               .           .
  114          .           .           7
               .           .           .
               .           .           .
  120          .         CP7...........
               .           V
               .           V
  123          .        RCP7
               .           .
               .           .
  129          .           .           9
               .           .           .
               .           .           .
  136          .       I1CP9...........
               .           .
               .           .
  139          .           .           8
               .           .           .
               .           .           .
  146          .         CP9...........
               .           V
               .           V
  149          .        RCP9
               .           .
               .           .
  155          .           .          10
```

```
                .          .          .
                .          .          .
  164           .      I1CP10.........
                .          .
                .          .
  167        CP10.........
                V
                V
  170       RCP10
                .
                .
  176           .          12
                .          .
                .          .
  184        CP12.........
                V
                V
  187       RCP12
                .
                .
  193           .          11
                .           V
                .           V
  201           .       RCP11
                .          .
                .          .
  207           .          .          13
                .          .           .
                .          .           .
  215           .       CP13.........
                .           V
                .           V
  218           .       RCP13
                .          .
                .          .
  224           .          .          14
                .          .           V
                .          .           V
  231           .          .       RCP14
                .          .           .
                .          .           .
  237           .          .           .          15
                .          .           .           .
                .          .           .           .
  245           .          .      I1CP15.........
                .          .           .
                .          .           .
  248           .          .           .          16
                .          .           .           .
                .          .           .           .
  256           .          .       CP15.........
                .          .           V
                .          .           V
  259           .          .       RCP15
                .          .           .
                .          .           .
  265           .          .           .          17
                .          .           .           .
                .          .           .           .
  273           .          .      I1CP17.........
                .          .           .
                .          .           .
  276           .       CP17.........
                .           V
                .           V
  279           .       RCP17
                .          .
                .          .
  285           .          .       . WT3
                .          .           .
                .          .           .
  293           .      I1CWT3.........
                .          .
                .          .
  296       CPWT3.........
                V
                V
  299        22R
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1*****************************************
*****************************************
 *                                       *                                        *
 *                                       *                                        *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *                                        *   U.S. ARMY CORPS OF ENGINEERS
 *                                       *                                        *
 *              JUL   1997               *                                        *   HYDROLOGIC ENGINEERING CENTER
 *                                       *                                        *
 *           VERSION 4.1                 *                                        *        609 SECOND STREET
 *                                       *                                        *
 *                                       *                                        *      DAVIS, CALIFORNIA 95616
 *                                       *                                        *
 *  RUN DATE   05MAY00  TIME  16:59:51   *                                        *          (916) 756-1104
 *                                       *                                        *
 *                                       *                                        *
 *****************************************
*****************************************
```

White Tanks #3 future condition (Beardsley Canal Wash Improvement)
May, 1999, FCDMC
Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999

```
  5 IO          OUTPUT CONTROL VARIABLES
                      IPRNT          5  PRINT CONTROL
```

```
                IPLOT          0  PLOT CONTROL
                QSCAL         0.  HYDROGRAPH PLOT SCALE

IT          HYDROGRAPH TIME DATA
                 NMIN          5  MINUTES IN COMPUTATION INTERVAL
                IDATE     1JAN94  STARTING DATE
                ITIME       0000  STARTING TIME
                   NQ        300  NUMBER OF HYDROGRAPH ORDINATES
               NDDATE     2JAN94  ENDING DATE
               NDTIME       0055  ENDING TIME
                ICENT         19  CENTURY MARK

          COMPUTATION INTERVAL     .08 HOURS
               TOTAL TIME BASE   24.92 HOURS

     ENGLISH UNITS
          DRAINAGE AREA          SQUARE MILES
          PRECIPITATION DEPTH    INCHES
          LENGTH, ELEVATION      FEET
          FLOW                   CUBIC FEET PER SECOND
          STORAGE VOLUME         ACRE-FEET
          SURFACE AREA           ACRES
          TEMPERATURE            DEGREES FAHRENHEIT
1
                                        RUNOFF SUMMARY
                                   FLOW IN CUBIC FEET PER SECOND
                                 TIME IN HOURS,  AREA IN SQUARE MILES
```

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	1	418.	1.25	65.	16.	16.	1.94		
+	ROUTED TO	RCP1	304.	1.75	65.	16.	16.	1.94		
+									1429.34	1.75
+	HYDROGRAPH AT	2	278.	1.58	58.	14.	14.	1.82		
+	2 COMBINED AT	CP2	534.	1.67	123.	31.	30.	3.76		
+	ROUTED TO	RCP2	476.	1.92	123.	31.	30.	3.76		
+									1299.30	1.92
+	HYDROGRAPH AT	3A	41.	1.17	3.	1.	1.	.29		
+	ROUTED TO	RCP3A	18.	1.58	3.	1.	1.	.29		
+									1284.51	1.58
+	HYDROGRAPH AT	3	112.	1.17	9.	2.	2.	.81		
+	2 COMBINED AT	I1CP3	116.	1.17	12.	3.	3.	1.10		
+	2 COMBINED AT	CP3	490.	1.92	135.	34.	33.	4.86		
+	ROUTED TO	RCP3	449.	2.17	134.	34.	33.	4.86		
+									1246.29	2.17
+	HYDROGRAPH AT	4	89.	1.08	10.	2.	2.	.30		
+	HYDROGRAPH AT	5	214.	1.08	24.	6.	6.	.72		
+	2 COMBINED AT	CP5	304.	1.08	33.	8.	8.	1.02		
+	ROUTED TO	RCP5	256.	1.17	33.	8.	8.	1.02		
+									2801.17	1.17
+	HYDROGRAPH AT	6	183.	.92	15.	4.	4.	.45		
+	2 COMBINED AT	I1CP7	332.	1.08	49.	12.	12.	1.47		
+	HYDROGRAPH AT	7	119.	.92	10.	3.	2.	.31		
+	2 COMBINED AT	CP7	416.	1.00	59.	15.	14.	1.78		
+	ROUTED TO	RCP7	383.	1.17	59.	15.	14.	1.78		
+									1838.41	1.17
+	HYDROGRAPH AT	9	341.	1.17	47.	12.	11.	1.40		
+	2 COMBINED AT	I1CP9	724.	1.17	106.	26.	25.	3.18		
+	HYDROGRAPH AT	8	210.	1.17	27.	7.	7.	.81		
+	2 COMBINED AT	CP9	935.	1.17	133.	33.	32.	3.99		

```
          ROUTED TO
+                    RCP9      654.   1.83      133.      33.      32.     3.99
+                                                                        1309.81      1.83
          HYDROGRAPH AT
+                      10      180.   1.58       28.       7.       7.     2.02
          2 COMBINED AT
+                   I1CP10     794.   1.75      160.      40.      39.     6.01
          2 COMBINED AT
+                    CP10     1091.   1.83      294.      74.      71.    10.87
          ROUTED TO
+                   RCP10     1047.   2.00      293.      74.      71.    10.87
+                                                                        1214.10      2.00
          HYDROGRAPH AT
+                      12      162.   1.33       20.       5.       5.     1.38
          2 COMBINED AT
+                    CP12     1071.   2.00      312.      79.      76.    12.25
          ROUTED TO
+                   RCP12      931.   2.33      310.      79.      76.    12.25
+                                                                        1197.60      2.33
          HYDROGRAPH AT
+                      11      284.   1.25       45.      11.      11.     1.56
          ROUTED TO
+                   RCP11      168.   1.83       45.      11.      11.     1.56
+                                                                        1223.04      1.83
          HYDROGRAPH AT
+                      13      137.   1.25       14.       3.       3.     1.30
          2 COMBINED AT
+                    CP13      200.   1.67       58.      15.      14.     2.86
          ROUTED TO
+                   RCP13      193.   1.83       58.      15.      14.     2.86
+                                                                        1195.56      1.83
          HYDROGRAPH AT
+                      14      361.   1.17       48.      12.      12.     1.47
          ROUTED TO
+                   RCP14      273.   1.50       48.      12.      12.     1.47
+                                                                        1289.18      1.50
          HYDROGRAPH AT
+                      15      256.   1.25       34.       9.       8.     1.26
          2 COMBINED AT
+                   I1CP15      429.   1.42       82.      21.      20.     2.73
          HYDROGRAPH AT
+                      16      229.   1.25       28.       7.       7.     1.13
          2 COMBINED AT
+                    CP15      636.   1.25      111.      28.      27.     3.86
          ROUTED TO
+                   RCP15      458.   1.75      111.      28.      27.     3.86
+                                                                        1226.99      1.75
          HYDROGRAPH AT
+                      17      106.   1.17       10.       3.       2.     1.07
          2 COMBINED AT
+                   I1CP17      480.   1.75      121.      30.      29.     4.93
          2 COMBINED AT
+                    CP17      671.   1.75      179.      45.      43.     7.79
          ROUTED TO
+                   RCP17      651.   1.92      179.      45.      43.     7.79
+                                                                        1184.43      1.92
          HYDROGRAPH AT
+                     WT3       44.   1.33        5.       1.       1.      .44
          2 COMBINED AT
+                   I1CWT3      659.   1.92      183.      46.      44.     8.23
          2 COMBINED AT
+                   CPWT3     1413.   2.17      492.     125.     120.    20.48
          ROUTED TO
+                     22R     1413.   2.17      492.     125.     120.    20.48

*** NORMAL END OF HEC-1 ***
```

Appendix 4.6.4. 01/09/1993 storm (equal weights to two rain gages)

```
1****************************************
****************************************
 *                                      *                                          *
 *                                      *                                          *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                          *   U.S. ARMY CORPS OF ENGINEERS
 *                                      *                                          *
 *              JUL   1997              *                                          *   HYDROLOGIC ENGINEERING CENTER
 *                                      *                                          *
 *            VERSION 4.1               *                                          *         609 SECOND STREET
 *                                      *                                          *
 *                                      *                                          *       DAVIS, CALIFORNIA 95616
 *                                      *                                          *
 *  RUN DATE   05MAY00  TIME  17:00:02  *                                          *          (916) 756-1104
 *                                      *                                          *
 *                                      *                                          *
 ****************************************
****************************************

                                        X     X  XXXXXXX   XXXXX           X
                                        X     X  X        X     X         XX
                                        X     X  X        X               X
                                        XXXXXXX  XXXX     X        XXXXX  X
                                        X     X  X        X               X
                                        X     X  X        X     X         X
                                        X     X  XXXXXXX   XXXXX         XXX

          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                   HEC-1 INPUT                                                    PAGE  1

        LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

          1           ID          White Tanks #3 future condition (Beardsley Canal Wash Improvement)
          2           ID          May, 1999, FCDMC
          3           ID          Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999
                      *DIAGRAM
          4           IT       5  1JAN94       0     300
          5           IO       5
                      * Gage XY Position    100.00000    100.00000 1
          6           PG   crest       0
          7           IN      15  1JAN94       0
                      * 93_1_9storm2WT3DamCrest
          8           PI       0    0.04       0       0    0.04       0       0    0.04       0       0
          9           PI    0.04       0       0       0       0    0.04       0    0.04    0.04       0
         10           PI    0.04    0.04    0.04       0    0.04    0.04    0.04    0.04       0    0.04
         11           PI    0.04       0       0       0    0.04       0    0.04       0       0       0
         12           PI       0    0.04       0       0    0.04    0.04       0       0       0    0.08
         13           PI       0    0.04    0.08    0.12    0.12    0.12    0.12    0.08    0.04    0.04
         14           PI       0    0.04       0       0       0    0.04    0.04       0    0.04    0.04
         15           PI       0
                      * Gage XY Position    100.00000    102.00000 1
         16           PG   Epeak       0
         17           IN      15  1JAN94       0
                      * 93_1_9stormEastPeak
         18           PI       0    0.04       0    0.04    0.04       0       0       0    0.04       0
         19           PI       0       0       0       0    0.04       0       0       0    0.04       0
         20           PI       0       0    0.04       0       0       0       0    0.04       0       0
         21           PI    0.04       0       0       0       0       0       0    0.04       0       0
         22           PI    0.04       0       0       0    0.04       0       0       0       0       0
         23           PI    0.04    0.04    0.08    0.08    0.08    0.28    0.08    0.04       0    0.04
         24           PI    0.04       0    0.04    0.04    0.04    0.04    0.04       0       0       0
         25           PI       0

         26           KK       1
         27           KM          RUNOFF HYDROGRAPH FROM SUB-BASIN 1.
                      * ko     5       1       0       0       0
         28           BA    1.94
         29           PR   Epeak
         30           PW       1
         31           PT   crest   Epeak
         32           PW     0.5     0.5
         33           LG    0.35       0   7.981   0.082  19.802
                      * uil
         34           UI     182     326     742     974    1186    1502    2185    1957    1537    1243
         35           UI     989     751     417     308     230     182      64      56      56      56
         36           UI      56       0       0       0       0       0       0       0       0       0
         37           UI       0       0       0       0       0       0       0       0       0       0

         38           KK    RCP1   CNAME      1C
         39           KM          ROUTE FLOW FROM CP1 TO CP2.
                      * ko     0       0       0       0      22
                      * RL     0       0       1    1428
         40           RS       5    STOR      -1       0
         41           RC    0.06    0.04    0.06   17800  0.0469       0
                      * rxry1
         42           RX    1000    1125    1300    1390    1405    1490    1590    1750
         43           RY    1440    1439    1437    1428    1428    1439    1442    1444
1                                                   HEC-1 INPUT                                                    PAGE  2

        LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
 44          KK       2
 45          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 2.
             * ko     0       0       0       0      22
 46          BA    1.82
 47          LG    0.35       0   6.959   0.119  21.855
             * ui2
 48          UI     115     115     259     442     556     642     727     849    1013    1346
 49          UI    1419    1145     985     864     735     634     545     405     268     202
 50          UI     189     144     115     103      35      35      35      35      35      35
 51          UI      35       0       0       0       0       0       0       0       0       0
 52          UI       0       0       0       0       0       0       0       0       0       0

 53          KK     CP2   CNAME    RCP2
 54          KM            ADD HYDROGRAPHS AT CP2.
             * ko     0       0       0       0      22
 55          HC       2

 56          KK    RCP2   CNAME     CP2
 57          KM            ROUTE COMBINED HYDROGRAPHS AT CP2 TO CP3.
             * ko     0       0       0       0      22
             * RL     0       0     1.5    1298
 58          RS       2    STOR      -1       0
 59          RC    0.06   0.035    0.06    4500  0.0111       0
             * rxry2
 60          RX    1000    1100    1350    1705    1735    1780    1850    2000
 61          RY    1304    1302    1302    1298    1298    1303    1302    1305

 62          KK      3A
 63          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 3A
             * ko     0       0       0       0      22
 64          BA    0.29
 65          LG   0.336       0    4.14   0.432       0
             * ui3
 66          UI      34      89     165     212     286     410     314     242     182     124
 67          UI      62      48      33      10      10      10      10       0       0       0
 68          UI       0       0       0       0       0       0       0       0       0       0

 69          KK   RCP3A   CNAME      3C
 70          KM            ROUTE FLOW FROM CP3A TO CP3
             * ko     0       0       0       0      22
             * RL     0       0     1.5    1284
 71          RS       2    STOR      -1       0
 72          RC    0.03    0.03    0.05    5300   0.006       0
             * rxry3
 73          RX    1000    1023    1032    1046    1058    1067    1250    1540
 74          RY    1289    1288    1286    1284    1284    1286    1288    1291

 75          KK       3
 76          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 3.
             * ko     0       0       0       0      22
 77          BA    0.81
 78          LG   0.339       0   4.441   0.362       0
             * ui4
 79          UI      91     228     430     554     725    1088     908     700     535     396
1                                          HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 80          UI     205     152      95      57      28      28      28       0       0       0
 81          UI       0       0       0       0       0       0       0       0       0       0

 82          KK   I1CP3   CNAME      4R
 83          KM            ADD HYDROGRAPHS AT CP3.
             * ko     0       0       0       0      22
 84          HC       2

 85          KK     CP3   CNAME    RCP3
 86          KM            ADD HYDROGRAPHS AT CP3.
             * ko     0       0       0       0      22
 87          HC       2

 88          KK    RCP3   CNAME     CP3
 89          KM            ROUTE FLOW FROM CP3 TO CP10.
             * ko     0       0       0       0      22
             * RL     0       0       2    1245
 90          RS       2    STOR      -1       0
 91          RC    0.05    0.03    0.05    5280  0.0083       0
             * rxry4
 92          RX    1010    1015    1020    1050    1100    1275    1580    1750
 93          RY    1251    1249    1249    1245    1245    1250    1250    1254

 94          KK       4
 95          KM            RUNOFF HYDROGRAPH FORM SUB-BASIN 4.
             * ko     0       0       0       0      22
 96          BA     0.3
 97          LG    0.35       0    8.01   0.081  18.504
             * ui5
 98          UI      48     192     287     444     512     346     236     115      67      35
 99          UI      14      14       0       0       0       0       0       0       0       0
100          UI       0       0       0       0       0       0       0       0       0       0

101          KK       5
102          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 5.
             * ko     0       0       0       0      22
103          BA    0.72
104          LG    0.35       0   8.023   0.081  17.926
             * ui6
105          UI     110     437     658     992    1242     849     591     315     174     101
106          UI      34      34      34       0       0       0       0       0       0       0
107          UI       0       0       0       0       0       0       0       0       0       0

108          KK     CP5   CNAME    RCP5
109          KM            ADD HYDROGRAPHS AT CP5.
             * ko     0       0       0       0      22
110          HC       2

111          KK    RCP5   CNAME     CP5
```

```
 112          KM            ROUTE COMBINED HYDROGRAPHS AT CP5 TO CP7.
              * ko      0       0       0       0      22
              * RL      0       0     0.5    2800
 113          RS        1    STOR      -1       0
 114          RC     0.08    0.05    0.08    4800  0.0833       0
              * rxry5
1                                        HEC-1 INPUT                                                    PAGE  4

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 115          RX      955     970     985    1000    1020    1035    1050    1065
 116          RY     2815    2810    2805    2800    2800    2805    2810    2815

 117          KK        6
 118          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 6.
              * ko      0       0       0       0      22
 119          BA     0.45
 120          LG     0.35       0   7.976   0.082      20
              * ui7
 121          UI      204     622    1139     837     427     155      54      33       0       0
 122          UI        0       0       0       0       0       0       0       0       0       0

 123          KK    I1CP7   CNAME      7R
 124          KM            ADD HYDROGRAPHS AT CP7.
              * ko      0       0       0       0      22
 125          HC        2

 126          KK        7
 127          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 7.
              * ko      0       0       0       0      22
 128          BA     0.31
 129          LG     0.35       0   7.976   0.082      20
              * ui8
 130          UI      126     387     716     606     343     129      52      22       0       0
 131          UI        0       0       0       0       0       0       0       0       0       0

 132          KK      CP7   CNAME    RCP7
 133          KM            ADD HYDROGRAPHS AT CP7.
              * ko      0       0       0       0      22
 134          HC        2

 135          KK     RCP7   CNAME     CP7
 136          KM            ROUTE COMBINED HYDROGRAPHS AT CP7 TO CP9.
              * ko      0       0       0       0      22
              * RL      0       0     0.5    1838
 137          RS        3    STOR      -1       0
 138          RC     0.08    0.05    0.08   10200  0.0775       0
              * rxry6
 139          RX     1000    1045    1120    1195    1230    1300    1350    1450
 140          RY     1910    1880    1850    1838    1838    1850    1880    1910

 141          KK        9
 142          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 9.
              * ko      0       0       0       0      22
 143          BA      1.4
 144          LG     0.35       0   7.909   0.084  19.572
              * ui9
 145          UI      155     381     727     935    1216    1832    1591    1224     938     705
 146          UI      386     261     177     115      47      47      47      47       0       0
 147          UI        0       0       0       0       0       0       0       0       0       0
1                                        HEC-1 INPUT                                                    PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 148          KK    I1CP9   CNAME      9R
 149          KM            ADD HYDROGRAPHS AT CP9.
              * ko      0       0       0       0      22
 150          HC        2

 151          KK        8
 152          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 8.
              * ko      0       0       0       0      22
 153          BA     0.81
 154          LG     0.35       0   7.976   0.082      20
              * ui10
 155          UI      102     313     535     703    1054    1140     822     608     421     208
 156          UI      147      96      31      31      31       0       0       0       0       0
 157          UI        0       0       0       0       0       0       0       0       0       0

 158          KK      CP9   CNAME    RCP9
 159          KM            ADD HYDROGRAPHS AT CP9.
              * ko      0       0       0       0      22
 160          HC        2

 161          KK     RCP9   CNAME     CP9
 162          KM            ROUTE COMBINED HYDROGRAPHS AT CP9 TO CP10.
              * ko      0       0       0       0      22
              * RL      0       0     1.5    1308
 163          RS        8    STOR      -1       0
 164          RC     0.06   0.035    0.06   19200  0.0232       0
              * rxry7
 165          RX     1000    1085    1310    1395    1415    1450    1630    1665
 166          RY     1317    1314    1311    1308    1308    1314    1314    1317

 167          KK       10
 168          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 10.
              * ko      0       0       0       0      22
 169          BA     2.02
 170          LG    0.347       0   5.124   0.254    4.52
              * ui11
 171          UI      119     119     218     427     546     632     708     812     929    1148
 172          UI     1499    1393    1156    1006     894     765     669     577     475     325
 173          UI      210     201     193     119     119      86      36      36      36      36
 174          UI       36      36      36      36       0       0       0       0       0       0
 175          UI        0       0       0       0       0       0       0       0       0       0

 176          KK   I1CP10   CNAME     11R
 177          KM            ADD HYDROGRAPHS AT CP10
```

```
                 * ko      0       0       0       0      22
 178             HC       2

 179             KK    CP10   CNAME   RCP10
 180             KM           ADD HYDROGRAPHS AT CP10
                 * ko      0       0       0       0      22
 181             HC       2
```



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LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 182             KK   RCP10   CNAME    CP10
 183             KM           ROUTE FLOW AT CP10 TO CP12.
                 * ko      0       0       0       0      22
                 * RL      0       0       2    1211
 184             RS       1    STOR      -1       0
 185             RC    0.03    0.03    0.05    3500  0.0057       0
                 * rxry8
 186             RX     995    1000    1020    1055    1085    1165    1250    1330
 187             RY    1221    1220    1220    1211    1211    1218    1220    1222

 188             KK      12
 189             KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 12.
                 * ko      0       0       0       0      22
 190             BA    1.38
 191             LG   0.346       0   5.232   0.241   5.217
                 * ui12
 192             UI     111     129     393     535     636     758     930    1311    1277    1008
 193             UI     850     697     574     445     264     191     169     111      92      34
 194             UI      34      34      34      34      34       0       0       0       0       0
 195             UI       0       0       0       0       0       0       0       0       0       0

 196             KK    CP12   CNAME   RCP12
 197             KM           ADD HYDROGRAPHS AT CP12.
                 * ko      0       0       0       0      22
 198             HC       2

 199             KK   RCP12   CNAME    CP12
 200             KM           ROUTE COMBINED HYDROGRAPHS AT CP12 TO CPWT3
                 * ko      0       0       0       0      22
                 * RL      0       0       2    1196
 201             RS       2    STOR      -1       0
 202             RC    0.03    0.03    0.04    4800  0.0031       0
                 * rxry9
 203             RX     995    1000    1020    1080    1200    1530    1665    1760
 204             RY    1211    1211    1210    1196    1196    1200    1204    1204

 205             KK      11
 206             KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 11.
                 * ko      0       0       0       0      22
 207             BA    1.56
 208             LG    0.35       0    7.25   0.107  13.299
                 * ui13
 209             UI     143     245     571     755     913    1142    1648    1623    1254    1026
 210             UI     821     643     394     248     210     143      86      44      44      44
 211             UI      44       0       0       0       0       0       0       0       0       0
 212             UI       0       0       0       0       0       0       0       0       0       0

 213             KK   RCP11   CNAME     14C
 214             KM           ROUTE HYROGRAPH FROM CP11 TO CP13.
                 * ko      0       0       0       0      22
                 * RL      0       0     1.5    1196
 215             RS       3    STOR      -1       0
 216             RC    0.06   0.035    0.06   10200  0.0098       0
                 * rxry10
```



```
LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 217             RX    1000    1070    1300    1480    1510    1525    1555    1600
 218             RY    1233    1232    1230    1222    1222    1230    1232    1233

 219             KK      13
 220             KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 13.
                 * ko      0       0       0       0      22
 221             BA     1.3
 222             LG    0.35       0    4.62   0.322       0
                 * ui14
 223             UI     120     210     485     639     774     973    1416    1333    1039     847
 224             UI     674     527     303     206     167     120      60      37      37      37
 225             UI      37       0       0       0       0       0       0       0       0       0
 226             UI       0       0       0       0       0       0       0       0       0       0

 227             KK    CP13   CNAME   RCP13
 228             KM           ADD HYDROGRAPHS AT CP13.
                 * ko      0       0       0       0      22
 229             HC       2

 230             KK   RCP13   CNAME    CP13
 231             KM           ROUTE COMBINED HYDROGRAPHS AT CP13 TO CP17
                 * ko      0       0       0       0      22
                 * RL      0       0     1.5    1222
 232             RS       2    STOR      -1       0
 233             RC    0.03    0.03    0.04    2400  0.0042       0
                 * rxry11
 234             RX    1000    1025    1040    1065    1085    1110    1175    1200
 235             RY    1206    1198    1196    1194    1194    1198    1198    1201

 236             KK      14
 237             KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 14.
                 * ko      0       0       0       0      22
 238             BA    1.47
 239             LG    0.35       0   7.974   0.082  18.195
                 * ui15
 240             UI     166     421     790    1019    1341    1998    1636    1264     961     699
 241             UI     362     274     166      93      51      51      51       0       0       0
 242             UI       0       0       0       0       0       0       0       0       0       0
```

```
 243          KK   RCP14   CNAME      16C
 244          KM           ROUTE FLOW FROM CP14 TO CP15.
              * ko      0       0       0       0      22
              * RL      0       0       2    1194
 245          RS        4    STOR      -1       0
 246          RC     0.06   0.035    0.06    8800  0.0256       0
              * rxry12
 247          RX     1000    1030    1075    1200    1220    1280    1415    1480
 248          RY     1296    1295    1294    1288    1288    1294    1296    1300

 249          KK       15
 250          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 15.
              * ko      0       0       0       0      22
 251          BA     1.26
 252          LG     0.35       0   6.561   0.142   15.67
              * ui16
1                                        HEC-1 INPUT                                                    PAGE  8

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 253          UI      130     281     577     747     938    1321    1552    1156     920     713
 254          UI      519     277     217     138      93      40      40      40      40       0
 255          UI        0       0       0       0       0       0       0       0       0       0
 256          UI        0       0       0       0       0       0       0       0       0       0

 257          KK  I1CP15   CNAME      17R
 258          KM           ADD HYDROGRAPHS AT CP15
              * ko      0       0       0       0      22
 259          HC        2

 260          KK       16
 261          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 16.
              * ko      1       0       0       0       0
 262          BA     1.13
 263          LG     0.35       0   5.676   0.201  19.953
              * ui17
 264          UI      115     240     503     652     814    1126    1393    1049     839     655
 265          UI      497     268     194     137     101      35      35      35      35       0
 266          UI        0       0       0       0       0       0       0       0       0       0
 267          UI        0       0       0       0       0       0       0       0       0       0

 268          KK    CP15   CNAME    RCP15
 269          KM           ADD HYDROGRAPHS AT CP15.
              * ko      0       0       0       0      22
 270          HC        2

 271          KK   RCP15   CNAME     CP15
 272          KM           ROUTE COMBINED HYDROGRAPHS AT CP15 TO CP17.
              * ko      0       0       0       0      22
              * RL      0       0       2    1226
 273          RS        3    STOR      -1       0
 274          RC     0.06   0.035    0.06    6800  0.0079       0
              * SE   1198    1200    1210    1220    1230    1240
 275          RX     1000    1310    1380    1540    1640    1670    1700    1910
 276          RY     1234    1232    1228    1226    1226    1228    1232    1235

 277          KK       17
 278          KM           RUNOFFF HYDROGRAPH FROM SUB-BASIN 17.
              * ko      0       0       0       0      22
 279          BA     1.07
 280          LG     0.35       0   4.121   0.438       0
              * SE   1198    1200    1210    1220    1230    1240
 281          UI      117     254     572     810    1052    1196     753     635     540     450
 282          UI      353     287     254     194     149     129     103      90      64      57
 283          UI       57      26      22      22      22      22      22      22       0       0
 284          UI        0       0       0       0       0       0       0       0       0       0

 285          KK  I1CP17   CNAME      19R
 286          KM           ADD HYDROGRAPHS AT CP17.
              * ko      0       0       0       0      22
 287          HC        2
1                                        HEC-1 INPUT                                                    PAGE  9

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 288          KK    CP17   CNAME    RCP17
 289          KM           ADD HYDROGRAPHS AT CP17.
              * ko      0       0       0       0      22
 290          HC        2

 291          KK   RCP17   CNAME     CP17
 292          KM           ROUTE FLOW FROM CP17 TO CPWT3
              * ko      0       0       0       0      22
              * RL      0       0       2    1182
 293          RS        2    STOR      -1       0
 294          RC     0.06    0.04    0.04    1600  0.0022       0
              * SE   1198    1200    1210    1220    1230    1240
 295          RX     1000    1220    1280    1470    1530    1660    1680    1685
 296          RY     1196    1194    1190    1182    1182    1210    1211    1212

 297          KK      WT3
 298          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN WT3
              * ko      0       0       0       0      22
 299          BA     0.44
 300          LG    0.344       0   4.577    0.33       0
              * SE   1198    1200    1210    1220    1230    1240
 301          UI       36      44     128     175     207     249     308     436     399     318
 302          UI      267     220     179     133      78      61      49      36      23      11
 303          UI       11      11      11      11       0       0       0       0       0       0
 304          UI        0       0       0       0       0       0       0       0       0       0

 305          KK  I1CWT3   CNAME      21R
 306          KM           ADD HYDROGRAPHS AT CPWT3
              * ko      0       0       0       0      22
 307          HC        2

 308          KK   CPWT3   CNAME      22R
 309          KM           ADD HYDROGRAPHS AT CPWT3
```

```
                    * ko     1       0       0       0       0
310                 HC       2

311                 KK      22R   CNAME   CPWT3
                    * ko     1       0       0       0       0
312                 RN      22R
313                 ZZ
1
                 SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
 LINE        (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

  NO.        (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

   26            1
                 V
                 V
   38         RCP1
                 .
                 .
   44            .            2
                 .            .
                 .            .
   53          CP2............
                 V
                 V
   56         RCP2
                 .
                 .
   62            .           3A
                 .            V
                 .            V
   69            .        RCP3A
                 .            .
                 .            .
   75            .            .            3
                 .            .            .
                 .            .            .
   82            .        I1CP3............
                 .            .
                 .            .
   85          CP3............
                 V
                 V
   88         RCP3
                 .
                 .
   94            .            4
                 .            .
                 .            .
  101            .            .            5
                 .            .            .
                 .            .            .
  108            .          CP5............
                 .            V
                 .            V
  111            .         RCP5
                 .            .
                 .            .
  117            .            .            6
                 .            .            .
                 .            .            .
  123            .        I1CP7............
                 .            .
                 .            .
  126            .            .            7
                 .            .            .
                 .            .            .
  132            .          CP7............
                 .            V
                 .            V
  135            .         RCP7
                 .            .
                 .            .
  141            .            .            9
                 .            .            .
                 .            .            .
  148            .        I1CP9............
                 .            .
                 .            .
  151            .            .            8
                 .            .            .
                 .            .            .
  158            .          CP9............
                 .            V
                 .            V
  161            .         RCP9
                 .            .
                 .            .
  167            .            .           10
                 .            .            .
                 .            .            .
  176            .       I1CP10............
                 .            .
                 .            .
  179         CP10............
                 V
                 V
  182        RCP10
                 .
                 .
  188            .           12
                 .            .
                 .            .
  196         CP12............
                 V
                 V
  199        RCP12
                 .
```

```
 205          .          11
              .           V
              .           V
 213          .        RCP11
              .           .
              .           .
 219          .           .          13
              .           .           .
              .           .           .
 227          .        CP13............
              .           V
              .           V
 230          .        RCP13
              .           .
              .           .
 236          .           .          14
              .           .           V
              .           .           V
 243          .           .       RCP14
              .           .           .
              .           .           .
 249          .           .           .          15
              .           .           .           .
              .           .           .           .
 257          .           .     I1CP15............
              .           .           .
              .           .           .
 260          .           .           .          16
              .           .           .           .
              .           .           .           .
 268          .           .      CP15............
              .           .           V
              .           .           V
 271          .           .      RCP15
              .           .           .
              .           .           .
 277          .           .           .          17
              .           .           .           .
              .           .           .           .
 285          .           .     I1CP17............
              .           .           .
              .           .           .
 288          .        CP17............
              .           V
              .           V
 291          .        RCP17
              .           .
              .           .
 297          .           .         WT3
              .           .           .
              .           .           .
 305          .      I1CWT3............
              .           .
              .           .
 308       CPWT3............
              V
              V
 311         22R
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1****************************************
****************************************
 *                                      *                                          *
 *                                      *                                          *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                          *   U.S. ARMY CORPS OF ENGINEERS
 *                                      *                                          *
 *              JUL   1997              *                                          *   HYDROLOGIC ENGINEERING CENTER
 *                                      *                                          *
 *           VERSION 4.1                *                                          *         609 SECOND STREET
 *                                      *                                          *
 *                                      *                                          *      DAVIS, CALIFORNIA 95616
 *                                      *                                          *
 *  RUN DATE   05MAY00  TIME  17:00:02  *                                          *          (916) 756-1104
 *                                      *                                          *
 *                                      *                                          *
 ****************************************
****************************************
```

```
                                White Tanks #3 future condition (Beardsley Canal Wash Improvement)
                                May, 1999, FCDMC
                                Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999

   5 IO          OUTPUT CONTROL VARIABLES
                       IPRNT          5  PRINT CONTROL
                       IPLOT          0  PLOT CONTROL
                       QSCAL         0.  HYDROGRAPH PLOT SCALE

     IT          HYDROGRAPH TIME DATA
                        NMIN          5  MINUTES IN COMPUTATION INTERVAL
                       IDATE     1JAN94  STARTING DATE
                       ITIME       0000  STARTING TIME
                          NQ        300  NUMBER OF HYDROGRAPH ORDINATES
                      NDDATE     2JAN94  ENDING DATE
                      NDTIME       0055  ENDING TIME
                      ICENT         19  CENTURY MARK

                  COMPUTATION INTERVAL     .08 HOURS
                      TOTAL TIME BASE   24.92 HOURS

          ENGLISH UNITS
               DRAINAGE AREA          SQUARE MILES
               PRECIPITATION DEPTH    INCHES
               LENGTH, ELEVATION      FEET
```

FLOW CUBIC FEET PER SECOND
STORAGE VOLUME ACRE-FEET
SURFACE AREA ACRES
TEMPERATURE DEGREES FAHRENHEIT

1

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	1	788.	14.42	188.	56.	54.	1.94		
+	ROUTED TO	RCP1	700.	14.75	187.	56.	54.	1.94		
+									1430.06	14.75
+	HYDROGRAPH AT	2	567.	14.75	155.	47.	45.	1.82		
+	2 COMBINED AT	CP2	1267.	14.75	341.	103.	99.	3.76		
+	ROUTED TO	RCP2	1190.	14.92	340.	103.	99.	3.76		
+									1299.95	14.92
+	HYDROGRAPH AT	3A	71.	14.33	7.	2.	2.	.29		
+	ROUTED TO	RCP3A	45.	14.67	7.	2.	2.	.29		
+									1284.87	14.67
+	HYDROGRAPH AT	3	207.	14.33	20.	5.	5.	.81		
+	2 COMBINED AT	I1CP3	230.	14.42	26.	7.	6.	1.10		
+	2 COMBINED AT	CP3	1246.	14.92	367.	110.	106.	4.86		
+	ROUTED TO	RCP3	1200.	15.08	366.	110.	106.	4.86		
+									1247.14	15.08
+	HYDROGRAPH AT	4	156.	14.25	29.	9.	8.	.30		
+	HYDROGRAPH AT	5	371.	14.25	70.	21.	20.	.72		
+	2 COMBINED AT	CP5	527.	14.25	100.	29.	28.	1.02		
+	ROUTED TO	RCP5	497.	14.33	99.	29.	28.	1.02		
+									2801.76	14.33
+	HYDROGRAPH AT	6	283.	14.08	44.	13.	13.	.45		
+	2 COMBINED AT	I1CP7	677.	14.25	142.	42.	41.	1.47		
+	HYDROGRAPH AT	7	188.	14.08	30.	9.	9.	.31		
+	2 COMBINED AT	CP7	861.	14.17	173.	51.	50.	1.78		
+	ROUTED TO	RCP7	792.	14.33	172.	51.	50.	1.78		
+									1838.85	14.33
+	HYDROGRAPH AT	9	614.	14.33	135.	40.	39.	1.40		
+	2 COMBINED AT	I1CP9	1407.	14.33	308.	92.	88.	3.18		
+	HYDROGRAPH AT	8	382.	14.33	79.	23.	23.	.81		
+	2 COMBINED AT	CP9	1788.	14.33	387.	115.	111.	3.99		
+	ROUTED TO	RCP9	1546.	14.83	383.	115.	111.	3.99		
+									1310.66	14.83
+	HYDROGRAPH AT	10	434.	14.75	87.	23.	22.	2.02		
+	2 COMBINED AT	I1CP10	1976.	14.83	470.	138.	133.	6.01		
+	2 COMBINED AT	CP10	3041.	14.83	834.	248.	239.	10.87		
+	ROUTED TO	RCP10	2964.	14.92	834.	248.	239.	10.87		
+									1216.16	14.92
	HYDROGRAPH AT									

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+                          12      378.   14.58        62.       17.       16.      1.38
          2 COMBINED AT
+                        CP12     3161.   14.92       896.      265.      255.     12.25
          ROUTED TO
+                       RCP12     2959.   15.17       894.      265.      255.     12.25
+                                                                                          1198.83      15.17
          HYDROGRAPH AT
+                          11      597.   14.50       134.       39.       37.      1.56
          ROUTED TO
+                       RCP11      494.   14.83       132.       39.       37.      1.56
+                                                                                          1223.85      14.83
          HYDROGRAPH AT
+                          13      318.   14.50        39.       10.        9.      1.30
          2 COMBINED AT
+                        CP13      685.   14.58       171.       49.       47.      2.86
          ROUTED TO
+                       RCP13      680.   14.67       171.       49.       47.      2.86
+                                                                                          1196.85      14.67
          HYDROGRAPH AT
+                          14      653.   14.33       142.       42.       41.      1.47
          ROUTED TO
+                       RCP14      595.   14.58       141.       42.       41.      1.47
+                                                                                          1289.71      14.58
          HYDROGRAPH AT
+                          15      495.   14.42        94.       27.       26.      1.26
          2 COMBINED AT
+                      I1CP15     1025.   14.50       234.       69.       67.      2.73
          HYDROGRAPH AT
+                          16      411.   14.42        70.       21.       20.      1.13
          2 COMBINED AT
+                        CP15     1418.   14.42       303.       90.       87.      3.86
          ROUTED TO
+                       RCP15     1236.   14.75       302.       90.       87.      3.86
+                                                                                          1227.64      14.75
          HYDROGRAPH AT
+                          17      212.   14.25        24.        6.        6.      1.07
          2 COMBINED AT
+                      I1CP17     1312.   14.75       326.       96.       92.      4.93
          2 COMBINED AT
+                        CP17     1990.   14.75       496.      145.      139.      7.79
          ROUTED TO
+                       RCP17     1967.   14.83       496.      145.      139.      7.79
+                                                                                          1186.40      14.83
          HYDROGRAPH AT
+                         WT3       95.   14.58        13.        3.        3.       .44
          2 COMBINED AT
+                      I1CWT3     2023.   14.83       509.      148.      142.      8.23
          2 COMBINED AT
+                       CPWT3     4677.   15.00      1402.      412.      397.     20.48
          ROUTED TO
+                         22R     4677.   15.00      1402.      412.      397.     20.48

 *** NORMAL END OF HEC-1 ***
```

Appendix 4.6.5. 01/09/1993 storm (0.1 to Dam gage; 0.9 to E. peak)

```
1*****************************************
*****************************************
 *                                    *                                    *
 *                                    *                                    *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)*                                    *  U.S. ARMY CORPS OF ENGINEERS
 *                                    *                                    *
 *              JUL   1997            *                                    *  HYDROLOGIC ENGINEERING CENTER
 *                                    *                                    *
 *           VERSION 4.1              *                                    *        609 SECOND STREET
 *                                    *                                    *
 *                                    *                                    *      DAVIS, CALIFORNIA 95616
 *                                    *                                    *
 *  RUN DATE   05MAY00  TIME  17:00:13 *                                    *         (916) 756-1104
 *                                    *                                    *
 *                                    *                                    *
 *****************************************
*****************************************
```

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

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

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1                                          HEC-1 INPUT                                                    PAGE  1

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  1           ID          White Tanks #3 future condition (Beardsley Canal Wash Improvement)
  2           ID          May, 1999, FCDMC
  3           ID          Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999
              *DIAGRAM
  4           IT       5  1JAN94       0     300
  5           IO       5
              * Gage XY Position    100.00000    100.00000 1
  6           PG   crest       0
  7           IN      15  1JAN94       0
              * 93_1_9storm2WT3DamCrest
  8           PI       0    0.04       0       0    0.04       0       0    0.04       0       0
  9           PI    0.04       0       0       0       0    0.04       0    0.04    0.04       0
 10           PI    0.04    0.04    0.04       0    0.04    0.04    0.04    0.04       0    0.04
 11           PI    0.04       0       0       0    0.04       0    0.04       0       0       0
 12           PI       0    0.04       0       0    0.04    0.04       0       0       0    0.08
 13           PI       0    0.04    0.08    0.12    0.12    0.12    0.12    0.08    0.04    0.04
 14           PI       0    0.04       0       0       0    0.04    0.04       0    0.04    0.04
 15           PI       0
              * Gage XY Position    100.00000    102.00000 1
 16           PG   Epeak       0
 17           IN      15  1JAN94       0
              * 93_1_9stormEastPeak
 18           PI       0    0.04       0    0.04    0.04       0       0       0    0.04       0
 19           PI       0       0       0       0    0.04       0       0       0    0.04       0
 20           PI       0       0    0.04       0       0       0       0    0.04       0       0
 21           PI    0.04       0       0       0       0       0       0    0.04       0       0
 22           PI    0.04       0       0       0    0.04       0       0       0       0       0
 23           PI    0.04    0.04    0.08    0.08    0.08    0.28    0.08    0.04       0    0.04
 24           PI    0.04       0    0.04    0.04    0.04    0.04    0.04       0       0       0
 25           PI       0

 26           KK       1
 27           KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 1.
              * KO     5       1       0       0       0
 28           BA    1.94
 29           PR   Epeak
 30           PW       1
 31           PT   crest   Epeak
 32           PW     0.1     0.9
 33           LG    0.35       0   7.981   0.082  19.802
              * ui1
 34           UI     182     326     742     974    1186    1502    2185    1957    1537    1243
 35           UI     989     751     417     308     230     182      64      56      56      56
 36           UI      56       0       0       0       0       0       0       0       0       0
 37           UI       0       0       0       0       0       0       0       0       0       0

 38           KK    RCP1   CNAME      1C
 39           KM           ROUTE FLOW FROM CP1 TO CP2.
              * KO     0       0       0       0      22
              * RL     0       0       1    1428
 40           RS       5    STOR      -1       0
 41           RC    0.06    0.04    0.06   17800  0.0469       0
              * rxry1
 42           RX    1000    1125    1300    1390    1405    1490    1590    1750
 43           RY    1440    1439    1437    1428    1428    1439    1442    1444
1                                          HEC-1 INPUT                                                    PAGE  2

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 44           KK       2
 45           KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 2.
              * KO     0       0       0       0      22
 46           BA    1.82
 47           LG    0.35       0   6.959   0.119  21.855
              * ui2
 48           UI     115     115     259     442     556     642     727     849    1013    1346
 49           UI    1419    1145     985     864     735     634     545     405     268     202
 50           UI     189     144     115     103      35      35      35      35      35      35
 51           UI      35       0       0       0       0       0       0       0       0       0
 52           UI       0       0       0       0       0       0       0       0       0       0

 53           KK     CP2   CNAME    RCP2
 54           KM           ADD HYDROGRAPHS AT CP2.
              * KO     0       0       0       0      22
 55           HC       2

 56           KK    RCP2   CNAME     CP2
 57           KM           ROUTE COMBINED HYDROGRAPHS AT CP2 TO CP3.
              * KO     0       0       0       0      22
              * RL     0       0     1.5    1298
 58           RS       2    STOR      -1       0
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 59          RC    0.06   0.035    0.06    4500  0.0111       0
             * rxry2
 60          RX    1000    1100    1350    1705    1735    1780    1850    2000
 61          RY    1304    1302    1302    1298    1298    1303    1302    1305

 62          KK      3A
 63          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 3A
             * KO     0       0       0       0      22
 64          BA    0.29
 65          LG   0.336       0    4.14   0.432       0
             * ui3
 66          UI      34      89     165     212     286     410     314     242     182     124
 67          UI      62      48      33      10      10      10      10       0       0       0
 68          UI       0       0       0       0       0       0       0       0       0       0

 69          KK   RCP3A   CNAME      3C
 70          KM            ROUTE FLOW FROM CP3A TO CP3
             * KO     0       0       0       0      22
             * RL     0       0     1.5    1284
 71          RS       2    STOR      -1       0
 72          RC    0.03    0.03    0.05    5300   0.006       0
             * rxry3
 73          RX    1000    1023    1032    1046    1058    1067    1250    1540
 74          RY    1289    1288    1286    1284    1284    1286    1288    1291

 75          KK       3
 76          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 3.
             * KO     0       0       0       0      22
 77          BA    0.81
 78          LG   0.339       0   4.441   0.362       0
             * ui4
 79          UI      91     228     430     554     725    1088     908     700     535     396
1                                          HEC-1 INPUT                                          PAGE  3
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 80          UI     205     152      95      57      28      28      28       0       0       0
 81          UI       0       0       0       0       0       0       0       0       0       0

 82          KK   I1CP3   CNAME      4R
 83          KM            ADD HYDROGRAPHS AT CP3.
             * KO     0       0       0       0      22
 84          HC       2

 85          KK     CP3   CNAME    RCP3
 86          KM            ADD HYDROGRAPHS AT CP3.
             * KO     0       0       0       0      22
 87          HC       2

 88          KK    RCP3   CNAME     CP3
 89          KM            ROUTE FLOW FROM CP3 TO CP10.
             * KO     0       0       0       0      22
             * RL     0       0       2    1245
 90          RS       2    STOR      -1       0
 91          RC    0.05    0.03    0.05    5280  0.0083       0
             * rxry4
 92          RX    1010    1015    1020    1050    1100    1275    1580    1750
 93          RY    1251    1249    1249    1245    1245    1250    1250    1254

 94          KK       4
 95          KM            RUNOFF HYDROGRAPH FORM SUB-BASIN 4.
             * KO     0       0       0       0      22
 96          BA     0.3
 97          LG    0.35       0    8.01   0.081  18.504
             * ui5
 98          UI      48     192     287     444     512     346     236     115      67      35
 99          UI      14      14       0       0       0       0       0       0       0       0
100          UI       0       0       0       0       0       0       0       0       0       0

101          KK       5
102          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 5.
             * KO     0       0       0       0      22
103          BA    0.72
104          LG    0.35       0   8.023   0.081  17.926
             * ui6
105          UI     110     437     658     992    1242     849     591     315     174     101
106          UI      34      34      34       0       0       0       0       0       0       0
107          UI       0       0       0       0       0       0       0       0       0       0

108          KK     CP5   CNAME    RCP5
109          KM            ADD HYDROGRAPHS AT CP5.
             * KO     0       0       0       0      22
110          HC       2

111          KK    RCP5   CNAME     CP5
112          KM            ROUTE COMBINED HYDROGRAPHS AT CP5 TO CP7.
             * KO     0       0       0       0      22
             * RL     0       0     0.5    2800
113          RS       1    STOR      -1       0
114          RC    0.08    0.05    0.08    4800  0.0833       0
             * rxry5
1                                          HEC-1 INPUT                                          PAGE  4
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

115          RX     955     970     985    1000    1020    1035    1050    1065
116          RY    2815    2810    2805    2800    2800    2805    2810    2815

117          KK       6
118          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 6.
             * KO     0       0       0       0      22
119          BA    0.45
120          LG    0.35       0   7.976   0.082      20
             * ui7
121          UI     204     622    1139     837     427     155      54      33       0       0
122          UI       0       0       0       0       0       0       0       0       0       0

123          KK   I1CP7   CNAME      7R
124          KM            ADD HYDROGRAPHS AT CP7.
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                 * KO      0       0       0       0      22
 125             HC        2

 126             KK        7
 127             KM                RUNOFF HYDROGRAPH FROM SUB-BASIN 7.
                 * KO      0       0       0       0      22
 128             BA     0.31
 129             LG     0.35       0   7.976   0.082      20
                 * ui8
 130             UI      126     387     716     606     343     129      52      22       0       0
 131             UI        0       0       0       0       0       0       0       0       0       0

 132             KK      CP7   CNAME    RCP7
 133             KM            ADD HYDROGRAPHS AT CP7.
                 * KO      0       0       0       0      22
 134             HC        2

 135             KK     RCP7   CNAME     CP7
 136             KM            ROUTE COMBINED HYDROGRAPHS AT CP7 TO CP9.
                 * KO      0       0       0       0      22
                 * RL      0       0     0.5    1838
 137             RS        3    STOR      -1       0
 138             RC     0.08    0.05    0.08   10200  0.0775       0
                 * rxry6
 139             RX     1000    1045    1120    1195    1230    1300    1350    1450
 140             RY     1910    1880    1850    1838    1838    1850    1880    1910

 141             KK        9
 142             KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 9.
                 * KO      0       0       0       0      22
 143             BA      1.4
 144             LG     0.35       0   7.909   0.084  19.572
                 * ui9
 145             UI      155     381     727     935    1216    1832    1591    1224     938     705
 146             UI      386     261     177     115      47      47      47      47       0       0
 147             UI        0       0       0       0       0       0       0       0       0       0
1                                                HEC-1 INPUT                                          PAGE  5

LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 148             KK    I1CP9   CNAME      9R
 149             KM            ADD HYDROGRAPHS AT CP9.
                 * KO      0       0       0       0      22
 150             HC        2

 151             KK        8
 152             KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 8.
                 * KO      0       0       0       0      22
 153             BA     0.81
 154             LG     0.35       0   7.976   0.082      20
                 * ui10
 155             UI      102     313     535     703    1054    1140     822     608     421     208
 156             UI      147      96      31      31      31       0       0       0       0       0
 157             UI        0       0       0       0       0       0       0       0       0       0

 158             KK      CP9   CNAME    RCP9
 159             KM            ADD HYDROGRAPHS AT CP9.
                 * KO      0       0       0       0      22
 160             HC        2

 161             KK     RCP9   CNAME     CP9
 162             KM            ROUTE COMBINED HYDROGRAPHS AT CP9 TO CP10.
                 * KO      0       0       0       0      22
                 * RL      0       0     1.5    1308
 163             RS        8    STOR      -1       0
 164             RC     0.06   0.035    0.06   19200  0.0232       0
                 * rxry7
 165             RX     1000    1085    1310    1395    1415    1450    1630    1665
 166             RY     1317    1314    1311    1308    1308    1314    1314    1317

 167             KK       10
 168             KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 10.
                 * KO      0       0       0       0      22
 169             BA     2.02
 170             LG    0.347       0   5.124   0.254    4.52
                 * ui11
 171             UI      119     119     218     427     546     632     708     812     929    1148
 172             UI     1499    1393    1156    1006     894     765     669     577     475     325
 173             UI      210     201     193     119     119      86      36      36      36      36
 174             UI       36      36      36      36       0       0       0       0       0       0
 175             UI        0       0       0       0       0       0       0       0       0       0

 176             KK   I1CP10   CNAME     11R
 177             KM            ADD HYDROGRAPHS AT CP10
                 * KO      0       0       0       0      22
 178             HC        2

 179             KK     CP10   CNAME   RCP10
 180             KM            ADD HYDROGRAPHS AT CP10
                 * KO      0       0       0       0      22
 181             HC        2
1                                                HEC-1 INPUT                                          PAGE  6

LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 182             KK    RCP10   CNAME    CP10
 183             KM            ROUTE FLOW AT CP10 TO CP12.
                 * KO      0       0       0       0      22
                 * RL      0       0       2    1211
 184             RS        1    STOR      -1       0
 185             RC     0.03    0.03    0.05    3500  0.0057       0
                 * rxry8
 186             RX      995    1000    1020    1055    1085    1165    1250    1330
 187             RY     1221    1220    1220    1211    1211    1218    1220    1222

 188             KK       12
 189             KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 12.
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                * KO      0       0       0       0      22
 190            BA     1.38
 191            LG    0.346       0   5.232   0.241   5.217
                * ui12
 192            UI      111     129     393     535     636     758     930    1311    1277    1008
 193            UI      850     697     574     445     264     191     169     111      92      34
 194            UI       34      34      34      34      34       0       0       0       0       0
 195            UI        0       0       0       0       0       0       0       0       0       0

 196            KK     CP12   CNAME   RCP12
 197            KM            ADD HYDROGRAPHS AT CP12.
                * KO      0       0       0       0      22
 198            HC        2

 199            KK    RCP12   CNAME    CP12
 200            KM            ROUTE COMBINED HYDROGRAPHS AT CP12 TO CPWT3
                * KO      0       0       0       0      22
                * RL      0       0       2    1196
 201            RS        2    STOR      -1       0
 202            RC     0.03    0.03    0.04    4800  0.0031       0
                * rxry9
 203            RX      995    1000    1020    1080    1200    1530    1665    1760
 204            RY     1211    1211    1210    1196    1196    1200    1204    1204

 205            KK       11
 206            KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 11.
                * KO      0       0       0       0      22
 207            BA     1.56
 208            LG     0.35       0    7.25   0.107  13.299
                * ui13
 209            UI      143     245     571     755     913    1142    1648    1623    1254    1026
 210            UI      821     643     394     248     210     143      86      44      44      44
 211            UI       44       0       0       0       0       0       0       0       0       0
 212            UI        0       0       0       0       0       0       0       0       0       0

 213            KK    RCP11   CNAME     14C
 214            KM            ROUTE HYROGRAPH FROM CP11 TO CP13.
                * KO      0       0       0       0      22
                * RL      0       0     1.5    1196
 215            RS        3    STOR      -1       0
 216            RC     0.06   0.035    0.06   10200  0.0098       0
                * rxry10
```



```
LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 217            RX     1000    1070    1300    1480    1510    1525    1555    1600
 218            RY     1233    1232    1230    1222    1222    1230    1232    1233

 219            KK       13
 220            KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 13.
                * KO      0       0       0       0      22
 221            BA      1.3
 222            LG     0.35       0    4.62   0.322       0
                * ui14
 223            UI      120     210     485     639     774     973    1416    1333    1039     847
 224            UI      674     527     303     206     167     120      60      37      37      37
 225            UI       37       0       0       0       0       0       0       0       0       0
 226            UI        0       0       0       0       0       0       0       0       0       0

 227            KK     CP13   CNAME   RCP13
 228            KM            ADD HYDROGRAPHS AT CP13.
                * KO      0       0       0       0      22
 229            HC        2

 230            KK    RCP13   CNAME    CP13
 231            KM            ROUTE COMBINED HYDROGRAPHS AT CP13 TO CP17
                * KO      0       0       0       0      22
                * RL      0       0     1.5    1222
 232            RS        2    STOR      -1       0
 233            RC     0.03    0.03    0.04    2400  0.0042       0
                * rxry11
 234            RX     1000    1025    1040    1065    1085    1110    1175    1200
 235            RY     1206    1198    1196    1194    1194    1198    1198    1201

 236            KK       14
 237            KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 14.
                * KO      0       0       0       0      22
 238            BA     1.47
 239            LG     0.35       0   7.974   0.082  18.195
                * ui15
 240            UI      166     421     790    1019    1341    1998    1636    1264     961     699
 241            UI      362     274     166      93      51      51      51       0       0       0
 242            UI        0       0       0       0       0       0       0       0       0       0

 243            KK    RCP14   CNAME     16C
 244            KM            ROUTE FLOW FROM CP14 TO CP15.
                * KO      0       0       0       0      22
                * RL      0       0       2    1194
 245            RS        4    STOR      -1       0
 246            RC     0.06   0.035    0.06    8800  0.0256       0
                * rxry12
 247            RX     1000    1030    1075    1200    1220    1280    1415    1480
 248            RY     1296    1295    1294    1288    1288    1294    1296    1300

 249            KK       15
 250            KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 15.
                * KO      0       0       0       0      22
 251            BA     1.26
 252            LG     0.35       0   6.561   0.142   15.67
                * ui16
```



```
LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 253            UI      130     281     577     747     938    1321    1552    1156     920     713
 254            UI      519     277     217     138      93      40      40      40      40       0
 255            UI        0       0       0       0       0       0       0       0       0       0
 256            UI        0       0       0       0       0       0       0       0       0       0
```

```
 257          KK  I1CP15   CNAME     17R
 258          KM           ADD HYDROGRAPHS AT CP15
              * KO     0       0       0       0      22
 259          HC       2

 260          KK      16
 261          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 16.
              * KO     1       0       0       0       0
 262          BA    1.13
 263          LG    0.35       0   5.676   0.201  19.953
              * ui17
 264          UI     115     240     503     652     814    1126    1393    1049     839     655
 265          UI     497     268     194     137     101      35      35      35      35       0
 266          UI       0       0       0       0       0       0       0       0       0       0
 267          UI       0       0       0       0       0       0       0       0       0       0

 268          KK    CP15   CNAME   RCP15
 269          KM           ADD HYDROGRAPHS AT CP15.
              * KO     0       0       0       0      22
 270          HC       2

 271          KK   RCP15   CNAME    CP15
 272          KM           ROUTE COMBINED HYDROGRAPHS AT CP15 TO CP17.
              * KO     0       0       0       0      22
              * RL     0       0       2    1226
 273          RS       3    STOR      -1       0
 274          RC    0.06   0.035    0.06    6800  0.0079       0
              * SE  1198    1200    1210    1220    1230    1240
 275          RX    1000    1310    1380    1540    1640    1670    1700    1910
 276          RY    1234    1232    1228    1226    1226    1228    1232    1235

 277          KK      17
 278          KM           RUNOFFF HYDROGRAPH FROM SUB-BASIN 17.
              * KO     0       0       0       0      22
 279          BA    1.07
 280          LG    0.35       0   4.121   0.438       0
              * SE  1198    1200    1210    1220    1230    1240
 281          UI     117     254     572     810    1052    1196     753     635     540     450
 282          UI     353     287     254     194     149     129     103      90      64      57
 283          UI      57      26      22      22      22      22      22      22       0       0
 284          UI       0       0       0       0       0       0       0       0       0       0

 285          KK  I1CP17   CNAME     19R
 286          KM           ADD HYDROGRAPHS AT CP17.
              * KO     0       0       0       0      22
 287          HC       2
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 288          KK    CP17   CNAME   RCP17
 289          KM           ADD HYDROGRAPHS AT CP17.
              * KO     0       0       0       0      22
 290          HC       2

 291          KK   RCP17   CNAME    CP17
 292          KM           ROUTE FLOW FROM CP17 TO CPWT3
              * KO     0       0       0       0      22
              * RL     0       0       2    1182
 293          RS       2    STOR      -1       0
 294          RC    0.06    0.04    0.04    1600  0.0022       0
              * SE  1198    1200    1210    1220    1230    1240
 295          RX    1000    1220    1280    1470    1530    1660    1680    1685
 296          RY    1196    1194    1190    1182    1182    1210    1211    1212

 297          KK     WT3
 298          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN WT3
              * KO     0       0       0       0      22
 299          BA    0.44
 300          LG   0.344       0   4.577    0.33       0
              * SE  1198    1200    1210    1220    1230    1240
 301          UI      36      44     128     175     207     249     308     436     399     318
 302          UI     267     220     179     133      78      61      49      36      23      11
 303          UI      11      11      11      11       0       0       0       0       0       0
 304          UI       0       0       0       0       0       0       0       0       0       0

 305          KK  I1CWT3   CNAME     21R
 306          KM           ADD HYDROGRAPHS AT CPWT3
              * KO     0       0       0       0      22
 307          HC       2

 308          KK   CPWT3   CNAME     22R
 309          KM           ADD HYDROGRAPHS AT CPWT3
              * KO     1       0       0       0       0
 310          HC       2

 311          KK     22R   CNAME   CPWT3
              * KO     1       0       0       0       0
 312          RN     22R
 313          ZZ
```

1

SCHEMATIC DIAGRAM OF STREAM NETWORK

```
INPUT
 LINE     (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

  NO.     (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

   26          1
               V
               V
   38        RCP1
               .
               .
   44          .            2
               .            .
               .            .
   53         CP2............
```

```
                V
                V
 56          RCP2
                .
                .
 62             .          3A
                .           V
                .           V
 69             .       RCP3A
                .           .
                .           .
 75             .           .           3
                .           .           .
                .           .           .
 82             .      I1CP3............
                .           .
                .           .
 85          CP3............
                V
                V
 88          RCP3
                .
                .
 94             .           4
                .           .
                .           .
101             .           .           5
                .           .           .
                .           .           .
108             .        CP5............
                .           V
                .           V
111             .       RCP5
                .           .
                .           .
117             .           .           6
                .           .           .
                .           .           .
123             .      I1CP7............
                .           .
                .           .
126             .           .           7
                .           .           .
                .           .           .
132             .        CP7............
                .           V
                .           V
135             .       RCP7
                .           .
                .           .
141             .           .           9
                .           .           .
                .           .           .
148             .      I1CP9............
                .           .
                .           .
151             .           .           8
                .           .           .
                .           .           .
158             .        CP9............
                .           V
                .           V
161             .       RCP9
                .           .
                .           .
167             .           .          10
                .           .           .
                .           .           .
176             .     I1CP10............
                .           .
                .           .
179          CP10............
                V
                V
182         RCP10
                .
                .
188             .          12
                .           .
                .           .
196          CP12............
                V
                V
199         RCP12
                .
                .
205             .          11
                .           V
                .           V
213             .      RCP11
                .           .
                .           .
219             .           .          13
                .           .           .
                .           .           .
227             .       CP13............
                .           V
                .           V
230             .      RCP13
                .           .
                .           .
236             .           .          14
                .           .           V
                .           .           V
243             .           .       RCP14
                .           .           .
                .           .           .
249             .           .           .          15
                .           .           .           .
```

```
  257          .           .      I1CP15............
               .           .           .
               .           .           .
  260          .           .           .          16
               .           .           .           .
               .           .           .           .
  268          .           .       CP15............
               .           .          V
               .           .          V
  271          .           .      RCP15
               .           .           .
               .           .           .
  277          .           .           .          17
               .           .           .           .
               .           .           .           .
  285          .           .      I1CP17............
               .           .           .
               .           .           .
  288          .        CP17............
               .           V
               .           V
  291          .       RCP17
               .           .
               .           .
  297          .           .        WT3
               .           .           .
               .           .           .
  305          .      I1CWT3............
               .           .
               .           .
  308       CPWT3............
               V
               V
  311        22R
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1****************************************
****************************************
*                                      *                                        *
*                                      *                                        *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                        *   U.S. ARMY CORPS OF ENGINEERS
*                                      *                                        *
*              JUL   1997              *                                        *   HYDROLOGIC ENGINEERING CENTER
*                                      *                                        *
*           VERSION 4.1                *                                        *         609 SECOND STREET
*                                      *                                        *
*                                      *                                        *      DAVIS, CALIFORNIA 95616
*                                      *                                        *
*  RUN DATE   05MAY00  TIME  17:00:13  *                                        *          (916) 756-1104
*                                      *                                        *
*                                      *                                        *
*                                      *                                        *
****************************************
****************************************
```

```
                                White Tanks #3 future condition (Beardsley Canal Wash Improvement)
                                May, 1999, FCDMC
                                Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999

   5 IO          OUTPUT CONTROL VARIABLES
                       IPRNT          5  PRINT CONTROL
                       IPLOT          0  PLOT CONTROL
                       QSCAL         0.  HYDROGRAPH PLOT SCALE

     IT          HYDROGRAPH TIME DATA
                        NMIN          5  MINUTES IN COMPUTATION INTERVAL
                       IDATE      1JAN94  STARTING DATE
                       ITIME        0000  STARTING TIME
                          NQ         300  NUMBER OF HYDROGRAPH ORDINATES
                      NDDATE      2JAN94  ENDING DATE
                      NDTIME        0055  ENDING TIME
                       ICENT          19  CENTURY MARK

                  COMPUTATION INTERVAL     .08 HOURS
                      TOTAL TIME BASE   24.92 HOURS

          ENGLISH UNITS
               DRAINAGE AREA         SQUARE MILES
               PRECIPITATION DEPTH   INCHES
               LENGTH, ELEVATION     FEET
               FLOW                  CUBIC FEET PER SECOND
               STORAGE VOLUME        ACRE-FEET
               SURFACE AREA          ACRES
               TEMPERATURE           DEGREES FAHRENHEIT
1
                                                RUNOFF SUMMARY
                                          FLOW IN CUBIC FEET PER SECOND
                                       TIME IN HOURS,  AREA IN SQUARE MILES

                                     PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM     TIME OF
          OPERATION        STATION   FLOW    PEAK                                           AREA      STAGE     MAX STAGE
+                                                          6-HOUR     24-HOUR     72-HOUR
          HYDROGRAPH AT
+                                1     705.   14.42         165.         49.         47.      1.94
          ROUTED TO
+                             RCP1     623.   14.83         164.         49.         47.      1.94
+                                                                                                      1429.95       14.83
          HYDROGRAPH AT
+                                2     503.   14.75         134.         40.         38.      1.82
          2 COMBINED AT
```

+		CP2	1126.	14.75	297.	89.	85.	3.76	
	ROUTED TO								
+		RCP2	1046.	14.92	296.	89.	85.	3.76	
+									1299.86 14.92
	HYDROGRAPH AT								
+		3A	60.	14.33	6.	1.	1.	.29	
	ROUTED TO								
+		RCP3A	37.	14.67	6.	1.	1.	.29	
+									1284.79 14.67
	HYDROGRAPH AT								
+		3	179.	14.33	17.	4.	4.	.81	
	2 COMBINED AT								
+		I1CP3	197.	14.42	23.	6.	5.	1.10	
	2 COMBINED AT								
+		CP3	1095.	14.92	319.	94.	91.	4.86	
	ROUTED TO								
+		RCP3	1051.	15.08	318.	94.	91.	4.86	
+									1247.01 15.08
	HYDROGRAPH AT								
+		4	140.	14.25	26.	7.	7.	.30	
	HYDROGRAPH AT								
+		5	333.	14.25	62.	18.	17.	.72	
	2 COMBINED AT								
+		CP5	473.	14.25	87.	25.	24.	1.02	
	ROUTED TO								
+		RCP5	443.	14.33	87.	25.	24.	1.02	
+									2801.66 14.33
	HYDROGRAPH AT								
+		6	254.	14.08	39.	11.	11.	.45	
	2 COMBINED AT								
+		I1CP7	604.	14.17	125.	37.	35.	1.47	
	HYDROGRAPH AT								
+		7	169.	14.08	27.	8.	7.	.31	
	2 COMBINED AT								
+		CP7	771.	14.17	151.	44.	43.	1.78	
	ROUTED TO								
+		RCP7	707.	14.33	151.	44.	43.	1.78	
+									1838.76 14.33
	HYDROGRAPH AT								
+		9	550.	14.33	119.	35.	34.	1.40	
	2 COMBINED AT								
+		I1CP9	1257.	14.33	270.	79.	76.	3.18	
	HYDROGRAPH AT								
+		8	342.	14.33	69.	20.	20.	.81	
	2 COMBINED AT								
+		CP9	1599.	14.33	339.	100.	96.	3.99	
	ROUTED TO								
+		RCP9	1377.	14.83	336.	100.	96.	3.99	
+									1310.53 14.83
	HYDROGRAPH AT								
+		10	368.	14.75	72.	19.	19.	2.02	
	2 COMBINED AT								
+		I1CP10	1743.	14.83	408.	119.	114.	6.01	
	2 COMBINED AT								
+		CP10	2647.	14.83	725.	213.	205.	10.87	
	ROUTED TO								
+		RCP10	2575.	14.92	725.	213.	205.	10.87	
+									1215.82 14.92
	HYDROGRAPH AT								
+		12	325.	14.58	52.	14.	14.	1.38	
	2 COMBINED AT								
+		CP12	2743.	14.92	777.	227.	219.	12.25	
	ROUTED TO								
+		RCP12	2561.	15.17	775.	227.	219.	12.25	
+									1198.64 15.17
	HYDROGRAPH AT								
+		11	532.	14.50	115.	33.	32.	1.56	
	ROUTED TO								
+		RCP11	430.	14.83	114.	33.	32.	1.56	
+									1223.74 14.83
	HYDROGRAPH AT								
+		13	264.	14.50	30.	7.	7.	1.30	
	2 COMBINED AT								
+		CP13	581.	14.58	143.	40.	39.	2.86	
	ROUTED TO								
+		RCP13	576.	14.67	143.	40.	39.	2.86	

```
+                                                                                                  1196.65        14.67
          HYDROGRAPH AT
+                                14       585.  14.33        125.        36.        35.      1.47
          ROUTED TO
+                              RCP14       532.  14.58        124.        36.        35.      1.47
+                                                                                                  1289.62        14.58
          HYDROGRAPH AT
+                                15       439.  14.42         79.        23.        22.      1.26
          2 COMBINED AT
+                             I1CP15       911.  14.50        202.        59.        57.      2.73
          HYDROGRAPH AT
+                                16       361.  14.42         61.        18.        17.      1.13
          2 COMBINED AT
+                              CP15      1255.  14.42        262.        77.        74.      3.86
          ROUTED TO
+                              RCP15      1079.  14.75        261.        77.        74.      3.86
+                                                                                                  1227.54        14.75
          HYDROGRAPH AT
+                                17       182.  14.25         20.         5.         5.      1.07
          2 COMBINED AT
+                             I1CP17      1144.  14.75        281.        82.        79.      4.93
          2 COMBINED AT
+                              CP17      1718.  14.75        425.       123.       118.      7.79
          ROUTED TO
+                              RCP17      1695.  14.83        425.       123.       118.      7.79
+                                                                                                  1186.06        14.83
          HYDROGRAPH AT
+                               WT3        79.  14.58         10.         2.         2.       .44
          2 COMBINED AT
+                             I1CWT3      1741.  14.83        434.       125.       120.      8.23
          2 COMBINED AT
+                             CPWT3      4015.  15.08       1208.       352.       339.     20.48
          ROUTED TO
+                               22R      4015.  15.08       1208.       352.       339.     20.48

 *** NORMAL END OF HEC-1 ***
```

Appendix 4.6.6. 01/09/1993 storm (0.9 to Dam gage; 0.1 to E. peak)

```
1****************************************
****************************************
 *                                      *                                        *
 *                                      *                                        *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                        *   U.S. ARMY CORPS OF ENGINEERS
 *                                      *                                        *
 *              JUL   1997              *                                        *   HYDROLOGIC ENGINEERING CENTER
 *                                      *                                        *
 *           VERSION 4.1                *                                        *         609 SECOND STREET
 *                                      *                                        *
 *                                      *                                        *      DAVIS, CALIFORNIA 95616
 *                                      *                                        *
 *  RUN DATE   05MAY00  TIME  17:00:25  *                                        *          (916) 756-1104
 *                                      *                                        *
 *                                      *                                        *
 *                                      *                                        *
 ****************************************
****************************************

                                        X     X  XXXXXXX   XXXXX          X
                                        X     X  X        X     X        XX
                                        X     X  X        X               X
                                        XXXXXXX  XXXX     X        XXXXX  X
                                        X     X  X        X               X
                                        X     X  X        X     X         X
                                        X     X  XXXXXXX   XXXXX        XXX

          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                        HEC-1 INPUT                                                    PAGE  1
```

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  1           ID          White Tanks #3 future condition (Beardsley Canal Wash Improvement)
  2           ID          May, 1999, FCDMC
  3           ID          Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999
              *DIAGRAM
  4           IT       5  1JAN94       0     300
  5           IO       5
              * Gage XY Position    100.00000    100.00000 1
  6           PG   crest       0
  7           IN      15  1JAN94       0
              * 93_1_9storm2WT3DamCrest
  8           PI       0    0.04       0       0    0.04       0       0    0.04       0       0
  9           PI    0.04       0       0       0       0    0.04       0    0.04    0.04       0
 10           PI    0.04    0.04    0.04       0    0.04    0.04    0.04    0.04       0    0.04
 11           PI    0.04       0       0       0    0.04       0    0.04       0       0       0
 12           PI       0    0.04       0       0    0.04    0.04       0       0       0    0.08
 13           PI       0    0.04    0.08    0.12    0.12    0.12    0.12    0.08    0.04    0.04
 14           PI       0    0.04       0       0       0    0.04    0.04       0    0.04    0.04
 15           PI       0
              * Gage XY Position    100.00000    102.00000 1
 16           PG   Epeak       0
 17           IN      15  1JAN94       0
              * 93_1_9stormEastPeak
 18           PI       0    0.04       0    0.04    0.04       0       0       0    0.04       0
 19           PI       0       0       0       0    0.04       0       0       0    0.04       0
 20           PI       0       0    0.04       0       0       0       0    0.04       0       0
 21           PI    0.04       0       0       0       0       0       0    0.04       0       0
 22           PI    0.04       0       0       0    0.04       0       0       0       0       0
 23           PI    0.04    0.04    0.08    0.08    0.08    0.28    0.08    0.04       0    0.04
 24           PI    0.04       0    0.04    0.04    0.04    0.04    0.04       0       0       0
 25           PI       0

 26           KK       1
 27           KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 1.
              * KO     5       1       0       0       0
 28           BA    1.94
 29           PR   Epeak
 30           PW       1
 31           PT   crest   Epeak
 32           PW     0.9     0.1
 33           LG    0.35       0   7.981   0.082  19.802
              * ui1
 34           UI     182     326     742     974    1186    1502    2185    1957    1537    1243
 35           UI     989     751     417     308     230     182      64      56      56      56
 36           UI      56       0       0       0       0       0       0       0       0       0
 37           UI       0       0       0       0       0       0       0       0       0       0

 38           KK    RCP1   CNAME      1C
 39           KM           ROUTE FLOW FROM CP1 TO CP2.
              * KO     0       0       0       0      22
              * RL     0       0       1    1428
 40           RS       5    STOR      -1       0
 41           RC    0.06    0.04    0.06   17800  0.0469       0
              * rxry1
 42           RX    1000    1125    1300    1390    1405    1490    1590    1750
 43           RY    1440    1439    1437    1428    1428    1439    1442    1444
1                                          HEC-1 INPUT                                          PAGE  2

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 44           KK       2
 45           KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 2.
              * KO     0       0       0       0      22
 46           BA    1.82
 47           LG    0.35       0   6.959   0.119  21.855
              * ui2
 48           UI     115     115     259     442     556     642     727     849    1013    1346
 49           UI    1419    1145     985     864     735     634     545     405     268     202
 50           UI     189     144     115     103      35      35      35      35      35      35
 51           UI      35       0       0       0       0       0       0       0       0       0
 52           UI       0       0       0       0       0       0       0       0       0       0

 53           KK     CP2   CNAME    RCP2
 54           KM           ADD HYDROGRAPHS AT CP2.
              * KO     0       0       0       0      22
 55           HC       2

 56           KK    RCP2   CNAME     CP2
 57           KM           ROUTE COMBINED HYDROGRAPHS AT CP2 TO CP3.
              * KO     0       0       0       0      22
              * RL     0       0     1.5    1298
 58           RS       2    STOR      -1       0
 59           RC    0.06   0.035    0.06    4500  0.0111       0
              * rxry2
 60           RX    1000    1100    1350    1705    1735    1780    1850    2000
 61           RY    1304    1302    1302    1298    1298    1303    1302    1305

 62           KK      3A
 63           KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 3A
              * KO     0       0       0       0      22
 64           BA    0.29
 65           LG   0.336       0    4.14   0.432       0
              * ui3
 66           UI      34      89     165     212     286     410     314     242     182     124
 67           UI      62      48      33      10      10      10      10       0       0       0
 68           UI       0       0       0       0       0       0       0       0       0       0

 69           KK   RCP3A   CNAME      3C
 70           KM           ROUTE FLOW FROM CP3A TO CP3
              * KO     0       0       0       0      22
              * RL     0       0     1.5    1284
 71           RS       2    STOR      -1       0
 72           RC    0.03    0.03    0.05    5300   0.006       0
              * rxry3
 73           RX    1000    1023    1032    1046    1058    1067    1250    1540
 74           RY    1289    1288    1286    1284    1284    1286    1288    1291
```

```
 75          KK       3
 76          KM              RUNOFF HYDROGRAPH FROM SUB-BASIN 3.
             * KO     0        0        0        0       22
 77          BA    0.81
 78          LG   0.339        0    4.441    0.362        0
             * ui4
 79          UI      91      228      430      554      725     1088      908      700      535      396
1                                          HEC-1 INPUT                                                    PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 80          UI     205      152       95       57       28       28       28        0        0        0
 81          UI       0        0        0        0        0        0        0        0        0        0

 82          KK   I1CP3   CNAME      4R
 83          KM              ADD HYDROGRAPHS AT CP3.
             * KO     0        0        0        0       22
 84          HC       2

 85          KK     CP3   CNAME    RCP3
 86          KM              ADD HYDROGRAPHS AT CP3.
             * KO     0        0        0        0       22
 87          HC       2

 88          KK    RCP3   CNAME     CP3
 89          KM              ROUTE FLOW FROM CP3 TO CP10.
             * KO     0        0        0        0       22
             * RL     0        0        2     1245
 90          RS       2     STOR       -1        0
 91          RC    0.05     0.03     0.05     5280   0.0083        0
             * rxry4
 92          RX    1010     1015     1020     1050     1100     1275     1580     1750
 93          RY    1251     1249     1249     1245     1245     1250     1250     1254

 94          KK       4
 95          KM              RUNOFF HYDROGRAPH FORM SUB-BASIN 4.
             * KO     0        0        0        0       22
 96          BA     0.3
 97          LG    0.35        0     8.01    0.081   18.504
             * ui5
 98          UI      48      192      287      444      512      346      236      115       67       35
 99          UI      14       14        0        0        0        0        0        0        0        0
100          UI       0        0        0        0        0        0        0        0        0        0

101          KK       5
102          KM              RUNOFF HYDROGRAPH FROM SUB-BASIN 5.
             * KO     0        0        0        0       22
103          BA    0.72
104          LG    0.35        0    8.023    0.081   17.926
             * ui6
105          UI     110      437      658      992     1242      849      591      315      174      101
106          UI      34       34       34        0        0        0        0        0        0        0
107          UI       0        0        0        0        0        0        0        0        0        0

108          KK     CP5   CNAME    RCP5
109          KM              ADD HYDROGRAPHS AT CP5.
             * KO     0        0        0        0       22
110          HC       2

111          KK    RCP5   CNAME     CP5
112          KM              ROUTE COMBINED HYDROGRAPHS AT CP5 TO CP7.
             * KO     0        0        0        0       22
             * RL     0        0      0.5     2800
113          RS       1     STOR       -1        0
114          RC    0.08     0.05     0.08     4800   0.0833        0
             * rxry5
1                                          HEC-1 INPUT                                                    PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

115          RX     955      970      985     1000     1020     1035     1050     1065
116          RY    2815     2810     2805     2800     2800     2805     2810     2815

117          KK       6
118          KM              RUNOFF HYDROGRAPH FROM SUB-BASIN 6.
             * KO     0        0        0        0       22
119          BA    0.45
120          LG    0.35        0    7.976    0.082       20
             * ui7
121          UI     204      622     1139      837      427      155       54       33        0        0
122          UI       0        0        0        0        0        0        0        0        0        0

123          KK   I1CP7   CNAME      7R
124          KM              ADD HYDROGRAPHS AT CP7.
             * KO     0        0        0        0       22
125          HC       2

126          KK       7
127          KM              RUNOFF HYDROGRAPH FROM SUB-BASIN 7.
             * KO     0        0        0        0       22
128          BA    0.31
129          LG    0.35        0    7.976    0.082       20
             * ui8
130          UI     126      387      716      606      343      129       52       22        0        0
131          UI       0        0        0        0        0        0        0        0        0        0

132          KK     CP7   CNAME    RCP7
133          KM              ADD HYDROGRAPHS AT CP7.
             * KO     0        0        0        0       22
134          HC       2

135          KK    RCP7   CNAME     CP7
136          KM              ROUTE COMBINED HYDROGRAPHS AT CP7 TO CP9.
             * KO     0        0        0        0       22
             * RL     0        0      0.5     1838
137          RS       3     STOR       -1        0
138          RC    0.08     0.05     0.08    10200   0.0775        0
             * rxry6
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 139          RX    1000    1045    1120    1195    1230    1300    1350    1450
 140          RY    1910    1880    1850    1838    1838    1850    1880    1910

 141          KK       9
 142          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 9.
              * KO     0       0       0       0      22
 143          BA     1.4
 144          LG    0.35       0   7.909   0.084  19.572
              * ui9
 145          UI     155     381     727     935    1216    1832    1591    1224     938     705
 146          UI     386     261     177     115      47      47      47      47       0       0
 147          UI       0       0       0       0       0       0       0       0       0       0
1                                                HEC-1 INPUT                                          PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 148          KK   I1CP9   CNAME      9R
 149          KM            ADD HYDROGRAPHS AT CP9.
              * KO     0       0       0       0      22
 150          HC       2

 151          KK       8
 152          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 8.
              * KO     0       0       0       0      22
 153          BA    0.81
 154          LG    0.35       0   7.976   0.082      20
              * ui10
 155          UI     102     313     535     703    1054    1140     822     608     421     208
 156          UI     147      96      31      31      31       0       0       0       0       0
 157          UI       0       0       0       0       0       0       0       0       0       0

 158          KK     CP9   CNAME    RCP9
 159          KM            ADD HYDROGRAPHS AT CP9.
              * KO     0       0       0       0      22
 160          HC       2

 161          KK    RCP9   CNAME     CP9
 162          KM            ROUTE COMBINED HYDROGRAPHS AT CP9 TO CP10.
              * KO     0       0       0       0      22
              * RL     0       0     1.5    1308
 163          RS       8    STOR      -1       0
 164          RC    0.06   0.035    0.06   19200  0.0232       0
              * rxry7
 165          RX    1000    1085    1310    1395    1415    1450    1630    1665
 166          RY    1317    1314    1311    1308    1308    1314    1314    1317

 167          KK      10
 168          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 10.
              * KO     0       0       0       0      22
 169          BA    2.02
 170          LG   0.347       0   5.124   0.254    4.52
              * ui11
 171          UI     119     119     218     427     546     632     708     812     929    1148
 172          UI    1499    1393    1156    1006     894     765     669     577     475     325
 173          UI     210     201     193     119     119      86      36      36      36      36
 174          UI      36      36      36      36       0       0       0       0       0       0
 175          UI       0       0       0       0       0       0       0       0       0       0

 176          KK  I1CP10   CNAME     11R
 177          KM            ADD HYDROGRAPHS AT CP10
              * KO     0       0       0       0      22
 178          HC       2

 179          KK    CP10   CNAME   RCP10
 180          KM            ADD HYDROGRAPHS AT CP10
              * KO     0       0       0       0      22
 181          HC       2
1                                                HEC-1 INPUT                                          PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 182          KK   RCP10   CNAME    CP10
 183          KM            ROUTE FLOW AT CP10 TO CP12.
              * KO     0       0       0       0      22
              * RL     0       0       2    1211
 184          RS       1    STOR      -1       0
 185          RC    0.03    0.03    0.05    3500  0.0057       0
              * rxry8
 186          RX     995    1000    1020    1055    1085    1165    1250    1330
 187          RY    1221    1220    1220    1211    1211    1218    1220    1222

 188          KK      12
 189          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 12.
              * KO     0       0       0       0      22
 190          BA    1.38
 191          LG   0.346       0   5.232   0.241   5.217
              * ui12
 192          UI     111     129     393     535     636     758     930    1311    1277    1008
 193          UI     850     697     574     445     264     191     169     111      92      34
 194          UI      34      34      34      34      34       0       0       0       0       0
 195          UI       0       0       0       0       0       0       0       0       0       0

 196          KK    CP12   CNAME   RCP12
 197          KM            ADD HYDROGRAPHS AT CP12.
              * KO     0       0       0       0      22
 198          HC       2

 199          KK   RCP12   CNAME    CP12
 200          KM            ROUTE COMBINED HYDROGRAPHS AT CP12 TO CPWT3
              * KO     0       0       0       0      22
              * RL     0       0       2    1196
 201          RS       2    STOR      -1       0
 202          RC    0.03    0.03    0.04    4800  0.0031       0
              * rxry9
 203          RX     995    1000    1020    1080    1200    1530    1665    1760
 204          RY    1211    1211    1210    1196    1196    1200    1204    1204
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 205          KK      11
 206          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 11.
              * KO     0       0       0       0      22
 207          BA    1.56
 208          LG    0.35       0    7.25   0.107  13.299
              * ui13
 209          UI     143     245     571     755     913    1142    1648    1623    1254    1026
 210          UI     821     643     394     248     210     143      86      44      44      44
 211          UI      44       0       0       0       0       0       0       0       0       0
 212          UI       0       0       0       0       0       0       0       0       0       0

 213          KK   RCP11    CNAME     14C
 214          KM            ROUTE HYROGRAPH FROM CP11 TO CP13.
              * KO     0       0       0       0      22
              * RL     0       0     1.5    1196
 215          RS       3    STOR      -1       0
 216          RC    0.06   0.035    0.06   10200  0.0098       0
              * rxry10
1                                          HEC-1 INPUT                                          PAGE  7

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 217          RX    1000    1070    1300    1480    1510    1525    1555    1600
 218          RY    1233    1232    1230    1222    1222    1230    1232    1233

 219          KK      13
 220          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 13.
              * KO     0       0       0       0      22
 221          BA     1.3
 222          LG    0.35       0    4.62   0.322       0
              * ui14
 223          UI     120     210     485     639     774     973    1416    1333    1039     847
 224          UI     674     527     303     206     167     120      60      37      37      37
 225          UI      37       0       0       0       0       0       0       0       0       0
 226          UI       0       0       0       0       0       0       0       0       0       0

 227          KK    CP13    CNAME   RCP13
 228          KM            ADD HYDROGRAPHS AT CP13.
              * KO     0       0       0       0      22
 229          HC       2

 230          KK   RCP13    CNAME    CP13
 231          KM            ROUTE COMBINED HYDROGRAPHS AT CP13 TO CP17
              * KO     0       0       0       0      22
              * RL     0       0     1.5    1222
 232          RS       2    STOR      -1       0
 233          RC    0.03    0.03    0.04    2400  0.0042       0
              * rxry11
 234          RX    1000    1025    1040    1065    1085    1110    1175    1200
 235          RY    1206    1198    1196    1194    1194    1198    1198    1201

 236          KK      14
 237          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 14.
              * KO     0       0       0       0      22
 238          BA    1.47
 239          LG    0.35       0   7.974   0.082  18.195
              * ui15
 240          UI     166     421     790    1019    1341    1998    1636    1264     961     699
 241          UI     362     274     166      93      51      51      51       0       0       0
 242          UI       0       0       0       0       0       0       0       0       0       0

 243          KK   RCP14    CNAME     16C
 244          KM            ROUTE FLOW FROM CP14 TO CP15.
              * KO     0       0       0       0      22
              * RL     0       0       2    1194
 245          RS       4    STOR      -1       0
 246          RC    0.06   0.035    0.06    8800  0.0256       0
              * rxry12
 247          RX    1000    1030    1075    1200    1220    1280    1415    1480
 248          RY    1296    1295    1294    1288    1288    1294    1296    1300

 249          KK      15
 250          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 15.
              * KO     0       0       0       0      22
 251          BA    1.26
 252          LG    0.35       0   6.561   0.142   15.67
              * ui16
1                                          HEC-1 INPUT                                          PAGE  8

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 253          UI     130     281     577     747     938    1321    1552    1156     920     713
 254          UI     519     277     217     138      93      40      40      40      40       0
 255          UI       0       0       0       0       0       0       0       0       0       0
 256          UI       0       0       0       0       0       0       0       0       0       0

 257          KK  I1CP15    CNAME     17R
 258          KM            ADD HYDROGRAPHS AT CP15
              * KO     0       0       0       0      22
 259          HC       2

 260          KK      16
 261          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 16.
              * KO     1       0       0       0       0
 262          BA    1.13
 263          LG    0.35       0   5.676   0.201  19.953
              * ui17
 264          UI     115     240     503     652     814    1126    1393    1049     839     655
 265          UI     497     268     194     137     101      35      35      35      35       0
 266          UI       0       0       0       0       0       0       0       0       0       0
 267          UI       0       0       0       0       0       0       0       0       0       0

 268          KK    CP15    CNAME   RCP15
 269          KM            ADD HYDROGRAPHS AT CP15.
              * KO     0       0       0       0      22
 270          HC       2

 271          KK   RCP15    CNAME    CP15
 272          KM            ROUTE COMBINED HYDROGRAPHS AT CP15 TO CP17.
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                    * KO      0       0       0       0      22
                    * RL      0       0       2    1226
 273                RS        3    STOR      -1       0
 274                RC     0.06   0.035    0.06    6800  0.0079       0
                    * SE   1198    1200    1210    1220    1230    1240
 275                RX     1000    1310    1380    1540    1640    1670    1700    1910
 276                RY     1234    1232    1228    1226    1226    1228    1232    1235

 277                KK       17
 278                KM            RUNOFFF HYDROGRAPH FROM SUB-BASIN 17.
                    * KO      0       0       0       0      22
 279                BA     1.07
 280                LG     0.35       0   4.121   0.438       0
                    * SE   1198    1200    1210    1220    1230    1240
 281                UI      117     254     572     810    1052    1196     753     635     540     450
 282                UI      353     287     254     194     149     129     103      90      64      57
 283                UI       57      26      22      22      22      22      22      22       0       0
 284                UI        0       0       0       0       0       0       0       0       0       0

 285                KK   I1CP17   CNAME     19R
 286                KM            ADD HYDROGRAPHS AT CP17.
                    * KO      0       0       0       0      22
 287                HC        2
1                                                HEC-1 INPUT                                          PAGE  9

LINE                ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 288                KK     CP17   CNAME    RCP17
 289                KM            ADD HYDROGRAPHS AT CP17.
                    * KO      0       0       0       0      22
 290                HC        2

 291                KK    RCP17   CNAME     CP17
 292                KM            ROUTE FLOW FROM CP17 TO CPWT3
                    * KO      0       0       0       0      22
                    * RL      0       0       2    1182
 293                RS        2    STOR      -1       0
 294                RC     0.06    0.04    0.04    1600  0.0022       0
                    * SE   1198    1200    1210    1220    1230    1240
 295                RX     1000    1220    1280    1470    1530    1660    1680    1685
 296                RY     1196    1194    1190    1182    1182    1210    1211    1212

 297                KK      WT3
 298                KM            RUNOFF HYDROGRAPH FROM SUB-BASIN WT3
                    * KO      0       0       0       0      22
 299                BA     0.44
 300                LG    0.344       0   4.577    0.33       0
                    * SE   1198    1200    1210    1220    1230    1240
 301                UI       36      44     128     175     207     249     308     436     399     318
 302                UI      267     220     179     133      78      61      49      36      23      11
 303                UI       11      11      11      11       0       0       0       0       0       0
 304                UI        0       0       0       0       0       0       0       0       0       0

 305                KK   I1CWT3   CNAME     21R
 306                KM            ADD HYDROGRAPHS AT CPWT3
                    * KO      0       0       0       0      22
 307                HC        2

 308                KK    CPWT3   CNAME     22R
 309                KM            ADD HYDROGRAPHS AT CPWT3
                    * KO      1       0       0       0       0
 310                HC        2

 311                KK      22R   CNAME    CPWT3
                    * KO      1       0       0       0       0
 312                RN      22R
 313                ZZ
1
              SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

   26           1
                V
                V
   38         RCP1
                .
                .
   44           .           2
                .           .
                .           .
   53          CP2............
                V
                V
   56         RCP2
                .
                .
   62           .          3A
                .           V
                .           V
   69           .        RCP3A
                .           .
                .           .
   75           .           .           3
                .           .           .
                .           .           .
   82           .       I1CP3............
                .           .
                .           .
   85          CP3............
                V
                V
   88         RCP3
                .
                .
   94           .           4
```

```
101                 5
108          CP5............
                V
                V
111         RCP5

117                 6

123       I1CP7............

126                 7

132          CP7............
                V
                V
135         RCP7

141                 9

148       I1CP9............

151                 8

158          CP9............
                V
                V
161         RCP9

167                10

176      I1CP10............

179   CP10............
         V
         V
182  RCP10

188            12

196   CP12............
         V
         V
199  RCP12

205            11
                V
                V
213       RCP11

219                13

227       CP13............
                V
                V
230       RCP13

236                14
                    V
                    V
243           RCP14

249                         15

257         I1CP15............

260                         16

268           CP15............
                    V
                    V
271           RCP15

277                         17

285         I1CP17............

288       CP17............
                V
                V
291       RCP17
```

```
                .           .
297             .           .        WT3
                .           .          .
                .           .          .
305             .      I1CWT3............
                .           .
                .           .
308        CPWT3............
                V
                V
311          22R

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION
1****************************************
****************************************
*                                      *                                        *
*                                      *                                        *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                        *   U.S. ARMY CORPS OF ENGINEERS
*                                      *                                        *
*              JUL   1997              *                                        *   HYDROLOGIC ENGINEERING CENTER
*                                      *                                        *
*           VERSION 4.1                *                                        *         609 SECOND STREET
*                                      *                                        *
*                                      *                                        *      DAVIS, CALIFORNIA 95616
*                                      *                                        *
*  RUN DATE   05MAY00  TIME  17:00:25  *                                        *          (916) 756-1104
*                                      *                                        *
*                                      *                                        *
****************************************
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```

White Tanks #3 future condition (Beardsley Canal Wash Improvement)
May, 1999, FCDMC
Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999

```
  5 IO          OUTPUT CONTROL VARIABLES
                      IPRNT          5  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE

    IT          HYDROGRAPH TIME DATA
                       NMIN          5  MINUTES IN COMPUTATION INTERVAL
                      IDATE      1JAN94  STARTING DATE
                      ITIME        0000  STARTING TIME
                         NQ         300  NUMBER OF HYDROGRAPH ORDINATES
                     NDDATE      2JAN94  ENDING DATE
                     NDTIME        0055  ENDING TIME
                      ICENT          19  CENTURY MARK

                 COMPUTATION INTERVAL     .08 HOURS
                      TOTAL TIME BASE   24.92 HOURS

         ENGLISH UNITS
              DRAINAGE AREA          SQUARE MILES
              PRECIPITATION DEPTH    INCHES
              LENGTH, ELEVATION      FEET
              FLOW                   CUBIC FEET PER SECOND
              STORAGE VOLUME         ACRE-FEET
              SURFACE AREA           ACRES
              TEMPERATURE            DEGREES FAHRENHEIT
1
                                          RUNOFF SUMMARY
                                   FLOW IN CUBIC FEET PER SECOND
                                 TIME IN HOURS,  AREA IN SQUARE MILES

                                   PEAK   TIME OF    AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN    MAXIMUM    TIME OF
         OPERATION        STATION  FLOW    PEAK                                          AREA     STAGE    MAX STAGE
+                                                      6-HOUR     24-HOUR     72-HOUR

         HYDROGRAPH AT
+                            1      871.   14.42        211.        64.         62.      1.94
         ROUTED TO
+                          RCP1     776.   14.75        209.        64.         62.      1.94
+                                                                                        1430.16     14.75
         HYDROGRAPH AT
+                            2      630.   14.75        176.        54.         52.      1.82
         2 COMBINED AT
+                          CP2     1406.   14.75        385.       118.        114.      3.76
         ROUTED TO
+                          RCP2    1327.   14.92        384.       118.        114.      3.76
+                                                                                        1300.04     14.92
         HYDROGRAPH AT
+                           3A       81.   14.33          7.         2.          2.       .29
         ROUTED TO
+                         RCP3A      52.   14.67          7.         2.          2.       .29
+                                                                                        1284.94     14.67
         HYDROGRAPH AT
+                            3      244.   14.33         25.         6.          6.       .81
         2 COMBINED AT
+                         I1CP3     272.   14.42         33.         8.          8.      1.10
         2 COMBINED AT
+                          CP3     1394.   14.92        417.       126.        122.      4.86
         ROUTED TO
+                          RCP3    1348.   15.08        417.       126.        122.      4.86
```

```
+                                                                                                  1247.27      15.08
          HYDROGRAPH AT
+                    4      172.  14.25      33.      10.       9.      .30
          HYDROGRAPH AT
+                    5      409.  14.25      79.      24.      23.      .72
          2 COMBINED AT
+                  CP5      581.  14.25     112.      33.      32.     1.02
          ROUTED TO
+                 RCP5      549.  14.33     111.      33.      32.     1.02
+                                                                                                  2801.85      14.33
          HYDROGRAPH AT
+                    6      311.  14.08      50.      15.      14.      .45
          2 COMBINED AT
+                I1CP7      754.  14.17     160.      48.      47.     1.47
          HYDROGRAPH AT
+                    7      208.  14.08      34.      10.      10.      .31
          2 COMBINED AT
+                  CP7      958.  14.17     194.      58.      56.     1.78
          ROUTED TO
+                 RCP7      879.  14.33     193.      58.      56.     1.78
+                                                                                                  1838.94      14.33
          HYDROGRAPH AT
+                    9      678.  14.33     152.      46.      44.     1.40
          2 COMBINED AT
+                I1CP9     1557.  14.33     345.     104.     101.     3.18
          HYDROGRAPH AT
+                    8      421.  14.33      89.      27.      26.      .81
          2 COMBINED AT
+                  CP9     1978.  14.33     434.     131.     126.     3.99
          ROUTED TO
+                 RCP9     1713.  14.83     430.     131.     126.     3.99
+                                                                                                  1310.80      14.83
          HYDROGRAPH AT
+                   10      499.  14.75     101.      27.      26.     2.02
          2 COMBINED AT
+               I1CP10     2210.  14.75     531.     158.     152.     6.01
          2 COMBINED AT
+                 CP10     3433.  14.83     946.     284.     274.    10.87
          ROUTED TO
+                RCP10     3357.  14.92     946.     284.     274.    10.87
+                                                                                                  1216.46      14.92
          HYDROGRAPH AT
+                   12      431.  14.58      72.      19.      18.     1.38
          2 COMBINED AT
+                 CP12     3584.  14.92    1018.     303.     292.    12.25
          ROUTED TO
+                RCP12     3353.  15.17    1016.     303.     292.    12.25
+                                                                                                  1199.02      15.17
          HYDROGRAPH AT
+                   11      663.  14.50     152.      45.      43.     1.56
          ROUTED TO
+                RCP11      554.  14.83     150.      45.      43.     1.56
+                                                                                                  1223.96      14.83
          HYDROGRAPH AT
+                   13      372.  14.50      48.      12.      12.     1.30
          2 COMBINED AT
+                 CP13      794.  14.58     198.      57.      55.     2.86
          ROUTED TO
+                RCP13      787.  14.67     198.      57.      55.     2.86
+                                                                                                  1197.06      14.67
          HYDROGRAPH AT
+                   14      721.  14.33     160.      48.      46.     1.47
          ROUTED TO
+                RCP14      657.  14.58     158.      48.      46.     1.47
+                                                                                                  1289.81      14.58
          HYDROGRAPH AT
+                   15      551.  14.42     109.      32.      31.     1.26
          2 COMBINED AT
+               I1CP15     1138.  14.50     266.      80.      77.     2.73
          HYDROGRAPH AT
+                   16      461.  14.42      79.      23.      22.     1.13
          2 COMBINED AT
+                 CP15     1580.  14.42     344.     103.      99.     3.86
          ROUTED TO
+                RCP15     1387.  14.75     343.     103.      99.     3.86
+                                                                                                  1227.74      14.75
```

```
          HYDROGRAPH AT
+                          17      243.  14.25        27.        7.        7.      1.07
          2 COMBINED AT
+                       I1CP17     1474.  14.75       370.      110.      106.      4.93
          2 COMBINED AT
+                        CP17     2256.  14.75       568.      167.      161.      7.79
          ROUTED TO
+                       RCP17     2233.  14.83       568.      167.      161.      7.79
+                                                                                        1186.74       14.83
          HYDROGRAPH AT
+                         WT3      112.  14.50        16.        4.        4.       .44
          2 COMBINED AT
+                      I1CWT3     2300.  14.83       584.      171.      165.      8.23
          2 COMBINED AT
+                       CPWT3     5347.  15.00      1599.      474.      457.     20.48
          ROUTED TO
+                         22R     5347.  15.00      1599.      474.      457.     20.48

 *** NORMAL END OF HEC-1 ***
```

Appendix 4.6.7. 02/16/1998-02/17/1998 storm (equal weights to two rain gages)

```
1****************************************
****************************************
 *                                      *                                        *
 *                                      *                                        *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                        *   U.S. ARMY CORPS OF ENGINEERS
 *                                      *                                        *
 *              JUL   1997              *                                        *   HYDROLOGIC ENGINEERING CENTER
 *                                      *                                        *
 *            VERSION 4.1               *                                        *         609 SECOND STREET
 *                                      *                                        *
 *                                      *                                        *      DAVIS, CALIFORNIA 95616
 *                                      *                                        *
 *  RUN DATE   05MAY00  TIME  17:00:36  *                                        *          (916) 756-1104
 *                                      *                                        *
 *                                      *                                        *
 ****************************************
****************************************

                                        X     X  XXXXXXX   XXXXX          X
                                        X     X  X        X     X        XX
                                        X     X  X        X              X
                                        XXXXXXX  XXXX     X        XXXXX  X
                                        X     X  X        X              X
                                        X     X  X        X     X        X
                                        X     X  XXXXXXX   XXXXX        XXX

          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                   HEC-1 INPUT                                                  PAGE  1

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

            1           ID          White Tanks #3 future condition (Beardsley Canal Wash Improvement)
            2           ID          May, 1999, FCDMC
            3           ID          Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999
                        *DIAGRAM
            4           IT       5  1JAN94       0     300
            5           IO       5
                        * Gage XY Position    100.00000    100.00000 1
            6           PG   crest       0
            7           IN      15  1JAN94       0
                        * 98_2_16stormWT3DamCrest
            8           PI       0     0.04       0     0.04       0       0    0.04       0    0.04    0.04
            9           PI    0.04     0.04       0       0       0    0.12    0.04       0    0.04    0.04
           10           PI    0.04        0    0.04    0.04    0.04    0.08    0.08    0.08    0.08    0.04
           11           PI    0.04     0.08    0.04    0.08    0.08    0.04    0.04       0    0.04    0.08
           12           PI    0.04     0.04       0    0.04    0.04       0       0    0.04       0    0.04
           13           PI       0        0    0.04       0    0.04       0       0    0.04       0    0.04
           14           PI       0        0       0       0       0       0       0       0       0       0
           15           PI       0        0       0       0       0       0       0
                        * Gage XY Position    100.00000    102.00000 1
           16           PG   Epeak       0
           17           IN      15  1JAN94       0
```

```
                * 98_2_16stormEastPeak
 18             PI      0       0    0.04       0       0    0.04       0       0    0.04    0.04
 19             PI   0.04    0.04    0.04       0    0.04    0.04    0.04    0.04    0.04    0.04
 20             PI   0.08       0    0.08    0.08    0.08    0.12    0.12    0.12    0.08    0.04
 21             PI   0.04    0.04    0.08    0.12    0.12    0.12    0.12    0.04    0.04    0.04
 22             PI   0.04    0.04    0.04    0.04    0.04    0.08    0.04    0.08    0.08    0.08
 23             PI   0.04    0.04    0.04       0       0    0.04    0.04    0.04    0.04    0.04
 24             PI   0.04    0.04       0    0.04       0       0       0       0       0       0
 25             PI      0       0       0       0       0    0.04       0

 26             KK      1
 27             KM              RUNOFF HYDROGRAPH FROM SUB-BASIN 1.
                * KO    5       1       0       0       0
 28             BA   1.94
 29             PR   Epeak
 30             PW      1
 31             PT   crest   Epeak
 32             PW    0.5     0.5
 33             LG   0.35       0   7.981   0.082  19.802
                * ui1
 34             UI    182     326     742     974    1186    1502    2185    1957    1537    1243
 35             UI    989     751     417     308     230     182      64      56      56      56
 36             UI     56       0       0       0       0       0       0       0       0       0
 37             UI      0       0       0       0       0       0       0       0       0       0

 38             KK   RCP1   CNAME      1C
 39             KM          ROUTE FLOW FROM CP1 TO CP2.
                * KO    0       0       0       0      22
                * RL    0       0       1    1428
 40             RS      5    STOR      -1       0
 41             RC   0.06    0.04    0.06   17800  0.0469       0
                * rxry1
 42             RX   1000    1125    1300    1390    1405    1490    1590    1750
 43             RY   1440    1439    1437    1428    1428    1439    1442    1444
1                                          HEC-1 INPUT                                          PAGE  2

LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 44             KK      2
 45             KM          RUNOFF HYDROGRAPH FROM SUB-BASIN 2.
                * KO    0       0       0       0      22
 46             BA   1.82
 47             LG   0.35       0   6.959   0.119  21.855
                * ui2
 48             UI    115     115     259     442     556     642     727     849    1013    1346
 49             UI   1419    1145     985     864     735     634     545     405     268     202
 50             UI    189     144     115     103      35      35      35      35      35      35
 51             UI     35       0       0       0       0       0       0       0       0       0
 52             UI      0       0       0       0       0       0       0       0       0       0

 53             KK    CP2   CNAME    RCP2
 54             KM          ADD HYDROGRAPHS AT CP2.
                * KO    0       0       0       0      22
 55             HC      2

 56             KK   RCP2   CNAME     CP2
 57             KM          ROUTE COMBINED HYDROGRAPHS AT CP2 TO CP3.
                * KO    0       0       0       0      22
                * RL    0       0     1.5    1298
 58             RS      2    STOR      -1       0
 59             RC   0.06   0.035    0.06    4500  0.0111       0
                * rxry2
 60             RX   1000    1100    1350    1705    1735    1780    1850    2000
 61             RY   1304    1302    1302    1298    1298    1303    1302    1305

 62             KK     3A
 63             KM          RUNOFF HYDROGRAPH FROM SUB-BASIN 3A
                * KO    0       0       0       0      22
 64             BA   0.29
 65             LG  0.336       0    4.14   0.432       0
                * ui3
 66             UI     34      89     165     212     286     410     314     242     182     124
 67             UI     62      48      33      10      10      10      10       0       0       0
 68             UI      0       0       0       0       0       0       0       0       0       0

 69             KK  RCP3A   CNAME      3C
 70             KM          ROUTE FLOW FROM CP3A TO CP3
                * KO    0       0       0       0      22
                * RL    0       0     1.5    1284
 71             RS      2    STOR      -1       0
 72             RC   0.03    0.03    0.05    5300   0.006       0
                * rxry3
 73             RX   1000    1023    1032    1046    1058    1067    1250    1540
 74             RY   1289    1288    1286    1284    1284    1286    1288    1291

 75             KK      3
 76             KM          RUNOFF HYDROGRAPH FROM SUB-BASIN 3.
                * KO    0       0       0       0      22
 77             BA   0.81
 78             LG  0.339       0   4.441   0.362       0
                * ui4
 79             UI     91     228     430     554     725    1088     908     700     535     396
1                                          HEC-1 INPUT                                          PAGE  3

LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 80             UI    205     152      95      57      28      28      28       0       0       0
 81             UI      0       0       0       0       0       0       0       0       0       0

 82             KK  I1CP3   CNAME      4R
 83             KM          ADD HYDROGRAPHS AT CP3.
                * KO    0       0       0       0      22
 84             HC      2

 85             KK    CP3   CNAME    RCP3
 86             KM          ADD HYDROGRAPHS AT CP3.
                * KO    0       0       0       0      22
 87             HC      2
```

```
 88          KK    RCP3   CNAME     CP3
 89          KM           ROUTE FLOW FROM CP3 TO CP10.
             * KO     0       0       0       0      22
             * RL     0       0       2    1245
 90          RS       2    STOR      -1       0
 91          RC    0.05    0.03    0.05    5280  0.0083       0
             * rxry4
 92          RX    1010    1015    1020    1050    1100    1275    1580    1750
 93          RY    1251    1249    1249    1245    1245    1250    1250    1254

 94          KK       4
 95          KM           RUNOFF HYDROGRAPH FORM SUB-BASIN 4.
             * KO     0       0       0       0      22
 96          BA     0.3
 97          LG    0.35       0    8.01   0.081  18.504
             * ui5
 98          UI      48     192     287     444     512     346     236     115      67      35
 99          UI      14      14       0       0       0       0       0       0       0       0
100          UI       0       0       0       0       0       0       0       0       0       0

101          KK       5
102          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 5.
             * KO     0       0       0       0      22
103          BA    0.72
104          LG    0.35       0   8.023   0.081  17.926
             * ui6
105          UI     110     437     658     992    1242     849     591     315     174     101
106          UI      34      34      34       0       0       0       0       0       0       0
107          UI       0       0       0       0       0       0       0       0       0       0

108          KK     CP5   CNAME    RCP5
109          KM           ADD HYDROGRAPHS AT CP5.
             * KO     0       0       0       0      22
110          HC       2

111          KK    RCP5   CNAME     CP5
112          KM           ROUTE COMBINED HYDROGRAPHS AT CP5 TO CP7.
             * KO     0       0       0       0      22
             * RL     0       0     0.5    2800
113          RS       1    STOR      -1       0
114          RC    0.08    0.05    0.08    4800  0.0833       0
             * rxry5
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

115          RX     955     970     985    1000    1020    1035    1050    1065
116          RY    2815    2810    2805    2800    2800    2805    2810    2815

117          KK       6
118          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 6.
             * KO     0       0       0       0      22
119          BA    0.45
120          LG    0.35       0   7.976   0.082      20
             * ui7
121          UI     204     622    1139     837     427     155      54      33       0       0
122          UI       0       0       0       0       0       0       0       0       0       0

123          KK   I1CP7   CNAME      7R
124          KM           ADD HYDROGRAPHS AT CP7.
             * KO     0       0       0       0      22
125          HC       2

126          KK       7
127          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 7.
             * KO     0       0       0       0      22
128          BA    0.31
129          LG    0.35       0   7.976   0.082      20
             * ui8
130          UI     126     387     716     606     343     129      52      22       0       0
131          UI       0       0       0       0       0       0       0       0       0       0

132          KK     CP7   CNAME    RCP7
133          KM           ADD HYDROGRAPHS AT CP7.
             * KO     0       0       0       0      22
134          HC       2

135          KK    RCP7   CNAME     CP7
136          KM           ROUTE COMBINED HYDROGRAPHS AT CP7 TO CP9.
             * KO     0       0       0       0      22
             * RL     0       0     0.5    1838
137          RS       3    STOR      -1       0
138          RC    0.08    0.05    0.08   10200  0.0775       0
             * rxry6
139          RX    1000    1045    1120    1195    1230    1300    1350    1450
140          RY    1910    1880    1850    1838    1838    1850    1880    1910

141          KK       9
142          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 9.
             * KO     0       0       0       0      22
143          BA     1.4
144          LG    0.35       0   7.909   0.084  19.572
             * ui9
145          UI     155     381     727     935    1216    1832    1591    1224     938     705
146          UI     386     261     177     115      47      47      47      47       0       0
147          UI       0       0       0       0       0       0       0       0       0       0
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

148          KK   I1CP9   CNAME      9R
149          KM           ADD HYDROGRAPHS AT CP9.
             * KO     0       0       0       0      22
150          HC       2

151          KK       8
152          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 8.
```

```
                 * KO      0        0        0        0       22
153              BA     0.81
154              LG     0.35        0    7.976    0.082       20
                 * ui10
155              UI      102      313      535      703     1054     1140      822      608      421      208
156              UI      147       96       31       31       31        0        0        0        0        0
157              UI        0        0        0        0        0        0        0        0        0        0

158              KK      CP9    CNAME     RCP9
159              KM             ADD HYDROGRAPHS AT CP9.
                 * KO      0        0        0        0       22
160              HC        2

161              KK     RCP9    CNAME      CP9
162              KM             ROUTE COMBINED HYDROGRAPHS AT CP9 TO CP10.
                 * KO      0        0        0        0       22
                 * RL      0        0      1.5     1308
163              RS        8     STOR       -1        0
164              RC     0.06    0.035     0.06    19200   0.0232        0
                 * rxry7
165              RX     1000     1085     1310     1395     1415     1450     1630     1665
166              RY     1317     1314     1311     1308     1308     1314     1314     1317

167              KK       10
168              KM             RUNOFF HYDROGRAPH FROM SUB-BASIN 10.
                 * KO      0        0        0        0       22
169              BA     2.02
170              LG    0.347        0    5.124    0.254     4.52
                 * ui11
171              UI      119      119      218      427      546      632      708      812      929     1148
172              UI     1499     1393     1156     1006      894      765      669      577      475      325
173              UI      210      201      193      119      119       86       36       36       36       36
174              UI       36       36       36       36        0        0        0        0        0        0
175              UI        0        0        0        0        0        0        0        0        0        0

176              KK   I1CP10    CNAME      11R
177              KM             ADD HYDROGRAPHS AT CP10
                 * KO      0        0        0        0       22
178              HC        2

179              KK     CP10    CNAME    RCP10
180              KM             ADD HYDROGRAPHS AT CP10
                 * KO      0        0        0        0       22
181              HC        2
1                                          HEC-1 INPUT                                                    PAGE  6

LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

182              KK    RCP10    CNAME     CP10
183              KM             ROUTE FLOW AT CP10 TO CP12.
                 * KO      0        0        0        0       22
                 * RL      0        0        2     1211
184              RS        1     STOR       -1        0
185              RC     0.03     0.03     0.05     3500   0.0057        0
                 * rxry8
186              RX      995     1000     1020     1055     1085     1165     1250     1330
187              RY     1221     1220     1220     1211     1211     1218     1220     1222

188              KK       12
189              KM             RUNOFF HYDROGRAPH FROM SUB-BASIN 12.
                 * KO      0        0        0        0       22
190              BA     1.38
191              LG    0.346        0    5.232    0.241    5.217
                 * ui12
192              UI      111      129      393      535      636      758      930     1311     1277     1008
193              UI      850      697      574      445      264      191      169      111       92       34
194              UI       34       34       34       34       34        0        0        0        0        0
195              UI        0        0        0        0        0        0        0        0        0        0

196              KK     CP12    CNAME    RCP12
197              KM             ADD HYDROGRAPHS AT CP12.
                 * KO      0        0        0        0       22
198              HC        2

199              KK    RCP12    CNAME     CP12
200              KM             ROUTE COMBINED HYDROGRAPHS AT CP12 TO CPWT3
                 * KO      0        0        0        0       22
                 * RL      0        0        2     1196
201              RS        2     STOR       -1        0
202              RC     0.03     0.03     0.04     4800   0.0031        0
                 * rxry9
203              RX      995     1000     1020     1080     1200     1530     1665     1760
204              RY     1211     1211     1210     1196     1196     1200     1204     1204

205              KK       11
206              KM             RUNOFF HYDROGRAPH FROM SUB-BASIN 11.
                 * KO      0        0        0        0       22
207              BA     1.56
208              LG     0.35        0     7.25    0.107   13.299
                 * ui13
209              UI      143      245      571      755      913     1142     1648     1623     1254     1026
210              UI      821      643      394      248      210      143       86       44       44       44
211              UI       44        0        0        0        0        0        0        0        0        0
212              UI        0        0        0        0        0        0        0        0        0        0

213              KK    RCP11    CNAME      14C
214              KM             ROUTE HYROGRAPH FROM CP11 TO CP13.
                 * KO      0        0        0        0       22
                 * RL      0        0      1.5     1196
215              RS        3     STOR       -1        0
216              RC     0.06    0.035     0.06    10200   0.0098        0
                 * rxry10
1                                          HEC-1 INPUT                                                    PAGE  7

LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

217              RX     1000     1070     1300     1480     1510     1525     1555     1600
218              RY     1233     1232     1230     1222     1222     1230     1232     1233
```

```
 219          KK      13
 220          KM              RUNOFF HYDROGRAPH FROM SUB-BASIN 13.
              * KO     0        0        0        0       22
 221          BA     1.3
 222          LG    0.35        0     4.62    0.322        0
              * ui14
 223          UI     120      210      485      639      774      973     1416     1333     1039      847
 224          UI     674      527      303      206      167      120       60       37       37       37
 225          UI      37        0        0        0        0        0        0        0        0        0
 226          UI       0        0        0        0        0        0        0        0        0        0

 227          KK    CP13    CNAME   RCP13
 228          KM              ADD HYDROGRAPHS AT CP13.
              * KO     0        0        0        0       22
 229          HC       2

 230          KK   RCP13    CNAME    CP13
 231          KM              ROUTE COMBINED HYDROGRAPHS AT CP13 TO CP17
              * KO     0        0        0        0       22
              * RL     0        0      1.5     1222
 232          RS       2     STOR       -1        0
 233          RC    0.03     0.03     0.04     2400   0.0042        0
              * rxry11
 234          RX    1000     1025     1040     1065     1085     1110     1175     1200
 235          RY    1206     1198     1196     1194     1194     1198     1198     1201

 236          KK      14
 237          KM              RUNOFF HYDROGRAPH FROM SUB-BASIN 14.
              * KO     0        0        0        0       22
 238          BA    1.47
 239          LG    0.35        0    7.974    0.082   18.195
              * ui15
 240          UI     166      421      790     1019     1341     1998     1636     1264      961      699
 241          UI     362      274      166       93       51       51       51        0        0        0
 242          UI       0        0        0        0        0        0        0        0        0        0

 243          KK   RCP14    CNAME     16C
 244          KM              ROUTE FLOW FROM CP14 TO CP15.
              * KO     0        0        0        0       22
              * RL     0        0        2     1194
 245          RS       4     STOR       -1        0
 246          RC    0.06    0.035     0.06     8800   0.0256        0
              * rxry12
 247          RX    1000     1030     1075     1200     1220     1280     1415     1480
 248          RY    1296     1295     1294     1288     1288     1294     1296     1300

 249          KK      15
 250          KM              RUNOFF HYDROGRAPH FROM SUB-BASIN 15.
              * KO     0        0        0        0       22
 251          BA    1.26
 252          LG    0.35        0    6.561    0.142    15.67
              * ui16
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 253          UI     130      281      577      747      938     1321     1552     1156      920      713
 254          UI     519      277      217      138       93       40       40       40       40        0
 255          UI       0        0        0        0        0        0        0        0        0        0
 256          UI       0        0        0        0        0        0        0        0        0        0

 257          KK  I1CP15    CNAME     17R
 258          KM              ADD HYDROGRAPHS AT CP15
              * KO     0        0        0        0       22
 259          HC       2

 260          KK      16
 261          KM              RUNOFF HYDROGRAPH FROM SUB-BASIN 16.
              * KO     1        0        0        0        0
 262          BA    1.13
 263          LG    0.35        0    5.676    0.201   19.953
              * ui17
 264          UI     115      240      503      652      814     1126     1393     1049      839      655
 265          UI     497      268      194      137      101       35       35       35       35        0
 266          UI       0        0        0        0        0        0        0        0        0        0
 267          UI       0        0        0        0        0        0        0        0        0        0

 268          KK    CP15    CNAME   RCP15
 269          KM              ADD HYDROGRAPHS AT CP15.
              * KO     0        0        0        0       22
 270          HC       2

 271          KK   RCP15    CNAME    CP15
 272          KM              ROUTE COMBINED HYDROGRAPHS AT CP15 TO CP17.
              * KO     0        0        0        0       22
              * RL     0        0        2     1226
 273          RS       3     STOR       -1        0
 274          RC    0.06    0.035     0.06     6800   0.0079        0
              * SE  1198     1200     1210     1220     1230     1240
 275          RX    1000     1310     1380     1540     1640     1670     1700     1910
 276          RY    1234     1232     1228     1226     1226     1228     1232     1235

 277          KK      17
 278          KM              RUNOFFF HYDROGRAPH FROM SUB-BASIN 17.
              * KO     0        0        0        0       22
 279          BA    1.07
 280          LG    0.35        0    4.121    0.438        0
              * SE  1198     1200     1210     1220     1230     1240
 281          UI     117      254      572      810     1052     1196      753      635      540      450
 282          UI     353      287      254      194      149      129      103       90       64       57
 283          UI      57       26       22       22       22       22       22       22        0        0
 284          UI       0        0        0        0        0        0        0        0        0        0

 285          KK  I1CP17    CNAME     19R
 286          KM              ADD HYDROGRAPHS AT CP17.
              * KO     0        0        0        0       22
 287          HC       2
```

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 288          KK    CP17   CNAME   RCP17
 289          KM           ADD HYDROGRAPHS AT CP17.
              * KO     0       0       0       0      22
 290          HC       2

 291          KK   RCP17   CNAME    CP17
 292          KM           ROUTE FLOW FROM CP17 TO CPWT3
              * KO     0       0       0       0      22
              * RL     0       0       2    1182
 293          RS       2    STOR      -1       0
 294          RC    0.06    0.04    0.04    1600  0.0022       0
              * SE  1198    1200    1210    1220    1230    1240
 295          RX    1000    1220    1280    1470    1530    1660    1680    1685
 296          RY    1196    1194    1190    1182    1182    1210    1211    1212

 297          KK     WT3
 298          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN WT3
              * KO     0       0       0       0      22
 299          BA    0.44
 300          LG   0.344       0   4.577    0.33       0
              * SE  1198    1200    1210    1220    1230    1240
 301          UI      36      44     128     175     207     249     308     436     399     318
 302          UI     267     220     179     133      78      61      49      36      23      11
 303          UI      11      11      11      11       0       0       0       0       0       0
 304          UI       0       0       0       0       0       0       0       0       0       0

 305          KK  I1CWT3   CNAME     21R
 306          KM           ADD HYDROGRAPHS AT CPWT3
              * KO     0       0       0       0      22
 307          HC       2

 308          KK   CPWT3   CNAME     22R
 309          KM           ADD HYDROGRAPHS AT CPWT3
              * KO     1       0       0       0       0
 310          HC       2

 311          KK     22R   CNAME   CPWT3
              * KO     1       0       0       0       0
 312          RN     22R                       .
 313          ZZ
```

1

SCHEMATIC DIAGRAM OF STREAM NETWORK

```
INPUT
 LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

  NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

   26          1
               V
               V
   38       RCP1
               .
               .
   44          .           2
               .           .
               .           .
   53        CP2............
               V
               V
   56       RCP2
               .
               .
   62          .          3A
               .           V
               .           V
   69          .       RCP3A
               .           .
               .           .
   75          .           .           3
               .           .           .
               .           .           .
   82          .       I1CP3............
               .           .
               .           .
   85        CP3............
               V
               V
   88       RCP3
               .
               .
   94          .           4
               .           .
               .           .
  101          .           .           5
               .           .           .
               .           .           .
  108          .         CP5............
               .           V
               .           V
  111          .       RCP5
               .           .
               .           .
  117          .           .           6
               .           .           .
               .           .           .
  123          .       I1CP7............
               .           .
               .           .
  126          .           .           7
               .           .           .
               .           .           .
  132          .         CP7............
               .           V
               .           V
  135          .       RCP7
```

```
                .           .
141             .           .           9
                .           .           .
148             .       I1CP9...........
                .           .
                .           .
151             .           .           8
                .           .           .
158             .        CP9...........
                .          V
                .          V
161             .       RCP9
                .           .
                .           .
167             .           .          10
                .           .           .
176             .     I1CP10............
                .           .
                .           .
179         CP10............
                V
                V
182        RCP10
                .
                .
188             .         12
                .           .
                .           .
196         CP12............
                V
                V
199        RCP12
                .
                .
205             .         11
                .          V
                .          V
213             .      RCP11
                .           .
                .           .
219             .           .          13
                .           .           .
                .           .           .
227             .       CP13............
                .          V
                .          V
230             .      RCP13
                .           .
                .           .
236             .           .          14
                .           .           V
                .           .           V
243             .           .       RCP14
                .           .           .
                .           .           .
249             .           .           .          15
                .           .           .           .
                .           .           .           .
257             .           .     I1CP15............
                .           .           .
                .           .           .
260             .           .           .          16
                .           .           .           .
                .           .           .           .
268             .           .      CP15............
                .           .           V
                .           .           V
271             .           .      RCP15            .
                .           .           .
                .           .           .
277             .           .           .          17
                .           .           .           .
                .           .           .           .
285             .           .     I1CP17............
                .           .           .
                .           .           .
288             .       CP17............
                .          V
                .          V
291             .      RCP17
                .           .
                .           .
297             .           .         WT3
                .           .           .
                .           .           .
305             .     I1CWT3............
                .           .
                .           .
308        CPWT3............
                V
                V
311           22R
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1****************************************
*************************************
 *                                   *                                    *
 *                                   *                                    *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                 *   U.S. ARMY CORPS OF ENGINEERS
 *                                   *                                    *
 *              JUL   1997           *                                    *   HYDROLOGIC ENGINEERING CENTER
 *                                   *                                    *
 *           VERSION 4.1             *                                    *         609 SECOND STREET
 *                                   *                                    *
```

```
*                                        *                                        *      DAVIS, CALIFORNIA 95616
*                                        *                                        *
*  RUN DATE   05MAY00  TIME  17:00:36    *                                        *          (916) 756-1104
*                                        *                                        *
*                                        *                                        *
*****************************************
*************************************
```

White Tanks #3 future condition (Beardsley Canal Wash Improvement)
May, 1999, FCDMC
Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999

```
  5 IO        OUTPUT CONTROL VARIABLES
                  IPRNT          5  PRINT CONTROL
                  IPLOT          0  PLOT CONTROL
                  QSCAL         0.  HYDROGRAPH PLOT SCALE

    IT        HYDROGRAPH TIME DATA
                   NMIN          5  MINUTES IN COMPUTATION INTERVAL
                  IDATE     1JAN94  STARTING DATE
                  ITIME       0000  STARTING TIME
                     NQ        300  NUMBER OF HYDROGRAPH ORDINATES
                 NDDATE     2JAN94  ENDING DATE
                 NDTIME       0055  ENDING TIME
                  ICENT         19  CENTURY MARK

            COMPUTATION INTERVAL     .08 HOURS
                 TOTAL TIME BASE   24.92 HOURS

        ENGLISH UNITS
            DRAINAGE AREA          SQUARE MILES
            PRECIPITATION DEPTH    INCHES
            LENGTH, ELEVATION      FEET
            FLOW                   CUBIC FEET PER SECOND
            STORAGE VOLUME         ACRE-FEET
            SURFACE AREA           ACRES
            TEMPERATURE            DEGREES FAHRENHEIT
1
```

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	1	388.	9.33	212.	81.	78.	1.94		
+	ROUTED TO	RCP1	367.	9.75	211.	81.	78.	1.94		
+									1429.50	9.75
+	HYDROGRAPH AT	2	296.	9.50	168.	62.	59.	1.82		
+	2 COMBINED AT	CP2	652.	9.67	379.	142.	137.	3.76		
+	ROUTED TO	RCP2	635.	9.92	378.	142.	137.	3.76		
+									1299.49	9.92
+	HYDROGRAPH AT	3A	0.	.00	0.	0.	0.	.29		
+	ROUTED TO	RCP3A	0.	.00	0.	0.	0.	.29		
+									1284.00	.00
+	HYDROGRAPH AT	3	14.	9.33	4.	1.	1.	.81		
+	2 COMBINED AT	I1CP3	14.	9.33	4.	1.	1.	1.10		
+	2 COMBINED AT	CP3	638.	9.92	383.	143.	138.	4.86		
+	ROUTED TO	RCP3	622.	10.08	382.	143.	138.	4.86		
+									1246.53	10.08
+	HYDROGRAPH AT	4	63.	9.25	33.	12.	12.	.30		
+	HYDROGRAPH AT	5	150.	9.25	79.	30.	29.	.72		
+	2 COMBINED AT	CP5	213.	9.25	111.	42.	40.	1.02		
+	ROUTED TO	RCP5	211.	9.25	111.	42.	40.	1.02		
+									2801.05	9.25
+	HYDROGRAPH AT	6	94.	6.92	49.	19.	18.	.45		
+	2 COMBINED AT	I1CP7	305.	9.25	160.	61.	58.	1.47		
+	HYDROGRAPH AT	7	65.	6.92	34.	13.	12.	.31		

+	2 COMBINED AT	CP7	370.	9.25	194.	74.	71.	1.78	
+	ROUTED TO	RCP7	367.	9.33	194.	74.	71.	1.78	
+									1838.39 9.33
+	HYDROGRAPH AT	9	285.	9.25	152.	57.	55.	1.40	
+	2 COMBINED AT	I1CP9	651.	9.33	346.	131.	126.	3.18	
+	HYDROGRAPH AT	8	168.	9.25	89.	34.	32.	.81	
+	2 COMBINED AT	CP9	817.	9.33	435.	165.	159.	3.99	
+	ROUTED TO	RCP9	784.	9.75	433.	165.	159.	3.99	
+									1309.97 9.75
+	HYDROGRAPH AT	10	148.	9.67	65.	19.	19.	2.02	
+	2 COMBINED AT	I1CP10	930.	9.75	498.	184.	177.	6.01	
+	2 COMBINED AT	CP10	1497.	9.92	879.	327.	315.	10.87	
+	ROUTED TO	RCP10	1480.	10.00	879.	327.	315.	10.87	
+									1214.69 10.00
+	HYDROGRAPH AT	12	129.	9.42	52.	16.	15.	1.38	
+	2 COMBINED AT	CP12	1552.	9.92	930.	343.	331.	12.25	
+	ROUTED TO	RCP12	1489.	10.17	928.	343.	331.	12.25	
+									1197.99 10.17
+	HYDROGRAPH AT	11	284.	9.33	145.	52.	50.	1.56	
+	ROUTED TO	RCP11	256.	9.75	143.	52.	50.	1.56	
+									1223.31 9.75
+	HYDROGRAPH AT	13	53.	9.33	17.	4.	4.	1.30	
+	2 COMBINED AT	CP13	295.	9.67	160.	56.	54.	2.86	
+	ROUTED TO	RCP13	292.	9.83	160.	56.	54.	2.86	
+									1195.95 9.83
+	HYDROGRAPH AT	14	300.	9.25	160.	60.	58.	1.47	
+	ROUTED TO	RCP14	291.	9.58	159.	60.	58.	1.47	
+									1289.23 9.58
+	HYDROGRAPH AT	15	212.	9.33	100.	34.	33.	1.26	
+	2 COMBINED AT	I1CP15	491.	9.42	257.	95.	91.	2.73	
+	HYDROGRAPH AT	16	160.	9.33	75.	27.	26.	1.13	
+	2 COMBINED AT	CP15	649.	9.42	332.	122.	117.	3.86	
+	ROUTED TO	RCP15	606.	9.75	330.	122.	117.	3.86	
+									1227.13 9.75
+	HYDROGRAPH AT	17	0.	.00	0.	0.	0.	1.07	
+	2 COMBINED AT	I1CP17	606.	9.75	330.	122.	117.	4.93	
+	2 COMBINED AT	CP17	897.	9.75	490.	177.	171.	7.79	
+	ROUTED TO	RCP17	886.	9.92	490.	177.	171.	7.79	
+									1184.95 9.92
+	HYDROGRAPH AT	WT3	15.	9.42	5.	1.	1.	.44	
+	2 COMBINED AT	I1CWT3	895.	9.92	495.	179.	172.	8.23	
+	2 COMBINED AT	CPWT3	2318.	10.08	1422.	522.	503.	20.48	

```
          ROUTED TO
+                          22R      2318.   10.08        1422.        522.        503.      20.48

 *** NORMAL END OF HEC-1 ***
```

Appendix 4.6.8. 02/16/1998-02/17/1998 storm (0.1 to Dam gage; 0.9 to E. peak)

```
1****************************************
****************************************
 *                                      *                                          *
 *                                      *                                          *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                          *   U.S. ARMY CORPS OF ENGINEERS
 *                                      *                                          *
 *              JUL   1997              *                                          *   HYDROLOGIC ENGINEERING CENTER
 *                                      *                                          *
 *            VERSION 4.1               *                                          *         609 SECOND STREET
 *                                      *                                          *
 *                                      *                                          *      DAVIS, CALIFORNIA 95616
 *                                      *                                          *
 *  RUN DATE   05MAY00  TIME  17:00:47  *                                          *          (916) 756-1104
 *                                      *                                          *
 *                                      *                                          *
 *                                      *                                          *
 ****************************************
****************************************


                                        X     X  XXXXXXX   XXXXX         .  X
                                        X     X  X        X     X         XX
                                        X     X  X        X                X
                                        XXXXXXX  XXXX     X        XXXXX   X
                                        X     X  X        X                X
                                        X     X  X        X     X          X
                                        X     X  XXXXXXX   XXXXX         XXX


          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                HEC-1 INPUT                                                    PAGE  1

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

             1          ID          White Tanks #3 future condition (Beardsley Canal Wash Improvement)
             2          ID          May, 1999, FCDMC
             3          ID          Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999
                        *DIAGRAM
             4          IT       5  1JAN94       0     300
             5          IO       5
                        * Gage XY Position    100.00000    100.00000 1
             6          PG   crest       0
             7          IN      15  1JAN94       0
                        * 98_2_16stormWT3DamCrest
             8          PI       0    0.04       0    0.04       0       0    0.04       0    0.04    0.04
             9          PI    0.04    0.04       0       0       0    0.12    0.04       0    0.04    0.04
            10          PI    0.04       0    0.04    0.04    0.04    0.08    0.08    0.08    0.08    0.04
            11          PI    0.04    0.08    0.04    0.08    0.08    0.04    0.04       0    0.04    0.08
            12          PI    0.04    0.04       0    0.04    0.04       0       0    0.04       0    0.04
            13          PI       0       0    0.04       0    0.04       0       0    0.04       0    0.04
            14          PI       0       0       0       0       0       0       0       0       0       0
            15          PI       0       0       0       0       0       0       0
                        * Gage XY Position    100.00000    102.00000 1
            16          PG   Epeak       0
            17          IN      15  1JAN94       0
                        * 98_2_16stormEastPeak
            18          PI       0       0    0.04       0       0    0.04       0       0    0.04    0.04
            19          PI    0.04    0.04    0.04       0    0.04    0.04    0.04    0.04    0.04    0.04
            20          PI    0.08       0    0.08    0.08    0.08    0.12    0.12    0.12    0.08    0.04
            21          PI    0.04    0.04    0.08    0.12    0.12    0.12    0.12    0.04    0.04    0.04
            22          PI    0.04    0.04    0.04    0.04    0.04    0.08    0.04    0.08    0.08    0.08
            23          PI    0.04    0.04    0.04       0       0    0.04    0.04    0.04    0.04    0.04
            24          PI    0.04    0.04       0    0.04       0       0       0       0       0       0
            25          PI       0       0       0       0       0    0.04       0

            26          KK       1
            27          KM          RUNOFF HYDROGRAPH FROM SUB-BASIN 1.
                        * KO     5       1       0       0       0
            28          BA    1.94
            29          PR   Epeak
            30          PW       1
            31          PT   crest   Epeak
            32          PW     0.1     0.9
            33          LG    0.35       0   7.981   0.082  19.802
                        * uil
            34          UI     182     326     742     974    1186    1502    2185    1957    1537    1243
            35          UI     989     751     417     308     230     182      64      56      56      56
            36          UI      56       0       0       0       0       0       0       0       0       0
```

```
 37          UI       0       0       0       0       0       0       0       0       0       0

 38          KK    RCP1   CNAME      1C
 39          KM           ROUTE FLOW FROM CP1 TO CP2.
             * KO     0       0       0       0      22
             * RL     0       0      .1    1428
 40          RS       5    STOR      -1       0
 41          RC    0.06    0.04    0.06   17800  0.0469       0
             * rxry1
 42          RX    1000    1125    1300    1390    1405    1490    1590    1750
 43          RY    1440    1439    1437    1428    1428    1439    1442    1444
1                                         HEC-1 INPUT                                                    PAGE  2

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 44          KK       2
 45          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 2.
             * KO     0       0       0       0      22
 46          BA    1.82
 47          LG    0.35       0   6.959   0.119  21.855
             * ui2
 48          UI     115     115     259     442     556     642     727     849    1013    1346
 49          UI    1419    1145     985     864     735     634     545     405     268     202
 50          UI     189     144     115     103      35      35      35      35      35      35
 51          UI      35       0       0       0       0       0       0       0       0       0
 52          UI       0       0       0       0       0       0       0       0       0       0

 53          KK     CP2   CNAME    RCP2
 54          KM           ADD HYDROGRAPHS AT CP2.
             * KO     0       0       0       0      22
 55          HC       2

 56          KK    RCP2   CNAME     CP2
 57          KM           ROUTE COMBINED HYDROGRAPHS AT CP2 TO CP3.
             * KO     0       0       0       0      22
             * RL     0       0     1.5    1298
 58          RS       2    STOR      -1       0
 59          RC    0.06   0.035    0.06    4500  0.0111       0
             * rxry2
 60          RX    1000    1100    1350    1705    1735    1780    1850    2000
 61          RY    1304    1302    1302    1298    1298    1303    1302    1305

 62          KK      3A
 63          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 3A
             * KO     0       0       0       0      22
 64          BA    0.29
 65          LG   0.336       0    4.14   0.432       0
             * ui3
 66          UI      34      89     165     212     286     410     314     242     182     124
 67          UI      62      48      33      10      10      10      10       0       0       0
 68          UI       0       0       0       0       0       0       0       0       0       0

 69          KK   RCP3A   CNAME      3C
 70          KM           ROUTE FLOW FROM CP3A TO CP3
             * KO     0       0       0       0      22
             * RL     0       0     1.5    1284
 71          RS       2    STOR      -1       0
 72          RC    0.03    0.03    0.05    5300   0.006       0
             * rxry3
 73          RX    1000    1023    1032    1046    1058    1067    1250    1540
 74          RY    1289    1288    1286    1284    1284    1286    1288    1291

 75          KK       3
 76          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 3.
             * KO     0       0       0       0      22
 77          BA    0.81
 78          LG   0.339       0   4.441   0.362       0
             * ui4
 79          UI      91     228     430     554     725    1088     908     700     535     396
1                                         HEC-1 INPUT                                                    PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 80          UI     205     152      95      57      28      28      28       0       0       0
 81          UI       0       0       0       0       0       0       0       0       0       0

 82          KK   I1CP3   CNAME      4R
 83          KM           ADD HYDROGRAPHS AT CP3.
             * KO     0       0       0       0      22
 84          HC       2

 85          KK     CP3   CNAME    RCP3
 86          KM           ADD HYDROGRAPHS AT CP3.
             * KO     0       0       0       0      22
 87          HC       2

 88          KK    RCP3   CNAME     CP3
 89          KM           ROUTE FLOW FROM CP3 TO CP10.
             * KO     0       0       0       0      22
             * RL     0       0       2    1245
 90          RS       2    STOR      -1       0
 91          RC    0.05    0.03    0.05    5280  0.0083       0
             * rxry4
 92          RX    1010    1015    1020    1050    1100    1275    1580    1750
 93          RY    1251    1249    1249    1245    1245    1250    1250    1254

 94          KK       4
 95          KM           RUNOFF HYDROGRAPH FORM SUB-BASIN 4.
             * KO     0       0       0       0      22
 96          BA     0.3
 97          LG    0.35       0    8.01   0.081  18.504
             * ui5
 98          UI      48     192     287     444     512     346     236     115      67      35
 99          UI      14      14       0       0       0       0       0       0       0       0
100          UI       0       0       0       0       0       0       0       0       0       0

101          KK       5
102          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 5.
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                 * KO      0       0       0       0      22
103              BA     0.72
104              LG     0.35       0   8.023   0.081  17.926
                 * ui6
105              UI      110     437     658     992    1242     849     591     315     174     101
106              UI       34      34      34       0       0       0       0       0       0       0
107              UI        0       0       0       0       0       0       0       0       0       0

108              KK      CP5   CNAME    RCP5
109              KM            ADD HYDROGRAPHS AT CP5.
                 * KO      0       0       0       0      22
110              HC        2

111              KK     RCP5   CNAME     CP5
112              KM            ROUTE COMBINED HYDROGRAPHS AT CP5 TO CP7.
                 * KO      0       0       0       0      22
                 * RL      0       0     0.5    2800
113              RS        1    STOR      -1       0
114              RC     0.08    0.05    0.08    4800  0.0833       0
                 * rxry5
1                                          HEC-1 INPUT                                                    PAGE  4

LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

115              RX      955     970     985    1000    1020    1035    1050    1065
116              RY     2815    2810    2805    2800    2800    2805    2810    2815

117              KK        6
118              KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 6.
                 * KO      0       0       0       0      22
119              BA     0.45
120              LG     0.35       0   7.976   0.082      20
                 * ui7
121              UI      204     622    1139     837     427     155      54      33       0       0
122              UI        0       0       0       0       0       0       0       0       0       0

123              KK    I1CP7   CNAME      7R
124              KM            ADD HYDROGRAPHS AT CP7.
                 * KO      0       0       0       0      22
125              HC        2

126              KK        7
127              KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 7.
                 * KO      0       0       0       0      22
128              BA     0.31
129              LG     0.35       0   7.976   0.082      20
                 * ui8
130              UI      126     387     716     606     343     129      52      22       0       0
131              UI        0       0       0       0       0       0       0       0       0       0

132              KK      CP7   CNAME    RCP7
133              KM            ADD HYDROGRAPHS AT CP7.
                 * KO      0       0       0       0      22
134              HC        2

135              KK     RCP7   CNAME     CP7
136              KM            ROUTE COMBINED HYDROGRAPHS AT CP7 TO CP9.
                 * KO      0       0       0       0      22
                 * RL      0       0     0.5    1838
137              RS        3    STOR      -1       0
138              RC     0.08    0.05    0.08   10200  0.0775       0
                 * rxry6
139              RX     1000    1045    1120    1195    1230    1300    1350    1450
140              RY     1910    1880    1850    1838    1838    1850    1880    1910

141              KK        9
142              KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 9.
                 * KO      0       0       0       0      22
143              BA      1.4
144              LG     0.35       0   7.909   0.084  19.572
                 * ui9
145              UI      155     381     727     935    1216    1832    1591    1224     938     705
146              UI      386     261     177     115      47      47      47      47       0       0
147              UI        0       0       0       0       0       0       0       0       0       0
1                                          HEC-1 INPUT                                                    PAGE  5

LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

148              KK    I1CP9   CNAME      9R
149              KM            ADD HYDROGRAPHS AT CP9.
                 * KO      0       0       0       0      22
150              HC        2

151              KK        8
152              KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 8.
                 * KO      0       0       0       0      22
153              BA     0.81
154              LG     0.35       0   7.976   0.082      20
                 * ui10
155              UI      102     313     535     703    1054    1140     822     608     421     208
156              UI      147      96      31      31      31       0       0       0       0       0
157              UI        0       0       0       0       0       0       0       0       0       0

158              KK      CP9   CNAME    RCP9
159              KM            ADD HYDROGRAPHS AT CP9.
                 * KO      0       0       0       0      22
160              HC        2

161              KK     RCP9   CNAME     CP9
162              KM            ROUTE COMBINED HYDROGRAPHS AT CP9 TO CP10.
                 * KO      0       0       0       0      22
                 * RL      0       0     1.5    1308
163              RS        8    STOR      -1       0
164              RC     0.06   0.035    0.06   19200  0.0232       0
                 * rxry7
165              RX     1000    1085    1310    1395    1415    1450    1630    1665
166              RY     1317    1314    1311    1308    1308    1314    1314    1317
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 167          KK      10
 168          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 10.
              * KO     0        0        0       22
 169          BA    2.02
 170          LG   0.347        0    5.124    0.254     4.52
              * ui11
 171          UI     119      119      218      427      546      632      708      812      929     1148
 172          UI    1499     1393     1156     1006      894      765      669      577      475      325
 173          UI     210      201      193      119      119       86       36       36       36       36
 174          UI      36       36       36       36        0        0        0        0        0        0
 175          UI       0        0        0        0        0        0        0        0        0        0

 176          KK  I1CP10   CNAME     11R
 177          KM            ADD HYDROGRAPHS AT CP10
              * KO     0        0        0        0       22
 178          HC       2

 179          KK    CP10   CNAME   RCP10
 180          KM            ADD HYDROGRAPHS AT CP10
              * KO     0        0        0        0       22
 181          HC       2
1                                          HEC-1 INPUT                                                    PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 182          KK   RCP10   CNAME    CP10
 183          KM            ROUTE FLOW AT CP10 TO CP12.
              * KO     0        0        0        0       22
              * RL     0        0        2     1211
 184          RS       1     STOR       -1        0
 185          RC    0.03     0.03     0.05     3500   0.0057        0
              * rxry8
 186          RX     995     1000     1020     1055     1085     1165     1250     1330
 187          RY    1221     1220     1220     1211     1211     1218     1220     1222

 188          KK      12
 189          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 12.
              * KO     0        0        0        0       22
 190          BA    1.38
 191          LG   0.346        0    5.232    0.241    5.217
              * ui12
 192          UI     111      129      393      535      636      758      930     1311     1277     1008
 193          UI     850      697      574      445      264      191      169      111       92       34
 194          UI      34       34       34       34       34        0        0        0        0        0
 195          UI       0        0        0        0        0        0        0        0        0        0

 196          KK    CP12   CNAME   RCP12
 197          KM            ADD HYDROGRAPHS AT CP12.
              * KO     0        0        0        0       22
 198          HC       2

 199          KK   RCP12   CNAME    CP12
 200          KM            ROUTE COMBINED HYDROGRAPHS AT CP12 TO CPWT3
              * KO     0        0        0        0       22
              * RL     0        0        2     1196
 201          RS       2     STOR       -1        0
 202          RC    0.03     0.03     0.04     4800   0.0031        0
              * rxry9
 203          RX     995     1000     1020     1080     1200     1530     1665     1760
 204          RY    1211     1211     1210     1196     1196     1200     1204     1204

 205          KK      11
 206          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 11.
              * KO     0        0        0        0       22
 207          BA    1.56
 208          LG    0.35        0     7.25    0.107   13.299
              * ui13
 209          UI     143      245      571      755      913     1142     1648     1623     1254     1026
 210          UI     821      643      394      248      210      143       86       44       44       44
 211          UI      44        0        0        0        0        0        0        0        0        0
 212          UI       0        0        0        0        0        0        0        0        0        0

 213          KK   RCP11   CNAME     14C
 214          KM            ROUTE HYROGRAPH FROM CP11 TO CP13.
              * KO     0        0        0        0       22
              * RL     0        0      1.5     1196
 215          RS       3     STOR       -1        0
 216          RC    0.06    0.035     0.06    10200   0.0098        0
              * rxry10
1                                          HEC-1 INPUT                                                    PAGE  7

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 217          RX    1000     1070     1300     1480     1510     1525     1555     1600
 218          RY    1233     1232     1230     1222     1222     1230     1232     1233

 219          KK      13
 220          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 13.
              * KO     0        0        0        0       22
 221          BA     1.3
 222          LG    0.35        0     4.62    0.322        0
              * ui14
 223          UI     120      210      485      639      774      973     1416     1333     1039      847
 224          UI     674      527      303      206      167      120       60       37       37       37
 225          UI      37        0        0        0        0        0        0        0        0        0
 226          UI       0        0        0        0        0        0        0        0        0        0

 227          KK    CP13   CNAME   RCP13
 228          KM            ADD HYDROGRAPHS AT CP13.
              * KO     0        0        0        0       22
 229          HC       2

 230          KK   RCP13   CNAME    CP13
 231          KM            ROUTE COMBINED HYDROGRAPHS AT CP13 TO CP17
              * KO     0        0        0        0       22
              * RL     0        0      1.5     1222
 232          RS       2     STOR       -1        0
 233          RC    0.03     0.03     0.04     2400   0.0042        0
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                 * rxry11
 234             RX    1000    1025    1040    1065    1085    1110    1175    1200
 235             RY    1206    1198    1196    1194    1194    1198    1198    1201

 236             KK      14
 237             KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 14.
                 * KO     0       0       0       0      22
 238             BA    1.47
 239             LG    0.35       0   7.974   0.082  18.195
                 * ui15
 240             UI     166     421     790    1019    1341    1998    1636    1264     961     699
 241             UI     362     274     166      93      51      51      51       0       0       0
 242             UI       0       0       0       0       0       0       0       0       0       0

 243             KK   RCP14   CNAME     16C
 244             KM            ROUTE FLOW FROM CP14 TO CP15.
                 * KO     0       0       0       0      22
                 * RL     0       0       2    1194
 245             RS       4    STOR      -1       0
 246             RC    0.06   0.035    0.06    8800  0.0256       0
                 * rxry12
 247             RX    1000    1030    1075    1200    1220    1280    1415    1480
 248             RY    1296    1295    1294    1288    1288    1294    1296    1300

 249             KK      15
 250             KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 15.
                 * KO     0       0       0       0      22
 251             BA    1.26
 252             LG    0.35       0   6.561   0.142   15.67
                 * ui16
1                                          HEC-1 INPUT                                          PAGE  8

LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 253             UI     130     281     577     747     938    1321    1552    1156     920     713
 254             UI     519     277     217     138      93      40      40      40      40       0
 255             UI       0       0       0       0       0       0       0       0       0       0
 256             UI       0       0       0       0       0       0       0       0       0       0

 257             KK  I1CP15   CNAME     17R
 258             KM            ADD HYDROGRAPHS AT CP15
                 * KO     0       0       0       0      22
 259             HC       2

 260             KK      16
 261             KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 16.
                 * KO     1       0       0       0       0
 262             BA    1.13
 263             LG    0.35       0   5.676   0.201  19.953
                 * ui17
 264             UI     115     240     503     652     814    1126    1393    1049     839     655
 265             UI     497     268     194     137     101      35      35      35      35       0
 266             UI       0       0       0       0       0       0       0       0       0       0
 267             UI       0       0       0       0       0       0       0       0       0       0

 268             KK    CP15   CNAME   RCP15
 269             KM            ADD HYDROGRAPHS AT CP15.
                 * KO     0       0       0       0      22
 270             HC       2

 271             KK   RCP15   CNAME    CP15
 272             KM            ROUTE COMBINED HYDROGRAPHS AT CP15 TO CP17.
                 * KO     0       0       0       0      22
                 * RL     0       0       2    1226
 273             RS       3    STOR      -1       0
 274             RC    0.06   0.035    0.06    6800  0.0079       0
                 * SE  1198    1200    1210    1220    1230    1240
 275             RX    1000    1310    1380    1540    1640    1670    1700    1910
 276             RY    1234    1232    1228    1226    1226    1228    1232    1235

 277             KK      17
 278             KM            RUNOFFF HYDROGRAPH FROM SUB-BASIN 17.
                 * KO     0       0       0       0      22
 279             BA    1.07
 280             LG    0.35       0   4.121   0.438       0
                 * SE  1198    1200    1210    1220    1230    1240
 281             UI     117     254     572     810    1052    1196     753     635     540     450
 282             UI     353     287     254     194     149     129     103      90      64      57
 283             UI      57      26      22      22      22      22      22      22       0       0
 284             UI       0       0       0       0       0       0       0       0       0       0

 285             KK  I1CP17   CNAME     19R
 286             KM            ADD HYDROGRAPHS AT CP17.
                 * KO     0       0       0       0      22
 287             HC       2
1                                          HEC-1 INPUT                                          PAGE  9

LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 288             KK    CP17   CNAME   RCP17
 289             KM            ADD HYDROGRAPHS AT CP17.
                 * KO     0       0       0       0      22
 290             HC       2

 291             KK   RCP17   CNAME    CP17
 292             KM            ROUTE FLOW FROM CP17 TO CPWT3
                 * KO     0       0       0       0      22
                 * RL     0       0       2    1182
 293             RS       2    STOR      -1       0
 294             RC    0.06    0.04    0.04    1600  0.0022       0
                 * SE  1198    1200    1210    1220    1230    1240
 295             RX    1000    1220    1280    1470    1530    1660    1680    1685
 296             RY    1196    1194    1190    1182    1182    1210    1211    1212

 297             KK     WT3
 298             KM            RUNOFF HYDROGRAPH FROM SUB-BASIN WT3
                 * KO     0       0       0       0      22
 299             BA    0.44
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300          LG   0.344       0   4.577    0.33       0
             * SE  1198    1200    1210    1220    1230    1240
301          UI      36      44     128     175     207     249     308     436     399     318
302          UI     267     220     179     133      78      61      49      36      23      11
303          UI      11      11      11      11       0       0       0       0       0       0
304          UI       0       0       0       0       0       0       0       0       0       0

305          KK  I1CWT3   CNAME     21R
306          KM           ADD HYDROGRAPHS AT CPWT3
             * KO     0       0       0       0      22
307          HC       2

308          KK   CPWT3   CNAME     22R
309          KM           ADD HYDROGRAPHS AT CPWT3
             * KO     1       0       0       0       0
310          HC       2

311          KK     22R   CNAME   CPWT3
             * KO     1       0       0       0       0
312          RN     22R
313          ZZ
```

1

SCHEMATIC DIAGRAM OF STREAM NETWORK

```
INPUT
 LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

  NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

   26          1
               V
               V
   38        RCP1
               .
               .
   44          .           2
               .           .
               .           .
   53         CP2...........
               V
               V
   56        RCP2
               .
               .
   62          .          3A
               .           V
               .           V
   69          .       RCP3A
               .           .
               .           .
   75          .           .           3
               .           .           .
               .           .           .
   82          .      I1CP3...........
               .           .
               .           .
   85         CP3...........
               V
               V
   88        RCP3
               .
               .
   94          .           4
               .           .
               .           .
  101          .           .           5
               .           .           .
               .           .           .
  108          .         CP5...........
               .           V
               .           V
  111          .       RCP5
               .           .
               .           .
  117          .           .           6
               .           .           .
               .           .           .
  123          .      I1CP7...........
               .           .
               .           .
  126          .           .           7
               .           .           .
               .           .           .
  132          .         CP7...........
               .           V
               .           V
  135          .       RCP7
               .           .
               .           .
  141          .           .           9
               .           .           .
               .           .           .
  148          .      I1CP9...........
               .           .
               .           .
  151          .           .           8
               .           .           .
               .           .           .
  158          .         CP9...........
               .           V
               .           V
  161          .       RCP9
               .           .
               .           .
  167          .           .          10
               .           .           .
               .           .           .
  176          .     I1CP10...........
               .           .
               .           .
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179        CP10............
               V
               V
182       RCP10
               .
               .
188            .          12
               .           .
               .           .
196        CP12............
               V
               V
199       RCP12
               .
               .
205            .          11
               .           V
               .           V
213            .       RCP11
               .           .
               .           .
219            .           .          13
               .           .           .
               .           .           .
227            .        CP13............
               .           V
               .           V
230            .       RCP13
               .           .
               .           .
236            .           .          14
               .           .           V
               .           .           V
243            .           .       RCP14
               .           .           .
               .           .           .
249            .           .           .          15
               .           .           .           .
               .           .           .           .
257            .           .     I1CP15............
               .           .           .
               .           .           .
260            .           .           .          16
               .           .           .           .
               .           .           .           .
268            .           .       CP15............
               .           .           V
               .           .           V
271            .           .       RCP15
               .           .           .
               .           .           .
277            .           .           .          17
               .           .           .           .
               .           .           .           .
285            .           .     I1CP17............
               .           .           .
               .           .           .
288            .        CP17............
               .           V
               .           V
291            .       RCP17
               .           .
               .           .
297            .           .         WT3
               .           .           .
               .           .           .
305            .      I1CWT3............
               .           .
               .           .
308       CPWT3............
               V
               V
311        22R
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1****************************************
****************************************
 *                                      *                                        *
 *                                      *                                        *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                        *   U.S. ARMY CORPS OF ENGINEERS
 *                                      *                                        *
 *              JUL   1997              *                                        *   HYDROLOGIC ENGINEERING CENTER
 *                                      *                                        *
 *           VERSION 4.1                *                                        *         609 SECOND STREET
 *                                      *                                        *
 *                                      *                                        *      DAVIS, CALIFORNIA 95616
 *                                      *                                        *
 *  RUN DATE   05MAY00  TIME  17:00:47  *                                        *           (916) 756-1104
 *                                      *                                        *
 *                                      *                                        *
 ****************************************
****************************************
```

```
                                White Tanks #3 future condition (Beardsley Canal Wash Improvement)
                                May, 1999, FCDMC
                                Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999

   5 IO          OUTPUT CONTROL VARIABLES
                       IPRNT          5  PRINT CONTROL
                       IPLOT          0  PLOT CONTROL
                       QSCAL         0.  HYDROGRAPH PLOT SCALE

     IT          HYDROGRAPH TIME DATA
                        NMIN          5  MINUTES IN COMPUTATION INTERVAL
```

```
          IDATE      1JAN94  STARTING DATE
          ITIME        0000  STARTING TIME
             NQ         300  NUMBER OF HYDROGRAPH ORDINATES
         NDDATE      2JAN94  ENDING DATE
         NDTIME        0055  ENDING TIME
         ICENT           19  CENTURY MARK

     COMPUTATION INTERVAL      .08 HOURS
          TOTAL TIME BASE   24.92 HOURS

ENGLISH UNITS
    DRAINAGE AREA          SQUARE MILES
    PRECIPITATION DEPTH    INCHES
    LENGTH, ELEVATION      FEET
    FLOW                   CUBIC FEET PER SECOND
    STORAGE VOLUME         ACRE-FEET
    SURFACE AREA           ACRES
    TEMPERATURE            DEGREES FAHRENHEIT
1
```

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	1	474.	9.33	266.	103.	100.	1.94		
+	ROUTED TO	RCP1	453.	9.75	265.	103.	100.	1.94		
+									1429.71	9.75
+	HYDROGRAPH AT	2	369.	9.50	218.	82.	79.	1.82		
+	2 COMBINED AT	CP2	813.	9.67	483.	186.	179.	3.76		
+	ROUTED TO	RCP2	790.	9.92	482.	186.	179.	3.76		
+									1299.63	9.92
+	HYDROGRAPH AT	3A	5.	9.25	2.	0.	0.	.29		
+	ROUTED TO	RCP3A	4.	9.83	2.	0.	0.	.29		
+									1284.15	9.83
+	HYDROGRAPH AT	3	50.	9.33	15.	4.	4.	.81		
+	2 COMBINED AT	I1CP3	53.	9.33	17.	4.	4.	1.10		
+	2 COMBINED AT	CP3	811.	9.83	499.	190.	183.	4.86		
+	ROUTED TO	RCP3	793.	10.08	499.	190.	183.	4.86		
+									1246.74	10.08
+	HYDROGRAPH AT	4	76.	9.25	41.	16.	15.	.30		
+	HYDROGRAPH AT	5	183.	9.25	99.	38.	37.	.72		
+	2 COMBINED AT	CP5	260.	9.25	140.	54.	52.	1.02		
+	ROUTED TO	RCP5	258.	9.25	139.	54.	52.	1.02		
+									2801.18	9.25
+	HYDROGRAPH AT	6	115.	6.92	62.	24.	23.	.45		
+	2 COMBINED AT	I1CP7	373.	9.25	201.	78.	75.	1.47		
+	HYDROGRAPH AT	7	79.	6.92	42.	16.	16.	.31		
+	2 COMBINED AT	CP7	451.	9.25	243.	94.	91.	1.78		
+	ROUTED TO	RCP7	447.	9.33	243.	94.	91.	1.78		
+									1838.48	9.33
+	HYDROGRAPH AT	9	348.	9.25	191.	74.	71.	1.40		
+	2 COMBINED AT	I1CP9	795.	9.33	434.	168.	162.	3.18		
+	HYDROGRAPH AT	8	205.	9.25	111.	43.	41.	.81		
+	2 COMBINED AT	CP9	997.	9.33	545.	211.	204.	3.99		
+	ROUTED TO	RCP9	964.	9.75	544.	211.	204.	3.99		
+									1310.15	9.75

```
          HYDROGRAPH AT
+                          10      224.   9.58      108.      33.      32.     2.02
          2 COMBINED AT
+                       I1CP10    1184.   9.75      652.     245.     236.     6.01
          2 COMBINED AT
+                        CP10     1927.   9.83     1147.     434.     418.    10.87
          ROUTED TO
+                       RCP10     1906.   9.92     1147.     434.     418.    10.87
+                                                                          1215.18      9.92
          HYDROGRAPH AT
+                          12      188.   9.42       81.      25.      24.     1.38
          2 COMBINED AT
+                        CP12     2021.   9.92     1227.     460.     443.    12.25
          ROUTED TO
+                       RCP12     1943.  10.17     1226.     460.     443.    12.25
+                                                                          1198.32     10.17
          HYDROGRAPH AT
+                          11      353.   9.33      188.      69.      67.     1.56
          ROUTED TO
+                       RCP11      323.   9.75      186.      69.      67.     1.56
+                                                                          1223.47      9.75
          HYDROGRAPH AT
+                          13      108.   9.33       34.       9.       8.     1.30
          2 COMBINED AT
+                        CP13      408.   9.67      221.      78.      75.     2.86
          ROUTED TO
+                       RCP13      405.   9.75      220.      78.      75.     2.86
+                                                                          1196.24      9.75
          HYDROGRAPH AT
+                          14      367.   9.25      200.      77.      75.     1.47
          ROUTED TO
+                       RCP14      360.   9.50      200.      77.      75.     1.47
+                                                                          1289.35      9.50
          HYDROGRAPH AT
+                          15      268.   9.25      131.      46.      44.     1.26
          2 COMBINED AT
+                      I1CP15      620.   9.42      330.     124.     119.     2.73
          HYDROGRAPH AT
+                          16      211.   9.33      100.      36.      34.     1.13
          2 COMBINED AT
+                        CP15      827.   9.42      430.     159.     153.     3.86
          ROUTED TO
+                       RCP15      773.   9.75      428.     159.     153.     3.86
+                                                                          1227.29      9.75
          HYDROGRAPH AT
+                          17       14.   9.33        5.       1.       1.     1.07
          2 COMBINED AT
+                      I1CP17      781.   9.75      432.     160.     155.     4.93
          2 COMBINED AT
+                        CP17     1186.   9.75      653.     238.     230.     7.79
          ROUTED TO
+                       RCP17     1178.   9.83      652.     238.     230.     7.79
+                                                                          1185.41      9.83
          HYDROGRAPH AT
+                         WT3       33.   9.42       11.       3.       3.      .44
          2 COMBINED AT
+                      I1CWT3     1203.   9.83      663.     241.     232.     8.23
          2 COMBINED AT
+                       CPWT3     3047.  10.00     1888.     701.     675.    20.48
          ROUTED TO
+                         22R     3047.  10.00     1888.     701.     675.    20.48

 *** NORMAL END OF HEC-1 ***
```

Appendix 4.6.9. 02/16/1998-02/17/1998 storm (0.9 to Dam gage; 0.1 to E. peak)

```
1*****************************************
*****************************************
 *                                    *                                    *
 *                                    *                                    *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                    *   U.S. ARMY CORPS OF ENGINEERS
 *
```

```
*              JUL   1997              *                                          *   HYDROLOGIC ENGINEERING CENTER
*                                      *                                          *
*            VERSION 4.1               *                                          *         609 SECOND STREET
*                                      *                                          *
*                                      *                                          *       DAVIS, CALIFORNIA 95616
*                                      *                                          *
*  RUN DATE   05MAY00  TIME  17:01:02  *                                          *          (916) 756-1104
*                                      *                                          *
*                                      *                                          *
*                                      *                                          *
*****************************************
*****************************************

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

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

```
1                                                HEC-1 INPUT                                                          PAGE  1

  LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

    1           ID          White Tanks #3 future condition (Beardsley Canal Wash Improvement)
    2           ID          May, 1999, FCDMC
    3           ID          Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999
                *DIAGRAM
    4           IT       5  1JAN94       0     300
    5           IO       5
                * Gage XY Position    100.00000    100.00000 1
    6           PG   crest       0
    7           IN      15  1JAN94       0
                * 98_2_16stormWT3DamCrest
    8           PI       0     0.04       0     0.04       0       0    0.04       0    0.04    0.04
    9           PI    0.04     0.04       0       0       0    0.12    0.04       0    0.04    0.04
   10           PI    0.04       0    0.04    0.04    0.04    0.08    0.08    0.08    0.08    0.04
   11           PI    0.04     0.08    0.04    0.08    0.08    0.04    0.04       0    0.04    0.08
   12           PI    0.04     0.04       0    0.04    0.04       0       0    0.04       0    0.04
   13           PI       0       0    0.04       0    0.04       0       0    0.04       0    0.04
   14           PI       0       0       0       0       0       0       0       0       0       0
   15           PI       0       0       0       0       0       0       0
                * Gage XY Position    100.00000    102.00000 1
   16           PG   Epeak       0
   17           IN      15  1JAN94       0
                * 98_2_16stormEastPeak
   18           PI       0       0    0.04       0       0    0.04       0       0    0.04    0.04
   19           PI    0.04     0.04    0.04       0    0.04    0.04    0.04    0.04    0.04    0.04
   20           PI    0.08       0    0.08    0.08    0.08    0.12    0.12    0.12    0.08    0.04
   21           PI    0.04     0.04    0.08    0.12    0.12    0.12    0.12    0.04    0.04    0.04
   22           PI    0.04     0.04    0.04    0.04    0.04    0.08    0.04    0.08    0.08    0.08
   23           PI    0.04     0.04    0.04       0       0    0.04    0.04    0.04    0.04    0.04
   24           PI    0.04     0.04       0    0.04       0       0       0       0       0       0
   25           PI       0       0       0       0       0    0.04       0

   26           KK       1
   27           KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 1.
                * KO     5       1       0       0       0
   28           BA    1.94
   29           PR   Epeak
   30           PW       1
   31           PT   crest   Epeak
   32           PW     0.9     0.1
   33           LG    0.35       0   7.981   0.082  19.802
                * ui1
   34           UI     182     326     742     974    1186    1502    2185    1957    1537    1243
   35           UI     989     751     417     308     230     182      64      56      56      56
   36           UI      56       0       0       0       0       0       0       0       0       0
   37           UI       0       0       0       0       0       0       0       0       0       0

   38           KK    RCP1   CNAME      1C
   39           KM           ROUTE FLOW FROM CP1 TO CP2.
                * KO     0       0       0       0      22
                * RL     0       0       1    1428
   40           RS       5    STOR      -1       0
   41           RC    0.06    0.04    0.06   17800  0.0469       0
                * rxry1
   42           RX    1000    1125    1300    1390    1405    1490    1590    1750
   43           RY    1440    1439    1437    1428    1428    1439    1442    1444
1                                            HEC-1 INPUT                                                          PAGE  2

  LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

   44           KK       2
   45           KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 2.
                * KO     0       0       0       0      22
   46           BA    1.82
   47           LG    0.35       0   6.959   0.119  21.855
                * ui2
   48           UI     115     115     259     442     556     642     727     849    1013    1346
   49           UI    1419    1145     985     864     735     634     545     405     268     202
```

```
 50          UI     189     144     115     103      35      35      35      35      35      35
 51          UI      35       0       0       0       0       0       0       0       0       0
 52          UI       0       0       0       0       0       0       0       0       0       0

 53          KK     CP2   CNAME    RCP2
 54          KM           ADD HYDROGRAPHS AT CP2.
             * KO     0       0       0       0      22
 55          HC       2

 56          KK    RCP2   CNAME     CP2
 57          KM           ROUTE COMBINED HYDROGRAPHS AT CP2 TO CP3.
             * KO     0       0       0       0      22
             * RL     0       0     1.5    1298
 58          RS       2    STOR      -1       0
 59          RC    0.06   0.035    0.06    4500  0.0111       0
             * rxry2
 60          RX    1000    1100    1350    1705    1735    1780    1850    2000
 61          RY    1304    1302    1302    1298    1298    1303    1302    1305

 62          KK      3A
 63          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 3A
             * KO     0       0       0       0      22
 64          BA    0.29
 65          LG   0.336       0    4.14   0.432       0
             * ui3
 66          UI      34      89     165     212     286     410     314     242     182     124
 67          UI      62      48      33      10      10      10      10       0       0       0
 68          UI       0       0       0       0       0       0       0       0       0       0

 69          KK   RCP3A   CNAME      3C
 70          KM           ROUTE FLOW FROM CP3A TO CP3
             * KO     0       0       0       0      22
             * RL     0       0     1.5    1284
 71          RS       2    STOR      -1       0
 72          RC    0.03    0.03    0.05    5300   0.006       0
             * rxry3
 73          RX    1000    1023    1032    1046    1058    1067    1250    1540
 74          RY    1289    1288    1286    1284    1284    1286    1288    1291

 75          KK       3
 76          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 3.
             * KO     0       0       0       0      22
 77          BA    0.81
 78          LG   0.339       0   4.441   0.362       0
             * ui4
 79          UI      91     228     430     554     725    1088     908     700     535     396
1                                        HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 80          UI     205     152      95      57      28      28      28       0       0       0
 81          UI       0       0       0       0       0       0       0       0       0       0

 82          KK   I1CP3   CNAME      4R
 83          KM           ADD HYDROGRAPHS AT CP3.
             * KO     0       0       0       0      22
 84          HC       2

 85          KK     CP3   CNAME    RCP3
 86          KM           ADD HYDROGRAPHS AT CP3.
             * KO     0       0       0       0      22
 87          HC       2

 88          KK    RCP3   CNAME     CP3
 89          KM           ROUTE FLOW FROM CP3 TO CP10.
             * KO     0       0       0       0      22
             * RL     0       0       2    1245
 90          RS       2    STOR      -1       0
 91          RC    0.05    0.03    0.05    5280  0.0083       0
             * rxry4
 92          RX    1010    1015    1020    1050    1100    1275    1580    1750
 93          RY    1251    1249    1249    1245    1245    1250    1250    1254

 94          KK       4
 95          KM           RUNOFF HYDROGRAPH FORM SUB-BASIN 4.
             * KO     0       0       0       0      22
 96          BA     0.3
 97          LG    0.35       0    8.01   0.081  18.504
             * ui5
 98          UI      48     192     287     444     512     346     236     115      67      35
 99          UI      14      14       0       0       0       0       0       0       0       0
100          UI       0       0       0       0       0       0       0       0       0       0

101          KK       5
102          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 5.
             * KO     0       0       0       0      22
103          BA    0.72
104          LG    0.35       0   8.023   0.081  17.926
             * ui6
105          UI     110     437     658     992    1242     849     591     315     174     101
106          UI      34      34      34       0       0       0       0       0       0       0
107          UI       0       0       0       0       0       0       0       0       0       0

108          KK     CP5   CNAME    RCP5
109          KM           ADD HYDROGRAPHS AT CP5.
             * KO     0       0       0       0      22
110          HC       2

111          KK    RCP5   CNAME     CP5
112          KM           ROUTE COMBINED HYDROGRAPHS AT CP5 TO CP7.
             * KO     0       0       0       0      22
             * RL     0       0     0.5    2800
113          RS       1    STOR      -1       0
114          RC    0.08    0.05    0.08    4800  0.0833       0
             * rxry5
1                                        HEC-1 INPUT                                          PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
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```
 115          RX     955     970     985    1000    1020    1035    1050    1065
 116          RY    2815    2810    2805    2800    2800    2805    2810    2815

 117          KK       6
 118          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 6.
              * KO     0       0       0       0      22
 119          BA    0.45
 120          LG    0.35       0   7.976   0.082      20
              * ui7
 121          UI     204     622    1139     837     427     155      54      33       0       0
 122          UI       0       0       0       0       0       0       0       0       0       0

 123          KK   I1CP7   CNAME      7R
 124          KM            ADD HYDROGRAPHS AT CP7.
              * KO     0       0       0       0      22
 125          HC       2

 126          KK       7
 127          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 7.
              * KO     0       0       0       0      22
 128          BA    0.31
 129          LG    0.35       0   7.976   0.082      20
              * ui8
 130          UI     126     387     716     606     343     129      52      22       0       0
 131          UI       0       0       0       0       0       0       0       0       0       0

 132          KK     CP7   CNAME    RCP7
 133          KM            ADD HYDROGRAPHS AT CP7.
              * KO     0       0       0       0      22
 134          HC       2

 135          KK    RCP7   CNAME     CP7
 136          KM            ROUTE COMBINED HYDROGRAPHS AT CP7 TO CP9.
              * KO     0       0       0       0      22
              * RL     0       0     0.5    1838
 137          RS       3    STOR      -1       0
 138          RC    0.08    0.05    0.08   10200  0.0775       0
              * rxry6
 139          RX    1000    1045    1120    1195    1230    1300    1350    1450
 140          RY    1910    1880    1850    1838    1838    1850    1880    1910

 141          KK       9
 142          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 9.
              * KO     0       0       0       0      22
 143          BA     1.4
 144          LG    0.35       0   7.909   0.084  19.572
              * ui9
 145          UI     155     381     727     935    1216    1832    1591    1224     938     705
 146          UI     386     261     177     115      47      47      47      47       0       0
 147          UI       0       0       0       0       0       0       0       0       0       0
1                                          HEC-1 INPUT                                          PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 148          KK   I1CP9   CNAME      9R
 149          KM            ADD HYDROGRAPHS AT CP9.
              * KO     0       0       0       0      22
 150          HC       2

 151          KK       8
 152          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 8.
              * KO     0       0       0       0      22
 153          BA    0.81
 154          LG    0.35       0   7.976   0.082      20
              * ui10
 155          UI     102     313     535     703    1054    1140     822     608     421     208
 156          UI     147      96      31      31      31       0       0       0       0       0
 157          UI       0       0       0       0       0       0       0       0       0       0

 158          KK     CP9   CNAME    RCP9
 159          KM            ADD HYDROGRAPHS AT CP9.
              * KO     0       0       0       0      22
 160          HC       2

 161          KK    RCP9   CNAME     CP9
 162          KM            ROUTE COMBINED HYDROGRAPHS AT CP9 TO CP10.
              * KO     0       0       0       0      22
              * RL     0       0     1.5    1308
 163          RS       8    STOR      -1       0
 164          RC    0.06   0.035    0.06   19200  0.0232       0
              * rxry7
 165          RX    1000    1085    1310    1395    1415    1450    1630    1665
 166          RY    1317    1314    1311    1308    1308    1314    1314    1317

 167          KK      10
 168          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 10.
              * KO     0       0       0       0      22
 169          BA    2.02
 170          LG   0.347       0   5.124   0.254    4.52
              * ui11
 171          UI     119     119     218     427     546     632     708     812     929    1148
 172          UI    1499    1393    1156    1006     894     765     669     577     475     325
 173          UI     210     201     193     119     119      86      36      36      36      36
 174          UI      36      36      36      36       0       0       0       0       0       0
 175          UI       0       0       0       0       0       0       0       0       0       0

 176          KK  I1CP10   CNAME     11R
 177          KM            ADD HYDROGRAPHS AT CP10
              * KO     0       0       0       0      22
 178          HC       2

 179          KK    CP10   CNAME   RCP10
 180          KM            ADD HYDROGRAPHS AT CP10
              * KO     0       0       0       0      22
 181          HC       2
1                                          HEC-1 INPUT                                          PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
182          KK   RCP10   CNAME     CP10
183          KM           ROUTE FLOW AT CP10 TO CP12.
             * KO     0       0       0       0      22
             * RL     0       0       2    1211
184          RS       1    STOR      -1       0
185          RC    0.03    0.03    0.05    3500  0.0057       0
             * rxry8
186          RX     995    1000    1020    1055    1085    1165    1250    1330
187          RY    1221    1220    1220    1211    1211    1218    1220    1222

188          KK      12
189          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 12.
             * KO     0       0       0       0      22
190          BA    1.38
191          LG   0.346       0   5.232   0.241   5.217
             * ui12
192          UI     111     129     393     535     636     758     930    1311    1277    1008
193          UI     850     697     574     445     264     191     169     111      92      34
194          UI      34      34      34      34      34       0       0       0       0       0
195          UI       0       0       0       0       0       0       0       0       0       0

196          KK    CP12   CNAME   RCP12
197          KM           ADD HYDROGRAPHS AT CP12.
             * KO     0       0       0       0      22
198          HC       2

199          KK   RCP12   CNAME    CP12
200          KM           ROUTE COMBINED HYDROGRAPHS AT CP12 TO CPWT3
             * KO     0       0       0       0      22
             * RL     0       0       2    1196
201          RS       2    STOR      -1       0
202          RC    0.03    0.03    0.04    4800  0.0031       0
             * rxry9
203          RX     995    1000    1020    1080    1200    1530    1665    1760
204          RY    1211    1211    1210    1196    1196    1200    1204    1204

205          KK      11
206          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 11.
             * KO     0       0       0       0      22
207          BA    1.56
208          LG    0.35       0    7.25   0.107  13.299
             * ui13
209          UI     143     245     571     755     913    1142    1648    1623    1254    1026
210          UI     821     643     394     248     210     143      86      44      44      44
211          UI      44       0       0       0       0       0       0       0       0       0
212          UI       0       0       0       0       0       0       0       0       0       0

213          KK   RCP11   CNAME     14C
214          KM           ROUTE HYROGRAPH FROM CP11 TO CP13.
             * KO     0       0       0       0      22
             * RL     0       0     1.5    1196
215          RS       3    STOR      -1       0
216          RC    0.06   0.035    0.06   10200  0.0098       0
             * rxry10
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

217          RX    1000    1070    1300    1480    1510    1525    1555    1600
218          RY    1233    1232    1230    1222    1222    1230    1232    1233

219          KK      13
220          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 13.
             * KO     0       0       0       0      22
221          BA     1.3
222          LG    0.35       0    4.62   0.322       0
             * ui14
223          UI     120     210     485     639     774     973    1416    1333    1039     847
224          UI     674     527     303     206     167     120      60      37      37      37
225          UI      37       0       0       0       0       0       0       0       0       0
226          UI       0       0       0       0       0       0       0       0       0       0

227          KK    CP13   CNAME   RCP13
228          KM           ADD HYDROGRAPHS AT CP13.
             * KO     0       0       0       0      22
229          HC       2

230          KK   RCP13   CNAME    CP13
231          KM           ROUTE COMBINED HYDROGRAPHS AT CP13 TO CP17
             * KO     0       0       0       0      22
             * RL     0       0     1.5    1222
232          RS       2    STOR      -1       0
233          RC    0.03    0.03    0.04    2400  0.0042       0
             * rxry11
234          RX    1000    1025    1040    1065    1085    1110    1175    1200
235          RY    1206    1198    1196    1194    1194    1198    1198    1201

236          KK      14
237          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 14.
             * KO     0       0       0       0      22
238          BA    1.47
239          LG    0.35       0   7.974   0.082  18.195
             * ui15
240          UI     166     421     790    1019    1341    1998    1636    1264     961     699
241          UI     362     274     166      93      51      51      51       0       0       0
242          UI       0       0       0       0       0       0       0       0       0       0

243          KK   RCP14   CNAME     16C
244          KM           ROUTE FLOW FROM CP14 TO CP15.
             * KO     0       0       0       0      22
             * RL     0       0       2    1194
245          RS       4    STOR      -1       0
246          RC    0.06   0.035    0.06    8800  0.0256       0
             * rxry12
247          RX    1000    1030    1075    1200    1220    1280    1415    1480
248          RY    1296    1295    1294    1288    1288    1294    1296    1300
```

```
 249          KK      15
 250          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 15.
              * KO     0       0       0       0      22
 251          BA    1.26
 252          LG    0.35       0   6.561   0.142   15.67
              * ui16
1                                          HEC-1 INPUT                                                    PAGE  8

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 253          UI     130     281     577     747     938    1321    1552    1156     920     713
 254          UI     519     277     217     138      93      40      40      40      40       0
 255          UI       0       0       0       0       0       0       0       0       0       0
 256          UI       0       0       0       0       0       0       0       0       0       0

 257          KK  I1CP15   CNAME     17R
 258          KM            ADD HYDROGRAPHS AT CP15
              * KO     0       0       0       0      22
 259          HC       2

 260          KK      16
 261          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 16.
              * KO     1       0       0       0       0
 262          BA    1.13
 263          LG    0.35       0   5.676   0.201  19.953
              * ui17
 264          UI     115     240     503     652     814    1126    1393    1049     839     655
 265          UI     497     268     194     137     101      35      35      35      35       0
 266          UI       0       0       0       0       0       0       0       0       0       0
 267          UI       0       0       0       0       0       0       0       0       0       0

 268          KK    CP15   CNAME   RCP15
 269          KM            ADD HYDROGRAPHS AT CP15.
              * KO     0       0       0       0      22
 270          HC       2

 271          KK   RCP15   CNAME    CP15
 272          KM            ROUTE COMBINED HYDROGRAPHS AT CP15 TO CP17.
              * KO     0       0       0       0      22
              * RL     0       0       2    1226
 273          RS       3    STOR      -1       0
 274          RC    0.06   0.035    0.06    6800  0.0079       0
              * SE  1198    1200    1210    1220    1230    1240
 275          RX    1000    1310    1380    1540    1640    1670    1700    1910
 276          RY    1234    1232    1228    1226    1226    1228    1232    1235

 277          KK      17
 278          KM            RUNOFFF HYDROGRAPH FROM SUB-BASIN 17.
              * KO     0       0       0       0      22
 279          BA    1.07
 280          LG    0.35       0   4.121   0.438       0
              * SE  1198    1200    1210    1220    1230    1240
 281          UI     117     254     572     810    1052    1196     753     635     540     450
 282          UI     353     287     254     194     149     129     103      90      64      57
 283          UI      57      26      22      22      22      22      22      22       0       0
 284          UI       0       0       0       0       0       0       0       0       0       0

 285          KK  I1CP17   CNAME     19R
 286          KM            ADD HYDROGRAPHS AT CP17.
              * KO     0       0       0       0      22
 287          HC       2
1                                          HEC-1 INPUT                                                    PAGE  9

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 288          KK    CP17   CNAME   RCP17
 289          KM            ADD HYDROGRAPHS AT CP17.
              * KO     0       0       0       0      22
 290          HC       2

 291          KK   RCP17   CNAME    CP17
 292          KM            ROUTE FLOW FROM CP17 TO CPWT3
              * KO     0       0       0       0      22
              * RL     0       0       2    1182
 293          RS       2    STOR      -1       0
 294          RC    0.06    0.04    0.04    1600  0.0022       0
              * SE  1198    1200    1210    1220    1230    1240
 295          RX    1000    1220    1280    1470    1530    1660    1680    1685
 296          RY    1196    1194    1190    1182    1182    1210    1211    1212

 297          KK     WT3
 298          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN WT3
              * KO     0       0       0       0      22
 299          BA    0.44
 300          LG   0.344       0   4.577    0.33       0
              * SE  1198    1200    1210    1220    1230    1240
 301          UI      36      44     128     175     207     249     308     436     399     318
 302          UI     267     220     179     133      78      61      49      36      23      11
 303          UI      11      11      11      11       0       0       0       0       0       0
 304          UI       0       0       0       0       0       0       0       0       0       0

 305          KK  I1CWT3   CNAME     21R
 306          KM            ADD HYDROGRAPHS AT CPWT3
              * KO     0       0       0       0      22
 307          HC       2

 308          KK   CPWT3   CNAME     22R
 309          KM            ADD HYDROGRAPHS AT CPWT3
              * KO     1       0       0       0       0
 310          HC       2

 311          KK     22R   CNAME   CPWT3
              * KO     1       0       0       0       0
 312          RN     22R
 313          ZZ
1
          SCHEMATIC DIAGRAM OF STREAM NETWORK
INPUT
```

```
LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW
 NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW
 26          1
             V
             V
 38        RCP1
             .
             .
 44          .           2
             .           .
             .           .
 53         CP2...........
             V
             V
 56        RCP2
             .
             .
 62          .          3A
             .           V
             .           V
 69          .       RCP3A
             .           .
             .           .
 75          .           .           3
             .           .           .
             .           .           .
 82          .      I1CP3............
             .           .
             .           .
 85         CP3...........
             V
             V
 88        RCP3
             .
             .
 94          .           4
             .           .
             .           .
101          .           .           5
             .           .           .
             .           .           .
108          .         CP5............
             .           V
             .           V
111          .        RCP5
             .           .
             .           .
117          .           .           6
             .           .           .
             .           .           .
123          .      I1CP7............
             .           .
             .           .
126          .           .           7
             .           .           .
             .           .           .
132          .         CP7............
             .           V
             .           V
135          .        RCP7
             .           .
             .           .
141          .           .           9
             .           .           .
             .           .           .
148          .      I1CP9............
             .           .
             .           .
151          .           .           8
             .           .           .
             .           .           .
158          .         CP9............
             .           V
             .           V
161          .        RCP9
             .           .
             .           .
167          .           .          10
             .           .           .
             .           .           .
176          .     I1CP10............
             .           .
             .           .
179       CP10............
             V
             V
182      RCP10
             .
             .
188          .          12
             .           .
             .           .
196       CP12............
             V
             V
199      RCP12
             .
             .
205          .          11
             .           V
             .           V
213          .       RCP11
             .           .
             .           .
219          .           .          13
             .           .           .
             .           .           .
```

```
227          .        CP13............
             .           V
             .           V
230          .       RCP13
             .           .
             .           .
236          .           .         14
             .           .          V
             .           .          V
243          .           .      RCP14
             .           .           .
             .           .           .
249          .           .           .          15
             .           .           .           .
             .           .           .           .
257          .           .     I1CP15............
             .           .           .
             .           .           .
260          .           .           .          16
             .           .           .           .
             .           .           .           .
268          .           .       CP15............
             .           .          V
             .           .          V
271          .           .      RCP15
             .           .           .
             .           .           .
277          .           .           .          17
             .           .           .           .
             .           .           .           .
285          .           .     I1CP17............
             .           .           .
             .           .           .
288          .        CP17............
             .           V
             .           V
291          .       RCP17
             .           .
             .           .
297          .           .        WT3
             .           .           .
             .           .           .
305          .      I1CWT3............
             .           .
             .           .
308       CPWT3............
             V
             V
311        22R
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1****************************************
****************************************
 *                                      *                                      *
 *                                      *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                      *   U.S. ARMY CORPS OF ENGINEERING
 *                                      *                                      *
 *              JUL   1997              *                                      *   HYDROLOGIC ENGINEERING CENTER
 *                                      *                                      *
 *           VERSION 4.1                *                                      *         609 SECOND STREET
 *                                      *                                      *
 *                                      *                                      *      DAVIS, CALIFORNIA 95616
 *                                      *                                      *
 *  RUN DATE   05MAY00  TIME  17:01:02  *                                      *          (916) 756-1104
 *                                      *                                      *
 *                                      *                                      *
 *                                      *                                      *
 ****************************************
****************************************
```

```
                                White Tanks #3 future condition (Beardsley Canal Wash Improvement)
                                May, 1999, FCDMC
                                Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999

  5 IO          OUTPUT CONTROL VARIABLES
                      IPRNT          5  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE

    IT          HYDROGRAPH TIME DATA
                       NMIN          5  MINUTES IN COMPUTATION INTERVAL
                      IDATE     1JAN94  STARTING DATE
                      ITIME       0000  STARTING TIME
                         NQ        300  NUMBER OF HYDROGRAPH ORDINATES
                     NDDATE     2JAN94  ENDING DATE
                     NDTIME       0055  ENDING TIME
                      ICENT         19  CENTURY MARK

                 COMPUTATION INTERVAL     .08 HOURS
                      TOTAL TIME BASE   24.92 HOURS

          ENGLISH UNITS
               DRAINAGE AREA          SQUARE MILES
               PRECIPITATION DEPTH    INCHES
               LENGTH, ELEVATION      FEET
               FLOW                   CUBIC FEET PER SECOND
               STORAGE VOLUME         ACRE-FEET
               SURFACE AREA           ACRES
               TEMPERATURE            DEGREES FAHRENHEIT
1
                                                RUNOFF SUMMARY
                                          FLOW IN CUBIC FEET PER SECOND
                                       TIME IN HOURS,  AREA IN SQUARE MILES

                                 PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM     TIME OF
```

	OPERATION	STATION	FLOW	PEAK	6-HOUR	24-HOUR	72-HOUR	AREA	STAGE	MAX STAGE
+	HYDROGRAPH AT	1	302.	9.33	158.	58.	56.	1.94		
+	ROUTED TO	RCP1	285.	9.75	158.	58.	56.	1.94		
+									1429.29	9.75
+	HYDROGRAPH AT	2	223.	9.50	123.	44.	43.	1.82		
+	2 COMBINED AT	CP2	500.	9.67	279.	103.	99.	3.76		
+	ROUTED TO	RCP2	483.	9.92	279.	103.	99.	3.76		
+									1299.31	9.92
+	HYDROGRAPH AT	3A	0.	.00	0.	0.	0.	.29		
+	ROUTED TO	RCP3A	0.	.00	0.	0.	0.	.29		
+									1284.00	.00
+	HYDROGRAPH AT	3	0.	.00	0.	0.	0.	.81		
+	2 COMBINED AT	I1CP3	0.	.00	0.	0.	0.	1.10		
+	2 COMBINED AT	CP3	483.	9.92	279.	103.	99.	4.86		
+	ROUTED TO	RCP3	467.	10.17	279.	103.	99.	4.86		
+									1246.32	10.17
+	HYDROGRAPH AT	4	49.	9.25	24.	9.	9.	.30		
+	HYDROGRAPH AT	5	117.	9.25	59.	21.	21.	.72		
+	2 COMBINED AT	CP5	166.	9.25	83.	30.	29.	1.02		
+	ROUTED TO	RCP5	165.	9.25	83.	30.	29.	1.02		
+									2800.91	9.25
+	HYDROGRAPH AT	6	73.	6.92	37.	14.	13.	.45		
+	2 COMBINED AT	I1CP7	238.	9.25	119.	44.	42.	1.47		
+	HYDROGRAPH AT	7	50.	6.92	25.	9.	9.	.31		
+	2 COMBINED AT	CP7	288.	9.25	145.	53.	51.	1.78		
+	ROUTED TO	RCP7	285.	9.33	145.	53.	51.	1.78		
+									1838.31	9.33
+	HYDROGRAPH AT	9	222.	9.25	113.	41.	40.	1.40		
+	2 COMBINED AT	I1CP9	506.	9.33	257.	95.	91.	3.18		
+	HYDROGRAPH AT	8	131.	9.25	66.	24.	23.	.81		
+	2 COMBINED AT	CP9	636.	9.33	323.	119.	115.	3.99		
+	ROUTED TO	RCP9	602.	9.83	322.	119.	115.	3.99		
+									1309.73	9.83
+	HYDROGRAPH AT	10	77.	9.67	35.	11.	11.	.2.02		
+	2 COMBINED AT	I1CP10	676.	9.83	357.	130.	125.	6.01		
+	2 COMBINED AT	CP10	1102.	9.92	636.	233.	224.	10.87		
+	ROUTED TO	RCP10	1083.	10.08	635.	233.	224.	10.87		
+									1214.16	10.00
+	HYDROGRAPH AT	12	72.	9.42	28.	9.	9.	1.38		
+	2 COMBINED AT	CP12	1120.	10.00	663.	242.	233.	12.25		
+	ROUTED TO	RCP12	1069.	10.25	660.	242.	233.	12.25		
+									1197.69	10.25
	HYDROGRAPH AT									

```
+                          11      215.   9.33       102.       35.       33.      1.56
         ROUTED TO
+                       RCP11      186.   9.83       101.       35.       33.      1.56
+                                                                                          1223.11      9.83
         HYDROGRAPH AT
+                          13        0.    .00         0.        0.        0.      1.30
         2 COMBINED AT
+                        CP13      186.   9.83       101.       35.       33.      2.86
         ROUTED TO
+                       RCP13      183.  10.00       101.       35.       33.      2.86
+                                                                                          1195.52     10.00
         HYDROGRAPH AT
+                          14      234.   9.25       118.       43.       42.      1.47
         ROUTED TO
+                       RCP14      227.   9.58       118.       43.       42.      1.47
+                                                                                          1289.05      9.58
         HYDROGRAPH AT
+                          15      156.   9.33        72.       25.       24.      1.26
         2 COMBINED AT
+                      I1CP15      373.   9.42       189.       68.       66.      2.73
         HYDROGRAPH AT
+                          16      110.   9.33        49.       18.       18.      1.13
         2 COMBINED AT
+                        CP15      482.   9.42       238.       87.       83.      3.86
         ROUTED TO
+                       RCP15      438.   9.83       237.       87.       83.      3.86
+                                                                                          1226.97      9.83
         HYDROGRAPH AT
+                          17        0.    .00         0.        0.        0.      1.07
         2 COMBINED AT
+                      I1CP17      438.   9.83       237.       87.       83.      4.93
         2 COMBINED AT
+                        CP17      615.   9.83       338.      121.      117.      7.79
         ROUTED TO
+                       RCP17      608.  10.00       338.      121.      117.      7.79
+                                                                                          1184.34     10.00
         HYDROGRAPH AT
+                         WT3        0.    .00         0.        0.        0.       .44
         2 COMBINED AT
+                      I1CWT3      608.  10.00       338.      121.      117.      8.23
         2 COMBINED AT
+                       CPWT3     1638.  10.17       997.      363.      350.     20.48
         ROUTED TO
+                         22R     1638.  10.17       997.      363.      350.     20.48

 *** NORMAL END OF HEC-1 ***
```

Appendix 4.6.10. 03/31/1999-04/01/1999 storm (equal weights to two rain gages)

```
1****************************************
****************************************
 *                                    *                                    *
 *                                    *                                    *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)*                                    *  U.S. ARMY CORPS OF ENGINEERS
 *                                    *                                    *
 *              JUL   1997            *                                    *  HYDROLOGIC ENGINEERING CENTER
 *                                    *                                    *
 *           VERSION 4.1              *                                    *        609 SECOND STREET
 *                                    *                                    *
 *                                    *                                    *      DAVIS, CALIFORNIA 95616
 *                                    *                                    *
 *  RUN DATE   05MAY00  TIME  17:01:13*                                    *          (916) 756-1104
 *                                    *                                    *
 *                                    *                                    *
 ****************************************
****************************************

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

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM


```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  1           ID          White Tanks #3 future condition (Beardsley Canal Wash Improvement)
  2           ID          May, 1999, FCDMC
  3           ID          Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999
              *DIAGRAM
  4           IT       5  1JAN94        0     300
  5           IO       5
              * Gage XY Position    100.00000    100.00000 1
  6           PG   crest        0
  7           IN      15  1JAN94        0
              * 99stormWT3DamCrest
  8           PI       0        0        0        0     0.04        0        0     0.04        0     0.04
  9           PI       0        0     0.04        0     0.04        0        0        0     0.04     0.04
 10           PI       0     0.08     0.04     0.04        0        0     0.08        0     0.04     0.08
 11           PI    0.08     0.08     0.08     0.08        0        0        0     0.04     0.04        0
 12           PI    0.04        0        0        0     0.04        0     0.04     0.04        0     0.04
 13           PI       0        0        0        0        0        0        0        0        0        0
 14           PI       0        0        0        0        0        0        0        0
              * Gage XY Position    100.00000    102.00000 1
 15           PG   Epeak        0
 16           IN      15  1JAN94        0
              * 99stormEastPeak
 17           PI    0.04        0        0     0.04        0     0.04        0        0     0.04        0
 18           PI       0        0        0        0        0        0        0        0        0        0
 19           PI       0        0        0        0        0        0        0        0        0        0
 20           PI       0        0        0        0        0        0        0        0        0        0
 21           PI       0        0        0        0        0        0        0        0        0        0
 22           PI       0        0        0        0        0        0        0     0.08     0.12     0.08
 23           PI    0.04     0.08     0.04     0.04     0.04     0.04     0.04        0

 24           KK       1
 25           KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 1.
              * KO     5        1        0        0        0
 26           BA    1.94
 27           PR   Epeak
 28           PW       1
 29           PT   crest    Epeak
 30           PW     0.5      0.5
 31           LG    0.35    0.301    7.981    0.082   19.802
              * ui1
 32           UI     182      326      742      974     1186     1502     2185     1957     1537     1243
 33           UI     989      751      417      308      230      182       64       56       56       56
 34           UI      56        0        0        0        0        0        0        0        0        0
 35           UI       0        0        0        0        0        0        0        0        0        0

 36           KK    RCP1    CNAME       1C
 37           KM           ROUTE FLOW FROM CP1 TO CP2.
              * KO     0        0        0        0       22
              * RL     0        0        1     1428
 38           RS       5     STOR       -1        0
 39           RC    0.06     0.04     0.06    17800   0.0469        0
              * rxry1
 40           RX    1000     1125     1300     1390     1405     1490     1590     1750
 41           RY    1440     1439     1437     1428     1428     1439     1442     1444
```



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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 42           KK       2
 43           KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 2.
              * KO     0        0        0        0       22
 44           BA    1.82
 45           LG    0.35    0.352    6.959    0.119   21.855
              * ui2
 46           UI     115      115      259      442      556      642      727      849     1013     1346
 47           UI    1419     1145      985      864      735      634      545      405      268      202
 48           UI     189      144      115      103       35       35       35       35       35       35
 49           UI      35        0        0        0        0        0        0        0        0        0
 50           UI       0        0        0        0        0        0        0        0        0        0

 51           KK     CP2    CNAME     RCP2
 52           KM           ADD HYDROGRAPHS AT CP2.
              * KO     0        0        0        0       22
 53           HC       2

 54           KK    RCP2    CNAME      CP2
 55           KM           ROUTE COMBINED HYDROGRAPHS AT CP2 TO CP3.
              * KO     0        0        0        0       22
              * RL     0        0      1.5     1298
 56           RS       2     STOR       -1        0
 57           RC    0.06    0.035     0.06     4500   0.0111        0
              * rxry2
 58           RX    1000     1100     1350     1705     1735     1780     1850     2000
 59           RY    1304     1302     1302     1298     1298     1303     1302     1305

 60           KK      3A
 61           KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 3A
              * KO     0        0        0        0       22
 62           BA    0.29
 63           LG   0.336    0.336     4.14    0.432        0
              * ui3
 64           UI      34       89      165      212      286      410      314      242      182      124
```

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 65          UI      62      48      33      10      10      10      10       0       0       0
 66          UI       0       0       0       0       0       0       0       0       0       0

 67          KK   RCP3A   CNAME      3C
 68          KM           ROUTE FLOW FROM CP3A TO CP3
             * KO     0       0       0       0      22
             * RL     0       0     1.5    1284
 69          RS       2    STOR      -1       0
 70          RC    0.03    0.03    0.05    5300   0.006       0
             * rxry3
 71          RX    1000    1023    1032    1046    1058    1067    1250    1540
 72          RY    1289    1288    1286    1284    1284    1286    1288    1291

 73          KK       3
 74          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 3.
             * KO     0       0       0       0      22
 75          BA    0.81
 76          LG   0.339   0.339   4.441   0.362       0
             * ui4
 77          UI      91     228     430     554     725    1088     908     700     535     396
1                                          HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 78          UI     205     152      95      57      28      28      28       0       0       0
 79          UI       0       0       0       0       0       0       0       0       0       0

 80          KK   I1CP3   CNAME      4R
 81          KM           ADD HYDROGRAPHS AT CP3.
             * KO     0       0       0       0      22
 82          HC       2

 83          KK     CP3   CNAME    RCP3
 84          KM           ADD HYDROGRAPHS AT CP3.
             * KO     0       0       0       0      22
 85          HC       2

 86          KK    RCP3   CNAME     CP3
 87          KM           ROUTE FLOW FROM CP3 TO CP10.
             * KO     0       0       0       0      22
             * RL     0       0       2    1245
 88          RS       2    STOR      -1       0
 89          RC    0.05    0.03    0.05    5280  0.0083       0
             * rxry4
 90          RX    1010    1015    1020    1050    1100    1275    1580    1750
 91          RY    1251    1249    1249    1245    1245    1250    1250    1254

 92          KK       4
 93          KM           RUNOFF HYDROGRAPH FORM SUB-BASIN 4.
             * KO     0       0       0       0      22
 94          BA     0.3
 95          LG    0.35     0.3    8.01   0.081  18.504
             * ui5
 96          UI      48     192     287     444     512     346     236     115      67      35
 97          UI      14      14       0       0       0       0       0       0       0       0
 98          UI       0       0       0       0       0       0       0       0       0       0

 99          KK       5
100          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 5.
             * KO     0       0       0       0      22
101          BA    0.72
102          LG    0.35   0.299   8.023   0.081  17.926
             * ui6
103          UI     110     437     658     992    1242     849     591     315     174     101
104          UI      34      34      34       0       0       0       0       0       0       0
105          UI       0       0       0       0       0       0       0       0       0       0

106          KK     CP5   CNAME    RCP5
107          KM           ADD HYDROGRAPHS AT CP5.
             * KO     0       0       0       0      22
108          HC       2

109          KK    RCP5   CNAME     CP5
110          KM           ROUTE COMBINED HYDROGRAPHS AT CP5 TO CP7.
             * KO     0       0       0       0      22
             * RL     0       0     0.5    2800
111          RS       1    STOR      -1       0
112          RC    0.08    0.05    0.08    4800  0.0833       0
             * rxry5
1                                          HEC-1 INPUT                                          PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

113          RX     955     970     985    1000    1020    1035    1050    1065
114          RY    2815    2810    2805    2800    2800    2805    2810    2815

115          KK       6
116          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 6.
             * KO     0       0       0       0      22
117          BA    0.45
118          LG    0.35   0.301   7.976   0.082      20
             * ui7
119          UI     204     622    1139     837     427     155      54      33       0       0
120          UI       0       0       0       0       0       0       0       0       0       0

121          KK   I1CP7   CNAME      7R
122          KM           ADD HYDROGRAPHS AT CP7.
             * KO     0       0       0       0      22
123          HC       2

124          KK       7
125          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 7.
             * KO     0       0       0       0      22
126          BA    0.31
127          LG    0.35   0.301   7.976   0.082      20
             * ui8
128          UI     126     387     716     606     343     129      52      22       0       0
129          UI       0       0       0       0       0       0       0       0       0       0
```

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 130          KK      CP7   CNAME     RCP7
 131          KM            ADD HYDROGRAPHS AT CP7.
              * KO      0       0        0        0       22
 132          HC        2

 133          KK     RCP7   CNAME      CP7
 134          KM            ROUTE COMBINED HYDROGRAPHS AT CP7 TO CP9.
              * KO      0       0        0        0       22
              * RL      0       0      0.5     1838
 135          RS        3    STOR       -1        0
 136          RC     0.08    0.05     0.08    10200   0.0775        0
              * rxry6
 137          RX     1000    1045     1120     1195     1230     1300     1350     1450
 138          RY     1910    1880     1850     1838     1838     1850     1880     1910

 139          KK        9
 140          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 9.
              * KO      0       0        0        0       22
 141          BA      1.4
 142          LG     0.35   0.305    7.909    0.084   19.572
              * ui9
 143          UI      155     381      727      935     1216     1832     1591     1224      938      705
 144          UI      386     261      177      115       47       47       47       47        0        0
 145          UI        0       0        0        0        0        0        0        0        0        0
1                                                HEC-1 INPUT                                                    PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 146          KK    I1CP9   CNAME      9R
 147          KM            ADD HYDROGRAPHS AT CP9.
              * KO      0       0        0        0       22
 148          HC        2

 149          KK        8
 150          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 8.
              * KO      0       0        0        0       22
 151          BA     0.81
 152          LG     0.35   0.301    7.976    0.082       20
              * ui10
 153          UI      102     313      535      703     1054     1140      822      608      421      208
 154          UI      147      96       31       31       31        0        0        0        0        0
 155          UI        0       0        0        0        0        0        0        0        0        0

 156          KK      CP9   CNAME     RCP9
 157          KM            ADD HYDROGRAPHS AT CP9.
              * KO      0       0        0        0       22
 158          HC        2

 159          KK     RCP9   CNAME      CP9
 160          KM            ROUTE COMBINED HYDROGRAPHS AT CP9 TO CP10.
              * KO      0       0        0        0       22
              * RL      0       0      1.5     1308
 161          RS        8    STOR       -1        0
 162          RC     0.06   0.035     0.06    19200   0.0232        0
              * rxry7
 163          RX     1000    1085     1310     1395     1415     1450     1630     1665
 164          RY     1317    1314     1311     1308     1308     1314     1314     1317

 165          KK       10
 166          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 10.
              * KO      0       0        0        0       22
 167          BA     2.02
 168          LG    0.347   0.359    5.124    0.254     4.52
              * ui11
 169          UI      119     119      218      427      546      632      708      812      929     1148
 170          UI     1499    1393     1156     1006      894      765      669      577      475      325
 171          UI      210     201      193      119      119       86       36       36       36       36
 172          UI       36      36       36       36        0        0        0        0        0        0
 173          UI        0       0        0        0        0        0        0        0        0        0

 174          KK   I1CP10   CNAME     11R
 175          KM            ADD HYDROGRAPHS AT CP10
              * KO      0       0        0        0       22
 176          HC        2

 177          KK     CP10   CNAME    RCP10
 178          KM            ADD HYDROGRAPHS AT CP10
              * KO      0       0        0        0       22
 179          HC        2
1                                                HEC-1 INPUT                                                    PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 180          KK    RCP10   CNAME     CP10
 181          KM            ROUTE FLOW AT CP10 TO CP12.
              * KO      0       0        0        0       22
              * RL      0       0        2     1211
 182          RS        1    STOR       -1        0
 183          RC     0.03    0.03     0.05     3500   0.0057        0
              * rxry8
 184          RX      995    1000     1020     1055     1085     1165     1250     1330
 185          RY     1221    1220     1220     1211     1211     1218     1220     1222

 186          KK       12
 187          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 12.
              * KO      0       0        0        0       22
 188          BA     1.38
 189          LG    0.346   0.366    5.232    0.241    5.217
              * ui12
 190          UI      111     129      393      535      636      758      930     1311     1277     1008
 191          UI      850     697      574      445      264      191      169      111       92       34
 192          UI       34      34       34       34       34        0        0        0        0        0
 193          UI        0       0        0        0        0        0        0        0        0        0

 194          KK     CP12   CNAME    RCP12
 195          KM            ADD HYDROGRAPHS AT CP12.
              * KO      0       0        0        0       22
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 196          HC       2

 197          KK   RCP12   CNAME    CP12
 198          KM            ROUTE COMBINED HYDROGRAPHS AT CP12 TO CPWT3
              * KO     0       0       0       0      22
              * RL     0       0       2    1196
 199          RS       2    STOR      -1       0
 200          RC    0.03    0.03    0.04    4800  0.0031       0
              * rxry9
 201          RX     995    1000    1020    1080    1200    1530    1665    1760
 202          RY    1211    1211    1210    1196    1196    1200    1204    1204

 203          KK      11
 204          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 11.
              * KO     0       0       0       0      22
 205          BA    1.56
 206          LG    0.35   0.333    7.25   0.107  13.299
              * ui13
 207          UI     143     245     571     755     913    1142    1648    1623    1254    1026
 208          UI     821     643     394     248     210     143      86      44      44      44
 209          UI      44       0       0       0       0       0       0       0       0       0
 210          UI       0       0       0       0       0       0       0       0       0       0

 211          KK   RCP11   CNAME     14C
 212          KM            ROUTE HYROGRAPH FROM CP11 TO CP13.
              * KO     0       0       0       0      22
              * RL     0       0     1.5    1196
 213          RS       3    STOR      -1       0
 214          RC    0.06   0.035    0.06   10200  0.0098       0
              * rxry10
```



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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 215          RX    1000    1070    1300    1480    1510    1525    1555    1600
 216          RY    1233    1232    1230    1222    1222    1230    1232    1233

 217          KK      13
 218          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 13.
              * KO     0       0       0       0      22
 219          BA     1.3
 220          LG    0.35    0.35    4.62   0.322       0
              * ui14
 221          UI     120     210     485     639     774     973    1416    1333    1039     847
 222          UI     674     527     303     206     167     120      60      37      37      37
 223          UI      37       0       0       0       0       0       0       0       0       0
 224          UI       0       0       0       0       0       0       0       0       0       0

 225          KK    CP13   CNAME   RCP13
 226          KM            ADD HYDROGRAPHS AT CP13.
              * KO     0       0       0       0      22
 227          HC       2

 228          KK   RCP13   CNAME    CP13
 229          KM            ROUTE COMBINED HYDROGRAPHS AT CP13 TO CP17
              * KO     0       0       0       0      22
              * RL     0       0     1.5    1222
 230          RS       2    STOR      -1       0
 231          RC    0.03    0.03    0.04    2400  0.0042       0
              * rxry11
 232          RX    1000    1025    1040    1065    1085    1110    1175    1200
 233          RY    1206    1198    1196    1194    1194    1198    1198    1201

 234          KK      14
 235          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 14.
              * KO     0       0       0       0      22
 236          BA    1.47
 237          LG    0.35   0.301   7.974   0.082  18.195
              * ui15
 238          UI     166     421     790    1019    1341    1998    1636    1264     961     699
 239          UI     362     274     166      93      51      51      51       0       0       0
 240          UI       0       0       0       0       0       0       0       0       0       0

 241          KK   RCP14   CNAME     16C
 242          KM            ROUTE FLOW FROM CP14 TO CP15.
              * KO     0       0       0       0      22
              * RL     0       0       2    1194
 243          RS       4    STOR      -1       0
 244          RC    0.06   0.035    0.06    8800  0.0256       0
              * rxry12
 245          RX    1000    1030    1075    1200    1220    1280    1415    1480
 246          RY    1296    1295    1294    1288    1288    1294    1296    1300

 247          KK      15
 248          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 15.
              * KO     0       0       0       0      22
 249          BA    1.26
 250          LG    0.35   0.372   6.561   0.142   15.67
              * ui16
```



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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 251          UI     130     281     577     747     938    1321    1552    1156     920     713
 252          UI     519     277     217     138      93      40      40      40      40       0
 253          UI       0       0       0       0       0       0       0       0       0       0
 254          UI       0       0       0       0       0       0       0       0       0       0

 255          KK  I1CP15   CNAME     17R
 256          KM            ADD HYDROGRAPHS AT CP15
              * KO     0       0       0       0      22
 257          HC       2

 258          KK      16
 259          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 16.
              * KO     1       0       0       0       0
 260          BA    1.13
 261          LG    0.35   0.388   5.676   0.201  19.953
              * ui17
```

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 262          UI     115     240     503     652     814    1126    1393    1049     839     655
 263          UI     497     268     194     137     101      35      35      35      35       0
 264          UI       0       0       0       0       0       0       0       0       0       0
 265          UI       0       0       0       0       0       0       0       0       0       0

 266          KK    CP15   CNAME   RCP15
 267          KM           ADD HYDROGRAPHS AT CP15.
              * KO     0       0       0       0      22
 268          HC       2

 269          KK   RCP15   CNAME    CP15
 270          KM           ROUTE COMBINED HYDROGRAPHS AT CP15 TO CP17.
              * KO     0       0       0       0      22
              * RL     0       0       2    1226
 271          RS       3    STOR      -1       0
 272          RC    0.06   0.035    0.06    6800  0.0079       0
              * SE  1198    1200    1210    1220    1230    1240
 273          RX    1000    1310    1380    1540    1640    1670    1700    1910
 274          RY    1234    1232    1228    1226    1226    1228    1232    1235

 275          KK      17
 276          KM           RUNOFFF HYDROGRAPH FROM SUB-BASIN 17.
              * KO     0       0       0       0      22
 277          BA    1.07
 278          LG    0.35    0.35   4.121   0.438       0
              * SE  1198    1200    1210    1220    1230    1240
 279          UI     117     254     572     810    1052    1196     753     635     540     450
 280          UI     353     287     254     194     149     129     103      90      64      57
 281          UI      57      26      22      22      22      22      22      22       0       0
 282          UI       0       0       0       0       0       0       0       0       0       0

 283          KK  I1CP17   CNAME     19R
 284          KM           ADD HYDROGRAPHS AT CP17.
              * KO     0       0       0       0      22
 285          HC       2
1                                          HEC-1 INPUT                                          PAGE  9

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 286          KK    CP17   CNAME   RCP17
 287          KM           ADD HYDROGRAPHS AT CP17.
              * KO     0       0       0       0      22
 288          HC       2

 289          KK   RCP17   CNAME    CP17
 290          KM           ROUTE FLOW FROM CP17 TO CPWT3
              * KO     0       0       0       0      22
              * RL     0       0       2    1182
 291          RS       2    STOR      -1       0
 292          RC    0.06    0.04    0.04    1600  0.0022       0
              * SE  1198    1200    1210    1220    1230    1240
 293          RX    1000    1220    1280    1470    1530    1660    1680    1685
 294          RY    1196    1194    1190    1182    1182    1210    1211    1212

 295          KK     WT3
 296          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN WT3
              * KO     0       0       0       0      22
 297          BA    0.44
 298          LG   0.344   0.344   4.577    0.33       0
              * SE  1198    1200    1210    1220    1230    1240
 299          UI      36      44     128     175     207     249     308     436     399     318
 300          UI     267     220     179     133      78      61      49      36      23      11
 301          UI      11      11      11      11       0       0       0       0       0       0
 302          UI       0       0       0       0       0       0       0       0       0       0

 303          KK  I1CWT3   CNAME     21R
 304          KM           ADD HYDROGRAPHS AT CPWT3
              * KO     0       0       0       0      22
 305          HC       2

 306          KK   CPWT3   CNAME     22R
 307          KM           ADD HYDROGRAPHS AT CPWT3
              * KO     1       0       0       0       0
 308          HC       2

 309          KK     22R   CNAME   CPWT3
              * KO     1       0       0       0       0
 310          RN     22R
 311          ZZ
1
          SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE    (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.    (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

   24          1
               V
               V
   36        RCP1
               .
               .
   42          .           2
               .           .
               .           .
   51         CP2...........
               V
               V
   54        RCP2
               .
               .
   60          .          3A
               .           V
               .           V
   67          .       RCP3A
               .           .
               .           .
   73          .           .           3
```

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 80          I1CP3............
 83     CP3............
        V
        V
 86    RCP3

 92              4

 99                          5

106          CP5............
               V
               V
109          RCP5

115                          6

121          I1CP7............

124                          7

130          CP7............
               V
               V
133          RCP7

139                          9

146          I1CP9............

149                          8

156          CP9............
               V
               V
159          RCP9

165                         10

174         I1CP10............

177    CP10............
        V
        V
180   RCP10

186             12

194    CP12............
        V
        V
197   RCP12

203             11
               V
               V
211         RCP11

217                         13

225         CP13............
               V
               V
228         RCP13

234                         14
                            V
                            V
241                      RCP14

247                                         15

255                   I1CP15............

258                                         16

266                     CP15............
                           V
                           V
269                      RCP15
```

```
275          .          .          .          17
             .          .          .           .
283          .          .     I1CP17...........
             .          .          .
286          .       CP17...........
             .          V
             .          V
289          .      RCP17
             .          .
             .          .
295          .          .        WT3
             .          .          .
303          .     I1CWT3...........
             .          .
             .          .
306      CPWT3...........
             V
             V
309        22R
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1*****************************************
*****************************************
 *                                       *                                        *
 *                                       *                                        *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *                                        *   U.S. ARMY CORPS OF ENGINEERS
 *                                       *                                        *
 *              JUL   1997               *                                        *   HYDROLOGIC ENGINEERING CENTER
 *                                       *                                        *
 *           VERSION 4.1                 *                                        *         609 SECOND STREET
 *                                       *                                        *
 *                                       *                                        *      DAVIS, CALIFORNIA 95616
 *                                       *                                        *
 *  RUN DATE   05MAY00  TIME  17:01:13   *                                        *          (916) 756-1104
 *                                       *                                        *
 *                                       *                                        *
 *****************************************
*****************************************
```

```
                                White Tanks #3 future condition (Beardsley Canal Wash Improvement)
                                May, 1999, FCDMC
                                Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999

  5 IO          OUTPUT CONTROL VARIABLES
                      IPRNT          5  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE

    IT          HYDROGRAPH TIME DATA
                       NMIN          5  MINUTES IN COMPUTATION INTERVAL
                      IDATE     1JAN94  STARTING DATE
                      ITIME       0000  STARTING TIME
                         NQ        300  NUMBER OF HYDROGRAPH ORDINATES
                     NDDATE     2JAN94  ENDING DATE
                     NDTIME       0055  ENDING TIME
                      ICENT         19  CENTURY MARK

                 COMPUTATION INTERVAL     .08 HOURS
                      TOTAL TIME BASE   24.92 HOURS

          ENGLISH UNITS
               DRAINAGE AREA          SQUARE MILES
               PRECIPITATION DEPTH    INCHES
               LENGTH, ELEVATION      FEET
               FLOW                   CUBIC FEET PER SECOND
               STORAGE VOLUME         ACRE-FEET
               SURFACE AREA           ACRES
               TEMPERATURE            DEGREES FAHRENHEIT
1
```

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	1	110.	15.25	33.	10.	10.	1.94		
+	ROUTED TO	RCP1	88.	16.25	33.	10.	10.	1.94		
+									1428.66	16.25
+	HYDROGRAPH AT	2	97.	15.67	34.	11.	10.	1.82		
+	2 COMBINED AT	CP2	170.	16.08	66.	21.	20.	3.76		
+	ROUTED TO	RCP2	166.	16.42	66.	21.	20.	3.76		
+									1298.80	16.42
+	HYDROGRAPH AT	3A	0.	.00	0.	0.	0.	.29		
+	ROUTED TO	RCP3A	0.	.00	0.	0.	0.	.29		
+									1284.00	.00

+	HYDROGRAPH AT	3	0.	.00	0.	0.	0.	.81	
+	2 COMBINED AT	I1CP3	0.	.00	0.	0.	0.	1.10	
+	2 COMBINED AT	CP3	166.	16.42	66.	21.	20.	4.86	
+	ROUTED TO	RCP3	160.	16.75	66.	21.	20.	4.86	
+									1245.72 16.75
+	HYDROGRAPH AT	4	19.	15.00	5.	1.	1.	.30	
+	HYDROGRAPH AT	5	43.	15.00	11.	3.	3.	.72	
+	2 COMBINED AT	CP5	62.	15.00	16.	5.	5.	1.02	
+	ROUTED TO	RCP5	55.	15.17	16.	5.	5.	1.02	
+									2800.36 15.17
+	HYDROGRAPH AT	6	33.	14.83	8.	2.	2.	.45	
+	2 COMBINED AT	I1CP7	79.	15.08	23.	7.	7.	1.47	
+	HYDROGRAPH AT	7	23.	14.83	5.	2.	2.	.31	
+	2 COMBINED AT	CP7	98.	15.00	28.	9.	9.	1.78	
+	ROUTED TO	RCP7	95.	15.17	28.	9.	9.	1.78	
+									1838.10 15.17
+	HYDROGRAPH AT	9	83.	15.17	23.	7.	7.	1.40	
+	2 COMBINED AT	I1CP9	178.	15.17	52.	16.	16.	3.18	
+	HYDROGRAPH AT	8	52.	15.08	14.	4.	4.	.81	
+	2 COMBINED AT	CP9	228.	15.17	65.	21.	20.	3.99	
+	ROUTED TO	RCP9	183.	16.08	65.	21.	20.	3.99	
+									1308.98 16.08
+	HYDROGRAPH AT	10	22.	15.75	8.	2.	2.	2.02	
+	2 COMBINED AT	I1CP10	202.	16.08	73.	23.	22.	6.01	
+	2 COMBINED AT	CP10	335.	16.58	139.	44.	43.	10.87	
+	ROUTED TO	RCP10	330.	16.75	139.	44.	43.	10.87	
+									1212.71 16.75
+	HYDROGRAPH AT	12	19.	15.33	6.	2.	2.	1.38	
+	2 COMBINED AT	CP12	341.	16.75	144.	46.	44.	12.25	
+	ROUTED TO	RCP12	320.	17.25	143.	46.	44.	12.25	
+									1196.87 17.25
+	HYDROGRAPH AT	11	59.	15.25	18.	6.	5.	1.56	
+	ROUTED TO	RCP11	41.	16.58	18.	6.	5.	1.56	
+									1222.42 16.58
+	HYDROGRAPH AT	13	0.	.00	0.	0.	0.	1.30	
+	2 COMBINED AT	CP13	41.	16.58	18.	6.	5.	2.86	
+	ROUTED TO	RCP13	40.	16.75	18.	6.	5.	2.86	
+									1194.68 16.75
+	HYDROGRAPH AT	14	82.	15.17	23.	7.	7.	1.47	
+	ROUTED TO	RCP14	66.	15.83	23.	7.	7.	1.47	
+									1288.54 15.83
+	HYDROGRAPH AT	15	59.	15.17	17.	5.	5.	1.26	

```
          2 COMBINED AT
+                        I1CP15      108.  15.83        39.        12.        12.      2.73
          HYDROGRAPH AT
+                            16       66.  15.17        19.         6.         6.      1.13
          2 COMBINED AT
+                          CP15      162.  15.42        58.        19.        18.      3.86
          ROUTED TO
+                         RCP15      144.  16.33        58.        19.        18.      3.86
+                                                                                   1226.51      16.33
          HYDROGRAPH AT
+                            17        0.    .00         0.         0.         0.      1.07
          2 COMBINED AT
+                        I1CP17      144.  16.33        58.        19.        18.      4.93
          2 COMBINED AT
+                          CP17      179.  16.42        76.        24.        23.      7.79
          ROUTED TO
+                         RCP17      175.  16.67        76.        24.        23.      7.79
+                                                                                   1183.05      16.67
          HYDROGRAPH AT
+                           WT3        0.    .00         0.         0.         0.       .44
          2 COMBINED AT
+                        I1CWT3      175.  16.67        76.        24.        23.      8.23
          2 COMBINED AT
+                         CPWT3      479.  17.17       219.        70.        68.     20.48
          ROUTED TO
+                           22R      479.  17.17       219.        70.        68.     20.48

 *** NORMAL END OF HEC-1 ***
```

Appendix 4.6.11. 03/31/1999-04/01/1999 storm (0.1 to Dam gage; 0.9 to E. peak)

```
1****************************************
****************************************
 *                                      *                                        *
 *                                      *                                        *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                        *   U.S. ARMY CORPS OF ENGINEERS
 *                                      *                                        *
 *              JUL   1997              *                                        *   HYDROLOGIC ENGINEERING CENTER
 *                                      *                                        *
 *           VERSION 4.1                *                                        *         609 SECOND STREET
 *                                      *                                        *
 *                                      *                                        *      DAVIS, CALIFORNIA 95616
 *                                      *                                        *
 *  RUN DATE   05MAY00  TIME  17:01:25  *                                        *          (916) 756-1104
 *                                      *                                        *
 *                                      *                                        *
 ****************************************
****************************************

                                        X     X  XXXXXXX   XXXXX          X
                                        X     X  X        X     X        XX
                                        X     X  X        X               X
                                        XXXXXXX  XXXX     X        XXXXX  X
                                        X     X  X        X               X
                                        X     X  X        X     X         X
                                        X     X  XXXXXXX   XXXXX        XXX

          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                HEC-1 INPUT                                                PAGE  1

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

            1           ID          White Tanks #3 future condition (Beardsley Canal Wash Improvement)
            2           ID          May, 1999, FCDMC
            3           ID          Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999
                        *DIAGRAM
            4           IT       5  1JAN94       0     300
            5           IO       5
                        * Gage XY Position    100.00000    100.00000 1
            6           PG   crest       0
            7           IN      15  1JAN94       0
```

```
                 * 99stormWT3DamCrest
   8             PI       0       0       0       0    0.04       0       0    0.04       0    0.04
   9             PI       0       0    0.04       0    0.04       0       0       0    0.04    0.04
  10             PI       0    0.08    0.04    0.04       0       0    0.08       0    0.04    0.08
  11             PI    0.08    0.08    0.08    0.08       0       0       0    0.04    0.04       0
  12             PI    0.04       0       0       0    0.04       0    0.04    0.04       0    0.04
  13             PI       0       0       0       0       0       0       0       0       0       0
  14             PI       0       0       0       0       0       0       0       0
                 * Gage XY Position    100.00000    102.00000 1
  15             PG   Epeak       0
  16             IN      15  1JAN94       0
                 * 99stormEastPeak
  17             PI    0.04       0       0    0.04       0    0.04       0       0    0.04       0
  18             PI       0       0       0       0       0       0       0       0       0       0
  19             PI       0       0       0       0       0       0       0       0       0       0
  20             PI       0       0       0       0       0       0       0       0       0       0
  21             PI       0       0       0       0       0       0       0       0       0       0
  22             PI       0       0       0       0       0       0       0    0.08    0.12    0.08
  23             PI    0.04    0.08    0.04    0.04    0.04    0.04    0.04       0

  24             KK       1
  25             KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 1.
                 * KO     5       1       0       0       0
  26             BA    1.94
  27             PR   Epeak
  28             PW       1
  29             PT   crest   Epeak
  30             PW     0.1     0.9
  31             LG    0.35   0.301   7.981   0.082  19.802
                 * ui1
  32             UI     182     326     742     974    1186    1502    2185    1957    1537    1243
  33             UI     989     751     417     308     230     182      64      56      56      56
  34             UI      56       0       0       0       0       0       0       0       0       0
  35             UI       0       0       0       0       0       0       0       0       0       0

  36             KK    RCP1   CNAME      1C
  37             KM            ROUTE FLOW FROM CP1 TO CP2.
                 * KO     0       0       0       0      22
                 * RL     0       0       1    1428
  38             RS       5    STOR      -1       0
  39             RC    0.06    0.04    0.06   17800  0.0469       0
                 * rxry1
  40             RX    1000    1125    1300    1390    1405    1490    1590    1750
  41             RY    1440    1439    1437    1428    1428    1439    1442    1444
1                                             HEC-1 INPUT                                          PAGE  2

LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  42             KK       2
  43             KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 2.
                 * KO     0       0       0       0      22
  44             BA    1.82
  45             LG    0.35   0.352   6.959   0.119  21.855
                 * ui2
  46             UI     115     115     259     442     556     642     727     849    1013    1346
  47             UI    1419    1145     985     864     735     634     545     405     268     202
  48             UI     189     144     115     103      35      35      35      35      35      35
  49             UI      35       0       0       0       0       0       0       0       0       0
  50             UI       0       0       0       0       0       0       0       0       0       0

  51             KK     CP2   CNAME    RCP2
  52             KM            ADD HYDROGRAPHS AT CP2.
                 * KO     0       0       0       0      22
  53             HC       2

  54             KK    RCP2   CNAME     CP2
  55             KM            ROUTE COMBINED HYDROGRAPHS AT CP2 TO CP3.
                 * KO     0       0       0       0      22
                 * RL     0       0     1.5    1298
  56             RS       2    STOR      -1       0
  57             RC    0.06   0.035    0.06    4500  0.0111       0
                 * rxry2
  58             RX    1000    1100    1350    1705    1735    1780    1850    2000
  59             RY    1304    1302    1302    1298    1298    1303    1302    1305

  60             KK      3A
  61             KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 3A
                 * KO     0       0       0       0      22
  62             BA    0.29
  63             LG   0.336   0.336    4.14   0.432       0
                 * ui3
  64             UI      34      89     165     212     286     410     314     242     182     124
  65             UI      62      48      33      10      10      10      10       0       0       0
  66             UI       0       0       0       0       0       0       0       0       0       0

  67             KK   RCP3A   CNAME      3C
  68             KM            ROUTE FLOW FROM CP3A TO CP3
                 * KO     0       0       0       0      22
                 * RL     0       0     1.5    1284
  69             RS       2    STOR      -1       0
  70             RC    0.03    0.03    0.05    5300   0.006       0
                 * rxry3
  71             RX    1000    1023    1032    1046    1058    1067    1250    1540
  72             RY    1289    1288    1286    1284    1284    1286    1288    1291

  73             KK       3
  74             KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 3.
                 * KO     0       0       0       0      22
  75             BA    0.81
  76             LG   0.339   0.339   4.441   0.362       0
                 * ui4
  77             UI      91     228     430     554     725    1088     908     700     535     396
1                                             HEC-1 INPUT                                          PAGE  3

LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  78             UI     205     152      95      57      28      28      28       0       0       0
  79             UI       0       0       0       0       0       0       0       0       0       0
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 80          KK   I1CP3   CNAME      4R
 81          KM           ADD HYDROGRAPHS AT CP3.
             * KO     0       0       0       0      22
 82          HC       2

 83          KK     CP3   CNAME    RCP3
 84          KM           ADD HYDROGRAPHS AT CP3.
             * KO     0       0       0       0      22
 85          HC       2

 86          KK    RCP3   CNAME     CP3
 87          KM           ROUTE FLOW FROM CP3 TO CP10.
             * KO     0       0       0       0      22
             * RL     0       0       2    1245
 88          RS       2    STOR      -1       0
 89          RC    0.05    0.03    0.05    5280  0.0083       0
             * rxry4
 90          RX    1010    1015    1020    1050    1100    1275    1580    1750
 91          RY    1251    1249    1249    1245    1245    1250    1250    1254

 92          KK       4
 93          KM           RUNOFF HYDROGRAPH FORM SUB-BASIN 4.
             * KO     0       0       0       0      22
 94          BA     0.3
 95          LG    0.35     0.3    8.01   0.081  18.504
             * ui5
 96          UI      48     192     287     444     512     346     236     115      67      35
 97          UI      14      14       0       0       0       0       0       0       0       0
 98          UI       0       0       0       0       0       0       0       0       0       0

 99          KK       5
100          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 5.
             * KO     0       0       0       0      22
101          BA    0.72
102          LG    0.35   0.299   8.023   0.081  17.926
             * ui6
103          UI     110     437     658     992    1242     849     591     315     174     101
104          UI      34      34      34       0       0       0       0       0       0       0
105          UI       0       0       0       0       0       0       0       0       0       0

106          KK     CP5   CNAME    RCP5
107          KM           ADD HYDROGRAPHS AT CP5.
             * KO     0       0       0       0      22
108          HC       2

109          KK    RCP5   CNAME     CP5
110          KM           ROUTE COMBINED HYDROGRAPHS AT CP5 TO CP7.
             * KO     0       0       0       0      22
             * RL     0       0     0.5    2800
111          RS       1    STOR      -1       0
112          RC    0.08    0.05    0.08    4800  0.0833       0
             * rxry5
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

113          RX     955     970     985    1000    1020    1035    1050    1065
114          RY    2815    2810    2805    2800    2800    2805    2810    2815

115          KK       6
116          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 6.
             * KO     0       0       0       0      22
117          BA    0.45
118          LG    0.35   0.301   7.976   0.082      20
             * ui7
119          UI     204     622    1139     837     427     155      54      33       0       0
120          UI       0       0       0       0       0       0       0       0       0       0

121          KK   I1CP7   CNAME      7R
122          KM           ADD HYDROGRAPHS AT CP7.
             * KO     0       0       0       0      22
123          HC       2

124          KK       7
125          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 7.
             * KO     0       0       0       0      22
126          BA    0.31
127          LG    0.35   0.301   7.976   0.082      20
             * ui8
128          UI     126     387     716     606     343     129      52      22       0       0
129          UI       0       0       0       0       0       0       0       0       0       0

130          KK     CP7   CNAME    RCP7
131          KM           ADD HYDROGRAPHS AT CP7.
             * KO     0       0       0       0      22
132          HC       2

133          KK    RCP7   CNAME     CP7
134          KM           ROUTE COMBINED HYDROGRAPHS AT CP7 TO CP9.
             * KO     0       0       0       0      22
             * RL     0       0     0.5    1838
135          RS       3    STOR      -1       0
136          RC    0.08    0.05    0.08   10200  0.0775       0
             * rxry6
137          RX    1000    1045    1120    1195    1230    1300    1350    1450
138          RY    1910    1880    1850    1838    1838    1850    1880    1910

139          KK       9
140          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 9.
             * KO     0       0       0       0      22
141          BA     1.4
142          LG    0.35   0.305   7.909   0.084  19.572
             * ui9
143          UI     155     381     727     935    1216    1832    1591    1224.    938     705
144          UI     386     261     177     115      47      47      47      47       0       0
145          UI       0       0       0       0       0       0       0       0       0       0
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 146          KK   I1CP9   CNAME      9R
 147          KM           ADD HYDROGRAPHS AT CP9.
              * KO     0       0       0       0      22
 148          HC       2

 149          KK       8
 150          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 8.
              * KO     0       0       0       0      22
 151          BA    0.81
 152          LG    0.35   0.301   7.976   0.082      20
              * ui10
 153          UI     102     313     535     703    1054    1140     822     608     421     208
 154          UI     147      96      31      31      31       0       0       0       0       0
 155          UI       0       0       0       0       0       0       0       0       0       0

 156          KK     CP9   CNAME    RCP9
 157          KM           ADD HYDROGRAPHS AT CP9.
              * KO     0       0       0       0      22
 158          HC       2

 159          KK    RCP9   CNAME     CP9
 160          KM           ROUTE COMBINED HYDROGRAPHS AT CP9 TO CP10.
              * KO     0       0       0       0      22
              * RL     0       0     1.5    1308
 161          RS       8    STOR      -1       0
 162          RC    0.06   0.035    0.06   19200  0.0232       0
              * rxry7
 163          RX    1000    1085    1310    1395    1415    1450    1630    1665
 164          RY    1317    1314    1311    1308    1308    1314    1314    1317

 165          KK      10
 166          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 10.
              * KO     0       0       0       0      22
 167          BA    2.02
 168          LG   0.347   0.359   5.124   0.254    4.52
              * ui11
 169          UI     119     119     218     427     546     632     708     812     929    1148
 170          UI    1499    1393    1156    1006     894     765     669     577     475     325
 171          UI     210     201     193     119     119      86      36      36      36      36
 172          UI      36      36      36      36       0       0       0       0       0       0
 173          UI       0       0       0       0       0       0       0       0       0       0

 174          KK  I1CP10   CNAME     11R
 175          KM           ADD HYDROGRAPHS AT CP10
              * KO     0       0       0       0      22
 176          HC       2

 177          KK    CP10   CNAME   RCP10
 178          KM           ADD HYDROGRAPHS AT CP10
              * KO     0       0       0       0      22
 179          HC       2
1                                    HEC-1 INPUT                                          PAGE  6
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 180          KK   RCP10   CNAME    CP10
 181          KM           ROUTE FLOW AT CP10 TO CP12.
              * KO     0       0       0       0      22
              * RL     0       0       2    1211
 182          RS       1    STOR      -1       0
 183          RC    0.03    0.03    0.05    3500  0.0057       0
              * rxry8
 184          RX     995    1000    1020    1055    1085    1165    1250    1330
 185          RY    1221    1220    1220    1211    1211    1218    1220    1222

 186          KK      12
 187          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 12.
              * KO     0       0       0       0      22
 188          BA    1.38
 189          LG   0.346   0.366   5.232   0.241   5.217
              * ui12
 190          UI     111     129     393     535     636     758     930    1311    1277    1008
 191          UI     850     697     574     445     264     191     169     111      92      34
 192          UI      34      34      34      34      34       0       0       0       0       0
 193          UI       0       0       0       0       0       0       0       0       0       0

 194          KK    CP12   CNAME   RCP12
 195          KM           ADD HYDROGRAPHS AT CP12.
              * KO     0       0       0       0      22
 196          HC       2

 197          KK   RCP12   CNAME    CP12
 198          KM           ROUTE COMBINED HYDROGRAPHS AT CP12 TO CPWT3
              * KO     0       0       0       0      22
              * RL     0       0       2    1196
 199          RS       2    STOR      -1       0
 200          RC    0.03    0.03    0.04    4800  0.0031       0
              * rxry9
 201          RX     995    1000    1020    1080    1200    1530    1665    1760
 202          RY    1211    1211    1210    1196    1196    1200    1204    1204

 203          KK      11
 204          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 11.
              * KO     0       0       0       0      22
 205          BA    1.56
 206          LG    0.35   0.333    7.25   0.107  13.299
              * ui13
 207          UI     143     245     571     755     913    1142    1648    1623    1254    1026
 208          UI     821     643     394     248     210     143      86      44      44      44
 209          UI      44       0       0       0       0       0       0       0       0       0
 210          UI       0       0       0       0       0       0       0       0       0       0

 211          KK   RCP11   CNAME     14C
 212          KM           ROUTE HYROGRAPH FROM CP11 TO CP13.
              * KO     0       0       0       0      22
```

```
                 * RL      0       0     1.5    1196
 213             RS        3    STOR      -1       0
 214             RC     0.06   0.035    0.06   10200  0.0098       0
                 * rxry10
1                                          HEC-1 INPUT                                                          PAGE  7

LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 215             RX     1000    1070    1300    1480    1510    1525    1555    1600
 216             RY     1233    1232    1230    1222    1222    1230    1232    1233

 217             KK       13
 218             KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 13.
                 * KO      0       0       0       0      22
 219             BA     1.3
 220             LG    0.35    0.35    4.62   0.322       0
                 * ui14
 221             UI      120     210     485     639     774     973    1416    1333    1039     847
 222             UI      674     527     303     206     167     120      60      37      37      37
 223             UI       37       0       0       0       0       0       0       0       0       0
 224             UI        0       0       0       0       0       0       0       0       0       0

 225             KK     CP13   CNAME   RCP13
 226             KM            ADD HYDROGRAPHS AT CP13.
                 * KO      0       0       0       0      22
 227             HC        2

 228             KK    RCP13   CNAME    CP13
 229             KM            ROUTE COMBINED HYDROGRAPHS AT CP13 TO CP17
                 * KO      0       0       0       0      22
                 * RL      0       0     1.5    1222
 230             RS        2    STOR      -1       0
 231             RC     0.03    0.03    0.04    2400  0.0042       0
                 * rxry11
 232             RX     1000    1025    1040    1065    1085    1110    1175    1200
 233             RY     1206    1198    1196    1194    1194    1198    1198    1201

 234             KK       14
 235             KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 14.
                 * KO      0       0       0       0      22
 236             BA     1.47
 237             LG    0.35   0.301   7.974   0.082  18.195
                 * ui15
 238             UI      166     421     790    1019    1341    1998    1636    1264     961     699
 239             UI      362     274     166      93      51      51      51       0       0       0
 240             UI        0       0       0       0       0       0       0       0       0       0

 241             KK    RCP14   CNAME     16C
 242             KM            ROUTE FLOW FROM CP14 TO CP15.
                 * KO      0       0       0       0      22
                 * RL      0       0       2    1194
 243             RS        4    STOR      -1       0
 244             RC     0.06   0.035    0.06    8800  0.0256       0
                 * rxry12
 245             RX     1000    1030    1075    1200    1220    1280    1415    1480
 246             RY     1296    1295    1294    1288    1288    1294    1296    1300

 247             KK       15
 248             KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 15.
                 * KO      0       0       0       0      22
 249             BA     1.26
 250             LG    0.35   0.372   6.561   0.142   15.67
                 * ui16
1                                          HEC-1 INPUT                                                          PAGE  8

LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 251             UI      130     281     577     747     938    1321    1552    1156     920     713
 252             UI      519     277     217     138      93      40      40      40      40       0
 253             UI        0       0       0       0       0       0       0       0       0       0
 254             UI        0       0       0       0       0       0       0       0       0       0

 255             KK   I1CP15   CNAME     17R
 256             KM            ADD HYDROGRAPHS AT CP15
                 * KO      0       0       0       0      22
 257             HC        2

 258             KK       16
 259             KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 16.
                 * KO      1       0       0       0       0
 260             BA     1.13
 261             LG    0.35   0.388   5.676   0.201  19.953
                 * ui17
 262             UI      115     240     503     652     814    1126    1393    1049     839     655
 263             UI      497     268     194     137     101      35      35      35      35       0
 264             UI        0       0       0       0       0       0       0       0       0       0
 265             UI        0       0       0       0       0       0       0       0       0       0

 266             KK     CP15   CNAME   RCP15
 267             KM            ADD HYDROGRAPHS AT CP15.
                 * KO      0       0       0       0      22
 268             HC        2

 269             KK    RCP15   CNAME    CP15
 270             KM            ROUTE COMBINED HYDROGRAPHS AT CP15 TO CP17.
                 * KO      0       0       0       0      22
                 * RL      0       0       2    1226
 271             RS        3    STOR      -1       0
 272             RC     0.06   0.035    0.06    6800  0.0079       0
                 * SE   1198    1200    1210    1220    1230    1240
 273             RX     1000    1310    1380    1540    1640    1670    1700    1910
 274             RY     1234    1232    1228    1226    1226    1228    1232    1235

 275             KK       17
 276             KM            RUNOFFF HYDROGRAPH FROM SUB-BASIN 17.
                 * KO      0       0       0       0      22
 277             BA     1.07
 278             LG    0.35    0.35   4.121   0.438       0
                 * SE   1198    1200    1210    1220    1230    1240
```

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 279          UI     117     254     572     810    1052    1196     753     635     540     450
 280          UI     353     287     254     194     149     129     103      90      64      57
 281          UI      57      26      22      22      22      22      22      22       0       0
 282          UI       0       0       0       0       0       0       0       0       0       0

 283          KK  I1CP17   CNAME     19R
 284          KM           ADD HYDROGRAPHS AT CP17.
              * KO     0       0       0       0      22
 285          HC       2
1                                          HEC-1 INPUT                                          PAGE  9

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 286          KK    CP17   CNAME   RCP17
 287          KM           ADD HYDROGRAPHS AT CP17.
              * KO     0       0       0       0      22
 288          HC       2

 289          KK   RCP17   CNAME    CP17
 290          KM           ROUTE FLOW FROM CP17 TO CPWT3
              * KO     0       0       0       0      22
              * RL     0       0       2    1182
 291          RS       2    STOR      -1       0
 292          RC    0.06    0.04    0.04    1600  0.0022       0
              * SE  1198    1200    1210    1220    1230    1240
 293          RX    1000    1220    1280    1470    1530    1660    1680    1685
 294          RY    1196    1194    1190    1182    1182    1210    1211    1212

 295          KK     WT3
 296          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN WT3
              * KO     0       0       0       0      22
 297          BA    0.44
 298          LG   0.344   0.344   4.577    0.33       0
              * SE  1198    1200    1210    1220    1230    1240
 299          UI      36      44     128     175     207     249     308     436     399     318
 300          UI     267     220     179     133      78      61      49      36      23      11
 301          UI      11      11      11      11       0       0       0       0       0       0
 302          UI       0       0       0       0       0       0       0       0       0       0

 303          KK  I1CWT3   CNAME     21R
 304          KM           ADD HYDROGRAPHS AT CPWT3
              * KO     0       0       0       0      22
 305          HC       2

 306          KK   CPWT3   CNAME     22R
 307          KM           ADD HYDROGRAPHS AT CPWT3
              * KO     1       0       0       0       0
 308          HC       2

 309          KK     22R   CNAME   CPWT3
              * KO     1       0       0       0       0
 310          RN     22R
 311          ZZ
1
          SCHEMATIC DIAGRAM OF STREAM NETWORK
INPUT
 LINE     (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

  NO.     (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

  24          1
              V
              V
  36        RCP1
              .
              .
  42          .           2
              .           .
              .           .
  51         CP2...........
              V
              V
  54        RCP2
              .
              .
  60          .          3A
              .           V
              .           V
  67          .       RCP3A
              .           .
              .           .
  73          .           .           3
              .           .           .
              .           .           .
  80          .      I1CP3............
              .           .
              .           .
  83         CP3...........
              V
              V
  86        RCP3
              .
              .
  92          .           4
              .           .
              .           .
  99          .           .           5
              .           .           .
              .           .           .
 106          .         CP5............
              .           V
              .           V
 109          .        RCP5
              .           .
              .           .
 115          .           .           6
              .           .           .
              .           .           .
```

```
121          .       I1CP7............
             .           .
             .           .
124          .           .           7
             .           .           .
             .           .           .
130          .         CP7............
             .           V
             .           V
133          .        RCP7
             .           .
             .           .
139          .           .           9
             .           .           .
             .           .           .
146          .       I1CP9............
             .           .
             .           .
149          .           .           8
             .           .           .
             .           .           .
156          .         CP9............
             .           V
             .           V
159          .        RCP9
             .           .
             .           .
165          .           .          10
             .           .           .
             .           .           .
174          .      I1CP10............
             .           .
             .           .
177       CP10............
             V
             V
180      RCP10
             .
             .
186          .          12
             .           .
             .           .
194       CP12............
             V
             V
197      RCP12
             .
             .
203          .          11
             .           V
             .           V
211          .       RCP11
             .           .
             .           .
217          .           .          13
             .           .           .
             .           .           .
225          .        CP13............
             .           V
             .           V
228          .       RCP13
             .           .
             .           .
234          .           .          14
             .           .           V
             .           .           V
241          .           .       RCP14
             .           .           .
             .           .           .
247          .           .           .          15
             .           .           .           .
             .           .           .           .
255          .           .      I1CP15............
             .           .           .
             .           .           .
258          .           .           .          16
             .           .           .           .
             .           .           .           .
266          .           .        CP15............
             .           .           V
             .           .           V
269          .           .       RCP15
             .           .           .
             .           .           .
275          .           .           .          17
             .           .           .           .
             .           .           .           .
283          .           .      I1CP17............
             .           .           .
             .           .           .
286          .        CP17............
             .           V
             .           V
289          .       RCP17
             .           .
             .           .
295          .           .         WT3
             .           .           .
             .           .           .
303          .      I1CWT3............
             .           .
             .           .
306      CPWT3............
             V
             V
309       22R
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1*****************************************
*****************************************
 *                                       *
 *                                       *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
 *                                       *
 *              JUL   1997               *
 *                                       *
 *            VERSION 4.1                *
 *                                       *
 *                                       *
 *                                       *
 *  RUN DATE   05MAY00  TIME  17:01:25   *
 *                                       *
 *                                       *
 *                                       *
 *****************************************
*****************************************
```

```
*
*   U.S. ARMY CORPS OF ENGINEERS
*   HYDROLOGIC ENGINEERING CENTER
*         609 SECOND STREET
*      DAVIS, CALIFORNIA 95616
*         (916) 756-1104
*
```

White Tanks #3 future condition (Beardsley Canal Wash Improvement)
May, 1999, FCDMC
Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999

```
  5 IO        OUTPUT CONTROL VARIABLES
                    IPRNT          5  PRINT CONTROL
                    IPLOT          0  PLOT CONTROL
                    QSCAL         0.  HYDROGRAPH PLOT SCALE

  IT          HYDROGRAPH TIME DATA
                     NMIN          5  MINUTES IN COMPUTATION INTERVAL
                    IDATE     1JAN94  STARTING DATE
                    ITIME       0000  STARTING TIME
                       NQ        300  NUMBER OF HYDROGRAPH ORDINATES
                   NDDATE     2JAN94  ENDING DATE
                   NDTIME       0055  ENDING TIME
                    ICENT         19  CENTURY MARK

              COMPUTATION INTERVAL     .08 HOURS
                   TOTAL TIME BASE   24.92 HOURS

        ENGLISH UNITS
             DRAINAGE AREA          SQUARE MILES
             PRECIPITATION DEPTH    INCHES
             LENGTH, ELEVATION      FEET
             FLOW                   CUBIC FEET PER SECOND
             STORAGE VOLUME         ACRE-FEET
             SURFACE AREA           ACRES
             TEMPERATURE            DEGREES FAHRENHEIT
1
```

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	1	89.	15.25	26.	8.	8.	1.94		
+	ROUTED TO	RCP1	71.	16.25	26.	8.	8.	1.94		
+									1428.53	16.25
+	HYDROGRAPH AT	2	78.	15.67	27.	9.	8.	1.82		
+	2 COMBINED AT	CP2	138.	16.08	54.	17.	16.	3.76		
+	ROUTED TO	RCP2	132.	16.42	53.	17.	16.	3.76		
+									1298.73	16.42
+	HYDROGRAPH AT	3A	0.	.00	0.	0.	0.	.29		
+	ROUTED TO	RCP3A	0.	.00	0.	0.	0.	.29		
+									1284.00	.00
+	HYDROGRAPH AT	3	0.	.00	0.	0.	0.	.81		
+	2 COMBINED AT	I1CP3	0.	.00	0.	0.	0.	1.10		
+	2 COMBINED AT	CP3	132.	16.42	53.	17.	16.	4.86		
+	ROUTED TO	RCP3	128.	16.83	53.	17.	16.	4.86		
+									1245.63	16.83
+	HYDROGRAPH AT	4	15.	15.00	4.	1.	1.	.30		
+	HYDROGRAPH AT	5	35.	15.00	9.	3.	3.	.72		
+	2 COMBINED AT	CP5	50.	15.00	13.	4.	4.	1.02		
+	ROUTED TO	RCP5	44.	15.17	13.	4.	4.	1.02		

+								2800.29	15.17
+	HYDROGRAPH AT	6	27.	14.83	6.	2.	2.	.45	
+	2 COMBINED AT	I1CP7	64.	15.08	19.	6.	6.	1.47	
+	HYDROGRAPH AT	7	18.	14.83	4.	1.	1.	.31	
+	2 COMBINED AT	CP7	79.	15.00	23.	7.	7.	1.78	
+	ROUTED TO	RCP7	77.	15.17	23.	7.	7.	1.78	
+								1838.08	15.17
+	HYDROGRAPH AT	9	67.	15.17	19.	6.	6.	1.40	
+	2 COMBINED AT	I1CP9	144.	15.17	42.	13.	13.	3.18	
+	HYDROGRAPH AT	8	42.	15.08	11.	4.	3.	.81	
+	2 COMBINED AT	CP9	185.	15.17	53.	17.	16.	3.99	
+	ROUTED TO	RCP9	147.	16.25	53.	17.	16.	3.99	
+								1308.87	16.25
+	HYDROGRAPH AT	10	18.	15.75	6.	2.	2.	2.02	
+	2 COMBINED AT	I1CP10	162.	16.25	59.	19.	18.	6.01	
+	2 COMBINED AT	CP10	272.	16.58	112.	36.	34.	10.87	
+	ROUTED TO	RCP10	266.	16.75	112.	36.	34.	10.87	
+								1212.50	16.75
+	HYDROGRAPH AT	12	15.	15.33	5.	2.	2.	1.38	
+	2 COMBINED AT	CP12	274.	16.75	117.	37.	36.	12.25	
+	ROUTED TO	RCP12	244.	17.50	116.	37.	36.	12.25	
+								1196.76	17.50
+	HYDROGRAPH AT	11	47.	15.25	14.	4.	4.	1.56	
+	ROUTED TO	RCP11	33.	16.58	14.	4.	4.	1.56	
+								1222.34	16.58
+	HYDROGRAPH AT	13	0.	.00	0.	0.	0.	1.30	
+	2 COMBINED AT	CP13	33.	16.58	14.	4.	4.	2.86	
+	ROUTED TO	RCP13	32.	16.92	14.	4.	4.	2.86	
+								1194.60	16.92
+	HYDROGRAPH AT	14	66.	15.17	18.	6.	6.	1.47	
+	ROUTED TO	RCP14	54.	15.83	18.	6.	6.	1.47	
+								1288.43	15.83
+	HYDROGRAPH AT	15	47.	15.17	14.	4.	4.	1.26	
+	2 COMBINED AT	I1CP15	87.	15.83	32.	10.	10.	2.73	
+	HYDROGRAPH AT	16	54.	15.17	15.	5.	5.	1.13	
+	2 COMBINED AT	CP15	131.	15.42	47.	15.	14.	3.86	
+	ROUTED TO	RCP15	110.	16.58	47.	15.	14.	3.86	
+								1226.44	16.58
+	HYDROGRAPH AT	17	0.	.00	0.	0.	0.	1.07	
+	2 COMBINED AT	I1CP17	110.	16.58	47.	15.	14.	4.93	
+	2 COMBINED AT	CP17	141.	16.67	61.	19.	19.	7.79	
+	ROUTED TO	RCP17	139.	16.92	61.	19.	19.	7.79	
+								1182.84	16.92

```
          HYDROGRAPH AT
+                          WT3        0.     .00          0.          0.          0.        .44
          2 COMBINED AT
+                        I1CWT3      139.   16.92         61.         19.         19.       8.23
          2 COMBINED AT
+                         CPWT3      373.   17.33        177.         57.         55.      20.48
          ROUTED TO
+                           22R      373.   17.33        177.         57.         55.      20.48


 *** NORMAL END OF HEC-1 ***
```

Appendix 4.6.12. 03/31/1999-04/01/1999 storm (0.9 to Dam gage; 0.1 to E. peak)

```
1****************************************
****************************************
 *                                      *                                          *
 *                                      *                                          *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                          *   U.S. ARMY CORPS OF ENGINEERS
 *                                      *                                          *
 *              JUL   1997              *                                          *   HYDROLOGIC ENGINEERING CENTER
 *                                      *                                          *
 *           VERSION 4.1                *                                          *         609 SECOND STREET
 *                                      *                                          *
 *                                      *                                          *      DAVIS, CALIFORNIA 95616
 *                                      *                                          *
 *  RUN DATE   05MAY00  TIME  17:01:36  *                                          *          (916) 756-1104
 *                                      *                                          *
 *                                      *                                          *
 *                                      *                                          *
 ****************************************
****************************************


                                        X     X  XXXXXXX   XXXXX          X
                                        X     X  X        X     X        XX
                                        X     X  X        X              X
                                        XXXXXXX  XXXX     X        XXXXX  X
                                        X     X  X        X              X
                                        X     X  X        X     X        X
                                        X     X  XXXXXXX   XXXXX        XXX


          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                                   HEC-1 INPUT                                                    PAGE  1

        LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

           1          ID          White Tanks #3 future condition (Beardsley Canal Wash Improvement)
           2          ID          May, 1999, FCDMC
           3          ID          Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999
                      *DIAGRAM
           4          IT       5  1JAN94       0     300
           5          IO       5
                      * Gage XY Position    100.00000    100.00000 1
           6          PG   crest       0
           7          IN      15  1JAN94       0
                      * 99stormWT3DamCrest
           8          PI       0       0       0       0    0.04       0       0    0.04       0    0.04
           9          PI       0       0    0.04       0    0.04       0       0       0    0.04    0.04
          10          PI       0    0.08    0.04    0.04       0       0    0.08       0    0.04    0.08
          11          PI    0.08    0.08    0.08    0.08       0       0       0    0.04    0.04       0
          12          PI    0.04       0       0       0    0.04       0    0.04    0.04       0    0.04
          13          PI       0       0       0       0       0       0       0       0       0       0
          14          PI       0       0       0       0       0       0       0       0
                      * Gage XY Position    100.00000    102.00000 1
          15          PG   Epeak       0
          16          IN      15  1JAN94       0
                      * 99stormEastPeak
          17          PI    0.04       0       0    0.04       0    0.04       0       0    0.04       0
          18          PI       0       0       0       0       0       0       0       0       0       0
          19          PI       0       0       0       0       0       0       0       0       0       0
          20          PI       0       0       0       0       0       0       0       0       0       0
          21          PI       0       0       0       0       0       0       0       0       0       0
          22          PI       0       0       0       0       0       0       0    0.08    0.12    0.08
          23          PI    0.04    0.08    0.04    0.04    0.04    0.04    0.04       0

          24          KK       1
          25          KM          RUNOFF HYDROGRAPH FROM SUB-BASIN 1.
                      * KO     5       1       0       0       0
          26          BA    1.94
          27          PR   Epeak
```

```
 28          PW       1
 29          PT   crest   Epeak
 30          PW     0.9     0.1
 31          LG    0.35   0.301   7.981   0.082  19.802
             * ui1
 32          UI     182     326     742     974    1186    1502    2185    1957    1537    1243
 33          UI     989     751     417     308     230     182      64      56      56      56
 34          UI      56       0       0       0       0       0       0       0       0       0
 35          UI       0       0       0       0       0       0       0       0       0       0

 36          KK    RCP1   CNAME      1C
 37          KM           ROUTE FLOW FROM CP1 TO CP2.
             * KO     0       0       0       0      22
             * RL     0       0       1    1428
 38          RS       5    STOR      -1       0
 39          RC    0.06    0.04    0.06   17800  0.0469       0
             * rxry1
 40          RX    1000    1125    1300    1390    1405    1490    1590    1750
 41          RY    1440    1439    1437    1428    1428    1439    1442    1444
1                                         HEC-1 INPUT                                          PAGE  2
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 42          KK       2
 43          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 2.
             * KO     0       0       0       0      22
 44          BA    1.82
 45          LG    0.35   0.352   6.959   0.119  21.855
             * ui2
 46          UI     115     115     259     442     556     642     727     849    1013    1346
 47          UI    1419    1145     985     864     735     634     545     405     268     202
 48          UI     189     144     115     103      35      35      35      35      35      35
 49          UI      35       0       0       0       0       0       0       0       0       0
 50          UI       0       0       0       0       0       0       0       0       0       0

 51          KK     CP2   CNAME    RCP2
 52          KM           ADD HYDROGRAPHS AT CP2.
             * KO     0       0       0       0      22
 53          HC       2

 54          KK    RCP2   CNAME     CP2
 55          KM           ROUTE COMBINED HYDROGRAPHS AT CP2 TO CP3.
             * KO     0       0       0       0      22
             * RL     0       0     1.5    1298
 56          RS       2    STOR      -1       0
 57          RC    0.06   0.035    0.06    4500  0.0111       0
             * rxry2
 58          RX    1000    1100    1350    1705    1735    1780    1850    2000
 59          RY    1304    1302    1302    1298    1298    1303    1302    1305

 60          KK      3A
 61          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 3A
             * KO     0       0       0       0      22
 62          BA    0.29
 63          LG   0.336   0.336    4.14   0.432       0
             * ui3
 64          UI      34      89     165     212     286     410     314     242     182     124
 65          UI      62      48      33      10      10      10      10       0       0       0
 66          UI       0       0       0       0       0       0       0       0       0       0

 67          KK   RCP3A   CNAME      3C
 68          KM           ROUTE FLOW FROM CP3A TO CP3
             * KO     0       0       0       0      22
             * RL     0       0     1.5    1284
 69          RS       2    STOR      -1       0
 70          RC    0.03    0.03    0.05    5300   0.006       0
             * rxry3
 71          RX    1000    1023    1032    1046    1058    1067    1250    1540
 72          RY    1289    1288    1286    1284    1284    1286    1288    1291

 73          KK       3
 74          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 3.
             * KO     0       0       0       0      22
 75          BA    0.81
 76          LG   0.339   0.339   4.441   0.362       0
             * ui4
 77          UI      91     228     430     554     725    1088     908     700     535     396
1                                         HEC-1 INPUT                                          PAGE  3
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 78          UI     205     152      95      57      28      28      28       0       0       0
 79          UI       0       0       0       0       0       0       0       0       0       0

 80          KK   I1CP3   CNAME      4R
 81          KM           ADD HYDROGRAPHS AT CP3.
             * KO     0       0       0       0      22
 82          HC       2

 83          KK     CP3   CNAME    RCP3
 84          KM           ADD HYDROGRAPHS AT CP3.
             * KO     0       0       0       0      22
 85          HC       2

 86          KK    RCP3   CNAME     CP3
 87          KM           ROUTE FLOW FROM CP3 TO CP10.
             * KO     0       0       0       0      22
             * RL     0       0       2    1245
 88          RS       2    STOR      -1       0
 89          RC    0.05    0.03    0.05    5280  0.0083       0
             * rxry4
 90          RX    1010    1015    1020    1050    1100    1275    1580    1750
 91          RY    1251    1249    1249    1245    1245    1250    1250    1254

 92          KK       4
 93          KM           RUNOFF HYDROGRAPH FORM SUB-BASIN 4.
             * KO     0       0       0       0      22
 94          BA     0.3
```

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 95          LG    0.35     0.3    8.01   0.081  18.504
             * ui5
 96          UI      48     192     287     444     512     346     236     115      67      35
 97          UI      14      14       0       0       0       0       0       0       0       0
 98          UI       0       0       0       0       0       0       0       0       0       0

 99          KK       5
100          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 5.
             * KO     0       0       0       0      22
101          BA    0.72
102          LG    0.35   0.299   8.023   0.081  17.926
             * ui6
103          UI     110     437     658     992    1242     849     591     315     174     101
104          UI      34      34      34       0       0       0       0       0       0       0
105          UI       0       0       0       0       0       0       0       0       0       0

106          KK     CP5   CNAME    RCP5
107          KM            ADD HYDROGRAPHS AT CP5.
             * KO     0       0       0       0      22
108          HC       2

109          KK    RCP5   CNAME     CP5
110          KM            ROUTE COMBINED HYDROGRAPHS AT CP5 TO CP7.
             * KO     0       0       0       0      22
             * RL     0       0     0.5    2800
111          RS       1    STOR      -1       0
112          RC    0.08    0.05    0.08    4800  0.0833       0
             * rxry5
1                                    HEC-1 INPUT                                          PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

113          RX     955     970     985    1000    1020    1035    1050    1065
114          RY    2815    2810    2805    2800    2800    2805    2810    2815

115          KK       6
116          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 6.
             * KO     0       0       0       0      22
117          BA    0.45
118          LG    0.35   0.301   7.976   0.082      20
             * ui7
119          UI     204     622    1139     837     427     155      54      33       0       0
120          UI       0       0       0       0       0       0       0       0       0       0

121          KK   I1CP7   CNAME      7R
122          KM            ADD HYDROGRAPHS AT CP7.
             * KO     0       0       0       0      22
123          HC       2

124          KK       7
125          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 7.
             * KO     0       0       0       0      22
126          BA    0.31
127          LG    0.35   0.301   7.976   0.082      20
             * ui8
128          UI     126     387     716     606     343     129      52      22       0       0
129          UI       0       0       0       0       0       0       0       0       0       0

130          KK     CP7   CNAME    RCP7
131          KM            ADD HYDROGRAPHS AT CP7.
             * KO     0       0       0       0      22
132          HC       2

133          KK    RCP7   CNAME     CP7
134          KM            ROUTE COMBINED HYDROGRAPHS AT CP7 TO CP9.
             * KO     0       0       0       0      22
             * RL     0       0     0.5    1838
135          RS       3    STOR      -1       0
136          RC    0.08    0.05    0.08   10200  0.0775       0
             * rxry6
137          RX    1000    1045    1120    1195    1230    1300    1350    1450
138          RY    1910    1880    1850    1838    1838    1850    1880    1910

139          KK       9
140          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 9.
             * KO     0       0       0       0      22
141          BA     1.4
142          LG    0.35   0.305   7.909   0.084  19.572
             * ui9
143          UI     155     381     727     935    1216    1832    1591    1224     938     705
144          UI     386     261     177     115      47      47      47      47       0       0
145          UI       0       0       0       0       0       0       0       0       0       0
1                                    HEC-1 INPUT                                          PAGE  5

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

146          KK   I1CP9   CNAME      9R
147          KM            ADD HYDROGRAPHS AT CP9.
             * KO     0       0       0       0      22
148          HC       2

149          KK       8
150          KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 8.
             * KO     0       0       0       0      22
151          BA    0.81
152          LG    0.35   0.301   7.976   0.082      20
             * ui10
153          UI     102     313     535     703    1054    1140     822     608     421     208
154          UI     147      96      31      31      31       0       0       0       0       0
155          UI       0       0       0       0       0       0       0       0       0       0

156          KK     CP9   CNAME    RCP9
157          KM            ADD HYDROGRAPHS AT CP9.
             * KO     0       0       0       0      22
158          HC       2

159          KK    RCP9   CNAME     CP9
160          KM            ROUTE COMBINED HYDROGRAPHS AT CP9 TO CP10.
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                 * KO      0       0       0       0      22
                 * RL      0       0     1.5    1308
 161             RS        8    STOR      -1       0
 162             RC     0.06   0.035    0.06   19200  0.0232       0
                 * rxry7
 163             RX     1000    1085    1310    1395    1415    1450    1630    1665
 164             RY     1317    1314    1311    1308    1308    1314    1314    1317

 165             KK       10
 166             KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 10.
                 * KO      0       0       0       0      22
 167             BA     2.02
 168             LG    0.347   0.359   5.124   0.254    4.52
                 * ui11
 169             UI       119     119     218     427     546     632     708     812     929    1148
 170             UI      1499    1393    1156    1006     894     765     669     577     475     325
 171             UI       210     201     193     119     119      86      36      36      36      36
 172             UI        36      36      36      36       0       0       0       0       0       0
 173             UI         0       0       0       0       0       0       0       0       0       0

 174             KK   I1CP10   CNAME     11R
 175             KM            ADD HYDROGRAPHS AT CP10
                 * KO      0       0       0       0      22
 176             HC        2

 177             KK     CP10   CNAME   RCP10
 178             KM            ADD HYDROGRAPHS AT CP10
                 * KO      0       0       0       0      22
 179             HC        2
1                                          HEC-1 INPUT                                                    PAGE  6

LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 180             KK    RCP10   CNAME    CP10
 181             KM            ROUTE FLOW AT CP10 TO CP12.
                 * KO      0       0       0       0      22
                 * RL      0       0       2    1211
 182             RS        1    STOR      -1       0
 183             RC     0.03    0.03    0.05    3500  0.0057       0
                 * rxry8
 184             RX      995    1000    1020    1055    1085    1165    1250    1330
 185             RY     1221    1220    1220    1211    1211    1218    1220    1222

 186             KK       12
 187             KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 12.
                 * KO      0       0       0       0      22
 188             BA     1.38
 189             LG    0.346   0.366   5.232   0.241    5.217
                 * ui12
 190             UI       111     129     393     535     636     758     930    1311    1277    1008
 191             UI       850     697     574     445     264     191     169     111      92      34
 192             UI        34      34      34      34      34       0       0       0       0       0
 193             UI         0       0       0       0       0       0       0       0       0       0

 194             KK     CP12   CNAME   RCP12
 195             KM            ADD HYDROGRAPHS AT CP12.
                 * KO      0       0       0       0      22
 196             HC        2

 197             KK    RCP12   CNAME    CP12
 198             KM            ROUTE COMBINED HYDROGRAPHS AT CP12 TO CPWT3
                 * KO      0       0       0       0      22
                 * RL      0       0       2    1196
 199             RS        2    STOR      -1       0
 200             RC     0.03    0.03    0.04    4800  0.0031       0
                 * rxry9
 201             RX      995    1000    1020    1080    1200    1530    1665    1760
 202             RY     1211    1211    1210    1196    1196    1200    1204    1204

 203             KK       11
 204             KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 11.
                 * KO      0       0       0       0      22
 205             BA     1.56
 206             LG     0.35   0.333    7.25   0.107  13.299
                 * ui13
 207             UI       143     245     571     755     913    1142    1648    1623    1254    1026
 208             UI       821     643     394     248     210     143      86      44      44      44
 209             UI        44       0       0       0       0       0       0       0       0       0
 210             UI         0       0       0       0       0       0       0       0       0       0

 211             KK    RCP11   CNAME     14C
 212             KM            ROUTE HYROGRAPH FROM CP11 TO CP13.
                 * KO      0       0       0       0      22
                 * RL      0       0     1.5    1196
 213             RS        3    STOR      -1       0
 214             RC     0.06   0.035    0.06   10200  0.0098       0
                 * rxry10
1                                          HEC-1 INPUT                                                    PAGE  7

LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 215             RX     1000    1070    1300    1480    1510    1525    1555    1600
 216             RY     1233    1232    1230    1222    1222    1230    1232    1233

 217             KK       13
 218             KM            RUNOFF HYDROGRAPH FROM SUB-BASIN 13.
                 * KO      0       0       0       0      22
 219             BA      1.3
 220             LG     0.35    0.35    4.62   0.322       0
                 * ui14
 221             UI       120     210     485     639     774     973    1416    1333    1039     847
 222             UI       674     527     303     206     167     120      60      37      37      37
 223             UI        37       0       0       0       0       0       0       0       0       0
 224             UI         0       0       0       0       0       0       0       0       0       0

 225             KK     CP13   CNAME   RCP13
 226             KM            ADD HYDROGRAPHS AT CP13.
                 * KO      0       0       0       0      22
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227          HC       2

228          KK   RCP13   CNAME    CP13
229          KM           ROUTE COMBINED HYDROGRAPHS AT CP13 TO CP17
             * KO     0       0       0       0      22
             * RL     0       0     1.5    1222
230          RS       2    STOR      -1       0
231          RC    0.03    0.03    0.04    2400  0.0042       0
             * rxry11
232          RX    1000    1025    1040    1065    1085    1110    1175    1200
233          RY    1206    1198    1196    1194    1194    1198    1198    1201

234          KK      14
235          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 14.
             * KO     0       0       0       0      22
236          BA    1.47
237          LG    0.35   0.301   7.974   0.082  18.195
             * ui15
238          UI     166     421     790    1019    1341    1998    1636    1264     961     699
239          UI     362     274     166      93      51      51      51       0       0       0
240          UI       0       0       0       0       0       0       0       0       0       0

241          KK   RCP14   CNAME     16C
242          KM           ROUTE FLOW FROM CP14 TO CP15.
             * KO     0       0       0       0      22
             * RL     0       0       2    1194
243          RS       4    STOR      -1       0
244          RC    0.06   0.035    0.06    8800  0.0256       0
             * rxry12
245          RX    1000    1030    1075    1200    1220    1280    1415    1480
246          RY    1296    1295    1294    1288    1288    1294    1296    1300

247          KK      15
248          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 15.
             * KO     0       0       0       0      22
249          BA    1.26
250          LG    0.35   0.372   6.561   0.142   15.67
             * ui16
1                                   HEC-1 INPUT                                          PAGE  8

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

251          UI     130     281     577     747     938    1321    1552    1156     920     713
252          UI     519     277     217     138      93      40      40      40      40       0
253          UI       0       0       0       0       0       0       0       0       0       0
254          UI       0       0       0       0       0       0       0       0       0       0

255          KK  I1CP15   CNAME     17R
256          KM           ADD HYDROGRAPHS AT CP15
             * KO     0       0       0       0      22
257          HC       2

258          KK      16
259          KM           RUNOFF HYDROGRAPH FROM SUB-BASIN 16.
             * KO     1       0       0       0       0
260          BA    1.13
261          LG    0.35   0.388   5.676   0.201  19.953
             * ui17
262          UI     115     240     503     652     814    1126    1393    1049     839     655
263          UI     497     268     194     137     101      35      35      35      35       0
264          UI       0       0       0       0       0       0       0       0       0       0
265          UI       0       0       0       0       0       0       0       0       0       0

266          KK    CP15   CNAME   RCP15
267          KM           ADD HYDROGRAPHS AT CP15.
             * KO     0       0       0       0      22
268          HC       2

269          KK   RCP15   CNAME    CP15
270          KM           ROUTE COMBINED HYDROGRAPHS AT CP15 TO CP17.
             * KO     0       0       0       0      22
             * RL     0       0       2    1226
271          RS       3    STOR      -1       0
272          RC    0.06   0.035    0.06    6800  0.0079       0
             * SE  1198    1200    1210    1220    1230    1240
273          RX    1000    1310    1380    1540    1640    1670    1700    1910
274          RY    1234    1232    1228    1226    1226    1228    1232    1235

275          KK      17
276          KM           RUNOFFF HYDROGRAPH FROM SUB-BASIN 17.
             * KO     0       0       0       0      22
277          BA    1.07
278          LG    0.35    0.35   4.121   0.438       0
             * SE  1198    1200    1210    1220    1230    1240
279          UI     117     254     572     810    1052    1196     753     635     540     450
280          UI     353     287     254     194     149     129     103      90      64      57
281          UI      57      26      22      22      22      22      22      22       0       0
282          UI       0       0       0       0       0       0       0       0       0       0

283          KK  I1CP17   CNAME     19R
284          KM           ADD HYDROGRAPHS AT CP17.
             * KO     0       0       0       0      22
285          HC       2
1                                   HEC-1 INPUT                                          PAGE  9

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

286          KK    CP17   CNAME   RCP17
287          KM           ADD HYDROGRAPHS AT CP17.
             * KO     0       0       0       0      22
288          HC       2

289          KK   RCP17   CNAME    CP17
290          KM           ROUTE FLOW FROM CP17 TO CPWT3
             * KO     0       0       0       0      22
             * RL     0       0       2    1182
291          RS       2    STOR      -1       0
292          RC    0.06    0.04    0.04    1600  0.0022       0
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                    * SE  1198    1200    1210    1220    1230    1240
293                 RX    1000    1220    1280    1470    1530    1660    1680    1685
294                 RY    1196    1194    1190    1182    1182    1210    1211    1212

295                 KK     WT3
296                 KM            RUNOFF HYDROGRAPH FROM SUB-BASIN WT3
                    * KO     0       0       0       0      22
297                 BA    0.44
298                 LG   0.344   0.344   4.577    0.33       0
                    * SE  1198    1200    1210    1220    1230    1240
299                 UI      36      44     128     175     207     249     308     436     399     318
300                 UI     267     220     179     133      78      61      49      36      23      11
301                 UI      11      11      11      11       0       0       0       0       0       0
302                 UI       0       0       0       0       0       0       0       0       0       0

303                 KK  I1CWT3   CNAME     21R
304                 KM            ADD HYDROGRAPHS AT CPWT3
                    * KO     0       0       0       0      22
305                 HC       2

306                 KK   CPWT3   CNAME     22R
307                 KM            ADD HYDROGRAPHS AT CPWT3
                    * KO     1       0       0       0       0
308                 HC       2

309                 KK     22R   CNAME   CPWT3
                    * KO     1       0       0       0       0
310                 RN     22R
311                 ZZ
1
                 SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE       (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.       (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    24            1
                  V
                  V
    36          RCP1
                  .
                  .
    42            .           2
                  .           .
                  .           .
    51           CP2...........
                  V
                  V
    54          RCP2
                  .
                  .
    60            .          3A
                  .           V
                  .           V
    67            .       RCP3A
                  .           .
                  .           .
    73            .           .           3
                  .           .           .
                  .           .           .
    80            .       I1CP3...........
                  .           .
                  .           .
    83           CP3...........
                  V
                  V
    86          RCP3
                  .
                  .
    92            .           4
                  .           .
                  .           .
    99            .           .           5
                  .           .           .
                  .           .           .
   106            .         CP5...........
                  .           V
                  .           V
   109            .        RCP5
                  .           .
                  .           .
   115            .           .           6
                  .           .           .
                  .           .           .
   121            .       I1CP7...........
                  .           .
                  .           .
   124            .           .           7
                  .           .           .
                  .           .           .
   130            .         CP7...........
                  .           V
                  .           V
   133            .        RCP7
                  .           .
                  .           .
   139            .           .           9
                  .           .           .
                  .           .           .
   146            .       I1CP9...........
                  .           .
                  .           .
   149            .           .           8
                  .           .           .
                  .           .           .
   156            .         CP9...........
                  .           V
                  .           V
   159            .        RCP9
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                .           .
                .           .
   165          .           .          10
                .           .           .
                .           .           .
   174          .     I1CP10............
                .           .
                .           .
   177       CP10............
                V
                V
   180      RCP10
                .
                .
   186          .          12
                .           .
                .           .
   194       CP12............
                V
                V
   197      RCP12
                .
                .
   203          .          11
                .           V
                .           V
   211          .      RCP11
                .           .
                .           .
   217          .           .          13
                .           .           .
                .           .           .
   225          .       CP13............
                .           V
                .           V
   228          .      RCP13
                .           .
                .           .
   234          .           .          14
                .           .           V
                .           .           V
   241          .           .       RCP14
                .           .           .
                .           .           .
   247          .           .           .          15
                .           .           .           .
                .           .           .           .
   255          .           .     I1CP15............
                .           .           .
                .           .           .
   258          .           .           .          16
                .           .           .           .
                .           .           .           .
   266          .           .      CP15............
                .           .           V
                .           .           V
   269          .           .      RCP15
                .           .           .
                .           .           .
   275          .           .           .          17
                .           .           .           .
                .           .           .           .
   283          .           .     I1CP17............
                .           .           .
                .           .           .
   286          .       CP17............
                .           V
                .           V
   289          .      RCP17
                .           .
                .           .
   295          .           .         WT3
                .           .           .
                .           .           .
   303          .     I1CWT3............
                .           .
                .           .
   306      CPWT3............
                V
                V
   309        22R
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1****************************************
****************************************
 *                                      *                                        *
 *                                      *                                        *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                        *   U.S. ARMY CORPS OF ENGINEERS
 *                                      *                                        *
 *              JUL   1997              *                                        *   HYDROLOGIC ENGINEERING CENTER
 *                                      *                                        *
 *           VERSION 4.1                *                                        *         609 SECOND STREET
 *                                      *                                        *
 *                                      *                                        *       DAVIS, CALIFORNIA 95616
 *                                      *                                        *
 *  RUN DATE   05MAY00  TIME  17:01:36  *                                        *           (916) 756-1104
 *                                      *                                        *
 *                                      *                                        *
 ****************************************
****************************************
```

White Tanks #3 future condition (Beardsley Canal Wash Improvement)
May, 1999, FCDMC
Remove borrow pit routing at sub-basin 16, fcdmc, July, 1999

```
5 IO          OUTPUT CONTROL VARIABLES
                    IPRNT          5  PRINT CONTROL
                    IPLOT          0  PLOT CONTROL
                    QSCAL         0.  HYDROGRAPH PLOT SCALE

  IT          HYDROGRAPH TIME DATA
                     NMIN          5  MINUTES IN COMPUTATION INTERVAL
                    IDATE     1JAN94  STARTING DATE
                    ITIME       0000  STARTING TIME
                       NQ        300  NUMBER OF HYDROGRAPH ORDINATES
                   NDDATE     2JAN94  ENDING DATE
                   NDTIME       0055  ENDING TIME
                    ICENT         19  CENTURY MARK

              COMPUTATION INTERVAL     .08 HOURS
                   TOTAL TIME BASE   24.92 HOURS

        ENGLISH UNITS
             DRAINAGE AREA          SQUARE MILES
             PRECIPITATION DEPTH    INCHES
             LENGTH, ELEVATION      FEET
             FLOW                   CUBIC FEET PER SECOND
             STORAGE VOLUME         ACRE-FEET
             SURFACE AREA           ACRES
             TEMPERATURE            DEGREES FAHRENHEIT
1
```

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	1	131.	15.25	39.	12.	12.	1.94		
+	ROUTED TO	RCP1	105.	16.25	39.	12.	12.	1.94		
+									1428.79	16.25
+	HYDROGRAPH AT	2	116.	15.67	40.	13.	12.	1.82		
+	2 COMBINED AT	CP2	204.	16.08	79.	25.	24.	3.76		
+	ROUTED TO	RCP2	199.	16.42	79.	25.	24.	3.76		
+									1298.87	16.33
+	HYDROGRAPH AT	3A	0.	.00	0.	0.	0.	.29		
+	ROUTED TO	RCP3A	0.	.00	0.	0.	0.	.29		
+									1284.00	.00
+	HYDROGRAPH AT	3	0.	.00	0.	0.	0.	.81		
+	2 COMBINED AT	I1CP3	0.	.00	0.	0.	0.	1.10		
+	2 COMBINED AT	CP3	199.	16.42	79.	25.	24.	4.86		
+	ROUTED TO	RCP3	192.	16.75	79.	25.	24.	4.86		
+									1245.80	16.75
+	HYDROGRAPH AT	4	22.	15.00	6.	2.	2.	.30		
+	HYDROGRAPH AT	5	52.	15.00	13.	4.	4.	.72		
+	2 COMBINED AT	CP5	74.	15.00	19.	6.	6.	1.02		
+	ROUTED TO	RCP5	65.	15.17	19.	6.	6.	1.02		
+									2800.43	15.17
+	HYDROGRAPH AT	6	40.	14.83	9.	3.	3.	.45		
+	2 COMBINED AT	I1CP7	94.	15.08	28.	9.	9.	1.47		
+	HYDROGRAPH AT	7	27.	14.83	6.	2.	2.	.31		
+	2 COMBINED AT	CP7	117.	15.00	34.	11.	10.	1.78		
+	ROUTED TO	RCP7	113.	15.17	34.	11.	10.	1.78		
+									1838.12	15.17
+	HYDROGRAPH AT	9	99.	15.17	28.	9.	8.	1.40		
+	2 COMBINED AT	I1CP9	213.	15.17	62.	20.	19.	3.18		
+	HYDROGRAPH AT	8	62.	15.08	17.	5.	5.	.81		

```
          2 COMBINED AT
+                         CP9      272.  15.17      79.      25.      24.     3.99
          ROUTED TO
+                        RCP9      225.  16.08      79.      25.      24.     3.99
+                                                                          1309.07     16.08
          HYDROGRAPH AT
+                          10       26.  15.75       9.       3.       3.     2.02
          2 COMBINED AT
+                      I1CP10      248.  16.08      88.      28.      27.     6.01
          2 COMBINED AT
+                        CP10      405.  16.42     167.      53.      51.    10.87
          ROUTED TO
+                       RCP10      399.  16.58     167.      53.      51.    10.87
+                                                                          1212.88     16.58
          HYDROGRAPH AT
+                          12       23.  15.33       7.       2.       2.     1.38
          2 COMBINED AT
+                        CP12      412.  16.58     173.      55.      53.    12.25
          ROUTED TO
+                       RCP12      389.  17.08     172.      55.      53.    12.25
+                                                                          1196.96     17.08
          HYDROGRAPH AT
+                          11       70.  15.25      21.       7.       6.     1.56
          ROUTED TO
+                       RCP11       48.  16.58      21.       7.       6.     1.56
+                                                                          1222.50     16.58
          HYDROGRAPH AT
+                          13        0.    .00       0.       0.       0.     1.30
          2 COMBINED AT
+                        CP13       48.  16.58      21.       7.       6.     2.86
          ROUTED TO
+                       RCP13       48.  16.75      21.       7.       6.     2.86
+                                                                          1194.73     16.75
          HYDROGRAPH AT
+                          14       98.  15.17      27.       9.       8.     1.47
          ROUTED TO
+                       RCP14       79.  15.67      27.       9.       8.     1.47
+                                                                          1288.64     15.67
          HYDROGRAPH AT
+                          15       70.  15.17      20.       6.       6.     1.26
          2 COMBINED AT
+                      I1CP15      130.  15.67      47.      15.      14.     2.73
          HYDROGRAPH AT
+                          16       79.  15.17      23.       7.       7.     1.13
          2 COMBINED AT
+                        CP15      196.  15.50      70.      22.      21.     3.86
          ROUTED TO
+                       RCP15      176.  16.25      70.      22.      21.     3.86
+                                                                          1226.56     16.25
          HYDROGRAPH AT
+                          17        0.    .00       0.       0.       0.     1.07
          2 COMBINED AT
+                      I1CP17      176.  16.25      70.      22.      21.     4.93
          2 COMBINED AT
+                        CP17      218.  16.33      91.      29.      28.     7.79
          ROUTED TO
+                       RCP17      214.  16.58      91.      29.      28.     7.79
+                                                                          1183.29     16.58
          HYDROGRAPH AT
+                         WT3        0.    .00       0.       0.       0.      .44
          2 COMBINED AT
+                      I1CWT3      214.  16.58      91.      29.      28.     8.23
          2 COMBINED AT
+                       CPWT3      585.  17.00     263.      84.      81.    20.48
          ROUTED TO
+                         22R      585.  17.00     263.      84.      81.    20.48

*** NORMAL END OF HEC-1 ***
```

APPENDIX 5 SOFTWARE AND FILES

APPENDIX 5.1 SOFTWARE AND COMPUTER PROGRAM

HEC-1 (hydrologic modeling software; it is used to compute runoff)

WMS (watershed modeling system software; it is used to re-compute LG cards in HEC-1 models for different rock percentages in the soil)

PERL (PERL is a high-level programming language with an eclectic heritage written by Larry Wall and a cast of thousands. Perl's process, file, and text manipulation facilities make it particularly well-suited for tasks involving quick prototyping, system utilities, software tools, system management tasks, database access, graphical programming, networking, and world wide web programming.)

LGCONV1 (a PERL program written by Dr. Bing Zhao of FCDMC, it is used to replace LG cards in WLB's HEC-1 model with WMS-generated LG cards).

APPENDIX 5.2 DIGITAL FILES

5.2.1 Preliminary Hydrologic Analysis

HEC-1 files: futexn.dat, futexn.out, futexn50.dat, futex50n.out, futex70n.dat, futex70n.out, futex95n.dat, futex95n.out

WMS files: wt3hydr2.sup, wt3hydr2.map, wt3hydr2.ini, wt3hydr2.dat, wt3soil2.tbl (0% rock), futex50.tbl (50% rock), futex70.tbl (70% rock), futex95.tbl (95% rock), land95.tbl (land use table), wt3newsoil.shp,wt3newsoil.dbf, wt3newsoil.shx, land95.shp,land95.dbf,land95.shx.

5.2.2 Final Hydrologic Analysis

HEC-1 files for final design: futfina4.dat, futfina4.out
HEC-1 files for verification: v92_1wt.dat, v92_1wt.out, v92_2wt.dat, v92_2wt.out, v92_3wt.dat, v92_3wt.out, v93_1wt.dat, v93_1wt.out, v93_2wt.dat, v93_2wt.out, v93_3wt.dat, v93_3wt.out, v98_1wt.dat, v98_1wt.out, v98_2wt.dat, v98_2wt.out, v98_3wt.dat, v98_3wt.out, v99_1dr.dat, v99_1dr.out, v99_2dr.dat, v99_2dr.out, v99_3dr.dat, v93_1dr.out

WMS files: wt3hydr2.sup, wt3hydr2.map, wt3hydr2.ini, wt3hydr2.dat, futfinal.tbl (soil table), land95.tbl (land use table), wt3newsoil.shp,wt3newsoil.dbf, wt3newsoil.shx, land95.shp,land95.dbf,land95.shx.

Excel Files for Historical Storms: wt3_92.xls, wt3_93.xls, wt3_98.xls, wt3_99.xls.

APPENDIX 6 CD

The CD in the end of the report contains a directory called CDforfinalreport which has three sub-diretories: report, part1, and part2. The report sub-directory contains the report "hydrptfinal3.pdf" in PDF format (please go to www.adobe.com to download the free Adobe Acrobat Reader to read this report). The files used in Part 1 and Part 2 are stored in sub-directories: part1 and part2 in the CD. The directory structure for part1 and part2 is as following:

part1/hec1/hec1exe/
part1/hec1/hec1files/
part1/wms/
part2/hec1/hec1exe
part2/hec1/hec1files/finalmodel/
part2/hec1/hec1files/verificationmodels/
part2/wms/
part2/miscellaneous/