Edward's Regional Detention Study

for the

Hamilton County Drainage Board

Samuel L. Moore & Associates, Inc.
Consulting Engineers

2629 Waterfront Parkway East Drive, Suite 150
Indianapolis, IN 46214

EDWARD'S REGIONAL DETENTION STUDY

for the

Hamilton County Drainage Board

November 1996

Samuel L. Moore & Associates, Inc.
Consulting Engineers

2629 WATERFRONT PARKWAY EAST DRIVE, SUITE 150
INDIANAPOLIS, INDIANA 46224

Table of Contents

Report

Introduction..... page 1
Methodology..... page 1
Existing Conditions ..... page 2
Post-Developed Conditions ..... page 2
Exhibit 1: Drainage Basins for Existing Conditions in the John D. Edward's Watershed
Exhibit 2: General Soil Map of Hamilton County, Indiana
Exhibit 3: Future Zoning and Development Within the John D. Edward's Watershed
Alternative One ..... page 3
Exhibit 4: Alternative One - One Large Detention Pond
Alternative Two ..... page 4
Exhibit 5: Alternative Two - Two Smaller Regional Detention Ponds
Alternative Three ..... page 5
Exhibit 6: Alternative Three - Numerous Detention Ponds within Each Development
Channel Improvements..... page 6
Discussion of Results ..... page 7
Flood Control ..... page 7
Erosion Control ..... page 8
Permitting ..... page 8
Maintenance ..... page 8
Costs..... page 9
Conclusion..... page 9

Appendices

- TR-20 - Input Values
- TR-20 Model - Existing Conditions
- TR-20 Model - Alternative One
- TR-20 Model - Alternative Two
- TR-20 Model - AlternativeThree
- TR-20 & WSPRO Model - Channel Improvements

Introduction

Samuel L. Moore & Associates, Inc. was retained by the Hamilton County Drainage Board to perform a feasibility study for regional detention in the John D. Edwards Watershed. Over the next twenty years, the land within the watershed will be rezoned from agricultural, single family rural to single family, low density. The increase in development will produce higher volumes of runoff thus creating the need to construct detention ponds which will reduce upstream flows.

Three alternatives were analyzed for their flood control benefits, erosion control benefits, permit issues, maintenance, and costs and they are as follows:

- Alternative One - one large regional detention pond in the watershed
- Alternative Two - two smaller regional detention ponds in the watershed
- Alternative Three - numerous small ponds within each development as development progresses throughout the watershed

Each alternative and its positive and negative aspects are addressed in the report which concludes with a recommendation of the most beneficial alternative.

TR-20, developed by the Soil Conservation Service, and WSPRO and HY8, developed by the Federal Highway Administration, are the computer programs which were utilized in the analysis. TR-20 computes the direct runoff resulting from a specified rainfall event using the SCS Curve Number Method. It was used to determine the peak elevations and the peak discharges from the detention ponds. WSPRO was used to estimate the ponds' outlet capacities and to develop elevation-discharge-storage tables for TR-20 input. HY8 was used to estimate the water surface elevations upstream of the culvert inlets in order to check the TR-20 output.

Methodology

The 2, 10, 20, 50, and 100-year, 24-hour storm events were modeled for the existing and post-developed conditions using TR-20 (Appendix). The model of the existing conditions involved adding the hydrographs from Basins "A" through "G" to compute the discharge which Little Eagle Creek is currently experiencing.

The post-developed conditions were modeled. The hydrographs from the individual basins were added as they were for the existing conditions. However, for the post-developed conditions, the hydrographs had to be routed through detention ponds and their outlets and then added to the hydrographs from the downstream basins. Cross-section information of the outlets was gathered using a hand level and tape during a site investigation. Culvert information and channel conditions were also noted. From this information, a typical cross-section of the existing channel was used as an outlet control structure for the ponds in Alternatives One and Two.

Existing Conditions

John D. Edwards Watershed lies southwest of the U.S. 31 and U.S. 32 intersection in Washington Township in Hamilton County. The watershed encompasses approximately 3.0 square miles and runoff flows in a southwesterly direction where it discharges into Little Eagle Creek. It consists of seven drainage basins as shown in Exhibit 1 on the following page.

Soils in the watershed are predominantly Crosby and Miami soils (Exhibit 2). Crosby soils are in hydrologic soil group C and are characterized as having slow infiltration rates when thoroughly wetted. Miami soils are in hydrologic soil group B/D depending on whether or not the land is drained or undrained prior to a storm event (HERPICC "Stormwater Drainage Manual", Chapter 3-15). Group D soils have very slow infiltration rates when thoroughly wetted. For the purpose of this analysis, all of the soils in Edward's Watershed were assumed to be in hydrologic soil group C. This is a conservative estimate which will result in larger volumes of runoff.

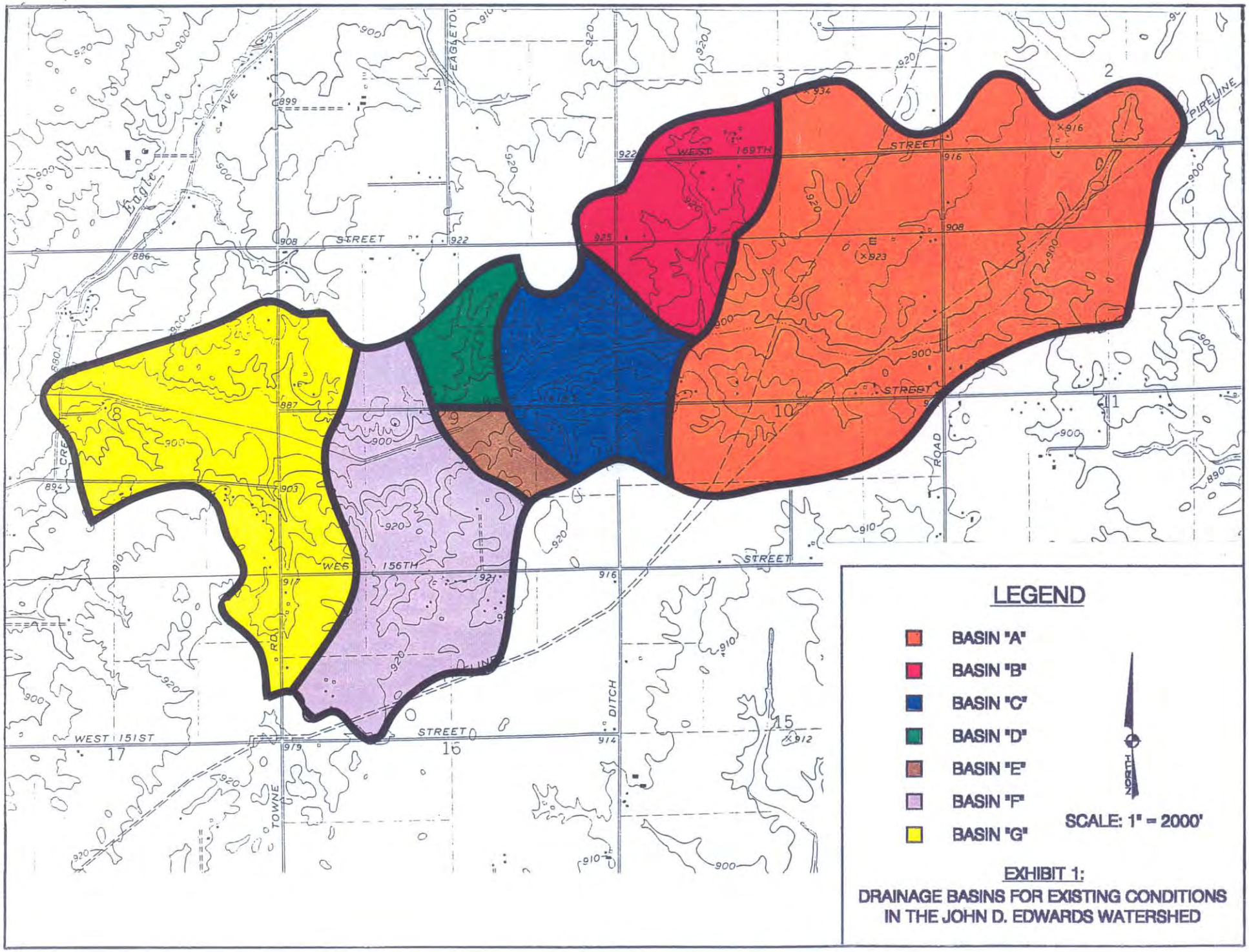
Table 1 on the following page shows the return periods and their corresponding existing peak discharges at Ditch Road and into Little Eagle Creek. In the event of a 100-year, 24-hour storm event, the watershed yields approximately 540 cfs at Ditch Road and 2280 cfs into Little Eagle Creek.

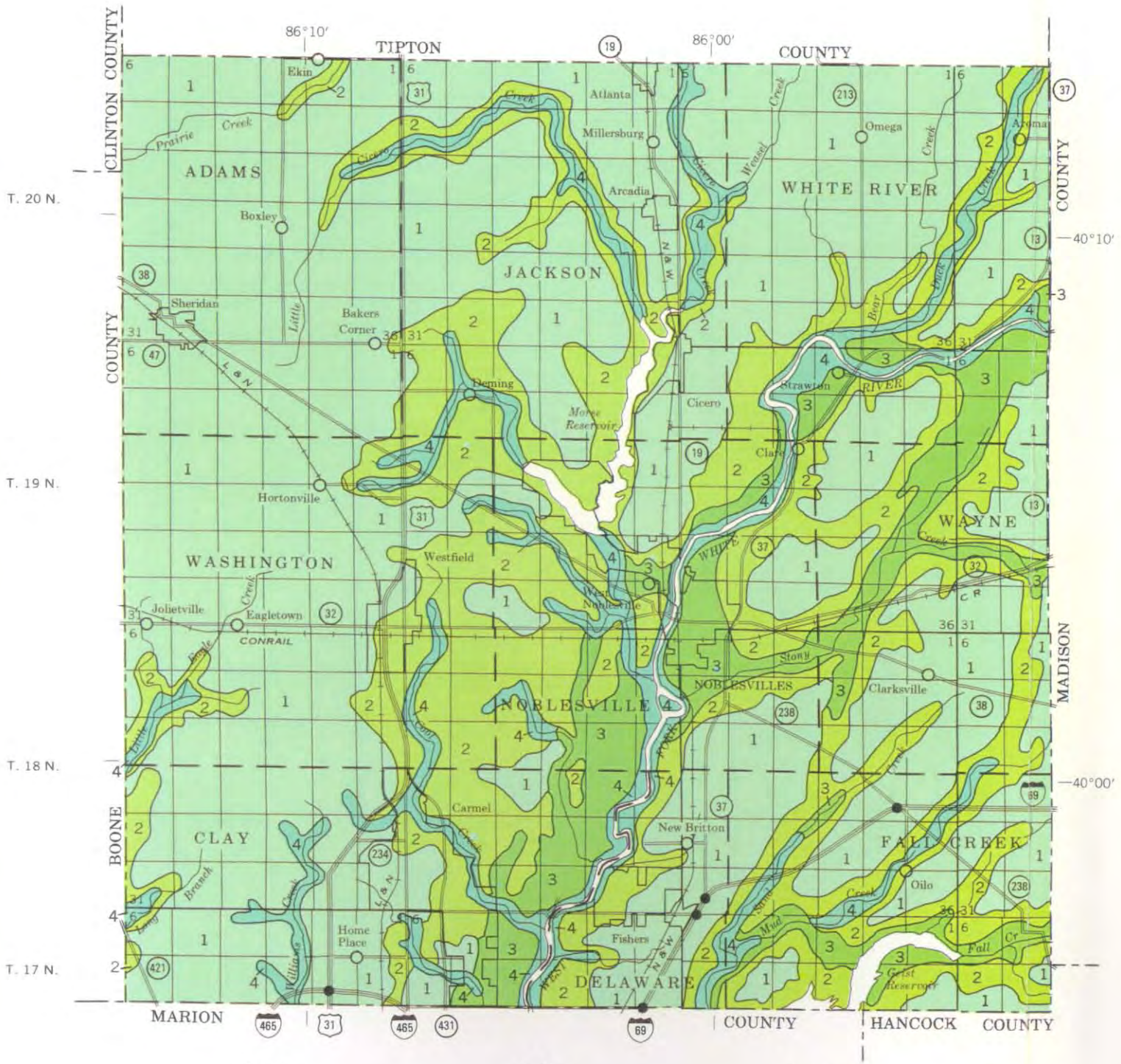
Post-Developed Conditions

According to the Westfield-Washington Township Master Plan (Adopted August 3, 1995), over the next twenty years, the eastern one-half of the John D. Edward's Watershed will be rezoned to single family, low density development and the western one-half will remain zoned agricultural, single family rural (Exhibit 3). However, a portion of the western half could potentially be re-zoned sooner than anticipated. The Town of Westfield plans to construct a wastewater treatment plant in the southwest quadrant of 166th Street and Towne Road. Through an agreement with the Town, Hamilton Western Utilities, the entity which has the permitted Certified Territorial Authority (CTA) for the property south of 166th Street, will provide sewer service to the area and it will be treated in the Town's wastewater treatment plant. The existence of sewers usually causes development to occur at an accelerated rate.

Parcels of land that lie on the watershed divide will continue to drain to their respective watersheds as they did prior to any development. For example, if a proposed subdivision lies in Edward's Watershed and in Brendell's Watershed, the portion in Brendell's Watershed will need its own detention pond for that area.

In an effort to reduce the peak discharges resulting from the increased development, three alternatives have been proposed and will be discussed in the following paragraphs. All three alternatives involve constructing a detention pond or ponds in the eastern one-half of Edward's Watershed.


LEGEND
BASIN "A"
BASIN "B"
BASIN "C"
BASIN "D"
BASIN "E"
BASIN "F"
BASIN "G"
NORTH
SCALE: 1" = 2000'
EXHIBIT 1:
DRAINAGE BASINS FOR EXISTING CONDITIONS
IN THE JOHN D. EDWARDS WATERSHED
WEST 169TH STREET
WEST 156TH STREET
WEST 151ST STREET
EAGLE AVE
TOWNE ROAD
DITCH
PIPELINE



Each area outlined on this map consists of more than one kind of soil. The map is thus meant for general planning rather than a basis for decisions on the use of specific tracts.

N

EXHIBIT 2:

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

PURDUE UNIVERSITY AGRICULTURAL EXPERIMENT STATION

GENERAL SOIL MAP

HAMILTON COUNTY, INDIANA

Scale 1:190,080

1 0 1 2 3 4 Miles

SOIL LEGEND *

1 — Crosby–Brookston: Deep, nearly level, somewhat poorly drained and very poorly drained, medium textured and moderately fine textured soils that formed in a thin mantle of loess and the underlying glacial till on uplands

2 — Miami–Crosby: Deep, nearly level to strongly sloping, well drained and somewhat poorly drained, medium textured soils that formed in a thin mantle of loess and the underlying glacial till on uplands

3 — Ockley–Westland–Fox: Deep and moderately deep over sand and gravel, nearly level to strongly sloping, well drained and very poorly drained, medium textured and moderately fine textured soils that formed in outwash on terraces

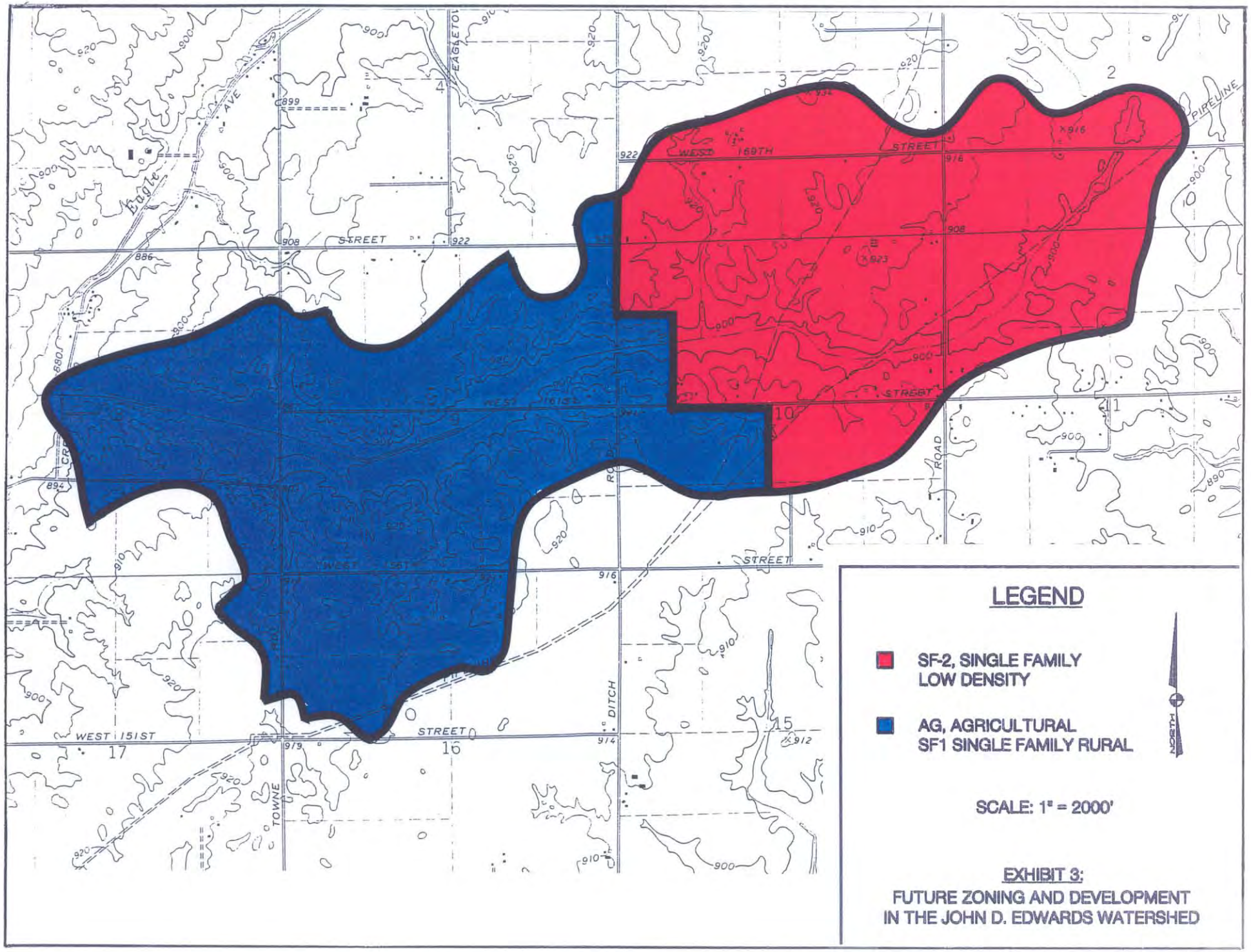
4 — Shoals–Genesee: Deep, nearly level, somewhat poorly drained and well drained, medium textured soils that formed in alluvium on flood plains

* Terms for texture refer to the surface layer of the major soils.

Compiled 1977

SECTIONALIZED TOWNSHIP

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36


LEGEND
SF-2, SINGLE FAMILY LOW DENSITY
AG, AGRICULTURAL SF1 SINGLE FAMILY RURAL
SCALE: 1" = 2000'
EXHIBIT 3:
FUTURE ZONING AND DEVELOPMENT IN THE JOHN D. EDWARDS WATERSHED
WEST 169TH STREET
WEST 151ST STREET
EAGLETON AVE
TOWNE ROAD
PIPELINE
DITCH

Alternative One

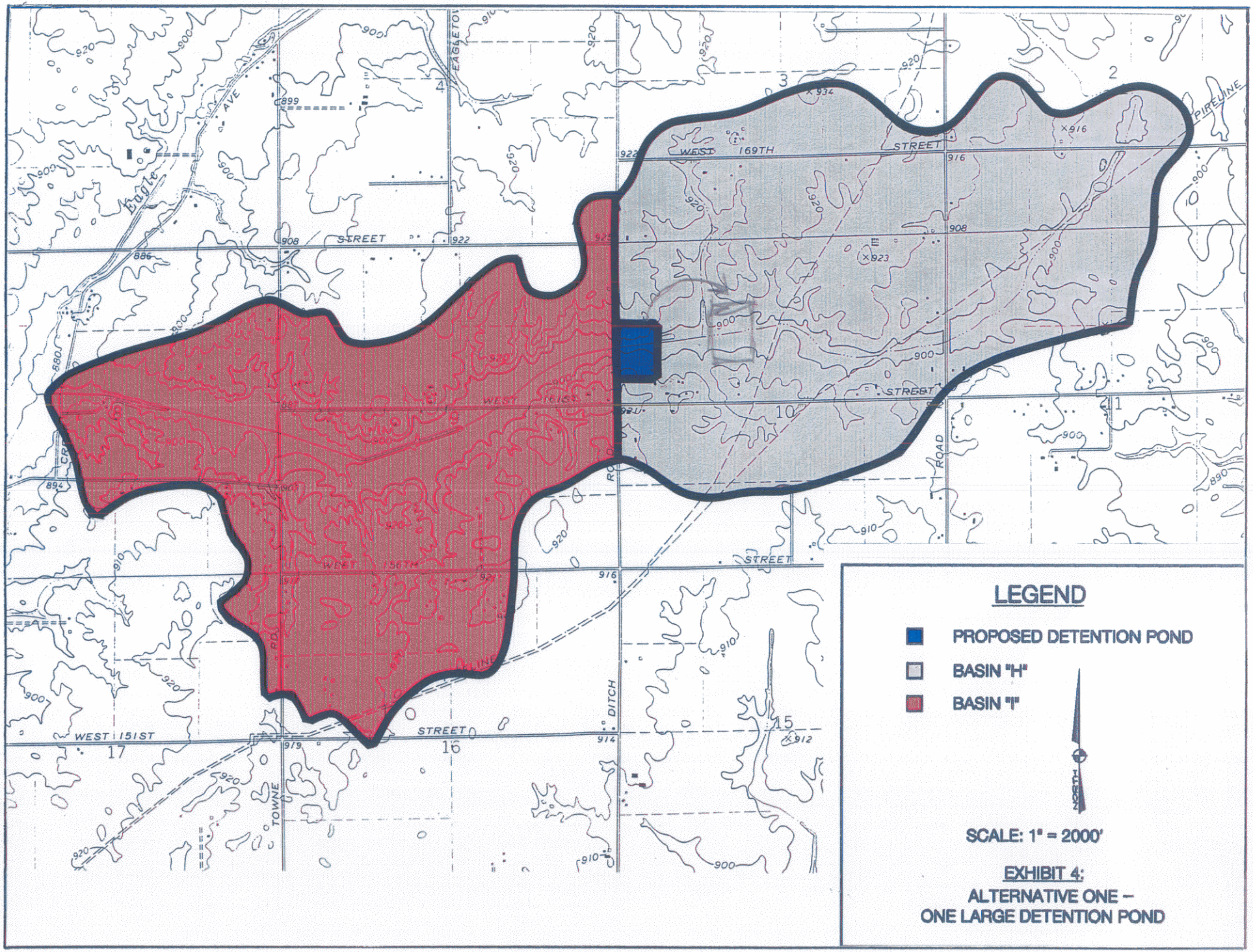
Alternative One consists of constructing one large regional detention pond with a surface area of 25 acres. It would provide 150 acre-feet of storage during a 100-year, 24-hour storm event (Exhibit 4 on the following page). It would be located approximately 1000 feet north of 161st Street and 1500 feet east of Ditch Road on a 68-acre parcel of land. By locating the pond on the 68-acre parcel, the County would only have to negotiate with one property owner.

The pond can be either a dry-bottom detention pond or a wet-bottom pond. The differences between the two, which will be addressed later in the report, are construction costs and erosion control benefits. Both a dry-bottom and a wet-bottom pond will provide the same flood control benefits.

The modeling for Alternative One involved dividing Edward's Watershed into two drainage basins, Basins "H" and "I", as shown in Exhibit 4 on the following page. For this analysis Basin "H" was modeled as one basin and as multiple basins, which it will eventually be, because of the uncertainty as to the future location of each subdivision. After comparing the output, the results were found to be extremely close. Therefore, modeling Basin "H" as one basin is practical for both scenarios. Table 1 shows the existing and post-developed peak discharges for Alternative One.

Table 1: Alternative One Peak Discharges Compared to Existing Peak Discharges

Storm Event (Return Period)	Existing Peak Discharge At Ditch Road (cfs)	Post-Developed Peak Discharge from Large Pond (cfs)	Existing Peak Discharge Entering Little Eagle Creek (cfs)	Post-Developed Peak Discharge Entering Little Eagle Creek (cfs)
2-year	134	68	537	222
10-year	257	152	1072	433
20-year	284	174	1186	486
50-year	421	309	1784	785
100-year	536	453	2283	1076


LEGEND
PROPOSED DETENTION POND
BASIN "H"
BASIN "I"
SCALE: 1" = 2000'
EXHIBIT 4:
ALTERNATIVE ONE –
ONE LARGE DETENTION POND
WEST 169TH STREET
WEST 161ST STREET
WEST 156TH STREET
WEST 151ST STREET
EAGLETON AVE
PIPELINE
ROAD
DITCH
TOWNE

Alternative Two

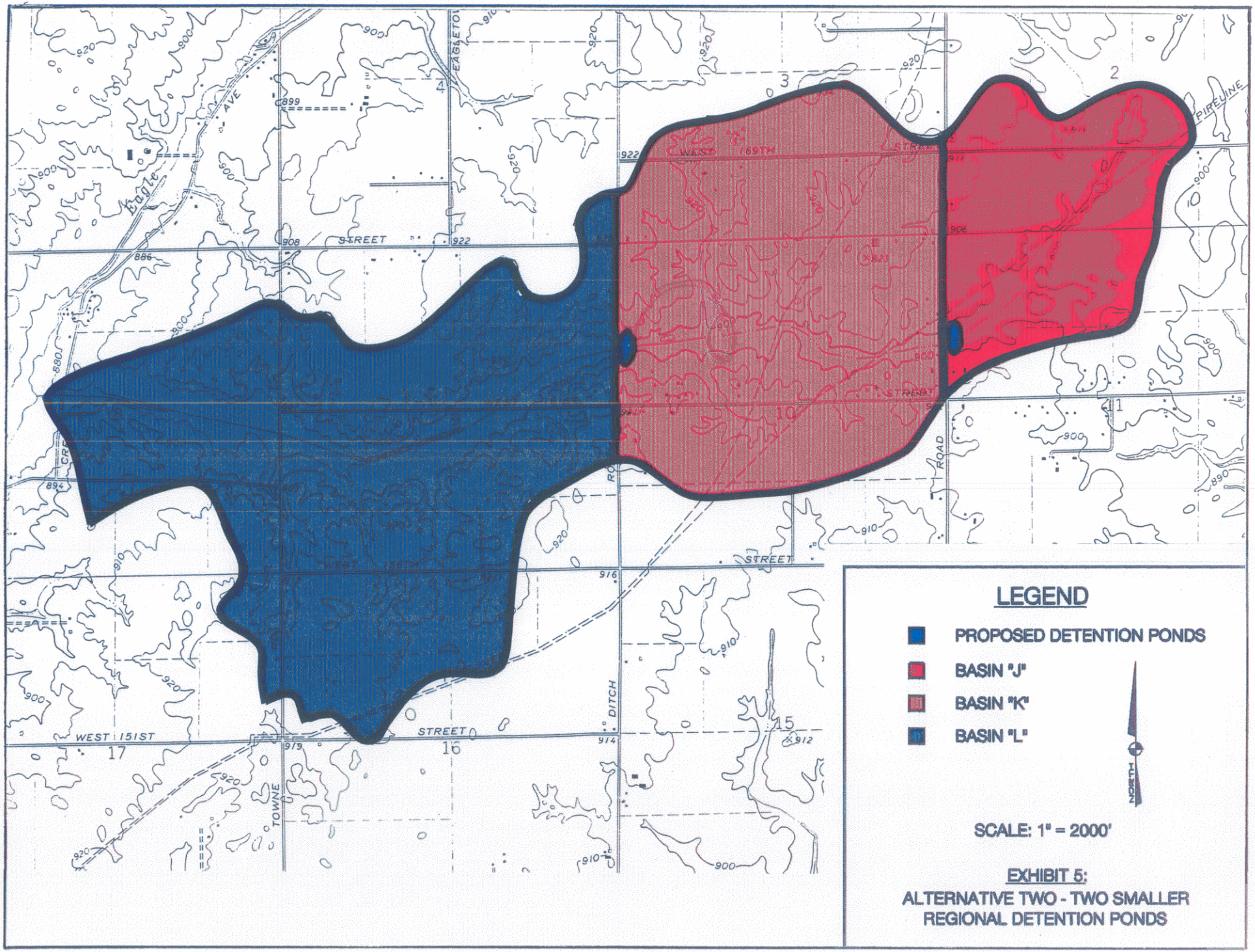
Alternative Two consists of constructing two small detention ponds in the eastern one-half of Edward's Watershed (Exhibit 5 on the following page). The smaller upstream pond will have a surface area of 8 acres and a storage capacity of 48 acre-feet during a 100-year, 24-hour storm event. It will be located approximately 1500 feet north of 161st Street and 1000 feet east of Spring Mill Road on an 82.01-acre parcel. The second pond will have a surface area of 27 acres and a storage capacity of 162 acre-feet during a 100-year, 24-hour storm and will be located approximately 1000 feet north of 161st Street and 1500 feet east of Ditch Road on a 68-acre parcel of land. These locations will limit property negotiations to two property owners.

The ponds can be either dry-bottom detention ponds or wet-bottom ponds. The differences between the two, which will be addressed later in the report, are construction costs and erosion control benefits. Both a dry-bottom and a wet-bottom pond will provide the same flood control benefits.

The modeling of Alternative Two involved dividing Edward's Watershed into three basins, Basins "J", "K", and, "L", as shown in Exhibit 5 on the following page. Table 2 shows the existing and post-developed peak discharges for Alternative Two.

Table 2: Alternative Two Peak Discharges Compared to Existing Peak Discharges

Storm Event (Return Period)	Existing Peak Discharge At Ditch Road (cfs)	Post-Developed Peak Discharge from Downstream Pond (cfs)	Existing Peak Discharge Entering Little Eagle Creek (cfs)	Post-Developed Peak Discharge Entering Little Eagle Creek (cfs)
2-year	134	69	537	320
10-year	257	141	1072	615
20-year	284	163	1186	682
50-year	421	294	1784	1067
100-year	536	452	2283	1436


LEGEND
PROPOSED DETENTION PONDS
BASIN "J"
BASIN "K"
BASIN "L"
NORTH
SCALE: 1" = 2000'
EXHIBIT 5:
ALTERNATIVE TWO - TWO SMALLER
REGIONAL DETENTION PONDS
WEST 169TH STREET
WEST 151ST STREET
EAGLETON AVE
PIPELINE
ROAD
DITCH
TOWNE

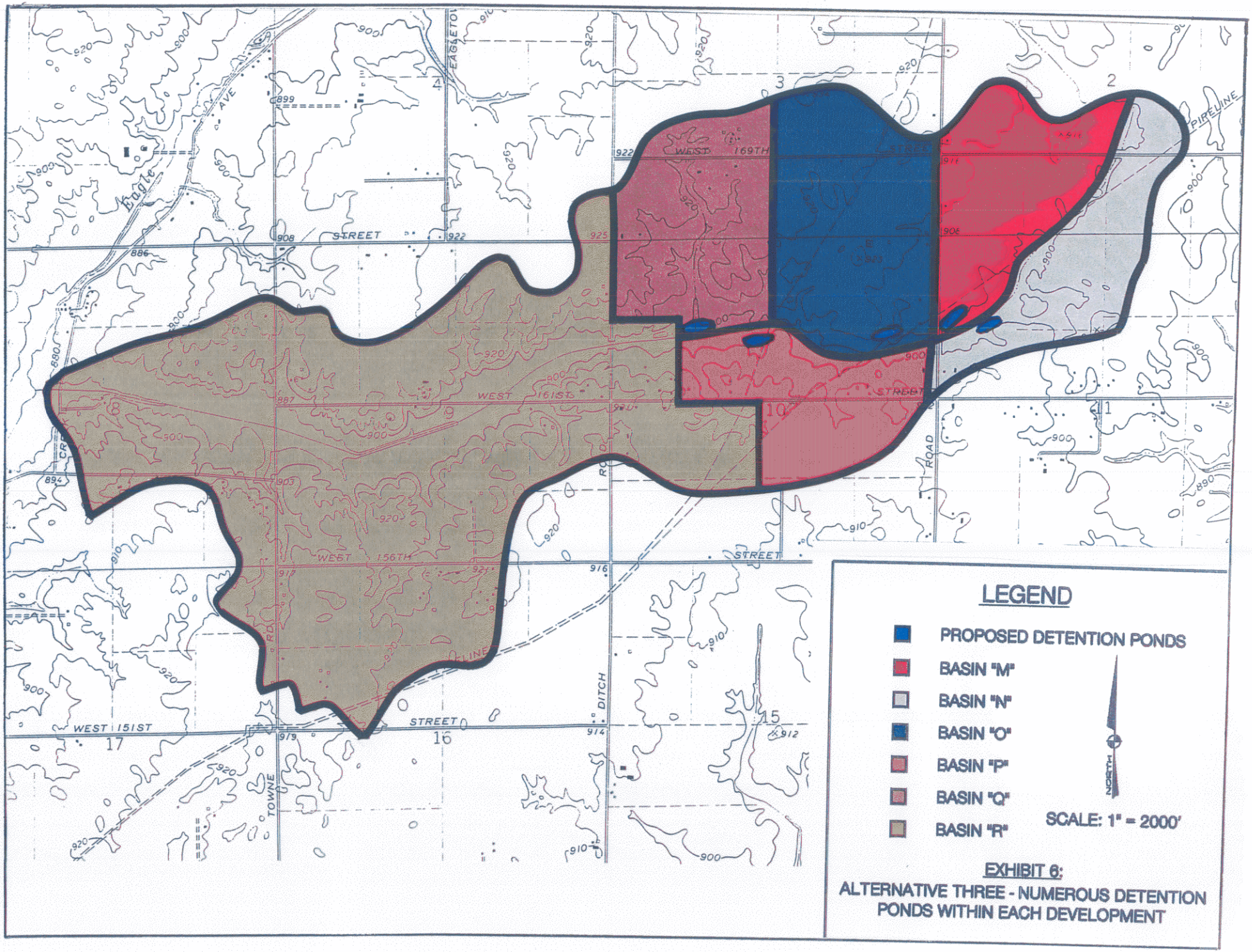
Alternative Three

Alternative Three consists of having each developer construct wet-bottom detention ponds, which would comply with the County Drainage Ordinance, within each individual development (Exhibit 6 on the following page). To comply with the Ordinance, the post-developed runoff from a 100-year, 24-hour storm must be discharged at the 10-year pre-developed rate. In modeling Alternative Three, the eastern half of Edward's Watershed was divided into five subdivisions. To simplify the modeling, no ponds were used in the model because the maximum outflow from any pond could not be any greater than the 10-year pre-developed flow. Instead, the hydrographs of the pre-developed flows from each basin were added to obtain what would be the post-developed flows if ponds were constructed.

Table 3 shows the existing and post-developed peak discharges for Alternative Three. The post-developed discharges are significantly higher than the existing discharges at Ditch Road and the discharges into Little Eagle Creek are similar for both the existing and post-developed conditions. The poor pond performance is due to basin topography and short-circuiting. All five ponds peak at the same time due to basin topography which results in a higher volume of runoff downstream. Short-circuiting occurs when the lower intensity storm events are discharged through an outlet control structure which is sized for the pre-developed 10-year storm event.

Table 3: Alternative Three Peak Discharges Compared to Existing Peak Discharges

Storm Event (Return Period)	Existing Peak Discharge At Ditch Road (cfs)	Post-Developed Peak Discharge from Downstream Pond (cfs)	Existing Peak Discharge Entering Little Eagle Creek (cfs)	Post-Developed Peak Discharge Entering Little Eagle Creek (cfs)
2-year	134	494	537	515
10-year	257	965	1072	1020
20-year	284	965	1186	1128
50-year	421	965	1784	1700
100-year	536	965	2283	2150


LEGEND
PROPOSED DETENTION PONDS
BASIN "M"
BASIN "N"
BASIN "O"
BASIN "P"
BASIN "Q"
BASIN "R"
NORTH
SCALE: 1" = 2000'
EXHIBIT 6:
ALTERNATIVE THREE - NUMEROUS DETENTION PONDS WITHIN EACH DEVELOPMENT
WEST 169TH STREET
WEST 161ST STREET
WEST 156TH STREET
WEST 151ST STREET
EAGLETON AVE
TOWNE ROAD
PIPELINE
DITCH

Channel Improvements

If Alternatives One or Two are selected, the existing channel will have to be improved upstream and downstream of the pond at Ditch Road in order to convey the post-developed flows. The existing channel has been divided into three segments in order to describe the necessary channel improvements; east of Springmill Road, between Springmill Road and the pond at Ditch Road, and from Ditch Road to Little Eagle Creek.

The first two segments, which are upstream of the pond at Ditch Road, were designed to convey the runoff from the 10-year post-developed storm. The third segment, which is downstream of the pond at Ditch Road, was designed to convey the 100-year post-developed discharge from the pond at Ditch Road and the runoff from the 10-year post-developed storm in the downstream basin.

The channel improvements consist of widening the channel and then seeding its banks to minimize erosion. The program WSPRO was used to determine the required width of the channel (Appendix). A slope of 0.50% was used for the first two segments and was obtained from the Soil Conservation Service's plans dated December, 1994. A slope of 0.25% was used for the third segment and it was also obtained from the SCS plans. Table 4 shows each segment of the channel, the proposed base width of the channel, and the channel capacity. Each channel segment will gradually increase from the upstream width to the downstream width.

Table 4: Required Channel Improvements

Segment	Description	Proposed Base Width of the Channel (ft)	Channel Capacity (cfs)
1	upstream end of watershed	-----	-----
	Springmill Road	8	560
2	Springmill Road	8	560
	pond inlet at Ditch Road	15	1260
3	pond outlet at Ditch Road	12	500
	Little Eagle Creek	15	600

All of the information used to design the channel improvements was either assumed or obtained from plans. Because field work is beyond the scope of the preliminary feasibility study, as soon as the final design phase begins, cross-sections of the channel will be obtained to determine exactly how much the channel needs to be widened.

Discussion of Results

This section discusses the results of the analysis and addresses issues such as flood control, erosion control, permitting, maintenance, and costs for each alternative. It concludes with a recommendation of the alternative which is in the best interests of the County and the local citizens.

Flood Control

As presented in Table 5, both Alternatives One and Two reduce the post-developed discharges equally well at Ditch Road. However, Alternative One is more effective in reducing flows into Little Eagle Creek. Because the Drainage Ordinance allows the 10-year post-developed storm to be discharged at the 10-year pre-developed rate and because of basin topography, Alternative Three worsens the flooding condition at Ditch Road and does not improve it at Little Eagle Creek. For that reason, Alternative Three was not even compared to Alternatives One and Two in Table 5.

Table 5: Percent Reductions in Discharge at Ditch Road and into Little Eagle Creek

Storm Event (Return Period)	Alternative One Percent Reductions in Discharge at Ditch Road	Alternative Two Percent Reductions in Discharge at Ditch Road	Alternative One Percent Reductions into Little Eagle Creek	Alternative Two Percent Reductions into Little Eagle Creek
2-year	49%	49%	59%	40%
10-year	41%	45%	59%	43%
20-year	39%	43%	59%	42%
50-year	27%	30%	56%	40%
100-year	15%	16%	53%	37%

If the regional detention pond in Alternative One is constructed, no detention pond will be needed in the western one-half of the watershed because the discharge from the western one-half will peak and drain into Little Eagle Creek approximately two hours before the pond releases its peak discharge. However, if Alternative Two is selected, detention ponds in the western one-half may be required, because the pond at Ditch Road will peak at the same time as the discharge from the western one-half of the watershed. It is important to note that the downstream property owners will receive the same benefit as the upstream property owners. Therefore, all developers, both upstream and downstream, should share in the cost of the pond construction.

Regardless of which alternative is selected, flooding will still occur at the downstream end of the watershed near Little Eagle Creek. During storms of higher intensities, Little Eagle Creek will be overburdened with runoff from adjacent watersheds and will back up quicker and farther upstream. This type of condition is a tailwater condition which will occur once in awhile in Edward's Watershed. The regional pond will not address this tailwater flooding.

Erosion Control

If the ponds in Alternatives One and Two are dry-bottom ponds, they will provide little or no erosion control benefits because the existing channel would be used as the outlet. Therefore, sediment would continue to migrate downstream instead of settling to the bottom of the pond as it would in a wet-bottom pond. In order to improve erosion control capabilities of the ponds, a depressed area filled with riprap could be cut from the channel bottom which would act as a sediment trap.

Alternative Three consists of numerous wet-bottom ponds within each development. These ponds, if constructed, would have an outlet control structure such as a pipe and an emergency spillway. The normal water surface elevation would be below the inlet invert of the pipe so the pond would act as a sediment trap. Any sediment in the upstream runoff would settle to the bottom of the ponds. If a sediment trap is created in the dry-bottom ponds in Alternatives One and Two, the erosion control benefits will be comparable to those of Alternative Three. If the ponds in either Alternatives One or Two are wet-bottom ponds, they would be much more effective in reducing sediment pollution than the dry-bottom ponds.

Permitting

Under 327 IAC 15-5 (Rule 5) the Indiana Department of Environmental Management requires the operator of a construction project that disturbs five or more acres to apply for a General Permit for Stormwater Runoff Associated with Construction Activity. Also, a Soil Erosion Control Plan must be submitted to the county Soil and Water Conservation District. Alternatives One and Two both disturb more than five acres and would require such action by the County. In addition, Alternatives One and Two would also require a Construction in a Floodway Permit from the Indiana Department of Natural Resources because the upstream drainage area is greater than one square mile. A General Permit for Stormwater Runoff Associated with Construction Activity typically takes one to two months to receive after its application submittal and a Construction in a Floodway Permit typically takes four to six months. For Alternative Three the developers would be required to apply for the permits.

Maintenance

The pond in Alternative One provides a central location for maintenance workers so they would not have to travel to two different ponds as they would in Alternative Two. Homeowner Associations would probably be responsible for maintaining the ponds in Alternative Three.

Costs

Because of the difficulty in estimating costs for the construction of these ponds without topography and a specific site, the cost estimate for earthwork is based on the assumption that approximately 70% of the entire volume of each pond will be excavated between $1.50 and $8.00 per cubic yard. Unit prices for riprap and seeding were obtained from the bid tabulations of other projects and the unit price for channel improvements was obtained from a local contractor. Tables 6, 7, and 8 on the following pages show the estimated costs for Alternatives One and Two using dry-bottom and wet-bottom ponds. Alternative Three is not included in the cost estimate since the ponds will be constructed by the developer.

The excavation of the regional ponds in Alternatives One and Two will generate large volumes of excess soil. The most cost-effective use of the excess soil would be to fill in low areas adjacent to the channel. If filling is not an option, the contractor could transport it to a nearby project where the soil is needed. However, the excavation and transporting of soil will cost approximately $8.00 per cubic yard.

The construction of Alternatives One or Two can be staged to lessen the financial burden of the project. Either of the alternatives could be constructed as development progresses throughout the watershed. Because the ponds will benefit everyone within the entire watershed, developers of land, both upstream and downstream of the ponds, should be assessed a fee to recover the construction costs.

Conclusion

In summary, results of the analysis show that Alternative One and Two have comparable peak discharge reductions at Ditch Road, but Alternative One is much more cost-effective in reducing the post-developed discharges into Little Eagle Creek because it requires less excavation to achieve similar reduction in peak flows as Alternative Two. In addition, the discharge from the pond in Alternative One peaks later than the discharge from the pond at Ditch Road in Alternative Two. This allows the western one-half of the watershed to partially drain before the peak discharge from the pond is released. Alternative Three was not even considered because it is not capable of providing the needed flood control benefits. The erosion control benefits and time to receive the required permits for Alternatives One and Two are equivalent. However, Alternative One is easier to maintain than Alternative Two. Alternative One is the least expensive alternative and will be more effective in alleviating flooding conditions than the other alternatives. Based on the criteria presented in the report, the regional pond in Alternative One is recommended to be constructed in Edward's Watershed.

JOHN D. EDWARD'S REGIONAL DETENTION STUDY
COST ESTIMATE

TABLE 6: ALTERNATIVE ONE (DRY-BOTTOM AND WET-BOTTOM ESTIMATE)

ITEM	UNIT	UNIT PRICE	QUANTITY	ALTERNATIVE ONE COSTS (Dry-bottom)	QUANTITY	ALTERNATIVE ONE COSTS (Wet-bottom)
LAND ACQUISITION	ACRE	$15,000	30	$450,000	30	$450,000
EXCAVATION/DISPOSAL						
ON-SITE DISPOSAL	CY	$1.50	200,000	$300,000	500,000	$750,000
5 MILES, OFF-SITE	CY	$8.00	200,000	$1,600,000	500,000	$4,000,000
RIPRAP	SY	$25.00	2,000	$50,000	3,000	$75,000
SEEDING	SF	$0.10	1,450,000	$145,000	1,450,000	$145,000
CHANNEL IMPROVEMENTS	LF	$8.00	8,000	$64,000	8,000	$64,000
TOTAL			ON-SITE DISPOSAL	$1,009,000		$1,484,000
			5 MILES, OFF-SITE	$2,309,000		$4,734,000

JOHN D. EDWARD'S REGIONAL DETENTION STUDY
COST ESTIMATE

TABLE 7: ALTERNATIVE TWO (DRY-BOTTOM POND ESTIMATE)

ITEM	UNIT	UNIT PRICE	QUANTITY	ALTERNATIVE TWO COSTS (Dry-bottom Small Pond)	QUANTITY	ALTERNATIVE TWO COSTS (Dry-bottom Large Pond)	ALTERNATIVE TWO COSTS (Total)
LAND ACQUISITION	ACRE	$15,000	8	$120,000	27	$405,000	$525,000
EXCAVATION/DISPOSAL							
ON-SITE DISPOSAL	CY	$1.50	55,000	$82,500	180,000	$270,000	$352,500
5 MILES, OFF-SITE	CY	$8.00	55,000	$440,000	180,000	$1,440,000	$1,880,000
RIPRAP	SY	$25.00	2,000	$50,000	2,000	$50,000	$100,000
SEEDING	SF	$0.10	430,000	$43,000	1,250,000	$125,000	$168,000
CHANNEL IMPROVEMENTS	LF	$8.00	4,000	$32,000	4,000	$32,000	$64,000
TOTAL			ON-SITE DISPOSAL	$327,500		$882,000	$1,209,500
			5 MILES, OFF-SITE	$685,000		$2,052,000	$2,737,000

JOHN D. EDWARD'S REGIONAL DETENTION STUDY
COST ESTIMATE

TABLE 8: ALTERNATIVE TWO (WET- BOTTOM POND ESTIMATE)

ITEM	UNIT	UNIT PRICE	QUANTITY	ALTERNATIVE TWO COSTS (Wet-bottom Small Pond)	QUANTITY	ALTERNATIVE TWO COSTS (Wet-bottom Large Pond)	ALTERNATIVE TWO COSTS (Total)
LAND ACQUISITION	ACRE	$15,000	8	$120,000	27	$405,000	$525,000
EXCAVATION/DISPOSAL							
ON-SITE DISPOSAL	CY	$1.50	130,000	$195,000	440,000	$660,000	$855,000
5 MILES, OFF-SITE	CY	$8.00	130,000	$1,040,000	440,000	$3,520,000	$4,560,000
RIPRAP	SY	$25.00	3,000	$75,000	3,000	$75,000	$150,000
SEEDING	SF	$0.10	430,000	$43,000	1,250,000	$125,000	$168,000
CHANNEL IMPROVEMENTS	LF	$8.00	4,000	$32,000	4,000	$32,000	$64,000
TOTAL			ON-SITE DISPOSAL	$465,000		$1,297,000	$1,762,000
			5 MILES, OFF-SITE	$1,310,000		$4,157,000	$5,467,000

Appendix

TR-20 Model - Input Values

24-Hour Storm Events *

Storm Event (Recurrence Interval)	Rainfall Depth (in.)
2-year event	2.88
10-year event	4.08
20-year event	4.32
50-year event	5.52
100-year event	6.48

*Rainfall depths obtained from HERPICC "Stormwater Drainage Manual", Chapter 2-23, Figure 2.2.2

SAMUEL L. MOORE & ASSOCIATES, INC.

CONSULTING ENGINEERS

EXISTING CONDITION

BASIN	PLANIMETER READING (med. arm)	SCALE MULT. FACTOR (1"=2000')	AREA (mi^2)
"A"	640	54,936	1.26
"B"	135	54,936	0.27
"C"	155	54,936	0.31
"D"	44	54,936	0.09
"E"	30	54,936	0.06
"F"	253	54,936	0.50
"G"	290	54,936	0.57
			3.06

CURVE NUMBERS (assume all soils are in hydrologic soil group C)

BASIN	LAND USE*	CN*
"A"	100% CULTIVATED (without conservation treatment)	78
"B"		78
"C"		78
"D"		78
"E"		78

* (HERPICC, TABLE 3.3.3)

BASIN "F"

LAND USE*	CN*
20% OPEN SPACE (good condition)	74
80% CULTIVATED (without conservation treatment)	78
COMPOSITE ⇒	77

JOB NAME: J. EDWARD'S REGIONAL DETENTION STUDY		2629 WATERFRONT PARKWAY EAST DRIVE, SUITE 150 INDIANAPOLIS, INDIANA 46214 PHONE: (317) 293-4204 FAX: (317) 293-4295	SHEET: 1
JOB #: 1454	DATE: 8/20/96		OF: 11
BY: dcc	CHECKED: CTF		

EXISTING CONDITION

BASIN "G"

LAND USE	CN
80% OPEN SPACE	74
20% CULTIVATED without conservation treatment	78
COMPOSITE →	77

TIME OF CONCENTRATION

BASIN "A"

$L = 9500'$

$S_L = \frac{910-900}{9500'} = 0.0011$ ft/ft

VELOCITY = $16.1345\sqrt{0.0011} = 0.52$ ft/s (unpaved)

$t_c = \frac{9500'}{0.52 fps} = 18,148 s = 5.0$ hrs

BASIN "B"

$L = 3500'$

$S_L = \frac{920-900}{3500'} = 0.0057$ ft/ft

VEL. = $16.1345\sqrt{0.0057} = 1.22$ ft/s (unpaved)

$t_c = \frac{3500'}{1.22 fps} = 0.80$ hrs

JOB NAME: J. EDWARDS REGIONAL DETENTION STUDY		2620 WATERFRONT PARKWAY EAST DRIVE, SUITE 150 INDIANAPOLIS, INDIANA 46214 PHONE: (317) 293-4204 FAX: (317) 293-4295	SHEET: 2
JOB #: 1454	DATE: 8/20/96		OF: 11
BY: dcc	CHECKED: LTF		

SAMUEL L. MOORE & ASSOCIATES, INC.
CONSULTING ENGINEERS

EXISTING CONDITION

BASIN "C"

L = 3000'

$S_L = \frac{919 - 900}{3000} = 0.0060$ ft/ft

VEL. = $16.1345\sqrt{0.0060} = 1.25$ ft/s (unpaved)

$t_c = \frac{3000'}{1.25 \text{ ft/s}} = 0.67$ hrs

BASIN "D"

L = 2400'

$S_L = \frac{920 - 900}{2400'} = 0.0083$ ft/ft

VEL = $16.1345\sqrt{0.0083} = 1.45$ ft/s (unpaved)

$t_c = \frac{2400'}{1.45 \text{ fps}} = 0.45$ hrs

BASIN "E"

L = 4700'

$S_L = \frac{920\ 900}{1600'} = 0.0125$ ft/ft

VEL. = $16.1345\sqrt{0.0125} = 1.8$ ft/s (unpaved)

$t_c = 0.25$ hrs

JOB NAME: Edwards Regional Detention Study		2629 WATERFRONT PARKWAY EAST DRIVE, SUITE 150 INDIANAPOLIS, INDIANA 46214 PHONE: (317) 293-4204 FAX: (317) 293-4295	SHEET: 3
JOB #: 1454	DATE: 8/20/96		OF: 11
BY: ACC	CHECKED: LTF		

EXISTING CONDITION

BASIN "F"

$L = 4700'$

$S_L = \frac{920 - 890}{4700'} = 0.0064$ ft/ft

$VEL. = 16.1345\sqrt{0.0064\ ft/ft} = 1.29$ ft/s (unpaved)

$t_c = \frac{4700'}{1.29\ ft/s} = \underline{1.0\ hrs}$

BASIN "G"

$L = 6200'$

$S_L = \frac{920 + 880}{6200'} = 0.0065$ ft/ft

$VEL. = 16.1345\sqrt{0.0065} = 1.30$ ft/s (unpaved)

$t_c = \frac{6200'}{1.30\ ft/s} = \underline{1.3\ hrs}$

JOB NAME: EDWARD'S REGIONAL DETENTION STUDY		2629 WATERFRONT PARKWAY EAST DRIVE, SUITE 150 INDIANAPOLIS, INDIANA 46214 PHONE: (317) 293-4204 FAX: (317) 293-4295	SHEET: 4
JOB #: 1454	DATE: 8/20/96		OF: 11
BY: dcs	CHECKED: LTF		

ALTERNATIVE 1

BASIN "H"

- AREA = 1.53 mi^2

- CURVE NUMBER (assume all soils are in hydrologic soil group C)

LAND USE*	%	CN*
1/3 acre (30% impervious)	90	81
CULTIVATED LAND	10	78

COMPOSITE CN = 81

- TIME OF CONCENTRATION

L = 10,000 ft

$S = \frac{910 - 893}{10{,}000'} = 0.0017$ ft/ft

VELOCITY = $20.3282\sqrt{0.0017} = 0.84$ ft/s (paved)

$t_c = \frac{10{,}000'}{0.84 \text{ ft/s}} = 3.3$ hrs

★ (HERPICS, TABLE 3.3.3)

JOB NAME: J. EDWARDS REGIONAL DETENTION STUDY		2529 WATERFRONT PARKWAY EAST DRIVE, SUITE 150 INDIANAPOLIS, INDIANA 46214 PHONE: (317) 293-4204 FAX: (317) 293-4295	SHEET: 5
JOB #: 1454	DATE: 8/23/96		OF: 11
BY: dca	CHECKED:		

ALTERNATIVE 1

BASIN "I"

- AREA = 1.52 mi^2
- CURVE NUMBER (assume all soils are in hydrologic soil group C)

LAND USE	%	CN
CULTIVATED (LAND W/O TREATMENT)	100	78

COMPOSITE CN = 78

- TIME OF CONCENTRATION

L = 9400 ft

$S_L = \frac{893 - 880}{9400'} = 0.0014$ ft/ft

VEL = $16.1345\sqrt{0.0014} = 0.60$ ft/s (unpaved)

$t_c = \frac{9400'}{0.60 fps} = 4.4$ hrs

JOB NAME: J. EDWARDS REGIONAL DETENTION STUDY		2620 WATERFRONT PARKWAY EAST DRIVE, SUITE 150 INDIANAPOLIS, INDIANA 46214 PHONE: (317) 263-4204 FAX: (317) 263-4295	SHEET: 6
JOB #: 1454	DATE: 8/23/96		OF: 11
BY: dcc	CHECKED:		

ALTERNATIVE 2

AREAS

BASIN	PLANIMETER READING (med arm)	SCALE MULT. FACTOR (1" = 2000')	AREA (mi^2)
"J"	247	54,936	0.49
"K"	536	54,936	1.06
"L"	766	54,936	1.51
			3.06

CURVE NUMBERS (assume all soils are in hydrologic soil group C)

BASIN	LAND USE*	%	CN*
"J"	1/3 acre (30% impervious)	100	81
"K"	1/3 acre (30% impervious)	100	81
"L"	CULTIVATED LAND	100	78

* (HERRICK, TABLE 3.3.3)

SAMUEL L. MOORE & ASSOCIATES, INC.
CONSULTING ENGINEERS

ALTERNATIVE 2

TIME OF CONCENTRATION

BASIN "J"

L = 4900'

$S_L = \frac{910 - 896}{4900'} = 0.0029$ ft/ft

VEL. = $20.3282\sqrt{0.0029}$ = 1.09 ft/s (paved)

$t_c = \frac{4900'}{1.09 fps}$ = 1.3 hrs

BASIN "K"

L = 5800'

$S_L = \frac{916 - 893}{5800'} = 0.0040$ ft/ft

VEL. = $20.3282\sqrt{0.0040}$ = 1.28 ft/s (paved)

$t_c = \frac{5800'}{1.28 fps}$ = 1.3 hrs

BASIN "L"

L = 9300'

$S_L = \frac{920 - 880}{9300'} = 0.0043$ ft/ft

VEL. = $16.1345\sqrt{0.0043}$ = 1.06 ft/s (unpaved)

$t_c = \frac{9300'}{1.06 fps}$ = 2.4 hrs

JOB NAME: J. EDWARD REGIONAL DETENTION STUDY		2529 WATERFRONT PARKWAY EAST DRIVE, SUITE 150 INDIANAPOLIS, INDIANA 46214 PHONE: (317) 293-4204 FAX: (317) 293-4295	SHEET: 8
JOB #: 1454	DATE: 8/23/96		OF: 11
BY: JCC	CHECKED:		

ALTERNATIVE 3

BASIN	PLANIMETER READING (med. arm)	SCALE MULT. FACTOR (1" = 2000')	AREA (mi^2)
"M"	143	54,936	0.28
"N"	130	54,936	0.26
"O"	180	54,936	0.35
"P"	120	54,936	0.24
"Q"	150	54,936	0.30
"R"	831	54,936	1.64

CURVE NUMBERS (assume all soils are in hydrologic soil group C)

BASIN	LAND USE *	CN *
"M"	100%, 1/3 acre (30% impervious) residential	81
"N"		81
"O"		81
"P"		81
"Q"		81
"R"	100% CULTIVATED LAND (without conservation treatment)	78

* (HERPICC, TABLE 3.3.3)

JOB NAME: J. EDWARD'S REGIONAL DETENTION STUDY		2529 WATERFRONT PARKWAY EAST DRIVE, SUITE 150 INDIANAPOLIS, INDIANA 46214 PHONE: (317) 293-4204 FAX: (317) 293-4295	SHEET: 9
JOB #: 1454	DATE: 8/27/96		OF: 11
BY: dcc	CHECKED:		

SAMUEL L. MOORE & ASSOCIATES, INC.
CONSULTING ENGINEERS

ALTERNATIVE 3

TIME OF CONCENTRATION

BASIN "M"

$L = 4000'$

$S_L = \frac{910-900}{4000'} = 0.0025$ ft/ft

$VEL. = 20.3282\sqrt{0.0025} = 1.0$ ft/s (paved)

$t_c = \frac{4000'}{1.0 ft/s} =$ 1.1 hrs

BASIN "N"

$L = 4700'$

$S_L = \frac{910-900}{4700'} = 0.0021$ ft/ft

$VEL. = 20.3282\sqrt{0.0021} = 0.94$ ft/s (paved)

$t_c = \frac{4700'}{0.94 ft/s} =$ 1.4 hrs

BASIN "O"

$L = 4300'$

$S_L = \frac{934-900}{4300'} = 0.0079$ ft/ft

$VEL. = 20.3282\sqrt{0.0079} = 1.81$ ft/s (paved)

$t_c = \frac{4300'}{1.81 ft/s} =$ 0.66 hrs

JOB NAME: J. EDWARDS REGIONAL DETENTION STUDY		2320 WATERFRONT PARKWAY EAST DRIVE, SUITE 150 INDIANAPOLIS, INDIANA 46214 PHONE: (317) 293-4204 FAX: (317) 293-4295	SHEET: 10
JOB #: 1454	DATE: 8/29/96		OF: 11
BY: dcc	CHECKED:		

ALTERNATIVE 3

BASIN "P"

$L = 3000'$

$S_L = \frac{910 - 900}{3000'} = 0.0033$ ft/ft

$VEL = 20.3282\sqrt{0.0033} = 1.17$ ft/s (paved)

$t_c = \frac{3000'}{1.17 \text{ ft/s}} = 0.71$ hrs

BASIN "Q"

$L = 4000'$

$S_L = \frac{928 - 900}{4000'} = 0.0070$ ft/ft

$VEL. = 20.3282\sqrt{0.0070} = 1.70$ ft/s (paved)

$t_c = \frac{4000'}{1.70 \text{ ft/s}} = 0.65$ hrs

BASIN "R"

$L = 12{,}000'$

$S_L = \frac{915 - 800}{12{,}000'} = 0.0029$ ft/ft

$VEL. = 16.1345\sqrt{0.0029} = 0.87$ ft/s

$t_c = \frac{12{,}000'}{0.87 \text{ ft/s}} = 3.8$ hrs

JOB NAME: J. EDWARDS REGIONAL DETENTION STUDY		2529 WATERFRONT PARKWAY EAST DRIVE, SUITE 150 INDIANAPOLIS, INDIANA 46214 PHONE: (317) 293-4904 FAX: (317) 293-4526	SHEET: 11
JOB #: 1454	DATE: 8/29/96		OF: 11
BY: SCC	CHECKED:		

Appendix

TR-20 Model - Existing Conditions

```
******************80-80 LIST OF INPUT DATA FOR TR-20 HYDROLOGY******************

JOB TR-20                        FULLPRINT          SUMMARY
TITLE 001 EDWARDS REGIONAL DETENTION STUDY - EXISTING CONDITIONS
TITLE 001 2, 10, 25, 50, AND 100-YEAR, 24-HOUR STORM EVENTS
 6 RUNOFF 1 001        1 1.26        78.         5.00       1 1   1 1 1 BASIN A
 6 RUNOFF 1 002        2 .27         78.         .80        1 1   1 1 1 BASIN B
 6 ADDHYD 4 003   1 2 3                                     1 1 1 1 1 1
 6 RUNOFF 1 004        4 .31         78.         .67        1 1   1 1 1 BASIN C
 6 ADDHYD 4 005   3 4 5                                     1 1 1 1 1 1
 6 RUNOFF 1 006        6 .09         78.         .45        1 1   1 1 1 BASIN D
 6 ADDHYD 4 007   5 6 1                                     1 1 1 1 1 1
 6 RUNOFF 1 008        7 .06         78.         .25        1 1   1 1 1 BASIN E
 6 ADDHYD 4 009   1 7 2                                     1 1 1 1 1 1
 6 RUNOFF 1 010        3 .50         77.         1.0        1 1   1 1 1 BASIN F
 6 ADDHYD 4 011   2 3 4                                     1 1 1 1 1 1
 6 RUNOFF 1 012        5 .57         77.         1.3        1 1   1 1 1 BASIN G
 6 ADDHYD 4 013   4 5 6                                     1 1 1 1 1 1
   ENDATA
 7 INCREM 6             .1
 7 COMPUT 7 001   013   0.0          2.88        1.0         2 2  01  01 2-YR
   ENDCMP 1
 7 COMPUT 7 001   013   0.0          4.08        1.0         2 2  01  02 10-YR
   ENDCMP 1
 7 COMPUT 7 001   013   0.0          4.32        1.0         2 2  01  03 20-YR
   ENDCMP 1
 7 COMPUT 7 001   013   0.0          5.52        1.0         2 2  01  04 50-YR
   ENDCMP 1
 7 COMPUT 7 001   013   0.0          6.48        1.0         2 2  01  05 100-YR
   ENDJOB 2

*********************************END OF 80-80 LIST*********************************
```

EXECUTIVE CONTROL OPERATION INCREM MAIN TIME INCREMENT = .10 HOURS RECORD ID

EXECUTIVE CONTROL OPERATION COMPUT FROM XSECTION 1 TO XSECTION 13 RECORD ID 2-YR
STARTING TIME = .00 RAIN DEPTH = 2.88 RAIN DURATION= 1.00 RAIN TABLE NO.= 2 ANT. MOIST. COND= 2
ALTERNATE NO.= 1 STORM NO.= 1 MAIN TIME INCREMENT = .10 HOURS

OPERATION RUNOFF CROSS SECTION 1
OUTPUT HYDROGRAPH= 1
AREA= 1.26 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= 5.00 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1010 HOURS

PEAK TIME(HRS) PEAK DISCHARGE(CFS) PEAK ELEVATION(FEET)
15.61 124.44 (RUNOFF)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.26 SQ.MI.

10.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.00	.01	.01
11.00	DISCHG	.02	.04	.06	.09	.13	.19	.29	.45	.75	1.30
12.00	DISCHG	2.15	3.22	4.60	6.34	8.34	10.58	13.08	15.82	18.82	22.15
13.00	DISCHG	25.83	29.80	34.14	38.91	43.99	49.37	55.04	60.91	66.83	72.63
14.00	DISCHG	78.28	83.76	88.95	93.77	98.29	102.49	106.28	109.68	112.74	115.37
15.00	DISCHG	117.59	119.51	121.16	122.51	123.54	124.22	124.44	124.27	123.86	123.24
16.00	DISCHG	122.41	121.40	120.22	118.83	117.25	115.47	113.44	111.18	108.73	106.07
17.00	DISCHG	103.24	100.32	97.43	94.64	91.93	89.33	86.92	84.67	82.47	80.36
18.00	DISCHG	78.31	76.33	74.41	72.58	70.81	69.11	67.51	65.99	64.50	63.06
19.00	DISCHG	61.67	60.31	58.96	57.64	56.35	55.09	53.89	52.74	51.62	50.55
20.00	DISCHG	49.53	48.54	47.57	46.63	45.72	44.83	43.96	43.13	42.32	41.53
21.00	DISCHG	40.76	40.01	39.29	38.59	37.91	37.24	36.57	35.92	35.29	34.68
22.00	DISCHG	34.09	33.53	32.97	32.43	31.91	31.40	30.90	30.42	29.95	29.51
23.00	DISCHG	29.07	28.66	28.26	27.88	27.51	27.15	26.80	26.46	26.13	25.82
24.00	DISCHG	25.52	25.22	24.94	24.65	24.37	24.09	23.81	23.54	23.26	22.98
25.00	DISCHG	22.70	22.41	22.10	21.79	21.47	21.14	20.79	20.44	20.06	19.67
26.00	DISCHG	19.26	18.83	18.38	17.92	17.45	16.97	16.48	15.99	15.48	14.98
27.00	DISCHG	14.47	13.96	13.45	12.95	12.44	11.94	11.45	10.96	10.49	10.02
28.00	DISCHG	9.56	9.11	8.68	8.25	7.84	7.45	7.07	6.72	6.38	6.05
29.00	DISCHG	5.74	5.45	5.18	4.92	4.68	4.45	4.23	4.02	3.83	3.64

RUNOFF VOLUME ABOVE BASEFLOW = 1.04 WATERSHED INCHES, 841.87 CFS-HRS, 69.57 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 1, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 2
OUTPUT HYDROGRAPH= 2
AREA= .27 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= .80 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1067 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.41	104.17	(RUNOFF)
19.66	5.44	(RUNOFF)
23.66	4.18	(RUNOFF)

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .27 SQ.MI.

TIME(HRS)											
10.00	DISCHG	.00	.00	.00	.00	.00	.01	.02	.07	.15	.29
11.00	DISCHG	.49	.76	1.11	1.54	2.07	2.76	4.00	6.34	11.47	21.63
12.00	DISCHG	38.38	60.45	82.71	98.50	104.11	100.60	90.70	77.74	65.32	55.73
13.00	DISCHG	48.20	42.08	37.03	32.87	29.40	26.52	24.11	22.08	20.34	18.84
14.00	DISCHG	17.55	16.43	15.44	14.56	13.75	13.04	12.42	11.87	11.34	10.85
15.00	DISCHG	10.42	10.07	9.78	9.57	9.38	9.20	8.99	8.77	8.56	8.38
16.00	DISCHG	8.22	8.12	8.05	8.00	7.96	7.94	7.90	7.84	7.72	7.57
17.00	DISCHG	7.39	7.22	7.07	6.96	6.87	6.82	6.77	6.75	6.72	6.67
18.00	DISCHG	6.58	6.44	6.26	6.08	5.91	5.78	5.67	5.60	5.54	5.51
19.00	DISCHG	5.48	5.46	5.45	5.44	5.44	5.44	5.44	5.44	5.43	5.39
20.00	DISCHG	5.31	5.17	5.00	4.81	4.64	4.50	4.39	4.32	4.26	4.23
21.00	DISCHG	4.20	4.18	4.16	4.15	4.15	4.14	4.14	4.14	4.14	4.14
22.00	DISCHG	4.14	4.14	4.14	4.15	4.15	4.15	4.15	4.16	4.16	4.16
23.00	DISCHG	4.16	4.17	4.17	4.17	4.17	4.18	4.18	4.18	4.17	4.14
24.00	DISCHG	4.05	3.87	3.57	3.14	2.62	2.09	1.60	1.19	.87	.64
25.00	DISCHG	.47	.34	.25	.18	.13	.10	.07	.05	.04	.02
26.00	DISCHG	.02	.01	.01	.00						

RUNOFF VOLUME ABOVE BASEFLOW = 1.04 WATERSHED INCHES, 181.79 CFS-HRS, 15.02 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 2, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 3
INPUT HYDROGRAPHS= 1,2 OUTPUT HYDROGRAPH= 3
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.44	113.02	(NULL)
15.55	133.48	(NULL)

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.53 SQ.MI.

TIME(HRS)											
10.00	DISCHG	.00	.00	.00	.00	.00	.01	.02	.07	.16	.30
11.00	DISCHG	.51	.80	1.17	1.63	2.20	2.95	4.28	6.78	12.22	22.93
12.00	DISCHG	40.53	63.66	87.30	104.84	112.45	111.18	103.78	93.56	84.15	77.88
13.00	DISCHG	74.03	71.88	71.18	71.78	73.39	75.88	79.15	82.99	87.17	91.48
14.00	DISCHG	95.83	100.19	104.39	108.33	112.04	115.54	118.70	121.55	124.07	126.22
15.00	DISCHG	128.01	129.58	130.95	132.07	132.93	133.42	133.43	133.05	132.42	131.61
16.00	DISCHG	130.63	129.52	128.26	126.82	125.21	123.41	121.34	119.02	116.46	113.64
17.00	DISCHG	110.63	107.54	104.51	101.59	98.80	96.15	93.70	91.42	89.19	87.03
18.00	DISCHG	84.89	82.76	80.67	78.66	76.73	74.89	73.18	71.58	70.05	68.57

19.00	DISCHG	67.15	65.77	64.41	63.09	61.79	60.53	59.32	58.17	57.05	55.94
20.00	DISCHG	54.84	53.71	52.57	51.45	50.36	49.33	48.36	47.45	46.58	45.75
21.00	DISCHG	44.96	44.19	43.45	42.75	42.06	41.38	40.72	40.06	39.42	38.82
22.00	DISCHG	38.23	37.67	37.12	36.58	36.06	35.55	35.05	34.58	34.11	33.67
23.00	DISCHG	33.24	32.83	32.43	32.05	31.68	31.32	30.98	30.64	30.30	29.96
24.00	DISCHG	29.57	29.09	28.51	27.79	26.99	26.17	25.41	24.73	24.13	23.62
25.00	DISCHG	23.17	22.75	22.36	21.98	21.60	21.23	20.86	20.49	20.10	19.69
26.00	DISCHG	19.27	18.84	18.39	17.92	17.45	16.97	16.48	15.99	15.48	14.98
27.00	DISCHG	14.47	13.96	13.45	12.95	12.44	11.94	11.45	10.96	10.49	10.02
28.00	DISCHG	9.56	9.11	8.68	8.25	7.84	7.45	7.07	6.72	6.38	6.05
29.00	DISCHG	5.74	5.45	5.18	4.92	4.68	4.45	4.23	4.02	3.83	3.64

RUNOFF VOLUME ABOVE BASEFLOW = 1.04 WATERSHED INCHES, 1023.66 CFS-HRS, 84.60 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 3, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 4
OUTPUT HYDROGRAPH= 4
AREA= .31 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= .67 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0893 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.32	134.87	(RUNOFF)
19.68	6.24	(RUNOFF)
23.66	4.80	(RUNOFF)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .31 SQ.MI.

10.00	DISCHG	.00	.00	.00	.00	.00	.01	.04	.11	.24	.45
11.00	DISCHG	.76	1.15	1.64	2.22	2.92	3.84	5.53	8.97	16.87	32.92
12.00	DISCHG	59.85	93.56	122.04	134.40	129.99	114.28	94.13	76.93	64.13	54.38
13.00	DISCHG	46.79	40.77	35.95	32.06	28.89	26.34	24.21	22.40	20.80	19.38
14.00	DISCHG	18.11	17.02	16.15	15.41	14.74	14.11	13.50	12.91	12.35	11.83
15.00	DISCHG	11.40	11.07	10.84	10.68	10.52	10.32	10.06	9.80	9.56	9.38
16.00	DISCHG	9.26	9.18	9.13	9.10	9.08	9.07	9.03	8.94	8.76	8.53
17.00	DISCHG	8.29	8.09	7.94	7.85	7.78	7.74	7.71	7.70	7.68	7.61
18.00	DISCHG	7.46	7.25	7.00	6.77	6.58	6.46	6.38	6.32	6.28	6.26
19.00	DISCHG	6.25	6.24	6.23	6.23	6.23	6.23	6.24	6.24	6.23	6.18
20.00	DISCHG	6.03	5.81	5.55	5.32	5.13	5.00	4.92	4.86	4.82	4.79
21.00	DISCHG	4.77	4.76	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75
22.00	DISCHG	4.75	4.76	4.76	4.76	4.77	4.77	4.77	4.78	4.78	4.78
23.00	DISCHG	4.78	4.79	4.79	4.79	4.80	4.80	4.80	4.80	4.79	4.73
24.00	DISCHG	4.57	4.27	3.80	3.17	2.45	1.81	1.27	.88	.61	.42
25.00	DISCHG	.29	.20	.13	.09	.06	.04	.03	.02	.01	.01
26.00	DISCHG	.00									

RUNOFF VOLUME ABOVE BASEFLOW = 1.04 WATERSHED INCHES, 208.57 CFS-HRS, 17.24 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 4, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 5
INPUT HYDROGRAPHS= 3,4 OUTPUT HYDROGRAPH= 5
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.37	243.62	(NULL)
15.50	143.74	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.84 SQ.MI.

10.00	DISCHG	.00	.00	.00	.00	.00	.01	.06	.17	.40	.75
11.00	DISCHG	1.26	1.95	2.80	3.85	5.12	6.79	9.82	15.76	29.09	58.85
12.00	DISCHG	100.38	157.22	209.34	239.24	242.44	225.46	197.91	170.49	148.28	132.27
13.00	DISCHG	120.82	112.66	107.13	103.84	102.29	102.23	103.36	105.40	107.98	110.86
14.00	DISCHG	113.94	117.21	120.54	123.74	126.78	129.64	132.20	134.46	136.42	138.05
15.00	DISCHG	139.41	140.65	141.79	142.75	143.45	143.74	143.50	142.85	141.99	140.99
16.00	DISCHG	139.89	138.70	137.39	135.92	134.29	132.47	130.38	127.96	125.22	122.17
17.00	DISCHG	118.92	115.63	112.45	109.44	106.59	103.89	101.41	99.11	96.87	94.63
18.00	DISCHG	92.35	90.01	87.67	85.43	83.31	81.35	79.56	77.91	76.33	74.83
19.00	DISCHG	73.40	72.01	70.65	69.32	68.02	66.76	65.56	64.41	63.28	62.12
20.00	DISCHG	60.88	59.52	58.12	56.77	55.49	54.33	53.28	52.31	51.40	50.54
21.00	DISCHG	49.73	48.95	48.21	47.49	46.80	46.13	45.46	44.81	44.17	43.57
22.00	DISCHG	42.99	42.43	41.88	41.34	40.82	40.32	39.83	39.35	38.89	38.45
23.00	DISCHG	38.02	37.61	37.22	36.84	36.47	36.12	35.78	35.44	35.09	34.68
24.00	DISCHG	34.14	33.36	32.31	30.95	29.44	27.98	26.68	25.60	24.74	24.04
25.00	DISCHG	23.45	22.95	22.49	22.07	21.67	21.28	20.89	20.50	20.11	19.70
26.00	DISCHG	19.27	18.84	18.39	17.92	17.45	16.97	16.48	15.99	15.48	14.98
27.00	DISCHG	14.47	13.96	13.45	12.95	12.44	11.94	11.45	10.96	10.49	10.02
28.00	DISCHG	9.56	9.11	8.68	8.25	7.84	7.45	7.07	6.72	6.38	6.05
29.00	DISCHG	5.74	5.45	5.18	4.92	4.68	4.45	4.23	4.02	3.83	3.64

RUNOFF VOLUME ABOVE BASEFLOW = 1.04 WATERSHED INCHES, 1232.22 CFS-HRS, 101.83 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 5, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 6
OUTPUT HYDROGRAPH= 6
AREA= .09 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= .45 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0600 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.18	50.95	(RUNOFF)
23.66	1.40	(RUNOFF)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .09 SQ.MI.

10.00	DISCHG	.00	.00	.00	.00	.00	.00	.02	.07	.14	.24
11.00	DISCHG	.37	.53	.72	.94	1.20	1.55	2.37	4.42	8.63	17.15

12.00	DISCHG	32.01	46.92	50.80	43.30	32.43	24.07	18.67	15.09	12.70	11.01
13.00	DISCHG	9.73	8.71	7.87	7.19	6.64	6.20	5.84	5.49	5.17	4.89
14.00	DISCHG	4.65	4.45	4.27	4.10	3.94	3.77	3.61	3.45	3.29	3.17
15.00	DISCHG	3.10	3.06	3.04	3.02	2.97	2.88	2.78	2.71	2.66	2.64
16.00	DISCHG	2.63	2.62	2.62	2.62	2.63	2.63	2.61	2.54	2.44	2.35
17.00	DISCHG	2.29	2.26	2.24	2.23	2.23	2.22	2.22	2.23	2.22	2.18
18.00	DISCHG	2.09	1.98	1.90	1.86	1.83	1.82	1.81	1.80	1.80	1.80
19.00	DISCHG	1.80	1.80	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.77
20.00	DISCHG	1.67	1.56	1.48	1.43	1.41	1.39	1.38	1.38	1.38	1.37
21.00	DISCHG	1.37	1.37	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38
22.00	DISCHG	1.38	1.38	1.38	1.38	1.39	1.39	1.39	1.39	1.39	1.39
23.00	DISCHG	1.39	1.39	1.39	1.39	1.39	1.39	1.40	1.40	1.39	1.34
24.00	DISCHG	1.25	1.09	.86	.58	.35	.20	.11	.07	.04	.02
25.00	DISCHG	.01	.01	.00							

RUNOFF VOLUME ABOVE BASEFLOW = 1.04 WATERSHED INCHES, 60.60 CFS-HRS, 5.01 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 6, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 7
INPUT HYDROGRAPHS= 5,6 OUTPUT HYDROGRAPH= 1
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.32	283.44	(NULL)
15.49	146.62	(NULL)

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.93 SQ.MI.

TIME(HRS)											
10.00	DISCHG	.00	.00	.00	.00	.00	.01	.08	.24	.53	.99
11.00	DISCHG	1.64	2.48	3.52	4.79	6.32	8.34	12.18	20.18	37.73	73.00
12.00	DISCHG	132.39	204.14	260.14	282.54	274.87	249.53	216.58	185.58	160.98	143.27
13.00	DISCHG	130.54	121.37	115.00	111.04	108.92	108.43	109.20	110.89	113.15	115.74
14.00	DISCHG	118.59	121.66	124.81	127.84	130.71	133.42	135.82	137.91	139.71	141.22
15.00	DISCHG	142.51	143.70	144.83	145.77	146.42	146.62	146.28	145.55	144.65	143.63
16.00	DISCHG	142.52	141.32	140.01	138.55	136.92	135.10	132.99	130.51	127.66	124.52
17.00	DISCHG	121.21	117.89	114.69	111.67	108.81	106.11	103.63	101.34	99.09	96.81
18.00	DISCHG	94.44	91.99	89.57	87.28	85.14	83.17	81.37	79.71	78.13	76.63
19.00	DISCHG	75.20	73.81	72.45	71.12	69.83	68.57	67.37	66.23	65.09	63.88
20.00	DISCHG	62.55	61.08	59.61	58.20	56.90	55.72	54.66	53.68	52.77	51.92
21.00	DISCHG	51.10	50.32	49.58	48.87	48.18	47.50	46.84	46.19	45.55	44.95
22.00	DISCHG	44.37	43.81	43.26	42.73	42.21	41.70	41.21	40.74	40.28	39.84
23.00	DISCHG	39.41	39.00	38.61	38.23	37.87	37.51	37.17	36.84	36.48	36.03
24.00	DISCHG	35.39	34.46	33.17	31.53	29.79	28.18	26.80	25.67	24.78	24.06
25.00	DISCHG	23.47	22.95	22.49	22.07	21.67	21.28	20.89	20.50	20.11	19.70
26.00	DISCHG	19.27	18.84	18.39	17.92	17.45	16.97	16.48	15.99	15.48	14.98
27.00	DISCHG	14.47	13.96	13.45	12.95	12.44	11.94	11.45	10.96	10.49	10.02
28.00	DISCHG	9.56	9.11	8.68	8.25	7.84	7.45	7.07	6.72	6.38	6.05

29.00	DISCHG	5.74	5.45	5.18	4.92	4.68	4.45	4.23	4.02	3.83	3.64

RUNOFF VOLUME ABOVE BASEFLOW = 1.04 WATERSHED INCHES, 1292.82 CFS-HRS, 106.84 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 7, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 8
OUTPUT HYDROGRAPH= 7
AREA= .06 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= .25 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0333 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.07	46.01	(RUNOFF)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS			DRAINAGE AREA =		.06 SQ.MI.
10.00	DISCHG	.00	.00	.00	.00	.00	.01	.04	.11	.18	.28
11.00	DISCHG	.40	.53	.70	.86	1.10	1.38	2.63	6.17	10.62	23.38
12.00	DISCHG	40.84	45.14	28.84	17.41	12.04	9.08	7.71	6.74	6.23	5.67
13.00	DISCHG	5.16	4.83	4.43	4.19	3.93	3.71	3.54	3.28	3.13	2.99
14.00	DISCHG	2.87	2.78	2.65	2.57	2.45	2.34	2.25	2.11	2.04	2.01
15.00	DISCHG	2.00	2.00	2.01	2.00	1.91	1.80	1.76	1.74	1.74	1.74
16.00	DISCHG	1.74	1.75	1.75	1.75	1.75	1.76	1.71	1.59	1.51	1.49
17.00	DISCHG	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.49	1.48	1.38
18.00	DISCHG	1.27	1.22	1.21	1.20	1.20	1.20	1.20	1.20	1.20	1.20
19.00	DISCHG	1.20	1.20	1.21	1.21	1.21	1.21	1.21	1.21	1.20	1.10
20.00	DISCHG	.99	.94	.92	.92	.91	.91	.91	.91	.92	.92
21.00	DISCHG	.92	.92	.92	.92	.92	.92	.92	.92	.92	.92
22.00	DISCHG	.92	.92	.92	.92	.92	.92	.93	.93	.93	.93
23.00	DISCHG	.93	.93	.93	.93	.93	.93	.93	.93	.92	.82
24.00	DISCHG	.70	.55	.27	.10	.04	.01	.00			

RUNOFF VOLUME ABOVE BASEFLOW = 1.05 WATERSHED INCHES, 40.50 CFS-HRS, 3.35 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 8, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 9
INPUT HYDROGRAPHS= 1,7 OUTPUT HYDROGRAPH= 2
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.30	299.97	(NULL)
15.47	148.44	(NULL)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS			DRAINAGE AREA =		1.99 SQ.MI.
10.00	DISCHG	.00	.00	.00	.00	.00	.02	.13	.35	.72	1.28
11.00	DISCHG	2.04	3.01	4.22	5.66	7.43	9.71	14.81	26.34	48.35	96.38
12.00	DISCHG	173.24	249.28	288.98	299.95	286.91	258.60	224.29	192.32	167.20	148.95

13.00	DISCHG	135.70	126.20	119.43	115.22	112.86	112.14	112.75	114.17	116.27	118.73
14.00	DISCHG	121.46	124.44	127.46	130.41	133.16	135.75	138.07	140.02	141.75	143.24
15.00	DISCHG	144.51	145.71	146.84	147.77	148.33	148.42	148.04	147.30	146.39	145.37
16.00	DISCHG	144.26	143.07	141.76	140.30	138.67	136.86	134.70	132.09	129.17	126.01
17.00	DISCHG	122.69	119.37	116.17	113.15	110.29	107.60	105.12	102.83	100.57	98.19
18.00	DISCHG	95.71	93.21	90.78	88.48	86.34	84.36	82.56	80.91	79.33	77.84
19.00	DISCHG	76.40	75.02	73.66	72.33	71.04	69.78	68.58	67.44	66.29	64.98
20.00	DISCHG	63.53	62.02	60.53	59.12	57.81	56.63	55.57	54.60	53.69	52.83
21.00	DISCHG	52.02	51.24	50.50	49.79	49.10	48.42	47.76	47.11	46.48	45.87
22.00	DISCHG	45.29	44.73	44.18	43.65	43.13	42.63	42.14	41.66	41.21	40.76
23.00	DISCHG	40.34	39.93	39.54	39.16	38.80	38.45	38.10	37.77	37.40	36.84
24.00	DISCHG	36.09	35.01	33.43	31.63	29.83	28.19	26.80	25.67	24.78	24.06
25.00	DISCHG	23.47	22.95	22.49	22.07	21.67	21.28	20.89	20.50	20.11	19.70
26.00	DISCHG	19.27	18.84	18.39	17.92	17.45	16.97	16.48	15.99	15.48	14.98
27.00	DISCHG	14.47	13.96	13.45	12.95	12.44	11.94	11.45	10.96	10.49	10.02
28.00	DISCHG	9.56	9.11	8.68	8.25	7.84	7.45	7.07	6.72	6.38	6.05
29.00	DISCHG	5.74	5.45	5.18	4.92	4.68	4.45	4.23	4.02	3.83	3.64

RUNOFF VOLUME ABOVE BASEFLOW = 1.04 WATERSHED INCHES, 1333.33 CFS-HRS, 110.19 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 9, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 10
OUTPUT HYDROGRAPH= 3
AREA= .50 SQ MI INPUT RUNOFF CURVE= 77. TIME OF CONCENTRATION= 1.00 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0952 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.56	154.79	(RUNOFF)
23.70	7.52	(RUNOFF)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .50 SQ.MI.

10.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.01	.02	.07
11.00	DISCHG	.17	.35	.63	1.04	1.60	2.36	3.65	5.94	10.63	20.25
12.00	DISCHG	37.64	62.70	92.83	122.25	143.44	153.61	154.04	146.84	134.32	119.00
13.00	DISCHG	103.88	91.37	81.15	72.51	65.03	58.58	53.07	48.27	44.12	40.52
14.00	DISCHG	37.43	34.74	32.39	30.33	28.51	26.89	25.44	24.12	22.90	21.74
15.00	DISCHG	20.66	19.71	18.90	18.28	17.76	17.32	16.90	16.49	16.09	15.72
16.00	DISCHG	15.38	15.09	14.85	14.67	14.54	14.44	14.35	14.24	14.10	13.91
17.00	DISCHG	13.67	13.41	13.14	12.90	12.69	12.52	12.39	12.29	12.21	12.13
18.00	DISCHG	12.01	11.85	11.62	11.36	11.09	10.82	10.59	10.39	10.23	10.11
19.00	DISCHG	10.02	9.95	9.90	9.86	9.84	9.82	9.80	9.79	9.78	9.74
20.00	DISCHG	9.67	9.53	9.32	9.07	8.80	8.54	8.30	8.10	7.94	7.82
21.00	DISCHG	7.73	7.66	7.60	7.56	7.53	7.51	7.49	7.48	7.47	7.46
22.00	DISCHG	7.46	7.46	7.46	7.46	7.46	7.46	7.47	7.47	7.47	7.48
23.00	DISCHG	7.48	7.49	7.49	7.50	7.50	7.51	7.51	7.52	7.51	7.48
24.00	DISCHG	7.40	7.22	6.90	6.42	5.78	5.02	4.22	3.45	2.76	2.16
25.00	DISCHG	1.68	1.31	1.03	.80	.63	.49	.38	.30	.23	.18
26.00	DISCHG	.14	.11	.08	.06	.05	.03	.02	.02	.01	.01

27.00 DISCHG .00

RUNOFF VOLUME ABOVE BASEFLOW = .99 WATERSHED INCHES, 318.68 CFS-HRS, 26.34 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 10, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 11
INPUT HYDROGRAPHS= 2,3 OUTPUT HYDROGRAPH= 4
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.38	430.82	(NULL)
15.36	166.12	(NULL)

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 2.49 SQ.MI.

TIME(HRS)											
10.00	DISCHG	.00	.00	.00	.00	.00	.02	.13	.35	.74	1.35
11.00	DISCHG	2.21	3.36	4.85	6.70	9.02	12.07	18.46	32.29	58.97	116.62
12.00	DISCHG	210.88	311.99	381.81	422.20	430.35	412.21	378.33	339.16	301.53	267.95
13.00	DISCHG	239.58	217.57	200.58	187.73	177.89	170.72	165.81	162.44	160.39	159.25
14.00	DISCHG	158.89	159.19	159.86	160.74	161.67	162.64	163.50	164.14	164.65	164.98
15.00	DISCHG	165.18	165.41	165.74	166.05	166.09	165.74	164.94	163.79	162.48	161.09
16.00	DISCHG	159.64	158.16	156.62	154.97	153.21	151.30	149.05	146.34	143.28	139.92
17.00	DISCHG	136.36	132.77	129.31	126.05	122.98	120.11	117.51	115.12	112.78	110.32
18.00	DISCHG	107.72	105.06	102.40	99.84	97.42	95.19	93.15	91.30	89.56	87.95
19.00	DISCHG	86.43	84.97	83.56	82.20	80.87	79.60	78.38	77.23	76.07	74.73
20.00	DISCHG	73.20	71.55	69.85	68.18	66.61	65.17	63.87	62.70	61.63	60.65
21.00	DISCHG	59.75	58.90	58.10	57.35	56.63	55.93	55.25	54.59	53.94	53.33
22.00	DISCHG	52.75	52.19	51.64	51.11	50.59	50.09	49.60	49.13	48.68	48.24
23.00	DISCHG	47.82	47.42	47.03	46.66	46.30	45.95	45.61	45.28	44.91	44.33
24.00	DISCHG	43.49	42.23	40.33	38.05	35.60	33.21	31.02	29.12	27.53	26.22
25.00	DISCHG	25.15	24.26	23.52	22.87	22.29	21.76	21.27	20.80	20.33	19.87
26.00	DISCHG	19.41	18.94	18.47	17.99	17.50	17.01	16.51	16.00	15.49	14.98
27.00	DISCHG	14.47	13.96	13.45	12.95	12.44	11.94	11.45	10.96	10.49	10.02
28.00	DISCHG	9.56	9.11	8.68	8.25	7.84	7.45	7.07	6.72	6.38	6.05
29.00	DISCHG	5.74	5.45	5.18	4.92	4.68	4.45	4.23	4.02	3.83	3.64

RUNOFF VOLUME ABOVE BASEFLOW = 1.03 WATERSHED INCHES, 1652.01 CFS-HRS, 136.52 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 11, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 12
OUTPUT HYDROGRAPH= 5
AREA= .57 SQ MI INPUT RUNOFF CURVE= 77. TIME OF CONCENTRATION= 1.30 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0963 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.79	146.54	(RUNOFF)
23.73	8.56	(RUNOFF)

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .57 SQ.MI.

TIME(HRS)											
10.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04
11.00	DISCHG	.09	.20	.37	.63	1.01	1.56	2.46	4.02	6.99	12.96
12.00	DISCHG	23.29	38.27	57.59	80.19	103.21	122.90	136.79	144.55	146.52	143.65
13.00	DISCHG	137.00	127.59	116.19	104.64	94.43	85.75	78.24	71.66	65.73	60.36
14.00	DISCHG	55.58	51.33	47.54	44.15	41.13	38.43	36.03	33.88	31.93	30.16
15.00	DISCHG	28.54	27.08	25.77	24.61	23.59	22.69	21.90	21.16	20.47	19.81
16.00	DISCHG	19.21	18.66	18.18	17.80	17.49	17.22	17.00	16.80	16.61	16.41
17.00	DISCHG	16.19	15.95	15.68	15.42	15.16	14.92	14.71	14.52	14.35	14.20
18.00	DISCHG	14.06	13.91	13.72	13.51	13.26	13.01	12.75	12.50	12.27	12.07
19.00	DISCHG	11.89	11.74	11.62	11.53	11.45	11.39	11.35	11.31	11.27	11.23
20.00	DISCHG	11.17	11.08	10.94	10.77	10.55	10.32	10.08	9.84	9.62	9.42
21.00	DISCHG	9.25	9.10	8.99	8.90	8.82	8.76	8.71	8.67	8.63	8.61
22.00	DISCHG	8.59	8.57	8.56	8.55	8.54	8.54	8.54	8.53	8.53	8.53
23.00	DISCHG	8.54	8.54	8.54	8.54	8.55	8.55	8.56	8.56	8.56	8.54
24.00	DISCHG	8.50	8.40	8.21	7.92	7.50	6.97	6.33	5.64	4.92	4.22
25.00	DISCHG	3.57	2.98	2.47	2.03	1.68	1.39	1.15	.95	.79	.65
26.00	DISCHG	.53	.44	.36	.30	.25	.20	.17	.14	.11	.09
27.00	DISCHG	.07	.06	.05	.04	.03	.02	.02	.01	.01	.00

RUNOFF VOLUME ABOVE BASEFLOW = .99 WATERSHED INCHES, 363.94 CFS-HRS, 30.08 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 12, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 13
INPUT HYDROGRAPHS= 4,5 OUTPUT HYDROGRAPH= 6
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.46	537.09	(NULL)

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 3.06 SQ.MI.

TIME(HRS)											
10.00	DISCHG	.00	.00	.00	.00	.00	.02	.13	.35	.75	1.39
11.00	DISCHG	2.30	3.56	5.22	7.33	10.03	13.63	20.92	36.30	65.97	129.58
12.00	DISCHG	234.17	350.26	439.40	502.39	533.55	535.12	515.12	483.71	448.04	411.60
13.00	DISCHG	376.58	345.15	316.76	292.37	272.32	256.46	244.05	234.10	226.12	219.61
14.00	DISCHG	214.46	210.52	207.40	204.89	202.80	201.07	199.54	198.02	196.88	195.14
15.00	DISCHG	193.72	192.49	191.51	190.66	189.68	188.43	186.83	184.95	182.95	180.90
16.00	DISCHG	178.85	176.82	174.80	172.77	170.70	168.52	166.05	163.14	159.89	156.33
17.00	DISCHG	152.55	148.72	145.00	141.47	138.14	135.03	132.21	129.63	127.13	124.52
18.00	DISCHG	121.78	118.97	116.12	113.35	110.69	108.19	105.90	103.80	101.84	100.01
19.00	DISCHG	98.31	96.71	95.18	93.72	92.33	90.99	89.73	88.54	87.34	85.96

20.00	DISCHG	84.37	82.62	80.79	78.95	77.17	75.49	73.95	72.54	71.25	70.07
21.00	DISCHG	69.00	68.00	67.09	66.25	65.45	64.69	63.96	63.25	62.58	61.94
22.00	DISCHG	61.34	60.76	60.20	59.66	59.14	58.63	58.14	57.67	57.21	56.78
23.00	DISCHG	56.36	55.96	55.57	55.20	54.85	54.50	54.17	53.84	53.47	52.87
24.00	DISCHG	51.99	50.63	48.54	45.97	43.11	40.18	37.35	34.76	32.45	30.45
25.00	DISCHG	28.72	27.24	25.98	24.90	23.97	23.15	22.42	21.75	21.12	20.52
26.00	DISCHG	19.94	19.38	18.83	18.29	17.75	17.21	16.67	16.14	15.61	15.07
27.00	DISCHG	14.54	14.02	13.50	12.98	12.47	11.97	11.47	10.98	10.49	10.02
28.00	DISCHG	9.56	9.11	8.68	8.25	7.84	7.45	7.07	6.72	6.38	6.05
29.00	DISCHG	5.74	5.45	5.18	4.92	4.68	4.45	4.23	4.02	3.83	3.64

RUNOFF VOLUME ABOVE BASEFLOW = 1.02 WATERSHED INCHES, 2015.94 CFS-HRS, 166.60 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 13, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

EXECUTIVE CONTROL OPERATION ENDCMP COMPUTATIONS COMPLETED FOR PASS 1 RECORD ID

EXECUTIVE CONTROL OPERATION COMPUT FROM XSECTION 1 TO XSECTION 13 RECORD ID 10-YR
STARTING TIME = .00 RAIN DEPTH = 4.08 RAIN DURATION= 1.00 RAIN TABLE NO.= 2 ANT. MOIST. COND= 2
ALTERNATE NO.= 1 STORM NO.= 2 MAIN TIME INCREMENT = .10 HOURS

OPERATION RUNOFF CROSS SECTION 1
OUTPUT HYDROGRAPH= 1
AREA= 1.26 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= 5.00 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1010 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
15.51	241.82	(RUNOFF)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.26 SQ.MI.

9.00	DISCHG	.00	.00	.01	.01	.02	.02	.04	.05	.07	.10
10.00	DISCHG	.13	.17	.21	.27	.34	.43	.53	.65	.79	.96
11.00	DISCHG	1.15	1.39	1.66	1.97	2.34	2.77	3.32	4.04	5.08	6.65
12.00	DISCHG	8.79	11.39	14.62	18.53	22.96	27.82	33.18	39.02	45.33	52.26
13.00	DISCHG	59.84	67.97	76.77	86.32	96.43	107.03	118.11	129.48	140.83	151.87
14.00	DISCHG	162.52	172.76	182.37	191.21	199.41	206.95	213.63	219.55	224.76	229.14
15.00	DISCHG	232.71	235.71	238.18	240.03	241.27	241.81	241.48	240.45	238.97	237.09
16.00	DISCHG	234.85	232.28	229.38	226.11	222.49	218.50	214.05	209.20	204.00	198.45
17.00	DISCHG	192.61	186.68	180.85	175.24	169.83	164.67	159.89	155.41	151.07	146.88
18.00	DISCHG	142.86	138.96	135.19	131.60	128.16	124.85	121.73	118.76	115.87	113.08
19.00	DISCHG	110.38	107.73	105.13	102.58	100.09	97.67	95.36	93.16	91.03	88.99
20.00	DISCHG	87.06	85.18	83.34	81.56	79.83	78.14	76.52	74.96	73.43	71.95
21.00	DISCHG	70.52	69.12	67.78	66.48	65.21	63.97	62.74	61.54	60.37	59.25
22.00	DISCHG	58.19	57.15	56.14	55.16	54.20	53.28	52.38	51.51	50.66	49.85
23.00	DISCHG	49.08	48.33	47.61	46.92	46.25	45.60	44.97	44.36	43.77	43.21
24.00	DISCHG	42.67	42.15	41.63	41.12	40.61	40.12	39.63	39.15	38.66	38.17
25.00	DISCHG	37.68	37.17	36.64	36.10	35.55	34.98	34.40	33.79	33.16	32.49
26.00	DISCHG	31.80	31.08	30.34	29.57	28.79	27.99	27.17	26.34	25.50	24.66
27.00	DISCHG	23.82	22.97	22.13	21.29	20.45	19.63	18.81	18.00	17.21	16.44
28.00	DISCHG	15.68	14.93	14.21	13.51	12.83	12.18	11.57	10.98	10.43	9.90
29.00	DISCHG	9.39	8.92	8.47	8.05	7.65	7.27	6.92	6.58	6.26	5.96

RUNOFF VOLUME ABOVE BASEFLOW = 1.94 WATERSHED INCHES, 1574.55 CFS-HRS, 130.12 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 1, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 2
OUTPUT HYDROGRAPH= 2
AREA= .27 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= .80 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1067 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.39	202.42	(RUNOFF)
23.65	6.81	(RUNOFF)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS			DRAINAGE AREA = .27 SQ.MI.		
8.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
9.00	DISCHG	.03	.06	.12	.21	.32	.46	.61	.79	.98	1.19
10.00	DISCHG	1.42	1.65	1.90	2.17	2.48	2.82	3.24	3.73	4.31	5.00
11.00	DISCHG	5.80	6.71	7.74	8.92	10.26	11.94	14.92	20.42	31.87	53.05
12.00	DISCHG	86.17	128.01	168.43	195.26	202.37	192.56	171.33	145.19	120.83	102.18
13.00	DISCHG	87.59	75.81	66.19	58.32	51.81	46.43	41.99	38.26	35.09	32.39
14.00	DISCHG	30.06	28.05	26.28	24.71	23.28	22.04	20.97	20.00	19.10	18.26
15.00	DISCHG	17.52	16.91	16.42	16.04	15.72	15.41	15.05	14.67	14.31	13.99
16.00	DISCHG	13.73	13.54	13.42	13.32	13.26	13.21	13.14	13.03	12.84	12.57
17.00	DISCHG	12.28	11.99	11.74	11.54	11.39	11.29	11.22	11.17	11.12	11.03
18.00	DISCHG	10.87	10.64	10.34	10.04	9.76	9.53	9.36	9.23	9.14	9.07
19.00	DISCHG	9.03	8.99	8.97	8.96	8.95	8.94	8.94	8.94	8.92	8.86
20.00	DISCHG	8.72	8.49	8.20	7.90	7.62	7.38	7.21	7.08	6.99	6.93
21.00	DISCHG	6.88	6.84	6.82	6.80	6.79	6.78	6.78	6.77	6.77	6.77
22.00	DISCHG	6.77	6.77	6.77	6.77	6.78	6.78	6.78	6.79	6.79	6.79
23.00	DISCHG	6.79	6.80	6.80	6.80	6.80	6.81	6.81	6.81	6.80	6.74
24.00	DISCHG	6.60	6.30	5.81	5.11	4.26	3.39	2.60	1.93	1.41	1.04
25.00	DISCHG	.76	.56	.41	.30	.22	.16	.11	.08	.06	.04
26.00	DISCHG	.03	.02	.01	.01	.00					

RUNOFF VOLUME ABOVE BASEFLOW = 1.95 WATERSHED INCHES, 339.60 CFS-HRS, 28.06 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 2, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 3
INPUT HYDROGRAPHS= 1,2 OUTPUT HYDROGRAPH= 3
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.42	225.66	(NULL)
15.47	257.25	(NULL)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS			DRAINAGE AREA = 1.53 SQ.MI.		
8.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
9.00	DISCHG	.03	.06	.13	.22	.34	.48	.65	.84	1.05	1.29
10.00	DISCHG	1.55	1.82	2.12	2.45	2.82	3.25	3.76	4.38	5.10	5.96
11.00	DISCHG	6.95	8.10	9.40	10.89	12.60	14.71	18.24	24.47	36.95	59.70
12.00	DISCHG	94.96	139.40	183.05	213.80	225.33	220.38	204.51	184.21	166.17	154.44
13.00	DISCHG	147.43	143.78	142.96	144.63	148.23	153.46	160.09	167.74	175.92	184.25
14.00	DISCHG	192.58	200.81	208.66	215.92	222.69	228.99	234.60	239.55	243.85	247.39
15.00	DISCHG	250.23	252.62	254.60	256.07	257.00	257.22	256.54	255.12	253.28	251.08
16.00	DISCHG	248.57	245.82	242.79	239.43	235.75	231.71	227.20	222.23	216.84	211.03
17.00	DISCHG	204.89	198.66	192.58	186.77	181.22	175.96	171.11	166.58	162.19	157.92
18.00	DISCHG	153.73	149.59	145.54	141.65	137.92	134.38	131.08	127.99	125.01	122.16
19.00	DISCHG	119.41	116.73	114.10	111.54	109.04	106.61	104.30	102.10	99.95	97.86

20.00	DISCHG	95.78	93.67	91.54	89.46	87.45	85.53	83.73	82.04	80.42	78.87
21.00	DISCHG	77.39	75.97	74.59	73.28	72.00	70.75	69.52	68.31	67.14	66.02
22.00	DISCHG	64.96	63.92	62.91	61.93	60.98	60.06	59.16	58.29	57.45	56.65
23.00	DISCHG	55.87	55.12	54.41	53.72	53.05	52.41	51.78	51.17	50.57	49.95
24.00	DISCHG	49.28	48.45	47.44	46.23	44.88	43.51	42.23	41.08	40.08	39.21
25.00	DISCHG	38.44	37.72	37.05	36.40	35.77	35.14	34.51	33.87	33.21	32.53
26.00	DISCHG	31.83	31.10	30.35	29.58	28.79	27.99	27.17	26.34	25.50	24.66
27.00	DISCHG	23.82	22.97	22.13	21.29	20.45	19.63	18.81	18.00	17.21	16.44
28.00	DISCHG	15.68	14.93	14.21	13.51	12.83	12.18	11.57	10.98	10.43	9.90
29.00	DISCHG	9.39	8.92	8.47	8.05	7.65	7.27	6.92	6.58	6.26	5.96

RUNOFF VOLUME ABOVE BASEFLOW = 1.94 WATERSHED INCHES, 1914.15 CFS-HRS, 158.19 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 3, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 4
OUTPUT HYDROGRAPH= 4
AREA= .31 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= .67 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0893 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.31	261.43	(RUNOFF)
19.66	10.26	(RUNOFF)
23.66	7.83	(RUNOFF)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .31 SQ.MI.

8.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
9.00	DISCHG	.04	.10	.19	.32	.49	.67	.87	1.10	1.34	1.60
10.00	DISCHG	1.88	2.16	2.46	2.79	3.17	3.62	4.16	4.80	5.56	6.47
11.00	DISCHG	7.51	8.71	10.03	11.52	13.21	15.39	19.43	27.59	45.34	78.65
12.00	DISCHG	131.10	193.55	243.25	261.33	248.22	215.02	175.02	141.60	116.87	98.14
13.00	DISCHG	83.65	72.29	63.26	56.04	50.20	45.55	41.68	38.41	35.85	33.00
14.00	DISCHG	30.76	28.85	27.33	26.05	24.88	23.79	22.75	21.74	20.76	19.88
15.00	DISCHG	19.14	18.58	18.18	17.89	17.61	17.26	16.83	16.38	15.97	15.65
16.00	DISCHG	15.44	15.30	15.21	15.15	15.11	15.09	15.02	14.86	14.56	14.16
17.00	DISCHG	13.76	13.42	13.17	13.00	12.89	12.82	12.77	12.74	12.69	12.58
18.00	DISCHG	12.34	11.97	11.56	11.17	10.86	10.66	10.52	10.42	10.36	10.31
19.00	DISCHG	10.29	10.27	10.26	10.25	10.25	10.25	10.25	10.26	10.24	10.14
20.00	DISCHG	9.91	9.53	9.11	8.73	8.42	8.21	8.06	7.96	7.89	7.84
21.00	DISCHG	7.81	7.79	7.78	7.77	7.77	7.77	7.76	7.77	7.77	7.77
22.00	DISCHG	7.77	7.78	7.78	7.78	7.78	7.79	7.79	7.79	7.80	7.80
23.00	DISCHG	7.80	7.81	7.81	7.81	7.82	7.82	7.82	7.82	7.80	7.70
24.00	DISCHG	7.44	6.95	6.19	5.15	3.99	2.94	2.07	1.43	.98	.68
25.00	DISCHG	.47	.32	.22	.15	.10	.07	.04	.03	.02	.01
26.00	DISCHG	.00									

RUNOFF VOLUME ABOVE BASEFLOW = 1.95 WATERSHED INCHES, 389.62 CFS-HRS, 32.20 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 4, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 5
INPUT HYDROGRAPHS= 3,4 OUTPUT HYDROGRAPH= 5
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.35	480.66	(NULL)
15.43	274.65	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.84 SQ.MI.

8.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
9.00	DISCHG	.07	.17	.32	.54	.82	1.15	1.52	1.94	2.39	2.89
10.00	DISCHG	3.42	3.98	4.58	5.24	5.99	6.87	7.92	9.17	10.67	12.42
11.00	DISCHG	14.46	16.80	19.43	22.42	25.81	30.10	37.67	52.06	82.29	138.35
12.00	DISCHG	226.06	332.95	426.30	475.12	473.54	435.40	379.53	325.82	283.04	252.59
13.00	DISCHG	231.09	216.07	206.21	200.67	198.43	199.01	201.78	206.15	211.47	217.26
14.00	DISCHG	223.34	229.66	235.99	241.97	247.57	252.78	257.35	261.28	264.61	267.27
15.00	DISCHG	269.37	271.19	272.78	273.96	274.61	274.48	273.37	271.50	269.25	266.73
16.00	DISCHG	264.02	261.13	258.00	254.58	250.86	246.79	242.22	237.09	231.40	225.18
17.00	DISCHG	218.66	212.09	205.76	199.78	194.11	188.78	183.88	179.32	174.88	170.50
18.00	DISCHG	166.07	161.56	157.10	152.82	148.79	145.04	141.60	138.41	135.37	132.47
19.00	DISCHG	129.69	127.00	124.36	121.79	119.29	116.86	114.56	112.36	110.19	108.00
20.00	DISCHG	105.69	103.20	100.66	98.19	95.86	93.73	91.79	90.00	88.31	86.72
21.00	DISCHG	85.21	83.76	82.38	81.05	79.77	78.51	77.28	76.07	74.90	73.79
22.00	DISCHG	72.73	71.69	70.69	69.72	68.77	67.84	66.95	66.09	65.25	64.45
23.00	DISCHG	63.67	62.93	62.22	61.53	60.87	60.23	59.60	59.00	58.37	57.65
24.00	DISCHG	56.71	55.40	53.63	51.38	48.87	46.45	44.30	42.51	41.06	39.89
25.00	DISCHG	38.90	38.04	37.27	36.55	35.87	35.21	34.55	33.90	33.23	32.54
26.00	DISCHG	31.83	31.10	30.35	29.58	28.79	27.99	27.17	26.34	25.50	24.66
27.00	DISCHG	23.82	22.97	22.13	21.29	20.45	19.63	18.81	18.00	17.21	16.44
28.00	DISCHG	15.68	14.93	14.21	13.51	12.83	12.18	11.57	10.98	10.43	9.90
29.00	DISCHG	9.39	8.92	8.47	8.05	7.65	7.27	6.92	6.58	6.26	5.96

RUNOFF VOLUME ABOVE BASEFLOW = 1.94 WATERSHED INCHES, 2303.77 CFS-HRS, 190.38 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 5, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 6
OUTPUT HYDROGRAPH= 6
AREA= .09 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= .45 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0600 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.17	97.95	(RUNOFF)
23.66	2.27	(RUNOFF)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .09 SQ.MI.

8.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
9.00	DISCHG	.03	.06	.11	.16	.22	.29	.35	.43	.51	.60
10.00	DISCHG	.68	.77	.87	.98	1.11	1.28	1.47	1.72	2.01	2.34
11.00	DISCHG	2.72	3.12	3.59	4.09	4.68	5.48	7.46	12.39	21.73	38.82
12.00	DISCHG	66.68	92.51	97.17	81.16	59.94	43.93	33.64	26.88	22.39	19.25
13.00	DISCHG	16.89	15.04	13.53	12.32	11.34	10.57	9.94	9.33	8.77	8.28
14.00	DISCHG	7.87	7.53	7.21	6.92	6.63	6.35	6.07	5.79	5.53	5.32
15.00	DISCHG	5.19	5.12	5.08	5.05	4.97	4.82	4.64	4.52	4.44	4.40
16.00	DISCHG	4.38	4.37	4.37	4.37	4.37	4.37	4.34	4.23	4.05	3.90
17.00	DISCHG	3.80	3.74	3.71	3.69	3.68	3.68	3.68	3.68	3.67	3.60
18.00	DISCHG	3.45	3.27	3.14	3.06	3.02	2.99	2.98	2.97	2.97	2.97
19.00	DISCHG	2.97	2.97	2.97	2.97	2.97	2.98	2.98	2.98	2.97	2.90
20.00	DISCHG	2.74	2.56	2.43	2.35	2.31	2.28	2.27	2.26	2.25	2.25
21.00	DISCHG	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.26	2.26	2.26
22.00	DISCHG	2.26	2.26	2.26	2.26	2.26	2.26	2.26	2.26	2.27	2.27
23.00	DISCHG	2.27	2.27	2.27	2.27	2.27	2.27	2.27	2.27	2.26	2.19
24.00	DISCHG	2.03	1.78	1.39	.94	.57	.33	.19	.11	.06	.03
25.00	DISCHG	.02	.01	.00							

RUNOFF VOLUME ABOVE BASEFLOW = 1.95 WATERSHED INCHES, 113.21 CFS-HRS, 9.36 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 6, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 7
INPUT HYDROGRAPHS= 5,6 OUTPUT HYDROGRAPH= 1
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.31	556.51	(NULL)
15.42	279.59	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.93 SQ.MI.

8.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03
9.00	DISCHG	.10	.23	.43	.70	1.05	1.44	1.87	2.36	2.91	3.49
10.00	DISCHG	4.10	4.75	5.44	6.22	7.10	8.15	9.40	10.89	12.67	14.76
11.00	DISCHG	17.18	19.93	23.02	26.51	30.49	35.58	45.13	64.45	104.02	177.17
12.00	DISCHG	292.74	425.46	523.46	556.29	533.48	479.33	413.17	352.70	305.43	271.83
13.00	DISCHG	247.98	231.11	219.75	212.99	209.77	209.57	211.72	215.48	220.24	225.54
14.00	DISCHG	231.20	237.18	243.20	248.89	254.21	259.13	263.42	267.08	270.14	272.59
15.00	DISCHG	274.56	276.31	277.86	279.02	279.58	279.29	278.01	276.02	273.69	271.14
16.00	DISCHG	268.40	265.50	262.37	258.95	255.23	251.16	246.56	241.32	235.45	229.08
17.00	DISCHG	222.45	215.83	209.47	203.47	197.80	192.46	187.55	183.00	178.55	174.10
18.00	DISCHG	169.52	164.83	160.23	155.88	151.81	148.03	144.58	141.39	138.34	135.44
19.00	DISCHG	132.66	129.97	127.33	124.76	122.26	119.84	117.54	115.34	113.16	110.90
20.00	DISCHG	108.43	105.77	103.09	100.54	98.17	96.01	94.06	92.26	90.56	88.97
21.00	DISCHG	87.46	86.01	84.63	83.30	82.02	80.77	79.54	78.33	77.16	76.05
22.00	DISCHG	74.99	73.95	72.95	71.98	71.03	70.11	69.21	68.35	67.51	66.71

23.00	DISCHG	65.94	65.20	64.49	63.80	63.14	62.50	61.88	61.27	60.63	59.84
24.00	DISCHG	58.74	57.17	55.02	52.32	49.44	46.78	44.49	42.62	41.12	39.92
25.00	DISCHG	38.92	38.05	37.27	36.55	35.87	35.21	34.55	33.90	33.23	32.54
26.00	DISCHG	31.83	31.10	30.35	29.58	28.79	27.99	27.17	26.34	25.50	24.66
27.00	DISCHG	23.82	22.97	22.13	21.29	20.45	19.63	18.81	18.00	17.21	16.44
28.00	DISCHG	15.68	14.93	14.21	13.51	12.83	12.18	11.57	10.98	10.43	9.90
29.00	DISCHG	9.39	8.92	8.47	8.05	7.65	7.27	6.92	6.58	6.26	5.96

RUNOFF VOLUME ABOVE BASEFLOW = 1.94 WATERSHED INCHES, 2416.98 CFS-HRS, 199.74 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 7, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 8
OUTPUT HYDROGRAPH= 7
AREA= .06 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= .25 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0333 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.06	86.96	(RUNOFF)
23.65	1.52	(RUNOFF)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .06 SQ.MI.

8.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
9.00	DISCHG	.04	.08	.12	.17	.21	.26	.31	.37	.43	.49
10.00	DISCHG	.54	.60	.69	.77	.90	1.04	1.20	1.44	1.65	1.93
11.00	DISCHG	2.23	2.52	2.91	3.27	3.82	4.42	7.55	16.00	25.02	49.42
12.00	DISCHG	80.02	84.39	52.82	31.36	21.36	15.92	13.41	11.66	10.73	9.75
13.00	DISCHG	8.84	8.26	7.55	7.13	6.69	6.31	6.01	5.56	5.29	5.05
14.00	DISCHG	4.84	4.69	4.46	4.32	4.12	3.93	3.78	3.55	3.42	3.37
15.00	DISCHG	3.36	3.35	3.36	3.34	3.18	3.01	2.94	2.91	2.90	2.90
16.00	DISCHG	2.90	2.91	2.91	2.91	2.91	2.92	2.84	2.64	2.51	2.47
17.00	DISCHG	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.46	2.44	2.27
18.00	DISCHG	2.09	2.02	1.99	1.98	1.98	1.97	1.98	1.98	1.98	1.98
19.00	DISCHG	1.98	1.98	1.98	1.98	1.99	1.99	1.99	1.99	1.97	1.80
20.00	DISCHG	1.62	1.54	1.51	1.50	1.50	1.50	1.50	1.50	1.50	1.50
21.00	DISCHG	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.51	1.51
22.00	DISCHG	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.51
23.00	DISCHG	1.51	1.51	1.51	1.51	1.51	1.52	1.52	1.52	1.50	1.33
24.00	DISCHG	1.14	.90	.43	.16	.06	.02	.01	.00		

RUNOFF VOLUME ABOVE BASEFLOW = 1.95 WATERSHED INCHES, 75.68 CFS-HRS, 6.25 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 8, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 9
INPUT HYDROGRAPHS= 1,7 OUTPUT HYDROGRAPH= 2
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.28	588.94	(NULL)
15.40	282.77	(NULL)

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.99 SQ.MI.

TIME(HRS)											
8.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05
9.00	DISCHG	.14	.31	.55	.87	1.26	1.70	2.18	2.74	3.34	3.98
10.00	DISCHG	4.65	5.35	6.13	6.99	8.00	9.19	10.59	12.33	14.32	16.69
11.00	DISCHG	19.41	22.45	25.93	29.78	34.31	39.99	52.68	80.45	129.04	226.59
12.00	DISCHG	372.76	509.85	576.28	587.64	554.84	495.25	426.58	364.36	316.16	281.58
13.00	DISCHG	256.82	239.37	227.30	220.12	216.46	215.88	217.72	221.04	225.53	230.58
14.00	DISCHG	236.05	241.87	247.66	253.21	258.32	263.06	267.20	270.62	273.56	275.97
15.00	DISCHG	277.92	279.67	281.22	282.36	282.77	282.30	280.94	278.93	276.59	274.04
16.00	DISCHG	271.30	268.40	265.28	261.86	258.15	254.08	249.40	243.95	237.96	231.55
17.00	DISCHG	224.90	218.28	211.91	205.92	200.25	194.91	190.01	185.46	180.99	176.37
18.00	DISCHG	171.61	166.85	162.22	157.86	153.78	150.01	146.56	143.37	140.32	137.42
19.00	DISCHG	134.64	131.95	129.32	126.75	124.25	121.83	119.52	117.32	115.13	112.70
20.00	DISCHG	110.05	107.31	104.60	102.04	99.67	97.51	95.55	93.75	92.06	90.47
21.00	DISCHG	88.96	87.51	86.13	84.81	83.53	82.27	81.04	79.83	78.67	77.55
22.00	DISCHG	76.49	75.46	74.46	73.48	72.54	71.61	70.72	69.86	69.03	68.22
23.00	DISCHG	67.45	66.71	66.00	65.32	64.66	64.01	63.39	62.78	62.13	61.17
24.00	DISCHG	59.88	58.07	55.46	52.48	49.50	46.80	44.50	42.62	41.12	39.92
25.00	DISCHG	38.92	38.05	37.27	36.55	35.87	35.21	34.55	33.90	33.23	32.54
26.00	DISCHG	31.83	31.10	30.35	29.58	28.79	27.99	27.17	26.34	25.50	24.66
27.00	DISCHG	23.82	22.97	22.13	21.29	20.45	19.63	18.81	18.00	17.21	16.44
28.00	DISCHG	15.68	14.93	14.21	13.51	12.83	12.18	11.57	10.98	10.43	9.90
29.00	DISCHG	9.39	8.92	8.47	8.05	7.65	7.27	6.92	6.58	6.26	5.96

RUNOFF VOLUME ABOVE BASEFLOW = 1.94 WATERSHED INCHES, 2492.66 CFS-HRS, 205.99 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 9, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 10
OUTPUT HYDROGRAPH= 3
AREA= .50 SQ MI INPUT RUNOFF CURVE= 77. TIME OF CONCENTRATION= 1.00 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0952 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.53	309.31	(RUNOFF)
23.68	12.37	(RUNOFF)

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .50 SQ.MI.

TIME(HRS)											
9.00	DISCHG	.00	.00	.01	.03	.08	.15	.27	.43	.64	.88
10.00	DISCHG	1.17	1.50	1.86	2.25	2.69	3.19	3.76	4.42	5.21	6.13
11.00	DISCHG	7.22	8.49	9.94	11.61	13.51	15.82	19.34	25.23	36.42	57.79
12.00	DISCHG	94.03	144.05	201.98	256.34	293.33	308.45	304.71	286.68	259.16	227.19
13.00	DISCHG	196.50	171.34	150.90	133.75	119.02	106.42	95.75	86.53	78.62	71.81
14.00	DISCHG	66.00	60.99	56.63	52.82	49.48	46.52	43.89	41.50	39.30	37.22

15.00	DISCHG	35.30	33.59	32.18	31.07	30.17	29.39	28.66	27.94	27.25	26.59
16.00	DISCHG	26.00	25.50	25.08	24.76	24.52	24.34	24.17	23.98	23.73	23.39
17.00	DISCHG	22.97	22.52	22.07	21.65	21.28	20.98	20.76	20.59	20.45	20.29
18.00	DISCHG	20.09	19.81	19.42	18.98	18.51	18.07	17.67	17.33	17.06	16.85
19.00	DISCHG	16.70	16.58	16.49	16.42	16.37	16.33	16.30	16.28	16.25	16.19
20.00	DISCHG	16.05	15.81	15.47	15.04	14.60	14.16	13.77	13.43	13.16	12.96
21.00	DISCHG	12.80	12.68	12.59	12.52	12.46	12.42	12.39	12.36	12.35	12.33
22.00	DISCHG	12.32	12.32	12.32	12.31	12.31	12.32	12.32	12.32	12.32	12.33
23.00	DISCHG	12.33	12.34	12.34	12.35	12.35	12.36	12.36	12.37	12.36	12.31
24.00	DISCHG	12.18	11.88	11.35	10.56	9.50	8.25	6.94	5.67	4.53	3.56
25.00	DISCHG	2.77	2.16	1.69	1.32	1.03	.80	.62	.49	.38	.29
26.00	DISCHG	.22	.17	.13	.10	.08	.06	.04	.03	.02	.01
27.00	DISCHG	.01	.00								

RUNOFF VOLUME ABOVE BASEFLOW = 1.87 WATERSHED INCHES, 604.26 CFS-HRS, 49.94 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 10, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 11
INPUT HYDROGRAPHS= 2,3 OUTPUT HYDROGRAPH= 4
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.36	852.34	(NULL)
15.26	313.48	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 2.49 SQ.MI.

8.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05
9.00	DISCHG	.14	.31	.56	.91	1.34	1.85	2.45	3.17	3.98	4.87
10.00	DISCHG	5.82	6.85	7.99	9.24	10.70	12.38	14.35	16.76	19.53	22.83
11.00	DISCHG	26.63	30.93	35.87	41.38	47.82	55.81	72.02	105.68	165.46	284.38
12.00	DISCHG	466.79	653.89	778.26	843.98	848.17	803.71	731.29	651.04	575.32	508.77
13.00	DISCHG	453.32	410.71	378.20	353.87	335.48	322.30	313.47	307.57	304.15	302.39
14.00	DISCHG	302.05	302.86	304.29	306.03	307.80	309.58	311.09	312.13	312.86	313.19
15.00	DISCHG	313.22	313.26	313.40	313.43	312.94	311.69	309.60	306.87	303.84	300.63
16.00	DISCHG	297.30	293.90	290.36	286.62	282.67	278.41	273.57	267.93	261.69	254.94
17.00	DISCHG	247.87	240.79	233.98	227.56	221.53	215.90	210.77	206.04	201.44	196.66
18.00	DISCHG	191.70	186.65	181.64	176.84	172.29	168.07	164.22	160.69	157.38	154.27
19.00	DISCHG	151.34	148.53	145.80	143.17	140.61	138.15	135.82	133.60	131.38	128.89
20.00	DISCHG	126.10	123.12	120.06	117.09	114.27	111.67	109.32	107.18	105.22	103.43
21.00	DISCHG	101.76	100.19	98.72	97.32	95.99	94.69	93.43	92.20	91.01	89.89
22.00	DISCHG	88.82	87.78	86.77	85.80	84.85	83.93	83.04	82.18	81.35	80.55
23.00	DISCHG	79.79	79.05	78.34	77.66	77.01	76.37	75.76	75.15	74.49	73.47
24.00	DISCHG	72.06	69.95	66.81	63.04	59.00	55.05	51.43	48.29	45.66	43.48
25.00	DISCHG	41.69	40.21	38.96	37.87	36.90	36.01	35.18	34.38	33.61	32.83
26.00	DISCHG	32.06	31.28	30.48	29.68	28.86	28.04	27.21	26.37	25.52	24.67
27.00	DISCHG	23.82	22.97	22.13	21.29	20.45	19.63	18.81	18.00	17.21	16.44

28.00 DISCHG	15.68	14.93	14.21	13.51	12.83	12.18	11.57	10.98	10.43	9.90
29.00 DISCHG	9.39	8.92	8.47	8.05	7.65	7.27	6.92	6.58	6.26	5.96

RUNOFF VOLUME ABOVE BASEFLOW = 1.93 WATERSHED INCHES, 3096.92 CFS-HRS, 255.93 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 11, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 12
OUTPUT HYDROGRAPH= 5
AREA= .57 SQ MI INPUT RUNOFF CURVE= 77. TIME OF CONCENTRATION= 1.30 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0963 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.75	292.51	(RUNOFF)
23.70	14.10	(RUNOFF)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .57 SQ.MI.

9.00 DISCHG	.00	.00	.01	.02	.04	.09	.16	.27	.41	.59
10.00 DISCHG	.82	1.08	1.39	1.74	2.14	2.59	3.09	3.68	4.35	5.14
11.00 DISCHG	6.07	7.14	8.39	9.84	11.50	13.51	16.33	20.64	28.03	41.52
12.00 DISCHG	63.57	94.34	132.88	176.70	220.00	255.76	279.54	291.19	291.52	282.63
13.00 DISCHG	266.78	246.02	222.03	198.40	177.77	160.31	145.31	132.22	120.52	110.01
14.00 DISCHG	100.71	92.51	85.23	78.76	73.02	67.94	63.44	59.42	55.80	52.53
15.00 DISCHG	49.56	46.88	44.50	42.39	40.53	38.91	37.47	36.14	34.88	33.70
16.00 DISCHG	32.61	31.62	30.78	30.11	29.55	29.09	28.69	28.34	28.00	27.65
17.00 DISCHG	27.26	26.83	26.37	25.92	25.47	25.05	24.68	24.34	24.06	23.80
18.00 DISCHG	23.55	23.28	22.97	22.59	22.18	21.74	21.30	20.88	20.48	20.13
19.00 DISCHG	19.83	19.58	19.37	19.21	19.08	18.97	18.88	18.81	18.75	18.67
20.00 DISCHG	18.56	18.40	18.18	17.88	17.52	17.13	16.72	16.33	15.95	15.62
21.00 DISCHG	15.33	15.08	14.89	14.73	14.60	14.50	14.41	14.34	14.28	14.23
22.00 DISCHG	14.20	14.17	14.14	14.12	14.11	14.10	14.09	14.09	14.08	14.08
23.00 DISCHG	14.08	14.08	14.08	14.08	14.09	14.09	14.09	14.10	14.09	14.06
24.00 DISCHG	13.99	13.82	13.51	13.02	12.34	11.46	10.41	9.27	8.09	6.95
25.00 DISCHG	5.87	4.90	4.06	3.34	2.75	2.28	1.89	1.56	1.29	1.07
26.00 DISCHG	.88	.73	.60	.49	.41	.33	.27	.22	.18	.15
27.00 DISCHG	.12	.10	.08	.06	.05	.04	.03	.02	.01	.01
28.00 DISCHG	.00									

RUNOFF VOLUME ABOVE BASEFLOW = 1.88 WATERSHED INCHES, 690.03 CFS-HRS, 57.02 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 12, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 13
INPUT HYDROGRAPHS= 4,5 OUTPUT HYDROGRAPH= 6
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.43	1071.52	(NULL)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS			DRAINAGE AREA =		3.06 SQ.MI.
8.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05
9.00	DISCHG	.14	.31	.57	.93	1.38	1.94	2.61	3.43	4.39	5.46
10.00	DISCHG	6.64	7.94	9.38	10.99	12.84	14.96	17.45	20.43	23.88	27.97
11.00	DISCHG	32.69	38.08	44.27	51.22	59.32	69.32	88.35	126.32	193.48	325.90
12.00	DISCHG	530.36	748.24	911.14	1020.69	1068.18	1059.46	1010.83	942.22	866.84	791.40
13.00	DISCHG	720.09	656.73	600.23	552.27	513.25	482.61	458.78	439.80	424.67	412.40
14.00	DISCHG	402.76	395.37	389.52	384.79	380.82	377.51	374.52	371.55	368.66	365.72
15.00	DISCHG	362.78	360.15	357.90	355.82	353.47	350.60	347.07	343.01	338.72	334.33
16.00	DISCHG	329.91	325.52	321.14	316.72	312.22	307.50	302.26	296.27	289.69	282.58
17.00	DISCHG	275.13	267.62	260.35	253.48	247.00	240.95	235.44	230.39	225.49	220.46
18.00	DISCHG	215.25	209.93	204.61	199.43	194.47	189.81	185.52	181.57	177.86	174.41
19.00	DISCHG	171.17	168.10	165.18	162.38	159.69	157.12	154.71	152.42	150.13	147.56
20.00	DISCHG	144.67	141.53	138.24	134.97	131.79	128.80	126.04	123.51	121.18	119.05
21.00	DISCHG	117.09	115.28	113.61	112.06	110.59	109.19	107.84	106.53	105.29	104.12
22.00	DISCHG	103.01	101.95	100.92	99.92	98.96	98.03	97.13	96.27	95.43	94.63
23.00	DISCHG	93.87	93.13	92.42	91.75	91.10	90.46	89.85	89.25	88.58	87.54
24.00	DISCHG	86.06	83.77	80.32	76.06	71.33	66.50	61.84	57.55	53.75	50.43
25.00	DISCHG	47.56	45.11	43.01	41.21	39.65	38.29	37.06	35.95	34.90	33.90
26.00	DISCHG	32.93	32.00	31.08	30.17	29.27	28.38	27.48	26.59	25.71	24.82
27.00	DISCHG	23.94	23.07	22.21	21.35	20.50	19.66	18.84	18.02	17.22	16.44
28.00	DISCHG	15.68	14.93	14.21	13.51	12.83	12.18	11.57	10.98	10.43	9.90
29.00	DISCHG	9.39	8.92	8.47	8.05	7.65	7.27	6.92	6.58	6.26	5.96

RUNOFF VOLUME ABOVE BASEFLOW = 1.92 WATERSHED INCHES, 3786.95 CFS-HRS, 312.95 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 13, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

EXECUTIVE CONTROL OPERATION ENDCMP COMPUTATIONS COMPLETED FOR PASS 2 RECORD ID

EXECUTIVE CONTROL OPERATION COMPUT FROM XSECTION 1 TO XSECTION 13 RECORD ID 20-YR
STARTING TIME = .00 RAIN DEPTH = 4.32 RAIN DURATION= 1.00 RAIN TABLE NO.= 2 ANT. MOIST. COND= 2
ALTERNATE NO.= 1 STORM NO.= 3 MAIN TIME INCREMENT = .10 HOURS

OPERATION RUNOFF CROSS SECTION 1
OUTPUT HYDROGRAPH= 1
AREA= 1.26 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= 5.00 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1010 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
15.50	267.01	(RUNOFF)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS			DRAINAGE AREA =		1.26 SQ.MI.
9.00	DISCHG	.01	.01	.02	.03	.05	.07	.09	.12	.16	.20
10.00	DISCHG	.26	.32	.40	.49	.60	.73	.88	1.05	1.26	1.49
11.00	DISCHG	1.76	2.07	2.43	2.83	3.30	3.84	4.53	5.39	6.62	8.42
12.00	DISCHG	10.87	13.83	17.46	21.86	26.82	32.25	38.24	44.75	51.77	59.48
13.00	DISCHG	67.89	76.90	86.65	97.21	108.38	120.08	132.30	144.82	157.31	169.43
14.00	DISCHG	181.12	192.34	202.87	212.52	221.47	229.68	236.95	243.36	249.00	253.72
15.00	DISCHG	257.55	260.74	263.35	265.27	266.53	267.01	266.54	265.29	263.55	261.39
16.00	DISCHG	258.82	255.89	252.60	248.91	244.84	240.36	235.39	229.96	224.17	217.99
17.00	DISCHG	211.50	204.91	198.45	192.23	186.24	180.53	175.24	170.29	165.49	160.86
18.00	DISCHG	156.40	152.09	147.93	143.97	140.16	136.51	133.06	129.79	126.60	123.52
19.00	DISCHG	120.54	117.62	114.75	111.94	109.19	106.52	103.98	101.55	99.21	96.97
20.00	DISCHG	94.84	92.76	90.75	88.79	86.88	85.03	83.25	81.53	79.85	78.22
21.00	DISCHG	76.65	75.12	73.64	72.22	70.83	69.46	68.12	66.80	65.52	64.29
22.00	DISCHG	63.13	61.99	60.89	59.82	58.77	57.75	56.77	55.82	54.90	54.01
23.00	DISCHG	53.16	52.34	51.56	50.80	50.07	49.36	48.68	48.01	47.37	46.75
24.00	DISCHG	46.16	45.59	45.02	44.47	43.92	43.37	42.84	42.32	41.79	41.26
25.00	DISCHG	40.71	40.16	39.59	39.01	38.40	37.79	37.15	36.50	35.81	35.09
26.00	DISCHG	34.34	33.57	32.76	31.93	31.08	30.22	29.33	28.44	27.53	26.62
27.00	DISCHG	25.71	24.79	23.88	22.98	22.07	21.18	20.30	19.42	18.57	17.73
28.00	DISCHG	16.91	16.11	15.33	14.57	13.84	13.14	12.47	11.84	11.24	10.67
29.00	DISCHG	10.13	9.62	9.13	8.68	8.25	7.84	7.46	7.10	6.75	6.42

RUNOFF VOLUME ABOVE BASEFLOW = 2.13 WATERSHED INCHES, 1731.52 CFS-HRS, 143.09 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 1, ALTERNATE 1, STORM 3, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 2
OUTPUT HYDROGRAPH= 2
AREA= .27 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= .80 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1067 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.39	223.31	(RUNOFF)
23.65	7.34	(RUNOFF)

TIME(HRS)		FIRST HYDROGRAPH POINT =	.00 HOURS			TIME INCREMENT =	.10 HOURS		DRAINAGE AREA =		.27 SQ.MI.
8.00	DISCHG	.00	.00	.00	.00	.00	.00	.01	.02	.06	.11
9.00	DISCHG	.19	.30	.43	.58	.75	.93	1.13	1.35	1.58	1.83
10.00	DISCHG	2.09	2.36	2.65	2.95	3.30	3.70	4.17	4.74	5.41	6.21
11.00	DISCHG	7.12	8.17	9.35	10.69	12.20	14.10	17.45	23.66	36.48	60.04
12.00	DISCHG	96.64	142.63	186.83	215.89	223.21	211.99	188.30	159.35	132.45	111.88
13.00	DISCHG	95.79	82.82	72.23	63.58	56.43	50.53	45.66	41.58	38.12	35.16
14.00	DISCHG	32.62	30.42	28.50	26.78	25.23	23.87	22.70	21.66	20.67	19.76
15.00	DISCHG	18.96	18.30	17.77	17.36	17.01	16.67	16.28	15.87	15.47	15.13
16.00	DISCHG	14.84	14.64	14.50	14.40	14.33	14.28	14.21	14.08	13.87	13.59
17.00	DISCHG	13.27	12.95	12.68	12.46	12.31	12.20	12.12	12.06	12.01	11.91
18.00	DISCHG	11.74	11.49	11.17	10.84	10.54	10.29	10.10	9.96	9.87	9.80
19.00	DISCHG	9.74	9.71	9.68	9.67	9.66	9.65	9.65	9.65	9.63	9.56
20.00	DISCHG	9.41	9.16	8.85	8.52	8.22	7.97	7.77	7.64	7.54	7.47
21.00	DISCHG	7.42	7.38	7.35	7.34	7.32	7.31	7.31	7.30	7.30	7.30
22.00	DISCHG	7.30	7.30	7.30	7.30	7.31	7.31	7.31	7.32	7.32	7.32
23.00	DISCHG	7.32	7.33	7.33	7.33	7.33	7.34	7.34	7.34	7.32	7.26
24.00	DISCHG	7.12	6.79	6.26	5.51	4.59	3.66	2.80	2.08	1.52	1.12
25.00	DISCHG	.82	.60	.44	.32	.23	.17	.12	.09	.06	.04
26.00	DISCHG	.03	.02	.01	.01	.00					

RUNOFF VOLUME ABOVE BASEFLOW = 2.14 WATERSHED INCHES, 373.40 CFS-HRS, 30.86 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 2, ALTERNATE 1, STORM 3, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 3
INPUT HYDROGRAPHS= 1,2 OUTPUT HYDROGRAPH= 3
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.42	250.32	(NULL)
15.46	283.74	(NULL)

TIME(HRS)		FIRST HYDROGRAPH POINT =	.00 HOURS			TIME INCREMENT =	.10 HOURS		DRAINAGE AREA =		1.53 SQ.MI.
8.00	DISCHG	.00	.00	.00	.00	.00	.00	.01	.02	.06	.11
9.00	DISCHG	.20	.31	.45	.61	.79	1.00	1.22	1.47	1.74	2.03
10.00	DISCHG	2.35	2.68	3.05	3.45	3.90	4.43	5.05	5.80	6.67	7.70
11.00	DISCHG	8.88	10.24	11.77	13.52	15.50	17.94	21.98	29.05	43.10	68.46
12.00	DISCHG	107.51	156.46	204.29	237.75	250.03	244.24	226.54	204.09	184.22	171.35
13.00	DISCHG	163.68	159.72	158.88	160.78	164.81	170.62	177.96	186.41	195.42	204.59
14.00	DISCHG	213.73	222.76	231.36	239.31	246.70	253.56	259.66	265.02	269.67	273.48
15.00	DISCHG	276.51	279.04	281.11	282.63	283.54	283.67	282.82	281.16	279.03	276.51
16.00	DISCHG	273.66	270.54	267.11	263.32	259.18	254.64	249.59	244.04	238.04	231.58
17.00	DISCHG	224.77	217.86	211.13	204.69	198.55	192.73	187.36	182.35	177.49	172.77
18.00	DISCHG	168.15	163.58	159.10	154.81	150.71	146.80	143.16	139.75	136.47	133.32
19.00	DISCHG	130.28	127.33	124.43	121.60	118.84	116.17	113.63	111.20	108.83	106.53

20.00	DISCHG	104.25	101.93	99.60	97.31	95.10	92.99	91.02	89.17	87.39	85.69
21.00	DISCHG	84.07	82.50	81.00	79.55	78.15	76.77	75.42	74.10	72.82	71.59
22.00	DISCHG	70.43	69.29	68.19	67.12	66.08	65.06	64.08	63.13	62.22	61.33
23.00	DISCHG	60.49	59.67	58.89	58.14	57.41	56.70	56.02	55.35	54.69	54.02
24.00	DISCHG	53.28	52.38	51.29	49.97	48.51	47.03	45.65	44.40	43.31	42.37
25.00	DISCHG	41.53	40.76	40.03	39.33	38.64	37.96	37.27	36.58	35.87	35.14
26.00	DISCHG	34.37	33.59	32.77	31.94	31.08	30.22	29.33	28.44	27.53	26.62
27.00	DISCHG	25.71	24.79	23.88	22.98	22.07	21.18	20.30	19.42	18.57	17.73
28.00	DISCHG	16.91	16.11	15.33	14.57	13.84	13.14	12.47	11.84	11.24	10.67
29.00	DISCHG	10.13	9.62	9.13	8.68	8.25	7.84	7.46	7.10	6.75	6.42

RUNOFF VOLUME ABOVE BASEFLOW = 2.13 WATERSHED INCHES, 2104.92 CFS-HRS, 173.95 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 3, ALTERNATE 1, STORM 3, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 4
OUTPUT HYDROGRAPH= 4
AREA= .31 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= .67 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0893 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.31	288.31	(RUNOFF)
19.66	11.07	(RUNOFF)
23.66	8.43	(RUNOFF)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .31 SQ.MI.

8.00	DISCHG	.00	.00	.00	.00	.00	.00	.01	.04	.09	.18
9.00	DISCHG	.30	.45	.62	.82	1.04	1.27	1.52	1.79	2.07	2.38
10.00	DISCHG	2.69	3.02	3.36	3.73	4.17	4.68	5.30	6.04	6.93	7.97
11.00	DISCHG	9.17	10.53	12.04	13.72	15.63	18.08	22.65	31.85	51.75	88.77
12.00	DISCHG	146.63	215.08	269.12	288.25	273.17	236.20	191.97	155.12	127.86	107.23
13.00	DISCHG	91.29	78.80	68.89	60.97	54.57	49.48	45.26	41.69	38.56	35.78
14.00	DISCHG	33.34	31.26	29.61	28.22	26.94	25.76	24.63	23.53	22.47	21.51
15.00	DISCHG	20.71	20.10	19.67	19.36	19.05	18.67	18.20	17.71	17.27	16.93
16.00	DISCHG	16.70	16.54	16.44	16.38	16.34	16.31	16.24	16.06	15.73	15.30
17.00	DISCHG	14.87	14.50	14.23	14.05	13.93	13.85	13.79	13.76	13.71	13.58
18.00	DISCHG	13.32	12.92	12.48	12.07	11.73	11.50	11.35	11.25	11.18	11.13
19.00	DISCHG	11.10	11.08	11.07	11.06	11.06	11.06	11.06	11.07	11.05	10.95
20.00	DISCHG	10.69	10.29	9.83	9.41	9.08	8.85	8.70	8.59	8.51	8.46
21.00	DISCHG	8.43	8.41	8.39	8.38	8.38	8.37	8.37	8.37	8.37	8.38
22.00	DISCHG	8.38	8.38	8.39	8.39	8.39	8.40	8.40	8.40	8.41	8.41
23.00	DISCHG	8.41	8.41	8.42	8.42	8.42	8.43	8.43	8.43	8.41	8.30
24.00	DISCHG	8.02	7.49	6.67	5.55	4.30	3.17	2.23	1.54	1.06	.73
25.00	DISCHG	.50	.34	.24	.16	.11	.07	.05	.03	.02	.01
26.00	DISCHG	.00									

RUNOFF VOLUME ABOVE BASEFLOW = 2.14 WATERSHED INCHES, 428.39 CFS-HRS, 35.40 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 4, ALTERNATE 1, STORM 3, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 5
INPUT HYDROGRAPHS= 3,4 OUTPUT HYDROGRAPH= 5
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.34	531.59	(NULL)
15.42	302.61	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.84 SQ.MI.

8.00	DISCHG	.00	.00	.00	.00	.00	.00	.02	.06	.15	.29
9.00	DISCHG	.50	.76	1.07	1.43	1.83	2.27	2.74	3.25	3.81	4.41
10.00	DISCHG	5.04	5.70	6.40	7.18	8.07	9.11	10.35	11.83	13.60	15.66
11.00	DISCHG	18.05	20.77	23.81	27.24	31.13	36.02	44.62	60.90	94.85	157.24
12.00	DISCHG	254.14	371.54	473.41	526.00	523.20	480.44	418.51	359.21	312.09	278.59
13.00	DISCHG	254.98	238.52	227.76	221.75	219.38	220.10	223.22	228.09	233.99	240.37
14.00	DISCHG	247.07	254.03	260.97	267.52	273.64	279.32	284.29	288.55	292.14	294.99
15.00	DISCHG	297.22	299.14	300.78	301.99	302.59	302.34	301.02	298.87	296.30	293.44
16.00	DISCHG	290.36	287.08	283.55	279.70	275.51	270.94	265.83	260.11	253.77	246.87
17.00	DISCHG	239.64	232.37	225.36	218.74	212.48	206.58	201.15	196.11	191.20	186.35
18.00	DISCHG	181.47	176.50	171.58	166.88	162.44	158.31	154.52	151.01	147.65	144.45
19.00	DISCHG	141.39	138.41	135.50	132.67	129.91	127.24	124.69	122.27	119.88	117.48
20.00	DISCHG	114.94	112.21	109.43	106.73	104.18	101.85	99.72	97.75	95.90	94.15
21.00	DISCHG	92.50	90.91	89.39	87.94	86.53	85.15	83.80	82.47	81.19	79.97
22.00	DISCHG	78.81	77.68	76.58	75.51	74.47	73.46	72.48	71.54	70.62	69.74
23.00	DISCHG	68.90	68.09	67.31	66.56	65.83	65.13	64.45	63.78	63.10	62.31
24.00	DISCHG	61.30	59.87	57.96	55.52	52.81	50.20	47.88	45.94	44.38	43.11
25.00	DISCHG	42.04	41.11	40.27	39.49	38.75	38.03	37.32	36.61	35.89	35.14
26.00	DISCHG	34.37	33.59	32.77	31.94	31.08	30.22	29.33	28.44	27.53	26.62
27.00	DISCHG	25.71	24.79	23.88	22.98	22.07	21.18	20.30	19.42	18.57	17.73
28.00	DISCHG	16.91	16.11	15.33	14.57	13.84	13.14	12.47	11.84	11.24	10.67
29.00	DISCHG	10.13	9.62	9.13	8.68	8.25	7.84	7.46	7.10	6.75	6.42

RUNOFF VOLUME ABOVE BASEFLOW = 2.13 WATERSHED INCHES, 2533.31 CFS-HRS, 209.35 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 5, ALTERNATE 1, STORM 3, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 6
OUTPUT HYDROGRAPH= 6
AREA= .09 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= .45 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0600 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.17	107.90	(RUNOFF)
23.66	2.45	(RUNOFF)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .09 SQ.MI.

8.00	DISCHG	.00	.00	.00	.00	.00	.00	.01	.02	.06	.10
9.00	DISCHG	.15	.20	.27	.34	.41	.49	.56	.65	.75	.85
10.00	DISCHG	.94	1.04	1.15	1.27	1.43	1.62	1.84	2.13	2.46	2.84
11.00	DISCHG	3.27	3.74	4.26	4.83	5.49	6.38	8.62	14.19	24.65	43.57
12.00	DISCHG	74.15	102.21	106.95	89.11	65.69	48.07	36.74	29.32	24.39	20.94
13.00	DISCHG	18.36	16.34	14.69	13.36	12.29	11.46	10.77	10.11	9.50	8.97
14.00	DISCHG	8.52	8.15	7.81	7.49	7.18	6.87	6.57	6.27	5.98	5.76
15.00	DISCHG	5.61	5.54	5.50	5.47	5.38	5.21	5.02	4.88	4.80	4.76
16.00	DISCHG	4.74	4.72	4.72	4.72	4.72	4.72	4.69	4.57	4.38	4.21
17.00	DISCHG	4.10	4.04	4.01	3.99	3.98	3.98	3.97	3.97	3.96	3.89
18.00	DISCHG	3.72	3.53	3.39	3.31	3.26	3.23	3.22	3.21	3.21	3.20
19.00	DISCHG	3.20	3.21	3.21	3.21	3.21	3.21	3.21	3.22	3.21	3.13
20.00	DISCHG	2.96	2.77	2.62	2.54	2.49	2.46	2.44	2.43	2.43	2.43
21.00	DISCHG	2.43	2.43	2.43	2.43	2.43	2.43	2.43	2.43	2.43	2.43
22.00	DISCHG	2.43	2.44	2.44	2.44	2.44	2.44	2.44	2.44	2.44	2.44
23.00	DISCHG	2.44	2.44	2.45	2.45	2.45	2.45	2.45	2.45	2.44	2.36
24.00	DISCHG	2.19	1.92	1.50	1.02	.61	.35	.20	.12	.07	.04
25.00	DISCHG	.02	.01	.00							

RUNOFF VOLUME ABOVE BASEFLOW = 2.14 WATERSHED INCHES, 124.48 CFS-HRS, 10.29 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 6, ALTERNATE 1, STORM 3, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 7
INPUT HYDROGRAPHS= 5,6 OUTPUT HYDROGRAPH= 1
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.31	615.26	(NULL)
15.41	307.97	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.93 SQ.MI.

8.00	DISCHG	.00	.00	.00	.00	.00	.00	.03	.09	.21	.39
9.00	DISCHG	.65	.96	1.33	1.76	2.24	2.76	3.31	3.90	4.56	5.26
10.00	DISCHG	5.98	6.74	7.55	8.45	9.50	10.73	12.20	13.96	16.06	18.51
11.00	DISCHG	21.32	24.51	28.07	32.07	36.62	42.40	53.25	75.09	119.49	200.80
12.00	DISCHG	328.29	473.75	580.36	615.11	588.89	528.51	455.26	388.53	336.48	299.53
13.00	DISCHG	273.34	254.86	242.45	235.12	231.68	231.56	233.99	238.20	243.48	249.34
14.00	DISCHG	255.59	262.18	268.78	275.01	280.82	286.19	290.86	294.82	298.13	300.75
15.00	DISCHG	302.84	304.68	306.28	307.45	307.97	307.58	306.04	303.76	301.10	298.20
16.00	DISCHG	295.09	291.81	288.27	284.41	280.23	275.67	270.52	264.67	258.15	251.08
17.00	DISCHG	243.74	236.41	229.37	222.73	216.46	210.55	205.12	200.09	195.17	190.24
18.00	DISCHG	185.19	180.03	174.97	170.18	165.70	161.54	157.73	154.22	150.86	147.65
19.00	DISCHG	144.59	141.62	138.71	135.88	133.12	130.45	127.91	125.48	123.09	120.60
20.00	DISCHG	117.90	114.98	112.05	109.26	106.67	104.31	102.16	100.19	98.33	96.58
21.00	DISCHG	94.92	93.33	91.81	90.36	88.96	87.58	86.23	84.91	83.63	82.41
22.00	DISCHG	81.24	80.11	79.01	77.95	76.91	75.90	74.92	73.98	73.06	72.18

23.00	DISCHG	71.34	70.53	69.75	69.00	68.28	67.58	66.90	66.23	65.54	64.67
24.00	DISCHG	63.48	61.78	59.46	56.54	53.43	50.55	48.08	46.06	44.44	43.14
25.00	DISCHG	42.06	41.12	40.27	39.49	38.75	38.03	37.32	36.61	35.89	35.14
26.00	DISCHG	34.37	33.59	32.77	31.94	31.08	30.22	29.33	28.44	27.53	26.62
27.00	DISCHG	25.71	24.79	23.88	22.98	22.07	21.18	20.30	19.42	18.57	17.73
28.00	DISCHG	16.91	16.11	15.33	14.57	13.84	13.14	12.47	11.84	11.24	10.67
29.00	DISCHG	10.13	9.62	9.13	8.68	8.25	7.84	7.46	7.10	6.75	6.42

RUNOFF VOLUME ABOVE BASEFLOW = 2.13 WATERSHED INCHES, 2657.79 CFS-HRS, 219.64 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 7, ALTERNATE 1, STORM 3, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 8
OUTPUT HYDROGRAPH= 7
AREA= .06 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= .25 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0333 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.06	95.59	(RUNOFF)
23.65	1.64	(RUNOFF)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS			DRAINAGE AREA =		.06 SQ.MI.
8.00	DISCHG	.00	.00	.00	.00	.00	.00	.01	.04	.08	.11
9.00	DISCHG	.15	.20	.25	.30	.35	.40	.46	.54	.61	.67
10.00	DISCHG	.72	.79	.89	.99	1.14	1.30	1.48	1.76	2.00	2.32
11.00	DISCHG	2.66	2.99	3.43	3.82	4.44	5.11	8.66	18.20	28.20	55.05
12.00	DISCHG	88.33	92.61	57.82	34.25	23.28	17.33	14.58	12.67	11.65	10.58
13.00	DISCHG	9.59	8.96	8.19	7.73	7.25	6.84	6.51	6.02	5.73	5.46
14.00	DISCHG	5.25	5.08	4.83	4.68	4.46	4.25	4.09	3.84	3.70	3.65
15.00	DISCHG	3.63	3.63	3.63	3.61	3.44	3.25	3.17	3.15	3.14	3.14
16.00	DISCHG	3.14	3.14	3.14	3.15	3.15	3.15	3.07	2.85	2.71	2.66
17.00	DISCHG	2.65	2.64	2.64	2.64	2.65	2.65	2.65	2.65	2.63	2.46
18.00	DISCHG	2.26	2.18	2.15	2.14	2.13	2.13	2.13	2.13	2.13	2.14
19.00	DISCHG	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.15	2.13	1.95
20.00	DISCHG	1.75	1.66	1.63	1.62	1.62	1.62	1.62	1.62	1.62	1.62
21.00	DISCHG	1.62	1.62	1.62	1.62	1.62	1.62	1.62	1.62	1.62	1.62
22.00	DISCHG	1.62	1.62	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63
23.00	DISCHG	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.61	1.43
24.00	DISCHG	1.23	.97	.47	.17	.06	.02	.01	.00		

RUNOFF VOLUME ABOVE BASEFLOW = 2.15 WATERSHED INCHES, 83.21 CFS-HRS, 6.88 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 8, ALTERNATE 1, STORM 3, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 9
INPUT HYDROGRAPHS= 1,7 OUTPUT HYDROGRAPH= 2
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.27	651.10	(NULL)
15.39	311.42	(NULL)

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.99 SQ.MI.

TIME(HRS)											
8.00	DISCHG	.00	.00	.00	.00	.00	.00	.04	.13	.28	.51
9.00	DISCHG	.80	1.15	1.58	2.07	2.60	3.16	3.76	4.44	5.16	5.92
10.00	DISCHG	6.70	7.53	8.44	9.44	10.63	12.02	13.68	15.72	18.06	20.83
11.00	DISCHG	23.98	27.49	31.50	35.90	41.07	47.51	61.91	93.29	147.69	255.86
12.00	DISCHG	416.63	566.36	638.18	649.36	612.18	545.84	469.84	401.20	348.13	310.11
13.00	DISCHG	282.93	263.82	250.64	242.85	238.93	238.39	240.50	244.23	249.21	254.81
14.00	DISCHG	260.84	267.26	273.61	279.68	285.28	290.44	294.95	298.66	301.82	304.40
15.00	DISCHG	306.47	308.30	309.91	311.07	311.41	310.80	309.21	306.90	304.24	301.33
16.00	DISCHG	298.23	294.95	291.41	287.56	283.38	278.82	273.59	267.52	260.86	253.75
17.00	DISCHG	246.39	239.05	232.01	225.37	219.10	213.20	207.77	202.74	197.80	192.70
18.00	DISCHG	187.45	182.21	177.12	172.32	167.83	163.67	159.87	156.35	152.99	149.79
19.00	DISCHG	146.73	143.75	140.85	138.02	135.26	132.59	130.05	127.63	125.21	122.58
20.00	DISCHG	119.64	116.64	113.68	110.88	108.29	105.92	103.78	101.80	99.95	98.20
21.00	DISCHG	96.54	94.95	93.43	91.98	90.58	89.20	87.85	86.53	85.25	84.03
22.00	DISCHG	82.87	81.74	80.64	79.57	78.53	77.53	76.55	75.61	74.69	73.81
23.00	DISCHG	72.97	72.16	71.38	70.63	69.91	69.21	68.53	67.87	67.15	66.10
24.00	DISCHG	64.71	62.75	59.93	56.71	53.49	50.57	48.09	46.06	44.44	43.14
25.00	DISCHG	42.06	41.12	40.27	39.49	38.75	38.03	37.32	36.61	35.89	35.14
26.00	DISCHG	34.37	33.59	32.77	31.94	31.08	30.22	29.33	28.44	27.53	26.62
27.00	DISCHG	25.71	24.79	23.88	22.98	22.07	21.18	20.30	19.42	18.57	17.73
28.00	DISCHG	16.91	16.11	15.33	14.57	13.84	13.14	12.47	11.84	11.24	10.67
29.00	DISCHG	10.13	9.62	9.13	8.68	8.25	7.84	7.46	7.10	6.75	6.42

RUNOFF VOLUME ABOVE BASEFLOW = 2.13 WATERSHED INCHES, 2741.00 CFS-HRS, 226.52 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 9, ALTERNATE 1, STORM 3, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 10
OUTPUT HYDROGRAPH= 3
AREA= .50 SQ MI INPUT RUNOFF CURVE= 77. TIME OF CONCENTRATION= 1.00 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0952 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.53	342.34	(RUNOFF)
23.68	13.35	(RUNOFF)

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .50 SQ.MI.

TIME(HRS)											
8.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
9.00	DISCHG	.03	.07	.13	.24	.39	.58	.82	1.09	1.41	1.76
10.00	DISCHG	2.14	2.55	2.98	3.45	3.97	4.55	5.22	6.00	6.91	7.99
11.00	DISCHG	9.26	10.72	12.40	14.31	16.49	19.12	23.12	29.79	42.41	66.34
12.00	DISCHG	106.63	161.96	225.76	285.32	325.54	341.58	336.82	316.38	285.59	250.04
13.00	DISCHG	216.01	188.14	165.52	146.56	130.29	116.39	104.62	94.46	85.76	78.27

14.00	DISCHG	71.90	66.40	61.62	57.44	53.78	50.54	47.67	45.06	42.65	40.38
15.00	DISCHG	38.29	36.43	34.88	33.68	32.70	31.85	31.06	30.28	29.52	28.81
16.00	DISCHG	28.16	27.62	27.16	26.81	26.55	26.35	26.16	25.96	25.68	25.31
17.00	DISCHG	24.86	24.37	23.88	23.42	23.03	22.70	22.46	22.27	22.12	21.95
18.00	DISCHG	21.73	21.42	21.00	20.52	20.02	19.54	19.10	18.73	18.44	18.22
19.00	DISCHG	18.06	17.92	17.82	17.75	17.69	17.65	17.61	17.59	17.56	17.49
20.00	DISCHG	17.35	17.09	16.71	16.25	15.77	15.30	14.87	14.51	14.22	14.00
21.00	DISCHG	13.83	13.70	13.60	13.52	13.46	13.41	13.38	13.35	13.33	13.32
22.00	DISCHG	13.31	13.30	13.30	13.30	13.30	13.30	13.30	13.30	13.31	13.31
23.00	DISCHG	13.31	13.32	13.32	13.33	13.33	13.34	13.35	13.35	13.34	13.28
24.00	DISCHG	13.15	12.82	12.25	11.39	10.25	8.90	7.49	6.12	4.89	3.84
25.00	DISCHG	2.98	2.33	1.82	1.42	1.11	.87	.67	.52	.41	.31
26.00	DISCHG	.24	.19	.14	.11	.08	.06	.04	.03	.02	.01
27.00	DISCHG	.01	.00								

RUNOFF VOLUME ABOVE BASEFLOW = 2.06 WATERSHED INCHES, 665.73 CFS-HRS, 55.02 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 10, ALTERNATE 1, STORM 3, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 11
INPUT HYDROGRAPHS= 2,3 OUTPUT HYDROGRAPH= 4
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.36	942.95	(NULL)
15.21	344.80	(NULL)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS			TIME INCREMENT = .10 HOURS			DRAINAGE AREA = 2.49 SQ.MI.			
8.00	DISCHG	.00	.00	.00	.00	.00	.00	.04	.13	.28	.52
9.00	DISCHG	.83	1.22	1.72	2.31	2.99	3.74	4.58	5.53	6.57	7.68
10.00	DISCHG	8.84	10.08	11.42	12.89	14.60	16.58	18.90	21.72	24.97	28.82
11.00	DISCHG	33.24	38.22	43.90	50.21	57.55	66.63	85.03	123.08	190.10	322.20
12.00	DISCHG	523.26	728.33	863.94	934.68	937.72	887.42	806.65	717.58	633.72	560.15
13.00	DISCHG	498.94	451.96	416.17	389.41	369.22	354.78	345.12	338.69	334.97	333.08
14.00	DISCHG	332.74	333.65	335.22	337.13	339.06	340.99	342.61	343.72	344.48	344.78
15.00	DISCHG	344.75	344.73	344.80	344.75	344.12	342.65	340.27	337.18	333.76	330.14
16.00	DISCHG	326.39	322.56	318.57	314.37	309.93	305.17	299.75	293.47	286.54	279.06
17.00	DISCHG	271.25	263.42	255.89	248.80	242.13	235.90	230.23	225.01	219.92	214.65
18.00	DISCHG	209.18	203.63	198.12	192.84	187.85	183.21	178.97	175.08	171.43	168.01
19.00	DISCHG	164.78	161.68	158.67	155.76	152.95	150.24	147.67	145.22	142.78	140.04
20.00	DISCHG	136.99	133.73	130.39	127.14	124.06	121.22	118.65	116.31	114.16	112.20
21.00	DISCHG	110.37	108.65	107.03	105.50	104.04	102.61	101.23	99.88	98.58	97.35
22.00	DISCHG	96.18	95.04	93.94	92.87	91.83	90.82	89.85	88.91	88.00	87.12
23.00	DISCHG	86.29	85.48	84.71	83.96	83.25	82.55	81.87	81.22	80.49	79.39
24.00	DISCHG	77.86	75.57	72.17	68.10	63.74	59.47	55.57	52.18	49.33	46.98
25.00	DISCHG	45.04	43.44	42.09	40.91	39.86	38.89	38.00	37.14	36.30	35.46
26.00	DISCHG	34.62	33.77	32.92	32.05	31.16	30.28	29.38	28.47	27.55	26.63

27.00	DISCHG	25.71	24.79	23.88	22.98	22.07	21.18	20.30	19.42	18.57	17.73
28.00	DISCHG	16.91	16.11	15.33	14.57	13.84	13.14	12.47	11.84	11.24	10.67
29.00	DISCHG	10.13	9.62	9.13	8.68	8.25	7.84	7.46	7.10	6.75	6.42

RUNOFF VOLUME ABOVE BASEFLOW = 2.12 WATERSHED INCHES, 3406.73 CFS-HRS, 281.53 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 11, ALTERNATE 1, STORM 3, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 12
OUTPUT HYDROGRAPH= 5
AREA= .57 SQ MI INPUT RUNOFF CURVE= 77. TIME OF CONCENTRATION= 1.30 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0963 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.75	324.11	(RUNOFF)
23.69	15.22	(RUNOFF)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .57 SQ.MI.

8.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
9.00	DISCHG	.02	.04	.08	.14	.24	.37	.54	.76	1.01	1.31
10.00	DISCHG	1.64	2.02	2.43	2.87	3.36	3.90	4.51	5.20	6.00	6.93
11.00	DISCHG	8.01	9.26	10.71	12.38	14.29	16.60	19.82	24.72	33.05	48.18
12.00	DISCHG	72.74	106.90	149.52	197.83	245.37	284.45	310.24	322.61	322.49	312.23
13.00	DISCHG	294.34	271.10	244.40	218.17	195.31	175.97	159.37	144.90	131.97	120.36
14.00	DISCHG	110.10	101.07	93.05	85.93	79.62	74.03	69.09	64.68	60.71	57.13
15.00	DISCHG	53.88	50.95	48.34	46.03	44.00	42.22	40.65	39.19	37.82	36.53
16.00	DISCHG	35.34	34.26	33.35	32.61	32.01	31.50	31.07	30.69	30.32	29.93
17.00	DISCHG	29.51	29.04	28.55	28.05	27.56	27.11	26.70	26.34	26.03	25.75
18.00	DISCHG	25.48	25.18	24.84	24.44	23.98	23.51	23.03	22.57	22.15	21.77
19.00	DISCHG	21.44	21.16	20.94	20.77	20.62	20.51	20.41	20.33	20.26	20.18
20.00	DISCHG	20.06	19.89	19.65	19.32	18.93	18.51	18.07	17.64	17.24	16.87
21.00	DISCHG	16.56	16.29	16.08	15.91	15.77	15.66	15.56	15.49	15.42	15.37
22.00	DISCHG	15.33	15.30	15.27	15.25	15.24	15.22	15.21	15.21	15.20	15.20
23.00	DISCHG	15.20	15.20	15.20	15.20	15.21	15.21	15.21	15.22	15.21	15.18
24.00	DISCHG	15.10	14.92	14.58	14.05	13.32	12.36	11.23	10.00	8.73	7.49
25.00	DISCHG	6.33	5.29	4.38	3.60	2.97	2.46	2.03	1.68	1.39	1.15
26.00	DISCHG	.95	.78	.65	.53	.44	.36	.30	.24	.20	.16
27.00	DISCHG	.13	.10	.08	.07	.05	.04	.03	.02	.01	.01
28.00	DISCHG	.00									

RUNOFF VOLUME ABOVE BASEFLOW = 2.07 WATERSHED INCHES, 760.21 CFS-HRS, 62.82 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 12, ALTERNATE 1, STORM 3, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 13
INPUT HYDROGRAPHS= 4,5 OUTPUT HYDROGRAPH= 6
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.43	1186.22	(NULL)

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 3.06 SQ.MI.

TIME(HRS)											
8.00	DISCHG	.00	.00	.00	.00	.00	.00	.04	.13	.28	.52
9.00	DISCHG	.84	1.26	1.79	2.45	3.23	4.11	5.13	6.29	7.58	8.99
10.00	DISCHG	10.48	12.09	13.85	15.77	17.97	20.48	23.41	26.93	30.97	35.75
11.00	DISCHG	41.24	47.48	54.62	62.59	71.85	83.23	104.85	147.80	223.15	370.37
12.00	DISCHG	596.00	835.23	1013.46	1132.51	1183.09	1171.87	1116.89	1040.19	956.21	872.37
13.00	DISCHG	793.28	723.07	660.57	607.58	564.53	530.75	504.49	483.59	466.94	453.44
14.00	DISCHG	442.84	434.72	428.27	423.06	418.68	415.02	411.70	408.40	405.19	401.91
15.00	DISCHG	398.63	395.68	393.14	390.78	388.12	384.88	380.92	376.37	371.58	366.67
16.00	DISCHG	361.74	356.82	351.92	346.98	341.94	336.67	330.82	324.16	316.86	309.00
17.00	DISCHG	300.76	292.46	284.43	276.85	269.69	263.01	256.93	251.35	245.94	240.40
18.00	DISCHG	234.66	228.81	222.96	217.28	211.83	206.72	202.00	197.66	193.58	189.78
19.00	DISCHG	186.22	182.84	179.62	176.53	173.57	170.74	168.08	165.56	163.04	160.22
20.00	DISCHG	157.05	153.62	150.04	146.46	142.99	139.73	136.72	133.95	131.40	129.07
21.00	DISCHG	126.93	124.94	123.11	121.42	119.81	118.27	116.79	115.37	114.00	112.72
22.00	DISCHG	111.51	110.34	109.21	108.12	107.07	106.05	105.06	104.12	103.20	102.33
23.00	DISCHG	101.49	100.68	99.91	99.17	98.45	97.76	97.09	96.43	95.70	94.56
24.00	DISCHG	92.95	90.49	86.75	82.16	77.05	71.84	66.81	62.18	58.07	54.48
25.00	DISCHG	51.38	48.73	46.46	44.52	42.83	41.35	40.03	38.82	37.69	36.61
26.00	DISCHG	35.56	34.56	33.56	32.58	31.60	30.64	29.67	28.71	27.75	26.79
27.00	DISCHG	25.84	24.90	23.97	23.04	22.12	21.22	20.32	19.44	18.58	17.74
28.00	DISCHG	16.91	16.11	15.33	14.57	13.84	13.14	12.47	11.84	11.24	10.67
29.00	DISCHG	10.13	9.62	9.13	8.68	8.25	7.84	7.46	7.10	6.75	6.42

RUNOFF VOLUME ABOVE BASEFLOW = 2.11 WATERSHED INCHES, 4166.94 CFS-HRS, 344.36 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 13, ALTERNATE 1, STORM 3, ADDED TO OUTPUT HYDROGRAPH FILE ---

EXECUTIVE CONTROL OPERATION ENDCMP COMPUTATIONS COMPLETED FOR PASS 3 RECORD ID

EXECUTIVE CONTROL OPERATION COMPUT FROM XSECTION 1 TO XSECTION 13 RECORD ID 50-YR
STARTING TIME = .00 RAIN DEPTH = 5.52 RAIN DURATION= 1.00 RAIN TABLE NO.= 2 ANT. MOIST. COND= 2
ALTERNATE NO.= 1 STORM NO.= 4 MAIN TIME INCREMENT = .10 HOURS

OPERATION RUNOFF CROSS SECTION 1
OUTPUT HYDROGRAPH= 1
AREA= 1.26 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= 5.00 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1010 HOURS

PEAK TIME(HRS) PEAK DISCHARGE(CFS) PEAK ELEVATION(FEET)
15.45 398.19 (RUNOFF)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.26 SQ.MI.

7.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.01	.01	.02
8.00	DISCHG	.03	.04	.05	.07	.10	.13	.16	.21	.27	.33
9.00	DISCHG	.41	.50	.60	.73	.87	1.03	1.21	1.41	1.64	1.90
10.00	DISCHG	2.19	2.50	2.85	3.23	3.65	4.10	4.61	5.15	5.75	6.41
11.00	DISCHG	7.13	7.92	8.78	9.73	10.77	11.94	13.34	15.02	17.26	20.36
12.00	DISCHG	24.41	29.22	35.03	41.96	49.67	58.09	67.31	77.27	87.98	99.68
13.00	DISCHG	112.38	125.95	140.57	156.33	172.95	190.30	208.32	226.73	245.00	262.66
14.00	DISCHG	279.62	295.83	310.95	324.76	337.47	349.06	359.23	368.12	375.82	382.17
15.00	DISCHG	387.22	391.32	394.55	396.77	397.99	398.05	396.73	394.30	391.16	387.40
16.00	DISCHG	383.07	378.23	372.86	366.92	360.43	353.36	345.57	337.15	328.20	318.72
17.00	DISCHG	308.84	298.84	289.06	279.69	270.67	262.10	254.16	246.72	239.51	232.58
18.00	DISCHG	225.92	219.46	213.25	207.34	201.67	196.23	191.09	186.22	181.48	176.89
19.00	DISCHG	172.46	168.12	163.85	159.68	155.61	151.67	147.92	144.33	140.87	137.57
20.00	DISCHG	134.44	131.38	128.41	125.54	122.74	120.02	117.41	114.89	112.43	110.05
21.00	DISCHG	107.76	105.52	103.37	101.30	99.28	97.29	95.34	93.42	91.57	89.80
22.00	DISCHG	88.11	86.47	84.88	83.33	81.83	80.36	78.95	77.58	76.26	74.99
23.00	DISCHG	73.77	72.59	71.46	70.38	69.33	68.32	67.33	66.37	65.45	64.57
24.00	DISCHG	63.73	62.91	62.10	61.30	60.52	59.74	58.99	58.24	57.50	56.74
25.00	DISCHG	55.97	55.19	54.39	53.57	52.73	51.86	50.98	50.07	49.12	48.12
26.00	DISCHG	47.09	46.01	44.90	43.76	42.58	41.39	40.17	38.94	37.69	36.44
27.00	DISCHG	35.18	33.92	32.67	31.42	30.18	28.95	27.74	26.54	25.37	24.22
28.00	DISCHG	23.09	21.99	20.92	19.88	18.87	17.91	17.01	16.15	15.33	14.55
29.00	DISCHG	13.81	13.11	12.45	11.83	11.24	10.69	10.17	9.67	9.20	8.76

RUNOFF VOLUME ABOVE BASEFLOW = 3.14 WATERSHED INCHES, 2550.86 CFS-HRS, 210.80 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 1, ALTERNATE 1, STORM 4, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 2
OUTPUT HYDROGRAPH= 2
AREA= .27 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= .80 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1067 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.38	331.40	(RUNOFF)
23.63	9.99	(RUNOFF)

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .27 SQ.MI.

TIME(HRS)											
7.00	DISCHG	.00	.00	.00	.01	.02	.05	.10	.16	.25	.35
8.00	DISCHG	.46	.59	.72	.88	1.07	1.28	1.52	1.77	2.04	2.31
9.00	DISCHG	2.58	2.85	3.13	3.43	3.76	4.10	4.46	4.84	5.24	5.66
10.00	DISCHG	6.10	6.54	7.01	7.51	8.07	8.74	9.55	10.53	11.68	13.05
11.00	DISCHG	14.61	16.37	18.33	20.52	22.97	26.02	31.40	41.30	61.37	97.32
12.00	DISCHG	151.94	219.26	282.62	322.80	330.87	312.06	275.50	231.93	191.92	161.43
13.00	DISCHG	137.64	118.51	102.95	90.28	79.87	71.30	64.25	58.36	53.38	49.14
14.00	DISCHG	45.50	42.38	39.63	37.19	34.99	33.08	31.44	29.97	28.60	27.32
15.00	DISCHG	26.20	25.28	24.54	23.96	23.47	22.99	22.45	21.88	21.33	20.84
16.00	DISCHG	20.44	20.16	19.96	19.82	19.72	19.64	19.53	19.36	19.07	18.67
17.00	DISCHG	18.22	17.79	17.41	17.11	16.89	16.74	16.63	16.55	16.47	16.34
18.00	DISCHG	16.10	15.74	15.31	14.86	14.44	14.09	13.83	13.64	13.51	13.41
19.00	DISCHG	13.33	13.28	13.25	13.22	13.21	13.20	13.19	13.19	13.16	13.07
20.00	DISCHG	12.86	12.52	12.09	11.64	11.23	10.88	10.62	10.43	10.29	10.20
21.00	DISCHG	10.13	10.07	10.03	10.01	9.99	9.97	9.97	9.96	9.96	9.95
22.00	DISCHG	9.95	9.95	9.95	9.96	9.96	9.96	9.96	9.97	9.97	9.97
23.00	DISCHG	9.97	9.98	9.98	9.98	9.98	9.99	9.99	9.99	9.97	9.88
24.00	DISCHG	9.68	9.24	8.52	7.49	6.25	4.98	3.81	2.83	2.07	1.52
25.00	DISCHG	1.12	.82	.60	.44	.32	.23	.17	.12	.09	.06
26.00	DISCHG	.04	.03	.02	.01	.00					

RUNOFF VOLUME ABOVE BASEFLOW = 3.16 WATERSHED INCHES, 549.78 CFS-HRS, 45.43 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 2, ALTERNATE 1, STORM 4, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 3
INPUT HYDROGRAPHS= 1,2 OUTPUT HYDROGRAPH= 3
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.41	380.68	(NULL)
15.41	421.47	(NULL)

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.53 SQ.MI.

TIME(HRS)											
7.00	DISCHG	.00	.00	.00	.01	.02	.05	.10	.17	.26	.37
8.00	DISCHG	.49	.62	.78	.95	1.16	1.41	1.68	1.98	2.30	2.64
9.00	DISCHG	2.98	3.35	3.73	4.16	4.63	5.13	5.67	6.25	6.88	7.56
10.00	DISCHG	8.28	9.04	9.85	10.74	11.72	12.85	14.16	15.68	17.44	19.46
11.00	DISCHG	21.73	24.29	27.11	30.25	33.75	37.96	44.74	56.33	78.63	117.69
12.00	DISCHG	176.35	248.48	317.65	364.75	380.54	370.15	342.81	309.20	279.90	261.11
13.00	DISCHG	250.03	244.46	243.52	246.62	252.81	261.60	272.57	285.09	298.37	311.80

14.00	DISCHG	325.13	338.21	350.58	361.95	372.46	382.14	390.67	398.09	404.42	409.50
15.00	DISCHG	413.42	416.60	419.09	420.72	421.46	421.04	419.18	416.17	412.48	408.24
16.00	DISCHG	403.51	398.39	392.83	386.74	380.16	372.99	365.11	356.50	347.27	337.39
17.00	DISCHG	327.06	316.63	306.48	296.79	287.56	278.84	270.78	263.27	255.98	248.91
18.00	DISCHG	242.01	235.20	228.56	222.20	216.11	210.32	204.92	199.86	194.98	190.30
19.00	DISCHG	185.80	181.40	177.10	172.91	168.82	164.87	161.11	157.52	154.03	150.64
20.00	DISCHG	147.30	143.90	140.51	137.18	133.96	130.90	128.03	125.32	122.72	120.25
21.00	DISCHG	117.88	115.60	113.41	111.31	109.27	107.26	105.30	103.38	101.52	99.75
22.00	DISCHG	98.06	96.42	94.83	93.29	91.78	90.32	88.91	87.55	86.23	84.96
23.00	DISCHG	83.74	82.57	81.44	80.36	79.32	78.31	77.32	76.36	75.42	74.46
24.00	DISCHG	73.41	72.15	70.62	68.79	66.76	64.72	62.80	61.08	59.57	58.26
25.00	DISCHG	57.09	56.01	54.99	54.01	53.04	52.09	51.14	50.19	49.20	48.18
26.00	DISCHG	47.13	46.04	44.92	43.76	42.58	41.39	40.17	38.94	37.69	36.44
27.00	DISCHG	35.18	33.92	32.67	31.42	30.18	28.95	27.74	26.54	25.37	24.22
28.00	DISCHG	23.09	21.99	20.92	19.88	18.87	17.91	17.01	16.15	15.33	14.55
29.00	DISCHG	13.81	13.11	12.45	11.83	11.24	10.69	10.17	9.67	9.20	8.76

RUNOFF VOLUME ABOVE BASEFLOW = 3.14 WATERSHED INCHES, 3100.64 CFS-HRS, 256.24 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 3, ALTERNATE 1, STORM 4, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 4
OUTPUT HYDROGRAPH= 4
AREA= .31 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= .67 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0893 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.30	427.28	(RUNOFF)
19.66	15.13	(RUNOFF)
23.65	11.48	(RUNOFF)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .31 SQ.MI.

7.00	DISCHG	.00	.00	.00	.01	.03	.08	.15	.25	.37	.51
8.00	DISCHG	.65	.81	.98	1.18	1.42	1.69	2.00	2.32	2.64	2.96
9.00	DISCHG	3.27	3.58	3.91	4.29	4.69	5.11	5.54	5.99	6.47	6.98
10.00	DISCHG	7.50	8.02	8.56	9.17	9.89	10.76	11.82	13.10	14.63	16.42
11.00	DISCHG	18.46	20.74	23.22	25.95	29.00	32.91	40.24	54.97	86.23	142.63
12.00	DISCHG	228.36	327.45	403.30	427.28	401.62	344.92	278.80	224.22	183.95	153.55
13.00	DISCHG	130.13	111.86	97.42	85.94	76.69	69.36	63.30	58.19	53.73	49.78
14.00	DISCHG	46.31	43.38	41.05	39.10	37.32	35.67	34.08	32.54	31.07	29.73
15.00	DISCHG	28.61	27.75	27.15	26.70	26.28	25.74	25.09	24.41	23.80	23.31
16.00	DISCHG	22.99	22.77	22.63	22.53	22.47	22.42	22.32	22.07	21.61	21.02
17.00	DISCHG	20.42	19.91	19.54	19.28	19.11	18.99	18.92	18.87	18.80	18.62
18.00	DISCHG	18.26	17.71	17.10	16.53	16.07	15.75	15.55	15.40	15.30	15.24
19.00	DISCHG	15.19	15.16	15.14	15.13	15.13	15.12	15.13	15.13	15.10	14.96
20.00	DISCHG	14.61	14.05	13.43	12.86	12.40	12.09	11.87	11.72	11.62	11.55
21.00	DISCHG	11.50	11.47	11.45	11.44	11.43	11.42	11.42	11.42	11.42	11.42
22.00	DISCHG	11.42	11.43	11.43	11.43	11.44	11.44	11.44	11.45	11.45	11.45
23.00	DISCHG	11.45	11.46	11.46	11.46	11.47	11.47	11.47	11.47	11.44	11.29

24.00	DISCHG	10.91	10.19	9.07	7.55	5.86	4.31	3.03	2.09	1.44	1.00
25.00	DISCHG	.68	.47	.32	.22	.15	.10	.06	.04	.02	.01
26.00	DISCHG	.01	.00								

RUNOFF VOLUME ABOVE BASEFLOW = 3.15 WATERSHED INCHES, 630.73 CFS-HRS, 52.12 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 4, ALTERNATE 1, STORM 4, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 5
INPUT HYDROGRAPHS= 3,4 OUTPUT HYDROGRAPH= 5
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.34	797.82	(NULL)
15.37	447.78	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.84 SQ.MI.

7.00	DISCHG	.00	.00	.00	.02	.05	.13	.25	.42	.63	.87
8.00	DISCHG	1.14	1.43	1.76	2.14	2.58	3.10	3.68	4.30	4.95	5.60
9.00	DISCHG	6.25	6.92	7.64	8.45	9.32	10.24	11.21	12.24	13.35	14.55
10.00	DISCHG	15.78	17.06	18.42	19.91	21.61	23.61	25.98	28.78	32.07	35.88
11.00	DISCHG	40.19	45.03	50.33	56.21	62.75	70.87	84.97	111.29	164.86	260.31
12.00	DISCHG	404.71	575.92	720.95	792.03	782.16	715.07	621.61	533.42	463.85	414.66
13.00	DISCHG	380.16	356.31	340.93	332.55	329.51	330.96	335.87	343.28	352.10	361.58
14.00	DISCHG	371.44	381.59	391.64	401.05	409.78	417.81	424.75	430.63	435.49	439.23
15.00	DISCHG	442.04	444.35	446.23	447.43	447.74	446.78	444.27	440.58	436.28	431.55
16.00	DISCHG	426.50	421.16	415.45	409.27	402.62	395.41	387.42	378.58	368.88	358.41
17.00	DISCHG	347.48	336.54	326.01	316.08	306.67	297.83	289.70	282.13	274.78	267.53
18.00	DISCHG	260.27	252.92	245.66	238.72	232.17	226.07	220.47	215.26	210.28	205.54
19.00	DISCHG	200.99	196.56	192.25	188.04	183.95	179.99	176.23	172.65	169.13	165.60
20.00	DISCHG	161.90	157.95	153.93	150.04	146.37	142.98	139.90	137.04	134.34	131.80
21.00	DISCHG	129.38	127.07	124.86	122.74	120.69	118.69	116.72	114.80	112.94	111.17
22.00	DISCHG	109.49	107.85	106.26	104.72	103.22	101.76	100.35	98.99	97.67	96.41
23.00	DISCHG	95.20	94.03	92.90	91.83	90.79	89.78	88.79	87.84	86.86	85.74
24.00	DISCHG	84.32	82.33	79.69	76.34	72.62	69.03	65.84	63.17	61.01	59.26
25.00	DISCHG	57.77	56.48	55.31	54.23	53.19	52.19	51.21	50.23	49.22	48.19
26.00	DISCHG	47.13	46.04	44.92	43.76	42.58	41.39	40.17	38.94	37.69	36.44
27.00	DISCHG	35.18	33.92	32.67	31.42	30.18	28.95	27.74	26.54	25.37	24.22
28.00	DISCHG	23.09	21.99	20.92	19.88	18.87	17.91	17.01	16.15	15.33	14.55
29.00	DISCHG	13.81	13.11	12.45	11.83	11.24	10.69	10.17	9.67	9.20	8.76

RUNOFF VOLUME ABOVE BASEFLOW = 3.14 WATERSHED INCHES, 3731.37 CFS-HRS, 308.36 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 5, ALTERNATE 1, STORM 4, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 6

OUTPUT HYDROGRAPH= 6
AREA= .09 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= .45 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0600 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.17	159.29	(RUNOFF)
16.45	6.50	(RUNOFF)
19.66	4.39	(RUNOFF)
23.65	3.34	(RUNOFF)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS			TIME INCREMENT = .10 HOURS				DRAINAGE AREA = .09 SQ.MI.		
7.00	DISCHG	.00	.00	.00	.01	.02	.05	.08	.12	.17	.21
8.00	DISCHG	.26	.31	.37	.45	.53	.63	.74	.84	.93	1.02
9.00	DISCHG	1.10	1.19	1.31	1.44	1.57	1.69	1.82	1.96	2.13	2.29
10.00	DISCHG	2.44	2.59	2.76	2.97	3.23	3.56	3.96	4.46	5.03	5.68
11.00	DISCHG	6.40	7.16	8.00	8.91	9.95	11.36	14.96	23.92	40.26	68.67
12.00	DISCHG	113.17	152.42	157.33	129.87	95.12	69.18	52.56	41.71	34.52	29.51
13.00	DISCHG	25.79	22.89	20.53	18.64	17.12	15.94	14.97	14.04	13.18	12.44
14.00	DISCHG	11.81	11.29	10.81	10.36	9.93	9.50	9.09	8.66	8.26	7.95
15.00	DISCHG	7.75	7.64	7.58	7.54	7.41	7.18	6.92	6.73	6.61	6.55
16.00	DISCHG	6.52	6.50	6.49	6.49	6.49	6.49	6.44	6.27	6.01	5.78
17.00	DISCHG	5.63	5.55	5.50	5.47	5.46	5.45	5.45	5.45	5.43	5.33
18.00	DISCHG	5.10	4.84	4.64	4.53	4.46	4.43	4.40	4.39	4.39	4.38
19.00	DISCHG	4.38	4.38	4.38	4.39	4.39	4.39	4.39	4.39	4.38	4.27
20.00	DISCHG	4.04	3.78	3.58	3.46	3.39	3.36	3.34	3.32	3.32	3.31
21.00	DISCHG	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.32	3.32	3.32
22.00	DISCHG	3.32	3.32	3.32	3.32	3.32	3.32	3.32	3.32	3.33	3.33
23.00	DISCHG	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.32	3.21
24.00	DISCHG	2.97	2.61	2.04	1.38	.83	.48	.27	.16	.09	.05
25.00	DISCHG	.03	.01	.01	.00						

RUNOFF VOLUME ABOVE BASEFLOW = 3.16 WATERSHED INCHES, 183.28 CFS-HRS, 15.15 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 6, ALTERNATE 1, STORM 4, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 7
INPUT HYDROGRAPHS= 5,6 OUTPUT HYDROGRAPH= 1
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.30	921.90	(NULL)
15.36	455.24	(NULL)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS			TIME INCREMENT = .10 HOURS				DRAINAGE AREA = 1.93 SQ.MI.		
7.00	DISCHG	.00	.00	.00	.02	.07	.17	.33	.55	.80	1.09
8.00	DISCHG	1.40	1.74	2.13	2.58	3.11	3.73	4.42	5.14	5.88	6.61
9.00	DISCHG	7.35	8.11	8.95	9.89	10.90	11.94	13.02	14.20	15.48	16.84
10.00	DISCHG	18.22	19.65	21.18	22.88	24.84	27.17	29.94	33.24	37.10	41.56

11.00	DISCHG	46.59	52.19	58.34	65.12	72.70	82.23	99.94	135.21	205.11	328.98
12.00	DISCHG	517.88	728.34	878.28	921.90	877.28	784.24	674.17	575.13	498.38	444.17
13.00	DISCHG	405.95	379.20	361.46	351.19	346.63	346.90	350.85	357.32	365.29	374.02
14.00	DISCHG	383.25	392.88	402.45	411.42	419.71	427.31	433.83	439.29	443.75	447.18
15.00	DISCHG	449.79	451.99	453.82	454.97	455.15	453.96	451.19	447.31	442.89	438.10
16.00	DISCHG	433.02	427.66	421.94	415.76	409.11	401.90	393.87	384.85	374.89	364.19
17.00	DISCHG	353.11	342.09	331.51	321.55	312.13	303.29	295.15	287.58	280.21	272.86
18.00	DISCHG	265.37	257.76	250.30	243.25	236.63	230.50	224.87	219.66	214.67	209.92
19.00	DISCHG	205.37	200.95	196.63	192.43	188.33	184.38	180.63	177.04	173.51	169.87
20.00	DISCHG	165.94	161.73	157.51	153.50	149.76	146.34	143.23	140.36	137.66	135.11
21.00	DISCHG	132.69	130.38	128.17	126.05	124.01	122.00	120.03	118.11	116.26	114.49
22.00	DISCHG	112.81	111.17	109.58	108.04	106.54	105.09	103.68	102.32	101.00	99.74
23.00	DISCHG	98.52	97.36	96.23	95.16	94.12	93.11	92.13	91.17	90.18	88.95
24.00	DISCHG	87.29	84.94	81.73	77.72	73.45	69.51	66.11	63.33	61.10	59.31
25.00	DISCHG	57.80	56.49	55.32	54.23	53.19	52.19	51.21	50.23	49.22	48.19
26.00	DISCHG	47.13	46.04	44.92	43.76	42.58	41.39	40.17	38.94	37.69	36.44
27.00	DISCHG	35.18	33.92	32.67	31.42	30.18	28.95	27.74	26.54	25.37	24.22
28.00	DISCHG	23.09	21.99	20.92	19.88	18.87	17.91	17.01	16.15	15.33	14.55
29.00	DISCHG	13.81	13.11	12.45	11.83	11.24	10.69	10.17	9.67	9.20	8.76

RUNOFF VOLUME ABOVE BASEFLOW = 3.14 WATERSHED INCHES, 3914.66 CFS-HRS, 323.51 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 7, ALTERNATE 1, STORM 4, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 8
OUTPUT HYDROGRAPH= 7
AREA= .06 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= .25 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0333 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.06	140.01	(RUNOFF)
23.65	2.23	(RUNOFF)

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .06 SQ.MI.

TIME(HRS)											
7.00	DISCHG	.00	.00	.00	.01	.04	.07	.10	.13	.16	.19
8.00	DISCHG	.22	.26	.32	.38	.45	.53	.60	.66	.71	.77
9.00	DISCHG	.82	.90	1.01	1.11	1.18	1.25	1.34	1.48	1.60	1.69
10.00	DISCHG	1.77	1.88	2.05	2.21	2.47	2.76	3.07	3.57	3.97	4.51
11.00	DISCHG	5.06	5.58	6.28	6.89	7.87	8.91	14.70	30.00	45.07	84.50
12.00	DISCHG	131.30	134.77	83.33	48.97	33.05	24.47	20.49	17.75	16.30	14.78
13.00	DISCHG	13.38	12.49	11.41	10.76	10.08	9.49	9.04	8.36	7.94	7.57
14.00	DISCHG	7.26	7.03	6.69	6.47	6.16	5.87	5.64	5.30	5.10	5.03
15.00	DISCHG	5.01	5.00	5.01	4.98	4.74	4.48	4.37	4.33	4.32	4.31
16.00	DISCHG	4.32	4.32	4.32	4.32	4.33	4.33	4.22	3.91	3.72	3.66
17.00	DISCHG	3.63	3.63	3.62	3.63	3.63	3.63	3.63	3.63	3.61	3.36
18.00	DISCHG	3.09	2.98	2.94	2.92	2.92	2.92	2.92	2.92	2.92	2.92
19.00	DISCHG	2.92	2.92	2.93	2.93	2.93	2.93	2.93	2.93	2.90	2.66
20.00	DISCHG	2.39	2.27	2.23	2.21	2.21	2.20	2.20	2.21	2.21	2.21
21.00	DISCHG	2.21	2.21	2.21	2.21	2.21	2.21	2.21	2.21	2.21	2.21

22.00	DISCHG	2.21	2.21	2.21	2.21	2.22	2.22	2.22	2.22	2.22	2.22
23.00	DISCHG	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.20	1.95
24.00	DISCHG	1.67	1.31	.63	.23	.09	.03	.01	.00		

RUNOFF VOLUME ABOVE BASEFLOW = 3.16 WATERSHED INCHES, 122.52 CFS-HRS, 10.13 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 8, ALTERNATE 1, STORM 4, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 9
INPUT HYDROGRAPHS= 1,7 OUTPUT HYDROGRAPH= 2
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.26	975.58	(NULL)
15.35	460.07	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.99 SQ.MI.

7.00	DISCHG	.00	.00	.00	.03	.11	.24	.43	.68	.96	1.28
8.00	DISCHG	1.62	2.00	2.45	2.96	3.57	4.27	5.02	5.80	6.59	7.38
9.00	DISCHG	8.17	9.01	9.96	10.99	12.08	13.19	14.37	15.69	17.09	18.53
10.00	DISCHG	19.99	21.53	23.23	25.08	27.32	29.93	33.01	36.80	41.07	46.07
11.00	DISCHG	51.65	57.76	64.62	72.00	80.57	91.13	114.64	165.21	250.19	413.48
12.00	DISCHG	649.19	863.11	961.61	970.87	910.33	808.71	694.67	592.89	514.68	458.95
13.00	DISCHG	419.33	391.69	372.87	361.95	356.71	356.40	359.88	365.68	373.23	381.59
14.00	DISCHG	390.51	399.91	409.13	417.88	425.87	433.18	439.48	444.59	448.85	452.21
15.00	DISCHG	454.80	457.00	458.82	459.95	459.89	458.44	455.56	451.64	447.21	442.42
16.00	DISCHG	437.33	431.98	426.27	420.09	413.44	406.23	398.08	388.76	378.62	367.85
17.00	DISCHG	356.75	345.71	335.13	325.17	315.76	306.91	298.78	291.21	283.82	276.23
18.00	DISCHG	268.46	260.74	253.24	246.17	239.55	233.42	227.79	222.58	217.59	212.84
19.00	DISCHG	208.29	203.87	199.56	195.35	191.26	187.31	183.56	179.97	176.41	172.53
20.00	DISCHG	168.33	164.00	159.74	155.71	151.97	148.55	145.44	142.57	139.87	137.32
21.00	DISCHG	134.90	132.59	130.37	128.26	126.22	124.21	122.25	120.32	118.47	116.70
22.00	DISCHG	115.02	113.38	111.80	110.26	108.76	107.30	105.90	104.53	103.22	101.95
23.00	DISCHG	100.74	99.58	98.45	97.38	96.34	95.33	94.35	93.39	92.37	90.90
24.00	DISCHG	88.96	86.25	82.37	77.96	73.54	69.54	66.12	63.33	61.10	59.31
25.00	DISCHG	57.80	56.49	55.32	54.23	53.19	52.19	51.21	50.23	49.22	48.19
26.00	DISCHG	47.13	46.04	44.92	43.76	42.58	41.39	40.17	38.94	37.69	36.44
27.00	DISCHG	35.18	33.92	32.67	31.42	30.18	28.95	27.74	26.54	25.37	24.22
28.00	DISCHG	23.09	21.99	20.92	19.88	18.87	17.91	17.01	16.15	15.33	14.55
29.00	DISCHG	13.81	13.11	12.45	11.83	11.24	10.69	10.17	9.67	9.20	8.76

RUNOFF VOLUME ABOVE BASEFLOW = 3.14 WATERSHED INCHES, 4037.18 CFS-HRS, 333.63 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 9, ALTERNATE 1, STORM 4, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 10

OUTPUT HYDROGRAPH= 3
AREA= .50 SQ MI INPUT RUNOFF CURVE= 77. TIME OF CONCENTRATION= 1.00 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0952 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.52	514.08	(RUNOFF)
23.67	18.26	(RUNOFF)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS			TIME INCREMENT = .10 HOURS				DRAINAGE AREA = .50 SQ.MI.		
7.00	DISCHG	.00	.00	.00	.00	.00	.00	.01	.02	.04	.09
8.00	DISCHG	.16	.27	.41	.58	.80	1.06	1.36	1.71	2.08	2.49
9.00	DISCHG	2.91	3.35	3.81	4.29	4.80	5.35	5.92	6.52	7.16	7.84
10.00	DISCHG	8.55	9.28	10.04	10.85	11.74	12.73	13.89	15.24	16.85	18.75
11.00	DISCHG	20.96	23.51	26.39	29.63	33.27	37.61	44.17	55.04	75.21	112.61
12.00	DISCHG	174.05	256.92	350.89	436.98	493.40	513.69	503.21	469.94	421.97	367.68
13.00	DISCHG	316.32	274.41	240.48	212.11	187.87	167.22	149.81	134.84	122.06	111.09
14.00	DISCHG	101.79	93.79	86.85	80.82	75.54	70.87	66.74	63.01	59.57	56.32
15.00	DISCHG	53.33	50.69	48.51	46.81	45.43	44.22	43.10	42.01	40.94	39.94
16.00	DISCHG	39.03	38.26	37.62	37.12	36.75	36.46	36.19	35.89	35.51	34.99
17.00	DISCHG	34.35	33.67	32.98	32.35	31.79	31.33	30.99	30.73	30.51	30.27
18.00	DISCHG	29.96	29.52	28.94	28.27	27.58	26.91	26.30	25.79	25.39	25.08
19.00	DISCHG	24.84	24.66	24.52	24.41	24.32	24.26	24.21	24.18	24.13	24.03
20.00	DISCHG	23.83	23.47	22.95	22.32	21.65	21.00	20.42	19.91	19.61	19.21
21.00	DISCHG	18.97	18.79	18.65	18.54	18.46	18.39	18.34	18.30	18.27	18.25
22.00	DISCHG	18.24	18.23	18.22	18.22	18.21	18.21	18.21	18.21	18.22	18.22
23.00	DISCHG	18.22	18.23	18.23	18.24	18.25	18.25	18.26	18.26	18.24	18.16
24.00	DISCHG	17.98	17.53	16.74	15.57	14.01	12.17	10.23	8.37	6.68	5.25
25.00	DISCHG	4.08	3.18	2.49	1.95	1.52	1.18	.92	.72	.56	.43
26.00	DISCHG	.33	.26	.20	.15	.11	.08	.06	.04	.03	.02
27.00	DISCHG	.01	.00								

RUNOFF VOLUME ABOVE BASEFLOW = 3.06 WATERSHED INCHES, 987.53 CFS-HRS, 81.61 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 10, ALTERNATE 1, STORM 4, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 11
INPUT HYDROGRAPHS= 2,3 OUTPUT HYDROGRAPH= 4
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.35	1418.30	(NULL)
14.87	508.55	(NULL)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS			TIME INCREMENT = .10 HOURS				DRAINAGE AREA = 2.49 SQ.MI.		
7.00	DISCHG	.00	.00	.00	.03	.11	.24	.43	.69	1.00	1.37
8.00	DISCHG	1.78	2.27	2.86	3.54	4.37	5.32	6.38	7.50	8.67	9.87
9.00	DISCHG	11.08	12.36	13.77	15.28	16.88	18.54	20.29	22.21	24.25	26.37
10.00	DISCHG	28.54	30.81	33.27	35.93	39.05	42.66	46.90	52.05	57.92	64.81

11.00	DISCHG	72.61	81.27	91.01	101.63	113.83	128.74	158.81	220.26	325.40	526.09
12.00	DISCHG	823.24	1120.04	1312.51	1407.84	1403.73	1322.40	1197.88	1062.83	936.65	826.64
13.00	DISCHG	735.65	666.10	613.34	574.06	544.58	523.62	509.70	500.52	495.29	492.69
14.00	DISCHG	492.30	493.70	495.99	498.70	501.41	504.06	506.22	507.60	508.42	508.53
15.00	DISCHG	508.13	507.69	507.33	506.76	505.32	502.66	498.66	493.64	488.15	482.35
16.00	DISCHG	476.36	470.24	463.88	457.21	450.19	442.69	434.28	424.66	414.12	402.84
17.00	DISCHG	391.10	379.38	368.12	357.52	347.55	338.25	329.76	321.94	314.32	306.49
18.00	DISCHG	298.42	290.26	282.18	274.45	267.13	260.32	254.10	248.37	242.98	237.92
19.00	DISCHG	233.13	228.53	224.07	219.76	215.58	211.57	207.77	204.15	200.55	196.56
20.00	DISCHG	192.16	187.47	182.69	178.03	173.62	169.55	165.85	162.48	159.38	156.52
21.00	DISCHG	153.87	151.38	149.03	146.80	144.67	142.60	140.59	138.63	136.74	134.95
22.00	DISCHG	133.26	131.61	130.02	128.47	126.97	125.51	124.11	122.75	121.43	120.17
23.00	DISCHG	118.97	117.80	116.69	115.62	114.58	113.58	112.60	111.66	110.62	109.06
24.00	DISCHG	106.94	103.78	99.11	93.53	87.55	81.70	76.36	71.69	67.79	64.55
25.00	DISCHG	61.88	59.67	57.80	56.17	54.71	53.38	52.13	50.94	49.78	48.62
26.00	DISCHG	47.46	46.29	45.11	43.91	42.69	41.47	40.23	38.98	37.72	36.45
27.00	DISCHG	35.19	33.92	32.67	31.42	30.18	28.95	27.74	26.54	25.37	24.22
28.00	DISCHG	23.09	21.99	20.92	19.88	18.87	17.91	17.01	16.15	15.33	14.55
29.00	DISCHG	13.81	13.11	12.45	11.83	11.24	10.69	10.17	9.67	9.20	8.76

RUNOFF VOLUME ABOVE BASEFLOW = 3.13 WATERSHED INCHES, 5024.71 CFS-HRS, 415.24 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 11, ALTERNATE 1, STORM 4, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 12
OUTPUT HYDROGRAPH= 5
AREA= .57 SQ MI INPUT RUNOFF CURVE= 77. TIME OF CONCENTRATION= 1.30 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0963 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.73	487.12	(RUNOFF)
23.67	20.82	(RUNOFF)

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .57 SQ.MI.

TIME(HRS)											
7.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.01	.02	.05
8.00	DISCHG	.10	.16	.26	.38	.55	.75	.99	1.28	1.60	1.97
9.00	DISCHG	2.37	2.79	3.25	3.73	4.24	4.78	5.35	5.96	6.60	7.27
10.00	DISCHG	7.98	8.73	9.52	10.34	11.22	12.18	13.25	14.47	15.87	17.50
11.00	DISCHG	19.39	21.59	24.11	26.97	30.22	34.11	39.46	47.49	60.88	84.58
12.00	DISCHG	122.32	174.05	237.84	309.23	378.53	434.48	470.26	486.00	483.19	465.51
13.00	DISCHG	436.83	400.57	359.65	319.91	285.45	256.36	231.45	209.80	190.50	173.24
14.00	DISCHG	158.04	144.67	132.85	122.39	113.13	104.96	97.76	91.34	85.58	80.40
15.00	DISCHG	75.70	71.48	67.73	64.41	61.49	58.95	56.69	54.60	52.63	50.79
16.00	DISCHG	49.08	47.55	46.25	45.21	44.36	43.64	43.03	42.48	41.95	41.41
17.00	DISCHG	40.81	40.15	39.46	38.76	38.08	37.45	36.87	36.36	35.92	35.53
18.00	DISCHG	35.14	34.73	34.25	33.69	33.06	32.40	31.73	31.10	30.51	29.98
19.00	DISCHG	29.52	29.13	28.83	28.58	28.37	28.21	28.07	27.96	27.86	27.74
20.00	DISCHG	27.57	27.33	26.99	26.54	26.01	25.42	24.81	24.22	23.66	23.16
21.00	DISCHG	22.72	22.36	22.07	21.83	21.64	21.48	21.35	21.24	21.15	21.07

22.00	DISCHG	21.01	20.97	20.93	20.90	20.88	20.86	20.84	20.83	20.82	20.82
23.00	DISCHG	20.81	20.81	20.81	20.81	20.81	20.81	20.82	20.82	20.81	20.76
24.00	DISCHG	20.65	20.40	19.94	19.22	18.21	16.90	15.36	13.67	11.94	10.25
25.00	DISCHG	8.66	7.23	5.98	4.93	4.06	3.36	2.78	2.30	1.91	1.57
26.00	DISCHG	1.30	1.07	.88	.73	.60	.49	.40	.33	.27	.22
27.00	DISCHG	.18	.14	.11	.09	.07	.05	.04	.03	.02	.01
28.00	DISCHG	.01	.00								

RUNOFF VOLUME ABOVE BASEFLOW = 3.07 WATERSHED INCHES, 1127.63 CFS-HRS, 93.19 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 12, ALTERNATE 1, STORM 4, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 13
INPUT HYDROGRAPHS= 4,5 OUTPUT HYDROGRAPH= 6
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.42	1784.45	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 3.06 SQ.MI.

7.00	DISCHG	.00	.00	.00	.03	.11	.24	.43	.70	1.03	1.42
8.00	DISCHG	1.88	2.43	3.12	3.93	4.91	6.07	7.37	8.78	10.28	11.84
9.00	DISCHG	13.45	15.15	17.01	19.01	21.12	23.31	25.64	28.17	30.85	33.64
10.00	DISCHG	36.52	39.54	42.78	46.27	50.28	54.84	60.14	66.51	73.79	82.31
11.00	DISCHG	92.01	102.86	115.12	128.60	144.06	162.85	198.27	267.75	386.28	610.66
12.00	DISCHG	945.56	1294.09	1550.35	1717.08	1782.26	1756.87	1668.13	1548.82	1419.84	1292.15
13.00	DISCHG	1172.48	1066.67	972.99	893.97	830.02	779.98	741.15	710.32	685.79	665.92
14.00	DISCHG	650.34	638.37	628.84	621.09	614.54	609.02	603.98	598.94	594.00	588.93
15.00	DISCHG	583.83	579.17	575.06	571.17	566.81	561.61	555.35	548.24	540.78	533.14
16.00	DISCHG	525.45	517.79	510.13	502.41	494.54	486.33	477.30	467.13	456.08	444.24
17.00	DISCHG	431.91	419.53	407.57	396.28	385.63	375.69	366.63	358.30	350.24	342.02
18.00	DISCHG	333.57	324.99	316.44	308.13	300.19	292.72	285.83	279.46	273.49	267.90
19.00	DISCHG	262.65	257.66	252.90	248.34	243.96	239.78	235.84	232.11	228.40	224.30
20.00	DISCHG	219.73	214.80	209.68	204.58	199.63	194.97	190.67	186.70	183.04	179.69
21.00	DISCHG	176.60	173.74	171.09	168.64	166.31	164.08	161.93	159.86	157.89	156.03
22.00	DISCHG	154.27	152.58	150.95	149.37	147.85	146.37	144.95	143.58	142.26	140.99
23.00	DISCHG	139.78	138.62	137.50	136.43	135.40	134.39	133.42	132.48	131.43	129.83
24.00	DISCHG	127.89	124.18	119.05	112.75	105.76	98.61	91.72	85.37	79.73	74.80
25.00	DISCHG	70.54	66.90	63.79	61.10	58.78	56.74	54.91	53.25	51.68	50.19
26.00	DISCHG	48.76	47.36	45.99	44.64	43.29	41.96	40.63	39.31	37.99	36.67
27.00	DISCHG	35.37	34.07	32.78	31.51	30.25	29.01	27.78	26.57	25.39	24.23
28.00	DISCHG	23.10	21.99	20.92	19.88	18.87	17.91	17.01	16.15	15.33	14.55
29.00	DISCHG	13.81	13.11	12.45	11.83	11.24	10.69	10.17	9.67	9.20	8.76

RUNOFF VOLUME ABOVE BASEFLOW = 3.12 WATERSHED INCHES, 6152.34 CFS-HRS, 508.43 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 13, ALTERNATE 1, STORM 4, ADDED TO OUTPUT HYDROGRAPH FILE ---

EXECUTIVE CONTROL OPERATION ENDCMP COMPUTATIONS COMPLETED FOR PASS 4 RECORD ID

EXECUTIVE CONTROL OPERATION COMPUT FROM XSECTION 1 TO XSECTION 13 RECORD ID 100-YR
STARTING TIME = .00 RAIN DEPTH = 6.48 RAIN DURATION= 1.00 RAIN TABLE NO.= 2 ANT. MOIST. COND= 2
ALTERNATE NO.= 1 STORM NO.= 5 MAIN TIME INCREMENT = .10 HOURS

OPERATION RUNOFF CROSS SECTION 1
OUTPUT HYDROGRAPH= 1
AREA= 1.26 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= 5.00 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1010 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET) (RUNOFF)
15.42	507.33	

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.26 SQ.MI.

TIME(HRS)											
6.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
7.00	DISCHG	.01	.02	.03	.05	.06	.09	.11	.15	.19	.24
8.00	DISCHG	.29	.36	.44	.53	.64	.77	.91	1.07	1.25	1.46
9.00	DISCHG	1.68	1.94	2.21	2.52	2.86	3.22	3.62	4.06	4.53	5.04
10.00	DISCHG	5.59	6.18	6.82	7.50	8.23	9.01	9.85	10.75	11.72	12.76
11.00	DISCHG	13.89	15.10	16.41	17.84	19.38	21.08	23.10	25.48	28.56	32.76
12.00	DISCHG	38.14	44.50	52.11	61.12	71.12	82.00	93.89	106.69	120.44	135.42
13.00	DISCHG	151.65	168.96	187.58	207.61	228.69	250.66	273.44	296.64	319.62	341.79
14.00	DISCHG	363.02	383.27	402.10	419.24	434.97	449.25	461.72	472.55	481.87	489.47
15.00	DISCHG	495.42	500.18	503.82	506.19	507.29	506.91	504.81	501.32	496.94	491.79
16.00	DISCHG	485.93	479.44	472.29	464.43	455.89	446.60	436.44	425.49	413.90	401.66
17.00	DISCHG	388.92	376.08	363.55	351.54	340.01	329.06	318.91	309.41	300.20	291.35
18.00	DISCHG	282.85	274.62	266.71	259.18	251.96	245.04	238.51	232.31	226.27	220.45
19.00	DISCHG	214.81	209.29	203.87	198.58	193.41	188.42	183.66	179.12	174.74	170.57
20.00	DISCHG	166.60	162.74	158.99	155.35	151.82	148.39	145.10	141.91	138.81	135.82
21.00	DISCHG	132.93	130.12	127.41	124.81	122.27	119.77	117.31	114.91	112.59	110.37
22.00	DISCHG	108.26	106.21	104.21	102.28	100.40	98.57	96.80	95.10	93.44	91.86
23.00	DISCHG	90.34	88.87	87.46	86.11	84.81	83.54	82.31	81.12	79.97	78.87
24.00	DISCHG	77.82	76.80	75.79	74.80	73.82	72.86	71.93	71.00	70.07	69.14
25.00	DISCHG	68.19	67.22	66.23	65.22	64.18	63.12	62.04	60.92	59.76	58.54
26.00	DISCHG	57.27	55.96	54.60	53.21	51.77	50.32	48.83	47.33	45.81	44.28
27.00	DISCHG	42.75	41.22	39.69	38.17	36.66	35.16	33.68	32.22	30.79	29.39
28.00	DISCHG	28.02	26.68	25.38	24.11	22.89	21.72	20.63	19.59	18.59	17.65
29.00	DISCHG	16.75	15.90	15.10	14.34	13.63	12.96	12.33	11.73	11.16	10.62

RUNOFF VOLUME ABOVE BASEFLOW = 3.98 WATERSHED INCHES, 3236.37 CFS-HRS, 267.45 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 1, ALTERNATE 1, STORM 5, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 2
OUTPUT HYDROGRAPH= 2
AREA= .27 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= .80 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1067 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.37	420.66	(RUNOFF)
23.62	12.10 *	(RUNOFF)

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .27 SQ.MI.

TIME(HRS)											
6.00	DISCHG	.00	.00	.00	.00	.00	.00	.02	.05	.10	.18
7.00	DISCHG	.29	.42	.57	.73	.89	1.07	1.24	1.42	1.60	1.78
8.00	DISCHG	1.96	2.14	2.34	2.58	2.87	3.20	3.57	3.96	4.36	4.75
9.00	DISCHG	5.12	5.50	5.88	6.29	6.74	7.21	7.69	8.20	8.74	9.31
10.00	DISCHG	9.89	10.48	11.10	11.76	12.51	13.41	14.51	15.84	17.42	19.28
11.00	DISCHG	21.40	23.78	26.41	29.34	32.58	36.60	43.69	56.73	82.89	129.17
12.00	DISCHG	198.64	283.39	362.25	411.24	419.59	394.28	346.97	291.29	240.47	201.81
13.00	DISCHG	171.68	147.49	127.86	111.90	98.81	88.06	79.23	71.87	65.66	60.37
14.00	DISCHG	55.86	51.97	48.56	45.54	42.81	40.45	38.43	36.63	34.94	33.38
15.00	DISCHG	32.00	30.86	29.95	29.24	28.64	28.05	27.38	26.68	26.00	25.41
16.00	DISCHG	24.92	24.57	24.33	24.15	24.03	23.92	23.79	23.57	23.22	22.73
17.00	DISCHG	22.19	21.65	21.19	20.82	20.55	20.36	20.23	20.13	20.03	19.87
18.00	DISCHG	19.58	19.14	18.61	18.06	17.55	17.13	16.81	16.58	16.41	16.29
19.00	DISCHG	16.20	16.14	16.09	16.06	16.04	16.03	16.02	16.01	15.98	15.86
20.00	DISCHG	15.61	15.20	14.68	14.13	13.63	13.20	12.88	12.66	12.49	12.37
21.00	DISCHG	12.28	12.22	12.17	12.14	12.11	12.10	12.09	12.08	12.07	12.07
22.00	DISCHG	12.07	12.07	12.07	12.07	12.07	12.07	12.08	12.08	12.08	12.08
23.00	DISCHG	12.09	12.09	12.09	12.09	12.10	12.10	12.10	12.10	12.07	11.97
24.00	DISCHG	11.73	11.19	10.32	9.07	7.57	6.03	4.62	3.43	2.51	1.84
25.00	DISCHG	1.35	.99	.72	.53	.38	.28	.20	.14	.10	.07
26.00	DISCHG	.05	.03	.02	.01	.00					

RUNOFF VOLUME ABOVE BASEFLOW = 4.00 WATERSHED INCHES, 697.30 CFS-HRS, 57.63 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 2, ALTERNATE 1, STORM 5, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 3
INPUT HYDROGRAPHS= 1,2 OUTPUT HYDROGRAPH= 3
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.41	490.77	(NULL)
15.38	535.95	(NULL)

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.53 SQ.MI.

TIME(HRS)											
6.00	DISCHG	.00	.00	.00	.00	.00	.00	.02	.05	.10	.19
7.00	DISCHG	.30	.44	.60	.77	.96	1.15	1.36	1.57	1.79	2.01
8.00	DISCHG	2.25	2.50	2.79	3.12	3.51	3.96	4.47	5.03	5.61	6.20
9.00	DISCHG	6.81	7.43	8.09	8.81	9.60	10.43	11.31	12.25	13.27	14.35
10.00	DISCHG	15.48	16.66	17.91	19.26	20.74	22.42	24.36	26.59	29.14	32.04
11.00	DISCHG	35.28	38.89	42.83	47.17	51.96	57.68	66.79	82.21	111.46	161.93

12.00	DISCHG	236.79	327.89	414.37	472.36	490.71	476.28	440.85	397.98	360.90	337.24
13.00	DISCHG	323.34	316.45	315.43	319.52	327.50	338.73	352.67	368.51	385.27	402.16
14.00	DISCHG	418.88	435.24	450.66	464.78	477.78	489.71	500.15	509.17	516.81	522.85
15.00	DISCHG	527.42	531.04	533.78	535.43	535.93	534.96	532.20	527.99	522.94	517.20
16.00	DISCHG	510.85	504.02	496.62	488.58	479.91	470.53	460.24	449.07	437.12	424.39
17.00	DISCHG	411.11	397.73	384.74	372.36	360.56	349.42	339.13	329.54	320.23	311.22
18.00	DISCHG	302.43	293.76	285.32	277.24	269.51	262.17	255.31	248.88	242.68	236.74
19.00	DISCHG	231.01	225.43	219.97	214.64	209.45	204.45	199.68	195.14	190.72	186.43
20.00	DISCHG	182.21	177.94	173.66	169.48	165.44	161.59	157.98	154.57	151.31	148.19
21.00	DISCHG	145.21	142.34	139.58	136.95	134.38	131.86	129.40	126.99	124.66	122.44
22.00	DISCHG	120.33	118.27	116.28	114.35	112.47	110.64	108.88	107.17	105.52	103.94
23.00	DISCHG	102.42	100.96	99.56	98.21	96.91	95.64	94.41	93.22	92.04	90.84
24.00	DISCHG	89.55	87.98	86.11	83.87	81.38	78.89	76.55	74.43	72.58	70.98
25.00	DISCHG	69.54	68.22	66.96	65.75	64.57	63.40	62.24	61.07	59.86	58.61
26.00	DISCHG	57.32	55.99	54.62	53.22	51.77	50.32	48.83	47.33	45.81	44.28
27.00	DISCHG	42.75	41.22	39.69	38.17	36.66	35.16	33.68	32.22	30.79	29.39
28.00	DISCHG	28.02	26.68	25.38	24.11	22.89	21.72	20.63	19.59	18.59	17.65
29.00	DISCHG	16.75	15.90	15.10	14.34	13.63	12.96	12.33	11.73	11.16	10.62

RUNOFF VOLUME ABOVE BASEFLOW = 3.98 WATERSHED INCHES, 3933.68 CFS-HRS, 325.08 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 3, ALTERNATE 1, STORM 5, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 4
OUTPUT HYDROGRAPH= 4
AREA= .31 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= .67 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0893 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.29	541.94	(RUNOFF)
19.65	18.37	(RUNOFF)
23.65	13.90	(RUNOFF)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .31 SQ.MI.

6.00	DISCHG	.00	.00	.00	.00	.00	.01	.03	.07	.16	.29
7.00	DISCHG	.44	.62	.81	1.01	1.21	1.42	1.63	1.84	2.04	2.25
8.00	DISCHG	2.46	2.68	2.93	3.23	3.60	4.03	4.50	4.99	5.46	5.90
9.00	DISCHG	6.32	6.73	7.18	7.69	8.25	8.82	9.40	10.00	10.65	11.34
10.00	DISCHG	12.03	12.72	13.43	14.23	15.20	16.37	17.82	19.57	21.67	24.10
11.00	DISCHG	26.86	29.93	33.25	36.87	40.89	46.03	55.70	75.12	115.95	188.46
12.00	DISCHG	297.11	421.10	514.39	541.83	507.08	433.93	349.73	280.55	229.58	191.16
13.00	DISCHG	161.61	138.60	120.46	106.07	94.51	85.36	77.80	71.44	65.91	61.00
14.00	DISCHG	56.71	53.09	50.22	47.82	45.63	43.59	41.64	39.75	37.95	36.30
15.00	DISCHG	34.93	33.87	33.13	32.58	32.06	31.40	30.60	29.76	29.01	28.41
16.00	DISCHG	28.02	27.75	27.57	27.45	27.37	27.30	27.18	26.88	26.31	25.58
17.00	DISCHG	24.86	24.24	23.77	23.46	23.25	23.11	23.01	22.94	22.86	22.64
18.00	DISCHG	22.20	21.53	20.78	20.09	19.53	19.14	18.89	18.71	18.59	18.51
19.00	DISCHG	18.45	18.42	18.39	18.38	18.37	18.37	18.36	18.37	18.33	18.16
20.00	DISCHG	17.73	17.06	16.30	15.60	15.05	14.67	14.40	14.22	14.10	14.01

21.00	DISCHG	13.95	13.91	13.89	13.87	13.86	13.85	13.85	13.85	13.85	13.85
22.00	DISCHG	13.85	13.85	13.86	13.86	13.86	13.87	13.87	13.87	13.87	13.88
23.00	DISCHG	13.88	13.88	13.89	13.89	13.89	13.90	13.90	13.90	13.86	13.67
24.00	DISCHG	13.21	12.34	10.99	9.14	7.09	5.22	3.68	2.53	1.75	1.21
25.00	DISCHG	.83	.57	.39	.27	.18	.12	.08	.05	.03	.01
26.00	DISCHG	.01	.00								

RUNOFF VOLUME ABOVE BASEFLOW = 4.00 WATERSHED INCHES, 799.98 CFS-HRS, 66.11 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 4, ALTERNATE 1, STORM 5, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 5
INPUT HYDROGRAPHS= 3,4 OUTPUT HYDROGRAPH= 5
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.33	1020.04	(NULL)
15.35	568.14	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.84 SQ.MI.

6.00	DISCHG	.00	.00	.00	.00	.00	.01	.04	.12	.26	.47
7.00	DISCHG	.74	1.06	1.40	1.78	2.17	2.57	2.98	3.40	3.83	4.26
8.00	DISCHG	4.71	5.18	5.71	6.35	7.10	7.99	8.98	10.02	11.07	12.11
9.00	DISCHG	13.13	14.16	15.27	16.51	17.85	19.25	20.71	22.25	23.92	25.69
10.00	DISCHG	27.51	29.38	31.34	33.49	35.94	38.79	42.18	46.16	50.81	56.15
11.00	DISCHG	62.15	68.82	76.08	84.04	92.85	103.71	122.49	157.32	227.40	350.39
12.00	DISCHG	533.90	748.98	928.76	1014.19	997.79	910.20	790.58	678.53	590.49	528.39
13.00	DISCHG	484.95	455.05	435.90	425.59	422.01	424.09	430.48	439.96	451.18	463.17
14.00	DISCHG	475.59	488.33	500.89	512.60	523.41	533.30	541.79	548.93	554.75	559.15
15.00	DISCHG	562.35	564.92	566.91	568.01	567.98	566.36	562.79	557.76	551.95	545.62
16.00	DISCHG	538.87	531.77	524.19	516.03	507.28	497.83	487.42	475.94	463.43	449.97
17.00	DISCHG	435.97	421.97	408.51	395.82	383.81	372.53	362.14	352.48	343.09	333.86
18.00	DISCHG	324.62	315.30	306.11	297.33	289.03	281.31	274.20	267.60	261.28	255.25
19.00	DISCHG	249.46	243.85	238.36	233.02	227.82	222.81	218.05	213.50	209.05	204.59
20.00	DISCHG	199.94	194.99	189.96	185.09	180.49	176.25	172.38	168.79	165.40	162.20
21.00	DISCHG	159.16	156.25	153.47	150.82	148.24	145.72	143.25	140.83	138.51	136.29
22.00	DISCHG	134.18	132.13	130.14	128.21	126.33	124.51	122.75	121.05	119.40	117.82
23.00	DISCHG	116.30	114.84	113.44	112.10	110.80	109.53	108.31	107.12	105.90	104.51
24.00	DISCHG	102.76	100.32	97.09	93.01	88.48	84.10	80.22	76.97	74.33	72.18
25.00	DISCHG	70.37	68.78	67.35	66.02	64.75	63.52	62.32	61.12	59.89	58.63
26.00	DISCHG	57.33	55.99	54.62	53.22	51.77	50.32	48.83	47.33	45.81	44.28
27.00	DISCHG	42.75	41.22	39.69	38.17	36.66	35.16	33.68	32.22	30.79	29.39
28.00	DISCHG	28.02	26.68	25.38	24.11	22.89	21.72	20.63	19.59	18.59	17.65
29.00	DISCHG	16.75	15.90	15.10	14.34	13.63	12.96	12.33	11.73	11.16	10.62

RUNOFF VOLUME ABOVE BASEFLOW = 3.99 WATERSHED INCHES, 4733.66 CFS-HRS, 391.19 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 5, ALTERNATE 1, STORM 5, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 6
OUTPUT HYDROGRAPH= 6
AREA= .09 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= .45 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0600 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.16	201.60	(RUNOFF)
16.45	7.91	(RUNOFF)
19.66	5.33	(RUNOFF)
23.65	4.04	(RUNOFF)

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .09 SQ.MI.

TIME(HRS)											
6.00	DISCHG	.00	.00	.00	.00	.00	.00	.02	.05	.09	.15
7.00	DISCHG	.21	.27	.33	.39	.45	.52	.58	.64	.70	.76
8.00	DISCHG	.82	.88	.98	1.09	1.23	1.39	1.55	1.69	1.82	1.93
9.00	DISCHG	2.04	2.16	2.32	2.50	2.69	2.85	3.01	3.20	3.43	3.65
10.00	DISCHG	3.84	4.03	4.26	4.54	4.89	5.35	5.89	6.57	7.36	8.24
11.00	DISCHG	9.21	10.22	11.34	12.53	13.89	15.73	20.50	32.34	53.61	89.86
12.00	DISCHG	145.70	193.87	198.68	163.19	119.11	86.35	65.39	51.74	42.71	36.42
13.00	DISCHG	31.77	28.15	25.21	22.87	20.99	19.53	18.34	17.20	16.14	15.22
14.00	DISCHG	14.45	13.81	13.22	12.67	12.14	11.61	11.10	10.58	10.09	9.70
15.00	DISCHG	9.46	9.33	9.25	9.19	9.04	8.75	8.44	8.20	8.06	7.98
16.00	DISCHG	7.94	7.92	7.91	7.90	7.90	7.90	7.84	7.63	7.32	7.04
17.00	DISCHG	6.85	6.75	6.69	6.66	6.64	6.63	6.63	6.62	6.60	6.48
18.00	DISCHG	6.20	5.88	5.64	5.50	5.42	5.38	5.35	5.34	5.33	5.33
19.00	DISCHG	5.32	5.32	5.32	5.33	5.33	5.33	5.33	5.33	5.32	5.18
20.00	DISCHG	4.90	4.58	4.34	4.20	4.12	4.07	4.05	4.03	4.02	4.02
21.00	DISCHG	4.02	4.02	4.02	4.02	4.02	4.02	4.02	4.02	4.02	4.02
22.00	DISCHG	4.02	4.02	4.02	4.03	4.03	4.03	4.03	4.03	4.03	4.03
23.00	DISCHG	4.03	4.03	4.03	4.03	4.03	4.04	4.04	4.04	4.02	3.89
24.00	DISCHG	3.60	3.16	2.48	1.68	1.01	.58	.33	.19	.11	.06
25.00	DISCHG	.03	.02	.01	.00						

RUNOFF VOLUME ABOVE BASEFLOW = 4.00 WATERSHED INCHES, 232.46 CFS-HRS, 19.21 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 6, ALTERNATE 1, STORM 5, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 7
INPUT HYDROGRAPHS= 5,6 OUTPUT HYDROGRAPH= 1
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.30	1177.50	(NULL)
15.34	577.28	(NULL)

TIME(HRS)		FIRST HYDROGRAPH POINT =	.00 HOURS		TIME INCREMENT =	.10 HOURS		DRAINAGE AREA =	1.93 SQ.MI.		
6.00	DISCHG	.00	.00	.00	.00	.00	.01	.06	.17	.35	.62
7.00	DISCHG	.95	1.32	1.73	2.17	2.62	3.09	3.56	4.04	4.53	5.02
8.00	DISCHG	5.52	6.06	6.69	7.44	8.34	9.38	10.53	11.71	12.89	14.04
9.00	DISCHG	15.17	16.32	17.59	19.01	20.53	22.10	23.71	25.46	27.35	29.34
10.00	DISCHG	31.35	33.41	35.59	38.03	40.83	44.14	48.07	52.73	58.17	64.39
11.00	DISCHG	71.36	79.04	87.42	96.57	106.74	119.44	142.99	189.66	281.02	440.25
12.00	DISCHG	679.60	942.86	1127.44	1177.38	1116.91	996.55	855.97	730.28	633.20	564.81
13.00	DISCHG	516.72	483.20	461.11	448.46	443.00	443.62	448.82	457.15	467.32	478.39
14.00	DISCHG	490.04	502.14	514.10	525.26	535.54	544.91	552.89	559.50	564.84	568.85
15.00	DISCHG	571.81	574.24	576.16	577.21	577.02	575.11	571.23	565.96	560.01	553.60
16.00	DISCHG	546.81	539.68	532.10	523.93	515.18	505.73	495.26	483.58	470.75	457.00
17.00	DISCHG	442.82	428.72	415.20	402.48	390.45	379.16	368.77	359.10	349.69	340.34
18.00	DISCHG	330.82	321.18	311.75	302.83	294.46	286.69	279.56	272.93	266.61	260.57
19.00	DISCHG	254.79	249.17	243.69	238.35	233.15	228.14	223.38	218.84	214.36	209.77
20.00	DISCHG	204.84	199.58	194.31	189.29	184.61	180.33	176.43	172.82	169.42	166.22
21.00	DISCHG	163.18	160.27	157.49	154.83	152.26	149.73	147.27	144.85	142.53	140.31
22.00	DISCHG	138.20	136.15	134.16	132.23	130.36	128.54	126.78	125.07	123.43	121.85
23.00	DISCHG	120.34	118.88	117.48	116.13	114.83	113.57	112.35	111.15	109.92	108.40
24.00	DISCHG	106.36	103.48	99.57	94.69	89.49	84.68	80.55	77.16	74.44	72.24
25.00	DISCHG	70.40	68.80	67.36	66.02	64.75	63.52	62.32	61.12	59.89	58.63
26.00	DISCHG	57.33	55.99	54.62	53.22	51.77	50.32	48.83	47.33	45.81	44.28
27.00	DISCHG	42.75	41.22	39.69	38.17	36.66	35.16	33.68	32.22	30.79	29.39
28.00	DISCHG	28.02	26.68	25.38	24.11	22.89	21.72	20.63	19.59	18.59	17.65
29.00	DISCHG	16.75	15.90	15.10	14.34	13.63	12.96	12.33	11.73	11.16	10.62

RUNOFF VOLUME ABOVE BASEFLOW = 3.99 WATERSHED INCHES, 4966.12 CFS-HRS, 410.40 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 7, ALTERNATE 1, STORM 5, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 8
OUTPUT HYDROGRAPH= 7
AREA= .06 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= .25 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0333 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.05	176.45	(RUNOFF)
23.65	2.70	(RUNOFF)

TIME(HRS)		FIRST HYDROGRAPH POINT =	.00 HOURS		TIME INCREMENT =	.10 HOURS		DRAINAGE AREA =	.06 SQ.MI.		
6.00	DISCHG	.00	.00	.00	.00	.00	.01	.03	.07	.11	.16
7.00	DISCHG	.20	.24	.29	.33	.37	.41	.45	.49	.53	.57
8.00	DISCHG	.61	.67	.77	.86	.98	1.10	1.20	1.27	1.34	1.41
9.00	DISCHG	1.47	1.57	1.74	1.87	1.97	2.05	2.18	2.38	2.54	2.65
10.00	DISCHG	2.75	2.89	3.12	3.33	3.70	4.09	4.52	5.20	5.74	6.47
11.00	DISCHG	7.21	7.88	8.81	9.59	10.87	12.22	19.93	40.13	59.39	109.08
12.00	DISCHG	166.71	169.20	104.08	60.90	40.94	30.22	25.25	21.84	20.03	18.16
13.00	DISCHG	16.43	15.32	13.99	13.18	12.35	11.63	11.06	10.22	9.72	9.26

14.00	DISCHG	8.88	8.59	8.17	7.90	7.52	7.17	6.89	6.47	6.23	6.14
15.00	DISCHG	6.11	6.10	6.10	6.07	5.78	5.46	5.33	5.28	5.26	5.26
16.00	DISCHG	5.26	5.26	5.26	5.27	5.27	5.27	5.13	4.76	4.53	4.45
17.00	DISCHG	4.42	4.41	4.41	4.41	4.41	4.41	4.41	4.42	4.38	4.09
18.00	DISCHG	3.76	3.62	3.57	3.55	3.55	3.54	3.54	3.55	3.55	3.55
19.00	DISCHG	3.55	3.55	3.55	3.55	3.55	3.56	3.56	3.56	3.52	3.23
20.00	DISCHG	2.89	2.75	2.70	2.68	2.68	2.67	2.67	2.67	2.68	2.68
21.00	DISCHG	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68
22.00	DISCHG	2.68	2.68	2.68	2.68	2.69	2.69	2.69	2.69	2.69	2.69
23.00	DISCHG	2.69	2.69	2.69	2.69	2.69	2.69	2.69	2.69	2.66	2.36
24.00	DISCHG	2.02	1.59	.77	.28	.10	.04	.01	.00		

RUNOFF VOLUME ABOVE BASEFLOW = 4.01 WATERSHED INCHES, 155.40 CFS-HRS, 12.84 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 8, ALTERNATE 1, STORM 5, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 9
INPUT HYDROGRAPHS= 1,7 OUTPUT HYDROGRAPH= 2
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.26	1246.06	(NULL)
15.32	583.30	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.99 SQ.MI.

6.00	DISCHG	.00	.00	.00	.00	.00	.01	.09	.24	.47	.78
7.00	DISCHG	1.15	1.57	2.02	2.50	2.99	3.50	4.01	4.53	5.06	5.59
8.00	DISCHG	6.13	6.73	7.46	8.30	9.31	10.48	11.72	12.98	14.23	15.45
9.00	DISCHG	16.64	17.90	19.33	20.88	22.50	24.15	25.89	27.83	29.88	31.99
10.00	DISCHG	34.09	36.29	38.71	41.36	44.53	48.23	52.59	57.94	63.91	70.86
11.00	DISCHG	78.56	86.92	96.23	106.16	117.61	131.66	162.92	229.79	340.41	549.34
12.00	DISCHG	846.30	1112.05	1231.52	1238.28	1157.85	1026.77	881.22	752.12	653.23	582.97
13.00	DISCHG	533.15	498.53	475.10	461.64	455.35	455.25	459.88	467.38	477.03	487.65
14.00	DISCHG	498.92	510.73	522.27	533.16	543.07	552.08	559.78	565.97	571.07	574.99
15.00	DISCHG	577.92	580.35	582.27	583.28	582.81	580.57	576.56	571.23	565.27	558.86
16.00	DISCHG	552.07	544.94	537.36	529.20	520.45	511.00	500.39	488.34	475.28	461.45
17.00	DISCHG	447.24	433.13	419.61	406.89	394.86	383.57	373.18	363.52	354.08	344.42
18.00	DISCHG	334.58	324.80	315.32	306.38	298.00	290.23	283.10	276.48	270.15	264.12
19.00	DISCHG	258.34	252.72	247.24	241.90	236.71	231.70	226.93	222.39	217.89	213.00
20.00	DISCHG	207.74	202.33	197.01	191.97	187.29	183.00	179.10	175.50	172.10	168.90
21.00	DISCHG	165.86	162.94	160.17	157.51	154.94	152.41	149.95	147.54	145.21	142.99
22.00	DISCHG	140.88	138.83	136.85	134.92	133.04	131.22	129.46	127.76	126.12	124.54
23.00	DISCHG	123.02	121.57	120.17	118.82	117.52	116.26	115.04	113.85	112.58	110.76
24.00	DISCHG	108.38	105.07	100.34	94.97	89.59	84.72	80.56	77.16	74.44	72.24
25.00	DISCHG	70.40	68.80	67.36	66.02	64.75	63.52	62.32	61.12	59.89	58.63
26.00	DISCHG	57.33	55.99	54.62	53.22	51.77	50.32	48.83	47.33	45.81	44.28
27.00	DISCHG	42.75	41.22	39.69	38.17	36.66	35.16	33.68	32.22	30.79	29.39

28.00	DISCHG	28.02	26.68	25.38	24.11	22.89	21.72	20.63	19.59	18.59	17.65
29.00	DISCHG	16.75	15.90	15.10	14.34	13.63	12.96	12.33	11.73	11.16	10.62

RUNOFF VOLUME ABOVE BASEFLOW = 3.99 WATERSHED INCHES, 5121.52 CFS-HRS, 423.24 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 9, ALTERNATE 1, STORM 5, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 10
OUTPUT HYDROGRAPH= 3
AREA= .50 SQ MI INPUT RUNOFF CURVE= 77. TIME OF CONCENTRATION= 1.00 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0952 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.51	656.64	(RUNOFF)
23.67	22.18	(RUNOFF)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .50 SQ.MI.

6.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03
7.00	DISCHG	.06	.13	.23	.37	.55	.76	1.00	1.26	1.54	1.83
8.00	DISCHG	2.12	2.43	2.76	3.12	3.52	3.99	4.51	5.08	5.70	6.33
9.00	DISCHG	6.97	7.62	8.28	8.96	9.68	10.43	11.23	12.06	12.94	13.86
10.00	DISCHG	14.82	15.82	16.84	17.93	19.12	20.47	22.04	23.89	26.09	28.71
11.00	DISCHG	31.75	35.24	39.17	43.55	48.45	54.26	63.02	77.47	104.05	152.76
12.00	DISCHG	231.81	337.44	456.15	563.76	633.10	656.44	640.83	596.64	534.24	464.34
13.00	DISCHG	398.59	345.05	301.75	265.61	234.78	208.58	186.53	167.60	151.46	137.65
14.00	DISCHG	125.95	115.91	107.21	99.66	93.06	87.23	82.09	77.44	73.15	69.12
15.00	DISCHG	65.41	62.14	59.43	57.34	55.63	54.14	52.76	51.40	50.09	48.85
16.00	DISCHG	47.74	46.79	45.99	45.38	44.91	44.55	44.22	43.85	43.37	42.73
17.00	DISCHG	41.95	41.11	40.26	39.48	38.80	38.24	37.81	37.49	37.21	36.92
18.00	DISCHG	36.54	36.00	35.29	34.47	33.62	32.80	32.06	31.43	30.94	30.56
19.00	DISCHG	30.27	30.04	29.87	29.73	29.63	29.55	29.49	29.44	29.39	29.26
20.00	DISCHG	29.01	28.57	27.93	27.17	26.35	25.56	24.84	24.23	23.74	23.37
21.00	DISCHG	23.08	22.86	22.69	22.55	22.45	22.37	22.30	22.26	22.22	22.19
22.00	DISCHG	22.17	22.16	22.15	22.14	22.14	22.14	22.13	22.13	22.14	22.14
23.00	DISCHG	22.14	22.15	22.15	22.16	22.16	22.17	22.17	22.18	22.16	22.06
24.00	DISCHG	21.83	21.29	20.33	18.91	17.01	14.77	12.42	10.16	8.12	6.37
25.00	DISCHG	4.95	3.86	3.02	2.36	1.84	1.44	1.12	.87	.67	.52
26.00	DISCHG	.40	.31	.24	.18	.13	.10	.07	.05	.03	.02
27.00	DISCHG	.01	.00								

RUNOFF VOLUME ABOVE BASEFLOW = 3.90 WATERSHED INCHES, 1257.65 CFS-HRS, 103.93 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 10, ALTERNATE 1, STORM 5, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 11
INPUT HYDROGRAPHS= 2,3 OUTPUT HYDROGRAPH= 4
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.34	1812.67	(NULL)
14.84	644.29	(NULL)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS			DRAINAGE AREA =		2.49 SQ.MI.
6.00	DISCHG	.00	.00	.00	.00	.00	.01	.09	.24	.48	.80
7.00	DISCHG	1.21	1.69	2.25	2.87	3.54	4.26	5.01	5.79	6.60	7.42
8.00	DISCHG	8.25	9.16	10.22	11.42	12.84	14.47	16.23	18.07	19.93	21.78
9.00	DISCHG	23.61	25.52	27.61	29.84	32.18	34.59	37.12	39.89	42.82	45.85
10.00	DISCHG	48.92	52.11	55.56	59.28	63.65	68.70	74.63	81.83	90.00	99.57
11.00	DISCHG	110.32	122.16	135.40	149.71	166.06	185.93	225.94	307.25	444.46	702.10
12.00	DISCHG	1078.12	1449.49	1687.66	1802.04	1790.95	1683.21	1522.06	1348.76	1187.47	1047.31
13.00	DISCHG	931.74	843.57	776.85	727.25	690.14	663.83	646.41	634.98	628.50	625.30
14.00	DISCHG	624.88	626.64	629.49	632.82	636.12	639.31	641.87	643.41	644.22	644.11
15.00	DISCHG	643.33	642.48	641.70	640.62	638.44	634.71	629.31	622.64	615.36	607.71
16.00	DISCHG	599.81	591.73	583.35	574.57	565.36	555.56	544.61	532.19	518.65	504.19
17.00	DISCHG	489.19	474.23	459.88	446.37	433.66	421.81	410.99	401.01	391.29	381.35
18.00	DISCHG	371.12	360.81	350.61	340.85	331.62	323.03	315.16	307.92	301.09	294.68
19.00	DISCHG	288.61	282.76	277.10	271.63	266.33	261.24	256.42	251.84	247.27	242.26
20.00	DISCHG	236.75	230.90	224.94	219.14	213.64	208.56	203.94	199.72	195.84	192.26
21.00	DISCHG	188.94	185.80	182.85	180.06	177.38	174.78	172.25	169.79	167.43	165.19
22.00	DISCHG	163.06	160.99	159.00	157.06	155.18	153.36	151.60	149.90	148.25	146.68
23.00	DISCHG	145.17	143.71	142.32	140.98	139.69	138.43	137.21	136.03	134.73	132.82
24.00	DISCHG	130.21	126.36	120.67	113.88	106.60	99.49	92.99	87.31	82.56	78.62
25.00	DISCHG	75.36	72.66	70.38	68.38	66.59	64.96	63.44	61.99	60.56	59.15
26.00	DISCHG	57.73	56.30	54.86	53.40	51.91	50.42	48.90	47.38	45.84	44.30
27.00	DISCHG	42.76	41.22	39.69	38.17	36.66	35.16	33.68	32.22	30.79	29.39
28.00	DISCHG	28.02	26.68	25.38	24.11	22.89	21.72	20.63	19.59	18.59	17.65
29.00	DISCHG	16.75	15.90	15.10	14.34	13.63	12.96	12.33	11.73	11.16	10.62

RUNOFF VOLUME ABOVE BASEFLOW = 3.97 WATERSHED INCHES, 6379.17 CFS-HRS, 527.17 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 11, ALTERNATE 1, STORM 5, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 12
OUTPUT HYDROGRAPH= 5
AREA= .57 SQ MI INPUT RUNOFF CURVE= 77. TIME OF CONCENTRATION= 1.30 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0963 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.73	622.56	(RUNOFF)
23.66	25.29	(RUNOFF)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS			DRAINAGE AREA =		.57 SQ.MI.
6.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
7.00	DISCHG	.03	.07	.13	.22	.35	.50	.69	.91	1.16	1.43
8.00	DISCHG	1.73	2.03	2.36	2.72	3.10	3.53	4.00	4.52	5.10	5.71
9.00	DISCHG	6.35	7.03	7.72	8.45	9.19	9.97	10.79	11.64	12.54	13.47

10.00	DISCHG	14.45	15.48	16.55	17.67	18.87	20.16	21.62	23.28	25.19	27.43
11.00	DISCHG	30.02	33.03	36.47	40.37	44.78	50.02	57.20	67.91	85.59	116.50
12.00	DISCHG	165.25	231.58	312.86	403.20	490.24	559.81	603.50	621.68	616.34	592.23
13.00	DISCHG	554.39	507.20	454.40	403.44	359.35	322.18	290.40	262.79	238.24	216.31
14.00	DISCHG	197.03	180.11	165.16	151.95	140.28	129.99	120.94	112.88	105.66	99.16
15.00	DISCHG	93.28	88.01	83.33	79.19	75.56	72.38	69.57	66.97	64.51	62.22
16.00	DISCHG	60.10	58.19	56.59	55.30	54.25	53.36	52.60	51.92	51.27	50.60
17.00	DISCHG	49.86	49.05	48.19	47.33	46.50	45.71	45.01	44.38	43.84	43.35
18.00	DISCHG	42.88	42.37	41.78	41.09	40.31	39.50	38.69	37.91	37.19	36.54
19.00	DISCHG	35.97	35.50	35.13	34.82	34.57	34.36	34.19	34.06	33.93	33.78
20.00	DISCHG	33.57	33.28	32.86	32.31	31.66	30.94	30.20	29.47	28.80	28.19
21.00	DISCHG	27.65	27.20	26.85	26.56	26.32	26.13	25.96	25.83	25.72	25.63
22.00	DISCHG	25.55	25.49	25.45	25.41	25.38	25.35	25.33	25.32	25.31	25.30
23.00	DISCHG	25.29	25.29	25.29	25.29	25.29	25.29	25.29	25.29	25.28	25.22
24.00	DISCHG	25.08	24.77	24.21	23.34	22.11	20.53	18.65	16.60	14.50	12.44
25.00	DISCHG	10.51	8.78	7.26	5.98	4.93	4.08	3.38	2.80	2.31	1.91
26.00	DISCHG	1.58	1.30	1.07	.88	.73	.60	.49	.40	.33	.27
27.00	DISCHG	.22	.17	.14	.11	.08	.06	.05	.03	.02	.01
28.00	DISCHG	.01	.00								

RUNOFF VOLUME ABOVE BASEFLOW = 3.90 WATERSHED INCHES, 1436.03 CFS-HRS, 118.67 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 12, ALTERNATE 1, STORM 5, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 13
INPUT HYDROGRAPHS= 4,5 OUTPUT HYDROGRAPH= 6
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.42	2282.76	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 3.06 SQ.MI.

6.00	DISCHG	.00	.00	.00	.00	.00	.01	.09	.24	.48	.82
7.00	DISCHG	1.24	1.77	2.38	3.09	3.89	4.76	5.70	6.71	7.76	8.85
8.00	DISCHG	9.98	11.20	12.58	14.13	15.94	18.00	20.23	22.59	25.02	27.49
9.00	DISCHG	29.97	32.54	35.33	38.29	41.38	44.56	47.91	51.54	55.36	59.32
10.00	DISCHG	63.37	67.59	72.11	76.96	82.52	88.87	96.24	105.11	115.20	126.99
11.00	DISCHG	140.34	155.19	171.87	190.09	210.84	235.94	283.14	375.16	530.04	818.60
12.00	DISCHG	1243.37	1681.07	2000.52	2205.24	2281.20	2243.03	2125.56	1970.44	1803.80	1639.54
13.00	DISCHG	1486.13	1350.77	1231.25	1130.68	1049.49	986.01	936.81	897.77	866.73	841.62
14.00	DISCHG	821.91	806.75	794.65	784.77	776.40	769.30	762.80	756.29	749.88	743.28
15.00	DISCHG	736.62	730.49	725.03	719.81	713.99	707.10	698.89	689.60	679.87	669.93
16.00	DISCHG	659.91	649.92	639.94	629.87	619.61	608.91	597.21	584.11	569.92	554.78
17.00	DISCHG	539.05	523.28	508.07	493.70	480.16	467.52	456.00	445.39	435.13	424.70
18.00	DISCHG	414.00	403.17	392.39	381.94	371.94	362.54	353.86	345.83	338.28	331.22
19.00	DISCHG	324.58	318.27	312.23	306.45	300.90	295.61	290.62	285.89	281.20	276.04
20.00	DISCHG	270.32	264.18	257.81	251.45	245.30	239.50	234.15	229.20	224.64	220.45

21.00	DISCHG	216.59	213.01	209.70	206.62	203.71	200.90	198.21	195.62	193.14	190.81
22.00	DISCHG	188.61	186.49	184.44	182.47	180.56	178.71	176.93	175.22	173.56	171.98
23.00	DISCHG	170.46	169.00	167.61	166.27	164.97	163.72	162.50	161.32	160.01	158.04
24.00	DISCHG	155.29	151.13	144.88	137.22	128.71	120.02	111.64	103.92	97.05	91.06
25.00	DISCHG	85.87	81.44	77.64	74.36	71.53	69.04	66.82	64.78	62.88	61.06
26.00	DISCHG	59.31	57.60	55.93	54.28	52.64	51.01	49.39	47.78	46.17	44.57
27.00	DISCHG	42.97	41.39	39.83	38.28	36.74	35.23	33.73	32.26	30.82	29.41
28.00	DISCHG	28.03	26.68	25.38	24.11	22.89	21.72	20.63	19.59	18.59	17.65
29.00	DISCHG	16.75	15.90	15.10	14.34	13.63	12.96	12.33	11.73	11.16	10.62

RUNOFF VOLUME ABOVE BASEFLOW = 3.96 WATERSHED INCHES, 7815.20 CFS-HRS, 645.85 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 13, ALTERNATE 1, STORM 5, ADDED TO OUTPUT HYDROGRAPH FILE ---

EXECUTIVE CONTROL OPERATION ENDJOB

RECORD ID

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID		STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1														
XSECTION	1	RUNOFF	1.26	2	2	.10	.0	2.88	24.00	1.04	---	15.61	124.44	98.8
XSECTION	2	RUNOFF	.27	2	2	.10	.0	2.88	24.00	1.04	---	12.41	104.17	385.8
XSECTION	3	ADDHYD	1.53	2	2	.10	.0	2.88	24.00	1.04	---	15.55	133.48	87.2
XSECTION	4	RUNOFF	.31	2	2	.10	.0	2.88	24.00	1.04	---	12.32	134.87	435.1
XSECTION	5	ADDHYD	1.84	2	2	.10	.0	2.88	24.00	1.04	---	12.37	243.62	132.4
XSECTION	6	RUNOFF	.09	2	2	.10	.0	2.88	24.00	1.04	---	12.18	50.95	566.1
XSECTION	7	ADDHYD	1.93	2	2	.10	.0	2.88	24.00	1.04	---	12.32	283.44	146.9
XSECTION	8	RUNOFF	.06	2	2	.10	.0	2.88	24.00	1.05	---	12.07	46.01	766.9
XSECTION	9	ADDHYD	1.99	2	2	.10	.0	2.88	24.00	1.04	---	12.30	299.97	150.7
XSECTION	10	RUNOFF	.50	2	2	.10	.0	2.88	24.00	.99	---	12.56	154.79	309.6
XSECTION	11	ADDHYD	2.49	2	2	.10	.0	2.88	24.00	1.03	---	12.38	430.82	173.0
XSECTION	12	RUNOFF	.57	2	2	.10	.0	2.88	24.00	.99	---	12.79	146.54	257.1
XSECTION	13	ADDHYD	3.06	2	2	.10	.0	2.88	24.00	1.02	---	12.46	537.09	175.5
ALTERNATE 1 STORM 2														
XSECTION	1	RUNOFF	1.26	2	2	.10	.0	4.08	24.00	1.94	---	15.51	241.82	191.9
XSECTION	2	RUNOFF	.27	2	2	.10	.0	4.08	24.00	1.95	---	12.39	202.42	749.7
XSECTION	3	ADDHYD	1.53	2	2	.10	.0	4.08	24.00	1.94	---	15.47	257.25	168.1
XSECTION	4	RUNOFF	.31	2	2	.10	.0	4.08	24.00	1.95	---	12.31	261.43	843.3
XSECTION	5	ADDHYD	1.84	2	2	.10	.0	4.08	24.00	1.94	---	12.35	480.66	261.2
XSECTION	6	RUNOFF	.09	2	2	.10	.0	4.08	24.00	1.95	---	12.17	97.95	1088.3
XSECTION	7	ADDHYD	1.93	2	2	.10	.0	4.08	24.00	1.94	---	12.31	556.51	288.3
XSECTION	8	RUNOFF	.06	2	2	.10	.0	4.08	24.00	1.95	---	12.06	86.96	1449.3
XSECTION	9	ADDHYD	1.99	2	2	.10	.0	4.08	24.00	1.94	---	12.28	588.94	296.0
XSECTION	10	RUNOFF	.50	2	2	.10	.0	4.08	24.00	1.87	---	12.53	309.31	618.6
XSECTION	11	ADDHYD	2.49	2	2	.10	.0	4.08	24.00	1.93	---	12.36	852.34	342.3
XSECTION	12	RUNOFF	.57	2	2	.10	.0	4.08	24.00	1.88	---	12.75	292.51	513.2
XSECTION	13	ADDHYD	3.06	2	2	.10	.0	4.08	24.00	1.92	---	12.43	1071.52	350.2
ALTERNATE 1 STORM 3														
XSECTION	1	RUNOFF	1.26	2	2	.10	.0	4.32	24.00	2.13	---	15.50	267.01	211.9
XSECTION	2	RUNOFF	.27	2	2	.10	.0	4.32	24.00	2.14	---	12.39	223.31	827.1
XSECTION	3	ADDHYD	1.53	2	2	.10	.0	4.32	24.00	2.13	---	15.46	283.74	185.5
XSECTION	4	RUNOFF	.31	2	2	.10	.0	4.32	24.00	2.14	---	12.31	288.31	930.0

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID		STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION			RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
							BEGIN (HR)	AMOUNT (IN)	DURATION (HR)		ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE 1 STORM 3														
XSECTION	5	ADDHYD	1.84	2	2	.10	.0	4.32	24.00	2.13	---	12.34	531.59	288.9
XSECTION	6	RUNOFF	.09	2	2	.10	.0	4.32	24.00	2.14	---	12.17	107.90	1198.9
XSECTION	7	ADDHYD	1.93	2	2	.10	.0	4.32	24.00	2.13	---	12.31	615.26	318.8
XSECTION	8	RUNOFF	.06	2	2	.10	.0	4.32	24.00	2.15	---	12.06	95.59	1593.2
XSECTION	9	ADDHYD	1.99	2	2	.10	.0	4.32	24.00	2.13	---	12.27	651.10	327.2
XSECTION	10	RUNOFF	.50	2	2	.10	.0	4.32	24.00	2.06	---	12.53	342.34	684.7
XSECTION	11	ADDHYD	2.49	2	2	.10	.0	4.32	24.00	2.12	---	12.36	942.95	378.7
XSECTION	12	RUNOFF	.57	2	2	.10	.0	4.32	24.00	2.07	---	12.75	324.11	568.6
XSECTION	13	ADDHYD	3.06	2	2	.10	.0	4.32	24.00	2.11	---	12.43	1186.22	387.7
ALTERNATE 1 STORM 4														
XSECTION	1	RUNOFF	1.26	2	2	.10	.0	5.52	24.00	3.14	---	15.45	398.19	316.0
XSECTION	2	RUNOFF	.27	2	2	.10	.0	5.52	24.00	3.16	---	12.38	331.40	1227.4
XSECTION	3	ADDHYD	1.53	2	2	.10	.0	5.52	24.00	3.14	---	15.41	421.47	275.5
XSECTION	4	RUNOFF	.31	2	2	.10	.0	5.52	24.00	3.15	---	12.30	427.28	1378.3
XSECTION	5	ADDHYD	1.84	2	2	.10	.0	5.52	24.00	3.14	---	12.34	797.82	433.6
XSECTION	6	RUNOFF	.09	2	2	.10	.0	5.52	24.00	3.16	---	12.17	159.29	1769.9
XSECTION	7	ADDHYD	1.93	2	2	.10	.0	5.52	24.00	3.14	---	12.30	921.90	477.7
XSECTION	8	RUNOFF	.06	2	2	.10	.0	5.52	24.00	3.16	---	12.06	140.01	2333.5
XSECTION	9	ADDHYD	1.99	2	2	.10	.0	5.52	24.00	3.14	---	12.26	975.58	490.2
XSECTION	10	RUNOFF	.50	2	2	.10	.0	5.52	24.00	3.06	---	12.52	514.08	1028.2
XSECTION	11	ADDHYD	2.49	2	2	.10	.0	5.52	24.00	3.13	---	12.35	1418.30	569.6
XSECTION	12	RUNOFF	.57	2	2	.10	.0	5.52	24.00	3.07	---	12.73	487.12	854.6
XSECTION	13	ADDHYD	3.06	2	2	.10	.0	5.52	24.00	3.12	---	12.42	1784.45	583.2
ALTERNATE 1 STORM 5														
XSECTION	1	RUNOFF	1.26	2	2	.10	.0	6.48	24.00	3.98	---	15.42	507.33	402.6
XSECTION	2	RUNOFF	.27	2	2	.10	.0	6.48	24.00	4.00	---	12.37	420.66	1558.0
XSECTION	3	ADDHYD	1.53	2	2	.10	.0	6.48	24.00	3.98	---	15.38	535.95	350.3
XSECTION	4	RUNOFF	.31	2	2	.10	.0	6.48	24.00	4.00	---	12.29	541.94	1748.2
XSECTION	5	ADDHYD	1.84	2	2	.10	.0	6.48	24.00	3.99	---	12.33	1020.04	554.4
XSECTION	6	RUNOFF	.09	2	2	.10	.0	6.48	24.00	4.00	---	12.16	201.60	2240.0
XSECTION	7	ADDHYD	1.93	2	2	.10	.0	6.48	24.00	3.99	---	12.30	1177.90	610.1
XSECTION	8	RUNOFF	.06	2	2	.10	.0	6.48	24.00	4.01	---	12.05	176.45	2940.8
XSECTION	9	ADDHYD	1.99	2	2	.10	.0	6.48	24.00	3.99	---	12.26	1246.06	626.2
XSECTION	10	RUNOFF	.50	2	2	.10	.0	6.48	24.00	3.90	---	12.51	656.64	1313.3

XSECTION	11	ADDHYD	2.49	2	2	.10	.0	6.48	24.00	3.97	---	12.34	1812.67	728.0
XSECTION	12	RUNOFF	.57	2	2	.10	.0	6.48	24.00	3.90	---	12.73	622.56	1092.2

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 5													
XSECTION 13	ADDHYD	3.06	2	2	.10	.0	6.48	24.00	3.96	---	12.42	2282.76	746.0

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2	3	4	5
XSECTION 1	1.26					
ALTERNATE 1		124.44	241.82	267.01	398.19	507.33
XSECTION 2	.27					
ALTERNATE 1		104.17	202.42	223.31	331.40	420.66
XSECTION 3	1.53					
ALTERNATE 1		133.48	257.25	283.74	421.47	535.95
XSECTION 4	.31					
ALTERNATE 1		134.87	261.43	288.31	427.28	541.94
XSECTION 5	1.84					
ALTERNATE 1		243.62	480.66	531.59	797.82	1020.04
XSECTION 6	.09					
ALTERNATE 1		50.95	97.95	107.90	159.29	201.60
XSECTION 7	1.93					
ALTERNATE 1		283.44	556.51	615.26	921.90	1177.50
XSECTION 8	.06					
ALTERNATE 1		46.01	86.96	95.59	140.01	176.45
XSECTION 9	1.99					
ALTERNATE 1		299.97	588.94	651.10	975.58	1246.06
XSECTION 10	.50					
ALTERNATE 1		154.79	309.31	342.34	514.08	656.64
XSECTION 11	2.49					
ALTERNATE 1		430.82	852.34	942.95	1418.30	1812.67
XSECTION 12	.57					
ALTERNATE 1		146.54	292.51	324.11	487.12	622.56
XSECTION 13	3.06					
ALTERNATE 1		537.09	1071.52	1186.22	1784.45	2282.76

Appendix

TR-20 Model - Alternative One

```
******************80-80 LIST OF INPUT DATA FOR TR-20 HYDROLOGY******************

JOB TR-20                    FULLPRINT          SUMMARY
TITLE 001 EDWARDS REGIONAL DETENTION STUDY - ALTERNATIVE 1
TITLE 001 2, 10, 20, 50, 100-YEAR STORM EVENTS
 3 STRUCT      01       893.0       0.0         0.0
 8                      894.0       50.0        25.0
 8                      895.0       75.00       50.0
 8                      896.0       125.0       75.0
 8                      897.0       200.0       100.0
 8                      898.0       300.0       125.0
 8                      899.0       450.0       150.0
 9 ENDTBL
 6 RUNOFF 1 001       1 1.53        81.         3.3         1 1   1 1 1 BASIN H
 6 RESVOR 2    01 1   2 893.0                               1 1 1 1 1 1
 6 RUNOFF 1 002       3 1.52        78.         4.4         1 1   1 1 1 BASIN I
 6 ADDHYD 4 003   2 3 4                                     1 1 1 1 1 1
   ENDATA
 7 INCREM 6             .1
 7 COMPUT 7 001   003   0.0         2.88        1.0         2 2  01  01 2-YR
   ENDCMP 1
 7 COMPUT 7 001   003   0.0         4.08        1.0         2 2  01  02 10-YR
   ENDCMP 1
 7 COMPUT 7 001   003   0.0         4.32        1.0         2 2  01  03 20-YR
   ENDCMP 1
 7 COMPUT 7 001   003   0.0         5.52        1.0         2 2  01  04 50-YR
   ENDCMP 1
 7 COMPUT 7 001   003   0.0         6.48        1.0         2 2  01  05 100-YR
   ENDCMP 1
   ENDJOB 2

*******************************END OF 80-80 LIST*********************************
```

EXECUTIVE CONTROL OPERATION INCREM MAIN TIME INCREMENT = .10 HOURS RECORD ID

EXECUTIVE CONTROL OPERATION COMPUT FROM XSECTION 1 TO XSECTION 3 RECORD ID 2-YR
STARTING TIME = .00 RAIN DEPTH = 2.88 RAIN DURATION= 1.00 RAIN TABLE NO.= 2 ANT. MOIST. COND= 2
ALTERNATE NO.= 1 STORM NO.= 1 MAIN TIME INCREMENT = .10 HOURS

OPERATION RUNOFF CROSS SECTION 1
OUTPUT HYDROGRAPH= 1
AREA= 1.53 SQ MI INPUT RUNOFF CURVE= 81. TIME OF CONCENTRATION= 3.30 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1000 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
14.27	250.65	(RUNOFF)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS			DRAINAGE AREA = 1.53 SQ.MI.		
9.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
10.00	DISCHG	.02	.03	.05	.07	.11	.16	.23	.32	.44	.59
11.00	DISCHG	.79	1.04	1.34	1.72	2.17	2.72	3.50	4.53	6.19	8.86
12.00	DISCHG	12.96	18.24	25.06	32.95	41.96	52.22	63.81	76.93	91.49	107.53
13.00	DISCHG	124.50	142.16	159.34	175.49	190.47	203.80	215.48	225.45	233.56	240.06
14.00	DISCHG	244.72	248.21	250.17	250.58	249.17	246.74	243.44	239.30	234.35	228.48
15.00	DISCHG	221.65	213.87	205.35	196.25	187.35	178.94	171.03	163.81	157.04	150.55
16.00	DISCHG	144.40	138.56	133.10	127.95	123.20	118.63	114.26	110.05	105.96	102.07
17.00	DISCHG	98.42	95.01	91.82	88.86	86.02	83.34	80.78	78.37	76.08	73.90
18.00	DISCHG	71.85	69.90	68.04	66.24	64.51	62.88	61.37	59.91	58.52	57.18
19.00	DISCHG	55.89	54.65	53.46	52.32	51.22	50.17	49.15	48.17	47.23	46.35
20.00	DISCHG	45.50	44.68	43.90	43.16	42.45	41.76	41.08	40.42	39.77	39.14
21.00	DISCHG	38.54	37.95	37.36	36.78	36.21	35.65	35.09	34.54	34.00	33.48
22.00	DISCHG	32.96	32.46	31.97	31.50	31.04	30.60	30.18	29.78	29.41	29.09
23.00	DISCHG	28.81	28.55	28.31	28.10	27.91	27.73	27.57	27.42	27.28	27.15
24.00	DISCHG	27.03	26.89	26.75	26.59	26.40	26.18	25.93	25.64	25.30	24.91
25.00	DISCHG	24.45	23.93	23.35	22.69	21.98	21.22	20.42	19.58	18.71	17.83
26.00	DISCHG	16.94	16.05	15.16	14.28	13.41	12.57	11.76	10.97	10.21	9.49
27.00	DISCHG	8.80	8.15	7.54	6.98	6.46	5.98	5.55	5.15	4.78	4.43
28.00	DISCHG	4.12	3.82	3.55	3.29	3.06	2.84	2.63	2.44	2.26	2.10
29.00	DISCHG	1.94	1.80	1.67	1.55	1.44	1.33	1.23	1.14	1.06	.98

RUNOFF VOLUME ABOVE BASEFLOW = 1.22 WATERSHED INCHES, 1205.27 CFS-HRS, 99.60 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 1, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RESVOR STRUCTURE 1
INPUT HYDROGRAPH= 1 OUTPUT HYDROGRAPH= 2
SURFACE ELEVATION= 893.00

*** WARNING - STRUCTURE 1 DELTA T IS TOO LARGE. O /2 > S /DELTA T OCCURED 48 TIMES STARTING WITH POINT 86

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.00	50.00	894.00
18.18	68.34	894.73

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.53 SQ.MI.

TIME(HRS)											
.00	DISCHG	50.00	49.59	49.18	48.78	48.37	47.98	47.58	47.19	46.80	46.42
.00	ELEV	894.00	893.98	893.97	893.95	893.93	893.92	893.90	893.89	893.87	893.86
1.00	DISCHG	46.03	45.66	45.28	44.91	44.54	44.17	43.81	43.45	43.09	42.73
1.00	ELEV	893.84	893.83	893.81	893.80	893.78	893.77	893.75	893.74	893.72	893.71
2.00	DISCHG	42.38	42.03	41.69	41.34	41.00	40.67	40.33	40.00	39.67	39.34
2.00	ELEV	893.70	893.68	893.67	893.65	893.64	893.63	893.61	893.60	893.59	893.57
3.00	DISCHG	39.02	38.70	38.38	38.06	37.75	37.44	37.13	36.83	36.52	36.22
3.00	ELEV	893.56	893.55	893.54	893.52	893.51	893.50	893.49	893.47	893.46	893.45
4.00	DISCHG	35.93	35.63	35.34	35.05	34.76	34.47	34.19	33.91	33.63	33.35
4.00	ELEV	893.44	893.43	893.41	893.40	893.39	893.38	893.37	893.36	893.35	893.33
5.00	DISCHG	33.08	32.80	32.53	32.27	32.00	31.74	31.48	31.22	30.96	30.70
5.00	ELEV	893.32	893.31	893.30	893.29	893.28	893.27	893.26	893.25	893.24	893.23
6.00	DISCHG	30.45	30.20	29.95	29.71	29.46	29.22	28.98	28.74	28.50	28.27
6.00	ELEV	893.22	893.21	893.20	893.19	893.18	893.17	893.16	893.15	893.14	893.13
7.00	DISCHG	28.04	27.81	27.58	27.35	27.12	26.90	26.68	26.46	26.24	26.03
7.00	ELEV	893.12	893.11	893.10	893.09	893.09	893.08	893.07	893.06	893.05	893.04
8.00	DISCHG	25.81	25.60	25.39	25.18	24.97	24.77	24.56	24.36	24.16	23.96
8.00	ELEV	893.03	893.02	893.02	893.01	893.00	892.99	892.98	892.97	892.97	892.96
9.00	DISCHG	23.77	23.57	23.38	23.18	22.99	22.80	22.62	22.43	22.24	22.06
9.00	ELEV	892.95	892.94	892.93	892.93	892.92	892.91	892.90	892.90	892.89	892.88
10.00	DISCHG	21.88	21.70	21.52	21.35	21.17	21.00	20.83	20.66	20.49	20.33
10.00	ELEV	892.88	892.87	892.86	892.85	892.85	892.84	892.83	892.83	892.82	892.81
11.00	DISCHG	20.16	20.01	19.85	19.70	19.55	19.41	19.28	19.15	19.04	18.94
11.00	ELEV	892.81	892.80	892.79	892.79	892.78	892.78	892.77	892.77	892.76	892.76
12.00	DISCHG	18.88	18.85	18.87	18.96	19.11	19.34	19.66	20.08	20.60	21.25
12.00	ELEV	892.76	892.75	892.76	892.76	892.76	892.77	892.79	892.80	892.82	892.85
13.00	DISCHG	22.03	22.95	24.00	25.18	26.48	27.89	29.38	30.95	32.59	34.27
13.00	ELEV	892.88	892.92	892.96	893.01	893.06	893.12	893.18	893.24	893.30	893.37
14.00	DISCHG	35.98	37.71	39.45	41.19	42.91	44.60	46.25	47.85	49.41	50.91
14.00	ELEV	893.44	893.51	893.58	893.65	893.72	893.78	893.85	893.91	893.98	894.04
15.00	DISCHG	52.34	53.70	54.98	56.18	57.30	58.34	59.30	60.19	61.01	61.77
15.00	ELEV	894.09	894.15	894.20	894.25	894.29	894.33	894.37	894.41	894.44	894.47
16.00	DISCHG	62.48	63.13	63.73	64.28	64.78	65.24	65.67	66.05	66.39	66.70
16.00	ELEV	894.50	894.53	894.55	894.57	894.59	894.61	894.63	894.64	894.66	894.67
17.00	DISCHG	66.98	67.22	67.44	67.63	67.79	67.93	68.05	68.14	68.22	68.27
17.00	ELEV	894.68	894.69	894.70	894.71	894.71	894.72	894.72	894.73	894.73	894.73
18.00	DISCHG	68.31	68.33	68.34	68.33	68.30	68.26	68.21	68.15	68.08	67.99
18.00	ELEV	894.73	894.73	894.73	894.73	894.73	894.73	894.73	894.73	894.72	894.72
19.00	DISCHG	67.90	67.80	67.68	67.56	67.43	67.29	67.15	67.00	66.84	66.67
19.00	ELEV	894.72	894.71	894.71	894.70	894.70	894.69	894.69	894.68	894.67	894.67
20.00	DISCHG	66.50	66.32	66.14	65.96	65.77	65.57	65.37	65.17	64.96	64.75
20.00	ELEV	894.66	894.65	894.65	894.64	894.63	894.62	894.61	894.61	894.60	894.59
21.00	DISCHG	64.54	64.32	64.10	63.88	63.66	63.43	63.20	62.96	62.73	62.49

21.00	ELEV	894.58	894.57	894.56	894.56	894.55	894.54	894.53	894.52	894.51	894.50
22.00	DISCHG	62.25	62.01	61.76	61.51	61.26	61.01	60.76	60.51	60.25	60.00
22.00	ELEV	894.49	894.48	894.47	894.46	894.45	894.44	894.43	894.42	894.41	894.40
23.00	DISCHG	59.74	59.49	59.23	58.98	58.72	58.47	58.21	57.96	57.71	57.46
23.00	ELEV	894.39	894.38	894.37	894.36	894.35	894.34	894.33	894.32	894.31	894.30
24.00	DISCHG	57.21	56.96	56.71	56.46	56.22	55.97	55.72	55.48	55.23	54.98
24.00	ELEV	894.29	894.28	894.27	894.26	894.25	894.24	894.23	894.22	894.21	894.20
25.00	DISCHG	54.73	54.48	54.23	53.97	53.71	53.45	53.18	52.91	52.63	52.34
25.00	ELEV	894.19	894.18	894.17	894.16	894.15	894.14	894.13	894.12	894.11	894.09
26.00	DISCHG	52.06	51.76	51.47	51.16	50.86	50.55	50.23	49.91	49.59	49.26
26.00	ELEV	894.08	894.07	894.06	894.05	894.03	894.02	894.01	894.00	893.98	893.97
27.00	DISCHG	48.93	48.60	48.26	47.92	47.58	47.24	46.90	46.56	46.22	45.88
27.00	ELEV	893.96	893.94	893.93	893.92	893.90	893.89	893.88	893.86	893.85	893.84
28.00	DISCHG	45.53	45.19	44.85	44.51	44.17	43.83	43.49	43.15	42.82	42.48
28.00	ELEV	893.82	893.81	893.79	893.78	893.77	893.75	893.74	893.73	893.71	893.70
29.00	DISCHG	42.15	41.82	41.49	41.16	40.83	40.51	40.19	39.87	39.55	39.23
29.00	ELEV	893.69	893.67	893.66	893.65	893.63	893.62	893.61	893.59	893.58	893.57

RUNOFF VOLUME ABOVE BASEFLOW = 1.35 WATERSHED INCHES, 1335.59 CFS-HRS, 110.37 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR STRUCTURE 1, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 2
OUTPUT HYDROGRAPH= 3
AREA= 1.52 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= 4.40 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1011 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET) (RUNOFF)
15.15	165.90	

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.52 SQ.MI.

TIME(HRS)											
10.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.00	.01	.02
11.00	DISCHG	.04	.06	.10	.15	.21	.32	.48	.75	1.25	2.16
12.00	DISCHG	3.52	5.34	7.71	10.64	13.99	17.77	21.99	26.68	31.90	37.69
13.00	DISCHG	44.05	51.06	58.67	66.80	75.38	84.24	93.10	101.73	110.07	117.97
14.00	DISCHG	125.31	132.10	138.29	143.80	148.67	152.88	156.38	159.30	161.75	163.69
15.00	DISCHG	165.08	165.81	165.80	165.24	164.33	163.07	161.49	159.59	157.36	154.79
16.00	DISCHG	151.82	148.46	144.74	140.69	136.35	131.93	127.60	123.42	119.43	115.70
17.00	DISCHG	112.22	108.88	105.67	102.58	99.59	96.75	94.03	91.44	89.01	86.70
18.00	DISCHG	84.47	82.33	80.24	78.20	76.20	74.24	72.35	70.56	68.84	67.21
19.00	DISCHG	65.66	64.17	62.73	61.33	59.97	58.66	57.39	56.17	54.98	53.84
20.00	DISCHG	52.74	51.68	50.66	49.67	48.70	47.74	46.82	45.94	45.10	44.29
21.00	DISCHG	43.50	42.73	41.99	41.26	40.56	39.87	39.20	38.54	37.91	37.29
22.00	DISCHG	36.69	36.10	35.53	34.97	34.43	33.91	33.41	32.93	32.46	32.01
23.00	DISCHG	31.57	31.16	30.77	30.39	30.03	29.68	29.34	29.01	28.70	28.41
24.00	DISCHG	28.14	27.87	27.62	27.36	27.10	26.84	26.58	26.30	26.01	25.71
25.00	DISCHG	25.39	25.05	24.68	24.29	23.86	23.41	22.92	22.40	21.85	21.27
26.00	DISCHG	20.66	20.04	19.40	18.74	18.07	17.41	16.75	16.09	15.44	14.80
27.00	DISCHG	14.16	13.53	12.90	12.29	11.70	11.12	10.55	10.00	9.47	8.96

28.00	DISCHG	8.47	8.00	7.54	7.12	6.71	6.33	5.97	5.64	5.33	5.04
29.00	DISCHG	4.76	4.50	4.26	4.02	3.81	3.60	3.40	3.22	3.04	2.88

RUNOFF VOLUME ABOVE BASEFLOW = 1.04 WATERSHED INCHES, 1019.37 CFS-HRS, 84.24 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 2, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 3
INPUT HYDROGRAPHS= 2,3 OUTPUT HYDROGRAPH= 4
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.00	50.00	(NULL)
15.40	221.63	(NULL)

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 3.05 SQ.MI.

TIME(HRS)											
.00	DISCHG	50.00	49.59	49.18	48.78	48.37	47.98	47.58	47.19	46.80	46.42
1.00	DISCHG	46.03	45.66	45.28	44.91	44.54	44.17	43.81	43.45	43.09	42.73
2.00	DISCHG	42.38	42.03	41.69	41.34	41.00	40.67	40.33	40.00	39.67	39.34
3.00	DISCHG	39.02	38.70	38.38	38.06	37.75	37.44	37.13	36.83	36.52	36.22
4.00	DISCHG	35.93	35.63	35.34	35.05	34.76	34.47	34.19	33.91	33.63	33.35
5.00	DISCHG	33.08	32.80	32.53	32.27	32.00	31.74	31.48	31.22	30.96	30.70
6.00	DISCHG	30.45	30.20	29.95	29.71	29.46	29.22	28.98	28.74	28.50	28.27
7.00	DISCHG	28.04	27.81	27.58	27.35	27.12	26.90	26.68	26.46	26.24	26.03
8.00	DISCHG	25.81	25.60	25.39	25.18	24.97	24.77	24.56	24.36	24.16	23.96
9.00	DISCHG	23.77	23.57	23.38	23.18	22.99	22.80	22.62	22.43	22.24	22.06
10.00	DISCHG	21.88	21.70	21.52	21.35	21.17	21.00	20.83	20.66	20.50	20.35
11.00	DISCHG	20.20	20.07	19.95	19.85	19.77	19.73	19.76	19.90	20.29	21.10
12.00	DISCHG	22.40	24.19	26.59	29.60	33.10	37.11	41.65	46.75	52.50	58.94
13.00	DISCHG	66.09	74.01	82.68	91.98	101.86	112.13	122.48	132.69	142.66	152.24
14.00	DISCHG	161.29	169.81	177.74	184.99	191.58	197.48	202.63	207.15	211.16	214.59
15.00	DISCHG	217.42	219.51	220.78	221.43	221.63	221.40	220.78	219.78	218.37	216.56
16.00	DISCHG	214.30	211.59	208.47	204.96	201.13	197.17	193.27	189.47	185.82	182.40
17.00	DISCHG	179.20	176.10	173.11	170.20	167.38	164.68	162.08	159.58	157.22	154.97
18.00	DISCHG	152.78	150.66	148.58	146.53	144.50	142.50	140.57	138.71	136.92	135.20
19.00	DISCHG	133.56	131.96	130.41	128.89	127.40	125.95	124.54	123.16	121.82	120.51
20.00	DISCHG	119.24	118.00	116.80	115.63	114.46	113.32	112.19	111.11	110.06	109.04
21.00	DISCHG	108.04	107.06	106.09	105.15	104.22	103.30	102.40	101.51	100.64	99.78
22.00	DISCHG	98.94	98.11	97.29	96.48	95.69	94.92	94.17	93.44	92.71	92.01
23.00	DISCHG	91.32	90.65	90.00	89.37	88.75	88.15	87.55	86.97	86.41	85.87
24.00	DISCHG	85.34	84.83	84.33	83.82	83.32	82.81	82.30	81.78	81.24	80.69
25.00	DISCHG	80.12	79.53	78.91	78.26	77.57	76.85	76.10	75.30	74.47	73.61
26.00	DISCHG	72.72	71.80	70.86	69.90	68.93	67.95	66.98	66.00	65.03	64.06
27.00	DISCHG	63.09	62.12	61.16	60.21	59.28	58.36	57.45	56.56	55.69	54.84
28.00	DISCHG	54.00	53.19	52.39	51.62	50.88	50.16	49.46	48.79	48.15	47.52
29.00	DISCHG	46.91	46.32	45.74	45.18	44.64	44.11	43.59	43.08	42.59	42.11

RUNOFF VOLUME ABOVE BASEFLOW = 1.20 WATERSHED INCHES, 2354.96 CFS-HRS, 194.61 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 3, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

EXECUTIVE CONTROL OPERATION ENDCMP COMPUTATIONS COMPLETED FOR PASS 1 RECORD ID

EXECUTIVE CONTROL OPERATION COMPUT FROM XSECTION 1 TO XSECTION 3 RECORD ID 10-YR
STARTING TIME = .00 RAIN DEPTH = 4.08 RAIN DURATION= 1.00 RAIN TABLE NO.= 2 ANT. MOIST. COND= 2
ALTERNATE NO.= 1 STORM NO.= 2 MAIN TIME INCREMENT = .10 HOURS

OPERATION RUNOFF CROSS SECTION 1
OUTPUT HYDROGRAPH= 1
AREA= 1.53 SQ MI INPUT RUNOFF CURVE= 81, TIME OF CONCENTRATION= 3.30 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1000 HOURS

PEAK TIME(HRS) 14.21 | PEAK DISCHARGE(CFS) 461.81 | PEAK ELEVATION(FEET) (RUNOFF)

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.53 SQ.MI.

TIME(HRS)											
8.00	DISCHG	.00	.00	.01	.01	.03	.04	.07	.10	.15	.21
9.00	DISCHG	.29	.38	.50	.65	.82	1.03	1.27	1.55	1.87	2.23
10.00	DISCHG	2.64	3.09	3.59	4.14	4.75	5.42	6.15	6.96	7.85	8.82
11.00	DISCHG	9.90	11.10	12.42	13.89	15.53	17.37	19.67	22.51	26.59	32.54
12.00	DISCHG	41.09	51.76	65.15	80.43	97.68	117.14	138.89	163.32	190.22	219.54
13.00	DISCHG	250.31	281.96	312.45	340.81	366.80	389.64	409.32	425.78	438.80	448.84
14.00	DISCHG	455.53	460.06	461.79	460.73	456.49	450.46	442.95	433.96	423.58	411.56
15.00	DISCHG	397.91	382.65	366.20	348.92	332.16	316.41	301.67	288.22	275.64	263.62
16.00	DISCHG	252.28	241.52	231.50	222.08	213.37	205.00	197.02	189.32	181.89	174.83
17.00	DISCHG	168.21	162.05	156.29	150.93	145.82	140.98	136.38	132.05	127.94	124.05
18.00	DISCHG	120.37	116.89	113.58	110.37	107.30	104.42	101.75	99.18	96.73	94.38
19.00	DISCHG	92.12	89.95	87.87	85.89	83.98	82.16	80.39	78.69	77.07	75.55
20.00	DISCHG	74.08	72.67	71.33	70.06	68.85	67.66	66.51	65.37	64.27	63.21
21.00	DISCHG	62.20	61.20	60.21	59.24	58.28	57.33	56.40	55.48	54.58	53.70
22.00	DISCHG	52.84	52.00	51.18	50.38	49.62	48.88	48.18	47.52	46.91	46.37
23.00	DISCHG	45.91	45.49	45.10	44.75	44.43	44.14	43.87	43.63	43.40	43.18
24.00	DISCHG	42.97	42.75	42.51	42.25	41.94	41.59	41.18	40.71	40.16	39.54
25.00	DISCHG	38.81	37.98	37.05	36.01	34.88	33.66	32.39	31.05	29.68	28.28
26.00	DISCHG	26.86	25.45	24.04	22.64	21.27	19.93	18.64	17.39	16.19	15.05
27.00	DISCHG	13.95	12.92	11.96	11.06	10.24	9.49	8.79	8.16	7.57	7.03
28.00	DISCHG	6.52	6.06	5.62	5.22	4.85	4.50	4.17	3.87	3.59	3.32
29.00	DISCHG	3.08	2.86	2.65	2.46	2.28	2.11	1.95	1.81	1.67	1.55

RUNOFF VOLUME ABOVE BASEFLOW = 2.19 WATERSHED INCHES, 2159.26 CFS-HRS, 178.44 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 1, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RESVOR STRUCTURE 1
INPUT HYDROGRAPH= 1 OUTPUT HYDROGRAPH= 2
SURFACE ELEVATION= 893.00

*** WARNING - STRUCTURE 1 DELTA T IS TOO LARGE. O /2 > S /DELTA T OCCURED 43 TIMES STARTING WITH POINT 86

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.00	50.00	894.00
17.28	152.04	896.36

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.53 SQ.MI.

TIME(HRS)											
.00	DISCHG	50.00	49.59	49.18	48.78	48.37	47.98	47.58	47.19	46.80	46.42
.00	ELEV	894.00	893.98	893.97	893.95	893.93	893.92	893.90	893.89	893.87	893.86
1.00	DISCHG	46.03	45.66	45.28	44.91	44.54	44.17	43.81	43.45	43.09	42.73
1.00	ELEV	893.84	893.83	893.81	893.80	893.78	893.77	893.75	893.74	893.72	893.71
2.00	DISCHG	42.38	42.03	41.69	41.34	41.00	40.67	40.33	40.00	39.67	39.34
2.00	ELEV	893.70	893.68	893.67	893.65	893.64	893.63	893.61	893.60	893.59	893.57
3.00	DISCHG	39.02	38.70	38.38	38.06	37.75	37.44	37.13	36.83	36.52	36.22
3.00	ELEV	893.56	893.55	893.54	893.52	893.51	893.50	893.49	893.47	893.46	893.45
4.00	DISCHG	35.93	35.63	35.34	35.05	34.76	34.47	34.19	33.91	33.63	33.35
4.00	ELEV	893.44	893.43	893.41	893.40	893.39	893.38	893.37	893.36	893.35	893.33
5.00	DISCHG	33.08	32.80	32.53	32.27	32.00	31.74	31.48	31.22	30.96	30.70
5.00	ELEV	893.32	893.31	893.30	893.29	893.28	893.27	893.26	893.25	893.24	893.23
6.00	DISCHG	30.45	30.20	29.95	29.71	29.46	29.22	28.98	28.74	28.50	28.27
6.00	ELEV	893.22	893.21	893.20	893.19	893.18	893.17	893.16	893.15	893.14	893.13
7.00	DISCHG	28.04	27.81	27.58	27.35	27.12	26.90	26.68	26.46	26.24	26.03
7.00	ELEV	893.12	893.11	893.10	893.09	893.09	893.08	893.07	893.06	893.05	893.04
8.00	DISCHG	25.81	25.60	25.39	25.18	24.97	24.77	24.56	24.36	24.16	23.97
8.00	ELEV	893.03	893.02	893.02	893.01	893.00	892.99	892.98	892.97	892.97	892.96
9.00	DISCHG	23.77	23.58	23.39	23.20	23.02	22.83	22.65	22.48	22.31	22.14
9.00	ELEV	892.95	892.94	892.94	892.93	892.92	892.91	892.91	892.90	892.89	892.89
10.00	DISCHG	21.98	21.82	21.67	21.52	21.38	21.25	21.12	21.00	20.89	20.79
10.00	ELEV	892.88	892.87	892.87	892.86	892.86	892.85	892.84	892.84	892.84	892.83
11.00	DISCHG	20.69	20.61	20.54	20.48	20.43	20.40	20.38	20.39	20.42	20.50
11.00	ELEV	892.83	892.82	892.82	892.82	892.82	892.82	892.82	892.82	892.82	892.82
12.00	DISCHG	20.63	20.84	21.15	21.58	22.13	22.83	23.70	24.75	26.00	27.47
12.00	ELEV	892.83	892.83	892.85	892.86	892.89	892.91	892.95	892.99	893.04	893.10
13.00	DISCHG	29.18	31.13	33.32	35.73	38.35	41.15	44.10	47.17	50.34	53.58
13.00	ELEV	893.17	893.25	893.33	893.43	893.53	893.65	893.76	893.89	894.01	894.14
14.00	DISCHG	56.86	60.16	63.46	66.73	69.96	73.11	77.37	83.29	88.95	94.34
14.00	ELEV	894.27	894.41	894.54	894.67	894.80	894.92	895.05	895.17	895.28	895.39
15.00	DISCHG	99.43	104.20	108.63	112.71	116.44	119.85	122.95	126.15	129.97	133.39
15.00	ELEV	895.49	895.58	895.67	895.75	895.83	895.90	895.96	896.02	896.07	896.11
16.00	DISCHG	136.44	139.14	141.53	143.61	145.43	146.99	148.31	149.41	150.30	150.99
16.00	ELEV	896.15	896.19	896.22	896.25	896.27	896.29	896.31	896.33	896.34	896.35
17.00	DISCHG	151.49	151.82	152.00	152.04	151.95	151.74	151.42	151.00	150.49	149.89
17.00	ELEV	896.35	896.36	896.36	896.36	896.36	896.36	896.35	896.35	896.34	896.33
18.00	DISCHG	149.21	148.46	147.65	146.77	145.84	144.86	143.84	142.78	141.68	140.55
18.00	ELEV	896.32	896.31	896.30	896.29	896.28	896.26	896.25	896.24	896.22	896.21
19.00	DISCHG	139.39	138.21	137.00	135.77	134.53	133.27	132.00	130.71	129.42	128.12
19.00	ELEV	896.19	896.18	896.16	896.14	896.13	896.11	896.09	896.08	896.06	896.04
20.00	DISCHG	126.81	125.50	124.46	123.58	122.69	121.80	120.90	120.00	119.10	118.19
20.00	ELEV	896.02	896.01	895.99	895.97	895.95	895.94	895.92	895.90	895.88	895.86
21.00	DISCHG	117.28	116.37	115.46	114.54	113.63	112.71	111.80	110.88	109.97	109.05

21.00	ELEV	895.85	895.83	895.81	895.79	895.77	895.75	895.74	895.72	895.70	895.68
22.00	DISCHG	108.14	107.22	106.31	105.40	104.49	103.59	102.68	101.79	100.89	100.00
22.00	ELEV	895.66	895.64	895.63	895.61	895.59	895.57	895.55	895.54	895.52	895.50
23.00	DISCHG	99.12	98.24	97.37	96.51	95.66	94.82	93.99	93.16	92.35	91.55
23.00	ELEV	895.48	895.46	895.45	895.43	895.41	895.40	895.38	895.36	895.35	895.33
24.00	DISCHG	90.75	89.97	89.19	88.42	87.66	86.91	86.16	85.42	84.69	83.95
24.00	ELEV	895.32	895.30	895.28	895.27	895.25	895.24	895.22	895.21	895.19	895.18
25.00	DISCHG	83.22	82.48	81.75	81.00	80.26	79.50	78.74	77.97	77.19	76.40
25.00	ELEV	895.16	895.15	895.13	895.12	895.11	895.09	895.07	895.06	895.04	895.03
26.00	DISCHG	75.60	74.89	74.48	74.06	73.63	73.19	72.75	72.30	71.84	71.38
26.00	ELEV	895.01	895.00	894.98	894.96	894.95	894.93	894.91	894.89	894.87	894.86
27.00	DISCHG	70.91	70.44	69.96	69.48	69.00	68.51	68.02	67.53	67.04	66.55
27.00	ELEV	894.84	894.82	894.80	894.78	894.76	894.74	894.72	894.70	894.68	894.66
28.00	DISCHG	66.06	65.57	65.07	64.58	64.09	63.60	63.12	62.63	62.14	61.66
28.00	ELEV	894.64	894.62	894.60	894.58	894.56	894.54	894.52	894.51	894.49	894.47
29.00	DISCHG	61.18	60.70	60.22	59.75	59.28	58.81	58.34	57.88	57.41	56.95
29.00	ELEV	894.45	894.43	894.41	894.39	894.37	894.35	894.33	894.32	894.30	894.28

RUNOFF VOLUME ABOVE BASEFLOW = 2.10 WATERSHED INCHES, 2075.11 CFS-HRS, 171.49 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR STRUCTURE 1, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 2
OUTPUT HYDROGRAPH= 3
AREA= 1.52 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= 4.40 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1011 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET) (RUNOFF)
15.07	322.76	

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.52 SQ.MI.

TIME(HRS)											
9.00	DISCHG	.00	.00	.01	.02	.03	.04	.06	.08	.12	.16
10.00	DISCHG	.21	.28	.36	.46	.58	.73	.90	1.10	1.34	1.63
11.00	DISCHG	1.96	2.35	2.80	3.32	3.92	4.63	5.54	6.71	8.41	10.96
12.00	DISCHG	14.42	18.78	24.23	30.72	38.03	46.14	55.07	64.89	75.70	87.55
13.00	DISCHG	100.46	114.52	129.64	145.62	162.31	179.39	196.27	212.58	228.17	242.78
14.00	DISCHG	256.21	268.48	279.50	289.14	297.51	304.55	310.20	314.75	318.35	320.93
15.00	DISCHG	322.46	322.69	321.56	319.42	316.63	313.20	309.20	304.62	299.43	293.61
16.00	DISCHG	287.07	279.82	271.94	263.49	254.59	245.62	236.93	228.56	220.62	213.22
17.00	DISCHG	206.33	199.73	193.40	187.31	181.45	175.89	170.58	165.54	160.80	156.31
18.00	DISCHG	151.98	147.81	143.76	139.80	135.92	132.15	128.53	125.09	121.80	118.68
19.00	DISCHG	115.72	112.89	110.15	107.49	104.92	102.44	100.05	97.74	95.51	93.37
20.00	DISCHG	91.30	89.33	87.43	85.58	83.77	82.00	80.30	78.67	77.12	75.63
21.00	DISCHG	74.18	72.79	71.43	70.11	68.82	67.57	66.36	65.18	64.03	62.92
22.00	DISCHG	61.84	60.79	59.76	58.76	57.80	56.88	55.99	55.13	54.29	53.49
23.00	DISCHG	52.72	51.99	51.29	50.62	49.98	49.35	48.75	48.17	47.62	47.10
24.00	DISCHG	46.62	46.16	45.70	45.25	44.80	44.34	43.87	43.39	42.89	42.37
25.00	DISCHG	41.81	41.23	40.60	39.93	39.21	38.45	37.63	36.75	35.83	34.87
26.00	DISCHG	33.86	32.82	31.75	30.66	29.56	28.46	27.38	26.31	25.24	24.19

27.00	DISCHG	23.14	22.10	21.08	20.08	19.11	18.16	17.24	16.34	15.47	14.64
28.00	DISCHG	13.83	13.06	12.32	11.62	10.96	10.34	9.76	9.21	8.70	8.23
29.00	DISCHG	7.78	7.35	6.95	6.57	6.21	5.88	5.56	5.25	4.97	4.70

RUNOFF VOLUME ABOVE BASEFLOW = 1.94 WATERSHED INCHES, 1905.65 CFS-HRS, 157.48 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 2, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 3
INPUT HYDROGRAPHS= 2,3 OUTPUT HYDROGRAPH= 4
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.00	50.00	(NULL)
15.45	433.18	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 3.05 SQ.MI.

.00	DISCHG	50.00	49.59	49.18	48.78	48.37	47.98	47.58	47.19	46.80	46.42
1.00	DISCHG	46.03	45.66	45.28	44.91	44.54	44.17	43.81	43.45	43.09	42.73
2.00	DISCHG	42.38	42.03	41.69	41.34	41.00	40.67	40.33	40.00	39.67	39.34
3.00	DISCHG	39.02	38.70	38.38	38.06	37.75	37.44	37.13	36.83	36.52	36.22
4.00	DISCHG	35.93	35.63	35.34	35.05	34.76	34.47	34.19	33.91	33.63	33.35
5.00	DISCHG	33.08	32.80	32.53	32.27	32.00	31.74	31.48	31.22	30.96	30.70
6.00	DISCHG	30.45	30.20	29.95	29.71	29.46	29.22	28.98	28.74	28.50	28.27
7.00	DISCHG	28.04	27.81	27.58	27.35	27.12	26.90	26.68	26.46	26.24	26.03
8.00	DISCHG	25.81	25.60	25.39	25.18	24.97	24.77	24.56	24.36	24.16	23.97
9.00	DISCHG	23.77	23.58	23.40	23.22	23.04	22.87	22.71	22.56	22.43	22.30
10.00	DISCHG	22.19	22.10	22.03	21.99	21.97	21.97	22.02	22.10	22.23	22.41
11.00	DISCHG	22.65	22.96	23.33	23.79	24.35	25.03	25.92	27.10	28.83	31.46
12.00	DISCHG	35.05	39.62	45.38	52.30	60.16	68.97	78.77	89.63	101.70	115.02
13.00	DISCHG	129.64	145.65	162.96	181.35	200.66	220.54	240.37	259.75	278.51	296.36
14.00	DISCHG	313.07	328.64	342.96	355.87	367.46	377.66	387.57	398.04	407.30	415.27
15.00	DISCHG	421.89	426.89	430.18	432.12	433.07	433.05	432.15	430.77	429.40	426.99
16.00	DISCHG	423.51	418.96	413.46	407.10	400.02	392.61	385.24	377.97	370.91	364.21
17.00	DISCHG	357.82	351.55	345.40	339.35	333.40	327.63	322.01	316.54	311.29	306.20
18.00	DISCHG	301.19	296.27	291.41	286.57	281.77	277.01	272.37	267.87	263.49	259.24
19.00	DISCHG	255.12	251.10	247.15	243.27	239.45	235.71	232.05	228.45	224.93	221.49
20.00	DISCHG	218.12	214.83	211.89	209.16	206.46	203.80	201.20	198.67	196.22	193.82
21.00	DISCHG	191.46	189.15	186.88	184.65	182.45	180.29	178.16	176.06	174.00	171.97
22.00	DISCHG	169.98	168.01	166.07	164.16	162.29	160.46	158.67	156.91	155.18	153.49
23.00	DISCHG	151.84	150.23	148.67	147.14	145.64	144.17	142.74	141.34	139.97	138.65
24.00	DISCHG	137.37	136.12	134.89	133.67	132.46	131.25	130.04	128.82	127.58	126.32
25.00	DISCHG	125.03	123.71	122.35	120.94	119.47	117.95	116.37	114.72	113.02	111.27
26.00	DISCHG	109.46	107.71	106.23	104.72	103.19	101.66	100.13	98.61	97.09	95.57
27.00	DISCHG	94.05	92.54	91.04	89.56	88.11	86.67	85.26	83.87	82.52	81.19
28.00	DISCHG	79.89	78.62	77.40	76.20	75.05	73.94	72.87	71.84	70.85	69.89
29.00	DISCHG	68.96	68.05	67.17	66.32	65.49	64.68	63.90	63.13	62.38	61.65

RUNOFF VOLUME ABOVE BASEFLOW = 2.02 WATERSHED INCHES, 3980.75 CFS-HRS, 328.97 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 3, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

EXECUTIVE CONTROL OPERATION ENDCMP COMPUTATIONS COMPLETED FOR PASS 2 RECORD ID

EXECUTIVE CONTROL OPERATION COMPUT FROM XSECTION 1 TO XSECTION 3 RECORD ID 20-YR
STARTING TIME = .00 RAIN DEPTH = 4.32 RAIN DURATION= 1.00 RAIN TABLE NO.= 2 ANT. MOIST. COND= 2
ALTERNATE NO.= 1 STORM NO.= 3 MAIN TIME INCREMENT = .10 HOURS

OPERATION RUNOFF CROSS SECTION 1
OUTPUT HYDROGRAPH= 1
AREA= 1.53 SQ MI INPUT RUNOFF CURVE= 81. TIME OF CONCENTRATION= 3.30 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1000 HOURS

PEAK TIME(HRS) PEAK DISCHARGE(CFS) PEAK ELEVATION(FEET)
14.20 506.24 (RUNOFF)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS			DRAINAGE AREA = 1.53 SQ.MI.		
7.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
8.00	DISCHG	.02	.03	.04	.07	.10	.14	.20	.27	.37	.48
9.00	DISCHG	.62	.79	.99	1.22	1.49	1.80	2.15	2.55	2.99	3.47
10.00	DISCHG	4.01	4.59	5.23	5.93	6.69	7.50	8.40	9.37	10.43	11.58
11.00	DISCHG	12.85	14.24	15.77	17.46	19.34	21.44	24.06	27.28	31.85	38.49
12.00	DISCHG	47.97	59.77	74.52	91.34	110.31	131.69	155.56	182.34	211.80	243.87
13.00	DISCHG	277.49	312.03	345.25	376.11	404.35	429.13	450.41	468.17	482.15	492.87
14.00	DISCHG	499.92	504.61	506.24	504.81	499.93	493.10	484.66	474.61	463.06	449.73
15.00	DISCHG	434.61	417.76	399.63	380.63	362.20	344.91	328.73	313.98	300.17	286.99
16.00	DISCHG	274.56	262.78	251.80	241.49	231.95	222.79	214.05	205.63	197.49	189.77
17.00	DISCHG	182.53	175.80	169.50	163.65	158.06	152.77	147.74	143.01	138.52	134.28
18.00	DISCHG	130.26	126.46	122.85	119.35	116.01	112.86	109.95	107.15	104.48	101.92
19.00	DISCHG	99.46	97.10	94.84	92.68	90.61	88.63	86.71	84.86	83.10	81.44
20.00	DISCHG	79.85	78.32	76.86	75.49	74.17	72.88	71.63	70.40	69.20	68.06
21.00	DISCHG	66.96	65.88	64.81	63.76	62.72	61.69	60.68	59.69	58.71	57.76
22.00	DISCHG	56.83	55.92	55.03	54.18	53.35	52.55	51.79	51.08	50.42	49.84
23.00	DISCHG	49.34	48.88	48.47	48.09	47.74	47.43	47.14	46.87	46.63	46.39
24.00	DISCHG	46.16	45.93	45.67	45.38	45.05	44.67	44.24	43.73	43.14	42.47
25.00	DISCHG	41.68	40.80	39.79	38.67	37.46	36.16	34.78	33.35	31.87	30.37
26.00	DISCHG	28.85	27.33	25.81	24.32	22.84	21.41	20.02	18.68	17.39	16.16
27.00	DISCHG	14.99	13.88	12.84	11.88	11.00	10.19	9.44	8.76	8.13	7.55
28.00	DISCHG	7.01	6.50	6.04	5.61	5.20	4.83	4.48	4.15	3.85	3.57
29.00	DISCHG	3.31	3.07	2.84	2.64	2.44	2.26	2.10	1.94	1.80	1.66

RUNOFF VOLUME ABOVE BASEFLOW = 2.39 WATERSHED INCHES, 2360.75 CFS-HRS, 195.09 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 1, ALTERNATE 1, STORM 3, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RESVOR STRUCTURE 1
INPUT HYDROGRAPH= 1 OUTPUT HYDROGRAPH= 2
SURFACE ELEVATION= 893.00

*** WARNING - STRUCTURE 1 DELTA T IS TOO LARGE. O /2 > S /DELTA T OCCURED 42 TIMES STARTING WITH POINT 86

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.00	50.00	894.00
17.13	174.31	896.66

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.53 SQ.MI.

TIME(HRS)											
.00	DISCHG	50.00	49.59	49.18	48.78	48.37	47.98	47.58	47.19	46.80	46.42
.00	ELEV	894.00	893.98	893.97	893.95	893.93	893.92	893.90	893.89	893.87	893.86
1.00	DISCHG	46.03	45.66	45.28	44.91	44.54	44.17	43.81	43.45	43.09	42.73
1.00	ELEV	893.84	893.83	893.81	893.80	893.78	893.77	893.75	893.74	893.72	893.71
2.00	DISCHG	42.38	42.03	41.69	41.34	41.00	40.67	40.33	40.00	39.67	39.34
2.00	ELEV	893.70	893.68	893.67	893.65	893.64	893.63	893.61	893.60	893.59	893.57
3.00	DISCHG	39.02	38.70	38.38	38.06	37.75	37.44	37.13	36.83	36.52	36.22
3.00	ELEV	893.56	893.55	893.54	893.52	893.51	893.50	893.49	893.47	893.46	893.45
4.00	DISCHG	35.93	35.63	35.34	35.05	34.76	34.47	34.19	33.91	33.63	33.35
4.00	ELEV	893.44	893.43	893.41	893.40	893.39	893.38	893.37	893.36	893.35	893.33
5.00	DISCHG	33.08	32.80	32.53	32.27	32.00	31.74	31.48	31.22	30.96	30.70
5.00	ELEV	893.32	893.31	893.30	893.29	893.28	893.27	893.26	893.25	893.24	893.23
6.00	DISCHG	30.45	30.20	29.95	29.71	29.46	29.22	28.98	28.74	28.50	28.27
6.00	ELEV	893.22	893.21	893.20	893.19	893.18	893.17	893.16	893.15	893.14	893.13
7.00	DISCHG	28.04	27.81	27.58	27.35	27.12	26.90	26.68	26.46	26.24	26.03
7.00	ELEV	893.12	893.11	893.10	893.09	893.09	893.08	893.07	893.06	893.05	893.04
8.00	DISCHG	25.81	25.60	25.39	25.18	24.97	24.77	24.57	24.37	24.17	23.97
8.00	ELEV	893.03	893.02	893.02	893.01	893.00	892.99	892.98	892.97	892.97	892.96
9.00	DISCHG	23.78	23.59	23.40	23.22	23.04	22.87	22.69	22.53	22.36	22.21
9.00	ELEV	892.95	892.94	892.94	892.93	892.92	892.91	892.91	892.90	892.89	892.89
10.00	DISCHG	22.05	21.91	21.77	21.63	21.51	21.39	21.28	21.18	21.08	21.00
10.00	ELEV	892.88	892.88	892.87	892.87	892.86	892.86	892.85	892.85	892.84	892.84
11.00	DISCHG	20.93	20.87	20.82	20.79	20.77	20.76	20.78	20.82	20.89	21.01
11.00	ELEV	892.84	892.83	892.83	892.83	892.83	892.83	892.83	892.83	892.84	892.84
12.00	DISCHG	21.19	21.46	21.84	22.34	22.99	23.79	24.78	25.96	27.37	29.02
12.00	ELEV	892.85	892.86	892.87	892.89	892.92	892.95	892.99	893.04	893.09	893.16
13.00	DISCHG	30.93	33.10	35.53	38.21	41.11	44.20	47.45	50.84	54.34	57.90
13.00	ELEV	893.24	893.32	893.42	893.53	893.64	893.77	893.90	894.03	894.17	894.32
14.00	DISCHG	61.51	65.14	68.76	72.36	76.78	83.67	90.31	96.69	102.79	108.59
14.00	ELEV	894.46	894.61	894.75	894.89	895.04	895.17	895.31	895.43	895.56	895.67
15.00	DISCHG	114.06	119.17	123.92	129.91	135.82	141.15	145.94	150.24	154.08	157.50
15.00	ELEV	895.78	895.88	895.98	896.07	896.14	896.22	896.28	896.34	896.39	896.43
16.00	DISCHG	160.52	163.17	165.47	167.46	169.15	170.58	171.75	172.68	173.39	173.89
16.00	ELEV	896.47	896.51	896.54	896.57	896.59	896.61	896.62	896.64	896.65	896.65
17.00	DISCHG	174.19	174.31	174.27	174.08	173.76	173.31	172.74	172.07	171.31	170.45
17.00	ELEV	896.66	896.66	896.66	896.65	896.65	896.64	896.64	896.63	896.62	896.61
18.00	DISCHG	169.52	168.51	167.43	166.30	165.11	163.87	162.58	161.26	159.90	158.51
18.00	ELEV	896.59	896.58	896.57	896.55	896.53	896.52	896.50	896.48	896.47	896.45
19.00	DISCHG	157.10	155.66	154.20	152.72	151.22	149.71	148.19	146.66	145.13	143.59
19.00	ELEV	896.43	896.41	896.39	896.37	896.35	896.33	896.31	896.29	896.27	896.25
20.00	DISCHG	142.05	140.51	138.97	137.43	135.89	134.37	132.85	131.33	129.82	128.33
20.00	ELEV	896.23	896.21	896.19	896.17	896.15	896.12	896.10	896.08	896.06	896.04
21.00	DISCHG	126.84	125.36	124.26	123.27	122.29	121.30	120.32	119.33	118.35	117.36

21.00	ELEV	896.02	896.00	895.99	895.97	895.95	895.93	895.91	895.89	895.87	895.85
22.00	DISCHG	116.38	115.39	114.41	113.43	112.45	111.48	110.50	109.54	108.57	107.61
22.00	ELEV	895.83	895.81	895.79	895.77	895.75	895.73	895.71	895.69	895.67	895.65
23.00	DISCHG	106.66	105.72	104.78	103.86	102.94	102.03	101.14	100.25	99.37	98.50
23.00	ELEV	895.63	895.61	895.60	895.58	895.56	895.54	895.52	895.50	895.49	895.47
24.00	DISCHG	97.65	96.80	95.97	95.14	94.32	93.51	92.71	91.91	91.11	90.32
24.00	ELEV	895.45	895.44	895.42	895.40	895.39	895.37	895.35	895.34	895.32	895.31
25.00	DISCHG	89.53	88.74	87.94	87.15	86.34	85.53	84.71	83.88	83.04	82.19
25.00	ELEV	895.29	895.27	895.26	895.24	895.23	895.21	895.19	895.18	895.16	895.14
26.00	DISCHG	81.32	80.45	79.57	78.68	77.77	76.86	75.94	75.01	74.54	74.06
26.00	ELEV	895.13	895.11	895.09	895.07	895.06	895.04	895.02	895.00	894.98	894.96
27.00	DISCHG	73.58	73.09	72.60	72.11	71.61	71.10	70.60	70.09	69.59	69.08
27.00	ELEV	894.94	894.92	894.90	894.88	894.86	894.84	894.82	894.80	894.78	894.76
28.00	DISCHG	68.57	68.06	67.55	67.04	66.54	66.03	65.53	65.02	64.52	64.02
28.00	ELEV	894.74	894.72	894.70	894.68	894.66	894.64	894.62	894.60	894.58	894.56
29.00	DISCHG	63.52	63.02	62.53	62.04	61.55	61.06	60.58	60.09	59.61	59.14
29.00	ELEV	894.54	894.52	894.50	894.48	894.46	894.44	894.42	894.40	894.38	894.37

RUNOFF VOLUME ABOVE BASEFLOW = 2.28 WATERSHED INCHES, 2250.20 CFS-HRS, 185.96 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR STRUCTURE 1, ALTERNATE 1, STORM 3, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 2
OUTPUT HYDROGRAPH= 3
AREA= 1.52 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= 4.40 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1011 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET) (RUNOFF)
15.06	356.41	

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.52 SQ.MI.

TIME(HRS)											
8.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
9.00	DISCHG	.01	.02	.04	.05	.08	.11	.15	.20	.26	.34
10.00	DISCHG	.44	.55	.68	.84	1.03	1.24	1.50	1.79	2.13	2.52
11.00	DISCHG	2.96	3.47	4.06	4.72	5.48	6.36	7.47	8.86	10.85	13.79
12.00	DISCHG	17.71	22.65	28.77	36.04	44.20	53.25	63.19	74.10	86.11	99.24
13.00	DISCHG	113.53	129.08	145.78	163.40	181.80	200.59	219.14	237.03	254.12	270.11
14.00	DISCHG	284.79	298.18	310.17	320.64	329.69	337.29	343.35	348.19	352.00	354.67
15.00	DISCHG	356.18	356.26	354.84	352.33	349.11	345.19	340.64	335.45	329.60	323.06
16.00	DISCHG	315.74	307.64	298.84	289.44	279.56	269.61	259.97	250.71	241.92	233.74
17.00	DISCHG	226.11	218.81	211.81	205.08	198.61	192.47	186.61	181.04	175.81	170.85
18.00	DISCHG	166.07	161.47	157.00	152.63	148.36	144.20	140.21	136.41	132.80	129.36
19.00	DISCHG	126.11	122.98	119.97	117.04	114.21	111.49	108.86	106.32	103.88	101.52
20.00	DISCHG	99.25	97.08	94.99	92.97	90.98	89.04	87.17	85.39	83.69	82.06
21.00	DISCHG	80.47	78.94	77.45	76.01	74.60	73.24	71.91	70.62	69.37	68.16
22.00	DISCHG	66.98	65.83	64.70	63.61	62.56	61.55	60.58	59.65	58.74	57.86
23.00	DISCHG	57.02	56.22	55.46	54.73	54.03	53.35	52.69	52.06	51.46	50.89
24.00	DISCHG	50.37	49.86	49.36	48.87	48.38	47.88	47.37	46.85	46.31	45.74
25.00	DISCHG	45.14	44.50	43.82	43.09	42.32	41.48	40.60	39.65	38.65	37.61

26.00	DISCHG	36.52	35.40	34.24	33.06	31.87	30.69	29.52	28.37	27.22	26.08
27.00	DISCHG	24.95	23.83	22.73	21.65	20.60	19.58	18.58	17.62	16.69	15.78
28.00	DISCHG	14.91	14.08	13.29	12.53	11.82	11.15	10.52	9.93	9.38	8.87
29.00	DISCHG	8.38	7.93	7.49	7.09	6.70	6.34	5.99	5.67	5.36	5.06

RUNOFF VOLUME ABOVE BASEFLOW = 2.14 WATERSHED INCHES, 2095.49 CFS-HRS, 173.17 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 2, ALTERNATE 1, STORM 3, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 3
INPUT HYDROGRAPHS= 2,3 OUTPUT HYDROGRAPH= 4
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.00	50.00	(NULL)
15.57	486.63	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 3.05 SQ.MI.

.00	DISCHG	50.00	49.59	49.18	48.78	48.37	47.98	47.58	47.19	46.80	46.42
1.00	DISCHG	46.03	45.66	45.28	44.91	44.54	44.17	43.81	43.45	43.09	42.73
2.00	DISCHG	42.38	42.03	41.69	41.34	41.00	40.67	40.33	40.00	39.67	39.34
3.00	DISCHG	39.02	38.70	38.38	38.06	37.75	37.44	37.13	36.83	36.52	36.22
4.00	DISCHG	35.93	35.63	35.34	35.05	34.76	34.47	34.19	33.91	33.63	33.35
5.00	DISCHG	33.08	32.80	32.53	32.27	32.00	31.74	31.48	31.22	30.96	30.70
6.00	DISCHG	30.45	30.20	29.95	29.71	29.46	29.22	28.98	28.74	28.50	28.27
7.00	DISCHG	28.04	27.81	27.58	27.35	27.12	26.90	26.68	26.46	26.24	26.03
8.00	DISCHG	25.81	25.60	25.39	25.18	24.97	24.77	24.57	24.37	24.17	23.98
9.00	DISCHG	23.80	23.61	23.44	23.28	23.12	22.97	22.84	22.73	22.63	22.55
10.00	DISCHG	22.49	22.46	22.45	22.48	22.54	22.63	22.78	22.97	23.21	23.52
11.00	DISCHG	23.89	24.34	24.88	25.51	26.24	27.12	28.25	29.68	31.74	34.79
12.00	DISCHG	38.90	44.11	50.61	58.38	67.19	77.04	87.97	100.06	113.48	128.26
13.00	DISCHG	144.46	162.18	181.31	201.61	222.91	244.79	266.59	287.88	308.46	328.02
14.00	DISCHG	346.30	363.31	378.93	393.00	406.48	420.96	433.66	444.88	454.79	463.26
15.00	DISCHG	470.24	475.43	478.76	482.24	484.93	486.34	486.58	485.70	483.68	480.56
16.00	DISCHG	476.26	470.80	464.32	456.90	448.71	440.19	431.73	423.40	415.31	407.63
17.00	DISCHG	400.30	393.12	386.08	379.16	372.37	365.78	359.35	353.11	347.12	341.31
18.00	DISCHG	335.59	329.98	324.44	318.93	313.47	308.06	302.79	297.67	292.70	287.88
19.00	DISCHG	283.20	278.64	274.16	269.76	265.43	261.20	257.05	252.99	249.00	245.11
20.00	DISCHG	241.30	237.58	233.96	230.39	226.88	223.41	220.02	216.72	213.52	210.38
21.00	DISCHG	207.31	204.30	201.71	199.28	196.89	194.54	192.23	189.95	187.72	185.52
22.00	DISCHG	183.35	181.22	179.11	177.04	175.01	173.03	171.09	169.18	167.31	165.47
23.00	DISCHG	163.68	161.94	160.25	158.59	156.97	155.38	153.83	152.31	150.83	149.40
24.00	DISCHG	148.02	146.66	145.33	144.01	142.70	141.39	140.08	138.76	137.42	136.06
25.00	DISCHG	134.67	133.24	131.76	130.24	128.66	127.01	125.31	123.53	121.69	119.80
26.00	DISCHG	117.85	115.85	113.81	111.74	109.65	107.55	105.46	103.38	101.76	100.14
27.00	DISCHG	98.53	96.92	95.33	93.76	92.21	90.68	89.18	87.71	86.27	84.86
28.00	DISCHG	83.48	82.14	80.84	79.57	78.35	77.18	76.05	74.96	73.90	72.89

29.00 DISCHG 71.90 70.95 70.02 69.12 68.25 67.40 66.57 65.76 64.97 64.20

RUNOFF VOLUME ABOVE BASEFLOW = 2.21 WATERSHED INCHES, 4345.69 CFS-HRS, 359.13 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 3, ALTERNATE 1, STORM 3, ADDED TO OUTPUT HYDROGRAPH FILE ---

EXECUTIVE CONTROL OPERATION ENDCMP COMPUTATIONS COMPLETED FOR PASS 3 RECORD ID

EXECUTIVE CONTROL OPERATION COMPUT FROM XSECTION 1 TO XSECTION 3 RECORD ID 50-YR
STARTING TIME = .00 RAIN DEPTH = 5.52 RAIN DURATION= 1.00 RAIN TABLE NO.= 2 ANT. MOIST. COND= 2
ALTERNATE NO.= 1 STORM NO.= 4 MAIN TIME INCREMENT = .10 HOURS

OPERATION RUNOFF CROSS SECTION 1
OUTPUT HYDROGRAPH= 1
AREA= 1.53 SQ MI INPUT RUNOFF CURVE= 81. TIME OF CONCENTRATION= 3.30 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1000 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
14.17	734.59	(RUNOFF)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS			DRAINAGE AREA =		1.53 SQ.MI.
6.00	DISCHG	.00	.00	.00	.00	.00	.00	.01	.01	.02	.04
7.00	DISCHG	.06	.10	.14	.20	.27	.36	.47	.60	.76	.95
8.00	DISCHG	1.17	1.42	1.70	2.01	2.36	2.75	3.18	3.65	4.17	4.72
9.00	DISCHG	5.33	5.98	6.69	7.45	8.27	9.15	10.08	11.08	12.15	13.27
10.00	DISCHG	14.45	15.70	17.02	18.41	19.88	21.44	23.09	24.85	26.74	28.77
11.00	DISCHG	30.96	33.33	35.92	38.75	41.87	45.31	49.55	54.70	61.88	72.07
12.00	DISCHG	86.33	103.94	125.72	150.44	178.19	209.38	244.07	282.86	325.40	371.48
13.00	DISCHG	419.61	468.77	515.83	559.33	598.87	633.33	662.64	686.82	705.50	719.50
14.00	DISCHG	728.22	733.51	734.40	730.92	722.58	711.50	698.17	682.58	664.88	644.67
15.00	DISCHG	621.97	596.89	570.08	542.18	515.23	490.00	466.45	444.98	424.91	405.78
16.00	DISCHG	387.77	370.72	354.85	339.95	326.16	312.94	300.34	288.19	276.47	265.37
17.00	DISCHG	254.98	245.31	236.27	227.87	219.86	212.28	205.08	198.32	191.90	185.83
18.00	DISCHG	180.09	174.67	169.52	164.54	159.78	155.31	151.18	147.21	143.43	139.80
19.00	DISCHG	136.33	133.00	129.81	126.77	123.85	121.07	118.37	115.77	113.30	110.97
20.00	DISCHG	108.75	106.60	104.56	102.63	100.80	99.00	97.25	95.54	93.87	92.28
21.00	DISCHG	90.76	89.26	87.78	86.33	84.89	83.47	82.07	80.70	79.35	78.04
22.00	DISCHG	76.75	75.49	74.27	73.09	71.95	70.85	69.80	68.82	67.92	67.12
23.00	DISCHG	66.44	65.81	65.25	64.73	64.25	63.82	63.43	63.06	62.72	62.40
24.00	DISCHG	62.09	61.76	61.41	61.02	60.57	60.05	59.46	58.77	57.98	57.07
25.00	DISCHG	56.01	54.82	53.46	51.96	50.33	48.57	46.72	44.80	42.81	40.79
26.00	DISCHG	38.75	36.71	34.67	32.66	30.68	28.75	26.89	25.09	23.36	21.70
27.00	DISCHG	20.13	18.64	17.25	15.96	14.77	13.68	12.68	11.77	10.92	10.14
28.00	DISCHG	9.41	8.74	8.11	7.53	6.99	6.49	6.02	5.58	5.17	4.79
29.00	DISCHG	4.44	4.12	3.82	3.54	3.28	3.04	2.82	2.61	2.41	2.23

RUNOFF VOLUME ABOVE BASEFLOW = 3.45 WATERSHED INCHES, 3402.61 CFS-HRS, 281.19 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 1, ALTERNATE 1, STORM 4, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RESVOR STRUCTURE 1
INPUT HYDROGRAPH= 1 OUTPUT HYDROGRAPH= 2
SURFACE ELEVATION= 893.00

*** WARNING - STRUCTURE 1 DELTA T IS TOO LARGE. 0 /2 > S /DELTA T OCCURED 35 TIMES STARTING WITH POINT 86

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.00	50.00	894.00
16.53	309.15	898.06

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.53 SQ.MI.

TIME(HRS)											
.00	DISCHG	50.00	49.59	49.18	48.78	48.37	47.98	47.58	47.19	46.80	46.42
.00	ELEV	894.00	893.98	893.97	893.95	893.93	893.92	893.90	893.89	893.87	893.86
1.00	DISCHG	46.03	45.66	45.28	44.91	44.54	44.17	43.81	43.45	43.09	42.73
1.00	ELEV	893.84	893.83	893.81	893.80	893.78	893.77	893.75	893.74	893.72	893.71
2.00	DISCHG	42.38	42.03	41.69	41.34	41.00	40.67	40.33	40.00	39.67	39.34
2.00	ELEV	893.70	893.68	893.67	893.65	893.64	893.63	893.61	893.60	893.59	893.57
3.00	DISCHG	39.02	38.70	38.38	38.06	37.75	37.44	37.13	36.83	36.52	36.22
3.00	ELEV	893.56	893.55	893.54	893.52	893.51	893.50	893.49	893.47	893.46	893.45
4.00	DISCHG	35.93	35.63	35.34	35.05	34.76	34.47	34.19	33.91	33.63	33.35
4.00	ELEV	893.44	893.43	893.41	893.40	893.39	893.38	893.37	893.36	893.35	893.33
5.00	DISCHG	33.08	32.80	32.53	32.27	32.00	31.74	31.48	31.22	30.96	30.70
5.00	ELEV	893.32	893.31	893.30	893.29	893.28	893.27	893.26	893.25	893.24	893.23
6.00	DISCHG	30.45	30.20	29.95	29.71	29.46	29.22	28.98	28.74	28.50	28.27
6.00	ELEV	893.22	893.21	893.20	893.19	893.18	893.17	893.16	893.15	893.14	893.13
7.00	DISCHG	28.04	27.81	27.58	27.35	27.13	26.91	26.69	26.48	26.26	26.06
7.00	ELEV	893.12	893.11	893.10	893.09	893.09	893.08	893.07	893.06	893.05	893.04
8.00	DISCHG	25.85	25.65	25.45	25.25	25.06	24.88	24.70	24.52	24.35	24.19
8.00	ELEV	893.03	893.03	893.02	893.01	893.00	893.00	892.99	892.98	892.97	892.97
9.00	DISCHG	24.03	23.88	23.74	23.60	23.47	23.35	23.24	23.13	23.04	22.95
9.00	ELEV	892.96	892.96	892.95	892.94	892.94	892.93	892.93	892.93	892.92	892.92
10.00	DISCHG	22.88	22.81	22.76	22.72	22.69	22.67	22.67	22.68	22.71	22.75
10.00	ELEV	892.92	892.91	892.91	892.91	892.91	892.91	892.91	892.91	892.91	892.91
11.00	DISCHG	22.81	22.88	22.98	23.10	23.24	23.41	23.60	23.84	24.12	24.48
11.00	ELEV	892.91	892.92	892.92	892.92	892.93	892.94	892.94	892.95	892.96	892.98
12.00	DISCHG	24.93	25.50	26.24	27.16	28.29	29.65	31.27	33.18	35.41	37.99
12.00	ELEV	893.00	893.02	893.05	893.09	893.13	893.19	893.25	893.33	893.42	893.52
13.00	DISCHG	40.93	44.25	47.94	51.97	56.31	60.91	65.75	70.76	76.80	87.23
13.00	ELEV	893.64	893.77	893.92	894.08	894.25	894.44	894.63	894.83	895.04	895.24
14.00	DISCHG	97.66	108.04	118.30	130.04	144.66	158.67	172.05	184.74	196.72	210.54
14.00	ELEV	895.45	895.66	895.87	896.07	896.26	896.45	896.63	896.80	896.96	897.11
15.00	DISCHG	224.29	236.81	248.08	258.10	266.90	274.57	281.19	286.87	291.68	295.70
15.00	ELEV	897.24	897.37	897.48	897.58	897.67	897.75	897.81	897.87	897.92	897.96
16.00	DISCHG	298.99	302.38	305.30	307.34	308.59	309.12	309.00	308.28	307.03	305.28
16.00	ELEV	897.99	898.02	898.04	898.05	898.06	898.06	898.06	898.06	898.05	898.04
17.00	DISCHG	303.10	300.84	298.42	296.26	293.91	291.37	288.68	285.86	282.90	279.85
17.00	ELEV	898.02	898.00	897.98	897.96	897.94	897.91	897.89	897.86	897.83	897.80
18.00	DISCHG	276.70	273.47	270.17	266.81	263.41	259.97	256.50	253.01	249.51	246.00
18.00	ELEV	897.77	897.73	897.70	897.67	897.63	897.60	897.57	897.53	897.50	897.46
19.00	DISCHG	242.49	238.98	235.48	232.00	228.53	225.08	221.65	218.25	214.88	211.54
19.00	ELEV	897.42	897.39	897.35	897.32	897.29	897.25	897.22	897.18	897.15	897.12
20.00	DISCHG	208.23	204.96	201.73	198.90	196.52	194.15	191.80	189.46	187.14	184.84
20.00	ELEV	897.08	897.05	897.02	896.99	896.95	896.92	896.89	896.86	896.83	896.80
21.00	DISCHG	182.55	180.29	178.04	175.81	173.60	171.41	169.24	167.09	164.96	162.85

21.00	ELEV	896.77	896.74	896.71	896.68	896.65	896.62	896.59	896.56	896.53	896.50
22.00	DISCHG	160.75	158.68	156.63	154.60	152.59	150.60	148.63	146.69	144.77	142.88
22.00	ELEV	896.48	896.45	896.42	896.39	896.37	896.34	896.32	896.29	896.26	896.24
23.00	DISCHG	141.02	139.18	137.38	135.61	133.86	132.15	130.48	128.83	127.21	125.63
23.00	ELEV	896.21	896.19	896.17	896.14	896.12	896.10	896.07	896.05	896.03	896.01
24.00	DISCHG	124.38	123.36	122.35	121.34	120.35	119.37	118.39	117.42	116.45	115.49
24.00	ELEV	895.99	895.97	895.95	895.93	895.91	895.89	895.87	895.85	895.83	895.81
25.00	DISCHG	114.52	113.55	112.58	111.59	110.60	109.60	108.59	107.56	106.51	105.45
25.00	ELEV	895.79	895.77	895.75	895.73	895.71	895.69	895.67	895.65	895.63	895.61
26.00	DISCHG	104.37	103.28	102.17	101.05	99.91	98.76	97.60	96.42	95.24	94.05
26.00	ELEV	895.59	895.57	895.54	895.52	895.50	895.48	895.45	895.43	895.40	895.38
27.00	DISCHG	92.85	91.65	90.44	89.23	88.02	86.81	85.60	84.40	83.20	82.01
27.00	ELEV	895.36	895.33	895.31	895.28	895.26	895.24	895.21	895.19	895.16	895.14
28.00	DISCHG	80.82	79.65	78.48	77.32	76.17	75.03	74.45	73.89	73.32	72.76
28.00	ELEV	895.12	895.09	895.07	895.05	895.02	895.00	894.98	894.96	894.93	894.91
29.00	DISCHG	72.20	71.64	71.08	70.53	69.98	69.43	68.88	68.33	67.79	67.25
29.00	ELEV	894.89	894.87	894.84	894.82	894.80	894.78	894.76	894.73	894.71	894.69

RUNOFF VOLUME ABOVE BASEFLOW = 3.23 WATERSHED INCHES, 3193.85 CFS-HRS, 263.94 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR STRUCTURE 1, ALTERNATE 1, STORM 4, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 2
OUTPUT HYDROGRAPH= 3
AREA= 1.52 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= 4.40 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1011 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET) (RUNOFF)
15.01	531.51	

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.52 SQ.MI.

7.00	DISCHG	.00	.00	.00	.00	.00	.00	.01	.01	.02	.03
8.00	DISCHG	.04	.06	.09	.12	.16	.21	.28	.35	.45	.56
9.00	DISCHG	.69	.85	1.03	1.23	1.47	1.74	2.04	2.38	2.76	3.18
10.00	DISCHG	3.64	4.15	4.71	5.32	5.98	6.70	7.49	8.35	9.28	10.30
11.00	DISCHG	11.41	12.62	13.95	15.41	17.01	18.82	20.98	23.59	27.11	32.05
12.00	DISCHG	38.45	46.34	55.97	67.26	79.84	93.70	108.85	125.39	143.53	163.27
13.00	DISCHG	184.67	207.87	232.67	258.74	285.84	313.39	340.45	366.44	391.14	414.12
14.00	DISCHG	435.09	454.09	470.98	485.56	498.03	508.32	516.34	522.57	527.24	530.23
15.00	DISCHG	531.50	530.66	527.66	523.08	517.48	510.88	503.39	494.98	485.61	475.25
16.00	DISCHG	463.77	451.18	437.62	423.22	408.18	393.12	378.58	364.63	351.43	339.17
17.00	DISCHG	327.73	316.78	306.31	296.25	286.59	277.43	268.70	260.41	252.63	245.25
18.00	DISCHG	238.14	231.29	224.66	218.17	211.83	205.67	199.77	194.17	188.83	183.76
19.00	DISCHG	178.96	174.36	169.92	165.62	161.46	157.46	153.61	149.89	146.31	142.86
20.00	DISCHG	139.55	136.38	133.34	130.38	127.49	124.67	121.95	119.37	116.91	114.54
21.00	DISCHG	112.25	110.04	107.89	105.81	103.78	101.82	99.91	98.06	96.27	94.53
22.00	DISCHG	92.84	91.19	89.59	88.03	86.53	85.09	83.71	82.37	81.07	79.82
23.00	DISCHG	78.62	77.49	76.41	75.37	74.37	73.40	72.46	71.57	70.71	69.91
24.00	DISCHG	69.16	68.45	67.74	67.05	66.35	65.64	64.93	64.19	63.42	62.62

25.00	DISCHG	61.78	60.89	59.94	58.93	57.85	56.70	55.47	54.17	52.79	51.35
26.00	DISCHG	49.85	48.30	46.71	45.10	43.46	41.85	40.25	38.67	37.11	35.55
27.00	DISCHG	34.00	32.48	30.98	29.51	28.08	26.68	25.33	24.01	22.74	21.51
28.00	DISCHG	20.32	19.19	18.10	17.08	16.10	15.19	14.34	13.54	12.79	12.08
29.00	DISCHG	11.42	10.80	10.21	9.65	9.13	8.63	8.16	7.72	7.30	6.90

RUNOFF VOLUME ABOVE BASEFLOW = 3.15 WATERSHED INCHES, 3086.35 CFS-HRS, 255.06 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 2, ALTERNATE 1, STORM 4, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 3
INPUT HYDROGRAPHS= 2,3 OUTPUT HYDROGRAPH= 4
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.00	50.00	(NULL)
15.51	785.45	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 3.05 SQ.MI.

.00	DISCHG	50.00	49.59	49.18	48.78	48.37	47.98	47.58	47.19	46.80	46.42
1.00	DISCHG	46.03	45.66	45.28	44.91	44.54	44.17	43.81	43.45	43.09	42.73
2.00	DISCHG	42.38	42.03	41.69	41.34	41.00	40.67	40.33	40.00	39.67	39.34
3.00	DISCHG	39.02	38.70	38.38	38.06	37.75	37.44	37.13	36.83	36.52	36.22
4.00	DISCHG	35.93	35.63	35.34	35.05	34.76	34.47	34.19	33.91	33.63	33.35
5.00	DISCHG	33.08	32.80	32.53	32.27	32.00	31.74	31.48	31.22	30.96	30.70
6.00	DISCHG	30.45	30.20	29.95	29.71	29.46	29.22	28.98	28.74	28.50	28.27
7.00	DISCHG	28.04	27.81	27.58	27.35	27.13	26.91	26.70	26.49	26.28	26.09
8.00	DISCHG	25.89	25.71	25.54	25.38	25.23	25.09	24.98	24.88	24.80	24.75
9.00	DISCHG	24.73	24.73	24.76	24.83	24.94	25.09	25.28	25.51	25.80	26.13
10.00	DISCHG	26.52	26.97	27.47	28.04	28.67	29.38	30.16	31.03	31.98	33.04
11.00	DISCHG	34.21	35.50	36.93	38.51	40.25	42.23	44.59	47.43	51.23	56.52
12.00	DISCHG	63.37	71.84	82.21	94.42	108.13	123.35	140.12	158.58	178.94	201.26
13.00	DISCHG	225.61	252.12	280.61	310.71	342.14	374.30	406.19	437.20	467.95	501.35
14.00	DISCHG	532.75	562.14	589.28	615.60	642.69	666.99	688.39	707.31	723.96	740.77
15.00	DISCHG	755.79	767.48	775.74	781.18	784.38	785.45	784.58	781.84	777.29	770.96
16.00	DISCHG	762.76	753.56	742.93	730.56	716.77	702.23	687.57	672.92	658.46	644.45
17.00	DISCHG	630.82	617.32	604.73	592.51	580.49	568.80	557.38	546.26	535.53	525.10
18.00	DISCHG	514.83	504.76	494.83	484.98	475.24	465.64	456.27	447.17	438.34	429.76
19.00	DISCHG	421.45	413.34	405.40	397.62	389.99	382.54	375.26	368.14	361.19	354.40
20.00	DISCHG	347.78	341.34	335.07	329.28	324.01	318.82	313.75	308.83	304.05	299.38
21.00	DISCHG	294.81	290.33	285.93	281.62	277.39	273.23	269.15	265.15	261.23	257.37
22.00	DISCHG	253.59	249.87	246.22	242.62	239.11	235.69	232.34	229.06	225.84	222.70
23.00	DISCHG	219.64	216.67	213.79	210.98	208.23	205.55	202.94	200.40	197.93	195.54
24.00	DISCHG	193.55	191.81	190.09	188.39	186.70	185.01	183.32	181.61	179.87	178.11
25.00	DISCHG	176.30	174.44	172.52	170.53	168.46	166.30	164.06	161.72	159.30	156.80
26.00	DISCHG	154.22	151.58	148.88	146.15	143.38	140.61	137.85	135.10	132.35	129.60
27.00	DISCHG	126.85	124.13	121.42	118.74	116.09	113.49	110.93	108.41	105.94	103.51

28.00	DISCHG	101.15	98.83	96.58	94.40	92.28	90.23	88.79	87.42	86.11	84.84
29.00	DISCHG	83.62	82.44	81.29	80.18	79.10	78.06	77.04	76.05	75.09	74.15

RUNOFF VOLUME ABOVE BASEFLOW = 3.19 WATERSHED INCHES, 6280.20 CFS-HRS, 519.00 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 3, ALTERNATE 1, STORM 4, ADDED TO OUTPUT HYDROGRAPH FILE ---

EXECUTIVE CONTROL OPERATION ENDCMP COMPUTATIONS COMPLETED FOR PASS 4 RECORD ID

EXECUTIVE CONTROL OPERATION COMPUT FROM XSECTION 1 TO XSECTION 3 RECORD ID 100-YR
STARTING TIME = .00 RAIN DEPTH = 6.48 RAIN DURATION= 1.00 RAIN TABLE NO.= 2 ANT. MOIST. COND= 2
ALTERNATE NO.= 1 STORM NO.= 5 MAIN TIME INCREMENT = .10 HOURS

OPERATION RUNOFF CROSS SECTION 1
OUTPUT HYDROGRAPH= 1
AREA= 1.53 SQ MI INPUT RUNOFF CURVE= 81. TIME OF CONCENTRATION= 3.30 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1000 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET) (RUNOFF)
14.15	921.95	

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS			DRAINAGE AREA = 1.53 SQ.MI.		
5.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
6.00	DISCHG	.01	.02	.04	.07	.10	.15	.22	.30	.41	.54
7.00	DISCHG	.70	.90	1.12	1.39	1.70	2.04	2.43	2.86	3.33	3.84
8.00	DISCHG	4.39	4.97	5.60	6.28	6.99	7.75	8.55	9.40	10.30	11.25
9.00	DISCHG	12.25	13.30	14.42	15.60	16.84	18.16	19.54	21.00	22.53	24.13
10.00	DISCHG	25.81	27.57	29.41	31.34	33.38	35.51	37.78	40.17	42.73	45.47
11.00	DISCHG	48.42	51.60	55.05	58.83	62.96	67.52	73.12	79.87	89.22	102.35
12.00	DISCHG	120.55	142.93	170.47	201.66	236.59	275.78	319.29	367.86	421.03	478.48
13.00	DISCHG	538.36	599.34	657.56	711.21	759.81	801.99	837.66	866.88	889.22	905.71
14.00	DISCHG	915.61	921.22	921.33	916.01	904.69	890.00	872.55	852.31	829.48	803.55
15.00	DISCHG	774.56	742.68	708.72	673.51	639.58	607.84	578.26	551.28	526.09	502.09
16.00	DISCHG	479.51	458.15	438.28	419.64	402.39	385.84	370.08	354.89	340.25	326.40
17.00	DISCHG	313.43	301.37	290.10	279.62	269.63	260.19	251.23	242.80	234.81	227.26
18.00	DISCHG	220.13	213.39	206.99	200.80	194.90	189.36	184.24	179.32	174.64	170.14
19.00	DISCHG	165.84	161.73	157.80	154.04	150.44	147.00	143.67	140.47	137.43	134.56
20.00	DISCHG	131.82	129.18	126.67	124.30	122.04	119.83	117.68	115.58	113.54	111.59
21.00	DISCHG	109.73	107.90	106.09	104.31	102.55	100.82	99.11	97.43	95.79	94.18
22.00	DISCHG	92.61	91.07	89.58	88.14	86.74	85.40	84.13	82.93	81.83	80.86
23.00	DISCHG	80.04	79.28	78.59	77.96	77.39	76.86	76.38	75.94	75.52	75.13
24.00	DISCHG	74.75	74.35	73.93	73.45	72.91	72.28	71.57	70.74	69.78	68.68
25.00	DISCHG	67.41	65.96	64.33	62.52	60.56	58.45	56.22	53.90	51.51	49.08
26.00	DISCHG	46.62	44.16	41.71	39.29	36.91	34.59	32.35	30.18	28.10	26.11
27.00	DISCHG	24.21	22.42	20.75	19.19	17.77	16.46	15.26	14.16	13.14	12.20
28.00	DISCHG	11.32	10.51	9.76	9.06	8.41	7.80	7.24	6.71	6.22	5.77
29.00	DISCHG	5.35	4.96	4.59	4.26	3.95	3.66	3.39	3.14	2.90	2.69

RUNOFF VOLUME ABOVE BASEFLOW = 4.32 WATERSHED INCHES, 4265.50 CFS-HRS, 352.50 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 1, ALTERNATE 1, STORM 5, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RESVOR STRUCTURE 1
INPUT HYDROGRAPH= 1 OUTPUT HYDROGRAPH= 2
SURFACE ELEVATION= 893.00

*** WARNING - STRUCTURE 1 DELTA T IS TOO LARGE. O /2 > S /DELTA T OCCURED 22 TIMES STARTING WITH POINT 89

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.00	50.00	894.00
16.13	452.89	899.02

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.53 SQ.MI.

TIME(HRS)											
.00	DISCHG	50.00	49.59	49.18	48.78	48.37	47.98	47.58	47.19	46.80	46.42
.00	ELEV	894.00	893.98	893.97	893.95	893.93	893.92	893.90	893.89	893.87	893.86
1.00	DISCHG	46.03	45.66	45.28	44.91	44.54	44.17	43.81	43.45	43.09	42.73
1.00	ELEV	893.84	893.83	893.81	893.80	893.78	893.77	893.75	893.74	893.72	893.71
2.00	DISCHG	42.38	42.03	41.69	41.34	41.00	40.67	40.33	40.00	39.67	39.34
2.00	ELEV	893.70	893.68	893.67	893.65	893.64	893.63	893.61	893.60	893.59	893.57
3.00	DISCHG	39.02	38.70	38.38	38.06	37.75	37.44	37.13	36.83	36.52	36.22
3.00	ELEV	893.56	893.55	893.54	893.52	893.51	893.50	893.49	893.47	893.46	893.45
4.00	DISCHG	35.93	35.63	35.34	35.05	34.76	34.47	34.19	33.91	33.63	33.35
4.00	ELEV	893.44	893.43	893.41	893.40	893.39	893.38	893.37	893.36	893.35	893.33
5.00	DISCHG	33.08	32.80	32.53	32.27	32.00	31.74	31.48	31.22	30.96	30.70
5.00	ELEV	893.32	893.31	893.30	893.29	893.28	893.27	893.26	893.25	893.24	893.23
6.00	DISCHG	30.45	30.20	29.95	29.71	29.46	29.22	28.98	28.75	28.51	28.28
6.00	ELEV	893.22	893.21	893.20	893.19	893.18	893.17	893.16	893.15	893.14	893.13
7.00	DISCHG	28.05	27.83	27.61	27.39	27.18	26.97	26.77	26.57	26.38	26.19
7.00	ELEV	893.12	893.11	893.10	893.10	893.09	893.08	893.07	893.06	893.06	893.05
8.00	DISCHG	26.01	25.83	25.66	25.50	25.34	25.20	25.06	24.92	24.80	24.68
8.00	ELEV	893.04	893.03	893.03	893.02	893.01	893.01	893.00	893.00	892.99	892.99
9.00	DISCHG	24.58	24.48	24.39	24.32	24.25	24.19	24.15	24.12	24.10	24.09
9.00	ELEV	892.98	892.98	892.98	892.97	892.97	892.97	892.97	892.96	892.96	892.96
10.00	DISCHG	24.10	24.12	24.16	24.21	24.28	24.36	24.46	24.58	24.72	24.88
10.00	ELEV	892.96	892.96	892.97	892.97	892.97	892.97	892.98	892.98	892.99	893.00
11.00	DISCHG	25.06	25.26	25.50	25.75	26.04	26.37	26.73	27.14	27.61	28.17
11.00	ELEV	893.00	893.01	893.02	893.03	893.04	893.05	893.07	893.09	893.10	893.13
12.00	DISCHG	28.86	29.70	30.75	32.03	33.57	35.40	37.56	40.08	42.99	46.34
12.00	ELEV	893.15	893.19	893.23	893.28	893.34	893.42	893.50	893.60	893.72	893.85
13.00	DISCHG	50.14	54.41	59.14	64.28	69.81	76.31	88.50	101.02	113.76	127.40
13.00	ELEV	894.01	894.18	894.37	894.57	894.79	895.03	895.27	895.52	895.78	896.03
14.00	DISCHG	146.59	165.49	184.00	202.64	225.66	247.50	268.11	287.44	308.09	332.69
14.00	ELEV	896.29	896.54	896.79	897.03	897.26	897.47	897.68	897.87	898.05	898.22
15.00	DISCHG	354.77	374.31	391.32	405.82	417.95	427.91	435.90	442.14	446.81	450.06
15.00	ELEV	898.37	898.50	898.61	898.71	898.79	898.85	898.91	898.95	898.98	899.00
16.00	DISCHG	452.03	452.85	452.62	451.48	449.52	446.84	443.51	439.59	435.13	430.21
16.00	ELEV	899.01	899.02	899.02	899.01	899.00	898.98	898.96	898.93	898.90	898.87
17.00	DISCHG	424.87	419.19	413.21	407.00	400.60	394.03	387.34	380.55	373.69	366.79
17.00	ELEV	898.83	898.79	898.75	898.71	898.67	898.63	898.58	898.54	898.49	898.45
18.00	DISCHG	359.86	352.94	346.03	339.15	332.32	325.53	318.82	312.19	305.65	299.46
18.00	ELEV	898.40	898.35	898.31	898.26	898.22	898.17	898.13	898.08	898.04	897.99
19.00	DISCHG	295.19	290.91	286.65	282.40	278.16	273.95	269.77	265.62	261.50	257.42
19.00	ELEV	897.95	897.91	897.87	897.82	897.78	897.74	897.70	897.66	897.61	897.57
20.00	DISCHG	253.38	249.38	245.43	241.53	237.68	233.89	230.14	226.45	222.81	219.23

20.00	ELEV	897.53	897.49	897.45	897.42	897.38	897.34	897.30	897.26	897.23	897.19
21.00	DISCHG	215.70	212.22	208.80	205.43	202.11	199.13	196.70	194.29	191.90	189.53
21.00	ELEV	897.16	897.12	897.09	897.05	897.02	896.99	896.96	896.92	896.89	896.86
22.00	DISCHG	187.17	184.84	182.52	180.23	177.96	175.71	173.48	171.28	169.10	166.95
22.00	ELEV	896.83	896.80	896.77	896.74	896.71	896.68	896.65	896.62	896.59	896.56
23.00	DISCHG	164.83	162.75	160.69	158.68	156.69	154.74	152.83	150.95	149.11	147.30
23.00	ELEV	896.53	896.50	896.48	896.45	896.42	896.40	896.37	896.35	896.32	896.30
24.00	DISCHG	145.53	143.79	142.09	140.41	138.77	137.15	135.55	133.97	132.41	130.86
24.00	ELEV	896.27	896.25	896.23	896.21	896.18	896.16	896.14	896.12	896.10	896.08
25.00	DISCHG	129.32	127.79	126.26	124.81	123.77	122.72	121.65	120.56	119.44	118.31
25.00	ELEV	896.06	896.04	896.02	896.00	895.98	895.95	895.93	895.91	895.89	895.87
26.00	DISCHG	117.16	115.98	114.78	113.56	112.33	111.07	109.80	108.51	107.21	105.90
26.00	ELEV	895.84	895.82	895.80	895.77	895.75	895.72	895.70	895.67	895.64	895.62
27.00	DISCHG	104.57	103.24	101.90	100.56	99.21	97.87	96.52	95.18	93.85	92.52
27.00	ELEV	895.59	895.56	895.54	895.51	895.48	895.46	895.43	895.40	895.38	895.35
28.00	DISCHG	91.19	89.88	88.57	87.27	85.98	84.71	83.44	82.19	80.95	79.72
28.00	ELEV	895.32	895.30	895.27	895.25	895.22	895.19	895.17	895.14	895.12	895.09
29.00	DISCHG	78.50	77.30	76.11	74.97	74.38	73.80	73.22	72.65	72.08	71.51
29.00	ELEV	895.07	895.05	895.02	895.00	894.98	894.95	894.93	894.91	894.88	894.86

RUNOFF VOLUME ABOVE BASEFLOW = 4.06 WATERSHED INCHES, 4005.15 CFS-HRS, 330.99 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR STRUCTURE 1, ALTERNATE 1, STORM 5, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 2
OUTPUT HYDROGRAPH= 3
AREA= 1.52 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= 4.40 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1011 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
14.99	677.15	(RUNOFF)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS			DRAINAGE AREA =		1.52 SQ.MI.
6.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.00	.01	.01
7.00	DISCHG	.02	.03	.05	.07	.10	.14	.19	.25	.32	.40
8.00	DISCHG	.50	.61	.75	.91	1.09	1.30	1.54	1.81	2.11	2.44
9.00	DISCHG	2.81	3.22	3.67	4.16	4.69	5.28	5.91	6.59	7.33	8.12
10.00	DISCHG	8.97	9.88	10.86	11.89	13.00	14.19	15.45	16.80	18.25	19.82
11.00	DISCHG	21.49	23.30	25.26	27.38	29.69	32.27	35.30	38.92	43.71	50.30
12.00	DISCHG	58.75	69.09	81.63	96.23	112.46	130.29	149.74	170.93	194.10	219.28
13.00	DISCHG	246.54	276.01	307.45	340.45	374.66	409.35	443.34	475.91	506.78	535.41
14.00	DISCHG	561.43	584.94	605.72	623.56	638.71	651.07	660.57	667.80	673.06	676.18
15.00	DISCHG	677.12	675.39	670.95	664.54	656.87	647.96	637.93	626.76	614.40	600.81
16.00	DISCHG	585.81	569.44	551.88	533.29	513.94	494.62	476.00	458.16	441.30	425.64
17.00	DISCHG	411.03	397.07	383.71	370.88	358.58	346.92	335.81	325.26	315.37	305.99
18.00	DISCHG	296.95	288.25	279.82	271.57	263.53	255.71	248.24	241.14	234.38	227.97
19.00	DISCHG	221.89	216.08	210.46	205.03	199.77	194.72	189.86	185.17	180.66	176.32
20.00	DISCHG	172.14	168.15	164.33	160.61	156.98	153.43	150.02	146.78	143.70	140.73
21.00	DISCHG	137.86	135.09	132.40	129.79	127.27	124.81	122.43	120.13	117.89	115.72

22.00	DISCHG	113.62	111.57	109.57	107.63	105.76	103.97	102.25	100.59	98.98	97.42
23.00	DISCHG	95.94	94.54	93.20	91.91	90.66	89.46	88.29	87.18	86.12	85.13
24.00	DISCHG	84.20	83.31	82.44	81.58	80.71	79.84	78.95	78.04	77.10	76.11
25.00	DISCHG	75.08	73.98	72.82	71.58	70.26	68.84	67.34	65.75	64.07	62.31
26.00	DISCHG	60.48	58.59	56.66	54.69	52.71	50.74	48.80	46.89	44.99	43.10
27.00	DISCHG	41.23	39.38	37.56	35.78	34.04	32.35	30.70	29.11	27.56	26.07
28.00	DISCHG	24.64	23.26	21.95	20.70	19.52	18.41	17.38	16.41	15.50	14.65
29.00	DISCHG	13.85	13.09	12.38	11.70	11.07	10.46	9.89	9.36	8.85	8.36

RUNOFF VOLUME ABOVE BASEFLOW = 3.99 WATERSHED INCHES, 3915.26 CFS-HRS, 323.56 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 2, ALTERNATE 1, STORM 5, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 3
INPUT HYDROGRAPHS= 2,3 OUTPUT HYDROGRAPH= 4
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.00	50.00	(NULL)
15.48	1075.91	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 3.05 SQ.MI.

.00	DISCHG	50.00	49.59	49.18	48.78	48.37	47.98	47.58	47.19	46.80	46.42
1.00	DISCHG	46.03	45.66	45.28	44.91	44.54	44.17	43.81	43.45	43.09	42.73
2.00	DISCHG	42.38	42.03	41.69	41.34	41.00	40.67	40.33	40.00	39.67	39.34
3.00	DISCHG	39.02	38.70	38.38	38.06	37.75	37.44	37.13	36.83	36.52	36.22
4.00	DISCHG	35.93	35.63	35.34	35.05	34.76	34.47	34.19	33.91	33.63	33.35
5.00	DISCHG	33.08	32.80	32.53	32.27	32.00	31.74	31.48	31.22	30.96	30.70
6.00	DISCHG	30.45	30.20	29.95	29.71	29.46	29.22	28.98	28.75	28.52	28.29
7.00	DISCHG	28.08	27.86	27.66	27.47	27.28	27.11	26.96	26.82	26.69	26.59
8.00	DISCHG	26.50	26.45	26.41	26.41	26.44	26.50	26.59	26.73	26.91	27.13
9.00	DISCHG	27.39	27.70	28.06	28.48	28.94	29.47	30.06	30.71	31.43	32.21
10.00	DISCHG	33.07	34.00	35.01	36.10	37.28	38.54	39.91	41.38	42.97	44.69
11.00	DISCHG	46.55	48.57	50.76	53.14	55.74	58.63	62.03	66.06	71.32	78.47
12.00	DISCHG	87.61	98.79	112.38	128.26	146.03	165.69	187.29	211.00	237.09	265.62
13.00	DISCHG	296.68	330.42	366.59	404.73	444.46	485.67	531.84	576.93	620.55	662.82
14.00	DISCHG	708.02	750.43	789.72	826.20	864.37	898.57	928.68	955.24	981.15	1008.87
15.00	DISCHG	1031.89	1049.70	1062.26	1070.37	1074.83	1075.87	1073.83	1068.90	1061.21	1050.87
16.00	DISCHG	1037.84	1022.28	1004.50	984.77	963.46	941.46	919.50	897.75	876.43	855.85
17.00	DISCHG	835.90	816.25	796.92	777.89	759.18	740.96	723.15	705.81	689.06	672.78
18.00	DISCHG	656.81	641.19	625.85	610.72	595.85	581.25	567.06	553.33	540.03	527.43
19.00	DISCHG	517.08	506.99	497.11	487.42	477.94	468.68	459.63	450.79	442.16	433.73
20.00	DISCHG	425.52	417.54	409.76	402.14	394.66	387.32	380.16	373.23	366.51	359.96
21.00	DISCHG	353.56	347.31	341.20	335.22	329.38	323.94	319.14	314.42	309.79	305.25
22.00	DISCHG	300.79	296.41	292.09	287.86	283.72	279.68	275.73	271.87	268.08	264.37
23.00	DISCHG	260.77	257.28	253.89	250.58	247.35	244.20	241.12	238.13	235.23	232.43
24.00	DISCHG	229.73	227.10	224.53	221.99	219.48	216.99	214.50	212.01	209.51	206.98

25.00	DISCHG	204.40	201.77	199.07	196.39	194.03	191.57	188.99	186.30	183.51	180.62
26.00	DISCHG	177.64	174.57	171.44	168.26	165.03	161.81	158.60	155.40	152.20	149.00
27.00	DISCHG	145.80	142.62	139.46	136.34	133.25	130.22	127.23	124.29	121.41	118.59
28.00	DISCHG	115.83	113.14	110.51	107.97	105.50	103.12	100.82	98.60	96.45	94.37
29.00	DISCHG	92.35	90.39	88.49	86.67	85.45	84.27	83.12	82.01	80.92	79.87

RUNOFF VOLUME ABOVE BASEFLOW = 4.02 WATERSHED INCHES, 7920.41 CFS-HRS, 654.54 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 3, ALTERNATE 1, STORM 5, ADDED TO OUTPUT HYDROGRAPH FILE ---

EXECUTIVE CONTROL OPERATION ENDCMP COMPUTATIONS COMPLETED FOR PASS 5 RECORD ID

EXECUTIVE CONTROL OPERATION ENDJOB RECORD ID

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION			RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
						BEGIN (HR)	AMOUNT (IN)	DURATION (HR)		ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 1	RUNOFF	1.53	2	2	.10	.0	2.88	24.00	1.22	---	14.27	250.65	163.8
STRUCTURE 1	RESVOR	1.53	2	2	.10	.0	2.88	24.00	1.35	894.73	18.18	68.34	44.7
XSECTION 2	RUNOFF	1.52	2	2	.10	.0	2.88	24.00	1.04	---	15.15	165.90	109.1
XSECTION 3	ADDHYD	3.05	2	2	.10	.0	2.88	24.00	1.20	---	15.40	221.63	72.7
ALTERNATE 1 STORM 2													
XSECTION 1	RUNOFF	1.53	2	2	.10	.0	4.08	24.00	2.19	---	14.21	461.81	301.8
STRUCTURE 1	RESVOR	1.53	2	2	.10	.0	4.08	24.00	2.10	896.36	17.28	152.04	99.4
XSECTION 2	RUNOFF	1.52	2	2	.10	.0	4.08	24.00	1.94	---	15.07	322.76	212.3
XSECTION 3	ADDHYD	3.05	2	2	.10	.0	4.08	24.00	2.02	---	15.45	433.18	142.0
ALTERNATE 1 STORM 3													
XSECTION 1	RUNOFF	1.53	2	2	.10	.0	4.32	24.00	2.39	---	14.20	506.24	330.9
STRUCTURE 1	RESVOR	1.53	2	2	.10	.0	4.32	24.00	2.28	896.66	17.13	174.31	113.9
XSECTION 2	RUNOFF	1.52	2	2	.10	.0	4.32	24.00	2.14	---	15.06	356.41	234.5
XSECTION 3	ADDHYD	3.05	2	2	.10	.0	4.32	24.00	2.21	---	15.57	486.63	159.6
ALTERNATE 1 STORM 4													
XSECTION 1	RUNOFF	1.53	2	2	.10	.0	5.52	24.00	3.45	---	14.17	734.59	480.1
STRUCTURE 1	RESVOR	1.53	2	2	.10	.0	5.52	24.00	3.23	898.06	16.53	309.15	202.1
XSECTION 2	RUNOFF	1.52	2	2	.10	.0	5.52	24.00	3.15	---	15.01	531.51	349.7
XSECTION 3	ADDHYD	3.05	2	2	.10	.0	5.52	24.00	3.19	---	15.51	785.45	257.5
ALTERNATE 1 STORM 5													
XSECTION 1	RUNOFF	1.53	2	2	.10	.0	6.48	24.00	4.32	---	14.15	921.95	602.6
STRUCTURE 1	RESVOR	1.53	2	2	.10	.0	6.48	24.00	4.06	899.02	16.13	452.89	296.0
XSECTION 2	RUNOFF	1.52	2	2	.10	.0	6.48	24.00	3.99	---	14.99	677.15	445.5
XSECTION 3	ADDHYD	3.05	2	2	.10	.0	6.48	24.00	4.02	---	15.48	1075.91	352.8

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2	3	4	5
STRUCTURE 1	1.53					
ALTERNATE 1		68.34	152.04	174.31	309.15	452.89
XSECTION 1	1.53					
ALTERNATE 1		250.65	461.81	506.24	734.59	921.95
XSECTION 2	1.52					
ALTERNATE 1		165.90	322.76	356.41	531.51	677.15
XSECTION 3	3.05					
ALTERNATE 1		221.63	433.18	486.63	785.45	1075.91

Appendix

TR-20 Model - Alternative Two

```
******************80-80 LIST OF INPUT DATA FOR TR-20 HYDROLOGY******************

JOB TR-20                    FULLPRINT          SUMMARY
TITLE 001 EDWARDS REGIONAL DETENTION STUDY - ALTERNATIVE 2
TITLE 001 2, 10, 20, 50, 100-YEAR STORM EVENTS
 3 STRUCT      01       893.0       0.0         0.0
 8                      894.0       50.0        8.0
 8                      895.0       75.0        16.0
 8                      896.0       125.0       24.0
 8                      897.0       200.0       32.0
 8                      898.0       300.0       40.0
 8                      899.0       450.0       48.0
 9 ENDTBL
 3 STRUCT      02       892.0       0.0         0.0
 8                      893.0       50.0        27.0
 8                      894.0       75.0        54.0
 8                      895.0       125.0       81.0
 8                      896.0       200.0       108.0
 8                      897.0       300.0       135.0
 8                      898.0       450.0       162.0
 9 ENDTBL
 6 RUNOFF 1 001        1 .49        81.         1.3         1 1   1 1 1 BASIN J
 6 RESVOR 2    01 1    2 893.0                              1 1 1 1 1 1
 6 RUNOFF 1 002        3 1.06       81.         1.3         1 1   1 1 1 BASIN K
 6 ADDHYD 4 003   2 3 4                                     1 1 1 1 1 1
 6 RESVOR 2    02 4    5 893.0                              1 1 1 1 1 1
 6 RUNOFF 1 004        6 1.51       78.         2.4         1 1   1 1 1 BASIN L
 6 ADDHYD 4 005   5 6 1                                     1 1 1 1 1 1
   ENDATA
 7 INCREM 6             .1
 7 COMPUT 7 001   005   0.0         2.88        1.0         2 2  01  01 2-YR
   ENDCMP 1
 7 COMPUT 7 001   005   0.0         4.08        1.0         2 2  01  02 10-YR
   ENDCMP 1
 7 COMPUT 7 001   005   0.0         4.32        1.0         2 2  01  03 20-YR
   ENDCMP 1
 7 COMPUT 7 001   005   0.0         5.52        1.0         2 2  01  04 50-YR
   ENDCMP 1
 7 COMPUT 7 001   005   0.0         6.48        1.0         2 2  01  05 100-YR
   ENDCMP 1
   ENDJOB 2

*********************************END OF 80-80 LIST*********************************
```

EXECUTIVE CONTROL OPERATION INCREM MAIN TIME INCREMENT = .10 HOURS RECORD ID

EXECUTIVE CONTROL OPERATION COMPUT FROM XSECTION 1 TO XSECTION 5 RECORD ID 2-YR
STARTING TIME = .00 RAIN DEPTH = 2.88 RAIN DURATION= 1.00 RAIN TABLE NO.= 2 ANT. MOIST. COND= 2
ALTERNATE NO.= 1 STORM NO.= 1 MAIN TIME INCREMENT = .10 HOURS

OPERATION RUNOFF CROSS SECTION 1
OUTPUT HYDROGRAPH= 1
AREA= .49 SQ MI INPUT RUNOFF CURVE= 81. TIME OF CONCENTRATION= 1.30 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0963 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.76	162.08	(RUNOFF)
23.71	8.22	(RUNOFF)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS			TIME INCREMENT = .10 HOURS				DRAINAGE AREA = .49 SQ.MI.		
9.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03
10.00	DISCHG	.05	.10	.17	.26	.39	.55	.75	1.00	1.30	1.66
11.00	DISCHG	2.10	2.62	3.23	3.95	4.79	5.82	7.27	9.53	13.45	20.73
12.00	DISCHG	32.77	49.73	71.11	95.60	119.98	140.30	154.04	161.04	161.73	157.24
13.00	DISCHG	148.81	137.58	124.45	111.43	100.03	90.37	82.05	74.79	68.29	62.43
14.00	DISCHG	57.24	52.65	48.58	44.95	41.73	38.87	36.34	34.07	32.02	30.18
15.00	DISCHG	28.49	26.98	25.62	24.42	23.37	22.44	21.63	20.87	20.16	19.48
16.00	DISCHG	18.86	18.30	17.82	17.43	17.12	16.85	16.62	16.42	16.23	16.03
17.00	DISCHG	15.80	15.56	15.30	15.03	14.78	14.54	14.32	14.13	13.96	13.82
18.00	DISCHG	13.67	13.52	13.34	13.12	12.88	12.63	12.37	12.13	11.90	11.70
19.00	DISCHG	11.52	11.38	11.26	11.17	11.09	11.03	10.98	10.94	10.91	10.86
20.00	DISCHG	10.80	10.71	10.58	10.41	10.20	9.97	9.73	9.50	9.29	9.09
21.00	DISCHG	8.92	8.78	8.67	8.58	8.50	8.44	8.39	8.35	8.32	8.29
22.00	DISCHG	8.27	8.25	8.24	8.23	8.22	8.22	8.21	8.21	8.21	8.21
23.00	DISCHG	8.21	8.21	8.21	8.21	8.21	8.22	8.22	8.22	8.22	8.20
24.00	DISCHG	8.16	8.06	7.88	7.60	7.20	6.68	6.07	5.41	4.72	4.05
25.00	DISCHG	3.42	2.86	2.37	1.95	1.61	1.33	1.10	.91	.75	.62
26.00	DISCHG	.51	.42	.35	.29	.24	.19	.16	.13	.11	.09
27.00	DISCHG	.07	.06	.04	.04	.03	.02	.02	.01	.01	.00

RUNOFF VOLUME ABOVE BASEFLOW = 1.22 WATERSHED INCHES, 386.65 CFS-HRS, 31.95 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 1, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RESVOR STRUCTURE 1
INPUT HYDROGRAPH= 1 OUTPUT HYDROGRAPH= 2
SURFACE ELEVATION= 893.00

*** WARNING - STRUCTURE 1 DELTA T IS TOO LARGE. O /2 > S /DELTA T OCCURED206 TIMES STARTING WITH POINT 29

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.00	50.00	894.00
14.27	45.99	893.84

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .49 SQ.MI.

TIME(HRS)											
.00	DISCHG	50.00	48.73	47.48	46.27	45.09	43.94	42.82	41.73	40.67	39.63
.00	ELEV	894.00	893.95	893.90	893.85	893.80	893.76	893.71	893.67	893.63	893.59
1.00	DISCHG	38.62	37.63	36.67	35.74	34.83	33.94	33.07	32.23	31.41	30.61
1.00	ELEV	893.54	893.51	893.47	893.43	893.39	893.36	893.32	893.29	893.26	893.22
2.00	DISCHG	29.83	29.07	28.33	27.60	26.90	26.21	25.55	24.90	24.26	23.64
2.00	ELEV	893.19	893.16	893.13	893.10	893.08	893.05	893.02	893.00	892.97	892.95
3.00	DISCHG	23.04	22.45	21.88	21.32	20.78	20.25	19.73	19.23	18.74	18.26
3.00	ELEV	892.92	892.90	892.88	892.85	892.83	892.81	892.79	892.77	892.75	892.73
4.00	DISCHG	17.79	17.34	16.90	16.47	16.05	15.64	15.24	14.85	14.47	14.10
4.00	ELEV	892.71	892.69	892.68	892.66	892.64	892.63	892.61	892.59	892.58	892.56
5.00	DISCHG	13.74	13.39	13.05	12.72	12.40	12.08	11.77	11.47	11.18	10.89
5.00	ELEV	892.55	892.54	892.52	892.51	892.50	892.48	892.47	892.46	892.45	892.44
6.00	DISCHG	10.62	10.35	10.08	9.82	9.57	9.33	9.09	8.86	8.63	8.41
6.00	ELEV	892.42	892.41	892.40	892.39	892.38	892.37	892.36	892.35	892.35	892.34
7.00	DISCHG	8.20	7.99	7.79	7.59	7.39	7.21	7.02	6.84	6.67	6.50
7.00	ELEV	892.33	892.32	892.31	892.30	892.30	892.29	892.28	892.27	892.27	892.26
8.00	DISCHG	6.33	6.17	6.01	5.86	5.71	5.57	5.42	5.29	5.15	5.02
8.00	ELEV	892.25	892.25	892.24	892.23	892.23	892.22	892.22	892.21	892.21	892.20
9.00	DISCHG	4.89	4.77	4.65	4.53	4.41	4.30	4.19	4.08	3.98	3.88
9.00	ELEV	892.20	892.19	892.19	892.18	892.18	892.17	892.17	892.16	892.16	892.16
10.00	DISCHG	3.78	3.69	3.59	3.51	3.43	3.35	3.28	3.22	3.17	3.13
10.00	ELEV	892.15	892.15	892.14	892.14	892.14	892.13	892.13	892.13	892.13	892.13
11.00	DISCHG	3.09	3.08	3.07	3.09	3.12	3.17	3.26	3.39	3.60	3.94
11.00	ELEV	892.12	892.12	892.12	892.12	892.12	892.13	892.13	892.14	892.14	892.16
12.00	DISCHG	4.52	5.46	6.86	8.81	11.33	14.36	17.75	21.31	24.89	28.32
12.00	ELEV	892.18	892.22	892.27	892.35	892.45	892.57	892.71	892.85	893.00	893.13
13.00	DISCHG	31.50	34.34	36.81	38.88	40.58	41.98	43.10	44.00	44.71	45.23
13.00	ELEV	893.26	893.37	893.47	893.56	893.62	893.68	893.72	893.76	893.79	893.81
14.00	DISCHG	45.60	45.84	45.96	45.98	45.92	45.77	45.57	45.30	44.99	44.64
14.00	ELEV	893.82	893.83	893.84	893.84	893.84	893.83	893.82	893.81	893.80	893.79
15.00	DISCHG	44.24	43.82	43.38	42.91	42.42	41.93	41.42	40.91	40.39	39.86
15.00	ELEV	893.77	893.75	893.74	893.72	893.70	893.68	893.66	893.64	893.62	893.59
16.00	DISCHG	39.33	38.80	38.28	37.75	37.23	36.71	36.20	35.70	35.21	34.72
16.00	ELEV	893.57	893.55	893.53	893.51	893.49	893.47	893.45	893.43	893.41	893.39
17.00	DISCHG	34.24	33.77	33.30	32.84	32.38	31.93	31.48	31.04	30.61	30.18
17.00	ELEV	893.37	893.35	893.33	893.31	893.30	893.28	893.26	893.24	893.22	893.21
18.00	DISCHG	29.76	29.35	28.94	28.54	28.15	27.75	27.37	26.98	26.60	26.22
18.00	ELEV	893.19	893.17	893.16	893.14	893.13	893.11	893.09	893.08	893.06	893.05
19.00	DISCHG	25.85	25.48	25.12	24.77	24.42	24.08	23.75	23.42	23.10	22.79
19.00	ELEV	893.03	893.02	893.00	892.99	892.98	892.96	892.95	892.94	892.92	892.91
20.00	DISCHG	22.48	22.19	21.89	21.60	21.31	21.03	20.74	20.46	20.18	19.90
20.00	ELEV	892.90	892.89	892.88	892.86	892.85	892.84	892.83	892.82	892.81	892.80
21.00	DISCHG	19.62	19.34	19.07	18.81	18.54	18.29	18.04	17.79	17.55	17.31

21.00	ELEV	892.78	892.77	892.76	892.75	892.74	892.73	892.72	892.71	892.70	892.69
22.00	DISCHG	17.08	16.86	16.64	16.42	16.21	16.01	15.81	15.62	15.43	15.25
22.00	ELEV	892.68	892.67	892.67	892.66	892.65	892.64	892.63	892.62	892.62	892.61
23.00	DISCHG	15.07	14.89	14.72	14.55	14.39	14.24	14.08	13.93	13.79	13.64
23.00	ELEV	892.60	892.60	892.59	892.58	892.58	892.57	892.56	892.56	892.55	892.55
24.00	DISCHG	13.51	13.37	13.23	13.09	12.95	12.79	12.63	12.45	12.26	12.06
24.00	ELEV	892.54	892.53	892.53	892.52	892.52	892.51	892.51	892.50	892.49	892.48
25.00	DISCHG	11.85	11.63	11.40	11.16	10.92	10.68	10.44	10.20	9.96	9.73
25.00	ELEV	892.47	892.47	892.46	892.45	892.44	892.43	892.42	892.41	892.40	892.39
26.00	DISCHG	9.49	9.26	9.04	8.81	8.60	8.38	8.17	7.97	7.77	7.57
26.00	ELEV	892.38	892.37	892.36	892.35	892.34	892.34	892.33	892.32	892.31	892.30
27.00	DISCHG	7.38	7.19	7.01	6.83	6.66	6.49	6.33	6.17	6.01	5.86
27.00	ELEV	892.30	892.29	892.28	892.27	892.27	892.26	892.25	892.25	892.24	892.23
28.00	DISCHG	5.71	5.56	5.42	5.28	5.15	5.02	4.89	4.76	4.64	4.52
28.00	ELEV	892.23	892.22	892.22	892.21	892.21	892.20	892.20	892.19	892.19	892.18
29.00	DISCHG	4.41	4.30	4.19	4.08	3.98	3.87	3.78	3.68	3.58	3.49
29.00	ELEV	892.18	892.17	892.17	892.16	892.16	892.15	892.15	892.15	892.14	892.14

RUNOFF VOLUME ABOVE BASEFLOW = 1.79 WATERSHED INCHES, 566.71 CFS-HRS, 46.83 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR STRUCTURE 1, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 2
OUTPUT HYDROGRAPH= 3
AREA= 1.06 SQ MI INPUT RUNOFF CURVE= 81. TIME OF CONCENTRATION= 1.30 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0963 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.76	350.61	(RUNOFF)
23.71	17.79	(RUNOFF)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.06 SQ.MI.

9.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.01	.02	.06
10.00	DISCHG	.12	.22	.37	.57	.84	1.19	1.62	2.16	2.81	3.60
11.00	DISCHG	4.55	5.67	7.00	8.55	10.36	12.58	15.74	20.61	29.09	44.84
12.00	DISCHG	70.89	107.57	153.82	206.80	259.55	303.51	333.24	348.37	349.86	340.16
13.00	DISCHG	321.92	297.62	269.22	241.05	216.38	195.49	177.50	161.79	147.72	135.05
14.00	DISCHG	123.82	113.91	105.09	97.25	90.27	84.08	78.60	73.70	69.28	65.28
15.00	DISCHG	61.64	58.36	55.43	52.84	50.55	48.55	46.78	45.15	43.60	42.15
16.00	DISCHG	40.81	39.59	38.55	37.71	37.03	36.45	35.96	35.53	35.11	34.67
17.00	DISCHG	34.19	33.65	33.09	32.52	31.96	31.45	30.98	30.56	30.21	29.89
18.00	DISCHG	29.58	29.24	28.85	28.39	27.86	27.32	26.77	26.24	25.75	25.31
19.00	DISCHG	24.93	24.62	24.36	24.16	24.00	23.87	23.76	23.67	23.59	23.50
20.00	DISCHG	23.36	23.16	22.88	22.51	22.06	21.57	21.06	20.56	20.09	19.67
21.00	DISCHG	19.30	19.00	18.76	18.56	18.40	18.27	18.16	18.07	18.00	17.94
22.00	DISCHG	17.89	17.86	17.83	17.80	17.79	17.78	17.77	17.76	17.76	17.76
23.00	DISCHG	17.76	17.76	17.76	17.77	17.77	17.78	17.78	17.79	17.78	17.75
24.00	DISCHG	17.65	17.44	17.05	16.44	15.57	14.46	13.14	11.70	10.22	8.77
25.00	DISCHG	7.41	6.19	5.12	4.22	3.48	2.88	2.38	1.97	1.63	1.35

26.00	DISCHG	1.11	.92	.76	.62	.51	.42	.35	.28	.23	.19
27.00	DISCHG	.15	.12	.10	.08	.06	.05	.03	.02	.02	.01
28.00	DISCHG	.00									

RUNOFF VOLUME ABOVE BASEFLOW = 1.22 WATERSHED INCHES, 836.42 CFS-HRS, 69.12 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 2, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 3
INPUT HYDROGRAPHS= 2,3 OUTPUT HYDROGRAPH= 4
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.00	50.00	(NULL)
12.79	374.76	(NULL)

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.55 SQ.MI.

TIME(HRS)											
.00	DISCHG	50.00	48.73	47.48	46.27	45.09	43.94	42.82	41.73	40.67	39.63
1.00	DISCHG	38.62	37.63	36.67	35.74	34.83	33.94	33.07	32.23	31.41	30.61
2.00	DISCHG	29.83	29.07	28.33	27.60	26.90	26.21	25.55	24.90	24.26	23.64
3.00	DISCHG	23.04	22.45	21.88	21.32	20.78	20.25	19.73	19.23	18.74	18.26
4.00	DISCHG	17.79	17.34	16.90	16.47	16.05	15.64	15.24	14.85	14.47	14.10
5.00	DISCHG	13.74	13.39	13.05	12.72	12.40	12.08	11.77	11.47	11.18	10.89
6.00	DISCHG	10.62	10.35	10.08	9.82	9.57	9.33	9.09	8.86	8.63	8.41
7.00	DISCHG	8.20	7.99	7.79	7.59	7.39	7.21	7.02	6.84	6.67	6.50
8.00	DISCHG	6.33	6.17	6.01	5.86	5.71	5.57	5.42	5.29	5.15	5.02
9.00	DISCHG	4.89	4.77	4.65	4.53	4.41	4.30	4.19	4.09	4.00	3.93
10.00	DISCHG	3.90	3.90	3.96	4.08	4.27	4.54	4.91	5.38	5.98	6.73
11.00	DISCHG	7.64	8.75	10.07	11.63	13.48	15.76	19.00	24.00	32.68	48.78
12.00	DISCHG	75.41	113.03	160.68	215.61	270.88	317.88	350.99	369.69	374.74	368.48
13.00	DISCHG	353.42	331.96	306.03	279.93	256.97	237.46	220.60	205.79	192.43	180.28
14.00	DISCHG	169.43	159.75	151.05	143.23	136.19	129.86	124.17	119.00	114.27	109.91
15.00	DISCHG	105.88	102.18	98.81	95.74	92.98	90.48	88.20	86.05	83.99	82.01
16.00	DISCHG	80.14	78.39	76.82	75.46	74.26	73.16	72.16	71.23	70.32	69.39
17.00	DISCHG	68.43	67.42	66.39	65.35	64.34	63.37	62.46	61.61	60.82	60.07
18.00	DISCHG	59.34	58.59	57.79	56.93	56.01	55.07	54.13	53.22	52.35	51.53
19.00	DISCHG	50.78	50.10	49.49	48.93	48.42	47.94	47.50	47.09	46.69	46.28
20.00	DISCHG	45.84	45.35	44.77	44.11	43.37	42.59	41.80	41.02	40.27	39.57
21.00	DISCHG	38.92	38.34	37.83	37.36	36.94	36.55	36.19	35.86	35.54	35.25
22.00	DISCHG	34.97	34.71	34.46	34.23	34.00	33.79	33.58	33.38	33.19	33.00
23.00	DISCHG	32.82	32.65	32.48	32.32	32.16	32.01	31.86	31.72	31.57	31.39
24.00	DISCHG	31.16	30.81	30.28	29.53	28.52	27.25	25.77	24.15	22.48	20.83
25.00	DISCHG	19.26	17.82	16.52	15.38	14.40	13.56	12.82	12.17	11.59	11.07
26.00	DISCHG	10.60	10.18	9.79	9.44	9.11	8.80	8.52	8.25	8.00	7.76
27.00	DISCHG	7.53	7.32	7.11	6.91	6.72	6.54	6.36	6.19	6.02	5.87
28.00	DISCHG	5.71	5.56	5.42	5.28	5.15	5.02	4.89	4.76	4.64	4.52
29.00	DISCHG	4.41	4.30	4.19	4.08	3.98	3.87	3.78	3.68	3.58	3.49

RUNOFF VOLUME ABOVE BASEFLOW = 1.40 WATERSHED INCHES, 1403.13 CFS-HRS, 115.95 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 3, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RESVOR STRUCTURE 2
INPUT HYDROGRAPH= 4 OUTPUT HYDROGRAPH= 5
SURFACE ELEVATION= 893.00

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.00	50.00	893.00
16.91	69.26	893.77

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.55 SQ.MI.

TIME(HRS)											
.00	DISCHG	50.00	50.00	49.98	49.96	49.92	49.88	49.83	49.78	49.71	49.64
.00	ELEV	893.00	893.00	893.00	893.00	893.00	893.00	892.99	892.99	892.99	892.99
1.00	DISCHG	49.56	49.47	49.38	49.28	49.17	49.06	48.94	48.81	48.68	48.55
1.00	ELEV	892.98	892.98	892.98	892.97	892.97	892.96	892.96	892.95	892.95	892.94
2.00	DISCHG	48.41	48.27	48.12	47.96	47.80	47.64	47.48	47.31	47.13	46.96
2.00	ELEV	892.94	892.93	892.92	892.92	892.91	892.91	892.90	892.89	892.89	892.88
3.00	DISCHG	46.78	46.59	46.41	46.22	46.03	45.83	45.64	45.44	45.23	45.03
3.00	ELEV	892.87	892.86	892.86	892.85	892.84	892.83	892.83	892.82	892.81	892.80
4.00	DISCHG	44.82	44.62	44.41	44.20	43.98	43.77	43.55	43.34	43.12	42.90
4.00	ELEV	892.79	892.78	892.78	892.77	892.76	892.75	892.74	892.73	892.72	892.72
5.00	DISCHG	42.68	42.45	42.23	42.01	41.78	41.56	41.33	41.11	40.88	40.65
5.00	ELEV	892.71	892.70	892.69	892.68	892.67	892.66	892.65	892.64	892.64	892.63
6.00	DISCHG	40.42	40.19	39.97	39.74	39.51	39.28	39.05	38.82	38.59	38.36
6.00	ELEV	892.62	892.61	892.60	892.59	892.58	892.57	892.56	892.55	892.54	892.53
7.00	DISCHG	38.13	37.90	37.68	37.45	37.22	36.99	36.76	36.54	36.31	36.08
7.00	ELEV	892.53	892.52	892.51	892.50	892.49	892.48	892.47	892.46	892.45	892.44
8.00	DISCHG	35.86	35.63	35.40	35.18	34.96	34.73	34.51	34.29	34.07	33.84
8.00	ELEV	892.43	892.43	892.42	892.41	892.40	892.39	892.38	892.37	892.36	892.35
9.00	DISCHG	33.62	33.41	33.19	32.97	32.75	32.53	32.32	32.10	31.89	31.68
9.00	ELEV	892.34	892.34	892.33	892.32	892.31	892.30	892.29	892.28	892.28	892.27
10.00	DISCHG	31.47	31.26	31.05	30.84	30.64	30.44	30.24	30.05	29.87	29.69
10.00	ELEV	892.26	892.25	892.24	892.23	892.23	892.22	892.21	892.20	892.19	892.19
11.00	DISCHG	29.51	29.35	29.20	29.06	28.93	28.82	28.74	28.68	28.68	28.77
11.00	ELEV	892.18	892.17	892.17	892.16	892.16	892.15	892.15	892.15	892.15	892.15
12.00	DISCHG	29.03	29.52	30.34	31.54	33.16	35.15	37.43	39.89	42.43	44.93
12.00	ELEV	892.16	892.18	892.21	892.26	892.33	892.41	892.50	892.60	892.70	892.80
13.00	DISCHG	47.34	49.60	51.65	53.49	55.13	56.59	57.91	59.09	60.16	61.12
13.00	ELEV	892.89	892.98	893.07	893.14	893.21	893.26	893.32	893.36	893.41	893.44
14.00	DISCHG	61.99	62.77	63.47	64.11	64.69	65.21	65.68	66.11	66.49	66.84
14.00	ELEV	893.48	893.51	893.54	893.56	893.59	893.61	893.63	893.64	893.66	893.67
15.00	DISCHG	67.15	67.43	67.69	67.91	68.11	68.29	68.45	68.60	68.72	68.83
15.00	ELEV	893.69	893.70	893.71	893.72	893.72	893.73	893.74	893.74	893.75	893.75
16.00	DISCHG	68.92	69.00	69.07	69.12	69.17	69.20	69.23	69.25	69.26	69.26
16.00	ELEV	893.76	893.76	893.76	893.76	893.77	893.77	893.77	893.77	893.77	893.77
17.00	DISCHG	69.26	69.25	69.23	69.21	69.17	69.13	69.08	69.03	68.97	68.91

17.00	ELEV	893.77	893.77	893.77	893.77	893.77	893.77	893.76	893.76	893.76	893.76
18.00	DISCHG	68.84	68.76	68.68	68.59	68.50	68.40	68.30	68.19	68.07	67.95
18.00	ELEV	893.75	893.75	893.75	893.74	893.74	893.74	893.73	893.73	893.72	893.72
19.00	DISCHG	67.82	67.68	67.55	67.41	67.27	67.12	66.97	66.82	66.67	66.52
19.00	ELEV	893.71	893.71	893.70	893.70	893.69	893.68	893.68	893.67	893.67	893.66
20.00	DISCHG	66.36	66.20	66.04	65.88	65.71	65.53	65.36	65.17	64.99	64.80
20.00	ELEV	893.65	893.65	893.64	893.64	893.63	893.62	893.61	893.61	893.60	893.59
21.00	DISCHG	64.60	64.40	64.20	64.00	63.80	63.59	63.38	63.17	62.96	62.75
21.00	ELEV	893.58	893.58	893.57	893.56	893.55	893.54	893.54	893.53	893.52	893.51
22.00	DISCHG	62.54	62.33	62.12	61.91	61.70	61.48	61.27	61.06	60.85	60.64
22.00	ELEV	893.50	893.49	893.48	893.48	893.47	893.46	893.45	893.44	893.43	893.43
23.00	DISCHG	60.43	60.21	60.00	59.79	59.58	59.37	59.16	58.96	58.75	58.54
23.00	ELEV	893.42	893.41	893.40	893.39	893.38	893.37	893.37	893.36	893.35	893.34
24.00	DISCHG	58.33	58.12	57.91	57.70	57.48	57.26	57.02	56.78	56.52	56.26
24.00	ELEV	893.33	893.32	893.32	893.31	893.30	893.29	893.28	893.27	893.26	893.25
25.00	DISCHG	55.98	55.69	55.40	55.10	54.79	54.48	54.17	53.85	53.53	53.21
25.00	ELEV	893.24	893.23	893.22	893.20	893.19	893.18	893.17	893.15	893.14	893.13
26.00	DISCHG	52.89	52.56	52.24	51.91	51.59	51.26	50.94	50.61	50.29	49.97
26.00	ELEV	893.12	893.10	893.09	893.08	893.06	893.05	893.04	893.02	893.01	893.00
27.00	DISCHG	49.64	49.32	49.00	48.68	48.36	48.04	47.73	47.41	47.10	46.78
27.00	ELEV	892.99	892.97	892.96	892.95	892.93	892.92	892.91	892.90	892.88	892.87
28.00	DISCHG	46.47	46.16	45.85	45.54	45.23	44.93	44.62	44.32	44.02	43.71
28.00	ELEV	892.86	892.85	892.83	892.82	892.81	892.80	892.78	892.77	892.76	892.75
29.00	DISCHG	43.42	43.12	42.82	42.53	42.23	41.94	41.65	41.36	41.07	40.79
29.00	ELEV	892.74	892.72	892.71	892.70	892.69	892.68	892.67	892.65	892.64	892.63

RUNOFF VOLUME ABOVE BASEFLOW = 1.52 WATERSHED INCHES, 1523.52 CFS-HRS, 125.90 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR STRUCTURE 2, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 4
OUTPUT HYDROGRAPH= 6
AREA= 1.51 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= 2.40 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1000 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET) (RUNOFF)
13.62	262.19	

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.51 SQ.MI.

TIME(HRS)											
10.00	DISCHG	.00	.00	.00	.00	.00	.00	.01	.02	.04	.09
11.00	DISCHG	.16	.28	.45	.69	1.03	1.49	2.24	3.44	5.61	9.58
12.00	DISCHG	16.25	25.37	37.08	51.13	67.79	87.40	109.65	133.83	158.87	182.41
13.00	DISCHG	203.47	221.31	235.99	247.02	254.90	259.96	262.11	261.36	258.08	253.04
14.00	DISCHG	246.37	237.92	227.72	216.09	203.62	191.76	180.93	171.22	162.13	153.64
15.00	DISCHG	145.71	138.35	131.59	125.11	118.92	113.01	107.47	102.40	97.71	93.34
16.00	DISCHG	89.27	85.45	81.91	78.61	75.56	72.74	70.08	67.64	65.45	63.41
17.00	DISCHG	61.52	59.77	58.15	56.64	55.21	53.84	52.54	51.31	50.17	49.08
18.00	DISCHG	48.05	47.09	46.16	45.25	44.39	43.57	42.78	41.99	41.21	40.43
19.00	DISCHG	39.68	38.94	38.22	37.53	36.86	36.22	35.61	35.03	34.50	34.03

20.00	DISCHG	33.62	33.23	32.85	32.50	32.14	31.78	31.41	31.02	30.60	30.18
21.00	DISCHG	29.74	29.30	28.86	28.42	28.00	27.59	27.19	26.82	26.47	26.14
22.00	DISCHG	25.84	25.56	25.31	25.09	24.90	24.73	24.57	24.44	24.32	24.21
23.00	DISCHG	24.11	24.03	23.95	23.88	23.82	23.77	23.73	23.69	23.65	23.61
24.00	DISCHG	23.55	23.47	23.36	23.19	22.95	22.63	22.23	21.71	21.09	20.34
25.00	DISCHG	19.49	18.56	17.55	16.50	15.42	14.32	13.24	12.18	11.14	10.15
26.00	DISCHG	9.21	8.33	7.51	6.75	6.07	5.46	4.92	4.44	4.01	3.62
27.00	DISCHG	3.27	2.95	2.66	2.40	2.17	1.95	1.76	1.59	1.43	1.29
28.00	DISCHG	1.16	1.05	.94	.85	.76	.69	.62	.55	.50	.45
29.00	DISCHG	.40	.36	.32	.29	.26	.23	.21	.18	.16	.14

RUNOFF VOLUME ABOVE BASEFLOW = 1.04 WATERSHED INCHES, 1017.29 CFS-HRS, 84.07 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 4, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 5
INPUT HYDROGRAPHS= 5,6 OUTPUT HYDROGRAPH= 1
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.00	50.00	(NULL)
13.67	320.60	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 3.06 SQ.MI.

.00	DISCHG	50.00	50.00	49.98	49.96	49.92	49.88	49.83	49.78	49.71	49.64
1.00	DISCHG	49.56	49.47	49.38	49.28	49.17	49.06	48.94	48.81	48.68	48.55
2.00	DISCHG	48.41	48.27	48.12	47.96	47.80	47.64	47.48	47.31	47.13	46.96
3.00	DISCHG	46.78	46.59	46.41	46.22	46.03	45.83	45.64	45.44	45.23	45.03
4.00	DISCHG	44.82	44.62	44.41	44.20	43.98	43.77	43.55	43.34	43.12	42.90
5.00	DISCHG	42.68	42.45	42.23	42.01	41.78	41.56	41.33	41.11	40.88	40.65
6.00	DISCHG	40.42	40.19	39.97	39.74	39.51	39.28	39.05	38.82	38.59	38.36
7.00	DISCHG	38.13	37.90	37.68	37.45	37.22	36.99	36.76	36.54	36.31	36.08
8.00	DISCHG	35.86	35.63	35.40	35.18	34.96	34.73	34.51	34.29	34.07	33.84
9.00	DISCHG	33.62	33.41	33.19	32.97	32.75	32.53	32.32	32.10	31.89	31.68
10.00	DISCHG	31.47	31.26	31.05	30.84	30.64	30.44	30.25	30.07	29.91	29.78
11.00	DISCHG	29.68	29.63	29.65	29.75	29.96	30.31	30.98	32.13	34.29	38.35
12.00	DISCHG	45.28	54.89	67.42	82.67	100.95	122.55	147.08	173.72	201.30	227.34
13.00	DISCHG	250.81	270.91	287.64	300.51	310.03	316.55	320.02	320.45	318.18	314.16
14.00	DISCHG	308.36	300.69	291.19	280.20	268.31	256.97	246.61	237.33	228.63	220.48
15.00	DISCHG	212.86	205.78	199.27	193.02	187.04	181.31	175.93	171.00	166.43	162.17
16.00	DISCHG	158.19	154.45	150.98	147.73	144.72	141.94	139.31	136.89	134.71	132.67
17.00	DISCHG	130.78	129.02	127.38	125.84	124.38	122.97	121.62	120.35	119.14	117.98
18.00	DISCHG	116.89	115.85	114.84	113.85	112.89	111.97	111.08	110.18	109.28	108.38
19.00	DISCHG	107.49	106.62	105.77	104.94	104.13	103.34	102.58	101.86	101.18	100.55
20.00	DISCHG	99.98	99.43	98.90	98.37	97.85	97.32	96.77	96.19	95.59	94.97
21.00	DISCHG	94.34	93.70	93.06	92.42	91.79	91.18	90.58	89.99	89.43	88.90
22.00	DISCHG	88.38	87.89	87.43	87.00	86.59	86.21	85.85	85.50	85.17	84.85

21.00	DISCHG	159.34	157.88	156.43	154.98	153.54	152.14	150.76	149.41	148.11	146.85
22.00	DISCHG	145.63	144.45	143.33	142.26	141.24	140.26	139.32	138.41	137.52	136.67
23.00	DISCHG	135.84	135.03	134.25	133.48	132.73	132.00	131.28	130.58	129.89	129.20
24.00	DISCHG	128.50	127.75	126.94	126.04	125.01	123.85	122.51	120.96	119.21	117.24
25.00	DISCHG	115.07	112.72	110.25	107.69	105.06	102.42	99.77	97.16	94.59	92.10
26.00	DISCHG	89.85	87.97	86.19	84.52	82.96	81.52	80.19	78.97	77.82	76.74
27.00	DISCHG	75.72	74.76	73.85	72.98	72.16	71.37	70.61	69.89	69.20	68.54
28.00	DISCHG	67.89	67.27	66.67	66.09	65.52	64.97	64.43	63.91	63.40	62.89
29.00	DISCHG	62.40	61.92	61.44	60.97	60.51	60.06	59.61	59.17	58.73	58.30

RUNOFF VOLUME ABOVE BASEFLOW = 2.11 WATERSHED INCHES, 4157.53 CFS-HRS, 343.58 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 5, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

EXECUTIVE CONTROL OPERATION ENDCMP COMPUTATIONS COMPLETED FOR PASS 2 RECORD ID

EXECUTIVE CONTROL OPERATION COMPUT FROM XSECTION 1 TO XSECTION 5 RECORD ID 20-YR
STARTING TIME = .00 RAIN DEPTH = 4.32 RAIN DURATION= 1.00 RAIN TABLE NO.= 2 ANT. MOIST. COND= 2
ALTERNATE NO.= 1 STORM NO.= 3 MAIN TIME INCREMENT = .10 HOURS

OPERATION RUNOFF CROSS SECTION 1
OUTPUT HYDROGRAPH= 1
AREA= .49 SQ MI INPUT RUNOFF CURVE= 81. TIME OF CONCENTRATION= 1.30 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0963 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.74	327.07	(RUNOFF)
23.67	14.00	(RUNOFF)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .49 SQ.MI.

7.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.01	.01	.03
8.00	DISCHG	.06	.10	.16	.24	.35	.48	.64	.83	1.05	1.29
9.00	DISCHG	1.55	1.84	2.14	2.46	2.80	3.16	3.55	3.95	4.38	4.83
10.00	DISCHG	5.31	5.81	6.34	6.89	7.48	8.12	8.84	9.66	10.60	11.69
11.00	DISCHG	12.96	14.43	16.12	18.04	20.22	22.82	26.41	31.80	40.78	56.69
12.00	DISCHG	82.02	116.75	159.59	207.53	254.08	291.67	315.72	326.31	324.45	312.59
13.00	DISCHG	293.35	269.02	241.55	214.87	191.73	172.20	155.47	140.93	127.97	116.38
14.00	DISCHG	106.17	97.20	89.26	82.23	76.01	70.53	65.69	61.38	57.51	54.03
15.00	DISCHG	50.87	48.03	45.51	43.28	41.33	39.61	38.10	36.70	35.37	34.13
16.00	DISCHG	32.99	31.96	31.08	30.38	29.81	29.33	28.92	28.55	28.20	27.83
17.00	DISCHG	27.43	26.99	26.52	26.05	25.60	25.17	24.78	24.44	24.15	23.88
18.00	DISCHG	23.62	23.35	23.02	22.64	22.22	21.78	21.33	20.90	20.51	20.15
19.00	DISCHG	19.84	19.58	19.38	19.21	19.07	18.96	18.87	18.80	18.73	18.64
20.00	DISCHG	18.53	18.37	18.14	17.84	17.48	17.09	16.68	16.28	15.91	15.57
21.00	DISCHG	15.27	15.03	14.83	14.68	14.55	14.44	14.35	14.27	14.21	14.17
22.00	DISCHG	14.13	14.09	14.07	14.05	14.03	14.02	14.01	14.00	14.00	13.99
23.00	DISCHG	13.99	13.99	13.99	13.99	13.99	13.99	13.99	14.00	13.99	13.96
24.00	DISCHG	13.88	13.71	13.40	12.92	12.24	11.36	10.33	9.19	8.03	6.89
25.00	DISCHG	5.82	4.86	4.02	3.31	2.73	2.26	1.87	1.55	1.28	1.06
26.00	DISCHG	.87	.72	.59	.49	.40	.33	.27	.22	.18	.15
27.00	DISCHG	.12	.10	.08	.06	.05	.04	.03	.02	.01	.01
28.00	DISCHG	.00									

RUNOFF VOLUME ABOVE BASEFLOW = 2.39 WATERSHED INCHES, 757.22 CFS-HRS, 62.58 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 1, ALTERNATE 1, STORM 3, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RESVOR STRUCTURE 1
INPUT HYDROGRAPH= 1 OUTPUT HYDROGRAPH= 2
SURFACE ELEVATION= 893.00

*** WARNING - STRUCTURE 1 DELTA T IS TOO LARGE. O /2 > S /DELTA T OCCURED159 TIMES STARTING WITH POINT 29

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.00	50.00	894.00
14.01	105.26	895.61

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .49 SQ.MI.

TIME(HRS)											
.00	DISCHG	50.00	48.73	47.48	46.27	45.09	43.94	42.82	41.73	40.67	39.63
.00	ELEV	894.00	893.95	893.90	893.85	893.80	893.76	893.71	893.67	893.63	893.59
1.00	DISCHG	38.62	37.63	36.67	35.74	34.83	33.94	33.07	32.23	31.41	30.61
1.00	ELEV	893.54	893.51	893.47	893.43	893.39	893.36	893.32	893.29	893.26	893.22
2.00	DISCHG	29.83	29.07	28.33	27.60	26.90	26.21	25.55	24.90	24.26	23.64
2.00	ELEV	893.19	893.16	893.13	893.10	893.08	893.05	893.02	893.00	892.97	892.95
3.00	DISCHG	23.04	22.45	21.88	21.32	20.78	20.25	19.73	19.23	18.74	18.26
3.00	ELEV	892.92	892.90	892.88	892.85	892.83	892.81	892.79	892.77	892.75	892.73
4.00	DISCHG	17.79	17.34	16.90	16.47	16.05	15.64	15.24	14.85	14.47	14.10
4.00	ELEV	892.71	892.69	892.68	892.66	892.64	892.63	892.61	892.59	892.58	892.56
5.00	DISCHG	13.74	13.39	13.05	12.72	12.40	12.08	11.77	11.47	11.18	10.89
5.00	ELEV	892.55	892.54	892.52	892.51	892.50	892.48	892.47	892.46	892.45	892.44
6.00	DISCHG	10.62	10.35	10.08	9.82	9.57	9.33	9.09	8.86	8.63	8.41
6.00	ELEV	892.42	892.41	892.40	892.39	892.38	892.37	892.36	892.35	892.35	892.34
7.00	DISCHG	8.20	7.99	7.79	7.59	7.39	7.21	7.02	6.84	6.67	6.50
7.00	ELEV	892.33	892.32	892.31	892.30	892.30	892.29	892.28	892.27	892.27	892.26
8.00	DISCHG	6.34	6.18	6.02	5.87	5.73	5.60	5.47	5.35	5.23	5.13
8.00	ELEV	892.25	892.25	892.24	892.23	892.23	892.22	892.22	892.21	892.21	892.21
9.00	DISCHG	5.04	4.95	4.87	4.81	4.75	4.71	4.67	4.65	4.64	4.64
9.00	ELEV	892.20	892.20	892.20	892.19	892.19	892.19	892.19	892.19	892.19	892.19
10.00	DISCHG	4.65	4.67	4.71	4.76	4.82	4.89	4.99	5.09	5.22	5.37
10.00	ELEV	892.19	892.19	892.19	892.19	892.19	892.20	892.20	892.20	892.21	892.21
11.00	DISCHG	5.55	5.76	6.00	6.28	6.61	6.99	7.44	7.99	8.71	9.74
11.00	ELEV	892.22	892.23	892.24	892.25	892.26	892.28	892.30	892.32	892.35	892.39
12.00	DISCHG	11.26	13.50	16.68	20.94	26.29	32.57	39.49	46.67	53.77	60.52
12.00	ELEV	892.45	892.54	892.67	892.84	893.05	893.30	893.58	893.87	894.15	894.42
13.00	DISCHG	66.70	72.17	78.64	86.17	92.06	96.59	99.98	102.41	104.02	104.93
13.00	ELEV	894.67	894.89	895.07	895.22	895.34	895.43	895.50	895.55	895.58	895.60
14.00	DISCHG	105.25	105.07	104.48	103.53	102.30	100.84	99.19	97.40	95.49	93.49
14.00	ELEV	895.61	895.60	895.59	895.57	895.55	895.52	895.48	895.45	895.41	895.37
15.00	DISCHG	91.42	89.31	87.17	85.01	82.86	80.73	78.62	76.54	74.75	73.73
15.00	ELEV	895.33	895.29	895.24	895.20	895.16	895.11	895.07	895.03	894.99	894.95
16.00	DISCHG	72.70	71.68	70.66	69.64	68.63	67.63	66.65	65.68	64.73	63.80
16.00	ELEV	894.91	894.87	894.83	894.79	894.75	894.71	894.67	894.63	894.59	894.55
17.00	DISCHG	62.88	61.97	61.07	60.18	59.30	58.44	57.59	56.75	55.92	55.11
17.00	ELEV	894.52	894.48	894.44	894.41	894.37	894.34	894.30	894.27	894.24	894.20
18.00	DISCHG	54.31	53.52	52.75	51.98	51.23	50.48	49.75	49.02	48.30	47.58
18.00	ELEV	894.17	894.14	894.11	894.08	894.05	894.02	893.99	893.96	893.93	893.90
19.00	DISCHG	46.88	46.19	45.51	44.84	44.18	43.54	42.91	42.30	41.70	41.11
19.00	ELEV	893.88	893.85	893.82	893.79	893.77	893.74	893.72	893.69	893.67	893.64
20.00	DISCHG	40.54	39.97	39.42	38.87	38.33	37.80	37.26	36.73	36.21	35.69
20.00	ELEV	893.62	893.60	893.58	893.55	893.53	893.51	893.49	893.47	893.45	893.43
21.00	DISCHG	35.17	34.66	34.16	33.66	33.17	32.70	32.23	31.77	31.33	30.89

21.00	ELEV	893.41	893.39	893.37	893.35	893.33	893.31	893.29	893.27	893.25	893.24
22.00	DISCHG	30.46	30.05	29.64	29.24	28.85	28.48	28.11	27.75	27.40	27.06
22.00	ELEV	893.22	893.20	893.19	893.17	893.15	893.14	893.12	893.11	893.10	893.08
23.00	DISCHG	26.72	26.40	26.08	25.77	25.47	25.18	24.90	24.62	24.35	24.08
23.00	ELEV	893.07	893.06	893.04	893.03	893.02	893.01	893.00	892.98	892.97	892.96
24.00	DISCHG	23.82	23.57	23.31	23.05	22.79	22.51	22.21	21.89	21.55	21.19
24.00	ELEV	892.95	892.94	892.93	892.92	892.91	892.90	892.89	892.88	892.86	892.85
25.00	DISCHG	20.81	20.42	20.01	19.60	19.17	18.75	18.32	17.90	17.48	17.06
25.00	ELEV	892.83	892.82	892.80	892.78	892.77	892.75	892.73	892.72	892.70	892.68
26.00	DISCHG	16.65	16.25	15.85	15.46	15.08	14.70	14.34	13.98	13.62	13.28
26.00	ELEV	892.67	892.65	892.63	892.62	892.60	892.59	892.57	892.56	892.54	892.53
27.00	DISCHG	12.95	12.62	12.30	11.99	11.68	11.39	11.10	10.81	10.54	10.27
27.00	ELEV	892.52	892.50	892.49	892.48	892.47	892.46	892.44	892.43	892.42	892.41
28.00	DISCHG	10.01	9.75	9.51	9.26	9.03	8.80	8.57	8.35	8.14	7.93
28.00	ELEV	892.40	892.39	892.38	892.37	892.36	892.35	892.34	892.33	892.33	892.32
29.00	DISCHG	7.73	7.53	7.34	7.15	6.97	6.79	6.62	6.45	6.29	6.13
29.00	ELEV	892.31	892.30	892.29	892.29	892.28	892.27	892.26	892.26	892.25	892.25

RUNOFF VOLUME ABOVE BASEFLOW = 2.93 WATERSHED INCHES, 927.09 CFS-HRS, 76.61 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR STRUCTURE 1, ALTERNATE 1, STORM 3, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 2
OUTPUT HYDROGRAPH= 3
AREA= 1.06 SQ MI INPUT RUNOFF CURVE= 81. TIME OF CONCENTRATION= 1.30 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0963 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.74	707.55	(RUNOFF)
23.67	30.28	(RUNOFF)

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.06 SQ.MI.

TIME(HRS)											
7.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.01	.03	.06
8.00	DISCHG	.12	.22	.35	.52	.75	1.04	1.38	1.79	2.26	2.79
9.00	DISCHG	3.36	3.97	4.63	5.32	6.06	6.85	7.68	8.55	9.48	10.46
10.00	DISCHG	11.49	12.57	13.71	14.91	16.18	17.57	19.12	20.89	22.92	25.29
11.00	DISCHG	28.04	31.22	34.87	39.03	43.74	49.37	57.14	68.79	88.22	122.63
12.00	DISCHG	177.44	252.57	345.23	448.95	549.65	630.96	682.98	705.89	701.87	676.22
13.00	DISCHG	634.59	581.96	522.53	464.81	414.75	372.51	336.33	304.87	276.84	251.76
14.00	DISCHG	229.68	210.27	193.09	177.89	164.44	152.57	142.10	132.78	124.41	116.87
15.00	DISCHG	110.04	103.91	98.46	93.64	89.40	85.70	82.42	79.38	76.52	73.84
16.00	DISCHG	71.36	69.13	67.24	65.73	64.49	63.45	62.56	61.76	61.00	60.21
17.00	DISCHG	59.34	58.38	57.37	56.36	55.37	54.45	53.61	52.87	52.23	51.66
18.00	DISCHG	51.10	50.50	49.81	48.99	48.07	47.11	46.14	45.22	44.36	43.59
19.00	DISCHG	42.92	42.36	41.92	41.55	41.26	41.02	40.82	40.66	40.51	40.33
20.00	DISCHG	40.09	39.74	39.25	38.60	37.82	36.96	36.08	35.22	34.41	33.68
21.00	DISCHG	33.04	32.51	32.09	31.75	31.47	31.23	31.04	30.88	30.75	30.64
22.00	DISCHG	30.56	30.49	30.44	30.39	30.36	30.33	30.31	30.29	30.28	30.27
23.00	DISCHG	30.27	30.26	30.26	30.26	30.27	30.27	30.27	30.28	30.26	30.20

24.00	DISCHG	30.03	29.66	29.00	27.95	26.48	24.58	22.34	19.88	17.36	14.90
25.00	DISCHG	12.59	10.52	8.70	7.17	5.91	4.89	4.05	3.35	2.77	2.29
26.00	DISCHG	1.89	1.56	1.28	1.06	.87	.72	.59	.48	.39	.32
27.00	DISCHG	.26	.21	.16	.13	.10	.08	.06	.04	.03	.02
28.00	DISCHG	.01	.00								

RUNOFF VOLUME ABOVE BASEFLOW = 2.39 WATERSHED INCHES, 1638.07 CFS-HRS, 135.37 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 2, ALTERNATE 1, STORM 3, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 3
INPUT HYDROGRAPHS= 2,3 OUTPUT HYDROGRAPH= 4
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.00	50.00	(NULL)
12.76	757.06	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.55 SQ.MI.

.00	DISCHG	50.00	48.73	47.48	46.27	45.09	43.94	42.82	41.73	40.67	39.63
1.00	DISCHG	38.62	37.63	36.67	35.74	34.83	33.94	33.07	32.23	31.41	30.61
2.00	DISCHG	29.83	29.07	28.33	27.60	26.90	26.21	25.55	24.90	24.26	23.64
3.00	DISCHG	23.04	22.45	21.88	21.32	20.78	20.25	19.73	19.23	18.74	18.26
4.00	DISCHG	17.79	17.34	16.90	16.47	16.05	15.64	15.24	14.85	14.47	14.10
5.00	DISCHG	13.74	13.39	13.05	12.72	12.40	12.08	11.77	11.47	11.18	10.89
6.00	DISCHG	10.62	10.35	10.08	9.82	9.57	9.33	9.09	8.86	8.63	8.41
7.00	DISCHG	8.20	7.99	7.79	7.59	7.39	7.21	7.02	6.85	6.70	6.56
8.00	DISCHG	6.46	6.39	6.37	6.40	6.48	6.63	6.85	7.14	7.50	7.92
9.00	DISCHG	8.39	8.92	9.50	10.13	10.82	11.55	12.35	13.20	14.12	15.09
10.00	DISCHG	16.13	17.24	18.42	19.66	21.00	22.47	24.11	25.98	28.15	30.66
11.00	DISCHG	33.59	36.98	40.87	45.31	50.35	56.36	64.58	76.79	96.94	132.36
12.00	DISCHG	188.69	266.07	361.91	469.88	575.94	663.53	722.47	752.56	755.64	736.74
13.00	DISCHG	701.29	654.13	601.16	550.98	506.82	469.10	436.31	407.28	380.86	356.70
14.00	DISCHG	334.93	315.34	297.57	281.42	266.74	253.41	241.30	230.18	219.90	210.36
15.00	DISCHG	201.46	193.22	185.63	178.65	172.26	166.42	161.04	155.93	151.27	147.57
16.00	DISCHG	144.07	140.81	137.90	135.36	133.12	131.08	129.21	127.45	125.74	124.01
17.00	DISCHG	122.21	120.35	118.44	116.54	114.68	112.89	111.20	109.62	108.15	106.76
18.00	DISCHG	105.41	104.02	102.55	100.97	99.30	97.59	95.89	94.23	92.66	91.17
19.00	DISCHG	89.80	88.55	87.42	86.39	85.44	84.56	83.73	82.96	82.21	81.44
20.00	DISCHG	80.63	79.72	78.67	77.47	76.15	74.76	73.35	71.95	70.62	69.37
21.00	DISCHG	68.21	67.17	66.25	65.41	64.64	63.93	63.27	62.65	62.08	61.54
22.00	DISCHG	61.02	60.54	60.07	59.63	59.21	58.81	58.42	58.04	57.68	57.33
23.00	DISCHG	56.99	56.66	56.34	56.04	55.74	55.45	55.17	54.89	54.61	54.28
24.00	DISCHG	53.85	53.23	52.31	51.00	49.26	47.09	44.55	41.77	38.92	36.09
25.00	DISCHG	33.41	30.94	28.71	26.76	25.08	23.64	22.37	21.25	20.25	19.35
26.00	DISCHG	18.54	17.81	17.14	16.52	15.95	15.42	14.92	14.46	14.02	13.60
27.00	DISCHG	13.20	12.83	12.46	12.12	11.78	11.46	11.15	10.86	10.57	10.29

28.00	DISCHG	10.02	9.75	9.51	9.26	9.03	8.80	8.57	8.35	8.14	7.93
29.00	DISCHG	7.73	7.53	7.34	7.15	6.97	6.79	6.62	6.45	6.29	6.13

RUNOFF VOLUME ABOVE BASEFLOW = 2.56 WATERSHED INCHES, 2565.15 CFS-HRS, 211.98 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 3, ALTERNATE 1, STORM 3, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RESVOR STRUCTURE 2
INPUT HYDROGRAPH= 4 OUTPUT HYDROGRAPH= 5
SURFACE ELEVATION= 893.00

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.00	50.00	893.00
15.57	162.79	895.50

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.55 SQ.MI.

.00	DISCHG	50.00	50.00	49.98	49.96	49.92	49.88	49.83	49.78	49.71	49.64
.00	ELEV	893.00	893.00	893.00	893.00	893.00	893.00	892.99	892.99	892.99	892.99
1.00	DISCHG	49.56	49.47	49.38	49.28	49.17	49.06	48.94	48.81	48.68	48.55
1.00	ELEV	892.98	892.98	892.98	892.97	892.97	892.96	892.96	892.95	892.95	892.94
2.00	DISCHG	48.41	48.27	48.12	47.96	47.80	47.64	47.48	47.31	47.13	46.96
2.00	ELEV	892.94	892.93	892.92	892.92	892.91	892.91	892.90	892.89	892.89	892.88
3.00	DISCHG	46.78	46.59	46.41	46.22	46.03	45.83	45.64	45.44	45.23	45.03
3.00	ELEV	892.87	892.86	892.86	892.85	892.84	892.83	892.83	892.82	892.81	892.80
4.00	DISCHG	44.82	44.62	44.41	44.20	43.98	43.77	43.55	43.34	43.12	42.90
4.00	ELEV	892.79	892.78	892.78	892.77	892.76	892.75	892.74	892.73	892.72	892.72
5.00	DISCHG	42.68	42.45	42.23	42.01	41.78	41.56	41.33	41.11	40.88	40.65
5.00	ELEV	892.71	892.70	892.69	892.68	892.67	892.66	892.65	892.64	892.64	892.63
6.00	DISCHG	40.42	40.19	39.97	39.74	39.51	39.28	39.05	38.82	38.59	38.36
6.00	ELEV	892.62	892.61	892.60	892.59	892.58	892.57	892.56	892.55	892.54	892.53
7.00	DISCHG	38.13	37.90	37.68	37.45	37.22	36.99	36.76	36.54	36.31	36.08
7.00	ELEV	892.53	892.52	892.51	892.50	892.49	892.48	892.47	892.46	892.45	892.44
8.00	DISCHG	35.86	35.63	35.41	35.19	34.97	34.75	34.54	34.33	34.12	33.92
8.00	ELEV	892.43	892.43	892.42	892.41	892.40	892.39	892.38	892.37	892.36	892.36
9.00	DISCHG	33.73	33.53	33.35	33.17	33.00	32.83	32.67	32.52	32.38	32.24
9.00	ELEV	892.35	892.34	892.33	892.33	892.32	892.31	892.31	892.30	892.30	892.29
10.00	DISCHG	32.11	32.00	31.89	31.79	31.70	31.63	31.56	31.51	31.48	31.46
10.00	ELEV	892.28	892.28	892.28	892.27	892.27	892.27	892.26	892.26	892.26	892.26
11.00	DISCHG	31.47	31.50	31.55	31.64	31.77	31.93	32.15	32.44	32.86	33.48
11.00	ELEV	892.26	892.26	892.26	892.27	892.27	892.28	892.29	892.30	892.31	892.34
12.00	DISCHG	34.45	35.92	38.04	40.92	44.59	48.98	53.89	59.10	64.40	69.59
12.00	ELEV	892.38	892.44	892.52	892.64	892.78	892.96	893.16	893.36	893.58	893.78
13.00	DISCHG	74.54	83.25	91.52	98.88	105.41	111.22	116.41	121.05	125.29	130.82
13.00	ELEV	893.98	894.17	894.33	894.48	894.61	894.72	894.83	894.92	895.00	895.08
14.00	DISCHG	135.70	140.00	143.78	147.08	149.96	152.46	154.62	156.46	158.02	159.31
14.00	ELEV	895.14	895.20	895.25	895.29	895.33	895.37	895.39	895.42	895.44	895.46
15.00	DISCHG	160.37	161.21	161.85	162.31	162.61	162.76	162.78	162.68	162.48	162.18
15.00	ELEV	895.47	895.48	895.49	895.50	895.50	895.50	895.50	895.50	895.50	895.50
16.00	DISCHG	161.81	161.37	160.87	160.32	159.73	159.10	158.45	157.76	157.05	156.32

16.00	ELEV	895.49	895.48	895.48	895.47	895.46	895.45	895.45	895.44	895.43	895.42
17.00	DISCHG	155.57	154.79	153.99	153.16	152.31	151.43	150.54	149.63	148.70	147.77
17.00	ELEV	895.41	895.40	895.39	895.38	895.36	895.35	895.34	895.33	895.32	895.30
18.00	DISCHG	146.82	145.87	144.90	143.92	142.93	141.92	140.89	139.85	138.80	137.73
18.00	ELEV	895.29	895.28	895.27	895.25	895.24	895.23	895.21	895.20	895.18	895.17
19.00	DISCHG	136.66	135.58	134.50	133.42	132.34	131.27	130.20	129.14	128.08	127.03
19.00	ELEV	895.16	895.14	895.13	895.11	895.10	895.08	895.07	895.06	895.04	895.03
20.00	DISCHG	125.99	124.96	124.27	123.57	122.86	122.14	121.41	120.67	119.92	119.16
20.00	ELEV	895.01	895.00	894.99	894.97	894.96	894.94	894.93	894.91	894.90	894.88
21.00	DISCHG	118.39	117.62	116.85	116.08	115.30	114.52	113.75	112.98	112.21	111.45
21.00	ELEV	894.87	894.85	894.84	894.82	894.81	894.79	894.78	894.76	894.74	894.73
22.00	DISCHG	110.68	109.93	109.17	108.42	107.68	106.94	106.21	105.48	104.75	104.04
22.00	ELEV	894.71	894.70	894.68	894.67	894.65	894.64	894.62	894.61	894.60	894.58
23.00	DISCHG	103.32	102.62	101.92	101.22	100.53	99.85	99.18	98.50	97.84	97.18
23.00	ELEV	894.57	894.55	894.54	894.52	894.51	894.50	894.48	894.47	894.46	894.44
24.00	DISCHG	96.53	95.87	95.22	94.56	93.88	93.19	92.47	91.72	90.94	90.13
24.00	ELEV	894.43	894.42	894.40	894.39	894.38	894.36	894.35	894.33	894.32	894.30
25.00	DISCHG	89.29	88.42	87.53	86.62	85.70	84.77	83.83	82.89	81.94	81.00
25.00	ELEV	894.29	894.27	894.25	894.23	894.21	894.20	894.18	894.16	894.14	894.12
26.00	DISCHG	80.06	79.12	78.18	77.25	76.32	75.40	74.74	74.28	73.83	73.37
26.00	ELEV	894.10	894.08	894.06	894.04	894.03	894.01	893.99	893.97	893.95	893.93
27.00	DISCHG	72.91	72.46	72.00	71.54	71.09	70.64	70.18	69.73	69.28	68.83
27.00	ELEV	893.92	893.90	893.88	893.86	893.84	893.83	893.81	893.79	893.77	893.75
28.00	DISCHG	68.39	67.94	67.50	67.05	66.61	66.17	65.73	65.30	64.86	64.43
28.00	ELEV	893.74	893.72	893.70	893.68	893.66	893.65	893.63	893.61	893.59	893.58
29.00	DISCHG	64.00	63.57	63.14	62.71	62.29	61.87	61.45	61.03	60.61	60.20
29.00	ELEV	893.56	893.54	893.53	893.51	893.49	893.47	893.46	893.44	893.42	893.41

RUNOFF VOLUME ABOVE BASEFLOW = 2.43 WATERSHED INCHES, 2431.92 CFS-HRS, 200.97 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR STRUCTURE 2, ALTERNATE 1, STORM 3, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 4
OUTPUT HYDROGRAPH= 6
AREA= 1.51 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= 2.40 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1000 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET) (RUNOFF)
13.56	565.69	

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS			DRAINAGE AREA =		1.51 SQ.MI.
8.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.01	.02	.03
9.00	DISCHG	.06	.11	.17	.26	.38	.54	.74	1.00	1.31	1.68
10.00	DISCHG	2.11	2.61	3.17	3.81	4.54	5.34	6.24	7.25	8.38	9.65
11.00	DISCHG	11.07	12.69	14.51	16.59	18.96	21.66	25.16	29.81	36.76	47.72
12.00	DISCHG	64.30	85.97	112.94	144.67	181.75	224.58	272.34	323.26	374.98	422.63
13.00	DISCHG	464.34	498.75	526.06	545.50	558.11	564.70	565.15	559.65	548.97	534.97
14.00	DISCHG	517.56	496.63	472.33	445.56	417.59	391.32	367.50	346.20	326.41	308.02
15.00	DISCHG	290.93	275.16	260.68	246.88	233.76	221.29	209.67	199.07	189.28	180.19

16.00	DISCHG	171.73	163.84	156.53	149.73	143.47	137.68	132.24	127.28	122.81	118.65
17.00	DISCHG	114.81	111.27	107.98	104.92	102.04	99.30	96.69	94.25	91.96	89.80
18.00	DISCHG	87.77	85.87	84.03	82.26	80.58	78.99	77.46	75.94	74.43	72.94
19.00	DISCHG	71.49	70.08	68.71	67.38	66.10	64.87	63.70	62.61	61.61	60.73
20.00	DISCHG	59.96	59.23	58.54	57.88	57.22	56.56	55.87	55.15	54.40	53.62
21.00	DISCHG	52.82	52.02	51.22	50.43	49.67	48.92	48.21	47.53	46.90	46.30
22.00	DISCHG	45.75	45.24	44.79	44.38	44.03	43.71	43.43	43.18	42.95	42.75
23.00	DISCHG	42.57	42.41	42.26	42.13	42.01	41.91	41.82	41.74	41.66	41.57
24.00	DISCHG	41.47	41.32	41.11	40.80	40.37	39.81	39.08	38.17	37.07	35.76
25.00	DISCHG	34.26	32.61	30.84	28.98	27.08	25.17	23.26	21.39	19.57	17.83
26.00	DISCHG	16.18	14.63	13.18	11.86	10.66	9.59	8.64	7.80	7.04	6.36
27.00	DISCHG	5.74	5.18	4.68	4.22	3.81	3.43	3.09	2.79	2.51	2.27
28.00	DISCHG	2.04	1.84	1.66	1.49	1.34	1.21	1.08	.97	.88	.79
29.00	DISCHG	.71	.63	.57	.51	.45	.40	.36	.32	.28	.25

RUNOFF VOLUME ABOVE BASEFLOW = 2.14 WATERSHED INCHES, 2089.83 CFS-HRS, 172.70 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 4, ALTERNATE 1, STORM 3, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 5
INPUT HYDROGRAPHS= 5,6 OUTPUT HYDROGRAPH= 1
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.00	50.00	(NULL)
13.64	682.00	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 3.06 SQ.MI.

.00	DISCHG	50.00	50.00	49.98	49.96	49.92	49.88	49.83	49.78	49.71	49.64
1.00	DISCHG	49.56	49.47	49.38	49.28	49.17	49.06	48.94	48.81	48.68	48.55
2.00	DISCHG	48.41	48.27	48.12	47.96	47.80	47.64	47.48	47.31	47.13	46.96
3.00	DISCHG	46.78	46.59	46.41	46.22	46.03	45.83	45.64	45.44	45.23	45.03
4.00	DISCHG	44.82	44.62	44.41	44.20	43.98	43.77	43.55	43.34	43.12	42.90
5.00	DISCHG	42.68	42.45	42.23	42.01	41.78	41.56	41.33	41.11	40.88	40.65
6.00	DISCHG	40.42	40.19	39.97	39.74	39.51	39.28	39.05	38.82	38.59	38.36
7.00	DISCHG	38.13	37.90	37.68	37.45	37.22	36.99	36.76	36.54	36.31	36.08
8.00	DISCHG	35.86	35.63	35.41	35.19	34.97	34.75	34.54	34.34	34.14	33.96
9.00	DISCHG	33.79	33.64	33.52	33.43	33.38	33.37	33.42	33.52	33.68	33.92
10.00	DISCHG	34.22	34.60	35.06	35.60	36.24	36.97	37.81	38.76	39.86	41.11
11.00	DISCHG	42.54	44.19	46.07	48.23	50.73	53.59	57.31	62.25	69.62	81.20
12.00	DISCHG	98.75	121.89	150.98	185.59	226.34	273.56	326.22	382.36	439.37	492.22
13.00	DISCHG	538.88	582.00	617.58	644.38	663.52	675.92	681.56	680.70	674.26	665.79
14.00	DISCHG	653.25	636.62	616.11	592.64	567.56	543.78	522.12	502.66	484.43	467.33
15.00	DISCHG	451.30	436.37	422.53	409.19	396.36	384.05	372.45	361.75	351.76	342.37
16.00	DISCHG	333.54	325.21	317.40	310.05	303.19	296.78	290.69	285.04	279.86	274.97
17.00	DISCHG	270.38	266.06	261.97	258.08	254.35	250.73	247.23	243.88	240.67	237.57
18.00	DISCHG	234.60	231.74	228.93	226.18	223.50	220.91	218.35	215.79	213.23	210.68

19.00	DISCHG	208.15	205.66	203.21	200.80	198.45	196.14	193.90	191.75	189.69	187.76
20.00	DISCHG	185.95	184.20	182.81	181.44	180.08	178.70	177.28	175.82	174.31	172.78
21.00	DISCHG	171.22	169.64	168.07	166.51	164.96	163.45	161.96	160.51	159.11	157.75
22.00	DISCHG	156.43	155.17	153.96	152.81	151.71	150.65	149.64	148.66	147.71	146.79
23.00	DISCHG	145.89	145.03	144.18	143.35	142.55	141.76	140.99	140.24	139.50	138.75
24.00	DISCHG	138.00	137.20	136.32	135.35	134.25	133.00	131.55	129.89	128.01	125.88
25.00	DISCHG	123.55	121.03	118.37	115.60	112.78	109.93	107.09	104.28	101.51	98.83
26.00	DISCHG	96.24	93.75	91.37	89.11	86.98	84.99	83.39	82.08	80.87	79.73
27.00	DISCHG	78.65	77.64	76.68	75.77	74.90	74.07	73.28	72.52	71.80	71.10
28.00	DISCHG	70.43	69.78	69.15	68.54	67.95	67.38	66.82	66.27	65.74	65.22
29.00	DISCHG	64.70	64.20	63.71	63.22	62.74	62.27	61.81	61.35	60.90	60.45

RUNOFF VOLUME ABOVE BASEFLOW = 2.29 WATERSHED INCHES, 4521.75 CFS-HRS, 373.68 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 5, ALTERNATE 1, STORM 3, ADDED TO OUTPUT HYDROGRAPH FILE ---

EXECUTIVE CONTROL OPERATION ENDCMP COMPUTATIONS COMPLETED FOR PASS 3 RECORD ID

EXECUTIVE CONTROL OPERATION COMPUT FROM XSECTION 1 TO XSECTION 5 RECORD ID 50-YR
STARTING TIME = .00 RAIN DEPTH = 5.52 RAIN DURATION= 1.00 RAIN TABLE NO.= 2 ANT. MOIST. COND= 2
ALTERNATE NO.= 1 STORM NO.= 4 MAIN TIME INCREMENT = .10 HOURS

OPERATION RUNOFF CROSS SECTION 1
OUTPUT HYDROGRAPH= 1
AREA= .49 SQ MI INPUT RUNOFF CURVE= 81. TIME OF CONCENTRATION= 1.30 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0963 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.72	473.41	(RUNOFF)
23.66	18.80	(RUNOFF)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS			DRAINAGE AREA =		.49 SQ.MI.
6.00	DISCHG	.00	.00	.00	.00	.00	.01	.02	.04	.08	.15
7.00	DISCHG	.23	.35	.49	.65	.84	1.05	1.27	1.51	1.75	2.01
8.00	DISCHG	2.26	2.53	2.81	3.10	3.42	3.77	4.16	4.59	5.06	5.56
9.00	DISCHG	6.09	6.63	7.20	7.78	8.37	8.99	9.64	10.31	11.01	11.75
10.00	DISCHG	12.51	13.32	14.16	15.03	15.96	16.97	18.11	19.40	20.90	22.65
11.00	DISCHG	24.69	27.04	29.74	32.79	36.22	40.30	45.88	54.17	67.81	91.53
12.00	DISCHG	128.77	179.26	240.97	309.35	375.00	427.23	459.74	472.90	468.24	449.39
13.00	DISCHG	420.22	384.04	343.74	304.93	271.39	243.14	218.99	198.02	179.39	162.76
14.00	DISCHG	148.16	135.34	124.03	114.04	105.22	97.45	90.61	84.54	79.09	74.20
15.00	DISCHG	69.77	65.80	62.28	59.17	56.44	54.05	51.94	49.98	48.13	46.41
16.00	DISCHG	44.82	43.39	42.18	41.22	40.43	39.77	39.20	38.69	38.20	37.70
17.00	DISCHG	37.14	36.54	35.90	35.26	34.63	34.05	33.52	33.05	32.64	32.28
18.00	DISCHG	31.93	31.55	31.11	30.59	30.01	29.41	28.80	28.22	27.68	27.19
19.00	DISCHG	26.77	26.42	26.14	25.91	25.72	25.57	25.44	25.34	25.24	25.13
20.00	DISCHG	24.97	24.75	24.45	24.04	23.55	23.01	22.46	21.92	21.42	20.96
21.00	DISCHG	20.56	20.23	19.97	19.75	19.57	19.43	19.30	19.20	19.12	19.05
22.00	DISCHG	19.00	18.95	18.92	18.89	18.87	18.85	18.83	18.82	18.81	18.80
23.00	DISCHG	18.80	18.80	18.79	18.79	18.79	18.79	18.79	18.79	18.78	18.74
24.00	DISCHG	18.64	18.41	17.99	17.34	16.43	15.25	13.86	12.33	10.77	9.24
25.00	DISCHG	7.81	6.52	5.40	4.45	3.67	3.03	2.51	2.08	1.72	1.42
26.00	DISCHG	1.17	.97	.80	.66	.54	.44	.36	.30	.24	.20
27.00	DISCHG	.16	.13	.10	.08	.06	.05	.04	.03	.02	.01
28.00	DISCHG	.01	.00								

RUNOFF VOLUME ABOVE BASEFLOW = 3.45 WATERSHED INCHES, 1091.32 CFS-HRS, 90.19 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 1, ALTERNATE 1, STORM 4, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RESVOR STRUCTURE 1
INPUT HYDROGRAPH= 1 OUTPUT HYDROGRAPH= 2
SURFACE ELEVATION= 893.00

*** WARNING - STRUCTURE 1 DELTA T IS TOO LARGE. O /2 > S /DELTA T OCCURED139 TIMES STARTING WITH POINT 29

23.00	DISCHG	84.54	84.24	83.96	83.68	83.41	83.15	82.89	82.64	82.40	82.15
24.00	DISCHG	81.89	81.60	81.27	80.89	80.43	79.89	79.25	78.49	77.61	76.60
25.00	DISCHG	75.47	74.25	72.95	71.60	70.21	68.81	67.41	66.03	64.67	63.36
26.00	DISCHG	62.10	60.89	59.74	58.67	57.66	56.72	55.86	55.05	54.30	53.59
27.00	DISCHG	52.91	52.27	51.66	51.08	50.53	50.00	49.49	49.00	48.53	48.07
28.00	DISCHG	47.63	47.20	46.79	46.39	45.99	45.61	45.24	44.87	44.51	44.16
29.00	DISCHG	43.82	43.48	43.14	42.82	42.49	42.17	41.86	41.54	41.24	40.93

RUNOFF VOLUME ABOVE BASEFLOW = 1.29 WATERSHED INCHES, 2540.81 CFS-HRS, 209.97 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 5, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

EXECUTIVE CONTROL OPERATION ENDCMP COMPUTATIONS COMPLETED FOR PASS 1 RECORD ID

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.00	50.00	894.00
13.74	190.44	896.87

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .49 SQ.MI.

TIME(HRS)											
.00	DISCHG	50.00	48.73	47.48	46.27	45.09	43.94	42.82	41.73	40.67	39.63
.00	ELEV	894.00	893.95	893.90	893.85	893.80	893.76	893.71	893.67	893.63	893.59
1.00	DISCHG	38.62	37.63	36.67	35.74	34.83	33.94	33.07	32.23	31.41	30.61
1.00	ELEV	893.54	893.51	893.47	893.43	893.39	893.36	893.32	893.29	893.26	893.22
2.00	DISCHG	29.83	29.07	28.33	27.60	26.90	26.21	25.55	24.90	24.26	23.64
2.00	ELEV	893.19	893.16	893.13	893.10	893.08	893.05	893.02	893.00	892.97	892.95
3.00	DISCHG	23.04	22.45	21.88	21.32	20.78	20.25	19.73	19.23	18.74	18.26
3.00	ELEV	892.92	892.90	892.88	892.85	892.83	892.81	892.79	892.77	892.75	892.73
4.00	DISCHG	17.79	17.34	16.90	16.47	16.05	15.64	15.24	14.85	14.47	14.10
4.00	ELEV	892.71	892.69	892.68	892.66	892.64	892.63	892.61	892.59	892.58	892.56
5.00	DISCHG	13.74	13.39	13.05	12.72	12.40	12.08	11.77	11.47	11.18	10.89
5.00	ELEV	892.55	892.54	892.52	892.51	892.50	892.48	892.47	892.46	892.45	892.44
6.00	DISCHG	10.62	10.35	10.08	9.82	9.57	9.33	9.09	8.86	8.64	8.42
6.00	ELEV	892.42	892.41	892.40	892.39	892.38	892.37	892.36	892.35	892.35	892.34
7.00	DISCHG	8.21	8.01	7.81	7.63	7.45	7.29	7.13	6.99	6.85	6.72
7.00	ELEV	892.33	892.32	892.31	892.31	892.30	892.29	892.29	892.28	892.27	892.27
8.00	DISCHG	6.61	6.50	6.40	6.31	6.23	6.17	6.11	6.07	6.04	6.02
8.00	ELEV	892.26	892.26	892.26	892.25	892.25	892.25	892.24	892.24	892.24	892.24
9.00	DISCHG	6.01	6.02	6.04	6.08	6.13	6.20	6.28	6.37	6.48	6.60
9.00	ELEV	892.24	892.24	892.24	892.24	892.25	892.25	892.25	892.25	892.26	892.26
10.00	DISCHG	6.75	6.90	7.08	7.27	7.48	7.71	7.96	8.23	8.54	8.88
10.00	ELEV	892.27	892.28	892.28	892.29	892.30	892.31	892.32	892.33	892.34	892.35
11.00	DISCHG	9.25	9.68	10.15	10.69	11.30	11.99	12.78	13.73	14.93	16.58
11.00	ELEV	892.37	892.39	892.41	892.43	892.45	892.48	892.51	892.55	892.60	892.66
12.00	DISCHG	18.97	22.41	27.20	33.52	41.39	50.56	60.58	70.93	87.08	105.80
12.00	ELEV	892.76	892.90	893.09	893.34	893.66	894.02	894.42	894.84	895.24	895.62
13.00	DISCHG	122.36	141.96	158.51	170.88	179.63	185.42	188.83	190.29	190.18	188.75
13.00	ELEV	895.95	896.23	896.45	896.61	896.73	896.81	896.85	896.87	896.87	896.85
14.00	DISCHG	186.27	182.95	178.97	174.50	169.66	164.57	159.31	153.96	148.57	143.21
14.00	ELEV	896.82	896.77	896.72	896.66	896.60	896.53	896.46	896.39	896.31	896.24
15.00	DISCHG	137.90	132.67	127.55	123.36	120.05	116.79	113.58	110.43	107.34	104.31
15.00	ELEV	896.17	896.10	896.03	895.97	895.90	895.84	895.77	895.71	895.65	895.59
16.00	DISCHG	101.36	98.47	95.67	92.95	90.33	87.80	85.37	83.03	80.78	78.63
16.00	ELEV	895.53	895.47	895.41	895.36	895.31	895.26	895.21	895.16	895.12	895.07
17.00	DISCHG	76.55	74.77	73.79	72.82	71.85	70.89	69.95	69.01	68.09	67.18
17.00	ELEV	895.03	894.99	894.95	894.91	894.87	894.84	894.80	894.76	894.72	894.69
18.00	DISCHG	66.29	65.41	64.54	63.68	62.83	61.98	61.14	60.31	59.49	58.67
18.00	ELEV	894.65	894.62	894.58	894.55	894.51	894.48	894.45	894.41	894.38	894.35
19.00	DISCHG	57.86	57.07	56.28	55.51	54.75	54.01	53.28	52.57	51.88	51.20
19.00	ELEV	894.31	894.28	894.25	894.22	894.19	894.16	894.13	894.10	894.08	894.05
20.00	DISCHG	50.53	49.87	49.23	48.59	47.96	47.33	46.70	46.08	45.46	44.84
20.00	ELEV	894.02	893.99	893.97	893.94	893.92	893.89	893.87	893.84	893.82	893.79
21.00	DISCHG	44.22	43.62	43.02	42.43	41.85	41.28	40.72	40.17	39.63	39.11

21.00	ELEV	893.77	893.74	893.72	893.70	893.67	893.65	893.63	893.61	893.59	893.56
22.00	DISCHG	38.60	38.10	37.61	37.13	36.67	36.21	35.77	35.34	34.92	34.51
22.00	ELEV	893.54	893.52	893.50	893.49	893.47	893.45	893.43	893.41	893.40	893.38
23.00	DISCHG	34.11	33.72	33.33	32.96	32.60	32.25	31.91	31.57	31.25	30.93
23.00	ELEV	893.36	893.35	893.33	893.32	893.30	893.29	893.28	893.26	893.25	893.24
24.00	DISCHG	30.62	30.31	30.00	29.69	29.36	29.01	28.65	28.25	27.82	27.37
24.00	ELEV	893.22	893.21	893.20	893.19	893.17	893.16	893.15	893.13	893.11	893.09
25.00	DISCHG	26.89	26.39	25.87	25.33	24.79	24.24	23.69	23.15	22.61	22.07
25.00	ELEV	893.08	893.06	893.03	893.01	892.99	892.97	892.95	892.93	892.90	892.88
26.00	DISCHG	21.54	21.02	20.51	20.00	19.51	19.02	18.55	18.08	17.63	17.18
26.00	ELEV	892.86	892.84	892.82	892.80	892.78	892.76	892.74	892.72	892.71	892.69
27.00	DISCHG	16.75	16.33	15.91	15.51	15.12	14.73	14.36	13.99	13.64	13.29
27.00	ELEV	892.67	892.65	892.64	892.62	892.60	892.59	892.57	892.56	892.55	892.53
28.00	DISCHG	12.95	12.62	12.30	11.99	11.68	11.38	11.09	10.81	10.53	10.26
28.00	ELEV	892.52	892.50	892.49	892.48	892.47	892.46	892.44	892.43	892.42	892.41
29.00	DISCHG	10.00	9.75	9.50	9.26	9.02	8.79	8.57	8.35	8.14	7.93
29.00	ELEV	892.40	892.39	892.38	892.37	892.36	892.35	892.34	892.33	892.33	892.32

RUNOFF VOLUME ABOVE BASEFLOW = 3.97 WATERSHED INCHES, 1254.22 CFS-HRS, 103.65 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR STRUCTURE 1, ALTERNATE 1, STORM 4, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 2
OUTPUT HYDROGRAPH= 3
AREA= 1.06 SQ MI INPUT RUNOFF CURVE= 81. TIME OF CONCENTRATION= 1.30 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0963 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.72	1024.10	(RUNOFF)
23.66	40.66	(RUNOFF)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS			TIME INCREMENT = .10 HOURS				DRAINAGE AREA = 1.06 SQ.MI.		
6.00	DISCHG	.00	.00	.00	.00	.00	.02	.04	.10	.18	.32
7.00	DISCHG	.51	.75	1.06	1.41	1.82	2.27	2.75	3.26	3.79	4.34
8.00	DISCHG	4.90	5.47	6.07	6.70	7.39	8.15	8.99	9.93	10.95	12.03
9.00	DISCHG	13.17	14.35	15.57	16.82	18.11	19.45	20.84	22.30	23.82	25.41
10.00	DISCHG	27.07	28.81	30.63	32.52	34.53	36.72	39.17	41.98	45.22	49.00
11.00	DISCHG	53.41	58.50	64.33	70.93	78.36	87.18	99.24	117.19	146.68	198.00
12.00	DISCHG	278.56	387.79	521.27	669.20	811.21	924.20	994.54	1023.01	1012.92	972.15
13.00	DISCHG	909.04	830.79	743.60	659.64	587.09	525.97	473.73	428.38	388.06	352.10
14.00	DISCHG	320.50	292.78	268.31	246.70	227.61	210.81	196.02	182.87	171.10	160.51
15.00	DISCHG	150.93	142.35	134.73	128.00	122.09	116.93	112.36	108.12	104.13	100.40
16.00	DISCHG	96.96	93.86	91.26	89.17	87.47	86.02	84.79	83.70	82.64	81.55
17.00	DISCHG	80.35	79.04	77.66	76.27	74.92	73.65	72.51	71.50	70.62	69.83
18.00	DISCHG	69.06	68.24	67.29	66.17	64.92	63.61	62.30	61.04	59.88	58.83
19.00	DISCHG	57.92	57.16	56.54	56.05	55.64	55.31	55.04	54.81	54.61	54.36
20.00	DISCHG	54.02	53.55	52.88	52.00	50.94	49.78	48.59	47.42	46.33	45.35
21.00	DISCHG	44.48	43.77	43.19	42.72	42.34	42.02	41.76	41.54	41.36	41.22
22.00	DISCHG	41.10	41.00	40.92	40.86	40.81	40.77	40.74	40.71	40.69	40.68

23.00	DISCHG	40.67	40.66	40.66	40.65	40.65	40.65	40.66	40.66	40.64	40.54
24.00	DISCHG	40.31	39.82	38.92	37.51	35.54	32.99	29.98	26.68	23.30	20.00
25.00	DISCHG	16.90	14.11	11.68	9.62	7.93	6.56	5.43	4.50	3.72	3.07
26.00	DISCHG	2.53	2.09	1.72	1.42	1.17	.96	.79	.65	.53	.43
27.00	DISCHG	.35	.28	.22	.17	.14	.10	.08	.05	.04	.02
28.00	DISCHG	.01	.00								

RUNOFF VOLUME ABOVE BASEFLOW = 3.45 WATERSHED INCHES, 2360.82 CFS-HRS, 195.10 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 2, ALTERNATE 1, STORM 4, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 3
INPUT HYDROGRAPHS= 2,3 OUTPUT HYDROGRAPH= 4
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.00	50.00	(NULL)
12.77	1101.13	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.55 SQ.MI.

.00	DISCHG	50.00	48.73	47.48	46.27	45.09	43.94	42.82	41.73	40.67	39.63
1.00	DISCHG	38.62	37.63	36.67	35.74	34.83	33.94	33.07	32.23	31.41	30.61
2.00	DISCHG	29.83	29.07	28.33	27.60	26.90	26.21	25.55	24.90	24.26	23.64
3.00	DISCHG	23.04	22.45	21.88	21.32	20.78	20.25	19.73	19.23	18.74	18.26
4.00	DISCHG	17.79	17.34	16.90	16.47	16.05	15.64	15.24	14.85	14.47	14.10
5.00	DISCHG	13.74	13.39	13.05	12.72	12.40	12.08	11.77	11.47	11.18	10.89
6.00	DISCHG	10.62	10.35	10.08	9.82	9.57	9.35	9.14	8.96	8.82	8.74
7.00	DISCHG	8.72	8.76	8.87	9.04	9.27	9.56	9.88	10.25	10.64	11.06
8.00	DISCHG	11.50	11.97	12.47	13.02	13.62	14.32	15.11	15.99	16.98	18.05
9.00	DISCHG	19.18	20.37	21.61	22.90	24.24	25.65	27.12	28.67	30.30	32.01
10.00	DISCHG	33.82	35.71	37.70	39.79	42.01	44.43	47.13	50.21	53.76	57.88
11.00	DISCHG	62.66	68.18	74.49	81.62	89.66	99.16	112.02	130.92	161.62	214.58
12.00	DISCHG	297.53	410.21	548.47	702.72	852.61	974.77	1055.12	1093.94	1100.00	1077.95
13.00	DISCHG	1031.40	972.75	902.11	830.52	766.72	711.39	662.55	618.67	578.23	540.85
14.00	DISCHG	506.77	475.73	447.28	421.20	397.28	375.37	355.33	336.83	319.67	303.72
15.00	DISCHG	288.83	275.01	262.28	251.35	242.14	233.72	225.94	218.55	211.46	204.71
16.00	DISCHG	198.32	192.33	186.92	182.12	177.79	173.82	170.16	166.72	163.43	160.18
17.00	DISCHG	156.90	153.81	151.45	149.08	146.77	144.55	142.46	140.51	138.71	137.01
18.00	DISCHG	135.35	133.65	131.83	129.85	127.75	125.59	123.45	121.36	119.37	117.50
19.00	DISCHG	115.78	114.22	112.83	111.56	110.40	109.32	108.32	107.38	106.48	105.55
20.00	DISCHG	104.55	103.43	102.11	100.59	98.90	97.11	95.30	93.50	91.79	90.18
21.00	DISCHG	88.71	87.38	86.21	85.15	84.19	83.30	82.48	81.71	81.00	80.33
22.00	DISCHG	79.70	79.10	78.53	77.99	77.48	76.98	76.51	76.05	75.61	75.18
23.00	DISCHG	74.77	74.38	73.99	73.62	73.26	72.90	72.56	72.23	71.88	71.47
24.00	DISCHG	70.93	70.13	68.92	67.20	64.90	62.01	58.62	54.93	51.13	47.37
25.00	DISCHG	43.79	40.50	37.54	34.95	32.72	30.80	29.12	27.64	26.32	25.14
26.00	DISCHG	24.07	23.11	22.23	21.42	20.68	19.98	19.34	18.73	18.16	17.61

27.00	DISCHG	17.10	16.60	16.14	15.69	15.25	14.84	14.44	14.05	13.67	13.31
28.00	DISCHG	12.96	12.62	12.30	11.99	11.68	11.38	11.09	10.81	10.53	10.26
29.00	DISCHG	10.00	9.75	9.50	9.26	9.02	8.79	8.57	8.35	8.14	7.93

RUNOFF VOLUME ABOVE BASEFLOW = 3.61 WATERSHED INCHES, 3615.04 CFS-HRS, 298.75 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 3, ALTERNATE 1, STORM 4, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RESVOR STRUCTURE 2
INPUT HYDROGRAPH= 4 OUTPUT HYDROGRAPH= 5
SURFACE ELEVATION= 893.00

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.00	50.00	893.00
14.96	294.59	896.95

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.55 SQ.MI.

.00	DISCHG	50.00	50.00	49.98	49.96	49.92	49.88	49.83	49.78	49.71	49.64
.00	ELEV	893.00	893.00	893.00	893.00	893.00	893.00	892.99	892.99	892.99	892.99
1.00	DISCHG	49.56	49.47	49.38	49.28	49.17	49.06	48.94	48.81	48.68	48.55
1.00	ELEV	892.98	892.98	892.98	892.97	892.97	892.96	892.96	892.95	892.95	892.94
2.00	DISCHG	48.41	48.27	48.12	47.96	47.80	47.64	47.48	47.31	47.13	46.96
2.00	ELEV	892.94	892.93	892.92	892.92	892.91	892.91	892.90	892.89	892.89	892.88
3.00	DISCHG	46.78	46.59	46.41	46.22	46.03	45.83	45.64	45.44	45.23	45.03
3.00	ELEV	892.87	892.86	892.86	892.85	892.84	892.83	892.83	892.82	892.81	892.80
4.00	DISCHG	44.82	44.62	44.41	44.20	43.98	43.77	43.55	43.34	43.12	42.90
4.00	ELEV	892.79	892.78	892.78	892.77	892.76	892.75	892.74	892.73	892.72	892.72
5.00	DISCHG	42.68	42.45	42.23	42.01	41.78	41.56	41.33	41.11	40.88	40.65
5.00	ELEV	892.71	892.70	892.69	892.68	892.67	892.66	892.65	892.64	892.64	892.63
6.00	DISCHG	40.42	40.19	39.97	39.74	39.51	39.28	39.05	38.82	38.59	38.37
6.00	ELEV	892.62	892.61	892.60	892.59	892.58	892.57	892.56	892.55	892.54	892.53
7.00	DISCHG	38.14	37.92	37.69	37.48	37.26	37.05	36.84	36.63	36.44	36.24
7.00	ELEV	892.53	892.52	892.51	892.50	892.49	892.48	892.47	892.47	892.46	892.45
8.00	DISCHG	36.05	35.86	35.68	35.51	35.34	35.18	35.02	34.87	34.73	34.60
8.00	ELEV	892.44	892.43	892.43	892.42	892.41	892.41	892.40	892.39	892.39	892.38
9.00	DISCHG	34.48	34.37	34.27	34.17	34.09	34.02	33.97	33.92	33.89	33.86
9.00	ELEV	892.38	892.37	892.37	892.37	892.36	892.36	892.36	892.36	892.36	892.35
10.00	DISCHG	33.86	33.86	33.89	33.92	33.98	34.05	34.14	34.25	34.38	34.55
10.00	ELEV	892.35	892.35	892.36	892.36	892.36	892.36	892.37	892.37	892.38	892.38
11.00	DISCHG	34.74	34.98	35.25	35.58	35.96	36.41	36.93	37.58	38.41	39.55
11.00	ELEV	892.39	892.40	892.41	892.42	892.44	892.46	892.48	892.50	892.54	892.58
12.00	DISCHG	41.20	43.58	46.90	51.31	56.85	63.38	70.64	81.56	96.98	112.04
12.00	ELEV	892.65	892.74	892.88	893.05	893.27	893.54	893.83	894.13	894.44	894.74
13.00	DISCHG	127.03	146.89	164.84	180.76	194.78	209.48	223.87	236.44	247.35	256.76
13.00	ELEV	895.03	895.29	895.53	895.74	895.93	896.09	896.24	896.36	896.47	896.57
14.00	DISCHG	264.81	271.64	277.36	282.09	285.93	288.95	291.26	292.91	293.97	294.51
14.00	ELEV	896.65	896.72	896.77	896.82	896.86	896.89	896.91	896.93	896.94	896.95
15.00	DISCHG	294.56	294.18	293.41	292.31	290.93	289.34	287.54	285.57	283.45	281.17
15.00	ELEV	896.95	896.94	896.93	896.92	896.91	896.89	896.88	896.86	896.83	896.81

16.00	DISCHG	278.77	276.26	273.64	270.96	268.21	265.43	262.61	259.77	256.92	254.05
16.00	ELEV	896.79	896.76	896.74	896.71	896.68	896.65	896.63	896.60	896.57	896.54
17.00	DISCHG	251.17	248.28	245.40	242.53	239.68	236.84	234.03	231.24	228.48	225.75
17.00	ELEV	896.51	896.48	896.45	896.43	896.40	896.37	896.34	896.31	896.28	896.26
18.00	DISCHG	223.05	220.38	217.73	215.11	212.51	209.92	207.35	204.79	202.24	199.79
18.00	ELEV	896.23	896.20	896.18	896.15	896.13	896.10	896.07	896.05	896.02	896.00
19.00	DISCHG	197.90	196.02	194.15	192.29	190.44	188.61	186.80	185.01	183.24	181.48
19.00	ELEV	895.97	895.95	895.92	895.90	895.87	895.85	895.82	895.80	895.78	895.75
20.00	DISCHG	179.75	178.03	176.32	174.62	172.92	171.22	169.52	167.81	166.11	164.40
20.00	ELEV	895.73	895.71	895.68	895.66	895.64	895.62	895.59	895.57	895.55	895.53
21.00	DISCHG	162.70	161.01	159.32	157.65	155.99	154.35	152.73	151.13	149.55	147.98
21.00	ELEV	895.50	895.48	895.46	895.44	895.41	895.39	895.37	895.35	895.33	895.31
22.00	DISCHG	146.44	144.92	143.42	141.94	140.48	139.05	137.63	136.24	134.87	133.52
22.00	ELEV	895.29	895.27	895.25	895.23	895.21	895.19	895.17	895.15	895.13	895.11
23.00	DISCHG	132.19	130.88	129.60	128.33	127.08	125.86	124.77	123.97	123.18	122.40
23.00	ELEV	895.10	895.08	895.06	895.04	895.03	895.01	895.00	894.98	894.96	894.95
24.00	DISCHG	121.62	120.85	120.07	119.28	118.47	117.63	116.76	115.85	114.90	113.90
24.00	ELEV	894.93	894.92	894.90	894.89	894.87	894.85	894.84	894.82	894.80	894.78
25.00	DISCHG	112.86	111.79	110.68	109.55	108.40	107.24	106.07	104.89	103.70	102.52
25.00	ELEV	894.76	894.74	894.71	894.69	894.67	894.64	894.62	894.60	894.57	894.55
26.00	DISCHG	101.33	100.15	98.98	97.81	96.64	95.48	94.33	93.19	92.05	90.92
26.00	ELEV	894.53	894.50	894.48	894.46	894.43	894.41	894.39	894.36	894.34	894.32
27.00	DISCHG	89.81	88.70	87.60	86.51	85.43	84.36	83.30	82.25	81.22	80.19
27.00	ELEV	894.30	894.27	894.25	894.23	894.21	894.19	894.17	894.15	894.12	894.10
28.00	DISCHG	79.17	78.16	77.16	76.18	75.20	74.61	74.13	73.65	73.17	72.69
28.00	ELEV	894.08	894.06	894.04	894.02	894.00	893.98	893.97	893.95	893.93	893.91
29.00	DISCHG	72.21	71.74	71.27	70.79	70.32	69.86	69.39	68.92	68.46	68.00
29.00	ELEV	893.89	893.87	893.85	893.83	893.81	893.79	893.78	893.76	893.74	893.72

RUNOFF VOLUME ABOVE BASEFLOW = 3.38 WATERSHED INCHES, 3379.81 CFS-HRS, 279.31 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR STRUCTURE 2, ALTERNATE 1, STORM 4, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 4
OUTPUT HYDROGRAPH= 6
AREA= 1.51 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= 2.40 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1000 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET) (RUNOFF)
13.53	843.26	

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.51 SQ.MI.

TIME(HRS)											
7.00	DISCHG	.00	.00	.00	.00	.01	.01	.03	.05	.09	.14
8.00	DISCHG	.21	.31	.44	.60	.80	1.06	1.36	1.71	2.13	2.60
9.00	DISCHG	3.14	3.75	4.44	5.19	6.02	6.92	7.89	8.93	10.05	11.24
10.00	DISCHG	12.51	13.86	15.29	16.81	18.42	20.14	21.98	23.97	26.12	28.49
11.00	DISCHG	31.09	33.99	37.22	40.86	44.97	49.60	55.53	63.27	74.58	91.90
12.00	DISCHG	117.47	150.52	191.28	238.98	294.46	358.14	428.71	503.41	578.68	647.45
13.00	DISCHG	707.06	755.63	793.50	819.69	835.74	842.88	841.01	830.48	812.48	789.71

14.00	DISCHG	762.00	729.26	691.79	650.98	608.77	569.30	533.62	501.74	472.20	444.79
15.00	DISCHG	419.40	396.00	374.53	354.09	334.70	316.32	299.24	283.66	269.30	255.97
16.00	DISCHG	243.57	232.04	221.36	211.44	202.30	193.86	185.95	178.73	172.24	166.20
17.00	DISCHG	160.63	155.49	150.72	146.30	142.14	138.17	134.41	130.90	127.61	124.50
18.00	DISCHG	121.59	118.87	116.24	113.71	111.31	109.05	106.88	104.72	102.58	100.47
19.00	DISCHG	98.41	96.41	94.48	92.60	90.79	89.05	87.40	85.87	84.46	83.22
20.00	DISCHG	82.16	81.14	80.18	79.25	78.34	77.42	76.46	75.47	74.42	73.35
21.00	DISCHG	72.25	71.14	70.04	68.95	67.89	66.86	65.88	64.95	64.07	63.25
22.00	DISCHG	62.48	61.78	61.15	60.59	60.10	59.66	59.27	58.92	58.61	58.32
23.00	DISCHG	58.07	57.84	57.63	57.45	57.28	57.14	57.00	56.89	56.77	56.65
24.00	DISCHG	56.51	56.30	56.00	55.57	54.98	54.21	53.22	51.98	50.47	48.68
25.00	DISCHG	46.65	44.39	41.98	39.46	36.87	34.26	31.66	29.11	26.64	24.27
26.00	DISCHG	22.02	19.91	17.95	16.14	14.51	13.06	11.76	10.62	9.58	8.65
27.00	DISCHG	7.81	7.05	6.37	5.75	5.18	4.67	4.21	3.79	3.42	3.08
28.00	DISCHG	2.78	2.50	2.25	2.03	1.82	1.64	1.47	1.33	1.19	1.07
29.00	DISCHG	.96	.86	.77	.69	.62	.55	.49	.44	.39	.34

RUNOFF VOLUME ABOVE BASEFLOW = 3.16 WATERSHED INCHES, 3077.10 CFS-HRS, 254.29 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 4, ALTERNATE 1, STORM 4, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 5
INPUT HYDROGRAPHS= 5,6 OUTPUT HYDROGRAPH= 1
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.00	50.00	(NULL)
13.67	1067.26	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 3.06 SQ.MI.

.00	DISCHG	50.00	50.00	49.98	49.96	49.92	49.88	49.83	49.78	49.71	49.64
1.00	DISCHG	49.56	49.47	49.38	49.28	49.17	49.06	48.94	48.81	48.68	48.55
2.00	DISCHG	48.41	48.27	48.12	47.96	47.80	47.64	47.48	47.31	47.13	46.96
3.00	DISCHG	46.78	46.59	46.41	46.22	46.03	45.83	45.64	45.44	45.23	45.03
4.00	DISCHG	44.82	44.62	44.41	44.20	43.98	43.77	43.55	43.34	43.12	42.90
5.00	DISCHG	42.68	42.45	42.23	42.01	41.78	41.56	41.33	41.11	40.88	40.65
6.00	DISCHG	40.42	40.19	39.97	39.74	39.51	39.28	39.05	38.82	38.59	38.37
7.00	DISCHG	38.14	37.92	37.69	37.48	37.27	37.06	36.87	36.69	36.52	36.38
8.00	DISCHG	36.26	36.17	36.12	36.11	36.15	36.23	36.38	36.58	36.86	37.20
9.00	DISCHG	37.62	38.12	38.70	39.37	40.11	40.94	41.85	42.85	43.93	45.11
10.00	DISCHG	46.37	47.73	49.18	50.73	52.40	54.18	56.12	58.21	60.50	63.03
11.00	DISCHG	65.83	68.96	72.48	76.44	80.93	86.01	92.46	100.85	112.98	131.45
12.00	DISCHG	158.67	194.10	238.18	290.29	351.31	421.52	499.35	584.97	675.66	759.50
13.00	DISCHG	834.09	902.52	958.34	1000.45	1030.53	1052.35	1064.88	1066.91	1059.83	1046.47
14.00	DISCHG	1026.81	1000.90	969.16	933.07	894.70	858.25	824.87	794.64	766.17	739.30
15.00	DISCHG	713.97	690.18	667.94	646.40	625.64	605.66	586.78	569.23	552.74	537.15
16.00	DISCHG	522.35	508.30	495.01	482.40	470.51	459.29	448.57	438.51	429.15	420.25

EXECUTIVE CONTROL OPERATION COMPUT FROM XSECTION 1 TO XSECTION 5 RECORD ID 10-YR
STARTING TIME = .00 RAIN DEPTH = 4.08 RAIN DURATION= 1.00 RAIN TABLE NO.= 2 ANT. MOIST. COND= 2
ALTERNATE NO.= 1 STORM NO.= 2 MAIN TIME INCREMENT = .10 HOURS

OPERATION RUNOFF CROSS SECTION 1
OUTPUT HYDROGRAPH= 1
AREA= .49 SQ MI INPUT RUNOFF CURVE= 81. TIME OF CONCENTRATION= 1.30 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0963 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.74	298.52	(RUNOFF)
23.68	13.03	(RUNOFF)

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .49 SQ.MI.

TIME(HRS)											
8.00	DISCHG	.00	.01	.03	.05	.10	.16	.25	.37	.51	.69
9.00	DISCHG	.88	1.10	1.35	1.61	1.90	2.20	2.53	2.88	3.26	3.65
10.00	DISCHG	4.07	4.51	4.98	5.47	5.99	6.56	7.20	7.93	8.76	9.73
11.00	DISCHG	10.85	12.16	13.66	15.36	17.31	19.63	22.84	27.67	35.76	50.15
12.00	DISCHG	73.17	104.82	143.96	187.88	230.65	265.32	287.66	297.69	296.33	285.80
13.00	DISCHG	268.47	246.43	221.45	197.14	176.03	158.21	142.94	129.65	117.81	107.20
14.00	DISCHG	97.86	89.64	82.36	75.92	70.21	65.17	60.73	56.77	53.21	50.01
15.00	DISCHG	47.10	44.49	42.17	40.11	38.31	36.73	35.33	34.04	32.82	31.68
16.00	DISCHG	30.62	29.67	28.86	28.21	27.69	27.24	26.86	26.52	26.20	25.86
17.00	DISCHG	25.48	25.07	24.64	24.21	23.79	23.39	23.03	22.72	22.44	22.20
18.00	DISCHG	21.96	21.70	21.40	21.05	20.66	20.25	19.83	19.44	19.07	18.74
19.00	DISCHG	18.45	18.21	18.02	17.87	17.74	17.64	17.55	17.48	17.42	17.34
20.00	DISCHG	17.24	17.09	16.88	16.60	16.27	15.90	15.52	15.15	14.80	14.49
21.00	DISCHG	14.21	13.99	13.81	13.66	13.54	13.44	13.35	13.29	13.23	13.19
22.00	DISCHG	13.15	13.12	13.10	13.08	13.06	13.05	13.04	13.04	13.03	13.03
23.00	DISCHG	13.03	13.03	13.02	13.03	13.03	13.03	13.03	13.03	13.03	13.00
24.00	DISCHG	12.93	12.77	12.48	12.03	11.40	10.58	9.62	8.56	7.48	6.41
25.00	DISCHG	5.42	4.53	3.75	3.09	2.54	2.10	1.74	1.44	1.19	.98
26.00	DISCHG	.81	.67	.55	.46	.37	.31	.25	.21	.17	.14
27.00	DISCHG	.11	.09	.07	.06	.04	.03	.02	.02	.01	.01
28.00	DISCHG	.00									

RUNOFF VOLUME ABOVE BASEFLOW = 2.19 WATERSHED INCHES, 692.60 CFS-HRS, 57.24 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 1, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RESVOR STRUCTURE 1
INPUT HYDROGRAPH= 1 OUTPUT HYDROGRAPH= 2
SURFACE ELEVATION= 893.00

*** WARNING - STRUCTURE 1 DELTA T IS TOO LARGE. O /2 > S /DELTA T OCCURED165 TIMES STARTING WITH POINT 29

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.00	50.00	894.00
14.08	91.58	895.33

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .49 SQ.MI.

TIME(HRS)											
.00	DISCHG	50.00	48.73	47.48	46.27	45.09	43.94	42.82	41.73	40.67	39.63
.00	ELEV	894.00	893.95	893.90	893.85	893.80	893.76	893.71	893.67	893.63	893.59
1.00	DISCHG	38.62	37.63	36.67	35.74	34.83	33.94	33.07	32.23	31.41	30.61
1.00	ELEV	893.54	893.51	893.47	893.43	893.39	893.36	893.32	893.29	893.26	893.22
2.00	DISCHG	29.83	29.07	28.33	27.60	26.90	26.21	25.55	24.90	24.26	23.64
2.00	ELEV	893.19	893.16	893.13	893.10	893.08	893.05	893.02	893.00	892.97	892.95
3.00	DISCHG	23.04	22.45	21.88	21.32	20.78	20.25	19.73	19.23	18.74	18.26
3.00	ELEV	892.92	892.90	892.88	892.85	892.83	892.81	892.79	892.77	892.75	892.73
4.00	DISCHG	17.79	17.34	16.90	16.47	16.05	15.64	15.24	14.85	14.47	14.10
4.00	ELEV	892.71	892.69	892.68	892.66	892.64	892.63	892.61	892.59	892.58	892.56
5.00	DISCHG	13.74	13.39	13.05	12.72	12.40	12.08	11.77	11.47	11.18	10.89
5.00	ELEV	892.55	892.54	892.52	892.51	892.50	892.48	892.47	892.46	892.45	892.44
6.00	DISCHG	10.62	10.35	10.08	9.82	9.57	9.33	9.09	8.86	8.63	8.41
6.00	ELEV	892.42	892.41	892.40	892.39	892.38	892.37	892.36	892.35	892.35	892.34
7.00	DISCHG	8.20	7.99	7.79	7.59	7.39	7.21	7.02	6.84	6.67	6.50
7.00	ELEV	892.33	892.32	892.31	892.30	892.30	892.29	892.28	892.27	892.27	892.26
8.00	DISCHG	6.33	6.17	6.01	5.86	5.71	5.57	5.44	5.30	5.18	5.06
8.00	ELEV	892.25	892.25	892.24	892.23	892.23	892.22	892.22	892.21	892.21	892.20
9.00	DISCHG	4.96	4.85	4.76	4.68	4.60	4.54	4.48	4.44	4.40	4.38
9.00	ELEV	892.20	892.19	892.19	892.19	892.18	892.18	892.18	892.18	892.18	892.18
10.00	DISCHG	4.37	4.36	4.37	4.39	4.43	4.48	4.54	4.61	4.71	4.83
10.00	ELEV	892.17	892.17	892.17	892.18	892.18	892.18	892.18	892.18	892.19	892.19
11.00	DISCHG	4.96	5.13	5.33	5.56	5.84	6.16	6.54	7.02	7.65	8.55
11.00	ELEV	892.20	892.21	892.21	892.22	892.23	892.25	892.26	892.28	892.31	892.34
12.00	DISCHG	9.91	11.92	14.79	18.64	23.50	29.23	35.53	42.09	48.59	54.77
12.00	ELEV	892.40	892.48	892.59	892.75	892.94	893.17	893.42	893.68	893.94	894.19
13.00	DISCHG	60.44	65.46	69.76	73.32	77.38	81.90	85.36	87.92	89.72	90.87
13.00	ELEV	894.42	894.62	894.79	894.93	895.05	895.14	895.21	895.26	895.29	895.32
14.00	DISCHG	91.46	91.57	91.29	90.68	89.79	88.68	87.39	85.94	84.39	82.73
14.00	ELEV	895.33	895.33	895.33	895.31	895.30	895.27	895.25	895.22	895.19	895.15
15.00	DISCHG	81.01	79.24	77.43	75.60	74.38	73.44	72.48	71.52	70.55	69.57
15.00	ELEV	895.12	895.08	895.05	895.01	894.98	894.94	894.90	894.86	894.82	894.78
16.00	DISCHG	68.59	67.61	66.64	65.66	64.70	63.75	62.82	61.90	60.99	60.10
16.00	ELEV	894.74	894.70	894.67	894.63	894.59	894.55	894.51	894.48	894.44	894.40
17.00	DISCHG	59.22	58.36	57.50	56.66	55.82	55.00	54.19	53.39	52.61	51.84
17.00	ELEV	894.37	894.33	894.30	894.27	894.23	894.20	894.17	894.14	894.10	894.07
18.00	DISCHG	51.08	50.33	49.60	48.87	48.16	47.45	46.75	46.06	45.38	44.70
18.00	ELEV	894.04	894.01	893.98	893.95	893.93	893.90	893.87	893.84	893.82	893.79
19.00	DISCHG	44.04	43.38	42.74	42.11	41.49	40.88	40.29	39.71	39.14	38.58
19.00	ELEV	893.76	893.74	893.71	893.68	893.66	893.64	893.61	893.59	893.57	893.54
20.00	DISCHG	38.04	37.51	36.99	36.47	35.96	35.45	34.95	34.45	33.95	33.46
20.00	ELEV	893.52	893.50	893.48	893.46	893.44	893.42	893.40	893.38	893.36	893.34
21.00	DISCHG	32.97	32.49	32.02	31.55	31.09	30.64	30.20	29.77	29.35	28.94

21.00	ELEV	893.32	893.30	893.28	893.26	893.24	893.23	893.21	893.19	893.17	893.16
22.00	DISCHG	28.54	28.15	27.76	27.39	27.02	26.67	26.32	25.98	25.65	25.33
22.00	ELEV	893.14	893.13	893.11	893.10	893.08	893.07	893.05	893.04	893.03	893.01
23.00	DISCHG	25.02	24.71	24.41	24.12	23.84	23.56	23.29	23.03	22.78	22.53
23.00	ELEV	893.00	892.99	892.98	892.96	892.95	892.94	892.93	892.92	892.91	892.90
24.00	DISCHG	22.28	22.04	21.80	21.56	21.31	21.05	20.77	20.47	20.15	19.82
24.00	ELEV	892.89	892.88	892.87	892.86	892.85	892.84	892.83	892.82	892.81	892.79
25.00	DISCHG	19.46	19.09	18.71	18.32	17.93	17.53	17.13	16.73	16.34	15.95
25.00	ELEV	892.78	892.76	892.75	892.73	892.72	892.70	892.69	892.67	892.65	892.64
26.00	DISCHG	15.57	15.19	14.82	14.45	14.09	13.74	13.40	13.07	12.74	12.42
26.00	ELEV	892.62	892.61	892.59	892.58	892.56	892.55	892.54	892.52	892.51	892.50
27.00	DISCHG	12.10	11.80	11.50	11.21	10.92	10.64	10.37	10.11	9.85	9.60
27.00	ELEV	892.48	892.47	892.46	892.45	892.44	892.43	892.41	892.40	892.39	892.38
28.00	DISCHG	9.36	9.12	8.89	8.66	8.44	8.22	8.01	7.81	7.61	7.42
28.00	ELEV	892.37	892.36	892.36	892.35	892.34	892.33	892.32	892.31	892.30	892.30
29.00	DISCHG	7.23	7.04	6.86	6.69	6.52	6.35	6.19	6.03	5.88	5.73
29.00	ELEV	892.29	892.28	892.27	892.27	892.26	892.25	892.25	892.24	892.24	892.23

RUNOFF VOLUME ABOVE BASEFLOW = 2.73 WATERSHED INCHES, 864.01 CFS-HRS, 71.40 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR STRUCTURE 1, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 2
OUTPUT HYDROGRAPH= 3
AREA= 1.06 SQ MI INPUT RUNOFF CURVE= 81. TIME OF CONCENTRATION= 1.30 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0963 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.74	645.77	(RUNOFF)
23.68	28.19	(RUNOFF)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.06 SQ.MI.

8.00	DISCHG	.01	.02	.06	.11	.21	.35	.54	.80	1.11	1.48
9.00	DISCHG	1.91	2.39	2.91	3.49	4.11	4.77	5.48	6.24	7.05	7.90
10.00	DISCHG	8.81	9.76	10.77	11.83	12.97	14.20	15.58	17.15	18.95	21.05
11.00	DISCHG	23.48	26.30	29.54	33.24	37.44	42.46	49.41	59.86	77.35	108.49
12.00	DISCHG	158.29	226.76	311.42	406.44	498.96	573.96	622.28	643.99	641.04	618.26
13.00	DISCHG	580.76	533.09	479.06	426.47	380.80	342.25	309.21	280.47	254.85	231.91
14.00	DISCHG	211.69	193.91	178.17	164.23	151.89	140.99	131.38	122.81	115.11	108.18
15.00	DISCHG	101.89	96.24	91.22	86.78	82.87	79.46	76.44	73.64	71.00	68.52
16.00	DISCHG	66.24	64.18	62.44	61.04	59.89	58.93	58.11	57.37	56.67	55.93
17.00	DISCHG	55.13	54.24	53.31	52.37	51.45	50.60	49.82	49.14	48.55	48.02
18.00	DISCHG	47.50	46.95	46.30	45.54	44.69	43.80	42.91	42.05	41.25	40.54
19.00	DISCHG	39.91	39.40	38.98	38.65	38.38	38.15	37.97	37.82	37.68	37.52
20.00	DISCHG	37.30	36.97	36.52	35.91	35.19	34.39	33.57	32.77	32.02	31.34
21.00	DISCHG	30.75	30.26	29.86	29.55	29.28	29.07	28.89	28.74	28.62	28.52
22.00	DISCHG	28.44	28.38	28.33	28.29	28.26	28.23	28.22	28.20	28.19	28.18
23.00	DISCHG	28.18	28.18	28.18	28.18	28.18	28.18	28.19	28.19	28.18	28.12
24.00	DISCHG	27.96	27.63	27.00	26.03	24.66	22.89	20.80	18.52	16.17	13.88

25.00	DISCHG	11.73	9.79	8.10	6.67	5.50	4.55	3.77	3.12	2.58	2.13
26.00	DISCHG	1.76	1.45	1.20	.99	.81	.67	.55	.45	.37	.30
27.00	DISCHG	.24	.19	.15	.12	.09	.07	.05	.04	.02	.01
28.00	DISCHG	.01	.00								

RUNOFF VOLUME ABOVE BASEFLOW = 2.19 WATERSHED INCHES, 1498.29 CFS-HRS, 123.82 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 2, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 3
INPUT HYDROGRAPHS= 2,3 OUTPUT HYDROGRAPH= 4
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.00	50.00	(NULL)
12.77	690.68	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.55 SQ.MI.

.00	DISCHG	50.00	48.73	47.48	46.27	45.09	43.94	42.82	41.73	40.67	39.63
1.00	DISCHG	38.62	37.63	36.67	35.74	34.83	33.94	33.07	32.23	31.41	30.61
2.00	DISCHG	29.83	29.07	28.33	27.60	26.90	26.21	25.55	24.90	24.26	23.64
3.00	DISCHG	23.04	22.45	21.88	21.32	20.78	20.25	19.73	19.23	18.74	18.26
4.00	DISCHG	17.79	17.34	16.90	16.47	16.05	15.64	15.24	14.85	14.47	14.10
5.00	DISCHG	13.74	13.39	13.05	12.72	12.40	12.08	11.77	11.47	11.18	10.89
6.00	DISCHG	10.62	10.35	10.08	9.82	9.57	9.33	9.09	8.86	8.63	8.41
7.00	DISCHG	8.20	7.99	7.79	7.59	7.39	7.21	7.02	6.84	6.67	6.50
8.00	DISCHG	6.34	6.20	6.07	5.98	5.92	5.92	5.98	6.10	6.29	6.55
9.00	DISCHG	6.86	7.24	7.68	8.17	8.71	9.31	9.96	10.68	11.45	12.28
10.00	DISCHG	13.17	14.12	15.14	16.23	17.39	18.68	20.12	21.76	23.66	25.87
11.00	DISCHG	28.45	31.43	34.87	38.80	43.27	48.62	55.95	66.88	85.01	117.04
12.00	DISCHG	168.20	238.68	326.21	425.08	522.47	603.19	657.81	686.07	689.63	673.03
13.00	DISCHG	641.20	598.55	548.82	499.78	458.18	424.15	394.57	368.39	344.57	322.78
14.00	DISCHG	303.15	285.48	269.46	254.91	241.68	229.67	218.76	208.75	199.50	190.91
15.00	DISCHG	182.90	175.48	168.65	162.38	157.25	152.90	148.92	145.16	141.55	138.10
16.00	DISCHG	134.84	131.79	129.07	126.70	124.60	122.68	120.92	119.27	117.66	116.03
17.00	DISCHG	114.35	112.60	110.81	109.03	107.28	105.60	104.02	102.54	101.16	99.85
18.00	DISCHG	98.58	97.28	95.90	94.42	92.85	91.25	89.66	88.11	86.63	85.24
19.00	DISCHG	83.95	82.78	81.72	80.75	79.86	79.03	78.26	77.53	76.82	76.10
20.00	DISCHG	75.34	74.48	73.50	72.38	71.15	69.84	68.52	67.22	65.97	64.80
21.00	DISCHG	63.72	62.75	61.88	61.10	60.38	59.71	59.09	58.51	57.97	57.46
22.00	DISCHG	56.98	56.53	56.09	55.68	55.28	54.90	54.54	54.18	53.84	53.51
23.00	DISCHG	53.19	52.89	52.59	52.30	52.02	51.75	51.48	51.23	50.96	50.65
24.00	DISCHG	50.25	49.67	48.81	47.59	45.97	43.94	41.57	38.99	36.32	33.69
25.00	DISCHG	31.19	28.89	26.81	24.99	23.43	22.08	20.90	19.85	18.92	18.08
26.00	DISCHG	17.32	16.64	16.01	15.44	14.91	14.41	13.95	13.51	13.10	12.71
27.00	DISCHG	12.34	11.99	11.65	11.33	11.02	10.72	10.43	10.15	9.88	9.62
28.00	DISCHG	9.36	9.12	8.89	8.66	8.44	8.22	8.01	7.81	7.61	7.42

29.00	DISCHG	7.23	7.04	6.86	6.69	6.52	6.35	6.19	6.03	5.88	5.73

RUNOFF VOLUME ABOVE BASEFLOW = 2.36 WATERSHED INCHES, 2362.29 CFS-HRS, 195.22 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 3, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RESVOR STRUCTURE 2
INPUT HYDROGRAPH= 4 OUTPUT HYDROGRAPH= 5
SURFACE ELEVATION= 893.00

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.00	50.00	893.00
15.81	141.22	895.22

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.55 SQ.MI.

TIME(HRS)											
.00	DISCHG	50.00	50.00	49.98	49.96	49.92	49.88	49.83	49.78	49.71	49.64
.00	ELEV	893.00	893.00	893.00	893.00	893.00	893.00	892.99	892.99	892.99	892.99
1.00	DISCHG	49.56	49.47	49.38	49.28	49.17	49.06	48.94	48.81	48.68	48.55
1.00	ELEV	892.98	892.98	892.98	892.97	892.97	892.96	892.96	892.95	892.95	892.94
2.00	DISCHG	48.41	48.27	48.12	47.96	47.80	47.64	47.48	47.31	47.13	46.96
2.00	ELEV	892.94	892.93	892.92	892.92	892.91	892.91	892.90	892.89	892.89	892.88
3.00	DISCHG	46.78	46.59	46.41	46.22	46.03	45.83	45.64	45.44	45.23	45.03
3.00	ELEV	892.87	892.86	892.86	892.85	892.84	892.83	892.83	892.82	892.81	892.80
4.00	DISCHG	44.82	44.62	44.41	44.20	43.98	43.77	43.55	43.34	43.12	42.90
4.00	ELEV	892.79	892.78	892.78	892.77	892.76	892.75	892.74	892.73	892.72	892.72
5.00	DISCHG	42.68	42.45	42.23	42.01	41.78	41.56	41.33	41.11	40.88	40.65
5.00	ELEV	892.71	892.70	892.69	892.68	892.67	892.66	892.65	892.64	892.64	892.63
6.00	DISCHG	40.42	40.19	39.97	39.74	39.51	39.28	39.05	38.82	38.59	38.36
6.00	ELEV	892.62	892.61	892.60	892.59	892.58	892.57	892.56	892.55	892.54	892.53
7.00	DISCHG	38.13	37.90	37.68	37.45	37.22	36.99	36.76	36.54	36.31	36.08
7.00	ELEV	892.53	892.52	892.51	892.50	892.49	892.48	892.47	892.46	892.45	892.44
8.00	DISCHG	35.86	35.63	35.41	35.18	34.96	34.74	34.52	34.30	34.09	33.88
8.00	ELEV	892.43	892.43	892.42	892.41	892.40	892.39	892.38	892.37	892.36	892.36
9.00	DISCHG	33.67	33.47	33.27	33.07	32.89	32.70	32.53	32.36	32.20	32.04
9.00	ELEV	892.35	892.34	892.33	892.32	892.32	892.31	892.30	892.29	892.29	892.28
10.00	DISCHG	31.89	31.76	31.62	31.50	31.39	31.29	31.20	31.12	31.06	31.01
10.00	ELEV	892.28	892.27	892.27	892.26	892.26	892.25	892.25	892.24	892.24	892.24
11.00	DISCHG	30.98	30.97	30.99	31.03	31.11	31.22	31.38	31.61	31.95	32.48
11.00	ELEV	892.24	892.24	892.24	892.24	892.24	892.25	892.26	892.26	892.28	892.30
12.00	DISCHG	33.32	34.61	36.50	39.09	42.40	46.37	50.82	55.56	60.38	65.11
12.00	ELEV	892.33	892.38	892.46	892.56	892.70	892.85	893.03	893.22	893.42	893.60
13.00	DISCHG	69.62	73.82	80.24	86.98	92.93	98.22	102.95	107.18	110.97	114.35
13.00	ELEV	893.78	893.95	894.10	894.24	894.36	894.46	894.56	894.64	894.72	894.79
14.00	DISCHG	117.36	120.05	122.44	124.57	127.16	129.62	131.77	133.63	135.23	136.59
14.00	ELEV	894.85	894.90	894.95	894.99	895.03	895.06	895.09	895.12	895.14	895.15
15.00	DISCHG	137.73	138.67	139.43	140.02	140.47	140.80	141.03	141.17	141.22	141.19
15.00	ELEV	895.17	895.18	895.19	895.20	895.21	895.21	895.21	895.22	895.22	895.22
16.00	DISCHG	141.08	140.90	140.67	140.38	140.04	139.67	139.26	138.83	138.37	137.88
16.00	ELEV	895.21	895.21	895.21	895.21	895.20	895.20	895.19	895.18	895.18	895.17

17.00	DISCHG	137.36	136.82	136.25	135.65	135.03	134.38	133.71	133.02	132.31	131.59
17.00	ELEV	895.16	895.16	895.15	895.14	895.13	895.13	895.12	895.11	895.10	895.09
18.00	DISCHG	130.85	130.11	129.35	128.57	127.78	126.97	126.14	125.29	124.62	124.03
18.00	ELEV	895.08	895.07	895.06	895.05	895.04	895.03	895.02	895.00	894.99	894.98
19.00	DISCHG	123.43	122.82	122.21	121.59	120.96	120.33	119.70	119.06	118.42	117.79
19.00	ELEV	894.97	894.96	894.94	894.93	894.92	894.91	894.89	894.88	894.87	894.86
20.00	DISCHG	117.15	116.51	115.86	115.21	114.55	113.88	113.20	112.51	111.82	111.11
20.00	ELEV	894.84	894.83	894.82	894.80	894.79	894.78	894.76	894.75	894.74	894.72
21.00	DISCHG	110.40	109.68	108.96	108.24	107.52	106.80	106.08	105.36	104.65	103.93
21.00	ELEV	894.71	894.69	894.68	894.66	894.65	894.64	894.62	894.61	894.59	894.58
22.00	DISCHG	103.22	102.52	101.82	101.12	100.43	99.74	99.05	98.37	97.70	97.03
22.00	ELEV	894.56	894.55	894.54	894.52	894.51	894.49	894.48	894.47	894.45	894.44
23.00	DISCHG	96.37	95.71	95.06	94.41	93.77	93.13	92.50	91.88	91.26	90.64
23.00	ELEV	894.43	894.41	894.40	894.39	894.38	894.36	894.35	894.34	894.33	894.31
24.00	DISCHG	90.03	89.42	88.81	88.20	87.57	86.92	86.25	85.55	84.82	84.07
24.00	ELEV	894.30	894.29	894.28	894.26	894.25	894.24	894.22	894.21	894.20	894.18
25.00	DISCHG	83.28	82.47	81.64	80.80	79.94	79.07	78.20	77.32	76.44	75.56
25.00	ELEV	894.17	894.15	894.13	894.12	894.10	894.08	894.06	894.05	894.03	894.01
26.00	DISCHG	74.84	74.40	73.96	73.51	73.07	72.62	72.18	71.73	71.28	70.84
26.00	ELEV	893.99	893.98	893.96	893.94	893.92	893.90	893.89	893.87	893.85	893.83
27.00	DISCHG	70.40	69.95	69.51	69.07	68.62	68.18	67.75	67.31	66.87	66.43
27.00	ELEV	893.82	893.80	893.78	893.76	893.74	893.73	893.71	893.69	893.67	893.66
28.00	DISCHG	66.00	65.57	65.14	64.71	64.28	63.85	63.43	63.00	62.58	62.16
28.00	ELEV	893.64	893.62	893.61	893.59	893.57	893.55	893.54	893.52	893.50	893.49
29.00	DISCHG	61.75	61.33	60.91	60.50	60.09	59.68	59.27	58.87	58.47	58.06
29.00	ELEV	893.47	893.45	893.44	893.42	893.40	893.39	893.37	893.35	893.34	893.32

RUNOFF VOLUME ABOVE BASEFLOW = 2.26 WATERSHED INCHES, 2256.88 CFS-HRS, 186.51 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR STRUCTURE 2, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 4
OUTPUT HYDROGRAPH= 6
AREA= 1.51 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= 2.40 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1000 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET) (RUNOFF)
13.57	512.24	

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS			DRAINAGE AREA =		1.51 SQ.MI.
9.00	DISCHG	.01	.02	.04	.07	.12	.18	.28	.41	.58	.80
10.00	DISCHG	1.07	1.39	1.78	2.23	2.76	3.36	4.05	4.84	5.75	6.78
11.00	DISCHG	7.96	9.30	10.85	12.61	14.64	16.96	20.00	24.06	30.18	39.93
12.00	DISCHG	54.77	74.25	98.56	127.22	160.74	199.52	242.85	289.14	336.25	379.76
13.00	DISCHG	417.94	449.54	474.73	492.79	504.67	511.08	511.91	507.32	498.00	485.64
14.00	DISCHG	470.17	451.49	429.71	405.62	380.39	356.66	335.12	315.87	297.96	281.30
15.00	DISCHG	265.83	251.52	238.40	225.88	213.97	202.65	192.09	182.46	173.56	165.29
16.00	DISCHG	157.59	150.41	143.76	137.57	131.86	126.59	121.64	117.11	113.03	109.24
17.00	DISCHG	105.74	102.51	99.51	96.72	94.09	91.59	89.20	86.98	84.88	82.90

18.00	DISCHG	81.05	79.31	77.63	76.01	74.46	73.01	71.61	70.21	68.82	67.46
19.00	DISCHG	66.12	64.83	63.57	62.35	61.18	60.04	58.97	57.97	57.05	56.24
20.00	DISCHG	55.53	54.86	54.22	53.61	53.00	52.39	51.76	51.09	50.40	49.68
21.00	DISCHG	48.94	48.20	47.46	46.74	46.02	45.34	44.68	44.05	43.46	42.91
22.00	DISCHG	42.40	41.94	41.51	41.14	40.81	40.52	40.26	40.03	39.82	39.64
23.00	DISCHG	39.47	39.32	39.19	39.07	38.96	38.87	38.78	38.71	38.64	38.56
24.00	DISCHG	38.47	38.33	38.13	37.84	37.45	36.93	36.26	35.41	34.39	33.17
25.00	DISCHG	31.78	30.25	28.61	26.89	25.13	23.35	21.58	19.84	18.16	16.54
26.00	DISCHG	15.01	13.57	12.23	11.00	9.89	8.90	8.02	7.24	6.53	5.90
27.00	DISCHG	5.33	4.81	4.34	3.92	3.53	3.18	2.87	2.59	2.33	2.10
28.00	DISCHG	1.89	1.71	1.54	1.38	1.24	1.12	1.01	.90	.81	.73
29.00	DISCHG	.66	.59	.53	.47	.42	.38	.33	.30	.26	.23

RUNOFF VOLUME ABOVE BASEFLOW = 1.95 WATERSHED INCHES, 1900.65 CFS-HRS, 157.07 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 4, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 5
INPUT HYDROGRAPHS= 5,6 OUTPUT HYDROGRAPH= 1
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.00	50.00	(NULL)
13.64	615.43	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 3.06 SQ.MI.

.00	DISCHG	50.00	50.00	49.98	49.96	49.92	49.88	49.83	49.78	49.71	49.64
1.00	DISCHG	49.56	49.47	49.38	49.28	49.17	49.06	48.94	48.81	48.68	48.55
2.00	DISCHG	48.41	48.27	48.12	47.96	47.80	47.64	47.48	47.31	47.13	46.96
3.00	DISCHG	46.78	46.59	46.41	46.22	46.03	45.83	45.64	45.44	45.23	45.03
4.00	DISCHG	44.82	44.62	44.41	44.20	43.98	43.77	43.55	43.34	43.12	42.90
5.00	DISCHG	42.68	42.45	42.23	42.01	41.78	41.56	41.33	41.11	40.88	40.65
6.00	DISCHG	40.42	40.19	39.97	39.74	39.51	39.28	39.05	38.82	38.59	38.36
7.00	DISCHG	38.13	37.90	37.68	37.45	37.22	36.99	36.76	36.54	36.31	36.08
8.00	DISCHG	35.86	35.63	35.41	35.18	34.96	34.74	34.52	34.30	34.09	33.88
9.00	DISCHG	33.68	33.48	33.30	33.14	33.00	32.89	32.81	32.77	32.78	32.84
10.00	DISCHG	32.96	33.15	33.40	33.73	34.15	34.65	35.25	35.96	36.80	37.79
11.00	DISCHG	38.93	40.28	41.83	43.64	45.75	48.19	51.38	55.67	62.13	72.40
12.00	DISCHG	88.09	108.87	135.06	166.30	203.14	245.89	293.67	344.69	396.62	444.87
13.00	DISCHG	487.56	523.35	554.97	579.77	597.60	609.30	614.86	614.50	608.97	599.99
14.00	DISCHG	587.54	571.54	552.15	530.18	507.55	486.28	466.89	449.50	433.19	417.89
15.00	DISCHG	403.56	390.20	377.83	365.91	354.45	343.45	333.13	323.63	314.78	306.48
16.00	DISCHG	298.67	291.32	284.42	277.95	271.90	266.26	260.90	255.94	251.40	247.12
17.00	DISCHG	243.11	239.33	235.76	232.38	229.12	225.97	222.91	219.99	217.20	214.49
18.00	DISCHG	211.91	209.42	206.98	204.58	202.24	199.98	197.74	195.50	193.44	191.49
19.00	DISCHG	189.56	187.65	185.78	183.94	182.14	180.37	178.67	177.03	175.48	174.02
20.00	DISCHG	172.68	171.36	170.08	168.82	167.55	166.27	164.96	163.61	162.21	160.79

17.00	DISCHG	411.80	403.77	396.12	388.83	381.81	375.02	368.44	362.14	356.09	350.25
18.00	DISCHG	344.64	339.24	333.97	328.82	323.82	318.97	314.22	309.50	304.82	300.26
19.00	DISCHG	296.31	292.43	288.62	284.89	281.23	277.66	274.20	270.87	267.70	264.71
20.00	DISCHG	261.90	259.17	256.50	253.87	251.26	248.64	245.98	243.28	240.53	237.75
21.00	DISCHG	234.95	232.15	229.36	226.60	223.88	221.22	218.61	216.08	213.61	211.23
22.00	DISCHG	208.92	206.70	204.57	202.53	200.58	198.71	196.91	195.16	193.47	191.84
23.00	DISCHG	190.26	188.72	187.23	185.78	184.37	182.99	181.77	180.86	179.96	179.05
24.00	DISCHG	178.13	177.15	176.07	174.85	173.45	171.85	169.99	167.83	165.37	162.59
25.00	DISCHG	159.51	156.18	152.67	149.01	145.27	141.49	137.73	134.00	130.34	126.79
26.00	DISCHG	123.36	120.07	116.92	113.95	111.15	108.54	106.09	103.80	101.63	99.58
27.00	DISCHG	97.62	95.75	93.97	92.26	90.61	89.03	87.51	86.05	84.64	83.27
28.00	DISCHG	81.95	80.66	79.42	78.20	77.02	76.25	75.61	74.97	74.36	73.76
29.00	DISCHG	73.17	72.60	72.04	71.48	70.94	70.41	69.88	69.36	68.85	68.34

RUNOFF VOLUME ABOVE BASEFLOW = 3.27 WATERSHED INCHES, 6456.91 CFS-HRS, 533.60 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 5, ALTERNATE 1, STORM 4, ADDED TO OUTPUT HYDROGRAPH FILE ---

EXECUTIVE CONTROL OPERATION ENDCMP COMPUTATIONS COMPLETED FOR PASS 4 RECORD ID

EXECUTIVE CONTROL OPERATION COMPUT FROM XSECTION 1 TO XSECTION 5 RECORD ID 100-YR
STARTING TIME = .00 RAIN DEPTH = 6.48 RAIN DURATION= 1.00 RAIN TABLE NO.= 2 ANT. MOIST. COND= 2
ALTERNATE NO.= 1 STORM NO.= 5 MAIN TIME INCREMENT = .10 HOURS

OPERATION RUNOFF CROSS SECTION 1
OUTPUT HYDROGRAPH= 1
AREA= .49 SQ MI INPUT RUNOFF CURVE= 81. TIME OF CONCENTRATION= 1.30 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0963 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.72	593.02	(RUNOFF)
23.59	22.61	(RUNOFF)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS			DRAINAGE AREA =		.49 SQ.MI.
5.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.00	.01	.02
6.00	DISCHG	.05	.09	.15	.25	.38	.54	.73	.97	1.23	1.52
7.00	DISCHG	1.82	2.15	2.49	2.83	3.18	3.54	3.89	4.25	4.61	4.97
8.00	DISCHG	5.32	5.68	6.05	6.44	6.87	7.35	7.89	8.49	9.15	9.85
9.00	DISCHG	10.59	11.34	12.12	12.90	13.71	14.54	15.40	16.30	17.23	18.20
10.00	DISCHG	19.21	20.26	21.36	22.51	23.72	25.04	26.52	28.22	30.19	32.50
11.00	DISCHG	35.18	38.28	41.83	45.83	50.32	55.63	62.87	73.60	91.09	121.25
12.00	DISCHG	168.25	231.61	308.64	393.55	474.57	538.49	577.66	592.67	585.50	560.78
13.00	DISCHG	523.37	477.44	426.61	377.89	335.87	300.50	270.30	244.10	220.84	200.13
14.00	DISCHG	181.95	166.02	151.97	139.58	128.65	119.04	110.59	103.08	96.37	90.34
15.00	DISCHG	84.88	80.00	75.68	71.85	68.50	65.57	62.98	60.58	58.31	56.19
16.00	DISCHG	54.25	52.49	51.03	49.85	48.89	48.08	47.38	46.76	46.17	45.55
17.00	DISCHG	44.88	44.14	43.36	42.58	41.82	41.11	40.47	39.90	39.41	38.96
18.00	DISCHG	38.53	38.07	37.54	36.91	36.21	35.48	34.74	34.04	33.39	32.80
19.00	DISCHG	32.29	31.86	31.52	31.24	31.01	30.83	30.67	30.54	30.42	30.29
20.00	DISCHG	30.10	29.83	29.46	28.96	28.37	27.73	27.06	26.41	25.80	25.25
21.00	DISCHG	24.77	24.37	24.05	23.78	23.57	23.39	23.24	23.12	23.02	22.94
22.00	DISCHG	22.87	22.82	22.77	22.74	22.71	22.68	22.67	22.65	22.64	22.63
23.00	DISCHG	22.62	22.62	22.61	22.61	22.61	22.61	22.61	22.61	22.60	22.54
24.00	DISCHG	22.42	22.14	21.64	20.86	19.76	18.34	16.67	14.83	12.95	11.12
25.00	DISCHG	9.39	7.85	6.49	5.35	4.41	3.65	3.02	2.50	2.07	1.71
26.00	DISCHG	1.41	1.16	.96	.79	.65	.53	.44	.36	.29	.24
27.00	DISCHG	.19	.15	.12	.10	.08	.06	.04	.03	.02	.01
28.00	DISCHG	.01	.00								

RUNOFF VOLUME ABOVE BASEFLOW = 4.33 WATERSHED INCHES, 1368.02 CFS-HRS, 113.05 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 1, ALTERNATE 1, STORM 5, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RESVOR STRUCTURE 1
INPUT HYDROGRAPH= 1 OUTPUT HYDROGRAPH= 2
SURFACE ELEVATION= 893.00

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID		STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION			RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
							BEGIN (HR)	AMOUNT (IN)	DURATION (HR)		ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE 1 STORM 5														
XSECTION	1	RUNOFF	.49	2	2	.10	.0	6.48	24.00	4.33	---	12.72	593.02	1210.2
STRUCTURE	1	RESVOR	.49	2	2	.10	.0	6.48	24.00	4.83	897.77	13.58	276.72	564.7
XSECTION	2	RUNOFF	1.06	2	2	.10	.0	6.48	24.00	4.33	---	12.72	1282.86	1210.2
XSECTION	3	ADDHYD	1.55	2	2	.10	.0	6.48	24.00	4.48	---	12.79	1401.81	904.4
STRUCTURE	2	RESVOR	1.55	2	2	.10	.0	6.48	24.00	4.20	898.01	14.57	451.74	291.4
XSECTION	4	RUNOFF	1.51	2	2	.10	.0	6.48	24.00	4.00	---	13.51	1073.43	710.9
XSECTION	5	ADDHYD	3.06	2	2	.10	.0	6.48	24.00	4.10	---	13.70	1436.23	469.4

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2	3	4	5
STRUCTURE 2	1.55					
ALTERNATE 1		69.26	141.22	162.79	294.59	451.74
STRUCTURE 1	.49					
ALTERNATE 1		50.00	91.58	105.26	190.44	276.72
XSECTION 1	.49					
ALTERNATE 1		162.08	298.52	327.07	473.41	593.02
XSECTION 2	1.06					
ALTERNATE 1		350.61	645.77	707.55	1024.10	1282.86
XSECTION 3	1.55					
ALTERNATE 1		374.76	690.68	757.06	1101.13	1401.81
XSECTION 4	1.51					
ALTERNATE 1		262.19	512.24	565.69	843.26	1073.43
XSECTION 5	3.06					
ALTERNATE 1		320.60	615.43	682.00	1067.26	1436.23

Appendix

TR-20 Model - Alternative Three

```
******************80-80 LIST OF INPUT DATA FOR TR-20 HYDROLOGY******************

JOB TR-20                        FULLPRINT          SUMMARY
TITLE 001 EDWARDS REGIONAL DETENTION STUDY - ALTERNATIVE 3
TITLE 001 10-YEAR DISCHARGE FROM BASINS M-Q AND 100-YEAR DISCHARGE FROM BASIN R
 6 RUNOFF 1 001          1 .28          78.00        1.1          1 1   1 1 1 BASIN M
 6 RUNOFF 1 002          2 .26          78.00        1.4          1 1   1 1 1 BASIN N
 6 ADDHYD 4 003   1 2 3                                          1 1 1 1 1 1
 6 RUNOFF 1 004          4 .35          78.00        .66          1 1   1 1 1 BASIN O
 6 ADDHYD 4 005   3 4 5                                          1 1 1 1 1 1
 6 RUNOFF 1 006          6 .24          78.00        .71          1 1   1 1 1 BASIN P
 6 ADDHYD 4 007   5 6 1                                          1 1 1 1 1 1
 6 RUNOFF 1 008          2 .30          78.00        .65          1 1   1 1 1 BASIN Q
 6 ADDHYD 4 009   1 2 3                                          1 1 1 1 1 1
 6 RUNOFF 1 010          4 1.64         78.00        3.8          1 1   1 1 1 BASIN R
 6 ADDHYD 4 011   3 4 5                                          1 1 1 1 1 1
   ENDATA
 7 INCREM 6               .1
 7 COMPUT 7 001   011    0.0           2.88         1.0          2 2  01  01 2-YR
   ENDCMP 1
 7 COMPUT 7 001   011    0.0           4.08         1.0          2 2  01  02 10-YR
   ENDCMP 1
 7 COMPUT 7 001   011    0.0           4.32         1.0          2 2  01  03 20-YR
   ENDCMP 1
 7 COMPUT 7 001   011    0.0           5.52         1.0          2 2  01  04 50-YR
   ENDCMP 1
 7 COMPUT 7 001   011    0.0           6.48         1.0          2 2  01  05 100-YR
   ENDCMP 1
   ENDJOB 2

*******************************END OF 80-80 LIST*********************************
```

*** WARNING - STRUCTURE 1 DELTA T IS TOO LARGE. O /2 > S /DELTA T OCCURED131 TIMES STARTING WITH POINT 29

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.00	50.00	894.00
13.58	276.72	897.77

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .49 SQ.MI.

TIME(HRS)											
.00	DISCHG	50.00	48.73	47.48	46.27	45.09	43.94	42.82	41.73	40.67	39.63
.00	ELEV	894.00	893.95	893.90	893.85	893.80	893.76	893.71	893.67	893.63	893.59
1.00	DISCHG	38.62	37.63	36.67	35.74	34.83	33.94	33.07	32.23	31.41	30.61
1.00	ELEV	893.54	893.51	893.47	893.43	893.39	893.36	893.32	893.29	893.26	893.22
2.00	DISCHG	29.83	29.07	28.33	27.60	26.90	26.21	25.55	24.90	24.26	23.64
2.00	ELEV	893.19	893.16	893.13	893.10	893.08	893.05	893.02	893.00	892.97	892.95
3.00	DISCHG	23.04	22.45	21.88	21.32	20.78	20.25	19.73	19.23	18.74	18.26
3.00	ELEV	892.92	892.90	892.88	892.85	892.83	892.81	892.79	892.77	892.75	892.73
4.00	DISCHG	17.79	17.34	16.90	16.47	16.05	15.64	15.24	14.85	14.47	14.10
4.00	ELEV	892.71	892.69	892.68	892.66	892.64	892.63	892.61	892.59	892.58	892.56
5.00	DISCHG	13.74	13.39	13.05	12.72	12.40	12.08	11.77	11.47	11.18	10.89
5.00	ELEV	892.55	892.54	892.52	892.51	892.50	892.48	892.47	892.46	892.45	892.44
6.00	DISCHG	10.62	10.35	10.09	9.84	9.59	9.36	9.14	8.93	8.73	8.54
6.00	ELEV	892.42	892.41	892.40	892.39	892.38	892.37	892.37	892.36	892.35	892.34
7.00	DISCHG	8.36	8.20	8.05	7.91	7.79	7.68	7.57	7.49	7.41	7.34
7.00	ELEV	892.33	892.33	892.32	892.32	892.31	892.31	892.30	892.30	892.30	892.29
8.00	DISCHG	7.28	7.24	7.20	7.18	7.17	7.16	7.18	7.20	7.24	7.30
8.00	ELEV	892.29	892.29	892.29	892.29	892.29	892.29	892.29	892.29	892.29	892.29
9.00	DISCHG	7.38	7.47	7.58	7.70	7.84	8.00	8.18	8.38	8.59	8.82
9.00	ELEV	892.30	892.30	892.30	892.31	892.31	892.32	892.33	892.34	892.34	892.35
10.00	DISCHG	9.08	9.35	9.64	9.95	10.29	10.65	11.03	11.45	11.90	12.40
10.00	ELEV	892.36	892.37	892.39	892.40	892.41	892.43	892.44	892.46	892.48	892.50
11.00	DISCHG	12.95	13.55	14.23	14.98	15.83	16.77	17.86	19.14	20.75	22.93
11.00	ELEV	892.52	892.54	892.57	892.60	892.63	892.67	892.71	892.77	892.83	892.92
12.00	DISCHG	26.04	30.47	36.58	44.60	54.53	66.06	82.11	107.44	134.91	167.60
12.00	ELEV	893.04	893.22	893.46	893.78	894.18	894.64	895.14	895.65	896.13	896.57
13.00	DISCHG	195.53	224.06	246.46	261.76	271.10	275.73	276.68	274.77	270.61	264.71
13.00	ELEV	896.94	897.24	897.46	897.62	897.71	897.76	897.77	897.75	897.71	897.65
14.00	DISCHG	257.47	249.27	240.40	231.11	221.58	211.98	202.43	194.72	187.63	180.60
14.00	ELEV	897.57	897.49	897.40	897.31	897.22	897.12	897.02	896.93	896.84	896.74
15.00	DISCHG	173.66	166.86	160.22	153.77	147.53	141.53	135.77	130.25	124.98	121.57
15.00	ELEV	896.65	896.56	896.47	896.38	896.30	896.22	896.14	896.07	896.00	895.93
16.00	DISCHG	118.23	114.96	111.78	108.69	105.70	102.82	100.05	97.38	94.82	92.35
16.00	ELEV	895.86	895.80	895.74	895.67	895.61	895.56	895.50	895.45	895.40	895.35
17.00	DISCHG	89.98	87.69	85.48	83.34	81.27	79.26	77.32	75.45	74.32	73.42
17.00	ELEV	895.30	895.25	895.21	895.17	895.13	895.09	895.05	895.01	894.97	894.94
18.00	DISCHG	72.54	71.66	70.80	69.95	69.09	68.25	67.40	66.56	65.72	64.89
18.00	ELEV	894.90	894.87	894.83	894.80	894.76	894.73	894.70	894.66	894.63	894.60
19.00	DISCHG	64.07	63.25	62.45	61.65	60.87	60.11	59.36	58.63	57.91	57.21
19.00	ELEV	894.56	894.53	894.50	894.47	894.43	894.40	894.37	894.35	894.32	894.29
20.00	DISCHG	56.52	55.84	55.17	54.51	53.85	53.20	52.54	51.88	51.22	50.57

20.00	ELEV	894.26	894.23	894.21	894.18	894.15	894.13	894.10	894.08	894.05	894.02
21.00	DISCHG	49.92	49.27	48.63	48.00	47.38	46.77	46.17	45.59	45.01	44.45
21.00	ELEV	894.00	893.97	893.95	893.92	893.90	893.87	893.85	893.82	893.80	893.78
22.00	DISCHG	43.90	43.36	42.84	42.33	41.83	41.34	40.86	40.40	39.95	39.51
22.00	ELEV	893.76	893.73	893.71	893.69	893.67	893.65	893.63	893.62	893.60	893.58
23.00	DISCHG	39.08	38.66	38.25	37.85	37.46	37.08	36.71	36.35	36.00	35.66
23.00	ELEV	893.56	893.55	893.53	893.51	893.50	893.48	893.47	893.45	893.44	893.43
24.00	DISCHG	35.32	34.99	34.66	34.32	33.96	33.58	33.17	32.72	32.24	31.73
24.00	ELEV	893.41	893.40	893.39	893.37	893.36	893.34	893.33	893.31	893.29	893.27
25.00	DISCHG	31.18	30.61	30.01	29.39	28.77	28.14	27.51	26.87	26.25	25.63
25.00	ELEV	893.25	893.22	893.20	893.18	893.15	893.13	893.10	893.08	893.05	893.03
26.00	DISCHG	25.01	24.41	23.81	23.23	22.65	22.09	21.54	21.00	20.47	19.96
26.00	ELEV	893.00	892.98	892.95	892.93	892.91	892.88	892.86	892.84	892.82	892.80
27.00	DISCHG	19.46	18.96	18.48	18.02	17.56	17.11	16.68	16.25	15.84	15.44
27.00	ELEV	892.78	892.76	892.74	892.72	892.70	892.68	892.67	892.65	892.63	892.62
28.00	DISCHG	15.04	14.66	14.29	13.92	13.57	13.22	12.88	12.55	12.23	11.92
28.00	ELEV	892.60	892.59	892.57	892.56	892.54	892.53	892.52	892.50	892.49	892.48
29.00	DISCHG	11.62	11.32	11.03	10.75	10.48	10.21	9.95	9.70	9.45	9.21
29.00	ELEV	892.46	892.45	892.44	892.43	892.42	892.41	892.40	892.39	892.38	892.37

RUNOFF VOLUME ABOVE BASEFLOW = 4.83 WATERSHED INCHES, 1526.10 CFS-HRS, 126.12 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR STRUCTURE 1, ALTERNATE 1, STORM 5, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 2
OUTPUT HYDROGRAPH= 3
AREA= 1.06 SQ MI INPUT RUNOFF CURVE= 81. TIME OF CONCENTRATION= 1.30 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0963 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.72	1282.86	(RUNOFF)
23.59	48.91	(RUNOFF)

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.06 SQ.MI.

TIME(HRS)											
5.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.01	.02	.05
6.00	DISCHG	.10	.19	.33	.54	.81	1.16	1.59	2.09	2.66	3.28
7.00	DISCHG	3.94	4.65	5.38	6.13	6.89	7.65	8.43	9.20	9.97	10.74
8.00	DISCHG	11.51	12.28	13.09	13.93	14.86	15.90	17.07	18.37	19.79	21.32
9.00	DISCHG	22.90	24.54	26.21	27.91	29.65	31.45	33.31	35.25	37.26	39.36
10.00	DISCHG	41.55	43.84	46.22	48.69	51.32	54.17	57.37	61.05	65.32	70.30
11.00	DISCHG	76.10	82.82	90.49	99.14	108.86	120.35	136.01	159.22	197.05	262.30
12.00	DISCHG	363.97	501.03	667.68	851.36	1026.62	1164.91	1249.62	1282.10	1266.60	1213.11
13.00	DISCHG	1132.18	1032.82	922.87	817.47	726.58	650.06	584.72	528.06	477.74	432.93
14.00	DISCHG	393.61	359.14	328.75	301.95	278.30	257.51	239.23	222.99	208.46	195.42
15.00	DISCHG	183.63	173.07	163.71	155.44	148.18	141.85	136.24	131.04	126.14	121.56
16.00	DISCHG	117.35	113.56	110.38	107.83	105.76	104.00	102.50	101.16	99.87	98.54
17.00	DISCHG	97.08	95.48	93.80	92.12	90.48	88.94	87.55	86.32	85.25	84.29
18.00	DISCHG	83.36	82.36	81.20	79.85	78.33	76.75	75.16	73.64	72.22	70.95
19.00	DISCHG	69.85	68.93	68.18	67.58	67.09	66.68	66.35	66.07	65.82	65.52

20.00	DISCHG	65.11	64.53	63.72	62.65	61.38	59.98	58.54	57.13	55.81	54.62
21.00	DISCHG	53.58	52.71	52.02	51.45	50.99	50.60	50.28	50.02	49.80	49.62
22.00	DISCHG	49.48	49.36	49.26	49.19	49.12	49.07	49.03	49.00	48.97	48.95
23.00	DISCHG	48.94	48.93	48.92	48.91	48.91	48.91	48.91	48.91	48.88	48.77
24.00	DISCHG	48.49	47.90	46.82	45.12	42.74	39.68	36.05	32.09	28.02	24.05
25.00	DISCHG	20.32	16.97	14.04	11.56	9.54	7.89	6.53	5.41	4.47	3.69
26.00	DISCHG	3.04	2.51	2.07	1.71	1.41	1.15	.95	.78	.63	.51
27.00	DISCHG	.42	.33	.27	.21	.16	.12	.09	.07	.04	.03
28.00	DISCHG	.01	.01	.00							

RUNOFF VOLUME ABOVE BASEFLOW = 4.33 WATERSHED INCHES, 2959.40 CFS-HRS, 244.56 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 2, ALTERNATE 1, STORM 5, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 3
INPUT HYDROGRAPHS= 2,3 OUTPUT HYDROGRAPH= 4
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.00	50.00	(NULL)
12.79	1401.81	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.55 SQ.MI.

.00	DISCHG	50.00	48.73	47.48	46.27	45.09	43.94	42.82	41.73	40.67	39.63
1.00	DISCHG	38.62	37.63	36.67	35.74	34.83	33.94	33.07	32.23	31.41	30.61
2.00	DISCHG	29.83	29.07	28.33	27.60	26.90	26.21	25.55	24.90	24.26	23.64
3.00	DISCHG	23.04	22.45	21.88	21.32	20.78	20.25	19.73	19.23	18.74	18.26
4.00	DISCHG	17.79	17.34	16.90	16.47	16.05	15.64	15.24	14.85	14.47	14.10
5.00	DISCHG	13.74	13.39	13.05	12.72	12.40	12.08	11.77	11.48	11.20	10.94
6.00	DISCHG	10.72	10.54	10.42	10.37	10.40	10.52	10.73	11.02	11.38	11.82
7.00	DISCHG	12.31	12.85	13.43	14.04	14.67	15.33	16.00	16.68	17.38	18.08
8.00	DISCHG	18.79	19.52	20.29	21.11	22.02	23.06	24.24	25.57	27.04	28.62
9.00	DISCHG	30.28	32.00	33.78	35.61	37.50	39.46	41.50	43.63	45.85	48.18
10.00	DISCHG	50.63	53.18	55.86	58.64	61.60	64.81	68.40	72.50	77.22	82.69
11.00	DISCHG	89.05	96.37	104.72	114.12	124.69	137.12	153.87	178.36	217.80	285.23
12.00	DISCHG	390.00	531.50	704.26	895.96	1081.15	1230.96	1331.73	1389.54	1401.51	1380.71
13.00	DISCHG	1327.71	1256.89	1169.33	1079.24	997.68	925.79	861.40	802.83	748.35	697.63
14.00	DISCHG	651.08	608.41	569.15	533.06	499.88	469.48	441.66	417.71	396.09	376.02
15.00	DISCHG	357.29	339.93	323.93	309.21	295.72	283.38	272.01	261.29	251.12	243.13
16.00	DISCHG	235.58	228.52	222.16	216.52	211.47	206.82	202.55	198.54	194.69	190.89
17.00	DISCHG	187.06	183.17	179.28	175.45	171.74	168.20	164.87	161.78	159.57	157.71
18.00	DISCHG	155.89	154.02	152.00	149.79	147.43	144.99	142.56	140.20	137.95	135.84
19.00	DISCHG	133.91	132.18	130.63	129.23	127.96	126.79	125.71	124.70	123.73	122.73
20.00	DISCHG	121.63	120.38	118.90	117.17	115.23	113.17	111.08	109.01	107.04	105.19
21.00	DISCHG	103.49	101.98	100.65	99.45	98.37	97.37	96.46	95.60	94.81	94.07
22.00	DISCHG	93.38	92.72	92.10	91.51	90.95	90.41	89.90	89.40	88.92	88.46
23.00	DISCHG	88.01	87.58	87.17	86.76	86.37	85.99	85.62	85.26	84.88	84.43

24.00	DISCHG	83.81	82.89	81.47	79.43	76.70	73.25	69.22	64.81	60.27	55.78
25.00	DISCHG	51.50	47.58	44.05	40.96	38.31	36.03	34.03	32.28	30.72	29.32
26.00	DISCHG	28.06	26.92	25.89	24.94	24.06	23.25	22.49	21.78	21.11	20.47
27.00	DISCHG	19.87	19.30	18.75	18.23	17.72	17.24	16.77	16.32	15.88	15.46
28.00	DISCHG	15.06	14.66	14.29	13.92	13.57	13.22	12.88	12.55	12.23	11.92
29.00	DISCHG	11.62	11.32	11.03	10.75	10.48	10.21	9.95	9.70	9.45	9.21

RUNOFF VOLUME ABOVE BASEFLOW = 4.48 WATERSHED INCHES, 4485.50 CFS-HRS, 370.68 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 3, ALTERNATE 1, STORM 5, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RESVOR STRUCTURE 2
INPUT HYDROGRAPH= 4 OUTPUT HYDROGRAPH= 5
SURFACE ELEVATION= 893.00

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.00	50.00	893.00
14.57	451.74	898.01

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.55 SQ.MI.

.00	DISCHG	50.00	50.00	49.98	49.96	49.92	49.88	49.83	49.78	49.71	49.64
.00	ELEV	893.00	893.00	893.00	893.00	893.00	893.00	892.99	892.99	892.99	892.99
1.00	DISCHG	49.56	49.47	49.38	49.28	49.17	49.06	48.94	48.81	48.68	48.55
1.00	ELEV	892.98	892.98	892.98	892.97	892.97	892.96	892.96	892.95	892.95	892.94
2.00	DISCHG	48.41	48.27	48.12	47.96	47.80	47.64	47.48	47.31	47.13	46.96
2.00	ELEV	892.94	892.93	892.92	892.92	892.91	892.91	892.90	892.89	892.89	892.88
3.00	DISCHG	46.78	46.59	46.41	46.22	46.03	45.83	45.64	45.44	45.23	45.03
3.00	ELEV	892.87	892.86	892.86	892.85	892.84	892.83	892.83	892.82	892.81	892.80
4.00	DISCHG	44.82	44.62	44.41	44.20	43.98	43.77	43.55	43.34	43.12	42.90
4.00	ELEV	892.79	892.78	892.78	892.77	892.76	892.75	892.74	892.73	892.72	892.72
5.00	DISCHG	42.68	42.45	42.23	42.01	41.78	41.56	41.33	41.11	40.88	40.65
5.00	ELEV	892.71	892.70	892.69	892.68	892.67	892.66	892.65	892.64	892.64	892.63
6.00	DISCHG	40.42	40.20	39.97	39.74	39.52	39.30	39.08	38.87	38.66	38.45
6.00	ELEV	892.62	892.61	892.60	892.59	892.58	892.57	892.56	892.55	892.55	892.54
7.00	DISCHG	38.25	38.05	37.86	37.68	37.50	37.33	37.16	37.01	36.85	36.71
7.00	ELEV	892.53	892.52	892.51	892.51	892.50	892.49	892.49	892.48	892.47	892.47
8.00	DISCHG	36.57	36.43	36.31	36.19	36.08	35.98	35.88	35.80	35.73	35.67
8.00	ELEV	892.46	892.46	892.45	892.45	892.44	892.44	892.44	892.43	892.43	892.43
9.00	DISCHG	35.62	35.58	35.56	35.56	35.56	35.59	35.62	35.68	35.75	35.83
9.00	ELEV	892.42	892.42	892.42	892.42	892.42	892.42	892.42	892.43	892.43	892.43
10.00	DISCHG	35.94	36.06	36.20	36.36	36.54	36.74	36.97	37.23	37.51	37.84
10.00	ELEV	892.44	892.44	892.45	892.45	892.46	892.47	892.48	892.49	892.50	892.51
11.00	DISCHG	38.20	38.62	39.09	39.63	40.23	40.93	41.72	42.67	43.86	45.44
11.00	ELEV	892.53	892.54	892.56	892.59	892.61	892.64	892.67	892.71	892.75	892.82
12.00	DISCHG	47.67	50.81	55.14	60.82	67.89	77.36	95.65	114.86	138.91	167.33
12.00	ELEV	892.91	893.03	893.21	893.43	893.72	894.05	894.41	894.80	895.19	895.56
13.00	DISCHG	194.27	225.49	255.27	281.46	306.38	335.80	360.83	381.99	399.65	414.16
13.00	ELEV	895.92	896.25	896.55	896.81	897.04	897.24	897.41	897.55	897.66	897.76
14.00	DISCHG	425.84	434.99	441.90	446.80	449.93	451.49	451.67	450.68	448.72	445.90

14.00	ELEV	897.84	897.90	897.95	897.98	898.00	898.01	898.01	898.00	897.99	897.97
15.00	DISCHG	442.35	438.14	433.37	428.13	422.49	416.52	410.29	403.84	397.22	390.48
15.00	ELEV	897.95	897.92	897.89	897.85	897.82	897.78	897.74	897.69	897.65	897.60
16.00	DISCHG	383.70	376.89	370.09	363.32	356.62	350.00	343.48	337.06	330.76	324.57
16.00	ELEV	897.56	897.51	897.47	897.42	897.38	897.33	897.29	897.25	897.21	897.16
17.00	DISCHG	318.48	312.50	306.60	300.80	296.70	292.88	289.08	285.28	281.53	277.82
17.00	ELEV	897.12	897.08	897.04	897.01	896.97	896.93	896.89	896.85	896.82	896.78
18.00	DISCHG	274.17	270.58	267.04	263.53	260.07	256.64	253.23	249.86	246.52	243.22
18.00	ELEV	896.74	896.71	896.67	896.64	896.60	896.57	896.53	896.50	896.47	896.43
19.00	DISCHG	239.95	236.73	233.55	230.43	227.36	224.34	221.39	218.49	215.65	212.86
19.00	ELEV	896.40	896.37	896.34	896.30	896.27	896.24	896.21	896.18	896.16	896.13
20.00	DISCHG	210.13	207.44	204.79	202.18	199.69	197.75	195.80	193.86	191.91	189.96
20.00	ELEV	896.10	896.07	896.05	896.02	896.00	895.97	895.94	895.92	895.89	895.87
21.00	DISCHG	188.02	186.08	184.16	182.25	180.36	178.49	176.63	174.81	173.00	171.22
21.00	ELEV	895.84	895.81	895.79	895.76	895.74	895.71	895.69	895.66	895.64	895.62
22.00	DISCHG	169.46	167.72	166.01	164.33	162.67	161.04	159.43	157.84	156.29	154.75
22.00	ELEV	895.59	895.57	895.55	895.52	895.50	895.48	895.46	895.44	895.42	895.40
23.00	DISCHG	153.24	151.76	150.29	148.86	147.44	146.05	144.69	143.34	142.02	140.72
23.00	ELEV	895.38	895.36	895.34	895.32	895.30	895.28	895.26	895.24	895.23	895.21
24.00	DISCHG	139.43	138.16	136.89	135.61	134.30	132.96	131.56	130.09	128.56	126.96
24.00	ELEV	895.19	895.18	895.16	895.14	895.12	895.11	895.09	895.07	895.05	895.03
25.00	DISCHG	125.29	124.05	122.86	121.64	120.39	119.13	117.85	116.56	115.27	113.98
25.00	ELEV	895.00	894.98	894.96	894.93	894.91	894.88	894.86	894.83	894.81	894.78
26.00	DISCHG	112.68	111.39	110.10	108.81	107.53	106.26	104.99	103.73	102.48	101.24
26.00	ELEV	894.75	894.73	894.70	894.68	894.65	894.63	894.60	894.57	894.55	894.52
27.00	DISCHG	100.01	98.79	97.58	96.37	95.18	94.00	92.83	91.68	90.53	89.39
27.00	ELEV	894.50	894.48	894.45	894.43	894.40	894.38	894.36	894.33	894.31	894.29
28.00	DISCHG	88.26	87.15	86.05	84.95	83.87	82.80	81.74	80.69	79.66	78.63
28.00	ELEV	894.27	894.24	894.22	894.20	894.18	894.16	894.13	894.11	894.09	894.07
29.00	DISCHG	77.61	76.61	75.62	74.82	74.33	73.84	73.35	72.87	72.39	71.91
29.00	ELEV	894.05	894.03	894.01	893.99	893.97	893.95	893.93	893.91	893.90	893.88

RUNOFF VOLUME ABOVE BASEFLOW = 4.20 WATERSHED INCHES, 4199.10 CFS-HRS, 347.01 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR STRUCTURE 2, ALTERNATE 1, STORM 5, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 4
OUTPUT HYDROGRAPH= 6
AREA= 1.51 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= 2.40 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1000 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET) (RUNOFF)
13.51	1073.43	

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.51 SQ.MI.

TIME(HRS)										
6.00	DISCHG	.00	.00	.00	.00	.00	.00	.01	.01	.03	.06
7.00	DISCHG	.10	.16	.25	.36	.51	.71	.94	1.23	1.56	1.94
8.00	DISCHG	2.38	2.86	3.39	3.98	4.62	5.32	6.09	6.92	7.82	8.79
9.00	DISCHG	9.83	10.95	12.16	13.45	14.81	16.26	17.78	19.39	21.08	22.86

10.00	DISCHG	24.73	26.69	28.75	30.92	33.20	35.61	38.18	40.93	43.90	47.14
11.00	DISCHG	50.70	54.66	59.07	64.02	69.59	75.85	83.82	94.18	109.17	131.85
12.00	DISCHG	164.92	207.42	259.62	320.52	391.19	472.04	561.35	655.51	749.98	835.90
13.00	DISCHG	909.95	969.86	1016.10	1047.52	1066.07	1073.32	1069.22	1054.24	1029.96	999.71
14.00	DISCHG	963.27	920.60	872.09	819.58	765.54	715.13	669.62	628.97	591.37	556.51
15.00	DISCHG	524.27	494.56	467.32	441.42	416.86	393.62	372.04	352.37	334.24	317.44
16.00	DISCHG	301.81	287.29	273.84	261.36	249.87	239.26	229.33	220.26	212.10	204.52
17.00	DISCHG	197.54	191.10	185.12	179.59	174.37	169.42	164.71	160.33	156.22	152.34
18.00	DISCHG	148.72	145.32	142.05	138.90	135.92	133.12	130.43	127.75	125.10	122.49
19.00	DISCHG	119.95	117.48	115.08	112.76	110.52	108.36	106.33	104.44	102.71	101.19
20.00	DISCHG	99.88	98.63	97.45	96.31	95.20	94.07	92.90	91.68	90.40	89.09
21.00	DISCHG	87.75	86.40	85.05	83.72	82.43	81.18	79.98	78.84	77.77	76.76
22.00	DISCHG	75.83	74.98	74.21	73.53	72.92	72.39	71.91	71.48	71.09	70.74
23.00	DISCHG	70.43	70.15	69.89	69.66	69.46	69.28	69.11	68.97	68.82	68.67
24.00	DISCHG	68.49	68.24	67.87	67.35	66.63	65.70	64.49	62.99	61.16	58.99
25.00	DISCHG	56.52	53.78	50.86	47.80	44.66	41.50	38.36	35.27	32.27	29.40
26.00	DISCHG	26.68	24.12	21.74	19.56	17.58	15.82	14.25	12.86	11.61	10.48
27.00	DISCHG	9.47	8.55	7.72	6.96	6.28	5.66	5.10	4.60	4.14	3.74
28.00	DISCHG	3.37	3.03	2.73	2.46	2.21	1.99	1.79	1.61	1.44	1.30
29.00	DISCHG	1.16	1.04	.94	.84	.75	.67	.59	.53	.47	.41

RUNOFF VOLUME ABOVE BASEFLOW = 4.00 WATERSHED INCHES, 3902.88 CFS-HRS, 322.53 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 4, ALTERNATE 1, STORM 5, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 5
INPUT HYDROGRAPHS= 5,6 OUTPUT HYDROGRAPH= 1
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.00	50.00	(NULL)
13.70	1436.23	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 3.06 SQ.MI.

.00	DISCHG	50.00	50.00	49.98	49.96	49.92	49.88	49.83	49.78	49.71	49.64
1.00	DISCHG	49.56	49.47	49.38	49.28	49.17	49.06	48.94	48.81	48.68	48.55
2.00	DISCHG	48.41	48.27	48.12	47.96	47.80	47.64	47.48	47.31	47.13	46.96
3.00	DISCHG	46.78	46.59	46.41	46.22	46.03	45.83	45.64	45.44	45.23	45.03
4.00	DISCHG	44.82	44.62	44.41	44.20	43.98	43.77	43.55	43.34	43.12	42.90
5.00	DISCHG	42.68	42.45	42.23	42.01	41.78	41.56	41.33	41.11	40.88	40.65
6.00	DISCHG	40.42	40.20	39.97	39.74	39.52	39.30	39.09	38.88	38.69	38.51
7.00	DISCHG	38.35	38.21	38.11	38.04	38.01	38.04	38.11	38.23	38.42	38.65
8.00	DISCHG	38.94	39.29	39.70	40.17	40.70	41.30	41.97	42.72	43.54	44.45
9.00	DISCHG	45.45	46.54	47.72	49.00	50.38	51.84	53.40	55.06	56.82	58.69
10.00	DISCHG	60.67	62.75	64.95	67.27	69.74	72.35	75.15	78.15	81.41	84.98
11.00	DISCHG	88.90	93.28	98.16	103.64	109.82	116.77	125.55	136.86	153.03	177.29
12.00	DISCHG	212.58	258.23	314.76	381.34	459.08	549.40	656.99	770.37	888.90	1003.23

13.00	DISCHG	1104.22	1195.35	1271.37	1328.98	1372.45	1409.12	1430.06	1436.23	1429.61	1413.88
14.00	DISCHG	1389.11	1355.60	1313.99	1266.37	1215.46	1166.61	1121.29	1079.65	1040.08	1002.42
15.00	DISCHG	966.62	932.70	900.69	869.55	839.35	810.14	782.33	756.21	731.46	707.92
16.00	DISCHG	685.51	664.18	643.93	624.68	606.49	589.26	572.81	557.32	542.86	529.09
17.00	DISCHG	516.02	503.59	491.73	480.39	471.08	462.30	453.79	445.61	437.75	430.17
18.00	DISCHG	422.90	415.90	409.08	402.44	395.99	389.76	383.66	377.61	371.63	365.71
19.00	DISCHG	359.90	354.20	348.63	343.19	337.88	332.71	327.72	322.92	318.35	314.05
20.00	DISCHG	310.00	306.07	302.24	298.49	294.88	291.82	288.70	285.54	282.31	279.05
21.00	DISCHG	275.77	272.48	269.21	265.97	262.79	259.66	256.61	253.64	250.77	247.98
22.00	DISCHG	245.29	242.70	240.22	237.86	235.59	233.42	231.34	229.32	227.38	225.49
23.00	DISCHG	223.67	221.90	220.19	218.52	216.90	215.33	213.80	212.31	210.84	209.39
24.00	DISCHG	207.93	206.40	204.76	202.96	200.93	198.65	196.05	193.08	189.71	185.94
25.00	DISCHG	181.81	177.83	173.72	169.44	165.05	160.63	156.21	151.83	147.54	143.38
26.00	DISCHG	139.36	135.51	131.84	128.37	125.11	122.07	119.24	116.59	114.09	111.72
27.00	DISCHG	109.48	107.33	105.29	103.34	101.46	99.66	97.93	96.27	94.67	93.13
28.00	DISCHG	91.63	90.18	88.77	87.41	86.08	84.79	83.53	82.30	81.10	79.93
29.00	DISCHG	78.78	77.65	76.55	75.65	75.07	74.51	73.95	73.40	72.85	72.32

RUNOFF VOLUME ABOVE BASEFLOW = 4.10 WATERSHED INCHES, 8101.98 CFS-HRS, 669.55 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 5, ALTERNATE 1, STORM 5, ADDED TO OUTPUT HYDROGRAPH FILE ---

EXECUTIVE CONTROL OPERATION ENDCMP COMPUTATIONS COMPLETED FOR PASS 5 RECORD ID

EXECUTIVE CONTROL OPERATION ENDJOB RECORD ID

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1													
XSECTION 1	RUNOFF	.49	2	2	.10	.0	2.88	24.00	1.22	---	12.76	162.08	330.8
STRUCTURE 1	RESVOR	.49	2	2	.10	.0	2.88	24.00	1.79	894.00	.00	50.00	102.0
XSECTION 2	RUNOFF	1.06	2	2	.10	.0	2.88	24.00	1.22	---	12.76	350.61	330.8
XSECTION 3	ADDHYD	1.55	2	2	.10	.0	2.88	24.00	1.40	---	12.79	374.76	241.8
STRUCTURE 2	RESVOR	1.55	2	2	.10	.0	2.88	24.00	1.52	893.77	16.91	69.26	44.7
XSECTION 4	RUNOFF	1.51	2	2	.10	.0	2.88	24.00	1.04	---	13.62	262.19	173.6
XSECTION 5	ADDHYD	3.06	2	2	.10	.0	2.88	24.00	1.29	---	13.67	320.60	104.8
ALTERNATE 1 STORM 2													
XSECTION 1	RUNOFF	.49	2	2	.10	.0	4.08	24.00	2.19	---	12.74	298.52	609.2
STRUCTURE 1	RESVOR	.49	2	2	.10	.0	4.08	24.00	2.73	895.33	14.08	91.58	186.9
XSECTION 2	RUNOFF	1.06	2	2	.10	.0	4.08	24.00	2.19	---	12.74	645.77	609.2
XSECTION 3	ADDHYD	1.55	2	2	.10	.0	4.08	24.00	2.36	---	12.77	690.68	445.6
STRUCTURE 2	RESVOR	1.55	2	2	.10	.0	4.08	24.00	2.26	895.22	15.81	141.22	91.1
XSECTION 4	RUNOFF	1.51	2	2	.10	.0	4.08	24.00	1.95	---	13.57	512.24	339.2
XSECTION 5	ADDHYD	3.06	2	2	.10	.0	4.08	24.00	2.11	---	13.64	615.43	201.1
ALTERNATE 1 STORM 3													
XSECTION 1	RUNOFF	.49	2	2	.10	.0	4.32	24.00	2.39	---	12.74	327.07	667.5
STRUCTURE 1	RESVOR	.49	2	2	.10	.0	4.32	24.00	2.93	895.61	14.01	105.26	214.8
XSECTION 2	RUNOFF	1.06	2	2	.10	.0	4.32	24.00	2.39	---	12.74	707.55	667.5
XSECTION 3	ADDHYD	1.55	2	2	.10	.0	4.32	24.00	2.56	---	12.76	757.06	488.4
STRUCTURE 2	RESVOR	1.55	2	2	.10	.0	4.32	24.00	2.43	895.50	15.57	162.79	105.0
XSECTION 4	RUNOFF	1.51	2	2	.10	.0	4.32	24.00	2.14	---	13.56	565.69	374.6
XSECTION 5	ADDHYD	3.06	2	2	.10	.0	4.32	24.00	2.29	---	13.64	682.00	222.9
ALTERNATE 1 STORM 4													
XSECTION 1	RUNOFF	.49	2	2	.10	.0	5.52	24.00	3.45	---	12.72	473.41	966.1
STRUCTURE 1	RESVOR	.49	2	2	.10	.0	5.52	24.00	3.97	896.87	13.74	190.44	388.6
XSECTION 2	RUNOFF	1.06	2	2	.10	.0	5.52	24.00	3.45	---	12.72	1024.10	966.1
XSECTION 3	ADDHYD	1.55	2	2	.10	.0	5.52	24.00	3.61	---	12.77	1101.13	710.4
STRUCTURE 2	RESVOR	1.55	2	2	.10	.0	5.52	24.00	3.38	896.95	14.96	294.59	190.1
XSECTION 4	RUNOFF	1.51	2	2	.10	.0	5.52	24.00	3.16	---	13.53	843.26	558.5
XSECTION 5	ADDHYD	3.06	2	2	.10	.0	5.52	24.00	3.27	---	13.67	1067.26	348.8

EXECUTIVE CONTROL OPERATION INCREM MAIN TIME INCREMENT = .10 HOURS RECORD ID

EXECUTIVE CONTROL OPERATION COMPUT FROM XSECTION 1 TO XSECTION 11 RECORD ID 2-YR
STARTING TIME = .00 RAIN DEPTH = 2.88 RAIN DURATION= 1.00 RAIN TABLE NO.= 2 ANT. MOIST. COND= 2
ALTERNATE NO.= 1 STORM NO.= 1 MAIN TIME INCREMENT = .10 HOURS

OPERATION RUNOFF CROSS SECTION 1
OUTPUT HYDROGRAPH= 1
AREA= .28 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= 1.10 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1048 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.63	86.51	(RUNOFF)
23.70	4.33	(RUNOFF)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS			TIME INCREMENT = .10 HOURS				DRAINAGE AREA = .28 SQ.MI.		
10.00	DISCHG	.00	.00	.00	.00	.00	.00	.01	.03	.07	.13
11.00	DISCHG	.24	.40	.62	.90	1.26	1.74	2.50	3.79	6.36	11.41
12.00	DISCHG	19.83	31.76	46.38	61.61	74.48	82.85	86.32	85.46	81.26	74.66
13.00	DISCHG	66.72	58.83	52.12	46.64	41.95	37.88	34.29	31.17	28.46	26.07
14.00	DISCHG	23.98	22.15	20.56	19.16	17.93	16.84	15.86	14.97	14.17	13.44
15.00	DISCHG	12.78	12.18	11.64	11.16	10.74	10.39	10.08	9.82	9.57	9.34
16.00	DISCHG	9.13	8.94	8.78	8.64	8.54	8.46	8.39	8.32	8.24	8.13
17.00	DISCHG	8.01	7.87	7.72	7.58	7.45	7.34	7.25	7.18	7.12	7.07
18.00	DISCHG	7.00	6.91	6.80	6.66	6.52	6.37	6.23	6.11	6.01	5.92
19.00	DISCHG	5.86	5.81	5.77	5.74	5.71	5.70	5.68	5.67	5.66	5.64
20.00	DISCHG	5.60	5.54	5.44	5.31	5.18	5.03	4.90	4.78	4.67	4.59
21.00	DISCHG	4.53	4.47	4.43	4.40	4.38	4.36	4.34	4.33	4.32	4.32
22.00	DISCHG	4.31	4.31	4.31	4.31	4.31	4.31	4.31	4.31	4.31	4.31
23.00	DISCHG	4.31	4.32	4.32	4.32	4.32	4.33	4.33	4.33	4.33	4.31
24.00	DISCHG	4.28	4.20	4.05	3.82	3.51	3.13	2.71	2.29	1.90	1.54
25.00	DISCHG	1.24	.98	.78	.63	.50	.40	.32	.25	.20	.16
26.00	DISCHG	.13	.10	.08	.06	.05	.04	.03	.02	.02	.01
27.00	DISCHG	.01	.01	.00							

RUNOFF VOLUME ABOVE BASEFLOW = 1.04 WATERSHED INCHES, 188.56 CFS-HRS, 15.58 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 1, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 2
OUTPUT HYDROGRAPH= 2
AREA= .26 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= 1.40 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1037 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.85	67.41	(RUNOFF)
23.73	4.02	(RUNOFF)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS			DRAINAGE AREA =		.26 SQ.MI.
10.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.01	.03	.06
11.00	DISCHG	.12	.20	.32	.49	.70	.99	1.43	2.16	3.51	6.11
12.00	DISCHG	10.51	16.78	24.80	34.24	44.18	53.26	60.33	64.93	67.15	67.22
13.00	DISCHG	65.48	62.34	58.18	53.29	48.30	43.81	39.97	36.61	33.66	31.01
14.00	DISCHG	28.57	26.37	24.42	22.68	21.10	19.69	18.41	17.26	16.23	15.30
15.00	DISCHG	14.45	13.68	12.99	12.37	11.81	11.32	10.87	10.48	10.12	9.80
16.00	DISCHG	9.49	9.21	8.95	8.71	8.50	8.32	8.18	8.06	7.96	7.85
17.00	DISCHG	7.74	7.63	7.50	7.38	7.26	7.14	7.03	6.94	6.85	6.77
18.00	DISCHG	6.69	6.62	6.53	6.43	6.33	6.21	6.10	5.98	5.87	5.77
19.00	DISCHG	5.68	5.60	5.54	5.48	5.44	5.40	5.38	5.35	5.33	5.31
20.00	DISCHG	5.28	5.24	5.18	5.11	5.02	4.92	4.82	4.71	4.61	4.51
21.00	DISCHG	4.43	4.35	4.29	4.23	4.19	4.16	4.13	4.10	4.08	4.07
22.00	DISCHG	4.06	4.04	4.04	4.03	4.02	4.02	4.02	4.02	4.01	4.01
23.00	DISCHG	4.01	4.01	4.01	4.01	4.02	4.02	4.02	4.02	4.02	4.01
24.00	DISCHG	4.00	3.96	3.88	3.77	3.60	3.39	3.13	2.83	2.52	2.21
25.00	DISCHG	1.91	1.62	1.37	1.15	.96	.80	.67	.57	.47	.40
26.00	DISCHG	.33	.28	.23	.20	.16	.14	.11	.09	.08	.07
27.00	DISCHG	.05	.04	.04	.03	.02	.02	.02	.01	.01	.01
28.00	DISCHG	.01	.00								

RUNOFF VOLUME ABOVE BASEFLOW = 1.04 WATERSHED INCHES, 175.16 CFS-HRS, 14.48 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 2, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 3
INPUT HYDROGRAPHS= 1,2 OUTPUT HYDROGRAPH= 3
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.72	150.46	(NULL)
23.71	8.35	(NULL)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS			DRAINAGE AREA =		.54 SQ.MI.
10.00	DISCHG	.00	.00	.00	.00	.00	.00	.01	.04	.10	.20
11.00	DISCHG	.36	.60	.94	1.39	1.97	2.73	3.93	5.94	9.87	17.52
12.00	DISCHG	30.34	48.54	71.18	95.85	118.67	136.12	146.65	150.40	148.41	141.88
13.00	DISCHG	132.20	121.17	110.30	99.93	90.25	81.69	74.26	67.78	62.11	57.08
14.00	DISCHG	52.54	48.52	44.98	41.84	39.04	36.53	34.27	32.24	30.40	28.74
15.00	DISCHG	27.23	25.87	24.63	23.53	22.55	21.70	20.96	20.30	19.69	19.13
16.00	DISCHG	18.62	18.15	17.73	17.36	17.04	16.78	16.57	16.38	16.19	15.98
17.00	DISCHG	15.75	15.49	15.22	14.96	14.71	14.48	14.28	14.11	13.97	13.83

20.00	DISCHG	17.89	17.71	17.45	17.13	16.75	16.35	15.95	15.58	15.23	14.94
21.00	DISCHG	14.68	14.47	14.30	14.16	14.04	13.95	13.88	13.82	13.77	13.73
22.00	DISCHG	13.69	13.67	13.65	13.63	13.62	13.61	13.61	13.60	13.60	13.60
23.00	DISCHG	13.60	13.60	13.60	13.60	13.60	13.61	13.61	13.61	13.61	13.57
24.00	DISCHG	13.48	13.28	12.92	12.36	11.58	10.61	9.51	8.35	7.19	6.10
25.00	DISCHG	5.11	4.24	3.51	2.89	2.38	1.96	1.62	1.34	1.10	.91
26.00	DISCHG	.75	.62	.51	.42	.35	.29	.23	.19	.16	.13
27.00	DISCHG	.10	.08	.07	.05	.04	.03	.03	.02	.02	.01
28.00	DISCHG	.01	.01	.00							

RUNOFF VOLUME ABOVE BASEFLOW = 1.95 WATERSHED INCHES, 679.52 CFS-HRS, 56.16 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 3, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 4
OUTPUT HYDROGRAPH= 4
AREA= .35 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= .66 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0880 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.30	298.47	(RUNOFF)
19.67	11.58	(RUNOFF)
23.66	8.84	(RUNOFF)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .35 SQ.MI.

8.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
9.00	DISCHG	.05	.12	.23	.38	.56	.77	1.00	1.25	1.53	1.83
10.00	DISCHG	2.14	2.47	2.80	3.18	3.61	4.12	4.74	5.47	6.35	7.37
11.00	DISCHG	8.55	9.91	11.42	13.13	15.06	17.57	22.25	31.74	52.23	90.80
12.00	DISCHG	151.45	223.25	279.43	298.46	281.36	241.31	195.54	157.92	130.14	109.15
13.00	DISCHG	92.98	80.29	70.27	62.43	56.04	50.86	46.57	42.92	39.73	36.88
14.00	DISCHG	34.41	32.37	30.73	29.30	27.99	26.77	25.58	24.44	23.35	22.35
15.00	DISCHG	21.54	20.92	20.48	20.16	19.86	19.46	18.96	18.45	18.00	17.65
16.00	DISCHG	17.41	17.26	17.16	17.10	17.06	17.03	16.95	16.76	16.41	15.95
17.00	DISCHG	15.51	15.13	14.85	14.67	14.54	14.46	14.41	14.38	14.33	14.19
18.00	DISCHG	13.91	13.49	13.02	12.58	12.24	12.01	11.86	11.75	11.68	11.64
19.00	DISCHG	11.61	11.59	11.58	11.57	11.57	11.57	11.58	11.58	11.56	11.44
20.00	DISCHG	11.16	10.73	10.26	9.83	9.48	9.24	9.08	8.98	8.90	8.85
21.00	DISCHG	8.82	8.80	8.78	8.77	8.77	8.77	8.77	8.77	8.77	8.77
22.00	DISCHG	8.77	8.78	8.78	8.79	8.79	8.79	8.80	8.80	8.80	8.81
23.00	DISCHG	8.81	8.81	8.82	8.82	8.82	8.83	8.83	8.83	8.81	8.69
24.00	DISCHG	8.39	7.83	6.95	5.74	4.43	3.23	2.25	1.54	1.05	.72
25.00	DISCHG	.49	.34	.23	.16	.11	.07	.04	.03	.02	.01
26.00	DISCHG	.00									

RUNOFF VOLUME ABOVE BASEFLOW = 1.95 WATERSHED INCHES, 440.16 CFS-HRS, 36.37 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 4, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 5
INPUT HYDROGRAPHS= 3,4 OUTPUT HYDROGRAPH= 5
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.42	525.20	(NULL)
23.66	22.45	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .89 SQ.MI.

8.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
9.00	DISCHG	.07	.16	.31	.53	.82	1.16	1.57	2.03	2.56	3.15
10.00	DISCHG	3.78	4.45	5.17	5.96	6.85	7.87	9.06	10.44	12.08	13.99
11.00	DISCHG	16.20	18.77	21.67	24.96	28.72	33.41	41.26	55.74	85.24	140.25
12.00	DISCHG	227.18	335.04	434.84	500.09	524.42	514.72	485.69	451.81	417.04	380.80
13.00	DISCHG	343.86	308.42	276.34	247.76	222.26	200.34	181.60	165.45	151.37	138.90
14.00	DISCHG	127.83	118.21	109.94	102.65	96.14	90.29	84.95	80.10	75.67	71.67
15.00	DISCHG	68.14	65.06	62.41	60.12	58.07	56.15	54.34	52.67	51.15	49.82
16.00	DISCHG	48.67	47.69	46.84	46.13	45.53	45.04	44.59	44.06	43.38	42.57
17.00	DISCHG	41.72	40.90	40.16	39.52	38.97	38.50	38.10	37.78	37.49	37.12
18.00	DISCHG	36.59	35.88	35.07	34.25	33.48	32.81	32.23	31.73	31.30	30.94
19.00	DISCHG	30.64	30.41	30.22	30.07	29.95	29.86	29.79	29.73	29.65	29.45
20.00	DISCHG	29.05	28.45	27.72	26.95	26.23	25.59	25.04	24.55	24.14	23.79
21.00	DISCHG	23.50	23.27	23.08	22.93	22.81	22.72	22.64	22.58	22.53	22.50
22.00	DISCHG	22.47	22.45	22.43	22.42	22.41	22.40	22.40	22.40	22.40	22.40
23.00	DISCHG	22.41	22.41	22.42	22.42	22.43	22.44	22.44	22.45	22.42	22.26
24.00	DISCHG	21.87	21.11	19.87	18.10	16.01	13.84	11.76	9.89	8.25	6.83
25.00	DISCHG	5.61	4.58	3.74	3.05	2.48	2.03	1.66	1.36	1.12	.92
26.00	DISCHG	.75	.62	.51	.42	.35	.29	.23	.19	.16	.13
27.00	DISCHG	.10	.08	.07	.05	.04	.03	.03	.02	.02	.01
28.00	DISCHG	.01	.01	.00							

RUNOFF VOLUME ABOVE BASEFLOW = 1.95 WATERSHED INCHES, 1119.68 CFS-HRS, 92.53 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 5, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 6
OUTPUT HYDROGRAPH= 6
AREA= .24 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= .71 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0947 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.33	197.32	(RUNOFF)
19.65	7.94	(RUNOFF)
23.66	6.06	(RUNOFF)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .24 SQ.MI.

8.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
9.00	DISCHG	.03	.07	.14	.23	.35	.48	.63	.80	.99	1.18
10.00	DISCHG	1.39	1.61	1.84	2.09	2.37	2.70	3.10	3.57	4.15	4.83
11.00	DISCHG	5.60	6.49	7.49	8.61	9.88	11.57	14.65	20.68	32.91	55.56
12.00	DISCHG	92.30	137.97	177.86	196.31	191.55	170.27	142.22	115.76	95.72	80.61
13.00	DISCHG	68.80	59.39	51.91	45.87	40.99	37.00	33.70	30.92	28.55	26.48
14.00	DISCHG	24.67	23.06	21.69	20.56	19.61	18.74	17.90	17.11	16.34	15.64
15.00	DISCHG	15.04	14.57	14.22	13.96	13.73	13.46	13.13	12.79	12.47	12.21
16.00	DISCHG	12.02	11.90	11.82	11.76	11.72	11.69	11.64	11.52	11.31	11.03
17.00	DISCHG	10.74	10.48	10.27	10.12	10.02	9.96	9.91	9.88	9.84	9.76
18.00	DISCHG	9.59	9.33	9.03	8.74	8.50	8.32	8.19	8.11	8.05	8.01
19.00	DISCHG	7.98	7.96	7.95	7.94	7.94	7.94	7.94	7.94	7.92	7.85
20.00	DISCHG	7.69	7.44	7.14	6.85	6.60	6.42	6.29	6.20	6.14	6.10
21.00	DISCHG	6.07	6.05	6.03	6.02	6.02	6.02	6.01	6.01	6.01	6.01
22.00	DISCHG	6.02	6.02	6.02	6.02	6.03	6.03	6.03	6.03	6.04	6.04
23.00	DISCHG	6.04	6.04	6.05	6.05	6.05	6.05	6.05	6.06	6.04	5.97
24.00	DISCHG	5.79	5.44	4.90	4.16	3.32	2.51	1.82	1.28	.90	.64
25.00	DISCHG	.45	.32	.22	.16	.11	.07	.05	.03	.02	.01
26.00	DISCHG	.01	.00								

RUNOFF VOLUME ABOVE BASEFLOW = 1.95 WATERSHED INCHES, 302.35 CFS-HRS, 24.99 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 6, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 7
INPUT HYDROGRAPHS= 5,6 OUTPUT HYDROGRAPH= 1
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.39	716.29	(NULL)
23.66	28.51	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.13 SQ.MI.

8.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
9.00	DISCHG	.10	.23	.45	.76	1.16	1.65	2.20	2.83	3.55	4.33
10.00	DISCHG	5.17	6.06	7.01	8.05	9.23	10.57	12.15	14.02	16.23	18.82
11.00	DISCHG	21.81	25.26	29.16	33.57	38.60	44.98	55.92	76.42	118.16	195.82
12.00	DISCHG	319.48	473.01	612.70	696.40	715.97	684.99	627.91	567.57	512.76	461.41
13.00	DISCHG	412.66	367.81	328.25	293.63	263.25	237.35	215.30	196.38	179.92	165.38
14.00	DISCHG	152.51	141.27	131.63	123.21	115.76	109.02	102.86	97.20	92.01	87.31
15.00	DISCHG	83.18	79.63	76.63	74.08	71.80	69.61	67.47	65.45	63.62	62.02
16.00	DISCHG	60.69	59.59	58.66	57.89	57.25	56.73	56.23	55.59	54.70	53.60
17.00	DISCHG	52.46	51.37	50.43	49.64	49.00	48.45	48.01	47.66	47.33	46.88
18.00	DISCHG	46.18	45.21	44.10	42.99	41.98	41.13	40.43	39.83	39.34	38.94
19.00	DISCHG	38.62	38.37	38.17	38.01	37.89	37.80	37.73	37.67	37.57	37.31
20.00	DISCHG	36.75	35.89	34.86	33.80	32.83	32.01	31.33	30.76	30.28	29.88
21.00	DISCHG	29.57	29.31	29.11	28.96	28.83	28.73	28.66	28.60	28.55	28.51

22.00	DISCHG	28.49	28.47	28.45	28.44	28.44	28.43	28.43	28.43	28.44	28.44
23.00	DISCHG	28.45	28.45	28.46	28.47	28.48	28.49	28.50	28.50	28.46	28.23
24.00	DISCHG	27.66	26.55	24.77	22.26	19.33	16.35	13.58	11.17	9.14	7.46
25.00	DISCHG	6.06	4.90	3.96	3.20	2.59	2.10	1.71	1.40	1.14	.93
26.00	DISCHG	.76	.62	.51	.42	.35	.29	.23	.19	.16	.13
27.00	DISCHG	.10	.08	.07	.05	.04	.03	.03	.02	.02	.01
28.00	DISCHG	.01	.01	.00							

RUNOFF VOLUME ABOVE BASEFLOW = 1.95 WATERSHED INCHES, 1422.03 CFS-HRS, 117.52 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 7, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 8
OUTPUT HYDROGRAPH= 2
AREA= .30 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= .65 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0867 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.30	259.64	(RUNOFF)
19.66	9.93	(RUNOFF)
23.66	7.57	(RUNOFF)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .30 SQ.MI.

8.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
9.00	DISCHG	.04	.10	.20	.33	.49	.67	.87	1.09	1.33	1.59
10.00	DISCHG	1.86	2.13	2.43	2.75	3.12	3.56	4.09	4.73	5.49	6.38
11.00	DISCHG	7.40	8.58	9.89	11.36	13.03	15.19	19.24	27.55	45.92	79.79
12.00	DISCHG	132.84	195.59	244.23	259.62	241.69	205.20	165.74	133.50	109.79	91.96
13.00	DISCHG	78.27	67.85	59.56	52.89	47.49	43.11	39.45	36.41	33.73	31.32
14.00	DISCHG	29.26	27.56	26.19	24.98	23.88	22.84	21.84	20.87	19.93	19.08
15.00	DISCHG	18.39	17.88	17.52	17.26	17.00	16.66	16.22	15.78	15.39	15.10
16.00	DISCHG	14.90	14.78	14.69	14.64	14.61	14.59	14.52	14.35	14.04	13.65
17.00	DISCHG	13.26	12.94	12.71	12.55	12.45	12.39	12.34	12.32	12.28	12.16
18.00	DISCHG	11.92	11.54	11.13	10.76	10.47	10.28	10.15	10.06	10.01	9.97
19.00	DISCHG	9.94	9.93	9.92	9.92	9.92	9.92	9.92	9.92	9.90	9.80
20.00	DISCHG	9.56	9.18	8.76	8.39	8.10	7.90	7.77	7.68	7.62	7.58
21.00	DISCHG	7.55	7.54	7.52	7.52	7.51	7.51	7.51	7.51	7.52	7.52
22.00	DISCHG	7.52	7.52	7.53	7.53	7.53	7.54	7.54	7.54	7.55	7.55
23.00	DISCHG	7.55	7.55	7.56	7.56	7.56	7.57	7.57	7.57	7.55	7.45
24.00	DISCHG	7.20	6.70	5.91	4.86	3.71	2.68	1.84	1.24	.85	.59
25.00	DISCHG	.40	.27	.18	.12	.08	.05	.03	.02	.01	.00

RUNOFF VOLUME ABOVE BASEFLOW = 1.95 WATERSHED INCHES, 377.60 CFS-HRS, 31.21 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 8, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 9
INPUT HYDROGRAPHS= 1,2 OUTPUT HYDROGRAPH= 3

ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.35	965.49	(NULL)
23.66	36.08	(NULL)

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.43 SQ.MI.

TIME(HRS)											
8.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04
9.00	DISCHG	.14	.33	.65	1.09	1.66	2.32	3.07	3.92	4.88	5.92
10.00	DISCHG	7.02	8.19	9.44	10.80	12.34	14.13	16.25	18.74	21.72	25.20
11.00	DISCHG	29.21	33.84	39.05	44.93	51.63	60.18	75.16	103.97	164.07	275.61
12.00	DISCHG	452.32	668.61	856.93	956.01	957.66	890.19	793.64	701.07	622.55	553.37
13.00	DISCHG	490.93	435.66	387.81	346.52	310.74	280.45	254.75	232.78	213.66	196.71
14.00	DISCHG	181.77	168.83	157.82	148.19	139.64	131.87	124.70	118.07	111.94	106.39
15.00	DISCHG	101.58	97.51	94.15	91.34	88.81	86.28	83.70	81.23	79.01	77.12
16.00	DISCHG	75.59	74.36	73.35	72.53	71.87	71.32	70.75	69.94	68.74	67.25
17.00	DISCHG	65.72	64.31	63.14	62.20	61.45	60.84	60.36	59.98	59.61	59.04
18.00	DISCHG	58.10	56.76	55.23	53.74	52.45	51.41	50.58	49.90	49.35	48.91
19.00	DISCHG	48.57	48.30	48.09	47.93	47.81	47.72	47.65	47.59	47.48	47.11
20.00	DISCHG	46.31	45.07	43.62	42.19	40.93	39.91	39.10	38.44	37.90	37.46
21.00	DISCHG	37.12	36.85	36.64	36.47	36.35	36.25	36.17	36.11	36.06	36.03
22.00	DISCHG	36.01	35.99	35.98	35.97	35.97	35.97	35.97	35.98	35.98	35.99
23.00	DISCHG	36.00	36.01	36.02	36.03	36.04	36.05	36.07	36.08	36.01	35.69
24.00	DISCHG	34.86	33.25	30.68	27.12	23.04	19.03	15.42	12.40	10.00	8.05
25.00	DISCHG	6.46	5.17	4.14	3.33	2.67	2.16	1.75	1.42	1.15	.93
26.00	DISCHG	.76	.62	.51	.42	.35	.29	.23	.19	.16	.13
27.00	DISCHG	.10	.08	.07	.05	.04	.03	.03	.02	.02	.01
28.00	DISCHG	.01	.01	.00							

RUNOFF VOLUME ABOVE BASEFLOW = 1.95 WATERSHED INCHES, 1799.64 CFS-HRS, 148.72 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 9, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 10
OUTPUT HYDROGRAPH= 4
AREA= 1.64 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= 3.80 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1013 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
14.62	390.66	(RUNOFF)

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.64 SQ.MI.

TIME(HRS)											
9.00	DISCHG	.00	.01	.01	.02	.04	.06	.09	.13	.19	.26
10.00	DISCHG	.34	.45	.58	.74	.93	1.16	1.44	1.76	2.14	2.58
11.00	DISCHG	3.09	3.68	4.37	5.16	6.06	7.14	8.51	10.27	12.84	16.70
12.00	DISCHG	22.02	28.89	37.37	47.32	58.63	71.27	85.35	100.98	118.22	137.32
13.00	DISCHG	158.19	180.42	203.67	227.37	250.45	272.43	292.98	311.74	328.66	343.41
14.00	DISCHG	355.92	366.37	374.75	381.23	386.04	389.23	390.63	389.96	387.45	383.67

15.00	DISCHG	378.84	373.07	366.38	358.75	349.97	339.98	328.99	317.12	304.58	292.17
16.00	DISCHG	280.25	268.94	258.43	248.64	239.40	230.60	222.18	214.18	206.56	199.38
17.00	DISCHG	192.66	186.31	180.23	174.39	168.74	163.26	157.98	152.95	148.19	143.69
18.00	DISCHG	139.47	135.48	131.65	127.97	124.45	121.09	117.88	114.80	111.84	109.01
19.00	DISCHG	106.32	103.73	101.22	98.77	96.41	94.18	92.07	90.05	88.10	86.23
20.00	DISCHG	84.43	82.70	81.04	79.45	77.93	76.47	75.06	73.70	72.37	71.07
21.00	DISCHG	69.82	68.60	67.40	66.22	65.06	63.95	62.87	61.83	60.81	59.81
22.00	DISCHG	58.84	57.90	57.00	56.16	55.35	54.58	53.83	53.11	52.42	51.75
23.00	DISCHG	51.11	50.49	49.89	49.32	48.77	48.25	47.76	47.29	46.84	46.41
24.00	DISCHG	46.00	45.59	45.18	44.76	44.32	43.89	43.45	43.00	42.51	41.98
25.00	DISCHG	41.39	40.73	40.00	39.19	38.31	37.35	36.33	35.24	34.10	32.91
26.00	DISCHG	31.69	30.45	29.18	27.91	26.64	25.37	24.11	22.87	21.65	20.45
27.00	DISCHG	19.29	18.17	17.09	16.04	15.04	14.08	13.17	12.31	11.50	10.75
28.00	DISCHG	10.06	9.42	8.82	8.26	7.75	7.26	6.80	6.38	5.98	5.60
29.00	DISCHG	5.25	4.92	4.61	4.32	4.04	3.79	3.54	3.32	3.11	2.91

RUNOFF VOLUME ABOVE BASEFLOW = 1.95 WATERSHED INCHES, 2060.66 CFS-HRS, 170.29 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 10, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 11
INPUT HYDROGRAPHS= 3,4 OUTPUT HYDROGRAPH= 5
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.37	1019.52	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 3.07 SQ.MI.

8.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04
9.00	DISCHG	.14	.34	.66	1.12	1.70	2.38	3.17	4.06	5.06	6.17
10.00	DISCHG	7.37	8.64	10.02	11.54	13.28	15.30	17.68	20.50	23.85	27.78
11.00	DISCHG	32.30	37.53	43.41	50.08	57.69	67.32	83.67	114.24	176.91	292.30
12.00	DISCHG	474.34	697.50	894.29	1003.33	1016.28	961.46	879.00	802.05	740.77	690.69
13.00	DISCHG	649.13	616.08	591.48	573.90	561.18	552.88	547.73	544.52	542.32	540.12
14.00	DISCHG	537.69	535.20	532.57	529.42	525.67	521.10	515.33	508.03	499.39	490.06
15.00	DISCHG	480.42	470.59	460.53	450.09	438.78	426.26	412.68	398.35	383.59	369.29
16.00	DISCHG	355.84	343.31	331.78	321.17	311.27	301.92	292.94	284.12	275.30	266.63
17.00	DISCHG	258.38	250.62	243.37	236.59	230.19	224.10	218.33	212.93	207.80	202.74
18.00	DISCHG	197.57	192.24	186.88	181.72	176.90	172.50	168.45	164.69	161.19	157.92
19.00	DISCHG	154.88	152.03	149.31	146.70	144.22	141.90	139.72	137.64	135.58	133.34
20.00	DISCHG	130.74	127.77	124.66	121.64	118.86	116.38	114.16	112.14	110.27	108.54
21.00	DISCHG	106.94	105.45	104.04	102.69	101.41	100.19	99.04	97.94	96.87	95.84
22.00	DISCHG	94.85	93.89	92.98	92.13	91.32	90.55	89.80	89.09	88.40	87.74
23.00	DISCHG	87.11	86.50	85.91	85.35	84.82	84.31	83.82	83.36	82.85	82.10
24.00	DISCHG	80.86	78.84	75.86	71.88	67.37	62.92	58.87	55.41	52.51	50.03
25.00	DISCHG	47.85	45.90	44.14	42.52	40.98	39.51	38.07	36.65	35.25	33.85
26.00	DISCHG	32.45	31.07	29.70	28.33	26.99	25.65	24.34	23.06	21.80	20.58

27.00	DISCHG	19.40	18.25	17.15	16.09	15.08	14.11	13.19	12.33	11.52	10.77
28.00	DISCHG	10.07	9.42	8.82	8.26	7.75	7.26	6.80	6.38	5.98	5.60
29.00	DISCHG	5.25	4.92	4.61	4.32	4.04	3.79	3.54	3.32	3.11	2.91

RUNOFF VOLUME ABOVE BASEFLOW = 1.95 WATERSHED INCHES, 3860.30 CFS-HRS, 319.02 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 11, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

EXECUTIVE CONTROL OPERATION ENDCMP COMPUTATIONS COMPLETED FOR PASS 2 RECORD ID

EXECUTIVE CONTROL OPERATION COMPUT FROM XSECTION 1 TO XSECTION 11 RECORD ID 20-YR
STARTING TIME = .00 RAIN DEPTH = 4.32 RAIN DURATION= 1.00 RAIN TABLE NO.= 2 ANT. MOIST. COND= 2
ALTERNATE NO.= 1 STORM NO.= 3 MAIN TIME INCREMENT = .10 HOURS

OPERATION RUNOFF CROSS SECTION 1
OUTPUT HYDROGRAPH= 1
AREA= .28 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= 1.10 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1048 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.60	186.28	(RUNOFF)
23.67	7.61	(RUNOFF)

TIME(HRS)	FIRST HYDROGRAPH POINT = .00 HOURS	TIME INCREMENT = .10 HOURS						DRAINAGE AREA = .28 SQ.MI.		
8.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.01	.02	.05
9.00	DISCHG	.09	.16	.24	.34	.46	.61	.77	.95	1.15	1.36
10.00	DISCHG	1.59	1.84	2.09	2.37	2.67	3.00	3.38	3.81	4.32	4.92
11.00	DISCHG	5.62	6.43	7.37	8.43	9.64	11.11	13.30	16.81	23.35	35.35
12.00	DISCHG	54.38	80.27	110.96	141.80	166.74	181.73	186.28	181.89	170.79	155.12
13.00	DISCHG	137.17	119.87	105.30	93.48	83.42	74.75	67.18	60.65	55.00	50.08
14.00	DISCHG	45.79	42.07	38.85	36.05	33.60	31.42	29.49	27.75	26.19	24.77
15.00	DISCHG	23.50	22.34	21.29	20.37	19.56	18.88	18.31	17.81	17.34	16.91
16.00	DISCHG	16.51	16.16	15.86	15.61	15.41	15.25	15.11	14.97	14.82	14.62
17.00	DISCHG	14.39	14.13	13.86	13.60	13.36	13.16	12.98	12.85	12.75	12.64
18.00	DISCHG	12.51	12.35	12.14	11.89	11.63	11.37	11.12	10.89	10.70	10.55
19.00	DISCHG	10.43	10.33	10.26	10.20	10.16	10.12	10.10	10.07	10.05	10.01
20.00	DISCHG	9.94	9.82	9.64	9.42	9.17	8.92	8.68	8.46	8.27	8.12
21.00	DISCHG	8.00	7.91	7.84	7.78	7.74	7.70	7.67	7.65	7.63	7.62
22.00	DISCHG	7.61	7.60	7.60	7.59	7.59	7.59	7.59	7.59	7.59	7.59
23.00	DISCHG	7.59	7.59	7.60	7.60	7.60	7.60	7.61	7.61	7.60	7.58
24.00	DISCHG	7.51	7.37	7.11	6.71	6.16	5.49	4.76	4.03	3.33	2.70
25.00	DISCHG	2.17	1.72	1.38	1.10	.88	.70	.56	.45	.36	.28
26.00	DISCHG	.22	.18	.14	.11	.09	.07	.05	.04	.03	.02
27.00	DISCHG	.02	.01	.01	.00						

RUNOFF VOLUME ABOVE BASEFLOW = 2.14 WATERSHED INCHES, 387.33 CFS-HRS, 32.01 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 1, ALTERNATE 1, STORM 3, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 2
OUTPUT HYDROGRAPH= 2
AREA= .26 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= 1.40 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1037 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.82	145.53	(RUNOFF)
23.68	7.07	(RUNOFF)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS			TIME INCREMENT = .10 HOURS				DRAINAGE AREA = .26 SQ.MI.		
8.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.00	.01	.02
9.00	DISCHG	.05	.08	.12	.19	.26	.36	.47	.59	.74	.89
10.00	DISCHG	1.07	1.26	1.46	1.68	1.92	2.17	2.46	2.79	3.16	3.58
11.00	DISCHG	4.07	4.65	5.30	6.06	6.93	7.94	9.35	11.47	15.05	21.38
12.00	DISCHG	31.51	45.47	62.83	82.72	103.08	121.08	134.47	142.51	145.47	143.96
13.00	DISCHG	138.75	130.77	120.89	109.75	98.68	88.88	80.52	73.27	66.92	61.27
14.00	DISCHG	56.10	51.48	47.42	43.79	40.55	37.64	35.04	32.70	30.62	28.75
15.00	DISCHG	27.06	25.54	24.17	22.94	21.84	20.87	20.01	19.24	18.54	17.91
16.00	DISCHG	17.31	16.77	16.26	15.80	15.39	15.04	14.77	14.55	14.35	14.15
17.00	DISCHG	13.94	13.72	13.49	13.26	13.03	12.82	12.62	12.44	12.27	12.12
18.00	DISCHG	11.98	11.84	11.68	11.50	11.31	11.10	10.88	10.67	10.47	10.29
19.00	DISCHG	10.12	9.98	9.86	9.76	9.68	9.61	9.56	9.51	9.47	9.43
20.00	DISCHG	9.37	9.30	9.20	9.06	8.90	8.72	8.54	8.35	8.16	7.99
21.00	DISCHG	7.84	7.70	7.58	7.49	7.41	7.35	7.30	7.25	7.22	7.18
22.00	DISCHG	7.16	7.14	7.12	7.11	7.10	7.09	7.08	7.08	7.07	7.07
23.00	DISCHG	7.07	7.07	7.07	7.06	7.07	7.07	7.07	7.07	7.07	7.05
24.00	DISCHG	7.02	6.95	6.82	6.61	6.32	5.94	5.49	4.97	4.42	3.88
25.00	DISCHG	3.34	2.85	2.40	2.01	1.68	1.41	1.18	.99	.83	.70
26.00	DISCHG	.59	.49	.41	.34	.29	.24	.20	.17	.14	.12
27.00	DISCHG	.10	.08	.06	.05	.04	.03	.03	.02	.02	.01
28.00	DISCHG	.01	.01	.00							

RUNOFF VOLUME ABOVE BASEFLOW = 2.14 WATERSHED INCHES, 359.82 CFS-HRS, 29.74 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 2, ALTERNATE 1, STORM 3, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 3
INPUT HYDROGRAPHS= 1,2 OUTPUT HYDROGRAPH= 3
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.68	324.61	(NULL)
23.68	14.68	(NULL)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS			TIME INCREMENT = .10 HOURS				DRAINAGE AREA = .54 SQ.MI.		
8.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.01	.04	.08
9.00	DISCHG	.14	.23	.36	.53	.73	.96	1.24	1.55	1.89	2.26
10.00	DISCHG	2.66	3.09	3.55	4.05	4.59	5.18	5.84	6.60	7.48	8.50
11.00	DISCHG	9.69	11.08	12.67	14.49	16.57	19.05	22.65	28.28	38.40	56.73
12.00	DISCHG	85.89	125.74	173.79	224.53	269.82	302.80	320.76	324.40	316.26	299.08
13.00	DISCHG	275.92	250.64	226.19	203.23	182.11	163.63	147.70	133.92	121.93	111.34
14.00	DISCHG	101.89	93.55	86.27	79.84	74.14	69.07	64.53	60.46	56.81	53.53
15.00	DISCHG	50.56	47.88	45.46	43.31	41.40	39.75	38.31	37.04	35.88	34.81
16.00	DISCHG	33.83	32.92	32.11	31.40	30.79	30.29	29.88	29.52	29.16	28.77
17.00	DISCHG	28.33	27.85	27.35	26.86	26.40	25.97	25.60	25.29	25.02	24.76

18.00	DISCHG	24.49	24.19	23.82	23.40	22.94	22.46	22.00	21.57	21.18	20.84
19.00	DISCHG	20.55	20.31	20.12	19.96	19.84	19.74	19.66	19.59	19.52	19.44
20.00	DISCHG	19.31	19.11	18.83	18.48	18.07	17.64	17.21	16.81	16.44	16.11
21.00	DISCHG	15.84	15.61	15.42	15.27	15.15	15.05	14.97	14.90	14.85	14.80
22.00	DISCHG	14.77	14.74	14.72	14.70	14.69	14.68	14.67	14.66	14.66	14.66
23.00	DISCHG	14.66	14.66	14.66	14.66	14.67	14.67	14.67	14.68	14.67	14.63
24.00	DISCHG	14.53	14.31	13.93	13.32	12.48	11.43	10.25	8.99	7.75	6.58
25.00	DISCHG	5.51	4.57	3.78	3.11	2.56	2.11	1.74	1.44	1.19	.98
26.00	DISCHG	.81	.67	.55	.45	.37	.31	.25	.21	.17	.14
27.00	DISCHG	.11	.09	.07	.05	.04	.03	.03	.02	.02	.01
28.00	DISCHG	.01	.01	.00							

RUNOFF VOLUME ABOVE BASEFLOW = 2.14 WATERSHED INCHES, 747.15 CFS-HRS, 61.74 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 3, ALTERNATE 1, STORM 3, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 4
OUTPUT HYDROGRAPH= 4
AREA= .35 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= .66 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0880 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.30	329.14	(RUNOFF)
19.66	12.50	(RUNOFF)
23.66	9.52	(RUNOFF)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .35 SQ.MI.

8.00	DISCHG	.00	.00	.00	.00	.00	.00	.01	.04	.11	.21
9.00	DISCHG	.35	.52	.71	.94	1.19	1.46	1.74	2.04	2.36	2.71
10.00	DISCHG	3.07	3.44	3.82	4.24	4.74	5.32	6.03	6.88	7.89	9.07
11.00	DISCHG	10.43	11.98	13.70	15.63	17.81	20.64	25.92	36.62	59.59	102.46
12.00	DISCHG	169.35	248.03	309.09	329.14	309.58	265.03	214.44	172.96	142.35	119.24
13.00	DISCHG	101.45	87.51	76.50	67.91	60.92	55.25	50.56	46.57	43.09	39.98
14.00	DISCHG	37.29	35.07	33.29	31.73	30.32	28.98	27.69	26.46	25.27	24.19
15.00	DISCHG	23.31	22.64	22.16	21.81	21.49	21.05	20.51	19.95	19.46	19.09
16.00	DISCHG	18.83	18.66	18.55	18.48	18.44	18.40	18.32	18.11	17.73	17.24
17.00	DISCHG	16.75	16.34	16.04	15.84	15.71	15.62	15.56	15.53	15.47	15.33
18.00	DISCHG	15.02	14.57	14.05	13.58	13.22	12.97	12.80	12.69	12.61	12.56
19.00	DISCHG	12.53	12.51	12.50	12.49	12.49	12.49	12.49	12.50	12.47	12.34
20.00	DISCHG	12.04	11.58	11.07	10.60	10.23	9.97	9.80	9.68	9.60	9.55
21.00	DISCHG	9.51	9.49	9.47	9.46	9.46	9.45	9.45	9.45	9.46	9.46
22.00	DISCHG	9.46	9.47	9.47	9.47	9.48	9.48	9.48	9.49	9.49	9.49
23.00	DISCHG	9.50	9.50	9.50	9.51	9.51	9.51	9.52	9.52	9.49	9.37
24.00	DISCHG	9.04	8.43	7.49	6.19	4.77	3.48	2.43	1.66	1.14	.78
25.00	DISCHG	.53	.37	.25	.17	.11	.07	.05	.03	.02	.01
26.00	DISCHG	.00									

RUNOFF VOLUME ABOVE BASEFLOW = 2.14 WATERSHED INCHES, 483.96 CFS-HRS, 39.99 ACRE-FEET; BASEFLOW = .00 CFS

18.00	DISCHG	13.69	13.53	13.33	13.10	12.84	12.58	12.33	12.09	11.88	11.69
19.00	DISCHG	11.54	11.41	11.30	11.22	11.15	11.10	11.06	11.03	10.99	10.95
20.00	DISCHG	10.88	10.77	10.62	10.42	10.20	9.96	9.72	9.49	9.28	9.10
21.00	DISCHG	8.95	8.83	8.72	8.64	8.57	8.52	8.47	8.44	8.41	8.39
22.00	DISCHG	8.37	8.35	8.34	8.34	8.33	8.33	8.33	8.32	8.32	8.33
23.00	DISCHG	8.33	8.33	8.33	8.34	8.34	8.34	8.35	8.35	8.35	8.33
24.00	DISCHG	8.27	8.15	7.93	7.59	7.11	6.52	5.84	5.13	4.42	3.75
25.00	DISCHG	3.14	2.61	2.15	1.77	1.46	1.20	.99	.82	.68	.56
26.00	DISCHG	.46	.38	.31	.26	.21	.18	.14	.12	.10	.08
27.00	DISCHG	.06	.05	.04	.03	.02	.02	.02	.01	.01	.01
28.00	DISCHG	.01	.00								

RUNOFF VOLUME ABOVE BASEFLOW = 1.04 WATERSHED INCHES, 363.72 CFS-HRS, 30.06 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 3, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 4
OUTPUT HYDROGRAPH= 4
AREA= .35 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= .66 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0880 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.32	154.07	(RUNOFF)
19.68	7.05	(RUNOFF)
23.66	5.42	(RUNOFF)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .35 SQ.MI.

10.00	DISCHG	.00	.00	.00	.00	.00	.01	.04	.13	.28	.53
11.00	DISCHG	.87	1.32	1.88	2.55	3.35	4.42	6.37	10.37	19.49	38.10
12.00	DISCHG	69.29	108.12	140.44	153.75	147.58	128.43	105.27	85.89	71.50	60.57
13.00	DISCHG	52.07	45.35	39.99	35.76	32.28	29.44	27.07	25.05	23.27	21.67
14.00	DISCHG	20.27	19.10	18.16	17.34	16.58	15.87	15.18	14.52	13.88	13.30
15.00	DISCHG	12.83	12.47	12.22	12.04	11.86	11.63	11.34	11.04	10.78	10.58
16.00	DISCHG	10.44	10.35	10.30	10.27	10.25	10.23	10.20	10.08	9.88	9.61
17.00	DISCHG	9.34	9.12	8.96	8.85	8.78	8.73	8.71	8.69	8.66	8.59
18.00	DISCHG	8.42	8.17	7.88	7.62	7.42	7.28	7.19	7.13	7.09	7.06
19.00	DISCHG	7.05	7.04	7.03	7.03	7.03	7.04	7.04	7.05	7.04	6.96
20.00	DISCHG	6.80	6.54	6.25	5.99	5.78	5.63	5.54	5.48	5.43	5.40
21.00	DISCHG	5.38	5.37	5.36	5.36	5.36	5.36	5.36	5.36	5.36	5.37
22.00	DISCHG	5.37	5.37	5.38	5.38	5.38	5.38	5.39	5.39	5.39	5.40
23.00	DISCHG	5.40	5.40	5.41	5.41	5.41	5.42	5.42	5.42	5.41	5.34
24.00	DISCHG	5.15	4.81	4.27	3.53	2.72	1.99	1.38	.95	.65	.44
25.00	DISCHG	.30	.21	.14	.10	.06	.04	.03	.02	.01	.00

RUNOFF VOLUME ABOVE BASEFLOW = 1.04 WATERSHED INCHES, 235.62 CFS-HRS, 19.47 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 4, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

--- HYDROGRAPH FOR XSECTION 4, ALTERNATE 1, STORM 3, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 5
INPUT HYDROGRAPHS= 3,4 OUTPUT HYDROGRAPH= 5
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.42	580.07	(NULL)
23.66	24.20	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .89 SQ.MI.

8.00	DISCHG	.00	.00	.00	.00	.00	.00	.01	.05	.14	.28
9.00	DISCHG	.49	.75	1.08	1.47	1.92	2.42	2.97	3.58	4.25	4.97
10.00	DISCHG	5.73	6.53	7.37	8.29	9.32	10.50	11.87	13.48	15.37	17.58
11.00	DISCHG	20.12	23.06	26.37	30.12	34.38	39.69	48.56	64.90	97.99	159.19
12.00	DISCHG	255.24	373.77	482.88	553.67	579.40	567.83	535.20	497.36	458.61	418.32
13.00	DISCHG	377.37	338.15	302.69	271.14	243.03	218.89	198.26	180.49	165.02	151.32
14.00	DISCHG	139.18	128.63	119.56	111.58	104.46	98.05	92.22	86.91	82.08	77.72
15.00	DISCHG	73.87	70.51	67.62	65.12	62.88	60.79	58.82	57.00	55.35	53.90
16.00	DISCHG	52.65	51.58	50.66	49.88	49.23	48.69	48.20	47.63	46.89	46.01
17.00	DISCHG	45.09	44.19	43.40	42.71	42.11	41.59	41.17	40.82	40.49	40.09
18.00	DISCHG	39.52	38.75	37.88	36.98	36.15	35.43	34.80	34.26	33.79	33.40
19.00	DISCHG	33.08	32.82	32.62	32.45	32.33	32.23	32.15	32.08	32.00	31.78
20.00	DISCHG	31.35	30.69	29.91	29.08	28.30	27.61	27.01	26.49	26.04	25.66
21.00	DISCHG	25.35	25.10	24.90	24.73	24.61	24.50	24.42	24.36	24.30	24.26
22.00	DISCHG	24.23	24.21	24.19	24.17	24.16	24.16	24.15	24.15	24.15	24.15
23.00	DISCHG	24.16	24.16	24.17	24.17	24.18	24.18	24.19	24.20	24.16	23.99
24.00	DISCHG	23.57	22.75	21.42	19.51	17.25	14.92	12.67	10.65	8.89	7.36
25.00	DISCHG	6.04	4.94	4.03	3.28	2.68	2.19	1.79	1.47	1.21	.99
26.00	DISCHG	.81	.67	.55	.45	.37	.31	.25	.21	.17	.14
27.00	DISCHG	.11	.09	.07	.05	.04	.03	.03	.02	.02	.01
28.00	DISCHG	.01	.01	.00							

RUNOFF VOLUME ABOVE BASEFLOW = 2.14 WATERSHED INCHES, 1231.12 CFS-HRS, 101.74 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 5, ALTERNATE 1, STORM 3, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 6
OUTPUT HYDROGRAPH= 6
AREA= .24 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= .71 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0947 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.33	217.64	(RUNOFF)
19.65	8.57	(RUNOFF)
23.66	6.53	(RUNOFF)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .24 SQ.MI.

8.00	DISCHG	.00	.00	.00	.00	.00	.00	.01	.02	.06	.12
9.00	DISCHG	.21	.32	.45	.59	.76	.94	1.12	1.32	1.54	1.77
10.00	DISCHG	2.01	2.26	2.52	2.81	3.13	3.51	3.96	4.51	5.17	5.96
11.00	DISCHG	6.85	7.87	9.00	10.27	11.70	13.61	17.09	23.88	37.59	62.78
12.00	DISCHG	103.33	153.46	196.92	216.67	210.95	187.17	156.09	126.89	104.79	88.14
13.00	DISCHG	75.14	64.78	56.57	49.94	44.59	40.22	36.61	33.57	30.98	28.72
14.00	DISCHG	26.75	24.99	23.50	22.28	21.24	20.29	19.39	18.52	17.69	16.93
15.00	DISCHG	16.28	15.77	15.39	15.11	14.86	14.56	14.21	13.83	13.49	13.20
16.00	DISCHG	13.00	12.86	12.77	12.71	12.67	12.64	12.58	12.45	12.22	11.92
17.00	DISCHG	11.60	11.32	11.09	10.93	10.83	10.75	10.70	10.67	10.63	10.54
18.00	DISCHG	10.36	10.08	9.75	9.44	9.18	8.98	8.85	8.75	8.69	8.64
19.00	DISCHG	8.61	8.59	8.58	8.57	8.57	8.57	8.57	8.57	8.55	8.48
20.00	DISCHG	8.30	8.03	7.70	7.39	7.12	6.92	6.79	6.69	6.62	6.58
21.00	DISCHG	6.54	6.52	6.51	6.50	6.49	6.49	6.49	6.48	6.48	6.49
22.00	DISCHG	6.49	6.49	6.49	6.49	6.50	6.50	6.50	6.50	6.51	6.51
23.00	DISCHG	6.51	6.51	6.52	6.52	6.52	6.52	6.53	6.53	6.51	6.43
24.00	DISCHG	6.24	5.87	5.28	4.49	3.58	2.71	1.96	1.38	.97	.68
25.00	DISCHG	.48	.34	.24	.17	.12	.08	.05	.04	.02	.01
26.00	DISCHG	.01	.00								

RUNOFF VOLUME ABOVE BASEFLOW = 2.15 WATERSHED INCHES, 332.45 CFS-HRS, 27.47 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 6, ALTERNATE 1, STORM 3, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 7
INPUT HYDROGRAPHS= 5,6 OUTPUT HYDROGRAPH= 1
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.39	790.88	(NULL)
23.66	30.73	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.13 SQ.MI.

8.00	DISCHG	.00	.00	.00	.00	.00	.00	.02	.08	.20	.41
9.00	DISCHG	.70	1.07	1.52	2.06	2.68	3.35	4.10	4.91	5.79	6.74
10.00	DISCHG	7.74	8.79	9.90	11.10	12.45	14.01	15.84	17.99	20.54	23.53
11.00	DISCHG	26.97	30.93	35.37	40.39	46.08	53.30	65.65	88.78	135.58	221.97
12.00	DISCHG	358.57	527.23	679.80	770.34	790.35	755.00	691.30	624.25	563.40	506.46
13.00	DISCHG	452.50	402.94	359.26	321.08	287.62	259.11	234.86	214.07	196.00	180.05
14.00	DISCHG	165.93	153.62	143.06	133.85	125.70	118.34	111.60	105.43	99.77	94.65
15.00	DISCHG	90.15	86.28	83.01	80.23	77.74	75.36	73.03	70.83	68.83	67.10
16.00	DISCHG	65.65	64.45	63.44	62.59	61.90	61.33	60.78	60.09	59.12	57.93
17.00	DISCHG	56.69	55.51	54.49	53.64	52.94	52.35	51.87	51.49	51.12	50.63
18.00	DISCHG	49.88	48.83	47.63	46.42	45.33	44.41	43.65	43.01	42.48	42.04
19.00	DISCHG	41.69	41.42	41.20	41.03	40.90	40.79	40.71	40.65	40.55	40.26

20.00	DISCHG	39.65	38.72	37.61	36.47	35.42	34.53	33.80	33.18	32.66	32.24
21.00	DISCHG	31.90	31.62	31.40	31.23	31.10	30.99	30.91	30.84	30.79	30.75
22.00	DISCHG	30.72	30.70	30.68	30.67	30.66	30.66	30.66	30.66	30.66	30.66
23.00	DISCHG	30.67	30.67	30.68	30.69	30.70	30.71	30.72	30.72	30.67	30.43
24.00	DISCHG	29.81	28.61	26.70	23.99	20.83	17.62	14.64	12.03	9.85	8.04
25.00	DISCHG	6.53	5.28	4.27	3.45	2.79	2.27	1.84	1.50	1.23	1.00
26.00	DISCHG	.82	.67	.55	.45	.37	.31	.25	.21	.17	.14
27.00	DISCHG	.11	.09	.07	.05	.04	.03	.03	.02	.02	.01
28.00	DISCHG	.01	.01	.00							

RUNOFF VOLUME ABOVE BASEFLOW = 2.14 WATERSHED INCHES, 1563.56 CFS-HRS, 129.21 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 7, ALTERNATE 1, STORM 3, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 8
OUTPUT HYDROGRAPH= 2
AREA= .30 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= .65 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0867 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.29	286.30	(RUNOFF)
19.66	10.71	(RUNOFF)
23.66	8.16	(RUNOFF)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .30 SQ.MI.

8.00	DISCHG	.00	.00	.00	.00	.00	.00	.01	.04	.10	.18
9.00	DISCHG	.30	.45	.62	.82	1.04	1.27	1.51	1.76	2.05	2.35
10.00	DISCHG	2.65	2.97	3.30	3.66	4.08	4.59	5.21	5.94	6.82	7.85
11.00	DISCHG	9.02	10.37	11.85	13.52	15.40	17.84	22.41	31.77	52.37	90.01
12.00	DISCHG	148.51	217.26	270.08	286.24	265.88	225.35	181.74	146.20	120.08	100.44
13.00	DISCHG	85.38	73.93	64.84	57.53	51.62	46.82	42.83	39.50	36.58	33.96
14.00	DISCHG	31.71	29.86	28.37	27.05	25.86	24.73	23.65	22.59	21.57	20.65
15.00	DISCHG	19.91	19.34	18.95	18.67	18.39	18.02	17.55	17.06	16.64	16.32
16.00	DISCHG	16.11	15.98	15.88	15.83	15.80	15.77	15.70	15.51	15.18	14.75
17.00	DISCHG	14.33	13.98	13.73	13.56	13.45	13.38	13.33	13.30	13.26	13.14
18.00	DISCHG	12.87	12.46	12.01	11.61	11.30	11.10	10.96	10.86	10.80	10.76
19.00	DISCHG	10.73	10.72	10.71	10.70	10.70	10.70	10.71	10.71	10.69	10.58
20.00	DISCHG	10.32	9.91	9.46	9.05	8.74	8.53	8.38	8.28	8.22	8.18
21.00	DISCHG	8.15	8.13	8.12	8.11	8.10	8.10	8.10	8.10	8.10	8.11
22.00	DISCHG	8.11	8.11	8.12	8.12	8.12	8.13	8.13	8.13	8.13	8.14
23.00	DISCHG	8.14	8.14	8.15	8.15	8.15	8.16	8.16	8.16	8.14	8.03
24.00	DISCHG	7.76	7.22	6.37	5.23	4.00	2.89	1.98	1.34	.92	.63
25.00	DISCHG	.43	.29	.20	.13	.09	.06	.04	.02	.01	.01
26.00	DISCHG	.00									

RUNOFF VOLUME ABOVE BASEFLOW = 2.14 WATERSHED INCHES, 415.18 CFS-HRS, 34.31 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 8, ALTERNATE 1, STORM 3, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 9
INPUT HYDROGRAPHS= 1,2 OUTPUT HYDROGRAPH= 3
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.35	1069.79	(NULL)
23.66	38.89	(NULL)

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.43 SQ.MI.

TIME(HRS)											
8.00	DISCHG	.00	.00	.00	.00	.00	.00	.03	.12	.30	.59
9.00	DISCHG	1.00	1.51	2.14	2.88	3.71	4.62	5.60	6.67	7.84	9.09
10.00	DISCHG	10.40	11.76	13.19	14.76	16.54	18.60	21.04	23.93	27.36	31.38
11.00	DISCHG	35.99	41.30	47.23	53.91	61.49	71.14	88.06	120.55	187.95	311.97
12.00	DISCHG	507.08	744.49	949.88	1056.58	1056.23	980.34	873.04	770.44	683.48	606.90
13.00	DISCHG	537.88	476.87	424.10	378.61	339.23	305.93	277.69	253.57	232.59	214.01
14.00	DISCHG	197.64	183.48	171.43	160.91	151.56	143.07	135.25	128.02	121.34	115.30
15.00	DISCHG	110.06	105.63	101.96	98.90	96.13	93.38	90.57	87.89	85.48	83.43
16.00	DISCHG	81.76	80.42	79.32	78.42	77.70	77.10	76.48	75.60	74.29	72.68
17.00	DISCHG	71.02	69.49	68.22	67.20	66.39	65.73	65.20	64.79	64.38	63.77
18.00	DISCHG	62.74	61.29	59.64	58.04	56.63	55.51	54.61	53.87	53.28	52.80
19.00	DISCHG	52.43	52.13	51.91	51.73	51.60	51.50	51.42	51.36	51.24	50.84
20.00	DISCHG	49.97	48.63	47.06	45.52	44.16	43.06	42.18	41.46	40.88	40.41
21.00	DISCHG	40.04	39.75	39.52	39.34	39.20	39.09	39.01	38.94	38.89	38.85
22.00	DISCHG	38.83	38.81	38.80	38.79	38.78	38.78	38.78	38.79	38.79	38.80
23.00	DISCHG	38.81	38.82	38.83	38.84	38.85	38.86	38.88	38.88	38.81	38.46
24.00	DISCHG	37.57	35.83	33.07	29.22	24.83	20.51	16.62	13.37	10.78	8.67
25.00	DISCHG	6.96	5.57	4.47	3.58	2.88	2.32	1.88	1.53	1.24	1.01
26.00	DISCHG	.82	.67	.55	.45	.37	.31	.25	.21	.17	.14
27.00	DISCHG	.11	.09	.07	.05	.04	.03	.03	.02	.02	.01
28.00	DISCHG	.01	.01	.00							

RUNOFF VOLUME ABOVE BASEFLOW = 2.14 WATERSHED INCHES, 1978.75 CFS-HRS, 163.52 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 9, ALTERNATE 1, STORM 3, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 10
OUTPUT HYDROGRAPH= 4
AREA= 1.64 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= 3.80 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1013 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
14.61	431.41	(RUNOFF)

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.64 SQ.MI.

TIME(HRS)											
8.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.00	.01	.01
9.00	DISCHG	.02	.04	.06	.09	.12	.17	.24	.32	.42	.55

OPERATION ADDHYD CROSS SECTION 5
INPUT HYDROGRAPHS= 3,4 OUTPUT HYDROGRAPH= 5
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.44	267.77	(NULL)
23.68	13.77	(NULL)

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .89 SQ.MI.

TIME(HRS)											
10.00	DISCHG	.00	.00	.00	.00	.00	.01	.05	.17	.38	.72
11.00	DISCHG	1.23	1.93	2.82	3.94	5.32	7.14	10.30	16.31	29.36	55.62
12.00	DISCHG	99.64	156.66	211.62	249.60	266.25	264.55	251.92	236.29	219.91	202.45
13.00	DISCHG	184.27	166.52	150.29	135.69	122.53	111.14	101.33	92.83	85.38	78.74
14.00	DISCHG	72.81	67.62	63.14	59.18	55.62	52.40	49.45	46.76	44.28	42.04
15.00	DISCHG	40.06	38.33	36.85	35.57	34.42	33.33	32.30	31.34	30.47	29.71
16.00	DISCHG	29.06	28.50	28.02	27.62	27.29	27.02	26.76	26.46	26.07	25.59
17.00	DISCHG	25.09	24.61	24.18	23.81	23.49	23.21	22.99	22.80	22.63	22.42
18.00	DISCHG	22.11	21.69	21.21	20.72	20.26	19.86	19.52	19.22	18.97	18.76
19.00	DISCHG	18.58	18.45	18.34	18.25	18.19	18.14	18.10	18.07	18.03	17.91
20.00	DISCHG	17.68	17.31	16.87	16.41	15.98	15.59	15.26	14.96	14.71	14.51
21.00	DISCHG	14.33	14.20	14.08	14.00	13.93	13.87	13.83	13.80	13.77	13.75
22.00	DISCHG	13.74	13.73	13.72	13.71	13.71	13.71	13.71	13.72	13.72	13.72
23.00	DISCHG	13.73	13.73	13.74	13.75	13.75	13.76	13.77	13.77	13.76	13.66
24.00	DISCHG	13.43	12.96	12.20	11.12	9.83	8.50	7.22	6.07	5.07	4.19
25.00	DISCHG	3.45	2.82	2.30	1.87	1.53	1.25	1.02	.84	.69	.56
26.00	DISCHG	.46	.38	.31	.26	.21	.18	.14	.12	.10	.08
27.00	DISCHG	.06	.05	.04	.03	.02	.02	.02	.01	.01	.01
28.00	DISCHG	.01	.00								

RUNOFF VOLUME ABOVE BASEFLOW = 1.04 WATERSHED INCHES, 599.34 CFS-HRS, 49.53 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 5, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 6
OUTPUT HYDROGRAPH= 6
AREA= .24 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= .71 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0947 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.34	101.66	(RUNOFF)
19.67	4.83	(RUNOFF)
23.66	3.72	(RUNOFF)

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .24 SQ.MI.

TIME(HRS)											
10.00	DISCHG	.00	.00	.00	.00	.00	.01	.02	.07	.17	.32
11.00	DISCHG	.53	.82	1.18	1.61	2.13	2.84	4.12	6.67	12.14	23.03

12.00	DISCHG	41.78	66.20	88.70	100.42	99.77	90.00	76.09	62.57	52.25	44.43
13.00	DISCHG	38.27	33.32	29.36	26.12	23.49	21.32	19.51	17.98	16.66	15.51
14.00	DISCHG	14.49	13.58	12.81	12.16	11.61	11.10	10.62	10.16	9.71	9.30
15.00	DISCHG	8.96	8.68	8.48	8.33	8.20	8.04	7.85	7.65	7.47	7.31
16.00	DISCHG	7.21	7.14	7.09	7.06	7.04	7.03	7.00	6.93	6.81	6.64
17.00	DISCHG	6.47	6.31	6.19	6.11	6.05	6.01	5.99	5.97	5.95	5.90
18.00	DISCHG	5.80	5.65	5.47	5.30	5.15	5.04	4.97	4.92	4.88	4.86
19.00	DISCHG	4.84	4.83	4.83	4.83	4.83	4.83	4.83	4.83	4.82	4.78
20.00	DISCHG	4.68	4.53	4.35	4.17	4.02	3.91	3.84	3.78	3.75	3.72
21.00	DISCHG	3.70	3.69	3.68	3.68	3.68	3.68	3.68	3.68	3.68	3.68
22.00	DISCHG	3.68	3.68	3.68	3.69	3.69	3.69	3.69	3.70	3.70	3.70
23.00	DISCHG	3.70	3.71	3.71	3.71	3.71	3.71	3.72	3.72	3.71	3.67
24.00	DISCHG	3.56	3.34	3.01	2.56	2.04	1.54	1.12	.79	.55	.39
25.00	DISCHG	.28	.19	.14	.10	.07	.05	.03	.02	.01	.01
26.00	DISCHG	.00									

RUNOFF VOLUME ABOVE BASEFLOW = 1.04 WATERSHED INCHES, 161.83 CFS-HRS, 13.37 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 6, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 7
INPUT HYDROGRAPHS= 5,6 OUTPUT HYDROGRAPH= 1
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.41	366.12	(NULL)
23.67	17.49	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.13 SQ.MI.

10.00	DISCHG	.00	.00	.00	.00	.00	.01	.08	.24	.54	1.04
11.00	DISCHG	1.76	2.74	4.00	5.55	7.45	9.98	14.42	22.99	41.50	78.65
12.00	DISCHG	141.42	222.87	300.32	350.02	366.02	354.55	328.01	298.86	272.15	246.88
13.00	DISCHG	222.55	199.84	179.65	161.81	146.02	132.46	120.84	110.81	102.04	94.25
14.00	DISCHG	87.30	81.20	75.94	71.33	67.23	63.51	60.08	56.91	54.00	51.35
15.00	DISCHG	49.02	47.02	45.33	43.90	42.62	41.38	40.15	38.99	37.94	37.02
16.00	DISCHG	36.26	35.64	35.11	34.68	34.33	34.04	33.76	33.40	32.88	32.24
17.00	DISCHG	31.56	30.93	30.37	29.91	29.54	29.22	28.97	28.77	28.58	28.32
18.00	DISCHG	27.91	27.34	26.68	26.01	25.41	24.91	24.49	24.14	23.85	23.61
19.00	DISCHG	23.43	23.28	23.17	23.08	23.01	22.97	22.93	22.90	22.85	22.70
20.00	DISCHG	22.36	21.84	21.22	20.58	20.00	19.50	19.09	18.75	18.46	18.23
21.00	DISCHG	18.04	17.89	17.77	17.68	17.61	17.55	17.51	17.47	17.45	17.43
22.00	DISCHG	17.42	17.41	17.40	17.40	17.40	17.40	17.41	17.41	17.42	17.42
23.00	DISCHG	17.43	17.44	17.45	17.46	17.46	17.47	17.48	17.49	17.47	17.33
24.00	DISCHG	16.98	16.30	15.21	13.67	11.87	10.04	8.34	6.86	5.62	4.58
25.00	DISCHG	3.72	3.01	2.43	1.97	1.59	1.29	1.05	.86	.70	.57
26.00	DISCHG	.46	.38	.31	.26	.21	.18	.14	.12	.10	.08
27.00	DISCHG	.06	.05	.04	.03	.02	.02	.02	.01	.01	.01

28.00 DISCHG .01 .00

RUNOFF VOLUME ABOVE BASEFLOW = 1.04 WATERSHED INCHES, 761.18 CFS-HRS, 62.90 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 7, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 8
OUTPUT HYDROGRAPH= 2
AREA= .30 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= .65 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0867 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.31	134.09	(RUNOFF)
19.67	6.04	(RUNOFF)
23.67	4.65	(RUNOFF)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .30 SQ.MI.

10.00	DISCHG	.00	.00	.00	.00	.00	.01	.04	.11	.25	.46
11.00	DISCHG	.76	1.16	1.64	2.23	2.92	3.84	5.53	9.03	17.23	33.59
12.00	DISCHG	60.91	94.90	122.97	133.98	126.95	109.32	89.32	72.70	60.41	51.11
13.00	DISCHG	43.91	38.37	33.93	30.33	27.38	24.97	22.96	21.27	19.77	18.41
14.00	DISCHG	17.24	16.27	15.48	14.78	14.15	13.55	12.96	12.40	11.85	11.36
15.00	DISCHG	10.96	10.66	10.45	10.30	10.16	9.96	9.70	9.44	9.22	9.05
16.00	DISCHG	8.93	8.86	8.82	8.79	8.78	8.77	8.74	8.64	8.46	8.22
17.00	DISCHG	7.99	7.80	7.66	7.58	7.52	7.48	7.46	7.45	7.42	7.36
18.00	DISCHG	7.21	6.99	6.74	6.52	6.34	6.23	6.15	6.10	6.07	6.05
19.00	DISCHG	6.04	6.03	6.03	6.03	6.03	6.03	6.04	6.04	6.03	5.97
20.00	DISCHG	5.82	5.59	5.34	5.11	4.94	4.82	4.74	4.69	4.65	4.63
21.00	DISCHG	4.61	4.60	4.60	4.59	4.59	4.59	4.59	4.59	4.60	4.60
22.00	DISCHG	4.60	4.60	4.61	4.61	4.61	4.62	4.62	4.62	4.62	4.63
23.00	DISCHG	4.63	4.63	4.64	4.64	4.64	4.64	4.65	4.65	4.64	4.58
24.00	DISCHG	4.42	4.11	3.63	2.98	2.28	1.65	1.13	.76	.53	.36
25.00	DISCHG	.25	.17	.11	.08	.05	.03	.02	.01	.01	.00

RUNOFF VOLUME ABOVE BASEFLOW = 1.04 WATERSHED INCHES, 202.13 CFS-HRS, 16.70 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 8, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 9
INPUT HYDROGRAPHS= 1,2 OUTPUT HYDROGRAPH= 3
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.37	494.31	(NULL)
23.67	22.14	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.43 SQ.MI.

10.00	DISCHG	.00	.00	.00	.00	.00	.02	.11	.35	.79	1.51
11.00	DISCHG	2.52	3.90	5.64	7.78	10.37	13.82	19.95	32.02	58.73	112.24
12.00	DISCHG	202.32	317.76	423.29	484.00	492.98	463.86	417.33	371.56	332.56	297.98
13.00	DISCHG	266.45	238.22	213.58	192.14	173.40	157.43	143.80	132.08	121.81	112.66
14.00	DISCHG	104.54	97.47	91.42	86.12	81.38	77.05	73.04	69.31	65.85	62.70
15.00	DISCHG	59.97	57.67	55.78	54.20	52.77	51.33	49.85	48.43	47.15	46.07
16.00	DISCHG	45.20	44.50	43.93	43.48	43.11	42.81	42.50	42.03	41.33	40.46
17.00	DISCHG	39.55	38.72	38.04	37.49	37.05	36.70	36.43	36.22	36.01	35.68
18.00	DISCHG	35.12	34.33	33.42	32.53	31.76	31.14	30.64	30.24	29.92	29.67
19.00	DISCHG	29.47	29.31	29.20	29.11	29.04	29.00	28.96	28.94	28.88	28.67
20.00	DISCHG	28.18	27.44	26.56	25.70	24.94	24.32	23.83	23.43	23.11	22.85
21.00	DISCHG	22.65	22.49	22.37	22.27	22.20	22.14	22.10	22.07	22.04	22.03
22.00	DISCHG	22.02	22.01	22.01	22.01	22.02	22.02	22.03	22.03	22.04	22.05
23.00	DISCHG	22.06	22.07	22.08	22.09	22.11	22.12	22.13	22.14	22.10	21.91
24.00	DISCHG	21.41	20.42	18.85	16.66	14.15	11.69	9.47	7.62	6.14	4.94
25.00	DISCHG	3.97	3.18	2.55	2.04	1.64	1.32	1.07	.87	.71	.57
26.00	DISCHG	.46	.38	.31	.26	.21	.18	.14	.12	.10	.08
27.00	DISCHG	.06	.05	.04	.03	.02	.02	.02	.01	.01	.01
28.00	DISCHG	.01	.00								

RUNOFF VOLUME ABOVE BASEFLOW = 1.04 WATERSHED INCHES, 963.31 CFS-HRS, 79.61 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 9, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 10
OUTPUT HYDROGRAPH= 4
AREA= 1.64 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= 3.80 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1013 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET) (RUNOFF)
14.70	200.53	

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.64 SQ.MI.

10.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.01	.02	.03
11.00	DISCHG	.06	.10	.15	.23	.34	.50	.76	1.18	1.95	3.36
12.00	DISCHG	5.51	8.45	12.23	16.79	22.08	28.08	34.86	42.47	50.96	60.48
13.00	DISCHG	71.01	82.36	94.37	106.76	118.96	130.71	141.82	152.10	161.51	169.87
14.00	DISCHG	177.11	183.31	188.46	192.63	195.96	198.46	200.04	200.53	200.02	198.81
15.00	DISCHG	197.03	194.73	191.93	188.61	184.68	180.07	174.88	169.17	163.04	156.89
16.00	DISCHG	150.94	145.26	139.96	135.02	130.34	125.87	121.58	117.49	113.58	109.89
17.00	DISCHG	106.44	103.17	100.04	97.03	94.11	91.27	88.53	85.92	83.43	81.08
18.00	DISCHG	78.87	76.78	74.78	72.84	70.98	69.21	67.51	65.88	64.31	62.81
19.00	DISCHG	61.37	59.99	58.64	57.33	56.06	54.85	53.71	52.61	51.55	50.53
20.00	DISCHG	49.55	48.61	47.70	46.82	45.99	45.18	44.41	43.66	42.92	42.20
21.00	DISCHG	41.50	40.82	40.15	39.49	38.84	38.21	37.60	37.01	36.43	35.87
22.00	DISCHG	35.31	34.78	34.27	33.78	33.32	32.88	32.45	32.04	31.64	31.26
23.00	DISCHG	30.89	30.54	30.20	29.88	29.57	29.27	28.99	28.73	28.48	28.24
24.00	DISCHG	28.01	27.78	27.54	27.30	27.05	26.80	26.54	26.27	25.98	25.66
25.00	DISCHG	25.30	24.91	24.47	23.98	23.44	22.86	22.23	21.57	20.87	20.15

26.00	DISCHG	19.41	18.65	17.87	17.10	16.32	15.54	14.77	14.01	13.26	12.53
27.00	DISCHG	11.82	11.13	10.47	9.83	9.21	8.63	8.07	7.54	7.05	6.59
28.00	DISCHG	6.16	5.77	5.40	5.06	4.75	4.45	4.17	3.91	3.66	3.43
29.00	DISCHG	3.22	3.02	2.83	2.65	2.48	2.32	2.17	2.03	1.90	1.78

RUNOFF VOLUME ABOVE BASEFLOW = 1.04 WATERSHED INCHES, 1102.63 CFS-HRS, 91.12 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 10, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 11
INPUT HYDROGRAPHS= 3,4 OUTPUT HYDROGRAPH= 5
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.39	515.31	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 3.07 SQ.MI.

10.00	DISCHG	.00	.00	.00	.00	.00	.02	.11	.36	.81	1.54
11.00	DISCHG	2.58	4.00	5.79	8.01	10.71	14.32	20.71	33.20	60.68	115.60
12.00	DISCHG	207.83	326.21	435.52	500.79	515.05	491.94	452.18	414.02	383.52	358.46
13.00	DISCHG	337.47	320.58	307.95	298.89	292.36	288.14	285.62	284.18	283.33	282.53
14.00	DISCHG	281.65	280.78	279.89	278.75	277.34	275.52	273.08	269.84	265.87	261.52
15.00	DISCHG	257.01	252.41	247.71	242.81	237.45	231.40	224.73	217.60	210.19	202.95
16.00	DISCHG	196.14	189.76	183.89	178.49	173.45	168.68	164.08	159.52	154.92	150.35
17.00	DISCHG	145.99	141.89	138.07	134.52	131.16	127.98	124.96	122.14	119.44	116.77
18.00	DISCHG	114.00	111.11	108.19	105.37	102.74	100.35	98.16	96.12	94.23	92.47
19.00	DISCHG	90.83	89.30	87.84	86.44	85.10	83.85	82.67	81.55	80.43	79.20
20.00	DISCHG	77.73	76.04	74.26	72.52	70.92	69.50	68.24	67.09	66.03	65.05
21.00	DISCHG	64.15	63.31	62.52	61.76	61.03	60.35	59.70	59.08	58.47	57.89
22.00	DISCHG	57.33	56.79	56.28	55.79	55.34	54.90	54.48	54.07	53.68	53.31
23.00	DISCHG	52.96	52.61	52.29	51.97	51.67	51.39	51.12	50.87	50.58	50.15
24.00	DISCHG	49.41	48.19	46.39	43.96	41.21	38.49	36.01	33.89	32.13	30.61
25.00	DISCHG	29.27	28.09	27.01	26.02	25.08	24.18	23.31	22.44	21.58	20.72
26.00	DISCHG	19.87	19.03	18.19	17.35	16.53	15.72	14.91	14.13	13.36	12.61
27.00	DISCHG	11.88	11.18	10.51	9.86	9.24	8.64	8.08	7.55	7.06	6.60
28.00	DISCHG	6.17	5.77	5.40	5.06	4.75	4.45	4.17	3.91	3.66	3.43
29.00	DISCHG	3.22	3.02	2.83	2.65	2.48	2.32	2.17	2.03	1.90	1.78

RUNOFF VOLUME ABOVE BASEFLOW = 1.04 WATERSHED INCHES, 2065.94 CFS-HRS, 170.73 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 11, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

EXECUTIVE CONTROL OPERATION ENDCMP COMPUTATIONS COMPLETED FOR PASS 1 RECORD ID

EXECUTIVE CONTROL OPERATION COMPUT FROM XSECTION 1 TO XSECTION 11 RECORD ID 10-YR
STARTING TIME = .00 RAIN DEPTH = 4.08 RAIN DURATION= 1.00 RAIN TABLE NO.= 2 ANT. MOIST. COND= 2
ALTERNATE NO.= 1 STORM NO.= 2 MAIN TIME INCREMENT = .10 HOURS

OPERATION RUNOFF CROSS SECTION 1
OUTPUT HYDROGRAPH= 1
AREA= .28 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= 1.10 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1048 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.60	168.77	(RUNOFF)
23.68	7.06	(RUNOFF)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS			TIME INCREMENT = .10 HOURS			DRAINAGE AREA = .28 SQ.MI.		
9.00	DISCHG	.01	.03	.06	.10	.17	.26	.37	.50	.65	.82
10.00	DISCHG	1.01	1.21	1.43	1.66	1.92	2.21	2.54	2.91	3.35	3.87
11.00	DISCHG	4.48	5.19	6.00	6.93	8.00	9.29	11.23	14.34	20.17	30.94
12.00	DISCHG	48.09	71.54	99.43	127.58	150.46	164.34	168.76	165.03	155.18	141.13
13.00	DISCHG	124.94	109.29	96.10	85.39	76.27	68.41	61.52	55.59	50.45	45.97
14.00	DISCHG	42.06	38.67	35.73	33.18	30.93	28.95	27.17	25.59	24.15	22.85
15.00	DISCHG	21.68	20.62	19.66	18.81	18.07	17.44	16.92	16.46	16.03	15.63
16.00	DISCHG	15.27	14.94	14.66	14.43	14.25	14.10	13.98	13.85	13.71	13.53
17.00	DISCHG	13.31	13.07	12.83	12.59	12.37	12.18	12.02	11.90	11.80	11.70
18.00	DISCHG	11.58	11.43	11.24	11.01	10.77	10.53	10.30	10.09	9.91	9.77
19.00	DISCHG	9.66	9.57	9.51	9.45	9.41	9.38	9.35	9.33	9.31	9.28
20.00	DISCHG	9.21	9.10	8.93	8.73	8.50	8.27	8.04	7.84	7.67	7.53
21.00	DISCHG	7.42	7.34	7.27	7.21	7.17	7.14	7.11	7.09	7.08	7.06
22.00	DISCHG	7.06	7.05	7.04	7.04	7.04	7.04	7.04	7.04	7.04	7.04
23.00	DISCHG	7.04	7.04	7.05	7.05	7.05	7.05	7.06	7.06	7.05	7.03
24.00	DISCHG	6.97	6.84	6.59	6.22	5.71	5.09	4.42	3.74	3.09	2.51
25.00	DISCHG	2.01	1.60	1.28	1.02	.82	.65	.52	.41	.33	.26
26.00	DISCHG	.21	.16	.13	.10	.08	.06	.05	.04	.03	.02
27.00	DISCHG	.01	.01	.01	.00						

RUNOFF VOLUME ABOVE BASEFLOW = 1.95 WATERSHED INCHES, 352.27 CFS-HRS, 29.11 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 1, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 2
OUTPUT HYDROGRAPH= 2
AREA= .26 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= 1.40 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1037 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.82	131.81	(RUNOFF)
23.69	6.56	(RUNOFF)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS			DRAINAGE AREA =		.26 SQ.MI.
9.00	DISCHG	.01	.01	.03	.05	.09	.14	.20	.28	.38	.50
10.00	DISCHG	.63	.78	.94	1.12	1.32	1.54	1.78	2.06	2.38	2.75
11.00	DISCHG	3.17	3.67	4.24	4.90	5.66	6.55	7.79	9.66	12.85	18.51
12.00	DISCHG	27.63	40.25	55.97	74.05	92.60	109.07	121.39	128.86	131.73	130.52
13.00	DISCHG	125.95	118.84	109.98	99.94	89.94	81.07	73.51	66.94	61.19	56.06
14.00	DISCHG	51.37	47.17	43.47	40.17	37.22	34.57	32.20	30.07	28.17	26.46
15.00	DISCHG	24.92	23.52	22.27	21.14	20.14	19.25	18.46	17.75	17.12	16.53
16.00	DISCHG	15.99	15.49	15.02	14.60	14.23	13.91	13.66	13.45	13.27	13.09
17.00	DISCHG	12.90	12.70	12.49	12.27	12.06	11.86	11.68	11.51	11.36	11.22
18.00	DISCHG	11.09	10.96	10.81	10.65	10.47	10.28	10.08	9.88	9.70	9.53
19.00	DISCHG	9.38	9.24	9.13	9.04	8.97	8.91	8.86	8.81	8.78	8.74
20.00	DISCHG	8.68	8.61	8.52	8.40	8.25	8.09	7.91	7.73	7.56	7.41
21.00	DISCHG	7.26	7.14	7.03	6.94	6.87	6.81	6.77	6.72	6.69	6.66
22.00	DISCHG	6.64	6.62	6.60	6.59	6.58	6.57	6.57	6.56	6.56	6.56
23.00	DISCHG	6.55	6.55	6.55	6.55	6.55	6.55	6.56	6.56	6.55	6.54
24.00	DISCHG	6.51	6.45	6.33	6.14	5.87	5.52	5.09	4.61	4.10	3.60
25.00	DISCHG	3.10	2.64	2.23	1.87	1.56	1.31	1.10	.92	.77	.65
26.00	DISCHG	.54	.46	.38	.32	.27	.22	.19	.15	.13	.11
27.00	DISCHG	.09	.07	.06	.05	.04	.03	.03	.02	.02	.01
28.00	DISCHG	.01	.01	.00							

RUNOFF VOLUME ABOVE BASEFLOW = 1.95 WATERSHED INCHES, 327.25 CFS-HRS, 27.04 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 2, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 3
INPUT HYDROGRAPHS= 1,2 OUTPUT HYDROGRAPH= 3
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.68	294.02	(NULL)
23.68	13.62	(NULL)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS			DRAINAGE AREA =		.54 SQ.MI.
9.00	DISCHG	.02	.04	.09	.16	.26	.39	.57	.78	1.03	1.31
10.00	DISCHG	1.63	1.98	2.37	2.78	3.24	3.75	4.32	4.98	5.73	6.62
11.00	DISCHG	7.65	8.86	10.24	11.83	13.66	15.84	19.01	24.00	33.01	49.45
12.00	DISCHG	75.73	111.79	155.41	201.63	243.06	273.41	290.15	293.89	286.91	271.65
13.00	DISCHG	250.89	228.13	206.07	185.33	166.22	149.48	135.03	122.53	111.64	102.02
14.00	DISCHG	93.42	85.84	79.21	73.35	68.15	63.52	59.37	55.65	52.32	49.32
15.00	DISCHG	46.60	44.14	41.93	39.96	38.21	36.69	35.38	34.21	33.15	32.17
16.00	DISCHG	31.26	30.43	29.69	29.03	28.47	28.01	27.64	27.31	26.98	26.62
17.00	DISCHG	26.21	25.77	25.31	24.86	24.43	24.04	23.70	23.41	23.16	22.92
18.00	DISCHG	22.67	22.39	22.06	21.67	21.24	20.80	20.37	19.97	19.61	19.30
19.00	DISCHG	19.04	18.82	18.64	18.49	18.38	18.28	18.21	18.15	18.09	18.01

10.00	DISCHG	.70	.88	1.09	1.35	1.64	1.98	2.37	2.83	3.34	3.93
11.00	DISCHG	4.61	5.37	6.24	7.22	8.35	9.66	11.30	13.38	16.35	20.76
12.00	DISCHG	26.78	34.51	43.99	55.10	67.69	81.75	97.38	114.69	133.77	154.89
13.00	DISCHG	177.93	202.44	228.03	254.10	279.42	303.52	326.01	346.51	364.97	381.00
14.00	DISCHG	394.57	405.85	414.86	421.76	426.82	430.10	431.40	430.42	427.44	423.06
15.00	DISCHG	417.54	410.99	403.42	394.84	385.00	373.83	361.57	348.37	334.44	320.69
16.00	DISCHG	307.49	294.97	283.34	272.52	262.30	252.57	243.27	234.43	226.02	218.10
17.00	DISCHG	210.68	203.68	196.97	190.52	184.29	178.25	172.42	166.89	161.64	156.69
18.00	DISCHG	152.04	147.65	143.43	139.38	135.51	131.81	128.28	124.89	121.64	118.53
19.00	DISCHG	115.57	112.74	109.98	107.29	104.71	102.26	99.94	97.73	95.60	93.54
20.00	DISCHG	91.57	89.68	87.86	86.12	84.45	82.86	81.32	79.83	78.38	76.96
21.00	DISCHG	75.59	74.26	72.95	71.66	70.40	69.18	68.01	66.87	65.76	64.68
22.00	DISCHG	63.62	62.60	61.62	60.69	59.82	58.98	58.17	57.38	56.63	55.90
23.00	DISCHG	55.20	54.53	53.88	53.25	52.66	52.09	51.55	51.04	50.55	50.09
24.00	DISCHG	49.64	49.19	48.74	48.28	47.81	47.34	46.87	46.38	45.85	45.27
25.00	DISCHG	44.63	43.92	43.13	42.26	41.31	40.27	39.17	37.99	36.76	35.49
26.00	DISCHG	34.17	32.83	31.46	30.09	28.72	27.35	25.99	24.65	23.34	22.05
27.00	DISCHG	20.80	19.59	18.42	17.29	16.21	15.18	14.19	13.27	12.40	11.59
28.00	DISCHG	10.85	10.15	9.51	8.91	8.35	7.83	7.33	6.88	6.44	6.04
29.00	DISCHG	5.66	5.31	4.97	4.66	4.36	4.08	3.82	3.58	3.35	3.13

RUNOFF VOLUME ABOVE BASEFLOW = 2.14 WATERSHED INCHES, 2265.86 CFS-HRS, 187.25 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 10, ALTERNATE 1, STORM 3, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 11
INPUT HYDROGRAPHS= 3,4 OUTPUT HYDROGRAPH= 5
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.37	1128.07	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 3.07 SQ.MI.

8.00	DISCHG	.00	.00	.00	.00	.00	.00	.03	.12	.30	.60
9.00	DISCHG	1.02	1.55	2.20	2.96	3.83	4.79	5.84	6.99	8.26	9.64
10.00	DISCHG	11.09	12.64	14.29	16.11	18.18	20.58	23.42	26.75	30.71	35.31
11.00	DISCHG	40.60	46.67	53.47	61.13	69.83	80.80	99.36	133.94	204.30	332.73
12.00	DISCHG	533.86	778.99	993.88	1111.67	1123.93	1062.09	970.41	885.13	817.25	761.79
13.00	DISCHG	715.82	679.30	652.14	632.71	618.66	609.45	603.71	600.08	597.56	595.01
14.00	DISCHG	592.21	589.33	586.29	582.67	578.38	573.18	566.65	558.45	548.79	538.36
15.00	DISCHG	527.60	516.62	505.38	493.73	481.13	467.21	452.14	436.26	419.92	404.11
16.00	DISCHG	389.25	375.40	362.66	350.94	340.00	329.67	319.75	310.03	300.31	290.78
17.00	DISCHG	281.70	273.17	265.19	257.73	250.68	243.98	237.62	231.68	226.02	220.46
18.00	DISCHG	214.79	208.94	203.08	197.42	192.14	187.32	182.88	178.76	174.92	171.34
19.00	DISCHG	168.00	164.87	161.89	159.03	156.30	153.76	151.36	149.09	146.83	144.38
20.00	DISCHG	141.54	138.31	134.93	131.64	128.61	125.91	123.50	121.30	119.26	117.37
21.00	DISCHG	115.63	114.00	112.47	111.00	109.60	108.27	107.02	105.82	104.65	103.53

22.00	DISCHG	102.45	101.41	100.41	99.48	98.60	97.76	96.95	96.17	95.42	94.70
23.00	DISCHG	94.01	93.34	92.71	92.09	91.51	90.95	90.43	89.92	89.36	88.55
24.00	DISCHG	87.21	85.02	81.81	77.51	72.64	67.85	63.48	59.75	56.63	53.94
25.00	DISCHG	51.59	49.49	47.60	45.84	44.19	42.60	41.05	39.52	38.00	36.50
26.00	DISCHG	34.99	33.49	32.02	30.55	29.09	27.66	26.25	24.86	23.50	22.19
27.00	DISCHG	20.91	19.68	18.49	17.34	16.25	15.21	14.22	13.29	12.42	11.61
28.00	DISCHG	10.85	10.16	9.51	8.91	8.35	7.83	7.33	6.88	6.44	6.04
29.00	DISCHG	5.66	5.31	4.97	4.66	4.36	4.08	3.82	3.58	3.35	3.13

RUNOFF VOLUME ABOVE BASEFLOW = 2.14 WATERSHED INCHES, 4244.61 CFS-HRS, 350.77 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 11, ALTERNATE 1, STORM 3, ADDED TO OUTPUT HYDROGRAPH FILE ---

EXECUTIVE CONTROL OPERATION ENDCMP COMPUTATIONS COMPLETED FOR PASS 3 RECORD ID

11.00	DISCHG	90.92	101.53	113.19	126.14	140.62	158.66	188.92	244.70	355.65	552.07
12.00	DISCHG	851.72	1209.39	1515.88	1677.03	1684.12	1585.05	1445.21	1316.60	1214.32	1130.91
13.00	DISCHG	1062.01	1007.51	966.98	937.96	916.91	902.97	894.05	888.16	883.83	879.37
14.00	DISCHG	874.53	869.52	864.19	857.99	850.76	842.16	831.60	818.58	803.49	787.28
15.00	DISCHG	770.60	753.58	736.16	718.15	698.74	677.48	654.64	630.68	606.15	582.49
16.00	DISCHG	560.27	539.58	520.58	503.08	486.76	471.35	456.59	442.17	427.83	413.81
17.00	DISCHG	400.48	387.95	376.22	365.23	354.85	344.96	335.60	326.83	318.51	310.35
18.00	DISCHG	302.07	293.59	285.11	276.94	269.30	262.31	255.88	249.90	244.32	239.11
19.00	DISCHG	234.26	229.70	225.36	221.20	217.24	213.54	210.07	206.76	203.49	199.97
20.00	DISCHG	195.92	191.35	186.58	181.96	177.69	173.88	170.46	167.34	164.45	161.77
21.00	DISCHG	159.29	156.98	154.79	152.70	150.71	148.83	147.04	145.34	143.68	142.09
22.00	DISCHG	140.55	139.07	137.66	136.34	135.10	133.90	132.76	131.65	130.59	129.57
23.00	DISCHG	128.58	127.64	126.73	125.85	125.02	124.22	123.47	122.75	121.95	120.81
24.00	DISCHG	118.95	115.94	111.54	105.67	99.03	92.49	86.54	81.45	77.19	73.53
25.00	DISCHG	70.32	67.46	64.87	62.48	60.22	58.05	55.94	53.85	51.79	49.73
26.00	DISCHG	47.67	45.64	43.62	41.62	39.64	37.68	35.75	33.86	32.02	30.22
27.00	DISCHG	28.49	26.81	25.19	23.63	22.14	20.72	19.37	18.10	16.91	15.81
28.00	DISCHG	14.78	13.84	12.96	12.13	11.37	10.66	9.99	9.36	8.78	8.23
29.00	DISCHG	7.71	7.23	6.77	6.34	5.94	5.56	5.20	4.87	4.56	4.27

RUNOFF VOLUME ABOVE BASEFLOW = 3.15 WATERSHED INCHES, 6250.16 CFS-HRS, 516.51 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 11, ALTERNATE 1, STORM 4, ADDED TO OUTPUT HYDROGRAPH FILE ---

EXECUTIVE CONTROL OPERATION ENDCMP COMPUTATIONS COMPLETED FOR PASS 4 RECORD ID

EXECUTIVE CONTROL OPERATION COMPUT FROM XSECTION 1 TO XSECTION 11 RECORD ID 100-YR
STARTING TIME = .00 RAIN DEPTH = 6.48 RAIN DURATION= 1.00 RAIN TABLE NO.= 2 ANT. MOIST. COND= 2
ALTERNATE NO.= 1 STORM NO.= 5 MAIN TIME INCREMENT = .10 HOURS

OPERATION RUNOFF CROSS SECTION 1
OUTPUT HYDROGRAPH= 1
AREA= .28 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= 1.10 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1048 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.58	352.01	(RUNOFF)
23.66	12.55	(RUNOFF)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS			DRAINAGE AREA = .28 SQ.MI.		
6.00	DISCHG	.00	.00	.00	.00	.00	.00	.01	.02	.04	.09
7.00	DISCHG	.15	.23	.33	.45	.59	.74	.89	1.06	1.23	1.40
8.00	DISCHG	1.58	1.76	1.96	2.16	2.39	2.65	2.95	3.27	3.62	3.99
9.00	DISCHG	4.36	4.74	5.13	5.52	5.94	6.37	6.82	7.30	7.79	8.32
10.00	DISCHG	8.86	9.43	10.02	10.63	11.30	12.04	12.89	13.89	15.07	16.46
11.00	DISCHG	18.08	19.96	22.08	24.47	27.14	30.32	35.02	42.45	55.87	79.74
12.00	DISCHG	116.53	165.48	222.28	278.06	321.78	346.50	351.74	340.51	317.28	286.11
13.00	DISCHG	251.33	218.40	190.83	168.53	149.64	133.42	119.32	107.23	96.81	87.77
14.00	DISCHG	79.94	73.17	67.35	62.30	57.88	54.00	50.54	47.46	44.69	42.20
15.00	DISCHG	39.95	37.91	36.07	34.45	33.03	31.84	30.85	30.00	29.19	28.45
16.00	DISCHG	27.76	27.16	26.64	26.20	25.85	25.58	25.34	25.10	24.82	24.49
17.00	DISCHG	24.09	23.64	23.19	22.74	22.34	21.98	21.69	21.46	21.28	21.09
18.00	DISCHG	20.87	20.59	20.24	19.83	19.38	18.94	18.51	18.14	17.81	17.55
19.00	DISCHG	17.35	17.19	17.06	16.96	16.88	16.82	16.77	16.73	16.69	16.62
20.00	DISCHG	16.49	16.29	15.99	15.62	15.21	14.79	14.39	14.02	13.71	13.46
21.00	DISCHG	13.26	13.10	12.98	12.88	12.80	12.74	12.69	12.66	12.62	12.60
22.00	DISCHG	12.58	12.57	12.56	12.55	12.54	12.54	12.54	12.54	12.53	12.53
23.00	DISCHG	12.53	12.54	12.54	12.54	12.54	12.54	12.55	12.55	12.54	12.49
24.00	DISCHG	12.38	12.14	11.71	11.05	10.15	9.05	7.84	6.63	5.48	4.45
25.00	DISCHG	3.57	2.84	2.27	1.81	1.45	1.16	.92	.74	.59	.47
26.00	DISCHG	.37	.29	.23	.18	.14	.11	.09	.07	.05	.04
27.00	DISCHG	.03	.02	.01	.01	.00					

RUNOFF VOLUME ABOVE BASEFLOW = 4.00 WATERSHED INCHES, 723.33 CFS-HRS, 59.78 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 1, ALTERNATE 1, STORM 5, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 2
OUTPUT HYDROGRAPH= 2
AREA= .26 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= 1.40 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1037 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.79	275.49	(RUNOFF)
23.65	11.66	(RUNOFF)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS			DRAINAGE AREA =		.26 SQ.MI.
6.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.01	.02	.04
7.00	DISCHG	.07	.12	.18	.25	.34	.44	.56	.69	.82	.96
8.00	DISCHG	1.11	1.27	1.43	1.60	1.78	1.98	2.20	2.45	2.72	3.00
9.00	DISCHG	3.31	3.62	3.95	4.29	4.65	5.01	5.40	5.80	6.21	6.65
10.00	DISCHG	7.10	7.57	8.07	8.59	9.15	9.74	10.40	11.15	12.00	12.99
11.00	DISCHG	14.13	15.45	16.95	18.68	20.63	22.87	25.93	30.47	37.91	50.61
12.00	DISCHG	70.39	97.14	129.89	166.79	203.85	235.93	259.03	271.98	275.46	270.69
13.00	DISCHG	259.20	242.77	223.08	201.40	180.21	161.56	145.74	132.04	120.10	109.49
14.00	DISCHG	99.85	91.28	83.76	77.06	71.10	65.79	61.04	56.80	53.04	49.67
15.00	DISCHG	46.63	43.90	41.45	39.25	37.30	35.58	34.05	32.68	31.46	30.33
16.00	DISCHG	29.29	28.32	27.42	26.61	25.89	25.28	24.80	24.42	24.07	23.73
17.00	DISCHG	23.37	23.00	22.60	22.20	21.81	21.44	21.10	20.79	20.51	20.25
18.00	DISCHG	20.01	19.76	19.50	19.19	18.86	18.50	18.14	17.79	17.45	17.14
19.00	DISCHG	16.86	16.61	16.41	16.24	16.10	15.99	15.89	15.81	15.74	15.66
20.00	DISCHG	15.57	15.44	15.27	15.04	14.77	14.47	14.16	13.84	13.53	13.25
21.00	DISCHG	12.99	12.76	12.57	12.41	12.28	12.17	12.08	12.01	11.94	11.89
22.00	DISCHG	11.84	11.81	11.78	11.75	11.73	11.72	11.70	11.69	11.69	11.68
23.00	DISCHG	11.67	11.67	11.67	11.66	11.66	11.66	11.66	11.66	11.66	11.63
24.00	DISCHG	11.58	11.46	11.24	10.90	10.42	9.80	9.04	8.19	7.29	6.39
25.00	DISCHG	5.51	4.70	3.96	3.32	2.77	2.32	1.95	1.63	1.37	1.15
26.00	DISCHG	.97	.81	.68	.57	.47	.39	.33	.27	.23	.19
27.00	DISCHG	.16	.13	.11	.09	.07	.06	.05	.04	.03	.02
28.00	DISCHG	.01	.01	.01	.00						

RUNOFF VOLUME ABOVE BASEFLOW = 4.00 WATERSHED INCHES, 671.97 CFS-HRS, 55.53 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 2, ALTERNATE 1, STORM 5, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 3
INPUT HYDROGRAPHS= 1,2 OUTPUT HYDROGRAPH= 3
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.66	614.38	(NULL)
23.66	24.21	(NULL)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS			DRAINAGE AREA =		.54 SQ.MI.
6.00	DISCHG	.00	.00	.00	.00	.00	.00	.01	.03	.07	.13
7.00	DISCHG	.22	.35	.51	.70	.93	1.18	1.46	1.75	2.05	2.37
8.00	DISCHG	2.69	3.03	3.38	3.76	4.17	4.63	5.15	5.72	6.34	6.99
9.00	DISCHG	7.67	8.36	9.08	9.82	10.58	11.38	12.22	13.09	14.00	14.96

10.00	DISCHG	15.96	17.01	18.09	19.22	20.44	21.78	23.29	25.04	27.07	29.45
11.00	DISCHG	32.21	35.41	39.04	43.14	47.76	53.19	60.96	72.92	93.78	130.35
12.00	DISCHG	186.92	262.62	352.17	444.85	525.64	582.42	610.77	612.49	592.75	556.80
13.00	DISCHG	510.53	461.17	413.91	369.94	329.85	294.98	265.05	239.27	216.91	197.26
14.00	DISCHG	179.78	164.45	151.11	139.36	128.99	119.78	111.58	104.27	97.73	91.87
15.00	DISCHG	86.58	81.81	77.52	73.70	70.33	67.42	64.90	62.68	60.65	58.78
16.00	DISCHG	57.05	55.47	54.06	52.81	51.74	50.86	50.14	49.52	48.89	48.22
17.00	DISCHG	47.46	46.64	45.79	44.95	44.15	43.43	42.79	42.25	41.79	41.34
18.00	DISCHG	40.88	40.36	39.74	39.02	38.24	37.44	36.66	35.92	35.26	34.69
19.00	DISCHG	34.21	33.80	33.47	33.20	32.98	32.81	32.66	32.55	32.43	32.28
20.00	DISCHG	32.06	31.73	31.26	30.66	29.98	29.26	28.54	27.86	27.24	26.70
21.00	DISCHG	26.25	25.86	25.55	25.29	25.08	24.91	24.78	24.66	24.57	24.49
22.00	DISCHG	24.43	24.38	24.34	24.30	24.28	24.26	24.24	24.23	24.22	24.21
23.00	DISCHG	24.21	24.20	24.20	24.20	24.20	24.21	24.21	24.21	24.19	24.12
24.00	DISCHG	23.96	23.60	22.96	21.95	20.57	18.84	16.88	14.82	12.77	10.84
25.00	DISCHG	9.08	7.54	6.23	5.13	4.22	3.48	2.87	2.37	1.96	1.62
26.00	DISCHG	1.34	1.10	.91	.75	.62	.51	.42	.34	.28	.23
27.00	DISCHG	.18	.15	.12	.09	.07	.06	.05	.04	.03	.02
28.00	DISCHG	.01	.01	.01	.00						

RUNOFF VOLUME ABOVE BASEFLOW = 4.00 WATERSHED INCHES, 1395.30 CFS-HRS, 115.31 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 3, ALTERNATE 1, STORM 5, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 4
OUTPUT HYDROGRAPH= 4
AREA= .35 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= .66 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0880 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.29	618.44	(RUNOFF)
19.65	20.74	(RUNOFF)
23.65	15.70	(RUNOFF)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .35 SQ.MI.

6.00	DISCHG	.00	.00	.00	.00	.00	.01	.03	.09	.19	.33
7.00	DISCHG	.51	.71	.92	1.15	1.38	1.62	1.85	2.09	2.33	2.56
8.00	DISCHG	2.79	3.04	3.32	3.67	4.09	4.58	5.12	5.68	6.21	6.71
9.00	DISCHG	7.18	7.64	8.15	8.74	9.37	10.01	10.65	11.33	12.07	12.86
10.00	DISCHG	13.65	14.43	15.23	16.13	17.23	18.57	20.23	22.23	24.63	27.40
11.00	DISCHG	30.51	34.02	37.79	41.93	46.52	52.45	63.63	86.23	133.35	217.23
12.00	DISCHG	342.71	485.02	590.09	617.99	574.01	486.39	390.38	312.56	255.35	212.34
13.00	DISCHG	179.40	153.76	133.64	118.04	105.43	95.25	86.86	79.77	73.61	68.12
14.00	DISCHG	63.41	59.56	56.46	53.78	51.33	49.04	46.81	44.70	42.66	40.82
15.00	DISCHG	39.31	38.15	37.32	36.72	36.15	35.40	34.47	33.53	32.69	32.04
16.00	DISCHG	31.59	31.29	31.10	30.97	30.89	30.82	30.67	30.31	29.66	28.83
17.00	DISCHG	28.00	27.31	26.80	26.46	26.23	26.07	25.96	25.89	25.80	25.55
18.00	DISCHG	25.03	24.26	23.41	22.61	22.00	21.58	21.30	21.11	20.97	20.88
19.00	DISCHG	20.82	20.78	20.76	20.75	20.74	20.73	20.73	20.73	20.69	20.47

20.00	DISCHG	19.97	19.20	18.35	17.57	16.95	16.52	16.23	16.04	15.90	15.81
21.00	DISCHG	15.74	15.70	15.67	15.66	15.64	15.64	15.63	15.63	15.63	15.63
22.00	DISCHG	15.64	15.64	15.64	15.65	15.65	15.65	15.66	15.66	15.67	15.67
23.00	DISCHG	15.67	15.68	15.68	15.68	15.69	15.69	15.69	15.69	15.65	15.43
24.00	DISCHG	14.90	13.89	12.34	10.19	7.86	5.73	4.00	2.73	1.87	1.28
25.00	DISCHG	.88	.60	.41	.28	.19	.12	.08	.05	.03	.01
26.00	DISCHG	.01	.00								

RUNOFF VOLUME ABOVE BASEFLOW = 4.00 WATERSHED INCHES, 903.74 CFS-HRS, 74.69 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 4, ALTERNATE 1, STORM 5, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 5
INPUT HYDROGRAPHS= 3,4 OUTPUT HYDROGRAPH= 5
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.40	1099.71	(NULL)
23.65	39.91	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .89 SQ.MI.

6.00	DISCHG	.00	.00	.00	.00	.00	.01	.04	.12	.26	.46
7.00	DISCHG	.73	1.06	1.43	1.86	2.31	2.80	3.31	3.84	4.38	4.93
8.00	DISCHG	5.48	6.07	6.70	7.43	8.27	9.22	10.27	11.39	12.55	13.70
9.00	DISCHG	14.84	16.01	17.23	18.55	19.95	21.39	22.87	24.42	26.08	27.82
10.00	DISCHG	29.61	31.43	33.32	35.36	37.67	40.36	43.52	47.27	51.70	56.84
11.00	DISCHG	62.72	69.42	76.82	85.07	94.29	105.64	124.59	159.14	227.13	347.57
12.00	DISCHG	529.63	747.64	942.26	1062.84	1099.65	1068.82	1001.14	925.05	848.10	769.14
13.00	DISCHG	689.93	614.92	547.54	487.98	435.28	390.24	351.91	319.04	290.52	265.38
14.00	DISCHG	243.19	224.01	207.58	193.14	180.32	168.82	158.40	148.96	140.40	132.69
15.00	DISCHG	125.89	119.96	114.84	110.42	106.48	102.82	99.37	96.21	93.34	90.82
16.00	DISCHG	88.64	86.77	85.15	83.78	82.63	81.68	80.81	79.82	78.55	77.04
17.00	DISCHG	75.46	73.95	72.58	71.40	70.38	69.50	68.75	68.15	67.58	66.89
18.00	DISCHG	65.91	64.62	63.14	61.63	60.24	59.02	57.96	57.03	56.24	55.57
19.00	DISCHG	55.03	54.59	54.23	53.95	53.72	53.54	53.40	53.28	53.12	52.76
20.00	DISCHG	52.02	50.93	49.61	48.23	46.93	45.78	44.78	43.90	43.14	42.51
21.00	DISCHG	41.99	41.57	41.22	40.95	40.73	40.55	40.41	40.29	40.20	40.12
22.00	DISCHG	40.07	40.02	39.98	39.95	39.93	39.91	39.90	39.89	39.88	39.88
23.00	DISCHG	39.88	39.88	39.88	39.88	39.89	39.89	39.90	39.90	39.84	39.56
24.00	DISCHG	38.86	37.49	35.30	32.15	28.43	24.58	20.88	17.55	14.64	12.12
25.00	DISCHG	9.96	8.14	6.64	5.41	4.41	3.60	2.95	2.42	1.99	1.63
26.00	DISCHG	1.34	1.10	.91	.75	.62	.51	.42	.34	.28	.23
27.00	DISCHG	.18	.15	.12	.09	.07	.06	.05	.04	.03	.02
28.00	DISCHG	.01	.01	.01	.00						

RUNOFF VOLUME ABOVE BASEFLOW = 4.00 WATERSHED INCHES, 2299.04 CFS-HRS, 189.99 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 5, ALTERNATE 1, STORM 5, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 6
OUTPUT HYDROGRAPH= 6
AREA= .24 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= .71 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0947 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.32	409.43	(RUNOFF)
23.65	10.76	(RUNOFF)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS			DRAINAGE AREA =		.24 SQ.MI.
6.00	DISCHG	.00	.00	.00	.00	.00	.00	.02	.05	.11	.20
7.00	DISCHG	.31	.44	.58	.73	.89	1.05	1.21	1.37	1.53	1.69
8.00	DISCHG	1.85	2.02	2.21	2.44	2.71	3.03	3.38	3.75	4.12	4.47
9.00	DISCHG	4.79	5.11	5.45	5.84	6.26	6.70	7.14	7.60	8.10	8.62
10.00	DISCHG	9.15	9.68	10.23	10.84	11.55	12.41	13.48	14.76	16.33	18.17
11.00	DISCHG	20.23	22.53	25.04	27.78	30.81	34.83	42.18	56.49	84.54	133.93
12.00	DISCHG	210.40	301.86	377.93	408.81	393.10	345.21	285.44	230.35	188.90	157.75
13.00	DISCHG	133.56	114.42	99.31	87.20	77.48	69.60	63.10	57.68	53.08	49.07
14.00	DISCHG	45.59	42.50	39.89	37.77	35.99	34.34	32.79	31.30	29.87	28.57
15.00	DISCHG	27.46	26.58	25.93	25.44	25.00	24.49	23.88	23.24	22.65	22.16
16.00	DISCHG	21.81	21.58	21.42	21.31	21.23	21.17	21.07	20.84	20.45	19.94
17.00	DISCHG	19.40	18.92	18.53	18.26	18.08	17.95	17.86	17.80	17.73	17.58
18.00	DISCHG	17.26	16.79	16.24	15.72	15.28	14.95	14.72	14.56	14.45	14.37
19.00	DISCHG	14.32	14.28	14.26	14.24	14.23	14.22	14.22	14.22	14.19	14.06
20.00	DISCHG	13.77	13.31	12.77	12.25	11.80	11.47	11.24	11.08	10.97	10.89
21.00	DISCHG	10.83	10.80	10.77	10.75	10.74	10.73	10.73	10.72	10.72	10.72
22.00	DISCHG	10.72	10.72	10.73	10.73	10.73	10.73	10.74	10.74	10.74	10.74
23.00	DISCHG	10.75	10.75	10.75	10.75	10.75	10.76	10.76	10.76	10.73	10.60
24.00	DISCHG	10.28	9.67	8.70	7.39	5.90	4.46	3.23	2.27	1.59	1.13
25.00	DISCHG	.80	.56	.40	.28	.19	.13	.09	.06	.04	.02
26.00	DISCHG	.01	.01	.00							

RUNOFF VOLUME ABOVE BASEFLOW = 4.01 WATERSHED INCHES, 620.84 CFS-HRS, 51.31 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 6, ALTERNATE 1, STORM 5, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 7
INPUT HYDROGRAPHS= 5,6 OUTPUT HYDROGRAPH= 1
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.37	1496.91	(NULL)
23.65	50.67	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.13 SQ.MI.

6.00	DISCHG	.00	.00	.00	.00	.00	.01	.06	.17	.37	.66
7.00	DISCHG	1.04	1.50	2.02	2.59	3.20	3.85	4.52	5.21	5.91	6.62
8.00	DISCHG	7.34	8.09	8.92	9.87	10.97	12.24	13.66	15.15	16.66	18.16
9.00	DISCHG	19.63	21.12	22.69	24.39	26.21	28.08	30.01	32.02	34.18	36.44
10.00	DISCHG	38.76	41.12	43.55	46.20	49.23	52.77	57.00	62.03	68.03	75.01
11.00	DISCHG	82.95	91.96	101.86	112.85	125.10	140.47	166.77	215.63	311.67	481.50
12.00	DISCHG	740.02	1049.50	1320.19	1471.65	1492.75	1414.03	1286.58	1155.41	1036.99	926.89
13.00	DISCHG	823.48	729.34	646.86	575.18	512.76	459.84	415.01	376.72	343.60	314.45
14.00	DISCHG	288.79	266.51	247.47	230.91	216.30	203.16	191.18	180.26	170.27	161.25
15.00	DISCHG	153.35	146.54	140.77	135.86	131.48	127.31	123.26	119.45	115.99	112.98
16.00	DISCHG	110.46	108.35	106.57	105.08	103.86	102.85	101.87	100.66	99.00	96.98
17.00	DISCHG	94.86	92.86	91.12	89.66	88.45	87.44	86.61	85.95	85.31	84.47
18.00	DISCHG	83.18	81.41	79.39	77.35	75.51	73.96	72.67	71.59	70.68	69.94
19.00	DISCHG	69.35	68.87	68.49	68.19	67.95	67.77	67.62	67.50	67.31	66.81
20.00	DISCHG	65.79	64.24	62.38	60.48	58.73	57.25	56.02	54.98	54.11	53.40
21.00	DISCHG	52.83	52.36	51.99	51.70	51.47	51.28	51.13	51.02	50.92	50.85
22.00	DISCHG	50.79	50.74	50.71	50.68	50.66	50.65	50.64	50.63	50.63	50.62
23.00	DISCHG	50.63	50.63	50.63	50.64	50.64	50.65	50.66	50.66	50.57	50.16
24.00	DISCHG	49.14	47.16	44.00	39.53	34.32	29.04	24.11	19.83	16.24	13.25
25.00	DISCHG	10.76	8.70	7.03	5.69	4.60	3.74	3.04	2.48	2.03	1.66
26.00	DISCHG	1.35	1.11	.91	.75	.62	.51	.42	.34	.28	.23
27.00	DISCHG	.18	.15	.12	.09	.07	.06	.05	.04	.03	.02
28.00	DISCHG	.01	.01	.01	.00						

RUNOFF VOLUME ABOVE BASEFLOW = 4.00 WATERSHED INCHES, 2919.88 CFS-HRS, 241.30 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 7, ALTERNATE 1, STORM 5, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 8
OUTPUT HYDROGRAPH= 2
AREA= .30 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= .65 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0867 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.28	537.72	(RUNOFF)
19.57	17.77	(RUNOFF)
23.66	13.46	(RUNOFF)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .30 SQ.MI.

6.00	DISCHG	.00	.00	.00	.00	.00	.01	.03	.08	.17	.29
7.00	DISCHG	.44	.62	.81	1.00	1.20	1.40	1.61	1.81	2.01	2.21
8.00	DISCHG	2.41	2.62	2.87	3.17	3.53	3.95	4.42	4.90	5.35	5.78
9.00	DISCHG	6.18	6.58	7.02	7.52	8.07	8.62	9.18	9.76	10.40	11.07
10.00	DISCHG	11.75	12.41	13.11	13.89	14.81	15.98	17.42	19.16	21.24	23.64
11.00	DISCHG	26.35	29.38	32.64	36.21	40.17	45.27	54.95	74.72	116.91	190.50
12.00	DISCHG	300.15	424.34	514.99	536.76	492.49	413.29	330.59	263.96	215.18	178.65
13.00	DISCHG	150.80	129.77	113.18	99.93	89.26	80.65	73.53	67.62	62.46	57.84

14.00	DISCHG	53.90	50.70	48.11	45.84	43.78	41.84	39.97	38.16	36.42	34.84
15.00	DISCHG	33.56	32.60	31.92	31.43	30.94	30.30	29.49	28.67	27.95	27.40
16.00	DISCHG	27.04	26.79	26.63	26.53	26.46	26.40	26.28	25.96	25.38	24.66
17.00	DISCHG	23.95	23.36	22.93	22.65	22.46	22.33	22.24	22.19	22.11	21.89
18.00	DISCHG	21.44	20.76	20.01	19.33	18.82	18.46	18.23	18.07	17.96	17.89
19.00	DISCHG	17.84	17.81	17.79	17.78	17.77	17.77	17.77	17.77	17.73	17.55
20.00	DISCHG	17.11	16.43	15.68	15.00	14.48	14.12	13.89	13.72	13.61	13.54
21.00	DISCHG	13.49	13.45	13.43	13.42	13.41	13.40	13.40	13.40	13.40	13.40
22.00	DISCHG	13.40	13.41	13.41	13.41	13.42	13.42	13.42	13.42	13.43	13.43
23.00	DISCHG	13.43	13.44	13.44	13.44	13.44	13.45	13.45	13.45	13.42	13.24
24.00	DISCHG	12.78	11.89	10.49	8.62	6.59	4.76	3.26	2.20	1.52	1.04
25.00	DISCHG	.71	.48	.33	.22	.14	.09	.06	.04	.02	.01
26.00	DISCHG	.00									

RUNOFF VOLUME ABOVE BASEFLOW = 4.00 WATERSHED INCHES, 775.29 CFS-HRS, 64.07 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 8, ALTERNATE 1, STORM 5, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 9
INPUT HYDROGRAPHS= 1,2 OUTPUT HYDROGRAPH= 3
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.34	2022.74	(NULL)
23.65	64.13	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.43 SQ.MI.

6.00	DISCHG	.00	.00	.00	.00	.00	.01	.08	.25	.54	.95
7.00	DISCHG	1.48	2.12	2.82	3.59	4.40	5.25	6.13	7.02	7.92	8.83
8.00	DISCHG	9.75	10.71	11.79	13.04	14.50	16.20	18.08	20.05	22.02	23.95
9.00	DISCHG	25.82	27.70	29.70	31.92	34.28	36.70	39.19	41.79	44.58	47.52
10.00	DISCHG	50.51	53.53	56.66	60.09	64.04	68.75	74.42	81.19	89.27	98.66
11.00	DISCHG	109.30	121.34	134.50	149.06	165.27	185.74	221.72	290.35	428.58	672.00
12.00	DISCHG	1040.18	1473.85	1835.18	2008.41	1985.24	1827.32	1617.17	1419.37	1252.17	1105.54
13.00	DISCHG	974.28	859.11	760.03	675.11	602.02	540.49	488.54	444.34	406.05	372.29
14.00	DISCHG	342.69	317.21	295.58	276.75	260.08	245.00	231.15	218.42	206.69	196.10
15.00	DISCHG	186.91	179.14	172.69	167.29	162.43	157.61	152.75	148.12	143.94	140.39
16.00	DISCHG	137.49	135.14	133.20	131.61	130.32	129.25	128.15	126.62	124.38	121.64
17.00	DISCHG	118.81	116.22	114.05	112.31	110.91	109.77	108.86	108.13	107.42	106.36
18.00	DISCHG	104.62	102.17	99.39	96.69	94.33	92.43	90.90	89.66	88.64	87.83
19.00	DISCHG	87.19	86.68	86.28	85.97	85.73	85.54	85.39	85.27	85.04	84.36
20.00	DISCHG	82.90	80.66	78.06	75.48	73.21	71.37	69.90	68.70	67.72	66.94
21.00	DISCHG	66.31	65.81	65.42	65.11	64.87	64.68	64.53	64.41	64.32	64.25
22.00	DISCHG	64.19	64.15	64.12	64.09	64.08	64.06	64.06	64.05	64.05	64.05
23.00	DISCHG	64.06	64.06	64.07	64.08	64.09	64.10	64.11	64.11	63.98	63.40
24.00	DISCHG	61.92	59.05	54.49	48.15	40.91	33.80	27.38	22.03	17.75	14.29
25.00	DISCHG	11.47	9.19	7.36	5.90	4.75	3.83	3.10	2.51	2.04	1.66

26.00	DISCHG	1.35	1.11	.91	.75	.62	.51	.42	.34	.28	.23
27.00	DISCHG	.18	.15	.12	.09	.07	.06	.05	.04	.03	.02
28.00	DISCHG	.01	.01	.01	.00						

RUNOFF VOLUME ABOVE BASEFLOW = 4.00 WATERSHED INCHES, 3695.17 CFS-HRS, 305.37 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 9, ALTERNATE 1, STORM 5, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 10
OUTPUT HYDROGRAPH= 4
AREA= 1.64 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= 3.80 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1013 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET) (RUNOFF)
14.55	819.37	

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.64 SQ.MI.

6.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.01	.01	.02
7.00	DISCHG	.03	.05	.08	.12	.16	.22	.30	.39	.50	.64
8.00	DISCHG	.80	.99	1.20	1.45	1.74	2.06	2.43	2.83	3.28	3.78
9.00	DISCHG	4.33	4.92	5.57	6.28	7.05	7.88	8.78	9.74	10.78	11.88
10.00	DISCHG	13.06	14.32	15.65	17.06	18.56	20.15	21.85	23.66	25.60	27.68
11.00	DISCHG	29.93	32.35	34.97	37.83	40.96	44.48	48.67	53.78	60.63	70.23
12.00	DISCHG	82.84	98.63	117.66	139.61	164.28	191.58	221.75	254.96	291.33	331.36
13.00	DISCHG	374.71	420.48	467.95	515.90	562.10	605.73	646.05	682.39	714.76	742.37
14.00	DISCHG	765.32	783.91	798.20	808.58	815.45	818.99	818.82	814.44	806.48	795.99
15.00	DISCHG	783.51	769.17	753.00	735.03	714.78	692.19	667.72	641.68	614.53	587.92
16.00	DISCHG	562.49	538.49	516.24	495.55	476.06	457.51	439.85	423.08	407.15	392.19
17.00	DISCHG	378.20	364.97	352.31	340.16	328.42	317.05	306.12	295.75	285.94	276.71
18.00	DISCHG	268.04	259.85	252.00	244.47	237.27	230.41	223.87	217.62	211.62	205.89
19.00	DISCHG	200.44	195.23	190.17	185.25	180.52	176.06	171.85	167.83	163.95	160.23
20.00	DISCHG	156.67	153.25	149.97	146.83	143.83	140.96	138.20	135.53	132.93	130.39
21.00	DISCHG	127.94	125.57	123.25	120.97	118.74	116.59	114.53	112.53	110.58	108.67
22.00	DISCHG	106.82	105.03	103.32	101.71	100.18	98.72	97.30	95.94	94.62	93.35
23.00	DISCHG	92.13	90.95	89.81	88.72	87.67	86.67	85.72	84.82	83.97	83.14
24.00	DISCHG	82.35	81.56	80.77	79.97	79.16	78.35	77.55	76.72	75.84	74.86
25.00	DISCHG	73.79	72.61	71.29	69.84	68.26	66.55	64.71	62.77	60.73	58.61
26.00	DISCHG	56.44	54.21	51.96	49.69	47.42	45.16	42.92	40.70	38.53	36.40
27.00	DISCHG	34.34	32.34	30.41	28.55	26.76	25.05	23.43	21.90	20.47	19.14
28.00	DISCHG	17.90	16.76	15.70	14.71	13.78	12.92	12.11	11.35	10.64	9.97
29.00	DISCHG	9.35	8.76	8.21	7.69	7.20	6.74	6.30	5.90	5.53	5.17

RUNOFF VOLUME ABOVE BASEFLOW = 4.00 WATERSHED INCHES, 4232.55 CFS-HRS, 349.78 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 10, ALTERNATE 1, STORM 5, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 11
INPUT HYDROGRAPHS= 3,4 OUTPUT HYDROGRAPH= 5

ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.35	2165.29	(NULL)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS			DRAINAGE AREA =		3.07 SQ.MI.
6.00	DISCHG	.00	.00	.00	.00	.00	.01	.08	.26	.55	.97
7.00	DISCHG	1.52	2.17	2.90	3.71	4.57	5.48	6.43	7.41	8.42	9.47
8.00	DISCHG	10.54	11.70	12.99	14.49	16.24	18.26	20.51	22.88	25.30	27.73
9.00	DISCHG	30.14	32.62	35.28	38.19	41.33	44.58	47.96	51.53	55.35	59.40
10.00	DISCHG	63.57	67.85	72.31	77.15	82.60	88.90	96.27	104.85	114.87	126.34
11.00	DISCHG	139.23	153.69	169.48	186.89	206.23	230.23	270.39	344.13	489.21	742.23
12.00	DISCHG	1123.02	1572.48	1952.84	2148.02	2149.52	2018.89	1838.92	1674.33	1543.50	1436.90
13.00	DISCHG	1348.98	1279.59	1227.99	1191.01	1164.12	1146.22	1134.59	1126.73	1120.81	1114.66
14.00	DISCHG	1108.01	1101.12	1093.78	1085.33	1075.53	1063.99	1049.97	1032.86	1013.17	992.09
15.00	DISCHG	970.42	948.31	925.69	902.32	877.21	849.81	820.48	789.80	758.47	728.30
16.00	DISCHG	699.98	673.63	649.45	627.16	606.37	586.76	568.00	549.70	531.54	513.83
17.00	DISCHG	497.01	481.18	466.36	452.47	439.33	426.82	414.98	403.89	393.36	383.07
18.00	DISCHG	372.66	362.02	351.40	341.16	331.60	322.84	314.77	307.27	300.26	293.72
19.00	DISCHG	287.63	281.90	276.45	271.22	266.25	261.60	257.24	253.09	249.00	244.59
20.00	DISCHG	239.57	233.91	228.02	222.31	217.04	212.33	208.11	204.24	200.65	197.33
21.00	DISCHG	194.25	191.39	188.67	186.08	183.61	181.27	179.06	176.95	174.90	172.92
22.00	DISCHG	171.01	169.18	167.43	165.80	164.26	162.78	161.36	159.99	158.67	157.41
23.00	DISCHG	156.18	155.01	153.88	152.80	151.76	150.77	149.83	148.94	147.95	146.54
24.00	DISCHG	144.27	140.60	135.26	128.12	120.07	112.14	104.93	98.75	93.59	89.16
25.00	DISCHG	85.26	81.79	78.65	75.75	73.01	70.38	67.81	65.28	62.77	60.28
26.00	DISCHG	57.79	55.32	52.87	50.44	48.04	45.67	43.33	41.04	38.80	36.63
27.00	DISCHG	34.52	32.49	30.53	28.64	26.83	25.11	23.47	21.94	20.50	19.16
28.00	DISCHG	17.92	16.77	15.70	14.71	13.78	12.92	12.11	11.35	10.64	9.97
29.00	DISCHG	9.35	8.76	8.21	7.69	7.20	6.74	6.30	5.90	5.53	5.17

RUNOFF VOLUME ABOVE BASEFLOW = 4.00 WATERSHED INCHES, 7927.72 CFS-HRS, 655.15 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 11, ALTERNATE 1, STORM 5, ADDED TO OUTPUT HYDROGRAPH FILE ---

EXECUTIVE CONTROL OPERATION ENDCMP COMPUTATIONS COMPLETED FOR PASS 5 RECORD ID

EXECUTIVE CONTROL OPERATION ENDJOB RECORD ID

EXECUTIVE CONTROL OPERATION COMPUT FROM XSECTION 1 TO XSECTION 11 RECORD ID 50-YR
STARTING TIME = .00 RAIN DEPTH = 5.52 RAIN DURATION= 1.00 RAIN TABLE NO.= 2 ANT. MOIST. COND= 2
ALTERNATE NO.= 1 STORM NO.= 4 MAIN TIME INCREMENT = .10 HOURS

OPERATION RUNOFF CROSS SECTION 1
OUTPUT HYDROGRAPH= 1
AREA= .28 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= 1.10 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1048 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.59	277.00	(RUNOFF)
23.66	10.36	(RUNOFF)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS			DRAINAGE AREA =		.28 SQ.MI.
7.00	DISCHG	.00	.00	.00	.00	.01	.02	.04	.08	.13	.20
8.00	DISCHG	.28	.37	.48	.61	.75	.92	1.10	1.31	1.54	1.78
9.00	DISCHG	2.03	2.29	2.56	2.85	3.14	3.46	3.79	4.14	4.50	4.89
10.00	DISCHG	5.29	5.71	6.15	6.61	7.11	7.67	8.30	9.04	9.91	10.93
11.00	DISCHG	12.12	13.51	15.08	16.85	18.85	21.24	24.79	30.42	40.70	59.17
12.00	DISCHG	87.90	126.43	171.48	216.08	251.43	271.87	276.92	268.88	251.21	227.09
13.00	DISCHG	199.94	174.08	152.39	134.83	119.93	107.11	95.96	86.37	78.10	70.92
14.00	DISCHG	64.68	59.28	54.63	50.59	47.05	43.93	41.16	38.68	36.45	34.44
15.00	DISCHG	32.63	30.98	29.50	28.19	27.04	26.08	25.28	24.58	23.93	23.32
16.00	DISCHG	22.76	22.27	21.85	21.49	21.21	20.99	20.79	20.60	20.38	20.11
17.00	DISCHG	19.78	19.42	19.04	18.68	18.35	18.06	17.82	17.64	17.49	17.34
18.00	DISCHG	17.16	16.93	16.64	16.30	15.94	15.57	15.23	14.92	14.66	14.44
19.00	DISCHG	14.28	14.15	14.04	13.96	13.90	13.85	13.81	13.78	13.74	13.69
20.00	DISCHG	13.58	13.42	13.17	12.87	12.53	12.18	11.85	11.55	11.30	11.09
21.00	DISCHG	10.93	10.80	10.70	10.62	10.56	10.51	10.47	10.43	10.41	10.39
22.00	DISCHG	10.38	10.37	10.36	10.35	10.35	10.34	10.34	10.34	10.34	10.34
23.00	DISCHG	10.34	10.34	10.35	10.35	10.35	10.35	10.36	10.36	10.35	10.31
24.00	DISCHG	10.22	10.02	9.67	9.12	8.38	7.47	6.48	5.48	4.53	3.68
25.00	DISCHG	2.95	2.35	1.87	1.50	1.20	.96	.76	.61	.48	.38
26.00	DISCHG	.31	.24	.19	.15	.12	.09	.07	.05	.04	.03
27.00	DISCHG	.02	.01	.01	.00						

RUNOFF VOLUME ABOVE BASEFLOW = 3.16 WATERSHED INCHES, 570.29 CFS-HRS, 47.13 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 1, ALTERNATE 1, STORM 4, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 2
OUTPUT HYDROGRAPH= 2
AREA= .26 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= 1.40 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1037 HOURS

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID		STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION			RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
							BEGIN (HR)	AMOUNT (IN)	DURATION (HR)		ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE 1 STORM 1														
XSECTION	1	RUNOFF	.28	2	2	.10	.0	2.88	24.00	1.04	---	12.63	86.51	309.0
XSECTION	2	RUNOFF	.26	2	2	.10	.0	2.88	24.00	1.04	---	12.85	67.41	259.3
XSECTION	3	ADDHYD	.54	2	2	.10	.0	2.88	24.00	1.04	---	12.72	150.46	278.6
XSECTION	4	RUNOFF	.35	2	2	.10	.0	2.88	24.00	1.04	---	12.32	154.07	440.2
XSECTION	5	ADDHYD	.89	2	2	.10	.0	2.88	24.00	1.04	---	12.44	267.77	300.9
XSECTION	6	RUNOFF	.24	2	2	.10	.0	2.88	24.00	1.04	---	12.34	101.66	423.6
XSECTION	7	ADDHYD	1.13	2	2	.10	.0	2.88	24.00	1.04	---	12.41	366.12	324.0
XSECTION	8	RUNOFF	.30	2	2	.10	.0	2.88	24.00	1.04	---	12.31	134.09	447.0
XSECTION	9	ADDHYD	1.43	2	2	.10	.0	2.88	24.00	1.04	---	12.37	494.31	345.7
XSECTION	10	RUNOFF	1.64	2	2	.10	.0	2.88	24.00	1.04	---	14.70	200.53	122.3
XSECTION	11	ADDHYD	3.07	2	2	.10	.0	2.88	24.00	1.04	---	12.39	515.31	167.9
ALTERNATE 1 STORM 2														
XSECTION	1	RUNOFF	.28	2	2	.10	.0	4.08	24.00	1.95	---	12.60	168.77	602.7
XSECTION	2	RUNOFF	.26	2	2	.10	.0	4.08	24.00	1.95	---	12.82	131.81	507.0
XSECTION	3	ADDHYD	.54	2	2	.10	.0	4.08	24.00	1.95	---	12.68	294.02	544.5
XSECTION	4	RUNOFF	.35	2	2	.10	.0	4.08	24.00	1.95	---	12.30	298.47	852.8
XSECTION	5	ADDHYD	.89	2	2	.10	.0	4.08	24.00	1.95	---	12.42	525.20	590.1
XSECTION	6	RUNOFF	.24	2	2	.10	.0	4.08	24.00	1.95	---	12.33	197.32	822.2
XSECTION	7	ADDHYD	1.13	2	2	.10	.0	4.08	24.00	1.95	---	12.39	716.29	633.9
XSECTION	8	RUNOFF	.30	2	2	.10	.0	4.08	24.00	1.95	---	12.30	259.64	865.5
XSECTION	9	ADDHYD	1.43	2	2	.10	.0	4.08	24.00	1.95	---	12.35	965.49	675.2
XSECTION	10	RUNOFF	1.64	2	2	.10	.0	4.08	24.00	1.95	---	14.62	390.66	238.2
XSECTION	11	ADDHYD	3.07	2	2	.10	.0	4.08	24.00	1.95	---	12.37	1019.52	332.1
ALTERNATE 1 STORM 3														
XSECTION	1	RUNOFF	.28	2	2	.10	.0	4.32	24.00	2.14	---	12.60	186.28	665.3
XSECTION	2	RUNOFF	.26	2	2	.10	.0	4.32	24.00	2.14	---	12.82	145.53	559.7
XSECTION	3	ADDHYD	.54	2	2	.10	.0	4.32	24.00	2.14	---	12.68	324.61	601.1
XSECTION	4	RUNOFF	.35	2	2	.10	.0	4.32	24.00	2.14	---	12.30	329.14	940.4
XSECTION	5	ADDHYD	.89	2	2	.10	.0	4.32	24.00	2.14	---	12.42	580.07	651.8
XSECTION	6	RUNOFF	.24	2	2	.10	.0	4.32	24.00	2.15	---	12.33	217.64	906.8
XSECTION	7	ADDHYD	1.13	2	2	.10	.0	4.32	24.00	2.14	---	12.39	790.88	699.9

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID		STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION			RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
							BEGIN (HR)	AMOUNT (IN)	DURATION (HR)		ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE 1 STORM 3														
XSECTION	8	RUNOFF	.30	2	2	.10	.0	4.32	24.00	2.14	---	12.29	286.30	954.3
XSECTION	9	ADDHYD	1.43	2	2	.10	.0	4.32	24.00	2.14	---	12.35	1069.79	748.1
XSECTION	10	RUNOFF	1.64	2	2	.10	.0	4.32	24.00	2.14	---	14.61	431.41	263.1
XSECTION	11	ADDHYD	3.07	2	2	.10	.0	4.32	24.00	2.14	---	12.37	1128.07	367.5
ALTERNATE 1 STORM 4														
XSECTION	1	RUNOFF	.28	2	2	.10	.0	5.52	24.00	3.16	---	12.59	277.00	989.3
XSECTION	2	RUNOFF	.26	2	2	.10	.0	5.52	24.00	3.16	---	12.80	216.64	833.2
XSECTION	3	ADDHYD	.54	2	2	.10	.0	5.52	24.00	3.16	---	12.67	483.18	894.8
XSECTION	4	RUNOFF	.35	2	2	.10	.0	5.52	24.00	3.15	---	12.29	487.67	1393.3
XSECTION	5	ADDHYD	.89	2	2	.10	.0	5.52	24.00	3.16	---	12.41	864.43	971.3
XSECTION	6	RUNOFF	.24	2	2	.10	.0	5.52	24.00	3.16	---	12.32	322.72	1344.7
XSECTION	7	ADDHYD	1.13	2	2	.10	.0	5.52	24.00	3.16	---	12.38	1177.32	1041.9
XSECTION	8	RUNOFF	.30	2	2	.10	.0	5.52	24.00	3.16	---	12.29	424.08	1413.6
XSECTION	9	ADDHYD	1.43	2	2	.10	.0	5.52	24.00	3.16	---	12.34	1591.53	1113.0
XSECTION	10	RUNOFF	1.64	2	2	.10	.0	5.52	24.00	3.15	---	14.57	643.34	392.3
XSECTION	11	ADDHYD	3.07	2	2	.10	.0	5.52	24.00	3.15	---	12.36	1694.09	551.8
ALTERNATE 1 STORM 5														
XSECTION	1	RUNOFF	.28	2	2	.10	.0	6.48	24.00	4.00	---	12.58	352.01	1257.2
XSECTION	2	RUNOFF	.26	2	2	.10	.0	6.48	24.00	4.00	---	12.79	275.49	1059.6
XSECTION	3	ADDHYD	.54	2	2	.10	.0	6.48	24.00	4.00	---	12.66	614.38	1137.7
XSECTION	4	RUNOFF	.35	2	2	.10	.0	6.48	24.00	4.00	---	12.29	618.44	1767.0
XSECTION	5	ADDHYD	.89	2	2	.10	.0	6.48	24.00	4.00	---	12.40	1099.71	1235.6
XSECTION	6	RUNOFF	.24	2	2	.10	.0	6.48	24.00	4.01	---	12.32	409.43	1705.9
XSECTION	7	ADDHYD	1.13	2	2	.10	.0	6.48	24.00	4.00	---	12.37	1496.91	1324.7
XSECTION	8	RUNOFF	.30	2	2	.10	.0	6.48	24.00	4.00	---	12.28	537.72	1792.4
XSECTION	9	ADDHYD	1.43	2	2	.10	.0	6.48	24.00	4.00	---	12.34	2022.74	1414.5
XSECTION	10	RUNOFF	1.64	2	2	.10	.0	6.48	24.00	4.00	---	14.55	819.37	499.6
XSECTION	11	ADDHYD	3.07	2	2	.10	.0	6.48	24.00	4.00	---	12.35	2165.29	705.3

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2	3	4	5
XSECTION 1	.28					
ALTERNATE 1		86.51	168.77	186.28	277.00	352.01
XSECTION 2	.26					
ALTERNATE 1		67.41	131.81	145.53	216.64	275.49
XSECTION 3	.54					
ALTERNATE 1		150.46	294.02	324.61	483.18	614.38
XSECTION 4	.35					
ALTERNATE 1		154.07	298.47	329.14	487.67	618.44
XSECTION 5	.89					
ALTERNATE 1		267.77	525.20	580.07	864.43	1099.71
XSECTION 6	.24					
ALTERNATE 1		101.66	197.32	217.64	322.72	409.43
XSECTION 7	1.13					
ALTERNATE 1		366.12	716.29	790.88	1177.32	1496.91
XSECTION 8	.30					
ALTERNATE 1		134.09	259.64	286.30	424.08	537.72
XSECTION 9	1.43					
ALTERNATE 1		494.31	965.49	1069.79	1591.53	2022.74
XSECTION 10	1.64					
ALTERNATE 1		200.53	390.66	431.41	643.34	819.37
XSECTION 11	3.07					
ALTERNATE 1		515.31	1019.52	1128.07	1694.09	2165.29

Appendix

TR-20 & WSPRO Models - Channel Improvements

******DATA FILE 1454-01

POINT NO.	DISTANCE	ELEVATION
1	0	898
2	10	893
3	18	893
4	28	898

SUBSEC. NO.	X-SUBSEC.	MANNING'S N
1	28	.035

***SLOPE-AREA ANALYSIS FOR CROSS SECTION 1454-01

*WATER SURFACE ELEV.= 898

*SLOPE, S= .005

*DISCHARGE, Q, cfs= 5.591E+02

*VELOCITY, V, ft/s= 6.21

*****PRESS <Return> TO CONTINUE? [redacted]

******DATA FILE 1454-02

POINT NO.	DISTANCE	ELEVATION
1	0	898
2	10	893
3	35	893
4	45	898

SUBSEC. NO.	X-SUBSEC.	MANNING'S N
1	45	.035

***SLOPE-AREA ANALYSIS FOR CROSS SECTION 1454-02

*WATER SURFACE ELEV.= 898

*SLOPE, S= .005

*DISCHARGE, Q, cfs= 1.259E+03

*VELOCITY, V, ft/s= 7.19

*****PRESS <Return> TO CONTINUE? [redacted]

******DATA FILE 1454-03

POINT NO.	DISTANCE	ELEVATION
1	0	898
2	10	893
3	22	893
4	32	898

SUBSEC. NO.	X-SUBSEC.	MANNING'S N
1	32	.035

***SLOPE-AREA ANALYSIS FOR CROSS SECTION 1454-03

*WATER SURFACE ELEV.= 898

*SLOPE, S= .0025

*DISCHARGE, Q, cfs= 5.086E+02

*VELOCITY, V, ft/s= 4.62

*****PRESS <Return> TO CONTINUE? [redacted]

```
******************80-80 LIST OF INPUT DATA FOR TR-20 HYDROLOGY******************

JOB TR-20                    FULLPRINT          SUMMARY
TITLE 001 EDWARDS REGIONAL DETENTION STUDY - DITCH CAPACITIES
TITLE 001 10-YEAR POST-DEVELOPED FLOWS FOR EXISTING CHANNEL EAST OF DITCH ROAD
 6 RUNOFF 1 001       1 .28        81.00       1.0        1 1   1 1 1 BASIN M
 6 RUNOFF 1 002       2 .26        81.00       1.3        1 1   1 1 1 BASIN N
 6 ADDHYD 4 003   1 2 3                                    1 1 1 1 1 1 SEC. 1
 6 RUNOFF 1 004       4 .35        81.00       .60        1 1   1 1 1 BASIN O
 6 RUNOFF 1 005       5 .24        81.00       .65        1 1   1 1 1 BASIN P
 6 ADDHYD 4 006   4 5 6                                    1 1 1 1 1 1
 6 RUNOFF 1 007       7 .30        81.00       .60        1 1   1 1 1 BASIN Q
 6 ADDHYD 4 008   6 7 1                                    1 1 1 1 1 1
 6 ADDHYD 4 009   1 3 4                                    1 1 1 1 1 1 SEC. 2
   ENDATA
 7 INCREM 6           .1
 7 COMPUT 7 001   009  0.0         4.08        1.0        2 2  01  01 10-YR
   ENDCMP 1
   ENDJOB 2

*********************************END OF 80-80 LIST*********************************
```

EXECUTIVE CONTROL OPERATION INCREM MAIN TIME INCREMENT = .10 HOURS RECORD ID

EXECUTIVE CONTROL OPERATION COMPUT FROM XSECTION 1 TO XSECTION 9 RECORD ID 10-YR
STARTING TIME = .00 RAIN DEPTH = 4.08 RAIN DURATION= 1.00 RAIN TABLE NO.= 2 ANT. MOIST. COND= 2
ALTERNATE NO.= 1 STORM NO.= 1 MAIN TIME INCREMENT = .10 HOURS

OPERATION RUNOFF CROSS SECTION 1
OUTPUT HYDROGRAPH= 1
AREA= .28 SQ MI INPUT RUNOFF CURVE= 81. TIME OF CONCENTRATION= 1.00 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0952 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.52	205.27	(RUNOFF)
23.68	7.45	(RUNOFF)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .28 SQ.MI.

8.00	DISCHG	.00	.01	.03	.06	.11	.17	.26	.36	.48	.62
9.00	DISCHG	.77	.93	1.10	1.28	1.47	1.68	1.90	2.13	2.38	2.64
10.00	DISCHG	2.91	3.20	3.50	3.81	4.16	4.55	4.99	5.52	6.14	6.87
11.00	DISCHG	7.73	8.71	9.83	11.09	12.51	14.21	16.78	21.05	29.00	43.80
12.00	DISCHG	68.25	101.37	139.06	173.73	196.62	205.06	201.17	188.11	169.11	147.51
13.00	DISCHG	127.02	110.29	96.74	85.40	75.70	67.44	60.46	54.46	49.33	44.93
14.00	DISCHG	41.19	37.97	35.18	32.75	30.62	28.74	27.07	25.57	24.18	22.87
15.00	DISCHG	21.66	20.59	19.71	19.02	18.46	17.97	17.52	17.08	16.64	16.24
16.00	DISCHG	15.87	15.56	15.30	15.10	14.95	14.83	14.72	14.60	14.44	14.23
17.00	DISCHG	13.98	13.70	13.42	13.16	12.94	12.75	12.61	12.51	12.42	12.32
18.00	DISCHG	12.20	12.02	11.78	11.51	11.23	10.96	10.71	10.50	10.34	10.21
19.00	DISCHG	10.12	10.04	9.98	9.94	9.91	9.88	9.86	9.85	9.83	9.79
20.00	DISCHG	9.71	9.56	9.35	9.09	8.82	8.56	8.32	8.11	7.95	7.83
21.00	DISCHG	7.73	7.66	7.60	7.56	7.52	7.50	7.48	7.46	7.45	7.44
22.00	DISCHG	7.43	7.43	7.43	7.43	7.42	7.42	7.43	7.43	7.43	7.43
23.00	DISCHG	7.43	7.43	7.44	7.44	7.44	7.44	7.44	7.45	7.44	7.41
24.00	DISCHG	7.33	7.15	6.83	6.35	5.71	4.96	4.17	3.41	2.73	2.14
25.00	DISCHG	1.66	1.30	1.01	.79	.62	.48	.38	.29	.23	.17
26.00	DISCHG	.14	.10	.08	.06	.05	.03	.02	.02	.01	.01
27.00	DISCHG	.00									

RUNOFF VOLUME ABOVE BASEFLOW = 2.19 WATERSHED INCHES, 395.12 CFS-HRS, 32.65 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 1, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 2
OUTPUT HYDROGRAPH= 2
AREA= .26 SQ MI INPUT RUNOFF CURVE= 81. TIME OF CONCENTRATION= 1.30 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0963 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.74	158.40	(RUNOFF)
23.68	6.92	(RUNOFF)

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .26 SQ.MI.

TIME(HRS)											
8.00	DISCHG	.00	.01	.01	.03	.05	.09	.13	.20	.27	.36
9.00	DISCHG	.47	.59	.71	.86	1.01	1.17	1.34	1.53	1.73	1.94
10.00	DISCHG	2.16	2.39	2.64	2.90	3.18	3.48	3.82	4.21	4.65	5.16
11.00	DISCHG	5.76	6.45	7.25	8.15	9.18	10.41	12.12	14.68	18.97	26.61
12.00	DISCHG	38.83	55.62	76.39	99.69	122.39	140.78	152.63	157.96	157.24	151.65
13.00	DISCHG	142.45	130.76	117.51	104.61	93.40	83.95	75.84	68.79	62.51	56.88
14.00	DISCHG	51.92	47.56	43.70	40.28	37.26	34.58	32.22	30.12	28.23	26.53
15.00	DISCHG	24.99	23.61	22.37	21.28	20.33	19.49	18.75	18.06	17.41	16.81
16.00	DISCHG	16.25	15.74	15.31	14.97	14.69	14.45	14.25	14.07	13.90	13.72
17.00	DISCHG	13.52	13.30	13.08	12.84	12.62	12.41	12.22	12.05	11.91	11.78
18.00	DISCHG	11.65	11.52	11.36	11.17	10.96	10.74	10.52	10.31	10.12	9.94
19.00	DISCHG	9.79	9.66	9.56	9.48	9.41	9.36	9.31	9.28	9.24	9.20
20.00	DISCHG	9.15	9.07	8.96	8.81	8.63	8.44	8.23	8.04	7.85	7.69
21.00	DISCHG	7.54	7.42	7.33	7.25	7.18	7.13	7.09	7.05	7.02	7.00
22.00	DISCHG	6.98	6.96	6.95	6.94	6.93	6.93	6.92	6.92	6.91	6.91
23.00	DISCHG	6.91	6.91	6.91	6.91	6.91	6.91	6.91	6.92	6.91	6.90
24.00	DISCHG	6.86	6.78	6.62	6.38	6.05	5.61	5.10	4.54	3.97	3.40
25.00	DISCHG	2.88	2.40	1.99	1.64	1.35	1.12	.92	.77	.63	.52
26.00	DISCHG	.43	.36	.29	.24	.20	.16	.13	.11	.09	.07
27.00	DISCHG	.06	.05	.04	.03	.02	.02	.01	.01	.01	.00

RUNOFF VOLUME ABOVE BASEFLOW = 2.19 WATERSHED INCHES, 367.50 CFS-HRS, 30.37 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 2, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 3
INPUT HYDROGRAPHS= 1,2 OUTPUT HYDROGRAPH= 3
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.60	353.80	(NULL)
23.68	14.36	(NULL)

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .54 SQ.MI.

TIME(HRS)											
8.00	DISCHG	.00	.02	.04	.09	.16	.26	.39	.56	.76	.99
9.00	DISCHG	1.24	1.52	1.81	2.14	2.48	2.85	3.25	3.66	4.11	4.58
10.00	DISCHG	5.07	5.59	6.14	6.71	7.34	8.03	8.81	9.72	10.79	12.03
11.00	DISCHG	13.49	15.17	17.08	19.25	21.70	24.63	28.90	35.73	47.97	70.41
12.00	DISCHG	107.08	156.99	215.44	273.42	319.00	345.84	353.80	346.07	326.35	299.16
13.00	DISCHG	269.47	241.05	214.24	190.00	169.11	151.39	136.31	123.25	111.84	101.81
14.00	DISCHG	93.11	85.53	78.88	73.03	67.88	63.32	59.30	55.69	52.41	49.40

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.80	216.64	(RUNOFF)
23.66	9.62	(RUNOFF)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS			DRAINAGE AREA =		.26 SQ.MI.
7.00	DISCHG	.00	.00	.00	.00	.00	.01	.02	.04	.07	.10
8.00	DISCHG	.15	.21	.28	.37	.47	.58	.72	.87	1.04	1.22
9.00	DISCHG	1.42	1.63	1.85	2.08	2.33	2.58	2.86	3.14	3.45	3.76
10.00	DISCHG	4.09	4.44	4.81	5.20	5.61	6.05	6.54	7.09	7.72	8.45
11.00	DISCHG	9.30	10.27	11.38	12.66	14.11	15.79	18.09	21.51	27.19	36.98
12.00	DISCHG	52.38	73.34	99.14	128.38	157.94	183.72	202.52	213.32	216.64	213.40
13.00	DISCHG	204.81	192.25	177.02	160.13	143.52	128.87	116.43	105.64	96.23	87.86
14.00	DISCHG	80.23	73.45	67.49	62.17	57.44	53.20	49.42	46.04	43.03	40.34
15.00	DISCHG	37.90	35.72	33.75	31.98	30.42	29.03	27.80	26.70	25.71	24.81
16.00	DISCHG	23.96	23.18	22.46	21.80	21.22	20.73	20.34	20.03	19.75	19.47
17.00	DISCHG	19.19	18.88	18.56	18.23	17.91	17.61	17.33	17.08	16.85	16.64
18.00	DISCHG	16.44	16.24	16.03	15.78	15.51	15.22	14.92	14.63	14.35	14.10
19.00	DISCHG	13.87	13.67	13.50	13.36	13.25	13.16	13.08	13.02	12.96	12.90
20.00	DISCHG	12.82	12.71	12.57	12.39	12.17	11.92	11.66	11.40	11.15	10.91
21.00	DISCHG	10.70	10.51	10.36	10.23	10.12	10.03	9.96	9.90	9.84	9.80
22.00	DISCHG	9.77	9.74	9.71	9.69	9.68	9.66	9.65	9.65	9.64	9.63
23.00	DISCHG	9.63	9.63	9.63	9.62	9.62	9.62	9.62	9.62	9.62	9.60
24.00	DISCHG	9.55	9.46	9.28	9.00	8.60	8.09	7.46	6.76	6.02	5.27
25.00	DISCHG	4.55	3.88	3.27	2.74	2.29	1.92	1.61	1.35	1.13	.95
26.00	DISCHG	.80	.67	.56	.47	.39	.33	.27	.23	.19	.16
27.00	DISCHG	.13	.11	.09	.07	.06	.05	.04	.03	.02	.02
28.00	DISCHG	.01	.01	.01	.00						

RUNOFF VOLUME ABOVE BASEFLOW = 3.16 WATERSHED INCHES, 529.80 CFS-HRS, 43.78 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 2, ALTERNATE 1, STORM 4, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 3
INPUT HYDROGRAPHS= 1,2 OUTPUT HYDROGRAPH= 3
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.67	483.18	(NULL)
23.66	19.98	(NULL)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS			DRAINAGE AREA =		.54 SQ.MI.
7.00	DISCHG	.00	.00	.00	.00	.01	.03	.07	.12	.20	.30
8.00	DISCHG	.43	.58	.77	.98	1.22	1.50	1.82	2.18	2.57	3.00
9.00	DISCHG	3.45	3.92	4.41	4.93	5.47	6.04	6.65	7.28	7.95	8.65
10.00	DISCHG	9.39	10.16	10.96	11.81	12.72	13.72	14.84	16.13	17.63	19.39
11.00	DISCHG	21.42	23.78	26.46	29.51	32.96	37.03	42.88	51.93	67.88	96.15

15.00	DISCHG	46.65	44.20	42.08	40.31	38.79	37.46	36.27	35.14	34.06	33.04
16.00	DISCHG	32.12	31.30	30.61	30.07	29.64	29.28	28.97	28.67	28.34	27.95
17.00	DISCHG	27.50	27.00	26.50	26.01	25.56	25.16	24.83	24.56	24.33	24.10
18.00	DISCHG	23.85	23.53	23.14	22.68	22.19	21.70	21.23	20.82	20.46	20.15
19.00	DISCHG	19.91	19.71	19.55	19.42	19.32	19.24	19.18	19.13	19.07	18.99
20.00	DISCHG	18.86	18.63	18.31	17.90	17.45	16.99	16.55	16.15	15.80	15.51
21.00	DISCHG	15.27	15.08	14.93	14.80	14.70	14.63	14.56	14.51	14.47	14.44
22.00	DISCHG	14.41	14.39	14.38	14.36	14.36	14.35	14.35	14.34	14.34	14.34
23.00	DISCHG	14.34	14.34	14.35	14.35	14.35	14.36	14.36	14.36	14.35	14.30
24.00	DISCHG	14.19	13.93	13.45	12.74	11.76	10.58	9.28	7.95	6.69	5.54
25.00	DISCHG	4.54	3.70	3.00	2.43	1.97	1.60	1.30	1.06	.86	.70
26.00	DISCHG	.57	.46	.37	.30	.24	.20	.16	.13	.10	.08
27.00	DISCHG	.06	.05	.04	.03	.02	.02	.01	.01	.01	.00

RUNOFF VOLUME ABOVE BASEFLOW = 2.19 WATERSHED INCHES, 762.62 CFS-HRS, 63.02 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 3, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 4
OUTPUT HYDROGRAPH= 4
AREA= .35 SQ MI INPUT RUNOFF CURVE= 81. TIME OF CONCENTRATION= .60 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0800 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.25	360.26	(RUNOFF)
19.66	12.25	(RUNOFF)
23.65	9.32	(RUNOFF)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .35 SQ.MI.

8.00	DISCHG	.02	.06	.12	.22	.35	.52	.71	.93	1.15	1.37
9.00	DISCHG	1.60	1.83	2.09	2.38	2.68	3.00	3.31	3.65	4.03	4.42
10.00	DISCHG	4.82	5.21	5.63	6.10	6.66	7.36	8.20	9.22	10.43	11.85
11.00	DISCHG	13.46	15.23	17.17	19.34	21.77	24.88	30.88	45.50	73.82	123.60
12.00	DISCHG	204.00	295.88	354.00	355.53	313.36	251.81	196.55	156.84	128.03	107.27
13.00	DISCHG	91.63	79.36	69.77	62.26	56.18	51.23	47.06	43.50	40.27	37.54
14.00	DISCHG	35.37	33.54	31.97	30.52	29.19	27.92	26.69	25.49	24.32	23.32
15.00	DISCHG	22.52	21.94	21.55	21.28	20.97	20.52	19.95	19.39	18.92	18.60
16.00	DISCHG	18.39	18.26	18.18	18.13	18.10	18.08	17.99	17.74	17.29	16.75
17.00	DISCHG	16.25	15.87	15.61	15.46	15.35	15.29	15.25	15.22	15.18	15.02
18.00	DISCHG	14.66	14.12	13.58	13.12	12.79	12.60	12.46	12.38	12.32	12.29
19.00	DISCHG	12.26	12.25	12.24	12.24	12.24	12.24	12.25	12.25	12.22	12.08
20.00	DISCHG	11.72	11.18	10.63	10.17	9.84	9.64	9.50	9.41	9.35	9.31
21.00	DISCHG	9.29	9.27	9.26	9.26	9.26	9.25	9.26	9.26	9.26	9.26
22.00	DISCHG	9.27	9.27	9.27	9.28	9.28	9.28	9.28	9.29	9.29	9.29
23.00	DISCHG	9.30	9.30	9.30	9.30	9.31	9.31	9.31	9.31	9.28	9.13
24.00	DISCHG	8.77	8.05	6.97	5.54	4.05	2.80	1.85	1.22	.80	.53
25.00	DISCHG	.35	.23	.15	.10	.06	.04	.02	.01	.00	

RUNOFF VOLUME ABOVE BASEFLOW = 2.19 WATERSHED INCHES, 493.82 CFS-HRS, 40.81 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 4, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 5
OUTPUT HYDROGRAPH= 5
AREA= .24 SQ MI INPUT RUNOFF CURVE= 81. TIME OF CONCENTRATION= .65 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0867 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.29	234.71	(RUNOFF)
19.66	8.40	(RUNOFF)
23.66	6.39	(RUNOFF)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .24 SQ.MI.

8.00	DISCHG	.01	.03	.07	.13	.21	.32	.45	.59	.73	.88
9.00	DISCHG	1.04	1.19	1.37	1.56	1.76	1.97	2.19	2.42	2.67	2.93
10.00	DISCHG	3.20	3.47	3.75	4.07	4.43	4.88	5.43	6.09	6.88	7.79
11.00	DISCHG	8.83	10.01	11.30	12.74	14.35	16.43	20.35	28.37	45.81	77.13
12.00	DISCHG	125.08	180.69	222.67	234.57	216.93	183.20	147.32	118.19	96.81	80.76
13.00	DISCHG	68.48	59.17	51.79	45.87	41.09	37.22	34.01	31.34	28.99	26.89
14.00	DISCHG	25.09	23.62	22.43	21.38	20.43	19.54	18.67	17.84	17.03	16.30
15.00	DISCHG	15.71	15.26	14.95	14.72	14.50	14.20	13.83	13.44	13.11	12.86
16.00	DISCHG	12.69	12.58	12.51	12.46	12.43	12.41	12.35	12.21	11.94	11.60
17.00	DISCHG	11.27	10.99	10.80	10.66	10.58	10.52	10.48	10.46	10.42	10.32
18.00	DISCHG	10.11	9.79	9.44	9.12	8.88	8.71	8.60	8.53	8.48	8.45
19.00	DISCHG	8.43	8.41	8.40	8.40	8.40	8.40	8.40	8.40	8.38	8.30
20.00	DISCHG	8.09	7.77	7.42	7.10	6.85	6.68	6.57	6.49	6.44	6.41
21.00	DISCHG	6.39	6.37	6.36	6.35	6.35	6.35	6.35	6.35	6.35	6.35
22.00	DISCHG	6.35	6.36	6.36	6.36	6.36	6.36	6.37	6.37	6.37	6.37
23.00	DISCHG	6.37	6.38	6.38	6.38	6.38	6.38	6.39	6.39	6.37	6.29
24.00	DISCHG	6.07	5.65	4.98	4.09	3.13	2.26	1.55	1.04	.72	.50
25.00	DISCHG	.34	.23	.15	.10	.07	.04	.03	.02	.01	.00

RUNOFF VOLUME ABOVE BASEFLOW = 2.19 WATERSHED INCHES, 338.92 CFS-HRS, 28.01 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 5, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 6
INPUT HYDROGRAPHS= 4,5 OUTPUT HYDROGRAPH= 6
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.27	593.78	(NULL)
19.66	20.66	(NULL)
23.66	15.71	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .59 SQ.MI.

8.00	DISCHG	.03	.09	.19	.35	.57	.84	1.16	1.51	1.88	2.25
9.00	DISCHG	2.63	3.02	3.45	3.93	4.45	4.97	5.50	6.07	6.70	7.36
10.00	DISCHG	8.02	8.68	9.38	10.17	11.09	12.24	13.63	15.30	17.31	19.64
11.00	DISCHG	22.29	25.25	28.47	32.08	36.12	41.31	51.23	73.86	119.63	200.73
12.00	DISCHG	329.08	476.58	576.67	590.11	530.29	435.01	343.86	275.02	224.84	188.04
13.00	DISCHG	160.12	138.53	121.56	108.13	97.28	88.45	81.07	74.84	69.26	64.43
14.00	DISCHG	60.46	57.16	54.39	51.90	49.62	47.46	45.36	43.33	41.35	39.62
15.00	DISCHG	38.23	37.20	36.50	36.01	35.47	34.73	33.78	32.83	32.04	31.46
16.00	DISCHG	31.08	30.84	30.69	30.59	30.53	30.49	30.35	29.95	29.23	28.35
17.00	DISCHG	27.52	26.86	26.41	26.12	25.93	25.80	25.73	25.68	25.60	25.34
18.00	DISCHG	24.77	23.91	23.02	22.24	21.67	21.31	21.07	20.91	20.80	20.73
19.00	DISCHG	20.69	20.66	20.65	20.64	20.64	20.64	20.65	20.65	20.61	20.38
20.00	DISCHG	19.81	18.95	18.05	17.27	16.69	16.32	16.07	15.90	15.79	15.72
21.00	DISCHG	15.67	15.64	15.62	15.61	15.61	15.60	15.60	15.61	15.61	15.61
22.00	DISCHG	15.62	15.62	15.63	15.63	15.64	15.64	15.65	15.65	15.66	15.66
23.00	DISCHG	15.67	15.67	15.68	15.68	15.69	15.69	15.70	15.70	15.65	15.42
24.00	DISCHG	14.84	13.70	11.95	9.63	7.18	5.05	3.40	2.26	1.52	1.03
25.00	DISCHG	.69	.46	.30	.20	.13	.08	.05	.03	.01	.00

RUNOFF VOLUME ABOVE BASEFLOW = 2.19 WATERSHED INCHES, 832.74 CFS-HRS, 68.82 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 6, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 7
OUTPUT HYDROGRAPH= 7
AREA= .30 SQ MI INPUT RUNOFF CURVE= 81. TIME OF CONCENTRATION= .60 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0800 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.25	308.79	(RUNOFF)
19.66	10.50	(RUNOFF)
23.65	7.99	(RUNOFF)

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .30 SQ.MI.

TIME(HRS)											
8.00	DISCHG	.02	.05	.10	.19	.30	.45	.61	.79	.98	1.18
9.00	DISCHG	1.37	1.57	1.79	2.04	2.30	2.57	2.84	3.13	3.45	3.79
10.00	DISCHG	4.13	4.47	4.82	5.23	5.71	6.31	7.03	7.90	8.94	10.16
11.00	DISCHG	11.53	13.06	14.71	16.58	18.66	21.32	26.47	39.00	63.27	105.94
12.00	DISCHG	174.86	253.61	303.43	304.74	268.60	215.84	168.47	134.43	109.74	91.95
13.00	DISCHG	78.54	68.02	59.80	53.36	48.16	43.91	40.33	37.29	34.52	32.18
14.00	DISCHG	30.32	28.75	27.40	26.16	25.02	23.93	22.87	21.85	20.85	19.99
15.00	DISCHG	19.30	18.80	18.47	18.24	17.98	17.59	17.10	16.62	16.22	15.94
16.00	DISCHG	15.76	15.65	15.58	15.54	15.52	15.50	15.42	15.21	14.82	14.36
17.00	DISCHG	13.93	13.60	13.38	13.25	13.16	13.10	13.07	13.05	13.01	12.87
18.00	DISCHG	12.57	12.11	11.64	11.24	10.96	10.80	10.68	10.61	10.56	10.53
19.00	DISCHG	10.51	10.50	10.50	10.49	10.49	10.50	10.50	10.50	10.48	10.35
20.00	DISCHG	10.05	9.58	9.11	8.72	8.43	8.26	8.14	8.07	8.01	7.98
21.00	DISCHG	7.96	7.95	7.94	7.94	7.93	7.93	7.93	7.93	7.94	7.94
22.00	DISCHG	7.94	7.95	7.95	7.95	7.95	7.96	7.96	7.96	7.96	7.97

23.00	DISCHG	7.97	7.97	7.97	7.98	7.98	7.98	7.98	7.98	7.96	7.83
24.00	DISCHG	7.52	6.90	5.97	4.75	3.47	2.40	1.58	1.04	.69	.46
25.00	DISCHG	.30	.20	.13	.08	.05	.03	.02	.01	.00	

RUNOFF VOLUME ABOVE BASEFLOW = 2.19 WATERSHED INCHES, 423.27 CFS-HRS, 34.98 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 7, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 8
INPUT HYDROGRAPHS= 6,7 OUTPUT HYDROGRAPH= 1
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.26	902.30	(NULL)
19.66	31.16	(NULL)
23.66	23.69	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .89 SQ.MI.

8.00	DISCHG	.05	.14	.30	.54	.87	1.29	1.77	2.31	2.86	3.43
9.00	DISCHG	4.00	4.59	5.24	5.97	6.75	7.54	8.34	9.21	10.15	11.15
10.00	DISCHG	12.14	13.15	14.20	15.40	16.80	18.55	20.67	23.21	26.25	29.80
11.00	DISCHG	33.82	38.31	43.18	48.65	54.78	62.63	77.70	112.86	182.90	306.67
12.00	DISCHG	503.94	730.19	880.09	894.85	798.89	650.85	512.33	409.45	334.58	279.98
13.00	DISCHG	238.66	206.56	181.37	161.49	145.43	132.36	121.40	112.12	103.78	96.61
14.00	DISCHG	90.77	85.91	81.79	78.06	74.64	71.39	68.23	65.18	62.20	59.60
15.00	DISCHG	57.53	56.00	54.97	54.25	53.45	52.32	50.89	49.45	48.26	47.40
16.00	DISCHG	46.84	46.49	46.27	46.13	46.05	45.99	45.77	45.16	44.06	42.71
17.00	DISCHG	41.45	40.46	39.79	39.37	39.09	38.91	38.79	38.72	38.60	38.22
18.00	DISCHG	37.34	36.02	34.66	33.48	32.64	32.11	31.75	31.51	31.36	31.26
19.00	DISCHG	31.20	31.17	31.14	31.14	31.14	31.14	31.15	31.15	31.09	30.73
20.00	DISCHG	29.86	28.54	27.16	25.98	25.12	24.58	24.22	23.97	23.80	23.70
21.00	DISCHG	23.63	23.59	23.56	23.55	23.54	23.54	23.54	23.54	23.55	23.55
22.00	DISCHG	23.56	23.57	23.58	23.58	23.59	23.60	23.61	23.61	23.62	23.63
23.00	DISCHG	23.64	23.64	23.65	23.66	23.67	23.67	23.68	23.69	23.61	23.25
24.00	DISCHG	22.36	20.60	17.93	14.38	10.65	7.45	4.98	3.30	2.21	1.48
25.00	DISCHG	.99	.66	.43	.28	.18	.11	.06	.04	.01	.00

RUNOFF VOLUME ABOVE BASEFLOW = 2.19 WATERSHED INCHES, 1256.01 CFS-HRS, 103.80 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 8, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 9
INPUT HYDROGRAPHS= 1,3 OUTPUT HYDROGRAPH= 4
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.31	1168.78	(NULL)
23.66	38.06	(NULL)

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.43 SQ.MI.

TIME(HRS)											
8.00	DISCHG	.05	.16	.34	.63	1.02	1.54	2.16	2.86	3.62	4.42
9.00	DISCHG	5.24	6.11	7.05	8.10	9.23	10.39	11.59	12.87	14.26	15.73
10.00	DISCHG	17.22	18.74	20.34	22.11	24.14	26.58	29.48	32.93	37.04	41.83
11.00	DISCHG	47.31	53.47	60.26	67.90	76.48	87.26	106.60	148.59	230.87	377.08
12.00	DISCHG	611.01	887.17	1095.54	1168.27	1117.89	996.69	866.14	755.52	660.93	579.14
13.00	DISCHG	508.13	447.60	395.61	351.50	314.54	283.75	257.71	235.38	215.62	198.42
14.00	DISCHG	183.89	171.45	160.67	151.10	142.51	134.71	127.53	120.87	114.62	109.01
15.00	DISCHG	104.18	100.20	97.06	94.56	92.24	89.79	87.15	84.59	82.32	80.44
16.00	DISCHG	78.96	77.79	76.88	76.20	75.69	75.27	74.74	73.83	72.40	70.66
17.00	DISCHG	68.95	67.46	66.28	65.38	64.65	64.07	63.63	63.28	62.93	62.32
18.00	DISCHG	61.19	59.55	57.80	56.17	54.83	53.81	52.99	52.33	51.81	51.42
19.00	DISCHG	51.11	50.87	50.69	50.56	50.46	50.38	50.32	50.28	50.16	49.72
20.00	DISCHG	48.72	47.17	45.47	43.88	42.58	41.58	40.77	40.12	39.61	39.22
21.00	DISCHG	38.91	38.67	38.49	38.35	38.24	38.16	38.10	38.05	38.02	37.99
22.00	DISCHG	37.97	37.96	37.95	37.95	37.95	37.95	37.95	37.96	37.96	37.97
23.00	DISCHG	37.98	37.99	38.00	38.01	38.02	38.03	38.04	38.05	37.96	37.55
24.00	DISCHG	36.55	34.53	31.38	27.11	22.42	18.03	14.26	11.26	8.90	7.03
25.00	DISCHG	5.53	4.35	3.43	2.71	2.15	1.71	1.36	1.09	.87	.70
26.00	DISCHG	.57	.46	.37	.30	.24	.20	.16	.13	.10	.08
27.00	DISCHG	.06	.05	.04	.03	.02	.02	.01	.01	.01	.00

RUNOFF VOLUME ABOVE BASEFLOW = 2.19 WATERSHED INCHES, 2018.64 CFS-HRS, 166.82 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 9, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

EXECUTIVE CONTROL OPERATION ENDCMP COMPUTATIONS COMPLETED FOR PASS 1 RECORD ID

EXECUTIVE CONTROL OPERATION ENDJOB RECORD ID

12.00	DISCHG	140.28	199.78	270.62	344.46	409.37	455.59	479.43	482.20	467.85	440.49
13.00	DISCHG	404.75	366.33	329.41	294.95	263.44	235.99	212.38	192.02	174.33	158.77
14.00	DISCHG	144.91	132.73	122.12	112.76	104.49	97.14	90.58	84.72	79.49	74.78
15.00	DISCHG	70.53	66.70	63.24	60.17	57.45	55.11	53.07	51.28	49.64	48.12
16.00	DISCHG	46.73	45.45	44.30	43.30	42.43	41.72	41.14	40.63	40.13	39.58
17.00	DISCHG	38.96	38.29	37.60	36.91	36.27	35.68	35.16	34.72	34.34	33.98
18.00	DISCHG	33.60	33.18	32.67	32.08	31.45	30.79	30.15	29.55	29.01	28.54
19.00	DISCHG	28.15	27.82	27.54	27.33	27.15	27.01	26.89	26.79	26.70	26.58
20.00	DISCHG	26.40	26.13	25.74	25.26	24.70	24.10	23.52	22.96	22.45	22.00
21.00	DISCHG	21.63	21.31	21.06	20.85	20.68	20.54	20.42	20.33	20.25	20.19
22.00	DISCHG	20.14	20.10	20.07	20.04	20.02	20.01	20.00	19.99	19.98	19.98
23.00	DISCHG	19.97	19.97	19.97	19.97	19.97	19.98	19.98	19.98	19.97	19.91
24.00	DISCHG	19.78	19.48	18.95	18.13	16.98	15.56	13.94	12.24	10.55	8.95
25.00	DISCHG	7.50	6.22	5.14	4.24	3.49	2.87	2.37	1.96	1.62	1.34
26.00	DISCHG	1.10	.91	.75	.62	.51	.42	.34	.28	.23	.19
27.00	DISCHG	.15	.12	.10	.07	.06	.05	.04	.03	.02	.02
28.00	DISCHG	.01	.01	.01	.00						

RUNOFF VOLUME ABOVE BASEFLOW = 3.16 WATERSHED INCHES, 1100.09 CFS-HRS, 90.91 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 3, ALTERNATE 1, STORM 4, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 4
OUTPUT HYDROGRAPH= 4
AREA= .35 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= .66 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0880 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.29	487.67	(RUNOFF)
19.66	17.08	(RUNOFF)
23.65	12.96	(RUNOFF)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .35 SQ.MI.

7.00	DISCHG	.00	.00	.00	.01	.04	.09	.18	.29	.43	.58
8.00	DISCHG	.75	.92	1.12	1.35	1.62	1.94	2.28	2.65	3.01	3.37
9.00	DISCHG	3.71	4.07	4.45	4.87	5.34	5.81	6.29	6.79	7.34	7.93
10.00	DISCHG	8.52	9.11	9.72	10.40	11.22	12.21	13.43	14.89	16.65	18.68
11.00	DISCHG	20.97	23.58	26.40	29.52	33.01	37.52	45.99	63.13	99.21	164.47
12.00	DISCHG	263.53	377.31	462.84	487.53	454.81	386.76	311.29	249.87	204.66	170.63
13.00	DISCHG	144.51	124.13	108.11	95.66	85.57	77.42	70.68	64.99	60.03	55.60
14.00	DISCHG	51.79	48.67	46.16	43.97	41.98	40.12	38.31	36.59	34.93	33.43
15.00	DISCHG	32.20	31.25	30.58	30.09	29.63	29.02	28.27	27.50	26.81	26.28
16.00	DISCHG	25.92	25.68	25.52	25.42	25.36	25.30	25.18	24.89	24.36	23.68
17.00	DISCHG	23.01	22.44	22.02	21.74	21.56	21.43	21.35	21.29	21.21	21.01
18.00	DISCHG	20.59	19.96	19.25	18.61	18.10	17.76	17.53	17.37	17.26	17.19
19.00	DISCHG	17.14	17.11	17.09	17.08	17.08	17.07	17.08	17.08	17.05	16.87
20.00	DISCHG	16.45	15.82	15.12	14.48	13.97	13.61	13.38	13.22	13.11	13.03
21.00	DISCHG	12.98	12.94	12.92	12.91	12.90	12.89	12.89	12.89	12.89	12.89
22.00	DISCHG	12.90	12.90	12.91	12.91	12.91	12.92	12.92	12.92	12.93	12.93

23.00	DISCHG	12.93	12.94	12.94	12.94	12.95	12.95	12.95	12.96	12.92	12.74
24.00	DISCHG	12.30	11.47	10.19	8.41	6.49	4.73	3.30	2.26	1.55	1.06
25.00	DISCHG	.73	.50	.34	.23	.15	.10	.06	.04	.02	.01
26.00	DISCHG	.00									

RUNOFF VOLUME ABOVE BASEFLOW = 3.15 WATERSHED INCHES, 712.55 CFS-HRS, 58.89 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 4, ALTERNATE 1, STORM 4, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 5
INPUT HYDROGRAPHS= 3,4 OUTPUT HYDROGRAPH= 5
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.41	864.43	(NULL)
23.66	32.94	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .89 SQ.MI.

7.00	DISCHG	.00	.00	.00	.01	.05	.12	.25	.41	.63	.88
8.00	DISCHG	1.18	1.51	1.89	2.33	2.84	3.44	4.10	4.83	5.59	6.37
9.00	DISCHG	7.16	7.98	8.86	9.80	10.81	11.85	12.93	14.07	15.29	16.58
10.00	DISCHG	17.90	19.27	20.68	22.21	23.94	25.93	28.27	31.02	34.28	38.06
11.00	DISCHG	42.39	47.35	52.86	59.04	65.97	74.55	88.87	115.07	167.10	260.62
12.00	DISCHG	403.81	577.09	733.47	831.99	864.18	842.36	790.72	732.07	672.51	611.12
13.00	DISCHG	549.26	490.46	437.52	390.62	349.02	313.41	283.06	257.00	234.36	214.37
14.00	DISCHG	196.70	181.39	168.27	156.74	146.47	137.26	128.89	121.31	114.42	108.20
15.00	DISCHG	102.73	97.95	93.83	90.27	87.09	84.13	81.34	78.77	76.45	74.41
16.00	DISCHG	72.65	71.13	69.83	68.72	67.79	67.02	66.32	65.52	64.49	63.26
17.00	DISCHG	61.97	60.73	59.62	58.66	57.82	57.11	56.50	56.01	55.55	54.99
18.00	DISCHG	54.19	53.14	51.93	50.69	49.55	48.55	47.68	46.92	46.27	45.73
19.00	DISCHG	45.29	44.93	44.64	44.41	44.23	44.08	43.97	43.87	43.75	43.45
20.00	DISCHG	42.85	41.95	40.87	39.73	38.66	37.72	36.89	36.17	35.55	35.04
21.00	DISCHG	34.61	34.26	33.98	33.75	33.57	33.43	33.32	33.22	33.15	33.09
22.00	DISCHG	33.04	33.00	32.97	32.95	32.94	32.92	32.91	32.91	32.91	32.90
23.00	DISCHG	32.91	32.91	32.91	32.91	32.92	32.93	32.93	32.94	32.89	32.65
24.00	DISCHG	32.08	30.95	29.14	26.54	23.47	20.29	17.24	14.49	12.09	10.01
25.00	DISCHG	8.22	6.72	5.48	4.47	3.64	2.97	2.44	2.00	1.64	1.35
26.00	DISCHG	1.10	.91	.75	.62	.51	.42	.34	.28	.23	.19
27.00	DISCHG	.15	.12	.10	.07	.06	.05	.04	.03	.02	.02
28.00	DISCHG	.01	.01	.01	.00						

RUNOFF VOLUME ABOVE BASEFLOW = 3.16 WATERSHED INCHES, 1812.64 CFS-HRS, 149.80 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 5, ALTERNATE 1, STORM 4, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 6

OUTPUT HYDROGRAPH= 6
AREA= .24 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= .71 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0947 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.32	322.72	(RUNOFF)
23.65	8.89	(RUNOFF)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS			TIME INCREMENT = .10 HOURS				DRAINAGE AREA =		.24 SQ.MI.
7.00	DISCHG	.00	.00	.00	.01	.02	.05	.11	.18	.27	.37
8.00	DISCHG	.47	.59	.72	.87	1.05	1.25	1.48	1.73	1.97	2.22
9.00	DISCHG	2.45	2.69	2.95	3.23	3.54	3.86	4.19	4.53	4.90	5.29
10.00	DISCHG	5.69	6.09	6.51	6.97	7.50	8.14	8.92	9.86	11.01	12.35
11.00	DISCHG	13.87	15.58	17.45	19.51	21.82	24.87	30.44	41.30	62.80	101.19
12.00	DISCHG	161.44	234.35	295.89	321.96	310.93	274.02	227.25	183.86	151.14	126.53
13.00	DISCHG	107.39	92.20	80.20	70.56	62.80	56.50	51.29	46.94	43.24	40.01
14.00	DISCHG	37.21	34.71	32.60	30.88	29.43	28.09	26.83	25.62	24.46	23.39
15.00	DISCHG	22.49	21.78	21.24	20.85	20.49	20.08	19.58	19.06	18.58	18.18
16.00	DISCHG	17.90	17.71	17.58	17.49	17.43	17.38	17.30	17.12	16.80	16.38
17.00	DISCHG	15.94	15.54	15.23	15.01	14.86	14.75	14.68	14.63	14.58	14.45
18.00	DISCHG	14.20	13.81	13.36	12.93	12.57	12.30	12.11	11.98	11.89	11.83
19.00	DISCHG	11.79	11.76	11.74	11.73	11.72	11.71	11.71	11.71	11.69	11.58
20.00	DISCHG	11.34	10.96	10.52	10.09	9.73	9.45	9.27	9.13	9.04	8.98
21.00	DISCHG	8.93	8.90	8.88	8.86	8.85	8.85	8.84	8.84	8.84	8.84
22.00	DISCHG	8.84	8.85	8.85	8.85	8.85	8.86	8.86	8.86	8.86	8.87
23.00	DISCHG	8.87	8.87	8.87	8.87	8.88	8.88	8.88	8.88	8.86	8.76
24.00	DISCHG	8.49	7.98	7.18	6.10	4.87	3.68	2.67	1.88	1.32	.93
25.00	DISCHG	.66	.46	.33	.23	.16	.11	.07	.05	.03	.02
26.00	DISCHG	.01	.00								

RUNOFF VOLUME ABOVE BASEFLOW = 3.16 WATERSHED INCHES, 489.49 CFS-HRS, 40.45 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 6, ALTERNATE 1, STORM 4, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 7
INPUT HYDROGRAPHS= 5,6 OUTPUT HYDROGRAPH= 1
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.38	1177.32	(NULL)
23.65	41.83	(NULL)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS			TIME INCREMENT = .10 HOURS				DRAINAGE AREA =		1.13 SQ.MI.
7.00	DISCHG	.00	.00	.00	.02	.07	.18	.35	.59	.90	1.25
8.00	DISCHG	1.65	2.10	2.61	3.20	3.89	4.69	5.59	6.55	7.56	8.58
9.00	DISCHG	9.62	10.68	11.81	13.04	14.35	15.71	17.12	18.60	20.19	21.87
10.00	DISCHG	23.59	25.36	27.19	29.18	31.44	34.07	37.19	40.88	45.28	50.42
11.00	DISCHG	56.27	62.94	70.32	78.55	87.79	99.42	119.31	156.37	229.89	361.81

12.00	DISCHG	565.25	811.44	1029.36	1153.95	1175.11	1116.38	1017.97	915.93	823.65	737.65
13.00	DISCHG	656.64	582.67	517.72	461.17	411.82	369.90	334.35	303.94	277.59	254.38
14.00	DISCHG	233.91	216.11	200.87	187.62	175.90	165.35	155.72	146.93	138.87	131.60
15.00	DISCHG	125.22	119.72	115.07	111.11	107.58	104.21	100.92	97.84	95.03	92.59
16.00	DISCHG	90.54	88.84	87.41	86.21	85.22	84.40	83.62	82.64	81.29	79.64
17.00	DISCHG	77.91	76.27	74.85	73.67	72.68	71.86	71.19	70.65	70.13	69.44
18.00	DISCHG	68.39	66.95	65.29	63.62	62.11	60.85	59.79	58.90	58.16	57.56
19.00	DISCHG	57.07	56.68	56.37	56.13	55.94	55.80	55.68	55.58	55.43	55.03
20.00	DISCHG	54.19	52.91	51.39	49.83	48.39	47.17	46.16	45.31	44.60	44.01
21.00	DISCHG	43.54	43.16	42.86	42.62	42.43	42.28	42.16	42.06	41.99	41.93
22.00	DISCHG	41.88	41.85	41.82	41.80	41.79	41.78	41.77	41.77	41.77	41.77
23.00	DISCHG	41.77	41.78	41.78	41.79	41.80	41.81	41.81	41.82	41.74	41.41
24.00	DISCHG	40.57	38.93	36.32	32.64	28.34	23.98	19.91	16.37	13.41	10.94
25.00	DISCHG	8.88	7.19	5.81	4.70	3.80	3.08	2.51	2.05	1.67	1.37
26.00	DISCHG	1.11	.91	.75	.62	.51	.42	.34	.28	.23	.19
27.00	DISCHG	.15	.12	.10	.07	.06	.05	.04	.03	.02	.02
28.00	DISCHG	.01	.01	.01	.00						

RUNOFF VOLUME ABOVE BASEFLOW = 3.16 WATERSHED INCHES, 2302.13 CFS-HRS, 190.25 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 7, ALTERNATE 1, STORM 4, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 8
OUTPUT HYDROGRAPH= 2
AREA= .30 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= .65 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0867 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.29	424.08	(RUNOFF)
19.65	14.64	(RUNOFF)
23.66	11.11	(RUNOFF)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = .30 SQ.MI.

7.00	DISCHG	.00	.00	.00	.01	.03	.08	.16	.26	.38	.51
8.00	DISCHG	.65	.80	.97	1.17	1.40	1.68	1.98	2.29	2.61	2.91
9.00	DISCHG	3.21	3.51	3.83	4.20	4.60	5.01	5.42	5.86	6.33	6.83
10.00	DISCHG	7.34	7.84	8.37	8.96	9.66	10.52	11.57	12.84	14.37	16.13
11.00	DISCHG	18.12	20.37	22.81	25.51	28.52	32.40	39.73	54.72	87.05	144.31
12.00	DISCHG	230.90	330.24	404.11	423.63	390.36	328.71	263.69	211.09	172.52	143.61
13.00	DISCHG	121.52	104.80	91.59	81.00	72.47	65.57	59.85	55.10	50.94	47.21
14.00	DISCHG	44.03	41.43	39.33	37.48	35.81	34.23	32.71	31.24	29.82	28.54
15.00	DISCHG	27.49	26.71	26.16	25.76	25.37	24.85	24.18	23.51	22.92	22.48
16.00	DISCHG	22.18	21.99	21.86	21.77	21.72	21.68	21.58	21.32	20.85	20.26
17.00	DISCHG	19.68	19.19	18.84	18.61	18.46	18.35	18.29	18.24	18.18	18.01
18.00	DISCHG	17.63	17.08	16.46	15.91	15.48	15.19	15.00	14.87	14.78	14.72
19.00	DISCHG	14.69	14.66	14.65	14.64	14.64	14.63	14.64	14.64	14.60	14.45
20.00	DISCHG	14.09	13.53	12.92	12.36	11.93	11.64	11.44	11.31	11.22	11.16
21.00	DISCHG	11.12	11.09	11.07	11.06	11.05	11.05	11.05	11.05	11.05	11.05
22.00	DISCHG	11.06	11.06	11.06	11.06	11.07	11.07	11.07	11.08	11.08	11.08

23.00	DISCHG	11.09	11.09	11.09	11.09	11.10	11.10	11.10	11.11	11.08	10.93
24.00	DISCHG	10.55	9.82	8.67	7.12	5.44	3.93	2.69	1.82	1.25	.86
25.00	DISCHG	.59	.40	.27	.18	.12	.08	.05	.03	.02	.01
26.00	DISCHG	.00									

RUNOFF VOLUME ABOVE BASEFLOW = 3.16 WATERSHED INCHES, 611.28 CFS-HRS, 50.52 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 8, ALTERNATE 1, STORM 4, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 9
INPUT HYDROGRAPHS= 1,2 OUTPUT HYDROGRAPH= 3
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.34	1591.53	(NULL)
23.66	52.94	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.43 SQ.MI.

7.00	DISCHG	.00	.00	.00	.03	.10	.26	.51	.85	1.27	1.76
8.00	DISCHG	2.30	2.90	3.58	4.37	5.30	6.37	7.56	8.84	10.16	11.49
9.00	DISCHG	12.82	14.18	15.64	17.24	18.95	20.72	22.54	24.46	26.52	28.70
10.00	DISCHG	30.93	33.20	35.56	38.14	41.10	44.58	48.76	53.72	59.65	66.54
11.00	DISCHG	74.39	83.31	93.13	104.06	116.31	131.82	159.04	211.09	316.94	506.12
12.00	DISCHG	796.15	1141.68	1433.47	1577.59	1565.47	1445.09	1281.66	1127.01	996.17	881.27
13.00	DISCHG	778.17	687.47	609.31	542.18	484.29	435.47	394.20	359.04	328.53	301.59
14.00	DISCHG	277.93	257.54	240.20	225.10	211.71	199.59	188.43	178.17	168.69	160.13
15.00	DISCHG	152.71	146.43	141.23	136.87	132.95	129.05	125.11	121.35	117.96	115.07
16.00	DISCHG	112.73	110.83	109.26	107.98	106.94	106.08	105.20	103.96	102.14	99.90
17.00	DISCHG	97.59	95.47	93.70	92.28	91.14	90.21	89.47	88.89	88.31	87.45
18.00	DISCHG	86.03	84.02	81.75	79.53	77.60	76.04	74.79	73.77	72.94	72.28
19.00	DISCHG	71.76	71.35	71.02	70.77	70.58	70.43	70.31	70.22	70.04	69.48
20.00	DISCHG	68.29	66.45	64.30	62.19	60.32	58.81	57.60	56.62	55.81	55.17
21.00	DISCHG	54.66	54.25	53.93	53.68	53.48	53.33	53.21	53.11	53.04	52.98
22.00	DISCHG	52.94	52.91	52.88	52.87	52.86	52.85	52.85	52.85	52.85	52.85
23.00	DISCHG	52.86	52.87	52.87	52.88	52.90	52.91	52.92	52.92	52.82	52.34
24.00	DISCHG	51.12	48.75	44.99	39.76	33.78	27.90	22.60	18.19	14.66	11.80
25.00	DISCHG	9.47	7.58	6.08	4.87	3.92	3.16	2.56	2.08	1.69	1.37
26.00	DISCHG	1.11	.91	.75	.62	.51	.42	.34	.28	.23	.19
27.00	DISCHG	.15	.12	.10	.07	.06	.05	.04	.03	.02	.02
28.00	DISCHG	.01	.01	.01	.00						

RUNOFF VOLUME ABOVE BASEFLOW = 3.16 WATERSHED INCHES, 2913.41 CFS-HRS, 240.76 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 9, ALTERNATE 1, STORM 4, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 10

OUTPUT HYDROGRAPH= 4
AREA= 1.64 SQ MI INPUT RUNOFF CURVE= 78. TIME OF CONCENTRATION= 3.80 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1013 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
14.57	643.34	(RUNOFF)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS			DRAINAGE AREA = 1.64 SQ.MI.		
7.00	DISCHG	.00	.00	.00	.00	.00	.01	.01	.02	.03	.05
8.00	DISCHG	.07	.10	.14	.19	.26	.34	.44	.57	.72	.90
9.00	DISCHG	1.11	1.35	1.63	1.96	2.32	2.73	3.19	3.71	4.27	4.90
10.00	DISCHG	5.58	6.32	7.13	8.00	8.95	9.97	11.07	12.27	13.57	14.99
11.00	DISCHG	16.53	18.22	20.06	22.08	24.31	26.84	29.87	33.61	38.70	45.95
12.00	DISCHG	55.57	67.70	82.41	99.45	118.65	139.96	163.56	189.59	218.15	249.64
13.00	DISCHG	283.84	320.04	357.67	395.78	432.62	467.50	499.85	529.12	555.30	577.78
14.00	DISCHG	596.59	611.98	623.98	632.89	639.05	642.57	643.16	640.41	634.79	627.15
15.00	DISCHG	617.89	607.15	594.94	581.28	565.79	548.43	529.53	509.33	488.19	467.42
16.00	DISCHG	447.54	428.75	411.32	395.10	379.81	365.26	351.39	338.21	325.69	313.91
17.00	DISCHG	302.90	292.49	282.52	272.95	263.71	254.75	246.13	237.94	230.20	222.90
18.00	DISCHG	216.05	209.57	203.37	197.41	191.70	186.27	181.09	176.13	171.38	166.83
19.00	DISCHG	162.50	158.36	154.34	150.42	146.66	143.11	139.75	136.54	133.45	130.48
20.00	DISCHG	127.63	124.90	122.28	119.77	117.37	115.07	112.86	110.72	108.63	106.60
21.00	DISCHG	104.63	102.73	100.86	99.02	97.23	95.50	93.83	92.22	90.64	89.11
22.00	DISCHG	87.61	86.16	84.78	83.48	82.24	81.05	79.91	78.80	77.74	76.71
23.00	DISCHG	75.72	74.77	73.85	72.97	72.12	71.32	70.55	69.82	69.13	68.47
24.00	DISCHG	67.83	67.19	66.55	65.91	65.25	64.59	63.94	63.26	62.53	61.73
25.00	DISCHG	60.86	59.88	58.80	57.61	56.31	54.89	53.38	51.78	50.10	48.36
26.00	DISCHG	46.56	44.73	42.87	41.00	39.13	37.26	35.41	33.58	31.79	30.04
27.00	DISCHG	28.33	26.68	25.09	23.55	22.08	20.67	19.33	18.07	16.89	15.79
28.00	DISCHG	14.77	13.83	12.95	12.13	11.37	10.66	9.99	9.36	8.78	8.23
29.00	DISCHG	7.71	7.23	6.77	6.34	5.94	5.56	5.20	4.87	4.56	4.27

RUNOFF VOLUME ABOVE BASEFLOW = 3.15 WATERSHED INCHES, 3336.75 CFS-HRS, 275.75 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 10, ALTERNATE 1, STORM 4, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 11
INPUT HYDROGRAPHS= 3,4 OUTPUT HYDROGRAPH= 5
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
12.36	1694.09	(NULL)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS			DRAINAGE AREA = 3.07 SQ.MI.		
7.00	DISCHG	.00	.00	.00	.03	.10	.27	.52	.87	1.30	1.81
8.00	DISCHG	2.37	3.00	3.72	4.57	5.56	6.71	8.01	9.41	10.88	12.39
9.00	DISCHG	13.93	15.54	17.28	19.20	21.27	23.45	25.74	28.17	30.80	33.60
10.00	DISCHG	36.51	39.52	42.69	46.14	50.04	54.55	59.83	66.00	73.22	81.53

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID		STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION			RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
							BEGIN (HR)	AMOUNT (IN)	DURATION (HR)		ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE 1 STORM 1														
XSECTION	1	RUNOFF	.28	2	2	.10	.0	4.08	24.00	2.19	---	12.52	205.27	733.1
XSECTION	2	RUNOFF	.26	2	2	.10	.0	4.08	24.00	2.19	---	12.74	158.40	609.2
XSECTION	3	ADDHYD	.54	2	2	.10	.0	4.08	24.00	2.19	---	12.60	353.80	655.2
XSECTION	4	RUNOFF	.35	2	2	.10	.0	4.08	24.00	2.19	---	12.25	360.26	1029.3
XSECTION	5	RUNOFF	.24	2	2	.10	.0	4.08	24.00	2.19	---	12.29	234.71	978.0
XSECTION	6	ADDHYD	.59	2	2	.10	.0	4.08	24.00	2.19	---	12.27	593.78	1006.4
XSECTION	7	RUNOFF	.30	2	2	.10	.0	4.08	24.00	2.19	---	12.25	308.79	1029.3
XSECTION	8	ADDHYD	.89	2	2	.10	.0	4.08	24.00	2.19	---	12.26	902.30	1013.8
XSECTION	9	ADDHYD	1.43	2	2	.10	.0	4.08	24.00	2.19	---	12.31	1168.78	817.3

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1
XSECTION 1	.28	
ALTERNATE 1		205.27
XSECTION 2	.26	
ALTERNATE 1		158.40
XSECTION 3	.54	
ALTERNATE 1		353.80
XSECTION 4	.35	
ALTERNATE 1		360.26
XSECTION 5	.24	
ALTERNATE 1		234.71
XSECTION 6	.59	
ALTERNATE 1		593.78
XSECTION 7	.30	
ALTERNATE 1		308.79
XSECTION 8	.89	
ALTERNATE 1		902.30
XSECTION 9	1.43	
ALTERNATE 1		1168.78

20.00	ELEV	897.53	897.49	897.45	897.42	897.38	897.34	897.30	897.26	897.23	897.19
21.00	DISCHG	215.70	212.22	208.80	205.43	202.11	199.13	196.70	194.29	191.90	189.53
21.00	ELEV	897.16	897.12	897.09	897.05	897.02	896.99	896.96	896.92	896.89	896.86
22.00	DISCHG	187.17	184.84	182.52	180.23	177.96	175.71	173.48	171.28	169.10	166.95
22.00	ELEV	896.83	896.80	896.77	896.74	896.71	896.68	896.65	896.62	896.59	896.56
23.00	DISCHG	164.83	162.75	160.69	158.68	156.69	154.74	152.83	150.95	149.11	147.30
23.00	ELEV	896.53	896.50	896.48	896.45	896.42	896.40	896.37	896.35	896.32	896.30
24.00	DISCHG	145.53	143.79	142.09	140.41	138.77	137.15	135.55	133.97	132.41	130.86
24.00	ELEV	896.27	896.25	896.23	896.21	896.18	896.16	896.14	896.12	896.10	896.08
25.00	DISCHG	129.32	127.79	126.26	124.81	123.77	122.72	121.65	120.56	119.44	118.31
25.00	ELEV	896.06	896.04	896.02	896.00	895.98	895.95	895.93	895.91	895.89	895.87
26.00	DISCHG	117.16	115.98	114.78	113.56	112.33	111.07	109.80	108.51	107.21	105.90
26.00	ELEV	895.84	895.82	895.80	895.77	895.75	895.72	895.70	895.67	895.64	895.62
27.00	DISCHG	104.57	103.24	101.90	100.56	99.21	97.87	96.52	95.18	93.85	92.52
27.00	ELEV	895.59	895.56	895.54	895.51	895.48	895.46	895.43	895.40	895.38	895.35
28.00	DISCHG	91.19	89.88	88.57	87.27	85.98	84.71	83.44	82.19	80.95	79.72
28.00	ELEV	895.32	895.30	895.27	895.25	895.22	895.19	895.17	895.14	895.12	895.09
29.00	DISCHG	78.50	77.30	76.11	74.97	74.38	73.80	73.22	72.65	72.08	71.51
29.00	ELEV	895.07	895.05	895.02	895.00	894.98	894.95	894.93	894.91	894.88	894.86

RUNOFF VOLUME ABOVE BASEFLOW = 4.06 WATERSHED INCHES, 4005.15 CFS-HRS, 330.99 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR STRUCTURE 1, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 2
OUTPUT HYDROGRAPH= 3
AREA= 1.52 SQ MI INPUT RUNOFF CURVE= 81. TIME OF CONCENTRATION= 4.00 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0988 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET) (RUNOFF)
14.67	789.05	

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS			DRAINAGE AREA =		1.52 SQ.MI.
6.00	DISCHG	.01	.01	.03	.04	.06	.09	.13	.18	.24	.32
7.00	DISCHG	.42	.53	.67	.83	1.01	1.23	1.47	1.74	2.05	2.39
8.00	DISCHG	2.76	3.17	3.61	4.08	4.60	5.15	5.75	6.38	7.06	7.78
9.00	DISCHG	8.54	9.35	10.21	11.12	12.08	13.11	14.19	15.33	16.53	17.80
10.00	DISCHG	19.14	20.54	22.01	23.55	25.18	26.89	28.69	30.60	32.63	34.80
11.00	DISCHG	37.12	39.60	42.28	45.17	48.31	51.81	55.93	60.87	67.36	76.32
12.00	DISCHG	87.86	102.12	119.27	139.04	161.10	185.27	211.80	241.09	273.05	307.85
13.00	DISCHG	345.66	385.97	428.14	471.61	514.77	556.13	595.31	631.37	663.71	692.40
14.00	DISCHG	717.22	738.17	755.23	768.32	777.96	784.56	788.19	788.88	785.97	779.49
15.00	DISCHG	770.41	759.49	747.00	732.92	717.21	699.93	680.72	659.60	636.88	612.78
16.00	DISCHG	587.69	562.99	539.40	516.88	496.00	476.78	458.69	441.37	424.82	409.06
17.00	DISCHG	394.13	379.94	366.62	354.14	342.27	330.88	319.93	309.32	299.02	289.07
18.00	DISCHG	279.61	270.66	262.19	254.20	246.64	239.43	232.49	225.82	219.44	213.34
19.00	DISCHG	207.49	201.88	196.50	191.35	186.42	181.69	177.11	172.66	168.38	164.35
20.00	DISCHG	160.53	156.87	153.35	149.96	146.70	143.56	140.55	137.67	134.90	132.24
21.00	DISCHG	129.68	127.18	124.74	122.33	119.98	117.71	115.51	113.37	111.28	109.26

22.00	DISCHG	107.33	105.48	103.70	101.98	100.30	98.68	97.11	95.60	94.19	92.87
23.00	DISCHG	91.62	90.43	89.27	88.17	87.10	86.07	85.09	84.15	83.25	82.39
24.00	DISCHG	81.56	80.74	79.93	79.11	78.27	77.39	76.48	75.51	74.50	73.42
25.00	DISCHG	72.27	71.06	69.80	68.48	67.07	65.55	63.92	62.19	60.38	58.49
26.00	DISCHG	56.54	54.53	52.49	50.42	48.34	46.26	44.18	42.12	40.08	38.06
27.00	DISCHG	36.09	34.18	32.31	30.50	28.76	27.07	25.45	23.90	22.43	21.03
28.00	DISCHG	19.72	18.50	17.36	16.30	15.32	14.40	13.54	12.73	11.97	11.25
29.00	DISCHG	10.58	9.95	9.36	8.80	8.27	7.77	7.30	6.86	6.44	6.05

RUNOFF VOLUME ABOVE BASEFLOW = 4.31 WATERSHED INCHES, 4231.85 CFS-HRS, 349.72 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 2, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 3
INPUT HYDROGRAPHS= 2,3 OUTPUT HYDROGRAPH= 4
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.00	50.00	(NULL)
15.26	1139.05	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 3.05 SQ.MI.

.00	DISCHG	50.00	49.59	49.18	48.78	48.37	47.98	47.58	47.19	46.80	46.42
1.00	DISCHG	46.03	45.66	45.28	44.91	44.54	44.17	43.81	43.45	43.09	42.73
2.00	DISCHG	42.38	42.03	41.69	41.34	41.00	40.67	40.33	40.00	39.67	39.34
3.00	DISCHG	39.02	38.70	38.38	38.06	37.75	37.44	37.13	36.83	36.52	36.22
4.00	DISCHG	35.93	35.63	35.34	35.05	34.76	34.47	34.19	33.91	33.63	33.35
5.00	DISCHG	33.08	32.80	32.53	32.27	32.00	31.74	31.48	31.22	30.96	30.70
6.00	DISCHG	30.46	30.22	29.98	29.75	29.53	29.31	29.11	28.93	28.76	28.60
7.00	DISCHG	28.47	28.36	28.28	28.22	28.19	28.20	28.24	28.31	28.43	28.58
8.00	DISCHG	28.77	29.00	29.27	29.58	29.94	30.35	30.81	31.31	31.86	32.47
9.00	DISCHG	33.12	33.84	34.61	35.44	36.33	37.30	38.34	39.45	40.63	41.89
10.00	DISCHG	43.24	44.66	46.17	47.76	49.45	51.25	53.15	55.18	57.35	59.68
11.00	DISCHG	62.18	64.87	67.77	70.92	74.35	78.18	82.66	88.01	94.97	104.49
12.00	DISCHG	116.71	131.82	150.02	171.06	194.67	220.67	249.36	281.16	316.04	354.19
13.00	DISCHG	395.81	440.38	487.27	535.90	584.58	632.45	683.82	732.39	777.48	819.81
14.00	DISCHG	863.81	903.66	939.23	970.96	1003.62	1032.06	1056.30	1076.32	1094.06	1112.18
15.00	DISCHG	1125.18	1133.80	1138.31	1138.74	1135.16	1127.84	1116.63	1101.73	1083.68	1062.85
16.00	DISCHG	1039.72	1015.84	992.03	968.36	945.52	923.62	902.19	880.96	859.95	839.26
17.00	DISCHG	819.00	799.13	779.83	761.14	742.87	724.91	707.27	689.87	672.71	655.85
18.00	DISCHG	639.47	623.60	608.22	593.35	578.96	564.96	551.31	538.01	525.09	512.81
19.00	DISCHG	502.68	492.80	483.15	473.74	464.59	455.65	446.88	438.28	429.88	421.77
20.00	DISCHG	413.91	406.25	398.78	391.49	384.38	377.45	370.69	364.12	357.72	351.47
21.00	DISCHG	345.37	339.40	333.54	327.76	322.10	316.85	312.22	307.66	303.18	298.79
22.00	DISCHG	294.50	290.32	286.23	282.21	278.26	274.38	270.59	266.88	263.29	259.82
23.00	DISCHG	256.45	253.17	249.97	246.84	243.79	240.82	237.92	235.10	232.36	229.69
24.00	DISCHG	227.09	224.53	222.02	219.52	217.03	214.54	212.02	209.48	206.91	204.28

25.00	DISCHG	201.60	198.85	196.06	193.29	190.84	188.27	185.57	182.75	179.82	176.80
26.00	DISCHG	173.69	170.51	167.27	163.99	160.67	157.33	153.98	150.63	147.29	143.96
27.00	DISCHG	140.67	137.42	134.21	131.06	127.97	124.94	121.98	119.08	116.27	113.55
28.00	DISCHG	110.92	108.38	105.93	103.58	101.30	99.11	96.98	94.92	92.92	90.97
29.00	DISCHG	89.09	87.25	85.47	83.77	82.66	81.58	80.53	79.51	78.52	77.56

RUNOFF VOLUME ABOVE BASEFLOW = 4.18 WATERSHED INCHES, 8237.00 CFS-HRS, 680.71 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 3, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

EXECUTIVE CONTROL OPERATION ENDCMP COMPUTATIONS COMPLETED FOR PASS 2 RECORD ID

EXECUTIVE CONTROL OPERATION ENDJOB RECORD ID

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID		STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION BEGIN (HR)	PRECIPITATION AMOUNT (IN)	PRECIPITATION DURATION (HR)	RUNOFF AMOUNT (IN)	PEAK DISCHARGE ELEVATION (FT)	PEAK DISCHARGE TIME (HR)	PEAK DISCHARGE RATE (CFS)	PEAK DISCHARGE RATE (CSM)
ALTERNATE 1 STORM 1														
XSECTION	1	RUNOFF	1.53	2	2	.10	.0	4.08	24.00	2.19	---	14.21	461.81	301.8
STRUCTURE	1	RESVOR	1.53	2	2	.10	.0	4.08	24.00	2.10	896.36	17.28	152.04	99.4
XSECTION	2	RUNOFF	1.52	2	2	.10	.0	4.08	24.00	2.18	---	14.73	394.98	259.9
XSECTION	3	ADDHYD	3.05	2	2	.10	.0	4.08	24.00	2.14	---	15.07	488.62	160.2
ALTERNATE 1 STORM 2														
XSECTION	1	RUNOFF	1.53	2	2	.10	.0	6.48	24.00	4.32	---	14.15	921.95	602.6
STRUCTURE	1	RESVOR	1.53	2	2	.10	.0	6.48	24.00	4.06	899.02	16.13	452.89	296.0
XSECTION	2	RUNOFF	1.52	2	2	.10	.0	6.48	24.00	4.31	---	14.67	789.05	519.1
XSECTION	3	ADDHYD	3.05	2	2	.10	.0	6.48	24.00	4.18	---	15.26	1139.05	373.5

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS..... 1	2
STRUCTURE 1	1.53		
ALTERNATE 1		152.04	452.89
XSECTION 1	1.53		
ALTERNATE 1		461.81	921.95
XSECTION 2	1.52		
ALTERNATE 1		394.98	789.05
XSECTION 3	3.05		
ALTERNATE 1		488.62	1139.05

******DATA FILE 1454-04

POINT NO.	DISTANCE	ELEVATION
1	0	898
2	10	893
3	25	893
4	35	898

SUBSEC. NO.	X-SUBSEC.	MANNING'S N
1	35	.035

***SLOPE-AREA ANALYSIS FOR CROSS SECTION 1454-04

*WATER SURFACE ELEV.= 898

*SLOPE, S= .0025

*DISCHARGE, Q, cfs= 5.952E+02

*VELOCITY, V, ft/s= 4.76

*****PRESS <Return> TO CONTINUE?

```
******************80-80 LIST OF INPUT DATA FOR TR-20 HYDROLOGY******************

JOB TR-20                    FULLPRINT          SUMMARY
TITLE 001 EDWARDS REGIONAL DETENTION STUDY - DITCH CAPACITY DOWNSTREAM OF POND
TITLE 001 10-YEAR POST-DEVELOPED FLOWS FROM AREA WEST OF DITCH ROAD
 3 STRUCT      01       893.0       0.0         0.0
 8                      894.0       50.0        25.0
 8                      895.0       75.00       50.0
 8                      896.0       125.0       75.0
 8                      897.0       200.0       100.0
 8                      898.0       300.0       125.0
 8                      899.0       450.0       150.0
 9 ENDTBL
 6 RUNOFF 1 001        1 1.53       81.         3.3         1 1   1 1 1 BASIN H
 6 RESVOR 2    01 1    2 893.0                              1 1 1 1 1 1
 6 RUNOFF 1 002        3 1.52       81.         4.0         1 1   1 1 1 BASIN I
 6 ADDHYD 4 003   2 3 4                                     1 1 1 1 1 1
   ENDATA
 7 INCREM 6            .1
 7 COMPUT 7 001   003  0.0          4.08        1.0         2 2  01  01 10-YR
   ENDCMP 1
 7 COMPUT 7 001   003  0.0          6.48        1.0         2 2  01  02 100-YR
   ENDCMP 1
   ENDJOB 2

*******************************END OF 80-80 LIST*********************************
```

EXECUTIVE CONTROL OPERATION INCREM MAIN TIME INCREMENT = .10 HOURS RECORD ID

EXECUTIVE CONTROL OPERATION COMPUT FROM XSECTION 1 TO XSECTION 3 RECORD ID 10-YR
STARTING TIME = .00 RAIN DEPTH = 4.08 RAIN DURATION= 1.00 RAIN TABLE NO.= 2 ANT. MOIST. COND= 2
ALTERNATE NO.= 1 STORM NO.= 1 MAIN TIME INCREMENT = .10 HOURS

OPERATION RUNOFF CROSS SECTION 1
OUTPUT HYDROGRAPH= 1
AREA= 1.53 SQ MI INPUT RUNOFF CURVE= 81. TIME OF CONCENTRATION= 3.30 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1000 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
14.21	461.81	(RUNOFF)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS		TIME INCREMENT = .10 HOURS				DRAINAGE AREA = 1.53 SQ.MI.		
8.00	DISCHG	.00	.00	.01	.01	.03	.04	.07	.10	.15	.21
9.00	DISCHG	.29	.38	.50	.65	.82	1.03	1.27	1.55	1.87	2.23
10.00	DISCHG	2.64	3.09	3.59	4.14	4.75	5.42	6.15	6.96	7.85	8.82
11.00	DISCHG	9.90	11.10	12.42	13.89	15.53	17.37	19.67	22.51	26.59	32.54
12.00	DISCHG	41.09	51.76	65.15	80.43	97.68	117.14	138.89	163.32	190.22	219.54
13.00	DISCHG	250.31	281.96	312.45	340.81	366.80	389.64	409.32	425.78	438.80	448.84
14.00	DISCHG	455.53	460.06	461.79	460.73	456.49	450.46	442.95	433.96	423.58	411.56
15.00	DISCHG	397.91	382.65	366.20	348.92	332.16	316.41	301.67	288.22	275.64	263.62
16.00	DISCHG	252.28	241.52	231.50	222.08	213.37	205.00	197.02	189.32	181.89	174.83
17.00	DISCHG	168.21	162.05	156.29	150.93	145.82	140.98	136.38	132.05	127.94	124.05
18.00	DISCHG	120.37	116.89	113.58	110.37	107.30	104.42	101.75	99.18	96.73	94.38
19.00	DISCHG	92.12	89.95	87.87	85.89	83.98	82.16	80.39	78.69	77.07	75.55
20.00	DISCHG	74.08	72.67	71.33	70.06	68.85	67.66	66.51	65.37	64.27	63.21
21.00	DISCHG	62.20	61.20	60.21	59.24	58.28	57.33	56.40	55.48	54.58	53.70
22.00	DISCHG	52.84	52.00	51.18	50.38	49.62	48.88	48.18	47.52	46.91	46.37
23.00	DISCHG	45.91	45.49	45.10	44.75	44.43	44.14	43.87	43.63	43.40	43.18
24.00	DISCHG	42.97	42.75	42.51	42.25	41.94	41.59	41.18	40.71	40.16	39.54
25.00	DISCHG	38.81	37.98	37.05	36.01	34.88	33.66	32.39	31.05	29.68	28.28
26.00	DISCHG	26.86	25.45	24.04	22.64	21.27	19.93	18.64	17.39	16.19	15.05
27.00	DISCHG	13.95	12.92	11.96	11.06	10.24	9.49	8.79	8.16	7.57	7.03
28.00	DISCHG	6.52	6.06	5.62	5.22	4.85	4.50	4.17	3.87	3.59	3.32
29.00	DISCHG	3.08	2.86	2.65	2.46	2.28	2.11	1.95	1.81	1.67	1.55

RUNOFF VOLUME ABOVE BASEFLOW = 2.19 WATERSHED INCHES, 2159.26 CFS-HRS, 178.44 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 1, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RESVOR STRUCTURE 1
INPUT HYDROGRAPH= 1 OUTPUT HYDROGRAPH= 2
SURFACE ELEVATION= 893.00

*** WARNING - STRUCTURE 1 DELTA T IS TOO LARGE. O /2 > S /DELTA T OCCURED 43 TIMES STARTING WITH POINT 86

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.00	50.00	894.00
17.28	152.04	896.36

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.53 SQ.MI.

TIME(HRS)											
.00	DISCHG	50.00	49.59	49.18	48.78	48.37	47.98	47.58	47.19	46.80	46.42
.00	ELEV	894.00	893.98	893.97	893.95	893.93	893.92	893.90	893.89	893.87	893.86
1.00	DISCHG	46.03	45.66	45.28	44.91	44.54	44.17	43.81	43.45	43.09	42.73
1.00	ELEV	893.84	893.83	893.81	893.80	893.78	893.77	893.75	893.74	893.72	893.71
2.00	DISCHG	42.38	42.03	41.69	41.34	41.00	40.67	40.33	40.00	39.67	39.34
2.00	ELEV	893.70	893.68	893.67	893.65	893.64	893.63	893.61	893.60	893.59	893.57
3.00	DISCHG	39.02	38.70	38.38	38.06	37.75	37.44	37.13	36.83	36.52	36.22
3.00	ELEV	893.56	893.55	893.54	893.52	893.51	893.50	893.49	893.47	893.46	893.45
4.00	DISCHG	35.93	35.63	35.34	35.05	34.76	34.47	34.19	33.91	33.63	33.35
4.00	ELEV	893.44	893.43	893.41	893.40	893.39	893.38	893.37	893.36	893.35	893.33
5.00	DISCHG	33.08	32.80	32.53	32.27	32.00	31.74	31.48	31.22	30.96	30.70
5.00	ELEV	893.32	893.31	893.30	893.29	893.28	893.27	893.26	893.25	893.24	893.23
6.00	DISCHG	30.45	30.20	29.95	29.71	29.46	29.22	28.98	28.74	28.50	28.27
6.00	ELEV	893.22	893.21	893.20	893.19	893.18	893.17	893.16	893.15	893.14	893.13
7.00	DISCHG	28.04	27.81	27.58	27.35	27.12	26.90	26.68	26.46	26.24	26.03
7.00	ELEV	893.12	893.11	893.10	893.09	893.09	893.08	893.07	893.06	893.05	893.04
8.00	DISCHG	25.81	25.60	25.39	25.18	24.97	24.77	24.56	24.36	24.16	23.97
8.00	ELEV	893.03	893.02	893.02	893.01	893.00	892.99	892.98	892.97	892.97	892.96
9.00	DISCHG	23.77	23.58	23.39	23.20	23.02	22.83	22.65	22.48	22.31	22.14
9.00	ELEV	892.95	892.94	892.94	892.93	892.92	892.91	892.91	892.90	892.89	892.89
10.00	DISCHG	21.98	21.82	21.67	21.52	21.38	21.25	21.12	21.00	20.89	20.79
10.00	ELEV	892.88	892.87	892.87	892.86	892.86	892.85	892.84	892.84	892.84	892.83
11.00	DISCHG	20.69	20.61	20.54	20.48	20.43	20.40	20.38	20.39	20.42	20.50
11.00	ELEV	892.83	892.82	892.82	892.82	892.82	892.82	892.82	892.82	892.82	892.82
12.00	DISCHG	20.63	20.84	21.15	21.58	22.13	22.83	23.70	24.75	26.00	27.47
12.00	ELEV	892.83	892.83	892.85	892.86	892.89	892.91	892.95	892.99	893.04	893.10
13.00	DISCHG	29.18	31.13	33.32	35.73	38.35	41.15	44.10	47.17	50.34	53.58
13.00	ELEV	893.17	893.25	893.33	893.43	893.53	893.65	893.76	893.89	894.01	894.14
14.00	DISCHG	56.86	60.16	63.46	66.73	69.96	73.11	77.37	83.29	88.95	94.34
14.00	ELEV	894.27	894.41	894.54	894.67	894.80	894.92	895.05	895.17	895.28	895.39
15.00	DISCHG	99.43	104.20	108.63	112.71	116.44	119.85	122.95	126.15	129.97	133.39
15.00	ELEV	895.49	895.58	895.67	895.75	895.83	895.90	895.96	896.02	896.07	896.11
16.00	DISCHG	136.44	139.14	141.53	143.61	145.43	146.99	148.31	149.41	150.30	150.99
16.00	ELEV	896.15	896.19	896.22	896.25	896.27	896.29	896.31	896.33	896.34	896.35
17.00	DISCHG	151.49	151.82	152.00	152.04	151.95	151.74	151.42	151.00	150.49	149.89
17.00	ELEV	896.35	896.36	896.36	896.36	896.36	896.36	896.35	896.35	896.34	896.33
18.00	DISCHG	149.21	148.46	147.65	146.77	145.84	144.86	143.84	142.78	141.68	140.55
18.00	ELEV	896.32	896.31	896.30	896.29	896.28	896.26	896.25	896.24	896.22	896.21
19.00	DISCHG	139.39	138.21	137.00	135.77	134.53	133.27	132.00	130.71	129.42	128.12
19.00	ELEV	896.19	896.18	896.16	896.14	896.13	896.11	896.09	896.08	896.06	896.04
20.00	DISCHG	126.81	125.50	124.46	123.58	122.69	121.80	120.90	120.00	119.10	118.19

20.00	ELEV	896.02	896.01	895.99	895.97	895.95	895.94	895.92	895.90	895.88	895.86
21.00	DISCHG	117.28	116.37	115.46	114.54	113.63	112.71	111.80	110.88	109.97	109.05
21.00	ELEV	895.85	895.83	895.81	895.79	895.77	895.75	895.74	895.72	895.70	895.68
22.00	DISCHG	108.14	107.22	106.31	105.40	104.49	103.59	102.68	101.79	100.89	100.00
22.00	ELEV	895.66	895.64	895.63	895.61	895.59	895.57	895.55	895.54	895.52	895.50
23.00	DISCHG	99.12	98.24	97.37	96.51	95.66	94.82	93.99	93.16	92.35	91.55
23.00	ELEV	895.48	895.46	895.45	895.43	895.41	895.40	895.38	895.36	895.35	895.33
24.00	DISCHG	90.75	89.97	89.19	88.42	87.66	86.91	86.16	85.42	84.69	83.95
24.00	ELEV	895.32	895.30	895.28	895.27	895.25	895.24	895.22	895.21	895.19	895.18
25.00	DISCHG	83.22	82.48	81.75	81.00	80.26	79.50	78.74	77.97	77.19	76.40
25.00	ELEV	895.16	895.15	895.13	895.12	895.11	895.09	895.07	895.06	895.04	895.03
26.00	DISCHG	75.60	74.89	74.48	74.06	73.63	73.19	72.75	72.30	71.84	71.38
26.00	ELEV	895.01	895.00	894.98	894.96	894.95	894.93	894.91	894.89	894.87	894.86
27.00	DISCHG	70.91	70.44	69.96	69.48	69.00	68.51	68.02	67.53	67.04	66.55
27.00	ELEV	894.84	894.82	894.80	894.78	894.76	894.74	894.72	894.70	894.68	894.66
28.00	DISCHG	66.06	65.57	65.07	64.58	64.09	63.60	63.12	62.63	62.14	61.66
28.00	ELEV	894.64	894.62	894.60	894.58	894.56	894.54	894.52	894.51	894.49	894.47
29.00	DISCHG	61.18	60.70	60.22	59.75	59.28	58.81	58.34	57.88	57.41	56.95
29.00	ELEV	894.45	894.43	894.41	894.39	894.37	894.35	894.33	894.32	894.30	894.28

RUNOFF VOLUME ABOVE BASEFLOW = 2.10 WATERSHED INCHES, 2075.11 CFS-HRS, 171.49 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR STRUCTURE 1, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RUNOFF CROSS SECTION 2
OUTPUT HYDROGRAPH= 3
AREA= 1.52 SQ MI INPUT RUNOFF CURVE= 81. TIME OF CONCENTRATION= 4.00 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .0988 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
14.73	394.98	(RUNOFF)

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS			TIME INCREMENT = .10 HOURS				DRAINAGE AREA = 1.52 SQ.MI.		
8.00	DISCHG	.00	.00	.00	.01	.02	.03	.04	.06	.09	.13
9.00	DISCHG	.17	.23	.30	.38	.49	.61	.76	.93	1.13	1.36
10.00	DISCHG	1.62	1.91	2.24	2.61	3.02	3.48	3.98	4.54	5.16	5.85
11.00	DISCHG	6.61	7.46	8.40	9.44	10.60	11.93	13.54	15.54	18.29	22.26
12.00	DISCHG	27.55	34.23	42.41	51.96	62.71	74.57	87.66	102.21	118.18	135.66
13.00	DISCHG	154.77	175.27	196.85	219.26	241.69	263.35	284.03	303.24	320.66	336.30
14.00	DISCHG	350.04	361.85	371.72	379.58	385.67	390.24	393.30	394.86	394.59	392.44
15.00	DISCHG	388.90	384.38	379.01	372.80	365.72	357.81	348.87	338.89	328.03	316.39
16.00	DISCHG	304.13	291.98	280.32	269.15	258.75	249.18	240.16	231.51	223.24	215.33
17.00	DISCHG	207.83	200.70	193.98	187.70	181.72	175.97	170.45	165.09	159.88	154.83
18.00	DISCHG	150.02	145.47	141.15	137.08	133.22	129.53	125.98	122.57	119.30	116.17
19.00	DISCHG	113.15	110.26	107.49	104.82	102.27	99.82	97.44	95.13	92.90	90.79
20.00	DISCHG	88.80	86.88	85.03	83.25	81.54	79.89	78.30	76.78	75.32	73.91
21.00	DISCHG	72.55	71.22	69.92	68.64	67.39	66.17	64.99	63.84	62.72	61.63
22.00	DISCHG	60.58	59.59	58.63	57.69	56.79	55.91	55.05	54.24	53.47	52.75
23.00	DISCHG	52.07	51.42	50.79	50.19	49.61	49.06	48.52	48.02	47.53	47.07

24.00	DISCHG	46.62	46.18	45.74	45.30	44.84	44.36	43.86	43.33	42.77	42.17
25.00	DISCHG	41.53	40.85	40.14	39.38	38.58	37.71	36.78	35.79	34.75	33.66
26.00	DISCHG	32.54	31.39	30.21	29.03	27.83	26.63	25.44	24.25	23.08	21.92
27.00	DISCHG	20.79	19.68	18.61	17.57	16.56	15.59	14.66	13.77	12.92	12.11
28.00	DISCHG	11.36	10.66	10.00	9.39	8.82	8.29	7.80	7.33	6.89	6.48
29.00	DISCHG	6.10	5.73	5.39	5.07	4.77	4.48	4.21	3.95	3.71	3.49

RUNOFF VOLUME ABOVE BASEFLOW = 2.18 WATERSHED INCHES, 2141.82 CFS-HRS, 177.00 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 2, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION ADDHYD CROSS SECTION 3
INPUT HYDROGRAPHS= 2,3 OUTPUT HYDROGRAPH= 4
ELEVATION OUTPUT OPTION REQUESTED BUT NO ELEVATIONS GIVEN

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.00	50.00	(NULL)
15.07	488.62	(NULL)

TIME(HRS) FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 3.05 SQ.MI.

.00	DISCHG	50.00	49.59	49.18	48.78	48.37	47.98	47.58	47.19	46.80	46.42
1.00	DISCHG	46.03	45.66	45.28	44.91	44.54	44.17	43.81	43.45	43.09	42.73
2.00	DISCHG	42.38	42.03	41.69	41.34	41.00	40.67	40.33	40.00	39.67	39.34
3.00	DISCHG	39.02	38.70	38.38	38.06	37.75	37.44	37.13	36.83	36.52	36.22
4.00	DISCHG	35.93	35.63	35.34	35.05	34.76	34.47	34.19	33.91	33.63	33.35
5.00	DISCHG	33.08	32.80	32.53	32.27	32.00	31.74	31.48	31.22	30.96	30.70
6.00	DISCHG	30.45	30.20	29.95	29.71	29.46	29.22	28.98	28.74	28.50	28.27
7.00	DISCHG	28.04	27.81	27.58	27.35	27.12	26.90	26.68	26.46	26.24	26.03
8.00	DISCHG	25.81	25.60	25.39	25.19	24.99	24.79	24.61	24.43	24.25	24.09
9.00	DISCHG	23.94	23.81	23.69	23.58	23.50	23.45	23.41	23.41	23.44	23.50
10.00	DISCHG	23.60	23.74	23.91	24.14	24.41	24.73	25.11	25.55	26.05	26.64
11.00	DISCHG	27.31	28.07	28.93	29.91	31.03	32.33	33.92	35.93	38.71	42.76
12.00	DISCHG	48.18	55.07	63.56	73.53	84.84	97.40	111.36	126.96	144.18	163.13
13.00	DISCHG	183.95	206.40	230.17	255.00	280.04	304.50	328.12	350.41	371.01	389.87
14.00	DISCHG	406.90	422.01	435.18	446.31	455.63	463.35	470.67	478.15	483.54	486.78
15.00	DISCHG	488.33	488.57	487.64	485.51	482.17	477.65	471.82	465.04	458.00	449.77
16.00	DISCHG	440.57	431.12	421.85	412.76	404.18	396.17	388.48	380.93	373.54	366.32
17.00	DISCHG	359.32	352.52	345.99	339.74	333.67	327.71	321.87	316.09	310.37	304.72
18.00	DISCHG	299.23	293.93	288.80	283.85	279.06	274.40	269.83	265.35	260.98	256.72
19.00	DISCHG	252.55	248.47	244.49	240.59	236.80	233.09	229.44	225.84	222.32	218.91
20.00	DISCHG	215.61	212.38	209.49	206.83	204.23	201.69	199.21	196.78	194.41	192.10
21.00	DISCHG	189.83	187.59	185.38	183.18	181.01	178.88	176.79	174.72	172.68	170.68
22.00	DISCHG	168.72	166.81	164.94	163.10	161.28	159.49	157.74	156.02	154.36	152.75
23.00	DISCHG	151.19	149.66	148.17	146.71	145.28	143.88	142.51	141.18	139.88	138.61
24.00	DISCHG	137.37	136.15	134.93	133.72	132.50	131.27	130.03	128.76	127.46	126.12
25.00	DISCHG	124.75	123.33	121.88	120.39	118.84	117.21	115.52	113.76	111.94	110.06
26.00	DISCHG	108.14	106.28	104.70	103.09	101.46	99.83	98.19	96.55	94.92	93.30

27.00	DISCHG	91.70	90.12	88.57	87.05	85.56	84.10	82.68	81.30	79.96	78.66
28.00	DISCHG	77.42	76.22	75.07	73.97	72.91	71.90	70.91	69.96	69.04	68.14
29.00	DISCHG	67.28	66.43	65.61	64.82	64.04	63.29	62.55	61.83	61.12	60.44

RUNOFF VOLUME ABOVE BASEFLOW = 2.14 WATERSHED INCHES, 4216.93 CFS-HRS, 348.49 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 3, ALTERNATE 1, STORM 1, ADDED TO OUTPUT HYDROGRAPH FILE ---

EXECUTIVE CONTROL OPERATION ENDCMP COMPUTATIONS COMPLETED FOR PASS 1 RECORD ID

EXECUTIVE CONTROL OPERATION COMPUT FROM XSECTION 1 TO XSECTION 3 RECORD ID 100-YR
STARTING TIME = .00 RAIN DEPTH = 6.48 RAIN DURATION= 1.00 RAIN TABLE NO.= 2 ANT. MOIST. COND= 2
ALTERNATE NO.= 1 STORM NO.= 2 MAIN TIME INCREMENT = .10 HOURS

OPERATION RUNOFF CROSS SECTION 1
OUTPUT HYDROGRAPH= 1
AREA= 1.53 SQ MI INPUT RUNOFF CURVE= 81. TIME OF CONCENTRATION= 3.30 HOURS
INTERNAL HYDROGRAPH TIME INCREMENT= .1000 HOURS

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET) (RUNOFF)
14.15	921.95	

TIME(HRS)		FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS			DRAINAGE AREA =		1.53 SQ.MI.
5.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
6.00	DISCHG	.01	.02	.04	.07	.10	.15	.22	.30	.41	.54
7.00	DISCHG	.70	.90	1.12	1.39	1.70	2.04	2.43	2.86	3.33	3.84
8.00	DISCHG	4.39	4.97	5.60	6.28	6.99	7.75	8.55	9.40	10.30	11.25
9.00	DISCHG	12.25	13.30	14.42	15.60	16.84	18.16	19.54	21.00	22.53	24.13
10.00	DISCHG	25.81	27.57	29.41	31.34	33.38	35.51	37.78	40.17	42.73	45.47
11.00	DISCHG	48.42	51.60	55.05	58.83	62.96	67.52	73.12	79.87	89.22	102.35
12.00	DISCHG	120.55	142.93	170.47	201.66	236.59	275.78	319.29	367.86	421.03	478.48
13.00	DISCHG	538.36	599.34	657.56	711.21	759.81	801.99	837.66	866.88	889.22	905.71
14.00	DISCHG	915.61	921.22	921.33	916.01	904.69	890.00	872.55	852.31	829.48	803.55
15.00	DISCHG	774.56	742.68	708.72	673.51	639.58	607.84	578.26	551.28	526.09	502.09
16.00	DISCHG	479.51	458.15	438.28	419.64	402.39	385.84	370.08	354.89	340.25	326.40
17.00	DISCHG	313.43	301.37	290.10	279.62	269.63	260.19	251.23	242.80	234.81	227.26
18.00	DISCHG	220.13	213.39	206.99	200.80	194.90	189.36	184.24	179.32	174.64	170.14
19.00	DISCHG	165.84	161.73	157.80	154.04	150.44	147.00	143.67	140.47	137.43	134.56
20.00	DISCHG	131.82	129.18	126.67	124.30	122.04	119.83	117.68	115.58	113.54	111.59
21.00	DISCHG	109.73	107.90	106.09	104.31	102.55	100.82	99.11	97.43	95.79	94.18
22.00	DISCHG	92.61	91.07	89.58	88.14	86.74	85.40	84.13	82.93	81.83	80.86
23.00	DISCHG	80.04	79.28	78.59	77.96	77.39	76.86	76.38	75.94	75.52	75.13
24.00	DISCHG	74.75	74.35	73.93	73.45	72.91	72.28	71.57	70.74	69.78	68.68
25.00	DISCHG	67.41	65.96	64.33	62.52	60.56	58.45	56.22	53.90	51.51	49.08
26.00	DISCHG	46.62	44.16	41.71	39.29	36.91	34.59	32.35	30.18	28.10	26.11
27.00	DISCHG	24.21	22.42	20.75	19.19	17.77	16.46	15.26	14.16	13.14	12.20
28.00	DISCHG	11.32	10.51	9.76	9.06	8.41	7.80	7.24	6.71	6.22	5.77
29.00	DISCHG	5.35	4.96	4.59	4.26	3.95	3.66	3.39	3.14	2.90	2.69

RUNOFF VOLUME ABOVE BASEFLOW = 4.32 WATERSHED INCHES, 4265.50 CFS-HRS, 352.50 ACRE-FEET; BASEFLOW = .00 CFS

--- HYDROGRAPH FOR XSECTION 1, ALTERNATE 1, STORM 2, ADDED TO OUTPUT HYDROGRAPH FILE ---

OPERATION RESVOR STRUCTURE 1
INPUT HYDROGRAPH= 1 OUTPUT HYDROGRAPH= 2
SURFACE ELEVATION= 893.00

*** WARNING - STRUCTURE 1 DELTA T IS TOO LARGE. O /2 > S /DELTA T OCCURED 22 TIMES STARTING WITH POINT 89

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.00	50.00	894.00
16.13	452.89	899.02

FIRST HYDROGRAPH POINT = .00 HOURS TIME INCREMENT = .10 HOURS DRAINAGE AREA = 1.53 SQ.MI.

TIME(HRS)											
.00	DISCHG	50.00	49.59	49.18	48.78	48.37	47.98	47.58	47.19	46.80	46.42
.00	ELEV	894.00	893.98	893.97	893.95	893.93	893.92	893.90	893.89	893.87	893.86
1.00	DISCHG	46.03	45.66	45.28	44.91	44.54	44.17	43.81	43.45	43.09	42.73
1.00	ELEV	893.84	893.83	893.81	893.80	893.78	893.77	893.75	893.74	893.72	893.71
2.00	DISCHG	42.38	42.03	41.69	41.34	41.00	40.67	40.33	40.00	39.67	39.34
2.00	ELEV	893.70	893.68	893.67	893.65	893.64	893.63	893.61	893.60	893.59	893.57
3.00	DISCHG	39.02	38.70	38.38	38.06	37.75	37.44	37.13	36.83	36.52	36.22
3.00	ELEV	893.56	893.55	893.54	893.52	893.51	893.50	893.49	893.47	893.46	893.45
4.00	DISCHG	35.93	35.63	35.34	35.05	34.76	34.47	34.19	33.91	33.63	33.35
4.00	ELEV	893.44	893.43	893.41	893.40	893.39	893.38	893.37	893.36	893.35	893.33
5.00	DISCHG	33.08	32.80	32.53	32.27	32.00	31.74	31.48	31.22	30.96	30.70
5.00	ELEV	893.32	893.31	893.30	893.29	893.28	893.27	893.26	893.25	893.24	893.23
6.00	DISCHG	30.45	30.20	29.95	29.71	29.46	29.22	28.98	28.75	28.51	28.28
6.00	ELEV	893.22	893.21	893.20	893.19	893.18	893.17	893.16	893.15	893.14	893.13
7.00	DISCHG	28.05	27.83	27.61	27.39	27.18	26.97	26.77	26.57	26.38	26.19
7.00	ELEV	893.12	893.11	893.10	893.10	893.09	893.08	893.07	893.06	893.06	893.05
8.00	DISCHG	26.01	25.83	25.66	25.50	25.34	25.20	25.06	24.92	24.80	24.68
8.00	ELEV	893.04	893.03	893.03	893.02	893.01	893.01	893.00	893.00	892.99	892.99
9.00	DISCHG	24.58	24.48	24.39	24.32	24.25	24.19	24.15	24.12	24.10	24.09
9.00	ELEV	892.98	892.98	892.98	892.97	892.97	892.97	892.97	892.96	892.96	892.96
10.00	DISCHG	24.10	24.12	24.16	24.21	24.28	24.36	24.46	24.58	24.72	24.88
10.00	ELEV	892.96	892.96	892.97	892.97	892.97	892.97	892.98	892.98	892.99	893.00
11.00	DISCHG	25.06	25.26	25.50	25.75	26.04	26.37	26.73	27.14	27.61	28.17
11.00	ELEV	893.00	893.01	893.02	893.03	893.04	893.05	893.07	893.09	893.10	893.13
12.00	DISCHG	28.86	29.70	30.75	32.03	33.57	35.40	37.56	40.08	42.99	46.34
12.00	ELEV	893.15	893.19	893.23	893.28	893.34	893.42	893.50	893.60	893.72	893.85
13.00	DISCHG	50.14	54.41	59.14	64.28	69.81	76.31	88.50	101.02	113.76	127.40
13.00	ELEV	894.01	894.18	894.37	894.57	894.79	895.03	895.27	895.52	895.78	896.03
14.00	DISCHG	146.59	165.49	184.00	202.64	225.66	247.50	268.11	287.44	308.09	332.69
14.00	ELEV	896.29	896.54	896.79	897.03	897.26	897.47	897.68	897.87	898.05	898.22
15.00	DISCHG	354.77	374.31	391.32	405.82	417.95	427.91	435.90	442.14	446.81	450.06
15.00	ELEV	898.37	898.50	898.61	898.71	898.79	898.85	898.91	898.95	898.98	899.00
16.00	DISCHG	452.03	452.85	452.62	451.48	449.52	446.84	443.51	439.59	435.13	430.21
16.00	ELEV	899.01	899.02	899.02	899.01	899.00	898.98	898.96	898.93	898.90	898.87
17.00	DISCHG	424.87	419.19	413.21	407.00	400.60	394.03	387.34	380.55	373.69	366.79
17.00	ELEV	898.83	898.79	898.75	898.71	898.67	898.63	898.58	898.54	898.49	898.45
18.00	DISCHG	359.86	352.94	346.03	339.15	332.32	325.53	318.82	312.19	305.65	299.46
18.00	ELEV	898.40	898.35	898.31	898.26	898.22	898.17	898.13	898.08	898.04	897.99
19.00	DISCHG	295.19	290.91	286.65	282.40	278.16	273.95	269.77	265.62	261.50	257.42
19.00	ELEV	897.95	897.91	897.87	897.82	897.78	897.74	897.70	897.66	897.61	897.57
20.00	DISCHG	253.38	249.38	245.43	241.53	237.68	233.89	230.14	226.45	222.81	219.23