

O'FALLON AUTO MALL
DETENTION ROUTING REPORT

Prepared by: J. Whisler
Checked by: L. Meers
Job No. 675N
Date: 03/11/05
Revised: 06/30/05



RECEIVED
MAY 23 2005
CITY OF O'FALLON, MO

O'FALLON AUTO MALL

DETENTION ROUTING REPORT

Prepared by: J. Whisler
Checked by: L. Meers
Job No. 675N
Date: 03/11/05
Revised: 05/23/05

↓
JW
CORP
IN
THE WAY
FC 7/21/05

STATE OF MISSOURI
REGISTERED PROFESSIONAL ENGINEER
LEONARD J. MEERS
NUMBER E-28288
5/23/05

INDEX

Introduction	2	
Stormwater Runoff Summary	3	
Undeveloped Conditions TR-55	POI #1	POI #2
Runoff Curve Number	6	119
Tc Computations	8	121
2 Year Runoff Hydrograph	11	126
15 Year Runoff Hydrograph	18	133
25 Year Runoff Hydrograph	25	140
100 Year Runoff Hydrograph	32	147
Developed Conditions TR-55		
Runoff Curve Number	42	199
Tc Computations	44	201
2 Year Runoff Hydrograph	48	206
15 Year Runoff Hydrograph	55	216
25 Year Runoff Hydrograph	62	226
Basin Routing Calculations (Pondpack ver.10.0)		
Basin Volume	70	236
Detention Structure (Free Outfall)	72	238
2 Year Routing (Free Outfall)	78	246
15 Year Routing (Free Outfall)	89	261
25 Year Routing (Free Outfall)	95	269
100 Year High-water Elevation (Low Flow Orifice Blocked)	102	277
Appendix	295	
Soils Map and Index		
Drainage Area Map		
2 - Year Sediment Calculations		
Existing 25 Year Highwater		
Buoyancy Calculations		

Frank Adams

DETENTION REPORT MEETS CITY REQUIREMENTS. IN REGARDS TO SITE PLANS, ALL LOT SITE PLANS MUST PROVIDE 20% GREENSPACE. PER REPORT. AN ADDITIONAL 10 ACRES WAS DIRECTED TO P.O.T. 1 - RELEASE RATE WAS OK

INTRODUCTION

The O'Fallon Auto Mall is a 33.34 acre development consisting of 9 lots. There will be two detention basins to provide detention for all lots. Detention Basin #1 will provide for 16.31 Acres of the site plus additional offsite area from the Rustique development. When Crusher Road is constructed beyond the site, Rustique's basin will be directed into the proposed basin. Detention Basin #2 will provide for 17.03 Acres of the site plus additional offsite area from the Busch Wildlife Area.

The detained site is within the Schote Creek watershed with the terrain of the site sloping from southwest to northeast with an elevation difference of approximately 60 feet. The existing site is currently undeveloped. The proposed site impervious area was determined by assuming a maximum of 80% coverage including the basin areas.

Detention basin #1 will be constructed on the northwest corner of the property. The basin is approximately 8 feet deep. The bottom of the basin will be sodded for the entire area of the basin at a minimum slope of 2 percent.

Detention basin #2 will be constructed on the northwest corner of the property. The basin is approximately 12 feet deep. The bottom of the basin will be sodded for the entire area of the basin at a minimum slope of 2 percent.

The outflow structure for basin #1 will be a 96" diameter pre-cast manhole with a 24" diameter low flow orifice and one (1), intermediate 2'-4" weir cut into the structure. The detention basin will discharge into a 48" RC pipe that will discharge to a drainage swale to the north.

The outflow structure for basin #2 will be a 72" diameter pre-cast manhole with a 11" diameter low flow orifice and one (1), intermediate orifice cut into the structure with a 18" diameter. The detention basin will discharge into a 54" RC pipe that will discharge to the drainage ditch along the east property line.

Haestad Quick TR-55 version 10.0 was used to analyze the existing 2-year, 15-year, 25-year and 100-year stormwater runoff conditions. The maximum developed runoff release rate from the proposed site was established from the existing runoff rate.

Using the TR-55 software, the developed (pavement, buildings, basins, etc.) 2-year, 15-year, 25-year, and 100-year stormwater runoff conditions were calculated. Then using Haestad Pondpack version 10.0, the detention routings were calculated for the basin. The basin was routed for the 2-year, 15-year and 25-year developed runoff conditions with a free outfall. The detained and developed bypass hydrographs were then combined to determine the proposed discharge from the site. The 100-year high water elevation was then calculated assuming the low flow orifice was 100% blocked and the water ponded to the intermediate orifice or weir of the structure.

STORMWATER RUNOFF SUMMARY

2 Year - 24 Hour Storm Event

Existing Condition POI #1	25.12 cfs	(Allowable Discharge)
Proposed Discharge Rate POI #1	24.75 cfs	(Free Outfall)
Existing Condition POI #2	8.62 cfs	(Allowable Discharge)
Proposed Discharge Rate POI #2	8.07 cfs	(Free Outfall)

15 Year - 24 Hour Storm Event

Existing Condition POI #1	43.06 cfs	(Allowable Discharge)
Proposed Discharge Rate POI #1	42.01 cfs	(Free Outfall)
Existing Condition POI #2	20.15 cfs	(Allowable Discharge)
Proposed Discharge Rate POI #2	19.61 cfs	(Free Outfall)

25 Year - 24 Hour Storm Event

Existing Condition POI #1	48.51 cfs	(Allowable Discharge)
Proposed Discharge Rate POI #1	48.08 cfs	(Free Outfall)
Existing Condition POI #2	23.86 cfs	(Allowable Discharge)
Proposed Discharge Rate POI #2	21.90 cfs	(Free Outfall)

Note: 2 year sediment storage has been provided in basin

Note: Detention is provided for 43.71 Acres.

INCLUDES
- EXISTING ON SITE LAKE + BASTIQUE ✓

Maximum 100 Year 24 Hour Storm Event Highwater (with the low flow orifice blocked)

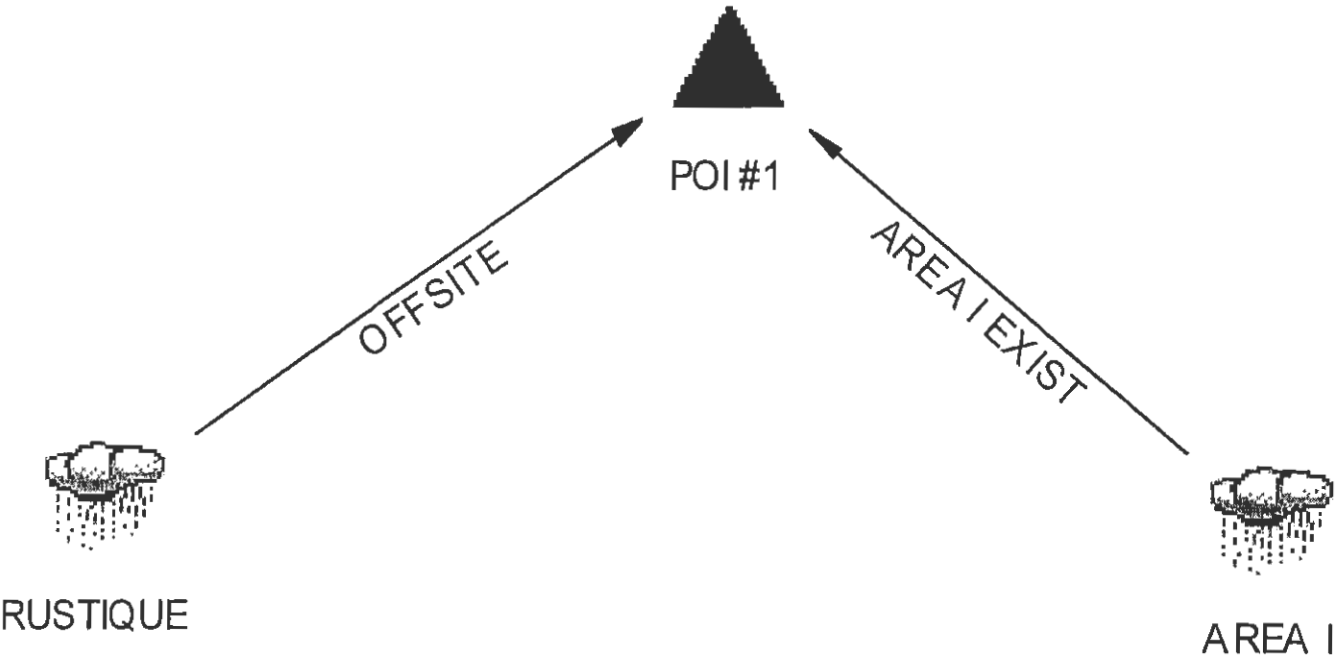
Basin #1 Elevation	549.80 ft
Basin #2 Elevation	547.27 ft

25 Year 24 Hour Storm Event Highwater

EX POI #1 Elevation	540.88 ft
EX POI #2 Elevation	542.52 ft

Undeveloped Conditions

POI #1



Type.... Master Network Summary
 e.... Watershed
 File.... R:\0675N\10-EX-POI#1.PPW

MASTER DESIGN STORM SUMMARY

Network Storm Collection: OFALLON

Return Event	Total Depth in	Rainfall Type	RNF ID	
2-YR	3.5000	Synthetic Curve	TypeII	24hr
15-YR	5.2000	Synthetic Curve	TypeII	24hr
25-YR	5.7000	Synthetic Curve	TypeII	24hr
100-YR	7.2000	Synthetic Curve	TypeII	24hr

MASTER NETWORK SUMMARY
 SCS Unit Hydrograph Method

(*Node=Outfall; +Node=Diversion;)
 (Trun= HYG Truncation: Blank=None; L=Left; R=Rt; LR=Left&Rt)

Storage Node ID	Type	Return Event	HYG Vol ac-ft	Trun	Qpeak hrs	Qpeak cfs	Max WSEL ft	Max Pond ac-ft
AREA I	AREA	2	.707		12.1500	7.82		
AREA I	AREA	15	1.461		12.1500	16.79		
AREA I	AREA	25	1.702		12.1500	19.62		
AREA I	AREA	100	2.461		12.1500	28.38		
*POI #1	JCT	2	2.372		12.1500	25.12		
*POI #1	JCT	15	4.048		12.1500	43.06		
*POI #1	JCT	25	4.562		12.1500	48.51		
*POI #1	JCT	100	6.138		12.1500	65.11		
RUSTIQUE	AREA	2	1.665		12.1500	17.29		
RUSTIQUE	AREA	15	2.587		12.1500	26.27		
RUSTIQUE	AREA	25	2.859		12.1500	28.89		
	RUSTIQUE		AREA 100		3.676	12.1500	36.73	

Table 2-2a.—Runoff curve numbers for urban areas¹

Cover description		Curve numbers for hydrologic soil group—			
Cover type and hydrologic condition	Average percent impervious area ²	A	B	C	D
<i>Fully developed urban areas (vegetation established)</i>					
Open space (lawns, parks, golf courses, cemeteries, etc.) ³ :					
Poor condition (grass cover < 50%)		68	79	86	89
Fair condition (grass cover 50% to 75%)		49	69	79	84
Good condition (grass cover > 75%)		39	61	74	80
Impervious areas:					
Paved parking lots, roofs, driveways, etc. (excluding right-of-way)					
		98	98	98	98
Streets and roads:					
Paved; curbs and storm sewers (excluding right-of-way)					
		98	98	98	98
Paved; open ditches (including right-of-way)					
		83	89	92	93
Gravel (including right-of-way)					
		76	85	89	91
Dirt (including right-of-way)					
		72	82	87	89
Western desert urban areas:					
Natural desert landscaping (pervious areas only) ⁴ ...					
		63	77	85	88
Artificial desert landscaping (impervious weed barrier, desert shrub with 1- to 2-inch sand or gravel mulch and basin borders)					
		96	96	96	96
Urban districts:					
Commercial and business	85	89	92	94	95
Industrial	72	81	88	91	93
Residential districts by average lot size:					
1/8 acre or less (town houses)	65	77	85	90	92
1/4 acre	38	61	75	83	87
1/3 acre	30	57	72	81	86
1/2 acre	25	54	70	80	85
1 acre	20	51	68	79	84
2 acres	12	46	65	77	82
<i>Developing urban areas</i>					
Newly graded areas (pervious areas only, no vegetation) ⁵					
		77	86	91	94
Idle lands (CN's are determined using cover types similar to those in table 2-2c).					

¹Average runoff condition, and $I_n = 0.2S$.

²The average percent impervious area shown was used to develop the composite CN's. Other assumptions are as follows: impervious areas are directly connected to the drainage system, impervious areas have a CN of 98, and pervious areas are considered equivalent to open space in good hydrologic condition. CN's for other combinations of conditions may be computed using figure 2-3 or 2-4.

³CN's shown are equivalent to those of pasture. Composite CN's may be computed for other combinations of open space cover type.

⁴Composite CN's for natural desert landscaping should be computed using figures 2-3 or 2-4 based on the impervious area percentage (CN = 98) and the pervious area CN. The pervious area CN's are assumed equivalent to desert shrub in poor hydrologic condition.

⁵Composite CN's to use for the design of temporary measures during grading and construction should be computed using figure 2-3 or 2-4, based on the degree of development (impervious area percentage) and the CN's for the newly graded pervious areas.

Type.... Runoff CN-Area
e.... AREA I

File.... R:\0675N\10-EX-POI#1.PPW

RUNOFF CURVE NUMBER DATA

.....

Soil/Surface Description	CN	Area acres	Impervious Adjustment		Adjusted CN
			%C	%UC	
SOILS GROUP B GRASS	61	.780			61.00
SOILS GROUP C GRASS	74	6.400			74.00

COMPOSITE AREA & WEIGHTED CN ---> 7.180 72.59 (73)

.....

Type.... Runoff CN-Area
Name.... RUSTIQUE

File.... R:\0675N\10-EX-POI#1.PPW

RUNOFF CURVE NUMBER DATA

.....

Soil/Surface Description	CN	Area acres	Impervious Adjustment		Adjusted CN
			%C	%UC	
PAVEMENT/ROOF	98	6.090			98.00
GRASS	74	.470			74.00

COMPOSITE AREA & WEIGHTED CN ---> 6.560 96.28 (96)

.....

Type.... Tc Calcs
e.... AREA I

File.... R:\0675N\10-EX-POI#1.PPW

.....
TIME OF CONCENTRATION CALCULATOR
.....

Segment #1: Tc: TR-55 Sheet

Mannings n .2400
Hydraulic Length 300.00 ft
2yr, 24hr P 3.5000 in
Slope .050000 ft/ft

Avg.Velocity .22 ft/sec

Segment #1 Time: .3796 hrs

Segment #2: Tc: TR-55 Shallow

Hydraulic Length 235.00 ft
 ope .049000 ft/ft
unpaved

Avg.Velocity 3.57 ft/sec

Segment #2 Time: .0183 hrs

=====
Total Tc: .3979 hrs
=====

Type.... Tc Calcs
e.... AREA I

File.... R:\0675N\10-EX-POI#1.PPW

Tc Equations used...

==== SCS TR-55 Sheet Flow =====

$$Tc = (.007 * ((n * Lf)**0.8)) / ((P**.5) * (Sf**.4))$$

Where: Tc = Time of concentration, hrs
n = Mannings n
Lf = Flow length, ft
P = 2yr, 24hr Rain depth, inches
Sf = Slope, %

==== SCS TR-55 Shallow Concentrated Flow =====

Unpaved surface:

$$V = 16.1345 * (Sf**0.5)$$

Paved surface:

$$V = 20.3282 * (Sf**0.5)$$

$$Tc = (Lf / V) / (3600sec/hr)$$

Where: V = Velocity, ft/sec
Sf = Slope, ft/ft
Tc = Time of concentration, hrs
Lf = Flow length, ft

Type.... Tc Calcs
e.... RUSTIQUE

File.... R:\0675N\10-EX-POI#1.PPW

.....
TIME OF CONCENTRATION CALCULATOR
.....

Segment #1: Tc: User Defined

Segment #1 Time: .4300 hrs

=====
Total Tc: .4300 hrs
=====

Tc Equations used...

== User Defined =====

Tc = Value entered by user

Where: Tc = Time of concentration

2-Year

```

e.... Unit Hyd. Summary
Name.... AREA I          Tag: 2-YR          Event: 2 yr
File.... R:\0675N\10-EX-POI#1.PPW
Storm... TypeII 24hr    Tag: 2-YR

```

SCS UNIT HYDROGRAPH METHOD

```

STORM EVENT: 2 year storm
Duration      = 24.0000 hrs      Rain Depth = 3.5000 in
Rain Dir      = R:\0675N\
Rain File -ID = - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir       = R:\0675N\
HYG File - ID = - AREA I 2-YR
Tc            = .3979 hrs
Drainage Area = 7.180 acres  Runoff CN= 73

```

```

=====
Computational Time Increment = .05305 hrs
Computed Peak Time          = 12.1489 hrs
Computed Peak Flow          = 7.83 cfs

Time Increment for HYG File = .1500 hrs
Peak Time, Interpolated Output = 12.1500 hrs
Peak Flow, Interpolated Output = 7.82 cfs
=====

```

DRAINAGE AREA

```

-----
ID:AREA I
CN = 73
Area = 7.180 acres
S = 3.6986 in
0.2S = .7397 in

```

Cumulative Runoff

```

-----
1.1796 in
.706 ac-ft

```

HYG Volume... .707 ac-ft (area under HYG curve)

***** SCS UNIT HYDROGRAPH PARAMETERS *****

```

Time Concentration, Tc = .39789 hrs (ID: AREA I)
Computational Incr, Tm = .05305 hrs = 0.20000 Tp

Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)

Unit peak, qp = 20.45 cfs
Unit peak time Tp = .26526 hrs
Unit receding limb, Tr = 1.06104 hrs
Total unit time, Tb = 1.32630 hrs

```

Type.... Unit Hyd. (HYG output)
 Area.... AREA I Tag: 2-YR Event: 2 yr
 File.... R:\0675N\10-EX-POI#1.PPW
 Storm... TypeII 24hr Tag: 2-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 2 year storm
 Duration = 24.0000 hrs Rain Depth = 3.5000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - AREA I 2-YR
 Tc = .3979 hrs
 Drainage Area = 7.180 acres Runoff CN= 73
 Calc.Increment= .05305 hrs Out.Incr.= .1500 hrs
 HYG Volume = .707 ac-ft

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .1500 hrs
 Time on left represents time for first value in each row.

Time hrs					
10.6500	.00	.00	.01	.04	.07
11.4000	.13	.21	.50	1.80	5.40
12.1500	7.82	5.66	3.47	2.34	1.69
12.9000	1.34	1.13	.99	.90	.83
13.6500	.77	.71	.67	.62	.59
14.4000	.56	.54	.53	.51	.50
15.1500	.48	.47	.45	.44	.42
15.9000	.41	.39	.38	.37	.36
16.6500	.35	.35	.34	.34	.33
17.4000	.33	.32	.32	.31	.30
18.1500	.30	.29	.29	.28	.28
18.9000	.27	.27	.26	.25	.25
19.6500	.24	.24	.23	.22	.22
20.4000	.22	.21	.21	.21	.21
21.1500	.21	.21	.21	.21	.21
21.9000	.20	.20	.20	.20	.20
22.6500	.20	.20	.20	.20	.20
23.4000	.19	.19	.19	.19	.19
24.1500	.16	.09	.03	.01	.01
24.9000	.00	.00			

Type... Unit Hyd. Summary
 e.... RUSTIQUE Tag: 2-YR Event: 2 yr
 File... R:\0675N\10-EX-POI#1.PPW
 Storm... TypeII 24hr Tag: 2-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 2 year storm
 Duration = 24.0000 hrs Rain Depth = 3.5000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - RUSTIQUE 2-YR
 Tc = .4300 hrs
 Drainage Area = 6.560 acres Runoff CN= 96

```

=====
Computational Time Increment = .05733 hrs
Computed Peak Time          = 12.1547 hrs
Computed Peak Flow          = 17.30 cfs

Time Increment for HYG File = .1500 hrs
Peak Time, Interpolated Output = 12.1500 hrs
Peak Flow, Interpolated Output = 17.29 cfs
=====
  
```

DRAINAGE AREA

```

-----
ID:RUSTIQUE
CN = 96
Area = 6.560 acres
S = .4167 in
0.2S = .0833 in
  
```

Cumulative Runoff

```

-----
3.0453 in
1.665 ac-ft
  
```

HYG Volume... 1.665 ac-ft (area under HYG curve)

***** SCS UNIT HYDROGRAPH PARAMETERS *****

Time Concentration, Tc = .43000 hrs (ID: RUSTIQUE)
 Computational Incr, Tm = .05733 hrs = 0.20000 Tp
 Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
 K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
 Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)

Unit peak, qp = 17.29 cfs
 Unit peak time Tp = .28667 hrs
 Unit receding limb, Tr = 1.14667 hrs
 Total unit time, Tb = 1.43333 hrs

Type.... Unit Hyd. (HYG output)
 e.... RUSTIQUE Tag: 2-YR Event: 2 yr
 File.... R:\0675N\10-EX-POI#1.PPW
 Storm... TypeII 24hr Tag: 2-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 2 year storm
 Duration = 24.0000 hrs Rain Depth = 3.5000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - RUSTIQUE 2-YR
 Tc = .4300 hrs
 Drainage Area = 6.560 acres Runoff CN= 96
 Calc.Increment= .05733 hrs Out.Incr.= .1500 hrs
 HYG Volume = 1.665 ac-ft

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .1500 hrs
 Time on left represents time for first value in each row.

Time hrs						
2.2500	.00	.00	.01	.01	.02	
3.0000	.03	.04	.05	.05	.06	
3.7500	.07	.08	.09	.09	.10	
4.5000	.11	.12	.13	.14	.15	
5.2500	.16	.16	.17	.18	.19	
6.0000	.20	.21	.22	.23	.24	
6.7500	.25	.26	.27	.28	.29	
7.5000	.30	.31	.32	.33	.34	
8.2500	.35	.37	.40	.43	.46	
9.0000	.49	.52	.54	.56	.57	
9.7500	.59	.62	.66	.71	.77	
10.5000	.84	.92	1.01	1.12	1.25	
11.2500	1.41	1.63	1.96	3.02	6.71	
12.0000	13.82	17.29	12.47	7.35	4.67	
12.7500	3.19	2.38	1.93	1.63	1.43	
13.5000	1.31	1.20	1.11	1.03	.96	
14.2500	.89	.85	.82	.79	.76	
15.0000	.74	.71	.69	.67	.64	
15.7500	.62	.59	.57	.55	.53	
16.5000	.52	.51	.50	.49	.48	
17.2500	.47	.46	.46	.45	.44	
18.0000	.43	.42	.41	.40	.40	
18.7500	.39	.38	.37	.36	.35	
19.5000	.35	.34	.33	.32	.31	
20.2500	.30	.30	.30	.29	.29	
21.0000	.29	.29	.29	.28	.28	
21.7500	.28	.28	.28	.28	.27	
22.5000	.27	.27	.27	.27	.27	
23.2500	.26	.26	.26	.26	.26	
24.0000	.25	.22	.13	.06	.02	

Type.... Node: Addition Summary
 ne.... POI #1
 file.... R:\0675N\10-EX-POI#1.PPW
 Storm... TypeII 24hr Tag: 2-YR

Event: 2 yr

SUMMARY FOR HYDROGRAPH ADDITION
 at Node: POI #1

HYG Directory: R:\0675N\

```

=====
Upstream Link ID  Upstream Node ID  HYG file      HYG ID        HYG tag
-----
AREA I EXIST      AREA I              AREA I         2-YR
OFFSITE           RUSTIQUE            RUSTIQUE       2-YR
=====

```

INFLOWS TO: POI #1

```

----- Volume      Peak Time      Peak Flow
HYG file      HYG ID        HYG tag      ac-ft        hrs          cfs
-----
          AREA I          2-YR          .707         12.1500       7.82
          RUSTIQUE        2-YR          1.665         12.1500      17.29
-----

```

TOTAL FLOW INTO: POI #1

```

----- Volume      Peak Time      Peak Flow
G file      HYG ID        HYG tag      ac-ft        hrs          cfs
-----
          POI #1          2-YR          2.372         12.1500      25.12
-----

```

Type.... Node: Addition Summary
 e.... POI #1
 File.... R:\0675N\10-EX-POI#1.PPW
 Storm... TypeII 24hr Tag: 2-YR

Event: 2 yr

TOTAL NODE INFLOW...

HYG file =
 HYG ID = POI #1
 HYG Tag = 2-YR

 Peak Discharge = 25.12 cfs
 Time to Peak = 12.1500 hrs
 HYG Volume = 2.372 ac-ft

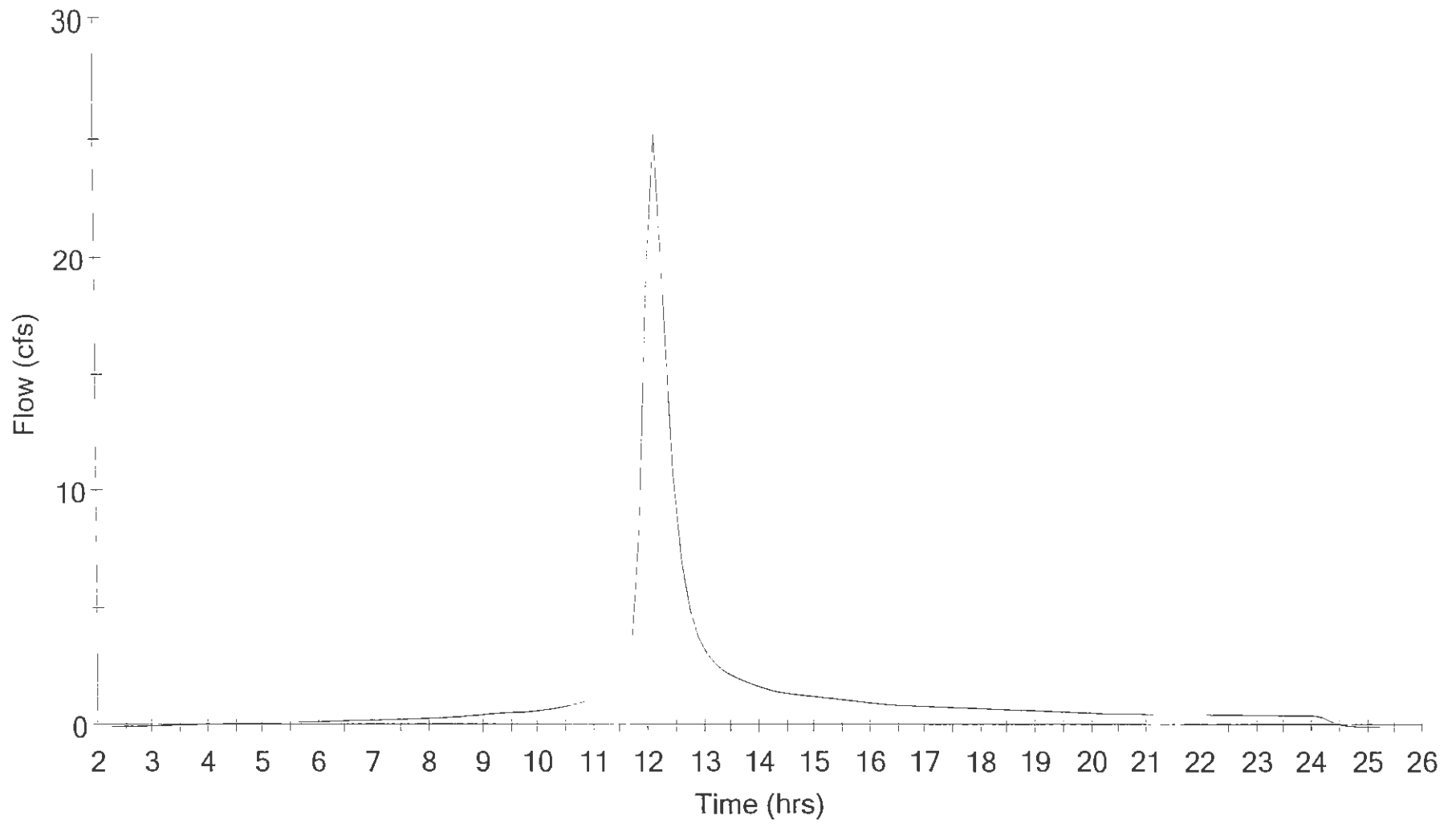
HYDROGRAPH ORDINATES (cfs)

Output Time increment = .1500 hrs

Time |
 hrs | Time on left represents time for first value in each row.

Time hrs					
2.2500	.00	.00	.01	.01	.02
3.0000	.03	.04	.05	.05	.06
3.7500	.07	.08	.09	.09	.10
4.5000	.11	.12	.13	.14	.15
5.2500	.16	.16	.17	.18	.19
6.0000	.20	.21	.22	.23	.24
6.7500	.25	.26	.27	.28	.29
7.5000	.30	.31	.32	.33	.34
8.2500	.35	.37	.40	.43	.46
9.0000	.49	.52	.54	.56	.57
9.7500	.59	.62	.66	.71	.77
10.5000	.84	.92	1.01	1.13	1.28
11.2500	1.48	1.76	2.16	3.52	8.50
12.0000	19.22	25.12	18.13	10.81	7.01
12.7500	4.88	3.71	3.06	2.62	2.33
13.5000	2.13	1.96	1.82	1.69	1.58
14.2500	1.48	1.41	1.36	1.31	1.27
15.0000	1.23	1.20	1.16	1.12	1.08
15.7500	1.04	1.00	.96	.93	.90
16.5000	.88	.86	.85	.83	.82
17.2500	.80	.79	.78	.76	.75
18.0000	.73	.72	.71	.69	.68
18.7500	.66	.65	.64	.62	.61
19.5000	.59	.58	.56	.55	.54
20.2500	.52	.52	.51	.51	.50
21.0000	.50	.50	.50	.49	.49
21.7500	.49	.48	.48	.48	.48
22.5000	.47	.47	.47	.46	.46
23.2500	.46	.46	.45	.45	.45
24.0000	.44	.38	.22	.09	.04
24.7500	.02	.01	.00	.00	

Hydrograph
POI #1 2-YR



15-Year

T'voe.... Unit Hyd. Summary
 e.... AREA I Tag: 15-YR Event: 15 yr
 File.... R:\0675N\10-EX-POI#1.PPW
 Storm... TypeII 24hr Tag: 15-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 15 year storm
 Duration = 24.0000 hrs Rain Depth = 5.2000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - AREA I 15-YR
 Tc = .3979 hrs
 Drainage Area = 7.180 acres Runoff CN= 73

=====
 Computational Time Increment = .05305 hrs
 Computed Peak Time = 12.1489 hrs
 Computed Peak Flow = 16.82 cfs

Time Increment for HYG File = .1500 hrs
 Peak Time, Interpolated Output = 12.1500 hrs
 Peak Flow, Interpolated Output = 16.79 cfs
 =====

DRAINAGE AREA

 ID:AREA I
 CN = 73
 Area = 7.180 acres
 S = 3.6986 in
 0.2S = .7397 in

Cumulative Runoff

 2.4383 in
 1.459 ac-ft

HYG Volume... 1.461 ac-ft (area under HYG curve)

***** SCS UNIT HYDROGRAPH PARAMETERS *****

Time Concentration, Tc = .39789 hrs (ID: AREA I)
 Computational Incr, Tm = .05305 hrs = 0.20000 Tp

 Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
 K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
 Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)

 Unit peak, qp = 20.45 cfs
 Unit peak time Tp = .26526 hrs
 Unit receding limb, Tr = 1.06104 hrs
 Total unit time, Tb = 1.32630 hrs

Tvoe.... Unit Hyd. (HYG output)
 e.... AREA I Tag: 15-YR Event: 15 yr
 File.... R:\0675N\10-EX-POI#1.PPW
 Storm... TypeII 24hr Tag: 15-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 15 year storm
 Duration = 24.0000 hrs Rain Depth = 5.2000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - AREA I 15-YR
 Tc = .3979 hrs
 Drainage Area = 7.180 acres Runoff CN= 73
 Calc.Increment= .05305 hrs Out.Incr.= .1500 hrs
 HYG Volume = 1.461 ac-ft

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .1500 hrs

Time on left represents time for first value in each row.

Time hrs					
9.0000	.00	.01	.02	.03	.05
9.7500	.06	.08	.10	.13	.16
10.5000	.20	.25	.31	.38	.46
11.2500	.57	.73	.96	1.80	5.02
12.0000	12.62	16.79	11.70	6.98	4.59
2.7500	3.26	2.55	2.13	1.85	1.67
13.5000	1.53	1.42	1.32	1.23	1.15
14.2500	1.08	1.03	.99	.96	.93
15.0000	.91	.88	.85	.82	.79
15.7500	.77	.74	.71	.68	.66
16.5000	.65	.64	.63	.62	.61
17.2500	.60	.59	.58	.57	.56
18.0000	.54	.53	.52	.51	.50
18.7500	.49	.48	.47	.46	.45
19.5000	.44	.43	.42	.41	.40
20.2500	.39	.38	.38	.38	.38
21.0000	.37	.37	.37	.37	.37
21.7500	.36	.36	.36	.36	.36
22.5000	.35	.35	.35	.35	.35
23.2500	.34	.34	.34	.34	.34
24.0000	.33	.28	.15	.06	.02
24.7500	.01	.00	.00	.00	

Type... Unit Hyd. Summary
 e.... RUSTIQUE Tag: 15-YR Event: 15 yr
 File... R:\0675N\10-EX-POI#1.PPW
 Storm... TypeII 24hr Tag: 15-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 15 year storm
 Duration = 24.0000 hrs Rain Depth = 5.2000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - RUSTIQUE 15-YR
 Tc = .4300 hrs
 Drainage Area = 6.560 acres Runoff CN= 96

```

=====
Computational Time Increment = .05733 hrs
Computed Peak Time          = 12.0973 hrs
Computed Peak Flow          = 26.28 cfs

Time Increment for HYG File = .1500 hrs
Peak Time, Interpolated Output = 12.1500 hrs
Peak Flow, Interpolated Output = 26.27 cfs
=====
  
```

DRAINAGE AREA

```

-----
ID:RUSTIQUE
CN = 96
Area = 6.560 acres
S = .4167 in
0.2S = .0833 in
  
```

Cumulative Runoff

```

-----
4.7314 in
2.586 ac-ft
  
```

HYG Volume... 2.587 ac-ft (area under HYG curve)

***** SCS UNIT HYDROGRAPH PARAMETERS *****

Time Concentration, Tc = .43000 hrs (ID: RUSTIQUE)
 Computational Incr, Tm = .05733 hrs = 0.20000 Tp
 Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
 K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
 Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)
 Unit peak, qp = 17.29 cfs
 Unit peak time Tp = .28667 hrs
 Unit receding limb, Tr = 1.14667 hrs
 Total unit time, Tb = 1.43333 hrs

Type.... Unit Hyd. (HYG output)
 ie.... RUSTIQUE Tag: 15-YR Event: 15 yr
 File.... R:\0675N\10-EX-POI#1.PPW
 Storm... TypeII 24hr Tag: 15-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 15 year storm
 Duration = 24.0000 hrs Rain Depth = 5.2000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - RUSTIQUE 15-YR
 Tc = .4300 hrs
 Drainage Area = 6.560 acres Runoff CN= 96
 Calc.Increment= .05733 hrs Out.Incr.= .1500 hrs
 HYG Volume = 2.587 ac-ft

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .1500 hrs
 Time on left represents time for first value in each row.

Time hrs						
1.6500	.00	.01	.02	.03	.05	
2.4000	.06	.08	.09	.11	.12	
3.1500	.13	.15	.16	.17	.19	
3.9000	.20	.21	.22	.24	.25	
4.6500	.27	.28	.29	.31	.32	
5.4000	.34	.35	.37	.38	.40	
6.1500	.41	.42	.44	.45	.47	
6.9000	.48	.49	.51	.52	.54	
7.6500	.55	.56	.58	.59	.61	
8.4000	.64	.68	.73	.78	.83	
9.1500	.88	.91	.94	.95	.97	
9.9000	1.02	1.08	1.16	1.26	1.36	
10.6500	1.48	1.62	1.79	1.99	2.24	
11.4000	2.58	3.08	4.72	10.36	21.12	
12.1500	26.27	18.87	11.10	7.04	4.80	
12.9000	3.57	2.90	2.45	2.15	1.96	
13.6500	1.80	1.66	1.54	1.43	1.34	
14.4000	1.27	1.22	1.18	1.14	1.11	
15.1500	1.07	1.03	1.00	.96	.93	
15.9000	.89	.86	.82	.80	.78	
16.6500	.76	.75	.73	.72	.71	
17.4000	.70	.68	.67	.66	.64	
18.1500	.63	.62	.61	.59	.58	
18.9000	.57	.55	.54	.53	.52	
19.6500	.50	.49	.48	.47	.45	
20.4000	.45	.44	.44	.44	.43	
21.1500	.43	.43	.43	.42	.42	
21.9000	.42	.42	.41	.41	.41	
22.6500	.41	.40	.40	.40	.39	
23.4000	.39	.39	.39	.38	.38	

Type.... Node: Addition Summary
 e.... POI #1
 File.... R:\0675N\10-EX-POI#1.PPW
 Storm... TypeII 24hr Tag: 15-YR

Event: 15 yr

SUMMARY FOR HYDROGRAPH ADDITION
 at Node: POI #1

HYG Directory: R:\0675N\

```

=====
Upstream Link ID  Upstream Node ID  HYG file      HYG ID        HYG tag
-----
AREA I EXIST      AREA I              AREA I         15-YR
OFFSITE           RUSTIQUE            RUSTIQUE       15-YR
=====
  
```

INFLOWS TO: POI #1

```

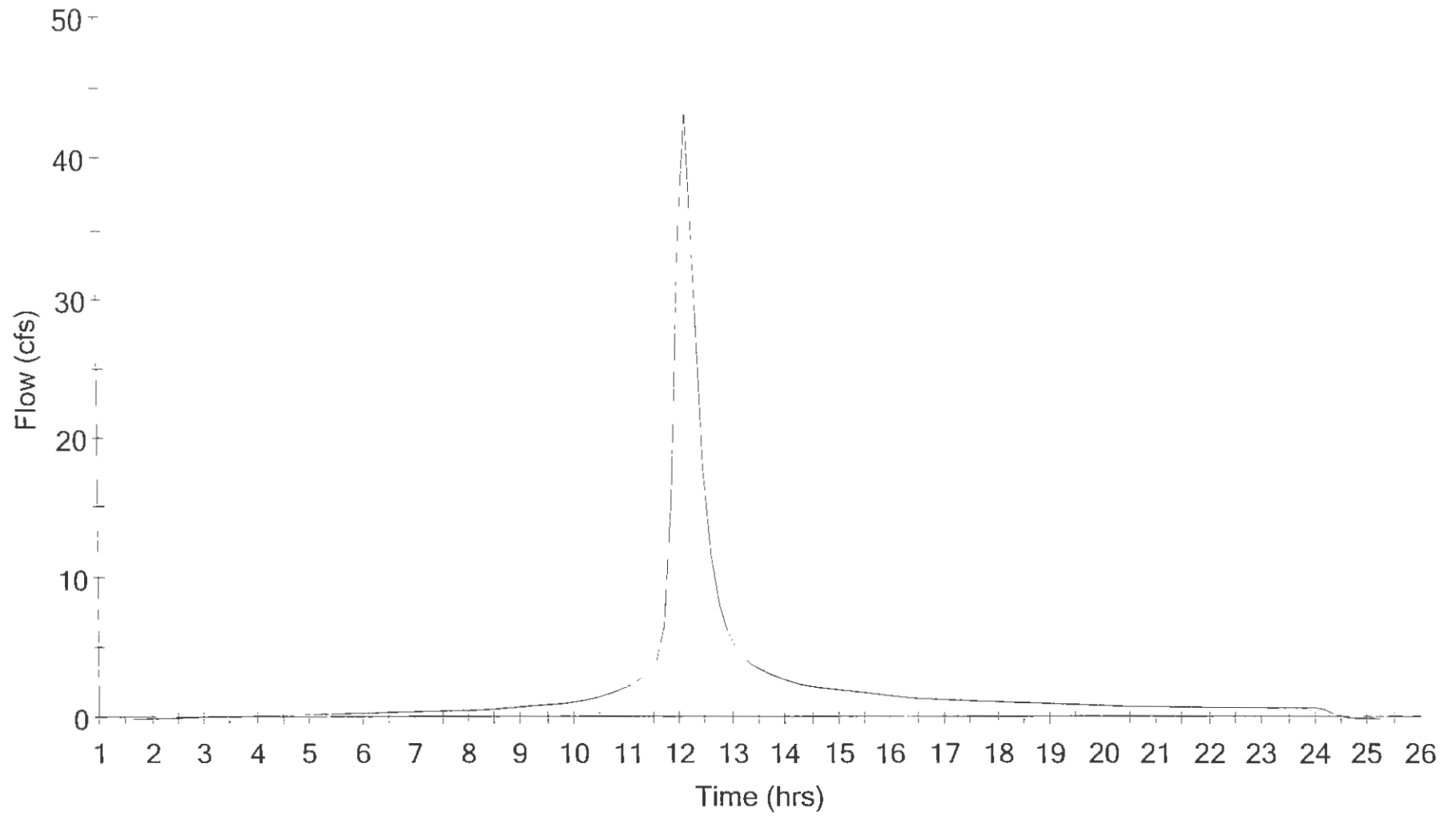
----- Volume      Peak Time      Peak Flow
HYG file      HYG ID          HYG tag        ac-ft         hrs           cfs
-----
          AREA I          15-YR          1.461         12.1500       16.79
          RUSTIQUE       15-YR          2.587         12.1500       26.27
  
```

TOTAL FLOW INTO: POI #1

```

----- Volume      Peak Time      Peak Flow
HYG file      HYG ID          HYG tag        ac-ft         hrs           cfs
-----
          POI #1          15-YR          4.048         12.1500       43.06
  
```

Hydrograph
POI #1 15-YR



25-Year

Type.... Node: Addition Summary
 ie.... POI #1
 File.... R:\0675N\10-EX-POI#1.PPW
 Storm... TypeII 24hr Tag: 15-YR

Event: 15 yr

TOTAL NODE INFLOW...

HYG file =
 HYG ID = POI #1
 HYG Tag = 15-YR

 Peak Discharge = 43.06 cfs
 Time to Peak = 12.1500 hrs
 HYG Volume = 4.048 ac-ft

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .1500 hrs

Time on left represents time for first value in each row.

Time hrs						
1.6500	.00	.01	.02	.03	.05	
2.4000	.06	.08	.09	.11	.12	
3.1500	.13	.15	.16	.17	.19	
3.9000	.20	.21	.22	.24	.25	
4.6500	.27	.28	.29	.31	.32	
5.4000	.34	.35	.37	.38	.40	
6.1500	.41	.42	.44	.45	.47	
6.9000	.48	.49	.51	.52	.54	
7.6500	.55	.56	.58	.59	.61	
8.4000	.64	.68	.73	.78	.83	
9.1500	.88	.93	.97	1.00	1.04	
9.9000	1.10	1.19	1.29	1.42	1.57	
10.6500	1.73	1.93	2.17	2.45	2.81	
11.4000	3.31	4.04	6.52	15.38	33.74	
12.1500	43.06	30.57	18.08	11.63	8.07	
12.9000	6.12	5.03	4.30	3.82	3.49	
13.6500	3.22	2.98	2.77	2.58	2.42	
14.4000	2.30	2.21	2.14	2.08	2.01	
15.1500	1.95	1.88	1.82	1.76	1.69	
15.9000	1.63	1.56	1.50	1.46	1.42	
16.6500	1.40	1.37	1.35	1.33	1.30	
17.4000	1.28	1.26	1.24	1.21	1.19	
18.1500	1.17	1.14	1.12	1.10	1.07	
18.9000	1.05	1.03	1.00	.98	.96	
19.6500	.93	.91	.89	.86	.84	
20.4000	.83	.82	.82	.81	.81	
21.1500	.80	.80	.79	.79	.78	
21.9000	.78	.77	.77	.77	.76	
22.6500	.76	.75	.75	.74	.74	
23.4000	.73	.73	.72	.72	.71	
24.1500	.61	.35	.15	.06	.02	

Type.... Unit Hyd. Summary
 ie.... AREA I Tag: 25-YR Event: 25 yr
 file.... R:\0675N\10-EX-POI#1.PPW
 Storm... TypeII 24hr Tag: 25-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 25 year storm
 Duration = 24.0000 hrs Rain Depth = 5.7000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - AREA I 25-YR
 Tc = .3979 hrs
 Drainage Area = 7.180 acres Runoff CN= 73

```

=====
Computational Time Increment = .05305 hrs
Computed Peak Time          = 12.1489 hrs
Computed Peak Flow          = 19.65 cfs

Time Increment for HYG File = .1500 hrs
Peak Time, Interpolated Output = 12.1500 hrs
Peak Flow, Interpolated Output = 19.62 cfs
=====
  
```

DRAINAGE AREA

```

-----
ID:AREA I
CN = 73
Area = 7.180 acres
S = 3.6986 in
0.2S = .7397 in
  
```

Cumulative Runoff

```

-----
2.8415 in
1.700 ac-ft
  
```

HYG Volume... 1.702 ac-ft (area under HYG curve)

***** SCS UNIT HYDROGRAPH PARAMETERS *****

Time Concentration, Tc = .39789 hrs (ID: AREA I)
 Computational Incr, Tm = .05305 hrs = 0.20000 Tp
 Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
 K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
 Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)
 Unit peak, qp = 20.45 cfs
 Unit peak time Tp = .26526 hrs
 Unit receding limb, Tr = 1.06104 hrs
 Total unit time, Tb = 1.32630 hrs

Type.... Unit Hyd. (HYG output)
 Area.... AREA I Tag: 25-YR Event: 25 yr
 File.... R:\0675N\10-EX-POI#1.PPW
 Storm... TypeII 24hr Tag: 25-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 25 year storm
 Duration = 24.0000 hrs Rain Depth = 5.7000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - AREA I 25-YR
 Tc = .3979 hrs
 Drainage Area = 7.180 acres Runoff CN= 73
 Calc.Increment= .05305 hrs Out.Incr.= .1500 hrs
 HYG Volume = 1.702 ac-ft

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .1500 hrs
 Time on left represents time for first value in each row.

Time hrs	.00	.01	.02	.03	.05
8.5500	.00	.01	.02	.03	.05
9.3000	.07	.08	.10	.12	.14
10.0500	.17	.21	.25	.30	.35
10.8000	.42	.51	.61	.75	.94
11.5500	1.22	2.25	6.09	14.95	19.62
12.3000	13.58	8.06	5.28	3.74	2.91
13.0500	2.44	2.11	1.90	1.75	1.62
13.8000	1.50	1.40	1.30	1.22	1.17
14.5500	1.13	1.09	1.06	1.03	1.00
15.3000	.96	.93	.90	.87	.84
16.0500	.80	.77	.75	.73	.72
16.8000	.71	.70	.69	.67	.66
17.5500	.65	.64	.63	.62	.60
18.3000	.59	.58	.57	.56	.55
19.0500	.53	.52	.51	.50	.49
19.8000	.47	.46	.45	.44	.43
20.5500	.43	.43	.42	.42	.42
21.3000	.42	.42	.41	.41	.41
22.0500	.41	.40	.40	.40	.40
22.8000	.39	.39	.39	.39	.39
23.5500	.38	.38	.38	.37	.32
24.3000	.17	.07	.03	.01	.00
25.0500	.00	.00			


```

Type.... Unit Hyd. Summary
ae.... RUSTIQUE Tag: 25-YR Event: 25 yr
File.... R:\0675N\10-EX-POI#1.PPW
Storm... TypeII 24hr Tag: 25-YR

```

SCS UNIT HYDROGRAPH METHOD

```

STORM EVENT: 25 year storm
Duration      = 24.0000 hrs      Rain Depth = 5.7000 in
Rain Dir      = R:\0675N\
Rain File -ID = - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir       = R:\0675N\
HYG File - ID = - RUSTIQUE 25-YR
Tc            = .4300 hrs
Drainage Area = 6.560 acres  Runoff CN= 96

```

```

=====
Computational Time Increment = .05733 hrs
Computed Peak Time          = 12.0973 hrs
Computed Peak Flow          = 28.92 cfs

Time Increment for HYG File = .1500 hrs
Peak Time, Interpolated Output = 12.1500 hrs
Peak Flow, Interpolated Output = 28.89 cfs
=====

```

DRAINAGE AREA

```

-----
ID:RUSTIQUE
CN = 96
Area = 6.560 acres
S = .4167 in
0.2S = .0833 in

```

Cumulative Runoff

```

-----
5.2288 in
2.858 ac-ft

```

HYG Volume... 2.859 ac-ft (area under HYG curve)

***** SCS UNIT HYDROGRAPH PARAMETERS *****

```

Time Concentration, Tc = .43000 hrs (ID: RUSTIQUE)
Computational Incr, Tm = .05733 hrs = 0.20000 Tp

Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)

Unit peak, qp = 17.29 cfs
Unit peak time Tp = .28667 hrs
Unit receding limb, Tr = 1.14667 hrs
Total unit time, Tb = 1.43333 hrs

```

Type.... Unit Hyd. (HYG output)
 ne.... RUSTIQUE Tag: 25-YR Event: 25 yr
 File.... R:\0675N\10-EX-POI#1.PPW
 Storm... TypeII 24hr Tag: 25-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 25 year storm
 Duration = 24.0000 hrs Rain Depth = 5.7000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - RUSTIQUE 25-YR
 Tc = .4300 hrs
 Drainage Area = 6.560 acres Runoff CN= 96
 Calc.Increment= .05733 hrs Out.Incr.= .1500 hrs
 HYG Volume = 2.859 ac-ft

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .1500 hrs

Time on left represents time for first value in each row.

Time hrs					
1.5000	.00	.01	.02	.03	.05
2.2500	.07	.09	.10	.12	.14
3.0000	.15	.17	.18	.20	.21
3.7500	.23	.24	.25	.27	.28
4.5000	.30	.31	.33	.34	.36
5.2500	.38	.39	.41	.42	.44
6.0000	.45	.47	.49	.50	.52
6.7500	.53	.55	.56	.58	.59
7.5000	.61	.62	.64	.65	.67
8.2500	.69	.72	.77	.82	.87
9.0000	.93	.98	1.02	1.05	1.06
9.7500	1.09	1.14	1.21	1.29	1.40
10.5000	1.52	1.65	1.80	1.99	2.20
11.2500	2.48	2.86	3.40	5.21	11.43
12.0000	23.25	28.89	20.75	12.20	7.74
12.7500	5.28	3.93	3.18	2.69	2.36
13.5000	2.15	1.97	1.82	1.69	1.57
14.2500	1.47	1.40	1.34	1.30	1.25
15.0000	1.21	1.17	1.13	1.10	1.06
15.7500	1.02	.98	.94	.90	.87
16.5000	.85	.84	.82	.81	.79
17.2500	.78	.76	.75	.73	.72
18.0000	.71	.69	.68	.66	.65
18.7500	.64	.62	.61	.59	.58
19.5000	.57	.55	.54	.52	.51
20.2500	.50	.49	.49	.48	.48
21.0000	.48	.47	.47	.47	.46
21.7500	.46	.46	.46	.45	.45
22.5000	.45	.44	.44	.44	.44
23.2500	.43	.43	.43	.42	.42

Node: Addition Summary
 POI #1
 File: R:\0675N\10-EX-PO1#1.PPW
 Storm TypeII 24hr Tag: 25-YR

Event: 25 yr

SUMMARY FOR HYDROGRAPH ADDITION
 at Node: POI #1

HYG Directory: R:\0675N\

Upstream Link ID	Upstream Node ID	HYG file	HYG ID	HYG tag
AREA I EXIST	AREA I		AREA I	25-YR
OFFSITE	RUSTIQUE		RUSTIQUE	25-YR

INFLOWS TO: POI #1

HYG file	HYG ID	HYG tag	Volume ac-ft	Peak Time hrs	Peak Flow cfs
	AREA I	25-YR	1.702	12.1500	19.62
	RUSTIQUE	25-YR	2.859	12.1500	28.89

TOTAL FLOW INTO: POI #1

HYG file	HYG ID	HYG tag	Volume ac-ft	Peak Time hrs	Peak Flow cfs
	POI #1	25-YR	4.562	12.1500	48.51

Type... Node: Addition Summary
 ne.... POI #1
 file.... R:\0675N\10-EX-POI#1.PPW
 Storm... TypeII 24hr Tag: 25-YR

Event: 25 yr

TOTAL NODE INFLOW...

HYG file =
 HYG ID = POI #1
 HYG Tag = 25-YR

 Peak Discharge = 48.51 cfs
 Time to Peak = 12.1500 hrs
 HYG Volume = 4,562 ac-ft

HYDROGRAPH ORDINATES (cfs)

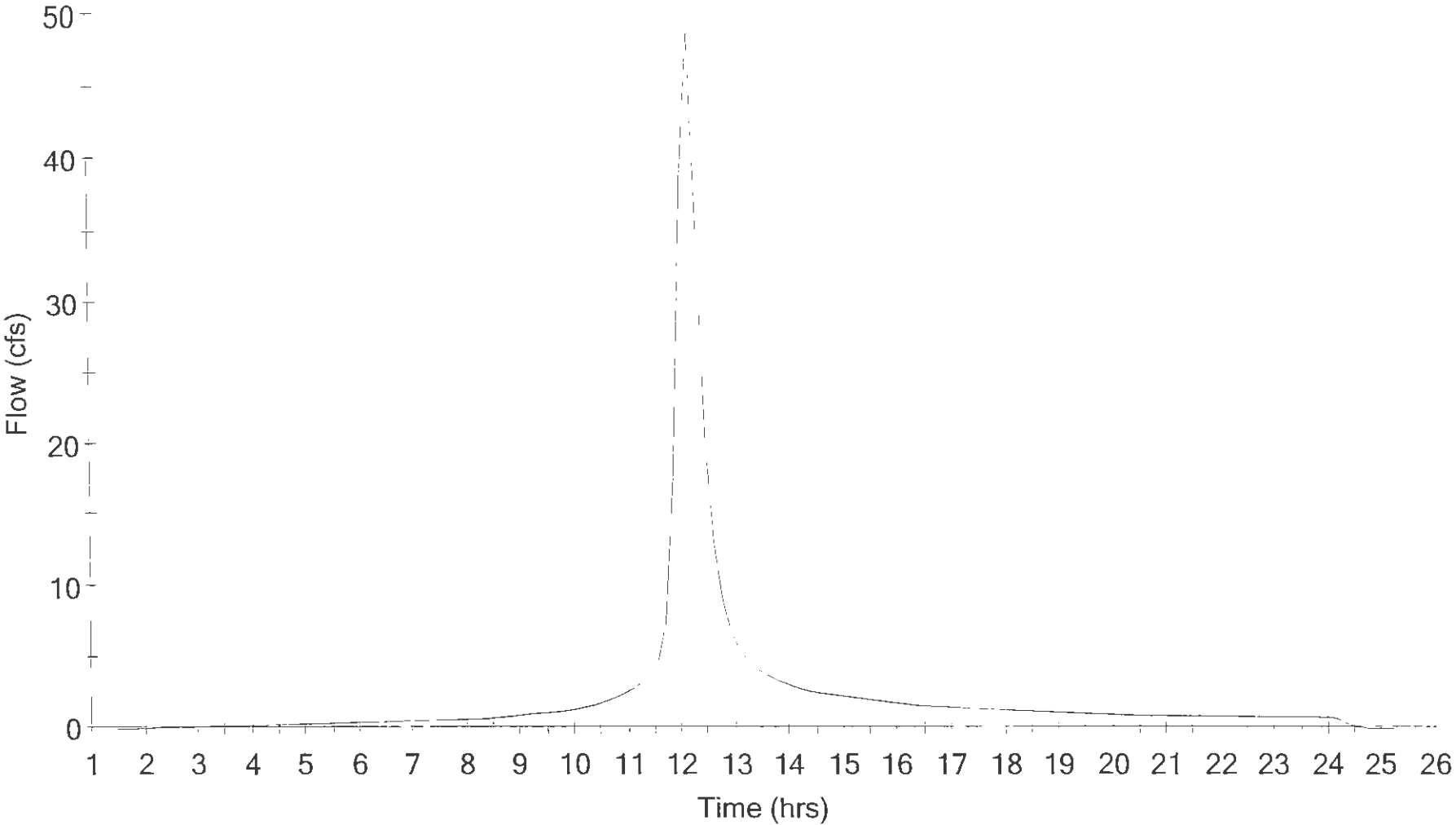
Output Time increment = .1500 hrs

Time | | | | | |
hrs					

Time hrs	Time on left represents time for first value in each row.				
1.5000	.00	.01	.02	.03	.05
2.2500	.07	.09	.10	.12	.14
3.0000	.15	.17	.18	.20	.21
3.7500	.23	.24	.25	.27	.28
4.5000	.30	.31	.33	.34	.36
5.2500	.38	.39	.41	.42	.44
6.0000	.45	.47	.49	.50	.52
6.7500	.53	.55	.56	.58	.59
7.5000	.61	.62	.64	.65	.67
8.2500	.69	.72	.77	.83	.89
9.0000	.96	1.03	1.09	1.13	1.16
9.7500	1.21	1.28	1.38	1.50	1.65
10.5000	1.81	2.00	2.23	2.50	2.82
11.2500	3.23	3.80	4.63	7.46	17.52
12.0000	38.20	48.51	34.33	20.26	13.02
12.7500	9.02	6.84	5.62	4.80	4.27
13.5000	3.90	3.59	3.32	3.09	2.88
14.2500	2.70	2.56	2.47	2.39	2.31
15.0000	2.24	2.17	2.10	2.03	1.96
15.7500	1.89	1.81	1.74	1.67	1.62
16.5000	1.59	1.56	1.53	1.50	1.48
17.2500	1.45	1.43	1.40	1.37	1.35
18.0000	1.32	1.30	1.27	1.25	1.22
18.7500	1.19	1.17	1.14	1.12	1.09
19.5000	1.06	1.04	1.01	.99	.96
20.2500	.94	.92	.91	.91	.90
21.0000	.90	.89	.89	.88	.88
21.7500	.87	.87	.86	.86	.85
22.5000	.85	.84	.84	.83	.83
23.2500	.82	.82	.81	.81	.80
24.0000	.79	.68	.39	.16	.07

Hydrograph
POI #1

25-YR



100-Year

Type... Unit Hyd. Summary
 ne... AREA I Tag: 100-YR Event: 100 yr
 File... R:\0675N\10-EX-POI#1.PPW
 Storm... TypeII 24hr Tag: 100-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 100 year storm
 Duration = 24.0000 hrs Rain Depth = 7.2000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - AREA I 100-YR
 Tc = .3979 hrs
 Drainage Area = 7.180 acres Runoff CN= 73

=====
 Computational Time Increment = .05305 hrs
 Computed Peak Time = 12.1489 hrs
 Computed Peak Flow = 28.42 cfs

Time Increment for HYG File = .1500 hrs
 Peak Time, Interpolated Output = 12.1500 hrs
 Peak Flow, Interpolated Output = 28.38 cfs
 =====

DRAINAGE AREA

 ID:AREA I
 CN = 73
 Area = 7.180 acres
 S = 3.6986 in
 0.2S = .7397 in

Cumulative Runoff

 4.1082 in
 2.458 ac-ft

HYG Volume... 2.461 ac-ft (area under HYG curve)

***** SCS UNIT HYDROGRAPH PARAMETERS *****

Time Concentration, Tc = .39789 hrs (ID: AREA I)
 Computational Incr, Tm = .05305 hrs = 0.20000 Tp

Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
 K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
 Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)

Unit peak, qp = 20.45 cfs
 Unit peak time Tp = .26526 hrs
 Unit receding limb, Tr = 1.06104 hrs
 Total unit time, Tb = 1.32630 hrs

Type.... Unit Hyd. (HYG output)
 e.... AREA I Tag: 100-YR Event: 100 yr
 File.... R:\0675N\10-EX-PO1#1.PPW
 Storm... TypeII 24hr Tag: 100-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 100 year storm
 Duration = 24.0000 hrs Rain Depth = 7.2000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - AREA I 100-YR
 Tc = .3979 hrs
 Drainage Area = 7.180 acres Runoff CN= 73
 Calc.Increment= .05305 hrs Out.Incr.= .1500 hrs
 HYG Volume = 2.461 ac-ft

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .1500 hrs
 Time on left represents time for first value in each row.

Time hrs	.00	.01	.02	.03	.04
7.3500	.00	.01	.02	.03	.04
8.1000	.05	.07	.09	.11	.13
8.8500	.16	.19	.22	.25	.27
9.6000	.30	.33	.37	.42	.47
10.3500	.54	.62	.72	.83	.97
11.1000	1.13	1.35	1.65	2.09	3.70
11.8500	9.52	22.24	28.38	19.37	11.40
12.6000	7.40	5.21	4.03	3.36	2.90
13.3500	2.61	2.40	2.21	2.05	1.91
14.1000	1.78	1.67	1.59	1.54	1.49
14.8500	1.44	1.40	1.35	1.31	1.27
15.6000	1.22	1.18	1.13	1.09	1.05
16.3500	1.02	.99	.98	.96	.94
17.1000	.93	.91	.90	.88	.86
17.8500	.85	.83	.82	.80	.78
18.6000	.77	.75	.74	.72	.70
19.3500	.69	.67	.65	.64	.62
20.1000	.61	.59	.58	.58	.57
20.8500	.57	.57	.56	.56	.56
21.6000	.55	.55	.55	.55	.54
22.3500	.54	.54	.53	.53	.53
23.1000	.52	.52	.52	.51	.51
23.8500	.51	.50	.43	.23	.09
24.6000	.04	.01	.01	.00	.00


```

Type.... Unit Hyd. Summary
ne.... RUSTIQUE Tag: 100-YR Event: 100 yr
File.... R:\0675N\10-EX-POI#1.PPW
Storm... TypeII 24hr Tag: 100-YR

```

SCS UNIT HYDROGRAPH METHOD

```

STORM EVENT: 100 year storm
Duration      = 24.0000 hrs      Rain Depth = 7.2000 in
Rain Dir     = R:\0675N\
Rain File -ID = - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir      = R:\0675N\
HYG File - ID = - RUSTIQUE 100-YR
Tc           = .4300 hrs
Drainage Area = 6.560 acres Runoff CN= 96

```

```

=====
Computational Time Increment = .05733 hrs
Computed Peak Time          = 12.0973 hrs
Computed Peak Flow          = 36.79 cfs

Time Increment for HYG File = .1500 hrs
Peak Time, Interpolated Output = 12.1500 hrs
Peak Flow, Interpolated Output = 36.73 cfs
=====

```

DRAINAGE AREA

```

-----
ID:RUSTIQUE
CN = 96
Area = 6.560 acres
S = .4167 in
0.2S = .0833 in

```

Cumulative Runoff

```

-----
6.7230 in
3.675 ac-ft

```

HYG Volume... 3.676 ac-ft (area under HYG curve)

***** SCS UNIT HYDROGRAPH PARAMETERS *****

```

Time Concentration, Tc = .43000 hrs (ID: RUSTIQUE)
Computational Incr, Tm = .05733 hrs = 0.20000 Tp

Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)

Unit peak, qp = 17.29 cfs
Unit peak time Tp = .28667 hrs
Unit receding limb, Tr = 1.14667 hrs
Total unit time, Tb = 1.43333 hrs

```

Type.... Unit Hyd. (HYG output)
 ne.... RUSTIQUE Tag: 100-YR Event: 100 yr
 File.... R:\0675N\10-EX-POI#1.PPW
 Storm... TypeII 24hr Tag: 100-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 100 year storm
 Duration = 24.0000 hrs Rain Depth = 7.2000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - RUSTIQUE 100-YR
 Tc = .4300 hrs
 Drainage Area = 6.560 acres Runoff CN= 96
 Calc.Increment= .05733 hrs Out.Incr.= .1500 hrs
 HYG Volume = 3.676 ac-ft

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .1500 hrs
 Time on left represents time for first value in each row.

Time hrs					
1.2000	.00	.01	.02	.04	.07
1.9500	.10	.12	.15	.17	.19
2.7000	.21	.24	.26	.28	.30
3.4500	.31	.33	.35	.37	.38
4.2000	.40	.42	.44	.46	.48
4.9500	.50	.52	.54	.56	.58
5.7000	.60	.61	.63	.65	.67
6.4500	.69	.71	.73	.75	.77
7.2000	.78	.80	.82	.84	.86
7.9500	.87	.89	.92	.97	1.02
8.7000	1.09	1.16	1.23	1.29	1.35
9.4500	1.37	1.39	1.42	1.49	1.58
10.2000	1.69	1.82	1.97	2.14	2.34
10.9500	2.58	2.85	3.20	3.68	4.38
11.7000	6.69	14.61	29.63	36.73	26.36
12.4500	15.48	9.82	6.69	4.98	4.03
13.2000	3.41	2.99	2.72	2.50	2.31
13.9500	2.14	1.99	1.86	1.77	1.70
14.7000	1.64	1.59	1.54	1.49	1.44
15.4500	1.39	1.34	1.29	1.24	1.19
16.2000	1.14	1.11	1.08	1.06	1.04
16.9500	1.02	1.00	.98	.97	.95
17.7000	.93	.91	.89	.88	.86
18.4500	.84	.82	.81	.79	.77
19.2000	.75	.73	.72	.70	.68
19.9500	.66	.65	.63	.62	.61
20.7000	.61	.61	.60	.60	.59
21.4500	.59	.59	.58	.58	.58
22.2000	.57	.57	.57	.56	.56
22.9500	.56	.55	.55	.54	.54

Type.... Node: Addition Summary

ae.... POI #1

Event: 100 yr

file.... R:\0675N\10-EX-POI#1.PPW

Storm... TypeII 24hr Tag: 100-YR

SUMMARY FOR HYDROGRAPH ADDITION
at Node: POI #1

HYG Directory: R:\0675N\

```

=====
Upstream Link ID  Upstream Node ID  HYG file      HYG ID        HYG tag
-----
AREA I EXIST      AREA I          AREA I         100-YR
OFFSITE           RUSTIQUE       RUSTIQUE      100-YR
=====

```

INFLOWS TO: POI #1

```

----- Volume      Peak Time      Peak Flow
HYG file      HYG ID        HYG tag      ac-ft        hrs          cfs
-----
          AREA I          100-YR        2.461        12.1500      28.38
          RUSTIQUE       100-YR        3.676        12.1500      36.73

```

TOTAL FLOW INTO: POI #1

```

----- Volume      Peak Time      Peak Flow
IG file      HYG ID        HYG tag      ac-ft        hrs          cfs
-----
          POI #1          100-YR        6.138        12.1500      65.11

```

Type.... Node: Addition Summary

e.... POI #1

Event: 100 yr

File.... R:\0675N\10-EX-POI#1.PPW

Storm... TypeII 24hr Tag: 100-YR

TOTAL NODE INFLOW...

HYG file =

HYG ID = POI #1

HYG Tag = 100-YR

Peak Discharge = 65.11 cfs

Time to Peak = 12.1500 hrs

HYG Volume = 6.138 ac-ft

HYDROGRAPH ORDINATES (cfs)

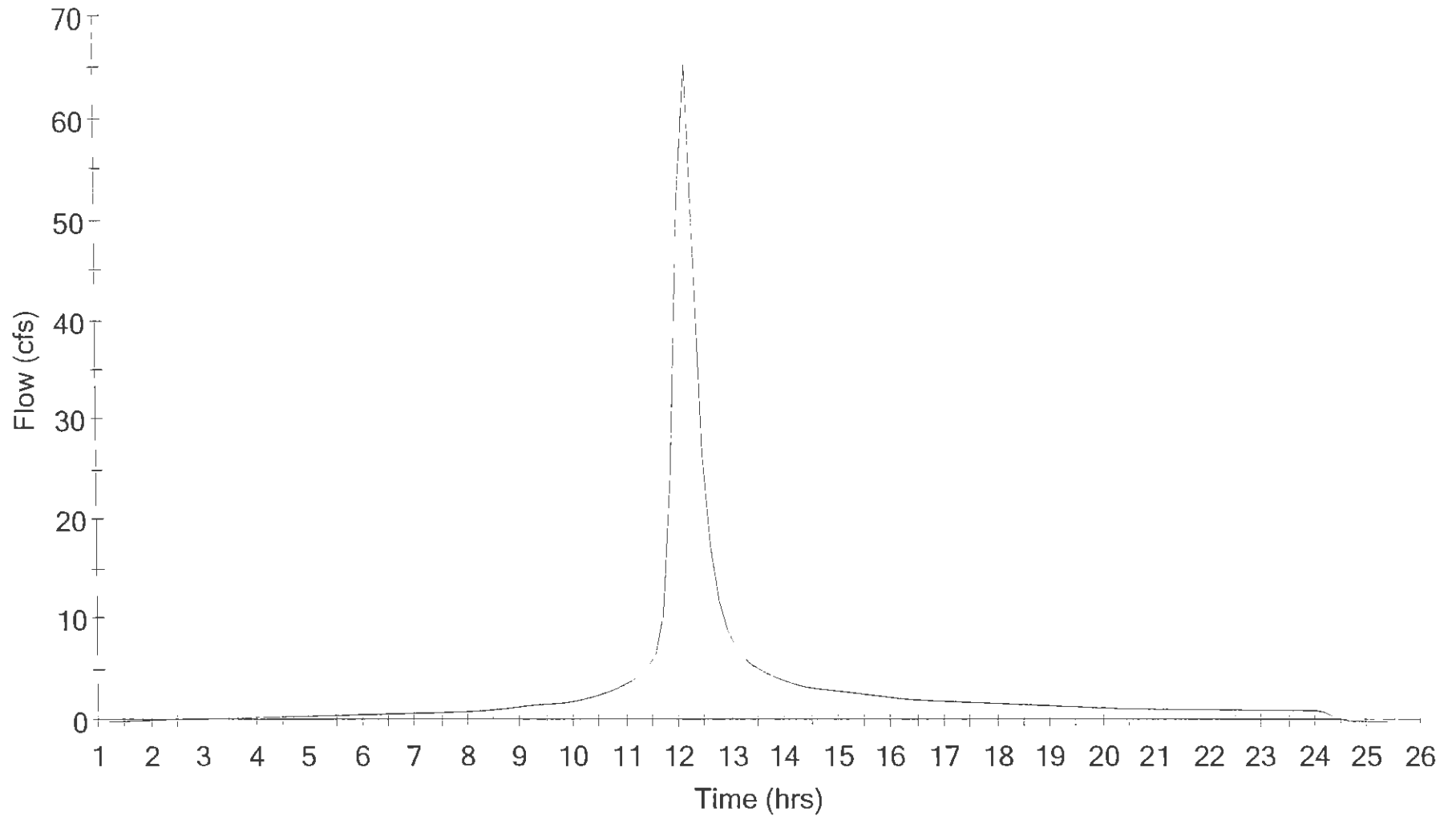
Output Time increment = .1500 hrs

Time
hrs

Time on left represents time for first value in each row.

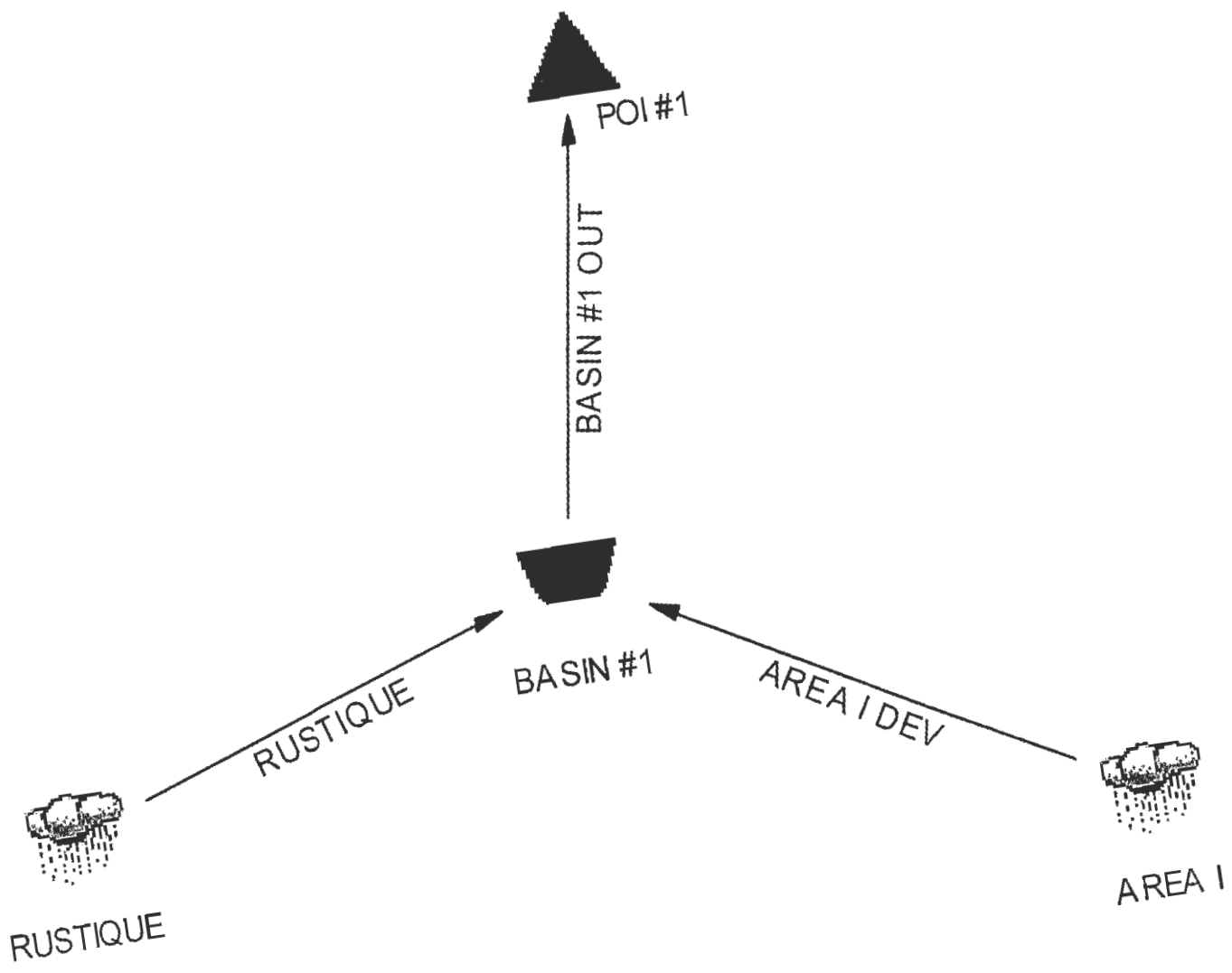
Time hrs	.00	.01	.02	.04	.07
1.2000	.00	.01	.02	.04	.07
1.9500	.10	.12	.15	.17	.19
2.7000	.21	.24	.26	.28	.30
3.4500	.31	.33	.35	.37	.38
4.2000	.40	.42	.44	.46	.48
4.9500	.50	.52	.54	.56	.58
5.7000	.60	.61	.63	.65	.67
6.4500	.69	.71	.73	.75	.77
7.2000	.78	.80	.83	.85	.88
7.9500	.91	.95	.99	1.05	1.13
8.7000	1.22	1.31	1.41	1.51	1.59
9.4500	1.65	1.69	1.75	1.86	2.00
10.2000	2.16	2.36	2.59	2.86	3.17
10.9500	3.55	3.98	4.55	5.34	6.47
11.7000	10.39	24.13	51.87	65.11	45.73
12.4500	26.88	17.22	11.90	9.00	7.39
13.2000	6.31	5.60	5.12	4.71	4.36
13.9500	4.05	3.77	3.53	3.36	3.23
14.7000	3.13	3.03	2.93	2.84	2.75
15.4500	2.65	2.56	2.47	2.37	2.28
16.2000	2.19	2.12	2.07	2.03	2.00
16.9500	1.96	1.93	1.90	1.86	1.83
17.7000	1.79	1.76	1.73	1.69	1.66
18.4500	1.63	1.59	1.56	1.52	1.49
19.2000	1.46	1.42	1.39	1.35	1.32
19.9500	1.29	1.25	1.22	1.20	1.19
20.7000	1.18	1.18	1.17	1.16	1.16
21.4500	1.15	1.14	1.14	1.13	1.12
22.2000	1.12	1.11	1.10	1.10	1.09
22.9500	1.08	1.07	1.07	1.06	1.05
23.7000	1.05	1.04	1.03	.89	.50

Hydrograph
POI #1 100-YR



Developed Conditions

POI #1



Type.... Master Network Summary
 Name ... Watershed
 File.... R:\0675N\10-DEV-POI1.PPW

MASTER DESIGN STORM SUMMARY

Network Storm Collection: OFALLON

Return Event	in	Depth Type	Total Rainfall	RNF ID
2-YR	3.5000	Synthetic Curve	TypeII	24hr
15-YR	5.2000	Synthetic Curve	TypeII	24hr
25-YR	5.7000	Synthetic Curve	TypeII	24hr
100-YR	7.2000	Synthetic Curve	TypeII	24hr

MASTER NETWORK SUMMARY
 SCS Unit Hydrograph Method

(*Node=Outfall; +Node=Diversion;)
 {Trun= HYG Truncation: Blank=None; L=Left; R=Rt; LR=Left&Rt}

Node ID	Type	Return Event	HYG Vol Storage ac-ft	Trun	Qpeak hrs	Qpeak cfs	Max WSEL ft	Max Pond ac-ft
AREA I	AREA	2	3.612		12.0000	51.70		
AREA I	AREA	15	5.870		12.0000	82.08		
AREA I	AREA	25	6.541		12.0000	90.95		
AREA I	AREA	100	8.566		12.0000	117.38		
BASIN #1	IN POND	2	5.278		12.0500	67.19		
BASIN #1	IN POND	15	8.457		12.0500	105.14		
BASIN #1	IN POND	25	9.401		12.0500	116.22		
BASIN #1	IN POND	100	12.242		12.0500	149.26		
BASIN #1	OUT POND	2	5.278		12.3000	24.75	546.88	1.347
BASIN #1	OUT POND	15	8.457		12.3000	42.01	548.25	2.276
BASIN #1	OUT POND	25	9.401		12.3000	48.08	548.60	2.522
BASIN #1	OUT POND	100	12.242		12.1500	104.42	549.04	2.852

Type.... Master Network Summary
 Na: ... Watershed
 File.... R:\0675N\10-DEV-POI1.PPW

MASTER NETWORK SUMMARY
 SCS Unit Hydrograph Method

(*Node=Outfall; +Node=Diversion;)
 (Trun= HYG Truncation: Blank=None; L=Left; R=Rt; LR=Left&Rt)

Node ID	Type Event	Return	HYG Vol Storage ac-ft	Trun	Qpeak hrs	Qpeak cfs	Max WSEL ft	Max Pond ac-ft
*POI #1	JCT		2		5.278	12.3000	24.75	
*POI #1	JCT		15		8.457	12.3000	42.01	
*POI #1	JCT		25		9.401	12.3000	48.08	
*POI #1	JCT		100		12.242	12.1500	104.42	
RUSTIQUE	AREA		2		1.665	12.1500	17.29	
RUSTIQUE	AREA		15		2.587	12.1000	26.28	
RUSTIQUE	AREA		25		2.859	12.1000	28.91	
RUSTIQUE	AREA		100		3.676	12.1000	36.78	

Table 2-2a.—Runoff curve numbers for urban areas¹

Cover description		Curve numbers for hydrologic soil group—			
		A	B	C	D
Cover type and hydrologic condition	Average percent impervious area ²				
<i>Fully developed urban areas (vegetation established)</i>					
Open space (lawns, parks, golf courses, cemeteries, etc.) ³ :					
Poor condition (grass cover < 50%)		68	79	86	89
Fair condition (grass cover 50% to 75%).....		49	69	79	84
Good condition (grass cover > 75%)		39	61	74	80
Impervious areas:					
Paved parking lots, roofs, driveways, etc. (excluding right-of-way)		98	98	98	98
Streets and roads:					
Paved; curbs and storm sewers (excluding right-of-way)		98	98	98	98
Paved; open ditches (including right-of-way)		83	89	92	93
Gravel (including right-of-way)		76	85	89	91
Dirt (including right-of-way)		72	82	87	89
Western desert urban areas:					
Natural desert landscaping (pervious areas only) ⁴ ...		63	77	85	88
Artificial desert landscaping (impervious weed barrier, desert shrub with 1- to 2-inch sand or gravel mulch and basin borders)		96	96	96	96
Urban districts:					
Commercial and business	85	89	92	94	95
Industrial	72	81	88	91	93
Residential districts by average lot size:					
1/8 acre or less (town houses)	65	77	85	90	92
1/4 acre	38	61	75	83	87
1/3 acre	30	57	72	81	86
1/2 acre	25	54	70	80	85
1 acre	20	51	68	79	84
2 acres	12	46	65	77	82
<i>Developing urban areas</i>					
Newly graded areas (pervious areas only, no vegetation) ⁵		77	86	91	94
Idle lands (CN's are determined using cover types similar to those in table 2-2c).					

¹Average runoff condition, and $I_a = 0.2S$.

²The average percent impervious area shown was used to develop the composite CN's. Other assumptions are as follows: impervious areas are directly connected to the drainage system, impervious areas have a CN of 98, and pervious areas are considered equivalent to open space in good hydrologic condition. CN's for other combinations of conditions may be computed using figure 2-3 or 2-4.

³CN's shown are equivalent to those of pasture. Composite CN's may be computed for other combinations of open space cover type.

⁴Composite CN's for natural desert landscaping should be computed using figures 2-3 or 2-4 based on the impervious area percentage (CN = 98) and the pervious area CN. The pervious area CN's are assumed equivalent to desert shrub in poor hydrologic condition.

⁵Composite CN's to use for the design of temporary measures during grading and construction should be computed using figure 2-3 or 2-4, based on the degree of development (impervious area percentage) and the CN's for the newly graded pervious areas.

Type.... Runoff CN-Area
 ie.... AREA I

File.... R:\0675N\10-DEV-POI1.PPW

RUNOFF CURVE NUMBER DATA

.....

Soil/Surface Description	CN	Area acres	Impervious Adjustment		Adjusted CN
			%C	%UC	
SOILS GROUP C ROOF/PAVEMENT	98	8.610			98.00
SOILS GROUP C GRASS	74	2.150			74.00
SOILS GROUP B ROOF/PAVEMENT	98	4.540			98.00
SOILS GROUP B GRASS	61	1.140			61.00

COMPOSITE AREA & WEIGHTED CN ---> 16.440 92.30 (92)

Type.... Runoff CN-Area
 Name.... RUSTIQUE

File.... R:\0675N\10-DEV-POI1.PPW

RUNOFF CURVE NUMBER DATA

.....

Soil/Surface Description	CN	Area acres	Impervious Adjustment		Adjusted CN
			%C	%UC	
PAVEMENT/ROOF	98	6.090			98.00
GRASS	74	.470			74.00

COMPOSITE AREA & WEIGHTED CN ---> 6.560 96.28 (96)

Type.... Tc Calcs
e.... AREA I

File.... R:\0675N\10-DEV-POI1.PPW

.....
TIME OF CONCENTRATION CALCULATOR
.....

Segment #1: Tc: TR-55 Sheet

Mannings n .2400
Hydraulic Length 100.00 ft
2yr, 24hr P 3.5000 in
Slope .100000 ft/ft

Avg.Velocity .23 ft/sec

Segment #1 Time: .1195 hrs

Segment #2: Tc: TR-55 Sheet

Mannings n .0130
Hydraulic Length 200.00 ft
2yr, 24hr P 3.5000 in
Slope .050000 ft/ft

Avg.Velocity 2.09 ft/sec

Segment #2 Time: .0266 hrs

Segment #3: Tc: TR-55 Shallow

Hydraulic Length 755.00 ft
Slope .020000 ft/ft
Paved

Avg.Velocity 2.87 ft/sec

Segment #3 Time: .0730 hrs

... Tc Calcs
name... AREA I

File... R:\0675N\10-DEV-POI1.PPW

Segment #4: Tc: TR-55 Channel

Flow Area	2.8600 sq.ft
Wetted Perimeter	4.34 ft
Hydraulic Radius	.66 ft
Slope	.020000 ft/ft
Mannings n	.0130
Hydraulic Length	490.00 ft
Avg.Velocity	12.27 ft/sec

Segment #4 Time: .0111 hrs

=====
Total Tc: .2301 hrs
=====

Type.... Tc Calcs
ie.... AREA I

File.... R:\0675N\10-DEV-POI1.PPW

Tc Equations used..

==== SCS TR-55 Sheet Flow =====

$$Tc = (.007 * ((n * Lf)**0.8)) / ((P**.5) * (Sf**.4))$$

Where: Tc = Time of concentration, hrs
n = Mannings n
Lf = Flow length, ft
P = 2yr, 24hr Rain depth, inches
Sf = Slope, %

==== SCS TR-55 Shallow Concentrated Flow =====

Unpaved surface:

$$V = 16.1345 * (Sf**0.5)$$

Paved surface:

$$V = 20.3282 * (Sf**0.5)$$

$$Tc = (Lf / V) / (3600sec/hr)$$

Where: V = Velocity, ft/sec
Sf = Slope, ft/ft
Tc = Time of concentration, hrs
Lf = Flow length, ft

File.... R:\0675N\10-DEV-POI1.PPW

==== SCS Channel Flow =====

$$R = Aq / Wp$$

$$V = (1.49 * (R**(2/3)) * (Sf**-0.5)) / n$$

$$Tc = (Lf / V) / (3600sec/hr)$$

Where: R = Hydraulic radius
Aq = Flow area, sq.ft.
Wp = Wetted perimeter, ft
V = Velocity, ft/sec
Sf = Slope, ft/ft
n = Mannings n
Tc = Time of concentration, hrs
Lf = Flow length, ft

Type.... Tc Calcs
ne.... RUSTIQUE

File.... R:\0675N\10-DEV-POI1.PPW

.....
TIME OF CONCENTRATION CALCULATOR
.....

Segment #1: Tc: User Defined

Segment #1 Time: .4300 hrs

=====
Total Tc: .4300 hrs
=====

Type.... Tc Calcs
Name.... RUSTIQUE

File.... R:\0675N\10-DEV-POI1.PPW

Tc Equations used...

==== User Defined =====

Tc = Value entered by user

Where: Tc = Time of concentration

2 YEAR


```

ce.... Unit Hyd. Summary
name.... AREA I Tag: 2-YR Event: 2 yr
File.... R:\0675N\10-DEV-POI1.PPW
Storm... TypeII 24hr Tag: 2-YR

```

SCS UNIT HYDROGRAPH METHOD

```

STORM EVENT: 2 year storm
Duration      = 24.0000 hrs      Rain Depth = 3.5000 in
Rain Dir     = R:\0675N\
Rain File -ID = - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir      = R:\0675N\
HYG File - ID = - AREA I 2-YR
Tc           = .2301 hrs
Drainage Area = 16.440 acres Runoff CN= 92

```

```

=====
Computational Time Increment = .03069 hrs
Computed Peak Time          = 12.0285 hrs
Computed Peak Flow          = 52.42 cfs

Time Increment for HYG File = .0500 hrs
Peak Time, Interpolated Output = 12.0000 hrs
Peak Flow, Interpolated Output = 51.70 cfs
=====

```

DRAINAGE AREA

```

-----
ID:AREA I
CN = 92
Area = 16.440 acres
S = .8696 in
0.2S = .1739 in

```

Cumulative Runoff

```

-----
2.6367 in
3.612 ac-ft

```

HYG Volume... 3.612 ac-ft (area under HYG curve)

***** SCS UNIT HYDROGRAPH PARAMETERS *****

```

Time Concentration, Tc = .23014 hrs (ID: AREA I)
Computational Incr, Tm = .03069 hrs = 0.20000 Tp

Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp)))
Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)

Unit peak, qp = 80.94 cfs
Unit peak time Tp = .15343 hrs
Unit receding limb, Tr = .61370 hrs
Total unit time, Tb = .76713 hrs

```

Type... Unit Hyd. (HYG output)
 Name... AREA I Tag: 2-YR Event: 2 yr
 File... R:\0675N\10-DEV-POI1.PPW
 Storm... TypeII 24hr Tag: 2-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 2 year storm
 Duration = 24.0000 hrs Rain Depth = 3.5000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - AREA I 2-YR
 Tc = .2301 hrs
 Drainage Area = 16.440 acres Runoff CN= 92
 Calc.Increment= .03069 hrs Out.Incr.= .0500 hrs
 HYG Volume = 3.612 ac-ft

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0500 hrs
 Time on left represents time for first value in each row.

Time hrs					
4.2000	.00	.00	.00	.01	.01
4.4500	.02	.02	.02	.03	.03
4.7000	.04	.04	.05	.06	.06
4.9500	.07	.07	.08	.08	.09
5.2000	.09	.10	.11	.11	.12
5.4500	.12	.13	.14	.14	.15
5.7000	.15	.16	.17	.17	.18
5.9500	.18	.19	.20	.20	.21
6.2000	.22	.22	.23	.24	.24
6.4500	.25	.26	.26	.27	.28
6.7000	.28	.29	.30	.31	.31
6.9500	.32	.33	.33	.34	.35
7.2000	.36	.36	.37	.38	.38
7.4500	.39	.40	.41	.41	.42
7.7000	.43	.44	.44	.45	.46
7.9500	.47	.47	.48	.49	.50
8.2000	.51	.53	.54	.56	.58
8.4500	.60	.61	.63	.65	.67
8.7000	.69	.71	.73	.75	.77
8.9500	.80	.82	.84	.86	.88
9.2000	.89	.90	.92	.92	.93
9.4500	.94	.95	.96	.97	.99
9.7000	1.01	1.04	1.06	1.10	1.13
9.9500	1.16	1.20	1.23	1.27	1.31
10.2000	1.36	1.40	1.45	1.50	1.56
10.4500	1.61	1.66	1.72	1.78	1.85
10.7000	1.92	2.00	2.09	2.17	2.26
10.9500	2.36	2.45	2.55	2.67	2.80
11.2000	2.96	3.14	3.34	3.56	3.78
11.4500	4.00	4.25	4.71	5.68	7.55

Type.... Unit Hyd. (HYG output)
 ie.... AREA I Tag: 2-YR Event: 2 yr
 file.... R:\0675N\10-DEV-PO11.PPW
 Storm... TypeII 24hr Tag: 2-YR

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0500 hrs

Time on left represents time for first value in each row.

Time hrs					
11.7000	10.53	14.63	19.97	26.82	36.11
11.9500	45.67	51.70	51.21	44.28	33.95
12.2000	24.65	18.10	14.14	11.57	9.78
12.4500	8.49	7.48	6.63	5.94	5.40
12.7000	4.99	4.70	4.48	4.29	4.13
12.9500	3.97	3.82	3.68	3.55	3.43
13.2000	3.33	3.23	3.15	3.07	2.99
13.4500	2.91	2.83	2.76	2.69	2.62
13.7000	2.55	2.49	2.44	2.38	2.33
13.9500	2.27	2.22	2.16	2.12	2.07
14.2000	2.04	2.01	1.98	1.96	1.94
14.4500	1.92	1.90	1.88	1.86	1.84
14.7000	1.83	1.81	1.79	1.77	1.75
14.9500	1.73	1.71	1.69	1.67	1.66
15.2000	1.64	1.62	1.60	1.58	1.56
15.4500	1.54	1.52	1.50	1.49	1.47
15.7000	1.45	1.43	1.41	1.39	1.37
15.9500	1.35	1.33	1.31	1.30	1.28
16.2000	1.27	1.26	1.25	1.24	1.24
16.4500	1.23	1.22	1.21	1.21	1.20
16.7000	1.19	1.19	1.18	1.17	1.17
16.9500	1.16	1.15	1.15	1.14	1.13
17.2000	1.13	1.12	1.11	1.11	1.10
17.4500	1.09	1.09	1.08	1.07	1.07
17.7000	1.06	1.05	1.05	1.04	1.03
17.9500	1.02	1.02	1.01	1.00	1.00
18.2000	.99	.98	.98	.97	.96
18.4500	.96	.95	.94	.94	.93
18.7000	.92	.92	.91	.90	.89
18.9500	.89	.88	.87	.87	.86
19.2000	.85	.85	.84	.83	.83
19.4500	.82	.81	.81	.80	.79
19.7000	.79	.78	.77	.76	.76
19.9500	.75	.74	.74	.73	.73
20.2000	.72	.72	.72	.72	.71
20.4500	.71	.71	.71	.71	.71
20.7000	.71	.70	.70	.70	.70
20.9500	.70	.70	.70	.69	.69
21.2000	.69	.69	.69	.69	.69
21.4500	.68	.68	.68	.68	.68
21.7000	.68	.68	.68	.67	.67
21.9500	.67	.67	.67	.67	.67
22.2000	.66	.66	.66	.66	.66
22.4500	.66	.66	.66	.65	.65
22.7000	.65	.65	.65	.65	.65

Type... Unit Hyd. Summary
 ne... RUSTIQUE Tag: 2-YR Event: 2 yr
 file... R:\0675N\10-DEV-POI1.PPW
 Storm... TypeII 24hr Tag: 2-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 2 year storm
 Duration = 24.0000 hrs Rain Depth = 3.5000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - RUSTIQUE 2-YR
 Tc = .4300 hrs
 Drainage Area = 6.560 acres Runoff CN= 96

=====
 Computational Time Increment = .05733 hrs
 Computed Peak Time = 12.1547 hrs
 Computed Peak Flow = 17.30 cfs

Time Increment for HYG File = .0500 hrs
 Peak Time, Interpolated Output = 12.1500 hrs
 Peak Flow, Interpolated Output = 17.29 cfs
 =====

DRAINAGE AREA

 ID:RUSTIQUE
 CN = 96
 Area = 6.560 acres
 S = .4167 in
 0.2S = .0833 in

Cumulative Runoff

 3.0453 in
 1.665 ac-ft

HYG Volume... 1.665 ac-ft (area under HYG curve)

***** SCS UNIT HYDROGRAPH PARAMETERS *****

Time Concentration, Tc = .43000 hrs (ID: RUSTIQUE)
 Computational Incr, Tm = .05733 hrs = 0.20000 Tp
 Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
 K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
 Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)
 Unit peak, qp = 17.29 cfs
 Unit peak time Tp = .28667 hrs
 Unit receding limb, Tr = 1.14667 hrs
 Total unit time, Tb = 1.43333 hrs

Type.... Unit Hyd. (HYG output)
 ie.... RUSTIQUE Tag: 2-YR Event: 2 yr
 File.... R:\0675N\10-DEV-POI1.PPW
 Storm... TypeII 24hr Tag: 2-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 2 year storm
 Duration = 24.0000 hrs Rain Depth = 3.5000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - RUSTIQUE 2-YR
 Tc = .4300 hrs
 Drainage Area = 6.560 acres Runoff CN= 96
 Calc.Increment= .05733 hrs Out.Incr.= .0500 hrs
 HYG Volume = 1.665 ac-ft

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0500 hrs
 Time on left represents time for first value in each row.

Time hrs					
2.3500	.00	.00	.00	.00	.01
2.6000	.01	.01	.01	.02	.02
2.8500	.02	.02	.03	.03	.03
3.1000	.03	.04	.04	.04	.05
3.3500	.05	.05	.05	.06	.06
3.6000	.06	.06	.07	.07	.07
3.8500	.07	.08	.08	.08	.09
4.1000	.09	.09	.09	.10	.10
4.3500	.10	.10	.11	.11	.11
4.6000	.12	.12	.12	.12	.13
4.8500	.13	.13	.14	.14	.14
5.1000	.15	.15	.15	.16	.16
5.3500	.16	.16	.17	.17	.17
5.6000	.18	.18	.18	.19	.19
5.8500	.19	.20	.20	.20	.21
6.1000	.21	.21	.22	.22	.22
6.3500	.22	.23	.23	.23	.24
6.6000	.24	.24	.25	.25	.25
6.8500	.26	.26	.26	.27	.27
7.1000	.27	.28	.28	.28	.29
7.3500	.29	.29	.30	.30	.30
7.6000	.31	.31	.31	.32	.32
7.8500	.32	.33	.33	.33	.33
8.1000	.34	.34	.35	.35	.36
8.3500	.36	.37	.38	.39	.40
8.6000	.41	.42	.43	.44	.45
8.8500	.46	.47	.48	.49	.50
9.1000	.51	.52	.53	.54	.54
9.3500	.55	.56	.56	.56	.57
9.6000	.57	.58	.58	.59	.60

Type.... Unit Hyd. (HYG output)
 ne.... RUSTIQUE Tag: 2-YR Event: 2 yr
 File.... R:\0675N\10-DEV-POI1.PPW
 Storm... TypeII 24hr Tag: 2-YR

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0500 hrs

Time on left represents time for first value in each row.

Time hrs					
9.8500	.61	.62	.63	.65	.66
10.1000	.68	.69	.71	.73	.75
10.3500	.77	.79	.82	.84	.87
10.6000	.89	.92	.95	.98	1.01
10.8500	1.04	1.08	1.12	1.16	1.20
11.1000	1.25	1.29	1.35	1.41	1.48
11.3500	1.55	1.63	1.72	1.82	1.96
11.6000	2.16	2.50	3.02	3.85	5.05
11.8500	6.71	8.81	11.28	13.82	15.97
12.1000	17.28	17.29	16.22	14.48	12.46
12.3500	10.49	8.75	7.35	6.24	5.38
12.6000	4.67	4.08	3.59	3.19	2.86
12.8500	2.59	2.38	2.20	2.06	1.93
13.1000	1.82	1.72	1.63	1.55	1.49
13.3500	1.43	1.39	1.35	1.31	1.27
13.6000	1.23	1.20	1.17	1.14	1.11
13.8500	1.08	1.05	1.03	1.00	.98
14.1000	.96	.93	.91	.89	.88
14.3500	.86	.85	.84	.83	.82
14.6000	.81	.80	.79	.78	.77
14.8500	.76	.75	.75	.74	.73
15.1000	.72	.71	.71	.70	.69
15.3500	.68	.67	.67	.66	.65
15.6000	.64	.63	.63	.62	.61
15.8500	.60	.59	.59	.58	.57
16.1000	.56	.56	.55	.54	.54
16.3500	.53	.53	.52	.52	.51
16.6000	.51	.51	.51	.50	.50
16.8500	.50	.49	.49	.49	.48
17.1000	.48	.48	.48	.47	.47
17.3500	.47	.46	.46	.46	.46
17.6000	.45	.45	.45	.44	.44
17.8500	.44	.44	.43	.43	.43
18.1000	.42	.42	.42	.42	.41
18.3500	.41	.41	.40	.40	.40
18.6000	.40	.39	.39	.39	.38
18.8500	.38	.38	.38	.37	.37
19.1000	.37	.36	.36	.36	.36
19.3500	.35	.35	.35	.35	.34
19.6000	.34	.34	.33	.33	.33
19.8500	.33	.32	.32	.32	.31
20.1000	.31	.31	.31	.30	.30
20.3500	.30	.30	.30	.30	.30
20.6000	.29	.29	.29	.29	.29
20.8500	.29	.29	.29	.29	.29

15 YEAR

Type.... Unit Hyd. Summary
 Name.... AREA I Tag: 15-YR Event: 15 yr
 File.... R:\0675N\10-DEV-POI1.PPW
 Storm... TypeII 24hr Tag: 15-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 15 year storm
 Duration = 24.0000 hrs Rain Depth = 5.2000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - AREA I 15-YR
 Tc = .2301 hrs
 Drainage Area = 16.440 acres Runoff CN= 92

=====
 Computational Time Increment = .03069 hrs
 Computed Peak Time = 12.0285 hrs
 Computed Peak Flow = 82.90 cfs

Time Increment for HYG File = .0500 hrs
 Peak Time, Interpolated Output = 12.0000 hrs
 Peak Flow, Interpolated Output = 82.08 cfs
 =====

DRAINAGE AREA

 ID:AREA I
 CN = 92
 Area = 16.440 acres
 S = .8696 in
 0.2S = .1739 in

Cumulative Runoff

 4.2848 in
 5.870 ac-ft

HYG Volume... 5.870 ac-ft (area under HYG curve)

***** SCS UNIT HYDROGRAPH PARAMETERS *****

Time Concentration, Tc = .23014 hrs (ID: AREA I)
 Computational Incr, Tm = .03069 hrs = 0.20000 Tp
 Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
 K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
 Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)
 Unit peak, qp = 80.94 cfs
 Unit peak time Tp = .15343 hrs
 Unit receding limb, Tr = .61370 hrs
 Total unit time, Tb = .76713 hr

Type.... Unit Hyd. (HYG output)
 Area.... AREA I Tag: 15-YR Event: 15 yr
 File.... R:\0675N\10-DEV-POI1.PPW
 Storm... TypeII 24hr Tag: 15-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 15 year storm
 Duration = 24.0000 hrs Rain Depth = 5.2000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - AREA I 15-YR
 Tc = .2301 hrs
 Drainage Area = 16.440 acres Runoff CN= 92
 Calc.Increment= .03069 hrs Out.Incr.= .0500 hrs
 HYG Volume = 5.870 ac-ft

HYDROGRAPH ORDINATES (cfs)
 Output Time increment = .0500 hrs
 Time on left represents time for first value in each row.

Time hrs					
3.0000	.00	.00	.01	.01	.02
3.2500	.03	.03	.04	.05	.06
3.5000	.07	.08	.09	.09	.10
3.7500	.11	.12	.13	.14	.15
4.0000	.15	.16	.17	.18	.19
4.2500	.20	.21	.22	.23	.24
4.5000	.25	.26	.26	.27	.28
4.7500	.29	.30	.31	.32	.34
5.0000	.35	.36	.37	.38	.39
5.2500	.40	.41	.42	.43	.44
5.5000	.45	.46	.47	.48	.49
5.7500	.51	.52	.53	.54	.55
6.0000	.56	.57	.58	.59	.61
6.2500	.62	.63	.64	.65	.66
6.5000	.67	.69	.70	.71	.72
6.7500	.73	.74	.76	.77	.78
7.0000	.79	.80	.81	.83	.84
7.2500	.85	.86	.87	.89	.90
7.5000	.91	.92	.93	.95	.96
7.7500	.97	.98	.99	1.01	1.02
8.0000	1.03	1.04	1.06	1.08	1.10
8.2500	1.12	1.15	1.18	1.22	1.25
8.5000	1.28	1.32	1.35	1.39	1.42
8.7500	1.46	1.49	1.53	1.57	1.60
9.0000	1.64	1.68	1.71	1.74	1.76
9.2500	1.78	1.80	1.81	1.82	1.84
9.5000	1.85	1.86	1.88	1.90	1.94
9.7500	1.98	2.03	2.08	2.14	2.20
10.0000	2.25	2.32	2.38	2.45	2.52
10.2500	2.60	2.69	2.78	2.86	2.95

Type.... Unit Hyd. (HYG output)

ie.... AREA I

Tag: 15-YR

Event: 15 yr

File.... R:\0675N\10-DEV-POI1.PPW

Storm... TypeII 24hr Tag: 15-YR

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0500 hrs

Time on left represents time for first value in each row.

Time hrs					
10.5000	3.04	3.14	3.24	3.35	3.48
10.7500	3.61	3.75	3.89	4.04	4.20
11.0000	4.35	4.52	4.71	4.93	5.19
11.2500	5.49	5.82	6.17	6.53	6.90
11.5000	7.30	8.06	9.68	12.79	17.71
11.7500	24.40	33.00	43.85	58.37	73.10
12.0000	82.08	80.79	69.55	53.15	38.52
12.2500	28.22	22.00	17.95	15.14	13.13
12.5000	11.55	10.23	9.16	8.32	7.68
12.7500	7.23	6.89	6.61	6.35	6.11
13.0000	5.88	5.66	5.46	5.27	5.11
13.2500	4.96	4.83	4.70	4.58	4.46
13.5000	4.35	4.23	4.12	4.01	3.92
13.7500	3.82	3.73	3.65	3.56	3.48
14.0000	3.40	3.31	3.24	3.18	3.12
14.2500	3.07	3.04	3.00	2.97	2.94
14.5000	2.91	2.88	2.85	2.82	2.79
14.7500	2.76	2.73	2.70	2.68	2.65
15.0000	2.62	2.59	2.56	2.53	2.50
15.2500	2.47	2.44	2.41	2.39	2.36
15.5000	2.33	2.30	2.27	2.24	2.21
15.7500	2.18	2.15	2.12	2.09	2.07
16.0000	2.04	2.01	1.98	1.96	1.94
16.2500	1.92	1.91	1.90	1.89	1.87
16.5000	1.86	1.85	1.84	1.83	1.82
16.7500	1.81	1.80	1.79	1.78	1.77
17.0000	1.76	1.75	1.74	1.73	1.72
17.2500	1.71	1.70	1.69	1.68	1.67
17.5000	1.65	1.64	1.63	1.62	1.61
17.7500	1.60	1.59	1.58	1.57	1.56
18.0000	1.55	1.54	1.53	1.52	1.51
18.2500	1.50	1.49	1.48	1.47	1.46
18.5000	1.45	1.44	1.43	1.41	1.40
18.7500	1.39	1.38	1.37	1.36	1.35
19.0000	1.34	1.33	1.32	1.31	1.30
19.2500	1.29	1.28	1.27	1.26	1.25
19.5000	1.24	1.23	1.22	1.21	1.20
19.7500	1.19	1.17	1.16	1.15	1.14
20.0000	1.13	1.12	1.11	1.11	1.10
20.2500	1.09	1.09	1.09	1.09	1.08
20.5000	1.08	1.08	1.08	1.07	1.07
20.7500	1.07	1.07	1.07	1.06	1.06
21.0000	1.06	1.06	1.06	1.05	1.05
21.2500	1.05	1.05	1.05	1.04	1.04

```

e.... Unit Hyd. Summary
Name.... RUSTIQUE          Tag: 15-YR          Event: 15 yr
File.... R:\0675N\10-DEV-POI1.PPW
Storm... TypeII 24hr      Tag: 15-YR

```

SCS UNIT HYDROGRAPH METHOD

```

STORM EVENT: 15 year storm
Duration      = 24.0000 hrs      Rain Depth = 5.2000 in
Rain Dir      = R:\0675N\
Rain File -ID = - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir       = R:\0675N\
HYG File - ID = - RUSTIQUE 15-YR
Tc            = .4300 hrs
Drainage Area = 6.560 acres      Runoff CN= 96

```

```

=====
Computational Time Increment = .05733 hrs
Computed Peak Time          = 12.0973 hrs
Computed Peak Flow          = 26.28 cfs

```

```

Time Increment for HYG File = .0500 hrs
Peak Time, Interpolated Output = 12.1000 hrs
Peak Flow, Interpolated Output = 26.28 cfs
=====

```

DRAINAGE AREA

```

-----
ID:RUSTIQUE
CN   = 96
Area = 6.560 acres
S    = .4167 in
0.2S = .0833 in

```

Cumulative Runoff

```

-----
4.7314 in
2.586 ac-ft

```

HYG Volume... 2.587 ac-ft (area under HYG curve)

```

***** SCS UNIT HYDROGRAPH PARAMETERS *****
Time Concentration, Tc = .43000 hrs (ID: RUSTIQUE)
Computational Incr, Tm = .05733 hrs = 0.20000 Tp
Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp)))
Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)
Unit peak, qp = 17.29 cfs
Unit peak time Tp = .28667 hrs
Unit receding limb, Tr = 1.14667 hrs
Total unit time, Tb = 1.43333 hrs

```

Type.... Unit Hyd. (HYG output)
 ne.... RUSTIQUE Tag: 15-YR Event: 15 yr
 File.... R:\0675N\10-DEV-POI1.PPW
 Storm... TypeII 24hr Tag: 15-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 15 year storm
 Duration = 24.0000 hrs Rain Depth = 5.2000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - RUSTIQUE 15-YR
 Tc = .4300 hrs
 Drainage Area = 6.560 acres Runoff CN= 96
 Calc.Increment= .05733 hrs Out.Incr.= .0500 hrs
 HYG Volume = 2.587 ac-ft

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0500 hrs

Time on left represents time for first value in each row.

Time hrs					
1.6500	.00	.00	.00	.01	.01
1.9000	.01	.02	.02	.03	.03
2.1500	.04	.04	.05	.05	.06
2.4000	.06	.07	.07	.08	.08
2.6500	.09	.09	.10	.10	.11
2.9000	.11	.12	.12	.12	.13
3.1500	.13	.14	.14	.15	.15
3.4000	.16	.16	.17	.17	.17
3.6500	.18	.18	.19	.19	.20
3.9000	.20	.20	.21	.21	.22
4.1500	.22	.22	.23	.23	.24
4.4000	.24	.25	.25	.26	.26
4.6500	.27	.27	.27	.28	.28
4.9000	.29	.29	.30	.30	.31
5.1500	.31	.32	.32	.33	.33
5.4000	.34	.34	.35	.35	.36
5.6500	.36	.37	.37	.38	.38
5.9000	.39	.39	.40	.40	.40
6.1500	.41	.41	.42	.42	.43
6.4000	.43	.44	.44	.45	.45
6.6500	.46	.46	.47	.47	.48
6.9000	.48	.49	.49	.49	.50
7.1500	.50	.51	.51	.52	.52
7.4000	.53	.53	.54	.54	.55
7.6500	.55	.55	.56	.56	.57
7.9000	.57	.58	.58	.59	.59
8.1500	.60	.60	.61	.62	.63
8.4000	.64	.66	.67	.68	.70
8.6500	.71	.73	.75	.76	.78
8.9000	.79	.81	.83	.84	.86

Type.... Unit Hyd. (HYG output)
 ne.... RUSTIQUE Tag: 15-YR Event: 15 yr
 file.... R:\0675N\10-DEV-POI1.PPW
 Storm... TypeII 24hr Tag: 15-YR

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0500 hrs

Time on left represents time for first value in each row.

Time hrs					
9.1500	.88	.89	.90	.91	.92
9.4000	.93	.94	.94	.95	.95
9.6500	.96	.96	.97	.99	1.00
9.9000	1.02	1.04	1.06	1.08	1.11
10.1500	1.13	1.16	1.19	1.22	1.26
10.4000	1.29	1.33	1.36	1.40	1.44
10.6500	1.48	1.53	1.57	1.62	1.68
10.9000	1.73	1.79	1.86	1.92	1.99
11.1500	2.06	2.14	2.24	2.34	2.46
11.4000	2.58	2.72	2.87	3.08	3.39
11.6500	3.91	4.72	6.00	7.83	10.36
11.9000	13.57	17.30	21.12	24.35	26.28
12.1500	26.27	24.61	21.94	18.87	15.87
12.4000	13.23	11.10	9.42	8.12	7.04
12.6500	6.15	5.41	4.80	4.31	3.90
12.9000	3.57	3.31	3.09	2.90	2.73
13.1500	2.58	2.45	2.33	2.23	2.15
13.4000	2.08	2.02	1.96	1.90	1.85
13.6500	1.80	1.75	1.70	1.66	1.62
13.9000	1.58	1.54	1.50	1.47	1.43
14.1500	1.40	1.37	1.34	1.32	1.29
14.4000	1.27	1.25	1.24	1.22	1.21
14.6500	1.19	1.18	1.17	1.16	1.14
14.9000	1.13	1.12	1.11	1.09	1.08
15.1500	1.07	1.06	1.05	1.03	1.02
15.4000	1.01	1.00	.99	.97	.96
15.6500	.95	.94	.93	.91	.90
15.9000	.89	.88	.87	.86	.84
16.1500	.83	.82	.81	.80	.80
16.4000	.79	.78	.78	.77	.77
16.6500	.76	.76	.75	.75	.74
16.9000	.74	.73	.73	.73	.72
17.1500	.72	.71	.71	.70	.70
17.4000	.70	.69	.69	.68	.68
17.6500	.67	.67	.67	.66	.66
17.9000	.65	.65	.64	.64	.64
18.1500	.63	.63	.62	.62	.61
18.4000	.61	.61	.60	.60	.59
18.6500	.59	.58	.58	.58	.57
18.9000	.57	.56	.56	.55	.55
19.1500	.55	.54	.54	.53	.53
19.4000	.52	.52	.52	.51	.51
19.6500	.50	.50	.49	.49	.49
19.9000	.48	.48	.47	.47	.47

25 YEAR

```

>e.... Unit Hyd. Summary
NAME.... AREA I           Tag: 25-YR           Event: 25 yr
File.... R:\0675N\10-DEV-POI1.PPW
Storm... TypeII 24hr     Tag: 25-YR

```

SCS UNIT HYDROGRAPH METHOD

```

STORM EVENT: 25 year storm
Duration      = 24.0000 hrs      Rain Depth = 5.7000 in
Rain Dir      = R:\0675N\
Rain File -ID = - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir       = R:\0675N\
HYG File - ID = - AREA I 25-YR
Tc            = .2301 hrs
Drainage Area = 16.440 acres  Runoff CN= 92

```

```

=====
Computational Time Increment = .03069 hrs
Computed Peak Time          = 12.0285 hrs
Computed Peak Flow         = 91.79 cfs

Time Increment for HYG File = .0500 hrs
Peak Time, Interpolated Output = 12.0000 hrs
Peak Flow, Interpolated Output = 90.95 cfs
=====

```

DRAINAGE AREA

```

-----
ID:AREA I
CN = 92
Area = 16.440 acres
S = .8696 in
0.2S = .1739 in

```

Cumulative Runoff

```

-----
4.7747 in
6.541 ac-ft

```

HYG Volume... 6.541 ac-ft (area under HYG curve)

***** SCS UNIT HYDROGRAPH PARAMETERS *****

```

Time Concentration, Tc = .23014 hrs (ID: AREA I)
Computational Incr, Tm = .03069 hrs = 0.20000 Tp

Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)

Unit peak, qp = 80.94 cfs
Unit peak time Tp = .15343 hrs
Unit receding limb, Tr = .61370 hrs
Total unit time, Tb = .76713 hrs

```

```

e.... Unit Hyd. (HYG output)
Name.... AREA I Tag: 25-YR Event: 25 yr
File.... R:\0675N\10-DEV-POI1.PPW
Storm... TypeII 24hr Tag: 25-YR

```

SCS UNIT HYDROGRAPH METHOD

```

STORM EVENT: 25 year storm
Duration      = 24.0000 hrs Rain Depth = 5.7000 in
Rain Dir      = R:\0675N\
Rain File -ID = - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir       = R:\0675N\
HYG File - ID = - AREA I 25-YR
Tc            = .2301 hrs
Drainage Area = 16.440 acres Runoff CN= 92
Calc.Increment= .03069 hrs Out.Incr.= .0500 hrs
HYG Volume    = 6.541 ac-ft

```

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0500 hrs
Time on left represents time for first value in each row.

Time hrs					
2.7500	.00	.00	.01	.01	.02
3.0000	.03	.04	.05	.06	.07
3.2500	.08	.09	.10	.10	.11
3.5000	.12	.13	.14	.15	.16
3.7500	.17	.18	.19	.20	.21
4.0000	.22	.23	.24	.25	.26
4.2500	.27	.28	.29	.31	.32
4.5000	.33	.34	.35	.36	.37
4.7500	.38	.39	.41	.42	.43
5.0000	.44	.45	.46	.48	.49
5.2500	.50	.51	.52	.54	.55
5.5000	.56	.57	.59	.60	.61
5.7500	.62	.63	.65	.66	.67
6.0000	.69	.70	.71	.72	.74
6.2500	.75	.76	.77	.79	.80
6.5000	.81	.83	.84	.85	.86
6.7500	.88	.89	.90	.92	.93
7.0000	.94	.95	.97	.98	.99
7.2500	1.01	1.02	1.03	1.05	1.06
7.5000	1.07	1.09	1.10	1.11	1.13
7.7500	1.14	1.15	1.17	1.18	1.19
8.0000	1.20	1.22	1.24	1.26	1.28
8.2500	1.31	1.34	1.38	1.42	1.45
8.5000	1.49	1.53	1.57	1.61	1.65
8.7500	1.69	1.73	1.77	1.81	1.85
9.0000	1.89	1.94	1.97	2.01	2.03
9.2500	2.05	2.07	2.08	2.10	2.11
9.5000	2.12	2.13	2.15	2.18	2.22
9.7500	2.27	2.32	2.38	2.45	2.51
10.0000	2.58	2.64	2.71	2.79	2.88

Type.... Unit Hyd. (HYG output)

ie.... AREA I Tag: 25-YR

Event: 25 yr

File.... R:\0675N\10-DEV-POI1.PPW

Storm... TypeII 24hr Tag: 25-YR

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0500 hrs

Time on left represents time for first value in each row.

Time hrs	Time on left represents time for first value in each row.				
10.2500	2.97	3.06	3.16	3.26	3.36
10.5000	3.46	3.56	3.68	3.80	3.94
10.7500	4.09	4.25	4.41	4.58	4.75
11.0000	4.92	5.10	5.32	5.56	5.85
11.2500	6.19	6.56	6.95	7.35	7.76
11.5000	8.20	9.05	10.86	14.33	19.82
11.7500	27.26	36.81	48.84	64.88	81.11
12.0000	90.95	89.42	76.92	58.76	42.56
12.2500	31.17	24.29	19.82	16.71	14.49
12.5000	12.73	11.28	10.10	9.17	8.47
12.7500	7.97	7.60	7.28	7.00	6.73
13.0000	6.48	6.24	6.01	5.81	5.63
13.2500	5.47	5.32	5.18	5.05	4.92
13.5000	4.79	4.66	4.54	4.42	4.31
13.7500	4.21	4.11	4.02	3.93	3.83
14.0000	3.74	3.65	3.57	3.50	3.44
14.2500	3.39	3.34	3.31	3.27	3.24
14.5000	3.20	3.17	3.14	3.11	3.07
14.7500	3.04	3.01	2.98	2.95	2.91
15.0000	2.88	2.85	2.82	2.79	2.75
15.2500	2.72	2.69	2.66	2.63	2.59
15.5000	2.56	2.53	2.50	2.46	2.43
15.7500	2.40	2.37	2.34	2.30	2.27
16.0000	2.24	2.21	2.18	2.15	2.13
16.2500	2.12	2.10	2.09	2.07	2.06
16.5000	2.05	2.04	2.03	2.02	2.00
16.7500	1.99	1.98	1.97	1.96	1.95
17.0000	1.94	1.92	1.91	1.90	1.89
17.2500	1.88	1.87	1.86	1.84	1.83
17.5000	1.82	1.81	1.80	1.79	1.78
17.7500	1.76	1.75	1.74	1.73	1.72
18.0000	1.71	1.69	1.68	1.67	1.66
18.2500	1.65	1.64	1.63	1.61	1.60
18.5000	1.59	1.58	1.57	1.56	1.55
18.7500	1.53	1.52	1.51	1.50	1.49
19.0000	1.48	1.46	1.45	1.44	1.43
19.2500	1.42	1.41	1.40	1.38	1.37
19.5000	1.36	1.35	1.34	1.33	1.31
19.7500	1.30	1.29	1.28	1.27	1.26
20.0000	1.25	1.23	1.22	1.22	1.21
20.2500	1.20	1.20	1.20	1.19	1.19
20.5000	1.19	1.19	1.18	1.18	1.18
20.7500	1.18	1.18	1.17	1.17	1.17
21.0000	1.17	1.16	1.16	1.16	1.16
21.2500	1.15	1.15	1.15	1.15	1.15

Type.... Unit Hyd. Summary
 ne.... RUSTIQUE Tag: 25-YR Event: 25 yr
 File.... R:\0675N\10-DEV-POI1.PPW
 Storm... TypeII 24hr Tag: 25-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 25 year storm
 Duration = 24.0000 hrs Rain Depth = 5.7000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - RUSTIQUE 25-YR
 Tc = .4300 hrs
 Drainage Area = 6.560 acres Runoff CN= 96

=====
 Computational Time Increment = .05733 hrs
 Computed Peak Time = 12.0973 hrs
 Computed Peak Flow = 28.92 cfs

Time Increment for HYG File = .0500 hrs
 Peak Time, Interpolated Output = 12.1000 hrs
 Peak Flow, Interpolated Output = 28.91 cfs
 =====

DRAINAGE AREA

 ID:RUSTIQUE
 CN = 96
 Area = 6.560 acres
 S = .4167 in
 0.2S = .0833 in

Cumulative Runoff

 5.2288 in
 2.858 ac-ft

HYG Volume... 2.859 ac-ft (area under HYG curve)

***** SCS UNIT HYDROGRAPH PARAMETERS *****

Time Concentration, Tc = .43000 hrs (ID: RUSTIQUE)
 Computational Incr, Tm = .05733 hrs = 0.20000 Tp

Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
 K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
 Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)

Unit peak, qp = 17.29 cfs
 Unit peak time Tp = .28667 hrs
 Unit receding limb, Tr = 1.14667 hrs
 Total unit time, Tb = 1.43333 hrs

Type.... Unit Hyd. (HYG output)
 me.... RUSTIQUE Tag: 25-YR Event: 25 yr
 File.... R:\0675N\10-DEV-POI1.PPW
 Storm... TypeII 24hr Tag: 25-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 25 year storm
 Duration = 24.0000 hrs Rain Depth = 5.7000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - RUSTIQUE 25-YR
 Tc = .4300 hrs
 Drainage Area = 6.560 acres Runoff CN= 96
 Calc.Increment= .05733 hrs Out.Incr.= .0500 hrs
 HYG Volume = 2.859 ac-ft

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0500 hrs

Time |
 hrs | Time on left represents time for first value in each row.

Time hrs					
1.5000	.00	.00	.00	.01	.01
1.7500	.01	.02	.02	.03	.03
2.0000	.04	.04	.05	.06	.06
2.2500	.07	.07	.08	.09	.09
2.5000	.10	.10	.11	.11	.12
2.7500	.13	.13	.14	.14	.15
3.0000	.15	.16	.16	.17	.17
3.2500	.18	.18	.19	.19	.20
3.5000	.20	.21	.21	.22	.22
3.7500	.23	.23	.24	.24	.24
4.0000	.25	.25	.26	.26	.27
4.2500	.27	.28	.28	.29	.29
4.5000	.30	.30	.31	.31	.32
4.7500	.32	.33	.33	.34	.34
5.0000	.35	.35	.36	.36	.37
5.2500	.38	.38	.39	.39	.40
5.5000	.40	.41	.41	.42	.42
5.7500	.43	.43	.44	.44	.45
6.0000	.45	.46	.46	.47	.47
6.2500	.48	.49	.49	.50	.50
6.5000	.51	.51	.52	.52	.53
6.7500	.53	.54	.54	.55	.55
7.0000	.56	.56	.57	.57	.58
7.2500	.58	.59	.59	.60	.60
7.5000	.61	.61	.62	.62	.63
7.7500	.63	.64	.64	.65	.65
8.0000	.66	.66	.67	.67	.68
8.2500	.69	.70	.71	.72	.74
8.5000	.75	.77	.79	.80	.82
8.7500	.84	.86	.87	.89	.91

Type... Unit Hyd. (HYG output)
 me... RUSTIQUE Tag: 25-YR Event: 25 yr
 File... R:\0675N\10-DEV-PO11.PPW
 Storm... TypeII 24hr Tag: 25-YR

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0500 hrs
 Time on left represents time for first value in each row.

Time hrs					
9.0000	.93	.95	.96	.98	1.00
9.2500	1.01	1.02	1.03	1.04	1.05
9.5000	1.05	1.06	1.06	1.07	1.08
9.7500	1.09	1.10	1.12	1.14	1.16
10.0000	1.18	1.21	1.24	1.26	1.29
10.2500	1.33	1.36	1.40	1.44	1.48
10.5000	1.52	1.56	1.60	1.65	1.70
10.7500	1.75	1.80	1.86	1.93	1.99
11.0000	2.06	2.13	2.20	2.29	2.38
11.2500	2.48	2.59	2.72	2.86	3.01
11.5000	3.18	3.40	3.75	4.32	5.21
11.7500	6.62	8.65	11.43	14.95	19.05
12.0000	23.26	26.80	28.91	28.89	27.06
12.2500	24.12	20.75	17.44	14.54	12.20
12.5000	10.35	8.92	7.74	6.76	5.94
12.7500	5.28	4.73	4.29	3.93	3.64
13.0000	3.39	3.18	3.00	2.84	2.69
13.2500	2.56	2.45	2.36	2.28	2.22
13.5000	2.15	2.09	2.03	1.97	1.92
13.7500	1.87	1.82	1.78	1.73	1.69
14.0000	1.65	1.61	1.57	1.54	1.50
14.2500	1.47	1.44	1.42	1.40	1.38
14.5000	1.36	1.34	1.33	1.31	1.30
14.7500	1.28	1.27	1.25	1.24	1.23
15.0000	1.21	1.20	1.19	1.17	1.16
15.2500	1.15	1.13	1.12	1.11	1.10
15.5000	1.08	1.07	1.06	1.04	1.03
15.7500	1.02	1.00	.99	.98	.96
16.0000	.95	.94	.93	.91	.90
16.2500	.89	.88	.87	.87	.86
16.5000	.85	.85	.84	.84	.83
16.7500	.82	.82	.81	.81	.81
17.0000	.80	.80	.79	.79	.78
17.2500	.78	.77	.77	.76	.76
17.5000	.75	.75	.74	.74	.73
17.7500	.73	.73	.72	.72	.71
18.0000	.71	.70	.70	.69	.69
18.2500	.68	.68	.67	.67	.66
18.5000	.66	.66	.65	.65	.64
18.7500	.64	.63	.63	.62	.62
19.0000	.61	.61	.60	.60	.59
19.2500	.59	.59	.58	.58	.57
19.5000	.57	.56	.56	.55	.55
19.7500	.54	.54	.53	.53	.52
20.0000	.52	.51	.51	.51	.50

BASIN ROUTING CALCULATIONS

BASIN VOLUME

Type.... Vol: Planimeter
 Name.... BASIN #1

File.... R:\0675N\10-DEV-PO11.PPW

POND VOLUME CALCULATIONS

Planimeter scale: 1.00 ft/in

Elevation (ft)	Planimeter (sq.in)	Area (acres)	A1+A2+sqrt(A1*A2) (acres)	Volume (ac-ft)	Volume Sum (ac-ft)
543.20	.000	.0000	.0000	.000	.000
544.00	2625.000	.0603	.0603	.016	.016
545.00	21405.000	.4914	.7237	.241	.257
546.00	26120.000	.5996	1.6338	.545	.802
547.00	28205.000	.6475	1.8702	.623	1.425
548.00	30375.000	.6973	2.0168	.672	2.098
549.00	32620.000	.7489	2.1688	.723	2.821
550.00	34950.000	.8023	2.3263	.775	3.596
551.00	37430.000	.8593	2.4919	.831	4.427

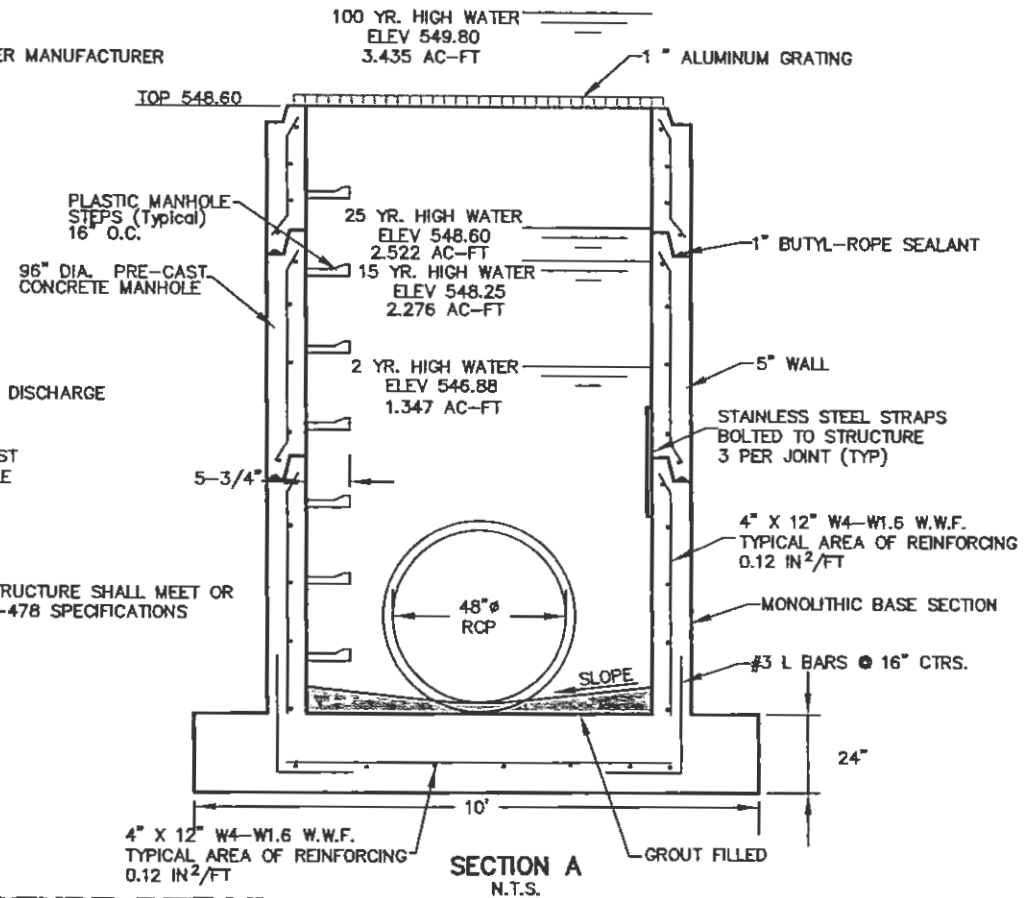
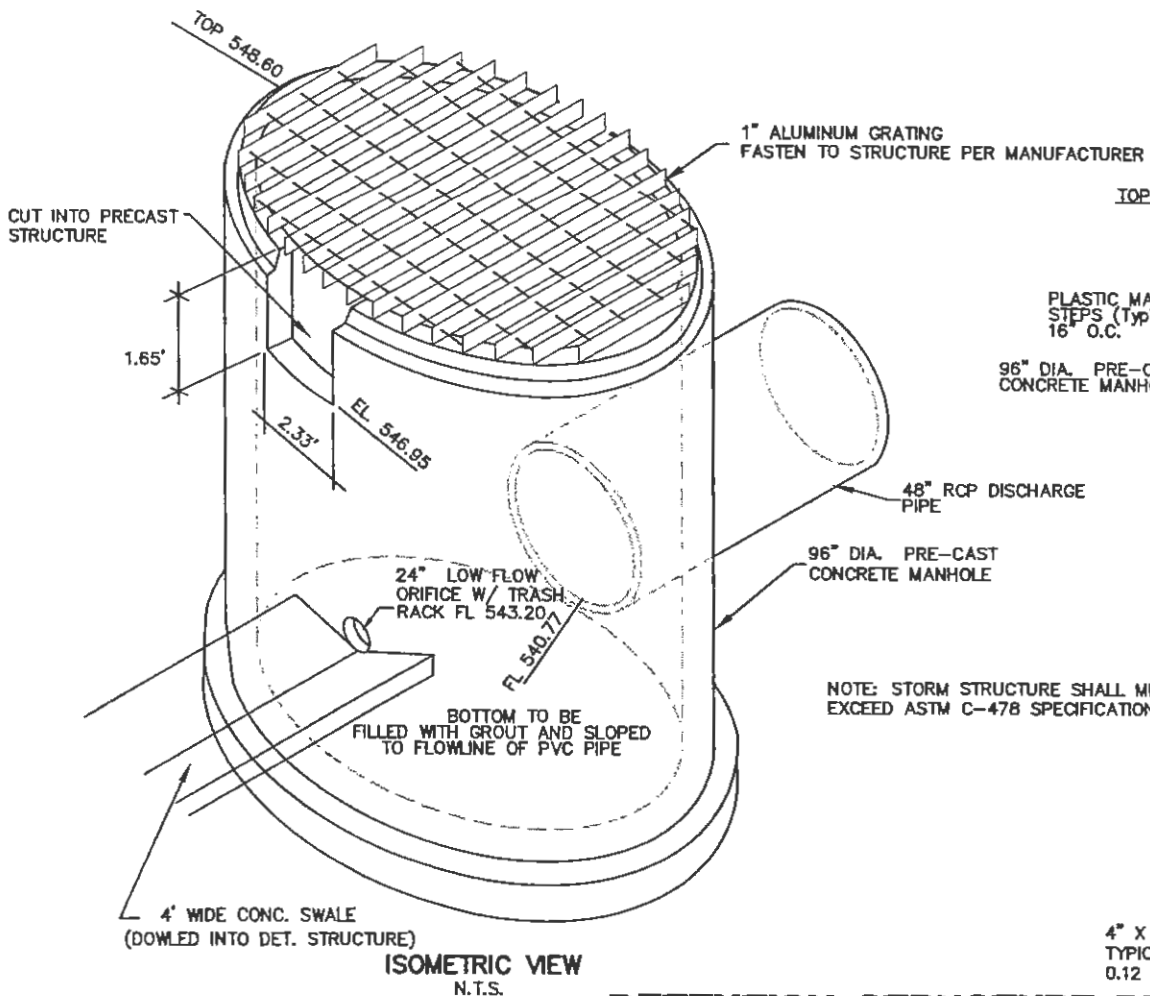
POND VOLUME EQUATIONS

* Incremental volume computed by the Conic Method for Reservoir Volumes.

$$\text{Volume} = (1/3) * (\text{EL2}-\text{EL1}) * (\text{Area1} + \text{Area2} + \text{sq.rt.}(\text{Area1}*\text{Area2}))$$

where: EL1, EL2 = Lower and upper elevations of the increment
 Area1, Area2 = Areas computed for EL1, EL2, respectively
 Volume = Incremental volume between EL1 and EL2

DETENTION STRUCTURE



NOTE: STORM STRUCTURE SHALL MEET OR EXCEED ASTM C-478 SPECIFICATIONS

DETENTION STRUCTURE DETAIL
DETENTION BASIN #1

type.... Outlet Input Data
Name.... OUTLET #1

File.... R:\0675N\10-DEV-POI1.PPW

REQUESTED POND WS ELEVATIONS:

Min. Elev.= 543.20 ft
Increment = .10 ft
Max. Elev.= 551.00 ft

OUTLET CONNECTIVITY

----> Forward Flow Only (UpStream to DnStream)
<--- Reverse Flow Only (DnStream to UpStream)
<---> Forward and Reverse Both Allowed

Structure	No.		Outfall	E1, ft	E2, ft
-----	-----		-----	-----	-----
Weir-Rectangular	IW	---->	TW	546.950	551.000
Inlet Box	OF	---->	TW	548.600	551.000
Orifice-Circular	LF	---->	TW	543.200	551.000
TW SETUP, DS Channel					

pe.... Outlet Input Data
name.... OUTLET #1

File.... R:\0675N\10-DEV-POI1.PPW

OUTLET STRUCTURE INPUT DATA

Structure ID = IW
Structure Type = Weir-Rectangular

of Openings = 1
Crest Elev. = 546.95 ft
Weir Length = 2.33 ft
Weir Coeff. = 3.330000

Weir TW effects (Use adjustment equation)

Structure ID = OF
Structure Type = Inlet Box

of Openings = 1
Invert Elev. = 548.60 ft
Orifice Area = 50.2700 sq.ft
Orifice Coeff. = .600
Weir Length = 48.60 ft
Weir Coeff. = 3.330
K, Reverse = 1.000
Mannings n = .0000
Kev, Charged Riser = .000
Weir Submergence = No
Orifice H to crest = Yes

Structure ID = LF
Structure Type = Orifice-Circular

of Openings = 1
Invert Elev. = 543.20 ft
Diameter = 2.0000 ft
Orifice Coeff. = .600

Structure ID = TW
Structure Type = TW SETUP, DS Channel

FREE OUTFALL CONDITIONS SPECIFIED

CONVERGENCE TOLERANCES...

Maximum Iterations = 30
Min. TW tolerance = .01 ft
Max. TW tolerance = .01 ft
Min. HW tolerance = .01 ft
Max. HW tolerance = .01 ft
Min. Q tolerance = .10 cfs
Max. Q tolerance = .10 cfs

Type.... Composite Rating Curve
 Name.... OUTLET #1

File.... R:\0675N\10-DEV-POI1.PPW

***** COMPOSITE OUTFLOW SUMMARY *****

WS Elev, Total Q		Converge		Notes
Elev. ft	Q cfs	TW Elev ft	Error +/-ft	Contributing Structures
543.20	.00	Free Outfall		None contributing
543.30	.03	Free Outfall		LF
543.40	.18	Free Outfall		LF
543.50	.43	Free Outfall		LF
543.60	.75	Free Outfall		LF
543.70	1.16	Free Outfall		LF
543.80	1.64	Free Outfall		LF
543.90	2.21	Free Outfall		LF
544.00	2.85	Free Outfall		LF
544.10	3.56	Free Outfall		LF
544.20	4.33	Free Outfall		LF
544.30	5.15	Free Outfall		LF
544.40	6.04	Free Outfall		LF
544.50	6.98	Free Outfall		LF
544.60	7.97	Free Outfall		LF
544.70	9.01	Free Outfall		LF
544.80	10.07	Free Outfall		LF
544.90	11.16	Free Outfall		LF
545.00	12.29	Free Outfall		LF
545.10	13.44	Free Outfall		LF
545.20	15.12	Free Outfall		LF
545.30	15.86	Free Outfall		LF
545.40	16.56	Free Outfall		LF
545.50	17.24	Free Outfall		LF
545.60	17.89	Free Outfall		LF
545.70	18.52	Free Outfall		LF
545.80	19.13	Free Outfall		LF
545.90	19.71	Free Outfall		LF
546.00	20.29	Free Outfall		LF
546.10	20.84	Free Outfall		LF
546.20	21.38	Free Outfall		LF
546.30	21.91	Free Outfall		LF
546.40	22.43	Free Outfall		LF
546.50	22.93	Free Outfall		LF
546.60	23.42	Free Outfall		LF
546.70	23.91	Free Outfall		LF
546.80	24.38	Free Outfall		LF
546.90	24.85	Free Outfall		LF

Type.... Composite Rating Curve
 me.... OUTLET #1

File.... R:\0675N\10-DEV-POI1.PPW

***** COMPOSITE OUTFLOW SUMMARY *****

WS Elev, Total Q		Converge		Notes
Elev. ft	Q cfs	TW Elev ft	Error +/-ft	Contributing Structures
546.95	25.07	Free Outfall		IW +LF
547.00	25.39	Free Outfall		IW +LF
547.10	26.20	Free Outfall		IW +LF
547.20	27.16	Free Outfall		IW +LF
547.30	28.23	Free Outfall		IW +LF
547.40	29.39	Free Outfall		IW +LF
547.50	30.63	Free Outfall		IW +LF
547.60	31.95	Free Outfall		IW +LF
547.70	33.33	Free Outfall		IW +LF
547.80	34.77	Free Outfall		IW +LF
547.90	36.27	Free Outfall		IW +LF
548.00	37.82	Free Outfall		IW +LF
548.10	39.43	Free Outfall		IW +LF
548.20	41.08	Free Outfall		IW +LF
548.30	42.79	Free Outfall		IW +LF
8.40	44.54	Free Outfall		IW +LF
548.50	46.33	Free Outfall		IW +LF
548.60	48.16	Free Outfall		IW +OF +LF
548.70	55.16	Free Outfall		IW +OF +LF
548.80	66.43	Free Outfall		IW +OF +LF
548.90	80.51	Free Outfall		IW +OF +LF
549.00	96.85	Free Outfall		IW +OF +LF
549.10	115.16	Free Outfall		IW +OF +LF
549.20	135.22	Free Outfall		IW +OF +LF
549.30	156.88	Free Outfall		IW +OF +LF
549.40	180.05	Free Outfall		IW +OF +LF
549.50	204.59	Free Outfall		IW +OF +LF
549.60	230.46	Free Outfall		IW +OF +LF
549.70	257.56	Free Outfall		IW +OF +LF
549.80	285.86	Free Outfall		IW +OF +LF
549.90	315.31	Free Outfall		IW +OF +LF
550.00	345.84	Free Outfall		IW +OF +LF
550.10	376.44	Free Outfall		IW +OF +LF
550.20	388.55	Free Outfall		IW +OF +LF
550.30	400.39	Free Outfall		IW +OF +LF
550.40	411.99	Free Outfall		IW +OF +LF
550.50	423.36	Free Outfall		IW +OF +LF
550.60	434.53	Free Outfall		IW +OF +LF
550.70	445.52	Free Outfall		IW +OF +LF
550.80	456.33	Free Outfall		IW +OF +LF
550.90	466.99	Free Outfall		IW +OF +LF
551.00	477.50	Free Outfall		IW +OF +LF

2 YEAR STORM ROUTING

Type.... Pond E-V-Q Table
 ne.... BASIN #1
 file.... R:\0675N\10-DEV-PO11.PPW

LEVEL POOL ROUTING DATA

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #1 IN 2-YR
 Outflow HYG file = NONE STORED - BASIN #1 OUT 2-YR

Pond Node Data = BASIN #1
 Pond Volume Data = BASIN #1
 Pond Outlet Data = OUTLET #1

No Infiltration

INITIAL CONDITIONS

 Starting WS Elev = 543.20 ft
 Starting Volume = .000 ac-ft
 Starting Outflow = .00 cfs
 Starting Infiltr. = .00 cfs
 Starting Total Qout = .00 cfs
 Time Increment = .0500 hrs

Elevation ft	Outflow cfs	Storage ac-ft	Area acres	Infilt. cfs	Q Total cfs	2S/t + O cfs
.20	.00	.000	.0000	.00	.00	.00
543.30	.03	.000	.0009	.00	.03	.05
543.40	.18	.000	.0038	.00	.18	.30
543.50	.43	.001	.0085	.00	.43	.84
543.60	.75	.002	.0151	.00	.75	1.72
543.70	1.16	.004	.0235	.00	1.16	3.06
543.80	1.64	.007	.0339	.00	1.64	4.92
543.90	2.21	.011	.0461	.00	2.21	7.43
544.00	2.85	.016	.0603	.00	2.85	10.63
544.10	3.56	.023	.0847	.00	3.56	14.83
544.20	4.33	.033	.1133	.00	4.33	20.37
544.30	5.15	.046	.1460	.00	5.15	27.45
544.40	6.04	.062	.1829	.00	6.04	36.29
544.50	6.98	.083	.2240	.00	6.98	47.06
544.60	7.97	.107	.2692	.00	7.97	59.97
544.70	9.01	.137	.3185	.00	9.01	75.20
544.80	10.07	.171	.3720	.00	10.07	92.96
544.90	11.16	.211	.4296	.00	11.16	113.44
545.00	12.29	.257	.4914	.00	12.29	136.83
545.10	13.44	.307	.5017	.00	13.44	162.02

Type.... Pond E-V-Q Table
 me.... BASIN #1
 file.... R:\0675N\10-DEV-POI1.PPW

LEVEL POOL ROUTING DATA

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #1 IN 2-YR
 Outflow HYG file = NONE STORED - BASIN #1 OUT 2-YR

Pond Node Data = BASIN #1
 Pond Volume Data = BASIN #1
 Pond Outlet Data = OUTLET #1

No Infiltration

INITIAL CONDITIONS

 Starting WS Elev = 543.20 ft
 Starting Volume = .000 ac-ft
 Starting Outflow = .00 cfs
 Starting Infiltr. = .00 cfs
 Starting Total Qout = .00 cfs
 Time Increment = .0500 hrs

Elevation ft	Outflow cfs	Storage ac-ft	Area acres	Infiltr. cfs	Q Total cfs	2S/t + O cfs
.20	15.12	.358	.5122	.00	15.12	188.23
545.30	15.86	.409	.5227	.00	15.86	214.01
545.40	16.56	.462	.5334	.00	16.56	240.28
545.50	17.24	.516	.5442	.00	17.24	267.03
545.60	17.89	.571	.5550	.00	17.89	294.29
545.70	18.52	.627	.5660	.00	18.52	322.04
545.80	19.13	.684	.5771	.00	19.13	350.30
545.90	19.71	.743	.5883	.00	19.71	379.11
546.00	20.29	.802	.5996	.00	20.29	408.42
546.10	20.84	.862	.6043	.00	20.84	438.12
546.20	21.38	.923	.6091	.00	21.38	468.02
546.30	21.91	.984	.6138	.00	21.91	498.13
546.40	22.43	1.046	.6186	.00	22.43	528.48
546.50	22.93	1.108	.6233	.00	22.93	559.04
546.60	23.42	1.170	.6281	.00	23.42	589.83
546.70	23.91	1.233	.6329	.00	23.91	620.82
546.80	24.38	1.297	.6378	.00	24.38	652.04
546.90	24.85	1.361	.6426	.00	24.85	683.50
546.95	25.07	1.393	.6451	.00	25.07	699.30
547.00	25.39	1.425	.6475	.00	25.39	715.25

Type.... Pond E-V-Q Table
 me.... BASIN #1
 file.... R:\0675N\10-DEV-POI1.PPW

LEVEL POOL ROUTING DATA

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #1 IN 2-YR
 Outflow HYG file = NONE STORED - BASIN #1 OUT 2-YR

Pond Node Data = BASIN #1
 Pond Volume Data = BASIN #1
 Pond Outlet Data = OUTLET #1

No Infiltration

INITIAL CONDITIONS

 Starting WS Elev = 543.20 ft
 Starting Volume = .000 ac-ft
 Starting Outflow = .00 cfs
 Starting Infiltr. = .00 cfs
 Starting Total Qout = .00 cfs
 Time Increment = .0500 hrs

Elevation ft	Outflow cfs	Storage ac-ft	Area acres	Infiltr. cfs	Q Total cfs	2S/t + O cfs
.10	26.20	1.490	.6524	.00	26.20	747.53
547.20	27.16	1.556	.6573	.00	27.16	780.18
547.30	28.23	1.622	.6622	.00	28.23	813.18
547.40	29.39	1.688	.6672	.00	29.39	846.52
547.50	30.63	1.755	.6722	.00	30.63	880.17
547.60	31.95	1.823	.6772	.00	31.95	914.15
547.70	33.33	1.891	.6822	.00	33.33	948.42
547.80	34.77	1.959	.6872	.00	34.77	982.99
547.90	36.27	2.028	.6923	.00	36.27	1017.89
548.00	37.82	2.098	.6973	.00	37.82	1053.06
548.10	39.43	2.168	.7024	.00	39.43	1088.55
548.20	41.08	2.238	.7075	.00	41.08	1124.32
548.30	42.79	2.309	.7126	.00	42.79	1160.37
548.40	44.54	2.381	.7177	.00	44.54	1196.75
548.50	46.33	2.453	.7229	.00	46.33	1233.39
548.60	48.16	2.525	.7280	.00	48.16	1270.33
548.70	55.16	2.598	.7332	.00	55.16	1312.70
548.80	66.43	2.672	.7384	.00	66.43	1359.58
548.90	80.51	2.746	.7436	.00	80.51	1409.53
549.00	96.85	2.821	.7489	.00	96.85	1461.98

Type.... Pond E-V-Q Table
 me.... BASIN #1
 rfile.... R:\0675N\10-DEV-POI1.PPW

LEVEL POOL ROUTING DATA

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #1 IN 2-YR
 Outflow HYG file = NONE STORED - BASIN #1 OUT 2-YR

Pond Node Data = BASIN #1
 Pond Volume Data = BASIN #1
 Pond Outlet Data = OUTLET #1

No Infiltration

INITIAL CONDITIONS

 Starting WS Elev = 543.20 ft
 Starting Volume = .000 ac-ft
 Starting Outflow = .00 cfs
 Starting Infiltr. = .00 cfs
 Starting Total Qout= .00 cfs
 Time Increment = .0500 hrs

Elevation ft	Outflow cfs	Storage ac-ft	Area acres	Infiltr. cfs	Q Total cfs	2S/t + O cfs
.10	115.16	2.896	.7541	.00	115.16	1516.68
549.20	135.22	2.971	.7594	.00	135.22	1573.36
549.30	156.88	3.048	.7647	.00	156.88	1631.89
549.40	180.05	3.124	.7700	.00	180.05	1692.21
549.50	204.59	3.202	.7754	.00	204.59	1754.14
549.60	230.46	3.279	.7807	.00	230.46	1817.69
549.70	257.56	3.358	.7861	.00	257.56	1882.70
549.80	285.86	3.437	.7915	.00	285.86	1949.16
549.90	315.31	3.516	.7969	.00	315.31	2017.06
550.00	345.84	3.596	.8023	.00	345.84	2086.28
550.10	376.44	3.677	.8079	.00	376.44	2155.87
550.20	388.55	3.758	.8136	.00	388.55	2207.21
550.30	400.39	3.839	.8192	.00	400.39	2258.55
550.40	411.99	3.921	.8249	.00	411.99	2309.95
550.50	423.36	4.004	.8306	.00	423.36	2361.38
550.60	434.53	4.088	.8363	.00	434.53	2412.91
550.70	445.52	4.171	.8420	.00	445.52	2464.49
550.80	456.33	4.256	.8477	.00	456.33	2516.19
550.90	466.99	4.341	.8535	.00	466.99	2568.03
551.00	477.50	4.427	.8593	.00	477.50	2619.98

Time... Pond Routing Summary

... BASIN #1 OUT Tag: 2-YR

Event: 2 yr

File... R:\0675N\10-DEV-POI1.PPW

Storm... TypeII 24hr Tag: 2-YR

LEVEL POOL ROUTING SUMMARY

HYG Dir = R:\0675N\

Inflow HYG file = NONE STORED - BASIN #1 IN 2-YR

Outflow HYG file = NONE STORED - BASIN #1 OUT 2-YR

Pond Node Data = BASIN #1

Pond Volume Data = BASIN #1

Pond Outlet Data = OUTLET #1

No Infiltration

INITIAL CONDITIONS

Starting WS Elev = 543.20 ft
Starting Volume = .000 ac-ft
Starting Outflow = .00 cfs
Starting Infiltr. = .00 cfs
Starting Total Qout = .00 cfs
Time Increment = .0500 hrs

INFLOW/OUTFLOW HYDROGRAPH SUMMARY

Peak Inflow = 67.19 cfs at 12.0500 hrs
Peak Outflow = 24.75 cfs at 12.3000 hrs

Peak Elevation = 546.88 ft
Peak Storage = 1.347 ac-ft

MASS BALANCE (ac-ft)

+ Initial Vol = .000
+ HYG Vol IN = 5.278
- Infiltration = .000
- HYG Vol OUT = 5.278
- Retained Vol = .000
Unrouted Vol = -.000 ac-ft (.000% of Inflow Volume)

Time.... Pond Routing Calcs (Total Out)
 a.... BASIN #1 OUT Tag: 2-YR
 File.... R:\0675N\10-DEV-POI1.PPW
 Storm... TypeII 24hr Tag: 2-YR

Event: 2 yr

LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #1 IN 2-YR
 Outflow HYG file = NONE STORED - BASIN #1 OUT 2-YR

Time hrs	Inflow cfs	2S/t - 0 cfs	2S/t + 0 cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
10.7500	2.98	4.71	10.27	.00	2.78	.015	543.99
10.8000	3.10	5.03	10.78	.00	2.88	.016	544.00
10.8500	3.22	5.40	11.35	.00	2.97	.017	544.02
10.9000	3.35	5.82	11.97	.00	3.08	.018	544.03
10.9500	3.48	6.26	12.64	.00	3.19	.019	544.05
11.0000	3.61	6.73	13.35	.00	3.31	.020	544.06
11.0500	3.76	7.23	14.10	.00	3.44	.022	544.08
11.1000	3.92	7.76	14.90	.00	3.57	.023	544.10
11.1500	4.10	8.40	15.78	.00	3.69	.025	544.12
11.2000	4.31	9.14	16.81	.00	3.83	.026	544.14
11.2500	4.55	10.01	18.00	.00	4.00	.029	544.16
11.3000	4.82	11.00	19.38	.00	4.19	.031	544.18
11.3500	5.11	12.14	20.93	.00	4.39	.034	544.21
11.4000	5.41	13.47	22.66	.00	4.59	.037	544.23
11.4500	5.72	14.97	24.61	.00	4.82	.040	544.26
11.5000	6.07	16.62	26.76	.00	5.07	.045	544.29
11.5500	6.67	18.66	29.35	.00	5.34	.049	544.32
11.6000	7.84	21.72	33.17	.00	5.73	.056	544.36
11.6500	10.05	26.95	39.61	.00	6.33	.068	544.43
11.7000	13.56	36.05	50.56	.00	7.25	.089	544.53
11.7500	18.48	51.04	68.09	.00	8.52	.122	544.65
11.8000	25.02	74.24	94.55	.00	10.16	.174	544.81
11.8500	33.53	108.61	132.79	.00	12.09	.249	544.98
11.9000	44.92	156.97	187.06	.00	15.05	.355	545.20
11.9500	56.95	224.77	258.84	.00	17.03	.500	545.47
12.0000	65.52	309.13	347.25	.00	19.06	.678	545.79
12.0500	67.19	400.02	441.84	.00	20.91	.870	546.11
12.1000	61.56	483.90	528.76	.00	22.43	1.046	546.40
12.1500	51.24	549.64	596.70	.00	23.53	1.184	546.62
12.2000	40.88	593.30	641.76	.00	24.23	1.276	546.77
12.2500	32.58	617.57	666.76	.00	24.60	1.327	546.85
12.3000	26.61	627.26	676.76	.00	24.75	1.347	546.88
12.3500	22.06	626.46	675.93	.00	24.73	1.345	546.88
12.4000	18.53	617.84	667.04	.00	24.60	1.327	546.85
12.4500	15.84	603.44	652.21	.00	24.38	1.297	546.80
12.5000	13.72	584.81	632.99	.00	24.09	1.258	546.74
12.5500	12.01	563.04	610.53	.00	23.75	1.212	546.67
12.6000	10.61	538.94	585.66	.00	23.36	1.162	546.59
12.6500	9.48	513.17	559.04	.00	22.93	1.108	546.50
12.7000	8.58	486.29	531.23	.00	22.47	1.051	546.41
12.7500	7.89	458.78	502.76	.00	21.99	.993	546.32
12.8000	7.34	431.03	474.01	.00	21.49	.935	546.22

Time.... Pond Routing Calcs (Total Out)

e.... BASIN #1 OUT Tag: 2-YR

Event: 2 yr

File.... R:\0675N\10-DEV-POI1.PPW

Storm... TypeII 24hr Tag: 2-YR

LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\

Inflow HYG file = NONE STORED - BASIN #1 IN 2-YR

Outflow HYG file = NONE STORED - BASIN #1 OUT 2-YR

Time hrs	Inflow cfs	2S/t - O cfs	2S/t + O cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
12.8500	6.89	403.32	445.26	.00	20.97	.877	546.12
12.9000	6.50	375.83	416.71	.00	20.44	.819	546.03
12.9500	6.18	348.71	388.51	.00	19.90	.761	545.93
13.0000	5.88	322.09	360.77	.00	19.34	.705	545.84
13.0500	5.61	296.05	333.58	.00	18.77	.650	545.74
13.1000	5.37	270.68	307.04	.00	18.18	.597	545.65
13.1500	5.15	246.05	281.20	.00	17.58	.545	545.55
13.2000	4.96	222.23	256.16	.00	16.97	.494	545.46
13.2500	4.79	199.30	231.98	.00	16.34	.445	545.37
13.3000	4.64	177.31	208.72	.00	15.71	.399	545.28
13.3500	4.50	156.43	186.44	.00	15.01	.354	545.19
13.4000	4.37	138.01	165.31	.00	13.65	.313	545.11
13.4500	4.26	121.17	146.64	.00	12.73	.277	545.04
13.5000	4.14	105.69	129.57	.00	11.94	.242	544.97
13.5500	4.03	91.49	113.86	.00	11.18	.212	544.90
13.6000	3.92	78.61	99.44	.00	10.42	.183	544.83
13.6500	3.82	67.00	86.35	.00	9.67	.158	544.76
13.7000	3.72	56.61	74.53	.00	8.96	.135	544.70
13.7500	3.63	47.47	63.96	.00	8.24	.115	544.63
13.8000	3.54	39.51	54.65	.00	7.57	.097	544.56
13.8500	3.46	32.65	46.52	.00	6.94	.082	544.50
13.9000	3.38	26.85	39.48	.00	6.32	.068	544.43
13.9500	3.30	22.00	33.52	.00	5.76	.057	544.37
14.0000	3.22	18.00	28.52	.00	5.26	.048	544.31
14.0500	3.14	14.78	24.36	.00	4.79	.040	544.26
14.1000	3.07	12.19	20.99	.00	4.40	.034	544.21
14.1500	3.01	10.20	18.27	.00	4.04	.029	544.16
14.2000	2.95	8.67	16.16	.00	3.74	.025	544.12
14.2500	2.90	7.51	14.53	.00	3.51	.023	544.09
14.3000	2.86	6.68	13.28	.00	3.30	.020	544.06
14.3500	2.82	6.08	12.37	.00	3.14	.019	544.04
14.4000	2.79	5.64	11.70	.00	3.03	.018	544.03
14.4500	2.76	5.30	11.18	.00	2.94	.017	544.01
14.5000	2.73	5.03	10.78	.00	2.88	.016	544.00
14.5500	2.70	4.82	10.45	.00	2.82	.016	543.99
14.6000	2.67	4.66	10.19	.00	2.76	.015	543.99
14.6500	2.64	4.53	9.97	.00	2.72	.015	543.98
14.7000	2.61	4.42	9.79	.00	2.68	.015	543.97
14.7500	2.59	4.32	9.62	.00	2.65	.014	543.97
14.8000	2.56	4.23	9.47	.00	2.62	.014	543.96
14.8500	2.53	4.14	9.32	.00	2.59	.014	543.96
14.9000	2.50	4.05	9.17	.00	2.56	.013	543.95

e.... Pond Routed HYG (total out)
 Name.... BASIN #1 OUT Tag: 2-YR Event: 2 yr
 File.... R:\0675N\10-DEV-POI1.PPW
 Storm... TypeII 24hr Tag: 2-YR

POND ROUTED TOTAL OUTFLOW HYG...

HYG file =
 HYG ID = BASIN #1 OUT
 HYG Tag = 2-YR

 Peak Discharge = 24.75 cfs
 Time to Peak = 12.3000 hrs
 HYG Volume = 5.278 ac-ft

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0500 hrs
 Time on left represents time for first value in each row.

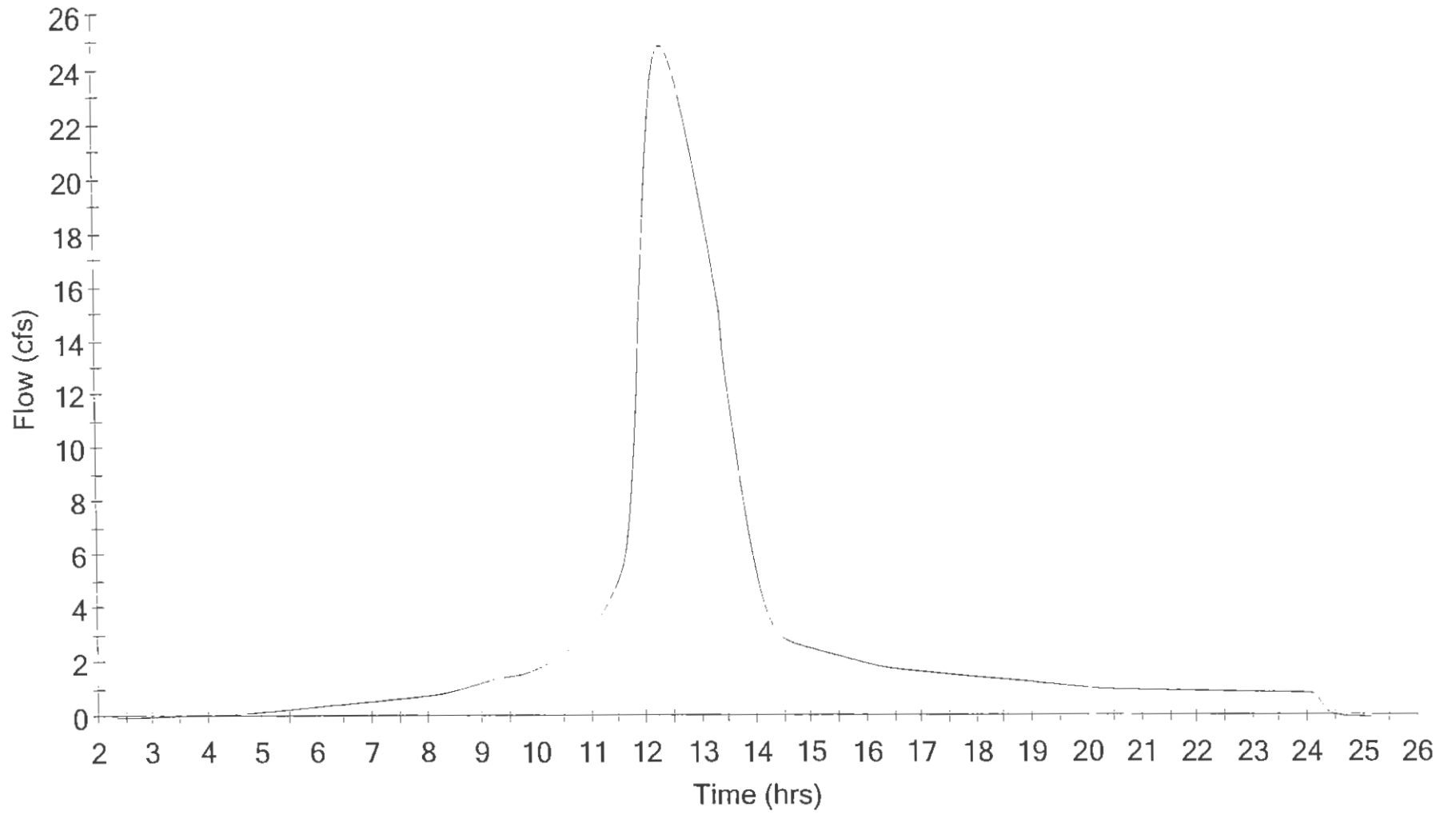
Time hrs					
2.3500	.00	.00	.00	.00	.01
2.6000	.01	.01	.01	.01	.02
2.8500	.02	.02	.02	.03	.03
3.1000	.03	.04	.04	.04	.04
3.3500	.05	.05	.05	.05	.06
3.6000	.06	.06	.07	.07	.07
3.8500	.07	.08	.08	.08	.08
4.1000	.09	.09	.09	.10	.10
4.3500	.11	.11	.12	.13	.13
4.6000	.14	.15	.16	.17	.17
4.8500	.18	.19	.20	.21	.22
5.1000	.22	.23	.24	.25	.26
5.3500	.27	.28	.29	.30	.30
5.6000	.31	.32	.33	.34	.35
5.8500	.36	.37	.38	.39	.40
6.1000	.41	.42	.43	.44	.45
6.3500	.46	.46	.47	.48	.49
6.6000	.50	.51	.52	.53	.54
6.8500	.55	.56	.57	.58	.59
7.1000	.61	.62	.63	.64	.65
7.3500	.66	.67	.68	.69	.70
7.6000	.71	.72	.73	.74	.75
7.8500	.76	.77	.78	.79	.80
8.1000	.82	.83	.84	.86	.88
8.3500	.90	.92	.95	.97	1.00
8.6000	1.03	1.06	1.09	1.11	1.14
8.8500	1.17	1.20	1.23	1.26	1.29
9.1000	1.32	1.35	1.38	1.41	1.43
9.3500	1.45	1.47	1.48	1.50	1.51
9.6000	1.52	1.54	1.56	1.58	1.61
9.8500	1.65	1.68	1.72	1.77	1.81

Type.... Pond Routed HYG (total out)
 ie.... BASIN #1 OUT Tag: 2-YR
 File.... R:\0675N\10-DEV-POI1.PPW
 Storm... TypeII 24hr Tag: 2-YR

Event: 2 yr

HYDROGRAPH ORDINATES (cfs)						
Time	Output Time increment = .0500 hrs					
hrs	Time on left represents time for first value in each row.					
10.1000	1.86	1.91	1.97	2.03	2.09	
10.3500	2.16	2.23	2.29	2.36	2.43	
10.6000	2.51	2.59	2.68	2.78	2.88	
10.8500	2.97	3.08	3.19	3.31	3.44	
11.1000	3.57	3.69	3.83	4.00	4.19	
11.3500	4.39	4.59	4.82	5.07	5.34	
11.6000	5.73	6.33	7.25	8.52	10.16	
11.8500	12.09	15.05	17.03	19.06	20.91	
12.1000	22.43	23.53	24.23	24.60	24.75	
12.3500	24.73	24.60	24.38	24.09	23.75	
12.6000	23.36	22.93	22.47	21.99	21.49	
12.8500	20.97	20.44	19.90	19.34	18.77	
13.1000	18.18	17.58	16.97	16.34	15.71	
13.3500	15.01	13.65	12.73	11.94	11.18	
13.6000	10.42	9.67	8.96	8.24	7.57	
13.8500	6.94	6.32	5.76	5.26	4.79	
14.1000	4.40	4.04	3.74	3.51	3.30	
14.3500	3.14	3.03	2.94	2.88	2.82	
14.6000	2.76	2.72	2.68	2.65	2.62	
14.8500	2.59	2.56	2.53	2.51	2.48	
15.1000	2.45	2.42	2.40	2.37	2.34	
15.3500	2.32	2.29	2.26	2.24	2.21	
15.6000	2.18	2.15	2.12	2.09	2.07	
15.8500	2.04	2.01	1.98	1.96	1.93	
16.1000	1.90	1.88	1.86	1.83	1.82	
16.3500	1.80	1.79	1.77	1.76	1.75	
16.6000	1.74	1.73	1.72	1.71	1.70	
16.8500	1.69	1.68	1.67	1.66	1.65	
17.1000	1.64	1.63	1.62	1.61	1.60	
17.3500	1.59	1.58	1.57	1.56	1.55	
17.6000	1.54	1.53	1.52	1.51	1.50	
17.8500	1.49	1.48	1.47	1.46	1.45	
18.1000	1.44	1.43	1.42	1.41	1.40	
18.3500	1.39	1.38	1.38	1.37	1.36	
18.6000	1.35	1.34	1.33	1.32	1.31	
18.8500	1.30	1.29	1.28	1.27	1.26	
19.1000	1.25	1.24	1.23	1.22	1.21	
19.3500	1.20	1.19	1.18	1.17	1.16	
19.6000	1.15	1.14	1.13	1.12	1.11	
19.8500	1.10	1.09	1.08	1.07	1.06	
20.1000	1.05	1.04	1.04	1.03	1.02	
20.3500	1.02	1.02	1.01	1.01	1.01	
20.6000	1.01	1.00	1.00	1.00	1.00	
20.8500	.99	.99	.99	.99	.99	
21.1000	.99	.98	.98	.98	.98	

Hydrograph
POI #1 2-YR



15 YEAR STORM ROUTING

Time.... Pond Routing Summary
 e.... BASIN #1 OUT Tag: 15-YR Event: 15 yr
 File.... R:\0675N\10-DEV-POI1.PPW
 Storm... TypeII 24hr Tag: 15-YR

LEVEL POOL ROUTING SUMMARY

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #1 IN 15-YR
 Outflow HYG file = NONE STORED - BASIN #1 OUT 15-YR

Pond Node Data = BASIN #1
 Pond Volume Data = BASIN #1
 Pond Outlet Data = OUTLET #1

No Infiltration

INITIAL CONDITIONS

 Starting WS Elev = 543.20 ft
 Starting Volume = .000 ac-ft
 Starting Outflow = .00 cfs
 Starting Infiltr. = .00 cfs
 Starting Total Qout = .00 cfs
 Time Increment = .0500 hrs

INFLOW/OUTFLOW HYDROGRAPH SUMMARY

=====
 Peak Inflow = 105.14 cfs at 12.0500 hrs
 Peak Outflow = 42.01 cfs at 12.3000 hrs

 Peak Elevation = 548.25 ft
 Peak Storage = 2.276 ac-ft
 =====

MASS BALANCE (ac-ft)

 + Initial Vol = .000
 + HYG Vol IN = 8.457
 - Infiltration = .000
 - HYG Vol OUT = 8.457
 - Retained Vol = .000

 Unrouted Vol = .000 ac-ft (.000% of Outflow Volume)

Type.... Pond Routing Calcs (Total Out)
 ie.... BASIN #1 OUT Tag: 15-YR
 File.... R:\0675N\10-DEV-POI1.PPW
 Storm... TypeII 24hr Tag: 15-YR

Event: 15 yr

LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #1 IN 15-YR
 Outflow HYG file = NONE STORED - BASIN #1 OUT 15-YR

Time hrs	Inflow cfs	2S/t - O cfs	2S/t + O cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
10.0500	3.40	6.36	12.79	.00	3.21	.019	544.05
10.1000	3.49	6.66	13.25	.00	3.29	.020	544.06
10.1500	3.58	6.99	13.74	.00	3.37	.021	544.07
10.2000	3.69	7.33	14.26	.00	3.46	.022	544.09
10.2500	3.80	7.70	14.81	.00	3.56	.023	544.10
10.3000	3.91	8.13	15.41	.00	3.64	.024	544.11
10.3500	4.03	8.61	16.07	.00	3.73	.025	544.12
10.4000	4.15	9.13	16.79	.00	3.83	.026	544.14
10.4500	4.28	9.69	17.56	.00	3.94	.028	544.15
10.5000	4.41	10.28	18.38	.00	4.05	.029	544.16
10.5500	4.54	10.89	19.22	.00	4.17	.031	544.18
10.6000	4.68	11.53	20.11	.00	4.29	.033	544.20
10.6500	4.83	12.23	21.04	.00	4.41	.034	544.21
10.7000	5.00	13.02	22.07	.00	4.52	.036	544.22
10.7500	5.18	13.89	23.20	.00	4.66	.038	544.24
10.8000	5.37	14.84	24.44	.00	4.80	.040	544.26
10.8500	5.57	15.87	25.78	.00	4.96	.043	544.28
10.9000	5.78	16.97	27.22	.00	5.13	.046	544.30
10.9500	5.99	18.17	28.74	.00	5.28	.048	544.31
11.0000	6.21	19.48	30.37	.00	5.45	.051	544.33
11.0500	6.44	20.89	32.13	.00	5.62	.054	544.35
11.1000	6.70	22.40	34.02	.00	5.81	.058	544.37
11.1500	6.99	24.05	36.09	.00	6.02	.062	544.40
11.2000	7.34	25.93	38.38	.00	6.22	.066	544.42
11.2500	7.73	28.09	41.00	.00	6.45	.071	544.44
11.3000	8.16	30.56	43.99	.00	6.72	.077	544.47
11.3500	8.63	33.34	47.35	.00	7.01	.083	544.50
11.4000	9.12	36.50	51.09	.00	7.29	.090	544.53
11.4500	9.62	40.02	55.24	.00	7.61	.098	544.56
11.5000	10.17	43.88	59.81	.00	7.96	.107	544.60
11.5500	11.14	48.54	65.19	.00	8.33	.117	544.63
11.6000	13.07	55.07	72.75	.00	8.84	.132	544.68
11.6500	16.70	65.67	84.84	.00	9.58	.155	544.75
11.7000	22.43	83.39	104.79	.00	10.70	.194	544.86
11.7500	30.39	111.70	136.21	.00	12.26	.256	545.00
11.8000	40.83	153.36	182.92	.00	14.78	.347	545.18
11.8500	54.22	214.87	248.41	.00	16.77	.478	545.43
11.9000	71.94	303.17	341.02	.00	18.93	.665	545.77
11.9500	90.40	422.82	465.50	.00	21.34	.918	546.19
12.0000	103.21	568.75	616.43	.00	23.84	1.224	546.69
12.0500	105.14	722.96	777.09	.00	27.07	1.550	547.19
12.1000	95.83	859.25	923.93	.00	32.34	1.842	547.63

Type.... Pond Routing Calcs (Total Out)
 e.... BASIN #1 OUT Tag: 15-YR
 File.... R:\0675N\10-DEV-PO11.PPW
 Storm... TypeII 24hr Tag: 15-YR

Page 7.27
 Event: 15 yr

LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #1 IN 15-YR
 Outflow HYG file = NONE STORED - BASIN #1 OUT 15-YR

Time hrs	Inflow cfs	2S/t - O cfs	2S/t + O cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
12.1500	79.42	960.49	1034.50	.00	37.00	2.061	547.95
12.2000	63.13	1022.84	1103.04	.00	40.10	2.196	548.14
12.2500	50.16	1052.84	1136.13	.00	41.64	2.261	548.23
12.3000	40.87	1059.86	1143.87	.00	42.01	2.276	548.25
12.3500	33.82	1051.41	1134.55	.00	41.57	2.258	548.23
12.4000	28.38	1032.43	1113.61	.00	40.59	2.217	548.17
12.4500	24.23	1006.50	1085.04	.00	39.27	2.161	548.09
12.5000	20.97	976.17	1051.70	.00	37.76	2.095	548.00
12.5500	18.35	943.16	1015.49	.00	36.17	2.023	547.89
12.6000	16.21	908.61	977.71	.00	34.55	1.949	547.78
12.6500	14.47	873.36	939.28	.00	32.96	1.873	547.67
12.7000	13.10	838.05	900.92	.00	31.44	1.796	547.56
12.7500	12.04	803.17	863.19	.00	30.01	1.721	547.45
12.8000	11.20	769.03	826.41	.00	28.69	1.648	547.34
12.8500	10.51	735.74	790.74	.00	27.50	1.577	547.23
12.9000	9.92	703.26	756.17	.00	26.45	1.508	547.13
12.9500	9.42	671.45	722.60	.00	25.57	1.440	547.02
13.0000	8.97	639.97	689.84	.00	24.94	1.374	546.92
13.0500	8.56	608.57	657.49	.00	24.46	1.308	546.82
13.1000	8.19	577.37	625.32	.00	23.98	1.242	546.71
13.1500	7.86	546.45	593.41	.00	23.48	1.178	546.61
13.2000	7.56	515.92	561.87	.00	22.98	1.113	546.51
13.2500	7.30	485.84	530.77	.00	22.47	1.050	546.41
13.3000	7.07	456.31	500.21	.00	21.95	.988	546.31
13.3500	6.86	427.39	470.24	.00	21.42	.927	546.21
13.4000	6.66	399.13	440.91	.00	20.89	.868	546.11
13.4500	6.48	371.56	412.27	.00	20.36	.810	546.01
13.5000	6.31	344.71	384.35	.00	19.82	.753	545.92
13.5500	6.14	318.62	357.15	.00	19.27	.698	545.82
13.6000	5.97	293.32	330.73	.00	18.71	.645	545.73
13.6500	5.81	268.83	305.10	.00	18.14	.593	545.64
13.7000	5.67	245.19	280.31	.00	17.56	.543	545.55
13.7500	5.53	222.44	256.38	.00	16.97	.495	545.46
13.8000	5.39	200.61	233.36	.00	16.38	.448	545.37
13.8500	5.27	179.71	211.27	.00	15.78	.404	545.29
13.9000	5.14	159.77	190.12	.00	15.17	.361	545.21
13.9500	5.02	142.04	169.93	.00	13.95	.322	545.13
14.0000	4.90	126.01	151.96	.00	12.98	.287	545.06
14.0500	4.78	111.23	135.69	.00	12.23	.255	545.00
14.1000	4.67	97.66	120.68	.00	11.51	.225	544.93
14.1500	4.57	85.28	106.91	.00	10.81	.198	544.87
14.2000	4.49	74.05	94.34	.00	10.14	.174	544.81

```

Type.... Pond Routed HYG (total out)
ne.... BASIN #1      OUT      Tag: 15-YR      Event: 15 yr
File.... R:\0675N\10-DEV-POI1.PPW
Storm... TypeII 24hr  Tag: 15-YR

```

HYDROGRAPH ORDINATES (cfs)

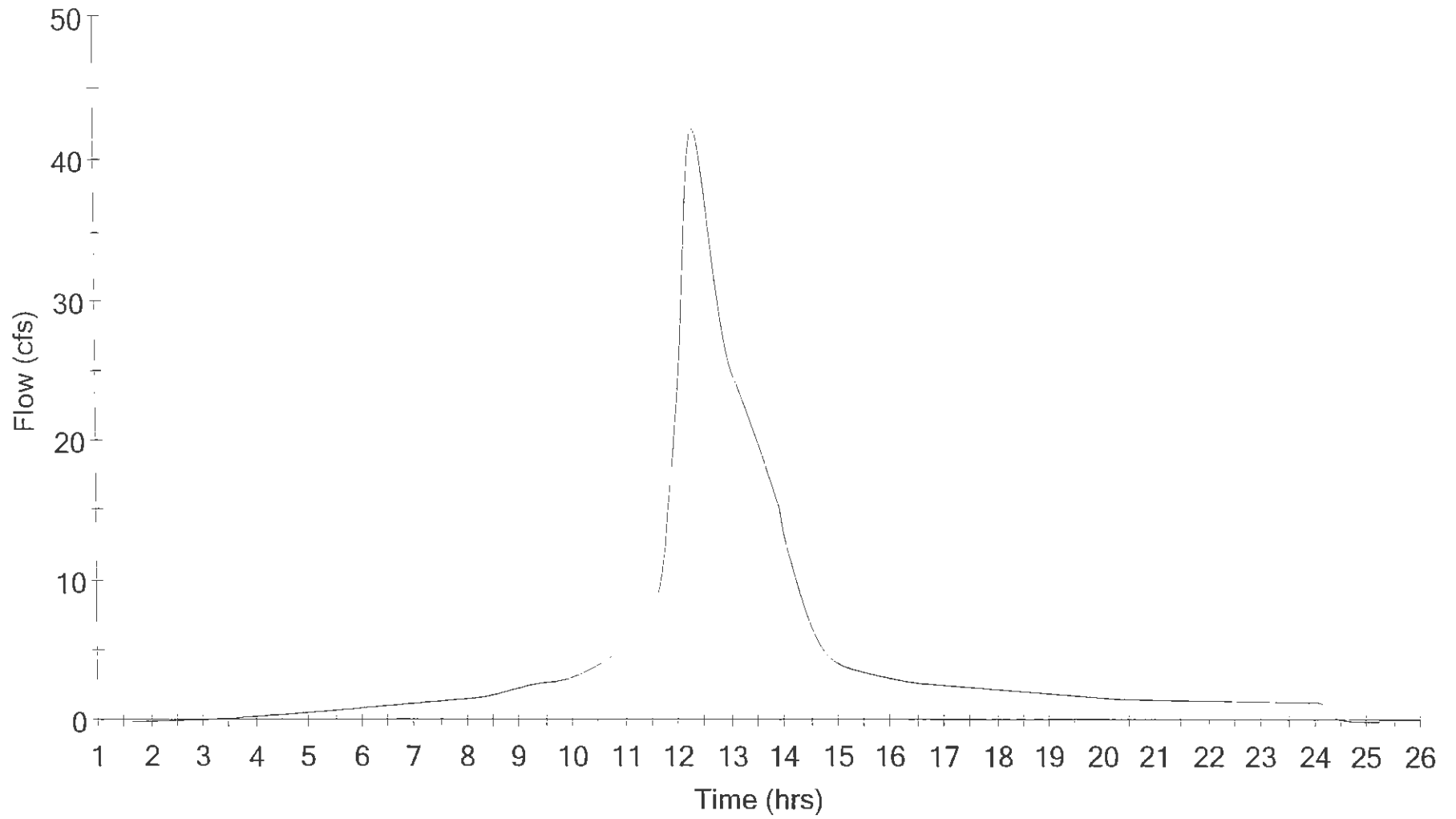
Output Time increment = .0500 hrs

Time | Time on left represents time for first value in each row.

Time hrs						
9.4000		2.70	2.73	2.75	2.77	2.79
9.6500		2.81	2.84	2.87	2.91	2.96
9.9000		3.01	3.07	3.14	3.21	3.29
10.1500		3.37	3.46	3.56	3.64	3.73
10.4000		3.83	3.94	4.05	4.17	4.29
10.6500		4.41	4.52	4.66	4.80	4.96
10.9000		5.13	5.28	5.45	5.62	5.81
11.1500		6.02	6.22	6.45	6.72	7.01
11.4000		7.29	7.61	7.96	8.33	8.84
11.6500		9.58	10.70	12.26	14.78	16.77
11.9000		18.93	21.34	23.84	27.07	32.34
12.1500		37.00	40.10	41.64	42.01	41.57
12.4000		40.59	39.27	37.76	36.17	34.55
12.6500		32.96	31.44	30.01	28.69	27.50
12.9000		26.45	25.57	24.94	24.46	23.98
13.1500		23.48	22.98	22.47	21.95	21.42
13.4000		20.89	20.36	19.82	19.27	18.71
13.6500		18.14	17.56	16.97	16.38	15.78
13.9000		15.17	13.95	12.98	12.23	11.51
14.1500		10.81	10.14	9.47	8.84	8.23
14.4000		7.66	7.13	6.63	6.19	5.79
14.6500		5.44	5.15	4.87	4.64	4.46
14.9000		4.31	4.17	4.05	3.95	3.87
15.1500		3.80	3.74	3.69	3.63	3.58
15.4000		3.53	3.48	3.43	3.38	3.34
15.6500		3.30	3.25	3.21	3.17	3.13
15.9000		3.09	3.05	3.00	2.96	2.92
16.1500		2.88	2.85	2.81	2.77	2.75
16.4000		2.72	2.70	2.68	2.66	2.64
16.6500		2.63	2.61	2.59	2.58	2.56
16.9000		2.55	2.53	2.52	2.50	2.49
17.1500		2.47	2.46	2.44	2.43	2.42
17.4000		2.40	2.39	2.37	2.36	2.34
17.6500		2.33	2.31	2.30	2.28	2.27
17.9000		2.25	2.24	2.22	2.21	2.19
18.1500		2.18	2.16	2.15	2.13	2.12
18.4000		2.10	2.09	2.07	2.06	2.04
18.6500		2.03	2.01	2.00	1.98	1.97
18.9000		1.95	1.94	1.93	1.91	1.90
19.1500		1.88	1.87	1.85	1.84	1.82
19.4000		1.81	1.79	1.78	1.76	1.75
19.6500		1.73	1.72	1.70	1.69	1.67
19.9000		1.66	1.65	1.63	1.61	1.60
20.1500		1.59	1.57	1.56	1.55	1.55
20.4000		1.54	1.54	1.53	1.53	1.52

Hydrograph
POI #1

15-YR



25 YEAR STORM ROUTING

Type.... Pond Routing Summary

e.... BASIN #1 OUT Tag: 25-YR
file.... R:\0675N\10-DEV-PO11.PPW
Storm... TypeII 24hr Tag: 25-YR

Event: 25 yr

LEVEL POOL ROUTING SUMMARY

HYG Dir = R:\0675N\
Inflow HYG file = NONE STORED - BASIN #1 IN 25-YR
Outflow HYG file = NONE STORED - BASIN #1 OUT 25-YR

Pond Node Data = BASIN #1
Pond Volume Data = BASIN #1
Pond Outlet Data = OUTLET #1

No Infiltration

INITIAL CONDITIONS

Starting WS Elev = 543.20 ft
Starting Volume = .000 ac-ft
Starting Outflow = .00 cfs
Starting Infiltr. = .00 cfs
Starting Total Qout= .00 cfs
Time Increment = .0500 hrs

INFLOW/OUTFLOW HYDROGRAPH SUMMARY

=====
Peak Inflow = 116.22 cfs at 12.0500 hrs
Peak Outflow = 48.08 cfs at 12.3000 hrs
=====
Peak Elevation = 548.60 ft
Peak Storage = 2.522 ac-ft
=====

MASS BALANCE (ac-ft)

+ Initial Vol = .000
+ HYG Vol IN = 9.401
- Infiltration = .000
- HYG Vol OUT = 9.401
- Retained Vol = .000

Unrouted Vol = -.000 ac-ft (.000% of Inflow Volume)

DIFFQ
2.44 X 43.71 = 106.8
68 - BOTH BASIN
48 +
116 TOTAL RETAINED
OK FOR 25
10 CFS
IF
PER RATIONAL
MEETS CITY REQ
FG

Time.... Pond Routing Calcs (Total Out)
 e.... BASIN #1 OUT Tag: 25-YR
 File.... R:\0675N\10-DEV-POI1.PPW
 Storm... TypeII 24hr Tag: 25-YR

Event: 25 yr

LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #1 IN 25-YR
 Outflow HYG file = NONE STORED - BASIN #1 OUT 25-YR

Time hrs	Inflow cfs	2S/t - 0 cfs	2S/t + 0 cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
9.9000	3.58	7.15	13.98	.00	3.42	.022	544.08
9.9500	3.67	7.43	14.40	.00	3.49	.022	544.09
10.0000	3.76	7.73	14.85	.00	3.56	.023	544.10
10.0500	3.85	8.08	15.34	.00	3.63	.024	544.11
10.1000	3.95	8.47	15.88	.00	3.70	.025	544.12
10.1500	4.06	8.91	16.48	.00	3.79	.026	544.13
10.2000	4.17	9.38	17.13	.00	3.88	.027	544.14
10.2500	4.29	9.89	17.84	.00	3.98	.028	544.15
10.3000	4.42	10.44	18.60	.00	4.08	.030	544.17
10.3500	4.56	11.03	19.42	.00	4.19	.031	544.18
10.4000	4.69	11.65	20.28	.00	4.31	.033	544.20
10.4500	4.83	12.33	21.17	.00	4.42	.034	544.21
10.5000	4.97	13.07	22.14	.00	4.53	.036	544.23
10.5500	5.12	13.86	23.17	.00	4.65	.038	544.24
10.6000	5.28	14.70	24.27	.00	4.78	.040	544.26
10.6500	5.45	15.60	25.43	.00	4.92	.042	544.27
10.7000	5.64	16.56	26.68	.00	5.06	.045	544.29
10.7500	5.84	17.61	28.03	.00	5.21	.047	544.31
10.8000	6.05	18.78	29.49	.00	5.36	.050	544.32
10.8500	6.27	20.06	31.10	.00	5.52	.052	544.34
10.9000	6.50	21.45	32.83	.00	5.69	.056	544.36
10.9500	6.74	22.93	34.68	.00	5.88	.059	544.38
11.0000	6.98	24.50	36.64	.00	6.07	.063	544.40
11.0500	7.23	26.21	38.71	.00	6.25	.067	544.42
11.1000	7.52	28.06	40.96	.00	6.45	.071	544.44
11.1500	7.85	30.10	43.43	.00	6.67	.076	544.47
11.2000	8.23	32.37	46.18	.00	6.91	.081	544.49
11.2500	8.67	34.96	49.27	.00	7.15	.087	544.52
11.3000	9.15	37.94	52.78	.00	7.42	.093	544.54
11.3500	9.67	41.30	56.76	.00	7.73	.101	544.58
11.4000	10.21	45.07	61.18	.00	8.06	.110	544.61
11.4500	10.77	49.28	66.05	.00	8.39	.119	544.64
11.5000	11.38	53.92	71.42	.00	8.75	.129	544.68
11.5500	12.45	59.43	77.75	.00	9.16	.141	544.71
11.6000	14.61	67.13	86.50	.00	9.68	.158	544.76
11.6500	18.65	79.46	100.39	.00	10.47	.185	544.84
11.7000	25.03	99.88	123.14	.00	11.63	.230	544.94
11.7500	33.89	132.22	158.80	.00	13.29	.301	545.09
11.8000	45.46	179.99	211.56	.00	15.79	.404	545.29
11.8500	60.27	250.34	285.71	.00	17.69	.554	545.57
11.9000	79.83	350.57	390.44	.00	19.94	.765	545.94
11.9500	100.16	485.63	530.55	.00	22.46	1.050	546.41

je.... Pond Routing Calcs (Total Out)
 Name.... BASIN #1 OUT Tag: 25-YR
 File.... R:\0675N\10-DEV-POI1.PPW
 Storm... TypeII 24hr Tag: 25-YR

Event: 25 yr

LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #1 IN 25-YR
 Outflow HYG file = NONE STORED - BASIN #1 OUT 25-YR

Time hrs	Inflow cfs	2S/t - O cfs	2S/t + O cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
12.0000	114.20	649.82	700.00	.00	25.09	1.394	546.95
12.0500	116.22	818.97	880.24	.00	30.64	1.755	547.50
12.1000	105.83	966.43	1041.02	.00	37.29	2.074	547.97
12.1500	87.65	1074.38	1159.91	.00	42.76	2.308	548.30
12.2000	69.62	1139.17	1231.65	.00	46.24	2.449	548.50
12.2500	55.30	1168.38	1264.08	.00	47.85	2.513	548.58
12.3000	45.03	1172.55	1268.71	.00	48.08	2.522	548.60
12.3500	37.26	1160.05	1254.84	.00	47.39	2.495	548.56
12.4000	31.25	1136.38	1228.56	.00	46.09	2.443	548.49
12.4500	26.68	1105.48	1194.32	.00	44.42	2.376	548.39
12.5000	23.09	1070.16	1155.25	.00	42.55	2.299	548.29
12.5500	20.20	1032.29	1113.45	.00	40.58	2.217	548.17
12.6000	17.84	993.11	1070.32	.00	38.60	2.132	548.05
12.6500	15.92	953.54	1026.88	.00	36.67	2.046	547.93
12.7000	14.41	914.27	983.88	.00	34.81	1.961	547.80
12.7500	13.25	875.80	941.93	.00	33.07	1.878	547.68
12.8000	12.33	838.47	901.37	.00	31.45	1.797	547.56
12.8500	11.57	802.41	862.36	.00	29.98	1.720	547.45
12.9000	10.92	767.62	824.90	.00	28.64	1.645	547.34
12.9500	10.37	734.02	788.91	.00	27.44	1.573	547.23
13.0000	9.87	701.46	754.26	.00	26.40	1.504	547.12
13.0500	9.42	669.70	720.76	.00	25.53	1.436	547.02
13.1000	9.01	638.31	688.13	.00	24.91	1.370	546.91
13.1500	8.65	607.09	655.97	.00	24.44	1.305	546.81
13.2000	8.32	576.14	624.06	.00	23.96	1.240	546.71
13.2500	8.03	545.56	592.50	.00	23.47	1.176	546.61
13.3000	7.78	515.43	561.37	.00	22.97	1.112	546.51
13.3500	7.55	485.82	530.75	.00	22.46	1.050	546.41
13.4000	7.33	456.79	500.70	.00	21.96	.989	546.31
13.4500	7.13	428.38	471.26	.00	21.44	.929	546.21
13.5000	6.94	400.61	442.45	.00	20.92	.871	546.11
13.5500	6.75	373.51	414.30	.00	20.40	.814	546.02
13.6000	6.57	347.10	386.83	.00	19.87	.758	545.93
13.6500	6.40	321.41	360.06	.00	19.33	.704	545.83
13.7000	6.23	296.49	334.04	.00	18.78	.651	545.74
13.7500	6.08	272.36	308.80	.00	18.22	.600	545.65
13.8000	5.94	249.07	284.38	.00	17.65	.551	545.56
13.8500	5.80	226.64	260.80	.00	17.08	.503	545.48
13.9000	5.66	205.08	238.09	.00	16.51	.458	545.39
13.9500	5.52	184.42	216.26	.00	15.92	.414	545.31
14.0000	5.39	164.69	195.34	.00	15.32	.372	545.23
14.0500	5.26	146.76	175.34	.00	14.29	.333	545.15

```

Type.... Pond Routed HYG (total out)
ne.... BASIN #1      OUT      Tag: 25-YR      Event: 25 yr
File.... R:\0675N\10-DEV-POI1.PPW
Storm... TypeII 24hr  Tag: 25-YR

```

```

POND ROUTED TOTAL OUTFLOW HYG...
HYG file =
HYG ID   = BASIN #1      OUT
HYG Tag  = 25-YR
-----
Peak Discharge =      48.08 cfs
Time to Peak   =     12.3000 hrs
HYG Volume    =      9.401 ac-ft
-----

```

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0500 hrs

Time on left represents time for first value in each row.

Time hrs						
1.5000	.00	.00	.00	.00	.01	
1.7500	.01	.02	.02	.03	.03	
2.0000	.04	.04	.05	.05	.06	
2.2500	.07	.07	.08	.08	.09	
2.5000	.09	.10	.11	.11	.12	
2.7500	.12	.13	.14	.15	.16	
3.0000	.17	.19	.20	.22	.23	
3.2500	.25	.26	.28	.29	.30	
3.5000	.32	.33	.35	.36	.38	
3.7500	.39	.41	.42	.44	.45	
4.0000	.46	.47	.49	.50	.52	
4.2500	.53	.55	.56	.58	.59	
4.5000	.61	.63	.64	.66	.67	
4.7500	.69	.71	.72	.74	.76	
5.0000	.77	.79	.81	.82	.84	
5.2500	.86	.87	.89	.91	.93	
5.5000	.94	.96	.98	1.00	1.01	
5.7500	1.03	1.05	1.07	1.08	1.10	
6.0000	1.12	1.14	1.15	1.17	1.19	
6.2500	1.20	1.22	1.24	1.26	1.27	
6.5000	1.29	1.31	1.33	1.35	1.36	
6.7500	1.38	1.40	1.42	1.44	1.45	
7.0000	1.47	1.49	1.51	1.53	1.55	
7.2500	1.56	1.58	1.60	1.62	1.64	
7.5000	1.65	1.67	1.69	1.70	1.72	
7.7500	1.74	1.76	1.78	1.80	1.81	
8.0000	1.83	1.85	1.87	1.89	1.92	
8.2500	1.95	1.98	2.02	2.06	2.11	
8.5000	2.16	2.21	2.26	2.31	2.36	
8.7500	2.41	2.47	2.53	2.58	2.64	
9.0000	2.70	2.76	2.82	2.87	2.92	

Type... Pond Routed HYG (total out)
 ne... BASIN #1 OUT Tag: 25-YR
 File... R:\0675N\10-DEV-POI1.PPW
 Storm... TypeII 24hr Tag: 25-YR

Event: 25 yr

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0500 hrs

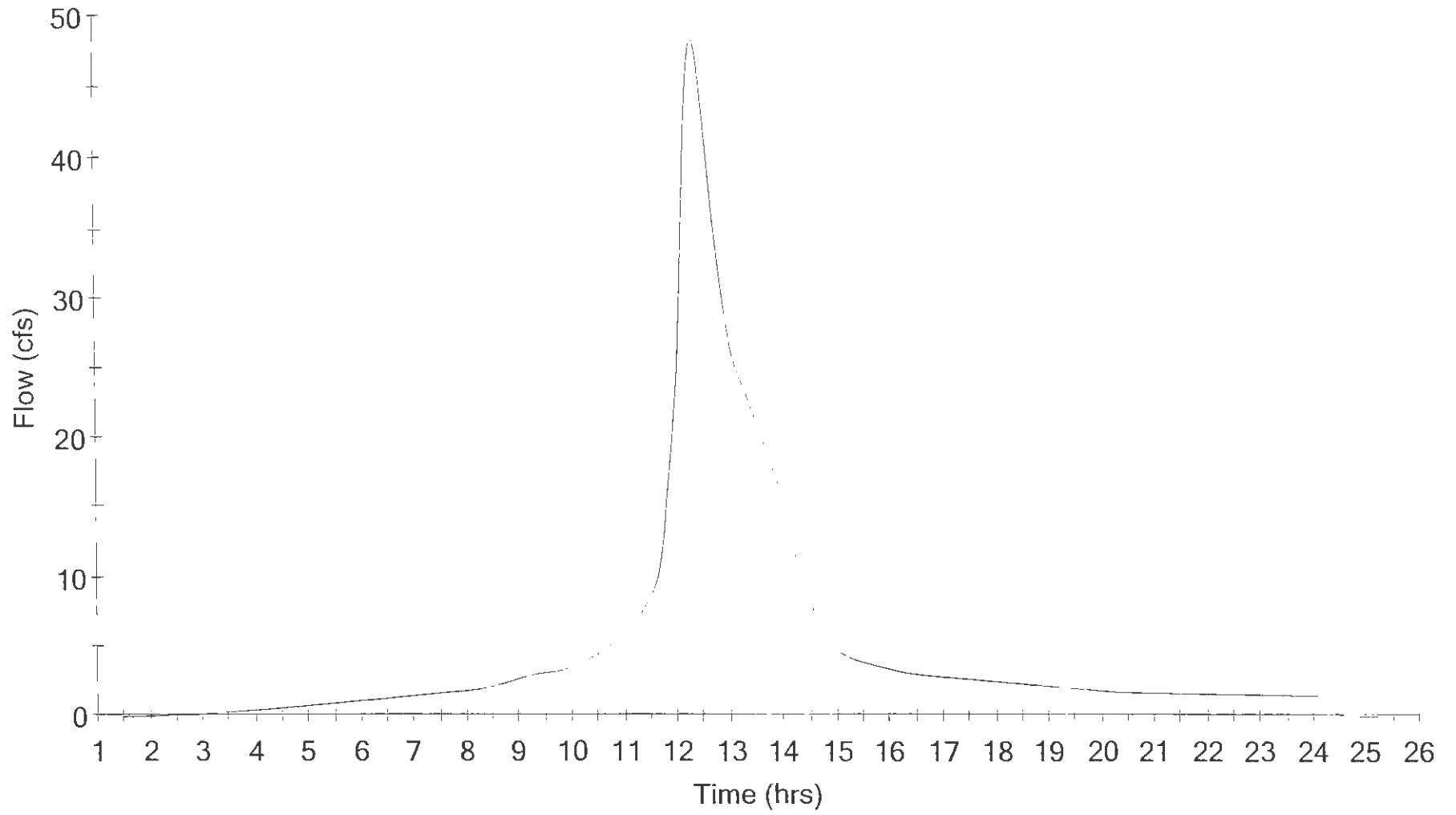
Time
hrs

Time on left represents time for first value in each row.

9.2500	2.96	3.00	3.04	3.07	3.09
9.5000	3.12	3.14	3.16	3.18	3.21
9.7500	3.25	3.30	3.35	3.42	3.49
10.0000	3.56	3.63	3.70	3.79	3.88
10.2500	3.98	4.08	4.19	4.31	4.42
10.5000	4.53	4.65	4.78	4.92	5.06
10.7500	5.21	5.36	5.52	5.69	5.88
11.0000	6.07	6.25	6.45	6.67	6.91
11.2500	7.15	7.42	7.73	8.06	8.39
11.5000	8.75	9.16	9.68	10.47	11.63
11.7500	13.29	15.79	17.69	19.94	22.46
12.0000	25.09	30.64	37.29	42.76	46.24
12.2500	47.85	48.08	47.39	46.09	44.42
12.5000	42.55	40.58	38.60	36.67	34.81
12.7500	33.07	31.45	29.98	28.64	27.44
13.0000	26.40	25.53	24.91	24.44	23.96
13.2500	23.47	22.97	22.46	21.96	21.44
13.5000	20.92	20.40	19.87	19.33	18.78
13.7500	18.22	17.65	17.08	16.51	15.92
14.0000	15.32	14.29	13.22	12.47	11.76
14.2500	11.10	10.43	9.79	9.18	8.59
14.5000	8.05	7.52	7.05	6.60	6.22
14.7500	5.87	5.55	5.29	5.06	4.85
15.0000	4.68	4.54	4.42	4.32	4.21
15.2500	4.12	4.05	3.98	3.92	3.86
15.5000	3.81	3.76	3.71	3.66	3.61
15.7500	3.56	3.51	3.45	3.40	3.36
16.0000	3.31	3.26	3.22	3.17	3.13
16.2500	3.09	3.06	3.03	3.00	2.98
16.5000	2.96	2.94	2.92	2.90	2.88
16.7500	2.86	2.84	2.82	2.80	2.79
17.0000	2.77	2.75	2.74	2.72	2.70
17.2500	2.69	2.67	2.66	2.64	2.62
17.5000	2.61	2.59	2.58	2.56	2.54
17.7500	2.53	2.51	2.49	2.48	2.46
18.0000	2.45	2.43	2.41	2.40	2.38
18.2500	2.37	2.35	2.33	2.32	2.30
18.5000	2.28	2.27	2.25	2.24	2.22
18.7500	2.20	2.18	2.17	2.15	2.13
19.0000	2.12	2.10	2.08	2.07	2.05
19.2500	2.04	2.02	2.00	1.99	1.97
19.5000	1.95	1.94	1.92	1.91	1.89
19.7500	1.87	1.86	1.84	1.82	1.81
20.0000	1.79	1.78	1.76	1.75	1.73
20.2500	1.72	1.71	1.70	1.70	1.69

Hydrograph
POI #1

25-YR



**100 YEAR HIGH WATER ELEVATION
ASSUMED LF BLOCKED**

**DETENTION OUTFALL STRUCTURE
WITH LF BLOCKED**

Type.... Outlet Input Data
ne.... OUTLET #1 LF

File.... R:\0675N\10-DEV-POI1.PPW

REQUESTED POND WS ELEVATIONS:

Min. Elev.= 543.20 ft
Increment = .10 ft
Max. Elev.= 551.00 ft

OUTLET CONNECTIVITY

---> Forward Flow Only (UpStream to DnStream)
<--- Reverse Flow Only (DnStream to UpStream)
<---> Forward and Reverse Both Allowed

Structure	No.		Outfall	E1, ft	E2, ft
Inlet Box	OF	--->	TW	548.600	551.000
Weir-Rectangular	IW	--->	TW	546.950	551.000
TW SETUP, DS Channel					

Type.... Outlet Input Data
me.... OUTLET #1 LF

File.... R:\0675N\10-DEV-POI1.PPW

OUTLET STRUCTURE INPUT DATA

Structure ID = OF
Structure Type = Inlet Box

of Openings = 1
Invert Elev. = 548.60 ft
Orifice Area = 50.2700 sq.ft
Orifice Coeff. = .600
Weir Length = 22.88 ft
Weir Coeff. = 3.330
K, Reverse = 1.000
Mannings n = .0000
Kev,Charged Riser = .000
Weir Submergence = No
Orifice H to crest= Yes

Structure ID = IW
Structure Type = Weir-Rectangular

of Openings = 1
Crest Elev. = 546.95 ft
Weir Length = 2.33 ft
Weir Coeff. = 3.330000

Weir TW effects (Use adjustment equation)

Structure ID = TW
Structure Type = TW SETUP, DS Channel

FREE OUTFALL CONDITIONS SPECIFIED

CONVERGENCE TOLERANCES...
Maximum Iterations= 30
Min. TW tolerance = .01 ft
Max. TW tolerance = .01 ft
Min. HW tolerance = .01 ft
Max. HW tolerance = .01 ft
Min. Q tolerance = .10 cfs
Max. Q tolerance = .10 cfs

Type... Composite Rating Curve
 me... OUTLET #1 LF

File... R:\0675N\10-DEV-PO11.PPW

***** COMPOSITE OUTFLOW SUMMARY *****

WS Elev, Total Q		Converge		Notes
Elev. ft	Q cfs	TW Elev ft	Error +/-ft	Contributing Structures
543.20	.00	Free Outfall		None contributing
543.30	.00	Free Outfall		None contributing
543.40	.00	Free Outfall		None contributing
543.50	.00	Free Outfall		None contributing
543.60	.00	Free Outfall		None contributing
543.70	.00	Free Outfall		None contributing
543.80	.00	Free Outfall		None contributing
543.90	.00	Free Outfall		None contributing
544.00	.00	Free Outfall		None contributing
544.10	.00	Free Outfall		None contributing
544.20	.00	Free Outfall		None contributing
544.30	.00	Free Outfall		None contributing
544.40	.00	Free Outfall		None contributing
544.50	.00	Free Outfall		None contributing
544.60	.00	Free Outfall		None contributing
544.70	.00	Free Outfall		None contributing
544.80	.00	Free Outfall		None contributing
544.90	.00	Free Outfall		None contributing
545.00	.00	Free Outfall		None contributing
545.10	.00	Free Outfall		None contributing
545.20	.00	Free Outfall		None contributing
545.30	.00	Free Outfall		None contributing
545.40	.00	Free Outfall		None contributing
545.50	.00	Free Outfall		None contributing
545.60	.00	Free Outfall		None contributing
545.70	.00	Free Outfall		None contributing
545.80	.00	Free Outfall		None contributing
545.90	.00	Free Outfall		None contributing
546.00	.00	Free Outfall		None contributing
546.10	.00	Free Outfall		None contributing
546.20	.00	Free Outfall		None contributing
546.30	.00	Free Outfall		None contributing
546.40	.00	Free Outfall		None contributing
546.50	.00	Free Outfall		None contributing
546.60	.00	Free Outfall		None contributing
546.70	.00	Free Outfall		None contributing
546.80	.00	Free Outfall		None contributing
546.90	.00	Free Outfall		None contributing

mve.... Composite Rating Curve
 .me.... OUTLET #1 LF

File.... R:\0675N\10-DEV-POI1.PPW

***** COMPOSITE OUTFLOW SUMMARY *****

WS Elev, Total Q		Converge		Notes
Elev. ft	Q cfs	TW Elev ft	Error +/-ft	Contributing Structures
546.95	.00	Free	Outfall	IW
547.00	.09	Free	Outfall	IW
547.10	.45	Free	Outfall	IW
547.20	.97	Free	Outfall	IW
547.30	1.61	Free	Outfall	IW
547.40	2.34	Free	Outfall	IW
547.50	3.16	Free	Outfall	IW
547.60	4.07	Free	Outfall	IW
547.70	5.04	Free	Outfall	IW
547.80	6.08	Free	Outfall	IW
547.90	7.18	Free	Outfall	IW
548.00	8.35	Free	Outfall	IW
548.10	9.57	Free	Outfall	IW
548.20	10.84	Free	Outfall	IW
548.30	12.17	Free	Outfall	IW
548.40	13.55	Free	Outfall	IW
548.50	14.97	Free	Outfall	IW
548.60	16.44	Free	Outfall	OF +IW
548.70	20.37	Free	Outfall	OF +IW
548.80	26.34	Free	Outfall	OF +IW
548.90	33.65	Free	Outfall	OF +IW
549.00	42.05	Free	Outfall	OF +IW
549.10	51.40	Free	Outfall	OF +IW
549.20	61.60	Free	Outfall	OF +IW
549.30	72.57	Free	Outfall	OF +IW
549.40	84.28	Free	Outfall	OF +IW
549.50	96.65	Free	Outfall	OF +IW
549.60	109.67	Free	Outfall	OF +IW
549.70	123.29	Free	Outfall	OF +IW
549.80	137.49	Free	Outfall	OF +IW
549.90	152.25	Free	Outfall	OF +IW
550.00	167.54	Free	Outfall	OF +IW
550.10	183.36	Free	Outfall	OF +IW
550.20	199.66	Free	Outfall	OF +IW
550.30	216.45	Free	Outfall	OF +IW
550.40	233.72	Free	Outfall	OF +IW
550.50	251.44	Free	Outfall	OF +IW
550.60	269.61	Free	Outfall	OF +IW
550.70	288.21	Free	Outfall	OF +IW
550.80	307.23	Free	Outfall	OF +IW
550.90	326.68	Free	Outfall	OF +IW
551.00	346.52	Free	Outfall	OF +IW

Type.... Pond E-V-Q Table
 me.... BASIN #1
 File.... R:\0675N\10-DEV-POI1.PPW

LEVEL POOL ROUTING DATA

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #1 IN 2-YR
 Outflow HYG file = NONE STORED - BASIN #1 OUT 2-YR

Pond Node Data = BASIN #1
 Pond Volume Data = BASIN #1
 Pond Outlet Data = OUTLET #1 LF

No Infiltration

INITIAL CONDITIONS

 Starting WS Elev = 546.95 ft
 Starting Volume = 1.393 ac-ft
 Starting Outflow = .00 cfs
 Starting Infiltr. = .00 cfs
 Starting Total Qout= .00 cfs
 Time Increment = .0500 hrs

Elevation ft	Outflow cfs	Storage ac-ft	Area acres	Infiltr. cfs	Q Total cfs	2S/t + O cfs
543.20	.00	.000	.0000	.00	.00	.00
543.30	.00	.000	.0009	.00	.00	.02
543.40	.00	.000	.0038	.00	.00	.12
543.50	.00	.001	.0085	.00	.00	.41
543.60	.00	.002	.0151	.00	.00	.97
543.70	.00	.004	.0235	.00	.00	1.90
543.80	.00	.007	.0339	.00	.00	3.28
543.90	.00	.011	.0461	.00	.00	5.21
544.00	.00	.016	.0603	.00	.00	7.78
544.10	.00	.023	.0847	.00	.00	11.27
544.20	.00	.033	.1133	.00	.00	16.04
544.30	.00	.046	.1460	.00	.00	22.30
544.40	.00	.062	.1829	.00	.00	30.25
544.50	.00	.083	.2240	.00	.00	40.08
544.60	.00	.107	.2692	.00	.00	52.00
544.70	.00	.137	.3185	.00	.00	66.20
544.80	.00	.171	.3720	.00	.00	82.89
544.90	.00	.211	.4296	.00	.00	102.27
545.00	.00	.257	.4914	.00	.00	124.54
545.10	.00	.307	.5017	.00	.00	148.58

Type.... Pond E-V-Q Table
 ne.... BASIN #1
 File.... R:\0675N\10-DEV-POI1.PPW

LEVEL POOL ROUTING DATA

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #1 IN 2-YR
 Outflow HYG file = NONE STORED - BASIN #1 OUT 2-YR

 Pond Node Data = BASIN #1
 Pond Volume Data = BASIN #1
 Pond Outlet Data = OUTLET #1 LF

No Infiltration

INITIAL CONDITIONS

 Starting WS Elev = 546.95 ft
 Starting Volume = 1.393 ac-ft
 Starting Outflow = .00 cfs
 Starting Infiltr. = .00 cfs
 Starting Total Qout = .00 cfs
 Time Increment = .0500 hrs

Elevation ft	Outflow cfs	Storage ac-ft	Area acres	Infiltr. cfs	Q Total cfs	2S/t + O cfs
.20	.00	.358	.5122	.00	.00	173.11
545.30	.00	.409	.5227	.00	.00	198.15
545.40	.00	.462	.5334	.00	.00	223.72
545.50	.00	.516	.5442	.00	.00	249.79
545.60	.00	.571	.5550	.00	.00	276.40
545.70	.00	.627	.5660	.00	.00	303.52
545.80	.00	.684	.5771	.00	.00	331.18
545.90	.00	.743	.5883	.00	.00	359.39
546.00	.00	.802	.5996	.00	.00	388.13
546.10	.00	.862	.6043	.00	.00	417.28
546.20	.00	.923	.6091	.00	.00	446.64
546.30	.00	.984	.6138	.00	.00	476.22
546.40	.00	1.046	.6186	.00	.00	506.06
546.50	.00	1.108	.6233	.00	.00	536.10
546.60	.00	1.170	.6281	.00	.00	566.40
546.70	.00	1.233	.6329	.00	.00	596.91
546.80	.00	1.297	.6378	.00	.00	627.65
546.90	.00	1.361	.6426	.00	.00	658.65
546.95	.00	1.393	.6451	.00	.00	674.23
547.00	.09	1.425	.6475	.00	.09	689.95

Type.... Pond E-V-Q Table
 ne.... BASIN #1
 File.... R:\0675N\10-DEV-POI1.PPW

LEVEL POOL ROUTING DATA

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #1 IN 2-YR
 Outflow HYG file = NONE STORED - BASIN #1 OUT 2-YR

 Pond Node Data = BASIN #1
 Pond Volume Data = BASIN #1
 Pond Outlet Data = OUTLET #1 LF

No Infiltration

INITIAL CONDITIONS

 Starting WS Elev = 546.95 ft
 Starting Volume = 1.393 ac-ft
 Starting Outflow = .00 cfs
 Starting Infiltr. = .00 cfs
 Starting Total Qout= .00 cfs
 Time Increment = .0500 hrs

Elevation ft	Outflow cfs	Storage ac-ft	Area acres	Infiltr. cfs	Q Total cfs	2S/t + O cfs
.10	.45	1.490	.6524	.00	.45	721.78
547.20	.97	1.556	.6573	.00	.97	753.99
547.30	1.61	1.622	.6622	.00	1.61	786.55
547.40	2.34	1.688	.6672	.00	2.34	819.47
547.50	3.16	1.755	.6722	.00	3.16	852.70
547.60	4.07	1.823	.6772	.00	4.07	886.27
547.70	5.04	1.891	.6822	.00	5.04	920.13
547.80	6.08	1.959	.6872	.00	6.08	954.30
547.90	7.18	2.028	.6923	.00	7.18	988.80
548.00	8.35	2.098	.6973	.00	8.35	1023.58
548.10	9.57	2.168	.7024	.00	9.57	1058.69
548.20	10.84	2.238	.7075	.00	10.84	1094.07
548.30	12.17	2.309	.7126	.00	12.17	1129.76
548.40	13.55	2.381	.7177	.00	13.55	1165.76
548.50	14.97	2.453	.7229	.00	14.97	1202.04
548.60	16.44	2.525	.7280	.00	16.44	1238.61
548.70	20.37	2.598	.7332	.00	20.37	1277.92
548.80	26.34	2.672	.7384	.00	26.34	1319.49
548.90	33.65	2.746	.7436	.00	33.65	1362.68
549.00	42.05	2.821	.7489	.00	42.05	1407.18

Type.... Pond E-V-Q Table
 Name.... BASIN #1
 File.... R:\0675N\10-DEV-POI1.PPW

LEVEL POOL ROUTING DATA

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #1 IN 2-YR
 Outflow HYG file = NONE STORED - BASIN #1 OUT 2-YR

Pond Node Data = BASIN #1
 Pond Volume Data = BASIN #1
 Pond Outlet Data = OUTLET #1 LF

No Infiltration

INITIAL CONDITIONS

 Starting WS Elev = 546.95 ft
 Starting Volume = 1.393 ac-ft
 Starting Outflow = .00 cfs
 Starting Infiltr. = .00 cfs
 Starting Total Qout = .00 cfs
 Time Increment = .0500 hrs

Elevation ft	Outflow cfs	Storage ac-ft	Area acres	Infiltr. cfs	Q Total cfs	2S/t + O cfs
549.10	51.40	2.896	.7541	.00	51.40	1452.92
549.20	61.60	2.971	.7594	.00	61.60	1499.74
549.30	72.57	3.048	.7647	.00	72.57	1547.59
549.40	84.28	3.124	.7700	.00	84.28	1596.44
549.50	96.65	3.202	.7754	.00	96.65	1646.20
549.60	109.67	3.279	.7807	.00	109.67	1696.89
549.70	123.29	3.358	.7861	.00	123.29	1748.42
549.80	137.49	3.437	.7915	.00	137.49	1800.79
549.90	152.25	3.516	.7969	.00	152.25	1854.01
550.00	167.54	3.596	.8023	.00	167.54	1907.99
550.10	183.36	3.677	.8079	.00	183.36	1962.79
550.20	199.66	3.758	.8136	.00	199.66	2018.33
550.30	216.45	3.839	.8192	.00	216.45	2074.62
550.40	233.72	3.921	.8249	.00	233.72	2131.69
550.50	251.44	4.004	.8306	.00	251.44	2189.46
550.60	269.61	4.088	.8363	.00	269.61	2247.99
550.70	288.21	4.171	.8420	.00	288.21	2307.19
550.80	307.23	4.256	.8477	.00	307.23	2367.09
550.90	326.68	4.341	.8535	.00	326.68	2427.72
551.00	346.52	4.427	.8593	.00	346.52	2489.00

MASTER DESIGN STORM SUMMARY

Network Storm Collection: OFALLON

Return Event	Total Depth in	Rainfall Type	RNF ID	
2-YR	3.5000	Synthetic Curve	TypeII	24hr
15-YR	5.2000	Synthetic Curve	TypeII	24hr
25-YR	5.7000	Synthetic Curve	TypeII	24hr
100-YR	7.2000	Synthetic Curve	TypeII	24hr

MASTER NETWORK SUMMARY
 SCS Unit Hydrograph Method

(*Node=Outfall; +Node=Diversion;)
 (Trun= HYG Truncation: Blank=None; L=Left; R=Rt; LR=Left&Rt)

Storage Node ID	Type	Return Event	HYG Vol ac-ft	Trun	Qpeak hrs	Qpeak cfs	Max WSEL ft	Max Pond ac-ft
AREA I	AREA	2	3.612		12.0000	51.70		
AREA I	AREA	15	5.870		12.0000	82.08		
AREA I	AREA	25	6.541		12.0000	90.95		
AREA I	AREA	100	8.566		12.0000	117.38		
BASIN #1	IN POND	2	5.278		12.0500	67.19		
BASIN #1	IN POND	15	8.457		12.0500	105.14		
BASIN #1	IN POND	25	9.401		12.0500	116.22		
BASIN #1	IN POND	100	12.242		12.0500	149.26		
BASIN #1	OUT POND	2	5.276		12.1500	48.07	549.06	2.869
BASIN #1	OUT POND	15	8.456		12.1000	91.46	549.46	3.169
BASIN #1	OUT POND	25	9.400		12.1000	103.49	549.55	3.242
BASIN #1	OUT POND	100	12.241		12.1000	137.26	549.80	3.435

Title.... Master Network Summary
 Date.... Watershed
 File.... R:\0675N\10-DEV-POI1.PPW

MASTER NETWORK SUMMARY
 SCS Unit Hydrograph Method

(*Node=Outfall; +Node=Diversion;)
 (Trun= HYG Truncation: Blank=None; L=Left; R=Rt; LR=Left&Rt)

Storage Node ID	Type	Return Event	HYG Vol ac-ft	Trun	Qpeak hrs	Qpeak cfs	Max WSEL ft	Max Pond ac-ft
*POI #1	JCT	2	5.276		12.1500	48.07		
*POI #1	JCT	15	8.456		12.1000	91.46		
*POI #1	JCT	25	9.400		12.1000	103.49		
*POI #1	JCT	100	12.241		12.1000	137.26		
RUSTIQUE	AREA	2	1.665		12.1500	17.29		
RUSTIQUE	AREA	15	2.587		12.1000	26.28		
RUSTIQUE	AREA	25	2.859		12.1000	28.91		
RUSTIQUE	AREA	100	3.676		12.1000	36.78		

Type... Pond Routing Summary
 ne... BASIN #1 OUT Tag: 100-YR Event: 100 yr
 File... R:\0675N\10-DEV-POI1.PPW
 Storm... TypeII 24hr Tag: 100-YR

LEVEL POOL ROUTING SUMMARY

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #1 IN 100-YR
 Outflow HYG file = NONE STORED - BASIN #1 OUT 100-YR

Pond Node Data = BASIN #1
 Pond Volume Data = BASIN #1
 Pond Outlet Data = OUTLET #1 LF

No Infiltration

INITIAL CONDITIONS

 Starting WS Elev = 546.95 ft
 Starting Volume = 1.393 ac-ft
 Starting Outflow = .00 cfs
 Starting Infiltr. = .00 cfs
 Starting Total Qout = .00 cfs
 Time Increment = .0500 hrs

INFLOW/OUTFLOW HYDROGRAPH SUMMARY

=====
 Peak Inflow = 149.26 cfs at 12.0500 hrs
 Peak Outflow = 137.26 cfs at 12.1000 hrs

 Peak Elevation = 549.80 ft
 Peak Storage = 3.435 ac-ft
 =====

MASS BALANCE (ac-ft)

 + Initial Vol = 1.393
 + HYG Vol IN = 12.242
 - Infiltration = .000
 - HYG Vol OUT = 12.241
 - Retained Vol = 1.394

Unrouted Vol = -.000 ac-ft (.000% of Inflow Volume) Type... Node: Addition

Summary

Time... Pond Routing Calcs (Total Out)
 Date... BASIN #1 OUT Tag: 100-YR
 File... R:\0675N\10-DEV-POI1.PPW
 Storm... TypeII 24hr Tag: 100-YR

Event: 100 yr

LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #1 IN 100-YR
 Outflow HYG file = NONE STORED - BASIN #1 OUT 100-YR

Time hrs	Inflow cfs	2S/t - O cfs	2S/t + O cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
9.6000	4.38	857.99	864.97	.00	3.49	1.780	547.54
9.6500	4.43	859.71	866.80	.00	3.54	1.784	547.54
9.7000	4.49	861.44	868.62	.00	3.59	1.787	547.55
9.7500	4.56	863.20	870.48	.00	3.64	1.791	547.55
9.8000	4.65	865.03	872.41	.00	3.69	1.795	547.56
9.8500	4.75	866.94	874.43	.00	3.75	1.799	547.56
9.9000	4.86	868.94	876.55	.00	3.81	1.803	547.57
9.9500	4.98	871.05	878.78	.00	3.87	1.808	547.58
10.0000	5.09	873.26	881.12	.00	3.93	1.812	547.58
10.0500	5.21	875.58	883.57	.00	3.99	1.817	547.59
10.1000	5.34	878.01	886.14	.00	4.06	1.822	547.60
10.1500	5.48	880.56	888.84	.00	4.14	1.828	547.61
10.2000	5.63	883.23	891.67	.00	4.22	1.834	547.62
10.2500	5.79	886.04	894.65	.00	4.31	1.840	547.62
10.3000	5.96	889.00	897.79	.00	4.40	1.846	547.63
10.3500	6.13	892.11	901.09	.00	4.49	1.852	547.64
10.4000	6.31	895.37	904.56	.00	4.59	1.859	547.65
10.4500	6.50	898.79	908.18	.00	4.70	1.867	547.66
10.5000	6.68	902.36	911.97	.00	4.80	1.874	547.68
10.5500	6.87	906.07	915.91	.00	4.92	1.882	547.69
10.6000	7.08	909.95	920.02	.00	5.04	1.890	547.70
10.6500	7.30	913.99	924.33	.00	5.17	1.899	547.71
10.7000	7.54	918.22	928.83	.00	5.30	1.908	547.73
10.7500	7.80	922.67	933.56	.00	5.45	1.918	547.74
10.8000	8.08	927.35	938.55	.00	5.60	1.928	547.75
10.8500	8.37	932.27	943.79	.00	5.76	1.938	547.77
10.9000	8.67	937.45	949.31	.00	5.93	1.949	547.79
10.9500	8.97	942.88	955.09	.00	6.11	1.961	547.80
11.0000	9.29	948.54	961.14	.00	6.30	1.973	547.82
11.0500	9.62	954.44	967.44	.00	6.50	1.985	547.84
11.1000	9.99	960.62	974.04	.00	6.71	1.999	547.86
11.1500	10.41	967.15	981.02	.00	6.94	2.013	547.88
11.2000	10.91	974.12	988.47	.00	7.17	2.027	547.90
11.2500	11.48	981.63	996.51	.00	7.44	2.043	547.92
11.3000	12.11	989.75	1005.22	.00	7.73	2.061	547.95
11.3500	12.78	998.54	1014.63	.00	8.05	2.080	547.97
11.4000	13.48	1008.02	1024.80	.00	8.39	2.100	548.00
11.4500	14.20	1018.16	1035.70	.00	8.77	2.122	548.03
11.5000	14.99	1029.00	1047.35	.00	9.17	2.145	548.07
11.5500	16.39	1041.12	1060.38	.00	9.63	2.171	548.10
11.6000	19.21	1056.28	1076.71	.00	10.22	2.203	548.15
11.6500	24.49	1077.84	1099.97	.00	11.06	2.250	548.22

```

Type.... Pond Routing Calcs (Total Out)
ne.... BASIN #1      OUT      Tag: 100-YR      Event: 100 yr
File.... R:\0675N\10-DEV-POI1.PPW
Storm... TypeII 24hr  Tag: 100-YR

```

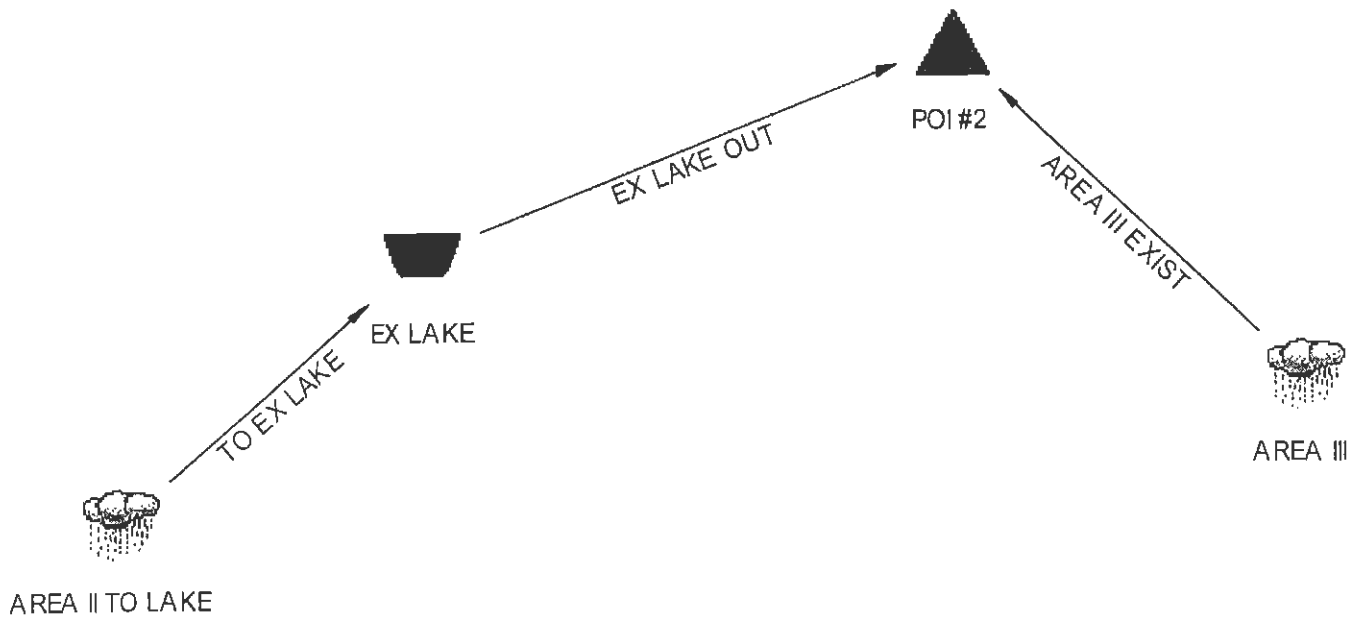
LEVEL POOL ROUTING CALCULATIONS

```

HYG Dir          = R:\0675N\
Inflow HYG file = NONE STORED - BASIN #1      IN 100-YR
Outflow HYG file = NONE STORED - BASIN #1      OUT 100-YR

```

Time hrs	Inflow cfs	2S/t - O cfs	2S/t + O cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
11.7000	32.81	1110.38	1135.13	.00	12.38	2.320	548.31
11.7500	44.31	1158.70	1187.50	.00	14.40	2.424	548.46
11.8000	59.27	1224.66	1262.28	.00	18.81	2.569	548.66
11.8500	78.32	1295.09	1362.25	.00	33.58	2.745	548.90
11.9000	103.37	1363.58	1476.78	.00	56.60	2.934	549.15
11.9500	129.28	1427.78	1596.24	.00	84.23	3.124	549.40
12.0000	147.01	1480.94	1704.07	.00	111.57	3.290	549.61
12.0500	149.26	1515.02	1777.21	.00	131.09	3.401	549.75
12.1000	135.68	1525.44	1799.96	.00	137.26	3.435	549.80
12.1500	112.20	1513.24	1773.31	.00	130.04	3.395	549.75
12.2000	89.02	1485.83	1714.45	.00	114.31	3.306	549.63
12.2500	70.63	1452.54	1645.48	.00	96.47	3.200	549.50
12.3000	57.47	1419.66	1580.64	.00	80.49	3.099	549.37
12.3500	47.52	1390.02	1524.65	.00	67.31	3.011	549.25
12.4000	39.85	1363.93	1477.39	.00	56.73	2.935	549.15
12.4500	34.01	1341.17	1437.78	.00	48.31	2.871	549.07
12.5000	29.42	1321.47	1404.60	.00	41.56	2.816	548.99
12.5500	25.73	1304.06	1376.62	.00	36.28	2.769	548.93
12.6000	22.72	1288.65	1352.51	.00	31.93	2.728	548.88
12.6500	20.28	1274.86	1331.65	.00	28.40	2.693	548.83
12.7000	18.35	1262.53	1313.49	.00	25.48	2.661	548.79
12.7500	16.87	1251.32	1297.76	.00	23.22	2.633	548.75
12.8000	15.70	1241.43	1283.88	.00	21.23	2.609	548.71
12.8500	14.73	1232.32	1271.85	.00	19.77	2.587	548.68
12.9000	13.90	1223.60	1260.95	.00	18.68	2.567	548.66
12.9500	13.20	1215.39	1250.70	.00	17.65	2.548	548.63
13.0000	12.57	1207.76	1241.16	.00	16.70	2.530	548.61
13.0500	11.99	1199.94	1232.32	.00	16.19	2.513	548.58
13.1000	11.47	1191.74	1223.41	.00	15.83	2.495	548.56
13.1500	11.01	1183.30	1214.22	.00	15.46	2.477	548.53
13.2000	10.59	1174.72	1204.90	.00	15.09	2.458	548.51
13.2500	10.22	1166.10	1195.54	.00	14.72	2.440	548.48
13.3000	9.90	1157.52	1186.22	.00	14.35	2.421	548.46
13.3500	9.60	1149.04	1177.02	.00	13.99	2.403	548.43
13.4000	9.33	1140.71	1167.98	.00	13.63	2.385	548.41
13.4500	9.08	1132.54	1159.13	.00	13.29	2.367	548.38
13.5000	8.83	1124.53	1150.45	.00	12.96	2.350	548.36
13.5500	8.59	1116.68	1141.95	.00	12.64	2.333	548.33
13.6000	8.36	1108.99	1133.63	.00	12.32	2.317	548.31
13.6500	8.14	1101.47	1125.49	.00	12.01	2.301	548.29
13.7000	7.93	1094.11	1117.54	.00	11.72	2.285	548.27
13.7500	7.74	1086.92	1109.78	.00	11.43	2.269	548.24



Undeveloped Conditions

POI #2

Type ... Master Network Summary
 Nar .. Watershed
 File.... R:\0675N\10-EX-POI2.PPW

MASTER DESIGN STORM SUMMARY

Network Storm Collection: OFALLON

Return Event	in	Depth Type	Total Rainfall	RNF ID
2-YR	3.5000	Synthetic Curve	TypeII	24hr
15-YR	5.2000	Synthetic Curve	TypeII	24hr
25-YR	5.7000	Synthetic Curve	TypeII	24hr
100-YR	7.2000	Synthetic Curve	TypeII	24hr

MASTER NETWORK SUMMARYSCS Unit Hydrograph Method

(*Node=Outfall; +Node=Diversion;)
 (Trun= HYG Truncation: Blank=None; L=Left; R=Rt; LR=Left&Rt)

Node ID	Return Type Event	HYG Vol ac-ft	Storage Trun	Qpeak hrs	Qpeak cfs	Max WSEL ft	Max Pond ac-ft
	AREA II TO LAKE	AREA 2	2.606	12.4500	17.61		
	AREA II TO LAKE	AREA 15	5.387	12.3500	38.53		
	AREA II TO LAKE	AREA 25	6.277	12.3500	45.25		
	AREA II TO LAKE	AREA 100	9.076	12.3500	66.21		
	AREA III	AREA 2	.717	12.2000	6.44		
	AREA III	AREA 15	1.639	12.2000	16.40		
	AREA III	AREA 25	1.945	12.2000	19.67		
	AREA III	AREA 100	2.924	12.1500	30.21		
	EX LAKE IN POND	2	2.606	12.4500	17.61		
	EX LAKE IN POND	15	5.387	12.3500	38.53		
	EX LAKE IN POND	25	6.277	12.3500	45.25		
	EX LAKE IN POND	100	9.076	12.3500	66.21		
EX LAKE	OUT POND	2	2.606	13.4000	4.79	551.91	.936
EX LAKE	OUT POND	15	5.387	13.6000	7.38	552.60	2.389
EX LAKE	OUT POND	25	6.277	13.7500	7.94	552.82	2.896
EX LAKE	OUT POND	100	9.076	13.9000	9.46	553.52	4.552
*POI #2	JCT	2	3.323	12.2500	8.63		
*POI #2	JCT	15	7.026	12.2000	20.16		
*POI #2	JCT	25	8.222	12.2000	23.85		
*POI #2	JCT	100	12.000	12.2000	35.48		

Table 2-2a.—Runoff curve numbers for urban areas¹

Cover description		Curve numbers for hydrologic soil group—			
		A	B	C	D
Cover type and hydrologic condition	Average percent impervious area ²				
<i>Fully developed urban areas (vegetation established)</i>					
Open space (lawns, parks, golf courses, cemeteries, etc.) ³ :					
Poor condition (grass cover < 50%)		68	79	86	89
Fair condition (grass cover 50% to 75%).....		49	69	79	84
Good condition (grass cover > 75%)		39	61	74	80
Impervious areas:					
Paved parking lots, roofs, driveways, etc. (excluding right-of-way)		98	98	98	98
Streets and roads:					
Paved; curbs and storm sewers (excluding right-of-way)		98	98	98	98
Paved; open ditches (including right-of-way)		83	89	92	93
Gravel (including right-of-way)		76	85	89	91
Dirt (including right-of-way)		72	82	87	89
Western desert urban areas:					
Natural desert landscaping (pervious areas only) ⁴ ...		63	77	85	88
Artificial desert landscaping (impervious weed barrier, desert shrub with 1- to 2-inch sand or gravel mulch and basin borders)		96	96	96	96
Urban districts:					
Commercial and business.....	85	89	92	94	95
Industrial.....	72	81	88	91	93
Residential districts by average lot size:					
1/8 acre or less (town houses).....	65	77	85	90	92
1/4 acre	38	61	75	83	87
1/3 acre	30	57	72	81	86
1/2 acre	25	54	70	80	85
1 acre	20	51	68	79	84
2 acres	12	46	65	77	82
<i>Developing urban areas</i>					
Newly graded areas (pervious areas only, no vegetation) ⁵		77	86	91	94
Idle lands (CN's are determined using cover types similar to those in table 2-2c).					

¹Average runoff condition, and $I_n = 0.2S$.

²The average percent impervious area shown was used to develop the composite CN's. Other assumptions are as follows: impervious areas are directly connected to the drainage system, impervious areas have a CN of 98, and pervious areas are considered equivalent to open space in good hydrologic condition. CN's for other combinations of conditions may be computed using figure 2-3 or 2-4.

³CN's shown are equivalent to those of pasture. Composite CN's may be computed for other combinations of open space cover type.

⁴Composite CN's for natural desert landscaping should be computed using figures 2-3 or 2-4 based on the impervious area percentage (CN = 98) and the pervious area CN. The pervious area CN's are assumed equivalent to desert shrub in poor hydrologic condition.

⁵Composite CN's to use for the design of temporary measures during grading and construction should be computed using figure 2-3 or 2-4, based on the degree of development (impervious area percentage) and the CN's for the newly graded pervious areas.

Type.... Runoff CN-Area
 Name.... AREA II TO LAKE

File.... R:\0675N\10-EX-POI2.PPW

RUNOFF CURVE NUMBER DATA

.....

Soil/Surface Description	CN	Area acres	Impervious Adjustment		Adjusted CN
			%C	%UC	
SOILS GROUP C GRASS	74	12.710			74.00
SOILS GROUP C PAVEMENT	98	4.230			98.00
SOILS GROUP B GRASS	61	9.570			61.00

COMPOSITE AREA & WEIGHTED CN ---> 26.510 73.14 (73)

.....

Type.... Runoff CN-Area
 Name.... AREA III

File.... R:\0675N\10-EX-POI1.PPW

RUNOFF CURVE NUMBER DATA

.....

Soil/Surface Description	CN	Area acres	Impervious Adjustment		Adjusted CN
			%C	%UC	
SOILS GROUP C GRASS	74	3.300			74.00
SOILS GROUP C PAVEMENT	98	.550			98.00
SOILS GROUP B GRASS	61	6.270			61.00

COMPOSITE AREA & WEIGHTED CN ---> 10.120 67.25 (67)

.....

Type.... Tc Calcs
Area.... AREA II TO LAKE

File.... R:\0675N\10-EX-POI2.PPW

.....
TIME OF CONCENTRATION CALCULATOR
.....

Segment #1: Tc: TR-55 Sheet

Mannings n .2400
Hydraulic Length 300.00 ft
2yr, 24hr P 3.5000 in
Slope .010000 ft/ft

Avg.Velocity .12 ft/sec

Segment #1 Time: .7227 hrs

Segment #2: Tc: TR-55 Shallow

Hydraulic Length 170.00 ft
Slope .010000 ft/ft
Unpaved

Avg.Velocity 1.61 ft/sec

Segment #2 Time: .0293 hrs

Segment #3: Tc: TR-55 Channel

Flow Area 1.8800 sq.ft
Wetted Perimeter 3.45 ft
Hydraulic Radius .54 ft
Slope .010000 ft/ft
Mannings n .0130
Hydraulic Length 245.00 ft

Avg.Velocity 7.65 ft/sec

Segment #3 Time: .0089 hrs

pe.... Tc Calcs
Name.... AREA II TO LAKE
File.... R:\0675N\10-EX-POI2.PPW

Segment #4: Tc: TR-55 Shallow

Hydraulic Length 605.00 ft
Slope .025000 ft/ft
Unpaved

Avg.Velocity 2.55 ft/sec

Segment #4 Time: .0659 hrs

=====
Total Tc: .8267 hrs
=====

Type.... Tc Calcs
ne.... AREA II TO LAKE

File.... R:\0675N\10-EX-POI2.PPW

Tc Equations used...

==== SCS TR-55 Sheet Flow =====

$$Tc = (.007 * ((n * Lf)**0.8)) / ((P**.5) * (Sf**.4))$$

Where: Tc = Time of concentration, hrs
n = Mannings n
Lf = Flow length, ft
P = 2yr, 24hr Rain depth, inches
Sf = Slope, %

==== SCS TR-55 Shallow Concentrated Flow =====

Unpaved surface:

$$V = 16.1345 * (Sf**0.5)$$

Paved surface:

$$V = 20.3282 * (Sf**0.5)$$

$$Tc = (Lf / V) / (3600sec/hr)$$

Where: V = Velocity, ft/sec
Sf = Slope, ft/ft
Tc = Time of concentration, hrs
Lf = Flow length, ft

==== SCS Channel Flow =====

$$R = Aq / Wp$$

$$V = (1.49 * (R**(2/3)) * (Sf**-.5)) / n$$

$$Tc = (Lf / V) / (3600sec/hr)$$

Where: R = Hydraulic radius
Aq = Flow area, sq.ft.
Wp = Wetted perimeter, ft
V = Velocity, ft/sec
Sf = Slope, ft/ft
n = Mannings n
Tc = Time of concentration, hrs
Lf = Flow length, ft

Type.... Tc Calcs
e.... AREA III

File.... R:\0675N\10-EX-POI2.PPW

.....
TIME OF CONCENTRATION CALCULATOR
.....

Segment #1: Tc: TR-55 Sheet

Mannings n .2400
Hydraulic Length 300.00 ft
2yr, 24hr P 3.5000 in
Slope .040000 ft/ft

Avg.Velocity .20 ft/sec

Segment #1 Time: .4151 hrs

Segment #2: Tc: TR-55 Shallow

Hydraulic Length 360.00 ft
Slope .088000 ft/ft
Unpaved

Avg.Velocity 4.79 ft/sec

Segment #2 Time: .0209 hrs

Segment #3: Tc: TR-55 Channel

Flow Area 11.9300 sq.ft
Wetted Perimeter 9.77 ft
Hydraulic Radius 1.22 ft
Slope .010000 ft/ft
Mannings n .0450
Hydraulic Length 500.00 ft

Avg.Velocity 3.78 ft/sec

Segment #3 Time: .0367 hrs

=====
Total Tc: .4727 hrs
=====

Type.... Tc Calcs
ne.... AREA III

File.... R:\0675N\10-EX-POI2.PPW

Tc Equations used...

==== SCS TR-55 Sheet Flow =====

$$Tc = (.007 * ((n * Lf)**0.8)) / ((P**.5) * (Sf**.4))$$

Where: Tc = Time of concentration, hrs
n = Mannings n
Lf = Flow length, ft
P = 2yr, 24hr Rain depth, inches
Sf = Slope, %

==== SCS TR-55 Shallow Concentrated Flow =====

Unpaved surface:

$$V = 16.1345 * (Sf**0.5)$$

Paved surface:

$$V = 20.3282 * (Sf**0.5)$$

$$Tc = (Lf / V) / (3600sec/hr)$$

Where: V = Velocity, ft/sec
Sf = Slope, ft/ft
Tc = Time of concentration, hrs
Lf = Flow length, ft

==== SCS Channel Flow =====

$$R = Aq / Wp$$

$$V = (1.49 * (R**(2/3)) * (Sf**-0.5)) / n$$

$$Tc = (Lf / V) / (3600sec/hr)$$

Where: R = Hydraulic radius
Aq = Flow area, sq.ft.
Wp = Wetted perimeter, ft
V = Velocity, ft/sec
Sf = Slope, ft/ft
n = Mannings n
Tc = Time of concentration, hrs
Lf = Flow length, ft

2-Year


```

pe.... Unit Hyd. Summary
Name.... AREA II TO LAKE Tag: 2-YR Event: 2 yr
File.... R:\0675N\10-EX-POI2.PPW
Storm... TypeII 24hr Tag: 2-YR

```

SCS UNIT HYDROGRAPH METHOD

```

STORM EVENT: 2 year storm
Duration      = 24.0000 hrs      Rain Depth = 3.5000 in
Rain Dir     = R:\0675N\
Rain File -ID = - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir      = R:\0675N\
HYG File - ID = - AREA II TO LAKE 2-YR
Tc           = .8267 hrs
Drainage Area = 26.510 acres Runoff CN= 73

```

```

=====
Computational Time Increment = .11023 hrs
Computed Peak Time          = 12.4556 hrs
Computed Peak Flow          = 17.62 cfs

Time Increment for HYG File = .0500 hrs
Peak Time, Interpolated Output = 12.4500 hrs
Peak Flow, Interpolated Output = 17.61 cfs
=====

```

DRAINAGE AREA

```

-----
ID:AREA II TO LAKE
CN = 73
Area = 26.510 acres
S = 3.6986 in
0.2S = .7397 in

```

Cumulative Runoff

```

-----
1.1796 in
2.606 ac-ft

```

HYG Volume... 2.606 ac-ft (area under HYG curve)

***** SCS UNIT HYDROGRAPH PARAMETERS *****

```

Time Concentration, Tc = .82670 hrs (ID: AREA II TO LAKE)
Computational Incr, Tm = .11023 hrs = 0.20000 Tp

Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp)))
Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)

Unit peak, qp = 36.33 cfs
Unit peak time Tp = .55113 hrs
Unit receding limb, Tr = 2.20453 hrs
Total unit time, Tb = 2.75566 hrs

```

Type... Unit Hyd. (HYG output)
 ne... AREA II TO LAKE Tag: 2-YR Event: 2 yr
 file... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 2-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 2 year storm
 Duration = 24.0000 hrs Rain Depth = 3.5000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - AREA II TO LAKE 2-YR
 Tc = .8267 hrs
 Drainage Area = 26.510 acres Runoff CN= 73
 Calc.Increment= .11023 hrs Out.Incr.= .0500 hrs
 HYG Volume = 2.606 ac-ft

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0500 hrs

Time hrs | Time on left represents time for first value in each row.

Time hrs					
10.7500	.00	.00	.00	.01	.01
11.0000	.02	.03	.04	.05	.07
11.2500	.09	.12	.15	.19	.23
11.5000	.29	.35	.44	.56	.73
11.7500	1.03	1.38	2.15	2.93	4.33
12.0000	5.80	7.67	9.71	11.70	13.64
12.2500	15.33	16.40	17.39	17.50	17.61
12.5000	17.11	16.53	15.64	14.62	13.56
12.7500	12.47	11.43	10.56	9.70	9.03
13.0000	8.37	7.81	7.27	6.80	6.37
13.2500	5.98	5.64	5.31	5.04	4.76
13.5000	4.55	4.33	4.14	3.96	3.80
13.7500	3.66	3.52	3.40	3.28	3.17
14.0000	3.07	2.98	2.89	2.81	2.73
14.2500	2.65	2.58	2.51	2.45	2.39
14.5000	2.33	2.28	2.24	2.19	2.16
14.7500	2.13	2.10	2.07	2.04	2.02
15.0000	1.99	1.97	1.95	1.92	1.90
15.2500	1.88	1.86	1.84	1.82	1.80
15.5000	1.78	1.76	1.74	1.73	1.71
15.7500	1.69	1.67	1.65	1.63	1.61
16.0000	1.59	1.57	1.56	1.54	1.52
16.2500	1.50	1.48	1.47	1.45	1.44
16.5000	1.42	1.41	1.39	1.38	1.37
16.7500	1.36	1.35	1.34	1.33	1.32
17.0000	1.31	1.31	1.30	1.29	1.28
17.2500	1.27	1.27	1.26	1.25	1.25
17.5000	1.24	1.23	1.23	1.22	1.21
17.7500	1.20	1.20	1.19	1.18	1.18
18.0000	1.17	1.16	1.16	1.15	1.14

Type.... Unit Hyd. Summary
 ie.... AREA III Tag: 2-YR Event: 2 yr
 file.... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 2-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 2 year storm
 Duration = 24.0000 hrs Rain Depth = 3.5000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - AREA III 2-YR
 Tc = .4727 hrs
 Drainage Area = 10.120 acres Runoff CN= 67

```

=====
Computational Time Increment = .06302 hrs
Computed Peak Time          = 12.2263 hrs
Computed Peak Flow          = 6.48 cfs

Time Increment for HYG File = .0500 hrs
Peak Time, Interpolated Output = 12.2000 hrs
Peak Flow, Interpolated Output = 6.44 cfs
=====

```

DRAINAGE AREA

```

-----
ID:AREA III
CN = 67
Area = 10.120 acres
S = 4.9254 in
0.2S = .9851 in

```

Cumulative Runoff

```

-----
.8501 in
.717 ac-ft

```

HYG Volume... .717 ac-ft (area under HYG curve)

***** SCS UNIT HYDROGRAPH PARAMETERS *****

Time Concentration, Tc = .47267 hrs (ID: AREA III)
 Computational Incr, Tm = .06302 hrs = 0.20000 Tp
 Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
 K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
 Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)
 Unit peak, qp = 24.26 cfs
 Unit peak time Tp = .31511 hrs
 Unit receding limb, Tr = 1.26044 hrs
 Total unit time, Tb = 1.57555 hrs

Type.... Unit Hyd. (HYG output)
 .e.... AREA III Tag: 2-YR Event: 2 yr
 File.... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 2-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 2 year storm
 Duration = 24.0000 hrs Rain Depth = 3.5000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - AREA III 2-YR
 Tc = .4727 hrs
 Drainage Area = 10.120 acres Runoff CN= 67
 Calc.Increment= .06302 hrs Out.Incr.= .0500 hrs
 HYG Volume = .717 ac-ft

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0500 hrs
 Time on left represents time for first value in each row.

Time hrs					
11.5000	.00	.00	.01	.02	.07
11.7500	.17	.36	.69	1.31	2.21
12.0000	3.31	4.49	5.57	6.21	6.44
12.2500	6.31	5.89	5.29	4.65	4.08
12.5000	3.59	3.18	2.84	2.56	2.31
12.7500	2.09	1.91	1.76	1.63	1.53
13.0000	1.44	1.36	1.29	1.23	1.18
13.2500	1.13	1.09	1.05	1.01	.98
13.5000	.95	.93	.90	.88	.86
13.7500	.84	.82	.80	.78	.77
14.0000	.75	.73	.72	.70	.69
14.2500	.68	.66	.65	.64	.64
14.5000	.63	.62	.61	.61	.60
14.7500	.60	.59	.59	.58	.57
15.0000	.57	.56	.56	.55	.55
15.2500	.54	.54	.53	.53	.52
15.5000	.52	.51	.51	.50	.49
15.7500	.49	.48	.48	.47	.47
16.0000	.46	.45	.45	.44	.44
16.2500	.43	.43	.43	.42	.42
16.5000	.42	.41	.41	.41	.41
16.7500	.40	.40	.40	.40	.40
17.0000	.39	.39	.39	.39	.39
17.2500	.38	.38	.38	.38	.38
17.5000	.37	.37	.37	.37	.37
17.7500	.36	.36	.36	.36	.36
18.0000	.35	.35	.35	.35	.35
18.2500	.34	.34	.34	.34	.34
18.5000	.33	.33	.33	.33	.33
18.7500	.32	.32	.32	.32	.31

Type... Node: Addition Summary
 ne... POI #2
 File... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 2-YR

Event: 2 yr

SUMMARY FOR HYDROGRAPH ADDITION
 at Node: POI #2

HYG Directory: R:\0675N\

```

=====
Upstream Link ID  Upstream Node ID  HYG file      HYG ID        HYG tag
-----
AREA III EXIST    AREA III                               AREA III       2-YR
EX LAKE OUT      EX LAKE      IN            EX LAKE OUT   2-YR
=====
  
```

INFLOWS TO: POI #2

```

----- Volume      Peak Time      Peak Flow
HYG file      HYG ID        HYG tag      ac-ft        hrs          cfs
-----
          AREA III          2-YR          .717         12.2000      6.44
          EX LAKE OUT      2-YR          2.606        13.4000      4.79
  
```

TOTAL FLOW INTO: POI #2

```

----- Volume      Peak Time      Peak Flow
/G file      HYG ID        HYG tag      ac-ft        hrs          cfs
-----
          POI #2          2-YR          3.323        12.2500      8.63
  
```

Type.... Node: Addition Summary
 ne.... POI #2
 file.... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 2-YR

Event: 2 yr

TOTAL NODE INFLOW...

HYG file =
 HYG ID = POI #2
 HYG Tag = 2-YR

 Peak Discharge = 8.63 cfs
 Time to Peak = 12.2500 hrs
 HYG Volume = 3.323 ac-ft

HYDROGRAPH ORDINATES (cfs)

Time | Output Time increment = .0500 hrs
 hrs | Time on left represents time for first value in each row.

10.7500	.00	.00	.00	.00	.01
11.0000	.01	.02	.02	.02	.03
11.2500	.05	.07	.08	.08	.08
11.5000	.11	.17	.24	.28	.33
11.7500	.46	.71	1.15	1.92	2.99
12.0000	4.16	5.70	7.02	7.94	8.47
12.2500	8.63	8.53	8.17	7.84	7.44
12.5000	7.25	6.98	6.79	6.65	6.55
12.7500	6.45	6.35	6.27	6.20	6.14
13.0000	6.08	6.03	5.99	5.95	5.92
13.2500	5.89	5.86	5.83	5.80	5.77
13.5000	5.74	5.71	5.68	5.65	5.61
13.7500	5.58	5.55	5.51	5.48	5.45
14.0000	5.42	5.39	5.36	5.33	5.30
14.2500	5.27	5.24	5.22	5.19	5.16
14.5000	5.13	5.10	5.07	5.03	5.00
14.7500	4.97	4.94	4.91	4.88	4.84
15.0000	4.80	4.76	4.72	4.68	4.64
15.2500	4.61	4.57	4.54	4.51	4.47
15.5000	4.44	4.41	4.38	4.35	4.32
15.7500	4.29	4.26	4.24	4.21	4.18
16.0000	4.15	4.12	4.09	4.04	3.98
16.2500	3.93	3.89	3.84	3.79	3.74
16.5000	3.72	3.69	3.67	3.65	3.63
16.7500	3.61	3.59	3.56	3.51	3.47
17.0000	3.43	3.39	3.35	3.31	3.28
17.2500	3.25	3.22	3.20	3.17	3.15
17.5000	3.12	3.10	3.06	3.02	2.98
17.7500	2.94	2.91	2.87	2.84	2.81
18.0000	2.78	2.75	2.72	2.69	2.66
18.2500	2.64	2.61	2.58	2.55	2.53
18.5000	2.50	2.47	2.45	2.42	2.40
18.7500	2.36	2.33	2.30	2.27	2.24
19.0000	2.21	2.18	2.15	2.12	2.10
19.2500	2.08	2.06	2.05	2.03	2.01
19.5000	1.99	1.97	1.95	1.92	1.89
19.7500	1.86	1.84	1.81	1.79	1.76

15-Year

Type... Unit Hyd. Summary
 ne... AREA II TO LAKE Tag: 15-YR Event: 15 yr
 file... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 15-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 15 year storm
 Duration = 24.0000 hrs Rain Depth = 5.2000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - AREA II TO LAKE 15-YR
 Tc = .8267 hrs
 Drainage Area = 26.510 acres Runoff CN= 73

```

=====
Computational Time Increment = .11023 hrs
Computed Peak Time          = 12.3454 hrs
Computed Peak Flow          = 38.54 cfs

Time Increment for HYG File = .0500 hrs
Peak Time, Interpolated Output = 12.3500 hrs
Peak Flow, Interpolated Output = 38.53 cfs
=====

```

DRAINAGE AREA

```

-----
ID:AREA II TO LAKE
CN = 73
Area = 26.510 acres
S = 3.6986 in
0.2S = .7397 in

```

Cumulative Runoff

```

-----
2.4383 in
5.387 ac-ft

```

HYG Volume... 5.387 ac-ft (area under HYG curve)

***** SCS UNIT HYDROGRAPH PARAMETERS *****

Time Concentration, Tc = .82670 hrs (ID: AREA II TO LAKE)
 Computational Incr, Tm = .11023 hrs = 0.20000 Tp

Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
 K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
 Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)

Unit peak, qp = 36.33 cfs
 Unit peak time Tp = .55113 hrs
 Unit receding limb, Tr = 2.20453 hrs
 Total unit time, Tb = 2.75566 hrs

Type... Unit Hyd. (HYG output)
 me... AREA II TO LAKE Tag: 15-YR Event: 15 yr
 File... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 15-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 15 year storm
 Duration = 24.0000 hrs Rain Depth = 5.2000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - AREA II TO LAKE 15-YR
 Tc = .8267 hrs
 Drainage Area = 26.510 acres Runoff CN= 73
 Calc.Increment= .11023 hrs Out.Incr.= .0500 hrs
 HYG Volume = 5.387 ac-ft

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0500 hrs
 Time on left represents time for first value in each row.

Time hrs					
9.0000	.00	.00	.00	.01	.01
9.2500	.01	.02	.02	.03	.04
9.5000	.05	.06	.08	.09	.11
9.7500	.12	.14	.15	.17	.19
10.0000	.21	.23	.26	.28	.31
10.2500	.33	.36	.39	.43	.46
10.5000	.50	.53	.57	.62	.66
10.7500	.71	.76	.82	.87	.94
11.0000	1.00	1.08	1.15	1.24	1.33
11.2500	1.42	1.53	1.64	1.78	1.91
11.5000	2.09	2.27	2.55	2.90	3.39
11.7500	4.18	5.09	6.96	8.83	11.99
12.0000	15.28	19.30	23.62	27.72	31.60
12.2500	34.90	36.81	38.53	38.38	38.24
12.5000	36.84	35.28	33.15	30.75	28.33
12.7500	25.89	23.60	21.69	19.81	18.36
13.0000	16.91	15.71	14.55	13.54	12.62
13.2500	11.78	11.06	10.38	9.80	9.23
13.5000	8.78	8.32	7.94	7.57	7.25
13.7500	6.95	6.67	6.42	6.17	5.96
14.0000	5.75	5.57	5.39	5.23	5.08
14.2500	4.93	4.79	4.66	4.53	4.41
14.5000	4.30	4.20	4.11	4.03	3.96
14.7500	3.90	3.84	3.79	3.74	3.69
15.0000	3.64	3.60	3.56	3.51	3.47
15.2500	3.43	3.40	3.36	3.32	3.28
15.5000	3.25	3.21	3.17	3.14	3.10
15.7500	3.07	3.03	2.99	2.96	2.92
16.0000	2.89	2.85	2.82	2.79	2.75
16.2500	2.72	2.68	2.65	2.62	2.59
16.5000	2.57	2.54	2.52	2.49	2.47
16.7500	2.45	2.43	2.42	2.40	2.38
17.0000	2.37	2.35	2.34	2.32	2.31
17.2500	2.29	2.28	2.27	2.25	2.24

Type... Unit Hyd. Summary
 ne... AREA III Tag: 15-YR Event: 15 yr
 File... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 15-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 15 year storm
 Duration = 24.0000 hrs Rain Depth = 5.2000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - AREA III 15-YR
 Tc = .4727 hrs
 Drainage Area = 10.120 acres Runoff CN= 67

```

=====
Computational Time Increment = .06302 hrs
Computed Peak Time          = 12.1633 hrs
Computed Peak Flow          = 16.58 cfs

Time Increment for HYG File = .0500 hrs
Peak Time, Interpolated Output = 12.2000 hrs
Peak Flow, Interpolated Output = 16.40 cfs
=====

```

DRAINAGE AREA

```

-----
ID:AREA III
CN = 67
Area = 10.120 acres
S = 4.9254 in
0.2S = .9851 in

```

Cumulative Runoff

```

-----
1.9437 in
1.639 ac-ft

```

HYG Volume... 1.639 ac-ft (area under HYG curve)

***** SCS UNIT HYDROGRAPH PARAMETERS *****

Time Concentration, Tc = .47267 hrs (ID: AREA III)
 Computational Incr, Tm = .06302 hrs = 0.20000 Tp

Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
 K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
 Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)

Unit peak, qp = 24.26 cfs
 Unit peak time Tp = .31511 hrs
 Unit receding limb, Tr = 1.26044 hrs
 Total unit time, Tb = 1.57555 hrs

Type... Unit Hyd. (HYG output)
 Name... AREA III Tag: 15-YR Event: 15 yr
 File... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 15-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 15 year storm
 Duration = 24.0000 hrs Rain Depth = 5.2000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - AREA III 15-YR
 Tc = .4727 hrs
 Drainage Area = 10.120 acres Runoff CN= 67
 Calc.Increment= .06302 hrs Out.Incr.= .0500 hrs
 HYG Volume = 1.639 ac-ft

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0500 hrs
 Time on left represents time for first value in each row.

Time hrs	1	2	3	4	5
10.3000	.00	.00	.00	.01	.01
10.5500	.02	.02	.03	.05	.06
10.8000	.07	.09	.11	.13	.15
11.0500	.17	.19	.22	.25	.29
11.3000	.32	.37	.41	.47	.53
11.5500	.61	.71	.89	1.20	1.70
11.8000	2.46	3.57	5.33	7.66	10.30
12.0500	12.96	15.22	16.30	16.40	15.69
12.3000	14.36	12.67	11.00	9.52	8.27
12.5500	7.24	6.40	5.70	5.09	4.57
12.8000	4.14	3.78	3.49	3.24	3.03
13.0500	2.85	2.70	2.56	2.44	2.33
13.3000	2.23	2.15	2.07	2.00	1.94
13.5500	1.88	1.83	1.78	1.74	1.69
13.8000	1.65	1.61	1.58	1.54	1.50
14.0500	1.47	1.44	1.41	1.38	1.35
14.3000	1.32	1.30	1.28	1.26	1.25
14.5500	1.23	1.22	1.21	1.19	1.18
14.8000	1.17	1.16	1.15	1.14	1.12
15.0500	1.11	1.10	1.09	1.08	1.07
15.3000	1.06	1.05	1.04	1.02	1.01
15.5500	1.00	.99	.98	.97	.96
15.8000	.95	.93	.92	.91	.90
16.0500	.89	.88	.87	.86	.85
16.3000	.84	.83	.82	.81	.81
16.5500	.80	.80	.79	.79	.78
16.8000	.78	.78	.77	.77	.76
17.0500	.76	.76	.75	.75	.74
17.3000	.74	.74	.73	.73	.72
17.5500	.72	.72	.71	.71	.70
17.8000	.70	.69	.69	.69	.68

Type.... Node: Addition Summary
 ne.... POI #2
 file.... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 15-YR

Event: 15 yr

SUMMARY FOR HYDROGRAPH ADDITION
 at Node: POI #2

HYG Directory: R:\0675N\

```

=====
Upstream Link ID  Upstream Node ID  HYG file      HYG ID        HYG tag
-----
AREA III EXIST   AREA III                               AREA III       15-YR
EX LAKE OUT     EX LAKE      IN            EX LAKE OUT   15-YR
=====

```

INFLOWS TO: POI #2

```

----- Volume      Peak Time      Peak Flow
HYG file      HYG ID        HYG tag      ac-ft        hrs          cfs
-----
          AREA III          15-YR          1.639        12.2000      16.40
          EX LAKE OUT       15-YR          5.387        13.6000      7.38

```

TOTAL FLOW INTO: POI #2

```

----- Volume      Peak Time      Peak Flow
YG file      HYG ID        HYG tag      ac-ft        hrs          cfs
-----
          POI #2          15-YR          7.026        12.2000      20.16

```

Type.... Node: Addition Summary
 ne.... POI #2
 File.... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 15-YR

Event: 15 yr

TOTAL NODE INFLOW...

HYG file =
 HYG ID = POI #2
 HYG Tag = 15-YR

 Peak Discharge = 20.16 cfs
 Time to Peak = 12.2000 hrs
 HYG Volume = 7.026 ac-ft

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0500 hrs

Time |
 hrs | Time on left represents time for first value in each row.

Time hrs					
9.0000	.00	.00	.00	.00	.01
9.2500	.01	.02	.02	.02	.02
9.5000	.02	.03	.05	.06	.07
9.7500	.08	.08	.08	.08	.08
10.0000	.12	.15	.17	.20	.23
10.2500	.25	.25	.26	.26	.27
10.5000	.28	.30	.32	.34	.37
10.7500	.41	.46	.51	.56	.61
11.0000	.68	.74	.79	.85	.91
11.2500	.97	1.07	1.18	1.30	1.35
11.5000	1.40	1.46	1.67	1.98	2.42
11.7500	3.05	3.88	5.10	7.06	9.62
12.0000	12.56	15.55	18.17	19.60	20.16
12.2500	19.81	18.88	17.53	16.24	15.10
12.5000	14.12	13.32	12.68	12.20	11.75
12.7500	11.35	11.01	10.73	10.51	10.32
13.0000	10.16	10.03	9.91	9.81	9.72
13.2500	9.64	9.56	9.49	9.42	9.36
13.5000	9.31	9.26	9.21	9.17	9.12
13.7500	9.08	9.03	8.99	8.95	8.90
14.0000	8.86	8.82	8.78	8.73	8.69
14.2500	8.66	8.62	8.58	8.55	8.52
14.5000	8.49	8.46	8.43	8.40	8.37
14.7500	8.35	8.32	8.29	8.26	8.23
15.0000	8.21	8.18	8.15	8.12	8.09
15.2500	8.06	8.03	8.00	7.97	7.94
15.5000	7.91	7.88	7.85	7.82	7.79
15.7500	7.76	7.73	7.69	7.66	7.63
16.0000	7.60	7.57	7.53	7.50	7.47
16.2500	7.44	7.41	7.36	7.32	7.27
16.5000	7.23	7.19	7.15	7.11	7.08

25-Year

Type.... Unit Hyd. Summary
 ne.... AREA II TO LAKE Tag: 25-YR Event: 25 yr
 file.... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 25-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 25 year storm
 Duration = 24.0000 hrs Rain Depth = 5.7000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - AREA II TO LAKE 25-YR
 Tc = .8267 hrs
 Drainage Area = 26.510 acres Runoff CN= 73

```

=====
Computational Time Increment = .11023 hrs
Computed Peak Time          = 12.3454 hrs
Computed Peak Flow          = 45.28 cfs

Time Increment for HYG File = .0500 hrs
Peak Time, Interpolated Output = 12.3500 hrs
Peak Flow, Interpolated Output = 45.25 cfs
=====
  
```

DRAINAGE AREA

```

-----
ID:AREA II TO LAKE
CN = 73
Area = 26.510 acres
S = 3.6986 in
0.2S = .7397 in
  
```

Cumulative Runoff

```

-----
2.8415 in
6.277 ac-ft
  
```

HYG Volume... 6.277 ac-ft (area under HYG curve)

***** SCS UNIT HYDROGRAPH PARAMETERS *****

Time Concentration, Tc = .82670 hrs (ID: AREA II TO LAKE)
 Computational Incr, Tm = .11023 hrs = 0.20000 Tp

Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
 K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
 Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)

Unit peak, qp = 36.33 cfs
 Unit peak time Tp = .55113 hrs
 Unit receding limb, Tr = 2.20453 hrs
 Total unit time, Tb = 2.75566 hrs

Type.... Unit Hyd. (HYG output)
 ie.... AREA II TO LAKE Tag: 25-YR Event: 25 yr
 File.... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 25-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 25 year storm
 Duration = 24.0000 hrs Rain Depth = 5.7000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - AREA II TO LAKE 25-YR
 Tc = .8267 hrs
 Drainage Area = 26.510 acres Runoff CN= 73
 Calc.Increment= .11023 hrs Out.Incr.= .0500 hrs
 HYG Volume = 6.277 ac-ft

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0500 hrs
 Time on left represents time for first value in each row.

Time hrs					
8.5500	.00	.00	.00	.00	.01
8.8000	.01	.02	.02	.03	.04
9.0500	.05	.06	.07	.09	.10
9.3000	.12	.14	.16	.18	.19
9.5500	.21	.23	.26	.28	.30
9.8000	.32	.34	.37	.39	.42
10.0500	.45	.48	.51	.54	.57
10.3000	.61	.65	.69	.73	.78
10.5500	.83	.88	.93	.99	1.05
10.8000	1.11	1.18	1.25	1.33	1.41
11.0500	1.50	1.60	1.70	1.81	1.93
11.3000	2.06	2.20	2.36	2.53	2.74
11.5500	2.97	3.30	3.73	4.32	5.27
11.8000	6.37	8.59	10.82	14.54	18.41
12.0500	23.10	28.14	32.90	37.38	41.16
12.3000	43.32	45.25	45.01	44.77	43.07
12.5500	41.19	38.65	35.81	32.96	30.09
12.8000	27.40	25.16	22.95	21.26	19.56
13.0500	18.16	16.80	15.63	14.54	13.57
13.3000	12.73	11.93	11.26	10.60	10.07
13.5500	9.54	9.10	8.67	8.29	7.95
13.8000	7.62	7.33	7.05	6.81	6.57
14.0500	6.36	6.15	5.97	5.79	5.62
14.3000	5.46	5.30	5.16	5.02	4.90
14.5500	4.77	4.68	4.58	4.51	4.44
14.8000	4.37	4.31	4.25	4.19	4.14
15.0500	4.09	4.04	3.99	3.95	3.90
15.3000	3.86	3.81	3.77	3.73	3.69
15.5500	3.64	3.60	3.56	3.52	3.48
15.8000	3.44	3.40	3.36	3.32	3.28
25.0500	.00	.00			

Type... Unit Hyd. Summary
 ne... AREA III Tag: 25-YR Event: 25 yr
 file... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 25-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 25 year storm
 Duration = 24.0000 hrs Rain Depth = 5.7000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - AREA III 25-YR
 Tc = .4727 hrs
 Drainage Area = 10.120 acres Runoff CN= 67

=====
 Computational Time Increment = .06302 hrs
 Computed Peak Time = 12.1633 hrs
 Computed Peak Flow = 19.94 cfs

Time Increment for HYG File = .0500 hrs
 Peak Time, Interpolated Output = 12.2000 hrs
 Peak Flow, Interpolated Output = 19.67 cfs
 =====

DRAINAGE AREA

 ID:AREA III
 CN = 67
 Area = 10.120 acres
 S = 4.9254 in
 0.2S = .9851 in

Cumulative Runoff

 2.3060 in
 1.945 ac-ft

HYG Volume... 1.945 ac-ft (area under HYG curve)

***** SCS UNIT HYDROGRAPH PARAMETERS *****

Time Concentration, Tc = .47267 hrs (ID: AREA III)
 Computational Incr, Tm = .06302 hrs = 0.20000 Tp

Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
 K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
 Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)

Unit peak, qp = 24.26 cfs
 Unit peak time Tp = .31511 hrs
 Unit receding limb, Tr = 1.26044 hrs
 Total unit time, Tb = 1.57555 hrs

Type... Unit Hyd. (HYG output)
 ne... AREA III Tag: 25-YR Event: 25 yr
 file... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 25-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 25 year storm
 Duration = 24.0000 hrs Rain Depth = 5.7000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - AREA III 25-YR
 Tc = .4727 hrs
 Drainage Area = 10.120 acres Runoff CN= 67
 Calc.Increment= .06302 hrs Out.Incr.= .0500 hrs
 HYG Volume = 1.945 ac-ft

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0500 hrs
 Time on left represents time for first value in each row.

Time hrs					
9.9000	.00	.00	.00	.01	.01
10.1500	.01	.02	.03	.04	.05
10.4000	.06	.07	.08	.10	.11
10.6500	.13	.15	.17	.19	.21
10.9000	.24	.26	.29	.32	.35
11.1500	.39	.43	.47	.52	.58
11.4000	.64	.71	.79	.89	1.02
11.6500	1.25	1.65	2.27	3.22	4.60
11.9000	6.74	9.53	12.67	15.79	18.42
12.1500	19.63	19.67	18.75	17.11	15.07
12.4000	13.05	11.28	9.78	8.54	7.53
12.6500	6.70	5.98	5.36	4.84	4.42
12.9000	4.07	3.78	3.53	3.32	3.14
13.1500	2.98	2.83	2.71	2.59	2.49
13.4000	2.40	2.31	2.24	2.18	2.12
13.6500	2.06	2.01	1.96	1.91	1.86
13.9000	1.82	1.78	1.74	1.70	1.66
14.1500	1.62	1.59	1.56	1.53	1.50
14.4000	1.48	1.46	1.44	1.42	1.41
14.6500	1.39	1.38	1.36	1.35	1.34
14.9000	1.32	1.31	1.30	1.28	1.27
15.1500	1.26	1.24	1.23	1.22	1.21
15.4000	1.19	1.18	1.17	1.15	1.14
15.6500	1.13	1.11	1.10	1.09	1.07
15.9000	1.06	1.05	1.03	1.02	1.01
16.1500	1.00	.98	.97	.96	.95
16.4000	.94	.94	.93	.92	.92
16.6500	.91	.91	.90	.90	.89
16.9000	.89	.88	.88	.87	.87
17.1500	.86	.86	.85	.85	.84

Type.... Node: Addition Summary
 ne.... POI #2
 file.... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 25-YR

Event: 25 yr

SUMMARY FOR HYDROGRAPH ADDITION
 at Node: POI #2

HYG Directory: R:\0675N\

Upstream Link ID	Upstream Node ID	HYG file	HYG ID	HYG tag
AREA III EXIST	AREA III		AREA III	25-YR
EX LAKE OUT	EX LAKE	IN	EX LAKE OUT	25-YR

INFLOWS TO: POI #2

HYG file	HYG ID	HYG tag	Volume ac-ft	Peak Time hrs	Peak Flow cfs
	AREA III	25-YR	1.945	12.2000	19.67
	EX LAKE OUT	25-YR	6.277	13.7500	7.94

TOTAL FLOW INTO: POI #2

YG file	HYG ID	HYG tag	Volume ac-ft	Peak Time hrs	Peak Flow cfs
	POI #2	25-YR	8.222	12.2000	23.85

Type... Node: Addition Summary
 me... POI #2
 file... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 25-YR

Event: 25 yr

TOTAL NODE INFLOW...

HYG file =
 HYG ID = POI #2
 HYG Tag = 25-YR

 Peak Discharge = 23.85 cfs
 Time to Peak = 12.2000 hrs
 HYG Volume = 8.222 ac-ft

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0500 hrs

Time on left represents time for first value in each row.

Time hrs						
8.6000	.00	.00	.00	.01	.01	
8.8500	.01	.02	.02	.02	.02	
9.1000	.03	.04	.05	.07	.08	
9.3500	.08	.08	.08	.08	.12	
9.6000	.15	.17	.20	.22	.25	
9.8500	.25	.25	.26	.26	.27	
10.1000	.28	.30	.31	.33	.36	
10.3500	.39	.43	.47	.51	.55	
10.6000	.60	.65	.71	.76	.80	
10.8500	.84	.89	.95	1.03	1.12	
11.1000	1.21	1.28	1.31	1.34	1.37	
11.3500	1.52	1.68	1.85	2.01	2.20	
11.6000	2.42	2.68	3.11	3.85	4.93	
11.8500	6.44	8.82	11.85	15.32	18.77	
12.1000	21.74	23.41	23.85	23.34	22.12	
12.3500	20.49	18.83	17.36	16.14	15.19	
12.6000	14.36	13.69	13.10	12.60	12.19	
12.8500	11.86	11.59	11.36	11.17	11.01	
13.1000	10.87	10.75	10.64	10.54	10.45	
13.3500	10.37	10.29	10.22	10.16	10.10	
13.6000	10.05	10.00	9.95	9.90	9.85	
13.8500	9.80	9.75	9.71	9.66	9.62	
14.1000	9.57	9.53	9.48	9.44	9.40	
14.3500	9.37	9.33	9.30	9.27	9.24	
14.6000	9.21	9.18	9.15	9.12	9.09	
14.8500	9.06	9.03	9.00	8.97	8.95	
15.1000	8.92	8.89	8.86	8.83	8.80	
15.3500	8.77	8.74	8.71	8.67	8.64	
15.6000	8.61	8.58	8.55	8.52	8.49	
15.8500	8.46	8.42	8.39	8.36	8.32	
16.1000	8.29	8.26	8.23	8.19	8.16	

100-Year

Type.... Unit Hyd. Summary
 ne.... AREA II TO LAKE Tag: 100-YR Event: 100 yr
 .le.... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 100-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 100 year storm
 Duration = 24.0000 hrs Rain Depth = 7.2000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - AREA II TO LAKE 100-YR
 Tc = .8267 hrs
 Drainage Area = 26.510 acres Runoff CN= 73

```

=====
Computational Time Increment = .11023 hrs
Computed Peak Time           = 12.3454 hrs
Computed Peak Flow           = 66.26 cfs

Time Increment for HYG File  = .0500 hrs
Peak Time, Interpolated Output = 12.3500 hrs
Peak Flow, Interpolated Output = 66.21 cfs
=====
  
```

DRAINAGE AREA

```

-----
ID:AREA II TO LAKE
CN = 73
Area = 26.510 acres
S = 3.6986 in
0.2S = .7397 in
  
```

Cumulative Runoff

```

-----
4.1082 in
9.076 ac-ft
  
```

HYG Volume... 9.076 ac-ft (area under HYG curve)

***** SCS UNIT HYDROGRAPH PARAMETERS *****

Time Concentration, Tc = .82670 hrs (ID: AREA II TO LAKE)
 Computational Incr, Tm = .11023 hrs = 0.20000 Tp

Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
 K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
 Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)

Unit peak, qp = 36.33 cfs
 Unit peak time Tp = .55113 hrs
 Unit receding limb, Tr = 2.20453 hrs
 Total unit time, Tb = 2.75566 hrs

Type.... Unit Hyd. (HYG output)
 ne.... AREA II TO LAKE Tag: 100-YR Event: 100 yr
 file.... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 100-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 100 year storm
 Duration = 24.0000 hrs Rain Depth = 7.2000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - AREA II TO LAKE 100-YR
 Tc = .8267 hrs
 Drainage Area = 26.510 acres Runoff CN= 73
 Calc.Increment= .11023 hrs Out.Incr.= .0500 hrs
 HYG Volume = 9.076 ac-ft

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0500 hrs
 Time on left represents time for first value in each row.

Time hrs					
7.3500	.00	.00	.00	.00	.01
7.6000	.01	.02	.02	.03	.04
7.8500	.05	.06	.07	.08	.09
8.1000	.10	.12	.13	.15	.16
8.3500	.18	.20	.22	.23	.25
8.6000	.28	.30	.32	.34	.37
8.8500	.40	.42	.45	.48	.51
9.1000	.54	.57	.61	.64	.68
9.3500	.71	.74	.78	.81	.85
9.6000	.88	.91	.95	.98	1.01
9.8500	1.05	1.09	1.13	1.17	1.22
10.1000	1.27	1.31	1.37	1.43	1.49
10.3500	1.55	1.62	1.69	1.77	1.85
10.6000	1.93	2.02	2.11	2.22	2.32
10.8500	2.43	2.55	2.68	2.81	2.96
11.1000	3.11	3.27	3.45	3.64	3.85
11.3500	4.07	4.33	4.59	4.93	5.29
11.6000	5.81	6.48	7.41	8.87	10.56
11.8500	13.89	17.23	22.70	28.38	35.17
12.1000	42.41	49.18	55.48	60.76	63.65
12.3500	66.21	65.63	65.04	62.40	59.49
12.6000	55.68	51.45	47.24	43.05	39.11
12.8500	35.84	32.63	30.16	27.70	25.67
13.1000	23.70	22.00	20.44	19.04	17.83
13.3500	16.69	15.72	14.77	14.01	13.25
13.6000	12.62	12.02	11.48	10.98	10.52
13.8500	10.11	9.72	9.37	9.03	8.74
14.1000	8.45	8.19	7.93	7.70	7.47
14.3500	7.25	7.05	6.86	6.69	6.52
14.6000	6.39	6.25	6.15	6.05	5.96

Type... Unit Hyd. Summary
 me... AREA III Tag: 100-YR Event: 100 yr
 File... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 100-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 100 year storm
 Duration = 24.0000 hrs Rain Depth = 7.2000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - AREA III 100-YR
 Tc = .4727 hrs
 Drainage Area = 10.120 acres Runoff CN= 67

```

=====
Computational Time Increment = .06302 hrs
Computed Peak Time          = 12.1633 hrs
Computed Peak Flow          = 30.62 cfs

Time Increment for HYG File = .0500 hrs
Peak Time, Interpolated Output = 12.1500 hrs
Peak Flow, Interpolated Output = 30.21 cfs
=====

```

DRAINAGE AREA

```

-----
ID:AREA III
CN = 67
Area = 10.120 acres
S = 4.9254 in
0.2S = .9851 in

```

Cumulative Runoff

```

-----
3.4672 in
2.924 ac-ft

```

HYG Volume... 2.924 ac-ft (area under HYG curve)

***** SCS UNIT HYDROGRAPH PARAMETERS *****

Time Concentration, Tc = .47267 hrs (ID: AREA III)
 Computational Incr, Tm = .06302 hrs = 0.20000 Tp
 Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
 K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
 Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)
 Unit peak, qp = 24.26 cfs
 Unit peak time Tp = .31511 hrs
 Unit receding limb, Tr = 1.26044 hrs
 Total unit time, Tb = 1.57555 hrs

Type.... Unit Hyd. (HYG output)
 me.... AREA III Tag: 100-YR Event: 100 yr
 file.... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 100-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 100 year storm
 Duration = 24.0000 hrs Rain Depth = 7.2000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - AREA III 100-YR
 Tc = .4727 hrs
 Drainage Area = 10.120 acres Runoff CN= 67
 Calc.Increment= .06302 hrs Out.Incr.= .0500 hrs
 HYG Volume = 2.924 ac-ft

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0500 hrs
 Time on left represents time for first value in each row.

Time hrs					
8.8000	.00	.00	.00	.01	.01
9.0500	.02	.02	.03	.04	.05
9.3000	.06	.07	.08	.09	.10
9.5500	.11	.12	.13	.14	.15
9.8000	.16	.17	.19	.20	.22
10.0500	.23	.25	.27	.28	.30
10.3000	.33	.35	.37	.40	.42
10.5500	.45	.48	.51	.55	.58
10.8000	.62	.66	.71	.75	.80
11.0500	.86	.92	.98	1.05	1.13
11.3000	1.21	1.31	1.42	1.53	1.67
11.5500	1.85	2.08	2.48	3.16	4.21
11.8000	5.78	8.01	11.37	15.63	20.33
12.0500	24.91	28.66	30.21	30.03	28.43
12.3000	25.79	22.59	19.49	16.77	14.49
12.5500	12.61	11.08	9.81	8.73	7.80
12.8000	7.03	6.39	5.88	5.44	5.07
13.0500	4.75	4.49	4.25	4.04	3.85
13.3000	3.68	3.53	3.40	3.28	3.18
13.5500	3.08	3.00	2.92	2.84	2.77
13.8000	2.70	2.63	2.57	2.51	2.45
14.0500	2.40	2.34	2.29	2.24	2.19
14.3000	2.15	2.12	2.08	2.05	2.02
14.5500	2.00	1.98	1.95	1.93	1.91
14.8000	1.89	1.87	1.85	1.84	1.82
15.0500	1.80	1.78	1.76	1.74	1.72
15.3000	1.71	1.69	1.67	1.65	1.63
15.5500	1.61	1.59	1.58	1.56	1.54
15.8000	1.52	1.50	1.48	1.46	1.44
16.0500	1.43	1.41	1.39	1.37	1.36

Type.... Node: Addition Summary
 me.... POI #2
 file.... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 100-YR

Event: 100 yr

SUMMARY FOR HYDROGRAPH ADDITION
 at Node: POI #2

HYG Directory: R:\0675N\

Upstream Link ID	Upstream Node ID	HYG file	HYG ID	HYG tag
AREA III EXIST	AREA III		AREA III	100-YR
EX LAKE OUT	EX LAKE	IN	EX LAKE OUT	100-YR

INFLOWS TO: POI #2

HYG file	HYG ID	HYG tag	Volume ac-ft	Peak Time hrs	Peak Flow cfs
	AREA III	100-YR	2.924	12.1500	30.21
	EX LAKE OUT	100-YR	9.076	13.9000	9.46

TOTAL FLOW INTO: POI #2

YG file	HYG ID	HYG tag	Volume ac-ft	Peak Time hrs	Peak Flow cfs
	POI #2	100-YR	12.000	12.2000	35.48

Type... Node: Addition Summary
 ame... POI #2
 ile... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 100-YR

Event: 100 yr

TOTAL NODE INFLOW...

HYG file =
 HYG ID = POI #2
 HYG Tag = 100-YR

 Peak Discharge = 35.48 cfs
 Time to Peak = 12.2000 hrs
 HYG Volume = 12.000 ac-ft

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0500 hrs
 Time on left represents time for first value in each row.

Time hrs					
7.3500	.00	.00	.00	.00	.01
7.6000	.01	.01	.02	.02	.02
7.8500	.02	.03	.04	.05	.06
8.1000	.07	.08	.08	.08	.08
8.3500	.08	.11	.13	.16	.18
8.6000	.21	.23	.25	.25	.25
8.8500	.26	.26	.27	.28	.30
9.1000	.32	.34	.36	.39	.43
9.3500	.46	.50	.53	.57	.61
9.6000	.65	.69	.72	.75	.78
9.8500	.81	.84	.88	.93	.98
10.1000	1.04	1.09	1.15	1.20	1.21
10.3500	1.22	1.24	1.25	1.31	1.40
10.6000	1.50	1.60	1.70	1.79	1.89
10.8500	1.99	2.10	2.16	2.23	2.30
11.1000	2.39	2.52	2.65	2.80	2.93
11.3500	3.08	3.24	3.44	3.67	3.93
11.6000	4.24	4.73	5.52	6.70	8.44
11.8500	10.84	14.45	18.93	24.05	28.96
12.1000	33.16	35.14	35.48	34.35	32.11
12.3500	29.33	26.54	24.11	22.09	20.45
12.6000	19.13	18.06	17.14	16.36	15.71
12.8500	15.18	14.76	14.41	14.11	13.86
13.1000	13.65	13.46	13.29	13.14	13.00
13.3500	12.88	12.77	12.67	12.58	12.50
13.6000	12.43	12.36	12.29	12.22	12.16
13.8500	12.10	12.04	11.97	11.92	11.86
14.1000	11.80	11.74	11.69	11.64	11.59
14.3500	11.55	11.51	11.47	11.43	11.40
14.6000	11.36	11.33	11.30	11.27	11.24
14.8500	11.21	11.17	11.14	11.11	11.08

Type.... Node: Addition Summary

me.... POI #2

Event: 100 yr

File.... R:\0675N\10-EX-POI2.PPW

Storm... TypeII 24hr Tag: 100-YR

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0500 hrs

Time |
hrs |

Time on left represents time for first value in each row.

15.1000	11.05	11.02	10.99	10.95	10.92
15.3500	10.89	10.86	10.82	10.79	10.76
15.6000	10.72	10.69	10.65	10.62	10.59
15.8500	10.55	10.52	10.48	10.45	10.41
16.1000	10.37	10.34	10.30	10.27	10.24
16.3500	10.21	10.18	10.15	10.12	10.09
16.6000	10.07	10.04	10.01	9.99	9.96
16.8500	9.94	9.91	9.89	9.86	9.83
17.1000	9.81	9.78	9.76	9.73	9.70
17.3500	9.68	9.65	9.62	9.59	9.57
17.6000	9.54	9.51	9.49	9.46	9.43
17.8500	9.41	9.38	9.35	9.32	9.30
18.1000	9.27	9.24	9.21	9.19	9.16
18.3500	9.13	9.10	9.07	9.05	9.02
18.6000	8.99	8.96	8.93	8.90	8.88
18.8500	8.85	8.82	8.79	8.76	8.73
19.1000	8.70	8.67	8.64	8.61	8.58
19.3500	8.55	8.52	8.49	8.46	8.43
19.6000	8.40	8.37	8.34	8.31	8.28
19.8500	8.25	8.22	8.19	8.16	8.13
20.1000	8.10	8.07	8.04	8.01	7.98
20.3500	7.95	7.92	7.90	7.87	7.84
20.6000	7.82	7.79	7.76	7.74	7.71
20.8500	7.69	7.66	7.63	7.61	7.58
21.1000	7.55	7.53	7.50	7.47	7.45
21.3500	7.42	7.39	7.37	7.34	7.31
21.6000	7.28	7.24	7.19	7.15	7.11
21.8500	7.07	7.03	7.00	6.96	6.93
22.1000	6.90	6.86	6.83	6.81	6.78
22.3500	6.76	6.73	6.71	6.68	6.64
22.6000	6.60	6.57	6.53	6.49	6.45
22.8500	6.42	6.39	6.36	6.33	6.29
23.1000	6.26	6.24	6.20	6.16	6.12
23.3500	6.08	6.04	6.00	5.96	5.93
23.6000	5.89	5.85	5.82	5.78	5.75
23.8500	5.71	5.68	5.64	5.60	5.55
24.1000	5.49	5.41	5.32	5.20	5.09
24.3500	4.99	4.90	4.81	4.74	4.68
24.6000	4.62	4.56	4.50	4.45	4.40
24.8500	4.34	4.29	4.22	4.16	4.10
25.1000	4.04	3.99	3.95	3.90	3.86
25.3500	3.81	3.77	3.73	3.69	3.65
25.6000	3.58	3.50	3.42	3.35	3.29
25.8500	3.26	3.23	3.19	3.15	3.08
26.1000	3.01	2.94	2.88	2.84	2.80

EX LAKE ROUTING CALCULATIONS

EX LAKE VOLUME

Type.... Vol: Planimeter

Name.... EX LAKE

File.... R:\0675N\10-EX-POI2.PPW

POND VOLUME CALCULATIONS

Planimeter scale: 1.00 ft/in

Elevation (ft)	Planimeter (sq.in)	Area (acres)	A1+A2+sqr(A1*A2) (acres)	Volume (ac-ft)	Volume Sum (ac-ft)
550.40	.000	.0000	.0000	.000	.000
552.00	90440.000	2.0762	2.0762	1.107	1.107
554.00	112120.000	2.5739	6.9619	4.641	5.749
555.00	116870.000	2.6830	7.8848	2.628	8.377

POND VOLUME EQUATIONS

* Incremental volume computed by the Conic Method for Reservoir Volumes.

$$\text{Volume} = (1/3) * (\text{EL2}-\text{EL1}) * (\text{Area1} + \text{Area2} + \text{sq.rt.}(\text{Area1}*\text{Area2}))$$

where: EL1, EL2 = Lower and upper elevations of the increment
Area1, Area2 = Areas computed for EL1, EL2, respectively
Volume = Incremental volume between EL1 and EL2

DETENTION STRUCTURE

Type.... Outlet Input Data
Name.... EX LAKE OUTLET

File.... R:\0675N\10-EX-POI2.PPW

REQUESTED POND WS ELEVATIONS:

Min. Elev.= 550.40 ft
Increment = .05 ft
Max. Elev.= 555.00 ft

OUTLET CONNECTIVITY

---> Forward Flow Only (UpStream to DnStream)
<--- Reverse Flow Only (DnStream to UpStream)
<---> Forward and Reverse Both Allowed

Structure	No.	Outfall	E1, ft	E2, ft
Culvert-Circular	OF	---> TW	550.400	555.000
TW SETUP, DS Channel				

Type.... Outlet Input Data
Name.... EX LAKE OUTLET
File.... R:\0675N\10-EX-POI2.PPW

OUTLET STRUCTURE INPUT DATA

Structure ID = OF
Structure Type = Culvert-Circular

No. Barrels = 1
Barrel Diameter = 1.2500 ft
Upstream Invert = 550.40 ft
Dnstream Invert = 534.00 ft
Horiz. Length = 127.00 ft
Barrel Length = 128.05 ft
Barrel Slope = .12913 ft/ft

OUTLET CONTROL DATA...

Mannings n = .0130
Ke = .5000 (forward entrance loss)
Kb = .023225 (per ft of full flow)
Kr = .5000 (reverse entrance loss)
HW Convergence = .001 +/- ft

INLET CONTROL DATA...

Equation form = 1
Inlet Control K = .0098
Inlet Control M = 2.0000
Inlet Control c = .03980
Inlet Control Y = .6700
T1 ratio (HW/D) = 1.095
T2 ratio (HW/D) = 1.242
Slope Factor = -.500

Use unsubmerged inlet control Form 1 equ. below T1 elev.
Use submerged inlet control Form 1 equ. above T2 elev.
In transition zone between unsubmerged and submerged inlet control,
interpolate between flows at T1 & T2...
At T1 Elev = 551.77 ft ---> Flow = 4.80 cfs
At T2 Elev = 551.95 ft ---> Flow = 5.49 cfs

Structure ID = TW
Structure Type = TW SETUP, DS Channel

FREE OUTFALL CONDITIONS SPECIFIED

CONVERGENCE TOLERANCES...

Maximum Iterations= 30
Min. TW tolerance = .01 ft
Max. TW tolerance = .01 ft
Min. HW tolerance = .01 ft
Max. HW tolerance = .01 ft
Min. Q tolerance = .10 cfs
Max. Q tolerance = .10 cfs

Type.... Composite Rating Curve
 Name.... EX LAKE OUTLET

File.... R:\0675N\10-EX-POI2.PPW

***** COMPOSITE OUTFLOW SUMMARY *****

WS Elev, Total Q		Converge		Notes
Elev. ft	Q cfs	TW Elev ft	Error +/-ft	Contributing Structures
550.40	.00	Free	Outfall	None contributing
550.45	.02	Free	Outfall	OF
550.50	.02	Free	Outfall	OF
550.55	.08	Free	Outfall	OF
550.60	.08	Free	Outfall	OF
550.65	.25	Free	Outfall	OF
550.70	.27	Free	Outfall	OF
550.75	.32	Free	Outfall	OF
550.80	.43	Free	Outfall	OF
550.85	.58	Free	Outfall	OF
550.90	.68	Free	Outfall	OF
550.95	.90	Free	Outfall	OF
551.00	.85	Free	Outfall	OF
551.05	1.14	Free	Outfall	OF
551.10	1.39	Free	Outfall	OF
551.15	1.46	Free	Outfall	OF
551.20	1.68	Free	Outfall	OF
551.25	1.82	Free	Outfall	OF
551.30	2.07	Free	Outfall	OF
551.35	2.26	Free	Outfall	OF
551.40	2.46	Free	Outfall	OF
551.45	2.72	Free	Outfall	OF
551.50	2.90	Free	Outfall	OF
551.55	3.17	Free	Outfall	OF
551.60	3.31	Free	Outfall	OF
551.65	3.65	Free	Outfall	OF
551.70	3.82	Free	Outfall	OF
551.75	4.02	Free	Outfall	OF
551.80	4.30	Free	Outfall	OF
551.85	4.53	Free	Outfall	OF
551.90	4.71	Free	Outfall	OF
551.95	5.01	Free	Outfall	OF
552.00	5.26	Free	Outfall	OF
552.05	5.54	Free	Outfall	OF
552.10	5.74	Free	Outfall	OF
552.15	5.98	Free	Outfall	OF
552.20	6.14	Free	Outfall	OF
552.25	6.33	Free	Outfall	OF
552.30	6.57	Free	Outfall	OF
552.35	6.72	Free	Outfall	OF
552.40	6.86	Free	Outfall	OF
552.45	7.00	Free	Outfall	OF
552.50	7.13	Free	Outfall	OF
552.55	7.26	Free	Outfall	OF

Type.... Composite Rating Curve

Name.... EX LAKE OUTLET

File.... R:\0675N\10-EX-POI2.PPW

***** COMPOSITE OUTFLOW SUMMARY *****

WS Elev, Total Q		Converge		Notes
Elev. ft	Q cfs	TW Elev ft	Error +/-ft	Contributing Structures
552.60	7.39	Free	Outfall	OF
552.65	7.52	Free	Outfall	OF
552.70	7.64	Free	Outfall	OF
552.75	7.77	Free	Outfall	OF
552.80	7.89	Free	Outfall	OF
552.85	8.00	Free	Outfall	OF
552.90	8.12	Free	Outfall	OF
552.95	8.24	Free	Outfall	OF
553.00	8.35	Free	Outfall	OF
553.05	8.46	Free	Outfall	OF
553.10	8.58	Free	Outfall	OF
553.15	8.68	Free	Outfall	OF
553.20	8.79	Free	Outfall	OF
553.25	8.90	Free	Outfall	OF
553.30	9.01	Free	Outfall	OF
553.35	9.11	Free	Outfall	OF
553.40	9.21	Free	Outfall	OF
553.45	9.32	Free	Outfall	OF
553.50	9.42	Free	Outfall	OF
553.55	9.52	Free	Outfall	OF
553.60	9.61	Free	Outfall	OF
553.65	9.71	Free	Outfall	OF
553.70	9.81	Free	Outfall	OF
553.75	9.91	Free	Outfall	OF
553.80	10.00	Free	Outfall	OF
553.85	10.09	Free	Outfall	OF
553.90	10.19	Free	Outfall	OF
553.95	10.28	Free	Outfall	OF
554.00	10.37	Free	Outfall	OF
554.05	10.46	Free	Outfall	OF
554.10	10.55	Free	Outfall	OF
554.15	10.64	Free	Outfall	OF
554.20	10.73	Free	Outfall	OF
554.25	10.82	Free	Outfall	OF
554.30	10.90	Free	Outfall	OF
554.35	10.99	Free	Outfall	OF
554.40	11.08	Free	Outfall	OF
554.45	11.16	Free	Outfall	OF
554.50	11.25	Free	Outfall	OF
554.55	11.33	Free	Outfall	OF
554.60	11.41	Free	Outfall	OF
554.65	11.50	Free	Outfall	OF
554.70	11.58	Free	Outfall	OF
554.75	11.66	Free	Outfall	OF

2 YEAR STORM ROUTING

Type.... Pond E-V-Q Table
 Name.... EX LAKE
 File.... R:\0675N\10-EX-POI2.PPW

LEVEL POOL ROUTING DATA

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - EX LAKE IN 2-YR
 Outflow HYG file = NONE STORED - EX LAKE OUT 2-YR

Pond Node Data = EX LAKE
 Pond Volume Data = EX LAKE
 Pond Outlet Data = EX LAKE OUTLET

No Infiltration

INITIAL CONDITIONS

 Starting WS Elev = 550.40 ft
 Starting Volume = .000 ac-ft
 Starting Outflow = .00 cfs
 Starting Infiltr. = .00 cfs
 Starting Total Qout = .00 cfs
 Time Increment = .0500 hrs

Elevation :	Outflow cfs	Storage ac-ft	Area acres	Infiltr. cfs	Q Total cfs	2S/t + O cfs
550.40	.00	.000	.0000	.00	.00	.00
550.45	.02	.000	.0020	.00	.02	.04
550.50	.02	.000	.0081	.00	.02	.15
550.55	.08	.001	.0183	.00	.08	.52
550.60	.08	.002	.0324	.00	.08	1.13
550.65	.25	.004	.0507	.00	.25	2.29
550.70	.27	.007	.0730	.00	.27	3.80
550.75	.32	.012	.0993	.00	.32	5.93
550.80	.43	.017	.1298	.00	.43	8.81
550.85	.58	.025	.1642	.00	.58	12.51
550.90	.68	.034	.2028	.00	.68	17.03
550.95	.90	.045	.2453	.00	.90	22.66
551.00	.85	.058	.2920	.00	.85	29.11
551.05	1.14	.074	.3427	.00	1.14	37.08
551.10	1.39	.093	.3974	.00	1.39	46.27
551.15	1.46	.114	.4562	.00	1.46	56.66
551.20	1.68	.138	.5191	.00	1.68	68.67
551.25	1.82	.166	.5859	.00	1.82	82.17
551.30	2.07	.197	.6570	.00	2.07	97.46
551.35	2.26	.232	.7320	.00	2.26	114.45
551.40	2.46	.270	.8110	.00	2.46	133.31
551.45	2.72	.313	.8942	.00	2.72	154.19
551.50	2.90	.360	.9813	.00	2.90	177.04
551.55	3.17	.411	1.0727	.00	3.17	202.19
551.60	3.31	.467	1.1679	.00	3.31	229.43
551.65	3.65	.528	1.2673	.00	3.65	259.21
551.70	3.82	.594	1.3706	.00	3.82	291.29

_pe.... Pond E-V-Q Table
 Name.... EX LAKE
 File.... R:\0675N\10-EX-POI2.PPW

LEVEL POOL ROUTING DATA

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - EX LAKE IN 2-YR
 Outflow HYG file = NONE STORED - EX LAKE OUT 2-YR

Pond Node Data = EX LAKE
 Pond Volume Data = EX LAKE
 Pond Outlet Data = EX LAKE OUTLET

No Infiltration

INITIAL CONDITIONS

 Starting WS Elev = 550.40 ft
 Starting Volume = .000 ac-ft
 Starting Outflow = .00 cfs
 Starting Infiltr. = .00 cfs
 Starting Total Qout = .00 cfs
 Time Increment = .0500 hrs

Elevation	Outflow cfs	Storage ac-ft	Area acres	Infilt. cfs	Q Total cfs	2S/t + O cfs
551.75	4.02	.665	1.4781	.00	4.02	325.94
551.80	4.30	.742	1.5897	.00	4.30	363.37
551.85	4.53	.824	1.7053	.00	4.53	403.45
551.90	4.71	.912	1.8249	.00	4.71	446.33
551.95	5.01	1.007	1.9485	.00	5.01	492.26
552.00	5.26	1.107	2.0762	.00	5.26	541.20
552.05	5.54	1.212	2.0880	.00	5.54	591.91
552.10	5.74	1.316	2.0998	.00	5.74	642.77
552.15	5.98	1.421	2.1117	.00	5.98	693.96
552.20	6.14	1.527	2.1236	.00	6.14	745.35
552.25	6.33	1.634	2.1355	.00	6.33	797.06
552.30	6.57	1.741	2.1475	.00	6.57	849.18
552.35	6.72	1.849	2.1595	.00	6.72	901.43
552.40	6.86	1.957	2.1715	.00	6.86	953.96
552.45	7.00	2.066	2.1835	.00	7.00	1006.78
552.50	7.13	2.175	2.1956	.00	7.13	1059.89
552.55	7.26	2.285	2.2078	.00	7.26	1113.35
552.60	7.39	2.396	2.2199	.00	7.39	1167.05
552.65	7.52	2.507	2.2321	.00	7.52	1221.03
552.70	7.64	2.619	2.2443	.00	7.64	1275.30
552.75	7.77	2.732	2.2566	.00	7.77	1329.88
552.80	7.89	2.845	2.2689	.00	7.89	1384.81

Type.... Pond E-V-Q Table
 Name.... EX LAKE
 File.... R:\0675N\10-EX-POI2.PPW

LEVEL POOL ROUTING DATA

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - EX LAKE IN 2-YR
 Outflow HYG file = NONE STORED - EX LAKE OUT 2-YR

Pond Node Data = EX LAKE
 Pond Volume Data = EX LAKE
 Pond Outlet Data = EX LAKE OUTLET

No Infiltration

INITIAL CONDITIONS

 Starting WS Elev = 550.40 ft
 Starting Volume = .000 ac-ft
 Starting Outflow = .00 cfs
 Starting Infiltr. = .00 cfs
 Starting Total Qout= .00 cfs
 Time Increment = .0500 hrs

Ele ft	ion cfs	Outflow cfs	Storage ac-ft	Area acres	Infilt. cfs	Q Total cfs	2S/t + O cfs
552.85		8.00	2.959	2.2812	.00	8.00	1439.97
552.90		8.12	3.073	2.2936	.00	8.12	1495.43
552.95		8.24	3.188	2.3060	.00	8.24	1551.19
553.00		8.35	3.303	2.3184	.00	8.35	1607.24
553.05		8.46	3.420	2.3309	.00	8.46	1663.66
553.10		8.58	3.537	2.3434	.00	8.58	1720.32
553.15		8.68	3.654	2.3559	.00	8.68	1777.28
553.20		8.79	3.772	2.3684	.00	8.79	1834.53
553.25		8.90	3.891	2.3810	.00	8.90	1892.09
553.30		9.01	4.010	2.3937	.00	9.01	1950.03
553.35		9.11	4.130	2.4063	.00	9.11	2008.20
553.40		9.21	4.251	2.4190	.00	9.21	2066.68
553.45		9.32	4.372	2.4317	.00	9.32	2125.46
553.50		9.42	4.494	2.4445	.00	9.42	2184.55
553.55		9.52	4.617	2.4573	.00	9.52	2244.02
553.60		9.61	4.740	2.4701	.00	9.61	2303.72
553.65		9.71	4.864	2.4830	.00	9.71	2363.74
553.70		9.81	4.988	2.4959	.00	9.81	2424.06
553.75		9.91	5.113	2.5088	.00	9.91	2484.70
553.80		10.00	5.239	2.5218	.00	10.00	2545.73
553.85		10.09	5.365	2.5348	.00	10.09	2606.99
553.90		10.19	5.493	2.5478	.00	10.19	2668.56
553.95		10.28	5.620	2.5608	.00	10.28	2730.46

Type.... Pond E-V-Q Table
 Name.... EX LAKE
 File.... R:\0675N\10-EX-POI2.PPW

LEVEL POOL ROUTING DATA

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - EX LAKE IN 2-YR
 Outflow HYG file = NONE STORED - EX LAKE OUT 2-YR

Pond Node Data = EX LAKE
 Pond Volume Data = EX LAKE
 Pond Outlet Data = EX LAKE OUTLET

No Infiltration

INITIAL CONDITIONS

 Starting WS Elev = 550.40 ft
 Starting Volume = .000 ac-ft
 Starting Outflow = .00 cfs
 Starting Infiltr. = .00 cfs
 Starting Total Qout= .00 cfs
 Time Increment = .0500 hrs

Elevation	Outflow cfs	Storage ac-ft	Area acres	Infiltr. cfs	Q Total cfs	2S/t + O cfs
554.00	10.37	5.749	2.5739	.00	10.37	2792.66
554.05	10.46	5.877	2.5793	.00	10.46	2855.17
554.10	10.55	6.007	2.5847	.00	10.55	2917.73
554.15	10.64	6.136	2.5901	.00	10.64	2980.42
554.20	10.73	6.266	2.5956	.00	10.73	3043.24
554.25	10.82	6.395	2.6010	.00	10.82	3106.19
554.30	10.90	6.526	2.6064	.00	10.90	3169.35
554.35	10.99	6.656	2.6118	.00	10.99	3232.56
554.40	11.08	6.787	2.6173	.00	11.08	3295.90
554.45	11.16	6.918	2.6227	.00	11.16	3359.37
554.50	11.25	7.049	2.6282	.00	11.25	3422.98
554.55	11.33	7.181	2.6336	.00	11.33	3486.79
554.60	11.41	7.312	2.6391	.00	11.41	3550.66
554.65	11.50	7.445	2.6445	.00	11.50	3614.66
554.70	11.58	7.577	2.6500	.00	11.58	3678.79
554.75	11.66	7.709	2.6555	.00	11.66	3743.05
554.80	11.74	7.843	2.6610	.00	11.74	3807.52
554.85	11.82	7.976	2.6665	.00	11.82	3872.05
554.90	11.90	8.109	2.6720	.00	11.90	3936.71
554.95	11.98	8.243	2.6775	.00	11.98	4001.50
555.00	12.06	8.377	2.6830	.00	12.06	4066.42

Type.... Pond Routing Summary

Name.... EX LAKE OUT Tag: 2-YR

Event: 2 yr

File.... R:\0675N\10-EX-POI2.PPW

Storm... TypeII 24hr Tag: 2-YR

LEVEL POOL ROUTING SUMMARY

HYG Dir = R:\0675N\

Inflow HYG file = NONE STORED - EX LAKE IN 2-YR

Outflow HYG file = NONE STORED - EX LAKE OUT 2-YR

Pond Node Data = EX LAKE

Pond Volume Data = EX LAKE

Pond Outlet Data = EX LAKE OUTLET

No Infiltration

INITIAL CONDITIONS

```

-----
Starting WS Elev  =   550.40 ft
Starting Volume   =    .000 ac-ft
Starting Outflow  =    .00 cfs
Starting Infiltr. =    .00 cfs
Starting Total Qout=    .00 cfs
Time Increment    =    .0500 hrs

```

INFLOW/OUTFLOW HYDROGRAPH SUMMARY

```

=====
Peak Inflow      =   17.61 cfs    at  12.4500 hrs
Peak Outflow     =    4.79 cfs    at  13.4000 hrs
-----
Peak Elevation   =   551.91 ft
Peak Storage     =    .936 ac-ft
=====

```

MASS BALANCE (ac-ft)

```

-----
+ Initial Vol   =    .000
+ HYG Vol IN    =    2.606
- Infiltration  =    .000
- HYG Vol OUT   =    2.606
- Retained Vol  =    .000
-----
Unrouted Vol   =   -0.000 ac-ft  (.000% of Inflow Volume)

```

Type... Pond Routing Calcs (Total Out)
 Name... EX LAKE OUT Tag: 2-YR
 File... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 2-YR

Event: 2 yr

LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - EX LAKE IN 2-YR
 Outflow HYG file = NONE STORED - EX LAKE OUT 2-YR

Time hrs	Inflow cfs	2S/t - O cfs	2S/t + O cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
10.7500	.00	.00	.00	.00	.00	.000	550.40
10.8000	.00	.00	.00	.00	.00	.000	550.40
10.8500	.00	.00	.01	.00	.00	.000	550.41
10.9000	.01	.00	.01	.00	.00	.000	550.41
10.9500	.01	.00	.02	.00	.01	.000	550.42
11.0000	.02	.00	.03	.00	.01	.000	550.44
11.0500	.03	.00	.04	.00	.02	.000	550.45
11.1000	.04	.03	.07	.00	.02	.000	550.46
11.1500	.05	.08	.12	.00	.02	.000	550.49
11.2000	.07	.15	.20	.00	.03	.000	550.51
11.2500	.09	.22	.31	.00	.05	.000	550.52
11.3000	.12	.30	.43	.00	.07	.001	550.54
11.3500	.15	.40	.57	.00	.08	.001	550.55
11.4000	.19	.58	.74	.00	.08	.001	550.57
11.4500	.23	.83	1.00	.00	.08	.002	550.59
11.5000	.29	1.12	1.34	.00	.11	.002	550.61
11.5500	.35	1.41	1.75	.00	.17	.003	550.63
11.6000	.44	1.72	2.19	.00	.23	.004	550.65
11.6500	.56	2.21	2.72	.00	.25	.005	550.66
11.7000	.73	2.98	3.51	.00	.26	.007	550.69
11.7500	1.03	4.16	4.74	.00	.29	.009	550.72
11.8000	1.38	5.88	6.57	.00	.34	.013	550.76
11.8500	2.15	8.50	9.41	.00	.45	.018	550.81
11.9000	2.93	12.37	13.58	.00	.60	.027	550.86
11.9500	4.33	18.07	19.63	.00	.78	.039	550.92
12.0000	5.80	26.50	28.20	.00	.85	.056	550.99
12.0500	7.67	37.53	39.97	.00	1.22	.080	551.07
12.1000	9.71	52.01	54.91	.00	1.45	.110	551.14
12.1500	11.70	69.96	73.42	.00	1.73	.148	551.22
12.2000	13.64	91.25	95.31	.00	2.03	.193	551.29
12.2500	15.33	115.58	120.22	.00	2.32	.243	551.37
12.3000	16.40	142.04	147.31	.00	2.64	.298	551.43
12.3500	17.39	170.06	175.83	.00	2.89	.357	551.50
12.4000	17.50	198.57	204.95	.00	3.19	.417	551.56
12.4500	17.61	226.95	233.68	.00	3.36	.476	551.61
12.5000	17.11	254.35	261.67	.00	3.66	.533	551.65
12.5500	16.53	280.37	287.98	.00	3.80	.587	551.69
12.6000	15.64	304.65	312.54	.00	3.95	.637	551.73
12.6500	14.62	326.73	334.91	.00	4.09	.683	551.76
12.7000	13.56	346.43	354.91	.00	4.24	.724	551.79
12.7500	12.47	363.74	372.45	.00	4.35	.760	551.81
12.8000	11.43	378.76	387.64	.00	4.44	.791	551.83

Type.... Pond Routing Calcs (Total Out)
 Name.... EX LAKE OUT Tag: 2-YR
 File.... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 2-YR

Event: 2 yr

LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - EX LAKE IN 2-YR
 Outflow HYG file = NONE STORED - EX LAKE OUT 2-YR

Time hrs	Inflow cfs	2S/t - 0 cfs	2S/t + 0 cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
12.8500	10.56	391.73	400.75	.00	4.51	.819	551.85
12.9000	9.70	402.86	411.99	.00	4.57	.841	551.86
12.9500	9.03	412.38	421.59	.00	4.61	.861	551.87
13.0000	8.37	420.49	429.78	.00	4.64	.878	551.88
13.0500	7.81	427.33	436.67	.00	4.67	.892	551.89
13.1000	7.27	433.02	442.41	.00	4.70	.904	551.90
13.1500	6.80	437.66	447.10	.00	4.72	.914	551.90
13.2000	6.37	441.35	450.83	.00	4.74	.921	551.90
13.2500	5.98	444.18	453.69	.00	4.76	.927	551.91
13.3000	5.64	446.24	455.79	.00	4.77	.931	551.91
13.3500	5.31	447.62	457.19	.00	4.78	.934	551.91
13.4000	5.04	448.40	457.97	.00	4.79	.936	551.91
13.4500	4.76	448.62	458.20	.00	4.79	.936	551.91
13.5000	4.55	448.36	457.93	.00	4.79	.936	551.91
13.5500	4.33	447.66	457.23	.00	4.78	.934	551.91
13.6000	4.14	446.58	456.13	.00	4.78	.932	551.91
13.6500	3.96	445.15	454.68	.00	4.77	.929	551.91
13.7000	3.80	443.41	452.92	.00	4.75	.926	551.91
13.7500	3.66	441.39	450.87	.00	4.74	.921	551.91
13.8000	3.52	439.11	448.57	.00	4.73	.917	551.90
13.8500	3.40	436.61	446.03	.00	4.71	.912	551.90
13.9000	3.28	433.88	443.28	.00	4.70	.906	551.90
13.9500	3.17	430.96	440.33	.00	4.69	.900	551.89
14.0000	3.07	427.85	437.20	.00	4.67	.893	551.89
14.0500	2.98	424.58	433.90	.00	4.66	.886	551.89
14.1000	2.89	421.16	430.44	.00	4.64	.879	551.88
14.1500	2.81	417.59	426.85	.00	4.63	.872	551.88
14.2000	2.73	413.90	423.12	.00	4.61	.864	551.87
14.2500	2.65	410.08	419.28	.00	4.60	.856	551.87
14.3000	2.58	406.16	415.32	.00	4.58	.848	551.86
14.3500	2.51	402.13	411.26	.00	4.56	.840	551.86
14.4000	2.45	398.01	407.10	.00	4.54	.832	551.85
14.4500	2.39	393.80	402.85	.00	4.53	.823	551.85
14.5000	2.33	389.52	398.52	.00	4.50	.814	551.84
14.5500	2.28	385.18	394.13	.00	4.48	.805	551.84
14.6000	2.24	380.79	389.69	.00	4.45	.795	551.83
14.6500	2.19	376.37	385.22	.00	4.43	.786	551.83
14.7000	2.16	371.92	380.72	.00	4.40	.777	551.82
14.7500	2.13	367.45	376.20	.00	4.38	.768	551.82
14.8000	2.10	362.97	371.67	.00	4.35	.758	551.81
14.8500	2.07	358.48	367.13	.00	4.32	.749	551.80
14.9000	2.04	354.00	362.59	.00	4.30	.740	551.80

Type.... Pond Routing Calcs (Total Out)
 Name.... EX LAKE OUT Tag: 2-YR
 File.... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 2-YR

Event: 2 yr

LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - EX LAKE IN 2-YR
 Outflow HYG file = NONE STORED - EX LAKE OUT 2-YR

Time hrs	Inflow cfs	2S/t - 0 cfs	2S/t + 0 cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
14.9500	2.02	349.52	358.05	.00	4.26	.731	551.79
15.0000	1.99	345.07	353.53	.00	4.23	.721	551.79
15.0500	1.97	340.64	349.03	.00	4.20	.712	551.78
15.1000	1.95	336.22	344.55	.00	4.16	.703	551.77
15.1500	1.92	331.84	340.09	.00	4.13	.693	551.77
15.2000	1.90	327.47	335.66	.00	4.10	.685	551.76
15.2500	1.88	323.13	331.25	.00	4.06	.676	551.76
15.3000	1.86	318.81	326.87	.00	4.03	.667	551.75
15.3500	1.84	314.51	322.51	.00	4.00	.658	551.75
15.4000	1.82	310.21	318.17	.00	3.98	.649	551.74
15.4500	1.80	305.93	313.84	.00	3.95	.640	551.73
15.5000	1.78	301.66	309.52	.00	3.93	.631	551.73
15.5500	1.76	297.40	305.21	.00	3.90	.622	551.72
15.6000	1.74	293.15	300.91	.00	3.88	.613	551.71
15.6500	1.73	288.92	296.62	.00	3.85	.605	551.71
15.7000	1.71	284.69	292.35	.00	3.83	.596	551.70
15.7500	1.69	280.48	288.09	.00	3.80	.587	551.70
15.8000	1.67	276.27	283.83	.00	3.78	.578	551.69
15.8500	1.65	272.07	279.59	.00	3.76	.569	551.68
15.9000	1.63	267.88	275.35	.00	3.74	.561	551.68
15.9500	1.61	263.70	271.13	.00	3.71	.552	551.67
16.0000	1.59	259.53	266.91	.00	3.69	.543	551.66
16.0500	1.57	255.36	262.70	.00	3.67	.535	551.66
16.1000	1.56	251.22	258.49	.00	3.64	.526	551.65
16.1500	1.54	247.13	254.31	.00	3.59	.518	551.64
16.2000	1.52	243.09	250.18	.00	3.55	.509	551.63
16.2500	1.50	239.11	246.11	.00	3.50	.501	551.63
16.3000	1.48	235.18	242.09	.00	3.46	.492	551.62
16.3500	1.47	231.31	238.13	.00	3.41	.484	551.61
16.4000	1.45	227.49	234.23	.00	3.37	.477	551.61
16.4500	1.44	223.73	230.38	.00	3.32	.469	551.60
16.5000	1.42	219.99	226.58	.00	3.30	.461	551.59
16.5500	1.41	216.25	222.81	.00	3.28	.453	551.59
16.6000	1.39	212.53	219.05	.00	3.26	.445	551.58
16.6500	1.38	208.82	215.31	.00	3.24	.438	551.57
16.7000	1.37	205.13	211.58	.00	3.22	.430	551.57
16.7500	1.36	201.45	207.86	.00	3.20	.422	551.56
16.8000	1.35	197.79	204.16	.00	3.18	.415	551.55
16.8500	1.34	194.17	200.48	.00	3.16	.408	551.55
16.9000	1.33	190.61	196.84	.00	3.11	.400	551.54
16.9500	1.32	187.12	193.27	.00	3.08	.392	551.53
17.0000	1.31	183.68	189.75	.00	3.04	.385	551.53

Type.... Pond Routing Calcs (Total Out)
 Name.... EX LAKE OUT Tag: 2-YR
 File.... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 2-YR

Event: 2 yr

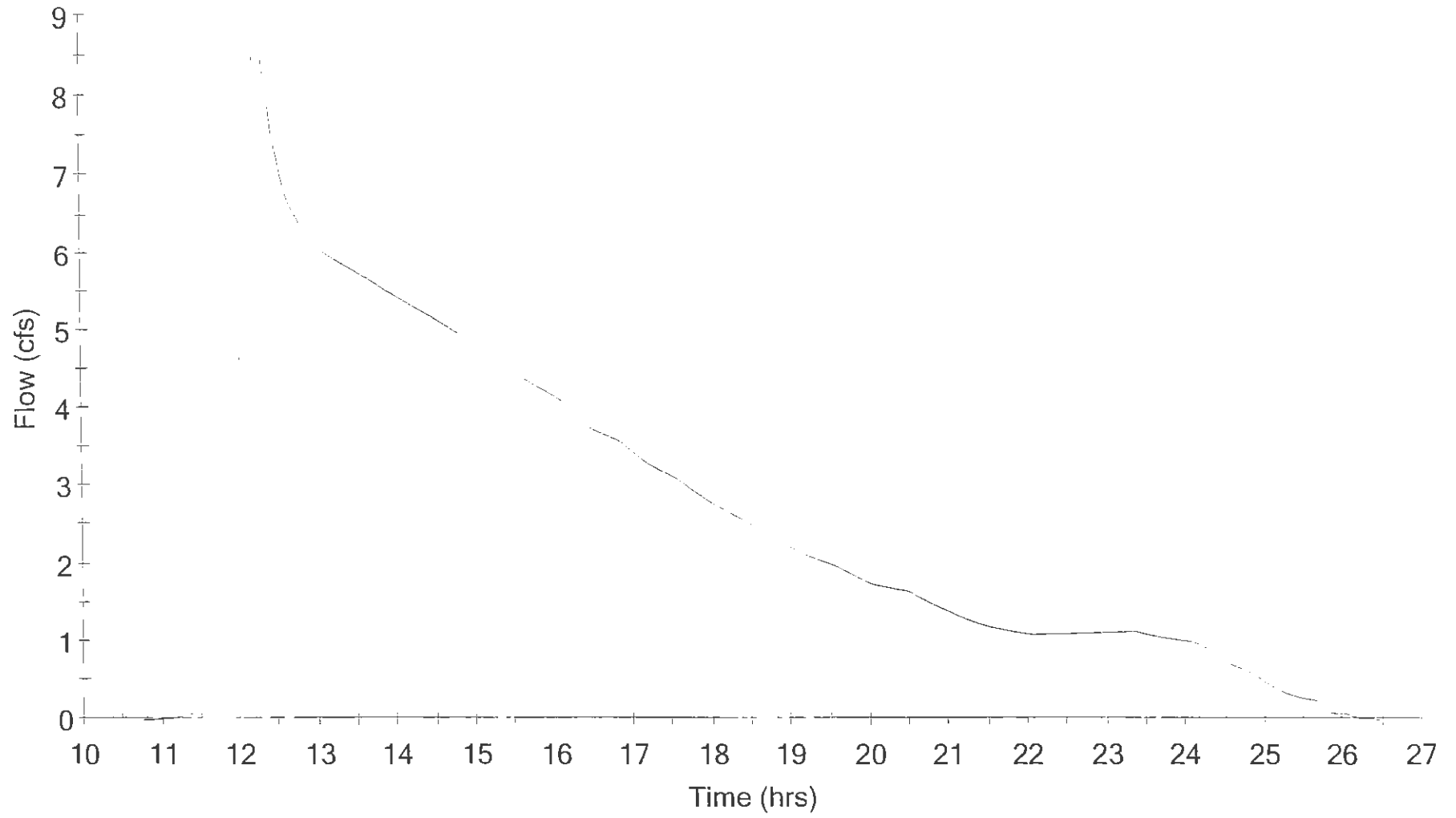
LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - EX LAKE IN 2-YR
 Outflow HYG file = NONE STORED - EX LAKE OUT 2-YR

Time hrs	Inflow cfs	2S/t - 0 cfs	2S/t + 0 cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
17.0500	1.31	180.30	186.30	.00	3.00	.378	551.52
17.1000	1.30	176.98	182.90	.00	2.96	.371	551.51
17.1500	1.29	173.72	179.57	.00	2.92	.365	551.51
17.2000	1.28	170.52	176.30	.00	2.89	.358	551.50
17.2500	1.27	167.34	173.07	.00	2.87	.351	551.49
17.3000	1.27	164.20	169.88	.00	2.84	.345	551.48
17.3500	1.26	161.10	166.73	.00	2.82	.338	551.48
17.4000	1.25	158.03	163.61	.00	2.79	.332	551.47
17.4500	1.25	154.99	160.52	.00	2.77	.326	551.46
17.5000	1.24	151.98	157.47	.00	2.75	.319	551.46
17.5500	1.23	149.00	154.45	.00	2.72	.313	551.45
17.6000	1.23	146.09	151.46	.00	2.69	.307	551.44
17.6500	1.22	143.23	148.53	.00	2.65	.301	551.44
17.7000	1.21	140.43	145.66	.00	2.61	.295	551.43
17.7500	1.20	137.69	142.85	.00	2.58	.289	551.42
17.8000	1.20	135.00	140.09	.00	2.55	.284	551.42
17.8500	1.19	132.36	137.38	.00	2.51	.278	551.41
17.9000	1.18	129.78	134.73	.00	2.48	.273	551.40
17.9500	1.18	127.24	132.14	.00	2.45	.268	551.40
18.0000	1.17	124.74	129.59	.00	2.42	.262	551.39
18.0500	1.16	122.29	127.08	.00	2.39	.257	551.38
18.1000	1.16	119.87	124.61	.00	2.37	.252	551.38
18.1500	1.15	117.50	122.18	.00	2.34	.247	551.37
18.2000	1.14	115.16	119.79	.00	2.32	.242	551.36
18.2500	1.14	112.85	117.44	.00	2.29	.238	551.36
18.3000	1.13	110.59	115.12	.00	2.27	.233	551.35
18.3500	1.12	108.36	112.84	.00	2.24	.228	551.35
18.4000	1.12	106.17	110.60	.00	2.22	.224	551.34
18.4500	1.11	104.01	108.39	.00	2.19	.219	551.33
18.5000	1.10	101.89	106.22	.00	2.17	.215	551.33
18.5500	1.10	99.81	104.09	.00	2.14	.210	551.32
18.6000	1.09	97.76	101.99	.00	2.12	.206	551.31
18.6500	1.08	95.74	99.93	.00	2.09	.202	551.31
18.7000	1.07	93.76	97.90	.00	2.07	.198	551.30
18.7500	1.07	91.82	95.90	.00	2.04	.194	551.29
18.8000	1.06	89.93	93.95	.00	2.01	.190	551.29
18.8500	1.05	88.08	92.04	.00	1.98	.186	551.28
18.9000	1.05	86.28	90.18	.00	1.95	.182	551.28
18.9500	1.04	84.53	88.37	.00	1.92	.178	551.27
19.0000	1.03	82.81	86.60	.00	1.89	.175	551.26
19.0500	1.03	81.14	84.87	.00	1.87	.171	551.26
19.1000	1.02	79.51	83.19	.00	1.84	.168	551.25

Hydrograph
POI #2

2-YR



15 YEAR STORM ROUTING

Type... Pond Routing Summary

Name... EX LAKE OUT Tag: 15-YR

Event: 15 yr

File... R:\0675N\10-EX-POI2.PPW

Storm... TypeII 24hr Tag: 15-YR

LEVEL POOL ROUTING SUMMARY

HYG Dir = R:\0675N\

Inflow HYG file = NONE STORED - EX LAKE IN 15-YR

Outflow HYG file = NONE STORED - EX LAKE OUT 15-YR

Pond Node Data = EX LAKE

Pond Volume Data = EX LAKE

Pond Outlet Data = EX LAKE OUTLET

No Infiltration

INITIAL CONDITIONS

Starting WS Elev = 550.40 ft
Starting Volume = .000 ac-ft
Starting Outflow = .00 cfs
Starting Infiltr. = .00 cfs
Starting Total Qout = .00 cfs
Time Increment = .0500 hrs

INFLOW/OUTFLOW HYDROGRAPH SUMMARY

Peak Inflow = 38.53 cfs at 12.3500 hrs
Peak Outflow = 7.38 cfs at 13.6000 hrs

Peak Elevation = 552.60 ft
Peak Storage = 2.389 ac-ft

MASS BALANCE (ac-ft)

+ Initial Vol = .000
+ HYG Vol IN = 5.387
- Infiltration = .000
- HYG Vol OUT = 5.387
- Retained Vol = .000
Unrouted Vol = -.000 ac-ft (.000% of Inflow Volume)

Type.... Pond Routing Calcs (Total Out)

Name.... EX LAKE OUT Tag: 15-YR

Event: 15 yr

File.... R:\0675N\10-EX-POI2.PPW

Storm... TypeII 24hr Tag: 15-YR

LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\

Inflow HYG file = NONE STORED - EX LAKE IN 15-YR

Outflow HYG file = NONE STORED - EX LAKE OUT 15-YR

Time hrs	Inflow cfs	2S/t - 0 cfs	2S/t + 0 cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
9.0000	.00	.00	.00	.00	.00	.000	550.40
9.0500	.00	.00	.00	.00	.00	.000	550.40
9.1000	.00	.00	.00	.00	.00	.000	550.41
9.1500	.01	.00	.01	.00	.00	.000	550.41
9.2000	.01	.00	.01	.00	.01	.000	550.42
9.2500	.01	.00	.02	.00	.01	.000	550.43
9.3000	.02	.00	.03	.00	.02	.000	550.44
9.3500	.02	.00	.04	.00	.02	.000	550.45
9.4000	.03	.02	.06	.00	.02	.000	550.46
9.4500	.04	.06	.10	.00	.02	.000	550.48
9.5000	.05	.11	.15	.00	.02	.000	550.50
9.5500	.06	.16	.23	.00	.03	.000	550.51
9.6000	.08	.21	.31	.00	.05	.000	550.52
9.6500	.09	.27	.38	.00	.06	.001	550.53
9.7000	.11	.32	.46	.00	.07	.001	550.54
9.7500	.12	.38	.54	.00	.08	.001	550.55
9.8000	.14	.47	.64	.00	.08	.001	550.56
9.8500	.15	.60	.76	.00	.08	.001	550.57
9.9000	.17	.76	.93	.00	.08	.002	550.58
9.9500	.19	.96	1.12	.00	.08	.002	550.60
10.0000	.21	1.13	1.36	.00	.12	.003	550.61
10.0500	.23	1.28	1.57	.00	.15	.003	550.62
10.1000	.26	1.42	1.77	.00	.17	.003	550.63
10.1500	.28	1.56	1.96	.00	.20	.004	550.64
10.2000	.31	1.69	2.15	.00	.23	.004	550.64
10.2500	.33	1.84	2.33	.00	.25	.004	550.65
10.3000	.36	2.03	2.53	.00	.25	.005	550.66
10.3500	.39	2.28	2.79	.00	.25	.005	550.67
10.4000	.43	2.58	3.10	.00	.26	.006	550.68
10.4500	.46	2.94	3.46	.00	.26	.007	550.69
10.5000	.50	3.35	3.89	.00	.27	.007	550.70
10.5500	.53	3.82	4.38	.00	.28	.008	550.71
10.6000	.57	4.34	4.92	.00	.29	.009	550.73
10.6500	.62	4.91	5.53	.00	.31	.011	550.74
10.7000	.66	5.53	6.19	.00	.33	.012	550.75
10.7500	.71	6.20	6.91	.00	.36	.013	550.77
10.8000	.76	6.90	7.67	.00	.38	.015	550.78
10.8500	.82	7.64	8.47	.00	.42	.017	550.79
10.9000	.87	8.43	9.33	.00	.45	.018	550.81
10.9500	.94	9.27	10.24	.00	.49	.020	550.82
11.0000	1.00	10.15	11.21	.00	.53	.022	550.83
11.0500	1.08	11.09	12.23	.00	.57	.024	550.85

Type.... Pond Routing Calcs (Total Out)
 Name.... EX LAKE OUT Tag: 15-YR
 File.... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 15-YR

Event: 15 yr

LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - EX LAKE IN 15-YR
 Outflow HYG file = NONE STORED - EX LAKE OUT 15-YR

Time hrs	Inflow cfs	2S/t - O cfs	2S/t + O cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
11.1000	1.15	12.13	13.32	.00	.60	.026	550.86
11.1500	1.24	13.26	14.51	.00	.62	.028	550.87
11.2000	1.33	14.52	15.83	.00	.65	.031	550.89
11.2500	1.42	15.89	17.27	.00	.69	.034	550.90
11.3000	1.53	17.35	18.84	.00	.75	.037	550.92
11.3500	1.64	18.89	20.52	.00	.81	.040	550.93
11.4000	1.78	20.55	22.31	.00	.88	.044	550.95
11.4500	1.91	22.47	24.23	.00	.88	.048	550.96
11.5000	2.09	24.73	26.46	.00	.87	.053	550.98
11.5500	2.27	27.40	29.09	.00	.85	.058	551.00
11.6000	2.55	30.30	32.22	.00	.96	.064	551.02
11.6500	2.90	33.56	35.74	.00	1.09	.071	551.04
11.7000	3.39	37.42	39.85	.00	1.22	.080	551.07
11.7500	4.18	42.27	44.98	.00	1.36	.090	551.09
11.8000	5.09	48.68	51.53	.00	1.43	.103	551.13
11.8500	6.96	57.66	60.73	.00	1.53	.122	551.17
11.9000	8.83	69.98	73.44	.00	1.73	.148	551.22
11.9500	11.99	86.88	90.80	.00	1.96	.183	551.28
12.0000	15.28	109.64	114.15	.00	2.26	.231	551.35
12.0500	19.30	139.02	144.22	.00	2.60	.292	551.43
12.1000	23.62	176.04	181.94	.00	2.95	.369	551.51
12.1500	27.72	220.78	227.38	.00	3.30	.463	551.60
12.2000	31.60	272.58	280.10	.00	3.76	.570	551.68
12.2500	34.90	330.83	339.07	.00	4.12	.691	551.77
12.3000	36.81	393.49	402.53	.00	4.52	.822	551.85
12.3500	38.53	459.11	468.82	.00	4.86	.958	551.92
12.4000	38.38	525.55	536.02	.00	5.24	1.096	551.99
12.4500	38.24	591.01	602.17	.00	5.58	1.233	552.06
12.5000	36.84	654.39	666.09	.00	5.85	1.364	552.12
12.5500	35.28	714.34	726.50	.00	6.08	1.488	552.18
12.6000	33.15	770.22	782.77	.00	6.28	1.604	552.24
12.6500	30.75	821.10	834.11	.00	6.50	1.710	552.29
12.7000	28.33	866.86	880.18	.00	6.66	1.805	552.33
12.7500	25.89	907.54	921.08	.00	6.77	1.889	552.37
12.8000	23.60	943.30	957.03	.00	6.87	1.963	552.40
12.8500	21.69	974.68	988.59	.00	6.95	2.028	552.43
12.9000	19.81	1002.14	1016.18	.00	7.02	2.085	552.46
12.9500	18.36	1026.15	1040.31	.00	7.08	2.135	552.48
13.0000	16.91	1047.15	1061.41	.00	7.13	2.178	552.50
13.0500	15.71	1065.41	1079.77	.00	7.18	2.216	552.52
13.1000	14.55	1081.24	1095.67	.00	7.22	2.249	552.53
13.1500	13.54	1094.83	1109.33	.00	7.25	2.277	552.55

Type... Pond Routing Calcs (Total Out)
 Name... EX LAKE OUT Tag: 15-YR
 File... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 15-YR

Event: 15 yr

LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - EX LAKE IN 15-YR
 Outflow HYG file = NONE STORED - EX LAKE OUT 15-YR

Time hrs	Inflow cfs	2S/t - O cfs	2S/t + O cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
13.2000	12.62	1106.43	1120.99	.00	7.28	2.301	552.56
13.2500	11.78	1116.22	1130.83	.00	7.30	2.321	552.57
13.3000	11.06	1124.43	1139.07	.00	7.32	2.338	552.57
13.3500	10.38	1131.19	1145.87	.00	7.34	2.352	552.58
13.4000	9.80	1136.66	1151.37	.00	7.35	2.364	552.59
13.4500	9.23	1140.97	1155.70	.00	7.36	2.373	552.59
13.5000	8.78	1144.24	1158.98	.00	7.37	2.379	552.59
13.5500	8.32	1146.58	1161.33	.00	7.38	2.384	552.59
13.6000	7.94	1148.07	1162.83	.00	7.38	2.387	552.60
13.6500	7.57	1148.82	1163.58	.00	7.38	2.389	552.60
13.7000	7.25	1148.87	1163.64	.00	7.38	2.389	552.60
13.7500	6.95	1148.30	1163.06	.00	7.38	2.388	552.60
13.8000	6.67	1147.15	1161.91	.00	7.38	2.385	552.60
13.8500	6.42	1145.49	1160.23	.00	7.37	2.382	552.59
13.9000	6.17	1143.34	1158.07	.00	7.37	2.377	552.59
13.9500	5.96	1140.75	1155.47	.00	7.36	2.372	552.59
14.0000	5.75	1137.75	1152.46	.00	7.36	2.366	552.59
14.0500	5.57	1134.39	1149.08	.00	7.35	2.359	552.58
14.1000	5.39	1130.68	1145.35	.00	7.34	2.351	552.58
14.1500	5.23	1126.65	1141.31	.00	7.33	2.343	552.58
14.2000	5.08	1122.32	1136.96	.00	7.32	2.334	552.57
14.2500	4.93	1117.72	1132.33	.00	7.31	2.324	552.57
14.3000	4.79	1112.85	1127.43	.00	7.29	2.314	552.56
14.3500	4.66	1107.73	1122.29	.00	7.28	2.304	552.56
14.4000	4.53	1102.38	1116.91	.00	7.27	2.293	552.55
14.4500	4.41	1096.81	1111.32	.00	7.25	2.281	552.55
14.5000	4.30	1091.04	1105.52	.00	7.24	2.269	552.54
14.5500	4.20	1085.09	1099.54	.00	7.23	2.257	552.54
14.6000	4.11	1078.97	1093.40	.00	7.21	2.244	552.53
14.6500	4.03	1072.73	1087.12	.00	7.20	2.231	552.53
14.7000	3.96	1066.37	1080.73	.00	7.18	2.218	552.52
14.7500	3.90	1059.90	1074.23	.00	7.16	2.205	552.51
14.8000	3.84	1053.35	1067.65	.00	7.15	2.191	552.51
14.8500	3.79	1046.72	1060.99	.00	7.13	2.177	552.50
14.9000	3.74	1040.02	1054.25	.00	7.11	2.163	552.49
14.9500	3.69	1033.25	1047.45	.00	7.10	2.149	552.49
15.0000	3.64	1026.42	1040.58	.00	7.08	2.135	552.48
15.0500	3.60	1019.54	1033.66	.00	7.06	2.121	552.48
15.1000	3.56	1012.60	1026.69	.00	7.05	2.107	552.47
15.1500	3.51	1005.61	1019.67	.00	7.03	2.092	552.46
15.2000	3.47	998.57	1012.60	.00	7.01	2.078	552.46
15.2500	3.43	991.49	1005.48	.00	6.99	2.063	552.45

Type.... Pond Routing Calcs (Total Out)
 Name.... EX LAKE OUT Tag: 15-YR
 File.... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 15-YR

Event: 15 yr

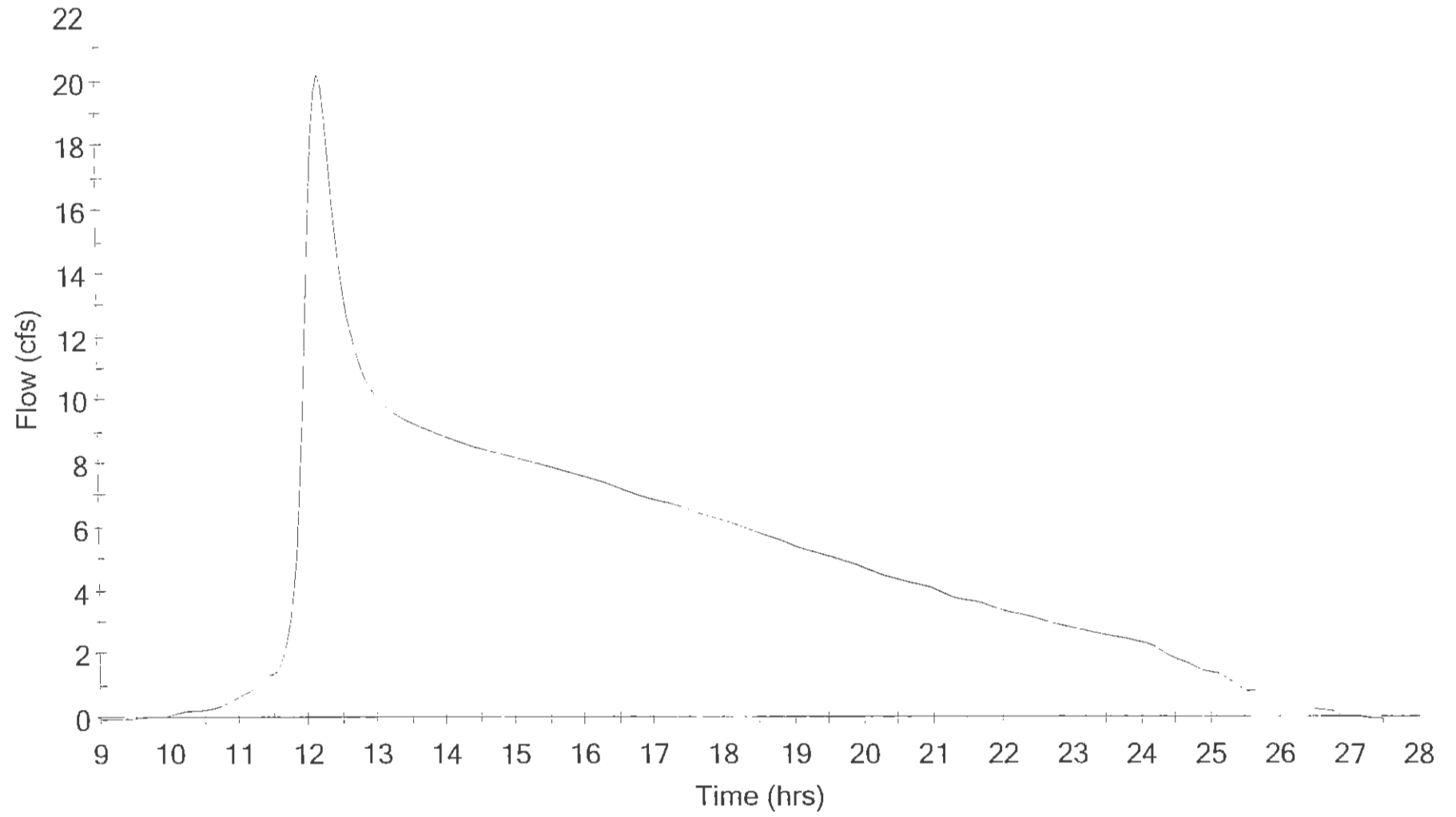
LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - EX LAKE IN 15-YR
 Outflow HYG file = NONE STORED - EX LAKE OUT 15-YR

Time hrs	Inflow cfs	2S/t - O cfs	2S/t + O cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
15.3000	3.40	984.37	998.32	.00	6.98	2.048	552.44
15.3500	3.36	977.21	991.13	.00	6.96	2.033	552.44
15.4000	3.32	970.01	983.89	.00	6.94	2.018	552.43
15.4500	3.28	962.78	976.62	.00	6.92	2.003	552.42
15.5000	3.25	955.51	969.31	.00	6.90	1.988	552.41
15.5500	3.21	948.20	961.96	.00	6.88	1.973	552.41
15.6000	3.17	940.86	954.58	.00	6.86	1.958	552.40
15.6500	3.14	933.49	947.17	.00	6.84	1.943	552.39
15.7000	3.10	926.08	939.73	.00	6.82	1.927	552.39
15.7500	3.07	918.65	932.25	.00	6.80	1.912	552.38
15.8000	3.03	911.18	924.74	.00	6.78	1.896	552.37
15.8500	2.99	903.69	917.21	.00	6.76	1.881	552.37
15.9000	2.96	896.16	909.64	.00	6.74	1.865	552.36
15.9500	2.92	888.61	902.05	.00	6.72	1.850	552.35
16.0000	2.89	881.02	894.42	.00	6.70	1.834	552.34
16.0500	2.85	873.41	886.77	.00	6.68	1.818	552.34
16.1000	2.82	865.77	879.09	.00	6.66	1.802	552.33
16.1500	2.79	858.11	871.38	.00	6.64	1.787	552.32
16.2000	2.75	850.42	863.64	.00	6.61	1.771	552.31
16.2500	2.72	842.70	855.88	.00	6.59	1.755	552.31
16.3000	2.68	834.96	848.10	.00	6.57	1.739	552.30
16.3500	2.65	827.24	840.30	.00	6.53	1.723	552.29
16.4000	2.62	819.52	832.51	.00	6.50	1.707	552.28
16.4500	2.59	811.82	824.74	.00	6.46	1.691	552.28
16.5000	2.57	804.13	816.98	.00	6.42	1.675	552.27
16.5500	2.54	796.47	809.24	.00	6.39	1.659	552.26
16.6000	2.52	788.83	801.53	.00	6.35	1.643	552.25
16.6500	2.49	781.20	793.84	.00	6.32	1.627	552.25
16.7000	2.47	773.59	786.17	.00	6.29	1.611	552.24
16.7500	2.45	766.00	778.52	.00	6.26	1.595	552.23
16.8000	2.43	758.42	770.89	.00	6.23	1.580	552.22
16.8500	2.42	750.87	763.27	.00	6.20	1.564	552.22
16.9000	2.40	743.33	755.68	.00	6.17	1.549	552.21
16.9500	2.38	735.82	748.11	.00	6.15	1.533	552.20
17.0000	2.37	728.33	740.57	.00	6.12	1.517	552.20
17.0500	2.35	720.85	733.05	.00	6.10	1.502	552.19
17.1000	2.34	713.38	725.54	.00	6.08	1.486	552.18
17.1500	2.32	705.93	718.04	.00	6.05	1.471	552.17
17.2000	2.31	698.49	710.56	.00	6.03	1.456	552.17
17.2500	2.29	691.07	703.09	.00	6.01	1.440	552.16
17.3000	2.28	683.67	695.65	.00	5.99	1.425	552.15
17.3500	2.27	676.30	688.21	.00	5.96	1.410	552.14

Hydrograph
POI #2

15-YR



25 YEAR STORM ROUTING

Type... Pond Routing Summary

Name... EX LAKE OUT Tag: 25-YR

Event: 25 yr

File... R:\0675N\10-EX-POI2.PPW

Storm... TypeII 24hr Tag: 25-YR

LEVEL POOL ROUTING SUMMARY

HYG Dir = R:\0675N\

Inflow HYG file = NONE STORED - EX LAKE IN 25-YR

Outflow HYG file = NONE STORED - EX LAKE OUT 25-YR

Pond Node Data = EX LAKE

Pond Volume Data = EX LAKE

Pond Outlet Data = EX LAKE OUTLET

No Infiltration

INITIAL CONDITIONS

```

-----
Starting WS Elev    =    550.40 ft
Starting Volume    =        .000 ac-ft
Starting Outflow    =        .00 cfs
Starting Infiltr.   =        .00 cfs
Starting Total Qout =        .00 cfs
Time Increment     =        .0500 hrs

```

INFLOW/OUTFLOW HYDROGRAPH SUMMARY

```

=====
Peak Inflow        =        45.25 cfs    at    12.3500 hrs
Peak Outflow       =        7.94 cfs    at    13.7500 hrs
-----
Peak Elevation     =        552.82 ft
Peak Storage       =        2.896 ac-ft
=====

```

MASS BALANCE (ac-ft)

```

-----
+ Initial Vol    =        .000
+ HYG Vol IN     =        6.277
- Infiltration   =        .000
- HYG Vol OUT    =        6.277
- Retained Vol   =        .000
-----
Unrouted Vol =        -.000 ac-ft    (.000% of Inflow Volume)

```


Type.... Pond Routing Calcs (Total Out)
 Name.... EX LAKE OUT Tag: 25-YR
 File.... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 25-YR

Event: 25 yr

LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - EX LAKE IN 25-YR
 Outflow HYG file = NONE STORED - EX LAKE OUT 25-YR

Time hrs	Inflow cfs	2S/t - O cfs	2S/t + O cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
8.5500	.00	.00	.00	.00	.00	.000	550.40
8.6000	.00	.00	.00	.00	.00	.000	550.40
8.6500	.00	.00	.00	.00	.00	.000	550.41
8.7000	.00	.00	.01	.00	.00	.000	550.41
8.7500	.01	.00	.01	.00	.01	.000	550.41
8.8000	.01	.00	.02	.00	.01	.000	550.42
8.8500	.02	.00	.03	.00	.01	.000	550.43
8.9000	.02	.00	.04	.00	.02	.000	550.45
8.9500	.03	.01	.05	.00	.02	.000	550.46
9.0000	.04	.04	.08	.00	.02	.000	550.47
9.0500	.05	.09	.13	.00	.02	.000	550.49
9.1000	.06	.15	.20	.00	.03	.000	550.51
9.1500	.07	.20	.28	.00	.04	.000	550.52
9.2000	.09	.25	.36	.00	.05	.001	550.53
9.2500	.10	.31	.44	.00	.07	.001	550.54
9.3000	.12	.37	.53	.00	.08	.001	550.55
9.3500	.14	.46	.63	.00	.08	.001	550.56
9.4000	.16	.59	.76	.00	.08	.001	550.57
9.4500	.18	.76	.92	.00	.08	.002	550.58
9.5000	.19	.96	1.13	.00	.08	.002	550.60
9.5500	.21	1.13	1.37	.00	.12	.003	550.61
9.6000	.23	1.29	1.58	.00	.15	.003	550.62
9.6500	.26	1.43	1.78	.00	.17	.003	550.63
9.7000	.28	1.56	1.96	.00	.20	.004	550.64
9.7500	.30	1.68	2.13	.00	.22	.004	550.64
9.8000	.32	1.80	2.30	.00	.25	.004	550.65
9.8500	.34	1.96	2.46	.00	.25	.005	550.66
9.9000	.37	2.17	2.67	.00	.25	.005	550.66
9.9500	.39	2.41	2.93	.00	.26	.005	550.67
10.0000	.42	2.70	3.22	.00	.26	.006	550.68
10.0500	.45	3.04	3.57	.00	.26	.007	550.69
10.1000	.48	3.42	3.96	.00	.27	.008	550.70
10.1500	.51	3.83	4.40	.00	.28	.008	550.71
10.2000	.54	4.29	4.88	.00	.29	.009	550.73
10.2500	.57	4.79	5.40	.00	.31	.010	550.74
10.3000	.61	5.34	5.98	.00	.32	.012	550.75
10.3500	.65	5.91	6.59	.00	.34	.013	550.76
10.4000	.69	6.51	7.24	.00	.37	.014	550.77
10.4500	.73	7.14	7.93	.00	.40	.015	550.78
10.5000	.78	7.80	8.65	.00	.42	.017	550.80
10.5500	.83	8.50	9.41	.00	.45	.018	550.81
10.6000	.88	9.23	10.20	.00	.49	.020	550.82

. . . Pond Routing Calcs (Total Out)
 Name . . . EX LAKE OUT Tag: 25-YR
 File . . . R:\0675N\10-EX-POI2.PPW
 Storm . . TypeII 24hr Tag: 25-YR

Event: 25 yr

LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - EX LAKE IN 25-YR
 Outflow HYG file = NONE STORED - EX LAKE OUT 25-YR

Time hrs	Inflow cfs	2S/t - O cfs	2S/t + O cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
10.6500	.93	9.99	11.03	.00	.52	.022	550.83
10.7000	.99	10.79	11.91	.00	.56	.023	550.84
10.7500	1.05	11.65	12.83	.00	.59	.025	550.85
10.8000	1.11	12.59	13.81	.00	.61	.027	550.86
10.8500	1.18	13.62	14.88	.00	.63	.029	550.88
10.9000	1.25	14.73	16.05	.00	.66	.032	550.89
10.9500	1.33	15.94	17.32	.00	.69	.034	550.90
11.0000	1.41	17.20	18.68	.00	.74	.037	550.91
11.0500	1.50	18.52	20.11	.00	.80	.040	550.93
11.1000	1.60	19.91	21.62	.00	.86	.043	550.94
11.1500	1.70	21.42	23.20	.00	.89	.046	550.95
11.2000	1.81	23.17	24.93	.00	.88	.049	550.97
11.2500	1.93	25.18	26.91	.00	.86	.054	550.98
11.3000	2.06	27.47	29.17	.00	.85	.059	551.00
11.3500	2.20	29.85	31.73	.00	.94	.063	551.02
11.4000	2.36	32.32	34.40	.00	1.04	.069	551.03
11.4500	2.53	34.92	37.21	.00	1.14	.075	551.05
11.5000	2.74	37.74	40.19	.00	1.22	.080	551.07
11.5500	2.97	40.82	43.45	.00	1.31	.087	551.08
11.6000	3.30	44.30	47.09	.00	1.40	.094	551.10
11.6500	3.73	48.48	51.33	.00	1.42	.103	551.12
11.7000	4.32	53.61	56.53	.00	1.46	.114	551.15
11.7500	5.27	60.04	63.20	.00	1.58	.127	551.18
11.8000	6.37	68.26	71.68	.00	1.71	.144	551.21
11.8500	8.59	79.54	83.22	.00	1.84	.168	551.25
11.9000	10.82	94.79	98.95	.00	2.08	.200	551.30
11.9500	14.54	115.50	120.14	.00	2.32	.243	551.37
12.0000	18.41	143.15	148.45	.00	2.65	.301	551.44
12.0500	23.10	178.70	184.66	.00	2.98	.375	551.52
12.1000	28.14	223.31	229.95	.00	3.32	.468	551.60
12.1500	32.90	276.78	284.35	.00	3.78	.579	551.69
12.2000	37.38	338.69	347.05	.00	4.18	.708	551.78
12.2500	41.16	408.05	417.23	.00	4.59	.852	551.87
12.3000	43.32	482.52	492.53	.00	5.01	1.007	551.95
12.3500	45.25	560.24	571.09	.00	5.43	1.169	552.03
12.4000	45.01	638.95	650.50	.00	5.78	1.332	552.11
12.4500	44.77	716.55	728.72	.00	6.09	1.493	552.18
12.5000	43.07	791.66	804.39	.00	6.36	1.649	552.26
12.5500	41.19	862.62	875.91	.00	6.65	1.796	552.33
12.6000	38.65	928.80	942.45	.00	6.83	1.933	552.39
12.6500	35.81	989.27	1003.25	.00	6.99	2.058	552.45
12.7000	32.96	1043.79	1058.04	.00	7.12	2.171	552.50

pe.... Pond Routing Calcs (Total Out)
 Name.... EX LAKE OUT Tag: 25-YR
 File.... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 25-YR

Event: 25 yr

LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - EX LAKE IN 25-YR
 Outflow HYG file = NONE STORED - EX LAKE OUT 25-YR

Time hrs	Inflow cfs	2S/t - O cfs	2S/t + O cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
12.7500	30.09	1092.35	1106.84	.00	7.24	2.272	552.54
12.8000	27.40	1135.14	1149.84	.00	7.35	2.361	552.58
12.8500	25.16	1172.83	1187.70	.00	7.44	2.438	552.62
12.9000	22.95	1205.91	1220.94	.00	7.52	2.507	552.65
12.9500	21.26	1234.95	1250.12	.00	7.58	2.567	552.68
13.0000	19.56	1260.48	1275.77	.00	7.64	2.620	552.70
13.0500	18.16	1282.81	1298.20	.00	7.69	2.666	552.72
13.1000	16.80	1302.29	1317.76	.00	7.74	2.707	552.74
13.1500	15.63	1319.16	1334.71	.00	7.78	2.742	552.75
13.2000	14.54	1333.71	1349.33	.00	7.81	2.772	552.77
13.2500	13.57	1346.16	1361.83	.00	7.84	2.797	552.78
13.3000	12.73	1356.74	1372.46	.00	7.86	2.819	552.79
13.3500	11.93	1365.65	1381.41	.00	7.88	2.838	552.80
13.4000	11.26	1373.06	1388.85	.00	7.89	2.853	552.80
13.4500	10.60	1379.11	1394.93	.00	7.91	2.866	552.81
13.5000	10.07	1383.95	1399.78	.00	7.92	2.876	552.81
13.5500	9.54	1387.70	1403.56	.00	7.93	2.883	552.82
13.6000	9.10	1390.48	1406.34	.00	7.93	2.889	552.82
13.6500	8.67	1392.37	1408.25	.00	7.94	2.893	552.82
13.7000	8.29	1393.46	1409.34	.00	7.94	2.895	552.82
13.7500	7.95	1393.82	1409.70	.00	7.94	2.896	552.82
13.8000	7.62	1393.51	1409.39	.00	7.94	2.895	552.82
13.8500	7.33	1392.59	1408.47	.00	7.94	2.894	552.82
13.9000	7.05	1391.11	1406.98	.00	7.93	2.890	552.82
13.9500	6.81	1389.11	1404.97	.00	7.93	2.886	552.82
14.0000	6.57	1386.64	1402.49	.00	7.92	2.881	552.82
14.0500	6.36	1383.74	1399.57	.00	7.92	2.875	552.81
14.1000	6.15	1380.43	1396.25	.00	7.91	2.868	552.81
14.1500	5.97	1376.74	1392.55	.00	7.90	2.861	552.81
14.2000	5.79	1372.71	1388.49	.00	7.89	2.852	552.80
14.2500	5.62	1368.34	1384.11	.00	7.88	2.843	552.80
14.3000	5.46	1363.67	1379.41	.00	7.87	2.834	552.80
14.3500	5.30	1358.70	1374.42	.00	7.86	2.823	552.79
14.4000	5.16	1353.45	1369.16	.00	7.85	2.813	552.79
14.4500	5.02	1347.95	1363.63	.00	7.84	2.801	552.78
14.5000	4.90	1342.21	1357.87	.00	7.83	2.789	552.78
14.5500	4.77	1336.25	1351.88	.00	7.81	2.777	552.77
14.6000	4.68	1330.10	1345.71	.00	7.80	2.764	552.76
14.6500	4.58	1323.79	1339.37	.00	7.79	2.751	552.76
14.7000	4.51	1317.34	1332.89	.00	7.77	2.738	552.75
14.7500	4.44	1310.77	1326.28	.00	7.76	2.724	552.75
14.8000	4.37	1304.09	1319.57	.00	7.74	2.710	552.74

.ipe.... Pond Routing Calcs (Total Out)
 Name.... EX LAKE OUT Tag: 25-YR
 File.... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 25-YR

Event: 25 yr

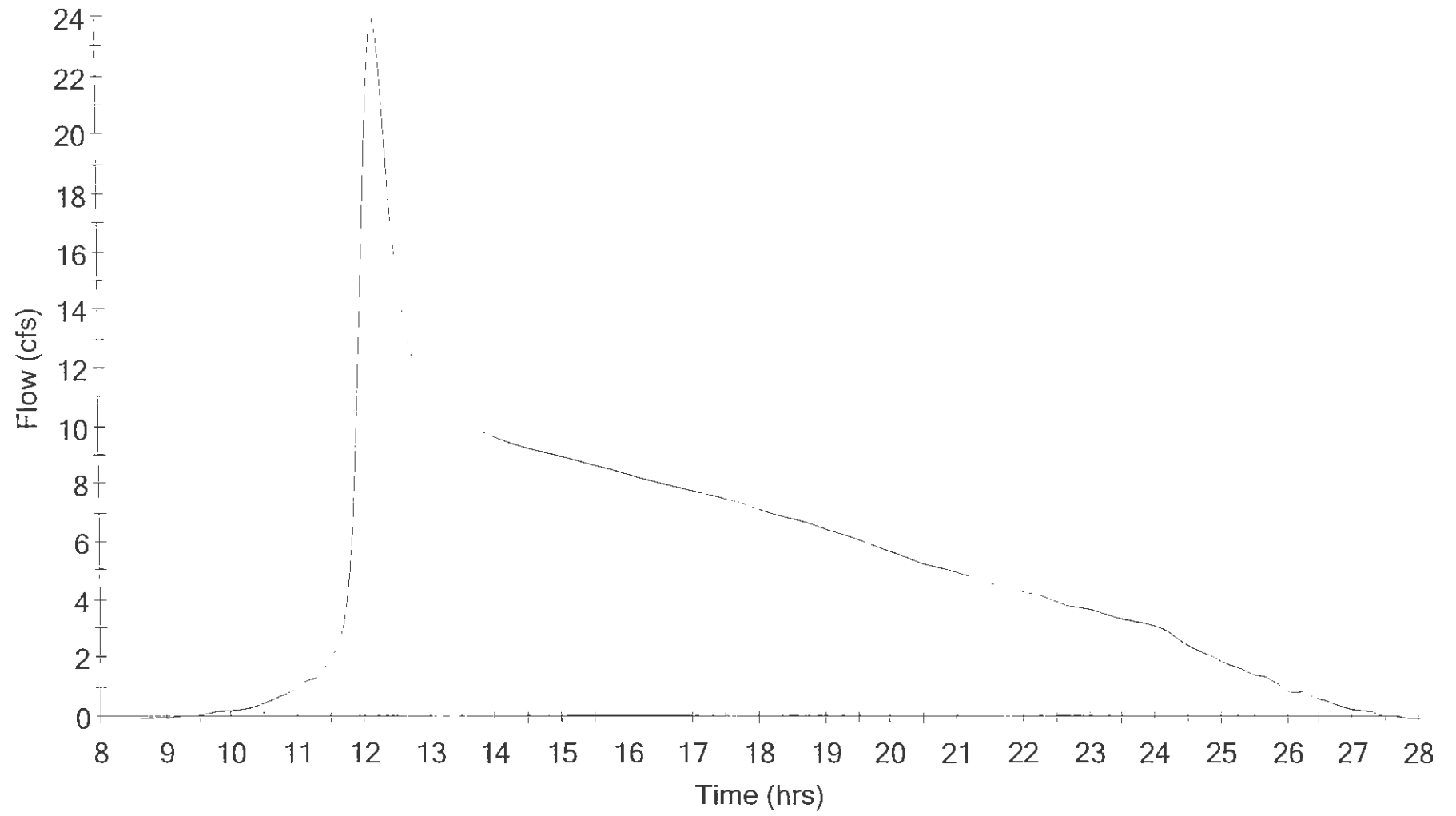
LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - EX LAKE IN 25-YR
 Outflow HYG file = NONE STORED - EX LAKE OUT 25-YR

Time hrs	Inflow cfs	2S/t - O cfs	2S/t + O cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
14.8500	4.31	1297.31	1312.76	.00	7.73	2.696	552.73
14.9000	4.25	1290.44	1305.86	.00	7.71	2.682	552.73
14.9500	4.19	1283.49	1298.88	.00	7.70	2.668	552.72
15.0000	4.14	1276.47	1291.82	.00	7.68	2.653	552.72
15.0500	4.09	1269.37	1284.69	.00	7.66	2.638	552.71
15.1000	4.04	1262.20	1277.50	.00	7.65	2.624	552.70
15.1500	3.99	1254.98	1270.24	.00	7.63	2.609	552.70
15.2000	3.95	1247.69	1262.91	.00	7.61	2.594	552.69
15.2500	3.90	1240.34	1255.54	.00	7.60	2.578	552.68
15.3000	3.86	1232.95	1248.10	.00	7.58	2.563	552.68
15.3500	3.81	1225.49	1240.62	.00	7.56	2.548	552.67
15.4000	3.77	1217.99	1233.08	.00	7.54	2.532	552.66
15.4500	3.73	1210.43	1225.49	.00	7.53	2.516	552.65
15.5000	3.69	1202.83	1217.85	.00	7.51	2.501	552.65
15.5500	3.64	1195.18	1210.16	.00	7.49	2.485	552.64
15.6000	3.60	1187.48	1202.42	.00	7.47	2.469	552.63
15.6500	3.56	1179.73	1194.64	.00	7.45	2.453	552.63
15.7000	3.52	1171.94	1186.81	.00	7.44	2.437	552.62
15.7500	3.48	1164.10	1178.94	.00	7.42	2.420	552.61
15.8000	3.44	1156.22	1171.02	.00	7.40	2.404	552.60
15.8500	3.40	1148.29	1163.06	.00	7.38	2.388	552.60
15.9000	3.36	1140.33	1155.05	.00	7.36	2.371	552.59
15.9500	3.32	1132.32	1147.00	.00	7.34	2.355	552.58
16.0000	3.28	1124.27	1138.91	.00	7.32	2.338	552.57
16.0500	3.24	1116.18	1130.78	.00	7.30	2.321	552.57
16.1000	3.20	1108.05	1122.62	.00	7.28	2.304	552.56
16.1500	3.16	1099.88	1114.41	.00	7.26	2.287	552.55
16.2000	3.12	1091.68	1106.16	.00	7.24	2.270	552.54
16.2500	3.08	1083.44	1097.88	.00	7.22	2.253	552.54
16.3000	3.04	1075.16	1089.56	.00	7.20	2.236	552.53
16.3500	3.01	1066.85	1081.21	.00	7.18	2.219	552.52
16.4000	2.97	1058.51	1072.83	.00	7.16	2.202	552.51
16.4500	2.94	1050.15	1064.43	.00	7.14	2.185	552.50
16.5000	2.91	1041.77	1056.00	.00	7.12	2.167	552.50
16.5500	2.88	1033.36	1047.56	.00	7.10	2.150	552.49
16.6000	2.85	1024.94	1039.10	.00	7.08	2.132	552.48
16.6500	2.83	1016.51	1030.62	.00	7.06	2.115	552.47
16.7000	2.80	1008.07	1022.14	.00	7.04	2.097	552.46
16.7500	2.78	999.62	1013.65	.00	7.01	2.080	552.46
16.8000	2.76	991.18	1005.16	.00	6.99	2.062	552.45
16.8500	2.74	982.73	996.67	.00	6.97	2.045	552.44
16.9000	2.72	974.29	988.19	.00	6.95	2.027	552.43

Hydrograph
POI #2

25-YR



100 YEAR STORM ROUTING

Type... Pond Routing Summary

Name... EX LAKE OUT Tag: 100-YR

Event: 100 yr

File... R:\0675N\10-EX-POI2.PPW

Storm... TypeII 24hr Tag: 100-YR

LEVEL POOL ROUTING SUMMARY

HYG Dir = R:\0675N\

Inflow HYG file = NONE STORED - EX LAKE IN 100-YR

Outflow HYG file = NONE STORED - EX LAKE OUT 100-YR

Pond Node Data = EX LAKE

Pond Volume Data = EX LAKE

Pond Outlet Data = EX LAKE OUTLET

No Infiltration

INITIAL CONDITIONS

Starting WS Elev = 550.40 ft
Starting Volume = .000 ac-ft
Starting Outflow = .00 cfs
Starting Infiltr. = .00 cfs
Starting Total Qout = .00 cfs
Time Increment = .0500 hrs

INFLOW/OUTFLOW HYDROGRAPH SUMMARY

Peak Inflow = 66.21 cfs at 12.3500 hrs
Peak Outflow = 9.46 cfs at 13.9000 hrs

Peak Elevation = 553.52 ft
Peak Storage = 4.552 ac-ft

MASS BALANCE (ac-ft)

+ Initial Vol = .000
+ HYG Vol IN = 9.076
- Infiltration = .000
- HYG Vol OUT = 9.076
- Retained Vol = .000
Unrouted Vol = .000 ac-ft (.000% of Outflow Volume)

Type.... Pond Routing Calcs (Total Out)
 Name.... EX LAKE OUT Tag: 100-YR
 File.... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 100-YR

Event: 100 yr

LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - EX LAKE IN 100-YR
 Outflow HYG file = NONE STORED - EX LAKE OUT 100-YR

Time hrs	Inflow cfs	2S/t - 0 cfs	2S/t + 0 cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
7.3500	.00	.00	.00	.00	.00	.000	550.40
7.4000	.00	.00	.00	.00	.00	.000	550.40
7.4500	.00	.00	.00	.00	.00	.000	550.41
7.5000	.00	.00	.01	.00	.00	.000	550.41
7.5500	.01	.00	.01	.00	.01	.000	550.42
7.6000	.01	.00	.02	.00	.01	.000	550.42
7.6500	.02	.00	.03	.00	.01	.000	550.44
7.7000	.02	.00	.04	.00	.02	.000	550.45
7.7500	.03	.01	.05	.00	.02	.000	550.46
7.8000	.04	.04	.08	.00	.02	.000	550.47
7.8500	.05	.08	.12	.00	.02	.000	550.49
7.9000	.06	.13	.19	.00	.03	.000	550.50
7.9500	.07	.18	.26	.00	.04	.000	550.51
8.0000	.08	.23	.33	.00	.05	.001	550.52
8.0500	.09	.28	.40	.00	.06	.001	550.53
8.1000	.10	.33	.47	.00	.07	.001	550.54
8.1500	.12	.38	.55	.00	.08	.001	550.55
8.2000	.13	.47	.64	.00	.08	.001	550.56
8.2500	.15	.58	.75	.00	.08	.001	550.57
8.3000	.16	.73	.90	.00	.08	.002	550.58
8.3500	.18	.91	1.07	.00	.08	.002	550.60
8.4000	.20	1.07	1.28	.00	.11	.002	550.61
8.4500	.22	1.22	1.49	.00	.13	.003	550.62
8.5000	.23	1.35	1.67	.00	.16	.003	550.62
8.5500	.25	1.47	1.84	.00	.18	.003	550.63
8.6000	.28	1.59	2.00	.00	.21	.004	550.64
8.6500	.30	1.70	2.16	.00	.23	.004	550.64
8.7000	.32	1.82	2.32	.00	.25	.004	550.65
8.7500	.34	1.99	2.49	.00	.25	.005	550.66
8.8000	.37	2.19	2.70	.00	.25	.005	550.66
8.8500	.40	2.45	2.96	.00	.26	.005	550.67
8.9000	.42	2.74	3.26	.00	.26	.006	550.68
8.9500	.45	3.09	3.62	.00	.27	.007	550.69
9.0000	.48	3.47	4.02	.00	.27	.008	550.71
9.0500	.51	3.90	4.46	.00	.28	.008	550.72
9.1000	.54	4.36	4.95	.00	.29	.009	550.73
9.1500	.57	4.86	5.48	.00	.31	.011	550.74
9.2000	.61	5.40	6.05	.00	.32	.012	550.75
9.2500	.64	5.96	6.65	.00	.35	.013	550.76
9.3000	.68	6.54	7.28	.00	.37	.014	550.77
9.3500	.71	7.13	7.92	.00	.39	.015	550.78
9.4000	.74	7.74	8.58	.00	.42	.017	550.80

Type... Pond Routing Calcs (Total Out)
 Name... EX LAKE OUT Tag: 100-YR
 File... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 100-YR

Event: 100 yr

LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - EX LAKE IN 100-YR
 Outflow HYG file = NONE STORED - EX LAKE OUT 100-YR

Time hrs	Inflow cfs	2S/t - O cfs	2S/t + O cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
9.4500	.78	8.37	9.26	.00	.45	.018	550.81
9.5000	.81	9.00	9.96	.00	.48	.019	550.82
9.5500	.85	9.65	10.66	.00	.51	.021	550.83
9.6000	.88	10.31	11.38	.00	.54	.022	550.83
9.6500	.91	10.97	12.10	.00	.56	.024	550.84
9.7000	.95	11.65	12.83	.00	.59	.025	550.85
9.7500	.98	12.37	13.58	.00	.60	.027	550.86
9.8000	1.01	13.12	14.36	.00	.62	.028	550.87
9.8500	1.05	13.91	15.19	.00	.64	.030	550.88
9.9000	1.09	14.73	16.05	.00	.66	.032	550.89
9.9500	1.13	15.60	16.95	.00	.68	.034	550.90
10.0000	1.17	16.48	17.90	.00	.71	.035	550.91
10.0500	1.22	17.37	18.87	.00	.75	.037	550.92
10.1000	1.27	18.27	19.85	.00	.79	.039	550.93
10.1500	1.31	19.20	20.85	.00	.83	.041	550.93
10.2000	1.37	20.16	21.89	.00	.87	.043	550.94
10.2500	1.43	21.16	22.95	.00	.89	.046	550.95
10.3000	1.49	22.31	24.08	.00	.88	.048	550.96
10.3500	1.55	23.60	25.35	.00	.87	.050	550.97
10.4000	1.62	25.04	26.77	.00	.86	.053	550.98
10.4500	1.69	26.65	28.35	.00	.85	.057	550.99
10.5000	1.77	28.34	30.11	.00	.88	.060	551.01
10.5500	1.85	30.06	31.96	.00	.95	.064	551.02
10.6000	1.93	31.80	33.84	.00	1.02	.068	551.03
10.6500	2.02	33.57	35.75	.00	1.09	.071	551.04
10.7000	2.11	35.39	37.70	.00	1.16	.075	551.05
10.7500	2.22	37.29	39.72	.00	1.21	.079	551.06
10.8000	2.32	39.29	41.83	.00	1.27	.083	551.08
10.8500	2.43	41.38	44.04	.00	1.33	.088	551.09
10.9000	2.55	43.58	46.36	.00	1.39	.093	551.10
10.9500	2.68	45.99	48.80	.00	1.41	.098	551.11
11.0000	2.81	48.62	51.48	.00	1.43	.103	551.13
11.0500	2.96	51.50	54.39	.00	1.45	.109	551.14
11.1000	3.11	54.61	57.56	.00	1.48	.116	551.15
11.1500	3.27	57.91	60.99	.00	1.54	.122	551.17
11.2000	3.45	61.42	64.64	.00	1.61	.130	551.18
11.2500	3.64	65.16	68.51	.00	1.68	.138	551.20
11.3000	3.85	69.21	72.65	.00	1.72	.146	551.21
11.3500	4.07	73.59	77.13	.00	1.77	.155	551.23
11.4000	4.33	78.34	81.99	.00	1.82	.166	551.25
11.4500	4.59	83.45	87.26	.00	1.90	.176	551.27
11.5000	4.93	88.98	92.97	.00	1.99	.188	551.29

Type... Pond Routing Calcs (Total Out)
 Name... EX LAKE OUT Tag: 100-YR
 File... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 100-YR

Event: 100 yr

LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - EX LAKE IN 100-YR
 Outflow HYG file = NONE STORED - EX LAKE OUT 100-YR

Time hrs	Inflow cfs	2S/t - O cfs	2S/t + O cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
11.5500	5.29	95.02	99.20	.00	2.09	.200	551.31
11.6000	5.81	101.80	106.13	.00	2.16	.214	551.33
11.6500	6.48	109.58	114.09	.00	2.25	.231	551.35
11.7000	7.41	118.75	123.47	.00	2.36	.250	551.37
11.7500	8.87	130.07	135.03	.00	2.48	.274	551.40
11.8000	10.56	144.17	149.50	.00	2.66	.303	551.44
11.8500	13.89	162.96	168.62	.00	2.83	.342	551.48
11.9000	17.23	187.92	194.09	.00	3.08	.394	551.53
11.9500	22.70	221.24	227.85	.00	3.31	.464	551.60
12.0000	28.38	264.88	272.32	.00	3.72	.554	551.67
12.0500	35.17	320.34	328.43	.00	4.04	.670	551.75
12.1000	42.41	388.93	397.92	.00	4.50	.813	551.84
12.1500	49.18	470.66	480.53	.00	4.93	.982	551.94
12.2000	55.48	564.43	575.33	.00	5.45	1.177	552.03
12.2500	60.76	668.84	680.68	.00	5.92	1.394	552.14
12.3000	63.65	780.62	793.26	.00	6.32	1.626	552.25
12.3500	66.21	897.00	910.48	.00	6.74	1.867	552.36
12.4000	65.63	1014.73	1028.83	.00	7.05	2.111	552.47
12.4500	65.04	1130.72	1145.39	.00	7.34	2.351	552.58
12.5000	62.40	1242.95	1258.16	.00	7.60	2.584	552.68
12.5500	59.49	1349.16	1364.84	.00	7.84	2.804	552.78
12.6000	55.68	1448.21	1464.32	.00	8.06	3.009	552.87
12.6500	51.45	1538.85	1555.34	.00	8.25	3.196	552.95
12.7000	47.24	1620.71	1637.53	.00	8.41	3.366	553.03
12.7500	43.05	1693.87	1710.99	.00	8.56	3.517	553.09
12.8000	39.11	1758.66	1776.03	.00	8.68	3.652	553.15
12.8500	35.84	1816.03	1833.61	.00	8.79	3.770	553.20
12.9000	32.63	1866.74	1884.51	.00	8.88	3.875	553.24
12.9500	30.16	1911.60	1929.53	.00	8.97	3.968	553.28
13.0000	27.70	1951.38	1969.46	.00	9.04	4.050	553.32
13.0500	25.67	1986.54	2004.74	.00	9.10	4.123	553.35
13.1000	23.70	2017.58	2035.90	.00	9.16	4.187	553.37
13.1500	22.00	2044.87	2063.28	.00	9.21	4.244	553.40
13.2000	20.44	2068.81	2087.31	.00	9.25	4.294	553.42
13.2500	19.04	2089.73	2108.30	.00	9.29	4.337	553.44
13.3000	17.83	2107.97	2126.60	.00	9.32	4.375	553.45
13.3500	16.69	2123.79	2142.48	.00	9.35	4.407	553.46
13.4000	15.72	2137.47	2156.20	.00	9.37	4.436	553.48
13.4500	14.77	2149.18	2167.96	.00	9.39	4.460	553.49
13.5000	14.01	2159.16	2177.97	.00	9.41	4.480	553.49
13.5500	13.25	2167.58	2186.43	.00	9.42	4.498	553.50
13.6000	12.62	2174.60	2193.46	.00	9.43	4.512	553.51

.ype.... Pond Routing Calcs (Total Out)
 Name.... EX LAKE OUT Tag: 100-YR
 File.... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 100-YR

Event: 100 yr

LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - EX LAKE IN 100-YR
 Outflow HYG file = NONE STORED - EX LAKE OUT 100-YR

Time hrs	Inflow cfs	2S/t - 0 cfs	2S/t + 0 cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
13.6500	12.02	2180.36	2199.24	.00	9.44	4.524	553.51
13.7000	11.48	2184.95	2203.85	.00	9.45	4.534	553.52
13.7500	10.98	2188.51	2207.42	.00	9.46	4.541	553.52
13.8000	10.52	2191.10	2210.01	.00	9.46	4.546	553.52
13.8500	10.11	2192.81	2211.73	.00	9.46	4.550	553.52
13.9000	9.72	2193.71	2212.64	.00	9.46	4.552	553.52
13.9500	9.37	2193.88	2212.80	.00	9.46	4.552	553.52
14.0000	9.03	2193.36	2212.28	.00	9.46	4.551	553.52
14.0500	8.74	2192.21	2211.13	.00	9.46	4.549	553.52
14.1000	8.45	2190.48	2209.40	.00	9.46	4.545	553.52
14.1500	8.19	2188.21	2207.12	.00	9.45	4.541	553.52
14.2000	7.93	2185.43	2204.33	.00	9.45	4.535	553.52
2500	7.70	2182.17	2201.06	.00	9.44	4.528	553.51
14.3000	7.47	2178.46	2197.34	.00	9.44	4.520	553.51
14.3500	7.25	2174.32	2193.18	.00	9.43	4.512	553.51
14.4000	7.05	2169.78	2188.63	.00	9.42	4.502	553.50
14.4500	6.86	2164.86	2183.69	.00	9.42	4.492	553.50
14.5000	6.69	2159.59	2178.40	.00	9.41	4.481	553.49
14.5500	6.52	2154.00	2172.79	.00	9.40	4.470	553.49
14.6000	6.39	2148.12	2166.90	.00	9.39	4.458	553.49
14.6500	6.25	2142.01	2160.76	.00	9.38	4.445	553.48
14.7000	6.15	2135.68	2154.41	.00	9.37	4.432	553.47
14.7500	6.05	2129.17	2147.88	.00	9.35	4.418	553.47
14.8000	5.96	2122.48	2141.17	.00	9.34	4.405	553.46
14.8500	5.87	2115.65	2134.31	.00	9.33	4.390	553.46
14.9000	5.79	2108.67	2127.30	.00	9.32	4.376	553.45
14.9500	5.71	2101.55	2120.16	.00	9.31	4.361	553.45
15.0000	5.64	2094.31	2112.90	.00	9.29	4.346	553.44
15.0500	5.57	2086.95	2105.51	.00	9.28	4.331	553.43
15.1000	5.50	2079.48	2098.01	.00	9.27	4.316	553.43
15.1500	5.43	2071.90	2090.41	.00	9.26	4.300	553.42
15.2000	5.37	2064.22	2082.70	.00	9.24	4.284	553.41
15.2500	5.31	2056.43	2074.89	.00	9.23	4.268	553.41
15.3000	5.25	2048.56	2066.99	.00	9.22	4.252	553.40
15.3500	5.19	2040.58	2058.99	.00	9.20	4.235	553.39
15.4000	5.13	2032.52	2050.90	.00	9.19	4.218	553.39
15.4500	5.07	2024.37	2042.72	.00	9.17	4.201	553.38
15.5000	5.01	2016.13	2034.45	.00	9.16	4.184	553.37
15.5500	4.95	2007.81	2026.10	.00	9.14	4.167	553.37
6000	4.89	1999.40	2017.66	.00	9.13	4.150	553.36
15.6500	4.84	1990.91	2009.13	.00	9.11	4.132	553.35
15.7000	4.78	1982.34	2000.53	.00	9.10	4.114	553.34

Type.... Pond Routing Calcs (Total Out)
 Name.... EX LAKE OUT Tag: 100-YR
 File.... R:\0675N\10-EX-POI2.PPW
 Storm... TypeII 24hr Tag: 100-YR

Event: 100 yr

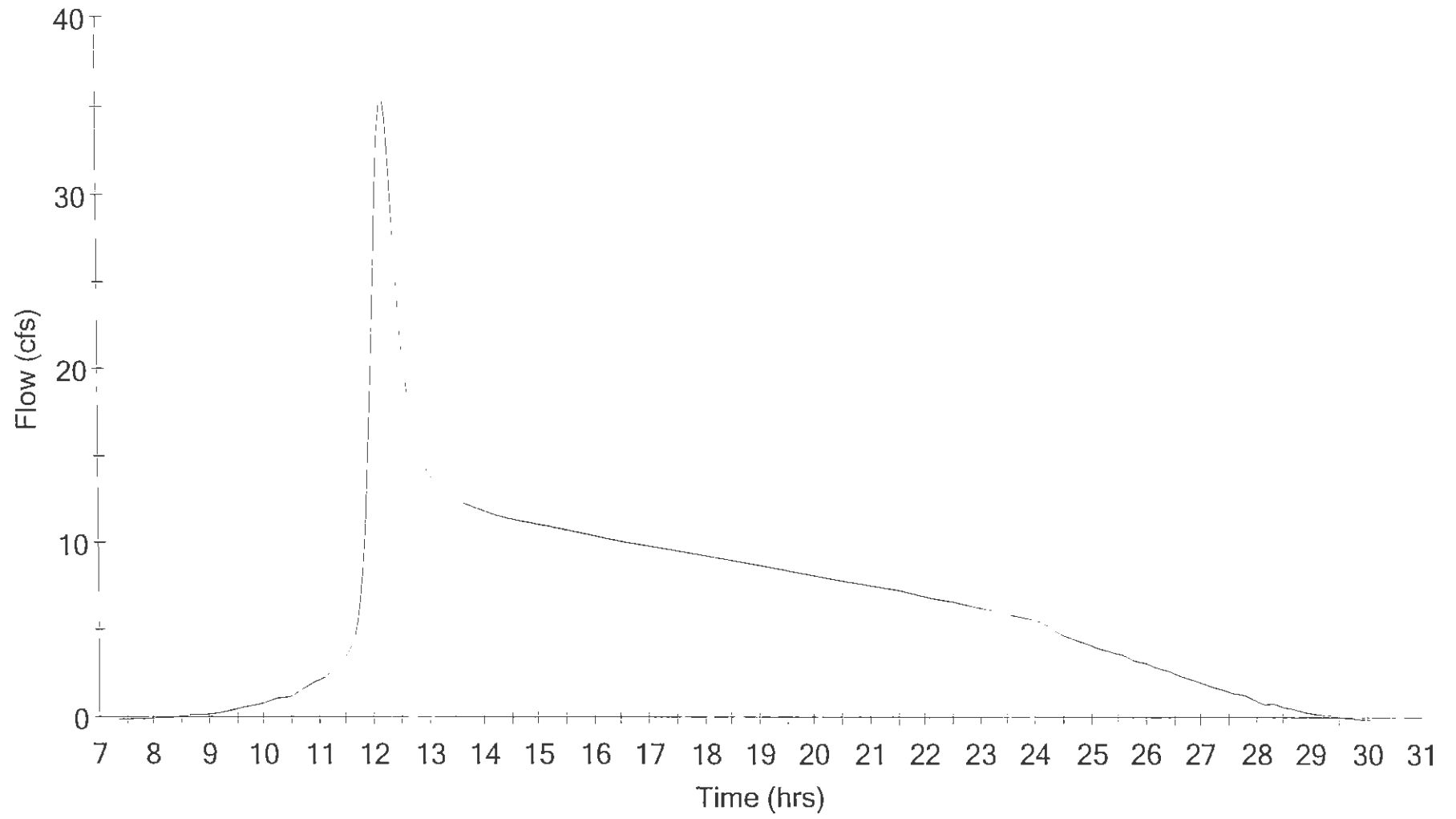
LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - EX LAKE IN 100-YR
 Outflow HYG file = NONE STORED - EX LAKE OUT 100-YR

Time hrs	Inflow cfs	2S/t - O cfs	2S/t + O cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
15.7500	4.73	1973.68	1991.84	.00	9.08	4.097	553.34
15.8000	4.67	1964.94	1983.08	.00	9.07	4.078	553.33
15.8500	4.61	1956.13	1974.23	.00	9.05	4.060	553.32
15.9000	4.56	1947.23	1965.30	.00	9.03	4.042	553.31
15.9500	4.50	1938.26	1956.29	.00	9.02	4.023	553.31
16.0000	4.45	1929.21	1947.21	.00	9.00	4.005	553.30
16.0500	4.39	1920.08	1938.05	.00	8.98	3.986	553.29
16.1000	4.34	1910.88	1928.81	.00	8.97	3.967	553.28
16.1500	4.28	1901.60	1919.50	.00	8.95	3.947	553.27
16.2000	4.23	1892.26	1910.12	.00	8.93	3.928	553.27
16.2500	4.18	1882.84	1900.67	.00	8.91	3.908	553.26
3000	4.13	1873.35	1891.14	.00	8.90	3.889	553.25
.3500	4.08	1863.80	1881.56	.00	8.88	3.869	553.24
16.4000	4.03	1854.19	1871.91	.00	8.86	3.849	553.23
16.4500	3.99	1844.52	1862.21	.00	8.84	3.829	553.22
16.5000	3.95	1834.80	1852.45	.00	8.83	3.809	553.22
16.5500	3.90	1825.04	1842.65	.00	8.81	3.789	553.21
16.6000	3.87	1815.23	1832.81	.00	8.79	3.769	553.20
16.6500	3.83	1805.39	1822.93	.00	8.77	3.748	553.19
16.7000	3.80	1795.52	1813.02	.00	8.75	3.728	553.18
16.7500	3.77	1785.61	1803.08	.00	8.73	3.707	553.17
16.8000	3.74	1775.69	1793.11	.00	8.71	3.687	553.16
16.8500	3.71	1765.74	1783.13	.00	8.70	3.666	553.16
16.9000	3.68	1755.77	1773.13	.00	8.68	3.645	553.15
16.9500	3.65	1745.79	1763.11	.00	8.66	3.625	553.14
17.0000	3.63	1735.80	1753.08	.00	8.64	3.604	553.13
17.0500	3.61	1725.79	1743.03	.00	8.62	3.583	553.12
17.1000	3.58	1715.78	1732.98	.00	8.60	3.563	553.11
17.1500	3.56	1705.75	1722.92	.00	8.58	3.542	553.10
17.2000	3.54	1695.73	1712.85	.00	8.56	3.521	553.09
17.2500	3.51	1685.69	1702.78	.00	8.54	3.500	553.08
17.3000	3.49	1675.65	1692.70	.00	8.52	3.480	553.08
17.3500	3.47	1665.62	1682.62	.00	8.50	3.459	553.07
17.4000	3.45	1655.57	1672.54	.00	8.48	3.438	553.06
17.4500	3.43	1645.53	1662.45	.00	8.46	3.417	553.05
17.5000	3.41	1635.49	1652.37	.00	8.44	3.397	553.04
17.5500	3.39	1625.44	1642.28	.00	8.42	3.376	553.03
17.6000	3.37	1615.40	1632.20	.00	8.40	3.355	553.02
6500	3.35	1605.35	1622.11	.00	8.38	3.334	553.01
17.7000	3.33	1595.31	1612.03	.00	8.36	3.313	553.00
17.7500	3.31	1585.26	1601.94	.00	8.34	3.293	553.00
17.8000	3.29	1575.22	1591.86	.00	8.32	3.272	552.99

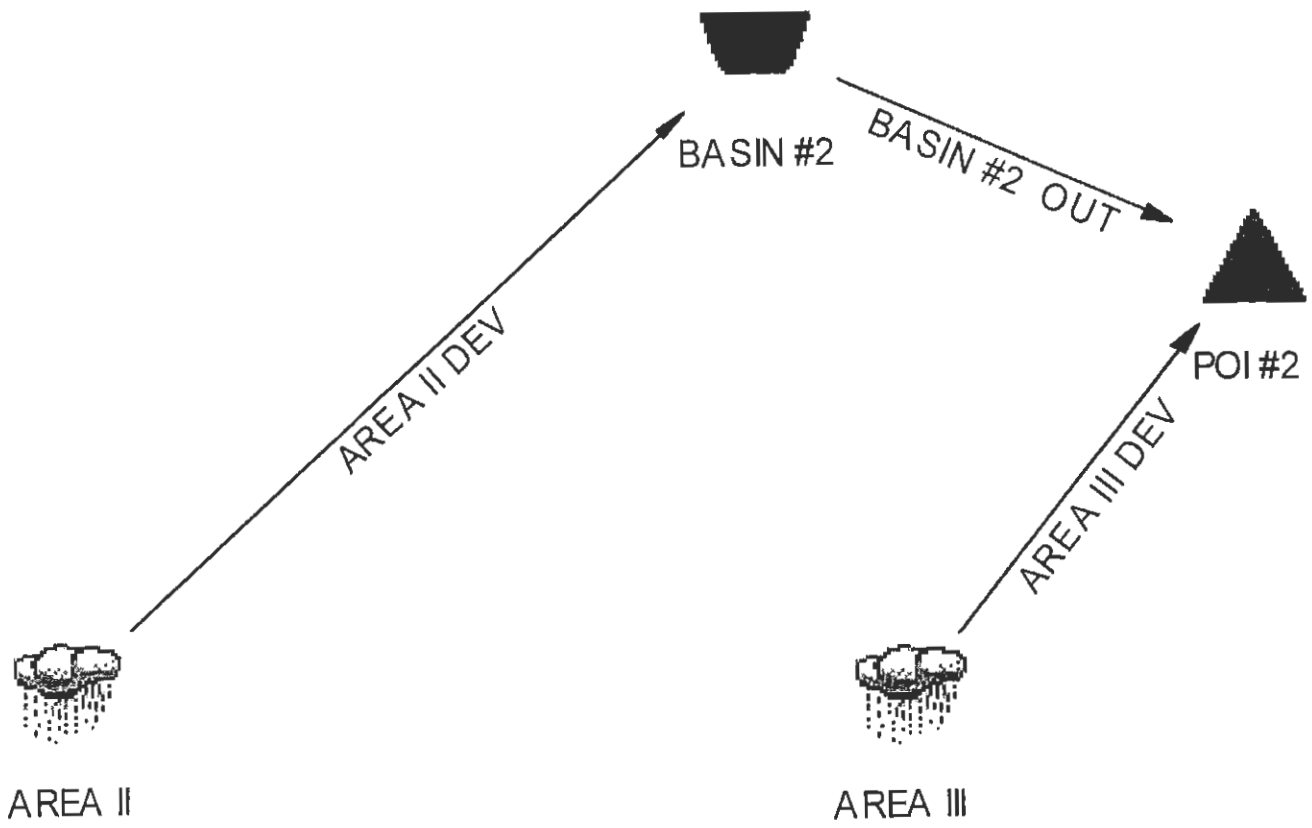
Hydrograph
POI #2

100-YR



Developed Conditions

POI #2



Type.... Master Network Summary
 Name.... Watershed
 File.... R:\0675N\10-DEV-POI2.PPW

MASTER DESIGN STORM SUMMARY

Network Storm Collection: OFALLON

Return Event	in	Depth Type	Total Rainfall	RNF ID
2-YR	3.5000	Synthetic Curve	TypeII	24hr
15-YR	5.2000	Synthetic Curve	TypeII	24hr
25-YR	5.7000	Synthetic Curve	TypeII	24hr
100-YR	7.2000	Synthetic Curve	TypeII	24hr

MASTER NETWORK SUMMARY
 SCS Unit Hydrograph Method

(*Node=Outfall; +Node=Diversion;)
 (Trun= HYG Truncation: Blank=None; L=Left; R=Rt; LR=Left&Rt)

Node ID	Return Type Event	HYG Vol Storage ac-ft	Trun	Qpeak hrs	Qpeak cfs	Max WSEL ft	Max Pond ac-ft
AREA II	AREA	2		5.239	12.3600	38.27	
AREA II	AREA	15		8.708	12.3600	62.70	
AREA II	AREA	25		9.746	12.3600	69.87	
AREA II	AREA	100		12.881	12.3200	91.26	
AREA III	AREA	2		.093	12.2400	.78	
AREA III	AREA	15		.227	12.2000	2.22	
AREA III	AREA	25		.272	12.2000	2.71	
AREA III	AREA	100		.418	12.1600	4.30	
BASIN #2	IN POND	2		5.239	12.3600	38.27	
BASIN #2	IN POND	15		8.708	12.3600	62.70	
BASIN #2	IN POND	25		9.746	12.3600	69.87	
BASIN #2	IN POND	100		12.881	12.3200	91.26	

Type.... Master Network Summary
 Name.... Watershed
 File.... R:\0675N\10-DEV-POI2.PPW

MASTER NETWORK SUMMARY
 SCS Unit Hydrograph Method

(*Node=Outfall; +Node=Diversion;)
 (Trun= HYG Truncation: Blank=None; L=Left; R=Rt; LR=Left&Rt)

Node ID	Type Event	Return	HYG Vol		Qpeak	Qpeak	Max WSEL	Max Pond
			ac-ft	Storage Trun				
					hrs	cfs	ft	ac-ft
BASIN #2	OUT POND	2	5.239		13.3600	8.07	543.32	2.111
BASIN #2	OUT POND	15	8.708		13.1200	19.61	545.53	3.403
BASIN #2	OUT POND	25	9.746		13.1200	21.90	546.14	3.799
BASIN #2	OUT POND	100	12.881		12.7200	57.56	546.83	4.273
*POI #2	JCT	2	5.332		13.2800	8.21		
*POI #2	JCT	15	8.935		13.0800	19.99		
*POI #2	JCT	25	10.017		13.0800	22.35		
*POI #2	JCT	100	13.299		12.7200	58.78		

Table 2-2a.—Runoff curve numbers for urban areas¹

Cover description		Curve numbers for hydrologic soil group—			
		A	B	C	D
Cover type and hydrologic condition	Average percent impervious area ²				
<i>Fully developed urban areas (vegetation established)</i>					
Open space (lawns, parks, golf courses, cemeteries, etc.) ³ :					
Poor condition (grass cover < 50%)		68	79	86	89
Fair condition (grass cover 50% to 75%).....		49	69	79	84
Good condition (grass cover > 75%).....		39	61	74	80
Impervious areas:					
Paved parking lots, roofs, driveways, etc. (excluding right-of-way).....		98	98	98	98
Streets and roads:					
Paved; curbs and storm sewers (excluding right-of-way).....		98	98	98	98
Paved; open ditches (including right-of-way).....		83	89	92	93
Gravel (including right-of-way)		76	85	89	91
Dirt (including right-of-way)		72	82	87	89
Western desert urban areas:					
Natural desert landscaping (pervious areas only) ⁴ ...		63	77	85	88
Artificial desert landscaping (impervious weed barrier, desert shrub with 1- to 2-inch sand or gravel mulch and basin borders).....		96	96	96	96
Urban districts:					
Commercial and business.....	85	89	92	94	95
Industrial.....	72	81	88	91	93
Residential districts by average lot size:					
1/8 acre or less (town houses).....	65	77	85	90	92
1/4 acre	38	61	75	83	87
1/3 acre	30	57	72	81	86
1/2 acre	25	54	70	80	85
1 acre	20	51	68	79	84
2 acres	12	46	65	77	82
<i>Developing urban areas</i>					
Newly graded areas (pervious areas only, no vegetation) ⁵		77	86	91	94
Idle lands (CN's are determined using cover types similar to those in table 2-2c).					

¹Average runoff condition, and $I_n = 0.2S$.

²The average percent impervious area shown was used to develop the composite CN's. Other assumptions are as follows: impervious areas are directly connected to the drainage system, impervious areas have a CN of 98, and pervious areas are considered equivalent to open space in good hydrologic condition. CN's for other combinations of conditions may be computed using figure 2-3 or 2-4.

³CN's shown are equivalent to those of pasture. Composite CN's may be computed for other combinations of open space cover type.

⁴Composite CN's for natural desert landscaping should be computed using figures 2-3 or 2-4 based on the impervious area percentage (CN = 98) and the pervious area CN. The pervious area CN's are assumed equivalent to desert shrub in poor hydrologic condition.

⁵Composite CN's to use for the design of temporary measures during grading and construction should be computed using figure 2-3 or 2-4, based on the degree of development (impervious area percentage) and the CN's for the newly graded pervious areas.

Type.... Runoff CN-Area
Name.... AREA II

File.... R:\0675N\10-DEV-POI2.PPW

RUNOFF CURVE NUMBER DATA

.....

Soil/Surface Description	CN	Area acres	Impervious Adjustment		Adjusted CN
			%C	%UC	
SOILS GROUP C GRASS	74	5.720			74.00
SOILS GROUP C ROOF/PAVEMENT	98	10.190			98.00
SOILS GROUP B GRASS	61	1.950			61.00
SOILS GROUP B ROOF/PAVEMENT	98	7.820			98.00

COMPOSITE AREA & WEIGHTED CN ---> 25.680 89.84 (90)

.....

Type.... Runoff CN-Area
Name.... AREA III

File.... R:\0675N\10-DEV-POI2.PPW

RUNOFF CURVE NUMBER DATA

.....

Soil/Surface Description	CN	Area acres	Impervious Adjustment		Adjusted CN
			%C	%UC	
SOILS GROUP C GRASS	74	.170			74.00
SOILS GROUP C PAVEMENT	98	.060			98.00
SOILS GROUP B GRASS	61	1.360			61.00

COMPOSITE AREA & WEIGHTED CN ---> 1.590 63.79 (64)

.....

Type.... Tc Calcs

Name.... AREA II

File.... R:\0675N\10-DEV-POI2.PPW

.....
TIME OF CONCENTRATION CALCULATOR
.....

Segment #1: Tc: TR-55 Sheet

Mannings n .2400
Hydraulic Length 300.00 ft
2yr, 24hr P 3.5000 in
Slope .010000 ft/ft

Avg.Velocity .12 ft/sec

Segment #1 Time: .7227 hrs

Segment #2: Tc: TR-55 Shallow

Hydraulic Length 170.00 ft
Slope .010000 ft/ft
Unpaved

Avg.Velocity 1.61 ft/sec

Segment #2 Time: .0293 hrs

Segment #3: Tc: TR-55 Channel

Flow Area 1.8800 sq.ft
Wetted Perimeter 3.45 ft
Hydraulic Radius .54 ft
Slope .010000 ft/ft
Mannings n .0130
Hydraulic Length 1435.00 ft

Avg.Velocity 7.65 ft/sec

Segment #3 Time: .0521 hrs

Type.... Tc Calcs

Name.... AREA II

File.... R:\0675N\10-DEV-POI2.PPW

Segment #4: Tc: TR-55 Channel

Flow Area 4.4700 sq.ft

Wetted Perimeter 5.90 ft

Hydraulic Radius .76 ft

Slope .020000 ft/ft

Mannings n .0130

Hydraulic Length 700.00 ft

Avg.Velocity 13.47 ft/sec

Segment #4 Time: .0144 hrs

=====
Total Tc: .8185 hrs
=====

_ype.... Tc Calcs
Name.... AREA II

File.... R:\0675N\10-DEV-POI2.PPW

Tc Equations used...

==== SCS TR-55 Sheet Flow =====

$$Tc = (.007 * ((n * Lf)**0.8)) / ((P**.5) * (Sf**.4))$$

Where: Tc = Time of concentration, hrs
n = Mannings n
Lf = Flow length, ft
P = 2yr, 24hr Rain depth, inches
Sf = Slope, %

==== SCS TR-55 Shallow Concentrated Flow =====

Unpaved surface:

$$V = 16.1345 * (Sf**0.5)$$

Paved surface:

$$V = 20.3282 * (Sf**0.5)$$

$$Tc = (Lf / V) / (3600sec/hr)$$

Where: V = Velocity, ft/sec
Sf = Slope, ft/ft
Tc = Time of concentration, hrs
Lf = Flow length, ft

==== SCS Channel Flow =====

$$R = Aq / Wp$$

$$V = (1.49 * (R**(2/3)) * (Sf**-.5)) / n$$

$$Tc = (Lf / V) / (3600sec/hr)$$

Where: R = Hydraulic radius
Aq = Flow area, sq.ft.
Wp = Wetted perimeter, ft
V = Velocity, ft/sec
Sf = Slope, ft/ft
n = Mannings n
Tc = Time of concentration, hrs
Lf = Flow length, ft

_pe.... Tc Calcs
Name.... AREA III

File.... R:\0675N\10-DEV-POI2.PPW

.....
TIME OF CONCENTRATION CALCULATOR
.....

Segment #1: Tc: TR-55 Sheet

Mannings n .2400
Hydraulic Length 300.00 ft
2yr, 24hr P 3.5000 in
Slope .040000 ft/ft

Avg.Velocity .20 ft/sec

Segment #1 Time: .4151 hrs

Segment #2: Tc: TR-55 Channel

_low Area 11.9300 sq.ft
Wetted Perimeter 9.77 ft
Hydraulic Radius 1.22 ft
Slope .010000 ft/ft
Mannings n .0450
Hydraulic Length 790.00 ft

Avg.Velocity 3.78 ft/sec

Segment #2 Time: .0580 hrs

=====
Total Tc: .4731 hrs
=====

Type.... Tc Calcs
Name.... AREA III

File.... R:\0675N\10-DEV-PO12.PPW

Tc Equations used...

==== SCS TR-55 Sheet Flow =====

$$Tc = (.007 * ((n * Lf)**0.8)) / ((P**.5) * (Sf**.4))$$

Where: Tc = Time of concentration, hrs
n = Mannings n
Lf = Flow length, ft
P = 2yr, 24hr Rain depth, inches
Sf = Slope, %

==== SCS Channel Flow =====

$$R = Aq / Wp$$
$$V = (1.49 * (R**(2/3)) * (Sf**-0.5)) / n$$

$$Tc = (Lf / V) / (3600sec/hr)$$

Where: R = Hydraulic radius
Aq = Flow area, sq.ft.
Wp = Wetted perimeter, ft
V = Velocity, ft/sec
Sf = Slope, ft/ft
n = Mannings n
Tc = Time of concentration, hrs
Lf = Flow length, ft

2 YEAR

```

ype.... Unit Hyd. Summary
Name.... AREA II          Tag: 2-YR          Event: 2 yr
File.... R:\0675N\10-DEV-POI2.PPW
Storm... TypeII 24hr     Tag: 2-YR

```

SCS UNIT HYDROGRAPH METHOD

```

STORM EVENT: 2 year storm
Duration      = 24.0000 hrs      Rain Depth = 3.5000 in
Rain Dir      = R:\0675N\
Rain File -ID = - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir       = R:\0675N\
HYG File - ID = - AREA II 2-YR
Tc            = .8185 hrs
Drainage Area = 25.680 acres  Runoff CN= 90

```

```

=====
Computational Time Increment = .10913 hrs
Computed Peak Time          = 12.3318 hrs
Computed Peak Flow          = 38.52 cfs

Time Increment for HYG File = .0400 hrs
Peak Time, Interpolated Output = 12.3600 hrs
Peak Flow, Interpolated Output = 38.27 cfs
=====

```

DRAINAGE AREA

```

-----
ID:AREA II
CN = 90
Area = 25.680 acres
S = 1.1111 in
0.2S = .2222 in

```

Cumulative Runoff

```

-----
2.4480 in
5.239 ac-ft

```

HYG Volume... 5.239 ac-ft (area under HYG curve)

***** SCS UNIT HYDROGRAPH PARAMETERS *****

```

Time Concentration, Tc = .81848 hrs (ID: AREA II)
Computational Incr, Tm = .10913 hrs = 0.20000 Tp

Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)
Unit peak, qp = 35.55 cfs
Unit peak time Tp = .54566 hrs
Unit receding limb, Tr = 2.18263 hrs
Total unit time, Tb = 2.72828 hrs

```

```

/pe.... Unit Hyd. (HYG output)
Name.... AREA II          Tag: 2-YR          Event: 2 yr
File.... R:\0675N\10-DEV-POI2.PPW
Storm... TypeII 24hr     Tag: 2-YR

```

SCS UNIT HYDROGRAPH METHOD

```

STORM EVENT: 2 year storm
Duration      = 24.0000 hrs      Rain Depth = 3.5000 in
Rain Dir      = R:\0675N\
Rain File -ID = - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir       = R:\0675N\
HYG File - ID = - AREA II 2-YR
Tc            = .8185 hrs
Drainage Area = 25.680 acres  Runoff CN= 90
Calc.Increment = .10913 hrs    Out.Incr.= .0400 hrs
HYG Volume    = 5.239 ac-ft

```

HYDROGRAPH ORDINATES (cfs)

Time hrs	Output Time increment = .0400 hrs				
	Time on left represents time for first value in each row.				
5.2400	.00	.00	.00	.00	.00
5.4400	.01	.01	.01	.01	.01
5.6400	.02	.02	.02	.03	.03
5.8400	.04	.04	.05	.05	.06
6.0400	.06	.07	.07	.08	.09
6.2400	.09	.10	.11	.11	.12
6.4400	.12	.13	.14	.14	.15
6.6400	.16	.17	.17	.18	.19
6.8400	.19	.20	.21	.22	.22
7.0400	.23	.24	.24	.25	.26
7.2400	.27	.28	.28	.29	.30
7.4400	.31	.31	.32	.33	.34
7.6400	.35	.35	.36	.37	.38
7.8400	.39	.39	.40	.41	.42
8.0400	.43	.44	.44	.45	.46
8.2400	.47	.48	.49	.50	.51
8.4400	.52	.53	.55	.56	.57
8.6400	.59	.60	.62	.63	.65
8.8400	.67	.68	.70	.72	.74
9.0400	.76	.78	.80	.82	.84
9.2400	.86	.88	.90	.92	.94
9.4400	.95	.97	.99	1.01	1.02
9.6400	1.04	1.06	1.07	1.09	1.11
9.8400	1.13	1.14	1.16	1.19	1.21
10.0400	1.23	1.26	1.28	1.31	1.34
10.2400	1.37	1.40	1.44	1.47	1.51
10.4400	1.55	1.59	1.63	1.68	1.72
10.6400	1.77	1.82	1.87	1.93	1.98
10.8400	2.05	2.11	2.17	2.24	2.31
11.0400	2.39	2.47	2.55	2.64	2.74

ype.... Unit Hyd. (HYG output)

Name.... AREA II Tag: 2-YR

Event: 2 yr

File.... R:\0675N\10-DEV-POI2.PPW

Storm... TypeII 24hr Tag: 2-YR

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0400 hrs

Time | Time on left represents time for first value in each row.

Time hrs	Time on left represents time for first value in each row.				
11.2400	2.83	2.94	3.05	3.17	3.31
11.4400	3.44	3.60	3.78	3.97	4.27
11.6400	4.60	4.96	5.67	6.38	7.38
11.8400	8.94	10.50	12.71	15.33	17.94
12.0400	21.17	24.46	27.69	30.55	33.41
12.2400	35.59	36.87	38.14	38.27	37.92
12.4400	37.57	36.18	34.76	33.19	31.18
12.6400	29.16	27.16	25.17	23.17	21.53
12.8400	19.98	18.45	17.29	16.12	15.04
13.0400	14.12	13.20	12.39	11.66	10.93
13.2400	10.35	9.79	9.24	8.80	8.35
13.4400	7.95	7.60	7.25	6.95	6.67
13.6400	6.39	6.16	5.94	5.72	5.53
13.8400	5.35	5.17	5.02	4.86	4.73
14.0400	4.60	4.47	4.35	4.24	4.13
14.2400	4.03	3.93	3.84	3.75	3.66
14.4400	3.58	3.50	3.43	3.37	3.31
14.6400	3.26	3.21	3.17	3.13	3.09
14.8400	3.05	3.02	2.99	2.95	2.92
15.0400	2.89	2.86	2.84	2.81	2.78
15.2400	2.75	2.73	2.70	2.68	2.65
15.4400	2.63	2.60	2.58	2.56	2.53
15.6400	2.51	2.48	2.46	2.44	2.41
15.8400	2.39	2.37	2.34	2.32	2.30
16.0400	2.27	2.25	2.23	2.20	2.18
16.2400	2.16	2.14	2.12	2.10	2.08
16.4400	2.06	2.04	2.02	2.01	1.99
16.6400	1.98	1.96	1.95	1.94	1.92
16.8400	1.91	1.90	1.89	1.88	1.87
17.0400	1.86	1.85	1.84	1.83	1.82
17.2400	1.81	1.80	1.79	1.78	1.77
17.4400	1.76	1.76	1.75	1.74	1.73
17.6400	1.72	1.71	1.70	1.70	1.69
17.8400	1.68	1.67	1.66	1.65	1.65
18.0400	1.64	1.63	1.62	1.61	1.61
18.2400	1.60	1.59	1.58	1.57	1.56
18.4400	1.56	1.55	1.54	1.53	1.52
18.6400	1.51	1.51	1.50	1.49	1.48
18.8400	1.47	1.46	1.46	1.45	1.44
19.0400	1.43	1.42	1.41	1.41	1.40
19.2400	1.39	1.38	1.37	1.37	1.36
19.4400	1.35	1.34	1.33	1.32	1.32
19.6400	1.31	1.30	1.29	1.28	1.27
19.8400	1.27	1.26	1.25	1.24	1.23
20.0400	1.22	1.22	1.21	1.20	1.19

ype.... Unit Hyd. Summary

Name.... AREA III Tag: 2-YR

Event: 2 yr

File.... R:\0675N\10-DEV-POI2.PPW

Storm... TypeII 24hr Tag: 2-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 2 year storm

Duration = 24.0000 hrs Rain Depth = 3.5000 in

Rain Dir = R:\0675N\

Rain File -ID = - TypeII 24hr

Unit Hyd Type = Default Curvilinear

HYG Dir = R:\0675N\

HYG File - ID = - AREA III 2-YR

Tc = .4731 hrs

Drainage Area = 1.590 acres Runoff CN= 64

```

=====
Computational Time Increment = .06308 hrs
Computed Peak Time          = 12.2367 hrs
Computed Peak Flow          = .78 cfs

```

```

Time Increment for HYG File = .0400 hrs
Peak Time, Interpolated Output = 12.2400 hrs
Peak Flow, Interpolated Output = .78 cfs
=====

```

DRAINAGE AREA

ID:AREA III

CN = 64

Area = 1.590 acres

S = 5.6250 in

0.2S = 1.1250 in

Cumulative Runoff

.7051 in

.093 ac-ft

HYG Volume... .093 ac-ft (area under HYG curve)

***** SCS UNIT HYDROGRAPH PARAMETERS *****

Time Concentration, Tc = .47307 hrs (ID: AREA III)

Computational Incr, Tm = .06308 hrs = 0.20000 Tp

Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)

K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp)))

Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)

Unit peak, qp = 3.81 cfs

Unit peak time Tp = .31538 hrs

Unit receding limb, Tr = 1.26151 hrs

Total unit time, Tb = 1.57689 hrs

```

pe.... Unit Hyd. (HYG output)
Name.... AREA III          Tag: 2-YR          Event: 2 yr
File.... R:\0675N\10-DEV-POI2.PPW
Storm... TypeII 24hr      Tag: 2-YR

```

SCS UNIT HYDROGRAPH METHOD

```

STORM EVENT: 2 year storm
Duration      = 24.0000 hrs      Rain Depth = 3.5000 in
Rain Dir      = R:\0675N\
Rain File -ID = - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir       = R:\0675N\
HYG File - ID = - AREA III 2-YR
Tc            = .4731 hrs
Drainage Area = 1.590 acres      Runoff CN= 64
Calc.Increment= .06308 hrs      Out.Incr.= .0400 hrs
HYG Volume    = .093 ac-ft

```

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0400 hrs
Time on left represents time for first value in each row.

Time hrs					
11.6800	.00	.00	.01	.02	.04
11.8800	.09	.14	.24	.35	.47
12.0800	.58	.68	.75	.78	.78
12.2800	.75	.70	.65	.59	.53
12.4800	.48	.44	.40	.37	.34
12.6800	.31	.29	.27	.25	.24
12.8800	.22	.21	.20	.19	.18
13.0800	.18	.17	.17	.16	.15
13.2800	.15	.15	.14	.14	.13
13.4800	.13	.13	.13	.12	.12
13.6800	.12	.12	.11	.11	.11
13.8800	.11	.11	.10	.10	.10
14.0800	.10	.10	.10	.09	.09
14.2800	.09	.09	.09	.09	.09
14.4800	.09	.09	.09	.08	.08
14.6800	.08	.08	.08	.08	.08
14.8800	.08	.08	.08	.08	.08
15.0800	.08	.08	.08	.08	.08
15.2800	.07	.07	.07	.07	.07
15.4800	.07	.07	.07	.07	.07
15.6800	.07	.07	.07	.07	.07
15.8800	.07	.07	.06	.06	.06
16.0800	.06	.06	.06	.06	.06
16.2800	.06	.06	.06	.06	.06
16.4800	.06	.06	.06	.06	.06
16.6800	.06	.06	.06	.06	.06
16.8800	.06	.06	.06	.06	.06
16.8800	.06	.06	.06	.05	.05
17.0800	.05	.05	.05	.05	.05
17.2800	.05	.05	.05	.05	.05
17.4800	.05	.05	.05	.05	.05

```

pe.... Unit Hyd. (HYG output)
name.... AREA III          Tag: 2-YR          Event: 2 yr
File.... R:\0675N\10-DEV-POI2.PPW
Storm... TypeII 24hr      Tag: 2-YR

```

HYDROGRAPH ORDINATES (cfs)						
Time hrs	Output Time increment = .0400 hrs					
	Time on left represents time for first value in each row.					
17.6800	.05	.05	.05	.05	.05	.05
17.8800	.05	.05	.05	.05	.05	.05
18.0800	.05	.05	.05	.05	.05	.05
18.2800	.05	.05	.05	.05	.05	.05
18.4800	.05	.05	.05	.05	.05	.05
18.6800	.05	.05	.05	.05	.04	.04
18.8800	.04	.04	.04	.04	.04	.04
19.0800	.04	.04	.04	.04	.04	.04
19.2800	.04	.04	.04	.04	.04	.04
19.4800	.04	.04	.04	.04	.04	.04
19.6800	.04	.04	.04	.04	.04	.04
19.8800	.04	.04	.04	.04	.04	.04
20.0800	.04	.04	.04	.04	.04	.04
20.2800	.04	.04	.04	.04	.04	.04
20.4800	.04	.04	.04	.04	.04	.04
20.6800	.04	.04	.04	.04	.03	.03
20.8800	.03	.03	.03	.03	.03	.03
21.0800	.03	.03	.03	.03	.03	.03
21.2800	.03	.03	.03	.03	.03	.03
21.4800	.03	.03	.03	.03	.03	.03
21.6800	.03	.03	.03	.03	.03	.03
21.8800	.03	.03	.03	.03	.03	.03
22.0800	.03	.03	.03	.03	.03	.03
22.2800	.03	.03	.03	.03	.03	.03
22.4800	.03	.03	.03	.03	.03	.03
22.6800	.03	.03	.03	.03	.03	.03
22.8800	.03	.03	.03	.03	.03	.03
23.0800	.03	.03	.03	.03	.03	.03
23.2800	.03	.03	.03	.03	.03	.03
23.4800	.03	.03	.03	.03	.03	.03
23.6800	.03	.03	.03	.03	.03	.03
23.8800	.03	.03	.03	.03	.03	.03
24.0800	.03	.03	.03	.03	.03	.02
24.2800	.02	.02	.01	.01	.01	.01
24.4800	.01	.01	.01	.01	.00	.00
24.6800	.00	.00	.00	.00	.00	.00
24.8800	.00					

pe.... Node: Addition Summary
 name.... POI #2
 File.... R:\0675N\10-DEV-POI2.PPW
 Storm... TypeII 24hr Tag: 2-YR

Event: 2 yr

SUMMARY FOR HYDROGRAPH ADDITION
 at Node: POI #2

HYG Directory: R:\0675N\

```

=====
Upstream Link ID  Upstream Node ID  HYG file      HYG ID          HYG tag
-----
AREA III DEV      AREA III                AREA III        2-YR
BASIN #2 OUT      BASIN #2      IN      BASIN #2  OUT  2-YR
=====

```

INFLOWS TO: POI #2

```

----- Volume      Peak Time      Peak Flow
HYG file      HYG ID          HYG tag      ac-ft      hrs      cfs
-----
          AREA III                2-YR          .093      12.2400      .78
          BASIN #2  OUT      2-YR          5.239      13.3600      8.07

```

TOTAL FLOW INTO: POI #2

```

----- Volume      Peak Time      Peak Flow
HYG file      HYG ID          HYG tag      ac-ft      hrs      cfs
-----
          POI #2                2-YR          5.332      13.2800      8.21

```


pe.... Node: Addition Summary
 Name.... POI #2
 File.... R:\0675N\10-DEV-POI2.PPW
 Storm... TypeII 24hr Tag: 2-YR

Event: 2 yr

TOTAL NODE INFLOW...

HYG file =
 HYG ID = POI #2
 HYG Tag = 2-YR

 Peak Discharge = 8.21 cfs
 Time to Peak = 13.2800 hrs
 HYG Volume = 5.332 ac-ft

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0400 hrs

Time |
hrs | Time on left represents time for first value in each row.

Time hrs						
5.2800	.00	.00	.00	.00	.00	.00
5.4800	.01	.01	.01	.01	.01	.02
5.6800	.02	.02	.03	.03	.03	.04
5.8800	.04	.04	.05	.06	.06	.06
6.0800	.07	.07	.08	.08	.08	.09
6.2800	.10	.10	.11	.11	.11	.12
6.4800	.13	.13	.14	.15	.15	.15
6.6800	.16	.17	.18	.18	.18	.19
6.8800	.20	.20	.21	.22	.22	.23
7.0800	.23	.24	.25	.26	.26	.26
7.2800	.27	.28	.29	.29	.29	.30
7.4800	.31	.32	.33	.33	.33	.34
7.6800	.35	.36	.37	.37	.37	.38
7.8800	.39	.40	.41	.42	.42	.42
8.0800	.43	.44	.45	.46	.46	.47
8.2800	.48	.49	.50	.51	.51	.52
8.4800	.53	.54	.55	.57	.57	.58
8.6800	.59	.61	.62	.64	.64	.66
8.8800	.67	.69	.71	.73	.73	.75
9.0800	.77	.79	.81	.83	.83	.85
9.2800	.87	.89	.91	.93	.93	.94
9.4800	.96	.98	1.00	1.02	1.02	1.03
9.6800	1.05	1.07	1.08	1.10	1.10	1.12
9.8800	1.14	1.15	1.17	1.20	1.20	1.22
10.0800	1.24	1.27	1.30	1.32	1.32	1.34
10.2800	1.36	1.39	1.42	1.45	1.45	1.49
10.4800	1.53	1.57	1.61	1.65	1.65	1.69
10.6800	1.73	1.77	1.82	1.87	1.87	1.92
10.8800	1.98	2.04	2.08	2.13	2.13	2.19
11.0800	2.25	2.32	2.37	2.41	2.41	2.46
11.2800	2.52	2.58	2.63	2.69	2.69	2.75

Type.... Node: Addition Summary
 Name.... POI #2
 File.... R:\0675N\10-DEV-POI2.PPW
 Storm... TypeII 24hr Tag: 2-YR

Event: 2 yr

HYDROGRAPH ORDINATES (cfs)						
Output Time increment = .0400 hrs						
Time hrs	Time on left represents time for first value in each row.					
11.4800	2.81	2.88	2.95	3.01	3.09	
11.6800	3.17	3.27	3.38	3.52	3.69	
11.8800	3.90	4.14	4.44	4.76	5.10	
12.0800	5.44	5.77	6.07	6.32	6.54	
12.2800	6.72	6.88	7.02	7.15	7.27	
12.4800	7.39	7.49	7.59	7.68	7.76	
12.6800	7.82	7.89	7.94	7.98	8.02	
12.8800	8.06	8.09	8.11	8.14	8.15	
13.0800	8.17	8.18	8.19	8.20	8.20	
13.2800	8.21	8.21	8.21	8.21	8.20	
13.4800	8.20	8.20	8.19	8.18	8.17	
13.6800	8.16	8.15	8.14	8.13	8.12	
13.8800	8.11	8.09	8.08	8.06	8.05	
14.0800	8.03	8.02	8.00	7.98	7.97	
14.2800	7.95	7.93	7.91	7.90	7.88	
14.4800	7.86	7.84	7.82	7.80	7.78	
14.6800	7.76	7.74	7.72	7.70	7.68	
14.8800	7.66	7.64	7.62	7.60	7.57	
15.0800	7.55	7.53	7.51	7.49	7.47	
15.2800	7.44	7.42	7.40	7.37	7.35	
15.4800	7.33	7.31	7.28	7.26	7.24	
15.6800	7.21	7.19	7.16	7.14	7.12	
15.8800	7.09	7.07	7.04	7.02	6.99	
16.0800	6.97	6.94	6.92	6.89	6.86	
16.2800	6.84	6.81	6.79	6.76	6.73	
16.4800	6.71	6.68	6.65	6.63	6.60	
16.6800	6.57	6.55	6.52	6.49	6.46	
16.8800	6.44	6.41	6.38	6.35	6.33	
17.0800	6.30	6.27	6.24	6.21	6.18	
17.2800	6.16	6.13	6.10	6.07	6.04	
17.4800	6.01	5.98	5.95	5.92	5.90	
17.6800	5.87	5.84	5.81	5.78	5.75	
17.8800	5.72	5.69	5.66	5.63	5.60	
18.0800	5.57	5.54	5.50	5.47	5.44	
18.2800	5.41	5.37	5.34	5.31	5.27	
18.4800	5.24	5.20	5.16	5.13	5.09	
18.6800	5.05	5.02	4.98	4.94	4.90	
18.8800	4.86	4.82	4.77	4.73	4.69	
19.0800	4.65	4.60	4.55	4.51	4.46	
19.2800	4.41	4.36	4.31	4.26	4.20	
19.4800	4.15	4.09	4.03	3.97	3.91	
19.6800	3.84	3.78	3.71	3.64	3.56	
19.8800	3.48	3.40	3.32	3.23	3.14	
20.0800	3.04	2.92	2.80	2.65	2.48	
20.2800	2.24	1.94	1.66	1.43	1.26	

15 YEAR

```

pe.... Unit Hyd. Summary
Name.... AREA II          Tag: 15-YR          Event: 15 yr
File.... R:\0675N\10-DEV-POI2.PPW
Storm... TypeII 24hr     Tag: 15-YR

```

SCS UNIT HYDROGRAPH METHOD

```

STORM EVENT: 15 year storm
Duration      = 24.0000 hrs      Rain Depth = 5.2000 in
Rain Dir      = R:\0675N\
Rain File -ID = - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir       = R:\0675N\
HYG File - ID = - AREA II 15-YR
Tc            = .8185 hrs
Drainage Area = 25.680 acres  Runoff CN= 90

```

```

=====
Computational Time Increment = .10913 hrs
Computed Peak Time          = 12.3318 hrs
Computed Peak Flow          = 63.20 cfs

Time Increment for HYG File = .0400 hrs
Peak Time, Interpolated Output = 12.3600 hrs
Peak Flow, Interpolated Output = 62.70 cfs
=====

```

DRAINAGE AREA

```

-----
ID:AREA II
CN = 90
Area = 25.680 acres
S = 1.1111 in
0.2S = .2222 in

```

Cumulative Runoff

```

-----
4.0694 in
8.709 ac-ft

```

HYG Volume... 8.708 ac-ft (area under HYG curve)

***** SCS UNIT HYDROGRAPH PARAMETERS *****

```

Time Concentration, Tc = .81848 hrs (ID: AREA II)
Computational Incr, Tm = .10913 hrs = 0.20000 Tp
Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)
Unit peak, qp = 35.55 cfs
Unit peak time Tp = .54566 hrs
Unit receding limb, Tr = 2.18263 hrs
Total unit time, Tb = 2.72828 hrs

```

```

pe.... Unit Hyd. (HYG output)
Name.... AREA II          Tag: 15-YR          Event: 15 yr
File.... R:\0675N\10-DEV-POI2.PPW
Storm... TypeII 24hr    Tag: 15-YR

```

SCS UNIT HYDROGRAPH METHOD

```

STORM EVENT: 15 year storm
Duration      = 24.0000 hrs      Rain Depth = 5.2000 in
Rain Dir      = R:\0675N\
Rain File -ID = - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir       = R:\0675N\
HYG File - ID = - AREA II 15-YR
Tc            = .8185 hrs
Drainage Area = 25.680 acres  Runoff CN= 90
Calc.Increment= .10913 hrs    Out.Incr.= .0400 hrs
HYG Volume    = 8.708 ac-ft

```

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0400 hrs

Time hrs | Time on left represents time for first value in each row.

Time hrs					
3.8000	.00	.00	.00	.00	.00
4.0000	.01	.01	.01	.02	.02
4.2000	.02	.03	.03	.04	.05
4.4000	.05	.06	.07	.08	.08
4.6000	.09	.10	.11	.12	.13
4.8000	.14	.14	.15	.16	.17
5.0000	.18	.19	.20	.21	.23
5.2000	.24	.25	.26	.27	.28
5.4000	.29	.30	.31	.32	.33
5.6000	.35	.36	.37	.38	.39
5.8000	.40	.42	.43	.44	.45
6.0000	.46	.48	.49	.50	.51
6.2000	.53	.54	.55	.56	.58
6.4000	.59	.60	.61	.63	.64
6.6000	.65	.67	.68	.69	.70
6.8000	.72	.73	.74	.76	.77
7.0000	.78	.80	.81	.82	.84
7.2000	.85	.87	.88	.89	.91
7.4000	.92	.93	.95	.96	.98
7.6000	.99	1.00	1.02	1.03	1.05
7.8000	1.06	1.07	1.09	1.10	1.12
8.0000	1.13	1.15	1.16	1.17	1.19
8.2000	1.20	1.22	1.24	1.25	1.27
8.4000	1.29	1.31	1.33	1.36	1.38
8.6000	1.41	1.43	1.46	1.49	1.52
8.8000	1.55	1.58	1.62	1.65	1.69
9.0000	1.72	1.76	1.79	1.83	1.87
9.2000	1.91	1.94	1.98	2.02	2.05
9.4000	2.09	2.12	2.15	2.18	2.21
9.6000	2.24	2.27	2.29	2.32	2.35

```

pe.... Unit Hyd. (HYG output)
Name.... AREA II          Tag: 15-YR          Event: 15 yr
File.... R:\0675N\10-DEV-POI2.PPW
Storm... TypeII 24hr    Tag: 15-YR

```

HYDROGRAPH ORDINATES (cfs)						
Time hrs	Output Time increment = .0400 hrs					
	Time on left represents time for first value in each row.					
9.8000	2.38	2.41	2.44	2.47	2.51	
10.0000	2.55	2.58	2.63	2.67	2.72	
10.2000	2.78	2.83	2.89	2.95	3.01	
10.4000	3.08	3.15	3.22	3.30	3.37	
10.6000	3.45	3.54	3.63	3.72	3.82	
10.8000	3.92	4.02	4.13	4.25	4.37	
11.0000	4.49	4.63	4.77	4.91	5.06	
11.2000	5.23	5.39	5.58	5.78	5.98	
11.4000	6.21	6.44	6.72	7.03	7.35	
11.6000	7.87	8.44	9.05	10.26	11.47	
11.8000	13.15	15.75	18.35	21.99	26.28	
12.0000	30.57	35.79	41.11	46.31	50.85	
12.2000	55.38	58.78	60.71	62.63	62.70	
12.4000	62.00	61.29	58.91	56.49	53.84	
12.6000	50.50	47.16	43.86	40.59	37.32	
12.8000	34.64	32.11	29.61	27.72	25.82	
13.0000	24.05	22.56	21.06	19.75	18.57	
13.2000	17.38	16.44	15.53	14.65	13.93	
13.4000	13.21	12.56	11.99	11.43	10.94	
13.6000	10.50	10.05	9.68	9.32	8.97	
13.8000	8.67	8.37	8.10	7.85	7.61	
14.0000	7.39	7.18	6.97	6.79	6.61	
14.2000	6.44	6.28	6.12	5.97	5.83	
14.4000	5.69	5.56	5.44	5.33	5.24	
14.6000	5.14	5.06	4.99	4.92	4.86	
14.8000	4.80	4.74	4.69	4.63	4.58	
15.0000	4.53	4.49	4.44	4.40	4.35	
15.2000	4.31	4.27	4.23	4.19	4.15	
15.4000	4.11	4.07	4.03	3.99	3.96	
15.6000	3.92	3.88	3.85	3.81	3.77	
15.8000	3.74	3.70	3.66	3.63	3.59	
16.0000	3.55	3.52	3.48	3.45	3.41	
16.2000	3.38	3.34	3.31	3.27	3.24	
16.4000	3.21	3.18	3.15	3.13	3.10	
16.6000	3.08	3.05	3.03	3.01	2.99	
16.8000	2.97	2.95	2.94	2.92	2.90	
17.0000	2.89	2.87	2.85	2.84	2.82	
17.2000	2.81	2.79	2.78	2.77	2.75	
17.4000	2.74	2.72	2.71	2.70	2.68	
17.6000	2.67	2.66	2.64	2.63	2.62	
17.8000	2.60	2.59	2.58	2.57	2.55	
18.0000	2.54	2.53	2.51	2.50	2.49	
18.2000	2.48	2.46	2.45	2.44	2.42	
18.4000	2.41	2.40	2.39	2.37	2.36	

```

pe.... Unit Hyd. Summary
name.... AREA III          Tag: 15-YR          Event: 15 yr
File.... R:\0675N\10-DEV-POI2.PPW
Storm... TypeII 24hr      Tag: 15-YR

```

SCS UNIT HYDROGRAPH METHOD

```

STORM EVENT: 15 year storm
Duration      = 24.0000 hrs      Rain Depth = 5.2000 in
Rain Dir      = R:\0675N\
Rain File -ID = - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir       = R:\0675N\
HYG File - ID = - AREA III 15-YR
Tc            = .4731 hrs
Drainage Area = 1.590 acres      Runoff CN= 64

```

```

=====
Computational Time Increment = .06308 hrs
Computed Peak Time          = 12.1736 hrs
Computed Peak Flow          = 2.25 cfs

```

```

Time Increment for HYG File = .0400 hrs
Peak Time, Interpolated Output = 12.2000 hrs
Peak Flow, Interpolated Output = 2.22 cfs
=====

```

DRAINAGE AREA

```

-----
ID:AREA III
CN = 64
Area = 1.590 acres
S = 5.6250 in
0.2S = 1.1250 in

```

Cumulative Runoff

```

-----
1.7119 in
.227 ac-ft

```

HYG Volume... .227 ac-ft (area under HYG curve)

***** SCS UNIT HYDROGRAPH PARAMETERS *****

```

Time Concentration, Tc = .47307 hrs (ID: AREA III)
Computational Incr, Tm = .06308 hrs = 0.20000 Tp
Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)
Unit peak, qp = 3.81 cfs
Unit peak time Tp = .31538 hrs
Unit receding limb, Tr = 1.26151 hrs
Total unit time, Tb = 1.57689 hrs

```

T Unit Hyd. (HYG output)
 No AREA III Tag: 15-YR Event: 15 yr
 File.... R:\0675N\10-DEV-POI2.PPW
 Storm... TypeII 24hr Tag: 15-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 15 year storm
 Duration = 24.0000 hrs Rain Depth = 5.2000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - AREA III 15-YR
 Tc = .4731 hrs
 Drainage Area = 1.590 acres Runoff CN= 64
 Calc.Increment= .06308 hrs Out.Incr.= .0400 hrs
 HYG Volume = .227 ac-ft

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0400 hrs

Time on left represents time for first value in each row.

Time hrs					
10.9200	.00	.00	.00	.00	.00
11.1200	.01	.01	.01	.01	.02
11.3200	.02	.02	.03	.03	.04
11.5200	.05	.05	.06	.08	.11
11.7200	.14	.20	.27	.39	.55
11.9200	.75	1.03	1.32	1.63	1.89
12.1200	2.10	2.21	2.22	2.18	2.04
12.3200	1.88	1.70	1.52	1.35	1.21
12.5200	1.09	.98	.90	.82	.74
12.7200	.69	.63	.58	.55	.51
12.9200	.48	.45	.43	.41	.39
13.1200	.38	.36	.35	.34	.33
13.3200	.32	.31	.30	.29	.28
13.5200	.28	.27	.26	.26	.25
13.7200	.25	.24	.24	.23	.23
13.9200	.23	.22	.22	.21	.21
14.1200	.21	.20	.20	.20	.19
14.3200	.19	.19	.19	.18	.18
14.5200	.18	.18	.18	.17	.17
14.7200	.17	.17	.17	.17	.17
14.9200	.17	.16	.16	.16	.16
15.1200	.16	.16	.16	.16	.15
15.3200	.15	.15	.15	.15	.15
15.5200	.15	.15	.14	.14	.14
15.7200	.14	.14	.14	.14	.13
15.9200	.13	.13	.13	.13	.13
16.1200	.13	.13	.12	.12	.12
16.3200	.12	.12	.12	.12	.12
16.5200	.12	.12	.12	.12	.12
16.7200	.11	.11	.11	.11	.11

Time.... Unit Hyd. (HYG output)

l e.... AREA III Tag: 15-YR

Event: 15 yr

File.... R:\0675N\10-DEV-POI2.PPW

Storm... TypeII 24hr Tag: 15-YR

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0400 hrs

Time on left represents time for first value in each row.

Time hrs	Time on left represents time for first value in each row.					
16.9200	.11	.11	.11	.11	.11	.11
17.1200	.11	.11	.11	.11	.11	.11
17.3200	.11	.11	.11	.11	.11	.11
17.5200	.11	.10	.10	.10	.10	.10
17.7200	.10	.10	.10	.10	.10	.10
17.9200	.10	.10	.10	.10	.10	.10
18.1200	.10	.10	.10	.10	.10	.10
18.3200	.10	.10	.09	.09	.09	.09
18.5200	.09	.09	.09	.09	.09	.09
18.7200	.09	.09	.09	.09	.09	.09
18.9200	.09	.09	.09	.09	.09	.09
19.1200	.09	.09	.08	.08	.08	.08
19.3200	.08	.08	.08	.08	.08	.08
19.5200	.08	.08	.08	.08	.08	.08
19.7200	.08	.08	.08	.08	.08	.08
19.9200	.08	.08	.07	.07	.07	.07
20.1200	.07	.07	.07	.07	.07	.07
20.3200	.07	.07	.07	.07	.07	.07
20.5200	.07	.07	.07	.07	.07	.07
20.7200	.07	.07	.07	.07	.07	.07
20.9200	.07	.07	.07	.07	.07	.07
21.1200	.07	.07	.07	.07	.07	.07
21.3200	.07	.07	.07	.07	.07	.07
21.5200	.07	.07	.07	.07	.07	.07
21.7200	.07	.07	.07	.07	.07	.07
21.9200	.07	.07	.07	.07	.07	.07
22.1200	.07	.07	.07	.07	.07	.07
22.3200	.07	.07	.07	.07	.07	.07
22.5200	.07	.07	.07	.06	.06	.06
22.7200	.06	.06	.06	.06	.06	.06
22.9200	.06	.06	.06	.06	.06	.06
23.1200	.06	.06	.06	.06	.06	.06
23.3200	.06	.06	.06	.06	.06	.06
23.5200	.06	.06	.06	.06	.06	.06
23.7200	.06	.06	.06	.06	.06	.06
23.9200	.06	.06	.06	.06	.06	.06
24.1200	.06	.05	.05	.04	.04	.04
24.3200	.03	.03	.02	.02	.02	.01
24.5200	.01	.01	.01	.01	.01	.01
24.7200	.00	.00	.00	.00	.00	.00
24.9200	.00	.00	.00	.00	.00	.00

Time.... Node: Addition Summary
 ... e.... POI #2
 File.... R:\0675N\10-DEV-POI2.PPW
 Storm... TypeII 24hr Tag: 15-YR

Event: 15 yr

SUMMARY FOR HYDROGRAPH ADDITION
 at Node: POI #2

HYG Directory: R:\0675N\

```

=====
Upstream Link ID  Upstream Node ID  HYG file      HYG ID          HYG tag
-----
AREA III DEV      AREA III
BASIN #2  OUT      BASIN #2      IN              BASIN #2  OUT  15-YR
=====
  
```

INFLOWS TO: POI #2

```

-----
HYG file          HYG ID          HYG tag          Volume      Peak Time      Peak Flow
                   ac-ft          hrs              cfs
-----
                AREA III          15-YR            .227        12.2000        2.22
                BASIN #2  OUT      15-YR            8.708        13.1200        19.61
  
```

TAL FLOW INTO: POI #2

```

-----
HYG file          HYG ID          HYG tag          Volume      Peak Time      Peak Flow
                   ac-ft          hrs              cfs
-----
                POI #2          15-YR            8.935        13.0800        19.99
  
```

Type.... Node: Addition Summary
 e.... POI #2
 File.... R:\0675N\10-DEV-POI2.PPW
 Storm... TypeII 24hr Tag: 15-YR

Event: 15 yr

TOTAL NODE INFLOW...

HYG file =
 HYG ID = POI #2
 HYG Tag = 15-YR

 Peak Discharge = 19.99 cfs
 Time to Peak = 13.0800 hrs
 HYG Volume = 8.935 ac-ft

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0400 hrs

Time on left represents time for first value in each row.

Time hrs	HYDROGRAPH ORDINATES (cfs)				
3.8400	.00	.00	.00	.00	.01
4.0400	.01	.01	.01	.02	.02
4.2400	.03	.03	.04	.04	.05
4.4400	.06	.06	.07	.08	.09
4.6400	.10	.10	.11	.12	.13
4.8400	.14	.15	.16	.17	.18
5.0400	.19	.20	.21	.22	.23
5.2400	.24	.25	.26	.27	.28
5.4400	.30	.31	.32	.33	.34
5.6400	.35	.36	.37	.39	.40
5.8400	.41	.42	.43	.45	.46
6.0400	.47	.48	.49	.51	.52
6.2400	.53	.54	.56	.57	.58
6.4400	.59	.61	.62	.63	.65
6.6400	.66	.67	.68	.70	.71
6.8400	.72	.74	.75	.76	.78
7.0400	.79	.80	.82	.83	.84
7.2400	.86	.87	.89	.90	.91
7.4400	.93	.94	.95	.97	.98
7.6400	1.00	1.01	1.02	1.04	1.05
7.8400	1.07	1.08	1.10	1.11	1.12
8.0400	1.14	1.15	1.17	1.18	1.20
8.2400	1.21	1.23	1.25	1.26	1.28
8.4400	1.30	1.32	1.33	1.35	1.37
8.6400	1.40	1.42	1.45	1.48	1.50
8.8400	1.54	1.57	1.60	1.63	1.67
9.0400	1.69	1.72	1.76	1.79	1.83
9.2400	1.86	1.90	1.94	1.97	2.01
9.4400	2.04	2.06	2.09	2.12	2.14
9.6400	2.17	2.20	2.23	2.26	2.28
9.8400	2.31	2.34	2.36	2.38	2.40

Type.... Node: Addition Summary
 ne.... POI #2
 File.... R:\0675N\10-DEV-POI2.PPW
 Storm... TypeII 24hr Tag: 15-YR

Event: 15 yr

HYDROGRAPH ORDINATES (cfs)						
Time hrs	Output Time increment = .0400 hrs					
	Time on left represents time for first value in each row.					
10.0400	2.42	2.44	2.47	2.50	2.54	
10.2400	2.57	2.60	2.63	2.66	2.70	
10.4400	2.74	2.77	2.81	2.85	2.89	
10.6400	2.93	2.97	3.01	3.06	3.10	
10.8400	3.14	3.18	3.23	3.28	3.32	
11.0400	3.37	3.42	3.47	3.53	3.58	
11.2400	3.64	3.70	3.75	3.82	3.88	
11.4400	3.94	4.01	4.08	4.16	4.23	
11.6400	4.33	4.43	4.55	4.71	4.89	
11.8400	5.14	5.45	5.81	6.28	6.77	
12.0400	7.30	7.79	8.25	8.63	8.91	
12.2400	9.14	9.27	9.36	9.42	9.47	
12.4400	9.59	10.36	11.64	13.12	14.65	
12.6400	16.07	17.37	18.04	18.54	18.93	
12.8400	19.24	19.48	19.66	19.80	19.90	
13.0400	19.96	19.99	19.99	19.96	19.92	
13.2400	19.85	19.76	19.66	19.54	19.41	
13.4400	19.26	19.11	18.94	18.76	18.57	
13.6400	18.37	18.16	17.95	17.72	17.49	
13.8400	17.25	17.01	16.63	16.23	15.84	
14.0400	15.47	15.11	14.76	14.42	14.09	
14.2400	13.77	13.47	13.17	12.88	12.61	
14.4400	12.34	12.08	11.84	11.60	11.38	
14.6400	11.17	10.96	10.77	10.58	10.39	
14.8400	10.23	10.07	9.92	9.77	9.64	
15.0400	9.50	9.37	9.27	9.16	9.05	
15.2400	8.96	8.87	8.79	8.70	8.63	
15.4400	8.56	8.49	8.43	8.38	8.34	
15.6400	8.29	8.26	8.24	8.22	8.20	
15.8400	8.18	8.17	8.15	8.13	8.11	
16.0400	8.09	8.07	8.05	8.03	8.01	
16.2400	7.99	7.97	7.95	7.93	7.91	
16.4400	7.89	7.87	7.85	7.83	7.81	
16.6400	7.79	7.77	7.75	7.73	7.71	
16.8400	7.69	7.66	7.64	7.62	7.60	
17.0400	7.58	7.56	7.54	7.51	7.49	
17.2400	7.47	7.45	7.43	7.40	7.38	
17.4400	7.36	7.34	7.31	7.29	7.27	
17.6400	7.25	7.22	7.20	7.18	7.15	
17.8400	7.13	7.11	7.08	7.06	7.04	
18.0400	7.01	6.99	6.97	6.94	6.92	
18.2400	6.89	6.87	6.85	6.82	6.80	
18.4400	6.77	6.75	6.72	6.70	6.67	
18.6400	6.65	6.62	6.60	6.57	6.55	

25 YEAR

```

pe.... Unit Hyd. Summary
Name... AREA II          Tag: 25-YR          Event: 25 yr
File... R:\0675N\10-DEV-POI2.PPW
Storm... TypeII 24hr    Tag: 25-YR

```

SCS UNIT HYDROGRAPH METHOD

```

STORM EVENT: 25 year storm
Duration      = 24.0000 hrs      Rain Depth = 5.7000 in
Rain Dir      = R:\0675N\
Rain File -ID = - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir       = R:\0675N\
HYG File - ID = - AREA II 25-YR
Tc            = .8185 hrs
Drainage Area = 25.680 acres  Runoff CN= 90

```

```

=====
Computational Time Increment = .10913 hrs
Computed Peak Time          = 12.3318 hrs
Computed Peak Flow          = 70.44 cfs

Time Increment for HYG File = .0400 hrs
Peak Time, Interpolated Output = 12.3600 hrs
Peak Flow, Interpolated Output = 69.87 cfs
=====

```

DRAINAGE AREA

```

-----
ID:AREA II
CN = 90
Area = 25.680 acres
S = 1.1111 in
0.2S = .2222 in

```

Cumulative Runoff

```

-----
4.5540 in
9.746 ac-ft

```

HYG Volume... 9.746 ac-ft (area under HYG curve)

***** SCS UNIT HYDROGRAPH PARAMETERS *****

```

Time Concentration, Tc = .81848 hrs (ID: AREA II)
Computational Incr, Tm = .10913 hrs = 0.20000 Tp

Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)

Unit peak, qp = 35.55 cfs
Unit peak time Tp = .54566 hrs
Unit receding limb, Tr = 2.18263 hrs
Total unit time, Tb = 2.72828 hrs

```

pe.... Unit Hyd. (HYG output)
 Name.... AREA II Tag: 25-YR Event: 25 yr
 File.... R:\0675N\10-DEV-PO12.PPW
 Storm... TypeII 24hr Tag: 25-YR

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 25 year storm
 Duration = 24.0000 hrs Rain Depth = 5.7000 in
 Rain Dir = R:\0675N\
 Rain File -ID = - TypeII 24hr
 Unit Hyd Type = Default Curvilinear
 HYG Dir = R:\0675N\
 HYG File - ID = - AREA II 25-YR
 Tc = .8185 hrs
 Drainage Area = 25.680 acres Runoff CN= 90
 Calc.Increment= .10913 hrs Out.Incr.= .0400 hrs
 HYG Volume = 9.746 ac-ft

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0400 hrs

Time on left represents time for first value in each row.

Time hrs					
3.5200	.00	.00	.00	.00	.01
3.7200	.01	.01	.01	.02	.02
3.9200	.03	.03	.04	.05	.05
4.1200	.06	.07	.08	.09	.09
4.3200	.10	.11	.12	.13	.14
4.5200	.15	.16	.17	.18	.19
4.7200	.21	.22	.23	.24	.25
4.9200	.26	.27	.29	.30	.31
5.1200	.32	.34	.35	.36	.37
5.3200	.39	.40	.41	.42	.44
5.5200	.45	.46	.48	.49	.50
5.7200	.52	.53	.54	.56	.57
5.9200	.58	.60	.61	.63	.64
6.1200	.65	.67	.68	.70	.71
6.3200	.73	.74	.75	.77	.78
6.5200	.80	.81	.83	.84	.86
6.7200	.87	.89	.90	.92	.93
6.9200	.95	.96	.98	.99	1.01
7.1200	1.02	1.04	1.05	1.07	1.08
7.3200	1.10	1.11	1.13	1.15	1.16
7.5200	1.18	1.19	1.21	1.22	1.24
7.7200	1.26	1.27	1.29	1.30	1.32
7.9200	1.33	1.35	1.37	1.38	1.40
8.1200	1.42	1.43	1.45	1.47	1.49
8.3200	1.51	1.53	1.55	1.57	1.60
8.5200	1.62	1.65	1.68	1.71	1.74
8.7200	1.77	1.81	1.84	1.88	1.92
8.9200	1.96	2.00	2.04	2.08	2.12
9.1200	2.16	2.21	2.25	2.29	2.33
9.3200	2.37	2.41	2.45	2.49	2.52

```

Name.... Unit Hyd. (HYG output)
Name.... AREA II Tag: 25-YR Event: 25 yr
File.... R:\0675N\10-DEV-POI2.PPW
Storm... TypeII 24hr Tag: 25-YR

```

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0400 hrs

Time on left represents time for first value in each row.

Time hrs						
9.5200	2.56	2.59	2.62	2.66	2.69	
9.7200	2.72	2.75	2.78	2.81	2.85	
9.9200	2.88	2.92	2.97	3.01	3.06	
10.1200	3.11	3.16	3.22	3.28	3.35	
10.3200	3.42	3.49	3.56	3.64	3.72	
10.5200	3.81	3.90	3.99	4.09	4.19	
10.7200	4.29	4.40	4.51	4.63	4.76	
10.9200	4.88	5.02	5.16	5.31	5.47	
11.1200	5.63	5.80	5.99	6.17	6.38	
11.3200	6.60	6.83	7.09	7.35	7.66	
11.5200	8.01	8.37	8.95	9.59	10.28	
11.7200	11.63	12.99	14.87	17.78	20.68	
11.9200	24.74	29.52	34.31	40.10	46.02	
12.1200	51.79	56.81	61.83	65.60	67.70	
12.3200	69.81	69.87	69.05	68.24	65.57	
12.5200	62.85	59.88	56.16	52.43	48.75	
12.7200	45.11	41.46	38.47	35.65	32.88	
12.9200	30.76	28.65	26.69	25.02	23.35	
13.1200	21.90	20.58	19.27	18.22	17.20	
13.3200	16.22	15.42	14.63	13.90	13.27	
13.5200	12.65	12.11	11.61	11.12	10.71	
13.7200	10.31	9.92	9.59	9.26	8.95	
13.9200	8.68	8.41	8.17	7.94	7.71	
14.1200	7.51	7.31	7.11	6.94	6.76	
14.3200	6.59	6.44	6.28	6.14	6.01	
14.5200	5.88	5.78	5.68	5.59	5.51	
14.7200	5.43	5.36	5.30	5.23	5.17	
14.9200	5.11	5.06	5.00	4.95	4.90	
15.1200	4.85	4.80	4.76	4.71	4.67	
15.3200	4.62	4.58	4.53	4.49	4.45	
15.5200	4.41	4.37	4.32	4.28	4.24	
15.7200	4.20	4.16	4.12	4.08	4.04	
15.9200	4.00	3.96	3.92	3.88	3.84	
16.1200	3.80	3.76	3.72	3.68	3.65	
16.3200	3.61	3.58	3.54	3.51	3.48	
16.5200	3.45	3.42	3.39	3.37	3.34	
16.7200	3.32	3.30	3.28	3.26	3.24	
16.9200	3.22	3.20	3.18	3.16	3.15	
17.1200	3.13	3.11	3.10	3.08	3.07	
17.3200	3.05	3.03	3.02	3.00	2.99	
17.5200	2.97	2.96	2.94	2.93	2.92	
17.7200	2.90	2.89	2.87	2.86	2.84	
17.9200	2.83	2.81	2.80	2.79	2.77	
18.1200	2.76	2.74	2.73	2.72	2.70	
18.3200	2.69	2.67	2.66	2.64	2.63	


```

Name.... Unit Hyd. Summary
Area.... AREA III Tag: 25-YR Event: 25 yr
File.... R:\0675N\10-DEV-POI2.PPW
Storm... TypeII 24hr Tag: 25-YR

```

SCS UNIT HYDROGRAPH METHOD

```

STORM EVENT: 25 year storm
Duration      = 24.0000 hrs      Rain Depth = 5.7000 in
Rain Dir      = R:\0675N\
Rain File -ID = - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir       = R:\0675N\
HYG File - ID = - AREA III 25-YR
Tc            = .4731 hrs
Drainage Area = 1.590 acres Runoff CN= 64

```

```

=====
Computational Time Increment = .06308 hrs
Computed Peak Time          = 12.1736 hrs
Computed Peak Flow          = 2.75 cfs

Time Increment for HYG File = .0400 hrs
Peak Time, Interpolated Output = 12.2000 hrs
Peak Flow, Interpolated Output = 2.71 cfs
=====

```

DRAINAGE AREA

```

-----
ID:AREA III
CN = 64
Area = 1.590 acres
S = 5.6250 in
0.2S = 1.1250 in

```

Cumulative Runoff

```

-----
2.0520 in
.272 ac-ft

```

HYG Volume... .272 ac-ft (area under HYG curve)

***** SCS UNIT HYDROGRAPH PARAMETERS *****

```

Time Concentration, Tc = .47307 hrs (ID: AREA III)
Computational Incr, Tm = .06308 hrs = 0.20000 Tp

Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)

Unit peak, qp = 3.81 cfs
Unit peak time Tp = .31538 hrs
Unit receding limb, Tr = 1.26151 hrs
Total unit time, Tb = 1.57689 hrs

```

```

Name.... Unit Hyd. (HYG output)
Name.... AREA III Tag: 25-YR Event: 25 yr
File.... R:\0675N\10-DEV-POI2.PPW
Storm... TypeII 24hr Tag: 25-YR

```

SCS UNIT HYDROGRAPH METHOD

```

STORM EVENT: 25 year storm
Duration      = 24.0000 hrs      Rain Depth = 5.7000 in
Rain Dir      = R:\0675N\
Rain File -ID = - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir       = R:\0675N\
HYG File - ID = - AREA III 25-YR
Tc            = .4731 hrs
Drainage Area = 1.590 acres      Runoff CN= 64
Calc.Increment = .06308 hrs      Out.Incr.= .0400 hrs
HYG Volume    = .272 ac-ft

```

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0400 hrs

Time on left represents time for first value in each row.

Time hrs						
10.6000	.00	.00	.00	.00	.00	.00
10.8000	.01	.01	.01	.01	.01	.01
11.0000	.02	.02	.02	.03	.03	.03
11.2000	.03	.04	.04	.05	.05	.05
11.4000	.06	.07	.07	.08	.09	.09
11.6000	.11	.13	.16	.21	.28	.28
11.8000	.38	.53	.73	.98	1.32	1.32
12.0000	1.67	2.04	2.34	2.59	2.70	2.70
12.2000	2.71	2.65	2.47	2.27	2.05	2.05
12.4000	1.83	1.62	1.45	1.31	1.18	1.18
12.6000	1.07	.97	.88	.81	.75	.75
12.8000	.69	.64	.60	.57	.53	.53
13.0000	.51	.48	.46	.44	.43	.43
13.2000	.41	.39	.38	.37	.36	.36
13.4000	.35	.34	.33	.32	.31	.31
13.6000	.31	.30	.29	.29	.28	.28
13.8000	.28	.27	.27	.26	.26	.26
14.0000	.25	.25	.24	.24	.24	.24
14.2000	.23	.23	.22	.22	.22	.22
14.4000	.22	.21	.21	.21	.21	.21
14.6000	.21	.20	.20	.20	.20	.20
14.8000	.20	.20	.19	.19	.19	.19
15.0000	.19	.19	.19	.18	.18	.18
15.2000	.18	.18	.18	.18	.18	.18
15.4000	.17	.17	.17	.17	.17	.17
15.6000	.17	.17	.16	.16	.16	.16
15.8000	.16	.16	.16	.15	.15	.15
16.0000	.15	.15	.15	.15	.15	.15
16.2000	.14	.14	.14	.14	.14	.14
16.4000	.14	.14	.14	.14	.14	.14

Time.... Node: Addition Summary
 Date.... POI #2
 File.... R:\0675N\10-DEV-POI2.PPW
 Storm... TypeII 24hr Tag: 25-YR

Event: 25 yr

SUMMARY FOR HYDROGRAPH ADDITION
 at Node: POI #2

HYG Directory: R:\0675N\

```

=====
Upstream Link ID  Upstream Node ID  HYG file      HYG ID        HYG tag
-----
AREA III DEV     AREA III
BASIN #2  OUT    BASIN #2      IN             BASIN #2  OUT  25-YR
=====
  
```

INFLOWS TO: POI #2

```

----- Volume      Peak Time      Peak Flow
HYG file      HYG ID          HYG tag        ac-ft          hrs            cfs
-----
          AREA III          25-YR          .272           12.2000        2.71
          BASIN #2  OUT    25-YR          9.746           13.1200       21.90
  
```

TOTAL FLOW INTO: POI #2

```

----- Volume      Peak Time      Peak Flow
HYG file      HYG ID          HYG tag        ac-ft          hrs            cfs
-----
          POI #2          25-YR          10.017         13.0800       22.35
  
```

Name.... Node: Addition Summary
 POI #2
 File.... R:\0675N\10-DEV-POI2.PPW
 Storm... TypeII 24hr Tag: 25-YR

Event: 25 yr

TOTAL NODE INFLOW...

HYG file =
 HYG ID = POI #2
 HYG Tag = 25-YR

 Peak Discharge = 22.35 cfs
 Time to Peak = 13.0800 hrs
 HYG Volume = 10.017 ac-ft

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0400 hrs

Time on left represents time for first value in each row.

Time hrs						
3.5600	.00	.00	.00	.00	.01	
3.7600	.01	.01	.02	.02	.02	
3.9600	.03	.04	.04	.05	.06	
4.1600	.06	.07	.08	.09	.10	
4.3600	.11	.12	.13	.14	.15	
4.5600	.16	.17	.18	.19	.20	
4.7600	.21	.22	.23	.25	.26	
4.9600	.27	.28	.29	.30	.32	
5.1600	.33	.34	.35	.37	.38	
5.3600	.39	.40	.42	.43	.44	
5.5600	.46	.47	.48	.50	.51	
5.7600	.52	.54	.55	.56	.58	
5.9600	.59	.61	.62	.63	.65	
6.1600	.66	.68	.69	.70	.72	
6.3600	.73	.75	.76	.78	.79	
6.5600	.81	.82	.83	.85	.86	
6.7600	.88	.89	.91	.92	.94	
6.9600	.95	.97	.98	1.00	1.01	
7.1600	1.03	1.05	1.06	1.08	1.09	
7.3600	1.11	1.12	1.14	1.15	1.17	
7.5600	1.18	1.20	1.22	1.23	1.25	
7.7600	1.26	1.28	1.29	1.31	1.32	
7.9600	1.33	1.35	1.36	1.37	1.39	
8.1600	1.41	1.42	1.44	1.46	1.48	
8.3600	1.50	1.52	1.54	1.56	1.58	
8.5600	1.61	1.63	1.66	1.69	1.71	
8.7600	1.74	1.77	1.81	1.84	1.88	
8.9600	1.91	1.95	1.99	2.03	2.06	
9.1600	2.09	2.13	2.16	2.20	2.24	
9.3600	2.28	2.32	2.35	2.37	2.40	
9.5600	2.42	2.45	2.47	2.50	2.52	

File.... Node: Addition Summary

File.... POI #2

Event: 25 yr

File.... R:\0675N\10-DEV-POI2.PPW

Storm... TypeII 24hr Tag: 25-YR

HYDROGRAPH ORDINATES (cfs)

Output Time increment = .0400 hrs

Time on left represents time for first value in each row.

Time hrs					
9.7600	2.55	2.57	2.60	2.62	2.64
9.9600	2.67	2.69	2.72	2.75	2.78
10.1600	2.80	2.83	2.86	2.90	2.93
10.3600	2.96	2.99	3.03	3.07	3.11
10.5600	3.14	3.18	3.22	3.26	3.30
10.7600	3.34	3.38	3.43	3.48	3.52
10.9600	3.57	3.62	3.67	3.73	3.78
11.1600	3.84	3.89	3.95	4.01	4.07
11.3600	4.13	4.20	4.26	4.33	4.40
11.5600	4.48	4.56	4.65	4.76	4.89
11.7600	5.07	5.27	5.55	5.89	6.30
11.9600	6.82	7.37	7.97	8.51	9.03
12.1600	9.42	9.71	9.93	10.03	10.09
12.3600	10.12	10.66	12.07	13.93	15.92
12.5600	17.88	18.87	19.65	20.27	20.77
12.7600	21.17	21.49	21.74	21.94	22.09
12.9600	22.20	22.28	22.33	22.35	22.34
13.1600	22.31	22.26	22.19	22.11	22.01
13.3600	21.89	21.77	21.63	21.48	21.32
13.5600	21.16	20.98	20.79	20.60	20.40
13.7600	20.19	19.98	19.76	19.53	19.30
13.9600	19.06	18.81	18.56	18.30	18.04
14.1600	17.77	17.50	17.22	16.93	16.47
14.3600	16.01	15.59	15.19	14.80	14.43
14.5600	14.08	13.73	13.41	13.10	12.80
14.7600	12.51	12.24	11.98	11.73	11.50
14.9600	11.28	11.07	10.87	10.68	10.50
15.1600	10.32	10.16	10.01	9.86	9.72
15.3600	9.59	9.46	9.34	9.23	9.13
15.5600	9.02	8.94	8.85	8.77	8.69
15.7600	8.62	8.55	8.48	8.43	8.38
15.9600	8.34	8.29	8.26	8.24	8.23
16.1600	8.21	8.19	8.17	8.15	8.13
16.3600	8.11	8.10	8.08	8.06	8.04
16.5600	8.02	8.00	7.98	7.96	7.94
16.7600	7.92	7.90	7.88	7.86	7.84
16.9600	7.82	7.80	7.78	7.76	7.74
17.1600	7.72	7.70	7.68	7.66	7.64
17.3600	7.62	7.60	7.58	7.56	7.54
17.5600	7.52	7.49	7.47	7.45	7.43
17.7600	7.41	7.39	7.36	7.34	7.32
17.9600	7.30	7.28	7.25	7.23	7.21
18.1600	7.19	7.16	7.14	7.12	7.10
18.3600	7.07	7.05	7.03	7.00	6.98
18.5600	6.96	6.93	6.91	6.89	6.86

BASIN ROUTING CALCULATIONS

BASIN VOLUME

Type.... Vol: Planimeter
 Name.... BASIN #2

File.... R:\0675N\10-DEV-POI2.PPW

POND VOLUME CALCULATIONS

Planimeter scale: 1.00 ft/in

Elevation (ft)	Planimeter (sq.in)	Area (acres)	A1+A2+sqr(A1*A2) (acres)	Volume (ac-ft)	Volume Sum (ac-ft)
536.50	.000	.0000	.0000	.000	.000
537.00	150.000	.0034	.0034	.001	.001
538.00	5410.000	.1242	.1483	.049	.050
539.00	11445.000	.2627	.5676	.189	.239
540.00	17345.000	.3982	.9844	.328	.567
541.00	19030.000	.4369	1.2521	.417	.985
542.00	20810.000	.4777	1.3714	.457	1.442
543.00	22660.000	.5202	1.4964	.499	1.941
544.00	24600.000	.5647	1.6270	.542	2.483
545.00	26640.000	.6116	1.7640	.588	3.071
546.00	28765.000	.6604	1.9074	.636	3.707
547.00	31050.000	.7128	2.0592	.686	4.393
548.00	33440.000	.7677	2.2202	.740	5.133
549.00	34000.000	.7805	2.3223	.774	5.907

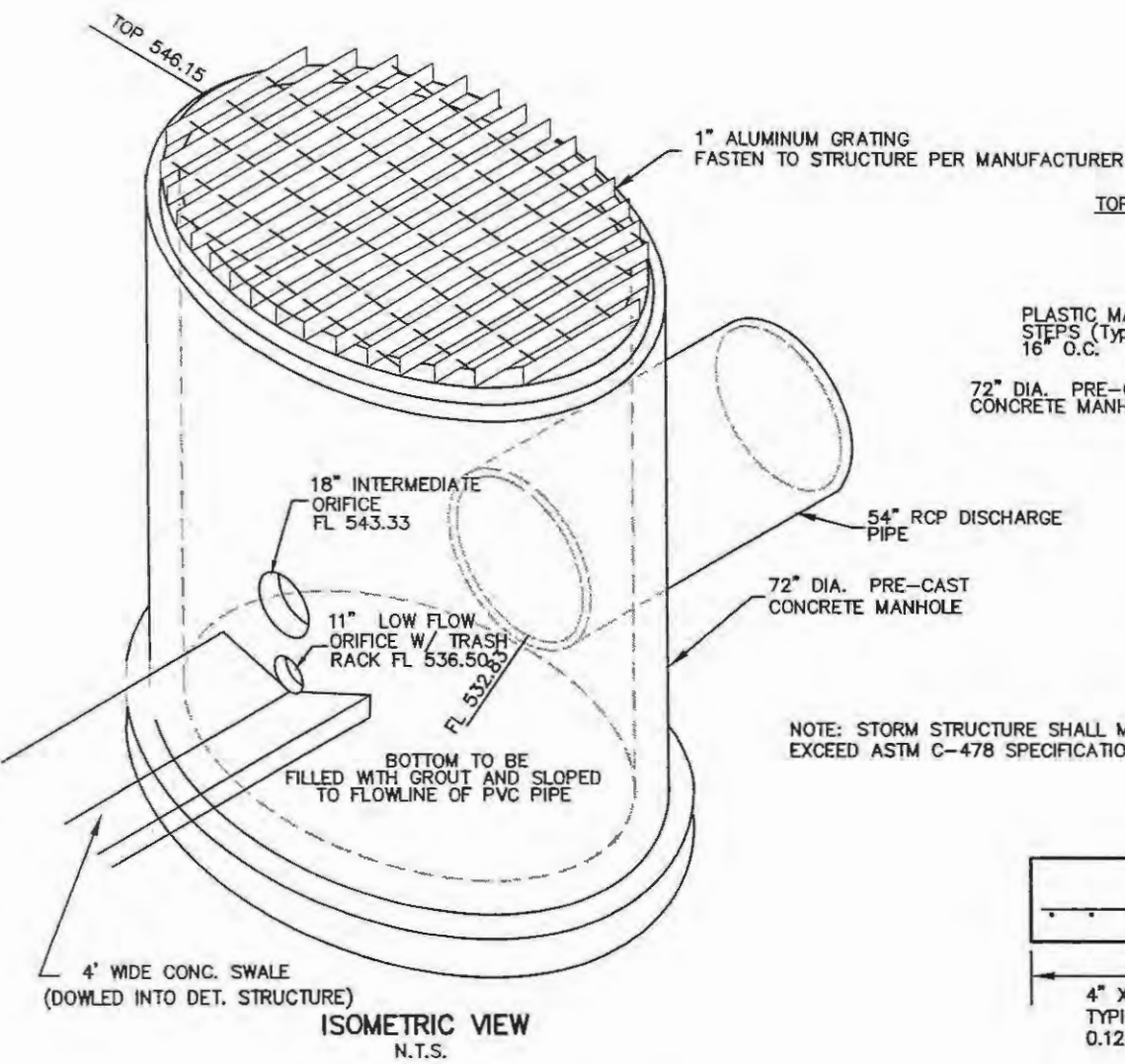
POND VOLUME EQUATIONS

* Incremental volume computed by the Conic Method for Reservoir Volumes.

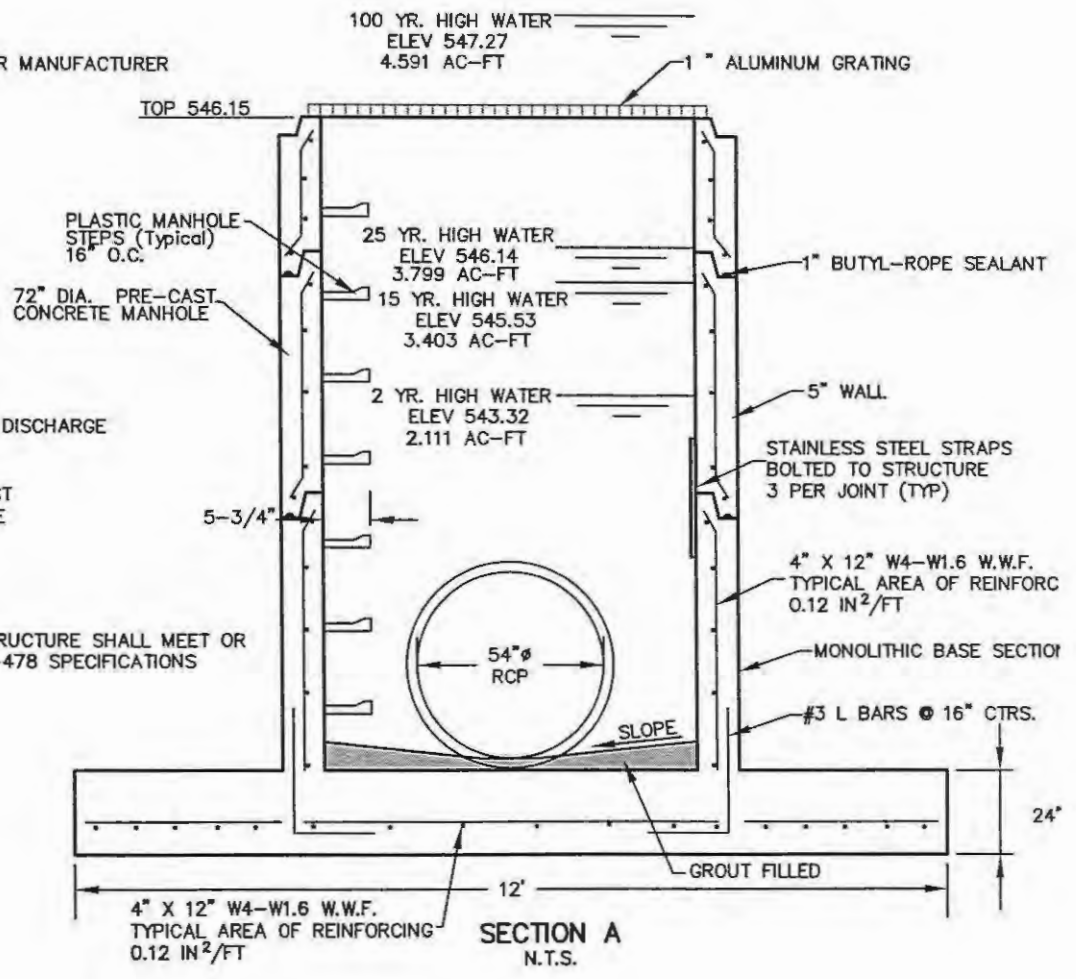
$$\text{Volume} = (1/3) * (\text{EL2}-\text{EL1}) * (\text{Areal} + \text{Area2} + \text{sq.rt.}(\text{Areal}*\text{Area2}))$$

where: EL1, EL2 = Lower and upper elevations of the increment
 Areal,Area2 = Areas computed for EL1, EL2, respectively
 Volume = Incremental volume between EL1 and EL2

DETENTION STRUCTURE



NOTE: STORM STRUCTURE SHALL MEET OR EXCEED ASTM C-478 SPECIFICATIONS



DETENTION STRUCTURE DETAIL

DETENTION BASIN #2

Type.... Outlet Input Data
 Name.... OUTFALL #2

File.... R:\0675N\10-DEV-POI2.PPW

REQUESTED POND WS ELEVATIONS:

Min. Elev.= 536.50 ft
 Increment = .10 ft
 Max. Elev.= 549.00 ft

 OUTLET CONNECTIVITY

---> Forward Flow Only (UpStream to DnStream)
 <--- Reverse Flow Only (DnStream to UpStream)
 <---> Forward and Reverse Both Allowed

Structure	No.		Outfall	E1, ft	E2, ft
Orifice-Circular	IO	--->	TW	543.330	549.000
Inlet Box	OF	--->	TW	546.150	549.000
Orifice-Circular	LF	--->	TW	536.500	549.000
TW SETUP, DS Channel					

... Outlet Input Data
... OUTFALL #2
File... R:\0675N\10-DEV-POI2.PPW

OUTLET STRUCTURE INPUT DATA

Structure ID = IO
Structure Type = Orifice-Circular

of Openings = 1
Invert Elev. = 543.33 ft
Diameter = 1.5000 ft
Orifice Coeff. = .600

Structure ID = OF
Structure Type = Inlet Box

of Openings = 1
Invert Elev. = 546.15 ft
Orifice Area = 28.2700 sq.ft
Orifice Coeff. = .600
Weir Length = 17.85 ft
Weir Coeff. = 3.330
K, Reverse = 1.000
Mannings n = .0000
Kev,Charged Riser = .000
Weir Submergence = No
Orifice H to crest= Yes

Structure ID = LF
Structure Type = Orifice-Circular

of Openings = 1
Invert Elev. = 536.50 ft
Diameter = .9200 ft
Orifice Coeff. = .600

Structure ID = TW
Structure Type = TW SETUP, DS Channel

FREE OUTFALL CONDITIONS SPECIFIED

CONVERGENCE TOLERANCES...
Maximum Iterations= 30
Min. TW tolerance = .01 ft
Max. TW tolerance = .01 ft
Min. HW tolerance = .01 ft
Max. HW tolerance = .01 ft
Min. Q tolerance = .10 cfs
Max. Q tolerance = .10 cfs

Type.... Composite Rating Curve
 Name.... OUTFALL #2

File.... R:\0675N\10-DEV-POI2.PPW

***** COMPOSITE OUTFLOW SUMMARY *****

WS Elev, Total Q		Converge		Notes
Elev. ft	Q cfs	TW Elev ft	Error +/-ft	Contributing Structures
536.50	.00	Free Outfall		None contributing
536.60	.00	Free Outfall		LF
536.70	.11	Free Outfall		LF
536.80	.28	Free Outfall		LF
536.90	.48	Free Outfall		LF
537.00	.72	Free Outfall		LF
537.10	1.01	Free Outfall		LF
537.20	1.32	Free Outfall		LF
537.30	1.66	Free Outfall		LF
537.40	2.02	Free Outfall		LF
537.50	2.35	Free Outfall		LF
537.60	2.56	Free Outfall		LF
537.70	2.75	Free Outfall		LF
537.80	2.93	Free Outfall		LF
537.90	3.10	Free Outfall		LF
538.00	3.26	Free Outfall		LF
538.10	3.42	Free Outfall		LF
538.20	3.56	Free Outfall		LF
538.30	3.70	Free Outfall		LF
538.40	3.84	Free Outfall		LF
538.50	3.97	Free Outfall		LF
538.60	4.10	Free Outfall		LF
538.70	4.22	Free Outfall		LF
538.80	4.34	Free Outfall		LF
538.90	4.46	Free Outfall		LF
539.00	4.57	Free Outfall		LF
539.10	4.68	Free Outfall		LF
539.20	4.79	Free Outfall		LF
539.30	4.89	Free Outfall		LF
539.40	5.00	Free Outfall		LF
539.50	5.10	Free Outfall		LF
539.60	5.20	Free Outfall		LF
539.70	5.30	Free Outfall		LF
539.80	5.39	Free Outfall		LF
539.90	5.49	Free Outfall		LF
540.00	5.58	Free Outfall		LF
540.10	5.67	Free Outfall		LF
540.20	5.76	Free Outfall		LF

File.... Composite Rating Curve
 File.... OUTFALL #2

File.... R:\0675N\10-DEV-POI2.PPW

***** COMPOSITE OUTFLOW SUMMARY *****

WS Elev, Total Q		Converge		Notes
Elev. ft	Q cfs	TW Elev ft	Error +/-ft	Contributing Structures
540.30	5.85	Free Outfall		LF
540.40	5.93	Free Outfall		LF
540.50	6.02	Free Outfall		LF
540.60	6.10	Free Outfall		LF
540.70	6.19	Free Outfall		LF
540.80	6.27	Free Outfall		LF
540.90	6.35	Free Outfall		LF
541.00	6.43	Free Outfall		LF
541.10	6.51	Free Outfall		LF
541.20	6.59	Free Outfall		LF
541.30	6.67	Free Outfall		LF
541.40	6.74	Free Outfall		LF
541.50	6.82	Free Outfall		LF
541.60	6.89	Free Outfall		LF
541.70	6.97	Free Outfall		LF
541.80	7.04	Free Outfall		LF
541.90	7.11	Free Outfall		LF
542.00	7.18	Free Outfall		LF
542.10	7.25	Free Outfall		LF
542.20	7.32	Free Outfall		LF
542.30	7.39	Free Outfall		LF
542.40	7.46	Free Outfall		LF
542.50	7.53	Free Outfall		LF
542.60	7.60	Free Outfall		LF
542.70	7.67	Free Outfall		LF
542.80	7.73	Free Outfall		LF
542.90	7.80	Free Outfall		LF
543.00	7.86	Free Outfall		LF
543.10	7.93	Free Outfall		LF
543.20	7.99	Free Outfall		LF
543.30	8.06	Free Outfall		LF
543.33	8.08	Free Outfall		LF
543.40	8.12	Free Outfall		IO +LF
543.50	8.28	Free Outfall		IO +LF
543.60	8.54	Free Outfall		IO +LF
543.70	8.85	Free Outfall		IO +LF
543.80	9.23	Free Outfall		IO +LF
543.90	9.69	Free Outfall		IO +LF

... Composite Rating Curve
 ... OUTFALL #2

File.... R:\0675N\10-DEV-POI2.PPW

***** COMPOSITE OUTFLOW SUMMARY *****

WS Elev, Total Q		Converge		Notes
Elev. ft	Q cfs	TW Elev ft	Error +/-ft	Contributing Structures
544.00	10.19	Free Outfall		IO +LF
544.10	10.76	Free Outfall		IO +LF
544.20	11.37	Free Outfall		IO +LF
544.30	12.03	Free Outfall		IO +LF
544.40	12.74	Free Outfall		IO +LF
544.50	13.48	Free Outfall		IO +LF
544.60	14.24	Free Outfall		IO +LF
544.70	15.03	Free Outfall		IO +LF
544.80	15.85	Free Outfall		IO +LF
544.90	16.72	Free Outfall		IO +LF
545.00	17.23	Free Outfall		IO +LF
545.10	17.72	Free Outfall		IO +LF
545.20	18.19	Free Outfall		IO +LF
545.30	18.63	Free Outfall		IO +LF
545.40	19.07	Free Outfall		IO +LF
545.50	19.49	Free Outfall		IO +LF
545.60	19.89	Free Outfall		IO +LF
545.70	20.28	Free Outfall		IO +LF
545.80	20.67	Free Outfall		IO +LF
545.90	21.04	Free Outfall		IO +LF
546.00	21.41	Free Outfall		IO +LF
546.10	21.76	Free Outfall		IO +LF
546.15	21.94	Free Outfall		IO +OF +LF
546.20	22.77	Free Outfall		IO +OF +LF
546.30	25.90	Free Outfall		IO +OF +LF
546.40	30.22	Free Outfall		IO +OF +LF
546.50	35.42	Free Outfall		IO +OF +LF
546.60	41.38	Free Outfall		IO +OF +LF
546.70	48.00	Free Outfall		IO +OF +LF
546.80	55.21	Free Outfall		IO +OF +LF
546.90	62.98	Free Outfall		IO +OF +LF
547.00	71.25	Free Outfall		IO +OF +LF
547.10	80.00	Free Outfall		IO +OF +LF
547.20	89.21	Free Outfall		IO +OF +LF
547.30	98.85	Free Outfall		IO +OF +LF
547.40	108.91	Free Outfall		IO +OF +LF
547.50	119.35	Free Outfall		IO +OF +LF
547.60	130.17	Free Outfall		IO +OF +LF

Type.... Composite Rating Curve
 me.... OUTFALL #2

File.... R:\0675N\10-DEV-POI2.PPW

***** COMPOSITE OUTFLOW SUMMARY *****

WS Elev, Total Q		Converge		Notes
Elev.	Q	TW Elev	Error	Contributing Structures
ft	cfs	ft	+/-ft	
547.70	141.37	Free Outfall		IO +OF +LF
547.80	152.92	Free Outfall		IO +OF +LF
547.90	164.81	Free Outfall		IO +OF +LF
548.00	177.04	Free Outfall		IO +OF +LF
548.10	189.58	Free Outfall		IO +OF +LF
548.20	202.46	Free Outfall		IO +OF +LF
548.30	215.63	Free Outfall		IO +OF +LF
548.40	229.11	Free Outfall		IO +OF +LF
548.50	237.33	Free Outfall		IO +OF +LF
548.60	241.97	Free Outfall		IO +OF +LF
548.70	246.52	Free Outfall		IO +OF +LF
548.80	250.98	Free Outfall		IO +OF +LF
548.90	255.37	Free Outfall		IO +OF +LF
549.00	259.67	Free Outfall		IO +OF +LF

2 YEAR STORM ROUTING

pe.... Pond E-V-Q Table
 .me.... BASIN #2
 File.... R:\0675N\10-DEV-POI2.PPW

LEVEL POOL ROUTING DATA

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #2 IN 2-YR
 Outflow HYG file = NONE STORED - BASIN #2 OUT 2-YR

Pond Node Data = BASIN #2
 Pond Volume Data = BASIN #2
 Pond Outlet Data = OUTFALL #2

No Infiltration

INITIAL CONDITIONS

 Starting WS Elev = 536.50 ft
 Starting Volume = .000 ac-ft
 Starting Outflow = .00 cfs
 Starting Infiltr. = .00 cfs
 Starting Total Qout = .00 cfs
 Time Increment = .0400 hrs

Elevation ft	Outflow cfs	Storage ac-ft	Area acres	Infilt. cfs	Q Total cfs	2S/t + O cfs
536.50	.00	.000	.0000	.00	.00	.00
536.60	.00	.000	.0001	.00	.00	.00
536.70	.11	.000	.0006	.00	.11	.13
536.80	.28	.000	.0012	.00	.28	.35
536.90	.48	.000	.0022	.00	.48	.66
537.00	.72	.001	.0034	.00	.72	1.07
537.10	1.01	.001	.0078	.00	1.01	1.69
537.20	1.32	.002	.0138	.00	1.32	2.64
537.30	1.66	.004	.0215	.00	1.66	4.04
537.40	2.02	.007	.0310	.00	2.02	5.98
537.50	2.35	.010	.0423	.00	2.35	8.52
537.60	2.56	.015	.0552	.00	2.56	11.67
537.70	2.75	.021	.0699	.00	2.75	15.64
537.80	2.93	.029	.0862	.00	2.93	20.53
537.90	3.10	.039	.1044	.00	3.10	26.46
538.00	3.26	.050	.1242	.00	3.26	33.52
538.10	3.42	.063	.1357	.00	3.42	41.53
538.20	3.56	.077	.1478	.00	3.56	50.26
538.30	3.70	.093	.1604	.00	3.70	59.72
538.40	3.84	.109	.1735	.00	3.84	69.95
538.50	3.97	.127	.1871	.00	3.97	80.98
538.60	4.10	.147	.2012	.00	4.10	92.85
538.70	4.22	.168	.2158	.00	4.22	105.59
538.80	4.34	.190	.2309	.00	4.34	119.21
538.90	4.46	.214	.2466	.00	4.46	133.78
539.00	4.57	.239	.2627	.00	4.57	149.29
.10	4.68	.266	.2750	.00	4.68	165.66

Type.... Pond E-V-Q Table
 Name.... BASIN #2
 File.... R:\0675N\10-DEV-POI2.PPW

LEVEL POOL ROUTING DATA

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #2 IN 2-YR
 Outflow HYG file = NONE STORED - BASIN #2 OUT 2-YR

Pond Node Data = BASIN #2
 Pond Volume Data = BASIN #2
 Pond Outlet Data = OUTFALL #2

No Infiltration

INITIAL CONDITIONS

 Starting WS Elev = 536.50 ft
 Starting Volume = .000 ac-ft
 Starting Outflow = .00 cfs
 Starting Infiltr. = .00 cfs
 Starting Total Qout = .00 cfs
 Time Increment = .0400 hrs

Elevation ft	Outflow cfs	Storage ac-ft	Area acres	Infiltr. cfs	Q Total cfs	2S/t + O cfs
536.20	4.79	.294	.2876	.00	4.79	182.79
539.30	4.89	.324	.3004	.00	4.89	200.68
539.40	5.00	.354	.3136	.00	5.00	219.36
539.50	5.10	.386	.3270	.00	5.10	238.83
539.60	5.20	.420	.3406	.00	5.20	259.12
539.70	5.30	.454	.3546	.00	5.30	280.26
539.80	5.39	.491	.3689	.00	5.39	302.23
539.90	5.49	.528	.3834	.00	5.49	325.09
540.00	5.58	.567	.3982	.00	5.58	348.82
540.10	5.67	.607	.4020	.00	5.67	373.10
540.20	5.76	.648	.4058	.00	5.76	397.64
540.30	5.85	.688	.4096	.00	5.85	422.39
540.40	5.93	.730	.4134	.00	5.93	447.38
540.50	6.02	.771	.4173	.00	6.02	472.59
540.60	6.10	.813	.4212	.00	6.10	498.03
540.70	6.19	.855	.4251	.00	6.19	523.72
540.80	6.27	.898	.4290	.00	6.27	549.63
540.90	6.35	.941	.4329	.00	6.35	575.80
541.00	6.43	.985	.4369	.00	6.43	602.18
541.10	6.51	1.029	.4409	.00	6.51	628.81
541.20	6.59	1.073	.4449	.00	6.59	655.69
541.30	6.67	1.118	.4489	.00	6.67	682.80
541.40	6.74	1.163	.4530	.00	6.74	710.17
541.50	6.82	1.208	.4571	.00	6.82	737.76

Type.... Pond E-V-Q Table
 Name.... BASIN #2
 File.... R:\0675N\10-DEV-POI2.PPW

LEVEL POOL ROUTING DATA

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #2 IN 2-YR
 Outflow HYG file = NONE STORED - BASIN #2 OUT 2-YR

Pond Node Data = BASIN #2
 Pond Volume Data = BASIN #2
 Pond Outlet Data = OUTFALL #2

No Infiltration

INITIAL CONDITIONS

 Starting WS Elev = 536.50 ft
 Starting Volume = .000 ac-ft
 Starting Outflow = .00 cfs
 Starting Infiltr. = .00 cfs
 Starting Total Qout = .00 cfs
 Time Increment = .0400 hrs

Elevation ft	Outflow cfs	Storage ac-ft	Area acres	Infiltr. cfs	Q Total cfs	2S/t + O cfs
541.60	6.89	1.254	.4612	.00	6.89	765.61
541.70	6.97	1.300	.4653	.00	6.97	793.72
541.80	7.04	1.347	.4694	.00	7.04	822.06
541.90	7.11	1.394	.4736	.00	7.11	850.67
542.00	7.18	1.442	.4777	.00	7.18	879.51
542.10	7.25	1.490	.4819	.00	7.25	908.60
542.20	7.32	1.538	.4861	.00	7.32	937.96
542.30	7.39	1.587	.4903	.00	7.39	967.56
542.40	7.46	1.636	.4945	.00	7.46	997.43
542.50	7.53	1.686	.4987	.00	7.53	1027.54
542.60	7.60	1.736	.5030	.00	7.60	1057.90
542.70	7.67	1.787	.5073	.00	7.67	1088.54
542.80	7.73	1.837	.5116	.00	7.73	1119.42
542.90	7.80	1.889	.5159	.00	7.80	1150.57
543.00	7.86	1.941	.5202	.00	7.86	1181.97
543.10	7.93	1.993	.5246	.00	7.93	1213.63
543.20	7.99	2.046	.5290	.00	7.99	1245.58
543.30	8.06	2.099	.5334	.00	8.06	1277.77
543.33	8.08	2.115	.5347	.00	8.08	1287.49
543.40	8.12	2.152	.5378	.00	8.12	1310.25
543.50	8.28	2.206	.5422	.00	8.28	1343.08
543.60	8.54	2.261	.5467	.00	8.54	1376.26
543.70	8.85	2.316	.5512	.00	8.85	1409.80
543.80	9.23	2.371	.5557	.00	9.23	1443.65
543.90	9.69	2.427	.5602	.00	9.69	1477.88
544.00	10.19	2.483	.5647	.00	10.19	1512.41
544.10	10.76	2.540	.5693	.00	10.76	1547.27
544.20	11.37	2.597	.5740	.00	11.37	1582.48
544.30	12.03	2.654	.5786	.00	12.03	1618.00

ne.... Pond E-V-Q Table
 ne.... BASIN #2
 File.... R:\0675N\10-DEV-POI2.PPW

LEVEL POOL ROUTING DATA

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #2 IN 2-YR
 Outflow HYG file = NONE STORED - BASIN #2 OUT 2-YR

 Pond Node Data = BASIN #2
 Pond Volume Data = BASIN #2
 Pond Outlet Data = OUTFALL #2

No Infiltration

INITIAL CONDITIONS

 Starting WS Elev = 536.50 ft
 Starting Volume = .000 ac-ft
 Starting Outflow = .00 cfs
 Starting Infiltr. = .00 cfs
 Starting Total Qout = .00 cfs
 Time Increment = .0400 hrs

levation ft	Outflow cfs	Storage ac-ft	Area acres	Infiltr. cfs	Q Total cfs	2S/t + O cfs
544.40	12.74	2.713	.5832	.00	12.74	1653.86
544.50	13.48	2.771	.5879	.00	13.48	1690.01
544.60	14.24	2.830	.5926	.00	14.24	1726.48
544.70	15.03	2.890	.5973	.00	15.03	1763.28
544.80	15.85	2.950	.6021	.00	15.85	1800.37
544.90	16.72	3.010	.6068	.00	16.72	1837.82
545.00	17.23	3.071	.6116	.00	17.23	1875.18
545.10	17.72	3.132	.6164	.00	17.72	1912.80
545.20	18.19	3.194	.6212	.00	18.19	1950.72
545.30	18.63	3.257	.6260	.00	18.63	1988.89
545.40	19.07	3.319	.6309	.00	19.07	2027.36
545.50	19.49	3.383	.6357	.00	19.49	2066.08
545.60	19.89	3.447	.6406	.00	19.89	2105.08
545.70	20.28	3.511	.6455	.00	20.28	2144.40
545.80	20.67	3.576	.6504	.00	20.67	2183.97
545.90	21.04	3.641	.6554	.00	21.04	2223.86
546.00	21.41	3.707	.6604	.00	21.41	2264.02
546.10	21.76	3.773	.6655	.00	21.76	2304.47
546.15	21.94	3.806	.6681	.00	21.94	2324.84
546.20	22.77	3.840	.6707	.00	22.77	2345.92
546.30	25.90	3.907	.6759	.00	25.90	2389.77
546.40	30.22	3.975	.6811	.00	30.22	2435.15
546.50	35.42	4.043	.6863	.00	35.42	2481.71
546.60	41.38	4.112	.6916	.00	41.38	2529.33
546.70	48.00	4.182	.6969	.00	48.00	2577.97
546.80	55.21	4.252	.7022	.00	55.21	2627.50
546.90	62.98	4.322	.7075	.00	62.98	2677.92
547.00	71.25	4.393	.7128	.00	71.25	2729.15
547.10	80.00	4.465	.7182	.00	80.00	2781.18

.me.... Pond E-V-Q Table
 .me.... BASIN #2
 File.... R:\0675N\10-DEV-POI2.PPW

LEVEL POOL ROUTING DATA

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #2 IN 2-YR
 Outflow HYG file = NONE STORED - BASIN #2 OUT 2-YR

 Pond Node Data = BASIN #2
 Pond Volume Data = BASIN #2
 Pond Outlet Data = OUTFALL #2

No Infiltration

INITIAL CONDITIONS

 Starting WS Elev = 536.50 ft
 Starting Volume = .000 ac-ft
 Starting Outflow = .00 cfs
 Starting Infiltr. = .00 cfs
 Starting Total Qout = .00 cfs
 Time Increment = .0400 hrs

levation ft	Outflow cfs	Storage ac-ft	Area acres	Infilt. cfs	Q Total cfs	2S/t + O cfs
547.20	89.21	4.537	.7236	.00	89.21	2834.02
547.30	98.85	4.609	.7291	.00	98.85	2887.59
547.40	108.91	4.683	.7345	.00	108.91	2941.93
547.50	119.35	4.756	.7400	.00	119.35	2996.97
547.60	130.17	4.831	.7455	.00	130.17	3052.72
547.70	141.37	4.905	.7510	.00	141.37	3109.20
547.80	152.92	4.981	.7565	.00	152.92	3166.34
547.90	164.81	5.057	.7621	.00	164.81	3224.19
548.00	177.04	5.133	.7677	.00	177.04	3282.68
548.10	189.58	5.210	.7690	.00	189.58	3341.69
548.20	202.46	5.287	.7702	.00	202.46	3401.14
548.30	215.63	5.364	.7715	.00	215.63	3460.94
548.40	229.11	5.441	.7728	.00	229.11	3521.16
548.50	237.33	5.519	.7741	.00	237.33	3576.16
548.60	241.97	5.596	.7754	.00	241.97	3627.66
548.70	246.52	5.674	.7767	.00	246.52	3679.18
548.80	250.98	5.752	.7780	.00	250.98	3730.66
548.90	255.37	5.829	.7792	.00	255.37	3782.16
549.00	259.67	5.907	.7805	.00	259.67	3833.64

```

     . . . . Pond Routing Summary
     . . . . BASIN #2      OUT   Tag: 2-YR      Event: 2 yr
File.... R:\0675N\10-DEV-POI2.PPW
Storm... TypeII 24hr   Tag: 2-YR

```

LEVEL POOL ROUTING SUMMARY

```

HYG Dir           = R:\0675N\
Inflow HYG file  = NONE STORED - BASIN #2      IN 2-YR
Outflow HYG file = NONE STORED - BASIN #2      OUT 2-YR

```

```

Pond Node   Data = BASIN #2
Pond Volume Data = BASIN #2
Pond Outlet Data = OUTFALL #2

```

No Infiltration

INITIAL CONDITIONS

```

-----
Starting WS Elev = 536.50 ft
Starting Volume  = .000 ac-ft
Starting Outflow = .00 cfs
Starting Infiltr. = .00 cfs
Starting Total Qout = .00 cfs
Time Increment   = .0400 hrs

```

INFLOW/OUTFLOW HYDROGRAPH SUMMARY

```

=====
Peak Inflow      = 38.27 cfs   at 12.3600 hrs
Peak Outflow     = 8.07 cfs    at 13.3600 hrs

```

```

-----
Peak Elevation   = 543.32 ft
Peak Storage     = 2.111 ac-ft
=====

```

MASS BALANCE (ac-ft)

```

-----
+ Initial Vol   = .000
+ HYG Vol IN    = 5.239
- Infiltration  = .000
- HYG Vol OUT   = 5.239
- Retained Vol  = .000
-----
Unrouted Vol = .000 ac-ft (.000% of Outflow Volume)

```

... Pond Routing Calcs (Total Out)
 ... BASIN #2 OUT Tag: 2-YR
 File... R:\0675N\10-DEV-POI2.PPW
 Storm... TypeII 24hr Tag: 2-YR

Event: 2 yr

LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #2 IN 2-YR
 Outflow HYG file = NONE STORED - BASIN #2 OUT 2-YR

Time hrs	Inflow cfs	2S/t - O cfs	2S/t + O cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
5.2400	.00	.00	.00	.00	.00	.000	536.50
5.2800	.00	.00	.00	.00	.00	.000	536.55
5.3200	.00	.00	.00	.00	.00	.000	536.60
5.3600	.00	.00	.01	.00	.00	.000	536.60
5.4000	.00	.00	.01	.00	.00	.000	536.60
5.4400	.01	.00	.01	.00	.00	.000	536.60
5.4800	.01	.00	.01	.00	.01	.000	536.60
5.5200	.01	.00	.02	.00	.01	.000	536.61
5.5600	.01	.00	.02	.00	.01	.000	536.61
5.6000	.01	.00	.03	.00	.01	.000	536.61
5.6400	.02	.00	.03	.00	.02	.000	536.61
5.6800	.02	.00	.04	.00	.02	.000	536.62
5.7200	.02	.00	.05	.00	.02	.000	536.62
5.7600	.03	.00	.05	.00	.03	.000	536.62
5.8000	.03	.00	.06	.00	.03	.000	536.63
5.8400	.04	.00	.07	.00	.04	.000	536.63
5.8800	.04	.00	.08	.00	.04	.000	536.64
5.9200	.05	.00	.09	.00	.04	.000	536.64
5.9600	.05	.00	.10	.00	.05	.000	536.64
6.0000	.06	.00	.11	.00	.06	.000	536.65
6.0400	.06	.00	.12	.00	.06	.000	536.65
6.0800	.07	.00	.13	.00	.07	.000	536.66
6.1200	.07	.00	.14	.00	.07	.000	536.66
6.1600	.08	.00	.16	.00	.08	.000	536.67
6.2000	.09	.00	.17	.00	.08	.000	536.67
6.2400	.09	.00	.18	.00	.09	.000	536.68
6.2800	.10	.00	.19	.00	.10	.000	536.69
6.3200	.11	.00	.20	.00	.10	.000	536.69
6.3600	.11	.00	.22	.00	.11	.000	536.70
6.4000	.12	.00	.23	.00	.11	.000	536.70
6.4400	.12	.00	.24	.00	.12	.000	536.71
6.4800	.13	.00	.26	.00	.13	.000	536.71
6.5200	.14	.00	.27	.00	.13	.000	536.71
6.5600	.14	.00	.28	.00	.14	.000	536.72
6.6000	.15	.00	.30	.00	.15	.000	536.72
6.6400	.16	.00	.31	.00	.15	.000	536.73
6.6800	.17	.00	.32	.00	.16	.000	536.73
6.7200	.17	.00	.34	.00	.17	.000	536.73
6.7600	.18	.00	.35	.00	.18	.000	536.74
6.8000	.19	.00	.37	.00	.18	.000	536.74
6.8400	.19	.00	.38	.00	.19	.000	536.75
6.8800	.20	.00	.39	.00	.20	.000	536.75

ne.... Pond Routing Calcs (Total Out)
 .ne.... BASIN #2 OUT Tag: 2-YR
 File.... R:\0675N\10-DEV-POI2.PPW
 Storm... TypeII 24hr Tag: 2-YR

Event: 2 yr

LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #2 IN 2-YR
 Outflow HYG file = NONE STORED - BASIN #2 OUT 2-YR

Time hrs	Inflow cfs	2S/t - 0 cfs	2S/t + 0 cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
6.9200	.21	.00	.41	.00	.20	.000	536.76
6.9600	.22	.00	.42	.00	.21	.000	536.76
7.0000	.22	.00	.44	.00	.22	.000	536.77
7.0400	.23	.00	.45	.00	.23	.000	536.77
7.0800	.24	.00	.47	.00	.23	.000	536.77
7.1200	.24	.00	.48	.00	.24	.000	536.78
7.1600	.25	.00	.50	.00	.25	.000	536.78
7.2000	.26	.00	.51	.00	.26	.000	536.79
7.2400	.27	.00	.53	.00	.26	.000	536.79
7.2800	.28	.00	.54	.00	.27	.000	536.80
7.3200	.28	.00	.56	.00	.28	.000	536.80
7.3600	.29	.00	.57	.00	.29	.000	536.81
7.4000	.30	.00	.59	.00	.29	.000	536.81
7.4400	.31	.00	.60	.00	.30	.000	536.81
7.4800	.31	.00	.62	.00	.31	.000	536.82
7.5200	.32	.00	.64	.00	.32	.000	536.82
7.5600	.33	.00	.65	.00	.33	.000	536.82
7.6000	.34	.00	.67	.00	.33	.000	536.83
7.6400	.35	.00	.68	.00	.34	.000	536.83
7.6800	.35	.00	.70	.00	.35	.000	536.84
7.7200	.36	.00	.72	.00	.36	.000	536.84
7.7600	.37	.00	.73	.00	.37	.000	536.84
7.8000	.38	.00	.75	.00	.37	.000	536.85
7.8400	.39	.00	.76	.00	.38	.000	536.85
7.8800	.39	.00	.78	.00	.39	.000	536.86
7.9200	.40	.00	.80	.00	.40	.000	536.86
7.9600	.41	.00	.81	.00	.41	.000	536.86
8.0000	.42	.00	.83	.00	.42	.000	536.87
8.0400	.43	.00	.85	.00	.42	.000	536.87
8.0800	.44	.00	.86	.00	.43	.000	536.88
8.1200	.44	.00	.88	.00	.44	.000	536.88
8.1600	.45	.00	.90	.00	.45	.000	536.89
8.2000	.46	.00	.92	.00	.46	.000	536.89
8.2400	.47	.00	.93	.00	.47	.000	536.89
8.2800	.48	.00	.95	.00	.48	.000	536.90
8.3200	.49	.00	.97	.00	.49	.000	536.90
8.3600	.50	.00	.99	.00	.50	.000	536.91
8.4000	.51	.00	1.01	.00	.51	.000	536.91
8.4400	.52	.00	1.03	.00	.52	.000	536.92
8.4800	.53	.00	1.06	.00	.53	.000	536.92
8.5200	.55	.00	1.08	.00	.54	.000	536.93
8.5600	.56	.00	1.11	.00	.55	.000	536.93

ne.... Pond Routing Calcs (Total Out)
 ne.... BASIN #2 OUT Tag: 2-YR
 File.... R:\0675N\10-DEV-POI2.PPW
 Storm... TypeII 24hr Tag: 2-YR

Event: 2 yr

LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #2 IN 2-YR
 Outflow HYG file = NONE STORED - BASIN #2 OUT 2-YR

Time hrs	Inflow cfs	2S/t - O cfs	2S/t + O cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
8.6000	.57	.00	1.13	.00	.57	.000	536.94
8.6400	.59	.00	1.16	.00	.58	.000	536.94
8.6800	.60	.00	1.19	.00	.59	.000	536.95
8.7200	.62	.00	1.22	.00	.61	.000	536.95
8.7600	.63	.00	1.25	.00	.62	.000	536.96
8.8000	.65	.00	1.28	.00	.64	.000	536.97
8.8400	.67	.00	1.32	.00	.66	.000	536.97
8.8800	.68	.00	1.35	.00	.67	.001	536.98
8.9200	.70	.00	1.38	.00	.69	.001	536.99
8.9600	.72	.00	1.42	.00	.71	.001	537.00
9.0000	.74	.00	1.46	.00	.73	.001	537.00
9.0400	.76	.00	1.50	.00	.75	.001	537.01
9.0800	.78	.00	1.53	.00	.77	.001	537.02
9.1200	.80	.00	1.57	.00	.79	.001	537.02
9.1600	.82	.00	1.61	.00	.81	.001	537.03
9.2000	.84	.00	1.65	.00	.83	.001	537.04
9.2400	.86	.00	1.69	.00	.85	.001	537.04
9.2800	.88	.00	1.73	.00	.87	.001	537.05
9.3200	.90	.00	1.77	.00	.89	.001	537.06
9.3600	.92	.00	1.81	.00	.91	.001	537.06
9.4000	.94	.00	1.85	.00	.93	.001	537.07
9.4400	.95	.00	1.89	.00	.94	.001	537.08
9.4800	.97	.00	1.93	.00	.96	.001	537.08
9.5200	.99	.00	1.96	.00	.98	.001	537.09
9.5600	1.01	.00	2.00	.00	1.00	.001	537.10
9.6000	1.02	.00	2.03	.00	1.02	.001	537.10
9.6400	1.04	.00	2.07	.00	1.03	.001	537.11
9.6800	1.06	.00	2.10	.00	1.05	.001	537.11
9.7200	1.07	.00	2.13	.00	1.07	.001	537.12
9.7600	1.09	.00	2.16	.00	1.08	.001	537.12
9.8000	1.11	.00	2.20	.00	1.10	.001	537.13
9.8400	1.13	.00	2.23	.00	1.12	.001	537.13
9.8800	1.14	.00	2.27	.00	1.14	.001	537.14
9.9200	1.16	.00	2.31	.00	1.15	.002	537.15
9.9600	1.19	.00	2.35	.00	1.17	.002	537.15
10.0000	1.21	.00	2.39	.00	1.20	.002	537.16
10.0400	1.23	.00	2.44	.00	1.22	.002	537.17
10.0800	1.26	.00	2.49	.00	1.24	.002	537.17
10.1200	1.28	.00	2.54	.00	1.27	.002	537.18
10.1600	1.31	.00	2.59	.00	1.30	.002	537.19
10.2000	1.34	.00	2.65	.00	1.32	.002	537.20
10.2400	1.37	.03	2.71	.00	1.34	.002	537.20

ne.... Pond Routing Calcs (Total Out)
 ne.... BASIN #2 OUT Tag: 2-YR
 File.... R:\0675N\10-DEV-POI2.PPW
 Storm... TypeII 24hr Tag: 2-YR

Event: 2 yr

LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #2 IN 2-YR
 Outflow HYG file = NONE STORED - BASIN #2 OUT 2-YR

Time hrs	Inflow cfs	2S/t - O cfs	2S/t + O cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
10.2800	1.40	.08	2.80	.00	1.36	.002	537.21
10.3200	1.44	.14	2.92	.00	1.39	.002	537.22
10.3600	1.47	.21	3.05	.00	1.42	.003	537.23
10.4000	1.51	.28	3.19	.00	1.45	.003	537.24
10.4400	1.55	.36	3.34	.00	1.49	.003	537.25
10.4800	1.59	.44	3.50	.00	1.53	.003	537.26
10.5200	1.63	.52	3.66	.00	1.57	.003	537.27
10.5600	1.68	.61	3.83	.00	1.61	.004	537.29
10.6000	1.72	.70	4.01	.00	1.65	.004	537.30
10.6400	1.77	.82	4.20	.00	1.69	.004	537.31
10.6800	1.82	.95	4.41	.00	1.73	.004	537.32
10.7200	1.87	1.10	4.65	.00	1.77	.005	537.33
10.7600	1.93	1.26	4.90	.00	1.82	.005	537.34
10.8000	1.98	1.43	5.17	.00	1.87	.005	537.36
10.8400	2.05	1.61	5.46	.00	1.92	.006	537.37
10.8800	2.11	1.81	5.77	.00	1.98	.006	537.39
10.9200	2.17	2.02	6.09	.00	2.04	.007	537.40
10.9600	2.24	2.27	6.43	.00	2.08	.007	537.42
11.0000	2.31	2.57	6.83	.00	2.13	.008	537.43
11.0400	2.39	2.90	7.27	.00	2.19	.008	537.45
11.0800	2.47	3.25	7.76	.00	2.25	.009	537.47
11.1200	2.55	3.64	8.28	.00	2.32	.010	537.49
11.1600	2.64	4.09	8.83	.00	2.37	.011	537.51
11.2000	2.74	4.64	9.47	.00	2.41	.012	537.53
11.2400	2.83	5.28	10.21	.00	2.46	.013	537.55
11.2800	2.94	6.02	11.05	.00	2.52	.014	537.58
11.3200	3.05	6.86	12.01	.00	2.58	.016	537.61
11.3600	3.17	7.83	13.09	.00	2.63	.017	537.64
11.4000	3.31	8.93	14.31	.00	2.69	.019	537.67
11.4400	3.44	10.17	15.68	.00	2.75	.021	537.70
11.4800	3.60	11.59	17.21	.00	2.81	.024	537.73
11.5200	3.78	13.23	18.98	.00	2.88	.026	537.77
11.5600	3.97	15.09	20.98	.00	2.95	.030	537.81
11.6000	4.27	17.30	23.33	.00	3.01	.033	537.85
11.6400	4.60	19.99	26.18	.00	3.09	.038	537.90
11.6800	4.96	23.21	29.56	.00	3.17	.043	537.94
11.7200	5.67	27.31	33.84	.00	3.27	.051	538.00
11.7600	6.38	32.61	39.36	.00	3.37	.059	538.07
11.8000	7.38	39.38	46.38	.00	3.50	.071	538.16
11.8400	8.94	48.42	55.71	.00	3.64	.086	538.26
11.8800	10.50	60.23	67.86	.00	3.81	.106	538.38
11.9200	12.71	75.44	83.44	.00	4.00	.131	538.52

.ne.... Pond Routing Calcs (Total Out)
 .ne.... BASIN #2 OUT Tag: 2-YR
 File.... R:\0675N\10-DEV-POI2.PPW
 Storm... TypeII 24hr Tag: 2-YR

Event: 2 yr

LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #2 IN 2-YR
 Outflow HYG file = NONE STORED - BASIN #2 OUT 2-YR

Time hrs	Inflow cfs	2S/t - O cfs	2S/t + O cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
11.9600	15.33	95.08	103.48	.00	4.20	.164	538.68
12.0000	17.94	119.52	128.34	.00	4.41	.205	538.86
12.0400	21.17	149.36	158.63	.00	4.63	.254	539.06
12.0800	24.46	185.27	194.99	.00	4.86	.314	539.27
12.1200	27.69	227.24	237.43	.00	5.09	.384	539.49
12.1600	30.55	274.85	285.49	.00	5.32	.463	539.72
12.2000	33.41	327.74	338.82	.00	5.54	.551	539.96
12.2400	35.59	385.24	396.75	.00	5.76	.646	540.20
12.2800	36.87	445.75	457.69	.00	5.97	.747	540.44
12.3200	38.14	508.40	520.76	.00	6.18	.851	540.69
12.3600	38.27	572.06	584.81	.00	6.38	.956	540.93
12.4000	37.92	635.12	648.25	.00	6.57	1.061	541.17
12.4400	37.57	697.13	710.62	.00	6.74	1.163	541.40
12.4800	36.18	757.07	770.88	.00	6.91	1.263	541.62
12.5200	34.76	813.90	828.00	.00	7.05	1.357	541.82
12.5600	33.19	867.46	881.84	.00	7.19	1.446	542.01
12.6000	31.18	917.21	931.82	.00	7.31	1.528	542.18
12.6400	29.16	962.71	977.54	.00	7.42	1.603	542.33
12.6800	27.16	1004.01	1019.04	.00	7.51	1.672	542.47
12.7200	25.17	1041.15	1056.34	.00	7.59	1.733	542.59
12.7600	23.17	1074.16	1089.49	.00	7.67	1.788	542.70
12.8000	21.53	1103.40	1118.86	.00	7.73	1.837	542.80
12.8400	19.98	1129.34	1144.91	.00	7.79	1.880	542.88
12.8800	18.45	1152.10	1167.77	.00	7.83	1.917	542.95
12.9200	17.29	1172.09	1187.84	.00	7.88	1.950	543.02
12.9600	16.12	1189.68	1205.50	.00	7.91	1.979	543.07
13.0000	15.04	1204.96	1220.85	.00	7.94	2.005	543.12
13.0400	14.12	1218.18	1234.12	.00	7.97	2.027	543.16
13.0800	13.20	1229.52	1245.50	.00	7.99	2.045	543.20
13.1200	12.39	1239.09	1255.11	.00	8.01	2.061	543.23
13.1600	11.66	1247.09	1263.15	.00	8.03	2.075	543.25
13.2000	10.93	1253.61	1269.69	.00	8.04	2.085	543.27
13.2400	10.35	1258.80	1274.90	.00	8.05	2.094	543.29
13.2800	9.79	1262.82	1278.94	.00	8.06	2.101	543.30
13.3200	9.24	1265.72	1281.85	.00	8.06	2.105	543.31
13.3600	8.80	1267.63	1283.77	.00	8.07	2.109	543.32
13.4000	8.35	1268.64	1284.78	.00	8.07	2.110	543.32
13.4400	7.95	1268.80	1284.94	.00	8.07	2.111	543.32
13.4800	7.60	1268.21	1284.35	.00	8.07	2.110	543.32
13.5200	7.25	1266.93	1283.06	.00	8.07	2.107	543.32
13.5600	6.95	1265.00	1281.13	.00	8.06	2.104	543.31
13.6000	6.67	1262.50	1278.62	.00	8.06	2.100	543.30

ne.... Pond Routing Calcs (Total Out)
 .me.... BASIN #2 OUT Tag: 2-YR
 File.... R:\0675N\10-DEV-POI2.PPW
 Storm... TypeII 24hr Tag: 2-YR

Event: 2 yr

LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #2 IN 2-YR
 Outflow HYG file = NONE STORED - BASIN #2 OUT 2-YR

Time hrs	Inflow cfs	2S/t - 0 cfs	2S/t + 0 cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
13.6400	6.39	1259.46	1275.57	.00	8.05	2.095	543.29
13.6800	6.16	1255.93	1272.02	.00	8.04	2.089	543.28
13.7200	5.94	1251.95	1268.03	.00	8.04	2.083	543.27
13.7600	5.72	1247.55	1263.61	.00	8.03	2.075	543.26
13.8000	5.53	1242.77	1258.80	.00	8.02	2.067	543.24
13.8400	5.35	1237.63	1253.64	.00	8.01	2.059	543.23
13.8800	5.17	1232.15	1248.15	.00	8.00	2.050	543.21
13.9200	5.02	1226.38	1242.35	.00	7.99	2.040	543.19
13.9600	4.86	1220.31	1236.26	.00	7.97	2.030	543.17
14.0000	4.73	1213.98	1229.91	.00	7.96	2.020	543.15
14.0400	4.60	1207.41	1223.31	.00	7.95	2.009	543.13
14.0800	4.47	1200.61	1216.48	.00	7.93	1.998	543.11
14.1200	4.35	1193.60	1209.43	.00	7.92	1.986	543.09
14.1600	4.24	1186.38	1202.19	.00	7.90	1.974	543.06
14.2000	4.13	1178.97	1194.75	.00	7.89	1.962	543.04
14.2400	4.03	1171.39	1187.14	.00	7.87	1.949	543.02
14.2800	3.93	1163.63	1179.35	.00	7.86	1.936	542.99
14.3200	3.84	1155.72	1171.40	.00	7.84	1.923	542.97
14.3600	3.75	1147.65	1163.30	.00	7.82	1.910	542.94
14.4000	3.66	1139.44	1155.05	.00	7.81	1.896	542.91
14.4400	3.58	1131.09	1146.67	.00	7.79	1.882	542.89
14.4800	3.50	1122.63	1138.17	.00	7.77	1.868	542.86
14.5200	3.43	1114.05	1129.56	.00	7.75	1.854	542.83
14.5600	3.37	1105.38	1120.85	.00	7.73	1.840	542.80
14.6000	3.31	1096.63	1112.06	.00	7.72	1.825	542.78
14.6400	3.26	1087.81	1103.20	.00	7.70	1.811	542.75
14.6800	3.21	1078.92	1094.28	.00	7.68	1.796	542.72
14.7200	3.17	1069.99	1085.31	.00	7.66	1.781	542.69
14.7600	3.13	1061.01	1076.29	.00	7.64	1.766	542.66
14.8000	3.09	1052.00	1067.23	.00	7.62	1.751	542.63
14.8400	3.05	1042.94	1058.14	.00	7.60	1.736	542.60
14.8800	3.02	1033.86	1049.01	.00	7.58	1.721	542.57
14.9200	2.99	1024.75	1039.86	.00	7.56	1.706	542.54
14.9600	2.95	1015.61	1030.68	.00	7.54	1.691	542.51
15.0000	2.92	1006.45	1021.48	.00	7.52	1.676	542.48
15.0400	2.89	997.27	1012.27	.00	7.50	1.661	542.45
15.0800	2.86	988.08	1003.03	.00	7.48	1.646	542.42
15.1200	2.84	978.87	993.78	.00	7.45	1.630	542.39
15.1600	2.81	969.65	984.51	.00	7.43	1.615	542.36
15.2000	2.78	960.41	975.23	.00	7.41	1.600	542.33
15.2400	2.75	951.17	965.95	.00	7.39	1.584	542.29
15.2800	2.73	941.91	956.65	.00	7.37	1.569	542.26

ne.... Pond Routing Calcs (Total Out)
 ne.... BASIN #2 OUT Tag: 2-YR
 File.... R:\0675N\10-DEV-POI2.PPW
 Storm... TypeII 24hr Tag: 2-YR

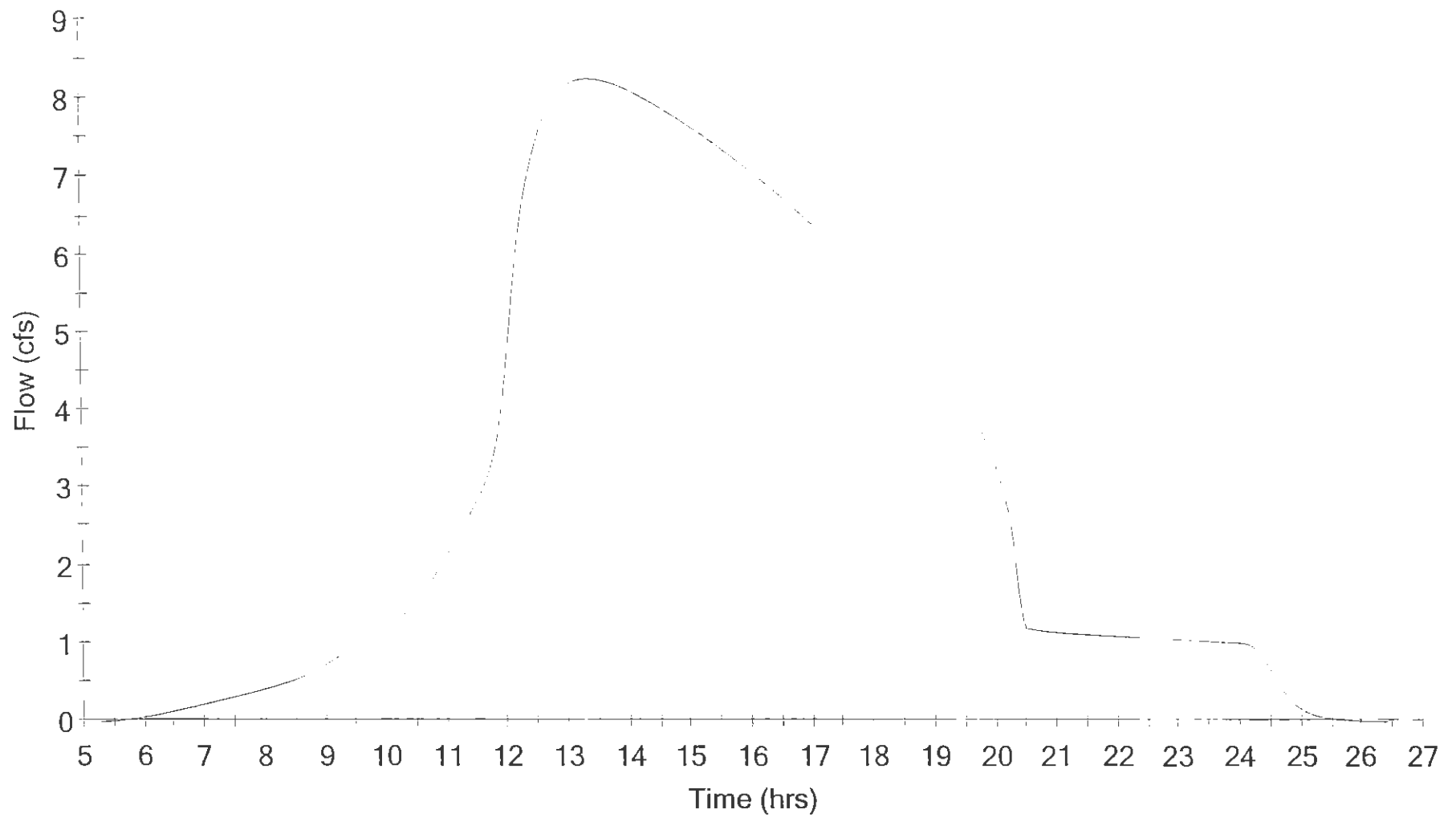
Event: 2 yr

LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #2 IN 2-YR
 Outflow HYG file = NONE STORED - BASIN #2 OUT 2-YR

Time hrs	Inflow cfs	2S/t - 0 cfs	2S/t + 0 cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
15.3200	2.70	932.65	947.34	.00	7.35	1.554	542.23
15.3600	2.68	923.38	938.03	.00	7.32	1.538	542.20
15.4000	2.65	914.11	928.71	.00	7.30	1.523	542.17
15.4400	2.63	904.83	919.39	.00	7.28	1.508	542.14
15.4800	2.60	895.55	910.06	.00	7.26	1.492	542.11
15.5200	2.58	886.26	900.73	.00	7.23	1.477	542.07
15.5600	2.56	876.97	891.39	.00	7.21	1.461	542.04
15.6000	2.53	867.68	882.06	.00	7.19	1.446	542.01
15.6400	2.51	858.38	872.72	.00	7.17	1.431	541.98
15.6800	2.48	849.09	863.38	.00	7.14	1.415	541.94
15.7200	2.46	839.79	854.03	.00	7.12	1.400	541.91
15.7600	2.44	830.50	844.69	.00	7.10	1.384	541.88
15.8000	2.41	821.20	835.35	.00	7.07	1.369	541.85
15.8400	2.39	811.91	826.01	.00	7.05	1.354	541.81
15.8800	2.37	802.61	816.66	.00	7.03	1.338	541.78
15.9200	2.34	793.32	807.32	.00	7.00	1.323	541.75
15.9600	2.32	784.03	797.98	.00	6.98	1.307	541.72
16.0000	2.30	774.74	788.65	.00	6.95	1.292	541.68
16.0400	2.27	765.46	779.31	.00	6.93	1.277	541.65
16.0800	2.25	756.17	769.98	.00	6.90	1.261	541.62
16.1200	2.23	746.89	760.65	.00	6.88	1.246	541.58
16.1600	2.20	737.62	751.32	.00	6.85	1.230	541.55
16.2000	2.18	728.34	742.00	.00	6.83	1.215	541.52
16.2400	2.16	719.08	732.69	.00	6.80	1.200	541.48
16.2800	2.14	709.82	723.38	.00	6.78	1.184	541.45
16.3200	2.12	700.57	714.08	.00	6.75	1.169	541.41
16.3600	2.10	691.33	704.79	.00	6.73	1.154	541.38
16.4000	2.08	682.11	695.51	.00	6.70	1.138	541.35
16.4400	2.06	672.89	686.24	.00	6.68	1.123	541.31
16.4800	2.04	663.69	676.99	.00	6.65	1.108	541.28
16.5200	2.02	654.51	667.76	.00	6.62	1.093	541.24
16.5600	2.01	645.35	658.54	.00	6.60	1.078	541.21
16.6000	1.99	636.21	649.35	.00	6.57	1.062	541.18
16.6400	1.98	627.09	640.17	.00	6.54	1.047	541.14
16.6800	1.96	617.99	631.03	.00	6.52	1.032	541.11
16.7200	1.95	608.93	621.91	.00	6.49	1.017	541.07
16.7600	1.94	599.89	612.81	.00	6.46	1.002	541.04
16.8000	1.92	590.87	603.74	.00	6.44	.987	541.01
16.8400	1.91	581.89	594.71	.00	6.41	.972	540.97
16.8800	1.90	572.94	585.70	.00	6.38	.958	540.94
16.9200	1.89	564.02	576.73	.00	6.35	.943	540.90
16.9600	1.88	555.14	567.79	.00	6.33	.928	540.87

Hydrograph
POI #2 2-YR



15 YEAR STORM ROUTING


```

pe.... Pond Routing Summary
.me.... BASIN #2      OUT      Tag: 15-YR      Event: 15 yr
File.... R:\0675N\10-DEV-POI2.PPW
Storm... TypeII 24hr  Tag: 15-YR

```

LEVEL POOL ROUTING SUMMARY

```

HYG Dir           = R:\0675N\
Inflow HYG file  = NONE STORED - BASIN #2      IN  15-YR
Outflow HYG file = NONE STORED - BASIN #2      OUT 15-YR

```

```

Pond Node  Data = BASIN #2
Pond Volume Data = BASIN #2
Pond Outlet Data = OUTFALL #2

```

No Infiltration

INITIAL CONDITIONS

```

-----
Starting WS Elev  = 536.50 ft
Starting Volume   = .000 ac-ft
Starting Outflow  = .00 cfs
Starting Infiltr. = .00 cfs
Starting Total Qout = .00 cfs
Time Increment    = .0400 hrs

```

INFLOW/OUTFLOW HYDROGRAPH SUMMARY

```

=====
Peak Inflow      = 62.70 cfs   at 12.3600 hrs
Peak Outflow     = 19.61 cfs   at 13.1200 hrs
-----
Peak Elevation   = 545.53 ft
Peak Storage     = 3.403 ac-ft
=====

```

MASS BALANCE (ac-ft)

```

-----
+ Initial Vol   = .000
+ HYG Vol IN    = 8.708
- Infiltration  = .000
- HYG Vol OUT   = 8.708
- Retained Vol  = .000
-----
Unrouted Vol   = .000 ac-ft (.000% of Outflow Volume)

```

pe.... Pond Routing Calcs (Total Out)
 Name.... BASIN #2 OUT Tag: 15-YR
 File.... R:\0675N\10-DEV-POI2.PPW
 Storm... TypeII 24hr Tag: 15-YR

Event: 15 yr

LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #2 IN 15-YR
 Outflow HYG file = NONE STORED - BASIN #2 OUT 15-YR

Time hrs	Inflow cfs	2S/t - 0 cfs	2S/t + 0 cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
7.1600	.84	.00	1.66	.00	.83	.001	537.04
7.2000	.85	.00	1.69	.00	.84	.001	537.04
7.2400	.87	.00	1.72	.00	.86	.001	537.05
7.2800	.88	.00	1.74	.00	.87	.001	537.05
7.3200	.89	.00	1.77	.00	.89	.001	537.06
7.3600	.91	.00	1.80	.00	.90	.001	537.06
7.4000	.92	.00	1.83	.00	.91	.001	537.07
7.4400	.93	.00	1.85	.00	.93	.001	537.07
7.4800	.95	.00	1.88	.00	.94	.001	537.08
7.5200	.96	.00	1.91	.00	.95	.001	537.08
7.5600	.98	.00	1.94	.00	.97	.001	537.09
7.6000	.99	.00	1.97	.00	.98	.001	537.09
7.6400	1.00	.00	1.99	.00	1.00	.001	537.10
7.6800	1.02	.00	2.02	.00	1.01	.001	537.10
7.7200	1.03	.00	2.05	.00	1.02	.001	537.11
7.7600	1.05	.00	2.08	.00	1.04	.001	537.11
7.8000	1.06	.00	2.11	.00	1.05	.001	537.11
7.8400	1.07	.00	2.13	.00	1.07	.001	537.12
7.8800	1.09	.00	2.16	.00	1.08	.001	537.12
7.9200	1.10	.00	2.19	.00	1.10	.001	537.13
7.9600	1.12	.00	2.22	.00	1.11	.001	537.13
8.0000	1.13	.00	2.25	.00	1.12	.001	537.14
8.0400	1.15	.00	2.28	.00	1.14	.001	537.14
8.0800	1.16	.00	2.30	.00	1.15	.002	537.15
8.1200	1.17	.00	2.33	.00	1.17	.002	537.15
8.1600	1.19	.00	2.36	.00	1.18	.002	537.16
8.2000	1.20	.00	2.39	.00	1.20	.002	537.16
8.2400	1.22	.00	2.43	.00	1.21	.002	537.17
8.2800	1.24	.00	2.46	.00	1.23	.002	537.17
8.3200	1.25	.00	2.49	.00	1.25	.002	537.18
8.3600	1.27	.00	2.53	.00	1.26	.002	537.18
8.4000	1.29	.00	2.56	.00	1.28	.002	537.19
8.4400	1.31	.00	2.60	.00	1.30	.002	537.19
8.4800	1.33	.00	2.65	.00	1.32	.002	537.20
8.5200	1.36	.02	2.69	.00	1.33	.002	537.20
8.5600	1.38	.06	2.76	.00	1.35	.002	537.21
8.6000	1.41	.10	2.85	.00	1.37	.002	537.21
8.6400	1.43	.15	2.94	.00	1.40	.002	537.22
8.6800	1.46	.21	3.05	.00	1.42	.003	537.23
8.7200	1.49	.26	3.16	.00	1.45	.003	537.24
8.7600	1.52	.32	3.27	.00	1.48	.003	537.25
8.8000	1.55	.39	3.40	.00	1.50	.003	537.25

be.... Pond Routing Calcs (Total Out)
 Name.... BASIN #2 OUT Tag: 15-YR
 File.... R:\0675N\10-DEV-POI2.PPW
 Storm... TypeII 24hr Tag: 15-YR

Event: 15 yr

LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #2 IN 15-YR
 Outflow HYG file = NONE STORED - BASIN #2 OUT 15-YR

Time hrs	Inflow cfs	2S/t - O cfs	2S/t + O cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
8.8400	1.58	.45	3.52	.00	1.54	.003	537.26
8.8800	1.62	.52	3.65	.00	1.57	.003	537.27
8.9200	1.65	.59	3.79	.00	1.60	.004	537.28
8.9600	1.69	.66	3.93	.00	1.63	.004	537.29
9.0000	1.72	.73	4.07	.00	1.67	.004	537.30
9.0400	1.76	.83	4.21	.00	1.69	.004	537.31
9.0800	1.79	.93	4.38	.00	1.72	.004	537.32
9.1200	1.83	1.04	4.56	.00	1.76	.005	537.33
9.1600	1.87	1.16	4.74	.00	1.79	.005	537.34
9.2000	1.91	1.28	4.94	.00	1.83	.005	537.35
9.2400	1.94	1.40	5.13	.00	1.86	.005	537.36
9.2800	1.98	1.53	5.33	.00	1.90	.006	537.37
9.3200	2.02	1.65	5.52	.00	1.94	.006	537.38
3600	2.05	1.77	5.72	.00	1.97	.006	537.39
4000	2.09	1.89	5.91	.00	2.01	.006	537.40
9.4400	2.12	2.02	6.10	.00	2.04	.007	537.40
9.4800	2.15	2.17	6.29	.00	2.06	.007	537.41
9.5200	2.18	2.32	6.50	.00	2.09	.007	537.42
9.5600	2.21	2.48	6.72	.00	2.12	.007	537.43
9.6000	2.24	2.64	6.93	.00	2.14	.008	537.44
9.6400	2.27	2.80	7.15	.00	2.17	.008	537.45
9.6800	2.29	2.96	7.37	.00	2.20	.008	537.45
9.7200	2.32	3.12	7.58	.00	2.23	.009	537.46
9.7600	2.35	3.28	7.80	.00	2.26	.009	537.47
9.8000	2.38	3.44	8.01	.00	2.28	.009	537.48
9.8400	2.41	3.60	8.23	.00	2.31	.010	537.49
9.8800	2.44	3.77	8.45	.00	2.34	.010	537.50
9.9200	2.47	3.95	8.68	.00	2.36	.010	537.50
9.9600	2.51	4.18	8.93	.00	2.38	.011	537.51
10.0000	2.55	4.44	9.23	.00	2.40	.011	537.52
10.0400	2.58	4.72	9.57	.00	2.42	.012	537.53
10.0800	2.63	5.05	9.94	.00	2.44	.012	537.55
10.1200	2.67	5.41	10.35	.00	2.47	.013	537.56
10.1600	2.72	5.80	10.81	.00	2.50	.014	537.57
10.2000	2.78	6.23	11.30	.00	2.54	.014	537.59
10.2400	2.83	6.70	11.83	.00	2.57	.015	537.60
10.2800	2.89	7.22	12.41	.00	2.60	.016	537.62
10.3200	2.95	7.80	13.06	.00	2.63	.017	537.63
10.3600	3.01	8.44	13.76	.00	2.66	.018	537.65
10.4000	3.08	9.13	14.52	.00	2.70	.019	537.67
4400	3.15	9.87	15.35	.00	2.74	.021	537.69
10.4800	3.22	10.69	16.24	.00	2.77	.022	537.71

```

... Pond Routing Calcs (Total Out)
Name... BASIN #2      OUT      Tag: 15-YR
File... R:\0675N\10-DEV-POI2.PPW
Storm... TypeII 24hr  Tag: 15-YR

```

Event: 15 yr

LEVEL POOL ROUTING CALCULATIONS

```

HYG Dir      = R:\0675N\
Inflow HYG file = NONE STORED - BASIN #2      IN 15-YR
Outflow HYG file = NONE STORED - BASIN #2      OUT 15-YR

```

Time hrs	Inflow cfs	2S/t - O cfs	2S/t + O cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
10.5200	3.30	11.58	17.20	.00	2.81	.024	537.73
10.5600	3.37	12.55	18.25	.00	2.85	.025	537.75
10.6000	3.45	13.60	19.38	.00	2.89	.027	537.78
10.6400	3.54	14.73	20.60	.00	2.93	.029	537.80
10.6800	3.63	15.95	21.90	.00	2.97	.031	537.82
10.7200	3.72	17.28	23.30	.00	3.01	.033	537.85
10.7600	3.82	18.71	24.82	.00	3.06	.036	537.87
10.8000	3.92	20.24	26.44	.00	3.10	.039	537.90
10.8400	4.02	21.90	28.18	.00	3.14	.041	537.92
10.8800	4.13	23.69	30.06	.00	3.18	.044	537.95
10.9200	4.25	25.61	32.07	.00	3.23	.048	537.98
10.9600	4.37	27.67	34.22	.00	3.28	.051	538.01
11.0000	4.49	29.90	36.54	.00	3.32	.055	538.04
11.0400	4.63	32.28	39.01	.00	3.37	.059	538.07
11.0800	4.77	34.83	41.67	.00	3.42	.063	538.10
11.1200	4.91	37.58	44.51	.00	3.47	.068	538.13
11.1600	5.06	40.51	47.55	.00	3.52	.073	538.17
11.2000	5.23	43.66	50.80	.00	3.57	.078	538.21
11.2400	5.39	47.03	54.28	.00	3.62	.084	538.24
11.2800	5.58	50.65	58.00	.00	3.68	.090	538.28
11.3200	5.78	54.54	62.00	.00	3.73	.096	538.32
11.3600	5.98	58.71	66.29	.00	3.79	.103	538.36
11.4000	6.21	63.20	70.90	.00	3.85	.111	538.41
11.4400	6.44	68.03	75.85	.00	3.91	.119	538.45
11.4800	6.72	73.24	81.19	.00	3.97	.128	538.50
11.5200	7.03	78.92	86.99	.00	4.03	.137	538.55
11.5600	7.35	85.10	93.30	.00	4.10	.147	538.60
11.6000	7.87	91.98	100.32	.00	4.17	.159	538.66
11.6400	8.44	99.79	108.28	.00	4.24	.172	538.72
11.6800	9.05	108.64	117.28	.00	4.32	.187	538.79
11.7200	10.26	119.13	127.95	.00	4.41	.204	538.86
11.7600	11.47	131.84	140.85	.00	4.51	.225	538.95
11.8000	13.15	147.22	156.45	.00	4.62	.251	539.04
11.8400	15.75	166.63	176.12	.00	4.75	.283	539.16
11.8800	18.35	190.93	200.72	.00	4.89	.324	539.30
11.9200	21.99	221.15	231.27	.00	5.06	.374	539.46
11.9600	26.28	258.92	269.42	.00	5.25	.436	539.65
12.0000	30.57	304.88	315.78	.00	5.45	.513	539.86
12.0400	35.79	359.92	371.24	.00	5.66	.604	540.09
12.0800	41.11	425.02	436.82	.00	5.90	.712	540.36
12.1200	46.31	500.15	512.45	.00	6.15	.837	540.66
12.1600	50.85	584.47	597.30	.00	6.42	.977	540.98

```

me.... Pond Routing Calcs (Total Out)
me.... BASIN #2      OUT      Tag: 15-YR      Event: 15 yr
File.... R:\0675N\10-DEV-POI2.PPW
Storm... TypeII 24hr  Tag: 15-YR

```

LEVEL POOL ROUTING CALCULATIONS

```

HYG Dir      = R:\0675N\
Inflow HYG file = NONE STORED - BASIN #2      IN 15-YR
Outflow HYG file = NONE STORED - BASIN #2      OUT 15-YR

```

Time hrs	Inflow cfs	2S/t - O cfs	2S/t + O cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
12.2000	55.38	677.32	690.70	.00	6.69	1.131	541.33
12.2400	58.78	777.57	791.49	.00	6.96	1.297	541.69
12.2800	60.71	882.61	897.06	.00	7.23	1.471	542.06
12.3200	62.63	990.98	1005.95	.00	7.48	1.650	542.43
12.3600	62.70	1100.87	1116.32	.00	7.73	1.832	542.79
12.4000	62.00	1209.66	1225.56	.00	7.95	2.013	543.14
12.4400	61.29	1316.48	1332.95	.00	8.23	2.190	543.47
12.4800	58.91	1418.38	1436.68	.00	9.15	2.360	543.78
12.5200	56.49	1512.69	1533.77	.00	10.54	2.518	544.06
12.5600	53.84	1598.75	1623.01	.00	12.13	2.663	544.31
12.6000	50.50	1675.59	1703.09	.00	13.75	2.792	544.54
12.6400	47.16	1742.75	1773.26	.00	15.25	2.906	544.73
12.6800	43.86	1800.53	1833.78	.00	16.62	3.004	544.89
12.7200	40.59	1850.27	1884.99	.00	17.36	3.087	545.03
12.7600	37.32	1892.38	1928.19	.00	17.91	3.157	545.14
12.8000	34.64	1927.65	1964.34	.00	18.35	3.216	545.24
12.8400	32.11	1957.00	1994.39	.00	18.70	3.266	545.31
12.8800	29.61	1980.78	2018.72	.00	18.97	3.305	545.38
12.9200	27.72	1999.74	2038.11	.00	19.18	3.337	545.43
12.9600	25.82	2014.58	2053.28	.00	19.35	3.362	545.47
13.0000	24.05	2025.52	2064.45	.00	19.47	3.380	545.50
13.0400	22.56	2033.03	2072.13	.00	19.55	3.393	545.52
13.0800	21.06	2037.45	2076.64	.00	19.60	3.400	545.53
13.1200	19.75	2039.04	2078.26	.00	19.61	3.403	545.53
13.1600	18.57	2038.15	2077.35	.00	19.60	3.401	545.53
13.2000	17.38	2034.96	2074.10	.00	19.57	3.396	545.52
13.2400	16.44	2029.75	2068.78	.00	19.51	3.387	545.51
13.2800	15.53	2022.84	2061.72	.00	19.44	3.376	545.49
13.3200	14.65	2014.33	2053.02	.00	19.34	3.361	545.47
13.3600	13.93	2004.43	2042.90	.00	19.23	3.345	545.44
13.4000	13.21	1993.34	2031.56	.00	19.11	3.326	545.41
13.4400	12.56	1981.16	2019.10	.00	18.97	3.306	545.38
13.4800	11.99	1968.06	2005.70	.00	18.82	3.284	545.34
13.5200	11.43	1954.15	1991.48	.00	18.66	3.261	545.31
13.5600	10.94	1939.54	1976.52	.00	18.49	3.236	545.27
13.6000	10.50	1924.37	1960.99	.00	18.31	3.211	545.23
13.6400	10.05	1908.69	1944.92	.00	18.11	3.185	545.18
13.6800	9.68	1892.60	1928.43	.00	17.91	3.158	545.14
13.7200	9.32	1876.20	1911.61	.00	17.70	3.130	545.10
13.7600	8.97	1859.53	1894.49	.00	17.48	3.102	545.05
13.8000	8.67	1842.66	1877.17	.00	17.26	3.074	545.01
13.8400	8.37	1825.67	1859.71	.00	17.02	3.046	544.96

Name.... Pond Routing Calcs (Total Out)
 Name.... BASIN #2 OUT Tag: 15-YR
 File.... R:\0675N\10-DEV-POI2.PPW
 Storm... TypeII 24hr Tag: 15-YR

Event: 15 yr

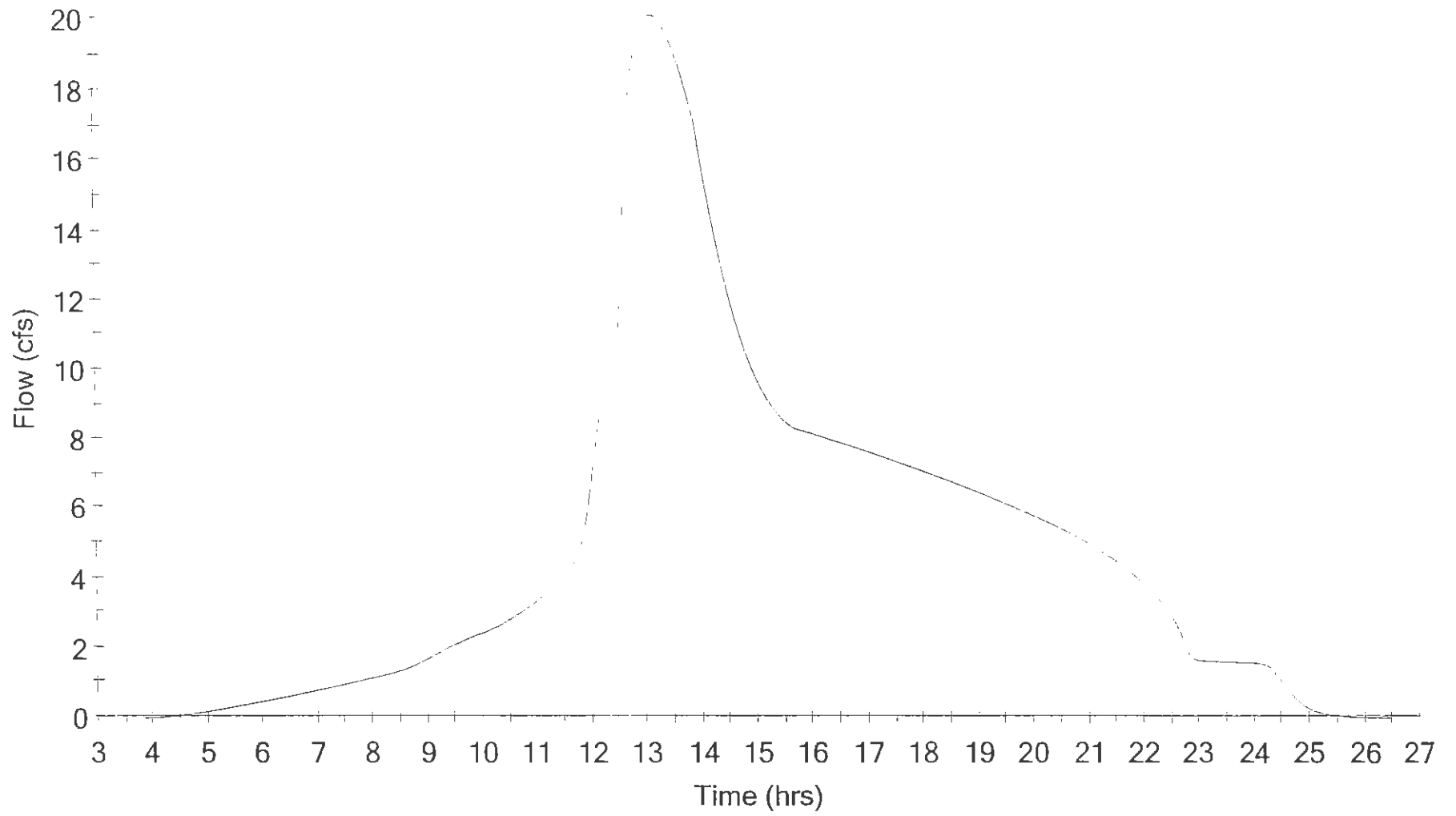
LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #2 IN 15-YR
 Outflow HYG file = NONE STORED - BASIN #2 OUT 15-YR

Time hrs	Inflow cfs	2S/t - O cfs	2S/t + O cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
13.8800	8.10	1808.59	1842.15	.00	16.78	3.017	544.91
13.9200	7.85	1791.73	1824.55	.00	16.41	2.989	544.86
13.9600	7.61	1775.17	1807.19	.00	16.01	2.961	544.82
14.0000	7.39	1758.92	1790.17	.00	15.62	2.933	544.77
14.0400	7.18	1742.98	1773.49	.00	15.26	2.906	544.73
14.0800	6.97	1727.34	1757.14	.00	14.90	2.880	544.68
14.1200	6.79	1712.00	1741.11	.00	14.55	2.854	544.64
14.1600	6.61	1696.98	1725.41	.00	14.22	2.828	544.60
14.2000	6.44	1682.24	1710.03	.00	13.89	2.803	544.55
14.2400	6.28	1667.81	1694.97	.00	13.58	2.779	544.51
14.2800	6.12	1653.66	1680.21	.00	13.28	2.755	544.47
14.3200	5.97	1639.78	1665.75	.00	12.98	2.732	544.43
14.3600	5.83	1626.19	1651.58	.00	12.70	2.709	544.39
14.4000	5.69	1612.86	1637.71	.00	12.42	2.686	544.36
14.4400	5.56	1599.80	1624.11	.00	12.16	2.664	544.32
14.4800	5.44	1587.01	1610.81	.00	11.90	2.643	544.28
14.5200	5.33	1574.47	1597.78	.00	11.66	2.622	544.24
14.5600	5.24	1562.19	1585.03	.00	11.42	2.601	544.21
14.6000	5.14	1550.17	1572.57	.00	11.20	2.581	544.17
14.6400	5.06	1538.39	1560.37	.00	10.99	2.561	544.14
14.6800	4.99	1526.87	1548.44	.00	10.78	2.542	544.10
14.7200	4.92	1515.60	1536.78	.00	10.59	2.523	544.07
14.7600	4.86	1504.56	1525.38	.00	10.41	2.504	544.04
14.8000	4.80	1493.77	1514.22	.00	10.22	2.486	544.01
14.8400	4.74	1483.19	1503.31	.00	10.06	2.468	543.97
14.8800	4.69	1472.80	1492.61	.00	9.90	2.451	543.94
14.9200	4.63	1462.62	1482.12	.00	9.75	2.434	543.91
14.9600	4.58	1452.62	1471.83	.00	9.61	2.417	543.88
15.0000	4.53	1442.79	1461.73	.00	9.47	2.400	543.85
15.0400	4.49	1433.13	1451.81	.00	9.34	2.384	543.82
15.0800	4.44	1423.63	1442.06	.00	9.21	2.368	543.80
15.1200	4.40	1414.25	1432.47	.00	9.11	2.353	543.77
15.1600	4.35	1405.00	1423.00	.00	9.00	2.337	543.74
15.2000	4.31	1395.87	1413.66	.00	8.90	2.322	543.71
15.2400	4.27	1386.85	1404.45	.00	8.80	2.307	543.68
15.2800	4.23	1377.91	1395.34	.00	8.72	2.292	543.66
15.3200	4.19	1369.06	1386.32	.00	8.63	2.277	543.63
15.3600	4.15	1360.29	1377.39	.00	8.55	2.263	543.60
15.4000	4.11	1351.59	1368.55	.00	8.48	2.248	543.58
15.4400	4.07	1342.95	1359.77	.00	8.41	2.234	543.55
15.4800	4.03	1334.36	1351.05	.00	8.35	2.219	543.52
15.5200	3.99	1325.83	1342.39	.00	8.28	2.205	543.50

Hydrograph
POI #2

15-YR



25 YEAR STORM ROUTING


```

Type.... Pond Routing Summary
Name.... BASIN #2      OUT   Tag: 25-YR      Event: 25 yr
File.... R:\0675N\10-DEV-POI2.PPW
Storm... TypeII 24hr   Tag: 25-YR

```

LEVEL POOL ROUTING SUMMARY

```

HYG Dir           = R:\0675N\
Inflow HYG file  = NONE STORED - BASIN #2      IN 25-YR
Outflow HYG file = NONE STORED - BASIN #2      OUT 25-YR

```

```

Pond Node Data = BASIN #2
Pond Volume Data = BASIN #2
Pond Outlet Data = OUTFALL #2

```

No Infiltration

INITIAL CONDITIONS

```

-----
Starting WS Elev  = 536.50 ft
Starting Volume   = .000 ac-ft
Starting Outflow  = .00 cfs
Starting Infiltr. = .00 cfs
Starting Total Qout = .00 cfs
Time Increment    = .0400 hrs

```

INFLOW/OUTFLOW HYDROGRAPH SUMMARY

```

=====
Peak Inflow      = 69.87 cfs   at 12.3600 hrs
Peak Outflow     = 21.90 cfs   at 13.1200 hrs
-----
Peak Elevation   = 546.14 ft
Peak Storage     = 3.799 ac-ft
=====

```

$$\begin{array}{r} 69 \\ 22 \\ \hline 47 \end{array}$$

MASS BALANCE (ac-ft)

```

-----
+ Initial Vol    = .000
+ HYG Vol IN     = 9.746
- Infiltration   = .000
- HYG Vol OUT    = 9.746
- Retained Vol   = .000
-----
Unrouted Vol    = .000 ac-ft (.000% of Outflow Volume)

```

.pe... Pond Routing Calcs (Total Out)
 .me... BASIN #2 OUT Tag: 25-YR
 File... R:\0675N\10-DEV-POI2.PPW
 Storm... TypeII 24hr Tag: 25-YR

Page 8.41
 Event: 25 yr

LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #2 IN 25-YR
 Outflow HYG file = NONE STORED - BASIN #2 OUT 25-YR

Time hrs	Inflow cfs	2S/t - O cfs	2S/t + O cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
8.5600	1.65	.61	3.82	.00	1.61	.004	537.28
8.6000	1.68	.66	3.93	.00	1.63	.004	537.29
8.6400	1.71	.72	4.05	.00	1.66	.004	537.30
8.6800	1.74	.80	4.17	.00	1.69	.004	537.31
8.7200	1.77	.89	4.31	.00	1.71	.004	537.31
8.7600	1.81	.99	4.47	.00	1.74	.004	537.32
8.8000	1.84	1.10	4.64	.00	1.77	.005	537.33
8.8400	1.88	1.21	4.82	.00	1.81	.005	537.34
8.8800	1.92	1.33	5.01	.00	1.84	.005	537.35
8.9200	1.96	1.45	5.20	.00	1.88	.005	537.36
8.9600	2.00	1.58	5.40	.00	1.91	.006	537.37
9.0000	2.04	1.71	5.61	.00	1.95	.006	537.38
9.0400	2.08	1.84	5.82	.00	1.99	.006	537.39
0800	2.12	1.98	6.04	.00	2.03	.007	537.40
1200	2.16	2.15	6.27	.00	2.06	.007	537.41
9.1600	2.21	2.34	6.52	.00	2.09	.007	537.42
9.2000	2.25	2.54	6.79	.00	2.13	.008	537.43
9.2400	2.29	2.75	7.07	.00	2.16	.008	537.44
9.2800	2.33	2.97	7.37	.00	2.20	.008	537.45
9.3200	2.37	3.19	7.67	.00	2.24	.009	537.47
9.3600	2.41	3.41	7.97	.00	2.28	.009	537.48
9.4000	2.45	3.64	8.28	.00	2.32	.010	537.49
9.4400	2.49	3.87	8.58	.00	2.35	.010	537.50
9.4800	2.52	4.13	8.88	.00	2.37	.011	537.51
9.5200	2.56	4.42	9.21	.00	2.40	.011	537.52
9.5600	2.59	4.73	9.57	.00	2.42	.012	537.53
9.6000	2.62	5.05	9.95	.00	2.45	.012	537.55
9.6400	2.66	5.39	10.33	.00	2.47	.013	537.56
9.6800	2.69	5.74	10.73	.00	2.50	.013	537.57
9.7200	2.72	6.09	11.14	.00	2.52	.014	537.58
9.7600	2.75	6.45	11.55	.00	2.55	.015	537.60
9.8000	2.78	6.83	11.97	.00	2.57	.015	537.61
9.8400	2.81	7.22	12.41	.00	2.60	.016	537.62
9.8800	2.85	7.64	12.88	.00	2.62	.017	537.63
9.9200	2.88	8.09	13.37	.00	2.64	.018	537.64
9.9600	2.92	8.56	13.89	.00	2.67	.018	537.66
10.0000	2.97	9.06	14.45	.00	2.69	.019	537.67
10.0400	3.01	9.59	15.03	.00	2.72	.020	537.68
10.0800	3.06	10.15	15.65	.00	2.75	.021	537.70
10.1200	3.11	10.76	16.32	.00	2.78	.022	537.71
1600	3.16	11.43	17.03	.00	2.80	.023	537.73
10.2000	3.22	12.15	17.81	.00	2.83	.025	537.74

.pe.... Pond Routing Calcs (Total Out)
 Name.... BASIN #2 OUT Tag: 25-YR
 File.... R:\0675N\10-DEV-POI2.PPW
 Storm... TypeII 24hr Tag: 25-YR

Event: 25 yr

LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #2 IN 25-YR
 Outflow HYG file = NONE STORED - BASIN #2 OUT 25-YR

Time hrs	Inflow cfs	2S/t - 0 cfs	2S/t + 0 cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
10.2400	3.28	12.93	18.66	.00	2.86	.026	537.76
10.2800	3.35	13.77	19.56	.00	2.90	.027	537.78
10.3200	3.42	14.67	20.53	.00	2.93	.029	537.80
10.3600	3.49	15.65	21.57	.00	2.96	.031	537.82
10.4000	3.56	16.71	22.70	.00	2.99	.032	537.84
10.4400	3.64	17.86	23.92	.00	3.03	.034	537.86
10.4800	3.72	19.09	25.22	.00	3.07	.036	537.88
10.5200	3.81	20.41	26.62	.00	3.11	.039	537.90
10.5600	3.90	21.84	28.12	.00	3.14	.041	537.92
10.6000	3.99	23.37	29.72	.00	3.18	.044	537.95
10.6400	4.09	25.02	31.45	.00	3.22	.046	537.97
10.6800	4.19	26.77	33.29	.00	3.26	.050	538.00
10.7200	4.29	28.66	35.25	.00	3.30	.053	538.02
10.7600	4.40	30.67	37.35	.00	3.34	.056	538.05
10.8000	4.51	32.83	39.58	.00	3.38	.060	538.08
10.8400	4.63	35.12	41.97	.00	3.42	.064	538.11
10.8800	4.76	37.58	44.51	.00	3.47	.068	538.13
10.9200	4.88	40.19	47.21	.00	3.51	.072	538.17
10.9600	5.02	42.97	50.09	.00	3.56	.077	538.20
11.0000	5.16	45.94	53.15	.00	3.61	.082	538.23
11.0400	5.31	49.10	56.41	.00	3.65	.087	538.27
11.0800	5.47	52.47	59.88	.00	3.71	.093	538.30
11.1200	5.63	56.05	63.56	.00	3.75	.099	538.34
11.1600	5.80	59.87	67.48	.00	3.81	.105	538.38
11.2000	5.99	63.93	71.65	.00	3.86	.112	538.42
11.2400	6.17	68.26	76.09	.00	3.91	.119	538.46
11.2800	6.38	72.88	80.82	.00	3.97	.127	538.50
11.3200	6.60	77.82	85.87	.00	4.02	.135	538.54
11.3600	6.83	83.09	91.25	.00	4.08	.144	538.59
11.4000	7.09	88.74	97.01	.00	4.14	.153	538.63
11.4400	7.35	94.78	103.18	.00	4.20	.163	538.68
11.4800	7.66	101.28	109.79	.00	4.26	.174	538.73
11.5200	8.01	108.31	116.95	.00	4.32	.186	538.78
11.5600	8.37	115.92	124.69	.00	4.38	.199	538.84
11.6000	8.95	124.34	133.24	.00	4.45	.213	538.90
11.6400	9.59	133.83	142.88	.00	4.52	.228	538.96
11.6800	10.28	144.51	153.71	.00	4.60	.246	539.03
11.7200	11.63	157.05	166.42	.00	4.69	.267	539.10
11.7600	12.99	172.11	181.67	.00	4.78	.292	539.19
11.8000	14.87	190.19	199.97	.00	4.89	.322	539.30
11.8400	17.78	212.81	222.84	.00	5.02	.360	539.42
11.8800	20.68	240.95	251.27	.00	5.16	.407	539.56

Type... Pond Routing Calcs (Total Out)
 me... BASIN #2 OUT Tag: 25-YR
 File... R:\0675N\10-DEV-POI2.PPW
 Storm... TypeII 24hr Tag: 25-YR

Event: 25 yr

LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #2 IN 25-YR
 Outflow HYG file = NONE STORED - BASIN #2 OUT 25-YR

Time hrs	Inflow cfs	2S/t - 0 cfs	2S/t + 0 cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
11.9200	24.74	275.72	286.37	.00	5.32	.464	539.73
11.9600	29.52	318.98	329.99	.00	5.51	.536	539.92
12.0000	34.31	371.40	382.81	.00	5.70	.623	540.14
12.0400	40.10	433.95	445.81	.00	5.93	.727	540.39
12.0800	46.02	507.72	520.07	.00	6.18	.849	540.69
12.1200	51.79	592.65	605.53	.00	6.44	.990	541.01
12.1600	56.81	687.82	701.25	.00	6.72	1.148	541.37
12.2000	61.83	792.47	806.46	.00	7.00	1.321	541.75
12.2400	65.60	905.33	919.90	.00	7.28	1.508	542.14
12.2800	67.70	1023.52	1038.63	.00	7.56	1.704	542.54
12.3200	69.81	1145.40	1161.04	.00	7.82	1.906	542.93
12.3600	69.87	1268.94	1285.08	.00	8.07	2.111	543.32
12.4000	69.05	1390.19	1407.86	.00	8.83	2.312	543.69
12.4400	68.24	1506.60	1527.48	.00	10.44	2.507	544.04
12.4800	65.57	1615.45	1640.41	.00	12.48	2.691	544.36
12.5200	62.85	1714.65	1743.88	.00	14.61	2.858	544.65
12.5600	59.88	1803.97	1837.39	.00	16.71	3.009	544.90
12.6000	56.16	1884.40	1920.01	.00	17.81	3.144	545.12
12.6400	52.43	1955.63	1992.99	.00	18.68	3.263	545.31
12.6800	48.75	2018.04	2056.81	.00	19.39	3.368	545.48
12.7200	45.11	2071.97	2111.89	.00	19.96	3.458	545.62
12.7600	41.46	2117.70	2158.54	.00	20.42	3.534	545.74
12.8000	38.47	2156.05	2197.64	.00	20.80	3.598	545.83
12.8400	35.65	2187.97	2230.17	.00	21.10	3.651	545.92
12.8800	32.88	2213.83	2256.50	.00	21.34	3.694	545.98
12.9200	30.76	2234.42	2277.47	.00	21.52	3.729	546.03
12.9600	28.65	2250.50	2293.84	.00	21.67	3.756	546.07
13.0000	26.69	2262.30	2305.84	.00	21.77	3.775	546.10
13.0400	25.02	2270.32	2314.00	.00	21.84	3.789	546.12
13.0800	23.35	2274.92	2318.69	.00	21.88	3.796	546.13
13.1200	21.90	2276.38	2320.18	.00	21.90	3.799	546.14
13.1600	20.58	2275.09	2318.86	.00	21.88	3.797	546.14
13.2000	19.27	2271.24	2314.94	.00	21.85	3.790	546.13
13.2400	18.22	2265.13	2308.72	.00	21.80	3.780	546.11
13.2800	17.20	2257.09	2300.55	.00	21.73	3.767	546.09
13.3200	16.22	2247.24	2290.52	.00	21.64	3.750	546.07
13.3600	15.42	2235.82	2278.89	.00	21.54	3.731	546.04
13.4000	14.63	2223.03	2265.87	.00	21.42	3.710	546.00
13.4400	13.90	2208.97	2251.55	.00	21.29	3.686	545.97
13.4800	13.27	2193.84	2236.14	.00	21.15	3.661	545.93
13.5200	12.65	2177.76	2219.76	.00	21.00	3.634	545.89
13.5600	12.11	2160.83	2202.51	.00	20.84	3.606	545.85

.pe.... Pond Routing Calcs (Total Out)
 Name.... BASIN #2 OUT Tag: 25-YR
 File.... R:\0675N\10-DEV-POI2.PPW
 Storm... TypeII 24hr Tag: 25-YR

Event: 25 yr

LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #2 IN 25-YR
 Outflow HYG file = NONE STORED - BASIN #2 OUT 25-YR

Time hrs	Inflow cfs	2S/t - 0 cfs	2S/t + 0 cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
13.6000	11.61	2143.21	2184.56	.00	20.67	3.577	545.80
13.6400	11.12	2124.96	2165.94	.00	20.49	3.546	545.75
13.6800	10.71	2106.17	2146.78	.00	20.31	3.515	545.71
13.7200	10.31	2086.96	2127.18	.00	20.11	3.483	545.66
13.7600	9.92	2067.36	2107.19	.00	19.91	3.450	545.61
13.8000	9.59	2047.47	2086.87	.00	19.70	3.417	545.55
13.8400	9.26	2027.34	2066.31	.00	19.49	3.383	545.50
13.8800	8.95	2007.02	2045.55	.00	19.26	3.349	545.45
13.9200	8.68	1986.59	2024.66	.00	19.04	3.315	545.39
13.9600	8.41	1966.07	2003.67	.00	18.80	3.281	545.34
14.0000	8.17	1945.52	1982.64	.00	18.56	3.246	545.28
14.0400	7.94	1925.00	1961.62	.00	18.31	3.212	545.23
14.0800	7.71	1904.51	1940.64	.00	18.06	3.178	545.17
14.1200	7.51	1884.12	1919.73	.00	17.80	3.144	545.12
14.1600	7.31	1863.85	1898.93	.00	17.54	3.110	545.06
14.2000	7.11	1843.73	1878.27	.00	17.27	3.076	545.01
14.2400	6.94	1823.80	1857.78	.00	16.99	3.043	544.95
14.2800	6.76	1804.08	1837.50	.00	16.71	3.010	544.90
14.3200	6.59	1784.94	1817.43	.00	16.24	2.977	544.85
14.3600	6.44	1766.38	1797.97	.00	15.80	2.946	544.79
14.4000	6.28	1748.34	1779.09	.00	15.38	2.915	544.74
14.4400	6.14	1730.81	1760.76	.00	14.98	2.886	544.69
14.4800	6.01	1713.77	1742.96	.00	14.59	2.857	544.64
14.5200	5.88	1697.22	1725.66	.00	14.22	2.829	544.60
14.5600	5.78	1681.14	1708.88	.00	13.87	2.802	544.55
14.6000	5.68	1665.54	1692.60	.00	13.53	2.775	544.51
14.6400	5.59	1650.39	1676.80	.00	13.21	2.750	544.46
14.6800	5.51	1635.69	1661.48	.00	12.90	2.725	544.42
14.7200	5.43	1621.43	1646.63	.00	12.60	2.701	544.38
14.7600	5.36	1607.60	1632.23	.00	12.31	2.677	544.34
14.8000	5.30	1594.17	1618.25	.00	12.04	2.655	544.30
14.8400	5.23	1581.13	1604.70	.00	11.79	2.633	544.26
14.8800	5.17	1568.45	1591.53	.00	11.54	2.611	544.23
14.9200	5.11	1556.12	1578.73	.00	11.31	2.591	544.19
14.9600	5.06	1544.10	1566.28	.00	11.09	2.571	544.15
15.0000	5.00	1532.39	1554.16	.00	10.88	2.551	544.12
15.0400	4.95	1520.98	1542.35	.00	10.68	2.532	544.09
15.0800	4.90	1509.84	1530.83	.00	10.50	2.513	544.05
15.1200	4.85	1498.97	1519.59	.00	10.31	2.495	544.02
15.1600	4.80	1488.34	1508.62	.00	10.14	2.477	543.99
15.2000	4.76	1477.94	1497.90	.00	9.98	2.459	543.96
15.2400	4.71	1467.75	1487.41	.00	9.83	2.442	543.93

Type.... Pond Routing Calcs (Total Out)
 Name.... BASIN #2 OUT Tag: 25-YR
 File.... R:\0675N\10-DEV-POI2.PPW
 Storm... TypeII 24hr Tag: 25-YR

Event: 25 yr

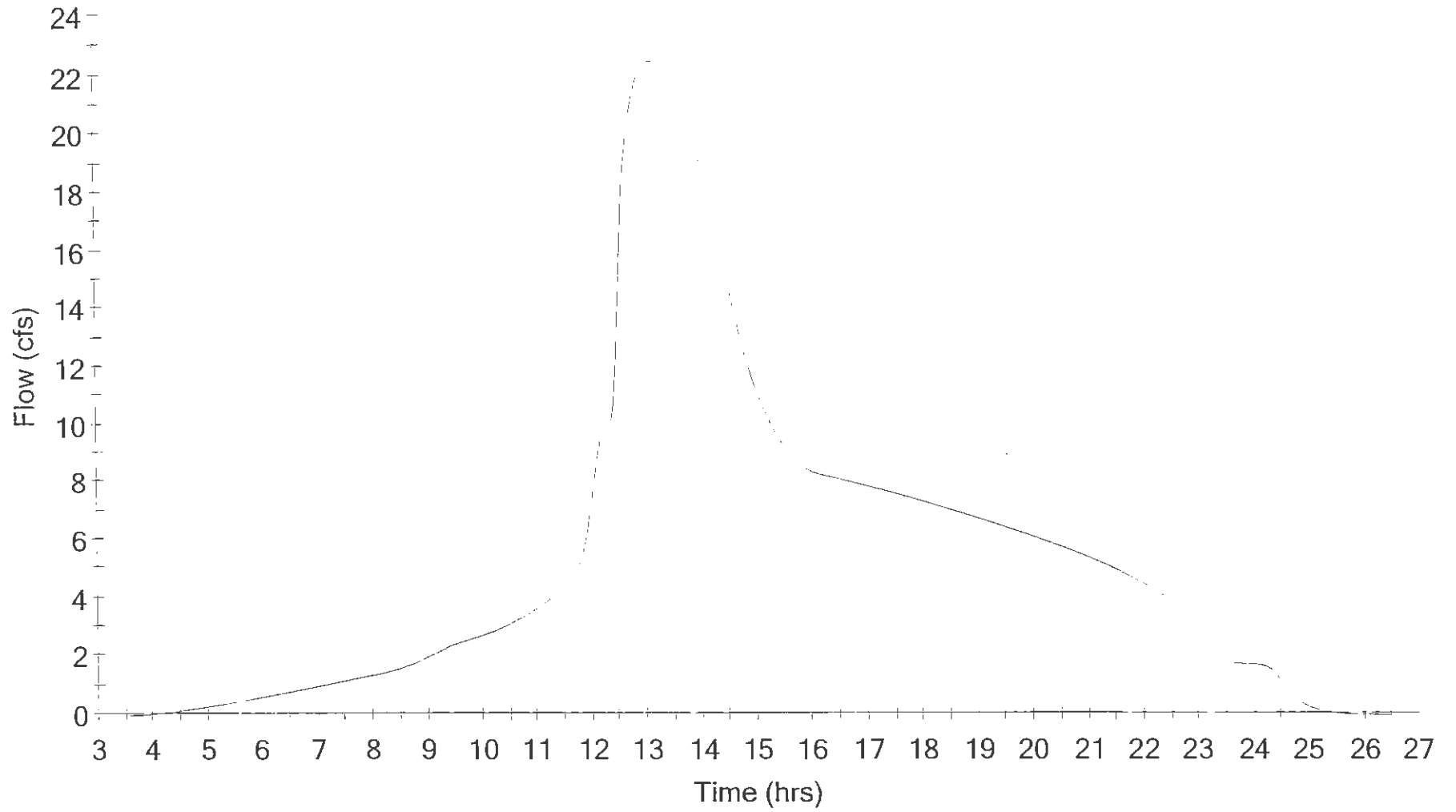
LEVEL POOL ROUTING CALCULATIONS

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #2 IN 25-YR
 Outflow HYG file = NONE STORED - BASIN #2 OUT 25-YR

Time hrs	Inflow cfs	2S/t - O cfs	2S/t + O cfs	Infilt. cfs	Outflow cfs	Storage ac-ft	Elev. ft
15.2800	4.67	1457.77	1477.13	.00	9.68	2.426	543.90
15.3200	4.62	1447.98	1467.06	.00	9.54	2.409	543.87
15.3600	4.58	1438.35	1457.17	.00	9.41	2.393	543.84
15.4000	4.53	1428.90	1447.46	.00	9.28	2.377	543.81
15.4400	4.49	1419.59	1437.93	.00	9.17	2.362	543.78
15.4800	4.45	1410.41	1428.53	.00	9.06	2.346	543.76
15.5200	4.41	1401.35	1419.27	.00	8.96	2.331	543.73
15.5600	4.37	1392.41	1410.12	.00	8.86	2.316	543.70
15.6000	4.32	1383.56	1401.10	.00	8.77	2.301	543.67
15.6400	4.28	1374.79	1392.17	.00	8.69	2.287	543.65
15.6800	4.24	1366.11	1383.32	.00	8.61	2.272	543.62
15.7200	4.20	1357.50	1374.55	.00	8.53	2.258	543.59
15.7600	4.16	1348.94	1365.86	.00	8.46	2.244	543.57
15.8000	4.12	1340.44	1357.23	.00	8.39	2.229	543.54
15.8400	4.08	1331.99	1348.64	.00	8.33	2.215	543.52
15.8800	4.04	1323.57	1340.11	.00	8.27	2.201	543.49
15.9200	4.00	1315.16	1331.61	.00	8.23	2.187	543.47
15.9600	3.96	1306.75	1323.12	.00	8.18	2.173	543.44
16.0000	3.92	1298.35	1314.63	.00	8.14	2.159	543.41
16.0400	3.88	1289.92	1306.15	.00	8.11	2.145	543.39
16.0800	3.84	1281.45	1297.64	.00	8.10	2.131	543.36
16.1200	3.80	1272.93	1289.09	.00	8.08	2.117	543.34
16.1600	3.76	1264.37	1280.50	.00	8.06	2.103	543.31
16.2000	3.72	1255.77	1271.86	.00	8.04	2.089	543.28
16.2400	3.68	1247.12	1263.18	.00	8.03	2.075	543.25
16.2800	3.65	1238.43	1254.45	.00	8.01	2.060	543.23
16.3200	3.61	1229.71	1245.69	.00	7.99	2.046	543.20
16.3600	3.58	1220.95	1236.90	.00	7.97	2.031	543.17
16.4000	3.54	1212.15	1228.07	.00	7.96	2.017	543.15
16.4400	3.51	1203.33	1219.21	.00	7.94	2.002	543.12
16.4800	3.48	1194.48	1210.32	.00	7.92	1.987	543.09
16.5200	3.45	1185.60	1201.41	.00	7.90	1.973	543.06
16.5600	3.42	1176.70	1192.47	.00	7.88	1.958	543.03
16.6000	3.39	1167.79	1183.52	.00	7.87	1.943	543.00
16.6400	3.37	1158.85	1174.55	.00	7.85	1.928	542.98
16.6800	3.34	1149.91	1165.57	.00	7.83	1.914	542.95
16.7200	3.32	1140.95	1156.58	.00	7.81	1.899	542.92
16.7600	3.30	1131.99	1147.58	.00	7.79	1.884	542.89
16.8000	3.28	1123.02	1138.57	.00	7.77	1.869	542.86
16.8400	3.26	1114.05	1129.56	.00	7.75	1.854	542.83
16.8800	3.24	1105.08	1120.55	.00	7.73	1.839	542.80
16.9200	3.22	1096.10	1111.53	.00	7.71	1.824	542.77

Hydrograph
POI #2

25-YR



**100 YEAR HIGH WATER ELEVATION
ASSUMED LF BLOCKED**

DETENTION OUTFALL STRUCTURE WITH LF BLOCKED

pe.... Outlet Input Data
name.... OUTFALL #2 LF

File.... R:\0675N\10-DEV-POI2.PPW

REQUESTED POND WS ELEVATIONS:

Min. Elev.= 536.50 ft
Increment = .10 ft
Max. Elev.= 549.00 ft

OUTLET CONNECTIVITY

---> Forward Flow Only (UpStream to DnStream)
<--- Reverse Flow Only (DnStream to UpStream)
<---> Forward and Reverse Both Allowed

Structure	No.		Outfall	E1, ft	E2, ft
Inlet Box	OF	--->	TW	546.150	549.000
Orifice-Circular	IO	--->	TW	543.330	549.000
TW SETUP, DS Channel					

ype.... Outlet Input Data
ame.... OUTFALL #2 LF

File.... R:\0675N\10-DEV-POI2.PPW

OUTLET STRUCTURE INPUT DATA

Structure ID = OF
Structure Type = Inlet Box

of Openings = 1
Invert Elev. = 546.15 ft
Orifice Area = 28.2700 sq.ft
Orifice Coeff. = .600
Weir Length = 17.85 ft
Weir Coeff. = 3.330
K, Reverse = 1.000
Mannings n = .0000
Kev,Charged Riser = .000
Weir Submergence = No
Orifice H to crest= Yes

Structure ID = IO
Structure Type = Orifice-Circular

of Openings = 1
Invert Elev. = 543.33 ft
Diameter = 1.5000 ft
Orifice Coeff. = .600

Structure ID = TW
Structure Type = TW SETUP, DS Channel

FREE OUTFALL CONDITIONS SPECIFIED

CONVERGENCE TOLERANCES...
Maximum Iterations= 30
Min. TW tolerance = .01 ft
Max. TW tolerance = .01 ft
Min. HW tolerance = .01 ft
Max. HW tolerance = .01 ft
Min. Q tolerance = .10 cfs
Max. Q tolerance = .10 cfs

pe... Composite Rating Curve
 ame... OUTFALL #2 LF

File... R:\0675N\10-DEV-POI2.PPW

***** COMPOSITE OUTFLOW SUMMARY *****

WS Elev, Total Q		Converge		Notes
Elev. ft	Q cfs	TW Elev ft	Error +/-ft	Contributing Structures
536.50	.00	Free Outfall		None contributing
536.60	.00	Free Outfall		None contributing
536.70	.00	Free Outfall		None contributing
536.80	.00	Free Outfall		None contributing
536.90	.00	Free Outfall		None contributing
537.00	.00	Free Outfall		None contributing
537.10	.00	Free Outfall		None contributing
537.20	.00	Free Outfall		None contributing
537.30	.00	Free Outfall		None contributing
537.40	.00	Free Outfall		None contributing
537.50	.00	Free Outfall		None contributing
537.60	.00	Free Outfall		None contributing
537.70	.00	Free Outfall		None contributing
537.80	.00	Free Outfall		None contributing
537.90	.00	Free Outfall		None contributing
538.00	.00	Free Outfall		None contributing
538.10	.00	Free Outfall		None contributing
538.20	.00	Free Outfall		None contributing
538.30	.00	Free Outfall		None contributing
538.40	.00	Free Outfall		None contributing
538.50	.00	Free Outfall		None contributing
538.60	.00	Free Outfall		None contributing
538.70	.00	Free Outfall		None contributing
538.80	.00	Free Outfall		None contributing
538.90	.00	Free Outfall		None contributing
539.00	.00	Free Outfall		None contributing
539.10	.00	Free Outfall		None contributing
539.20	.00	Free Outfall		None contributing
539.30	.00	Free Outfall		None contributing
539.40	.00	Free Outfall		None contributing
539.50	.00	Free Outfall		None contributing
539.60	.00	Free Outfall		None contributing
539.70	.00	Free Outfall		None contributing
539.80	.00	Free Outfall		None contributing
539.90	.00	Free Outfall		None contributing
540.00	.00	Free Outfall		None contributing
540.10	.00	Free Outfall		None contributing
540.20	.00	Free Outfall		None contributing

pe... Composite Rating Curve
 ..ame... OUTFALL #2 LF

File... R:\0675N\10-DEV-POI2.PPW

***** COMPOSITE OUTFLOW SUMMARY *****

WS Elev, Total Q		Converge		Notes
Elev. ft	Q cfs	TW Elev ft	Error +/-ft	Contributing Structures
540.30	.00	Free Outfall		None contributing
540.40	.00	Free Outfall		None contributing
540.50	.00	Free Outfall		None contributing
540.60	.00	Free Outfall		None contributing
540.70	.00	Free Outfall		None contributing
540.80	.00	Free Outfall		None contributing
540.90	.00	Free Outfall		None contributing
541.00	.00	Free Outfall		None contributing
541.10	.00	Free Outfall		None contributing
541.20	.00	Free Outfall		None contributing
541.30	.00	Free Outfall		None contributing
541.40	.00	Free Outfall		None contributing
541.50	.00	Free Outfall		None contributing
541.60	.00	Free Outfall		None contributing
541.70	.00	Free Outfall		None contributing
541.80	.00	Free Outfall		None contributing
541.90	.00	Free Outfall		None contributing
542.00	.00	Free Outfall		None contributing
542.10	.00	Free Outfall		None contributing
542.20	.00	Free Outfall		None contributing
542.30	.00	Free Outfall		None contributing
542.40	.00	Free Outfall		None contributing
542.50	.00	Free Outfall		None contributing
542.60	.00	Free Outfall		None contributing
542.70	.00	Free Outfall		None contributing
542.80	.00	Free Outfall		None contributing
542.90	.00	Free Outfall		None contributing
543.00	.00	Free Outfall		None contributing
543.10	.00	Free Outfall		None contributing
543.20	.00	Free Outfall		None contributing
543.30	.00	Free Outfall		None contributing
543.33	.00	Free Outfall		None contributing
543.40	.00	Free Outfall		IO
543.50	.10	Free Outfall		IO
543.60	.29	Free Outfall		IO
543.70	.55	Free Outfall		IO
543.80	.86	Free Outfall		IO
543.90	1.26	Free Outfall		IO

pe.... Composite Rating Curve
name.... OUTFALL #2 LF

File.... R:\0675N\10-DEV-POI2.PPW

***** COMPOSITE OUTFLOW SUMMARY *****

WS Elev, Total Q		Converge		Notes
Elev. ft	Q cfs	TW Elev ft	Error +/-ft	Contributing Structures
544.00	1.70	Free Outfall		IO
544.10	2.22	Free Outfall		IO
544.20	2.76	Free Outfall		IO
544.30	3.37	Free Outfall		IO
544.40	4.01	Free Outfall		IO
544.50	4.69	Free Outfall		IO
544.60	5.39	Free Outfall		IO
544.70	6.13	Free Outfall		IO
544.80	6.89	Free Outfall		IO
544.90	7.70	Free Outfall		IO
545.00	8.16	Free Outfall		IO
545.10	8.59	Free Outfall		IO
545.20	9.00	Free Outfall		IO
545.30	9.39	Free Outfall		IO
545.40	9.77	Free Outfall		IO
545.50	10.14	Free Outfall		IO
545.60	10.49	Free Outfall		IO
545.70	10.83	Free Outfall		IO
545.80	11.15	Free Outfall		IO
545.90	11.47	Free Outfall		IO
546.00	11.79	Free Outfall		IO
546.10	12.09	Free Outfall		IO
546.15	12.24	Free Outfall		OF +IO
546.20	13.05	Free Outfall		OF +IO
546.30	16.12	Free Outfall		OF +IO
546.40	20.39	Free Outfall		OF +IO
546.50	25.54	Free Outfall		OF +IO
546.60	31.44	Free Outfall		OF +IO
546.70	38.01	Free Outfall		OF +IO
546.80	45.17	Free Outfall		OF +IO
546.90	52.89	Free Outfall		OF +IO
547.00	61.11	Free Outfall		OF +IO
547.10	69.82	Free Outfall		OF +IO
547.20	78.98	Free Outfall		OF +IO
547.30	88.56	Free Outfall		OF +IO
547.40	98.57	Free Outfall		OF +IO
547.50	108.96	Free Outfall		OF +IO
547.60	119.74	Free Outfall		OF +IO

pe.... Composite Rating Curve
 ame.... OUTFALL #2 LF

File.... R:\0675N\10-DEV-POI2.PPW

***** COMPOSITE OUTFLOW SUMMARY *****

WS Elev, Total Q		Converge		Notes
Elev. ft	Q cfs	TW Elev ft	Error +/-ft	Contributing Structures
547.70	130.89	Free	Outfall	OF +IO
547.80	142.38	Free	Outfall	OF +IO
547.90	154.23	Free	Outfall	OF +IO
548.00	166.41	Free	Outfall	OF +IO
548.10	178.91	Free	Outfall	OF +IO
548.20	191.73	Free	Outfall	OF +IO
548.30	204.85	Free	Outfall	OF +IO
548.40	218.29	Free	Outfall	OF +IO
548.50	226.46	Free	Outfall	OF +IO
548.60	231.05	Free	Outfall	OF +IO
548.70	235.56	Free	Outfall	OF +IO
548.80	239.97	Free	Outfall	OF +IO
548.90	244.31	Free	Outfall	OF +IO
549.00	248.57	Free	Outfall	OF +IO

pe.... Pond E-V-Q Table
 me.... BASIN #2
 File.... R:\0675N\10-DEV-POI2.PPW

LEVEL POOL ROUTING DATA

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #2 IN 2-YR
 Outflow HYG file = NONE STORED - BASIN #2 OUT 2-YR

 Pond Node Data = BASIN #2
 Pond Volume Data = BASIN #2
 Pond Outlet Data = OUTFALL #2 LF

No Infiltration

INITIAL CONDITIONS

 Starting WS Elev = 543.33 ft
 Starting Volume = 2.115 ac-ft
 Starting Outflow = .00 cfs
 Starting Infiltr. = .00 cfs
 Starting Total Qout= .00 cfs
 Time Increment = .0400 hrs

Elevation ft	Outflow cfs	Storage ac-ft	Area acres	Infilt. cfs	Q Total cfs	2S/t + O cfs
535.50	.00	.000	.0000	.00	.00	.00
536.60	.00	.000	.0001	.00	.00	.00
536.70	.00	.000	.0006	.00	.00	.02
536.80	.00	.000	.0012	.00	.00	.07
536.90	.00	.000	.0022	.00	.00	.18
537.00	.00	.001	.0034	.00	.00	.35
537.10	.00	.001	.0078	.00	.00	.68
537.20	.00	.002	.0138	.00	.00	1.32
537.30	.00	.004	.0215	.00	.00	2.38
537.40	.00	.007	.0310	.00	.00	3.96
537.50	.00	.010	.0423	.00	.00	6.17
537.60	.00	.015	.0552	.00	.00	9.11
537.70	.00	.021	.0699	.00	.00	12.88
537.80	.00	.029	.0862	.00	.00	17.60
537.90	.00	.039	.1044	.00	.00	23.36
538.00	.00	.050	.1242	.00	.00	30.26
538.10	.00	.063	.1357	.00	.00	38.12
538.20	.00	.077	.1478	.00	.00	46.69
538.30	.00	.093	.1604	.00	.00	56.01
538.40	.00	.109	.1735	.00	.00	66.11
538.50	.00	.127	.1871	.00	.00	77.01
538.60	.00	.147	.2012	.00	.00	88.75
538.70	.00	.168	.2158	.00	.00	101.37
538.80	.00	.190	.2309	.00	.00	114.87
538.90	.00	.214	.2466	.00	.00	129.32
539.00	.00	.239	.2627	.00	.00	144.72
.10	.00	.266	.2750	.00	.00	160.98


```

pe.... Pond E-V-Q Table
ame.... BASIN #2
File.... R:\0675N\10-DEV-POI2.PPW

```

LEVEL POOL ROUTING DATA

```

HYG Dir           = R:\0675N\
Inflow HYG file  = NONE STORED - BASIN #2   IN  2-YR
Outflow HYG file = NONE STORED - BASIN #2   OUT 2-YR

```

```

Pond Node  Data = BASIN #2
Pond Volume Data = BASIN #2
Pond Outlet Data = OUTFALL #2 LF

```

No Infiltration

INITIAL CONDITIONS

```

-----
Starting WS Elev  = 543.33 ft
Starting Volume   = 2.115 ac-ft
Starting Outflow  = .00 cfs
Starting Infiltr. = .00 cfs
Starting Total Qout = .00 cfs
Time Increment    = .0400 hrs

```

Elevation ft	Outflow cfs	Storage ac-ft	Area acres	Infiltr. cfs	Q Total cfs	2S/t + O cfs
539.20	.00	.294	.2876	.00	.00	178.01
539.30	.00	.324	.3004	.00	.00	195.79
539.40	.00	.354	.3136	.00	.00	214.37
539.50	.00	.386	.3270	.00	.00	233.74
539.60	.00	.420	.3406	.00	.00	253.92
539.70	.00	.454	.3546	.00	.00	274.96
539.80	.00	.491	.3689	.00	.00	296.84
539.90	.00	.528	.3834	.00	.00	319.60
540.00	.00	.567	.3982	.00	.00	343.24
540.10	.00	.607	.4020	.00	.00	367.44
540.20	.00	.648	.4058	.00	.00	391.88
540.30	.00	.688	.4096	.00	.00	416.54
540.40	.00	.730	.4134	.00	.00	441.44
540.50	.00	.771	.4173	.00	.00	466.57
540.60	.00	.813	.4212	.00	.00	491.93
540.70	.00	.855	.4251	.00	.00	517.53
540.80	.00	.898	.4290	.00	.00	543.36
540.90	.00	.941	.4329	.00	.00	569.45
541.00	.00	.985	.4369	.00	.00	595.75
541.10	.00	1.029	.4409	.00	.00	622.30
541.20	.00	1.073	.4449	.00	.00	649.10
541.30	.00	1.118	.4489	.00	.00	676.13
541.40	.00	1.163	.4530	.00	.00	703.42
541.50	.00	1.208	.4571	.00	.00	730.95
541.60	.00	1.254	.4612	.00	.00	758.72
541.70	.00	1.300	.4653	.00	.00	786.75
541.80	.00	1.347	.4694	.00	.00	815.02
541.90	.00	1.394	.4736	.00	.00	843.56
542.00	.00	1.442	.4777	.00	.00	872.32

Type.... Pond E-V-Q Table
 Name.... BASIN #2
 File.... R:\0675N\10-DEV-POI2.PPW

LEVEL POOL ROUTING DATA

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #2 IN 2-YR
 Outflow HYG file = NONE STORED - BASIN #2 OUT 2-YR

Pond Node Data = BASIN #2
 Pond Volume Data = BASIN #2
 Pond Outlet Data = OUTFALL #2 LF

No Infiltration

INITIAL CONDITIONS

 Starting WS Elev = 543.33 ft
 Starting Volume = 2.115 ac-ft
 Starting Outflow = .00 cfs
 Starting Infiltr. = .00 cfs
 Starting Total Qout= .00 cfs
 Time Increment = .0400 hrs

Elevation ft	Outflow cfs	Storage ac-ft	Area acres	Infiltr. cfs	Q Total cfs	2S/t + O cfs
542.10	.00	1.490	.4819	.00	.00	901.35
542.20	.00	1.538	.4861	.00	.00	930.64
542.30	.00	1.587	.4903	.00	.00	960.17
542.40	.00	1.636	.4945	.00	.00	989.97
542.50	.00	1.686	.4987	.00	.00	1020.01
542.60	.00	1.736	.5030	.00	.00	1050.30
542.70	.00	1.787	.5073	.00	.00	1080.87
542.80	.00	1.837	.5116	.00	.00	1111.68
542.90	.00	1.889	.5159	.00	.00	1142.78
543.00	.00	1.941	.5202	.00	.00	1174.11
543.10	.00	1.993	.5246	.00	.00	1205.71
543.20	.00	2.046	.5290	.00	.00	1237.59
543.30	.00	2.099	.5334	.00	.00	1269.71
543.33	.00	2.115	.5347	.00	.00	1279.42
543.40	.00	2.152	.5378	.00	.00	1302.13
543.50	.10	2.206	.5422	.00	.10	1334.89
543.60	.29	2.261	.5467	.00	.29	1368.02
543.70	.55	2.316	.5512	.00	.55	1401.49
543.80	.86	2.371	.5557	.00	.86	1435.29
543.90	1.26	2.427	.5602	.00	1.26	1469.45
544.00	1.70	2.483	.5647	.00	1.70	1503.92
544.10	2.22	2.540	.5693	.00	2.22	1538.72
544.20	2.76	2.597	.5740	.00	2.76	1573.87
544.30	3.37	2.654	.5786	.00	3.37	1609.33

```

Type.... Pond E-V-Q Table
me.... BASIN #2
File.... R:\0675N\10-DEV-POI2.PPW

```

LEVEL POOL ROUTING DATA

```

HYG Dir           = R:\0675N\
Inflow HYG file  = NONE STORED - BASIN #2   IN  2-YR
Outflow HYG file = NONE STORED - BASIN #2   OUT 2-YR

```

```

Pond Node Data = BASIN #2
Pond Volume Data = BASIN #2
Pond Outlet Data = OUTFALL #2 LF

```

No Infiltration

INITIAL CONDITIONS

```

-----
Starting WS Elev  = 543.33 ft
Starting Volume   = 2.115 ac-ft
Starting Outflow  = .00 cfs
Starting Infiltr. = .00 cfs
Starting Total Qout = .00 cfs
Time Increment    = .0400 hrs

```

Elevation ft	Outflow cfs	Storage ac-ft	Area acres	Infiltr. cfs	Q Total cfs	2S/t + O cfs
.40	4.01	2.713	.5832	.00	4.01	1645.13
544.50	4.69	2.771	.5879	.00	4.69	1681.23
544.60	5.39	2.830	.5926	.00	5.39	1717.64
544.70	6.13	2.890	.5973	.00	6.13	1754.38
544.80	6.89	2.950	.6021	.00	6.89	1791.41
544.90	7.70	3.010	.6068	.00	7.70	1828.81
545.00	8.16	3.071	.6116	.00	8.16	1866.11
545.10	8.59	3.132	.6164	.00	8.59	1903.68
545.20	9.00	3.194	.6212	.00	9.00	1941.54
545.30	9.39	3.257	.6260	.00	9.39	1979.65
545.40	9.77	3.319	.6309	.00	9.77	2018.06
545.50	10.14	3.383	.6357	.00	10.14	2056.73
545.60	10.49	3.447	.6406	.00	10.49	2095.68
545.70	10.83	3.511	.6455	.00	10.83	2134.94
545.80	11.15	3.576	.6504	.00	11.15	2174.46
545.90	11.47	3.641	.6554	.00	11.47	2214.30
546.00	11.79	3.707	.6604	.00	11.79	2254.40
546.10	12.09	3.773	.6655	.00	12.09	2294.80
546.15	12.24	3.806	.6681	.00	12.24	2315.14
546.20	13.05	3.840	.6707	.00	13.05	2336.19
546.30	16.12	3.907	.6759	.00	16.12	2379.99
546.40	20.39	3.975	.6811	.00	20.39	2425.32
546.50	25.54	4.043	.6863	.00	25.54	2471.82
546.60	31.44	4.112	.6916	.00	31.44	2519.40
546.70	38.01	4.182	.6969	.00	38.01	2567.99
546.80	45.17	4.252	.7022	.00	45.17	2617.46
.90	52.89	4.322	.7075	.00	52.89	2667.83

'pe.... Pond E-V-Q Table
 ame.... BASIN #2
 File.... R:\0675N\10-DEV-POI2.PPW

LEVEL POOL ROUTING DATA

HYG Dir = R:\0675N\
 Inflow HYG file = NONE STORED - BASIN #2 IN 2-YR
 Outflow HYG file = NONE STORED - BASIN #2 OUT 2-YR

Pond Node Data = BASIN #2
 Pond Volume Data = BASIN #2
 Pond Outlet Data = OUTFALL #2 LF

No Infiltration

INITIAL CONDITIONS

 Starting WS Elev = 543.33 ft
 Starting Volume = 2.115 ac-ft
 Starting Outflow = .00 cfs
 Starting Infiltr. = .00 cfs
 Starting Total Qout = .00 cfs
 Time Increment = .0400 hrs

Elevation ft	Outflow cfs	Storage ac-ft	Area acres	Infiltr. cfs	Q Total cfs	2S/t + O cfs
547.00	61.11	4.393	.7128	.00	61.11	2719.01
547.10	69.82	4.465	.7182	.00	69.82	2770.99
547.20	78.98	4.537	.7236	.00	78.98	2823.78
547.30	88.56	4.609	.7291	.00	88.56	2877.30
547.40	98.57	4.683	.7345	.00	98.57	2931.59
547.50	108.96	4.756	.7400	.00	108.96	2986.58
547.60	119.74	4.831	.7455	.00	119.74	3042.28
547.70	130.89	4.905	.7510	.00	130.89	3098.71
547.80	142.38	4.981	.7565	.00	142.38	3155.80
547.90	154.23	5.057	.7621	.00	154.23	3213.60
548.00	166.41	5.133	.7677	.00	166.41	3272.04
548.10	178.91	5.210	.7690	.00	178.91	3331.02
548.20	191.73	5.287	.7702	.00	191.73	3390.42
548.30	204.85	5.364	.7715	.00	204.85	3450.17
548.40	218.29	5.441	.7728	.00	218.29	3510.34
548.50	226.46	5.519	.7741	.00	226.46	3565.29
548.60	231.05	5.596	.7754	.00	231.05	3616.75
548.70	235.56	5.674	.7767	.00	235.56	3668.22
548.80	239.97	5.752	.7780	.00	239.97	3719.65
548.90	244.31	5.829	.7792	.00	244.31	3771.11
549.00	248.57	5.907	.7805	.00	248.57	3822.53

pe.... Master Network Summary
.me.... Watershed
File.... R:\0675N\10-DEV-POI2.PPW

MASTER DESIGN STORM SUMMARY

Network Storm Collection: OFALLON

Return Event	Total Depth in	Rainfall Type	RNF ID	
2-YR	3.5000	Synthetic Curve	TypeII	24hr
15-YR	5.2000	Synthetic Curve	TypeII	24hr
25-YR	5.7000	Synthetic Curve	TypeII	24hr
100-YR	7.2000	Synthetic Curve	TypeII	24hr

MASTER NETWORK SUMMARY
SCS Unit Hydrograph Method

(*Node=Outfall; +Node=Diversion;)
(Trun= HYG Truncation: Blank=None; L=Left; R=Rt; LR=Left&Rt)

Storage Node ID	Type	Return Event	HYG Vol ac-ft	Trun	Qpeak hrs	Qpeak cfs	Max WSEL ft	Max Pond ac-ft
AREA II	AREA	2	5.239		12.3600	38.27		
AREA II	AREA	15	8.708		12.3600	62.70		
AREA II	AREA	25	9.746		12.3600	69.87		
AREA II	AREA	100	12.881		12.3200	91.26		
AREA III	AREA	2	.093		12.2400	.78		
AREA III	AREA	15	.227		12.2000	2.22		
AREA III	AREA	25	.272		12.2000	2.71		
AREA III	AREA	100	.418		12.1600	4.30		
BASIN #2	IN POND	2	5.239		12.3600	38.27		
BASIN #2	IN POND	15	8.708		12.3600	62.70		
BASIN #2	IN POND	25	9.746		12.3600	69.87		
BASIN #2	IN POND	100	12.881		12.3200	91.26		

pe.... Master Network Summary
 ame.... Watershed
 File.... R:\0675N\10-DEV-POI2.PPW

MASTER NETWORK SUMMARY
 SCS Unit Hydrograph Method

(*Node=Outfall; +Node=Diversion;)
 (Trun= HYG Truncation: Blank=None; L=Left; R=Rt; LR=Left&Rt)

Storage Node ID	Return Type	Event	HYG Vol		Qpeak	Qpeak	Max WSEL	Max Pond
			ac-ft	Trun	hrs	cfs	ft	ac-ft
BASIN #2	OUT	POND	2		12.8000	21.09	546.41	3.984
BASIN #2	OUT	POND	15		12.5600	54.08	546.91	4.332
BASIN #2	OUT	POND	25		12.5200	62.52	547.02	4.405
BASIN #2	OUT	POND	100		12.4800	86.15	547.27	4.591
*POI #2	JCT		2		12.8000	21.35		
*POI #2	JCT		15		12.5600	55.06		
*POI #2	JCT		25		12.5200	63.82		
*POI #2	JCT		100		12.4800	88.35		

```

"/pe.... Pond Routing Summary
.ne.... BASIN #2      OUT   Tag: 100-YR      Event: 100 yr
File.... R:\0675N\10-DEV-POI2.PPW
Storm... TypeII 24hr  Tag: 100-YR

```

LEVEL POOL ROUTING SUMMARY

```

          HYG Dir          = R:\0675N\
Inflow  HYG file = NONE STORED - BASIN #2      IN 100-YR
Outflow HYG file = NONE STORED - BASIN #2      OUT 100-YR

```

```

          Pond Node   Data = BASIN #2
          Pond Volume Data = BASIN #2
          Pond Outlet Data = OUTFALL #2 LF

```

No Infiltration

INITIAL CONDITIONS

```

-----
Starting WS Elev   =    543.33 ft
Starting Volume    =    2.115 ac-ft
Starting Outflow   =     .00 cfs
Starting Infiltr. =     .00 cfs
Starting Total Qout=     .00 cfs
Time Increment     =     .0400 hrs

```

INFLOW/OUTFLOW HYDROGRAPH SUMMARY

```

=====
Peak Inflow       =    91.26 cfs   at   12.3200 hrs
Peak Outflow      =    86.15 cfs   at   12.4800 hrs
-----
          Peak Elevation   =    547.27 ft
          Peak Storage     =    4.591 ac-ft
=====

```

MASS BALANCE (ac-ft)

```

-----
+ Initial Vol     =     2.115
+ HYG Vol IN      =    12.881
- Infiltration    =     .000
- HYG Vol OUT     =    12.843
- Retained Vol    =     2.153
-----
Unrouted Vol =    -0.000 ac-ft (.000% of Inflow Volume)

```

Type.... Pond Routed HYG (total out)
 me.... BASIN #2 OUT Tag: 100-YR
 File.... R:\0675N\10-DEV-POI2.PPW
 Storm... TypeII 24hr Tag: 100-YR

Event: 100 yr

HYDROGRAPH ORDINATES (cfs)						
hrs	Time	Output Time increment = .0400 hrs				
Time on left represents time for first value in each row.						
9.0400		1.80	1.84	1.88	1.92	1.96
9.2400		2.00	2.04	2.08	2.13	2.17
9.4400		2.21	2.26	2.30	2.35	2.39
9.6400		2.44	2.48	2.53	2.57	2.61
9.8400		2.66	2.70	2.75	2.79	2.84
10.0400		2.89	2.94	2.99	3.04	3.10
10.2400		3.15	3.20	3.26	3.31	3.37
10.4400		3.43	3.50	3.56	3.63	3.70
10.6400		3.77	3.85	3.92	4.00	4.09
10.8400		4.17	4.26	4.36	4.45	4.55
11.0400		4.65	4.76	4.88	4.99	5.12
11.2400		5.24	5.38	5.52	5.67	5.83
11.4400		5.99	6.16	6.35	6.55	6.77
11.6400		7.02	7.30	7.63	7.88	8.15
11.8400		8.47	8.85	9.30	9.83	10.43
12.0400		11.09	11.82	14.98	26.13	39.76
12.2400		52.86	64.03	72.81	79.22	83.33
12.4400		85.55	86.15	85.25	83.33	80.52
12.6400		77.02	73.11	68.92	64.66	60.40
12.8400		56.44	52.59	49.11	45.86	42.91
13.0400		40.18	37.63	35.37	33.23	31.22
13.2400		29.48	27.84	26.28	24.90	23.68
13.4400		22.50	21.40	20.36	19.53	18.73
13.6400		17.95	17.22	16.52	15.93	15.45
13.8400		14.98	14.52	14.07	13.63	13.21
14.0400		12.92	12.69	12.47	12.24	12.19
14.2400		12.15	12.10	12.05	11.99	11.93
14.4400		11.87	11.81	11.75	11.68	11.61
14.6400		11.54	11.48	11.40	11.33	11.26
14.8400		11.19	11.11	11.04	10.96	10.89
15.0400		10.81	10.73	10.66	10.58	10.50
15.2400		10.42	10.34	10.26	10.18	10.10
15.4400		10.02	9.94	9.86	9.78	9.70
15.6400		9.62	9.53	9.45	9.37	9.29
15.8400		9.20	9.12	9.04	8.96	8.87
16.0400		8.79	8.70	8.62	8.53	8.45
16.2400		8.36	8.28	8.20	8.11	8.02
16.4400		7.94	7.85	7.77	7.67	7.53
16.6400		7.39	7.26	7.13	7.00	6.88
16.8400		6.77	6.66	6.56	6.46	6.36
17.0400		6.26	6.17	6.08	6.00	5.92
17.2400		5.84	5.76	5.69	5.62	5.55
17.4400		5.48	5.41	5.35	5.29	5.23
17.6400		5.17	5.12	5.06	5.01	4.96
17.8400		4.91	4.86	4.81	4.77	4.72

pe.... Pond Routed HYG (total out)
 Name.... BASIN #2 OUT Tag: 100-YR
 File.... R:\0675N\10-DEV-POI2.PPW
 Storm... TypeII 24hr Tag: 100-YR

Event: 100 yr

HYDROGRAPH ORDINATES (cfs)

Time hrs	Output Time increment = .0400 hrs				
	Time on left represents time for first value in each row.				
18.0400	4.68	4.63	4.59	4.55	4.51
18.2400	4.47	4.44	4.40	4.36	4.33
18.4400	4.29	4.26	4.22	4.19	4.16
18.6400	4.12	4.09	4.06	4.03	4.00
18.8400	3.97	3.94	3.92	3.89	3.86
19.0400	3.83	3.81	3.78	3.75	3.73
19.2400	3.70	3.68	3.65	3.63	3.60
19.4400	3.58	3.56	3.53	3.51	3.48
19.6400	3.46	3.44	3.42	3.39	3.37
19.8400	3.35	3.33	3.31	3.29	3.27
20.0400	3.24	3.22	3.20	3.18	3.16
20.2400	3.14	3.12	3.10	3.08	3.06
20.4400	3.04	3.03	3.01	2.99	2.97
20.6400	2.95	2.93	2.91	2.90	2.88
20.8400	2.86	2.85	2.83	2.82	2.80
21.0400	2.78	2.77	2.76	2.74	2.73
21.2400	2.72	2.71	2.69	2.68	2.67
21.4400	2.66	2.65	2.64	2.63	2.62
21.6400	2.61	2.60	2.59	2.58	2.57
21.8400	2.56	2.55	2.54	2.53	2.52
22.0400	2.51	2.51	2.50	2.49	2.48
22.2400	2.47	2.47	2.46	2.45	2.44
22.4400	2.44	2.43	2.42	2.42	2.41
22.6400	2.40	2.40	2.39	2.38	2.38
22.8400	2.37	2.36	2.36	2.35	2.35
23.0400	2.34	2.34	2.33	2.32	2.32
23.2400	2.31	2.31	2.30	2.30	2.29
23.4400	2.29	2.28	2.28	2.27	2.27
23.6400	2.26	2.26	2.25	2.25	2.24
23.8400	2.24	2.23	2.23	2.22	2.22
24.0400	2.21	2.21	2.20	2.20	2.19
24.2400	2.18	2.17	2.16	2.15	2.13
24.4400	2.11	2.09	2.06	2.04	2.01
24.6400	1.98	1.94	1.91	1.87	1.83
24.8400	1.79	1.75	1.71	1.68	1.64
25.0400	1.61	1.57	1.54	1.50	1.47
25.2400	1.43	1.40	1.37	1.33	1.30
25.4400	1.27	1.24	1.21	1.19	1.16
25.6400	1.14	1.11	1.09	1.06	1.04
25.8400	1.01	.99	.97	.95	.92
26.0400	.90	.88	.86	.85	.83
26.2400	.82	.80	.79	.77	.76
26.4400	.74	.73	.71	.70	.69
26.6400	.68	.66	.65	.64	.63
26.8400	.61	.60	.59	.58	.57

APPENDIX

SOILS MAP AND INDEX

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE



TABLE 17.--SOIL WATER FEATURES--Continued

Soil name and map symbol	Hydro-logic group	Flooding			High water table			Bedrock		Potential frost action	Risk of Corrosion	
		Frequency	Duration	Months	Depth	Kind	Months	Depth	Hardness		Uncoated steel	Concrete
31C----- Hatton	C	None-----	---	---	1.5-3.0	Perched	Oct-Apr	>60	---	High-----	High-----	Moderate.
34E----- Lindley	C	None-----	---	---	>6.0	---	---	>60	---	Moderate	Moderate	Moderate.
OFFSITE 35B Mexico	D	None-----	---	---	1.0-2.0	Perched	Nov-Apr	>60	---	Moderate	High-----	Moderate.
37----- Marion	D	None-----	---	---	1.0-2.0	Perched	Nov-May	>60	---	Moderate	High-----	High.
40----- Westerville	C	Rare-----	---	---	1.0-3.0	Apparent	Nov-Apr	>60	---	High-----	---	---
41----- Freeburg	C	Rare-----	---	---	1.5-3.0	Perched	Nov-May	>60	---	High-----	Moderate	High.
43----- Cedargap	B	Occasional	Very brief	Nov-Mar	>6.0	---	---	>60	---	Moderate	Low-----	Low.
44----- Sensabaugh	B	Occasional	Very brief	Jan-Apr	4.0-6.0	Apparent	Jan-Apr	>60	---	---	Low-----	Low.
48A, 48B, 48C Weller	C	None-----	---	---	2.0-4.0	Apparent	Nov-Jul	>60	---	High-----	High-----	High.
54C*, 54D*: Harvester	B	None-----	---	---	>6.0	---	---	>60	---	High-----	Low-----	Low.
Urban land.												
62----- Edinburg	C	None-----	---	---	+1.5-2.0	Apparent	Mar-Jun	>60	---	High-----	High-----	Moderate.
63B----- Herrick	B	None-----	---	---	1.0-3.0	Apparent	Mar-Jun	>60	---	High-----	High-----	High.
67E----- Menfro	B	None-----	---	---	>6.0	---	---	>60	---	High-----	Low-----	Moderate.
70----- Booker	D	Frequent-----	Brief to long.	Apr-Jul	+1.5-1.0	Perched	Nov-May	>60	---	Moderate	High-----	Moderate.
71----- Waldron	D	Rare-----	Brief-----	Mar-Jun	1.0-3.0	Perched	Nov-May	>60	---	High-----	High-----	Low.
72----- Blake	B	Rare-----	Very brief	Feb-Nov	2.0-4.0	Apparent	Nov-Jul	>60	---	High-----	High-----	Low.
73----- Haynie	B	Rare-----	Very brief	Feb-Nov	>6.0	---	---	>60	---	High-----	Low-----	Low.

See footnote at end of table.

TABLE 17.--SOIL AND WATER FEATURES

["Flooding" and "water table" and terms such as "rare," "brief," "apparent," and "perched" are explained in the text. The symbol > means more than. Absence of an entry indicates that the feature is not a concern or that data were not estimated]

Soil name and map symbol	Hydro-logic group	Flooding			High water table			Bedrock		Potential frost action	Risk of corrosion	
		Frequency	Duration	Months	Depth	Kind	Months	Depth	Hardness		Uncoated steel	Concrete
					Ft			In				
2D, 2F----- Goss	B	None-----	---	---	>6.0	---	---	>60	---	Moderate	Moderate	Moderate.
3----- Twomile	C/D	Rare-----	---	---	1.0-2.0	Perched	Nov-May	>60	---	High-----	High-----	High.
4D*: Menfro-----	B	None-----	---	---	>6.0	---	---	>60	---	High-----	Low-----	Moderate.
Goss-----	B	None-----	---	---	>6.0	---	---	>60	---	Moderate	Moderate	Moderate.
6C, 6D2, 6E----- Crider	B	None-----	---	---	>6.0	---	---	>60	---	---	Moderate	Moderate.
7B, 7C, 7D2, 7E2, 7F----- Menfro	B	None-----	---	---	>6.0	---	---	>60	---	High-----	Low-----	Moderate.
8C, 8D, 8E2----- Winfield	B	None-----	---	---	2.5-4.0	Perched	Nov-Apr	>60	---	High-----	Moderate	Moderate.
9E----- Holstein	B	None-----	---	---	>6.0	---	---	>60	---	Moderate	Moderate	Moderate.
10F*: Gasconade----- Rock outcrop.	D	None-----	---	---	>6.0	---	---	10-20	Hard	Moderate	High-----	Low.
11----- Dockery	C	Occasional	Brief-----	Nov-Jun	1.0-3.0	Apparent	Nov-Apr	>60	---	High-----	Moderate	Low.
12----- Kennebec	B	Occasional	Brief-----	Feb-Nov	3.0-5.0	Apparent	Nov-Jul	>60	---	High-----	Moderate	Low.
13----- Auxvasse	D	Rare-----	---	---	1.0-2.0	Perched	Nov-May	>60	---	Moderate	High-----	High.
22F*: Gatewood-----	C	None-----	---	---	>6.0	---	---	20-40	Hard	Moderate	High-----	Moderate.
Gasconade-----	D	None-----	---	---	>6.0	---	---	10-20	Hard	Moderate	High-----	Low.
Crider-----	B	None-----	---	---	>6.0	---	---	>60	---	---	Moderate	Moderate.
24D2----- Keswick	D	None-----	---	---	1.0-3.0	Perched	Nov-Jul	>60	---	High-----	High-----	Moderate.
27C----- Armster	C	None-----	---	---	2.5-4.0	Perched	Nov-Mar	>60	---	Moderate	High-----	Moderate.

See footnote at end of table.

OFFSITE HYDRAULIC CALCULATIONS

RUSTIQUE INTERPRISES INC.

12-31-97

SUBMITTED: 12-30-97

FILENAME: RUSTIQUE

UPP STR	LOW STR	L	DIA	UPPER FL LN	LOWER FL LN	PS	UPPER ST EL	DEPTH HT GR	UPPER HY EL	LOWER HY EL	HYDR GRADE	FR HEAD	VEL VEL HEAD	JUNC LOSS	TURB LOSS	CURVE LOSS	STR GRADE	INL CAP	GR AREA	PI	Q	TQ	TURN ANGLE	CURVE RADIUS	DEF ANGLE	REMARKS	REMARKS	
AG1	AG1	67	24	572.68	571.99		576.80		576.80	575.50	4-5	12.00	2.94	3.54	8.28	8.28	0	0	2.94	3.54	8.28	8.28	0	0	0		.013	1
AG1	CI 4	347	30	571.59	570.60		575.50		575.50	577.54	L.P.	0.00	1.80	3.54	6.37	14.65	23	0	1.80	3.54	6.37	14.65	23	0	0		.013	2
CI 4	FE 3	115	36	570.60	570.48		577.54		577.54	0.00	-6	2.57	0.08	3.54	0.28	14.95	0	0	0.08	3.54	0.28	14.95	0	0	0		.013	3
GI 8	FE 7	45	18	572.06	571.92		575.92		575.92	0.00	L.P.	0.00	1.88	3.54	6.58	6.58	0	0	1.88	3.54	6.58	6.58	0	0	0		.013	4
OS 2	FE 1	37	36	569.98	569.80		574.00		574.00	0.00		0.00	0.47	1.70	28.68	28.68	0	0	0.47	1.70	28.68	28.68	0	0	0	DET. BASIN	.013	5

TOTAL AREA = 6.56 AC TO BASIN

RUSTIQUE INTERPRISES INC.

12-31-97

SUBMITTED: 12-30-97

FILENAME: RUSTIQUE

UPP STR	LOW STR	L	DIA	UPPER FL LN	LOWER FL LN	PS	UPPER ST EL	DEPTH HT GR	UPPER HY EL	LOWER HY EL	HYDR GRADE	FR HEAD	VEL VEL HEAD	JUNC LOSS	TURB LOSS	CURVE LOSS	STR GRADE	INL CAP	GR AREA	PI	Q	TQ	TURN ANGLE	CURVE RADIUS	DEF ANGLE	REMARKS	REMARKS	
AG1	AG1	67	24	572.68	571.99		576.80	2.17	576.80	575.25	.00170	0.12	2.81	0.11	1.15	0.00	1.00	4-5	12.00	2.34	3.54	8.28	8.28	27.58	0			
AG1	CI 4	347	30	571.59	570.60		575.50	1.74	575.50	573.12	.00130	0.14	2.98	0.14	0.10	0.10	0.10	L.P.	0.00	1.80	3.54	6.37	14.65	15.57	0			
CI 4	FE 3	115	36	570.60	570.48		577.54	2.72	577.54	573.76	.00150	0.16	3.11	0.07	0.04	0.04	3.00	.5	2.57	1.08	3.54	0.28	14.93	21.55	0			
GI 7	FE 7	45	18	572.06	571.92		575.92	1.68	575.92	573.26	.00330	1.19	1.72	0.22	0.25	0.05	0.01	L.P.	0.01	1.70	3.54	5.58	6.58	7.13	0			
OS 2	FE 1	37	36	569.98	569.80		574.00	1.77	574.00	572.00	.00220	0.07	5.23	0.21	0.30	0.00	0.00		0.00	0.47	1.70	28.68	28.68	47.60	0	DET. BASIN		

RUSTIQUE INTERPRISES INC.

12-31-97

SUBMITTED: 12-30-97

FILENAME: RUSTIQUE

UPP STR	LOW STR	L	DIA	UPPER FL LN	LOWER FL LN	PS	UPPER ST EL	DEPTH HT GR	UPPER HY EL	LOWER HY EL	HYDR GRADE	FR HEAD	VEL VEL HEAD	JUNC LOSS	TURB LOSS	CURVE LOSS	STR GRADE	INL CAP	GR AREA	PI	Q	TQ	TURN ANGLE	CURVE RADIUS	DEF ANGLE	REMARKS	REMARKS	
OS 2	FE 1	37	36	569.98	569.80		574.00	1.20	574.00	572.00	.00010	0.00	0.00	0.01	0.00	0.00		0.00	0.47	1.70	28.68	28.68	47.60	0	DET. BASIN			

RUSTIQUE INTERPRISES INC.

12-31-97

SUBMITTED: 12-30-97

FILENAME: RUSTIQUE

UPP STR	LOW STR	L	DIA	UPPER FL LN	LOWER FL LN	PS	UPPER ST EL	DEPTH HT GR	UPPER HY EL	LOWER HY EL	HYDR GRADE	FR HEAD	VEL VEL HEAD	JUNC LOSS	TURB LOSS	CURVE LOSS	STR GRADE	INL CAP	GR AREA	PI	Q	TQ	TURN ANGLE	CURVE RADIUS	DEF ANGLE	REMARKS	REMARKS	
OS 2	FE 1	37	36	569.98	569.80		574.00	1.20	574.00	572.00	.00010	0.00	0.00	0.01	0.00	0.00		0.00	0.47	1.70	28.68	28.68	47.60	0	DET. BASIN			

93148496010 P.04

TO

03-06-2002 10:57AM FROM

ELEVATION	AREA	VOLUME	CUM. VOLUME
570.00	0	0029	0029
571.00	4059	771	8801
572.00	11484	26282	38083
574.00	14798	39251	89334
576.00	18453		

 *
 * RECTANGULAR ORIFICE *
 * 6 in W X 8 in H ELEV= 570 *
 *
 * Outlet Pipe - 36.86 ft - 36 in pipe *
 * UFL= 569.99 LFL= 569.8 n= .013 *
 *
 * Overflow Structure - Box Structure *
 * PERIMETER= 10 ft/SILL ELEV= 574 *
 *

154R

MIN	INFLOW cfm	STORAGE	OUTFLOW	NET DET.	
1	296.80	296.80	0.00	296.80	570.00
2	593.60	890.40	4.36	886.04	570.00
3	890.40	1776.44	22.50	1753.94	570.00
4	1187.20	2941.14	57.55	2883.59	571.00
5	1484.00	4367.59	68.09	4299.50	571.00
6	1780.80	6080.30	74.96	6005.34	571.00
7	1780.80	7786.14	82.48	7703.66	571.00
8	1780.80	9484.48	89.33	9395.15	571.00
9	1780.80	11175.93	95.68	11080.25	571.00
10	1780.80	12861.05	99.80	12761.25	571.00
11	1780.80	14542.05	103.20	14438.85	571.00
12	1780.80	16219.65	106.48	16113.17	571.00
13	1780.80	17893.97	109.66	17784.31	571.00
14	1780.80	19565.11	112.74	19452.37	571.00
15	1780.80	21233.17	115.74	21117.43	571.00
16	1780.80	22898.23	118.65	22778.58	571.00
17	1780.80	24560.38	121.49	24438.89	571.00
18	1780.80	26219.69	124.26	26095.43	571.00
19	1780.80	27876.23	126.97	27749.26	571.00
20	1780.80	29530.06	129.61	29400.45	571.00
21	1484.00	30884.45	132.20	30752.25	571.00
22	1187.20	31939.45	134.28	31806.17	571.00
23	890.40	32695.57	135.68	32559.89	571.00
24	593.60	33153.29	137.02	33016.27	571.00
25	296.80	33313.07	137.70	33175.37	571.00
26	0.00	33175.37	137.73	33037.44	571.00
27	0.00	33037.44	137.73	32899.71	571.00

t-c 26

137.83

 *
 * RECTANGULAR ORIFICE *
 * 6 in W X 6 in H ELEV= 570 *
 *
 * Outlet Pipe - 36.86 ft - 36 in pipe *
 * UFL= 569.99 LFL= 569.8 n= .013 *
 *
 * Overflow Structure - Box Structure *
 * PERIMETER= 10 ft/SILL ELEV= 574 *
 *

RUSTIQUE INTERPRISES 1-13-98 SUBMITTAL DATE: 1-8-96

MIN	INFLOW (cfs/min)	STORAGE	OUTFLOW	NET DET.	ELEV.
1	165.56	165.56	0.00	165.56	570.00
2	331.11	496.67	1.92	494.75	570.00
3	496.67	991.52	9.39	982.13	570.00
4	662.22	1644.35	26.26	1618.09	570.00
5	827.78	2445.87	64.32	2391.55	571.00
6	993.33	3384.88	65.54	3319.34	571.00
7	1158.89	4478.24	70.28	4407.96	571.00
8	1324.44	5732.40	75.46	5656.94	571.00
9	1490.00	7146.95	81.00	7065.95	571.00
10	1490.00	8555.95	86.82	8469.13	571.00
11	1490.00	9959.13	92.26	9866.87	572.00
12	1490.00	11356.87	97.28	11259.60	572.00
13	1490.00	12749.60	100.17	12649.43	572.00
14	1490.00	14136.43	102.98	14036.45	572.00
15	1490.00	15526.45	105.70	15420.75	572.00
16	1490.00	16910.75	108.36	16802.39	572.00
17	1490.00	18292.39	110.94	18181.45	572.00
18	1490.00	19671.45	113.46	19557.99	572.00
19	1490.00	21047.99	115.93	20932.07	572.00
20	1490.00	22422.07	118.33	22303.74	572.00
21	1324.44	23628.19	120.69	23507.50	573.00
22	1158.89	24666.39	122.72	24543.67	573.00
23	993.33	25537.01	124.44	25412.57	573.00
24	827.78	26240.35	125.86	26114.49	573.00
25	662.22	26776.71	127.00	26649.71	573.00
26	496.67	27146.38	127.86	27018.52	573.00
27	331.11	27349.63	128.45	27224.18	573.00
28	165.56	27386.74	128.77	27257.96	573.00
29	0.00	27257.96	128.63	27129.13	573.00
30	0.00	27129.13	128.63	27000.51	573.00

tc (29)

128.88

PEAK OUTFLOW= [REDACTED] AT 29 MINUTES
 W/ DETENTION

2 YEAR SEDIMENT BASIN

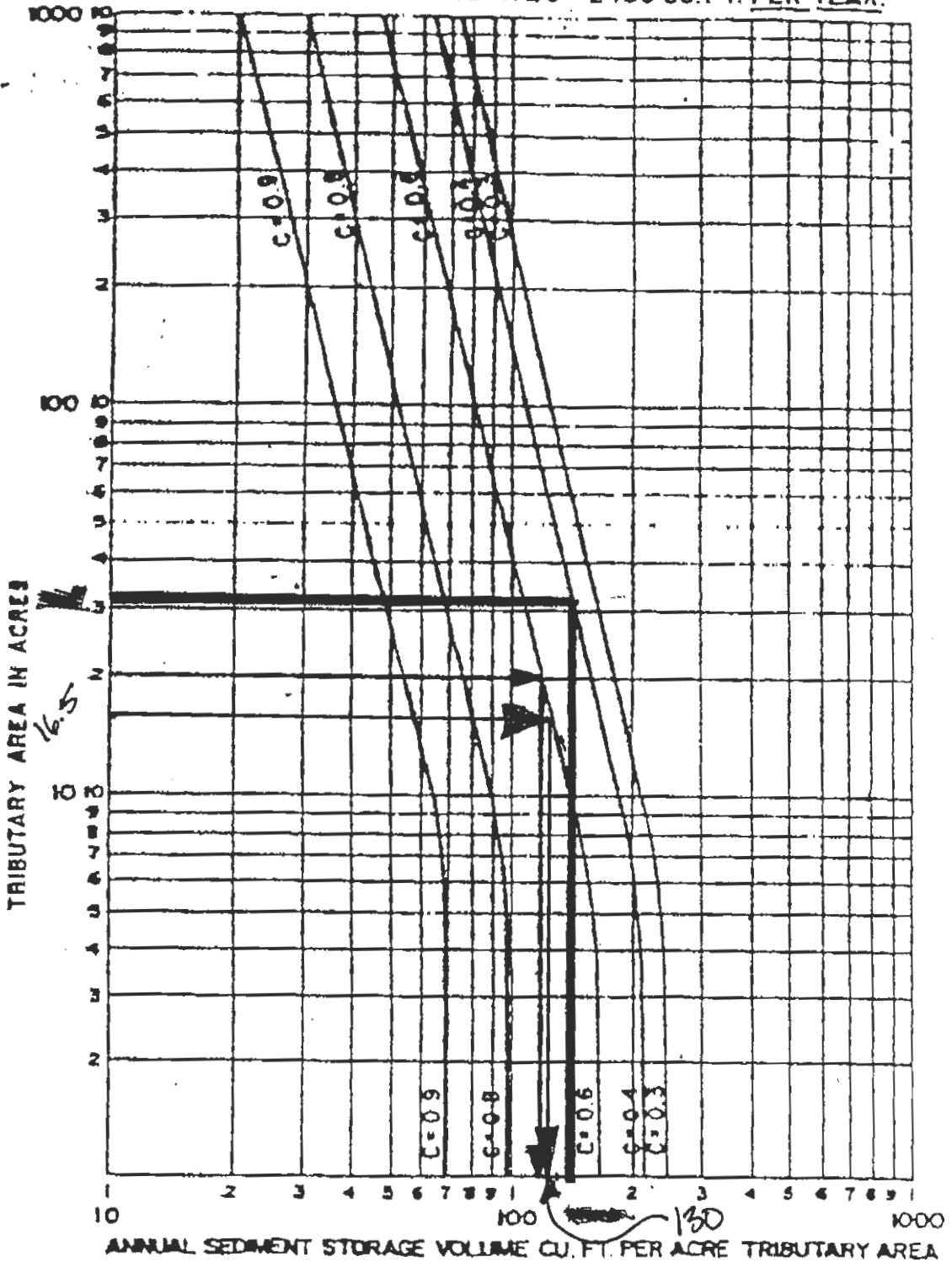
EXAMPLE:

TRIBUTARY AREA = 20 ACRES

RATIONAL METHOD RUNOFF COEFFICIENT "C" = 0.6

SEDIMENT STORAGE = 120 CU. FT. PER ACRE PER YEAR

TOTAL SEDIMENT STORAGE = 120 X 20 = 2400 CU. FT. PER YEAR.



$130 \times 2 = 260$

ANNUAL SEDIMENT STORAGE

FIG. 6

Post-it® Fax Note		7671	
To	Jim Whisler	From	Jeanne
Co./Dept.		Co.	
Phone #		Phone #	
Fax #	314-849-6010	Fax #	
Date	1-28	# of pages	1

SEDIMENT BASIN CALCULATIONS

	SEDIMENT BASIN #1	SEDIMENT BASIN#2
TRIBUTARY AREA:	16.44 AC	16.52 AC
APPROX. ANNUAL SEDIMENT STORAGE	130 CF/AC	130 CF/AC
REQUIRED 2-YEAR SEDIMENT STORAGE	4,274 CF	4,295 CF
100-YEAR STORM REQUIRED STORAGE	149,629 CF (3.435 AC-FT)	199,984 CF (4.591 AC-FT)
TOTAL REQUIRED STORAGE	153,903 CF (3.533 AC-FT)	204,279 CF (4.690 AC-FT)
STORAGE PROVIDED (W/ 1' OF FREEBOARD)	156,642 CF (3.596 AC-FT)	207,476 CF (4.763 AC-FT)

EX 25 YEAR HIGHWATER CALCULATIONS

Worksheet
Worksheet for Triangular Channel

Project Description	
Project File	c:\haestad\fmw\675m.fm2
Worksheet	POI #1
Flow Element	Triangular Channel
Method	Manning's Formula
Solve For	Channel Depth

Input Data	
Mannings Coefficient	0.030
Channel Slope	0.010000 ft/ft
Left Side Slope	3.000000 H : V
Right Side Slope	3.000000 H : V
Discharge	48.51 cfs

Results		
Depth	1.88	ft
Flow Area	10.58	ft ²
Wetted Perimeter	11.88	ft
Top Width	11.27	ft
Critical Depth	1.75	ft
Critical Slope	0.014719	ft/ft
Velocity	4.59	ft/s
Velocity Head	0.33	ft
Specific Energy	2.20	ft
Froude Number	0.83	
Flow is subcritical.		

$$\text{HW ELEV} = 539.00 + 1.88$$
$$540.88$$

G-G
Worksheet for Trapezoidal Channel

Project Description	
Project File	c:\haestad\fmw\675m.fm2
Worksheet	G-G
Flow Element	Trapezoidal Channel
Method	Manning's Formula
Solve For	Channel Depth

Input Data	
Mannings Coefficient	0.022
Channel Slope	0.010000 ft/ft
Left Side Slope	2.000000 H : V
Right Side Slope	3.000000 H : V
Bottom Width	5.00 ft
Discharge	254.71 cfs

Results	
Depth	2.52 ft
Flow Area	28.42 ft ²
Wetted Perimeter	18.59 ft
Top Width	17.58 ft
Critical Depth	2.81 ft
Critical Slope	0.006289 ft/ft
Velocity	8.96 ft/s
Velocity Head	1.25 ft
Specific Energy	3.77 ft
Froude Number	1.24
Flow is supercritical.	

$$\begin{aligned} HW \text{ ELEV} &= 540 + 2.52 \\ &= 542.52 \end{aligned}$$

BOUYANCY CALCULATIONS

Outfall Structure #1
96" diameter w/ 5" walls

$$F_b = T_{wr} - T_{wwr} + T_{wb} - T_{wwb} = 0$$

T_{wr} = Total weight of risers

$$T_{wr} = A_r * H_r * 150 \text{ lb/cf}$$

$$T_{wr} = (4.42^2 * \pi - 4^2 * \pi) * (546.95 - 540.77) * 150$$

$$T_{wr} = 10,299 \text{ lb}$$

T_{wwr} = Total weight of water displaced by risers

$$T_{wwr} = A_r * H_r * 62.4 \text{ lb/cf}$$

$$T_{wwr} = (4.42^2 * \pi) * (546.95 - 540.77) * 62.4$$

$$T_{wwr} = 23,668 \text{ lb}$$

$$B_f = 0 = 10,299 - 23,668 + T_{wb} - T_{wwb}$$

$$13,369 = T_{wb} - T_{wwb}$$

$$T_{wb} = A_b * H_b * 150 \text{ lb/cf}$$

Using a base depth of 2'

$$T_{wb} = (R^2 * \pi) * 2 * 150$$

$$T_{wwb} = A_b * H_b * 62.4 \text{ lb/cf}$$

$$T_{wwb} = (R^2 * \pi) * 2 * 62.4$$

$$13,369 = 300\pi (R^2) - 124.8\pi (R^2)$$

$$13,369 = 550.4 (R^2)$$

$$R = 4.92$$

Use 10' diameter base 2' thick

Outfall Structure #2
72" diameter w/ 5" walls

$$F_b = T_{wr} - T_{wwr} + T_{wb} - T_{wwb} = 0$$

T_{wr} = Total weight of risers

$$T_{wr} = A_r * H_r * 150 \text{ lb/cf}$$

$$T_{wr} = (3.42^2 * \pi - 3^2 * \pi) * (546.15 - 532.83) * 150$$

$$T_{wr} = 16,925 \text{ lb}$$

T_{wwr} = Total weight of water displaced by risers

$$T_{wwr} = A_r * H_r * 62.4 \text{ lb/cf}$$

$$T_{wwr} = (3.42^2 * \pi) * (546.15 - 532.83) * 62.4$$

$$T_{wwr} = 30,542 \text{ lb}$$

$$B_f = 0 = 16,925 - 30,542 + T_{wb} - T_{wwb}$$

$$13,617 = T_{wb} - T_{wwb}$$

$$T_{wb} = A_b * H_b * 150 \text{ lb/cf}$$

Using a base depth of 2'

$$T_{wb} = (R^2 * \pi) * 2 * 150$$

$$T_{wwb} = A_b * H_b * 62.4 \text{ lb/cf}$$

$$T_{wwb} = (R^2 * \pi) * 2 * 62.4$$

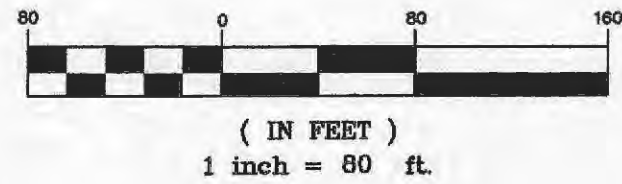
$$13,617 = 300\pi (R^2) - 124.8\pi (R^2)$$

$$13,617 = 550.4 (R^2)$$

$$R = 4.97$$

Use 10' diameter base 2' thick

DRAINAGE AREA MAP



N/F
DR. 097, PG. 1532
MM MANAGEMENT CORP.
MOBILE HOME PARK
ZONED RM (ST. CHARLES COUNTY)

N/F
HENNESSEY
DEVELOPMENT, INC.
DB. 2714, PG. 1771
ZONED R4 - PERMISSON POINTE P.U.D.
FUTURE DEVELOPMENT

N/F
64K, L.L.C.
DB. 2714, PG. 1767

AREA III
A = 1.59 Ac.
Tc = 28 min.
CN = 64
Q₂ = 0.78cfs
Q₁₅ = 2.22cfs
Q₂₅ = 2.71cfs
Q₁₀₀ = 4.30cfs

N/F
HELLEN-BECK PROPERTIES, LLC
DB. 2476, PG. 1717
FUTURE DEVELOPMENT
ZONED HTCD - PERMISSON POINTE P.U.D.

N/F
64K, L.L.C.
DB. 2436, PG. 1997

AREA II
A = 25.68 Ac.
Tc = 49 min.
CN = 90
Q₂ = 38.27cfs
Q₁₅ = 62.70cfs
Q₂₅ = 69.87cfs
Q₁₀₀ = 91.26cfs

16.52 AC TO BE DISTURBED

AREA I
A = 16.44 Ac.
Tc = 14 min.
CN = 92
Q₂ = 51.70cfs
Q₁₅ = 82.08cfs
Q₂₅ = 90.95cfs
Q₁₀₀ = 117.38cfs

16.44 AC TO BE DISTURBED

RUSTIQUE
A = 6.56 Ac.
Tc = 26 min.
CN = 96
Q₂ = 17.29cfs
Q₁₅ = 26.28cfs
Q₂₅ = 28.91cfs
Q₁₀₀ = 36.78cfs

PASSING THROUGH BASIN #1

N/F
DONALD E. STANVILL
DB. 3736, PG. 1543
OFFICE/WAREHOUSE

N/F
CIR, L.L.C.
DB. 3926, PG. 45
ZONED "C-2"

FF-599-CP HOTEL
LOT #4 (124 ROOMS)
15,384 S.F.
HOTEL/RESTAURANT DEVELOP

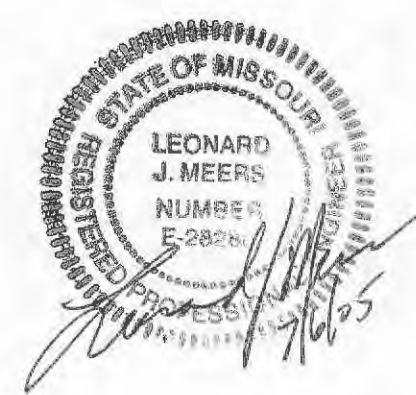
N/F
64K, L.L.C.
DB. 2497, PG. 501

N/F
64K, L.L.C.
DB. 2379, PG. 1774

SEDIMENT BASIN CALCULATIONS

	SEDIMENT BASIN #1	SEDIMENT BASIN #2
TRIBUTARY AREA:	16.44 AC	16.52 AC
APPROX. ANNUAL SEDIMENT STORAGE	130 CF/AC	130 CF/AC
REQUIRED 2-YEAR SEDIMENT STORAGE	4,274 CF	4,295 CF
100-YEAR STORM REQUIRED STORAGE	149,629 CF (3,435 AC-FT)	199,984 CF (4,591 AC-FT)
TOTAL REQUIRED STORAGE	153,903 CF (3,533 AC-FT)	204,279 CF (4,690 AC-FT)
STORAGE PROVIDED (W/ 1' OF FREEBOARD)	156,642 CF (3,596 AC-FT)	207,476 CF (4,763 AC-FT)

PREPARED FOR:
BRINKMANN CONSTRUCTORS
CONTACT: KEVIN JACOBSMEYER
16650 CHESTERFIELD GROVE RD, SUITE 100
CHESTERFIELD, MO 63005
PH: (636) 537-9700
FAX: (636) 537-9880

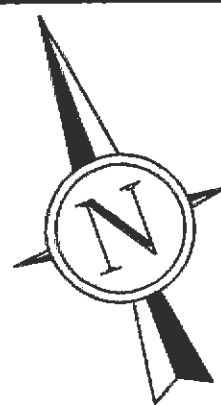


O'FALLON AUTO MALL
DEVELOPED DRAINAGE AREA MAP

J. R. GRIMES
CONSULTING ENGINEERS, INC.
12300 OLD TESSON ROAD
SUITE 3000
ST. LOUIS, MO. 63128
PH. (314) 849-8100
FAX (314) 849-6010

P&Z FILE # 3101.05.03

DRAWN BY: JLW DATE: 04/08/05
CHECKED BY: LJM DATE: 04/08/05
JOB NUMBER: 675N
SHEET: 2 OF 2



(IN FEET)
1 inch = 80 ft.

N/F
DB. 907, PG. 1532
MGM MANAGEMENT CORP.
MOUNTAIN HOME PARK
ZONED RM (ST. CHARLES COUNTY)

N/F
HENNESSEY
DEVELOPMENT, INC.
DB. 2714, PG. 1771
ZONED R4 - PERSIMMON POINTS P.U.D.
FUTURE DEVELOPMENT

N/F
94K, L.L.C.
DB. 2714, PG. 1767

N/F
WELLYN-BECK PROPERTIES, LLC
DB. 2476, PG. 1717
FUTURE DEVELOPMENT
ZONED HTCD + PERSIMMON POINTS P.U.D.

N/F
CRK, L.L.C.
DB. 3228, PG. 1807
ZONED C-1
HOTEL/RESTAURANT D
FF-3503 HOTEL
LOT A-4 (800 ROOMS)
(13,984 S.F.)

N/F
64K, L.L.C.
DB. 2438, PG. 1997

N/F
64K, L.L.C.
DB. 2437, PG. 1997

N/F
64K, L.L.C.
DB. 2079, PG. 1774

N/F
DONALD E. STANFILL
DB. 3739, PG. 1548
OFFICE/WAREHOUSE

30' W. INGRESS, EGRESS,
& UTILITY EASEMENT
DB. 1400, PG. 989

RUSTIQUE
A = 6.56 Ac.
Tc = 26 min.
CN = 96
Q₂ = 17.30cfs
Q₁₅ = 26.28cfs
Q₂₅ = 28.89cfs
Q₁₀₀ = 36.73cfs

DRAINAGE AREA
LIMITS
(TYP.)

DRAINAGE AREA
LIMITS
(TYP.)

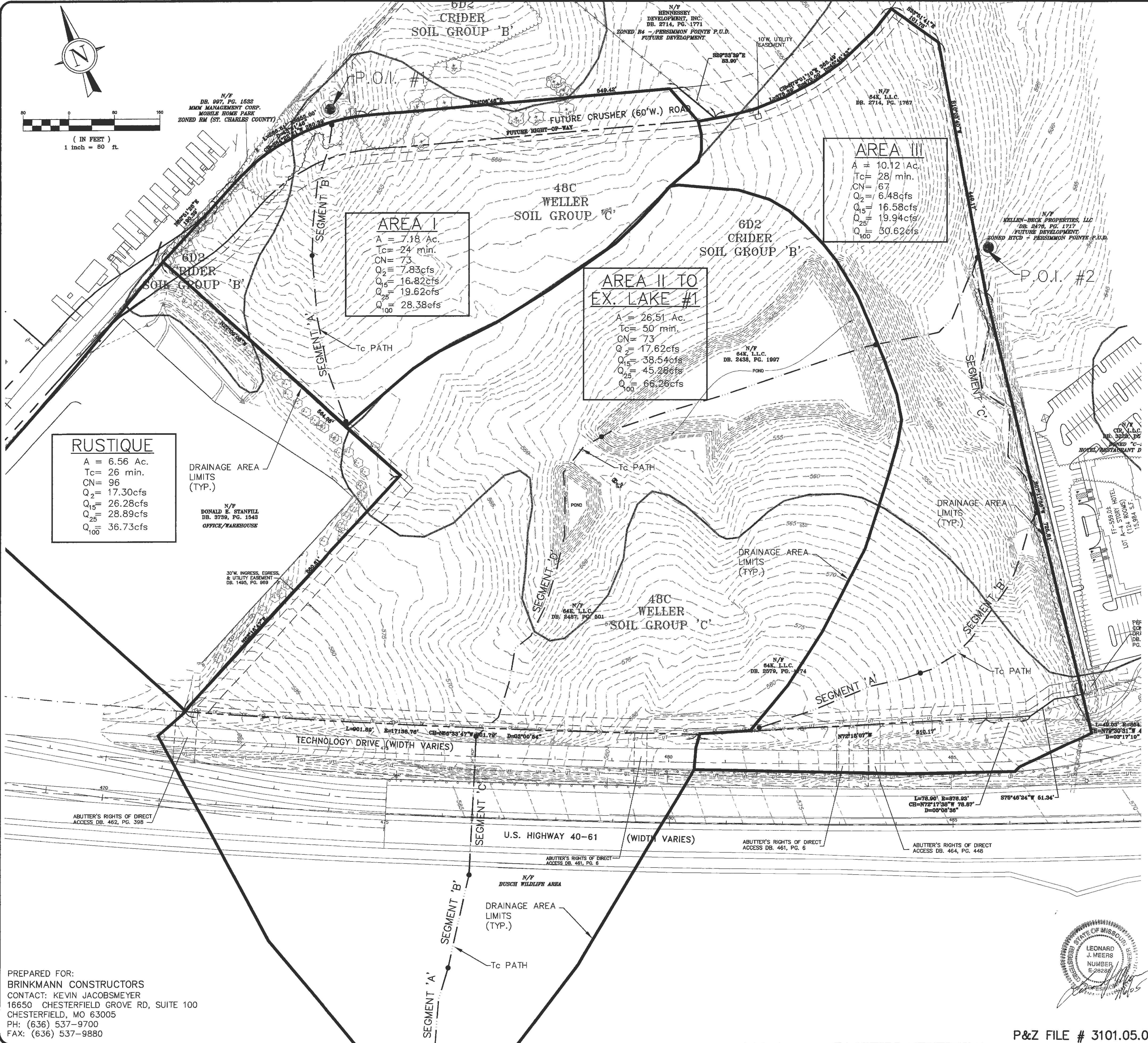
DRAINAGE AREA
LIMITS
(TYP.)

DRAINAGE AREA
LIMITS
(TYP.)

AREA I
A = 7.18 Ac.
Tc = 24 min.
CN = 73
Q₂ = 7.83cfs
Q₁₅ = 16.82cfs
Q₂₅ = 19.62cfs
Q₁₀₀ = 28.38cfs

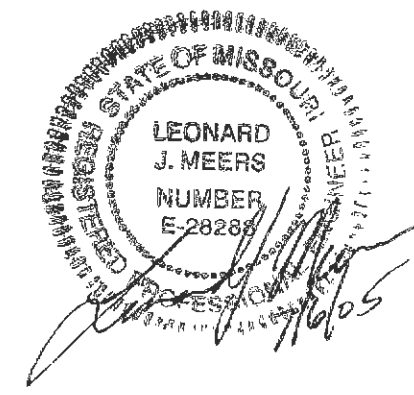
**AREA II TO
EX. LAKE #1**
A = 26.51 Ac.
Tc = 50 min.
CN = 73
Q₂ = 17.62cfs
Q₁₅ = 38.54cfs
Q₂₅ = 45.28cfs
Q₁₀₀ = 66.26cfs

AREA III
A = 10.12 Ac.
Tc = 28 min.
CN = 67
Q₂ = 6.48cfs
Q₁₅ = 16.58cfs
Q₂₅ = 19.94cfs
Q₁₀₀ = 30.62cfs



PREPARED FOR:
BRINKMANN CONSTRUCTORS
CONTACT: KEVIN JACOBSMEYER
16650 CHESTERFIELD GROVE RD, SUITE 100
CHESTERFIELD, MO 63005
PH: (636) 537-9700
FAX: (636) 537-9880

P&Z FILE # 3101.05.03



O'FALLON AUTO MALL			
EXISTING DRAINAGE AREA MAP			
J. R. GRIMES		CONSULTING ENGINEERS, INC.	
12300 OLD TESSON ROAD SUITE 3000 ST. LOUIS, MO. 63128 PH: (314) 849-5100 FAX: (314) 849-6010			
DRAWN BY:	DATE:	CHECKED BY:	DATE:
JLW	04/08/05	LJM	04/08/05
JOB NUMBER:		SHEET:	
675N		1 OF 2	