#1016.33

Rosewood Wash Drainage Basin

Hydrology Report

for

Rosewood Wash Detention Basin Down-Drains

Prepared by:

Codega & Fricke, inc.
engineers + planners + landscape architects
3690 Grant Drive, Suite J
Reno, Nevada 89509

Looks ok to me
RMG
8/21/90

August 1990

#1016.33

Rosewood Wash Drainage Basin

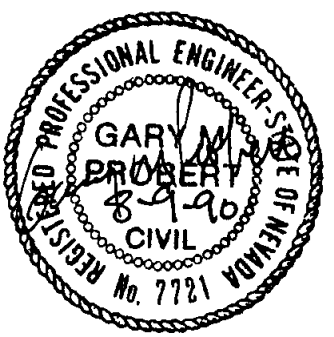
Hydrology Report

for

Rosewood Wash Detention Basin Down-Drains

Prepared by:

Codega & Fricke, inc.
engineers + planners + landscape architects
3690 Grant Drive, Suite J
Reno, Nevada 89509



August 1990

Location

The Rosewood Wash Detention Basin at McCarran Boulevard is located in the south east portion of Section 28, T. 19 N., R. 19 E., within the Caughlin Ranch in Reno, Nevada. The detention basin is located on the south side of McCarran where the Rosewood Wash channel crosses McCarran Boulevard. Adjacent developments include the proposed Eastgate and Southpoint subdivisions to the west and the Eastridge Subdivisions to the east. The down-drains extend from the top of the slope on the west side of the basin to the bottom of the basin.

Background

The Rosewood Wash Detention Basin was built with the construction of McCarran Boulevard for the phase between Skyline View and Cashill Boulevard. The basin consists of approximately one half acre of land adjacent to McCarran Boulevard. A hydrology report: "Rosewood Wash Detention Basin - McCarran Boulevard" describes the basin and its benefits.

This report and its associated plans have been designed in conjunction with the above mentioned report. The plans consist of a series of ponds, trash racks, manholes, piping and energy dissipators to get the storm runoff from the top of the slope to the bottom of the slope and into the detention basin. The hydrology report considers the runoff in its present state (existing) and its proposed state.

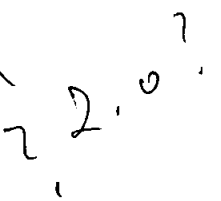
Existing Conditions

With the grading of McCarran Boulevard and Caughlin Village, the drainage basin for the Rosewood Wash has changed drastically over the past year. The area from Sierra Pacific Power Company's Mt. Rose substation to McCarran Boulevard, have had the steep and deep canyon filled in to form a mild (8% grade) sloping surface. The disturbed land is void of all vegetation. The upper end of the drainage basin is still in its "natural" state and consists of mild to moderate sloping land with native grasses and sage brush.

Flows for the 5-year and 100-year storms using the rational method are as follows:

$$Q = CIA$$
$$= (.55)(.75)(134) = 55.3 \text{ cfs (5-year)}$$
$$= (.55)(200)(134) = 147.4 \text{ cfs (100-year)}$$

(These were described in greater detail in the hydrology report for the Rosewood Wash Detention Basin.)



Proposed Conditions

The proposed conditions are based on the Caughlin Village - Master Grading Plan II submitted to the City of Reno as a Special Use Permit. The above grading plan illustrates the layout for streets, lots and common areas. The Master Grading Plan II sheet used as a base sheet for this hydrology and is labeled as Master Hydrology Map (enclosed).

The Master Hydrology Map shows the proposed layout along with a proposed storm drain system including catch basins, yard drains, swales, manholes, pipes, ponds and ditches.

Existing Conditions

Several existing ponds are located along the flow line of the existing Rosewood Drainage Basin. Pond #1 is built and will not change with construction. A second existing pond is located halfway between Pond #1 and the top of the slope. This is a relatively small pond and will be enlarged at later date for future development. The third pond will be constructed at the inlet to down-drain #1. This pond is designed not for detention but as a stilling basin for the inlet to the down-drain. The water will have time to decrease its velocity prior to entering the down-drain.

The flows through this series of ponds are as follows:

5-Year Storm

Inflow (cfs)	Pond #	Outflow (cfs)	Contributing Flow (cfs)
35.0	#1	7.7	
			15
21.7	#2	22.0	
			16
38.0	#3	37.9	

100-Year Storm

Inflow (cfs)	Pond #	Outflow (cfs)	Contributing Flow (cfs)
90.0	#1	16.7	
			36.0
45.5	#2	46.3	
			44.0
90.3	#3	91.6	

Thus the existing flows are 37.9 cfs and 91.6 cfs for the 5-year and 100-year storms, respectively

Methodology

The following is a summary of the method used to compute flows. The software package used for routing storms through ponds is Haestad Methods' - Pond 2 and TR55 programs. Basically the size of the pond is inputed into the computer and it determines the volume. The outlet structures for each pond are these inputed into the computer. A hydrograph is generated using the TR55 method and the peak flow is checked against the Rational Method. The hydrograph (inflow) is routed through the pond and an outflow hydrograph is created.

A separate hydrograph is then created for the area contributing to the next pond. The rational method is used to determine the flows at each catch basin and yard drain as shown on the Master Hydrology Map. Refer to the Runoff Flows Calculations at the end of this section. Runoff Flows calculates the 5-year and 100-year flows at each catch basin. Contributing areas of the street, lots and common area are used to determine the flows. For simplicity as well as being conservative, a time of concentration of 10 minutes was used.

After the new hydrograph is created for just the area contributing to the next pond in the system, it is combined with the outflow hydrograph from the previous pond in the system. The new combined hydrograph then becomes the inflow hydrograph for the next pond. This procedure is repeated for each pond. The flow chart for hydrology appears at the end of this section.

Proposed Runoff for Down-drain #1 (South pipe)

The runoff which ultimately ends up at the southern most down-drain (#1) consists of flows from Pond #1, Pond #2, Pond #3, Pond #4 and the contributing areas to each ponds. A summary of the flows are as follows:

5-Year Storm

Inflow (cfs)	Pond #	Outflow (cfs)	Contributing Flow (cfs)
45	#1	7.4	
			28.9
35.3	#2	7.7	
			7.9
13.5	#3	8.6	
			6.2
11.9	#4	11.7	

100-Year Storm

Inflow (cfs)	Pond #	Outflow (cfs)	Contributing Flow (cfs)
91	#1	16	
			78.3
88	#2	23.8	
			21.6
31.0	#3	25.3	
			13.6
26.8	#4	26.8	

The 5-year and 100-year flows exiting Pond #4 are 11.7 cfs and 26.8 cfs. This is the flow that will go down the down-drains.

As can be seen from above, the contributing flow cannot be directly added to the outflow to obtain the new inflow. This is because the peaks do not occur at the same time as the pond delays the peak. In most cases, the inflow is "close" if one adds the outflow and the contributing area flow.

Proposed Runoff for Down-drain #2

The second down-drain (#2), the northern most pipe, receives flow from pond #5. Pond #5 receives off-site flows from Village Green Unit Two and Caughlin Village Park. Off-site flows consist of 17 cfs and 46 cfs for the 5-year and 100-year storms, respectively. Thus total inflows to pond #5 are 26 cfs and 69 cfs for the 5-year storm and 100-year storms respectively. The 100-year storm outflow for the 5-year storm is 18.4 cfs and 52.3 cfs for the 100-year storm.

Pond #6 does not effect the down-drain plans. The outflow from the pond will go through the storm drain system located in the proposed Caughlin Ranch Shopping Center. Total runoff for the area contributing to Pond #6 is 2.4 cfs and 6.6 cfs for the 5-year and 100-year storms respectively. From the Caughlin Village/Caughlin Ranch Shopping Center Hydrology Reports, outflow from pond #6 shall be 2.0 and 5.3 cfs for the 5 and 100 year storms respectively. The inflows as shown above are very close without the use of a pond and for this reason a pond may or may not be constructed. At the time planning for this area, an in depth study will determine if a pond is necessary or not.

As can be seen from the above, the proposed conditions with the series of ponds works well. Both the 5-year and 100-year storms have decreased peak flows. The interesting thing about the contributing flows to down-drain #1 is that the existing conditions are greater than the proposed conditions. Thus the pipe shall be designed using 91.6 cfs.

Design

The down-drains consist of a trash rack, a short section of CMP, a manhole/overflow structure, a long length of CMP, a manhole, a section of RCP, and then an energy dissipator (in that order from top to bottom). The pipe to be used is corrugated metal pipe with a paved invert. A helical corrugation pattern will be used as this decreases Mannings "N" value. Armco's catalog provides an "N" value for 24" paved invert and 2 2/3" x 1/2" helical pattern as .014. Design Manual states "n" = 0.019 pg 21 #1

Down-drain Inlets

The inlets to the down-drains consist of a trash rack/headwall, a short section of pipe and then an emergency overflow manhole. The overflow manhole helps during the 100-year storm to get the water into the down-drain pipes. It consist of a 60" diameter manhole barrel with 1" rebar on 8" centers across the top. The rebar will help keep debris and kids out of the pipe.

As can be seen by the computer printout under the Structures section, the capacity for Inlet #1 (South inlet) is 147 cfs and capacity for Inlet #2 (North inlet) is 133 cfs. The manholes were calculated as 4' diameter even though 5' diameters barrels will be used. This was done to account for losses due to the 1" rebar.

Down-drain Pipes

Using mannings equation to find full flow capacity for the two pipes are as follows:

18" CMP, S = 0.322, n = 0.014 = Q(full) = 60 cfs — Qmax @ 0.94 D
24" CMP, S = 0.31, n = 0.014 = Q(full) = 125 cfs — Qmax @ 0.94 D

with 0.019 18" → 44 cfs 24" – 86 cfs

Using the worst case flows for checking capacity of the pipes are as follows:

The 100-year flow at down-drain #1 (Southern pipe) for existing conditions is 92 cfs. This is less than the full flow capacity of the pipe at 125 cfs.

The 100-year flow at down-drain #2 (Northern pipe) for the proposed conditions is 52 cfs. This is less than the full flow capacity of the pipe at 60 cfs.

As a note, both the down-drains may operate under pressure flow conditions due to the use of "O-rings" at each pipe connection.

Conclusion

In conclusion, the proposed subdivision and proposed pond/storm drain layout has a great effect on the hydrology of the area. The flows are being reduced from 55.3 cfs and 147.4 cfs to 30 cfs and 79 cfs for the 5-year and 100-year storms. If you route the above proposed flows through the existing detention basin at McCarran Boulevard, even more benefits occur as the 100-year storm decreases to almost a third of the original flow to 47 cfs.

Even the intermediate or existing condition, flows have remained about the same as the original conditions, 55 cfs and 148 cfs. The reason why this number has not decreased is because the contributing area has increased due to the site grading. The Park and Village Green Unit Two have been added to the total area. Plus the "C" value has increased some due to the removal of all the vegetation. The encouraging factor is that the 100-year storm decreases after routing through the existing Rosewood Wash Detention Basin at McCarran Boulevard from 147 cfs to 93 cfs.

As a final note, the ponds shown are schematic at this time and were designed in conjunction with the layout shown. The ponds may change in size, shape or location but the basic concept shall remain. The main concept is to decrease flows to the point that the 100-year flows shall fit in the designed 24" and 18" CMP down-drain pipes. The 5-year flow must not be increased beyond the point of existing conditions.

RUNOFF FLOWS

RUNOFF FLOWS

EXISTING - CONDITIONS

AREA ID	C	TC (MIN)	I5 (IN/HR)	I100 (IN/HR)	AREA (SF)	AREA (ACRES)	Q5 (CFS)	Q100 (CFS)
OVERALL	0.55	26.30	0.75	2.00		134.00	55.28	147.40

PROPOSED - EASTGATE AND SOUTH POINT DEVELOPMENTS

AREA (ID)	C	TC (MIN)	I5 (IN/HR)	I100 (IN/HR)	AREA (SF)	AREA (ACRES)	Q5 (CFS)	Q100 (CFS)
STREET	0.90				14365	0.33		
LOT AREA	0.50				71535	1.64		
COMMON AREA	0.25				0	0.00		
CB #1	0.57	10.00	1.40	3.80	85900	1.97	1.57	4.25
STREET	0.90				11560	0.27		
LOT AREA	0.50				0	0.00		
COMMON AREA	0.25				0	0.00		
CB #2	0.90	10.00	1.40	3.80	11560	0.27	0.33	0.91
STREET	0.90				24780	0.57		
LOT AREA	0.50				35370	0.81		
COMMON AREA	0.25				0	0.00		
CB #3	0.66	10.00	1.40	3.80	60150	1.38	1.29	3.49
STREET	0.90				11070	0.25		
LOT AREA	0.50				36405	0.84		
COMMON AREA	0.25				0	0.00		
CB #4	0.59	10.00	1.40	3.80	47475	1.09	0.91	2.46
STREET	0.90				11070	0.25		
LOT AREA	0.50				0	0.00		
COMMON AREA	0.25				0	0.00		
CB #5	0.90	10.00	1.40	3.80	11070	0.25	0.32	0.87
STREET	0.90				22060	0.51		
LOT AREA	0.50				0	0.00		
COMMON AREA	0.25				0	0.00		
CB #6	0.90	10.00	1.40	3.80	22060	0.51	0.64	1.73
STREET	0.90				21505	0.49		
LOT AREA	0.50				139390	3.20		
COMMON AREA	0.25				0	0.00		
CB #7	0.55	10.00	1.40	3.80	160895	3.69	2.86	7.77
STREET	0.90				23880	0.55		
LOT AREA	0.50				85410	1.96		
COMMON AREA	0.25				0	0.00		
CB #8	0.59	10.00	1.40	3.80	109290	2.51	2.06	5.60
STREET	0.90				22480	0.52		
LOT AREA	0.50				122360	2.81		
COMMON AREA	0.25				0	0.00		
CB #9	0.56	10.00	1.40	3.80	144840	3.33	2.62	7.10

STREET	0.90				19150	0.44		
LOT AREA	0.50				0	0.00		
COMMON AREA	0.25				0	0.00		
CB #10	0.90	10.00	1.40	3.80	19150	0.44	0.55	1.50
STREET	0.90				25005	0.57		
LOT AREA	0.50				95540	2.19		
COMMON AREA	0.25				0	0.00		
CB #11	0.58	10.00	1.40	3.80	120545	2.77	2.26	6.13
STREET	0.90				9800	0.22		
LOT AREA	0.50				0	0.00		
COMMON AREA	0.25				0	0.00		
CB #12	0.90	10.00	1.40	3.80	9800	0.22	0.28	0.77
STREET	0.90				12065	0.28		
LOT AREA	0.50				93980	2.16		
COMMON AREA	0.25				0	0.00		
CB #13	0.55	10.00	1.40	3.80	106045	2.43	1.86	5.05
STREET	0.90				11590	0.27		
LOT AREA	0.50				84680	1.94		
COMMON AREA	0.25				0	0.00		
CB #14	0.55	10.00	1.40	3.80	96270	2.21	1.70	4.60
STREET	0.90				25910	0.59		
LOT AREA	0.50				65830	1.51		
COMMON AREA	0.25				0	0.00		
CB #15	0.61	10.00	1.40	3.80	91740	2.11	1.81	4.91
STREET	0.90				19600	0.45		
LOT AREA	0.50				0	0.00		
COMMON AREA	0.25				0	0.00		
CB #16	0.90	10.00	1.40	3.80	19600	0.45	0.57	1.54
STREET	0.90				4190	0.10		
LOT AREA	0.50				27020	0.62		
COMMON AREA	0.25				0	0.00		
CB #17	0.55	10.00	1.40	3.80	31210	0.72	0.56	1.51
STREET	0.90				4553	0.10		
LOT AREA	0.50				0	0.00		
COMMON AREA	0.25				0	0.00		
CB #18	0.90	10.00	1.40	3.80	4553	0.10	0.13	0.36
STREET	0.90				13300	0.31		
LOT AREA	0.50				0	0.00		
COMMON AREA	0.25				0	0.00		
CB #19	0.90	10.00	1.40	3.80	13300	0.31	0.38	1.04
STREET	0.90				7140	0.16		
LOT AREA	0.50				21160	0.49		
COMMON AREA	0.25				0	0.00		
CB #20	0.60	10.00	1.40	3.80	28300	0.65	0.55	1.48

STREET	0.90				13800	0.32		
LOT AREA	0.50				54300	1.25		
COMMON AREA	0.25				0	0.00		
CB #21	0.58	10.00	1.40	3.80	68100	1.56	1.27	3.45
STREET	0.90				17100	0.39		
LOT AREA	0.50				58300	1.34		
COMMON AREA	0.25				0	0.00		
CB #22	0.59	10.00	1.40	3.80	75400	1.73	1.43	3.89
STREET	0.90				16500	0.38		
LOT AREA	0.50				80640	1.85		
COMMON AREA	0.25				0	0.00		
CB #23	0.57	10.00	1.40	3.80	97140	2.23	1.77	4.81
STREET	0.90				15725	0.36		
LOT AREA	0.50				83575	1.92		
COMMON AREA	0.25				0	0.00		
CB #24	0.56	10.00	1.40	3.80	99300	2.28	1.80	4.88
STREET	0.90				14600	0.34		
LOT AREA	0.50				74100	1.70		
COMMON AREA	0.25				0	0.00		
CB #25	0.57	10.00	1.40	3.80	88700	2.04	1.61	4.38
STREET	0.90				21900	0.50		
LOT AREA	0.50				84300	1.94		
COMMON AREA	0.25				0	0.00		
CB #26	0.58	10.00	1.40	3.80	106200	2.44	1.99	5.40
STREET	0.90				7480	0.17		
LOT AREA	0.50				0	0.00		
COMMON AREA	0.25				0	0.00		
CB #27	0.90	10.00	1.40	3.80	7480	0.17	0.22	0.59
STREET	0.90				16400	0.38		
LOT AREA	0.50				54400	1.25		
COMMON AREA	0.25				0	0.00		
CB #28	0.59	10.00	1.40	3.80	70800	1.63	1.35	3.66
STREET	0.90				0	0.00		
LOT AREA	0.50				64610	1.48		
COMMON AREA	0.25				0	0.00		
YD #1	0.50	10.00	1.40	3.80	64610	1.48	1.04	2.82
STREET	0.90				0	0.00		
LOT AREA	0.50				34120	0.78		
COMMON AREA	0.25				0	0.00		
YD #2	0.50	10.00	1.40	3.80	34120	0.78	0.55	1.49
STREET	0.90				0	0.00		
LOT AREA	0.50				40230	0.92		
COMMON AREA	0.25				0	0.00		
YD #3	0.50	10.00	1.40	3.80	40230	0.92	0.65	1.75
STREET	0.90				0	0.00		

LOT AREA	0.50				0	0.00		
COMMON AREA	0.25				150000	3.44		
COMMON #1	0.25	10.00	1.40	3.80	150000	3.44	1.21	3.27
STREET	0.90				0	0.00		
LOT AREA	0.50				355300	8.16		
COMMON AREA	0.25				330620	7.59		
COMMON #2	0.38	10.00	1.40	3.80	685920	15.75	8.37	22.71
STREET	0.90				0	0.00		
LOT AREA	0.50				75000	1.72		
COMMON AREA	0.25				46400	1.07		
COMMON #3	0.40	10.00	1.40	3.80	121400	2.79	1.58	4.28
STREET	0.90				0	0.00		
LOT AREA	0.50				60000	1.38		
COMMON AREA	0.25				14400	0.33		
COMMON #4	0.45	10.00	1.40	3.80	74400	1.71	1.08	2.93
STREET	0.90				0	0.00		
LOT AREA	0.50				125000	2.87		
COMMON AREA	0.25				12500	0.29		
COMMON #5	0.48	10.00	1.40	3.80	137500	3.16	2.11	5.72
STREET	0.90				0	0.00		
LOT AREA	0.50				35000	0.80		
COMMON AREA	0.25				33500	0.77		
COMMON #6	0.38	10.00	1.40	3.80	68500	1.57	0.83	2.26

POND	Q5	Q100
CB #4	0.91	2.46
CB #5	0.32	0.87
COMMON #1	1.21	3.27
POND #1-TOTAL	2.43	6.60

****

CB #1	1.57	4.25
CB #2	0.33	0.91
CB #3	1.29	3.49
CB #6	0.64	1.73
CB #7	2.86	7.77
CB #8	2.06	5.60
CB #9	2.62	7.10
CB #12	0.28	0.77
CB #13	1.86	5.05
CB #14	1.70	4.60
CB #15	1.81	4.91
CB #16	0.57	1.54
CB #17	0.56	1.51
CB #18	0.13	0.36
YD #1	1.04	2.82
YD #2	0.55	1.49

YD #3	0.65	1.75
COMMON #2	8.37	22.71
POND #2-TOTAL	28.86	78.34

****

CB #10	0.55	1.50
CB #11	2.26	6.13
CB #26	1.99	5.40
CB #27	0.22	0.59
CB #28	1.35	3.66
COMMON #3	1.58	4.28
POND #3-TOTAL	7.94	21.56

****

CB #19	0.38	1.04
CB #20	0.55	1.48
COMMON #4	1.08	2.93
OFFSITE	4.20	8.10
POND #4-TOTAL	6.21	13.56

****

CB #21	1.27	3.45
CB #22	1.43	3.89
CB #23	1.77	4.81
CB #24	1.80	4.88
COMMON #5	2.11	5.72
OFFSITE	17.00	46.00
POND #5-TOTAL	25.38	68.76

****

CB #25	1.61	4.38
COMMON #6	0.83	2.26
OFFSITE-TOTAL	2.44	6.64

POND VOLUMES

POND-2 Version: 5.13
S/N: 1220510336

ROSEWOOD WASH DRAINAGE BASIN
POND #1 FIRST POND IN SERIES NEAR SPPCo SUBSTATION
5 YEAR STORM
CODEGA & FRICKE, INC 7-20-90 GMP 1016.10

CALCULATED 06-05-1990 10:03:41
DISK FILE: C:\POND2\ROSEi-5 .VOL

Planimeter scale: 1 inch = 100 ft.

Elevation (ft)	Planimeter (sq.in.)	Area (acres)	A1+A2+sqr(A1*A2) (acres)	* Volume (acre-ft)	Volume Sum (acre-ft)
5,240.00	0.39	0.09	0.00	0.00	0.00
5,245.00	1.86	0.43	0.71	1.19	1.19
5,250.00	3.52	0.81	1.82	3.04	4.22
5,250.10	3.53	0.81	2.43	0.08	4.31

$$IA = (sq.rt(Area1) + ((Ei-E1)/(E2-E1))*(sq.rt(Area2)-sq.rt(Area1)))^2$$

where: E1, E2 = Closest two elevations with planimeter data
Ei = Elevation at which to interpolate area
Area1,Area2 = Areas computed for E1, E2, respectively
IA = Interpolated area for Ei

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

Volume = (1/3) * (EL2-EL1) * (Area1 + Area2 + sq.rt.(Area1*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

POND-2 Version: 5.13
S/N: 1220510336

ROSEWOOD WASH DETENTION BASIN
POND #2 SECOND POND IN SERIES NEAR MIDDLE OF PROJECT
5 YEAR STORM
CODEGA & FRICKE, INC 7-25-90 GMP 1016.10

CALCULATED 08-05-1990 10:04:01
DISK FILE: C:\POND2\ROSE2-5 .VOL

Planimeter scale: 1 inch = 100 ft.

Elevation (ft)	Planimeter (sq.in.)	Area (acres)	A1+A2+sqr(A1*A2) (acres)	* Volume (acre-ft)	Volume Sum (acre-ft)
5,172.00	0.97	0.22	0.00	0.00	0.00
5,180.00	3.04	0.70	1.31	3.51	3.51
5,180.10	3.05	0.70	2.10	0.07	3.58

$$IA = (sq.rt(Area1) + ((Ei-E1)/(E2-E1))*(sq.rt(Area2)-sq.rt(Area1)))^2$$

where: E1, E2 = Closest two elevations with planimeter data
Ei = Elevation at which to interpolate area
Area1,Area2 = Areas computed for E1, E2, respectively
IA = Interpolated area for Ei

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

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

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

POND-2 Version: 5.1E
S/N: 1220810336

ROSEWOOD WASH DETENTION BASIN
POND #3 THIRD POND IN SERIES NEAR MIDDLE OF PROJECT
5 YEAR STORM
CODEGA & FRICKE, INC 7-25-90 GMP 1016.10

CALCULATED 08-05-1990 10:04:20
DISK FILE: C:\POND2\ROSE3-5 .VOL

Planimeter scale: 1 inch = 100 ft.

Elevation (ft)	Planimeter (sq.in.)	Area (acres)	A1+A2+sqr(A1*A2) (acres)	* Volume (acre-ft)	Volume Sum (acre-ft)
5,170.00	0.55	0.13	0.00	0.00	0.00
5,175.00	1.26	0.29	0.61	1.01	1.01
5,175.10	1.27	0.29	0.87	0.03	1.04

$$IA = (sq.rt(Area1) + ((Ei-E1)/(E2-E1))*(sq.rt(Area2)-sq.rt(Area1)))^2$$

where: E1, E2 = Closest two elevations with planimeter data
Ei = Elevation at which to interpolate area
Area1,Area2 = Areas computed for E1, E2, respectively
IA = Interpolated area for Ei

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

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

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

POND-2 Version: 5.13
S/N: 1220510336

ROSEWOOD DRAINAGE BASIN
POND #5 POND NEAR TOP OF SLOPE
5 YEAR STORM
CODEGA & FRICKE, INC 7-25-90 GMP 1016.10

CALCULATED 08-05-1990 10:04:42
DISK FILE: C:\POND2\ROSE5-5 .VOL

Planimeter scale: 1 inch = 100 ft.

Elevation (ft)	Planimeter (sq.in.)	Area (acres)	A1+A2+sqr(A1*A2) (acres)	* Volume (acre-ft)	Volume Sum (acre-ft)
5,146.00	0.16	0.04	0.00	0.00	0.00
5,150.00	0.61	0.14	0.24	0.33	0.33
5,154.00	1.05	0.24	0.56	0.75	1.08
5,155.00	1.10	0.25	0.74	0.25	1.32
5,155.10	1.15	0.26	0.77	0.03	1.35

$$IA = (sq.rt(Area1) + ((Ei-E1)/(E2-E1))*(sq.rt(Area2)-sq.rt(Area1)))^2$$

where: E1, E2 = Closest two elevations with planimeter data
Ei = Elevation at which to interpolate area
Area1,Area2 = Areas computed for E1, E2, respectively
IA = Interpolated area for Ei

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

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

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

POND-2 Version: 5.13
S/N: 1220510336

ROSEWOOD WASH DRAINAGE BASIN EXISTING CONDITIONS
POND #4 - LAST POND PRIOR TO GOING DOWN SLOPE TO McCARRAN
5 YEAR STORM
CODEGA & FRICKE, INC 7-25-90 GMP 1016.10

CALCULATED 08-05-1990 10:05:19
DISK FILE: C:\POND2\ROSEX-5 .VOL

Planimeter scale: 1 inch = 100 ft.

Elevation (ft)	Planimeter (sq.in.)	Area (acres)	A1+A2+sqr(A1*A2) (acres)	* Volume (acre-ft)	Volume Sum (acre-ft)
5,155.00	0.00	0.00	0.00	0.00	0.00
5,160.00	0.35	0.08	0.08	0.13	0.13
5,160.10	0.36	0.08	0.24	0.01	0.14

IA = (sq.rt(Area1) + ((Ei-E1)/(E2-E1))*(sq.rt(Area2)-sq.rt(Area1)))^2

where: E1, E2 = Closest two elevations with planimeter data
Ei = Elevation at which to interpolate area
Area1,Area2 = Areas computed for E1, E2, respectively
IA = Interpolated area for Ei

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

Volume = (1/3) * (EL2-EL1) * (Area1 + Area2 + sq.rt.(Area1*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

POND-2 Version: 5.1J
S/N: 1220510336

ROSEWOOD WASH DRAINAGE BASIN EXISTING CONDITIONS
THIRD POND - POND PRIOR TO GOING DOWN SLOPE TO McCARRAN
5 YEAR STORM
CODEGA & FRICKE, INC 7-25-90 GMP 1016.10

CALCULATED 08-05-1990 10:05:35
DISK FILE: C:\POND2\ROSEX1-5.VOL

Planimeter scale: 1 inch = 100 ft.

Elevation (ft)	Planimeter (sq.in.)	Area (acres)	A1+A2+sqr(A1*A2) (acres)	* Volume (acre-ft)	Volume Sum (acre-ft)
5,174.00	0.10	0.02	0.00	0.00	0.00
5,176.00	0.53	0.12	0.20	0.13	0.13
5,177.00	0.69	0.16	0.42	0.14	0.27
5,177.10	0.70	0.16	0.46	0.02	0.29

$$IA = (sq.rt(Area1) + ((Ei-E1)/(E2-E1))*(sq.rt(Area2)-sq.rt(Area1)))^2$$

where: E1, E2 = Closest two elevations with planimeter data
Ei = Elevation at which to interpolate area
Area1,Area2 = Areas computed for E1, E2, respectively
IA = Interpolated area for Ei

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

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

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

POND-2 Version: 5.13
S/N: 1220510336

ROSEWOOD WASH DRAINAGE BASIN EXISTING CONDITIONS
THIRD POND - POND PRIOR TO GOING DOWN SLOPE TO McCARRAN
5 YEAR STORM
CODEGA & FRICKE, INC 7-25-90 GMP 1016.10

CALCULATED 08-05-1990 10:06:08
DISK FILE: C:\POND2\ROSEX2-5.VOL

Planimeter scale: 1 inch = 100 ft.

Elevation (ft)	Planimeter (sq.in.)	Area (acres)	A1+A2+sqr(A1*A2) (acres)	* Volume (acre-ft)	Volume Sum (acre-ft)
5,155.00	0.00	0.00	0.00	0.00	0.00
5,160.00	0.35	0.08	0.08	0.13	0.13
5,160.10	0.36	0.08	0.24	0.01	0.14

$$IA = (sq.rt(Area1) + ((Ei-E1)/(E2-E1))*(sq.rt(Area2)-sq.rt(Area1)))^2$$

where: E1, E2 = Closest two elevations with planimeter data
Ei = Elevation at which to interpolate area
Area1,Area2 = Areas computed for E1, E2, respectively
IA = Interpolated area for Ei

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

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

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

STRUCTURES

Outlet Structure File: ROSE1-5 .STR

POND-2 Version: 5.13 S/N: 1220510336
Date Executed: Time Executed:

****
ROSEWOOD WASH DRAINAGE BASIN
POND #1
5 YEAR STORM
CODEGA & FRICKE, INC 7-20-90 GMP 1016.10
****

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

Elevation (ft)	Q (cfs)	Contributing Structures
5240.00	0.0	1
5240.50	0.6	1
5241.00	2.0	1
5241.50	3.4	1
5242.00	4.4	1
5242.50	5.2	1
5243.00	5.9	1
5243.50	6.5	1
5244.00	7.0	1
5244.50	7.6	1
5245.00	8.0	1
5245.50	8.5	1
5246.00	8.9	1
5246.50	9.3	1
5247.00	9.7	1 +2
5247.50	11.1	1 +2
5248.00	13.7	1 +2
5248.50	17.5	1 +2
5249.00	22.1	1 +2
5249.50	25.5	1 +2
5250.00	28.5	1 +2
5250.10	0.0	

Outlet Structure File: ROSE1-5 .STR

POND-2 Version: 5.13 S/N: 1220510336
Date Executed: Time Executed:

****
ROSEWOOD WASH DRAINAGE BASIN
POND #1
5 YEAR STORM
CODEGA & FRICKE, INC 7-20-90 GMP 1016.10
****

Outlet Structure File: C:\POND2\ROSE1-5 .STR
Planimeter Input File: C:\POND2\ROSE1-5 .VOL
Rating Table Output File: C:\POND2\ROSE1-5 .PND

Min. Elev.(ft) = 5240 Max. Elev.(ft) = 5250.1 Incr.(ft) = .5

Additional elevations (ft) to be included in table:
* *

****
SYSTEM CONNECTIVITY
****

Structure	No.	Q Table		Q Table
CULVERT-CR	1		->	1
CULVERT-CR	2		->	2

Outflow rating table summary was stored in file:
C:\POND2\ROSE1-5 .PND

Outlet Structure File: ROSE1-5 .STR

POND-2 Version: 5.13 S/N: 12205103336
Date Executed: Time Executed:

****
ROSEWOOD WASH DRAINAGE BASIN
POND #[redacted]
5 YEAR STORM
CODESA & FRICKE, INC 7-20-90 GMP 1016.10
****

>>>>>> Structure No. 1 <<<<<<
(Input Data)

CULVERT-CR
Circular Culvert (With Inlet Control)

E1 elev.(ft)?	5240
E2 elev.(ft)?	5250.1
Diam. (ft)?	.833
Inv. el.(ft)?	5240
Slope (ft/ft)?	.010
T1 ratio?	
T2 ratio?	
K Coeff.?	.534
M Coeff.?	.555
c Coeff.?	.0196
Y Coeff.?	.89
Form 1 or 2?	2
Slope factor?	-.5

Outlet Structure File: ROSE1-5 .STR

POND-2 Version: 5.13 S/N: 1220510336
Date Executed: Time Executed:

****
ROSEWOOD WASH DRAINAGE BASIN
POND #1
5 YEAR STORM
CODEGA & FRICKE, INC 7-20-90 GMP 1016.10
****

>>>>>> Structure No. 2 <<<<<<
(Input Data)

CULVERT-CR
Circular Culvert (With Inlet Control)

E1 elev.(ft)?	5247.0
E2 elev.(ft)?	5250.1
Diam. (ft)?	1.5
Inv. el.(ft)?	5247.0
Slope (ft/ft)?	.10
T1 ratio?	
T2 ratio?	
K Coeff.?	.534
M Coeff.?	.555
c Coeff.?	.0196
Y Coeff.?	.89
Form 1 or 2?	2
Slope factor?	-.5

Outlet Structure File: ROSE1-5 .STR

POND-2 Version: 5.13 S/N: 1220510336
Date Executed: Time Executed:

****
ROSEWOOD WASH DRAINAGE BASIN
POND #1
5 YEAR STORM
CODEGA & FRICKE, INC 7-20-90 GMP 1016.10
****

Outflow Rating Table for Structure #1
CULVERT-CR Circular Culvert (With Inlet Control)

***** INLET CONTROL ASSUMED *****

Elevation (ft)	Q (cfs)	Computation Messages
5240.00	0.0	No headwater
5240.50	0.6	Equ.2: HW =.5
5241.00	2.0	Submerged: HW =1.0
5241.50	3.4	Submerged: HW =1.5
5242.00	4.4	Submerged: HW =2.0
5242.50	5.2	Submerged: HW =2.5
5243.00	5.9	Submerged: HW =3.0
5243.50	6.5	Submerged: HW =3.5
5244.00	7.0	Submerged: HW =4.0
5244.50	7.6	Submerged: HW =4.5
5245.00	8.0	Submerged: HW =5.0
5245.50	8.5	Submerged: HW =5.5
5246.00	8.9	Submerged: HW =6.0
5246.50	9.3	Submerged: HW =6.5
5247.00	9.7	Submerged: HW =7.0
5247.50	10.1	Submerged: HW =7.5
5248.00	10.5	Submerged: HW =8.0
5248.50	10.8	Submerged: HW =8.5
5249.00	11.2	Submerged: HW =9.0
5249.50	11.5	Submerged: HW =9.5
5250.00	11.8	Submerged: HW =10.0
5250.10	0.0	E = or > E2=5250.1

Used Unsubmerged Equ. Form (2) for elev. less than 5240.89 ft
Used Submerged Equation for elevations greater than 5241.0 ft
HW=Headwater (ft)

Transition flows interpolated from the following values:
E1=5240.89 ft; Q1=1.74 cfs; E2=5241.0 ft; Q2=1.99 cfs

Outlet Structure File: ROSE1-5 .STR

POND-2 Version: 5.13 S/N: 1220510336
Date Executed: Time Executed:

****
ROSEWOOD WASH DRAINAGE BASIN
POND #1
5 YEAR STORM
CODEGA & FRICKE, INC 7-20-90 GMP 1016.10
****

Outflow Rating Table for Structure #2
CULVERT-CR Circular Culvert (With Inlet Control)

***** INLET CONTROL ASSUMED *****

Elevation (ft)	Q (cfs)	Computation Messages
5240.00	0.0	E < Inv.El.= 5247
5240.50	0.0	E < Inv.El.= 5247
5241.00	0.0	E < Inv.El.= 5247
5241.50	0.0	E < Inv.El.= 5247
5242.00	0.0	E < Inv.El.= 5247
5242.50	0.0	E < Inv.El.= 5247
5243.00	0.0	E < Inv.El.= 5247
5243.50	0.0	E < Inv.El.= 5247
5244.00	0.0	E < Inv.El.= 5247
5244.50	0.0	E < Inv.El.= 5247
5245.00	0.0	E < Inv.El.= 5247
5245.50	0.0	E < Inv.El.= 5247
5246.00	0.0	E < Inv.El.= 5247
5246.50	0.0	E < Inv.El.= 5247
5247.00	0.0	No headwater
5247.50	1.0	Equ.2: HW =.5
5248.00	3.2	Equ.2: HW =1.0
5248.50	6.7	Equ.2: HW =1.5
5249.00	10.9	Submerged: HW =2.0
5249.50	14.0	Submerged: HW =2.5
5250.00	16.7	Submerged: HW =3.0
5250.10	0.0	E = or > E2=5250.1

Used Unsubmerged Equ. Form (2) for elev. less than 5248.61 ft
Used Submerged Equation for elevations greater than 5248.73 ft
HW=Headwater (ft)

Transition flows interpolated from the following values:
E1=5248.61 ft; Q1=7.58 cfs; E2=5248.73 ft; Q2=8.66 cfs

Outlet Structure File: ROSE2-5 .STR

POND-2 Version: 5.13 S/N: 12205103336
Date Executed: Time Executed:

****
ROSEWOOD WASH DRAINAGE BASIN
POND #2 SECOND POND IN A SERIES (NEAR MIDDLE OF PROJECT)
5 YEAR STORM
CODEGA & FRICKE, INC 7-25-90 GMP 1016.10
****

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

Elevation (ft)	Q (cfs)	Contributing Structures
5172.00	0.0	1
5172.50	0.6	1
5173.00	2.0	1
5173.50	3.4	1
5174.00	4.4	1
5174.50	5.2	1
5175.00	5.9	1
5175.50	6.5	1
5176.00	7.0	1
5176.50	7.6	1
5177.00	8.0	1 +2
5177.50	9.6	1 +2
5178.00	12.9	1 +2
5178.50	17.5	1 +2
5179.00	23.5	1 +2
5179.50	30.3	1 +2
5180.00	36.2	1 +2
5180.10	0.0	

Outlet Structure File: ROSE2-5 .STR

POND-2 Version: 5.13 S/N: 1220510336
Date Executed: Time Executed:

****
ROSEWOOD WASH DRAINAGE BASIN
POND #2 SECOND POND IN A SERIES (NEAR MIDDLE OF PROJECT)
5 YEAR STORM
CODEGA & FRICKE, INC 7-25-90 GMP 1016.10
****

Outlet Structure File: C:\POND2\ROSE2-5 .STR
Planimeter Input File: C:\POND2\ROSE2-5 .VOL
Rating Table Output File: C:\POND2\ROSE2-5 .PND

Min. Elev.(ft) = 5172 Max. Elev.(ft) = 5180.1 Incr.(ft) = .5

Additional elevations (ft) to be included in table:
* *

****
SYSTEM CONNECTIVITY
****

Structure	No.	Q Table		Q Table
CULVERT-CR	1		->	1
CULVERT-CR	2		->	2

Outflow rating table summary was stored in file:
C:\POND2\ROSE2-5 .PND

Outlet Structure File: ROSE2-5 .STR

POND-2 Version: 5.13 S/N: 1220510336
Date Executed: Time Executed:

****
ROSEWOOD WASH DRAINAGE BASIN
POND #2 SECOND POND IN A SERIES (NEAR MIDDLE OF PROJECT)
5 YEAR STORM
CODEGA & FRICKE, INC 7-25-90 GMP 1016.10
****

>>>>>> Structure No. 1 <<<<<<
(Input Data)

CULVERT-CR
Circular Culvert (With Inlet Control)

E1 elev.(ft)?	5172
E2 elev.(ft)?	5180.1
Diam. (ft)?	.833
Inv. el.(ft)?	5172
Slope (ft/ft)?	.010
T1 ratio?	
T2 ratio?	
K Coeff.?	.534
M Coeff.?	.555
c Coeff.?	.0196
Y Coeff.?	.89
Form 1 or 2?	2
Slope factor?	-.5

Outlet Structure File: ROSE2-S .STR

POND-2 Version: 5.13 S/N: 1220510336
Date Executed: Time Executed:

****
ROSEWOOD WASH DRAINAGE BASIN
POND #2 SECOND POND IN A SERIES (NEAR MIDDLE OF PROJECT)
5 YEAR STORM
CODEGA & FRICKE, INC 7-25-90 GMP 1016.10
****

>>>>>> Structure No. 2 <<<<<<
(Input Data)

CULVERT-CR
Circular Culvert (With Inlet Control)

E1 elev.(ft)?	5177.0
E2 elev.(ft)?	5180.1
Diam. (ft)?	2.0
Inv. el.(ft)?	5177.0
Slope (ft/ft)?	.10
T1 ratio?	
T2 ratio?	
K Coeff.?	.534
M Coeff.?	.555
c Coeff.?	.0196
Y Coeff.?	.89
Form 1 or 2?	2
Slope factor?	-.5

Outlet Structure File: ROSE2-5 .STR

POND-2 Version: 5.13 S/N: 1220510336
Date Executed: Time Executed:

****
ROSEWOOD WASH DRAINAGE BASIN
POND #2 SECOND POND IN A SERIES (NEAR MIDDLE OF PROJECT)
5 YEAR STORM
CODEGA & FRICKE, INC 7-25-90 GMP 1016.10
****

Outflow Rating Table for Structure #1
CULVERT-CR Circular Culvert (With Inlet Control)

***** INLET CONTROL ASSUMED *****

Elevation (ft)	Q (cfs)	Computation Messages
5172.00	0.0	No headwater
5172.50	0.6	Equ.2: HW =.5
5173.00	2.0	Submerged: HW =1.0
5173.50	3.4	Submerged: HW =1.5
5174.00	4.4	Submerged: HW =2.0
5174.50	5.2	Submerged: HW =2.5
5175.00	5.9	Submerged: HW =3.0
5175.50	6.5	Submerged: HW =3.5
5176.00	7.0	Submerged: HW =4.0
5176.50	7.6	Submerged: HW =4.5
5177.00	8.0	Submerged: HW =5.0
5177.50	8.5	Submerged: HW =5.5
5178.00	8.9	Submerged: HW =6.0
5178.50	9.3	Submerged: HW =6.5
5179.00	9.7	Submerged: HW =7.0
5179.50	10.1	Submerged: HW =7.5
5180.00	10.5	Submerged: HW =8.0
5180.10	0.0	E = or > E2=5180.1

Used Unsubmerged Equ. Form (2) for elev. less than 5172.89 ft
Used Submerged Equation for elevations greater than 5173.0 ft
HW=Headwater (ft)

Transition flows interpolated from the following values:
E1=5172.89 ft; Q1=1.74 cfs; E2=5173.0 ft; Q2=1.99 cfs

Outlet Structure File: ROSE2-5 .STR

POND-2 Version: 5.13 S/N: 1220510336
Date Executed: Time Executed:

****
ROSEWOOD WASH DRAINAGE BASIN
POND #2 SECOND POND IN A SERIES (NEAR MIDDLE OF PROJECT)
5 YEAR STORM
CODEGA & FRICKE, INC 7-25-90 GMP 1016.10
****

Outflow Rating Table for Structure #2
CULVERT-CR Circular Culvert (With Inlet Control)

***** INLET CONTROL ASSUMED *****

Elevation (ft)	Q (cfs)	Computation Messages
5172.00	0.0	E < Inv.El.= 5177
5172.50	0.0	E < Inv.El.= 5177
5173.00	0.0	E < Inv.El.= 5177
5173.50	0.0	E < Inv.El.= 5177
5174.00	0.0	E < Inv.El.= 5177
5174.50	0.0	E < Inv.El.= 5177
5175.00	0.0	E < Inv.El.= 5177
5175.50	0.0	E < Inv.El.= 5177
5176.00	0.0	E < Inv.El.= 5177
5176.50	0.0	E < Inv.El.= 5177
5177.00	0.0	No headwater
5177.50	1.1	Equ.2: HW =.5
5178.00	4.0	Equ.2: HW =1.0
5178.50	8.2	Equ.2: HW =1.5
5179.00	13.7	Equ.2: HW =2.0
5179.50	20.2	Submerged: HW =2.5
5180.00	25.7	Submerged: HW =3.0
5180.10	0.0	E = or > E2=5180.1

Used Unsubmerged Equ. Form (2) for elev. less than 5179.14 ft
Used Submerged Equation for elevations greater than 5179.31 ft
HW=Headwater (ft)

Transition flows interpolated from the following values:
E1=5179.14 ft; Q1=15.55 cfs; E2=5179.31 ft; Q2=17.77 cfs

Outlet Structure File: ROSE3-5 .STR

POND-2 Version: 5.13 S/N: 1220510336
Date Executed: Time Executed:

****
ROSEWOOD WASH DRAINAGE BASIN
POND #3 THIRD POND IN A SERIES (NEAR MIDDLE OF PROJECT)
5 YEAR STORM
CODEGA & FRICKE, INC 7-25-90 GMP 1016.10
****

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

Elevation (ft)	Q (cfs)	Contributing Structures
5170.00	0.0	1
5170.50	0.8	1
5171.00	2.9	1
5171.50	5.5	1
5172.00	8.3	1
5172.50	10.3	1
5173.00	12.1	1 +2
5173.50	14.7	1 +2
5174.00	18.9	1 +2
5174.50	24.4	1 +2
5175.00	31.0	1 +2
5175.10	0.0	

Outlet Structure File: ROSE3-5 .STR

POND-2 Version: 5.13 S/N: 1220S10336
Date Executed: Time Executed:

****
ROSEWOOD WASH DRAINAGE BASIN
POND #3 THIRD POND IN A SERIES (NEAR MIDDLE OF PROJECT)
5 YEAR STORM
CODEGA & FRICKE, INC 7-25-90 GMP 1016.10
****

Outlet Structure File: C:\POND2\ROSE3-5 .STR
Planimeter Input File: C:\POND2\ROSE3-5 .VOL
Rating Table Output File: C:\POND2\ROSE3-5 .PND

Min. Elev.(ft) = 5170 Max. Elev.(ft) = 5175.1 Incr.(ft) = .5

Additional elevations (ft) to be included in table:
* *

****
SYSTEM CONNECTIVITY
****

Structure	No.	Q Table		Q Table
CULVERT-CR	1		->	1
CULVERT-CR	2		->	2

Outflow rating table summary was stored in file:
C:\POND2\ROSE3-5 .PND

Outlet Structure File: ROSE3-5 .STR

POND-2 Version: 5.13 S/N: 1220510336
Date Executed: Time Executed:

****
ROSEWOOD WASH DRAINAGE BASIN
POND #3 THIRD POND IN A SERIES (NEAR MIDDLE OF PROJECT)
5 YEAR STORM
CODEGA & FRICKE, INC 7-25-90 GMP 1016.10
****

>>>>>> Structure No. 1 <<<<<<
(Input Data)

CULVERT-CR
Circular Culvert (With Inlet Control)

E1 elev.(ft)?	5170
E2 elev.(ft)?	5175.1
Diam. (ft)?	1.25
Inv. el.(ft)?	5170
Slope (ft/ft)?	.010
T1 ratio?	
T2 ratio?	
K Coeff.?	.534
M Coeff.?	.555
c Coeff.?	.0196
Y Coeff.?	.89
Form 1 or 2?	2
Slope factor?	-.5

Outlet Structure File: ROSES-5 .STR

POND-2 Version: 5.13 S/N: 1220510336
Date Executed: Time Executed:

****
ROSEWOOD WASH DRAINAGE BASIN
POND #3 THIRD POND IN A SERIES (NEAR MIDDLE OF PROJECT)
5 YEAR STORM
CODEGA & FRICKE, INC 7-25-90 GMP 1016.10
****

>>>>>> Structure No. 2 <<<<<<
(Input Data)

CULVERT-CR
Circular Culvert (With Inlet Control)

E1 elev.(ft)?	5173.0
E2 elev.(ft)?	5175.1
Diam. (ft)?	2.0
Inv. el.(ft)?	5173.0
Slope (ft/ft)?	.10
T1 ratio?	
T2 ratio?	
K Coeff.?	.534
M Coeff.?	.555
c Coeff.?	.0196
Y Coeff.?	.89
Form 1 or 2?	2
Slope factor?	-.5

Outlet Structure File: ROSE3-5 .STR

POND-2 Version: 5.13 S/N: 1220510336
Date Executed: Time Executed:

****
ROSEWOOD WASH DRAINAGE BASIN
POND #3 THIRD POND IN A SERIES (NEAR MIDDLE OF PROJECT)
5 YEAR STORM
CODEGA & FRICKE, INC 7-25-90 GMP 1016.10
****

Outflow Rating Table for Structure #1
CULVERT-CR Circular Culvert (With Inlet Control)

***** INLET CONTROL ASSUMED *****

Elevation (ft)	Q (cfs)	Computation Messages
5170.00	0.0	No headwater
5170.50	0.8	Equ.2: HW =.5
5171.00	2.9	Equ.2: HW =1.0
5171.50	5.5	Submerged: HW =1.5
5172.00	8.3	Submerged: HW =2.0
5172.50	10.3	Submerged: HW =2.5
5173.00	12.1	Submerged: HW =3.0
5173.50	13.5	Submerged: HW =3.5
5174.00	14.9	Submerged: HW =4.0
5174.50	16.2	Submerged: HW =4.5
5175.00	17.3	Submerged: HW =5.0
5175.10	0.0	E = or > E2=5175.1

Used Unsubmerged Equ. Form (2) for elev. less than 5171.34 ft
Used Submerged Equation for elevations greater than 5171.5 ft
HW=Headwater (ft)

Transition flows interpolated from the following values:
E1=5171.34 ft; Q1=4.8 cfs; E2=5171.5 ft; Q2=5.49 cfs

Outlet Structure File: ROSE3-5 .STR

POND-2 Version: 5.13 S/N: 1220510336
Date Executed: Time Executed:

****
ROSEWOOD WASH DRAINAGE BASIN
POND #3 THIRD POND IN A SERIES (NEAR MIDDLE OF PROJECT)
5 YEAR STORM
CODEGA & FRICKE, INC 7-25-90 GMP 1016.10
****

Outflow Rating Table for Structure #2
CULVERT-CR Circular Culvert (With Inlet Control)

***** INLET CONTROL ASSUMED *****

Elevation (ft)	Q (cfs)	Computation Messages
5170.00	0.0	E < Inv.El.= 5173
5170.50	0.0	E < Inv.El.= 5173
5171.00	0.0	E < Inv.El.= 5173
5171.50	0.0	E < Inv.El.= 5173
5172.00	0.0	E < Inv.El.= 5173
5172.50	0.0	E < Inv.El.= 5173
5173.00	0.0	No headwater
5173.50	1.1	Equ.2: HW =.5
5174.00	4.0	Equ.2: HW =1.0
5174.50	8.2	Equ.2: HW =1.5
5175.00	13.7	Equ.2: HW =2.0
5175.10	0.0	E = or > E2=5175.1

Used Unsubmerged Equ. Form (2) for elev. less than 5175.14 ft
Used Submerged Equation for elevations greater than 5175.31 ft
HW=Headwater (ft)

Transition flows interpolated from the following values:
E1=5175.14 ft; Q1=15.55 cfs; E2=5175.31 ft; Q2=17.77 cfs

Outlet Structure File: ROSE4-5 .STR

POND-2 Version: 5.13 S/N: 1220510336
Date Executed: Time Executed:

****
ROSEWOOD WASH DRAINAGE BASIN
POND #4 LAST POND PRIOR TO GO DOWN SLOPE TO McCARRAN BLVD
5 YEAR STORM
CODEGA & FRICKE, INC 7-25-90 GMP 1016.10
****

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

Elevation (ft)	Q (cfs)	Contributing Structures
5155.00	0.0	1
5155.50	1.1	1
5156.00	4.0	1
5156.50	8.2	1
5157.00	13.7	1 +2
5157.50	33.4	1 +2
5158.00	64.3	1 +2
5158.50	91.9	1 +2
5159.00	118.1	1 +2
5159.50	133.1	1 +2
5160.00	145.4	1 +2
5160.10	147.7	1 +2

Outlet Structure File: ROSE4-5 .STR

POND-2 Version: 5.13 S/N: 1220510336
Date Executed: Time Executed:

****
ROSEWOOD WASH DRAINAGE BASIN
POND #4 LAST POND PRIOR TO GO DOWN SLOPE TO McCARRAN BLVD
5 YEAR STORM
CODEGA & FRICKE, INC 7-25-90 GMP 1016.10
****

Outlet Structure File: C:\POND2\ROSE4-5 .STR
Planimeter Input File: C:\POND2\ROSE4-5 .VOL
Rating Table Output File: C:\POND2\ROSE4-5 .PND

Min. Elev.(ft) = 5155 Max. Elev.(ft) = 5160.1 Incr.(ft) = .5

Additional elevations (ft) to be included in table:
* *

****
SYSTEM CONNECTIVITY
****

Structure	No.	Q Table		Q Table
CULVERT-CR	1		->	1
STAND PIPE	2		->	2

Outflow rating table summary was stored in file:
C:\POND2\ROSE4-5 .PND

Outlet Structure File: ROSE4-5 .STR

POND-2 Version: 5.13 S/N: 1220510336
Date Executed: Time Executed:

****
ROSEWOOD WASH DRAINAGE BASIN
POND #4 LAST POND PRIOR TO GO DOWN SLOPE TO McCARRAN BLVD
5 YEAR STORM
CODEGA & FRICKE, INC 7-25-90 GMP 1016.10
****

>>>>>> Structure No. 1 <<<<<<
(Input Data)

CULVERT-CR
Circular Culvert (With Inlet Control)

E1 elev.(ft)?	5155
E2 elev.(ft)?	5160.101
Diam. (ft)?	2.00
Inv. el.(ft)?	5155.00
Slope (ft/ft)?	.050
T1 ratio?	
T2 ratio?	
K Coeff.?	.534
M Coeff.?	.555
c Coeff.?	.0196
Y Coeff.?	.89
Form 1 or 2?	2
Slope factor?	-.5

Outlet Structure File: ROSE4-5 .STR

POND-2 Version: 5.13 S/N: 1220510336
Date Executed: Time Executed:

****
ROSEWOOD WASH DRAINAGE BASIN
POND #4 LAST POND PRIOR TO GO DOWN SLOPE TO McCARRAN BLVD
5 YEAR STORM
CODEGA & FRICKE, INC 7-25-90 GMP 1016.10
****

>>>>>> Structure No. 2 <<<<<<
(Input Data)

STAND PIPE
Stand Pipe with weir or orifice flow

E1 elev.(ft)? 5157
E2 elev.(ft)? 5160.101
Crest elev.(ft)? 5157.00
Diameter (ft)? 4
Weir coefficient? 3.1
Orifice coefficient? .60
Start transition elev.(ft) @ ?
Transition height (ft)? 1.0

Outlet Structure File: ROSE4-5 .STR

POND-2 Version: 5.13 S/N: 1220510336
Date Executed: Time Executed:

****
ROSEWOOD WASH DRAINAGE BASIN
POND #4 LAST POND PRIOR TO GO DOWN SLOPE TO McCARRAN BLVD
5 YEAR STORM
CODEGA & FRICKE, INC 7-25-90 GMP 1016.10
****

Outflow Rating Table for Structure #1
CULVERT-CR Circular Culvert (With Inlet Control)

***** INLET CONTROL ASSUMED *****

Elevation (ft)	Q (cfs)	Computation Messages
5155.00	0.0	No headwater
5155.50	1.1	Equ.2: HW =.5
5156.00	4.0	Equ.2: HW =1.0
5156.50	8.2	Equ.2: HW =1.5
5157.00	13.7	Equ.2: HW =2.0
5157.50	19.6	Submerged: HW =2.5
5158.00	25.4	Submerged: HW =3.0
5158.50	29.9	Submerged: HW =3.5
5159.00	33.8	Submerged: HW =4.0
5159.50	37.4	Submerged: HW =4.5
5160.00	40.6	Submerged: HW =5.0
5160.10	41.2	Submerged: HW =5.1

Used Unsubmerged Equ. Form (2) for elev. less than 5157.14 ft
Used Submerged Equation for elevations greater than 5157.36 ft
HW=Headwater (ft)

Transition flows interpolated from the following values:
E1=5157.14 ft; Q1=15.55 cfs; E2=5157.36 ft; Q2=17.77 cfs

Outlet Structure File: ROSE4-5 .STR

POND-2 Version: 5.13 S/N: 1220510336
Date Executed: Time Executed:

****
ROSEWOOD WASH DRAINAGE BASIN
POND #4 LAST POND PRIOR TO GO DOWN SLOPE TO McCARRAN BLVD
5 YEAR STORM
CODEGA & FRICKE, INC 7-25-90 GMP 1016.10
****

Outflow Rating Table for Structure #2
STAND PIPE Stand Pipe with weir or orifice flow

***** INLET CONTROL ASSUMED *****

Elevation (ft)	Q (cfs)	Computation Messages
5155.00	0.0	E < Inv.El.= 5157
5155.50	0.0	E < El= 5157
5156.00	0.0	E < El= 5157
5156.50	0.0	E < El= 5157
5157.00	0.0	Weir: H =0.0
5157.50	13.8	Weir: H =.5
5158.00	39.0	Weir: H =1.0
5158.50	62.0	Transition: H =1.5
5159.00	84.3	Transition: H =2.0
5159.50	95.7	Orifice: H =2.5
5160.00	104.8	Orifice: H =3.0
5160.10	106.5	Orifice: H =3.1

Weir Cw = 3.1 Weir length = 12.56637 ft
Orifice Co = .6 Orifice area = 12.56637 sq.ft.
Q (cfs) = (Cw * L * H**1.5) or (Co * A * sqr(2*g*H))
Transition interpolated between elev. 5158.053 and 5159.053 ft
Weir equation = Orifice equation @ elev.= 5158.553 ft

Outlet Structure File: ROSE5-5 .STR

POND-2 Version: 5.13 S/N: 12205103336
Date Executed: Time Executed:

****
ROSEWOOD WASH DRAINAGE BASIN
POND #5 POND IN EASTGATE AT TOP OF SLOPE
5 YEAR STORM
CODEGA & FRICKE, INC 7-25-90 GMP 1016.10
****

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

Elevation (ft)	Q (cfs)	Contributing Structures
5146.00	0.0	1
5146.50	1.0	1
5147.00	3.2	1
5147.50	6.7	1
5148.00	10.6	1
5148.50	13.8	1
5149.00	16.5	1
5149.50	18.7	1
5150.00	20.7	1
5150.50	22.6	1
5151.00	24.3	1
5151.50	25.9	1
5152.00	27.4	1
5152.50	28.8	1 +2
5153.00	43.9	1 +2
5153.50	70.4	1 +2
5154.00	94.7	1 +2
5154.50	118.2	1 +2
5155.00	130.7	1 +2
5155.10	132.6	1 +2

Outlet Structure File: ROSE5-5 .STR

POND-2 Version: 5.13 S/N: 1220510336
Date Executed: Time Executed:

****
ROSEWOOD WASH DRAINAGE BASIN
POND #5 POND IN EASTGATE AT TOP OF SLOPE
5 YEAR STORM
CODEGA & FRICKE, INC 7-25-90 GMP 1016.10
****

Outlet Structure File: C:\POND2\ROSE5-5 .STR
Planimeter Input File: C:\POND2\ROSE5-5 .VOL
Rating Table Output File: C:\POND2\ROSE5-5 .PND

Min. Elev.(ft) = 5146 Max. Elev.(ft) = 5155.1 Incr.(ft) = .5

Additional elevations (ft) to be included in table:
* *

****
SYSTEM CONNECTIVITY
****

Structure	No.	Q Table		Q Table
CULVERT-CR	1		->	1
STAND PIPE	2		->	2

Outflow rating table summary was stored in file:
C:\POND2\ROSE5-5 .PND

Outlet Structure File: ROSE5-5 .STR

POND-2 Version: 5.13 S/N: 1220510336
Date Executed: Time Executed:

****
ROSEWOOD WASH DRAINAGE BASIN
POND #5 POND IN EASTGATE AT TOP OF SLOPE
5 YEAR STORM
CODEGA & FRICKE, INC 7-25-90 GMP 1016.10
****

>>>>>> Structure No. 1 <<<<<<
(Input Data)

CULVERT-CR
Circular Culvert (With Inlet Control)

E1 elev.(ft)?	5146
E2 elev.(ft)?	5155.101
Diam. (ft)?	1.50
Inv. el.(ft)?	5146.00
Slope (ft/ft)?	.050
T1 ratio?	
T2 ratio?	
K Coeff.?	.534
M Coeff.?	.555
c Coeff.?	.0196
Y Coeff.?	.89
Form 1 or 2?	2
Slope factor?	-.5

Outlet Structure File: ROSES-5 .STR

POND-2 Version: 5.13 S/N: 1220510336
Date Executed: Time Executed:

****
ROSEWOOD WASH DRAINAGE BASIN
POND #5 POND IN EASTGATE AT TOP OF SLOPE
5 YEAR STORM
CODEGA & FRICKE, INC 7-25-90 GMP 1016.10
****

>>>>>> Structure No. 2 <<<<<<
(Input Data)

STAND PIPE
Stand Pipe with weir or orifice flow

E1 elev.(ft)?	5152.5
E2 elev.(ft)?	5155.101
Crest elev.(ft)?	5152.50
Diameter (ft)?	4
Weir coefficient?	3.1
Orifice coefficient?	.60
Start transition elev.(ft) @ ?	
Transition height (ft)?	1.0

Outlet Structure File: ROSE5-5 .STR

POND-2 Version: 5.13 S/N: 1220510336
Date Executed: Time Executed:

****
ROSEWOOD WASH DRAINAGE BASIN
POND #5 POND IN EASTGATE AT TOP OF SLOPE
5 YEAR STORM
CODEGA & FRICKE, INC 7-25-90 GMP 1016.10
****

Outflow Rating Table for Structure #1
CULVERT-CR Circular Culvert (With Inlet Control)

***** INLET CONTROL ASSUMED *****

Elevation (ft)	Q (cfs)	Computation Messages
5146.00	0.0	No headwater
5146.50	1.0	Equ.2: HW =.5
5147.00	3.2	Equ.2: HW =1.0
5147.50	6.7	Equ.2: HW =1.5
5148.00	10.6	Submerged: HW =2.0
5148.50	13.8	Submerged: HW =2.5
5149.00	16.5	Submerged: HW =3.0
5149.50	18.7	Submerged: HW =3.5
5150.00	20.7	Submerged: HW =4.0
5150.50	22.6	Submerged: HW =4.5
5151.00	24.3	Submerged: HW =5.0
5151.50	25.9	Submerged: HW =5.5
5152.00	27.4	Submerged: HW =6.0
5152.50	28.8	Submerged: HW =6.5
5153.00	30.1	Submerged: HW =7.0
5153.50	31.4	Submerged: HW =7.5
5154.00	32.7	Submerged: HW =8.0
5154.50	33.9	Submerged: HW =8.5
5155.00	35.0	Submerged: HW =9.0
5155.10	35.2	Submerged: HW =9.1

Used Unsubmerged Equ. Form (2) for elev. less than 5147.61 ft
Used Submerged Equation for elevations greater than 5147.77 ft
HW=Headwater (ft)

Transition flows interpolated from the following values:
E1=5147.61 ft; Q1=7.58 cfs; E2=5147.77 ft; Q2=8.66 cfs

Outlet Structure File: ROSE5-5 .STR

POND-2 Version: 5.13 S/N: 1220510336
Date Executed: Time Executed:

****
ROSEWOOD WASH DRAINAGE BASIN
POND #5 POND IN EASTGATE AT TOP OF SLOPE
5 YEAR STORM
CODEGA & FRICKE, INC 7-25-90 GMP 1016.10
****

Outflow Rating Table for Structure #2
STAND PIPE Stand Pipe with weir or orifice flow

***** INLET CONTROL ASSUMED *****

Elevation (ft)	Q (cfs)	Computation Messages
5146.00	0.0	E < Inv.El.= 5152.5
5146.50	0.0	E < El= 5152.5
5147.00	0.0	E < El= 5152.5
5147.50	0.0	E < El= 5152.5
5148.00	0.0	E < El= 5152.5
5148.50	0.0	E < El= 5152.5
5149.00	0.0	E < El= 5152.5
5149.50	0.0	E < El= 5152.5
5150.00	0.0	E < El= 5152.5
5150.50	0.0	E < El= 5152.5
5151.00	0.0	E < El= 5152.5
5151.50	0.0	E < El= 5152.5
5152.00	0.0	E < El= 5152.5
5152.50	0.0	Weir: H =0.0
5153.00	13.8	Weir: H =.5
5153.50	39.0	Weir: H =1.0
5154.00	62.0	Transition: H =1.5
5154.50	84.3	Transition: H =2.0
5155.00	95.7	Orifice: H =2.5
5155.10	97.6	Orifice: H =2.6

Weir Cw = 3.1 Weir length = 12.56637 ft
Orifice Co = .6 Orifice area = 12.56637 sq.ft.
Q (cfs) = (Cw * L * H**1.5) or (Co * A * sqr(2*g*H))
Transition interpolated between elev. 5153.553 and 5154.553 ft
Weir equation = Orifice equation @ elev.= 5154.053 ft

ROUTING

```
*************************************************************
*                                                           *
*              ROSEWOOD WASH DRAINAGE BASIN                 *
*                        POND #1                            *
*                     5 YEAR STORM                          *
*  CODEGA & FRICKE, INC     6-5-90 - GMP    1016.10        *
*                                                           *
*************************************************************
```

Inflow Hydrograph: C:\POND2\ROSE1-5I.HYD
Rating Table file: C:\POND2\ROSE1-5 .PND

-----INITIAL CONDITIONS-----
Elevation = 5240.00 ft
Outflow = 0.00 cfs
Storage = 0.00 ac-ft

GIVEN POND DATA

ELEVATION (ft)	OUTFLOW (cfs)	STORAGE (ac-ft)
5240.00	0.0	0.000
5240.50	0.6	0.050
5241.00	2.0	0.112
5241.50	3.4	0.188
5242.00	4.4	0.277
5242.50	5.2	0.382
5243.00	5.9	0.505
5243.50	6.5	0.645
5244.00	7.0	0.804
5244.50	7.6	0.985
5245.00	8.0	1.187
5245.50	8.5	1.408
5246.00	8.9	1.647
5246.50	9.3	1.902
5247.00	9.7	2.176
5247.50	11.1	2.467
5248.00	13.7	2.778
5248.50	17.5	3.109
5249.00	22.1	3.459
5249.50	25.5	3.831
5250.00	26.5	4.224

INTERMEDIATE ROUTING COMPUTATIONS

2S/t (cfs)	2S/t + O (cfs)
0.0	0.0
12.2	12.8
27.2	29.2
45.4	48.8
67.1	71.5
92.6	97.8
122.1	128.0
156.0	162.5
194.7	201.7
238.3	245.9
287.2	295.2
340.8	349.3
398.5	407.4
460.3	469.6
526.5	536.2
597.1	608.2
672.3	686.0
752.3	769.8
837.2	859.3
927.1	952.6
1022.3	1050.6

Time increment (t) = 0.100 hrs.

POND-2 Version: 5.13 S/N: 1220510336
EXECUTED: 08-05-1990 10:27:49

Pond File: C:\POND2\ROSE1-5 .PND
Inflow Hydrograph: C:\POND2\ROSE1-5I.HYD
Outflow Hydrograph: C:\POND2\ROSE1-5O.HYD

INFLOW HYDROGRAPH

ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
11.000	0.00	------	0.0	0.0	0.00	5240.00
11.100	0.00	0.0	0.0	0.0	0.00	5240.00
11.200	0.00	0.0	0.0	0.0	0.00	5240.00
11.300	0.00	0.0	0.0	0.0	0.00	5240.00
11.400	0.00	0.0	0.0	0.0	0.00	5240.00
11.500	1.00	1.0	0.9	1.0	0.05	5240.04
11.600	1.00	2.0	2.6	2.9	0.14	5240.11
11.700	2.00	3.0	5.1	5.6	0.26	5240.22
11.800	2.00	4.0	8.2	9.1	0.43	5240.36
11.900	3.00	5.0	12.0	13.2	0.64	5240.51
12.000	8.00	11.0	20.0	23.0	1.47	5240.81
12.100	20.00	28.0	41.3	48.0	3.34	5241.48
12.200	33.00	53.0	84.1	94.3	5.10	5242.43
12.300	31.00	64.0	135.6	148.1	6.25	5243.29
12.400	23.00	54.0	176.0	189.6	6.85	5243.85
12.500	15.00	38.0	199.6	214.0	7.17	5244.14
12.600	12.00	27.0	211.9	226.6	7.34	5244.28
12.700	9.00	21.0	218.1	232.9	7.42	5244.35
12.800	7.00	16.0	219.2	234.1	7.44	5244.37
12.900	6.00	13.0	217.4	232.2	7.41	5244.35
13.000	6.00	12.0	214.6	229.4	7.38	5244.31
13.100	6.00	12.0	212.0	226.6	7.34	5244.28
13.200	5.00	11.0	208.4	223.0	7.29	5244.24
13.300	4.00	9.0	203.0	217.4	7.21	5244.18
13.400	4.00	8.0	196.7	211.0	7.13	5244.11
13.500	4.00	8.0	190.6	204.7	7.04	5244.03
13.600	4.00	8.0	184.7	198.6	6.96	5243.96
13.700	4.00	8.0	178.9	192.7	6.89	5243.89
13.800	4.00	8.0	173.3	186.9	6.81	5243.81
13.900	4.00	8.0	167.8	181.3	6.74	5243.74
14.000	4.00	8.0	162.5	175.8	6.67	5243.67
14.100	3.00	7.0	156.3	169.5	6.59	5243.59
14.200	3.00	6.0	149.3	162.3	6.50	5243.50
14.300	2.00	5.0	141.6	154.3	6.36	5243.38
14.400	2.00	4.0	133.2	145.6	6.21	5243.25
14.500	2.00	4.0	125.1	137.2	6.06	5243.13
14.600	2.00	4.0	117.2	129.1	5.92	5243.02
14.700	2.00	4.0	109.7	121.2	5.74	5242.89
14.800	2.00	4.0	102.6	113.7	5.57	5242.76
14.900	2.00	4.0	95.8	106.6	5.40	5242.65
15.000	2.00	4.0	89.3	99.8	5.25	5242.53
15.100	2.00	4.0	83.2	93.3	5.06	5242.42
15.200	2.00	4.0	77.4	87.2	4.88	5242.30
15.300	2.00	4.0	72.0	81.4	4.70	5242.19
15.400	2.00	4.0	66.9	76.0	4.54	5242.09

Pond File: C:\POND2\ROSE1-5 .PND
Inflow Hydrograph: C:\POND2\ROSE1-5I.HYD
Outflow Hydrograph: C:\POND2\ROSE1-5O.HYD

INFLOW HYDROGRAPH		ROUTING COMPUTATIONS				
TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
15.500	2.00	4.0	62.2	70.9	4.38	5241.99
15.600	2.00	4.0	57.9	66.2	4.17	5241.88
15.700	2.00	4.0	53.9	61.9	3.98	5241.79
15.800	2.00	4.0	50.3	57.9	3.80	5241.70
15.900	2.00	4.0	47.0	54.3	3.64	5241.62
16.000	2.00	4.0	44.0	51.0	3.50	5241.55
16.100	2.00	4.0	41.3	48.0	3.34	5241.48
16.200	2.00	4.0	39.0	45.3	3.15	5241.41
16.300	1.00	3.0	36.2	42.0	2.92	5241.33
16.400	1.00	2.0	32.9	38.2	2.64	5241.23
16.500	1.00	2.0	30.1	34.9	2.41	5241.15
16.600	1.00	2.0	27.7	32.1	2.21	5241.07
16.700	1.00	2.0	25.6	29.7	2.03	5241.01
16.800	1.00	2.0	23.9	27.6	1.86	5240.95
16.900	1.00	2.0	22.5	25.9	1.72	5240.90
17.000	1.00	2.0	21.3	24.5	1.60	5240.86
17.100	1.00	2.0	20.3	23.3	1.49	5240.82
17.200	1.00	2.0	19.5	22.3	1.41	5240.79
17.300	1.00	2.0	18.8	21.5	1.34	5240.76
17.400	1.00	2.0	18.2	20.8	1.28	5240.74
17.500	1.00	2.0	17.7	20.2	1.23	5240.73
17.600	1.00	2.0	17.4	19.7	1.19	5240.71
17.700	1.00	2.0	17.0	19.4	1.16	5240.70
17.800	1.00	2.0	16.8	19.0	1.13	5240.69
17.900	1.00	2.0	16.5	18.8	1.11	5240.68
18.000	1.00	2.0	16.4	18.5	1.09	5240.68
18.100	1.00	2.0	16.2	18.4	1.08	5240.67
18.200	1.00	2.0	16.1	18.2	1.06	5240.67
18.300	1.00	2.0	16.0	18.1	1.05	5240.66
18.400	1.00	2.0	15.9	18.0	1.04	5240.66
18.500	1.00	2.0	15.8	17.9	1.04	5240.66
18.600	1.00	2.0	15.8	17.8	1.03	5240.65
18.700	1.00	2.0	15.7	17.8	1.02	5240.65
18.800	1.00	2.0	15.7	17.7	1.02	5240.65
18.900	1.00	2.0	15.6	17.7	1.02	5240.65
19.000	1.00	2.0	15.6	17.6	1.01	5240.65
19.100	1.00	2.0	15.6	17.6	1.01	5240.65
19.200	1.00	2.0	15.6	17.6	1.01	5240.65
19.300	1.00	2.0	15.5	17.6	1.01	5240.65
19.400	1.00	2.0	15.5	17.5	1.01	5240.65
19.500	1.00	2.0	15.5	17.5	1.01	5240.64
19.600	1.00	2.0	15.5	17.5	1.00	5240.64
19.700	1.00	2.0	15.5	17.5	1.00	5240.64
19.800	1.00	2.0	15.5	17.5	1.00	5240.64
19.900	1.00	2.0	15.5	17.5	1.00	5240.64
20.000	1.00	2.0	15.5	17.5	1.00	5240.64

Pond File: C:\POND2\ROSE1-5 .PND
Inflow Hydrograph: C:\POND2\ROSE1-5I.HYD
Outflow Hydrograph: C:\POND2\ROSE1-5O.HYD

INFLOW HYDROGRAPH — ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
20.100	1.00	2.0	15.5	17.5	1.00	5240.64
20.200	1.00	2.0	15.5	17.5	1.00	5240.64
20.300	1.00	2.0	15.5	17.5	1.00	5240.64
20.400	1.00	2.0	15.5	17.5	1.00	5240.64
20.500	1.00	2.0	15.5	17.5	1.00	5240.64
20.600	1.00	2.0	15.5	17.5	1.00	5240.64
20.700	1.00	2.0	15.5	17.5	1.00	5240.64
20.800	1.00	2.0	15.5	17.5	1.00	5240.64
20.900	1.00	2.0	15.5	17.5	1.00	5240.64
21.000	1.00	2.0	15.5	17.5	1.00	5240.64
21.100	1.00	2.0	15.5	17.5	1.00	5240.64
21.200	1.00	2.0	15.5	17.5	1.00	5240.64
21.300	1.00	2.0	15.5	17.5	1.00	5240.64
21.400	1.00	2.0	15.5	17.5	1.00	5240.64
21.500	1.00	2.0	15.5	17.5	1.00	5240.64
21.600	1.00	2.0	15.5	17.5	1.00	5240.64
21.700	1.00	2.0	15.5	17.5	1.00	5240.64
21.800	1.00	2.0	15.5	17.5	1.00	5240.64
21.900	1.00	2.0	15.5	17.5	1.00	5240.64
22.000	1.00	2.0	15.5	17.5	1.00	5240.64
22.100	1.00	2.0	15.5	17.5	1.00	5240.64
22.200	1.00	2.0	15.5	17.5	1.00	5240.64
22.300	1.00	2.0	15.5	17.5	1.00	5240.64
22.400	1.00	2.0	15.5	17.5	1.00	5240.64
22.500	1.00	2.0	15.5	17.5	1.00	5240.64
22.600	1.00	2.0	15.5	17.5	1.00	5240.64
22.700	1.00	2.0	15.5	17.5	1.00	5240.64
22.800	1.00	2.0	15.5	17.5	1.00	5240.64
22.900	1.00	2.0	15.5	17.5	1.00	5240.64
23.000	1.00	2.0	15.5	17.5	1.00	5240.64
23.100	1.00	2.0	15.5	17.5	1.00	5240.64
23.200	1.00	2.0	15.5	17.5	1.00	5240.64
23.300	1.00	2.0	15.5	17.5	1.00	5240.64
23.400	1.00	2.0	15.5	17.5	1.00	5240.64
23.500	1.00	2.0	15.5	17.5	1.00	5240.64
23.600	1.00	2.0	15.5	17.5	1.00	5240.64
23.700	1.00	2.0	15.5	17.5	1.00	5240.64
23.800	1.00	2.0	15.5	17.5	1.00	5240.64
23.900	1.00	2.0	15.5	17.5	1.00	5240.64
24.000	0.00	1.0	14.6	16.5	0.91	5240.61
24.100	0.00	0.0	13.1	14.6	0.76	5240.56
24.200	0.00	0.0	11.9	13.1	0.63	5240.51
24.300	0.00	0.0	10.7	11.9	0.56	5240.46
24.400	0.00	0.0	9.7	10.7	0.50	5240.42
24.500	0.00	0.0	8.8	9.7	0.46	5240.38
24.600	0.00	0.0	8.0	8.8	0.41	5240.35

Pond File: C:\POND2\ROSE1-5 .PND
Inflow Hydrograph: C:\POND2\ROSE1-5I.HYD
Outflow Hydrograph: C:\POND2\ROSE1-5O.HYD

INFLOW HYDROGRAPH

TIME (hrs)	INFLOW (cfs)
24.700	0.00
24.800	0.00
24.900	0.00
25.000	0.00
25.100	0.00
25.200	0.00
25.300	0.00
25.400	0.00
25.500	0.00
25.600	0.00
25.700	0.00
25.800	0.00
25.900	0.00

ROUTING COMPUTATIONS

I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
0.0	7.2	8.0	0.38	5240.31
0.0	6.6	7.2	0.34	5240.28
0.0	5.9	6.6	0.31	5240.26
0.0	5.4	5.9	0.28	5240.23
0.0	4.9	5.4	0.25	5240.21
0.0	4.4	4.9	0.23	5240.19
0.0	4.0	4.4	0.21	5240.17
0.0	3.6	4.0	0.19	5240.16
0.0	3.3	3.6	0.17	5240.14
0.0	3.0	3.3	0.15	5240.13
0.0	2.7	3.0	0.14	5240.12
0.0	2.4	2.7	0.13	5240.11
0.0	2.2	2.4	0.11	5240.10

********** SUMMARY OF ROUTING COMPUTATIONS **********

Pond File: C:\POND2\ROSE1-5 .PND
Inflow Hydrograph: C:\POND2\ROSE1-5I.HYD
Outflow Hydrograph: C:\POND2\ROSE1-5O.HYD

Starting Pond W.S. Elevation = 5240.00 ft

***** Summary of Peak Outflow and Peak Elevation *****

Peak Inflow	=	33.00 cfs
Peak Outflow	=	7.44 cfs
Peak Elevation	=	5244.37 ft

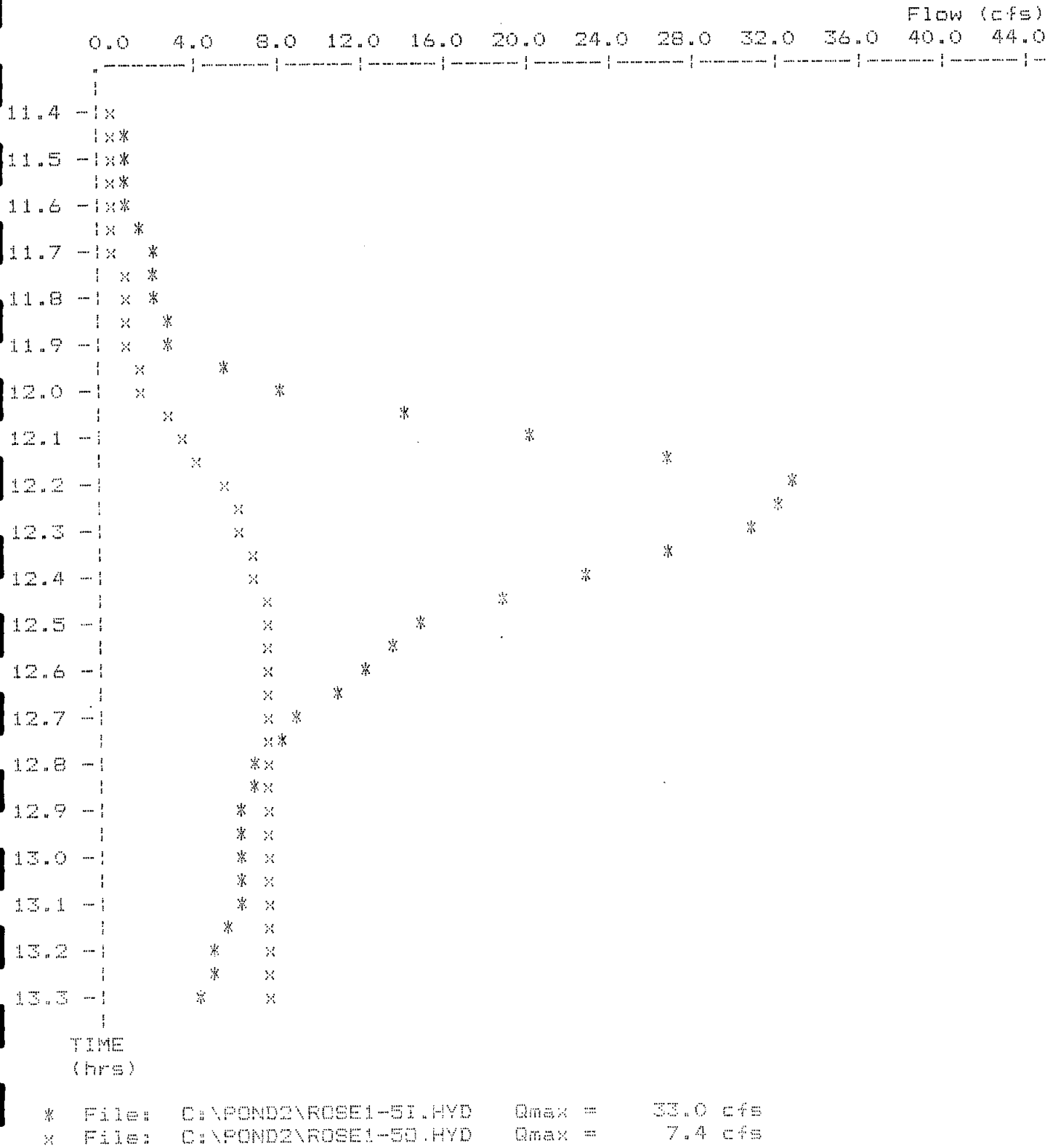
***** Summary of Approximate Peak Storage *****

Initial Storage	=	0.00 ac-ft
Peak Storage From Storm	=	0.94 ac-ft
Total Storage in Pond	=	0.94 ac-ft

Pond File: C:\POND2\ROSE1-5 .PND
Inflow Hydrograph: C:\POND2\ROSE1-5I.HYD
Outflow Hydrograph: C:\POND2\ROSE1-5O.HYD

EXECUTED: 08-05-1990
10:27:49

Peak Inflow = 33.00 cfs
Peak Outflow = 7.44 cfs
Peak Elevation = 5244.37 ft



* File: C:\POND2\ROSE1-5I.HYD Qmax = 33.0 cfs
x File: C:\POND2\ROSE1-5O.HYD Qmax = 7.4 cfs

```
**************************************************
*                                                *
*          ROSEWOOD WASH DRAINAGE BASIN          *
*                    POND #1                     *
*                100 YEAR STORM                  *
*  CODEGA & FRICKE, INC    8-5-90    GMP  1016.10 *
*                                                *
**************************************************
```

Inflow Hydrograph: C:\POND2\ROSE1-CI.HYD
Rating Table file: C:\POND2\ROSE1-C .PND

-----INITIAL CONDITIONS-----
Elevation = 5240.00 ft
Outflow = 0.00 cfs
Storage = 0.00 ac-ft

GIVEN POND DATA

ELEVATION (ft)	OUTFLOW (cfs)	STORAGE (ac-ft)
5240.00	0.0	0.000
5240.50	0.6	0.050
5241.00	2.0	0.112
5241.50	3.4	0.188
5242.00	4.4	0.277
5242.50	5.2	0.382
5243.00	5.9	0.505
5243.50	6.5	0.645
5244.00	7.0	0.804
5244.50	7.6	0.985
5245.00	8.0	1.187
5245.50	8.5	1.408
5246.00	8.9	1.647
5246.50	9.3	1.902
5247.00	9.7	2.176
5247.50	11.1	2.467
5248.00	13.7	2.778
5248.50	17.5	3.109
5249.00	22.1	3.459
5249.50	25.5	3.831
5250.00	28.5	4.224

INTERMEDIATE ROUTING COMPUTATIONS

2S/t (cfs)	2S/t + O (cfs)
0.0	0.0
12.2	12.8
27.2	29.2
45.4	48.8
67.1	71.5
92.6	97.8
122.1	128.0
156.0	162.5
194.7	201.7
238.3	245.9
287.2	295.2
340.8	349.3
398.5	407.4
460.3	469.6
526.5	536.2
597.1	608.2
672.3	686.0
752.3	769.8
837.2	859.3
927.1	952.6
1022.3	1050.8

Time increment (t) = 0.100 hrs.

POND-2 Version: 5.13 S/N: 1220510336
EXECUTED: 08-05-1990 10:30:08

Pond File: C:\POND2\ROSE1-C .PND
Inflow Hydrograph: C:\POND2\ROSE1-CI.HYD
Outflow Hydrograph: C:\POND2\ROSE1-CO.HYD

INFLOW HYDROGRAPH

ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
11.000	3.00	------	0.0	0.0	0.00	5240.00
11.100	3.00	6.0	5.4	6.0	0.28	5240.24
11.200	4.00	7.0	11.3	12.4	0.58	5240.49
11.300	4.00	8.0	17.0	19.3	1.15	5240.70
11.400	4.00	8.0	21.7	25.0	1.64	5240.87
11.500	5.00	9.0	26.5	30.7	2.11	5241.04
11.600	5.00	10.0	31.4	36.5	2.52	5241.19
11.700	9.00	14.0	39.1	45.4	3.16	5241.41
11.800	14.00	23.0	54.1	62.1	3.99	5241.79
11.900	18.00	32.0	76.4	86.1	4.85	5242.28
12.000	34.00	52.0	116.6	128.4	5.91	5243.01
12.100	65.00	99.0	201.3	215.6	7.19	5244.16
12.200	91.00	156.0	340.1	357.3	8.55	5245.57
12.300	84.00	175.0	496.0	515.1	9.57	5246.84
12.400	56.00	140.0	611.9	636.0	12.03	5247.68
12.500	35.00	91.0	674.0	702.9	14.47	5248.10
12.600	24.00	59.0	701.3	733.0	15.83	5248.28
12.700	18.00	42.0	710.7	743.3	16.30	5248.34
12.800	14.00	32.0	710.2	742.7	16.27	5248.34
12.900	12.00	26.0	704.2	736.2	15.98	5248.30
13.000	11.00	23.0	696.1	727.2	15.57	5248.25
13.100	9.00	20.0	686.0	716.1	15.06	5248.18
13.200	8.00	17.0	674.0	703.0	14.47	5248.10
13.300	8.00	16.0	662.3	690.0	13.88	5248.02
13.400	7.00	15.0	650.5	677.3	13.41	5247.94
13.500	7.00	14.0	638.5	664.5	12.98	5247.86
13.600	7.00	14.0	627.3	652.5	12.58	5247.78
13.700	6.00	13.0	616.0	640.3	12.17	5247.71
13.800	6.00	12.0	604.5	628.0	11.76	5247.63
13.900	6.00	12.0	593.7	616.5	11.38	5247.55
14.000	6.00	12.0	583.6	605.7	11.05	5247.48
14.100	6.00	12.0	573.9	595.6	10.86	5247.41
14.200	5.00	11.0	563.6	584.9	10.65	5247.34
14.300	5.00	10.0	552.8	573.6	10.43	5247.26
14.400	5.00	10.0	542.3	562.8	10.22	5247.18
14.500	5.00	10.0	532.3	552.3	10.01	5247.11
14.600	5.00	10.0	522.7	542.3	9.82	5247.04
14.700	5.00	10.0	513.3	532.7	9.68	5246.97
14.800	4.00	9.0	503.1	522.3	9.62	5246.90
14.900	4.00	9.0	492.0	511.1	9.55	5246.81
15.000	4.00	8.0	481.0	500.0	9.48	5246.73
15.100	4.00	8.0	470.2	489.0	9.42	5246.65
15.200	4.00	8.0	459.5	478.2	9.35	5246.56
15.300	4.00	8.0	448.9	467.5	9.29	5246.48
15.400	4.00	8.0	438.5	456.9	9.22	5246.40

Pond File: C:\POND2\ROSE1-C .PND
Inflow Hydrograph: C:\POND2\ROSE1-CI.HYD
Outflow Hydrograph: C:\POND2\ROSE1-CO.HYD

INFLOW HYDROGRAPH

ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
15.500	4.00	8.0	428.2	446.5	9.15	5246.31
15.600	4.00	8.0	418.0	436.2	9.08	5246.23
15.700	4.00	8.0	407.9	426.0	9.02	5246.15
15.800	4.00	8.0	398.0	415.9	8.95	5246.07
15.900	4.00	8.0	388.3	406.0	8.89	5245.99
16.000	4.00	8.0	378.6	396.3	8.82	5245.90
16.100	4.00	8.0	369.1	386.6	8.76	5245.82
16.200	3.00	7.0	358.7	376.1	8.68	5245.73
16.300	3.00	6.0	347.5	364.7	8.61	5245.63
16.400	2.00	5.0	335.5	352.5	8.52	5245.53
16.500	2.00	4.0	322.6	339.5	8.41	5245.41
16.600	2.00	4.0	310.1	326.6	8.29	5245.29
16.700	2.00	4.0	297.7	314.1	8.17	5245.17
16.800	2.00	4.0	285.6	301.7	8.06	5245.06
16.900	2.00	4.0	273.7	289.6	7.95	5244.94
17.000	2.00	4.0	262.0	277.7	7.86	5244.82
17.100	2.00	4.0	250.4	266.0	7.76	5244.70
17.200	2.00	4.0	239.1	254.4	7.67	5244.59
17.300	2.00	4.0	228.0	243.1	7.56	5244.47
17.400	2.00	4.0	217.2	232.0	7.41	5244.34
17.500	2.00	4.0	206.6	221.2	7.26	5244.22
17.600	2.00	4.0	196.4	210.6	7.12	5244.10
17.700	2.00	4.0	186.4	200.4	6.98	5243.98
17.800	2.00	4.0	176.7	190.4	6.86	5243.86
17.900	2.00	4.0	167.2	180.7	6.73	5243.73
18.000	2.00	4.0	158.0	171.2	6.61	5243.61
18.100	2.00	4.0	149.0	162.0	6.49	5243.49
18.200	2.00	4.0	140.4	153.0	6.33	5243.36
18.300	2.00	4.0	132.0	144.4	6.18	5243.24
18.400	2.00	4.0	123.9	136.0	6.04	5243.12
18.500	2.00	4.0	116.1	127.9	5.90	5243.00
18.600	2.00	4.0	108.7	120.1	5.72	5242.87
18.700	2.00	4.0	101.6	112.7	5.55	5242.75
18.800	2.00	4.0	94.8	105.6	5.38	5242.63
18.900	2.00	4.0	88.4	98.8	5.23	5242.52
19.000	2.00	4.0	82.3	92.4	5.04	5242.40
19.100	2.00	4.0	76.6	86.3	4.85	5242.28
19.200	2.00	4.0	71.3	80.6	4.68	5242.17
19.300	2.00	4.0	66.2	75.3	4.51	5242.07
19.400	2.00	4.0	61.5	70.2	4.34	5241.97
19.500	2.00	4.0	57.3	65.5	4.14	5241.87
19.600	1.00	3.0	52.5	60.3	3.90	5241.75
19.700	1.00	2.0	47.2	54.5	3.65	5241.62
19.800	1.00	2.0	42.3	49.2	3.42	5241.51
19.900	1.00	2.0	38.2	44.3	3.08	5241.39
20.000	1.00	2.0	34.6	40.2	2.79	5241.28

Pond File: C:\POND2\ROSE1-C .PND
Inflow Hydrograph: C:\POND2\ROSE1-CI.HYD
Outflow Hydrograph: C:\POND2\ROSE1-CO.HYD

INFLOW HYDROGRAPH — ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
20.100	1.00	2.0	31.5	36.6	2.53	5241.19
20.200	1.00	2.0	28.9	33.5	2.31	5241.11
20.300	1.00	2.0	26.7	30.9	2.12	5241.04
20.400	1.00	2.0	24.8	28.7	1.96	5240.98
20.500	1.00	2.0	23.2	26.8	1.79	5240.93
20.600	1.00	2.0	21.9	25.2	1.66	5240.88
20.700	1.00	2.0	20.8	23.9	1.55	5240.84
20.800	1.00	2.0	19.9	22.8	1.45	5240.80
20.900	1.00	2.0	19.1	21.9	1.38	5240.78
21.000	1.00	2.0	18.5	21.1	1.31	5240.75
21.100	1.00	2.0	18.0	20.5	1.26	5240.74
21.200	1.00	2.0	17.5	20.0	1.21	5240.72
21.300	1.00	2.0	17.2	19.5	1.18	5240.71
21.400	1.00	2.0	16.9	19.2	1.15	5240.70
21.500	1.00	2.0	16.7	18.9	1.12	5240.69
21.600	1.00	2.0	16.5	18.7	1.10	5240.68
21.700	1.00	2.0	16.3	18.5	1.08	5240.67
21.800	1.00	2.0	16.1	18.3	1.07	5240.67
21.900	1.00	2.0	16.0	18.1	1.06	5240.66
22.000	1.00	2.0	15.9	18.0	1.05	5240.66
22.100	1.00	2.0	15.9	17.9	1.04	5240.66
22.200	1.00	2.0	15.8	17.9	1.03	5240.65
22.300	1.00	2.0	15.7	17.8	1.03	5240.65
22.400	1.00	2.0	15.7	17.7	1.02	5240.65
22.500	1.00	2.0	15.6	17.7	1.02	5240.65
22.600	1.00	2.0	15.6	17.6	1.02	5240.65
22.700	1.00	2.0	15.6	17.6	1.01	5240.65
22.800	1.00	2.0	15.6	17.6	1.01	5240.65
22.900	1.00	2.0	15.5	17.6	1.01	5240.65
23.000	1.00	2.0	15.5	17.5	1.01	5240.65
23.100	1.00	2.0	15.5	17.5	1.01	5240.65
23.200	1.00	2.0	15.5	17.5	1.01	5240.64
23.300	1.00	2.0	15.5	17.5	1.00	5240.64
23.400	1.00	2.0	15.5	17.5	1.00	5240.64
23.500	1.00	2.0	15.5	17.5	1.00	5240.64
23.600	1.00	2.0	15.5	17.5	1.00	5240.64
23.700	1.00	2.0	15.5	17.5	1.00	5240.64
23.800	1.00	2.0	15.5	17.5	1.00	5240.64
23.900	1.00	2.0	15.5	17.5	1.00	5240.64
24.000	0.00	1.0	14.6	16.5	0.92	5240.61
24.100	0.00	0.0	13.1	14.6	0.76	5240.56
24.200	0.00	0.0	11.9	13.1	0.63	5240.51
24.300	0.00	0.0	10.7	11.9	0.56	5240.46
24.400	0.00	0.0	9.7	10.7	0.51	5240.42
24.500	0.00	0.0	8.8	9.7	0.46	5240.38
24.600	0.00	0.0	8.0	8.9	0.41	5240.35

Pond File: C:\POND2\ROSE1-C .PND
Inflow Hydrograph: C:\POND2\ROSE1-CI.HYD
Outflow Hydrograph: C:\POND2\ROSE1-CO.HYD

INFLOW HYDROGRAPH		ROUTING COMPUTATIONS				
TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
24.700	0.00	0.0	7.2	8.0	0.38	5240.31
24.800	0.00	0.0	6.6	7.2	0.34	5240.28
24.900	0.00	0.0	5.9	6.6	0.31	5240.26
25.000	0.00	0.0	5.4	5.9	0.28	5240.23
25.100	0.00	0.0	4.9	5.4	0.25	5240.21
25.200	0.00	0.0	4.4	4.9	0.23	5240.19
25.300	0.00	0.0	4.0	4.4	0.21	5240.17
25.400	0.00	0.0	3.6	4.0	0.19	5240.16
25.500	0.00	0.0	3.3	3.6	0.17	5240.14
25.600	0.00	0.0	3.0	3.3	0.15	5240.13
25.700	0.00	0.0	2.7	3.0	0.14	5240.12
25.800	0.00	0.0	2.4	2.7	0.13	5240.11
25.900	0.00	0.0	2.2	2.4	0.11	5240.10

********** SUMMARY OF ROUTING COMPUTATIONS **********

Pond File: C:\POND2\ROSE1-C .PND
Inflow Hydrograph: C:\POND2\ROSE1-CI.HYD
Outflow Hydrograph: C:\POND2\ROSE1-CO.HYD

Starting Pond W.S. Elevation = 5240.00 ft

***** Summary of Peak Outflow and Peak Elevation *****

Peak Inflow	=	91.00 cfs
Peak Outflow	=	16.30 cfs
Peak Elevation	=	5248.34 ft

***** Summary of Approximate Peak Storage *****

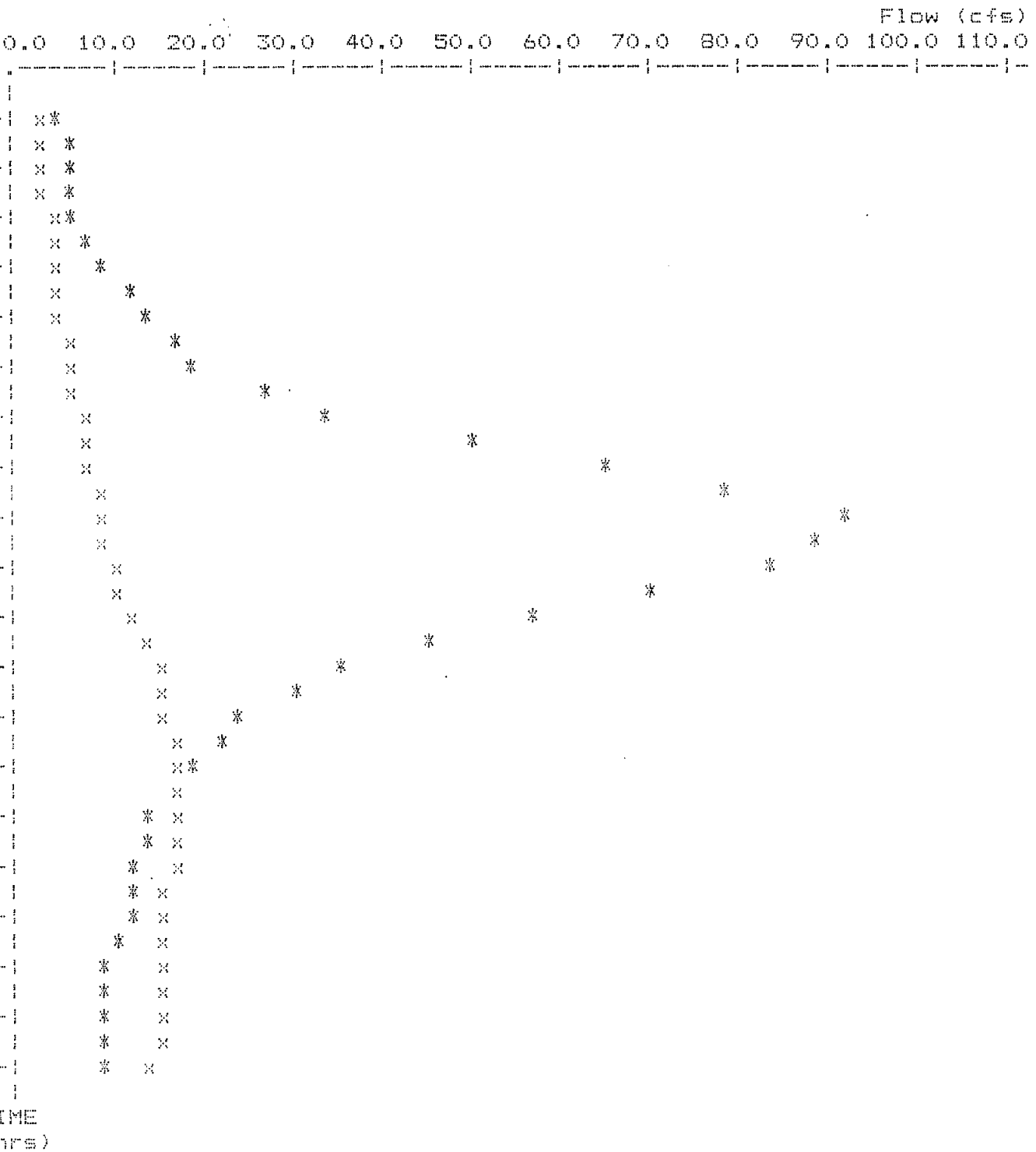
Initial Storage	=	0.00 ac-ft
Peak Storage From Storm	=	3.00 ac-ft
Total Storage in Pond	=	3.00 ac-ft

Warning: Inflow hydrograph truncated on left side.

Pond File: C:\POND2\ROSE1-C .PND
Inflow Hydrograph: C:\POND2\ROSE1-CI.HYD
Outflow Hydrograph: C:\POND2\ROSE1-CO.HYD

EXECUTED: 08-05-1990
10:30:08

Peak Inflow = 91.00 cfs
Peak Outflow = 16.30 cfs
Peak Elevation = 5248.34 ft



* File: C:\POND2\ROSE1-CI.HYD Qmax = 91.0 cfs
x File: C:\POND2\ROSE1-CO.HYD Qmax = 16.3 cfs

```
*****************************************************************
*                                                               *
*                    ROSEWOOD WASH DRAINAGE BASIN               *
*   POND #2  SECOND POND IN A SERIES (NEAR MIDDLE OF PROJECT)   *
*                          5 YEAR STORM                         *
*         CODEGA & FRICKE, INC     8-3-90    GMP   1016.10     *
*                                                               *
*****************************************************************
```

Inflow Hydrograph: C:\POND2\ROSE2-5I.HYD
Rating Table file: C:\POND2\ROSE2-5 .PND

-----INITIAL CONDITIONS-----
Elevation = 5172.00 ft
Outflow = 0.00 cfs
Storage = 0.00 ac-ft

GIVEN POND DATA

ELEVATION (ft)	OUTFLOW (cfs)	STORAGE (ac-ft)
5172.00	0.0	0.000
5172.50	0.6	0.117
5173.00	2.0	0.245
5173.50	3.4	0.385
5174.00	4.4	0.537
5174.50	5.2	0.701
5175.00	5.9	0.880
5175.50	6.5	1.072
5176.00	7.0	1.278
5176.50	7.6	1.499
5177.00	8.0	1.735
5177.50	9.6	1.988
5178.00	12.9	2.257
5178.50	17.5	2.542
5179.00	23.5	2.845
5179.50	30.3	3.167
5180.00	36.2	3.506

INTERMEDIATE ROUTING COMPUTATIONS

2S/t (cfs)	2S/t + O (cfs)
0.0	0.0
28.3	28.9
59.2	61.2
93.1	96.5
129.9	134.3
169.8	175.0
212.9	218.8
259.3	265.8
309.2	316.2
362.8	370.4
420.0	428.0
481.1	490.7
546.1	559.0
615.2	632.7
688.6	712.1
766.3	796.6
848.5	884.7

Time increment (t) = 0.100 hrs.

Pond File: C:\POND2\ROSE2-5 .PND
Inflow Hydrograph: C:\POND2\ROSE2-5I.HYD
Outflow Hydrograph: C:\POND2\ROSE2-5O.HYD

INFLOW HYDROGRAPH — ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
10.000	0.00	------	0.0	0.0	0.00	5172.00
10.100	0.00	0.0	0.0	0.0	0.00	5172.00
10.200	0.00	0.0	0.0	0.0	0.00	5172.00
10.300	0.00	0.0	0.0	0.0	0.00	5172.00
10.400	0.00	0.0	0.0	0.0	0.00	5172.00
10.500	0.00	0.0	0.0	0.0	0.00	5172.00
10.600	0.00	0.0	0.0	0.0	0.00	5172.00
10.700	0.00	0.0	0.0	0.0	0.00	5172.00
10.800	0.00	0.0	0.0	0.0	0.00	5172.00
10.900	0.00	0.0	0.0	0.0	0.00	5172.00
11.000	1.00	1.0	1.0	1.0	0.02	5172.02
11.100	1.00	2.0	2.8	3.0	0.06	5172.05
11.200	1.00	2.0	4.6	4.8	0.10	5172.08
11.300	1.00	2.0	6.4	6.6	0.14	5172.11
11.400	1.00	2.0	8.0	8.4	0.17	5172.14
11.500	2.05	3.1	10.6	11.1	0.23	5172.19
11.600	2.14	4.2	14.2	14.8	0.31	5172.26
11.700	3.26	5.4	18.8	19.6	0.41	5172.34
11.800	4.43	7.7	25.4	26.5	0.55	5172.46
11.900	5.64	10.1	33.7	35.4	0.68	5172.60
12.000	11.47	17.1	47.7	50.8	1.55	5172.84
12.100	22.34	33.8	75.9	81.5	2.80	5173.29
12.200	34.10	56.4	123.6	132.3	4.35	5173.97
12.300	35.25	69.3	182.0	193.0	5.49	5174.71
12.400	26.85	62.1	231.6	244.1	6.22	5175.27
12.500	19.17	46.0	264.4	277.7	6.62	5175.62
12.600	15.34	34.5	285.3	298.9	6.83	5175.83
12.700	13.42	28.8	300.1	314.0	6.98	5175.98
12.800	12.44	25.9	311.7	325.9	7.11	5176.09
12.900	11.41	23.9	321.2	335.6	7.21	5176.18
13.000	10.38	21.8	328.4	342.9	7.30	5176.25
13.100	10.34	20.7	334.3	349.1	7.36	5176.30
13.200	10.29	20.6	340.1	355.0	7.43	5176.36
13.300	9.21	19.5	344.7	359.6	7.48	5176.40
13.400	9.13	18.3	348.0	363.0	7.52	5176.43
13.500	9.04	18.2	351.0	366.1	7.55	5176.46
13.600	8.96	18.0	353.8	369.0	7.59	5176.49
13.700	8.89	17.9	356.5	371.7	7.61	5176.51
13.800	8.81	17.7	358.9	374.2	7.63	5176.53
13.900	8.74	17.6	361.2	376.5	7.64	5176.55
14.000	8.67	17.4	363.3	378.6	7.66	5176.57
14.100	8.59	17.3	365.2	380.5	7.67	5176.59
14.200	8.50	17.1	366.9	382.3	7.68	5176.60
14.300	8.36	16.9	368.4	383.8	7.69	5176.62
14.400	8.21	16.6	369.6	385.0	7.70	5176.63

Pond File: C:\POND2\ROSE2-5 .PND
Inflow Hydrograph: C:\POND2\ROSE2-5I.HYD
Outflow Hydrograph: C:\POND2\ROSE2-5O.HYD

INFLOW HYDROGRAPH		ROUTING COMPUTATIONS				
TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
14.500	7.06	15.3	369.4	384.8	7.70	5176.63
14.600	6.92	14.0	368.0	383.4	7.69	5176.61
14.700	6.74	13.7	366.3	381.7	7.68	5176.60
14.800	6.57	13.3	364.3	379.6	7.66	5176.58
14.900	6.40	13.0	362.0	377.3	7.65	5176.56
15.000	6.25	12.7	359.4	374.6	7.63	5176.54
15.100	6.06	12.3	356.5	371.7	7.61	5176.51
15.200	5.88	11.9	353.3	368.4	7.58	5176.48
15.300	5.70	11.6	349.8	364.8	7.54	5176.45
15.400	5.54	11.2	346.0	361.0	7.50	5176.41
15.500	5.38	10.9	342.0	356.9	7.45	5176.38
15.600	5.17	10.6	337.8	352.6	7.40	5176.34
15.700	4.98	10.2	333.2	347.9	7.35	5176.29
15.800	4.80	9.8	328.4	343.0	7.30	5176.25
15.900	4.64	9.4	323.4	337.8	7.24	5176.20
16.000	4.50	9.1	318.1	332.5	7.18	5176.15
16.100	4.34	8.8	312.7	327.0	7.12	5176.10
16.200	4.15	8.5	307.1	321.2	7.06	5176.05
16.300	3.92	8.1	301.2	315.2	6.99	5175.99
16.400	3.64	7.6	294.9	308.8	6.93	5175.93
16.500	3.41	7.1	288.3	302.0	6.86	5175.86
16.600	3.21	6.6	281.3	294.9	6.79	5175.79
16.700	3.03	6.2	274.1	287.5	6.72	5175.72
16.800	2.86	5.9	266.7	280.0	6.64	5175.64
16.900	2.72	5.6	259.2	272.3	6.56	5175.56
17.000	2.60	5.3	251.5	264.5	6.48	5175.49
17.100	2.49	5.1	243.8	256.6	6.38	5175.40
17.200	2.41	4.9	236.2	248.7	6.28	5175.32
17.300	2.34	4.8	228.6	240.9	6.18	5175.24
17.400	2.28	4.6	221.0	233.2	6.08	5175.15
17.500	2.23	4.5	213.6	225.5	5.99	5175.07
17.600	2.19	4.4	206.2	218.0	5.89	5174.99
17.700	2.16	4.4	199.0	210.6	5.77	5174.91
17.800	2.13	4.3	192.0	203.3	5.65	5174.82
17.900	2.11	4.2	185.2	196.2	5.54	5174.74
18.000	2.09	4.2	178.5	189.4	5.43	5174.66
18.100	2.08	4.2	172.0	182.7	5.32	5174.59
18.200	2.06	4.1	165.7	176.2	5.22	5174.51
18.300	2.05	4.1	159.6	169.8	5.10	5174.44
18.400	2.04	4.1	153.8	163.7	4.98	5174.36
18.500	2.04	4.1	148.1	157.8	4.86	5174.29
18.600	2.03	4.1	142.7	152.2	4.75	5174.22
18.700	2.02	4.1	137.4	146.7	4.65	5174.15
18.800	2.02	4.0	132.4	141.5	4.54	5174.09
18.900	2.02	4.0	127.6	136.4	4.44	5174.03
19.000	2.01	4.0	122.9	131.6	4.33	5173.96

Pond File: C:\POND2\ROSE2-5 .PND
Inflow Hydrograph: C:\POND2\ROSE2-5I.HYD
Outflow Hydrograph: C:\POND2\ROSE2-5O.HYD

INFLOW HYDROGRAPH

ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
19.100	2.01	4.0	118.5	126.9	4.21	5173.90
19.200	2.01	4.0	114.4	122.6	4.09	5173.85
19.300	2.01	4.0	110.4	118.4	3.98	5173.79
19.400	2.01	4.0	106.7	114.5	3.88	5173.74
19.500	2.01	4.0	103.2	110.7	3.78	5173.69
19.600	2.00	4.0	99.8	107.2	3.68	5173.64
19.700	2.00	4.0	96.6	103.8	3.59	5173.60
19.800	2.00	4.0	93.6	100.6	3.51	5173.55
19.900	2.00	4.0	90.7	97.6	3.43	5173.51
20.000	2.00	4.0	88.1	94.7	3.33	5173.48
20.100	2.00	4.0	85.6	92.1	3.23	5173.44
20.200	2.00	4.0	83.4	89.6	3.13	5173.40
20.300	2.00	4.0	81.3	87.4	3.04	5173.37
20.400	2.00	4.0	79.4	85.3	2.96	5173.34
20.500	2.00	4.0	77.6	83.4	2.88	5173.31
20.600	2.00	4.0	76.0	81.6	2.81	5173.29
20.700	2.00	4.0	74.5	80.0	2.75	5173.27
20.800	2.00	4.0	73.1	78.5	2.69	5173.25
20.900	2.00	4.0	71.9	77.1	2.63	5173.23
21.000	2.00	4.0	70.7	75.9	2.58	5173.21
21.100	2.00	4.0	69.6	74.7	2.54	5173.19
21.200	2.00	4.0	68.7	73.6	2.49	5173.18
21.300	2.00	4.0	67.8	72.7	2.45	5173.16
21.400	2.00	4.0	66.9	71.8	2.42	5173.15
21.500	2.00	4.0	66.1	70.9	2.38	5173.14
21.600	2.00	4.0	65.4	70.1	2.35	5173.13
21.700	2.00	4.0	64.8	69.4	2.33	5173.12
21.800	2.00	4.0	64.2	68.8	2.30	5173.11
21.900	2.00	4.0	63.6	68.2	2.28	5173.10
22.000	2.00	4.0	63.1	67.6	2.25	5173.09
22.100	2.00	4.0	62.7	67.1	2.23	5173.08
22.200	2.00	4.0	62.2	66.7	2.22	5173.08
22.300	2.00	4.0	61.8	66.2	2.20	5173.07
22.400	2.00	4.0	61.5	65.8	2.18	5173.07
22.500	2.00	4.0	61.1	65.5	2.17	5173.06
22.600	2.00	4.0	60.8	65.1	2.15	5173.06
22.700	2.00	4.0	60.5	64.8	2.14	5173.05
22.800	2.00	4.0	60.3	64.5	2.13	5173.05
22.900	2.00	4.0	60.0	64.3	2.12	5173.04
23.000	2.00	4.0	59.8	64.0	2.11	5173.04
23.100	2.00	4.0	59.6	63.8	2.10	5173.04
23.200	2.00	4.0	59.4	63.6	2.09	5173.03
23.300	2.00	4.0	59.2	63.4	2.09	5173.03
23.400	2.00	4.0	59.1	63.2	2.08	5173.03
23.500	2.00	4.0	58.9	63.1	2.07	5173.03
23.600	2.00	4.0	58.8	62.9	2.07	5173.02

Pond File: C:\POND2\ROSE2-5 .PND
Inflow Hydrograph: C:\POND2\ROSE2-5I.HYD
Outflow Hydrograph: C:\POND2\ROSE2-5O.HYD

INFLOW HYDROGRAPH — ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
23.700	2.00	4.0	58.7	62.8	2.06	5173.02
23.800	2.00	4.0	58.6	62.7	2.06	5173.02
23.900	2.00	4.0	58.5	62.6	2.05	5173.02
24.000	0.91	2.9	57.4	61.4	2.01	5173.00
24.100	0.76	1.7	55.2	59.0	1.90	5172.97
24.200	0.63	1.4	53.0	56.6	1.80	5172.93
24.300	0.56	1.2	50.8	54.2	1.70	5172.89
24.400	0.50	1.1	48.7	51.9	1.59	5172.86
24.500	0.46	1.0	46.6	49.6	1.50	5172.82
24.600	0.41	0.9	44.7	47.5	1.41	5172.79
24.700	0.38	0.8	42.9	45.5	1.32	5172.76
24.800	0.34	0.7	41.1	43.6	1.24	5172.73
24.900	0.31	0.7	39.4	41.8	1.16	5172.70
25.000	0.28	0.6	37.9	40.0	1.08	5172.67
25.100	0.25	0.5	36.4	38.4	1.01	5172.65
25.200	0.23	0.5	35.0	36.8	0.95	5172.62
25.300	0.21	0.4	33.6	35.4	0.88	5172.60
25.400	0.19	0.4	32.4	34.0	0.82	5172.58
25.500	0.17	0.4	31.2	32.7	0.77	5172.56
25.600	0.15	0.3	30.1	31.6	0.72	5172.54
25.700	0.14	0.3	29.1	30.4	0.67	5172.52
25.800	0.13	0.3	28.1	29.3	0.62	5172.51
25.900	0.11	0.2	27.2	28.3	0.59	5172.49
26.000	0.00	0.1	26.1	27.3	0.57	5172.47
26.100	0.00	0.0	25.0	26.1	0.54	5172.45
26.200	0.00	0.0	24.0	25.0	0.52	5172.43
26.300	0.00	0.0	23.0	24.0	0.50	5172.42
26.400	0.00	0.0	22.0	23.0	0.48	5172.40
26.500	0.00	0.0	21.1	22.0	0.46	5172.38
26.600	0.00	0.0	20.3	21.1	0.44	5172.37
26.700	0.00	0.0	19.4	20.3	0.42	5172.35
26.800	0.00	0.0	18.6	19.4	0.40	5172.34
26.900	0.00	0.0	17.8	18.6	0.39	5172.32
27.000	0.00	0.0	17.1	17.8	0.37	5172.31
27.100	0.00	0.0	16.4	17.1	0.36	5172.30
27.200	0.00	0.0	15.7	16.4	0.34	5172.28
27.300	0.00	0.0	15.0	15.7	0.33	5172.27
27.400	0.00	0.0	14.4	15.0	0.31	5172.26
27.500	0.00	0.0	13.8	14.4	0.30	5172.25
27.600	0.00	0.0	13.2	13.8	0.29	5172.24
27.700	0.00	0.0	12.7	13.2	0.28	5172.23
27.800	0.00	0.0	12.2	12.7	0.26	5172.22
27.900	0.00	0.0	11.7	12.2	0.25	5172.21
28.000	0.00	0.0	11.2	11.7	0.24	5172.20
28.100	0.00	0.0	10.7	11.2	0.23	5172.19
28.200	0.00	0.0	10.3	10.7	0.22	5172.19

Pond File: C:\POND2\ROSE2-5 .PND
Inflow Hydrograph: C:\POND2\ROSE2-5I.HYD
Outflow Hydrograph: C:\POND2\ROSE2-5O.HYD

INFLOW HYDROGRAPH — ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
28.300	0.00	0.0	9.8	10.3	0.21	5172.18
28.400	0.00	0.0	9.4	9.8	0.20	5172.17
28.500	0.00	0.0	9.0	9.4	0.20	5172.16
28.600	0.00	0.0	8.7	9.0	0.19	5172.16
28.700	0.00	0.0	8.3	8.7	0.18	5172.15
28.800	0.00	0.0	8.0	8.3	0.17	5172.14
28.900	0.00	0.0	7.6	8.0	0.17	5172.14
29.000	0.00	0.0	7.3	7.6	0.16	5172.13
29.100	0.00	0.0	7.0	7.3	0.15	5172.13
29.200	0.00	0.0	6.7	7.0	0.15	5172.12
29.300	0.00	0.0	6.4	6.7	0.14	5172.12
29.400	0.00	0.0	6.2	6.4	0.13	5172.11
29.500	0.00	0.0	5.9	6.2	0.13	5172.11
29.600	0.00	0.0	5.7	5.9	0.12	5172.10
29.700	0.00	0.0	5.4	5.7	0.12	5172.10
29.800	0.00	0.0	5.2	5.4	0.11	5172.09
29.900	0.00	0.0	5.0	5.2	0.11	5172.09
30.000	0.00	0.0	4.8	5.0	0.10	5172.09

********** SUMMARY OF ROUTING COMPUTATIONS **********

Pond File: C:\POND2\ROSE2-5 .PND
Inflow Hydrograph: C:\POND2\ROSE2-5I.HYD
Outflow Hydrograph: C:\POND2\ROSE2-5O.HYD

Starting Pond W.S. Elevation = 5172.00 ft

***** Summary of Peak Outflow and Peak Elevation *****

Peak Inflow	=	35.25 cfs
Peak Outflow	=	7.70 cfs
Peak Elevation	=	5176.63 ft

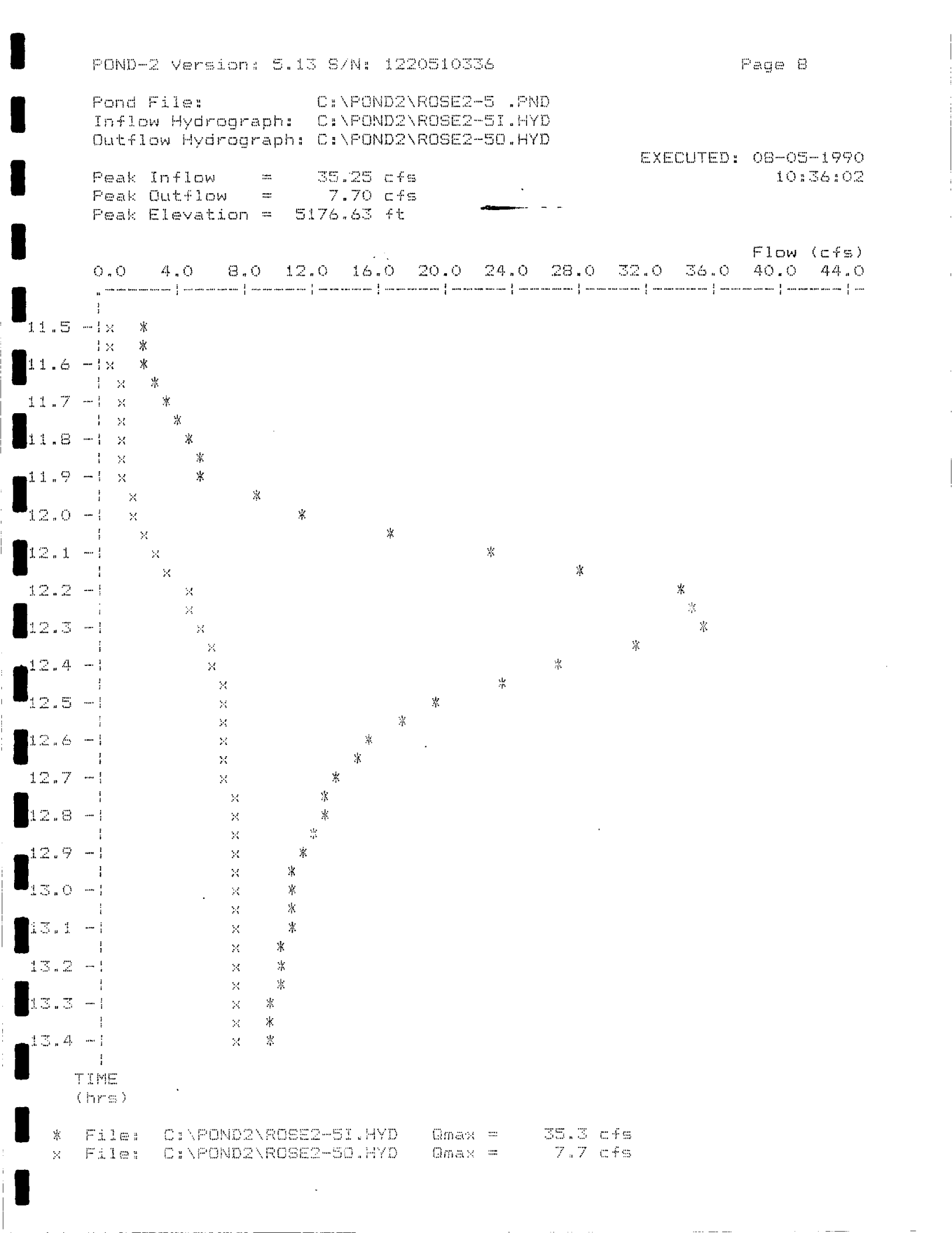
***** Summary of Approximate Peak Storage *****

Initial Storage	=	0.00 ac-ft
Peak Storage From Storm	=	1.56 ac-ft
Total Storage in Pond	=	1.56 ac-ft

Pond File: C:\POND2\ROSE2-5 .PND
Inflow Hydrograph: C:\POND2\ROSE2-5I.HYD
Outflow Hydrograph: C:\POND2\ROSE2-50.HYD

EXECUTED: 08-05-1990
10:36:02

Peak Inflow = 35.25 cfs
Peak Outflow = 7.70 cfs
Peak Elevation = 5176.63 ft



* File: C:\POND2\ROSE2-5I.HYD Qmax = 35.3 cfs
x File: C:\POND2\ROSE2-50.HYD Qmax = 7.7 cfs

```
*****************************************************************
*                                                               *
*                  ROSEWOOD WASH DRAINAGE BASIN                 *
*   POND #2  SECOND POND IN A SERIES (NEAR MIDDLE OF PROJECT)   *
*                        100 YEAR STORM                         *
*        CODEGA & FRICKE, INC     8-5-90     GMP   1016.10     *
*                                                               *
*****************************************************************
```

Inflow Hydrograph: C:\POND2\ROSE2-CI.HYD
Rating Table file: C:\POND2\ROSE2-C .PND

-----INITIAL CONDITIONS-----
Elevation = 5172.00 ft
Outflow = 0.00 cfs
Storage = 0.00 ac-ft

GIVEN POND DATA

ELEVATION (ft)	OUTFLOW (cfs)	STORAGE (ac-ft)
5172.00	0.0	0.000
5172.50	0.6	0.117
5173.00	2.0	0.245
5173.50	3.4	0.385
5174.00	4.4	0.537
5174.50	5.2	0.701
5175.00	5.9	0.880
5175.50	6.5	1.072
5176.00	7.0	1.278
5176.50	7.6	1.499
5177.00	8.0	1.735
5177.50	9.6	1.988
5178.00	12.9	2.257
5178.50	17.5	2.542
5179.00	23.5	2.845
5179.50	30.3	3.167
5180.00	36.2	3.506

INTERMEDIATE ROUTING COMPUTATIONS

2S/t (cfs)	2S/t + O (cfs)
0.0	0.0
28.3	28.9
59.2	61.2
93.1	96.5
129.9	134.3
169.8	175.0
212.9	218.8
259.3	265.8
309.2	316.2
362.8	370.4
420.0	428.0
481.1	490.7
546.1	559.0
615.2	632.7
689.6	712.1
766.3	796.6
848.5	884.7

Time increment (t) = 0.100 hrs.

Pond File: C:\POND2\ROSE2-C .PND
Inflow Hydrograph: C:\POND2\ROSE2-CI.HYD
Outflow Hydrograph: C:\POND2\ROSE2-CO.HYD

INFLOW HYDROGRAPH — ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
10.000	0.00	------	0.0	0.0	0.00	5172.00
10.100	0.00	0.0	0.0	0.0	0.00	5172.00
10.200	0.00	0.0	0.0	0.0	0.00	5172.00
10.300	0.00	0.0	0.0	0.0	0.00	5172.00
10.400	0.00	0.0	0.0	0.0	0.00	5172.00
10.500	0.00	0.0	0.0	0.0	0.00	5172.00
10.600	0.00	0.0	0.0	0.0	0.00	5172.00
10.700	0.00	0.0	0.0	0.0	0.00	5172.00
10.800	0.00	0.0	0.0	0.0	0.00	5172.00
10.900	0.00	0.0	0.0	0.0	0.00	5172.00
11.000	2.00	2.0	1.9	2.0	0.04	5172.03
11.100	2.28	4.3	5.9	6.2	0.13	5172.11
11.200	3.58	5.9	11.3	11.8	0.25	5172.20
11.300	4.15	7.7	18.2	19.0	0.40	5172.33
11.400	5.64	9.8	26.9	28.0	0.58	5172.47
11.500	6.11	11.8	36.6	38.6	1.02	5172.65
11.600	7.52	13.6	47.2	50.2	1.52	5172.83
11.700	13.16	20.7	63.3	67.8	2.26	5173.09
11.800	19.99	33.2	89.7	96.5	3.40	5173.50
11.900	25.85	45.8	126.7	135.5	4.42	5174.02
12.000	45.91	71.8	187.3	198.4	5.57	5174.77
12.100	80.19	126.1	299.4	313.4	6.97	5175.97
12.200	87.55	167.7	449.2	467.2	9.00	5177.31
12.300	56.57	144.1	563.2	593.3	15.04	5178.23
12.400	37.03	93.6	618.2	656.8	19.32	5178.65
12.500	30.47	67.5	642.7	685.7	21.50	5178.83
12.600	28.83	59.3	656.5	702.0	22.73	5178.94
12.700	26.30	55.1	664.7	711.6	23.46	5179.00
12.800	24.27	50.6	667.8	715.3	23.75	5179.02
12.900	23.98	48.3	668.4	716.0	23.81	5179.02
13.000	22.57	46.6	667.5	714.9	23.73	5179.02
13.100	21.06	43.6	664.3	711.1	23.42	5178.99
13.200	20.47	41.5	659.7	705.8	23.02	5178.96
13.300	19.88	40.3	654.9	700.1	22.59	5178.92
13.400	18.41	38.3	649.1	693.2	22.07	5178.88
13.500	17.98	36.4	642.5	685.5	21.48	5178.83
13.600	17.58	35.6	636.2	678.0	20.92	5178.79
13.700	16.17	33.8	629.3	669.9	20.31	5178.73
13.800	15.76	31.9	621.9	661.2	19.65	5178.68
13.900	15.38	31.1	615.0	653.1	19.04	5178.63
14.000	15.05	30.4	608.5	645.4	18.46	5178.58
14.100	14.86	29.9	602.6	638.4	17.93	5178.54
14.200	13.65	28.5	596.3	631.1	17.40	5178.49
14.300	13.43	27.1	589.5	623.4	16.91	5178.44
14.400	13.22	26.7	583.3	616.2	16.47	5178.39

Pond File: C:\POND2\ROSE2-C .PND
Inflow Hydrograph: C:\POND2\ROSE2-CI.HYD
Outflow Hydrograph: C:\POND2\ROSE2-CO.HYD

INFLOW HYDROGRAPH		ROUTING COMPUTATIONS				
TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
14.500	13.01	26.2	577.4	609.5	16.05	5178.34
14.600	12.82	25.8	571.9	603.2	15.66	5178.30
14.700	12.68	25.5	566.8	597.4	15.29	5178.26
14.800	12.62	25.3	562.2	592.1	14.96	5178.22
14.900	12.55	25.2	558.0	587.4	14.67	5178.19
15.000	12.48	25.0	554.2	583.0	14.40	5178.16
15.100	12.42	24.9	550.8	579.1	14.16	5178.14
15.200	12.35	24.8	547.7	575.6	13.94	5178.11
15.300	12.29	24.6	544.9	572.4	13.73	5178.09
15.400	12.22	24.5	542.3	569.4	13.55	5178.07
15.500	12.15	24.4	539.9	566.7	13.38	5178.05
15.600	12.08	24.2	537.7	564.2	13.22	5178.03
15.700	12.02	24.1	535.7	561.8	13.08	5178.02
15.800	10.95	23.0	532.9	558.6	12.88	5178.00
15.900	10.89	21.8	529.3	554.7	12.69	5177.97
16.000	10.82	21.7	526.0	551.0	12.52	5177.94
16.100	10.76	21.6	522.9	547.6	12.35	5177.92
16.200	10.68	21.4	519.9	544.3	12.19	5177.89
16.300	10.61	21.3	517.2	541.2	12.04	5177.87
16.400	10.52	21.1	514.5	538.3	11.90	5177.85
16.500	10.41	20.9	511.9	535.4	11.76	5177.83
16.600	10.29	20.7	509.3	532.6	11.62	5177.81
16.700	10.17	20.5	506.8	529.8	11.49	5177.79
16.800	10.06	20.2	504.3	527.1	11.36	5177.77
16.900	9.95	20.0	501.9	524.4	11.23	5177.75
17.000	9.86	19.8	499.5	521.7	11.10	5177.73
17.100	9.76	19.6	497.2	519.1	10.97	5177.71
17.200	9.67	19.4	494.9	516.6	10.85	5177.69
17.300	9.56	19.2	492.7	514.1	10.73	5177.67
17.400	9.41	19.0	490.4	511.6	10.61	5177.65
17.500	9.26	18.7	488.1	509.1	10.49	5177.63
17.600	9.12	18.4	485.8	506.5	10.36	5177.62
17.700	8.98	18.1	483.4	503.9	10.24	5177.60
17.800	8.86	17.8	481.0	501.2	10.11	5177.58
17.900	8.73	17.6	478.6	498.6	9.98	5177.56
18.000	8.61	17.3	476.3	496.0	9.86	5177.54
18.100	8.49	17.1	473.9	493.4	9.73	5177.52
18.200	8.33	16.8	471.5	490.7	9.60	5177.50
18.300	8.18	16.5	469.0	488.0	9.53	5177.48
18.400	8.04	16.2	466.3	485.2	9.46	5177.46
18.500	7.90	15.9	463.4	482.2	9.38	5177.43
18.600	7.72	15.6	460.4	479.0	9.30	5177.41
18.700	7.55	15.3	457.3	475.7	9.22	5177.38
18.800	7.38	14.9	453.9	472.2	9.13	5177.35
18.900	7.23	14.6	450.5	468.6	9.04	5177.32
19.000	7.04	14.3	446.9	464.6	8.94	5177.29

Pond File: C:\POND2\ROSE2-C .PND
Inflow Hydrograph: C:\POND2\ROSE2-CI.HYD
Outflow Hydrograph: C:\POND2\ROSE2-CO.HYD

INFLOW HYDROGRAPH		ROUTING COMPUTATIONS				
TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
19.100	6.85	13.9	443.1	460.8	8.84	5177.26
19.200	6.68	13.5	439.2	456.6	8.73	5177.23
19.300	6.51	13.2	435.1	452.4	8.62	5177.19
19.400	6.34	12.9	430.9	448.0	8.51	5177.16
19.500	6.14	12.5	426.6	443.4	8.39	5177.12
19.600	4.90	11.0	421.2	437.7	8.25	5177.08
19.700	4.65	9.6	414.6	430.7	8.07	5177.02
19.800	4.42	9.1	407.7	423.7	7.97	5176.96
19.900	4.08	8.5	400.4	416.2	7.92	5176.90
20.000	3.78	7.9	392.5	408.2	7.86	5176.83
20.100	3.53	7.3	384.2	399.8	7.80	5176.76
20.200	3.31	6.8	375.6	391.1	7.74	5176.68
20.300	3.12	6.4	366.6	382.0	7.68	5176.60
20.400	2.96	6.1	357.5	372.7	7.62	5176.52
20.500	2.79	5.8	348.2	363.2	7.52	5176.43
20.600	2.66	5.5	338.8	353.6	7.41	5176.35
20.700	2.55	5.2	329.4	344.0	7.31	5176.26
20.800	2.45	5.0	320.0	334.4	7.20	5176.17
20.900	2.38	4.8	310.6	324.8	7.10	5176.08
21.000	2.31	4.7	301.4	315.3	6.99	5175.99
21.100	2.26	4.6	292.1	305.9	6.90	5175.90
21.200	2.21	4.5	283.0	296.6	6.81	5175.81
21.300	2.18	4.4	273.9	287.4	6.71	5175.71
21.400	2.15	4.3	265.0	276.3	6.62	5175.62
21.500	2.12	4.3	256.2	269.3	6.53	5175.53
21.600	2.10	4.2	247.6	260.5	6.43	5175.44
21.700	2.08	4.2	239.1	251.8	6.32	5175.35
21.800	2.07	4.2	230.9	243.3	6.21	5175.26
21.900	2.06	4.1	222.8	235.0	6.11	5175.17
22.000	2.05	4.1	214.9	226.9	6.00	5175.09
22.100	2.04	4.1	207.2	219.0	5.90	5175.00
22.200	2.03	4.1	199.7	211.2	5.78	5174.91
22.300	2.03	4.1	192.4	203.7	5.66	5174.83
22.400	2.02	4.1	185.4	196.5	5.54	5174.75
22.500	2.02	4.0	178.5	189.4	5.43	5174.66
22.600	2.02	4.0	171.9	182.6	5.32	5174.59
22.700	2.01	4.0	165.5	176.0	5.22	5174.51
22.800	2.01	4.0	159.4	169.6	5.09	5174.43
22.900	2.01	4.0	153.4	163.4	4.97	5174.36
23.000	2.01	4.0	147.8	157.5	4.86	5174.29
23.100	2.01	4.0	142.3	151.8	4.74	5174.22
23.200	2.01	4.0	137.0	146.3	4.64	5174.15
23.300	2.00	4.0	132.0	141.0	4.53	5174.08
23.400	2.00	4.0	127.1	136.0	4.43	5174.02
23.500	2.00	4.0	122.5	131.1	4.32	5173.96
23.600	2.00	4.0	118.1	126.5	4.19	5173.90

Pond File: C:\POND2\ROSE2-C .PND
Inflow Hydrograph: C:\POND2\ROSE2-CI.HYD
Outflow Hydrograph: C:\POND2\ROSE2-CO.HYD

INFLOW HYDROGRAPH — ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
23.700	2.00	4.0	113.9	122.1	4.08	5173.84
23.800	2.00	4.0	110.0	117.9	3.97	5173.78
23.900	2.00	4.0	106.3	114.0	3.86	5173.73
24.000	0.92	2.9	101.7	109.2	3.74	5173.67
24.100	0.76	1.7	96.2	103.4	3.58	5173.59
24.200	0.63	1.4	90.8	97.6	3.43	5173.52
24.300	0.56	1.2	85.5	92.0	3.22	5173.44
24.400	0.51	1.1	80.6	86.6	3.01	5173.36
24.500	0.46	1.0	75.9	81.5	2.81	5173.29
24.600	0.41	0.9	71.6	76.8	2.62	5173.22
24.700	0.38	0.8	67.5	72.3	2.44	5173.16
24.800	0.34	0.7	63.6	68.2	2.28	5173.10
24.900	0.31	0.7	60.0	64.3	2.12	5173.04
25.000	0.28	0.6	56.7	60.6	1.97	5172.99
25.100	0.25	0.5	53.6	57.2	1.83	5172.94
25.200	0.23	0.5	50.7	54.0	1.69	5172.89
25.300	0.21	0.4	48.0	51.1	1.56	5172.84
25.400	0.19	0.4	45.5	48.4	1.44	5172.80
25.500	0.17	0.4	43.2	45.9	1.33	5172.76
25.600	0.15	0.3	41.0	43.5	1.23	5172.73
25.700	0.14	0.3	39.1	41.3	1.14	5172.69
25.800	0.13	0.3	37.2	39.3	1.05	5172.66
25.900	0.11	0.2	35.5	37.5	0.97	5172.63
26.000	0.00	0.1	33.8	35.6	0.89	5172.60
26.100	0.00	0.0	32.2	33.8	0.82	5172.58
26.200	0.00	0.0	30.7	32.2	0.74	5172.55
26.300	0.00	0.0	29.4	30.7	0.68	5172.53
26.400	0.00	0.0	28.1	29.4	0.62	5172.51
26.500	0.00	0.0	26.9	28.1	0.58	5172.49
26.600	0.00	0.0	25.8	26.9	0.56	5172.47
26.700	0.00	0.0	24.8	25.8	0.54	5172.45
26.800	0.00	0.0	23.7	24.8	0.51	5172.43
26.900	0.00	0.0	22.7	23.7	0.49	5172.41
27.000	0.00	0.0	21.8	22.7	0.47	5172.39
27.100	0.00	0.0	20.9	21.8	0.45	5172.38
27.200	0.00	0.0	20.0	20.9	0.43	5172.36
27.300	0.00	0.0	19.2	20.0	0.42	5172.35
27.400	0.00	0.0	18.4	19.2	0.40	5172.33
27.500	0.00	0.0	17.6	18.4	0.38	5172.32
27.600	0.00	0.0	16.9	17.6	0.37	5172.31
27.700	0.00	0.0	16.2	16.9	0.35	5172.29
27.800	0.00	0.0	15.5	16.2	0.34	5172.28
27.900	0.00	0.0	14.9	15.5	0.32	5172.27
28.000	0.00	0.0	14.3	14.9	0.31	5172.26
28.100	0.00	0.0	13.7	14.3	0.30	5172.25
28.200	0.00	0.0	13.1	13.7	0.28	5172.24

Pond File: C:\POND2\ROSE2-C .PND
Inflow Hydrograph: C:\POND2\ROSE2-CI.HYD
Outflow Hydrograph: C:\POND2\ROSE2-CO.HYD

INFLOW HYDROGRAPH

TIME (hrs)	INFLOW (cfs)
28.300	0.00
28.400	0.00
28.500	0.00
28.600	0.00
28.700	0.00
28.800	0.00
28.900	0.00
29.000	0.00
29.100	0.00
29.200	0.00
29.300	0.00
29.400	0.00
29.500	0.00
29.600	0.00
29.700	0.00
29.800	0.00
29.900	0.00
30.000	0.00

ROUTING COMPUTATIONS

I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
0.0	12.5	13.1	0.27	5172.23
0.0	12.0	12.5	0.26	5172.22
0.0	11.5	12.0	0.25	5172.21
0.0	11.0	11.5	0.24	5172.20
0.0	10.6	11.0	0.23	5172.19
0.0	10.1	10.6	0.22	5172.18
0.0	9.7	10.1	0.21	5172.18
0.0	9.3	9.7	0.20	5172.17
0.0	8.9	9.3	0.19	5172.16
0.0	8.6	8.9	0.19	5172.15
0.0	8.2	8.6	0.18	5172.15
0.0	7.9	8.2	0.17	5172.14
0.0	7.5	7.9	0.16	5172.14
0.0	7.2	7.5	0.16	5172.13
0.0	6.9	7.2	0.15	5172.13
0.0	6.6	6.9	0.14	5172.12
0.0	6.4	6.6	0.14	5172.11
0.0	6.1	6.4	0.13	5172.11

********** SUMMARY OF ROUTING COMPUTATIONS **********

Pond File: C:\POND2\ROSE2-C .PND
Inflow Hydrograph: C:\POND2\ROSE2-CI.HYD
Outflow Hydrograph: C:\POND2\ROSE2-CO.HYD

Starting Pond W.S. Elevation = 5172.00 ft

***** Summary of Peak Outflow and Peak Elevation *****

Peak Inflow	=	87.55 cfs
Peak Outflow	=	23.81 cfs
Peak Elevation	=	5179.02 ft

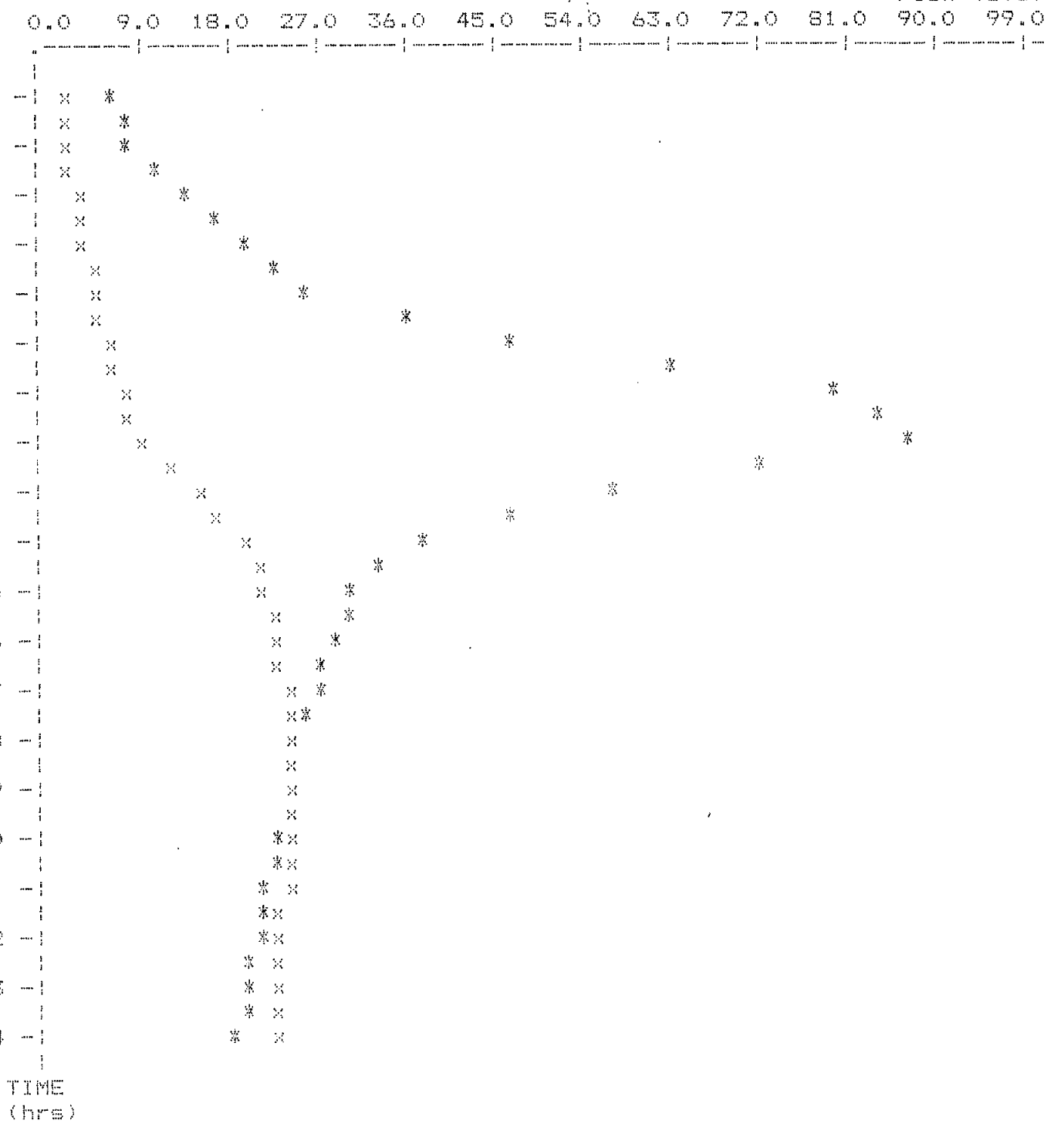
***** Summary of Approximate Peak Storage *****

Initial Storage	=	0.00 ac-ft
Peak Storage From Storm	=	2.86 ac-ft
Total Storage in Pond	=	2.86 ac-ft

Pond File: C:\POND2\ROSE2-C .PND
Inflow Hydrograph: C:\POND2\ROSE2-CI.HYD
Outflow Hydrograph: C:\POND2\ROSE2-CO.HYD

EXECUTED: 08-05-1990
10:38:30

Peak Inflow = 87.55 cfs
Peak Outflow = 23.81 cfs
Peak Elevation = 5179.02 ft



* File: C:\POND2\ROSE2-CI.HYD Qmax = 87.6 cfs
x File: C:\POND2\ROSE2-CO.HYD Qmax = 23.8 cfs

```
*****************************************************************
*                                                               *
*                    ROSEWOOD WASH DRAINAGE BASIN               *
*   POND #3   THIRD POND IN A SERIES (NEAR MIDDLE OF PROJECT)   *
*                          5 YEAR STORM                         *
*        CODEGA & FRICKE, INC     8-5-90 - GMP   1016.10       *
*                                                               *
*****************************************************************
```

Inflow Hydrograph: C:\POND2\ROSE3-5I.HYD
Rating Table file: C:\POND2\ROSE3-5 .PND

-----INITIAL CONDITIONS-----
Elevation = 5170.00 ft
Outflow = 0.00 cfs
Storage = 0.00 ac-ft

GIVEN POND DATA

ELEVATION (ft)	OUTFLOW (cfs)	STORAGE (ac-ft)
5170.00	0.0	0.000
5170.50	0.9	0.066
5171.00	2.9	0.140
5171.50	5.5	0.220
5172.00	8.3	0.308
5172.50	10.3	0.404
5173.00	12.1	0.508
5173.50	14.7	0.620
5174.00	18.9	0.741
5174.50	24.4	0.871
5175.00	31.0	1.011

INTERMEDIATE ROUTING COMPUTATIONS

2S/t (cfs)	2S/t + O (cfs)
0.0	0.0
16.1	16.9
33.8	36.7
53.3	58.8
74.5	82.8
97.7	108.0
122.8	134.9
150.0	164.7
179.3	198.2
210.8	235.2
244.7	275.7

Time increment (t) = 0.100 hrs.

Pond File: C:\POND2\ROSE3-5 .PND
Inflow Hydrograph: C:\POND2\ROSE3-5I.HYD
Outflow Hydrograph: C:\POND2\ROSE3-5O.HYD

INFLOW HYDROGRAPH — ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
10.000	0.00	-----	0.0	0.0	0.00	5170.00
10.100	0.00	0.0	0.0	0.0	0.00	5170.00
10.200	0.00	0.0	0.0	0.0	0.00	5170.00
10.300	0.00	0.0	0.0	0.0	0.00	5170.00
10.400	0.00	0.0	0.0	0.0	0.00	5170.00
10.500	0.00	0.0	0.0	0.0	0.00	5170.00
10.600	0.00	0.0	0.0	0.0	0.00	5170.00
10.700	0.00	0.0	0.0	0.0	0.00	5170.00
10.800	0.00	0.0	0.0	0.0	0.00	5170.00
10.900	0.00	0.0	0.0	0.0	0.00	5170.00
11.000	0.02	0.0	0.0	0.0	0.00	5170.00
11.100	0.06	0.1	0.1	0.1	0.00	5170.00
11.200	0.10	0.2	0.2	0.2	0.01	5170.01
11.300	0.14	0.2	0.4	0.5	0.02	5170.01
11.400	0.17	0.3	0.7	0.7	0.03	5170.02
11.500	1.23	1.4	1.9	2.1	0.10	5170.06
11.600	1.31	2.5	4.0	4.4	0.21	5170.13
11.700	1.41	2.7	6.1	6.7	0.32	5170.20
11.800	1.55	3.0	8.2	9.0	0.43	5170.27
11.900	1.88	3.4	10.5	11.6	0.55	5170.34
12.000	4.55	6.4	15.3	16.9	0.81	5170.50
12.100	7.80	12.4	23.8	27.7	1.94	5170.77
12.200	12.35	20.2	36.4	43.9	3.75	5171.16
12.300	13.49	25.8	50.5	62.3	5.91	5171.57
12.400	12.22	25.7	61.1	76.2	7.53	5171.86
12.500	9.62	21.8	66.3	83.0	8.31	5172.00
12.600	8.83	18.5	67.9	84.8	8.46	5172.04
12.700	8.98	17.8	68.6	85.7	8.53	5172.06
12.800	8.11	17.1	68.7	85.7	8.53	5172.06
12.900	8.21	16.3	68.0	85.0	8.47	5172.04
13.000	8.30	16.5	67.7	84.5	8.44	5172.03
13.100	8.36	16.7	67.5	84.3	8.42	5172.03
13.200	8.43	16.8	67.4	84.3	8.42	5172.03
13.300	8.48	16.9	67.5	84.4	8.42	5172.03
13.400	8.52	17.0	67.6	84.5	8.43	5172.03
13.500	8.55	17.1	67.8	84.7	8.45	5172.04
13.600	8.59	17.1	68.0	85.0	8.47	5172.04
13.700	8.61	17.2	68.2	85.2	8.49	5172.05
13.800	8.63	17.2	68.5	85.5	8.51	5172.05
13.900	8.64	17.3	68.7	85.7	8.53	5172.06
14.000	8.66	17.3	68.9	86.0	8.55	5172.06
14.100	8.67	17.3	69.1	86.2	8.57	5172.07
14.200	7.68	16.4	68.4	85.4	8.51	5172.05
14.300	7.69	15.4	67.0	83.8	8.38	5172.02
14.400	7.70	15.4	65.9	82.4	8.25	5171.99

Pond File: C:\POND2\ROSE3-5 .PND
Inflow Hydrograph: C:\POND2\ROSE3-5I.HYD
Outflow Hydrograph: C:\POND2\ROSE3-5O.HYD

INFLOW HYDROGRAPH — ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
14.500	7.70	15.4	65.1	81.3	8.12	5171.97
14.600	7.69	15.4	64.4	80.4	8.02	5171.95
14.700	7.68	15.4	63.9	79.8	7.94	5171.94
14.800	7.66	15.3	63.5	79.2	7.88	5171.93
14.900	7.65	15.3	63.1	78.8	7.83	5171.92
15.000	7.63	15.3	62.8	78.4	7.78	5171.91
15.100	7.61	15.2	62.6	78.1	7.75	5171.90
15.200	7.58	15.2	62.3	77.8	7.71	5171.89
15.300	7.54	15.1	62.1	77.5	7.68	5171.89
15.400	7.50	15.0	61.9	77.1	7.64	5171.88
15.500	7.45	15.0	61.6	76.8	7.60	5171.88
15.600	7.40	14.9	61.3	76.5	7.56	5171.87
15.700	7.35	14.8	61.1	76.1	7.52	5171.86
15.800	7.30	14.7	60.8	75.7	7.47	5171.85
15.900	7.24	14.5	60.5	75.3	7.43	5171.84
16.000	7.18	14.4	60.1	74.9	7.38	5171.83
16.100	7.12	14.3	59.8	74.4	7.32	5171.83
16.200	7.06	14.2	59.4	74.0	7.27	5171.82
16.300	6.99	14.1	59.0	73.5	7.21	5171.81
16.400	6.93	13.9	58.7	73.0	7.15	5171.80
16.500	6.86	13.8	58.3	72.5	7.09	5171.78
16.600	6.79	13.7	57.9	71.9	7.03	5171.77
16.700	6.72	13.5	57.4	71.4	6.97	5171.76
16.800	6.64	13.4	57.0	70.9	6.90	5171.75
16.900	6.56	13.2	56.5	70.2	6.83	5171.74
17.000	6.48	13.0	56.1	69.6	6.76	5171.72
17.100	6.38	12.9	55.6	68.9	6.68	5171.71
17.200	6.28	12.7	55.0	68.2	6.60	5171.70
17.300	6.18	12.5	54.4	67.5	6.51	5171.68
17.400	6.08	12.3	53.9	66.7	6.42	5171.67
17.500	5.99	12.1	53.3	65.9	6.33	5171.65
17.600	5.89	11.9	52.7	65.1	6.24	5171.63
17.700	5.77	11.7	52.0	64.3	6.15	5171.62
17.800	5.65	11.4	51.3	63.4	6.04	5171.60
17.900	5.54	11.2	50.7	62.5	5.94	5171.58
18.000	5.43	11.0	50.0	61.6	5.83	5171.56
18.100	5.32	10.8	49.3	60.7	5.73	5171.54
18.200	5.22	10.5	48.6	59.8	5.62	5171.52
18.300	5.10	10.3	47.8	58.9	5.51	5171.50
18.400	4.98	10.1	47.1	57.9	5.40	5171.48
18.500	4.86	9.8	46.4	57.0	5.29	5171.46
18.600	4.75	9.6	45.6	56.0	5.17	5171.44
18.700	4.65	9.4	44.9	55.0	5.06	5171.42
18.800	4.54	9.2	44.2	54.1	4.95	5171.39
18.900	4.44	9.0	43.5	53.2	4.84	5171.37
19.000	4.33	8.8	42.8	52.3	4.74	5171.35

Pond File: C:\POND2\ROSE3-5 .PND
Inflow Hydrograph: C:\POND2\ROSE3-5I.HYD
Outflow Hydrograph: C:\POND2\ROSE3-5O.HYD

INFLOW HYDROGRAPH		ROUTING COMPUTATIONS				
TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
19.100	4.21	8.5	42.1	51.3	4.63	5171.33
19.200	4.09	8.3	41.4	50.4	4.51	5171.31
19.300	3.98	8.1	40.6	49.4	4.40	5171.29
19.400	3.88	7.9	39.9	48.5	4.29	5171.27
19.500	3.78	7.7	39.2	47.6	4.18	5171.25
19.600	3.68	7.5	38.5	46.7	4.07	5171.23
19.700	3.59	7.3	37.8	45.8	3.97	5171.21
19.800	3.51	7.1	37.2	44.9	3.87	5171.19
19.900	3.43	6.9	36.6	44.1	3.78	5171.17
20.000	3.33	6.8	36.0	43.3	3.68	5171.15
20.100	3.23	6.6	35.4	42.5	3.59	5171.13
20.200	3.13	6.4	34.7	41.7	3.49	5171.11
20.300	3.04	6.2	34.1	40.9	3.40	5171.10
20.400	2.96	6.0	33.5	40.1	3.30	5171.08
20.500	2.88	5.8	32.9	39.4	3.21	5171.06
20.600	2.81	5.7	32.4	38.6	3.13	5171.04
20.700	2.75	5.6	31.8	37.9	3.04	5171.03
20.800	2.69	5.4	31.3	37.3	2.97	5171.01
20.900	2.63	5.3	30.9	36.7	2.90	5171.00
21.000	2.58	5.2	30.4	36.1	2.83	5170.98
21.100	2.54	5.1	30.0	35.5	2.78	5170.97
21.200	2.49	5.0	29.6	35.0	2.72	5170.96
21.300	2.45	4.9	29.2	34.5	2.67	5170.94
21.400	2.42	4.9	28.8	34.0	2.62	5170.93
21.500	2.38	4.8	28.5	33.6	2.57	5170.92
21.600	2.35	4.7	28.1	33.2	2.53	5170.91
21.700	2.33	4.7	27.8	32.8	2.49	5170.90
21.800	2.30	4.6	27.6	32.5	2.45	5170.89
21.900	2.28	4.6	27.3	32.1	2.42	5170.89
22.000	2.25	4.5	27.1	31.8	2.39	5170.88
22.100	2.23	4.5	26.8	31.6	2.35	5170.87
22.200	2.22	4.5	26.6	31.3	2.33	5170.86
22.300	2.20	4.4	26.5	31.1	2.30	5170.86
22.400	2.18	4.4	26.3	30.8	2.28	5170.85
22.500	2.17	4.4	26.1	30.6	2.26	5170.85
22.600	2.15	4.3	26.0	30.4	2.24	5170.84
22.700	2.14	4.3	25.8	30.3	2.22	5170.84
22.800	2.13	4.3	25.7	30.1	2.20	5170.83
22.900	2.12	4.3	25.6	29.9	2.18	5170.83
23.000	2.11	4.2	25.5	29.8	2.17	5170.83
23.100	2.10	4.2	25.4	29.7	2.16	5170.82
23.200	2.09	4.2	25.3	29.6	2.14	5170.82
23.300	2.09	4.2	25.2	29.4	2.13	5170.82
23.400	2.08	4.2	25.1	29.4	2.12	5170.81
23.500	2.07	4.2	25.0	29.3	2.11	5170.81
23.600	2.07	4.1	25.0	29.2	2.10	5170.81

Pond File: C:\POND2\ROSE3-5 .PND
Inflow Hydrograph: C:\POND2\ROSE3-5I.HYD
Outflow Hydrograph: C:\POND2\ROSE3-5O.HYD

INFLOW HYDROGRAPH		ROUTING COMPUTATIONS				
TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
23.700	2.06	4.1	24.9	29.1	2.09	5170.81
23.800	2.06	4.1	24.9	29.0	2.09	5170.81
23.900	2.05	4.1	24.8	29.0	2.08	5170.80
24.000	2.01	4.1	24.7	28.9	2.07	5170.80
24.100	1.90	3.9	24.5	28.6	2.05	5170.80
24.200	1.80	3.7	24.2	28.2	2.00	5170.79
24.300	1.70	3.5	23.8	27.7	1.95	5170.77
24.400	1.59	3.3	23.4	27.1	1.89	5170.76
24.500	1.50	3.1	22.8	26.4	1.81	5170.74
24.600	1.41	2.9	22.3	25.7	1.74	5170.72
24.700	1.32	2.7	21.7	25.0	1.66	5170.70
24.800	1.24	2.6	21.1	24.2	1.58	5170.69
24.900	1.16	2.4	20.5	23.5	1.50	5170.67
25.000	1.08	2.2	19.9	22.7	1.42	5170.65
25.100	1.01	2.1	19.3	22.0	1.34	5170.63
25.200	0.95	2.0	18.7	21.2	1.26	5170.61
25.300	0.88	1.8	18.2	20.6	1.19	5170.59
25.400	0.82	1.7	17.6	19.9	1.12	5170.58
25.500	0.77	1.6	17.1	19.2	1.05	5170.56
25.600	0.72	1.5	16.7	18.6	0.98	5170.54
25.700	0.67	1.4	16.2	18.0	0.92	5170.53
25.800	0.62	1.3	15.8	17.5	0.86	5170.52
25.900	0.59	1.2	15.3	17.0	0.81	5170.50
26.000	0.57	1.2	14.9	16.5	0.78	5170.49
26.100	0.54	1.1	14.5	16.1	0.76	5170.48
26.200	0.52	1.1	14.1	15.6	0.74	5170.46
26.300	0.50	1.0	13.7	15.1	0.72	5170.45
26.400	0.48	1.0	13.3	14.7	0.70	5170.43
26.500	0.46	0.9	12.9	14.2	0.67	5170.42
26.600	0.44	0.9	12.5	13.8	0.65	5170.41
26.700	0.42	0.9	12.1	13.3	0.63	5170.39
26.800	0.40	0.8	11.7	12.9	0.61	5170.38
26.900	0.39	0.8	11.3	12.5	0.59	5170.37
27.000	0.37	0.8	10.9	12.0	0.57	5170.36
27.100	0.36	0.7	10.5	11.6	0.55	5170.34
27.200	0.34	0.7	10.2	11.2	0.53	5170.33
27.300	0.33	0.7	9.8	10.8	0.51	5170.32
27.400	0.31	0.6	9.5	10.4	0.49	5170.31
27.500	0.30	0.6	9.1	10.1	0.48	5170.30
27.600	0.29	0.6	8.8	9.7	0.46	5170.29
27.700	0.28	0.6	8.5	9.3	0.44	5170.28
27.800	0.26	0.5	8.1	9.0	0.43	5170.27
27.900	0.25	0.5	7.8	8.7	0.41	5170.26
28.000	0.24	0.5	7.5	8.3	0.39	5170.25
28.100	0.23	0.5	7.2	8.0	0.38	5170.24
28.200	0.22	0.5	7.0	7.7	0.36	5170.23

Pond File: C:\POND2\ROSE3-5 .PND
Inflow Hydrograph: C:\POND2\ROSE3-5I.HYD
Outflow Hydrograph: C:\POND2\ROSE3-5O.HYD

INFLOW HYDROGRAPH

ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
28.300	0.21	0.4	6.7	7.4	0.35	5170.22
28.400	0.20	0.4	6.4	7.1	0.34	5170.21
28.500	0.20	0.4	6.2	6.8	0.32	5170.20
28.600	0.19	0.4	6.0	6.6	0.31	5170.19
28.700	0.18	0.4	5.7	6.3	0.30	5170.19
28.800	0.17	0.4	5.5	6.1	0.29	5170.18
28.900	0.17	0.3	5.3	5.8	0.28	5170.17
29.000	0.16	0.3	5.1	5.6	0.27	5170.17
29.100	0.15	0.3	4.9	5.4	0.26	5170.16
29.200	0.15	0.3	4.7	5.2	0.25	5170.15
29.300	0.14	0.3	4.5	5.0	0.24	5170.15
29.400	0.13	0.3	4.3	4.8	0.23	5170.14
29.500	0.13	0.3	4.1	4.6	0.22	5170.14
29.600	0.12	0.3	4.0	4.4	0.21	5170.13
29.700	0.12	0.2	3.8	4.2	0.20	5170.13
29.800	0.11	0.2	3.7	4.1	0.19	5170.12
29.900	0.11	0.2	3.5	3.9	0.18	5170.12
30.000	0.10	0.2	3.4	3.7	0.18	5170.11
30.100	0.00	0.1	3.1	3.5	0.16	5170.10
30.200	0.00	0.0	2.8	3.1	0.15	5170.09
30.300	0.00	0.0	2.6	2.8	0.14	5170.08
30.400	0.00	0.0	2.3	2.6	0.12	5170.08
30.500	0.00	0.0	2.1	2.3	0.11	5170.07
30.600	0.00	0.0	1.9	2.1	0.10	5170.06
30.700	0.00	0.0	1.7	1.9	0.09	5170.06
30.800	0.00	0.0	1.6	1.7	0.08	5170.05
30.900	0.00	0.0	1.4	1.6	0.07	5170.05
31.000	0.00	0.0	1.3	1.4	0.07	5170.04
31.100	0.00	0.0	1.2	1.3	0.06	5170.04
31.200	0.00	0.0	1.1	1.2	0.06	5170.03
31.300	0.00	0.0	1.0	1.1	0.05	5170.03
31.400	0.00	0.0	0.9	1.0	0.05	5170.03
31.500	0.00	0.0	0.8	0.9	0.04	5170.03
31.600	0.00	0.0	0.7	0.8	0.04	5170.02
31.700	0.00	0.0	0.6	0.7	0.03	5170.02
31.800	0.00	0.0	0.6	0.6	0.03	5170.02
31.900	0.00	0.0	0.5	0.6	0.03	5170.02
32.000	0.00	0.0	0.5	0.5	0.02	5170.02
32.100	0.00	0.0	0.4	0.5	0.02	5170.01
32.200	0.00	0.0	0.4	0.4	0.02	5170.01
32.300	0.00	0.0	0.4	0.4	0.02	5170.01
32.400	0.00	0.0	0.3	0.4	0.02	5170.01
32.500	0.00	0.0	0.3	0.3	0.02	5170.01
32.600	0.00	0.0	0.3	0.3	0.01	5170.01
32.700	0.00	0.0	0.2	0.3	0.01	5170.01
32.800	0.00	0.0	0.2	0.2	0.01	5170.01

Pond File: C:\POND2\ROSE3-5 .PND
Inflow Hydrograph: C:\POND2\ROSE3-5I.HYD
Outflow Hydrograph: C:\POND2\ROSE3-5O.HYD

INFLOW HYDROGRAPH

ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
32.900	0.00	0.0	0.2	0.2	0.01	5170.01
33.000	0.00	0.0	0.2	0.2	0.01	5170.01
33.100	0.00	0.0	0.2	0.2	0.01	5170.01
33.200	0.00	0.0	0.1	0.2	0.01	5170.00
33.300	0.00	0.0	0.1	0.1	0.01	5170.00
33.400	0.00	0.0	0.1	0.1	0.01	5170.00
33.500	0.00	0.0	0.1	0.1	0.01	5170.00
33.600	0.00	0.0	0.1	0.1	0.01	5170.00
33.700	0.00	0.0	0.1	0.1	0.00	5170.00
33.800	0.00	0.0	0.1	0.1	0.00	5170.00
33.900	0.00	0.0	0.1	0.1	0.00	5170.00
34.000	0.00	0.0	0.1	0.1	0.00	5170.00
34.100	0.00	0.0	0.1	0.1	0.00	5170.00
34.200	0.00	0.0	0.1	0.1	0.00	5170.00
34.300	0.00	0.0	0.0	0.1	0.00	5170.00
34.400	0.00	0.0	0.0	0.0	0.00	5170.00
34.500	0.00	0.0	0.0	0.0	0.00	5170.00
34.600	0.00	0.0	0.0	0.0	0.00	5170.00
34.700	0.00	0.0	0.0	0.0	0.00	5170.00
34.800	0.00	0.0	0.0	0.0	0.00	5170.00
34.900	0.00	0.0	0.0	0.0	0.00	5170.00
35.000	0.00	0.0	0.0	0.0	0.00	5170.00

********** SUMMARY OF ROUTING COMPUTATIONS **********

Pond File: C:\POND2\ROSE3-5 .PND
Inflow Hydrograph: C:\POND2\ROSE3-5I.HYD
Outflow Hydrograph: C:\POND2\ROSE3-5O.HYD

Starting Pond W.S. Elevation = 5170.00 ft

***** Summary of Peak Outflow and Peak Elevation *****

Peak Inflow	=	13.49 cfs
Peak Outflow	=	8.57 cfs
Peak Elevation	=	5172.07 ft

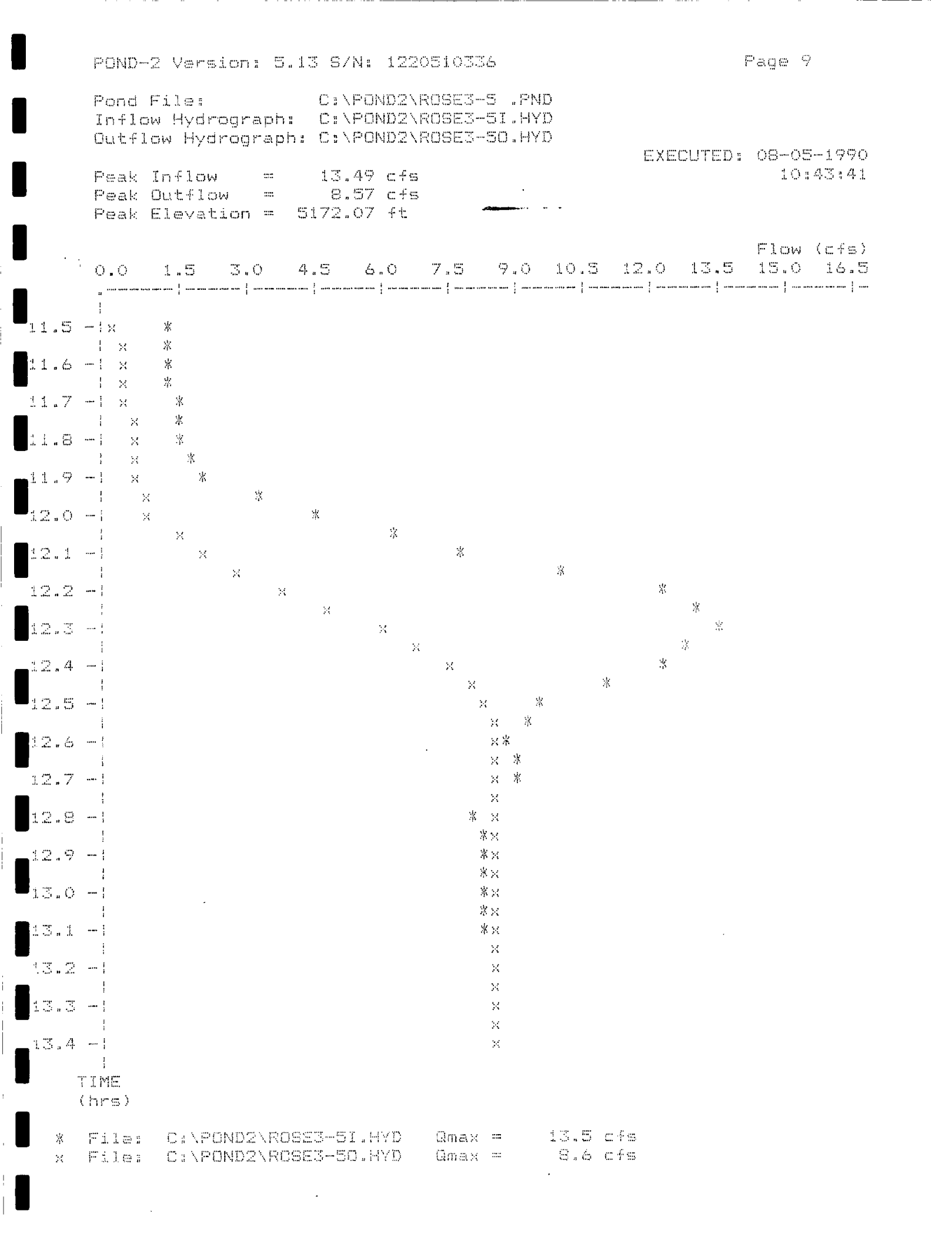
***** Summary of Approximate Peak Storage *****

Initial Storage	=	0.00 ac-ft
Peak Storage From Storm	=	0.32 ac-ft
Total Storage in Pond	=	0.32 ac-ft

Pond File: C:\POND2\ROSE3-5 .PND
Inflow Hydrograph: C:\POND2\ROSE3-5I.HYD
Outflow Hydrograph: C:\POND2\ROSE3-5O.HYD

EXECUTED: 08-05-1990
10:43:41

Peak Inflow = 13.49 cfs
Peak Outflow = 8.57 cfs
Peak Elevation = 5172.07 ft



```
*****************************************************************
*                                                               *
*                    ROSEWOOD WASH DRAINAGE BASIN               *
*   POND #3   THIRD POND IN A SERIES (NEAR MIDDLE OF PROJECT)   *
*                         100 YEAR STORM                        *
*         CODEGA & FRICKE, INC     8-3-90     GMP    1016.10    *
*                                                               *
*****************************************************************
```

Inflow Hydrograph: C:\POND2\ROSE3-CI.HYD
Rating Table file: C:\POND2\ROSE3-C .PND

-----INITIAL CONDITIONS-----
Elevation = 5170.00 ft
Outflow = 0.00 cfs
Storage = 0.00 ac-ft

GIVEN POND DATA

ELEVATION (ft)	OUTFLOW (cfs)	STORAGE (ac-ft)
5170.00	0.0	0.000
5170.50	0.8	0.066
5171.00	2.9	0.140
5171.50	5.5	0.220
5172.00	8.3	0.308
5172.50	10.3	0.404
5173.00	12.1	0.508
5173.50	14.7	0.620
5174.00	18.9	0.741
5174.50	24.4	0.871
5175.00	31.0	1.011

INTERMEDIATE ROUTING COMPUTATIONS

2S/t (cfs)	2S/t + O (cfs)
0.0	0.0
16.1	16.9
33.8	36.7
53.3	58.8
74.5	82.8
97.7	108.0
122.8	134.9
150.0	164.7
179.3	198.2
210.8	235.2
244.7	275.7

Time increment (t) = 0.100 hrs.

Pond File: C:\POND2\ROSE3-C .PND
Inflow Hydrograph: C:\POND2\ROSE3-CI.HYD
Outflow Hydrograph: C:\POND2\ROSE3-CO.HYD

INFLOW HYDROGRAPH		ROUTING COMPUTATIONS				
TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
10.000	0.00	------	0.0	0.0	0.00	5170.00
10.100	0.00	0.0	0.0	0.0	0.00	5170.00
10.200	0.00	0.0	0.0	0.0	0.00	5170.00
10.300	0.00	0.0	0.0	0.0	0.00	5170.00
10.400	0.00	0.0	0.0	0.0	0.00	5170.00
10.500	0.00	0.0	0.0	0.0	0.00	5170.00
10.600	0.00	0.0	0.0	0.0	0.00	5170.00
10.700	0.00	0.0	0.0	0.0	0.00	5170.00
10.800	0.00	0.0	0.0	0.0	0.00	5170.00
10.900	0.00	0.0	0.0	0.0	0.00	5170.00
11.000	1.04	1.0	0.9	1.0	0.05	5170.03
11.100	1.13	2.2	2.8	3.1	0.15	5170.09
11.200	1.25	2.4	4.7	5.2	0.25	5170.15
11.300	1.40	2.7	6.7	7.4	0.35	5170.22
11.400	1.58	3.0	8.7	9.6	0.46	5170.29
11.500	2.02	3.6	11.2	12.3	0.58	5170.37
11.600	2.52	4.5	14.2	15.7	0.74	5170.46
11.700	5.26	7.8	19.3	22.0	1.34	5170.65
11.800	7.40	12.7	27.2	32.0	2.40	5170.88
11.900	10.42	17.8	37.2	45.0	3.86	5171.19
12.000	16.57	27.0	52.0	64.2	6.14	5171.61
12.100	27.97	44.5	77.7	96.5	9.39	5172.27
12.200	31.00	59.0	112.2	136.7	12.25	5173.03
12.300	28.04	59.0	140.2	171.2	15.52	5173.60
12.400	26.32	54.4	157.7	194.5	18.44	5173.95
12.500	26.50	52.8	169.0	210.5	20.72	5174.17
12.600	26.73	53.2	177.3	222.3	22.47	5174.32
12.700	26.46	53.2	183.1	230.5	23.70	5174.44
12.800	25.75	52.2	186.5	235.3	24.41	5174.50
12.900	25.91	51.6	188.3	238.1	24.86	5174.53
13.000	25.73	51.5	189.6	239.9	25.16	5174.56
13.100	25.42	51.2	190.1	240.7	25.29	5174.57
13.200	25.02	50.4	190.0	240.6	25.27	5174.57
13.300	24.59	49.6	189.4	239.6	25.12	5174.55
13.400	24.07	48.7	188.3	238.1	24.86	5174.53
13.500	23.48	47.6	186.9	235.9	24.51	5174.51
13.600	21.92	45.4	184.4	232.3	23.96	5174.46
13.700	21.31	43.2	181.1	227.6	23.26	5174.40
13.800	20.65	42.0	177.9	223.0	22.59	5174.34
13.900	20.04	40.7	174.7	218.5	21.92	5174.27
14.000	19.46	39.5	171.7	214.2	21.28	5174.22
14.100	18.93	38.4	168.7	210.0	20.66	5174.16
14.200	18.40	37.3	165.9	206.1	20.07	5174.11
14.300	17.91	36.3	163.2	202.2	19.50	5174.05
14.400	17.47	35.4	160.7	198.6	18.96	5174.01

Pond File: C:\POND2\ROSE3-C .PND
Inflow Hydrograph: C:\POND2\ROSE3-CI.HYD
Outflow Hydrograph: C:\POND2\ROSE3-CO.HYD

INFLOW HYDROGRAPH | ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
14.500	17.05	34.5	158.2	195.2	18.53	5173.96
14.600	16.66	33.7	155.7	191.9	18.11	5173.91
14.700	16.29	33.0	153.2	188.6	17.70	5173.86
14.800	15.96	32.3	150.9	185.5	17.30	5173.81
14.900	15.67	31.6	148.6	182.5	16.93	5173.77
15.000	15.40	31.1	146.5	179.7	16.58	5173.72
15.100	15.16	30.6	144.6	177.1	16.25	5173.69
15.200	14.94	30.1	142.8	174.7	15.95	5173.65
15.300	14.73	29.7	141.1	172.5	15.67	5173.62
15.400	14.55	29.3	139.6	170.4	15.41	5173.58
15.500	14.38	28.9	138.1	168.5	15.18	5173.56
15.600	14.22	28.6	136.8	166.7	14.96	5173.53
15.700	14.08	28.3	135.6	165.1	14.75	5173.51
15.800	13.88	28.0	134.4	163.6	14.60	5173.48
15.900	13.69	27.6	133.0	161.9	14.46	5173.45
16.000	13.52	27.2	131.6	160.2	14.31	5173.43
16.100	13.35	26.9	130.2	158.5	14.16	5173.40
16.200	13.19	26.5	128.7	156.7	14.00	5173.37
16.300	13.04	26.2	127.2	154.9	13.85	5173.34
16.400	12.90	25.9	125.8	153.2	13.69	5173.31
16.500	12.76	25.7	124.4	151.5	13.54	5173.28
16.600	12.62	25.4	123.0	149.7	13.39	5173.25
16.700	12.49	25.1	121.6	148.1	13.25	5173.22
16.800	12.36	24.9	120.2	146.4	13.10	5173.19
16.900	12.23	24.6	118.9	144.8	12.96	5173.17
17.000	12.10	24.3	117.6	143.2	12.82	5173.14
17.100	11.97	24.1	116.3	141.6	12.69	5173.11
17.200	11.85	23.8	115.0	140.1	12.55	5173.09
17.300	11.73	23.6	113.7	138.6	12.42	5173.06
17.400	11.61	23.3	112.5	137.1	12.29	5173.04
17.500	11.49	23.1	111.3	135.6	12.16	5173.01
17.600	11.36	22.9	110.0	134.1	12.05	5172.99
17.700	11.24	22.6	108.7	132.6	11.95	5172.96
17.800	11.11	22.4	107.4	131.1	11.84	5172.93
17.900	10.98	22.1	106.0	129.5	11.74	5172.90
18.000	10.86	21.8	104.6	127.8	11.63	5172.87
18.100	10.73	21.6	103.2	126.2	11.52	5172.84
18.200	10.60	21.3	101.7	124.5	11.40	5172.81
18.300	10.53	21.1	100.2	122.8	11.29	5172.78
18.400	10.46	21.0	98.8	121.2	11.18	5172.75
18.500	9.38	19.8	96.7	118.7	11.02	5172.70
18.600	9.30	18.7	93.8	115.3	10.79	5172.64
18.700	9.22	18.5	91.1	112.3	10.59	5172.58
18.800	9.13	18.4	88.7	109.4	10.40	5172.53
18.900	9.04	18.2	86.4	106.8	10.21	5172.48
19.000	8.94	18.0	84.4	104.4	10.01	5172.43

Pond File: C:\POND2\ROSE3-C .PND
Inflow Hydrograph: C:\POND2\ROSE3-CI.HYD
Outflow Hydrograph: C:\POND2\ROSE3-CO.HYD

INFLOW HYDROGRAPH — ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
19.100	8.84	17.8	82.5	102.1	9.84	5172.38
19.200	8.73	17.6	80.7	100.0	9.67	5172.34
19.300	8.62	17.4	79.0	98.1	9.51	5172.30
19.400	8.51	17.1	77.4	96.2	9.36	5172.27
19.500	8.39	16.9	75.9	94.3	9.22	5172.23
19.600	8.25	16.6	74.4	92.5	9.07	5172.19
19.700	8.07	16.3	72.9	90.7	8.93	5172.16
19.800	7.97	16.0	71.3	86.9	8.78	5172.12
19.900	7.92	15.9	69.9	87.2	8.65	5172.09
20.000	7.86	15.8	68.7	85.7	8.53	5172.06
20.100	7.80	15.7	67.5	84.3	8.42	5172.03
20.200	7.74	15.5	66.4	83.0	8.32	5172.00
20.300	7.68	15.4	65.4	81.8	8.18	5171.98
20.400	7.62	15.3	64.6	80.7	8.06	5171.96
20.500	7.52	15.1	63.9	79.8	7.94	5171.94
20.600	7.41	14.9	63.1	78.8	7.83	5171.92
20.700	7.31	14.7	62.4	77.9	7.72	5171.90
20.800	7.20	14.5	61.7	76.9	7.61	5171.88
20.900	7.10	14.3	61.0	76.0	7.51	5171.86
21.000	6.99	14.1	60.3	75.1	7.40	5171.84
21.100	6.90	13.9	59.6	74.2	7.29	5171.82
21.200	6.81	13.7	58.9	73.3	7.19	5171.80
21.300	6.71	13.5	58.2	72.4	7.09	5171.78
21.400	6.62	13.3	57.6	71.6	6.99	5171.77
21.500	6.53	13.2	57.0	70.7	6.89	5171.75
21.600	6.43	13.0	56.3	69.9	6.80	5171.73
21.700	6.32	12.8	55.7	69.1	6.70	5171.71
21.800	6.21	12.5	55.0	68.2	6.60	5171.70
21.900	6.11	12.3	54.3	67.3	6.50	5171.68
22.000	6.00	12.1	53.7	66.4	6.39	5171.66
22.100	5.90	11.9	53.0	65.6	6.29	5171.64
22.200	5.78	11.7	52.3	64.7	6.19	5171.62
22.300	5.66	11.4	51.6	63.7	6.08	5171.60
22.400	5.54	11.2	50.8	62.8	5.97	5171.58
22.500	5.43	11.0	50.1	61.8	5.85	5171.56
22.600	5.32	10.8	49.4	60.8	5.74	5171.54
22.700	5.22	10.5	48.6	59.9	5.63	5171.52
22.800	5.09	10.3	47.9	58.9	5.52	5171.50
22.900	4.97	10.1	47.1	58.0	5.41	5171.48
23.000	4.86	9.9	46.4	57.0	5.29	5171.46
23.100	4.74	9.6	45.6	56.0	5.17	5171.44
23.200	4.64	9.4	44.9	55.0	5.06	5171.42
23.300	4.53	9.2	44.2	54.1	4.95	5171.39
23.400	4.43	9.0	43.5	53.1	4.84	5171.37
23.500	4.32	8.8	42.8	52.2	4.73	5171.35
23.600	4.19	8.5	42.0	51.3	4.62	5171.33

Pond File: C:\POND2\ROSE3-C .PND
Inflow Hydrograph: C:\POND2\ROSE3-CI.HYD
Outflow Hydrograph: C:\POND2\ROSE3-CO.HYD

INFLOW HYDROGRAPH

ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
23.700	4.08	8.3	41.3	50.3	4.50	5171.31
23.800	3.97	8.1	40.6	49.3	4.39	5171.29
23.900	3.86	7.8	39.8	48.4	4.28	5171.27
24.000	3.74	7.6	39.1	47.4	4.17	5171.24
24.100	3.58	7.3	38.3	46.4	4.05	5171.22
24.200	3.43	7.0	37.5	45.3	3.92	5171.20
24.300	3.22	6.7	36.6	44.2	3.78	5171.17
24.400	3.01	6.2	35.6	42.8	3.62	5171.14
24.500	2.81	5.8	34.5	41.4	3.45	5171.11
24.600	2.62	5.4	33.4	39.9	3.28	5171.07
24.700	2.44	5.1	32.2	38.4	3.10	5171.04
24.800	2.28	4.7	31.1	36.9	2.93	5171.01
24.900	2.12	4.4	29.9	35.5	2.77	5170.97
25.000	1.97	4.1	28.8	34.0	2.62	5170.93
25.100	1.83	3.8	27.7	32.6	2.47	5170.90
25.200	1.69	3.5	26.6	31.2	2.32	5170.86
25.300	1.56	3.3	25.5	29.8	2.17	5170.83
25.400	1.44	3.0	24.4	28.5	2.03	5170.79
25.500	1.33	2.8	23.4	27.2	1.89	5170.76
25.600	1.23	2.6	22.4	26.0	1.76	5170.73
25.700	1.14	2.4	21.5	24.8	1.64	5170.70
25.800	1.05	2.2	20.7	23.7	1.52	5170.67
25.900	0.97	2.0	19.9	22.7	1.42	5170.65
26.000	0.89	1.9	19.1	21.7	1.31	5170.62
26.100	0.82	1.7	18.4	20.8	1.22	5170.60
26.200	0.74	1.6	17.7	19.9	1.12	5170.58
26.300	0.68	1.4	17.0	19.1	1.04	5170.56
26.400	0.62	1.3	16.4	18.3	0.95	5170.54
26.500	0.58	1.2	15.9	17.6	0.88	5170.52
26.600	0.56	1.1	15.4	17.0	0.81	5170.50
26.700	0.54	1.1	14.9	16.5	0.78	5170.49
26.800	0.51	1.1	14.5	16.0	0.76	5170.47
26.900	0.49	1.0	14.0	15.5	0.73	5170.46
27.000	0.47	1.0	13.5	14.9	0.71	5170.44
27.100	0.45	0.9	13.1	14.4	0.68	5170.43
27.200	0.43	0.9	12.6	14.0	0.66	5170.41
27.300	0.42	0.9	12.2	13.5	0.64	5170.40
27.400	0.40	0.8	11.8	13.0	0.62	5170.39
27.500	0.38	0.8	11.4	12.6	0.60	5170.37
27.600	0.37	0.8	11.0	12.1	0.58	5170.36
27.700	0.35	0.7	10.6	11.7	0.55	5170.35
27.800	0.34	0.7	10.2	11.3	0.53	5170.33
27.900	0.32	0.7	9.8	10.9	0.52	5170.32
28.000	0.31	0.6	9.5	10.5	0.50	5170.31
28.100	0.30	0.6	9.1	10.1	0.48	5170.30
28.200	0.28	0.6	8.8	9.7	0.46	5170.29

Pond File: C:\POND2\ROSE3-C .PND
Inflow Hydrograph: C:\POND2\ROSE3-CI.HYD
Outflow Hydrograph: C:\POND2\ROSE3-CO.HYD

INFLOW HYDROGRAPH		ROUTING COMPUTATIONS				
TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
28.300	0.27	0.6	8.5	9.3	0.44	5170.28
28.400	0.26	0.5	8.1	9.0	0.43	5170.27
28.500	0.25	0.5	7.8	8.6	0.41	5170.26
28.600	0.24	0.5	7.5	8.3	0.39	5170.25
28.700	0.23	0.5	7.2	8.0	0.38	5170.24
28.800	0.22	0.5	7.0	7.7	0.36	5170.23
28.900	0.21	0.4	6.7	7.4	0.35	5170.22
29.000	0.20	0.4	6.4	7.1	0.34	5170.21
29.100	0.19	0.4	6.2	6.8	0.32	5170.20
29.200	0.19	0.4	5.9	6.5	0.31	5170.19
29.300	0.18	0.4	5.7	6.3	0.30	5170.19
29.400	0.17	0.4	5.5	6.1	0.29	5170.18
29.500	0.16	0.3	5.3	5.9	0.28	5170.17
29.600	0.16	0.3	5.0	5.6	0.26	5170.17
29.700	0.15	0.3	4.9	5.4	0.25	5170.16
29.800	0.14	0.3	4.7	5.1	0.24	5170.15
29.900	0.14	0.3	4.5	4.9	0.23	5170.15
30.000	0.13	0.3	4.3	4.7	0.22	5170.14
30.100	0.00	0.1	4.0	4.4	0.21	5170.13
30.200	0.00	0.0	3.6	4.0	0.19	5170.12
30.300	0.00	0.0	3.3	3.6	0.17	5170.11
30.400	0.00	0.0	3.0	3.3	0.16	5170.10
30.500	0.00	0.0	2.7	3.0	0.14	5170.09
30.600	0.00	0.0	2.4	2.7	0.13	5170.08
30.700	0.00	0.0	2.2	2.4	0.12	5170.07
30.800	0.00	0.0	2.0	2.2	0.10	5170.07
30.900	0.00	0.0	1.8	2.0	0.09	5170.06
31.000	0.00	0.0	1.6	1.8	0.09	5170.05
31.100	0.00	0.0	1.5	1.6	0.08	5170.05
31.200	0.00	0.0	1.3	1.5	0.07	5170.04
31.300	0.00	0.0	1.2	1.3	0.06	5170.04
31.400	0.00	0.0	1.1	1.2	0.06	5170.04
31.500	0.00	0.0	1.0	1.1	0.05	5170.03
31.600	0.00	0.0	0.9	1.0	0.05	5170.03
31.700	0.00	0.0	0.8	0.9	0.04	5170.03
31.800	0.00	0.0	0.7	0.8	0.04	5170.02
31.900	0.00	0.0	0.7	0.7	0.03	5170.02
32.000	0.00	0.0	0.6	0.7	0.03	5170.02
32.100	0.00	0.0	0.5	0.6	0.03	5170.02
32.200	0.00	0.0	0.5	0.5	0.03	5170.02
32.300	0.00	0.0	0.4	0.5	0.02	5170.01
32.400	0.00	0.0	0.4	0.4	0.02	5170.01
32.500	0.00	0.0	0.4	0.4	0.02	5170.01
32.600	0.00	0.0	0.3	0.4	0.02	5170.01
32.700	0.00	0.0	0.3	0.3	0.02	5170.01
32.800	0.00	0.0	0.3	0.3	0.01	5170.01

Pond File: C:\POND2\ROSE3-C .PND
Inflow Hydrograph: C:\POND2\ROSE3-CI.HYD
Outflow Hydrograph: C:\POND2\ROSE3-CO.HYD

INFLOW HYDROGRAPH		ROUTING COMPUTATIONS				
TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
32.900	0.00	0.0	0.2	0.3	0.01	5170.01
33.000	0.00	0.0	0.2	0.2	0.01	5170.01
33.100	0.00	0.0	0.2	0.2	0.01	5170.01
33.200	0.00	0.0	0.2	0.2	0.01	5170.01
33.300	0.00	0.0	0.2	0.2	0.01	5170.01
33.400	0.00	0.0	0.1	0.2	0.01	5170.00
33.500	0.00	0.0	0.1	0.1	0.01	5170.00
33.600	0.00	0.0	0.1	0.1	0.01	5170.00
33.700	0.00	0.0	0.1	0.1	0.01	5170.00
33.800	0.00	0.0	0.1	0.1	0.01	5170.00
33.900	0.00	0.0	0.1	0.1	0.00	5170.00
34.000	0.00	0.0	0.1	0.1	0.00	5170.00
34.100	0.00	0.0	0.1	0.1	0.00	5170.00
34.200	0.00	0.0	0.1	0.1	0.00	5170.00
34.300	0.00	0.0	0.1	0.1	0.00	5170.00
34.400	0.00	0.0	0.1	0.1	0.00	5170.00
34.500	0.00	0.0	0.0	0.1	0.00	5170.00
34.600	0.00	0.0	0.0	0.0	0.00	5170.00
34.700	0.00	0.0	0.0	0.0	0.00	5170.00
34.800	0.00	0.0	0.0	0.0	0.00	5170.00
34.900	0.00	0.0	0.0	0.0	0.00	5170.00
35.000	0.00	0.0	0.0	0.0	0.00	5170.00

********** SUMMARY OF ROUTING COMPUTATIONS **********

Pond File: C:\POND2\ROSE3-C .PND
Inflow Hydrograph: C:\POND2\ROSE3-CI.HYD
Outflow Hydrograph: C:\POND2\ROSE3-CO.HYD

Starting Pond W.S. Elevation = 5170.00 ft

***** Summary of Peak Outflow and Peak Elevation *****

Peak Inflow	=	31.00 cfs
Peak Outflow	=	25.29 cfs
Peak Elevation	=	5174.57 ft

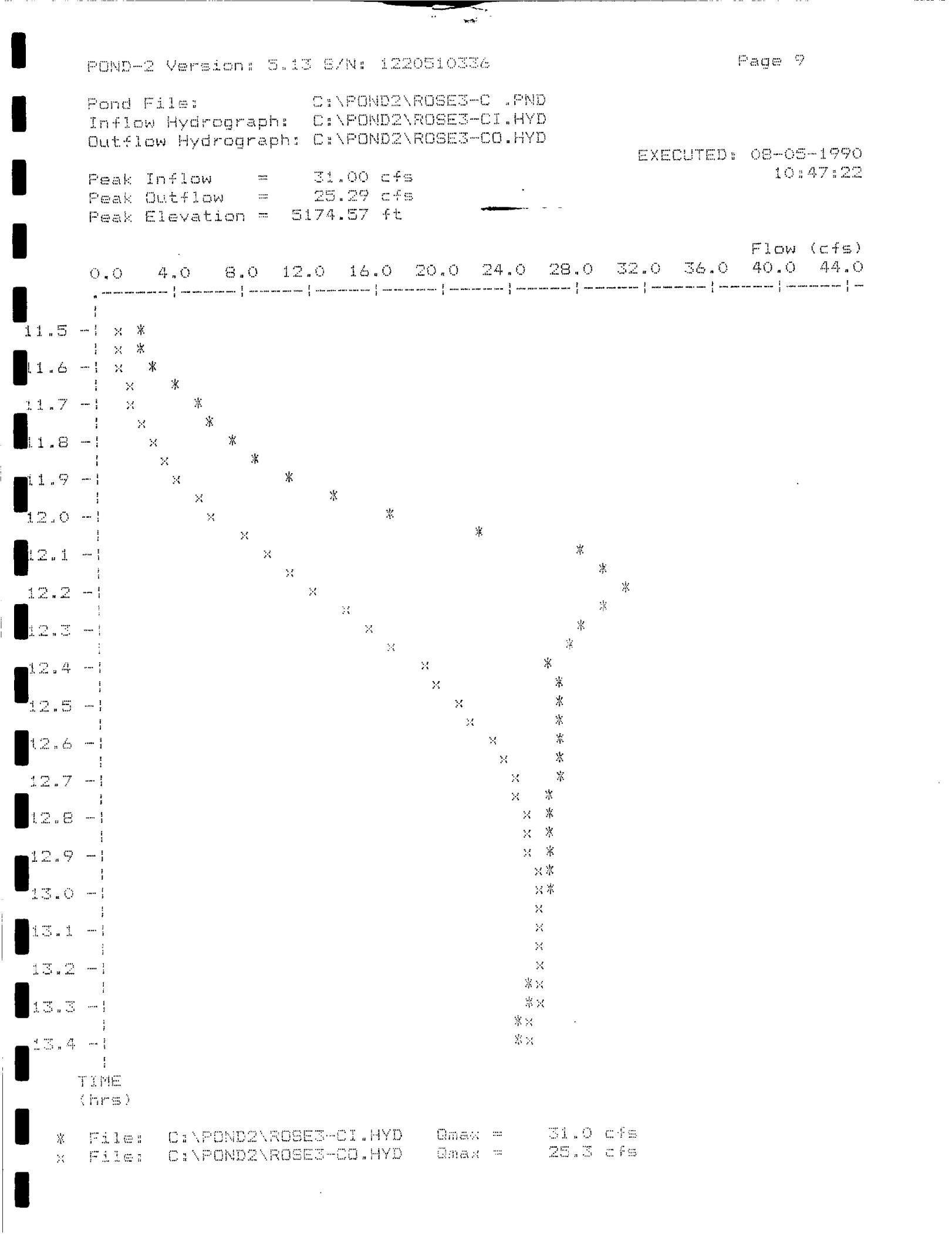
***** Summary of Approximate Peak Storage *****

Initial Storage	=	0.00 ac-ft
Peak Storage From Storm	=	0.89 ac-ft
Total Storage in Pond	=	0.89 ac-ft

Pond File: C:\POND2\ROSE3-C .PND
Inflow Hydrograph: C:\POND2\ROSE3-CI.HYD
Outflow Hydrograph: C:\POND2\ROSE3-CO.HYD

EXECUTED: 08-05-1990
10:47:22

Peak Inflow = 31.00 cfs
Peak Outflow = 25.29 cfs
Peak Elevation = 5174.57 ft



* File: C:\POND2\ROSE3-CI.HYD Qmax = 31.0 cfs
x File: C:\POND2\ROSE3-CO.HYD Qmax = 25.3 cfs

```
**********************************************************************
*                                                                    *
*                    ROSEWOOD WASH DRAINAGE BASIN                    *
* POND #4   LAST POND PRIOR TO GO DOWN SLOPE TO McCARRAN BLVD        *
*                          5   YEAR STORM                           *
*          CODEGA & FRICKE, INC     8-5-90     GMP     1016.10      *
*                                                                    *
**********************************************************************
```

Inflow Hydrograph: C:\POND2\ROSE4-5I.HYD
Rating Table file: C:\POND2\ROSE4-5 .PND

-----INITIAL CONDITIONS-----
Elevation = 5155.00 ft
Outflow = 0.00 cfs
Storage = 0.00 ac-ft

GIVEN POND DATA

ELEVATION (ft)	OUTFLOW (cfs)	STORAGE (ac-ft)
5155.00	0.0	0.000
5155.50	1.1	0.000
5156.00	4.0	0.001
5156.50	8.2	0.004
5157.00	13.7	0.009
5157.50	33.4	0.017
5158.00	64.3	0.029
5158.50	91.9	0.046
5159.00	118.1	0.069
5159.50	133.1	0.098
5160.00	145.4	0.134
5160.10	147.7	0.142

INTERMEDIATE ROUTING COMPUTATIONS

2S/t (cfs)	2S/t + O (cfs)
0.0	0.0
0.0	1.1
0.3	4.3
0.9	9.1
2.1	15.8
4.1	37.5
7.0	71.3
11.1	103.0
16.6	134.7
23.6	156.7
32.4	177.8
34.4	182.1

Time increment (t) = 0.100 hrs.

Pond File: C:\POND2\ROSE4-5 .PND
Inflow Hydrograph: C:\POND2\ROSE4-5I.HYD
Outflow Hydrograph: C:\POND2\ROSE4-50.HYD

INFLOW HYDROGRAPH

ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
10.000	0.00	------	0.0	0.0	0.00	5155.00
10.100	0.00	0.0	0.0	0.0	0.00	5155.00
10.200	0.00	0.0	0.0	0.0	0.00	5155.00
10.300	0.00	0.0	0.0	0.0	0.00	5155.00
10.400	0.00	0.0	0.0	0.0	0.00	5155.00
10.500	0.00	0.0	0.0	0.0	0.00	5155.00
10.600	0.00	0.0	0.0	0.0	0.00	5155.00
10.700	0.00	0.0	0.0	0.0	0.00	5155.00
10.800	0.00	0.0	0.0	0.0	0.00	5155.00
10.900	0.00	0.0	0.0	0.0	0.00	5155.00
11.000	0.00	0.0	0.0	0.0	0.00	5155.00
11.100	0.00	0.0	0.0	0.0	0.00	5155.00
11.200	0.01	0.0	-0.0	0.0	0.01	5155.00
11.300	0.02	0.0	-0.0	0.0	0.02	5155.01
11.400	0.03	0.1	-0.0	0.0	0.03	5155.01
11.500	0.10	0.1	-0.1	0.1	0.10	5155.04
11.600	0.21	0.3	-0.2	0.2	0.21	5155.09
11.700	0.32	0.5	-0.3	0.3	0.32	5155.14
11.800	1.43	1.8	-1.3	1.4	1.39	5155.55
11.900	1.55	3.0	-1.5	1.6	1.58	5155.58
12.000	2.81	4.4	-2.5	2.9	2.69	5155.77
12.100	5.94	8.8	-5.2	6.2	5.70	5156.20
12.200	9.75	15.7	-8.2	10.5	9.37	5156.61
12.300	11.91	21.7	-10.1	13.4	11.77	5156.82
12.400	11.53	23.4	-10.1	13.3	11.69	5156.82
12.500	10.31	21.8	-9.1	11.8	10.43	5156.70
12.600	10.46	20.8	-9.0	11.7	10.36	5156.70
12.700	9.53	20.0	-8.5	11.0	9.76	5156.64
12.800	9.53	19.1	-8.2	10.5	9.38	5156.61
12.900	9.47	19.0	-8.4	10.8	9.58	5156.63
13.000	9.44	18.9	-8.2	10.5	9.38	5156.61
13.100	9.42	18.9	-8.3	10.6	9.46	5156.61
13.200	9.42	18.8	-8.3	10.5	9.39	5156.61
13.300	8.42	17.8	-7.7	9.6	8.62	5156.54
13.400	8.43	16.9	-7.4	9.2	8.30	5156.51
13.500	8.45	16.9	-7.6	9.5	8.53	5156.53
13.600	8.47	16.9	-7.5	9.3	8.42	5156.52
13.700	8.49	17.0	-7.6	9.5	8.52	5156.53
13.800	8.51	17.0	-7.5	9.4	8.49	5156.53
13.900	8.53	17.0	-7.6	9.5	8.54	5156.53
14.000	8.55	17.1	-7.6	9.5	8.54	5156.53
14.100	8.57	17.1	-7.6	9.5	8.57	5156.53
14.200	8.51	17.1	-7.6	9.5	8.52	5156.53
14.300	8.38	16.9	-7.5	9.3	8.40	5156.52
14.400	8.25	16.6	-7.4	9.2	8.26	5156.51

Pond File: C:\POND2\ROSE4-5 .PND
Inflow Hydrograph: C:\POND2\ROSE4-5I.HYD
Outflow Hydrograph: C:\POND2\ROSE4-5O.HYD

INFLOW HYDROGRAPH		ROUTING COMPUTATIONS				
TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
14.500	8.12	16.4	-7.3	9.0	8.13	5156.49
14.600	8.02	16.1	-7.2	8.9	8.02	5156.48
14.700	7.94	16.0	-7.1	8.8	7.95	5156.47
14.800	7.88	15.8	-7.1	8.7	7.88	5156.46
14.900	7.83	15.7	-7.0	8.7	7.83	5156.46
15.000	7.78	15.6	-7.0	8.6	7.78	5156.45
15.100	7.75	15.5	-6.9	8.6	7.75	5156.45
15.200	7.71	15.5	-6.9	8.5	7.71	5156.44
15.300	7.68	15.4	-6.9	8.5	7.68	5156.44
15.400	7.64	15.3	-6.9	8.4	7.64	5156.43
15.500	7.60	15.2	-6.8	8.4	7.60	5156.43
15.600	7.56	15.2	-6.8	8.3	7.56	5156.42
15.700	7.52	15.1	-6.7	8.3	7.52	5156.42
15.800	7.47	15.0	-6.7	8.2	7.47	5156.41
15.900	7.43	14.9	-6.7	8.2	7.43	5156.41
16.000	7.38	14.8	-6.6	8.1	7.39	5156.40
16.100	7.32	14.7	-6.6	8.1	7.32	5156.40
16.200	7.27	14.6	-6.5	8.0	7.27	5156.39
16.300	7.21	14.5	-6.5	7.9	7.22	5156.38
16.400	7.15	14.4	-6.4	7.9	7.15	5156.38
16.500	7.09	14.2	-6.4	7.8	7.09	5156.37
16.600	7.03	14.1	-6.3	7.7	7.03	5156.36
16.700	6.97	14.0	-6.3	7.7	6.97	5156.35
16.800	6.90	13.9	-6.2	7.6	6.91	5156.35
16.900	6.83	13.7	-6.2	7.5	6.83	5156.34
17.000	6.76	13.6	-6.1	7.4	6.77	5156.33
17.100	6.68	13.4	-6.0	7.3	6.69	5156.32
17.200	6.60	13.3	-6.0	7.2	6.61	5156.31
17.300	6.51	13.1	-5.9	7.1	6.52	5156.30
17.400	6.42	12.9	-5.8	7.0	6.43	5156.29
17.500	6.33	12.8	-5.7	6.9	6.34	5156.28
17.600	6.24	12.6	-5.7	6.8	6.25	5156.27
17.700	6.15	12.4	-5.6	6.7	6.16	5156.26
17.800	6.04	12.2	-5.5	6.6	6.05	5156.24
17.900	5.94	12.0	-5.4	6.5	5.95	5156.23
18.000	5.83	11.8	-5.3	6.4	5.84	5156.22
18.100	5.73	11.6	-5.2	6.2	5.74	5156.21
18.200	5.62	11.4	-5.1	6.1	5.63	5156.19
18.300	5.51	11.1	-5.0	6.0	5.52	5156.18
18.400	5.40	10.9	-4.9	5.9	5.41	5156.17
18.500	5.29	10.7	-4.8	5.7	5.30	5156.15
18.600	5.17	10.5	-4.7	5.6	5.18	5156.14
18.700	5.06	10.2	-4.7	5.5	5.07	5156.13
18.800	4.95	10.0	-4.6	5.4	4.96	5156.11
18.900	4.84	9.8	-4.5	5.2	4.85	5156.10
19.000	4.74	9.6	-4.4	5.1	4.75	5156.09

Pond File: C:\POND2\ROSE4-5 .PND
Inflow Hydrograph: C:\POND2\ROSE4-5I.HYD
Outflow Hydrograph: C:\POND2\ROSE4-5O.HYD

INFLOW HYDROGRAPH		ROUTING COMPUTATIONS				
TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
19.100	4.63	9.4	-4.3	5.0	4.64	5156.08
19.200	4.51	9.1	-4.2	4.9	4.52	5156.06
19.300	4.40	8.9	-4.1	4.7	4.41	5156.05
19.400	4.29	8.7	-4.0	4.6	4.30	5156.04
19.500	4.18	8.5	-3.9	4.5	4.19	5156.02
19.600	4.07	8.3	-3.8	4.3	4.08	5156.01
19.700	3.97	8.0	-3.7	4.2	3.98	5156.00
19.800	3.87	7.8	-3.6	4.1	3.87	5155.98
19.900	3.78	7.7	-3.5	4.0	3.78	5155.96
20.000	3.68	7.5	-3.4	3.9	3.68	5155.95
20.100	3.59	7.3	-3.4	3.8	3.59	5155.93
20.200	3.49	7.1	-3.3	3.7	3.49	5155.91
20.300	3.40	6.9	-3.2	3.6	3.40	5155.90
20.400	3.30	6.7	-3.1	3.5	3.30	5155.88
20.500	3.21	6.5	-3.0	3.4	3.21	5155.86
20.600	3.13	6.3	-2.9	3.3	3.13	5155.85
20.700	3.04	6.2	-2.9	3.2	3.04	5155.84
20.800	2.97	6.0	-2.8	3.2	2.97	5155.82
20.900	2.90	5.9	-2.7	3.1	2.90	5155.81
21.000	2.83	5.7	-2.7	3.0	2.83	5155.80
21.100	2.78	5.6	-2.6	2.9	2.78	5155.79
21.200	2.72	5.5	-2.6	2.9	2.72	5155.78
21.300	2.67	5.4	-2.5	2.8	2.67	5155.77
21.400	2.62	5.3	-2.5	2.8	2.62	5155.76
21.500	2.57	5.2	-2.4	2.7	2.57	5155.75
21.600	2.53	5.1	-2.4	2.7	2.53	5155.75
21.700	2.49	5.0	-2.4	2.6	2.49	5155.74
21.800	2.45	4.9	-2.3	2.6	2.45	5155.73
21.900	2.42	4.9	-2.3	2.6	2.42	5155.73
22.000	2.39	4.8	-2.3	2.5	2.39	5155.72
22.100	2.35	4.7	-2.2	2.5	2.35	5155.72
22.200	2.33	4.7	-2.2	2.5	2.33	5155.71
22.300	2.30	4.6	-2.2	2.4	2.30	5155.71
22.400	2.28	4.6	-2.2	2.4	2.28	5155.70
22.500	2.26	4.5	-2.1	2.4	2.26	5155.70
22.600	2.24	4.5	-2.1	2.4	2.24	5155.70
22.700	2.22	4.5	-2.1	2.3	2.22	5155.69
22.800	2.20	4.4	-2.1	2.3	2.20	5155.69
22.900	2.18	4.4	-2.1	2.3	2.18	5155.69
23.000	2.17	4.4	-2.1	2.3	2.17	5155.68
23.100	2.16	4.3	-2.0	2.3	2.16	5155.68
23.200	2.14	4.3	-2.0	2.3	2.14	5155.68
23.300	2.13	4.3	-2.0	2.2	2.13	5155.68
23.400	2.12	4.3	-2.0	2.2	2.12	5155.68
23.500	2.11	4.2	-2.0	2.2	2.11	5155.67
23.600	2.10	4.2	-2.0	2.2	2.10	5155.67

Pond File: C:\POND2\ROSE4-5 .PND
Inflow Hydrograph: C:\POND2\ROSE4-5I.HYD
Outflow Hydrograph: C:\POND2\ROSE4-5O.HYD

INFLOW HYDROGRAPH

ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
23.700	2.09	4.2	-2.0	2.2	2.09	5155.67
23.800	2.09	4.2	-2.0	2.2	2.09	5155.67
23.900	2.08	4.2	-2.0	2.2	2.08	5155.67
24.000	2.07	4.2	-2.0	2.2	2.07	5155.67
24.100	2.05	4.1	-1.9	2.2	2.05	5155.66
24.200	2.00	4.1	-1.9	2.1	2.00	5155.66
24.300	1.95	4.0	-1.9	2.0	1.95	5155.65
24.400	1.89	3.8	-1.8	2.0	1.89	5155.64
24.500	1.81	3.7	-1.7	1.9	1.81	5155.62
24.600	1.74	3.6	-1.7	1.8	1.74	5155.61
24.700	1.66	3.4	-1.6	1.7	1.66	5155.60
24.800	1.58	3.2	-1.5	1.7	1.58	5155.58
24.900	1.50	3.1	-1.4	1.6	1.50	5155.57
25.000	1.42	2.9	-1.4	1.5	1.42	5155.56
25.100	1.34	2.8	-1.3	1.4	1.34	5155.54
25.200	1.26	2.6	-1.2	1.3	1.26	5155.53
25.300	1.19	2.5	-1.2	1.2	1.19	5155.52
25.400	1.12	2.3	-1.1	1.2	1.12	5155.50
25.500	1.05	2.2	-1.0	1.1	1.05	5155.48
25.600	0.98	2.0	-1.0	1.0	0.96	5155.45
25.700	0.92	1.9	-0.9	0.9	0.92	5155.42
25.800	0.86	1.8	-0.8	0.9	0.86	5155.39
25.900	0.81	1.7	-0.8	0.8	0.81	5155.37
26.000	0.78	1.6	-0.8	0.8	0.78	5155.35
26.100	0.76	1.5	-0.7	0.8	0.76	5155.35
26.200	0.74	1.5	-0.7	0.8	0.74	5155.34
26.300	0.72	1.5	-0.7	0.7	0.72	5155.33
26.400	0.70	1.4	-0.7	0.7	0.70	5155.32
26.500	0.67	1.4	-0.7	0.7	0.67	5155.30
26.600	0.65	1.3	-0.6	0.7	0.65	5155.30
26.700	0.63	1.3	-0.6	0.6	0.63	5155.29
26.800	0.61	1.2	-0.6	0.6	0.61	5155.28
26.900	0.59	1.2	-0.6	0.6	0.59	5155.27
27.000	0.57	1.2	-0.6	0.6	0.57	5155.26
27.100	0.55	1.1	-0.5	0.6	0.55	5155.25
27.200	0.53	1.1	-0.5	0.5	0.53	5155.24
27.300	0.51	1.0	-0.5	0.5	0.51	5155.23
27.400	0.49	1.0	-0.5	0.5	0.49	5155.22
27.500	0.48	1.0	-0.5	0.5	0.48	5155.22
27.600	0.46	0.9	-0.4	0.5	0.46	5155.21
27.700	0.44	0.9	-0.4	0.5	0.44	5155.20
27.800	0.43	0.9	-0.4	0.4	0.43	5155.20
27.900	0.41	0.8	-0.4	0.4	0.41	5155.19
28.000	0.39	0.8	-0.4	0.4	0.39	5155.18
28.100	0.38	0.8	-0.4	0.4	0.38	5155.17
28.200	0.36	0.7	-0.4	0.4	0.36	5155.16

Pond File: C:\POND2\ROSE4-5 .PND
Inflow Hydrograph: C:\POND2\ROSE4-5I.HYD
Outflow Hydrograph: C:\POND2\ROSE4-5O.HYD

INFLOW HYDROGRAPH — ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
28.300	0.35	0.7	-0.3	0.4	0.35	5155.16
28.400	0.34	0.7	-0.3	0.4	0.34	5155.15
28.500	0.32	0.7	-0.3	0.3	0.32	5155.15
28.600	0.31	0.6	-0.3	0.3	0.31	5155.14
28.700	0.30	0.6	-0.3	0.3	0.30	5155.14
28.800	0.29	0.6	-0.3	0.3	0.29	5155.13
28.900	0.28	0.6	-0.3	0.3	0.28	5155.13
29.000	0.27	0.6	-0.3	0.3	0.27	5155.12
29.100	0.26	0.5	-0.3	0.3	0.26	5155.12
29.200	0.25	0.5	-0.2	0.3	0.25	5155.11
29.300	0.24	0.5	-0.2	0.2	0.24	5155.11
29.400	0.23	0.5	-0.2	0.2	0.23	5155.10
29.500	0.22	0.5	-0.2	0.2	0.22	5155.10
29.600	0.21	0.4	-0.2	0.2	0.21	5155.10
29.700	0.20	0.4	-0.2	0.2	0.20	5155.09
29.800	0.19	0.4	-0.2	0.2	0.19	5155.09
29.900	0.18	0.4	-0.2	0.2	0.18	5155.08
30.000	0.18	0.4	-0.2	0.2	0.18	5155.08
30.100	0.16	0.3	-0.2	0.2	0.16	5155.07
30.200	0.15	0.3	-0.1	0.2	0.15	5155.07
30.300	0.14	0.3	-0.1	0.1	0.14	5155.06
30.400	0.12	0.3	-0.1	0.1	0.12	5155.05
30.500	0.11	0.2	-0.1	0.1	0.11	5155.05
30.600	0.10	0.2	-0.1	0.1	0.10	5155.05
30.700	0.09	0.2	-0.1	0.1	0.09	5155.04
30.800	0.08	0.2	-0.1	0.1	0.08	5155.04
30.900	0.07	0.2	-0.1	0.1	0.07	5155.03
31.000	0.07	0.1	-0.1	0.1	0.07	5155.03
31.100	0.06	0.1	-0.1	0.1	0.06	5155.03
31.200	0.06	0.1	-0.1	0.1	0.06	5155.03
31.300	0.05	0.1	-0.0	0.1	0.05	5155.02
31.400	0.05	0.1	-0.0	0.1	0.05	5155.02
31.500	0.04	0.1	-0.0	0.0	0.04	5155.02
31.600	0.04	0.1	-0.0	0.0	0.04	5155.02
31.700	0.03	0.1	-0.0	0.0	0.03	5155.01
31.800	0.03	0.1	-0.0	0.0	0.03	5155.01
31.900	0.03	0.1	-0.0	0.0	0.03	5155.01
32.000	0.02	0.1	-0.0	0.0	0.02	5155.01
32.100	0.02	0.0	-0.0	0.0	0.02	5155.01
32.200	0.02	0.0	-0.0	0.0	0.02	5155.01
32.300	0.02	0.0	-0.0	0.0	0.02	5155.01
32.400	0.02	0.0	-0.0	0.0	0.02	5155.01
32.500	0.02	0.0	-0.0	0.0	0.02	5155.01
32.600	0.01	0.0	-0.0	0.0	0.01	5155.00
32.700	0.01	0.0	-0.0	0.0	0.01	5155.00
32.800	0.01	0.0	-0.0	0.0	0.01	5155.00

Pond File: C:\POND2\ROSE4-5 .PND
Inflow Hydrograph: C:\POND2\ROSE4-5I.HYD
Outflow Hydrograph: C:\POND2\ROSE4-5O.HYD

INFLOW HYDROGRAPH — ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
32.900	0.01	0.0	-0.0	0.0	0.01	5155.00
33.000	0.01	0.0	-0.0	0.0	0.01	5155.00
33.100	0.01	0.0	-0.0	0.0	0.01	5155.00
33.200	0.01	0.0	-0.0	0.0	0.01	5155.00
33.300	0.01	0.0	-0.0	0.0	0.01	5155.00
33.400	0.01	0.0	-0.0	0.0	0.01	5155.00
33.500	0.01	0.0	-0.0	0.0	0.01	5155.00
33.600	0.01	0.0	-0.0	0.0	0.01	5155.00
33.700	0.00	0.0	-0.0	0.0	0.00	5155.00
33.800	0.00	0.0	-0.0	-0.0	0.00	5155.00
33.900	0.00	0.0	-0.0	-0.0	0.00	5155.00
34.000	0.00	0.0	-0.0	-0.0	0.00	5155.00
34.100	0.00	0.0	-0.0	-0.0	0.00	5155.00
34.200	0.00	0.0	-0.0	-0.0	0.00	5155.00
34.300	0.00	0.0	-0.0	-0.0	0.00	5155.00
34.400	0.00	0.0	-0.0	-0.0	0.00	5155.00
34.500	0.00	0.0	-0.0	-0.0	0.00	5155.00
34.600	0.00	0.0	-0.0	-0.0	0.00	5155.00
34.700	0.00	0.0	-0.0	-0.0	0.00	5155.00
34.800	0.00	0.0	-0.0	-0.0	0.00	5155.00
34.900	0.00	0.0	-0.0	-0.0	0.00	5155.00
35.000	0.00	0.0	-0.0	-0.0	0.00	5155.00

********** SUMMARY OF ROUTING COMPUTATIONS **********

Pond File: C:\POND2\ROSE4-5 .PND
Inflow Hydrograph: C:\POND2\ROSE4-5I.HYD
Outflow Hydrograph: C:\POND2\ROSE4-5O.HYD

Starting Pond W.S. Elevation = 5155.00 ft

***** Summary of Peak Outflow and Peak Elevation *****

Peak Inflow	=	11.91 cfs
Peak Outflow	=	11.77 cfs
Peak Elevation	=	5156.82 ft

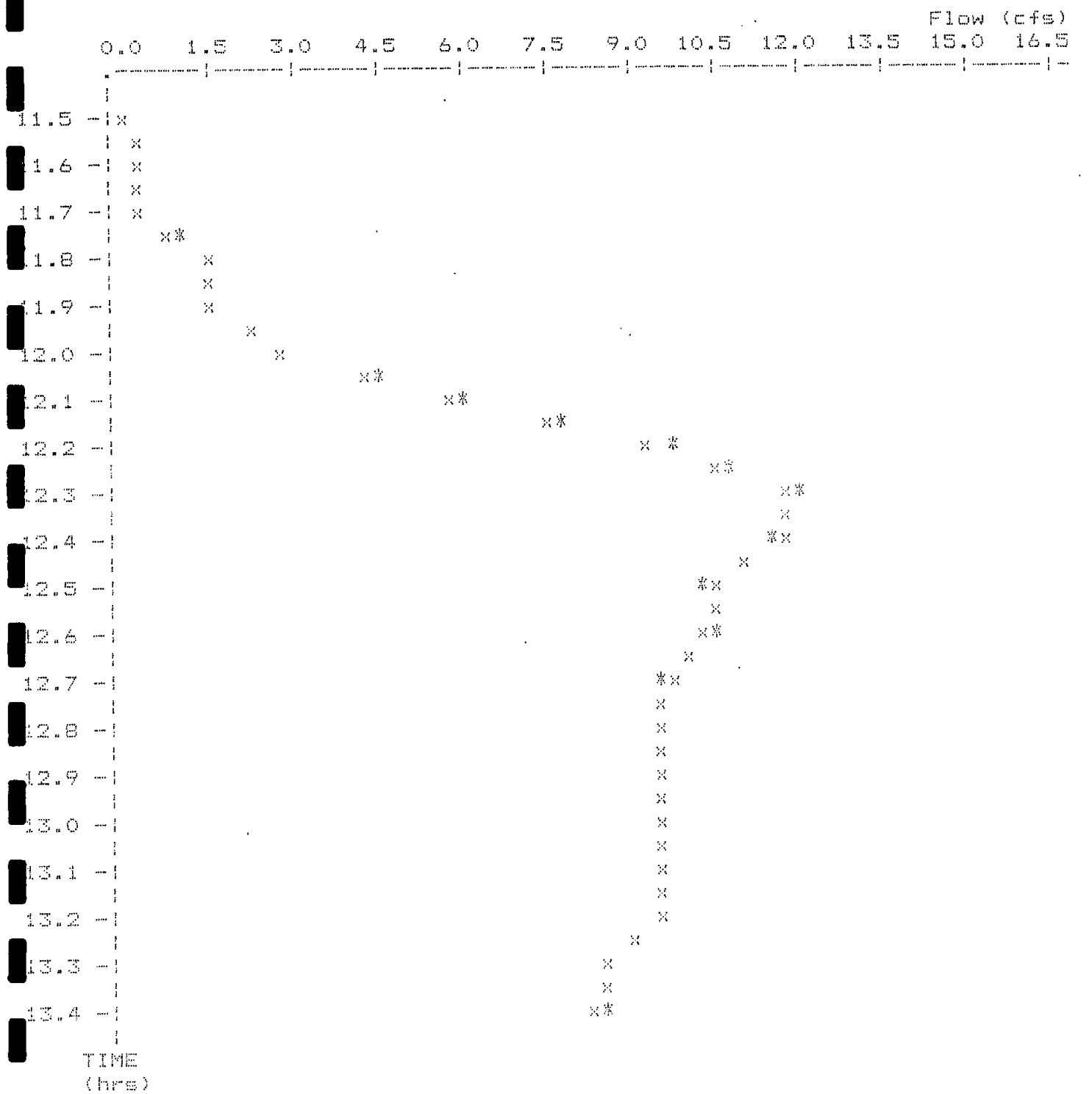
***** Summary of Approximate Peak Storage *****

Initial Storage	=	0.00 ac-ft
Peak Storage From Storm	=	0.01 ac-ft
Total Storage in Pond	=	0.01 ac-ft

Pond File: C:\POND2\ROSE4-5 .PND
Inflow Hydrograph: C:\POND2\ROSE4-5I.HYD
Outflow Hydrograph: C:\POND2\ROSE4-50.HYD

EXECUTED: 08-05-1990
10:50:43

Peak Inflow = 11.91 cfs
Peak Outflow = 11.77 cfs
Peak Elevation = 5156.82 ft



* File: C:\POND2\ROSE4-5I.HYD Qmax = 11.9 cfs
x File: C:\POND2\ROSE4-50.HYD Qmax = 11.8 cfs

```
*****************************************************************************
*                                                                           *
*                    ROSEWOOD WASH DRAINAGE BASIN                           *
* POND #4   LAST POND PRIOR TO GO DOWN SLOPE TO McCARRAN BLVD               *
*                         100 YEAR STORM                                    *
*          CODEGA & FRICKE, INC     8-5-90     GMP    1016.10              *
*                                                                           *
*****************************************************************************
```

Inflow Hydrograph: C:\POND2\ROSE4-CI.HYD
Rating Table file: C:\POND2\ROSE4-C .PND

-----INITIAL CONDITIONS-----
Elevation = 5155.00 ft
Outflow = 0.00 cfs
Storage = 0.00 ac-ft

GIVEN POND DATA

ELEVATION (ft)	OUTFLOW (cfs)	STORAGE (ac-ft)
5155.00	0.0	0.000
5155.50	1.1	0.000
5156.00	4.0	0.001
5156.50	8.2	0.004
5157.00	13.7	0.009
5157.50	33.4	0.017
5158.00	64.3	0.029
5158.50	91.9	0.046
5159.00	118.1	0.069
5159.50	133.1	0.098
5160.00	145.4	0.134
5160.10	147.7	0.142

INTERMEDIATE ROUTING COMPUTATIONS

2S/t (cfs)	2S/t + O (cfs)
0.0	0.0
0.0	1.1
0.3	4.3
0.9	9.1
2.1	15.8
4.1	37.5
7.0	71.3
11.1	103.0
16.6	134.7
23.6	156.7
32.4	177.8
34.4	182.1

Time increment (t) = 0.100 hrs.

Pond File: C:\POND2\ROSE4-C .PND
Inflow Hydrograph: C:\POND2\ROSE4-CI.HYD
Outflow Hydrograph: C:\POND2\ROSE4-CO.HYD

INFLOW HYDROGRAPH — ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
10.000	0.00	------	0.0	0.0	0.00	5155.00
10.100	0.00	0.0	0.0	0.0	0.00	5155.00
10.200	0.00	0.0	0.0	0.0	0.00	5155.00
10.300	0.00	0.0	0.0	0.0	0.00	5155.00
10.400	0.00	0.0	0.0	0.0	0.00	5155.00
10.500	0.00	0.0	0.0	0.0	0.00	5155.00
10.600	0.00	0.0	0.0	0.0	0.00	5155.00
10.700	0.00	0.0	0.0	0.0	0.00	5155.00
10.800	0.00	0.0	0.0	0.0	0.00	5155.00
10.900	0.00	0.0	0.0	0.0	0.00	5155.00
11.000	0.05	0.1	-0.0	0.1	0.05	5155.02
11.100	0.15	0.2	-0.1	0.2	0.15	5155.07
11.200	1.25	1.4	-1.2	1.3	1.22	5155.52
11.300	1.35	2.6	-1.3	1.4	1.37	5155.55
11.400	1.46	2.8	-1.4	1.5	1.43	5155.56
11.500	1.58	3.0	-1.5	1.7	1.59	5155.59
11.600	1.74	3.3	-1.6	1.8	1.72	5155.61
11.700	3.34	5.1	-3.0	3.4	3.24	5155.87
11.800	5.40	8.7	-4.8	5.7	5.25	5156.15
11.900	7.88	13.3	-6.9	8.5	7.67	5156.44
12.000	13.14	21.0	-10.6	14.1	12.36	5156.88
12.100	22.39	35.5	-19.1	24.9	22.04	5157.21
12.200	26.25	48.6	-22.9	29.5	26.19	5157.32
12.300	23.52	49.8	-20.7	26.9	23.82	5157.26
12.400	22.44	46.0	-19.4	25.2	22.29	5157.22
12.500	23.72	46.2	-20.6	26.8	23.72	5157.25
12.600	24.47	48.2	-21.3	27.5	24.40	5157.27
12.700	25.70	50.2	-22.4	28.9	25.65	5157.30
12.800	26.41	52.1	-23.0	29.7	26.39	5157.32
12.900	26.86	53.3	-23.4	30.2	26.84	5157.33
13.000	26.16	53.0	-22.9	29.6	26.24	5157.32
13.100	26.29	52.5	-22.9	29.5	26.21	5157.32
13.200	26.27	52.6	-23.0	29.7	26.34	5157.32
13.300	26.12	52.4	-22.8	29.4	26.08	5157.31
13.400	25.86	52.0	-22.6	29.2	25.92	5157.31
13.500	25.51	51.4	-22.2	28.6	25.49	5157.30
13.600	24.96	50.5	-21.8	28.2	25.02	5157.29
13.700	24.26	49.2	-21.1	27.4	24.27	5157.27
13.800	23.59	47.9	-20.6	26.7	23.64	5157.25
13.900	22.92	46.5	-19.9	25.9	22.94	5157.23
14.000	22.28	45.2	-19.4	25.3	22.32	5157.22
14.100	21.66	43.9	-18.8	24.6	21.68	5157.20
14.200	21.07	42.7	-18.3	23.9	21.11	5157.19
14.300	20.50	41.6	-17.8	23.3	20.52	5157.17
14.400	19.96	40.5	-17.3	22.7	19.99	5157.16

Pond File: C:\POND2\ROSE4-C .PND
Inflow Hydrograph: C:\POND2\ROSE4-CI.HYD
Outflow Hydrograph: C:\POND2\ROSE4-CO.HYD

INFLOW HYDROGRAPH — ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
14.500	19.53	39.5	-16.9	22.2	19.54	5157.15
14.600	19.11	38.6	-16.5	21.8	19.14	5157.14
14.700	18.70	37.8	-16.1	21.3	18.72	5157.13
14.800	18.30	37.0	-15.8	20.9	18.32	5157.12
14.900	17.93	36.2	-15.4	20.4	17.94	5157.11
15.000	17.58	35.5	-15.1	20.1	17.60	5157.10
15.100	17.25	34.8	-14.8	19.7	17.26	5157.09
15.200	16.95	34.2	-14.6	19.4	16.97	5157.08
15.300	15.67	32.6	-13.5	18.1	15.77	5157.05
15.400	15.41	31.1	-13.1	17.6	15.35	5157.04
15.500	15.18	30.6	-13.0	17.5	15.25	5157.04
15.600	14.96	30.1	-12.7	17.1	14.92	5157.03
15.700	14.75	29.7	-12.6	17.0	14.80	5157.03
15.800	14.60	29.4	-12.4	16.7	14.57	5157.02
15.900	14.46	29.1	-12.3	16.6	14.50	5157.02
16.000	14.31	28.8	-12.2	16.4	14.30	5157.02
16.100	14.16	28.5	-12.1	16.3	14.19	5157.01
16.200	14.00	28.2	-11.9	16.1	13.99	5157.01
16.300	13.85	27.9	-11.8	16.0	13.87	5157.00
16.400	13.69	27.5	-11.6	15.8	13.69	5157.00
16.500	13.54	27.2	-11.5	15.6	13.57	5156.99
16.600	13.39	26.9	-11.4	15.4	13.40	5156.97
16.700	13.25	26.6	-11.3	15.2	13.27	5156.96
16.800	13.10	26.4	-11.2	15.1	13.11	5156.95
16.900	12.96	26.1	-11.1	14.9	12.98	5156.93
17.000	12.82	25.8	-10.9	14.7	12.84	5156.92
17.100	12.69	25.5	-10.8	14.6	12.70	5156.91
17.200	12.55	25.2	-10.7	14.4	12.57	5156.90
17.300	12.42	25.0	-10.6	14.2	12.43	5156.88
17.400	12.29	24.7	-10.5	14.1	12.31	5156.87
17.500	12.16	24.5	-10.4	13.9	12.17	5156.86
17.600	12.05	24.2	-10.3	13.8	12.06	5156.85
17.700	11.95	24.0	-10.3	13.7	11.96	5156.84
17.800	11.84	23.8	-10.2	13.5	11.85	5156.83
17.900	11.74	23.6	-10.1	13.4	11.75	5156.82
18.000	11.63	23.4	-10.0	13.3	11.64	5156.81
18.100	11.52	23.2	-9.9	13.1	11.53	5156.80
18.200	11.40	22.9	-9.8	13.0	11.41	5156.79
18.300	11.29	22.7	-9.7	12.9	11.30	5156.78
18.400	11.18	22.5	-9.7	12.7	11.19	5156.77
18.500	11.02	22.2	-9.5	12.5	11.04	5156.76
18.600	10.79	21.8	-9.4	12.3	10.82	5156.74
18.700	10.59	21.4	-9.2	12.0	10.61	5156.72
18.800	10.40	21.0	-9.1	11.8	10.42	5156.70
18.900	10.21	20.6	-8.9	11.5	10.23	5156.68
19.000	10.01	20.2	-8.8	11.3	10.03	5156.67

EXECUTED: 08-05-1990 10:54:03

Pond File: C:\POND2\ROSE4-C .PND
Inflow Hydrograph: C:\POND2\ROSE4-CI.HYD
Outflow Hydrograph: C:\POND2\ROSE4-CO.HYD

INFLOW HYDROGRAPH — ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
19.100	9.84	19.9	-8.6	11.1	9.86	5156.65
19.200	9.67	19.5	-8.5	10.9	9.69	5156.64
19.300	9.51	19.2	-8.4	10.7	9.53	5156.62
19.400	9.36	18.9	-8.2	10.5	9.38	5156.61
19.500	9.22	18.6	-8.1	10.3	9.23	5156.59
19.600	9.07	18.3	-8.0	10.2	9.09	5156.58
19.700	8.93	18.0	-7.9	10.0	8.94	5156.57
19.800	8.78	17.7	-7.8	9.8	8.80	5156.55
19.900	8.65	17.4	-7.7	9.6	8.66	5156.54
20.000	8.53	17.2	-7.6	9.5	8.54	5156.53
20.100	8.42	17.0	-7.5	9.4	8.43	5156.52
20.200	8.32	16.7	-7.4	9.2	8.33	5156.51
20.300	8.18	16.5	-7.3	9.1	6.20	5156.50
20.400	8.06	16.2	-7.2	8.9	8.06	5156.48
20.500	7.94	16.0	-7.1	8.8	7.95	5156.47
20.600	7.83	15.8	-7.0	8.7	7.83	5156.46
20.700	7.72	15.6	-6.9	8.5	7.73	5156.44
20.800	7.61	15.3	-6.8	8.4	7.62	5156.43
20.900	7.51	15.1	-6.7	8.3	7.52	5156.42
21.000	7.40	14.9	-6.6	8.2	7.41	5156.41
21.100	7.29	14.7	-6.6	8.0	7.30	5156.39
21.200	7.19	14.5	-6.5	7.9	7.20	5156.38
21.300	7.09	14.3	-6.4	7.8	7.10	5156.37
21.400	6.99	14.1	-6.3	7.7	7.00	5156.36
21.500	6.89	13.9	-6.2	7.6	6.90	5156.34
21.600	6.80	13.7	-6.1	7.5	6.81	5156.33
21.700	6.70	13.5	-6.1	7.4	6.71	5156.32
21.800	6.60	13.3	-6.0	7.2	6.61	5156.31
21.900	6.50	13.1	-5.9	7.1	6.51	5156.30
22.000	6.39	12.9	-5.8	7.0	6.40	5156.29
22.100	6.29	12.7	-5.7	6.9	6.30	5156.27
22.200	6.19	12.5	-5.6	6.8	6.20	5156.26
22.300	6.08	12.3	-5.5	6.7	6.09	5156.25
22.400	5.97	12.1	-5.4	6.5	5.98	5156.24
22.500	5.85	11.8	-5.3	6.4	5.86	5156.22
22.600	5.74	11.6	-5.2	6.3	5.75	5156.21
22.700	5.63	11.4	-5.1	6.1	5.64	5156.20
22.800	5.52	11.2	-5.0	6.0	5.53	5156.18
22.900	5.41	10.9	-5.0	5.9	5.42	5156.17
23.000	5.29	10.7	-4.8	5.7	5.30	5156.15
23.100	5.17	10.5	-4.7	5.6	5.18	5156.14
23.200	5.06	10.2	-4.7	5.5	5.07	5156.13
23.300	4.95	10.0	-4.6	5.4	4.96	5156.11
23.400	4.84	9.8	-4.5	5.2	4.85	5156.10
23.500	4.73	9.6	-4.4	5.1	4.74	5156.09
23.600	4.62	9.4	-4.3	5.0	4.63	5156.07

Pond File: C:\POND2\ROSE4-C .PND
Inflow Hydrograph: C:\POND2\ROSE4-CI.HYD
Outflow Hydrograph: C:\POND2\ROSE4-CO.HYD

INFLOW HYDROGRAPH

ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
23.700	4.50	9.1	-4.2	4.8	4.51	5156.06
23.800	4.39	8.9	-4.1	4.7	4.40	5156.05
23.900	4.28	8.7	-4.0	4.6	4.29	5156.03
24.000	4.17	8.4	-3.9	4.5	4.18	5156.02
24.100	4.05	8.2	-3.8	4.3	4.06	5156.01
24.200	3.92	8.0	-3.7	4.2	3.92	5155.99
24.300	3.78	7.7	-3.5	4.0	3.79	5155.96
24.400	3.62	7.4	-3.4	3.9	3.63	5155.94
24.500	3.45	7.1	-3.2	3.7	3.46	5155.91
24.600	3.28	6.7	-3.1	3.5	3.29	5155.88
24.700	3.10	6.4	-2.9	3.3	3.11	5155.85
24.800	2.93	6.0	-2.8	3.1	2.94	5155.82
24.900	2.77	5.7	-2.6	2.9	2.78	5155.79
25.000	2.62	5.4	-2.5	2.8	2.63	5155.76
25.100	2.47	5.1	-2.3	2.6	2.48	5155.74
25.200	2.32	4.8	-2.2	2.5	2.33	5155.71
25.300	2.17	4.5	-2.1	2.3	2.18	5155.69
25.400	2.03	4.2	-1.9	2.1	2.03	5155.66
25.500	1.89	3.9	-1.8	2.0	1.90	5155.64
25.600	1.76	3.7	-1.7	1.8	1.76	5155.61
25.700	1.64	3.4	-1.6	1.7	1.65	5155.59
25.800	1.52	3.2	-1.5	1.6	1.52	5155.57
25.900	1.42	2.9	-1.4	1.5	1.42	5155.56
26.000	1.31	2.7	-1.3	1.4	1.32	5155.54
26.100	1.22	2.5	-1.2	1.3	1.22	5155.52
26.200	1.12	2.3	-1.1	1.2	1.13	5155.50
26.300	1.04	2.2	-1.0	1.1	1.04	5155.47
26.400	0.95	2.0	-0.9	1.0	0.95	5155.43
26.500	0.88	1.8	-0.9	0.9	0.88	5155.40
26.600	0.81	1.7	-0.8	0.8	0.81	5155.37
26.700	0.78	1.6	-0.8	0.8	0.78	5155.35
26.800	0.76	1.5	-0.7	0.8	0.76	5155.35
26.900	0.73	1.5	-0.7	0.7	0.73	5155.33
27.000	0.71	1.4	-0.7	0.7	0.71	5155.32
27.100	0.68	1.4	-0.7	0.7	0.68	5155.31
27.200	0.66	1.3	-0.6	0.7	0.66	5155.30
27.300	0.64	1.3	-0.6	0.7	0.64	5155.29
27.400	0.62	1.3	-0.6	0.6	0.62	5155.28
27.500	0.60	1.2	-0.6	0.6	0.60	5155.27
27.600	0.58	1.2	-0.6	0.6	0.58	5155.26
27.700	0.55	1.1	-0.5	0.6	0.55	5155.25
27.800	0.53	1.1	-0.5	0.5	0.53	5155.24
27.900	0.52	1.1	-0.5	0.5	0.52	5155.24
28.000	0.50	1.0	-0.5	0.5	0.50	5155.23
28.100	0.48	1.0	-0.5	0.5	0.48	5155.22
28.200	0.46	0.9	-0.4	0.5	0.46	5155.21

Pond File: C:\POND2\ROSE4-C .PND
Inflow Hydrograph: C:\POND2\ROSE4-CI.HYD
Outflow Hydrograph: C:\POND2\ROSE4-CO.HYD

INFLOW HYDROGRAPH — ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
28.300	0.44	0.9	-0.4	0.5	0.44	5155.20
28.400	0.43	0.9	-0.4	0.4	0.43	5155.20
28.500	0.41	0.8	-0.4	0.4	0.41	5155.19
28.600	0.39	0.8	-0.4	0.4	0.39	5155.18
28.700	0.38	0.8	-0.4	0.4	0.38	5155.17
28.800	0.36	0.7	-0.4	0.4	0.36	5155.16
28.900	0.35	0.7	-0.3	0.4	0.35	5155.16
29.000	0.34	0.7	-0.3	0.4	0.34	5155.15
29.100	0.32	0.7	-0.3	0.3	0.32	5155.15
29.200	0.31	0.6	-0.3	0.3	0.31	5155.14
29.300	0.30	0.6	-0.3	0.3	0.30	5155.14
29.400	0.29	0.6	-0.3	0.3	0.29	5155.13
29.500	0.28	0.6	-0.3	0.3	0.28	5155.13
29.600	0.26	0.5	-0.3	0.3	0.26	5155.12
29.700	0.25	0.5	-0.2	0.3	0.25	5155.11
29.800	0.24	0.5	-0.2	0.2	0.24	5155.11
29.900	0.23	0.5	-0.2	0.2	0.23	5155.10
30.000	0.22	0.5	-0.2	0.2	0.22	5155.10
30.100	0.21	0.4	-0.2	0.2	0.21	5155.10
30.200	0.19	0.4	-0.2	0.2	0.19	5155.09
30.300	0.17	0.4	-0.2	0.2	0.17	5155.08
30.400	0.16	0.3	-0.2	0.2	0.16	5155.07
30.500	0.14	0.3	-0.1	0.1	0.14	5155.06
30.600	0.13	0.3	-0.1	0.1	0.13	5155.06
30.700	0.12	0.3	-0.1	0.1	0.12	5155.05
30.800	0.10	0.2	-0.1	0.1	0.10	5155.05
30.900	0.09	0.2	-0.1	0.1	0.09	5155.04
31.000	0.09	0.2	-0.1	0.1	0.09	5155.04
31.100	0.08	0.2	-0.1	0.1	0.08	5155.04
31.200	0.07	0.2	-0.1	0.1	0.07	5155.03
31.300	0.06	0.1	-0.1	0.1	0.06	5155.03
31.400	0.06	0.1	-0.1	0.1	0.06	5155.03
31.500	0.05	0.1	-0.0	0.1	0.05	5155.02
31.600	0.05	0.1	-0.0	0.1	0.05	5155.02
31.700	0.04	0.1	-0.0	0.0	0.04	5155.02
31.800	0.04	0.1	-0.0	0.0	0.04	5155.02
31.900	0.03	0.1	-0.0	0.0	0.03	5155.01
32.000	0.03	0.1	-0.0	0.0	0.03	5155.01
32.100	0.03	0.1	-0.0	0.0	0.03	5155.01
32.200	0.03	0.1	-0.0	0.0	0.03	5155.01
32.300	0.02	0.1	-0.0	0.0	0.02	5155.01
32.400	0.02	0.0	-0.0	0.0	0.02	5155.01
32.500	0.02	0.0	-0.0	0.0	0.02	5155.01
32.600	0.02	0.0	-0.0	0.0	0.02	5155.01
32.700	0.02	0.0	-0.0	0.0	0.02	5155.01
32.800	0.01	0.0	-0.0	0.0	0.01	5155.00

Pond File: C:\POND2\ROSE4-C .PND
Inflow Hydrograph: C:\POND2\ROSE4-CI.HYD
Outflow Hydrograph: C:\POND2\ROSE4-CO.HYD

INFLOW HYDROGRAPH

ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
32.900	0.01	0.0	-0.0	0.0	0.01	5155.00
33.000	0.01	0.0	-0.0	0.0	0.01	5155.00
33.100	0.01	0.0	-0.0	0.0	0.01	5155.00
33.200	0.01	0.0	-0.0	0.0	0.01	5155.00
33.300	0.01	0.0	-0.0	0.0	0.01	5155.00
33.400	0.01	0.0	-0.0	0.0	0.01	5155.00
33.500	0.01	0.0	-0.0	0.0	0.01	5155.00
33.600	0.01	0.0	-0.0	0.0	0.01	5155.00
33.700	0.01	0.0	-0.0	0.0	0.01	5155.00
33.800	0.01	0.0	-0.0	0.0	0.01	5155.00
33.900	0.00	0.0	-0.0	0.0	0.00	5155.00
34.000	0.00	0.0	-0.0	-0.0	0.00	5155.00
34.100	0.00	0.0	-0.0	-0.0	0.00	5155.00
34.200	0.00	0.0	-0.0	-0.0	0.00	5155.00
34.300	0.00	0.0	-0.0	-0.0	0.00	5155.00
34.400	0.00	0.0	-0.0	-0.0	0.00	5155.00
34.500	0.00	0.0	-0.0	-0.0	0.00	5155.00
34.600	0.00	0.0	-0.0	-0.0	0.00	5155.00
34.700	0.00	0.0	-0.0	-0.0	0.00	5155.00
34.800	0.00	0.0	-0.0	-0.0	0.00	5155.00
34.900	0.00	0.0	-0.0	-0.0	0.00	5155.00
35.000	0.00	0.0	-0.0	-0.0	0.00	5155.00

********** SUMMARY OF ROUTING COMPUTATIONS **********

Pond File: C:\POND2\ROSE4-C .PND
Inflow Hydrograph: C:\POND2\ROSE4-CI.HYD
Outflow Hydrograph: C:\POND2\ROSE4-CO.HYD

Starting Pond W.S. Elevation = 5155.00 ft

***** Summary of Peak Outflow and Peak Elevation *****

Peak Inflow	=	26.86 cfs
Peak Outflow	=	26.84 cfs
Peak Elevation	=	5157.33 ft

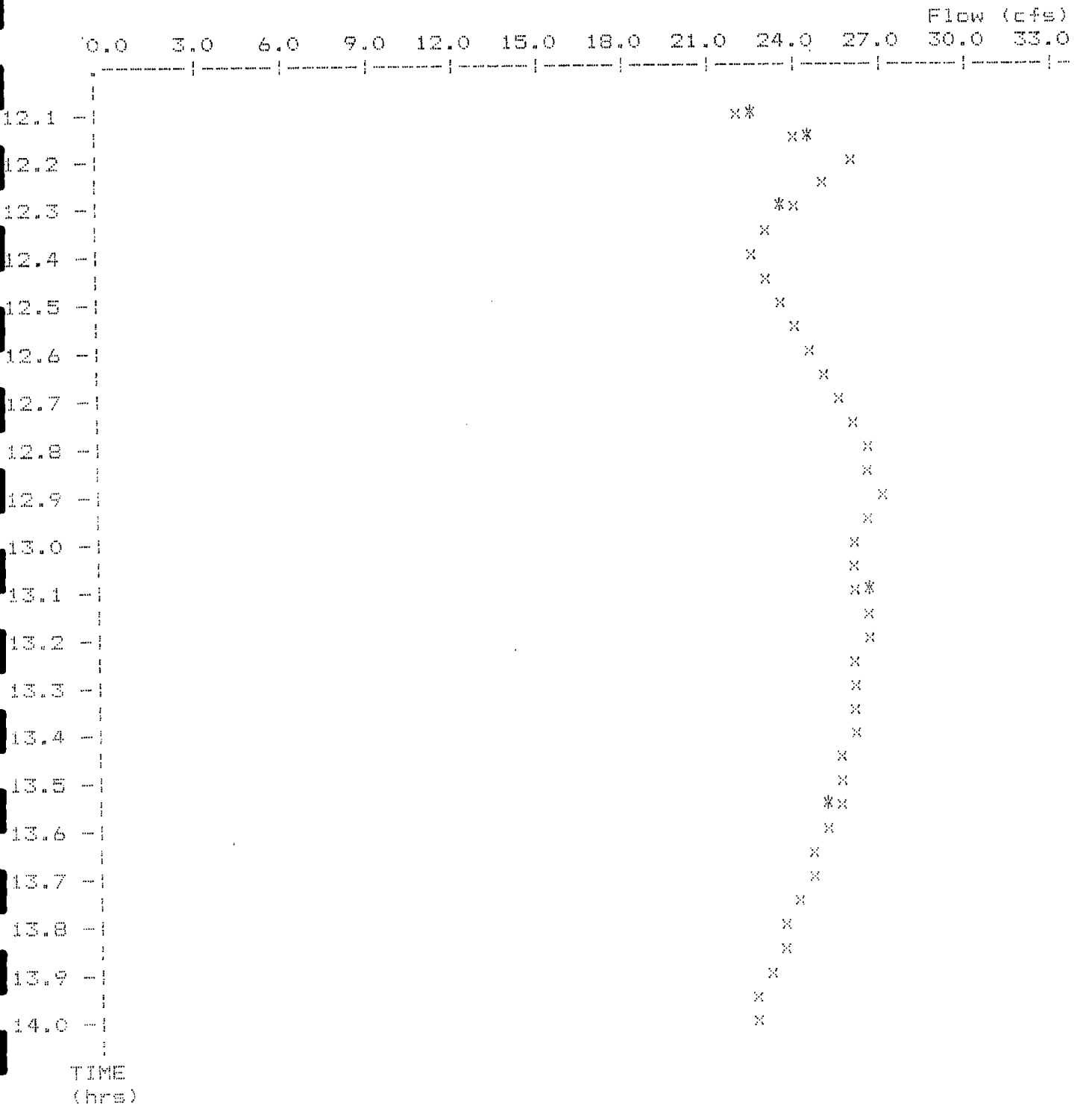
***** Summary of Approximate Peak Storage *****

Initial Storage	=	0.00 ac-ft
Peak Storage From Storm	=	0.01 ac-ft
Total Storage in Pond	=	0.01 ac-ft

Pond File: C:\POND2\ROSE4-C .PND
Inflow Hydrograph: C:\POND2\ROSE4-CI.HYD
Outflow Hydrograph: C:\POND2\ROSE4-CO.HYD

EXECUTED: 08-05-1990
10:54:03

Peak Inflow = 26.86 cfs
Peak Outflow = 26.84 cfs
Peak Elevation = 5157.33 ft



* File: C:\POND2\ROSE4-CI.HYD Qmax = 26.9 cfs
× File: C:\POND2\ROSE4-CO.HYD Qmax = 26.8 cfs

```
*************************************************************
*                                                           *
*              ROSEWOOD WASH DRAINAGE BASIN                 *
*     POND #5   POND IN EASTGATE AT TOP OF SLOPE            *
*                      5   YEAR STORM                       *
*   CODEGA & FRICKE, INC     8-5-90     GMP    1016.10     *
*                                                           *
*************************************************************
```

Inflow Hydrograph: C:\POND2\ROSE5-5 .HYD
Rating Table file: C:\POND2\ROSE5-5 .PND

-----INITIAL CONDITIONS-----
Elevation = 5146.00 ft
Outflow = 0.00 cfs
Storage = 0.00 ac-ft

GIVEN POND DATA

ELEVATION (ft)	OUTFLOW (cfs)	STORAGE (ac-ft)
5146.00	0.0	0.000
5146.50	1.0	0.020
5147.00	3.2	0.045
5147.50	6.7	0.075
5148.00	10.6	0.112
5148.50	13.8	0.154
5149.00	16.5	0.204
5149.50	18.7	0.261
5150.00	20.7	0.326
5150.50	22.6	0.399
5151.00	24.3	0.477
5151.50	25.9	0.560
5152.00	27.4	0.651
5152.50	28.8	0.747
5153.00	43.9	0.850
5153.50	70.4	0.960
5154.00	94.7	1.077
5154.50	118.2	1.199
5155.00	130.7	1.324
5155.10	132.8	1.350

INTERMEDIATE ROUTING COMPUTATIONS

2S/t (cfs)	2S/t + O (cfs)
0.0	0.0
4.9	5.9
10.9	14.1
18.2	24.9
27.0	37.6
37.3	51.1
49.3	65.8
63.2	81.9
79.0	99.7
96.5	119.1
115.3	139.6
135.6	161.5
157.4	184.8
180.8	209.6
205.7	249.6
232.3	302.7
260.6	355.3
290.1	408.3
320.3	451.0
326.6	459.4

Time increment (t) = 0.100 hrs.

POND-2 Version: 5.13 S/N: 1220510336
EXECUTED: 08-05-1990 10:58:55

Pond File: C:\POND2\ROSE5-5 .PND
Inflow Hydrograph: C:\POND2\ROSE5-5 .HYD
Outflow Hydrograph: C:\POND2\ROSE5-50.HYD

INFLOW HYDROGRAPH

ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
11.000	0.00	------	0.0	0.0	0.00	5146.00
11.100	0.00	0.0	0.0	0.0	0.00	5146.00
11.200	1.00	1.0	0.7	1.0	0.17	5146.09
11.300	1.00	2.0	1.7	2.7	0.45	5146.23
11.400	1.00	2.0	2.5	3.7	0.64	5146.32
11.500	2.00	3.0	3.6	5.5	0.93	5146.47
11.600	2.00	4.0	4.7	7.6	1.47	5146.61
11.700	3.00	5.0	5.6	9.7	2.02	5146.73
11.800	5.00	8.0	7.5	13.6	3.08	5146.97
11.900	6.00	11.0	9.2	18.5	4.62	5147.20
12.000	13.00	19.0	12.8	28.2	7.72	5147.63
12.100	24.00	37.0	22.8	49.8	13.49	5148.45
12.200	26.00	50.0	37.9	72.8	17.46	5149.22
12.300	16.00	42.0	43.1	79.9	18.43	5149.44
12.400	8.00	24.0	33.7	67.1	16.67	5149.04
12.500	5.00	13.0	21.2	46.7	12.76	5148.34
12.600	4.00	9.0	13.6	30.2	8.33	5147.71
12.700	3.00	7.0	10.0	20.6	5.29	5147.30
12.800	3.00	6.0	8.4	16.0	3.81	5147.09
12.900	2.00	5.0	7.3	13.4	3.00	5146.96
13.000	2.00	4.0	6.4	11.3	2.47	5146.83
13.100	2.00	4.0	6.0	10.4	2.22	5146.78
13.200	2.00	4.0	5.8	10.0	2.10	5146.75
13.300	2.00	4.0	5.7	9.8	2.05	5146.74
13.400	2.00	4.0	5.6	9.7	2.02	5146.73
13.500	2.00	4.0	5.6	9.6	2.01	5146.73
13.600	2.00	4.0	5.6	9.6	2.00	5146.73
13.700	2.00	4.0	5.6	9.6	2.00	5146.73
13.800	2.00	4.0	5.6	9.6	2.00	5146.73
13.900	2.00	4.0	5.6	9.6	2.00	5146.73
14.000	1.00	3.0	5.1	8.6	1.73	5146.67
14.100	1.00	2.0	4.4	7.1	1.34	5146.58
14.200	1.00	2.0	4.1	6.4	1.16	5146.54
14.300	1.00	2.0	4.0	6.1	1.07	5146.52
14.400	1.00	2.0	3.9	6.0	1.03	5146.51
14.500	1.00	2.0	3.9	5.9	1.02	5146.50
14.600	1.00	2.0	3.9	5.9	1.01	5146.50
14.700	1.00	2.0	3.9	5.9	1.00	5146.50
14.800	1.00	2.0	3.9	5.9	1.00	5146.50
14.900	1.00	2.0	3.9	5.9	.1.00	5146.50
15.000	1.00	2.0	3.9	5.9	1.00	5146.50
15.100	1.00	2.0	3.9	5.9	1.00	5146.50
15.200	1.00	2.0	3.9	5.9	1.00	5146.50
15.300	1.00	2.0	3.9	5.9	1.00	5146.50
15.400	1.00	2.0	3.9	5.9	1.00	5146.50

Pond File: C:\POND2\ROSE5-5 .PND
Inflow Hydrograph: C:\POND2\ROSE5-5 .HYD
Outflow Hydrograph: C:\POND2\ROSE5-50.HYD

INFLOW HYDROGRAPH

ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
15.500	1.00	2.0	3.9	5.9	1.00	5146.50
15.600	1.00	2.0	3.9	5.9	1.00	5146.50
15.700	1.00	2.0	3.9	5.9	1.00	5146.50
15.800	0.00	1.0	3.2	4.9	0.83	5146.41
15.900	0.00	0.0	2.1	3.2	0.55	5146.27
16.000	0.00	0.0	1.4	2.1	0.36	5146.18
16.100	0.00	0.0	0.9	1.4	0.24	5146.12
16.200	0.00	0.0	0.6	0.9	0.16	5146.08
16.300	0.00	0.0	0.4	0.6	0.10	5146.05
16.400	0.00	0.0	0.3	0.4	0.07	5146.03
16.500	0.00	0.0	0.2	0.3	0.04	5146.02
16.600	0.00	0.0	0.1	0.2	0.03	5146.01
16.700	0.00	0.0	0.1	0.1	0.02	5146.01
16.800	0.00	0.0	0.0	0.1	0.01	5146.01
16.900	0.00	0.0	0.0	0.0	0.01	5146.00
17.000	0.00	0.0	0.0	0.0	0.01	5146.00
17.100	0.00	0.0	0.0	0.0	0.00	5146.00
17.200	0.00	0.0	0.0	0.0	0.00	5146.00
17.300	0.00	0.0	0.0	0.0	0.00	5146.00
17.400	0.00	0.0	0.0	0.0	0.00	5146.00
17.500	0.00	0.0	0.0	0.0	0.00	5146.00
17.600	0.00	0.0	0.0	0.0	0.00	5146.00
17.700	0.00	0.0	0.0	0.0	0.00	5146.00
17.800	0.00	0.0	0.0	0.0	0.00	5146.00
17.900	0.00	0.0	0.0	0.0	0.00	5146.00
18.000	0.00	0.0	0.0	0.0	0.00	5146.00
18.100	0.00	0.0	0.0	0.0	0.00	5146.00
18.200	0.00	0.0	0.0	0.0	0.00	5146.00
18.300	0.00	0.0	0.0	0.0	0.00	5146.00
18.400	0.00	0.0	0.0	0.0	0.00	5146.00
18.500	0.00	0.0	0.0	0.0	0.00	5146.00
18.600	0.00	0.0	0.0	0.0	0.00	5146.00
18.700	0.00	0.0	0.0	0.0	0.00	5146.00
18.800	0.00	0.0	0.0	0.0	0.00	5146.00
18.900	0.00	0.0	0.0	0.0	0.00	5146.00
19.000	0.00	0.0	0.0	0.0	0.00	5146.00
19.100	0.00	0.0	0.0	0.0	0.00	5146.00
19.200	0.00	0.0	0.0	0.0	0.00	5146.00
19.300	0.00	0.0	0.0	0.0	0.00	5146.00
19.400	0.00	0.0	0.0	0.0	0.00	5146.00
19.500	0.00	0.0	0.0	0.0	0.00	5146.00
19.600	0.00	0.0	0.0	0.0	0.00	5146.00
19.700	0.00	0.0	0.0	0.0	0.00	5146.00
19.800	0.00	0.0	0.0	0.0	0.00	5146.00
19.900	0.00	0.0	0.0	0.0	0.00	5146.00
20.000	0.00	0.0	0.0	0.0	0.00	5146.00

Pond File: C:\POND2\ROSE5-5 .PND
Inflow Hydrograph: C:\POND2\ROSE5-5 .HYD
Outflow Hydrograph: C:\POND2\ROSE5-50.HYD

INFLOW HYDROGRAPH

ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
20.100	0.00	0.0	0.0	0.0	0.00	5146.00
20.200	0.00	0.0	0.0	0.0	0.00	5146.00
20.300	0.00	0.0	0.0	0.0	0.00	5146.00
20.400	0.00	0.0	0.0	0.0	0.00	5146.00
20.500	0.00	0.0	0.0	0.0	0.00	5146.00
20.600	0.00	0.0	0.0	0.0	0.00	5146.00
20.700	0.00	0.0	0.0	0.0	0.00	5146.00
20.800	0.00	0.0	0.0	0.0	0.00	5146.00
20.900	0.00	0.0	0.0	0.0	0.00	5146.00
21.000	0.00	0.0	0.0	0.0	0.00	5146.00
21.100	0.00	0.0	0.0	0.0	0.00	5146.00
21.200	0.00	0.0	0.0	0.0	0.00	5146.00
21.300	0.00	0.0	0.0	0.0	0.00	5146.00
21.400	0.00	0.0	0.0	0.0	0.00	5146.00
21.500	0.00	0.0	0.0	0.0	0.00	5146.00
21.600	0.00	0.0	0.0	0.0	0.00	5146.00
21.700	0.00	0.0	0.0	0.0	0.00	5146.00
21.800	0.00	0.0	0.0	0.0	0.00	5146.00
21.900	0.00	0.0	0.0	0.0	0.00	5146.00
22.000	0.00	0.0	0.0	0.0	0.00	5146.00
22.100	0.00	0.0	0.0	0.0	0.00	5146.00
22.200	0.00	0.0	0.0	0.0	0.00	5146.00
22.300	0.00	0.0	0.0	0.0	0.00	5146.00
22.400	0.00	0.0	0.0	0.0	0.00	5146.00
22.500	0.00	0.0	0.0	0.0	0.00	5146.00
22.600	0.00	0.0	0.0	0.0	0.00	5146.00
22.700	0.00	0.0	0.0	0.0	0.00	5146.00
22.800	0.00	0.0	0.0	0.0	0.00	5146.00
22.900	0.00	0.0	0.0	0.0	0.00	5146.00
23.000	0.00	0.0	0.0	0.0	0.00	5146.00
23.100	0.00	0.0	0.0	0.0	0.00	5146.00
23.200	0.00	0.0	0.0	0.0	0.00	5146.00
23.300	0.00	0.0	0.0	0.0	0.00	5146.00
23.400	0.00	0.0	0.0	0.0	0.00	5146.00
23.500	0.00	0.0	0.0	0.0	0.00	5146.00
23.600	0.00	0.0	0.0	0.0	0.00	5146.00
23.700	0.00	0.0	0.0	0.0	0.00	5146.00
23.800	0.00	0.0	0.0	0.0	0.00	5146.00
23.900	0.00	0.0	0.0	0.0	0.00	5146.00
24.000	0.00	0.0	0.0	0.0	0.00	5146.00
24.100	0.00	0.0	0.0	0.0	0.00	5146.00
24.200	0.00	0.0	0.0	0.0	0.00	5146.00
24.300	0.00	0.0	0.0	0.0	0.00	5146.00
24.400	0.00	0.0	0.0	0.0	0.00	5146.00
24.500	0.00	0.0	0.0	0.0	0.00	5146.00
24.600	0.00	0.0	0.0	0.0	0.00	5146.00

Pond File: C:\POND2\ROSE5-5 .PND
Inflow Hydrograph: C:\POND2\ROSE5-5 .HYD
Outflow Hydrograph: C:\POND2\ROSE5-50.HYD

INFLOW HYDROGRAPH

ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
24.700	0.00	0.0	0.0	0.0	0.00	5146.00
24.800	0.00	0.0	0.0	0.0	0.00	5146.00
24.900	0.00	0.0	0.0	0.0	0.00	5146.00
25.000	0.00	0.0	0.0	0.0	0.00	5146.00
25.100	0.00	0.0	0.0	0.0	0.00	5146.00
25.200	0.00	0.0	0.0	0.0	0.00	5146.00
25.300	0.00	0.0	0.0	0.0	0.00	5146.00
25.400	0.00	0.0	0.0	0.0	0.00	5146.00
25.500	0.00	0.0	0.0	0.0	0.00	5146.00
25.600	0.00	0.0	0.0	0.0	0.00	5146.00
25.700	0.00	0.0	0.0	0.0	0.00	5146.00
25.800	0.00	0.0	0.0	0.0	0.00	5146.00
25.900	0.00	0.0	0.0	0.0	0.00	5146.00

********** SUMMARY OF ROUTING COMPUTATIONS **********

Pond File: C:\POND2\ROSE5-5 .PND
Inflow Hydrograph: C:\POND2\ROSE5-5 .HYD
Outflow Hydrograph: C:\POND2\ROSE5-50.HYD

Starting Pond W.S. Elevation = 5146.00 ft

***** Summary of Peak Outflow and Peak Elevation *****

Peak Inflow	=	26.00 cfs
Peak Outflow	=	18.43 cfs
Peak Elevation	=	5149.44 ft

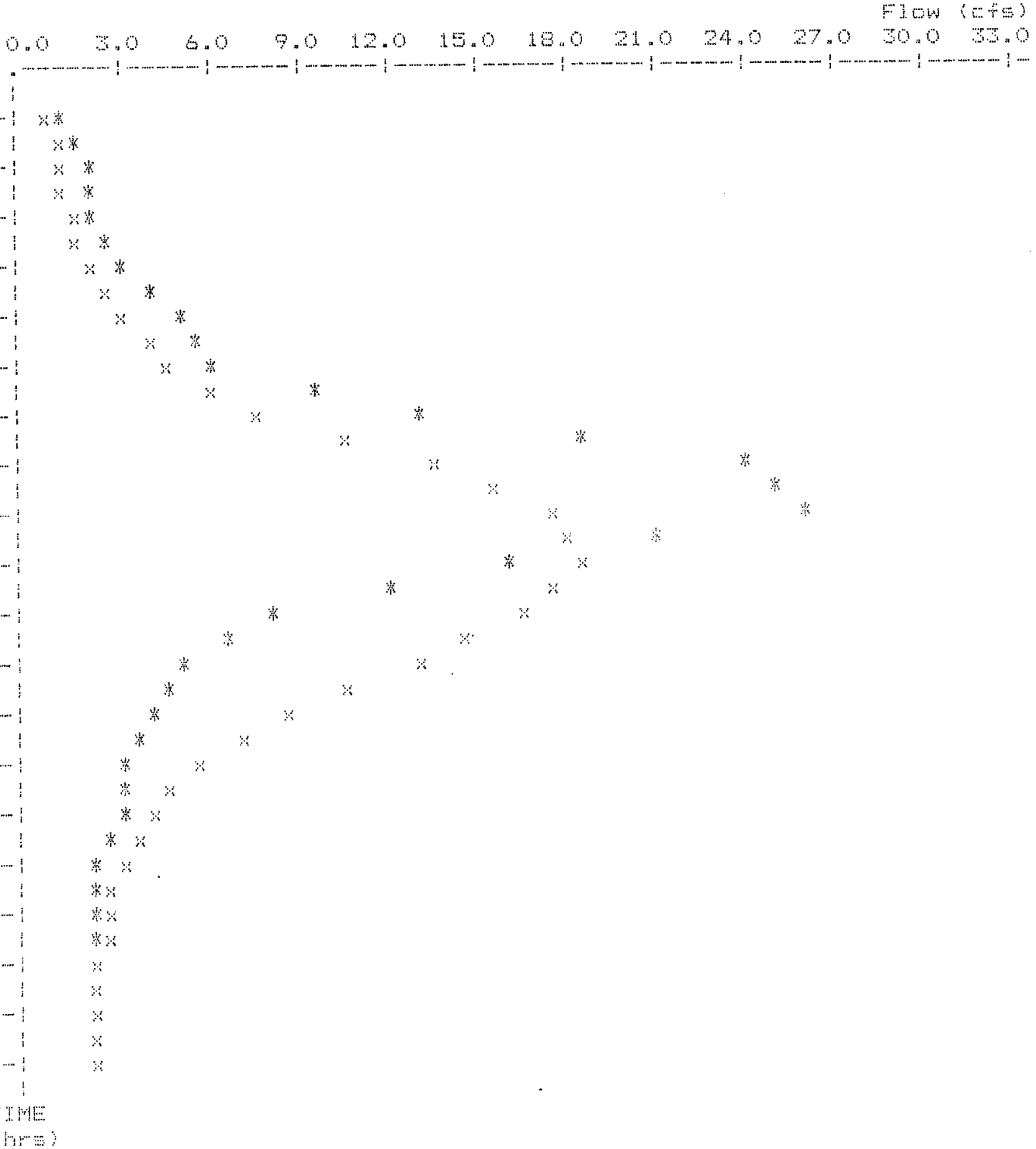
***** Summary of Approximate Peak Storage *****

Initial Storage	=	0.00 ac-ft
Peak Storage From Storm	=	0.25 ac-ft
Total Storage in Pond	=	0.25 ac-ft

Pond File: C:\POND2\ROSE5-5 .PND
Inflow Hydrograph: C:\POND2\ROSE5-5 .HYD
Outflow Hydrograph: C:\POND2\ROSE5-50.HYD

EXECUTED: 08-05-1990
10:58:55

Peak Inflow = 26.00 cfs
Peak Outflow = 18.43 cfs
Peak Elevation = 5149.44 ft



* File: C:\POND2\ROSE5-5 .HYD Qmax = 26.0 cfs
x File: C:\POND2\ROSE5-50.HYD Qmax = 18.4 cfs

```
*************************************************************
*                                                           *
*              ROSEWOOD WASH DRAINAGE BASIN                 *
*     POND #5   POND IN EASTGATE AT TOP OF SLOPE            *
*                    100 YEAR STORM                         *
*  CODEGA & FRICKE, INC     8-8-90     GMP    1016.10      *
*                                                           *
*************************************************************
```

Inflow Hydrograph: C:\POND2\ROSE5-C .HYD
Rating Table file: C:\POND2\ROSE5-C .PND

-----INITIAL CONDITIONS-----
Elevation = 5146.00 ft
Outflow = 0.00 cfs
Storage = 0.00 ac-ft

GIVEN POND DATA

ELEVATION (ft)	OUTFLOW (cfs)	STORAGE (ac-ft)
5146.00	0.0	0.000
5146.50	1.0	0.020
5147.00	3.2	0.045
5147.50	6.7	0.075
5148.00	10.6	0.112
5148.50	12.8	0.154
5149.00	16.5	0.204
5149.50	18.7	0.261
5150.00	20.7	0.326
5150.50	22.6	0.399
5151.00	24.3	0.477
5151.50	25.9	0.560
5152.00	27.4	0.651
5152.50	28.8	0.747
5153.00	43.9	0.850
5153.50	70.4	0.960
5154.00	94.7	1.077
5154.50	118.2	1.199
5155.00	130.7	1.324
5155.10	132.9	1.350

INTERMEDIATE ROUTING COMPUTATIONS

2S/t (cfs)	2S/t + O (cfs)
0.0	0.0
4.9	5.9
10.9	14.1
18.2	24.9
27.0	37.6
37.3	51.1
49.3	65.8
63.2	81.9
79.0	99.7
96.5	119.1
115.3	139.6
135.6	161.5
157.4	184.8
180.8	209.6
205.7	249.6
232.3	302.7
260.6	355.3
290.1	408.3
320.3	451.0
326.6	459.4

Time increment (t) = 0.100 hrs.

Pond File: C:\POND2\ROSE5-C .PND
Inflow Hydrograph: C:\POND2\ROSE5-C .HYD
Outflow Hydrograph: C:\POND2\ROSE5-CO.HYD

INFLOW HYDROGRAPH

ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
11.000	2.00	------	0.0	0.0	0.00	5146.00
11.100	2.00	4.0	2.6	4.0	0.68	5146.34
11.200	3.00	5.0	4.7	7.6	1.48	5146.61
11.300	3.00	6.0	6.1	10.7	2.29	5146.79
11.400	3.00	6.0	6.8	12.1	2.67	5146.88
11.500	4.00	7.0	7.5	13.8	3.11	5146.98
11.600	4.00	8.0	8.2	15.5	3.67	5147.07
11.700	9.00	13.0	10.2	21.2	5.50	5147.33
11.800	14.00	23.0	14.7	33.2	9.25	5147.83
11.900	19.00	33.0	21.7	47.7	12.99	5148.37
12.000	35.00	54.0	40.0	75.7	17.85	5149.31
12.100	64.00	99.0	90.5	139.0	24.25	5150.99
12.200	69.00	133.0	155.4	223.5	34.06	5152.67
12.300	42.00	111.0	161.9	266.4	52.28	5153.16
12.400	22.00	64.0	156.0	225.9	34.94	5152.70
12.500	14.00	36.0	136.4	192.0	27.80	5152.14
12.600	11.00	25.0	109.6	161.4	25.89	5151.50
12.700	9.00	20.0	82.7	129.6	23.47	5150.76
12.800	9.00	17.0	58.3	99.7	20.70	5150.00
12.900	7.00	15.0	38.2	73.3	17.52	5149.23
13.000	6.00	13.0	23.6	51.2	13.82	5148.50
13.100	6.00	12.0	15.6	35.6	9.98	5147.92
13.200	5.00	11.0	12.2	26.6	7.22	5147.57
13.300	5.00	10.0	10.5	22.2	5.81	5147.37
13.400	5.00	10.0	10.0	20.5	5.29	5147.30
13.500	5.00	10.0	9.8	20.0	5.10	5147.27
13.600	5.00	10.0	9.7	19.8	5.04	5147.26
13.700	4.00	9.0	9.3	18.7	4.69	5147.21
13.800	3.00	7.0	8.5	16.3	3.92	5147.10
13.900	3.00	6.0	7.8	14.5	3.33	5147.02
14.000	3.00	6.0	7.6	13.8	3.13	5146.98
14.100	3.00	6.0	7.4	13.6	3.06	5146.97
14.200	3.00	6.0	7.4	13.4	3.03	5146.96
14.300	3.00	6.0	7.4	13.4	3.01	5146.96
14.400	3.00	6.0	7.3	13.4	3.01	5146.96
14.500	3.00	6.0	7.3	13.3	3.00	5146.96
14.600	3.00	6.0	7.3	13.3	3.00	5146.95
14.700	3.00	6.0	7.3	13.3	3.00	5146.95
14.800	3.00	6.0	7.3	13.3	3.00	5146.95
14.900	3.00	6.0	7.3	13.3	3.00	5146.95
15.000	3.00	6.0	7.3	13.3	3.00	5146.95
15.100	3.00	6.0	7.3	13.3	3.00	5146.95
15.200	3.00	6.0	7.3	13.3	3.00	5146.95
15.300	2.00	5.0	6.9	12.3	2.73	5146.89
15.400	2.00	4.0	6.2	10.9	2.34	5146.80

Pond File: C:\POND2\ROSE5-C .PND
Inflow Hydrograph: C:\POND2\ROSE5-C .HYD
Outflow Hydrograph: C:\POND2\ROSE5-CO.HYD

INFLOW HYDROGRAPH — ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
15.500	2.00	4.0	5.9	10.2	2.16	5146.76
15.600	2.00	4.0	5.7	9.9	2.07	5146.74
15.700	2.00	4.0	5.7	9.7	2.03	5146.74
15.800	2.00	4.0	5.6	9.7	2.02	5146.73
15.900	2.00	4.0	5.6	9.6	2.01	5146.73
16.000	2.00	4.0	5.6	9.6	2.00	5146.73
16.100	2.00	4.0	5.6	9.6	2.00	5146.73
16.200	2.00	4.0	5.6	9.6	2.00	5146.73
16.300	2.00	4.0	5.6	9.6	2.00	5146.73
16.400	2.00	4.0	5.6	9.6	2.00	5146.73
16.500	2.00	4.0	5.6	9.6	2.00	5146.73
16.600	2.00	4.0	5.6	9.6	2.00	5146.73
16.700	2.00	4.0	5.6	9.6	2.00	5146.73
16.800	2.00	4.0	5.6	9.6	2.00	5146.73
16.900	2.00	4.0	5.6	9.6	2.00	5146.73
17.000	2.00	4.0	5.6	9.6	2.00	5146.73
17.100	2.00	4.0	5.6	9.6	2.00	5146.73
17.200	2.00	4.0	5.6	9.6	2.00	5146.73
17.300	2.00	4.0	5.6	9.6	2.00	5146.73
17.400	2.00	4.0	5.6	9.6	2.00	5146.73
17.500	2.00	4.0	5.6	9.6	2.00	5146.73
17.600	2.00	4.0	5.6	9.6	2.00	5146.73
17.700	2.00	4.0	5.6	9.6	2.00	5146.73
17.800	2.00	4.0	5.6	9.6	2.00	5146.73
17.900	2.00	4.0	5.6	9.6	2.00	5146.73
18.000	2.00	4.0	5.6	9.6	2.00	5146.73
18.100	2.00	4.0	5.6	9.6	2.00	5146.73
18.200	2.00	4.0	5.6	9.6	2.00	5146.73
18.300	2.00	4.0	5.6	9.6	2.00	5146.73
18.400	2.00	4.0	5.6	9.6	2.00	5146.73
18.500	2.00	4.0	5.6	9.6	2.00	5146.73
18.600	1.00	3.0	5.1	8.6	1.73	5146.67
18.700	1.00	2.0	4.4	7.1	1.34	5146.58
18.800	1.00	2.0	4.1	6.4	1.16	5146.54
18.900	1.00	2.0	4.0	6.1	1.07	5146.52
19.000	1.00	2.0	3.9	6.0	1.03	5146.51
19.100	1.00	2.0	3.9	5.9	1.02	5146.50
19.200	1.00	2.0	3.9	5.9	1.01	5146.50
19.300	1.00	2.0	3.9	5.9	1.00	5146.50
19.400	1.00	2.0	3.9	5.9	1.00	5146.50
19.500	1.00	2.0	3.9	5.9	1.00	5146.50
19.600	1.00	2.0	3.9	5.9	1.00	5146.50
19.700	1.00	2.0	3.9	5.9	1.00	5146.50
19.800	1.00	2.0	3.9	5.9	1.00	5146.50
19.900	1.00	2.0	3.9	5.9	1.00	5146.50
20.000	1.00	2.0	3.9	5.9	1.00	5146.50

Pond File: C:\POND2\ROSE5-C .PND
Inflow Hydrograph: C:\POND2\ROSE5-C .HYD
Outflow Hydrograph: C:\POND2\ROSE5-CO.HYD

INFLOW HYDROGRAPH | ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
20.100	1.00	2.0	3.9	5.9	1.00	5146.50
20.200	1.00	2.0	3.9	5.9	1.00	5146.50
20.300	1.00	2.0	3.9	5.9	1.00	5146.50
20.400	1.00	2.0	3.9	5.9	1.00	5146.50
20.500	1.00	2.0	3.9	5.9	1.00	5146.50
20.600	1.00	2.0	3.9	5.9	1.00	5146.50
20.700	1.00	2.0	3.9	5.9	1.00	5146.50
20.800	1.00	2.0	3.9	5.9	1.00	5146.50
20.900	1.00	2.0	3.9	5.9	1.00	5146.50
21.000	1.00	2.0	3.9	5.9	1.00	5146.50
21.100	1.00	2.0	3.9	5.9	1.00	5146.50
21.200	1.00	2.0	3.9	5.9	1.00	5146.50
21.300	1.00	2.0	3.9	5.9	1.00	5146.50
21.400	1.00	2.0	3.9	5.9	1.00	5146.50
21.500	1.00	2.0	3.9	5.9	1.00	5146.50
21.600	1.00	2.0	3.9	5.9	1.00	5146.50
21.700	1.00	2.0	3.9	5.9	1.00	5146.50
21.800	1.00	2.0	3.9	5.9	1.00	5146.50
21.900	1.00	2.0	3.9	5.9	1.00	5146.50
22.000	1.00	2.0	3.9	5.9	1.00	5146.50
22.100	1.00	2.0	3.9	5.9	1.00	5146.50
22.200	1.00	2.0	3.9	5.9	1.00	5146.50
22.300	1.00	2.0	3.9	5.9	1.00	5146.50
22.400	1.00	2.0	3.9	5.9	1.00	5146.50
22.500	1.00	2.0	3.9	5.9	1.00	5146.50
22.600	1.00	2.0	3.9	5.9	1.00	5146.50
22.700	1.00	2.0	3.9	5.9	1.00	5146.50
22.800	1.00	2.0	3.9	5.9	1.00	5146.50
22.900	1.00	2.0	3.9	5.9	1.00	5146.50
23.000	1.00	2.0	3.9	5.9	1.00	5146.50
23.100	1.00	2.0	3.9	5.9	1.00	5146.50
23.200	1.00	2.0	3.9	5.9	1.00	5146.50
23.300	1.00	2.0	3.9	5.9	1.00	5146.50
23.400	1.00	2.0	3.9	5.9	1.00	5146.50
23.500	1.00	2.0	3.9	5.9	1.00	5146.50
23.600	1.00	2.0	3.9	5.9	1.00	5146.50
23.700	1.00	2.0	3.9	5.9	1.00	5146.50
23.800	1.00	2.0	3.9	5.9	1.00	5146.50
23.900	1.00	2.0	3.9	5.9	1.00	5146.50
24.000	0.00	1.0	3.2	4.9	0.83	5146.41
24.100	0.00	0.0	2.1	3.2	0.55	5146.27
24.200	0.00	0.0	1.4	2.1	0.36	5146.18
24.300	0.00	0.0	0.9	1.4	0.24	5146.12
24.400	0.00	0.0	0.6	0.9	0.16	5146.08
24.500	0.00	0.0	0.4	0.6	0.10	5146.03
24.600	0.00	0.0	0.3	0.4	0.07	5146.03

POND-2 Version: 5.13 S/N: 1220510336
EXECUTED: 08-05-1990 11:00:54

Pond File: C:\POND2\ROSE5-C .PND
Inflow Hydrograph: C:\POND2\ROSE5-C .HYD
Outflow Hydrograph: C:\POND2\ROSE5-CO.HYD

INFLOW HYDROGRAPH

ROUTING COMPUTATIONS

TIME (hrs)	INFLOW (cfs)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
24.700	0.00	0.0	0.2	0.3	0.04	5146.02
24.800	0.00	0.0	0.1	0.2	0.03	5146.01
24.900	0.00	0.0	0.1	0.1	0.02	5146.01
25.000	0.00	0.0	0.0	0.1	0.01	5146.01
25.100	0.00	0.0	0.0	0.0	0.01	5146.00
25.200	0.00	0.0	0.0	0.0	0.01	5146.00
25.300	0.00	0.0	0.0	0.0	0.00	5146.00
25.400	0.00	0.0	0.0	0.0	0.00	5146.00
25.500	0.00	0.0	0.0	0.0	0.00	5146.00
25.600	0.00	0.0	0.0	0.0	0.00	5146.00
25.700	0.00	0.0	0.0	0.0	0.00	5146.00
25.800	0.00	0.0	0.0	0.0	0.00	5146.00
25.900	0.00	0.0	0.0	0.0	0.00	5146.00

********** SUMMARY OF ROUTING COMPUTATIONS **********

Pond File: C:\POND2\ROSE5-C .PND
Inflow Hydrograph: C:\POND2\ROSE5-C .HYD
Outflow Hydrograph: C:\POND2\ROSE5-CO.HYD

Starting Pond W.S. Elevation = 5146.00 ft

***** Summary of Peak Outflow and Peak Elevation *****

Peak Inflow	=	69.00 cfs
Peak Outflow	=	52.28 cfs
Peak Elevation	=	5153.16 ft

***** Summary of Approximate Peak Storage *****

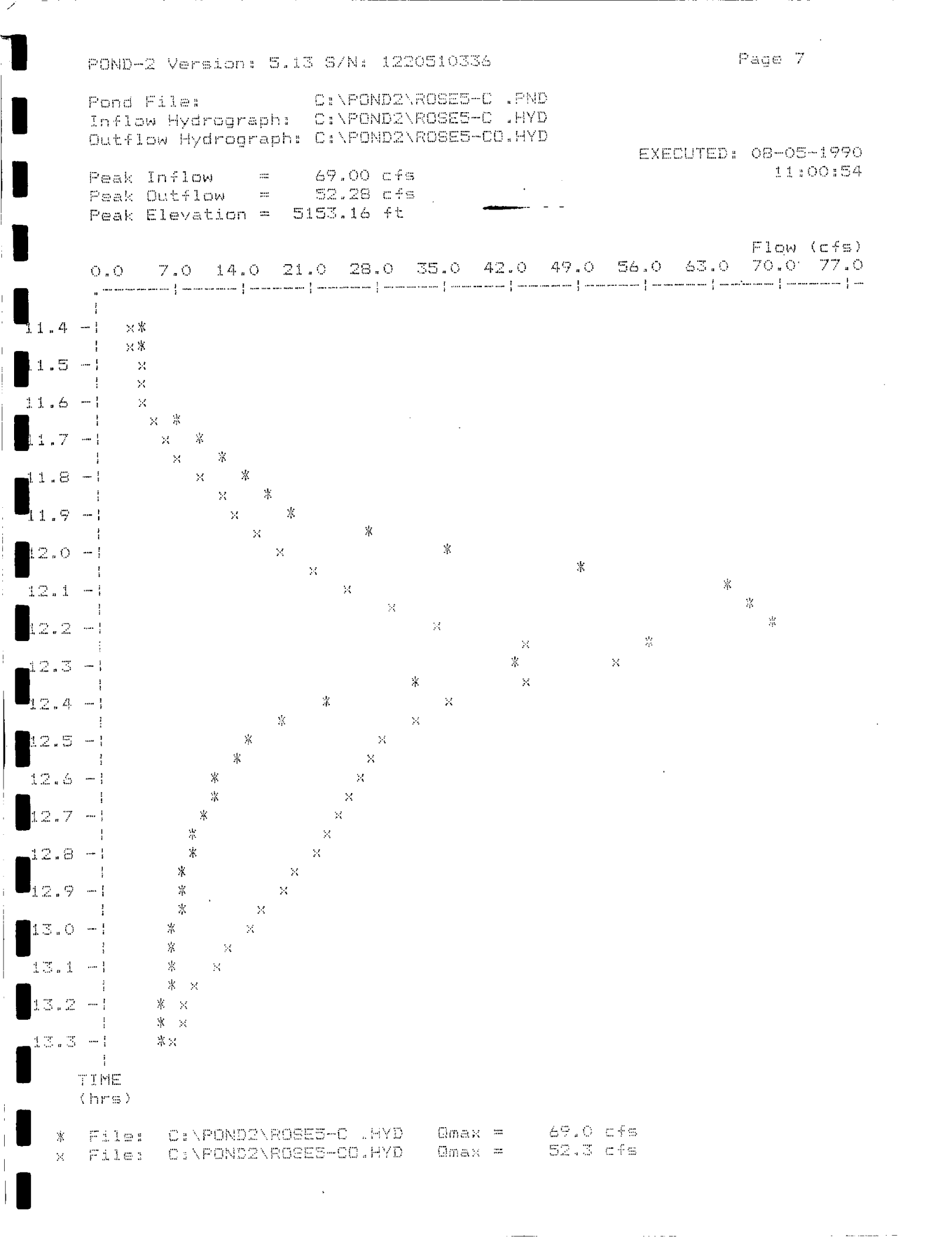
Initial Storage	=	0.00 ac-ft
Peak Storage From Storm	=	0.88 ac-ft
Total Storage in Pond	=	0.88 ac-ft

Warning: Inflow hydrograph truncated on left side.

Pond File: C:\POND2\ROSE5-C .PND
Inflow Hydrograph: C:\POND2\ROSE5-C .HYD
Outflow Hydrograph: C:\POND2\ROSE5-CO.HYD

EXECUTED: 08-05-1990
11:00:54

Peak Inflow = 69.00 cfs
Peak Outflow = 52.28 cfs
Peak Elevation = 5153.16 ft



* File: C:\POND2\ROSE5-C .HYD Qmax = 69.0 cfs
x File: C:\POND2\ROSE5-CO.HYD Qmax = 52.3 cfs

CAUGHLIN RANCH

Master Grading Plan II
&
Master Hydrology Map

POND #	VOLUME (ac/ft)	PRIMARY STRUCTURE	SECONDARY STRUCTURE	INFLOW (CFS)		OUTFLOW (CFS)	
				Q(5)	Q(100)	Q(5)	Q(100)
1	4.3	10" PIPE	18" PIPE	45	91	7.4	16
2	3.6	10" PIPE	24" PIPE	35.3	87.6	7.7	23.8
3	1.0	15" PIPE	24" PIPE	13.5	31.0	8.6	25.3
4	.14	24" PIPE	60" DIA STANDPIPE	11.9	26.8	11.7	26.8
5	1.35	18" PIPE	60" DIA STANDPIPE	26.0	69.0	18.4	52.3

POND #6
Caughlin Ranch Shopping Center
Caughlin Ranch Elementary School
Village Green Park
Village Green Unit 1
Village Green Unit 2
McCarran Boulevard
Existing Detention Basin
Footprints Site & Part of Southpoint Site are Already Graded
Existing Stark Edge Re-contoured to Create Natural-Looking Cascading Areas
Visually Sensitive Slope Above McCarran Boulevard is Preserved
SPPCo Substation
Limit of Grading (typ.)
Grading Provides Backdrop/Screening of Substation & R.V./Mini Storage Uses
R.V./Mini Storage Site
Area of Fill > 10' (typ.)
Area of Cut > 20' (typ.)
The Pines

POND #6
POND #5
POND #4
POND #3
POND #2
POND #1

CB 25 CB 24 CB 23 CB 22 CB 21 CB 20 CB 19 CB 26 CB 27 CB 10 CB 11 CB 8 CB 9 CB 12 CB 13 CB 14 CB 15 CB 16 CB 17 CB 18 CB 1 CB 2 CB 3 CB 4 CB 5 CB 6 CB 7

YD 1 YD 2 YD 3

DOWN-DRAIN #2 DOWN-DRAIN #1

LEGEND
- MANHOLE
- CATCH BASIN
- YARD DRAIN
- CONCRETE SWALE
- STORM DRAIN PIPE
- DRAINAGE BOUNDARY
- DRAINAGE DITCH

SCALE: 1"=100'
0' 50' 100' 200'
North

Codega & Fricke, inc.
engineers + planners
3690 Grant Drive/Suite J • Reno, Nevada 89509 • (702) 827-8833

1016.33 AUG 8 1990