Balance Hydrologics, Inc.®

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April 18, 2016

Mr. Mike Campbell, AICP
HMH Engineers
1570 Oakland Road
San Jose, California 95131

RE: Summary of Revised Hydromodification Management Modeling for the Samaritan Court Project, City of San Jose

Dear Mr. Campbell:

Thank you for again for extending the opportunity to Balance Hydrologics to assist with modeling of the proposed hydromodification control facilities at the Samaritan Court project in the City of San Jose. As you know, we have been coordinating with staff in your office to provide appropriate design parameters for the infrastructure components that will be used to meet hydromodification management requirements at the site. This letter report summarizes the work that was completed and provides appropriate model output to demonstrate that the proposed facilities will meet the pertinent requirements for flow duration control.

Setting and Proposed Stormwater Infrastructure

The Samaritan Court project is located in a part of the City of San Jose that is subject to hydromodification management requirements as set for in the C.3 Stormwater Handbook prepared by the Santa Clara Valley Urban Runoff Pollution Prevention Program and the Municipal Regional Permit issued by the San Francisco Bay Regional Water Quality Control Board.

Soil mapping prepared by the National Resource Conservation Service shows that the entirety of the site is underlain by soils in the Urban Land-Flaskan Complex. These soils are categorized in Hydrologic Soil Group C, indicative of relatively low infiltration rates and correspondingly high runoff potential. On one hand, this confirms that the site is less susceptible to generating hydromodification impacts from the proposed improvements. However, it also shows that infiltration based approaches to C.3 compliance are not practical at the site.

To assure full C.3 compliance, all treatment control facilities at the site are designed as bioretention units (either cells or planters) for stormwater quality and flow-duration control.

Technical Approach and Modeling

Hydromodification impacts and mitigation were assessed using the Bay Area Hydrology Model (BAHM), a platform specifically developed by local stormwater agencies for this purpose. Data to parameterize the model were taken from site plans and information provided by HMH Engineers. The Samaritan Court project comprises redevelopment of a site that is characterized by high levels of pre-project impervious cover as summarized in the attached Table 1. As the entire site currently drains to a common point of concentration (within the Guadalupe River watershed) and does not have installed treatment controls, the pre-project conditions are represented by a single sub-basin in the BAHM model. The post-project conditions are represented by a total of 18 sub-basins, also summarized in Table 1. Of these, seven will drain to bioretention units (biotreatment cells), three will drain to flow-through planters, and eight are categorized as self-treating areas. The total land area is 4.03 acres, which includes DMAs 14 and 17 that are existing areas within the public right-of-way. The attached Figure 1 shows a map of the project site with the post-project drainage areas.

The assembled input data was entered into the BAHM model, and iterative model runs were carried out to optimize the size of each facility and the required underdrain orifice and overflow riser sizes. The BAHM modeling results are provided in the attached Appendix A. Pre-project peak flows range from 1.87 cfs for the 2-year event to 2.90 cfs for the 10-year event, effectively setting the low end of the flow-duration control regime to 0.19 cfs. Post-project 2-year peak flow is reduced to 0.93 cfs and post-project 10-year peak flow to 1.98 cfs. The results show compliance with hydromodification criteria across the full-required control range.

Key aspects of the modeling and proposed design include:

- *Dimensions of the Treatment Controls*. Table 2 summarizes the dimensions of each of the proposed treatment controls. Facility size varies with the size of the respective drainage area and the extent and mix of the impervious cover therein.

- *Bioretention Soil*. Water-quality treatment will be provided by a standard 18-inch layer of bioretention soil with a modeled infiltration rate of 5 inches/hour.

- *Underdrains and Orifices*. Efforts were made to standardize facility component sizes. For example, all of the facilities will require underdrains with orifices to control outflow rates to meet the flow-duration control standards. The underdrain orifices for all of the units will be 0.85 inches in diameter, except for those on TCM 2 and TCM 8, which will be 1.0 inches in diameter. The underdrain diameter for all units will be .33 feet in diameter, except for TCM 8, which will be .5 feet in diameter.

- *Emergency Overflow*. Each facility will be equipped with a standard overflow riser, modeled with a nominal diameter of 12 inches. However, four of the facilities (TCMs 1 through 4, see Table 2) will have notched riser tops to facilitate outflow during particularly large storm events.

Closing

The BAHM modeling work shows that the proposed distributed treatment control facilities can effectively control for hydromodification impacts while assuring that runoff from the site receives C.3 water-quality treatment per guidelines of the pertinent permits.

Please do not hesitate to contact Balance if you have any questions or comments related to this scope or the work approach suggested.

Sincerely,

BALANCE HYDROLOGICS, Inc.

Edward D. Ballman, P.E.
Principal Engineer

Enclosure: Table 1 – Summary of input land use parameters
Table 2 – Summary of facility dimensions for C.3 compliance
Figure 1 – Site Plan
Appendix A – BAHM Project Report

Table 1. Summary of input land use parameters for BAHM modeling, Samaritan Court Project, City of San Jose

		Post-project Drainage Areas									
Land Use	**Pre-project**	**DMA1**	**DMA2**	**DMA3**	**DMA4**	**DMA5**	**DMA6**	**DMA7**	**DMA8**	**DMA9**	**DMA18**
Pervious											
C/D, Urban, Flat	2.61	0.03	0.01	0.14	0.17	0.07	0.06	0.03	0.00	0.01	0.00
Impervious											
Roof Area	0.53	0.26	0.02	0.25	0.00	0.00	0.08	0.00	0.00	0.16	0.12
Driveways, Flat	0.00	0.00	0.09	0.00	0.00	0.06	0.11	0.02	0.00	0.00	0.00
Sidewalks, Flat	0.07	0.08	0.06	0.00	0.04	0.00	0.02	0.03	0.00	0.00	0.00
Streets, Flat	0.20	0.00									
Parking, Flat	0.62	0.00	0.00	0.00	0.16	0.54	0.00	0.00	0.55	0.00	0.00
TOTAL	4.03	0.37	0.18	0.40	0.37	0.66	0.27	0.08	0.55	0.17	0.12

All values are shown in acres, based on land use data provided by HMH Engineers

Table 1. Summary of input land use parameters for BAHM modeling, Samaritan Court Project, City of San Jose (con't)

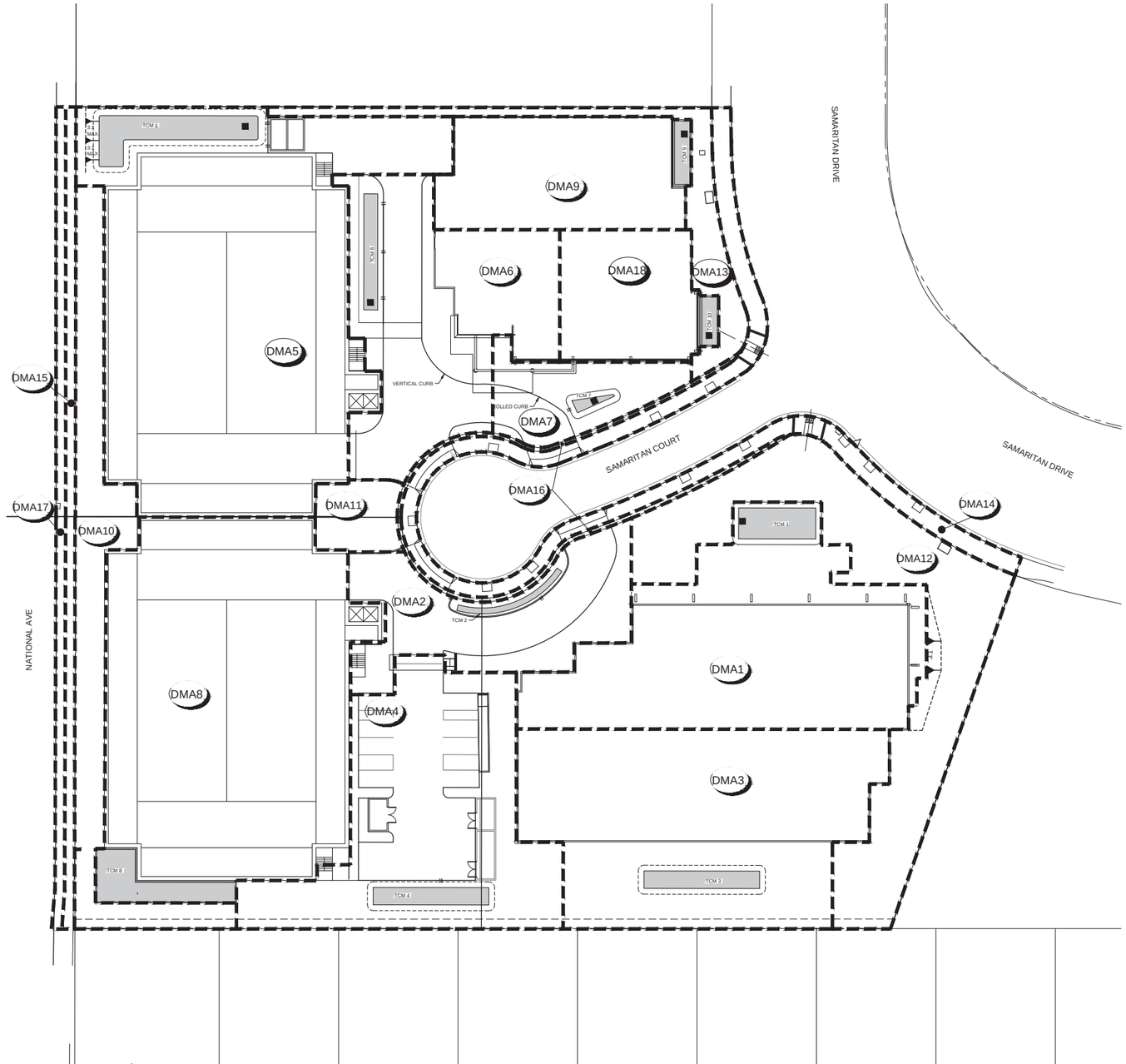
	Post-project Self-Treating Areas							
Land Use	**DMA10**	**DMA11**	**DMA12**	**DMA13**	**DMA14***	**DMA15**	**DMA16**	**DMA17***
Pervious								
C/D, Urban, Flat	0.14	0.04	0.30	0.08	0.00	0.00	0.00	0.00
Impervious								
Roof Area	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Driveways, Flat	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sidewalks, Flat	0.00	0.00	0.00	0.00	0.15	0.10	0.02	0.05
Parking, Flat	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	0.14	0.04	0.30	0.08	0.15	0.10	0.02	0.05

**DMAs 14, 17 are existing areas within public right-of-way*

Table 2. Summary of facility dimensions for C.3 compliance, Samaritan Court Project, City of San Jose

	Dimensions			Underdrain	Orifice	Riser Notch	
	Length	Width	Area	Diameter	Diameter	Height	Width
Facility	*(feet)*	*(feet)*	*(ft^2)*	*(ft)*	*(inches)*	*(inches)*	*(inches)*
TCM 1	40	16	640	0.33	0.85	4	3
TCM 2	66	3	198	0.33	1	4	3
TCM 3	60	9	540	0.33	0.85	4	3
TCM 4	60	9	540	0.33	0.85	4	3
TCM 5	90	12	1080	0.33	0.85	n.a.	n.a.
TCM 6	62	7	434	0.33	0.85	n.a.	n.a.
TCM 7	21	4	84	0.33	0.85	n.a.	n.a.
TCM 8*	28	37	1036	0.5	1	n.a.	n.a.
TCM 9	29	9	261	0.33	0.85	n.a.	n.a.
TCM 10	20	8	160	0.33	0.85	n.a.	n.a.

*TCM 8 is an L shaped area with an equivalent area of about 28' x 37'.



0 15 30 60

1 INCH = 30 FEET

LEGEND

PROJECT BOUNDARY

FLOW THROUGH PLANTER OR BIOTREATMENT CELL / HYDROMODIFICATION FACILITY

DRAINAGE MANAGEMENT AREA — DMA

ISSUE RECORD

12/21/15	PD ZONING SUBMITTAL
03/03/16	PD ZONING SUBMITTAL

MEDICAL OFFICE BUILDINGS and FREESTANDING PARKING STRUCTURES

CONCEPTUAL STORMWATER CONTROL PLAN

SAMARITAN MEDICAL CENTER
2506 & 2512 SAMARITAN COURT
San Jose, California
08-24-2015 **RBB #1511900**

PLANNED DEVELOPMENT ZONING
LANDS OF SAMARITAN MEDICAL CENTER
PDC 15-029

HMH
1570 Oakland Road San Jose, CA 95131 (408) 487-2200 HMHca.com

RBB ARCHITECTS INC
10980 Wilshire Boulevard
Los Angeles, California
90024-3905

RBB **5.0**

BAHM2013

PROJECT REPORT

General Model Information

Project Name:	Samaritan Court BAHM 04-15-2016
Site Name:	Samaritan Court
Site Address:	
City:	San Jose
Report Date:	4/18/2016
Gage:	San Jose
Data Start:	1959/10/01
Data End:	2000/09/30
Timestep:	Hourly
Precip Scale:	1.45
Version Date:	2016/02/04

POC Thresholds

Low Flow Threshold for POC1:	10 Percent of the 2 Year
High Flow Threshold for POC1:	10 Year

Landuse Basin Data
Predeveloped Land Use

Pre-project

Bypass:	No
GroundWater:	No

Pervious Land Use	acre
C D,Urban,Flat(0-5%)	2.61
Pervious Total	2.61

Impervious Land Use	acre
Roads,Flat(0-5%)	0.2
Roof Area	0.532
Sidewalks,Flat(0-5%)	0.07
Parking,Flat(0-5%)	0.62
Impervious Total	1.422
Basin Total	4.032

Element Flows To:

Surface	Interflow	Groundwater

Mitigated Land Use

DMA 1

Bypass:	No
GroundWater:	No

Pervious Land Use	acre
C D,Urban,Flat(0-5%)	0.028
Pervious Total	0.028

Impervious Land Use	acre
Roof Area	0.259
Sidewalks,Flat(0-5%)	0.08
Impervious Total	0.339
Basin Total	0.367

Element Flows To:

Surface	Interflow	Groundwater
Surface ention TCM 1	Surface ention TCM 1	

DMA 2

Bypass:	No
GroundWater:	No

Pervious Land Use	acre
C D,Urban,Flat(0-5%)	0.013
Pervious Total	0.013

Impervious Land Use	acre
Roof Area	0.016
Driveways,Flat(0-5%)	0.09
Sidewalks,Flat(0-5%)	0.06
Impervious Total	0.166
Basin Total	0.179

Element Flows To:

Surface	Interflow	Groundwater
Surface ention TCM 2	Surface ention TCM 2	

DMA 3

Bypass:	No
GroundWater:	No

Pervious Land Use	acre
C D,Urban,Flat(0-5%)	0.144
Pervious Total	0.144

Impervious Land Use	acre
Roof Area	0.254
Impervious Total	0.254
Basin Total	0.398

Element Flows To:

Surface	Interflow	Groundwater
Surface ention TCM 3	Surface ention TCM 3	

DMA 4

Bypass:	No
GroundWater:	No

Pervious Land Use	acre
C D,Urban,Flat(0-5%)	0.169
Pervious Total	0.169

Impervious Land Use	acre
Sidewalks,Flat(0-5%)	0.041
Parking,Flat(0-5%)	0.16
Impervious Total	0.201
Basin Total	0.37

Element Flows To:

Surface	Interflow	Groundwater
Surface ention TCM 4	Surface ention TCM 4	

DMA 5

Bypass:	No
GroundWater:	No

Pervious Land Use	acre
C D,Urban,Flat(0-5%)	0.068
Pervious Total	0.068

Impervious Land Use	acre
Driveways,Flat(0-5%)	0.061
Parking,Flat(0-5%)	0.535
Impervious Total	0.596
Basin Total	0.664

Element Flows To:

Surface	Interflow	Groundwater
Surface ention TCM 5	Surface ention TCM 5	

DMA 6

Bypass:	No
GroundWater:	No

Pervious Land Use	acre
C D,Urban,Flat(0-5%)	0.059
Pervious Total	0.059

Impervious Land Use	acre
Roof Area	0.084
Driveways,Flat(0-5%)	0.109
Sidewalks,Flat(0-5%)	0.022
Impervious Total	0.215
Basin Total	0.274

Element Flows To:

Surface	Interflow	Groundwater
Surface ention TCM 6	Surface ention TCM 6	

DMA 7

Bypass:	No
GroundWater:	No

Pervious Land Use	acre
C D,Urban,Flat(0-5%)	0.032
Pervious Total	0.032

Impervious Land Use	acre
Driveways,Flat(0-5%)	0.02
Sidewalks,Flat(0-5%)	0.025
Impervious Total	0.045
Basin Total	0.077

Element Flows To:

Surface	Interflow	Groundwater
Surface ention TCM 7	Surface ention TCM 7	

DMA 8

Bypass:	No
GroundWater:	No

Pervious Land Use	acre
C D,Urban,Flat(0-5%)	0.001
Pervious Total	0.001

Impervious Land Use	acre
Parking,Flat(0-5%)	0.549
Impervious Total	0.549
Basin Total	0.55

Element Flows To:

Surface	Interflow	Groundwater
FT Planter Surface 8	FT Planter Surface 8	

DMA 9

Bypass:	No
GroundWater:	No

Pervious Land Use	acre
C D,Urban,Flat(0-5%)	0.008
Pervious Total	0.008

Impervious Land Use	acre
Roof Area	0.164
Impervious Total	0.164
Basin Total	0.172

Element Flows To:

Surface	Interflow	Groundwater
FT Planter Surface 9	FT Planter Surface 9	

DMA 10

Bypass:	Yes
GroundWater:	No
Pervious Land Use	acre
C D,Urban,Flat(0-5%)	0.135
Pervious Total	0.135
Impervious Land Use	acre
Impervious Total	0
Basin Total	0.135

Element Flows To:

Surface	Interflow	Groundwater

DMA 11

Bypass:	Yes
GroundWater:	No
Pervious Land Use	acre
C D,Urban,Flat(0-5%)	0.037
Pervious Total	0.037
Impervious Land Use	acre
Impervious Total	0
Basin Total	0.037

Element Flows To:

Surface	Interflow	Groundwater

DMA 12

Bypass:	Yes
GroundWater:	No
Pervious Land Use	acre
C D,Urban,Flat(0-5%)	0.295
Pervious Total	0.295
Impervious Land Use	acre
Impervious Total	0
Basin Total	0.295

Element Flows To:

Surface	Interflow	Groundwater

DMA 13

Bypass:	Yes
GroundWater:	No
Pervious Land Use	acre
C D,Urban,Flat(0-5%)	0.075
Pervious Total	0.075
Impervious Land Use	acre
Impervious Total	0
Basin Total	0.075

Element Flows To:

Surface	Interflow	Groundwater

DMA 15

Bypass:	Yes
GroundWater:	No
Pervious Land Use	acre
Pervious Total	0
Impervious Land Use	acre
Sidewalks,Flat(0-5%)	0.099
Impervious Total	0.099
Basin Total	0.099

Element Flows To:

Surface	Interflow	Groundwater

DMA 18

Bypass:	Yes
GroundWater:	No
Pervious Land Use	acre
C D,Urban,Flat(0-5%)	0.003
Pervious Total	0.003
Impervious Land Use	acre
Roof Area	0.115
Impervious Total	0.115
Basin Total	0.118

Element Flows To:

Surface	Interflow	Groundwater
F T Plante Surface10	F T Plante Surface10	

DMA 16

Bypass:	Yes
GroundWater:	No
Pervious Land Use	acre
Pervious Total	0
Impervious Land Use	acre
Sidewalks,Flat(0-5%)	0.023
Impervious Total	0.023
Basin Total	0.023

Element Flows To:

Surface	Interflow	Groundwater

DMA 14

Bypass:	Yes
GroundWater:	No
Pervious Land Use	acre
Pervious Total	0
Impervious Land Use	acre
Sidewalks,Flat(0-5%)	0.15
Impervious Total	0.15
Basin Total	0.15

Element Flows To:

Surface	Interflow	Groundwater

DMA 17

Bypass:	Yes
GroundWater:	No
Pervious Land Use	acre
Pervious Total	0
Impervious Land Use	acre
Sidewalks,Flat(0-5%)	0.05
Impervious Total	0.05
Basin Total	0.05

Element Flows To:

Surface	Interflow	Groundwater

Routing Elements
Predeveloped Routing

Mitigated Routing

Bioretention TCM 1

Bottom Length:	40.00 ft.
Bottom Width:	16.00 ft.
Material thickness of first layer:	1.5
Material type for first layer:	BAHM 5
Material thickness of second layer:	1.17
Material type for second layer:	GRAVEL
Material thickness of third layer:	0
Material type for third layer:	GRAVEL
Underdrain used	
Underdrain Diameter (feet):	0.33
Orifice Diameter (in.):	0.85
Offset (in.):	0
Flow Through Underdrain (ac-ft.):	22.53
Total Outflow (ac-ft.):	23.84
Percent Through Underdrain:	94.51
Discharge Structure	
Riser Height:	1 ft.
Riser Diameter:	12 in.
Notch Type:	Rectangular
Notch Width:	0.250 ft.
Notch Height:	0.330 ft.
Element Flows To:	
Outlet 1	Outlet 2

Bioretention Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	Infilt(cfs)
0.0000	0.0310	0.0000	0.0000	0.0000
0.0458	0.0310	0.0003	0.0000	0.0000
0.0916	0.0306	0.0005	0.0000	0.0000
0.1375	0.0303	0.0008	0.0000	0.0000
0.1833	0.0300	0.0011	0.0000	0.0000
0.2291	0.0297	0.0013	0.0000	0.0000
0.2749	0.0293	0.0016	0.0000	0.0000
0.3208	0.0290	0.0019	0.0000	0.0000
0.3666	0.0287	0.0022	0.0000	0.0000
0.4124	0.0284	0.0025	0.0000	0.0000
0.4582	0.0281	0.0028	0.0000	0.0000
0.5041	0.0278	0.0031	0.0000	0.0000
0.5499	0.0275	0.0034	0.0000	0.0000
0.5957	0.0272	0.0037	0.0000	0.0000
0.6415	0.0269	0.0040	0.0000	0.0000
0.6874	0.0266	0.0043	0.0000	0.0000
0.7332	0.0263	0.0046	0.0000	0.0000
0.7790	0.0259	0.0050	0.0000	0.0000
0.8248	0.0257	0.0053	0.0000	0.0000
0.8707	0.0254	0.0056	0.0000	0.0000
0.9165	0.0251	0.0060	0.0000	0.0000
0.9623	0.0248	0.0063	0.0000	0.0000
1.0081	0.0245	0.0067	0.0000	0.0000
1.0540	0.0242	0.0070	0.0000	0.0000
1.0998	0.0239	0.0074	0.0000	0.0000
1.1456	0.0236	0.0077	0.0000	0.0000

1.1914	0.0233	0.0081	0.0000	0.0000
1.2373	0.0230	0.0085	0.0000	0.0000
1.2831	0.0227	0.0089	0.0000	0.0000
1.3289	0.0225	0.0093	0.0000	0.0000
1.3747	0.0222	0.0096	0.0000	0.0000
1.4205	0.0219	0.0100	0.0000	0.0000
1.4664	0.0216	0.0104	0.0000	0.0000
1.5122	0.0213	0.0109	0.0000	0.0000
1.5580	0.0211	0.0113	0.0000	0.0000
1.6038	0.0208	0.0118	0.0000	0.0000
1.6497	0.0205	0.0122	0.0000	0.0000
1.6955	0.0202	0.0127	0.0000	0.0000
1.7413	0.0200	0.0132	0.0000	0.0000
1.7871	0.0197	0.0136	0.0000	0.0000
1.8330	0.0194	0.0141	0.0000	0.0000
1.8788	0.0192	0.0146	0.0000	0.0000
1.9246	0.0189	0.0151	0.0000	0.0000
1.9704	0.0187	0.0156	0.0000	0.0000
2.0163	0.0184	0.0161	0.0000	0.0000
2.0621	0.0181	0.0166	0.0000	0.0000
2.1079	0.0179	0.0171	0.0000	0.0000
2.1537	0.0176	0.0176	0.0000	0.0000
2.1996	0.0174	0.0182	0.0000	0.0000
2.2454	0.0171	0.0187	0.0000	0.0000
2.2912	0.0169	0.0192	0.0000	0.0000
2.3370	0.0166	0.0198	0.0000	0.0000
2.3829	0.0164	0.0203	0.0000	0.0000
2.4287	0.0161	0.0209	0.0000	0.0000
2.4745	0.0159	0.0214	0.0000	0.0000
2.5203	0.0156	0.0220	0.0000	0.0000
2.5662	0.0154	0.0226	0.0000	0.0000
2.6120	0.0152	0.0232	0.0000	0.0000
2.6578	0.0149	0.0237	0.0000	0.0000
2.6700	0.0147	0.0239	0.0000	0.0000

Bioretention Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	To Amended(cfs)	Infilt(cfs)
2.6700	0.0310	0.0239	0.0000	0.0763	0.0000
2.7158	0.0314	0.0253	0.0000	0.0763	0.0000
2.7616	0.0317	0.0268	0.0000	0.0786	0.0000
2.8075	0.0320	0.0282	0.0000	0.0809	0.0000
2.8533	0.0324	0.0297	0.0000	0.0831	0.0000
2.8991	0.0327	0.0312	0.0000	0.0854	0.0000
2.9449	0.0330	0.0327	0.0006	0.0877	0.0000
2.9908	0.0334	0.0342	0.0009	0.0899	0.0000
3.0366	0.0337	0.0358	0.0013	0.0922	0.0000
3.0824	0.0340	0.0373	0.0018	0.0944	0.0000
3.1282	0.0344	0.0389	0.0024	0.0967	0.0000
3.1741	0.0347	0.0405	0.0031	0.0990	0.0000
3.2199	0.0351	0.0421	0.0038	0.1012	0.0000
3.2657	0.0354	0.0437	0.0049	0.1035	0.0000
3.3115	0.0357	0.0453	0.0056	0.1058	0.0000
3.3574	0.0361	0.0469	0.0057	0.1080	0.0000
3.4032	0.0364	0.0486	0.0065	0.1103	0.0000
3.4490	0.0368	0.0503	0.0072	0.1125	0.0000
3.4948	0.0372	0.0520	0.0078	0.1148	0.0000
3.5407	0.0375	0.0537	0.0083	0.1171	0.0000
3.5865	0.0379	0.0554	0.0089	0.1193	0.0000

3.6323	0.0382	0.0572	0.0094	0.1216	0.0000
3.6781	0.0386	0.0589	0.0098	0.1239	0.0000
3.7240	0.0389	0.0607	0.0103	0.1261	0.0000
3.7698	0.0393	0.0625	0.0107	0.1284	0.0000
3.8156	0.0397	0.0643	0.0111	0.1306	0.0000
3.8614	0.0400	0.0661	0.0115	0.1329	0.0000
3.9073	0.0404	0.0680	0.0119	0.1352	0.0000
3.9531	0.0408	0.0698	0.0123	0.1374	0.0000
3.9989	0.0411	0.0717	0.0126	0.1397	0.0000
4.0447	0.0415	0.0736	0.0130	0.1420	0.0000
4.0905	0.0419	0.0755	0.0133	0.1442	0.0000
4.1364	0.0422	0.0774	0.0136	0.1465	0.0000
4.1700	0.0425	0.0789	0.0140	0.1481	0.0000

Surface ention TCM 1

Element Flows To:

Outlet 1	Outlet 2
	Bioretention TCM 1

Bioretention TCM 2

Bottom Length:	66.00 ft.
Bottom Width:	3.00 ft.
Material thickness of first layer:	1.5
Material type for first layer:	BAHM 5
Material thickness of second layer:	1.17
Material type for second layer:	GRAVEL
Material thickness of third layer:	0
Material type for third layer:	GRAVEL
Underdrain used	
Underdrain Diameter (feet):	0.33
Orifice Diameter (in.):	1
Offset (in.):	0
Flow Through Underdrain (ac-ft.):	11.796
Total Outflow (ac-ft.):	11.966
Percent Through Underdrain:	98.58
Discharge Structure	
Riser Height:	1 ft.
Riser Diameter:	12 in.
Notch Type:	Rectangular
Notch Width:	0.250 ft.
Notch Height:	0.330 ft.
Element Flows To:	
Outlet 1	Outlet 2

Bioretention Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	Infilt(cfs)
0.0000	0.0241	0.0000	0.0000	0.0000
0.0458	0.0240	0.0001	0.0000	0.0000
0.0916	0.0236	0.0002	0.0000	0.0000
0.1375	0.0232	0.0003	0.0000	0.0000
0.1833	0.0228	0.0004	0.0000	0.0000
0.2291	0.0225	0.0005	0.0000	0.0000
0.2749	0.0221	0.0006	0.0000	0.0000
0.3208	0.0217	0.0007	0.0000	0.0000
0.3666	0.0214	0.0008	0.0000	0.0000
0.4124	0.0210	0.0009	0.0000	0.0000
0.4582	0.0206	0.0010	0.0000	0.0000
0.5041	0.0203	0.0012	0.0000	0.0000
0.5499	0.0199	0.0013	0.0000	0.0000
0.5957	0.0195	0.0015	0.0000	0.0000
0.6415	0.0192	0.0016	0.0000	0.0000
0.6874	0.0188	0.0018	0.0000	0.0000
0.7332	0.0185	0.0019	0.0000	0.0000
0.7790	0.0181	0.0021	0.0000	0.0000
0.8248	0.0177	0.0023	0.0000	0.0000
0.8707	0.0174	0.0024	0.0000	0.0000
0.9165	0.0170	0.0026	0.0000	0.0000
0.9623	0.0167	0.0028	0.0000	0.0000
1.0081	0.0163	0.0030	0.0000	0.0000
1.0540	0.0160	0.0032	0.0000	0.0000
1.0998	0.0157	0.0034	0.0000	0.0000
1.1456	0.0153	0.0036	0.0000	0.0000
1.1914	0.0150	0.0038	0.0000	0.0000
1.2373	0.0146	0.0041	0.0000	0.0000

1.2831	0.0143	0.0043	0.0000	0.0000
1.3289	0.0140	0.0045	0.0000	0.0000
1.3747	0.0136	0.0048	0.0000	0.0000
1.4205	0.0133	0.0050	0.0000	0.0000
1.4664	0.0129	0.0053	0.0000	0.0000
1.5122	0.0126	0.0055	0.0000	0.0000
1.5580	0.0123	0.0058	0.0000	0.0000
1.6038	0.0120	0.0061	0.0000	0.0000
1.6497	0.0116	0.0064	0.0000	0.0000
1.6955	0.0113	0.0067	0.0000	0.0000
1.7413	0.0110	0.0071	0.0000	0.0000
1.7871	0.0107	0.0074	0.0000	0.0000
1.8330	0.0103	0.0077	0.0000	0.0000
1.8788	0.0100	0.0080	0.0000	0.0000
1.9246	0.0097	0.0084	0.0000	0.0000
1.9704	0.0094	0.0087	0.0000	0.0000
2.0163	0.0091	0.0091	0.0000	0.0000
2.0621	0.0088	0.0094	0.0000	0.0000
2.1079	0.0085	0.0098	0.0000	0.0000
2.1537	0.0081	0.0102	0.0000	0.0000
2.1996	0.0078	0.0106	0.0000	0.0000
2.2454	0.0075	0.0110	0.0000	0.0000
2.2912	0.0072	0.0114	0.0000	0.0000
2.3370	0.0069	0.0118	0.0000	0.0000
2.3829	0.0066	0.0122	0.0000	0.0000
2.4287	0.0063	0.0126	0.0000	0.0000
2.4745	0.0060	0.0130	0.0000	0.0000
2.5203	0.0057	0.0134	0.0000	0.0000
2.5662	0.0054	0.0139	0.0000	0.0000
2.6120	0.0051	0.0143	0.0000	0.0000
2.6578	0.0048	0.0148	0.0000	0.0000
2.6700	0.0045	0.0149	0.0000	0.0000

Bioretention Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	To Amended(cfs)	Infilt(cfs)
2.6700	0.0241	0.0149	0.0000	0.0236	0.0000
2.7158	0.0245	0.0160	0.0000	0.0236	0.0000
2.7616	0.0248	0.0171	0.0000	0.0243	0.0000
2.8075	0.0252	0.0183	0.0000	0.0250	0.0000
2.8533	0.0256	0.0194	0.0000	0.0257	0.0000
2.8991	0.0260	0.0206	0.0000	0.0264	0.0000
2.9449	0.0264	0.0218	0.0002	0.0271	0.0000
2.9908	0.0268	0.0230	0.0003	0.0278	0.0000
3.0366	0.0272	0.0243	0.0004	0.0285	0.0000
3.0824	0.0276	0.0255	0.0005	0.0292	0.0000
3.1282	0.0280	0.0268	0.0007	0.0299	0.0000
3.1741	0.0284	0.0281	0.0010	0.0306	0.0000
3.2199	0.0288	0.0294	0.0012	0.0313	0.0000
3.2657	0.0292	0.0307	0.0016	0.0320	0.0000
3.3115	0.0296	0.0321	0.0019	0.0327	0.0000
3.3574	0.0300	0.0334	0.0023	0.0334	0.0000
3.4032	0.0304	0.0348	0.0028	0.0341	0.0000
3.4490	0.0308	0.0362	0.0033	0.0348	0.0000
3.4948	0.0312	0.0376	0.0039	0.0355	0.0000
3.5407	0.0316	0.0391	0.0045	0.0362	0.0000
3.5865	0.0320	0.0405	0.0052	0.0369	0.0000
3.6323	0.0324	0.0420	0.0053	0.0376	0.0000
3.6781	0.0328	0.0435	0.0067	0.0383	0.0000

3.7240	0.0332	0.0450	0.0068	0.0390	0.0000
3.7698	0.0337	0.0466	0.0080	0.0397	0.0000
3.8156	0.0341	0.0481	0.0085	0.0404	0.0000
3.8614	0.0345	0.0497	0.0090	0.0411	0.0000
3.9073	0.0349	0.0513	0.0099	0.0418	0.0000
3.9531	0.0353	0.0529	0.0106	0.0425	0.0000
3.9989	0.0358	0.0545	0.0108	0.0432	0.0000
4.0447	0.0362	0.0562	0.0115	0.0439	0.0000
4.0905	0.0366	0.0578	0.0123	0.0446	0.0000
4.1364	0.0370	0.0595	0.0130	0.0453	0.0000
4.1700	0.0374	0.0608	0.0136	0.0458	0.0000

Surface ention TCM 2

Element Flows To:

Outlet 1	Outlet 2
	Bioretention TCM 2

Bioretention TCM 3

Bottom Length:	60.00 ft.
Bottom Width:	9.00 ft.
Material thickness of first layer:	1.5
Material type for first layer:	BAHM 5
Material thickness of second layer:	1.17
Material type for second layer:	GRAVEL
Material thickness of third layer:	0
Material type for third layer:	GRAVEL
Underdrain used	
Underdrain Diameter (feet):	0.33
Orifice Diameter (in.):	0.85
Offset (in.):	0
Flow Through Underdrain (ac-ft.):	20.292
Total Outflow (ac-ft.):	21.499
Percent Through Underdrain:	94.39
Discharge Structure	
Riser Height:	1 ft.
Riser Diameter:	12 in.
Notch Type:	Rectangular
Notch Width:	0.250 ft.
Notch Height:	0.330 ft.

Element Flows To:
Outlet 1 Outlet 2

Bioretention Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	Infilt(cfs)
0.0000	0.0319	0.0000	0.0000	0.0000
0.0458	0.0318	0.0002	0.0000	0.0000
0.0916	0.0315	0.0004	0.0000	0.0000
0.1375	0.0311	0.0007	0.0000	0.0000
0.1833	0.0307	0.0009	0.0000	0.0000
0.2291	0.0303	0.0011	0.0000	0.0000
0.2749	0.0300	0.0014	0.0000	0.0000
0.3208	0.0296	0.0016	0.0000	0.0000
0.3666	0.0292	0.0019	0.0000	0.0000
0.4124	0.0288	0.0022	0.0000	0.0000
0.4582	0.0285	0.0024	0.0000	0.0000
0.5041	0.0281	0.0027	0.0000	0.0000
0.5499	0.0277	0.0030	0.0000	0.0000
0.5957	0.0274	0.0032	0.0000	0.0000
0.6415	0.0270	0.0035	0.0000	0.0000
0.6874	0.0267	0.0038	0.0000	0.0000
0.7332	0.0263	0.0041	0.0000	0.0000
0.7790	0.0260	0.0044	0.0000	0.0000
0.8248	0.0256	0.0047	0.0000	0.0000
0.8707	0.0252	0.0050	0.0000	0.0000
0.9165	0.0249	0.0054	0.0000	0.0000
0.9623	0.0245	0.0057	0.0000	0.0000
1.0081	0.0242	0.0060	0.0000	0.0000
1.0540	0.0238	0.0064	0.0000	0.0000
1.0998	0.0235	0.0067	0.0000	0.0000
1.1456	0.0232	0.0070	0.0000	0.0000
1.1914	0.0228	0.0074	0.0000	0.0000
1.2373	0.0225	0.0078	0.0000	0.0000

1.2831	0.0221	0.0081	0.0000	0.0000
1.3289	0.0218	0.0085	0.0000	0.0000
1.3747	0.0215	0.0089	0.0000	0.0000
1.4205	0.0211	0.0093	0.0000	0.0000
1.4664	0.0208	0.0096	0.0000	0.0000
1.5122	0.0205	0.0101	0.0000	0.0000
1.5580	0.0201	0.0105	0.0000	0.0000
1.6038	0.0198	0.0110	0.0000	0.0000
1.6497	0.0195	0.0114	0.0000	0.0000
1.6955	0.0192	0.0119	0.0000	0.0000
1.7413	0.0188	0.0123	0.0000	0.0000
1.7871	0.0185	0.0128	0.0000	0.0000
1.8330	0.0182	0.0133	0.0000	0.0000
1.8788	0.0179	0.0138	0.0000	0.0000
1.9246	0.0176	0.0142	0.0000	0.0000
1.9704	0.0172	0.0147	0.0000	0.0000
2.0163	0.0169	0.0152	0.0000	0.0000
2.0621	0.0166	0.0158	0.0000	0.0000
2.1079	0.0163	0.0163	0.0000	0.0000
2.1537	0.0160	0.0168	0.0000	0.0000
2.1996	0.0157	0.0173	0.0000	0.0000
2.2454	0.0154	0.0179	0.0000	0.0000
2.2912	0.0151	0.0184	0.0000	0.0000
2.3370	0.0148	0.0190	0.0000	0.0000
2.3829	0.0145	0.0195	0.0000	0.0000
2.4287	0.0142	0.0201	0.0000	0.0000
2.4745	0.0139	0.0207	0.0000	0.0000
2.5203	0.0136	0.0212	0.0000	0.0000
2.5662	0.0133	0.0218	0.0000	0.0000
2.6120	0.0130	0.0224	0.0000	0.0000
2.6578	0.0127	0.0230	0.0000	0.0000
2.6700	0.0124	0.0232	0.0000	0.0000

Bioretention Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	To Amended(cfs)	Infilt(cfs)
2.6700	0.0319	0.0232	0.0000	0.0644	0.0000
2.7158	0.0323	0.0247	0.0000	0.0644	0.0000
2.7616	0.0327	0.0261	0.0000	0.0663	0.0000
2.8075	0.0331	0.0277	0.0000	0.0682	0.0000
2.8533	0.0335	0.0292	0.0000	0.0701	0.0000
2.8991	0.0339	0.0307	0.0000	0.0720	0.0000
2.9449	0.0342	0.0323	0.0005	0.0740	0.0000
2.9908	0.0346	0.0339	0.0007	0.0759	0.0000
3.0366	0.0350	0.0355	0.0011	0.0778	0.0000
3.0824	0.0354	0.0371	0.0015	0.0797	0.0000
3.1282	0.0358	0.0387	0.0020	0.0816	0.0000
3.1741	0.0362	0.0404	0.0027	0.0835	0.0000
3.2199	0.0366	0.0420	0.0034	0.0854	0.0000
3.2657	0.0370	0.0437	0.0038	0.0873	0.0000
3.3115	0.0374	0.0454	0.0049	0.0892	0.0000
3.3574	0.0378	0.0471	0.0057	0.0911	0.0000
3.4032	0.0382	0.0489	0.0064	0.0930	0.0000
3.4490	0.0386	0.0506	0.0065	0.0950	0.0000
3.4948	0.0390	0.0524	0.0072	0.0969	0.0000
3.5407	0.0394	0.0542	0.0078	0.0988	0.0000
3.5865	0.0398	0.0560	0.0083	0.1007	0.0000
3.6323	0.0403	0.0579	0.0089	0.1026	0.0000
3.6781	0.0407	0.0597	0.0094	0.1045	0.0000

3.7240	0.0411	0.0616	0.0098	0.1064	0.0000
3.7698	0.0415	0.0635	0.0103	0.1083	0.0000
3.8156	0.0419	0.0654	0.0107	0.1102	0.0000
3.8614	0.0423	0.0673	0.0111	0.1121	0.0000
3.9073	0.0428	0.0693	0.0115	0.1141	0.0000
3.9531	0.0432	0.0712	0.0119	0.1160	0.0000
3.9989	0.0436	0.0732	0.0123	0.1179	0.0000
4.0447	0.0440	0.0752	0.0126	0.1198	0.0000
4.0905	0.0445	0.0773	0.0130	0.1217	0.0000
4.1364	0.0449	0.0793	0.0133	0.1236	0.0000
4.1700	0.0452	0.0808	0.0136	0.1250	0.0000

Surface ention TCM 3

Element Flows To:

Outlet 1	Outlet 2
	Bioretention TCM 3

Bioretention TCM 4

Bottom Length:	60.00 ft.
Bottom Width:	9.00 ft.
Material thickness of first layer:	1.5
Material type for first layer:	BAHM 5
Material thickness of second layer:	1.17
Material type for second layer:	GRAVEL
Material thickness of third layer:	0
Material type for third layer:	GRAVEL
Underdrain used	
Underdrain Diameter (feet):	0.33
Orifice Diameter (in.):	0.85
Offset (in.):	0
Flow Through Underdrain (ac-ft.):	17.826
Total Outflow (ac-ft.):	18.665
Percent Through Underdrain:	95.51
Discharge Structure	
Riser Height:	1 ft.
Riser Diameter:	12 in.
Notch Type:	Rectangular
Notch Width:	0.250 ft.
Notch Height:	0.330 ft.

Element Flows To:
Outlet 1 Outlet 2

Bioretention Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	Infilt(cfs)
0.0000	0.0319	0.0000	0.0000	0.0000
0.0458	0.0318	0.0002	0.0000	0.0000
0.0916	0.0315	0.0004	0.0000	0.0000
0.1375	0.0311	0.0007	0.0000	0.0000
0.1833	0.0307	0.0009	0.0000	0.0000
0.2291	0.0303	0.0011	0.0000	0.0000
0.2749	0.0300	0.0014	0.0000	0.0000
0.3208	0.0296	0.0016	0.0000	0.0000
0.3666	0.0292	0.0019	0.0000	0.0000
0.4124	0.0288	0.0022	0.0000	0.0000
0.4582	0.0285	0.0024	0.0000	0.0000
0.5041	0.0281	0.0027	0.0000	0.0000
0.5499	0.0277	0.0030	0.0000	0.0000
0.5957	0.0274	0.0032	0.0000	0.0000
0.6415	0.0270	0.0035	0.0000	0.0000
0.6874	0.0267	0.0038	0.0000	0.0000
0.7332	0.0263	0.0041	0.0000	0.0000
0.7790	0.0260	0.0044	0.0000	0.0000
0.8248	0.0256	0.0047	0.0000	0.0000
0.8707	0.0252	0.0050	0.0000	0.0000
0.9165	0.0249	0.0054	0.0000	0.0000
0.9623	0.0245	0.0057	0.0000	0.0000
1.0081	0.0242	0.0060	0.0000	0.0000
1.0540	0.0238	0.0064	0.0000	0.0000
1.0998	0.0235	0.0067	0.0000	0.0000
1.1456	0.0232	0.0070	0.0000	0.0000
1.1914	0.0228	0.0074	0.0000	0.0000
1.2373	0.0225	0.0078	0.0000	0.0000

1.2831	0.0221	0.0081	0.0000	0.0000
1.3289	0.0218	0.0085	0.0000	0.0000
1.3747	0.0215	0.0089	0.0000	0.0000
1.4205	0.0211	0.0093	0.0000	0.0000
1.4664	0.0208	0.0096	0.0000	0.0000
1.5122	0.0205	0.0101	0.0000	0.0000
1.5580	0.0201	0.0105	0.0000	0.0000
1.6038	0.0198	0.0110	0.0000	0.0000
1.6497	0.0195	0.0114	0.0000	0.0000
1.6955	0.0192	0.0119	0.0000	0.0000
1.7413	0.0188	0.0123	0.0000	0.0000
1.7871	0.0185	0.0128	0.0000	0.0000
1.8330	0.0182	0.0133	0.0000	0.0000
1.8788	0.0179	0.0138	0.0000	0.0000
1.9246	0.0176	0.0142	0.0000	0.0000
1.9704	0.0172	0.0147	0.0000	0.0000
2.0163	0.0169	0.0152	0.0000	0.0000
2.0621	0.0166	0.0158	0.0000	0.0000
2.1079	0.0163	0.0163	0.0000	0.0000
2.1537	0.0160	0.0168	0.0000	0.0000
2.1996	0.0157	0.0173	0.0000	0.0000
2.2454	0.0154	0.0179	0.0000	0.0000
2.2912	0.0151	0.0184	0.0000	0.0000
2.3370	0.0148	0.0190	0.0000	0.0000
2.3829	0.0145	0.0195	0.0000	0.0000
2.4287	0.0142	0.0201	0.0000	0.0000
2.4745	0.0139	0.0207	0.0000	0.0000
2.5203	0.0136	0.0212	0.0000	0.0000
2.5662	0.0133	0.0218	0.0000	0.0000
2.6120	0.0130	0.0224	0.0000	0.0000
2.6578	0.0127	0.0230	0.0000	0.0000
2.6700	0.0124	0.0232	0.0000	0.0000

Bioretention Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	To Amended(cfs)	Infilt(cfs)
2.6700	0.0319	0.0232	0.0000	0.0644	0.0000
2.7158	0.0323	0.0247	0.0000	0.0644	0.0000
2.7616	0.0327	0.0261	0.0000	0.0663	0.0000
2.8075	0.0331	0.0277	0.0000	0.0682	0.0000
2.8533	0.0335	0.0292	0.0000	0.0701	0.0000
2.8991	0.0339	0.0307	0.0000	0.0720	0.0000
2.9449	0.0342	0.0323	0.0005	0.0740	0.0000
2.9908	0.0346	0.0339	0.0007	0.0759	0.0000
3.0366	0.0350	0.0355	0.0011	0.0778	0.0000
3.0824	0.0354	0.0371	0.0015	0.0797	0.0000
3.1282	0.0358	0.0387	0.0020	0.0816	0.0000
3.1741	0.0362	0.0404	0.0027	0.0835	0.0000
3.2199	0.0366	0.0420	0.0034	0.0854	0.0000
3.2657	0.0370	0.0437	0.0038	0.0873	0.0000
3.3115	0.0374	0.0454	0.0049	0.0892	0.0000
3.3574	0.0378	0.0471	0.0057	0.0911	0.0000
3.4032	0.0382	0.0489	0.0064	0.0930	0.0000
3.4490	0.0386	0.0506	0.0065	0.0950	0.0000
3.4948	0.0390	0.0524	0.0072	0.0969	0.0000
3.5407	0.0394	0.0542	0.0078	0.0988	0.0000
3.5865	0.0398	0.0560	0.0083	0.1007	0.0000
3.6323	0.0403	0.0579	0.0089	0.1026	0.0000
3.6781	0.0407	0.0597	0.0094	0.1045	0.0000

3.7240	0.0411	0.0616	0.0098	0.1064	0.0000
3.7698	0.0415	0.0635	0.0103	0.1083	0.0000
3.8156	0.0419	0.0654	0.0107	0.1102	0.0000
3.8614	0.0423	0.0673	0.0111	0.1121	0.0000
3.9073	0.0428	0.0693	0.0115	0.1141	0.0000
3.9531	0.0432	0.0712	0.0119	0.1160	0.0000
3.9989	0.0436	0.0732	0.0123	0.1179	0.0000
4.0447	0.0440	0.0752	0.0126	0.1198	0.0000
4.0905	0.0445	0.0773	0.0130	0.1217	0.0000
4.1364	0.0449	0.0793	0.0133	0.1236	0.0000
4.1700	0.0452	0.0808	0.0136	0.1250	0.0000

Surface ention TCM 4

Element Flows To:

Outlet 1	Outlet 2
	Bioretention TCM 4

Bioretention TCM 5

Bottom Length:	90.00 ft.
Bottom Width:	12.00 ft.
Material thickness of first layer:	1.5
Material type for first layer:	BAHM 5
Material thickness of second layer:	1.17
Material type for second layer:	GRAVEL
Material thickness of third layer:	0
Material type for third layer:	GRAVEL
Underdrain used	
Underdrain Diameter (feet):	0.33
Orifice Diameter (in.):	0.85
Offset (in.):	0
Flow Through Underdrain (ac-ft.):	39.362
Total Outflow (ac-ft.):	42.545
Percent Through Underdrain:	92.52
Discharge Structure	
Riser Height:	1 ft.
Riser Diameter:	12 in.
Element Flows To:	
Outlet 1	Outlet 2

Bioretention Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	Infilt(cfs)
0.0000	0.0524	0.0000	0.0000	0.0000
0.0458	0.0523	0.0004	0.0000	0.0000
0.0916	0.0518	0.0009	0.0000	0.0000
0.1375	0.0512	0.0013	0.0000	0.0000
0.1833	0.0507	0.0018	0.0000	0.0000
0.2291	0.0502	0.0023	0.0000	0.0000
0.2749	0.0497	0.0027	0.0000	0.0000
0.3208	0.0492	0.0032	0.0000	0.0000
0.3666	0.0487	0.0037	0.0000	0.0000
0.4124	0.0482	0.0042	0.0000	0.0000
0.4582	0.0477	0.0047	0.0000	0.0000
0.5041	0.0472	0.0052	0.0000	0.0000
0.5499	0.0467	0.0057	0.0000	0.0000
0.5957	0.0462	0.0063	0.0000	0.0000
0.6415	0.0457	0.0068	0.0000	0.0000
0.6874	0.0452	0.0073	0.0000	0.0000
0.7332	0.0447	0.0079	0.0000	0.0000
0.7790	0.0442	0.0084	0.0000	0.0000
0.8248	0.0437	0.0090	0.0000	0.0000
0.8707	0.0432	0.0096	0.0000	0.0000
0.9165	0.0427	0.0102	0.0000	0.0000
0.9623	0.0422	0.0108	0.0000	0.0000
1.0081	0.0417	0.0114	0.0000	0.0000
1.0540	0.0412	0.0120	0.0000	0.0000
1.0998	0.0408	0.0126	0.0000	0.0000
1.1456	0.0403	0.0132	0.0000	0.0000
1.1914	0.0398	0.0138	0.0000	0.0000
1.2373	0.0393	0.0145	0.0000	0.0000
1.2831	0.0388	0.0151	0.0000	0.0000
1.3289	0.0384	0.0158	0.0000	0.0000
1.3747	0.0379	0.0164	0.0000	0.0000

1.4205	0.0374	0.0171	0.0000	0.0000
1.4664	0.0369	0.0178	0.0000	0.0000
1.5122	0.0365	0.0185	0.0000	0.0000
1.5580	0.0360	0.0193	0.0000	0.0000
1.6038	0.0355	0.0201	0.0000	0.0000
1.6497	0.0351	0.0209	0.0000	0.0000
1.6955	0.0346	0.0216	0.0000	0.0000
1.7413	0.0341	0.0224	0.0000	0.0000
1.7871	0.0337	0.0232	0.0000	0.0000
1.8330	0.0332	0.0241	0.0000	0.0000
1.8788	0.0328	0.0249	0.0000	0.0000
1.9246	0.0323	0.0257	0.0000	0.0000
1.9704	0.0319	0.0266	0.0000	0.0000
2.0163	0.0314	0.0274	0.0000	0.0000
2.0621	0.0310	0.0283	0.0000	0.0000
2.1079	0.0305	0.0292	0.0000	0.0000
2.1537	0.0301	0.0300	0.0000	0.0000
2.1996	0.0296	0.0309	0.0000	0.0000
2.2454	0.0292	0.0318	0.0000	0.0000
2.2912	0.0287	0.0328	0.0000	0.0000
2.3370	0.0283	0.0337	0.0000	0.0000
2.3829	0.0278	0.0346	0.0000	0.0000
2.4287	0.0274	0.0355	0.0000	0.0000
2.4745	0.0270	0.0365	0.0000	0.0000
2.5203	0.0265	0.0375	0.0000	0.0000
2.5662	0.0261	0.0384	0.0000	0.0000
2.6120	0.0257	0.0394	0.0000	0.0000
2.6578	0.0252	0.0404	0.0000	0.0000
2.6700	0.0248	0.0407	0.0000	0.0000

Bioretention Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	To Amended(cfs)	Infilt(cfs)
2.6700	0.0524	0.0407	0.0000	0.1288	0.0000
2.7158	0.0529	0.0431	0.0000	0.1288	0.0000
2.7616	0.0535	0.0455	0.0000	0.1326	0.0000
2.8075	0.0540	0.0480	0.0000	0.1365	0.0000
2.8533	0.0545	0.0505	0.0000	0.1403	0.0000
2.8991	0.0550	0.0530	0.0000	0.1441	0.0000
2.9449	0.0556	0.0555	0.0010	0.1479	0.0000
2.9908	0.0561	0.0581	0.0015	0.1517	0.0000
3.0366	0.0566	0.0606	0.0021	0.1555	0.0000
3.0824	0.0572	0.0632	0.0030	0.1594	0.0000
3.1282	0.0577	0.0659	0.0038	0.1632	0.0000
3.1741	0.0582	0.0685	0.0049	0.1670	0.0000
3.2199	0.0588	0.0712	0.0057	0.1708	0.0000
3.2657	0.0593	0.0739	0.0065	0.1746	0.0000
3.3115	0.0598	0.0766	0.0072	0.1785	0.0000
3.3574	0.0604	0.0794	0.0078	0.1823	0.0000
3.4032	0.0609	0.0822	0.0083	0.1861	0.0000
3.4490	0.0615	0.0850	0.0089	0.1899	0.0000
3.4948	0.0620	0.0878	0.0094	0.1937	0.0000
3.5407	0.0626	0.0907	0.0098	0.1976	0.0000
3.5865	0.0631	0.0936	0.0103	0.2014	0.0000
3.6323	0.0637	0.0965	0.0107	0.2052	0.0000
3.6781	0.0642	0.0994	0.0111	0.2090	0.0000
3.7240	0.0648	0.1023	0.0115	0.2128	0.0000
3.7698	0.0653	0.1053	0.0119	0.2166	0.0000
3.8156	0.0659	0.1083	0.0123	0.2205	0.0000

3.8614	0.0664	0.1114	0.0126	0.2243	0.0000
3.9073	0.0670	0.1144	0.0130	0.2281	0.0000
3.9531	0.0676	0.1175	0.0133	0.2319	0.0000
3.9989	0.0681	0.1206	0.0136	0.2357	0.0000
4.0447	0.0687	0.1237	0.0140	0.2396	0.0000
4.0905	0.0693	0.1269	0.0143	0.2434	0.0000
4.1364	0.0698	0.1301	0.0146	0.2472	0.0000
4.1700	0.0702	0.1324	0.0149	0.2500	0.0000

Surface ention TCM 5

Element Flows To:

Outlet 1	Outlet 2
	Bioretention TCM 5

Bioretention TCM 6

Bottom Length:	62.00 ft.
Bottom Width:	7.00 ft.
Material thickness of first layer:	1.5
Material type for first layer:	BAHM 5
Material thickness of second layer:	1.17
Material type for second layer:	GRAVEL
Material thickness of third layer:	0
Material type for third layer:	GRAVEL
Underdrain used	
Underdrain Diameter (feet):	0.33
Orifice Diameter (in.):	0.85
Offset (in.):	0
Flow Through Underdrain (ac-ft.):	16.16
Total Outflow (ac-ft.):	16.473
Percent Through Underdrain:	98.1
Discharge Structure	
Riser Height:	1 ft.
Riser Diameter:	12 in.
Element Flows To:	
Outlet 1	Outlet 2

Bioretention Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	Infilt(cfs)
0.0000	0.0295	0.0000	0.0000	0.0000
0.0458	0.0294	0.0002	0.0000	0.0000
0.0916	0.0290	0.0004	0.0000	0.0000
0.1375	0.0286	0.0005	0.0000	0.0000
0.1833	0.0283	0.0007	0.0000	0.0000
0.2291	0.0279	0.0009	0.0000	0.0000
0.2749	0.0275	0.0011	0.0000	0.0000
0.3208	0.0271	0.0013	0.0000	0.0000
0.3666	0.0268	0.0016	0.0000	0.0000
0.4124	0.0264	0.0018	0.0000	0.0000
0.4582	0.0260	0.0020	0.0000	0.0000
0.5041	0.0257	0.0022	0.0000	0.0000
0.5499	0.0253	0.0025	0.0000	0.0000
0.5957	0.0250	0.0027	0.0000	0.0000
0.6415	0.0246	0.0029	0.0000	0.0000
0.6874	0.0242	0.0032	0.0000	0.0000
0.7332	0.0239	0.0034	0.0000	0.0000
0.7790	0.0235	0.0037	0.0000	0.0000
0.8248	0.0232	0.0040	0.0000	0.0000
0.8707	0.0228	0.0042	0.0000	0.0000
0.9165	0.0225	0.0045	0.0000	0.0000
0.9623	0.0221	0.0048	0.0000	0.0000
1.0081	0.0218	0.0051	0.0000	0.0000
1.0540	0.0214	0.0054	0.0000	0.0000
1.0998	0.0211	0.0057	0.0000	0.0000
1.1456	0.0207	0.0060	0.0000	0.0000
1.1914	0.0204	0.0063	0.0000	0.0000
1.2373	0.0200	0.0066	0.0000	0.0000
1.2831	0.0197	0.0069	0.0000	0.0000
1.3289	0.0194	0.0073	0.0000	0.0000
1.3747	0.0190	0.0076	0.0000	0.0000

1.4205	0.0187	0.0079	0.0000	0.0000
1.4664	0.0184	0.0083	0.0000	0.0000
1.5122	0.0180	0.0087	0.0000	0.0000
1.5580	0.0177	0.0091	0.0000	0.0000
1.6038	0.0174	0.0095	0.0000	0.0000
1.6497	0.0170	0.0099	0.0000	0.0000
1.6955	0.0167	0.0103	0.0000	0.0000
1.7413	0.0164	0.0107	0.0000	0.0000
1.7871	0.0161	0.0111	0.0000	0.0000
1.8330	0.0158	0.0115	0.0000	0.0000
1.8788	0.0154	0.0120	0.0000	0.0000
1.9246	0.0151	0.0124	0.0000	0.0000
1.9704	0.0148	0.0129	0.0000	0.0000
2.0163	0.0145	0.0133	0.0000	0.0000
2.0621	0.0142	0.0138	0.0000	0.0000
2.1079	0.0139	0.0143	0.0000	0.0000
2.1537	0.0136	0.0147	0.0000	0.0000
2.1996	0.0133	0.0152	0.0000	0.0000
2.2454	0.0129	0.0157	0.0000	0.0000
2.2912	0.0126	0.0162	0.0000	0.0000
2.3370	0.0123	0.0167	0.0000	0.0000
2.3829	0.0120	0.0172	0.0000	0.0000
2.4287	0.0117	0.0178	0.0000	0.0000
2.4745	0.0114	0.0183	0.0000	0.0000
2.5203	0.0111	0.0188	0.0000	0.0000
2.5662	0.0108	0.0194	0.0000	0.0000
2.6120	0.0105	0.0199	0.0000	0.0000
2.6578	0.0103	0.0205	0.0000	0.0000
2.6700	0.0100	0.0206	0.0000	0.0000

Bioretention Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	To Amended(cfs)	Infilt(cfs)
2.6700	0.0295	0.0206	0.0000	0.0518	0.0000
2.7158	0.0299	0.0220	0.0000	0.0518	0.0000
2.7616	0.0303	0.0234	0.0000	0.0533	0.0000
2.8075	0.0306	0.0248	0.0000	0.0548	0.0000
2.8533	0.0310	0.0262	0.0000	0.0564	0.0000
2.8991	0.0314	0.0276	0.0000	0.0579	0.0000
2.9449	0.0318	0.0290	0.0004	0.0594	0.0000
2.9908	0.0322	0.0305	0.0006	0.0610	0.0000
3.0366	0.0326	0.0320	0.0009	0.0625	0.0000
3.0824	0.0330	0.0335	0.0012	0.0640	0.0000
3.1282	0.0334	0.0350	0.0016	0.0656	0.0000
3.1741	0.0338	0.0366	0.0021	0.0671	0.0000
3.2199	0.0342	0.0381	0.0027	0.0686	0.0000
3.2657	0.0346	0.0397	0.0034	0.0702	0.0000
3.3115	0.0350	0.0413	0.0038	0.0717	0.0000
3.3574	0.0354	0.0429	0.0049	0.0732	0.0000
3.4032	0.0358	0.0445	0.0056	0.0748	0.0000
3.4490	0.0362	0.0462	0.0057	0.0763	0.0000
3.4948	0.0366	0.0478	0.0065	0.0779	0.0000
3.5407	0.0370	0.0495	0.0072	0.0794	0.0000
3.5865	0.0374	0.0512	0.0078	0.0809	0.0000
3.6323	0.0378	0.0530	0.0083	0.0825	0.0000
3.6781	0.0382	0.0547	0.0089	0.0840	0.0000
3.7240	0.0387	0.0565	0.0094	0.0855	0.0000
3.7698	0.0391	0.0582	0.0098	0.0871	0.0000
3.8156	0.0395	0.0600	0.0103	0.0886	0.0000

3.8614	0.0399	0.0619	0.0107	0.0901	0.0000
3.9073	0.0403	0.0637	0.0111	0.0917	0.0000
3.9531	0.0408	0.0656	0.0115	0.0932	0.0000
3.9989	0.0412	0.0674	0.0119	0.0947	0.0000
4.0447	0.0416	0.0693	0.0123	0.0963	0.0000
4.0905	0.0420	0.0712	0.0126	0.0978	0.0000
4.1364	0.0425	0.0732	0.0130	0.0993	0.0000
4.1700	0.0428	0.0746	0.0133	0.1005	0.0000

Surface ention TCM 6

Element Flows To:

Outlet 1	Outlet 2
	Bioretention TCM 6

Bioretention TCM 7

Bottom Length:	21.00 ft.
Bottom Width:	4.00 ft.
Material thickness of first layer:	1.5
Material type for first layer:	BAHM 5
Material thickness of second layer:	1.17
Material type for second layer:	GRAVEL
Material thickness of third layer:	0
Material type for third layer:	GRAVEL
Underdrain used	
Underdrain Diameter (feet):	0.33
Orifice Diameter (in.):	0.85
Offset (in.):	0
Flow Through Underdrain (ac-ft.):	4.104
Total Outflow (ac-ft.):	4.129
Percent Through Underdrain:	99.4
Discharge Structure	
Riser Height:	1 ft.
Riser Diameter:	12 in.
Element Flows To:	
Outlet 1	Outlet 2

Bioretention Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	Infilt(cfs)
0.0000	0.0107	0.0000	0.0000	0.0000
0.0458	0.0106	0.0000	0.0000	0.0000
0.0916	0.0104	0.0001	0.0000	0.0000
0.1375	0.0102	0.0001	0.0000	0.0000
0.1833	0.0100	0.0001	0.0000	0.0000
0.2291	0.0099	0.0002	0.0000	0.0000
0.2749	0.0097	0.0002	0.0000	0.0000
0.3208	0.0095	0.0003	0.0000	0.0000
0.3666	0.0093	0.0003	0.0000	0.0000
0.4124	0.0091	0.0004	0.0000	0.0000
0.4582	0.0089	0.0004	0.0000	0.0000
0.5041	0.0088	0.0005	0.0000	0.0000
0.5499	0.0086	0.0005	0.0000	0.0000
0.5957	0.0084	0.0006	0.0000	0.0000
0.6415	0.0082	0.0007	0.0000	0.0000
0.6874	0.0081	0.0007	0.0000	0.0000
0.7332	0.0079	0.0008	0.0000	0.0000
0.7790	0.0077	0.0009	0.0000	0.0000
0.8248	0.0075	0.0009	0.0000	0.0000
0.8707	0.0074	0.0010	0.0000	0.0000
0.9165	0.0072	0.0011	0.0000	0.0000
0.9623	0.0070	0.0012	0.0000	0.0000
1.0081	0.0069	0.0012	0.0000	0.0000
1.0540	0.0067	0.0013	0.0000	0.0000
1.0998	0.0066	0.0014	0.0000	0.0000
1.1456	0.0064	0.0015	0.0000	0.0000
1.1914	0.0062	0.0016	0.0000	0.0000
1.2373	0.0061	0.0017	0.0000	0.0000
1.2831	0.0059	0.0018	0.0000	0.0000
1.3289	0.0058	0.0019	0.0000	0.0000
1.3747	0.0056	0.0020	0.0000	0.0000

1.4205	0.0055	0.0021	0.0000	0.0000
1.4664	0.0053	0.0022	0.0000	0.0000
1.5122	0.0052	0.0023	0.0000	0.0000
1.5580	0.0050	0.0024	0.0000	0.0000
1.6038	0.0049	0.0025	0.0000	0.0000
1.6497	0.0048	0.0026	0.0000	0.0000
1.6955	0.0046	0.0028	0.0000	0.0000
1.7413	0.0045	0.0029	0.0000	0.0000
1.7871	0.0043	0.0030	0.0000	0.0000
1.8330	0.0042	0.0032	0.0000	0.0000
1.8788	0.0041	0.0033	0.0000	0.0000
1.9246	0.0039	0.0035	0.0000	0.0000
1.9704	0.0038	0.0036	0.0000	0.0000
2.0163	0.0037	0.0038	0.0000	0.0000
2.0621	0.0036	0.0039	0.0000	0.0000
2.1079	0.0034	0.0041	0.0000	0.0000
2.1537	0.0033	0.0042	0.0000	0.0000
2.1996	0.0032	0.0044	0.0000	0.0000
2.2454	0.0031	0.0046	0.0000	0.0000
2.2912	0.0029	0.0047	0.0000	0.0000
2.3370	0.0028	0.0049	0.0000	0.0000
2.3829	0.0027	0.0051	0.0000	0.0000
2.4287	0.0026	0.0053	0.0000	0.0000
2.4745	0.0025	0.0055	0.0000	0.0000
2.5203	0.0024	0.0057	0.0000	0.0000
2.5662	0.0023	0.0059	0.0000	0.0000
2.6120	0.0021	0.0060	0.0000	0.0000
2.6578	0.0020	0.0062	0.0000	0.0000
2.6700	0.0019	0.0063	0.0000	0.0000

Bioretention Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	To Amended(cfs)	Infilt(cfs)
2.6700	0.0107	0.0063	0.0000	0.0100	0.0000
2.7158	0.0109	0.0068	0.0000	0.0100	0.0000
2.7616	0.0111	0.0073	0.0000	0.0103	0.0000
2.8075	0.0113	0.0078	0.0000	0.0106	0.0000
2.8533	0.0115	0.0083	0.0000	0.0109	0.0000
2.8991	0.0117	0.0089	0.0000	0.0112	0.0000
2.9449	0.0119	0.0094	0.0001	0.0115	0.0000
2.9908	0.0121	0.0099	0.0001	0.0118	0.0000
3.0366	0.0123	0.0105	0.0002	0.0121	0.0000
3.0824	0.0125	0.0111	0.0002	0.0124	0.0000
3.1282	0.0127	0.0117	0.0003	0.0127	0.0000
3.1741	0.0129	0.0122	0.0004	0.0130	0.0000
3.2199	0.0131	0.0128	0.0005	0.0133	0.0000
3.2657	0.0133	0.0134	0.0007	0.0136	0.0000
3.3115	0.0136	0.0141	0.0008	0.0139	0.0000
3.3574	0.0138	0.0147	0.0010	0.0142	0.0000
3.4032	0.0140	0.0153	0.0012	0.0145	0.0000
3.4490	0.0142	0.0160	0.0014	0.0148	0.0000
3.4948	0.0144	0.0166	0.0017	0.0151	0.0000
3.5407	0.0147	0.0173	0.0019	0.0154	0.0000
3.5865	0.0149	0.0180	0.0022	0.0157	0.0000
3.6323	0.0151	0.0187	0.0025	0.0160	0.0000
3.6781	0.0153	0.0194	0.0026	0.0163	0.0000
3.7240	0.0156	0.0201	0.0029	0.0166	0.0000
3.7698	0.0158	0.0208	0.0032	0.0169	0.0000
3.8156	0.0160	0.0215	0.0036	0.0171	0.0000

3.8614	0.0163	0.0222	0.0040	0.0174	0.0000
3.9073	0.0165	0.0230	0.0045	0.0177	0.0000
3.9531	0.0167	0.0238	0.0050	0.0180	0.0000
3.9989	0.0170	0.0245	0.0055	0.0183	0.0000
4.0447	0.0172	0.0253	0.0057	0.0186	0.0000
4.0905	0.0175	0.0261	0.0065	0.0189	0.0000
4.1364	0.0177	0.0269	0.0069	0.0192	0.0000
4.1700	0.0179	0.0275	0.0072	0.0194	0.0000

Surface ention TCM 7

Element Flows To:

Outlet 1	Outlet 2
	Bioretention TCM 7

FT Planter TCM 8

Bottom Length:	28.00 ft.
Bottom Width:	37.00 ft.
Material thickness of first layer:	1.5
Material type for first layer:	BAHM 5
Material thickness of second layer:	1.17
Material type for second layer:	GRAVEL
Material thickness of third layer:	0
Material type for third layer:	GRAVEL
Underdrain used	
Underdrain Diameter (feet):	0.5
Orifice Diameter (in.):	1
Offset (in.):	0
Flow Through Underdrain (ac-ft.):	29.903
Total Outflow (ac-ft.):	36.8
Percent Through Underdrain:	81.26
Discharge Structure	
Riser Height:	1 ft.
Riser Diameter:	12 in.
Element Flows To:	
Outlet 1	Outlet 2

Flow Through Planter Box Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	Infilt(cfs)
0.0000	0.0238	0.0000	0.0000	0.0000
0.0458	0.0238	0.0004	0.0000	0.0000
0.0916	0.0238	0.0008	0.0000	0.0000
0.1375	0.0238	0.0012	0.0000	0.0000
0.1833	0.0238	0.0017	0.0000	0.0000
0.2291	0.0238	0.0021	0.0000	0.0000
0.2749	0.0238	0.0025	0.0000	0.0000
0.3208	0.0238	0.0029	0.0000	0.0000
0.3666	0.0238	0.0033	0.0000	0.0000
0.4124	0.0238	0.0037	0.0000	0.0000
0.4582	0.0238	0.0041	0.0000	0.0000
0.5041	0.0238	0.0046	0.0000	0.0000
0.5499	0.0238	0.0050	0.0000	0.0000
0.5957	0.0238	0.0054	0.0000	0.0000
0.6415	0.0238	0.0058	0.0000	0.0000
0.6874	0.0238	0.0062	0.0000	0.0000
0.7332	0.0238	0.0066	0.0000	0.0000
0.7790	0.0238	0.0070	0.0000	0.0000
0.8248	0.0238	0.0075	0.0000	0.0000
0.8707	0.0238	0.0079	0.0000	0.0000
0.9165	0.0238	0.0083	0.0000	0.0000
0.9623	0.0238	0.0087	0.0000	0.0000
1.0081	0.0238	0.0091	0.0000	0.0000
1.0540	0.0238	0.0095	0.0000	0.0000
1.0998	0.0238	0.0099	0.0000	0.0000
1.1456	0.0238	0.0104	0.0000	0.0000
1.1914	0.0238	0.0108	0.0000	0.0000
1.2373	0.0238	0.0112	0.0000	0.0000
1.2831	0.0238	0.0116	0.0000	0.0000
1.3289	0.0238	0.0120	0.0000	0.0000
1.3747	0.0238	0.0124	0.0000	0.0000

1.4205	0.0238	0.0128	0.0000	0.0000
1.4664	0.0238	0.0133	0.0000	0.0000
1.5122	0.0238	0.0137	0.0000	0.0000
1.5580	0.0238	0.0142	0.0000	0.0000
1.6038	0.0238	0.0146	0.0000	0.0000
1.6497	0.0238	0.0151	0.0000	0.0000
1.6955	0.0238	0.0155	0.0000	0.0000
1.7413	0.0238	0.0160	0.0000	0.0000
1.7871	0.0238	0.0164	0.0000	0.0000
1.8330	0.0238	0.0169	0.0000	0.0000
1.8788	0.0238	0.0173	0.0000	0.0000
1.9246	0.0238	0.0178	0.0000	0.0000
1.9704	0.0238	0.0182	0.0000	0.0000
2.0163	0.0238	0.0187	0.0000	0.0000
2.0621	0.0238	0.0191	0.0000	0.0000
2.1079	0.0238	0.0196	0.0000	0.0000
2.1537	0.0238	0.0200	0.0000	0.0000
2.1996	0.0238	0.0205	0.0000	0.0000
2.2454	0.0238	0.0209	0.0000	0.0000
2.2912	0.0238	0.0214	0.0000	0.0000
2.3370	0.0238	0.0218	0.0000	0.0000
2.3829	0.0238	0.0223	0.0000	0.0000
2.4287	0.0238	0.0228	0.0000	0.0000
2.4745	0.0238	0.0232	0.0000	0.0000
2.5203	0.0238	0.0237	0.0000	0.0000
2.5662	0.0238	0.0241	0.0000	0.0000
2.6120	0.0238	0.0246	0.0000	0.0000
2.6578	0.0238	0.0250	0.0000	0.0000
2.6700	0.0238	0.0251	0.0000	0.0000

Flow Through Planter Box Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	To Amended(cfs)	Infilt(cfs)
2.6700	0.0238	0.0251	0.0000	0.0295	0.0000
2.7158	0.0238	0.0262	0.0000	0.0295	0.0000
2.7616	0.0238	0.0273	0.0000	0.0295	0.0000
2.8075	0.0238	0.0284	0.0000	0.0295	0.0000
2.8533	0.0238	0.0295	0.0000	0.0295	0.0000
2.8991	0.0238	0.0306	0.0000	0.0295	0.0000
2.9449	0.0238	0.0317	0.0010	0.0295	0.0000
2.9908	0.0238	0.0328	0.0014	0.0295	0.0000
3.0366	0.0238	0.0339	0.0021	0.0295	0.0000
3.0824	0.0238	0.0349	0.0029	0.0295	0.0000
3.1282	0.0238	0.0360	0.0039	0.0295	0.0000
3.1741	0.0238	0.0371	0.0051	0.0295	0.0000
3.2199	0.0238	0.0382	0.0053	0.0295	0.0000
3.2657	0.0238	0.0393	0.0068	0.0295	0.0000
3.3115	0.0238	0.0404	0.0080	0.0295	0.0000
3.3574	0.0238	0.0415	0.0090	0.0295	0.0000
3.4032	0.0238	0.0426	0.0099	0.0295	0.0000
3.4490	0.0238	0.0437	0.0108	0.0295	0.0000
3.4948	0.0238	0.0447	0.0115	0.0295	0.0000
3.5407	0.0238	0.0458	0.0123	0.0295	0.0000
3.5865	0.0238	0.0469	0.0130	0.0295	0.0000
3.6323	0.0238	0.0480	0.0136	0.0295	0.0000
3.6781	0.0238	0.0491	0.0142	0.0295	0.0000
3.7240	0.0238	0.0502	0.0148	0.0295	0.0000
3.7698	0.0238	0.0513	0.0154	0.0295	0.0000
3.8156	0.0238	0.0524	0.0159	0.0295	0.0000

3.8614	0.0238	0.0535	0.0165	0.0295	0.0000
3.9073	0.0238	0.0546	0.0170	0.0295	0.0000
3.9531	0.0238	0.0556	0.0175	0.0295	0.0000
3.9989	0.0238	0.0567	0.0180	0.0295	0.0000
4.0447	0.0238	0.0578	0.0184	0.0295	0.0000
4.0905	0.0238	0.0589	0.0189	0.0295	0.0000
4.1364	0.0238	0.0600	0.0193	0.0295	0.0000
4.1700	0.0238	0.0608	0.0198	0.0295	0.0000

FT Planter Surface 8

Element Flows To:

Outlet 1	Outlet 2
	FT Planter TCM 8

FT Planter TCM 9

Bottom Length:	29.00 ft.
Bottom Width:	9.00 ft.
Material thickness of first layer:	1.5
Material type for first layer:	BAHM 5
Material thickness of second layer:	1.17
Material type for second layer:	GRAVEL
Material thickness of third layer:	0
Material type for third layer:	GRAVEL
Underdrain used	
Underdrain Diameter (feet):	0.33
Orifice Diameter (in.):	0.85
Offset (in.):	0
Flow Through Underdrain (ac-ft.):	10.024
Total Outflow (ac-ft.):	11.137
Percent Through Underdrain:	90.01
Discharge Structure	
Riser Height:	1 ft.
Riser Diameter:	12 in.
Element Flows To:	
Outlet 1	Outlet 2

Flow Through Planter Box Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	Infilt(cfs)
0.0000	0.0060	0.0000	0.0000	0.0000
0.0458	0.0060	0.0001	0.0000	0.0000
0.0916	0.0060	0.0002	0.0000	0.0000
0.1375	0.0060	0.0003	0.0000	0.0000
0.1833	0.0060	0.0004	0.0000	0.0000
0.2291	0.0060	0.0005	0.0000	0.0000
0.2749	0.0060	0.0006	0.0000	0.0000
0.3208	0.0060	0.0007	0.0000	0.0000
0.3666	0.0060	0.0008	0.0000	0.0000
0.4124	0.0060	0.0009	0.0000	0.0000
0.4582	0.0060	0.0010	0.0000	0.0000
0.5041	0.0060	0.0011	0.0000	0.0000
0.5499	0.0060	0.0013	0.0000	0.0000
0.5957	0.0060	0.0014	0.0000	0.0000
0.6415	0.0060	0.0015	0.0000	0.0000
0.6874	0.0060	0.0016	0.0000	0.0000
0.7332	0.0060	0.0017	0.0000	0.0000
0.7790	0.0060	0.0018	0.0000	0.0000
0.8248	0.0060	0.0019	0.0000	0.0000
0.8707	0.0060	0.0020	0.0000	0.0000
0.9165	0.0060	0.0021	0.0000	0.0000
0.9623	0.0060	0.0022	0.0000	0.0000
1.0081	0.0060	0.0023	0.0000	0.0000
1.0540	0.0060	0.0024	0.0000	0.0000
1.0998	0.0060	0.0025	0.0000	0.0000
1.1456	0.0060	0.0026	0.0000	0.0000
1.1914	0.0060	0.0027	0.0000	0.0000
1.2373	0.0060	0.0028	0.0000	0.0000
1.2831	0.0060	0.0029	0.0000	0.0000
1.3289	0.0060	0.0030	0.0000	0.0000
1.3747	0.0060	0.0031	0.0000	0.0000

1.4205	0.0060	0.0032	0.0000	0.0000
1.4664	0.0060	0.0033	0.0000	0.0000
1.5122	0.0060	0.0035	0.0000	0.0000
1.5580	0.0060	0.0036	0.0000	0.0000
1.6038	0.0060	0.0037	0.0000	0.0000
1.6497	0.0060	0.0038	0.0000	0.0000
1.6955	0.0060	0.0039	0.0000	0.0000
1.7413	0.0060	0.0040	0.0000	0.0000
1.7871	0.0060	0.0041	0.0000	0.0000
1.8330	0.0060	0.0043	0.0000	0.0000
1.8788	0.0060	0.0044	0.0000	0.0000
1.9246	0.0060	0.0045	0.0000	0.0000
1.9704	0.0060	0.0046	0.0000	0.0000
2.0163	0.0060	0.0047	0.0000	0.0000
2.0621	0.0060	0.0048	0.0000	0.0000
2.1079	0.0060	0.0049	0.0000	0.0000
2.1537	0.0060	0.0050	0.0000	0.0000
2.1996	0.0060	0.0052	0.0000	0.0000
2.2454	0.0060	0.0053	0.0000	0.0000
2.2912	0.0060	0.0054	0.0000	0.0000
2.3370	0.0060	0.0055	0.0000	0.0000
2.3829	0.0060	0.0056	0.0000	0.0000
2.4287	0.0060	0.0057	0.0000	0.0000
2.4745	0.0060	0.0058	0.0000	0.0000
2.5203	0.0060	0.0060	0.0000	0.0000
2.5662	0.0060	0.0061	0.0000	0.0000
2.6120	0.0060	0.0062	0.0000	0.0000
2.6578	0.0060	0.0063	0.0000	0.0000
2.6700	0.0060	0.0063	0.0000	0.0000

Flow Through Planter Box Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	To Amended(cfs)	Infilt(cfs)
2.6700	0.0060	0.0063	0.0000	0.0213	0.0000
2.7158	0.0060	0.0066	0.0000	0.0213	0.0000
2.7616	0.0060	0.0069	0.0000	0.0213	0.0000
2.8075	0.0060	0.0072	0.0000	0.0213	0.0000
2.8533	0.0060	0.0074	0.0000	0.0213	0.0000
2.8991	0.0060	0.0077	0.0000	0.0213	0.0000
2.9449	0.0060	0.0080	0.0002	0.0213	0.0000
2.9908	0.0060	0.0083	0.0004	0.0213	0.0000
3.0366	0.0060	0.0085	0.0005	0.0213	0.0000
3.0824	0.0060	0.0088	0.0007	0.0213	0.0000
3.1282	0.0060	0.0091	0.0010	0.0213	0.0000
3.1741	0.0060	0.0094	0.0013	0.0213	0.0000
3.2199	0.0060	0.0096	0.0016	0.0213	0.0000
3.2657	0.0060	0.0099	0.0021	0.0213	0.0000
3.3115	0.0060	0.0102	0.0025	0.0213	0.0000
3.3574	0.0060	0.0105	0.0031	0.0213	0.0000
3.4032	0.0060	0.0107	0.0037	0.0213	0.0000
3.4490	0.0060	0.0110	0.0038	0.0213	0.0000
3.4948	0.0060	0.0113	0.0049	0.0213	0.0000
3.5407	0.0060	0.0115	0.0055	0.0213	0.0000
3.5865	0.0060	0.0118	0.0057	0.0213	0.0000
3.6323	0.0060	0.0121	0.0065	0.0213	0.0000
3.6781	0.0060	0.0124	0.0072	0.0213	0.0000
3.7240	0.0060	0.0126	0.0078	0.0213	0.0000
3.7698	0.0060	0.0129	0.0083	0.0213	0.0000
3.8156	0.0060	0.0132	0.0089	0.0213	0.0000

3.8614	0.0060	0.0135	0.0094	0.0213	0.0000
3.9073	0.0060	0.0137	0.0098	0.0213	0.0000
3.9531	0.0060	0.0140	0.0103	0.0213	0.0000
3.9989	0.0060	0.0143	0.0107	0.0213	0.0000
4.0447	0.0060	0.0146	0.0111	0.0213	0.0000
4.0905	0.0060	0.0148	0.0115	0.0213	0.0000
4.1364	0.0060	0.0151	0.0119	0.0213	0.0000
4.1700	0.0060	0.0153	0.0123	0.0213	0.0000

FT Planter Surface 9

Element Flows To:

Outlet 1	Outlet 2
	FT Planter TCM 9

F T Planter 10

Bottom Length:	20.00 ft.
Bottom Width:	8.00 ft.
Material thickness of first layer:	1.5
Material type for first layer:	BAHM 5
Material thickness of second layer:	1.17
Material type for second layer:	GRAVEL
Material thickness of third layer:	0
Material type for third layer:	GRAVEL
Underdrain used	
Underdrain Diameter (feet):	0.33
Orifice Diameter (in.):	0.85
Offset (in.):	0
Flow Through Underdrain (ac-ft.):	7.055
Total Outflow (ac-ft.):	7.707
Percent Through Underdrain:	91.54
Discharge Structure	
Riser Height:	1 ft.
Riser Diameter:	12 in.
Element Flows To:	
Outlet 1	Outlet 2

Flow Through Planter Box Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	Infilt(cfs)
0.0000	0.0037	0.0000	0.0000	0.0000
0.0458	0.0037	0.0001	0.0000	0.0000
0.0916	0.0037	0.0001	0.0000	0.0000
0.1375	0.0037	0.0002	0.0000	0.0000
0.1833	0.0037	0.0003	0.0000	0.0000
0.2291	0.0037	0.0003	0.0000	0.0000
0.2749	0.0037	0.0004	0.0000	0.0000
0.3208	0.0037	0.0004	0.0000	0.0000
0.3666	0.0037	0.0005	0.0000	0.0000
0.4124	0.0037	0.0006	0.0000	0.0000
0.4582	0.0037	0.0006	0.0000	0.0000
0.5041	0.0037	0.0007	0.0000	0.0000
0.5499	0.0037	0.0008	0.0000	0.0000
0.5957	0.0037	0.0008	0.0000	0.0000
0.6415	0.0037	0.0009	0.0000	0.0000
0.6874	0.0037	0.0010	0.0000	0.0000
0.7332	0.0037	0.0010	0.0000	0.0000
0.7790	0.0037	0.0011	0.0000	0.0000
0.8248	0.0037	0.0012	0.0000	0.0000
0.8707	0.0037	0.0012	0.0000	0.0000
0.9165	0.0037	0.0013	0.0000	0.0000
0.9623	0.0037	0.0013	0.0000	0.0000
1.0081	0.0037	0.0014	0.0000	0.0000
1.0540	0.0037	0.0015	0.0000	0.0000
1.0998	0.0037	0.0015	0.0000	0.0000
1.1456	0.0037	0.0016	0.0000	0.0000
1.1914	0.0037	0.0017	0.0000	0.0000
1.2373	0.0037	0.0017	0.0000	0.0000
1.2831	0.0037	0.0018	0.0000	0.0000
1.3289	0.0037	0.0019	0.0000	0.0000
1.3747	0.0037	0.0019	0.0000	0.0000

1.4205	0.0037	0.0020	0.0000	0.0000
1.4664	0.0037	0.0020	0.0000	0.0000
1.5122	0.0037	0.0021	0.0000	0.0000
1.5580	0.0037	0.0022	0.0000	0.0000
1.6038	0.0037	0.0023	0.0000	0.0000
1.6497	0.0037	0.0023	0.0000	0.0000
1.6955	0.0037	0.0024	0.0000	0.0000
1.7413	0.0037	0.0025	0.0000	0.0000
1.7871	0.0037	0.0025	0.0000	0.0000
1.8330	0.0037	0.0026	0.0000	0.0000
1.8788	0.0037	0.0027	0.0000	0.0000
1.9246	0.0037	0.0027	0.0000	0.0000
1.9704	0.0037	0.0028	0.0000	0.0000
2.0163	0.0037	0.0029	0.0000	0.0000
2.0621	0.0037	0.0030	0.0000	0.0000
2.1079	0.0037	0.0030	0.0000	0.0000
2.1537	0.0037	0.0031	0.0000	0.0000
2.1996	0.0037	0.0032	0.0000	0.0000
2.2454	0.0037	0.0032	0.0000	0.0000
2.2912	0.0037	0.0033	0.0000	0.0000
2.3370	0.0037	0.0034	0.0000	0.0000
2.3829	0.0037	0.0034	0.0000	0.0000
2.4287	0.0037	0.0035	0.0000	0.0000
2.4745	0.0037	0.0036	0.0000	0.0000
2.5203	0.0037	0.0037	0.0000	0.0000
2.5662	0.0037	0.0037	0.0000	0.0000
2.6120	0.0037	0.0038	0.0000	0.0000
2.6578	0.0037	0.0039	0.0000	0.0000
2.6700	0.0037	0.0039	0.0000	0.0000

Flow Through Planter Box Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	To Amended(cfs)	Infilt(cfs)
2.6700	0.0037	0.0039	0.0000	0.0185	0.0000
2.7158	0.0037	0.0040	0.0000	0.0185	0.0000
2.7616	0.0037	0.0042	0.0000	0.0185	0.0000
2.8075	0.0037	0.0044	0.0000	0.0185	0.0000
2.8533	0.0037	0.0046	0.0000	0.0185	0.0000
2.8991	0.0037	0.0047	0.0000	0.0185	0.0000
2.9449	0.0037	0.0049	0.0001	0.0185	0.0000
2.9908	0.0037	0.0051	0.0002	0.0185	0.0000
3.0366	0.0037	0.0052	0.0003	0.0185	0.0000
3.0824	0.0037	0.0054	0.0004	0.0185	0.0000
3.1282	0.0037	0.0056	0.0006	0.0185	0.0000
3.1741	0.0037	0.0057	0.0008	0.0185	0.0000
3.2199	0.0037	0.0059	0.0010	0.0185	0.0000
3.2657	0.0037	0.0061	0.0013	0.0185	0.0000
3.3115	0.0037	0.0062	0.0016	0.0185	0.0000
3.3574	0.0037	0.0064	0.0019	0.0185	0.0000
3.4032	0.0037	0.0066	0.0023	0.0185	0.0000
3.4490	0.0037	0.0067	0.0027	0.0185	0.0000
3.4948	0.0037	0.0069	0.0031	0.0185	0.0000
3.5407	0.0037	0.0071	0.0036	0.0185	0.0000
3.5865	0.0037	0.0072	0.0038	0.0185	0.0000
3.6323	0.0037	0.0074	0.0048	0.0185	0.0000
3.6781	0.0037	0.0076	0.0049	0.0185	0.0000
3.7240	0.0037	0.0078	0.0057	0.0185	0.0000
3.7698	0.0037	0.0079	0.0061	0.0185	0.0000
3.8156	0.0037	0.0081	0.0065	0.0185	0.0000

3.8614	0.0037	0.0083	0.0072	0.0185	0.0000
3.9073	0.0037	0.0084	0.0077	0.0185	0.0000
3.9531	0.0037	0.0086	0.0078	0.0185	0.0000
3.9989	0.0037	0.0088	0.0083	0.0185	0.0000
4.0447	0.0037	0.0089	0.0089	0.0185	0.0000
4.0905	0.0037	0.0091	0.0094	0.0185	0.0000
4.1364	0.0037	0.0093	0.0098	0.0185	0.0000
4.1700	0.0037	0.0094	0.0103	0.0185	0.0000

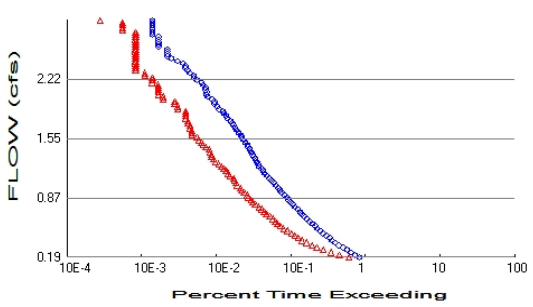
F T Plante Surface10

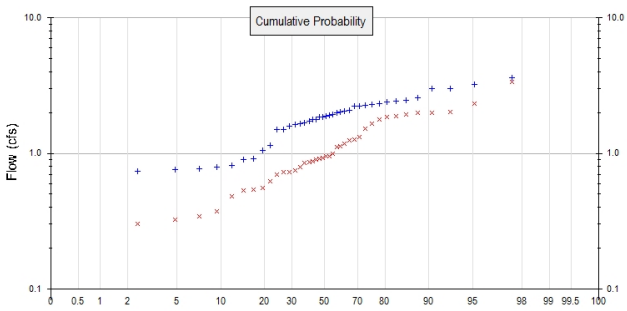
Element Flows To:

Outlet 1	Outlet 2
	F T Planter 10

Analysis Results

POC 1





\+ Predeveloped x Mitigated

Predeveloped Landuse Totals for POC #1
Total Pervious Area: 2.61
Total Impervious Area: 1.422

Mitigated Landuse Totals for POC #1
Total Pervious Area: 1.067
Total Impervious Area: 2.966

Flow Frequency Method: Weibull

Flow Frequency Return Periods for Predeveloped. POC #1

Return Period	**Flow(cfs)**
2 year	1.86721
5 year	2.364496
10 year	2.903885
25 year	3.301487

Flow Frequency Return Periods for Mitigated. POC #1

Return Period	**Flow(cfs)**
2 year	0.929649
5 year	1.82562
10 year	1.980444
25 year	2.516235

Annual Peaks

Annual Peaks for Predeveloped and Mitigated. POC #1

Year	**Predeveloped**	**Mitigated**
1960	1.146	0.625
1961	0.760	0.481
1962	2.037	1.108
1963	2.307	2.320
1964	3.005	1.939
1965	1.674	0.753
1966	0.818	0.542
1967	2.275	1.880
1968	3.230	3.349
1969	1.867	0.930
1970	2.091	0.995
1971	2.000	1.981
1972	0.792	0.323
1973	2.434	1.179

1974	1.728	0.852
1975	1.886	0.730
1976	0.742	0.246
1977	0.718	0.343
1978	1.588	0.796
1979	2.014	0.949
1980	2.579	2.028
1981	1.047	0.554
1982	3.012	1.246
1983	2.390	1.978
1984	1.503	1.135
1985	2.464	1.314
1986	2.330	1.655
1987	0.904	0.530
1988	1.505	0.692
1989	0.766	0.301
1990	1.632	0.907
1991	1.655	0.725
1992	2.241	1.778
1993	2.224	0.947
1994	1.775	0.879
1995	1.930	1.861
1996	3.606	1.518
1997	1.860	1.269
1998	1.900	0.864
1999	0.907	0.376
2000	1.787	0.895

Ranked Annual Peaks

Ranked Annual Peaks for Predeveloped and Mitigated. POC #1

Rank	Predeveloped	Mitigated
1	3.6062	3.3488
2	3.2298	2.3203
3	3.0119	2.0281
4	3.0055	1.9811
5	2.5788	1.9784
6	2.4638	1.9387
7	2.4337	1.8800
8	2.3901	1.8614
9	2.3304	1.7780
10	2.3069	1.6555
11	2.2755	1.5184
12	2.2412	1.3137
13	2.2236	1.2685
14	2.0909	1.2465
15	2.0372	1.1793
16	2.0140	1.1350
17	2.0005	1.1076
18	1.9299	0.9948
19	1.9004	0.9490
20	1.8861	0.9474
21	1.8672	0.9296
22	1.8602	0.9074
23	1.7867	0.8951
24	1.7753	0.8794
25	1.7284	0.8639
26	1.6741	0.8524
27	1.6548	0.7960

28	1.6321	0.7525
29	1.5882	0.7295
30	1.5053	0.7252
31	1.5028	0.6921
32	1.1457	0.6246
33	1.0465	0.5540
34	0.9068	0.5417
35	0.9042	0.5296
36	0.8183	0.4811
37	0.7915	0.3758
38	0.7660	0.3435
39	0.7599	0.3225
40	0.7419	0.3010
41	0.7180	0.2465

Duration Flows

The Facility PASSED

Flow(cfs)	Predev	Mit	Percentage	Pass/Fail
0.1867	2995	2177	72	Pass
0.2142	2604	1597	61	Pass
0.2416	2303	1249	54	Pass
0.2691	2038	980	48	Pass
0.2965	1803	803	44	Pass
0.3240	1588	690	43	Pass
0.3514	1420	588	41	Pass
0.3788	1287	508	39	Pass
0.4063	1185	452	38	Pass
0.4337	1072	406	37	Pass
0.4612	978	367	37	Pass
0.4886	893	323	36	Pass
0.5161	821	290	35	Pass
0.5435	759	259	34	Pass
0.5710	698	237	33	Pass
0.5984	640	223	34	Pass
0.6259	587	206	35	Pass
0.6533	540	189	35	Pass
0.6808	508	171	33	Pass
0.7082	477	159	33	Pass
0.7356	447	146	32	Pass
0.7631	414	135	32	Pass
0.7905	382	121	31	Pass
0.8180	359	111	30	Pass
0.8454	331	106	32	Pass
0.8729	322	98	30	Pass
0.9003	297	93	31	Pass
0.9278	273	85	31	Pass
0.9552	256	79	30	Pass
0.9827	243	76	31	Pass
1.0101	228	69	30	Pass
1.0376	213	66	30	Pass
1.0650	199	63	31	Pass
1.0924	186	62	33	Pass
1.1199	172	55	31	Pass
1.1473	161	52	32	Pass
1.1748	153	49	32	Pass
1.2022	144	46	31	Pass
1.2297	134	42	31	Pass
1.2571	131	39	29	Pass
1.2846	126	35	27	Pass
1.3120	121	33	27	Pass
1.3395	114	31	27	Pass
1.3669	110	31	28	Pass
1.3943	107	30	28	Pass
1.4218	101	29	28	Pass
1.4492	97	26	26	Pass
1.4767	94	24	25	Pass
1.5041	88	23	26	Pass
1.5316	83	21	25	Pass
1.5590	80	20	25	Pass
1.5865	77	17	22	Pass
1.6139	72	17	23	Pass

1.6414	68	17	25	Pass
1.6688	65	16	24	Pass
1.6963	62	16	25	Pass
1.7237	59	15	25	Pass
1.7511	56	15	26	Pass
1.7786	51	14	27	Pass
1.8060	49	14	28	Pass
1.8335	46	14	30	Pass
1.8609	44	14	31	Pass
1.8884	39	11	28	Pass
1.9158	37	11	29	Pass
1.9433	34	10	29	Pass
1.9707	34	10	29	Pass
1.9982	32	7	21	Pass
2.0256	28	7	25	Pass
2.0531	27	6	22	Pass
2.0805	27	6	22	Pass
2.1079	26	6	23	Pass
2.1354	26	6	23	Pass
2.1628	24	6	25	Pass
2.1903	23	5	21	Pass
2.2177	20	5	25	Pass
2.2452	18	5	27	Pass
2.2726	18	4	22	Pass
2.3001	16	4	25	Pass
2.3275	15	3	20	Pass
2.3550	14	3	21	Pass
2.3824	14	3	21	Pass
2.4099	13	3	23	Pass
2.4373	11	3	27	Pass
2.4647	9	3	33	Pass
2.4922	8	3	37	Pass
2.5196	8	3	37	Pass
2.5471	8	3	37	Pass
2.5745	8	3	37	Pass
2.6020	6	3	50	Pass
2.6294	6	3	50	Pass
2.6569	6	3	50	Pass
2.6843	6	3	50	Pass
2.7118	6	3	50	Pass
2.7392	5	3	60	Pass
2.7667	5	3	60	Pass
2.7941	5	2	40	Pass
2.8215	5	2	40	Pass
2.8490	5	2	40	Pass
2.8764	5	2	40	Pass
2.9039	5	1	20	Pass

Water Quality

Model Default Modifications

Total of 0 changes have been made.

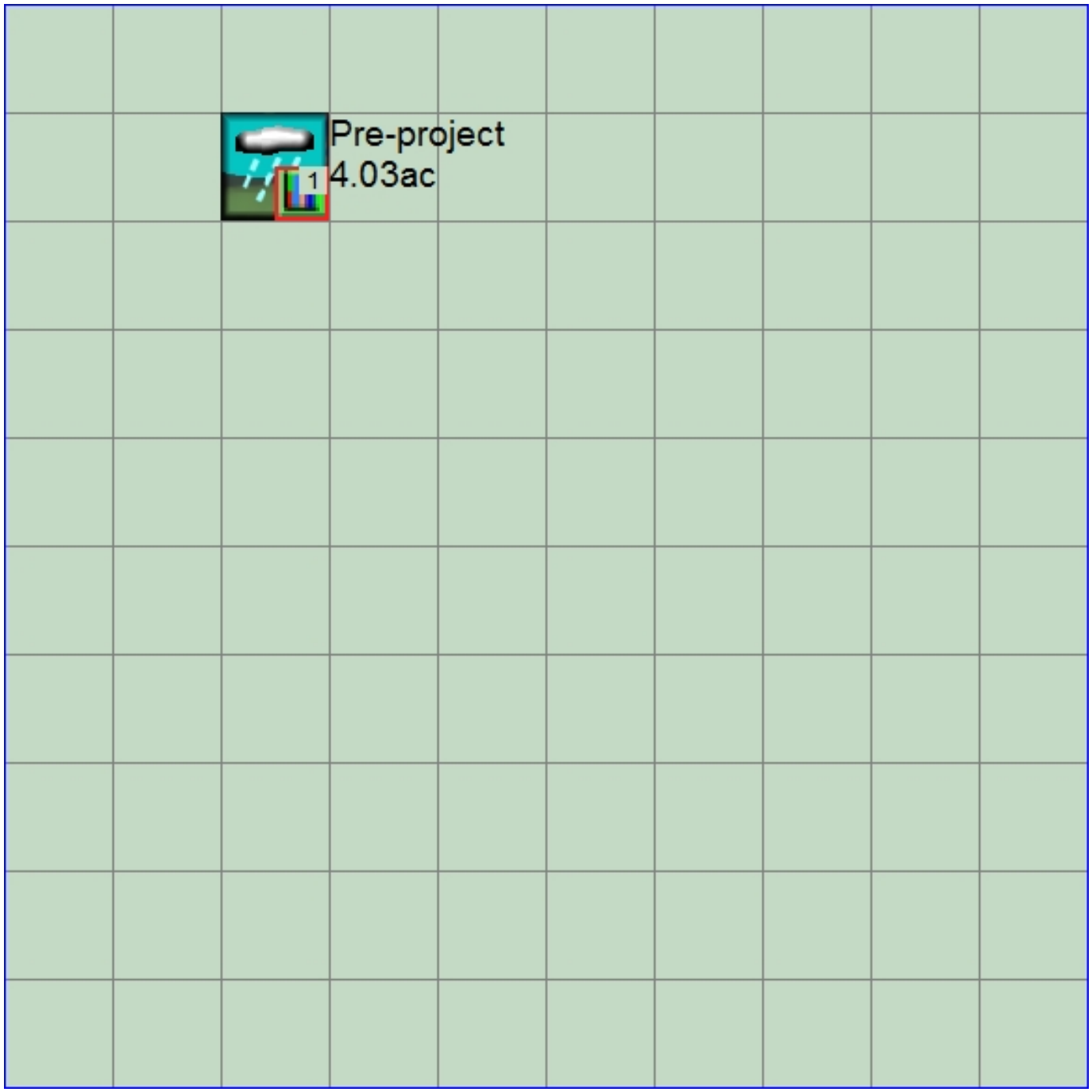
PERLND Changes

No PERLND changes have been made.

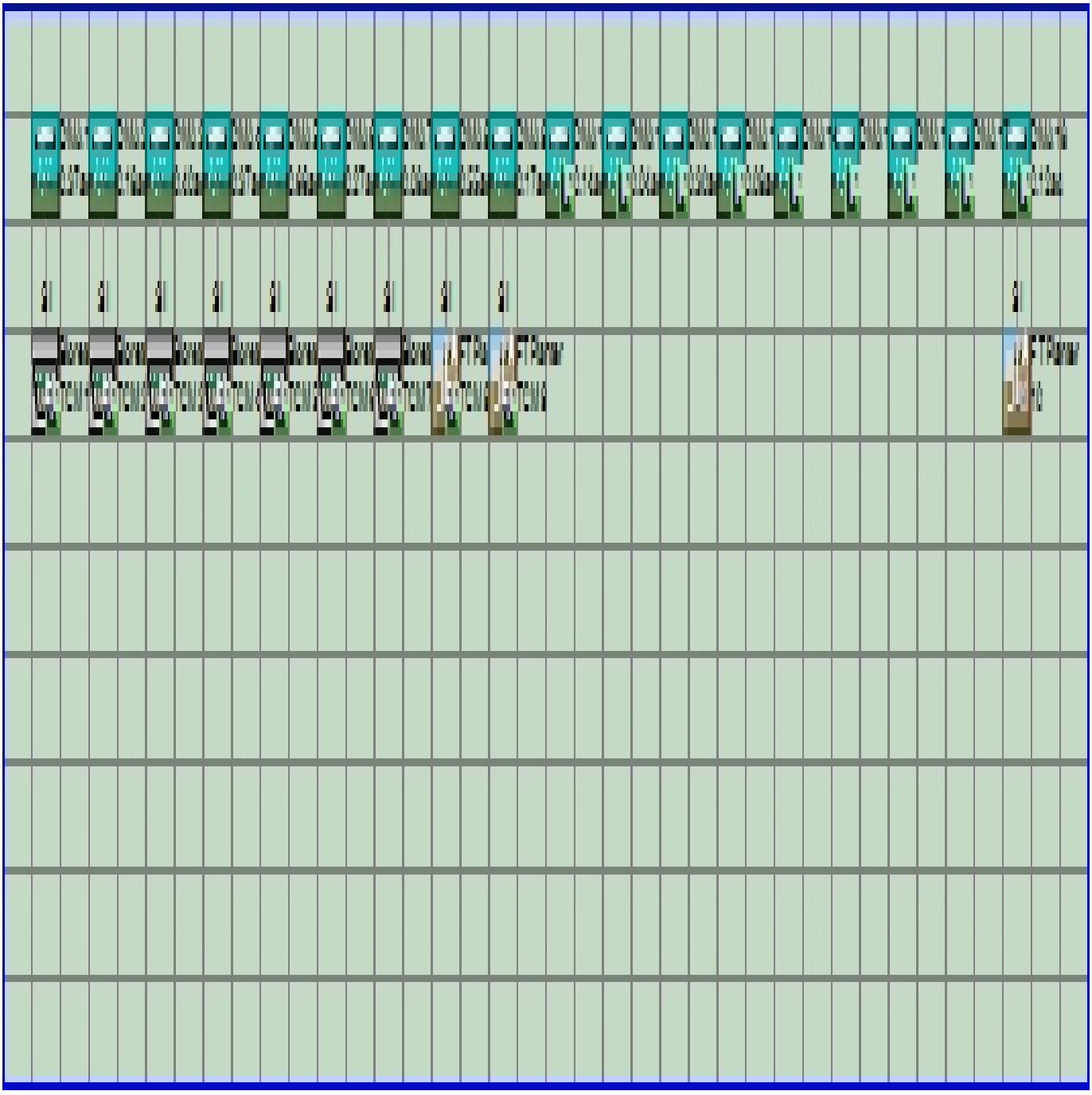
IMPLND Changes

No IMPLND changes have been made.

Appendix
Predeveloped Schematic



Mitigated Schematic



Predeveloped UCI File

```
RUN

GLOBAL
  WWHM4 model simulation
  START       1959 10 01        END    2000 09 30
  RUN INTERP OUTPUT LEVEL    3    0
  RESUME     0 RUN     1                   UNIT SYSTEM     1
END GLOBAL

FILES
<File>  <Un#>   <-----------File Name------------------------------>***
<-ID->                                                              ***
WDM         26   Samaritan Court BAHM 04-15-2016.wdm
MESSU       25   PreSamaritan Court BAHM 04-15-2016.MES
            27   PreSamaritan Court BAHM 04-15-2016.L61
            28   PreSamaritan Court BAHM 04-15-2016.L62
            30   POCSamaritan Court BAHM 04-15-20161.dat
END FILES

OPN SEQUENCE
    INGRP              INDELT 00:60
      PERLND      45
      IMPLND       1
      IMPLND       5
      IMPLND      10
      IMPLND      14
      COPY       501
      DISPLY       1
    END INGRP
END OPN SEQUENCE
DISPLY
  DISPLY-INFO1
    # -  #<----------Title----------->***TRAN PIVL DIG1 FIL1  PYR DIG2 FIL2 YRND
    1        Pre-project                MAX                    1    2   30    9
  END DISPLY-INFO1
END DISPLY
COPY
  TIMESERIES
    # -  #  NPT  NMN ***
    1         1    1
  501         1    1
  END TIMESERIES
END COPY
GENER
  OPCODE
    #    # OPCD ***
  END OPCODE
  PARM
    #    #         K ***
  END PARM
END GENER
PERLND
  GEN-INFO
    <PLS ><-------Name------->NBLKS   Unit-systems   Printer ***
    # -  #                          User  t-series Engl Metr ***
                                          in  out           ***
   45     C/D,Urban,Flat(0-5%)    1    1    1    1   27    0
  END GEN-INFO
  *** Section PWATER***

  ACTIVITY
    <PLS > ************ Active Sections ******************************
    # -  # ATMP SNOW PWAT  SED  PST  PWG PQAL MSTL PEST NITR PHOS TRAC ***
   45         0    0    1    0    0    0    0    0    0    0    0    0
  END ACTIVITY

  PRINT-INFO
    <PLS > ***************** Print-flags **************************** PIVL  PYR
```

```
    # -  # ATMP SNOW PWAT  SED  PST  PWG PQAL MSTL PEST NITR PHOS TRAC  *********
   45         0    0    4    0    0    0    0    0    0    0    0    0    1    9
  END PRINT-INFO

  PWAT-PARM1
    <PLS >  PWATER variable monthly parameter value flags  ***
    # -  # CSNO RTOP UZFG  VCS  VUZ  VNN VIFW VIRC  VLE INFC  HWT ***
   45         0    0    0    1    0    0    0    0    1    0    0
  END PWAT-PARM1

  PWAT-PARM2
    <PLS >      PWATER input info: Part 2         ***
    # -  # ***FOREST      LZSN    INFILT      LSUR     SLSUR     KVARY     AGWRC
   45              0       4.6      0.04       400      0.05         3     0.995
  END PWAT-PARM2

  PWAT-PARM3
    <PLS >      PWATER input info: Part 3         ***
    # -  # ***PETMAX    PETMIN    INFEXP    INFILD    DEEPFR    BASETP    AGWETP
   45             40        35         3         2       0.5      0.15         0
  END PWAT-PARM3
  PWAT-PARM4
    <PLS >     PWATER input info: Part 4                              ***
    # -  #     CEPSC      UZSN      NSUR     INTFW       IRC     LZETP ***
   45              0       0.3      0.25       0.8       0.4         0
  END PWAT-PARM4
  MON-LZETPARM
    <PLS >      PWATER input info: Part 3         ***
    # -  #  JAN  FEB  MAR  APR  MAY  JUN  JUL  AUG  SEP  OCT  NOV  DEC  ***
   45       0.5  0.5  0.5  0.6 0.65 0.65 0.65 0.65 0.65 0.65 0.55  0.5
  END MON-LZETPARM
  MON-INTERCEP
    <PLS >      PWATER input info: Part 3         ***
    # -  #  JAN  FEB  MAR  APR  MAY  JUN  JUL  AUG  SEP  OCT  NOV  DEC  ***
   45      0.11 0.11 0.11 0.11 0.11 0.11 0.11 0.11 0.11 0.11 0.11 0.11
  END MON-INTERCEP

  PWAT-STATE1
    <PLS > *** Initial conditions at start of simulation
               ran from 1990 to end of 1992 (pat 1-11-95) RUN 21 ***
    # -  # ***  CEPS      SURS       UZS      IFWS       LZS       AGWS      GWVS
   45              0         0      0.01         0       3.5        1.7       0.1
  END PWAT-STATE1

END PERLND

IMPLND
  GEN-INFO
    <PLS ><-------Name------->   Unit-systems   Printer ***
    # -  #                     User  t-series Engl Metr ***
                                     in  out           ***
    1     Roads,Flat(0-5%)        1    1    1   27    0
    5     Roof Area               1    1    1   27    0
   10     Sidewalks,Flat(0-5%)    1    1    1   27    0
   14     Parking,Flat(0-5%)      1    1    1   27    0
  END GEN-INFO
  *** Section IWATER***

  ACTIVITY
    <PLS > ************* Active Sections ******************************
    # -  # ATMP SNOW IWAT  SLD  IWG IQAL   ***
    1         0    0    1    0    0    0
    5         0    0    1    0    0    0
   10         0    0    1    0    0    0
   14         0    0    1    0    0    0
  END ACTIVITY

  PRINT-INFO
    <ILS > ******** Print-flags ******** PIVL  PYR
    # -  # ATMP SNOW IWAT  SLD  IWG IQAL    *********
```

```
    1         0    0    4    0    0    0    1    9
    5         0    0    4    0    0    0    1    9
   10         0    0    4    0    0    0    1    9
   14         0    0    4    0    0    0    1    9
  END PRINT-INFO

  IWAT-PARM1
    <PLS >  IWATER variable monthly parameter value flags  ***
    # -  # CSNO RTOP  VRS  VNN RTLI     ***
    1         0    0    0    0    0
    5         0    0    0    0    0
   10         0    0    0    0    0
   14         0    0    0    0    0
  END IWAT-PARM1

  IWAT-PARM2
    <PLS >      IWATER input info: Part 2         ***
    # -  # ***  LSUR     SLSUR      NSUR     RETSC
    1            100      0.05       0.1       0.1
    5            100      0.05       0.1       0.1
   10            100      0.05       0.1       0.1
   14            100      0.05       0.1       0.1
  END IWAT-PARM2

  IWAT-PARM3
    <PLS >      IWATER input info: Part 3         ***
    # -  # ***PETMAX    PETMIN
    1              0         0
    5              0         0
   10              0         0
   14              0         0
  END IWAT-PARM3

  IWAT-STATE1
    <PLS > *** Initial conditions at start of simulation
    # -  # ***  RETS      SURS
    1              0         0
    5              0         0
   10              0         0
   14              0         0
  END IWAT-STATE1

END IMPLND

SCHEMATIC
<-Source->                 <--Area-->     <-Target->   MBLK   ***
<Name>   #                 <-factor->     <Name>   #   Tbl#   ***
Pre-project***
PERLND  45                      2.61     COPY   501     12
PERLND  45                      2.61     COPY   501     13
IMPLND   1                       0.2     COPY   501     15
IMPLND   5                     0.532     COPY   501     15
IMPLND  10                      0.07     COPY   501     15
IMPLND  14                      0.62     COPY   501     15

******Routing******
END SCHEMATIC

NETWORK
<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   #        <Name> # #<-factor->strg <Name>   #   #        <Name> # #  ***
COPY   501 OUTPUT MEAN   1 1   12.1        DISPLY   1     INPUT  TIMSER 1



<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   #        <Name> # #<-factor->strg <Name>   #   #        <Name> # #  ***
END NETWORK

RCHRES
```

```
  GEN-INFO
    RCHRES       Name        Nexits   Unit Systems   Printer                ***
    # -  #<----------------><---> User T-series  Engl Metr LKFG            ***
                                       in  out                              ***
  END GEN-INFO
  *** Section RCHRES***

  ACTIVITY
    <PLS > ************ Active Sections ****************************
    # -  # HYFG ADFG CNFG HTFG SDFG GQFG OXFG NUFG PKFG PHFG ***
  END ACTIVITY

  PRINT-INFO
    <PLS > ***************** Print-flags ****************** PIVL  PYR
    # -  # HYDR ADCA CONS HEAT  SED  GQL OXRX NUTR PLNK PHCB PIVL  PYR  *********
  END PRINT-INFO

  HYDR-PARM1
    RCHRES  Flags for each HYDR Section                                  ***
    # -  #  VC A1 A2 A3  ODFVFG for each *** ODGTFG for each     FUNCT  for each
            FG FG FG FG  possible  exit  *** possible  exit      possible  exit
             *  *  *  *    *  *  *  *  *       *  *  *  *  *        ***
  END HYDR-PARM1

  HYDR-PARM2
    # -  #    FTABNO       LEN     DELTH     STCOR        KS      DB50       ***
  <------><--------><--------><--------><--------><--------><-------->       ***
  END HYDR-PARM2
  HYDR-INIT
    RCHRES  Initial conditions for each HYDR section                     ***
    # -  # ***   VOL     Initial  value  of COLIND     Initial  value  of OUTDGT
          *** ac-ft     for each possible exit        for each possible exit
  <------><-------->     <---><---><---><---><---> *** <---><---><---><---><--->
  END HYDR-INIT
END RCHRES

SPEC-ACTIONS
END SPEC-ACTIONS
FTABLES
END FTABLES

EXT SOURCES
<-Volume-> <Member> SsysSgap<--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   # <Name> # tem strg<-factor->strg <Name>   #   #        <Name> # #  ***
WDM      2 PREC     ENGL    1.448          PERLND   1 999 EXTNL  PREC
WDM      2 PREC     ENGL    1.448          IMPLND   1 999 EXTNL  PREC
WDM      1 EVAP     ENGL    1              PERLND   1 999 EXTNL  PETINP
WDM      1 EVAP     ENGL    1              IMPLND   1 999 EXTNL  PETINP
WDM     22 IRRG     ENGL    0.7       SAME PERLND  45     EXTNL  SURLI

END EXT SOURCES

EXT TARGETS
<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Volume-> <Member> Tsys Tgap Amd ***
<Name>   #        <Name> # #<-factor->strg <Name>   # <Name>    tem strg strg***
COPY   501 OUTPUT MEAN   1 1     12.1      WDM    501 FLOW     ENGL      REPL
END EXT TARGETS

MASS-LINK
<Volume>   <-Grp> <-Member-><--Mult-->     <Target>       <-Grp> <-Member->***
<Name>            <Name> # #<-factor->     <Name>                <Name> # #***
  MASS-LINK       12
PERLND     PWATER SURO       0.083333      COPY           INPUT  MEAN
  END MASS-LINK   12

  MASS-LINK       13
PERLND     PWATER IFWO       0.083333      COPY           INPUT  MEAN
  END MASS-LINK   13

  MASS-LINK       15
```

```
IMPLND     IWATER SURO       0.083333      COPY           INPUT  MEAN
  END MASS-LINK   15

END MASS-LINK

END RUN
```

Mitigated UCI File

```
RUN

GLOBAL
  WWHM4 model simulation
  START       1959 10 01        END    2000 09 30
  RUN INTERP OUTPUT LEVEL    3    0
  RESUME     0 RUN     1                    UNIT SYSTEM     1
END GLOBAL

FILES
<File>  <Un#>   <-----------File Name------------------------------>***
<-ID->                                                               ***
WDM         26   Samaritan Court BAHM 04-15-2016.wdm
MESSU       25   MitSamaritan Court BAHM 04-15-2016.MES
            27   MitSamaritan Court BAHM 04-15-2016.L61
            28   MitSamaritan Court BAHM 04-15-2016.L62
            30   POCSamaritan Court BAHM 04-15-20161.dat
END FILES

OPN SEQUENCE
    INGRP              INDELT 00:60
      PERLND      45
      IMPLND       5
      IMPLND      10
      IMPLND       6
      IMPLND      14
      GENER        2
      RCHRES       1
      RCHRES       2
      GENER        4
      RCHRES       3
      RCHRES       4
      GENER        6
      RCHRES       5
      RCHRES       6
      GENER        8
      RCHRES       7
      RCHRES       8
      GENER       10
      RCHRES       9
      RCHRES      10
      GENER       12
      RCHRES      11
      RCHRES      12
      GENER       14
      RCHRES      13
      RCHRES      14
      RCHRES      15
      RCHRES      16
      RCHRES      17
      RCHRES      18
      RCHRES      19
      RCHRES      20
      COPY         1
      COPY       501
      COPY       601
      DISPLY       1
    END INGRP
END OPN SEQUENCE
DISPLY
  DISPLY-INFO1
    # -  #<----------Title---------->***TRAN PIVL DIG1 FIL1  PYR DIG2 FIL2 YRND
    1        Surface ention TCM 1        MAX                   1    2   30    9
  END DISPLY-INFO1
END DISPLY
COPY
  TIMESERIES
    # -  #  NPT  NMN ***
```

```
    1         1    1
  501         1    1
  601         1    1
  END TIMESERIES
END COPY
GENER
  OPCODE
    #    # OPCD ***
    2        24
    4        24
    6        24
    8        24
   10        24
   12        24
   14        24
  END OPCODE
  PARM
    #    #         K ***
    2            0.
    4            0.
    6            0.
    8            0.
   10            0.
   12            0.
   14            0.
  END PARM
END GENER
PERLND
  GEN-INFO
    <PLS ><-------Name------->NBLKS   Unit-systems   Printer ***
    # -  #                          User  t-series Engl Metr ***
                                          in  out           ***
   45     C/D,Urban,Flat(0-5%)    1    1    1    1   27    0
  END GEN-INFO
  *** Section PWATER***

  ACTIVITY
    <PLS > ************* Active Sections ******************************
    # -  # ATMP SNOW PWAT  SED  PST  PWG PQAL MSTL PEST NITR PHOS TRAC ***
   45         0    0    1    0    0    0    0    0    0    0    0    0
  END ACTIVITY

  PRINT-INFO
    <PLS > ****************** Print-flags ***************************** PIVL  PYR
    # -  # ATMP SNOW PWAT  SED  PST  PWG PQAL MSTL PEST NITR PHOS TRAC  *********
   45         0    0    4    0    0    0    0    0    0    0    0    0    1    9
  END PRINT-INFO

  PWAT-PARM1
    <PLS >  PWATER variable monthly parameter value flags  ***
    # -  # CSNO RTOP UZFG  VCS  VUZ  VNN VIFW VIRC  VLE INFC  HWT ***
   45         0    0    0    1    0    0    0    0    1    0    0
  END PWAT-PARM1

  PWAT-PARM2
    <PLS >      PWATER input info: Part 2         ***
    # -  # ***FOREST      LZSN    INFILT      LSUR     SLSUR     KVARY     AGWRC
   45              0       4.6      0.04       400      0.05         3     0.995
  END PWAT-PARM2

  PWAT-PARM3
    <PLS >      PWATER input info: Part 3         ***
    # -  # ***PETMAX    PETMIN    INFEXP    INFILD    DEEPFR    BASETP    AGWETP
   45             40        35         3         2       0.5      0.15         0
  END PWAT-PARM3
  PWAT-PARM4
    <PLS >     PWATER input info: Part 4                                 ***
    # -  #     CEPSC      UZSN      NSUR     INTFW       IRC     LZETP ***
   45              0       0.3      0.25       0.8       0.4         0
  END PWAT-PARM4
```

```
  MON-LZETPARM
    <PLS >      PWATER input info: Part 3         ***
    # -  #  JAN  FEB  MAR  APR  MAY  JUN  JUL  AUG  SEP  OCT  NOV  DEC  ***
   45       0.5  0.5  0.5  0.6 0.65 0.65 0.65 0.65 0.65 0.65 0.55  0.5
  END MON-LZETPARM
  MON-INTERCEP
    <PLS >      PWATER input info: Part 3         ***
    # -  #  JAN  FEB  MAR  APR  MAY  JUN  JUL  AUG  SEP  OCT  NOV  DEC  ***
   45      0.11 0.11 0.11 0.11 0.11 0.11 0.11 0.11 0.11 0.11 0.11 0.11
  END MON-INTERCEP

  PWAT-STATE1
    <PLS > *** Initial conditions at start of simulation
               ran from 1990 to end of 1992 (pat 1-11-95) RUN 21 ***
    # -  # ***  CEPS      SURS       UZS      IFWS       LZS      AGWS      GWVS
   45              0         0      0.01         0       3.5       1.7       0.1
  END PWAT-STATE1

END PERLND

IMPLND
  GEN-INFO
    <PLS ><-------Name------->   Unit-systems   Printer ***
    # -  #                     User  t-series Engl Metr ***
                                     in  out           ***
    5     Roof Area                1    1    1   27    0
   10     Sidewalks,Flat(0-5%)     1    1    1   27    0
    6     Driveways,Flat(0-5%)     1    1    1   27    0
   14     Parking,Flat(0-5%)       1    1    1   27    0
  END GEN-INFO
  *** Section IWATER***

  ACTIVITY
    <PLS > ************ Active Sections ******************************
    # -  # ATMP SNOW IWAT  SLD  IWG IQAL   ***
    5         0    0    1    0    0    0
   10         0    0    1    0    0    0
    6         0    0    1    0    0    0
   14         0    0    1    0    0    0
  END ACTIVITY

  PRINT-INFO
    <ILS > ******** Print-flags ******** PIVL  PYR
    # -  # ATMP SNOW IWAT  SLD  IWG IQAL    *********
    5         0    0    4    0    0    0    1    9
   10         0    0    4    0    0    0    1    9
    6         0    0    4    0    0    0    1    9
   14         0    0    4    0    0    0    1    9
  END PRINT-INFO

  IWAT-PARM1
    <PLS >  IWATER variable monthly parameter value flags  ***
    # -  # CSNO RTOP  VRS  VNN RTLI     ***
    5         0    0    0    0    0
   10         0    0    0    0    0
    6         0    0    0    0    0
   14         0    0    0    0    0
  END IWAT-PARM1

  IWAT-PARM2
    <PLS >      IWATER input info: Part 2         ***
    # -  # ***  LSUR     SLSUR      NSUR     RETSC
    5            100      0.05       0.1       0.1
   10            100      0.05       0.1       0.1
    6            100      0.05       0.1       0.1
   14            100      0.05       0.1       0.1
  END IWAT-PARM2

  IWAT-PARM3
    <PLS >      IWATER input info: Part 3         ***
```

```
    # -  # ***PETMAX    PETMIN
     5              0         0
    10              0         0
     6              0         0
    14              0         0
  END IWAT-PARM3

  IWAT-STATE1
    <PLS > *** Initial conditions at start of simulation
    # -  # ***  RETS      SURS
     5              0         0
    10              0         0
     6              0         0
    14              0         0
  END IWAT-STATE1

END IMPLND

SCHEMATIC
<-Source->                 <--Area-->     <-Target->   MBLK   ***
<Name>   #                 <-factor->     <Name>   #   Tbl#   ***
DMA 1***
PERLND  45                      0.028     RCHRES   1      2
PERLND  45                      0.028     RCHRES   1      3
IMPLND   5                      0.259     RCHRES   1      5
IMPLND  10                       0.08     RCHRES   1      5
DMA 2***
PERLND  45                      0.013     RCHRES   3      2
PERLND  45                      0.013     RCHRES   3      3
IMPLND   5                      0.016     RCHRES   3      5
IMPLND   6                       0.09     RCHRES   3      5
IMPLND  10                       0.06     RCHRES   3      5
DMA 3***
PERLND  45                      0.144     RCHRES   5      2
PERLND  45                      0.144     RCHRES   5      3
IMPLND   5                      0.254     RCHRES   5      5
DMA 4***
PERLND  45                      0.169     RCHRES   7      2
PERLND  45                      0.169     RCHRES   7      3
IMPLND  10                      0.041     RCHRES   7      5
IMPLND  14                       0.16     RCHRES   7      5
DMA 5***
PERLND  45                      0.068     RCHRES   9      2
PERLND  45                      0.068     RCHRES   9      3
IMPLND   6                      0.061     RCHRES   9      5
IMPLND  14                      0.535     RCHRES   9      5
DMA 6***
PERLND  45                      0.059     RCHRES  11      2
PERLND  45                      0.059     RCHRES  11      3
IMPLND   5                      0.084     RCHRES  11      5
IMPLND   6                      0.109     RCHRES  11      5
IMPLND  10                      0.022     RCHRES  11      5
DMA 7***
PERLND  45                      0.032     RCHRES  13      2
PERLND  45                      0.032     RCHRES  13      3
IMPLND   6                       0.02     RCHRES  13      5
IMPLND  10                      0.025     RCHRES  13      5
DMA 8***
PERLND  45                      0.001     RCHRES  15      2
PERLND  45                      0.001     RCHRES  15      3
IMPLND  14                      0.549     RCHRES  15      5
DMA 9***
PERLND  45                      0.008     RCHRES  17      2
PERLND  45                      0.008     RCHRES  17      3
IMPLND   5                      0.164     RCHRES  17      5
DMA 18***
PERLND  45                      0.003     RCHRES  19      2
PERLND  45                      0.003     RCHRES  19      3
IMPLND   5                      0.115     RCHRES  19      5
DMA 10***
```

```
PERLND  45                      0.135     COPY   501     12
PERLND  45                      0.135     COPY   601     12
PERLND  45                      0.135     COPY   501     13
PERLND  45                      0.135     COPY   601     13
DMA 11***
PERLND  45                      0.037     COPY   501     12
PERLND  45                      0.037     COPY   601     12
PERLND  45                      0.037     COPY   501     13
PERLND  45                      0.037     COPY   601     13
DMA 12***
PERLND  45                      0.295     COPY   501     12
PERLND  45                      0.295     COPY   601     12
PERLND  45                      0.295     COPY   501     13
PERLND  45                      0.295     COPY   601     13
DMA 13***
PERLND  45                      0.075     COPY   501     12
PERLND  45                      0.075     COPY   601     12
PERLND  45                      0.075     COPY   501     13
PERLND  45                      0.075     COPY   601     13
DMA 15***
IMPLND  10                      0.099     COPY   501     15
IMPLND  10                      0.099     COPY   601     15
DMA 18***
PERLND  45                      0.003     COPY   501     12
PERLND  45                      0.003     COPY   601     12
PERLND  45                      0.003     COPY   501     13
PERLND  45                      0.003     COPY   601     13
IMPLND   5                      0.115     COPY   501     15
IMPLND   5                      0.115     COPY   601     15
DMA 16***
IMPLND  10                      0.023     COPY   501     15
IMPLND  10                      0.023     COPY   601     15
DMA 14***
IMPLND  10                       0.15     COPY   501     15
IMPLND  10                       0.15     COPY   601     15
DMA 17***
IMPLND  10                       0.05     COPY   501     15
IMPLND  10                       0.05     COPY   601     15

******Routing******
PERLND  45                      0.028     COPY     1     12
IMPLND   5                      0.259     COPY     1     15
IMPLND  10                       0.08     COPY     1     15
PERLND  45                      0.028     COPY     1     13
PERLND  45                      0.013     COPY     1     12
IMPLND   5                      0.016     COPY     1     15
IMPLND   6                       0.09     COPY     1     15
IMPLND  10                       0.06     COPY     1     15
PERLND  45                      0.013     COPY     1     13
PERLND  45                      0.144     COPY     1     12
IMPLND   5                      0.254     COPY     1     15
PERLND  45                      0.144     COPY     1     13
RCHRES   1                          1     RCHRES   2      8
RCHRES   3                          1     RCHRES   4      8
RCHRES   5                          1     RCHRES   6      8
PERLND  45                      0.169     COPY     1     12
IMPLND  10                      0.041     COPY     1     15
IMPLND  14                       0.16     COPY     1     15
PERLND  45                      0.169     COPY     1     13
RCHRES   7                          1     RCHRES   8      8
PERLND  45                      0.068     COPY     1     12
IMPLND   6                      0.061     COPY     1     15
IMPLND  14                      0.535     COPY     1     15
PERLND  45                      0.068     COPY     1     13
RCHRES   9                          1     RCHRES  10      8
PERLND  45                      0.059     COPY     1     12
IMPLND   5                      0.084     COPY     1     15
IMPLND   6                      0.109     COPY     1     15
IMPLND  10                      0.022     COPY     1     15
PERLND  45                      0.059     COPY     1     13
```

```
RCHRES  11                          1     RCHRES  12      8
PERLND  45                      0.032     COPY     1     12
IMPLND   6                       0.02     COPY     1     15
IMPLND  10                      0.025     COPY     1     15
PERLND  45                      0.032     COPY     1     13
RCHRES  13                          1     RCHRES  14      8
PERLND  45                      0.001     COPY     1     12
IMPLND  14                      0.549     COPY     1     15
PERLND  45                      0.001     COPY     1     13
RCHRES  15                          1     RCHRES  16      8
PERLND  45                      0.008     COPY     1     12
IMPLND   5                      0.164     COPY     1     15
PERLND  45                      0.008     COPY     1     13
RCHRES  17                          1     RCHRES  18      8
RCHRES  19                          1     RCHRES  20      8
RCHRES   2                          1     COPY   501     16
RCHRES   1                          1     COPY   501     17
RCHRES   4                          1     COPY   501     16
RCHRES   3                          1     COPY   501     17
RCHRES   6                          1     COPY   501     16
RCHRES   5                          1     COPY   501     17
RCHRES   8                          1     COPY   501     16
RCHRES   7                          1     COPY   501     17
RCHRES  10                          1     COPY   501     16
RCHRES   9                          1     COPY   501     17
RCHRES  12                          1     COPY   501     16
RCHRES  11                          1     COPY   501     17
RCHRES  14                          1     COPY   501     16
RCHRES  13                          1     COPY   501     17
RCHRES  16                          1     COPY   501     16
RCHRES  15                          1     COPY   501     17
RCHRES  18                          1     COPY   501     16
RCHRES  17                          1     COPY   501     17
END SCHEMATIC

NETWORK
<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   #        <Name> # #<-factor->strg <Name>   #   #        <Name> # #  ***
COPY   501 OUTPUT MEAN   1 1   12.1        DISPLY   1     INPUT  TIMSER 1
GENER    2 OUTPUT TIMSER      .0002778     RCHRES   1     EXTNL  OUTDGT 1
GENER    4 OUTPUT TIMSER      .0002778     RCHRES   3     EXTNL  OUTDGT 1
GENER    6 OUTPUT TIMSER      .0002778     RCHRES   5     EXTNL  OUTDGT 1
GENER    8 OUTPUT TIMSER      .0002778     RCHRES   7     EXTNL  OUTDGT 1
GENER   10 OUTPUT TIMSER      .0002778     RCHRES   9     EXTNL  OUTDGT 1
GENER   12 OUTPUT TIMSER      .0002778     RCHRES  11     EXTNL  OUTDGT 1
GENER   14 OUTPUT TIMSER      .0002778     RCHRES  13     EXTNL  OUTDGT 1


<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   #        <Name> # #<-factor->strg <Name>   #   #        <Name> # #  ***
END NETWORK

RCHRES
  GEN-INFO
    RCHRES       Name        Nexits   Unit Systems   Printer                ***
    # -  #<------------------><---> User T-series  Engl Metr LKFG            ***
                                       in  out                               ***
    1     Surface ention T-010    3    1    1    1   28    0    1
    2     Bioretention TCM-009    1    1    1    1   28    0    1
    3     Surface ention T-012    3    1    1    1   28    0    1
    4     Bioretention TCM-011    1    1    1    1   28    0    1
    5     Surface ention T-014    3    1    1    1   28    0    1
    6     Bioretention TCM-013    1    1    1    1   28    0    1
    7     Surface ention T-017    3    1    1    1   28    0    1
    8     Bioretention TCM-016    1    1    1    1   28    0    1
    9     Surface ention T-020    3    1    1    1   28    0    1
   10     Bioretention TCM-019    1    1    1    1   28    0    1
   11     Surface ention T-023    3    1    1    1   28    0    1
   12     Bioretention TCM-022    1    1    1    1   28    0    1
```

```
 13     Surface ention T-026    3    1    1    1   28    0    1
 14     Bioretention TCM-025    1    1    1    1   28    0    1
 15     FT Planter Surfa-029    3    1    1    1   28    0    1
 16     FT Planter TCM 8-028    1    1    1    1   28    0    1
 17     FT Planter Surfa-032    3    1    1    1   28    0    1
 18     FT Planter TCM 9-031    1    1    1    1   28    0    1
 19     F T Plante Surfa-045    3    1    1    1   28    0    1
 20     F T Planter  10         1    1    1    1   28    0    1
END GEN-INFO
*** Section RCHRES***

ACTIVITY
  <PLS > ************ Active Sections ******************************
  # -  # HYFG ADFG CNFG HTFG SDFG GQFG OXFG NUFG PKFG PHFG ***
  1         1    0    0    0    0    0    0    0    0    0
  2         1    0    0    0    0    0    0    0    0    0
  3         1    0    0    0    0    0    0    0    0    0
  4         1    0    0    0    0    0    0    0    0    0
  5         1    0    0    0    0    0    0    0    0    0
  6         1    0    0    0    0    0    0    0    0    0
  7         1    0    0    0    0    0    0    0    0    0
  8         1    0    0    0    0    0    0    0    0    0
  9         1    0    0    0    0    0    0    0    0    0
 10         1    0    0    0    0    0    0    0    0    0
 11         1    0    0    0    0    0    0    0    0    0
 12         1    0    0    0    0    0    0    0    0    0
 13         1    0    0    0    0    0    0    0    0    0
 14         1    0    0    0    0    0    0    0    0    0
 15         1    0    0    0    0    0    0    0    0    0
 16         1    0    0    0    0    0    0    0    0    0
 17         1    0    0    0    0    0    0    0    0    0
 18         1    0    0    0    0    0    0    0    0    0
 19         1    0    0    0    0    0    0    0    0    0
 20         1    0    0    0    0    0    0    0    0    0
END ACTIVITY

PRINT-INFO
  <PLS > ***************** Print-flags ******************** PIVL  PYR
  # -  # HYDR ADCA CONS HEAT  SED  GQL OXRX NUTR PLNK PHCB PIVL  PYR  *********
  1         4    0    0    0    0    0    0    0    0    0    1    9
  2         4    0    0    0    0    0    0    0    0    0    1    9
  3         4    0    0    0    0    0    0    0    0    0    1    9
  4         4    0    0    0    0    0    0    0    0    0    1    9
  5         4    0    0    0    0    0    0    0    0    0    1    9
  6         4    0    0    0    0    0    0    0    0    0    1    9
  7         4    0    0    0    0    0    0    0    0    0    1    9
  8         4    0    0    0    0    0    0    0    0    0    1    9
  9         4    0    0    0    0    0    0    0    0    0    1    9
 10         4    0    0    0    0    0    0    0    0    0    1    9
 11         4    0    0    0    0    0    0    0    0    0    1    9
 12         4    0    0    0    0    0    0    0    0    0    1    9
 13         4    0    0    0    0    0    0    0    0    0    1    9
 14         4    0    0    0    0    0    0    0    0    0    1    9
 15         4    0    0    0    0    0    0    0    0    0    1    9
 16         4    0    0    0    0    0    0    0    0    0    1    9
 17         4    0    0    0    0    0    0    0    0    0    1    9
 18         4    0    0    0    0    0    0    0    0    0    1    9
 19         4    0    0    0    0    0    0    0    0    0    1    9
 20         4    0    0    0    0    0    0    0    0    0    1    9
END PRINT-INFO

HYDR-PARM1
  RCHRES  Flags for each HYDR Section                                  ***
  # -  #  VC A1 A2 A3  ODFVFG for each *** ODGTFG for each     FUNCT  for each
         FG FG FG FG  possible  exit  *** possible  exit      possible  exit
          *  *  *  *    4  5  6  0  0       0  1  0  0  0       ***
  1       0  1  0  0    4  5  6  0  0       0  1  0  0  0       2  1  2  2  2
  2       0  1  0  0    4  0  0  0  0       0  0  0  0  0       2  2  2  2  2
  3       0  1  0  0    4  5  6  0  0       0  1  0  0  0       2  1  2  2  2
  4       0  1  0  0    4  0  0  0  0       0  0  0  0  0       2  2  2  2  2
```

```
   5        0  1  0  0    4  5  6  0  0       0  1  0  0  0       2  1  2  2  2
   6        0  1  0  0    4  0  0  0  0       0  0  0  0  0       2  2  2  2  2
   7        0  1  0  0    4  5  6  0  0       0  1  0  0  0       2  1  2  2  2
   8        0  1  0  0    4  0  0  0  0       0  0  0  0  0       2  2  2  2  2
   9        0  1  0  0    4  5  6  0  0       0  1  0  0  0       2  1  2  2  2
  10        0  1  0  0    4  0  0  0  0       0  0  0  0  0       2  2  2  2  2
  11        0  1  0  0    4  5  6  0  0       0  1  0  0  0       2  1  2  2  2
  12        0  1  0  0    4  0  0  0  0       0  0  0  0  0       2  2  2  2  2
  13        0  1  0  0    4  5  6  0  0       0  1  0  0  0       2  1  2  2  2
  14        0  1  0  0    4  0  0  0  0       0  0  0  0  0       2  2  2  2  2
  15        0  1  0  0    4  5  6  0  0       0  0  0  0  0       2  2  2  2  2
  16        0  1  0  0    4  0  0  0  0       0  0  0  0  0       2  2  2  2  2
  17        0  1  0  0    4  5  6  0  0       0  0  0  0  0       2  2  2  2  2
  18        0  1  0  0    4  0  0  0  0       0  0  0  0  0       2  2  2  2  2
  19        0  1  0  0    4  5  6  0  0       0  0  0  0  0       2  2  2  2  2
  20        0  1  0  0    4  0  0  0  0       0  0  0  0  0       2  2  2  2  2
END HYDR-PARM1

HYDR-PARM2
  # -  #    FTABNO       LEN      DELTH     STCOR        KS      DB50        ***
<------><--------><--------><--------><--------><--------><--------><------->
  1              1      0.01       0.0       0.0       0.5       0.0
  2              2      0.01       0.0       0.0       0.5       0.0
  3              3      0.01       0.0       0.0       0.5       0.0
  4              4      0.01       0.0       0.0       0.5       0.0
  5              5      0.01       0.0       0.0       0.5       0.0
  6              6      0.01       0.0       0.0       0.5       0.0
  7              7      0.01       0.0       0.0       0.5       0.0
  8              8      0.01       0.0       0.0       0.5       0.0
  9              9      0.01       0.0       0.0       0.5       0.0
 10             10      0.02       0.0       0.0       0.5       0.0
 11             11      0.01       0.0       0.0       0.5       0.0
 12             12      0.01       0.0       0.0       0.5       0.0
 13             13      0.01       0.0       0.0       0.5       0.0
 14             14      0.01       0.0       0.0       0.5       0.0
 15             15      0.01       0.0       0.0       0.5       0.0
 16             16      0.01       0.0       0.0       0.5       0.0
 17             17      0.01       0.0       0.0       0.5       0.0
 18             18      0.01       0.0       0.0       0.5       0.0
 19             19      0.01       0.0       0.0       0.5       0.0
 20             20      0.01       0.0       0.0       0.5       0.0
END HYDR-PARM2
HYDR-INIT
  RCHRES  Initial conditions for each HYDR section                    ***
  # -  # ***   VOL     Initial  value  of COLIND     Initial  value  of OUTDGT
        *** ac-ft     for each possible exit        for each possible exit
<------><-------->     <---><---><---><---><---> *** <---><---><---><---><--->
  1            0         4.0  5.0  6.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
  2            0         4.0  0.0  0.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
  3            0         4.0  5.0  6.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
  4            0         4.0  0.0  0.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
  5            0         4.0  5.0  6.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
  6            0         4.0  0.0  0.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
  7            0         4.0  5.0  6.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
  8            0         4.0  0.0  0.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
  9            0         4.0  5.0  6.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
 10         0            4.0  0.0  0.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
 11         0            4.0  5.0  6.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
 12         0            4.0  0.0  0.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
 13         0            4.0  5.0  6.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
 14         0            4.0  0.0  0.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
 15         0            4.0  5.0  6.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
 16         0            4.0  0.0  0.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
 17         0            4.0  5.0  6.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
 18         0            4.0  0.0  0.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
 19         0            4.0  5.0  6.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
 20         0            4.0  0.0  0.0  0.0  0.0       0.0  0.0  0.0  0.0  0.0
END HYDR-INIT
END RCHRES
```

```
SPEC-ACTIONS
*** User-Defined Variable Quantity Lines
***                          addr
***                         <------>
*** kwd  varnam optyp  opn  vari  s1 s2 s3 tp multiply  lc ls ac as agfn ***
  <****> <----> <----> <-> <----><-><-><-><-><--------> <><-> <><-> <--> ***
  UVQUAN vol2   RCHRES   2 VOL              4
  UVQUAN v2m2   GLOBAL     WORKSP  1        3
  UVQUAN vpo2   GLOBAL     WORKSP  2        3
  UVQUAN v2d2   GENER    2 K       1        3
*** User-Defined Variable Quantity Lines
***                          addr
***                         <------>
*** kwd  varnam optyp  opn  vari  s1 s2 s3 tp multiply  lc ls ac as agfn ***
  <****> <----> <----> <-> <----><-><-><-><-><--------> <><-> <><-> <--> ***
  UVQUAN vol4   RCHRES   4 VOL              4
  UVQUAN v2m4   GLOBAL     WORKSP  3        3
  UVQUAN vpo4   GLOBAL     WORKSP  4        3
  UVQUAN v2d4   GENER    4 K       1        3
*** User-Defined Variable Quantity Lines
***                          addr
***                         <------>
*** kwd  varnam optyp  opn  vari  s1 s2 s3 tp multiply  lc ls ac as agfn ***
  <****> <----> <----> <-> <----><-><-><-><-><--------> <><-> <><-> <--> ***
  UVQUAN vol6   RCHRES   6 VOL              4
  UVQUAN v2m6   GLOBAL     WORKSP  5        3
  UVQUAN vpo6   GLOBAL     WORKSP  6        3
  UVQUAN v2d6   GENER    6 K       1        3
*** User-Defined Variable Quantity Lines
***                          addr
***                         <------>
*** kwd  varnam optyp  opn  vari  s1 s2 s3 tp multiply  lc ls ac as agfn ***
  <****> <----> <----> <-> <----><-><-><-><-><--------> <><-> <><-> <--> ***
  UVQUAN vol8   RCHRES   8 VOL              4
  UVQUAN v2m8   GLOBAL     WORKSP  7        3
  UVQUAN vpo8   GLOBAL     WORKSP  8        3
  UVQUAN v2d8   GENER    8 K       1        3
*** User-Defined Variable Quantity Lines
***                          addr
***                         <------>
*** kwd  varnam optyp  opn  vari  s1 s2 s3 tp multiply  lc ls ac as agfn ***
  <****> <----> <----> <-> <----><-><-><-><-><--------> <><-> <><-> <--> ***
  UVQUAN vol10  RCHRES  10 VOL              4
  UVQUAN v2m10  GLOBAL     WORKSP  9        3
  UVQUAN vpo10  GLOBAL     WORKSP 10        3
  UVQUAN v2d10  GENER   10 K       1        3
*** User-Defined Variable Quantity Lines
***                          addr
***                         <------>
*** kwd  varnam optyp  opn  vari  s1 s2 s3 tp multiply  lc ls ac as agfn ***
  <****> <----> <----> <-> <----><-><-><-><-><--------> <><-> <><-> <--> ***
  UVQUAN vol12  RCHRES  12 VOL              4
  UVQUAN v2m12  GLOBAL     WORKSP 11        3
  UVQUAN vpo12  GLOBAL     WORKSP 12        3
  UVQUAN v2d12  GENER   12 K       1        3
*** User-Defined Variable Quantity Lines
***                          addr
***                         <------>
*** kwd  varnam optyp  opn  vari  s1 s2 s3 tp multiply  lc ls ac as agfn ***
  <****> <----> <----> <-> <----><-><-><-><-><--------> <><-> <><-> <--> ***
  UVQUAN vol14  RCHRES  14 VOL              4
  UVQUAN v2m14  GLOBAL     WORKSP 13        3
  UVQUAN vpo14  GLOBAL     WORKSP 14        3
  UVQUAN v2d14  GENER   14 K       1        3
*** User-Defined Target Variable Names
***                   addr or                        addr or
***                  <------>                       <------>
*** kwd   varnam ct  vari  s1 s2 s3  frac oper     vari  s1 s2 s3  frac oper
  <****>  <----><-> <----><-><-><-> <---> <-->    <----><-><-><-> <---> <-->
  UVNAME  v2m2    1 WORKSP  1         1.0 QUAN
```

```
  UVNAME  vpo2    1 WORKSP  2         1.0 QUAN
  UVNAME  v2d2    1 K       1         1.0 QUAN
*** User-Defined Target Variable Names
***                  addr or                        addr or
***                 <------>                       <------>
*** kwd   varnam ct  vari  s1 s2 s3  frac oper     vari  s1 s2 s3  frac oper
  <****>  <----><-> <----><-><-><-> <---> <-->    <----><-><-><-> <---> <-->
  UVNAME  v2m4    1 WORKSP  3         1.0 QUAN
  UVNAME  vpo4    1 WORKSP  4         1.0 QUAN
  UVNAME  v2d4    1 K       1         1.0 QUAN
*** User-Defined Target Variable Names
***                  addr or                        addr or
***                 <------>                       <------>
*** kwd   varnam ct  vari  s1 s2 s3  frac oper     vari  s1 s2 s3  frac oper
  <****>  <----><-> <----><-><-><-> <---> <-->    <----><-><-><-> <---> <-->
  UVNAME  v2m6    1 WORKSP  5         1.0 QUAN
  UVNAME  vpo6    1 WORKSP  6         1.0 QUAN
  UVNAME  v2d6    1 K       1         1.0 QUAN
*** User-Defined Target Variable Names
***                  addr or                        addr or
***                 <------>                       <------>
*** kwd   varnam ct  vari  s1 s2 s3  frac oper     vari  s1 s2 s3  frac oper
  <****>  <----><-> <----><-><-><-> <---> <-->    <----><-><-><-> <---> <-->
  UVNAME  v2m8    1 WORKSP  7         1.0 QUAN
  UVNAME  vpo8    1 WORKSP  8         1.0 QUAN
  UVNAME  v2d8    1 K       1         1.0 QUAN
*** User-Defined Target Variable Names
***                  addr or                        addr or
***                 <------>                       <------>
*** kwd   varnam ct  vari  s1 s2 s3  frac oper     vari  s1 s2 s3  frac oper
  <****>  <----><-> <----><-><-><-> <---> <-->    <----><-><-><-> <---> <-->
  UVNAME  v2m10   1 WORKSP  9         1.0 QUAN
  UVNAME  vpo10   1 WORKSP 10         1.0 QUAN
  UVNAME  v2d10   1 K       1         1.0 QUAN
*** User-Defined Target Variable Names
***                  addr or                        addr or
***                 <------>                       <------>
*** kwd   varnam ct  vari  s1 s2 s3  frac oper     vari  s1 s2 s3  frac oper
  <****>  <----><-> <----><-><-><-> <---> <-->    <----><-><-><-> <---> <-->
  UVNAME  v2m12   1 WORKSP 11         1.0 QUAN
  UVNAME  vpo12   1 WORKSP 12         1.0 QUAN
  UVNAME  v2d12   1 K       1         1.0 QUAN
*** User-Defined Target Variable Names
***                  addr or                        addr or
***                 <------>                       <------>
*** kwd   varnam ct  vari  s1 s2 s3  frac oper     vari  s1 s2 s3  frac oper
  <****>  <----><-> <----><-><-><-> <---> <-->    <----><-><-><-> <---> <-->
  UVNAME  v2m14   1 WORKSP 13         1.0 QUAN
  UVNAME  vpo14   1 WORKSP 14         1.0 QUAN
  UVNAME  v2d14   1 K       1         1.0 QUAN
*** opt foplop dcdts  yr mo dy hr mn d t   vnam  s1 s2 s3 ac quantity  tc  ts rp
  <****><-><--><><-><--> <> <> <> <><><>  <----><-><-><-><-><--------> <> <-><->
  GENER   2                               v2m2            =  981.
*** Compute remaining available pore space
  GENER   2                               vpo2            =  v2m2
  GENER   2                               vpo2           -=  vol2
*** Check to see if VPORA goes negative; if so set VPORA = 0.0
IF (vpo2 < 0.0) THEN
  GENER   2                               vpo2            =  0.0
END IF
*** Infiltration volume
  GENER   2                               v2d2            =  vpo2
*** opt foplop dcdts  yr mo dy hr mn d t   vnam  s1 s2 s3 ac quantity  tc  ts rp
  <****><-><--><><-><--> <> <> <> <><><>  <----><-><-><-><-><--------> <> <-><->
  GENER   4                               v2m4            =  611.
*** Compute remaining available pore space
  GENER   4                               vpo4            =  v2m4
  GENER   4                               vpo4           -=  vol4
*** Check to see if VPORA goes negative; if so set VPORA = 0.0
IF (vpo4 < 0.0) THEN
```

```
  GENER   4                                 vpo4           =  0.0
END IF
*** Infiltration volume
  GENER   4                                 v2d4           =  vpo4
*** opt foplop dcdts  yr mo dy hr mn d t   vnam  s1 s2 s3 ac quantity  tc  ts rp
  <****><-><--><><-><--> <> <> <> <><><>  <----><-><-><-><-><--------> <> <-><->
  GENER   6                                 v2m6           =  953.
*** Compute remaining available pore space
  GENER   6                                 vpo6           =  v2m6
  GENER   6                                 vpo6          -=  vol6
*** Check to see if VPORA goes negative; if so set VPORA = 0.0
IF (vpo6 < 0.0) THEN
  GENER   6                                 vpo6           =  0.0
END IF
*** Infiltration volume
  GENER   6                                 v2d6           =  vpo6
*** opt foplop dcdts  yr mo dy hr mn d t   vnam  s1 s2 s3 ac quantity  tc  ts rp
  <****><-><--><><-><--> <> <> <> <><><>  <----><-><-><-><-><--------> <> <-><->
  GENER   8                                 v2m8           =  953.
*** Compute remaining available pore space
  GENER   8                                 vpo8           =  v2m8
  GENER   8                                 vpo8          -=  vol8
*** Check to see if VPORA goes negative; if so set VPORA = 0.0
IF (vpo8 < 0.0) THEN
  GENER   8                                 vpo8           =  0.0
END IF
*** Infiltration volume
  GENER   8                                 v2d8           =  vpo8
*** opt foplop dcdts  yr mo dy hr mn d t   vnam  s1 s2 s3 ac quantity  tc  ts rp
  <****><-><--><><-><--> <> <> <> <><><>  <----><-><-><-><-><--------> <> <-><->
  GENER  10                                 v2m10          =  1671.
*** Compute remaining available pore space
  GENER  10                                 vpo10          =  v2m10
  GENER  10                                 vpo10         -=  vol10
*** Check to see if VPORA goes negative; if so set VPORA = 0.0
IF (vpo10 < 0.0) THEN
  GENER  10                                 vpo10          =  0.0
END IF
*** Infiltration volume
  GENER  10                                 v2d10          =  vpo10
*** opt foplop dcdts  yr mo dy hr mn d t   vnam  s1 s2 s3 ac quantity  tc  ts rp
  <****><-><--><><-><--> <> <> <> <><><>  <----><-><-><-><-><--------> <> <-><->
  GENER  12                                 v2m12          =  846.
*** Compute remaining available pore space
  GENER  12                                 vpo12          =  v2m12
  GENER  12                                 vpo12         -=  vol12
*** Check to see if VPORA goes negative; if so set VPORA = 0.0
IF (vpo12 < 0.0) THEN
  GENER  12                                 vpo12          =  0.0
END IF
*** Infiltration volume
  GENER  12                                 v2d12          =  vpo12
*** opt foplop dcdts  yr mo dy hr mn d t   vnam  s1 s2 s3 ac quantity  tc  ts rp
  <****><-><--><><-><--> <> <> <> <><><>  <----><-><-><-><-><--------> <> <-><->
  GENER  14                                 v2m14          =  258.
*** Compute remaining available pore space
  GENER  14                                 vpo14          =  v2m14
  GENER  14                                 vpo14         -=  vol14
*** Check to see if VPORA goes negative; if so set VPORA = 0.0
IF (vpo14 < 0.0) THEN
  GENER  14                                 vpo14          =  0.0
END IF
*** Infiltration volume
  GENER  14                                 v2d14          =  vpo14
END SPEC-ACTIONS
FTABLES
  FTABLE      2
   60    4
     Depth      Area    Volume  Outflow1 Velocity  Travel Time***
      (ft)   (acres) (acre-ft)   (cfs)   (ft/sec)    (Minutes)***
```

```
  0.000000  0.031041  0.000000  0.000000
  0.045824  0.030954  0.000258  0.000000
  0.091648  0.030630  0.000520  0.000000
  0.137473  0.030307  0.000786  0.000000
  0.183297  0.029986  0.001056  0.000000
  0.229121  0.029666  0.001331  0.000000
  0.274945  0.029348  0.001610  0.000588
  0.320769  0.029031  0.001893  0.000880
  0.366593  0.028716  0.002180  0.001272
  0.412418  0.028403  0.002472  0.001774
  0.458242  0.028091  0.002768  0.002395
  0.504066  0.027780  0.003068  0.003145
  0.549890  0.027471  0.003373  0.003800
  0.595714  0.027164  0.003683  0.004877
  0.641538  0.026858  0.003996  0.005627
  0.687363  0.026554  0.004314  0.005748
  0.733187  0.026251  0.004637  0.006498
  0.779011  0.025950  0.004964  0.007166
  0.824835  0.025650  0.005296  0.007775
  0.870659  0.025352  0.005632  0.008338
  0.916484  0.025056  0.005973  0.008863
  0.962308  0.024761  0.006319  0.009359
  1.008132  0.024467  0.006669  0.009828
  1.053956  0.024175  0.007024  0.010276
  1.099780  0.023885  0.007384  0.010704
  1.145604  0.023596  0.007748  0.011116
  1.191429  0.023309  0.008118  0.011512
  1.237253  0.023023  0.008492  0.011895
  1.283077  0.022739  0.008870  0.012266
  1.328901  0.022456  0.009254  0.012625
  1.374725  0.022175  0.009643  0.012975
  1.420549  0.021895  0.010036  0.013315
  1.466374  0.021617  0.010435  0.013647
  1.512198  0.021340  0.010875  0.013971
  1.558022  0.021066  0.011321  0.014287
  1.603846  0.020792  0.011773  0.014596
  1.649670  0.020520  0.012230  0.014899
  1.695495  0.020250  0.012692  0.015196
  1.741319  0.019981  0.013160  0.015488
  1.787143  0.019714  0.013634  0.015773
  1.832967  0.019448  0.014113  0.016054
  1.878791  0.019184  0.014598  0.016330
  1.924615  0.018921  0.015089  0.016602
  1.970440  0.018660  0.015585  0.016869
  2.016264  0.018401  0.016087  0.017132
  2.062088  0.018143  0.016595  0.017391
  2.107912  0.017886  0.017109  0.017646
  2.153736  0.017631  0.017628  0.017898
  2.199560  0.017378  0.018154  0.018147
  2.245385  0.017126  0.018685  0.018392
  2.291209  0.016876  0.019222  0.018635
  2.337033  0.016627  0.019765  0.018874
  2.382857  0.016380  0.020314  0.019111
  2.428681  0.016134  0.020869  0.019346
  2.474505  0.015890  0.021430  0.019578
  2.520330  0.015647  0.021998  0.019808
  2.566154  0.015406  0.022571  0.020158
  2.611978  0.015167  0.023150  0.020616
  2.657802  0.014929  0.023736  0.021304
  2.670000  0.014692  0.081236  0.021359
  END FTABLE  2
  FTABLE      1
   34    6
     Depth      Area    Volume  Outflow1  Outflow2  outflow 3 Velocity  Travel
Time***
      (ft)   (acres) (acre-ft)   (cfs)      (cfs)     (cfs)   (ft/sec)
(Minutes)***
  0.000000  0.014692  0.000000  0.000000  0.000000  0.000000
  0.045824  0.031367  0.001430  0.000000  0.076337  0.000000
  0.091648  0.031695  0.002875  0.000000  0.078600  0.000000
```

```
0.137473  0.032024  0.004335  0.000000  0.080863  0.000000
0.183297  0.032355  0.005810  0.000000  0.083126  0.000000
0.229121  0.032688  0.007300  0.000000  0.085389  0.000000
0.274945  0.033022  0.008806  0.000000  0.087652  0.000000
0.320769  0.033357  0.010327  0.000000  0.089915  0.000000
0.366593  0.033694  0.011863  0.000000  0.092178  0.000000
0.412418  0.034033  0.013415  0.000000  0.094440  0.000000
0.458242  0.034373  0.014982  0.000000  0.096703  0.000000
0.504066  0.034715  0.016565  0.000000  0.098966  0.000000
0.549890  0.035058  0.018164  0.000000  0.101229  0.000000
0.595714  0.035403  0.019778  0.000000  0.103492  0.000000
0.641538  0.035749  0.021408  0.000000  0.105755  0.000000
0.687363  0.036097  0.023054  0.001905  0.108018  0.000000
0.733187  0.036447  0.024717  0.013223  0.110281  0.000000
0.779011  0.036798  0.026395  0.029963  0.112544  0.000000
0.824835  0.037150  0.028089  0.050721  0.114807  0.000000
0.870659  0.037504  0.029799  0.074830  0.117070  0.000000
0.916484  0.037860  0.031526  0.101875  0.119333  0.000000
0.962308  0.038217  0.033269  0.131566  0.121596  0.000000
1.008132  0.038576  0.035029  0.165603  0.123858  0.000000
1.053956  0.038936  0.036805  0.290610  0.126121  0.000000
1.099780  0.039298  0.038597  0.490251  0.128384  0.000000
1.145604  0.039661  0.040406  0.737138  0.130647  0.000000
1.191429  0.040026  0.042232  1.012378  0.132910  0.000000
1.237253  0.040392  0.044075  1.297093  0.135173  0.000000
1.283077  0.040760  0.045934  1.572071  0.137436  0.000000
1.328901  0.041130  0.047810  1.819397  0.139699  0.000000
1.374725  0.041501  0.049704  2.025085  0.141962  0.000000
1.420549  0.041873  0.051614  2.182367  0.144225  0.000000
1.466374  0.042247  0.053541  2.295529  0.146488  0.000000
1.500000  0.042523  0.054967  2.411945  0.148148  0.000000
END FTABLE  1
FTABLE      4
 60    4
   Depth      Area    Volume  Outflow1 Velocity  Travel Time***
    (ft)   (acres) (acre-ft)   (cfs)   (ft/sec)    (Minutes)***
0.000000  0.024081  0.000000  0.000000
0.045824  0.023980  0.000082  0.000000
0.091648  0.023601  0.000168  0.000000
0.137473  0.023224  0.000260  0.000000
0.183297  0.022848  0.000357  0.000000
0.229121  0.022473  0.000460  0.000000
0.274945  0.022100  0.000567  0.000182
0.320769  0.021729  0.000679  0.000272
0.366593  0.021359  0.000797  0.000393
0.412418  0.020991  0.000920  0.000549
0.458242  0.020624  0.001049  0.000741
0.504066  0.020259  0.001183  0.000973
0.549890  0.019896  0.001322  0.001247
0.595714  0.019533  0.001466  0.001565
0.641538  0.019173  0.001616  0.001929
0.687363  0.018814  0.001771  0.002341
0.733187  0.018456  0.001932  0.002805
0.779011  0.018101  0.002098  0.003320
0.824835  0.017746  0.002270  0.003889
0.870659  0.017393  0.002447  0.004515
0.916484  0.017042  0.002630  0.005198
0.962308  0.016692  0.002818  0.005259
1.008132  0.016344  0.003013  0.006744
1.053956  0.015998  0.003212  0.006751
1.099780  0.015652  0.003418  0.007956
1.145604  0.015309  0.003629  0.008540
1.191429  0.014967  0.003846  0.008993
1.237253  0.014626  0.004068  0.009918
1.283077  0.014287  0.004296  0.010597
1.328901  0.013950  0.004531  0.010761
1.374725  0.013614  0.004771  0.011540
1.420549  0.013280  0.005016  0.012268
1.466374  0.012947  0.005268  0.012953
1.512198  0.012616  0.005550  0.013603
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  1.558022  0.012286  0.005837  0.014222
  1.603846  0.011958  0.006132  0.014815
  1.649670  0.011631  0.006433  0.015385
  1.695495  0.011306  0.006740  0.015934
  1.741319  0.010983  0.007054  0.016464
  1.787143  0.010661  0.007375  0.016977
  1.832967  0.010340  0.007703  0.017475
  1.878791  0.010022  0.008037  0.017959
  1.924615  0.009704  0.008378  0.018429
  1.970440  0.009388  0.008725  0.018889
  2.016264  0.009074  0.009080  0.019337
  2.062088  0.008761  0.009441  0.020004
  2.107912  0.008450  0.009809  0.020842
  2.153736  0.008141  0.010184  0.021648
  2.199560  0.007833  0.010566  0.022424
  2.245385  0.007526  0.010954  0.022917
  2.291209  0.007221  0.011350  0.022917
  2.337033  0.006918  0.011753  0.022917
  2.382857  0.006616  0.012162  0.022917
  2.428681  0.006315  0.012579  0.022917
  2.474505  0.006016  0.013003  0.022917
  2.520330  0.005719  0.013434  0.022917
  2.566154  0.005423  0.013872  0.022917
  2.611978  0.005129  0.014317  0.022917
  2.657802  0.004837  0.014770  0.022917
  2.670000  0.004545  0.031272  0.022917
  END FTABLE  4
  FTABLE      3
   34    6
     Depth      Area    Volume  Outflow1  Outflow2  outflow 3 Velocity  Travel
Time***
      (ft)   (acres) (acre-ft)   (cfs)      (cfs)     (cfs)   (ft/sec)
(Minutes)***
  0.000000  0.004545  0.000000  0.000000  0.000000  0.000000
  0.045824  0.024462  0.001112  0.000000  0.023617  0.000000
  0.091648  0.024845  0.002242  0.000000  0.024317  0.000000
  0.137473  0.025229  0.003389  0.000000  0.025017  0.000000
  0.183297  0.025615  0.004554  0.000000  0.025717  0.000000
  0.229121  0.026002  0.005737  0.000000  0.026417  0.000000
  0.274945  0.026390  0.006937  0.000000  0.027117  0.000000
  0.320769  0.026781  0.008156  0.000000  0.027817  0.000000
  0.366593  0.027173  0.009392  0.000000  0.028517  0.000000
  0.412418  0.027566  0.010646  0.000000  0.029218  0.000000
  0.458242  0.027961  0.011918  0.000000  0.029918  0.000000
  0.504066  0.028357  0.013208  0.000000  0.030618  0.000000
  0.549890  0.028755  0.014517  0.000000  0.031318  0.000000
  0.595714  0.029155  0.015844  0.000000  0.032018  0.000000
  0.641538  0.029556  0.017189  0.000000  0.032718  0.000000
  0.687363  0.029958  0.018553  0.001905  0.033418  0.000000
  0.733187  0.030362  0.019935  0.013223  0.034118  0.000000
  0.779011  0.030768  0.021335  0.029963  0.034818  0.000000
  0.824835  0.031175  0.022755  0.050721  0.035518  0.000000
  0.870659  0.031584  0.024193  0.074830  0.036218  0.000000
  0.916484  0.031994  0.025649  0.101875  0.036919  0.000000
  0.962308  0.032406  0.027125  0.131566  0.037619  0.000000
  1.008132  0.032820  0.028619  0.165603  0.038319  0.000000
  1.053956  0.033235  0.030133  0.290610  0.039019  0.000000
  1.099780  0.033651  0.031665  0.490251  0.039719  0.000000
  1.145604  0.034069  0.033217  0.737138  0.040419  0.000000
  1.191429  0.034489  0.034788  1.012378  0.041119  0.000000
  1.237253  0.034910  0.036378  1.297093  0.041819  0.000000
  1.283077  0.035332  0.037987  1.572071  0.042519  0.000000
  1.328901  0.035757  0.039616  1.819397  0.043219  0.000000
  1.374725  0.036182  0.041264  2.025085  0.043919  0.000000
  1.420549  0.036610  0.042932  2.182367  0.044620  0.000000
  1.466374  0.037038  0.044619  2.295529  0.045320  0.000000
  1.500000  0.037354  0.045870  2.411945  0.045833  0.000000
  END FTABLE  3
  FTABLE      6
   60    4
```

Depth (ft)	Area (acres)	Volume (acre-ft)	Outflow1 (cfs)	Velocity (ft/sec)	Travel Time*** (Minutes)***
0.000000	0.031933	0.000000	0.000000		
0.045824	0.031831	0.000218	0.000000		
0.091648	0.031452	0.000442	0.000000		
0.137473	0.031075	0.000670	0.000000		
0.183297	0.030699	0.000904	0.000000		
0.229121	0.030324	0.001143	0.000000		
0.274945	0.029952	0.001387	0.000496		
0.320769	0.029580	0.001636	0.000742		
0.366593	0.029210	0.001891	0.001073		
0.412418	0.028842	0.002151	0.001497		
0.458242	0.028476	0.002416	0.002021		
0.504066	0.028110	0.002686	0.002653		
0.549890	0.027747	0.002962	0.003400		
0.595714	0.027385	0.003243	0.003800		
0.641538	0.027024	0.003530	0.004877		
0.687363	0.026665	0.003822	0.005748		
0.733187	0.026308	0.004119	0.006386		
0.779011	0.025952	0.004422	0.006498		
0.824835	0.025597	0.004731	0.007166		
0.870659	0.025245	0.005045	0.007775		
0.916484	0.024893	0.005364	0.008338		
0.962308	0.024544	0.005690	0.008863		
1.008132	0.024195	0.006020	0.009359		
1.053956	0.023849	0.006357	0.009828		
1.099780	0.023504	0.006699	0.010276		
1.145604	0.023160	0.007047	0.010704		
1.191429	0.022818	0.007400	0.011116		
1.237253	0.022478	0.007759	0.011512		
1.283077	0.022139	0.008124	0.011895		
1.328901	0.021801	0.008495	0.012266		
1.374725	0.021465	0.008872	0.012625		
1.420549	0.021131	0.009255	0.012975		
1.466374	0.020798	0.009643	0.013315		
1.512198	0.020467	0.010074	0.013647		
1.558022	0.020137	0.010511	0.013971		
1.603846	0.019809	0.010955	0.014287		
1.649670	0.019483	0.011405	0.014596		
1.695495	0.019158	0.011862	0.014899		
1.741319	0.018834	0.012325	0.015196		
1.787143	0.018512	0.012795	0.015488		
1.832967	0.018192	0.013272	0.015773		
1.878791	0.017873	0.013755	0.016054		
1.924615	0.017555	0.014246	0.016330		
1.970440	0.017240	0.014742	0.016602		
2.016264	0.016925	0.015246	0.016869		
2.062088	0.016613	0.015757	0.017132		
2.107912	0.016302	0.016274	0.017391		
2.153736	0.015992	0.016798	0.017646		
2.199560	0.015684	0.017329	0.017898		
2.245385	0.015377	0.017867	0.018147		
2.291209	0.015072	0.018412	0.018392		
2.337033	0.014769	0.018964	0.018635		
2.382857	0.014467	0.019523	0.018874		
2.428681	0.014167	0.020089	0.019111		
2.474505	0.013868	0.020663	0.019346		
2.520330	0.013570	0.021243	0.019701		
2.566154	0.013275	0.021830	0.020158		
2.611978	0.012980	0.022425	0.020616		
2.657802	0.012688	0.023027	0.021304		
2.670000	0.012397	0.048695	0.021359		

END FTABLE 6

FTABLE 5

34 6

Depth (ft)	Area (acres)	Volume (acre-ft)	Outflow1 (cfs)	Outflow2 (cfs)	outflow 3 (cfs)	Velocity (ft/sec)	Travel Time*** (Minutes)***
0.000000	0.012397	0.000000	0.000000	0.000000	0.000000		

```
0.045824  0.032314  0.001472  0.000000  0.064409  0.000000
0.091648  0.032696  0.002962  0.000000  0.066319  0.000000
0.137473  0.033080  0.004469  0.000000  0.068228  0.000000
0.183297  0.033466  0.005993  0.000000  0.070137  0.000000
0.229121  0.033853  0.007536  0.000000  0.072047  0.000000
0.274945  0.034242  0.009096  0.000000  0.073956  0.000000
0.320769  0.034632  0.010674  0.000000  0.075865  0.000000
0.366593  0.035024  0.012270  0.000000  0.077775  0.000000
0.412418  0.035417  0.013884  0.000000  0.079684  0.000000
0.458242  0.035812  0.015516  0.000000  0.081593  0.000000
0.504066  0.036208  0.017166  0.000000  0.083503  0.000000
0.549890  0.036606  0.018834  0.000000  0.085412  0.000000
0.595714  0.037006  0.020521  0.000000  0.087321  0.000000
0.641538  0.037407  0.022226  0.000000  0.089231  0.000000
0.687363  0.037810  0.023949  0.001905  0.091140  0.000000
0.733187  0.038214  0.025691  0.013223  0.093050  0.000000
0.779011  0.038619  0.027452  0.029963  0.094959  0.000000
0.824835  0.039027  0.029231  0.050721  0.096868  0.000000
0.870659  0.039435  0.031028  0.074830  0.098778  0.000000
0.916484  0.039846  0.032845  0.101875  0.100687  0.000000
0.962308  0.040257  0.034680  0.131566  0.102596  0.000000
1.008132  0.040671  0.036534  0.165603  0.104506  0.000000
1.053956  0.041086  0.038408  0.290610  0.106415  0.000000
1.099780  0.041502  0.040300  0.490251  0.108324  0.000000
1.145604  0.041920  0.042211  0.737138  0.110234  0.000000
1.191429  0.042340  0.044142  1.012378  0.112143  0.000000
1.237253  0.042761  0.046092  1.297093  0.114052  0.000000
1.283077  0.043184  0.048061  1.572071  0.115962  0.000000
1.328901  0.043608  0.050049  1.819397  0.117871  0.000000
1.374725  0.044034  0.052057  2.025085  0.119780  0.000000
1.420549  0.044461  0.054085  2.182367  0.121690  0.000000
1.466374  0.044890  0.056132  2.295529  0.123599  0.000000
1.500000  0.045205  0.057647  2.411945  0.125000  0.000000
END FTABLE  5
FTABLE      8
 60    4
   Depth      Area    Volume  Outflow1 Velocity  Travel Time***
    (ft)   (acres) (acre-ft)   (cfs)   (ft/sec)    (Minutes)***
0.000000  0.031933  0.000000  0.000000
0.045824  0.031831  0.000218  0.000000
0.091648  0.031452  0.000442  0.000000
0.137473  0.031075  0.000670  0.000000
0.183297  0.030699  0.000904  0.000000
0.229121  0.030324  0.001143  0.000000
0.274945  0.029952  0.001387  0.000496
0.320769  0.029580  0.001636  0.000742
0.366593  0.029210  0.001891  0.001073
0.412418  0.028842  0.002151  0.001497
0.458242  0.028476  0.002416  0.002021
0.504066  0.028110  0.002686  0.002653
0.549890  0.027747  0.002962  0.003400
0.595714  0.027385  0.003243  0.003800
0.641538  0.027024  0.003530  0.004877
0.687363  0.026665  0.003822  0.005748
0.733187  0.026308  0.004119  0.006386
0.779011  0.025952  0.004422  0.006498
0.824835  0.025597  0.004731  0.007166
0.870659  0.025245  0.005045  0.007775
0.916484  0.024893  0.005364  0.008338
0.962308  0.024544  0.005690  0.008863
1.008132  0.024195  0.006020  0.009359
1.053956  0.023849  0.006357  0.009828
1.099780  0.023504  0.006699  0.010276
1.145604  0.023160  0.007047  0.010704
1.191429  0.022818  0.007400  0.011116
1.237253  0.022478  0.007759  0.011512
1.283077  0.022139  0.008124  0.011895
1.328901  0.021801  0.008495  0.012266
1.374725  0.021465  0.008872  0.012625
1.420549  0.021131  0.009255  0.012975
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  1.466374  0.020798  0.009643  0.013315
  1.512198  0.020467  0.010074  0.013647
  1.558022  0.020137  0.010511  0.013971
  1.603846  0.019809  0.010955  0.014287
  1.649670  0.019483  0.011405  0.014596
  1.695495  0.019158  0.011862  0.014899
  1.741319  0.018834  0.012325  0.015196
  1.787143  0.018512  0.012795  0.015488
  1.832967  0.018192  0.013272  0.015773
  1.878791  0.017873  0.013755  0.016054
  1.924615  0.017555  0.014246  0.016330
  1.970440  0.017240  0.014742  0.016602
  2.016264  0.016925  0.015246  0.016869
  2.062088  0.016613  0.015757  0.017132
  2.107912  0.016302  0.016274  0.017391
  2.153736  0.015992  0.016798  0.017646
  2.199560  0.015684  0.017329  0.017898
  2.245385  0.015377  0.017867  0.018147
  2.291209  0.015072  0.018412  0.018392
  2.337033  0.014769  0.018964  0.018635
  2.382857  0.014467  0.019523  0.018874
  2.428681  0.014167  0.020089  0.019111
  2.474505  0.013868  0.020663  0.019346
  2.520330  0.013570  0.021243  0.019701
  2.566154  0.013275  0.021830  0.020158
  2.611978  0.012980  0.022425  0.020616
  2.657802  0.012688  0.023027  0.021304
  2.670000  0.012397  0.078839  0.021359
  END FTABLE  8
  FTABLE      7
   34    6
     Depth      Area    Volume  Outflow1  Outflow2  outflow 3 Velocity  Travel
Time***
      (ft)   (acres) (acre-ft)   (cfs)      (cfs)     (cfs)   (ft/sec)
(Minutes)***
  0.000000  0.012397  0.000000  0.000000  0.000000  0.000000
  0.045824  0.032314  0.001472  0.000000  0.064409  0.000000
  0.091648  0.032696  0.002962  0.000000  0.066319  0.000000
  0.137473  0.033080  0.004469  0.000000  0.068228  0.000000
  0.183297  0.033466  0.005993  0.000000  0.070137  0.000000
  0.229121  0.033853  0.007536  0.000000  0.072047  0.000000
  0.274945  0.034242  0.009096  0.000000  0.073956  0.000000
  0.320769  0.034632  0.010674  0.000000  0.075865  0.000000
  0.366593  0.035024  0.012270  0.000000  0.077775  0.000000
  0.412418  0.035417  0.013884  0.000000  0.079684  0.000000
  0.458242  0.035812  0.015516  0.000000  0.081593  0.000000
  0.504066  0.036208  0.017166  0.000000  0.083503  0.000000
  0.549890  0.036606  0.018834  0.000000  0.085412  0.000000
  0.595714  0.037006  0.020521  0.000000  0.087321  0.000000
  0.641538  0.037407  0.022226  0.000000  0.089231  0.000000
  0.687363  0.037810  0.023949  0.001905  0.091140  0.000000
  0.733187  0.038214  0.025691  0.013223  0.093050  0.000000
  0.779011  0.038619  0.027452  0.029963  0.094959  0.000000
  0.824835  0.039027  0.029231  0.050721  0.096868  0.000000
  0.870659  0.039435  0.031028  0.074830  0.098778  0.000000
  0.916484  0.039846  0.032845  0.101875  0.100687  0.000000
  0.962308  0.040257  0.034680  0.131566  0.102596  0.000000
  1.008132  0.040671  0.036534  0.165603  0.104506  0.000000
  1.053956  0.041086  0.038408  0.290610  0.106415  0.000000
  1.099780  0.041502  0.040300  0.490251  0.108324  0.000000
  1.145604  0.041920  0.042211  0.737138  0.110234  0.000000
  1.191429  0.042340  0.044142  1.012378  0.112143  0.000000
  1.237253  0.042761  0.046092  1.297093  0.114052  0.000000
  1.283077  0.043184  0.048061  1.572071  0.115962  0.000000
  1.328901  0.043608  0.050049  1.819397  0.117871  0.000000
  1.374725  0.044034  0.052057  2.025085  0.119780  0.000000
  1.420549  0.044461  0.054085  2.182367  0.121690  0.000000
  1.466374  0.044890  0.056132  2.295529  0.123599  0.000000
  1.500000  0.045205  0.057647  2.411945  0.125000  0.000000
  END FTABLE  7
```

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  FTABLE     10
   60    4
     Depth      Area    Volume  Outflow1 Velocity  Travel Time***
      (ft)   (acres) (acre-ft)   (cfs)   (ft/sec)    (Minutes)***
  0.000000  0.052420  0.000000  0.000000
  0.045824  0.052282  0.000435  0.000000
  0.091648  0.051764  0.000878  0.000000
  0.137473  0.051248  0.001329  0.000000
  0.183297  0.050733  0.001787  0.000000
  0.229121  0.050220  0.002253  0.000000
  0.274945  0.049708  0.002726  0.000992
  0.320769  0.049198  0.003207  0.001484
  0.366593  0.048689  0.003695  0.002146
  0.412418  0.048182  0.004192  0.002993
  0.458242  0.047676  0.004696  0.003800
  0.504066  0.047172  0.005207  0.004877
  0.549890  0.046670  0.005727  0.005748
  0.595714  0.046169  0.006254  0.006498
  0.641538  0.045670  0.006789  0.007166
  0.687363  0.045172  0.007332  0.007775
  0.733187  0.044675  0.007883  0.008338
  0.779011  0.044181  0.008441  0.008863
  0.824835  0.043687  0.009008  0.009359
  0.870659  0.043196  0.009583  0.009828
  0.916484  0.042706  0.010165  0.010276
  0.962308  0.042217  0.010756  0.010704
  1.008132  0.041730  0.011354  0.011116
  1.053956  0.041244  0.011961  0.011512
  1.099780  0.040760  0.012576  0.011895
  1.145604  0.040278  0.013199  0.012266
  1.191429  0.039797  0.013830  0.012625
  1.237253  0.039318  0.014469  0.012975
  1.283077  0.038840  0.015117  0.013315
  1.328901  0.038364  0.015772  0.013647
  1.374725  0.037889  0.016436  0.013971
  1.420549  0.037416  0.017108  0.014287
  1.466374  0.036944  0.017789  0.014596
  1.512198  0.036474  0.018541  0.014899
  1.558022  0.036006  0.019302  0.015196
  1.603846  0.035539  0.020073  0.015488
  1.649670  0.035073  0.020853  0.015773
  1.695495  0.034609  0.021642  0.016054
  1.741319  0.034147  0.022440  0.016330
  1.787143  0.033686  0.023247  0.016602
  1.832967  0.033227  0.024064  0.016869
  1.878791  0.032769  0.024890  0.017132
  1.924615  0.032313  0.025726  0.017391
  1.970440  0.031858  0.026571  0.017646
  2.016264  0.031405  0.027425  0.017898
  2.062088  0.030953  0.028289  0.018147
  2.107912  0.030503  0.029162  0.018392
  2.153736  0.030055  0.030045  0.018635
  2.199560  0.029608  0.030937  0.018874
  2.245385  0.029163  0.031839  0.019111
  2.291209  0.028719  0.032750  0.019346
  2.337033  0.028276  0.033672  0.019578
  2.382857  0.027836  0.034602  0.019808
  2.428681  0.027396  0.035543  0.020037
  2.474505  0.026959  0.036493  0.020265
  2.520330  0.026523  0.037453  0.020493
  2.566154  0.026088  0.038423  0.020725
  2.611978  0.025655  0.039402  0.021000
  2.657802  0.025223  0.040391  0.021401
  2.670000  0.024793  0.085378  0.021456
  END FTABLE 10
  FTABLE      9
   34    6
     Depth      Area    Volume  Outflow1  Outflow2  outflow 3 Velocity  Travel
Time***
      (ft)   (acres) (acre-ft)   (cfs)      (cfs)     (cfs)   (ft/sec)
```

```
(Minutes)***
  0.000000  0.024793  0.000000  0.000000  0.000000  0.000000
  0.045824  0.052940  0.002414  0.000000  0.128819  0.000000
  0.091648  0.053461  0.004852  0.000000  0.132637  0.000000
  0.137473  0.053984  0.007314  0.000000  0.136456  0.000000
  0.183297  0.054509  0.009800  0.000000  0.140275  0.000000
  0.229121  0.055035  0.012309  0.000000  0.144094  0.000000
  0.274945  0.055562  0.014843  0.000000  0.147912  0.000000
  0.320769  0.056092  0.017402  0.000000  0.151731  0.000000
  0.366593  0.056622  0.019984  0.000000  0.155550  0.000000
  0.412418  0.057154  0.022591  0.000000  0.159368  0.000000
  0.458242  0.057688  0.025222  0.000000  0.163187  0.000000
  0.504066  0.058223  0.027878  0.000000  0.167006  0.000000
  0.549890  0.058760  0.030558  0.000000  0.170824  0.000000
  0.595714  0.059299  0.033263  0.000000  0.174643  0.000000
  0.641538  0.059839  0.035993  0.000000  0.178462  0.000000
  0.687363  0.060380  0.038748  0.000000  0.182280  0.000000
  0.733187  0.060923  0.041527  0.000000  0.186099  0.000000
  0.779011  0.061468  0.044331  0.000000  0.189918  0.000000
  0.824835  0.062014  0.047160  0.000000  0.193736  0.000000
  0.870659  0.062561  0.050015  0.000000  0.197555  0.000000
  0.916484  0.063110  0.052894  0.000000  0.201374  0.000000
  0.962308  0.063661  0.055799  0.000000  0.205192  0.000000
  1.008132  0.064213  0.058728  0.007785  0.209011  0.000000
  1.053956  0.064767  0.061684  0.132793  0.212830  0.000000
  1.099780  0.065323  0.064664  0.332433  0.216649  0.000000
  1.145604  0.065879  0.067670  0.579320  0.220467  0.000000
  1.191429  0.066438  0.070702  0.854561  0.224286  0.000000
  1.237253  0.066998  0.073759  1.139276  0.228105  0.000000
  1.283077  0.067559  0.076842  1.414253  0.231923  0.000000
  1.328901  0.068122  0.079951  1.661580  0.235742  0.000000
  1.374725  0.068687  0.083086  1.867268  0.239561  0.000000
  1.420549  0.069253  0.086246  2.024550  0.243379  0.000000
  1.466374  0.069821  0.089433  2.137712  0.247198  0.000000
  1.500000  0.070238  0.091787  2.254127  0.250000  0.000000
  END FTABLE  9
  FTABLE     12
   60    4
     Depth      Area    Volume  Outflow1 Velocity  Travel Time***
      (ft)   (acres) (acre-ft)   (cfs)   (ft/sec)    (Minutes)***
  0.000000  0.029499  0.000000  0.000000
  0.045824  0.029398  0.000176  0.000000
  0.091648  0.029019  0.000357  0.000000
  0.137473  0.028641  0.000543  0.000000
  0.183297  0.028265  0.000735  0.000000
  0.229121  0.027891  0.000931  0.000000
  0.274945  0.027518  0.001133  0.000399
  0.320769  0.027147  0.001340  0.000596
  0.366593  0.026777  0.001552  0.000862
  0.412418  0.026409  0.001769  0.001203
  0.458242  0.026042  0.001992  0.001624
  0.504066  0.025677  0.002220  0.002133
  0.549890  0.025313  0.002454  0.002733
  0.595714  0.024951  0.002692  0.003429
  0.641538  0.024591  0.002937  0.003800
  0.687363  0.024232  0.003186  0.004877
  0.733187  0.023874  0.003441  0.005626
  0.779011  0.023518  0.003702  0.005748
  0.824835  0.023164  0.003968  0.006498
  0.870659  0.022811  0.004240  0.007166
  0.916484  0.022460  0.004517  0.007775
  0.962308  0.022110  0.004800  0.008338
  1.008132  0.021762  0.005088  0.008863
  1.053956  0.021415  0.005382  0.009359
  1.099780  0.021070  0.005682  0.009828
  1.145604  0.020727  0.005987  0.010276
  1.191429  0.020385  0.006298  0.010704
  1.237253  0.020044  0.006615  0.011116
  1.283077  0.019705  0.006938  0.011512
  1.328901  0.019368  0.007267  0.011895
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  1.374725  0.019032  0.007601  0.012266
  1.420549  0.018698  0.007941  0.012625
  1.466374  0.018365  0.008287  0.012975
  1.512198  0.018034  0.008672  0.013315
  1.558022  0.017704  0.009062  0.013647
  1.603846  0.017376  0.009460  0.013971
  1.649670  0.017049  0.009864  0.014287
  1.695495  0.016724  0.010274  0.014596
  1.741319  0.016401  0.010692  0.014899
  1.787143  0.016079  0.011115  0.015196
  1.832967  0.015758  0.011546  0.015488
  1.878791  0.015439  0.011983  0.015773
  1.924615  0.015122  0.012427  0.016054
  1.970440  0.014806  0.012877  0.016330
  2.016264  0.014492  0.013335  0.016602
  2.062088  0.014179  0.013799  0.016869
  2.107912  0.013868  0.014270  0.017132
  2.153736  0.013558  0.014748  0.017391
  2.199560  0.013250  0.015233  0.017646
  2.245385  0.012944  0.015725  0.017898
  2.291209  0.012639  0.016223  0.018147
  2.337033  0.012335  0.016729  0.018392
  2.382857  0.012033  0.017242  0.018635
  2.428681  0.011733  0.017762  0.018874
  2.474505  0.011434  0.018289  0.019236
  2.520330  0.011137  0.018823  0.019701
  2.566154  0.010841  0.019364  0.020158
  2.611978  0.010547  0.019912  0.020616
  2.657802  0.010254  0.020467  0.021304
  2.670000  0.009963  0.043295  0.021359
  END FTABLE 12
  FTABLE     11
   34    6
     Depth      Area    Volume  Outflow1  Outflow2  outflow 3 Velocity  Travel
Time***
      (ft)   (acres) (acre-ft)   (cfs)      (cfs)     (cfs)   (ft/sec)
(Minutes)***
  0.000000  0.009963  0.000000  0.000000  0.000000  0.000000
  0.045824  0.029880  0.001361  0.000000  0.051766  0.000000
  0.091648  0.030263  0.002739  0.000000  0.053301  0.000000
  0.137473  0.030647  0.004134  0.000000  0.054835  0.000000
  0.183297  0.031032  0.005547  0.000000  0.056370  0.000000
  0.229121  0.031420  0.006978  0.000000  0.057904  0.000000
  0.274945  0.031808  0.008427  0.000000  0.059439  0.000000
  0.320769  0.032199  0.009893  0.000000  0.060973  0.000000
  0.366593  0.032590  0.011378  0.000000  0.062508  0.000000
  0.412418  0.032984  0.012880  0.000000  0.064042  0.000000
  0.458242  0.033379  0.014401  0.000000  0.065577  0.000000
  0.504066  0.033775  0.015939  0.000000  0.067112  0.000000
  0.549890  0.034173  0.017496  0.000000  0.068646  0.000000
  0.595714  0.034572  0.019071  0.000000  0.070181  0.000000
  0.641538  0.034973  0.020665  0.000000  0.071715  0.000000
  0.687363  0.035376  0.022277  0.000000  0.073250  0.000000
  0.733187  0.035780  0.023907  0.000000  0.074784  0.000000
  0.779011  0.036186  0.025556  0.000000  0.076319  0.000000
  0.824835  0.036593  0.027223  0.000000  0.077853  0.000000
  0.870659  0.037002  0.028910  0.000000  0.079388  0.000000
  0.916484  0.037412  0.030615  0.000000  0.080922  0.000000
  0.962308  0.037824  0.032338  0.000000  0.082457  0.000000
  1.008132  0.038237  0.034081  0.007785  0.083992  0.000000
  1.053956  0.038652  0.035843  0.132793  0.085526  0.000000
  1.099780  0.039069  0.037624  0.332433  0.087061  0.000000
  1.145604  0.039487  0.039423  0.579320  0.088595  0.000000
  1.191429  0.039906  0.041243  0.854561  0.090130  0.000000
  1.237253  0.040328  0.043081  1.139276  0.091664  0.000000
  1.283077  0.040750  0.044938  1.414253  0.093199  0.000000
  1.328901  0.041174  0.046816  1.661580  0.094733  0.000000
  1.374725  0.041600  0.048712  1.867268  0.096268  0.000000
  1.420549  0.042027  0.050628  2.024550  0.097802  0.000000
  1.466374  0.042456  0.052564  2.137712  0.099337  0.000000
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1.500000  0.042772  0.053997  2.254127  0.100463  0.000000
END FTABLE 11
FTABLE     14
 60    4
   Depth      Area    Volume  Outflow1 Velocity  Travel Time***
    (ft)   (acres) (acre-ft)   (cfs)   (ft/sec)    (Minutes)***
0.000000  0.010676  0.000000  0.000000
0.045824  0.010624  0.000035  0.000000
0.091648  0.010431  0.000071  0.000000
0.137473  0.010238  0.000109  0.000000
0.183297  0.010047  0.000149  0.000000
0.229121  0.009858  0.000191  0.000000
0.274945  0.009670  0.000235  0.000077
0.320769  0.009484  0.000281  0.000115
0.366593  0.009300  0.000330  0.000167
0.412418  0.009117  0.000380  0.000233
0.458242  0.008935  0.000432  0.000314
0.504066  0.008755  0.000486  0.000413
0.549890  0.008576  0.000543  0.000529
0.595714  0.008400  0.000601  0.000664
0.641538  0.008224  0.000662  0.000818
0.687363  0.008050  0.000725  0.000993
0.733187  0.007878  0.000790  0.001190
0.779011  0.007707  0.000858  0.001408
0.824835  0.007538  0.000927  0.001650
0.870659  0.007370  0.000999  0.001915
0.916484  0.007204  0.001074  0.002205
0.962308  0.007040  0.001151  0.002520
1.008132  0.006877  0.001230  0.002634
1.053956  0.006715  0.001311  0.002861
1.099780  0.006555  0.001395  0.003228
1.145604  0.006397  0.001482  0.003623
1.191429  0.006240  0.001571  0.004045
1.237253  0.006085  0.001663  0.004496
1.283077  0.005931  0.001757  0.004976
1.328901  0.005778  0.001853  0.005485
1.374725  0.005628  0.001953  0.005748
1.420549  0.005479  0.002055  0.006498
1.466374  0.005331  0.002159  0.006891
1.512198  0.005185  0.002276  0.007166
1.558022  0.005040  0.002397  0.007775
1.603846  0.004897  0.002520  0.008158
1.649670  0.004756  0.002646  0.008338
1.695495  0.004616  0.002775  0.008863
1.741319  0.004478  0.002907  0.009359
1.787143  0.004341  0.003043  0.009722
1.832967  0.004206  0.003181  0.009722
1.878791  0.004072  0.003323  0.009722
1.924615  0.003940  0.003468  0.009722
1.970440  0.003809  0.003616  0.009722
2.016264  0.003680  0.003768  0.009722
2.062088  0.003552  0.003923  0.009722
2.107912  0.003426  0.004081  0.009722
2.153736  0.003302  0.004242  0.009722
2.199560  0.003179  0.004407  0.009722
2.245385  0.003057  0.004575  0.009722
2.291209  0.002938  0.004747  0.009722
2.337033  0.002819  0.004922  0.009722
2.382857  0.002703  0.005100  0.009722
2.428681  0.002587  0.005283  0.009722
2.474505  0.002474  0.005468  0.009722
2.520330  0.002362  0.005658  0.009722
2.566154  0.002251  0.005850  0.009722
2.611978  0.002142  0.006047  0.009722
2.657802  0.002034  0.006247  0.009722
2.670000  0.001928  0.806532  0.009722
END FTABLE 14
FTABLE     13
 34    6
   Depth      Area    Volume  Outflow1  Outflow2  outflow 3 Velocity  Travel
```

```
Time***
      (ft)   (acres) (acre-ft)   (cfs)      (cfs)     (cfs)   (ft/sec)
(Minutes)***
  0.000000  0.001928  0.000000  0.000000  0.000000  0.000000
  0.045824  0.010872  0.000494  0.000000  0.010019  0.000000
  0.091648  0.011070  0.000996  0.000000  0.010316  0.000000
  0.137473  0.011269  0.001508  0.000000  0.010613  0.000000
  0.183297  0.011469  0.002029  0.000000  0.010910  0.000000
  0.229121  0.011671  0.002559  0.000000  0.011207  0.000000
  0.274945  0.011875  0.003099  0.000000  0.011504  0.000000
  0.320769  0.012080  0.003648  0.000000  0.011801  0.000000
  0.366593  0.012286  0.004206  0.000000  0.012098  0.000000
  0.412418  0.012495  0.004774  0.000000  0.012395  0.000000
  0.458242  0.012704  0.005351  0.000000  0.012692  0.000000
  0.504066  0.012916  0.005938  0.000000  0.012989  0.000000
  0.549890  0.013128  0.006535  0.000000  0.013286  0.000000
  0.595714  0.013343  0.007141  0.000000  0.013583  0.000000
  0.641538  0.013559  0.007758  0.000000  0.013880  0.000000
  0.687363  0.013776  0.008384  0.000000  0.014177  0.000000
  0.733187  0.013995  0.009020  0.000000  0.014474  0.000000
  0.779011  0.014216  0.009667  0.000000  0.014771  0.000000
  0.824835  0.014438  0.010323  0.000000  0.015068  0.000000
  0.870659  0.014661  0.010990  0.000000  0.015365  0.000000
  0.916484  0.014886  0.011667  0.000000  0.015662  0.000000
  0.962308  0.015113  0.012354  0.000000  0.015959  0.000000
  1.008132  0.015341  0.013052  0.007785  0.016256  0.000000
  1.053956  0.015571  0.013760  0.132793  0.016553  0.000000
  1.099780  0.015803  0.014479  0.332433  0.016850  0.000000
  1.145604  0.016035  0.015209  0.579320  0.017147  0.000000
  1.191429  0.016270  0.015949  0.854561  0.017444  0.000000
  1.237253  0.016506  0.016700  1.139276  0.017741  0.000000
  1.283077  0.016743  0.017462  1.414253  0.018038  0.000000
  1.328901  0.016982  0.018234  1.661580  0.018335  0.000000
  1.374725  0.017223  0.019018  1.867268  0.018632  0.000000
  1.420549  0.017465  0.019813  2.024550  0.018930  0.000000
  1.466374  0.017709  0.020619  2.137712  0.019227  0.000000
  1.500000  0.017888  0.021217  2.254127  0.019444  0.000000
  END FTABLE 13
  FTABLE     16
   60    4
     Depth      Area    Volume  Outflow1 Velocity  Travel Time***
      (ft)   (acres) (acre-ft)   (cfs)   (ft/sec)    (Minutes)***
  0.000000  0.023783  0.000000  0.000000
  0.045824  0.023783  0.000414  0.000000
  0.091648  0.023783  0.000828  0.000000
  0.137473  0.023783  0.001242  0.000000
  0.183297  0.023783  0.001657  0.000000
  0.229121  0.023783  0.002071  0.000000
  0.274945  0.023783  0.002485  0.000952
  0.320769  0.023783  0.002899  0.001424
  0.366593  0.023783  0.003313  0.002058
  0.412418  0.023783  0.003727  0.002871
  0.458242  0.023783  0.004141  0.003878
  0.504066  0.023783  0.004556  0.005091
  0.549890  0.023783  0.004970  0.005259
  0.595714  0.023783  0.005384  0.006751
  0.641538  0.023783  0.005798  0.007956
  0.687363  0.023783  0.006212  0.008993
  0.733187  0.023783  0.006626  0.009918
  0.779011  0.023783  0.007040  0.010761
  0.824835  0.023783  0.007455  0.011540
  0.870659  0.023783  0.007869  0.012268
  0.916484  0.023783  0.008283  0.012953
  0.962308  0.023783  0.008697  0.013603
  1.008132  0.023783  0.009111  0.014222
  1.053956  0.023783  0.009525  0.014815
  1.099780  0.023783  0.009939  0.015385
  1.145604  0.023783  0.010354  0.015934
  1.191429  0.023783  0.010768  0.016464
  1.237253  0.023783  0.011182  0.016977
```

```
  1.283077  0.023783  0.011596  0.017475
  1.328901  0.023783  0.012010  0.017959
  1.374725  0.023783  0.012424  0.018429
  1.420549  0.023783  0.012838  0.018889
  1.466374  0.023783  0.013253  0.019337
  1.512198  0.023783  0.013705  0.019774
  1.558022  0.023783  0.014157  0.020203
  1.603846  0.023783  0.014609  0.020622
  1.649670  0.023783  0.015062  0.021033
  1.695495  0.023783  0.015514  0.021436
  1.741319  0.023783  0.015966  0.021832
  1.787143  0.023783  0.016419  0.022220
  1.832967  0.023783  0.016871  0.022602
  1.878791  0.023783  0.017323  0.022978
  1.924615  0.023783  0.017775  0.023348
  1.970440  0.023783  0.018228  0.023712
  2.016264  0.023783  0.018680  0.024070
  2.062088  0.023783  0.019132  0.024424
  2.107912  0.023783  0.019585  0.024773
  2.153736  0.023783  0.020037  0.025117
  2.199560  0.023783  0.020489  0.025456
  2.245385  0.023783  0.020941  0.025792
  2.291209  0.023783  0.021394  0.026124
  2.337033  0.023783  0.021846  0.026451
  2.382857  0.023783  0.022298  0.026776
  2.428681  0.023783  0.022751  0.027097
  2.474505  0.023783  0.023203  0.027416
  2.520330  0.023783  0.023655  0.027733
  2.566154  0.023783  0.024107  0.028048
  2.611978  0.023783  0.024560  0.028534
  2.657802  0.023783  0.025012  0.029487
  2.670000  0.023783  0.052778  0.029563
  END FTABLE 16
  FTABLE     15
   34    6
     Depth      Area    Volume  Outflow1  Outflow2  outflow 3 Velocity  Travel
Time***
      (ft)   (acres) (acre-ft)   (cfs)      (cfs)     (cfs)   (ft/sec)
(Minutes)***
  0.000000  0.023783  0.000000  0.000000  0.000000  0.000000
  0.045824  0.023783  0.001090  0.000000  0.029487  0.000000
  0.091648  0.023783  0.002180  0.000000  0.029487  0.000000
  0.137473  0.023783  0.003270  0.000000  0.029487  0.000000
  0.183297  0.023783  0.004359  0.000000  0.029487  0.000000
  0.229121  0.023783  0.005449  0.000000  0.029487  0.000000
  0.274945  0.023783  0.006539  0.000000  0.029487  0.000000
  0.320769  0.023783  0.007629  0.000000  0.029487  0.000000
  0.366593  0.023783  0.008719  0.000000  0.029487  0.000000
  0.412418  0.023783  0.009809  0.000000  0.029487  0.000000
  0.458242  0.023783  0.010898  0.000000  0.029487  0.000000
  0.504066  0.023783  0.011988  0.000000  0.029487  0.000000
  0.549890  0.023783  0.013078  0.000000  0.029487  0.000000
  0.595714  0.023783  0.014168  0.000000  0.029487  0.000000
  0.641538  0.023783  0.015258  0.000000  0.029487  0.000000
  0.687363  0.023783  0.016348  0.000000  0.029487  0.000000
  0.733187  0.023783  0.017438  0.000000  0.029487  0.000000
  0.779011  0.023783  0.018527  0.000000  0.029487  0.000000
  0.824835  0.023783  0.019617  0.000000  0.029487  0.000000
  0.870659  0.023783  0.020707  0.000000  0.029487  0.000000
  0.916484  0.023783  0.021797  0.000000  0.029487  0.000000
  0.962308  0.023783  0.022887  0.000000  0.029487  0.000000
  1.008132  0.023783  0.023977  0.007785  0.029487  0.000000
  1.053956  0.023783  0.025067  0.132793  0.029487  0.000000
  1.099780  0.023783  0.026156  0.332433  0.029487  0.000000
  1.145604  0.023783  0.027246  0.579320  0.029487  0.000000
  1.191429  0.023783  0.028336  0.854561  0.029487  0.000000
  1.237253  0.023783  0.029426  1.139276  0.029487  0.000000
  1.283077  0.023783  0.030516  1.414253  0.029487  0.000000
  1.328901  0.023783  0.031606  1.661580  0.029487  0.000000
  1.374725  0.023783  0.032695  1.867268  0.029487  0.000000
```

```
1.420549  0.023783  0.033785  2.024550  0.029487  0.000000
1.466374  0.023783  0.034875  2.137712  0.029487  0.000000
1.500000  0.023783  0.035675  2.254127  0.029487  0.000000
END FTABLE 15
FTABLE     18
 60    4
   Depth      Area    Volume  Outflow1 Velocity  Travel Time***
    (ft)   (acres) (acre-ft)   (cfs)   (ft/sec)    (Minutes)***
0.000000  0.005992  0.000000  0.000000
0.045824  0.005992  0.000104  0.000000
0.091648  0.005992  0.000209  0.000000
0.137473  0.005992  0.000313  0.000000
0.183297  0.005992  0.000417  0.000000
0.229121  0.005992  0.000522  0.000000
0.274945  0.005992  0.000626  0.000240
0.320769  0.005992  0.000730  0.000359
0.366593  0.005992  0.000835  0.000519
0.412418  0.005992  0.000939  0.000723
0.458242  0.005992  0.001043  0.000977
0.504066  0.005992  0.001148  0.001282
0.549890  0.005992  0.001252  0.001643
0.595714  0.005992  0.001356  0.002062
0.641538  0.005992  0.001461  0.002543
0.687363  0.005992  0.001565  0.003086
0.733187  0.005992  0.001669  0.003697
0.779011  0.005992  0.001774  0.003800
0.824835  0.005992  0.001878  0.004877
0.870659  0.005992  0.001982  0.005530
0.916484  0.005992  0.002087  0.005748
0.962308  0.005992  0.002191  0.006498
1.008132  0.005992  0.002295  0.007166
1.053956  0.005992  0.002400  0.007775
1.099780  0.005992  0.002504  0.008338
1.145604  0.005992  0.002608  0.008863
1.191429  0.005992  0.002713  0.009359
1.237253  0.005992  0.002817  0.009828
1.283077  0.005992  0.002921  0.010276
1.328901  0.005992  0.003026  0.010704
1.374725  0.005992  0.003130  0.011116
1.420549  0.005992  0.003234  0.011512
1.466374  0.005992  0.003339  0.011895
1.512198  0.005992  0.003453  0.012266
1.558022  0.005992  0.003567  0.012625
1.603846  0.005992  0.003681  0.012975
1.649670  0.005992  0.003795  0.013315
1.695495  0.005992  0.003908  0.013647
1.741319  0.005992  0.004022  0.013971
1.787143  0.005992  0.004136  0.014287
1.832967  0.005992  0.004250  0.014596
1.878791  0.005992  0.004364  0.014899
1.924615  0.005992  0.004478  0.015196
1.970440  0.005992  0.004592  0.015488
2.016264  0.005992  0.004706  0.015773
2.062088  0.005992  0.004820  0.016054
2.107912  0.005992  0.004934  0.016330
2.153736  0.005992  0.005048  0.016602
2.199560  0.005992  0.005162  0.016869
2.245385  0.005992  0.005276  0.017132
2.291209  0.005992  0.005390  0.017391
2.337033  0.005992  0.005504  0.017781
2.382857  0.005992  0.005618  0.018278
2.428681  0.005992  0.005732  0.018763
2.474505  0.005992  0.005846  0.019236
2.520330  0.005992  0.005959  0.019701
2.566154  0.005992  0.006073  0.020158
2.611978  0.005992  0.006187  0.020616
2.657802  0.005992  0.006301  0.021304
2.670000  0.005992  0.013296  0.021359
END FTABLE 18
FTABLE     17
```

```
   34    6
     Depth      Area    Volume  Outflow1  Outflow2  outflow 3 Velocity  Travel
Time***
      (ft)   (acres) (acre-ft)   (cfs)      (cfs)     (cfs)   (ft/sec)
(Minutes)***
  0.000000  0.005992  0.000000  0.000000  0.000000  0.000000
  0.045824  0.005992  0.000275  0.000000  0.021304  0.000000
  0.091648  0.005992  0.000549  0.000000  0.021304  0.000000
  0.137473  0.005992  0.000824  0.000000  0.021304  0.000000
  0.183297  0.005992  0.001098  0.000000  0.021304  0.000000
  0.229121  0.005992  0.001373  0.000000  0.021304  0.000000
  0.274945  0.005992  0.001647  0.000000  0.021304  0.000000
  0.320769  0.005992  0.001922  0.000000  0.021304  0.000000
  0.366593  0.005992  0.002197  0.000000  0.021304  0.000000
  0.412418  0.005992  0.002471  0.000000  0.021304  0.000000
  0.458242  0.005992  0.002746  0.000000  0.021304  0.000000
  0.504066  0.005992  0.003020  0.000000  0.021304  0.000000
  0.549890  0.005992  0.003295  0.000000  0.021304  0.000000
  0.595714  0.005992  0.003569  0.000000  0.021304  0.000000
  0.641538  0.005992  0.003844  0.000000  0.021304  0.000000
  0.687363  0.005992  0.004118  0.000000  0.021304  0.000000
  0.733187  0.005992  0.004393  0.000000  0.021304  0.000000
  0.779011  0.005992  0.004668  0.000000  0.021304  0.000000
  0.824835  0.005992  0.004942  0.000000  0.021304  0.000000
  0.870659  0.005992  0.005217  0.000000  0.021304  0.000000
  0.916484  0.005992  0.005491  0.000000  0.021304  0.000000
  0.962308  0.005992  0.005766  0.000000  0.021304  0.000000
  1.008132  0.005992  0.006040  0.007785  0.021304  0.000000
  1.053956  0.005992  0.006315  0.132793  0.021304  0.000000
  1.099780  0.005992  0.006590  0.332433  0.021304  0.000000
  1.145604  0.005992  0.006864  0.579320  0.021304  0.000000
  1.191429  0.005992  0.007139  0.854561  0.021304  0.000000
  1.237253  0.005992  0.007413  1.139276  0.021304  0.000000
  1.283077  0.005992  0.007688  1.414253  0.021304  0.000000
  1.328901  0.005992  0.007962  1.661580  0.021304  0.000000
  1.374725  0.005992  0.008237  1.867268  0.021304  0.000000
  1.420549  0.005992  0.008512  2.024550  0.021304  0.000000
  1.466374  0.005992  0.008786  2.137712  0.021304  0.000000
  1.500000  0.005992  0.008988  2.254127  0.021304  0.000000
  END FTABLE 17
  FTABLE     20
   60    4
     Depth      Area    Volume  Outflow1 Velocity  Travel Time***
      (ft)   (acres) (acre-ft)   (cfs)   (ft/sec)    (Minutes)***
  0.000000  0.003673  0.000000  0.000000
  0.045824  0.003673  0.000064  0.000000
  0.091648  0.003673  0.000128  0.000000
  0.137473  0.003673  0.000192  0.000000
  0.183297  0.003673  0.000256  0.000000
  0.229121  0.003673  0.000320  0.000000
  0.274945  0.003673  0.000384  0.000147
  0.320769  0.003673  0.000448  0.000220
  0.366593  0.003673  0.000512  0.000318
  0.412418  0.003673  0.000576  0.000443
  0.458242  0.003673  0.000640  0.000599
  0.504066  0.003673  0.000704  0.000786
  0.549890  0.003673  0.000768  0.001007
  0.595714  0.003673  0.000831  0.001264
  0.641538  0.003673  0.000895  0.001559
  0.687363  0.003673  0.000959  0.001892
  0.733187  0.003673  0.001023  0.002266
  0.779011  0.003673  0.001087  0.002683
  0.824835  0.003673  0.001151  0.003143
  0.870659  0.003673  0.001215  0.003648
  0.916484  0.003673  0.001279  0.003800
  0.962308  0.003673  0.001343  0.004800
  1.008132  0.003673  0.001407  0.004877
  1.053956  0.003673  0.001471  0.005748
  1.099780  0.003673  0.001535  0.006149
  1.145604  0.003673  0.001599  0.006498
```

```
  1.191429  0.003673  0.001663  0.007166
  1.237253  0.003673  0.001727  0.007705
  1.283077  0.003673  0.001791  0.007775
  1.328901  0.003673  0.001855  0.008338
  1.374725  0.003673  0.001919  0.008863
  1.420549  0.003673  0.001983  0.009359
  1.466374  0.003673  0.002047  0.009828
  1.512198  0.003673  0.002117  0.010276
  1.558022  0.003673  0.002186  0.010704
  1.603846  0.003673  0.002256  0.011116
  1.649670  0.003673  0.002326  0.011512
  1.695495  0.003673  0.002396  0.011895
  1.741319  0.003673  0.002466  0.012266
  1.787143  0.003673  0.002536  0.012625
  1.832967  0.003673  0.002606  0.012975
  1.878791  0.003673  0.002675  0.013315
  1.924615  0.003673  0.002745  0.013647
  1.970440  0.003673  0.002815  0.013971
  2.016264  0.003673  0.002885  0.014287
  2.062088  0.003673  0.002955  0.014596
  2.107912  0.003673  0.003025  0.015058
  2.153736  0.003673  0.003094  0.015640
  2.199560  0.003673  0.003164  0.016202
  2.245385  0.003673  0.003234  0.016744
  2.291209  0.003673  0.003304  0.017270
  2.337033  0.003673  0.003374  0.017781
  2.382857  0.003673  0.003444  0.018278
  2.428681  0.003673  0.003514  0.018519
  2.474505  0.003673  0.003583  0.018519
  2.520330  0.003673  0.003653  0.018519
  2.566154  0.003673  0.003723  0.018519
  2.611978  0.003673  0.003793  0.018519
  2.657802  0.003673  0.003863  0.018519
  2.670000  0.003673  0.008151  0.018519
  END FTABLE 20
  FTABLE     19
   34    6
     Depth      Area    Volume  Outflow1  Outflow2  outflow 3 Velocity  Travel
Time***
      (ft)   (acres) (acre-ft)   (cfs)      (cfs)     (cfs)   (ft/sec)
(Minutes)***
  0.000000  0.003673  0.000000  0.000000  0.000000  0.000000
  0.045824  0.003673  0.000168  0.000000  0.018519  0.000000
  0.091648  0.003673  0.000337  0.000000  0.018519  0.000000
  0.137473  0.003673  0.000505  0.000000  0.018519  0.000000
  0.183297  0.003673  0.000673  0.000000  0.018519  0.000000
  0.229121  0.003673  0.000842  0.000000  0.018519  0.000000
  0.274945  0.003673  0.001010  0.000000  0.018519  0.000000
  0.320769  0.003673  0.001178  0.000000  0.018519  0.000000
  0.366593  0.003673  0.001347  0.000000  0.018519  0.000000
  0.412418  0.003673  0.001515  0.000000  0.018519  0.000000
  0.458242  0.003673  0.001683  0.000000  0.018519  0.000000
  0.504066  0.003673  0.001851  0.000000  0.018519  0.000000
  0.549890  0.003673  0.002020  0.000000  0.018519  0.000000
  0.595714  0.003673  0.002188  0.000000  0.018519  0.000000
  0.641538  0.003673  0.002356  0.000000  0.018519  0.000000
  0.687363  0.003673  0.002525  0.000000  0.018519  0.000000
  0.733187  0.003673  0.002693  0.000000  0.018519  0.000000
  0.779011  0.003673  0.002861  0.000000  0.018519  0.000000
  0.824835  0.003673  0.003030  0.000000  0.018519  0.000000
  0.870659  0.003673  0.003198  0.000000  0.018519  0.000000
  0.916484  0.003673  0.003366  0.000000  0.018519  0.000000
  0.962308  0.003673  0.003535  0.000000  0.018519  0.000000
  1.008132  0.003673  0.003703  0.007785  0.018519  0.000000
  1.053956  0.003673  0.003871  0.132793  0.018519  0.000000
  1.099780  0.003673  0.004040  0.332433  0.018519  0.000000
  1.145604  0.003673  0.004208  0.579320  0.018519  0.000000
  1.191429  0.003673  0.004376  0.854561  0.018519  0.000000
  1.237253  0.003673  0.004545  1.139276  0.018519  0.000000
  1.283077  0.003673  0.004713  1.414253  0.018519  0.000000
```

```
  1.328901  0.003673  0.004881  1.661580  0.018519  0.000000
  1.374725  0.003673  0.005049  1.867268  0.018519  0.000000
  1.420549  0.003673  0.005218  2.024550  0.018519  0.000000
  1.466374  0.003673  0.005386  2.137712  0.018519  0.000000
  1.500000  0.003673  0.005510  2.254127  0.018519  0.000000
  END FTABLE 19
END FTABLES

EXT SOURCES
<-Volume-> <Member> SsysSgap<--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   # <Name> # tem strg<-factor->strg <Name>   #   #        <Name> # #  ***
WDM      2 PREC     ENGL    1.448          PERLND   1 999 EXTNL  PREC
WDM      2 PREC     ENGL    1.448          IMPLND   1 999 EXTNL  PREC
WDM      1 EVAP     ENGL    1              PERLND   1 999 EXTNL  PETINP
WDM      1 EVAP     ENGL    1              IMPLND   1 999 EXTNL  PETINP
WDM     22 IRRG     ENGL    0.7       SAME PERLND  45     EXTNL  SURLI
WDM      2 PREC     ENGL    1.448          RCHRES   1     EXTNL  PREC
WDM      2 PREC     ENGL    1.448          RCHRES   3     EXTNL  PREC
WDM      2 PREC     ENGL    1.448          RCHRES   5     EXTNL  PREC
WDM      2 PREC     ENGL    1.448          RCHRES   7     EXTNL  PREC
WDM      2 PREC     ENGL    1.448          RCHRES   9     EXTNL  PREC
WDM      2 PREC     ENGL    1.448          RCHRES  11     EXTNL  PREC
WDM      2 PREC     ENGL    1.448          RCHRES  13     EXTNL  PREC
WDM      2 PREC     ENGL    1.448          RCHRES  15     EXTNL  PREC
WDM      2 PREC     ENGL    1.448          RCHRES  17     EXTNL  PREC
WDM      2 PREC     ENGL    1.448          RCHRES  19     EXTNL  PREC
WDM      1 EVAP     ENGL    0.5            RCHRES   1     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.7            RCHRES   2     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.5            RCHRES   3     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.7            RCHRES   4     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.5            RCHRES   5     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.7            RCHRES   6     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.5            RCHRES   7     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.7            RCHRES   8     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.5            RCHRES   9     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.7            RCHRES  10     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.5            RCHRES  11     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.7            RCHRES  12     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.5            RCHRES  13     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.7            RCHRES  14     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.5            RCHRES  15     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.7            RCHRES  16     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.5            RCHRES  17     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.7            RCHRES  18     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.5            RCHRES  19     EXTNL  POTEV
WDM      1 EVAP     ENGL    0.7            RCHRES  20     EXTNL  POTEV

END EXT SOURCES

EXT TARGETS
<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Volume-> <Member> Tsys Tgap Amd ***
<Name>   #        <Name> # #<-factor->strg <Name>   # <Name>    tem strg strg***
RCHRES   2 HYDR   RO     1 1        1      WDM   1000 FLOW     ENGL       REPL
RCHRES   2 HYDR   STAGE  1 1        1      WDM   1001 STAG     ENGL       REPL
RCHRES   1 HYDR   STAGE  1 1        1      WDM   1002 STAG     ENGL       REPL
RCHRES   1 HYDR   O      1 1        1      WDM   1003 FLOW     ENGL       REPL
COPY     1 OUTPUT MEAN   1 1     12.1      WDM    701 FLOW     ENGL       REPL
COPY   501 OUTPUT MEAN   1 1     12.1      WDM    801 FLOW     ENGL       REPL
COPY   601 OUTPUT MEAN   1 1     12.1      WDM    901 FLOW     ENGL       REPL
RCHRES   4 HYDR   RO     1 1        1      WDM   1004 FLOW     ENGL       REPL
RCHRES   4 HYDR   STAGE  1 1        1      WDM   1005 STAG     ENGL       REPL
RCHRES   3 HYDR   STAGE  1 1        1      WDM   1006 STAG     ENGL       REPL
RCHRES   3 HYDR   O      1 1        1      WDM   1007 FLOW     ENGL       REPL
RCHRES   6 HYDR   RO     1 1        1      WDM   1008 FLOW     ENGL       REPL
RCHRES   6 HYDR   STAGE  1 1        1      WDM   1009 STAG     ENGL       REPL
RCHRES   5 HYDR   STAGE  1 1        1      WDM   1010 STAG     ENGL       REPL
RCHRES   5 HYDR   O      1 1        1      WDM   1011 FLOW     ENGL       REPL
RCHRES   8 HYDR   RO     1 1        1      WDM   1012 FLOW     ENGL       REPL
RCHRES   8 HYDR   STAGE  1 1        1      WDM   1013 STAG     ENGL       REPL
RCHRES   7 HYDR   STAGE  1 1        1      WDM   1014 STAG     ENGL       REPL
```

```
RCHRES   7 HYDR   O      1 1         1      WDM   1015 FLOW     ENGL      REPL
RCHRES  10 HYDR   RO     1 1         1      WDM   1016 FLOW     ENGL      REPL
RCHRES  10 HYDR   STAGE  1 1         1      WDM   1017 STAG     ENGL      REPL
RCHRES   9 HYDR   STAGE  1 1         1      WDM   1018 STAG     ENGL      REPL
RCHRES   9 HYDR   O      1 1         1      WDM   1019 FLOW     ENGL      REPL
RCHRES  12 HYDR   RO     1 1         1      WDM   1020 FLOW     ENGL      REPL
RCHRES  12 HYDR   STAGE  1 1         1      WDM   1021 STAG     ENGL      REPL
RCHRES  11 HYDR   STAGE  1 1         1      WDM   1022 STAG     ENGL      REPL
RCHRES  11 HYDR   O      1 1         1      WDM   1023 FLOW     ENGL      REPL
RCHRES  14 HYDR   RO     1 1         1      WDM   1024 FLOW     ENGL      REPL
RCHRES  14 HYDR   STAGE  1 1         1      WDM   1025 STAG     ENGL      REPL
RCHRES  13 HYDR   STAGE  1 1         1      WDM   1026 STAG     ENGL      REPL
RCHRES  13 HYDR   O      1 1         1      WDM   1027 FLOW     ENGL      REPL
RCHRES  16 HYDR   RO     1 1         1      WDM   1028 FLOW     ENGL      REPL
RCHRES  16 HYDR   STAGE  1 1         1      WDM   1029 STAG     ENGL      REPL
RCHRES  15 HYDR   STAGE  1 1         1      WDM   1030 STAG     ENGL      REPL
RCHRES  15 HYDR   O      1 1         1      WDM   1031 FLOW     ENGL      REPL
RCHRES  18 HYDR   RO     1 1         1      WDM   1032 FLOW     ENGL      REPL
RCHRES  18 HYDR   STAGE  1 1         1      WDM   1033 STAG     ENGL      REPL
RCHRES  17 HYDR   STAGE  1 1         1      WDM   1034 STAG     ENGL      REPL
RCHRES  17 HYDR   O      1 1         1      WDM   1035 FLOW     ENGL      REPL
END EXT TARGETS

MASS-LINK
<Volume>   <-Grp> <-Member-><--Mult-->     <Target>       <-Grp> <-Member->***
<Name>             <Name> # #<-factor->     <Name>                <Name> # #***
  MASS-LINK         2
PERLND     PWATER SURO       0.083333      RCHRES         INFLOW IVOL
  END MASS-LINK     2

  MASS-LINK         3
PERLND     PWATER IFWO       0.083333      RCHRES         INFLOW IVOL
  END MASS-LINK     3

  MASS-LINK         5
IMPLND     IWATER SURO       0.083333      RCHRES         INFLOW IVOL
  END MASS-LINK     5

  MASS-LINK         8
RCHRES     OFLOW  OVOL   2                 RCHRES         INFLOW IVOL
  END MASS-LINK     8

  MASS-LINK        12
PERLND     PWATER SURO       0.083333      COPY           INPUT  MEAN
  END MASS-LINK    12

  MASS-LINK        13
PERLND     PWATER IFWO       0.083333      COPY           INPUT  MEAN
  END MASS-LINK    13

  MASS-LINK        15
IMPLND     IWATER SURO       0.083333      COPY           INPUT  MEAN
  END MASS-LINK    15

  MASS-LINK        16
RCHRES     ROFLOW                          COPY           INPUT  MEAN
  END MASS-LINK    16

  MASS-LINK        17
RCHRES     OFLOW  OVOL   1                 COPY           INPUT  MEAN
  END MASS-LINK    17


END MASS-LINK

END RUN
```

Predeveloped HSPF Message File

```
ERROR/WARNING ID:   238   1

The continuity error reported below is greater than 1 part in 1000 and is
therefore considered high.

Did you specify any "special actions"?  If so, they could account for it.

Relevant data are:
DATE/TIME: 2000/ 1/31 24: 0

RCHRES :   15

RELERR       STORS        STOR       MATIN      MATDIF
-2.156E-03     0.00000  0.0000E+00     0.00000  1.8335E-11

Where:

RELERR is the relative error (ERROR/REFVAL).
ERROR  is (STOR-STORS) - MATDIF.
REFVAL is the reference value (STORS+MATIN).
STOR   is the storage of material in the processing unit (land-segment or
reach/reservior) at the end of the present interval.
STORS  is the storage of material in the pu at the start of the present
printout reporting period.
MATIN  is the total inflow of material to the pu during the present printout
reporting period.
MATDIF is the net inflow (inflow-outflow) of material to the pu during the
present printout reporting period.
```

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