

APPENDIX L

SWMM Output File



EPA STORM WATER MANAGEMENT MODEL - VERSION 5.0 (Build 5.0.022)

Seven Hills, Hemlock Creek watershed
Water Quality Analysis

NOTE: The summary statistics displayed in this report are based on results found at every computational time step, not just on results from each reporting time step.

Analysis Options

Flow Units CFS
Process Models:
 Rainfall/Runoff YES
 Snowmelt NO
 Groundwater NO
 Flow Routing YES
 Ponding Allowed NO
 Water Quality YES
Infiltration Method HORTON
Flow Routing Method DYNWAVE
Starting Date JAN-01-1977 00:00:00
Ending Date DEC-31-1977 00:00:00
Antecedent Dry Days 0.0
Report Time Step 00:01:00
Wet Time Step 00:01:00
Dry Time Step 01:00:00
Routing Time Step 15.00 sec

Element Count

Number of rain gages 1
Number of subcatchments ... 167
Number of nodes 98
Number of links 93
Number of pollutants 3
Number of land uses 2

Pollutant Summary

Name	Units	Ppt. Concen.	GW Concen.	Kdecay 1/days	CoPollutant
TSS	MG/L	0.00	0.00	0.00	
P	MG/L	0.00	0.00	0.00	
N	MG/L	0.00	0.00	0.00	

Landuse Summary

Name	Sweeping Interval	Maximum Removal	Last Swept
5100	0.00	0.00	0.00
LID	0.00	0.00	0.00

Raingage Summary

Name	Data Source	Data Type	Recording Interval
1977	H:\2009\0945203\PHASE\56EWQ\1977Rain3.DAT		

Subcatchment Summary

Name	Area	width	%Imperv	%Slope	Rain Gage	Outlet
S-ND2S	3.36	187.74	25.00	3.1300	1977	BS-ND2S
S-ND3S	3.04	172.58	25.00	3.4000	1977	BS-ND3S
S-ND4S	2.74	188.12	25.00	3.1800	1977	BS-ND4S
S-ND5S	5.12	237.26	25.00	1.7500	1977	BS-ND5S
S-ND6S	1.93	144.84	25.00	1.9500	1977	BS-ND6S
S-ND7S	2.97	214.45	25.00	1.9200	1977	BS-ND7S
S-ND8S	3.10	228.91	25.00	1.2100	1977	BS-ND8S
S-ND9S	1.96	146.10	25.00	0.8900	1977	BS-ND9S
S-ND10S	1.33	138.51	25.00	2.7300	1977	BS-ND10S
S-ND2N	1.19	150.84	25.00	1.1100	1977	BS-ND2N
S-ND3N	1.69	159.86	25.00	2.9000	1977	BS-ND3N
S-ND4N	1.17	117.81	25.00	3.4800	1977	BS-ND4N
S-ND5N	1.01	127.15	25.00	2.0600	1977	BS-ND5N

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S-ND6N	1.26	139.68	25.00	1.3400	1977	BS-ND6N
S-ND7N	1.31	156.83	25.00	1.5000	1977	BS-ND7N
S-ND8N	1.09	140.61	25.00	0.6800	1977	BS-ND8N
S-ND9N	0.86	130.03	25.00	1.1400	1977	BS-ND9N
S-ND10N	0.79	99.41	25.00	2.7100	1977	BS-ND10N
S-CL1S	2.60	255.77	25.00	1.9750	1977	BS-CL1S
S-CL2S	1.12	130.28	25.00	1.9950	1977	BS-CL2S
S-CL3S	1.17	140.10	25.00	2.6850	1977	BS-CL3S
S-CL4S	1.26	125.11	25.00	2.4000	1977	BS-CL4S
S-CL5S	0.91	131.38	25.00	3.1200	1977	BS-CL5S
S-CL6S	3.34	216.89	25.00	0.3000	1977	BS-CL6S
S-CL7S	3.39	230.65	25.00	1.3400	1977	BS-CL7S
S-CL8S	2.99	186.32	25.00	1.4300	1977	BS-CL8S
S-CL1N	1.39	129.09	25.00	2.1900	1977	BS-CL1N
S-CL2N	1.16	120.14	25.00	2.1800	1977	BS-CL2N
S-CL3N	1.30	125.30	25.00	2.0400	1977	BS-CL3N
S-CL4N	1.23	115.65	25.00	1.3900	1977	BS-CL4N
S-CL5N	0.85	101.48	25.00	1.7700	1977	BS-CL5N
S-CL6N	1.15	131.45	25.00	0.7100	1977	BS-CL6N
S-CL7N	1.23	147.76	25.00	0.4600	1977	BS-CL7N
S-CL8N	1.34	173.23	25.00	0.6400	1977	BS-CL8N
S-ND1S	2.77	175.02	25.00	4.1200	1977	BS-ND1S
S-ND1N	0.73	104.86	25.00	2.0300	1977	BS-ND1N
S-TD1S	0.64	112.86	25.00	3.5500	1977	BS-TD1S
S-TD2S	2.87	162.21	25.00	3.4700	1977	BS-TD2S
S-TD3S	2.55	162.32	25.00	4.0300	1977	BS-TD3S
S-TD4S	2.82	186.88	25.00	4.1100	1977	BS-TD4S
S-TD5S	2.80	223.42	25.00	3.5200	1977	BS-TD5S
S-TD6S	2.57	160.96	25.00	3.0500	1977	BS-TD6S
S-TD7S	4.11	214.49	25.00	1.6300	1977	BS-TD7S
S-TD8S	3.27	225.32	25.00	1.8500	1977	BS-TD8S
S-TD9S	1.14	137.71	25.00	1.7700	1977	BS-TD9S
S-TD1N	0.69	110.38	25.00	3.2100	1977	BS-TD1N
S-TD2N	1.21	129.42	25.00	2.9300	1977	BS-TD2N
S-TD3N	1.18	121.16	25.00	3.1600	1977	BS-TD3N
S-TD4N	1.09	128.95	25.00	3.0500	1977	BS-TD4N
S-TD5N	1.11	135.48	25.00	2.3800	1977	BS-TD5N
S-TD6N	1.10	141.31	25.00	1.6500	1977	BS-TD6N
S-TD7N	1.12	147.67	25.00	2.1200	1977	BS-TD7N
S-TD8N	1.47	148.74	25.00	1.5800	1977	BS-TD8N
S-TD9N	1.27	151.90	25.00	1.6300	1977	BS-TD9N
S-SL4N	0.58	103.16	25.00	3.4200	1977	BS-SL4N
S-SL3N	0.66	87.24	25.00	3.6500	1977	BS-SL3N
S-SL3S	1.56	120.09	25.00	3.1600	1977	BS-SL3S
S-SL2N	0.62	85.85	25.00	2.8300	1977	BS-SL2N
S-SL2S	0.76	99.71	25.00	4.1700	1977	BS-SL2S
S-SL1	1.74	230.01	25.00	4.6900	1977	BS-SL1
S-NML3S	1.81	125.47	25.00	3.9400	1977	BS-NML3S
S-NML1W	2.06	125.75	25.00	3.7300	1977	BS-NML1W
S-NML4S	0.66	55.52	25.00	3.3300	1977	BS-NML4S
S-SML3	0.68	92.05	25.00	4.2100	1977	BS-SML3
S-SML1	1.25	115.94	25.00	4.3100	1977	BS-SML1
S-SML4N	0.69	52.42	25.00	2.9700	1977	BS-SML4N
S-SML5N	0.27	45.09	25.00	3.6500	1977	BS-SML5N
S-SML5S	1.04	128.72	25.00	4.2500	1977	BS-SML5S
S-SML4S	5.95	275.26	25.00	4.2700	1977	BS-SML4S
S-SML2	0.14	29.57	25.00	3.6100	1977	J6037
S-NML1E	0.73	120.68	25.00	1.7500	1977	BS-NML1E
S-NML2	0.67	109.29	25.00	2.8600	1977	BS-NML1E
S-NML3N	0.80	100.11	25.00	4.0000	1977	BS-NML3N
S-NML4N	0.37	66.32	25.00	3.0300	1977	BS-NML4N
S-SHB5E	0.31	58.70	25.00	2.2400	1977	BS-SHB5E
S-SHB4E	0.14	39.39	25.00	2.7300	1977	BS-SHB4E
S-SHB4W	0.43	69.44	25.00	3.0700	1977	BS-SHB4W
S-SHB5W	3.11	199.22	25.00	3.0900	1977	BS-SHB5W
S-SHB6E	0.43	60.38	25.00	4.4000	1977	TD_OF
S-SHB8	0.09	39.99	25.00	1.5400	1977	BS-SHB9
S-SHB6W	0.79	68.31	25.00	1.3200	1977	BS-SHB6W
S-SHB9	0.04	25.19	25.00	1.1900	1977	BS-SHB9
S-SHB10	0.16	51.24	25.00	0.2500	1977	BS-SHB10
S-SHB2W	1.81	147.88	25.00	3.6700	1977	BS-SHB2W
S-SHB3	0.09	27.62	25.00	2.5900	1977	J4878
S-SHB2E	0.54	36.88	25.00	2.8900	1977	BS-SHB2E
S-SHB1E	0.28	51.98	25.00	7.8100	1977	J7981
S-SHB1W	0.22	51.29	25.00	9.9800	1977	J7993
BS-TD9N	0.00	26.00	0.00	0.5000	1977	J3922
BS-TD8N	0.01	31.00	0.00	0.5000	1977	J3496
BS-TD7N	0.00	23.00	0.00	0.5000	1977	J3225
BS-TD9S	0.00	24.00	0.00	0.5000	1977	J3718
BS-TD8S	0.01	68.00	0.00	0.5000	1977	J3406
BS-TD7S	0.02	85.00	0.00	0.5000	1977	J3286
BS-TD6N	0.00	23.00	0.00	0.5000	1977	J3165
BS-TD5N	0.00	23.00	0.00	0.5000	1977	J3000
BS-TD4N	0.00	22.00	0.00	0.5000	1977	J2942
BS-TD3N	0.00	24.00	0.00	0.5000	1977	J2863
BS-TD6S	0.01	53.00	0.00	0.5000	1977	J3353
BS-TD5S	0.01	57.00	0.00	0.5000	1977	J3069
BS-TD4S	0.01	59.00	0.00	0.5000	1977	J3139
BS-TD3S	0.01	53.00	0.00	0.5000	1977	J2769
BS-TD2N	0.00	25.00	0.00	0.5000	1977	J2657
BS-TD1N	0.00	14.00	0.00	0.5000	1977	J2614
BS-TD2S	0.01	59.00	0.00	0.5000	1977	J2689
BS-TD1S	0.00	13.00	0.00	0.5000	1977	J2727
BS-SL4N	0.00	12.00	0.00	0.5000	1977	J5017

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BS-SL3N	0.00	13.00	0.00	0.5000	1977	J5008
BS-SL2N	0.00	13.00	0.00	0.5000	1977	J5225
BS-SL3S	0.01	32.00	0.00	0.5000	1977	J5094
BS-SL2S	0.00	15.00	0.00	0.5000	1977	J5206
BS-SL1	0.01	36.00	0.00	0.5000	1977	J5416
BS-SHB5W	0.01	64.00	0.00	0.5000	1977	J4290
BS-SHB5E	0.00	6.00	0.00	0.5000	1977	J4276
BS-NML4N	0.00	8.00	0.00	0.5000	1977	J5530
BS-NML3N	0.00	16.00	0.00	0.5000	1977	J5656
BS-NML4S	0.00	14.00	0.00	0.5000	1977	J5581
BS-NML3S	0.01	37.00	0.00	0.5000	1977	J5847
BS-NML1W	0.01	42.00	0.00	0.5000	1977	J5819
BS-SHB9	0.00	11.00	0.00	0.5000	1977	J4133
BS-NML1E	0.01	29.00	0.00	0.5000	1977	J5707
BS-SML1	0.00	26.00	0.00	0.5000	1977	J5769
BS-SML4S	0.02	121.00	0.00	0.5000	1977	J5953
BS-SML4N	0.00	14.00	0.00	0.5000	1977	J6050
BS-SML5N	0.00	6.00	0.00	0.5000	1977	J6137
BS-SML5S	0.00	22.00	0.00	0.5000	1977	J6223
BS-ND1N	0.00	16.00	0.00	0.5000	1977	J4490
BS-ND1S	0.01	57.00	0.00	0.5000	1977	J4526
BS-ND2N	0.00	25.00	0.00	0.5000	1977	J1265
BS-ND2S	0.01	68.00	0.00	0.5000	1977	J1192
BS-ND3N	0.01	35.00	0.00	0.5000	1977	J1336
BS-ND3S	0.01	63.00	0.00	0.5000	1977	J1431
BS-ND4N	0.00	24.00	0.00	0.5000	1977	J1607
BS-ND4S	0.01	56.00	0.00	0.5000	1977	J1468
BS-ND5S	0.02	105.00	0.00	0.5000	1977	J1526
BS-ND5N	0.00	21.00	0.00	0.5000	1977	J1660
BS-ND6N	0.00	25.00	0.00	0.5000	1977	J1718
BS-ND6S	0.01	40.00	0.00	0.5000	1977	J1872
BS-ND7N	0.00	27.00	0.00	0.5000	1977	J1784
BS-ND7S	0.01	61.00	0.00	0.5000	1977	J1810
BS-ND8N	0.00	23.00	0.00	0.5000	1977	J1939
BS-ND8S	0.01	64.00	0.00	0.5000	1977	J2040
BS-ND9N	0.00	18.00	0.00	0.5000	1977	J2263
BS-ND9S	0.01	40.00	0.00	0.5000	1977	J2167
BS-ND10N	0.00	16.00	0.00	0.5000	1977	J2363
BS-ND10S	0.01	27.00	0.00	0.5000	1977	J2332
BS-CL8N	0.01	52.00	0.00	0.5000	1977	J7153
BS-CL8S	0.02	132.00	0.00	0.5000	1977	J7195
BS-CL7N	0.00	24.00	0.00	0.5000	1977	J7063
BS-CL7S	0.01	68.00	0.00	0.5000	1977	J7264
BS-CL5N	0.00	17.00	0.00	0.5000	1977	J6731
BS-CL5S	0.00	19.00	0.00	0.5000	1977	J7045
BS-CL4N	0.01	28.00	0.00	0.5000	1977	J6682
BS-CL4S	0.00	26.00	0.00	0.5000	1977	J6601
BS-CL3N	0.00	27.00	0.00	0.5000	1977	J6426
BS-CL3S	0.00	24.00	0.00	0.5000	1977	J6467
BS-CL2N	0.00	24.00	0.00	0.5000	1977	J6360
BS-CL2S	0.00	24.00	0.00	0.5000	1977	J6528
BS-CL1N	0.01	28.00	0.00	0.5000	1977	J4875
BS-CL1S	0.01	28.00	0.00	0.5000	1977	J4857
BS-SHB2E	0.00	11.00	0.00	0.5000	1977	J4711
BS-SHB2W	0.01	38.00	0.00	0.5000	1977	J4779
BS-SHB6W	0.00	16.00	0.00	0.5000	1977	J4398
BS-SHB4W	0.00	9.00	0.00	0.5000	1977	J4601
BS-SML3	0.00	14.00	0.00	0.5000	1977	J5786
BS-SHB4E	0.00	6.00	0.00	0.5000	1977	J4466
BS-SHB10	0.00	4.00	0.00	0.5000	1977	J4115

LID Control summary

Subcatchment	LID Control	No. of Units	Unit Area	Unit width	% Area Covered	% Imperv Treated
S-SL3N	Bio_Swale	1	28700.81	0.00	100.00	0.00
BS-TD9N	Bio_Swale	1	208.21	0.00	99.99	0.00
BS-TD8N	Bio_Swale	1	246.11	0.00	99.99	0.00
BS-TD7N	Bio_Swale	1	183.82	0.00	99.99	0.00
BS-TD9S	Bio_Swale	1	189.92	0.00	100.00	0.00
BS-TD8S	Bio_Swale	1	541.01	0.00	100.00	0.00
BS-TD7S	Bio_Swale	1	679.10	0.00	100.00	0.00
BS-TD6N	Bio_Swale	1	182.08	0.00	100.00	0.00
BS-TD5N	Bio_Swale	1	183.82	0.00	99.99	0.00
BS-TD4N	Bio_Swale	1	179.03	0.00	100.00	0.00
BS-TD3N	Bio_Swale	1	195.14	0.00	99.99	0.00
BS-TD6S	Bio_Swale	1	425.14	0.00	100.00	0.00
BS-TD5S	Bio_Swale	1	459.12	0.00	100.00	0.00
BS-TD4S	Bio_Swale	1	469.14	0.00	100.00	0.00
BS-TD3S	Bio_Swale	1	420.78	0.00	99.99	0.00
BS-TD2N	Bio_Swale	1	198.63	0.00	99.99	0.00
BS-TD1N	Bio_Swale	1	111.94	0.00	99.99	0.00
BS-TD2S	Bio_Swale	1	473.93	0.00	100.00	0.00
BS-TD1S	Bio_Swale	1	107.15	0.00	99.99	0.00
BS-SL4N	Bio_Swale	1	94.96	0.00	100.00	0.00
BS-SL3N	Bio_Swale	1	107.15	0.00	99.99	0.00
BS-SL2N	Bio_Swale	1	101.93	0.00	100.00	0.00
BS-SL3S	Bio_Swale	1	259.18	0.00	100.00	0.00
BS-SL2S	Bio_Swale	1	118.04	0.00	99.99	0.00
BS-SL1	Bio_Swale	1	284.88	0.00	100.00	0.00
BS-SHB5W	Bio_Swale	1	507.90	0.00	99.99	0.00

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BS-SHB5E	Bio_Swale	1	50.96	0.00	99.99	0.00
BS-NML4N	Bio_Swale	1	60.98	0.00	99.99	0.00
BS-NML3N	Bio_Swale	1	129.80	0.00	99.99	0.00
BS-NML4S	Bio_Swale	1	108.02	0.00	99.99	0.00
BS-NML3S	Bio_Swale	1	297.95	0.00	100.00	0.00
BS-NML1W	Bio_Swale	1	338.02	0.00	99.99	0.00
BS-SHB9	Bio_Swale	1	84.07	0.00	100.00	0.00
BS-NML1E	Bio_Swale	1	230.86	0.00	99.99	0.00
BS-SML1	Bio_Swale	1	206.91	0.00	100.00	0.00
BS-SML4S	Bio_Swale	1	980.09	0.00	100.00	0.00
BS-SML4N	Bio_Swale	1	112.82	0.00	100.00	0.00
BS-SML5N	Bio_Swale	1	46.17	0.00	99.99	0.00
BS-SML5S	Bio_Swale	1	172.06	0.00	100.00	0.00
BS-ND1N	Bio_Swale	1	125.01	0.00	99.99	0.00
BS-ND1S	Bio_Swale	1	453.02	0.00	100.00	0.00
BS-ND2N	Bio_Swale	1	196.89	0.00	100.00	0.00
BS-ND2S	Bio_Swale	1	544.93	0.00	100.00	0.00
BS-ND3N	Bio_Swale	1	280.09	0.00	100.00	0.00
BS-ND3S	Bio_Swale	1	502.24	0.00	99.99	0.00
BS-ND4N	Bio_Swale	1	192.09	0.00	99.99	0.00
BS-ND4S	Bio_Swale	1	449.10	0.00	100.00	0.00
BS-ND5S	Bio_Swale	1	842.88	0.00	100.00	0.00
BS-ND5N	Bio_Swale	1	169.01	0.00	99.99	0.00
BS-ND6N	Bio_Swale	1	202.98	0.00	99.99	0.00
BS-ND6S	Bio_Swale	1	320.16	0.00	99.99	0.00
BS-ND7N	Bio_Swale	1	215.18	0.00	99.99	0.00
BS-ND7S	Bio_Swale	1	490.04	0.00	99.99	0.00
BS-ND8N	Bio_Swale	1	179.90	0.00	99.99	0.00
BS-ND8S	Bio_Swale	1	507.90	0.00	99.99	0.00
BS-ND9N	Bio_Swale	1	142.87	0.00	99.99	0.00
BS-ND9S	Bio_Swale	1	323.21	0.00	99.99	0.00
BS-ND10N	Bio_Swale	1	129.80	0.00	99.99	0.00
BS-ND10S	Bio_Swale	1	217.80	0.00	100.00	0.00
BS-CL8N	Bio_Swale	1	418.17	0.00	99.99	0.00
BS-CL8S	Bio_Swale	1	1049.79	0.00	100.00	0.00
BS-CL7N	Bio_Swale	1	189.92	0.00	100.00	0.00
BS-CL7S	Bio_Swale	1	544.93	0.00	100.00	0.00
BS-CL5N	Bio_Swale	1	138.95	0.00	99.99	0.00
BS-CL5S	Bio_Swale	1	148.97	0.00	99.99	0.00
BS-CL4N	Bio_Swale	1	225.20	0.00	99.99	0.00
BS-CL4S	Bio_Swale	1	206.91	0.00	100.00	0.00
BS-CL3N	Bio_Swale	1	213.00	0.00	99.99	0.00
BS-CL3S	Bio_Swale	1	192.09	0.00	99.99	0.00
BS-CL2N	Bio_Swale	1	189.05	0.00	100.00	0.00
BS-CL2S	Bio_Swale	1	189.05	0.00	100.00	0.00
BS-CL1N	Bio_Swale	1	226.07	0.00	99.99	0.00
BS-CL1S	Bio_Swale	1	223.02	0.00	99.99	0.00
BS-SHB2E	Bio_Swale	1	90.16	0.00	99.99	0.00
BS-SHB2W	Bio_Swale	1	303.17	0.00	99.99	0.00
BS-SHB6W	Bio_Swale	1	131.11	0.00	99.99	0.00
BS-SHB4W	Bio_Swale	1	71.87	0.00	99.99	0.00
BS-SML3	Bio_Swale	1	109.77	0.00	100.00	0.00
BS-SHB4E	Bio_Swale	1	50.96	0.00	99.99	0.00
BS-SHB10	Bio_Swale	1	31.79	0.00	99.97	0.00

Node Summary

Name	Type	Invert Elev.	Max. Depth	Ponded Area	External Inflow
J7339	JUNCTION	1126.45	7.40	0.0	
J7153	JUNCTION	1124.93	9.40	0.0	
J7063	JUNCTION	1123.32	12.00	0.0	
J6731	JUNCTION	1120.17	11.40	0.0	
J6682	JUNCTION	1118.67	9.90	0.0	
J6426	JUNCTION	1114.55	8.20	0.0	
J6360	JUNCTION	1109.95	7.90	0.0	
J4875	JUNCTION	1102.26	8.40	0.0	
J4857	JUNCTION	1101.85	10.40	0.0	
J7993	JUNCTION	1096.74	7.80	0.0	
J7981	JUNCTION	1096.54	8.37	0.0	
J7469	JUNCTION	1127.80	6.00	0.0	
J7195	JUNCTION	1126.74	7.60	0.0	
J7264	JUNCTION	1128.20	7.20	0.0	
J7045	JUNCTION	1123.71	7.90	0.0	
J6601	JUNCTION	1121.64	6.80	0.0	
J6467	JUNCTION	1115.44	6.80	0.0	
J6528	JUNCTION	1112.24	6.30	0.0	
J2363	JUNCTION	1117.25	4.30	0.0	
J2332	JUNCTION	1118.07	3.50	0.0	
J2197	JUNCTION	1115.15	14.20	0.0	
J2167	JUNCTION	1124.69	5.10	0.0	
J2263	JUNCTION	1114.02	15.70	0.0	
J1939	JUNCTION	1112.59	16.10	0.0	
J2040	JUNCTION	1124.07	4.80	0.0	
J1784	JUNCTION	1109.85	15.70	0.0	
J1810	JUNCTION	1121.11	4.30	0.0	
J1718	JUNCTION	1107.84	15.30	0.0	
J1872	JUNCTION	1119.49	4.20	0.0	
J1660	JUNCTION	1105.01	15.90	0.0	
J1526	JUNCTION	1115.99	4.60	0.0	
J1607	JUNCTION	1099.05	12.90	0.0	

J1468	JUNCTION	1107.59	4.20	0.0
J1336	JUNCTION	1094.24	11.40	0.0
J1431	JUNCTION	1101.10	4.60	0.0
J1265	JUNCTION	1088.37	12.80	0.0
J1192	JUNCTION	1096.24	5.40	0.0
J4490	JUNCTION	1081.22	12.52	0.0
J4525	JUNCTION	1091.46	4.10	0.0
J4526	JUNCTION	1090.77	4.80	0.0
J4561	JUNCTION	1089.97	4.90	0.0
J4466	JUNCTION	1079.24	11.50	0.0
J4276	JUNCTION	1070.57	14.30	0.0
J3799	JUNCTION	1118.27	7.33	0.0
J3718	JUNCTION	1117.30	5.30	0.0
J3922	JUNCTION	1118.55	4.50	0.0
J3406	JUNCTION	1114.46	5.84	0.0
J3496	JUNCTION	1115.61	4.60	0.0
J3286	JUNCTION	1111.68	5.72	0.0
J3225	JUNCTION	1112.91	5.11	0.0
J3353	JUNCTION	1107.84	7.86	0.0
J3165	JUNCTION	1108.74	6.70	0.0
J3069	JUNCTION	1100.62	8.18	0.0
J3000	JUNCTION	1102.03	6.50	0.0
J3139	JUNCTION	1093.16	6.84	0.0
J2942	JUNCTION	1094.80	5.00	0.0
J2769	JUNCTION	1085.18	10.22	0.0
J2863	JUNCTION	1088.58	5.00	0.0
J2689	JUNCTION	1080.67	6.53	0.0
J2657	JUNCTION	1082.07	5.00	0.0
J2727	JUNCTION	1077.55	6.65	0.0
J2614	JUNCTION	1082.07	2.17	0.0
J4398	JUNCTION	1075.44	5.89	0.0
J4115	JUNCTION	1069.83	11.50	0.0
J6223	JUNCTION	1085.00	5.00	0.0
J6137	JUNCTION	1077.79	11.71	0.0
J5017	JUNCTION	1064.79	7.91	0.0
J5008	JUNCTION	1056.17	8.83	0.0
J4133	JUNCTION	1073.38	8.80	0.0
J5225	JUNCTION	1046.34	10.76	0.0
J5416	JUNCTION	1036.43	11.10	0.0
J5094	JUNCTION	1061.69	5.50	0.0
J5206	JUNCTION	1052.52	4.60	0.0
J5365	JUNCTION	1048.81	1.60	0.0
J6050	JUNCTION	1070.43	11.57	0.0
J5953	JUNCTION	1077.70	5.10	0.0
J5530	JUNCTION	1076.45	5.20	0.0
J5581	JUNCTION	1070.78	11.12	0.0
J5656	JUNCTION	1067.73	6.40	0.0
J5847	JUNCTION	1063.63	10.67	0.0
J6037	JUNCTION	1069.11	11.59	0.0
J5934	JUNCTION	1080.89	1.50	0.0
J5786	JUNCTION	1065.08	10.42	0.0
J5769	JUNCTION	1070.55	5.20	0.0
J5707	JUNCTION	1058.98	12.40	0.0
J5819	JUNCTION	1061.78	10.62	0.0
J4601	JUNCTION	1079.50	11.24	0.0
J4290	JUNCTION	1078.00	6.00	0.0
J4711	JUNCTION	1092.78	11.80	0.0
J4779	JUNCTION	1096.00	5.50	0.0
J4878	JUNCTION	1089.31	11.91	0.0
J4170	JUNCTION	1074.87	8.70	0.0
OF_Restrictor	JUNCTION	1070.50	14.00	0.0
CL_OF	OUTFALL	1096.15	2.50	0.0
ND_OF	OUTFALL	1070.46	1.00	0.0
TD_OF	OUTFALL	1076.27	2.00	0.0
SH_OF	OUTFALL	1034.32	1.25	0.0
ML_OF	OUTFALL	1056.98	1.00	0.0

Link Summary

Name	From Node	To Node	Type	Length	%Slope	Roughness
CL1	J7469	J7339	CONDUIT	27.0	3.1497	0.0150
CL2	J7339	J7153	CONDUIT	312.0	0.4231	0.0150
CL3	J7195	J7153	CONDUIT	27.0	4.4860	0.0150
CL4	J7153	J7063	CONDUIT	298.0	0.5403	0.0150
CL5	J7264	J7063	CONDUIT	27.0	5.4897	0.0150
CL6	J7063	J6731	CONDUIT	600.0	0.5250	0.0150
CL7	J7045	J6731	CONDUIT	33.0	4.9758	0.0150
CL8	J6731	J6682	CONDUIT	300.0	0.5000	0.0150
CL9	J6601	J6682	CONDUIT	30.0	1.9003	0.0150
CL10	J6682	J6426	CONDUIT	300.0	1.3735	0.0150
CL11	J6467	J6426	CONDUIT	28.0	1.7503	0.0150
CL12	J6426	J6360	CONDUIT	300.0	1.5335	0.0150
CL13	J6528	J6360	CONDUIT	28.0	1.0358	0.0150
CL14	J6360	J4875	CONDUIT	276.0	2.7873	0.0150
CL16	J4875	J4857	CONDUIT	67.0	0.6120	0.0150
SHB7	J4857	J7993	CONDUIT	461.0	1.0434	0.0150
SHB8	J7993	J7981	CONDUIT	15.0	0.6667	0.0150
SHB9	J7981	CL_OF	CONDUIT	37.0	1.0541	0.0150
ND11C	J2332	J2363	CONDUIT	35.0	2.3435	0.0150
ND10	J2363	J2197	CONDUIT	305.0	0.6558	0.0150
ND10C	J2167	J2197	CONDUIT	36.0	5.9550	0.0150

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ND9	J2197	J2263	CONDUIT	306.0	0.3039	0.0150
ND8	J2263	J1939	CONDUIT	295.0	0.4170	0.0150
ND8C	J2040	J1939	CONDUIT	40.0	6.2120	0.0150
ND7	J1939	J1784	CONDUIT	298.0	0.8524	0.0150
ND7C	J1810	J1784	CONDUIT	39.0	5.0320	0.0150
ND6	J1784	J1718	CONDUIT	302.0	0.6325	0.0150
ND6C	J1872	J1718	CONDUIT	40.0	3.6274	0.0150
ND5	J1718	J1660	CONDUIT	303.0	0.8680	0.0150
ND5C	J1526	J1660	CONDUIT	37.0	6.1739	0.0150
ND4	J1660	J1607	CONDUIT	293.0	2.0004	0.0150
ND4C	J1468	J1607	CONDUIT	36.0	6.5138	0.0150
ND3	J1607	J1336	CONDUIT	293.0	1.6419	0.0150
ND3C	J1431	J1336	CONDUIT	35.0	8.1988	0.0150
ND2	J1336	J1265	CONDUIT	293.0	1.9697	0.0150
ND2C	J1192	J1265	CONDUIT	38.0	5.9844	0.0150
ND1	J1265	J4490	CONDUIT	279.0	2.4559	0.0150
SHB4C3	J4525	J4526	CONDUIT	13.0	2.2313	0.0150
SHB4C2	J4526	J4561	CONDUIT	45.0	1.5557	0.0150
SHB4C	J4561	J4490	CONDUIT	40.0	9.4165	0.0150
SHB4	J4490	J4466	CONDUIT	165.0	1.2001	0.0150
SHB3	J4466	J4276	CONDUIT	238.0	1.1219	0.0150
SHB_OF	J4276	OF_Restrictor	CONDUIT	188.0	0.0372	0.0150
TD9	J3799	J3718	CONDUIT	319.0	0.3041	0.0150
TD9C	J3922	J3718	CONDUIT	36.0	1.5280	0.0150
TD8	J3718	J3406	CONDUIT	303.0	0.9043	0.0150
TD8C	J3496	J3406	CONDUIT	37.0	0.9460	0.0150
TD7	J3406	J3286	CONDUIT	299.0	0.9298	0.0150
TD6	J3286	J3353	CONDUIT	301.0	1.2426	0.0150
TD5	J3353	J3069	CONDUIT	298.0	2.4235	0.0150
TD7C	J3225	J3286	CONDUIT	37.0	3.3262	0.0150
TD6C	J3165	J3353	CONDUIT	36.0	0.1667	0.0150
TD5C	J3000	J3000	CONDUIT	37.0	1.1082	0.0150
TD4	J3069	J3139	CONDUIT	301.0	2.0802	0.0150
TD3	J3139	J2769	CONDUIT	301.0	2.6521	0.0150
TD2	J2769	J2689	CONDUIT	325.0	1.3878	0.0150
TD4C	J2942	J3139	CONDUIT	37.0	4.4368	0.0150
TD3C	J2863	J2769	CONDUIT	37.0	9.2282	0.0150
TD2C	J2657	J2689	CONDUIT	37.0	1.0811	0.0150
TD1	J2689	J2727	CONDUIT	184.0	1.6959	0.0150
SHB7C	J2727	TD_OF	CONDUIT	75.0	1.7069	0.0150
TD1C	J2614	J2727	CONDUIT	36.0	10.6714	0.0150
SHB1C	J4398	J4115	CONDUIT	39.0	0.0256	0.0150
SL5	J4115	J5017	CONDUIT	301.0	1.6747	0.0150
SL4	J5017	J5008	CONDUIT	282.0	3.0582	0.0150
SL3	J5008	J5225	CONDUIT	258.0	3.8128	0.0150
SL2	J5225	J5416	CONDUIT	254.0	3.8651	0.0150
SL1	J5416	SH_OF	CONDUIT	200.0	1.0551	0.0150
SL1C	J5365	J5416	CONDUIT	67.0	18.8014	0.0150
SL2C	J5206	J5225	CONDUIT	37.0	3.1908	0.0150
SL3C	J5094	J5008	CONDUIT	36.0	3.6691	0.0150
SHB1	J4133	J4115	CONDUIT	63.0	3.0967	0.0150
SML2C	J6223	J6137	CONDUIT	35.0	0.6000	0.0150
SML2	J6137	J6050	CONDUIT	324.0	2.1178	0.0150
SML1C	J5953	J6050	CONDUIT	36.0	6.3181	0.0150
SML1	J6050	J6037	CONDUIT	51.0	2.3928	0.0150
ML4	J6037	J5786	CONDUIT	166.0	2.4284	0.0150
ML3C	J5769	J5786	CONDUIT	36.0	1.7225	0.0150
ML3	J5786	J5819	CONDUIT	192.0	1.7190	0.0150
ML2	J5819	J5707	CONDUIT	36.0	8.3624	0.0150
ML1	J5707	ML_OF	CONDUIT	200.0	1.0001	0.0150
NML2	J5581	J5847	CONDUIT	223.0	3.1630	0.0150
NML1	J5847	J5819	CONDUIT	129.0	1.4343	0.0150
NML2C	J5530	J5581	CONDUIT	34.0	1.6767	0.0150
NML1C	J5656	J5847	CONDUIT	36.0	0.8334	0.0150
ML4C	J5934	J6037	CONDUIT	54.0	8.8867	0.0150
SHB2	J4170	J4133	CONDUIT	80.0	1.8628	0.0150
SHB5C	J4779	J4878	CONDUIT	45.0	0.8667	0.0150
SHB6	J4711	J4878	CONDUIT	153.0	2.2031	0.0150
SHB5	J4878	J4490	CONDUIT	245.0	2.2005	0.0150
SHB3C	J4601	J4466	CONDUIT	47.0	0.5532	0.0150
SHB2C	J4290	J4276	CONDUIT	41.0	3.4899	0.0150
SHB_12_inch_OF	OF_Restrictor	ND_OF	CONDUIT	100.0	0.0400	0.0150

Cross Section Summary

Conduit	Shape	Full Depth	Full Area	Hyd. Rad.	Max. Width	No. of Barrels	Full Flow
CL1	CIRCULAR	1.00	0.79	0.25	1.00	1	5.48
CL2	CIRCULAR	1.25	1.23	0.31	1.25	1	3.64
CL3	CIRCULAR	1.00	0.79	0.25	1.00	1	6.54
CL4	CIRCULAR	2.00	3.14	0.50	2.00	1	14.41
CL5	CIRCULAR	1.00	0.79	0.25	1.00	1	7.23
CL6	CIRCULAR	2.00	3.14	0.50	2.00	1	14.21
CL7	CIRCULAR	1.00	0.79	0.25	1.00	1	6.89
CL8	CIRCULAR	2.00	3.14	0.50	2.00	1	13.86
CL9	CIRCULAR	1.00	0.79	0.25	1.00	1	4.26
CL10	CIRCULAR	2.00	3.14	0.50	2.00	1	22.98
CL11	CIRCULAR	1.00	0.79	0.25	1.00	1	4.09
CL12	CIRCULAR	2.00	3.14	0.50	2.00	1	24.28
CL13	CIRCULAR	1.00	0.79	0.25	1.00	1	3.14
CL14	CIRCULAR	2.00	3.14	0.50	2.00	1	32.73

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CL16	CIRCULAR	2.50	4.91	0.63	2.50	1	27.81
SHB7	CIRCULAR	2.50	4.91	0.63	2.50	1	36.31
SHB8	CIRCULAR	2.50	4.91	0.63	2.50	1	29.03
SHB9	CIRCULAR	2.50	4.91	0.63	2.50	1	36.50
ND11C	CIRCULAR	1.25	1.23	0.31	1.25	1	8.57
ND10	CIRCULAR	1.25	1.23	0.31	1.25	1	4.53
ND10C	CIRCULAR	1.25	1.23	0.31	1.25	1	13.66
ND9	CIRCULAR	1.50	1.77	0.38	1.50	1	5.02
ND8	CIRCULAR	1.50	1.77	0.38	1.50	1	5.88
ND8C	CIRCULAR	1.50	1.77	0.38	1.50	1	22.69
ND7	CIRCULAR	1.50	1.77	0.38	1.50	1	8.40
ND7C	CIRCULAR	1.50	1.77	0.38	1.50	1	20.42
ND6	CIRCULAR	1.75	2.41	0.44	1.75	1	10.92
ND6C	CIRCULAR	1.00	0.79	0.25	1.00	1	5.88
ND5	CIRCULAR	1.75	2.41	0.44	1.75	1	12.79
ND5C	CIRCULAR	1.00	0.79	0.25	1.00	1	7.67
ND4	CIRCULAR	2.00	3.14	0.50	2.00	1	27.73
ND4C	CIRCULAR	1.00	0.79	0.25	1.00	1	7.88
ND3	CIRCULAR	2.00	3.14	0.50	2.00	1	25.12
ND3C	CIRCULAR	1.00	0.79	0.25	1.00	1	8.84
ND2	CIRCULAR	2.00	3.14	0.50	2.00	1	27.52
ND2C	CIRCULAR	1.00	0.79	0.25	1.00	1	7.55
ND1	CIRCULAR	2.00	3.14	0.50	2.00	1	30.73
SHB4C3	CIRCULAR	1.00	0.79	0.25	1.00	1	4.61
SHB4C2	CIRCULAR	1.00	0.79	0.25	1.00	1	3.85
SHB4C	CIRCULAR	1.00	0.79	0.25	1.00	1	9.48
SHB4	CIRCULAR	2.50	4.91	0.63	2.50	1	38.94
SHB3	CIRCULAR	2.00	3.14	0.50	2.00	1	20.77
SHB_OF	CIRCULAR	6.00	28.27	1.50	6.00	1	70.82
TD9	CIRCULAR	1.00	0.79	0.25	1.00	1	1.70
TD9C	CIRCULAR	1.00	0.79	0.25	1.00	1	3.82
TD8	CIRCULAR	1.50	1.77	0.38	1.50	1	8.66
TD8C	CIRCULAR	1.00	0.79	0.25	1.00	1	3.00
TD7	CIRCULAR	1.50	1.77	0.38	1.50	1	8.78
TD6	CIRCULAR	1.50	1.77	0.38	1.50	1	10.15
TD5	CIRCULAR	1.50	1.77	0.38	1.50	1	14.17
TD7C	CIRCULAR	1.00	0.79	0.25	1.00	1	5.63
TD6C	CIRCULAR	1.00	0.79	0.25	1.00	1	1.26
TD5C	CIRCULAR	1.00	0.79	0.25	1.00	1	3.25
TD4	CIRCULAR	2.00	3.14	0.50	2.00	1	28.28
TD3	CIRCULAR	1.00	0.79	0.25	1.00	1	5.03
TD2	CIRCULAR	2.00	3.14	0.50	2.00	1	23.10
TD4C	CIRCULAR	1.00	0.79	0.25	1.00	1	6.50
TD3C	CIRCULAR	1.00	0.79	0.25	1.00	1	9.38
TD2C	CIRCULAR	1.00	0.79	0.25	1.00	1	3.21
TD1	CIRCULAR	2.00	3.14	0.50	2.00	1	25.53
SHB7C	CIRCULAR	2.00	3.14	0.50	2.00	1	25.62
TD1C	CIRCULAR	1.00	0.79	0.25	1.00	1	10.09
SHB1C	CIRCULAR	1.00	0.79	0.25	1.00	1	0.49
SL5	CIRCULAR	1.00	0.79	0.25	1.00	1	4.00
SL4	CIRCULAR	1.00	0.79	0.25	1.00	1	5.40
SL3	CIRCULAR	1.00	0.79	0.25	1.00	1	6.03
SL2	CIRCULAR	1.25	1.23	0.31	1.25	1	11.01
SL1	CIRCULAR	1.25	1.23	0.31	1.25	1	5.75
SL1C	CIRCULAR	1.00	0.79	0.25	1.00	1	13.39
SL2C	CIRCULAR	1.00	0.79	0.25	1.00	1	5.52
SL3C	CIRCULAR	1.00	0.79	0.25	1.00	1	5.91
SHB1	CIRCULAR	1.25	1.23	0.31	1.25	1	9.85
SML2C	CIRCULAR	1.00	0.79	0.25	1.00	1	2.39
SML2	CIRCULAR	1.00	0.79	0.25	1.00	1	4.49
SML1C	CIRCULAR	1.00	0.79	0.25	1.00	1	7.76
SML1	CIRCULAR	1.00	0.79	0.25	1.00	1	4.78
ML4	CIRCULAR	1.00	0.79	0.25	1.00	1	4.81
ML3C	CIRCULAR	1.00	0.79	0.25	1.00	1	4.05
ML3	CIRCULAR	1.00	0.79	0.25	1.00	1	4.05
ML2	CIRCULAR	1.00	0.79	0.25	1.00	1	8.93
ML1	CIRCULAR	1.00	0.79	0.25	1.00	1	3.09
NML2	CIRCULAR	1.00	0.79	0.25	1.00	1	5.49
NML1	CIRCULAR	1.00	0.79	0.25	1.00	1	3.70
NML2C	CIRCULAR	1.00	0.79	0.25	1.00	1	4.00
NML1C	CIRCULAR	1.00	0.79	0.25	1.00	1	2.82
ML4C	CIRCULAR	1.00	0.79	0.25	1.00	1	9.20
SHB2	CIRCULAR	1.00	0.79	0.25	1.00	1	4.21
SHB5C	CIRCULAR	1.00	0.79	0.25	1.00	1	2.87
SHB6	CIRCULAR	1.00	0.79	0.25	1.00	1	4.58
SHB5	CIRCULAR	1.00	0.79	0.25	1.00	1	4.58
SHB3C	CIRCULAR	2.50	4.91	0.63	2.50	1	26.44
SHB2C	CIRCULAR	1.00	0.79	0.25	1.00	1	5.77
SHB_12_inch_OF	CIRCULAR	1.00	0.79	0.25	1.00	1	0.62

 Rainfall File Summary

Station ID	First Date	Last Date	Recording Frequency	Periods w/Precip	Periods Missing	Periods Malfunc.
1977	JAN-01-1977	DEC-31-1977	15 min	35040	0	0

 Runoff Quantity Continuity

Volume
 acre-feet

 Depth
 inches

Total Precipitation	432.377	39.669
Evaporation Loss	0.000	0.000
Infiltration Loss	77.023	7.067
Surface Runoff	354.629	32.536
Final Surface Storage	0.759	0.070
Continuity Error (%)	-0.008	

	TSS lbs	P lbs	N lbs

Runoff Quality Continuity	-----	-----	-----
Initial Buildup	0.000	0.000	0.000
Surface Buildup	100962.749	262.503	1877.907
Wet Deposition	0.000	0.000	0.000
Sweeping Removal	0.000	0.000	0.000
Infiltration Loss	112.296	0.292	2.089
BMP Removal	62213.436	92.431	413.275
Surface Runoff	27549.001	140.951	1256.306
Remaining Buildup	0.000	0.000	0.000
Continuity Error (%)	10.982	10.982	10.982

	Volume acre-feet	Volume 10^6 gal

Flow Routing Continuity	-----	-----
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	354.629	115.561
Groundwater Inflow	0.000	0.000
RDII Inflow	0.000	0.000
External Inflow	0.000	0.000
External Outflow	347.049	113.091
Internal Outflow	7.634	2.488
Storage Losses	0.000	0.000
Initial Stored Volume	0.000	0.000
Final Stored Volume	0.001	0.000
Continuity Error (%)	-0.016	

	TSS lbs	P lbs	N lbs

Quality Routing Continuity	-----	-----	-----
Dry Weather Inflow	0.000	0.000	0.000
Wet Weather Inflow	27548.712	140.949	1256.294
Groundwater Inflow	0.000	0.000	0.000
RDII Inflow	0.000	0.000	0.000
External Inflow	0.000	0.000	0.000
Internal Flooding	620.963	3.216	28.739
External Outflow	26933.475	137.762	1227.815
Mass Reacted	0.000	0.000	0.000
Initial Stored Mass	0.000	0.000	0.000
Final Stored Mass	0.000	0.000	0.000
Continuity Error (%)	-0.021	-0.021	-0.021

 Highest Continuity Errors

 Node J4133 (-1.42%)

 Time-Step Critical Elements

 Link SHB8 (12.47%)
 Link ML2 (5.28%)
 Link SHB_12_inch_OF (2.74%)

 Highest Flow Instability Indexes

 Link TD1C (2)
 Link SML1C (2)

 Routing Time Step Summary

 Minimum Time Step : 0.50 sec
 Average Time Step : 12.69 sec
 Maximum Time Step : 15.00 sec
 Percent in Steady State : 0.00
 Average Iterations per Step : 2.01

 Subcatchment Runoff Summary

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
-----	-----	-----	-----	-----	-----	-----	-----	-----

BMP's with storage pipe.rpt										
S-ND2S	39.67	0.00	0.00	4.39	35.23	3.21	2.49	0.888		
S-ND3S	39.67	0.00	0.00	4.39	35.23	2.91	2.30	0.888		
S-ND4S	39.67	0.00	0.00	4.39	35.24	2.62	2.16	0.888		
S-ND5S	39.67	0.00	0.00	4.39	35.23	4.90	3.22	0.888		
S-ND6S	39.67	0.00	0.00	4.39	35.23	1.85	1.46	0.888		
S-ND7S	39.67	0.00	0.00	4.39	35.23	2.84	2.21	0.888		
S-ND8S	39.67	0.00	0.00	4.39	35.23	2.97	2.16	0.888		
S-ND9S	39.67	0.00	0.00	4.39	35.23	1.88	1.30	0.888		
S-ND10S	39.67	0.00	0.00	4.38	35.24	1.27	1.14	0.888		
S-ND2N	39.67	0.00	0.00	4.38	35.24	1.14	0.96	0.888		
S-ND3N	39.67	0.00	0.00	4.38	35.24	1.62	1.43	0.888		
S-ND4N	39.67	0.00	0.00	4.38	35.24	1.12	1.02	0.888		
S-ND5N	39.67	0.00	0.00	4.38	35.24	0.96	0.87	0.888		
S-ND6N	39.67	0.00	0.00	4.38	35.24	1.21	1.01	0.888		
S-ND7N	39.67	0.00	0.00	4.38	35.24	1.25	1.08	0.888		
S-ND8N	39.67	0.00	0.00	4.39	35.24	1.04	0.83	0.888		
S-ND9N	39.67	0.00	0.00	4.38	35.24	0.82	0.72	0.888		
S-ND10N	39.67	0.00	0.00	4.38	35.25	0.76	0.70	0.889		
S-CL1S	39.67	0.00	0.00	4.38	35.24	2.49	2.12	0.888		
S-CL2S	39.67	0.00	0.00	4.38	35.24	1.07	0.95	0.888		
S-CL3S	39.67	0.00	0.00	4.38	35.25	1.12	1.03	0.888		
S-CL4S	39.67	0.00	0.00	4.38	35.24	1.21	1.06	0.888		
S-CL5S	39.67	0.00	0.00	4.37	35.25	0.87	0.84	0.889		
S-CL6S	39.67	0.00	0.00	4.40	35.22	3.19	1.70	0.888		
S-CL7S	39.67	0.00	0.00	4.39	35.23	3.24	2.33	0.888		
S-CL8S	39.67	0.00	0.00	4.39	35.24	2.86	2.02	0.888		
S-CL1N	39.67	0.00	0.00	4.38	35.24	1.33	1.13	0.888		
S-CL2N	39.67	0.00	0.00	4.38	35.24	1.11	0.97	0.888		
S-CL3N	39.67	0.00	0.00	4.38	35.24	1.25	1.06	0.888		
S-CL4N	39.67	0.00	0.00	4.39	35.24	1.17	0.94	0.888		
S-CL5N	39.67	0.00	0.00	4.38	35.24	0.81	0.71	0.888		
S-CL6N	39.67	0.00	0.00	4.39	35.23	1.10	0.84	0.888		
S-CL7N	39.67	0.00	0.00	4.39	35.23	1.18	0.86	0.888		
S-CL8N	39.67	0.00	0.00	4.39	35.23	1.28	1.01	0.888		
S-ND1S	39.67	0.00	0.00	4.38	35.24	2.65	2.22	0.888		
S-ND1N	39.67	0.00	0.00	4.38	35.25	0.70	0.64	0.889		
S-TD1S	39.67	0.00	0.00	4.37	35.26	0.62	0.62	0.889		
S-TD2S	39.67	0.00	0.00	4.39	35.24	2.75	2.17	0.888		
S-TD3S	39.67	0.00	0.00	4.38	35.24	2.44	2.04	0.888		
S-TD4S	39.67	0.00	0.00	4.38	35.24	2.70	2.28	0.888		
S-TD5S	39.67	0.00	0.00	4.38	35.24	2.67	2.32	0.888		
S-TD6S	39.67	0.00	0.00	4.39	35.24	2.46	1.96	0.888		
S-TD7S	39.67	0.00	0.00	4.39	35.23	3.93	2.66	0.888		
S-TD8S	39.67	0.00	0.00	4.39	35.23	3.13	2.39	0.888		
S-TD9S	39.67	0.00	0.00	4.38	35.24	1.09	0.96	0.888		
S-TD1N	39.67	0.00	0.00	4.37	35.25	0.66	0.65	0.889		
S-TD2N	39.67	0.00	0.00	4.38	35.24	1.16	1.05	0.888		
S-TD3N	39.67	0.00	0.00	4.38	35.24	1.13	1.02	0.888		
S-TD4N	39.67	0.00	0.00	4.38	35.25	1.04	0.96	0.889		
S-TD5N	39.67	0.00	0.00	4.38	35.24	1.06	0.97	0.888		
S-TD6N	39.67	0.00	0.00	4.38	35.24	1.05	0.93	0.888		
S-TD7N	39.67	0.00	0.00	4.38	35.25	1.07	0.98	0.888		
S-TD8N	39.67	0.00	0.00	4.38	35.24	1.40	1.17	0.888		
S-TD9N	39.67	0.00	0.00	4.38	35.24	1.22	1.06	0.888		
S-SL4N	39.67	0.00	0.00	4.37	35.26	0.55	0.55	0.889		
S-SL3N	39.67	0.00	0.00	18.66	18.66	0.33	0.03	0.470		
S-SL3S	39.67	0.00	0.00	4.38	35.24	1.49	1.27	0.888		
S-SL2N	39.67	0.00	0.00	4.38	35.25	0.59	0.56	0.889		
S-SL2S	39.67	0.00	0.00	4.37	35.25	0.73	0.71	0.889		
S-SL1	39.67	0.00	0.00	4.37	35.25	1.67	1.64	0.889		
S-NML3S	39.67	0.00	0.00	4.38	35.24	1.73	1.47	0.888		
S-NML1W	39.67	0.00	0.00	4.39	35.24	1.97	1.61	0.888		
S-NML4S	39.67	0.00	0.00	4.38	35.24	0.63	0.55	0.888		
S-SML3	39.67	0.00	0.00	4.37	35.25	0.65	0.63	0.889		
S-SML1	39.67	0.00	0.00	4.38	35.25	1.20	1.09	0.888		
S-SML4N	39.67	0.00	0.00	4.38	35.24	0.66	0.55	0.888		
S-SML5N	39.67	0.00	0.00	4.37	35.26	0.26	0.26	0.889		
S-SML5S	39.67	0.00	0.00	4.37	35.25	1.00	0.96	0.889		
S-SML4S	39.67	0.00	0.00	4.39	35.23	5.69	4.37	0.888		
S-SML2	39.67	0.00	0.00	4.36	35.26	0.13	0.14	0.889		
S-NML1E	39.67	0.00	0.00	4.38	35.25	0.70	0.65	0.889		
S-NML2	39.67	0.00	0.00	4.37	35.25	0.64	0.62	0.889		
S-NML3N	39.67	0.00	0.00	4.37	35.25	0.76	0.73	0.889		
S-NML4N	39.67	0.00	0.00	4.37	35.25	0.35	0.35	0.889		
S-SHB5E	39.67	0.00	0.00	4.37	35.25	0.30	0.29	0.889		
S-SHB4E	39.67	0.00	0.00	4.36	35.26	0.14	0.14	0.889		
S-SHB4W	39.67	0.00	0.00	4.37	35.25	0.41	0.40	0.889		
S-SHB5W	39.67	0.00	0.00	4.39	35.24	2.98	2.40	0.888		
S-SHB6E	39.67	0.00	0.00	4.37	35.25	0.41	0.41	0.889		
S-SHB8	39.67	0.00	0.00	8.77	30.85	0.07	0.09	0.778		
S-SHB6W	39.67	0.00	0.00	4.39	35.23	0.76	0.59	0.888		
S-SHB9	39.67	0.00	0.00	8.77	30.86	0.03	0.04	0.778		
S-SHB10	39.67	0.00	0.00	4.38	35.24	0.15	0.13	0.888		
S-SHB2W	39.67	0.00	0.00	4.38	35.24	1.73	1.52	0.888		
S-SHB3	39.67	0.00	0.00	4.36	35.26	0.09	0.09	0.889		
S-SHB2E	39.67	0.00	0.00	4.39	35.24	0.52	0.42	0.888		
S-SHB1E	39.67	0.00	0.00	4.36	35.26	0.26	0.28	0.889		
S-SHB1W	39.67	0.00	0.00	8.77	30.86	0.18	0.23	0.778		
BS-TD9N	39.67	9384.09	0.00	684.87	8736.48	1.13	1.06	0.927		
BS-TD8N	39.67	9157.10	0.00	701.46	8492.94	1.30	1.17	0.923		
BS-TD7N	39.67	9343.43	0.00	657.88	8723.11	1.00	0.97	0.930		
BS-TD9S	39.67	9224.76	0.00	675.54	8586.82	1.02	0.96	0.927		
BS-TD8S	39.67	9288.36	0.00	742.67	8582.89	2.89	2.37	0.920		
BS-TD7S	39.67	9279.54	0.00	786.60	8529.91	3.61	2.65	0.915		

BMP's with storage pipe.rpt

BS-TD6N	39.67	9244.77	0.00	672.52	8609.82	0.98	0.93	0.927
BS-TD5N	39.67	9273.67	0.00	658.80	8652.49	0.99	0.96	0.929
BS-TD4N	39.67	9317.31	0.00	649.15	8705.95	0.97	0.96	0.930
BS-TD3N	39.67	9299.62	0.00	662.96	8673.97	1.06	1.02	0.929
BS-TD6S	39.67	9271.20	0.00	722.69	8585.78	2.28	1.95	0.922
BS-TD5S	39.67	9346.04	0.00	685.93	8697.62	2.49	2.31	0.927
BS-TD4S	39.67	9222.60	0.00	696.38	8563.69	2.50	2.27	0.925
BS-TD3S	39.67	9311.29	0.00	704.66	8643.95	2.27	2.03	0.924
BS-TD2N	39.67	9369.13	0.00	664.05	8742.63	1.08	1.05	0.929
BS-TD1N	39.67	9489.50	0.00	619.20	8907.68	0.62	0.65	0.935
BS-TD2S	39.67	9310.20	0.00	728.63	8618.91	2.55	2.16	0.922
BS-TD1S	39.67	9208.54	0.00	598.65	8647.22	0.58	0.62	0.935
BS-SL4N	39.67	9307.26	0.00	600.48	8744.80	0.52	0.55	0.936
BS-SL3N	39.67	4997.00	0.00	515.57	4529.05	0.30	0.03	0.899
BS-SL2N	39.67	9351.51	0.00	637.48	8751.86	0.56	0.56	0.932
BS-SL3S	39.67	9225.23	0.00	694.08	8568.57	1.38	1.26	0.925
BS-SL2S	39.67	9915.21	0.00	633.90	9318.66	0.69	0.70	0.936
BS-SL1	39.67	9392.82	0.00	617.18	8813.61	1.57	1.63	0.934
BS-SHB5W	39.67	9398.12	0.00	722.07	8713.29	2.76	2.39	0.923
BS-SHB5E	39.67	9297.43	0.00	615.38	8718.99	0.28	0.29	0.934
BS-NML4N	39.67	9316.83	0.00	606.47	8747.73	0.33	0.35	0.935
BS-NML3N	39.67	9433.74	0.00	631.03	8840.08	0.72	0.73	0.933
BS-NML4S	39.67	9310.26	0.00	681.56	8665.56	0.58	0.55	0.927
BS-NML3S	39.67	9304.49	0.00	695.10	8646.89	1.61	1.46	0.925
BS-NML1W	39.67	9346.52	0.00	715.12	8668.68	1.83	1.60	0.924
BS-SHB9	39.67	2002.74	0.00	329.10	1711.81	0.09	0.13	0.838
BS-NML1E	39.67	9302.99	0.00	631.93	8708.66	1.25	1.27	0.932
BS-SML1	39.67	9282.43	0.00	656.53	8663.65	1.12	1.09	0.929
BS-SML4S	39.67	9311.41	0.00	740.44	8608.13	5.26	4.34	0.921
BS-SML4N	39.67	9365.57	0.00	702.49	8700.58	0.61	0.55	0.925
BS-SML5N	39.67	8951.85	0.00	597.22	8391.89	0.24	0.26	0.933
BS-SML5S	39.67	9309.21	0.00	627.26	8719.73	0.94	0.96	0.933
BS-ND1N	39.67	8927.82	0.00	642.01	8323.04	0.65	0.64	0.928
BS-ND1S	39.67	9393.51	0.00	706.03	8724.91	2.46	2.21	0.925
BS-ND2N	39.67	9313.57	0.00	699.69	8651.37	1.06	0.96	0.925
BS-ND2S	39.67	9455.86	0.00	739.58	8753.51	2.97	2.48	0.922
BS-ND3N	39.67	9252.29	0.00	675.61	8614.29	1.50	1.42	0.927
BS-ND3S	39.67	9298.48	0.00	728.97	8606.75	2.69	2.28	0.922
BS-ND4N	39.67	9359.15	0.00	660.87	8735.59	1.05	1.02	0.929
BS-ND4S	39.67	9372.88	0.00	711.27	8699.01	2.44	2.15	0.924
BS-ND5S	39.67	9320.87	0.00	799.06	8558.65	4.50	3.20	0.914
BS-ND5N	39.67	9147.78	0.00	660.34	8525.02	0.90	0.87	0.928
BS-ND6N	39.67	9553.77	0.00	709.67	8881.16	1.12	1.00	0.926
BS-ND6S	39.67	9245.28	0.00	727.38	8555.06	1.71	1.45	0.921
BS-ND7N	39.67	9348.85	0.00	688.73	8697.44	1.17	1.08	0.926
BS-ND7S	39.67	9313.11	0.00	734.99	8615.26	2.63	2.20	0.921
BS-ND8N	39.67	9308.57	0.00	727.21	8618.57	0.97	0.82	0.922
BS-ND8S	39.67	9368.06	0.00	762.73	8642.31	2.74	2.14	0.919
BS-ND9N	39.67	9204.98	0.00	674.01	8568.19	0.76	0.72	0.927
BS-ND9S	39.67	9315.57	0.00	780.54	8571.90	1.73	1.29	0.916
BS-ND10N	39.67	9393.69	0.00	651.24	8779.62	0.71	0.70	0.931
BS-ND10S	39.67	9368.58	0.00	670.69	8735.62	1.19	1.13	0.929
BS-CL8N	39.67	4904.17	0.00	593.32	4348.49	1.13	1.00	0.880
BS-CL8S	39.67	4377.68	0.00	601.89	3813.42	2.50	2.00	0.863
BS-CL7N	39.67	9950.16	0.00	776.12	9211.13	1.09	0.85	0.922
BS-CL7S	39.67	9543.71	0.00	770.95	8809.80	2.99	2.32	0.919
BS-CL5N	39.67	22033.74	0.00	887.01	21182.04	1.83	1.55	0.960
BS-CL5S	39.67	43713.12	0.00	1212.92	42531.99	3.95	2.52	0.972
BS-CL4N	39.67	8359.56	0.00	698.76	7698.07	1.08	0.94	0.917
BS-CL4S	39.67	9376.17	0.00	683.97	8729.83	1.13	1.05	0.927
BS-CL3N	39.67	9389.95	0.00	697.46	8729.67	1.16	1.06	0.926
BS-CL3S	39.67	9382.53	0.00	656.77	8763.08	1.05	1.03	0.930
BS-CL2N	39.67	9405.83	0.00	684.77	8758.63	1.03	0.96	0.927
BS-CL2S	39.67	9083.05	0.00	669.73	8450.97	1.00	0.94	0.926
BS-CL1N	39.67	9417.20	0.00	697.72	8756.78	1.23	1.12	0.926
BS-CL1S	39.67	17903.28	0.00	820.76	17118.89	2.38	2.11	0.954
BS-SHB2E	39.67	9180.41	0.00	713.07	8503.76	0.48	0.42	0.922
BS-SHB2W	39.67	9145.15	0.00	676.44	8506.12	1.61	1.51	0.926
BS-SHB6W	39.67	9270.20	0.00	735.00	8572.09	0.70	0.58	0.921
BS-SHB4W	39.67	9162.32	0.00	613.23	8586.47	0.38	0.40	0.933
BS-SML3	39.67	9488.93	0.00	621.88	8905.03	0.61	0.63	0.935
BS-SHB4E	39.67	4251.39	0.00	449.25	3839.78	0.12	0.14	0.895
BS-SHB10	39.67	7496.03	0.00	631.84	6899.93	0.14	0.13	0.916

LID Performance Summary

Pcnt.	Error Subcatchment	LID Control	Total	Evap	Infil	Surface	Drain	Init.	Final
			Inflow	Loss	Loss	Outflow	Outflow	Storage	Storage
			in	in	in	in	in	in	in
	S-SL3N	Bio_Swale	39.67	0.00	18.66	0.00	18.66	0.00	2.43
	-0.19								
	BS-TD9N	Bio_Swale	9423.76	0.00	684.92	7799.13	937.96	0.00	2.63
	-0.01								

		BMP's with storage pipe.rpt							
BS-TD8N -0.01	Bio_Swale	9196.76	0.00	701.50	7520.57	972.83	0.00	2.69	
BS-TD7N -0.01	Bio_Swale	9383.10	0.00	657.92	7841.01	882.57	0.00	2.54	
BS-TD9S -0.01	Bio_Swale	9264.43	0.00	675.58	7668.22	918.98	0.00	2.60	
BS-TD8S -0.01	Bio_Swale	9328.03	0.00	742.71	7519.35	1063.94	0.00	2.84	
BS-TD7S -0.01	Bio_Swale	9319.21	0.00	786.63	7362.33	1167.90	0.00	3.02	
BS-TD6N -0.01	Bio_Swale	9284.44	0.00	672.55	7697.51	912.66	0.00	2.59	
BS-TD5N -0.01	Bio_Swale	9313.34	0.00	658.83	7768.38	884.58	0.00	2.54	
BS-TD4N -0.01	Bio_Swale	9356.98	0.00	649.18	7841.34	865.00	0.00	2.51	
BS-TD3N -0.01	Bio_Swale	9339.29	0.00	663.01	7781.76	892.92	0.00	2.56	
BS-TD6S -0.01	Bio_Swale	9310.87	0.00	722.73	7567.65	1018.56	0.00	2.77	
BS-TD5S -0.01	Bio_Swale	9385.71	0.00	685.96	7757.75	940.24	0.00	2.64	
BS-TD4S -0.01	Bio_Swale	9262.27	0.00	696.41	7601.99	962.03	0.00	2.67	
BS-TD3S -0.01	Bio_Swale	9350.96	0.00	704.70	7665.18	979.29	0.00	2.70	
BS-TD2N -0.01	Bio_Swale	9408.80	0.00	664.08	7848.16	894.95	0.00	2.56	
BS-TD1N -0.01	Bio_Swale	9529.17	0.00	619.27	8104.00	804.74	0.00	2.43	
BS-TD2S -0.01	Bio_Swale	9349.87	0.00	728.66	7587.52	1031.75	0.00	2.79	
BS-TD1S -0.01	Bio_Swale	9248.21	0.00	598.71	7881.68	766.48	0.00	2.43	
BS-SL4N -0.01	Bio_Swale	9346.93	0.00	600.51	7975.58	769.61	0.00	2.43	
BS-SL3N -0.22	Bio_Swale	5036.67	0.00	515.62	3790.81	738.73	0.00	2.43	
BS-SL2N -0.01	Bio_Swale	9391.18	0.00	637.51	7910.79	841.42	0.00	2.48	
BS-SL3S -0.01	Bio_Swale	9264.90	0.00	694.11	7611.70	957.25	0.00	2.66	
BS-SL2S -0.01	Bio_Swale	9954.88	0.00	633.97	8487.00	832.60	0.00	2.47	
BS-SL1 -0.01	Bio_Swale	9432.49	0.00	617.21	8012.86	801.15	0.00	2.43	
BS-SHB5W -0.01	Bio_Swale	9437.79	0.00	722.11	7696.99	1016.78	0.00	2.76	
BS-SHB5E -0.01	Bio_Swale	9337.10	0.00	615.47	7922.00	798.20	0.00	2.43	
BS-NML4N -0.01	Bio_Swale	9356.50	0.00	606.53	7967.48	781.15	0.00	2.43	
BS-NML3N -0.01	Bio_Swale	9473.41	0.00	631.10	8012.47	828.53	0.00	2.46	
BS-NML4S -0.01	Bio_Swale	9349.93	0.00	681.64	7735.24	931.35	0.00	2.62	
BS-NML3S -0.01	Bio_Swale	9344.16	0.00	695.13	7688.01	959.20	0.00	2.67	
BS-NML1W -0.01	Bio_Swale	9386.19	0.00	715.16	7667.49	1001.65	0.00	2.74	
BS-SHB9 -0.05	Bio_Swale	2042.41	0.00	329.12	1355.01	356.88	0.00	2.43	
BS-NML1E -0.01	Bio_Swale	9342.65	0.00	631.97	7878.85	830.43	0.00	2.46	
BS-SML1 -0.01	Bio_Swale	9322.10	0.00	656.56	7783.97	880.00	0.00	2.54	
BS-SML4S -0.01	Bio_Swale	9351.08	0.00	740.48	7549.80	1058.73	0.00	2.83	
BS-SML4N -0.01	Bio_Swale	9405.24	0.00	702.52	7726.40	974.53	0.00	2.69	
BS-SML5N -0.01	Bio_Swale	8991.52	0.00	597.29	7628.66	764.19	0.00	2.43	
BS-SML5S -0.01	Bio_Swale	9348.88	0.00	627.29	7898.90	821.25	0.00	2.45	
BS-ND1N -0.01	Bio_Swale	8967.48	0.00	642.07	7472.25	851.57	0.00	2.49	
BS-ND1S -0.01	Bio_Swale	9433.18	0.00	706.07	7743.32	981.99	0.00	2.71	
BS-ND2N -0.01	Bio_Swale	9353.24	0.00	699.72	7682.97	968.77	0.00	2.68	
BS-ND2S -0.01	Bio_Swale	9495.53	0.00	739.62	7697.77	1056.15	0.00	2.83	
BS-ND3N -0.01	Bio_Swale	9291.96	0.00	675.64	7695.59	919.05	0.00	2.60	
BS-ND3S -0.01	Bio_Swale	9338.15	0.00	729.01	7574.61	1032.58	0.00	2.79	
BS-ND4N -0.01	Bio_Swale	9398.82	0.00	660.93	7847.78	888.57	0.00	2.55	
BS-ND4S -0.01	Bio_Swale	9412.55	0.00	711.30	7706.15	993.24	0.00	2.72	
BS-ND5S -0.01	Bio_Swale	9360.54	0.00	799.10	7361.03	1197.99	0.00	3.07	
BS-ND5N -0.01	Bio_Swale	9187.45	0.00	660.37	7637.50	887.98	0.00	2.55	

		BMP's with storage pipe.rpt							
BS-ND6N -0.01	Bio_Swale	9593.44	0.00	709.73	7892.47	989.43	0.00	2.72	
BS-ND6S -0.01	Bio_Swale	9284.94	0.00	727.42	7526.37	1029.16	0.00	2.78	
BS-ND7N -0.01	Bio_Swale	9388.52	0.00	688.77	7752.02	945.99	0.00	2.65	
BS-ND7S -0.01	Bio_Swale	9352.78	0.00	735.03	7569.55	1046.20	0.00	2.81	
BS-ND8N -0.01	Bio_Swale	9348.24	0.00	727.24	7590.48	1028.55	0.00	2.78	
BS-ND8S -0.01	Bio_Swale	9407.73	0.00	762.77	7532.12	1110.67	0.00	2.92	
BS-ND9N -0.01	Bio_Swale	9244.65	0.00	674.07	7652.96	915.95	0.00	2.59	
BS-ND9S -0.01	Bio_Swale	9355.24	0.00	780.58	7419.19	1153.16	0.00	2.99	
BS-ND10N -0.01	Bio_Swale	9433.36	0.00	651.31	7911.43	869.10	0.00	2.52	
BS-ND10S -0.01	Bio_Swale	9408.25	0.00	670.71	7827.38	908.56	0.00	2.58	
BS-CL8N -0.01	Bio_Swale	4943.84	0.00	593.35	3582.05	766.66	0.00	2.43	
BS-CL8S -0.01	Bio_Swale	4417.35	0.00	601.92	3027.95	785.63	0.00	2.43	
BS-CL7N -0.01	Bio_Swale	9989.83	0.00	776.15	8071.61	1139.94	0.00	2.98	
BS-CL7S -0.01	Bio_Swale	9583.38	0.00	770.99	7680.89	1129.32	0.00	2.96	
BS-CL5N -0.00	Bio_Swale	22073.41	0.00	887.09	19776.57	1407.23	0.00	3.41	
BS-CL5S -0.00	Bio_Swale	43752.79	0.00	1213.00	40094.21	2440.82	0.00	5.35	
BS-CL4N -0.01	Bio_Swale	8399.23	0.00	698.81	6729.89	968.63	0.00	2.67	
BS-CL4S -0.01	Bio_Swale	9415.84	0.00	684.00	7794.06	936.09	0.00	2.63	
BS-CL3N -0.01	Bio_Swale	9429.62	0.00	697.51	7766.34	963.99	0.00	2.68	
BS-CL3S -0.01	Bio_Swale	9422.20	0.00	656.83	7883.56	880.27	0.00	2.54	
BS-CL2N -0.01	Bio_Swale	9445.50	0.00	684.80	7821.31	937.66	0.00	2.63	
BS-CL2S -0.01	Bio_Swale	9122.72	0.00	669.75	7543.98	907.31	0.00	2.58	
BS-CL1N -0.01	Bio_Swale	9456.87	0.00	697.76	7792.91	964.44	0.00	2.68	
BS-CL1S -0.01	Bio_Swale	17942.95	0.00	820.81	15881.72	1238.35	0.00	3.13	
BS-SHB2E -0.01	Bio_Swale	9220.08	0.00	713.17	7507.16	997.79	0.00	2.73	
BS-SHB2W -0.01	Bio_Swale	9184.82	0.00	676.48	7585.62	921.03	0.00	2.60	
BS-SHB6W -0.01	Bio_Swale	9309.87	0.00	735.06	7526.33	1046.44	0.00	2.81	
BS-SHB4W -0.01	Bio_Swale	9201.99	0.00	613.28	7792.99	794.27	0.00	2.43	
BS-SML3 -0.01	Bio_Swale	9528.60	0.00	621.91	8095.57	809.88	0.00	2.43	
BS-SHB4E -0.02	Bio_Swale	4291.05	0.00	449.32	3319.27	521.04	0.00	2.43	
BS-SHB10 -0.01	Bio_Swale	7535.70	0.00	632.04	6067.68	834.41	0.00	2.43	

Subcatchment washoff Summary

Subcatchment	TSS lbs	P lbs	N lbs
S-ND2S	2603.065	6.768	48.417
S-ND3S	2360.467	6.137	43.905
S-ND4S	2130.679	5.540	39.631
S-ND5S	3949.307	10.268	73.457
S-ND6S	1496.160	3.890	27.829
S-ND7S	2305.765	5.995	42.887
S-ND8S	2398.979	6.237	44.621
S-ND9S	1515.766	3.941	28.193
S-ND10S	1036.053	2.694	19.271
S-ND2N	928.911	2.415	17.278
S-ND3N	1315.061	3.419	24.460
S-ND4N	913.554	2.375	16.992
S-ND5N	785.370	2.042	14.608
S-ND6N	982.036	2.553	18.266
S-ND7N	1019.981	2.652	18.972
S-ND8N	846.564	2.201	15.746
S-ND9N	667.423	1.735	12.414
S-ND10N	620.087	1.612	11.534
S-CL1S	2023.369	5.261	37.635
S-CL2S	871.540	2.266	16.211
S-CL3S	916.170	2.382	17.041
S-CL4S	984.030	2.558	18.303
S-CL5S	710.133	1.846	13.208

S-CL6S	2558.829	6.653	47.594
S-CL7S	2621.313	6.815	48.756
S-CL8S	2314.990	6.019	43.059
S-CL1N	1078.817	2.805	20.066
S-CL2N	901.924	2.345	16.776
S-CL3N	1013.490	2.635	18.851
S-CL4N	952.094	2.475	17.709
S-CL5N	660.535	1.717	12.286
S-CL6N	888.869	2.311	16.533
S-CL7N	952.807	2.477	17.722
S-CL8N	1036.478	2.695	19.278
S-ND1S	2154.928	5.603	40.082
S-ND1N	567.568	1.476	10.557
S-TD1S	503.673	1.310	9.368
S-TD2S	2230.324	5.799	41.484
S-TD3S	1984.027	5.158	36.903
S-TD4S	2191.944	5.699	40.770
S-TD5S	2176.054	5.658	40.475
S-TD6S	1993.104	5.182	37.072
S-TD7S	3170.643	8.244	58.974
S-TD8S	2537.226	6.597	47.192
S-TD9S	889.010	2.311	16.536
S-TD1N	541.639	1.408	10.074
S-TD2N	945.408	2.458	17.585
S-TD3N	921.909	2.397	17.147
S-TD4N	848.303	2.206	15.778
S-TD5N	866.237	2.252	16.112
S-TD6N	854.397	2.221	15.892
S-TD7N	872.911	2.270	16.236
S-TD8N	1141.183	2.967	21.226
S-TD9N	991.023	2.577	18.433
S-SL4N	451.136	1.173	8.391
S-SL3N	277.738	0.722	5.166
S-SL3S	1211.525	3.150	22.534
S-SL2N	485.205	1.262	9.025
S-SL2S	596.451	1.551	11.094
S-SL1	1364.290	3.547	25.376
S-NML3S	1404.792	3.652	26.129
S-NML1W	1598.700	4.157	29.736
S-NML4S	510.192	1.326	9.490
S-SML3	530.968	1.381	9.876
S-SML1	976.138	2.538	18.156
S-SML4N	535.180	1.391	9.954
S-SML5N	210.933	0.548	3.923
S-SML5S	815.907	2.121	15.176
S-SML4S	4608.763	11.983	85.723
S-SML2	107.682	0.280	2.003
S-NML1E	571.325	1.485	10.627
S-NML2	522.380	1.358	9.716
S-NML3N	623.715	1.622	11.601
S-NML4N	289.893	0.754	5.392
S-SHB5E	241.584	0.628	4.493
S-SHB4E	110.855	0.288	2.062
S-SHB4W	335.736	0.873	6.245
S-SHB5W	2414.326	6.277	44.906
S-SHB6E	338.661	0.881	6.299
S-SHB8	58.663	0.153	1.091
S-SHB6W	614.032	1.596	11.421
S-SHB9	27.097	0.070	0.504
S-SHB10	120.985	0.315	2.250
S-SHB2W	1406.620	3.657	26.163
S-SHB3	72.720	0.189	1.353
S-SHB2E	418.815	1.089	7.790
S-SHB1E	216.812	0.564	4.033
S-SHB1W	150.224	0.391	2.794
BS-TD9N	264.885	1.377	12.317
BS-TD8N	303.077	1.576	14.093
BS-TD7N	234.064	1.217	10.884
BS-TD9S	237.277	1.234	11.033
BS-TD8S	671.242	3.490	31.213
BS-TD7S	833.254	4.333	38.746
BS-TD6N	228.203	1.187	10.611
BS-TD5N	231.975	1.206	10.787
BS-TD4N	227.672	1.184	10.587
BS-TD3N	246.851	1.284	11.479
BS-TD6S	528.685	2.749	24.584
BS-TD5S	581.219	3.022	27.027
BS-TD4S	583.214	3.033	27.119
BS-TD3S	528.141	2.746	24.559
BS-TD2N	253.386	1.318	11.782
BS-TD1N	146.319	0.761	6.804
BS-TD2S	591.549	3.076	27.507
BS-TD1S	135.892	0.707	6.319
BS-SL4N	121.905	0.634	5.669
BS-SL3N	68.821	0.358	3.200
BS-SL2N	130.498	0.679	6.068
BS-SL3S	322.478	1.677	14.995
BS-SL2S	161.663	0.841	7.517
BS-SL1	368.241	1.915	17.123
BS-SHB5W	641.937	3.338	29.850
BS-SHB5E	65.100	0.339	3.027
BS-NML4N	78.254	0.407	3.639
BS-NML3N	168.090	0.874	7.816
BS-NML4S	136.258	0.709	6.336

BS-NML3S	374.458	1.947	17.412
BS-NML1W	425.139	2.211	19.769
BS-SHB9	18.365	0.095	0.854
BS-NML1E	294.180	1.530	13.679
BS-SML1	261.544	1.360	12.162
BS-SML4S	1220.225	6.345	56.740
BS-SML4N	142.632	0.742	6.632
BS-SML5N	56.696	0.295	2.636
BS-SML5S	219.642	1.142	10.213
BS-ND1N	151.541	0.788	7.047
BS-ND1S	574.301	2.986	26.705
BS-ND2N	247.474	1.287	11.508
BS-ND2S	690.980	3.593	32.131
BS-ND3N	351.129	1.826	16.328
BS-ND3S	625.897	3.255	29.104
BS-ND4N	244.910	1.274	11.388
BS-ND4S	567.206	2.949	26.375
BS-ND5S	1036.895	5.392	48.216
BS-ND5N	209.834	1.091	9.757
BS-ND6N	262.209	1.363	12.193
BS-ND6S	396.343	2.061	18.430
BS-ND7N	272.329	1.416	12.663
BS-ND7S	611.001	3.177	28.412
BS-ND8N	224.568	1.168	10.442
BS-ND8S	633.730	3.295	29.468
BS-ND9N	178.108	0.926	8.282
BS-ND9S	398.991	2.075	18.553
BS-ND10N	166.538	0.866	7.744
BS-ND10S	277.422	1.443	12.900
BS-CL8N	249.346	1.297	11.595
BS-CL8S	536.602	2.790	24.952
BS-CL7N	253.614	1.319	11.793
BS-CL7S	693.750	3.607	32.259
BS-CL5N	443.190	2.305	20.608
BS-CL5S	958.567	4.985	44.573
BS-CL4N	249.362	1.297	11.595
BS-CL4S	263.032	1.368	12.231
BS-CL3N	270.415	1.406	12.574
BS-CL3S	245.838	1.278	11.431
BS-CL2N	241.161	1.254	11.214
BS-CL2S	232.315	1.208	10.803
BS-CL1N	287.961	1.497	13.390
BS-CL1S	572.286	2.976	26.611
BS-SHB2E	111.051	0.577	5.164
BS-SHB2W	374.921	1.950	17.434
BS-SHB6W	162.556	0.845	7.559
BS-SHB4W	90.325	0.470	4.200
BS-SML3	143.388	0.746	6.668
BS-SHB4E	27.314	0.142	1.270
BS-SHB10	31.472	0.164	1.463

System	127625.076	401.149	3117.721

Node Depth Summary

Node	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time of Max Occurrence days hr:min
J7339	JUNCTION	0.00	0.00	1126.45	0 00:00
J7153	JUNCTION	0.06	0.62	1125.55	209 19:01
J7063	JUNCTION	0.08	0.92	1124.24	209 19:01
J6731	JUNCTION	0.11	1.26	1121.43	209 19:01
J6682	JUNCTION	0.09	1.03	1119.70	209 19:01
J6426	JUNCTION	0.09	1.11	1115.66	209 19:01
J6360	JUNCTION	0.08	0.98	1110.93	209 19:01
J4875	JUNCTION	0.12	1.40	1103.66	209 19:01
J4857	JUNCTION	0.11	1.29	1103.14	209 19:01
J7993	JUNCTION	0.12	1.48	1098.22	209 19:01
J7981	JUNCTION	0.11	1.29	1097.83	209 19:01
J7469	JUNCTION	0.00	0.00	1127.80	0 00:00
J7195	JUNCTION	0.03	0.38	1127.12	209 19:01
J7264	JUNCTION	0.04	0.39	1128.59	209 19:01
J7045	JUNCTION	0.04	0.42	1124.13	153 02:31
J6601	JUNCTION	0.03	0.34	1121.98	209 19:01
J6467	JUNCTION	0.03	0.34	1115.78	209 19:01
J6528	JUNCTION	0.03	0.38	1112.62	209 19:01
J2363	JUNCTION	0.05	0.55	1117.80	209 19:01
J2332	JUNCTION	0.02	0.31	1118.38	209 19:01
J2197	JUNCTION	0.08	0.89	1116.04	209 19:01
J2167	JUNCTION	0.02	0.26	1124.95	209 19:01
J2263	JUNCTION	0.08	0.89	1114.91	209 19:01
J1939	JUNCTION	0.08	1.02	1113.61	209 19:01
J2040	JUNCTION	0.03	0.31	1124.38	209 19:01
J1784	JUNCTION	0.10	1.32	1111.17	209 19:01
J1810	JUNCTION	0.03	0.33	1121.44	209 19:01
J1718	JUNCTION	0.10	1.39	1109.23	209 19:01
J1872	JUNCTION	0.03	0.34	1119.83	209 19:01
J1660	JUNCTION	0.09	1.10	1106.11	209 19:01
J1526	JUNCTION	0.04	0.45	1116.44	209 19:01

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J1607	JUNCTION	0.10	2.33	1101.38	209	19:03
J1468	JUNCTION	0.03	0.36	1107.95	209	19:01
J1336	JUNCTION	0.11	4.60	1098.84	209	19:01
J1431	JUNCTION	0.03	0.35	1101.45	209	19:01
J1265	JUNCTION	0.12	7.04	1095.41	209	19:01
J1192	JUNCTION	0.03	0.39	1096.63	209	19:01
J4490	JUNCTION	0.18	9.82	1091.04	209	19:01
J4525	JUNCTION	0.00	0.00	1091.46	0	00:00
J4526	JUNCTION	0.04	0.59	1091.36	209	19:01
J4561	JUNCTION	0.03	1.26	1091.23	209	19:01
J4466	JUNCTION	0.22	10.69	1089.93	209	19:01
J4276	JUNCTION	0.66	13.97	1084.54	98	02:12
J3799	JUNCTION	0.00	0.00	1118.27	0	00:00
J3718	JUNCTION	0.04	0.49	1117.79	209	19:01
J3922	JUNCTION	0.03	0.36	1118.91	209	19:01
J3406	JUNCTION	0.07	0.86	1115.32	209	19:01
J3496	JUNCTION	0.04	0.43	1116.04	209	19:01
J3286	JUNCTION	0.09	1.11	1112.79	209	19:01
J3225	JUNCTION	0.02	0.28	1113.19	209	19:01
J3353	JUNCTION	0.08	1.06	1108.90	209	19:01
J3165	JUNCTION	0.05	0.52	1109.26	209	19:01
J3069	JUNCTION	0.09	1.27	1101.89	209	19:01
J3000	JUNCTION	0.03	0.37	1102.40	209	19:01
J3139	JUNCTION	0.18	6.84	1100.00	98	02:03
J2942	JUNCTION	0.07	5.00	1099.80	98	02:03
J2769	JUNCTION	0.11	0.90	1086.08	209	19:01
J2863	JUNCTION	0.02	0.22	1088.80	209	19:01
J2689	JUNCTION	0.11	1.00	1081.67	209	19:01
J2657	JUNCTION	0.03	0.39	1082.46	209	19:01
J2727	JUNCTION	0.12	1.06	1078.61	209	19:01
J2614	JUNCTION	0.01	0.17	1082.24	153	02:31
J4398	JUNCTION	0.06	0.46	1075.90	209	19:01
J4115	JUNCTION	0.03	0.31	1070.14	209	19:01
J6223	JUNCTION	0.04	0.43	1085.43	153	02:31
J6137	JUNCTION	0.04	4.70	1082.49	153	02:31
J5017	JUNCTION	0.03	0.34	1065.13	209	19:01
J5008	JUNCTION	0.04	0.46	1056.63	209	19:01
J4133	JUNCTION	0.01	0.10	1073.48	153	02:31
J5225	JUNCTION	0.04	0.51	1046.85	209	19:01
J5416	JUNCTION	0.07	0.98	1037.41	209	19:01
J5094	JUNCTION	0.03	0.31	1062.00	209	19:01
J5206	JUNCTION	0.02	0.24	1052.76	153	02:31
J5365	JUNCTION	0.00	0.00	1048.81	0	00:00
J6050	JUNCTION	0.11	11.57	1082.00	98	02:26
J5953	JUNCTION	0.05	5.01	1082.71	209	19:00
J5530	JUNCTION	0.02	0.20	1076.65	153	02:31
J5581	JUNCTION	0.03	3.07	1073.85	209	19:01
J5656	JUNCTION	0.05	5.96	1073.69	209	19:00
J5847	JUNCTION	0.11	10.04	1073.67	209	19:00
J6037	JUNCTION	0.11	11.42	1080.53	98	02:26
J5934	JUNCTION	0.00	0.00	1080.89	0	00:00
J5786	JUNCTION	0.14	10.42	1075.50	98	02:18
J5769	JUNCTION	0.05	5.00	1075.55	98	02:18
J5707	JUNCTION	0.21	11.80	1070.78	153	02:30
J5819	JUNCTION	0.33	10.62	1072.40	98	02:18
J4601	JUNCTION	0.13	10.43	1089.93	209	19:01
J4290	JUNCTION	0.12	6.00	1084.00	98	02:06
J4711	JUNCTION	0.02	0.20	1092.98	209	19:01
J4779	JUNCTION	0.04	0.51	1096.51	209	19:01
J4878	JUNCTION	0.04	2.60	1091.91	209	19:02
J4170	JUNCTION	0.00	0.00	1074.87	0	00:00
OF_Restrictor	JUNCTION	0.71	14.00	1084.50	98	02:08
CL_OF	OUTFALL	0.10	1.29	1097.44	209	19:01
ND_OF	OUTFALL	0.19	1.00	1071.46	91	07:32
TD_OF	OUTFALL	0.11	1.06	1077.33	209	19:01
SH_OF	OUTFALL	0.06	0.95	1035.27	209	19:01
ML_OF	OUTFALL	0.12	1.00	1057.98	98	02:09

Node Inflow Summary

Node	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Time of Max Occurrence days hr:min	Lateral Inflow Volume 10^6 gal	Total Inflow Volume 10^6 gal
J7339	JUNCTION	0.00	0.00	0 00:00	0.000	0.000
J7153	JUNCTION	1.00	3.00	209 19:01	1.134	3.629
J7063	JUNCTION	0.85	6.16	209 19:01	1.091	7.713
J6731	JUNCTION	1.55	10.16	209 19:01	1.835	13.496
J6682	JUNCTION	0.94	12.04	209 19:01	1.081	15.704
J6426	JUNCTION	1.05	14.06	209 19:01	1.159	17.912
J6360	JUNCTION	0.96	15.92	209 19:01	1.032	19.940
J4875	JUNCTION	1.12	17.00	209 19:01	1.234	21.174
J4857	JUNCTION	2.11	19.21	209 19:01	2.380	23.554
J7993	JUNCTION	0.23	19.16	209 19:01	0.183	23.736
J7981	JUNCTION	0.28	19.36	209 19:01	0.264	24.000
J7469	JUNCTION	0.00	0.00	0 00:00	0.000	0.000
J7195	JUNCTION	2.00	2.00	209 19:00	2.496	2.495
J7264	JUNCTION	2.32	2.32	209 19:00	2.993	2.993
J7045	JUNCTION	2.52	2.52	153 02:31	3.950	3.950

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J6601	JUNCTION	1.05	1.05	209	19:00	1.126	1.126
J6467	JUNCTION	1.03	1.03	209	19:00	1.049	1.049
J6528	JUNCTION	0.94	0.94	209	19:00	0.996	0.996
J2363	JUNCTION	0.70	1.83	209	19:00	0.710	1.897
J2332	JUNCTION	1.13	1.13	209	19:00	1.186	1.186
J2197	JUNCTION	0.00	3.12	209	19:01	0.000	3.621
J2167	JUNCTION	1.29	1.29	209	19:00	1.727	1.727
J2263	JUNCTION	0.72	3.81	209	19:01	0.763	4.386
J1939	JUNCTION	0.82	6.75	209	19:01	0.967	8.090
J2040	JUNCTION	2.14	2.14	209	19:00	2.736	2.736
J1784	JUNCTION	1.08	10.00	209	19:01	1.167	11.888
J1810	JUNCTION	2.20	2.20	209	19:00	2.632	2.632
J1718	JUNCTION	1.00	12.40	209	19:01	1.124	14.719
J1872	JUNCTION	1.45	1.45	209	19:00	1.707	1.707
J1660	JUNCTION	0.87	16.37	209	19:01	0.898	20.114
J1526	JUNCTION	3.20	3.20	209	19:00	4.497	4.497
J1607	JUNCTION	1.02	19.51	209	19:01	1.046	23.596
J1468	JUNCTION	2.15	2.15	209	19:00	2.435	2.435
J1336	JUNCTION	1.42	22.31	209	18:58	1.504	27.795
J1431	JUNCTION	2.28	2.28	209	19:00	2.695	2.695
J1265	JUNCTION	0.96	24.70	209	18:59	1.062	31.830
J1192	JUNCTION	2.48	2.48	209	19:00	2.974	2.973
J4490	JUNCTION	0.64	29.09	209	19:01	0.649	37.114
J4525	JUNCTION	0.00	0.00	0	00:00	0.000	0.000
J4526	JUNCTION	2.20	2.20	209	19:00	2.464	2.464
J4561	JUNCTION	0.00	2.19	209	19:00	0.000	2.464
J4466	JUNCTION	0.14	29.59	209	19:01	0.122	37.632
J4276	JUNCTION	0.29	29.86	209	19:01	0.277	40.406
J3799	JUNCTION	0.00	0.00	0	00:00	0.000	0.000
J3718	JUNCTION	0.96	2.01	209	19:00	1.017	2.151
J3922	JUNCTION	1.06	1.06	209	19:00	1.134	1.134
J3406	JUNCTION	2.37	5.54	209	19:01	2.895	6.348
J3496	JUNCTION	1.17	1.17	209	19:00	1.303	1.303
J3286	JUNCTION	2.65	9.14	209	19:01	3.611	10.960
J3225	JUNCTION	0.97	0.97	209	19:00	1.000	1.000
J3353	JUNCTION	1.95	11.95	209	19:01	2.275	14.212
J3165	JUNCTION	0.93	0.93	209	19:00	0.977	0.977
J3069	JUNCTION	2.31	15.20	209	19:01	2.489	17.692
J3000	JUNCTION	0.96	0.96	209	19:00	0.992	0.991
J3139	JUNCTION	2.27	17.39	209	19:01	2.505	21.070
J2942	JUNCTION	0.96	3.23	209	19:00	0.972	1.285
J2769	JUNCTION	2.03	9.62	209	19:00	2.267	23.749
J2863	JUNCTION	1.02	1.02	209	19:00	1.055	1.055
J2689	JUNCTION	2.16	12.82	209	19:01	2.546	27.378
J2657	JUNCTION	1.05	1.05	209	19:00	1.083	1.083
J2727	JUNCTION	0.62	14.05	209	19:01	0.578	28.580
J2614	JUNCTION	0.65	0.65	153	02:31	0.622	0.622
J4398	JUNCTION	0.58	0.58	209	19:00	0.701	0.701
J4115	JUNCTION	0.13	0.83	209	19:01	0.137	0.928
J6223	JUNCTION	0.96	0.96	153	02:31	0.935	0.935
J6137	JUNCTION	0.26	1.42	153	02:19	0.242	1.177
J5017	JUNCTION	0.55	1.37	153	02:31	0.518	1.445
J5008	JUNCTION	0.03	2.64	209	19:01	0.303	3.132
J4133	JUNCTION	0.13	0.13	153	02:30	0.090	0.090
J5225	JUNCTION	0.56	3.89	209	19:01	0.556	4.374
J5416	JUNCTION	1.63	5.49	209	19:00	1.565	5.939
J5094	JUNCTION	1.26	1.26	209	19:00	1.384	1.384
J5206	JUNCTION	0.70	0.70	153	02:31	0.686	0.686
J5365	JUNCTION	0.00	0.00	0	00:00	0.000	0.000
J6050	JUNCTION	0.55	6.09	209	19:01	0.612	7.049
J5953	JUNCTION	4.34	4.34	209	19:00	5.259	5.259
J5530	JUNCTION	0.35	0.35	153	02:31	0.333	0.333
J5581	JUNCTION	0.55	0.89	209	19:00	0.584	0.916
J5656	JUNCTION	0.73	0.91	209	18:26	0.715	0.715
J5847	JUNCTION	1.46	3.07	209	19:01	1.606	3.238
J6037	JUNCTION	0.14	5.38	153	02:29	0.131	7.174
J5934	JUNCTION	0.00	0.00	0	00:00	0.000	0.000
J5786	JUNCTION	0.63	7.08	153	02:31	0.609	8.902
J5769	JUNCTION	1.09	1.46	153	02:13	1.118	1.118
J5707	JUNCTION	1.27	7.81	153	02:30	1.253	15.068
J5819	JUNCTION	1.60	8.59	209	19:01	1.827	13.860
J4601	JUNCTION	0.40	6.82	209	18:21	0.385	0.390
J4290	JUNCTION	2.39	6.14	209	18:20	2.759	3.288
J4711	JUNCTION	0.42	0.42	209	19:00	0.478	0.478
J4779	JUNCTION	1.51	1.51	209	19:00	1.608	1.608
J4878	JUNCTION	0.09	2.00	209	19:00	0.089	2.174
J4170	JUNCTION	0.00	0.00	0	00:00	0.000	0.000
OF_Restrictor	JUNCTION	0.00	26.42	209	19:01	0.000	39.889
CL_OF	OUTFALL	0.00	19.36	209	19:01	0.000	24.000
ND_OF	OUTFALL	0.00	11.15	98	02:11	0.000	39.085
TD_OF	OUTFALL	0.41	14.40	209	19:00	0.414	28.992
SH_OF	OUTFALL	0.00	5.48	209	19:01	0.000	5.939
ML_OF	OUTFALL	0.00	7.81	153	02:31	0.000	15.068

Node Surcharge Summary

Surcharging occurs when water rises above the top of the highest conduit.

Node	Type	Hours Surcharged	Max. Height Above Crown Feet	Min. Depth Below Rim Feet
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ID	Type	Value 1	Value 2	Value 3
J1265	JUNCTION	0.10	0.439	5.761
J4490	JUNCTION	2.42	3.817	2.703
J4561	JUNCTION	0.05	0.159	3.641
J4466	JUNCTION	10.13	8.191	0.809
J4276	JUNCTION	13.45	5.972	0.328
J3139	JUNCTION	8.42	3.640	0.000
J2942	JUNCTION	9.62	4.000	0.000
J6050	JUNCTION	2.61	5.570	0.000
J5953	JUNCTION	1.88	4.012	0.088
J5656	JUNCTION	3.83	4.962	0.438
J5847	JUNCTION	4.06	5.243	0.627
J6037	JUNCTION	2.29	3.422	0.168
J5786	JUNCTION	4.29	4.570	0.000
J5769	JUNCTION	3.93	4.003	0.197
J5707	JUNCTION	13.86	10.804	0.596
J5819	JUNCTION	8.12	9.420	0.000
J4601	JUNCTION	10.07	7.931	0.809
J4290	JUNCTION	13.02	5.000	0.000
OF_Restrictor	JUNCTION	18.52	8.000	0.000

Node Flooding Summary

Flooding refers to all water that overflows a node, whether it ponds or not.

Node	Hours Flooded	Maximum Rate CFS	Time of Max Occurrence days hr:min		Total Flood Volume 10^6 gal	Maximum Ponded Depth Feet
J3139	3.91	8.55	209	19:01	0.334	6.84
J2942	6.95	3.23	209	19:00	0.410	5.00
J6050	0.47	0.83	209	19:01	0.006	11.57
J5786	2.05	3.16	153	02:31	0.107	10.42
J5819	1.51	2.04	209	19:01	0.045	10.62
J4290	7.48	5.83	209	19:01	0.781	6.00
OF_Restrictor	4.60	15.27	209	19:01	0.804	14.00

Outfall Loading Summary

Outfall Node	Flow Freq. Pcnt.	Avg. Flow CFS	Max. Flow CFS	Total Volume 10^6 gal	Total TSS lbs	Total P lbs	Total N lbs
CL_OF	89.23	0.58	19.36	24.000	5864.032	29.537	262.421
ND_OF	90.54	0.88	11.15	39.085	9112.685	47.206	421.806
TD_OF	89.75	0.70	14.40	28.992	6981.259	35.422	315.179
SH_OF	68.90	0.20	5.48	5.939	1385.692	7.206	64.435
ML_OF	87.98	0.38	7.81	15.068	3588.611	18.385	163.916
System	85.28	2.73	58.14	113.083	26932.279	137.756	1227.756

Link Flow Summary

Link	Type	Maximum Flow CFS	Time of Max Occurrence days hr:min		Maximum veloc ft/sec	Max/ Full Flow	Max/ Full Depth
CL1	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
CL2	CONDUIT	0.00	0	00:00	0.00	0.00	0.17
CL3	CONDUIT	2.00	209	19:01	7.32	0.31	0.38
CL4	CONDUIT	2.99	209	19:01	2.70	0.21	0.38
CL5	CONDUIT	2.32	209	19:01	8.19	0.32	0.39
CL6	CONDUIT	6.10	209	19:01	3.50	0.43	0.54
CL7	CONDUIT	2.52	153	02:31	8.08	0.37	0.42
CL8	CONDUIT	10.09	209	19:01	5.45	0.73	0.57
CL9	CONDUIT	1.05	209	19:01	4.49	0.25	0.34
CL10	CONDUIT	12.02	209	19:01	7.05	0.52	0.53
CL11	CONDUIT	1.03	209	19:01	3.41	0.25	0.52
CL12	CONDUIT	14.05	209	19:01	8.46	0.58	0.52
CL13	CONDUIT	0.94	209	19:01	3.50	0.30	0.38
CL14	CONDUIT	15.90	209	19:01	8.13	0.49	0.60
CL16	CONDUIT	17.14	209	19:01	6.37	0.62	0.54
SHB7	CONDUIT	19.02	209	19:01	7.48	0.52	0.51
SHB8	CONDUIT	19.16	209	19:01	6.31	0.66	0.59
SHB9	CONDUIT	19.36	209	19:01	7.54	0.53	0.52
ND11C	CONDUIT	1.13	209	19:01	3.03	0.13	0.34
ND10	CONDUIT	1.83	209	19:01	2.74	0.40	0.54
ND10C	CONDUIT	1.29	209	19:01	7.00	0.09	0.21
ND9	CONDUIT	3.10	209	19:01	3.29	0.62	0.53
ND8	CONDUIT	3.79	209	19:01	3.69	0.65	0.57
ND8C	CONDUIT	2.14	209	19:01	8.07	0.09	0.21
ND7	CONDUIT	6.73	209	19:01	5.01	0.80	0.71

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ND7C	CONDUIT	2.20	209	19:01	7.55	0.11	0.22
ND6	CONDUIT	9.96	209	19:01	5.19	0.91	0.74
ND6C	CONDUIT	1.45	209	19:01	6.19	0.25	0.34
ND5	CONDUIT	12.35	209	19:01	6.22	0.97	0.77
ND5C	CONDUIT	3.20	209	19:01	9.32	0.42	0.45
ND4	CONDUIT	16.36	209	19:01	8.56	0.59	0.78
ND4C	CONDUIT	2.15	209	19:01	8.55	0.27	0.36
ND3	CONDUIT	18.78	209	19:05	8.16	0.75	1.00
ND3C	CONDUIT	2.28	209	19:01	9.42	0.26	0.47
ND2	CONDUIT	21.66	209	19:04	8.73	0.79	1.00
ND2C	CONDUIT	2.48	209	19:01	8.54	0.33	0.70
ND1	CONDUIT	24.54	209	19:01	9.47	0.80	1.00
SHB4C3	CONDUIT	0.00	0	00:00	0.00	0.00	0.10
SHB4C2	CONDUIT	2.19	209	19:00	5.04	0.57	0.80
SHB4C	CONDUIT	2.19	209	19:00	8.55	0.23	1.00
SHB4	CONDUIT	29.09	209	19:01	6.69	0.75	1.00
SHB3	CONDUIT	29.59	209	19:01	9.42	1.42	1.00
SHB_OF	CONDUIT	26.42	209	19:01	1.50	0.37	1.00
TD9	CONDUIT	0.00	0	00:00	0.00	0.00	0.25
TD9C	CONDUIT	1.06	209	19:01	4.16	0.28	0.36
TD8	CONDUIT	2.01	209	19:01	2.87	0.23	0.42
TD8C	CONDUIT	1.16	209	19:01	3.58	0.39	0.43
TD7	CONDUIT	5.52	209	19:01	4.49	0.63	0.66
TD6	CONDUIT	9.09	209	19:01	6.49	0.90	0.74
TD5	CONDUIT	11.94	209	19:01	8.36	0.84	0.78
TD7C	CONDUIT	0.97	209	19:01	3.35	0.17	0.64
TD6C	CONDUIT	0.93	209	19:01	2.61	0.74	0.46
TD5C	CONDUIT	0.96	209	19:01	3.61	0.30	0.37
TD4	CONDUIT	15.16	209	19:01	6.81	0.54	0.82
TD3	CONDUIT	6.58	209	19:01	8.75	1.31	0.95
TD2	CONDUIT	9.62	209	19:01	6.54	0.42	0.48
TD4C	CONDUIT	2.27	98	02:26	2.89	0.35	1.00
TD3C	CONDUIT	1.02	209	19:01	3.54	0.11	0.56
TD2C	CONDUIT	1.05	209	19:01	3.65	0.33	0.39
TD1	CONDUIT	12.81	209	19:01	7.86	0.50	0.51
SHB7C	CONDUIT	14.05	209	19:01	8.34	0.55	0.53
TD1C	CONDUIT	0.65	153	02:31	5.97	0.06	0.26
SHB1C	CONDUIT	0.58	209	19:01	2.05	1.18	0.39
SL5	CONDUIT	0.83	209	19:01	3.74	0.21	0.33
SL4	CONDUIT	1.37	209	19:01	4.64	0.25	0.40
SL3	CONDUIT	2.63	209	19:01	6.93	0.44	0.49
SL2	CONDUIT	3.88	209	19:01	5.55	0.35	0.56
SL1	CONDUIT	5.48	209	19:01	5.41	0.95	0.77
SL1C	CONDUIT	0.00	0	00:00	0.00	0.00	0.49
SL2C	CONDUIT	0.70	153	02:31	4.82	0.13	0.24
SL3C	CONDUIT	1.26	209	19:01	5.98	0.21	0.31
SHB1	CONDUIT	0.13	153	02:31	2.80	0.01	0.08
SML2C	CONDUIT	0.95	153	02:31	3.04	0.40	0.42
SML2	CONDUIT	1.33	209	19:06	4.25	0.30	1.00
SML1C	CONDUIT	4.34	209	19:01	9.43	0.56	1.00
SML1	CONDUIT	5.28	209	19:03	6.72	1.11	1.00
ML4	CONDUIT	5.38	153	02:29	6.84	1.12	1.00
ML3C	CONDUIT	1.09	209	19:00	3.91	0.27	1.00
ML3	CONDUIT	4.42	209	19:13	5.63	1.09	1.00
ML2	CONDUIT	6.99	209	19:08	8.90	0.78	1.00
ML1	CONDUIT	7.81	153	02:31	9.95	2.53	1.00
NML2	CONDUIT	0.96	209	19:02	2.60	0.17	1.00
NML1	CONDUIT	3.07	209	19:01	3.90	0.83	1.00
NML2C	CONDUIT	0.35	153	02:31	3.14	0.09	0.20
NML1C	CONDUIT	0.73	153	02:31	2.69	0.26	1.00
ML4C	CONDUIT	0.00	0	00:00	0.00	0.00	0.50
SHB2	CONDUIT	0.00	0	00:00	0.00	0.00	0.05
SHB5C	CONDUIT	1.51	209	19:01	3.70	0.52	0.51
SHB6	CONDUIT	0.42	209	19:01	2.34	0.09	0.60
SHB5	CONDUIT	1.93	209	19:03	4.84	0.42	1.00
SHB3C	CONDUIT	6.57	209	18:21	1.36	0.25	1.00
SHB2C	CONDUIT	4.88	209	18:20	6.38	0.85	1.00
SHB_12_inch_OF	CONDUIT	11.15	98	02:11	14.20	18.06	1.00

Flow Classification Summary

Conduit	Adjusted /Actual Length	--- Fraction of Time in Flow Class ---							Avg. Froude Number	Avg. Flow Change	
		Dry	Up Dry	Down Dry	Sub Crit	Sup Crit	Up Crit	Down Crit			
CL1	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0000
CL2	1.00	0.91	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0000
CL3	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.99	1.77	0.0000
CL4	1.00	0.02	0.01	0.00	0.97	0.00	0.00	0.00	0.00	0.41	0.0000
CL5	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	0.99	1.93	0.0000
CL6	1.00	0.01	0.02	0.00	0.97	0.00	0.00	0.00	0.00	0.44	0.0000
CL7	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	0.99	1.92	0.0000
CL8	1.00	0.01	0.00	0.00	0.84	0.15	0.00	0.00	0.00	0.69	0.0000
CL9	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	0.99	1.15	0.0000
CL10	1.00	0.01	0.00	0.00	0.54	0.45	0.00	0.00	0.00	0.97	0.0000
CL11	1.00	0.01	0.00	0.00	0.01	0.01	0.00	0.97	0.97	1.09	0.0000
CL12	1.00	0.01	0.00	0.00	0.30	0.70	0.00	0.00	0.00	1.16	0.0000
CL13	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.89	0.0000
CL14	1.00	0.01	0.00	0.00	0.42	0.57	0.00	0.00	0.00	1.04	0.0000
CL16	1.00	0.01	0.00	0.00	0.79	0.20	0.00	0.00	0.00	0.71	0.0000

BMP's with storage pipe.rpt										
SHB7	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	1.18	0.0000
SHB8	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.05	0.0000
SHB9	1.00	0.00	0.00	0.00	0.11	0.89	0.00	0.00	1.20	0.0000
ND11C	1.00	0.01	0.01	0.00	0.97	0.00	0.00	0.00	0.45	0.0000
ND10	1.00	0.01	0.00	0.00	0.13	0.00	0.00	0.85	0.70	0.0000
ND10C	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	1.88	0.0000
ND9	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	0.49	0.0000
ND8	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.98	0.63	0.0000
ND8C	1.00	0.02	0.00	0.00	0.00	0.00	0.00	0.98	1.95	0.0000
ND7	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.98	1.04	0.0000
ND7C	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	1.78	0.0000
ND6	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.98	0.94	0.0000
ND6C	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	1.57	0.0000
ND5	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	1.08	0.0000
ND5C	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	2.10	0.0000
ND4	1.00	0.01	0.00	0.00	0.00	0.01	0.00	0.98	1.51	0.0000
ND4C	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	1.99	0.0000
ND3	1.00	0.01	0.00	0.00	0.49	0.49	0.00	0.00	1.04	0.0000
ND3C	1.00	0.02	0.00	0.00	0.00	0.00	0.00	0.98	2.21	0.0000
ND2	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.98	1.52	0.0000
ND2C	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	1.98	0.0000
ND1	1.00	0.01	0.00	0.00	0.01	0.00	0.00	0.97	1.65	0.0000
SHB4C3	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0000
SHB4C2	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	1.19	0.0000
SHB4C	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.98	2.26	0.0000
SHB4	1.00	0.00	0.05	0.00	0.63	0.32	0.00	0.00	0.84	0.0000
SHB3	1.00	0.00	0.00	0.00	0.02	0.00	0.00	0.98	1.22	0.0000
SHB_OF	1.00	0.00	0.05	0.00	0.95	0.00	0.00	0.00	0.08	0.0000
TD9	1.00	0.01	0.99	0.00	0.00	0.00	0.00	0.00	0.00	0.0000
TD9C	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	1.08	0.0000
TD8	1.00	0.01	0.00	0.00	0.05	0.03	0.00	0.91	0.83	0.0000
TD8C	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	0.91	0.0000
TD7	1.00	0.01	0.01	0.00	0.98	0.00	0.00	0.00	0.59	0.0000
TD6	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	1.22	0.0000
TD5	1.00	0.01	0.00	0.00	0.22	0.76	0.00	0.00	1.19	0.0000
TD7C	1.00	0.01	0.02	0.00	0.97	0.00	0.00	0.00	0.21	0.0000
TD6C	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	0.36	0.0000
TD5C	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	0.91	0.0000
TD4	1.00	0.01	0.00	0.00	0.01	0.00	0.00	0.97	1.49	0.0000
TD3	1.00	0.01	0.00	0.00	0.07	0.92	0.00	0.00	1.41	0.0000
TD2	1.00	0.01	0.00	0.00	0.44	0.55	0.00	0.00	1.03	0.0000
TD4C	1.00	0.01	0.02	0.00	0.96	0.00	0.00	0.00	0.15	0.0000
TD3C	1.00	0.01	0.02	0.00	0.97	0.00	0.00	0.00	0.18	0.0000
TD2C	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	0.91	0.0000
TD1	1.00	0.01	0.00	0.00	0.43	0.55	0.00	0.00	1.08	0.0000
SHB7C	1.00	0.01	0.00	0.00	0.08	0.91	0.00	0.00	1.44	0.0000
TD1C	1.00	0.04	0.00	0.00	0.00	0.01	0.00	0.95	1.67	0.0000
SHB1C	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	0.26	0.0000
SL5	1.00	0.01	0.00	0.00	0.68	0.31	0.00	0.00	0.83	0.0000
SL4	1.00	0.01	0.00	0.00	0.69	0.30	0.00	0.00	0.85	0.0000
SL3	1.00	0.01	0.00	0.00	0.16	0.82	0.00	0.00	1.27	0.0000
SL2	1.00	0.01	0.00	0.00	0.00	0.08	0.00	0.90	1.70	0.0000
SL1	1.00	0.01	0.00	0.00	0.12	0.87	0.00	0.00	1.09	0.0000
SL1C	1.00	0.01	0.99	0.00	0.00	0.00	0.00	0.00	0.00	0.0000
SL2C	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	1.31	0.0000
SL3C	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	1.52	0.0000
SHB1	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	0.71	0.0000
SML2C	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	0.62	0.0000
SML2	1.00	0.01	0.00	0.00	0.01	0.00	0.00	0.98	1.18	0.0000
SML1C	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.98	2.08	0.0000
SML1	1.00	0.01	0.00	0.00	0.01	0.00	0.00	0.98	1.49	0.0000
ML4	1.00	0.00	0.00	0.00	0.33	0.67	0.00	0.00	1.05	0.0000
ML3C	1.00	0.01	0.00	0.00	0.01	0.00	0.00	0.98	1.09	0.0000
ML3	1.00	0.00	0.05	0.00	0.89	0.06	0.00	0.00	0.22	0.0000
ML2	1.00	0.01	0.00	0.00	0.15	0.83	0.00	0.00	1.19	0.0000
ML1	1.00	0.01	0.00	0.00	0.18	0.80	0.00	0.00	1.05	0.0001
NML2	1.00	0.01	0.00	0.00	0.01	0.08	0.00	0.89	1.32	0.0000
NML1	1.00	0.00	0.05	0.00	0.95	0.00	0.00	0.00	0.10	0.0000
NML2C	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	0.88	0.0000
NML1C	1.00	0.01	0.00	0.00	0.01	0.00	0.00	0.98	0.70	0.0000
ML4C	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0000
SHB2	1.00	0.01	0.99	0.00	0.00	0.00	0.00	0.00	0.00	0.0000
SHB5C	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	0.89	0.0000
SHB6	1.00	0.01	0.00	0.00	0.00	0.03	0.00	0.96	1.11	0.0000
SHB5	1.00	0.00	0.00	0.00	0.01	0.00	0.00	0.99	1.33	0.0000
SHB3C	1.00	0.00	0.11	0.00	0.89	0.00	0.00	0.00	0.02	0.0000
SHB2C	1.00	0.01	0.00	0.00	0.02	0.00	0.00	0.97	1.56	0.0000
SHB_12_inch_OF	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.37	0.0006

 Conduit Surcharge Summary

Conduit	Hours Full		Hours Above Full		Hours Capacity Limited
	Both Ends	Upstream	Dnstream	Normal Flow	
ND3	0.06	0.06	0.06	0.01	0.01
ND2	0.74	0.74	0.74	0.01	0.01
ND1	1.73	1.73	1.73	0.01	0.01
SHB4C	0.07	0.07	0.07	0.01	0.01
SHB4	8.64	8.64	8.64	0.01	0.01

	BMP's with storage pipe.rpt				
SHB3	10.65	10.65	10.65	2.07	2.07
SHB_OF	18.26	18.26	18.26	0.01	0.03
TD3	0.01	0.01	0.01	12.48	0.01
TD4C	9.62	9.62	9.63	0.01	0.01
SHB1C	0.01	0.01	0.01	0.69	0.01
SML2	1.74	1.74	1.74	0.01	0.01
SML1C	1.88	1.88	1.88	0.01	0.01
SML1	5.31	5.31	5.32	0.90	0.90
ML4	5.75	5.75	5.75	0.95	0.95
ML3C	3.93	3.93	3.93	0.01	0.01
ML3	7.12	7.12	7.13	1.71	1.71
ML2	8.12	8.12	8.12	0.01	0.01
ML1	5.14	5.14	5.19	16.18	5.14
NML2	2.28	2.28	2.28	0.01	0.01
NML1	7.01	7.01	7.01	0.01	0.01
NML1C	3.83	3.83	3.84	0.01	0.01
SHB5	0.87	0.87	0.87	0.01	0.01
SHB3C	10.07	10.07	10.08	0.01	0.01
SHB2C	13.02	13.02	13.02	0.01	0.01
SHB_12_inch_OF	25.66	25.66	26.23	508.54	25.66

Analysis begun on: Sat Jan 19 08:54:46 2013
 Analysis ended on: Sat Jan 19 09:16:52 2013
 Total elapsed time: 00:22:06