
APPENDIX 1.2

OPTION 8 – SWMM MODEL OUTPUT

Option Description

The Broadway-Lomas detention pond was deleted from the model. The existing manhole number COA 32878.A was connected directly to an existing manhole COA32878.B with a 4.5 ft diameter RCP pipe in Broadway. The Warehouse Detention Pond was simulated. The pond was placed in between manholes COA 7963.11A and COA7716 with appropriate inlet, outlet nodes and pipes as simulated in SWMM. The BR21 pond was simulated to detain runoff from Sub-catchment BR21. The pond outfall was simulated as a 24-inch conduit that joined manhole COA7860 in Lomas Blvd. at Edith. A detention pond in Santa Barbara Park was added along with the inlet and outlet. The storm drain from Commercial to Baca was re-routed to Broadway to drain into the Santa Barbara Park Pond. Upsized 36-in. to 48-in. storm drain from the Commercial-Indian School intersection south on Commercial to McKnight, then east on McKnight, then new 48-in. storm drain from the Commercial-McKnight intersection east to the Broadway-McKnight intersection, then south on Broadway to join into the Santa Barbara Park Pond. The pipes connecting manholes COA 29163 and COA7635, along Commercial and COA29132 and COA7628 along Broadway were deleted.

The Broadway Pump Station Capacity was increased to 300 cfs from 130 cfs existing. The North Wells Park Pond was included located near Summer and 5th St. The storm drains from Cutler to McKnight on 4th St. were upsized from 36" to 48". A 48" RCP storm drain was included west from 3rd and Constitution and south along 5th St. to drain into North Wells Park Pond. The pond outfall is a 36-in. RCP south on 5th St. to Mountain, then west to 3rd St. where it joins the existing storm drain. The existing pipe between Constitution and Mountain along 3rd St was deleted to direct water to the North Wells Park Pond. The storm drains from Carson and Rio Grande to San Pasquale and Laguna were upsized from 36 in.-48 in. The storm drain from Barelbas and Pacific to Lewis and the West Riverside storm drain were upsized from 27 in. and 30 in. to 48 in. The significant option components are summarized in **Table 6-1 (Summary of Model Filenames and Components)**.

TABLE 6-14
SUMMARY OF OPTION 8 STREET PONDING AND MAN-HOLE FLOODING

Note- negative numbers imply that the HGL did not reach the manhole rim

Represents flooding depth over 1 ft

Represents flooding between 0.5ft - 0.99 ft

Represents flooding depth between 0 - 0.5 ft

MH Name	Manhole Invert Elev.	Max. Depth of Manhole	Manhole Rim Elev.	Maximum HGL	Node Flood Depth Above Manhole Rim	Flood Volume	Flood Volume	Hours Flooded
	(ft)	(ft)	(ft)	(ft)	(ft)	(10 ⁶ gal)	(acre-ft)	
	(a)	(a)	(b)	(c)	(d)	(e)	(f)	
COA6045	4957.51	7.82	4965.33	4965.34	0.01	0.26	0.798	2.4
COA15184	4954.19	10.04	4964.23	4964.43	0.2	0.755	2.317	3.68
COA6218	4953.66	9.34	4963	4963.43	0.43	0.874	2.682	4.16
COA6195	4962.97	6.74	4969.71	4970.01	0.3	0.18	0.552	0.78
COA6246	4962.06	7.85	4969.91	4969.92	0.01	0.019	0.058	0.12
COA7656	4953.17	9.45	4962.62	4962.63	0.01	0.017	0.052	0.1
COA19719	4952.3	9.98	4962.28	4963.06	0.78	1.19	3.652	4.42
COA7654	4951.67	8.59	4960.26	4960.27	0.01	0.282	0.865	1.6
COA25349	4945.26	11.07	4956.33	4956.34	0.01	0.065	0.199	0.14
COA25656	4948.86	10.32	4959.18	4959.33	0.15	0.246	0.755	1.94
COA25622	4948.24	9.58	4957.82	4957.84	0.02	0.067	0.206	0.9
COA7476	4950.32	7.85	4958.17	4958.32	0.15	0.231	0.709	1.49
COA7518	4947.94	8.89	4956.83	4957	0.17	0.232	0.712	1.68
COA24834	4944.52	7.06	4951.58	4951.93	0.35	1.59	4.880	4.01
COA25105	4946.31	10.2	4956.51	4956.52	0.01	0.04	0.123	0.37
COA7908	4946.15	10	4956.15	4956.16	0.01	0.011	0.034	0.03
COA22517	4943.59	11	4954.59	4954.6	0.01	0.064	0.196	0.28
COA7769JB	4944.52	11.81	4956.33	4958.37	2.04		0.000	
COA32878	4946.6	9.16	4955.76	4955.88	0.12	0.044	0.135	0.4
COA9344	4935.83	15.71	4951.54	4951.55	0.01	0.024	0.074	0.07
COA9229	4913.15	27	4940.15	4940.49	0.34	0.028	0.086	0.58
1F.H.MH1	4951.5	8	4959.5	4959.54	0.04	0.138	0.424	0.31

(a) Manhole invert elevation from SWMM input under Node Summary Table

(b) Rim elevation = MH invert elevation + Max depth of manhole

(c) Max HGL from SWMM output table under Node Depth Summary

(d) Node Flood Depth above Manhole Rim = HGL Elev-Rim Elev

(e) Flood volume from SWMM output table under Node Flooding Summary

(f) 1 gallon = 3.06888 E-6 acre-ft

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

COA Mid Valley Existing Conditions SWMM 5.0.022 Model
Results Printed on August 24, 2011

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 YES

Water Quality NO

Infiltration Method CURVE NUMBER

Flow Routing Method DYNWAVE

Starting Date JUL-01-2011 00:00:00

Ending Date JUL-06-2011 23:00:00

Antecedent Dry Days 0.0

Report Time Step 00:00:15

Wet Time Step 00:00:15

Dry Time Step 00:00:15

Routing Time Step 1.00 sec

Element Count

Number of rain gages 1

Number of subcatchments ... 70

Number of nodes 135

Number of links 139

Number of pollutants 0

Number of land uses 0

Raingage Summary

Name	Data Source	Data Type	Recording Interval
Gage1	Rain100hr24hr	CUMULATIVE	3 min.

Subcatchment Summary

Name	Area	Width	%Imperv	%Slope	Rain Gage	Outlet
A1	32.38	400.00	60.00	0.0800	Gage1	COA24916
A10	50.08	400.00	56.00	0.1351	Gage1	COA25048
A11	36.32	400.00	67.00	0.2105	Gage1	COA7518
A12	107.39	400.00	53.00	0.0702	Gage1	COA25656
A13	123.40	400.00	70.00	0.1177	Gage1	COA24834
A15	46.43	400.00	70.00	0.1835	Gage1	COA7444
A18	42.12	400.00	54.00	0.1802	Gage1	COA7476
A2	11.08	400.00	55.00	0.0000	Gage1	COA9083
A3	88.49	400.00	40.00	0.2000	Gage1	COA9069
A4	12.42	400.00	50.00	0.1071	Gage1	COA24859
A5	78.59	400.00	55.00	0.1563	Gage1	COA9045
A6	47.22	400.00	42.00	0.1277	Gage1	COA8985

A7	38.26	400.00	52.00	0.1667	Gage1	COA25034
A8	22.07	400.00	57.00	0.2778	Gage1	COA25105
A9	29.10	400.00	58.00	0.2128	Gage1	COA25622
B1	40.10	400.00	67.00	0.2778	Gage1	COA22127
B10	13.89	400.00	64.00	0.1905	Gage1	COA22155
B11	12.41	400.00	19.00	0.9091	Gage1	TINGLEYPARKSURGEPOND
B12	9.50	400.00	70.00	0.1852	Gage1	COA9407
B13	20.03	400.00	61.00	0.1942	Gage1	COA13866
B14	28.24	400.00	85.00	0.3889	Gage1	COA22429
B15	41.75	400.00	90.00	0.1523	Gage1	COA9344
B16	29.92	400.00	86.00	0.2308	Gage1	COA9348
B17	17.56	400.00	90.00	0.0000	Gage1	COA9310
B18	13.98	400.00	98.00	0.0000	Gage1	COA9310
B20	16.96	400.00	85.00	0.2500	Gage1	COA22517
B21	30.91	400.00	70.00	0.3571	Gage1	COA24930
B22	33.42	400.00	70.00	0.1482	Gage1	COA9260
B23	9.35	400.00	99.00	0.1111	Gage1	COA9260
B24	18.44	400.00	90.00	0.0000	Gage1	COA22584
B25	39.65	400.00	96.00	0.1290	Gage1	COA7865
B26	59.34	400.00	75.00	0.0000	Gage1	COA25253
B27	51.52	400.00	88.00	0.1299	Gage1	COA7740
B28	64.91	400.00	70.00	0.1072	Gage1	COA7816
B29	105.31	400.00	65.00	0.1127	Gage1	COA25349
B3	5.08	400.00	64.00	0.1754	Gage1	COA9141
B30	51.79	400.00	82.00	0.1379	Gage1	NORTHWELLSPARK
B31	43.60	400.00	85.00	0.1149	Gage1	COA7654
B32	39.96	400.00	72.00	0.1709	Gage1	COA7638
B33	51.09	400.00	68.00	0.1010	Gage1	COA6231
B34	53.33	400.00	76.00	0.2010	Gage1	COA15184
B35	32.09	400.00	82.00	0.4008	Gage1	COA19719
B36	25.33	400.00	77.00	0.3150	Gage1	COA6045
B4	5.98	400.00	47.00	0.1205	Gage1	COA22174
B40	36.44	400.00	84.00	0.8037	Gage1	COA19719
B41	24.82	400.00	94.00	0.5333	Gage1	COA6149
B5	65.56	400.00	68.00	0.1553	Gage1	COA22169
B6	7.04	400.00	65.00	0.0917	Gage1	COA9431
B7	11.54	400.00	56.00	0.3529	Gage1	COA9426
B8	23.57	400.00	64.00	0.1478	Gage1	MHB22410
BR1	28.93	400.00	75.00	3.8667	Gage1	COA29178
BR10	36.43	400.00	31.00	5.1034	Gage1	COA7963.05M
BR11	9.74	400.00	65.00	4.5106	Gage1	COA33027
BR12	22.29	400.00	10.00	4.7826	Gage1	SANTABARBARAPOND
BR13	29.14	400.00	70.00	1.6667	Gage1	COA7656
BR14	19.80	400.00	89.00	0.4000	Gage1	COA7635
BR16	25.89	400.00	13.00	3.1858	Gage1	SANTABARBARAPOND
BR17	49.17	400.00	59.00	1.4286	Gage1	COA29132
BR18	33.13	400.00	75.00	1.4000	Gage1	COA6195
BR19	26.21	400.00	75.00	1.0370	Gage1	COA32878
BR2	5.67	400.00	50.00	0.5405	Gage1	COA32878.A
BR20	24.15	400.00	90.00	0.2222	Gage1	COA7848
BR21	23.81	400.00	80.00	3.2594	Gage1	BR21POND
BR3	37.23	400.00	66.00	2.3529	Gage1	COA32865
BR4	39.56	400.00	75.00	3.0586	Gage1	COA7870
BR5	10.73	400.00	59.00	4.1071	Gage1	COA7963.05A
BR6	28.63	400.00	82.00	0.6154	Gage1	COA7766JB
BR9	55.23	400.00	86.00	0.2353	Gage1	COA7717
B19.1	15.30	400.00	85.00	2.6286	Gage1	COA9152
B19.2	12.03	400.00	85.00	2.7942	Gage1	COA9248

Node Summary

Name	Type	Invert Elev.	Max. Depth	Ponded Area	External Inflow
COA6149	JUNCTION	4956.51	6.87	130067.0	
COA6231	JUNCTION	4955.06	7.45	130067.0	
COA6045	JUNCTION	4957.51	7.82	309545.0	
COA15184	JUNCTION	4954.19	10.04	224607.0	
COA6218	JUNCTION	4953.66	9.34	224607.0	
COA6195	JUNCTION	4962.97	6.74	79450.0	

COA6246	JUNCTION	4962.06	7.85	79450.0	
COA29163	JUNCTION	4962.01	8.38	79450.0	
COA7635	JUNCTION	4957.34	7.29	27461.0	
COA7650	JUNCTION	4954.93	8.35	27461.0	
COA7656	JUNCTION	4953.17	9.45	13559.0	
COA7628	JUNCTION	4960.44	11.03	13559.0	
COA29132	JUNCTION	4961.85	14.23	18581.0	
COA33027	JUNCTION	4957.15	8.20	0.0	
COA33007	JUNCTION	4994.87	10.60	0.0	Yes
COA7717	JUNCTION	4949.54	9.19	21893.0	
COA19719	JUNCTION	4952.30	9.98	188061.0	
COA7654	JUNCTION	4951.67	8.59	228852.0	
COA7714	JUNCTION	4950.14	7.86	98694.3	
COA6259	JUNCTION	4953.72	10.36	64850.0	
COA7638	JUNCTION	4952.62	8.10	64850.0	
COA25807	JUNCTION	4953.18	7.28	64850.0	
COA25349	JUNCTION	4945.26	11.07	166821.0	
COA25656	JUNCTION	4948.86	10.32	197750.0	
COA25677	JUNCTION	4948.59	10.97	197750.0	
COA25622	JUNCTION	4948.24	9.58	159436.0	
COA7444	JUNCTION	4952.87	7.72	292160.0	Yes
COA7476	JUNCTION	4950.32	7.85	181489.0	
COA7518	JUNCTION	4947.94	8.89	167547.7	
COA24834	JUNCTION	4944.52	7.06	612333.2	
COA8985	JUNCTION	4940.76	11.38	241168.0	
COA24859	JUNCTION	4938.64	12.00	25798.0	
COA9015	JUNCTION	4942.91	8.45	25798.0	
COA25105	JUNCTION	4946.31	10.20	50544.0	
COA25117	JUNCTION	4945.26	11.29	50544.0	
COA25048	JUNCTION	4944.92	11.36	401053.0	
COA25034	JUNCTION	4943.82	10.70	171143.0	
COA9045	JUNCTION	4941.61	8.65	171143.0	
COA25352	JUNCTION	4945.06	11.31	166821.0	
COA7815	JUNCTION	4943.48	13.40	166821.0	
COA25253	JUNCTION	4941.66	12.95	84189.0	
COA7977	JUNCTION	4941.94	13.08	84189.0	
COA25238	JUNCTION	4941.20	13.47	84189.0	
COA25240	JUNCTION	4941.15	13.87	84189.0	
COA22584	JUNCTION	4940.18	14.49	117610.0	
COA9260	JUNCTION	4938.02	14.78	208149.0	
COA7740	JUNCTION	4949.69	8.25	166203.0	
COA7830	JUNCTION	4944.87	12.00	166203.0	
COA7865	JUNCTION	4946.34	10.46	45527.0	
COA7908	JUNCTION	4946.15	10.00	45527.0	
COA7912	JUNCTION	4945.61	10.68	45527.0	
COA7955	JUNCTION	4943.49	12.00	45527.0	
COA22517	JUNCTION	4943.59	11.00	97896.0	
COA7716	JUNCTION	4948.88	9.23	21893.0	
COA7766JB	JUNCTION	4943.95	12.33	40457.3	
COA7769JB	JUNCTION	4944.52	11.81	0.0	
COA32865	JUNCTION	4945.49	11.62	21867.0	
COA32878	JUNCTION	4946.60	9.16	26441.0	
COA7848	JUNCTION	4947.67	8.71	75622.0	
COA7861	JUNCTION	4947.76	10.18	0.0	
COA7870	JUNCTION	4957.75	12.84	0.0	Yes
COA29178	JUNCTION	4956.78	9.45	0.0	
COA7816	JUNCTION	4944.19	13.17	362909.0	
COA25109	JUNCTION	4945.87	10.67	50544.0	
BPSINLET	JUNCTION	4938.89	21.00	0.0	
COA9310	JUNCTION	4942.40	11.55	187810.0	
COA9348	JUNCTION	4939.63	11.79	195274.4	
COA9344	JUNCTION	4935.83	15.71	94192.0	
COA9340	JUNCTION	4935.64	16.65	94192.0	
COA22250	JUNCTION	4937.56	13.58	94192.0	
COA22429	JUNCTION	4937.26	13.07	183374.0	
COA13866	JUNCTION	4935.36	12.08	73420.0	
COA24930	JUNCTION	4937.17	11.05	174484.0	
COA24916	JUNCTION	4938.25	10.36	85713.0	
COA9248	JUNCTION	4947.65	10.07	11689.0	
COA32981	JUNCTION	4931.39	17.86	18760.0	
COA9121	JUNCTION	4931.16	17.50	33447.0	
COA24902	JUNCTION	4939.07	10.00	85713.0	

COA24902A	JUNCTION	4939.73	8.82	140992.0	
COA9069	JUNCTION	4940.85	8.80	140992.0	
COA24997	JUNCTION	4936.14	13.35	140992.0	
COA9083	JUNCTION	4935.33	12.62	0.0	
UPSINLET	JUNCTION	4931.47	18.57	0.0	
COA9407	JUNCTION	4944.40	6.42	79526.0	
COA9426	JUNCTION	4943.03	6.39	22812.0	
COA22194	JUNCTION	4942.00	7.04	22812.0	
COA22191	JUNCTION	4940.79	8.13	22812.0	
COA9431	JUNCTION	4939.27	9.59	22229.0	
COA22176	JUNCTION	4938.45	10.72	22229.0	
COA22168	JUNCTION	4936.56	9.92	117391.0	
COA22174	JUNCTION	4928.49	16.58	35030.0	
COA22155	JUNCTION	4928.35	16.89	33447.0	
COA9141	JUNCTION	4928.21	17.88	20203.1	
COA22410	JUNCTION	4928.36	18.75	45178.0	
COA9129	JUNCTION	4930.24	16.01	45178.0	
COA9143	JUNCTION	4927.28	20.70	0.0	
COA22144	JUNCTION	4924.79	22.45	0.0	
COA22145	JUNCTION	4925.85	24.38	0.0	
COA22143	JUNCTION	4923.99	22.50	0.0	
COA10456	JUNCTION	4922.76	20.45	0.0	
COA10457	JUNCTION	4907.13	14.88	0.0	
COA7963.05A	JUNCTION	4971.98	7.11	0.0	Yes
COA7963.05M	JUNCTION	4952.69	10.31	0.0	
COA7963.11A	JUNCTION	4951.67	9.48	21893.0	
COA7963.T	JUNCTION	4932.21	9.25	0.0	
COA32878.A	JUNCTION	4947.19	8.39	21867.0	
COA32878.B	JUNCTION	4946.27	9.58	21867.0	
APSINLET	JUNCTION	4929.66	14.10	0.0	
IRON14TH	JUNCTION	4939.07	10.00	0.0	
BLDWEIR	JUNCTION	4946.60	9.16	0.0	
BLUWEIR	JUNCTION	4946.60	9.16	0.0	
COA22169	JUNCTION	4939.35	6.75	117391.0	
COA22127	JUNCTION	4937.86	7.66	226362.0	
COA32823	JUNCTION	4933.09	27.00	0.0	
COA9453	JUNCTION	4939.07	7.51	117391.0	
MHB22410	JUNCTION	4928.42	18.75	90355.0	
COA9152	JUNCTION	4929.67	27.00	0.0	
COA9229	JUNCTION	4913.15	27.00	8870.0	
MHB19A	JUNCTION	4933.00	27.00	0.0	
1F.C.INLET	JUNCTION	4951.00	9.42	21893.0	
1F.C.OUT	JUNCTION	4949.00	9.40	21893.0	
1F.D.MH1	JUNCTION	5062.00	14.00	0.0	
1F.E.MHA	JUNCTION	4961.50	14.21	13559.0	
1F.E.MHB	JUNCTION	4960.85	11.04	13559.0	
1F.H.MH1	JUNCTION	4951.50	8.00	98694.3	
1F.H.MH2	JUNCTION	4950.50	8.00	98694.3	
APSOUTLET	OUTFALL	4960.84	0.00	0.0	
BPSOUTLET	OUTFALL	5106.00	0.00	0.0	
BaPSOUTLET	OUTFALL	4941.69	0.00	0.0	
AIRQUALITYPOND	STORAGE	4952.26	12.40	0.0	
TINGLEYPARKSURGE	PONDSTORAGE	4932.21	16.45	0.0	
WAREHOUSEPOND	STORAGE	4950.00	10.00	0.0	
BR21POND	STORAGE	5062.00	14.00	0.0	
SANTABARBARAPOND	STORAGE	4961.00	11.00	0.0	
NORTHWELLSPARK	STORAGE	4951.00	9.00	0.0	

Link Summary

Name	From Node	To Node	Type	Length	%Slope	Roughness
ESWMM57	COA6149	COA6231	CONDUIT	733.0	0.1378	0.0140
1F.H.SWMM8	COA6045	COA15184	CONDUIT	802.0	0.3915	0.0140
1F.H.SWMM9	COA15184	COA6218	CONDUIT	622.0	0.0096	0.0140
1F.D.SWMM1	COA6195	COA6246	CONDUIT	636.0	0.1431	0.0140
1F.D.SWMM2	COA6246	COA29163	CONDUIT	120.0	0.2917	0.0140
1F.D.SWMM4	COA7635	COA7650	CONDUIT	613.0	0.3932	0.0140
1F.D.SWMM5	COA7650	COA7656	CONDUIT	386.0	0.4041	0.0140
ESWMM41	COA33027	COA7656	CONDUIT	416.0	0.7428	0.0140

1F.D.SWMM7	COA7628	COA7656	CONDUIT	831.0	0.7618	0.0140
ESWMM42	COA33007	COA33027	CONDUIT	1096.0	3.4235	0.0140
ESWMM45	COA7656	COA7963.11A	CONDUIT	319.0	0.4702	0.0140
1F.H.SWMM10	COA6218	COA19719	CONDUIT	369.0	0.1463	0.0140
ESWMM32	COA19719	COA7654	CONDUIT	1795.0	0.0713	0.0140
ESWMM58	COA6231	COA6259	CONDUIT	298.0	0.2349	0.0140
ESWMM59	COA6259	COA7638	CONDUIT	930.0	0.1183	0.0140
ESWMM60	COA25807	COA7638	CONDUIT	310.0	0.1806	0.0140
ESWMM91	COA25656	COA25677	CONDUIT	670.0	0.0403	0.0140
ESWMM92	COA25677	COA25622	CONDUIT	914.0	0.0306	0.0140
1F.H.SWMM1	COA7444	COA7476	CONDUIT	1361.0	0.1925	0.0140
1F.H.SWMM2	COA7476	COA7518	CONDUIT	895.0	0.2547	0.0140
1F.H.SWMM3	COA7518	COA24834	CONDUIT	1804.0	0.0815	0.0140
1F.H.SWMM4	COA24834	COA8985	CONDUIT	1437.0	0.1621	0.0140
ESWMM5	COA8985	COA24859	CONDUIT	442.0	0.4344	0.0140
ESWMM6	COA24859	COA9015	CONDUIT	670.0	0.0343	0.0140
ESWMM93	COA25622	COA25105	CONDUIT	752.0	0.2354	0.0140
ESWMM94	COA25105	COA25109	CONDUIT	280.0	0.1571	0.0140
ESWMM96	COA25117	COA25048	CONDUIT	342.0	0.0848	0.0140
ESWMM97	COA25048	COA25034	CONDUIT	747.0	0.1473	0.0140
ESWMM98	COA25034	COA9045	CONDUIT	1976.0	0.1088	0.0140
ESWMM61	COA25807	COA25349	CONDUIT	2789.0	0.2840	0.0140
ESWMM62	COA25349	COA25352	CONDUIT	60.0	0.3333	0.0140
ESWMM63	COA25352	COA7815	CONDUIT	305.0	0.3639	0.0140
ESWMM64	COA7815	COA25253	CONDUIT	1481.0	0.1229	0.0140
ESWMM65	COA7977	COA25253	CONDUIT	20.0	1.4001	0.0140
ESWMM66	COA7977	COA25238	CONDUIT	137.0	0.3723	0.0140
ESWMM67	COA25238	COA25240	CONDUIT	23.0	0.2174	0.0140
ESWMM68	COA25240	COA22584	CONDUIT	490.0	0.2612	0.0140
ESWMM69	COA22584	COA9260	CONDUIT	560.0	0.2268	0.0140
ESWMM30	COA7714	COA7740	CONDUIT	405.0	0.1111	0.0140
ESWMM29	COA7740	COA7830	CONDUIT	1028.0	0.1566	0.0140
ESWMM28	COA7830	COA7865	CONDUIT	391.0	0.1611	0.0140
ESWMM27	COA7865	COA7908	CONDUIT	355.0	0.0535	0.0140
ESWMM26	COA7912	COA7908	CONDUIT	13.0	5.2379	0.0140
ESWMM25	COA7912	COA7955	CONDUIT	360.0	0.1083	0.0140
ESWMM24	COA7955	COA22517	CONDUIT	968.0	0.1333	0.0140
ESWMM50	COA7870	COA29178	CONDUIT	441.0	0.1020	0.0140
ESWMM51	COA7870	COA7861	CONDUIT	517.0	1.8901	0.0140
ESWMM52	COA7861	COA32878	CONDUIT	350.0	0.2743	0.0140
BLUPIPE	COA32878	BLUWEIR	CONDUIT	300.0	0.0067	0.0140
ESWMM46	COA7717	COA7716	CONDUIT	11.0	4.3678	0.0140
ESWMM47	COA7716	COA7766JB	CONDUIT	725.0	0.5821	0.0140
ESWMM48	COA7769JB	COA7766JB	CONDUIT	78.0	0.6026	0.0140
ESWMM49	COA32865	COA7769JB	CONDUIT	307.0	0.3225	0.0140
ESWMM54	COA7848	COA7830	CONDUIT	1435.0	0.1951	0.0140
ESWMM55	COA7830	COA7816	CONDUIT	1092.0	0.0778	0.0140
ESWMM56	COA7816	COA7815	CONDUIT	739.0	0.0825	0.0140
ESWMM95	COA25109	COA25117	CONDUIT	389.0	0.1517	0.0140
48SDTOBPS	COA7766JB	BPSINLET	CONDUIT	60.0	0.1000	0.0140
ESWMM23	COA9248	COA22517	CONDUIT	821.0	0.4592	0.0140
ESWMM22	COA22517	COA9310	CONDUIT	1089.0	0.1093	0.0140
ESWMM21	COA9310	COA9348	CONDUIT	1101.0	0.2516	0.0140
ESWMM20	COA9348	COA9344	CONDUIT	373.0	0.1287	0.0140
ESWMM19	COA9344	COA9340	CONDUIT	375.0	0.1493	0.0140
ESWMM18	COA9340	COA22250	CONDUIT	346.0	0.1532	0.0140
ESWMM17	COA22250	COA22429	CONDUIT	366.0	0.0820	0.0140
ESWMM16	COA22429	COA13866	CONDUIT	361.0	0.4017	0.0140
ESWMM70	COA9260	COA13866	CONDUIT	1622.0	0.1178	0.0140
ESWMM15	COA24930	COA13866	CONDUIT	713.0	0.0898	0.0140
ESWMM71	COA13866	COA7963.T	CONDUIT	1026.0	0.3070	0.0140
ESWMM72	COA32981	COA9121	CONDUIT	80.0	0.2875	0.0140
ESWMM7	COA9015	COA9069	CONDUIT	1428.0	0.1366	0.0140
ESWMM12	COA24902	COA24902A	CONDUIT	479.0	0.0271	0.0140
ESWMM9	COA9069	COA24902A	CONDUIT	514.0	0.2218	0.0140
ESWMM99	COA9045	COA24902	CONDUIT	740.0	0.1649	0.0140
ESWMM8	COA9069	COA24997	CONDUIT	19.0	4.5838	0.0140
ESWMM10	COA24997	COA9083	CONDUIT	384.0	0.2109	0.0140
ESWMM11	COA24902A	COA9083	CONDUIT	376.0	1.2474	0.0140
ESWMM90	COA9407	COA9426	CONDUIT	393.0	0.3384	0.0140
ESWMM89	COA9426	COA22194	CONDUIT	356.0	0.2865	0.0140
ESWMM88	COA22194	COA22191	CONDUIT	296.0	0.4088	0.0140

ESWMM87	COA22191	COA9431	CONDUIT	328.0	0.4634	0.0140
ESWMM86	COA9431	COA22176	CONDUIT	172.0	0.5523	0.0140
ESWMM85	COA22176	COA22168	CONDUIT	612.0	0.3088	0.0140
ESWMM84	COA22168	COA22174	CONDUIT	337.0	2.3953	0.0140
ESWMM83	COA22174	COA22155	CONDUIT	386.0	0.0363	0.0140
ESWMM82	COA22155	COA9141	CONDUIT	510.0	0.0275	0.0240
ESWMM73	COA9121	COA9129	CONDUIT	327.0	0.2813	0.0240
ESWMM76	COA9141	COA9143	CONDUIT	210.0	0.4429	0.0240
ESWMM77	COA9143	COA22145	CONDUIT	377.0	0.3793	0.0240
ESWMM78	COA22145	COA22144	CONDUIT	370.0	0.2865	0.0240
ESWMM79	COA22144	COA22143	CONDUIT	202.0	0.3960	0.0240
ESWMM80	COA22143	COA10456	CONDUIT	301.0	0.4086	0.0240
ESWMM81	COA10456	COA10457	CONDUIT	243.0	6.4454	0.0240
ESWMM14	COA24916	COA24930	CONDUIT	717.0	0.1325	0.0140
ESWMM13	IRON14TH	COA24916	CONDUIT	659.0	0.1199	0.0140
ESWMM125	COA7963.05A	COA7963.05M	CONDUIT	1793.0	1.0759	0.0140
ESWMM71A	COA7963.T	COA32981	CONDUIT	149.0	0.5503	0.0140
ESWMM126	TINGLEYPARKSURGE	POND	CONDUIT	50.0	0.0040	0.0140
ESWMM127	AIRQUALITYPOND	COA7963.11A	CONDUIT	240.0	0.2458	0.0140
ESWMM128	COA33027	AIRQUALITYPOND	CONDUIT	149.0	3.2836	0.0140
ESWMM129	COA7963.05M	AIRQUALITYPOND	CONDUIT	69.0	0.6232	0.0140
ESWMM132	COA32878.A	COA32878	CONDUIT	60.0	0.9834	0.0140
60SDTOBPS	COA7769JB	BPSINLET	CONDUIT	60.0	0.8834	0.0140
ESWMM134	COA32878.B	COA7769JB	CONDUIT	595.0	0.2941	0.0140
ESWMM135	COA9083	APSINLET	CONDUIT	150.7	0.0730	0.0140
ESWMM53	COA7848	BLDWEIR	CONDUIT	308.0	0.3474	0.0140
ESWMM75	COA22410	COA9141	CONDUIT	100.0	0.1500	0.0240
1F.H.SWMM5	COA22169	COA9453	CONDUIT	194.0	0.1443	0.0140
1F.H.SWMM6	COA9453	COA22127	CONDUIT	870.0	0.1486	0.0140
1F.H.SWMM7	COA22127	COA10456	CONDUIT	1157.0	0.5272	0.0140
ESWMM201	COA9229	COA32823	CONDUIT	230.0	0.0261	0.0140
ESWMM203	COA32823	UPSINLET	CONDUIT	103.0	1.5730	0.0140
ESWMM200	COA9152	COA9229	CONDUIT	1665.0	0.0913	0.0140
ESWMM202	COA32823	MHB19A	CONDUIT	426.0	0.0211	0.0140
ESWMM500	COA24859	COA24997	CONDUIT	2116.0	0.1181	0.0140
ESWMM74	COA9129	MHB22410	CONDUIT	501.0	0.3633	0.0240
ESWMM74A	MHB22410	COA22410	CONDUIT	24.0	0.2500	0.0240
1F.C.SWMM1	COA32878.A	COA32878.B	CONDUIT	100.0	0.9200	0.0140
1F.CSWMM2	COA7963.11A	1F.C.INLET	CONDUIT	400.0	0.1675	0.0100
1F.C3	1F.C.INLET	WAREHOUSEPOND	CONDUIT	400.0	0.2500	0.0100
1F.C.4	WAREHOUSEPOND	1F.C.OUT	CONDUIT	400.0	0.2500	0.0100
1F.CSWMM5	1F.C.OUT	COA7716	CONDUIT	400.0	0.0300	0.0100
1F.D.SWMM8	1F.D.MH1	COA7870	CONDUIT	2300.0	4.5373	0.0140
1F.E.SWMM1	COA29163	COA29132	CONDUIT	400.0	0.0400	0.0140
1F.E.SWMM2	COA29132	1F.E.MHA	CONDUIT	300.0	0.1167	0.0140
1F.E.SWMM4	SANTABARBARAPOND	1F.E.MHB	CONDUIT	100.0	0.1500	0.0140
1F.E.SWMM5	1F.E.MHB	COA7628	CONDUIT	224.0	0.1830	0.0140
1F.H.SWMM11	COA7654	1F.H.MH1	CONDUIT	500.0	0.0340	0.0140
1F.H.SWMM12	1F.H.MH1	NORTHWELLSPARK	CONDUIT	100.0	0.5000	0.0100
1F.H.SWMM13	NORTHWELLSPARK	1F.H.MH2	CONDUIT	100.0	0.5000	0.0140
1F.H.SWMM14	1F.H.MH2	COA7714	CONDUIT	757.0	0.0476	0.0140
1F.J.SWMM3	1F.E.MHA	1F.E.MHB	CONDUIT	100.0	0.6500	0.0140
BROADWAYPUMPSTATION	BPSINLET	BPSOUTLET	TYPE4 PUMP			
ALCALDEPUMPSTATION	APSINLET	APSOUTLET	TYPE4 PUMP			
URBANPUMPSTATION	UPSINLET	COA9248	TYPE4 PUMP			
BARELAPUMPSTATION	COA10457	BaPSOUTLET	TYPE4 PUMP			
WEIRIRON14TH	IRON14TH	COA24902	WEIR			
WEIRBROADWAY	BLUWEIR	BLDWEIR	WEIR			
BR21OUTLET	BR21POND	1F.D.MH1	OUTLET			

Cross Section Summary

Conduit	Shape	Full Depth	Full Area	Hyd. Rad.	Max. Width	No. of Barrels	Full Flow
ESWMM57	CIRCULAR	3.50	9.62	0.88	3.50	1	34.68
1F.H.SWMM8	CIRCULAR	4.00	12.57	1.00	4.00	1	83.46
1F.H.SWMM9	CIRCULAR	4.00	12.57	1.00	4.00	1	13.10
1F.DSWMM1	CIRCULAR	4.00	12.57	1.00	4.00	1	50.45
1F.D.SWMM2	CIRCULAR	4.00	12.57	1.00	4.00	1	72.04

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1F.D.SWMM4	CIRCULAR	4.00	12.57	1.00	4.00	1	83.63
1F.D.SWMM5	CIRCULAR	4.00	12.57	1.00	4.00	1	84.80
ESWMM41	CIRCULAR	2.00	3.14	0.50	2.00	1	18.10
1F.D.SWMM7	CIRCULAR	4.00	12.57	1.00	4.00	1	116.41
ESWMM42	CIRCULAR	4.00	12.57	1.00	4.00	1	246.80
ESWMM45	CIRCULAR	4.00	12.57	1.00	4.00	1	91.46
1F.H.SWMM10	CIRCULAR	4.00	12.57	1.00	4.00	1	51.03
ESWMM32	CIRCULAR	4.00	12.57	1.00	4.00	1	35.62
ESWMM58	CIRCULAR	4.00	12.57	1.00	4.00	1	64.65
ESWMM59	CIRCULAR	4.50	15.90	1.13	4.50	1	62.80
ESWMM60	CIRCULAR	4.50	15.90	1.13	4.50	1	77.61
ESWMM91	CIRCULAR	3.00	7.07	0.75	3.00	1	12.43
ESWMM92	CIRCULAR	3.00	7.07	0.75	3.00	1	10.84
1F.H.SWMM1	CIRCULAR	4.00	12.57	1.00	4.00	1	58.52
1F.H.SWMM2	CIRCULAR	4.00	12.57	1.00	4.00	1	67.32
1F.H.SWMM3	CIRCULAR	4.00	12.57	1.00	4.00	1	38.08
1F.H.SWMM4	CIRCULAR	4.00	12.57	1.00	4.00	1	53.71
ESWMM5	CIRCULAR	4.00	12.57	1.00	4.00	1	87.91
ESWMM6	CIRCULAR	3.00	7.07	0.75	3.00	1	11.48
ESWMM93	CIRCULAR	3.00	7.07	0.75	3.00	1	30.05
ESWMM94	CIRCULAR	4.00	12.57	1.00	4.00	1	52.87
ESWMM96	CIRCULAR	4.00	12.57	1.00	4.00	1	38.84
ESWMM97	CIRCULAR	5.00	19.63	1.25	5.00	1	92.80
ESWMM98	CIRCULAR	5.00	19.63	1.25	5.00	1	79.77
ESWMM61	CIRCULAR	5.50	23.76	1.38	5.50	1	166.17
ESWMM62	CIRCULAR	5.50	23.76	1.38	5.50	1	180.03
ESWMM63	CIRCULAR	5.50	23.76	1.38	5.50	1	188.11
ESWMM64	CIRCULAR	6.00	28.27	1.50	6.00	1	137.86
ESWMM65	CIRCULAR	6.00	28.27	1.50	6.00	1	465.33
ESWMM66	CIRCULAR	6.00	28.27	1.50	6.00	1	239.94
ESWMM67	CIRCULAR	6.00	28.27	1.50	6.00	1	183.36
ESWMM68	CIRCULAR	6.00	28.27	1.50	6.00	1	200.99
ESWMM69	CIRCULAR	6.00	28.27	1.50	6.00	1	187.28
ESWMM30	CIRCULAR	4.00	12.57	1.00	4.00	1	44.46
ESWMM29	CIRCULAR	4.50	15.90	1.13	4.50	1	72.26
ESWMM28	CIRCULAR	4.50	15.90	1.13	4.50	1	73.30
ESWMM27	CIRCULAR	5.00	19.63	1.25	5.00	1	55.95
ESWMM26	CIRCULAR	5.00	19.63	1.25	5.00	1	553.49
ESWMM25	CIRCULAR	5.00	19.63	1.25	5.00	1	79.60
ESWMM24	CIRCULAR	5.50	23.76	1.38	5.50	1	113.83
ESWMM50	CIRCULAR	3.00	7.07	0.75	3.00	1	19.78
ESWMM51	CIRCULAR	4.00	12.57	1.00	4.00	1	183.38
ESWMM52	CIRCULAR	4.50	15.90	1.13	4.50	1	95.63
BLUPIPE	CIRCULAR	6.00	28.27	1.50	6.00	1	32.11
ESWMM46	CIRCULAR	4.00	12.57	1.00	4.00	2	278.76
ESWMM47	CIRCULAR	4.00	12.57	1.00	4.00	2	101.76
ESWMM48	CIRCULAR	4.00	12.57	1.00	4.00	1	103.54
ESWMM49	CIRCULAR	3.50	9.62	0.88	3.50	1	53.05
ESWMM54	CIRCULAR	6.00	28.27	1.50	6.00	1	173.71
ESWMM55	CIRCULAR	6.00	28.27	1.50	6.00	1	109.72
ESWMM56	CIRCULAR	6.00	28.27	1.50	6.00	1	112.98
ESWMM95	CIRCULAR	4.00	12.57	1.00	4.00	1	51.95
48SDTOBPS	CIRCULAR	4.00	12.57	1.00	4.00	1	42.18
ESWMM23	CIRCULAR	4.00	12.57	1.00	4.00	1	90.39
ESWMM22	CIRCULAR	5.50	23.76	1.38	5.50	1	103.08
ESWMM21	CIRCULAR	5.50	23.76	1.38	5.50	1	156.41
ESWMM20	CIRCULAR	6.00	28.27	1.50	6.00	1	141.07
ESWMM19	CIRCULAR	6.00	28.27	1.50	6.00	1	151.97
ESWMM18	CIRCULAR	6.00	28.27	1.50	6.00	1	153.91
ESWMM17	CIRCULAR	6.00	28.27	1.50	6.00	1	112.59
ESWMM16	CIRCULAR	6.00	28.27	1.50	6.00	1	249.24
ESWMM70	CIRCULAR	7.00	38.48	1.75	7.00	1	203.56
ESWMM15	CIRCULAR	6.00	28.27	1.50	6.00	1	117.82
ESWMM71	CIRCULAR	8.00	50.27	2.00	8.00	1	469.28
ESWMM72	CIRCULAR	8.00	50.27	2.00	8.00	1	454.12
ESWMM7	CIRCULAR	3.00	7.07	0.75	3.00	1	22.89
ESWMM12	CIRCULAR	6.00	28.27	1.50	6.00	1	64.79
ESWMM9	CIRCULAR	3.00	7.07	0.75	3.00	1	29.17
ESWMM99	CIRCULAR	5.00	19.63	1.25	5.00	1	98.20
ESWMM8	CIRCULAR	3.00	7.07	0.75	3.00	1	132.60
ESWMM10	CIRCULAR	4.00	12.57	1.00	4.00	1	61.26
ESWMM11	CIRCULAR	5.00	19.63	1.25	5.00	1	270.11

ESWMM90	CIRCULAR	3.50	9.62	0.88	3.50	1	54.35
ESWMM89	CIRCULAR	4.00	12.57	1.00	4.00	1	71.40
ESWMM88	CIRCULAR	4.50	15.90	1.13	4.50	1	116.75
ESWMM87	CIRCULAR	4.50	15.90	1.13	4.50	1	124.31
ESWMM86	CIRCULAR	4.50	15.90	1.13	4.50	1	135.71
ESWMM85	CIRCULAR	4.50	15.90	1.13	4.50	1	101.48
ESWMM84	CIRCULAR	5.00	19.63	1.25	5.00	1	374.29
ESWMM83	CIRCULAR	5.00	19.63	1.25	5.00	1	46.06
ESWMM82	CIRCULAR	5.00	19.63	1.25	5.00	1	23.37
ESWMM73	CIRCULAR	8.00	50.27	2.00	8.00	1	262.05
ESWMM76	CIRCULAR	8.00	50.27	2.00	8.00	1	328.77
ESWMM77	CIRCULAR	8.00	50.27	2.00	8.00	1	304.27
ESWMM78	CIRCULAR	8.00	50.27	2.00	8.00	1	264.43
ESWMM79	CIRCULAR	8.00	50.27	2.00	8.00	1	310.91
ESWMM80	CIRCULAR	8.00	50.27	2.00	8.00	1	315.82
ESWMM81	CIRCULAR	8.00	50.27	2.00	8.00	1	1254.27
ESWMM14	CIRCULAR	5.50	23.76	1.38	5.50	1	113.50
ESWMM13	CIRCULAR	5.50	23.76	1.38	5.50	1	107.96
ESWMM125	CIRCULAR	5.00	19.63	1.25	5.00	1	250.85
ESWMM71A	CIRCULAR	8.00	50.27	2.00	8.00	1	628.30
ESWMM126	CIRCULAR	8.00	50.27	2.00	8.00	1	53.56
ESWMM127	CIRCULAR	4.00	12.57	1.00	4.00	1	66.13
ESWMM128	CIRCULAR	4.00	12.57	1.00	4.00	1	241.70
ESWMM129	CIRCULAR	5.00	19.63	1.25	5.00	1	190.92
ESWMM132	CIRCULAR	4.50	15.90	1.13	4.50	1	181.08
60SDTOBPS	CIRCULAR	5.00	19.63	1.25	5.00	1	227.30
ESWMM134	CIRCULAR	4.50	15.90	1.13	4.50	1	99.03
ESWMM135	CIRCULAR	5.50	23.76	1.38	5.50	1	84.26
ESWMM53	CIRCULAR	6.00	28.27	1.50	6.00	1	231.79
ESWMM75	CIRCULAR	8.00	50.27	2.00	8.00	1	191.34
1F.H.SWMM5	CIRCULAR	4.00	12.57	1.00	4.00	1	50.67
1F.H.SWMM6	CIRCULAR	4.00	12.57	1.00	4.00	1	51.42
1F.H.SWMM7	CIRCULAR	4.00	12.57	1.00	4.00	1	96.85
ESWMM201	CIRCULAR	1.50	1.77	0.38	1.50	1	1.58
ESWMM203	CIRCULAR	3.50	9.62	0.88	3.50	1	117.17
ESWMM200	CIRCULAR	6.00	28.27	1.50	6.00	1	118.82
ESWMM202	CIRCULAR	6.50	33.18	1.63	6.50	1	70.76
ESWMM500	CIRCULAR	4.00	12.57	1.00	4.00	1	45.85
ESWMM74	CIRCULAR	8.00	50.27	2.00	8.00	1	297.77
ESWMM74A	RECT CLOSED	8.00	53.36	1.82	6.67	1	246.13
1F.C.SWMM1	CIRCULAR	4.50	15.90	1.13	4.50	1	175.15
1F.CSWMM2	CIRCULAR	4.00	12.57	1.00	4.00	1	76.43
1F.C3	CIRCULAR	4.00	12.57	1.00	4.00	1	93.37
1F.C.4	CIRCULAR	4.00	12.57	1.00	4.00	1	93.37
1F.CSWMM5	CIRCULAR	4.00	12.57	1.00	4.00	1	32.34
1F.D.SWMM8	CIRCULAR	2.00	3.14	0.50	2.00	1	44.75
1F.E.SWMM1	CIRCULAR	4.00	12.57	1.00	4.00	1	26.68
1F.E.SWMM2	CIRCULAR	4.00	12.57	1.00	4.00	1	45.56
1F.E.SWMM4	CIRCULAR	2.00	3.14	0.50	2.00	1	8.14
1F.E.SWMM5	CIRCULAR	4.00	12.57	1.00	4.00	1	57.06
1F.H.SWMM11	CIRCULAR	4.00	12.57	1.00	4.00	1	24.59
1F.H.SWMM12	CIRCULAR	4.00	12.57	1.00	4.00	1	132.04
1F.H.SWMM13	CIRCULAR	3.00	7.07	0.75	3.00	1	43.79
1F.H.SWMM14	CIRCULAR	4.00	12.57	1.00	4.00	1	29.09
1F.J.SWMM3	CIRCULAR	4.00	12.57	1.00	4.00	1	107.54

Control Actions Taken

Runoff Quantity Continuity	Volume acre-feet	Depth inches
*****	-----	-----
Total Precipitation	527.113	2.600
Evaporation Loss	0.000	0.000
Infiltration Loss	127.079	0.627
Surface Runoff	360.760	1.779
Final Surface Storage	39.276	0.194
Continuity Error (%)	-0.000	

```

*****
Flow Routing Continuity      Volume      Volume
                             acre-feet    10^6 gal
*****
Dry Weather Inflow .....    0.000        0.000
Wet Weather Inflow .....  360.760       117.559
Groundwater Inflow .....    0.000        0.000
RDII Inflow .....          0.000        0.000
External Inflow .....       6.751        2.200
External Outflow .....     360.404       117.443
Internal Outflow .....      0.000        0.000
Storage Losses .....        0.000        0.000
Initial Stored Volume ....    0.000        0.000
Final Stored Volume .....    0.401        0.131
Continuity Error (%) .....    1.825

```

```

*****
Highest Continuity Errors
*****

```

```

Node COA7654 (4.55%)
Node COA7650 (4.19%)
Node COA25352 (3.98%)
Node COA24834 (-3.20%)
Node COA25349 (2.15%)

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*****
Time-Step Critical Elements
*****

```

```

Link ESWMM74A (1.68%)

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*****
Highest Flow Instability Indexes
*****

```

```

Link BROADWAYPUMPSTATION (11)
Link ESWMM81 (2)
Link ESWMM5 (1)
Link URBANPUMPSTATION (1)
Link ESWMM203 (1)

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*****
Routing Time Step Summary
*****

```

```

Minimum Time Step      :    0.50 sec
Average Time Step      :    0.99 sec
Maximum Time Step      :    1.00 sec
Percent in Steady State :    0.00
Average Iterations per Step :    2.40

```

```

*****
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
A1	2.60	0.00	0.00	0.87	1.66	1.46	18.12	0.640
A10	2.60	0.00	0.00	0.87	1.65	2.25	24.64	0.635
A11	2.60	0.00	0.00	0.68	1.85	1.83	31.47	0.712
A12	2.60	0.00	0.00	1.01	1.51	4.41	31.40	0.581
A13	2.60	0.00	0.00	0.66	1.85	6.20	42.35	0.712
A15	2.60	0.00	0.00	0.62	1.90	2.39	34.15	0.731
A18	2.60	0.00	0.00	0.99	1.54	1.77	24.46	0.594
A2	2.60	0.00	0.00	1.15	0.00	0.00	0.00	0.000
A3	2.60	0.00	0.00	1.34	1.19	2.86	30.31	0.458

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A4	2.60	0.00	0.00	1.03	1.52	0.51	13.38	0.584
A5	2.60	0.00	0.00	1.02	1.51	3.22	30.62	0.581
A6	2.60	0.00	0.00	1.24	1.30	1.67	20.90	0.500
A7	2.60	0.00	0.00	0.93	1.60	1.66	24.08	0.614
A8	2.60	0.00	0.00	0.79	1.73	1.04	23.40	0.665
A9	2.60	0.00	0.00	0.79	1.73	1.37	22.71	0.665
B1	2.60	0.00	0.00	0.62	1.90	2.06	29.88	0.729
B10	2.60	0.00	0.00	0.64	1.88	0.71	17.34	0.722
B11	2.60	0.00	0.00	1.43	1.15	0.39	11.10	0.443
B12	2.60	0.00	0.00	0.54	1.97	0.51	15.14	0.759
B13	2.60	0.00	0.00	0.71	1.81	0.98	19.53	0.694
B14	2.60	0.00	0.00	0.28	2.24	1.71	39.76	0.860
B15	2.60	0.00	0.00	0.18	2.32	2.63	36.32	0.892
B16	2.60	0.00	0.00	0.26	2.25	1.83	33.26	0.865
B17	2.60	0.00	0.00	0.20	0.00	0.00	0.00	0.000
B18	2.60	0.00	0.00	0.04	0.00	0.00	0.00	0.000
B20	2.60	0.00	0.00	0.26	2.24	1.03	29.73	0.863
B21	2.60	0.00	0.00	0.59	1.93	1.62	29.60	0.744
B22	2.60	0.00	0.00	0.56	1.97	1.79	29.56	0.757
B23	2.60	0.00	0.00	0.02	2.48	0.63	19.50	0.954
B24	2.60	0.00	0.00	0.24	0.00	0.00	0.00	0.000
B25	2.60	0.00	0.00	0.07	2.43	2.62	36.35	0.934
B26	2.60	0.00	0.00	0.60	0.00	0.00	0.00	0.000
B27	2.60	0.00	0.00	0.22	2.28	3.20	39.07	0.879
B28	2.60	0.00	0.00	0.59	1.92	3.38	31.67	0.738
B29	2.60	0.00	0.00	0.73	1.78	5.09	34.99	0.684
B3	2.60	0.00	0.00	0.64	1.90	0.26	10.25	0.731
B30	2.60	0.00	0.00	0.33	2.18	3.06	38.80	0.837
B31	2.60	0.00	0.00	0.27	2.23	2.64	34.75	0.858
B32	2.60	0.00	0.00	0.52	1.99	2.16	33.49	0.765
B33	2.60	0.00	0.00	0.62	1.90	2.63	29.54	0.730
B34	2.60	0.00	0.00	0.45	2.06	2.99	40.56	0.793
B35	2.60	0.00	0.00	0.33	2.18	1.90	41.36	0.839
B36	2.60	0.00	0.00	0.41	2.10	1.45	34.23	0.8
B4	2.60	0.00	0.00	0.95	1.58	0.26	8.48	0.6
B40	2.60	0.00	0.00	0.29	2.22	2.20	54.14	0.854
B41	2.60	0.00	0.00	0.10	1.15	0.77	11.31	0.442
B5	2.60	0.00	0.00	0.64	1.88	3.34	31.12	0.722
B6	2.60	0.00	0.00	0.62	1.90	0.36	10.61	0.729
B7	2.60	0.00	0.00	0.78	1.74	0.54	18.58	0.669
B8	2.60	0.00	0.00	0.65	1.87	1.20	22.18	0.720
BR1	2.60	0.00	0.00	0.38	2.15	1.69	70.88	0.827
BR10	2.60	0.00	0.00	1.08	1.49	1.47	42.40	0.572
BR11	2.60	0.00	0.00	0.53	2.00	0.53	31.84	0.769
BR12	2.60	0.00	0.00	1.40	1.19	0.72	5.47	0.457
BR13	2.60	0.00	0.00	0.46	2.06	1.63	55.48	0.794
BR14	2.60	0.00	0.00	0.19	2.31	1.24	37.01	0.889
BR16	2.60	0.00	0.00	1.45	1.14	0.80	4.82	0.437
BR17	2.60	0.00	0.00	0.65	1.89	2.52	60.64	0.726
BR18	2.60	0.00	0.00	0.39	2.14	1.92	57.19	0.822
BR19	2.60	0.00	0.00	0.40	2.12	1.51	42.71	0.815
BR2	2.60	0.00	0.00	0.89	1.64	0.25	13.33	0.630
BR20	2.60	0.00	0.00	0.18	2.33	1.53	33.72	0.895
BR21	2.60	0.00	0.00	0.26	2.26	1.46	64.21	0.868
BR3	2.60	0.00	0.00	0.53	2.00	2.02	55.96	0.770
BR4	2.60	0.00	0.00	0.35	2.17	2.33	78.00	0.836
BR5	2.60	0.00	0.00	0.47	2.07	0.60	32.53	0.797
BR6	2.60	0.00	0.00	0.32	2.19	1.70	42.89	0.841
BR9	2.60	0.00	0.00	0.26	2.25	3.37	45.33	0.864
B19.1	2.60	0.00	0.00	0.24	2.27	0.94	52.47	0.874
B19.2	2.60	0.00	0.00	0.24	2.27	0.74	44.71	0.874

Node Depth Summary

Node	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time of Max Occurrence days hr:min
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COA6149	JUNCTION	0.11	1.97	4958.48	0	02:04
COA6231	JUNCTION	0.19	3.08	4958.14	0	02:03
COA6045	JUNCTION	0.28	7.83	4965.34	0	01:31
COA15184	JUNCTION	0.62	10.24	4964.43	0	02:13
COA6218	JUNCTION	0.55	9.77	4963.43	0	03:13
COA6195	JUNCTION	0.14	7.04	4970.01	0	01:52
COA6246	JUNCTION	0.44	7.86	4969.92	0	01:33
COA29163	JUNCTION	0.19	8.38	4970.39	0	01:33
COA7635	JUNCTION	0.08	7.29	4964.63	0	01:31
COA7650	JUNCTION	0.13	8.36	4963.29	0	01:43
COA7656	JUNCTION	0.34	9.46	4962.63	0	01:32
COA7628	JUNCTION	0.22	11.03	4971.47	0	01:33
COA29132	JUNCTION	0.24	14.23	4976.08	0	01:28
COA33027	JUNCTION	0.04	1.64	4958.79	0	02:19
COA33007	JUNCTION	0.01	1.21	4996.08	0	00:16
COA7717	JUNCTION	0.14	6.74	4956.28	0	01:30
COA19719	JUNCTION	1.26	10.76	4963.06	0	02:56
COA7654	JUNCTION	0.65	8.60	4960.27	0	05:44
COA7714	JUNCTION	0.60	7.86	4958.00	0	02:57
COA6259	JUNCTION	0.21	3.90	4957.62	0	02:05
COA7638	JUNCTION	0.79	4.33	4956.95	0	02:05
COA25807	JUNCTION	0.18	2.76	4955.94	0	02:09
COA25349	JUNCTION	0.41	11.08	4956.34	0	01:59
COA25656	JUNCTION	0.57	10.47	4959.33	0	02:25
COA25677	JUNCTION	0.67	10.97	4959.56	0	01:37
COA25622	JUNCTION	0.40	9.60	4957.84	0	01:45
COA7444	JUNCTION	0.29	7.72	4960.59	0	01:38
COA7476	JUNCTION	0.30	8.00	4958.32	0	02:15
COA7518	JUNCTION	0.52	9.06	4957.00	0	02:26
COA24834	JUNCTION	0.63	7.41	4951.93	0	03:15
COA8985	JUNCTION	0.53	11.38	4952.14	0	01:37
COA24859	JUNCTION	0.61	8.43	4947.07	0	01:54
COA9015	JUNCTION	0.08	3.08	4945.99	0	01:54
COA25105	JUNCTION	0.38	10.21	4956.52	0	01:40
COA25117	JUNCTION	0.45	11.29	4956.55	0	01:57
COA25048	JUNCTION	0.38	11.36	4956.28	0	01:40
COA25034	JUNCTION	0.43	10.70	4954.52	0	01:43
COA9045	JUNCTION	0.50	8.65	4950.26	0	01:49
COA25352	JUNCTION	0.42	11.31	4956.37	0	01:59
COA7815	JUNCTION	0.68	13.40	4956.88	0	01:53
COA25253	JUNCTION	0.88	12.95	4954.61	0	01:49
COA7977	JUNCTION	0.56	13.08	4955.02	0	01:49
COA25238	JUNCTION	0.85	13.47	4954.67	0	01:59
COA25240	JUNCTION	0.87	13.87	4955.02	0	01:59
COA22584	JUNCTION	0.62	14.49	4954.67	0	01:59
COA9260	JUNCTION	0.78	14.78	4952.80	0	01:53
COA7740	JUNCTION	0.60	8.25	4957.94	0	01:53
COA7830	JUNCTION	0.74	12.00	4956.87	0	01:53
COA7865	JUNCTION	0.65	10.46	4956.80	0	01:58
COA7908	JUNCTION	0.82	10.01	4956.16	0	01:53
COA7912	JUNCTION	0.27	10.68	4956.29	0	01:53
COA7955	JUNCTION	1.61	12.00	4955.49	0	01:57
COA22517	JUNCTION	0.32	11.01	4954.60	0	01:54
COA7716	JUNCTION	0.29	7.26	4956.14	0	01:30
COA7766JB	JUNCTION	0.54	11.68	4955.63	0	01:27
COA7769JB	JUNCTION	0.30	13.85	4958.37	0	01:27
COA32865	JUNCTION	0.24	11.62	4957.11	0	01:27
COA32878	JUNCTION	0.82	9.28	4955.88	0	01:35
COA7848	JUNCTION	0.18	8.71	4956.38	0	01:54
COA7861	JUNCTION	0.25	34.12	4981.88	0	01:30
COA7870	JUNCTION	0.13	64.16	5021.91	0	01:30
COA29178	JUNCTION	4.82	79.32	5036.10	0	01:30
COA7816	JUNCTION	0.67	13.17	4957.36	0	02:07
COA25109	JUNCTION	0.37	10.67	4956.54	0	01:46
BPSINLET	JUNCTION	0.70	14.61	4953.50	0	01:27
COA9310	JUNCTION	0.25	11.55	4953.95	0	01:54
COA9348	JUNCTION	0.40	11.79	4951.42	0	01:52
COA9344	JUNCTION	3.42	15.72	4951.55	0	02:00
COA9340	JUNCTION	2.80	16.65	4952.29	0	01:55
COA22250	JUNCTION	0.41	13.58	4951.14	0	01:54
COA22429	JUNCTION	0.36	13.07	4950.33	0	01:56
COA13866	JUNCTION	0.67	12.08	4947.44	0	01:53

COA24930	JUNCTION	0.38	11.05	4948.22	0	02:11
COA24916	JUNCTION	0.26	10.36	4948.61	0	01:54
COA9248	JUNCTION	0.10	10.07	4957.72	0	02:01
COA32981	JUNCTION	0.73	9.45	4940.84	0	02:09
COA9121	JUNCTION	0.78	9.42	4940.58	0	02:01
COA24902	JUNCTION	1.36	5.62	4944.69	0	01:51
COA24902A	JUNCTION	0.54	3.50	4943.23	0	01:52
COA9069	JUNCTION	0.13	3.08	4943.93	0	01:53
COA24997	JUNCTION	0.54	7.47	4943.61	0	01:53
COA9083	JUNCTION	0.65	5.75	4941.08	0	01:52
UPSINLET	JUNCTION	0.23	5.18	4936.65	0	02:24
COA9407	JUNCTION	0.05	1.30	4945.70	0	01:30
COA9426	JUNCTION	0.07	2.03	4945.06	0	01:31
COA22194	JUNCTION	0.06	1.77	4943.77	0	01:31
COA22191	JUNCTION	0.06	1.81	4942.60	0	01:32
COA9431	JUNCTION	0.19	2.24	4941.51	0	01:33
COA22176	JUNCTION	0.08	2.29	4940.74	0	01:34
COA22168	JUNCTION	0.04	1.13	4937.69	0	01:35
COA22174	JUNCTION	0.52	8.04	4936.53	0	01:53
COA22155	JUNCTION	0.58	8.07	4936.42	0	01:53
COA9141	JUNCTION	0.69	7.70	4935.91	0	01:53
COA22410	JUNCTION	0.80	8.28	4936.64	0	01:56
COA9129	JUNCTION	0.74	9.22	4939.46	0	02:01
COA9143	JUNCTION	0.69	7.38	4934.66	0	01:53
COA22144	JUNCTION	0.66	6.20	4930.99	0	01:55
COA22145	JUNCTION	0.73	7.01	4932.86	0	01:54
COA22143	JUNCTION	0.68	5.46	4929.45	0	01:55
COA10456	JUNCTION	0.40	3.06	4925.82	0	01:55
COA10457	JUNCTION	0.24	4.77	4911.90	0	01:55
COA7963.05A	JUNCTION	0.04	1.63	4973.61	0	00:13
COA7963.05M	JUNCTION	0.22	6.02	4958.71	0	02:21
COA7963.11A	JUNCTION	0.42	9.48	4961.15	0	01:31
COA7963.T	JUNCTION	0.63	9.02	4941.23	0	02:09
COA32878.A	JUNCTION	0.21	8.39	4955.58	0	01:27
COA32878.B	JUNCTION	0.26	8.93	4955.20	0	01:27
APINLET	JUNCTION	0.31	8.11	4937.77	0	01:52
IRON14TH	JUNCTION	0.13	6.97	4946.04	0	01:51
BLDWEIR	JUNCTION	1.24	9.68	4956.28	0	01:54
BLUWEIR	JUNCTION	0.82	10.43	4957.03	0	01:47
COA22169	JUNCTION	0.24	3.24	4942.59	0	01:58
COA22127	JUNCTION	0.18	2.32	4940.18	0	01:52
COA32823	JUNCTION	0.09	3.56	4936.65	0	02:26
COA9453	JUNCTION	0.31	2.91	4941.98	0	01:58
MHB22410	JUNCTION	0.81	9.13	4937.55	0	01:56
COA9152	JUNCTION	5.09	10.88	4940.55	0	02:02
COA9229	JUNCTION	20.04	27.34	4940.49	0	02:05
MHB19A	JUNCTION	0.18	3.65	4936.65	0	02:25
1F.C.INLET	JUNCTION	0.38	7.03	4958.03	0	02:23
1F.C.OUT	JUNCTION	0.51	9.40	4958.40	0	01:30
1F.D.MH1	JUNCTION	0.05	0.61	5062.61	0	02:29
1F.E.MHA	JUNCTION	0.15	11.98	4973.48	0	01:33
1F.E.MHB	JUNCTION	0.31	11.04	4971.89	0	01:33
1F.H.MH1	JUNCTION	0.47	8.04	4959.54	0	05:53
1F.H.MH2	JUNCTION	0.67	8.00	4958.50	0	02:00
APSOUTLET	OUTFALL	0.00	0.00	4960.84	0	00:00
BPSOUTLET	OUTFALL	0.00	0.00	5106.00	0	00:00
BaPSOUTLET	OUTFALL	0.00	0.00	4941.69	0	00:00
AIRQUALITYPOND	STORAGE	0.26	6.44	4958.70	0	02:21
TINGLEYPARKSURGEPOND	STORAGE	0.63	8.97	4941.18	0	02:41
WAREHOUSEPOND	STORAGE	0.38	5.56	4955.56	0	02:44
BR2LPOND	STORAGE	0.27	6.60	5068.60	0	02:28
SANTABARBARAPOND	STORAGE	0.28	1.17	4962.17	0	05:42
NORTHWELLSPARK	STORAGE	0.59	7.97	4958.97	0	05:28

Node Inflow Summary

Maximum Lateral	Maximum Total	Time of Max	Lateral Inflow	Total Inflow
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Node	Type	Inflow CFS	Inflow CFS	Occurrence days hr:min	Volume 10 ⁶ gal	Volume 10 ⁶ gal
COA6149	JUNCTION	11.31	11.31	0 02:03	0.774	0.777
COA6231	JUNCTION	29.54	40.03	0 02:03	2.632	3.410
COA6045	JUNCTION	34.23	73.01	0 01:28	1.448	1.723
COA15184	JUNCTION	40.56	81.78	0 01:28	2.986	4.908
COA6218	JUNCTION	0.00	83.95	0 05:45	0.000	4.753
COA6195	JUNCTION	57.19	57.19	0 01:30	1.922	1.922
COA6246	JUNCTION	0.00	68.06	0 01:32	0.000	1.923
COA29163	JUNCTION	0.00	86.65	0 01:29	0.000	1.924
COA7635	JUNCTION	37.01	38.85	0 01:30	1.242	1.242
COA7650	JUNCTION	0.00	51.28	0 01:43	0.000	1.234
COA7656	JUNCTION	55.48	195.03	0 01:31	1.634	8.944
COA7628	JUNCTION	0.00	94.15	0 01:29	0.000	5.888
COA29132	JUNCTION	60.64	105.76	0 01:28	2.519	4.444
COA33027	JUNCTION	31.84	43.72	0 01:32	0.529	1.685
COA33007	JUNCTION	43.49	43.49	0 00:15	0.809	0.809
COA7717	JUNCTION	45.33	45.33	0 01:54	3.367	3.368
COA19719	JUNCTION	95.40	139.24	0 01:33	4.099	8.752
COA7654	JUNCTION	34.75	116.79	0 02:59	2.641	11.227
COA7714	JUNCTION	0.00	56.24	0 02:56	0.000	13.663
COA6259	JUNCTION	0.00	40.00	0 02:04	0.000	3.405
COA7638	JUNCTION	33.49	70.39	0 02:03	2.159	5.565
COA25807	JUNCTION	0.00	70.64	0 02:03	0.000	5.560
COA25349	JUNCTION	34.99	196.30	0 02:15	5.088	10.669
COA25656	JUNCTION	31.40	31.40	0 02:03	4.407	4.407
COA25677	JUNCTION	0.00	52.69	0 02:44	0.000	4.403
COA25622	JUNCTION	22.71	48.37	0 02:13	1.367	5.732
COA7444	JUNCTION	36.85	44.96	0 01:37	2.893	2.894
COA7476	JUNCTION	24.46	68.50	0 01:39	1.767	4.630
COA7518	JUNCTION	31.47	75.64	0 01:37	1.826	6.447
COA24834	JUNCTION	42.35	101.40	0 02:03	6.199	12.653
COA8985	JUNCTION	20.90	83.03	0 01:37	1.667	14.724
COA24859	JUNCTION	13.38	95.27	0 01:37	0.512	15.256
COA9015	JUNCTION	0.00	26.69	0 01:44	0.000	1.665
COA25105	JUNCTION	23.40	67.94	0 01:52	1.036	6.741
COA25117	JUNCTION	0.00	76.57	0 01:41	0.000	6.547
COA25048	JUNCTION	24.64	99.30	0 01:45	2.246	8.774
COA25034	JUNCTION	24.08	122.95	0 01:38	1.659	10.442
COA9045	JUNCTION	30.62	128.25	0 01:40	3.221	13.648
COA25352	JUNCTION	0.00	386.69	0 01:59	0.000	10.448
COA7815	JUNCTION	0.00	245.23	0 02:08	0.000	29.864
COA25253	JUNCTION	0.00	186.13	0 02:07	0.000	29.564
COA7977	JUNCTION	0.00	192.48	0 02:07	0.000	29.613
COA25238	JUNCTION	0.00	170.90	0 01:51	0.000	29.683
COA25240	JUNCTION	0.00	166.69	0 01:56	0.000	29.742
COA22584	JUNCTION	0.00	166.68	0 01:56	0.000	29.782
COA9260	JUNCTION	47.72	209.81	0 01:59	2.416	32.119
COA7740	JUNCTION	39.07	81.45	0 02:57	3.196	16.753
COA7830	JUNCTION	0.00	146.43	0 01:37	0.000	19.603
COA7865	JUNCTION	36.35	108.38	0 01:56	2.616	5.676
COA7908	JUNCTION	0.00	168.09	0 01:48	0.000	5.625
COA7912	JUNCTION	0.00	176.53	0 01:54	0.000	5.584
COA7955	JUNCTION	0.00	89.30	0 01:52	0.000	5.590
COA22517	JUNCTION	29.72	137.78	0 01:52	1.033	8.270
COA7716	JUNCTION	0.00	101.96	0 03:04	0.000	16.216
COA7766JB	JUNCTION	42.89	111.33	0 02:29	1.700	17.898
COA7769JB	JUNCTION	0.00	147.42	0 01:27	0.000	12.125
COA32865	JUNCTION	55.96	55.96	0 01:30	2.024	2.025
COA32878	JUNCTION	42.70	195.94	0 01:30	1.509	7.344
COA7848	JUNCTION	33.72	134.43	0 01:31	1.525	2.934
COA7861	JUNCTION	0.00	152.39	0 01:30	0.000	5.751
COA7870	JUNCTION	78.00	152.99	0 01:30	2.604	5.748
COA29178	JUNCTION	70.87	70.87	0 01:30	1.688	1.688
COA7816	JUNCTION	31.67	142.84	0 02:06	3.382	19.812
COA25109	JUNCTION	0.00	103.05	0 01:52	0.000	6.666
BPSINLET	JUNCTION	0.00	202.38	0 01:27	0.000	25.991
COA9310	JUNCTION	0.00	116.99	0 01:54	0.000	8.177
COA9348	JUNCTION	33.26	148.17	0 01:53	1.828	10.002
COA9344	JUNCTION	36.32	226.00	0 02:00	2.630	12.429
COA9340	JUNCTION	0.00	212.97	0 01:54	0.000	12.415

COA22250	JUNCTION	0.00	172.04	0	01:57	0.000	12.358
COA22429	JUNCTION	39.76	206.69	0	02:01	1.715	14.004
COA13866	JUNCTION	19.53	409.42	0	01:53	0.982	50.400
COA24930	JUNCTION	29.60	93.70	0	02:11	1.623	3.240
COA24916	JUNCTION	18.12	80.19	0	01:50	1.463	1.775
COA9248	JUNCTION	44.71	48.71	0	01:30	0.742	1.695
COA32981	JUNCTION	0.00	278.63	0	03:13	0.000	50.623
COA9121	JUNCTION	0.00	278.63	0	03:13	0.000	50.623
COA24902	JUNCTION	0.00	137.93	0	01:51	0.000	13.698
COA24902A	JUNCTION	0.00	142.27	0	01:51	0.000	14.899
COA9069	JUNCTION	30.31	53.14	0	01:55	2.864	4.549
COA24997	JUNCTION	0.00	85.83	0	01:54	0.000	16.906
COA9083	JUNCTION	0.00	217.11	0	01:52	0.000	31.804
UPSINLET	JUNCTION	0.00	10.75	0	02:26	0.000	0.956
COA9407	JUNCTION	15.14	15.14	0	01:30	0.509	0.509
COA9426	JUNCTION	18.58	32.99	0	01:30	0.545	1.054
COA22194	JUNCTION	0.00	32.74	0	01:31	0.000	1.048
COA22191	JUNCTION	0.00	32.66	0	01:32	0.000	1.052
COA9431	JUNCTION	10.61	42.42	0	01:32	0.363	1.414
COA22176	JUNCTION	0.00	42.16	0	01:33	0.000	1.414
COA22168	JUNCTION	0.00	41.97	0	01:34	0.000	1.414
COA22174	JUNCTION	8.48	48.27	0	01:34	0.256	1.671
COA22155	JUNCTION	17.34	66.31	0	01:35	0.708	2.379
COA9141	JUNCTION	10.25	320.68	0	01:49	0.262	54.463
COA22410	JUNCTION	0.00	283.93	0	02:42	0.000	51.823
COA9129	JUNCTION	0.00	278.63	0	03:12	0.000	50.624
COA9143	JUNCTION	0.00	316.02	0	01:53	0.000	54.464
COA22144	JUNCTION	0.00	314.98	0	01:54	0.000	54.464
COA22145	JUNCTION	0.00	315.41	0	01:54	0.000	54.464
COA22143	JUNCTION	0.00	314.85	0	01:54	0.000	54.464
COA10456	JUNCTION	0.00	373.79	0	01:55	0.000	59.866
COA10457	JUNCTION	0.00	373.81	0	01:55	0.000	59.889
COA7963.05A	JUNCTION	48.69	48.69	0	00:12	1.226	1.226
COA7963.05M	JUNCTION	42.40	74.23	0	01:30	1.472	2.706
COA7963.11A	JUNCTION	0.00	149.24	0	01:33	0.000	13.244
COA7963.T	JUNCTION	0.00	383.20	0	01:53	0.000	51.349
COA32878.A	JUNCTION	13.33	101.20	0	01:27	0.252	6.168
COA32878.B	JUNCTION	0.00	98.77	0	01:27	0.000	6.174
APSINLET	JUNCTION	0.00	217.15	0	01:52	0.000	31.803
IRON14TH	JUNCTION	0.00	66.83	0	01:50	0.000	0.242
BLDWEIR	JUNCTION	0.00	104.28	0	01:30	0.000	1.469
BLUWEIR	JUNCTION	0.00	104.31	0	01:30	0.000	1.493
COA22169	JUNCTION	31.12	31.12	0	01:57	3.340	3.340
COA22127	JUNCTION	29.88	59.17	0	01:49	2.064	5.403
COA32823	JUNCTION	0.00	13.06	0	01:49	0.000	0.987
COA9453	JUNCTION	0.00	31.12	0	01:57	0.000	3.340
MHB22410	JUNCTION	22.18	283.93	0	02:42	1.198	51.822
COA9152	JUNCTION	52.46	52.46	0	01:30	0.944	0.944
COA9229	JUNCTION	0.00	47.31	0	01:30	0.000	0.938
MHB19A	JUNCTION	0.00	2.23	0	01:35	0.000	0.032
1F.C.INLET	JUNCTION	0.00	92.39	0	01:36	0.000	12.708
1F.C.OUT	JUNCTION	0.00	85.28	0	03:31	0.000	12.986
1F.D.MH1	JUNCTION	0.00	8.99	0	02:28	0.000	1.459
1F.E.MHA	JUNCTION	0.00	101.50	0	01:28	0.000	4.439
1F.E.MHB	JUNCTION	0.00	98.06	0	01:29	0.000	6.369
1F.H.MH1	JUNCTION	0.00	238.87	0	05:52	0.000	10.918
1F.H.MH2	JUNCTION	0.00	56.24	0	02:56	0.000	13.617
APSOUTLET	OUTFALL	0.00	217.15	0	01:52	0.000	31.803
BPSOUTLET	OUTFALL	0.00	202.65	0	01:27	0.000	25.930
BaPSOUTLET	OUTFALL	0.00	373.80	0	01:55	0.000	59.701
AIRQUALITYPOND	STORAGE	0.00	159.41	0	01:31	0.000	4.681
TINGLEYPARKSURGEPOND	STORAGE	11.10	135.85	0	01:53	0.388	1.115
WAREHOUSEPOND	STORAGE	0.00	118.19	0	01:33	0.000	12.846
BR21POND	STORAGE	64.21	64.21	0	01:30	1.459	1.459
SANTABARBARAPOND	STORAGE	10.29	25.31	0	02:14	1.518	2.002
NORTHWELLS PARK	STORAGE	38.79	173.01	0	02:41	3.059	13.766

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
COA6045	JUNCTION	3.05	3.826	0.000
COA15184	JUNCTION	4.75	6.063	0.000
COA6218	JUNCTION	5.11	5.302	0.000
COA6195	JUNCTION	0.79	3.037	0.000
COA6246	JUNCTION	0.81	3.562	0.000
COA29163	JUNCTION	0.84	4.385	0.000
COA7635	JUNCTION	0.30	3.292	0.000
COA7650	JUNCTION	0.65	4.358	0.000
COA7656	JUNCTION	1.28	4.520	0.000
COA7628	JUNCTION	0.42	7.030	0.000
COA29132	JUNCTION	0.81	10.231	0.000
COA7717	JUNCTION	0.80	2.737	2.453
COA19719	JUNCTION	5.51	5.943	0.000
COA7654	JUNCTION	5.82	4.603	0.000
COA7714	JUNCTION	6.16	3.861	0.000
COA25349	JUNCTION	1.55	5.578	0.000
COA25656	JUNCTION	2.33	7.473	0.000
COA25677	JUNCTION	1.96	7.902	0.000
COA25622	JUNCTION	1.58	6.458	0.000
COA7444	JUNCTION	1.00	3.641	0.000
COA7476	JUNCTION	1.54	3.987	0.000
COA7518	JUNCTION	3.50	4.961	0.000
COA24834	JUNCTION	4.47	1.455	0.000
COA8985	JUNCTION	4.51	5.950	0.000
COA24859	JUNCTION	0.63	0.930	3.570
COA9015	JUNCTION	0.01	0.082	5.368
COA25105	JUNCTION	1.75	6.207	0.000
COA25117	JUNCTION	1.65	7.273	0.000
COA25048	JUNCTION	0.91	6.360	0.000
COA25034	JUNCTION	0.89	5.702	0.000
COA9045	JUNCTION	0.30	3.590	0.000
COA25352	JUNCTION	1.75	5.814	0.000
COA7815	JUNCTION	2.05	7.303	0.000
COA25253	JUNCTION	2.14	6.953	0.000
COA7977	JUNCTION	1.67	7.080	0.000
COA25238	JUNCTION	1.86	7.241	0.000
COA25240	JUNCTION	1.41	7.560	0.000
COA22584	JUNCTION	2.02	8.491	0.000
COA9260	JUNCTION	2.10	7.780	0.000
COA7740	JUNCTION	4.18	3.750	0.000
COA7830	JUNCTION	0.39	4.292	0.000
COA7865	JUNCTION	0.69	4.983	0.000
COA7908	JUNCTION	0.87	5.007	0.000
COA7912	JUNCTION	0.50	4.461	0.000
COA7955	JUNCTION	0.78	5.113	0.000
COA22517	JUNCTION	1.18	5.510	0.000
COA7716	JUNCTION	1.23	3.077	1.973
COA7766JB	JUNCTION	2.62	6.974	0.646
COA7769JB	JUNCTION	2.08	8.852	0.000
COA32865	JUNCTION	2.40	8.100	0.000
COA32878	JUNCTION	0.93	3.259	0.000
COA7848	JUNCTION	0.44	2.711	0.000
COA7861	JUNCTION	1.17	29.616	0.000
COA7870	JUNCTION	0.21	57.413	0.000
COA29178	JUNCTION	0.76	72.049	0.000
COA7816	JUNCTION	2.00	7.171	0.000
COA25109	JUNCTION	1.77	6.674	0.000
BPSINLET	JUNCTION	2.20	4.512	6.388
COA9310	JUNCTION	1.20	6.052	0.000
COA9348	JUNCTION	1.74	5.752	0.000
COA9344	JUNCTION	1.98	6.355	0.000
COA9340	JUNCTION	2.31	7.982	0.000
COA22250	JUNCTION	2.50	7.582	0.000
COA22429	JUNCTION	2.49	7.071	0.000
COA13866	JUNCTION	2.13	4.083	0.000
COA24930	JUNCTION	1.97	5.051	0.000

COA24916	JUNCTION	1.38	4.833	0.000
COA9248	JUNCTION	0.07	6.074	0.000
COA32981	JUNCTION	2.66	1.449	8.411
COA9121	JUNCTION	2.66	1.422	8.078
COA24997	JUNCTION	0.42	0.635	5.875
COA9083	JUNCTION	0.28	0.253	6.867
UPSINLET	JUNCTION	1.88	1.685	13.385
COA22174	JUNCTION	3.31	3.035	8.545
COA22155	JUNCTION	3.36	3.066	8.824
COA22410	JUNCTION	0.39	0.283	10.467
COA9129	JUNCTION	2.65	1.218	6.792
COA7963.05M	JUNCTION	1.19	1.020	4.290
COA7963.11A	JUNCTION	2.59	5.480	0.000
COA7963.T	JUNCTION	2.64	1.020	0.230
COA32878.A	JUNCTION	1.19	3.890	0.000
COA32878.B	JUNCTION	1.60	4.434	0.646
BLDWEIR	JUNCTION	0.84	3.676	0.000
BLUWEIR	JUNCTION	0.93	4.429	0.000
MHB22410	JUNCTION	2.68	1.125	9.625
COA9229	JUNCTION	0.87	1.342	0.000
1F.C.INLET	JUNCTION	2.48	3.030	2.390
1F.C.OUT	JUNCTION	2.47	5.400	0.000
1F.E.MHA	JUNCTION	0.70	7.983	2.227
1F.E.MHB	JUNCTION	0.60	7.040	0.000
1F.H.MH1	JUNCTION	5.87	4.041	0.000
1F.H.MH2	JUNCTION	6.62	4.000	0.000
AIRQUALITYPOND	STORAGE	1.53	1.443	5.957
TINGLEYPARKSURGE POND	STORAGE	2.64	0.967	7.483
WAREHOUSEPOND	STORAGE	2.64	1.561	4.439
BR21POND	STORAGE	143.00	6.599	7.401
NORTHWELLS PARK	STORAGE	6.64	3.966	1.034

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
COA6045	2.40	55.76	0 01:29	0.260	7.83
COA15184	3.68	71.00	0 01:28	0.755	10.24
COA6218	4.16	76.22	0 05:28	0.874	9.77
COA6195	0.78	43.19	0 01:34	0.180	7.04
COA6246	0.12	53.01	0 01:32	0.019	7.86
COA29163	0.04	50.70	0 01:34	0.009	8.38
COA7635	0.05	15.72	0 01:44	0.004	7.29
COA7650	0.37	40.62	0 01:43	0.042	8.36
COA7656	0.10	56.48	0 01:31	0.017	9.46
COA7628	0.01	9.83	0 01:33	0.000	11.03
COA29132	0.01	29.91	0 01:28	0.000	14.23
COA19719	4.42	79.16	0 01:33	1.190	10.76
COA7654	1.60	109.18	0 05:43	0.282	8.60
COA7714	0.23	30.70	0 02:57	0.019	7.86
COA25349	0.14	131.71	0 01:52	0.065	11.08
COA25656	1.94	22.99	0 01:59	0.246	10.47
COA25677	0.67	44.74	0 02:09	0.055	10.97
COA25622	0.90	25.60	0 02:13	0.067	9.60
COA7444	0.77	16.28	0 01:37	0.046	7.72
COA7476	1.49	30.29	0 01:36	0.231	8.00
COA7518	1.68	30.81	0 01:34	0.232	9.06
COA24834	4.01	51.89	0 02:01	1.590	7.41
COA8985	0.01	9.88	0 01:37	0.000	11.38
COA25105	0.37	32.17	0 01:52	0.040	10.21
COA25117	0.12	62.13	0 01:41	0.016	11.29
COA25048	0.10	52.53	0 01:41	0.018	11.36
COA25034	0.17	40.43	0 01:42	0.028	10.70
COA9045	0.04	18.00	0 01:49	0.003	8.65

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COA25352	0.10	142.95	0	02:15	0.029	11.31
COA7815	0.22	115.20	0	01:52	0.113	13.40
COA25253	0.01	40.73	0	01:49	0.003	12.95
COA25238	0.01	30.02	0	01:59	0.001	13.47
COA22584	0.01	49.26	0	01:59	0.003	14.49
COA9260	0.03	44.60	0	01:53	0.007	14.78
COA7740	0.03	18.36	0	01:53	0.003	8.25
COA7830	0.05	72.11	0	01:55	0.014	12.00
COA7865	0.06	53.28	0	01:58	0.013	10.46
COA7908	0.03	162.20	0	01:54	0.011	10.01
COA7912	0.01	19.48	0	01:56	0.001	10.68
COA7955	0.14	45.48	0	02:01	0.032	12.00
COA22517	0.28	52.52	0	01:52	0.064	11.01
COA32878	0.40	36.15	0	01:53	0.044	9.28
COA7848	0.01	13.63	0	01:54	0.001	8.71
COA7816	0.25	79.55	0	02:07	0.075	13.17
COA25109	0.22	46.93	0	01:46	0.026	10.67
COA9310	0.11	40.10	0	01:54	0.021	11.55
COA9348	0.13	65.30	0	01:52	0.035	11.79
COA9344	0.07	86.02	0	02:00	0.024	15.72
COA9340	0.03	85.11	0	01:55	0.010	16.65
COA22250	0.03	88.67	0	02:17	0.012	13.58
COA22429	0.03	72.70	0	02:22	0.011	13.07
COA13866	0.06	85.11	0	02:01	0.022	12.08
COA24930	0.20	65.31	0	02:11	0.054	11.05
COA24916	0.08	60.59	0	01:53	0.024	10.36
COA9248	0.04	16.40	0	02:01	0.003	10.07
COA7963.11A	0.01	19.77	0	01:31	0.000	9.48
COA32878.A	0.01	6.20	0	01:27	0.000	8.39
COA9229	0.58	10.48	0	01:51	0.028	27.34
1F.C.OUT	0.01	10.44	0	01:30	0.000	9.40
1F.E.MHB	0.01	4.32	0	01:33	0.000	11.04
1F.H.MH1	0.31	227.48	0	05:52	0.138	8.04
1F.H.MH2	0.01	15.83	0	02:00	0.001	8.00

***** Storage Volume Summary *****

Storage Unit	Average Volume 1000 ft3	Avg Pcnt Full	E&I Pcnt Loss	Maximum Volume 1000 ft3	Max Pcnt Full	Time of Max Occurrence days hr:min	Maximum Outflow CFS
AIRQUALITYPOND	5.826	1	0	274.313	40	0 02:21	40.25
TINGLEYPARKSURGEPOND	1.665	0	0	100.419	4	0 02:41	40.74
WAREHOUSEPOND	7.363	1	0	275.936	39	0 02:44	85.28
BR21POND	3.591	1	0	96.137	36	0 02:28	8.99
SANTABARBARAPOND	35.547	2	0	149.611	9	0 05:42	4.37
NORTHWELLS PARK	43.964	6	0	627.612	87	0 05:28	273.69

***** Outfall Loading Summary *****

Outfall Node	Flow Freq. Pcnt.	Avg. Flow CFS	Max. Flow CFS	Total Volume 10^6 gal
APSOUTLET	99.28	9.25	217.15	31.803
BPSOUTLET	95.81	7.98	202.65	25.930
BaPSOUTLET	97.76	17.82	373.80	59.701
System	97.62	35.06	783.66	117.434

***** 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
ESWMM57	CONDUIT	11.22	0 02:05	1.97	0.32	0.66
1F.H.SWMM8	CONDUIT	51.75	0 05:41	4.12	0.62	1.00
1F.H.SWMM9	CONDUIT	57.70	0 05:52	4.59	4.40	1.00
1F.DSWMM1	CONDUIT	68.06	0 01:32	5.42	1.35	1.00
1F.D.SWMM2	CONDUIT	86.65	0 01:29	6.90	1.20	1.00
1F.D.SWMM4	CONDUIT	51.28	0 01:43	5.05	0.61	1.00
1F.D.SWMM5	CONDUIT	62.03	0 01:31	4.94	0.73	1.00
ESWMM41	CONDUIT	17.32	0 01:34	6.72	0.96	0.91
1F.D.SWMM7	CONDUIT	82.69	0 01:33	6.58	0.71	1.00
ESWMM42	CONDUIT	42.12	0 00:16	13.85	0.17	0.29
ESWMM45	CONDUIT	149.24	0 01:33	11.88	1.63	1.00
1F.H.SWMM10	CONDUIT	64.11	0 05:38	5.10	1.26	1.00
ESWMM32	CONDUIT	73.07	0 01:29	5.87	2.05	1.00
ESWMM58	CONDUIT	40.00	0 02:04	4.44	0.62	0.79
ESWMM59	CONDUIT	40.18	0 02:07	2.66	0.64	0.91
ESWMM60	CONDUIT	70.64	0 02:03	5.41	0.91	0.78
ESWMM91	CONDUIT	52.69	0 02:44	7.45	4.24	1.00
ESWMM92	CONDUIT	36.67	0 02:45	5.19	3.38	1.00
1F.H.SWMM1	CONDUIT	44.07	0 01:39	3.74	0.75	1.00
1F.H.SWMM2	CONDUIT	51.27	0 03:11	4.08	0.76	1.00
1F.H.SWMM3	CONDUIT	68.87	0 01:37	5.85	1.81	1.00
1F.H.SWMM4	CONDUIT	65.10	0 05:11	5.30	1.21	1.00
ESWMM5	CONDUIT	83.64	0 01:37	6.66	0.95	1.00
ESWMM6	CONDUIT	26.69	0 01:44	4.90	2.33	1.00
ESWMM93	CONDUIT	51.27	0 01:52	7.25	1.71	1.00
ESWMM94	CONDUIT	103.05	0 01:52	8.20	1.95	1.00
ESWMM96	CONDUIT	74.73	0 01:45	5.95	1.92	1.00
ESWMM97	CONDUIT	98.90	0 01:38	5.04	1.07	1.00
ESWMM98	CONDUIT	99.74	0 01:40	5.08	1.25	1.00
ESWMM61	CONDUIT	80.33	0 02:05	4.66	0.48	0.75
ESWMM62	CONDUIT	386.69	0 01:59	16.28	2.15	1.00
ESWMM63	CONDUIT	167.28	0 02:07	7.04	0.89	1.00
ESWMM64	CONDUIT	186.13	0 02:07	6.58	1.35	1.00
ESWMM65	CONDUIT	192.48	0 02:07	6.81	0.41	1.00
ESWMM66	CONDUIT	170.90	0 01:51	6.04	0.71	1.00
ESWMM67	CONDUIT	166.69	0 01:56	5.90	0.91	1.00
ESWMM68	CONDUIT	166.68	0 01:56	5.90	0.83	1.00
ESWMM69	CONDUIT	170.37	0 01:59	6.03	0.91	1.00
ESWMM30	CONDUIT	60.73	0 02:57	4.83	1.37	1.00
ESWMM29	CONDUIT	63.50	0 03:42	4.91	0.88	1.00
ESWMM28	CONDUIT	72.08	0 01:56	4.53	0.98	1.00
ESWMM27	CONDUIT	105.24	0 01:56	5.36	1.88	1.00
ESWMM26	CONDUIT	176.53	0 01:54	8.99	0.32	1.00
ESWMM25	CONDUIT	89.30	0 01:52	4.55	1.12	1.00
ESWMM24	CONDUIT	80.01	0 01:52	3.37	0.70	1.00
ESWMM50	CONDUIT	70.87	0 01:30	10.25	3.58	1.00
ESWMM51	CONDUIT	152.39	0 01:30	12.13	0.83	1.00
ESWMM52	CONDUIT	153.60	0 01:30	9.66	1.61	1.00
BLUPIPE	CONDUIT	104.31	0 01:30	3.69	3.25	1.00
ESWMM46	CONDUIT	45.47	0 01:50	4.24	0.08	1.00
ESWMM47	CONDUIT	102.74	0 03:14	5.53	0.50	1.00
ESWMM48	CONDUIT	42.37	0 03:30	3.90	0.41	1.00
ESWMM49	CONDUIT	55.96	0 01:30	5.82	1.05	1.00
ESWMM54	CONDUIT	125.47	0 01:34	5.59	0.72	1.00
ESWMM55	CONDUIT	112.32	0 02:06	4.08	1.02	1.00
ESWMM56	CONDUIT	145.99	0 02:02	5.16	1.29	1.00
ESWMM95	CONDUIT	76.57	0 01:41	6.09	1.47	1.00
48SDTOBPS	CONDUIT	80.90	0 01:27	6.50	1.92	1.00
ESWMM23	CONDUIT	48.68	0 01:30	5.31	0.54	1.00
ESWMM22	CONDUIT	116.99	0 01:54	4.92	1.13	1.00
ESWMM21	CONDUIT	116.73	0 01:53	4.91	0.75	1.00
ESWMM20	CONDUIT	190.24	0 02:00	6.73	1.35	1.00
ESWMM19	CONDUIT	212.97	0 01:54	7.53	1.40	1.00
ESWMM18	CONDUIT	172.04	0 01:57	6.08	1.12	1.00
ESWMM17	CONDUIT	176.41	0 02:01	6.24	1.57	1.00
ESWMM16	CONDUIT	203.81	0 01:56	7.21	0.82	1.00

ESWMM70	CONDUIT	190.93	0	01:49	4.96	0.94	1.00
ESWMM15	CONDUIT	72.46	0	02:08	3.28	0.61	1.00
ESWMM71	CONDUIT	383.20	0	01:53	7.62	0.82	1.00
ESWMM72	CONDUIT	278.63	0	03:13	5.54	0.61	1.00
ESWMM7	CONDUIT	23.53	0	02:02	3.85	1.03	0.99
ESWMM12	CONDUIT	123.41	0	01:51	6.78	1.90	0.68
ESWMM9	CONDUIT	20.86	0	01:54	2.96	0.72	1.00
ESWMM99	CONDUIT	132.15	0	01:43	7.26	1.35	0.93
ESWMM8	CONDUIT	33.80	0	01:53	10.28	0.25	1.00
ESWMM10	CONDUIT	85.95	0	01:54	6.84	1.40	1.00
ESWMM11	CONDUIT	133.58	0	01:52	7.76	0.49	0.82
ESWMM90	CONDUIT	15.00	0	01:31	3.38	0.28	0.47
ESWMM89	CONDUIT	32.74	0	01:31	5.60	0.46	0.47
ESWMM88	CONDUIT	32.66	0	01:32	5.58	0.28	0.40
ESWMM87	CONDUIT	32.48	0	01:33	4.69	0.26	0.45
ESWMM86	CONDUIT	42.16	0	01:33	5.50	0.31	0.49
ESWMM85	CONDUIT	41.97	0	01:34	7.59	0.41	0.38
ESWMM84	CONDUIT	41.85	0	01:35	3.56	0.11	0.61
ESWMM83	CONDUIT	49.99	0	01:35	2.55	1.09	1.00
ESWMM82	CONDUIT	65.10	0	01:35	3.38	2.79	1.00
ESWMM73	CONDUIT	278.63	0	03:12	5.54	1.06	1.00
ESWMM76	CONDUIT	316.02	0	01:53	6.49	0.96	0.94
ESWMM77	CONDUIT	315.41	0	01:54	6.63	1.04	0.90
ESWMM78	CONDUIT	314.98	0	01:54	7.10	1.19	0.83
ESWMM79	CONDUIT	314.85	0	01:54	8.03	1.01	0.73
ESWMM80	CONDUIT	314.85	0	01:55	11.70	1.00	0.53
ESWMM81	CONDUIT	373.81	0	01:55	23.94	0.30	0.49
ESWMM14	CONDUIT	62.21	0	01:50	2.62	0.55	1.00
ESWMM13	CONDUIT	66.83	0	01:50	2.86	0.62	1.00
ESWMM125	CONDUIT	47.64	0	00:14	7.68	0.19	0.57
ESWMM71A	CONDUIT	278.63	0	03:13	5.54	0.44	1.00
ESWMM126	CONDUIT	132.37	0	01:53	2.63	2.47	1.00
ESWMM127	CONDUIT	57.93	0	01:32	4.93	0.88	1.00
ESWMM128	CONDUIT	41.13	0	01:32	8.70	0.17	0.70
ESWMM129	CONDUIT	65.91	0	01:30	6.85	0.35	1.00
ESWMM132	CONDUIT	88.11	0	01:27	5.60	0.49	1.00
60SDTOBPS	CONDUIT	126.39	0	01:27	7.52	0.56	1.00
ESWMM134	CONDUIT	87.12	0	01:27	5.55	0.88	1.00
ESWMM135	CONDUIT	217.15	0	01:52	9.85	2.58	0.87
ESWMM53	CONDUIT	102.35	0	01:31	5.00	0.44	1.00
ESWMM75	CONDUIT	283.93	0	02:42	5.84	1.48	0.98
1F.H.SWMM5	CONDUIT	31.12	0	01:57	3.05	0.61	0.77
1F.H.SWMM6	CONDUIT	31.10	0	01:59	3.68	0.60	0.64
1F.H.SWMM7	CONDUIT	59.07	0	01:52	7.95	0.61	0.57
ESWMM201	CONDUIT	13.06	0	01:49	7.39	8.29	1.00
ESWMM203	CONDUIT	10.75	0	02:26	8.33	0.09	1.00
ESWMM200	CONDUIT	47.31	0	01:30	3.40	0.40	0.99
ESWMM202	CONDUIT	2.23	0	01:35	1.19	0.03	0.55
ESWMM500	CONDUIT	59.48	0	05:39	4.73	1.30	1.00
ESWMM74	CONDUIT	278.64	0	03:12	5.54	0.94	1.00
ESWMM74A	CONDUIT	283.93	0	02:42	5.42	1.15	1.00
1F.C.SWMM1	CONDUIT	98.77	0	01:27	6.89	0.56	1.00
1F.CSWMM2	CONDUIT	92.39	0	01:36	7.47	1.21	1.00
1F.C3	CONDUIT	91.39	0	01:44	8.67	0.98	1.00
1F.C.4	CONDUIT	85.28	0	03:31	6.79	0.91	1.00
1F.CSWMM5	CONDUIT	85.29	0	03:31	8.22	2.64	1.00
1F.D.SWMM8	CONDUIT	8.99	0	02:29	8.25	0.20	0.65
1F.E.SWMM1	CONDUIT	54.89	0	02:14	4.37	2.06	1.00
1F.E.SWMM2	CONDUIT	101.50	0	01:28	8.24	2.23	1.00
1F.E.SWMM4	CONDUIT	15.71	0	02:15	7.82	1.93	0.64
1F.E.SWMM5	CONDUIT	94.15	0	01:29	8.50	1.65	1.00
1F.H.SWMM11	CONDUIT	108.94	0	01:56	10.06	4.43	1.00
1F.H.SWMM12	CONDUIT	220.25	0	05:52	23.58	1.67	1.00
1F.H.SWMM13	CONDUIT	56.24	0	02:56	7.96	1.28	1.00
1F.H.SWMM14	CONDUIT	56.24	0	02:56	4.48	1.93	1.00
1F.J.SWMM3	CONDUIT	98.06	0	01:29	7.81	0.91	1.00
BROADWAYPUMPSTATION	PUMP	202.65	0	01:27		0.68	
ALCALDEPUMPSTATION	PUMP	217.15	0	01:52		0.80	
URBANPUMPSTATION	PUMP	10.75	0	02:26		0.90	
BARELASPUMPSTATION	PUMP	373.80	0	01:55		0.92	
WEIRON14TH	WEIR	29.58	0	01:51			0.24
WEIRBROADWAY	WEIR	104.28	0	01:30			1.00

BR21OUTLET DUMMY 8.99 0 02:28

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		
ESWMM57	1.00	0.01	0.00	0.00	0.05	0.00	0.00	0.94	0.32	0.0000
1F.H.SWMM8	1.00	0.01	0.00	0.00	0.37	0.00	0.00	0.62	0.31	0.0004
1F.H.SWMM9	1.00	0.01	0.00	0.00	0.06	0.00	0.00	0.93	0.19	0.0017
1F.DSWMM1	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.06	0.0000
1F.D.SWMM2	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.27	0.0000
1F.D.SWMM4	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.38	0.0001
1F.D.SWMM5	1.00	0.00	0.00	0.00	0.28	0.00	0.00	0.71	0.38	0.0001
ESWMM41	1.00	0.09	0.00	0.00	0.04	0.00	0.00	0.86	0.29	0.0001
1F.D.SWMM7	1.00	0.00	0.00	0.00	0.03	0.00	0.00	0.97	1.28	0.0000
ESWMM42	1.00	0.00	0.00	0.00	0.01	0.00	0.00	0.99	0.06	0.0000
ESWMM45	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.67	0.0001
1F.H.SWMM10	1.00	0.01	0.00	0.00	0.21	0.00	0.00	0.78	0.36	0.0004
ESWMM32	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.14	0.0003
ESWMM58	1.00	0.01	0.00	0.00	0.02	0.00	0.00	0.97	0.58	0.0000
ESWMM59	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.05	0.0000
ESWMM60	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.09	0.0000
ESWMM91	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.13	0.0005
ESWMM92	1.00	0.01	0.00	0.00	0.21	0.00	0.00	0.78	0.29	0.0006
1F.H.SWMM1	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.33	0.0001
1F.H.SWMM2	1.00	0.00	0.00	0.00	0.78	0.00	0.00	0.21	0.44	0.0001
1F.H.SWMM3	1.00	0.00	0.00	0.00	0.04	0.00	0.00	0.96	0.34	0.0000
1F.H.SWMM4	1.00	0.00	0.00	0.00	0.04	0.00	0.00	0.96	0.52	0.0000
ESWMM5	1.00	0.00	0.00	0.00	0.21	0.00	0.00	0.78	1.00	0.0000
ESWMM6	1.00	0.87	0.09	0.00	0.04	0.00	0.00	0.00	0.01	0.0000
ESWMM93	1.00	0.01	0.00	0.00	0.17	0.00	0.00	0.82	0.65	0.0003
ESWMM94	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.45	0.0002
ESWMM96	1.00	0.01	0.00	0.00	0.73	0.00	0.00	0.26	0.40	0.0003
ESWMM97	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.40	0.0001
ESWMM98	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.38	0.0000
ESWMM61	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.26	0.0000
ESWMM62	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.53	0.0002
ESWMM63	1.00	0.01	0.00	0.00	0.19	0.00	0.00	0.80	0.77	0.0002
ESWMM64	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.20	0.0001
ESWMM65	1.52	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.24	0.0000
ESWMM66	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.53	0.0000
ESWMM67	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.15	0.0000
ESWMM68	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.49	0.0000
ESWMM69	1.00	0.01	0.00	0.00	0.07	0.00	0.00	0.92	0.73	0.0000
ESWMM30	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.25	0.0002
ESWMM29	1.00	0.01	0.00	0.00	0.02	0.00	0.00	0.97	0.49	0.0000
ESWMM28	1.00	0.94	0.00	0.00	0.03	0.00	0.00	0.03	0.03	0.0001
ESWMM27	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.03	0.0001
ESWMM26	3.14	0.01	0.00	0.00	0.03	0.00	0.96	0.00	0.08	0.0000
ESWMM25	1.00	0.01	0.00	0.00	0.03	0.00	0.00	0.96	0.35	0.0001
ESWMM24	1.00	0.00	0.01	0.00	0.99	0.00	0.00	0.00	0.25	0.0001
ESWMM50	1.00	0.01	0.00	0.00	0.00	0.00	0.99	0.00	0.05	0.0000
ESWMM51	1.00	0.00	0.00	0.00	0.02	0.04	0.00	0.94	1.43	0.0000
ESWMM52	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.08	0.0000
BLUPIPE	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.0000
ESWMM46	3.05	0.00	0.00	0.00	0.16	0.06	0.00	0.77	1.62	0.0000
ESWMM47	1.00	0.00	0.00	0.00	0.05	0.01	0.00	0.94	1.14	0.0000
ESWMM48	1.00	0.80	0.09	0.00	0.06	0.00	0.05	0.00	0.02	0.0000
ESWMM49	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.36	0.0000
ESWMM54	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.02	0.0000
ESWMM55	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.23	0.0001
ESWMM56	1.00	0.01	0.00	0.00	0.65	0.00	0.00	0.35	0.35	0.0002
ESWMM95	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.35	0.0002
48SDTOBPS	1.00	0.00	0.00	0.00	0.03	0.00	0.00	0.97	0.73	0.0000
ESWMM23	1.00	0.00	0.00	0.00	0.18	0.00	0.00	0.82	0.41	0.0001
ESWMM22	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.32	0.0001

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ESWMM21	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.17	0.0000
ESWMM20	1.00	0.01	0.00	0.00	0.08	0.00	0.00	0.92	0.39	0.0001
ESWMM19	1.00	0.01	0.00	0.00	0.06	0.00	0.00	0.93	0.45	0.0001
ESWMM18	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.32	0.0001
ESWMM17	1.00	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.31	0.0001
ESWMM16	1.00	0.00	0.00	0.00	0.23	0.01	0.00	0.76	0.67	0.0000
ESWMM70	1.00	0.00	0.00	0.00	0.05	0.00	0.00	0.94	0.45	0.0000
ESWMM15	1.00	0.00	0.00	0.00	0.10	0.00	0.00	0.90	0.31	0.0001
ESWMM71	1.00	0.00	0.00	0.00	0.91	0.00	0.00	0.08	0.68	0.0000
ESWMM72	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.47	0.0000
ESWMM7	1.00	0.70	0.17	0.00	0.10	0.00	0.00	0.03	0.03	0.0000
ESWMM12	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.18	0.0000
ESWMM9	1.00	0.01	0.14	0.00	0.85	0.00	0.00	0.00	0.04	0.0000
ESWMM99	1.00	0.00	0.00	0.00	0.08	0.00	0.00	0.91	0.57	0.0000
ESWMM8	1.50	0.00	0.00	0.00	0.02	0.01	0.00	0.97	2.28	0.0000
ESWMM10	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.32	0.0000
ESWMM11	1.00	0.00	0.01	0.00	0.99	0.00	0.00	0.00	0.36	0.0000
ESWMM90	1.00	0.01	0.00	0.00	0.25	0.00	0.00	0.74	0.36	0.0000
ESWMM89	1.00	0.01	0.00	0.00	0.27	0.00	0.00	0.73	0.41	0.0000
ESWMM88	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.46	0.0000
ESWMM87	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.11	0.0000
ESWMM86	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.38	0.0000
ESWMM85	1.00	0.01	0.00	0.00	0.83	0.17	0.00	0.00	0.49	0.0000
ESWMM84	1.00	0.01	0.07	0.00	0.92	0.00	0.00	0.00	0.13	0.0000
ESWMM83	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.03	0.0000
ESWMM82	1.00	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.01	0.0000
ESWMM73	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.39	0.0000
ESWMM76	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.48	0.0000
ESWMM77	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.42	0.0000
ESWMM78	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.43	0.0000
ESWMM79	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.39	0.0000
ESWMM80	1.00	0.00	0.00	0.00	0.95	0.04	0.00	0.00	0.58	0.0000
ESWMM81	1.00	0.01	0.00	0.00	0.38	0.62	0.00	0.00	1.97	0.0003
ESWMM14	1.00	0.00	0.00	0.00	0.37	0.00	0.00	0.63	0.32	0.0001
ESWMM13	1.00	0.10	0.82	0.00	0.07	0.00	0.00	0.00	0.00	0.0001
ESWMM125	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.11	0.0000
ESWMM71A	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.69	0.0000
ESWMM126	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.01	0.0003
ESWMM127	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.13	0.0001
ESWMM128	1.00	0.00	0.09	0.00	0.90	0.00	0.00	0.00	0.06	0.0000
ESWMM129	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.46	0.0000
ESWMM132	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.08	0.0000
60SDTOBPS	1.00	0.00	0.00	0.00	0.03	0.00	0.00	0.97	1.07	0.0000
ESWMM134	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.48	0.0000
ESWMM135	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.62	0.0000
ESWMM53	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.00	0.0000
ESWMM75	1.00	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.37	0.0000
1F.H.SWMM5	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.18	0.0000
1F.H.SWMM6	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.39	0.0000
1F.H.SWMM7	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	0.89	0.0000
ESWMM201	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.20	0.0000
ESWMM203	1.00	0.01	0.00	0.00	0.86	0.13	0.00	0.00	0.28	0.0000
ESWMM200	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.05	0.0000
ESWMM202	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.00	0.0000
ESWMM500	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.43	0.0000
ESWMM74	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.42	0.0000
ESWMM74A	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.12	0.0000
1F.C.SWMM1	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.62	0.0000
1F.CSWMM2	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.71	0.0000
1F.C3	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.81	0.0000
1F.C.4	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.42	0.0000
1F.CSWMM5	1.00	0.00	0.00	0.00	0.99	0.01	0.00	0.00	0.50	0.0000
1F.D.SWMM8	1.00	0.00	0.01	0.00	0.77	0.22	0.00	0.00	0.86	0.0000
1F.E.SWMM1	1.00	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.10	0.0000
1F.E.SWMM2	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.40	0.0000
1F.E.SWMM4	1.00	0.00	0.00	0.00	0.99	0.01	0.00	0.00	0.47	0.0000
1F.E.SWMM5	1.00	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.60	0.0000
1F.H.SWMM11	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.27	0.0014
1F.H.SWMM12	1.00	0.01	0.00	0.00	0.99	0.01	0.00	0.00	0.42	0.0004
1F.H.SWMM13	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.39	0.0001
1F.H.SWMM14	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.27	0.0002
1F.J.SWMM3	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.20	0.0000

 Conduit Surcharge Summary

Conduit	Hours Full			Hours	Hours
	Both Ends	Upstream	Dnstream	Above Full Normal Flow	Capacity Limited
1F.H.SWMM8	2.74	2.74	2.83	0.01	0.12
1F.H.SWMM9	5.07	5.07	5.09	3.32	4.12
1F.DSWMM1	0.79	0.79	0.79	0.15	0.42
1F.D.SWMM2	0.80	0.80	0.81	0.01	0.18
1F.D.SWMM4	0.19	0.19	0.22	0.01	0.04
1F.D.SWMM5	0.65	0.65	0.69	0.01	0.11
1F.D.SWMM7	0.41	0.41	0.42	0.01	0.02
ESWMM45	1.75	1.75	1.75	0.66	0.71
1F.H.SWMM10	4.80	4.80	4.83	0.05	0.70
ESWMM32	5.10	5.10	5.16	4.18	4.20
ESWMM91	2.05	2.05	2.05	2.87	1.27
ESWMM92	1.56	1.56	1.61	3.39	1.47
1F.H.SWMM1	0.97	0.97	0.99	0.01	0.01
1F.H.SWMM2	1.53	1.53	1.54	0.01	0.01
1F.H.SWMM3	3.86	3.86	3.86	1.64	1.66
1F.H.SWMM4	4.51	4.51	4.51	4.10	4.51
ESWMM5	4.69	4.69	4.69	0.01	4.49
ESWMM6	0.01	0.01	0.01	2.50	0.01
ESWMM93	1.94	1.94	1.95	1.66	1.04
ESWMM94	1.61	1.61	1.64	0.20	0.97
ESWMM96	1.24	1.24	1.24	1.22	0.55
ESWMM97	0.70	0.70	0.72	0.01	0.16
ESWMM98	0.18	0.18	0.19	0.13	0.14
ESWMM62	1.54	1.54	1.55	0.01	0.37
ESWMM63	1.75	1.75	1.75	0.01	0.60
ESWMM64	2.12	2.12	2.12	0.20	1.43
ESWMM65	1.67	1.67	1.67	0.01	0.01
ESWMM66	1.67	1.67	1.67	0.01	0.07
ESWMM67	1.86	1.86	1.86	0.01	1.85
ESWMM68	1.39	1.39	1.39	0.01	0.08
ESWMM69	2.02	2.02	2.02	0.01	0.15
ESWMM30	4.66	4.66	4.70	4.46	4.26
ESWMM29	0.17	0.17	0.18	0.01	0.08
ESWMM28	0.52	0.52	0.53	0.01	0.12
ESWMM27	0.87	0.87	0.88	0.73	0.69
ESWMM26	0.49	0.49	0.49	0.01	0.02
ESWMM25	1.07	1.07	1.07	0.04	0.73
ESWMM24	0.46	0.46	0.50	0.01	0.13
ESWMM50	0.21	0.21	0.21	0.80	0.01
ESWMM51	0.50	0.50	0.50	0.01	0.03
ESWMM52	1.16	1.16	1.16	0.44	0.76
BLUPIPE	0.93	0.93	0.93	0.67	0.61
ESWMM46	0.80	0.80	0.80	0.01	0.01
ESWMM47	1.39	1.39	1.39	0.65	0.01
ESWMM48	2.37	2.37	2.37	0.01	0.01
ESWMM49	2.40	2.40	2.40	0.06	0.32
ESWMM54	0.44	0.44	0.44	0.01	0.01
ESWMM55	0.99	0.99	1.02	0.01	0.30
ESWMM56	1.70	1.70	1.74	0.06	0.25
ESWMM95	1.59	1.59	1.61	0.14	0.78
48SDTOBPS	2.78	2.78	2.78	4.11	2.78
ESWMM23	0.07	0.07	0.07	0.01	0.01
ESWMM22	0.90	0.90	0.93	0.03	0.69
ESWMM21	1.20	1.20	1.21	0.01	0.10
ESWMM20	1.70	1.70	1.72	0.01	0.20
ESWMM19	2.13	2.13	2.13	0.05	1.22
ESWMM18	2.33	2.33	2.33	0.01	0.49
ESWMM17	2.44	2.44	2.44	0.61	2.10
ESWMM16	2.49	2.49	2.50	0.01	0.08
ESWMM70	2.10	2.10	2.10	0.01	0.31
ESWMM15	1.97	1.97	2.00	0.01	0.22

ESWMM71	2.13	2.13	2.14	0.01	0.52
ESWMM72	2.66	2.66	2.66	0.01	2.64
ESWMM7	0.01	0.01	0.01	0.20	0.01
ESWMM12	0.01	0.01	0.01	1.97	0.01
ESWMM9	0.02	0.02	0.02	0.01	0.01
ESWMM99	0.01	0.01	0.01	0.47	0.01
ESWMM8	0.06	0.06	0.06	0.01	0.01
ESWMM10	2.31	2.31	2.31	4.74	2.31
ESWMM83	3.31	3.31	3.31	0.04	0.22
ESWMM82	3.33	3.33	3.33	0.77	0.68
ESWMM73	2.65	2.65	2.65	2.33	2.63
ESWMM77	0.01	0.01	0.01	0.51	0.01
ESWMM78	0.01	0.01	0.01	2.76	0.01
ESWMM79	0.01	0.01	0.01	0.29	0.01
ESWMM14	1.47	1.47	1.48	0.01	0.31
ESWMM13	0.17	0.17	0.18	0.01	0.02
ESWMM71A	2.64	2.64	2.64	0.01	0.01
ESWMM126	2.64	2.64	2.64	0.15	1.24
ESWMM127	2.29	2.29	2.29	0.01	0.04
ESWMM129	1.19	1.19	1.19	0.01	0.01
ESWMM132	1.19	1.19	1.19	0.01	0.01
60SDTOBPS	2.08	2.08	2.08	0.01	0.82
ESWMM134	1.60	1.60	1.60	0.01	0.02
ESWMM135	0.01	0.01	0.01	4.79	0.01
ESWMM53	0.44	0.44	0.44	0.01	0.01
ESWMM75	0.01	0.01	0.01	3.20	0.01
ESWMM201	2.24	2.24	2.24	3.49	2.24
ESWMM203	0.23	0.23	0.23	0.01	0.01
ESWMM500	4.58	4.58	4.58	4.84	4.58
ESWMM74	2.65	2.65	2.65	0.01	2.34
ESWMM74A	0.39	0.39	0.39	2.79	0.39
1F.C.SWMM1	1.19	1.19	1.19	0.01	0.01
1F.CSWMM2	2.46	2.46	2.46	1.16	2.29
1F.C3	2.34	2.34	2.34	0.01	1.22
1F.C.4	2.25	2.25	2.25	0.01	1.54
1F.CSWMM5	1.31	1.31	1.31	4.50	0.89
1F.E.SWMM1	0.81	0.81	0.81	0.74	0.73
1F.E.SWMM2	0.70	0.70	0.70	0.93	0.69
1F.E.SWMM4	0.01	0.01	0.01	0.97	0.01
1F.E.SWMM5	0.42	0.42	0.42	0.79	0.42
1F.H.SWMM11	5.23	5.23	5.30	4.48	3.88
1F.H.SWMM12	5.86	5.86	5.89	0.02	0.52
1F.H.SWMM13	7.89	7.89	7.89	4.50	6.44
1F.H.SWMM14	6.10	6.10	6.14	7.34	5.74
1F.J.SWMM3	0.60	0.60	0.60	0.01	0.60

Pumping Summary

Pump	Percent Utilized	Number of Start-Ups	Min Flow CFS	Avg Flow CFS	Max Flow CFS	Total Volume 10^6 gal	Power Usage Kw-hr	% Time Pump Curve Low	Off High
BROADWAYPUMPSTATION	95.78	13749	0.00	7.98	202.65	25.930	13042.07	0.0	0.0
ALCALDEPUMPSTATION	99.28	85	0.00	9.25	217.15	31.803	2882.71	98.4	0.0
URBANPUMPSTATION	3.59	1592	0.00	7.18	10.75	0.953	44.32	39.2	0.0
BARELASPUMPSTATION	97.75	2965	0.00	17.82	373.80	59.700	6055.48	96.4	0.0

Analysis begun on: Tue Jan 24 10:17:00 2012
Analysis ended on: Tue Jan 24 10:19:55 2012
Total elapsed time: 00:02:55

Pat Stovall

From: Rebecca Fink [rebeccaf@smithengineering.pro]
Sent: Thursday, July 28, 2011 6:41 PM
To: 'Curtin, John P.'
Cc: 'Penttila, Roland V.'; 'Eisenberg, Jame J.'; 'Bingham, Brad'; 'Pat Conley, PE'; 'Pat Stovall'
Subject: New Broadway force main
Attachments: Broadway-PS.pdf

John,

Based on my conversations with Pat C. and Pat S., I did a quick analysis of the existing and proposed system curves (see attached file). Since I do not have the pump curves (existing or proposed), I just drew an assumed curve to show what would happen if you used the same pumps with different discharges pipes/locations. Based on the assumption that the current station capacity is about 127-CFS (See operating point 1), my findings include:

- In order to get the same capacity pumping to the river (about 2.5 miles of pipe), a 42-inch pipe is required (operating point 1)
- Using a 36-inch pipe would only result in about 110-CFS (operating point 2)
- A 48-inch pipe, would result in about 150-CFS (operating point 3)
- A 54-inch pipe, would result in about 160-CFS (operating point 4)

I did not perform a cost analysis. However, it can be assumed that:

- The price for 23-CFS increased capacity equals the cost of 2.5 miles of 48-inch pipe and associated costs;
- The price for 33-CFS increased capacity equals the cost of 2.5 miles of 54-inch pipe and associated costs.

I am not aware of all the details of this project nor am I aware of exactly what other options have been evaluated. I would be happy to meet with you to discuss further. Please call Pat C. to set up a meeting if you are so inclined.

Thanks,

Becky

<<...>>

8/9/2011