OPTION 19 – SWMM MODEL OUTPUT

Option Description

Modeling Approach
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 BR21 pond was simulated to drain into the Odelia Pond

A new 11 feet deep detention pond called Coronado Park Pond was added to collect runoff from Sub-catchments B35 and B40. Storm drains from Cutler to Mcknight were upsized from 36-in. to 54-in. that connected to Coronado Pond. A 24-in. outlet pipe drained this pond back into the system. The storm drain from 3rd and Mcknight to 3rd and Constitution was upsized from 48-in. to 54-in.

Added storm drains west on Constitution from 3rd St. to 5th St. and south on 5th St. to Mountain the south to drain into the North Wells Park Pond located at Summer and 5th St., the pond outfall pipe is a 36-in. RCP storm drain south on 5th St. to Mountain, then east to 3rd St. where it joins the existing storm drain. The storm drain between Constitution and Mountain along 3rd St was deleted to direct flows to the North Wells Park Pond.

Upsized storm drains from 24 to 54 inches on Rio Grande from Carson to Chacoma, then to San Pasquale then to Laguna ending at Kit Carson, and upsized storm drain from 27- and 30-in. to 48-in. storm drain on Barelas from Pacific Ave. to Lewis, west on Lewis to the west Riverside storm drain. The significant option components are summarized in **Table 6-1** (Summary of Model Filenames and Components – in map pocket).

The Broadway Pump Station capacity was increased to 320cfs while the inlets to the pump station were increased to a 60-in. pipe. The storm drain segment just south of manhole COA7769JB was increased from 42-in. to a 54-in. storm drain.

See attached discussion and simple calculations on the proposed force main that would be required for facility X15.

Appendix 1.2 Option 19 Facility X15

SIMPLE COMPUTATION OF THE REQUIRED FORCE MAIN DIAMETER FOR

OPTION 19 - FACILITY X15

Location –

From Broadway Pump Station follow the same alignment as the existing 54-inch force main that outfalls to the North Diversion Channel . From pump station north to Mountain, then east towards the North Diversion Channel – see Figure attached for the alignment

Purpose –

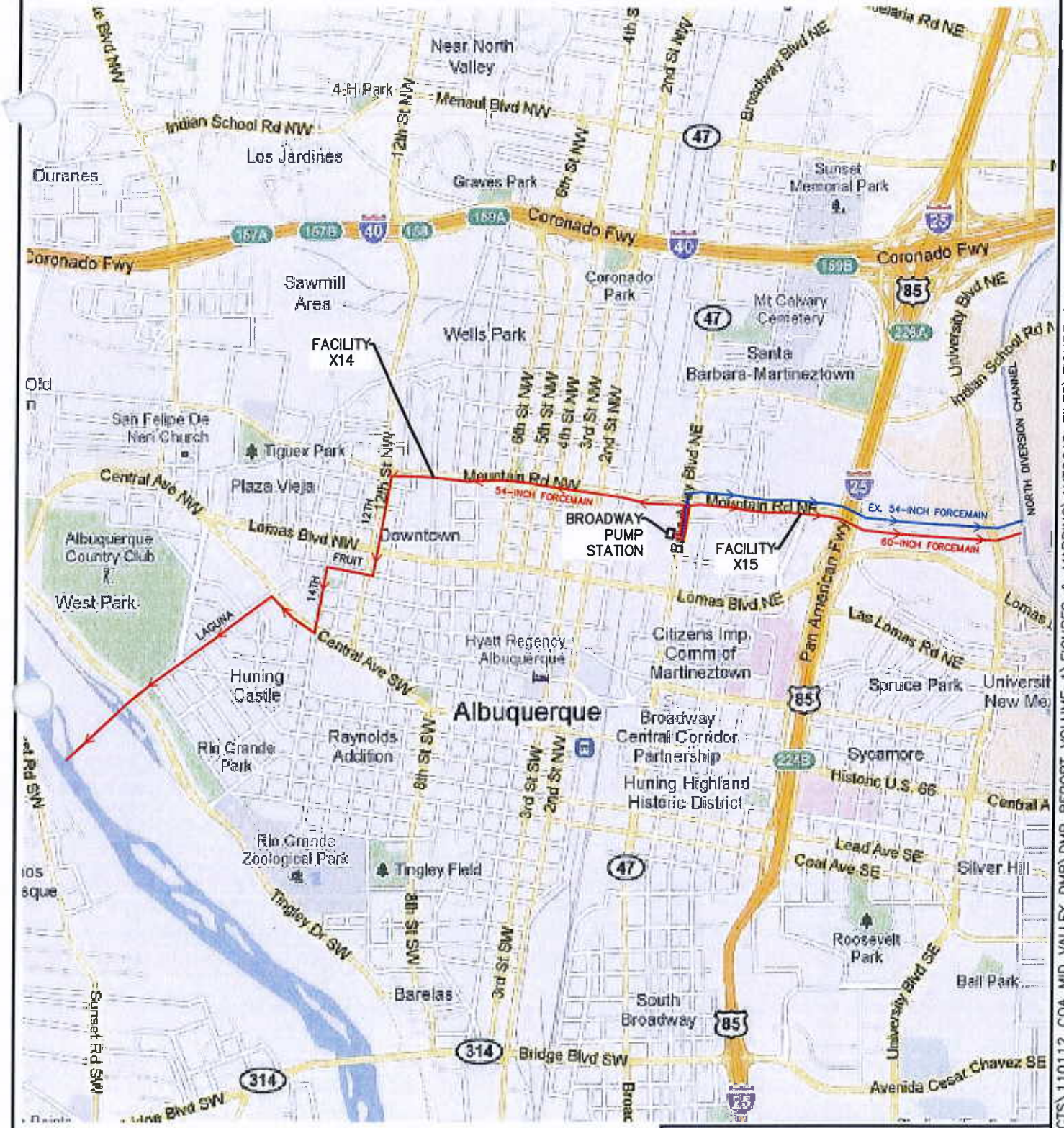
To allow compute the additional force main pipe size that would be required in addition to the existing 54-in. force main to convey the possible 320 cfs if the Broadway Pump Station was rebuilt (existing capacity about 130 cfs)

Facility X15 Description –

Pump capacity at Broadway Pump Station at 320 cfs which would require a new pump station. Storm drain just south of the Broadway Pump Station from manhole COA7769JB was increased from 42-in. to 54-in. to manhole COA 32865. Both inlets into the Broadway Pump Station were increased from 42-in. and 48-in. to 60-in. respectively. This would also require an additional new 60-in. force main to the North Diversion Channel assumed to be located parallel with the existing 54-in. force main. This force main is required to pass the additional pump station discharge (320 cfs – 130 cfs existing = 190 cfs).

Computation of the possible 60-in. Force Main - The manufacturers pump curve was not available for use in the analysis for the force main calculation. Therefore, to be conservative, the maximum velocity for the force main was assumed to be 10 ft/s with a known flow rate of 320 cfs and velocity of 10 ft/s, the basic continuity equation Q=V*A was applied to determine the required force main area. The minimum required area to pass 320 cfs was computed to be 32 sq ft.

The existing 54-in. force main provides 16 sq ft and a 60-in. pipe would provide an additional 20 sq ft for a total of 36 sq ft. Therefore, an additional 60-in. force main pipe would provide adequate capacity to handle the possible pump station discharge of 320 cfs.



NOT TO SCALE

MID-VALLEY DRAINAGE MANAGEMENT PLAN

FOR THE CITY OF ALBUQUERQUE & ALBUQUERQUE METROPOLITAN ARROYO FLOOD CONTROL AUTHORITY

October – 2011

SEC PROJECT NO. 110112

POSSIBLE NEW FORCEMAIN ALIGNMENTS

FIGURE 6-2

Q:\SEC---PROJECTS\2010 PROJECTS\110112 COA MID VALLEY DMP\DMP REPORT VOLUME 1\FIGURES & MAPPING\AUTOCAD FILES\FIGURE 6-2 POSSIBLE NEW FORCEMAIN ALIGNMENTS 10/

PROJECT COA MIDVALLEY SHEET NO. 1 OF 1

SUBJECT FUTURE OPTIONS : OPTION 19 X-15 PROJECT NO. 110112

BY CHRIS DATE 10/12/11 CHECKED BY DATE / /

GIVEN: Q = 320 CFS (FROM SWMM OUTPUT)

V = 10 ft/s MAX ALLOWABLE IN FORCEMAIN

FIND: AREA = ?

EQN $Q = V \cdot A$ $A = Q/V$

$$A = \frac{320 \text{ ft}^3/\text{s}}{10 \text{ ft/s}} = 32 \text{ ft}^2$$

MIN REQD AREA = **32 ft²**

EXISTING 54" FORCEMAIN AREA

$$A = \frac{\pi}{4}(54)^2 * \left(\frac{1 \text{ ft}^2}{144 \text{ in}^2}\right) = 16 \text{ ft}^2$$

PROPOSED 60" FORCEMAIN AREA

$$A = \pi/4 (60)^2 * \left(\frac{1 \text{ ft}^2}{144 \text{ in}^2}\right) = 20 \text{ ft}^2$$

TOTAL AREA = 16 + 20 = **36 ft²** > 32 ft²

Smith Engineering Company
2201 San Pedro NE Bldg. #4, Suite 200 Albuquerque, New Mexico 87110 505/884-0700 Fax 505/884-2376

OPTION 19

DESCRIPTION

- BROADWAY PUMP STATION @ 320 CFS
- ~~XX~~ PROPOSED 60" FORCEMAIN TO N. DIV. CHANNEL FOLLOWING EXISTING 54" FORCEMAIN ALIGNMENT ALONG MOUNTAIN.

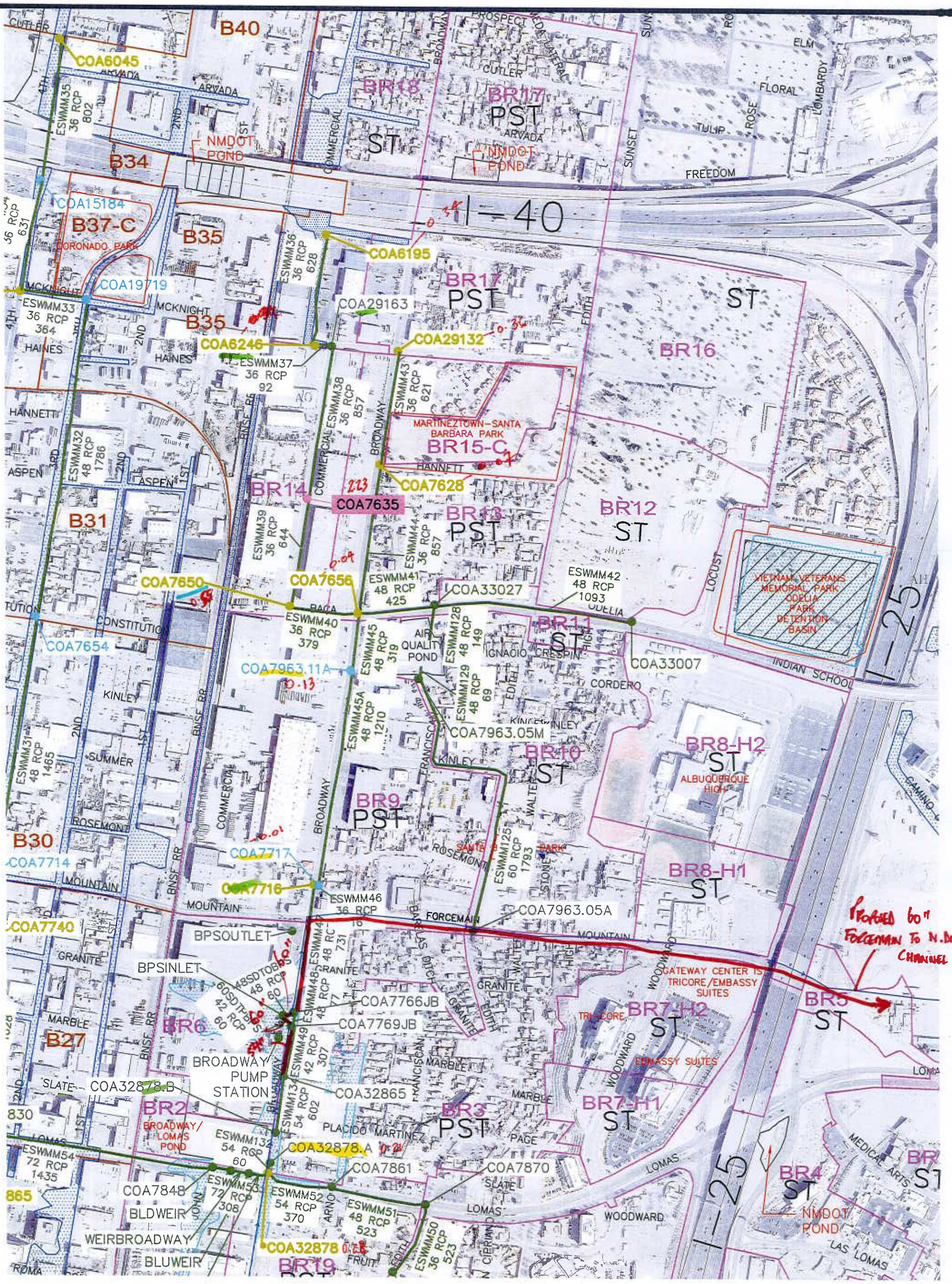


TABLE 6-33
SUMMARY OF OPTION 19 STREET PONDING AND MAN-HOLE FLOODING

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)	
COA6195	4962.97	6.74	4969.71	4970.05	0.34	0.208	0.638329	1.39
COA6246	4962.06	7.85	4969.91	4969.91	0	0.004	0.012276	0.04
COA7635	4957.34	7.29	4964.63	4966.79	2.16	0.459	1.40862	2.05
COA7650	4954.93	8.35	4963.28	4963.4	0.12	0.041	0.125824	1.32
COA7656	4953.17	9.45	4962.62	4962.63	0.01	0.012	0.036827	0.08
COA7628	4960.44	11.03	4971.47	4971.48	0.01	0.004	0.012276	0.23
COA29132	4961.85	12.41	4974.26	4974.57	0.31	0.045	0.1381	0.6
COA25349	4945.26	11.07	4956.33	4956.34	0.01	0.06	0.184133	0.13
COA25656	4948.86	10.32	4959.18	4959.31	0.13	0.216	0.66288	1.87
COA25622	4948.24	9.58	4957.82	4957.84	0.02	0.057	0.174927	0.7
COA7476	4950.32	7.85	4958.17	4958.18	0.01	0.048	0.147307	0.56
COA7518	4947.94	8.89	4956.83	4956.88	0.05	0.097	0.297682	0.76
COA24834	4944.52	7.06	4951.58	4951.79	0.21	0.989	3.03513	2.72
COA25105	4946.31	10.2	4956.51	4956.52	0.01	0.035	0.107411	0.3
COA32878	4946.6	9.16	4955.76	4956.11	0.35	0.078	0.239373	0.56
COA32878.A	4947.19	8.39	4955.58	4955.9	0.32	0.053	0.162651	0.55
COA9229	4913.15	27	4940.15	4940.45	0.3	0.025	0.076722	0.52

(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 4th, 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


WARNING 04: minimum elevation drop used for Conduit ESWMM126

*************
Element Count
*************
Number of rain gages ...... 1
Number of subcatchments ... 70
Number of nodes ........... 128
Number of links ........... 131
Number of pollutants ...... 0
Number of land uses ....... 0


*****************
Raingage Summary
*****************
                                          Data        Recording
Name                 Data Source          Type        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	NORTHWELLSPOND
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	CORONADOPOND
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	CORONADOPOND
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	COA7628
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	COA29132
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	COA32878.B
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	7.35	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	27118.0	
COA7628	JUNCTION	4960.44	11.03	27118.0	
COA29132	JUNCTION	4961.85	12.41	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	36488.0	
COA19719	JUNCTION	4952.30	9.98	188061.0	
COA7654	JUNCTION	4951.67	8.59	228852.0	
COA7714	JUNCTION	4950.14	7.86	296083.3	
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	36488.0	
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	4930.49	28.66	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	
BaPSINLET	JUNCTION	4922.01	26.60	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	36488.0	
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	
APSOUTLET	OUTFALL	4960.84	0.00	0.0	
BPSOUTLET	OUTFALL	5106.00	0.00	0.0	
BaPSOUTLET	OUTFALL	4941.69	0.00	0.0	
OUT1	OUTFALL	5061.00	0.00	0.0	
AIRQUALITYPOND	STORAGE	4952.26	12.40	0.0	
TINGLEYPARKSURGEPOND	STORAGE	4932.21	16.45	0.0	
NORTHWELLSPOND	STORAGE	4951.00	9.00	0.0	
CORONADOPOND	STORAGE	4953.00	11.00	0.0	
BR21POND	STORAGE	5062.00	14.00	0.0	

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Link Summary
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Name	From Node	To Node	Type	Length	%Slope	Roughness
ESWMM57	COA6149	COA6231	CONDUIT	733.0	0.1378	0.0140
1FOSWMM6	COA6045	COA15184	CONDUIT	802.0	0.3915	0.0140
1FOSWMM7	COA15184	COA6218	CONDUIT	622.0	0.0096	0.0140
ESWMM36	COA6195	COA6246	CONDUIT	636.0	0.1431	0.0140
ESWMM37	COA6246	COA29163	CONDUIT	120.0	0.2917	0.0140
ESWMM39	COA7635	COA7650	CONDUIT	613.0	0.3932	0.0140
ESWMM40	COA7650	COA7656	CONDUIT	386.0	0.4041	0.0140
ESWMM41	COA33027	COA7656	CONDUIT	416.0	0.7428	0.0140
ESWMM44	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
1FQSWMM9	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
1FQSWMM10	COA7444	COA7476	CONDUIT	1361.0	0.1925	0.0140
1FQSWMM11	COA7476	COA7518	CONDUIT	895.0	0.2547	0.0140
1FQSWMM12	COA7518	COA24834	CONDUIT	1804.0	0.0815	0.0140
1FQSWMM13	COA24834	COA8985	CONDUIT	1437.0	0.1621	0.0140
1FQSWMM14	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	0.3068	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	BaPSINLET	CONDUIT	243.0	0.3086	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
ESWWM45A	COA7963.11A	COA7717	CONDUIT	1219.0	0.1829	0.0140
ESWMM71A	COA7963.T	COA32981	CONDUIT	149.0	0.5517	0.0140
ESWMM126	TINGLEYPARKSURGEPONDCOA7963.T		CONDUIT	50.0	0.0020	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
ESWMM135	COA9083	APSINLET	CONDUIT	150.7	0.0730	0.0140
ESWMM53	COA7848	BLDWEIR	CONDUIT	308.0	0.3474	0.0140
ESWMM75	COA22410	COA9141	CONDUIT	196.0	0.0765	0.0240
1FOSWMM13	COA22169	COA9453	CONDUIT	194.0	0.1443	0.0140
1FOSWMM14	COA9453	COA22127	CONDUIT	870.0	0.1486	0.0140
1FOSWMM15	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	2.5251	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
1FOSWMM1	COA32878.A	COA32878.B	CONDUIT	100.0	0.9200	0.0140
1FOSWMM4	COA7654	NORTHWELLSPOND	CONDUIT	1500.0	0.0447	0.0140
1FOSWMM5	NORTHWELLSPOND	COA7714	CONDUIT	1080.0	0.0796	0.0140
1FQSWMM7	COA6218	CORONADOPOND	CONDUIT	400.0	0.1650	0.0100
1FQSWMM8	CORONADOPOND	COA19719	CONDUIT	100.0	0.7000	0.0100
ESWMM134	COA32878.B	COA32865	CONDUIT	595.0	0.1311	0.0100
ESWMM38	COA29163	COA7635	CONDUIT	857.0	0.5449	0.0100
ESWMM43	COA29132	COA7628	CONDUIT	638.0	0.2210	0.0100
BROADWAYPUMPSTATIONBPSINLET		BPSOUTLET	TYPE4 PUMP			
ALCALDEPUMPSTATIONAPSINLET		APSOUTLET	TYPE4 PUMP			
URBANPUMPSTATIONUPSINLET		COA9248	TYPE4 PUMP			
BARELASPUMPSTATIONBaPSINLET		BaPSOUTLET	TYPE4 PUMP			
WEIRIRON14TH	IRON14TH	COA24902	WEIR			
WEIRBROADWAY	BLUWEIR	BLDWEIR	WEIR			
BR21OUTLET	BR21POND	OUT1	OUTLET			

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Cross Section Summary
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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
1FOSWMM6	CIRCULAR	4.50	15.90	1.13	4.50	1	114.26
1FOSWMM7	CIRCULAR	4.50	15.90	1.13	4.50	1	17.93
ESWMM36	CIRCULAR	3.00	7.07	0.75	3.00	1	23.43
ESWMM37	CIRCULAR	3.00	7.07	0.75	3.00	1	33.45
ESWMM39	CIRCULAR	3.00	7.07	0.75	3.00	1	38.83
ESWMM40	CIRCULAR	3.00	7.07	0.75	3.00	1	39.37
ESWMM41	CIRCULAR	2.00	3.14	0.50	2.00	1	18.10
ESWMM44	CIRCULAR	3.00	7.07	0.75	3.00	1	54.06
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
1FQSWMM9	CIRCULAR	4.50	15.90	1.13	4.50	1	48.76
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
1FQSWMM10	CIRCULAR	4.50	15.90	1.13	4.50	1	80.12

1FQSWMM11	CIRCULAR	4.50	15.90	1.13	4.50	1	92.16
1FQSWMM12	CIRCULAR	4.50	15.90	1.13	4.50	1	52.13
1FQSWMM13	CIRCULAR	4.50	15.90	1.13	4.50	1	73.53
1FQSWMM14	CIRCULAR	4.50	15.90	1.13	4.50	1	120.35
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	4.50	15.90	1.13	4.50	1	103.69
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	5.00	19.63	1.25	5.00	1	76.48
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	469.13
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	274.47
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
ESWWM45A	CIRCULAR	4.00	12.57	1.00	4.00	1	57.05
ESWMM71A	CIRCULAR	8.00	50.27	2.00	8.00	1	629.06
ESWMM126	CIRCULAR	8.00	50.27	2.00	8.00	1	37.88
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
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	136.67
1FOSWMM13	CIRCULAR	4.00	12.57	1.00	4.00	1	50.67
1FOSWMM14	CIRCULAR	4.00	12.57	1.00	4.00	1	51.42
1FOSWMM15	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	148.45
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	54.96	1.85	6.87	1	256.23
1FOSWMM1	CIRCULAR	4.50	15.90	1.13	4.50	1	175.15
1FOSWMM4	CIRCULAR	4.50	15.90	1.13	4.50	1	38.59
1FOSWMM5	CIRCULAR	3.00	7.07	0.75	3.00	1	17.48
1FQSWMM7	CIRCULAR	4.50	15.90	1.13	4.50	1	103.84
1FQSWMM8	CIRCULAR	2.00	3.14	0.50	2.00	1	24.61
ESWMM134	CIRCULAR	4.50	15.90	1.13	4.50	1	92.56
ESWMM38	CIRCULAR	3.00	7.07	0.75	3.00	1	64.01
ESWMM43	CIRCULAR	3.00	7.07	0.75	3.00	1	40.76

****
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 acre-feet	Volume 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	359.423	117.124
Internal Outflow	0.000	0.000
Storage Losses	0.000	0.000
Initial Stored Volume	0.000	0.000
Final Stored Volume	0.279	0.091
Continuity Error (%)	2.125	

****
Highest Continuity Errors
****

Node COA19719 (7.93%)
Node COA7654 (4.72%)
Node COA24930 (3.96%)
Node COA9348 (3.49%)
Node COA25352 (3.37%)

****
Time-Step Critical Elements
****
None

****
Highest Flow Instability Indexes
****
Link ESWMM81 (8)
Link BARELASPUMPSTATION (3)
Link ESWMM129 (2)
Link ESWMM203 (1)
Link URBANPUMPSTATION (1)

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

Minimum Time Step	:	0.50 sec
Average Time Step	:	1.00 sec
Maximum Time Step	:	1.00 sec
Percent in Steady State	:	0.00
Average Iterations per Step	:	2.20

****
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
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	0.809
B4	2.60	0.00	0.00	0.95	1.58	0.26	8.48	0.607
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	0.7
BR4	2.60	0.00	0.00	0.35	2.17	2.33	78.00	0.8
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
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Node	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time of Max Occurrence days hr:min
COA6149	JUNCTION	0.11	1.97	4958.48	0 02:04
COA6231	JUNCTION	0.19	3.08	4958.14	0 02:05
COA6045	JUNCTION	0.21	5.35	4962.86	0 03:05
COA15184	JUNCTION	0.59	9.85	4964.04	0 01:51
COA6218	JUNCTION	0.51	9.09	4962.75	0 03:09
COA6195	JUNCTION	0.18	7.08	4970.05	0 02:05
COA6246	JUNCTION	0.46	7.85	4969.91	0 01:28
COA29163	JUNCTION	0.13	8.38	4970.39	0 01:28
COA7635	JUNCTION	0.24	9.45	4966.79	0 02:22
COA7650	JUNCTION	0.26	8.47	4963.40	0 02:13
COA7656	JUNCTION	0.36	9.46	4962.63	0 01:36
COA7628	JUNCTION	0.21	11.04	4971.48	0 01:37
COA29132	JUNCTION	0.21	12.72	4974.57	0 01:46
COA33027	JUNCTION	0.07	2.99	4960.14	0 02:49
COA33007	JUNCTION	0.01	1.21	4996.08	0 00:16
COA7717	JUNCTION	0.19	8.90	4958.44	0 01:32
COA19719	JUNCTION	1.17	9.98	4962.28	0 03:26
COA7654	JUNCTION	0.66	8.59	4960.26	0 04:41
COA7714	JUNCTION	0.58	7.86	4958.00	0 02:04
COA6259	JUNCTION	0.21	3.93	4957.65	0 02:05
COA7638	JUNCTION	0.78	4.38	4957.00	0 02:04

COA25807	JUNCTION	0.18	2.82	4956.00	0	02:03
COA25349	JUNCTION	0.38	11.08	4956.34	0	02:00
COA25656	JUNCTION	0.56	10.45	4959.31	0	02:18
COA25677	JUNCTION	0.66	10.97	4959.56	0	02:14
COA25622	JUNCTION	0.40	9.60	4957.84	0	01:49
COA7444	JUNCTION	0.25	7.72	4960.59	0	02:01
COA7476	JUNCTION	0.24	7.86	4958.18	0	01:53
COA7518	JUNCTION	0.45	8.94	4956.88	0	02:05
COA24834	JUNCTION	0.56	7.27	4951.79	0	02:37
COA8985	JUNCTION	0.48	11.38	4952.14	0	01:45
COA24859	JUNCTION	0.59	12.00	4950.64	0	01:51
COA9015	JUNCTION	0.08	8.45	4951.36	0	01:49
COA25105	JUNCTION	0.38	10.21	4956.52	0	01:58
COA25117	JUNCTION	0.44	11.29	4956.55	0	01:48
COA25048	JUNCTION	0.37	11.36	4956.28	0	01:46
COA25034	JUNCTION	0.43	10.70	4954.52	0	01:46
COA9045	JUNCTION	0.49	8.65	4950.26	0	01:40
COA25352	JUNCTION	0.40	11.31	4956.37	0	01:52
COA7815	JUNCTION	0.69	13.40	4956.88	0	02:02
COA25253	JUNCTION	0.89	12.95	4954.61	0	02:10
COA7977	JUNCTION	0.57	12.97	4954.91	0	02:03
COA25238	JUNCTION	0.86	13.47	4954.67	0	01:55
COA25240	JUNCTION	0.87	13.40	4954.55	0	01:55
COA22584	JUNCTION	0.63	14.49	4954.67	0	01:55
COA9260	JUNCTION	0.80	14.78	4952.80	0	02:10
COA7740	JUNCTION	0.62	8.25	4957.94	0	02:03
COA7830	JUNCTION	0.77	12.00	4956.87	0	01:47
COA7865	JUNCTION	0.63	10.46	4956.80	0	01:47
COA7908	JUNCTION	0.80	10.00	4956.15	0	01:49
COA7912	JUNCTION	0.25	10.68	4956.29	0	01:46
COA7955	JUNCTION	1.59	12.00	4955.49	0	02:07
COA22517	JUNCTION	0.29	11.00	4954.59	0	02:00
COA7716	JUNCTION	0.24	9.23	4958.11	0	01:32
COA7766JB	JUNCTION	0.41	9.26	4953.21	0	01:32
COA7769JB	JUNCTION	0.22	9.35	4953.87	0	01:28
COA32865	JUNCTION	0.26	11.62	4957.11	0	01:28
COA32878	JUNCTION	0.77	9.51	4956.11	0	01:48
COA7848	JUNCTION	0.15	8.71	4956.38	0	01:53
COA7861	JUNCTION	0.19	20.96	4968.72	0	01:28
COA7870	JUNCTION	0.11	37.30	4995.05	0	01:28
COA29178	JUNCTION	4.82	44.36	5001.14	0	01:28
COA7816	JUNCTION	0.70	13.17	4957.36	0	02:02
COA25109	JUNCTION	0.37	10.67	4956.54	0	01:46
BPSINLET	JUNCTION	0.36	13.33	4952.22	0	01:32
COA9310	JUNCTION	0.23	11.55	4953.95	0	02:00
COA9348	JUNCTION	0.37	11.79	4951.42	0	02:00
COA9344	JUNCTION	3.39	15.71	4951.54	0	01:57
COA9340	JUNCTION	2.77	16.65	4952.29	0	01:49
COA22250	JUNCTION	0.38	13.58	4951.14	0	02:07
COA22429	JUNCTION	0.32	13.07	4950.33	0	02:00
COA13866	JUNCTION	0.66	12.08	4947.44	0	02:04
COA24930	JUNCTION	0.35	11.05	4948.22	0	02:14
COA24916	JUNCTION	0.24	10.36	4948.61	0	02:18
COA9248	JUNCTION	0.09	10.07	4957.72	0	01:46
COA32981	JUNCTION	0.72	9.44	4940.83	0	02:13
COA9121	JUNCTION	0.77	9.42	4940.58	0	02:06
COA24902	JUNCTION	1.35	5.48	4944.55	0	01:59
COA24902A	JUNCTION	0.54	3.54	4943.27	0	02:00
COA9069	JUNCTION	0.13	7.84	4948.69	0	01:49
COA24997	JUNCTION	0.54	12.64	4948.78	0	01:49
COA9083	JUNCTION	0.64	6.10	4941.43	0	01:59
UPSINLET	JUNCTION	0.23	5.66	4936.15	0	02:25
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	8.54	4937.03	0	01:52
COA22155	JUNCTION	0.59	8.58	4936.93	0	01:52
COA9141	JUNCTION	0.70	8.25	4936.46	0	01:56

COA22410	JUNCTION	0.89	9.02	4937.38	0	01:57
COA9129	JUNCTION	0.73	9.26	4939.50	0	02:06
COA9143	JUNCTION	0.71	7.83	4935.11	0	01:56
COA22144	JUNCTION	0.79	7.09	4931.88	0	01:56
COA22145	JUNCTION	0.79	7.59	4933.44	0	01:56
COA22143	JUNCTION	0.82	6.84	4930.83	0	01:55
COA10456	JUNCTION	1.00	7.29	4930.05	0	05:48
BaPSINLET	JUNCTION	0.24	4.71	4926.72	0	01:54
COA7963.05A	JUNCTION	0.04	1.63	4973.61	0	00:13
COA7963.05M	JUNCTION	0.30	7.45	4960.14	0	02:51
COA7963.11A	JUNCTION	0.72	9.48	4961.15	0	01:36
COA7963.T	JUNCTION	0.62	9.02	4941.23	0	02:13
COA32878.A	JUNCTION	0.17	8.71	4955.90	0	01:41
COA32878.B	JUNCTION	0.23	9.58	4955.85	0	01:28
APSINLET	JUNCTION	0.30	8.31	4937.97	0	01:59
IRON14TH	JUNCTION	0.11	6.62	4945.69	0	01:50
BLDWEIR	JUNCTION	1.21	9.54	4956.14	0	01:53
BLUWEIR	JUNCTION	0.77	10.68	4957.28	0	01:49
COA22169	JUNCTION	0.23	3.24	4942.59	0	01:58
COA22127	JUNCTION	0.18	2.32	4940.18	0	01:52
COA32823	JUNCTION	0.07	3.06	4936.15	0	02:23
COA9453	JUNCTION	0.31	2.91	4941.98	0	01:58
MHB22410	JUNCTION	0.86	9.31	4937.73	0	01:55
COA9152	JUNCTION	5.08	10.84	4940.51	0	02:02
COA9229	JUNCTION	20.03	27.30	4940.45	0	02:05
MHB19A	JUNCTION	0.15	3.16	4936.16	0	02:24
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
OUT1	OUTFALL	0.00	0.00	5061.00	0	00:00
AIRQUALITYPOND	STORAGE	0.36	7.84	4960.10	0	02:50
TINGLEYPARKSURGEPOND	STORAGE	0.62	9.01	4941.22	0	02:51
NORTHWELLSPOND	STORAGE	0.78	6.44	4957.44	0	05:46
CORONADOPOND	STORAGE	0.63	9.67	4962.67	0	03:12
BR21POND	STORAGE	0.22	6.48	5068.48	0	02:26

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Node Inflow Summary
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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
COA6149	JUNCTION	11.31	11.31	0	02:03	0.774	0.777
COA6231	JUNCTION	29.54	40.12	0	02:02	2.632	3.410
COA6045	JUNCTION	34.23	34.23	0	01:33	1.448	1.448
COA15184	JUNCTION	40.56	71.58	0	01:40	2.986	4.435
COA6218	JUNCTION	0.00	70.16	0	01:43	0.000	4.401
COA6195	JUNCTION	57.19	57.19	0	01:30	1.922	1.922
COA6246	JUNCTION	0.00	44.86	0	01:27	0.000	1.924
COA29163	JUNCTION	0.00	45.63	0	01:30	0.000	1.930
COA7635	JUNCTION	37.01	71.82	0	01:33	1.242	3.149
COA7650	JUNCTION	0.00	50.89	0	01:32	0.000	3.153
COA7656	JUNCTION	55.48	156.66	0	01:29	1.634	9.119
COA7628	JUNCTION	5.47	71.47	0	01:36	0.719	4.039
COA29132	JUNCTION	63.83	63.83	0	01:30	3.317	3.317
COA33027	JUNCTION	31.84	52.14	0	01:30	0.529	1.981
COA33007	JUNCTION	43.49	43.49	0	00:15	0.809	0.809
COA7717	JUNCTION	45.33	113.91	0	02:21	3.367	16.221
COA19719	JUNCTION	0.00	46.42	0	03:15	0.000	8.519
COA7654	JUNCTION	34.75	68.37	0	02:05	2.641	10.485
COA7714	JUNCTION	0.00	34.15	0	06:00	0.000	13.387
COA6259	JUNCTION	0.00	39.89	0	02:03	0.000	3.405
COA7638	JUNCTION	33.49	70.28	0	02:03	2.159	5.565
COA25807	JUNCTION	0.00	70.61	0	02:02	0.000	5.560
COA25349	JUNCTION	34.99	156.36	0	02:12	5.088	10.651
COA25656	JUNCTION	31.40	31.40	0	02:02	4.407	4.407
COA25677	JUNCTION	0.00	52.48	0	02:18	0.000	4.517

COA25622	JUNCTION	22.71	46.38	0	01:35	1.367	5.853
COA7444	JUNCTION	36.85	37.71	0	01:45	2.893	2.893
COA7476	JUNCTION	24.46	70.43	0	01:46	1.767	4.642
COA7518	JUNCTION	31.47	99.62	0	01:42	1.826	6.458
COA24834	JUNCTION	42.35	120.53	0	02:02	6.199	12.606
COA8985	JUNCTION	20.90	104.06	0	01:44	1.667	14.631
COA24859	JUNCTION	13.38	119.73	0	01:46	0.512	14.972
COA9015	JUNCTION	0.00	38.96	0	01:43	0.000	1.970
COA25105	JUNCTION	23.40	70.43	0	01:35	1.036	6.867
COA25117	JUNCTION	0.00	72.15	0	02:02	0.000	6.694
COA25048	JUNCTION	24.64	94.68	0	01:44	2.246	8.914
COA25034	JUNCTION	24.08	117.08	0	01:46	1.659	10.521
COA9045	JUNCTION	30.62	130.15	0	01:47	3.221	13.677
COA25352	JUNCTION	0.00	395.80	0	02:00	0.000	10.502
COA7815	JUNCTION	0.00	258.90	0	02:02	0.000	30.398
COA25253	JUNCTION	0.00	169.93	0	01:47	0.000	30.226
COA7977	JUNCTION	0.00	172.08	0	01:47	0.000	30.280
COA25238	JUNCTION	0.00	169.41	0	01:47	0.000	30.278
COA25240	JUNCTION	0.00	171.44	0	02:05	0.000	30.332
COA22584	JUNCTION	0.00	172.94	0	02:05	0.000	30.334
COA9260	JUNCTION	47.72	206.16	0	01:55	2.416	32.712
COA7740	JUNCTION	39.07	50.50	0	01:47	3.196	16.420
COA7830	JUNCTION	0.00	147.59	0	01:37	0.000	19.019
COA7865	JUNCTION	36.35	101.53	0	02:03	2.616	4.554
COA7908	JUNCTION	0.00	102.16	0	01:53	0.000	4.478
COA7912	JUNCTION	0.00	102.14	0	01:53	0.000	4.474
COA7955	JUNCTION	0.00	91.06	0	02:07	0.000	4.512
COA22517	JUNCTION	29.73	132.93	0	01:55	1.033	7.198
COA7716	JUNCTION	0.00	114.85	0	02:27	0.000	16.217
COA7766JB	JUNCTION	42.89	142.36	0	01:32	1.700	17.972
COA7769JB	JUNCTION	0.00	150.64	0	01:28	0.000	9.809
COA32865	JUNCTION	0.00	141.02	0	01:28	0.000	6.856
COA32878	JUNCTION	42.70	191.58	0	01:30	1.509	5.948
COA7848	JUNCTION	33.72	140.60	0	01:29	1.525	2.888
COA7861	JUNCTION	0.00	148.87	0	01:30	0.000	4.292
COA7870	JUNCTION	78.00	148.87	0	01:30	2.604	4.291
COA29178	JUNCTION	70.87	70.87	0	01:30	1.688	1.688
COA7816	JUNCTION	31.67	125.49	0	01:59	3.382	20.311
COA25109	JUNCTION	0.00	93.17	0	01:42	0.000	6.792
BPSINLET	JUNCTION	0.00	253.15	0	01:32	0.000	24.790
COA9310	JUNCTION	0.00	115.39	0	01:55	0.000	7.126
COA9348	JUNCTION	33.26	143.01	0	01:47	1.828	8.980
COA9344	JUNCTION	36.32	185.02	0	01:52	2.630	11.297
COA9340	JUNCTION	0.00	179.70	0	01:52	0.000	11.257
COA22250	JUNCTION	0.00	182.95	0	02:07	0.000	11.306
COA22429	JUNCTION	39.76	191.44	0	01:49	1.715	12.944
COA13866	JUNCTION	19.53	398.23	0	02:00	0.982	49.612
COA24930	JUNCTION	29.60	123.95	0	02:14	1.623	3.256
COA24916	JUNCTION	18.12	75.95	0	01:49	1.463	1.744
COA9248	JUNCTION	44.71	49.10	0	01:30	0.742	1.698
COA32981	JUNCTION	0.00	279.63	0	03:17	0.000	49.838
COA9121	JUNCTION	0.00	279.62	0	03:17	0.000	49.838
COA24902	JUNCTION	0.00	134.07	0	01:41	0.000	13.753
COA24902A	JUNCTION	0.00	139.71	0	01:59	0.000	15.220
COA9069	JUNCTION	30.31	58.99	0	01:54	2.864	4.863
COA24997	JUNCTION	0.00	95.77	0	01:52	0.000	16.320
COA9083	JUNCTION	0.00	222.76	0	01:59	0.000	31.539
UPSINLET	JUNCTION	0.00	11.40	0	02:23	0.000	0.957
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	48.26	0	01:34	0.256	1.671
COA22155	JUNCTION	17.34	65.99	0	01:35	0.708	2.378
COA9141	JUNCTION	10.25	318.21	0	01:49	0.262	53.677
COA22410	JUNCTION	0.00	284.31	0	03:03	0.000	51.037
COA9129	JUNCTION	0.00	279.63	0	03:17	0.000	49.839
COA9143	JUNCTION	0.00	310.81	0	01:49	0.000	53.678
COA22144	JUNCTION	0.00	307.15	0	02:01	0.000	53.678

COA22145	JUNCTION	0.00	307.67	0	01:52	0.000	53.678
COA22143	JUNCTION	0.00	307.08	0	02:01	0.000	53.678
COA10456	JUNCTION	0.00	365.96	0	01:53	0.000	59.086
BaPSINLET	JUNCTION	0.00	365.92	0	01:54	0.000	59.130
COA7963.05A	JUNCTION	48.69	48.69	0	00:12	1.226	1.226
COA7963.05M	JUNCTION	42.39	74.21	0	01:30	1.472	2.707
COA7963.11A	JUNCTION	0.00	146.85	0	01:30	0.000	13.781
COA7963.T	JUNCTION	0.00	353.26	0	01:52	0.000	50.609
COA32878.A	JUNCTION	13.33	92.72	0	01:28	0.252	4.815
COA32878.B	JUNCTION	55.96	141.06	0	01:28	2.024	6.850
APSINLET	JUNCTION	0.00	222.92	0	01:59	0.000	31.538
IRON14TH	JUNCTION	0.00	63.20	0	01:49	0.000	0.171
BLDWEIR	JUNCTION	0.00	111.37	0	01:28	0.000	1.478
BLUWEIR	JUNCTION	0.00	111.36	0	01:28	0.000	1.509
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	13.64	0	01:45	0.000	0.983
COA9453	JUNCTION	0.00	31.12	0	01:57	0.000	3.340
MHB22410	JUNCTION	22.18	284.30	0	03:03	1.198	51.037
COA9152	JUNCTION	52.46	52.46	0	01:30	0.944	0.944
COA9229	JUNCTION	0.00	47.23	0	01:30	0.000	0.938
MHB19A	JUNCTION	0.00	2.07	0	01:46	0.000	0.026
APSOUTLET	OUTFALL	0.00	222.77	0	01:59	0.000	31.538
BPSOUTLET	OUTFALL	0.00	253.34	0	01:32	0.000	24.793
BaPSOUTLET	OUTFALL	0.00	365.91	0	01:54	0.000	59.325
OUT1	OUTFALL	0.00	9.48	0	02:26	0.000	1.459
AIRQUALITYPOND	STORAGE	0.00	190.83	0	01:29	0.000	5.306
TINGLEYPARKSURGEPOND	STORAGE	11.10	115.21	0	01:52	0.388	1.160
NORTHWELLSPOND	STORAGE	38.79	120.87	0	02:04	3.059	13.212
CORONADOPOND	STORAGE	95.40	160.27	0	01:39	4.099	8.524
BR21POND	STORAGE	64.21	64.21	0	01:30	1.459	1.459

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Node Surcharge Summary
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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	2.10	0.854	2.466
COA15184	JUNCTION	5.19	5.171	0.189
COA6218	JUNCTION	5.36	4.121	0.249
COA6195	JUNCTION	1.49	4.084	0.000
COA6246	JUNCTION	1.85	4.552	0.000
COA29163	JUNCTION	1.88	5.381	0.000
COA7635	JUNCTION	2.15	6.446	0.000
COA7650	JUNCTION	2.92	5.469	0.000
COA7656	JUNCTION	3.18	5.460	0.000
COA7628	JUNCTION	0.97	8.038	0.000
COA29132	JUNCTION	0.93	9.723	0.000
COA7717	JUNCTION	0.70	4.785	0.285
COA19719	JUNCTION	5.64	4.830	0.000
COA7654	JUNCTION	4.75	4.091	0.000
COA7714	JUNCTION	0.01	3.860	0.000
COA25349	JUNCTION	1.44	5.578	0.000
COA25656	JUNCTION	3.37	7.452	0.000
COA25677	JUNCTION	1.97	7.902	0.000
COA25622	JUNCTION	1.77	6.462	0.000
COA7444	JUNCTION	0.30	3.140	0.000
COA7476	JUNCTION	0.62	3.347	0.000
COA7518	JUNCTION	1.61	4.344	0.000
COA24834	JUNCTION	3.06	0.823	0.000
COA8985	JUNCTION	2.95	5.451	0.000
COA24859	JUNCTION	2.80	4.503	0.000
COA9015	JUNCTION	0.11	5.451	0.000
COA25105	JUNCTION	1.71	6.206	0.000
COA25117	JUNCTION	1.52	7.272	0.000
COA25048	JUNCTION	1.00	6.361	0.000

COA25034	JUNCTION	0.92	5.702	0.000
COA9045	JUNCTION	0.50	3.590	0.000
COA25352	JUNCTION	1.55	5.814	0.000
COA7815	JUNCTION	1.71	7.303	0.000
COA25253	JUNCTION	1.83	6.951	0.000
COA7977	JUNCTION	1.33	6.968	0.112
COA25238	JUNCTION	1.63	7.240	0.000
COA25240	JUNCTION	1.19	7.095	0.465
COA22584	JUNCTION	1.80	8.490	0.000
COA9260	JUNCTION	1.90	7.781	0.000
COA7740	JUNCTION	0.01	3.750	0.000
COA7830	JUNCTION	0.40	4.291	0.000
COA7865	JUNCTION	0.56	4.984	0.000
COA7908	JUNCTION	0.65	5.000	0.000
COA7912	JUNCTION	0.51	4.460	0.000
COA7955	JUNCTION	0.73	5.112	0.000
COA22517	JUNCTION	1.23	5.502	0.000
COA7716	JUNCTION	0.85	5.050	0.000
COA7766JB	JUNCTION	1.30	4.259	3.071
COA7769JB	JUNCTION	1.19	4.354	2.456
COA32865	JUNCTION	1.28	7.102	0.000
COA32878	JUNCTION	0.85	3.494	0.000
COA7848	JUNCTION	0.40	2.711	0.000
COA7861	JUNCTION	0.98	16.464	0.000
COA7870	JUNCTION	0.24	30.549	0.000
COA29178	JUNCTION	0.76	37.092	0.000
COA7816	JUNCTION	1.54	7.171	0.000
COA25109	JUNCTION	1.58	6.674	0.000
BPSINLET	JUNCTION	1.23	3.229	7.671
COA9310	JUNCTION	1.25	6.051	0.000
COA9348	JUNCTION	1.66	5.752	0.000
COA9344	JUNCTION	1.87	6.352	0.000
COA9340	JUNCTION	2.10	7.981	0.000
COA22250	JUNCTION	2.16	7.582	0.000
COA22429	JUNCTION	2.13	7.071	0.000
COA13866	JUNCTION	1.91	4.084	0.000
COA24930	JUNCTION	1.83	5.053	0.000
COA24916	JUNCTION	1.41	4.831	0.000
COA9248	JUNCTION	0.06	6.074	0.000
COA32981	JUNCTION	2.37	1.444	8.416
COA9121	JUNCTION	2.37	1.421	8.079
COA9069	JUNCTION	0.06	4.729	0.961
COA24997	JUNCTION	0.68	5.799	0.711
COA9083	JUNCTION	0.40	0.603	6.517
UPSINLET	JUNCTION	2.23	2.164	22.996
COA22174	JUNCTION	2.98	3.538	8.042
COA22155	JUNCTION	3.01	3.585	8.305
COA9141	JUNCTION	0.25	0.247	9.633
COA22410	JUNCTION	2.18	1.015	9.735
COA9129	JUNCTION	2.36	1.256	6.754
COA7963.05M	JUNCTION	2.71	2.451	2.859
COA7963.11A	JUNCTION	3.71	5.262	0.000
COA7963.T	JUNCTION	2.35	1.020	0.228
COA32878.A	JUNCTION	0.98	4.208	0.000
COA32878.B	JUNCTION	1.20	5.080	0.000
BLDWEIR	JUNCTION	0.78	3.538	0.000
BLUWEIR	JUNCTION	0.85	4.678	0.000
MHB22410	JUNCTION	2.38	1.312	9.438
COA9229	JUNCTION	0.83	1.301	0.000
AIRQUALITYPOND	STORAGE	2.99	2.844	4.556
TINGLEYPARKSURGEPOND	STORAGE	2.35	1.006	7.444
NORTHWELLSPOND	STORAGE	8.20	1.943	2.557
CORONADOPOND	STORAGE	6.88	5.169	1.331
BR21POND	STORAGE	143.00	6.476	7.524

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

O19

Node	Hours Flooded	Maximum Rate CFS	Time of Max Occurrence days	hr:min	Total Flood Volume 10^6 gal	Maximum Ponded Depth Feet
COA6195	1.39	31.56	0	01:33	0.208	7.08
COA6246	0.04	18.41	0	01:34	0.004	7.85
COA29163	0.02	20.74	0	01:27	0.002	8.38
COA7635	2.05	41.20	0	01:34	0.459	9.45
COA7650	1.32	43.87	0	01:32	0.041	8.47
COA7656	0.08	50.79	0	01:29	0.012	9.46
COA7628	0.23	19.24	0	01:28	0.004	11.04
COA29132	0.60	12.14	0	01:30	0.045	12.72
COA19719	0.25	18.48	0	03:16	0.022	9.98
COA7654	2.15	20.62	0	04:40	0.232	8.59
COA25349	0.13	89.04	0	02:09	0.060	11.08
COA25656	1.87	16.82	0	02:15	0.216	10.45
COA25677	0.08	40.91	0	02:18	0.008	10.97
COA25622	0.70	20.18	0	01:33	0.057	9.60
COA7444	0.19	15.53	0	01:46	0.012	7.72
COA7476	0.56	46.80	0	01:44	0.048	7.86
COA7518	0.76	46.00	0	01:43	0.097	8.94
COA24834	2.72	71.26	0	01:54	0.989	7.27
COA8985	0.32	32.18	0	01:45	0.044	11.38
COA24859	0.11	34.46	0	01:45	0.017	12.00
COA9015	0.01	13.16	0	01:49	0.001	8.45
COA25105	0.30	55.18	0	02:03	0.035	10.21
COA25117	0.09	45.77	0	02:02	0.009	11.29
COA25048	0.09	43.18	0	01:46	0.015	11.36
COA25034	0.15	45.10	0	01:46	0.022	10.70
COA9045	0.04	28.18	0	01:39	0.004	8.65
COA25352	0.06	85.53	0	01:59	0.019	11.31
COA7815	0.12	121.24	0	02:02	0.057	13.40
COA25253	0.01	11.79	0	02:03	0.001	12.95
COA25238	0.01	5.54	0	01:55	0.000	13.47
COA22584	0.01	33.60	0	01:55	0.002	14.49
COA9260	0.02	45.25	0	02:10	0.004	14.78
COA7740	0.01	6.84	0	02:03	0.000	8.25
COA7830	0.03	61.78	0	01:53	0.010	12.00
COA7865	0.04	58.81	0	01:47	0.009	10.46
COA7908	0.01	26.05	0	01:49	0.000	10.00
COA7955	0.12	41.46	0	02:11	0.032	12.00
COA22517	0.23	50.74	0	01:49	0.054	11.00
COA7716	0.01	8.66	0	01:32	0.000	9.23
COA32865	0.01	31.10	0	01:28	0.001	11.62
COA32878	0.56	27.75	0	01:30	0.078	9.51
COA7848	0.01	25.36	0	01:53	0.001	8.71
COA7816	0.22	71.34	0	02:03	0.061	13.17
COA25109	0.17	55.84	0	02:03	0.023	10.67
COA9310	0.07	37.13	0	02:00	0.012	11.55
COA9348	0.09	51.11	0	01:51	0.022	11.79
COA9344	0.03	48.70	0	01:51	0.009	15.71
COA9340	0.01	46.55	0	01:52	0.005	16.65
COA22250	0.02	111.91	0	02:07	0.006	13.58
COA22429	0.03	67.36	0	02:07	0.015	13.07
COA13866	0.04	111.31	0	02:04	0.015	12.08
COA24930	0.12	105.35	0	02:14	0.039	11.05
COA24916	0.04	49.65	0	02:18	0.011	10.36
COA9248	0.03	12.56	0	01:48	0.002	10.07
COA7963.11A	0.02	37.52	0	01:36	0.004	9.48
COA32878.A	0.55	22.36	0	01:32	0.053	8.71
COA32878.B	0.01	0.14	0	01:28	0.000	9.58
COA9229	0.52	9.58	0	01:51	0.025	27.30

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Storage Volume Summary
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	Average Volume	Avg Pcnt	E&I Pcnt	Maximum Volume	Max Pcnt	Time of Max Occurrence	Maximum Outflow

O19

Storage Unit	1000 ft3	Full	Loss	1000 ft3	Full	days hr:min	CFS
AIRQUALITYPOND	10.089	1	0	364.863	53	0 02:50	46.16
TINGLEYPARKSURGEPOND	1.568	0	0	108.517	4	0 02:51	58.95
NORTHWELLSPOND	57.437	8	0	496.420	69	0 05:46	34.15
CORONADOPOND	24.230	5	0	404.086	86	0 03:12	46.42
BR21POND	2.898	1	0	93.907	35	0 02:26	9.48

****
Outfall Loading Summary
****

Outfall Node	Flow Freq. Pcnt.	Avg. Flow CFS	Max. Flow CFS	Total Volume 10^6 gal
APSOUTLET	99.28	8.95	222.77	31.538
BPSOUTLET	99.86	7.07	253.34	24.793
BaPSOUTLET	88.34	18.95	365.91	59.325
OUT1	43.14	0.96	9.48	1.459
System	82.66	35.93	836.46	117.115

****
Link Flow Summary
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Link	Type	Maximum |Flow| CFS	Time of Max Occurrence days hr:min	Maximum |Veloc| ft/sec	Max/ Full Flow	Max/ Full Depth
ESWMM57	CONDUIT	11.15	0 02:04	1.97	0.32	0.66
1FOSWMM6	CONDUIT	33.46	0 01:32	3.67	0.29	1.00
1FOSWMM7	CONDUIT	70.16	0 01:43	5.31	3.91	1.00
ESWMM36	CONDUIT	44.86	0 01:27	6.41	1.91	1.00
ESWMM37	CONDUIT	45.63	0 01:30	7.64	1.36	1.00
ESWMM39	CONDUIT	50.89	0 01:32	7.20	1.31	1.00
ESWMM40	CONDUIT	48.60	0 01:27	6.88	1.23	1.00
ESWMM41	CONDUIT	17.96	0 01:30	6.93	0.99	1.00
ESWMM44	CONDUIT	64.48	0 01:37	9.12	1.19	1.00
ESWMM42	CONDUIT	42.12	0 00:16	13.85	0.17	0.39
ESWMM45	CONDUIT	146.85	0 01:30	11.69	1.61	1.00
1FQSWMM9	CONDUIT	48.21	0 02:49	3.03	0.99	1.00
ESWMM58	CONDUIT	39.89	0 02:03	4.44	0.62	0.80
ESWMM59	CONDUIT	39.93	0 02:06	2.66	0.64	0.92
ESWMM60	CONDUIT	70.61	0 02:02	5.40	0.91	0.80
ESWMM91	CONDUIT	52.48	0 02:18	7.42	4.22	1.00
ESWMM92	CONDUIT	35.21	0 02:24	4.98	3.25	1.00
1FQSWMM10	CONDUIT	46.36	0 02:19	3.79	0.58	1.00
1FQSWMM11	CONDUIT	68.32	0 02:20	4.33	0.74	1.00
1FQSWMM12	CONDUIT	78.42	0 01:50	5.13	1.50	1.00
1FQSWMM13	CONDUIT	86.31	0 02:38	5.43	1.17	1.00
1FQSWMM14	CONDUIT	110.25	0 01:46	6.93	0.92	1.00
ESWMM6	CONDUIT	38.96	0 01:43	7.10	3.40	1.00
ESWMM93	CONDUIT	50.31	0 01:42	7.12	1.67	1.00
ESWMM94	CONDUIT	93.17	0 01:42	7.41	1.76	1.00
ESWMM96	CONDUIT	70.20	0 01:44	5.59	1.81	1.00
ESWMM97	CONDUIT	93.61	0 01:46	4.77	1.01	1.00
ESWMM98	CONDUIT	100.15	0 01:40	5.10	1.26	1.00
ESWMM61	CONDUIT	82.76	0 02:04	4.61	0.50	0.76
ESWMM62	CONDUIT	395.80	0 02:00	16.66	2.20	1.00
ESWMM63	CONDUIT	159.35	0 02:05	6.71	0.85	1.00
ESWMM64	CONDUIT	169.93	0 01:47	6.01	1.23	1.00
ESWMM65	CONDUIT	172.08	0 01:47	6.09	0.37	1.00
ESWMM66	CONDUIT	169.41	0 01:47	6.00	0.71	1.00
ESWMM67	CONDUIT	171.44	0 02:05	6.06	0.94	1.00
ESWMM68	CONDUIT	172.94	0 02:05	6.12	0.86	1.00
ESWMM69	CONDUIT	164.51	0 01:55	5.82	0.88	1.00

ESWMM30	CONDUIT	34.17	0	06:01	2.95	0.77	1.00
ESWMM29	CONDUIT	50.26	0	02:23	4.36	0.70	1.00
ESWMM28	CONDUIT	66.11	0	02:03	4.16	0.90	1.00
ESWMM27	CONDUIT	102.16	0	01:53	5.20	1.83	1.00
ESWMM26	CONDUIT	102.14	0	01:53	5.40	0.18	1.00
ESWMM25	CONDUIT	91.06	0	02:07	4.64	1.14	1.00
ESWMM24	CONDUIT	80.92	0	01:56	3.41	0.71	1.00
ESWMM50	CONDUIT	70.87	0	01:30	10.03	3.58	1.00
ESWMM51	CONDUIT	148.87	0	01:30	11.85	0.81	1.00
ESWMM52	CONDUIT	148.88	0	01:30	9.36	1.56	1.00
BLUPIPE	CONDUIT	111.36	0	01:28	3.94	3.47	1.00
ESWMM46	CONDUIT	114.85	0	02:27	8.32	0.21	1.00
ESWMM47	CONDUIT	117.18	0	02:27	6.03	0.58	1.00
ESWMM48	CONDUIT	28.49	0	03:13	4.20	0.28	1.00
ESWMM49	CONDUIT	150.64	0	01:28	9.50	1.45	1.00
ESWMM54	CONDUIT	126.98	0	01:33	5.89	0.73	1.00
ESWMM55	CONDUIT	95.35	0	01:36	4.16	0.87	1.00
ESWMM56	CONDUIT	133.80	0	01:49	4.73	1.18	1.00
ESWMM95	CONDUIT	72.15	0	02:02	5.74	1.39	1.00
48SDTOBPS	CONDUIT	132.92	0	01:32	7.13	1.74	1.00
ESWMM23	CONDUIT	48.86	0	01:30	5.32	0.54	1.00
ESWMM22	CONDUIT	115.39	0	01:55	4.86	1.12	1.00
ESWMM21	CONDUIT	110.25	0	01:47	4.64	0.70	1.00
ESWMM20	CONDUIT	148.70	0	01:52	5.26	1.05	1.00
ESWMM19	CONDUIT	179.70	0	01:52	6.36	1.18	1.00
ESWMM18	CONDUIT	182.95	0	02:07	6.47	1.19	1.00
ESWMM17	CONDUIT	159.10	0	01:57	5.63	1.41	1.00
ESWMM16	CONDUIT	216.93	0	02:00	7.67	0.87	1.00
ESWMM70	CONDUIT	189.97	0	01:55	4.94	0.93	1.00
ESWMM15	CONDUIT	68.21	0	01:59	3.28	0.58	1.00
ESWMM71	CONDUIT	353.26	0	01:52	7.03	0.75	1.00
ESWMM72	CONDUIT	279.62	0	03:17	5.56	0.62	1.00
ESWMM7	CONDUIT	29.00	0	01:54	4.25	1.27	1.00
ESWMM12	CONDUIT	116.99	0	01:41	6.92	1.81	0.68
ESWMM9	CONDUIT	25.04	0	01:54	3.54	0.86	1.00
ESWMM99	CONDUIT	134.07	0	01:41	7.36	1.37	0.92
ESWMM8	CONDUIT	34.97	0	01:59	10.28	0.26	1.00
ESWMM10	CONDUIT	93.86	0	01:49	7.47	1.53	1.00
ESWMM11	CONDUIT	134.51	0	02:00	7.78	0.50	0.83
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	5.49	0.31	0.49
ESWMM85	CONDUIT	41.97	0	01:34	7.59	0.41	0.38
ESWMM84	CONDUIT	41.85	0	01:35	3.59	0.11	0.61
ESWMM83	CONDUIT	49.67	0	01:35	2.53	1.08	1.00
ESWMM82	CONDUIT	65.08	0	01:35	3.37	2.78	1.00
ESWMM73	CONDUIT	279.63	0	03:17	5.56	1.07	1.00
ESWMM76	CONDUIT	310.81	0	01:49	6.28	0.95	0.99
ESWMM77	CONDUIT	307.67	0	01:52	6.29	1.01	0.96
ESWMM78	CONDUIT	307.15	0	02:01	6.39	1.16	0.92
ESWMM79	CONDUIT	307.08	0	02:01	6.70	0.99	0.87
ESWMM80	CONDUIT	307.06	0	02:01	7.09	0.97	0.84
ESWMM81	CONDUIT	365.92	0	01:54	13.46	1.33	0.70
ESWMM14	CONDUIT	61.60	0	02:14	2.59	0.54	1.00
ESWMM13	CONDUIT	63.20	0	01:49	2.73	0.59	1.00
ESWMM125	CONDUIT	47.63	0	00:14	7.68	0.19	0.58
ESWWM45A	CONDUIT	82.47	0	02:27	7.20	1.45	1.00
ESWMM71A	CONDUIT	279.63	0	03:17	5.56	0.44	1.00
ESWMM126	CONDUIT	111.69	0	01:52	2.22	2.95	1.00
ESWMM127	CONDUIT	81.47	0	01:29	6.84	1.23	1.00
ESWMM128	CONDUIT	49.22	0	01:30	8.70	0.20	0.87
ESWMM129	CONDUIT	62.65	0	01:30	6.85	0.33	1.00
ESWMM132	CONDUIT	79.52	0	01:28	5.00	0.44	1.00
60SDTOBPS	CONDUIT	120.82	0	01:37	8.68	0.53	1.00
ESWMM135	CONDUIT	222.92	0	01:59	10.07	2.65	0.88
ESWMM53	CONDUIT	111.32	0	01:29	5.20	0.48	1.00
ESWMM75	CONDUIT	284.31	0	03:04	5.72	2.08	1.00
1FOSWMM13	CONDUIT	31.12	0	01:57	3.05	0.61	0.77
1FOSWMM14	CONDUIT	31.10	0	01:59	3.68	0.60	0.64
1FOSWMM15	CONDUIT	59.07	0	01:52	7.95	0.61	0.57

ESWMM201	CONDUIT	13.64	0	01:45	7.79	8.66	1.00
ESWMM203	CONDUIT	11.40	0	02:23	9.70	0.08	0.94
ESWMM200	CONDUIT	47.23	0	01:30	3.39	0.40	0.99
ESWMM202	CONDUIT	2.07	0	01:46	1.10	0.03	0.48
ESWMM500	CONDUIT	67.00	0	01:43	5.33	1.46	1.00
ESWMM74	CONDUIT	279.63	0	03:18	5.56	0.94	1.00
ESWMM74A	CONDUIT	284.31	0	03:03	5.17	1.11	1.00
1FOSWMM1	CONDUIT	91.20	0	01:28	5.73	0.52	1.00
1FOSWMM4	CONDUIT	68.29	0	02:06	6.21	1.77	1.00
1FOSWMM5	CONDUIT	34.15	0	06:00	4.83	1.95	1.00
1FQSWMM7	CONDUIT	66.68	0	01:44	7.65	0.64	1.00
1FQSWMM8	CONDUIT	46.42	0	03:15	14.78	1.89	1.00
ESWMM134	CONDUIT	141.02	0	01:28	8.87	1.52	1.00
ESWMM38	CONDUIT	37.27	0	01:28	5.56	0.58	1.00
ESWMM43	CONDUIT	68.07	0	01:36	9.63	1.67	1.00
BROADWAYPUMPSTATION	PUMP	253.34	0	01:32		0.79	
ALCALDEPUMPSTATION	PUMP	222.77	0	01:59		0.83	
URBANPUMPSTATION	PUMP	11.39	0	02:23		0.95	
BARELASPUMPSTATION	PUMP	365.91	0	01:54		0.90	
WEIRIRON14TH	WEIR	14.99	0	01:50			0.15
WEIRBROADWAY	WEIR	111.37	0	01:28			1.00
BR21OUTLET	DUMMY	9.48	0	02:26			

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Flow Classification Summary
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Conduit	Adjusted /Actual Length	Fraction of Time in Flow Class: Dry	Up Dry	Down Dry	Sub Crit	Sup Crit	Up Crit	Down Crit	Avg. Froude Number	Avg. Flow Change
ESWMM57	1.00	0.01	0.00	0.00	0.05	0.00	0.00	0.94	0.32	0.0000
1FOSWMM6	1.00	0.01	0.00	0.00	0.37	0.00	0.00	0.63	0.31	0.0000
1FOSWMM7	1.00	0.01	0.00	0.00	0.09	0.00	0.00	0.90	0.18	0.0000
ESWMM36	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.06	0.0000
ESWMM37	1.00	0.01	0.00	0.00	0.97	0.02	0.00	0.00	0.52	0.0001
ESWMM39	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.44	0.0000
ESWMM40	1.00	0.00	0.00	0.00	0.14	0.00	0.00	0.85	0.64	0.0000
ESWMM41	1.00	0.10	0.00	0.00	0.05	0.00	0.00	0.86	0.28	0.0000
ESWMM44	1.00	0.00	0.00	0.00	0.04	0.00	0.00	0.95	1.20	0.0000
ESWMM42	1.00	0.00	0.00	0.00	0.03	0.00	0.00	0.97	0.03	0.0000
ESWMM45	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.12	0.0000
1FQSWMM9	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.21	0.0004
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	0.08	0.0000
ESWMM91	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.13	0.0001
ESWMM92	1.00	0.01	0.00	0.00	0.21	0.00	0.00	0.78	0.29	0.0001
1FQSWMM10	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.33	0.0000
1FQSWMM11	1.00	0.00	0.00	0.00	0.75	0.00	0.00	0.25	0.43	0.0001
1FQSWMM12	1.00	0.00	0.00	0.00	0.03	0.00	0.00	0.97	0.35	0.0000
1FQSWMM13	1.00	0.00	0.00	0.00	0.03	0.00	0.00	0.97	0.53	0.0001
1FQSWMM14	1.00	0.00	0.00	0.00	0.22	0.00	0.00	0.78	1.01	0.0001
ESWMM6	1.00	0.88	0.09	0.00	0.03	0.00	0.00	0.00	0.01	0.0002
ESWMM93	1.00	0.01	0.00	0.00	0.17	0.00	0.00	0.82	0.66	0.0001
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	0.0002
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	0.0001
ESWMM63	1.00	0.01	0.00	0.00	0.20	0.00	0.00	0.79	0.76	0.0001
ESWMM64	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.22	0.0000
ESWMM65	1.52	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.25	0.0000
ESWMM66	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.55	0.0000
ESWMM67	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.16	0.0000
ESWMM68	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.51	0.0000
ESWMM69	1.00	0.01	0.00	0.00	0.08	0.00	0.00	0.91	0.77	0.0000
ESWMM30	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.28	0.0000
ESWMM29	1.00	0.01	0.00	0.00	0.02	0.00	0.00	0.98	0.50	0.0000

ESWMM28	1.00	0.95	0.00	0.00	0.03	0.00	0.00	0.02	0.02	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	0.02	0.00	0.97	0.00	0.07	0.0000
ESWMM25	1.00	0.01	0.00	0.00	0.03	0.00	0.00	0.97	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	0.01	0.03	0.00	0.96	1.41	0.0000
ESWMM52	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.07	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	0.03	0.09	0.00	0.87	2.06	0.0000
ESWMM47	1.00	0.00	0.00	0.00	0.05	0.01	0.00	0.95	1.05	0.0000
ESWMM48	1.00	0.82	0.10	0.00	0.03	0.00	0.05	0.00	0.03	0.0000
ESWMM49	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.56	0.0000
ESWMM54	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.01	0.0000
ESWMM55	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.25	0.0001
ESWMM56	1.00	0.01	0.00	0.00	0.68	0.00	0.00	0.31	0.37	0.0002
ESWMM95	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.35	0.0001
48SDTOBPS	1.00	0.00	0.00	0.00	0.01	0.00	0.00	0.99	0.63	0.0000
ESWMM23	1.00	0.00	0.00	0.00	0.17	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	0.33	0.0001
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	0.0000
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	0.32	0.0001
ESWMM16	1.00	0.00	0.00	0.00	0.24	0.01	0.00	0.75	0.66	0.0000
ESWMM70	1.00	0.00	0.00	0.00	0.05	0.00	0.00	0.95	0.47	0.0000
ESWMM15	1.00	0.00	0.00	0.00	0.12	0.00	0.00	0.88	0.30	0.0001
ESWMM71	1.00	0.00	0.00	0.00	0.90	0.00	0.00	0.10	0.69	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	0.18	0.00	0.10	0.00	0.00	0.02	0.02	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	0.03	0.00	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	0.10	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	0.42	0.0000
ESWMM76	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.49	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	0.41	0.0000
ESWMM79	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.46	0.0000
ESWMM80	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.36	0.0001
ESWMM81	1.00	0.01	0.00	0.00	0.77	0.23	0.00	0.00	0.63	0.0023
ESWMM14	1.00	0.00	0.00	0.00	0.36	0.00	0.00	0.63	0.33	0.0001
ESWMM13	1.00	0.10	0.83	0.00	0.07	0.00	0.00	0.00	0.00	0.0000
ESWMM125	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.10	0.0000
ESWMM45A	1.00	0.00	0.00	0.00	0.01	0.00	0.00	0.99	0.53	0.0000
ESWMM71A	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.70	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	0.04	0.0000
ESWMM128	1.00	0.00	0.10	0.00	0.90	0.00	0.00	0.00	0.04	0.0000
ESWMM129	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.42	0.0000
ESWMM132	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.07	0.0000
60SDTOBPS	1.00	0.00	0.00	0.00	0.01	0.00	0.00	0.99	1.07	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	0.32	0.0000
1FOSWMM13	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.18	0.0000
1FOSWMM14	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.39	0.0000
1FOSWMM15	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	0.21	0.0000
ESWMM203	1.00	0.01	0.02	0.00	0.84	0.14	0.00	0.00	0.32	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	0.37	0.0000
ESWMM74A	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.09	0.0000
1FOSWMM1	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.48	0.0000
1FOSWMM4	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.13	0.0007
1FOSWMM5	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.34	0.0000
1FQSWMM7	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.27	0.0000
1FQSWMM8	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.06	0.0004
ESWMM134	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.36	0.0000
ESWMM38	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.56	0.0000
ESWMM43	1.00	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.64	0.0000

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Conduit Surcharge Summary
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Conduit	Hours Full: Both Ends	Hours Full: Upstream	Hours Full: Dnstream	Hours Above Full Normal Flow	Hours Capacity Limited
1FOSWMM6	2.10	2.10	2.10	0.01	0.01
1FOSWMM7	5.30	5.30	5.30	2.00	2.14
ESWMM36	1.46	1.46	1.46	1.38	1.34
ESWMM37	1.84	1.84	1.85	0.07	1.19
ESWMM39	2.13	2.13	2.14	0.05	1.86
ESWMM40	2.92	2.92	2.92	0.48	1.75
ESWMM41	1.83	1.83	1.83	0.01	0.01
ESWMM44	0.97	0.97	0.98	0.59	0.60
ESWMM45	3.17	3.17	3.17	0.61	0.75
1FQSWMM9	3.59	3.59	3.69	0.01	1.03
ESWMM91	2.10	2.10	2.10	3.44	1.99
ESWMM92	1.76	1.76	1.78	3.60	1.74
1FQSWMM10	0.28	0.28	0.29	0.01	0.01
1FQSWMM11	0.60	0.60	0.60	0.01	0.01
1FQSWMM12	1.87	1.87	1.87	0.87	0.79
1FQSWMM13	2.95	2.95	2.98	2.09	2.58
1FQSWMM14	3.39	3.39	3.39	0.01	0.34
ESWMM6	0.11	0.11	0.11	3.21	0.09
ESWMM93	1.87	1.87	1.87	1.66	1.39
ESWMM94	1.52	1.52	1.54	0.25	1.10
ESWMM96	1.31	1.31	1.31	1.49	0.82
ESWMM97	0.84	0.84	0.86	0.01	0.17
ESWMM98	0.37	0.37	0.38	0.12	0.32
ESWMM62	1.42	1.42	1.43	0.01	0.36
ESWMM63	1.55	1.55	1.55	0.01	0.29
ESWMM64	1.82	1.82	1.82	0.20	1.47
ESWMM65	1.33	1.33	1.33	0.01	0.01
ESWMM66	1.33	1.33	1.33	0.01	0.09
ESWMM67	1.62	1.62	1.62	0.01	1.62
ESWMM68	1.19	1.19	1.19	0.01	0.06
ESWMM69	1.80	1.80	1.80	0.01	0.15
ESWMM30	0.01	0.01	0.02	0.01	0.01
ESWMM29	0.01	0.01	0.01	0.01	0.01
ESWMM28	0.46	0.46	0.46	0.01	0.09
ESWMM27	0.65	0.65	0.65	0.57	0.48
ESWMM26	0.51	0.51	0.51	0.01	0.01
ESWMM25	0.93	0.93	0.93	0.04	0.51
ESWMM24	0.51	0.51	0.54	0.01	0.09
ESWMM50	0.24	0.24	0.24	0.80	0.01
ESWMM51	0.40	0.40	0.40	0.01	0.03
ESWMM52	0.97	0.97	0.97	0.35	0.68
BLUPIPE	0.85	0.85	0.85	0.61	0.58
ESWMM46	0.77	0.77	0.77	0.01	0.01
ESWMM47	0.89	0.89	0.89	1.17	0.01
ESWMM48	1.29	1.29	1.29	0.01	0.01
ESWMM49	1.25	1.25	1.25	0.28	0.84
ESWMM54	0.40	0.40	0.40	0.01	0.01
ESWMM55	0.59	0.59	0.62	0.01	0.22

ESWMM56	1.38	1.38	1.41	0.04	0.22
ESWMM95	1.47	1.47	1.48	0.19	0.95
48SDTOBPS	1.25	1.25	1.25	1.79	1.25
ESWMM23	0.06	0.06	0.06	0.01	0.01
ESWMM22	1.03	1.03	1.06	0.05	0.87
ESWMM21	1.25	1.25	1.26	0.01	0.14
ESWMM20	1.64	1.64	1.66	0.01	0.23
ESWMM19	1.97	1.97	1.98	0.02	1.21
ESWMM18	2.09	2.09	2.10	0.01	0.42
ESWMM17	2.10	2.10	2.11	0.51	1.96
ESWMM16	2.12	2.12	2.13	0.01	0.07
ESWMM70	1.90	1.90	1.91	0.01	0.30
ESWMM15	1.83	1.83	1.84	0.01	0.16
ESWMM71	1.91	1.91	1.92	0.01	0.62
ESWMM72	2.37	2.37	2.37	0.01	2.33
ESWMM7	0.03	0.03	0.03	1.24	0.02
ESWMM12	0.01	0.01	0.01	1.89	0.01
ESWMM9	0.19	0.19	0.20	0.01	0.01
ESWMM99	0.01	0.01	0.01	0.65	0.01
ESWMM8	0.21	0.21	0.22	0.01	0.01
ESWMM10	2.96	2.96	2.96	3.55	2.96
ESWMM83	2.97	2.97	2.97	0.03	0.22
ESWMM82	2.98	2.98	2.98	0.77	0.67
ESWMM73	2.36	2.36	2.36	1.95	2.32
ESWMM77	0.01	0.01	0.01	0.34	0.01
ESWMM78	0.01	0.01	0.01	2.47	0.01
ESWMM81	0.01	0.01	0.01	2.65	0.01
ESWMM14	1.43	1.43	1.44	0.01	0.22
ESWMM13	0.19	0.19	0.20	0.01	0.02
ESWMM45A	0.69	0.69	0.69	3.34	0.66
ESWMM71A	2.35	2.35	2.35	0.01	0.01
ESWMM126	2.35	2.35	2.35	0.47	1.42
ESWMM127	3.61	3.61	3.61	0.07	0.02
ESWMM129	2.71	2.71	2.71	0.01	0.01
ESWMM132	0.98	0.98	0.98	0.01	0.01
60SDTOBPS	1.19	1.19	1.19	0.01	0.72
ESWMM135	0.01	0.01	0.01	3.71	0.01
ESWMM53	0.40	0.40	0.40	0.01	0.01
ESWMM75	0.25	0.25	0.25	3.37	0.25
ESWMM201	1.76	1.76	1.76	3.30	1.76
ESWMM500	3.53	3.53	3.53	3.68	3.48
ESWMM74	2.36	2.36	2.36	0.01	1.95
ESWMM74A	2.18	2.18	2.18	2.41	2.18
1FOSWMM1	0.98	0.98	0.98	0.01	0.01
1FOSWMM4	4.22	4.22	4.32	1.83	2.46
1FOSWMM5	8.73	8.73	8.73	12.74	8.54
1FQSWMM7	6.02	6.02	6.02	0.01	0.01
1FQSWMM8	11.21	11.21	11.21	4.30	5.80
ESWMM134	1.19	1.19	1.19	0.60	0.58
ESWMM38	1.88	1.88	1.89	0.01	0.01
ESWMM43	0.90	0.90	0.91	0.62	0.60

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Pumping Summary
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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 Off Pump Curve Low	% Time Off Pump Curve High
BROADWAYPUMPSTATION	99.86	9	0.00	7.07	253.34	24.793	12658.25	0.0	0.0
ALCALDEPUMPSTATION	99.28	59	0.00	8.95	222.77	31.538	2807.24	98.1	0.0
URBANPUMPSTATION	3.49	1643	0.00	7.36	11.39	0.955	46.41	42.2	0.0
BARELASPUMPSTATION	88.29	11890	0.00	18.95	365.91	59.325	3264.50	96.4	0.0

Analysis begun on: Wed Jan 25 14:18:53 2012
Analysis ended on: Wed Jan 25 14:21:41 2012
Total elapsed time: 00:02:48