



Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	1	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.200
CV	1.000	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	x
Maximum Rainfall (mm/hr)	100.0		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
25.01	0.057	5.00	9.373	1200	493995.300	104221.737	0.900
25.05	0.038	5.00	9.533	1200	493993.287	104170.000	1.028
25.04	0.003	5.00	9.663	1200	493995.623	104185.874	1.252
25	0.010	5.00	9.488	1200	493993.689	104192.015	1.190
24	0.015	5.00	9.341	1200	493975.856	104192.346	1.154
23	0.012	5.00	9.447	1200	493975.736	104185.866	1.298
22	0.053	5.00	9.505	1200	493971.155	104149.967	1.569
21	0.023	5.00	9.407	1200	493970.848	104140.134	1.529
20	0.071	5.00	8.989	1200	493973.124	104099.135	1.291
HW5			8.620		493969.116	104087.675	1.000
88	0.018	5.00	9.264	1350	494040.373	104163.015	1.250
87	0.050	5.00	9.425	1350	494030.789	104148.971	1.453
85	0.100	5.00	8.852	1350	494019.067	104069.426	1.079
HW6	0.020	5.00	8.620		493979.285	104074.383	1.000
HW4 (Western Basin)		5.00	8.620		493979.497	104070.848	1.000
19			8.401	1350	493983.470	104067.065	0.795
18			8.899	1350	494034.607	104056.617	1.422
17			9.310	1350	494071.745	104053.517	1.925
16	0.010	5.00	9.257	1350	494095.230	104048.676	1.931
15			9.023	1350	494124.835	104044.353	1.771
13			8.377	1350	494169.412	104035.807	1.239
12			8.380	1350	494172.500	104037.377	1.251
11			7.367	1350	494215.676	104030.658	1.111
10			5.900	1350	494255.057	104022.816	1.111
9			5.900	1350	494259.407	104032.417	1.137
8	0.024	5.00	6.053	1350	494254.182	104045.322	1.324
7	0.013	5.00	5.953	1350	494257.970	104060.337	1.234
6	0.054	5.00	5.889	1350	494258.509	104077.430	1.212
77	0.030	5.00	8.626	1200	494152.040	104191.495	1.725
78	0.028	5.00	9.336	1200	494072.383	104215.523	1.650
33A			8.954	1350	494096.383	104129.904	3.890
75	0.113	5.00	9.365	1200	494073.738	104205.794	2.756
41	0.025	5.00	9.445	1200	494030.662	104217.744	1.725
40			9.521	1200	494030.065	104207.014	1.864
39	0.059	5.00	9.652	1200	494024.152	104192.948	2.085
38.02	0.036	5.00	9.500	1200	494017.548	104166.099	1.425
38.01	0.010	5.00	9.598	1200	494022.905	104178.012	1.900
38	0.035	5.00	9.442	1200	494026.286	104182.726	1.936
37	0.016	5.00	9.520	1200	494047.238	104171.756	3.240
36	0.012	5.00	9.365	1200	494061.573	104159.605	3.162
35.02	0.030	5.00	9.277	1200	494090.810	104171.913	1.725



Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
35.01	0.057	5.00	9.387	1200	494076.888	104156.176	2.671
74	0.025	5.00	9.328	1200	494063.229	104126.159	1.650
73	0.043	5.00	9.242	1200	494065.122	104139.023	2.051
35	0.005	5.00	9.185	1200	494072.320	104147.159	3.049
70	0.061	5.00	9.475	1200	494072.020	104084.998	1.725
69	0.016	5.00	9.285	1200	494078.377	104128.196	2.602
34	0.059	5.00	9.044	1500	494084.955	104136.747	3.050
57	0.078	5.00	7.526	1200	494204.915	104144.835	1.800
66	0.063	5.00	7.195	1200	494216.574	104192.424	1.324
56	0.110	5.00	7.326	1350	494209.824	104178.542	1.701
55	0.062	5.00	8.461	1350	494158.188	104188.655	3.239
54.02	0.022	5.00	8.448	1200	494170.921	104154.735	1.950
54.01	0.015	5.00	8.753	1200	494153.698	104162.244	3.194
54	0.048	5.00	8.684	1350	494145.956	104159.962	3.633
53	0.034	5.00	8.924	1500	494124.067	104137.100	3.981
33.02	0.036	5.00	9.083	1200	494104.494	104096.934	2.704
33.01	0.031	5.00	9.077	1200	494107.212	104115.406	3.632
33			8.979	1350	494114.810	104118.872	4.056
48	0.041	5.00	7.898	1200	494191.630	104060.909	1.534
47	0.035	5.00	8.211	1200	494188.999	104043.026	1.953
46	0.084	5.00	8.207	1200	494183.456	104040.128	2.056
52	0.008	5.00	8.986	1200	494041.009	104060.275	2.157
51	0.092	5.00	9.250	1200	494070.225	104056.959	2.594
44	0.070	5.00	9.150	1200	494113.438	104050.600	3.192
42	0.059	5.00	8.983	1200	494119.534	104101.300	3.577
32			9.018	1500	494125.232	104113.578	4.199
31	0.082	5.00	8.609	1500	494148.813	104109.779	3.839
30	0.116	5.00	7.786	1500	494191.397	104101.977	3.104
28	0.010	5.00	6.366	1500	494240.696	104094.421	1.786
5	0.042	5.00	6.036	1500	494253.287	104096.276	1.482
4	0.006	5.00	5.794	1500	494255.858	104116.900	1.282
3	0.077	5.00	6.212	1500	494261.589	104141.756	1.974
27	0.071	5.00	6.170	1200	494271.782	104190.118	1.509
2	0.004	5.00	6.309	1500	494271.623	104167.333	2.232
HW3			5.900		494282.945	104167.254	1.900
HW2 (Eastern Basin)	0.049	5.00	5.900		494284.745	104185.349	1.900
1			6.000	1500	494283.550	104194.501	2.231
HW1			3.250		494305.636	104198.080	0.500
91		5.00	9.270	1200	493969.191	104192.470	0.866
86.01	0.018	5.00	9.383	1200	494049.944	104140.240	0.923
86	0.117	5.00	9.510	1350	494029.936	104143.184	1.552
84			8.704	1350	494010.551	104066.574	0.953
83			8.627	1350	493997.353	104069.767	0.910
82			8.781	1350	493983.258	104079.905	1.107
89		5.00	8.907	1200	493978.036	104088.822	0.830
Att. Tank 10			8.972		494114.636	104198.325	2.207
76	0.059	5.00	8.820	1200	494133.467	104194.887	2.030
Att. Tank 12			7.411		494207.408	104161.957	1.701
Att. Tank 11			7.801		494184.640	104183.474	2.531
65			7.235	1200	494215.245	104183.304	1.418
62	0.013	5.00	8.326	1200	494166.157	104204.463	2.115



Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
64		5.00	7.532	450	494193.987	104180.225	1.036
50			9.205	1200	494105.831	104051.719	2.836
43			9.267	1200	494113.367	104059.389	3.436
Att. Tank 13			8.585		494155.213	104044.453	2.455
49		5.00	8.504	450	494155.230	104041.418	1.974
30A			8.195	1500	494170.252	104105.851	3.469
28A			6.782	1500	494228.668	104096.059	2.177
29			7.184	1500	494216.639	104097.696	2.554
81	0.023	5.00	6.140	1200	494251.081	104033.029	0.984
Att. Tank 3			6.017		494256.054	104052.740	1.292
Att. Tank 2			5.937		494257.969	104126.055	1.682
Att. Tank 1			6.391		494266.218	104153.556	2.156
14			8.987	1350	494127.344	104041.965	1.744
Att. Tank 5		5.00	6.085		494235.682	104117.929	1.085
Att. Tank 6	0.034	5.00	7.900		494171.101	104119.115	2.540
Att. Tank 7		5.00	8.942		494106.164	104141.373	3.832
Att. Tank 8		5.00	9.209		494090.131	104124.922	4.124
Att. Tank 4			9.334		493971.257	104132.757	1.469
75A			9.435	1200	494069.204	104199.970	2.869
Att. Tank 9			9.550		494062.472	104191.705	3.006
26		5.00	8.917	450	494117.517	104196.402	1.501

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
28.000	25.01	25	29.766	0.600	8.473	8.298	0.175	170.1	300	5.41	36.2
29.000	25.05	25.04	16.045	0.600	8.505	8.411	0.094	170.7	225	5.27	36.6
29.001	25.04	25	6.438	0.600	8.411	8.373	0.038	169.4	225	5.38	36.3
28.001	25	24	17.836	0.600	8.298	8.187	0.111	160.7	300	5.65	35.6
28.002	24	23	6.481	0.600	8.187	8.149	0.038	170.6	300	5.74	35.4
28.003	23	22	36.190	0.600	8.149	7.936	0.213	169.9	300	6.24	34.1
28.004	22	21	9.838	0.600	7.936	7.878	0.058	169.6	300	6.38	33.8
28.005	21	Att. Tank 4	2.139	0.600	7.878	7.865	0.013	164.5	300	6.41	33.7
28.007	20	HW5	12.141	0.600	7.698	7.627	0.071	171.0	300	6.97	32.4

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
28.000	1.202	85.0	7.5	0.600	0.890	0.057	0.0	59	0.746
29.000	0.998	39.7	5.1	0.803	1.027	0.038	0.0	54	0.688
29.001	1.001	39.8	5.4	1.027	0.890	0.041	0.0	56	0.704
28.001	1.237	87.5	14.0	0.890	0.854	0.109	0.0	81	0.912
28.002	1.201	84.9	15.8	0.854	0.998	0.124	0.0	88	0.926
28.003	1.203	85.0	16.8	0.998	1.269	0.136	0.0	90	0.942
28.004	1.204	85.1	23.0	1.269	1.229	0.189	0.0	106	1.028
28.005	1.223	86.4	25.8	1.229	1.169	0.212	0.0	112	1.072
28.007	1.199	84.8	33.1	0.991	0.693	0.283	0.0	130	1.129



Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
25.000	88	87	17.003	0.600	8.014	7.972	0.042	404.8	450	5.28	36.6
25.001	87	86	5.850	0.600	7.972	7.958	0.014	417.8	450	5.38	36.3
25.003	85	84	8.981	0.600	7.773	7.751	0.022	408.2	450	6.77	32.9
1.000	HW4 (Western Basin)	19	5.486	0.600	7.620	7.606	0.014	391.9	450	5.09	37.1
1.001	19	18	52.193	15.000	7.606	7.477	0.129	404.6	450	6.53	33.4
1.002	18	17	37.267	0.600	7.477	7.385	0.092	405.1	450	7.15	32.0
1.003	17	16	23.979	0.600	7.385	7.326	0.059	406.4	450	7.55	31.2
1.004	16	15	29.919	15.000	7.326	7.252	0.074	404.3	450	8.37	29.7
1.005	15	14	3.464	0.600	7.252	7.243	0.009	384.9	450	8.43	29.6
1.007	13	12	3.464	0.600	7.138	7.129	0.009	384.9	450	9.66	27.6
1.008	12	11	43.696	15.000	7.129	6.256	0.873	50.1	450	10.08	26.9
1.009	11	10	40.154	0.600	6.256	4.789	1.467	27.4	450	10.26	26.7
1.010	10	9	10.540	0.600	4.789	4.763	0.026	405.4	450	10.43	26.5
1.011	9	8	13.923	0.600	4.763	4.729	0.034	409.5	450	10.66	26.1
1.012	8	Att. Tank 3	1.651	0.600	4.729	4.725	0.004	412.8	450	10.69	26.1
1.014	7	6	17.101	0.600	4.719	4.677	0.042	407.2	450	11.00	25.7
1.015	6	5	19.556	0.600	4.677	4.629	0.048	407.4	450	11.33	25.3
3.000	77	76	18.880	0.600	6.901	6.790	0.111	170.1	225	5.31	36.5
5.000	78	75	9.823	0.600	7.686	6.684	1.002	9.8	150	5.05	37.2
3.010	33A	33	21.477	0.600	5.064	4.998	0.066	325.4	375	7.71	30.9
3.003	75	75A	7.381	0.600	6.609	6.566	0.043	171.6	225	5.95	34.8

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
25.000	1.004	159.7	2.4	0.800	1.003	0.018	0.0	38	0.371
25.001	0.988	157.1	9.0	1.003	1.102	0.068	0.0	73	0.544
25.003	1.000	159.0	36.1	0.629	0.503	0.304	0.0	145	0.813
1.000	1.021	162.3	0.0	0.550	0.345	0.000	0.0	0	0.000
1.001	0.604	96.0	0.0	0.345	0.972	0.000	0.0	0	0.000
1.002	1.004	159.6	0.0	0.972	1.475	0.000	0.0	0	0.000
1.003	1.002	159.4	0.0	1.475	1.481	0.000	0.0	0	0.000
1.004	0.604	96.0	1.0	1.481	1.321	0.010	0.0	36	0.180
1.005	1.030	163.8	1.0	1.321	1.294	0.010	0.0	25	0.288
1.007	1.030	163.8	1.0	0.789	0.801	0.010	0.0	24	0.281
1.008	1.717	273.1	0.9	0.801	0.661	0.010	0.0	22	0.338
1.009	3.897	619.8	0.9	0.661	0.661	0.010	0.0	13	0.705
1.010	1.003	159.6	0.9	0.661	0.687	0.010	0.0	24	0.273
1.011	0.998	158.8	0.9	0.687	0.874	0.010	0.0	24	0.272
1.012	0.994	158.1	5.3	0.874	0.842	0.057	0.0	56	0.467
1.014	1.001	159.2	6.4	0.784	0.762	0.069	0.0	61	0.497
1.015	1.001	159.2	11.3	0.762	0.957	0.124	0.0	80	0.587
3.000	0.999	39.7	4.0	1.500	1.805	0.030	0.0	48	0.643
5.000	3.236	57.2	3.7	1.500	2.531	0.028	0.0	26	1.840
3.010	0.999	110.3	80.1	3.515	3.606	0.718	0.0	238	1.085
3.003	0.995	39.6	28.9	2.531	2.644	0.230	0.0	143	1.083



Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
6.000	41	40	10.747	0.600	7.720	7.657	0.063	170.6	225	5.18	36.9
6.001	40	39	15.258	0.600	7.657	7.567	0.090	169.5	225	5.43	36.2
6.002	39	38	10.442	0.600	7.567	7.506	0.061	170.0	225	5.61	35.7
7.000	38.02	38.01	13.062	0.600	8.075	7.998	0.077	169.6	225	5.22	36.8
7.001	38.01	38	5.801	0.600	7.698	7.506	0.192	30.2	225	5.26	36.7
6.003	38	37	23.650	0.600	7.506	6.355	1.151	20.5	225	5.74	35.4
3.006	37	36	18.792	0.600	6.280	6.203	0.077	244.1	300	6.58	33.3
3.007	36	35	16.444	0.600	6.203	6.136	0.067	245.4	300	6.86	32.7
8.000	35.02	35.01	21.011	0.600	7.552	6.716	0.836	25.1	225	5.13	37.0
8.001	35.01	35	10.108	0.600	6.716	6.211	0.505	20.0	225	5.19	36.8
9.000	74	73	13.003	0.600	7.678	7.191	0.487	26.7	150	5.11	37.0
9.001	73	35	10.863	0.600	7.191	6.286	0.905	12.0	150	5.17	36.9
3.008	35	34	16.372	0.600	6.136	6.069	0.067	244.4	300	7.13	32.1
10.000	70	69	43.663	0.600	7.750	6.683	1.067	40.9	225	5.35	36.4
10.001	69	34	10.788	0.600	6.683	6.144	0.539	20.0	225	5.42	36.2
3.009	34	33A	13.320	0.600	5.994	5.953	0.041	324.9	375	7.35	31.6
14.000	57	Att. Tank 12	2.552	0.600	5.726	5.710	0.016	159.5	300	5.03	37.3
13.000	66	65	9.216	0.600	5.871	5.817	0.054	170.7	225	5.15	36.9
13.002	56	Att. Tank 11	3.162	0.600	5.625	5.615	0.010	316.2	375	5.33	36.5
13.004	55	54	31.192	0.600	5.222	5.126	0.096	324.9	375	6.10	34.4
17.000	54.02	54.01	18.789	0.600	6.498	5.559	0.939	20.0	225	5.11	37.1
17.001	54.01	54	8.071	0.600	5.559	5.155	0.404	20.0	225	5.15	36.9
13.005	54	53	31.651	0.600	5.051	4.943	0.108	293.1	450	6.55	33.4
13.006	53	33	20.444	0.600	4.973	4.923	0.050	408.9	450	6.89	32.6

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
6.000	0.998	39.7	3.3	1.500	1.639	0.025	0.0	44	0.606
6.001	1.001	39.8	3.2	1.639	1.860	0.025	0.0	44	0.608
6.002	1.000	39.7	10.8	1.860	1.711	0.084	0.0	80	0.856
7.000	1.001	39.8	4.8	1.200	1.375	0.036	0.0	53	0.684
7.001	2.389	95.0	6.1	1.675	1.711	0.046	0.0	38	1.349
6.003	2.899	115.3	21.2	1.711	2.940	0.166	0.0	65	2.216
3.006	1.002	70.8	49.5	2.940	2.862	0.411	0.0	185	1.081
3.007	0.999	70.6	49.9	2.862	2.749	0.423	0.0	187	1.080
8.000	2.620	104.2	4.1	1.500	2.446	0.030	0.0	30	1.284
8.001	2.938	116.8	11.6	2.446	2.749	0.087	0.0	48	1.898
9.000	1.956	34.6	3.3	1.500	1.901	0.025	0.0	31	1.241
9.001	2.924	51.7	9.0	1.901	2.749	0.068	0.0	42	2.209
3.008	1.001	70.8	67.6	2.749	2.675	0.583	0.0	236	1.134
10.000	2.051	81.5	8.0	1.500	2.377	0.061	0.0	47	1.309
10.001	2.938	116.8	10.0	2.377	2.675	0.076	0.0	44	1.815
3.009	0.999	110.4	82.0	2.675	2.626	0.718	0.0	241	1.091
14.000	1.242	87.8	10.5	1.500	1.401	0.078	0.0	69	0.843
13.000	0.998	39.7	8.4	1.099	1.193	0.063	0.0	70	0.794
13.002	1.013	111.9	33.0	1.326	1.811	0.250	0.0	139	0.884
13.004	0.999	110.4	40.5	2.864	3.183	0.326	0.0	157	0.925
17.000	2.938	116.8	2.9	1.725	2.969	0.022	0.0	24	1.249
17.001	2.940	116.9	4.9	2.969	3.304	0.037	0.0	31	1.468
13.005	1.182	188.0	49.5	3.183	3.531	0.410	0.0	157	1.003
13.006	0.999	158.9	52.3	3.501	3.606	0.444	0.0	177	0.899



Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
18.000	33.02	33.01	18.671	0.600	6.379	5.445	0.934	20.0	225	5.11	37.1
18.001	33.01	33	8.351	0.600	5.445	5.148	0.297	28.1	225	5.16	36.9
3.011	33	32	11.690	0.600	4.923	4.894	0.029	403.1	450	7.91	30.5
20.000	48	47	18.076	0.600	6.364	6.258	0.106	170.5	225	5.30	36.5
20.001	47	46	6.255	0.600	6.258	6.151	0.107	58.5	225	5.36	36.4
19.000	52	51	29.404	0.600	6.829	6.656	0.173	170.0	300	5.41	36.3
19.001	51	50	35.990	0.600	6.656	6.369	0.287	125.4	300	5.84	35.1
20.004	44	43	8.789	0.600	5.958	5.906	0.052	169.0	225	6.06	34.5
19.004	42	32	13.536	0.600	5.406	5.044	0.362	37.4	300	6.59	33.3
3.012	32	31	23.885	0.600	4.819	4.770	0.049	487.5	525	8.30	29.8
3.013	31	30A	21.796	0.600	4.770	4.726	0.044	495.4	525	8.66	29.1
3.015	30	29	25.602	0.600	4.682	4.630	0.052	492.4	525	9.45	27.9
3.018	28	5	12.727	0.600	4.580	4.554	0.026	489.5	525	10.06	27.0
1.016	5	4	20.784	0.600	4.554	4.512	0.042	490.0	525	11.67	24.9
1.017	4	Att. Tank 2	1.396	0.600	4.512	4.505	0.007	199.4	525	11.69	24.9
1.019	3	Att. Tank 1	1.676	0.600	4.238	4.235	0.003	558.7	525	11.85	24.7
24.000	27	2	22.786	0.600	4.661	4.527	0.134	170.0	225	5.38	36.3
1.021	2	HW3	11.322	0.600	4.077	4.025	0.052	217.7	525	12.04	24.5
31.000	HW2 (Eastern Basin)	1	9.230	0.600	4.000	3.769	0.231	40.0	225	5.07	37.1
31.001	1	HW1	22.374	0.600	3.769	2.750	1.019	22.0	225	5.21	36.8
30.000	91	24	6.666	0.600	8.404	8.337	0.067	99.5	150	5.11	37.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
18.000	2.939	116.9	4.8	2.479	3.407	0.036	0.0	31	1.467
18.001	2.476	98.5	9.0	3.407	3.606	0.067	0.0	45	1.547
3.011	1.006	160.0	135.5	3.606	3.674	1.229	0.0	319	1.123
20.000	0.998	39.7	5.4	1.309	1.728	0.041	0.0	56	0.701
20.001	1.714	68.1	10.1	1.728	1.831	0.077	0.0	58	1.238
19.000	1.203	85.0	1.0	1.857	2.294	0.008	0.0	23	0.406
19.001	1.402	99.1	12.7	2.294	2.536	0.100	0.0	72	0.970
20.004	1.003	39.9	28.8	2.967	3.136	0.231	0.0	142	1.089
19.004	2.579	182.3	46.9	3.277	3.674	0.390	0.0	103	2.173
3.012	1.008	218.1	174.3	3.674	3.314	1.619	0.0	357	1.114
3.013	0.999	216.3	179.2	3.314	2.944	1.701	0.0	366	1.111
3.015	1.002	217.0	186.5	2.579	2.029	1.851	0.0	377	1.121
3.018	1.005	217.6	181.3	1.261	0.957	1.861	0.0	368	1.119
1.016	1.005	217.5	182.3	0.957	0.757	2.027	0.0	369	1.119
1.017	1.582	342.5	182.8	0.757	0.907	2.033	0.0	273	1.607
1.019	0.940	203.6	188.2	1.449	1.631	2.110	0.0	401	1.061
24.000	1.000	39.7	9.3	1.284	1.557	0.071	0.0	74	0.821
1.021	1.514	327.7	193.2	1.707	1.350	2.186	0.0	290	1.573
31.000	2.074	82.5	6.6	1.675	2.006	0.049	0.0	43	1.250
31.001	2.804	111.5	6.6	2.006	0.275	0.049	0.0	36	1.540
30.000	1.007	17.8	0.0	0.716	0.854	0.000	0.0	0	0.000



Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
26.000	86.01	86	20.223	0.600	8.460	8.258	0.202	100.1	150	5.34	36.4
25.002	86	85	74.555	0.600	7.958	7.773	0.185	403.0	450	6.62	33.2
25.004	84	83	13.579	0.600	7.751	7.717	0.034	399.4	450	6.99	32.3
25.005	83	82	17.362	0.600	7.717	7.674	0.043	403.8	450	7.28	31.8
25.006	82	HW6	6.803	0.600	7.674	7.657	0.017	400.2	450	7.39	31.5
27.000	89	82	10.334	0.600	8.077	7.974	0.103	100.3	150	5.17	36.9
3.001	76	Att. Tank 10	4.143	0.600	6.790	6.765	0.025	165.7	225	5.38	36.3
3.002	Att. Tank 10	75	26.574	0.600	6.765	6.609	0.156	170.3	225	5.83	35.1
14.001	Att. Tank 12	56	2.510	0.600	5.710	5.700	0.010	251.0	300	5.08	37.1
13.001	65	56	7.216	0.600	5.817	5.775	0.042	171.8	225	5.27	36.6
13.003	Att. Tank 11	55	15.455	0.600	5.270	5.222	0.048	322.0	375	5.58	35.8
16.000	62	55	17.703	0.600	6.211	5.447	0.764	23.2	150	5.14	37.0
15.000	64	Att. Tank 11	1.000	0.600	6.496	6.490	0.006	166.7	150	5.02	37.3
19.002	50	43	10.753	0.600	6.369	5.831	0.538	20.0	300	5.89	35.0
21.000	49	Att. Tank 13	2.000	0.600	6.530	6.510	0.020	100.0	150	5.03	37.3
20.003	Att. Tank 13	44	29.225	0.600	6.130	5.958	0.172	169.9	225	5.91	34.9
19.003	43	42	42.362	0.600	5.831	5.406	0.425	99.7	300	6.51	33.5
3.016	29	28A	12.140	0.600	4.630	4.605	0.025	485.6	525	9.65	27.6
3.017	28A	28	12.139	0.600	4.605	4.580	0.025	485.6	525	9.85	27.3
3.014	30A	30	21.497	0.600	4.726	4.682	0.044	488.6	525	9.02	28.5
2.000	81	8	12.678	0.600	5.156	5.029	0.127	99.8	150	5.21	36.8
1.013	Att. Tank 3	7	1.835	0.600	4.725	4.719	0.006	305.8	450	10.72	26.1

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
26.000	1.004	17.7	2.4	0.773	1.102	0.018	0.0	37	0.696
25.002	1.006	160.0	24.4	1.102	0.629	0.203	0.0	118	0.735
25.004	1.011	160.8	35.5	0.503	0.460	0.304	0.0	143	0.817
25.005	1.005	159.9	34.8	0.460	0.657	0.304	0.0	142	0.810
25.006	1.010	160.6	34.6	0.657	0.513	0.304	0.0	141	0.811
27.000	1.003	17.7	0.0	0.680	0.657	0.000	0.0	0	0.000
3.001	1.013	40.3	11.7	1.805	1.982	0.089	0.0	83	0.881
3.002	0.999	39.7	11.3	1.982	2.531	0.089	0.0	82	0.864
14.001	0.988	69.8	10.4	1.401	1.326	0.078	0.0	78	0.716
13.001	0.994	39.5	8.3	1.193	1.326	0.063	0.0	70	0.791
13.003	1.004	110.9	32.4	2.156	2.864	0.250	0.0	138	0.874
16.000	2.101	37.1	1.8	1.965	2.864	0.013	0.0	23	1.090
15.000	0.775	13.7	0.0	0.886	1.161	0.000	0.0	0	0.000
19.002	3.532	249.7	12.6	2.536	3.136	0.100	0.0	45	1.874
21.000	1.005	17.8	0.0	1.824	1.925	0.000	0.0	0	0.000
20.003	1.000	39.8	20.3	2.230	2.967	0.161	0.0	114	1.005
19.003	1.575	111.3	40.1	3.136	3.277	0.331	0.0	124	1.448
3.016	1.009	218.5	184.4	2.029	1.652	1.851	0.0	371	1.126
3.017	1.010	218.5	182.4	1.652	1.261	1.851	0.0	368	1.124
3.014	1.006	217.9	178.9	2.944	2.579	1.735	0.0	364	1.117
2.000	1.005	17.8	3.0	0.834	0.874	0.023	0.0	42	0.752
1.013	1.157	184.0	5.3	0.842	0.784	0.057	0.0	52	0.523



Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.018	Att. Tank 2	3	8.112	0.600	4.255	4.238	0.017	477.2	525	11.82	24.7
1.020	Att. Tank 1	2	3.799	0.600	4.235	4.227	0.008	474.9	525	11.91	24.6
1.006	14	13	42.516	15.000	7.243	7.138	0.105	404.9	450	9.60	27.6
23.000	Att. Tank 5	28A	22.967	0.600	5.000	4.605	0.395	58.1	525	5.13	37.0
22.000	Att. Tank 6	30A	15.397	0.600	5.360	5.326	0.034	452.9	525	5.25	36.7
11.000	Att. Tank 7	33A	13.115	0.600	5.110	5.064	0.046	285.1	375	5.20	36.8
12.000	Att. Tank 8	33A	5.306	0.600	5.085	5.064	0.021	252.7	375	5.08	37.1
28.006	Att. Tank 4	20	28.423	0.600	7.865	7.698	0.167	170.2	300	6.80	32.8
20.002	46	Att. Tank 13	3.626	0.600	6.151	6.130	0.021	172.7	225	5.42	36.2
3.004	75A	Att. Tank 9	2.188	0.600	6.566	6.544	0.022	99.5	225	5.98	34.7
3.005	Att. Tank 9	37	21.569	0.600	6.544	6.355	0.189	114.1	225	6.27	34.0
4.000	26	Att. Tank 10	1.000	0.600	7.416	7.410	0.006	166.7	150	5.02	37.3

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.018	1.018	220.5	181.6	1.157	1.449	2.033	0.0	365	1.132
1.020	1.021	221.0	187.7	1.631	1.557	2.110	0.0	373	1.140
1.006	0.603	96.0	1.0	1.294	0.789	0.010	0.0	35	0.176
23.000	2.941	636.7	0.0	0.560	1.652	0.000	0.0	0	0.000
22.000	1.046	226.4	4.4	2.015	2.344	0.034	0.0	51	0.420
11.000	1.068	117.9	0.0	3.457	3.515	0.000	0.0	0	0.000
12.000	1.135	125.4	0.0	3.749	3.515	0.000	0.0	0	0.000
28.006	1.202	85.0	25.1	1.169	0.991	0.212	0.0	112	1.051
20.002	0.992	39.4	21.0	1.831	2.230	0.161	0.0	116	1.006
3.004	1.311	52.1	28.8	2.644	2.781	0.230	0.0	120	1.345
3.005	1.223	48.6	28.3	2.781	2.940	0.230	0.0	123	1.268
4.000	0.775	13.7	0.0	1.351	1.412	0.000	0.0	0	0.000

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
28.000	29.766	170.1	300	Circular	9.373	8.473	0.600	9.488	8.298	0.890
29.000	16.045	170.7	225	Circular	9.533	8.505	0.803	9.663	8.411	1.027
29.001	6.438	169.4	225	Circular	9.663	8.411	1.027	9.488	8.373	0.890
28.001	17.836	160.7	300	Circular	9.488	8.298	0.890	9.341	8.187	0.854
28.002	6.481	170.6	300	Circular	9.341	8.187	0.854	9.447	8.149	0.998

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
28.000	25.01	1200	Manhole	Adoptable	25	1200	Manhole	Adoptable
29.000	25.05	1200	Manhole	Adoptable	25.04	1200	Manhole	Adoptable
29.001	25.04	1200	Manhole	Adoptable	25	1200	Manhole	Adoptable
28.001	25	1200	Manhole	Adoptable	24	1200	Manhole	Adoptable
28.002	24	1200	Manhole	Adoptable	23	1200	Manhole	Adoptable



Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
28.003	36.190	169.9	300	Circular	9.447	8.149	0.998	9.505	7.936	1.269
28.004	9.838	169.6	300	Circular	9.505	7.936	1.269	9.407	7.878	1.229
28.005	2.139	164.5	300	Circular	9.407	7.878	1.229	9.334	7.865	1.169
28.007	12.141	171.0	300	Circular	8.989	7.698	0.991	8.620	7.627	0.693
25.000	17.003	404.8	450	Circular	9.264	8.014	0.800	9.425	7.972	1.003
25.001	5.850	417.8	450	Circular	9.425	7.972	1.003	9.510	7.958	1.102
25.003	8.981	408.2	450	Circular	8.852	7.773	0.629	8.704	7.751	0.503
1.000	5.486	391.9	450	Circular	8.620	7.620	0.550	8.401	7.606	0.345
1.001	52.193	404.6	450	Circular	8.401	7.606	0.345	8.899	7.477	0.972
1.002	37.267	405.1	450	Circular	8.899	7.477	0.972	9.310	7.385	1.475
1.003	23.979	406.4	450	Circular	9.310	7.385	1.475	9.257	7.326	1.481
1.004	29.919	404.3	450	Circular	9.257	7.326	1.481	9.023	7.252	1.321
1.005	3.464	384.9	450	Circular	9.023	7.252	1.321	8.987	7.243	1.294
1.007	3.464	384.9	450	Circular	8.377	7.138	0.789	8.380	7.129	0.801
1.008	43.696	50.1	450	Circular	8.380	7.129	0.801	7.367	6.256	0.661
1.009	40.154	27.4	450	Circular	7.367	6.256	0.661	5.900	4.789	0.661
1.010	10.540	405.4	450	Circular	5.900	4.789	0.661	5.900	4.763	0.687
1.011	13.923	409.5	450	Circular	5.900	4.763	0.687	6.053	4.729	0.874
1.012	1.651	412.8	450	Circular	6.053	4.729	0.874	6.017	4.725	0.842
1.014	17.101	407.2	450	Circular	5.953	4.719	0.784	5.889	4.677	0.762
1.015	19.556	407.4	450	Circular	5.889	4.677	0.762	6.036	4.629	0.957
3.000	18.880	170.1	225	Circular	8.626	6.901	1.500	8.820	6.790	1.805
Link	US Node		Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type	
28.003	23		1200	Manhole	Adoptable	22	1200	Manhole	Adoptable	
28.004	22		1200	Manhole	Adoptable	21	1200	Manhole	Adoptable	
28.005	21		1200	Manhole	Adoptable	Att. Tank 4		Junction		
28.007	20		1200	Manhole	Adoptable	HW5		Junction		
25.000	88		1350	Manhole	Adoptable	87	1350	Manhole	Adoptable	
25.001	87		1350	Manhole	Adoptable	86	1350	Manhole	Adoptable	
25.003	85		1350	Manhole	Adoptable	84	1350	Manhole	Adoptable	
1.000	HW4 (Western Basin)			Junction		19	1350	Manhole	Adoptable	
1.001	19		1350	Manhole	Adoptable	18	1350	Manhole	Adoptable	
1.002	18		1350	Manhole	Adoptable	17	1350	Manhole	Adoptable	
1.003	17		1350	Manhole	Adoptable	16	1350	Manhole	Adoptable	
1.004	16		1350	Manhole	Adoptable	15	1350	Manhole	Adoptable	
1.005	15		1350	Manhole	Adoptable	14	1350	Manhole	Adoptable	
1.007	13		1350	Manhole	Adoptable	12	1350	Manhole	Adoptable	
1.008	12		1350	Manhole	Adoptable	11	1350	Manhole	Adoptable	
1.009	11		1350	Manhole	Adoptable	10	1350	Manhole	Adoptable	
1.010	10		1350	Manhole	Adoptable	9	1350	Manhole	Adoptable	
1.011	9		1350	Manhole	Adoptable	8	1350	Manhole	Adoptable	
1.012	8		1350	Manhole	Adoptable	Att. Tank 3		Junction		
1.014	7		1350	Manhole	Adoptable	6	1350	Manhole	Adoptable	
1.015	6		1350	Manhole	Adoptable	5	1500	Manhole	Adoptable	
3.000	77		1200	Manhole	Adoptable	76	1200	Manhole	Adoptable	



Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
5.000	9.823	9.8	150	Circular	9.336	7.686	1.500	9.365	6.684	2.531
3.010	21.477	325.4	375	Circular	8.954	5.064	3.515	8.979	4.998	3.606
3.003	7.381	171.6	225	Circular	9.365	6.609	2.531	9.435	6.566	2.644
6.000	10.747	170.6	225	Circular	9.445	7.720	1.500	9.521	7.657	1.639
6.001	15.258	169.5	225	Circular	9.521	7.657	1.639	9.652	7.567	1.860
6.002	10.442	170.0	225	Circular	9.652	7.567	1.860	9.442	7.506	1.711
7.000	13.062	169.6	225	Circular	9.500	8.075	1.200	9.598	7.998	1.375
7.001	5.801	30.2	225	Circular	9.598	7.698	1.675	9.442	7.506	1.711
6.003	23.650	20.5	225	Circular	9.442	7.506	1.711	9.520	6.355	2.940
3.006	18.792	244.1	300	Circular	9.520	6.280	2.940	9.365	6.203	2.862
3.007	16.444	245.4	300	Circular	9.365	6.203	2.862	9.185	6.136	2.749
8.000	21.011	25.1	225	Circular	9.277	7.552	1.500	9.387	6.716	2.446
8.001	10.108	20.0	225	Circular	9.387	6.716	2.446	9.185	6.211	2.749
9.000	13.003	26.7	150	Circular	9.328	7.678	1.500	9.242	7.191	1.901
9.001	10.863	12.0	150	Circular	9.242	7.191	1.901	9.185	6.286	2.749
3.008	16.372	244.4	300	Circular	9.185	6.136	2.749	9.044	6.069	2.675
10.000	43.663	40.9	225	Circular	9.475	7.750	1.500	9.285	6.683	2.377
10.001	10.788	20.0	225	Circular	9.285	6.683	2.377	9.044	6.144	2.675
3.009	13.320	324.9	375	Circular	9.044	5.994	2.675	8.954	5.953	2.626
14.000	2.552	159.5	300	Circular	7.526	5.726	1.500	7.411	5.710	1.401
13.000	9.216	170.7	225	Circular	7.195	5.871	1.099	7.235	5.817	1.193
13.002	3.162	316.2	375	Circular	7.326	5.625	1.326	7.801	5.615	1.811
13.004	31.192	324.9	375	Circular	8.461	5.222	2.864	8.684	5.126	3.183
17.000	18.789	20.0	225	Circular	8.448	6.498	1.725	8.753	5.559	2.969
17.001	8.071	20.0	225	Circular	8.753	5.559	2.969	8.684	5.155	3.304

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
5.000	78	1200	Manhole	Adoptable	75	1200	Manhole	Adoptable
3.010	33A	1350	Manhole	Adoptable	33	1350	Manhole	Adoptable
3.003	75	1200	Manhole	Adoptable	75A	1200	Manhole	Adoptable
6.000	41	1200	Manhole	Adoptable	40	1200	Manhole	Adoptable
6.001	40	1200	Manhole	Adoptable	39	1200	Manhole	Adoptable
6.002	39	1200	Manhole	Adoptable	38	1200	Manhole	Adoptable
7.000	38.02	1200	Manhole	Adoptable	38.01	1200	Manhole	Adoptable
7.001	38.01	1200	Manhole	Adoptable	38	1200	Manhole	Adoptable
6.003	38	1200	Manhole	Adoptable	37	1200	Manhole	Adoptable
3.006	37	1200	Manhole	Adoptable	36	1200	Manhole	Adoptable
3.007	36	1200	Manhole	Adoptable	35	1200	Manhole	Adoptable
8.000	35.02	1200	Manhole	Adoptable	35.01	1200	Manhole	Adoptable
8.001	35.01	1200	Manhole	Adoptable	35	1200	Manhole	Adoptable
9.000	74	1200	Manhole	Adoptable	73	1200	Manhole	Adoptable
9.001	73	1200	Manhole	Adoptable	35	1200	Manhole	Adoptable
3.008	35	1200	Manhole	Adoptable	34	1500	Manhole	Adoptable
10.000	70	1200	Manhole	Adoptable	69	1200	Manhole	Adoptable
10.001	69	1200	Manhole	Adoptable	34	1500	Manhole	Adoptable
3.009	34	1500	Manhole	Adoptable	33A	1350	Manhole	Adoptable
14.000	57	1200	Manhole	Adoptable	Att. Tank 12		Junction	
13.000	66	1200	Manhole	Adoptable	65	1200	Manhole	Adoptable
13.002	56	1350	Manhole	Adoptable	Att. Tank 11		Junction	
13.004	55	1350	Manhole	Adoptable	54	1350	Manhole	Adoptable
17.000	54.02	1200	Manhole	Adoptable	54.01	1200	Manhole	Adoptable
17.001	54.01	1200	Manhole	Adoptable	54	1350	Manhole	Adoptable



Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
13.005	31.651	293.1	450	Circular	8.684	5.051	3.183	8.924	4.943	3.531
13.006	20.444	408.9	450	Circular	8.924	4.973	3.501	8.979	4.923	3.606
18.000	18.671	20.0	225	Circular	9.083	6.379	2.479	9.077	5.445	3.407
18.001	8.351	28.1	225	Circular	9.077	5.445	3.407	8.979	5.148	3.606
3.011	11.690	403.1	450	Circular	8.979	4.923	3.606	9.018	4.894	3.674
20.000	18.076	170.5	225	Circular	7.898	6.364	1.309	8.211	6.258	1.728
20.001	6.255	58.5	225	Circular	8.211	6.258	1.728	8.207	6.151	1.831
19.000	29.404	170.0	300	Circular	8.986	6.829	1.857	9.250	6.656	2.294
19.001	35.990	125.4	300	Circular	9.250	6.656	2.294	9.205	6.369	2.536
20.004	8.789	169.0	225	Circular	9.150	5.958	2.967	9.267	5.906	3.136
19.004	13.536	37.4	300	Circular	8.983	5.406	3.277	9.018	5.044	3.674
3.012	23.885	487.5	525	Circular	9.018	4.819	3.674	8.609	4.770	3.314
3.013	21.796	495.4	525	Circular	8.609	4.770	3.314	8.195	4.726	2.944
3.015	25.602	492.4	525	Circular	7.786	4.682	2.579	7.184	4.630	2.029
3.018	12.727	489.5	525	Circular	6.366	4.580	1.261	6.036	4.554	0.957
1.016	20.784	490.0	525	Circular	6.036	4.554	0.957	5.794	4.512	0.757
1.017	1.396	199.4	525	Circular	5.794	4.512	0.757	5.937	4.505	0.907
1.019	1.676	558.7	525	Circular	6.212	4.238	1.449	6.391	4.235	1.631
24.000	22.786	170.0	225	Circular	6.170	4.661	1.284	6.309	4.527	1.557
1.021	11.322	217.7	525	Circular	6.309	4.077	1.707	5.900	4.025	1.350
31.000	9.230	40.0	225	Circular	5.900	4.000	1.675	6.000	3.769	2.006
31.001	22.374	22.0	225	Circular	6.000	3.769	2.006	3.250	2.750	0.275
Link	US Node		Dia (mm)	Node Type	MH Type	DS Node		Dia (mm)	Node Type	MH Type
13.005	54		1350	Manhole	Adoptable	53		1500	Manhole	Adoptable
13.006	53		1500	Manhole	Adoptable	33		1350	Manhole	Adoptable
18.000	33.02		1200	Manhole	Adoptable	33.01		1200	Manhole	Adoptable
18.001	33.01		1200	Manhole	Adoptable	33		1350	Manhole	Adoptable
3.011	33		1350	Manhole	Adoptable	32		1500	Manhole	Adoptable
20.000	48		1200	Manhole	Adoptable	47		1200	Manhole	Adoptable
20.001	47		1200	Manhole	Adoptable	46		1200	Manhole	Adoptable
19.000	52		1200	Manhole	Adoptable	51		1200	Manhole	Adoptable
19.001	51		1200	Manhole	Adoptable	50		1200	Manhole	Adoptable
20.004	44		1200	Manhole	Adoptable	43		1200	Manhole	Adoptable
19.004	42		1200	Manhole	Adoptable	32		1500	Manhole	Adoptable
3.012	32		1500	Manhole	Adoptable	31		1500	Manhole	Adoptable
3.013	31		1500	Manhole	Adoptable	30A		1500	Manhole	Adoptable
3.015	30		1500	Manhole	Adoptable	29		1500	Manhole	Adoptable
3.018	28		1500	Manhole	Adoptable	5		1500	Manhole	Adoptable
1.016	5		1500	Manhole	Adoptable	4		1500	Manhole	Adoptable
1.017	4		1500	Manhole	Adoptable	Att. Tank 2			Junction	
1.019	3		1500	Manhole	Adoptable	Att. Tank 1			Junction	
24.000	27		1200	Manhole	Adoptable	2		1500	Manhole	Adoptable
1.021	2		1500	Manhole	Adoptable	HW3			Junction	
31.000	HW2 (Eastern Basin)			Junction		1		1500	Manhole	Adoptable
31.001	1		1500	Manhole	Adoptable	HW1			Junction	



Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
30.000	6.666	99.5	150	Circular	9.270	8.404	0.716	9.341	8.337	0.854
26.000	20.223	100.1	150	Circular	9.383	8.460	0.773	9.510	8.258	1.102
25.002	74.555	403.0	450	Circular	9.510	7.958	1.102	8.852	7.773	0.629
25.004	13.579	399.4	450	Circular	8.704	7.751	0.503	8.627	7.717	0.460
25.005	17.362	403.8	450	Circular	8.627	7.717	0.460	8.781	7.674	0.657
25.006	6.803	400.2	450	Circular	8.781	7.674	0.657	8.620	7.657	0.513
27.000	10.334	100.3	150	Circular	8.907	8.077	0.680	8.781	7.974	0.657
3.001	4.143	165.7	225	Circular	8.820	6.790	1.805	8.972	6.765	1.982
3.002	26.574	170.3	225	Circular	8.972	6.765	1.982	9.365	6.609	2.531
14.001	2.510	251.0	300	Circular	7.411	5.710	1.401	7.326	5.700	1.326
13.001	7.216	171.8	225	Circular	7.235	5.817	1.193	7.326	5.775	1.326
13.003	15.455	322.0	375	Circular	7.801	5.270	2.156	8.461	5.222	2.864
16.000	17.703	23.2	150	Circular	8.326	6.211	1.965	8.461	5.447	2.864
15.000	1.000	166.7	150	Circular	7.532	6.496	0.886	7.801	6.490	1.161
19.002	10.753	20.0	300	Circular	9.205	6.369	2.536	9.267	5.831	3.136
21.000	2.000	100.0	150	Circular	8.504	6.530	1.824	8.585	6.510	1.925
20.003	29.225	169.9	225	Circular	8.585	6.130	2.230	9.150	5.958	2.967
19.003	42.362	99.7	300	Circular	9.267	5.831	3.136	8.983	5.406	3.277
3.016	12.140	485.6	525	Circular	7.184	4.630	2.029	6.782	4.605	1.652
3.017	12.139	485.6	525	Circular	6.782	4.605	1.652	6.366	4.580	1.261
3.014	21.497	488.6	525	Circular	8.195	4.726	2.944	7.786	4.682	2.579
2.000	12.678	99.8	150	Circular	6.140	5.156	0.834	6.053	5.029	0.874
1.013	1.835	305.8	450	Circular	6.017	4.725	0.842	5.953	4.719	0.784

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
30.000	91	1200	Manhole	Adoptable	24	1200	Manhole	Adoptable
26.000	86.01	1200	Manhole	Adoptable	86	1350	Manhole	Adoptable
25.002	86	1350	Manhole	Adoptable	85	1350	Manhole	Adoptable
25.004	84	1350	Manhole	Adoptable	83	1350	Manhole	Adoptable
25.005	83	1350	Manhole	Adoptable	82	1350	Manhole	Adoptable
25.006	82	1350	Manhole	Adoptable	HW6		Junction	
27.000	89	1200	Manhole	Adoptable	82	1350	Manhole	Adoptable
3.001	76	1200	Manhole	Adoptable	Att. Tank 10		Junction	
3.002	Att. Tank 10		Junction		75	1200	Manhole	Adoptable
14.001	Att. Tank 12		Junction		56	1350	Manhole	Adoptable
13.001	65	1200	Manhole	Adoptable	56	1350	Manhole	Adoptable
13.003	Att. Tank 11		Junction		55	1350	Manhole	Adoptable
16.000	62	1200	Manhole	Adoptable	55	1350	Manhole	Adoptable
15.000	64	450	Manhole	Adoptable	Att. Tank 11		Junction	
19.002	50	1200	Manhole	Adoptable	43	1200	Manhole	Adoptable
21.000	49	450	Manhole	Adoptable	Att. Tank 13		Junction	
20.003	Att. Tank 13		Junction		44	1200	Manhole	Adoptable
19.003	43	1200	Manhole	Adoptable	42	1200	Manhole	Adoptable
3.016	29	1500	Manhole	Adoptable	28A	1500	Manhole	Adoptable
3.017	28A	1500	Manhole	Adoptable	28	1500	Manhole	Adoptable
3.014	30A	1500	Manhole	Adoptable	30	1500	Manhole	Adoptable
2.000	81	1200	Manhole	Adoptable	8	1350	Manhole	Adoptable
1.013	Att. Tank 3		Junction		7	1350	Manhole	Adoptable



Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.018	8.112	477.2	525	Circular	5.937	4.255	1.157	6.212	4.238	1.449
1.020	3.799	474.9	525	Circular	6.391	4.235	1.631	6.309	4.227	1.557
1.006	42.516	404.9	450	Circular	8.987	7.243	1.294	8.377	7.138	0.789
23.000	22.967	58.1	525	Circular	6.085	5.000	0.560	6.782	4.605	1.652
22.000	15.397	452.9	525	Circular	7.900	5.360	2.015	8.195	5.326	2.344
11.000	13.115	285.1	375	Circular	8.942	5.110	3.457	8.954	5.064	3.515
12.000	5.306	252.7	375	Circular	9.209	5.085	3.749	8.954	5.064	3.515
28.006	28.423	170.2	300	Circular	9.334	7.865	1.169	8.989	7.698	0.991
20.002	3.626	172.7	225	Circular	8.207	6.151	1.831	8.585	6.130	2.230
3.004	2.188	99.5	225	Circular	9.435	6.566	2.644	9.550	6.544	2.781
3.005	21.569	114.1	225	Circular	9.550	6.544	2.781	9.520	6.355	2.940
4.000	1.000	166.7	150	Circular	8.917	7.416	1.351	8.972	7.410	1.412

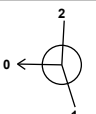
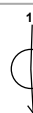
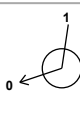
Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.018	Att. Tank 2		Junction		3	1500	Manhole	Adoptable
1.020	Att. Tank 1		Junction		2	1500	Manhole	Adoptable
1.006	14	1350	Manhole	Adoptable	13	1350	Manhole	Adoptable
23.000	Att. Tank 5		Junction		28A	1500	Manhole	Adoptable
22.000	Att. Tank 6		Junction		30A	1500	Manhole	Adoptable
11.000	Att. Tank 7		Junction		33A	1350	Manhole	Adoptable
12.000	Att. Tank 8		Junction		33A	1350	Manhole	Adoptable
28.006	Att. Tank 4		Junction		20	1200	Manhole	Adoptable
20.002	46	1200	Manhole	Adoptable	Att. Tank 13		Junction	
3.004	75A	1200	Manhole	Adoptable	Att. Tank 9		Junction	
3.005	Att. Tank 9		Junction		37	1200	Manhole	Adoptable
4.000	26	450	Manhole	Adoptable	Att. Tank 10		Junction	

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
25.01	493995.300	104221.737	9.373	0.900	1200				
25.05	493993.287	104170.000	9.533	1.028	1200		0	28.000	8.473 300
25.04	493995.623	104185.874	9.663	1.252	1200		0	29.000	8.505 225
							1	29.000	8.411 225
							0	29.001	8.411 225

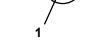
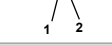
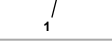
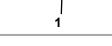


Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
25	493993.689	104192.015	9.488	1.190	1200		1 29.001 2 28.000	8.373 8.298	225 300
24	493975.856	104192.346	9.341	1.154	1200		1 30.000 2 28.001	8.337 8.187	150 300
23	493975.736	104185.866	9.447	1.298	1200		1 28.002	8.149	300
22	493971.155	104149.967	9.505	1.569	1200		1 28.003	7.936	300
21	493970.848	104140.134	9.407	1.529	1200		1 28.004	7.878	300
20	493973.124	104099.135	8.989	1.291	1200		1 28.006	7.698	300
HW5	493969.116	104087.675	8.620	1.000			1 28.007	7.627	300
88	494040.373	104163.015	9.264	1.250	1350		0 25.000	8.014	450
87	494030.789	104148.971	9.425	1.453	1350		1 25.000	7.972	450
85	494019.067	104069.426	8.852	1.079	1350		1 25.002	7.773	450
HW6	493979.285	104074.383	8.620	1.000			1 25.006	7.657	450
HW4 (Western Basin)	493979.497	104070.848	8.620	1.000			0 1.000	7.620	450
19	493983.470	104067.065	8.401	0.795	1350		1 1.000	7.606	450
							0 1.001	7.606	450

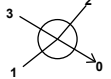
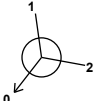
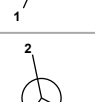
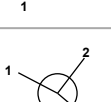


Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
18	494034.607	104056.617	8.899	1.422	1350	 1	1.001	7.477	450
						0	1.002	7.477	450
17	494071.745	104053.517	9.310	1.925	1350	 1	1.002	7.385	450
						0	1.003	7.385	450
16	494095.230	104048.676	9.257	1.931	1350	 1	1.003	7.326	450
						0	1.004	7.326	450
15	494124.835	104044.353	9.023	1.771	1350	 1	1.004	7.252	450
						0	1.005	7.252	450
13	494169.412	104035.807	8.377	1.239	1350	 1	1.006	7.138	450
						0	1.007	7.138	450
12	494172.500	104037.377	8.380	1.251	1350	 1	1.007	7.129	450
						0	1.008	7.129	450
11	494215.676	104030.658	7.367	1.111	1350	 1	1.008	6.256	450
						0	1.009	6.256	450
10	494255.057	104022.816	5.900	1.111	1350	 1	1.009	4.789	450
						0	1.010	4.789	450
9	494259.407	104032.417	5.900	1.137	1350	 1	1.010	4.763	450
						0	1.011	4.763	450
8	494254.182	104045.322	6.053	1.324	1350	 1	2.000	5.029	150
						2	1.011	4.729	450
						0	1.012	4.729	450
7	494257.970	104060.337	5.953	1.234	1350	 1	1.013	4.719	450
						0	1.014	4.719	450
6	494258.509	104077.430	5.889	1.212	1350	 1	1.014	4.677	450
						0	1.015	4.677	450
77	494152.040	104191.495	8.626	1.725	1200	 0	3.000	6.901	225

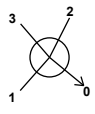
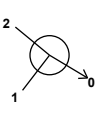
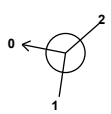
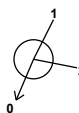
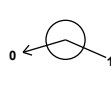
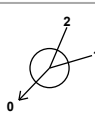


Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
78	494072.383	104215.523	9.336	1.650	1200		0	5.000	7.686	150
33A	494096.383	104129.904	8.954	3.890	1350		1	12.000	5.064	375
							2	11.000	5.064	375
							3	3.009	5.953	375
							0	3.010	5.064	375
75	494073.738	104205.794	9.365	2.756	1200		1	5.000	6.684	150
							2	3.002	6.609	225
							0	3.003	6.609	225
41	494030.662	104217.744	9.445	1.725	1200		0	6.000	7.720	225
40	494030.065	104207.014	9.521	1.864	1200		1	6.000	7.657	225
							0	6.001	7.657	225
39	494024.152	104192.948	9.652	2.085	1200		1	6.001	7.567	225
							0	6.002	7.567	225
38.02	494017.548	104166.099	9.500	1.425	1200		0	7.000	8.075	225
							1	7.000	7.998	225
38.01	494022.905	104178.012	9.598	1.900	1200		0	7.001	7.698	225
							1	7.001	7.506	225
38	494026.286	104182.726	9.442	1.936	1200		2	6.002	7.506	225
							0	6.003	7.506	225
37	494047.238	104171.756	9.520	3.240	1200		1	6.003	6.355	225
							2	3.005	6.355	225
							0	3.006	6.280	300
36	494061.573	104159.605	9.365	3.162	1200		1	3.006	6.203	300
							0	3.007	6.203	300
35.02	494090.810	104171.913	9.277	1.725	1200		0	8.000	7.552	225
35.01	494076.888	104156.176	9.387	2.671	1200		1	8.000	6.716	225
							0	8.001	6.716	225

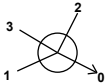
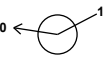
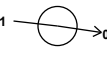
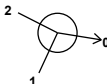


Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
74	494063.229	104126.159	9.328	1.650	1200		0	9.000	7.678	150
73	494065.122	104139.023	9.242	2.051	1200		1	9.000	7.191	150
						0	9.001	7.191	150	
35	494072.320	104147.159	9.185	3.049	1200		1	9.001	6.286	150
						2	8.001	6.211	225	
						3	3.007	6.136	300	
						0	3.008	6.136	300	
70	494072.020	104084.998	9.475	1.725	1200		0	10.000	7.750	225
69	494078.377	104128.196	9.285	2.602	1200		1	10.000	6.683	225
						0	10.001	6.683	225	
34	494084.955	104136.747	9.044	3.050	1500		1	10.001	6.144	225
						2	3.008	6.069	300	
						0	3.009	5.994	375	
57	494204.915	104144.835	7.526	1.800	1200		0	14.000	5.726	300
66	494216.574	104192.424	7.195	1.324	1200		0	13.000	5.871	225
56	494209.824	104178.542	7.326	1.701	1350		1	14.001	5.700	300
						2	13.001	5.775	225	
						0	13.002	5.625	375	
55	494158.188	104188.655	8.461	3.239	1350		1	16.000	5.447	150
						2	13.003	5.222	375	
						0	13.004	5.222	375	
54.02	494170.921	104154.735	8.448	1.950	1200		0	17.000	6.498	225
54.01	494153.698	104162.244	8.753	3.194	1200		1	17.000	5.559	225
						0	17.001	5.559	225	
54	494145.956	104159.962	8.684	3.633	1350		1	17.001	5.155	225
						2	13.004	5.126	375	
						0	13.005	5.051	450	

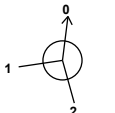
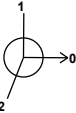


Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
53	494124.067	104137.100	8.924	3.981	1500	 1	13.005	4.943	450
						0	13.006	4.973	450
33.02	494104.494	104096.934	9.083	2.704	1200	 0	18.000	6.379	225
						0	18.000	5.445	225
33.01	494107.212	104115.406	9.077	3.632	1200	 1	18.001	5.445	225
						0	18.001	5.445	225
33	494114.810	104118.872	8.979	4.056	1350	 1	18.001	5.148	225
						2	13.006	4.923	450
						3	3.010	4.998	375
						0	3.011	4.923	450
48	494191.630	104060.909	7.898	1.534	1200	 0	20.000	6.364	225
						0	20.000	6.258	225
47	494188.999	104043.026	8.211	1.953	1200	 1	20.001	6.258	225
						0	20.001	6.151	225
46	494183.456	104040.128	8.207	2.056	1200	 1	20.002	6.151	225
						0	20.002	6.151	225
52	494041.009	104060.275	8.986	2.157	1200	 0	19.000	6.829	300
						0	19.000	6.656	300
51	494070.225	104056.959	9.250	2.594	1200	 1	19.001	6.656	300
						0	20.003	5.958	225
44	494113.438	104050.600	9.150	3.192	1200	 1	20.004	5.958	225
						0	19.003	5.406	300
42	494119.534	104101.300	8.983	3.577	1200	 1	19.004	5.406	300
						0	19.004	5.044	300
32	494125.232	104113.578	9.018	4.199	1500	 2	3.011	4.894	450
						0	3.012	4.819	525
31	494148.813	104109.779	8.609	3.839	1500	 1	3.013	4.770	525
						0	3.013	4.770	525

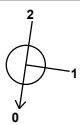
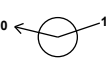
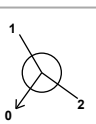
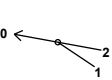
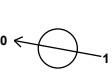
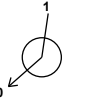
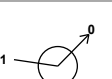


Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
30	494191.397	104101.977	7.786	3.104	1500		1 3.014	4.682	525
							0 3.015	4.682	525
28	494240.696	104094.421	6.366	1.786	1500		1 3.017	4.580	525
							0 3.018	4.580	525
5	494253.287	104096.276	6.036	1.482	1500		1 3.018	4.554	525
							2 1.015	4.629	450
							0 1.016	4.554	525
4	494255.858	104116.900	5.794	1.282	1500		1 1.016	4.512	525
							0 1.017	4.512	525
3	494261.589	104141.756	6.212	1.974	1500		1 1.018	4.238	525
							0 1.019	4.238	525
27	494271.782	104190.118	6.170	1.509	1200		0 24.000	4.661	225
2	494271.623	104167.333	6.309	2.232	1500		1 24.000	4.527	225
							2 1.020	4.227	525
							0 1.021	4.077	525
HW3	494282.945	104167.254	5.900	1.900			1 1.021	4.025	525
HW2 (Eastern Basin)	494284.745	104185.349	5.900	1.900			0 31.000	4.000	225
1	494283.550	104194.501	6.000	2.231	1500		1 31.000	3.769	225
							0 31.001	3.769	225
HW1	494305.636	104198.080	3.250	0.500			1 31.001	2.750	225
91	493969.191	104192.470	9.270	0.866	1200		0 30.000	8.404	150
86.01	494049.944	104140.240	9.383	0.923	1200		0 26.000	8.460	150

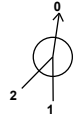
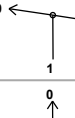
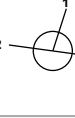


Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
86	494029.936	104143.184	9.510	1.552	1350		1 26.000 2 25.001 0 25.002	8.258 7.958 7.958	150 450 450
84	494010.551	104066.574	8.704	0.953	1350		1 25.003 0 25.004	7.751 7.751	450 450
83	493997.353	104069.767	8.627	0.910	1350		1 25.004 0 25.005	7.717 7.717	450 450
82	493983.258	104079.905	8.781	1.107	1350		1 27.000 2 25.005 0 25.006	7.974 7.674 7.674	150 450 450
89	493978.036	104088.822	8.907	0.830	1200		0 27.000	8.077	150
Att. Tank 10	494114.636	104198.325	8.972	2.207			1 4.000 2 3.001 0 3.002	7.410 6.765 6.765	150 225 225
76	494133.467	104194.887	8.820	2.030	1200		1 3.000 0 3.001	6.790 6.790	225 225
Att. Tank 12	494207.408	104161.957	7.411	1.701			1 14.000 0 14.001	5.710 5.710	300 300
Att. Tank 11	494184.640	104183.474	7.801	2.531			1 15.000 2 13.002 0 13.003	6.490 5.615 5.270	150 375 375
65	494215.245	104183.304	7.235	1.418	1200		1 13.000 0 13.001	5.817 5.817	225 225
62	494166.157	104204.463	8.326	2.115	1200		0 16.000	6.211	150
64	494193.987	104180.225	7.532	1.036	450		0 15.000	6.496	150
50	494105.831	104051.719	9.205	2.836	1200		1 19.001 0 19.002	6.369 6.369	300 300

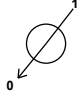
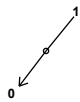


Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
43	494113.367	104059.389	9.267	3.436	1200		1 20.004 2 19.002	5.906 5.831	225 300
Att. Tank 13	494155.213	104044.453	8.585	2.455			0 19.003 1 21.000 2 20.002	5.831 6.510 6.130	300 150 225
49	494155.230	104041.418	8.504	1.974	450		0 20.003	6.130	225
30A	494170.252	104105.851	8.195	3.469	1500		0 21.000 1 22.000 2 3.013	6.530 5.326 4.726	150 525 525
28A	494228.668	104096.059	6.782	2.177	1500		0 3.014 1 23.000 2 3.016	4.726 4.605 4.605	525 525 525
29	494216.639	104097.696	7.184	2.554	1500		0 3.017 1 3.015	4.605 4.630	525 525
81	494251.081	104033.029	6.140	0.984	1200		0 2.000	5.156	150
Att. Tank 3	494256.054	104052.740	6.017	1.292			0 1.012 1 1.013	4.725 4.725	450 450
Att. Tank 2	494257.969	104126.055	5.937	1.682			0 1.017 1 1.018	4.505 4.255	525 525
Att. Tank 1	494266.218	104153.556	6.391	2.156			0 1.019 1 1.020	4.235 4.235	525 525
14	494127.344	104041.965	8.987	1.744	1350		0 1.005 1 1.006	7.243 7.243	450 450
Att. Tank 5	494235.682	104117.929	6.085	1.085			0 23.000	5.000	525
Att. Tank 6	494171.101	104119.115	7.900	2.540			0 22.000	5.360	525



Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
Att. Tank 7	494106.164	104141.373	8.942	3.832			0	11.000	5.110 375
Att. Tank 8	494090.131	104124.922	9.209	4.124			0	12.000	5.085 375
Att. Tank 4	493971.257	104132.757	9.334	1.469			1	28.005	7.865 300
75A	494069.204	104199.970	9.435	2.869	1200		1	3.003	6.566 225
Att. Tank 9	494062.472	104191.705	9.550	3.006			1	3.004	6.544 225
26	494117.517	104196.402	8.917	1.501	450		0	3.005	6.544 225
							0	4.000	7.416 150

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Detailed	Starting Level (m)
Rainfall Events	Singular	Skip Steady State	x	Check Discharge Rate(s) x
Summer CV	1.000	Drain Down Time (mins)	4320	Check Discharge Volume x
Winter CV	1.000	Additional Storage (m³/ha)	0.0	

Storm Durations

15 | 30 | 60 | 120 | 180 | 240 | 360 | 480 | 600 | 720 | 1440 | 2880

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0
10	0	0	0
30	45	0	0

Node 1 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	3.769	Product Number	CTL-SHE-0151-1320-1938-1320
Design Depth (m)	1.938	Min Outlet Diameter (m)	0.225
Design Flow (l/s)	13.2	Min Node Diameter (mm)	1500



Node 42 Online Orifice Control

Flap Valve	x	Design Depth (m)	3.500	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	10.0		
Invert Level (m)	5.406	Diameter (m)	0.050		

Node 28 Online Orifice Control

Flap Valve	x	Invert Level (m)	4.580	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.100		

Node 30 Online Orifice Control

Flap Valve	x	Invert Level (m)	4.682	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.080		

Node 33A Online Orifice Control

Flap Valve	x	Invert Level (m)	5.064	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.035		

Node HW2 (Eastern Basin) Pond Storage Structure

Invert Level (m)	4.000	Time to half empty (mins)	1740	Analyse flow through structure	x
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Inlets HW3

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	132.0	1.900	515.0

Node HW4 (Western Basin) Pond Storage Structure

Invert Level (m)	7.620	Time to half empty (mins)	12	Analyse flow through structure	x
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Inlets

HW5 HW6

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	59.6	1.000	233.0

Node Att. Tank 9 Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	6.544	Depth (m)	1.890
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	315	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	6.000	Number Required	1
Porosity	0.94	Pit Length (m)	12.000		

Node Att. Tank 5 Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	5.000	Depth (m)	1.050
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	1065	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	13.000	Number Required	1
Porosity	0.94	Pit Length (m)	25.000		



Node Att. Tank 7 Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	5.110	Depth (m)	3.150
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	1725	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	4.275	Number Required	1
Porosity	0.94	Pit Length (m)	20.000		

Node Att. Tank 8 Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	5.085	Depth (m)	3.150
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	1770	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	3.750	Number Required	1
Porosity	0.94	Pit Length (m)	20.000		

Node Att. Tank 4 Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	7.865	Depth (m)	0.840
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	8	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	4.000	Number Required	1
Porosity	0.94	Pit Length (m)	10.500		

Node Att. Tank 6 Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	5.360	Depth (m)	2.520
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	56	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	10.000	Number Required	1
Porosity	0.94	Pit Length (m)	20.000		

Node Att. Tank 13 Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	6.130	Depth (m)	1.470
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	260	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	5.500	Number Required	1
Porosity	0.94	Pit Length (m)	38.000		

Node Att. Tank 10 Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	6.765	Depth (m)	1.260
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	480	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	2.500	Number Required	1
Porosity	0.94	Pit Length (m)	30.000		

Node Att. Tank 3 Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	4.725	Depth (m)	1.050
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	1110	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	5.000	Number Required	1
Porosity	0.94	Pit Length (m)	12.000		

Node Att. Tank 2 Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	4.255	Depth (m)	1.260
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	2010	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	5.000	Number Required	1
Porosity	0.94	Pit Length (m)	16.000		



Node Att. Tank 12 Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	5.710	Depth (m)	0.840
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	520	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	4.500	Number Required	1
Porosity	0.94	Pit Length (m)	29.000		

Node Att. Tank 1 Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	4.235	Depth (m)	1.470
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	1860	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	6.000	Number Required	1
Porosity	0.94	Pit Length (m)	22.000		

Node Att. Tank 11 Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	5.270	Depth (m)	1.470
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	744	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	1.500	Number Required	1
Porosity	0.94	Pit Length (m)	34.000		



Results for 1 year Critical Storm Duration. Lowest mass balance: 99.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	25.01	10	8.531	0.058	7.1	0.0652	0.0000	OK
15 minute summer	25.05	10	8.559	0.054	4.8	0.0609	0.0000	OK
15 minute summer	25.04	11	8.469	0.058	5.1	0.0652	0.0000	OK
15 minute summer	25	11	8.380	0.082	13.3	0.0930	0.0000	OK
15 minute summer	24	11	8.281	0.094	15.1	0.1064	0.0000	OK
15 minute summer	23	11	8.237	0.088	16.5	0.0999	0.0000	OK
15 minute summer	22	11	8.051	0.115	22.7	0.1299	0.0000	OK
15 minute summer	21	11	7.987	0.109	25.2	0.1238	0.0000	OK
30 minute summer	20	24	7.824	0.126	24.9	0.1422	0.0000	OK
30 minute summer	HW5	24	7.824	0.204	24.8	0.0000	0.0000	OK
15 minute summer	88	11	8.075	0.061	2.2	0.0876	0.0000	OK
15 minute summer	87	11	8.075	0.103	8.2	0.1471	0.0000	OK
15 minute summer	85	12	7.930	0.157	35.3	0.2244	0.0000	OK
30 minute summer	HW6	24	7.825	0.205	32.0	0.0000	0.0000	OK
30 minute summer	HW4 (Western Basin)	24	7.811	0.191	37.4	15.3755	0.0000	OK
30 minute summer	19	24	7.805	0.199	33.9	0.2851	0.0000	OK
30 minute summer	18	25	7.621	0.144	33.9	0.2058	0.0000	OK
30 minute summer	17	26	7.539	0.154	33.8	0.2205	0.0000	OK
30 minute summer	16	27	7.513	0.187	33.5	0.2672	0.0000	OK
30 minute summer	15	27	7.446	0.194	33.1	0.2775	0.0000	OK
30 minute summer	13	28	7.272	0.134	32.8	0.1917	0.0000	OK
30 minute summer	12	28	7.242	0.113	32.7	0.1617	0.0000	OK
30 minute summer	11	29	6.325	0.069	32.7	0.0992	0.0000	OK
120 minute summer	10	76	4.943	0.154	32.0	0.2203	0.0000	OK
120 minute summer	9	76	4.916	0.153	32.0	0.2184	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	25.01	28.000	25	7.0	0.574	0.082	0.3718	
15 minute summer	25.05	29.000	25.04	4.7	0.624	0.120	0.1222	
15 minute summer	25.04	29.001	25	5.1	0.668	0.129	0.0494	
15 minute summer	25	28.001	24	13.3	0.774	0.153	0.3078	
15 minute summer	24	28.002	23	15.1	0.837	0.178	0.1173	
15 minute summer	23	28.003	22	16.4	0.782	0.193	0.7618	
15 minute summer	22	28.004	21	22.4	0.934	0.264	0.2363	
15 minute summer	21	28.005	Att. Tank 4	25.1	1.509	0.291	0.0447	
30 minute summer	20	28.007	HW5	24.8	0.902	0.292	0.4680	
15 minute summer	88	25.000	87	2.2	0.136	0.014	0.3408	
15 minute summer	87	25.001	86	7.7	0.268	0.049	0.1719	
15 minute summer	85	25.003	84	33.3	0.703	0.210	0.4310	
30 minute summer	HW4 (Western Basin)	1.000	19	33.9	0.524	0.209	0.3608	
30 minute summer	19	1.001	18	33.9	0.613	0.353	2.8983	
30 minute summer	18	1.002	17	33.8	0.752	0.211	1.6950	
30 minute summer	17	1.003	16	33.3	0.618	0.209	1.3184	
30 minute summer	16	1.004	15	33.1	0.533	0.345	1.9071	
30 minute summer	15	1.005	14	32.9	0.505	0.201	0.2266	
30 minute summer	13	1.007	12	32.7	0.928	0.200	0.1223	
30 minute summer	12	1.008	11	32.7	1.427	0.120	1.0157	
30 minute summer	11	1.009	10	32.6	1.254	0.053	1.2528	
120 minute summer	10	1.010	9	32.0	0.677	0.201	0.5016	
120 minute summer	9	1.011	8	32.0	0.674	0.201	0.6731	



Results for 1 year Critical Storm Duration. Lowest mass balance: 99.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	8	78	4.887	0.158	33.3	0.2260	0.0000	OK
120 minute summer	7	78	4.867	0.148	32.6	0.2115	0.0000	OK
120 minute summer	6	78	4.821	0.144	33.8	0.2065	0.0000	OK
15 minute summer	77	10	6.947	0.046	3.8	0.0524	0.0000	OK
15 minute summer	78	10	7.711	0.025	3.5	0.0285	0.0000	OK
600 minute winter	33A	570	5.936	0.872	12.0	1.2479	0.0000	SURCHARGED
15 minute summer	75	11	6.724	0.115	18.8	0.1297	0.0000	OK
15 minute summer	41	10	7.764	0.044	3.1	0.0493	0.0000	OK
15 minute summer	40	11	7.699	0.042	3.1	0.0470	0.0000	OK
15 minute summer	39	10	7.648	0.081	10.3	0.0920	0.0000	OK
15 minute summer	38.02	10	8.127	0.052	4.5	0.0591	0.0000	OK
15 minute summer	38.01	10	7.735	0.037	5.6	0.0418	0.0000	OK
15 minute summer	38	11	7.571	0.065	20.2	0.0738	0.0000	OK
30 minute summer	37	19	6.423	0.143	28.6	0.1615	0.0000	OK
15 minute summer	36	12	6.358	0.155	29.3	0.1758	0.0000	OK
15 minute summer	35.02	10	7.581	0.029	3.8	0.0331	0.0000	OK
15 minute summer	35.01	10	6.762	0.046	10.9	0.0521	0.0000	OK
15 minute summer	74	10	7.708	0.030	3.1	0.0342	0.0000	OK
15 minute summer	73	10	7.233	0.042	8.4	0.0480	0.0000	OK
15 minute summer	35	12	6.325	0.189	47.0	0.2137	0.0000	OK
15 minute summer	70	10	7.797	0.047	7.6	0.0530	0.0000	OK
15 minute summer	69	10	6.727	0.044	9.4	0.0500	0.0000	OK
15 minute summer	34	11	6.204	0.210	62.2	0.3716	0.0000	OK
15 minute summer	57	10	5.793	0.067	9.7	0.0753	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute summer	8	1.012	Att. Tank 3	33.2	0.740	0.210	0.0799	
120 minute summer	7	1.014	6	32.5	0.730	0.204	0.7617	
120 minute summer	6	1.015	5	33.8	0.848	0.212	0.7795	
15 minute summer	77	3.000	76	3.7	0.413	0.094	0.1733	
15 minute summer	78	5.000	75	3.5	1.605	0.061	0.0275	
600 minute winter	33A	3.010	33	2.5	0.423	0.022	2.3689	
15 minute summer	75	3.003	75A	18.8	1.052	0.475	0.1319	
15 minute summer	41	6.000	40	3.1	0.590	0.077	0.0555	
15 minute summer	40	6.001	39	3.0	0.344	0.075	0.1365	
15 minute summer	39	6.002	38	10.2	0.913	0.257	0.1172	
15 minute summer	38.02	7.000	38.01	4.4	0.651	0.111	0.0887	
15 minute summer	38.01	7.001	38	5.6	0.830	0.059	0.0400	
15 minute summer	38	6.003	37	20.2	2.140	0.175	0.2247	
30 minute summer	37	3.006	36	28.4	0.817	0.401	0.6528	
15 minute summer	36	3.007	35	29.5	0.724	0.418	0.6872	
15 minute summer	35.02	8.000	35.01	3.8	0.864	0.036	0.0928	
15 minute summer	35.01	8.001	35	10.8	1.506	0.092	0.1302	
15 minute summer	74	9.000	73	3.1	0.934	0.089	0.0430	
15 minute summer	73	9.001	35	8.3	2.091	0.161	0.0432	
15 minute summer	35	3.008	34	46.6	1.070	0.658	0.7128	
15 minute summer	70	10.000	69	7.5	1.316	0.092	0.2501	
15 minute summer	69	10.001	34	9.5	1.654	0.081	0.0743	
15 minute summer	34	3.009	33A	61.5	1.064	0.557	0.7725	
15 minute summer	57	14.000	Att. Tank 12	9.7	1.762	0.110	0.0173	



Results for 1 year Critical Storm Duration. Lowest mass balance: 99.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	66	10	5.943	0.072	7.8	0.0812	0.0000	OK
15 minute summer	56	10	5.735	0.110	21.3	0.1577	0.0000	OK
360 minute summer	55	264	5.524	0.302	8.8	0.4321	0.0000	OK
15 minute summer	54.02	10	6.522	0.024	2.7	0.0267	0.0000	OK
15 minute summer	54.01	10	5.590	0.031	4.6	0.0355	0.0000	OK
360 minute summer	54	264	5.524	0.473	11.0	0.6768	0.0000	SURCHARGED
360 minute summer	53	264	5.524	0.581	11.9	1.0265	0.0000	SURCHARGED
15 minute summer	33.02	10	6.409	0.030	4.5	0.0340	0.0000	OK
360 minute summer	33.01	264	5.524	0.079	2.5	0.0893	0.0000	OK
360 minute summer	33	264	5.524	0.601	14.6	0.8599	0.0000	SURCHARGED
15 minute summer	48	10	6.419	0.055	5.1	0.0627	0.0000	OK
15 minute summer	47	10	6.315	0.057	9.4	0.0644	0.0000	OK
240 minute summer	46	160	6.265	0.114	7.7	0.1289	0.0000	OK
15 minute summer	52	11	6.851	0.022	0.9	0.0245	0.0000	OK
15 minute summer	51	10	6.732	0.076	12.4	0.0861	0.0000	OK
30 minute summer	44	19	6.276	0.318	15.8	0.3598	0.0000	SURCHARGED
30 minute summer	42	19	6.295	0.889	14.9	1.0051	0.0000	SURCHARGED
360 minute summer	32	264	5.524	0.705	19.2	1.2455	0.0000	SURCHARGED
360 minute summer	31	264	5.524	0.754	21.3	1.3319	0.0000	SURCHARGED
360 minute summer	30	264	5.523	0.841	10.5	1.4869	0.0000	SURCHARGED
360 minute summer	28	256	4.922	0.342	10.5	0.6037	0.0000	OK
120 minute summer	5	80	4.713	0.159	42.8	0.2812	0.0000	OK
120 minute summer	4	80	4.646	0.134	42.9	0.2365	0.0000	OK
360 minute summer	3	368	4.500	0.262	35.0	0.4627	0.0000	OK
15 minute summer	27	10	4.734	0.073	8.9	0.0831	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	66	13.000	65	7.7	0.712	0.195	0.1000	
15 minute summer	56	13.002	Att. Tank 11	20.5	0.802	0.184	0.0810	
360 minute summer	55	13.004	54	8.7	0.549	0.079	3.2036	
15 minute summer	54.02	17.000	54.01	2.7	0.974	0.023	0.0521	
15 minute summer	54.01	17.001	54	4.5	1.394	0.039	0.0753	
360 minute summer	54	13.005	53	11.0	0.315	0.059	5.0149	
360 minute summer	53	13.006	33	11.9	0.367	0.075	3.2392	
15 minute summer	33.02	18.000	33.01	4.5	1.002	0.038	0.0844	
360 minute summer	33.01	18.001	33	2.5	0.893	0.025	0.2178	
360 minute summer	33	3.011	32	14.6	0.488	0.091	1.8522	
15 minute summer	48	20.000	47	5.0	0.653	0.127	0.1397	
15 minute summer	47	20.001	46	9.4	0.692	0.137	0.0860	
240 minute summer	46	20.002	Att. Tank 13	7.6	0.952	0.192	0.0816	
15 minute summer	52	19.000	51	0.9	0.120	0.010	0.2385	
15 minute summer	51	19.001	50	12.1	1.199	0.122	0.3695	
30 minute summer	44	20.004	43	-10.0	0.724	-0.251	0.3495	
30 minute summer	42	19.004	32	4.8	1.040	0.026	0.5045	
360 minute summer	32	3.012	31	19.1	0.367	0.088	5.1599	
360 minute summer	31	3.013	30A	21.3	0.327	0.099	4.7086	
360 minute summer	30	3.015	29	10.4	0.376	0.048	2.8129	
360 minute summer	28	3.018	5	10.5	0.480	0.048	0.5226	
120 minute summer	5	1.016	4	42.8	0.870	0.197	1.0231	
120 minute summer	4	1.017	Att. Tank 2	42.9	1.051	0.125	0.0570	
360 minute summer	3	1.019	Att. Tank 1	35.0	0.778	0.172	0.1815	
15 minute summer	27	24.000	2	8.7	0.793	0.218	0.2496	



Results for 1 year Critical Storm Duration. Lowest mass balance: 99.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute summer	2	368	4.499	0.422	36.5	0.7465	0.0000	OK
360 minute summer	HW3	368	4.499	0.499	36.0	0.0000	0.0000	OK
360 minute summer	HW2 (Eastern Basin)	368	4.488	0.488	24.9	89.6843	0.0000	SURCHARGED
360 minute summer	1	368	4.480	0.711	13.8	1.2563	0.0000	SURCHARGED
15 minute summer	HW1	1	3.110	0.360	12.5	0.0000	0.0000	OK
15 minute summer	91	1	8.404	0.000	0.0	0.0000	0.0000	OK
15 minute summer	86.01	10	8.496	0.036	2.2	0.0404	0.0000	OK
15 minute summer	86	11	8.072	0.114	24.1	0.1634	0.0000	OK
15 minute summer	84	12	7.903	0.152	33.3	0.2169	0.0000	OK
15 minute summer	83	12	7.864	0.147	33.5	0.2108	0.0000	OK
30 minute summer	82	23	7.827	0.153	30.8	0.2189	0.0000	OK
15 minute summer	89	1	8.077	0.000	0.0	0.0000	0.0000	OK
120 minute summer	Att. Tank 10	68	6.817	0.052	5.9	3.6319	0.0000	OK
15 minute summer	76	10	6.869	0.079	11.0	0.0897	0.0000	OK
120 minute summer	Att. Tank 12	74	5.752	0.042	5.2	5.1391	0.0000	OK
360 minute summer	Att. Tank 11	264	5.524	0.254	8.3	12.1756	0.0000	OK
15 minute summer	65	10	5.888	0.071	7.7	0.0807	0.0000	OK
15 minute summer	62	10	6.233	0.022	1.7	0.0248	0.0000	OK
15 minute summer	64	1	6.496	0.000	0.0	0.0000	0.0000	OK
15 minute summer	50	11	6.414	0.045	12.1	0.0506	0.0000	OK
30 minute summer	43	20	6.283	0.452	18.2	0.5111	0.0000	SURCHARGED
240 minute summer	Att. Tank 13	160	6.265	0.135	13.4	26.4962	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute summer	2	1.021	HW3	36.0	0.830	0.110	2.2168	
360 minute summer	HW2 (Eastern Basin)	31.000	1	13.8	0.473	0.167	0.3671	
360 minute summer	1	31.001	HW1	13.2	0.469	0.118	0.5226	583.5
15 minute summer	91	30.000	24	0.0	0.000	0.000	0.0000	
15 minute summer	86.01	26.000	86	2.1	0.676	0.121	0.0640	
15 minute summer	86	25.002	85	23.4	0.588	0.146	2.9875	
15 minute summer	84	25.004	83	33.5	0.730	0.209	0.6241	
15 minute summer	83	25.005	82	33.5	0.784	0.209	0.7418	
30 minute summer	82	25.006	HW6	30.0	0.847	0.187	0.3443	
15 minute summer	89	27.000	82	0.0	0.000	0.000	0.0000	
120 minute summer	Att. Tank 10	3.002	75	4.6	0.455	0.117	0.2995	
15 minute summer	76	3.001	Att. Tank 10	10.9	1.644	0.271	0.0336	
120 minute summer	Att. Tank 12	14.001	56	2.8	0.490	0.040	0.0143	
360 minute summer	Att. Tank 11	13.003	55	6.8	0.479	0.061	1.3489	
15 minute summer	65	13.001	56	7.6	0.742	0.192	0.0742	
15 minute summer	62	16.000	55	1.7	1.054	0.045	0.0280	
15 minute summer	64	15.000	Att. Tank 11	0.0	0.000	0.000	0.0000	
15 minute summer	50	19.002	43	12.1	1.033	0.049	0.4118	
30 minute summer	43	19.003	42	10.1	0.310	0.090	2.9831	
240 minute summer	Att. Tank 13	20.003	44	-5.8	0.472	-0.146	0.9440	



Results for 1 year Critical Storm Duration. Lowest mass balance: 99.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	49	1	6.530	0.000	0.0	0.0000	0.0000	OK
360 minute summer	30A	264	5.524	0.798	21.3	1.4094	0.0000	SURCHARGED
360 minute summer	28A	256	4.922	0.317	10.4	0.5598	0.0000	OK
360 minute summer	29	256	4.922	0.292	10.4	0.5161	0.0000	OK
15 minute summer	81	10	5.197	0.041	2.8	0.0465	0.0000	OK
120 minute summer	Att. Tank 3	78	4.877	0.152	33.2	8.5945	0.0000	OK
360 minute summer	Att. Tank 2	368	4.500	0.245	33.6	18.4357	0.0000	OK
360 minute summer	Att. Tank 1	368	4.500	0.265	35.0	32.8396	0.0000	OK
30 minute summer	14	28	7.437	0.194	32.9	0.2782	0.0000	OK
15 minute summer	Att. Tank 5	1	5.000	0.000	0.0	0.0000	0.0000	OK
360 minute summer	Att. Tank 6	272	5.524	0.164	15.1	30.7624	0.0000	OK
600 minute winter	Att. Tank 7	570	5.936	0.826	5.8	66.3895	0.0000	SURCHARGED
600 minute winter	Att. Tank 8	570	5.936	0.851	5.1	59.9989	0.0000	SURCHARGED
15 minute summer	Att. Tank 4	13	7.963	0.098	25.1	3.8565	0.0000	OK
15 minute summer	75A	11	6.659	0.093	18.8	0.1048	0.0000	OK
30 minute summer	Att. Tank 9	22	6.621	0.077	18.0	5.2368	0.0000	OK
15 minute summer	26	1	7.416	0.000	0.0	0.0000	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	49	21.000	Att. Tank 13	0.0	0.000	0.000	0.0000	
360 minute summer	30A	3.014	30	10.2	0.181	0.047	4.6441	
360 minute summer	28A	3.017	28	10.5	0.215	0.048	1.7293	
360 minute summer	29	3.016	28A	10.4	0.309	0.048	1.5754	
15 minute summer	81	2.000	8	2.8	0.720	0.155	0.0486	
120 minute summer	Att. Tank 3	1.013	7	32.3	0.698	0.175	0.0849	
360 minute summer	Att. Tank 2	1.018	3	33.3	0.688	0.151	0.8372	
360 minute summer	Att. Tank 1	1.020	2	34.9	0.857	0.158	0.4220	
30 minute summer	14	1.006	13	32.8	0.628	0.342	2.2330	
15 minute summer	Att. Tank 5	23.000	28A	0.0	0.000	0.000	0.9649	
360 minute summer	Att. Tank 6	22.000	30A	-14.2	-0.568	-0.063	1.0131	
600 minute winter	Att. Tank 7	11.000	33A	-5.8	-0.121	-0.049	1.4465	
600 minute winter	Att. Tank 8	12.000	33A	-5.1	-0.223	-0.041	0.5852	
15 minute summer	Att. Tank 4	28.006	20	19.4	0.866	0.229	0.6453	
15 minute summer	75A	3.004	Att. Tank 9	18.8	2.028	0.360	0.0260	
30 minute summer	Att. Tank 9	3.005	37	12.1	1.014	0.248	0.2569	
15 minute summer	26	4.000	Att. Tank 10	0.0	0.000	0.000	0.0000	



Results for 10 year Critical Storm Duration. Lowest mass balance: 99.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	25.01	10	8.572	0.099	20.7	0.1122	0.0000	OK
15 minute summer	25.05	10	8.602	0.097	14.0	0.1100	0.0000	OK
15 minute summer	25.04	10	8.514	0.103	15.0	0.1170	0.0000	OK
15 minute summer	25	11	8.451	0.153	38.9	0.1732	0.0000	OK
15 minute summer	24	11	8.365	0.178	43.9	0.2011	0.0000	OK
15 minute summer	23	11	8.311	0.162	48.3	0.1828	0.0000	OK
15 minute summer	22	11	8.169	0.233	66.7	0.2639	0.0000	OK
30 minute summer	21	21	8.099	0.221	67.0	0.2503	0.0000	OK
30 minute summer	20	22	8.054	0.356	75.8	0.4028	0.0000	SURCHARGED
30 minute summer	HW5	22	8.021	0.401	70.5	0.0000	0.0000	OK
15 minute summer	88	11	8.167	0.153	6.5	0.2186	0.0000	OK
15 minute summer	87	11	8.166	0.194	23.7	0.2778	0.0000	OK
15 minute summer	85	11	8.081	0.308	104.9	0.4410	0.0000	OK
30 minute summer	HW6	22	8.023	0.403	89.8	0.0000	0.0000	OK
30 minute summer	HW4 (Western Basin)	22	7.992	0.372	112.3	36.6983	0.0000	OK
30 minute summer	19	22	7.981	0.375	103.2	0.5364	0.0000	OK
30 minute summer	18	25	7.781	0.304	102.7	0.4356	0.0000	OK
30 minute summer	17	25	7.734	0.349	99.9	0.4998	0.0000	OK
30 minute summer	16	25	7.705	0.379	98.6	0.5418	0.0000	OK
30 minute summer	15	26	7.617	0.365	98.0	0.5219	0.0000	OK
30 minute summer	13	26	7.380	0.242	97.6	0.3456	0.0000	OK
30 minute summer	12	26	7.330	0.201	97.5	0.2874	0.0000	OK
30 minute summer	11	26	6.375	0.119	97.5	0.1701	0.0000	OK
30 minute summer	10	28	5.095	0.306	97.3	0.4380	0.0000	OK
30 minute summer	9	29	5.062	0.299	96.5	0.4278	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	25.01	28.000	25	20.5	0.739	0.241	0.8374	
15 minute summer	25.05	29.000	25.04	13.9	0.810	0.349	0.2746	
15 minute summer	25.04	29.001	25	14.7	0.882	0.370	0.1077	
15 minute summer	25	28.001	24	38.7	0.972	0.443	0.7103	
15 minute summer	24	28.002	23	44.1	1.074	0.520	0.2663	
15 minute summer	23	28.003	22	48.5	0.986	0.570	1.7640	
15 minute summer	22	28.004	21	66.4	1.188	0.780	0.5546	
30 minute summer	21	28.005	Att. Tank 4	66.3	1.511	0.767	0.1189	
30 minute summer	20	28.007	HW5	70.5	1.032	0.832	0.8550	
15 minute summer	88	25.000	87	6.4	0.132	0.040	0.9592	
15 minute summer	87	25.001	86	23.6	0.349	0.150	0.3956	
15 minute summer	85	25.003	84	101.5	0.906	0.638	1.0153	
30 minute summer	HW4 (Western Basin)	1.000	19	103.2	0.735	0.636	0.7719	
30 minute summer	19	1.001	18	102.7	0.826	1.070	6.5989	
30 minute summer	18	1.002	17	99.9	0.907	0.626	4.5865	
30 minute summer	17	1.003	16	97.9	0.749	0.614	3.2897	
30 minute summer	16	1.004	15	98.0	0.704	1.020	4.1862	
30 minute summer	15	1.005	14	97.7	0.719	0.596	0.4717	
30 minute summer	13	1.007	12	97.5	1.259	0.595	0.2685	
30 minute summer	12	1.008	11	97.5	1.934	0.357	2.2248	
30 minute summer	11	1.009	10	97.3	1.397	0.157	2.9686	
30 minute summer	10	1.010	9	96.5	0.902	0.605	1.1929	
30 minute summer	9	1.011	8	95.9	0.980	0.604	1.5486	



Results for 10 year Critical Storm Duration. Lowest mass balance: 99.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	8	44	5.026	0.297	96.4	0.4254	0.0000	OK
60 minute summer	7	45	4.995	0.276	94.8	0.3953	0.0000	OK
60 minute summer	6	45	4.936	0.259	97.5	0.3703	0.0000	OK
15 minute summer	77	10	6.981	0.080	11.0	0.0903	0.0000	OK
15 minute summer	78	10	7.729	0.043	10.1	0.0482	0.0000	OK
600 minute winter	33A	585	6.785	1.721	23.6	2.4632	0.0000	SURCHARGED
30 minute summer	75	20	6.896	0.287	49.4	0.3247	0.0000	SURCHARGED
15 minute summer	41	10	7.796	0.076	8.9	0.0859	0.0000	OK
15 minute summer	40	10	7.728	0.071	8.8	0.0802	0.0000	OK
15 minute summer	39	10	7.718	0.151	30.2	0.1703	0.0000	OK
15 minute summer	38.02	10	8.169	0.094	13.2	0.1060	0.0000	OK
15 minute summer	38.01	10	7.767	0.069	16.6	0.0776	0.0000	OK
15 minute summer	38	10	7.620	0.114	59.4	0.1284	0.0000	OK
600 minute winter	37	585	6.785	0.505	13.7	0.5716	0.0000	SURCHARGED
600 minute winter	36	585	6.785	0.582	14.1	0.6587	0.0000	SURCHARGED
15 minute summer	35.02	10	7.601	0.049	11.0	0.0555	0.0000	OK
15 minute summer	35.01	10	6.795	0.079	31.4	0.0896	0.0000	OK
15 minute summer	74	10	7.730	0.052	9.0	0.0590	0.0000	OK
15 minute summer	73	10	7.265	0.074	24.5	0.0834	0.0000	OK
600 minute winter	35	585	6.785	0.649	19.4	0.7344	0.0000	SURCHARGED
15 minute summer	70	10	7.832	0.082	22.0	0.0929	0.0000	OK
600 minute winter	69	585	6.785	0.102	2.5	0.1157	0.0000	OK
600 minute winter	34	585	6.785	0.791	23.9	1.3982	0.0000	SURCHARGED
240 minute winter	57	232	5.942	0.216	5.4	0.2448	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	8	1.012	Att. Tank 3	96.1	0.993	0.607	0.1796	
60 minute summer	7	1.014	6	94.9	0.966	0.596	1.6790	
60 minute summer	6	1.015	5	97.6	1.147	0.613	1.6635	
15 minute summer	77	3.000	76	10.9	0.538	0.274	0.3819	
15 minute summer	78	5.000	75	10.1	1.638	0.176	0.1067	
600 minute winter	33A	3.010	33	2.9	0.454	0.026	2.3689	
30 minute summer	75	3.003	75A	48.0	1.276	1.213	0.2936	
15 minute summer	41	6.000	40	8.8	0.786	0.222	0.1208	
15 minute summer	40	6.001	39	8.7	0.452	0.219	0.2971	
15 minute summer	39	6.002	38	29.9	1.234	0.752	0.2522	
15 minute summer	38.02	7.000	38.01	13.0	0.871	0.328	0.1957	
15 minute summer	38.01	7.001	38	16.6	1.102	0.175	0.0879	
15 minute summer	38	6.003	37	59.1	2.261	0.513	0.7075	
600 minute winter	37	3.006	36	13.7	0.726	0.193	1.3233	
600 minute winter	36	3.007	35	14.1	0.651	0.199	1.1580	
15 minute summer	35.02	8.000	35.01	10.9	1.176	0.105	0.1979	
15 minute summer	35.01	8.001	35	31.3	1.526	0.268	0.2640	
15 minute summer	74	9.000	73	9.0	1.279	0.259	0.0913	
15 minute summer	73	9.001	35	24.4	2.243	0.472	0.1424	
600 minute winter	35	3.008	34	19.4	0.836	0.274	1.1529	
15 minute summer	70	10.000	69	21.8	1.790	0.267	0.5323	
600 minute winter	69	10.001	34	2.5	1.178	0.021	0.3092	
600 minute winter	34	3.009	33A	23.6	0.813	0.214	1.4692	
240 minute winter	57	14.000	Att. Tank 12	5.4	0.859	0.061	0.1442	



Results for 10 year Critical Storm Duration. Lowest mass balance: 99.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	66	10	6.008	0.137	22.7	0.1555	0.0000	OK
240 minute winter	56	232	5.942	0.317	16.6	0.4542	0.0000	OK
240 minute winter	55	232	5.942	0.720	14.5	1.0309	0.0000	SURCHARGED
15 minute summer	54.02	10	6.537	0.039	7.8	0.0444	0.0000	OK
240 minute winter	54.01	232	5.942	0.383	2.6	0.4335	0.0000	SURCHARGED
240 minute winter	54	232	5.942	0.891	19.0	1.2755	0.0000	SURCHARGED
240 minute winter	53	232	5.942	0.999	20.8	1.7657	0.0000	SURCHARGED
15 minute summer	33.02	10	6.430	0.051	13.1	0.0572	0.0000	OK
240 minute winter	33.01	232	5.942	0.497	4.7	0.5624	0.0000	SURCHARGED
240 minute winter	33	232	5.942	1.019	25.8	1.4585	0.0000	SURCHARGED
180 minute winter	48	176	6.590	0.226	3.5	0.2560	0.0000	SURCHARGED
180 minute winter	47	176	6.590	0.332	6.5	0.3759	0.0000	SURCHARGED
180 minute winter	46	176	6.590	0.439	14.0	0.4969	0.0000	SURCHARGED
15 minute summer	52	11	6.865	0.036	2.7	0.0407	0.0000	OK
15 minute summer	51	12	6.826	0.170	36.1	0.1923	0.0000	OK
15 minute summer	44	11	6.722	0.764	63.8	0.8638	0.0000	SURCHARGED
15 minute summer	42	11	6.781	1.375	21.3	1.5547	0.0000	SURCHARGED
240 minute winter	32	232	5.942	1.123	29.7	1.9846	0.0000	SURCHARGED
240 minute winter	31	232	5.942	1.172	35.0	2.0709	0.0000	SURCHARGED
240 minute winter	30	232	5.942	1.260	12.7	2.2257	0.0000	SURCHARGED
600 minute winter	28	765	5.154	0.574	11.2	1.0151	0.0000	SURCHARGED
600 minute winter	5	615	4.924	0.370	36.5	0.6534	0.0000	OK
600 minute winter	4	615	4.924	0.412	36.7	0.7273	0.0000	OK
600 minute winter	3	615	4.923	0.685	34.2	1.2112	0.0000	SURCHARGED
600 minute winter	27	615	4.923	0.262	2.4	0.2967	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	66	13.000	65	22.6	0.903	0.568	0.2301	
240 minute winter	56	13.002	Att. Tank 11	16.6	0.759	0.148	0.3187	
240 minute winter	55	13.004	54	13.6	0.561	0.123	3.4404	
15 minute summer	54.02	17.000	54.01	7.8	1.376	0.066	0.1744	
240 minute winter	54.01	17.001	54	2.4	0.828	0.021	0.3210	
240 minute winter	54	13.005	53	18.7	0.314	0.099	5.0149	
240 minute winter	53	13.006	33	20.6	0.394	0.130	3.2392	
15 minute summer	33.02	18.000	33.01	13.0	1.431	0.112	0.4313	
240 minute winter	33.01	18.001	33	4.2	0.893	0.043	0.3321	
240 minute winter	33	3.011	32	25.6	0.522	0.160	1.8522	
180 minute winter	48	20.000	47	3.5	0.591	0.088	0.7187	
180 minute winter	47	20.001	46	6.9	0.542	0.101	0.2488	
180 minute winter	46	20.002	Att. Tank 13	13.8	1.243	0.351	0.1442	
15 minute summer	52	19.000	51	2.6	0.175	0.031	0.6695	
15 minute summer	51	19.001	50	35.8	1.432	0.361	2.0082	
15 minute summer	44	20.004	43	-43.1	-1.083	-1.081	0.3495	
15 minute summer	42	19.004	32	23.3	1.061	0.128	0.8470	
240 minute winter	32	3.012	31	29.4	0.386	0.135	5.1599	
240 minute winter	31	3.013	30A	34.7	0.383	0.161	4.7086	
240 minute winter	30	3.015	29	12.6	0.396	0.058	5.1416	
600 minute winter	28	3.018	5	11.2	0.360	0.052	1.9883	
600 minute winter	5	1.016	4	36.5	0.831	0.168	3.5769	
600 minute winter	4	1.017	Att. Tank 2	36.7	1.005	0.107	0.2556	
600 minute winter	3	1.019	Att. Tank 1	33.9	0.740	0.166	0.3621	
600 minute winter	27	24.000	2	2.4	0.552	0.060	0.9062	



Results for 10 year Critical Storm Duration. Lowest mass balance: 99.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute winter	2	615	4.923	0.846	28.5	1.4955	0.0000	SURCHARGED
600 minute winter	HW3	615	4.923	0.923	28.1	0.0000	0.0000	OK
600 minute winter	HW2 (Eastern Basin)	615	4.911	0.911	21.2	205.8020	0.0000	SURCHARGED
600 minute winter	1	615	4.905	1.136	20.1	2.0073	0.0000	SURCHARGED
15 minute summer	HW1	1	3.110	0.360	13.2	0.0000	0.0000	OK
15 minute summer	91	1	8.404	0.000	0.0	0.0000	0.0000	OK
15 minute summer	86.01	10	8.524	0.064	6.5	0.0726	0.0000	OK
15 minute summer	86	11	8.162	0.204	71.0	0.2920	0.0000	OK
15 minute summer	84	12	8.048	0.297	101.5	0.4244	0.0000	OK
30 minute summer	83	21	8.031	0.314	90.3	0.4494	0.0000	OK
30 minute summer	82	22	8.025	0.351	87.6	0.5022	0.0000	OK
15 minute summer	89	1	8.077	0.000	0.0	0.0000	0.0000	OK
30 minute summer	Att. Tank 10	21	6.913	0.148	28.9	10.4121	0.0000	OK
15 minute summer	76	10	6.939	0.149	32.1	0.1683	0.0000	OK
240 minute winter	Att. Tank 12	232	5.942	0.232	12.3	28.5098	0.0000	OK
240 minute winter	Att. Tank 11	232	5.942	0.672	16.6	32.2345	0.0000	SURCHARGED
15 minute summer	65	10	5.950	0.133	22.6	0.1509	0.0000	OK
15 minute summer	62	10	6.248	0.037	4.8	0.0420	0.0000	OK
15 minute summer	64	1	6.496	0.000	0.0	0.0000	0.0000	OK
15 minute summer	50	11	6.809	0.440	38.6	0.4978	0.0000	SURCHARGED
15 minute summer	43	11	6.798	0.967	41.9	1.0933	0.0000	SURCHARGED
180 minute winter	Att. Tank 13	176	6.590	0.460	28.0	90.4308	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
600 minute winter	2	1.021	HW3	28.1	0.784	0.086	2.4459	
600 minute winter	HW2 (Eastern Basin)	31.000	1	20.1	0.571	0.244	0.3671	
600 minute winter	1	31.001	HW1	13.2	0.469	0.118	0.5226	1364.6
15 minute summer	91	30.000	24	0.0	0.000	0.000	0.0075	
15 minute summer	86.01	26.000	86	6.4	0.908	0.359	0.1421	
15 minute summer	86	25.002	85	70.3	0.766	0.439	6.9158	
15 minute summer	84	25.004	83	100.2	0.957	0.623	1.4891	
30 minute summer	83	25.005	82	87.6	0.881	0.548	2.1732	
30 minute summer	82	25.006	HW6	83.9	0.863	0.522	0.9204	
15 minute summer	89	27.000	82	0.0	0.000	0.000	0.0153	
30 minute summer	Att. Tank 10	3.002	75	22.0	0.660	0.554	0.8954	
15 minute summer	76	3.001	Att. Tank 10	31.8	1.845	0.789	0.1032	
240 minute winter	Att. Tank 12	14.001	56	-8.3	0.570	-0.118	0.1500	
240 minute winter	Att. Tank 11	13.003	55	9.8	0.489	0.088	1.7046	
15 minute summer	65	13.001	56	22.3	0.971	0.564	0.1658	
15 minute summer	62	16.000	55	4.8	1.426	0.128	0.1812	
15 minute summer	64	15.000	Att. Tank 11	0.0	0.000	0.000	0.0000	
15 minute summer	50	19.002	43	35.3	0.993	0.141	0.7572	
15 minute summer	43	19.003	42	-25.5	0.420	-0.229	2.9831	
180 minute winter	Att. Tank 13	20.003	44	-14.3	0.439	-0.361	1.1623	



Results for 10 year Critical Storm Duration. Lowest mass balance: 99.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute winter	49	176	6.590	0.060	0.1	0.0096	0.0000	OK
240 minute winter	30A	232	5.942	1.216	34.7	2.1483	0.0000	SURCHARGED
600 minute winter	28A	765	5.155	0.550	12.2	0.9711	0.0000	SURCHARGED
600 minute winter	29	765	5.155	0.525	12.3	0.9271	0.0000	OK
15 minute summer	81	10	5.231	0.075	8.2	0.0848	0.0000	OK
60 minute summer	Att. Tank 3	45	5.012	0.287	96.1	16.1628	0.0000	OK
600 minute winter	Att. Tank 2	615	4.924	0.669	36.7	50.2745	0.0000	SURCHARGED
600 minute winter	Att. Tank 1	615	4.923	0.688	33.9	85.4188	0.0000	SURCHARGED
30 minute summer	14	26	7.600	0.357	97.7	0.5102	0.0000	OK
600 minute winter	Att. Tank 5	765	5.155	0.155	3.2	47.2193	0.0000	OK
240 minute winter	Att. Tank 6	232	5.942	0.582	32.6	109.3800	0.0000	SURCHARGED
600 minute winter	Att. Tank 7	585	6.785	1.675	12.8	134.6435	0.0000	SURCHARGED
600 minute winter	Att. Tank 8	585	6.785	1.700	15.0	119.8703	0.0000	SURCHARGED
30 minute summer	Att. Tank 4	21	8.085	0.220	66.3	8.6968	0.0000	OK
30 minute summer	75A	21	6.833	0.267	48.0	0.3024	0.0000	SURCHARGED
30 minute summer	Att. Tank 9	22	6.812	0.268	57.4	18.1424	0.0000	SURCHARGED
15 minute summer	26	1	7.416	0.000	0.0	0.0000	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute winter	49	21.000	Att. Tank 13	-0.1	-0.076	-0.005	0.0162	
240 minute winter	30A	3.014	30	12.4	0.189	0.057	4.6441	
600 minute winter	28A	3.017	28	10.9	0.213	0.050	2.6224	
600 minute winter	29	3.016	28A	12.2	0.291	0.056	2.6215	
15 minute summer	81	2.000	8	8.1	0.953	0.455	0.1076	
60 minute summer	Att. Tank 3	1.013	7	94.2	0.904	0.512	0.1913	
600 minute winter	Att. Tank 2	1.018	3	31.8	0.639	0.144	1.7525	
600 minute winter	Att. Tank 1	1.020	2	26.5	0.795	0.120	0.8207	
30 minute summer	14	1.006	13	97.6	0.873	1.017	4.7055	
600 minute winter	Att. Tank 5	23.000	28A	-3.2	0.035	-0.005	3.0892	
240 minute winter	Att. Tank 6	22.000	30A	-30.3	-0.833	-0.134	3.3263	
600 minute winter	Att. Tank 7	11.000	33A	-12.8	-0.183	-0.109	1.4465	
600 minute winter	Att. Tank 8	12.000	33A	-15.0	-0.269	-0.119	0.5852	
30 minute summer	Att. Tank 4	28.006	20	52.6	0.944	0.619	1.7887	
30 minute summer	75A	3.004	Att. Tank 9	48.2	1.872	0.925	0.0870	
30 minute summer	Att. Tank 9	3.005	37	51.3	1.386	1.056	0.8578	
15 minute summer	26	4.000	Att. Tank 10	0.0	0.000	0.000	0.0000	



Results for 30 year +45% CC Critical Storm Duration. Lowest mass balance: 99.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	25.01	12	8.780	0.307	38.7	0.3477	0.0000	SURCHARGED
15 minute summer	25.05	12	8.801	0.296	26.0	0.3348	0.0000	SURCHARGED
15 minute summer	25.04	12	8.772	0.361	27.8	0.4083	0.0000	SURCHARGED
15 minute summer	25	12	8.754	0.456	69.3	0.5161	0.0000	SURCHARGED
15 minute summer	24	12	8.691	0.504	70.6	0.5699	0.0000	SURCHARGED
30 minute summer	23	20	8.652	0.503	70.3	0.5684	0.0000	SURCHARGED
30 minute summer	22	21	8.520	0.584	93.5	0.6610	0.0000	SURCHARGED
30 minute summer	21	22	8.454	0.576	106.4	0.6515	0.0000	SURCHARGED
30 minute summer	20	23	8.325	0.627	95.6	0.7089	0.0000	SURCHARGED
30 minute summer	HW5	24	8.257	0.637	94.6	0.0000	0.0000	OK
30 minute summer	88	20	8.415	0.401	11.1	0.5734	0.0000	OK
30 minute summer	87	20	8.416	0.444	37.7	0.6351	0.0000	OK
30 minute summer	85	20	8.340	0.567	161.6	0.8118	0.0000	SURCHARGED
30 minute summer	HW6	24	8.253	0.633	159.0	0.0000	0.0000	OK
30 minute summer	HW4 (Western Basin)	24	8.220	0.600	173.1	70.8707	0.0000	SURCHARGED
30 minute summer	19	24	8.204	0.598	139.0	0.8554	0.0000	FLOOD RISK
30 minute summer	18	24	7.960	0.483	136.8	0.6909	0.0000	SURCHARGED
30 minute summer	17	24	7.888	0.503	127.4	0.7202	0.0000	SURCHARGED
30 minute summer	16	24	7.836	0.510	126.0	0.7301	0.0000	SURCHARGED
30 minute summer	15	24	7.691	0.439	126.0	0.6284	0.0000	OK
30 minute summer	13	25	7.420	0.282	126.0	0.4037	0.0000	OK
30 minute summer	12	25	7.362	0.233	126.0	0.3329	0.0000	OK
30 minute summer	11	25	6.392	0.136	126.0	0.1940	0.0000	OK
1440 minute winter	10	1440	5.406	0.617	18.0	0.8834	0.0000	SURCHARGED
1440 minute winter	9	1440	5.406	0.643	17.7	0.9206	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	25.01	28.000	25	38.4	0.833	0.451	2.0961	
15 minute summer	25.05	29.000	25.04	25.8	0.890	0.651	0.6381	
15 minute summer	25.04	29.001	25	24.1	0.914	0.607	0.2560	
15 minute summer	25	28.001	24	60.9	1.047	0.697	1.2560	
15 minute summer	24	28.002	23	65.5	1.109	0.772	0.4564	
30 minute summer	23	28.003	22	61.7	0.987	0.725	2.5485	
30 minute summer	22	28.004	21	92.1	1.308	1.082	0.6928	
30 minute summer	21	28.005	Att. Tank 4	104.8	1.634	1.212	0.1506	
30 minute summer	20	28.007	HW5	94.6	1.344	1.116	0.8550	
30 minute summer	88	25.000	87	10.6	0.130	0.066	2.6109	
30 minute summer	87	25.001	86	35.9	0.342	0.228	0.9257	
30 minute summer	85	25.003	84	155.4	0.981	0.977	1.4230	
30 minute summer	HW4 (Western Basin)	1.000	19	139.0	0.878	0.857	0.8692	
30 minute summer	19	1.001	18	136.8	0.897	1.425	8.2696	
30 minute summer	18	1.002	17	127.4	0.929	0.798	5.9047	
30 minute summer	17	1.003	16	124.6	0.787	0.782	3.7993	
30 minute summer	16	1.004	15	126.0	0.796	1.312	4.7254	
30 minute summer	15	1.005	14	126.0	0.805	0.769	0.5418	
30 minute summer	13	1.007	12	126.0	1.344	0.769	0.3243	
30 minute summer	12	1.008	11	126.0	2.066	0.461	2.6838	
30 minute summer	11	1.009	10	126.0	1.419	0.203	3.6979	
1440 minute winter	10	1.010	9	17.7	0.583	0.111	1.6700	
1440 minute winter	9	1.011	8	17.6	0.553	0.111	2.2060	



Results for 30 year +45% CC Critical Storm Duration. Lowest mass balance: 99.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	8	1440	5.406	0.677	19.0	0.9693	0.0000	SURCHARGED
1440 minute winter	7	1440	5.406	0.687	18.3	0.9836	0.0000	SURCHARGED
1440 minute winter	6	1440	5.406	0.729	19.8	1.0437	0.0000	SURCHARGED
720 minute winter	77	705	7.643	0.742	1.6	0.8394	0.0000	SURCHARGED
15 minute summer	78	10	7.745	0.059	18.8	0.0669	0.0000	OK
720 minute winter	33A	705	7.643	2.579	33.3	3.6901	0.0000	SURCHARGED
720 minute winter	75	705	7.643	1.034	11.8	1.1696	0.0000	SURCHARGED
15 minute summer	41	12	8.291	0.571	16.7	0.6463	0.0000	SURCHARGED
15 minute summer	40	12	8.280	0.623	15.1	0.7052	0.0000	SURCHARGED
15 minute summer	39	12	8.262	0.695	50.9	0.7863	0.0000	SURCHARGED
15 minute summer	38.02	10	8.212	0.137	24.6	0.1549	0.0000	OK
15 minute summer	38.01	12	8.166	0.468	31.1	0.5298	0.0000	SURCHARGED
15 minute summer	38	12	8.139	0.633	96.8	0.7156	0.0000	SURCHARGED
720 minute winter	37	705	7.643	1.363	19.2	1.5416	0.0000	SURCHARGED
720 minute winter	36	705	7.643	1.440	19.6	1.6286	0.0000	SURCHARGED
720 minute winter	35.02	705	7.643	0.091	1.6	0.1028	0.0000	OK
720 minute winter	35.01	705	7.643	0.927	4.5	1.0483	0.0000	SURCHARGED
15 minute summer	74	11	7.904	0.226	16.8	0.2561	0.0000	SURCHARGED
15 minute summer	73	11	7.798	0.607	43.7	0.6861	0.0000	SURCHARGED
720 minute winter	35	705	7.643	1.507	27.4	1.7043	0.0000	SURCHARGED
15 minute summer	70	10	7.863	0.113	41.1	0.1274	0.0000	OK
720 minute winter	69	705	7.643	0.960	3.9	1.0855	0.0000	SURCHARGED
720 minute winter	34	705	7.643	1.649	33.8	2.9134	0.0000	SURCHARGED
360 minute winter	57	352	6.532	0.806	7.2	0.9117	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute winter	8	1.012	Att. Tank 3	18.9	0.580	0.119	0.2616	
1440 minute winter	7	1.014	6	18.3	0.606	0.115	2.7095	
1440 minute winter	6	1.015	5	19.7	0.716	0.124	3.0985	
720 minute winter	77	3.000	76	1.6	0.315	0.040	0.7509	
15 minute summer	78	5.000	75	18.8	1.660	0.328	0.1181	
720 minute winter	33A	3.010	33	3.0	0.452	0.027	2.3689	
720 minute winter	75	3.003	75A	11.2	0.854	0.284	0.2936	
15 minute summer	41	6.000	40	15.1	0.813	0.381	0.4274	
15 minute summer	40	6.001	39	23.7	0.681	0.596	0.6068	
15 minute summer	39	6.002	38	46.8	1.237	1.177	0.4153	
15 minute summer	38.02	7.000	38.01	24.3	1.011	0.611	0.3581	
15 minute summer	38.01	7.001	38	29.2	1.104	0.307	0.2307	
15 minute summer	38	6.003	37	93.0	2.338	0.806	0.9406	
720 minute winter	37	3.006	36	19.0	0.763	0.269	1.3233	
720 minute winter	36	3.007	35	19.5	0.666	0.276	1.1580	
720 minute winter	35.02	8.000	35.01	1.6	0.676	0.015	0.5755	
720 minute winter	35.01	8.001	35	4.5	1.147	0.038	0.4020	
15 minute summer	74	9.000	73	15.7	1.256	0.455	0.2289	
15 minute summer	73	9.001	35	40.1	2.278	0.776	0.1912	
720 minute winter	35	3.008	34	27.1	0.867	0.383	1.1529	
15 minute summer	70	10.000	69	41.0	1.945	0.502	0.9658	
720 minute winter	69	10.001	34	3.8	1.241	0.032	0.4291	
720 minute winter	34	3.009	33A	33.3	0.817	0.302	1.4692	
360 minute winter	57	14.000	Att. Tank 12	7.0	0.879	0.080	0.1797	



Results for 30 year +45% CC Critical Storm Duration. Lowest mass balance: 99.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	66	352	6.532	0.661	5.8	0.7477	0.0000	SURCHARGED
360 minute winter	56	352	6.532	0.907	16.5	1.2980	0.0000	SURCHARGED
360 minute winter	55	352	6.532	1.310	13.4	1.8746	0.0000	SURCHARGED
15 minute summer	54.02	10	6.551	0.053	14.6	0.0604	0.0000	OK
360 minute winter	54.01	352	6.532	0.973	3.4	1.1003	0.0000	SURCHARGED
360 minute winter	54	352	6.532	1.481	18.4	2.1192	0.0000	SURCHARGED
360 minute winter	53	352	6.532	1.589	20.5	2.8075	0.0000	SURCHARGED
360 minute winter	33.02	352	6.532	0.153	3.3	0.1728	0.0000	OK
360 minute winter	33.01	352	6.532	1.087	6.2	1.2292	0.0000	SURCHARGED
360 minute winter	33	352	6.532	1.609	25.8	2.3022	0.0000	SURCHARGED
240 minute winter	48	236	7.155	0.791	5.2	0.8941	0.0000	SURCHARGED
240 minute winter	47	236	7.155	0.897	9.4	1.0140	0.0000	SURCHARGED
240 minute winter	46	236	7.155	1.004	19.7	1.1350	0.0000	SURCHARGED
30 minute summer	52	20	8.081	1.252	11.8	1.4159	0.0000	SURCHARGED
30 minute summer	51	20	8.078	1.422	57.3	1.6081	0.0000	SURCHARGED
30 minute summer	44	20	7.740	1.782	103.1	2.0152	0.0000	SURCHARGED
30 minute summer	42	20	7.985	2.579	36.4	2.9168	0.0000	SURCHARGED
360 minute winter	32	352	6.532	1.713	29.7	3.0263	0.0000	SURCHARGED
360 minute winter	31	352	6.531	1.761	35.2	3.1126	0.0000	SURCHARGED
360 minute winter	30	352	6.531	1.849	15.1	3.2673	0.0000	SURCHARGED
720 minute winter	28	945	5.634	1.054	11.1	1.8622	0.0000	SURCHARGED
1440 minute winter	5	1440	5.406	0.852	31.3	1.5061	0.0000	SURCHARGED
1440 minute winter	4	1440	5.406	0.894	30.9	1.5799	0.0000	SURCHARGED
1440 minute winter	3	1440	5.406	1.168	29.0	2.0639	0.0000	SURCHARGED
1440 minute winter	27	1440	5.406	0.745	2.1	0.8425	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute winter	66	13.000	65	5.6	0.641	0.140	0.3665	
360 minute winter	56	13.002	Att. Tank 11	16.5	0.757	0.147	0.3488	
360 minute winter	55	13.004	54	13.1	0.525	0.118	3.4404	
15 minute summer	54.02	17.000	54.01	14.5	1.536	0.124	0.4393	
360 minute winter	54.01	17.001	54	3.0	0.762	0.026	0.3210	
360 minute winter	54	13.005	53	18.1	0.332	0.096	5.0149	
360 minute winter	53	13.006	33	20.2	0.411	0.127	3.2392	
360 minute winter	33.02	18.000	33.01	3.3	0.713	0.028	0.6392	
360 minute winter	33.01	18.001	33	5.9	0.815	0.059	0.3321	
360 minute winter	33	3.011	32	25.6	0.525	0.160	1.8522	
240 minute winter	48	20.000	47	5.0	0.574	0.125	0.7189	
240 minute winter	47	20.001	46	9.1	0.467	0.134	0.2488	
240 minute winter	46	20.002	Att. Tank 13	19.5	1.320	0.494	0.1442	
30 minute summer	52	19.000	51	10.1	0.180	0.118	2.0706	
30 minute summer	51	19.001	50	48.9	1.302	0.494	2.5344	
30 minute summer	44	20.004	43	-67.9	-1.708	-1.704	0.3495	
30 minute summer	42	19.004	32	16.4	1.061	0.090	0.9532	
360 minute winter	32	3.012	31	29.4	0.407	0.135	5.1599	
360 minute winter	31	3.013	30A	34.9	0.337	0.161	4.7086	
360 minute winter	30	3.015	29	14.8	0.394	0.068	5.5309	
720 minute winter	28	3.018	5	10.9	0.369	0.050	2.7494	
1440 minute winter	5	1.016	4	30.7	0.773	0.141	4.4900	
1440 minute winter	4	1.017	Att. Tank 2	30.5	0.936	0.089	0.3016	
1440 minute winter	3	1.019	Att. Tank 1	28.9	0.660	0.142	0.3621	
1440 minute winter	27	24.000	2	2.1	0.490	0.052	0.9062	



Results for 30 year +45% CC Critical Storm Duration. Lowest mass balance: 99.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	2	1440	5.406	1.329	24.8	2.3482	0.0000	SURCHARGED
1440 minute winter	HW3	1440	5.406	1.406	24.7	0.0000	0.0000	OK
1440 minute winter	HW2 (Eastern Basin)	1440	5.392	1.392	19.3	381.8752	0.0000	SURCHARGED
1440 minute winter	1	1440	5.386	1.617	15.8	2.8567	0.0000	SURCHARGED
15 minute summer	HW1	1	3.110	0.360	13.2	0.0000	0.0000	OK
15 minute summer	91	12	8.692	0.288	2.3	0.3263	0.0000	SURCHARGED
15 minute summer	86.01	10	8.554	0.094	12.1	0.1068	0.0000	OK
30 minute summer	86	20	8.414	0.456	115.1	0.6522	0.0000	SURCHARGED
30 minute summer	84	20	8.303	0.552	155.4	0.7894	0.0000	SURCHARGED
30 minute summer	83	22	8.267	0.550	153.8	0.7872	0.0000	SURCHARGED
30 minute summer	82	23	8.255	0.581	151.6	0.8321	0.0000	SURCHARGED
30 minute summer	89	23	8.256	0.179	1.5	0.2020	0.0000	SURCHARGED
720 minute winter	Att. Tank 10	705	7.643	0.878	7.9	61.9088	0.0000	SURCHARGED
720 minute winter	76	705	7.643	0.853	4.6	0.9649	0.0000	SURCHARGED
360 minute winter	Att. Tank 12	352	6.532	0.822	21.1	100.8428	0.0000	SURCHARGED
360 minute winter	Att. Tank 11	352	6.532	1.262	16.5	60.5025	0.0000	SURCHARGED
360 minute winter	65	352	6.532	0.715	5.6	0.8087	0.0000	SURCHARGED
360 minute winter	62	352	6.532	0.321	1.2	0.3630	0.0000	SURCHARGED
360 minute winter	64	352	6.532	0.036	0.0	0.0057	0.0000	OK
30 minute summer	50	20	8.004	1.635	48.9	1.8496	0.0000	SURCHARGED
30 minute summer	43	20	7.972	2.141	67.4	2.4217	0.0000	SURCHARGED
240 minute winter	Att. Tank 13	236	7.155	1.025	42.3	201.2746	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute winter	2	1.021	HW3	24.7	0.754	0.075	2.4459	
1440 minute winter	HW2 (Eastern Basin)	31.000	1	15.8	0.533	0.191	0.3671	
1440 minute winter	1	31.001	HW1	13.2	0.469	0.118	0.5226	2846.0
15 minute summer	91	30.000	24	-2.3	0.244	-0.127	0.1174	
15 minute summer	86.01	26.000	86	11.9	1.051	0.671	0.2687	
30 minute summer	86	25.002	85	99.5	0.786	0.621	11.8128	
30 minute summer	84	25.004	83	153.8	0.974	0.957	2.1515	
30 minute summer	83	25.005	82	151.6	0.961	0.948	2.7509	
30 minute summer	82	25.006	HW6	146.8	0.938	0.914	1.0779	
30 minute summer	89	27.000	82	-1.5	-0.179	-0.087	0.1819	
720 minute winter	Att. Tank 10	3.002	75	4.5	0.418	0.113	1.0569	
720 minute winter	76	3.001	Att. Tank 10	4.6	0.671	0.114	0.1648	
360 minute winter	Att. Tank 12	14.001	56	-14.8	0.558	-0.212	0.1768	
360 minute winter	Att. Tank 11	13.003	55	8.1	0.437	0.073	1.7046	
360 minute winter	65	13.001	56	5.3	0.657	0.134	0.2870	
360 minute winter	62	16.000	55	1.2	0.682	0.032	0.3117	
360 minute winter	64	15.000	Att. Tank 11	0.0	0.037	0.001	0.0036	
30 minute summer	50	19.002	43	47.6	0.947	0.191	0.7572	
30 minute summer	43	19.003	42	-27.5	0.424	-0.247	2.9831	
240 minute winter	Att. Tank 13	20.003	44	-22.8	-0.573	-0.574	1.1623	



Results for 30 year +45% CC Critical Storm Duration. Lowest mass balance: 99.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	49	236	7.155	0.625	0.2	0.0993	0.0000	SURCHARGED
360 minute winter	30A	352	6.531	1.805	34.9	3.1900	0.0000	SURCHARGED
720 minute winter	28A	945	5.634	1.029	14.2	1.8183	0.0000	SURCHARGED
720 minute winter	29	945	5.634	1.004	14.3	1.7743	0.0000	SURCHARGED
1440 minute winter	81	1440	5.406	0.250	0.7	0.2831	0.0000	SURCHARGED
1440 minute winter	Att. Tank 3	1440	5.406	0.681	18.9	38.4272	0.0000	SURCHARGED
1440 minute winter	Att. Tank 2	1440	5.406	1.151	30.5	86.5619	0.0000	SURCHARGED
1440 minute winter	Att. Tank 1	1440	5.406	1.171	28.9	145.2926	0.0000	SURCHARGED
30 minute summer	14	24	7.669	0.426	126.0	0.6102	0.0000	OK
720 minute winter	Att. Tank 5	945	5.634	0.634	13.0	193.6896	0.0000	SURCHARGED
360 minute winter	Att. Tank 6	352	6.531	1.171	32.9	220.2068	0.0000	SURCHARGED
720 minute winter	Att. Tank 7	705	7.643	2.533	16.4	203.5547	0.0000	SURCHARGED
720 minute winter	Att. Tank 8	705	7.643	2.558	17.4	180.3192	0.0000	SURCHARGED
30 minute summer	Att. Tank 4	22	8.434	0.569	104.8	22.4742	0.0000	SURCHARGED
720 minute winter	75A	705	7.643	1.077	11.2	1.2182	0.0000	SURCHARGED
720 minute winter	Att. Tank 9	705	7.643	1.099	11.2	74.3843	0.0000	SURCHARGED
720 minute winter	26	705	7.643	0.227	0.1	0.0361	0.0000	SURCHARGED
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute winter	49	21.000	Att. Tank 13	-0.2	-0.066	-0.014	0.0352	
360 minute winter	30A	3.014	30	13.9	0.174	0.064	4.6441	
720 minute winter	28A	3.017	28	10.8	0.209	0.049	2.6224	
720 minute winter	29	3.016	28A	14.2	0.294	0.065	2.6226	
1440 minute winter	81	2.000	8	0.7	0.487	0.039	0.2232	
1440 minute winter	Att. Tank 3	1.013	7	17.9	0.598	0.097	0.2907	
1440 minute winter	Att. Tank 2	1.018	3	26.8	0.592	0.122	1.7525	
1440 minute winter	Att. Tank 1	1.020	2	22.9	0.731	0.104	0.8207	
30 minute summer	14	1.006	13	126.0	0.941	1.313	5.5255	
720 minute winter	Att. Tank 5	23.000	28A	-13.0	-0.084	-0.020	4.9616	
360 minute winter	Att. Tank 6	22.000	30A	-30.5	-0.540	-0.135	3.3263	
720 minute winter	Att. Tank 7	11.000	33A	-16.4	-0.209	-0.139	1.4465	
720 minute winter	Att. Tank 8	12.000	33A	-17.4	-0.320	-0.139	0.5852	
30 minute summer	Att. Tank 4	28.006	20	65.7	0.934	0.774	2.0015	
720 minute winter	75A	3.004	Att. Tank 9	11.2	0.970	0.215	0.0870	
720 minute winter	Att. Tank 9	3.005	37	10.5	0.946	0.216	0.8578	
720 minute winter	26	4.000	Att. Tank 10	-0.1	-0.103	-0.007	0.0176	



Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	1	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.200
CV	1.000	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	x
Maximum Rainfall (mm/hr)	100.0		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
25.01	0.054	5.00	9.373	1200	493995.300	104221.737	0.900
25.05	0.037	5.00	9.533	1200	493993.287	104170.000	1.028
25.04	0.003	5.00	9.663	1200	493995.623	104185.874	1.252
25	0.009	5.00	9.488	1200	493993.689	104192.015	1.190
24	0.014	5.00	9.341	1200	493975.856	104192.346	1.154
23	0.011	5.00	9.447	1200	493975.736	104185.866	1.298
22	0.049	5.00	9.505	1200	493971.155	104149.967	1.569
21	0.023	5.00	9.407	1200	493970.848	104140.134	1.529
20	0.067	5.00	8.989	1200	493973.124	104099.135	1.291
HW5			8.620		493969.116	104087.675	1.000
88	0.016	5.00	9.264	1350	494040.373	104163.015	1.250
87	0.046	5.00	9.425	1350	494030.789	104148.971	1.453
85	0.094	5.00	8.852	1350	494019.067	104069.426	1.079
HW6	0.020	5.00	8.620		493979.285	104074.383	1.000
HW4 (Western Basin)		5.00	8.620		493979.497	104070.848	1.000
19			8.401	1350	493983.470	104067.065	0.795
18			8.899	1350	494034.607	104056.617	1.422
17			9.310	1350	494071.745	104053.517	1.925
16	0.010	5.00	9.257	1350	494095.230	104048.676	1.931
15			9.023	1350	494124.835	104044.353	1.771
13			8.377	1350	494169.412	104035.807	1.239
12			8.380	1350	494172.500	104037.377	1.251
11			7.367	1350	494215.676	104030.658	1.111
10			5.900	1350	494255.057	104022.816	1.111
9			5.900	1350	494259.407	104032.417	1.137
8	0.024	5.00	6.053	1350	494254.182	104045.322	1.324
7	0.012	5.00	5.953	1350	494257.970	104060.337	1.234
6	0.050	5.00	5.889	1350	494258.509	104077.430	1.212
77	0.029	5.00	8.626	1200	494152.040	104191.495	1.725
78	0.026	5.00	9.336	1200	494072.383	104215.523	1.650
33A			8.954	1350	494096.383	104129.904	3.890
75	0.106	5.00	9.365	1200	494073.738	104205.794	2.756
41	0.022	5.00	9.445	1200	494030.662	104217.744	1.725
40			9.521	1200	494030.065	104207.014	1.864
39	0.057	5.00	9.652	1200	494024.152	104192.948	2.085
38.02	0.035	5.00	9.500	1200	494017.548	104166.099	1.425
38.01	0.009	5.00	9.598	1200	494022.905	104178.012	1.900
38	0.032	5.00	9.442	1200	494026.286	104182.726	1.936
37	0.015	5.00	9.520	1200	494047.238	104171.756	3.240
36	0.012	5.00	9.365	1200	494061.573	104159.605	3.162
35.02	0.028	5.00	9.277	1200	494090.810	104171.913	1.725



Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
35.01	0.055	5.00	9.387	1200	494076.888	104156.176	2.671
74	0.023	5.00	9.328	1200	494063.229	104126.159	1.650
73	0.043	5.00	9.242	1200	494065.122	104139.023	2.051
35	0.005	5.00	9.185	1200	494072.320	104147.159	3.049
70	0.058	5.00	9.475	1200	494072.020	104084.998	1.725
69	0.014	5.00	9.285	1200	494078.377	104128.196	2.602
34	0.053	5.00	9.044	1500	494084.955	104136.747	3.050
57	0.075	5.00	7.526	1200	494204.915	104144.835	1.800
66	0.059	5.00	7.195	1200	494216.574	104192.424	1.324
56	0.104	5.00	7.326	1350	494209.824	104178.542	1.701
55	0.058	5.00	8.461	1350	494158.188	104188.655	3.239
54.02	0.020	5.00	8.448	1200	494170.921	104154.735	1.950
54.01	0.014	5.00	8.753	1200	494153.698	104162.244	3.194
54	0.045	5.00	8.684	1350	494145.956	104159.962	3.633
53	0.031	5.00	8.924	1500	494124.067	104137.100	3.981
33.02	0.035	5.00	9.083	1200	494104.494	104096.934	2.704
33.01	0.030	5.00	9.077	1200	494107.212	104115.406	3.632
33			8.979	1350	494114.810	104118.872	4.056
48	0.039	5.00	7.898	1200	494191.630	104060.909	1.534
47	0.034	5.00	8.211	1200	494188.999	104043.026	1.953
46	0.078	5.00	8.207	1200	494183.456	104040.128	2.056
52	0.008	5.00	8.986	1200	494041.009	104060.275	2.157
51	0.087	5.00	9.250	1200	494070.225	104056.959	2.594
44	0.067	5.00	9.150	1200	494113.438	104050.600	3.192
42	0.056	5.00	8.983	1200	494119.534	104101.300	3.577
32			9.018	1500	494125.232	104113.578	4.199
31	0.077	5.00	8.609	1500	494148.813	104109.779	3.839
30	0.109	5.00	7.786	1500	494191.397	104101.977	3.104
28	0.010	5.00	6.366	1500	494240.696	104094.421	1.786
5	0.038	5.00	6.036	1500	494253.287	104096.276	1.482
4	0.006	5.00	5.794	1500	494255.858	104116.900	1.282
3	0.073	5.00	6.212	1500	494261.589	104141.756	1.974
27	0.067	5.00	6.170	1200	494271.782	104190.118	1.509
2	0.004	5.00	6.309	1500	494271.623	104167.333	2.232
HW3			5.900		494282.945	104167.254	1.900
HW2 (Eastern Basin)	0.049	5.00	5.900		494284.745	104185.349	1.900
1			6.000	1500	494283.550	104194.501	2.231
HW1			3.250		494305.636	104198.080	0.500
91		5.00	9.270	1200	493969.191	104192.470	0.866
86.01	0.016	5.00	9.383	1200	494049.944	104140.240	0.923
86	0.112	5.00	9.510	1350	494029.936	104143.184	1.552
84			8.704	1350	494010.551	104066.574	0.953
83			8.627	1350	493997.353	104069.767	0.910
82			8.781	1350	493983.258	104079.905	1.107
89		5.00	8.907	1200	493978.036	104088.822	0.830
Att. Tank 10			8.972		494114.636	104198.325	2.207
76	0.055	5.00	8.820	1200	494133.467	104194.887	2.030
Att. Tank 12			7.411		494207.408	104161.957	1.701
Att. Tank 11			7.801		494184.640	104183.474	2.531
65			7.235	1200	494215.245	104183.304	1.418
62	0.012	5.00	8.326	1200	494166.157	104204.463	2.115



Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
64		5.00	7.532	450	494193.987	104180.225	1.036
50			9.205	1200	494105.831	104051.719	2.836
43			9.267	1200	494113.367	104059.389	3.436
Att. Tank 13			8.585		494155.213	104044.453	2.455
49		5.00	8.504	450	494155.230	104041.418	1.974
30A			8.195	1500	494170.252	104105.851	3.469
28A			6.782	1500	494228.668	104096.059	2.177
29			7.184	1500	494216.639	104097.696	2.554
81	0.021	5.00	6.140	1200	494251.081	104033.029	0.984
Att. Tank 3			6.017		494256.054	104052.740	1.292
Att. Tank 2			5.937		494257.969	104126.055	1.682
Att. Tank 1			6.391		494266.218	104153.556	2.156
14			8.987	1350	494127.344	104041.965	1.744
Att. Tank 5		5.00	6.085		494235.682	104117.929	1.085
Att. Tank 6	0.034	5.00	7.900		494171.101	104119.115	2.540
Att. Tank 7		5.00	8.942		494106.164	104141.373	3.832
Att. Tank 8		5.00	9.209		494090.131	104124.922	4.124
Att. Tank 4			9.334		493971.257	104132.757	1.469
75A			9.435	1200	494069.204	104199.970	2.869
Att. Tank 9			9.550		494062.472	104191.705	3.006
26		5.00	8.917	450	494117.517	104196.402	1.501

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
28.000	25.01	25	29.766	0.600	8.473	8.298	0.175	170.1	300	5.41	36.2
29.000	25.05	25.04	16.045	0.600	8.505	8.411	0.094	170.7	225	5.27	36.6
29.001	25.04	25	6.438	0.600	8.411	8.373	0.038	169.4	225	5.38	36.3
28.001	25	24	17.836	0.600	8.298	8.187	0.111	160.7	300	5.65	35.6
28.002	24	23	6.481	0.600	8.187	8.149	0.038	170.6	300	5.74	35.4
28.003	23	22	36.190	0.600	8.149	7.936	0.213	169.9	300	6.24	34.1
28.004	22	21	9.838	0.600	7.936	7.878	0.058	169.6	300	6.38	33.8
28.005	21	Att. Tank 4	2.139	0.600	7.878	7.865	0.013	164.5	300	6.41	33.7
28.007	20	HW5	12.141	0.600	7.698	7.627	0.071	171.0	300	6.97	32.4

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
28.000	1.202	85.0	7.1	0.600	0.890	0.054	0.0	58	0.737
29.000	0.998	39.7	4.9	0.803	1.027	0.037	0.0	53	0.682
29.001	1.001	39.8	5.3	1.027	0.890	0.040	0.0	55	0.697
28.001	1.237	87.5	13.3	0.890	0.854	0.104	0.0	79	0.901
28.002	1.201	84.9	15.0	0.854	0.998	0.117	0.0	85	0.913
28.003	1.203	85.0	15.8	0.998	1.269	0.129	0.0	87	0.925
28.004	1.204	85.1	21.7	1.269	1.229	0.178	0.0	103	1.011
28.005	1.223	86.4	24.5	1.229	1.169	0.201	0.0	109	1.055
28.007	1.199	84.8	31.3	0.991	0.693	0.268	0.0	126	1.112



Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
25.000	88	87	17.003	0.600	8.014	7.972	0.042	404.8	450	5.28	36.6
25.001	87	86	5.850	0.600	7.972	7.958	0.014	417.8	450	5.38	36.3
25.003	85	84	8.981	0.600	7.773	7.751	0.022	408.2	450	6.77	32.9
1.000	HW4 (Western Basin)	19	5.486	0.600	7.620	7.606	0.014	391.9	450	5.09	37.1
1.001	19	18	52.193	15.000	7.606	7.477	0.129	404.6	450	6.53	33.4
1.002	18	17	37.267	0.600	7.477	7.385	0.092	405.1	450	7.15	32.0
1.003	17	16	23.979	0.600	7.385	7.326	0.059	406.4	450	7.55	31.2
1.004	16	15	29.919	15.000	7.326	7.252	0.074	404.3	450	8.37	29.7
1.005	15	14	3.464	0.600	7.252	7.243	0.009	384.9	450	8.43	29.6
1.007	13	12	3.464	0.600	7.138	7.129	0.009	384.9	450	9.66	27.6
1.008	12	11	43.696	15.000	7.129	6.256	0.873	50.1	450	10.08	26.9
1.009	11	10	40.154	0.600	6.256	4.789	1.467	27.4	450	10.26	26.7
1.010	10	9	10.540	0.600	4.789	4.763	0.026	405.4	450	10.43	26.5
1.011	9	8	13.923	0.600	4.763	4.729	0.034	409.5	450	10.66	26.1
1.012	8	Att. Tank 3	1.651	0.600	4.729	4.725	0.004	412.8	450	10.69	26.1
1.014	7	6	17.101	0.600	4.719	4.677	0.042	407.2	450	11.00	25.7
1.015	6	5	19.556	0.600	4.677	4.629	0.048	407.4	450	11.33	25.3
3.000	77	76	18.880	0.600	6.901	6.790	0.111	170.1	225	5.31	36.5
5.000	78	75	9.823	0.600	7.686	6.684	1.002	9.8	150	5.05	37.2
3.010	33A	33	21.477	0.600	5.064	4.998	0.066	325.4	375	7.71	30.9
3.003	75	75A	7.381	0.600	6.609	6.566	0.043	171.6	225	5.95	34.8

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
25.000	1.004	159.7	2.1	0.800	1.003	0.016	0.0	36	0.360
25.001	0.988	157.1	8.2	1.003	1.102	0.062	0.0	69	0.528
25.003	1.000	159.0	33.9	0.629	0.503	0.285	0.0	140	0.800
1.000	1.021	162.3	0.0	0.550	0.345	0.000	0.0	0	0.000
1.001	0.604	96.0	0.0	0.345	0.972	0.000	0.0	0	0.000
1.002	1.004	159.6	0.0	0.972	1.475	0.000	0.0	0	0.000
1.003	1.002	159.4	0.0	1.475	1.481	0.000	0.0	0	0.000
1.004	0.604	96.0	1.0	1.481	1.321	0.010	0.0	36	0.180
1.005	1.030	163.8	1.0	1.321	1.294	0.010	0.0	25	0.288
1.007	1.030	163.8	1.0	0.789	0.801	0.010	0.0	24	0.281
1.008	1.717	273.1	0.9	0.801	0.661	0.010	0.0	22	0.338
1.009	3.897	619.8	0.9	0.661	0.661	0.010	0.0	13	0.705
1.010	1.003	159.6	0.9	0.661	0.687	0.010	0.0	24	0.273
1.011	0.998	158.8	0.9	0.687	0.874	0.010	0.0	24	0.272
1.012	0.994	158.1	5.2	0.874	0.842	0.055	0.0	55	0.462
1.014	1.001	159.2	6.2	0.784	0.762	0.066	0.0	60	0.493
1.015	1.001	159.2	10.7	0.762	0.957	0.117	0.0	78	0.575
3.000	0.999	39.7	3.9	1.500	1.805	0.029	0.0	47	0.636
5.000	3.236	57.2	3.6	1.500	2.531	0.026	0.0	25	1.815
3.010	0.999	110.3	75.7	3.515	3.606	0.678	0.0	229	1.073
3.003	0.995	39.6	27.3	2.531	2.644	0.217	0.0	138	1.071



Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
6.000	41	40	10.747	0.600	7.720	7.657	0.063	170.6	225	5.18	36.9
6.001	40	39	15.258	0.600	7.657	7.567	0.090	169.5	225	5.43	36.2
6.002	39	38	10.442	0.600	7.567	7.506	0.061	170.0	225	5.61	35.7
7.000	38.02	38.01	13.062	0.600	8.075	7.998	0.077	169.6	225	5.22	36.8
7.001	38.01	38	5.801	0.600	7.698	7.506	0.192	30.2	225	5.26	36.7
6.003	38	37	23.650	0.600	7.506	6.355	1.151	20.5	225	5.74	35.4
3.006	37	36	18.792	0.600	6.280	6.203	0.077	244.1	300	6.58	33.3
3.007	36	35	16.444	0.600	6.203	6.136	0.067	245.4	300	6.86	32.7
8.000	35.02	35.01	21.011	0.600	7.552	6.716	0.836	25.1	225	5.13	37.0
8.001	35.01	35	10.108	0.600	6.716	6.211	0.505	20.0	225	5.19	36.8
9.000	74	73	13.003	0.600	7.678	7.191	0.487	26.7	150	5.11	37.0
9.001	73	35	10.863	0.600	7.191	6.286	0.905	12.0	150	5.17	36.9
3.008	35	34	16.372	0.600	6.136	6.069	0.067	244.4	300	7.13	32.1
10.000	70	69	43.663	0.600	7.750	6.683	1.067	40.9	225	5.35	36.4
10.001	69	34	10.788	0.600	6.683	6.144	0.539	20.0	225	5.42	36.2
3.009	34	33A	13.320	0.600	5.994	5.953	0.041	324.9	375	7.35	31.6
14.000	57	Att. Tank 12	2.552	0.600	5.726	5.710	0.016	159.5	300	5.03	37.3
13.000	66	65	9.216	0.600	5.871	5.817	0.054	170.7	225	5.15	36.9
13.002	56	Att. Tank 11	3.162	0.600	5.625	5.615	0.010	316.2	375	5.33	36.5
13.004	55	54	31.192	0.600	5.222	5.126	0.096	324.9	375	6.10	34.4
17.000	54.02	54.01	18.789	0.600	6.498	5.559	0.939	20.0	225	5.11	37.1
17.001	54.01	54	8.071	0.600	5.559	5.155	0.404	20.0	225	5.15	36.9
13.005	54	53	31.651	0.600	5.051	4.943	0.108	293.1	450	6.55	33.4
13.006	53	33	20.444	0.600	4.973	4.923	0.050	408.9	450	6.89	32.6

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
6.000	0.998	39.7	3.0	1.500	1.639	0.022	0.0	42	0.592
6.001	1.001	39.8	2.9	1.639	1.860	0.022	0.0	41	0.586
6.002	1.000	39.7	10.3	1.860	1.711	0.080	0.0	78	0.841
7.000	1.001	39.8	4.7	1.200	1.375	0.035	0.0	52	0.677
7.001	2.389	95.0	5.9	1.675	1.711	0.044	0.0	37	1.330
6.003	2.899	115.3	20.0	1.711	2.940	0.156	0.0	63	2.183
3.006	1.002	70.8	46.7	2.940	2.862	0.388	0.0	178	1.067
3.007	0.999	70.6	47.1	2.862	2.749	0.400	0.0	180	1.067
8.000	2.620	104.2	3.7	1.500	2.446	0.028	0.0	29	1.237
8.001	2.938	116.8	11.0	2.446	2.749	0.083	0.0	46	1.857
9.000	1.956	34.6	3.0	1.500	1.901	0.023	0.0	30	1.213
9.001	2.924	51.7	8.7	1.901	2.749	0.065	0.0	41	2.175
3.008	1.001	70.8	64.0	2.749	2.675	0.552	0.0	225	1.129
10.000	2.051	81.5	7.6	1.500	2.377	0.058	0.0	46	1.295
10.001	2.938	116.8	9.5	2.377	2.675	0.072	0.0	43	1.772
3.009	0.999	110.4	77.5	2.675	2.626	0.678	0.0	232	1.078
14.000	1.242	87.8	10.1	1.500	1.401	0.075	0.0	68	0.834
13.000	0.998	39.7	7.8	1.099	1.193	0.059	0.0	67	0.777
13.002	1.013	111.9	31.3	1.326	1.811	0.238	0.0	135	0.873
13.004	0.999	110.4	38.3	2.864	3.183	0.308	0.0	152	0.911
17.000	2.938	116.8	2.6	1.725	2.969	0.020	0.0	23	1.220
17.001	2.940	116.9	4.5	2.969	3.304	0.034	0.0	30	1.442
13.005	1.182	188.0	46.7	3.183	3.531	0.387	0.0	152	0.988
13.006	0.999	158.9	49.2	3.501	3.606	0.418	0.0	171	0.884



Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
18.000	33.02	33.01	18.671	0.600	6.379	5.445	0.934	20.0	225	5.11	37.1
18.001	33.01	33	8.351	0.600	5.445	5.148	0.297	28.1	225	5.16	36.9
3.011	33	32	11.690	0.600	4.923	4.894	0.029	403.1	450	7.91	30.5
20.000	48	47	18.076	0.600	6.364	6.258	0.106	170.5	225	5.30	36.5
20.001	47	46	6.255	0.600	6.258	6.151	0.107	58.5	225	5.36	36.4
19.000	52	51	29.404	0.600	6.829	6.656	0.173	170.0	300	5.41	36.3
19.001	51	50	35.990	0.600	6.656	6.369	0.287	125.4	300	5.84	35.1
20.004	44	43	8.789	0.600	5.958	5.906	0.052	169.0	225	6.06	34.5
19.004	42	32	13.536	0.600	5.406	5.044	0.362	37.4	300	6.59	33.3
3.012	32	31	23.885	0.600	4.819	4.770	0.049	487.5	525	8.30	29.8
3.013	31	30A	21.796	0.600	4.770	4.726	0.044	495.4	525	8.66	29.1
3.015	30	29	25.602	0.600	4.682	4.630	0.052	492.4	525	9.45	27.9
3.018	28	5	12.727	0.600	4.580	4.554	0.026	489.5	525	10.06	27.0
1.016	5	4	20.784	0.600	4.554	4.512	0.042	490.0	525	11.67	24.9
1.017	4	Att. Tank 2	1.396	0.600	4.512	4.505	0.007	199.4	525	11.69	24.9
1.019	3	Att. Tank 1	1.676	0.600	4.238	4.235	0.003	558.7	525	11.85	24.7
24.000	27	2	22.786	0.600	4.661	4.527	0.134	170.0	225	5.38	36.3
1.021	2	HW3	11.322	0.600	4.077	4.025	0.052	217.7	525	12.04	24.5
31.000	HW2 (Eastern Basin)	1	9.230	0.600	4.000	3.769	0.231	40.0	225	5.07	37.1
31.001	1	HW1	22.374	0.600	3.769	2.750	1.019	22.0	225	5.21	36.8
30.000	91	24	6.666	0.600	8.404	8.337	0.067	99.5	150	5.11	37.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
18.000	2.939	116.9	4.7	2.479	3.407	0.035	0.0	30	1.442
18.001	2.476	98.5	8.6	3.407	3.606	0.064	0.0	44	1.529
3.011	1.006	160.0	127.9	3.606	3.674	1.160	0.0	305	1.113
20.000	0.998	39.7	5.2	1.309	1.728	0.039	0.0	55	0.695
20.001	1.714	68.1	9.6	1.728	1.831	0.073	0.0	57	1.217
19.000	1.203	85.0	1.0	1.857	2.294	0.008	0.0	23	0.406
19.001	1.402	99.1	11.9	2.294	2.536	0.094	0.0	70	0.956
20.004	1.003	39.9	27.2	2.967	3.136	0.218	0.0	137	1.077
19.004	2.579	182.3	44.2	3.277	3.674	0.367	0.0	100	2.135
3.012	1.008	218.1	164.4	3.674	3.314	1.528	0.0	342	1.102
3.013	0.999	216.3	169.0	3.314	2.944	1.604	0.0	350	1.100
3.015	1.002	217.0	176.0	2.579	2.029	1.747	0.0	360	1.111
3.018	1.005	217.6	171.2	1.261	0.957	1.757	0.0	352	1.109
1.016	1.005	217.5	172.0	0.957	0.757	1.912	0.0	354	1.109
1.017	1.582	342.5	172.5	0.757	0.907	1.919	0.0	264	1.585
1.019	0.940	203.6	177.6	1.449	1.631	1.991	0.0	382	1.054
24.000	1.000	39.7	8.8	1.284	1.557	0.067	0.0	72	0.806
1.021	1.514	327.7	182.3	1.707	1.350	2.062	0.0	280	1.552
31.000	2.074	82.5	6.6	1.675	2.006	0.049	0.0	43	1.250
31.001	2.804	111.5	6.6	2.006	0.275	0.049	0.0	36	1.540
30.000	1.007	17.8	0.0	0.716	0.854	0.000	0.0	0	0.000



Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
26.000	86.01	86	20.223	0.600	8.460	8.258	0.202	100.1	150	5.34	36.4
25.002	86	85	74.555	0.600	7.958	7.773	0.185	403.0	450	6.62	33.2
25.004	84	83	13.579	0.600	7.751	7.717	0.034	399.4	450	6.99	32.3
25.005	83	82	17.362	0.600	7.717	7.674	0.043	403.8	450	7.28	31.8
25.006	82	HW6	6.803	0.600	7.674	7.657	0.017	400.2	450	7.39	31.5
27.000	89	82	10.334	0.600	8.077	7.974	0.103	100.3	150	5.17	36.9
3.001	76	Att. Tank 10	4.143	0.600	6.790	6.765	0.025	165.7	225	5.38	36.3
3.002	Att. Tank 10	75	26.574	0.600	6.765	6.609	0.156	170.3	225	5.83	35.1
14.001	Att. Tank 12	56	2.510	0.600	5.710	5.700	0.010	251.0	300	5.08	37.1
13.001	65	56	7.216	0.600	5.817	5.775	0.042	171.8	225	5.27	36.6
13.003	Att. Tank 11	55	15.455	0.600	5.270	5.222	0.048	322.0	375	5.58	35.8
16.000	62	55	17.703	0.600	6.211	5.447	0.764	23.2	150	5.14	37.0
15.000	64	Att. Tank 11	1.000	0.600	6.496	6.490	0.006	166.7	150	5.02	37.3
19.002	50	43	10.753	0.600	6.369	5.831	0.538	20.0	300	5.89	35.0
21.000	49	Att. Tank 13	2.000	0.600	6.530	6.510	0.020	100.0	150	5.03	37.3
20.003	Att. Tank 13	44	29.225	0.600	6.130	5.958	0.172	169.9	225	5.91	34.9
19.003	43	42	42.362	0.600	5.831	5.406	0.425	99.7	300	6.51	33.5
3.016	29	28A	12.140	0.600	4.630	4.605	0.025	485.6	525	9.65	27.6
3.017	28A	28	12.139	0.600	4.605	4.580	0.025	485.6	525	9.85	27.3
3.014	30A	30	21.497	0.600	4.726	4.682	0.044	488.6	525	9.02	28.5
2.000	81	8	12.678	0.600	5.156	5.029	0.127	99.8	150	5.21	36.8
1.013	Att. Tank 3	7	1.835	0.600	4.725	4.719	0.006	305.8	450	10.72	26.1

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
26.000	1.004	17.7	2.1	0.773	1.102	0.016	0.0	35	0.683
25.002	1.006	160.0	22.9	1.102	0.629	0.191	0.0	114	0.720
25.004	1.011	160.8	33.3	0.503	0.460	0.285	0.0	138	0.804
25.005	1.005	159.9	32.7	0.460	0.657	0.285	0.0	138	0.797
25.006	1.010	160.6	32.5	0.657	0.513	0.285	0.0	137	0.798
27.000	1.003	17.7	0.0	0.680	0.657	0.000	0.0	0	0.000
3.001	1.013	40.3	11.1	1.805	1.982	0.085	0.0	80	0.867
3.002	0.999	39.7	10.8	1.982	2.531	0.085	0.0	80	0.850
14.001	0.988	69.8	10.0	1.401	1.326	0.075	0.0	76	0.707
13.001	0.994	39.5	7.8	1.193	1.326	0.059	0.0	67	0.775
13.003	1.004	110.9	30.7	2.156	2.864	0.238	0.0	134	0.862
16.000	2.101	37.1	1.6	1.965	2.864	0.012	0.0	21	1.054
15.000	0.775	13.7	0.0	0.886	1.161	0.000	0.0	0	0.000
19.002	3.532	249.7	11.9	2.536	3.136	0.094	0.0	44	1.844
21.000	1.005	17.8	0.0	1.824	1.925	0.000	0.0	0	0.000
20.003	1.000	39.8	19.1	2.230	2.967	0.151	0.0	109	0.988
19.003	1.575	111.3	37.7	3.136	3.277	0.312	0.0	120	1.429
3.016	1.009	218.5	174.1	2.029	1.652	1.747	0.0	356	1.115
3.017	1.010	218.5	172.1	1.652	1.261	1.747	0.0	352	1.113
3.014	1.006	217.9	168.9	2.944	2.579	1.638	0.0	348	1.106
2.000	1.005	17.8	2.7	0.834	0.874	0.021	0.0	40	0.728
1.013	1.157	184.0	5.1	0.842	0.784	0.055	0.0	51	0.517



Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.018	Att. Tank 2	3	8.112	0.600	4.255	4.238	0.017	477.2	525	11.82	24.7
1.020	Att. Tank 1	2	3.799	0.600	4.235	4.227	0.008	474.9	525	11.91	24.6
1.006	14	13	42.516	15.000	7.243	7.138	0.105	404.9	450	9.60	27.6
23.000	Att. Tank 5	28A	22.967	0.600	5.000	4.605	0.395	58.1	525	5.13	37.0
22.000	Att. Tank 6	30A	15.397	0.600	5.360	5.326	0.034	452.9	525	5.25	36.7
11.000	Att. Tank 7	33A	13.115	0.600	5.110	5.064	0.046	285.1	375	5.20	36.8
12.000	Att. Tank 8	33A	5.306	0.600	5.085	5.064	0.021	252.7	375	5.08	37.1
28.006	Att. Tank 4	20	28.423	0.600	7.865	7.698	0.167	170.2	300	6.80	32.8
20.002	46	Att. Tank 13	3.626	0.600	6.151	6.130	0.021	172.7	225	5.42	36.2
3.004	75A	Att. Tank 9	2.188	0.600	6.566	6.544	0.022	99.5	225	5.98	34.7
3.005	Att. Tank 9	37	21.569	0.600	6.544	6.355	0.189	114.1	225	6.27	34.0
4.000	26	Att. Tank 10	1.000	0.600	7.416	7.410	0.006	166.7	150	5.02	37.3

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.018	1.018	220.5	171.4	1.157	1.449	1.919	0.0	349	1.120
1.020	1.021	221.0	177.1	1.631	1.557	1.991	0.0	357	1.129
1.006	0.603	96.0	1.0	1.294	0.789	0.010	0.0	35	0.176
23.000	2.941	636.7	0.0	0.560	1.652	0.000	0.0	0	0.000
22.000	1.046	226.4	4.4	2.015	2.344	0.034	0.0	51	0.420
11.000	1.068	117.9	0.0	3.457	3.515	0.000	0.0	0	0.000
12.000	1.135	125.4	0.0	3.749	3.515	0.000	0.0	0	0.000
28.006	1.202	85.0	23.8	1.169	0.991	0.201	0.0	108	1.035
20.002	0.992	39.4	19.8	1.831	2.230	0.151	0.0	113	0.993
3.004	1.311	52.1	27.2	2.644	2.781	0.217	0.0	116	1.325
3.005	1.223	48.6	26.7	2.781	2.940	0.217	0.0	119	1.251
4.000	0.775	13.7	0.0	1.351	1.412	0.000	0.0	0	0.000

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
28.000	29.766	170.1	300	Circular	9.373	8.473	0.600	9.488	8.298	0.890
29.000	16.045	170.7	225	Circular	9.533	8.505	0.803	9.663	8.411	1.027
29.001	6.438	169.4	225	Circular	9.663	8.411	1.027	9.488	8.373	0.890
28.001	17.836	160.7	300	Circular	9.488	8.298	0.890	9.341	8.187	0.854
28.002	6.481	170.6	300	Circular	9.341	8.187	0.854	9.447	8.149	0.998

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
28.000	25.01	1200	Manhole	Adoptable	25	1200	Manhole	Adoptable
29.000	25.05	1200	Manhole	Adoptable	25.04	1200	Manhole	Adoptable
29.001	25.04	1200	Manhole	Adoptable	25	1200	Manhole	Adoptable
28.001	25	1200	Manhole	Adoptable	24	1200	Manhole	Adoptable
28.002	24	1200	Manhole	Adoptable	23	1200	Manhole	Adoptable



Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
28.003	36.190	169.9	300	Circular	9.447	8.149	0.998	9.505	7.936	1.269
28.004	9.838	169.6	300	Circular	9.505	7.936	1.269	9.407	7.878	1.229
28.005	2.139	164.5	300	Circular	9.407	7.878	1.229	9.334	7.865	1.169
28.007	12.141	171.0	300	Circular	8.989	7.698	0.991	8.620	7.627	0.693
25.000	17.003	404.8	450	Circular	9.264	8.014	0.800	9.425	7.972	1.003
25.001	5.850	417.8	450	Circular	9.425	7.972	1.003	9.510	7.958	1.102
25.003	8.981	408.2	450	Circular	8.852	7.773	0.629	8.704	7.751	0.503
1.000	5.486	391.9	450	Circular	8.620	7.620	0.550	8.401	7.606	0.345
1.001	52.193	404.6	450	Circular	8.401	7.606	0.345	8.899	7.477	0.972
1.002	37.267	405.1	450	Circular	8.899	7.477	0.972	9.310	7.385	1.475
1.003	23.979	406.4	450	Circular	9.310	7.385	1.475	9.257	7.326	1.481
1.004	29.919	404.3	450	Circular	9.257	7.326	1.481	9.023	7.252	1.321
1.005	3.464	384.9	450	Circular	9.023	7.252	1.321	8.987	7.243	1.294
1.007	3.464	384.9	450	Circular	8.377	7.138	0.789	8.380	7.129	0.801
1.008	43.696	50.1	450	Circular	8.380	7.129	0.801	7.367	6.256	0.661
1.009	40.154	27.4	450	Circular	7.367	6.256	0.661	5.900	4.789	0.661
1.010	10.540	405.4	450	Circular	5.900	4.789	0.661	5.900	4.763	0.687
1.011	13.923	409.5	450	Circular	5.900	4.763	0.687	6.053	4.729	0.874
1.012	1.651	412.8	450	Circular	6.053	4.729	0.874	6.017	4.725	0.842
1.014	17.101	407.2	450	Circular	5.953	4.719	0.784	5.889	4.677	0.762
1.015	19.556	407.4	450	Circular	5.889	4.677	0.762	6.036	4.629	0.957
3.000	18.880	170.1	225	Circular	8.626	6.901	1.500	8.820	6.790	1.805
Link	US Node		Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type	
28.003	23		1200	Manhole	Adoptable	22	1200	Manhole	Adoptable	
28.004	22		1200	Manhole	Adoptable	21	1200	Manhole	Adoptable	
28.005	21		1200	Manhole	Adoptable	Att. Tank 4		Junction		
28.007	20		1200	Manhole	Adoptable	HW5		Junction		
25.000	88		1350	Manhole	Adoptable	87	1350	Manhole	Adoptable	
25.001	87		1350	Manhole	Adoptable	86	1350	Manhole	Adoptable	
25.003	85		1350	Manhole	Adoptable	84	1350	Manhole	Adoptable	
1.000	HW4 (Western Basin)			Junction		19	1350	Manhole	Adoptable	
1.001	19		1350	Manhole	Adoptable	18	1350	Manhole	Adoptable	
1.002	18		1350	Manhole	Adoptable	17	1350	Manhole	Adoptable	
1.003	17		1350	Manhole	Adoptable	16	1350	Manhole	Adoptable	
1.004	16		1350	Manhole	Adoptable	15	1350	Manhole	Adoptable	
1.005	15		1350	Manhole	Adoptable	14	1350	Manhole	Adoptable	
1.007	13		1350	Manhole	Adoptable	12	1350	Manhole	Adoptable	
1.008	12		1350	Manhole	Adoptable	11	1350	Manhole	Adoptable	
1.009	11		1350	Manhole	Adoptable	10	1350	Manhole	Adoptable	
1.010	10		1350	Manhole	Adoptable	9	1350	Manhole	Adoptable	
1.011	9		1350	Manhole	Adoptable	8	1350	Manhole	Adoptable	
1.012	8		1350	Manhole	Adoptable	Att. Tank 3		Junction		
1.014	7		1350	Manhole	Adoptable	6	1350	Manhole	Adoptable	
1.015	6		1350	Manhole	Adoptable	5	1500	Manhole	Adoptable	
3.000	77		1200	Manhole	Adoptable	76	1200	Manhole	Adoptable	



Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
5.000	9.823	9.8	150	Circular	9.336	7.686	1.500	9.365	6.684	2.531
3.010	21.477	325.4	375	Circular	8.954	5.064	3.515	8.979	4.998	3.606
3.003	7.381	171.6	225	Circular	9.365	6.609	2.531	9.435	6.566	2.644
6.000	10.747	170.6	225	Circular	9.445	7.720	1.500	9.521	7.657	1.639
6.001	15.258	169.5	225	Circular	9.521	7.657	1.639	9.652	7.567	1.860
6.002	10.442	170.0	225	Circular	9.652	7.567	1.860	9.442	7.506	1.711
7.000	13.062	169.6	225	Circular	9.500	8.075	1.200	9.598	7.998	1.375
7.001	5.801	30.2	225	Circular	9.598	7.698	1.675	9.442	7.506	1.711
6.003	23.650	20.5	225	Circular	9.442	7.506	1.711	9.520	6.355	2.940
3.006	18.792	244.1	300	Circular	9.520	6.280	2.940	9.365	6.203	2.862
3.007	16.444	245.4	300	Circular	9.365	6.203	2.862	9.185	6.136	2.749
8.000	21.011	25.1	225	Circular	9.277	7.552	1.500	9.387	6.716	2.446
8.001	10.108	20.0	225	Circular	9.387	6.716	2.446	9.185	6.211	2.749
9.000	13.003	26.7	150	Circular	9.328	7.678	1.500	9.242	7.191	1.901
9.001	10.863	12.0	150	Circular	9.242	7.191	1.901	9.185	6.286	2.749
3.008	16.372	244.4	300	Circular	9.185	6.136	2.749	9.044	6.069	2.675
10.000	43.663	40.9	225	Circular	9.475	7.750	1.500	9.285	6.683	2.377
10.001	10.788	20.0	225	Circular	9.285	6.683	2.377	9.044	6.144	2.675
3.009	13.320	324.9	375	Circular	9.044	5.994	2.675	8.954	5.953	2.626
14.000	2.552	159.5	300	Circular	7.526	5.726	1.500	7.411	5.710	1.401
13.000	9.216	170.7	225	Circular	7.195	5.871	1.099	7.235	5.817	1.193
13.002	3.162	316.2	375	Circular	7.326	5.625	1.326	7.801	5.615	1.811
13.004	31.192	324.9	375	Circular	8.461	5.222	2.864	8.684	5.126	3.183
17.000	18.789	20.0	225	Circular	8.448	6.498	1.725	8.753	5.559	2.969
17.001	8.071	20.0	225	Circular	8.753	5.559	2.969	8.684	5.155	3.304

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
5.000	78	1200	Manhole	Adoptable	75	1200	Manhole	Adoptable
3.010	33A	1350	Manhole	Adoptable	33	1350	Manhole	Adoptable
3.003	75	1200	Manhole	Adoptable	75A	1200	Manhole	Adoptable
6.000	41	1200	Manhole	Adoptable	40	1200	Manhole	Adoptable
6.001	40	1200	Manhole	Adoptable	39	1200	Manhole	Adoptable
6.002	39	1200	Manhole	Adoptable	38	1200	Manhole	Adoptable
7.000	38.02	1200	Manhole	Adoptable	38.01	1200	Manhole	Adoptable
7.001	38.01	1200	Manhole	Adoptable	38	1200	Manhole	Adoptable
6.003	38	1200	Manhole	Adoptable	37	1200	Manhole	Adoptable
3.006	37	1200	Manhole	Adoptable	36	1200	Manhole	Adoptable
3.007	36	1200	Manhole	Adoptable	35	1200	Manhole	Adoptable
8.000	35.02	1200	Manhole	Adoptable	35.01	1200	Manhole	Adoptable
8.001	35.01	1200	Manhole	Adoptable	35	1200	Manhole	Adoptable
9.000	74	1200	Manhole	Adoptable	73	1200	Manhole	Adoptable
9.001	73	1200	Manhole	Adoptable	35	1200	Manhole	Adoptable
3.008	35	1200	Manhole	Adoptable	34	1500	Manhole	Adoptable
10.000	70	1200	Manhole	Adoptable	69	1200	Manhole	Adoptable
10.001	69	1200	Manhole	Adoptable	34	1500	Manhole	Adoptable
3.009	34	1500	Manhole	Adoptable	33A	1350	Manhole	Adoptable
14.000	57	1200	Manhole	Adoptable	Att. Tank 12		Junction	
13.000	66	1200	Manhole	Adoptable	65	1200	Manhole	Adoptable
13.002	56	1350	Manhole	Adoptable	Att. Tank 11		Junction	
13.004	55	1350	Manhole	Adoptable	54	1350	Manhole	Adoptable
17.000	54.02	1200	Manhole	Adoptable	54.01	1200	Manhole	Adoptable
17.001	54.01	1200	Manhole	Adoptable	54	1350	Manhole	Adoptable



Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
13.005	31.651	293.1	450	Circular	8.684	5.051	3.183	8.924	4.943	3.531
13.006	20.444	408.9	450	Circular	8.924	4.973	3.501	8.979	4.923	3.606
18.000	18.671	20.0	225	Circular	9.083	6.379	2.479	9.077	5.445	3.407
18.001	8.351	28.1	225	Circular	9.077	5.445	3.407	8.979	5.148	3.606
3.011	11.690	403.1	450	Circular	8.979	4.923	3.606	9.018	4.894	3.674
20.000	18.076	170.5	225	Circular	7.898	6.364	1.309	8.211	6.258	1.728
20.001	6.255	58.5	225	Circular	8.211	6.258	1.728	8.207	6.151	1.831
19.000	29.404	170.0	300	Circular	8.986	6.829	1.857	9.250	6.656	2.294
19.001	35.990	125.4	300	Circular	9.250	6.656	2.294	9.205	6.369	2.536
20.004	8.789	169.0	225	Circular	9.150	5.958	2.967	9.267	5.906	3.136
19.004	13.536	37.4	300	Circular	8.983	5.406	3.277	9.018	5.044	3.674
3.012	23.885	487.5	525	Circular	9.018	4.819	3.674	8.609	4.770	3.314
3.013	21.796	495.4	525	Circular	8.609	4.770	3.314	8.195	4.726	2.944
3.015	25.602	492.4	525	Circular	7.786	4.682	2.579	7.184	4.630	2.029
3.018	12.727	489.5	525	Circular	6.366	4.580	1.261	6.036	4.554	0.957
1.016	20.784	490.0	525	Circular	6.036	4.554	0.957	5.794	4.512	0.757
1.017	1.396	199.4	525	Circular	5.794	4.512	0.757	5.937	4.505	0.907
1.019	1.676	558.7	525	Circular	6.212	4.238	1.449	6.391	4.235	1.631
24.000	22.786	170.0	225	Circular	6.170	4.661	1.284	6.309	4.527	1.557
1.021	11.322	217.7	525	Circular	6.309	4.077	1.707	5.900	4.025	1.350
31.000	9.230	40.0	225	Circular	5.900	4.000	1.675	6.000	3.769	2.006
31.001	22.374	22.0	225	Circular	6.000	3.769	2.006	3.250	2.750	0.275
Link	US Node		Dia (mm)	Node Type	MH Type	DS Node		Dia (mm)	Node Type	MH Type
13.005	54		1350	Manhole	Adoptable	53		1500	Manhole	Adoptable
13.006	53		1500	Manhole	Adoptable	33		1350	Manhole	Adoptable
18.000	33.02		1200	Manhole	Adoptable	33.01		1200	Manhole	Adoptable
18.001	33.01		1200	Manhole	Adoptable	33		1350	Manhole	Adoptable
3.011	33		1350	Manhole	Adoptable	32		1500	Manhole	Adoptable
20.000	48		1200	Manhole	Adoptable	47		1200	Manhole	Adoptable
20.001	47		1200	Manhole	Adoptable	46		1200	Manhole	Adoptable
19.000	52		1200	Manhole	Adoptable	51		1200	Manhole	Adoptable
19.001	51		1200	Manhole	Adoptable	50		1200	Manhole	Adoptable
20.004	44		1200	Manhole	Adoptable	43		1200	Manhole	Adoptable
19.004	42		1200	Manhole	Adoptable	32		1500	Manhole	Adoptable
3.012	32		1500	Manhole	Adoptable	31		1500	Manhole	Adoptable
3.013	31		1500	Manhole	Adoptable	30A		1500	Manhole	Adoptable
3.015	30		1500	Manhole	Adoptable	29		1500	Manhole	Adoptable
3.018	28		1500	Manhole	Adoptable	5		1500	Manhole	Adoptable
1.016	5		1500	Manhole	Adoptable	4		1500	Manhole	Adoptable
1.017	4		1500	Manhole	Adoptable	Att. Tank 2			Junction	
1.019	3		1500	Manhole	Adoptable	Att. Tank 1			Junction	
24.000	27		1200	Manhole	Adoptable	2		1500	Manhole	Adoptable
1.021	2		1500	Manhole	Adoptable	HW3			Junction	
31.000	HW2 (Eastern Basin)			Junction		1		1500	Manhole	Adoptable
31.001	1		1500	Manhole	Adoptable	HW1			Junction	



Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
30.000	6.666	99.5	150	Circular	9.270	8.404	0.716	9.341	8.337	0.854
26.000	20.223	100.1	150	Circular	9.383	8.460	0.773	9.510	8.258	1.102
25.002	74.555	403.0	450	Circular	9.510	7.958	1.102	8.852	7.773	0.629
25.004	13.579	399.4	450	Circular	8.704	7.751	0.503	8.627	7.717	0.460
25.005	17.362	403.8	450	Circular	8.627	7.717	0.460	8.781	7.674	0.657
25.006	6.803	400.2	450	Circular	8.781	7.674	0.657	8.620	7.657	0.513
27.000	10.334	100.3	150	Circular	8.907	8.077	0.680	8.781	7.974	0.657
3.001	4.143	165.7	225	Circular	8.820	6.790	1.805	8.972	6.765	1.982
3.002	26.574	170.3	225	Circular	8.972	6.765	1.982	9.365	6.609	2.531
14.001	2.510	251.0	300	Circular	7.411	5.710	1.401	7.326	5.700	1.326
13.001	7.216	171.8	225	Circular	7.235	5.817	1.193	7.326	5.775	1.326
13.003	15.455	322.0	375	Circular	7.801	5.270	2.156	8.461	5.222	2.864
16.000	17.703	23.2	150	Circular	8.326	6.211	1.965	8.461	5.447	2.864
15.000	1.000	166.7	150	Circular	7.532	6.496	0.886	7.801	6.490	1.161
19.002	10.753	20.0	300	Circular	9.205	6.369	2.536	9.267	5.831	3.136
21.000	2.000	100.0	150	Circular	8.504	6.530	1.824	8.585	6.510	1.925
20.003	29.225	169.9	225	Circular	8.585	6.130	2.230	9.150	5.958	2.967
19.003	42.362	99.7	300	Circular	9.267	5.831	3.136	8.983	5.406	3.277
3.016	12.140	485.6	525	Circular	7.184	4.630	2.029	6.782	4.605	1.652
3.017	12.139	485.6	525	Circular	6.782	4.605	1.652	6.366	4.580	1.261
3.014	21.497	488.6	525	Circular	8.195	4.726	2.944	7.786	4.682	2.579
2.000	12.678	99.8	150	Circular	6.140	5.156	0.834	6.053	5.029	0.874
1.013	1.835	305.8	450	Circular	6.017	4.725	0.842	5.953	4.719	0.784

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
30.000	91	1200	Manhole	Adoptable	24	1200	Manhole	Adoptable
26.000	86.01	1200	Manhole	Adoptable	86	1350	Manhole	Adoptable
25.002	86	1350	Manhole	Adoptable	85	1350	Manhole	Adoptable
25.004	84	1350	Manhole	Adoptable	83	1350	Manhole	Adoptable
25.005	83	1350	Manhole	Adoptable	82	1350	Manhole	Adoptable
25.006	82	1350	Manhole	Adoptable	HW6		Junction	
27.000	89	1200	Manhole	Adoptable	82	1350	Manhole	Adoptable
3.001	76	1200	Manhole	Adoptable	Att. Tank 10		Junction	
3.002	Att. Tank 10		Junction		75	1200	Manhole	Adoptable
14.001	Att. Tank 12		Junction		56	1350	Manhole	Adoptable
13.001	65	1200	Manhole	Adoptable	56	1350	Manhole	Adoptable
13.003	Att. Tank 11		Junction		55	1350	Manhole	Adoptable
16.000	62	1200	Manhole	Adoptable	55	1350	Manhole	Adoptable
15.000	64	450	Manhole	Adoptable	Att. Tank 11		Junction	
19.002	50	1200	Manhole	Adoptable	43	1200	Manhole	Adoptable
21.000	49	450	Manhole	Adoptable	Att. Tank 13		Junction	
20.003	Att. Tank 13		Junction		44	1200	Manhole	Adoptable
19.003	43	1200	Manhole	Adoptable	42	1200	Manhole	Adoptable
3.016	29	1500	Manhole	Adoptable	28A	1500	Manhole	Adoptable
3.017	28A	1500	Manhole	Adoptable	28	1500	Manhole	Adoptable
3.014	30A	1500	Manhole	Adoptable	30	1500	Manhole	Adoptable
2.000	81	1200	Manhole	Adoptable	8	1350	Manhole	Adoptable
1.013	Att. Tank 3		Junction		7	1350	Manhole	Adoptable



Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.018	8.112	477.2	525	Circular	5.937	4.255	1.157	6.212	4.238	1.449
1.020	3.799	474.9	525	Circular	6.391	4.235	1.631	6.309	4.227	1.557
1.006	42.516	404.9	450	Circular	8.987	7.243	1.294	8.377	7.138	0.789
23.000	22.967	58.1	525	Circular	6.085	5.000	0.560	6.782	4.605	1.652
22.000	15.397	452.9	525	Circular	7.900	5.360	2.015	8.195	5.326	2.344
11.000	13.115	285.1	375	Circular	8.942	5.110	3.457	8.954	5.064	3.515
12.000	5.306	252.7	375	Circular	9.209	5.085	3.749	8.954	5.064	3.515
28.006	28.423	170.2	300	Circular	9.334	7.865	1.169	8.989	7.698	0.991
20.002	3.626	172.7	225	Circular	8.207	6.151	1.831	8.585	6.130	2.230
3.004	2.188	99.5	225	Circular	9.435	6.566	2.644	9.550	6.544	2.781
3.005	21.569	114.1	225	Circular	9.550	6.544	2.781	9.520	6.355	2.940
4.000	1.000	166.7	150	Circular	8.917	7.416	1.351	8.972	7.410	1.412

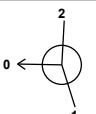
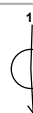
Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.018	Att. Tank 2		Junction		3	1500	Manhole	Adoptable
1.020	Att. Tank 1		Junction		2	1500	Manhole	Adoptable
1.006	14	1350	Manhole	Adoptable	13	1350	Manhole	Adoptable
23.000	Att. Tank 5		Junction		28A	1500	Manhole	Adoptable
22.000	Att. Tank 6		Junction		30A	1500	Manhole	Adoptable
11.000	Att. Tank 7		Junction		33A	1350	Manhole	Adoptable
12.000	Att. Tank 8		Junction		33A	1350	Manhole	Adoptable
28.006	Att. Tank 4		Junction		20	1200	Manhole	Adoptable
20.002	46	1200	Manhole	Adoptable	Att. Tank 13		Junction	
3.004	75A	1200	Manhole	Adoptable	Att. Tank 9		Junction	
3.005	Att. Tank 9		Junction		37	1200	Manhole	Adoptable
4.000	26	450	Manhole	Adoptable	Att. Tank 10		Junction	

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
25.01	493995.300	104221.737	9.373	0.900	1200				
25.05	493993.287	104170.000	9.533	1.028	1200		0	28.000	8.473 300
25.04	493995.623	104185.874	9.663	1.252	1200		0	29.000	8.505 225
							1	29.000	8.411 225
							0	29.001	8.411 225

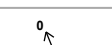
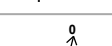
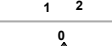
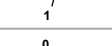
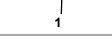


Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
25	493993.689	104192.015	9.488	1.190	1200		1 29.001 2 28.000	8.373 8.298	225 300
24	493975.856	104192.346	9.341	1.154	1200		1 30.000 2 28.001	8.337 8.187	150 300
23	493975.736	104185.866	9.447	1.298	1200		1 28.002	8.149	300
22	493971.155	104149.967	9.505	1.569	1200		1 28.003	8.149	300
21	493970.848	104140.134	9.407	1.529	1200		1 28.004	7.936	300
20	493973.124	104099.135	8.989	1.291	1200		1 28.004	7.878	300
20	493973.124	104099.135	8.989	1.291	1200		1 28.005 0 28.006	7.878 7.698	300 300
HW5	493969.116	104087.675	8.620	1.000			1 28.007	7.698	300
88	494040.373	104163.015	9.264	1.250	1350				
87	494030.789	104148.971	9.425	1.453	1350		0 25.000 1 25.000	8.014 7.972	450 450
85	494019.067	104069.426	8.852	1.079	1350		0 25.001 1 25.002	7.972 7.773	450 450
HW6	493979.285	104074.383	8.620	1.000			1 25.003 0 25.006	7.773 7.657	450 450
HW4 (Western Basin)	493979.497	104070.848	8.620	1.000			0 1.000	7.620	450
19	493983.470	104067.065	8.401	0.795	1350		1 1.000 0 1.001	7.606 7.606	450 450

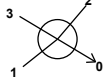
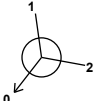
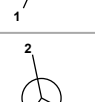
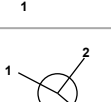


Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
18	494034.607	104056.617	8.899	1.422	1350		1 1.001	7.477	450
							0 1.002	7.477	450
17	494071.745	104053.517	9.310	1.925	1350		1 1.002	7.385	450
							0 1.003	7.385	450
16	494095.230	104048.676	9.257	1.931	1350		1 1.003	7.326	450
							0 1.004	7.326	450
15	494124.835	104044.353	9.023	1.771	1350		1 1.004	7.252	450
							0 1.005	7.252	450
13	494169.412	104035.807	8.377	1.239	1350		1 1.006	7.138	450
							0 1.007	7.138	450
12	494172.500	104037.377	8.380	1.251	1350		1 1.007	7.129	450
							0 1.008	7.129	450
11	494215.676	104030.658	7.367	1.111	1350		1 1.008	6.256	450
							0 1.009	6.256	450
10	494255.057	104022.816	5.900	1.111	1350		1 1.009	4.789	450
							0 1.010	4.789	450
9	494259.407	104032.417	5.900	1.137	1350		1 1.010	4.763	450
							0 1.011	4.763	450
8	494254.182	104045.322	6.053	1.324	1350		1 2.000	5.029	150
							2 1.011	4.729	450
							0 1.012	4.729	450
7	494257.970	104060.337	5.953	1.234	1350		1 1.013	4.719	450
							0 1.014	4.719	450
6	494258.509	104077.430	5.889	1.212	1350		1 1.014	4.677	450
							0 1.015	4.677	450
77	494152.040	104191.495	8.626	1.725	1200				
							0 3.000	6.901	225

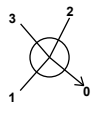
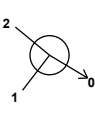
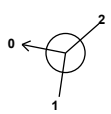
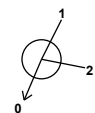
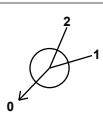


Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
78	494072.383	104215.523	9.336	1.650	1200		0	5.000	7.686	150
33A	494096.383	104129.904	8.954	3.890	1350		1	12.000	5.064	375
							2	11.000	5.064	375
							3	3.009	5.953	375
							0	3.010	5.064	375
75	494073.738	104205.794	9.365	2.756	1200		1	5.000	6.684	150
							2	3.002	6.609	225
							0	3.003	6.609	225
41	494030.662	104217.744	9.445	1.725	1200		0	6.000	7.720	225
40	494030.065	104207.014	9.521	1.864	1200		1	6.000	7.657	225
							0	6.001	7.657	225
39	494024.152	104192.948	9.652	2.085	1200		1	6.001	7.567	225
							0	6.002	7.567	225
38.02	494017.548	104166.099	9.500	1.425	1200		0	7.000	8.075	225
							1	7.000	7.998	225
38.01	494022.905	104178.012	9.598	1.900	1200		0	7.001	7.698	225
							1	7.001	7.506	225
38	494026.286	104182.726	9.442	1.936	1200		2	6.002	7.506	225
							0	6.003	7.506	225
37	494047.238	104171.756	9.520	3.240	1200		1	6.003	6.355	225
							2	3.005	6.355	225
							0	3.006	6.280	300
36	494061.573	104159.605	9.365	3.162	1200		1	3.006	6.203	300
							0	3.007	6.203	300
35.02	494090.810	104171.913	9.277	1.725	1200		0	8.000	7.552	225
35.01	494076.888	104156.176	9.387	2.671	1200		1	8.000	6.716	225
							0	8.001	6.716	225

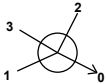
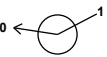
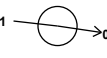
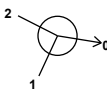
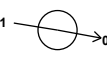


Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
74	494063.229	104126.159	9.328	1.650	1200		0	9.000	7.678	150
73	494065.122	104139.023	9.242	2.051	1200		1	9.000	7.191	150
						0	9.001	7.191	150	
35	494072.320	104147.159	9.185	3.049	1200		1	9.001	6.286	150
						2	8.001	6.211	225	
						3	3.007	6.136	300	
						0	3.008	6.136	300	
70	494072.020	104084.998	9.475	1.725	1200		0	10.000	7.750	225
69	494078.377	104128.196	9.285	2.602	1200		1	10.000	6.683	225
						0	10.001	6.683	225	
34	494084.955	104136.747	9.044	3.050	1500		1	10.001	6.144	225
						2	3.008	6.069	300	
						0	3.009	5.994	375	
57	494204.915	104144.835	7.526	1.800	1200		0	14.000	5.726	300
66	494216.574	104192.424	7.195	1.324	1200		0	13.000	5.871	225
56	494209.824	104178.542	7.326	1.701	1350		1	14.001	5.700	300
						2	13.001	5.775	225	
						0	13.002	5.625	375	
55	494158.188	104188.655	8.461	3.239	1350		1	16.000	5.447	150
						2	13.003	5.222	375	
						0	13.004	5.222	375	
54.02	494170.921	104154.735	8.448	1.950	1200		0	17.000	6.498	225
54.01	494153.698	104162.244	8.753	3.194	1200		1	17.000	5.559	225
						0	17.001	5.559	225	
54	494145.956	104159.962	8.684	3.633	1350		1	17.001	5.155	225
						2	13.004	5.126	375	
						0	13.005	5.051	450	

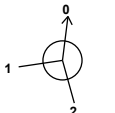
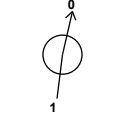
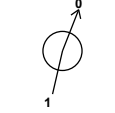
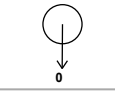
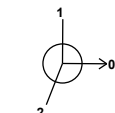
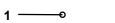


Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
53	494124.067	104137.100	8.924	3.981	1500	 1	13.005	4.943	450
						0	13.006	4.973	450
33.02	494104.494	104096.934	9.083	2.704	1200	 0	18.000	6.379	225
						1	18.000	5.445	225
33.01	494107.212	104115.406	9.077	3.632	1200	 0	18.001	5.445	225
						1	18.001	5.148	225
33	494114.810	104118.872	8.979	4.056	1350	 1	13.006	4.923	450
						2	3.010	4.998	375
						3	3.011	4.923	450
						0			
48	494191.630	104060.909	7.898	1.534	1200	 0	20.000	6.364	225
						1	20.000	6.258	225
47	494188.999	104043.026	8.211	1.953	1200	 0	20.001	6.258	225
						1	20.001	6.151	225
46	494183.456	104040.128	8.207	2.056	1200	 0	20.002	6.151	225
						1			
52	494041.009	104060.275	8.986	2.157	1200	 0	19.000	6.829	300
						1	19.000	6.656	300
51	494070.225	104056.959	9.250	2.594	1200	 0	19.001	6.656	300
						1	20.003	5.958	225
44	494113.438	104050.600	9.150	3.192	1200	 0	20.004	5.958	225
						1	19.003	5.406	300
42	494119.534	104101.300	8.983	3.577	1200	 0	19.004	5.406	300
						1	19.004	5.044	300
32	494125.232	104113.578	9.018	4.199	1500	 2	3.011	4.894	450
						1	3.012	4.819	525
31	494148.813	104109.779	8.609	3.839	1500	 1	3.012	4.770	525
						0	3.013	4.770	525

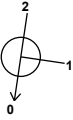
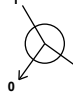


Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
30	494191.397	104101.977	7.786	3.104	1500	 1	3.014	4.682	525
						0	3.015	4.682	525
28	494240.696	104094.421	6.366	1.786	1500	 1	3.017	4.580	525
						0	3.018	4.580	525
5	494253.287	104096.276	6.036	1.482	1500	 1	3.018	4.554	525
						2	1.015	4.629	450
						0	1.016	4.554	525
4	494255.858	104116.900	5.794	1.282	1500	 1	1.016	4.512	525
						0	1.017	4.512	525
3	494261.589	104141.756	6.212	1.974	1500	 1	1.018	4.238	525
						0	1.019	4.238	525
27	494271.782	104190.118	6.170	1.509	1200	 1			
						0	24.000	4.661	225
2	494271.623	104167.333	6.309	2.232	1500	 1	24.000	4.527	225
						2	1.020	4.227	525
						0	1.021	4.077	525
HW3	494282.945	104167.254	5.900	1.900		 1	1.021	4.025	525
HW2 (Eastern Basin)	494284.745	104185.349	5.900	1.900		 1			
						0	31.000	4.000	225
1	494283.550	104194.501	6.000	2.231	1500	 1	31.000	3.769	225
						0	31.001	3.769	225
HW1	494305.636	104198.080	3.250	0.500		 1	31.001	2.750	225
91	493969.191	104192.470	9.270	0.866	1200	 1			
						0	30.000	8.404	150
86.01	494049.944	104140.240	9.383	0.923	1200	 1			
						0	26.000	8.460	150

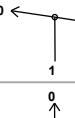
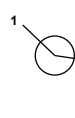


Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
86	494029.936	104143.184	9.510	1.552	1350		1	26.000	8.258	150
						2	25.001	7.958	450	
						0	25.002	7.958	450	
84	494010.551	104066.574	8.704	0.953	1350		1	25.003	7.751	450
						0	25.004	7.751	450	
83	493997.353	104069.767	8.627	0.910	1350		1	25.004	7.717	450
						0	25.005	7.717	450	
82	493983.258	104079.905	8.781	1.107	1350		1	27.000	7.974	150
						2	25.005	7.674	450	
						0	25.006	7.674	450	
89	493978.036	104088.822	8.907	0.830	1200		0	27.000	8.077	150
						1	4.000	7.410	150	
Att. Tank 10	494114.636	104198.325	8.972	2.207			2	3.001	6.765	225
						0	3.002	6.765	225	
						1	3.000	6.790	225	
76	494133.467	104194.887	8.820	2.030	1200		1	3.000	6.790	225
						0	3.001	6.790	225	
Att. Tank 12	494207.408	104161.957	7.411	1.701			1	14.000	5.710	300
						0	14.001	5.710	300	
Att. Tank 11	494184.640	104183.474	7.801	2.531			1	15.000	6.490	150
						2	13.002	5.615	375	
						0	13.003	5.270	375	
65	494215.245	104183.304	7.235	1.418	1200		1	13.000	5.817	225
						0	13.001	5.817	225	
62	494166.157	104204.463	8.326	2.115	1200		0	16.000	6.211	150
						0	15.000	6.496	150	
64	494193.987	104180.225	7.532	1.036	450		0	15.000	6.496	150
						0	19.001	6.369	300	
50	494105.831	104051.719	9.205	2.836	1200		1	19.001	6.369	300
						0	19.002	6.369	300	

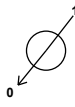


Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
43	494113.367	104059.389	9.267	3.436	1200		1	20.004	5.906	225
						2	19.002	5.831	300	
						0	19.003	5.831	300	
Att. Tank 13	494155.213	104044.453	8.585	2.455		1	21.000	6.510	150	
						2	20.002	6.130	225	
						0	20.003	6.130	225	
49	494155.230	104041.418	8.504	1.974	450		0	21.000	6.530	150
30A	494170.252	104105.851	8.195	3.469	1500		1	22.000	5.326	525
						2	3.013	4.726	525	
						0	3.014	4.726	525	
28A	494228.668	104096.059	6.782	2.177	1500		1	23.000	4.605	525
						2	3.016	4.605	525	
						0	3.017	4.605	525	
29	494216.639	104097.696	7.184	2.554	1500		1	3.015	4.630	525
						0	3.016	4.630	525	
81	494251.081	104033.029	6.140	0.984	1200		0	2.000	5.156	150
						1	1.012	4.725	450	
Att. Tank 3	494256.054	104052.740	6.017	1.292			0	1.013	4.725	450
Att. Tank 2	494257.969	104126.055	5.937	1.682			1	1.017	4.505	525
						0	1.018	4.255	525	
Att. Tank 1	494266.218	104153.556	6.391	2.156			1	1.019	4.235	525
						0	1.020	4.235	525	
14	494127.344	104041.965	8.987	1.744	1350		1	1.005	7.243	450
						0	1.006	7.243	450	
Att. Tank 5	494235.682	104117.929	6.085	1.085			0	23.000	5.000	525
Att. Tank 6	494171.101	104119.115	7.900	2.540			0	22.000	5.360	525



Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
Att. Tank 7	494106.164	104141.373	8.942	3.832			0	11.000	5.110 375
Att. Tank 8	494090.131	104124.922	9.209	4.124			0	12.000	5.085 375
Att. Tank 4	493971.257	104132.757	9.334	1.469			1	28.005	7.865 300
							0	28.006	7.865 300
75A	494069.204	104199.970	9.435	2.869	1200		1	3.003	6.566 225
							0	3.004	6.566 225
Att. Tank 9	494062.472	104191.705	9.550	3.006			1	3.004	6.544 225
							0	3.005	6.544 225
26	494117.517	104196.402	8.917	1.501	450		0	4.000	7.416 150

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Detailed	Starting Level (m)
Rainfall Events	Singular	Skip Steady State	x	Check Discharge Rate(s) x
Summer CV	1.000	Drain Down Time (mins)	4320	Check Discharge Volume x
Winter CV	1.000	Additional Storage (m³/ha)	0.0	

Storm Durations

15 | 30 | 60 | 120 | 180 | 240 | 360 | 480 | 600 | 720 | 1440 | 2880

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
100	45	10	0

Node 1 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	3.769	Product Number	CTL-SHE-0151-1320-1938-1320
Design Depth (m)	1.938	Min Outlet Diameter (m)	0.225
Design Flow (l/s)	13.2	Min Node Diameter (mm)	1500

Node 42 Online Orifice Control

Flap Valve	x	Design Depth (m)	3.500	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	10.0		
Invert Level (m)	5.406	Diameter (m)	0.050		



Node 28 Online Orifice Control

Flap Valve	x	Invert Level (m)	4.580	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.100		

Node 30 Online Orifice Control

Flap Valve	x	Invert Level (m)	4.682	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.080		

Node 33A Online Orifice Control

Flap Valve	x	Invert Level (m)	5.064	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.035		

Node HW2 (Eastern Basin) Pond Storage Structure

Invert Level (m)	4.000	Time to half empty (mins)	2760	Analyse flow through structure	x
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Inlets HW3

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	132.0	1.900	515.0

Node HW4 (Western Basin) Pond Storage Structure

Invert Level (m)	7.620	Time to half empty (mins)	24	Analyse flow through structure	x
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Inlets HW5 | HW6

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	59.6	1.000	233.0

Node Att. Tank 9 Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	6.544	Depth (m)	1.890
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	1320	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	6.000	Number Required	1
Porosity	0.94	Pit Length (m)	12.000		

Node Att. Tank 5 Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	5.000	Depth (m)	1.050
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	1980	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	13.000	Number Required	1
Porosity	0.94	Pit Length (m)	25.000		

Node Att. Tank 7 Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	5.110	Depth (m)	3.150
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	2550	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	4.275	Number Required	1
Porosity	0.94	Pit Length (m)	20.000		



Node Att. Tank 8 Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	5.085	Depth (m)	3.150
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	2610	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	3.750	Number Required	1
Porosity	0.94	Pit Length (m)	20.000		

Node Att. Tank 4 Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	7.865	Depth (m)	0.840
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	15	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	4.000	Number Required	1
Porosity	0.94	Pit Length (m)	10.500		

Node Att. Tank 6 Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	5.360	Depth (m)	2.520
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	480	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	10.000	Number Required	1
Porosity	0.94	Pit Length (m)	20.000		

Node Att. Tank 13 Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	6.130	Depth (m)	1.470
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	648	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	5.500	Number Required	1
Porosity	0.94	Pit Length (m)	38.000		

Node Att. Tank 10 Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	6.765	Depth (m)	1.260
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	1110	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	2.500	Number Required	1
Porosity	0.94	Pit Length (m)	30.000		

Node Att. Tank 3 Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	4.725	Depth (m)	1.050
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	2160	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	5.000	Number Required	1
Porosity	0.94	Pit Length (m)	12.000		

Node Att. Tank 2 Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	4.255	Depth (m)	1.260
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	1950	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	5.000	Number Required	1
Porosity	0.94	Pit Length (m)	16.000		

Node Att. Tank 12 Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	5.710	Depth (m)	0.840
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	768	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	4.500	Number Required	1
Porosity	0.94	Pit Length (m)	29.000		



Node Att. Tank 1 Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	4.235	Depth (m)	1.470
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	2760	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	6.000	Number Required	1
Porosity	0.94	Pit Length (m)	22.000		

Node Att. Tank 11 Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	5.270	Depth (m)	1.470
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	1216	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	1.500	Number Required	1
Porosity	0.94	Pit Length (m)	34.000		



Results for 100 year +45% CC +10% A Critical Storm Duration. Lowest mass balance: 99.75%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	25.01	12	9.330	0.857	50.8	0.9691	0.0000	FLOOD RISK
15 minute summer	25.05	12	9.376	0.871	34.9	0.9856	0.0000	FLOOD RISK
15 minute summer	25.04	12	9.320	0.909	34.7	1.0285	0.0000	SURCHARGED
15 minute summer	25	12	9.286	0.988	80.9	1.1177	0.0000	FLOOD RISK
30 minute summer	24	20	9.186	0.999	83.7	1.1295	0.0000	FLOOD RISK
30 minute summer	23	20	9.122	0.973	87.8	1.1005	0.0000	SURCHARGED
30 minute summer	22	22	8.873	0.937	124.1	1.0593	0.0000	SURCHARGED
30 minute summer	21	22	8.795	0.917	140.3	1.0370	0.0000	SURCHARGED
30 minute summer	20	22	8.562	0.864	116.7	0.9768	0.0000	SURCHARGED
60 minute summer	HW5	41	8.440	0.820	102.0	0.0000	0.0000	OK
15 minute summer	88	11	8.849	0.835	15.4	1.1953	0.0000	SURCHARGED
30 minute summer	87	19	8.850	0.878	44.3	1.2568	0.0000	SURCHARGED
30 minute summer	85	19	8.665	0.892	234.3	1.2760	0.0000	FLOOD RISK
60 minute summer	HW6	41	8.437	0.817	184.5	0.0000	0.0000	OK
60 minute summer	HW4 (Western Basin)	41	8.399	0.779	177.7	104.2856	0.0000	FLOOD RISK
60 minute summer	19	41	8.379	0.773	138.9	1.1062	0.0000	FLOOD RISK
60 minute summer	18	41	8.073	0.596	139.0	0.8529	0.0000	SURCHARGED
60 minute summer	17	41	7.983	0.598	139.0	0.8564	0.0000	SURCHARGED
60 minute summer	16	41	7.919	0.593	140.8	0.8484	0.0000	SURCHARGED
60 minute summer	15	41	7.732	0.480	140.8	0.6872	0.0000	SURCHARGED
60 minute summer	13	42	7.441	0.303	140.8	0.4337	0.0000	OK
60 minute summer	12	42	7.378	0.249	140.8	0.3558	0.0000	OK
60 minute summer	11	42	6.400	0.144	140.8	0.2056	0.0000	OK
1440 minute winter	10	1440	5.727	0.938	23.3	1.3426	0.0000	FLOOD RISK
1440 minute winter	9	1440	5.727	0.964	22.7	1.3798	0.0000	FLOOD RISK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	25.01	28.000	25	48.7	0.867	0.573	2.0961	
15 minute summer	25.05	29.000	25.04	32.3	0.929	0.814	0.6381	
15 minute summer	25.04	29.001	25	28.9	0.922	0.726	0.2560	
15 minute summer	25	28.001	24	77.1	1.095	0.881	1.2560	
30 minute summer	24	28.002	23	79.1	1.134	0.933	0.4564	
30 minute summer	23	28.003	22	85.7	1.216	1.007	2.5485	
30 minute summer	22	28.004	21	122.1	1.735	1.435	0.6928	
30 minute summer	21	28.005	Att. Tank 4	138.3	1.964	1.600	0.1506	
30 minute summer	20	28.007	HW5	115.1	1.635	1.358	0.8550	
15 minute summer	88	25.000	87	14.5	0.138	0.091	2.6940	
30 minute summer	87	25.001	86	46.5	0.327	0.296	0.9269	
30 minute summer	85	25.003	84	230.7	1.456	1.451	1.4230	
60 minute summer	HW4 (Western Basin)	1.000	19	138.9	0.877	0.856	0.8692	
60 minute summer	19	1.001	18	139.0	0.877	1.447	8.2696	
60 minute summer	18	1.002	17	139.0	0.877	0.871	5.9047	
60 minute summer	17	1.003	16	139.0	0.878	0.872	3.7993	
60 minute summer	16	1.004	15	140.8	0.889	1.466	4.7405	
60 minute summer	15	1.005	14	140.8	0.889	0.860	0.5488	
60 minute summer	13	1.007	12	140.8	1.383	0.860	0.3522	
60 minute summer	12	1.008	11	140.8	2.123	0.516	2.9135	
60 minute summer	11	1.009	10	140.8	1.303	0.227	4.0448	
1440 minute winter	10	1.010	9	22.7	0.593	0.143	1.6700	
1440 minute winter	9	1.011	8	22.5	0.563	0.142	2.2060	



Results for 100 year +45% CC +10% A Critical Storm Duration. Lowest mass balance: 99.75%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	8	1440	5.727	0.998	24.3	1.4285	0.0000	SURCHARGED
1440 minute winter	7	1440	5.727	1.008	22.0	1.4428	0.0000	FLOOD RISK
1440 minute winter	6	1440	5.727	1.050	23.8	1.5029	0.0000	FLOOD RISK
1440 minute winter	77	1380	8.353	1.452	1.2	1.6427	0.0000	FLOOD RISK
1440 minute winter	78	1380	8.353	0.667	1.1	0.7548	0.0000	SURCHARGED
1440 minute winter	33A	1380	8.353	3.289	18.4	4.7065	0.0000	SURCHARGED
1440 minute winter	75	1380	8.353	1.744	7.1	1.9729	0.0000	SURCHARGED
15 minute summer	41	12	9.109	1.389	21.0	1.5709	0.0000	SURCHARGED
15 minute summer	40	12	9.094	1.437	16.2	1.6255	0.0000	SURCHARGED
15 minute summer	39	12	9.074	1.507	60.9	1.7040	0.0000	SURCHARGED
15 minute summer	38.02	12	8.974	0.899	32.9	1.0164	0.0000	SURCHARGED
15 minute summer	38.01	12	8.931	1.233	38.1	1.3948	0.0000	SURCHARGED
15 minute summer	38	12	8.892	1.386	112.5	1.5679	0.0000	SURCHARGED
1440 minute winter	37	1380	8.353	2.073	11.6	2.3448	0.0000	SURCHARGED
1440 minute winter	36	1380	8.353	2.150	10.9	2.4319	0.0000	SURCHARGED
1440 minute winter	35.02	1380	8.353	0.801	1.1	0.9061	0.0000	SURCHARGED
1440 minute winter	35.01	1380	8.353	1.637	3.3	1.8516	0.0000	SURCHARGED
15 minute summer	74	12	8.733	1.055	21.1	1.1933	0.0000	SURCHARGED
15 minute summer	73	12	8.565	1.374	53.9	1.5543	0.0000	SURCHARGED
1440 minute winter	35	1380	8.353	2.217	15.1	2.5076	0.0000	SURCHARGED
1440 minute winter	70	1380	8.353	0.603	2.3	0.6820	0.0000	SURCHARGED
1440 minute winter	69	1380	8.353	1.670	2.9	1.8888	0.0000	SURCHARGED
1440 minute winter	34	1380	8.353	2.359	18.6	4.1683	0.0000	SURCHARGED
360 minute winter	57	352	7.131	1.405	9.4	1.5894	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute winter	8	1.012	Att. Tank 3	24.0	0.624	0.152	0.2616	
1440 minute winter	7	1.014	6	21.9	0.614	0.138	2.7095	
1440 minute winter	6	1.015	5	23.8	0.727	0.149	3.0985	
1440 minute winter	77	3.000	76	1.1	0.286	0.028	0.7509	
1440 minute winter	78	5.000	75	1.1	1.185	0.019	0.1729	
1440 minute winter	33A	3.010	33	3.3	0.457	0.030	2.3689	
1440 minute winter	75	3.003	75A	7.1	0.743	0.180	0.2936	
15 minute summer	41	6.000	40	16.2	0.820	0.409	0.4274	
15 minute summer	40	6.001	39	24.7	0.706	0.620	0.6068	
15 minute summer	39	6.002	38	56.5	1.422	1.423	0.4153	
15 minute summer	38.02	7.000	38.01	30.0	1.047	0.753	0.5195	
15 minute summer	38.01	7.001	38	32.4	1.127	0.341	0.2307	
15 minute summer	38	6.003	37	111.4	2.800	0.966	0.9406	
1440 minute winter	37	3.006	36	10.6	0.655	0.150	1.3233	
1440 minute winter	36	3.007	35	10.4	0.585	0.147	1.1580	
1440 minute winter	35.02	8.000	35.01	1.1	0.550	0.011	0.8356	
1440 minute winter	35.01	8.001	35	3.1	1.103	0.027	0.4020	
15 minute summer	74	9.000	73	18.9	1.277	0.547	0.2289	
15 minute summer	73	9.001	35	50.8	2.884	0.983	0.1912	
1440 minute winter	35	3.008	34	14.9	0.746	0.210	1.1529	
1440 minute winter	70	10.000	69	2.3	0.882	0.028	1.7365	
1440 minute winter	69	10.001	34	2.6	1.051	0.022	0.4291	
1440 minute winter	34	3.009	33A	18.4	0.700	0.167	1.4692	
360 minute winter	57	14.000	Att. Tank 12	9.2	0.993	0.104	0.1797	



Results for 100 year +45% CC +10% A Critical Storm Duration. Lowest mass balance: 99.75%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	66	352	7.131	1.260	7.4	1.4254	0.0000	FLOOD RISK
360 minute winter	56	352	7.131	1.506	20.0	2.1555	0.0000	FLOOD RISK
360 minute winter	55	352	7.131	1.909	21.8	2.7321	0.0000	SURCHARGED
360 minute winter	54.02	352	7.131	0.633	2.5	0.7161	0.0000	SURCHARGED
360 minute winter	54.01	352	7.131	1.572	4.3	1.7781	0.0000	SURCHARGED
360 minute winter	54	352	7.131	2.080	25.7	2.9766	0.0000	SURCHARGED
360 minute winter	53	352	7.131	2.188	26.6	3.8663	0.0000	SURCHARGED
360 minute winter	33.02	352	7.131	0.752	4.4	0.8505	0.0000	SURCHARGED
360 minute winter	33.01	352	7.131	1.686	8.1	1.9069	0.0000	SURCHARGED
360 minute winter	33	352	7.131	2.208	31.5	3.1596	0.0000	SURCHARGED
360 minute winter	48	352	7.580	1.216	4.9	1.3759	0.0000	SURCHARGED
360 minute winter	47	352	7.580	1.322	8.9	1.4957	0.0000	SURCHARGED
360 minute winter	46	352	7.580	1.429	18.5	1.6167	0.0000	SURCHARGED
30 minute summer	52	19	8.986	2.157	22.3	2.4396	2.1939	FLOOD
30 minute summer	51	19	9.006	2.350	74.6	2.6582	0.0000	FLOOD RISK
30 minute summer	44	19	8.600	2.642	132.2	2.9881	0.0000	SURCHARGED
30 minute summer	42	19	8.968	3.562	47.9	4.0282	0.0000	FLOOD RISK
360 minute winter	32	352	7.131	2.312	34.7	4.0850	0.0000	SURCHARGED
360 minute winter	31	352	7.131	2.361	39.9	4.1712	0.0000	SURCHARGED
360 minute winter	30	352	7.130	2.448	17.2	4.3257	0.0000	SURCHARGED
1440 minute winter	28	1530	5.978	1.398	11.3	2.4696	0.0000	SURCHARGED
1440 minute winter	5	1440	5.727	1.173	32.7	2.0731	0.0000	SURCHARGED
1440 minute winter	4	1440	5.727	1.215	32.2	2.1469	0.0000	FLOOD RISK
1440 minute winter	3	1440	5.727	1.489	30.2	2.6308	0.0000	SURCHARGED
1440 minute winter	27	1440	5.727	1.066	2.7	1.2053	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute winter	66	13.000	65	7.2	0.650	0.181	0.3665	
360 minute winter	56	13.002	Att. Tank 11	19.2	0.757	0.171	0.3488	
360 minute winter	55	13.004	54	20.4	0.565	0.185	3.4404	
360 minute winter	54.02	17.000	54.01	2.5	0.757	0.021	0.7473	
360 minute winter	54.01	17.001	54	3.8	0.801	0.033	0.3210	
360 minute winter	54	13.005	53	24.3	0.350	0.129	5.0149	
360 minute winter	53	13.006	33	26.0	0.432	0.163	3.2392	
360 minute winter	33.02	18.000	33.01	4.4	0.682	0.038	0.7426	
360 minute winter	33.01	18.001	33	7.6	0.897	0.078	0.3321	
360 minute winter	33	3.011	32	31.0	0.543	0.194	1.8522	
360 minute winter	48	20.000	47	4.7	0.515	0.118	0.7189	
360 minute winter	47	20.001	46	8.7	0.430	0.127	0.2488	
360 minute winter	46	20.002	Att. Tank 13	18.3	1.235	0.463	0.1442	
30 minute summer	52	19.000	51	-16.4	-0.232	-0.192	2.0706	
30 minute summer	51	19.001	50	61.1	1.327	0.616	2.5344	
30 minute summer	44	20.004	43	-82.8	-2.083	-2.078	0.3495	
30 minute summer	42	19.004	32	17.1	1.069	0.094	0.9532	
360 minute winter	32	3.012	31	34.2	0.357	0.157	5.1599	
360 minute winter	31	3.013	30A	39.6	0.390	0.183	4.7086	
360 minute winter	30	3.015	29	16.9	0.406	0.078	5.5309	
1440 minute winter	28	3.018	5	11.1	0.362	0.051	2.7494	
1440 minute winter	5	1.016	4	32.0	0.777	0.147	4.4900	
1440 minute winter	4	1.017	Att. Tank 2	31.8	0.941	0.093	0.3016	
1440 minute winter	3	1.019	Att. Tank 1	30.1	0.678	0.148	0.3621	
1440 minute winter	27	24.000	2	2.6	0.490	0.067	0.9062	



Results for 100 year +45% CC +10% A Critical Storm Duration. Lowest mass balance: 99.75%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	2	1440	5.727	1.650	25.8	2.9150	0.0000	SURCHARGED
1440 minute winter	HW3	1440	5.727	1.727	25.7	0.0000	0.0000	OK
1440 minute winter	HW2 (Eastern Basin)	1440	5.711	1.711	19.9	524.7546	0.0000	FLOOD RISK
1440 minute winter	1	1440	5.704	1.935	13.2	3.4192	0.0000	FLOOD RISK
15 minute summer	HW1	1	3.110	0.360	13.2	0.0000	0.0000	OK
30 minute summer	91	20	9.187	0.783	7.0	0.8857	0.0000	FLOOD RISK
30 minute summer	86.01	19	8.977	0.517	14.0	0.5851	0.0000	SURCHARGED
15 minute summer	86	11	8.847	0.889	157.9	1.2719	0.0000	SURCHARGED
30 minute summer	84	19	8.569	0.818	230.7	1.1710	0.0000	FLOOD RISK
30 minute summer	83	20	8.470	0.753	226.9	1.0780	0.0000	FLOOD RISK
60 minute summer	82	41	8.441	0.767	174.3	1.0971	0.0000	SURCHARGED
60 minute summer	89	41	8.441	0.364	2.2	0.4115	0.0000	SURCHARGED
1440 minute winter	Att. Tank 10	1380	8.353	1.588	5.6	88.8653	0.0000	SURCHARGED
1440 minute winter	76	1380	8.353	1.563	3.3	1.7682	0.0000	SURCHARGED
360 minute winter	Att. Tank 12	352	7.131	1.421	25.7	103.1041	0.0000	FLOOD RISK
360 minute winter	Att. Tank 11	352	7.131	1.861	19.2	70.4958	0.0000	SURCHARGED
360 minute winter	65	352	7.131	1.314	7.2	1.4865	0.0000	FLOOD RISK
360 minute winter	62	352	7.131	0.920	1.5	1.0408	0.0000	SURCHARGED
360 minute winter	64	352	7.131	0.635	0.3	0.1010	0.0000	SURCHARGED
30 minute summer	50	19	8.948	2.579	61.1	2.9164	0.0000	FLOOD RISK
30 minute summer	43	19	8.918	3.087	82.1	3.4918	0.0000	SURCHARGED
360 minute winter	Att. Tank 13	352	7.580	1.450	37.5	284.9460	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute winter	2	1.021	HW3	25.7	0.749	0.078	2.4459	
1440 minute winter	HW2 (Eastern Basin)	31.000	1	13.2	0.424	0.161	0.3671	
1440 minute winter	1	31.001	HW1	13.2	0.469	0.118	0.5226	3648.7
30 minute summer	91	30.000	24	-7.0	-0.497	-0.394	0.1174	
30 minute summer	86.01	26.000	86	13.2	1.043	0.744	0.3560	
15 minute summer	86	25.002	85	164.0	1.035	1.025	11.8128	
30 minute summer	84	25.004	83	226.9	1.432	1.411	2.1515	
30 minute summer	83	25.005	82	223.2	1.409	1.396	2.7509	
60 minute summer	82	25.006	HW6	172.1	1.086	1.072	1.0779	
60 minute summer	89	27.000	82	-2.2	-0.203	-0.124	0.1819	
1440 minute winter	Att. Tank 10	3.002	75	2.7	0.367	0.069	1.0569	
1440 minute winter	76	3.001	Att. Tank 10	3.2	0.593	0.080	0.1648	
360 minute winter	Att. Tank 12	14.001	56	-16.5	0.556	-0.237	0.1768	
360 minute winter	Att. Tank 11	13.003	55	16.8	0.456	0.151	1.7046	
360 minute winter	65	13.001	56	6.9	0.660	0.175	0.2870	
360 minute winter	62	16.000	55	1.5	0.682	0.040	0.3117	
360 minute winter	64	15.000	Att. Tank 11	-0.3	-0.034	-0.025	0.0176	
30 minute summer	50	19.002	43	57.7	1.018	0.231	0.7572	
30 minute summer	43	19.003	42	-32.4	-0.461	-0.291	2.9831	
360 minute winter	Att. Tank 13	20.003	44	-19.8	-0.497	-0.498	1.1623	



Results for 100 year +45% CC +10% A Critical Storm Duration. Lowest mass balance: 99.75%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	49	352	7.580	1.050	0.2	0.1670	0.0000	SURCHARGED
360 minute winter	30A	352	7.130	2.404	39.6	4.2486	0.0000	SURCHARGED
1440 minute winter	28A	1530	5.978	1.373	14.2	2.4256	0.0000	SURCHARGED
1440 minute winter	29	1530	5.978	1.348	14.2	2.3816	0.0000	SURCHARGED
1440 minute winter	81	1440	5.727	0.571	0.8	0.6461	0.0000	SURCHARGED
1440 minute winter	Att. Tank 3	1440	5.727	1.002	24.0	56.5258	0.0000	FLOOD RISK
1440 minute winter	Att. Tank 2	1440	5.727	1.472	31.8	94.7896	0.0000	FLOOD RISK
1440 minute winter	Att. Tank 1	1440	5.727	1.492	30.1	182.4596	0.0000	SURCHARGED
60 minute summer	14	42	7.706	0.463	140.8	0.6621	0.0000	SURCHARGED
1440 minute winter	Att. Tank 5	1530	5.978	0.978	11.9	298.6909	0.0000	FLOOD RISK
360 minute winter	Att. Tank 6	352	7.130	1.770	39.3	332.8399	0.0000	SURCHARGED
1440 minute winter	Att. Tank 7	1380	8.353	3.243	11.1	253.2057	0.0000	SURCHARGED
1440 minute winter	Att. Tank 8	1380	8.353	3.268	16.2	222.1102	0.0000	SURCHARGED
30 minute summer	Att. Tank 4	22	8.762	0.897	138.3	33.1829	0.0000	SURCHARGED
1440 minute winter	75A	1380	8.353	1.787	7.1	2.0215	0.0000	SURCHARGED
1440 minute winter	Att. Tank 9	1380	8.353	1.809	7.0	122.4540	0.0000	SURCHARGED
1440 minute winter	26	1380	8.353	0.937	0.1	0.1490	0.0000	SURCHARGED
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute winter	49	21.000	Att. Tank 13	-0.2	-0.039	-0.011	0.0352	
360 minute winter	30A	3.014	30	15.9	0.176	0.073	4.6441	
1440 minute winter	28A	3.017	28	11.0	0.186	0.050	2.6224	
1440 minute winter	29	3.016	28A	14.2	0.312	0.065	2.6226	
1440 minute winter	81	2.000	8	0.8	0.506	0.045	0.2232	
1440 minute winter	Att. Tank 3	1.013	7	21.5	0.609	0.117	0.2907	
1440 minute winter	Att. Tank 2	1.018	3	27.8	0.572	0.126	1.7525	
1440 minute winter	Att. Tank 1	1.020	2	23.7	0.709	0.107	0.8207	
60 minute summer	14	1.006	13	140.8	0.980	1.467	5.7820	
1440 minute winter	Att. Tank 5	23.000	28A	-11.9	-0.067	-0.019	4.9616	
360 minute winter	Att. Tank 6	22.000	30A	-35.1	-0.501	-0.155	3.3263	
1440 minute winter	Att. Tank 7	11.000	33A	-11.1	-0.155	-0.094	1.4465	
1440 minute winter	Att. Tank 8	12.000	33A	-16.2	-0.233	-0.129	0.5852	
30 minute summer	Att. Tank 4	28.006	20	88.2	1.252	1.038	2.0015	
1440 minute winter	75A	3.004	Att. Tank 9	7.0	0.839	0.134	0.0870	
1440 minute winter	Att. Tank 9	3.005	37	6.4	0.816	0.131	0.8578	
1440 minute winter	26	4.000	Att. Tank 10	-0.1	0.016	-0.006	0.0176	