STORM SEWER DESIGN by the Modified Rational Method

Network Design Table for SW East

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
SB1.000	28.049	0.280	100.2	0.013	5.00	0.0	0.600	o	150	Pipe/Conduit	
SB1.001	14.050	0.256	54.9	0.043	0.00	0.0	0.600	o	300	Pipe/Conduit	
SB2.000	19.199	0.192	100.0	0.025	5.00	0.0	0.600	o	225	Pipe/Conduit	
SB2.001	15.918	0.159	100.0	0.049	0.00	0.0	0.600	o	225	Pipe/Conduit	
SB1.002	3.021	0.010	300.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
SB3.000	5.784	0.237	24.4	0.027	5.00	0.0	0.600	o	150	Pipe/Conduit	
SB1.003	60.557	0.202	300.0	0.063	0.00	0.0	0.600	o	300	Pipe/Conduit	
SB4.000	7.680	0.077	99.7	0.018	5.00	0.0	0.600	o	150	Pipe/Conduit	
SB4.001	33.049	0.220	150.0	0.023	0.00	0.0	0.600	o	225	Pipe/Conduit	
SB4.002	24.980	0.172	145.2	0.054	0.00	0.0	0.600	o	225	Pipe/Conduit	
SB5.000	12.159	0.122	100.0	0.024	5.00	0.0	0.600	o	150	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
SB1.000	0.00	5.47	78.860	0.013	0.0	0.0	0.0	1.00	17.7	0.0
SB1.001	0.00	5.58	78.430	0.056	0.0	0.0	0.0	2.13	150.3	0.0
SB2.000	0.00	5.24	78.600	0.025	0.0	0.0	0.0	1.31	52.0	0.0
SB2.001	0.00	5.45	78.408	0.074	0.0	0.0	0.0	1.31	52.0	0.0
SB1.002	0.00	5.63	78.174	0.130	0.0	0.0	0.0	0.90	63.8	0.0
SB3.000	0.00	5.05	78.550	0.027	0.0	0.0	0.0	2.05	36.2	0.0
SB1.003	0.00	6.75	78.163	0.220	0.0	0.0	0.0	0.90	63.8	0.0
SB4.000	0.00	5.13	78.480	0.018	0.0	0.0	0.0	1.01	17.8	0.0
SB4.001	0.00	5.64	78.328	0.041	0.0	0.0	0.0	1.07	42.4	0.0
SB4.002	0.00	6.03	78.108	0.095	0.0	0.0	0.0	1.08	43.1	0.0
SB5.000	0.00	5.20	78.550	0.024	0.0	0.0	0.0	1.00	17.8	0.0

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STORM SEWER DESIGN by the Modified Rational Method

Network Design Table for SW East

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
SB1.004	20.020	0.067	300.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
SB6.000	18.338	0.183	100.2	0.023	5.00	0.0	0.600	o	150	Pipe/Conduit	
SB6.001	18.650	0.423	44.1	0.054	0.00	0.0	0.600	o	150	Pipe/Conduit	
SB1.005	22.687	0.076	298.5	0.015	0.00	0.0	0.600	o	300	Pipe/Conduit	
SB7.000	12.126	0.121	100.0	0.024	5.00	0.0	0.600	o	150	Pipe/Conduit	
SB8.000	12.957	0.130	99.7	0.027	5.00	0.0	0.600	o	150	Pipe/Conduit	
SB1.006	9.071	0.227	40.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
SB9.000	20.031	0.200	100.2	0.044	5.00	0.0	0.600	o	150	Pipe/Conduit	
SB9.001	7.508	0.075	100.0	0.030	0.00	0.0	0.600	o	150	Pipe/Conduit	
SB1.007	10.431	0.261	40.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
SB1.008	23.745	0.594	40.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
SB1.004	0.00	7.12	77.861	0.339	0.0	0.0	0.0	0.90	63.8	0.0
SB6.000	0.00	5.30	78.550	0.023	0.0	0.0	0.0	1.00	17.7	0.0
SB6.001	0.00	5.51	78.367	0.077	0.0	0.0	0.0	1.52	26.9	0.0
SB1.005	0.00	7.54	77.794	0.431	0.0	0.0	0.0	0.90	64.0	0.0
SB7.000	0.00	5.20	78.000	0.024	0.0	0.0	0.0	1.00	17.8	0.0
SB8.000	0.00	5.21	78.000	0.027	0.0	0.0	0.0	1.01	17.8	0.0
SB1.006	0.00	7.60	73.540	0.482	0.0	0.0	0.0	2.49	176.2	0.0
SB9.000	0.00	5.33	74.275	0.044	0.0	0.0	0.0	1.00	17.7	0.0
SB9.001	0.00	5.46	74.075	0.074	0.0	0.0	0.0	1.00	17.8	0.0
SB1.007	0.00	7.67	73.313	0.556	0.0	0.0	0.0	2.49	176.2	0.0
SB1.008	0.00	7.83	73.052	0.556	0.0	0.0	0.0	2.49	176.3	0.0

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STORM SEWER DESIGN by the Modified Rational Method

Network Design Table for SW East

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
SB10.000	11.210	0.430	26.1	0.017	5.00	0.0	0.600	o	225	Pipe/Conduit	
SB10.001	7.771	0.300	25.9	0.023	0.00	0.0	0.600	o	225	Pipe/Conduit	
SB10.002	7.461	0.300	24.9	0.016	0.00	0.0	0.600	o	225	Pipe/Conduit	
SB10.003	5.631	0.056	100.0	0.035	0.00	0.0	0.600	o	225	Pipe/Conduit	
SB11.000	11.900	0.238	50.0	0.026	5.00	0.0	0.600	o	150	Pipe/Conduit	
SB12.000	7.758	0.140	55.4	0.047	5.00	0.0	0.600	o	150	Pipe/Conduit	
SB11.001	7.422	0.074	100.3	0.054	0.00	0.0	0.600	o	150	Pipe/Conduit	
SB1.009	8.659	0.022	393.6	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
SB1.010	6.486	0.016	400.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
SB1.011	8.391	0.140	60.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
SB1.012	19.412	0.216	90.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
SB10.000	0.00	5.07	73.819	0.017	0.0	0.0	0.0	2.57	102.3	0.0
SB10.001	0.00	5.12	73.389	0.040	0.0	0.0	0.0	2.58	102.6	0.0
SB10.002	0.00	5.17	73.089	0.056	0.0	0.0	0.0	2.63	104.8	0.0
SB10.003	0.00	5.24	72.789	0.091	0.0	0.0	0.0	1.31	52.0	0.0
SB11.000	0.00	5.14	72.740	0.026	0.0	0.0	0.0	1.43	25.2	0.0
SB12.000	0.00	5.10	73.090	0.047	0.0	0.0	0.0	1.35	23.9	0.0
SB11.001	0.00	5.26	72.502	0.127	0.0	0.0	0.0	1.00	17.7	0.0
SB1.009	0.00	8.01	71.300	0.774	0.0	0.0	0.0	0.79	55.6	0.0
SB1.010	0.00	8.15	71.278	0.774	0.0	0.0	0.0	0.78	55.1	0.0
SB1.011	0.00	8.22	71.262	0.774	0.0	0.0	0.0	2.03	143.7	0.0
SB1.012	0.00	8.41	71.122	0.774	0.0	0.0	0.0	1.66	117.2	0.0

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Manhole Schedules for SW East

MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam.,L*W (mm)	PN	Pipe Out Invert Level (m)	Diameter (mm)	PN	Pipes In Invert Level (m)	Diameter (mm)	Backdrop (mm)
SB1A	79.617	0.757	Open Manhole	450	SB1.000	78.860	150				
SB1	79.583	1.153	Open Manhole	1200	SB1.001	78.430	300	SB1.000	78.580	150	
SB2	79.610	1.010	Open Manhole	450	SB2.000	78.600	225				
SB3	79.692	1.284	Open Manhole	1200	SB2.001	78.408	225	SB2.000	78.408	225	
SB4	79.618	1.444	Open Manhole	1500	SB1.002	78.174	300	SB1.001	78.174	300	
								SB2.001	78.249	225	
SB4A	79.686	1.136	Open Manhole	450	SB3.000	78.550	150				
JUN	79.605	1.442	Junction		SB1.003	78.163	300	SB1.002	78.164	300	1
								SB3.000	78.313	150	
SB9	79.605	1.125	Open Manhole	450	SB4.000	78.480	150				
SB10	79.605	1.277	Open Manhole	450	SB4.001	78.328	225	SB4.000	78.403	150	
SB11	79.702	1.594	Open Manhole	1200	SB4.002	78.108	225	SB4.001	78.108	225	
SB13A	79.722	1.172	Open Manhole	450	SB5.000	78.550	150				
SB13	79.653	1.792	Open Manhole	1500	SB1.004	77.861	300	SB1.003	77.961	300	100
								SB4.002	77.936	225	
								SB5.000	78.428	150	418
SB14A	79.609	1.059	Open Manhole	450	SB6.000	78.550	150				
SB14B	79.648	1.281	Open Manhole	450	SB6.001	78.367	150	SB6.000	78.367	150	
SB14	79.600	1.806	Open Manhole	1500	SB1.005	77.794	300	SB1.004	77.794	300	
								SB6.001	77.944	150	
SB16	79.625	1.625	Open Manhole	450	SB7.000	78.000	150				
SB18	79.602	1.602	Open Manhole	450	SB8.000	78.000	150				
SB15	79.672	6.132	Open Manhole	1500	SB1.006	73.540	300	SB1.005	77.718	300	4178
								SB7.000	77.879	150	4189
								SB8.000	77.870	150	4180
SB19A	75.425	1.150	Open Manhole	1200	SB9.000	74.275	150				
SB19B	75.254	1.179	Open Manhole	1200	SB9.001	74.075	150	SB9.000	74.075	150	
SB19	74.916	1.603	Open Manhole	1500	SB1.007	73.313	300	SB1.006	73.313	300	
								SB9.001	74.000	150	537
SB20	74.671	1.619	Open Manhole	1500	SB1.008	73.052	300	SB1.007	73.052	300	
SB21A	75.258	1.439	Open Manhole	600	SB10.000	73.819	225				
SB21B	75.203	1.814	Open Manhole	600	SB10.001	73.389	225	SB10.000	73.389	225	
SB21	75.062	1.973	Open Manhole	600	SB10.002	73.089	225	SB10.001	73.089	225	
SB22	74.762	1.973	Open Manhole	600	SB10.003	72.789	225	SB10.002	72.789	225	

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Manhole Schedules for SW East

MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam.,L*W (mm)	Pipe Out PN	Pipe Out Invert Level (m)	Pipe Out Diameter (mm)	Pipes In PN	Pipes In Invert Level (m)	Pipes In Diameter (mm)	Backdrop (mm)
SB23A	75.050	2.310	Open Manhole	600	SB11.000	72.740	150				
SB23B	74.726	1.636	Open Manhole	600	SB12.000	73.090	150				
SB23C	74.843	2.341	Open Manhole	1200	SB11.001	72.502	150	SB11.000	72.502	150	
								SB12.000	72.950	150	448
SB23	74.563	3.263	Open Manhole	1800	SB1.009	71.300	300	SB1.008	72.458	300	1158
								SB10.003	72.733	225	1358
								SB11.001	72.428	150	978
TANK 2	74.196	2.918	Open Manhole	1500	SB1.010	71.278	300	SB1.009	71.278	300	
SB24	73.901	2.639	Open Manhole	2100	SB1.011	71.262	300	SB1.010	71.262	300	
CB1	73.662	2.540	Open Manhole	1500	SB1.012	71.122	300	SB1.011	71.122	300	
MH C2	72.530	1.624	Open Manhole	1500		OUTFALL		SB1.012	70.906	300	

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PIPELINE SCHEDULES for SW East

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
SB1.000	o	150	SB1A	79.617	78.860	0.607	Open Manhole	450
SB1.001	o	300	SB1	79.583	78.430	0.853	Open Manhole	1200
SB2.000	o	225	SB2	79.610	78.600	0.785	Open Manhole	450
SB2.001	o	225	SB3	79.692	78.408	1.059	Open Manhole	1200
SB1.002	o	300	SB4	79.618	78.174	1.144	Open Manhole	1500
SB3.000	o	150	SB4A	79.686	78.550	0.986	Open Manhole	450
SB1.003	o	300	JUN	79.605	78.163	1.142	Junction	
SB4.000	o	150	SB9	79.605	78.480	0.975	Open Manhole	450
SB4.001	o	225	SB10	79.605	78.328	1.052	Open Manhole	450
SB4.002	o	225	SB11	79.702	78.108	1.369	Open Manhole	1200
SB5.000	o	150	SB13A	79.722	78.550	1.022	Open Manhole	450

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
SB1.000	28.049	100.2	SB1	79.583	78.580	0.853	Open Manhole	1200
SB1.001	14.050	54.9	SB4	79.618	78.174	1.144	Open Manhole	1500
SB2.000	19.199	100.0	SB3	79.692	78.408	1.059	Open Manhole	1200
SB2.001	15.918	100.0	SB4	79.618	78.249	1.144	Open Manhole	1500
SB1.002	3.021	300.0	JUN	79.605	78.164	1.141	Junction	
SB3.000	5.784	24.4	JUN	79.605	78.313	1.142	Junction	
SB1.003	60.557	300.0	SB13	79.653	77.961	1.392	Open Manhole	1500
SB4.000	7.680	99.7	SB10	79.605	78.403	1.052	Open Manhole	450
SB4.001	33.049	150.0	SB11	79.702	78.108	1.369	Open Manhole	1200
SB4.002	24.980	145.2	SB13	79.653	77.936	1.492	Open Manhole	1500
SB5.000	12.159	100.0	SB13	79.653	78.428	1.075	Open Manhole	1500

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PIPELINE SCHEDULES for SW East

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
SB1.004	o	300	SB13	79.653	77.861	1.492	Open Manhole	1500
SB6.000	o	150	SB14A	79.609	78.550	0.909	Open Manhole	450
SB6.001	o	150	SB14B	79.648	78.367	1.131	Open Manhole	450
SB1.005	o	300	SB14	79.600	77.794	1.506	Open Manhole	1500
SB7.000	o	150	SB16	79.625	78.000	1.475	Open Manhole	450
SB8.000	o	150	SB18	79.602	78.000	1.452	Open Manhole	450
SB1.006	o	300	SB15	79.672	73.540	5.832	Open Manhole	1500
SB9.000	o	150	SB19A	75.425	74.275	1.000	Open Manhole	1200
SB9.001	o	150	SB19B	75.254	74.075	1.029	Open Manhole	1200
SB1.007	o	300	SB19	74.916	73.313	1.303	Open Manhole	1500
SB1.008	o	300	SB20	74.671	73.052	1.319	Open Manhole	1500

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
SB1.004	20.020	300.0	SB14	79.600	77.794	1.506	Open Manhole	1500
SB6.000	18.338	100.2	SB14B	79.648	78.367	1.131	Open Manhole	450
SB6.001	18.650	44.1	SB14	79.600	77.944	1.506	Open Manhole	1500
SB1.005	22.687	298.5	SB15	79.672	77.718	1.654	Open Manhole	1500
SB7.000	12.126	100.0	SB15	79.672	77.879	1.643	Open Manhole	1500
SB8.000	12.957	99.7	SB15	79.672	77.870	1.652	Open Manhole	1500
SB1.006	9.071	40.0	SB19	74.916	73.313	1.303	Open Manhole	1500
SB9.000	20.031	100.2	SB19B	75.254	74.075	1.029	Open Manhole	1200
SB9.001	7.508	100.0	SB19	74.916	74.000	0.766	Open Manhole	1500
SB1.007	10.431	40.0	SB20	74.671	73.052	1.319	Open Manhole	1500
SB1.008	23.745	40.0	SB23	74.563	72.458	1.805	Open Manhole	1800

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PIPELINE SCHEDULES for SW East

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
SB10.000	o	225	SB21A	75.258	73.819	1.214	Open Manhole	600
SB10.001	o	225	SB21B	75.203	73.389	1.589	Open Manhole	600
SB10.002	o	225	SB21	75.062	73.089	1.748	Open Manhole	600
SB10.003	o	225	SB22	74.762	72.789	1.748	Open Manhole	600
SB11.000	o	150	SB23A	75.050	72.740	2.160	Open Manhole	600
SB12.000	o	150	SB23B	74.726	73.090	1.486	Open Manhole	600
SB11.001	o	150	SB23C	74.843	72.502	2.191	Open Manhole	1200
SB1.009	o	300	SB23	74.563	71.300	2.963	Open Manhole	1800
SB1.010	o	300	TANK 2	74.196	71.278	2.618	Open Manhole	1500
SB1.011	o	300	SB24	73.901	71.262	2.339	Open Manhole	2100
SB1.012	o	300	CB1	73.662	71.122	2.240	Open Manhole	1500

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
SB10.000	11.210	26.1	SB21B	75.203	73.389	1.589	Open Manhole	600
SB10.001	7.771	25.9	SB21	75.062	73.089	1.748	Open Manhole	600
SB10.002	7.461	24.9	SB22	74.762	72.789	1.748	Open Manhole	600
SB10.003	5.631	100.0	SB23	74.563	72.733	1.605	Open Manhole	1800
SB11.000	11.900	50.0	SB23C	74.843	72.502	2.191	Open Manhole	1200
SB12.000	7.758	55.4	SB23C	74.843	72.950	1.743	Open Manhole	1200
SB11.001	7.422	100.3	SB23	74.563	72.428	1.985	Open Manhole	1800
SB1.009	8.659	393.6	TANK 2	74.196	71.278	2.618	Open Manhole	1500
SB1.010	6.486	400.0	SB24	73.901	71.262	2.339	Open Manhole	2100
SB1.011	8.391	60.0	CB1	73.662	71.122	2.240	Open Manhole	1500
SB1.012	19.412	90.0	MH C2	72.530	70.906	1.324	Open Manhole	1500

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Area Summary for SW East

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
1.000	-	-	100	0.013	0.013	0.013
1.001	-	-	100	0.043	0.043	0.043
2.000	-	-	100	0.025	0.025	0.025
2.001	-	-	100	0.049	0.049	0.049
1.002	-	-	100	0.000	0.000	0.000
3.000	-	-	100	0.027	0.027	0.027
1.003	-	-	100	0.063	0.063	0.063
4.000	-	-	100	0.018	0.018	0.018
4.001	-	-	100	0.023	0.023	0.023
4.002	-	-	100	0.054	0.054	0.054
5.000	-	-	100	0.024	0.024	0.024
1.004	-	-	100	0.000	0.000	0.000
6.000	-	-	100	0.023	0.023	0.023
6.001	-	-	100	0.054	0.054	0.054
1.005	-	-	100	0.015	0.015	0.015
7.000	-	-	100	0.024	0.024	0.024
8.000	-	-	100	0.027	0.027	0.027
1.006	-	-	100	0.000	0.000	0.000
9.000	-	-	100	0.044	0.044	0.044
9.001	-	-	100	0.030	0.030	0.030
1.007	-	-	100	0.000	0.000	0.000
1.008	-	-	100	0.000	0.000	0.000
10.000	-	-	100	0.017	0.017	0.017
10.001	-	-	100	0.023	0.023	0.023
10.002	-	-	100	0.016	0.016	0.016
10.003	-	-	100	0.035	0.035	0.035
11.000	-	-	100	0.026	0.026	0.026
12.000	-	-	100	0.047	0.047	0.047
11.001	-	-	100	0.054	0.054	0.054
1.009	-	-	100	0.000	0.000	0.000
1.010	-	-	100	0.000	0.000	0.000
1.011	-	-	100	0.000	0.000	0.000
1.012	-	-	100	0.000	0.000	0.000
				Total	Total	Total
				0.774	0.774	0.774

Surcharged Outfall Details for SW East

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
SB1.012	MH C2	72.530	70.906	65.300	1500	0

Datum (m) 65.065 Offset (mins) 0

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Surcharged Outfall Details for SW East

Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)
15	1.000	225	1.000	435	1.000	645	1.000	855	1.000	1065	1.000	1275	1.000
30	1.000	240	1.000	450	1.000	660	1.000	870	1.000	1080	1.000	1290	1.000
45	1.000	255	1.000	465	1.000	675	1.000	885	1.000	1095	1.000	1305	1.000
60	1.000	270	1.000	480	1.000	690	1.000	900	1.000	1110	1.000	1320	1.000
75	1.000	285	1.000	495	1.000	705	1.000	915	1.000	1125	1.000	1335	1.000
90	1.000	300	1.000	510	1.000	720	1.000	930	1.000	1140	1.000	1350	1.000
105	1.000	315	1.000	525	1.000	735	1.000	945	1.000	1155	1.000	1365	1.000
120	1.000	330	1.000	540	1.000	750	1.000	960	1.000	1170	1.000	1380	1.000
135	1.000	345	1.000	555	1.000	765	1.000	975	1.000	1185	1.000	1395	1.000
150	1.000	360	1.000	570	1.000	780	1.000	990	1.000	1200	1.000	1410	1.000
165	1.000	375	1.000	585	1.000	795	1.000	1005	1.000	1215	1.000	1425	1.000
180	1.000	390	1.000	600	1.000	810	1.000	1020	1.000	1230	1.000	1440	1.000
195	1.000	405	1.000	615	1.000	825	1.000	1035	1.000	1245	1.000		
210	1.000	420	1.000	630	1.000	840	1.000	1050	1.000	1260	1.000		

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Online Controls for SW East

Complex Manhole: SB24, DS/PN: SB1.011, Volume (m³): 9.5

Hydro-Brake® Optimum

Unit Reference	MD-SHE-0279-4800-1800-4800
Design Head (m)	1.800
Design Flow (l/s)	48.0
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	279
Invert Level (m)	71.262
Minimum Outlet Pipe Diameter (mm)	300
Suggested Manhole Diameter (mm)	2100

Control Points	Head (m)	Flow (l/s)	Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	1.800	48.0	Kick-Flo®	1.222	39.8
Flush-Flo™	0.559	48.0	Mean Flow over Head Range	-	41.1

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	8.8	1.200	40.7	3.000	61.4	7.000	92.7
0.200	28.8	1.400	42.5	3.500	66.2	7.500	95.9
0.300	45.0	1.600	45.4	4.000	70.6	8.000	98.9
0.400	47.1	1.800	48.0	4.500	74.8	8.500	101.9
0.500	47.9	2.000	50.5	5.000	78.7	9.000	104.8
0.600	48.0	2.200	52.9	5.500	82.4	9.500	107.6
0.800	47.1	2.400	55.1	6.000	86.0		
1.000	45.3	2.600	57.3	6.500	89.4		

Orifice

Diameter (m) 0.145 Discharge Coefficient 0.600 Invert Level (m) 72.462

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Storage Structures for SW East

Tank or Pond Manhole: TANK 2, DS/PN: SB1.010

Invert Level (m) 71.278

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	95.0	1.600	95.0	1.601	0.0

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW East

Simulation Criteria

Areal Reduction Factor 1.000 Additional Flow - % of Total Flow 0.000
Hot Start (mins) 0 MADD Factor * 10m³/ha Storage 2.000
Hot Start Level (mm) 0 Inlet Coeffiecient 0.800
Manhole Headloss Coeff (Global) 0.500 Flow per Person per Day (l/per/day) 0.000
Foul Sewage per hectare (l/s) 0.000

Number of Input Hydrographs 0 Number of Offline Controls 0 Number of Time/Area Diagrams 0
Number of Online Controls 1 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.348
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 18.500 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0
Analysis Timestep 2.5 Second Increment (Extended)
DTS Status OFF
DVD Status ON
Inertia Status ON

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 40

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
SB1.000	SB1A	15 Winter	1	+0%	100/15 Summer				78.891
SB1.001	SB1	15 Winter	1	+0%	100/15 Summer				78.473
SB2.000	SB2	15 Winter	1	+0%	100/15 Summer				78.638
SB2.001	SB3	15 Winter	1	+0%	100/15 Summer				78.472
SB1.002	SB4	15 Winter	1	+0%	30/15 Summer				78.296
SB3.000	SB4A	15 Winter	1	+0%	100/15 Summer				78.583
SB1.003	JUN	15 Winter	1	+0%	30/15 Winter				78.290
SB4.000	SB9	15 Winter	1	+0%	100/15 Summer				78.518
SB4.001	SB10	15 Winter	1	+0%	100/15 Summer				78.379
SB4.002	SB11	15 Winter	1	+0%	30/15 Summer				78.185
SB5.000	SB13A	15 Winter	1	+0%	100/15 Summer				78.593
SB1.004	SB13	15 Winter	1	+0%	30/15 Summer				78.044
SB6.000	SB14A	15 Winter	1	+0%	100/15 Summer				78.592
SB6.001	SB14B	15 Winter	1	+0%	30/15 Winter				78.427

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW East

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
SB1.000	SB1A	-0.119	0.000	0.09		1.6	OK	
SB1.001	SB1	-0.257	0.000	0.05		6.0	OK	
SB2.000	SB2	-0.187	0.000	0.06		3.0	OK	
SB2.001	SB3	-0.161	0.000	0.18		8.1	OK	
SB1.002	SB4	-0.178	0.000	0.28		14.2	OK	
SB3.000	SB4A	-0.117	0.000	0.11		3.3	OK	
SB1.003	JUN	-0.173	0.000	0.36		22.9	OK*	
SB4.000	SB9	-0.112	0.000	0.14		2.2	OK	
SB4.001	SB10	-0.174	0.000	0.11		4.5	OK	
SB4.002	SB11	-0.148	0.000	0.25		10.1	OK	
SB5.000	SB13A	-0.107	0.000	0.18		2.9	OK	
SB1.004	SB13	-0.117	0.000	0.63		34.9	OK	
SB6.000	SB14A	-0.108	0.000	0.17		2.8	OK	
SB6.001	SB14B	-0.090	0.000	0.33		8.3	OK	

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW East

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
SB1.005	SB14	15 Winter	1	+0%	30/15 Summer				77.993
SB7.000	SB16	15 Winter	1	+0%					78.043
SB8.000	SB18	15 Winter	1	+0%					78.046
SB1.006	SB15	15 Winter	1	+0%	100/15 Summer				73.673
SB9.000	SB19A	15 Winter	1	+0%	100/15 Summer				74.334
SB9.001	SB19B	15 Winter	1	+0%	30/15 Summer				74.155
SB1.007	SB19	15 Winter	1	+0%	100/15 Summer				73.451
SB1.008	SB20	15 Winter	1	+0%	100/15 Summer				73.176
SB10.000	SB21A	15 Winter	1	+0%					73.843
SB10.001	SB21B	15 Winter	1	+0%	100/60 Winter				73.424
SB10.002	SB21	15 Winter	1	+0%	100/30 Winter				73.131
SB10.003	SB22	15 Winter	1	+0%	100/15 Summer				72.873
SB11.000	SB23A	15 Winter	1	+0%	30/15 Summer				72.777
SB12.000	SB23B	15 Winter	1	+0%	100/15 Summer				73.144
SB11.001	SB23C	15 Winter	1	+0%	30/15 Summer				72.619
SB1.009	SB23	15 Winter	1	+0%	1/15 Summer				71.659
SB1.010	TANK 2	30 Winter	1	+0%	30/15 Summer				71.546
SB1.011	SB24	30 Winter	1	+0%	30/15 Summer				71.524
SB1.012	CB1	30 Winter	1	+0%					71.254

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
SB1.005	SB14	-0.101	0.000	0.77		43.5	OK	
SB7.000	SB16	-0.107	0.000	0.18		2.9	OK	
SB8.000	SB18	-0.104	0.000	0.20		3.3	OK	
SB1.006	SB15	-0.167	0.000	0.40		47.8	OK	
SB9.000	SB19A	-0.091	0.000	0.32		5.3	OK	
SB9.001	SB19B	-0.070	0.000	0.55		8.5	OK	
SB1.007	SB19	-0.162	0.000	0.43		55.4	OK	
SB1.008	SB20	-0.177	0.000	0.35		55.5	OK	
SB10.000	SB21A	-0.201	0.000	0.02		2.1	OK	
SB10.001	SB21B	-0.190	0.000	0.06		4.5	OK	
SB10.002	SB21	-0.183	0.000	0.08		6.1	OK	
SB10.003	SB22	-0.141	0.000	0.29		9.7	OK	
SB11.000	SB23A	-0.113	0.000	0.14		3.2	OK	
SB12.000	SB23B	-0.096	0.000	0.28		5.8	OK	
SB11.001	SB23C	-0.033	0.000	0.95		14.4	OK	
SB1.009	SB23	0.059	0.000	2.09		77.0	SURCHARGED	
SB1.010	TANK 2	-0.032	0.000	0.97		40.8	OK	
SB1.011	SB24	-0.038	0.000	0.44		40.9	OK	

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW East

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
SB1.012	CB1	-0.168	0.000	0.40		40.8	OK	

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW East

Simulation Criteria

Areal Reduction Factor 1.000 Additional Flow - % of Total Flow 0.000
Hot Start (mins) 0 MADD Factor * 10m³/ha Storage 2.000
Hot Start Level (mm) 0 Inlet Coeffiecient 0.800
Manhole Headloss Coeff (Global) 0.500 Flow per Person per Day (l/per/day) 0.000
Foul Sewage per hectare (l/s) 0.000

Number of Input Hydrographs 0 Number of Offline Controls 0 Number of Time/Area Diagrams 0
Number of Online Controls 1 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.348
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 18.500 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0
Analysis Timestep 2.5 Second Increment (Extended)
DTS Status OFF
DVD Status ON
Inertia Status ON

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 40

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
SB1.000	SB1A	15 Winter	30	+0%	100/15 Summer				78.909
SB1.001	SB1	15 Winter	30	+0%	100/15 Summer				78.538
SB2.000	SB2	15 Winter	30	+0%	100/15 Summer				78.660
SB2.001	SB3	15 Winter	30	+0%	100/15 Summer				78.555
SB1.002	SB4	15 Winter	30	+0%	30/15 Summer				78.528
SB3.000	SB4A	15 Winter	30	+0%	100/15 Summer				78.603
SB1.003	JUN	15 Winter	30	+0%	30/15 Winter				78.464
SB4.000	SB9	15 Winter	30	+0%	100/15 Summer				78.542
SB4.001	SB10	15 Winter	30	+0%	100/15 Summer				78.437
SB4.002	SB11	15 Winter	30	+0%	30/15 Summer				78.414
SB5.000	SB13A	15 Winter	30	+0%	100/15 Summer				78.621
SB1.004	SB13	15 Winter	30	+0%	30/15 Summer				78.359
SB6.000	SB14A	15 Winter	30	+0%	100/15 Summer				78.618
SB6.001	SB14B	15 Winter	30	+0%	30/15 Winter				78.525

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW East

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
SB1.000	SB1A	-0.101	0.000	0.23		3.8	OK	
SB1.001	SB1	-0.192	0.000	0.14		17.5	OK	
SB2.000	SB2	-0.165	0.000	0.16		7.4	OK	
SB2.001	SB3	-0.078	0.000	0.50		23.0	OK	
SB1.002	SB4	0.054	0.000	0.65		33.0	SURCHARGED	
SB3.000	SB4A	-0.097	0.000	0.27		8.1	OK	
SB1.003	JUN	0.001	0.000	0.88		55.9	SURCHARGED*	
SB4.000	SB9	-0.088	0.000	0.35		5.4	OK	
SB4.001	SB10	-0.116	0.000	0.31		12.5	OK	
SB4.002	SB11	0.081	0.000	0.61		24.1	SURCHARGED	
SB5.000	SB13A	-0.079	0.000	0.45		7.2	OK	
SB1.004	SB13	0.199	0.000	1.40		77.9	SURCHARGED	
SB6.000	SB14A	-0.082	0.000	0.41		6.8	OK	
SB6.001	SB14B	0.008	0.000	0.90		22.7	SURCHARGED	

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW East

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
SB1.005	SB14	15 Winter	30	+0%	30/15 Summer				78.229
SB7.000	SB16	15 Winter	30	+0%					78.071
SB8.000	SB18	15 Winter	30	+0%					78.075
SB1.006	SB15	15 Winter	30	+0%	100/15 Summer				73.766
SB9.000	SB19A	15 Winter	30	+0%	100/15 Summer				74.412
SB9.001	SB19B	15 Winter	30	+0%	30/15 Summer				74.295
SB1.007	SB19	15 Winter	30	+0%	100/15 Summer				73.571
SB1.008	SB20	15 Winter	30	+0%	100/15 Summer				73.259
SB10.000	SB21A	15 Winter	30	+0%					73.854
SB10.001	SB21B	15 Winter	30	+0%	100/60 Winter				73.449
SB10.002	SB21	15 Winter	30	+0%	100/30 Winter				73.162
SB10.003	SB22	15 Winter	30	+0%	100/15 Summer				72.951
SB11.000	SB23A	15 Winter	30	+0%	30/15 Summer				73.066
SB12.000	SB23B	15 Winter	30	+0%	100/15 Summer				73.182
SB11.001	SB23C	15 Winter	30	+0%	30/15 Summer				73.037
SB1.009	SB23	30 Winter	30	+0%	1/15 Summer				72.239
SB1.010	TANK 2	30 Winter	30	+0%	30/15 Summer				72.124
SB1.011	SB24	30 Winter	30	+0%	30/15 Summer				72.101
SB1.012	CB1	120 Summer	30	+0%					71.267

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
SB1.005	SB14	0.135	0.000	1.71		96.5	SURCHARGED	
SB7.000	SB16	-0.079	0.000	0.45		7.2	OK	
SB8.000	SB18	-0.075	0.000	0.50		8.1	OK	
SB1.006	SB15	-0.074	0.000	0.91		108.3	OK	
SB9.000	SB19A	-0.013	0.000	0.76		12.8	OK	
SB9.001	SB19B	0.070	0.000	1.40		21.5	SURCHARGED	
SB1.007	SB19	-0.043	0.000	1.00		127.4	OK	
SB1.008	SB20	-0.093	0.000	0.82		127.9	OK	
SB10.000	SB21A	-0.190	0.000	0.06		5.1	OK	
SB10.001	SB21B	-0.165	0.000	0.16		12.4	OK	
SB10.002	SB21	-0.152	0.000	0.23		17.5	OK	
SB10.003	SB22	-0.063	0.000	0.86		28.7	OK	
SB11.000	SB23A	0.176	0.000	0.34		7.8	SURCHARGED	
SB12.000	SB23B	-0.058	0.000	0.68		14.1	OK	
SB11.001	SB23C	0.385	0.000	2.47		37.7	SURCHARGED	
SB1.009	SB23	0.639	0.000	4.31		159.0	SURCHARGED	
SB1.010	TANK 2	0.546	0.000	1.23		51.7	SURCHARGED	
SB1.011	SB24	0.540	0.000	0.51		48.0	SURCHARGED	

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW East

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
SB1.012	CB1	-0.155	0.000	0.47		48.0	OK	

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW East

Simulation Criteria

Areal Reduction Factor 1.000 Additional Flow - % of Total Flow 0.000
Hot Start (mins) 0 MADD Factor * 10m³/ha Storage 2.000
Hot Start Level (mm) 0 Inlet Coeffiecient 0.800
Manhole Headloss Coeff (Global) 0.500 Flow per Person per Day (l/per/day) 0.000
Foul Sewage per hectare (l/s) 0.000

Number of Input Hydrographs 0 Number of Offline Controls 0 Number of Time/Area Diagrams 0
Number of Online Controls 1 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.348
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 18.500 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0
Analysis Timestep 2.5 Second Increment (Extended)
DTS Status OFF
DVD Status ON
Inertia Status ON

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 40

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
SB1.000	SB1A	15 Winter	100	+40%	100/15 Summer				79.402
SB1.001	SB1	15 Winter	100	+40%	100/15 Summer				79.371
SB2.000	SB2	15 Winter	100	+40%	100/15 Summer				79.463
SB2.001	SB3	15 Winter	100	+40%	100/15 Summer				79.442
SB1.002	SB4	15 Winter	100	+40%	30/15 Summer				79.353
SB3.000	SB4A	15 Winter	100	+40%	100/15 Summer				79.319
SB1.003	JUN	15 Winter	100	+40%	30/15 Winter				78.464
SB4.000	SB9	15 Winter	100	+40%	100/15 Summer				79.199
SB4.001	SB10	15 Winter	100	+40%	100/15 Summer				79.175
SB4.002	SB11	15 Winter	100	+40%	30/15 Summer				79.126
SB5.000	SB13A	15 Winter	100	+40%	100/15 Summer				79.019
SB1.004	SB13	15 Winter	100	+40%	30/15 Summer				78.967
SB6.000	SB14A	15 Winter	100	+40%	100/15 Summer				79.552
SB6.001	SB14B	15 Winter	100	+40%	30/15 Winter				79.476

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW East

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
SB1.000	SB1A	0.392	0.000	0.36		6.2	FLOOD RISK	
SB1.001	SB1	0.641	0.000	0.18		22.4	FLOOD RISK	
SB2.000	SB2	0.638	0.000	0.22		10.3	FLOOD RISK	
SB2.001	SB3	0.809	0.000	0.60		27.4	FLOOD RISK	
SB1.002	SB4	0.879	0.000	0.94		48.0	FLOOD RISK	
SB3.000	SB4A	0.619	0.000	0.39		11.8	SURCHARGED	
SB1.003	JUN	0.001	0.000	1.21		77.4	SURCHARGED*	
SB4.000	SB9	0.569	0.000	0.52		8.0	SURCHARGED	
SB4.001	SB10	0.622	0.000	0.45		17.8	SURCHARGED	
SB4.002	SB11	0.794	0.000	1.01		39.9	SURCHARGED	
SB5.000	SB13A	0.319	0.000	0.74		12.0	SURCHARGED	
SB1.004	SB13	0.807	0.000	2.23		123.9	SURCHARGED	
SB6.000	SB14A	0.852	0.000	0.69		11.5	FLOOD RISK	
SB6.001	SB14B	0.959	0.000	1.42		35.8	FLOOD RISK	

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW East

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
SB1.005	SB14	15 Winter	100	+40%	30/15 Summer				78.632
SB7.000	SB16	15 Winter	100	+40%					78.104
SB8.000	SB18	15 Winter	100	+40%					78.112
SB1.006	SB15	15 Winter	100	+40%	100/15 Summer				75.142
SB9.000	SB19A	15 Winter	100	+40%	100/15 Summer				74.902
SB9.001	SB19B	15 Winter	100	+40%	30/15 Summer				74.777
SB1.007	SB19	15 Winter	100	+40%	100/15 Summer				74.654
SB1.008	SB20	15 Winter	100	+40%	100/15 Summer				74.053
SB10.000	SB21A	15 Winter	100	+40%					73.868
SB10.001	SB21B	60 Winter	100	+40%	100/60 Winter				73.862
SB10.002	SB21	60 Winter	100	+40%	100/30 Winter				73.858
SB10.003	SB22	60 Winter	100	+40%	100/15 Summer				73.853
SB11.000	SB23A	15 Winter	100	+40%	30/15 Summer				74.010
SB12.000	SB23B	15 Winter	100	+40%	100/15 Summer				74.102
SB11.001	SB23C	15 Winter	100	+40%	30/15 Summer				73.945
SB1.009	SB23	60 Winter	100	+40%	1/15 Summer				73.847
SB1.010	TANK 2	60 Winter	100	+40%	30/15 Summer				73.704
SB1.011	SB24	60 Winter	100	+40%	30/15 Summer				73.561
SB1.012	CB1	60 Winter	100	+40%					71.351

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
SB1.005	SB14	0.538	0.000	2.86		161.9	SURCHARGED	
SB7.000	SB16	-0.046	0.000	0.81		13.0	OK	
SB8.000	SB18	-0.038	0.000	0.90		14.7	OK	
SB1.006	SB15	1.302	0.000	1.48		177.0	SURCHARGED	
SB9.000	SB19A	0.477	0.000	1.25		20.9	SURCHARGED	
SB9.001	SB19B	0.552	0.000	2.32		35.5	SURCHARGED	
SB1.007	SB19	1.041	0.000	1.53		195.5	FLOOD RISK	
SB1.008	SB20	0.701	0.000	1.24		193.6	SURCHARGED	
SB10.000	SB21A	-0.176	0.000	0.11		9.3	OK	
SB10.001	SB21B	0.248	0.000	0.16		12.0	SURCHARGED	
SB10.002	SB21	0.544	0.000	0.22		16.8	SURCHARGED	
SB10.003	SB22	0.839	0.000	0.82		27.4	SURCHARGED	
SB11.000	SB23A	1.120	0.000	0.54		12.3	SURCHARGED	
SB12.000	SB23B	0.862	0.000	1.08		22.3	SURCHARGED	
SB11.001	SB23C	1.293	0.000	3.81		58.1	SURCHARGED	
SB1.009	SB23	2.247	0.000	5.18		191.1	SURCHARGED	
SB1.010	TANK 2	2.126	0.000	2.35		98.7	SURCHARGED	
SB1.011	SB24	1.999	0.000	1.02		95.4	SURCHARGED	

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW East

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
SB1.012	CB1	-0.071	0.000	0.94		95.4	OK	

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