Network Details

Manhole Schedule

Manhole	Catchment Area (ha)	Size (mm)	Type	CL (m)	IL (m)	Depth To Soffit (m)	Easting (m)	Northing (m)
TANK1	0.045	1200	Unknown	152.704	150.000	0.904	417131.280	424746.596
TANK2	0.005	1200	Unknown	153.260	149.950	3.010	417125.454	424736.263
S2	0.029	1350	Type A	153.607	149.900	3.407	417132.786	424731.129
S1	0.076	1350	Type B	155.164	152.100	2.914	417129.253	424707.595
S3	0.070	1500	Type A	153.686	149.850	3.536	417140.390	424726.183
S4	0.000	2400	Type B	152.668	149.700	2.743	417156.035	424716.763
S5	0.000	1350	Type B	152.450	149.650	2.575	417162.427	424712.793
S6	0.000	1350	Type B	152.450	149.550	2.675	417168.887	424723.290
S7	0.000	1350	Type C	150.249	148.800	1.224	417176.090	424734.364
S8	0.000	1350	Type C	149.600	148.350	1.025	417179.925	424740.640
S9	0.000	1350	Type C	149.600	148.100	1.275	417217.040	424718.750

Pipe Schedule

Pipe Number	US Manhole	US IL (m)	DS Manhole	DS IL (m)	Shape	Dimension (mm)	Length (m)	Gradient (1:x)	Roughness (mm)	US Depth To Soffit (m)	DS Depth To Soffit (m)
1.000	TANK1	150.000	TANK2	149.950	Rect	4200x1800	11.862	237	0.600	0.904	1.510
1.001	TANK2	149.950	S2	149.900	Circ	300	8.951	179	0.600	3.010	3.407
1.002	S2	149.900	S3	149.850	Circ	300	9.071	181	0.600	3.407	3.536
2.000	S1	152.100	S3	150.000	Circ	150	21.669	10	0.600	2.914	3.536
1.003	S3	149.850	S4	149.750	Circ	300	18.262	183	0.600	3.536	2.618
1.004	S4	149.700	S5	149.650	Circ	225	7.525	150	0.600	2.743	2.575
1.005	S5	149.650	S6	149.550	Circ	225	12.326	123	0.600	2.575	2.675
1.006	S6	149.550	S7	148.800	Circ	225	13.210	18	0.600	2.675	1.224
1.007	S7	148.800	S8	148.350	Circ	225	7.355	16	0.600	1.224	1.025
1.008	S8	148.350	S9	148.100	Circ	225	43.089	172	0.600	1.025	1.275

Outfall Details

Outfall Manhole S9 : Free Discharge

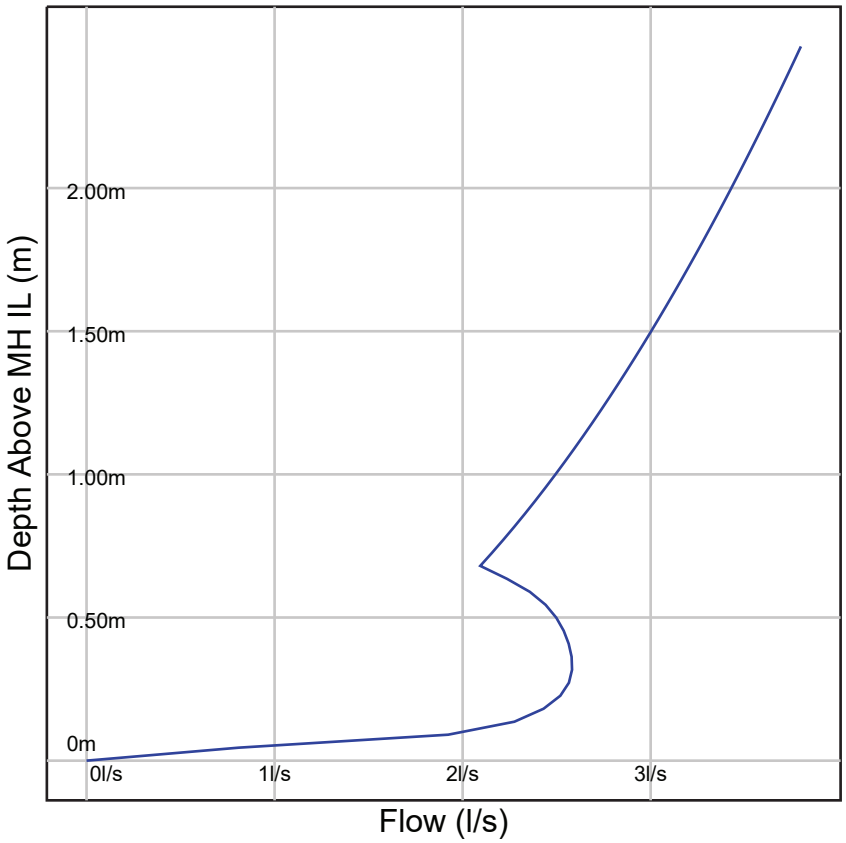
Flow Control Details

Controls within Manhole S4

Hydro-Brake® Optimum Control

Model Ref	Design Depth (m)	Design Flow (l/s)	Invert Offset (m)	FF Head (m)	FF Flow (l/s)	KF Head (m)	KF Flow (l/s)
SHE-0075-3500-2100-3500	2.100	3.500	0.000	0.332	2.583	0.675	2.086

Hydro-Brake® Optimum Control from S4 to S5



Simulation Settings

FSR: M5-60=20.00, R=0.40, Locale=England and Wales

Summer (Cv: 0.75), Winter (Cv: 0.84)

Global Time of Entry: 5.0 mins

Durations (mins): 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080

Return Periods (yrs) + Climate Change: (1, +0%), (2, +0%), (30, +0%), (100, +0%), (100, +40%)

Manhole Flood Risk Freeboard: 0.300m

Simulated Rainfall Events

Storm	Average Intensity (mm/hr)	Runoff Continuity %	Flow Continuity %	Item Volume Continuity Errors
1Yr 15Min Winter	36.405	0.00	-0.67	
1Yr 15Min Summer	36.405	0.00	-0.79	
1Yr 30Min Winter	23.138	0.00	-0.34	
1Yr 30Min Summer	23.138	0.00	-0.57	
1Yr 60Min Summer	14.222	0.00	-0.40	
1Yr 60Min Winter	14.222	0.00	-0.15	
1Yr 120Min Winter	8.605	0.00	-0.13	
1Yr 120Min Summer	8.605	0.00	-0.11	
1Yr 180Min Winter	6.400	0.00	0.00	
1Yr 180Min Summer	6.400	0.00	0.00	
1Yr 240Min Summer	5.190	0.00	0.00	
1Yr 240Min Winter	5.190	0.00	0.00	
1Yr 360Min Summer	3.857	0.00	0.00	
1Yr 360Min Winter	3.857	0.00	0.00	
1Yr 480Min Winter	3.121	0.00	0.00	
1Yr 480Min Summer	3.121	0.00	0.00	
1Yr 600Min Summer	2.648	0.00	0.00	
1Yr 600Min Winter	2.648	0.00	0.00	
1Yr 720Min Summer	2.315	0.00	0.00	
1Yr 720Min Winter	2.315	0.00	0.00	
1Yr 960Min Summer	1.872	0.00	0.00	
1Yr 960Min Winter	1.872	0.00	0.00	
1Yr 1440Min Summer	1.389	0.00	0.00	
1Yr 1440Min Winter	1.389	0.00	0.00	
1Yr 2160Min Summer	1.030	0.00	0.00	
1Yr 2160Min Winter	1.030	0.00	0.00	
1Yr 2880Min Summer	0.834	0.00	0.00	
1Yr 2880Min Winter	0.834	0.00	0.00	
1Yr 4320Min Summer	0.619	0.00	0.00	
1Yr 4320Min Winter	0.619	0.00	0.00	
1Yr 5760Min Summer	0.501	0.00	0.00	
1Yr 5760Min Winter	0.501	0.00	0.00	
1Yr 7200Min Summer	0.426	0.00	0.00	
1Yr 7200Min Winter	0.426	0.00	0.00	
1Yr 8640Min Summer	0.373	0.00	0.00	
1Yr 8640Min Winter	0.373	0.00	0.00	
1Yr 10080Min Summer	0.333	0.00	0.00	
1Yr 10080Min Winter	0.333	0.00	0.00	
2Yr 15Min Winter	42.301	0.00	-0.46	
2Yr 15Min Summer	42.301	0.00	-0.65	
2Yr 30Min Summer	27.017	0.00	-0.32	
2Yr 30Min Winter	27.017	0.00	0.00	
2Yr 60Min Summer	16.649	0.00	-0.14	
2Yr 60Min Winter	16.649	0.00	0.35	
2Yr 120Min Winter	10.070	0.00	-0.23	
2Yr 120Min Summer	10.070	0.00	-0.29	
2Yr 180Min Summer	7.475	0.00	0.00	
2Yr 180Min Winter	7.475	0.00	0.00	
2Yr 240Min Summer	6.048	0.00	0.00	
2Yr 240Min Winter	6.048	0.00	0.00	
2Yr 360Min Summer	4.479	0.00	0.00	
2Yr 360Min Winter	4.479	0.00	0.00	
2Yr 480Min Summer	3.616	0.00	0.00	
2Yr 480Min Winter	3.616	0.00	0.00	

Simulated Rainfall Events

Storm	Average Intensity (mm/hr)	Runoff Continuity %	Flow Continuity %	Item Volume Continuity Errors
2Yr 600Min Summer	3.062	0.00	0.00	
2Yr 600Min Winter	3.062	0.00	0.00	
2Yr 720Min Summer	2.673	0.00	0.00	
2Yr 720Min Winter	2.673	0.00	0.00	
2Yr 960Min Summer	2.156	0.00	0.00	
2Yr 960Min Winter	2.156	0.00	0.00	
2Yr 1440Min Summer	1.593	0.00	0.00	
2Yr 1440Min Winter	1.593	0.00	0.00	
2Yr 2160Min Summer	1.177	0.00	0.00	
2Yr 2160Min Winter	1.177	0.00	0.00	
2Yr 2880Min Summer	0.949	0.00	0.00	
2Yr 2880Min Winter	0.949	0.00	0.00	
2Yr 4320Min Summer	0.701	0.00	0.00	
2Yr 4320Min Winter	0.701	0.00	0.00	
2Yr 5760Min Summer	0.566	0.00	0.00	
2Yr 5760Min Winter	0.566	0.00	0.00	
2Yr 7200Min Summer	0.479	0.00	0.00	
2Yr 7200Min Winter	0.479	0.00	0.00	
2Yr 8640Min Summer	0.419	0.00	0.00	
2Yr 8640Min Winter	0.419	0.00	0.00	
2Yr 10080Min Summer	0.373	0.00	0.00	
2Yr 10080Min Winter	0.373	0.00	0.00	
30Yr 15Min Summer	76.035	0.00	1.99	
30Yr 15Min Winter	76.035	0.00	2.61	
30Yr 30Min Summer	49.499	0.00	2.94	
30Yr 30Min Winter	49.499	0.00	3.42	
30Yr 60Min Summer	30.811	0.00	3.26	
30Yr 60Min Winter	30.811	0.00	3.72	
30Yr 120Min Summer	18.615	0.00	2.03	
30Yr 120Min Winter	18.615	0.00	2.54	
30Yr 180Min Summer	13.715	0.00	0.76	
30Yr 180Min Winter	13.715	0.00	1.44	
30Yr 240Min Summer	10.995	0.00	-0.07	
30Yr 240Min Winter	10.995	0.00	0.33	
30Yr 360Min Summer	8.034	0.00	0.00	
30Yr 360Min Winter	8.034	0.00	0.00	
30Yr 480Min Summer	6.428	0.00	0.00	
30Yr 480Min Winter	6.428	0.00	0.00	
30Yr 600Min Summer	5.404	0.00	0.00	
30Yr 600Min Winter	5.404	0.00	0.00	
30Yr 720Min Summer	4.687	0.00	0.00	
30Yr 720Min Winter	4.687	0.00	0.00	
30Yr 960Min Summer	3.743	0.00	0.00	
30Yr 960Min Winter	3.743	0.00	0.00	
30Yr 1440Min Summer	2.723	0.00	0.00	
30Yr 1440Min Winter	2.723	0.00	0.00	
30Yr 2160Min Summer	1.979	0.00	0.00	
30Yr 2160Min Winter	1.979	0.00	0.00	
30Yr 2880Min Summer	1.577	0.00	0.00	
30Yr 2880Min Winter	1.577	0.00	0.00	
30Yr 4320Min Summer	1.143	0.00	0.00	
30Yr 4320Min Winter	1.143	0.00	0.00	
30Yr 5760Min Summer	0.910	0.00	0.00	
30Yr 5760Min Winter	0.910	0.00	0.00	
30Yr 7200Min Summer	0.762	0.00	0.00	
30Yr 7200Min Winter	0.762	0.00	0.00	
30Yr 8640Min Summer	0.659	0.00	0.00	
30Yr 8640Min Winter	0.659	0.00	0.00	
30Yr 10080Min Summer	0.583	0.00	0.00	
30Yr 10080Min Winter	0.583	0.00	0.00	
100Yr 15Min Summer	98.681	0.00	3.31	
100Yr 15Min Winter	98.681	0.00	3.70	
100Yr 30Min Summer	64.789	0.00	3.94	
100Yr 30Min Winter	64.789	0.00	4.30	
100Yr 60Min Summer	40.510	0.00	4.19	
100Yr 60Min Winter	40.510	0.00	4.54	
100Yr 120Min Summer	24.461	0.00	3.09	
100Yr 120Min Winter	24.461	0.00	3.50	

Simulated Rainfall Events

Storm	Average Intensity (mm/hr)	Runoff Continuity %	Flow Continuity %	Item Volume Continuity Errors
100Yr 180Min Summer	17.964	0.00	2.03	
100Yr 180Min Winter	17.964	0.00	2.50	
100Yr 240Min Summer	14.342	0.00	1.10	
100Yr 240Min Winter	14.342	0.00	1.60	
100Yr 360Min Summer	10.418	0.00	-0.09	
100Yr 360Min Winter	10.418	0.00	0.04	
100Yr 480Min Summer	8.302	0.00	0.00	
100Yr 480Min Winter	8.302	0.00	0.00	
100Yr 600Min Summer	6.956	0.00	0.00	
100Yr 600Min Winter	6.956	0.00	0.00	
100Yr 720Min Summer	6.017	0.00	0.00	
100Yr 720Min Winter	6.017	0.00	0.00	
100Yr 960Min Summer	4.784	0.00	0.00	
100Yr 960Min Winter	4.784	0.00	0.00	
100Yr 1440Min Summer	3.456	0.00	0.00	
100Yr 1440Min Winter	3.456	0.00	0.00	
100Yr 2160Min Summer	2.493	0.00	0.00	
100Yr 2160Min Winter	2.493	0.00	0.00	
100Yr 2880Min Summer	1.975	0.00	0.00	
100Yr 2880Min Winter	1.975	0.00	0.00	
100Yr 4320Min Summer	1.421	0.00	0.00	
100Yr 4320Min Winter	1.421	0.00	0.00	
100Yr 5760Min Summer	1.124	0.00	0.00	
100Yr 5760Min Winter	1.124	0.00	0.00	
100Yr 7200Min Summer	0.936	0.00	0.00	
100Yr 7200Min Winter	0.936	0.00	0.00	
100Yr 8640Min Summer	0.806	0.00	0.00	
100Yr 8640Min Winter	0.806	0.00	0.00	
100Yr 10080Min Summer	0.710	0.00	0.00	
100Yr 10080Min Winter	0.710	0.00	0.00	
100Yr+40% 15Min Summer	138.153	0.00	4.37	
100Yr+40% 15Min Winter	138.153	0.00	4.61	
100Yr+40% 30Min Summer	90.705	0.00	4.85	
100Yr+40% 30Min Winter	90.705	0.00	5.11	TANK2 25.96m3, S3 3.26m3, S4 1.54m3, S2 1.37m3
100Yr+40% 60Min Summer	56.713	0.00	5.06	TANK2 28.24m3, S3 3.55m3, S4 1.64m3, S2 1.44m3
100Yr+40% 60Min Winter	56.713	0.00	5.31	TANK2 32.75m3, S3 3.96m3, S4 1.82m3, S2 1.59m3
100Yr+40% 120Min Summer	34.246	0.00	4.11	
100Yr+40% 120Min Winter	34.246	0.00	4.42	
100Yr+40% 180Min Summer	25.149	0.00	3.19	
100Yr+40% 180Min Winter	25.149	0.00	3.55	
100Yr+40% 240Min Summer	20.078	0.00	2.35	
100Yr+40% 240Min Winter	20.078	0.00	2.75	
100Yr+40% 360Min Summer	14.585	0.00	0.97	
100Yr+40% 360Min Winter	14.585	0.00	1.41	
100Yr+40% 480Min Summer	11.622	0.00	-0.04	
100Yr+40% 480Min Winter	11.622	0.00	0.35	
100Yr+40% 600Min Summer	9.738	0.00	-0.02	
100Yr+40% 600Min Winter	9.738	0.00	-0.02	
100Yr+40% 720Min Summer	8.424	0.00	-0.02	
100Yr+40% 720Min Winter	8.424	0.00	0.00	
100Yr+40% 960Min Summer	6.697	0.00	0.00	
100Yr+40% 960Min Winter	6.697	0.00	0.00	
100Yr+40% 1440Min Summer	4.839	0.00	0.00	
100Yr+40% 1440Min Winter	4.839	0.00	0.00	
100Yr+40% 2160Min Summer	3.490	0.00	0.00	
100Yr+40% 2160Min Winter	3.490	0.00	0.00	
100Yr+40% 2880Min Summer	2.766	0.00	0.00	
100Yr+40% 2880Min Winter	2.766	0.00	0.00	
100Yr+40% 4320Min Summer	1.989	0.00	0.00	
100Yr+40% 4320Min Winter	1.989	0.00	0.00	
100Yr+40% 5760Min Summer	1.573	0.00	0.00	
100Yr+40% 5760Min Winter	1.573	0.00	0.00	
100Yr+40% 7200Min Summer	1.311	0.00	0.00	
100Yr+40% 7200Min Winter	1.311	0.00	0.00	
100Yr+40% 8640Min Summer	1.129	0.00	0.00	
100Yr+40% 8640Min Winter	1.129	0.00	0.00	
100Yr+40% 10080Min Winter	0.994	0.00	0.00	
100Yr+40% 10080Min Summer	0.994	0.00	0.00	

Simulation Results

Return Period (yrs) + Climate Change (%):

1yr+0%

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
TANK1	60 min Winter	56	150.247	0.247	0.478		OK
TANK2	60 min Winter	56	150.247	0.297	0.557		OK
S2	60 min Winter	56	150.247	0.347	0.897		Surcharged
S1	15 min Winter	8	152.148	0.048	12.841		OK
S3	60 min Winter	56	150.247	0.397	2.469		Surcharged
S4	60 min Winter	56	150.247	0.547	2.476		Surcharged
S5	480 min Summer	327	149.687	0.037	2.582		OK
S6	480 min Winter	269	149.572	0.022	2.582		OK
S7	480 min Winter	341	148.821	0.021	2.582		OK
S8	600 min Summer	366	148.389	0.039	2.582		OK
S9	600 min Summer	366	148.138	0.038	2.582		Outfall

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
1.000	60 min Winter	56	TANK1	TANK2	0.272	0.038	2.361		OK
1.001	60 min Winter	83	TANK2	S2	0.299	0.325	2.024	0.024	OK
1.002	60 min Winter	99	S2	S3	0.300	0.275	2.151	0.026	Surcharged
2.000	30 min Winter	19	S1	S3	0.093	2.169	9.438	0.169	OK
1.003	15 min Summer	16	S3	S4	0.300	0.652	13.383	0.163	Surcharged
1.004	600 min Summer	365	S4	S5	0.036	0.622	2.582	0.061	OK
1.005	480 min Summer	327	S5	S6	0.029	0.844	2.582	0.055	OK
1.006	480 min Winter	341	S6	S7	0.021	1.333	2.582	0.021	OK
1.007	600 min Summer	366	S7	S8	0.030	0.831	2.582	0.020	OK
1.008	600 min Summer	366	S8	S9	0.038	0.573	2.582	0.065	OK

Return Period (yrs) + Climate Change (%):

2yr+0%

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
TANK1	60 min Winter	57	150.323	0.323	0.489		OK
TANK2	60 min Winter	57	150.323	0.373	0.492		Surcharged
S2	60 min Winter	57	150.323	0.423	0.761		Surcharged
S1	15 min Winter	8	152.152	0.052	14.925		OK
S3	60 min Winter	57	150.323	0.473	2.374		Surcharged
S4	60 min Winter	57	150.323	0.623	2.368		Surcharged
S5	600 min Winter	320	149.687	0.037	2.582		OK
S6	600 min Winter	436	149.572	0.022	2.582		OK
S7	600 min Winter	436	148.821	0.021	2.582		OK
S8	720 min Summer	463	148.388	0.038	2.582		OK
S9	720 min Summer	463	148.138	0.038	2.582		Outfall

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
1.000	60 min Winter	57	TANK1	TANK2	0.348	0.038	2.494		OK
1.001	60 min Summer	68	TANK2	S2	0.300	0.329	2.079	0.025	Surcharged
1.002	30 min Winter	19	S2	S3	0.300	0.269	3.571	0.043	Surcharged
2.000	15 min Winter	10	S1	S3	0.098	2.491	14.849	0.266	OK
1.003	15 min Summer	11	S3	S4	0.300	0.685	13.337	0.163	Surcharged
1.004	720 min Summer	462	S4	S5	0.036	0.622	2.582	0.061	OK
1.005	600 min Winter	436	S5	S6	0.029	0.844	2.582	0.055	OK
1.006	600 min Winter	436	S6	S7	0.021	1.333	2.582	0.021	OK
1.007	600 min Winter	436	S7	S8	0.030	0.831	2.582	0.020	OK
1.008	720 min Summer	463	S8	S9	0.038	0.573	2.582	0.065	OK

Return Period (yrs) + Climate Change (%):

30yr+0%

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
TANK1	120 min Winter	115	150.832	0.832	0.511		OK
TANK2	120 min Winter	115	150.832	0.882	0.571		Surcharged
S2	120 min Winter	115	150.832	0.932	0.910		Surcharged
S1	15 min Winter	8	152.172	0.072	26.848		OK
S3	120 min Winter	115	150.832	0.982	2.595		Surcharged
S4	120 min Winter	115	150.832	1.132	2.599		Surcharged
S5	120 min Winter	115	149.687	0.037	2.600		OK
S6	120 min Winter	116	149.572	0.022	2.600		OK
S7	120 min Winter	116	148.821	0.021	2.600		OK
S8	120 min Winter	116	148.389	0.039	2.600		OK
S9	120 min Winter	116	148.138	0.038	2.600		Outfall

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
1.000	120 min Winter	115	TANK1	TANK2	0.857	0.038	1.478		OK
1.001	30 min Summer	33	TANK2	S2	0.300	0.274	2.143	0.026	Surcharged
1.002	15 min Winter	8	S2	S3	0.300	0.260	3.175	0.039	Surcharged
2.000	15 min Winter	8	S1	S3	0.111	2.525	26.734	0.480	OK
1.003	15 min Winter	7	S3	S4	0.300	0.727	16.342	0.200	Surcharged
1.004	120 min Winter	115	S4	S5	0.036	0.623	2.600	0.062	OK
1.005	120 min Winter	115	S5	S6	0.029	0.846	2.600	0.056	OK
1.006	120 min Winter	116	S6	S7	0.022	1.336	2.600	0.021	OK
1.007	120 min Winter	116	S7	S8	0.030	1.031	2.600	0.020	OK
1.008	120 min Winter	116	S8	S9	0.038	0.574	2.600	0.066	OK

Return Period (yrs) + Climate Change (%):

100yr+0%

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
TANK1	180 min Winter	170	151.194	1.194	0.581		OK
TANK2	180 min Winter	169	151.194	1.244	0.070		Surcharged
S2	180 min Winter	169	151.194	1.294	1.044		Surcharged
S1	15 min Winter	8	152.184	0.084	34.789		OK
S3	180 min Winter	169	151.194	1.344	2.963		Surcharged
S4	180 min Winter	169	151.194	1.494	2.966		Surcharged
S5	180 min Winter	170	149.689	0.039	2.961		OK
S6	180 min Winter	170	149.574	0.024	2.961		OK
S7	180 min Winter	170	148.822	0.022	2.961		OK
S8	180 min Winter	171	148.391	0.041	2.961		OK
S9	180 min Winter	171	148.141	0.041	2.961		Outfall

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
1.000	180 min Winter	306	TANK1	TANK2	1.219	0.036	1.952		OK
1.001	30 min Summer	33	TANK2	S2	0.300	0.272	2.433	0.029	Surcharged
1.002	60 min Winter	24	S2	S3	0.300	0.267	3.353	0.041	Surcharged
2.000	15 min Winter	8	S1	S3	0.117	2.588	34.656	0.622	OK
1.003	15 min Winter	6	S3	S4	0.300	0.784	17.758	0.217	Surcharged
1.004	180 min Winter	170	S4	S5	0.039	0.647	2.961	0.070	OK
1.005	180 min Winter	170	S5	S6	0.031	0.881	2.961	0.063	OK
1.006	180 min Winter	170	S6	S7	0.023	1.389	2.961	0.024	OK
1.007	180 min Winter	170	S7	S8	0.032	0.994	2.961	0.023	OK
1.008	180 min Winter	171	S8	S9	0.041	0.597	2.961	0.075	OK

Return Period (yrs) + Climate Change (%):

100yr+40%

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
TANK1	180 min Winter	173	151.825	1.825	0.688		Surcharged
TANK2	180 min Winter	172	151.825	1.875	0.076		Surcharged
S2	180 min Winter	172	151.825	1.925	1.168		Surcharged
S1	15 min Winter	8	152.213	0.113	48.714		OK
S3	180 min Winter	173	151.825	1.975	3.482		Surcharged
S4	180 min Winter	172	151.825	2.125	3.502		Surcharged
S5	180 min Winter	173	149.692	0.042	3.494		OK
S6	180 min Winter	173	149.576	0.026	3.494		OK
S7	180 min Winter	173	148.824	0.024	3.494		OK
S8	180 min Winter	174	148.395	0.045	3.494		OK
S9	180 min Winter	174	148.144	0.044	3.494		Outfall

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
1.000	240 min Winter	251	TANK1	TANK2	1.800	0.033	3.093		OK
1.001	30 min Summer	33	TANK2	S2	0.300	0.267	2.953	0.036	Surcharged
1.002	15 min Winter	6	S2	S3	0.300	0.249	3.868	0.047	Surcharged
2.000	15 min Winter	8	S1	S3	0.132	2.929	48.147	0.864	OK
1.003	15 min Winter	8	S3	S4	0.300	0.725	16.298	0.199	Surcharged
1.004	180 min Winter	173	S4	S5	0.042	0.678	3.494	0.083	OK
1.005	180 min Winter	173	S5	S6	0.034	0.925	3.494	0.075	OK
1.006	180 min Winter	173	S6	S7	0.025	1.458	3.494	0.028	OK
1.007	180 min Winter	174	S7	S8	0.034	1.077	3.494	0.027	OK
1.008	180 min Winter	174	S8	S9	0.045	0.626	3.494	0.089	OK