Network Details

Manhole Schedule

Manhole	Catchment Area (ha)	Diameter (m)	Type	CL (m)	IL (m)	Depth To Soffit (m)	Easting (m)	Northing (m)
S1	0.000	0.450	Type 4	95.850	94.950	0.800	432488.849	385205.696
S2	0.016	0.450	Type 4	95.850	94.760	0.990	432503.943	385212.742
S4.	0.015	0.450	Type 4	95.540	94.700	0.740	432491.728	385194.140
S3	0.000	0.450	Type 4	95.850	94.490	1.260	432508.897	385202.386
S10	0.000	0.450	Type 4	95.400	94.350	0.950	432512.244	385190.147
S5.	0.000	0.450	Type 4	95.440	94.850	0.440	432499.139	385168.783
S6	0.008	0.450	Type 4	95.440	94.670	0.620	432491.962	385183.607
S7	0.004	0.450	Type 4	95.440	94.550	0.740	432501.624	385188.069
S9	0.004	0.450	Type 4	95.006	94.700	0.156	432508.361	385174.102
S8	0.000	0.450	Type 4	95.440	94.490	0.800	432503.871	385183.412
S11	0.000	0.450	Type 4	95.400	94.420	0.755	432509.324	385186.044
Tank Outfall	0.000	1.200	Type 2	95.400	93.620	1.630	432510.738	385189.381
S12	0.000	1.500	Type 4	95.400	93.580	1.670	432508.911	385192.744
EXS1	0.000	1.500	Type 2	95.760	92.880	2.730	432508.571	385195.851

Pipe Schedule

Pipe Number	US Manhole	US IL (m)	DS Manhole	DS IL (m)	Shape	Dimension (m)	Length (m)	Gradient (1:x)	Roughness (mm)	US Depth To Soffit (m)
1.000	S1	94.950	S2	94.760	Circ	0.1mØ	16.658	87.7	0.600	0.800
1.001	S2	94.760	S3	94.490	Circ	0.1mØ	11.480	42.5	0.600	0.990
2.000	S4.	94.700	S3	94.490	Circ	0.1mØ	19.047	90.7	0.600	0.740
1.002	S3	94.490	S10	94.350	Circ	0.1mØ	12.688	90.6	0.600	1.260
1.003	S10	94.350	Tank Outfall	93.620	Rect	6mx0.8m	1.690	2.3	0.600	0.250
3.000	S5.	94.850	S6	94.670	Circ	0.15mØ	16.470	91.5	0.600	0.440
3.001	S6	94.670	S7	94.550	Circ	0.15mØ	10.643	88.7	0.600	0.620
3.002	S7	94.550	S8	94.490	Circ	0.15mØ	5.171	86.2	0.600	0.740
4.000	S9	94.700	S8	94.490	Circ	0.15mØ	10.336	49.2	0.600	0.156
3.003	S8	94.490	S11	94.420	Circ	0.225mØ	6.055	86.5	0.600	0.725
3.004	S11	94.420	Tank Outfall	93.620	Rect	6mx0.8m	3.624	4.5	0.600	0.180
1.004	Tank Outfall	93.620	S12	93.580	Circ	0.15mØ	3.828	95.7	0.600	1.630
1.005	S12	93.580	EXS1	92.880	Circ	0.15mØ	3.125	4.5	0.600	1.670

Outfall Details

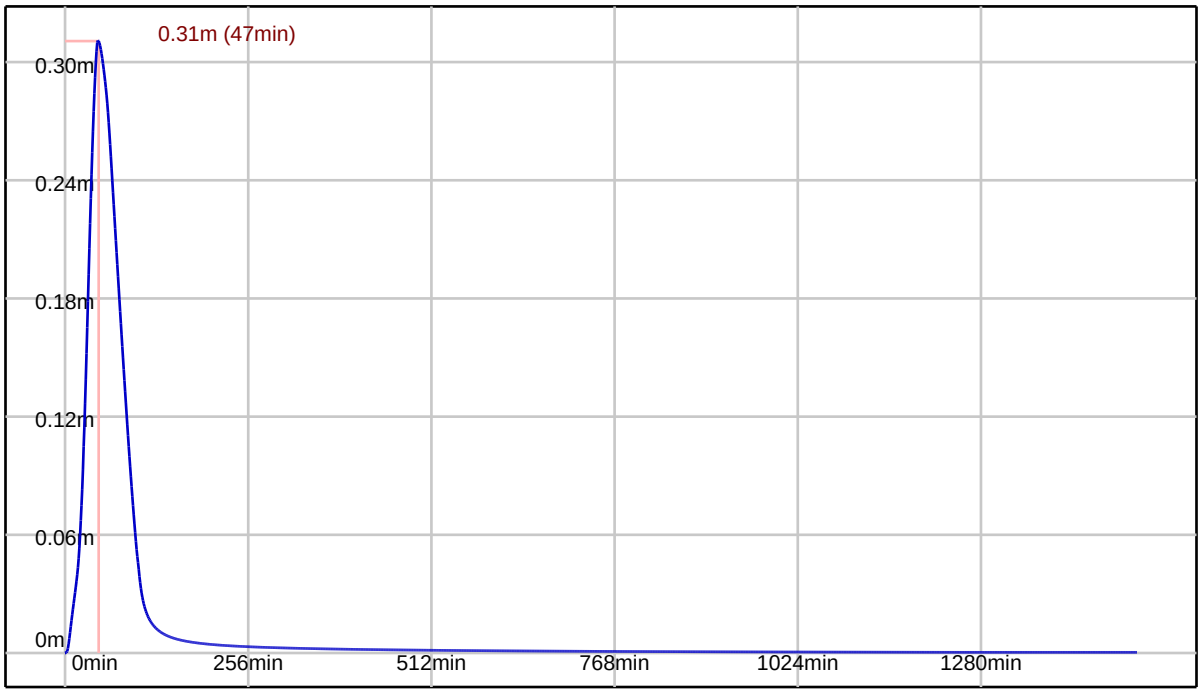
Outfall Manhole EXS1 : Free Discharge

Flow Control Details

Tank Structure at Manhole Tank Outfall

Tank Invert (m)	Tank Height (m)	Void Ratio (%)	Area (m2)	Effective Area (m2) Area x Void Ratio	Max Storage (m3) Effective Area x Height	Infil Base (m/hr)	Infil Side (m/hr)	Safety Factor
93.620	0.800	95.00	30.002	28.502	22.801	0.00000000	0.00000000	2.00

Tank at Tank Outfall (100Yr+40% 60Min Winter)

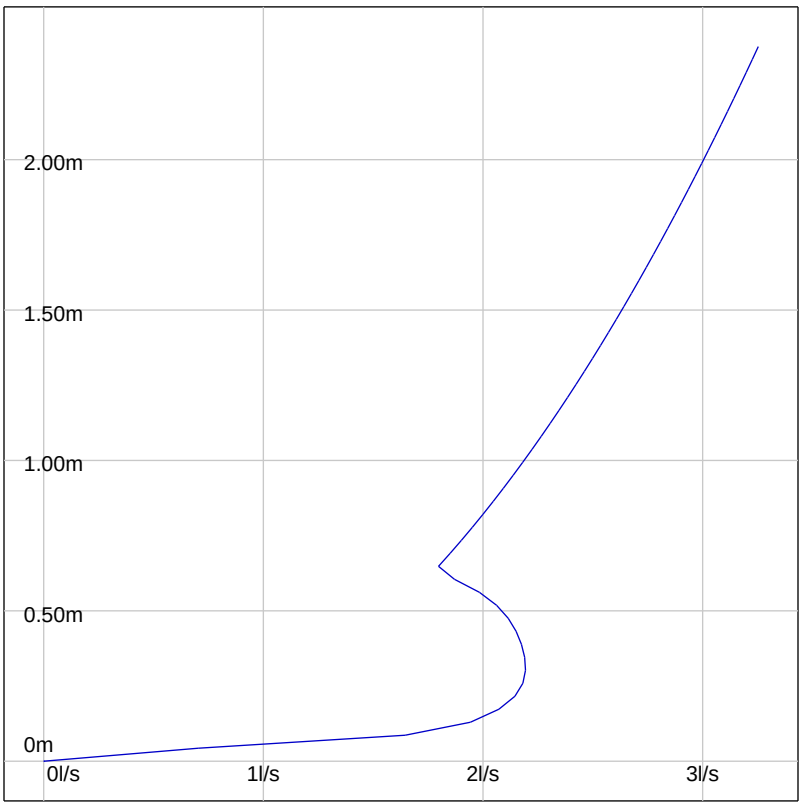


Controls within Manhole S12

Hydro-Brake® Optimum Control at Manhole S12

Model Ref	Design Depth (m)	Design Flow (l/s)	Depth Above Invert (m)	FF Head (m)	FF Flow (l/s)	KF Head (m)	KF Flow (l/s)
SHE-0070-3000-2000-3000	2.000	3.000	0.000	0.311	2.194	0.631	1.776

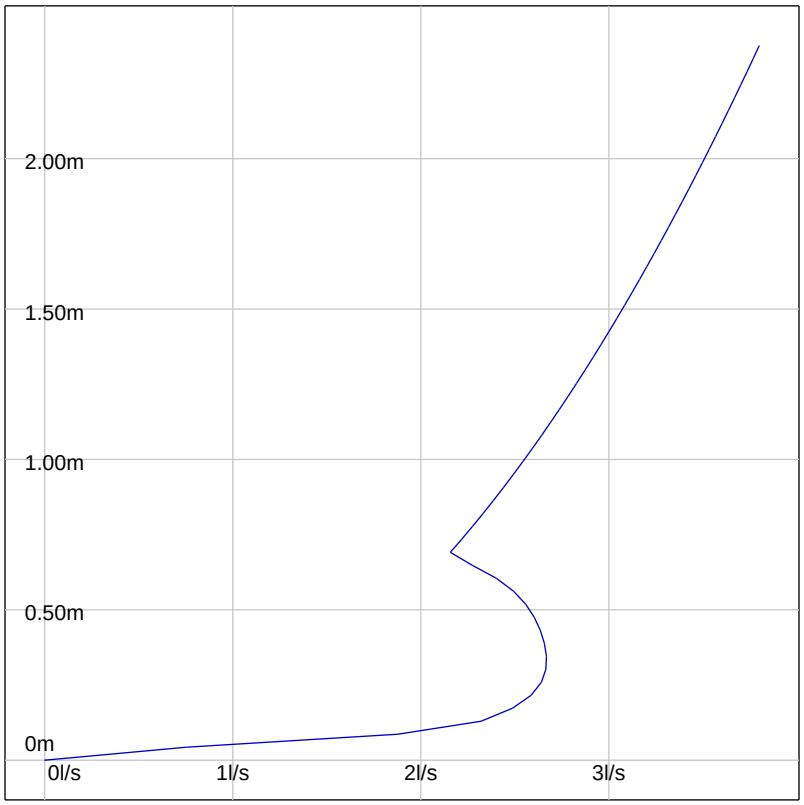
Hydro-Brake® Optimum Control at S12



Hydro-Brake® Optimum Control at Manhole S12

Model Ref	Design Depth (m)	Design Flow (l/s)	Depth Above Invert (m)	FF Head (m)	FF Flow (l/s)	KF Head (m)	KF Flow (l/s)
SHE-0076-3500-2000-3500	2.000	3.500	0.000	0.332	2.669	0.681	2.142

Hydro-Brake® Optimum Control at S12



Simulation Settings

FSR: M5-60=19.00, R=0.35, Locale=England and Wales

Summer (Cv: 1.00), Winter (Cv: 1.00)

Global Time of Entry: 5.0 mins

Durations (mins): 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440

Return Periods (yrs) + Climate Change: (1, +0%), (2, +0%), (5, +0%), (10, +0%), (30, +0%), (100, +0%), (100, +40%)

Simulated Rainfall Events

Storm	Average Intensity (mm/hr)	Runoff Continuity %	Flow Continuity %	Storm	Average Intensity (mm/hr)	Runoff Continuity %	Flow Continuity %
1Yr 15Min Winter	33.289	0.00	0.00	10Yr 360Min Summer	6.398	0.00	0.00
1Yr 15Min Summer	33.289	0.00	0.00	10Yr 360Min Winter	6.398	0.00	0.00
1Yr 30Min Winter	21.560	0.00	0.00	10Yr 480Min Summer	5.187	0.00	0.00
1Yr 30Min Summer	21.560	0.00	0.00	10Yr 480Min Winter	5.187	0.00	0.00
1Yr 60Min Summer	13.523	0.00	0.00	10Yr 600Min Summer	4.406	0.00	0.00
1Yr 60Min Winter	13.523	0.00	0.00	10Yr 600Min Winter	4.406	0.00	0.00
1Yr 120Min Summer	8.362	0.00	0.00	10Yr 720Min Summer	3.855	0.00	0.00
1Yr 120Min Winter	8.362	0.00	0.00	10Yr 720Min Winter	3.855	0.00	0.00
1Yr 180Min Winter	6.304	0.00	0.00	10Yr 960Min Summer	3.120	0.00	0.00
1Yr 180Min Summer	6.304	0.00	0.00	10Yr 960Min Winter	3.120	0.00	0.00
1Yr 240Min Summer	5.165	0.00	0.00	10Yr 1440Min Summer	2.315	0.00	-0.20
1Yr 240Min Winter	5.165	0.00	0.00	10Yr 1440Min Winter	2.315	0.00	-0.21
1Yr 360Min Winter	3.897	0.00	0.00	30Yr 15Min Summer	68.836	0.00	0.00
1Yr 360Min Summer	3.897	0.00	0.00	30Yr 15Min Winter	68.836	0.00	0.00
1Yr 480Min Summer	3.187	0.00	0.00	30Yr 30Min Summer	45.828	0.00	0.00
1Yr 480Min Winter	3.187	0.00	0.00	30Yr 30Min Winter	45.828	0.00	0.00
1Yr 600Min Summer	2.727	0.00	0.00	30Yr 60Min Summer	29.238	0.00	0.00
1Yr 600Min Winter	2.727	0.00	0.00	30Yr 60Min Winter	29.238	0.00	0.00
1Yr 720Min Winter	2.401	0.00	0.00	30Yr 120Min Summer	18.112	0.00	0.00
1Yr 720Min Summer	2.401	0.00	0.00	30Yr 120Min Winter	18.112	0.00	0.00
1Yr 960Min Summer	1.963	0.00	0.00	30Yr 180Min Summer	13.534	0.00	0.00
1Yr 960Min Winter	1.963	0.00	0.00	30Yr 180Min Winter	13.534	0.00	0.00
1Yr 1440Min Winter	1.479	0.00	-0.35	30Yr 240Min Summer	10.952	0.00	0.00
1Yr 1440Min Summer	1.479	0.00	-0.33	30Yr 240Min Winter	10.952	0.00	0.00
2Yr 15Min Summer	38.602	0.00	0.00	30Yr 360Min Summer	8.106	0.00	0.00
2Yr 15Min Winter	38.602	0.00	0.00	30Yr 360Min Winter	8.106	0.00	0.00
2Yr 30Min Summer	25.141	0.00	0.00	30Yr 480Min Summer	6.544	0.00	0.00
2Yr 30Min Winter	25.141	0.00	0.00	30Yr 480Min Winter	6.544	0.00	0.00
2Yr 60Min Summer	15.824	0.00	0.00	30Yr 600Min Summer	5.539	0.00	0.00
2Yr 60Min Winter	15.824	0.00	0.00	30Yr 600Min Winter	5.539	0.00	0.00
2Yr 120Min Summer	9.788	0.00	0.00	30Yr 720Min Summer	4.832	0.00	0.00
2Yr 120Min Winter	9.788	0.00	0.00	30Yr 720Min Winter	4.832	0.00	0.00
2Yr 180Min Summer	7.366	0.00	0.00	30Yr 960Min Summer	3.892	0.00	0.00
2Yr 180Min Winter	7.366	0.00	0.00	30Yr 960Min Winter	3.892	0.00	0.00
2Yr 240Min Summer	6.020	0.00	0.00	30Yr 1440Min Summer	2.866	0.00	-0.16
2Yr 240Min Winter	6.020	0.00	0.00	30Yr 1440Min Winter	2.866	0.00	-0.16
2Yr 360Min Summer	4.524	0.00	0.00	100Yr 15Min Summer	89.024	0.00	-0.37
2Yr 360Min Winter	4.524	0.00	0.00	100Yr 15Min Winter	89.024	0.00	-0.36
2Yr 480Min Summer	3.690	0.00	0.00	100Yr 30Min Summer	59.849	0.00	-0.23
2Yr 480Min Winter	3.690	0.00	0.00	100Yr 30Min Winter	59.849	0.00	0.00
2Yr 600Min Winter	3.151	0.00	0.00	100Yr 60Min Summer	38.413	0.00	0.00
2Yr 600Min Summer	3.151	0.00	0.00	100Yr 60Min Winter	38.413	0.00	0.00
2Yr 720Min Summer	2.768	0.00	0.00	100Yr 120Min Summer	23.812	0.00	0.00
2Yr 720Min Winter	2.768	0.00	0.00	100Yr 120Min Winter	23.812	0.00	0.00
2Yr 960Min Summer	2.257	0.00	0.00	100Yr 180Min Summer	17.737	0.00	0.00
2Yr 960Min Winter	2.257	0.00	0.00	100Yr 180Min Winter	17.737	0.00	0.00
2Yr 1440Min Summer	1.693	0.00	-0.30	100Yr 240Min Summer	14.290	0.00	0.00
2Yr 1440Min Winter	1.693	0.00	-0.30	100Yr 240Min Winter	14.290	0.00	0.00
5Yr 15Min Summer	46.947	0.00	0.00	100Yr 360Min Summer	10.505	0.00	0.00
5Yr 15Min Winter	46.947	0.00	0.00	100Yr 360Min Winter	10.505	0.00	0.00
5Yr 30Min Summer	30.804	0.00	0.00	100Yr 480Min Summer	8.441	0.00	0.00
5Yr 30Min Winter	30.804	0.00	0.00	100Yr 480Min Winter	8.441	0.00	0.00
5Yr 60Min Summer	19.477	0.00	0.00	100Yr 600Min Summer	7.118	0.00	0.00
5Yr 60Min Winter	19.477	0.00	0.00	100Yr 600Min Winter	7.118	0.00	0.00
5Yr 120Min Winter	12.054	0.00	0.00	100Yr 720Min Summer	6.190	0.00	0.00

Simulated Rainfall Events

Storm	Average Intensity (mm/hr)	Runoff Continuity %	Flow Continuity %	Storm	Average Intensity (mm/hr)	Runoff Continuity %	Flow Continuity %
5Yr 120Min Summer	12.054	0.00	0.00	100Yr 720Min Winter	6.190	0.00	0.00
5Yr 180Min Summer	9.050	0.00	0.00	100Yr 960Min Summer	4.959	0.00	0.00
5Yr 180Min Winter	9.050	0.00	0.00	100Yr 960Min Winter	4.959	0.00	0.00
5Yr 240Min Summer	7.371	0.00	0.00	100Yr 1440Min Summer	3.622	0.00	-0.13
5Yr 240Min Winter	7.371	0.00	0.00	100Yr 1440Min Winter	3.622	0.00	-0.13
5Yr 360Min Summer	5.511	0.00	0.00	100Yr+40% 15Min Summer	124.633	0.00	-0.30
5Yr 360Min Winter	5.511	0.00	0.00	100Yr+40% 15Min Winter	124.633	0.00	-0.29
5Yr 480Min Summer	4.480	0.00	0.00	100Yr+40% 30Min Summer	83.789	0.00	-0.16
5Yr 480Min Winter	4.480	0.00	0.00	100Yr+40% 30Min Winter	83.789	0.00	-0.15
5Yr 600Min Summer	3.813	0.00	0.00	100Yr+40% 60Min Summer	53.779	0.00	0.00
5Yr 600Min Winter	3.813	0.00	0.00	100Yr+40% 60Min Winter	53.779	0.00	0.00
5Yr 720Min Summer	3.342	0.00	0.00	100Yr+40% 120Min Summer	33.337	0.00	0.00
5Yr 720Min Winter	3.342	0.00	0.00	100Yr+40% 120Min Winter	33.337	0.00	0.00
5Yr 960Min Summer	2.714	0.00	0.00	100Yr+40% 180Min Summer	24.832	0.00	0.00
5Yr 960Min Winter	2.714	0.00	0.00	100Yr+40% 180Min Winter	24.832	0.00	0.00
5Yr 1440Min Summer	2.023	0.00	-0.25	100Yr+40% 240Min Summer	20.006	0.00	0.00
5Yr 1440Min Winter	2.023	0.00	-0.24	100Yr+40% 240Min Winter	20.006	0.00	0.00
10Yr 15Min Summer	54.438	0.00	0.00	100Yr+40% 360Min Summer	14.706	0.00	0.00
10Yr 15Min Winter	54.438	0.00	0.00	100Yr+40% 360Min Winter	14.706	0.00	0.00
10Yr 30Min Summer	35.921	0.00	0.00	100Yr+40% 480Min Summer	11.818	0.00	0.00
10Yr 30Min Winter	35.921	0.00	0.00	100Yr+40% 480Min Winter	11.818	0.00	0.00
10Yr 60Min Summer	22.792	0.00	0.00	100Yr+40% 600Min Summer	9.966	0.00	0.00
10Yr 60Min Winter	22.792	0.00	0.00	100Yr+40% 600Min Winter	9.966	0.00	0.00
10Yr 120Min Summer	14.111	0.00	0.00	100Yr+40% 720Min Summer	8.665	0.00	0.00
10Yr 120Min Winter	14.111	0.00	0.00	100Yr+40% 720Min Winter	8.665	0.00	0.00
10Yr 180Min Summer	10.575	0.00	0.00	100Yr+40% 960Min Summer	6.943	0.00	0.00
10Yr 180Min Winter	10.575	0.00	0.00	100Yr+40% 960Min Winter	6.943	0.00	0.00
10Yr 240Min Summer	8.591	0.00	0.00	100Yr+40% 1440Min Winter	5.071	0.00	-0.09
10Yr 240Min Winter	8.591	0.00	0.00	100Yr+40% 1440Min Summer	5.071	0.00	-0.08

Simulation Results

Return Period Yrs: 1.0
Climate Change %: 0

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
S1	-	0	94.950	0.000	0.000		OK
S2	15 min Winter	8	94.798	0.038	2.826		OK
S4.	15 min Winter	8	94.745	0.045	2.649		OK
S3	15 min Winter	9	94.571	0.081	5.203		OK
S10	15 min Winter	9	94.351	0.001	5.308		OK
S5.	-	0	94.850	0.000	0.000		OK
S6	15 min Winter	8	94.697	0.027	1.413		OK
S7	15 min Winter	8	94.583	0.033	2.095		OK
S9	15 min Winter	8	94.717	0.017	0.706		OK
S8	15 min Winter	8	94.528	0.038	2.768		OK
S11	15 min Winter	9	94.421	0.001	2.731		OK
Tank Outfall	30 min Winter	22	93.677	0.057	3.046		OK
S12	60 min Summer	37	93.685	0.105	2.654		OK
EXS1	60 min Summer	37	92.901	0.021	3.477		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	15 min Winter	8	S1	S2	0.019	0.000	0.000	0.000	OK
1.001	15 min Winter	8	S2	S3	0.059	0.580	2.795	0.300	OK
2.000	15 min Winter	8	S4.	S3	0.063	0.506	2.618	0.413	OK
1.002	15 min Winter	9	S3	S10	0.041	1.744	5.308	0.838	OK
1.003	30 min Winter	22	S10	Tank Outfall	0.029	0.048	4.233	0.000	OK
3.000	15 min Winter	8	S5.	S6	0.014	0.000	0.000	0.000	OK
3.001	15 min Winter	8	S6	S7	0.030	0.545	1.389	0.074	OK
3.002	15 min Winter	8	S7	S8	0.036	0.642	2.073	0.108	OK
4.000	15 min Winter	8	S9	S8	0.028	0.310	0.695	0.027	OK
3.003	15 min Winter	8	S8	S11	0.020	1.608	2.735	0.049	OK
3.004	30 min Winter	22	S11	Tank Outfall	0.029	0.024	2.188	0.000	OK
1.004	60 min Summer	39	Tank Outfall	S12	0.080	0.517	4.464	0.246	OK
1.005	60 min Summer	37	S12	EXS1	0.021	2.371	3.477	0.041	OK

Return Period Yrs: 2.0
Climate Change %: 0

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
S1	-	0	94.950	0.000	0.000		OK
S2	15 min Winter	8	94.801	0.041	3.277		OK
S4.	15 min Winter	8	94.749	0.049	3.072		OK
S3	15 min Winter	9	94.584	0.094	6.028		OK
S10	15 min Winter	9	94.351	0.001	6.156		OK
S5.	-	0	94.850	0.000	0.000		OK
S6	15 min Winter	8	94.699	0.029	1.639		OK
S7	15 min Winter	8	94.586	0.036	2.431		OK
S9	15 min Winter	8	94.718	0.018	0.819		OK
S8	15 min Winter	8	94.531	0.041	3.215		OK
S11	15 min Winter	8	94.421	0.001	3.179		OK
Tank Outfall	30 min Summer	21	93.688	0.068	3.256		OK
S12	30 min Winter	23	93.699	0.119	5.802		OK
EXS1	30 min Winter	23	92.901	0.021	3.635		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	15 min Winter	8	S1	S2	0.020	0.000	0.000	0.000	OK
1.001	15 min Winter	9	S2	S3	0.067	0.599	3.242	0.349	OK
2.000	15 min Winter	9	S4.	S3	0.071	0.523	3.037	0.479	OK
1.002	15 min Winter	9	S3	S10	0.048	1.751	6.156	0.972	OK
1.003	30 min Summer	21	S10	Tank Outfall	0.034	0.048	5.843	0.000	OK
3.000	15 min Winter	8	S5.	S6	0.015	0.000	0.000	0.000	OK
3.001	15 min Winter	8	S6	S7	0.033	0.568	1.612	0.086	OK
3.002	15 min Winter	8	S7	S8	0.038	0.674	2.407	0.126	OK
4.000	15 min Winter	8	S9	S8	0.030	0.327	0.808	0.032	OK
3.003	15 min Winter	8	S8	S11	0.021	1.689	3.179	0.057	OK
3.004	30 min Summer	21	S11	Tank Outfall	0.034	0.025	3.030	0.000	OK
1.004	30 min Winter	23	Tank Outfall	S12	0.093	0.543	5.973	0.329	OK
1.005	30 min Winter	23	S12	EXS1	0.021	2.401	3.635	0.043	OK

Return Period Yrs: 5.0
Climate Change %: 0

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
S1	-	0	94.950	0.000	0.000		OK
S2	15 min Winter	8	94.805	0.045	3.985		OK
S4.	15 min Winter	8	94.755	0.055	3.737		OK
S3	15 min Winter	9	94.667	0.177	7.328		Surcharged
S10	15 min Winter	9	94.351	0.001	6.849		OK
S5.	-	0	94.850	0.000	0.000		OK
S6	15 min Winter	8	94.703	0.033	1.993		OK
S7	15 min Winter	8	94.590	0.040	2.959		OK
S9	15 min Winter	8	94.720	0.020	0.997		OK
S8	15 min Winter	8	94.535	0.045	3.916		OK
S11	15 min Winter	8	94.421	0.001	3.878		OK
Tank Outfall	30 min Winter	22	93.705	0.085	4.271		OK
S12	30 min Summer	21	93.725	0.145	4.678		OK
EXS1	30 min Winter	24	92.902	0.022	4.135		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	15 min Winter	8	S1	S2	0.023	0.000	0.000	0.000	OK
1.001	15 min Winter	8	S2	S3	0.073	0.645	3.946	0.424	OK
2.000	15 min Winter	8	S4.	S3	0.077	0.567	3.695	0.583	OK
1.002	15 min Winter	9	S3	S10	0.051	1.777	6.849	1.081	OK
1.003	30 min Winter	22	S10	Tank Outfall	0.043	0.060	6.033	0.000	OK
3.000	15 min Winter	8	S5.	S6	0.016	0.000	0.000	0.000	OK
3.001	15 min Winter	8	S6	S7	0.036	0.601	1.962	0.104	OK
3.002	15 min Winter	8	S7	S8	0.042	0.719	2.931	0.153	OK
4.000	15 min Winter	8	S9	S8	0.032	0.362	0.984	0.039	OK
3.003	15 min Winter	8	S8	S11	0.023	1.806	3.878	0.069	OK
3.004	30 min Winter	22	S11	Tank Outfall	0.043	0.031	3.127	0.000	OK
1.004	30 min Summer	21	Tank Outfall	S12	0.114	0.609	7.989	0.441	OK
1.005	30 min Winter	24	S12	EXS1	0.022	2.497	4.135	0.049	OK

Return Period Yrs: 10.0

Climate Change %: 0

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
S1	-	0	94.950	0.000	0.000		OK
S2	15 min Winter	9	94.812	0.052	4.337		OK
S4.	15 min Winter	10	94.792	0.092	3.367		OK
S3	15 min Winter	10	94.736	0.246	7.400		Surcharged
S10	15 min Winter	10	94.352	0.002	7.571		OK
S5.	-	0	94.850	0.000	0.000		OK
S6	15 min Winter	8	94.705	0.035	2.312		OK
S7	15 min Winter	8	94.593	0.043	3.433		OK
S9	15 min Winter	8	94.722	0.022	1.156		OK
S8	15 min Winter	8	94.538	0.048	4.546		OK
S11	15 min Winter	8	94.421	0.001	4.504		OK
Tank Outfall	30 min Winter	23	93.723	0.103	3.968		OK
S12	60 min Summer	38	93.736	0.156	6.644		Surcharged
EXS1	30 min Winter	22	92.903	0.023	4.295		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	15 min Winter	9	S1	S2	0.026	0.000	0.000	0.000	OK
1.001	15 min Winter	9	S2	S3	0.076	0.725	4.564	0.491	OK
2.000	15 min Winter	10	S4.	S3	0.096	0.594	3.941	0.622	OK
1.002	15 min Winter	10	S3	S10	0.051	1.891	7.571	1.195	OK
1.003	30 min Winter	23	S10	Tank Outfall	0.052	0.059	6.687	0.000	OK
3.000	15 min Winter	8	S5.	S6	0.018	0.000	0.000	0.000	OK
3.001	15 min Winter	8	S6	S7	0.039	0.626	2.278	0.121	OK
3.002	15 min Winter	8	S7	S8	0.045	0.755	3.403	0.178	OK
4.000	15 min Winter	8	S9	S8	0.035	0.370	1.143	0.045	OK
3.003	15 min Winter	8	S8	S11	0.025	1.899	4.504	0.081	OK
3.004	30 min Winter	23	S11	Tank Outfall	0.052	0.030	3.646	0.000	OK
1.004	30 min Winter	22	Tank Outfall	S12	0.126	0.616	9.106	0.502	OK
1.005	30 min Winter	22	S12	EXS1	0.023	2.526	4.295	0.051	OK

Return Period Yrs: 30.0

Climate Change %: 0

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
S1	-	0	94.950	0.000	0.000		OK
S2	15 min Winter	10	94.903	0.143	4.540		Surcharged
S4.	15 min Winter	10	94.932	0.232	4.256		Surcharged
S3	15 min Winter	10	94.841	0.351	8.750		Surcharged
S10	15 min Winter	10	94.352	0.002	8.541		OK
S5.	-	0	94.850	0.000	0.000		OK
S6	15 min Winter	8	94.709	0.039	2.923		OK
S7	15 min Winter	8	94.598	0.048	4.345		OK
S9	15 min Winter	8	94.724	0.024	1.462		OK
S8	15 min Winter	8	94.543	0.053	5.756		OK
S11	15 min Winter	8	94.422	0.002	5.709		OK
Tank Outfall	30 min Winter	24	93.759	0.139	4.044		OK
S12	30 min Winter	23	93.757	0.177	4.531		Surcharged
EXS1	30 min Winter	24	92.903	0.023	4.430		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	15 min Winter	9	S1	S2	0.050	0.000	0.000	0.000	OK
1.001	30 min Summer	17	S2	S3	0.100	0.763	5.048	0.543	Surcharged
2.000	15 min Winter	9	S4.	S3	0.100	0.609	4.370	0.690	Surcharged
1.002	15 min Winter	10	S3	S10	0.051	2.130	8.541	1.348	OK
1.003	30 min Winter	24	S10	Tank Outfall	0.070	0.073	7.932	0.000	OK
3.000	15 min Winter	8	S5.	S6	0.020	0.000	0.000	0.000	OK
3.001	15 min Winter	8	S6	S7	0.044	0.668	2.883	0.153	OK
3.002	15 min Winter	8	S7	S8	0.051	0.816	4.309	0.225	OK
4.000	15 min Winter	8	S9	S8	0.039	0.400	1.447	0.057	OK
3.003	15 min Winter	8	S8	S11	0.027	2.061	5.709	0.102	OK
3.004	30 min Winter	24	S11	Tank Outfall	0.070	0.038	4.655	0.000	OK
1.004	30 min Winter	24	Tank Outfall	S12	0.144	0.532	7.314	0.403	OK
1.005	30 min Winter	24	S12	EXS1	0.023	2.547	4.430	0.052	OK

Return Period Yrs: 100.0

Climate Change %: 0

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
S1	15 min Winter	11	95.062	0.112	0.000		Surcharged
S2	15 min Winter	11	95.059	0.299	4.704		Surcharged
S4.	15 min Winter	10	95.122	0.422	5.505		Surcharged
S3	15 min Winter	11	94.988	0.498	9.675		Surcharged
S10	15 min Winter	11	94.352	0.002	9.758		OK
S5.	-	0	94.850	0.000	0.000		OK
S6	15 min Winter	8	94.715	0.045	3.781		OK
S7	15 min Winter	8	94.606	0.056	5.623		OK
S9	15 min Winter	8	94.727	0.027	1.890		OK
S8	15 min Winter	8	94.550	0.060	7.454		OK
S11	15 min Winter	8	94.422	0.002	7.399		OK
Tank Outfall	30 min Winter	26	93.814	0.194	3.827		Surcharged
S12	30 min Winter	26	93.811	0.231	4.667		Surcharged
EXS1	30 min Winter	26	92.904	0.024	4.697		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	30 min Summer	20	S1	S2	0.100	0.125	0.844	0.131	Surcharged
1.001	30 min Summer	15	S2	S3	0.100	0.782	5.587	0.601	Surcharged
2.000	30 min Summer	17	S4.	S3	0.100	0.686	5.387	0.851	Surcharged
1.002	15 min Winter	11	S3	S10	0.051	2.430	9.758	1.540	OK
1.003	30 min Winter	25	S10	Tank Outfall	0.097	0.070	9.298	0.000	OK
3.000	15 min Winter	8	S5.	S6	0.023	0.000	0.000	0.000	OK
3.001	15 min Winter	8	S6	S7	0.050	0.717	3.733	0.198	OK
3.002	15 min Winter	8	S7	S8	0.058	0.890	5.580	0.292	OK
4.000	15 min Winter	8	S9	S8	0.044	0.438	1.874	0.074	OK
3.003	15 min Winter	8	S8	S11	0.031	2.252	7.399	0.132	OK
3.004	60 min Winter	43	S11	Tank Outfall	0.097	0.026	4.129	0.000	OK
1.004	120 min Winter	75	Tank Outfall	S12	0.150	0.615	9.064	0.500	Surcharged
1.005	30 min Winter	26	S12	EXS1	0.024	2.593	4.697	0.055	OK

Return Period Yrs: 100.0
Climate Change %: 40

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
S1	30 min Summer	19	95.371	0.421	0.000		Surcharged
S2	30 min Summer	19	95.367	0.607	5.505		Surcharged
S4.	30 min Summer	18	95.484	0.784	6.924		Flood Risk
S3	30 min Summer	19	95.271	0.781	11.700		Surcharged
S10	30 min Summer	19	94.352	0.002	11.736		OK
S5.	-	0	94.850	0.000	0.000		OK
S6	15 min Winter	8	94.724	0.054	5.292		OK
S7	15 min Winter	8	94.617	0.067	7.877		OK
S9	15 min Winter	8	94.732	0.032	2.646		OK
S8	15 min Winter	8	94.560	0.070	10.448		OK
S11	15 min Winter	8	94.422	0.002	10.383		OK
Tank Outfall	60 min Winter	46	93.931	0.311	4.934		Surcharged
S12	60 min Winter	46	93.928	0.348	4.859		Surcharged
EXS1	60 min Summer	48	92.904	0.024	4.858		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	15 min Winter	16	S1	S2	0.100	0.270	2.080	0.323	Surcharged
1.001	30 min Summer	14	S2	S3	0.100	0.781	6.028	0.648	Surcharged
2.000	15 min Winter	9	S4.	S3	0.100	0.903	7.095	1.120	Surcharged
1.002	30 min Summer	19	S3	S10	0.051	2.915	11.736	1.852	OK
1.003	60 min Winter	46	S10	Tank Outfall	0.156	0.062	9.584	0.000	Surcharged
3.000	15 min Winter	8	S5.	S6	0.027	0.000	0.000	0.000	OK
3.001	15 min Winter	8	S6	S7	0.060	0.786	5.231	0.278	OK
3.002	15 min Winter	8	S7	S8	0.068	0.998	7.823	0.409	OK
4.000	15 min Winter	8	S9	S8	0.051	0.494	2.626	0.103	OK
3.003	15 min Winter	8	S8	S11	0.036	2.526	10.383	0.186	OK
3.004	60 min Winter	46	S11	Tank Outfall	0.156	0.032	5.781	0.000	Surcharged
1.004	120 min Summer	61	Tank Outfall	S12	0.150	0.606	9.136	0.504	Surcharged
1.005	60 min Summer	48	S12	EXS1	0.024	2.620	4.858	0.057	OK