STORM SEWER DESIGN by the Modified Rational Method

Design Criteria for NEW FULL STORM NETWORK 1.SWS

Pipe Sizes NETWORK 2 STORM Manhole Sizes NETWORK 2 STORM

FSR Rainfall Model - England and Wales

Return Period (years)	2	Add Flow / Climate Change (%)	0
M5-60 (mm)	19.000	Minimum Backdrop Height (m)	0.200
Ratio R	0.350	Maximum Backdrop Height (m)	0.000
Maximum Rainfall (mm/hr)	50	Min Design Depth for Optimisation (m)	1.200
Maximum Time of Concentration (mins)	30	Min Vel for Auto Design only (m/s)	0.75
Foul Sewage (l/s/ha)	0.000	Min Slope for Optimisation (1:X)	500
Volumetric Runoff Coeff.	0.750		

Designed with Level Soffits

Time Area Diagram for NEW FULL STORM NETWORK 1.SWS

Time (mins)	Area (ha)	Time (mins)	Area (ha)	Time (mins)	Area (ha)
0-4	0.411	4-8	0.463	8-12	0.011

Total Area Contributing (ha) = 0.885

Total Pipe Volume (m³) = 23.820

Network Design Table for NEW FULL STORM NETWORK 1.SWS

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Auto Design
1.000	5.000	0.050	100.0	0.028	5.00	0.0	0.600	o	100	
1.001	12.879	0.150	85.9	0.001	0.00	0.0	0.600	o	100	
2.000	5.000	0.050	100.0	0.011	5.00	0.0	0.600	o	100	
2.001	7.828	0.150	52.2	0.000	0.00	0.0	0.600	o	100	
1.002	12.163	0.100	121.6	0.000	0.00	0.0	0.600	o	100	

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)
1.000	50.00	5.11	5.900	0.028	0.0	0.0	0.0	0.77	6.0	3.8
1.001	50.00	5.37	5.850	0.029	0.0	0.0	0.0	0.83	6.5	3.9
2.000	50.00	5.11	5.900	0.011	0.0	0.0	0.0	0.77	6.0	1.5
2.001	50.00	5.23	5.850	0.011	0.0	0.0	0.0	1.07	8.4	1.5
1.002	50.00	5.66	5.700	0.040	0.0	0.0	0.0	0.70	5.5	5.4

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Network Design Table for NEW FULL STORM NETWORK 1.SWS

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Auto Design
3.000	5.000	0.050	100.0	0.012	5.00	0.0	0.600	o	100	
3.001	4.858	0.050	97.2	0.004	0.00	0.0	0.600	o	100	
3.002	4.559	0.350	13.0	0.000	0.00	0.0	0.600	o	100	
1.003	6.294	0.075	83.9	0.000	0.00	0.0	0.600	o	150	
4.000	5.000	0.050	100.0	0.003	5.00	0.0	0.600	o	100	
4.001	3.290	0.975	3.4	0.000	0.00	0.0	0.600	o	100	
1.004	41.903	0.200	209.5	0.025	0.00	0.0	0.600	o	150	
5.000	20.323	0.250	81.3	0.010	5.00	0.0	0.600	o	100	
6.000	7.912	0.400	19.8	0.004	5.00	0.0	0.600	o	100	
5.001	15.640	0.200	78.2	0.000	0.00	0.0	0.600	o	100	
7.000	5.000	0.050	100.0	0.008	5.00	0.0	0.600	o	100	
7.001	5.000	0.450	11.1	0.000	0.00	0.0	0.600	o	100	
8.000	5.000	0.050	100.0	0.007	5.00	0.0	0.600	o	100	

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)
3.000	50.00	5.11	6.050	0.012	0.0	0.0	0.0	0.77	6.0	1.6
3.001	50.00	5.21	6.000	0.016	0.0	0.0	0.0	0.78	6.1	2.2
3.002	50.00	5.25	5.950	0.016	0.0	0.0	0.0	2.15	16.9	2.2
1.003	50.00	5.75	5.550	0.056	0.0	0.0	0.0	1.10	19.4	7.6
4.000	50.00	5.11	6.550	0.003	0.0	0.0	0.0	0.77	6.0	0.4
4.001	50.00	5.12	6.500	0.003	0.0	0.0	0.0	4.24	33.3	0.4
1.004	50.00	6.77	5.475	0.084	0.0	0.0	0.0	0.69	12.2	11.4
5.000	50.00	5.40	6.550	0.010	0.0	0.0	0.0	0.85	6.7	1.4
6.000	50.00	5.08	6.700	0.004	0.0	0.0	0.0	1.74	13.7	0.5
5.001	50.00	5.70	6.300	0.014	0.0	0.0	0.0	0.87	6.8	1.9
7.000	50.00	5.11	6.600	0.008	0.0	0.0	0.0	0.77	6.0	1.1
7.001	50.00	5.14	6.550	0.008	0.0	0.0	0.0	2.33	18.3	1.1
8.000	50.00	5.11	6.600	0.007	0.0	0.0	0.0	0.77	6.0	0.9

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Network Design Table for NEW FULL STORM NETWORK 1.SWS

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Auto Design
8.001	5.000	0.450	11.1	0.000	0.00	0.0	0.600	o	100	
5.002	18.443	0.187	98.6	0.000	0.00	0.0	0.600	o	100	
9.000	5.000	0.050	100.0	0.010	5.00	0.0	0.600	o	100	
9.001	5.000	0.637	7.8	0.000	0.00	0.0	0.600	o	100	
5.003	11.108	0.113	98.3	0.000	0.00	0.0	0.600	o	100	
10.000	5.000	0.050	100.0	0.006	5.00	0.0	0.600	o	100	
10.001	5.000	0.750	6.7	0.000	0.00	0.0	0.600	o	100	
11.000	12.026	0.750	16.0	0.002	5.00	0.0	0.600	o	100	
5.004	6.763	0.124	54.5	0.000	0.00	0.0	0.600	o	100	
12.000	5.000	0.069	72.5	0.017	5.00	0.0	0.600	o	100	
12.001	8.533	0.132	64.6	0.000	0.00	0.0	0.600	o	100	
13.000	5.000	0.050	100.0	0.013	5.00	0.0	0.600	o	100	
13.001	5.000	0.101	49.3	0.000	0.00	0.0	0.600	o	100	

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)
8.001	50.00	5.14	6.550	0.007	0.0	0.0	0.0	2.33	18.3	0.9
5.002	50.00	6.09	6.100	0.029	0.0	0.0	0.0	0.77	6.1	3.9
9.000	50.00	5.11	6.600	0.010	0.0	0.0	0.0	0.77	6.0	1.4
9.001	50.00	5.14	6.550	0.010	0.0	0.0	0.0	2.78	21.8	1.4
5.003	50.00	6.33	5.913	0.039	0.0	0.0	0.0	0.78	6.1	5.3
10.000	50.00	5.11	6.600	0.006	0.0	0.0	0.0	0.77	6.0	0.8
10.001	50.00	5.14	6.550	0.006	0.0	0.0	0.0	3.01	23.7	0.8
11.000	50.00	5.10	6.550	0.002	0.0	0.0	0.0	1.94	15.2	0.3
5.004	50.00	6.44	5.800	0.047	0.0	0.0	0.0	1.05	8.2	6.4
12.000	50.00	5.09	6.750	0.017	0.0	0.0	0.0	0.91	7.1	2.3
12.001	50.00	5.24	6.681	0.017	0.0	0.0	0.0	0.96	7.5	2.3
13.000	50.00	5.11	6.700	0.013	0.0	0.0	0.0	0.77	6.0	1.8
13.001	50.00	5.18	6.650	0.013	0.0	0.0	0.0	1.10	8.6	1.8

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Network Design Table for NEW FULL STORM NETWORK 1.SWS

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Auto Design
12.002	8.835	0.123	72.0	0.000	0.00	0.0	0.600	o	100	
14.000	5.000	0.050	100.0	0.013	5.00	0.0	0.600	o	100	
14.001	5.000	0.224	22.3	0.000	0.00	0.0	0.600	o	100	
12.003	9.200	0.129	71.4	0.000	0.00	0.0	0.600	o	100	
15.000	5.000	0.050	100.0	0.013	5.00	0.0	0.600	o	100	
15.001	5.000	0.053	94.3	0.000	0.00	0.0	0.600	o	100	
12.004	5.780	0.047	123.0	0.000	0.00	0.0	0.600	o	150	
12.005	5.590	0.925	6.0	0.000	0.00	0.0	0.600	o	150	
1.005	64.849	0.575	112.8	0.047	0.00	0.0	0.600	o	225	
16.000	5.000	0.050	100.0	0.014	5.00	0.0	0.600	o	100	
16.001	9.205	0.197	46.8	0.000	0.00	0.0	0.600	o	100	
17.000	5.000	0.050	100.0	0.012	5.00	0.0	0.600	o	100	
17.001	5.000	0.097	51.7	0.000	0.00	0.0	0.600	o	100	
16.002	8.839	0.189	46.8	0.000	0.00	0.0	0.600	o	100	

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)
12.002	50.00	5.40	6.549	0.030	0.0	0.0	0.0	0.91	7.1	4.1
14.000	50.00	5.11	6.700	0.013	0.0	0.0	0.0	0.77	6.0	1.8
14.001	50.00	5.16	6.650	0.013	0.0	0.0	0.0	1.64	12.9	1.8
12.003	50.00	5.57	6.426	0.043	0.0	0.0	0.0	0.91	7.2	5.8
15.000	50.00	5.11	6.400	0.013	0.0	0.0	0.0	0.77	6.0	1.8
15.001	50.00	5.21	6.350	0.013	0.0	0.0	0.0	0.79	6.2	1.8
12.004	50.00	5.68	6.247	0.056	0.0	0.0	0.0	0.90	16.0	7.6
12.005	50.00	5.70	6.200	0.056	0.0	0.0	0.0	4.13	72.9	7.6
1.005	50.00	7.64	5.200	0.234	0.0	0.0	0.0	1.23	48.9	31.7
16.000	50.00	5.11	6.500	0.014	0.0	0.0	0.0	0.77	6.0	1.9
16.001	50.00	5.24	6.450	0.014	0.0	0.0	0.0	1.13	8.9	1.9
17.000	50.00	5.11	6.400	0.012	0.0	0.0	0.0	0.77	6.0	1.6
17.001	50.00	5.19	6.350	0.012	0.0	0.0	0.0	1.07	8.4	1.6
16.002	50.00	5.37	6.253	0.026	0.0	0.0	0.0	1.13	8.9	3.5

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Network Design Table for NEW FULL STORM NETWORK 1.SWS

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Auto Design
18.000	5.000	0.050	100.0	0.012	5.00	0.0	0.600	o	100	
18.001	5.000	0.186	26.9	0.000	0.00	0.0	0.600	o	100	
16.003	8.831	0.190	46.4	0.000	0.00	0.0	0.600	o	100	
19.000	5.000	0.050	100.0	0.011	5.00	0.0	0.600	o	100	
19.001	5.000	0.126	39.7	0.000	0.00	0.0	0.600	o	100	
16.004	11.513	0.319	36.1	0.000	0.00	0.0	0.600	o	100	
20.000	5.000	0.050	100.0	0.015	5.00	0.0	0.600	o	100	
20.001	5.000	0.295	16.9	0.000	0.00	0.0	0.600	o	100	
16.005	11.420	0.244	46.8	0.000	0.00	0.0	0.600	o	100	
21.000	5.000	0.050	100.0	0.017	5.00	0.0	0.600	o	100	
21.001	5.000	0.049	102.0	0.000	0.00	0.0	0.600	o	100	
16.006	5.326	0.061	87.3	0.000	0.00	0.0	0.600	o	150	
22.000	5.000	0.050	100.0	0.025	5.00	0.0	0.600	o	100	

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)
18.000	50.00	5.11	6.300	0.012	0.0	0.0	0.0	0.77	6.0	1.6
18.001	50.00	5.16	6.250	0.012	0.0	0.0	0.0	1.49	11.7	1.6
16.003	50.00	5.50	6.064	0.038	0.0	0.0	0.0	1.13	8.9	5.1
19.000	50.00	5.11	6.050	0.011	0.0	0.0	0.0	0.77	6.0	1.5
19.001	50.00	5.18	6.000	0.011	0.0	0.0	0.0	1.23	9.6	1.5
16.004	50.00	5.65	5.874	0.049	0.0	0.0	0.0	1.29	10.1	6.6
20.000	50.00	5.11	5.900	0.015	0.0	0.0	0.0	0.77	6.0	2.0
20.001	50.00	5.15	5.850	0.015	0.0	0.0	0.0	1.89	14.8	2.0
16.005	50.00	5.82	5.555	0.064	0.0	0.0	0.0	1.13	8.9	8.7
21.000	50.00	5.11	5.700	0.017	0.0	0.0	0.0	0.77	6.0	2.3
21.001	50.00	5.22	5.650	0.017	0.0	0.0	0.0	0.76	6.0	2.3
16.006	50.00	5.90	5.261	0.081	0.0	0.0	0.0	1.08	19.0	11.0
22.000	50.00	5.11	5.900	0.025	0.0	0.0	0.0	0.77	6.0	3.4

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Network Design Table for NEW FULL STORM NETWORK 1.SWS

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Auto Design
22.001	9.508	0.100	95.1	0.001	0.00	0.0	0.600	o	100	
22.002	16.163	0.150	107.8	0.007	0.00	0.0	0.600	o	100	
23.000	5.000	0.050	100.0	0.034	5.00	0.0	0.600	o	100	
23.001	7.768	0.100	77.7	0.000	0.00	0.0	0.600	o	100	
22.003	15.043	0.150	100.3	0.000	0.00	0.0	0.600	o	150	
22.004	3.944	0.050	78.9	0.001	0.00	0.0	0.600	o	150	
22.005	13.472	0.150	89.8	0.000	0.00	0.0	0.600	o	150	
16.007	3.474	0.046	75.5	0.000	0.00	0.0	0.600	o	150	
24.000	5.000	0.050	100.0	0.012	5.00	0.0	0.600	o	100	
24.001	5.000	0.049	102.0	0.000	0.00	0.0	0.600	o	100	
16.008	3.717	0.054	68.8	0.000	0.00	0.0	0.600	o	225	
16.009	3.533	0.400	8.8	0.000	0.00	0.0	0.600	o	225	
25.000	16.639	0.200	83.2	0.008	5.00	0.0	0.600	o	100	
26.000	9.836	0.200	49.2	0.007	5.00	0.0	0.600	o	100	

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)
22.001	50.00	5.31	5.850	0.026	0.0	0.0	0.0	0.79	6.2	3.5
22.002	50.00	5.67	5.750	0.033	0.0	0.0	0.0	0.74	5.8	4.5
23.000	50.00	5.11	5.750	0.034	0.0	0.0	0.0	0.77	6.0	4.6
23.001	50.00	5.26	5.700	0.034	0.0	0.0	0.0	0.87	6.9	4.6
22.003	50.00	5.92	5.550	0.067	0.0	0.0	0.0	1.00	17.7	9.1
22.004	50.00	5.98	5.400	0.068	0.0	0.0	0.0	1.13	20.0	9.2
22.005	50.00	6.19	5.350	0.068	0.0	0.0	0.0	1.06	18.7	9.2
16.007	50.00	6.24	5.200	0.149	0.0	0.0	0.0	1.16	20.5	20.2
24.000	50.00	5.11	5.600	0.012	0.0	0.0	0.0	0.77	6.0	1.6
24.001	50.00	5.22	5.550	0.012	0.0	0.0	0.0	0.76	6.0	1.6
16.008	50.00	6.28	5.079	0.161	0.0	0.0	0.0	1.58	62.8	21.8
16.009	50.00	6.30	5.025	0.161	0.0	0.0	0.0	4.43	176.1	21.8
25.000	50.00	5.33	5.600	0.008	0.0	0.0	0.0	0.84	6.6	1.1
26.000	50.00	5.15	5.600	0.007	0.0	0.0	0.0	1.10	8.7	0.9

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Network Design Table for NEW FULL STORM NETWORK 1.SWS

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Auto Design
25.001	15.099	0.200	75.5	0.007	0.00	0.0	0.600	o	100	
27.000	5.000	0.050	100.0	0.014	5.00	0.0	0.600	o	100	
27.001	5.000	0.450	11.1	0.000	0.00	0.0	0.600	o	100	
25.002	16.509	0.200	82.5	0.000	0.00	0.0	0.600	o	100	
28.000	5.000	0.050	100.0	0.010	5.00	0.0	0.600	o	100	
28.001	5.000	0.300	16.7	0.000	0.00	0.0	0.600	o	100	
29.000	5.000	0.050	100.0	0.004	5.00	0.0	0.600	o	100	
29.001	5.000	0.150	33.3	0.000	0.00	0.0	0.600	o	100	
25.003	8.005	0.250	32.0	0.000	0.00	0.0	0.600	o	100	
1.006	18.495	0.323	57.2	0.000	0.00	0.0	0.600	o	225	
30.000	5.000	0.050	100.0	0.013	5.00	0.0	0.600	o	100	
30.001	9.056	0.140	64.9	0.000	0.00	0.0	0.600	o	100	
31.000	5.000	0.050	100.0	0.013	5.00	0.0	0.600	o	100	
31.001	5.000	0.040	125.0	0.000	0.00	0.0	0.600	o	100	

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)
25.001	50.00	5.61	5.400	0.022	0.0	0.0	0.0	0.89	7.0	3.0
27.000	50.00	5.11	5.700	0.014	0.0	0.0	0.0	0.77	6.0	1.9
27.001	50.00	5.14	5.650	0.014	0.0	0.0	0.0	2.33	18.3	1.9
25.002	50.00	5.94	5.200	0.036	0.0	0.0	0.0	0.85	6.7	4.9
28.000	50.00	5.11	5.350	0.010	0.0	0.0	0.0	0.77	6.0	1.4
28.001	50.00	5.15	5.300	0.010	0.0	0.0	0.0	1.90	14.9	1.4
29.000	50.00	5.11	5.200	0.004	0.0	0.0	0.0	0.77	6.0	0.5
29.001	50.00	5.17	5.150	0.004	0.0	0.0	0.0	1.34	10.5	0.5
25.003	50.00	6.03	5.000	0.050	0.0	0.0	0.0	1.37	10.7	6.8
1.006	50.00	7.82	4.625	0.445	0.0	0.0	0.0	1.73	68.9	60.3
30.000	50.00	5.11	5.500	0.013	0.0	0.0	0.0	0.77	6.0	1.8
30.001	50.00	5.27	5.450	0.013	0.0	0.0	0.0	0.96	7.5	1.8
31.000	50.00	5.11	5.400	0.013	0.0	0.0	0.0	0.77	6.0	1.8
31.001	50.00	5.23	5.350	0.013	0.0	0.0	0.0	0.69	5.4	1.8

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Network Design Table for NEW FULL STORM NETWORK 1.SWS

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Auto Design
30.002	3.916	0.060	65.3	0.000	0.00	0.0	0.600	o	100	
30.003	3.179	0.823	3.9	0.000	0.00	0.0	0.600	o	100	
1.007	5.742	0.077	74.6	0.000	0.00	0.0	0.600	o	300	
32.000	4.128	0.050	82.6	0.019	5.00	0.0	0.600	o	100	
32.001	3.219	0.800	4.0	0.000	0.00	0.0	0.600	o	100	
1.008	7.556	0.184	41.0	0.000	0.00	0.0	0.600	o	300	
1.009	16.800	0.224	75.0	0.033	0.00	0.0	0.600	o	300	
33.000	5.000	0.050	100.0	0.017	5.00	0.0	0.600	o	100	
33.001	5.000	0.618	8.1	0.000	0.00	0.0	0.600	o	100	
1.010	9.042	0.090	100.0	0.000	0.00	0.0	0.600	o	300	
34.000	5.000	0.050	100.0	0.012	5.00	0.0	0.600	o	100	
34.001	5.000	0.659	7.6	0.000	0.00	0.0	0.600	o	100	
1.011	14.113	0.141	100.0	0.000	0.00	0.0	0.600	o	300	

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)
30.002	50.00	5.33	5.310	0.026	0.0	0.0	0.0	0.95	7.5	3.5
30.003	50.00	5.35	5.250	0.026	0.0	0.0	0.0	3.96	31.1	3.5
1.007	50.00	7.87	4.227	0.471	0.0	0.0	0.0	1.82	128.8	63.8
32.000	50.00	5.08	5.200	0.019	0.0	0.0	0.0	0.85	6.7	2.6
32.001	50.00	5.10	5.150	0.019	0.0	0.0	0.0	3.88	30.5	2.6
1.008	50.00	7.93	4.339	0.490	0.0	0.0	0.0	2.46	174.1	66.4
1.009	50.00	8.08	4.285	0.523	0.0	0.0	0.0	1.82	128.5	70.8
33.000	50.00	5.11	4.750	0.017	0.0	0.0	0.0	0.77	6.0	2.3
33.001	50.00	5.14	4.700	0.017	0.0	0.0	0.0	2.74	21.5	2.3
1.010	50.00	8.17	3.882	0.540	0.0	0.0	0.0	1.57	111.1	73.1
34.000	50.00	5.11	4.700	0.012	0.0	0.0	0.0	0.77	6.0	1.6
34.001	50.00	5.14	4.650	0.012	0.0	0.0	0.0	2.82	22.2	1.6
1.011	49.60	8.32	3.791	0.552	0.0	0.0	0.0	1.57	111.1	74.1

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Network Design Table for NEW FULL STORM NETWORK 1.SWS

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Auto Design
35.000	5.000	0.050	100.0	0.021	5.00	0.0	0.600	o	100	
35.001	5.000	0.500	10.0	0.000	0.00	0.0	0.600	o	100	
1.012	13.070	0.348	37.6	0.000	0.00	0.0	0.600	o	300	
36.000	20.234	0.250	80.9	0.012	5.00	0.0	0.600	o	100	
36.001	17.896	0.200	89.5	0.006	0.00	0.0	0.600	o	100	
37.000	5.000	0.050	100.0	0.012	5.00	0.0	0.600	o	100	
37.001	5.000	0.250	20.0	0.000	0.00	0.0	0.600	o	100	
38.000	5.000	0.050	100.0	0.006	5.00	0.0	0.600	o	100	
38.001	5.000	0.200	25.0	0.000	0.00	0.0	0.600	o	100	
36.002	13.660	0.150	91.1	0.000	0.00	0.0	0.600	o	100	
39.000	5.000	0.050	100.0	0.012	5.00	0.0	0.600	o	100	
39.001	5.000	0.182	27.5	0.000	0.00	0.0	0.600	o	100	
36.003	4.743	0.200	23.7	0.000	0.00	0.0	0.600	o	100	
36.004	16.483	0.097	169.9	0.043	0.00	0.0	0.600	o	150	

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)
35.000	50.00	5.11	4.400	0.021	0.0	0.0	0.0	0.77	6.0	2.8
35.001	50.00	5.14	4.350	0.021	0.0	0.0	0.0	2.46	19.3	2.8
1.012	49.35	8.41	3.650	0.573	0.0	0.0	0.0	2.57	181.9	76.6
36.000	50.00	5.39	4.600	0.012	0.0	0.0	0.0	0.86	6.7	1.6
36.001	50.00	5.76	4.350	0.018	0.0	0.0	0.0	0.81	6.4	2.4
37.000	50.00	5.11	4.450	0.012	0.0	0.0	0.0	0.77	6.0	1.6
37.001	50.00	5.16	4.400	0.012	0.0	0.0	0.0	1.73	13.6	1.6
38.000	50.00	5.11	4.400	0.006	0.0	0.0	0.0	0.77	6.0	0.8
38.001	50.00	5.16	4.350	0.006	0.0	0.0	0.0	1.55	12.2	0.8
36.002	50.00	6.04	4.150	0.036	0.0	0.0	0.0	0.81	6.3	4.9
39.000	50.00	5.11	4.500	0.012	0.0	0.0	0.0	0.77	6.0	1.6
39.001	50.00	5.16	4.450	0.012	0.0	0.0	0.0	1.48	11.6	1.6
36.003	50.00	6.09	4.000	0.048	0.0	0.0	0.0	1.59	12.5	6.5
36.004	50.00	6.45	3.750	0.091	0.0	0.0	0.0	0.77	13.6	12.3

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Network Design Table for NEW FULL STORM NETWORK 1.SWS

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Auto Design
40.000	20.294	0.250	81.2	0.012	5.00	0.0	0.600	o	100	
40.001	17.803	0.200	89.0	0.000	0.00	0.0	0.600	o	100	
41.000	5.000	0.050	100.0	0.025	5.00	0.0	0.600	o	100	
41.001	5.000	0.200	25.0	0.000	0.00	0.0	0.600	o	100	
40.002	3.902	0.067	58.2	0.000	0.00	0.0	0.600	o	100	
36.005	14.604	0.086	170.0	0.000	0.00	0.0	0.600	o	225	
42.000	5.000	0.050	100.0	0.009	5.00	0.0	0.600	o	100	
42.001	5.000	0.049	102.0	0.000	0.00	0.0	0.600	o	100	
36.006	11.027	0.408	27.0	0.000	0.00	0.0	0.600	o	225	
1.013	25.204	0.428	58.8	0.037	0.00	0.0	0.600	o	300	
43.000	5.000	0.050	100.0	0.011	5.00	0.0	0.600	o	100	
43.001	5.000	0.920	5.4	0.000	0.00	0.0	0.600	o	100	
1.014	9.087	0.125	72.5	0.000	0.00	0.0	0.600	o	300	

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)
40.000	50.00	5.40	4.800	0.012	0.0	0.0	0.0	0.85	6.7	1.6
40.001	50.00	5.76	4.550	0.012	0.0	0.0	0.0	0.82	6.4	1.6
41.000	50.00	5.11	4.600	0.025	0.0	0.0	0.0	0.77	6.0	3.4
41.001	50.00	5.16	4.550	0.025	0.0	0.0	0.0	1.55	12.2	3.4
40.002	50.00	5.82	4.350	0.037	0.0	0.0	0.0	1.01	7.9	5.0
36.005	50.00	6.69	3.578	0.128	0.0	0.0	0.0	1.00	39.8	17.3
42.000	50.00	5.11	4.250	0.009	0.0	0.0	0.0	0.77	6.0	1.2
42.001	50.00	5.22	4.200	0.009	0.0	0.0	0.0	0.76	6.0	1.2
36.006	50.00	6.77	3.492	0.137	0.0	0.0	0.0	2.53	100.5	18.6
1.013	48.77	8.61	3.009	0.747	0.0	0.0	0.0	2.05	145.2	98.7
43.000	50.00	5.11	3.950	0.011	0.0	0.0	0.0	0.77	6.0	1.5
43.001	50.00	5.13	3.700	0.011	0.0	0.0	0.0	3.34	26.2	1.5
1.014	48.54	8.70	2.580	0.758	0.0	0.0	0.0	1.85	130.7	99.7

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Network Design Table for NEW FULL STORM NETWORK 1.SWS

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Auto Design
44.000	5.000	0.050	100.0	0.012	5.00	0.0	0.600	o	100	
44.001	5.000	0.795	6.3	0.000	0.00	0.0	0.600	o	100	
1.015	9.373	0.129	72.5	0.000	0.00	0.0	0.600	o	300	
45.000	5.000	0.050	100.0	0.012	5.00	0.0	0.600	o	100	
45.001	5.000	0.851	5.9	0.000	0.00	0.0	0.600	o	100	
1.016	4.977	0.069	72.5	0.000	0.00	0.0	0.600	o	300	
46.000	5.000	0.050	100.0	0.025	5.00	0.0	0.600	o	100	
46.001	5.000	1.393	3.6	0.000	0.00	0.0	0.600	o	100	
1.017	4.784	0.066	72.5	0.000	0.00	0.0	0.600	o	300	
47.000	5.000	0.050	100.0	0.011	5.00	0.0	0.600	o	100	
47.001	5.000	1.409	3.5	0.000	0.00	0.0	0.600	o	100	
1.018	8.306	0.115	72.5	0.000	0.00	0.0	0.600	o	300	
48.000	5.000	0.050	100.0	0.012	5.00	0.0	0.600	o	100	
48.001	8.853	0.300	29.5	0.000	0.00	0.0	0.600	o	100	

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)
44.000	50.00	5.11	3.500	0.012	0.0	0.0	0.0	0.77	6.0	1.6
44.001	50.00	5.14	3.450	0.012	0.0	0.0	0.0	3.10	24.4	1.6
1.015	48.31	8.78	2.455	0.770	0.0	0.0	0.0	1.85	130.7	100.7
45.000	50.00	5.11	3.800	0.012	0.0	0.0	0.0	0.77	6.0	1.6
45.001	50.00	5.13	3.750	0.012	0.0	0.0	0.0	3.21	25.2	1.6
1.016	48.19	8.82	2.326	0.782	0.0	0.0	0.0	1.85	130.7	102.1
46.000	50.00	5.11	3.900	0.025	0.0	0.0	0.0	0.77	6.0	3.4
46.001	50.00	5.13	3.850	0.025	0.0	0.0	0.0	4.11	32.3	3.4
1.017	48.07	8.87	2.257	0.807	0.0	0.0	0.0	1.85	130.7	105.1
47.000	50.00	5.11	3.850	0.011	0.0	0.0	0.0	0.77	6.0	1.5
47.001	50.00	5.13	3.800	0.011	0.0	0.0	0.0	4.14	32.5	1.5
1.018	47.87	8.94	2.191	0.818	0.0	0.0	0.0	1.85	130.7	106.0
48.000	50.00	5.11	5.050	0.012	0.0	0.0	0.0	0.77	6.0	1.6
48.001	50.00	5.21	5.000	0.012	0.0	0.0	0.0	1.43	11.2	1.6

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Network Design Table for NEW FULL STORM NETWORK 1.SWS

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Auto Design
49.000	5.000	0.050	100.0	0.012	5.00	0.0	0.600	o	100	
48.002	31.132	0.500	62.3	0.000	0.00	0.0	0.600	o	100	
50.000	23.770	0.250	95.1	0.012	5.00	0.0	0.600	o	100	
50.001	15.717	0.200	78.6	0.002	0.00	0.0	0.600	o	100	
50.002	5.781	0.100	57.8	0.000	0.00	0.0	0.600	o	100	
51.000	5.000	0.050	100.0	0.028	5.00	0.0	0.600	o	100	
51.001	5.000	0.250	20.0	0.000	0.00	0.0	0.600	o	100	
48.003	17.992	0.200	90.0	0.001	0.00	0.0	0.600	o	150	
48.004	6.795	1.724	3.9	0.000	0.00	0.0	0.600	o	150	
1.019	6.135	0.060	103.0	0.000	0.00	0.0	0.600	o	375	

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)
49.000	50.00	5.11	4.750	0.012	0.0	0.0	0.0	0.77	6.0	1.6
48.002	50.00	5.74	4.700	0.024	0.0	0.0	0.0	0.98	7.7	3.2
50.000	50.00	5.50	4.750	0.012	0.0	0.0	0.0	0.79	6.2	1.6
50.001	50.00	5.80	4.500	0.014	0.0	0.0	0.0	0.87	6.8	1.9
50.002	50.00	5.90	4.300	0.014	0.0	0.0	0.0	1.02	8.0	1.9
51.000	50.00	5.11	4.500	0.028	0.0	0.0	0.0	0.77	6.0	3.8
51.001	50.00	5.16	4.450	0.028	0.0	0.0	0.0	1.73	13.6	3.8
48.003	50.00	6.18	4.150	0.067	0.0	0.0	0.0	1.06	18.7	9.1
48.004	50.00	6.20	3.950	0.067	0.0	0.0	0.0	5.11	90.3	9.1
1.019	47.72	9.00	2.001	0.885	0.0	0.0	0.0	1.79	197.2	114.4

Free Flowing Outfall Details for NEW FULL STORM NETWORK 1.SWS

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
1.019	9	4.875	1.942	0.000	0	0

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Simulation Criteria for NEW FULL STORM NETWORK 1.SWS

Volumetric Runoff Coeff	0.750	Additional Flow - % of Total Flow	0.000
Areal Reduction Factor	1.000	MADD Factor * 10m³/ha Storage	2.000
Hot Start (mins)	0	Inlet Coeffiecient	0.800
Hot Start Level (mm)	0	Flow per Person per Day (l/per/day)	0.000
Manhole Headloss Coeff (Global)	0.500	Run Time (mins)	60
Foul Sewage per hectare (l/s)	0.000	Output Interval (mins)	1

Number of Input Hydrographs	0	Number of Storage Structures	43
Number of Online Controls	44	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model	FSR	Profile Type	Summer
Return Period (years)	100	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	19.000	Storm Duration (mins)	30
Ratio R	0.350		

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Online Controls for NEW FULL STORM NETWORK 1.SWS

Orifice Manhole: 502, DS/PN: 1.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 5.850

Orifice Manhole: 516, DS/PN: 2.001, Volume (m³): 1.0

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 5.850

Orifice Manhole: 519, DS/PN: 3.001, Volume (m³): 0.9

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 6.000

Orifice Manhole: 523, DS/PN: 4.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 6.500

Orifice Manhole: 531, DS/PN: 7.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 6.550

Orifice Manhole: 533, DS/PN: 8.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 6.550

Orifice Manhole: 535, DS/PN: 9.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 6.550

Orifice Manhole: 537, DS/PN: 10.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 6.550

Orifice Manhole: 541, DS/PN: 12.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 6.681

Orifice Manhole: 547, DS/PN: 13.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 6.650

Orifice Manhole: 549, DS/PN: 14.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 6.650

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Orifice Manhole: 551, DS/PN: 15.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 6.350

Orifice Manhole: 554, DS/PN: 16.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 6.450

Orifice Manhole: 564, DS/PN: 17.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 6.350

Orifice Manhole: 566, DS/PN: 18.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 6.250

Orifice Manhole: 568, DS/PN: 19.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 6.000

Orifice Manhole: 570, DS/PN: 20.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 5.850

Orifice Manhole: 572, DS/PN: 21.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 5.650

Orifice Manhole: 575, DS/PN: 22.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 5.850

Orifice Manhole: 582, DS/PN: 23.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 5.700

Orifice Manhole: 584, DS/PN: 24.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 5.550

Orifice Manhole: 591, DS/PN: 27.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 5.650

Orifice Manhole: 593, DS/PN: 28.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 5.300

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Orifice Manhole: 595, DS/PN: 29.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 5.150

Orifice Manhole: 598, DS/PN: 30.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 5.450

Orifice Manhole: 602, DS/PN: 31.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 5.350

Orifice Manhole: 605, DS/PN: 32.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 5.150

Orifice Manhole: 607, DS/PN: 33.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 4.700

Orifice Manhole: 609, DS/PN: 34.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 4.650

Orifice Manhole: 611, DS/PN: 35.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 4.350

Orifice Manhole: 619, DS/PN: 37.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 4.400

Orifice Manhole: 621, DS/PN: 38.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 4.350

Orifice Manhole: 623, DS/PN: 39.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 4.450

Orifice Manhole: 628, DS/PN: 41.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 4.550

Orifice Manhole: 630, DS/PN: 42.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 4.200

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Orifice Manhole: 632, DS/PN: 43.001, Volume (m³): 0.8

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 3.700

Orifice Manhole: 634, DS/PN: 44.001, Volume (m³): 0.8

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 3.450

Orifice Manhole: 636, DS/PN: 45.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 3.750

Orifice Manhole: 638, DS/PN: 46.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 3.850

Orifice Manhole: 640, DS/PN: 47.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 3.800

Orifice Manhole: 643, DS/PN: 48.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 5.000

Orifice Manhole: 644, DS/PN: 48.002, Volume (m³): 0.7

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 4.700

Orifice Manhole: 653, DS/PN: 51.001, Volume (m³): 0.6

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 4.450

Hydro-Brake Optimum® Manhole: 8, DS/PN: 1.019, Volume (m³): 4.6

Unit Reference	MD-SHE-0352-8500-2300-8500
Design Head (m)	2.300
Design Flow (l/s)	85.0
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Diameter (mm)	352
Invert Level (m)	2.001
Minimum Outlet Pipe Diameter (mm)	375
Suggested Manhole Diameter (mm)	Site Specific Design (Contact Hydro International)

Control Points	**Head (m)**	**Flow (l/s)**
Design Point (Calculated)	2.300	84.8
Flush-Flo™	0.710	84.7
Kick-Flo®	1.549	70.0
Mean Flow over Head Range	-	72.7

The hydrological calculations have been based on the Head/Discharge relationship for the

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Hydro-Brake Optimum® Manhole: 8, DS/PN: 1.019, Volume (m³): 4.6

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	10.2	1.200	80.9	3.000	96.5	7.000	145.8
0.200	35.5	1.400	76.6	3.500	104.0	7.500	150.8
0.300	65.5	1.600	71.1	4.000	111.0	8.000	155.6
0.400	80.2	1.800	75.3	4.500	117.5	8.500	160.3
0.500	82.9	2.000	79.2	5.000	123.7	9.000	164.8
0.600	84.3	2.200	83.0	5.500	129.6	9.500	169.3
0.800	84.5	2.400	86.6	6.000	135.2		
1.000	83.2	2.600	90.0	6.500	140.6		

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Storage Structures for NEW FULL STORM NETWORK 1.SWS

Porous Car Park Manhole: 501, DS/PN: 1.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	3.0
Membrane Percolation (mm/hr)	1000	Length (m)	47.3
Max Percolation (l/s)	39.4	Slope (1:X)	50.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	5.900	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 515, DS/PN: 2.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	3.0
Membrane Percolation (mm/hr)	1000	Length (m)	12.6
Max Percolation (l/s)	10.5	Slope (1:X)	100.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	5.900	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 518, DS/PN: 3.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	3.0
Membrane Percolation (mm/hr)	1000	Length (m)	13.0
Max Percolation (l/s)	10.8	Slope (1:X)	100.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	6.050	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 522, DS/PN: 4.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	3.0
Membrane Percolation (mm/hr)	1000	Length (m)	6.8
Max Percolation (l/s)	5.7	Slope (1:X)	100.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	6.550	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 530, DS/PN: 7.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	5.0
Membrane Percolation (mm/hr)	1000	Length (m)	7.5
Max Percolation (l/s)	10.4	Slope (1:X)	100.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	6.600	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 532, DS/PN: 8.000

Infiltration Coefficient Base (m/hr)	0.00000	Max Percolation (l/s)	10.4
Membrane Percolation (mm/hr)	1000	Safety Factor	1.0

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Porous Car Park Manhole: 532, DS/PN: 8.000

Porosity	0.40	Slope (1:X)	100.0
Invert Level (m)	6.600	Depression Storage (mm)	5
Width (m)	5.0	Evaporation (mm/day)	3
Length (m)	7.5	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 534, DS/PN: 9.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	5.0
Membrane Percolation (mm/hr)	1000	Length (m)	7.5
Max Percolation (l/s)	10.4	Slope (1:X)	100.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	6.600	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 536, DS/PN: 10.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	5.0
Membrane Percolation (mm/hr)	1000	Length (m)	10.0
Max Percolation (l/s)	13.9	Slope (1:X)	100.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	6.600	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 540, DS/PN: 12.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	6.2
Membrane Percolation (mm/hr)	1000	Length (m)	15.8
Max Percolation (l/s)	27.2	Slope (1:X)	100.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	6.750	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 546, DS/PN: 13.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	3.0
Membrane Percolation (mm/hr)	1000	Length (m)	16.2
Max Percolation (l/s)	13.5	Slope (1:X)	100.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	6.700	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 548, DS/PN: 14.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	3.0
Membrane Percolation (mm/hr)	1000	Length (m)	16.2
Max Percolation (l/s)	13.5	Slope (1:X)	100.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	6.700	Cap Volume Depth (m)	0.400

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Porous Car Park Manhole: 550, DS/PN: 15.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	3.0
Membrane Percolation (mm/hr)	1000	Length (m)	16.2
Max Percolation (l/s)	13.5	Slope (1:X)	100.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	6.400	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 553, DS/PN: 16.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	3.0
Membrane Percolation (mm/hr)	1000	Length (m)	14.9
Max Percolation (l/s)	12.4	Slope (1:X)	100.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	6.500	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 563, DS/PN: 17.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	3.0
Membrane Percolation (mm/hr)	1000	Length (m)	14.9
Max Percolation (l/s)	12.4	Slope (1:X)	100.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	6.400	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 565, DS/PN: 18.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	3.0
Membrane Percolation (mm/hr)	1000	Length (m)	14.9
Max Percolation (l/s)	12.4	Slope (1:X)	100.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	6.300	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 567, DS/PN: 19.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	3.0
Membrane Percolation (mm/hr)	1000	Length (m)	16.2
Max Percolation (l/s)	13.5	Slope (1:X)	100.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	6.050	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 569, DS/PN: 20.000

Infiltration Coefficient Base (m/hr)	0.00000	Invert Level (m)	5.900
Membrane Percolation (mm/hr)	1000	Width (m)	3.0
Max Percolation (l/s)	13.5	Length (m)	16.2
Safety Factor	1.0	Slope (1:X)	100.0
Porosity	0.40	Depression Storage (mm)	5

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Porous Car Park Manhole: 569, DS/PN: 20.000

Evaporation (mm/day) 3 Cap Volume Depth (m) 0.400

Porous Car Park Manhole: 571, DS/PN: 21.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	3.0
Membrane Percolation (mm/hr)	1000	Length (m)	17.3
Max Percolation (l/s)	14.4	Slope (1:X)	100.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	5.700	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 574, DS/PN: 22.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	3.1
Membrane Percolation (mm/hr)	1000	Length (m)	41.9
Max Percolation (l/s)	36.1	Slope (1:X)	100.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	5.900	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 581, DS/PN: 23.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	6.1
Membrane Percolation (mm/hr)	1000	Length (m)	33.3
Max Percolation (l/s)	56.4	Slope (1:X)	100.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	5.750	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 583, DS/PN: 24.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	3.0
Membrane Percolation (mm/hr)	1000	Length (m)	18.3
Max Percolation (l/s)	15.3	Slope (1:X)	100.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	5.600	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 590, DS/PN: 27.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	5.0
Membrane Percolation (mm/hr)	1000	Length (m)	17.5
Max Percolation (l/s)	24.3	Slope (1:X)	100.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	5.700	Cap Volume Depth (m)	0.400

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Porous Car Park Manhole: 592, DS/PN: 28.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	5.0
Membrane Percolation (mm/hr)	1000	Length (m)	15.0
Max Percolation (l/s)	20.8	Slope (1:X)	100.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	5.350	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 594, DS/PN: 29.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	3.2
Membrane Percolation (mm/hr)	1000	Length (m)	9.9
Max Percolation (l/s)	8.8	Slope (1:X)	100.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	5.200	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 597, DS/PN: 30.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	3.0
Membrane Percolation (mm/hr)	1000	Length (m)	17.3
Max Percolation (l/s)	14.4	Slope (1:X)	100.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	5.500	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 601, DS/PN: 31.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	3.0
Membrane Percolation (mm/hr)	1000	Length (m)	17.3
Max Percolation (l/s)	14.4	Slope (1:X)	100.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	5.400	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 604, DS/PN: 32.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	3.0
Membrane Percolation (mm/hr)	1000	Length (m)	16.2
Max Percolation (l/s)	13.5	Slope (1:X)	100.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	5.200	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 606, DS/PN: 33.000

Infiltration Coefficient Base (m/hr)	0.00000	Invert Level (m)	4.750
Membrane Percolation (mm/hr)	1000	Width (m)	6.1
Max Percolation (l/s)	22.7	Length (m)	13.4
Safety Factor	1.0	Slope (1:X)	100.0
Porosity	0.40	Depression Storage (mm)	5

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Porous Car Park Manhole: 606, DS/PN: 33.000

Evaporation (mm/day) 3 Cap Volume Depth (m) 0.400

Porous Car Park Manhole: 608, DS/PN: 34.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	3.0
Membrane Percolation (mm/hr)	1000	Length (m)	12.8
Max Percolation (l/s)	10.7	Slope (1:X)	100.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	4.700	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 610, DS/PN: 35.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	6.1
Membrane Percolation (mm/hr)	1000	Length (m)	13.4
Max Percolation (l/s)	22.7	Slope (1:X)	100.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	4.400	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 618, DS/PN: 37.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	3.1
Membrane Percolation (mm/hr)	1000	Length (m)	10.0
Max Percolation (l/s)	8.6	Slope (1:X)	100.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	4.450	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 620, DS/PN: 38.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	5.0
Membrane Percolation (mm/hr)	1000	Length (m)	12.5
Max Percolation (l/s)	17.4	Slope (1:X)	125.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	4.400	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 622, DS/PN: 39.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	5.0
Membrane Percolation (mm/hr)	1000	Length (m)	12.5
Max Percolation (l/s)	17.4	Slope (1:X)	125.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	4.500	Cap Volume Depth (m)	0.400

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Porous Car Park Manhole: 627, DS/PN: 41.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	5.0
Membrane Percolation (mm/hr)	1000	Length (m)	26.1
Max Percolation (l/s)	36.3	Slope (1:X)	100.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	4.600	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 629, DS/PN: 42.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	3.1
Membrane Percolation (mm/hr)	1000	Length (m)	13.3
Max Percolation (l/s)	11.5	Slope (1:X)	100.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	4.250	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 631, DS/PN: 43.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	3.0
Membrane Percolation (mm/hr)	1000	Length (m)	12.8
Max Percolation (l/s)	10.7	Slope (1:X)	100.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	3.750	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 633, DS/PN: 44.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	3.0
Membrane Percolation (mm/hr)	1000	Length (m)	12.8
Max Percolation (l/s)	10.7	Slope (1:X)	100.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	3.700	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 635, DS/PN: 45.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	3.0
Membrane Percolation (mm/hr)	1000	Length (m)	12.6
Max Percolation (l/s)	10.5	Slope (1:X)	100.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	3.800	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 637, DS/PN: 46.000

Infiltration Coefficient Base (m/hr)	0.00000	Invert Level (m)	3.900
Membrane Percolation (mm/hr)	1000	Width (m)	6.2
Max Percolation (l/s)	20.3	Length (m)	11.8
Safety Factor	1.0	Slope (1:X)	100.0
Porosity	0.40	Depression Storage (mm)	5

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Porous Car Park Manhole: 637, DS/PN: 46.000

Evaporation (mm/day) 3 Cap Volume Depth (m) 0.400

Porous Car Park Manhole: 639, DS/PN: 47.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	3.0
Membrane Percolation (mm/hr)	1000	Length (m)	14.2
Max Percolation (l/s)	11.8	Slope (1:X)	50.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	3.850	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 642, DS/PN: 48.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	3.0
Membrane Percolation (mm/hr)	1000	Length (m)	13.1
Max Percolation (l/s)	10.9	Slope (1:X)	100.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	5.050	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 648, DS/PN: 49.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	3.1
Membrane Percolation (mm/hr)	1000	Length (m)	13.2
Max Percolation (l/s)	11.4	Slope (1:X)	100.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	4.750	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: 652, DS/PN: 51.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	5.0
Membrane Percolation (mm/hr)	1000	Length (m)	30.0
Max Percolation (l/s)	41.7	Slope (1:X)	100.0
Safety Factor	1.0	Depression Storage (mm)	5
Porosity	0.40	Evaporation (mm/day)	3
Invert Level (m)	4.500	Cap Volume Depth (m)	0.400

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for NEW FULL STORM NETWORK 1.SWS

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 Storage Structures 43
Number of Online Controls 44 Number of Time/Area Diagrams 0
Number of Offline Controls 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.350
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.700 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0
Analysis Timestep 2.5 Second Increment (Extended)
DTS Status ON
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, 30

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)
1.000	501	30 minute 1 year Winter I+0%	6.500	5.993	-0.007	0.000	0.33	
1.001	502	30 minute 1 year Winter I+0%	6.500	5.984	0.034	0.000	0.28	
2.000	515	15 minute 1 year Winter I+0%	6.500	5.934	-0.066	0.000	0.23	
2.001	516	15 minute 1 year Winter I+0%	6.950	5.922	-0.028	0.000	0.15	
1.002	503	15 minute 1 year Winter I+0%	6.850	5.752	-0.048	0.000	0.53	
3.000	518	15 minute 1 year Winter I+0%	6.650	6.094	-0.056	0.000	0.19	
3.001	519	15 minute 1 year Winter I+0%	6.950	6.088	-0.012	0.000	0.25	
3.002	520	15 minute 1 year Winter I+0%	6.950	5.970	-0.080	0.000	0.09	
1.003	504	15 minute 1 year Winter I+0%	6.950	5.601	-0.099	0.000	0.25	
4.000	522	30 minute 1 year Winter I+0%	7.150	6.565	-0.085	0.000	0.05	
4.001	523	30 minute 1 year Winter I+0%	7.150	6.528	-0.072	0.000	0.01	
1.004	1	30 minute 1 year Winter I+0%	7.215	5.554	-0.071	0.000	0.53	
5.000	524	15 minute 1 year Winter I+0%	7.000	6.581	-0.069	0.000	0.20	
6.000	529	15 minute 1 year Winter I+0%	7.250	6.713	-0.087	0.000	0.04	
5.001	525	15 minute 1 year Winter I+0%	7.250	6.336	-0.064	0.000	0.28	
7.000	530	15 minute 1 year Winter I+0%	7.200	6.626	-0.074	0.000	0.14	
7.001	531	30 minute 1 year Summer I+0%	7.200	6.604	-0.046	0.000	0.05	
8.000	532	30 minute 1 year Summer I+0%	7.200	6.623	-0.077	0.000	0.12	

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for NEW FULL STORM NETWORK 1.SWS

PN	US/MH Name	Maximum Vol (m³)	Discharge Vol (m³)	Pipe Flow (l/s)	Status
1.000	501	0.338	1.573	1.7	OK
1.001	502	0.138	1.654	1.7	SURCHARGED
2.000	515	0.095	0.485	1.2	OK
2.001	516	0.075	0.485	1.1	OK
1.002	503	0.064	1.553	2.7	OK
3.000	518	0.148	0.541	1.0	OK
3.001	519	0.093	0.786	1.3	OK
3.002	520	0.017	0.786	1.3	OK
1.003	504	0.044	2.339	4.1	OK
4.000	522	0.021	0.142	0.3	OK
4.001	523	0.025	0.142	0.3	OK
1.004	1	0.110	5.650	6.3	OK
5.000	524	0.022	0.613	1.3	OK
6.000	529	0.007	0.245	0.5	OK
5.001	525	0.038	0.858	1.8	OK
7.000	530	0.084	0.303	0.8	OK
7.001	531	0.054	0.395	0.7	OK
8.000	532	0.070	0.322	0.6	OK

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for NEW FULL STORM NETWORK 1.SWS

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)
8.001	533	30 minute 1 year Winter I+0%	7.200	6.598	-0.052	0.000	0.04	
5.002	526	30 minute 1 year Summer I+0%	7.200	6.148	-0.052	0.000	0.45	
9.000	534	15 minute 1 year Winter I+0%	7.200	6.630	-0.070	0.000	0.19	
9.001	535	15 minute 1 year Winter I+0%	7.200	6.614	-0.036	0.000	0.05	
5.003	527	15 minute 1 year Winter I+0%	7.200	5.971	-0.042	0.000	0.63	
10.000	536	30 minute 1 year Winter I+0%	7.200	6.619	-0.081	0.000	0.08	
10.001	537	30 minute 1 year Winter I+0%	7.200	6.587	-0.063	0.000	0.02	
11.000	538	15 minute 1 year Winter I+0%	7.000	6.559	-0.091	0.000	0.02	
5.004	528	30 minute 1 year Winter I+0%	7.200	5.853	-0.047	0.000	0.55	
12.000	540	30 minute 1 year Winter I+0%	7.350	6.784	-0.066	0.000	0.23	
12.001	541	30 minute 1 year Winter I+0%	7.350	6.772	-0.009	0.000	0.19	
13.000	546	15 minute 1 year Winter I+0%	7.300	6.738	-0.062	0.000	0.26	
13.001	547	15 minute 1 year Winter I+0%	7.300	6.729	-0.021	0.000	0.16	
12.002	542	30 minute 1 year Winter I+0%	7.450	6.591	-0.057	0.000	0.38	
14.000	548	15 minute 1 year Winter I+0%	7.300	6.738	-0.062	0.000	0.26	
14.001	549	15 minute 1 year Winter I+0%	7.300	6.729	-0.021	0.000	0.11	
12.003	543	30 minute 1 year Summer I+0%	6.813	6.479	-0.047	0.000	0.55	
15.000	550	15 minute 1 year Winter I+0%	7.000	6.438	-0.062	0.000	0.26	
15.001	551	15 minute 1 year Winter I+0%	7.000	6.429	-0.021	0.000	0.22	
12.004	544	30 minute 1 year Summer I+0%	7.250	6.309	-0.088	0.000	0.36	
12.005	545	30 minute 1 year Summer I+0%	7.100	6.228	-0.122	0.000	0.08	
1.005	2	30 minute 1 year Winter I+0%	6.962	5.299	-0.126	0.000	0.39	
16.000	553	15 minute 1 year Winter I+0%	7.100	6.542	-0.058	0.000	0.27	
16.001	554	15 minute 1 year Winter I+0%	7.100	6.535	-0.015	0.000	0.16	
17.000	563	15 minute 1 year Winter I+0%	7.000	6.436	-0.064	0.000	0.25	
17.001	564	15 minute 1 year Winter I+0%	7.000	6.425	-0.025	0.000	0.16	
16.002	555	15 minute 1 year Winter I+0%	7.000	6.290	-0.063	0.000	0.30	
18.000	565	15 minute 1 year Winter I+0%	6.900	6.336	-0.064	0.000	0.25	
18.001	566	15 minute 1 year Winter I+0%	6.900	6.325	-0.025	0.000	0.11	
16.003	556	15 minute 1 year Winter I+0%	6.900	6.111	-0.054	0.000	0.44	
19.000	567	15 minute 1 year Winter I+0%	6.650	6.083	-0.067	0.000	0.22	
19.001	568	15 minute 1 year Winter I+0%	6.650	6.070	-0.030	0.000	0.13	
16.004	557	15 minute 1 year Winter I+0%	6.650	5.924	-0.050	0.000	0.49	
20.000	569	15 minute 1 year Winter I+0%	6.500	5.945	-0.055	0.000	0.27	
20.001	570	15 minute 1 year Winter I+0%	6.500	5.937	-0.013	0.000	0.10	
16.005	558	15 minute 1 year Winter I+0%	6.500	5.618	-0.037	0.000	0.72	
21.000	571	15 minute 1 year Winter I+0%	6.300	5.751	-0.049	0.000	0.30	
21.001	572	15 minute 1 year Winter I+0%	6.300	5.743	-0.007	0.000	0.26	
16.006	559	15 minute 1 year Winter I+0%	6.300	5.334	-0.077	0.000	0.47	
22.000	574	30 minute 1 year Winter I+0%	6.500	5.969	-0.031	0.000	0.31	
22.001	575	30 minute 1 year Winter I+0%	6.500	5.960	0.010	0.000	0.27	
22.002	576	30 minute 1 year Winter I+0%	6.350	5.793	-0.057	0.000	0.38	
23.000	581	30 minute 1 year Winter I+0%	6.350	5.817	-0.033	0.000	0.34	
23.001	582	30 minute 1 year Winter I+0%	6.350	5.809	0.009	0.000	0.24	
22.003	577	30 minute 1 year Winter I+0%	6.362	5.597	-0.103	0.000	0.22	
22.004	578	30 minute 1 year Winter I+0%	6.221	5.452	-0.098	0.000	0.26	
22.005	579	30 minute 1 year Winter I+0%	6.196	5.397	-0.103	0.000	0.21	
16.007	560	15 minute 1 year Winter I+0%	6.200	5.303	-0.047	0.000	0.80	

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for NEW FULL STORM NETWORK 1.SWS

PN	US/MH Name	Maximum Vol (m³)	Discharge Vol (m³)	Pipe Flow (l/s)	Status
8.001	533	0.048	0.383	0.6	OK
5.002	526	0.052	1.737	2.7	OK
9.000	534	0.111	0.425	1.0	OK
9.001	535	0.066	0.425	1.0	OK
5.003	527	0.067	1.828	3.6	OK
10.000	536	0.050	0.239	0.4	OK
10.001	537	0.036	0.239	0.4	OK
11.000	538	0.003	0.123	0.3	OK
5.004	528	0.062	3.020	4.1	OK
12.000	540	0.167	0.896	1.4	OK
12.001	541	0.092	0.896	1.3	OK
13.000	546	0.118	0.554	1.4	OK
13.001	547	0.082	0.554	1.2	OK
12.002	542	0.047	1.712	2.5	OK
14.000	548	0.118	0.554	1.4	OK
14.001	549	0.082	0.554	1.2	OK
12.003	543	0.057	2.156	3.7	OK
15.000	550	0.118	0.554	1.4	OK
15.001	551	0.082	0.554	1.2	OK
12.004	544	0.056	2.861	4.8	OK
12.005	545	0.030	2.862	4.8	OK
1.005	2	0.110	15.849	18.6	OK
16.000	553	0.139	0.635	1.4	OK
16.001	554	0.089	0.635	1.3	OK
17.000	563	0.105	0.512	1.3	OK
17.001	564	0.078	0.512	1.2	OK
16.002	555	0.038	1.147	2.4	OK
18.000	565	0.105	0.512	1.3	OK
18.001	566	0.078	0.512	1.2	OK
16.003	556	0.046	1.659	3.6	OK
19.000	567	0.088	0.431	1.2	OK
19.001	568	0.072	0.431	1.1	OK
16.004	557	0.051	2.090	4.7	OK
20.000	569	0.155	0.677	1.4	OK
20.001	570	0.091	0.676	1.3	OK
16.005	558	0.061	2.767	6.0	OK
21.000	571	0.196	0.783	1.6	OK
21.001	572	0.098	0.782	1.4	OK
16.006	559	0.061	3.550	7.3	OK
22.000	574	0.346	1.388	1.6	OK
22.001	575	0.116	1.469	1.5	SURCHARGED
22.002	576	0.045	2.040	2.1	OK
23.000	581	0.605	1.758	1.8	OK
23.001	582	0.115	1.759	1.5	SURCHARGED
22.003	577	0.042	3.800	3.6	OK
22.004	578	0.064	3.884	3.6	OK
22.005	579	0.047	3.886	3.6	OK

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for NEW FULL STORM NETWORK 1.SWS

PN	US/MH Name	Maximum Vol (m³)	Discharge Vol (m³)	Pipe Flow (l/s)	Status
16.007	560	0.162	6.060	10.8	OK

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for NEW FULL STORM NETWORK 1.SWS

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)
24.000	583	15 minute 1 year Winter I+0%	6.200	5.634	-0.066	0.000	0.23	
24.001	584	15 minute 1 year Winter I+0%	6.200	5.623	-0.027	0.000	0.22	
16.008	561	15 minute 1 year Winter I+0%	6.200	5.173	-0.131	0.000	0.36	
16.009	562	15 minute 1 year Winter I+0%	6.150	5.079	-0.171	0.000	0.13	
25.000	585	15 minute 1 year Winter I+0%	6.200	5.627	-0.073	0.000	0.16	
26.000	589	15 minute 1 year Winter I+0%	6.200	5.623	-0.077	0.000	0.11	
25.001	586	15 minute 1 year Winter I+0%	6.150	5.445	-0.055	0.000	0.41	
27.000	590	30 minute 1 year Winter I+0%	6.300	5.733	-0.067	0.000	0.21	
27.001	591	30 minute 1 year Winter I+0%	6.300	5.720	-0.030	0.000	0.07	
25.002	587	30 minute 1 year Winter I+0%	6.064	5.250	-0.050	0.000	0.49	
28.000	592	30 minute 1 year Winter I+0%	5.950	5.376	-0.074	0.000	0.15	
28.001	593	30 minute 1 year Winter I+0%	5.950	5.355	-0.045	0.000	0.06	
29.000	594	30 minute 1 year Winter I+0%	5.800	5.216	-0.084	0.000	0.06	
29.001	595	30 minute 1 year Winter I+0%	5.800	5.180	-0.070	0.000	0.03	
25.003	588	30 minute 1 year Winter I+0%	6.030	5.045	-0.055	0.000	0.41	
1.006	3	30 minute 1 year Winter I+0%	6.035	4.745	-0.105	0.000	0.56	
30.000	597	15 minute 1 year Winter I+0%	6.100	5.538	-0.062	0.000	0.26	
30.001	598	15 minute 1 year Winter I+0%	6.100	5.528	-0.022	0.000	0.17	
31.000	601	15 minute 1 year Winter I+0%	6.000	5.440	-0.060	0.000	0.26	
31.001	602	15 minute 1 year Winter I+0%	6.000	5.436	-0.014	0.000	0.23	
30.002	599	15 minute 1 year Winter I+0%	6.091	5.350	-0.060	0.000	0.34	
30.003	600	15 minute 1 year Winter I+0%	6.090	5.269	-0.081	0.000	0.08	
1.007	505	30 minute 1 year Summer I+0%	5.771	4.559	0.032	0.000	0.51	
32.000	604	15 minute 1 year Winter I+0%	5.800	5.258	-0.042	0.000	0.28	
32.001	605	15 minute 1 year Winter I+0%	5.800	5.251	0.001	0.000	0.06	
1.008	4	30 minute 1 year Winter I+0%	5.771	4.462	-0.177	0.000	0.35	
1.009	5	30 minute 1 year Winter I+0%	5.623	4.411	-0.174	0.000	0.37	
33.000	606	30 minute 1 year Winter I+0%	5.350	4.789	-0.061	0.000	0.24	
33.001	607	30 minute 1 year Winter I+0%	5.350	4.781	-0.019	0.000	0.07	
1.010	506	30 minute 1 year Winter I+0%	5.383	4.041	-0.141	0.000	0.55	
34.000	608	15 minute 1 year Winter I+0%	5.300	4.737	-0.063	0.000	0.25	
34.001	609	15 minute 1 year Winter I+0%	5.300	4.727	-0.023	0.000	0.06	
1.011	507	30 minute 1 year Winter I+0%	5.254	3.934	-0.157	0.000	0.46	
35.000	610	30 minute 1 year Winter I+0%	5.000	4.450	-0.050	0.000	0.26	
35.001	611	30 minute 1 year Winter I+0%	5.000	4.442	-0.008	0.000	0.08	
1.012	508	30 minute 1 year Winter I+0%	5.052	3.762	-0.189	0.000	0.30	
36.000	612	15 minute 1 year Winter I+0%	5.200	4.633	-0.067	0.000	0.24	
36.001	613	15 minute 1 year Winter I+0%	5.050	4.392	-0.058	0.000	0.36	
37.000	618	15 minute 1 year Winter I+0%	5.050	4.488	-0.062	0.000	0.24	
37.001	619	15 minute 1 year Winter I+0%	5.050	4.478	-0.022	0.000	0.10	
38.000	620	60 minute 1 year Winter I+0%	5.000	4.417	-0.083	0.000	0.07	
38.001	621	60 minute 1 year Winter I+0%	5.000	4.382	-0.068	0.000	0.03	
36.002	614	15 minute 1 year Winter I+0%	5.695	4.203	-0.047	0.000	0.56	
39.000	622	30 minute 1 year Winter I+0%	5.100	4.530	-0.070	0.000	0.19	
39.001	623	30 minute 1 year Winter I+0%	5.100	4.516	-0.034	0.000	0.10	
36.003	615	15 minute 1 year Winter I+0%	5.734	4.042	-0.058	0.000	0.38	
36.004	6	15 minute 1 year Winter I+0%	5.263	3.838	-0.062	0.000	0.63	
40.000	624	15 minute 1 year Winter I+0%	5.650	4.833	-0.067	0.000	0.24	

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1)
for NEW FULL STORM NETWORK 1.SWS

PN	US/MH Name	Maximum Vol (m³)	Discharge Vol (m³)	Pipe Flow (l/s)	Status
24.000	583	0.097	0.461	1.2	OK
24.001	584	0.075	0.461	1.1	OK
16.008	561	0.078	6.523	11.8	OK
16.009	562	0.058	6.526	11.9	OK
25.000	585	0.019	0.490	1.0	OK
26.000	589	0.015	0.429	0.9	OK
25.001	586	0.053	1.348	2.7	OK
27.000	590	0.135	0.704	1.1	OK
27.001	591	0.073	0.703	1.1	OK
25.002	587	0.053	2.497	3.1	OK
28.000	592	0.086	0.440	0.8	OK
28.001	593	0.056	0.440	0.8	OK
29.000	594	0.027	0.168	0.3	OK
29.001	595	0.028	0.167	0.3	OK
25.003	588	0.053	3.104	4.1	OK
1.006	3	0.232	28.750	34.4	OK
30.000	597	0.115	0.537	1.4	OK
30.001	598	0.081	0.537	1.2	OK
31.000	601	0.129	0.537	1.4	OK
31.001	602	0.090	0.537	1.1	OK
30.002	599	0.048	1.075	2.1	OK
30.003	600	0.015	1.075	2.1	OK
1.007	505	0.584	26.202	35.5	SURCHARGED
32.000	604	0.247	0.922	1.6	OK
32.001	605	0.102	0.922	1.4	SURCHARGED
1.008	4	0.573	31.261	37.8	OK
1.009	5	0.463	33.727	40.0	OK
33.000	606	0.220	0.977	1.3	OK
33.001	607	0.085	0.977	1.2	OK
1.010	506	0.134	34.717	41.4	OK
34.000	608	0.109	0.544	1.3	OK
34.001	609	0.080	0.543	1.2	OK
1.011	507	0.278	35.518	42.5	OK
35.000	610	0.339	1.303	1.4	OK
35.001	611	0.097	1.303	1.4	OK
1.012	508	0.191	36.837	43.9	OK
36.000	612	0.025	0.735	1.5	OK
36.001	613	0.043	1.103	2.2	OK
37.000	618	0.116	0.581	1.3	OK
37.001	619	0.081	0.580	1.2	OK
38.000	620	0.045	0.322	0.3	OK
38.001	621	0.031	0.322	0.3	OK
36.002	614	0.065	1.739	3.3	OK
39.000	622	0.137	0.666	1.0	OK
39.001	623	0.067	0.665	1.0	OK
36.003	615	0.055	2.163	4.1	OK
36.004	6	0.073	4.797	8.0	OK

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for NEW FULL STORM NETWORK 1.SWS

PN	US/MH Name	Maximum Vol (m³)	Discharge Vol (m³)	Pipe Flow (l/s)	Status
40.000	624	0.025	0.735	1.5	OK

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for NEW FULL STORM NETWORK 1.SWS

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
40.001	625	15 minute 1 year Winter I+0%	5.855	4.584	-0.066	0.000	0.25
41.000	627	30 minute 1 year Winter I+0%	5.200	4.658	-0.042	0.000	0.29
41.001	628	30 minute 1 year Winter I+0%	5.200	4.650	0.000	0.000	0.13
40.002	626	15 minute 1 year Winter I+0%	5.751	4.395	-0.055	0.000	0.40
36.005	616	15 minute 1 year Winter I+0%	5.057	3.663	-0.140	0.000	0.31
42.000	629	15 minute 1 year Winter I+0%	4.850	4.279	-0.071	0.000	0.18
42.001	630	15 minute 1 year Winter I+0%	4.850	4.261	-0.039	0.000	0.17
36.006	617	15 minute 1 year Winter I+0%	4.875	3.547	-0.170	0.000	0.14
1.013	7	30 minute 1 year Winter I+0%	4.940	3.147	-0.161	0.000	0.43
43.000	631	1440 minute 1 year Winter I+0%	4.550	3.954	-0.096	0.000	0.01
43.001	632	1440 minute 1 year Winter I+0%	4.550	3.711	-0.089	0.000	0.00
1.014	509	30 minute 1 year Winter I+0%	4.508	2.755	-0.125	0.000	0.63
44.000	633	15 minute 1 year Winter I+0%	4.300	3.546	-0.054	0.000	0.29
44.001	634	15 minute 1 year Winter I+0%	4.300	3.539	-0.011	0.000	0.06
1.015	510	30 minute 1 year Winter I+0%	4.382	2.628	-0.127	0.000	0.63
45.000	635	15 minute 1 year Winter I+0%	4.400	3.837	-0.063	0.000	0.25
45.001	636	15 minute 1 year Winter I+0%	4.400	3.827	-0.023	0.000	0.05
1.016	511	30 minute 1 year Winter I+0%	4.363	2.546	-0.080	0.000	0.88
46.000	637	30 minute 1 year Winter I+0%	4.500	3.960	-0.040	0.000	0.28
46.001	638	30 minute 1 year Winter I+0%	4.500	3.952	0.002	0.000	0.05
1.017	512	30 minute 1 year Winter I+0%	4.395	2.485	-0.072	0.000	0.93
47.000	639	15 minute 1 year Winter I+0%	4.450	3.885	-0.065	0.000	0.25
47.001	640	15 minute 1 year Winter I+0%	4.450	3.875	-0.025	0.000	0.04
1.018	513	30 minute 1 year Winter I+0%	4.502	2.379	-0.112	0.000	0.71
48.000	642	15 minute 1 year Winter I+0%	5.650	5.087	-0.063	0.000	0.25
48.001	643	15 minute 1 year Winter I+0%	5.650	5.077	-0.023	0.000	0.11
49.000	648	30 minute 1 year Winter I+0%	5.350	4.812	-0.038	0.000	0.16
48.002	644	30 minute 1 year Winter I+0%	5.350	4.809	0.009	0.000	0.20
50.000	649	15 minute 1 year Winter I+0%	5.350	4.785	-0.065	0.000	0.26
50.001	650	15 minute 1 year Winter I+0%	4.698	4.535	-0.065	0.000	0.27
50.002	651	15 minute 1 year Winter I+0%	4.599	4.334	-0.066	0.000	0.25
51.000	652	30 minute 1 year Winter I+0%	5.100	4.563	-0.037	0.000	0.29
51.001	653	30 minute 1 year Winter I+0%	5.100	4.555	0.005	0.000	0.12
48.003	645	15 minute 1 year Winter I+0%	4.567	4.202	-0.098	0.000	0.26
48.004	646	15 minute 1 year Winter I+0%	4.479	3.973	-0.127	0.000	0.06
1.019	8	30 minute 1 year Winter I+0%	4.781	2.297	-0.079	0.000	0.59

PN	US/MH Name	Overflow (l/s)	Maximum Vol (m³)	Discharge Vol (m³)	Pipe Flow (l/s)	Status
40.001	625		0.034	0.735	1.5	OK
41.000	627		0.380	1.385	1.5	OK
41.001	628		0.105	1.385	1.4	OK
40.002	626		0.051	1.616	2.7	OK
36.005	616		0.072	6.414	10.7	OK
42.000	629		0.073	0.346	1.0	OK

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for NEW FULL STORM NETWORK 1.SWS

PN	US/MH Name	Overflow (l/s)	Maximum Vol (m³)	Discharge Vol (m³)	Pipe Flow (l/s)	Status
42.001	630		0.062	0.345	0.9	OK
36.006	617		0.099	6.760	11.6	OK
1.013	7		0.162	49.400	56.2	OK
43.000	631		2.323	0.759	0.0	OK
43.001	632		0.006	0.759	0.0	OK
1.014	509		0.377	49.417	56.3	OK
44.000	633		0.036	0.544	1.5	OK
44.001	634		0.093	0.544	1.3	OK
1.015	510		0.377	50.221	56.7	OK
45.000	635		0.110	0.547	1.3	OK
45.001	636		0.080	0.546	1.2	OK
1.016	511		0.532	51.030	57.8	OK
46.000	637		0.497	1.672	1.5	OK
46.001	638		0.108	1.673	1.4	SURCHARGED
1.017	512		0.426	52.725	59.5	OK
47.000	639		0.064	0.461	1.3	OK
47.001	640		0.077	0.461	1.2	OK
1.018	513		0.334	53.431	60.2	OK
48.000	642		0.109	0.539	1.3	OK
48.001	643		0.080	0.539	1.2	OK
49.000	648		0.287	0.774	0.9	OK
48.002	644		0.125	1.554	1.5	SURCHARGED
50.000	649		0.026	0.735	1.5	OK
50.001	650		0.037	0.858	1.8	FLOOD RISK
50.002	651		0.033	0.858	1.7	FLOOD RISK
51.000	652		0.453	1.532	1.6	OK
51.001	653		0.111	1.533	1.5	SURCHARGED
48.003	645		0.045	2.955	4.5	OK
48.004	646		0.025	2.955	4.5	OK
1.019	8		0.684	57.758	63.5	OK

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for NEW FULL STORM NETWORK 1.SWS

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 Storage Structures 43
Number of Online Controls 44 Number of Time/Area Diagrams 0
Number of Offline Controls 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.350
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.700 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0
Analysis Timestep 2.5 Second Increment (Extended)
DTS Status ON
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, 30

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)
1.000	501	30 minute 30 year Winter I+0%	6.500	6.151	0.151	0.000	0.49	
1.001	502	30 minute 30 year Winter I+0%	6.500	6.137	0.187	0.000	0.43	
2.000	515	15 minute 30 year Winter I+0%	6.500	5.988	-0.012	0.000	0.33	
2.001	516	15 minute 30 year Winter I+0%	6.950	5.979	0.029	0.000	0.22	
1.002	503	30 minute 30 year Winter I+0%	6.850	5.770	-0.030	0.000	0.84	
3.000	518	30 minute 30 year Winter I+0%	6.650	6.171	0.021	0.000	0.30	
3.001	519	30 minute 30 year Winter I+0%	6.950	6.163	0.063	0.000	0.36	
3.002	520	30 minute 30 year Winter I+0%	6.950	5.974	-0.076	0.000	0.13	
1.003	504	15 minute 30 year Winter I+0%	6.950	5.664	-0.036	0.000	0.40	
4.000	522	15 minute 30 year Winter I+0%	7.150	6.578	-0.072	0.000	0.17	
4.001	523	15 minute 30 year Winter I+0%	7.150	6.559	-0.041	0.000	0.03	
1.004	1	15 minute 30 year Winter I+0%	7.215	5.651	0.026	0.000	1.05	
5.000	524	15 minute 30 year Winter I+0%	7.000	6.600	-0.050	0.000	0.49	
6.000	529	15 minute 30 year Winter I+0%	7.250	6.721	-0.079	0.000	0.10	
5.001	525	15 minute 30 year Winter I+0%	7.250	6.361	-0.039	0.000	0.68	
7.000	530	15 minute 30 year Winter I+0%	7.200	6.655	-0.045	0.000	0.29	
7.001	531	15 minute 30 year Winter I+0%	7.200	6.647	-0.003	0.000	0.09	
8.000	532	15 minute 30 year Winter I+0%	7.200	6.648	-0.052	0.000	0.28	

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for NEW FULL STORM NETWORK 1.SWS

PN	US/MH Name	Maximum Vol (m³)	Discharge Vol (m³)	Pipe Flow (l/s)	Status
1.000	501	2.110	4.889	2.6	SURCHARGED
1.001	502	0.275	5.088	2.7	SURCHARGED
2.000	515	0.538	1.463	1.7	OK
2.001	516	0.133	1.463	1.7	SURCHARGED
1.002	503	0.088	7.096	4.3	OK
3.000	518	0.975	2.204	1.6	SURCHARGED
3.001	519	0.165	3.003	1.9	SURCHARGED
3.002	520	0.021	3.003	1.9	OK
1.003	504	0.112	7.319	6.5	OK
4.000	522	0.065	0.349	0.9	OK
4.001	523	0.060	0.349	0.8	OK
1.004	1	0.270	11.423	12.4	SURCHARGED
5.000	524	0.039	1.502	3.2	OK
6.000	529	0.014	0.601	1.3	OK
5.001	525	0.069	2.103	4.5	OK
7.000	530	0.346	1.014	1.5	OK
7.001	531	0.102	1.014	1.4	OK
8.000	532	0.269	0.864	1.5	OK

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for NEW FULL STORM NETWORK 1.SWS

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
8.001	533	15 minute 30 year Winter I+0%	7.200	6.641	-0.009	0.000	0.08
5.002	526	15 minute 30 year Winter I+0%	7.200	6.296	0.096	0.000	1.03
9.000	534	15 minute 30 year Winter I+0%	7.200	6.668	-0.032	0.000	0.32
9.001	535	15 minute 30 year Winter I+0%	7.200	6.659	0.009	0.000	0.08
5.003	527	15 minute 30 year Winter I+0%	7.200	6.116	0.103	0.000	1.25
10.000	536	15 minute 30 year Winter I+0%	7.200	6.640	-0.060	0.000	0.26
10.001	537	15 minute 30 year Winter I+0%	7.200	6.631	-0.019	0.000	0.06
11.000	538	15 minute 30 year Winter I+0%	7.000	6.564	-0.086	0.000	0.04
5.004	528	15 minute 30 year Winter I+0%	7.200	5.938	0.038	0.000	1.16
12.000	540	30 minute 30 year Winter I+0%	7.350	6.843	-0.007	0.000	0.30
12.001	541	30 minute 30 year Winter I+0%	7.350	6.833	0.052	0.000	0.27
13.000	546	30 minute 30 year Winter I+0%	7.300	6.801	0.001	0.000	0.34
13.001	547	30 minute 30 year Winter I+0%	7.300	6.791	0.041	0.000	0.24
12.002	542	30 minute 30 year Winter I+0%	7.450	6.602	-0.047	0.000	0.55
14.000	548	30 minute 30 year Winter I+0%	7.300	6.801	0.001	0.000	0.34
14.001	549	30 minute 30 year Winter I+0%	7.300	6.791	0.041	0.000	0.16
12.003	543	30 minute 30 year Winter I+0%	6.813	6.495	-0.031	0.000	0.82
15.000	550	30 minute 30 year Winter I+0%	7.000	6.501	0.001	0.000	0.34
15.001	551	30 minute 30 year Winter I+0%	7.000	6.491	0.041	0.000	0.33
12.004	544	30 minute 30 year Winter I+0%	7.250	6.326	-0.071	0.000	0.54
12.005	545	30 minute 30 year Winter I+0%	7.100	6.234	-0.116	0.000	0.12
1.005	2	15 minute 30 year Winter I+0%	6.962	5.358	-0.067	0.000	0.79
16.000	553	30 minute 30 year Winter I+0%	7.100	6.609	0.009	0.000	0.35
16.001	554	30 minute 30 year Winter I+0%	7.100	6.598	0.048	0.000	0.22
17.000	563	15 minute 30 year Winter I+0%	7.000	6.494	-0.006	0.000	0.34
17.001	564	15 minute 30 year Winter I+0%	7.000	6.485	0.035	0.000	0.23
16.002	555	15 minute 30 year Winter I+0%	7.000	6.299	-0.054	0.000	0.43
18.000	565	15 minute 30 year Winter I+0%	6.900	6.394	-0.006	0.000	0.34
18.001	566	15 minute 30 year Winter I+0%	6.900	6.385	0.035	0.000	0.17
16.003	556	15 minute 30 year Winter I+0%	6.900	6.123	-0.042	0.000	0.64
19.000	567	15 minute 30 year Winter I+0%	6.650	6.137	-0.013	0.000	0.34
19.001	568	15 minute 30 year Winter I+0%	6.650	6.127	0.027	0.000	0.20
16.004	557	15 minute 30 year Winter I+0%	6.650	5.938	-0.036	0.000	0.73
20.000	569	30 minute 30 year Winter I+0%	6.500	6.016	0.016	0.000	0.36
20.001	570	30 minute 30 year Winter I+0%	6.500	6.005	0.055	0.000	0.15
16.005	558	30 minute 30 year Winter I+0%	6.500	5.677	0.022	0.000	1.05
21.000	571	30 minute 30 year Winter I+0%	6.300	5.829	0.029	0.000	0.38
21.001	572	30 minute 30 year Winter I+0%	6.300	5.818	0.068	0.000	0.38
16.006	559	30 minute 30 year Winter I+0%	6.300	5.392	-0.019	0.000	0.70
22.000	574	30 minute 30 year Winter I+0%	6.500	6.076	0.076	0.000	0.42
22.001	575	30 minute 30 year Winter I+0%	6.500	6.064	0.114	0.000	0.39
22.002	576	15 minute 30 year Winter I+0%	6.350	5.816	-0.034	0.000	0.74
23.000	581	60 minute 30 year Winter I+0%	6.350	5.913	0.063	0.000	0.42
23.001	582	60 minute 30 year Winter I+0%	6.350	5.901	0.101	0.000	0.35
22.003	577	15 minute 30 year Winter I+0%	6.362	5.612	-0.088	0.000	0.36
22.004	578	15 minute 30 year Winter I+0%	6.221	5.470	-0.080	0.000	0.44
22.005	579	15 minute 30 year Winter I+0%	6.196	5.412	-0.088	0.000	0.36
16.007	560	15 minute 30 year Winter I+0%	6.200	5.364	0.014	0.000	1.20

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for NEW FULL STORM NETWORK 1.SWS

PN	US/MH Name	Overflow (l/s)	Maximum Vol (m³)	Discharge Vol (m³)	Pipe Flow (l/s)	Status
8.001	533		0.095	0.864	1.3	OK
5.002	526		0.266	3.981	6.0	SURCHARGED
9.000	534		0.516	1.315	1.7	OK
9.001	535		0.115	1.314	1.5	SURCHARGED
5.003	527		0.286	5.295	7.2	SURCHARGED
10.000	536		0.189	0.651	1.4	OK
10.001	537		0.084	0.651	1.2	OK
11.000	538		0.008	0.300	0.6	OK
5.004	528		0.177	6.246	8.6	SURCHARGED
12.000	540		1.153	2.909	1.9	OK
12.001	541		0.153	2.908	1.9	SURCHARGED
13.000	546		0.695	2.356	1.8	SURCHARGED
13.001	547		0.145	2.356	1.8	SURCHARGED
12.002	542		0.060	5.264	3.6	OK
14.000	548		0.695	2.356	1.8	SURCHARGED
14.001	549		0.145	2.356	1.8	SURCHARGED
12.003	543		0.076	7.619	5.4	OK
15.000	550		0.695	2.356	1.8	SURCHARGED
15.001	551		0.145	2.356	1.8	SURCHARGED
12.004	544		0.072	9.975	7.2	OK
12.005	545		0.038	9.975	7.2	OK
1.005	2		0.275	31.921	37.4	OK
16.000	553		0.796	2.576	1.9	SURCHARGED
16.001	554		0.151	2.575	1.8	SURCHARGED
17.000	563		0.613	1.579	1.8	OK
17.001	564		0.139	1.579	1.7	SURCHARGED
16.002	555		0.049	3.458	3.6	OK
18.000	565		0.613	1.579	1.8	OK
18.001	566		0.139	1.579	1.7	SURCHARGED
16.003	556		0.059	5.037	5.3	OK
19.000	567		0.521	1.409	1.8	OK
19.001	568		0.132	1.409	1.7	SURCHARGED
16.004	557		0.068	6.446	6.9	OK
20.000	569		0.897	2.756	1.9	SURCHARGED
20.001	570		0.158	2.755	1.9	SURCHARGED
16.005	558		0.126	11.636	8.8	SURCHARGED
21.000	571		1.112	3.139	2.0	SURCHARGED
21.001	572		0.170	3.139	2.0	SURCHARGED
16.006	559		0.120	14.775	10.8	OK
22.000	574		2.072	4.350	2.2	SURCHARGED
22.001	575		0.212	4.548	2.3	SURCHARGED
22.002	576		0.073	4.310	4.1	OK
23.000	581		3.381	7.672	2.2	SURCHARGED
23.001	582		0.201	7.678	2.2	SURCHARGED
22.003	577		0.057	8.411	5.9	OK
22.004	578		0.089	8.565	6.1	OK
22.005	579		0.064	8.569	6.2	OK

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for NEW FULL STORM NETWORK 1.SWS

PN	US/MH Name	Overflow (l/s)	Maximum Vol (m³)	Discharge Vol (m³)	Pipe Flow (l/s)	Status
16.007	560		0.317	19.321	16.2	SURCHARGED

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for NEW FULL STORM NETWORK 1.SWS

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
24.000	583	15 minute 30 year Winter I+0%	6.200	5.693	-0.007	0.000	0.35
24.001	584	30 minute 30 year Winter I+0%	6.200	5.683	0.033	0.000	0.33
16.008	561	15 minute 30 year Winter I+0%	6.200	5.198	-0.106	0.000	0.54
16.009	562	30 minute 30 year Winter I+0%	6.150	5.101	-0.149	0.000	0.20
25.000	585	15 minute 30 year Winter I+0%	6.200	5.644	-0.056	0.000	0.40
26.000	589	15 minute 30 year Winter I+0%	6.200	5.636	-0.064	0.000	0.28
25.001	586	15 minute 30 year Winter I+0%	6.150	5.532	0.032	0.000	0.96
27.000	590	30 minute 30 year Winter I+0%	6.300	5.789	-0.011	0.000	0.32
27.001	591	30 minute 30 year Winter I+0%	6.300	5.779	0.029	0.000	0.11
25.002	587	15 minute 30 year Winter I+0%	6.064	5.380	0.080	0.000	1.15
28.000	592	30 minute 30 year Winter I+0%	5.950	5.414	-0.036	0.000	0.28
28.001	593	30 minute 30 year Winter I+0%	5.950	5.406	0.006	0.000	0.11
29.000	594	15 minute 30 year Winter I+0%	5.800	5.232	-0.068	0.000	0.21
29.001	595	15 minute 30 year Winter I+0%	5.800	5.218	-0.032	0.000	0.11
25.003	588	15 minute 30 year Winter I+0%	6.030	5.158	0.058	0.000	0.93
1.006	3	30 minute 30 year Winter I+0%	6.035	5.091	0.241	0.000	1.00
30.000	597	30 minute 30 year Winter I+0%	6.100	5.601	0.001	0.000	0.34
30.001	598	30 minute 30 year Winter I+0%	6.100	5.591	0.041	0.000	0.26
31.000	601	30 minute 30 year Winter I+0%	6.000	5.511	0.011	0.000	0.32
31.001	602	30 minute 30 year Winter I+0%	6.000	5.502	0.052	0.000	0.35
30.002	599	30 minute 30 year Winter I+0%	6.091	5.362	-0.048	0.000	0.54
30.003	600	30 minute 30 year Winter I+0%	6.090	5.274	-0.076	0.000	0.14
1.007	505	30 minute 30 year Winter I+0%	5.771	4.934	0.408	0.000	0.94
32.000	604	30 minute 30 year Winter I+0%	5.800	5.342	0.042	0.000	0.37
32.001	605	30 minute 30 year Winter I+0%	5.800	5.332	0.082	0.000	0.08
1.008	4	30 minute 30 year Winter I+0%	5.771	4.841	0.202	0.000	0.63
1.009	5	30 minute 30 year Winter I+0%	5.623	4.697	0.112	0.000	0.66
33.000	606	30 minute 30 year Winter I+0%	5.350	4.849	-0.001	0.000	0.34
33.001	607	30 minute 30 year Winter I+0%	5.350	4.839	0.039	0.000	0.09
1.010	506	30 minute 30 year Winter I+0%	5.383	4.545	0.364	0.000	0.97
34.000	608	15 minute 30 year Winter I+0%	5.300	4.795	-0.005	0.000	0.34
34.001	609	15 minute 30 year Winter I+0%	5.300	4.785	0.035	0.000	0.09
1.011	507	30 minute 30 year Winter I+0%	5.254	4.438	0.347	0.000	0.81
35.000	610	30 minute 30 year Winter I+0%	5.000	4.517	0.017	0.000	0.36
35.001	611	30 minute 30 year Winter I+0%	5.000	4.507	0.057	0.000	0.11
1.012	508	30 minute 30 year Winter I+0%	5.052	4.305	0.355	0.000	0.51
36.000	612	15 minute 30 year Winter I+0%	5.200	4.656	-0.044	0.000	0.58
36.001	613	15 minute 30 year Winter I+0%	5.050	4.450	0.000	0.000	0.90
37.000	618	15 minute 30 year Winter I+0%	5.050	4.545	-0.005	0.000	0.34
37.001	619	15 minute 30 year Winter I+0%	5.050	4.535	0.035	0.000	0.15
38.000	620	30 minute 30 year Winter I+0%	5.000	4.436	-0.064	0.000	0.23
38.001	621	30 minute 30 year Summer I+0%	5.000	4.426	-0.024	0.000	0.11
36.002	614	15 minute 30 year Winter I+0%	5.695	4.343	0.093	0.000	1.25
39.000	622	30 minute 30 year Winter I+0%	5.100	4.573	-0.027	0.000	0.30
39.001	623	30 minute 30 year Winter I+0%	5.100	4.564	0.014	0.000	0.15
36.003	615	30 minute 30 year Winter I+0%	5.734	4.210	0.110	0.000	0.81
36.004	6	30 minute 30 year Winter I+0%	5.263	4.170	0.270	0.000	1.43
40.000	624	15 minute 30 year Winter I+0%	5.650	4.856	-0.044	0.000	0.59

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for NEW FULL STORM NETWORK 1.SWS

PN	US/MH Name	Overflow (l/s)	Maximum Vol (m³)	Discharge Vol (m³)	Pipe Flow (l/s)	Status
24.000	583		0.595	1.528	1.9	OK
24.001	584		0.138	2.124	1.7	SURCHARGED
16.008	561		0.104	20.853	17.8	OK
16.009	562		0.083	28.124	17.8	OK
25.000	585		0.034	1.202	2.5	OK
26.000	589		0.027	1.051	2.2	OK
25.001	586		0.184	3.305	6.3	SURCHARGED
27.000	590		0.861	2.362	1.7	OK
27.001	591		0.134	2.361	1.7	SURCHARGED
25.002	587		0.230	4.970	7.3	SURCHARGED
28.000	592		0.465	1.624	1.5	OK
28.001	593		0.112	1.624	1.5	SURCHARGED
29.000	594		0.089	0.443	1.1	OK
29.001	595		0.070	0.442	1.0	OK
25.003	588		0.227	6.540	9.1	SURCHARGED
1.006	3		2.069	80.637	61.8	SURCHARGED
30.000	597		0.693	2.340	1.8	SURCHARGED
30.001	598		0.145	2.339	1.8	SURCHARGED
31.000	601		0.835	2.340	1.7	SURCHARGED
31.001	602		0.155	2.339	1.7	SURCHARGED
30.002	599		0.064	4.678	3.4	OK
30.003	600		0.020	4.678	3.4	OK
1.007	505		1.311	85.166	65.2	SURCHARGED
32.000	604		1.331	3.556	2.1	SURCHARGED
32.001	605		0.177	3.555	2.1	SURCHARGED
1.008	4		0.936	88.338	67.2	SURCHARGED
1.009	5		0.925	94.617	71.7	SURCHARGED
33.000	606		1.267	2.990	1.8	OK
33.001	607		0.143	2.989	1.8	SURCHARGED
1.010	506		1.677	97.568	73.4	SURCHARGED
34.000	608		0.623	1.611	1.8	OK
34.001	609		0.139	1.610	1.7	SURCHARGED
1.011	507		1.139	99.720	74.8	SURCHARGED
35.000	610		1.770	3.791	1.9	SURCHARGED
35.001	611		0.159	3.787	1.9	SURCHARGED
1.012	508		1.511	103.467	75.6	SURCHARGED
36.000	612		0.044	1.802	3.8	OK
36.001	613		0.111	2.704	5.5	OK
37.000	618		0.638	1.648	1.8	OK
37.001	619		0.139	1.647	1.7	SURCHARGED
38.000	620		0.190	0.887	1.2	OK
38.001	621		0.078	0.758	1.2	OK
36.002	614		0.293	4.940	7.5	SURCHARGED
39.000	622		0.718	2.087	1.6	OK
39.001	623		0.119	2.086	1.6	SURCHARGED
36.003	615		0.323	8.816	8.8	SURCHARGED
36.004	6		0.388	17.412	18.0	SURCHARGED

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for NEW FULL STORM NETWORK 1.SWS

PN	US/MH Name	Overflow (l/s)	Maximum Vol (m³)	Discharge Vol (m³)	Pipe Flow (l/s)	Status
40.000	624		0.044	1.802	3.8	OK

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for NEW FULL STORM NETWORK 1.SWS

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
40.001	625	15 minute 30 year Winter I+0%	5.855	4.607	-0.043	0.000	0.62
41.000	627	30 minute 30 year Winter I+0%	5.200	4.742	0.042	0.000	0.39
41.001	628	30 minute 30 year Winter I+0%	5.200	4.731	0.081	0.000	0.19
40.002	626	15 minute 30 year Winter I+0%	5.751	4.420	-0.030	0.000	0.83
36.005	616	30 minute 30 year Winter I+0%	5.057	4.147	0.344	0.000	0.66
42.000	629	15 minute 30 year Winter I+0%	4.850	4.321	-0.029	0.000	0.33
42.001	630	15 minute 30 year Winter I+0%	4.850	4.312	0.012	0.000	0.29
36.006	617	30 minute 30 year Winter I+0%	4.875	4.134	0.417	0.000	0.29
1.013	7	30 minute 30 year Winter I+0%	4.940	4.121	0.813	0.000	0.75
43.000	631	240 minute 30 year Winter I+0%	4.550	3.970	-0.080	0.000	0.09
43.001	632	30 minute 30 year Winter I+0%	4.550	3.924	0.124	0.000	0.04
1.014	509	30 minute 30 year Winter I+0%	4.508	3.948	1.068	0.000	1.00
44.000	633	30 minute 30 year Winter I+0%	4.300	3.775	0.175	0.000	0.48
44.001	634	30 minute 30 year Winter I+0%	4.300	3.781	0.231	0.000	0.11
1.015	510	30 minute 30 year Winter I+0%	4.382	3.826	1.071	0.000	0.96
45.000	635	15 minute 30 year Winter I+0%	4.400	3.895	-0.005	0.000	0.34
45.001	636	15 minute 30 year Winter I+0%	4.400	3.885	0.035	0.000	0.08
1.016	511	30 minute 30 year Winter I+0%	4.363	3.707	1.082	0.000	1.30
46.000	637	30 minute 30 year Winter I+0%	4.500	4.034	0.034	0.000	0.38
46.001	638	30 minute 30 year Winter I+0%	4.500	4.023	0.073	0.000	0.07
1.017	512	30 minute 30 year Winter I+0%	4.395	3.619	1.062	0.000	1.30
47.000	639	15 minute 30 year Winter I+0%	4.450	3.959	0.009	0.000	0.36
47.001	640	15 minute 30 year Winter I+0%	4.450	3.948	0.048	0.000	0.06
1.018	513	30 minute 30 year Winter I+0%	4.502	3.533	1.043	0.000	0.96
48.000	642	15 minute 30 year Winter I+0%	5.650	5.145	-0.005	0.000	0.34
48.001	643	15 minute 30 year Winter I+0%	5.650	5.135	0.035	0.000	0.17
49.000	648	30 minute 30 year Winter I+0%	5.350	4.896	0.046	0.000	0.31
48.002	644	30 minute 30 year Winter I+0%	5.350	4.893	0.093	0.000	0.29
50.000	649	15 minute 30 year Winter I+0%	5.350	4.809	-0.041	0.000	0.63
50.001	650	15 minute 30 year Winter I+0%	4.698	4.561	-0.039	0.000	0.68
50.002	651	15 minute 30 year Winter I+0%	4.599	4.357	-0.043	0.000	0.62
51.000	652	30 minute 30 year Winter I+0%	5.100	4.654	0.054	0.000	0.41
51.001	653	30 minute 30 year Winter I+0%	5.100	4.642	0.092	0.000	0.18
48.003	645	15 minute 30 year Winter I+0%	4.567	4.223	-0.077	0.000	0.47
48.004	646	15 minute 30 year Winter I+0%	4.479	3.983	-0.117	0.000	0.11
1.019	8	30 minute 30 year Winter I+0%	4.781	3.429	1.053	0.000	0.79

PN	US/MH Name	Overflow (l/s)	Maximum Vol (m³)	Discharge Vol (m³)	Pipe Flow (l/s)	Status
40.001	625		0.061	1.803	3.8	OK
41.000	627		2.137	4.348	2.1	SURCHARGED
41.001	628		0.182	4.338	2.1	SURCHARGED
40.002	626		0.083	4.910	5.6	OK
36.005	616		0.761	24.139	22.9	SURCHARGED
42.000	629		0.371	1.146	1.7	OK

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for NEW FULL STORM NETWORK 1.SWS

PN	US/MH Name	Overflow (l/s)	Maximum Vol (m³)	Discharge Vol (m³)	Pipe Flow (l/s)	Status
42.001	630		0.118	1.146	1.5	SURCHARGED
36.006	617		1.092	25.731	24.3	SURCHARGED
1.013	7		2.491	136.546	97.6	SURCHARGED
43.000	631		2.583	1.671	0.5	OK
43.001	632		0.194	0.000	1.0	SURCHARGED
1.014	509		3.268	136.486	88.3	SURCHARGED
44.000	633		0.568	2.208	2.6	SURCHARGED
44.001	634		0.313	2.207	2.4	SURCHARGED
1.015	510		2.133	138.631	86.5	SURCHARGED
45.000	635		0.624	1.614	1.8	OK
45.001	636		0.139	1.613	1.7	SURCHARGED
1.016	511		2.162	140.771	85.2	SURCHARGED
46.000	637		2.314	4.624	2.0	SURCHARGED
46.001	638		0.175	4.607	2.0	SURCHARGED
1.017	512		1.826	145.307	83.6	SURCHARGED
47.000	639		0.444	1.440	1.9	SURCHARGED
47.001	640		0.151	1.439	1.8	SURCHARGED
1.018	513		1.790	147.229	81.6	SURCHARGED
48.000	642		0.622	1.606	1.8	OK
48.001	643		0.139	1.606	1.7	SURCHARGED
49.000	648		1.429	2.196	1.6	SURCHARGED
48.002	644		0.221	4.394	2.1	SURCHARGED
50.000	649		0.047	1.802	3.8	OK
50.001	650		0.069	2.103	4.4	FLOOD RISK
50.002	651		0.060	2.103	4.4	FLOOD RISK
51.000	652		2.491	4.836	2.2	SURCHARGED
51.001	653		0.192	4.816	2.1	SURCHARGED
48.003	645		0.066	8.918	8.3	OK
48.004	646		0.037	8.920	8.3	OK
1.019	8		2.599	159.344	84.5	SURCHARGED

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for NEW FULL STORM NETWORK 1.SWS

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 Storage Structures 43
Number of Online Controls 44 Number of Time/Area Diagrams 0
Number of Offline Controls 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.350
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.700 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0
Analysis Timestep 2.5 Second Increment (Extended)
DTS Status ON
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, 30

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	501	60 minute 100 year Winter I+30%	6.500	6.305	0.305	0.000	0.58
1.001	502	60 minute 100 year Winter I+30%	6.500	6.292	0.342	0.000	0.51
2.000	515	30 minute 100 year Winter I+30%	6.500	6.093	0.093	0.000	0.38
2.001	516	30 minute 100 year Winter I+30%	6.950	6.088	0.138	0.000	0.28
1.002	503	30 minute 100 year Winter I+30%	6.850	6.094	0.294	0.000	1.14
3.000	518	30 minute 100 year Winter I+30%	6.650	6.257	0.107	0.000	0.40
3.001	519	30 minute 100 year Winter I+30%	6.950	6.249	0.149	0.000	0.45
3.002	520	30 minute 100 year Winter I+30%	6.950	6.087	0.037	0.000	0.18
1.003	504	30 minute 100 year Winter I+30%	6.950	6.078	0.378	0.000	0.53
4.000	522	15 minute 100 year Winter I+30%	7.150	6.591	-0.059	0.000	0.25
4.001	523	15 minute 100 year Winter I+30%	7.150	6.583	-0.017	0.000	0.05
1.004	1	30 minute 100 year Winter I+30%	7.215	6.072	0.447	0.000	1.19
5.000	524	15 minute 100 year Winter I+30%	7.000	6.671	0.021	0.000	0.80
6.000	529	15 minute 100 year Winter I+30%	7.250	6.728	-0.072	0.000	0.17
5.001	525	30 minute 100 year Winter I+30%	7.250	6.620	0.220	0.000	0.73
7.000	530	30 minute 100 year Winter I+30%	7.200	6.691	-0.009	0.000	0.33
7.001	531	30 minute 100 year Winter I+30%	7.200	6.681	0.031	0.000	0.11
8.000	532	30 minute 100 year Winter I+30%	7.200	6.679	-0.021	0.000	0.31

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for NEW FULL STORM NETWORK 1.SWS

PN	US/MH Name	Overflow (l/s)	Maximum Vol (m³)	Discharge Vol (m³)	Pipe Flow (l/s)	Status
1.000	501		5.271	11.485	3.0	FLOOD RISK
1.001	502		0.409	11.920	3.2	FLOOD RISK
2.000	515		2.123	3.549	2.0	SURCHARGED
2.001	516		0.233	3.543	2.1	SURCHARGED
1.002	503		0.483	11.258	5.9	SURCHARGED
3.000	518		2.388	3.883	2.1	SURCHARGED
3.001	519		0.242	5.237	2.4	SURCHARGED
3.002	520		0.140	5.236	2.7	SURCHARGED
1.003	504		0.568	16.442	8.7	SURCHARGED
4.000	522		0.129	0.657	1.3	OK
4.001	523		0.086	0.657	1.2	OK
1.004	1		0.769	25.648	14.1	SURCHARGED
5.000	524		0.100	2.529	5.2	SURCHARGED
6.000	529		0.020	1.012	2.2	OK
5.001	525		0.454	4.758	4.8	SURCHARGED
7.000	530		0.872	2.531	1.7	OK
7.001	531		0.135	2.530	1.7	SURCHARGED
8.000	532		0.691	2.191	1.6	OK

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for NEW FULL STORM NETWORK 1.SWS

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
8.001	533	30 minute 100 year Winter I+30%	7.200	6.671	0.021	0.000	0.10
5.002	526	30 minute 100 year Winter I+30%	7.200	6.580	0.380	0.000	1.18
9.000	534	30 minute 100 year Winter I+30%	7.200	6.715	0.015	0.000	0.36
9.001	535	30 minute 100 year Winter I+30%	7.200	6.705	0.055	0.000	0.10
5.003	527	30 minute 100 year Winter I+30%	7.200	6.380	0.367	0.000	1.43
10.000	536	30 minute 100 year Winter I+30%	7.200	6.668	-0.032	0.000	0.29
10.001	537	30 minute 100 year Winter I+30%	7.200	6.659	0.009	0.000	0.07
11.000	538	15 minute 100 year Winter I+30%	7.000	6.568	-0.082	0.000	0.08
5.004	528	30 minute 100 year Winter I+30%	7.200	6.158	0.258	0.000	1.36
12.000	540	30 minute 100 year Winter I+30%	7.350	6.896	0.046	0.000	0.36
12.001	541	30 minute 100 year Winter I+30%	7.350	6.883	0.102	0.000	0.32
13.000	546	30 minute 100 year Winter I+30%	7.300	6.863	0.063	0.000	0.42
13.001	547	30 minute 100 year Winter I+30%	7.300	6.851	0.101	0.000	0.29
12.002	542	30 minute 100 year Winter I+30%	7.450	6.608	-0.040	0.000	0.67
14.000	548	30 minute 100 year Winter I+30%	7.300	6.863	0.063	0.000	0.42
14.001	549	30 minute 100 year Winter I+30%	7.300	6.851	0.101	0.000	0.19
12.003	543	30 minute 100 year Winter I+30%	6.813	6.505	-0.020	0.000	0.99
15.000	550	30 minute 100 year Winter I+30%	7.000	6.563	0.063	0.000	0.42
15.001	551	30 minute 100 year Winter I+30%	7.000	6.551	0.101	0.000	0.40
12.004	544	30 minute 100 year Winter I+30%	7.250	6.336	-0.061	0.000	0.66
12.005	545	30 minute 100 year Winter I+30%	7.100	6.238	-0.112	0.000	0.15
1.005	2	30 minute 100 year Winter I+30%	6.962	5.953	0.528	0.000	0.97
16.000	553	30 minute 100 year Winter I+30%	7.100	6.675	0.075	0.000	0.43
16.001	554	30 minute 100 year Winter I+30%	7.100	6.663	0.113	0.000	0.28
17.000	563	30 minute 100 year Winter I+30%	7.000	6.553	0.053	0.000	0.41
17.001	564	30 minute 100 year Winter I+30%	7.000	6.541	0.091	0.000	0.29
16.002	555	30 minute 100 year Winter I+30%	7.000	6.320	-0.033	0.000	0.54
18.000	565	30 minute 100 year Winter I+30%	6.900	6.453	0.053	0.000	0.41
18.001	566	30 minute 100 year Winter I+30%	6.900	6.441	0.091	0.000	0.21
16.003	556	30 minute 100 year Winter I+30%	6.900	6.270	0.105	0.000	0.76
19.000	567	30 minute 100 year Winter I+30%	6.650	6.201	0.051	0.000	0.40
19.001	568	30 minute 100 year Winter I+30%	6.650	6.197	0.097	0.000	0.24
16.004	557	30 minute 100 year Winter I+30%	6.650	6.159	0.185	0.000	0.81
20.000	569	30 minute 100 year Winter I+30%	6.500	6.088	0.088	0.000	0.45
20.001	570	30 minute 100 year Winter I+30%	6.500	6.079	0.129	0.000	0.18
16.005	558	30 minute 100 year Winter I+30%	6.500	5.990	0.335	0.000	1.13
21.000	571	30 minute 100 year Winter I+30%	6.300	5.906	0.106	0.000	0.46
21.001	572	30 minute 100 year Winter I+30%	6.300	5.895	0.145	0.000	0.45
16.006	559	30 minute 100 year Winter I+30%	6.300	5.745	0.334	0.000	0.75
22.000	574	60 minute 100 year Winter I+30%	6.500	6.168	0.168	0.000	0.50
22.001	575	60 minute 100 year Winter I+30%	6.500	6.154	0.204	0.000	0.48
22.002	576	15 minute 100 year Winter I+30%	6.350	5.866	0.016	0.000	1.06
23.000	581	60 minute 100 year Winter I+30%	6.350	5.999	0.149	0.000	0.50
23.001	582	60 minute 100 year Winter I+30%	6.350	5.986	0.186	0.000	0.42
22.003	577	60 minute 100 year Winter I+30%	6.362	5.774	0.074	0.000	0.42
22.004	578	30 minute 100 year Winter I+30%	6.221	5.751	0.201	0.000	0.58
22.005	579	30 minute 100 year Winter I+30%	6.196	5.741	0.241	0.000	0.47
16.007	560	30 minute 100 year Winter I+30%	6.200	5.718	0.368	0.000	1.40

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for NEW FULL STORM NETWORK 1.SWS

PN	US/MH Name	Overflow (l/s)	Maximum Vol (m³)	Discharge Vol (m³)	Pipe Flow (l/s)	Status
8.001	533		0.126	2.191	1.6	SURCHARGED
5.002	526		0.584	9.479	6.9	SURCHARGED
9.000	534		1.259	3.211	1.9	SURCHARGED
9.001	535		0.157	3.210	1.9	SURCHARGED
5.003	527		0.557	12.688	8.2	SURCHARGED
10.000	536		0.513	1.789	1.5	OK
10.001	537		0.115	1.788	1.5	SURCHARGED
11.000	538		0.011	0.506	1.1	OK
5.004	528		0.432	15.156	10.1	SURCHARGED
12.000	540		2.748	5.275	2.2	SURCHARGED
12.001	541		0.202	5.255	2.2	SURCHARGED
13.000	546		1.740	4.175	2.2	SURCHARGED
13.001	547		0.201	4.173	2.2	SURCHARGED
12.002	542		0.068	9.419	4.4	OK
14.000	548		1.740	4.175	2.2	SURCHARGED
14.001	549		0.201	4.173	2.2	SURCHARGED
12.003	543		0.088	13.579	6.6	OK
15.000	550		1.740	4.175	2.2	SURCHARGED
15.001	551		0.201	4.173	2.2	SURCHARGED
12.004	544		0.083	17.738	8.8	OK
12.005	545		0.043	17.732	8.8	OK
1.005	2		1.660	74.268	45.9	SURCHARGED
16.000	553		1.950	4.534	2.3	SURCHARGED
16.001	554		0.211	4.532	2.3	SURCHARGED
17.000	563		1.536	3.854	2.2	SURCHARGED
17.001	564		0.192	3.853	2.1	SURCHARGED
16.002	555		0.074	8.385	4.4	OK
18.000	565		1.536	3.854	2.2	SURCHARGED
18.001	566		0.192	3.853	2.2	SURCHARGED
16.003	556		0.247	12.238	6.3	SURCHARGED
19.000	567		1.491	3.495	2.1	SURCHARGED
19.001	568		0.197	3.490	2.0	SURCHARGED
16.004	557		0.332	15.726	7.7	SURCHARGED
20.000	569		2.233	4.853	2.4	SURCHARGED
20.001	570		0.225	4.837	2.3	SURCHARGED
16.005	558		0.485	20.556	9.4	SURCHARGED
21.000	571		2.654	5.511	2.5	SURCHARGED
21.001	572		0.239	5.492	2.4	SURCHARGED
16.006	559		0.523	26.035	11.6	SURCHARGED
22.000	574		4.685	10.239	2.7	SURCHARGED
22.001	575		0.290	10.674	2.8	SURCHARGED
22.002	576		0.133	7.684	5.9	SURCHARGED
23.000	581		7.756	13.502	2.7	SURCHARGED
23.001	582		0.274	13.403	2.7	SURCHARGED
22.003	577		0.325	27.081	6.9	SURCHARGED
22.004	578		0.547	16.396	8.1	SURCHARGED
22.005	579		0.385	16.311	8.1	SURCHARGED

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for NEW FULL STORM NETWORK 1.SWS

PN	US/MH Name	Overflow (l/s)	Maximum Vol (m³)	Discharge Vol (m³)	Pipe Flow (l/s)	Status
16.007	560		0.740	42.214	18.8	SURCHARGED

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for NEW FULL STORM NETWORK 1.SWS

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
24.000	583	30 minute 100 year Winter I+30%	6.200	5.756	0.056	0.000	0.41
24.001	584	30 minute 100 year Winter I+30%	6.200	5.747	0.097	0.000	0.40
16.008	561	30 minute 100 year Winter I+30%	6.200	5.653	0.349	0.000	0.63
16.009	562	30 minute 100 year Winter I+30%	6.150	5.642	0.392	0.000	0.23
25.000	585	30 minute 100 year Winter I+30%	6.200	5.866	0.166	0.000	0.49
26.000	589	30 minute 100 year Winter I+30%	6.200	5.860	0.160	0.000	0.35
25.001	586	30 minute 100 year Winter I+30%	6.150	5.849	0.349	0.000	1.04
27.000	590	30 minute 100 year Winter I+30%	6.300	5.847	0.047	0.000	0.39
27.001	591	30 minute 100 year Winter I+30%	6.300	5.840	0.090	0.000	0.13
25.002	587	30 minute 100 year Winter I+30%	6.064	5.770	0.470	0.000	1.17
28.000	592	60 minute 100 year Winter I+30%	5.950	5.543	0.093	0.000	0.41
28.001	593	60 minute 100 year Winter I+30%	5.950	5.542	0.142	0.000	0.17
29.000	594	60 minute 100 year Winter I+30%	5.800	5.499	0.199	0.000	0.45
29.001	595	60 minute 100 year Winter I+30%	5.800	5.501	0.251	0.000	0.28
25.003	588	30 minute 100 year Winter I+30%	6.030	5.638	0.538	0.000	0.88
1.006	3	30 minute 100 year Winter I+30%	6.035	5.632	0.782	0.000	1.09
30.000	597	30 minute 100 year Winter I+30%	6.100	5.663	0.063	0.000	0.42
30.001	598	30 minute 100 year Winter I+30%	6.100	5.651	0.101	0.000	0.33
31.000	601	30 minute 100 year Winter I+30%	6.000	5.573	0.073	0.000	0.39
31.001	602	30 minute 100 year Winter I+30%	6.000	5.564	0.114	0.000	0.42
30.002	599	30 minute 100 year Winter I+30%	6.091	5.453	0.043	0.000	0.66
30.003	600	30 minute 100 year Winter I+30%	6.090	5.428	0.078	0.000	0.18
1.007	505	30 minute 100 year Winter I+30%	5.771	5.410	0.884	0.000	1.00
32.000	604	30 minute 100 year Winter I+30%	5.800	5.437	0.137	0.000	0.45
32.001	605	30 minute 100 year Winter I+30%	5.800	5.428	0.178	0.000	0.10
1.008	4	30 minute 100 year Winter I+30%	5.771	5.313	0.674	0.000	0.66
1.009	5	30 minute 100 year Winter I+30%	5.623	5.164	0.579	0.000	0.77
33.000	606	60 minute 100 year Winter I+30%	5.350	4.972	0.122	0.000	0.44
33.001	607	60 minute 100 year Winter I+30%	5.350	4.969	0.169	0.000	0.13
1.010	506	30 minute 100 year Winter I+30%	5.383	5.013	0.831	0.000	1.06
34.000	608	60 minute 100 year Winter I+30%	5.300	4.914	0.114	0.000	0.38
34.001	609	60 minute 100 year Winter I+30%	5.300	4.910	0.160	0.000	0.11
1.011	507	30 minute 100 year Winter I+30%	5.254	4.909	0.818	0.000	0.86
35.000	610	60 minute 100 year Winter I+30%	5.000	4.703	0.203	0.000	0.50
35.001	611	60 minute 100 year Winter I+30%	5.000	4.701	0.251	0.000	0.16
1.012	508	30 minute 100 year Winter I+30%	5.052	4.782	0.832	0.000	0.54
36.000	612	15 minute 100 year Winter I+30%	5.200	4.895	0.195	0.000	0.80
36.001	613	30 minute 100 year Winter I+30%	5.050	4.796	0.346	0.000	0.88
37.000	618	60 minute 100 year Winter I+30%	5.050	4.688	0.138	0.000	0.36
37.001	619	60 minute 100 year Winter I+30%	5.050	4.684	0.184	0.000	0.15
38.000	620	60 minute 100 year Winter I+30%	5.000	4.574	0.074	0.000	0.37
38.001	621	60 minute 100 year Winter I+30%	5.000	4.575	0.125	0.000	0.19
36.002	614	30 minute 100 year Winter I+30%	5.695	4.697	0.447	0.000	1.05
39.000	622	60 minute 100 year Winter I+30%	5.100	4.656	0.056	0.000	0.34
39.001	623	60 minute 100 year Winter I+30%	5.100	4.652	0.102	0.000	0.18
36.003	615	30 minute 100 year Winter I+30%	5.734	4.685	0.585	0.000	0.70
36.004	6	30 minute 100 year Winter I+30%	5.263	4.685	0.785	0.000	1.93
40.000	624	15 minute 100 year Winter I+30%	5.650	4.886	-0.014	0.000	0.97

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for NEW FULL STORM NETWORK 1.SWS

PN	US/MH Name	Overflow (l/s)	Maximum Vol (m³)	Discharge Vol (m³)	Pipe Flow (l/s)	Status
24.000	583		1.587	3.803	2.2	SURCHARGED
24.001	584		0.197	3.802	2.1	SURCHARGED
16.008	561		0.562	45.931	20.6	SURCHARGED
16.009	562		0.636	45.856	20.5	SURCHARGED
25.000	585		0.226	2.719	3.1	SURCHARGED
26.000	589		0.221	2.379	2.8	SURCHARGED
25.001	586		0.576	7.476	6.9	SURCHARGED
27.000	590		2.293	4.317	2.1	SURCHARGED
27.001	591		0.190	4.303	2.1	SURCHARGED
25.002	587		0.631	11.772	7.4	FLOOD RISK
28.000	592		3.712	3.980	2.1	SURCHARGED
28.001	593		0.236	3.979	2.2	SURCHARGED
29.000	594		3.421	1.584	2.4	SURCHARGED
29.001	595		0.331	1.583	2.5	FLOOD RISK
25.003	588		0.731	13.353	8.7	SURCHARGED
1.006	3		3.555	133.264	67.2	SURCHARGED
30.000	597		1.738	4.158	2.2	SURCHARGED
30.001	598		0.201	4.157	2.3	SURCHARGED
31.000	601		1.945	4.158	2.1	SURCHARGED
31.001	602		0.212	4.155	2.0	SURCHARGED
30.002	599		0.184	8.310	4.2	SURCHARGED
30.003	600		0.171	8.309	4.5	SURCHARGED
1.007	505		1.731	141.250	69.4	SURCHARGED
32.000	604		3.227	6.124	2.6	SURCHARGED
32.001	605		0.260	6.047	2.4	SURCHARGED
1.008	4		1.352	146.705	70.8	SURCHARGED
1.009	5		1.329	157.366	84.5	SURCHARGED
33.000	606		5.270	6.995	2.3	SURCHARGED
33.001	607		0.260	6.983	2.4	SURCHARGED
1.010	506		2.119	160.139	80.0	SURCHARGED
34.000	608		2.486	5.034	2.0	SURCHARGED
34.001	609		0.252	5.034	2.1	SURCHARGED
1.011	507		1.559	163.041	79.8	SURCHARGED
35.000	610		7.961	7.559	2.7	FLOOD RISK
35.001	611		0.331	7.408	2.7	FLOOD RISK
1.012	508		1.930	163.590	79.1	FLOOD RISK
36.000	612		0.251	3.034	5.2	SURCHARGED
36.001	613		0.532	6.117	5.4	FLOOD RISK
37.000	618		2.539	5.071	1.9	SURCHARGED
37.001	619		0.272	5.071	1.8	SURCHARGED
38.000	620		3.235	2.301	2.0	SURCHARGED
38.001	621		0.222	2.299	2.0	SURCHARGED
36.002	614		0.664	10.048	6.3	SURCHARGED
39.000	622		2.789	4.914	1.8	SURCHARGED
39.001	623		0.202	4.913	1.9	SURCHARGED
36.003	615		0.899	13.457	7.6	SURCHARGED
36.004	6		0.834	27.552	24.4	SURCHARGED

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for NEW FULL STORM NETWORK 1.SWS

PN	US/MH Name	Overflow (l/s)	Maximum Vol (m³)	Discharge Vol (m³)	Pipe Flow (l/s)	Status
40.000	624		0.070	3.034	6.3	OK

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for NEW FULL STORM NETWORK 1.SWS

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
40.001	625	30 minute 100 year Winter I+30%	5.855	4.696	0.046	0.000	0.84
41.000	627	60 minute 100 year Winter I+30%	5.200	4.819	0.119	0.000	0.47
41.001	628	60 minute 100 year Winter I+30%	5.200	4.807	0.157	0.000	0.23
40.002	626	30 minute 100 year Winter I+30%	5.751	4.655	0.205	0.000	1.08
36.005	616	30 minute 100 year Winter I+30%	5.057	4.629	0.826	0.000	0.81
42.000	629	60 minute 100 year Winter I+30%	4.850	4.523	0.173	0.000	0.42
42.001	630	60 minute 100 year Winter I+30%	4.850	4.522	0.222	0.000	0.45
36.006	617	30 minute 100 year Winter I+30%	4.875	4.604	0.887	0.000	0.34
1.013	7	30 minute 100 year Winter I+30%	4.940	4.588	1.279	0.000	0.82
43.000	631	60 minute 100 year Winter I+30%	4.550	4.366	0.316	0.000	0.59
43.001	632	60 minute 100 year Winter I+30%	4.550	4.363	0.563	0.000	0.14
1.014	509	30 minute 100 year Winter I+30%	4.508	4.409	1.528	0.000	1.09
44.000	633	60 minute 100 year Winter I+30%	4.300	4.149	0.549	0.000	0.68
44.001	634	60 minute 100 year Winter I+30%	4.300	4.151	0.601	0.000	0.18
1.015	510	30 minute 100 year Winter I+30%	4.382	4.284	1.529	0.000	1.04
45.000	635	60 minute 100 year Winter I+30%	4.400	4.115	0.215	0.000	0.45
45.001	636	60 minute 100 year Winter I+30%	4.400	4.112	0.262	0.000	0.11
1.016	511	60 minute 100 year Winter I+30%	4.363	4.159	1.534	0.000	1.30
46.000	637	60 minute 100 year Winter I+30%	4.500	4.150	0.150	0.000	0.45
46.001	638	60 minute 100 year Winter I+30%	4.500	4.140	0.190	0.000	0.09
1.017	512	60 minute 100 year Winter I+30%	4.395	4.070	1.513	0.000	1.30
47.000	639	30 minute 100 year Winter I+30%	4.450	4.052	0.102	0.000	0.44
47.001	640	30 minute 100 year Winter I+30%	4.450	4.045	0.145	0.000	0.08
1.018	513	60 minute 100 year Winter I+30%	4.502	3.982	1.491	0.000	0.96
48.000	642	30 minute 100 year Winter I+30%	5.650	5.205	0.055	0.000	0.41
48.001	643	30 minute 100 year Winter I+30%	5.650	5.193	0.093	0.000	0.21
49.000	648	60 minute 100 year Winter I+30%	5.350	4.992	0.142	0.000	0.39
48.002	644	60 minute 100 year Winter I+30%	5.350	4.988	0.188	0.000	0.36
50.000	649	15 minute 100 year Winter I+30%	5.350	4.867	0.017	0.000	1.00
50.001	650	15 minute 100 year Winter I+30%	4.698	4.615	0.015	0.000	1.04
50.002	651	15 minute 100 year Winter I+30%	4.599	4.378	-0.022	0.000	0.96
51.000	652	60 minute 100 year Winter I+30%	5.100	4.734	0.134	0.000	0.49
51.001	653	60 minute 100 year Winter I+30%	5.100	4.720	0.170	0.000	0.22
48.003	645	15 minute 100 year Winter I+30%	4.567	4.240	-0.060	0.000	0.66
48.004	646	15 minute 100 year Winter I+30%	4.479	3.989	-0.111	0.000	0.15
1.019	8	60 minute 100 year Winter I+30%	4.781	3.867	1.490	0.000	0.79

PN	US/MH Name	Overflow (l/s)	Maximum Vol (m³)	Discharge Vol (m³)	Pipe Flow (l/s)	Status
40.001	625		0.177	4.078	5.2	SURCHARGED
41.000	627		4.996	10.236	2.5	SURCHARGED
41.001	628		0.249	10.235	2.5	SURCHARGED
40.002	626		0.422	10.389	7.3	SURCHARGED
36.005	616		1.201	37.185	28.1	SURCHARGED
42.000	629		3.636	3.714	2.2	SURCHARGED

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for NEW FULL STORM NETWORK 1.SWS

PN	US/MH Name	Overflow (l/s)	Maximum Vol (m³)	Discharge Vol (m³)	Pipe Flow (l/s)	Status
42.001	630		0.305	3.713	2.3	SURCHARGED
36.006	617		1.529	37.639	28.5	FLOOD RISK
1.013	7		3.018	210.715	106.8	SURCHARGED
43.000	631		6.673	2.143	3.1	FLOOD RISK
43.001	632		0.601	2.132	3.2	FLOOD RISK
1.014	509		3.789	205.324	96.5	FLOOD RISK
44.000	633		6.324	5.035	3.6	FLOOD RISK
44.001	634		0.634	5.033	3.8	FLOOD RISK
1.015	510		2.651	202.169	93.4	FLOOD RISK
45.000	635		4.079	5.037	2.4	FLOOD RISK
45.001	636		0.341	5.036	2.5	FLOOD RISK
1.016	511		2.677	323.240	85.6	FLOOD RISK
46.000	637		5.794	10.522	2.4	SURCHARGED
46.001	638		0.278	10.511	2.4	SURCHARGED
1.017	512		2.342	333.657	83.8	SURCHARGED
47.000	639		1.397	3.525	2.3	SURCHARGED
47.001	640		0.239	3.524	2.1	SURCHARGED
1.018	513		2.304	338.150	81.6	SURCHARGED
48.000	642		1.534	3.881	2.2	SURCHARGED
48.001	643		0.193	3.880	2.1	SURCHARGED
49.000	648		3.087	5.022	2.1	SURCHARGED
48.002	644		0.324	10.051	2.7	SURCHARGED
50.000	649		0.097	3.034	6.0	SURCHARGED
50.001	650		0.138	3.540	6.8	FLOOD RISK
50.002	651		0.084	3.540	6.8	FLOOD RISK
51.000	652		5.672	11.445	2.6	SURCHARGED
51.001	653		0.260	11.443	2.6	SURCHARGED
48.003	645		0.082	15.654	11.6	OK
48.004	646		0.045	15.642	11.6	OK
1.019	8		3.250	366.067	84.4	SURCHARGED

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