STORM SEWER DESIGN by the Modified Rational Method

Design Criteria for SW 02

Pipe Sizes STANDARD Manhole Sizes STANDARD

FSR Rainfall Model - England and Wales

Return Period (years)	1	PIMP (%)	100
M5-60 (mm)	21.000	Add Flow / Climate Change (%)	0
Ratio R	0.423	Minimum Backdrop Height (m)	0.200
Maximum Rainfall (mm/hr)	50	Maximum Backdrop Height (m)	1.500
Maximum Time of Concentration (mins)	30	Min Design Depth for Optimisation (m)	1.200
Foul Sewage (l/s/ha)	0.000	Min Vel for Auto Design only (m/s)	1.00
Volumetric Runoff Coeff.	0.750	Min Slope for Optimisation (1:X)	500

Designed with Level Soffits

Network Design Table for SW 02

- Indicates pipe length does not match coordinates
« - Indicates pipe capacity < flow

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	n	HYD SECT	DIA (mm)	Section Type	Auto Design
8.000	20.028	0.168	119.2	0.390	12.00	0.0	0.600		o	300	Pipe/Conduit	
8.001	83.942	1.660	50.6	0.000	0.00	0.0		0.045	-1	-1	Pipe/Conduit	
8.002	12.992	0.266	48.8	0.293	0.00	0.0		0.045	o	450	Pipe/Conduit	
9.000	10.424#	0.024	434.3	0.457	4.00	0.0	0.600		o	375	Pipe/Conduit	
10.000	81.720#	1.438	56.8	0.149	12.00	0.0	0.600		o	225	Pipe/Conduit	
11.000	9.668	0.102	94.8	0.238	8.00	0.0	0.600		o	300	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
8.000	37.40	12.23	95.528	0.390	0.0	0.0	0.0	1.44	101.7	39.5
8.001	35.96	13.10	95.360	0.390	0.0	0.0	0.0	1.61	3708.9	39.5
8.002	35.50	13.40	93.700	0.683	0.0	0.0	0.0	0.74	117.9	65.7
9.000	50.00	4.20	93.680	0.457	0.0	0.0	0.0	0.86	95.3	61.9
10.000	36.47	12.78	95.801	0.149	0.0	0.0	0.0	1.74	69.1	14.7
11.000	46.65	8.10	97.266	0.238	0.0	0.0	0.0	1.62	114.2	30.1

Network Design Table for SW 02

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	n	HYD SECT	DIA (mm)	Section Type	Auto Design
12.000	22.919	0.518	44.2	0.063	8.00	0.0	0.600		o	225	Pipe/Conduit	
11.001	14.356	0.088	163.1	0.000	0.00	0.0	0.600		o	300	Pipe/Conduit	
11.002	72.170	1.156	62.4	0.129	0.00	0.0	0.600		o	300	Pipe/Conduit	
13.000	9.085	0.280	32.4	0.691	4.00	0.0	0.600		o	450	Pipe/Conduit	
11.003	13.540	0.537	25.2	0.105	0.00	0.0	0.600		o	525	Pipe/Conduit	
11.004	70.545	1.020	69.2	0.194	0.00	0.0	0.600		o	525	Pipe/Conduit	
10.001	33.008	0.161	205.0	0.128	0.00	0.0	0.600		o	525	Pipe/Conduit	
14.000	8.935	0.093	96.1	0.290	4.00	0.0	0.600		o	225	Pipe/Conduit	
10.002	80.640	0.471	171.2	0.090	0.00	0.0	0.600		o	600	Pipe/Conduit	
9.001	35.824	0.147	243.7	0.059	0.00	0.0	0.600		o	750	Pipe/Conduit	
15.000	51.033	0.136	375.2	0.420	12.00	0.0	0.600		o	450	Pipe/Conduit	
16.000	9.579	0.026	368.4	0.000	4.00	0.0	0.600		o	450	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
12.000	46.38	8.19	97.757	0.063	0.0	0.0	0.0	1.97	78.4	7.9
11.001	45.83	8.39	97.164	0.301	0.0	0.0	0.0	1.23	86.8	37.4
11.002	44.22	8.99	97.076	0.430	0.0	0.0	0.0	1.99	140.9	51.5
13.000	50.00	4.04	96.050	0.691	0.0	0.0	0.0	3.58	569.2	93.6
11.003	44.10	9.04	95.695	1.226	0.0	0.0	0.0	4.47	968.5	146.4
11.004	43.02	9.48	95.158	1.420	0.0	0.0	0.0	2.70	583.6	165.4
10.001	35.91	13.14	94.138	1.697	0.0	0.0	0.0	1.56	337.8	165.4
14.000	50.00	4.11	94.370	0.290	0.0	0.0	0.0	1.33	53.0	39.3
10.002	34.81	13.86	93.902	2.077	0.0	0.0	0.0	1.86	525.4	195.8
9.001	34.32	14.19	93.281	2.593	0.0	0.0	0.0	1.79	790.0	241.0
15.000	36.42	12.82	93.604	0.420	0.0	0.0	0.0	1.04	166.0	41.4
16.000	50.00	4.15	93.494	0.000	0.0	0.0	0.0	1.05	167.5	0.0

Network Design Table for SW 02

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	n	HYD SECT	DIA (mm)	Section Type	Auto Design
15.001	14.877	0.034	437.6	0.016	0.00	0.0	0.600		o	450	Pipe/Conduit	
8.003	16.820#	0.084	200.2	0.000	0.00	0.0	0.600		oo	750	Double Pipe	
8.004	172.036	3.450	49.9	0.161	0.00	0.0		0.045	-1	-1	Pipe/Conduit	
8.005	28.119	0.062	453.5	0.000	0.00	0.0	0.600		ooo	450	Triple Pipe	
17.000	30.646	0.288	106.4	0.049	12.00	0.0	0.600		o	225	Pipe/Conduit	
17.001	110.339	0.303	364.2	0.125	0.00	0.0	0.600		o	375	Pipe/Conduit	
17.002	54.358	0.200	271.8	0.192	0.00	0.0	0.600		o	375	Pipe/Conduit	
18.000	21.405	0.862	24.8	0.000	4.00	0.0	0.600		o	450	Pipe/Conduit	
17.003	29.524	0.367	80.4	0.054	0.00	0.0	0.600		o	450	Pipe/Conduit	
17.004	25.129	0.276	91.0	0.017	0.00	0.0	0.600		o	525	Pipe/Conduit	
17.005	30.116	0.287	104.9	0.016	0.00	0.0	0.600		o	525	Pipe/Conduit	
17.006	36.648	1.150	31.9	0.046	0.00	0.0	0.600		o	525	Pipe/Conduit	
19.000	9.004	0.150	60.0	0.081	4.00	0.0	0.600		o	225	Pipe/Conduit	
19.001	52.312	0.807	64.8	0.106	0.00	0.0	0.600		o	225	Pipe/Conduit	
17.007	37.260	0.632	59.0	0.363	0.00	0.0	0.600		o	525	Pipe/Conduit	
17.008	26.998	0.791	34.1	0.153	0.00	0.0	0.600		o	600	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
15.001	36.01	13.07	93.468	0.436	0.0	0.0	0.0	0.97	153.5	42.5
8.003	34.12	14.34	93.134	3.712	0.0	0.0	0.0	1.97	1744.2	343.0
8.004	31.83	16.11	93.050	3.873	0.0	0.0	0.0	1.62	3735.0	343.0
8.005	31.25	16.60	89.600	3.873	0.0	0.0	0.0	0.95	452.4	343.0
17.000	37.11	12.40	95.871	0.049	0.0	0.0	0.0	1.27	50.4	4.9
17.001	34.10	14.35	95.433	0.174	0.0	0.0	0.0	0.94	104.2	16.1
17.002	32.98	15.18	95.130	0.366	0.0	0.0	0.0	1.09	120.8	32.7
18.000	50.00	4.09	95.761	0.000	0.0	0.0	0.0	4.09	651.0	0.0
17.003	32.71	15.40	94.855	0.420	0.0	0.0	0.0	2.27	360.8	37.2
17.004	32.48	15.58	94.413	0.437	0.0	0.0	0.0	2.35	508.3	38.4
17.005	32.20	15.80	94.137	0.453	0.0	0.0	0.0	2.19	473.3	39.5
17.006	32.01	15.96	93.850	0.499	0.0	0.0	0.0	3.98	861.1	43.3
19.000	50.00	4.09	93.957	0.081	0.0	0.0	0.0	1.69	67.2	11.0
19.001	50.00	4.62	93.807	0.187	0.0	0.0	0.0	1.63	64.7	25.3
17.007	31.75	16.17	92.700	1.049	0.0	0.0	0.0	2.92	632.4	90.2
17.008	31.63	16.28	91.993	1.202	0.0	0.0	0.0	4.18	1181.3	103.0

Network Design Table for SW 02

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	n	HYD SECT	DIA (mm)	Section Type	Auto Design
17.009	28.559	0.464	61.5	0.018	0.00	0.0	0.600		o	750	Pipe/Conduit	
17.010	31.060	0.267	116.3	0.320	0.00	0.0	0.600		o	750	Pipe/Conduit	
17.011	24.158	0.060	402.6	0.046	0.00	0.0	0.600		o	750	Pipe/Conduit	
17.012	49.383	0.420	117.6	0.000	0.00	0.0	0.600		o	750	Pipe/Conduit	
17.013	58.180	0.228	255.2	0.208	0.00	0.0	0.600		o	750	Pipe/Conduit	
20.000	48.920	0.255	191.8	1.360	12.00	0.0	0.600		o	525	Pipe/Conduit	
8.006	43.122	0.976	44.2	0.000	0.00	0.0	0.600		o	900	Pipe/Conduit	
8.007	26.716	0.460	58.1	0.000	0.00	0.0		0.045	4 \=/	6000	1:4 Swale	
8.008	15.793	0.202	78.2	0.000	0.00	0.0		0.045	4 \=/	6000	1:4 Swale	
8.009	7.896	0.962	8.2	0.000	0.00	0.0	0.600		o	375	Pipe/Conduit	
8.010	7.896	0.150	52.6	0.000	0.00	0.0		0.045	4 \=/	6000	1:4 Swale	
8.011	93.201	0.348	267.8	0.000	0.00	0.0		0.045	4 \=/	6000	1:4 Swale	
8.012	12.413	0.500	24.8	0.000	0.00	0.0	0.600		o	300	Pipe/Conduit	
8.013	70.403	0.540	130.4	0.000	0.00	0.0	0.600		o	300	Pipe/Conduit	
8.014	2.832	0.100	28.3	0.000	0.00	0.0	0.600		o	300	Pipe/Conduit	
8.015	11.425	0.192	59.5	0.000	0.00	0.0	0.600		o	300	Pipe/Conduit	
8.016	33.527	2.408	13.9	0.000	0.00	0.0	0.600		o	300	Pipe/Conduit	
21.000	36.910	0.504	73.2	0.033	4.00	0.0	0.600		o	225	Pipe/Conduit	
21.001	33.818	0.537	63.0	0.037	0.00	0.0	0.600		o	225	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
17.009	31.47	16.41	91.052	1.220	0.0	0.0	0.0	3.57	1577.6	104.0
17.010	31.24	16.61	90.588	1.540	0.0	0.0	0.0	2.59	1146.0	130.3
17.011	30.91	16.90	90.321	1.586	0.0	0.0	0.0	1.39	613.4	132.8
17.012	30.56	17.22	90.261	1.586	0.0	0.0	0.0	2.58	1139.8	132.8
17.013	29.97	17.78	89.841	1.794	0.0	0.0	0.0	1.75	771.9	145.6
20.000	36.94	12.51	90.093	1.360	0.0	0.0	0.0	1.61	349.3	136.0
8.006	29.82	17.93	89.538	7.027	0.0	0.0	0.0	4.72	3003.3	567.4
8.007	29.24	18.50	88.562	7.027	0.0	0.0	0.0	0.77	766.4	567.4
8.008	28.86	18.90	88.102	7.027	0.0	0.0	0.0	0.67	660.6	567.4
8.009	28.84	18.92	87.900	7.027	0.0	0.0	0.0	6.36	702.1	567.4
8.010	28.69	19.08	87.238	7.027	0.0	0.0	0.0	0.81	805.0	567.4
8.011	25.27	23.39	87.088	7.027	0.0	0.0	0.0	0.36	356.9«	567.4
8.012	25.23	23.45	86.740	7.027	0.0	0.0	0.0	3.17	224.0«	567.4
8.013	24.67	24.31	86.240	7.027	0.0	0.0	0.0	1.38	97.2«	567.4
8.014	24.66	24.32	85.700	7.027	0.0	0.0	0.0	2.97	209.6«	567.4
8.015	24.60	24.42	85.600	7.027	0.0	0.0	0.0	2.04	144.3«	567.4
8.016	24.51	24.55	85.408	7.027	0.0	0.0	0.0	4.24	299.4«	567.4
21.000	50.00	4.40	90.590	0.033	0.0	0.0	0.0	1.53	60.8	4.5
21.001	50.00	4.74	90.086	0.070	0.0	0.0	0.0	1.65	65.6	9.5

Network Design Table for SW 02

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	n	HYD SECT	DIA (mm)	Section Type	Auto Design
21.002	21.572	0.123	175.4	0.057	0.00	0.0	0.600		o	225	Pipe/Conduit	
21.003	45.049	0.257	175.3	0.000	0.00	0.0	0.600		o	225	Pipe/Conduit	
21.004	37.737	0.168	224.6	0.000	0.00	0.0	0.600		o	225	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
21.002	50.00	5.11	89.549	0.127	0.0	0.0	0.0	0.98	39.1	17.2
21.003	50.00	5.87	89.426	0.127	0.0	0.0	0.0	0.98	39.1	17.2
21.004	50.00	6.60	89.169	0.127	0.0	0.0	0.0	0.87	34.5	17.2

Manhole Schedules for SW 02

MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam.,L*W (mm)	Pipe Out PN	Pipe Out Invert Level (m)	Pipe Out Diameter (mm)	Pipes In PN	Pipes In Invert Level (m)	Pipes In Diameter (mm)	Backdrop (mm)
S2.01	96.579	1.051	Open Manhole	1240 x 675	8.000	95.528	300				
S2.02	96.041	0.681	Junction		8.001	95.360	-1	8.000	95.360	300	
S2.03	94.355	0.655	Junction		8.002	93.700	450	8.001	93.700	-1	
S2.04	94.500	0.820	Junction		9.000	93.680	375				
S2.05	97.630	1.829	Open Manhole	1200	10.000	95.801	225				
S2.06	99.392	2.126	Open Manhole	1200	11.000	97.266	300				
S2.07	99.150	1.393	Open Manhole	1200	12.000	97.757	225				
S2.08	99.361	2.197	Open Manhole	1200	11.001	97.164	300	11.000	97.164	300	
								12.000	97.239	225	
S2.09	99.320	2.244	Open Manhole	1200	11.002	97.076	300	11.001	97.076	300	
S2.11	97.997	1.947	Open Manhole	1500	13.000	96.050	450				
S2.10	98.152	2.457	Open Manhole	1500	11.003	95.695	525	11.002	95.920	300	
								13.000	95.770	450	
S2.12	97.942	2.784	Open Manhole	1500	11.004	95.158	525	11.003	95.158	525	
S2.13	97.134	2.996	Open Manhole	1500	10.001	94.138	525	10.000	94.363	225	
								11.004	94.138	525	
S2.14	96.554	2.184	Junction		14.000	94.370	225				
S2.15	96.827	2.925	Open Manhole	1500	10.002	93.902	600	10.001	93.977	525	
								14.000	94.277	225	
S2.16	94.912	1.631	Open Manhole	1800	9.001	93.281	750	9.000	93.656	375	
								10.002	93.431	600	
S2.18	96.180	2.576	Open Manhole	1500	15.000	93.604	450				
S2.19	94.973	1.479	Open Manhole	1500	16.000	93.494	450				
S2.20	95.146	1.678	Open Manhole	1500	15.001	93.468	450	15.000	93.468	450	
								16.000	93.468	450	
S2.21	94.850	1.716	Open Manhole	2400	8.003	93.134	750	8.002	93.434	450	
								9.001	93.134	750	
								15.001	93.434	450	
S2.22	93.870	0.820	Junction		8.004	93.050	-1	8.003	93.050	750	
S2.23	91.063	1.463	Junction		8.005	89.600	450	8.004	89.600	-1	
S2.24	97.293	1.422	Open Manhole	1200	17.000	95.871	225				
S2.25	97.936	2.503	Open Manhole	1500	17.001	95.433	375	17.000	95.583	225	
S2.26	98.730	3.600	Open Manhole	1500	17.002	95.130	375	17.001	95.130	375	
S2.27	97.183	1.422	Junction		18.000	95.761	450				
S2.29	96.918	2.063	Open Manhole	1500	17.003	94.855	450	17.002	94.930	375	
								18.000	94.899	450	44
S2.30	96.175	1.762	Open Manhole	1500	17.004	94.413	525	17.003	94.488	450	
S2.31	95.906	1.769	Open Manhole	1500	17.005	94.137	525	17.004	94.137	525	

Manhole Schedules for SW 02

MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam.,L*W (mm)	PN	Pipe Out Invert Level (m)	Diameter (mm)	PN	Pipes In Invert Level (m)	Diameter (mm)	Backdr (mm)
S2.32	95.621	1.771	Open Manhole	1500	17.006	93.850	525	17.005	93.850	525	
S2.33	95.477	1.520	Junction		19.000	93.957	225				
S2.34	95.792	1.985	Open Manhole	1200	19.001	93.807	225	19.000	93.807	225	
S2.35	94.892	2.192	Open Manhole	1500	17.007	92.700	525	17.006	92.700	525	
								19.001	93.000	225	
S2.36	94.014	2.021	Open Manhole	1500	17.008	91.993	600	17.007	92.068	525	
S2.37	93.253	2.201	Open Manhole	1800	17.009	91.052	750	17.008	91.202	600	
S2.38	92.529	1.941	Open Manhole	1800	17.010	90.588	750	17.009	90.588	750	
S2.39	92.256	1.935	Open Manhole	1800	17.011	90.321	750	17.010	90.321	750	
S2.40	92.199	1.938	Open Manhole	1800	17.012	90.261	750	17.011	90.261	750	
S2.41	91.095	1.254	Open Manhole	1800	17.013	89.841	750	17.012	89.841	750	
S2.42	91.567	1.474	Open Manhole	1240 x 975	20.000	90.093	525				
S2.43	91.063	1.525	Open Manhole	3000	8.006	89.538	900	8.005	89.538	450	
								17.013	89.613	750	
								20.000	89.838	525	
S2.44	89.700	1.138	Junction		8.007	88.562	6000	8.006	88.562	900	
S2.45	89.700	1.598	Junction		8.008	88.102	6000	8.007	88.102	6000	
S2.46	89.700	1.800	Junction		8.009	87.900	375	8.008	87.900	6000	
S2.47	89.700	2.762	Junction		8.010	87.238	6000	8.009	86.938	375	
S2.48	88.500	1.412	Junction		8.011	87.088	6000	8.010	87.088	6000	
S2.49	88.500	1.760	Junction		8.012	86.740	300	8.011	86.740	6000	
S2.50	87.400	1.160	Junction		8.013	86.240	300	8.012	86.240	300	
S2.51	87.400	1.700	Junction		8.014	85.700	300	8.013	85.700	300	
S2.52	87.400	1.800	Junction		8.015	85.600	300	8.014	85.600	300	
S2.53 FC	87.400	1.992	Open Manhole	1500	8.016	85.408	300	8.015	85.408	300	
S2.O1	85.450	2.450	Open Manhole	0		OUTFALL		8.016	83.000	300	
S2.55	92.066	1.476	Open Manhole	1200	21.000	90.590	225				
S2.56	91.492	1.406	Open Manhole	1200	21.001	90.086	225	21.000	90.086	225	
S2.57	90.937	1.388	Open Manhole	1200	21.002	89.549	225	21.001	89.549	225	
S2.58	90.966	1.540	Open Manhole	1200	21.003	89.426	225	21.002	89.426	225	
S2.59	90.049	0.880	Open Manhole	1240 x 675	21.004	89.169	225	21.003	89.169	225	
S2.O2	89.440	0.439	Open Manhole	0		OUTFALL		21.004	89.001	225	

Manhole Schedules for SW 02

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
S2.01	568125.708	246594.478	568125.708	246594.478	Required	
S2.02	568145.669	246596.112			No Entry	
S2.03	568152.091	246512.415			No Entry	
S2.04	568184.938	246510.943			No Entry	
S2.05	568369.867	246510.991	568369.867	246510.991	Required	
S2.06	568302.172	246684.001	568302.172	246684.001	Required	
S2.07	568277.636	246679.265	568277.636	246679.265	Required	
S2.08	568300.068	246674.564	568300.068	246674.564	Required	
S2.09	568305.799	246661.401	568305.799	246661.401	Required	
S2.11	568310.917	246587.222	568310.917	246587.222	Required	
S2.10	568302.079	246589.327	568302.079	246589.327	Required	
S2.12	568298.942	246576.155	568298.942	246576.155	Required	
S2.13	568298.677	246505.611	568298.677	246505.611	Required	
S2.14	568265.534	246513.046			No Entry	
S2.15	568265.704	246504.112	568265.704	246504.112	Required	

Manhole Schedules for SW 02

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
S2.16	568185.070	246503.118	568185.070	246503.118	Required	
S2.18	568084.788	246487.779	568084.788	246487.779	Required	
S2.19	568133.156	246508.602	568133.156	246508.602	Required	
S2.20	568134.544	246499.124	568134.544	246499.124	Required	
S2.21	568149.410	246499.703	568149.410	246499.703	Required	
S2.22	568149.538	246486.393			No Entry	
S2.23	568156.202	246314.486			No Entry	
S2.24	568142.355	246673.480	568142.355	246673.480	Required	
S2.25	568113.887	246662.131	568113.887	246662.131	Required	
S2.26	568018.417	246606.812	568018.417	246606.812	Required	
S2.27	567994.608	246573.279			No Entry	
S2.29	567973.420	246576.316	567973.420	246576.316	Required	
S2.30	567962.022	246549.081	567962.022	246549.081	Required	
S2.31	567966.921	246524.434	567966.921	246524.434	Required	
S2.32	567982.581	246498.710	567982.581	246498.710	Required	

Manhole Schedules for SW 02

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
S2.33	568049.109	246469.116			No Entry	
S2.34	568046.184	246477.632	568046.184	246477.632	Required	
S2.35	567995.563	246464.438	567995.563	246464.438	Required	
S2.36	568007.329	246429.085	568007.329	246429.085	Required	
S2.37	568013.217	246402.738	568013.217	246402.738	Required	
S2.38	568024.358	246376.441	568024.358	246376.441	Required	
S2.39	568044.207	246352.551	568044.207	246352.551	Required	
S2.40	568056.960	246332.033	568056.960	246332.033	Required	
S2.41	568103.355	246315.117	568103.355	246315.117	Required	
S2.42	568184.652	246324.569	568184.652	246324.569	Required	
S2.43	568153.985	246286.455	568153.985	246286.455	Required	
S2.44	568161.916	246244.068			No Entry	
S2.45	568158.258	246217.604			No Entry	
S2.46	568171.633	246209.207			No Entry	
S2.47	568178.321	246205.008			No Entry	

Manhole Schedules for SW 02

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
S2.48	568185.009	246200.810			No Entry	
S2.49	568254.099	246138.256			No Entry	
S2.50	568264.180	246131.014			No Entry	
S2.51	568324.689	246095.025			No Entry	
S2.52	568327.336	246096.035			No Entry	
S2.53 FC	568338.519	246093.697	568338.519	246093.697	Required	
S2.O1	568371.617	246088.353			No Entry	
S2.55	568067.430	246308.601	568067.430	246308.601	Required	
S2.56	568069.066	246271.727	568069.066	246271.727	Required	
S2.57	568081.897	246240.438	568081.897	246240.438	Required	
S2.58	568084.693	246219.048	568084.693	246219.048	Required	
S2.59	568121.766	246193.455	568121.766	246193.455	Required	
S2.O2	568157.643	246181.753			No Entry	

PIPELINE SCHEDULES for SW 02

Upstream Manhole

- Indicates pipe length does not match coordinates

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
8.000	o	300	S2.01	96.579	95.528	0.751	Open Manhole	1240 x 675
8.001	-1	-1	S2.02	96.041	95.360	-0.019	Junction	
8.002	o	450	S2.03	94.355	93.700	0.205	Junction	
9.000	o	375	S2.04	94.500	93.680	0.445	Junction	
10.000	o	225	S2.05	97.630	95.801	1.604	Open Manhole	1200
11.000	o	300	S2.06	99.392	97.266	1.826	Open Manhole	1200
12.000	o	225	S2.07	99.150	97.757	1.168	Open Manhole	1200
11.001	o	300	S2.08	99.361	97.164	1.897	Open Manhole	1200
11.002	o	300	S2.09	99.320	97.076	1.944	Open Manhole	1200
13.000	o	450	S2.11	97.997	96.050	1.497	Open Manhole	1500
11.003	o	525	S2.10	98.152	95.695	1.932	Open Manhole	1500
11.004	o	525	S2.12	97.942	95.158	2.259	Open Manhole	1500

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
8.000	20.028	119.2	S2.02	96.041	95.360	0.381	Junction	
8.001	83.942	50.6	S2.03	94.355	93.700	-0.045	Junction	
8.002	12.992	48.8	S2.21	94.850	93.434	0.966	Open Manhole	2400
9.000	10.424#	434.3	S2.16	94.912	93.656	0.881	Open Manhole	1800
10.000	81.720#	56.8	S2.13	97.134	94.363	2.546	Open Manhole	1500
11.000	9.668	94.8	S2.08	99.361	97.164	1.897	Open Manhole	1200
12.000	22.919	44.2	S2.08	99.361	97.239	1.897	Open Manhole	1200
11.001	14.356	163.1	S2.09	99.320	97.076	1.944	Open Manhole	1200
11.002	72.170	62.4	S2.10	98.152	95.920	1.932	Open Manhole	1500
13.000	9.085	32.4	S2.10	98.152	95.770	1.932	Open Manhole	1500
11.003	13.540	25.2	S2.12	97.942	95.158	2.259	Open Manhole	1500
11.004	70.545	69.2	S2.13	97.134	94.138	2.471	Open Manhole	1500

PIPELINE SCHEDULES for SW 02

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
10.001	o	525	S2.13	97.134	94.138	2.471	Open Manhole	1500
14.000	o	225	S2.14	96.554	94.370	1.959	Junction	
10.002	o	600	S2.15	96.827	93.902	2.325	Open Manhole	1500
9.001	o	750	S2.16	94.912	93.281	0.881	Open Manhole	1800
15.000	o	450	S2.18	96.180	93.604	2.126	Open Manhole	1500
16.000	o	450	S2.19	94.973	93.494	1.029	Open Manhole	1500
15.001	o	450	S2.20	95.146	93.468	1.228	Open Manhole	1500
8.003	oo	750	S2.21	94.850	93.134	0.966	Open Manhole	2400
8.004	-1	-1	S2.22	93.870	93.050	0.120	Junction	
8.005	ooo	450	S2.23	91.063	89.600	1.013	Junction	
17.000	o	225	S2.24	97.293	95.871	1.197	Open Manhole	1200
17.001	o	375	S2.25	97.936	95.433	2.128	Open Manhole	1500

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
10.001	33.008	205.0	S2.15	96.827	93.977	2.325	Open Manhole	1500
14.000	8.935	96.1	S2.15	96.827	94.277	2.325	Open Manhole	1500
10.002	80.640	171.2	S2.16	94.912	93.431	0.881	Open Manhole	1800
9.001	35.824	243.7	S2.21	94.850	93.134	0.966	Open Manhole	2400
15.000	51.033	375.2	S2.20	95.146	93.468	1.228	Open Manhole	1500
16.000	9.579	368.4	S2.20	95.146	93.468	1.228	Open Manhole	1500
15.001	14.877	437.6	S2.21	94.850	93.434	0.966	Open Manhole	2400
8.003	16.820#	200.2	S2.22	93.870	93.050	0.070	Junction	
8.004	172.036	49.9	S2.23	91.063	89.600	0.763	Junction	
8.005	28.119	453.5	S2.43	91.063	89.538	1.075	Open Manhole	3000
17.000	30.646	106.4	S2.25	97.936	95.583	2.128	Open Manhole	1500
17.001	110.339	364.2	S2.26	98.730	95.130	3.225	Open Manhole	1500

PIPELINE SCHEDULES for SW 02

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
17.002	o	375	S2.26	98.730	95.130	3.225	Open Manhole	1500
18.000	o	450	S2.27	97.183	95.761	0.972	Junction	
17.003	o	450	S2.29	96.918	94.855	1.613	Open Manhole	1500
17.004	o	525	S2.30	96.175	94.413	1.237	Open Manhole	1500
17.005	o	525	S2.31	95.906	94.137	1.244	Open Manhole	1500
17.006	o	525	S2.32	95.621	93.850	1.246	Open Manhole	1500
19.000	o	225	S2.33	95.477	93.957	1.295	Junction	
19.001	o	225	S2.34	95.792	93.807	1.760	Open Manhole	1200
17.007	o	525	S2.35	94.892	92.700	1.667	Open Manhole	1500
17.008	o	600	S2.36	94.014	91.993	1.421	Open Manhole	1500
17.009	o	750	S2.37	93.253	91.052	1.451	Open Manhole	1800
17.010	o	750	S2.38	92.529	90.588	1.191	Open Manhole	1800
17.011	o	750	S2.39	92.256	90.321	1.185	Open Manhole	1800
17.012	o	750	S2.40	92.199	90.261	1.188	Open Manhole	1800
17.013	o	750	S2.41	91.095	89.841	0.504	Open Manhole	1800
20.000	o	525	S2.42	91.567	90.093	0.949	Open Manhole	1240 x 975

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
17.002	54.358	271.8	S2.29	96.918	94.930	1.613	Open Manhole	1500
18.000	21.405	24.8	S2.29	96.918	94.899	1.569	Open Manhole	1500
17.003	29.524	80.4	S2.30	96.175	94.488	1.237	Open Manhole	1500
17.004	25.129	91.0	S2.31	95.906	94.137	1.244	Open Manhole	1500
17.005	30.116	104.9	S2.32	95.621	93.850	1.246	Open Manhole	1500
17.006	36.648	31.9	S2.35	94.892	92.700	1.667	Open Manhole	1500
19.000	9.004	60.0	S2.34	95.792	93.807	1.760	Open Manhole	1200
19.001	52.312	64.8	S2.35	94.892	93.000	1.667	Open Manhole	1500
17.007	37.260	59.0	S2.36	94.014	92.068	1.421	Open Manhole	1500
17.008	26.998	34.1	S2.37	93.253	91.202	1.451	Open Manhole	1800
17.009	28.559	61.5	S2.38	92.529	90.588	1.191	Open Manhole	1800
17.010	31.060	116.3	S2.39	92.256	90.321	1.185	Open Manhole	1800
17.011	24.158	402.6	S2.40	92.199	90.261	1.188	Open Manhole	1800
17.012	49.383	117.6	S2.41	91.095	89.841	0.504	Open Manhole	1800
17.013	58.180	255.2	S2.43	91.063	89.613	0.700	Open Manhole	3000
20.000	48.920	191.8	S2.43	91.063	89.838	0.700	Open Manhole	3000

PIPELINE SCHEDULES for SW 02

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
8.006	o	900	S2.43	91.063	89.538	0.625	Open Manhole	3000
8.007	4 \=/	6000	S2.44	89.700	88.562	0.988	Junction	
8.008	4 \=/	6000	S2.45	89.700	88.102	1.448	Junction	
8.009	o	375	S2.46	89.700	87.900	1.425	Junction	
8.010	4 \=/	6000	S2.47	89.700	87.238	2.312	Junction	
8.011	4 \=/	6000	S2.48	88.500	87.088	1.262	Junction	
8.012	o	300	S2.49	88.500	86.740	1.460	Junction	
8.013	o	300	S2.50	87.400	86.240	0.860	Junction	
8.014	o	300	S2.51	87.400	85.700	1.400	Junction	
8.015	o	300	S2.52	87.400	85.600	1.500	Junction	
8.016	o	300	S2.53 FC	87.400	85.408	1.692	Open Manhole	1500
21.000	o	225	S2.55	92.066	90.590	1.251	Open Manhole	1200
21.001	o	225	S2.56	91.492	90.086	1.181	Open Manhole	1200
21.002	o	225	S2.57	90.937	89.549	1.163	Open Manhole	1200
21.003	o	225	S2.58	90.966	89.426	1.315	Open Manhole	1200
21.004	o	225	S2.59	90.049	89.169	0.655	Open Manhole	1240 x 675

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
8.006	43.122	44.2	S2.44	89.700	88.562	0.238	Junction	
8.007	26.716	58.1	S2.45	89.700	88.102	1.448	Junction	
8.008	15.793	78.2	S2.46	89.700	87.900	1.650	Junction	
8.009	7.896	8.2	S2.47	89.700	86.938	2.387	Junction	
8.010	7.896	52.6	S2.48	88.500	87.088	1.262	Junction	
8.011	93.201	267.8	S2.49	88.500	86.740	1.610	Junction	
8.012	12.413	24.8	S2.50	87.400	86.240	0.860	Junction	
8.013	70.403	130.4	S2.51	87.400	85.700	1.400	Junction	
8.014	2.832	28.3	S2.52	87.400	85.600	1.500	Junction	
8.015	11.425	59.5	S2.53 FC	87.400	85.408	1.692	Open Manhole	1500
8.016	33.527	13.9	S2.O1	85.450	83.000	2.150	Open Manhole	0
21.000	36.910	73.2	S2.56	91.492	90.086	1.181	Open Manhole	1200
21.001	33.818	63.0	S2.57	90.937	89.549	1.163	Open Manhole	1200
21.002	21.572	175.4	S2.58	90.966	89.426	1.315	Open Manhole	1200
21.003	45.049	175.3	S2.59	90.049	89.169	0.655	Open Manhole	1240 x 675
21.004	37.737	224.6	S2.O2	89.440	89.001	0.214	Open Manhole	0

Area Summary for SW 02

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
8.000	-	-	100	0.390	0.390	0.390
8.001	-	-	100	0.000	0.000	0.000
8.002	-	-	100	0.293	0.293	0.293
9.000	-	-	100	0.457	0.457	0.457
10.000	-	-	100	0.149	0.149	0.149
11.000	-	-	100	0.238	0.238	0.238
12.000	-	-	100	0.063	0.063	0.063
11.001	-	-	100	0.000	0.000	0.000
11.002	-	-	100	0.129	0.129	0.129
13.000	-	-	100	0.691	0.691	0.691
11.003	-	-	100	0.105	0.105	0.105
11.004	-	-	100	0.194	0.194	0.194
10.001	-	-	100	0.128	0.128	0.128
14.000	-	-	100	0.290	0.290	0.290
10.002	-	-	100	0.090	0.090	0.090
9.001	-	-	100	0.059	0.059	0.059
15.000	-	-	100	0.420	0.420	0.420
16.000	-	-	100	0.000	0.000	0.000
15.001	-	-	100	0.016	0.016	0.016
8.003	-	-	100	0.000	0.000	0.000
8.004	-	-	100	0.161	0.161	0.161
8.005	-	-	100	0.000	0.000	0.000
17.000	-	-	100	0.049	0.049	0.049
17.001	-	-	100	0.125	0.125	0.125
17.002	-	-	100	0.192	0.192	0.192
18.000	-	-	100	0.000	0.000	0.000
17.003	-	-	100	0.054	0.054	0.054
17.004	-	-	100	0.017	0.017	0.017
17.005	-	-	100	0.016	0.016	0.016
17.006	-	-	100	0.046	0.046	0.046
19.000	-	-	100	0.081	0.081	0.081
19.001	-	-	100	0.106	0.106	0.106
17.007	-	-	100	0.363	0.363	0.363
17.008	-	-	100	0.153	0.153	0.153
17.009	-	-	100	0.018	0.018	0.018
17.010	-	-	100	0.320	0.320	0.320
17.011	-	-	100	0.046	0.046	0.046
17.012	-	-	100	0.000	0.000	0.000
17.013	-	-	100	0.208	0.208	0.208
20.000	-	-	100	1.360	1.360	1.360
8.006	-	-	100	0.000	0.000	0.000
8.007	-	-	100	0.000	0.000	0.000
8.008	-	-	100	0.000	0.000	0.000
8.009	-	-	100	0.000	0.000	0.000
8.010	-	-	100	0.000	0.000	0.000
8.011	-	-	100	0.000	0.000	0.000
8.012	-	-	100	0.000	0.000	0.000
8.013	-	-	100	0.000	0.000	0.000
8.014	-	-	100	0.000	0.000	0.000
8.015	-	-	100	0.000	0.000	0.000
8.016	-	-	100	0.000	0.000	0.000

Area Summary for SW 02

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
21.000	-	-	100	0.033	0.033	0.033
21.001	-	-	100	0.037	0.037	0.037
21.002	-	-	100	0.057	0.057	0.057
21.003	-	-	100	0.000	0.000	0.000
21.004	-	-	100	0.000	0.000	0.000
				Total	Total	Total
				7.154	7.154	7.154

Simulation Criteria for SW 02

Volumetric Runoff Coeff	0.840	Additional Flow - % of Total Flow	0.000
Areal Reduction Factor	1.000	MADD Factor * 10m³/ha Storage	1.000
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)	10080
Foul Sewage per hectare (l/s)	0.000	Output Interval (mins)	2

Number of Input Hydrographs	0	Number of Storage Structures	3
Number of Online Controls	1	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	Winter
Return Period (years)	100	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	21.000	Storm Duration (mins)	15
Ratio R	0.430		

Online Controls for SW 02

Complex Manhole: S2.53 FC, DS/PN: 8.016, Volume (m³): 4.3

Orifice

Diameter (m) 0.075 Discharge Coefficient 0.600 Invert Level (m) 85.408

Orifice

Diameter (m) 0.180 Discharge Coefficient 0.600 Invert Level (m) 86.608

Storage Structures for SW 02

Tank or Pond Manhole: S2.46, DS/PN: 8.009

Invert Level (m) 87.900

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	6.4	0.500	686.0	1.000	1490.0	1.500	3000.7
0.250	272.3	0.750	1066.0	1.250	2154.0		

Tank or Pond Manhole: S2.49, DS/PN: 8.012

Invert Level (m) 86.740

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	1.8	0.500	388.5	1.000	1002.9	1.500	3547.0
0.250	233.9	0.750	612.6	1.250	2256.3		

Tank or Pond Manhole: S2.53 FC, DS/PN: 8.016

Invert Level (m) 85.590

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	201.0	0.500	1301.0	1.000	2764.0	1.500	4050.0
0.250	779.6	0.750	2127.0	1.250	3314.0		

1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW 02

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	1.000
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	3
Number of Online Controls	1	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	0.430
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	21.000	Cv (Winter)	0.840

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

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

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.
8.000	S2.01	15 Winter	1	+0%	100/15 Summer			
8.001	S2.02	15 Winter	1	+0%				
8.002	S2.03	15 Winter	1	+0%	30/15 Summer	100/15 Summer		
9.000	S2.04	15 Winter	1	+0%				
10.000	S2.05	15 Winter	1	+0%	100/15 Summer			
11.000	S2.06	15 Winter	1	+0%	30/15 Summer	100/15 Summer		
12.000	S2.07	15 Winter	1	+0%	100/15 Summer	100/15 Summer		
11.001	S2.08	15 Winter	1	+0%	30/15 Summer			
11.002	S2.09	15 Winter	1	+0%	100/15 Summer			
13.000	S2.11	15 Winter	1	+0%	100/15 Summer	100/15 Summer		
11.003	S2.10	15 Winter	1	+0%	30/15 Winter			
11.004	S2.12	15 Winter	1	+0%	30/15 Summer			
10.001	S2.13	15 Winter	1	+0%	30/15 Summer			
14.000	S2.14	15 Winter	1	+0%				
10.002	S2.15	15 Winter	1	+0%	30/15 Summer			
9.001	S2.16	15 Winter	1	+0%	30/15 Summer			
15.000	S2.18	15 Winter	1	+0%	100/15 Summer			
16.000	S2.19	15 Winter	1	+0%	100/15 Summer			
15.001	S2.20	15 Winter	1	+0%	100/15 Summer			

1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW 02

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
8.000	S2.01	95.660	-0.168	0.000	0.40		35.7	OK	
8.001	S2.02	95.441	-0.619	0.000	0.01		35.5	OK	
8.002	S2.03	93.939	-0.211	0.000	0.55		64.7	OK*	6
9.000	S2.04	93.964	-0.091	0.000	0.92		73.1	OK*	
10.000	S2.05	95.869	-0.157	0.000	0.20		13.6	OK	
11.000	S2.06	97.389	-0.177	0.000	0.35		28.2	OK	2
12.000	S2.07	97.805	-0.177	0.000	0.10		7.5	OK	4
11.001	S2.08	97.313	-0.151	0.000	0.49		35.7	OK	
11.002	S2.09	97.204	-0.172	0.000	0.38		51.0	OK	
13.000	S2.11	96.240	-0.260	0.000	0.37		111.1	OK	3
11.003	S2.10	95.894	-0.326	0.000	0.30		168.8	OK	
11.004	S2.12	95.377	-0.306	0.000	0.36		192.6	OK	
10.001	S2.13	94.483	-0.180	0.000	0.76		216.5	OK	
14.000	S2.14	94.595	0.000	0.000	1.08		46.6	SURCHARGED*	
10.002	S2.15	94.225	-0.277	0.000	0.55		263.4	OK	
9.001	S2.16	93.675	-0.356	0.000	0.54		326.9	OK	
15.000	S2.18	93.760	-0.294	0.000	0.25		38.1	OK	
16.000	S2.19	93.666	-0.278	0.000	0.01		0.7	OK	
15.001	S2.20	93.666	-0.252	0.000	0.40		38.9	OK	

1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW 02

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.
8.003	S2.21	15 Winter	1	+0%	100/15 Summer			
8.004	S2.22	15 Winter	1	+0%				
8.005	S2.23	15 Winter	1	+0%	30/15 Summer			
17.000	S2.24	15 Winter	1	+0%				
17.001	S2.25	15 Winter	1	+0%	100/15 Summer			
17.002	S2.26	15 Winter	1	+0%	100/15 Summer			
18.000	S2.27	60 Winter	1	+0%				
17.003	S2.29	15 Winter	1	+0%				
17.004	S2.30	15 Winter	1	+0%				
17.005	S2.31	15 Winter	1	+0%				
17.006	S2.32	15 Winter	1	+0%				
19.000	S2.33	15 Winter	1	+0%				
19.001	S2.34	15 Winter	1	+0%	30/15 Summer			
17.007	S2.35	15 Winter	1	+0%				
17.008	S2.36	15 Winter	1	+0%				
17.009	S2.37	15 Winter	1	+0%				
17.010	S2.38	15 Winter	1	+0%	100/15 Summer			
17.011	S2.39	15 Winter	1	+0%	100/15 Summer			
17.012	S2.40	15 Winter	1	+0%	100/15 Winter			
17.013	S2.41	15 Winter	1	+0%	100/15 Summer			
20.000	S2.42	15 Winter	1	+0%	100/15 Summer			
8.006	S2.43	15 Winter	1	+0%	100/15 Winter			
8.007	S2.44	15 Winter	1	+0%				
8.008	S2.45	30 Winter	1	+0%				
8.009	S2.46	30 Winter	1	+0%	1/15 Summer			
8.010	S2.47	60 Winter	1	+0%				
8.011	S2.48	60 Winter	1	+0%				
8.012	S2.49	60 Winter	1	+0%	1/15 Summer			
8.013	S2.50	60 Winter	1	+0%				
8.014	S2.51	60 Winter	1	+0%				
8.015	S2.52	60 Winter	1	+0%				
8.016	S2.53 FC	960 Winter	1	+0%	1/15 Summer			
21.000	S2.55	15 Winter	1	+0%	100/15 Winter			
21.001	S2.56	15 Winter	1	+0%	100/15 Summer			
21.002	S2.57	15 Winter	1	+0%	30/15 Summer			
21.003	S2.58	15 Winter	1	+0%	30/15 Summer			
21.004	S2.59	15 Winter	1	+0%	30/15 Summer			

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
8.003	S2.21	93.436	-0.448	0.000	0.36		421.5	OK	
8.004	S2.22	93.327	-0.423	0.000	0.11		402.8	OK	
8.005	S2.23	89.964	-0.086	0.000	0.88		399.0	OK*	
17.000	S2.24	95.917	-0.179	0.000	0.10		4.5	OK	
17.001	S2.25	95.546	-0.262	0.000	0.18		17.7	OK	

1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW 02

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
17.002	S2.26	95.284	-0.221	0.000	0.35		39.3	OK	
18.000	S2.27	95.761	-0.450	0.000	0.00		0.0	OK*	
17.003	S2.29	94.969	-0.336	0.000	0.15		45.2	OK	
17.004	S2.30	94.532	-0.406	0.000	0.12		46.8	OK	
17.005	S2.31	94.259	-0.403	0.000	0.12		48.7	OK	
17.006	S2.32	93.943	-0.432	0.000	0.07		53.6	OK	
19.000	S2.33	94.031	-0.151	0.000	0.24		13.0	OK*	
19.001	S2.34	93.910	-0.122	0.000	0.42		26.3	OK	
17.007	S2.35	92.867	-0.358	0.000	0.22		119.0	OK	
17.008	S2.36	92.151	-0.442	0.000	0.15		137.4	OK	
17.009	S2.37	91.233	-0.569	0.000	0.13		138.8	OK	
17.010	S2.38	90.827	-0.511	0.000	0.22		177.6	OK	
17.011	S2.39	90.652	-0.419	0.000	0.40		182.4	OK	
17.012	S2.40	90.481	-0.530	0.000	0.19		181.6	OK	
17.013	S2.41	90.124	-0.467	0.000	0.30		199.9	OK	
20.000	S2.42	90.323	-0.295	0.000	0.40		124.4	OK	
8.006	S2.43	89.887	-0.551	0.000	0.32		713.2	OK	
8.007	S2.44	88.704	-0.996	0.000	0.02		712.1	OK	
8.008	S2.45	88.375	-1.325	0.000	0.01		636.4	OK	
8.009	S2.46	88.366	0.091	0.000	1.03		397.1	SURCHARGED*	
8.010	S2.47	87.362	-2.338	0.000	0.00		382.8	OK	
8.011	S2.48	87.360	-1.140	0.000	0.02		380.0	OK	
8.012	S2.49	87.343	0.303	0.000	0.65		114.7	SURCHARGED*	
8.013	S2.50	86.540	0.000	0.000	1.18		114.5	SURCHARGED*	
8.014	S2.51	86.000	0.000	0.000	1.44		113.8	SURCHARGED*	
8.015	S2.52	85.900	0.000	0.000	1.04		113.7	SURCHARGED*	
8.016	S2.53 FC	86.490	0.782	0.000	0.04		12.0	SURCHARGED	
21.000	S2.55	90.636	-0.179	0.000	0.09		5.3	OK	
21.001	S2.56	90.146	-0.165	0.000	0.16		9.8	OK	
21.002	S2.57	89.660	-0.114	0.000	0.48		17.1	OK	
21.003	S2.58	89.532	-0.119	0.000	0.44		16.6	OK	
21.004	S2.59	89.282	-0.112	0.000	0.50		16.2	OK	

30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW 02

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	1.000
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	3
Number of Online Controls	1	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	0.430
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	21.000	Cv (Winter)	0.840

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

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

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.
8.000	S2.01	15 Winter	30	+0%	100/15 Summer			
8.001	S2.02	15 Winter	30	+0%				
8.002	S2.03	15 Winter	30	+0%	30/15 Summer	100/15 Summer		
9.000	S2.04	30 Winter	30	+0%				
10.000	S2.05	15 Winter	30	+0%	100/15 Summer			
11.000	S2.06	15 Winter	30	+0%	30/15 Summer	100/15 Summer		
12.000	S2.07	15 Winter	30	+0%	100/15 Summer	100/15 Summer		
11.001	S2.08	15 Winter	30	+0%	30/15 Summer			
11.002	S2.09	15 Winter	30	+0%	100/15 Summer			
13.000	S2.11	15 Winter	30	+0%	100/15 Summer	100/15 Summer		
11.003	S2.10	15 Winter	30	+0%	30/15 Winter			
11.004	S2.12	15 Winter	30	+0%	30/15 Summer			
10.001	S2.13	15 Winter	30	+0%	30/15 Summer			
14.000	S2.14	30 Winter	30	+0%				
10.002	S2.15	15 Winter	30	+0%	30/15 Summer			
9.001	S2.16	15 Winter	30	+0%	30/15 Summer			
15.000	S2.18	15 Winter	30	+0%	100/15 Summer			
16.000	S2.19	15 Winter	30	+0%	100/15 Summer			
15.001	S2.20	15 Winter	30	+0%	100/15 Summer			

30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW 02

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
8.000	S2.01	95.766	-0.062	0.000	0.99		87.7	OK	
8.001	S2.02	95.481	-0.579	0.000	0.02		87.2	OK	
8.002	S2.03	94.220	0.070	0.000	1.16		136.4	FLOOD RISK*	6
9.000	S2.04	94.055	0.000	0.000	1.67		132.2	SURCHARGED*	
10.000	S2.05	95.913	-0.113	0.000	0.49		33.3	OK	
11.000	S2.06	97.600	0.034	0.000	0.87		69.3	SURCHARGED	2
12.000	S2.07	97.834	-0.148	0.000	0.26		18.4	OK	4
11.001	S2.08	97.491	0.027	0.000	1.21		87.6	SURCHARGED	
11.002	S2.09	97.311	-0.065	0.000	0.93		124.9	OK	
13.000	S2.11	96.422	-0.078	0.000	0.91		271.8	OK	3
11.003	S2.10	96.260	0.040	0.000	0.73		411.9	SURCHARGED	
11.004	S2.12	96.015	0.332	0.000	0.85		457.3	SURCHARGED	
10.001	S2.13	95.323	0.660	0.000	1.76		503.8	SURCHARGED	
14.000	S2.14	94.595	0.000	0.000	1.94		83.4	SURCHARGED*	
10.002	S2.15	94.836	0.334	0.000	1.24		599.5	SURCHARGED	
9.001	S2.16	94.071	0.040	0.000	1.21		732.9	SURCHARGED	
15.000	S2.18	93.891	-0.163	0.000	0.62		93.4	OK	
16.000	S2.19	93.818	-0.126	0.000	0.01		1.1	OK	
15.001	S2.20	93.819	-0.099	0.000	0.96		93.7	OK	

30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW 02

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.
8.003	S2.21	15 Winter	30	+0%	100/15 Summer			
8.004	S2.22	15 Winter	30	+0%				
8.005	S2.23	15 Winter	30	+0%	30/15 Summer			
17.000	S2.24	15 Winter	30	+0%				
17.001	S2.25	15 Winter	30	+0%	100/15 Summer			
17.002	S2.26	15 Winter	30	+0%	100/15 Summer			
18.000	S2.27	60 Winter	30	+0%				
17.003	S2.29	15 Winter	30	+0%				
17.004	S2.30	15 Winter	30	+0%				
17.005	S2.31	15 Winter	30	+0%				
17.006	S2.32	15 Winter	30	+0%				
19.000	S2.33	15 Winter	30	+0%				
19.001	S2.34	15 Winter	30	+0%	30/15 Summer			
17.007	S2.35	15 Winter	30	+0%				
17.008	S2.36	15 Winter	30	+0%				
17.009	S2.37	15 Winter	30	+0%				
17.010	S2.38	15 Winter	30	+0%	100/15 Summer			
17.011	S2.39	15 Winter	30	+0%	100/15 Summer			
17.012	S2.40	15 Winter	30	+0%	100/15 Winter			
17.013	S2.41	15 Winter	30	+0%	100/15 Summer			
20.000	S2.42	15 Winter	30	+0%	100/15 Summer			
8.006	S2.43	15 Winter	30	+0%	100/15 Winter			
8.007	S2.44	30 Winter	30	+0%				
8.008	S2.45	30 Winter	30	+0%				
8.009	S2.46	30 Winter	30	+0%	1/15 Summer			
8.010	S2.47	240 Winter	30	+0%				
8.011	S2.48	240 Winter	30	+0%				
8.012	S2.49	240 Winter	30	+0%	1/15 Summer			
8.013	S2.50	60 Winter	30	+0%				
8.014	S2.51	60 Winter	30	+0%				
8.015	S2.52	60 Winter	30	+0%				
8.016	S2.53 FC	960 Winter	30	+0%	1/15 Summer			
21.000	S2.55	15 Winter	30	+0%	100/15 Winter			
21.001	S2.56	15 Winter	30	+0%	100/15 Summer			
21.002	S2.57	15 Winter	30	+0%	30/15 Summer			
21.003	S2.58	15 Winter	30	+0%	30/15 Summer			
21.004	S2.59	15 Winter	30	+0%	30/15 Summer			

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
8.003	S2.21	93.677	-0.207	0.000	0.81		955.6	OK	
8.004	S2.22	93.447	-0.303	0.000	0.24		913.3	OK	
8.005	S2.23	90.382	0.332	0.000	2.00		905.4	SURCHARGED*	
17.000	S2.24	95.944	-0.152	0.000	0.23		11.0	OK	
17.001	S2.25	95.639	-0.169	0.000	0.49		49.3	OK	

30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW 02

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
17.002	S2.26	95.435	-0.070	0.000	0.98		109.8	OK	
18.000	S2.27	95.761	-0.450	0.000	0.00		0.0	OK*	
17.003	S2.29	95.056	-0.249	0.000	0.40		124.3	OK	
17.004	S2.30	94.619	-0.319	0.000	0.32		129.3	OK	
17.005	S2.31	94.349	-0.313	0.000	0.34		134.2	OK	
17.006	S2.32	94.010	-0.365	0.000	0.20		146.7	OK	
19.000	S2.33	94.182	0.000	0.000	0.54		29.5	SURCHARGED*	
19.001	S2.34	94.202	0.170	0.000	1.10		68.1	SURCHARGED	
17.007	S2.35	93.006	-0.219	0.000	0.62		336.6	OK	
17.008	S2.36	92.277	-0.316	0.000	0.44		391.1	OK	
17.009	S2.37	91.374	-0.428	0.000	0.38		400.0	OK	
17.010	S2.38	91.154	-0.184	0.000	0.61		495.8	OK	
17.011	S2.39	91.071	0.000	0.000	1.10		498.6	OK	
17.012	S2.40	90.649	-0.362	0.000	0.52		500.6	OK	
17.013	S2.41	90.363	-0.228	0.000	0.81		537.6	OK	
20.000	S2.42	90.508	-0.110	0.000	0.98		304.7	OK	
8.006	S2.43	90.108	-0.330	0.000	0.73		1615.2	OK	
8.007	S2.44	88.889	-0.811	0.000	0.05		1510.2	OK	
8.008	S2.45	88.866	-0.834	0.000	0.03		1337.6	OK	
8.009	S2.46	88.851	0.576	0.000	1.25		478.1	SURCHARGED*	
8.010	S2.47	87.847	-1.853	0.000	0.00		363.9	OK	
8.011	S2.48	87.843	-0.657	0.000	0.02		356.6	OK	
8.012	S2.49	87.807	0.767	0.000	0.66		116.4	SURCHARGED*	
8.013	S2.50	86.540	0.000	0.000	1.25		121.3	SURCHARGED*	
8.014	S2.51	86.000	0.000	0.000	1.53		121.2	SURCHARGED*	
8.015	S2.52	85.900	0.000	0.000	1.10		121.1	SURCHARGED*	
8.016	S2.53 FC	86.841	1.133	0.000	0.14		38.0	SURCHARGED	
21.000	S2.55	90.662	-0.153	0.000	0.23		13.0	OK	
21.001	S2.56	90.191	-0.120	0.000	0.44		27.3	OK	
21.002	S2.57	89.928	0.154	0.000	1.26		44.9	SURCHARGED	
21.003	S2.58	89.758	0.107	0.000	1.11		41.6	SURCHARGED	
21.004	S2.59	89.458	0.064	0.000	1.19		38.9	SURCHARGED	

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW 02

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	1.000
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	3
Number of Online Controls	1	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	0.430
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	21.000	Cv (Winter)	0.840

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

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

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.
8.000	S2.01	15 Winter	100	+30%	100/15 Summer			
8.001	S2.02	15 Winter	100	+30%				
8.002	S2.03	30 Winter	100	+30%	30/15 Summer	100/15 Summer		
9.000	S2.04	60 Winter	100	+30%				
10.000	S2.05	15 Winter	100	+30%	100/15 Summer			
11.000	S2.06	15 Winter	100	+30%	30/15 Summer	100/15 Summer		
12.000	S2.07	15 Winter	100	+30%	100/15 Summer	100/15 Summer		
11.001	S2.08	15 Summer	100	+30%	30/15 Summer			
11.002	S2.09	15 Summer	100	+30%	100/15 Summer			
13.000	S2.11	15 Winter	100	+30%	100/15 Summer	100/15 Summer		
11.003	S2.10	15 Winter	100	+30%	30/15 Winter			
11.004	S2.12	15 Winter	100	+30%	30/15 Summer			
10.001	S2.13	15 Winter	100	+30%	30/15 Summer			
14.000	S2.14	120 Winter	100	+30%				
10.002	S2.15	15 Winter	100	+30%	30/15 Summer			
9.001	S2.16	15 Winter	100	+30%	30/15 Summer			
15.000	S2.18	15 Winter	100	+30%	100/15 Summer			
16.000	S2.19	15 Winter	100	+30%	100/15 Summer			
15.001	S2.20	15 Winter	100	+30%	100/15 Summer			

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW 02

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
8.000	S2.01	96.115	0.287	0.000	1.67		147.9	SURCHARGED	
8.001	S2.02	95.523	-0.537	0.000	0.04		147.1	OK	
8.002	S2.03	94.384	0.234	29.248	1.40		165.2	FLOOD	6
9.000	S2.04	94.055	0.000	0.000	1.81		143.4	SURCHARGED*	
10.000	S2.05	97.412	1.386	0.000	0.95		63.7	FLOOD RISK	
11.000	S2.06	99.394	1.828	2.193	1.54		122.9	FLOOD	2
12.000	S2.07	99.159	1.177	9.686	1.20		86.2	FLOOD	4
11.001	S2.08	99.274	1.810	0.000	2.05		148.3	FLOOD RISK	
11.002	S2.09	99.192	1.816	0.000	1.27		171.2	FLOOD RISK	
13.000	S2.11	98.022	1.522	24.970	1.15		344.4	FLOOD	3
11.003	S2.10	97.890	1.670	0.000	0.81		456.9	FLOOD RISK	
11.004	S2.12	97.621	1.938	0.000	1.03		550.5	SURCHARGED	
10.001	S2.13	96.664	2.001	0.000	2.22		637.1	SURCHARGED	
14.000	S2.14	94.595	0.000	0.000	1.30		55.9	SURCHARGED*	
10.002	S2.15	95.894	1.392	0.000	1.72		829.2	SURCHARGED	
9.001	S2.16	94.453	0.422	0.000	1.80		1090.8	SURCHARGED	
15.000	S2.18	94.164	0.110	0.000	1.06		159.8	SURCHARGED	
16.000	S2.19	94.017	0.073	0.000	0.02		2.2	SURCHARGED	
15.001	S2.20	94.017	0.099	0.000	1.74		168.9	SURCHARGED	

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW 02

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.
8.003	S2.21	15 Winter	100	+30%	100/15 Summer			
8.004	S2.22	15 Winter	100	+30%				
8.005	S2.23	15 Winter	100	+30%	30/15 Summer			
17.000	S2.24	15 Winter	100	+30%				
17.001	S2.25	15 Winter	100	+30%	100/15 Summer			
17.002	S2.26	15 Winter	100	+30%	100/15 Summer			
18.000	S2.27	60 Winter	100	+30%				
17.003	S2.29	15 Winter	100	+30%				
17.004	S2.30	15 Winter	100	+30%				
17.005	S2.31	15 Winter	100	+30%				
17.006	S2.32	15 Winter	100	+30%				
19.000	S2.33	30 Winter	100	+30%				
19.001	S2.34	15 Winter	100	+30%	30/15 Summer			
17.007	S2.35	15 Winter	100	+30%				
17.008	S2.36	15 Winter	100	+30%				
17.009	S2.37	15 Winter	100	+30%				
17.010	S2.38	15 Winter	100	+30%	100/15 Summer			
17.011	S2.39	15 Winter	100	+30%	100/15 Summer			
17.012	S2.40	15 Winter	100	+30%	100/15 Winter			
17.013	S2.41	15 Winter	100	+30%	100/15 Summer			
20.000	S2.42	15 Winter	100	+30%	100/15 Summer			
8.006	S2.43	15 Winter	100	+30%	100/15 Winter			
8.007	S2.44	60 Winter	100	+30%				
8.008	S2.45	60 Winter	100	+30%				
8.009	S2.46	60 Winter	100	+30%	1/15 Summer			
8.010	S2.47	360 Winter	100	+30%				
8.011	S2.48	360 Winter	100	+30%				
8.012	S2.49	360 Winter	100	+30%	1/15 Summer			
8.013	S2.50	60 Winter	100	+30%				
8.014	S2.51	60 Winter	100	+30%				
8.015	S2.52	60 Winter	100	+30%				
8.016	S2.53 FC	960 Winter	100	+30%	1/15 Summer			
21.000	S2.55	15 Winter	100	+30%	100/15 Winter			
21.001	S2.56	15 Winter	100	+30%	100/15 Summer			
21.002	S2.57	15 Winter	100	+30%	30/15 Summer			
21.003	S2.58	15 Winter	100	+30%	30/15 Summer			
21.004	S2.59	15 Winter	100	+30%	30/15 Summer			

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
8.003	S2.21	93.956	0.072	0.000	1.17		1373.2	SURCHARGED	
8.004	S2.22	93.522	-0.228	0.000	0.35		1320.8	OK	
8.005	S2.23	90.968	0.918	0.000	2.87		1296.2	FLOOD RISK*	
17.000	S2.24	96.068	-0.028	0.000	0.41		19.4	OK	
17.001	S2.25	96.027	0.219	0.000	0.78		77.9	SURCHARGED	

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for SW 02

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
17.002	S2.26	95.821	0.316	0.000	1.52		171.2	SURCHARGED	
18.000	S2.27	95.761	-0.450	0.000	0.00		0.0	OK*	
17.003	S2.29	95.117	-0.188	0.000	0.63		195.1	OK	
17.004	S2.30	94.676	-0.262	0.000	0.50		201.7	OK	
17.005	S2.31	94.408	-0.254	0.000	0.52		206.4	OK	
17.006	S2.32	94.049	-0.326	0.000	0.30		224.3	OK	
19.000	S2.33	94.182	0.000	0.000	0.68		36.9	SURCHARGED*	
19.001	S2.34	95.541	1.509	0.000	1.66		103.3	FLOOD RISK	
17.007	S2.35	93.121	-0.104	0.000	0.96		525.8	OK	
17.008	S2.36	92.372	-0.221	0.000	0.70		620.8	OK	
17.009	S2.37	91.708	-0.094	0.000	0.59		631.0	OK	
17.010	S2.38	91.556	0.218	0.000	1.00		812.7	SURCHARGED	
17.011	S2.39	91.305	0.234	0.000	1.83		828.5	SURCHARGED	
17.012	S2.40	91.032	0.021	0.000	0.84		809.5	SURCHARGED	
17.013	S2.41	90.738	0.147	0.000	1.32		876.5	SURCHARGED	
20.000	S2.42	91.129	0.511	0.000	1.62		504.3	SURCHARGED	
8.006	S2.43	90.456	0.018	0.000	1.03		2293.2	SURCHARGED	
8.007	S2.44	89.324	-0.376	0.000	0.06		1903.4	OK	
8.008	S2.45	89.275	-0.425	0.000	0.03		1706.0	OK	
8.009	S2.46	89.247	0.972	0.000	1.33		510.0	SURCHARGED*	
8.010	S2.47	88.152	-1.548	0.000	0.00		364.7	OK	
8.011	S2.48	88.146	-0.354	0.000	0.02		355.8	OK	
8.012	S2.49	88.086	1.046	0.000	0.67		119.0	SURCHARGED*	
8.013	S2.50	86.540	0.000	0.000	1.29		124.9	SURCHARGED*	
8.014	S2.51	86.000	0.000	0.000	1.58		124.8	SURCHARGED*	
8.015	S2.52	85.900	0.000	0.000	1.14		124.7	SURCHARGED*	
8.016	S2.53 FC	87.058	1.350	0.000	0.20		55.5	SURCHARGED	
21.000	S2.55	90.838	0.023	0.000	0.38		21.9	SURCHARGED	
21.001	S2.56	90.797	0.486	0.000	0.55		34.1	SURCHARGED	
21.002	S2.57	90.654	0.880	0.000	1.71		61.0	FLOOD RISK	
21.003	S2.58	90.330	0.679	0.000	1.54		57.4	SURCHARGED	
21.004	S2.59	89.734	0.340	0.000	1.71		56.0	SURCHARGED	