

Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	30.00
Return Period (years)	100	Maximum Rainfall (mm/hr)	50.0
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00
FSR Region	England and Wales	Connection Type	Level Soffits
M5-60 (mm)	17.000	Minimum Backdrop Height (m)	0.200
Ratio-R	0.470	Preferred Cover Depth (m)	1.200
CV	0.750	Include Intermediate Ground	x
Time of Entry (mins)	4.00	Enforce best practice design rules	x

Inspection Chamber Manhole Type

Max Width (mm)	Diameter (mm)	Max Width (mm)	Diameter (mm)
150	450	300	600

>300 Link+99999 mm

Max Depth (m)	Diameter (mm)	Max Depth (m)	Diameter (mm)
3.000	450	99.999	99999

SSG Type B Manhole Type

Max Width (mm)	Diameter (mm)	Max Width (mm)	Diameter (mm)
374	1200	749	1500
499	1350	900	1800

>900 Link+900 mm

Max Depth (m)	Diameter (mm)	Max Depth (m)	Diameter (mm)	Max Depth (m)	Diameter (mm)
1.500	99999	3.000	1200	99.999	99999

SW-Default Cover Link Type

Template	Freeform Carrier	Follow Ground	x
Shape	Circular	Velocity	Colebrook-White
Barrels	1	ks (mm) / n	0.600
Auto Increment (mm)	75		

Available Diameters (mm)

150	225	300	375	450	525	600	675	750
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SW-500mm Cover Link Type

Template	Freeform Carrier	Preferred Cover (m)	0.500
Shape	Circular	Follow Ground	x
Barrels	1	Velocity	Colebrook-White
Auto Increment (mm)	75	ks (mm) / n	0.600

Available Diameters (mm)

150	225	300	375	450	525	600	675	750
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SW-900mm Cover Link Type

Template	Freeform Carrier	Preferred Cover (m)	0.900
Shape	Circular	Follow Ground	x
Barrels	1	Velocity	Colebrook-White
Auto Increment (mm)	75	ks (mm) / n	0.600

Available Diameters (mm)

150	225	300	375	450	525	600	675	750
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Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
SW-01	0.026	4.00	14.434	450	317913.620	478989.659	1.305
SW-02	0.013	4.00	14.450	450	317903.571	478993.174	1.549
SW-03	0.056	4.00	14.486	1200	317890.258	478991.464	1.916
SW-04	0.037	4.00	14.767	1200	317877.316	478980.023	2.537
SW-05	0.074	4.00	15.052	1800	317858.475	478981.611	2.937
SW-05_Tank	0.000	4.00	15.592	450	317859.955	478991.509	3.417
SW-06	0.000		15.193	1200	317840.515	478980.322	3.263
SW-07	0.000		12.908	1200	317781.273	478974.008	1.578
SW-08	0.000		12.812	450	317766.174	478974.735	1.637
SW-09	0.000		12.300	450	317741.283	478951.363	1.465
SW-010	0.000		10.300	450	317720.333	478939.523	0.850
SW-011	0.000		9.161	450	317699.500	478912.750	1.565
SW-013	0.000		7.000	450	317656.206	478887.303	1.370
SW-012	0.000		6.915	450	317680.000	478902.000	0.820
SW-014	0.000		5.905	450	317651.670	478881.895	0.350
SW-020	0.006	4.00	14.141	450	317906.598	478967.391	1.305
SW-021	0.019	4.00	14.099	450	317894.853	478970.757	1.487
SW-022	0.013	4.00	14.410	450	317890.431	478978.056	1.960
SW-023	0.042	4.00	15.590	450	317856.578	478989.854	1.420

Links

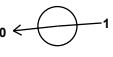
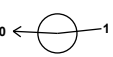
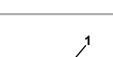
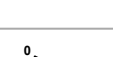
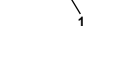
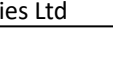
Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.001	SW-01	SW-02	10.645	0.600	13.129	12.951	0.178	59.8	100	4.18	50.0
1.002	SW-02	SW-03	13.422	0.600	12.901	12.645	0.256	52.4	150	4.34	50.0
1.003	SW-03	SW-04	17.274	0.600	12.570	12.230	0.340	50.8	225	4.50	50.0
1.004	SW-04	SW-05	18.908	0.600	12.230	12.115	0.115	164.4	225	4.88	50.0
1.005	SW-05	SW-06	17.964	0.600	12.115	11.930	0.185	97.1	150	4.68	50.0
1.006	SW-06	SW-07	59.615	0.600	11.930	11.330	0.600	99.4	150	5.89	50.0
1.007	SW-07	SW-08	15.111	0.600	11.330	11.175	0.155	97.5	150	6.12	50.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.001	0.998	7.8	3.5	1.205	1.399	0.026	0.0	47	0.974
1.002	1.392	24.6	5.3	1.399	1.691	0.039	0.0	47	1.112
1.003	1.839	73.1	12.9	1.691	2.312	0.095	0.0	64	1.394
1.004	1.017	40.4	23.0	2.312	2.712	0.170	0.0	122	1.049
1.005	1.020	18.0	38.8	2.787	3.113	0.286	0.0	150	1.039
1.006	1.008	17.8	38.8	3.113	1.428	0.286	0.0	150	1.027
1.007	1.018	18.0	38.8	1.428	1.487	0.286	0.0	150	1.037

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.008	SW-08	SW-09	34.144	0.600	11.175	10.835	0.340	100.4	150	6.81	50.0
1.009	SW-09	SW-010	24.064	0.600	10.835	9.450	1.385	17.4	150	6.95	50.0
1.0010	SW-010	SW-011	33.924	0.600	9.450	7.596	1.854	18.3	150	7.19	50.0
1.0011	SW-011	SW-012	22.267	0.600	7.600	6.095	1.505	14.8	150	7.33	50.0
1.0012	SW-012	SW-013	27.967	0.600	6.100	5.630	0.470	59.5	150	7.69	50.0
3.001	SW-023	SW-05	8.469	0.600	14.170	13.582	0.588	14.4	150	4.05	50.0
1.0013	SW-013	SW-014	7.058	0.600	5.630	5.555	0.075	94.1	150	7.87	50.0
3.000	SW-05_Tank	SW-05	10.008	0.600	12.175	12.115	0.060	166.8	225	4.17	50.0
2.004	SW-020	SW-021	12.218	0.600	12.836	12.612	0.224	54.5	100	4.19	50.0
2.005	SW-021	SW-022	8.534	0.600	12.612	12.500	0.112	76.2	100	4.36	50.0
2.006	SW-022	SW-04	13.262	0.600	12.450	12.305	0.145	91.5	150	4.57	50.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.008	1.002	17.7	38.8	1.487	1.315	0.286	0.0	150	1.021
1.009	2.428	42.9	38.8	1.315	0.700	0.286	0.0	112	2.741
1.0010	2.365	41.8	38.8	0.700	1.415	0.286	0.0	115	2.677
1.0011	2.632	46.5	38.8	1.411	0.670	0.286	0.0	105	2.938
1.0012	1.306	23.1	38.8	0.665	1.220	0.286	0.0	150	1.330
3.001	2.668	47.1	5.7	1.270	1.320	0.042	0.0	35	1.803
1.0013	1.036	18.3	38.8	1.220	0.200	0.286	0.0	150	1.055
3.000	1.009	40.1	0.0	3.192	2.712	0.000	0.0	0	0.000
2.004	1.045	8.2	0.8	1.205	1.387	0.006	0.0	21	0.667
2.005	0.882	6.9	3.4	1.387	1.810	0.025	0.0	50	0.879
2.006	1.051	18.6	5.1	1.810	2.312	0.038	0.0	54	0.903

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	MH Type	Connections	Link	IL (m)	Dia (mm)	
SW-01	317913.620	478989.659	14.434	1.305	450	Inspection Chamber		0	1.001	13.129	100
SW-02	317903.571	478993.174	14.450	1.549	450	Inspection Chamber		1	1.001	12.951	100
							0	1.002	12.901	150	
SW-03	317890.258	478991.464	14.486	1.916	1200	SSG Type B		1	1.002	12.645	150
							0	1.003	12.570	225	
SW-04	317877.316	478980.023	14.767	2.537	1200	SSG Type B		1	2.006	12.305	150
							2	1.003	12.230	225	
							0	1.004	12.230	225	
SW-05	317858.475	478981.611	15.052	2.937	1800	Inspection Chamber		1	3.001	13.582	150
							2	3.000	12.115	225	
							3	1.004	12.115	225	
							0	1.005	12.115	150	

Curtins		Curtins Consulting Ltd Units 24-25 Riverside Place, Lound Road, Kendal, LA9 7FH		File: 081617-CUR-XX-XX-T-C-00 Network: 081617_SurfaceWater Designed: CC Checked: GW Date: 04/11/25		Page 4 Project: Iron Line - Millom Surface Water Drainage Calc: 00001 Rev: P04				
Manhole Schedule										
Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	MH Type	Connections	Link	IL (m)	Dia (mm)
SW-05_Tank	317859.955	478991.509	15.592	3.417	450	Inspection Chamber				
SW-06	317840.515	478980.322	15.193	3.263	1200	SSG Type B		0 3.000	12.175	225
SW-07	317781.273	478974.008	12.908	1.578	1200	SSG Type B		0 1.005	11.930	150
SW-08	317766.174	478974.735	12.812	1.637	450	Inspection Chamber		0 1.006	11.930	150
SW-09	317741.283	478951.363	12.300	1.465	450	Inspection Chamber		0 1.006	11.330	150
SW-10	317720.333	478939.523	10.300	0.850	450	Inspection Chamber		0 1.007	11.330	150
SW-11	317699.500	478912.750	9.161	1.565	450	Inspection Chamber		0 1.007	11.175	150
SW-12	317680.000	478902.000	6.915	0.820	450	Inspection Chamber		0 1.008	10.835	150
SW-13	317656.206	478887.303	7.000	1.370	450	Inspection Chamber		0 1.008	10.835	150
SW-14	317651.670	478881.895	5.905	0.350	450	Inspection Chamber		0 1.009	10.835	150
SW-15	317630.000	478870.000	5.630	0.350	450	Inspection Chamber		0 1.009	9.450	150
SW-16	317610.000	478860.000	5.630	0.350	450	Inspection Chamber		0 1.0010	9.450	150
SW-17	317590.000	478850.000	5.630	0.350	450	Inspection Chamber		0 1.0010	7.596	150
SW-18	317570.000	478840.000	5.630	0.350	450	Inspection Chamber		0 1.0011	7.600	150
SW-19	317550.000	478830.000	5.630	0.350	450	Inspection Chamber		0 1.0012	5.630	150
SW-20	317530.000	478820.000	5.630	0.350	450	Inspection Chamber		0 1.0012	5.630	150
SW-21	317510.000	478810.000	5.630	0.350	450	Inspection Chamber		0 1.0011	6.095	150
SW-22	317490.000	478800.000	5.630	0.350	450	Inspection Chamber		0 1.0012	6.100	150
SW-23	317470.000	478790.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-24	317450.000	478780.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-25	317430.000	478770.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-26	317410.000	478760.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-27	317390.000	478750.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-28	317370.000	478740.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-29	317350.000	478730.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-30	317330.000	478720.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-31	317310.000	478710.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-32	317290.000	478700.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-33	317270.000	478690.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-34	317250.000	478680.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-35	317230.000	478670.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-36	317210.000	478660.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-37	317190.000	478650.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-38	317170.000	478640.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-39	317150.000	478630.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-40	317130.000	478620.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-41	317110.000	478610.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-42	317090.000	478600.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-43	317070.000	478590.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-44	317050.000	478580.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-45	317030.000	478570.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-46	317010.000	478560.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-47	316990.000	478550.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-48	316970.000	478540.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-49	316950.000	478530.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-50	316930.000	478520.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-51	316910.000	478510.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-52	316890.000	478500.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-53	316870.000	478490.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-54	316850.000	478480.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-55	316830.000	478470.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-56	316810.000	478460.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-57	316790.000	478450.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-58	316770.000	478440.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-59	316750.000	478430.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-60	316730.000	478420.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-61	316710.000	478410.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-62	316690.000	478400.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-63	316670.000	478390.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-64	316650.000	478380.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-65	316630.000	478370.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-66	316610.000	478360.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-67	316590.000	478350.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-68	316570.000	478340.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-69	316550.000	478330.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-70	316530.000	478320.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-71	316510.000	478310.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-72	316490.000	478300.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-73	316470.000	478290.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-74	316450.000	478280.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-75	316430.000	478270.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-76	316410.000	478260.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-77	316390.000	478250.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-78	316370.000	478240.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-79	316350.000	478230.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-80	316330.000	478220.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-81	316310.000	478210.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-82	316290.000	478200.000	5.630	0.350	450	Inspection Chamber		0 1.0013	5.555	150
SW-83	316270.000	478190.000	5.630	0.350	450	Inspection Chamber				

Curtins	Curtins Consulting Ltd		File: 081617-CUR-XX-XX-T-C-00		Page 5	
	Units 24-25 Riverside Place,		Network: 081617_SurfaceWat		Project: Iron Line - Millom	
	Lound Road,		Designed: CC Checked: GW		Surface Water Drainage	
	Kendal, LA9 7FH		Date: 04/11/25		Calc: 00001 Rev: P04	

Manhole Schedule											
Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	MH Type	Connections	Link	IL (m)	Dia (mm)	
SW-023	317856.578	478989.854	15.590	1.420	450	Inspection Chamber	0	0	3.001	14.170	150

Simulation Settings			
Rainfall Methodology	FSR	Additional Storage (m³/ha)	0.0
Rainfall Events	Singular	Starting Level (m)	
FSR Region	England and Wales	Check Discharge Rate(s)	✓
M5-60 (mm)	17.000	1 year (l/s)	1.8
Ratio-R	0.300	2 year (l/s)	2.0
Summer CV	0.750	10 year (l/s)	3.0
Winter CV	0.840	30 year (l/s)	4.2
Analysis Speed	Normal	100 year (l/s)	5.4
Skip Steady State	x	Check Discharge Volume	✓
Drain Down Time (mins)	240	100 year 360 minute (m³)	66

Storm Durations									
15	60	180	360	600	960	2160	4320	7200	10080
30	120	240	480	720	1440	2880	5760	8640	

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0
2	0	0	0
10	0	0	0
30	35	0	0
100	35	0	0

Pre-development Discharge Rate			
Site Makeup	Greenfield	Growth Factor 30 year	1.95
Greenfield Method	IH124	Growth Factor 100 year	2.48
Positively Drained Area (ha)	0.288	Betterment (%)	0
SAAR (mm)	1020	QBar	2.2
Soil Index	4	Q 1 year (l/s)	1.8
SPR	0.47	Q 2 year (l/s)	2.0
Region	10	Q 10 year (l/s)	3.0
Growth Factor 1 year	0.85	Q 30 year (l/s)	4.2
Growth Factor 2 year	0.93	Q 100 year (l/s)	5.4
Growth Factor 10 year	1.38		

Pre-development Discharge Volume			
Site Makeup	Greenfield	Return Period (years)	100
Greenfield Method	FSR/FEH	Climate Change (%)	0
Positively Drained Area (ha)	0.288	Storm Duration (mins)	360
Soil Index	4	Betterment (%)	0
SPR	0.47	PR	0.508
CWI	125.050	Runoff Volume (m³)	89

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Node SW-05 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	12.115	Product Number	CTL-SHE-0071-1800-0500-1800
Design Depth (m)	0.500	Min Outlet Diameter (m)	0.100
Design Flow (l/s)	1.8	Min Node Diameter (mm)	1200

Node SW-05 Tank Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	12.175
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	560

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	131.0	131.0	1.200	131.0	179.7	1.201	0.0	179.7

Approval Settings

Node Size	✓	Minimum Proportional Velocity (m/s)	0.750
Node Losses	✓	Maximum Proportional Velocity (m/s)	3.000
Link Size	✓	Surcharged Depth	✓
Minimum Diameter (mm)	100	Return Period (years)	1
Link Length	✓	Maximum Surcharged Depth (m)	0.100
Maximum Length (m)	90.000	Flooding	✓
Coordinates	x	Return Period (years)	30
Crossings	✓	Time to Half Empty	✓
Cover Depth	✓	Return Period (years)	100
Minimum Cover Depth (m)	1.200	Discharge Rates	✓
Maximum Cover Depth (m)	3.000	1 year (l/s)	1.8
Backdrops	✓	2 year (l/s)	2.0
Minimum Backdrop Height (m)	0.300	10 year (l/s)	3.0
Maximum Backdrop Height (m)	1.600	30 year (l/s)	4.2
Full Bore Velocity	x	100 year (l/s)	5.4
Proportional Velocity	✓	Discharge Volume	x
Return Period (years)	100		

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
1 year 15 minute summer	84.280	23.848
1 year 15 minute winter	59.144	23.848
1 year 30 minute summer	57.102	16.158
1 year 30 minute winter	40.072	16.158
1 year 60 minute summer	40.398	10.676
1 year 60 minute winter	26.839	10.676
1 year 120 minute summer	26.432	6.985
1 year 120 minute winter	17.561	6.985
1 year 180 minute summer	21.115	5.434
1 year 180 minute winter	13.725	5.434
1 year 240 minute summer	17.197	4.545
1 year 240 minute winter	11.425	4.545
1 year 360 minute summer	13.694	3.524
1 year 360 minute winter	8.901	3.524
1 year 480 minute summer	11.066	2.925

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
1 year 480 minute winter	7.352	2.925
1 year 600 minute summer	9.254	2.531
1 year 600 minute winter	6.323	2.531
1 year 720 minute summer	8.394	2.250
1 year 720 minute winter	5.641	2.250
1 year 960 minute summer	7.097	1.869
1 year 960 minute winter	4.701	1.869
1 year 1440 minute summer	5.374	1.440
1 year 1440 minute winter	3.611	1.440
1 year 2160 minute summer	4.012	1.109
1 year 2160 minute winter	2.764	1.109
1 year 2880 minute summer	3.437	0.921
1 year 2880 minute winter	2.310	0.921
1 year 4320 minute summer	2.717	0.710
1 year 4320 minute winter	1.789	0.710
1 year 5760 minute summer	2.311	0.591
1 year 5760 minute winter	1.496	0.591
1 year 7200 minute summer	2.002	0.511
1 year 7200 minute winter	1.292	0.511
1 year 8640 minute summer	1.776	0.453
1 year 8640 minute winter	1.146	0.453
1 year 10080 minute summer	1.605	0.409
1 year 10080 minute winter	1.036	0.409
2 year 15 minute summer	109.066	30.862
2 year 15 minute winter	76.538	30.862
2 year 30 minute summer	73.782	20.878
2 year 30 minute winter	51.777	20.878
2 year 60 minute summer	51.720	13.668
2 year 60 minute winter	34.361	13.668
2 year 120 minute summer	33.252	8.787
2 year 120 minute winter	22.092	8.787
2 year 180 minute summer	26.258	6.757
2 year 180 minute winter	17.069	6.757
2 year 240 minute summer	21.199	5.602
2 year 240 minute winter	14.084	5.602
2 year 360 minute summer	16.686	4.294
2 year 360 minute winter	10.846	4.294
2 year 480 minute summer	13.415	3.545
2 year 480 minute winter	8.912	3.545
2 year 600 minute summer	11.170	3.055
2 year 600 minute winter	7.632	3.055
2 year 720 minute summer	10.095	2.706
2 year 720 minute winter	6.784	2.706
2 year 960 minute summer	8.482	2.233
2 year 960 minute winter	5.619	2.233
2 year 1440 minute summer	6.362	1.705
2 year 1440 minute winter	4.276	1.705
2 year 2160 minute summer	4.707	1.301
2 year 2160 minute winter	3.243	1.301
2 year 2880 minute summer	4.006	1.074
2 year 2880 minute winter	2.693	1.074
2 year 4320 minute summer	3.136	0.820

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
2 year 4320 minute winter	2.065	0.820
2 year 5760 minute summer	2.646	0.677
2 year 5760 minute winter	1.712	0.677
2 year 7200 minute summer	2.285	0.583
2 year 7200 minute winter	1.475	0.583
2 year 8640 minute summer	2.021	0.516
2 year 8640 minute winter	1.304	0.516
2 year 10080 minute summer	1.822	0.465
2 year 10080 minute winter	1.176	0.465
10 year 15 minute summer	163.157	46.168
10 year 15 minute winter	114.496	46.168
10 year 30 minute summer	110.362	31.229
10 year 30 minute winter	77.447	31.229
10 year 60 minute summer	77.042	20.360
10 year 60 minute winter	51.185	20.360
10 year 120 minute summer	49.087	12.972
10 year 120 minute winter	32.612	12.972
10 year 180 minute summer	38.430	9.889
10 year 180 minute winter	24.980	9.889
10 year 240 minute summer	30.773	8.132
10 year 240 minute winter	20.445	8.132
10 year 360 minute summer	23.902	6.151
10 year 360 minute winter	15.537	6.151
10 year 480 minute summer	19.082	5.043
10 year 480 minute winter	12.678	5.043
10 year 600 minute summer	15.796	4.321
10 year 600 minute winter	10.793	4.321
10 year 720 minute summer	14.204	3.807
10 year 720 minute winter	9.546	3.807
10 year 960 minute summer	11.834	3.116
10 year 960 minute winter	7.839	3.116
10 year 1440 minute summer	8.760	2.348
10 year 1440 minute winter	5.888	2.348
10 year 2160 minute summer	6.395	1.767
10 year 2160 minute winter	4.406	1.767
10 year 2880 minute summer	5.388	1.444
10 year 2880 minute winter	3.621	1.444
10 year 4320 minute summer	4.151	1.085
10 year 4320 minute winter	2.734	1.085
10 year 5760 minute summer	3.461	0.886
10 year 5760 minute winter	2.240	0.886
10 year 7200 minute summer	2.968	0.757
10 year 7200 minute winter	1.916	0.757
10 year 8640 minute summer	2.610	0.666
10 year 8640 minute winter	1.685	0.666
10 year 10080 minute summer	2.342	0.597
10 year 10080 minute winter	1.512	0.597
30 year +35% CC 15 minute summer	276.846	78.338
30 year +35% CC 15 minute winter	194.278	78.338
30 year +35% CC 30 minute summer	189.258	53.553
30 year +35% CC 30 minute winter	132.813	53.553
30 year +35% CC 60 minute summer	133.130	35.182

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
30 year +35% CC 60 minute winter	88.448	35.182
30 year +35% CC 120 minute summer	85.102	22.490
30 year +35% CC 120 minute winter	56.540	22.490
30 year +35% CC 180 minute summer	66.535	17.122
30 year +35% CC 180 minute winter	43.249	17.122
30 year +35% CC 240 minute summer	53.115	14.037
30 year +35% CC 240 minute winter	35.288	14.037
30 year +35% CC 360 minute summer	40.963	10.541
30 year +35% CC 360 minute winter	26.627	10.541
30 year +35% CC 480 minute summer	32.550	8.602
30 year +35% CC 480 minute winter	21.625	8.602
30 year +35% CC 600 minute summer	26.841	7.342
30 year +35% CC 600 minute winter	18.339	7.342
30 year +35% CC 720 minute summer	24.056	6.447
30 year +35% CC 720 minute winter	16.167	6.447
30 year +35% CC 960 minute summer	19.930	5.248
30 year +35% CC 960 minute winter	13.202	5.248
30 year +35% CC 1440 minute summer	14.628	3.921
30 year +35% CC 1440 minute winter	9.831	3.921
30 year +35% CC 2160 minute summer	10.579	2.924
30 year +35% CC 2160 minute winter	7.289	2.924
30 year +35% CC 2880 minute summer	8.849	2.372
30 year +35% CC 2880 minute winter	5.947	2.372
30 year +35% CC 4320 minute summer	6.744	1.763
30 year +35% CC 4320 minute winter	4.441	1.763
30 year +35% CC 5760 minute summer	5.575	1.427
30 year +35% CC 5760 minute winter	3.609	1.427
30 year +35% CC 7200 minute summer	4.753	1.213
30 year +35% CC 7200 minute winter	3.068	1.213
30 year +35% CC 8640 minute summer	4.160	1.061
30 year +35% CC 8640 minute winter	2.685	1.061
30 year +35% CC 10080 minute summer	3.717	0.948
30 year +35% CC 10080 minute winter	2.399	0.948
100 year +35% CC 15 minute summer	355.680	100.645
100 year +35% CC 15 minute winter	249.600	100.645
100 year +35% CC 30 minute summer	245.990	69.607
100 year +35% CC 30 minute winter	172.625	69.607
100 year +35% CC 60 minute summer	174.491	46.113
100 year +35% CC 60 minute winter	115.928	46.113
100 year +35% CC 120 minute summer	111.942	29.583
100 year +35% CC 120 minute winter	74.372	29.583
100 year +35% CC 180 minute summer	87.390	22.488
100 year +35% CC 180 minute winter	56.806	22.488
100 year +35% CC 240 minute summer	69.529	18.374
100 year +35% CC 240 minute winter	46.193	18.374
100 year +35% CC 360 minute summer	53.204	13.691
100 year +35% CC 360 minute winter	34.584	13.691
100 year +35% CC 480 minute summer	42.061	11.115
100 year +35% CC 480 minute winter	27.944	11.115
100 year +35% CC 600 minute summer	34.537	9.447
100 year +35% CC 600 minute winter	23.598	9.447
100 year +35% CC 720 minute summer	30.841	8.266

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
100 year +35% CC 720 minute winter	20.727	8.266
100 year +35% CC 960 minute summer	25.396	6.687
100 year +35% CC 960 minute winter	16.823	6.687
100 year +35% CC 1440 minute summer	18.467	4.949
100 year +35% CC 1440 minute winter	12.411	4.949
100 year +35% CC 2160 minute summer	13.217	3.653
100 year +35% CC 2160 minute winter	9.107	3.653
100 year +35% CC 2880 minute summer	10.969	2.940
100 year +35% CC 2880 minute winter	7.372	2.940
100 year +35% CC 4320 minute summer	8.259	2.159
100 year +35% CC 4320 minute winter	5.439	2.159
100 year +35% CC 5760 minute summer	6.766	1.732
100 year +35% CC 5760 minute winter	4.379	1.732
100 year +35% CC 7200 minute summer	5.731	1.462
100 year +35% CC 7200 minute winter	3.699	1.462
100 year +35% CC 8640 minute summer	4.990	1.273
100 year +35% CC 8640 minute winter	3.221	1.273
100 year +35% CC 10080 minute summer	4.439	1.132
100 year +35% CC 10080 minute winter	2.865	1.132

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.63%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	SW-01	10	13.174	0.045	3.0	0.0071	0.0000	OK
15 minute summer	SW-02	10	12.946	0.045	4.5	0.0071	0.0000	OK
15 minute summer	SW-03	10	12.628	0.058	10.9	0.0661	0.0000	OK
15 minute summer	SW-04	10	12.622	0.392	19.5	0.4432	0.0000	SURCHARGED
15 minute summer	SW-05	10	12.585	0.470	34.6	1.1972	0.0000	SURCHARGED
360 minute winter	SW-05_Tank	264	12.356	0.181	3.9	22.5447	0.0000	OK
15 minute winter	SW-06	7	11.963	0.033	1.8	0.0374	0.0000	OK
30 minute winter	SW-07	12	11.362	0.032	1.8	0.0366	0.0000	OK
30 minute winter	SW-08	13	11.210	0.035	1.8	0.0056	0.0000	OK
30 minute winter	SW-09	13	10.856	0.021	1.8	0.0034	0.0000	OK
30 minute winter	SW-010	13	9.471	0.021	1.8	0.0034	0.0000	OK
30 minute winter	SW-011	14	7.620	0.024	1.8	0.0039	0.0000	OK
30 minute winter	SW-013	15	5.663	0.033	1.8	0.0053	0.0000	OK
30 minute winter	SW-012	14	6.128	0.033	1.8	0.0053	0.0000	OK
30 minute winter	SW-014	15	5.587	0.032	1.8	0.0000	0.0000	OK
15 minute summer	SW-020	10	12.856	0.020	0.7	0.0031	0.0000	OK
15 minute summer	SW-021	9	12.658	0.046	2.9	0.0073	0.0000	OK
15 minute summer	SW-022	10	12.631	0.181	4.4	0.0288	0.0000	SURCHARGED
15 minute summer	SW-023	10	14.204	0.034	4.8	0.0053	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	SW-01	1.001	SW-02	3.0	0.911	0.383	0.0351	
15 minute summer	SW-02	1.002	SW-03	4.5	1.041	0.183	0.0580	
15 minute summer	SW-03	1.003	SW-04	10.9	0.579	0.149	0.4141	
15 minute summer	SW-04	1.004	SW-05	23.5	0.590	0.580	0.7520	
15 minute summer	SW-05	1.005	SW-06	1.8	0.734	0.100	0.0506	
360 minute winter	SW-05_Tank	3.000	SW-05	-3.9	-0.207	-0.097	0.3703	
15 minute winter	SW-06	1.006	SW-07	1.8	0.755	0.101	0.1654	
30 minute winter	SW-07	1.007	SW-08	1.8	0.619	0.101	0.0445	
30 minute winter	SW-08	1.008	SW-09	1.8	0.796	0.102	0.0788	
30 minute winter	SW-09	1.009	SW-010	1.8	1.190	0.042	0.0366	
30 minute winter	SW-010	1.0010	SW-011	1.8	1.076	0.043	0.0571	
30 minute winter	SW-011	1.0011	SW-012	1.8	1.114	0.039	0.0482	
30 minute winter	SW-013	1.0013	SW-014	1.8	0.646	0.099	0.0197	18.1
30 minute winter	SW-012	1.0012	SW-013	1.8	0.780	0.078	0.0724	
15 minute summer	SW-020	2.004	SW-021	0.7	0.318	0.085	0.0279	
15 minute summer	SW-021	2.005	SW-022	2.9	0.804	0.418	0.0480	
15 minute summer	SW-022	2.006	SW-04	6.0	0.654	0.325	0.2335	
15 minute summer	SW-023	3.001	SW-05	4.8	1.675	0.102	0.0243	

Results for 2 year Critical Storm Duration. Lowest mass balance: 99.62%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	SW-01	10	13.181	0.052	3.9	0.0083	0.0000	OK
15 minute winter	SW-02	10	12.952	0.051	5.8	0.0082	0.0000	OK
15 minute summer	SW-03	10	12.700	0.130	14.1	0.1472	0.0000	OK
15 minute summer	SW-04	10	12.686	0.456	28.3	0.5159	0.0000	SURCHARGED
15 minute winter	SW-05	9	12.627	0.512	45.4	1.3031	0.0000	SURCHARGED
360 minute winter	SW-05_Tank	280	12.423	0.248	5.1	30.8469	0.0000	SURCHARGED
15 minute summer	SW-06	7	11.963	0.033	1.8	0.0376	0.0000	OK
30 minute winter	SW-07	11	11.362	0.032	1.8	0.0366	0.0000	OK
30 minute winter	SW-08	12	11.210	0.035	1.8	0.0056	0.0000	OK
30 minute winter	SW-09	12	10.856	0.021	1.8	0.0034	0.0000	OK
30 minute winter	SW-010	12	9.471	0.021	1.8	0.0034	0.0000	OK
30 minute winter	SW-011	13	7.620	0.024	1.8	0.0039	0.0000	OK
30 minute summer	SW-013	14	5.663	0.033	1.8	0.0053	0.0000	OK
30 minute winter	SW-012	13	6.128	0.033	1.8	0.0053	0.0000	OK
30 minute summer	SW-014	14	5.587	0.032	1.8	0.0000	0.0000	OK
15 minute winter	SW-020	10	12.858	0.022	0.9	0.0036	0.0000	OK
15 minute summer	SW-021	10	12.733	0.121	3.7	0.0193	0.0000	SURCHARGED
15 minute summer	SW-022	10	12.702	0.252	5.8	0.0401	0.0000	SURCHARGED
15 minute summer	SW-023	10	14.208	0.038	6.2	0.0061	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	SW-01	1.001	SW-02	3.9	0.971	0.498	0.0428	
15 minute winter	SW-02	1.002	SW-03	5.8	1.114	0.236	0.0699	
15 minute summer	SW-03	1.003	SW-04	16.6	0.603	0.227	0.5489	
15 minute summer	SW-04	1.004	SW-05	31.2	0.786	0.773	0.7520	
15 minute winter	SW-05	1.005	SW-06	1.8	0.761	0.100	0.0502	
360 minute winter	SW-05_Tank	3.000	SW-05	-5.1	-0.210	-0.126	0.3980	
15 minute summer	SW-06	1.006	SW-07	1.8	0.752	0.101	0.1656	
30 minute winter	SW-07	1.007	SW-08	1.8	0.622	0.101	0.0446	
30 minute winter	SW-08	1.008	SW-09	1.8	0.796	0.102	0.0789	
30 minute winter	SW-09	1.009	SW-010	1.8	1.191	0.042	0.0366	
30 minute winter	SW-010	1.0010	SW-011	1.8	1.077	0.043	0.0572	
30 minute winter	SW-011	1.0011	SW-012	1.8	1.018	0.039	0.0482	
30 minute summer	SW-013	1.0013	SW-014	1.8	0.647	0.099	0.0197	20.7
30 minute winter	SW-012	1.0012	SW-013	1.8	0.759	0.078	0.0724	
15 minute winter	SW-020	2.004	SW-021	0.9	0.315	0.110	0.0558	
15 minute summer	SW-021	2.005	SW-022	4.2	0.786	0.607	0.0668	
15 minute summer	SW-022	2.006	SW-04	7.1	0.700	0.384	0.2335	
15 minute summer	SW-023	3.001	SW-05	6.2	1.795	0.131	0.0293	

Results for 10 year Critical Storm Duration. Lowest mass balance: 99.63%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	SW-01	10	13.197	0.068	5.8	0.0108	0.0000	OK
15 minute winter	SW-02	10	12.963	0.062	8.7	0.0098	0.0000	OK
15 minute summer	SW-03	10	12.880	0.310	21.1	0.3501	0.0000	SURCHARGED
15 minute summer	SW-04	10	12.839	0.609	38.1	0.6891	0.0000	SURCHARGED
15 minute winter	SW-05	9	12.720	0.605	64.1	1.5405	0.0000	SURCHARGED
360 minute winter	SW-05_Tank	336	12.606	0.431	8.1	53.7358	0.0000	SURCHARGED
15 minute winter	SW-06	10	11.963	0.033	1.9	0.0376	0.0000	OK
15 minute summer	SW-07	11	11.363	0.033	1.9	0.0373	0.0000	OK
15 minute winter	SW-08	11	11.211	0.036	1.9	0.0056	0.0000	OK
15 minute summer	SW-09	12	10.857	0.022	1.9	0.0034	0.0000	OK
15 minute winter	SW-010	12	9.472	0.022	1.9	0.0034	0.0000	OK
15 minute winter	SW-011	12	7.621	0.025	1.9	0.0039	0.0000	OK
15 minute winter	SW-013	13	5.664	0.034	1.9	0.0053	0.0000	OK
15 minute summer	SW-012	13	6.129	0.034	1.8	0.0054	0.0000	OK
15 minute winter	SW-014	13	5.587	0.032	1.9	0.0000	0.0000	OK
15 minute summer	SW-020	11	12.929	0.093	1.3	0.0148	0.0000	OK
15 minute winter	SW-021	10	12.919	0.307	5.4	0.0488	0.0000	SURCHARGED
15 minute summer	SW-022	10	12.863	0.413	8.1	0.0656	0.0000	SURCHARGED
15 minute summer	SW-023	10	14.218	0.048	9.3	0.0076	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	SW-01	1.001	SW-02	5.8	1.056	0.740	0.0584	
15 minute winter	SW-02	1.002	SW-03	8.7	1.122	0.354	0.1638	
15 minute summer	SW-03	1.003	SW-04	21.5	0.644	0.293	0.6870	
15 minute summer	SW-04	1.004	SW-05	40.5	1.018	1.002	0.7520	
15 minute winter	SW-05	1.005	SW-06	1.9	0.809	0.106	0.0520	
360 minute winter	SW-05_Tank	3.000	SW-05	-8.1	-0.217	-0.201	0.3980	
15 minute winter	SW-06	1.006	SW-07	1.9	0.770	0.106	0.1710	
15 minute summer	SW-07	1.007	SW-08	1.9	0.626	0.104	0.0455	
15 minute winter	SW-08	1.008	SW-09	1.9	0.804	0.105	0.0807	
15 minute summer	SW-09	1.009	SW-010	1.9	1.202	0.043	0.0373	
15 minute winter	SW-010	1.0010	SW-011	1.9	1.089	0.045	0.0583	
15 minute winter	SW-011	1.0011	SW-012	1.9	1.124	0.040	0.0490	
15 minute winter	SW-013	1.0013	SW-014	1.9	0.652	0.101	0.0201	24.5
15 minute summer	SW-012	1.0012	SW-013	1.9	0.790	0.080	0.0738	
15 minute summer	SW-020	2.004	SW-021	1.5	0.299	0.185	0.0942	
15 minute winter	SW-021	2.005	SW-022	6.5	0.920	0.945	0.0668	
15 minute summer	SW-022	2.006	SW-04	10.5	0.628	0.568	0.2335	
15 minute summer	SW-023	3.001	SW-05	9.3	2.000	0.197	0.0394	

Results for 30 year +35% CC Critical Storm Duration. Lowest mass balance: 99.38%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	SW-01	11	13.609	0.480	9.8	0.0764	0.0000	SURCHARGED
15 minute winter	SW-02	10	13.340	0.439	12.9	0.0698	0.0000	SURCHARGED
15 minute winter	SW-03	10	13.264	0.694	32.7	0.7845	0.0000	SURCHARGED
15 minute winter	SW-04	10	13.175	0.945	58.1	1.0693	0.0000	SURCHARGED
600 minute winter	SW-05	495	13.035	0.920	11.9	2.3411	0.0000	SURCHARGED
600 minute winter	SW-05_Tank	495	13.035	0.860	10.0	107.1509	0.0000	SURCHARGED
600 minute winter	SW-06	495	11.967	0.037	2.3	0.0416	0.0000	OK
600 minute winter	SW-07	495	11.367	0.037	2.3	0.0417	0.0000	OK
600 minute winter	SW-08	495	11.215	0.040	2.3	0.0063	0.0000	OK
600 minute winter	SW-09	495	10.859	0.024	2.3	0.0038	0.0000	OK
600 minute winter	SW-010	495	9.474	0.024	2.3	0.0038	0.0000	OK
600 minute winter	SW-011	495	7.623	0.027	2.3	0.0043	0.0000	OK
600 minute winter	SW-013	495	5.668	0.038	2.3	0.0060	0.0000	OK
600 minute winter	SW-012	495	6.132	0.037	2.3	0.0059	0.0000	OK
600 minute winter	SW-014	495	5.591	0.036	2.3	0.0000	0.0000	OK
15 minute winter	SW-020	11	13.409	0.573	3.1	0.0910	0.0000	SURCHARGED
15 minute winter	SW-021	11	13.396	0.784	7.7	0.1247	0.0000	SURCHARGED
15 minute winter	SW-022	10	13.233	0.783	11.8	0.1245	0.0000	SURCHARGED
15 minute summer	SW-023	10	14.235	0.065	15.8	0.0103	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	SW-01	1.001	SW-02	9.0	1.149	1.147	0.0833	
15 minute winter	SW-02	1.002	SW-03	14.6	1.092	0.592	0.2363	
15 minute winter	SW-03	1.003	SW-04	33.5	0.843	0.458	0.6870	
15 minute winter	SW-04	1.004	SW-05	59.5	1.497	1.472	0.7520	
600 minute winter	SW-05	1.005	SW-06	2.3	0.694	0.130	0.0604	
600 minute winter	SW-05_Tank	3.000	SW-05	-10.0	-0.251	-0.249	0.3980	
600 minute winter	SW-06	1.006	SW-07	2.3	0.697	0.131	0.1997	
600 minute winter	SW-07	1.007	SW-08	2.3	0.660	0.130	0.0535	
600 minute winter	SW-08	1.008	SW-09	2.3	0.857	0.132	0.0945	
600 minute winter	SW-09	1.009	SW-010	2.3	1.283	0.054	0.0438	
600 minute winter	SW-010	1.0010	SW-011	2.3	1.178	0.056	0.0673	
600 minute winter	SW-011	1.0011	SW-012	2.3	0.931	0.050	0.0567	
600 minute winter	SW-013	1.0013	SW-014	2.3	0.694	0.128	0.0238	94.9
600 minute winter	SW-012	1.0012	SW-013	2.3	0.749	0.101	0.0873	
15 minute winter	SW-020	2.004	SW-021	3.6	0.466	0.444	0.0956	
15 minute winter	SW-021	2.005	SW-022	9.0	1.144	1.292	0.0668	
15 minute winter	SW-022	2.006	SW-04	13.8	0.781	0.741	0.2335	
15 minute summer	SW-023	3.001	SW-05	15.8	2.285	0.335	0.0586	

Results for 100 year +35% CC Critical Storm Duration. Lowest mass balance: 99.30%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	SW-01	11	14.097	0.968	12.6	0.1539	0.0000	SURCHARGED
15 minute winter	SW-02	11	13.734	0.833	15.5	0.1325	0.0000	SURCHARGED
15 minute winter	SW-03	11	13.604	1.034	40.2	1.1696	0.0000	SURCHARGED
15 minute winter	SW-04	11	13.481	1.251	67.3	1.4145	0.0000	SURCHARGED
480 minute winter	SW-05	456	13.340	1.225	17.9	3.1164	0.0000	SURCHARGED
480 minute winter	SW-05_Tank	456	13.340	1.165	15.5	145.1128	0.0000	SURCHARGED
480 minute winter	SW-06	456	11.969	0.039	2.7	0.0446	0.0000	OK
480 minute winter	SW-07	456	11.370	0.040	2.7	0.0447	0.0000	OK
480 minute winter	SW-08	456	11.218	0.043	2.7	0.0068	0.0000	OK
480 minute winter	SW-09	456	10.861	0.026	2.7	0.0041	0.0000	OK
480 minute winter	SW-010	456	9.476	0.026	2.7	0.0041	0.0000	OK
480 minute winter	SW-011	464	7.624	0.028	2.7	0.0045	0.0000	OK
480 minute winter	SW-013	464	5.671	0.041	2.7	0.0064	0.0000	OK
480 minute winter	SW-012	464	6.134	0.039	2.7	0.0063	0.0000	OK
480 minute winter	SW-014	464	5.594	0.039	2.7	0.0000	0.0000	OK
15 minute winter	SW-020	12	13.797	0.961	4.0	0.1528	0.0000	SURCHARGED
15 minute winter	SW-021	12	13.771	1.159	9.2	0.1843	0.0000	SURCHARGED
15 minute winter	SW-022	11	13.573	1.123	13.4	0.1785	0.0000	SURCHARGED
15 minute summer	SW-023	10	14.246	0.076	20.3	0.0120	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	SW-01	1.001	SW-02	10.3	1.317	1.315	0.0833	
15 minute winter	SW-02	1.002	SW-03	16.8	1.058	0.685	0.2363	
15 minute winter	SW-03	1.003	SW-04	38.9	0.978	0.532	0.6870	
15 minute winter	SW-04	1.004	SW-05	67.2	1.691	1.663	0.7520	
480 minute winter	SW-05	1.005	SW-06	2.7	0.721	0.148	0.0666	
480 minute winter	SW-05_Tank	3.000	SW-05	-15.5	-0.390	-0.387	0.3980	
480 minute winter	SW-06	1.006	SW-07	2.7	0.723	0.150	0.2201	
480 minute winter	SW-07	1.007	SW-08	2.7	0.685	0.149	0.0590	
480 minute winter	SW-08	1.008	SW-09	2.7	0.890	0.151	0.1041	
480 minute winter	SW-09	1.009	SW-010	2.7	1.334	0.062	0.0482	
480 minute winter	SW-010	1.0010	SW-011	2.7	1.235	0.064	0.0734	
480 minute winter	SW-011	1.0011	SW-012	2.7	0.976	0.057	0.0618	
480 minute winter	SW-013	1.0013	SW-014	2.7	0.720	0.146	0.0262	212.2
480 minute winter	SW-012	1.0012	SW-013	2.7	0.777	0.116	0.0963	
15 minute winter	SW-020	2.004	SW-021	4.3	0.551	0.525	0.0956	
15 minute winter	SW-021	2.005	SW-022	10.4	1.325	1.496	0.0668	
15 minute winter	SW-022	2.006	SW-04	16.0	0.908	0.860	0.2335	
15 minute summer	SW-023	3.001	SW-05	20.3	2.422	0.431	0.0710	