

Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	99.00
Return Period (years)	1	Maximum Rainfall (mm/hr)	0.0
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00
FSR Region	England and Wales	Connection Type	Level Soffits
M5-60 (mm)	20.000	Minimum Backdrop Height (m)	1.000
Ratio-R	0.400	Preferred Cover Depth (m)	1.200
CV	0.750	Include Intermediate Ground	x
Time of Entry (mins)	5.00	Enforce best practice design rules	x

Adoptable Manhole Type

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

>900 Link+900 mm

Max Depth (m)	Diameter (mm)	Max Depth (m)	Diameter (mm)
1.500	1050	99.999	1200

Circular Link Type

Template	Freeform Carrier	Barrels	1	Follow Ground	x
Shape	Circular	Auto Increment (mm)	75		

Available Diameters (mm)

100 | 150

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
S47	0.044	5.00	87.599	1350	451045.954	305369.455	1.434
S48	0.317	5.00	86.192	1350	451087.712	305371.344	1.542
S49	0.023	5.00	85.540	1350	451108.827	305367.783	1.570
S50	0.081	5.00	85.006	1500	451124.708	305373.089	1.691
S51	0.098	5.00	82.847	1350	451187.464	305375.395	1.507
S52	0.110	5.00	82.407	1500	451199.849	305371.818	1.647
S53	0.054	5.00	81.944	1500	451204.320	305358.537	1.614
S54	0.061	5.00	80.292	1500	451255.512	305376.363	1.842
S55	0.050	5.00	80.276	1500	451263.750	305353.462	2.061
S57	0.175	5.00	79.500	1500	451279.630	305362.577	0.690
S59			79.300	1500	451282.947	305355.151	1.472
S60	0.112	5.00	78.775	1500	451288.249	305315.525	1.325
S61			78.100	1500	451291.039	305302.370	1.093
S62	0.108	5.00	82.053	1350	451169.674	305319.604	1.390
S63	0.084	5.00	81.505	1350	451190.062	305319.284	1.595
S64	0.015	5.00	81.261	1350	451212.016	305334.967	1.426
S65	0.088	5.00	80.907	1350	451215.008	305322.562	1.727
S66	0.103	5.00	80.307	1350	451217.734	305296.355	1.827
S67	0.032	5.00	79.884	1350	451213.569	305275.230	1.894
S68	0.222	5.00	78.760	1350	451266.098	305259.319	1.493
S69			78.100	1500	451276.171	305253.862	1.093
S70		5.00	78.100	1500	451295.865	305256.974	1.100
S71			78.500	3000	451306.929	305256.650	1.537
S72			77.500	1350	451320.232	305256.264	1.144
S73			76.800	1500	451326.151	305256.217	0.500

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)
1.000	S47	S48	41.800	0.600	86.165	84.725	1.440	29.0	225	5.29	0.0
1.001	S48	S49	21.413	0.600	84.650	83.970	0.680	31.5	300	5.41	0.0
1.002	S49	S50	16.745	0.600	83.970	83.390	0.580	28.9	300	5.51	0.0
1.003	S50	S51	62.798	0.600	83.315	81.340	1.975	31.8	375	5.83	0.0
1.004	S51	S52	12.892	0.600	81.340	80.760	0.580	22.2	375	5.89	0.0
1.005	S52	S53	14.013	0.600	80.760	80.330	0.430	32.6	375	5.96	0.0
1.006	S53	S54	54.207	0.600	80.330	78.525	1.805	30.0	375	6.23	0.0
1.007	S54	S55	24.338	0.600	78.450	78.215	0.235	103.6	450	6.44	0.0
1.008	S55	S59	19.271	0.600	78.215	77.829	0.386	49.9	450	6.55	0.0
1.009	S59	S60	39.980	0.600	77.828	77.450	0.378	105.8	450	6.89	0.0
1.010	S60	S61	13.448	0.600	77.450	77.300	0.150	89.7	450	6.99	0.0
3.000	S62	S63	20.391	0.600	80.663	79.910	0.753	27.1	300	5.11	0.0
3.001	S63	S65	25.160	0.600	79.910	79.255	0.655	38.4	300	5.28	0.0
4.000	S64	S65	12.761	0.600	79.835	79.330	0.505	25.3	225	5.08	0.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)
1.000	2.437	96.9	0.0	1.209	1.242	0.044	0.0
1.001	2.811	198.7	0.0	1.242	1.270	0.361	0.0
1.002	2.937	207.6	0.0	1.270	1.316	0.384	0.0
1.003	3.223	355.9	0.0	1.316	1.132	0.465	0.0
1.004	3.857	426.0	0.0	1.132	1.272	0.563	0.0
1.005	3.183	351.6	0.0	1.272	1.239	0.673	0.0
1.006	3.316	366.3	0.0	1.239	1.392	0.728	0.0
1.007	1.997	317.6	0.0	1.392	1.611	0.789	0.0
1.008	2.882	458.4	0.0	1.611	1.021	0.839	0.0
1.009	1.976	314.3	0.0	1.022	0.875	1.014	0.0
1.010	2.148	341.6	0.0	0.875	0.350	1.126	0.0
3.000	3.033	214.4	0.0	1.090	1.295	0.108	0.0
3.001	2.544	179.8	0.0	1.295	1.352	0.192	0.0
4.000	2.613	103.9	0.0	1.201	1.352	0.015	0.0

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)
3.002	S65	S66	26.348	0.600	79.180	78.480	0.700	37.6	375	5.43	0.0
3.003	S66	S67	21.532	0.600	78.480	77.990	0.490	43.9	375	5.56	0.0
3.004	S67	S68	54.886	0.600	77.990	77.342	0.648	84.7	375	6.02	0.0
3.005	S68	S69	11.456	0.600	77.267	77.225	0.042	272.8	450	6.18	0.0
1.012	S70	S71	11.068	0.600	77.000	76.963	0.037	299.1	450	5.16	0.0
1.013	S71	S72	13.309	0.600	76.963	76.356	0.607	21.9	225	5.24	0.0
1.014	S72	S73	5.919	0.600	76.356	76.300	0.056	105.7	225	5.31	0.0
2.00	S57	S59	8.133	0.600	78.810	77.978	0.832	9.8	300	5.03	0.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)
3.002	2.961	327.0	0.0	1.352	1.452	0.296	0.0
3.003	2.739	302.6	0.0	1.452	1.519	0.399	0.0
3.004	1.969	217.5	0.0	1.519	1.043	0.432	0.0
3.005	1.226	195.0	0.0	1.043	0.425	0.653	0.0
1.012	1.170	186.1	0.0	0.650	1.087	0.000	0.0
1.013	2.806	111.6	0.0	1.312	0.919	0.000	0.0
1.014	1.271	50.5	0.0	0.919	0.275	0.000	0.0
2.00	5.056	357.4	0.0	0.390	1.022	0.175	0.0

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.000	41.800	29.0	225	Circular	87.599	86.165	1.209	86.192	84.725	1.242
1.001	21.413	31.5	300	Circular	86.192	84.650	1.242	85.540	83.970	1.270
1.002	16.745	28.9	300	Circular	85.540	83.970	1.270	85.006	83.390	1.316
1.003	62.798	31.8	375	Circular	85.006	83.315	1.316	82.847	81.340	1.132
1.004	12.892	22.2	375	Circular	82.847	81.340	1.132	82.407	80.760	1.272
1.005	14.013	32.6	375	Circular	82.407	80.760	1.272	81.944	80.330	1.239
1.006	54.207	30.0	375	Circular	81.944	80.330	1.239	80.292	78.525	1.392
1.007	24.338	103.6	450	Circular	80.292	78.450	1.392	80.276	78.215	1.611
1.008	19.271	49.9	450	Circular	80.276	78.215	1.611	79.300	77.829	1.021
1.009	39.980	105.8	450	Circular	79.300	77.828	1.022	78.775	77.450	0.875
1.010	13.448	89.7	450	Circular	78.775	77.450	0.875	78.100	77.300	0.350
3.000	20.391	27.1	300	Circular	82.053	80.663	1.090	81.505	79.910	1.295
3.001	25.160	38.4	300	Circular	81.505	79.910	1.295	80.907	79.255	1.352
4.000	12.761	25.3	225	Circular	81.261	79.835	1.201	80.907	79.330	1.352
3.002	26.348	37.6	375	Circular	80.907	79.180	1.352	80.307	78.480	1.452

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	S47	1350	Manhole	Adoptable	S48	1350	Manhole	Adoptable
1.001	S48	1350	Manhole	Adoptable	S49	1350	Manhole	Adoptable
1.002	S49	1350	Manhole	Adoptable	S50	1500	Manhole	Adoptable
1.003	S50	1500	Manhole	Adoptable	S51	1350	Manhole	Adoptable
1.004	S51	1350	Manhole	Adoptable	S52	1500	Manhole	Adoptable
1.005	S52	1500	Manhole	Adoptable	S53	1500	Manhole	Adoptable
1.006	S53	1500	Manhole	Adoptable	S54	1500	Manhole	Adoptable
1.007	S54	1500	Manhole	Adoptable	S55	1500	Manhole	Adoptable
1.008	S55	1500	Manhole	Adoptable	S59	1500	Manhole	Adoptable
1.009	S59	1500	Manhole	Adoptable	S60	1500	Manhole	Adoptable
1.010	S60	1500	Manhole	Adoptable	S61	1500	Manhole	Adoptable
3.000	S62	1350	Manhole	Adoptable	S63	1350	Manhole	Adoptable
3.001	S63	1350	Manhole	Adoptable	S65	1350	Manhole	Adoptable
4.000	S64	1350	Manhole	Adoptable	S65	1350	Manhole	Adoptable
3.002	S65	1350	Manhole	Adoptable	S66	1350	Manhole	Adoptable

Pipeline Schedule

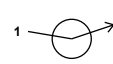
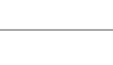
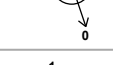
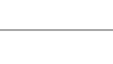
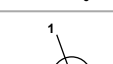
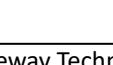
Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
3.003	21.532	43.9	375	Circular	80.307	78.480	1.452	79.884	77.990	1.519
3.004	54.886	84.7	375	Circular	79.884	77.990	1.519	78.760	77.342	1.043
3.005	11.456	272.8	450	Circular	78.760	77.267	1.043	78.100	77.225	0.425
1.012	11.068	299.1	450	Circular	78.100	77.000	0.650	78.500	76.963	1.087
1.013	13.309	21.9	225	Circular	78.500	76.963	1.312	77.500	76.356	0.919
1.014	5.919	105.7	225	Circular	77.500	76.356	0.919	76.800	76.300	0.275
2.00	8.133	9.8	300	Circular	79.500	78.810	0.390	79.300	77.978	1.022

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
3.003	S66	1350	Manhole	Adoptable	S67	1350	Manhole	Adoptable
3.004	S67	1350	Manhole	Adoptable	S68	1350	Manhole	Adoptable
3.005	S68	1350	Manhole	Adoptable	S69	1500	Manhole	Adoptable
1.012	S70	1500	Manhole	Adoptable	S71	3000	Manhole	Adoptable
1.013	S71	3000	Manhole	Adoptable	S72	1350	Manhole	Adoptable
1.014	S72	1350	Manhole	Adoptable	S73	1500	Manhole	Adoptable
2.00	S57	1500	Manhole	Adoptable	S59	1500	Manhole	Adoptable

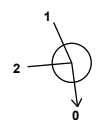
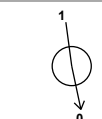
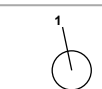
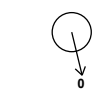
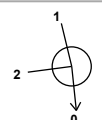
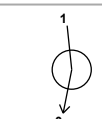
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
S47	451045.954	305369.455	87.599	1.434	1350					
							0	1.000	86.165	225
S48	451087.712	305371.344	86.192	1.542	1350		1	1.000	84.725	225
							0	1.001	84.650	300

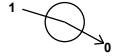
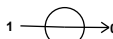
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
S49	451108.827	305367.783	85.540	1.570	1350		1	1.001	83.970	300
							0	1.002	83.970	300
S50	451124.708	305373.089	85.006	1.691	1500		1	1.002	83.390	300
							0	1.003	83.315	375
S51	451187.464	305375.395	82.847	1.507	1350		1	1.003	81.340	375
							0	1.004	81.340	375
S52	451199.849	305371.818	82.407	1.647	1500		1	1.004	80.760	375
							0	1.005	80.760	375
S53	451204.320	305358.537	81.944	1.614	1500		1	1.005	80.330	375
							0	1.006	80.330	375
S54	451255.512	305376.363	80.292	1.842	1500		1	1.006	78.525	375
							0	1.007	78.450	450
S55	451263.750	305353.462	80.276	2.061	1500		1	1.007	78.215	450
							0	1.008	78.215	450
S57	451279.630	305362.577	79.500	0.690	1500		0	2.00	78.810	300

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections		Link	IL (m)	Dia (mm)
S59	451282.947	305355.151	79.300	1.472	1500		1	2.00	77.978	300
							2	1.008	77.829	450
							0	1.009	77.828	450
S60	451288.249	305315.525	78.775	1.325	1500		1	1.009	77.450	450
							0	1.010	77.450	450
S61	451291.039	305302.370	78.100	1.093	1500		1	1.010	77.300	450
S62	451169.674	305319.604	82.053	1.390	1350		0	3.000	80.663	300
S63	451190.062	305319.284	81.505	1.595	1350		1	3.000	79.910	300
							0	3.001	79.910	300
S64	451212.016	305334.967	81.261	1.426	1350		0	4.000	79.835	225
S65	451215.008	305322.562	80.907	1.727	1350		1	4.000	79.330	225
							2	3.001	79.255	300
							0	3.002	79.180	375
S66	451217.734	305296.355	80.307	1.827	1350		1	3.002	78.480	375
							0	3.003	78.480	375

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
S67	451213.569	305275.230	79.884	1.894	1350		1	3.003	77.990	375
S68	451266.098	305259.319	78.760	1.493	1350		0	3.004	77.990	375
							1	3.004	77.342	375
S69	451276.171	305253.862	78.100	1.093	1500		0	3.005	77.267	450
							1	3.005	77.225	450
S70	451295.865	305256.974	78.100	1.100	1500		0	1.012	77.000	450
S71	451306.929	305256.650	78.500	1.537	3000		1	1.012	76.963	450
							0	1.013	76.963	225
S72	451320.232	305256.264	77.500	1.144	1350		1	1.013	76.356	225
							0	1.014	76.356	225
S73	451326.151	305256.217	76.800	0.500	1500		1	1.014	76.300	225

Simulation Settings

Rainfall Methodology	FSR	Summer CV	0.750	Additional Storage (m ³ /ha)	25.0
Rainfall Events	Singular	Winter CV	0.840	Starting Level (m)	
FSR Region	England and Wales	Analysis Speed	Normal	Check Discharge Rate(s)	x
M5-60 (mm)	20.000	Skip Steady State	x	Check Discharge Volume	x
Ratio-R	0.400	Drain Down Time (mins)	10080		

Storm Durations

15 | 30 | 60 | 120 | 180 | 240 | 360 | 480 | 600 | 720 | 960 | 1440

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0	100	40	0	0
30	0	0	0				

Node S71 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	✓	Sump Available	✓
Invert Level (m)	76.963	Product Number	CTL-SHE-0148-1000-0875-1000
Design Depth (m)	0.875	Min Outlet Diameter (m)	0.225
Design Flow (l/s)	10.0	Min Node Diameter (mm)	1200

Node S70 Flow through Pond Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Main Channel Length (m)	70.000
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	77.000	Main Channel Slope (1:X)	10000.0
Safety Factor	2.0	Time to half empty (mins)	1050	Main Channel n	0.040

Inlets

S61 | S69

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	1287.4	0.0	0.200	1397.9	0.0	0.400	1511.7	0.0	0.600	1627.9	0.0	0.800	1746.2	0.0	1.000	1866.9	0.0
0.100	1341.8	0.0	0.300	1454.5	0.0	0.500	1569.5	0.0	0.700	1686.8	0.0	0.900	1806.3	0.0	1.100	2501.0	0.0

Node S57 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	78.810
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	4

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	0.0	0.0	0.100	6.1	0.0	0.200	17.5	0.0	0.300	34.3	0.0	0.400	56.6	0.0	0.500	86.8	0.0

Other (defaults)

Entry Loss (manhole)	0.250	Entry Loss (junction)	0.000	Apply Recommended Losses	x
Exit Loss (manhole)	0.250	Exit Loss (junction)	0.000	Flood Risk (m)	0.300

Results for 1 year Critical Storm Duration. Lowest mass balance: 93.48%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S47	10	86.203	0.038	6.2	0.0838	0.0000	OK
15 minute winter	S48	10	84.757	0.107	50.6	0.7036	0.0000	OK
15 minute winter	S49	10	84.081	0.111	53.2	0.1986	0.0000	OK
15 minute winter	S50	10	83.422	0.107	63.9	0.3183	0.0000	OK
15 minute winter	S51	11	81.454	0.114	77.0	0.3477	0.0000	OK
15 minute winter	S52	11	80.905	0.145	92.2	0.4991	0.0000	OK
15 minute winter	S53	11	80.467	0.137	99.8	0.3580	0.0000	OK
15 minute winter	S54	11	78.645	0.195	108.2	0.5074	0.0000	OK
15 minute winter	S55	11	78.380	0.165	114.9	0.3907	0.0000	OK
15 minute winter	S57	10	78.866	0.056	24.7	0.5488	0.0000	OK
15 minute winter	S59	11	78.049	0.221	138.6	0.3899	0.0000	OK
15 minute winter	S60	11	77.692	0.242	153.5	0.9382	0.0000	OK
360 minute winter	S61	264	77.166	0.159	24.0	0.2801	0.0000	OK
15 minute winter	S62	10	80.717	0.054	15.3	0.1815	0.0000	OK
15 minute winter	S63	10	79.990	0.080	26.9	0.2205	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	S47	1.000	S48	6.0	1.354	0.062	0.1842	
15 minute winter	S48	1.001	S49	50.0	2.167	0.252	0.4940	
15 minute winter	S49	1.002	S50	52.5	2.356	0.253	0.3745	
15 minute winter	S50	1.003	S51	63.9	2.362	0.180	1.6992	
15 minute winter	S51	1.004	S52	77.6	2.303	0.182	0.4355	
15 minute winter	S52	1.005	S53	92.6	2.443	0.263	0.5314	
15 minute winter	S53	1.006	S54	100.1	2.813	0.273	1.9282	
15 minute winter	S54	1.007	S55	108.3	1.832	0.341	1.4397	
15 minute winter	S55	1.008	S59	114.8	1.790	0.250	1.2456	
15 minute winter	S57	2.00	S59	24.9	2.696	0.070	0.0850	
15 minute winter	S59	1.009	S60	138.6	1.691	0.441	3.2774	
15 minute winter	S60	1.010	S61	151.8	1.933	0.445	1.0590	
360 minute winter	S61	Flow through Pond	S70	23.3	0.022	0.007	212.4025	
15 minute winter	S62	3.000	S63	15.1	1.293	0.071	0.2411	
15 minute winter	S63	3.001	S65	26.4	1.796	0.147	0.3698	

Results for 1 year Critical Storm Duration. Lowest mass balance: 93.48%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S64	10	79.858	0.023	2.2	0.0387	0.0000	OK
15 minute winter	S65	10	79.269	0.089	40.9	0.2404	0.0000	OK
15 minute winter	S66	10	78.590	0.110	55.1	0.3140	0.0000	OK
15 minute winter	S67	11	78.123	0.133	59.0	0.2474	0.0000	OK
15 minute winter	S68	11	77.501	0.234	89.3	1.2061	0.0000	OK
15 minute winter	S69	11	77.271	0.264	89.8	0.4666	0.0000	OK
360 minute winter	S70	280	77.163	0.163	23.3	0.2878	0.0000	OK
360 minute winter	S71	280	77.162	0.199	9.8	1.4075	0.0000	OK
360 minute winter	S72	280	76.429	0.073	9.8	0.1047	0.0000	OK
360 minute winter	S73	280	76.367	0.067	9.8	0.0000	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	S64	4.000	S65	2.1	1.037	0.021	0.0263	
15 minute winter	S65	3.002	S66	40.5	1.737	0.124	0.6180	
15 minute winter	S66	3.003	S67	54.7	1.769	0.181	0.6666	
15 minute winter	S67	3.004	S68	59.8	1.504	0.275	2.1852	
15 minute winter	S68	3.005	S69	89.8	1.159	0.461	0.8879	
15 minute winter	S69	Flow through Pond	S70	155.5	0.123	0.048	109.4958	
360 minute winter	S70	1.012	S71	9.8	0.286	0.053	0.6606	
360 minute winter	S71	Hydro-Brake®	S72	9.8				
360 minute winter	S72	1.014	S73	9.8	0.932	0.194	0.0622	330.0

Results for 30 year Critical Storm Duration. Lowest mass balance: 97.49%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S47	10	86.225	0.060	15.2	0.1309	0.0000	OK
15 minute winter	S48	10	84.836	0.186	124.5	1.2234	0.0000	OK
15 minute winter	S49	10	84.166	0.196	130.5	0.3517	0.0000	OK
15 minute winter	S50	10	83.489	0.174	157.2	0.5173	0.0000	OK
15 minute winter	S51	11	81.540	0.200	189.7	0.6127	0.0000	OK
15 minute winter	S52	11	81.025	0.265	226.7	0.9096	0.0000	OK
15 minute winter	S53	11	80.554	0.224	245.4	0.5851	0.0000	OK
15 minute winter	S54	12	78.888	0.438	268.0	1.1386	0.0000	OK
15 minute winter	S55	12	78.687	0.472	279.1	1.1208	0.0000	SURCHARGED
15 minute winter	S57	10	78.892	0.082	60.4	0.8753	0.0000	OK
15 minute winter	S59	12	78.484	0.656	328.9	1.1599	0.0000	SURCHARGED
15 minute winter	S60	11	77.996	0.546	347.0	2.1210	0.0000	SURCHARGED
360 minute winter	S61	344	77.406	0.399	52.9	0.7053	0.0000	OK
15 minute winter	S62	10	80.747	0.084	37.4	0.2838	0.0000	OK
15 minute winter	S63	10	80.043	0.133	66.1	0.3644	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	S47	1.000	S48	15.0	1.421	0.154	0.5833	
15 minute winter	S48	1.001	S49	122.7	2.591	0.617	1.0136	
15 minute winter	S49	1.002	S50	129.2	2.885	0.622	0.7520	
15 minute winter	S50	1.003	S51	157.0	2.862	0.441	3.4446	
15 minute winter	S51	1.004	S52	190.8	2.659	0.448	0.9221	
15 minute winter	S52	1.005	S53	227.7	2.994	0.648	1.0640	
15 minute winter	S53	1.006	S54	247.9	3.072	0.677	4.6733	
15 minute winter	S54	1.007	S55	262.8	2.043	0.827	3.8419	
15 minute winter	S55	1.008	S59	269.1	1.879	0.587	3.0534	
15 minute winter	S57	2.00	S59	59.8	2.736	0.167	0.3502	
15 minute winter	S59	1.009	S60	316.5	1.998	1.007	6.3346	
15 minute winter	S60	1.010	S61	347.2	2.266	1.017	2.0713	
360 minute winter	S61	Flow through Pond	S70	47.2	0.031	0.015	560.3524	
15 minute winter	S62	3.000	S63	37.2	1.623	0.173	0.4705	
15 minute winter	S63	3.001	S65	65.1	2.268	0.362	0.7221	

Results for 30 year Critical Storm Duration. Lowest mass balance: 97.49%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S64	10	79.870	0.035	5.3	0.0599	0.0000	OK
15 minute winter	S65	10	79.326	0.146	100.7	0.3944	0.0000	OK
15 minute winter	S66	10	78.670	0.190	135.7	0.5392	0.0000	OK
15 minute winter	S67	10	78.219	0.229	145.5	0.4254	0.0000	OK
15 minute winter	S68	11	77.688	0.421	219.3	2.1645	0.0000	OK
15 minute winter	S69	11	77.478	0.471	220.8	0.8327	0.0000	OK
360 minute winter	S70	352	77.404	0.404	47.2	0.7137	0.0000	OK
360 minute winter	S71	352	77.404	0.441	10.5	3.1155	0.0000	SURCHARGED
60 minute winter	S72	248	76.430	0.074	10.0	0.1058	0.0000	OK
240 minute winter	S73	632	76.367	0.067	10.0	0.0000	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	S64	4.000	S65	5.2	1.350	0.050	0.0494	
15 minute winter	S65	3.002	S66	100.1	2.107	0.306	1.2560	
15 minute winter	S66	3.003	S67	134.3	2.139	0.444	1.3598	
15 minute winter	S67	3.004	S68	147.0	1.626	0.676	4.8354	
15 minute winter	S68	3.005	S69	220.8	1.560	1.133	1.5999	
15 minute winter	S69	Flow through Pond	S70	486.8	0.203	0.151	271.4016	
360 minute winter	S70	1.012	S71	10.5	0.287	0.056	1.7023	
360 minute winter	S71	Hydro-Brake®	S72	10.0				
60 minute winter	S72	1.014	S73	10.0	0.937	0.197	0.0630	464.2

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 97.92%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S47	10	86.246	0.081	27.6	0.1785	0.0000	OK
15 minute winter	S48	11	85.439	0.789	226.3	5.1902	0.0000	SURCHARGED
15 minute winter	S49	12	84.525	0.555	211.5	0.9954	0.0000	SURCHARGED
15 minute winter	S50	13	83.758	0.443	258.0	1.3139	0.0000	SURCHARGED
15 minute winter	S51	12	82.834	1.494	304.5	4.5682	0.0000	FLOOD RISK
15 minute winter	S52	12	82.407	1.647	336.0	5.6607	1.5944	FLOOD
15 minute winter	S53	12	81.868	1.538	336.4	4.0143	0.0000	FLOOD RISK
15 minute winter	S54	12	80.069	1.619	366.2	4.2100	0.0000	FLOOD RISK
15 minute winter	S55	12	79.619	1.404	388.9	3.3321	0.0000	SURCHARGED
15 minute winter	S57	13	79.232	0.422	109.8	13.3389	0.0000	FLOOD RISK
15 minute winter	S59	13	79.192	1.364	435.5	2.4096	0.0000	FLOOD RISK
15 minute winter	S60	12	78.276	0.826	485.1	3.2056	0.0000	SURCHARGED
720 minute winter	S61	705	77.772	0.765	55.3	1.3511	0.0000	OK
15 minute winter	S62	10	80.778	0.115	68.1	0.3885	0.0000	OK
15 minute winter	S63	10	80.106	0.196	120.4	0.5373	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	S47	1.000	S48	27.3	1.375	0.282	1.1011	
15 minute winter	S48	1.001	S49	197.9	2.811	0.996	1.5079	
15 minute winter	S49	1.002	S50	210.5	2.989	1.014	1.1792	
15 minute winter	S50	1.003	S51	246.3	2.931	0.692	6.9264	
15 minute winter	S51	1.004	S52	281.5	2.633	0.661	1.4219	
15 minute winter	S52	1.005	S53	314.3	2.997	0.894	1.5456	
15 minute winter	S53	1.006	S54	335.8	3.069	0.917	5.9789	
15 minute winter	S54	1.007	S55	364.1	2.298	1.146	3.8562	
15 minute winter	S55	1.008	S59	387.2	2.444	0.845	3.0534	
15 minute winter	S57	2.00	S59	97.0	2.824	0.271	0.5727	
15 minute winter	S59	1.009	S60	436.7	2.756	1.389	6.3346	
15 minute winter	S60	1.010	S61	485.2	3.063	1.421	2.1092	
720 minute winter	S61	Flow through Pond	S70	48.2	0.030	0.015	1152.4004	
15 minute winter	S62	3.000	S63	67.7	1.874	0.316	0.7488	
15 minute winter	S63	3.001	S65	118.6	2.590	0.659	1.4549	

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 97.92%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S64	10	79.881	0.046	9.6	0.0780	0.0000	OK
15 minute winter	S65	12	79.618	0.438	183.5	1.1857	0.0000	SURCHARGED
15 minute winter	S66	12	79.383	0.903	235.2	2.5699	0.0000	SURCHARGED
15 minute winter	S67	12	79.018	1.028	235.8	1.9093	0.0000	SURCHARGED
15 minute winter	S68	11	78.135	0.868	364.7	4.4638	0.0000	SURCHARGED
15 minute winter	S69	11	77.854	0.847	362.6	1.4965	0.0000	OK
720 minute winter	S70	705	77.770	0.770	48.2	1.3598	0.0000	SURCHARGED
720 minute winter	S71	705	77.769	0.806	10.3	5.7001	0.0000	SURCHARGED
30 minute winter	S72	19	76.430	0.074	10.0	0.1058	0.0000	OK
240 minute winter	S73	1612	76.367	0.067	10.0	0.0000	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	S64	4.000	S65	9.5	1.462	0.092	0.2897	
15 minute winter	S65	3.002	S66	170.5	2.174	0.521	2.9061	
15 minute winter	S66	3.003	S67	219.8	2.227	0.726	2.3749	
15 minute winter	S67	3.004	S68	238.7	2.164	1.097	6.0538	
15 minute winter	S68	3.005	S69	362.6	2.289	1.860	1.8151	
15 minute winter	S69	Flow through Pond	S70	706.1	0.236	0.220	501.4420	
720 minute winter	S70	1.012	S71	10.3	0.281	0.056	1.7537	
720 minute winter	S71	Hydro-Brake®	S72	10.0				
30 minute winter	S72	1.014	S73	10.0	0.937	0.197	0.0630	682.0