

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

Shape Circular | Barrels 1 | Auto Increment (mm) 75 | Follow Ground x

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	0.118	5.00	87.768	1350	451045.954	305369.455	1.603
S48	0.146	5.00	86.291	1350	451087.712	305371.344	1.601
S49	0.121	5.00	85.528	1350	451108.827	305367.783	1.508
S50	0.081	5.00	84.967	1500	451124.708	305373.089	1.652
S51	0.167	5.00	82.948	1350	451184.310	305375.524	1.608
S52	0.045	5.00	82.386	1350	451199.864	305371.308	1.626
S53	0.054	5.00	81.944	1350	451204.320	305358.537	1.614
S54	0.061	5.00	80.217	1350	451255.512	305376.363	1.767
S55	0.050	5.00	80.129	1350	451263.750	305353.462	1.914
S56	0.175	5.00	80.380	1500	451255.306	305417.704	1.680
S57			79.450	1500	451279.630	305362.577	1.340
S58			79.415	1350	451281.116	305359.195	1.433
S59			79.300	1500	451282.947	305355.151	1.472
S60	0.114	5.00	78.775	1500	451288.249	305315.525	1.415
S61			78.100	1500	451291.039	305302.370	1.504
S62	0.103	5.00	82.385	1350	451169.674	305319.604	1.722
S63	0.082	5.00	81.647	1350	451190.062	305319.284	1.737
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	0.099	5.00	80.232	1350	451217.734	305296.355	1.752
S67	0.032	5.00	79.884	1350	451213.569	305275.230	1.894
S68	0.222	5.00	78.675	1350	451266.098	305259.319	1.408
S69			78.100	1500	451276.171	305253.862	1.504
S70		5.00	78.100	1500	451295.865	305256.974	1.550
S71			78.100	3000	451301.933	305256.771	1.568
S72			77.500	1350	451320.232	305256.264	1.594
S73			76.163	1500	451326.151	305256.217	0.313

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	84.765	1.400	29.9	225	5.29	0.0
1.001	S48	S49	21.413	0.600	84.690	84.020	0.670	32.0	300	5.42	0.0
1.002	S49	S50	16.745	0.600	84.020	83.390	0.630	26.6	300	5.51	0.0
1.003	S50	S51	59.651	0.600	83.315	81.340	1.975	30.2	375	5.81	0.0
1.004	S51	S52	16.116	0.600	81.340	80.760	0.580	27.8	375	5.89	0.0
1.005	S52	S53	13.526	0.600	80.760	80.330	0.430	31.5	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	6.43	0.0
1.008	S55	S59	19.271	0.600	78.215	77.829	0.386	49.9	450	6.54	0.0
2.000	S56	S57	60.255	0.600	78.700	78.110	0.590	102.1	300	5.65	0.0
2.001	S57	S58	3.693	0.600	78.110	77.982	0.128	28.9	300	5.67	0.0
2.002	S58	S59	4.439	0.600	77.982	77.828	0.154	28.8	300	5.69	0.0
1.009	S59	S60	39.980	0.600	77.828	77.510	0.318	125.7	450	6.91	0.0
1.010	S60	S61	13.448	0.600	77.360	77.300	0.060	224.1	600	7.05	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	2.403	95.5	0.0	1.378	1.301	0.118	0.0
1.001	2.790	197.2	0.0	1.301	1.208	0.264	0.0
1.002	3.061	216.4	0.0	1.208	1.277	0.385	0.0
1.003	3.307	365.2	0.0	1.277	1.233	0.466	0.0
1.004	3.448	380.8	0.0	1.233	1.251	0.633	0.0
1.005	3.240	357.9	0.0	1.251	1.239	0.678	0.0
1.006	3.316	366.3	0.0	1.239	1.317	0.733	0.0
1.007	1.997	317.6	0.0	1.317	1.464	0.794	0.0
1.008	2.882	458.4	0.0	1.464	1.021	0.844	0.0
2.000	1.555	109.9	0.0	1.380	1.040	0.175	0.0
2.001	2.938	207.6	0.0	1.040	1.133	0.175	0.0
2.002	2.939	207.7	0.0	1.133	1.172	0.175	0.0
1.009	1.812	288.1	0.0	1.022	0.815	1.019	0.0
1.010	1.622	458.7	0.0	0.815	0.200	1.133	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)
3.000	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
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	6.071	0.600	76.550	76.532	0.018	337.3	450	5.09	0.0
1.013	S71	S72	18.306	0.600	76.532	75.906	0.626	29.2	225	5.22	0.0
1.014	S72	S73	5.919	0.600	75.906	75.850	0.056	105.7	225	5.30	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)
3.000	3.033	214.4	0.0	1.422	1.437	0.103	0.0
3.001	2.544	179.8	0.0	1.437	1.352	0.185	0.0
4.000	2.613	103.9	0.0	1.201	1.352	0.015	0.0
3.002	2.961	327.0	0.0	1.352	1.377	0.289	0.0
3.003	2.739	302.6	0.0	1.377	1.519	0.388	0.0
3.004	1.969	217.5	0.0	1.519	0.958	0.420	0.0
3.005	1.226	195.0	0.0	0.958	0.425	0.642	0.0
1.012	1.101	175.1	0.0	1.100	1.118	0.000	0.0
1.013	2.428	96.5	0.0	1.343	1.369	0.000	0.0
1.014	1.271	50.5	0.0	1.369	0.088	0.000	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	29.9	225	Circular	87.768	86.165	1.378	86.291	84.765	1.301
1.001	21.413	32.0	300	Circular	86.291	84.690	1.301	85.528	84.020	1.208
1.002	16.745	26.6	300	Circular	85.528	84.020	1.208	84.967	83.390	1.277
1.003	59.651	30.2	375	Circular	84.967	83.315	1.277	82.948	81.340	1.233
1.004	16.116	27.8	375	Circular	82.948	81.340	1.233	82.386	80.760	1.251
1.005	13.526	31.5	375	Circular	82.386	80.760	1.251	81.944	80.330	1.239
1.006	54.207	30.0	375	Circular	81.944	80.330	1.239	80.217	78.525	1.317
1.007	24.338	103.6	450	Circular	80.217	78.450	1.317	80.129	78.215	1.464
1.008	19.271	49.9	450	Circular	80.129	78.215	1.464	79.300	77.829	1.021
2.000	60.255	102.1	300	Circular	80.380	78.700	1.380	79.450	78.110	1.040
2.001	3.693	28.9	300	Circular	79.450	78.110	1.040	79.415	77.982	1.133
2.002	4.439	28.8	300	Circular	79.415	77.982	1.133	79.300	77.828	1.172
1.009	39.980	125.7	450	Circular	79.300	77.828	1.022	78.775	77.510	0.815
1.010	13.448	224.1	600	Circular	78.775	77.360	0.815	78.100	77.300	0.200
3.000	20.391	27.1	300	Circular	82.385	80.663	1.422	81.647	79.910	1.437

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	1350	Manhole	Adoptable
1.005	S52	1350	Manhole	Adoptable	S53	1350	Manhole	Adoptable
1.006	S53	1350	Manhole	Adoptable	S54	1350	Manhole	Adoptable
1.007	S54	1350	Manhole	Adoptable	S55	1350	Manhole	Adoptable
1.008	S55	1350	Manhole	Adoptable	S59	1500	Manhole	Adoptable
2.000	S56	1500	Manhole	Adoptable	S57	1500	Manhole	Adoptable
2.001	S57	1500	Manhole	Adoptable	S58	1350	Manhole	Adoptable
2.002	S58	1350	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

Pipeline Schedule

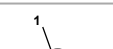
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3.001	25.160	38.4	300	Circular	81.647	79.910	1.437	80.907	79.255	1.352
4.000	12.761	25.3	225	Circular	81.261	79.835	1.201	80.907	79.330	1.352
3.002	26.348	37.6	375	Circular	80.907	79.180	1.352	80.232	78.480	1.377
3.003	21.532	43.9	375	Circular	80.232	78.480	1.377	79.884	77.990	1.519
3.004	54.886	84.7	375	Circular	79.884	77.990	1.519	78.675	77.342	0.958
3.005	11.456	272.8	450	Circular	78.675	77.267	0.958	78.100	77.225	0.425
1.012	6.071	337.3	450	Circular	78.100	76.550	1.100	78.100	76.532	1.118
1.013	18.306	29.2	225	Circular	78.100	76.532	1.343	77.500	75.906	1.369
1.014	5.919	105.7	225	Circular	77.500	75.906	1.369	76.163	75.850	0.088

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
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
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

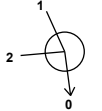
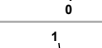
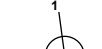
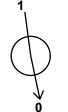
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
S47	451045.954	305369.455	87.768	1.603	1350				
						0	1.000	86.165	225

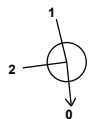
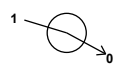
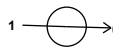
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
S48	451087.712	305371.344	86.291	1.601	1350	 1	1.000	84.765	225
						 0	1.001	84.690	300
S49	451108.827	305367.783	85.528	1.508	1350	 1	1.001	84.020	300
						 0	1.002	84.020	300
S50	451124.708	305373.089	84.967	1.652	1500	 1	1.002	83.390	300
						 0	1.003	83.315	375
S51	451184.310	305375.524	82.948	1.608	1350	 1	1.003	81.340	375
						 0	1.004	81.340	375
S52	451199.864	305371.308	82.386	1.626	1350	 1	1.004	80.760	375
						 0	1.005	80.760	375
S53	451204.320	305358.537	81.944	1.614	1350	 1	1.005	80.330	375
						 0	1.006	80.330	375
S54	451255.512	305376.363	80.217	1.767	1350	 1	1.006	78.525	375
						 0	1.007	78.450	450
S55	451263.750	305353.462	80.129	1.914	1350	 1	1.007	78.215	450
						 0	1.008	78.215	450

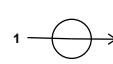
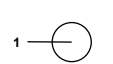
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
S56	451255.306	305417.704	80.380	1.680	1500		0	2.000	78.700	300
S57	451279.630	305362.577	79.450	1.340	1500		1	2.000	78.110	300
							0	2.001	78.110	300
S58	451281.116	305359.195	79.415	1.433	1350		1	2.001	77.982	300
							0	2.002	77.982	300
S59	451282.947	305355.151	79.300	1.472	1500		1	2.002	77.828	300
							2	1.008	77.829	450
							0	1.009	77.828	450
S60	451288.249	305315.525	78.775	1.415	1500		1	1.009	77.510	450
							0	1.010	77.360	600
S61	451291.039	305302.370	78.100	1.504	1500		1	1.010	77.300	600
S62	451169.674	305319.604	82.385	1.722	1350		0	3.000	80.663	300
S63	451190.062	305319.284	81.647	1.737	1350		1	3.000	79.910	300
							0	3.001	79.910	300

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
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 2 0	4.000 3.001 3.002	79.330 79.255 79.180	225 300 375
S66	451217.734	305296.355	80.232	1.752	1350		1 0	3.002 3.003	78.480 78.480	375 375
S67	451213.569	305275.230	79.884	1.894	1350		1 0	3.003 3.004	77.990 77.990	375 375
S68	451266.098	305259.319	78.675	1.408	1350		1 0	3.004 3.005	77.342 77.267	375 450
S69	451276.171	305253.862	78.100	1.504	1500		1	3.005	77.225	450
S70	451295.865	305256.974	78.100	1.550	1500		0	1.012	76.550	450
S71	451301.933	305256.771	78.100	1.568	3000		1 0	1.012 1.013	76.532 76.532	450 225

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
S72	451320.232	305256.264	77.500	1.594	1350	1  0	1.013	75.906	225
						0  1	1.014	75.906	225
S73	451326.151	305256.217	76.163	0.313	1500	1  1	1.014	75.850	225

Simulation Settings

Rainfall Methodology	FSR	Summer CV	0.750	Additional Storage (m³/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

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	x	Sump Available	✓
Invert Level (m)	76.982	Product Number	CTL-SHE-0149-1000-0750-1000
Design Depth (m)	0.750	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)	45.650
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	76.550	Main Channel Slope (1:X)	1000.0
Safety Factor	2.0	Time to half empty (mins)	780	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)	78.110
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	0

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	6.1	0.200	17.5	17.6	0.300	34.3	34.5	0.400	56.6	56.9	0.500	86.8	87.2

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

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
1 year 15 minute summer	109.521	30.991	30 year 180 minute summer	53.298	13.715
1 year 15 minute winter	76.857	30.991	30 year 180 minute winter	34.645	13.715
1 year 30 minute summer	71.439	20.215	30 year 240 minute summer	41.604	10.995
1 year 30 minute winter	50.133	20.215	30 year 240 minute winter	27.641	10.995
1 year 60 minute summer	48.435	12.800	30 year 360 minute summer	31.221	8.034
1 year 60 minute winter	32.179	12.800	30 year 360 minute winter	20.295	8.034
1 year 120 minute summer	30.053	7.942	30 year 480 minute summer	24.324	6.428
1 year 120 minute winter	19.966	7.942	30 year 480 minute winter	16.160	6.428
1 year 180 minute summer	23.233	5.979	30 year 600 minute summer	19.756	5.404
1 year 180 minute winter	15.102	5.979	30 year 600 minute winter	13.498	5.404
1 year 240 minute summer	18.475	4.882	30 year 720 minute summer	17.490	4.687
1 year 240 minute winter	12.274	4.882	30 year 720 minute winter	11.754	4.687
1 year 360 minute summer	14.169	3.646	30 year 960 minute summer	14.215	3.743
1 year 360 minute winter	9.210	3.646	30 year 960 minute winter	9.416	3.743
1 year 480 minute summer	11.185	2.956	30 year 1440 minute summer	10.161	2.723
1 year 480 minute winter	7.431	2.956	30 year 1440 minute winter	6.829	2.723
1 year 600 minute summer	9.182	2.511	100 year +40% CC 15 minute summer	488.233	138.153
1 year 600 minute winter	6.274	2.511	100 year +40% CC 15 minute winter	342.620	138.153
1 year 720 minute summer	8.203	2.199	100 year +40% CC 30 minute summer	320.551	90.705
1 year 720 minute winter	5.513	2.199	100 year +40% CC 30 minute winter	224.948	90.705
1 year 960 minute summer	6.768	1.782	100 year +40% CC 60 minute summer	214.603	56.713
1 year 960 minute winter	4.483	1.782	100 year +40% CC 60 minute winter	142.577	56.713
1 year 1440 minute summer	4.949	1.326	100 year +40% CC 120 minute summer	129.587	34.246
1 year 1440 minute winter	3.326	1.326	100 year +40% CC 120 minute winter	86.094	34.246
30 year 15 minute summer	268.706	76.035	100 year +40% CC 180 minute summer	97.729	25.149
30 year 15 minute winter	188.566	76.035	100 year +40% CC 180 minute winter	63.526	25.149
30 year 30 minute summer	174.929	49.499	100 year +40% CC 240 minute summer	75.977	20.078
30 year 30 minute winter	122.757	49.499	100 year +40% CC 240 minute winter	50.477	20.078
30 year 60 minute summer	116.589	30.811	100 year +40% CC 360 minute summer	56.677	14.585
30 year 60 minute winter	77.459	30.811	100 year +40% CC 360 minute winter	36.841	14.585
30 year 120 minute summer	70.438	18.615	100 year +40% CC 480 minute summer	43.979	11.622
30 year 120 minute winter	46.797	18.615	100 year +40% CC 480 minute winter	29.219	11.622

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
100 year +40% CC 600 minute summer	35.604	9.738	100 year +40% CC 960 minute summer	25.432	6.697
100 year +40% CC 600 minute winter	24.327	9.738	100 year +40% CC 960 minute winter	16.847	6.697
100 year +40% CC 720 minute summer	31.433	8.424	100 year +40% CC 1440 minute summer	18.055	4.839
100 year +40% CC 720 minute winter	21.125	8.424	100 year +40% CC 1440 minute winter	12.134	4.839

Results for 1 year Critical Storm Duration. Lowest mass balance: 94.19%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S47	10	86.229	0.064	16.6	0.2078	0.0000	OK
15 minute winter	S48	10	84.778	0.088	36.8	0.3261	0.0000	OK
15 minute winter	S49	10	84.128	0.108	53.5	0.3732	0.0000	OK
15 minute winter	S50	11	83.420	0.105	64.2	0.3137	0.0000	OK
15 minute winter	S51	11	81.469	0.129	86.9	0.5201	0.0000	OK
15 minute winter	S52	11	80.905	0.145	92.8	0.3074	0.0000	OK
15 minute winter	S53	11	80.468	0.138	100.4	0.3132	0.0000	OK
15 minute winter	S54	11	78.646	0.196	108.9	0.4504	0.0000	OK
15 minute winter	S55	11	78.380	0.165	115.6	0.3442	0.0000	OK
15 minute winter	S56	10	78.800	0.100	24.7	0.4351	0.0000	OK
15 minute winter	S57	11	78.192	0.082	24.1	0.3486	0.0000	OK
15 minute winter	S58	11	78.051	0.069	24.1	0.0980	0.0000	OK
15 minute winter	S59	11	78.061	0.233	139.5	0.4113	0.0000	OK
15 minute winter	S60	11	77.621	0.261	152.8	0.9868	0.0000	OK
1440 minute winter	S61	1500	76.922	0.327	8.8	0.5774	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	16.2	1.781	0.169	0.3794	
15 minute winter	S48	1.001	S49	36.4	1.820	0.185	0.4295	
15 minute winter	S49	1.002	S50	52.8	2.429	0.244	0.3642	
15 minute winter	S50	1.003	S51	63.7	2.177	0.174	1.7505	
15 minute winter	S51	1.004	S52	86.8	2.389	0.228	0.5859	
15 minute winter	S52	1.005	S53	93.2	2.460	0.260	0.5126	
15 minute winter	S53	1.006	S54	100.8	2.819	0.275	1.9380	
15 minute winter	S54	1.007	S55	109.0	1.835	0.343	1.4471	
15 minute winter	S55	1.008	S59	115.5	1.714	0.252	1.3008	
15 minute winter	S56	2.000	S57	24.1	1.367	0.219	1.0696	
15 minute winter	S57	2.001	S58	24.1	1.747	0.116	0.0510	
15 minute winter	S58	2.002	S59	24.1	0.686	0.116	0.1570	
15 minute winter	S59	1.009	S60	137.7	1.764	0.478	3.1468	
15 minute winter	S60	1.010	S61	152.0	1.400	0.331	1.4632	
1440 minute winter	S61	Flow through Pond	S70	-19.0	0.016	-0.001	468.7991	

Results for 1 year Critical Storm Duration. Lowest mass balance: 94.19%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S62	10	80.715	0.052	14.5	0.1533	0.0000	OK
15 minute winter	S63	10	79.989	0.079	26.0	0.2060	0.0000	OK
15 minute winter	S64	10	79.858	0.023	2.2	0.0387	0.0000	OK
15 minute winter	S65	10	79.268	0.088	40.0	0.2378	0.0000	OK
15 minute winter	S66	10	78.589	0.109	53.7	0.3098	0.0000	OK
15 minute winter	S67	11	78.121	0.131	57.5	0.2437	0.0000	OK
15 minute winter	S68	11	77.499	0.232	87.7	1.2455	0.0000	OK
1440 minute winter	S69	1470	76.917	0.321	14.5	0.5672	0.0000	OK
1440 minute winter	S70	11520	76.912	0.362	13.3	0.6393	0.0000	OK
1440 minute winter	S71	11460	76.912	0.380	0.2	2.6848	0.0000	SURCHARGED
15 minute summer	S72	1	75.906	0.000	0.0	0.0000	0.0000	OK
15 minute summer	S73	1	75.850	0.000	0.0	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	S62	3.000	S63	14.4	1.266	0.067	0.2340	
15 minute winter	S63	3.001	S65	25.5	1.777	0.142	0.3606	
15 minute winter	S64	4.000	S65	2.1	1.038	0.021	0.0263	
15 minute winter	S65	3.002	S66	39.7	1.728	0.121	0.6067	
15 minute winter	S66	3.003	S67	53.1	1.755	0.175	0.6522	
15 minute winter	S67	3.004	S68	58.2	1.497	0.267	2.1405	
15 minute winter	S68	3.005	S69	88.2	1.153	0.453	0.8767	
1440 minute winter	S69	Flow through Pond	S70	-19.0	0.016	-0.001	468.7991	
1440 minute winter	S70	1.012	S71	-0.3	0.093	-0.001	0.8478	
1440 minute winter	S71	1.013	S72	0.0	0.000	0.000	0.0000	
15 minute summer	S72	1.014	S73	0.0	0.000	0.000	0.0000	0.0

Results for 30 year Critical Storm Duration. Lowest mass balance: 94.19%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S47	10	86.269	0.104	40.7	0.3411	0.0000	OK
15 minute winter	S48	10	84.838	0.148	90.4	0.5494	0.0000	OK
15 minute winter	S49	10	84.211	0.191	131.7	0.6589	0.0000	OK
15 minute winter	S50	10	83.484	0.169	158.2	0.5070	0.0000	OK
15 minute winter	S51	10	81.569	0.229	214.5	0.9220	0.0000	OK
15 minute winter	S52	11	81.023	0.263	227.6	0.5599	0.0000	OK
15 minute winter	S53	11	80.557	0.227	246.5	0.5163	0.0000	OK
15 minute winter	S54	11	78.813	0.363	268.0	0.8344	0.0000	OK
15 minute winter	S55	11	78.535	0.320	285.5	0.6673	0.0000	OK
15 minute winter	S56	10	78.863	0.163	60.5	0.7112	0.0000	OK
15 minute winter	S57	12	78.377	0.267	59.7	3.5057	0.0000	OK
15 minute winter	S58	12	78.364	0.382	72.2	0.5473	0.0000	SURCHARGED
15 minute winter	S59	12	78.348	0.520	313.7	0.9190	0.0000	SURCHARGED
15 minute winter	S60	12	77.796	0.436	341.8	1.6499	0.0000	OK
960 minute winter	S61	825	77.135	0.540	27.0	0.9534	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	39.9	2.265	0.418	0.7366	
15 minute winter	S48	1.001	S49	89.7	2.183	0.455	0.8789	
15 minute winter	S49	1.002	S50	130.1	2.978	0.601	0.7321	
15 minute winter	S50	1.003	S51	156.7	2.639	0.429	3.5397	
15 minute winter	S51	1.004	S52	212.9	2.779	0.559	1.2336	
15 minute winter	S52	1.005	S53	228.8	2.999	0.639	1.0308	
15 minute winter	S53	1.006	S54	248.0	3.077	0.677	4.3500	
15 minute winter	S54	1.007	S55	269.3	2.086	0.848	3.1354	
15 minute winter	S55	1.008	S59	285.4	1.945	0.623	2.6899	
15 minute winter	S56	2.000	S57	59.7	1.615	0.543	2.9767	
15 minute winter	S57	2.001	S58	72.2	1.758	0.348	0.2523	
15 minute winter	S58	2.002	S59	76.9	1.091	0.370	0.3126	
15 minute winter	S59	1.009	S60	311.0	2.024	1.080	6.0668	
15 minute winter	S60	1.010	S61	342.7	1.692	0.747	2.7194	
960 minute winter	S61	Flow through Pond	S70	44.1	0.026	0.001	757.9003	

Results for 30 year Critical Storm Duration. Lowest mass balance: 94.19%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S62	10	80.745	0.082	35.6	0.2395	0.0000	OK
15 minute winter	S63	10	80.040	0.130	63.8	0.3394	0.0000	OK
15 minute winter	S64	10	79.870	0.035	5.3	0.0600	0.0000	OK
15 minute winter	S65	10	79.324	0.144	98.5	0.3894	0.0000	OK
15 minute winter	S66	10	78.666	0.186	132.2	0.5304	0.0000	OK
15 minute winter	S67	10	78.215	0.225	142.0	0.4177	0.0000	OK
15 minute winter	S68	11	77.681	0.414	216.1	2.2241	0.0000	OK
1440 minute winter	S69	1110	77.117	0.521	33.7	0.9205	0.0000	OK
1440 minute winter	S70	1080	77.110	0.560	34.2	0.9896	0.0000	SURCHARGED
1440 minute winter	S71	1080	77.110	0.578	7.6	4.0853	0.0000	SURCHARGED
1440 minute winter	S72	1080	75.970	0.064	7.6	0.0915	0.0000	OK
1440 minute winter	S73	1080	75.909	0.059	7.6	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	S62	3.000	S63	35.4	1.593	0.165	0.4562	
15 minute winter	S63	3.001	S65	62.8	2.248	0.349	0.7028	
15 minute winter	S64	4.000	S65	5.2	1.350	0.050	0.0495	
15 minute winter	S65	3.002	S66	97.9	2.100	0.299	1.2308	
15 minute winter	S66	3.003	S67	130.9	2.123	0.432	1.3300	
15 minute winter	S67	3.004	S68	142.9	1.611	0.657	4.7588	
15 minute winter	S68	3.005	S69	216.9	1.550	1.112	1.5846	
1440 minute winter	S69	Flow through Pond	S70	34.2	0.026	0.001	772.9737	
1440 minute winter	S70	1.012	S71	7.6	0.087	0.043	0.9619	
1440 minute winter	S71	1.013	S72	7.6	1.065	0.079	0.1326	
1440 minute winter	S72	1.014	S73	7.6	0.874	0.151	0.0518	388.4

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 94.19%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S47	10	86.312	0.147	73.9	0.4793	0.0000	OK
15 minute winter	S48	11	85.172	0.482	165.1	1.7879	0.0000	SURCHARGED
15 minute winter	S49	12	84.664	0.644	224.6	2.2151	0.0000	SURCHARGED
15 minute winter	S50	12	83.891	0.576	271.3	1.7255	0.0000	SURCHARGED
15 minute winter	S51	12	82.916	1.576	360.6	6.3479	0.0000	FLOOD RISK
15 minute winter	S52	12	82.307	1.547	338.4	3.2887	0.0000	FLOOD RISK
15 minute winter	S53	12	81.695	1.365	358.4	3.1055	0.0000	FLOOD RISK
15 minute winter	S54	12	79.678	1.228	385.5	2.8237	0.0000	SURCHARGED
15 minute winter	S55	13	79.197	0.982	408.5	2.0460	0.0000	SURCHARGED
15 minute winter	S56	11	79.159	0.459	110.0	2.0073	0.0000	SURCHARGED
15 minute winter	S57	15	78.786	0.676	115.3	32.2678	0.0000	SURCHARGED
15 minute winter	S58	14	78.769	0.787	159.9	1.1258	0.0000	SURCHARGED
15 minute winter	S59	14	78.754	0.926	415.1	1.6362	0.0000	SURCHARGED
15 minute winter	S60	12	77.903	0.543	456.3	2.0553	0.0000	OK
1440 minute winter	S61	1260	77.433	0.837	62.8	1.4798	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	73.4	2.504	0.768	1.4043	
15 minute winter	S48	1.001	S49	152.8	2.263	0.775	1.5079	
15 minute winter	S49	1.002	S50	223.3	3.171	1.032	1.1792	
15 minute winter	S50	1.003	S51	259.2	2.732	0.710	6.5793	
15 minute winter	S51	1.004	S52	312.8	2.837	0.821	1.7775	
15 minute winter	S52	1.005	S53	331.7	3.021	0.927	1.4919	
15 minute winter	S53	1.006	S54	355.4	3.223	0.970	5.9789	
15 minute winter	S54	1.007	S55	384.0	2.424	1.209	3.8562	
15 minute winter	S55	1.008	S59	407.0	2.569	0.888	3.0534	
15 minute winter	S56	2.000	S57	100.9	1.698	0.918	4.2431	
15 minute winter	S57	2.001	S58	159.9	2.272	0.770	0.2601	
15 minute winter	S58	2.002	S59	162.1	2.302	0.780	0.3126	
15 minute winter	S59	1.009	S60	415.3	2.622	1.442	6.2521	
15 minute winter	S60	1.010	S61	455.7	1.838	0.994	3.3054	
1440 minute winter	S61	Flow through Pond	S70	39.6	0.022	0.001	1308.9108	

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 94.19%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S62	10	80.775	0.112	64.7	0.3272	0.0000	OK
15 minute winter	S63	10	80.100	0.190	116.0	0.4979	0.0000	OK
15 minute winter	S64	9	79.881	0.046	9.6	0.0782	0.0000	OK
15 minute winter	S65	11	79.454	0.274	179.3	0.7425	0.0000	OK
15 minute winter	S66	11	79.253	0.773	233.8	2.2024	0.0000	SURCHARGED
15 minute winter	S67	11	78.876	0.886	241.4	1.6468	0.0000	SURCHARGED
15 minute winter	S68	11	77.942	0.675	371.1	3.6243	0.0000	SURCHARGED
15 minute winter	S69	11	77.472	0.876	371.0	1.5479	0.0000	OK
1440 minute winter	S70	1170	77.428	0.878	39.6	1.5519	0.0000	SURCHARGED
1440 minute winter	S71	1200	77.428	0.896	10.1	6.3348	0.0000	SURCHARGED
240 minute winter	S72	588	75.980	0.074	10.0	0.1060	0.0000	OK
240 minute winter	S73	588	75.917	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	S62	3.000	S63	64.4	1.811	0.300	0.7246	
15 minute winter	S63	3.001	S65	114.3	2.572	0.636	1.1887	
15 minute winter	S64	4.000	S65	9.5	1.507	0.092	0.1791	
15 minute winter	S65	3.002	S66	171.4	2.208	0.524	2.5902	
15 minute winter	S66	3.003	S67	222.3	2.221	0.735	2.3749	
15 minute winter	S67	3.004	S68	241.0	2.186	1.108	6.0538	
15 minute winter	S68	3.005	S69	371.0	2.343	1.903	1.7773	
15 minute winter	S69	Flow through Pond	S70	704.5	0.213	0.020	512.5198	
1440 minute winter	S70	1.012	S71	10.1	0.203	0.058	0.9619	
1440 minute winter	S71	1.013	S72	10.0	1.142	0.104	0.1618	
240 minute winter	S72	1.014	S73	10.0	0.937	0.198	0.0632	683.2