

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Width (mm)	Easting (m)	Northing (m)	Depth (m)
S01	0.032	5.00	100.000	1000		332557.496	343871.874	0.750
S02			100.000	1000		332488.126	343929.202	1.350
BEND 1	0.039	5.00	100.000	1		332480.169	343936.185	1.600
S03			98.700	1000		332479.924	344015.787	0.831
NULL	0.019	5.00	98.500	1		332479.579	344035.393	0.762
BEND 2	0.008	5.00	98.500	1		332479.310	344079.118	1.054
S04	0.081	5.00	98.730	1200		332469.451	343971.910	0.825
S05	0.081	5.00	98.730	1200		332469.490	344061.791	1.414
S06			98.730	1200		332469.483	344087.656	1.577
S07	0.081	5.00	98.730	1200		332351.931	343971.910	0.825
S08	0.082	5.00	98.730	1200		332351.986	344060.288	1.414
S09			98.400	1200		332351.931	344096.138	1.302
S10	0.162	5.00	98.730	1200		332380.311	343971.910	0.900
S11	0.161	5.00	98.730	1200		332380.291	344060.382	1.405
S12	0.059	5.00	98.500	1350		332381.175	344096.126	1.672
S13	0.163	5.00	98.730	1200		332410.691	343971.910	0.900
S14	0.161	5.00	98.730	1200		332410.640	344060.847	1.309
S15	0.050	5.00	98.500	1500		332411.566	344096.144	1.822
S16	0.162	5.00	98.730	1200		332441.071	343971.910	0.900
S17	0.162	5.00	98.730	1200		332440.867	344061.487	1.630
S18	0.046	5.00	98.500	1500		332441.951	344096.168	1.959
S19	0.040	5.00	98.500	1500		332469.451	344096.138	2.007
POND INLET			97.700	1500		332482.491	344119.929	1.350
POND OUTLET	0.185	5.00	97.700	1500		332500.975	344129.170	1.385
HB			97.500	1500		332508.500	344131.500	1.238
OUTFALL			96.500	900	675	332522.283	344132.361	0.330

Links (Results)

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	0.818	14.5	3.8	0.600	1.200	0.032	0.0
1.001	0.820	14.5	3.7	1.200	1.271	0.032	0.0
1.002	0.818	14.5	7.4	1.450	0.681	0.071	0.0
1.003	0.819	14.5	7.3	0.681	0.612	0.071	0.0
1.004	0.819	14.5	8.8	0.612	0.904	0.090	0.0
1.005	0.819	14.5	9.4	0.903	1.220	0.098	0.0
2.000	1.056	42.0	9.8	0.600	1.189	0.081	0.0
2.001	1.035	41.2	19.0	1.189	1.352	0.162	0.0
1.006	2.407	95.7	24.9	1.352	1.407	0.260	0.0
3.000	1.065	42.3	9.8	0.600	1.189	0.081	0.0
3.001	0.821	32.6	18.8	1.189	1.002	0.163	0.0
3.002	1.002	70.9	18.2	1.002	1.222	0.163	0.0
4.000	1.185	83.7	19.9	0.600	1.105	0.162	0.0
4.001	1.548	109.4	38.5	1.105	1.222	0.323	0.0
3.003	1.004	159.6	59.0	1.222	1.297	0.545	0.0
5.000	1.062	75.1	19.8	0.600	1.009	0.163	0.0
5.001	1.907	134.8	38.4	1.009	1.297	0.324	0.0
3.004	1.005	217.5	96.6	1.297	1.359	0.919	0.0
6.000	1.418	100.2	20.1	0.600	1.330	0.162	0.0
6.001	1.356	95.9	39.1	1.330	1.359	0.324	0.0
3.005	1.010	285.6	131.9	1.359	1.407	1.289	0.0
1.007	1.764	498.8	150.5	1.407	0.750	1.589	0.0
1.008	0.995	281.3	147.9	0.750	0.785	1.589	0.0
1.009	0.822	14.5	163.9	1.235	1.088	1.774	0.0
1.010	0.818	14.4	161.8	1.088	0.180	1.774	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	89.993	150.0	150	1 STANDARD	100.000	99.250	0.600	100.000	98.650	1.200
1.001	10.587	149.1	150	1 STANDARD	100.000	98.650	1.200	100.000	98.579	1.271
1.002	79.602	149.9	150	1 STANDARD	100.000	98.400	1.450	98.700	97.869	0.681
1.003	19.609	149.7	150	1 STANDARD	98.700	97.869	0.681	98.500	97.738	0.612
1.004	43.726	149.7	150	1 STANDARD	98.500	97.738	0.612	98.500	97.446	0.904
1.005	13.018	149.6	150	1 STANDARD	98.500	97.447	0.903	98.730	97.360	1.220
2.000	89.881	152.6	225	1 STANDARD	98.730	97.905	0.600	98.730	97.316	1.189
2.001	25.865	158.7	225	1 STANDARD	98.730	97.316	1.189	98.730	97.153	1.352
1.006	8.482	29.8	225	1 STANDARD	98.730	97.153	1.352	98.500	96.868	1.407
3.000	88.378	150.0	225	1 STANDARD	98.730	97.905	0.600	98.730	97.316	1.189
3.001	35.850	250.7	225	1 STANDARD	98.730	97.316	1.189	98.400	97.173	1.002
3.002	29.244	243.7	300	1 STANDARD	98.400	97.098	1.002	98.500	96.978	1.222
4.000	88.472	175.2	300	1 STANDARD	98.730	97.830	0.600	98.730	97.325	1.105
4.001	35.755	103.0	300	1 STANDARD	98.730	97.325	1.105	98.500	96.978	1.222
3.003	30.391	405.2	450	1 STANDARD	98.500	96.828	1.222	98.500	96.753	1.297

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Width (mm)	Node Type	MH Type
1.000	S01	1000	Manhole	1 STANDARD	S02	1000		Manhole	1 STANDARD
1.001	S02	1000	Manhole	1 STANDARD	BEND 1	1		Manhole	1 STANDARD
1.002	BEND 1	1	Manhole	1 STANDARD	S03	1000		Manhole	1 STANDARD
1.003	S03	1000	Manhole	1 STANDARD	NULL	1		Manhole	1 STANDARD
1.004	NULL	1	Manhole	1 STANDARD	BEND 2	1		Manhole	1 STANDARD
1.005	BEND 2	1	Manhole	1 STANDARD	S06	1200		Manhole	1 STANDARD
2.000	S04	1200	Manhole	1 STANDARD	S05	1200		Manhole	1 STANDARD
2.001	S05	1200	Manhole	1 STANDARD	S06	1200		Manhole	1 STANDARD
1.006	S06	1200	Manhole	1 STANDARD	S19	1500		Manhole	1 STANDARD
3.000	S07	1200	Manhole	1 STANDARD	S08	1200		Manhole	1 STANDARD
3.001	S08	1200	Manhole	1 STANDARD	S09	1200		Manhole	1 STANDARD
3.002	S09	1200	Manhole	1 STANDARD	S12	1350		Manhole	1 STANDARD
4.000	S10	1200	Manhole	1 STANDARD	S11	1200		Manhole	1 STANDARD
4.001	S11	1200	Manhole	1 STANDARD	S12	1350		Manhole	1 STANDARD
3.003	S12	1350	Manhole	1 STANDARD	S15	1500		Manhole	1 STANDARD

Pipeline Schedule

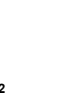
Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
5.000	88.937	217.4	300	1 STANDARD	98.730	97.830	0.600	98.730	97.421	1.009
5.001	35.309	68.2	300	1 STANDARD	98.730	97.421	1.009	98.500	96.903	1.297
3.004	30.385	490.1	525	1 STANDARD	98.500	96.678	1.297	98.500	96.616	1.359
6.000	89.577	122.7	300	1 STANDARD	98.730	97.830	0.600	98.730	97.100	1.330
6.001	34.698	134.0	300	1 STANDARD	98.730	97.100	1.330	98.500	96.841	1.359
3.005	27.500	572.9	600	1 STANDARD	98.500	96.541	1.359	98.500	96.493	1.407
1.007	27.130	189.7	600	1 STANDARD	98.500	96.493	1.407	97.700	96.350	0.750
1.008	20.664	590.4	600	1 STANDARD	97.700	96.350	0.750	97.700	96.315	0.785
1.009	7.878	148.6	150	1 STANDARD	97.700	96.315	1.235	97.500	96.262	1.088
1.010	13.810	150.1	150	1 STANDARD	97.500	96.262	1.088	96.500	96.170	0.180

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Width (mm)	Node Type	MH Type
5.000	S13	1200	Manhole	1 STANDARD	S14	1200		Manhole	1 STANDARD
5.001	S14	1200	Manhole	1 STANDARD	S15	1500		Manhole	1 STANDARD
3.004	S15	1500	Manhole	1 STANDARD	S18	1500		Manhole	1 STANDARD
6.000	S16	1200	Manhole	1 STANDARD	S17	1200		Manhole	1 STANDARD
6.001	S17	1200	Manhole	1 STANDARD	S18	1500		Manhole	1 STANDARD
3.005	S18	1500	Manhole	1 STANDARD	S19	1500		Manhole	1 STANDARD
1.007	S19	1500	Manhole	1 STANDARD	POND INLET	1500		Manhole	1 STANDARD
1.008	POND INLET	1500	Manhole	1 STANDARD	POND OUTLET	1500		Manhole	1 STANDARD
1.009	POND OUTLET	1500	Manhole	1 STANDARD	HB	1500		Sealed Manhole	1 STANDARD
1.010	HB	1500	Sealed Manhole	1 STANDARD	OUTFALL	900	675	Manhole	1 STANDARD

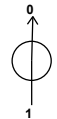
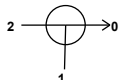
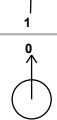
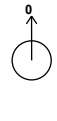
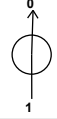
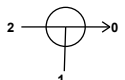
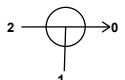
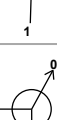
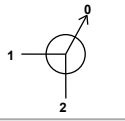
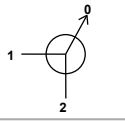
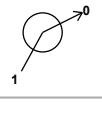
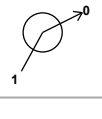
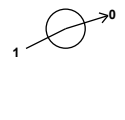
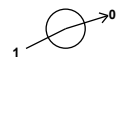
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Width (mm)	Connections	Link	IL (m)	Dia (mm)
S01	332557.496	343871.874	100.000	0.750	1000					
							0	1.000	99.250	150
S02	332488.126	343929.202	100.000	1.350	1000					
							0	1.000	98.650	150
							1	1.001	98.650	150
BEND 1	332480.169	343936.185	100.000	1.600	1					
							0	1.001	98.579	150
							1	1.001	98.579	150
S03	332479.924	344015.787	98.700	0.831	1000					
							0	1.002	98.400	150
							1	1.002	97.869	150
NULL	332479.579	344035.393	98.500	0.762	1					
							0	1.003	97.869	150
							1	1.003	97.738	150
BEND 2	332479.310	344079.118	98.500	1.054	1					
							0	1.004	97.738	150
							1	1.004	97.446	150
S04	332469.451	343971.910	98.730	0.825	1200					
							0	1.005	97.447	150
S05	332469.490	344061.791	98.730	1.414	1200					
							0	2.000	97.905	225
							1	2.000	97.316	225
							0	2.001	97.316	225

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Width (mm)	Connections	Link	IL (m)	Dia (mm)	
S06	332469.483	344087.656	98.730	1.577	1200		0 1 2 	1 2 0	2.001 1.005 1.006	97.153 97.360 97.153	225 150 225
S07	332351.931	343971.910	98.730	0.825	1200		0 1 				
S08	332351.986	344060.288	98.730	1.414	1200		0 1 	1 0	3.000 3.001	97.905 97.316	225 225
S09	332351.931	344096.138	98.400	1.302	1200		0 1 	1 0	3.001 3.002	97.173 97.098	225 300
S10	332380.311	343971.910	98.730	0.900	1200		0 1 				
S11	332380.291	344060.382	98.730	1.405	1200		0 1 	1 0	4.000 4.001	97.830 97.325	300 300
S12	332381.175	344096.126	98.500	1.672	1350		0 1 2 	1 2 0	4.001 3.002 3.003	96.978 96.978 96.828	300 300 450
S13	332410.691	343971.910	98.730	0.900	1200		0 1 				
							0 1 	0	5.000	97.830	300

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Width (mm)	Connections	Link	IL (m)	Dia (mm)
S14	332410.640	344060.847	98.730	1.309	1200		 1	5.000	97.421	300
S15	332411.566	344096.144	98.500	1.822	1500		 0	5.001	97.421	300
							 2	3.003	96.753	450
							 0	3.004	96.678	525
S16	332441.071	343971.910	98.730	0.900	1200		 0	6.000	97.830	300
S17	332440.867	344061.487	98.730	1.630	1200		 1	6.000	97.100	300
							 0	6.001	97.100	300
S18	332441.951	344096.168	98.500	1.959	1500		 2	3.004	96.616	525
							 0	3.005	96.541	600
S19	332469.451	344096.138	98.500	2.007	1500		 1	3.005	96.493	600
							 2	1.006	96.868	225
							 0	1.007	96.493	600
POND INLET	332482.491	344119.929	97.700	1.350	1500		 1	1.007	96.350	600
							 0	1.008	96.350	600
POND OUTLET	332500.975	344129.170	97.700	1.385	1500		 1	1.008	96.315	600
							 0	1.009	96.315	150

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Width (mm)	Connections	Link	IL (m)	Dia (mm)
HB	332508.500	344131.500	97.500	1.238	1500		1	1.009	96.262	150
								0	1.010	96.262
OUTFALL	332522.283	344132.361	96.500	0.330	900	675	1	1.010	96.170	150
										

Simulation Settings

Rainfall Methodology	FEH-13	Analysis Speed	Normal	Additional Storage (m³/ha)	20.0	30 year (l/s)	8.6
Summer CV	0.750	Skip Steady State	x	Check Discharge Rate(s)	✓	100 year (l/s)	8.6
Winter CV	0.840	Drain Down Time (mins)	240	1 year (l/s)		Check Discharge Volume	x

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 %)
30	0	0	0	100	30	0	0

Pre-development Discharge Rate

Site Makeup	Greenfield	Soil Index	1	Growth Factor 30 years	1.95	Q 1 year (l/s)
Greenfield Method	IH124	SPR	0.10	Growth Factor 100 years	2.48	Q 30 year (l/s)
Positively Drained Area (ha)		Region	1	Betterment (%)	0	Q 100 year (l/s)
SAAR (mm)		Growth Factor 1 year	0.85	QBar		

Node HB Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	✓	Sump Available	✓
Invert Level (m)	96.262	Product Number	CTL-SHE-0135-8600-1100-8600
Design Depth (m)	1.100	Min Outlet Diameter (m)	0.150
Design Flow (l/s)	8.6	Min Node Diameter (mm)	1200

Node POND OUTLET Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	96.315
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	1057.7	0.0	0.300	1197.5	0.0	0.600	1342.4	0.0	0.900	1492.4	0.0	1.200	1647.5	0.0	1.419	1763.8	0.0
0.100	1103.7	0.0	0.400	1245.3	0.0	0.700	1391.9	0.0	1.000	1543.5	0.0	1.300	1700.3	0.0			
0.200	1150.3	0.0	0.500	1293.6	0.0	0.800	1441.9	0.0	1.100	1595.2	0.0	1.400	1753.6	0.0			

Node S08 Link Surround Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Link	3.000
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	97.316	Surround Shape	(Trench)
Safety Factor	2.0	Time to half empty (mins)	6	Diameter (mm)	525

Node S11 Link Surround Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Link	4.000
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	97.325	Surround Shape	(Trench)
Safety Factor	2.0	Time to half empty (mins)	4	Diameter (mm)	600

Node S17 Link Surround Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Link	6.000
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	97.100	Surround Shape	(Trench)
Safety Factor	2.0	Time to half empty (mins)	4	Diameter (mm)	600

Node S05 Link Surround Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Link	2.000
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	97.316	Surround Shape	(Trench)
Safety Factor	2.0	Time to half empty (mins)	4	Diameter (mm)	525

Node BEND 1 Link Surround Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Link	1.001
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	98.579	Surround Shape	(Trench)
Safety Factor	2.0	Time to half empty (mins)	16	Diameter (mm)	450

Node S02 Link Surround Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Link	1.000
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	98.650	Surround Shape	(Trench)
Safety Factor	2.0	Time to half empty (mins)	13	Diameter (mm)	450

Node S03 Link Surround Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Link	1.002
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	97.869	Surround Shape	(Trench)
Safety Factor	2.0	Time to half empty (mins)	16	Diameter (mm)	450

Node NULL Link Surround Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Link	1.003
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	97.738	Surround Shape	(Trench)
Safety Factor	2.0	Time to half empty (mins)	21	Diameter (mm)	450

Node BEND 2 Link Surround Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Link	1.004
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	97.446	Surround Shape	(Trench)
Safety Factor	2.0	Time to half empty (mins)	10	Diameter (mm)	450

Node S06 Link Surround Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Link	1.005
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	97.228	Surround Shape	(Trench)
Safety Factor	2.0	Time to half empty (mins)	4	Diameter (mm)	450

Node S09 Link Surround Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Link	3.001
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	97.173	Surround Shape	(Trench)
Safety Factor	2.0	Time to half empty (mins)	5	Diameter (mm)	525

Node S12 Link Surround Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Link	4.001
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	96.978	Surround Shape	(Trench)
Safety Factor	2.0	Time to half empty (mins)	4	Diameter (mm)	600

Node S15 Link Surround Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Link	5.001
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	96.903	Surround Shape	(Trench)
Safety Factor	2.0	Time to half empty (mins)	4	Diameter (mm)	600

Node S18 Link Surround Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Link	6.001
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	96.841	Surround Shape	(Trench)
Safety Factor	2.0	Time to half empty (mins)	4	Diameter (mm)	600

Node S06 Link Surround Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Link	2.001
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	97.153	Surround Shape	(Trench)
Safety Factor	2.0	Time to half empty (mins)	3	Diameter (mm)	525

Node S14 Link Surround Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Link	5.000
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	97.421	Surround Shape	(Trench)
Safety Factor	2.0	Time to half empty (mins)	3	Diameter (mm)	600

Results for 30 year Critical Storm Duration. Lowest mass balance: 98.51%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S01	10	99.352	0.102	12.1	0.1674	0.0000	OK
15 minute winter	S02	13	98.882	0.232	11.8	0.6323	0.0000	SURCHARGED
15 minute winter	BEND 1	13	98.859	0.459	24.4	0.5180	0.0000	SURCHARGED
15 minute winter	S03	15	98.199	0.330	16.6	1.2308	0.0000	SURCHARGED
30 minute winter	NULL	22	98.059	0.321	19.1	0.7324	0.0000	SURCHARGED
15 minute winter	BEND 2	13	97.627	0.181	19.0	0.2871	0.0000	SURCHARGED
15 minute winter	S04	11	98.042	0.137	30.7	0.4253	0.0000	OK
15 minute winter	S05	12	97.597	0.281	59.8	1.3338	0.0000	SURCHARGED
15 minute winter	S06	12	97.297	0.144	71.5	0.3779	0.0000	OK
15 minute winter	S07	11	98.042	0.137	30.7	0.4231	0.0000	OK
15 minute winter	S08	12	97.677	0.361	60.2	2.0480	0.0000	SURCHARGED
15 minute winter	S09	12	97.345	0.247	50.8	0.6557	0.0000	OK
15 minute winter	S10	11	98.013	0.183	61.3	0.8649	0.0000	OK
15 minute winter	S11	11	97.583	0.257	119.4	1.4899	0.0000	OK
15 minute winter	S12	12	97.293	0.465	178.9	1.5671	0.0000	SURCHARGED

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	S01	1.000	S02	11.8	0.955	0.814	1.3647	
15 minute winter	S02	1.001	BEND 1	10.2	0.819	0.704	0.1864	
15 minute winter	BEND 1	1.002	S03	16.6	1.003	1.147	1.4014	
15 minute winter	S03	1.003	NULL	15.3	0.872	1.061	0.3452	
30 minute winter	NULL	1.004	BEND 2	17.1	0.972	1.183	0.7698	
15 minute winter	BEND 2	1.005	S06	18.8	1.075	1.297	0.2173	
15 minute winter	S04	2.000	S05	29.5	0.858	0.702	2.9284	
15 minute winter	S05	2.001	S06	52.8	1.528	1.284	0.8612	
15 minute winter	S06	1.006	S19	71.5	2.663	0.747	0.2279	
15 minute winter	S07	3.000	S08	29.5	0.816	0.697	2.8728	
15 minute winter	S08	3.001	S09	50.8	1.291	1.557	1.3466	
15 minute winter	S09	3.002	S12	56.3	1.110	0.794	1.9368	
15 minute winter	S10	4.000	S11	58.9	1.099	0.704	4.8353	
15 minute winter	S11	4.001	S12	114.5	1.743	1.046	2.4087	
15 minute winter	S12	3.003	S15	178.1	1.213	1.116	4.8147	

Results for 30 year Critical Storm Duration. Lowest mass balance: 98.51%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S13	11	98.028	0.198	61.7	0.9412	0.0000	OK
15 minute winter	S14	11	97.635	0.214	120.0	1.2897	0.0000	OK
15 minute winter	S15	12	97.207	0.529	302.8	1.5714	0.0000	SURCHARGED
15 minute winter	S16	10	97.994	0.164	61.3	0.7742	0.0000	OK
15 minute winter	S17	11	97.409	0.309	120.4	1.6152	0.0000	SURCHARGED
15 minute winter	S18	12	97.110	0.569	423.5	1.7895	0.0000	OK
15 minute winter	S19	12	97.012	0.519	507.2	1.1251	0.0000	OK
15 minute winter	POND INLET	13	96.898	0.548	511.0	0.9685	0.0000	OK
600 minute winter	POND OUTLET	585	96.887	0.572	64.5	684.2531	0.0000	SURCHARGED
600 minute winter	HB	585	96.870	0.608	8.7	1.0742	0.0000	SURCHARGED
15 minute summer	OUTFALL	1	96.170	0.000	8.5	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	S13	5.000	S14	59.5	1.162	0.793	4.5869	
15 minute winter	S14	5.001	S15	118.0	2.074	0.875	2.1923	
15 minute winter	S15	3.004	S18	298.6	1.399	1.373	6.4831	
15 minute winter	S16	6.000	S17	59.1	1.090	0.589	4.9087	
15 minute winter	S17	6.001	S18	108.7	1.637	1.133	2.3763	
15 minute winter	S18	3.005	S19	423.9	1.598	1.484	7.3618	
15 minute winter	S19	1.007	POND INLET	511.0	1.972	1.024	7.1471	
15 minute winter	POND INLET	1.008	POND OUTLET	647.9	4.226	2.304	3.3933	
600 minute winter	POND OUTLET	1.009	HB	8.7	0.523	0.598	0.1387	
600 minute winter	HB	Hydro-Brake®	OUTFALL	8.6				348.1

Results for 100 year +30% CC Critical Storm Duration. Lowest mass balance: 98.51%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S01	12	100.000	0.750	21.8	1.2293	0.0825	FLOOD
30 minute winter	S02	24	99.401	0.751	14.1	5.5879	0.0000	SURCHARGED
30 minute winter	BEND 1	23	99.369	0.969	24.5	1.4945	0.0000	SURCHARGED
30 minute winter	S03	27	98.484	0.615	18.5	3.9069	0.0000	FLOOD RISK
30 minute winter	NULL	23	98.297	0.559	21.0	1.4825	0.0000	FLOOD RISK
30 minute winter	BEND 2	21	97.709	0.262	23.2	0.6323	0.0000	SURCHARGED
15 minute winter	S04	12	98.698	0.793	55.2	2.4551	0.0000	FLOOD RISK
15 minute winter	S05	13	98.052	0.736	96.9	7.0118	0.0000	SURCHARGED
15 minute winter	S06	13	97.495	0.342	97.1	1.5135	0.0000	SURCHARGED
15 minute winter	S07	11	98.730	0.825	55.2	2.5534	0.9407	FLOOD
15 minute winter	S08	14	98.319	1.003	95.0	11.1027	0.0000	SURCHARGED
15 minute winter	S09	13	97.838	0.740	61.7	3.7581	0.0000	SURCHARGED
15 minute winter	S10	11	98.730	0.900	110.3	4.2579	2.0204	FLOOD
15 minute winter	S11	13	98.354	1.029	190.8	14.0191	0.0000	SURCHARGED
15 minute winter	S12	13	97.741	0.913	225.4	4.9889	0.0000	SURCHARGED

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	S01	1.000	S02	15.8	0.998	1.092	1.5843	
30 minute winter	S02	1.001	BEND 1	13.0	0.815	0.894	0.1864	
30 minute winter	BEND 1	1.002	S03	18.5	1.052	1.281	1.4014	
30 minute winter	S03	1.003	NULL	18.2	1.032	1.255	0.3452	
30 minute winter	NULL	1.004	BEND 2	20.1	1.142	1.390	0.7698	
30 minute winter	BEND 2	1.005	S06	22.8	1.296	1.575	0.2234	
15 minute winter	S04	2.000	S05	45.0	1.131	1.071	3.5747	
15 minute winter	S05	2.001	S06	74.5	1.873	1.809	1.0287	
15 minute winter	S06	1.006	S19	99.3	2.769	1.038	0.3373	
15 minute winter	S07	3.000	S08	41.7	1.050	0.986	3.5149	
15 minute winter	S08	3.001	S09	61.7	1.551	1.889	1.4258	
15 minute winter	S09	3.002	S12	77.3	1.282	1.091	2.0593	
15 minute winter	S10	4.000	S11	83.1	1.180	0.992	6.2301	
15 minute winter	S11	4.001	S12	142.4	2.022	1.301	2.5178	
15 minute winter	S12	3.003	S15	228.2	1.440	1.430	4.8153	

Results for 100 year +30% CC Critical Storm Duration. Lowest mass balance: 98.51%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S13	11	98.730	0.900	111.0	4.2777	1.5564	FLOOD
15 minute winter	S14	13	98.274	0.853	195.0	11.5641	0.0000	SURCHARGED
15 minute winter	S15	12	97.597	0.919	399.5	4.2934	0.0000	SURCHARGED
15 minute winter	S16	12	98.720	0.890	110.3	4.2114	0.0000	FLOOD RISK
15 minute winter	S17	12	98.141	1.041	192.4	12.2388	0.0000	SURCHARGED
15 minute winter	S18	12	97.400	0.859	581.9	3.8661	0.0000	SURCHARGED
720 minute winter	S19	705	97.299	0.806	83.3	1.7455	0.0000	SURCHARGED
720 minute winter	POND INLET	705	97.298	0.948	81.5	1.6753	0.0000	SURCHARGED
720 minute winter	POND OUTLET	705	97.299	0.984	95.5	1275.1770	0.0000	SURCHARGED
720 minute winter	HB	705	97.280	1.018	8.7	1.7991	0.0000	FLOOD RISK
15 minute summer	OUTFALL	1	96.170	0.000	8.6	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	S13	5.000	S14	86.6	1.230	1.153	6.2629	
15 minute winter	S14	5.001	S15	151.9	2.157	1.127	2.4864	
15 minute winter	S15	3.004	S18	402.7	1.864	1.851	6.5642	
15 minute winter	S16	6.000	S17	88.6	1.258	0.884	6.3080	
15 minute winter	S17	6.001	S18	161.2	2.290	1.682	2.4434	
15 minute winter	S18	3.005	S19	584.0	2.073	2.045	7.7461	
720 minute winter	S19	1.007	POND INLET	81.5	0.810	0.163	7.6419	
720 minute winter	POND INLET	1.008	POND OUTLET	85.6	1.237	0.304	5.8206	
720 minute winter	POND OUTLET	1.009	HB	8.7	0.523	0.598	0.1387	
720 minute winter	HB	Hydro-Brake®	OUTFALL	8.6				414.7