

Design Settings

Rainfall Methodology	FEH-13	Maximum Time of Concentration (mins)	30.00	Preferred Cover Depth (m)	1.200
Return Period (years)	5	Maximum Rainfall (mm/hr)	50.0	Include Intermediate Ground	✓
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00	Enforce best practice design rules	✓
CV	0.750	Connection Type	Level Soffits		
Time of Entry (mins)	5.00	Minimum Backdrop Height (m)	0.200		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
S01	0.032	5.00	100.000	1000	332557.496	343871.874	0.750
S02	0.039	5.00	100.000	1000	332488.126	343929.202	1.350
BEND 1	0.039	5.00	100.000	1	332480.169	343936.185	1.420
S03			98.700	1000	332479.924	344015.787	0.831
NULL	0.019	5.00	98.500	1	332479.579	344035.393	0.900
BEND 2	0.008	5.00	98.500	1	332479.310	344079.118	1.198
S04	0.081	5.00	98.730	1200	332469.451	343971.910	0.825
S05	0.081	5.00	98.750	1200	332469.490	344061.791	1.434
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	0.059	5.00	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	98.639	1200	332380.291	344060.382	1.314
S12			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	98.467	1200	332410.640	344060.847	1.046
S15	0.138	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	98.199	1200	332440.867	344061.487	1.099
S18	0.138	5.00	98.500	1500	332441.951	344096.168	1.959
S19			98.500	1500	332469.451	344096.138	2.007
POND INLET			97.039	1500	332481.180	344117.552	1.200
POND OUTLET	0.185	5.00	96.804	1500	332504.537	344131.135	1.304

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
HB			96.780	1500	332508.500	344131.500	1.308
OUTFALL			96.316	1200	332522.283	344132.361	1.304

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	4.3	0.600	1.200	0.032	0.0
1.001	0.815	14.4	9.6	1.200	1.270	0.071	0.0
1.002	0.949	16.8	14.9	1.270	0.681	0.110	0.0
1.003	1.179	20.8	14.9	0.681	0.750	0.110	0.0
1.004	0.827	14.6	17.5	0.750	1.048	0.129	0.0
1.005	0.754	13.3	18.6	1.048	1.352	0.137	0.0
2.000	1.056	42.0	11.0	0.600	1.209	0.081	0.0
2.001	1.035	41.2	22.0	1.209	1.352	0.162	0.0
1.006	2.407	95.7	40.5	1.352	1.407	0.299	0.0
3.000	1.065	42.3	11.0	0.600	1.189	0.081	0.0
3.001	0.821	32.6	22.1	1.189	1.002	0.163	0.0
3.002	1.002	70.9	30.1	1.002	1.222	0.222	0.0
4.000	1.185	83.7	22.0	0.600	1.014	0.162	0.0
4.001	1.548	109.4	43.8	1.014	1.222	0.323	0.0
3.003	1.004	159.6	73.9	1.222	1.297	0.545	0.0
5.000	1.062	75.1	22.1	0.600	0.746	0.163	0.0
5.001	1.907	134.8	43.9	0.746	1.297	0.324	0.0
3.004	1.005	217.5	136.5	1.297	1.359	1.007	0.0
6.000	1.418	100.2	22.0	0.600	0.799	0.162	0.0
6.001	1.356	95.9	43.9	0.799	1.359	0.324	0.0
3.005	1.010	285.6	199.1	1.359	1.407	1.469	0.0
1.007	3.993	1129.1	239.6	1.407	0.600	1.768	0.0
1.008	2.729	771.6	239.6	0.600	0.704	1.768	0.0
1.009	0.841	14.9	264.7	1.154	1.158	1.953	0.0

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)
1.010	1.844	32.6	264.7	1.158	1.154	1.953	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	89.992	150.0	150	1 STANDARD	100.000	99.250	0.600	100.000	98.650	1.200
1.001	10.587	151.2	150	1 STANDARD	100.000	98.650	1.200	100.000	98.580	1.270
1.002	79.602	112.0	150	1 STANDARD	100.000	98.580	1.270	98.700	97.869	0.681
1.003	19.609	72.9	150	1 STANDARD	98.700	97.869	0.681	98.500	97.600	0.750
1.004	43.726	146.7	150	1 STANDARD	98.500	97.600	0.750	98.500	97.302	1.048
1.005	13.018	175.9	150	1 STANDARD	98.500	97.302	1.048	98.730	97.228	1.352
2.000	89.881	152.6	225	1 STANDARD	98.730	97.905	0.600	98.750	97.316	1.209
2.001	25.865	158.7	225	1 STANDARD	98.750	97.316	1.209	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

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

Pipeline Schedule

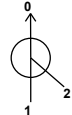
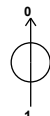
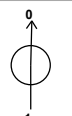
Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
3.002	29.244	243.7	300	1 STANDARD	98.400	97.098	1.002	98.500	96.978	1.222
4.000	88.472	175.2	300	1 STANDARD	98.730	97.830	0.600	98.639	97.325	1.014
4.001	35.755	103.0	300	1 STANDARD	98.639	97.325	1.014	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
5.000	88.937	217.4	300	1 STANDARD	98.730	97.830	0.600	98.467	97.421	0.746
5.001	35.309	68.2	300	1 STANDARD	98.467	97.421	0.746	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	89.578	122.7	300	1 STANDARD	98.730	97.830	0.600	98.199	97.100	0.799
6.001	34.698	134.0	300	1 STANDARD	98.199	97.100	0.799	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	24.416	37.3	600	1 STANDARD	98.500	96.493	1.407	97.039	95.839	0.600
1.008	27.019	79.7	600	1 STANDARD	97.039	95.839	0.600	96.804	95.500	0.704
1.009	3.980	142.1	150	1 STANDARD	96.804	95.500	1.154	96.780	95.472	1.158
1.010	13.810	30.0	150	1 STANDARD	96.780	95.472	1.158	96.316	95.012	1.154

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
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
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	Manhole	1 STANDARD
1.010	HB	1500	Manhole	1 STANDARD	OUTFALL	1200	Manhole	1 STANDARD

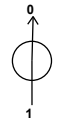
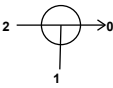
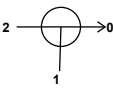
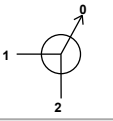
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (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		1	1.000	98.650	150
							0	1.001	98.650	150
BEND 1	332480.169	343936.185	100.000	1.420	1		1	1.001	98.580	150
							0	1.002	98.580	150
S03	332479.924	344015.787	98.700	0.831	1000		1	1.002	97.869	150
							0	1.003	97.869	150
NULL	332479.579	344035.393	98.500	0.900	1		1	1.003	97.600	150
							0	1.004	97.600	150
BEND 2	332479.310	344079.118	98.500	1.198	1		1	1.004	97.302	150
							0	1.005	97.302	150
S04	332469.451	343971.910	98.730	0.825	1200		0	2.000	97.905	225
S05	332469.490	344061.791	98.750	1.434	1200		1	2.000	97.316	225
							0	2.001	97.316	225

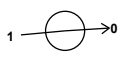
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections		Link	IL (m)	Dia (mm)
S06	332469.483	344087.656	98.730	1.577	1200		1	2.001	97.153	225
							2	1.005	97.228	150
							0	1.006	97.153	225
S07	332351.931	343971.910	98.730	0.825	1200		0	3.000	97.905	225
							1	3.000	97.316	225
S08	332351.986	344060.288	98.730	1.414	1200		0	3.001	97.316	225
							1	3.001	97.173	225
S09	332351.931	344096.138	98.400	1.302	1200		0	3.002	97.098	300
							0	4.000	97.830	300
S10	332380.311	343971.910	98.730	0.900	1200		1	4.000	97.325	300
							0	4.001	97.325	300
S11	332380.291	344060.382	98.639	1.314	1200		1	4.001	96.978	300
							2	3.002	96.978	300
							0	3.003	96.828	450
S12	332381.175	344096.126	98.500	1.672	1350		0	5.000	97.830	300

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
S14	332410.640	344060.847	98.467	1.046	1200		1 5.000	97.421	300
S15	332411.566	344096.144	98.500	1.822	1500		1 5.001 2 3.003	96.903 96.753	300 450
S16	332441.071	343971.910	98.730	0.900	1200		0 6.000	97.830	300
S17	332440.867	344061.487	98.199	1.099	1200		1 6.000	97.100	300
S18	332441.951	344096.168	98.500	1.959	1500		1 6.001 2 3.004	96.841 96.616	300 525
S19	332469.451	344096.138	98.500	2.007	1500		1 3.005 2 1.006	96.493 96.868	600 225
POND INLET	332481.180	344117.552	97.039	1.200	1500		1 1.007	95.839	600
POND OUTLET	332504.537	344131.135	96.804	1.304	1500		1 1.008	95.500	600
							0 1.009	95.500	150

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
HB	332508.500	344131.500	96.780	1.308	1500	1 	1.009	95.472	150
						0	1.010	95.472	150
OUTFALL	332522.283	344132.361	96.316	1.304	1200	1 	1.010	95.012	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)	95.472	Product Number	CTL-SHE-0134-8600-1150-8600
Design Depth (m)	1.150	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)	95.500
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

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	1065.1	0.0	0.300	1205.5	0.0	0.600	1351.1	0.0	0.900	1501.7	0.0	1.200	1657.5	0.0
0.100	1111.3	0.0	0.400	1253.5	0.0	0.700	1400.7	0.0	1.000	1553.1	0.0	1.205	1659.9	0.0
0.200	1158.2	0.0	0.500	1302.0	0.0	0.800	1450.9	0.0	1.100	1605.0	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 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

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 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)	22	Diameter (mm)	450

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)	98.580	Surround Shape	(Trench)
Safety Factor	2.0	Time to half empty (mins)	26	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)	22	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)	97.600	Surround Shape	(Trench)
Safety Factor	2.0	Time to half empty (mins)	24	Diameter (mm)	150

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)	97.302	Surround Shape	(Trench)
Safety Factor	2.0	Time to half empty (mins)	16	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)	2	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)	2	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)	0	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)	0	Diameter (mm)	525

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.05%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S01	12	99.355	0.105	12.1	0.1719	0.0000	OK
15 minute winter	S02	14	99.211	0.561	26.1	3.7320	0.0000	SURCHARGED
15 minute winter	BEND 1	14	99.159	0.579	24.2	1.0392	0.0000	SURCHARGED
30 minute winter	S03	24	98.299	0.430	17.9	1.6102	0.0000	SURCHARGED
30 minute winter	NULL	22	98.107	0.507	19.7	0.4391	0.0000	SURCHARGED
15 minute winter	BEND 2	13	97.540	0.238	21.6	0.4984	0.0000	SURCHARGED
15 minute winter	S04	11	98.042	0.137	30.7	0.4253	0.0000	OK
15 minute winter	S05	12	97.598	0.282	59.8	1.3335	0.0000	SURCHARGED
15 minute winter	S06	12	97.300	0.147	74.0	0.3873	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	2.0479	0.0000	SURCHARGED
15 minute winter	S09	12	97.356	0.258	70.0	0.9411	0.0000	OK
15 minute winter	S10	11	98.013	0.183	61.3	0.8649	0.0000	OK
15 minute winter	S11	11	97.582	0.257	119.3	1.5296	0.0000	OK
15 minute winter	S12	12	97.273	0.445	181.0	1.1229	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	S01	1.000	S02	11.3	0.689	0.783	1.3840	
15 minute winter	S02	1.001	BEND 1	14.1	0.799	0.977	0.1864	
15 minute winter	BEND 1	1.002	S03	18.6	1.179	1.110	1.4014	
30 minute winter	S03	1.003	NULL	17.9	1.014	0.857	0.3452	
30 minute winter	NULL	1.004	BEND 2	19.6	1.111	1.338	0.7698	
15 minute winter	BEND 2	1.005	S06	21.2	1.205	1.589	0.2216	
15 minute winter	S04	2.000	S05	29.5	0.857	0.702	2.9284	
15 minute winter	S05	2.001	S06	52.9	1.509	1.285	0.8706	
15 minute winter	S06	1.006	S19	73.9	2.685	0.773	0.2336	
15 minute winter	S07	3.000	S08	29.5	0.816	0.697	2.8727	
15 minute winter	S08	3.001	S09	50.8	1.291	1.557	1.3466	
15 minute winter	S09	3.002	S12	68.6	1.242	0.968	1.9678	
15 minute winter	S10	4.000	S11	58.9	1.100	0.704	4.8340	
15 minute winter	S11	4.001	S12	114.4	1.743	1.046	2.3719	
15 minute winter	S12	3.003	S15	181.9	1.241	1.140	4.7781	

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.05%

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	0.9413	0.0000	OK
15 minute winter	S14	11	97.635	0.214	120.0	1.4210	0.0000	OK
15 minute winter	S15	11	97.186	0.508	342.5	1.9560	0.0000	OK
15 minute winter	S16	10	97.994	0.164	61.3	0.7741	0.0000	OK
15 minute winter	S17	12	97.405	0.305	120.3	1.8714	0.0000	SURCHARGED
30 minute summer	S18	18	97.057	0.516	463.1	1.9658	0.0000	OK
15 minute summer	S19	12	96.817	0.324	551.9	0.5726	0.0000	OK
15 minute winter	POND INLET	11	96.212	0.373	578.5	0.6583	0.0000	OK
600 minute winter	POND OUTLET	585	96.152	0.652	110.1	797.1038	0.0000	SURCHARGED
600 minute winter	HB	585	96.143	0.671	8.7	1.1862	0.0000	SURCHARGED
15 minute summer	OUTFALL	1	95.012	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	4.5856	
15 minute winter	S14	5.001	S15	117.9	2.072	0.875	2.1642	
15 minute winter	S15	3.004	S18	341.8	1.678	1.572	6.1371	
15 minute winter	S16	6.000	S17	59.1	1.095	0.589	4.9088	
15 minute winter	S17	6.001	S18	108.2	1.647	1.129	2.3242	
30 minute summer	S18	3.005	S19	506.1	2.652	1.772	5.2614	
15 minute summer	S19	1.007	POND INLET	574.0	3.567	0.508	4.0208	
15 minute winter	POND INLET	1.008	POND OUTLET	553.6	5.635	0.718	3.2980	
600 minute winter	POND OUTLET	1.009	HB	8.7	0.494	0.585	0.0701	
600 minute winter	HB	Hydro-Brake®	OUTFALL	8.6				340.6

Results for 100 year +30% CC Critical Storm Duration. Lowest mass balance: 99.05%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	S01	19	100.000	0.750	17.6	1.2293	1.4602	FLOOD
30 minute winter	S02	24	99.920	1.270	33.8	13.0440	0.0000	FLOOD RISK
30 minute winter	BEND 1	23	99.861	1.281	24.8	2.4274	0.0000	FLOOD RISK
30 minute winter	S03	28	98.644	0.775	21.7	4.8160	0.0000	FLOOD RISK
30 minute winter	NULL	23	98.388	0.788	22.7	0.8060	0.0000	FLOOD RISK
15 minute winter	BEND 2	14	97.652	0.350	26.4	1.0815	0.0000	SURCHARGED
15 minute winter	S04	12	98.689	0.784	55.2	2.4256	0.0000	FLOOD RISK
15 minute winter	S05	13	97.993	0.677	97.1	6.2120	0.0000	SURCHARGED
15 minute winter	S06	14	97.402	0.249	105.4	0.9358	0.0000	SURCHARGED
15 minute winter	S07	11	98.730	0.825	55.2	2.5534	0.9682	FLOOD
15 minute winter	S08	13	98.315	0.999	94.6	11.0322	0.0000	SURCHARGED
15 minute winter	S09	13	97.788	0.690	93.7	4.0498	0.0000	SURCHARGED
15 minute winter	S10	11	98.730	0.900	110.3	4.2579	1.4917	FLOOD
15 minute winter	S11	13	98.282	0.957	192.1	12.7655	0.0000	SURCHARGED
15 minute winter	S12	12	97.604	0.775	239.2	3.2729	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)
30 minute winter	S01	1.000	S02	12.4	0.702	0.855	1.5843	
30 minute winter	S02	1.001	BEND 1	16.0	0.910	1.113	0.1864	
30 minute winter	BEND 1	1.002	S03	21.7	1.232	1.293	1.4014	
30 minute winter	S03	1.003	NULL	21.4	1.215	1.027	0.3452	
30 minute winter	NULL	1.004	BEND 2	22.6	1.284	1.546	0.7698	
15 minute winter	BEND 2	1.005	S06	24.9	1.415	1.868	0.2292	
15 minute winter	S04	2.000	S05	45.1	1.135	1.075	3.5747	
15 minute winter	S05	2.001	S06	80.5	2.024	1.955	1.0287	
15 minute winter	S06	1.006	S19	103.6	2.764	1.083	0.3373	
15 minute winter	S07	3.000	S08	41.5	1.043	0.980	3.5149	
15 minute winter	S08	3.001	S09	65.7	1.651	2.012	1.4258	
15 minute winter	S09	3.002	S12	90.2	1.338	1.273	2.0593	
15 minute winter	S10	4.000	S11	86.5	1.229	1.033	6.2301	
15 minute winter	S11	4.001	S12	150.6	2.139	1.376	2.5178	
15 minute winter	S12	3.003	S15	249.3	1.574	1.562	4.8153	

Results for 100 year +30% CC Critical Storm Duration. Lowest mass balance: 99.05%

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	0.9491	FLOOD
15 minute winter	S14	12	98.198	0.777	196.7	10.5511	0.0000	FLOOD RISK
15 minute winter	S15	12	97.441	0.763	463.3	3.8938	0.0000	SURCHARGED
15 minute winter	S16	12	98.596	0.766	110.3	3.6224	0.0000	FLOOD RISK
15 minute winter	S17	12	97.987	0.887	196.3	10.5818	0.0000	FLOOD RISK
15 minute winter	S18	12	97.169	0.628	708.8	2.7984	0.0000	SURCHARGED
15 minute winter	S19	12	96.861	0.368	805.6	0.6505	0.0000	OK
720 minute winter	POND INLET	720	96.605	0.766	94.2	1.3543	0.0000	SURCHARGED
720 minute winter	POND OUTLET	705	96.605	1.105	111.9	1475.4860	0.0000	FLOOD RISK
720 minute winter	HB	705	96.595	1.123	8.7	1.9847	0.0000	FLOOD RISK
15 minute summer	OUTFALL	1	95.012	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	90.8	1.289	1.209	6.2629	
15 minute winter	S14	5.001	S15	160.7	2.282	1.192	2.4864	
15 minute winter	S15	3.004	S18	464.7	2.151	2.136	6.5642	
15 minute winter	S16	6.000	S17	92.4	1.312	0.922	6.3080	
15 minute winter	S17	6.001	S18	168.8	2.398	1.761	2.4434	
15 minute winter	S18	3.005	S19	702.0	2.968	2.458	6.3655	
15 minute winter	S19	1.007	POND INLET	805.4	3.740	0.713	5.2208	
720 minute winter	POND INLET	1.008	POND OUTLET	103.0	1.792	0.134	7.6106	
720 minute winter	POND OUTLET	1.009	HB	8.7	0.494	0.585	0.0701	
720 minute winter	HB	Hydro-Brake®	OUTFALL	8.6				418.3