

**PROPOSED HOUSING DEVELOPMENT,  
MORESBY PARKS  
DRAINAGE STRATEGY – JULY 2021**

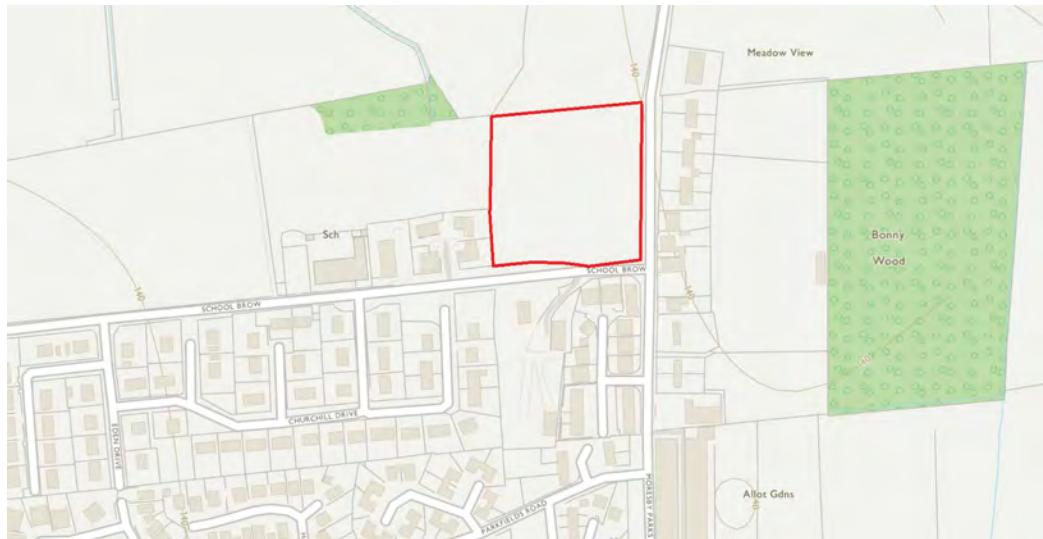
Unit 2, Mereside  
Greenbank Road  
Eden Business Park  
Gilwilly, Penrith  
Cumbria, CA11 9FB

**Introduction**

Tweddell and Slater Ltd have been appointed to prepare a surface water and foul drainage statement that is compliant with National Planning Policy.

This report has been prepared in support of a proposed development of 20x residential properties and their accompanying access. The site is currently greenfield and is located within Moresby Parks, Cumbria, England. Figure 1 shows the location and extent of the site.

A previous flood risk assessment/drainage strategy was prepared for the site in July 2015. The report calculated that for the development (1.3 hectares) that the greenfield Qbar value discharge rate was 8.16l/s. This rate was agreed with CCC LFRM at the time of the original planning application and has therefore been applied to this drainage strategy.



**Figure 1 – Site Location and Extent Shown by Red Boundary**

**DIRECTORS**

R. J. Gibson BEng (Hons) CEng MStructE

A. K. Poole BEng (Hons) MSc CEng MICE PCert

Tel 01768 865400

Email [mail@tsceltd.com](mailto:mail@tsceltd.com)

[www.tsceltd.com](http://www.tsceltd.com)

The layout of the proposed site is indicated in the appendix.

### **Existing Surface Water**

In accordance with the recognised guidance, there is a hierarchy of where surface water should be discharged. This hierarchy where practicable, is as follows:

- 1) Infiltration
- 2) Watercourse
- 3) Public sewer

A site walkover was undertaken in November 2020. The existing site surface water appears to be drained straight to ground.

An analysis of the area's topography has shown that within the boundaries of the site, the flow direction of overland flow in saturated conditions would generally travel to the west, in the direction of Moresby Primary School.

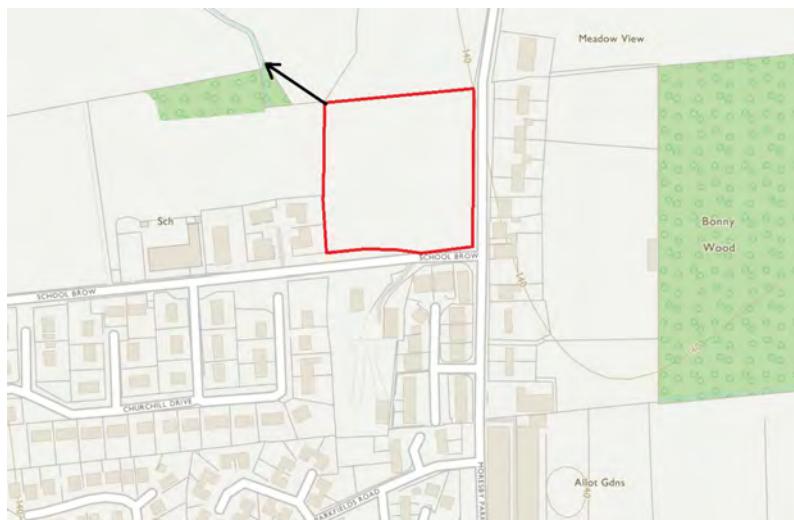
Overland flow generated offsite to the north and west of the proposed development will be routed to the north and/or west, following the topography of the existing greenfield and will not pose a threat to the proposed residences. Overland flow coming from the east of the site will flow along Moresby Parks Road where it will be drained via highway drainage and will also not pose a risk to the proposed development. Similarly, overland flow generated to the south of the proposed development site will be routed along School Brow where it will be drained via highway drainage.

The EA flood risk maps and flood map for planning show that the entirety of the site is not identified as at risk from flooding from rivers and is categorised as Flood Zone 1. Flood Zone 1 is considered to be land having a 1 in 1000 or lesser annual probability of river or sea flooding.

By review of the government long term flood risk information, it has been determined that the site is generally at a very low risk from surface water flooding, however there are three small isolated areas at a low risk from surface water flooding (Appendix D).

Soil infiltration testing has been undertaken by the client at site in June 2015 in accordance with the method prescribed in BRE Digest 365, with percolation testing undertaken in trial pits within the site. Infiltration testing has demonstrated that the ground has insufficient infiltration properties therefore, soakaways and permeable paving are considered unviable options for the site.

The closest watercourse to the site is a drainage ditch connecting to an unnamed tributary of Lowca Beck. This watercourse is located approximately 55m northwest of the northern border of the proposed development. Due to the short distance to this watercourse discharging to the drainage ditch is considered to be a viable option for the development. Figure 2 shows the direction and approximate distance to the watercourse.



**Figure 2 – Approximate Distance to Nearby Watercourse from Proposed Development (Approximately 55m)**

A drainage strategy (Appendix C) has therefore been developed to discharge the roof areas, driveways and access for the proposed dwellings to the nearby watercourse at a controlled rate, in accordance with the hierarchy outlined above.

A summary of the impermeable areas used to develop the drainage strategy is shown on drawing 6972-203, included in the Appendix.

The proposal is to include site attenuation basin to control the discharge to the agreed discharge rate of 8.2 l/s as per the previous planning application. The position of the attenuation basin and connection to the existing watercourse is indicated on drawing 6972-200 and 201, included in the Appendix. Further details of the basin are shown on drawing 6972\_210.

The attenuation basin and flow control will be designed such that it will not be surcharged in events up to 30 years recurrence and that there will be no flooding in events up to 100 years with an allowance for climate change of 30% as agreed during planning. The surface water systems will remain private under the maintenance and management of the property owners. Surface water modelling calculations for the attenuation basin are included within the Appendix.

The proposed surface water drainage system will need to be designed to building regulations to ensure the structural integrity under anticipated loading conditions over the design life, this includes the cover to pipes that have been designed in accordance with the manufacturer's requirements and specification.

### **Foul System Proposal**

It is anticipated that foul discharge from the development will connect to the existing foul sewer to the west of the site. The proposal is to collect all foul drainage from the new dwellings and connect into the existing United Utilities foul sewer located a short distance from the western boundary of the site. As shown on drawing drawings 6972\_200 and 202.

The use of a foul drainage field is not viable due to the ground conditions.

The proposed foul water drainage system will need to be designed to building regulations to ensure the structural integrity under anticipated loading conditions over the design life this includes the cover to pipes that have been designed in accordance with the manufacturer's requirements and specification.

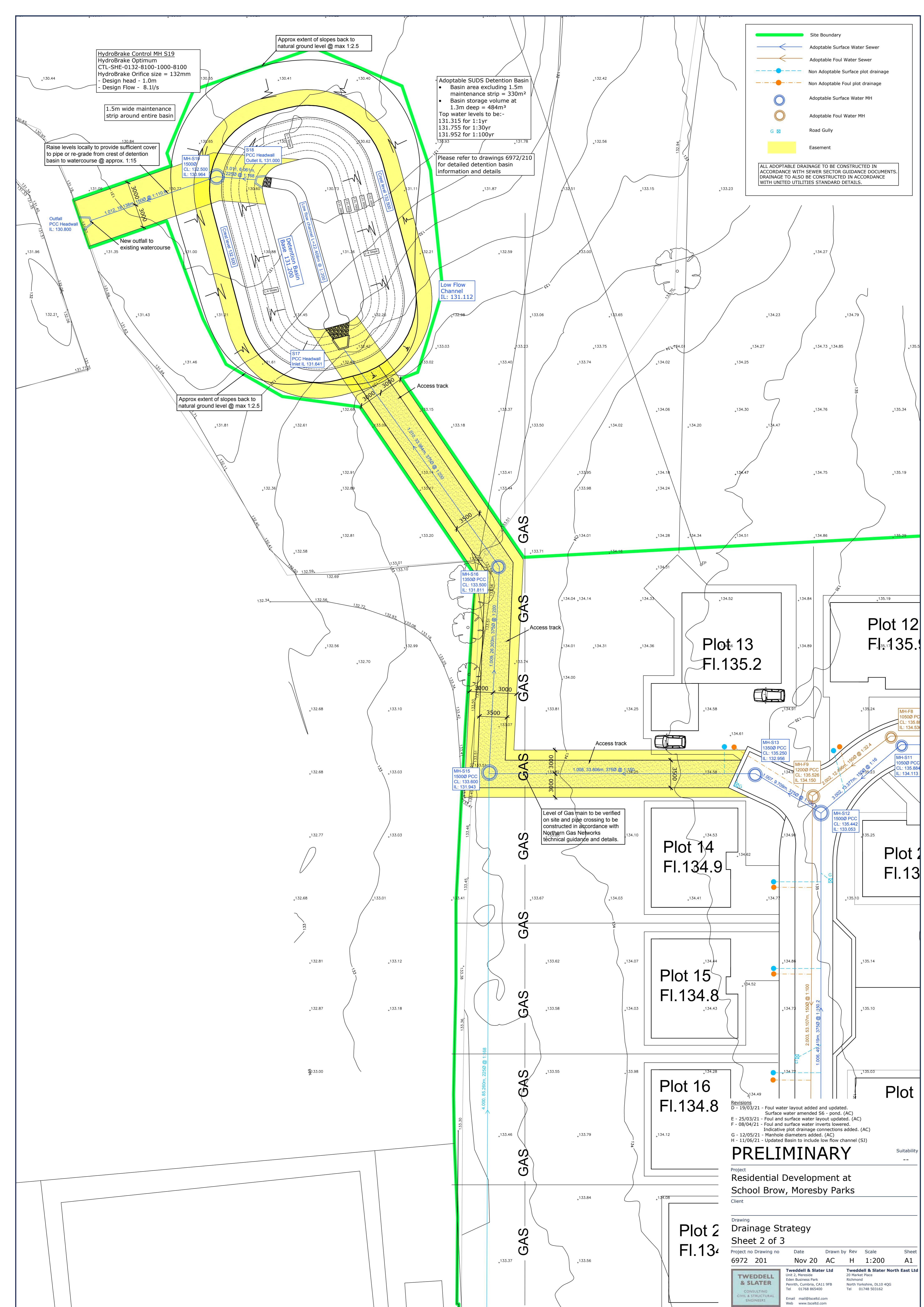
Andy Poole BEng (Hons) MSc CEng MICE PCERT  
For Tweddell & Slater Ltd  
Tweddell & Slater Ltd Unit 2 Mereside Greenbank Road  
Eden Business Park Penrith Cumbria CA11 9FB  
July 2021

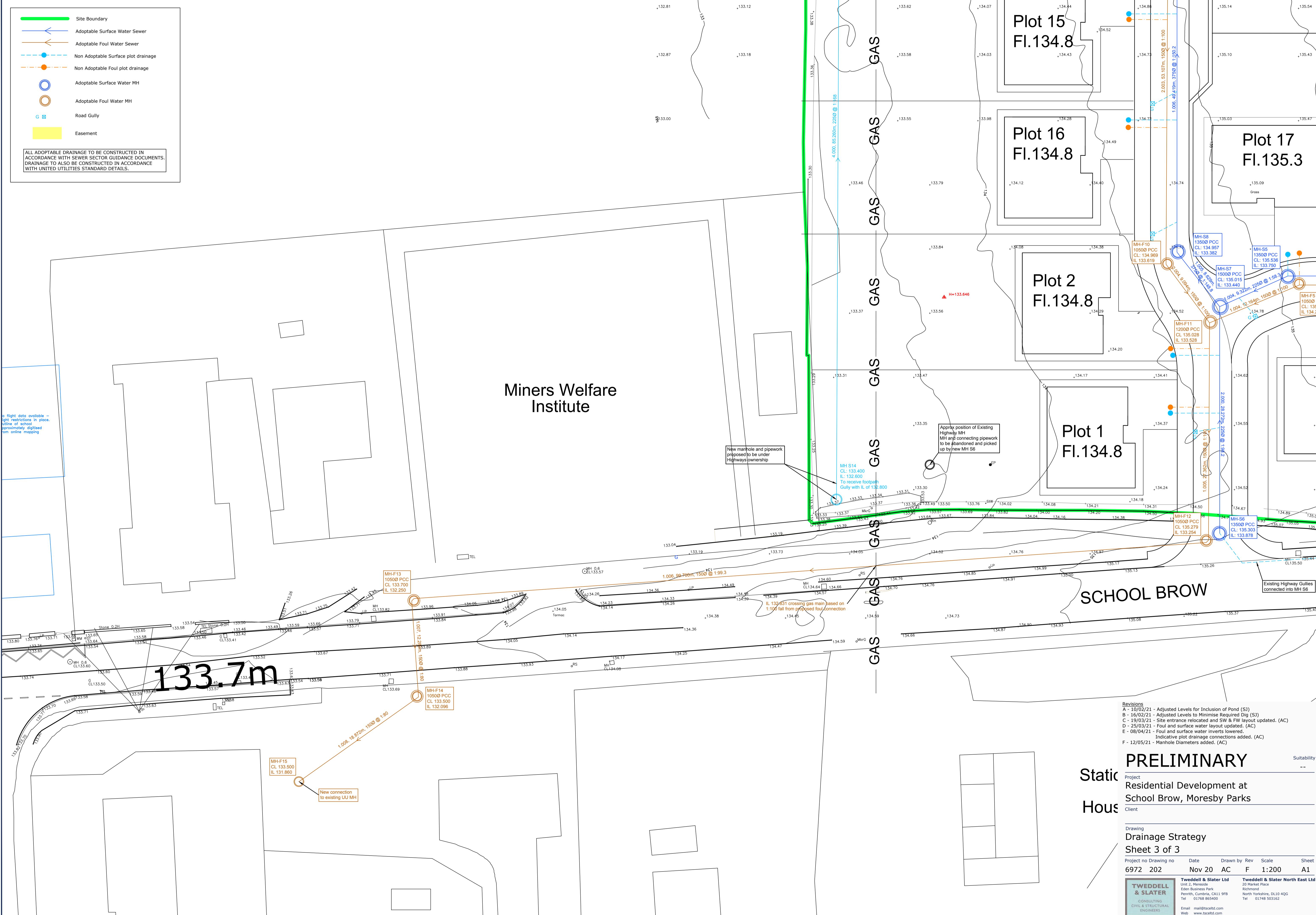
APPENDIX A -  
PROPOSED SITE LAYOUT



**APPENDIX B -  
DRAINAGE STRATEGY DRAWINGS**







APPENDIX C -  
EA FLOOD MAP FOR PLANNING AND LONG TERM FLOOD RISK

# Flood map for planning

Your reference  
**Moresby Park**

Location (easting/northing)  
**299607/519653**

Created  
**23 Oct 2020 15:20**

**Your selected location is in flood zone 1, an area with a low probability of flooding.**

## This means:

- you don't need to do a flood risk assessment if your development is smaller than 1 hectare and not affected by other sources of flooding
- you may need to do a flood risk assessment if your development is larger than 1 hectare or affected by other sources of flooding or in an area with critical drainage problems

## Notes

The flood map for planning shows river and sea flooding data only. It doesn't include other sources of flooding. It is for use in development planning and flood risk assessments.

This information relates to the selected location and is not specific to any property within it. The map is updated regularly and is correct at the time of printing.

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Environment  
Agency

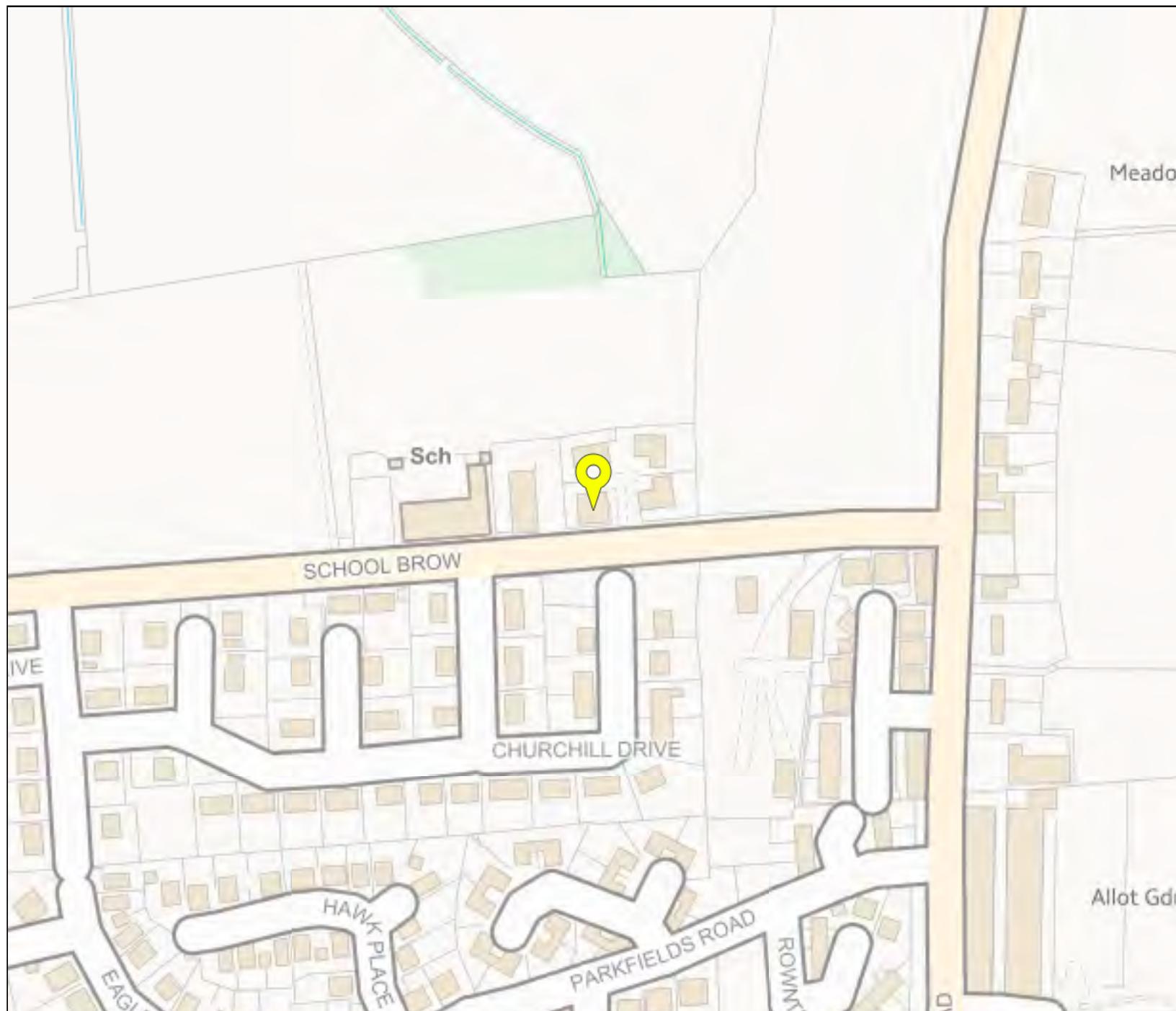
## Flood map for planning

Your reference  
**Moresby Park**

Location (easting/northing)  
**299607/519653**

Scale  
**1:2500**

Created  
**23 Oct 2020 15:20**



- Selected point
- Flood zone 3
- Flood zone 3: areas benefitting from flood defences
- Flood zone 2
- Flood zone 1
- Flood defence
- Main river
- Flood storage area



Page 2 of 2

APPENDIX D-  
OUTLINE SURFACE WATER CALCULATIONS

### Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	30.00
Return Period (years)	100	Maximum Rainfall (mm/hr)	50.0
Additional Flow (%)	30	Minimum Velocity (m/s)	1.00
FSR Region	England and Wales	Connection Type	Level Soffits
M5-60 (mm)	17.000	Minimum Backdrop Height (m)	0.200
Ratio-R	0.300	Preferred Cover Depth (m)	1.200
CV	1.000	Include Intermediate Ground	✓
Time of Entry (mins)	2.00	Enforce best practice design rules	x

### Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Node Type	Diameter (mm)	Depth (m)
S1	0.065	2.00	137.654	Manhole	1200	1.771
S2	0.016	2.00	136.892	Manhole	1050	1.720
S3	0.040	2.00	136.534	Manhole	1050	1.714
S4	0.051	2.00	136.131	Manhole	1350	1.731
S5	0.029	2.00	135.536	Manhole	1350	1.786
S6	0.110	2.00	135.303	Manhole	1350	1.425
S7			135.015	Manhole	1500	1.575
S8	0.100	2.00	134.957	Manhole	1350	1.575
S9	0.054	2.00	137.312	Manhole	1050	1.859
S10	0.070	2.00	136.791	Manhole	1200	1.712
S11	0.017	2.00	135.884	Manhole	1050	1.771
S12	0.004	2.00	135.442	Manhole	1500	2.389
S13	0.029	2.00	135.250	Manhole	1350	2.294
S14	0.010	2.00	133.400	Manhole	1350	0.800
S15			133.600	Manhole	1500	1.657
S16			133.500	Manhole	1350	1.689
S17			132.500	Junction		1.388
S18		2.00	132.500	Junction		1.500
S19			132.500	Manhole	1500	1.536
Outfall			131.370	Junction		0.570

### 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	S1	S2	22.166	0.600	135.883	135.172	0.711	31.2	150	2.20	50.0
1.001	S2	S3	8.107	0.600	135.172	134.820	0.352	23.0	150	2.27	50.0
1.002	S3	S4	9.409	0.600	134.820	134.475	0.345	27.3	150	2.35	50.0
1.003	S4	S5	15.209	0.600	134.400	133.750	0.650	23.4	225	2.44	50.0
1.004	S5	S7	9.322	0.600	133.750	133.590	0.160	58.3	225	2.53	50.0
2.000	S6	S7	28.272	0.600	133.878	133.590	0.288	98.2	225	2.36	50.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.000	1.809	32.0	15.3	1.621	1.570	0.065	0.0	73	1.788
1.001	2.107	37.2	19.0	1.570	1.564	0.081	0.0	76	2.117
1.002	1.935	34.2	28.4	1.564	1.506	0.121	0.0	105	2.159
1.003	2.716	108.0	40.4	1.506	1.561	0.172	0.0	95	2.527
1.004	1.716	68.2	47.2	1.561	1.200	0.201	0.0	138	1.846
2.000	1.319	52.5	25.8	1.200	1.200	0.110	0.0	111	1.313

### 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)
1.005	S7	S8	8.629	0.600	133.440	133.382	0.058	148.8	375	2.63	50.0
1.006	S8	S12	49.419	0.600	133.382	133.053	0.329	150.2	375	3.19	50.0
3.000	S9	S10	9.704	0.600	135.453	135.079	0.374	25.9	150	2.08	50.0
3.001	S10	S11	18.692	0.600	135.079	134.113	0.966	19.3	150	2.22	50.0
3.002	S11	S12	13.377	0.600	134.113	133.278	0.835	16.0	150	2.31	50.0
1.007	S12	S13	9.709	0.600	133.053	132.956	0.097	100.1	375	3.28	50.0
1.008	S13	S15	33.806	0.600	132.956	132.731	0.225	150.0	375	3.66	50.0
4.000	S14	S15	85.260	0.600	132.600	132.092	0.508	168.0	225	3.41	50.0
1.009	S15	S16	26.303	0.600	131.943	131.811	0.132	199.3	375	4.00	50.0
1.010	S16	S17	33.984	0.600	131.811	131.641	0.170	200.0	375	4.45	50.0
1.011	S18	S19	6.061	0.600	131.000	130.964	0.036	168.4	225	2.10	50.0
1.012	S19	Outfall	18.138	0.600	130.964	130.800	0.164	110.6	150	2.42	50.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.005	1.483	163.8	73.1	1.200	1.200	0.311	0.0	175	1.442
1.006	1.476	163.0	96.5	1.200	2.014	0.411	0.0	208	1.535
3.000	1.984	35.1	12.7	1.709	1.562	0.054	0.0	62	1.828
3.001	2.300	40.6	29.1	1.562	1.621	0.124	0.0	94	2.496
3.002	2.529	44.7	33.1	1.621	2.014	0.141	0.0	96	2.764
1.007	1.811	200.0	130.6	2.014	1.919	0.556	0.0	222	1.925
1.008	1.477	163.1	137.4	1.919	0.494	0.585	0.0	265	1.647
4.000	1.006	40.0	2.3	0.575	1.283	0.010	0.0	36	0.549
1.009	1.280	141.3	139.8	1.282	1.314	0.595	0.0	306	1.449
1.010	1.277	141.1	139.8	1.314	0.484	0.595	0.0	307	1.447
1.011	1.005	39.9	0.0	1.275	1.311	0.000	0.0	0	0.000
1.012	0.955	16.9	0.0	1.386	0.420	0.000	0.0	0	0.000

### Simulation Settings

Rainfall Methodology	FSR	Drain Down Time (mins)	240
FSR Region	England and Wales	Additional Storage (m³/ha)	20.0
M5-60 (mm)	17.000	Check Discharge Rate(s)	✓
Ratio-R	0.300	1 year (l/s)	10.6
Summer CV	0.750	30 year (l/s)	20.6
Winter CV	0.840	100 year (l/s)	25.2
Analysis Speed	Detailed	Check Discharge Volume	✓
Skip Steady State	x	100 year +30% 360 minute (m³)	572

### Storm Durations

15 | 30 | 60 | 120 | 180 | 240 | 360

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

### Pre-development Discharge Rate

Site Makeup	Greenfield	Growth Factor 30 year	1.95
Greenfield Method	IH124	Growth Factor 100 year	2.48
Positively Drained Area (ha)	1.366	Betterment (%)	0
SAAR (mm)	1178	QBar	12.1
Soil Index	4	Q 1 year (l/s)	
SPR	0.47	Q 30 year (l/s)	
Region	10	Q 100 year (l/s)	
Growth Factor 1 year	0.85		

### Pre-development Discharge Volume

Site Makeup	Greenfield	Return Period (years)	100
Greenfield Method	FSR/FEH	Climate Change (%)	30
Positively Drained Area (ha)	1.366	Storm Duration (mins)	360
Soil Index	4	Betterment (%)	0
SPR	0.47	PR	0.530
CWI	125.445	Runoff Volume (m³)	572

### Node S19 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	✓	Sump Available	✓
Invert Level (m)	130.964	Product Number	CTL-SHE-0132-8100-1000-8100
Design Depth (m)	1.000	Min Outlet Diameter (m)	0.150
Design Flow (l/s)	8.1	Min Node Diameter (mm)	1200

### Node S18 Flow through Pond Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Main Channel Length (m)	22.408
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	131.000	Main Channel Slope (1:X)	200.0
Safety Factor	2.0	Time to half empty (mins)	192	Main Channel n	0.030

### Inlets S17

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	185.0	0.0	1.300	560.0	0.0

### Approval Settings

Node Size	x	Backdrops	x	Return Period (years)	100
Node Losses	x	Full Bore Velocity	x	Discharge Rates	✓
Link Size	x	Proportional Velocity	x	1 year (l/s)	10.6
Link Length	x	Surcharged Depth	x	30 year (l/s)	20.6
Coordinates	x	Flooding	✓	100 year (l/s)	25.2
Crossings	x	Return Period (years)	30	Discharge Volume	✓
Cover Depth	x	Time to Half Empty	✓	100 year +30% 360 minute (m³)	572

<b>TWEDDELL &amp; SLATER</b> <small>CONSULTING CIVIL &amp; STRUCTURAL ENGINEERS</small>	Tweddell & Slater Ltd Unit 2 Mereside Eden Business Park Penrith, CA11 9FB	File: Surface Water Calculations 16.0 Network: Storm Network Andrew Carr 16/06/2021	Page 4 Residential Development at School Brow, Moresby Parks Surface Water Calculations
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### Approval Results

The network has been designed for a 1 in 100 year storm using FSR rainfall  
 It contains 20 nodes (1 outfall) and 18 links  
 The total impermeable area is 0.595 ha  
 1 online control has been defined  
 1 structure has been defined, providing 401m<sup>3</sup> of storage below the flood risk level  
 Infiltration has not been utilised  
 Simulations have been completed using FSR summer and winter storms from 15 to 1440 minute duration

The node size test has not been completed

The node losses test has not been completed

The link size test has not been completed

The link length test has not been completed

The coordinates test has not been completed

The crossings test has not been completed

The cover depth test has not been completed

The backdrops test has not been completed

The full bore velocity test has not been completed

The proportional velocity test has not been completed

The surcharged depth test has not been completed

No nodes flood during the 30 year return period

No infiltrating structures failed to half empty in 1440 minutes during the 100 year return period

No outfalls have a discharge rate greater than 10.6l/s during the 1 year return period

No outfalls have a discharge rate greater than 20.6l/s during the 30 year return period

No outfalls have a discharge rate greater than 25.2l/s during the 100 year return period

No outfalls have a discharge volume greater than 572m<sup>3</sup> during the 100 year 360 minute storm

**Results for 1 year +30% CC +10% A Critical Storm Duration. Lowest mass balance: 99.75%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S1	9	135.952	0.069	13.4	0.1340	0.0000	OK
15 minute summer	S2	9	135.245	0.073	16.7	0.0783	0.0000	OK
15 minute summer	S3	9	134.928	0.108	25.0	0.1485	0.0000	OK
15 minute summer	S4	9	134.488	0.088	35.5	0.1838	0.0000	OK
15 minute summer	S5	9	133.894	0.144	41.5	0.2581	0.0000	OK
15 minute summer	S6	9	133.985	0.107	22.7	0.3349	0.0000	OK
15 minute summer	S7	9	133.637	0.197	63.8	0.3487	0.0000	OK
15 minute summer	S8	9	133.579	0.197	84.1	0.5569	0.0000	OK
15 minute summer	S9	9	135.511	0.058	11.1	0.0873	0.0000	OK
15 minute summer	S10	9	135.169	0.090	25.6	0.1821	0.0000	OK
15 minute summer	S11	9	134.209	0.096	29.1	0.1034	0.0000	OK
15 minute summer	S12	10	133.293	0.240	112.3	0.4327	0.0000	OK
15 minute summer	S13	10	133.202	0.246	110.0	0.4199	0.0000	OK
15 minute summer	S14	10	132.630	0.030	2.1	0.0505	0.0000	OK
15 minute summer	S15	10	132.216	0.273	116.2	0.4816	0.0000	OK
15 minute summer	S16	11	132.064	0.253	110.5	0.3614	0.0000	OK
120 minute winter	S17	96	131.315	0.203	34.7	0.0000	0.0000	OK
120 minute winter	S18	96	131.315	0.315	22.5	0.0000	0.0000	<b>SURCHARGED</b>
120 minute winter	S19	96	131.313	0.349	8.3	0.6168	0.0000	<b>SURCHARGED</b>
15 minute summer	Outfall	1	130.800	0.000	8.0	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 summer	S1	1.000	S2	13.4	1.629	0.419	0.1824	
15 minute summer	S2	1.001	S3	16.7	1.507	0.449	0.0894	
15 minute summer	S3	1.002	S4	25.0	1.974	0.732	0.1192	
15 minute summer	S4	1.003	S5	35.5	1.716	0.329	0.3144	
15 minute summer	S5	1.004	S7	41.3	1.664	0.605	0.2312	
15 minute summer	S6	2.000	S7	22.5	1.248	0.430	0.5107	
15 minute summer	S7	1.005	S8	63.5	1.082	0.388	0.5063	
15 minute summer	S8	1.006	S12	82.4	1.245	0.505	3.2664	
15 minute summer	S9	3.000	S10	11.1	1.287	0.317	0.0838	
15 minute summer	S10	3.001	S11	25.6	2.238	0.630	0.2139	
15 minute summer	S11	3.002	S12	29.1	2.567	0.652	0.1517	
15 minute summer	S12	1.007	S13	105.7	1.442	0.528	0.7325	
15 minute summer	S13	1.008	S15	114.7	1.567	0.703	2.4744	
15 minute summer	S14	4.000	S15	1.5	0.387	0.037	1.0823	
15 minute summer	S15	1.009	S16	110.5	1.368	0.782	2.1242	
15 minute summer	S16	1.010	S17	110.5	1.426	0.783	2.6325	
120 minute winter	S17	Flow through pond	S18	22.5	0.095	0.001	58.1134	
120 minute winter	S18	1.011	S19	8.3	0.390	0.207	0.2411	
120 minute winter	S19	Hydro-Brake®	Outfall	8.1				99.2

**Results for 30 year +30% CC +10% A Critical Storm Duration. Lowest mass balance: 99.75%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S1	10	136.275	0.392	32.6	0.7590	0.0000	<span style="color: orange;">SURCHARGED</span>
15 minute summer	S2	10	135.776	0.604	36.6	0.6470	0.0000	<span style="color: orange;">SURCHARGED</span>
15 minute summer	S3	9	135.429	0.609	48.9	0.8402	0.0000	<span style="color: orange;">SURCHARGED</span>
15 minute summer	S4	10	134.586	0.186	71.0	0.3875	0.0000	OK
15 minute summer	S5	10	134.335	0.585	81.7	1.0474	0.0000	<span style="color: orange;">SURCHARGED</span>
15 minute summer	S6	10	134.234	0.356	55.3	1.1132	0.0000	<span style="color: orange;">SURCHARGED</span>
15 minute summer	S7	10	134.044	0.604	114.0	1.0680	0.0000	<span style="color: orange;">SURCHARGED</span>
15 minute summer	S8	10	133.986	0.604	156.1	1.7086	0.0000	<span style="color: orange;">SURCHARGED</span>
15 minute summer	S9	10	136.103	0.650	27.1	0.9785	0.0000	<span style="color: orange;">SURCHARGED</span>
15 minute summer	S10	10	135.973	0.894	57.1	1.8157	0.0000	<span style="color: orange;">SURCHARGED</span>
15 minute summer	S11	10	134.787	0.674	48.9	0.7258	0.0000	<span style="color: orange;">SURCHARGED</span>
15 minute summer	S12	10	133.665	0.612	195.8	1.1033	0.0000	<span style="color: orange;">SURCHARGED</span>
15 minute summer	S13	10	133.488	0.532	205.2	0.9097	0.0000	<span style="color: orange;">SURCHARGED</span>
15 minute winter	S14	12	132.668	0.068	4.5	0.1166	0.0000	OK
15 minute winter	S15	11	132.680	0.736	205.4	1.3014	0.0000	<span style="color: orange;">SURCHARGED</span>
15 minute summer	S16	11	132.329	0.518	199.8	0.7411	0.0000	<span style="color: orange;">SURCHARGED</span>
240 minute winter	S17	232	131.755	0.643	51.8	0.0000	0.0000	OK
240 minute winter	S18	232	131.755	0.755	30.5	0.0000	0.0000	<span style="color: orange;">SURCHARGED</span>
240 minute winter	S19	232	131.753	0.789	8.3	1.3947	0.0000	<span style="color: orange;">SURCHARGED</span>
15 minute summer	Outfall	1	130.800	0.000	8.1	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 summer	S1	1.000	S2	28.6	1.722	0.893	0.3902	
15 minute summer	S2	1.001	S3	31.1	1.766	0.835	0.1427	
15 minute summer	S3	1.002	S4	45.7	2.595	1.336	0.1640	
15 minute summer	S4	1.003	S5	67.1	1.803	0.621	0.5698	
15 minute summer	S5	1.004	S7	74.5	1.875	1.093	0.3707	
15 minute summer	S6	2.000	S7	45.2	1.410	0.862	1.1244	
15 minute summer	S7	1.005	S8	116.0	1.141	0.708	0.9518	
15 minute summer	S8	1.006	S12	148.9	1.385	0.914	5.4508	
15 minute summer	S9	3.000	S10	21.9	1.357	0.624	0.1708	
15 minute summer	S10	3.001	S11	40.6	2.347	1.000	0.3291	
15 minute summer	S11	3.002	S12	45.7	2.613	1.022	0.2355	
15 minute summer	S12	1.007	S13	196.6	1.783	0.983	1.0709	
15 minute summer	S13	1.008	S15	206.2	1.874	1.264	3.5951	
15 minute winter	S14	4.000	S15	4.3	0.439	0.107	2.1289	
15 minute winter	S15	1.009	S16	200.0	1.813	1.415	2.9011	
15 minute summer	S16	1.010	S17	200.9	1.829	1.424	3.5989	
240 minute winter	S17	Flow through pond	S18	30.5	0.076	0.001	200.2105	
240 minute winter	S18	1.011	S19	8.3	0.389	0.208	0.2411	
240 minute winter	S19	Hydro-Brake®	Outfall	8.1				195.9

**Results for 100 year +30% CC +10% A Critical Storm Duration. Lowest mass balance: 99.75%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S1	10	136.871	0.988	41.9	1.9155	0.0000	SURCHARGED
15 minute summer	S2	10	136.300	1.128	37.2	1.2084	0.0000	SURCHARGED
15 minute summer	S3	10	135.938	1.118	55.6	1.5423	0.0000	SURCHARGED
15 minute summer	S4	10	135.048	0.648	79.3	1.3471	0.0000	SURCHARGED
15 minute summer	S5	10	134.707	0.957	89.7	1.7124	0.0000	SURCHARGED
15 minute summer	S6	10	134.681	0.803	70.9	2.5146	0.0000	SURCHARGED
15 minute summer	S7	10	134.378	0.938	132.9	1.6578	0.0000	SURCHARGED
15 minute summer	S8	10	134.304	0.922	178.8	2.6074	0.0000	SURCHARGED
15 minute winter	S9	11	136.822	1.369	31.0	2.0602	0.0000	SURCHARGED
15 minute winter	S10	11	136.666	1.587	58.9	3.2226	0.0000	FLOOD RISK
15 minute winter	S11	11	135.235	1.121	52.8	1.2078	0.0000	SURCHARGED
15 minute summer	S12	10	133.875	0.822	223.1	1.4825	0.0000	SURCHARGED
15 minute summer	S13	10	133.646	0.690	234.6	1.1794	0.0000	SURCHARGED
15 minute winter	S14	12	132.900	0.299	16.8	0.5109	0.0000	SURCHARGED
15 minute winter	S15	12	132.911	0.968	233.2	1.7106	0.0000	SURCHARGED
15 minute winter	S16	12	132.461	0.650	227.2	0.9301	0.0000	SURCHARGED
240 minute winter	S17	236	131.952	0.840	67.9	0.0000	0.0000	OK
240 minute winter	S18	236	131.952	0.952	38.4	0.0000	0.0000	SURCHARGED
240 minute winter	S19	236	131.950	0.986	8.3	1.7421	0.0000	SURCHARGED
15 minute summer	Outfall	1	130.800	0.000	8.1	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 summer	S1	1.000	S2	26.9	1.771	0.841	0.3902	
15 minute summer	S2	1.001	S3	32.6	1.851	0.875	0.1427	
15 minute summer	S3	1.002	S4	47.2	2.683	1.381	0.1656	
15 minute summer	S4	1.003	S5	71.0	1.862	0.658	0.6049	
15 minute summer	S5	1.004	S7	80.4	2.022	1.179	0.3707	
15 minute summer	S6	2.000	S7	54.0	1.357	1.029	1.1244	
15 minute summer	S7	1.005	S8	130.6	1.184	0.797	0.9518	
15 minute summer	S8	1.006	S12	171.6	1.556	1.053	5.4508	
15 minute winter	S9	3.000	S10	21.4	1.361	0.611	0.1708	
15 minute winter	S10	3.001	S11	44.6	2.536	1.098	0.3291	
15 minute winter	S11	3.002	S12	50.9	2.894	1.140	0.2355	
15 minute summer	S12	1.007	S13	223.6	2.028	1.118	1.0709	
15 minute summer	S13	1.008	S15	235.3	2.134	1.442	3.6498	
15 minute winter	S14	4.000	S15	12.9	0.475	0.323	3.3909	
15 minute winter	S15	1.009	S16	227.2	2.060	1.608	2.9011	
15 minute winter	S16	1.010	S17	228.6	2.074	1.620	3.6579	
240 minute winter	S17	Flow through pond	S18	38.4	0.102	0.001	281.9190	
240 minute winter	S18	1.011	S19	8.3	0.398	0.208	0.2411	
240 minute winter	S19	Hydro-Brake®	Outfall	8.1				388.5

**Results for 1 year +30% CC +10% A 15 minute summer. 255 minute analysis at 1 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S1	9	135.952	0.069	13.4	0.1340	0.0000	OK
15 minute summer	S2	9	135.245	0.073	16.7	0.0783	0.0000	OK
15 minute summer	S3	9	134.928	0.108	25.0	0.1485	0.0000	OK
15 minute summer	S4	9	134.488	0.088	35.5	0.1838	0.0000	OK
15 minute summer	S5	9	133.894	0.144	41.5	0.2581	0.0000	OK
15 minute summer	S6	9	133.985	0.107	22.7	0.3349	0.0000	OK
15 minute summer	S7	9	133.637	0.197	63.8	0.3487	0.0000	OK
15 minute summer	S8	9	133.579	0.197	84.1	0.5569	0.0000	OK
15 minute summer	S9	9	135.511	0.058	11.1	0.0873	0.0000	OK
15 minute summer	S10	9	135.169	0.090	25.6	0.1821	0.0000	OK
15 minute summer	S11	9	134.209	0.096	29.1	0.1034	0.0000	OK
15 minute summer	S12	10	133.293	0.240	112.3	0.4327	0.0000	OK
15 minute summer	S13	10	133.202	0.246	110.0	0.4199	0.0000	OK
15 minute summer	S14	10	132.630	0.030	2.1	0.0505	0.0000	OK
15 minute summer	S15	10	132.216	0.273	116.2	0.4816	0.0000	OK
15 minute summer	S16	11	132.064	0.253	110.5	0.3614	0.0000	OK
15 minute summer	S17	19	131.206	0.094	110.5	0.0000	0.0000	OK
15 minute summer	S18	20	131.202	0.202	107.1	0.0000	0.0000	OK
15 minute summer	S19	20	131.200	0.236	10.3	0.4164	0.0000	<b>SURCHARGED</b>
15 minute summer	Outfall	1	130.800	0.000	8.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	S1	1.000	S2	13.4	1.629	0.419	0.1824	
15 minute summer	S2	1.001	S3	16.7	1.507	0.449	0.0894	
15 minute summer	S3	1.002	S4	25.0	1.974	0.732	0.1192	
15 minute summer	S4	1.003	S5	35.5	1.716	0.329	0.3144	
15 minute summer	S5	1.004	S7	41.3	1.664	0.605	0.2312	
15 minute summer	S6	2.000	S7	22.5	1.248	0.430	0.5107	
15 minute summer	S7	1.005	S8	63.5	1.082	0.388	0.5063	
15 minute summer	S8	1.006	S12	82.4	1.245	0.505	3.2664	
15 minute summer	S9	3.000	S10	11.1	1.287	0.317	0.0838	
15 minute summer	S10	3.001	S11	25.6	2.238	0.630	0.2139	
15 minute summer	S11	3.002	S12	29.1	2.567	0.652	0.1517	
15 minute summer	S12	1.007	S13	105.7	1.442	0.528	0.7325	
15 minute summer	S13	1.008	S15	114.7	1.567	0.703	2.4744	
15 minute summer	S14	4.000	S15	1.5	0.387	0.037	1.0823	
15 minute summer	S15	1.009	S16	110.5	1.368	0.782	2.1242	
15 minute summer	S16	1.010	S17	110.5	1.426	0.783	2.6325	
15 minute summer	S17	Flow through pond	S18	107.1	0.219	0.003	30.9059	
15 minute summer	S18	1.011	S19	10.3	0.644	0.257	0.2344	
15 minute summer	S19	Hydro-Brake®	Outfall	8.0				37.2

**Results for 1 year +30% CC +10% A 15 minute winter. 255 minute analysis at 1 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S1	9	135.948	0.065	11.9	0.1253	0.0000	OK
15 minute winter	S2	9	135.240	0.068	14.8	0.0726	0.0000	OK
15 minute winter	S3	9	134.918	0.098	22.1	0.1350	0.0000	OK
15 minute winter	S4	9	134.483	0.083	31.5	0.1723	0.0000	OK
15 minute winter	S5	9	133.883	0.133	36.8	0.2379	0.0000	OK
15 minute winter	S6	9	133.978	0.100	20.2	0.3130	0.0000	OK
15 minute winter	S7	9	133.623	0.183	56.8	0.3229	0.0000	OK
15 minute winter	S8	9	133.565	0.183	75.1	0.5171	0.0000	OK
15 minute winter	S9	9	135.508	0.055	9.9	0.0821	0.0000	OK
15 minute winter	S10	9	135.162	0.083	22.8	0.1689	0.0000	OK
15 minute winter	S11	9	134.202	0.088	25.9	0.0953	0.0000	OK
15 minute winter	S12	10	133.281	0.228	101.1	0.4108	0.0000	OK
15 minute winter	S13	10	133.187	0.231	102.4	0.3954	0.0000	OK
15 minute winter	S14	10	132.629	0.029	1.8	0.0502	0.0000	OK
15 minute winter	S15	10	132.202	0.259	106.2	0.4574	0.0000	OK
15 minute winter	S16	11	132.053	0.242	103.3	0.3464	0.0000	OK
15 minute winter	S17	20	131.222	0.110	103.5	0.0000	0.0000	OK
15 minute winter	S18	19	131.223	0.223	101.4	0.0000	0.0000	OK
15 minute winter	S19	19	131.222	0.258	11.5	0.4557	0.0000	<b>SURCHARGED</b>
15 minute winter	Outfall	1	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S1	1.000	S2	11.9	1.588	0.372	0.1661	
15 minute winter	S2	1.001	S3	14.8	1.485	0.398	0.0806	
15 minute winter	S3	1.002	S4	22.1	1.932	0.647	0.1076	
15 minute winter	S4	1.003	S5	31.5	1.676	0.292	0.2864	
15 minute winter	S5	1.004	S7	36.7	1.625	0.538	0.2106	
15 minute winter	S6	2.000	S7	20.1	1.214	0.383	0.4686	
15 minute winter	S7	1.005	S8	56.7	1.064	0.346	0.4600	
15 minute winter	S8	1.006	S12	74.5	1.211	0.457	3.0379	
15 minute winter	S9	3.000	S10	9.9	1.256	0.282	0.0767	
15 minute winter	S10	3.001	S11	22.8	2.190	0.561	0.1947	
15 minute winter	S11	3.002	S12	25.9	2.508	0.580	0.1382	
15 minute winter	S12	1.007	S13	98.0	1.407	0.490	0.6860	
15 minute winter	S13	1.008	S15	104.7	1.535	0.642	2.3063	
15 minute winter	S14	4.000	S15	1.5	0.405	0.037	0.9499	
15 minute winter	S15	1.009	S16	103.3	1.337	0.731	2.0304	
15 minute winter	S16	1.010	S17	103.5	1.405	0.734	2.5042	
15 minute winter	S17	Flow through pond	S18	101.4	0.191	0.002	35.2352	
15 minute winter	S18	1.011	S19	11.5	0.681	0.288	0.2409	
15 minute winter	S19	Hydro-Brake®	Outfall	8.1				41.9

**Results for 1 year +30% CC +10% A 30 minute summer. 270 minute analysis at 1 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	S1	16	135.945	0.062	11.1	0.1194	0.0000	OK
30 minute summer	S2	16	135.236	0.064	13.5	0.0681	0.0000	OK
30 minute summer	S3	16	134.910	0.090	20.0	0.1243	0.0000	OK
30 minute summer	S4	16	134.478	0.078	28.2	0.1617	0.0000	OK
30 minute summer	S5	16	133.872	0.122	32.8	0.2175	0.0000	OK
30 minute summer	S6	16	133.971	0.093	18.7	0.2915	0.0000	OK
30 minute summer	S7	17	133.608	0.168	49.4	0.2961	0.0000	OK
30 minute summer	S8	17	133.551	0.169	65.3	0.4791	0.0000	OK
30 minute summer	S9	16	135.505	0.052	9.2	0.0784	0.0000	OK
30 minute summer	S10	16	135.157	0.078	21.0	0.1590	0.0000	OK
30 minute summer	S11	16	134.195	0.082	23.4	0.0882	0.0000	OK
30 minute summer	S12	17	133.267	0.214	89.6	0.3856	0.0000	OK
30 minute summer	S13	17	133.171	0.215	93.8	0.3672	0.0000	OK
30 minute summer	S14	17	132.628	0.028	1.7	0.0485	0.0000	OK
30 minute summer	S15	18	132.182	0.239	93.2	0.4224	0.0000	OK
30 minute summer	S16	18	132.037	0.226	93.2	0.3229	0.0000	OK
30 minute summer	S17	33	131.240	0.128	91.8	0.0000	0.0000	OK
30 minute summer	S18	33	131.242	0.242	85.8	0.0000	0.0000	<b>SURCHARGED</b>
30 minute summer	S19	33	131.240	0.276	9.3	0.4882	0.0000	<b>SURCHARGED</b>
30 minute summer	Outfall	1	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	S1	1.000	S2	10.8	1.555	0.338	0.1542	
30 minute summer	S2	1.001	S3	13.2	1.457	0.355	0.0736	
30 minute summer	S3	1.002	S4	19.6	1.880	0.572	0.0978	
30 minute summer	S4	1.003	S5	27.9	1.646	0.258	0.2588	
30 minute summer	S5	1.004	S7	32.1	1.583	0.470	0.1888	
30 minute summer	S6	2.000	S7	17.5	1.175	0.334	0.4250	
30 minute summer	S7	1.005	S8	50.0	1.043	0.305	0.4139	
30 minute summer	S8	1.006	S12	67.0	1.183	0.411	2.7964	
30 minute summer	S9	3.000	S10	9.1	1.235	0.259	0.0715	
30 minute summer	S10	3.001	S11	20.5	2.147	0.505	0.1788	
30 minute summer	S11	3.002	S12	22.9	2.436	0.512	0.1258	
30 minute summer	S12	1.007	S13	89.5	1.376	0.448	0.6315	
30 minute summer	S13	1.008	S15	91.8	1.494	0.563	2.0984	
30 minute summer	S14	4.000	S15	1.4	0.401	0.034	0.7523	
30 minute summer	S15	1.009	S16	93.2	1.304	0.660	1.8858	
30 minute summer	S16	1.010	S17	91.8	1.370	0.650	2.2929	
30 minute summer	S17	Flow through pond	S18	85.8	0.124	0.002	39.7144	
30 minute summer	S18	1.011	S19	9.3	0.490	0.233	0.2411	
30 minute summer	S19	Hydro-Brake®	Outfall	8.1				50.8

**Results for 1 year +30% CC +10% A 30 minute winter. 270 minute analysis at 1 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	S1	16	135.937	0.054	8.7	0.1051	0.0000	OK
30 minute winter	S2	16	135.228	0.056	10.7	0.0597	0.0000	OK
30 minute winter	S3	16	134.898	0.078	16.0	0.1078	0.0000	OK
30 minute winter	S4	16	134.470	0.070	22.6	0.1446	0.0000	OK
30 minute winter	S5	16	133.857	0.107	26.5	0.1919	0.0000	OK
30 minute winter	S6	16	133.961	0.083	14.7	0.2594	0.0000	OK
30 minute winter	S7	17	133.588	0.148	40.6	0.2620	0.0000	OK
30 minute winter	S8	17	133.533	0.150	53.7	0.4256	0.0000	OK
30 minute winter	S9	16	135.499	0.046	7.2	0.0693	0.0000	OK
30 minute winter	S10	16	135.147	0.068	16.6	0.1387	0.0000	OK
30 minute winter	S11	16	134.185	0.072	18.7	0.0773	0.0000	OK
30 minute winter	S12	17	133.240	0.187	73.0	0.3365	0.0000	OK
30 minute winter	S13	17	133.146	0.190	76.6	0.3241	0.0000	OK
30 minute winter	S14	18	132.627	0.027	1.3	0.0459	0.0000	OK
30 minute winter	S15	18	132.154	0.211	77.2	0.3730	0.0000	OK
30 minute winter	S16	18	132.012	0.201	77.4	0.2872	0.0000	OK
30 minute winter	S17	33	131.266	0.154	76.8	0.0000	0.0000	OK
30 minute winter	S18	33	131.265	0.265	68.0	0.0000	0.0000	SURCHARGED
30 minute winter	S19	32	131.263	0.298	9.2	0.5274	0.0000	SURCHARGED
30 minute winter	Outfall	1	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute winter	S1	1.000	S2	8.6	1.475	0.270	0.1295	
30 minute winter	S2	1.001	S3	10.7	1.401	0.286	0.0618	
30 minute winter	S3	1.002	S4	15.8	1.801	0.463	0.0828	
30 minute winter	S4	1.003	S5	22.6	1.560	0.209	0.2211	
30 minute winter	S5	1.004	S7	26.3	1.509	0.385	0.1622	
30 minute winter	S6	2.000	S7	14.4	1.115	0.274	0.3658	
30 minute winter	S7	1.005	S8	40.8	0.997	0.249	0.3529	
30 minute winter	S8	1.006	S12	54.1	1.127	0.332	2.3725	
30 minute winter	S9	3.000	S10	7.2	1.163	0.204	0.0601	
30 minute winter	S10	3.001	S11	16.4	2.041	0.405	0.1506	
30 minute winter	S11	3.002	S12	18.6	2.326	0.416	0.1070	
30 minute winter	S12	1.007	S13	72.9	1.319	0.365	0.5366	
30 minute winter	S13	1.008	S15	76.0	1.426	0.466	1.8077	
30 minute winter	S14	4.000	S15	1.2	0.399	0.031	0.4934	
30 minute winter	S15	1.009	S16	77.4	1.249	0.547	1.6294	
30 minute winter	S16	1.010	S17	76.8	1.313	0.544	1.9942	
30 minute winter	S17	Flow through pond	S18	68.0	0.140	0.002	45.5067	
30 minute winter	S18	1.011	S19	9.2	0.521	0.230	0.2411	
30 minute winter	S19	Hydro-Brake®	Outfall	8.1				57.0

**Results for 1 year +30% CC +10% A 60 minute summer. 300 minute analysis at 1 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	S1	31	135.934	0.051	7.8	0.0990	0.0000	OK
60 minute summer	S2	31	135.224	0.052	9.6	0.0559	0.0000	OK
60 minute summer	S3	31	134.893	0.073	14.3	0.1005	0.0000	OK
60 minute summer	S4	31	134.466	0.066	20.2	0.1363	0.0000	OK
60 minute summer	S5	31	133.850	0.100	23.6	0.1785	0.0000	OK
60 minute summer	S6	31	133.956	0.078	13.2	0.2433	0.0000	OK
60 minute summer	S7	32	133.578	0.138	36.1	0.2441	0.0000	OK
60 minute summer	S8	32	133.523	0.141	47.6	0.3978	0.0000	OK
60 minute summer	S9	31	135.497	0.044	6.5	0.0657	0.0000	OK
60 minute summer	S10	31	135.143	0.064	14.8	0.1302	0.0000	OK
60 minute summer	S11	31	134.180	0.067	16.7	0.0720	0.0000	OK
60 minute summer	S12	32	133.226	0.173	64.9	0.3116	0.0000	OK
60 minute summer	S13	32	133.132	0.176	68.0	0.3013	0.0000	OK
60 minute summer	S14	33	132.625	0.025	1.2	0.0425	0.0000	OK
60 minute summer	S15	33	132.138	0.195	68.2	0.3451	0.0000	OK
60 minute summer	S16	33	131.998	0.186	68.6	0.2668	0.0000	OK
60 minute summer	S17	54	131.269	0.157	67.8	0.0000	0.0000	OK
60 minute summer	S18	56	131.268	0.268	46.0	0.0000	0.0000	<b>SURCHARGED</b>
60 minute summer	S19	57	131.267	0.302	8.7	0.5344	0.0000	<b>SURCHARGED</b>
60 minute summer	Outfall	1	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	S1	1.000	S2	7.7	1.434	0.241	0.1190	
60 minute summer	S2	1.001	S3	9.5	1.367	0.255	0.0565	
60 minute summer	S3	1.002	S4	14.1	1.754	0.413	0.0759	
60 minute summer	S4	1.003	S5	20.1	1.522	0.186	0.2021	
60 minute summer	S5	1.004	S7	23.4	1.469	0.343	0.1484	
60 minute summer	S6	2.000	S7	12.8	1.080	0.243	0.3355	
60 minute summer	S7	1.005	S8	36.3	0.975	0.222	0.3216	
60 minute summer	S8	1.006	S12	48.2	1.105	0.296	2.1563	
60 minute summer	S9	3.000	S10	6.5	1.135	0.184	0.0554	
60 minute summer	S10	3.001	S11	14.7	1.992	0.362	0.1379	
60 minute summer	S11	3.002	S12	16.5	2.259	0.370	0.0978	
60 minute summer	S12	1.007	S13	64.7	1.290	0.324	0.4873	
60 minute summer	S13	1.008	S15	67.1	1.386	0.411	1.6476	
60 minute summer	S14	4.000	S15	1.0	0.403	0.026	0.3518	
60 minute summer	S15	1.009	S16	68.6	1.217	0.485	1.4819	
60 minute summer	S16	1.010	S17	67.8	1.274	0.481	1.8172	
60 minute summer	S17	Flow through pond	S18	46.0	0.104	0.001	46.2868	
60 minute summer	S18	1.011	S19	8.7	0.414	0.218	0.2411	
60 minute summer	S19	Hydro-Brake®	Outfall	8.1				67.3

**Results for 1 year +30% CC +10% A 60 minute winter. 300 minute analysis at 1 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute winter	S1	31	135.927	0.044	5.8	0.0850	0.0000	OK
60 minute winter	S2	31	135.217	0.045	7.2	0.0478	0.0000	OK
60 minute winter	S3	31	134.882	0.062	10.8	0.0851	0.0000	OK
60 minute winter	S4	31	134.457	0.057	15.3	0.1186	0.0000	OK
60 minute winter	S5	32	133.835	0.085	17.9	0.1526	0.0000	OK
60 minute winter	S6	31	133.945	0.067	9.9	0.2105	0.0000	OK
60 minute winter	S7	32	133.558	0.118	27.6	0.2085	0.0000	OK
60 minute winter	S8	32	133.503	0.121	36.5	0.3416	0.0000	OK
60 minute winter	S9	31	135.491	0.038	4.8	0.0565	0.0000	OK
60 minute winter	S10	31	135.134	0.055	11.1	0.1110	0.0000	OK
60 minute winter	S11	31	134.170	0.057	12.6	0.0614	0.0000	OK
60 minute winter	S12	32	133.199	0.146	49.6	0.2637	0.0000	OK
60 minute winter	S13	32	133.107	0.151	52.1	0.2585	0.0000	OK
60 minute winter	S14	33	132.623	0.023	0.9	0.0389	0.0000	OK
60 minute winter	S15	33	132.110	0.167	52.8	0.2953	0.0000	OK
60 minute winter	S16	33	131.972	0.161	52.9	0.2300	0.0000	OK
60 minute winter	S17	59	131.298	0.186	52.8	0.0000	0.0000	OK
60 minute winter	S18	61	131.298	0.298	38.2	0.0000	0.0000	<b>SURCHARGED</b>
60 minute winter	S19	61	131.296	0.332	8.5	0.5869	0.0000	<b>SURCHARGED</b>
60 minute winter	Outfall	1	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute winter	S1	1.000	S2	5.8	1.333	0.181	0.0960	
60 minute winter	S2	1.001	S3	7.2	1.284	0.192	0.0454	
60 minute winter	S3	1.002	S4	10.7	1.642	0.314	0.0614	
60 minute winter	S4	1.003	S5	15.3	1.423	0.142	0.1647	
60 minute winter	S5	1.004	S7	17.9	1.374	0.262	0.1212	
60 minute winter	S6	2.000	S7	9.8	1.004	0.187	0.2758	
60 minute winter	S7	1.005	S8	27.7	0.919	0.169	0.2601	
60 minute winter	S8	1.006	S12	36.6	1.043	0.225	1.7387	
60 minute winter	S9	3.000	S10	4.8	1.050	0.137	0.0448	
60 minute winter	S10	3.001	S11	11.1	1.858	0.273	0.1115	
60 minute winter	S11	3.002	S12	12.6	2.111	0.281	0.0796	
60 minute winter	S12	1.007	S13	49.5	1.218	0.248	0.3946	
60 minute winter	S13	1.008	S15	51.9	1.297	0.318	1.3553	
60 minute winter	S14	4.000	S15	0.9	0.411	0.021	0.1777	
60 minute winter	S15	1.009	S16	52.9	1.143	0.374	1.2170	
60 minute winter	S16	1.010	S17	52.8	1.194	0.374	1.5038	
60 minute winter	S17	Flow through pond	S18	38.2	0.113	0.001	53.7201	
60 minute winter	S18	1.011	S19	8.5	0.447	0.212	0.2411	
60 minute winter	S19	Hydro-Brake®	Outfall	8.1				75.7

**Results for 1 year +30% CC +10% A 120 minute summer. 360 minute analysis at 2 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	S1	62	135.924	0.041	5.1	0.0795	0.0000	OK
120 minute summer	S2	62	135.214	0.042	6.4	0.0451	0.0000	OK
120 minute summer	S3	62	134.878	0.057	9.5	0.0793	0.0000	OK
120 minute summer	S4	62	134.454	0.054	13.5	0.1114	0.0000	OK
120 minute summer	S5	62	133.830	0.080	15.8	0.1423	0.0000	OK
120 minute summer	S6	62	133.941	0.063	8.7	0.1976	0.0000	OK
120 minute summer	S7	62	133.550	0.110	24.5	0.1944	0.0000	OK
120 minute summer	S8	62	133.495	0.113	32.4	0.3198	0.0000	OK
120 minute summer	S9	62	135.489	0.036	4.3	0.0535	0.0000	OK
120 minute summer	S10	62	135.130	0.051	9.8	0.1038	0.0000	OK
120 minute summer	S11	62	134.166	0.053	11.1	0.0573	0.0000	OK
120 minute summer	S12	62	133.189	0.136	43.8	0.2445	0.0000	OK
120 minute summer	S13	62	133.097	0.141	46.0	0.2408	0.0000	OK
120 minute summer	S14	64	132.621	0.021	0.8	0.0362	0.0000	OK
120 minute summer	S15	62	132.098	0.155	46.4	0.2737	0.0000	OK
120 minute summer	S16	64	131.960	0.149	46.2	0.2133	0.0000	OK
120 minute summer	S17	88	131.286	0.174	46.4	0.0000	0.0000	OK
120 minute summer	S18	90	131.286	0.286	29.1	0.0000	0.0000	<b>SURCHARGED</b>
120 minute summer	S19	90	131.284	0.320	8.3	0.5649	0.0000	<b>SURCHARGED</b>
120 minute summer	Outfall	2	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute summer	S1	1.000	S2	5.1	1.284	0.160	0.0881	
120 minute summer	S2	1.001	S3	6.4	1.253	0.172	0.0416	
120 minute summer	S3	1.002	S4	9.5	1.594	0.278	0.0561	
120 minute summer	S4	1.003	S5	13.5	1.378	0.125	0.1502	
120 minute summer	S5	1.004	S7	15.8	1.332	0.232	0.1106	
120 minute summer	S6	2.000	S7	8.7	0.972	0.166	0.2530	
120 minute summer	S7	1.005	S8	24.5	0.893	0.150	0.2367	
120 minute summer	S8	1.006	S12	32.4	1.017	0.199	1.5768	
120 minute summer	S9	3.000	S10	4.3	1.022	0.123	0.0411	
120 minute summer	S10	3.001	S11	9.8	1.802	0.241	0.1017	
120 minute summer	S11	3.002	S12	11.1	2.044	0.248	0.0727	
120 minute summer	S12	1.007	S13	43.7	1.186	0.218	0.3574	
120 minute summer	S13	1.008	S15	45.7	1.252	0.280	1.2338	
120 minute summer	S14	4.000	S15	0.7	0.393	0.018	0.1598	
120 minute summer	S15	1.009	S16	46.2	1.110	0.327	1.0949	
120 minute summer	S16	1.010	S17	46.4	1.156	0.329	1.3641	
120 minute summer	S17	Flow through pond	S18	29.1	0.079	0.001	50.5937	
120 minute summer	S18	1.011	S19	8.3	0.386	0.208	0.2411	
120 minute summer	S19	Hydro-Brake®	Outfall	8.1				88.0

**Results for 1 year +30% CC +10% A 120 minute winter. 360 minute analysis at 2 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute winter	S1	62	135.918	0.035	3.8	0.0684	0.0000	OK
120 minute winter	S2	62	135.208	0.036	4.7	0.0386	0.0000	OK
120 minute winter	S3	62	134.869	0.048	7.0	0.0669	0.0000	OK
120 minute winter	S4	62	134.446	0.046	10.0	0.0959	0.0000	OK
120 minute winter	S5	62	133.817	0.067	11.7	0.1204	0.0000	OK
120 minute winter	S6	62	133.932	0.054	6.4	0.1686	0.0000	OK
120 minute winter	S7	62	133.533	0.093	18.1	0.1640	0.0000	OK
120 minute winter	S8	62	133.478	0.096	24.0	0.2727	0.0000	OK
120 minute winter	S9	62	135.484	0.031	3.2	0.0461	0.0000	OK
120 minute winter	S10	62	135.123	0.044	7.3	0.0888	0.0000	OK
120 minute winter	S11	62	134.158	0.045	8.3	0.0489	0.0000	OK
120 minute winter	S12	62	133.167	0.114	32.5	0.2054	0.0000	OK
120 minute winter	S13	62	133.076	0.120	34.2	0.2050	0.0000	OK
120 minute winter	S14	64	132.619	0.019	0.6	0.0325	0.0000	OK
120 minute winter	S15	62	132.075	0.132	34.7	0.2325	0.0000	OK
120 minute winter	S16	64	131.939	0.128	34.7	0.1826	0.0000	OK
120 minute winter	S17	96	131.315	0.203	34.7	0.0000	0.0000	OK
120 minute winter	S18	96	131.315	0.315	22.5	0.0000	0.0000	<b>SURCHARGED</b>
120 minute winter	S19	96	131.313	0.349	8.3	0.6168	0.0000	<b>SURCHARGED</b>
120 minute winter	Outfall	2	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute winter	S1	1.000	S2	3.8	1.187	0.119	0.0710	
120 minute winter	S2	1.001	S3	4.7	1.156	0.126	0.0331	
120 minute winter	S3	1.002	S4	7.0	1.473	0.205	0.0447	
120 minute winter	S4	1.003	S5	10.0	1.277	0.093	0.1201	
120 minute winter	S5	1.004	S7	11.7	1.234	0.171	0.0885	
120 minute winter	S6	2.000	S7	6.4	0.892	0.122	0.2029	
120 minute winter	S7	1.005	S8	18.1	0.831	0.111	0.1879	
120 minute winter	S8	1.006	S12	24.0	0.950	0.147	1.2498	
120 minute winter	S9	3.000	S10	3.2	0.943	0.091	0.0332	
120 minute winter	S10	3.001	S11	7.3	1.668	0.180	0.0818	
120 minute winter	S11	3.002	S12	8.3	1.892	0.186	0.0587	
120 minute winter	S12	1.007	S13	32.5	1.110	0.162	0.2841	
120 minute winter	S13	1.008	S15	34.1	1.160	0.209	0.9949	
120 minute winter	S14	4.000	S15	0.6	0.367	0.015	0.1365	
120 minute winter	S15	1.009	S16	34.7	1.030	0.245	0.8869	
120 minute winter	S16	1.010	S17	34.7	1.068	0.246	1.1058	
120 minute winter	S17	Flow through pond	S18	22.5	0.095	0.001	58.1134	
120 minute winter	S18	1.011	S19	8.3	0.390	0.207	0.2411	
120 minute winter	S19	Hydro-Brake®	Outfall	8.1				99.2

**Results for 1 year +30% CC +10% A 180 minute summer. 420 minute analysis at 4 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute summer	S1	92	135.920	0.037	4.1	0.0709	0.0000	OK
180 minute summer	S2	92	135.209	0.037	5.1	0.0399	0.0000	OK
180 minute summer	S3	92	134.870	0.050	7.5	0.0694	0.0000	OK
180 minute summer	S4	92	134.448	0.048	10.7	0.0989	0.0000	OK
180 minute summer	S5	92	133.819	0.069	12.4	0.1240	0.0000	OK
180 minute summer	S6	92	133.934	0.056	6.9	0.1738	0.0000	OK
180 minute summer	S7	92	133.535	0.095	19.1	0.1687	0.0000	OK
180 minute summer	S8	92	133.481	0.099	25.3	0.2791	0.0000	OK
180 minute summer	S9	92	135.485	0.032	3.4	0.0474	0.0000	OK
180 minute summer	S10	92	135.124	0.045	7.8	0.0915	0.0000	OK
180 minute summer	S11	92	134.160	0.047	8.8	0.0504	0.0000	OK
180 minute summer	S12	92	133.169	0.116	34.0	0.2093	0.0000	OK
180 minute summer	S13	92	133.077	0.121	35.3	0.2073	0.0000	OK
180 minute summer	S14	96	132.618	0.018	0.6	0.0312	0.0000	OK
180 minute summer	S15	92	132.075	0.132	35.2	0.2340	0.0000	OK
180 minute summer	S16	96	131.940	0.129	34.9	0.1839	0.0000	OK
180 minute summer	S17	124	131.289	0.177	35.4	0.0000	0.0000	OK
180 minute summer	S18	128	131.289	0.289	23.1	0.0000	0.0000	SURCHARGED
180 minute summer	S19	128	131.287	0.323	8.3	0.5704	0.0000	SURCHARGED
180 minute summer	Outfall	4	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute summer	S1	1.000	S2	4.1	1.208	0.127	0.0745	
180 minute summer	S2	1.001	S3	5.0	1.176	0.135	0.0348	
180 minute summer	S3	1.002	S4	7.5	1.498	0.219	0.0470	
180 minute summer	S4	1.003	S5	10.6	1.302	0.098	0.1252	
180 minute summer	S5	1.004	S7	12.3	1.249	0.181	0.0920	
180 minute summer	S6	2.000	S7	6.8	0.905	0.129	0.2114	
180 minute summer	S7	1.005	S8	19.0	0.841	0.116	0.1948	
180 minute summer	S8	1.006	S12	24.9	0.959	0.153	1.2865	
180 minute summer	S9	3.000	S10	3.4	0.955	0.096	0.0346	
180 minute summer	S10	3.001	S11	7.7	1.693	0.190	0.0853	
180 minute summer	S11	3.002	S12	8.8	1.919	0.196	0.0611	
180 minute summer	S12	1.007	S13	33.5	1.121	0.167	0.2901	
180 minute summer	S13	1.008	S15	34.7	1.163	0.213	1.0087	
180 minute summer	S14	4.000	S15	0.5	0.357	0.013	0.1282	
180 minute summer	S15	1.009	S16	34.9	1.035	0.247	0.8904	
180 minute summer	S16	1.010	S17	35.4	1.075	0.251	1.1190	
180 minute summer	S17	Flow through pond	S18	23.1	0.063	0.001	51.3986	
180 minute summer	S18	1.011	S19	8.3	0.381	0.207	0.2411	
180 minute summer	S19	Hydro-Brake®	Outfall	8.1				103.3

**Results for 1 year +30% CC +10% A 180 minute winter. 420 minute analysis at 4 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute winter	S1	92	135.914	0.031	3.0	0.0607	0.0000	OK
180 minute winter	S2	92	135.204	0.032	3.7	0.0342	0.0000	OK
180 minute winter	S3	92	134.863	0.042	5.5	0.0586	0.0000	OK
180 minute winter	S4	92	134.441	0.041	7.8	0.0848	0.0000	OK
180 minute winter	S5	92	133.809	0.059	9.1	0.1049	0.0000	OK
180 minute winter	S6	92	133.925	0.047	5.0	0.1485	0.0000	OK
180 minute winter	S7	92	133.521	0.081	14.1	0.1426	0.0000	OK
180 minute winter	S8	92	133.467	0.085	18.6	0.2393	0.0000	OK
180 minute winter	S9	92	135.480	0.027	2.5	0.0409	0.0000	OK
180 minute winter	S10	92	135.117	0.038	5.7	0.0780	0.0000	OK
180 minute winter	S11	92	134.153	0.040	6.5	0.0429	0.0000	OK
180 minute winter	S12	92	133.152	0.099	25.3	0.1778	0.0000	OK
180 minute winter	S13	92	133.061	0.105	26.5	0.1789	0.0000	OK
180 minute winter	S14	92	132.617	0.017	0.5	0.0287	0.0000	OK
180 minute winter	S15	92	132.058	0.115	26.9	0.2024	0.0000	OK
180 minute winter	S16	96	131.923	0.112	26.9	0.1597	0.0000	OK
180 minute winter	S17	136	131.315	0.203	27.0	0.0000	0.0000	OK
180 minute winter	S18	136	131.315	0.315	17.6	0.0000	0.0000	<b>SURCHARGED</b>
180 minute winter	S19	136	131.313	0.349	8.2	0.6159	0.0000	<b>SURCHARGED</b>
180 minute winter	Outfall	4	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute winter	S1	1.000	S2	3.0	1.110	0.094	0.0598	
180 minute winter	S2	1.001	S3	3.7	1.085	0.099	0.0277	
180 minute winter	S3	1.002	S4	5.5	1.380	0.160	0.0374	
180 minute winter	S4	1.003	S5	7.8	1.198	0.072	0.0996	
180 minute winter	S5	1.004	S7	9.1	1.153	0.133	0.0733	
180 minute winter	S6	2.000	S7	5.0	0.831	0.095	0.1696	
180 minute winter	S7	1.005	S8	14.0	0.782	0.086	0.1551	
180 minute winter	S8	1.006	S12	18.6	0.896	0.114	1.0288	
180 minute winter	S9	3.000	S10	2.5	0.880	0.071	0.0278	
180 minute winter	S10	3.001	S11	5.7	1.559	0.140	0.0682	
180 minute winter	S11	3.002	S12	6.5	1.768	0.145	0.0490	
180 minute winter	S12	1.007	S13	25.2	1.049	0.126	0.2337	
180 minute winter	S13	1.008	S15	26.5	1.083	0.162	0.8263	
180 minute winter	S14	4.000	S15	0.4	0.342	0.011	0.1103	
180 minute winter	S15	1.009	S16	26.9	0.964	0.190	0.7348	
180 minute winter	S16	1.010	S17	27.0	0.996	0.191	0.9202	
180 minute winter	S17	Flow through pond	S18	17.6	0.082	0.000	57.9879	
180 minute winter	S18	1.011	S19	8.2	0.381	0.206	0.2411	
180 minute winter	S19	Hydro-Brake®	Outfall	8.1				115.3

<b>TWEDDELL &amp; SLATER</b> <small>CONSULTING CIVIL &amp; STRUCTURAL ENGINEERS</small>	Tweddell & Slater Ltd Unit 2 Mereside Eden Business Park Penrith, CA11 9FB	File: Surface Water Calculations 16.0 Network: Storm Network Andrew Carr 16/06/2021	Page 18 Residential Development at School Brow, Moresby Parks Surface Water Calculations
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**Results for 1 year +30% CC +10% A 240 minute summer. 480 minute analysis at 4 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute summer	S1	124	135.916	0.033	3.3	0.0637	0.0000	OK
240 minute summer	S2	124	135.206	0.034	4.1	0.0361	0.0000	OK
240 minute summer	S3	124	134.865	0.045	6.1	0.0620	0.0000	OK
240 minute summer	S4	124	134.443	0.043	8.7	0.0896	0.0000	OK
240 minute summer	S5	124	133.813	0.062	10.2	0.1117	0.0000	OK
240 minute summer	S6	124	133.928	0.050	5.6	0.1575	0.0000	OK
240 minute summer	S7	124	133.526	0.086	15.8	0.1521	0.0000	OK
240 minute summer	S8	124	133.472	0.090	20.9	0.2539	0.0000	OK
240 minute summer	S9	124	135.482	0.029	2.8	0.0432	0.0000	OK
240 minute summer	S10	124	135.120	0.041	6.4	0.0829	0.0000	OK
240 minute summer	S11	124	134.155	0.042	7.3	0.0457	0.0000	OK
240 minute summer	S12	124	133.158	0.105	28.4	0.1901	0.0000	OK
240 minute summer	S13	124	133.068	0.112	29.9	0.1908	0.0000	OK
240 minute summer	S14	124	132.618	0.017	0.5	0.0298	0.0000	OK
240 minute summer	S15	124	132.065	0.122	30.4	0.2162	0.0000	OK
240 minute summer	S16	124	131.930	0.119	30.4	0.1700	0.0000	OK
240 minute summer	S17	160	131.287	0.175	30.3	0.0000	0.0000	OK
240 minute summer	S18	160	131.287	0.287	19.5	0.0000	0.0000	<b>SURCHARGED</b>
240 minute summer	S19	160	131.285	0.321	8.2	0.5664	0.0000	<b>SURCHARGED</b>
240 minute summer	Outfall	4	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute summer	S1	1.000	S2	3.3	1.139	0.103	0.0642	
240 minute summer	S2	1.001	S3	4.1	1.116	0.110	0.0299	
240 minute summer	S3	1.002	S4	6.1	1.421	0.178	0.0404	
240 minute summer	S4	1.003	S5	8.7	1.231	0.081	0.1084	
240 minute summer	S5	1.004	S7	10.2	1.190	0.150	0.0799	
240 minute summer	S6	2.000	S7	5.6	0.859	0.107	0.1843	
240 minute summer	S7	1.005	S8	15.8	0.805	0.096	0.1693	
240 minute summer	S8	1.006	S12	20.9	0.919	0.128	1.1252	
240 minute summer	S9	3.000	S10	2.8	0.907	0.080	0.0302	
240 minute summer	S10	3.001	S11	6.4	1.609	0.157	0.0744	
240 minute summer	S11	3.002	S12	7.3	1.827	0.163	0.0534	
240 minute summer	S12	1.007	S13	28.4	1.077	0.142	0.2562	
240 minute summer	S13	1.008	S15	29.9	1.120	0.183	0.9026	
240 minute summer	S14	4.000	S15	0.5	0.348	0.012	0.1180	
240 minute summer	S15	1.009	S16	30.4	0.994	0.215	0.8036	
240 minute summer	S16	1.010	S17	30.3	1.029	0.215	1.0025	
240 minute summer	S17	Flow through pond	S18	19.5	0.067	0.000	50.8224	
240 minute summer	S18	1.011	S19	8.2	0.379	0.206	0.2411	
240 minute summer	S19	Hydro-Brake®	Outfall	8.1				114.9

**Results for 1 year +30% CC +10% A 240 minute winter. 480 minute analysis at 4 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	S1	124	135.912	0.029	2.5	0.0554	0.0000	OK
240 minute winter	S2	124	135.201	0.029	3.1	0.0314	0.0000	OK
240 minute winter	S3	124	134.859	0.039	4.6	0.0534	0.0000	OK
240 minute winter	S4	124	134.437	0.037	6.5	0.0777	0.0000	OK
240 minute winter	S5	124	133.803	0.053	7.6	0.0955	0.0000	OK
240 minute winter	S6	124	133.922	0.044	4.2	0.1362	0.0000	OK
240 minute winter	S7	124	133.513	0.073	11.8	0.1297	0.0000	OK
240 minute winter	S8	124	133.459	0.077	15.6	0.2187	0.0000	OK
240 minute winter	S9	124	135.478	0.025	2.1	0.0376	0.0000	OK
240 minute winter	S10	124	135.114	0.035	4.8	0.0716	0.0000	OK
240 minute winter	S11	124	134.149	0.036	5.4	0.0390	0.0000	OK
240 minute winter	S12	124	133.142	0.089	21.2	0.1612	0.0000	OK
240 minute winter	S13	124	133.052	0.096	22.3	0.1635	0.0000	OK
240 minute winter	S14	132	132.616	0.016	0.4	0.0275	0.0000	OK
240 minute winter	S15	124	132.048	0.105	22.7	0.1848	0.0000	OK
240 minute winter	S16	124	131.913	0.102	22.7	0.1460	0.0000	OK
240 minute winter	S17	176	131.307	0.195	22.7	0.0000	0.0000	OK
240 minute winter	S18	176	131.307	0.307	15.8	0.0000	0.0000	<b>SURCHARGED</b>
240 minute winter	S19	176	131.305	0.341	8.2	0.6020	0.0000	<b>SURCHARGED</b>
240 minute winter	Outfall	4	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute winter	S1	1.000	S2	2.5	1.052	0.078	0.0527	
240 minute winter	S2	1.001	S3	3.1	1.036	0.083	0.0244	
240 minute winter	S3	1.002	S4	4.6	1.316	0.135	0.0329	
240 minute winter	S4	1.003	S5	6.5	1.141	0.060	0.0874	
240 minute winter	S5	1.004	S7	7.6	1.100	0.111	0.0644	
240 minute winter	S6	2.000	S7	4.2	0.791	0.080	0.1501	
240 minute winter	S7	1.005	S8	11.8	0.749	0.072	0.1360	
240 minute winter	S8	1.006	S12	15.6	0.858	0.096	0.9003	
240 minute winter	S9	3.000	S10	2.1	0.835	0.060	0.0246	
240 minute winter	S10	3.001	S11	4.8	1.495	0.118	0.0600	
240 minute winter	S11	3.002	S12	5.4	1.681	0.121	0.0430	
240 minute winter	S12	1.007	S13	21.2	1.006	0.106	0.2048	
240 minute winter	S13	1.008	S15	22.3	1.033	0.137	0.7297	
240 minute winter	S14	4.000	S15	0.4	0.334	0.010	0.1021	
240 minute winter	S15	1.009	S16	22.7	0.921	0.161	0.6480	
240 minute winter	S16	1.010	S17	22.7	0.949	0.161	0.8125	
240 minute winter	S17	Flow through pond	S18	15.8	0.061	0.000	55.9684	
240 minute winter	S18	1.011	S19	8.2	0.380	0.205	0.2411	
240 minute winter	S19	Hydro-Brake®	Outfall	8.1				129.1

**Results for 1 year +30% CC +10% A 360 minute summer. 600 minute analysis at 8 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute summer	S1	184	135.913	0.030	2.7	0.0574	0.0000	OK
360 minute summer	S2	184	135.203	0.031	3.4	0.0327	0.0000	OK
360 minute summer	S3	184	134.860	0.040	5.0	0.0555	0.0000	OK
360 minute summer	S4	184	134.439	0.039	7.1	0.0808	0.0000	OK
360 minute summer	S5	184	133.806	0.056	8.2	0.0994	0.0000	OK
360 minute summer	S6	184	133.923	0.045	4.5	0.1403	0.0000	OK
360 minute summer	S7	184	133.516	0.076	12.6	0.1344	0.0000	OK
360 minute summer	S8	184	133.462	0.080	16.7	0.2257	0.0000	OK
360 minute summer	S9	184	135.479	0.025	2.2	0.0384	0.0000	OK
360 minute summer	S10	184	135.115	0.036	5.1	0.0736	0.0000	OK
360 minute summer	S11	184	134.151	0.037	5.8	0.0403	0.0000	OK
360 minute summer	S12	184	133.145	0.092	22.5	0.1661	0.0000	OK
360 minute summer	S13	184	133.054	0.098	23.5	0.1675	0.0000	OK
360 minute summer	S14	192	132.616	0.016	0.4	0.0275	0.0000	OK
360 minute summer	S15	184	132.050	0.107	23.7	0.1888	0.0000	OK
360 minute summer	S16	184	131.915	0.104	23.6	0.1482	0.0000	OK
360 minute summer	S17	232	131.275	0.163	23.3	0.0000	0.0000	OK
360 minute summer	S18	232	131.275	0.275	16.2	0.0000	0.0000	<b>SURCHARGED</b>
360 minute summer	S19	232	131.273	0.309	8.2	0.5459	0.0000	<b>SURCHARGED</b>
360 minute summer	Outfall	8	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute summer	S1	1.000	S2	2.7	1.070	0.084	0.0556	
360 minute summer	S2	1.001	S3	3.4	1.065	0.091	0.0258	
360 minute summer	S3	1.002	S4	5.0	1.343	0.145	0.0347	
360 minute summer	S4	1.003	S5	7.0	1.166	0.065	0.0925	
360 minute summer	S5	1.004	S7	8.2	1.122	0.120	0.0681	
360 minute summer	S6	2.000	S7	4.4	0.804	0.085	0.1564	
360 minute summer	S7	1.005	S8	12.6	0.762	0.077	0.1427	
360 minute summer	S8	1.006	S12	16.6	0.871	0.102	0.9400	
360 minute summer	S9	3.000	S10	2.2	0.841	0.063	0.0255	
360 minute summer	S10	3.001	S11	5.1	1.513	0.125	0.0627	
360 minute summer	S11	3.002	S12	5.7	1.710	0.129	0.0450	
360 minute summer	S12	1.007	S13	22.3	1.020	0.112	0.2126	
360 minute summer	S13	1.008	S15	23.3	1.045	0.143	0.7538	
360 minute summer	S14	4.000	S15	0.4	0.334	0.010	0.1020	
360 minute summer	S15	1.009	S16	23.6	0.933	0.167	0.6648	
360 minute summer	S16	1.010	S17	23.3	0.955	0.165	0.8288	
360 minute summer	S17	Flow through pond	S18	16.2	0.062	0.000	47.8538	
360 minute summer	S18	1.011	S19	8.2	0.378	0.204	0.2411	
360 minute summer	S19	Hydro-Brake®	Outfall	8.1				134.2

**Results for 1 year +30% CC +10% A 360 minute winter. 600 minute analysis at 8 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	S1	184	135.908	0.025	1.9	0.0483	0.0000	OK
360 minute winter	S2	184	135.198	0.026	2.4	0.0277	0.0000	OK
360 minute winter	S3	184	134.854	0.034	3.6	0.0470	0.0000	OK
360 minute winter	S4	184	134.433	0.033	5.1	0.0691	0.0000	OK
360 minute winter	S5	184	133.797	0.047	6.0	0.0843	0.0000	OK
360 minute winter	S6	184	133.917	0.039	3.3	0.1207	0.0000	OK
360 minute winter	S7	184	133.505	0.065	9.3	0.1142	0.0000	OK
360 minute winter	S8	184	133.451	0.069	12.3	0.1944	0.0000	OK
360 minute winter	S9	184	135.475	0.022	1.6	0.0329	0.0000	OK
360 minute winter	S10	184	135.110	0.031	3.7	0.0627	0.0000	OK
360 minute winter	S11	184	134.145	0.032	4.2	0.0343	0.0000	OK
360 minute winter	S12	184	133.131	0.078	16.6	0.1406	0.0000	OK
360 minute winter	S13	184	133.040	0.084	17.4	0.1438	0.0000	OK
360 minute winter	S14	208	132.614	0.014	0.3	0.0242	0.0000	OK
360 minute winter	S15	184	132.035	0.092	17.7	0.1622	0.0000	OK
360 minute winter	S16	184	131.901	0.090	17.7	0.1284	0.0000	OK
360 minute winter	S17	248	131.285	0.173	17.6	0.0000	0.0000	OK
360 minute winter	S18	248	131.285	0.285	13.1	0.0000	0.0000	<b>SURCHARGED</b>
360 minute winter	S19	248	131.283	0.319	8.1	0.5629	0.0000	<b>SURCHARGED</b>
360 minute winter	Outfall	8	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute winter	S1	1.000	S2	1.9	0.966	0.059	0.0436	
360 minute winter	S2	1.001	S3	2.4	0.961	0.064	0.0203	
360 minute winter	S3	1.002	S4	3.6	1.231	0.105	0.0275	
360 minute winter	S4	1.003	S5	5.1	1.074	0.047	0.0734	
360 minute winter	S5	1.004	S7	6.0	1.031	0.088	0.0542	
360 minute winter	S6	2.000	S7	3.3	0.737	0.063	0.1263	
360 minute winter	S7	1.005	S8	9.3	0.703	0.057	0.1140	
360 minute winter	S8	1.006	S12	12.3	0.810	0.075	0.7496	
360 minute winter	S9	3.000	S10	1.6	0.779	0.046	0.0203	
360 minute winter	S10	3.001	S11	3.7	1.387	0.091	0.0498	
360 minute winter	S11	3.002	S12	4.2	1.566	0.094	0.0358	
360 minute winter	S12	1.007	S13	16.5	0.947	0.083	0.1697	
360 minute winter	S13	1.008	S15	17.4	0.965	0.107	0.6099	
360 minute winter	S14	4.000	S15	0.3	0.308	0.008	0.0830	
360 minute winter	S15	1.009	S16	17.7	0.862	0.125	0.5396	
360 minute winter	S16	1.010	S17	17.6	0.884	0.125	0.6783	
360 minute winter	S17	Flow through pond	S18	13.1	0.039	0.000	50.3021	
360 minute winter	S18	1.011	S19	8.1	0.379	0.204	0.2411	
360 minute winter	S19	Hydro-Brake®	Outfall	8.1				151.5

**Results for 1 year +30% CC +10% A 480 minute summer. 720 minute analysis at 8 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute summer	S1	248	135.909	0.026	2.1	0.0509	0.0000	OK
480 minute summer	S2	248	135.199	0.027	2.6	0.0288	0.0000	OK
480 minute summer	S3	248	134.856	0.036	3.9	0.0490	0.0000	OK
480 minute summer	S4	248	134.435	0.035	5.6	0.0723	0.0000	OK
480 minute summer	S5	248	133.800	0.050	6.6	0.0886	0.0000	OK
480 minute summer	S6	248	133.918	0.040	3.6	0.1263	0.0000	OK
480 minute summer	S7	248	133.508	0.068	10.2	0.1200	0.0000	OK
480 minute summer	S8	248	133.454	0.072	13.5	0.2038	0.0000	OK
480 minute summer	S9	248	135.476	0.023	1.8	0.0349	0.0000	OK
480 minute summer	S10	248	135.112	0.032	4.1	0.0660	0.0000	OK
480 minute summer	S11	248	134.147	0.034	4.7	0.0363	0.0000	OK
480 minute summer	S12	248	133.135	0.082	18.3	0.1486	0.0000	OK
480 minute summer	S13	248	133.045	0.089	19.3	0.1517	0.0000	OK
480 minute summer	S14	256	132.614	0.014	0.3	0.0241	0.0000	OK
480 minute summer	S15	248	132.040	0.097	19.6	0.1710	0.0000	OK
480 minute summer	S16	248	131.906	0.095	19.6	0.1354	0.0000	OK
480 minute summer	S17	296	131.257	0.145	19.6	0.0000	0.0000	OK
480 minute summer	S18	296	131.257	0.257	14.1	0.0000	0.0000	<b>SURCHARGED</b>
480 minute summer	S19	296	131.255	0.291	8.1	0.5144	0.0000	<b>SURCHARGED</b>
480 minute summer	Outfall	8	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
480 minute summer	S1	1.000	S2	2.1	1.000	0.066	0.0466	
480 minute summer	S2	1.001	S3	2.6	0.982	0.070	0.0216	
480 minute summer	S3	1.002	S4	3.9	1.258	0.114	0.0292	
480 minute summer	S4	1.003	S5	5.6	1.092	0.052	0.0786	
480 minute summer	S5	1.004	S7	6.6	1.059	0.097	0.0581	
480 minute summer	S6	2.000	S7	3.6	0.756	0.069	0.1346	
480 minute summer	S7	1.005	S8	10.2	0.720	0.062	0.1222	
480 minute summer	S8	1.006	S12	13.5	0.828	0.083	0.8068	
480 minute summer	S9	3.000	S10	1.8	0.802	0.051	0.0219	
480 minute summer	S10	3.001	S11	4.1	1.424	0.101	0.0538	
480 minute summer	S11	3.002	S12	4.7	1.618	0.105	0.0389	
480 minute summer	S12	1.007	S13	18.3	0.970	0.092	0.1833	
480 minute summer	S13	1.008	S15	19.3	0.993	0.118	0.6573	
480 minute summer	S14	4.000	S15	0.3	0.308	0.007	0.0830	
480 minute summer	S15	1.009	S16	19.6	0.886	0.139	0.5821	
480 minute summer	S16	1.010	S17	19.6	0.911	0.139	0.7316	
480 minute summer	S17	Flow through pond	S18	14.1	0.030	0.000	43.5786	
480 minute summer	S18	1.011	S19	8.1	0.378	0.204	0.2411	
480 minute summer	S19	Hydro-Brake®	Outfall	8.1				148.0

**Results for 1 year +30% CC +10% A 480 minute winter. 720 minute analysis at 8 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute winter	S1	240	135.906	0.023	1.6	0.0444	0.0000	OK
480 minute winter	S2	240	135.196	0.024	2.0	0.0254	0.0000	OK
480 minute winter	S3	240	134.851	0.031	3.0	0.0427	0.0000	OK
480 minute winter	S4	248	134.431	0.031	4.3	0.0637	0.0000	OK
480 minute winter	S5	248	133.793	0.043	5.0	0.0767	0.0000	OK
480 minute winter	S6	248	133.913	0.035	2.7	0.1095	0.0000	OK
480 minute winter	S7	248	133.499	0.059	7.7	0.1034	0.0000	OK
480 minute winter	S8	248	133.445	0.063	10.2	0.1777	0.0000	OK
480 minute winter	S9	240	135.473	0.020	1.3	0.0298	0.0000	OK
480 minute winter	S10	240	135.107	0.028	3.0	0.0565	0.0000	OK
480 minute winter	S11	240	134.142	0.029	3.4	0.0308	0.0000	OK
480 minute winter	S12	248	133.123	0.070	13.7	0.1270	0.0000	OK
480 minute winter	S13	248	133.032	0.076	14.4	0.1305	0.0000	OK
480 minute winter	S14	256	132.612	0.012	0.2	0.0199	0.0000	OK
480 minute winter	S15	248	132.026	0.083	14.6	0.1468	0.0000	OK
480 minute winter	S16	248	131.893	0.081	14.6	0.1166	0.0000	OK
480 minute winter	S17	320	131.255	0.143	14.6	0.0000	0.0000	OK
480 minute winter	S18	320	131.255	0.255	11.5	0.0000	0.0000	<b>SURCHARGED</b>
480 minute winter	S19	320	131.253	0.289	8.1	0.5106	0.0000	<b>SURCHARGED</b>
480 minute winter	Outfall	8	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
480 minute winter	S1	1.000	S2	1.6	0.922	0.050	0.0385	
480 minute winter	S2	1.001	S3	2.0	0.914	0.054	0.0178	
480 minute winter	S3	1.002	S4	3.0	1.170	0.088	0.0241	
480 minute winter	S4	1.003	S5	4.3	1.022	0.040	0.0645	
480 minute winter	S5	1.004	S7	5.0	0.980	0.073	0.0475	
480 minute winter	S6	2.000	S7	2.7	0.696	0.051	0.1097	
480 minute winter	S7	1.005	S8	7.7	0.668	0.047	0.0995	
480 minute winter	S8	1.006	S12	10.2	0.774	0.063	0.6528	
480 minute winter	S9	3.000	S10	1.3	0.725	0.037	0.0175	
480 minute winter	S10	3.001	S11	3.0	1.308	0.074	0.0429	
480 minute winter	S11	3.002	S12	3.4	1.475	0.076	0.0308	
480 minute winter	S12	1.007	S13	13.7	0.904	0.069	0.1473	
480 minute winter	S13	1.008	S15	14.4	0.915	0.088	0.5323	
480 minute winter	S14	4.000	S15	0.2	0.271	0.005	0.0629	
480 minute winter	S15	1.009	S16	14.6	0.818	0.103	0.4694	
480 minute winter	S16	1.010	S17	14.6	0.838	0.103	0.5923	
480 minute winter	S17	Flow through pond	S18	11.5	0.059	0.000	43.0590	
480 minute winter	S18	1.011	S19	8.1	0.378	0.203	0.2411	
480 minute winter	S19	Hydro-Brake®	Outfall	8.1				166.0

**Results for 1 year +30% CC +10% A 600 minute summer. 840 minute analysis at 15 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute summer	S1	315	135.907	0.024	1.8	0.0472	0.0000	OK
600 minute summer	S2	315	135.197	0.025	2.2	0.0266	0.0000	OK
600 minute summer	S3	315	134.853	0.033	3.3	0.0449	0.0000	OK
600 minute summer	S4	315	134.432	0.032	4.7	0.0664	0.0000	OK
600 minute summer	S5	315	133.795	0.045	5.5	0.0806	0.0000	OK
600 minute summer	S6	315	133.915	0.037	3.0	0.1153	0.0000	OK
600 minute summer	S7	315	133.502	0.062	8.5	0.1090	0.0000	OK
600 minute summer	S8	315	133.448	0.066	11.3	0.1870	0.0000	OK
600 minute summer	S9	315	135.474	0.021	1.5	0.0319	0.0000	OK
600 minute summer	S10	315	135.109	0.030	3.4	0.0601	0.0000	OK
600 minute summer	S11	315	134.144	0.031	3.9	0.0330	0.0000	OK
600 minute summer	S12	315	133.128	0.075	15.3	0.1348	0.0000	OK
600 minute summer	S13	315	133.037	0.081	16.1	0.1382	0.0000	OK
600 minute summer	S14	315	132.614	0.014	0.3	0.0241	0.0000	OK
600 minute summer	S15	315	132.031	0.088	16.4	0.1559	0.0000	OK
600 minute summer	S16	315	131.897	0.086	16.4	0.1236	0.0000	OK
600 minute summer	S17	360	131.238	0.126	16.4	0.0000	0.0000	OK
600 minute summer	S18	360	131.238	0.238	12.4	0.0000	0.0000	<b>SURCHARGED</b>
600 minute summer	S19	360	131.236	0.272	8.1	0.4803	0.0000	<b>SURCHARGED</b>
600 minute summer	Outfall	15	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
600 minute summer	S1	1.000	S2	1.8	0.960	0.056	0.0416	
600 minute summer	S2	1.001	S3	2.2	0.938	0.059	0.0191	
600 minute summer	S3	1.002	S4	3.3	1.201	0.096	0.0258	
600 minute summer	S4	1.003	S5	4.7	1.045	0.044	0.0690	
600 minute summer	S5	1.004	S7	5.5	1.007	0.081	0.0509	
600 minute summer	S6	2.000	S7	3.0	0.717	0.057	0.1182	
600 minute summer	S7	1.005	S8	8.5	0.685	0.052	0.1071	
600 minute summer	S8	1.006	S12	11.3	0.791	0.069	0.7063	
600 minute summer	S9	3.000	S10	1.5	0.763	0.043	0.0192	
600 minute summer	S10	3.001	S11	3.4	1.351	0.084	0.0470	
600 minute summer	S11	3.002	S12	3.9	1.534	0.087	0.0340	
600 minute summer	S12	1.007	S13	15.3	0.929	0.077	0.1600	
600 minute summer	S13	1.008	S15	16.1	0.944	0.099	0.5767	
600 minute summer	S14	4.000	S15	0.3	0.308	0.007	0.0829	
600 minute summer	S15	1.009	S16	16.4	0.844	0.116	0.5110	
600 minute summer	S16	1.010	S17	16.4	0.866	0.116	0.6438	
600 minute summer	S17	Flow through pond	S18	12.4	0.022	0.000	38.9281	
600 minute summer	S18	1.011	S19	8.1	0.378	0.203	0.2411	
600 minute summer	S19	Hydro-Brake®	Outfall	8.1				159.5

**Results for 1 year +30% CC +10% A 600 minute winter. 840 minute analysis at 15 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute winter	S1	315	135.905	0.022	1.4	0.0417	0.0000	OK
600 minute winter	S2	315	135.194	0.022	1.7	0.0234	0.0000	OK
600 minute winter	S3	315	134.848	0.028	2.5	0.0390	0.0000	OK
600 minute winter	S4	315	134.428	0.028	3.6	0.0585	0.0000	OK
600 minute winter	S5	315	133.789	0.039	4.2	0.0702	0.0000	OK
600 minute winter	S6	315	133.910	0.032	2.3	0.1012	0.0000	OK
600 minute winter	S7	315	133.494	0.054	6.5	0.0946	0.0000	OK
600 minute winter	S8	315	133.440	0.058	8.6	0.1636	0.0000	OK
600 minute winter	S9	300	135.471	0.018	1.1	0.0275	0.0000	OK
600 minute winter	S10	315	135.105	0.026	2.6	0.0526	0.0000	OK
600 minute winter	S11	315	134.140	0.027	3.0	0.0290	0.0000	OK
600 minute winter	S12	315	133.118	0.065	11.7	0.1168	0.0000	OK
600 minute winter	S13	315	133.027	0.071	12.3	0.1206	0.0000	OK
600 minute winter	S14	330	132.612	0.012	0.2	0.0199	0.0000	OK
600 minute winter	S15	315	132.020	0.077	12.5	0.1355	0.0000	OK
600 minute winter	S16	315	131.886	0.075	12.5	0.1079	0.0000	OK
600 minute winter	S17	390	131.224	0.112	12.5	0.0000	0.0000	OK
600 minute winter	S18	390	131.224	0.224	10.3	0.0000	0.0000	OK
600 minute winter	S19	390	131.222	0.258	8.1	0.4558	0.0000	<b>SURCHARGED</b>
600 minute winter	Outfall	15	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
600 minute winter	S1	1.000	S2	1.4	0.893	0.044	0.0347	
600 minute winter	S2	1.001	S3	1.7	0.880	0.046	0.0157	
600 minute winter	S3	1.002	S4	2.5	1.110	0.073	0.0212	
600 minute winter	S4	1.003	S5	3.6	0.971	0.033	0.0569	
600 minute winter	S5	1.004	S7	4.2	0.934	0.062	0.0419	
600 minute winter	S6	2.000	S7	2.3	0.664	0.044	0.0980	
600 minute winter	S7	1.005	S8	6.5	0.639	0.040	0.0878	
600 minute winter	S8	1.006	S12	8.6	0.735	0.053	0.5782	
600 minute winter	S9	3.000	S10	1.1	0.693	0.031	0.0157	
600 minute winter	S10	3.001	S11	2.6	1.250	0.064	0.0389	
600 minute winter	S11	3.002	S12	3.0	1.422	0.067	0.0282	
600 minute winter	S12	1.007	S13	11.7	0.868	0.059	0.1310	
600 minute winter	S13	1.008	S15	12.3	0.874	0.075	0.4759	
600 minute winter	S14	4.000	S15	0.2	0.271	0.005	0.0629	
600 minute winter	S15	1.009	S16	12.5	0.784	0.088	0.4195	
600 minute winter	S16	1.010	S17	12.5	0.801	0.089	0.5303	
600 minute winter	S17	Flow through pond	S18	10.3	0.032	0.000	35.5831	
600 minute winter	S18	1.011	S19	8.1	0.378	0.202	0.2409	
600 minute winter	S19	Hydro-Brake®	Outfall	8.1				179.7

**Results for 1 year +30% CC +10% A 720 minute summer. 960 minute analysis at 15 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute summer	S1	375	135.906	0.023	1.6	0.0444	0.0000	OK
720 minute summer	S2	375	135.196	0.024	2.0	0.0254	0.0000	OK
720 minute summer	S3	375	134.851	0.031	3.0	0.0427	0.0000	OK
720 minute summer	S4	375	134.431	0.031	4.3	0.0637	0.0000	OK
720 minute summer	S5	375	133.793	0.043	5.0	0.0767	0.0000	OK
720 minute summer	S6	375	133.914	0.036	2.8	0.1115	0.0000	OK
720 minute summer	S7	375	133.499	0.059	7.8	0.1041	0.0000	OK
720 minute summer	S8	375	133.445	0.063	10.3	0.1786	0.0000	OK
720 minute summer	S9	375	135.474	0.021	1.4	0.0309	0.0000	OK
720 minute summer	S10	375	135.108	0.029	3.2	0.0584	0.0000	OK
720 minute summer	S11	375	134.143	0.029	3.6	0.0317	0.0000	OK
720 minute summer	S12	375	133.124	0.071	14.0	0.1285	0.0000	OK
720 minute summer	S13	375	133.033	0.077	14.7	0.1319	0.0000	OK
720 minute summer	S14	375	132.614	0.014	0.3	0.0241	0.0000	OK
720 minute summer	S15	375	132.027	0.084	15.0	0.1488	0.0000	OK
720 minute summer	S16	375	131.894	0.083	15.0	0.1182	0.0000	OK
720 minute summer	S17	420	131.225	0.113	15.0	0.0000	0.0000	OK
720 minute summer	S18	420	131.225	0.225	11.7	0.0000	0.0000	OK
720 minute summer	S19	420	131.223	0.259	8.1	0.4569	0.0000	<b>SURCHARGED</b>
720 minute summer	Outfall	15	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
720 minute summer	S1	1.000	S2	1.6	0.922	0.050	0.0385	
720 minute summer	S2	1.001	S3	2.0	0.914	0.054	0.0178	
720 minute summer	S3	1.002	S4	3.0	1.170	0.088	0.0241	
720 minute summer	S4	1.003	S5	4.3	1.022	0.040	0.0645	
720 minute summer	S5	1.004	S7	5.0	0.980	0.073	0.0475	
720 minute summer	S6	2.000	S7	2.8	0.703	0.053	0.1125	
720 minute summer	S7	1.005	S8	7.8	0.671	0.048	0.1003	
720 minute summer	S8	1.006	S12	10.3	0.772	0.063	0.6608	
720 minute summer	S9	3.000	S10	1.4	0.743	0.040	0.0184	
720 minute summer	S10	3.001	S11	3.2	1.336	0.079	0.0448	
720 minute summer	S11	3.002	S12	3.6	1.499	0.081	0.0321	
720 minute summer	S12	1.007	S13	14.0	0.910	0.070	0.1496	
720 minute summer	S13	1.008	S15	14.7	0.920	0.090	0.5403	
720 minute summer	S14	4.000	S15	0.3	0.308	0.007	0.0829	
720 minute summer	S15	1.009	S16	15.0	0.824	0.106	0.4787	
720 minute summer	S16	1.010	S17	15.0	0.844	0.106	0.6037	
720 minute summer	S17	Flow through pond	S18	11.7	0.022	0.000	35.7274	
720 minute summer	S18	1.011	S19	8.1	0.378	0.202	0.2409	
720 minute summer	S19	Hydro-Brake®	Outfall	8.1				170.3

**Results for 1 year +30% CC +10% A 720 minute winter. 960 minute analysis at 15 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute winter	S1	360	135.903	0.020	1.2	0.0386	0.0000	OK
720 minute winter	S2	360	135.193	0.021	1.5	0.0221	0.0000	OK
720 minute winter	S3	375	134.847	0.027	2.3	0.0374	0.0000	OK
720 minute winter	S4	375	134.427	0.027	3.3	0.0561	0.0000	OK
720 minute winter	S5	375	133.787	0.037	3.8	0.0667	0.0000	OK
720 minute winter	S6	375	133.909	0.031	2.1	0.0968	0.0000	OK
720 minute winter	S7	375	133.491	0.051	5.9	0.0900	0.0000	OK
720 minute winter	S8	375	133.437	0.055	7.8	0.1560	0.0000	OK
720 minute winter	S9	360	135.471	0.017	1.0	0.0263	0.0000	OK
720 minute winter	S10	360	135.103	0.024	2.3	0.0496	0.0000	OK
720 minute winter	S11	360	134.138	0.025	2.6	0.0270	0.0000	OK
720 minute winter	S12	375	133.114	0.061	10.5	0.1103	0.0000	OK
720 minute winter	S13	375	133.023	0.067	11.0	0.1141	0.0000	OK
720 minute winter	S14	390	132.612	0.012	0.2	0.0199	0.0000	OK
720 minute winter	S15	375	132.016	0.073	11.2	0.1282	0.0000	OK
720 minute winter	S16	375	131.882	0.071	11.2	0.1021	0.0000	OK
720 minute winter	S17	450	131.201	0.089	11.2	0.0000	0.0000	OK
720 minute winter	S18	450	131.201	0.201	9.6	0.0000	0.0000	OK
720 minute winter	S19	450	131.199	0.235	8.0	0.4154	0.0000	<b>SURCHARGED</b>
720 minute winter	Outfall	15	130.800	0.000	8.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
720 minute winter	S1	1.000	S2	1.2	0.846	0.038	0.0314	
720 minute winter	S2	1.001	S3	1.5	0.850	0.040	0.0147	
720 minute winter	S3	1.002	S4	2.3	1.084	0.067	0.0200	
720 minute winter	S4	1.003	S5	3.3	0.953	0.031	0.0531	
720 minute winter	S5	1.004	S7	3.8	0.908	0.056	0.0390	
720 minute winter	S6	2.000	S7	2.1	0.646	0.040	0.0919	
720 minute winter	S7	1.005	S8	5.9	0.622	0.036	0.0818	
720 minute winter	S8	1.006	S12	7.8	0.721	0.048	0.5359	
720 minute winter	S9	3.000	S10	1.0	0.672	0.029	0.0146	
720 minute winter	S10	3.001	S11	2.3	1.214	0.057	0.0354	
720 minute winter	S11	3.002	S12	2.6	1.365	0.058	0.0255	
720 minute winter	S12	1.007	S13	10.5	0.845	0.053	0.1207	
720 minute winter	S13	1.008	S15	11.0	0.846	0.067	0.4396	
720 minute winter	S14	4.000	S15	0.2	0.271	0.005	0.0629	
720 minute winter	S15	1.009	S16	11.2	0.760	0.079	0.3877	
720 minute winter	S16	1.010	S17	11.2	0.775	0.079	0.4909	
720 minute winter	S17	Flow through pond	S18	9.6	0.036	0.000	30.2411	
720 minute winter	S18	1.011	S19	8.0	0.378	0.201	0.2339	
720 minute winter	S19	Hydro-Brake®	Outfall	8.0				193.1

**Results for 1 year +30% CC +10% A 960 minute summer. 1200 minute analysis at 15 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute summer	S1	495	135.905	0.022	1.4	0.0417	0.0000	OK
960 minute summer	S2	495	135.194	0.022	1.7	0.0234	0.0000	OK
960 minute summer	S3	495	134.848	0.028	2.5	0.0390	0.0000	OK
960 minute summer	S4	495	134.428	0.028	3.6	0.0585	0.0000	OK
960 minute summer	S5	495	133.789	0.039	4.2	0.0702	0.0000	OK
960 minute summer	S6	495	133.910	0.032	2.3	0.1012	0.0000	OK
960 minute summer	S7	495	133.494	0.054	6.5	0.0946	0.0000	OK
960 minute summer	S8	495	133.440	0.058	8.6	0.1636	0.0000	OK
960 minute summer	S9	495	135.471	0.018	1.1	0.0275	0.0000	OK
960 minute summer	S10	495	135.105	0.026	2.6	0.0526	0.0000	OK
960 minute summer	S11	495	134.140	0.027	3.0	0.0290	0.0000	OK
960 minute summer	S12	495	133.118	0.065	11.7	0.1168	0.0000	OK
960 minute summer	S13	495	133.027	0.071	12.3	0.1206	0.0000	OK
960 minute summer	S14	510	132.612	0.012	0.2	0.0199	0.0000	OK
960 minute summer	S15	495	132.020	0.077	12.5	0.1355	0.0000	OK
960 minute summer	S16	495	131.886	0.075	12.5	0.1079	0.0000	OK
960 minute summer	S17	555	131.192	0.080	12.5	0.0000	0.0000	OK
960 minute summer	S18	555	131.192	0.192	10.3	0.0000	0.0000	OK
960 minute summer	S19	555	131.191	0.226	8.0	0.4002	0.0000	<b>SURCHARGED</b>
960 minute summer	Outfall	15	130.800	0.000	8.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
960 minute summer	S1	1.000	S2	1.4	0.893	0.044	0.0347	
960 minute summer	S2	1.001	S3	1.7	0.880	0.046	0.0157	
960 minute summer	S3	1.002	S4	2.5	1.110	0.073	0.0212	
960 minute summer	S4	1.003	S5	3.6	0.971	0.033	0.0569	
960 minute summer	S5	1.004	S7	4.2	0.934	0.062	0.0419	
960 minute summer	S6	2.000	S7	2.3	0.664	0.044	0.0980	
960 minute summer	S7	1.005	S8	6.5	0.639	0.040	0.0878	
960 minute summer	S8	1.006	S12	8.6	0.735	0.053	0.5782	
960 minute summer	S9	3.000	S10	1.1	0.684	0.031	0.0157	
960 minute summer	S10	3.001	S11	2.6	1.250	0.064	0.0389	
960 minute summer	S11	3.002	S12	3.0	1.422	0.067	0.0282	
960 minute summer	S12	1.007	S13	11.7	0.868	0.059	0.1310	
960 minute summer	S13	1.008	S15	12.3	0.874	0.075	0.4759	
960 minute summer	S14	4.000	S15	0.2	0.271	0.005	0.0629	
960 minute summer	S15	1.009	S16	12.5	0.784	0.088	0.4195	
960 minute summer	S16	1.010	S17	12.5	0.801	0.089	0.5303	
960 minute summer	S17	Flow through pond	S18	10.3	0.022	0.000	28.2605	
960 minute summer	S18	1.011	S19	8.0	0.378	0.200	0.2298	
960 minute summer	S19	Hydro-Brake®	Outfall	8.0				187.9

**Results for 1 year +30% CC +10% A 960 minute winter. 1200 minute analysis at 15 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute winter	S1	465	135.901	0.018	1.0	0.0355	0.0000	OK
960 minute winter	S2	495	135.191	0.019	1.3	0.0206	0.0000	OK
960 minute winter	S3	495	134.845	0.025	1.9	0.0340	0.0000	OK
960 minute winter	S4	495	134.425	0.025	2.7	0.0511	0.0000	OK
960 minute winter	S5	495	133.784	0.034	3.2	0.0612	0.0000	OK
960 minute winter	S6	480	133.906	0.028	1.7	0.0875	0.0000	OK
960 minute winter	S7	495	133.486	0.046	4.9	0.0818	0.0000	OK
960 minute winter	S8	495	133.433	0.051	6.5	0.1430	0.0000	OK
960 minute winter	S9	450	135.469	0.016	0.8	0.0237	0.0000	OK
960 minute winter	S10	480	135.101	0.022	1.9	0.0451	0.0000	OK
960 minute winter	S11	480	134.136	0.023	2.2	0.0248	0.0000	OK
960 minute winter	S12	495	133.109	0.056	8.8	0.1005	0.0000	OK
960 minute winter	S13	495	133.017	0.061	9.3	0.1049	0.0000	OK
960 minute winter	S14	510	132.612	0.012	0.2	0.0199	0.0000	OK
960 minute winter	S15	495	132.010	0.067	9.5	0.1181	0.0000	OK
960 minute winter	S16	495	131.877	0.066	9.5	0.0942	0.0000	OK
960 minute winter	S17	555	131.155	0.043	9.5	0.0000	0.0000	OK
960 minute winter	S18	555	131.155	0.155	8.6	0.0000	0.0000	OK
960 minute winter	S19	555	131.154	0.190	7.8	0.3352	0.0000	<b>SURCHARGED</b>
960 minute winter	Outfall	15	130.800	0.000	7.8	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
960 minute winter	S1	1.000	S2	1.0	0.810	0.031	0.0281	
960 minute winter	S2	1.001	S3	1.3	0.817	0.035	0.0130	
960 minute winter	S3	1.002	S4	1.9	1.027	0.056	0.0174	
960 minute winter	S4	1.003	S5	2.7	0.890	0.025	0.0465	
960 minute winter	S5	1.004	S7	3.2	0.865	0.047	0.0345	
960 minute winter	S6	2.000	S7	1.7	0.606	0.032	0.0793	
960 minute winter	S7	1.005	S8	4.9	0.591	0.030	0.0717	
960 minute winter	S8	1.006	S12	6.5	0.684	0.040	0.4699	
960 minute winter	S9	3.000	S10	0.8	0.636	0.023	0.0126	
960 minute winter	S10	3.001	S11	1.9	1.142	0.047	0.0311	
960 minute winter	S11	3.002	S12	2.2	1.301	0.049	0.0226	
960 minute winter	S12	1.007	S13	8.8	0.805	0.044	0.1063	
960 minute winter	S13	1.008	S15	9.3	0.807	0.057	0.3899	
960 minute winter	S14	4.000	S15	0.2	0.271	0.005	0.0629	
960 minute winter	S15	1.009	S16	9.5	0.726	0.067	0.3445	
960 minute winter	S16	1.010	S17	9.5	0.739	0.067	0.4369	
960 minute winter	S17	Flow through pond	S18	8.6	0.021	0.000	20.1348	
960 minute winter	S18	1.011	S19	7.8	0.377	0.196	0.1965	
960 minute winter	S19	Hydro-Brake®	Outfall	7.8				210.9

**Results for 1 year +30% CC +10% A 1440 minute summer. 1680 minute analysis at 30 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute summer	S1	750	135.901	0.018	1.0	0.0354	0.0000	OK
1440 minute summer	S2	750	135.191	0.019	1.3	0.0206	0.0000	OK
1440 minute summer	S3	750	134.845	0.025	1.9	0.0340	0.0000	OK
1440 minute summer	S4	750	134.425	0.025	2.7	0.0511	0.0000	OK
1440 minute summer	S5	750	133.784	0.034	3.2	0.0612	0.0000	OK
1440 minute summer	S6	750	133.907	0.029	1.8	0.0899	0.0000	OK
1440 minute summer	S7	750	133.487	0.047	5.0	0.0827	0.0000	OK
1440 minute summer	S8	750	133.433	0.051	6.6	0.1440	0.0000	OK
1440 minute summer	S9	750	135.470	0.017	0.9	0.0251	0.0000	OK
1440 minute summer	S10	750	135.102	0.023	2.0	0.0463	0.0000	OK
1440 minute summer	S11	750	134.137	0.024	2.3	0.0254	0.0000	OK
1440 minute summer	S12	750	133.109	0.056	9.0	0.1017	0.0000	OK
1440 minute summer	S13	750	133.018	0.062	9.5	0.1060	0.0000	OK
1440 minute summer	S14	750	132.612	0.012	0.2	0.0199	0.0000	OK
1440 minute summer	S15	750	132.011	0.068	9.7	0.1193	0.0000	OK
1440 minute summer	S16	750	131.878	0.067	9.7	0.0952	0.0000	OK
1440 minute summer	S17	780	131.148	0.036	9.7	0.0000	0.0000	OK
1440 minute summer	S18	780	131.148	0.148	9.4	0.0000	0.0000	OK
1440 minute summer	S19	780	131.147	0.183	7.8	0.3229	0.0000	<b>SURCHARGED</b>
1440 minute summer	Outfall	30	130.800	0.000	7.8	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute summer	S1	1.000	S2	1.0	0.790	0.031	0.0281	
1440 minute summer	S2	1.001	S3	1.3	0.817	0.035	0.0130	
1440 minute summer	S3	1.002	S4	1.9	1.027	0.056	0.0174	
1440 minute summer	S4	1.003	S5	2.7	0.889	0.025	0.0465	
1440 minute summer	S5	1.004	S7	3.2	0.865	0.047	0.0345	
1440 minute summer	S6	2.000	S7	1.8	0.617	0.034	0.0825	
1440 minute summer	S7	1.005	S8	5.0	0.595	0.031	0.0726	
1440 minute summer	S8	1.006	S12	6.6	0.685	0.040	0.4765	
1440 minute summer	S9	3.000	S10	0.9	0.662	0.026	0.0133	
1440 minute summer	S10	3.001	S11	2.0	1.162	0.049	0.0322	
1440 minute summer	S11	3.002	S12	2.3	1.318	0.051	0.0233	
1440 minute summer	S12	1.007	S13	9.0	0.810	0.045	0.1080	
1440 minute summer	S13	1.008	S15	9.5	0.811	0.058	0.3959	
1440 minute summer	S14	4.000	S15	0.2	0.271	0.005	0.0629	
1440 minute summer	S15	1.009	S16	9.7	0.730	0.069	0.3497	
1440 minute summer	S16	1.010	S17	9.7	0.744	0.069	0.4434	
1440 minute summer	S17	Flow through pond	S18	9.4	0.025	0.000	18.6723	
1440 minute summer	S18	1.011	S19	7.8	0.377	0.195	0.1884	
1440 minute summer	S19	Hydro-Brake®	Outfall	7.8				217.0

**Results for 1 year +30% CC +10% A 1440 minute winter. 1680 minute analysis at 30 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	S1	720	135.900	0.016	0.8	0.0319	0.0000	OK
1440 minute winter	S2	720	135.189	0.017	1.0	0.0182	0.0000	OK
1440 minute winter	S3	720	134.842	0.022	1.5	0.0302	0.0000	OK
1440 minute winter	S4	720	134.422	0.022	2.1	0.0453	0.0000	OK
1440 minute winter	S5	720	133.780	0.030	2.4	0.0530	0.0000	OK
1440 minute winter	S6	720	133.903	0.025	1.3	0.0770	0.0000	OK
1440 minute winter	S7	720	133.480	0.040	3.7	0.0710	0.0000	OK
1440 minute winter	S8	720	133.426	0.044	4.9	0.1250	0.0000	OK
1440 minute winter	S9	750	135.468	0.015	0.7	0.0222	0.0000	OK
1440 minute winter	S10	750	135.099	0.020	1.5	0.0403	0.0000	OK
1440 minute winter	S11	750	134.133	0.020	1.7	0.0219	0.0000	OK
1440 minute winter	S12	750	133.101	0.048	6.6	0.0867	0.0000	OK
1440 minute winter	S13	750	133.009	0.053	6.9	0.0905	0.0000	OK
1440 minute winter	S14	570	132.609	0.009	0.1	0.0151	0.0000	OK
1440 minute winter	S15	750	132.000	0.057	7.0	0.1013	0.0000	OK
1440 minute winter	S16	750	131.868	0.057	7.0	0.0810	0.0000	OK
1440 minute winter	S17	750	131.121	0.009	7.0	0.0000	0.0000	OK
1440 minute winter	S18	780	131.102	0.102	7.0	0.0000	0.0000	OK
1440 minute winter	S19	780	131.101	0.137	6.9	0.2419	0.0000	OK
1440 minute winter	Outfall	30	130.800	0.000	6.9	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute winter	S1	1.000	S2	0.8	0.749	0.025	0.0237	
1440 minute winter	S2	1.001	S3	1.0	0.750	0.027	0.0109	
1440 minute winter	S3	1.002	S4	1.5	0.959	0.044	0.0147	
1440 minute winter	S4	1.003	S5	2.1	0.842	0.019	0.0383	
1440 minute winter	S5	1.004	S7	2.4	0.797	0.035	0.0281	
1440 minute winter	S6	2.000	S7	1.3	0.560	0.025	0.0657	
1440 minute winter	S7	1.005	S8	3.7	0.547	0.023	0.0585	
1440 minute winter	S8	1.006	S12	4.9	0.637	0.030	0.3822	
1440 minute winter	S9	3.000	S10	0.7	0.623	0.020	0.0110	
1440 minute winter	S10	3.001	S11	1.5	1.073	0.037	0.0261	
1440 minute winter	S11	3.002	S12	1.7	1.206	0.038	0.0189	
1440 minute winter	S12	1.007	S13	6.6	0.749	0.033	0.0857	
1440 minute winter	S13	1.008	S15	6.9	0.740	0.042	0.3155	
1440 minute winter	S14	4.000	S15	0.1	0.246	0.003	0.0349	
1440 minute winter	S15	1.009	S16	7.0	0.666	0.050	0.2765	
1440 minute winter	S16	1.010	S17	7.0	0.676	0.050	0.3518	
1440 minute winter	S17	Flow through pond	S18	7.0	0.018	0.000	10.9183	
1440 minute winter	S18	1.011	S19	6.9	0.378	0.173	0.1293	
1440 minute winter	S19	Hydro-Brake®	Outfall	6.9				241.2

**Results for 30 year +30% CC +10% A 15 minute summer. 255 minute analysis at 1 minute timestep. Mass balance: 99.83%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S1	10	136.275	0.392	32.6	0.7590	0.0000	SURCHARGED
15 minute summer	S2	10	135.776	0.604	36.6	0.6470	0.0000	SURCHARGED
15 minute summer	S3	9	135.429	0.609	48.9	0.8402	0.0000	SURCHARGED
15 minute summer	S4	10	134.586	0.186	71.0	0.3875	0.0000	OK
15 minute summer	S5	10	134.335	0.585	81.7	1.0474	0.0000	SURCHARGED
15 minute summer	S6	10	134.234	0.356	55.3	1.1132	0.0000	SURCHARGED
15 minute summer	S7	10	134.044	0.604	114.0	1.0680	0.0000	SURCHARGED
15 minute summer	S8	10	133.986	0.604	156.1	1.7086	0.0000	SURCHARGED
15 minute summer	S9	10	136.103	0.650	27.1	0.9785	0.0000	SURCHARGED
15 minute summer	S10	10	135.973	0.894	57.1	1.8157	0.0000	SURCHARGED
15 minute summer	S11	10	134.787	0.674	48.9	0.7258	0.0000	SURCHARGED
15 minute summer	S12	10	133.665	0.612	195.8	1.1033	0.0000	SURCHARGED
15 minute summer	S13	10	133.488	0.532	205.2	0.9097	0.0000	SURCHARGED
15 minute summer	S14	12	132.663	0.063	5.0	0.1079	0.0000	OK
15 minute summer	S15	11	132.678	0.735	210.2	1.2979	0.0000	SURCHARGED
15 minute summer	S16	11	132.329	0.518	199.8	0.7411	0.0000	SURCHARGED
15 minute summer	S17	21	131.409	0.297	200.9	0.0000	0.0000	OK
15 minute summer	S18	20	131.409	0.409	123.8	0.0000	0.0000	SURCHARGED
15 minute summer	S19	20	131.409	0.445	10.7	0.7863	0.0000	SURCHARGED
15 minute summer	Outfall	1	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	S1	1.000	S2	28.6	1.722	0.893	0.3902	
15 minute summer	S2	1.001	S3	31.1	1.766	0.835	0.1427	
15 minute summer	S3	1.002	S4	45.7	2.595	1.336	0.1640	
15 minute summer	S4	1.003	S5	67.1	1.803	0.621	0.5698	
15 minute summer	S5	1.004	S7	74.5	1.875	1.093	0.3707	
15 minute summer	S6	2.000	S7	45.2	1.410	0.862	1.1244	
15 minute summer	S7	1.005	S8	116.0	1.141	0.708	0.9518	
15 minute summer	S8	1.006	S12	148.9	1.385	0.914	5.4508	
15 minute summer	S9	3.000	S10	21.9	1.357	0.624	0.1708	
15 minute summer	S10	3.001	S11	40.6	2.347	1.000	0.3291	
15 minute summer	S11	3.002	S12	45.7	2.613	1.022	0.2355	
15 minute summer	S12	1.007	S13	196.6	1.783	0.983	1.0709	
15 minute summer	S13	1.008	S15	206.2	1.874	1.264	3.5951	
15 minute summer	S14	4.000	S15	4.2	0.460	0.106	2.0844	
15 minute summer	S15	1.009	S16	199.8	1.811	1.413	2.9011	
15 minute summer	S16	1.010	S17	200.9	1.829	1.424	3.5989	
15 minute summer	S17	Flow through pond	S18	123.8	0.231	0.003	83.2025	
15 minute summer	S18	1.011	S19	10.7	0.674	0.268	0.2411	
15 minute summer	S19	Hydro-Brake®	Outfall	8.1				90.9

**Results for 30 year +30% CC +10% A 15 minute winter. 255 minute analysis at 1 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S1	10	136.200	0.317	29.0	0.6135	0.0000	SURCHARGED
15 minute winter	S2	10	135.721	0.549	33.3	0.5881	0.0000	SURCHARGED
15 minute winter	S3	10	135.400	0.580	46.2	0.8001	0.0000	SURCHARGED
15 minute winter	S4	10	134.569	0.169	66.9	0.3510	0.0000	OK
15 minute winter	S5	10	134.283	0.533	77.2	0.9542	0.0000	SURCHARGED
15 minute winter	S6	10	134.192	0.314	49.1	0.9813	0.0000	SURCHARGED
15 minute winter	S7	10	134.006	0.566	111.3	0.9994	0.0000	SURCHARGED
15 minute winter	S8	10	133.952	0.570	152.1	1.6117	0.0000	SURCHARGED
15 minute winter	S9	10	136.030	0.577	24.1	0.8686	0.0000	SURCHARGED
15 minute winter	S10	10	135.903	0.824	50.8	1.6731	0.0000	SURCHARGED
15 minute winter	S11	10	134.739	0.626	47.2	0.6743	0.0000	SURCHARGED
15 minute winter	S12	10	133.638	0.585	192.4	1.0552	0.0000	SURCHARGED
15 minute winter	S13	10	133.469	0.513	202.1	0.8769	0.0000	SURCHARGED
15 minute winter	S14	12	132.668	0.068	4.5	0.1166	0.0000	OK
15 minute winter	S15	11	132.680	0.736	205.4	1.3014	0.0000	SURCHARGED
15 minute winter	S16	11	132.328	0.517	200.0	0.7398	0.0000	SURCHARGED
15 minute winter	S17	21	131.446	0.334	200.2	0.0000	0.0000	OK
15 minute winter	S18	20	131.445	0.445	149.8	0.0000	0.0000	SURCHARGED
15 minute winter	S19	20	131.446	0.482	13.0	0.8520	0.0000	SURCHARGED
15 minute winter	Outfall	1	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S1	1.000	S2	26.2	1.753	0.820	0.3902	
15 minute winter	S2	1.001	S3	29.9	1.698	0.803	0.1427	
15 minute winter	S3	1.002	S4	44.8	2.545	1.310	0.1640	
15 minute winter	S4	1.003	S5	64.2	1.781	0.595	0.5454	
15 minute winter	S5	1.004	S7	72.9	1.833	1.069	0.3707	
15 minute winter	S6	2.000	S7	44.4	1.425	0.846	1.1244	
15 minute winter	S7	1.005	S8	111.1	1.152	0.678	0.9518	
15 minute winter	S8	1.006	S12	145.8	1.336	0.894	5.4508	
15 minute winter	S9	3.000	S10	19.6	1.362	0.558	0.1708	
15 minute winter	S10	3.001	S11	40.2	2.344	0.990	0.3291	
15 minute winter	S11	3.002	S12	45.4	2.626	1.016	0.2355	
15 minute winter	S12	1.007	S13	191.9	1.740	0.960	1.0709	
15 minute winter	S13	1.008	S15	201.4	1.833	1.235	3.5815	
15 minute winter	S14	4.000	S15	4.3	0.439	0.107	2.1289	
15 minute winter	S15	1.009	S16	200.0	1.813	1.415	2.9011	
15 minute winter	S16	1.010	S17	200.2	1.823	1.419	3.5969	
15 minute winter	S17	Flow through pond	S18	149.8	0.229	0.004	94.0036	
15 minute winter	S18	1.011	S19	13.0	0.753	0.325	0.2411	
15 minute winter	S19	Hydro-Brake®	Outfall	8.1				101.6

**Results for 30 year +30% CC +10% A 30 minute summer. 270 minute analysis at 1 minute timestep. Mass balance: 99.96%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	S1	17	136.008	0.125	27.1	0.2420	0.0000	OK
30 minute summer	S2	17	135.623	0.451	31.9	0.4827	0.0000	SURCHARGED
30 minute summer	S3	17	135.327	0.507	43.3	0.6987	0.0000	SURCHARGED
30 minute summer	S4	17	134.533	0.133	61.2	0.2770	0.0000	OK
30 minute summer	S5	18	134.112	0.362	71.6	0.6469	0.0000	SURCHARGED
30 minute summer	S6	16	134.045	0.167	45.9	0.5239	0.0000	OK
30 minute summer	S7	18	133.873	0.433	110.6	0.7647	0.0000	SURCHARGED
30 minute summer	S8	17	133.828	0.446	149.1	1.2603	0.0000	SURCHARGED
30 minute summer	S9	18	135.767	0.314	22.6	0.4728	0.0000	SURCHARGED
30 minute summer	S10	18	135.651	0.572	47.9	1.1623	0.0000	SURCHARGED
30 minute summer	S11	18	134.590	0.477	45.4	0.5132	0.0000	SURCHARGED
30 minute summer	S12	18	133.562	0.509	180.8	0.9190	0.0000	SURCHARGED
30 minute summer	S13	18	133.414	0.458	188.4	0.7830	0.0000	SURCHARGED
30 minute summer	S14	17	132.646	0.046	4.2	0.0780	0.0000	OK
30 minute summer	S15	19	132.589	0.646	193.1	1.1422	0.0000	SURCHARGED
30 minute summer	S16	19	132.281	0.469	187.9	0.6719	0.0000	SURCHARGED
30 minute summer	S17	35	131.501	0.389	189.1	0.0000	0.0000	OK
30 minute summer	S18	35	131.500	0.500	110.8	0.0000	0.0000	SURCHARGED
30 minute summer	S19	34	131.499	0.535	9.5	0.9454	0.0000	SURCHARGED
30 minute summer	Outfall	1	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	S1	1.000	S2	25.2	1.700	0.788	0.3688	
30 minute summer	S2	1.001	S3	28.7	1.631	0.771	0.1427	
30 minute summer	S3	1.002	S4	42.6	2.419	1.245	0.1656	
30 minute summer	S4	1.003	S5	60.5	1.798	0.561	0.4885	
30 minute summer	S5	1.004	S7	67.7	1.776	0.992	0.3707	
30 minute summer	S6	2.000	S7	43.2	1.426	0.824	0.9759	
30 minute summer	S7	1.005	S8	107.3	1.152	0.655	0.9518	
30 minute summer	S8	1.006	S12	137.5	1.318	0.844	5.4508	
30 minute summer	S9	3.000	S10	19.1	1.344	0.546	0.1708	
30 minute summer	S10	3.001	S11	38.8	2.322	0.954	0.3291	
30 minute summer	S11	3.002	S12	43.7	2.620	0.978	0.2355	
30 minute summer	S12	1.007	S13	180.6	1.637	0.903	1.0709	
30 minute summer	S13	1.008	S15	189.8	1.734	1.164	3.5472	
30 minute summer	S14	4.000	S15	3.7	0.416	0.092	1.9413	
30 minute summer	S15	1.009	S16	187.9	1.704	1.330	2.9011	
30 minute summer	S16	1.010	S17	189.1	1.727	1.340	3.5637	
30 minute summer	S17	Flow through pond	S18	110.8	0.180	0.003	111.1254	
30 minute summer	S18	1.011	S19	9.5	0.570	0.237	0.2411	
30 minute summer	S19	Hydro-Brake®	Outfall	8.1				120.8

**Results for 30 year +30% CC +10% A 30 minute winter. 270 minute analysis at 1 minute timestep. Mass balance: 99.94%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	S1	16	135.972	0.089	21.3	0.1728	0.0000	OK
30 minute winter	S2	17	135.383	0.211	26.5	0.2262	0.0000	SURCHARGED
30 minute winter	S3	17	135.159	0.339	37.6	0.4672	0.0000	SURCHARGED
30 minute winter	S4	17	134.512	0.112	53.3	0.2331	0.0000	OK
30 minute winter	S5	17	133.955	0.205	62.5	0.3671	0.0000	OK
30 minute winter	S6	16	134.021	0.143	36.1	0.4474	0.0000	OK
30 minute winter	S7	17	133.709	0.269	97.6	0.4748	0.0000	OK
30 minute winter	S8	18	133.653	0.271	129.1	0.7668	0.0000	OK
30 minute winter	S9	17	135.534	0.081	17.7	0.1214	0.0000	OK
30 minute winter	S10	18	135.350	0.271	40.7	0.5502	0.0000	SURCHARGED
30 minute winter	S11	18	134.401	0.288	43.4	0.3103	0.0000	SURCHARGED
30 minute winter	S12	18	133.486	0.433	169.7	0.7818	0.0000	SURCHARGED
30 minute winter	S13	18	133.359	0.403	175.7	0.6890	0.0000	SURCHARGED
30 minute winter	S14	17	132.642	0.042	3.3	0.0719	0.0000	OK
30 minute winter	S15	19	132.513	0.569	178.9	1.0063	0.0000	SURCHARGED
30 minute winter	S16	19	132.237	0.426	176.9	0.6101	0.0000	SURCHARGED
30 minute winter	S17	34	131.548	0.436	177.2	0.0000	0.0000	OK
30 minute winter	S18	35	131.548	0.548	105.5	0.0000	0.0000	SURCHARGED
30 minute winter	S19	35	131.548	0.584	9.8	1.0315	0.0000	SURCHARGED
30 minute winter	Outfall	1	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute winter	S1	1.000	S2	21.2	1.722	0.662	0.3159	
30 minute winter	S2	1.001	S3	25.0	1.526	0.672	0.1427	
30 minute winter	S3	1.002	S4	37.2	2.114	1.088	0.1656	
30 minute winter	S4	1.003	S5	53.3	1.796	0.494	0.4392	
30 minute winter	S5	1.004	S7	62.4	1.779	0.914	0.3246	
30 minute winter	S6	2.000	S7	35.4	1.386	0.675	0.7248	
30 minute winter	S7	1.005	S8	97.2	1.189	0.593	0.7305	
30 minute winter	S8	1.006	S12	126.7	1.290	0.777	4.8339	
30 minute winter	S9	3.000	S10	17.7	1.361	0.504	0.1322	
30 minute winter	S10	3.001	S11	38.0	2.337	0.935	0.3291	
30 minute winter	S11	3.002	S12	42.0	2.659	0.940	0.2355	
30 minute winter	S12	1.007	S13	167.5	1.518	0.837	1.0709	
30 minute winter	S13	1.008	S15	175.9	1.651	1.078	3.4987	
30 minute winter	S14	4.000	S15	3.1	0.420	0.078	1.9139	
30 minute winter	S15	1.009	S16	176.9	1.604	1.252	2.9011	
30 minute winter	S16	1.010	S17	177.2	1.628	1.256	3.5222	
30 minute winter	S17	Flow through pond	S18	105.5	0.196	0.003	126.3983	
30 minute winter	S18	1.011	S19	9.8	0.613	0.244	0.2411	
30 minute winter	S19	Hydro-Brake®	Outfall	8.1				122.9

**Results for 30 year +30% CC +10% A 60 minute summer. 300 minute analysis at 1 minute timestep. Mass balance: 99.97%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	S1	31	135.968	0.085	19.1	0.1645	0.0000	OK
60 minute summer	S2	32	135.277	0.105	23.7	0.1125	0.0000	OK
60 minute summer	S3	32	135.067	0.247	34.5	0.3407	0.0000	<b>SURCHARGED</b>
60 minute summer	S4	32	134.504	0.104	47.5	0.2166	0.0000	OK
60 minute summer	S5	32	133.932	0.182	55.6	0.3253	0.0000	OK
60 minute summer	S6	31	134.010	0.132	32.3	0.4129	0.0000	OK
60 minute summer	S7	32	133.681	0.241	86.8	0.4265	0.0000	OK
60 minute summer	S8	31	133.617	0.235	114.5	0.6650	0.0000	OK
60 minute summer	S9	31	135.525	0.072	15.9	0.1077	0.0000	OK
60 minute summer	S10	31	135.196	0.117	36.4	0.2366	0.0000	OK
60 minute summer	S11	31	134.241	0.128	40.9	0.1381	0.0000	OK
60 minute summer	S12	32	133.401	0.347	157.2	0.6269	0.0000	OK
60 minute summer	S13	32	133.295	0.339	163.8	0.5790	0.0000	OK
60 minute summer	S14	32	132.639	0.039	2.9	0.0671	0.0000	OK
60 minute summer	S15	33	132.397	0.454	163.9	0.8016	0.0000	<b>SURCHARGED</b>
60 minute summer	S16	34	132.169	0.358	162.9	0.5128	0.0000	OK
60 minute summer	S17	65	131.587	0.475	160.8	0.0000	0.0000	OK
60 minute summer	S18	65	131.587	0.587	89.0	0.0000	0.0000	<b>SURCHARGED</b>
60 minute summer	S19	65	131.585	0.621	9.1	1.0976	0.0000	<b>SURCHARGED</b>
60 minute summer	Outfall	1	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	S1	1.000	S2	19.0	1.712	0.594	0.2527	
60 minute summer	S2	1.001	S3	22.7	1.526	0.609	0.1248	
60 minute summer	S3	1.002	S4	33.5	2.045	0.981	0.1656	
60 minute summer	S4	1.003	S5	47.6	1.790	0.441	0.3981	
60 minute summer	S5	1.004	S7	55.7	1.759	0.817	0.2943	
60 minute summer	S6	2.000	S7	31.4	1.351	0.598	0.6594	
60 minute summer	S7	1.005	S8	87.1	1.187	0.532	0.6356	
60 minute summer	S8	1.006	S12	116.1	1.286	0.712	4.4231	
60 minute summer	S9	3.000	S10	15.8	1.358	0.450	0.1114	
60 minute summer	S10	3.001	S11	35.9	2.335	0.884	0.2870	
60 minute summer	S11	3.002	S12	40.3	2.670	0.901	0.2067	
60 minute summer	S12	1.007	S13	155.8	1.493	0.779	1.0263	
60 minute summer	S13	1.008	S15	161.2	1.644	0.988	3.3407	
60 minute summer	S14	4.000	S15	2.7	0.411	0.067	1.8932	
60 minute summer	S15	1.009	S16	162.9	1.477	1.152	2.8779	
60 minute summer	S16	1.010	S17	160.8	1.578	1.140	3.4257	
60 minute summer	S17	Flow through pond	S18	89.0	0.145	0.002	139.2885	
60 minute summer	S18	1.011	S19	9.1	0.520	0.227	0.2411	
60 minute summer	S19	Hydro-Brake®	Outfall	8.1				133.3

**Results for 30 year +30% CC +10% A 60 minute winter. 300 minute analysis at 1 minute timestep. Mass balance: 99.92%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute winter	S1	31	135.955	0.071	14.2	0.1385	0.0000	OK
60 minute winter	S2	31	135.248	0.076	17.7	0.0812	0.0000	OK
60 minute winter	S3	31	134.932	0.112	26.3	0.1547	0.0000	OK
60 minute winter	S4	31	134.491	0.091	37.4	0.1889	0.0000	OK
60 minute winter	S5	32	133.900	0.150	43.6	0.2678	0.0000	OK
60 minute winter	S6	31	133.989	0.111	24.0	0.3463	0.0000	OK
60 minute winter	S7	32	133.643	0.203	67.5	0.3590	0.0000	OK
60 minute winter	S8	31	133.583	0.200	89.2	0.5670	0.0000	OK
60 minute winter	S9	31	135.513	0.060	11.8	0.0902	0.0000	OK
60 minute winter	S10	31	135.172	0.093	27.1	0.1890	0.0000	OK
60 minute winter	S11	31	134.213	0.100	30.7	0.1074	0.0000	OK
60 minute winter	S12	32	133.321	0.268	120.9	0.4828	0.0000	OK
60 minute winter	S13	32	133.222	0.266	127.1	0.4552	0.0000	OK
60 minute winter	S14	32	132.635	0.035	2.2	0.0604	0.0000	OK
60 minute winter	S15	33	132.256	0.313	129.0	0.5526	0.0000	OK
60 minute winter	S16	33	132.096	0.285	128.8	0.4079	0.0000	OK
60 minute winter	S17	64	131.646	0.534	128.4	0.0000	0.0000	OK
60 minute winter	S18	64	131.646	0.646	72.5	0.0000	0.0000	<b>SURCHARGED</b>
60 minute winter	S19	64	131.645	0.681	8.9	1.2027	0.0000	<b>SURCHARGED</b>
60 minute winter	Outfall	1	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute winter	S1	1.000	S2	14.2	1.647	0.443	0.1907	
60 minute winter	S2	1.001	S3	17.6	1.518	0.474	0.0935	
60 minute winter	S3	1.002	S4	26.3	1.988	0.768	0.1242	
60 minute winter	S4	1.003	S5	37.3	1.731	0.346	0.3272	
60 minute winter	S5	1.004	S7	43.6	1.685	0.640	0.2412	
60 minute winter	S6	2.000	S7	23.9	1.267	0.455	0.5329	
60 minute winter	S7	1.005	S8	67.5	1.118	0.412	0.5214	
60 minute winter	S8	1.006	S12	89.4	1.237	0.549	3.5592	
60 minute winter	S9	3.000	S10	11.8	1.305	0.336	0.0875	
60 minute winter	S10	3.001	S11	27.0	2.259	0.665	0.2234	
60 minute winter	S11	3.002	S12	30.6	2.591	0.686	0.1581	
60 minute winter	S12	1.007	S13	120.8	1.441	0.604	0.8146	
60 minute winter	S13	1.008	S15	126.9	1.593	0.778	2.6940	
60 minute winter	S14	4.000	S15	2.2	0.415	0.054	1.4884	
60 minute winter	S15	1.009	S16	128.8	1.368	0.911	2.4741	
60 minute winter	S16	1.010	S17	128.4	1.486	0.911	2.9398	
60 minute winter	S17	Flow through pond	S18	72.5	0.146	0.002	159.8280	
60 minute winter	S18	1.011	S19	8.9	0.563	0.222	0.2411	
60 minute winter	S19	Hydro-Brake®	Outfall	8.1				129.3

**Results for 30 year +30% CC +10% A 120 minute summer. 360 minute analysis at 2 minute timestep. Mass balance: 99.89%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	S1	62	135.949	0.066	12.2	0.1270	0.0000	OK
120 minute summer	S2	62	135.241	0.069	15.2	0.0738	0.0000	OK
120 minute summer	S3	62	134.920	0.100	22.7	0.1376	0.0000	OK
120 minute summer	S4	62	134.484	0.084	32.3	0.1746	0.0000	OK
120 minute summer	S5	62	133.885	0.135	37.7	0.2420	0.0000	OK
120 minute summer	S6	62	133.980	0.102	20.7	0.3180	0.0000	OK
120 minute summer	S7	62	133.625	0.185	58.4	0.3273	0.0000	OK
120 minute summer	S8	62	133.566	0.184	77.2	0.5210	0.0000	OK
120 minute summer	S9	62	135.508	0.055	10.1	0.0830	0.0000	OK
120 minute summer	S10	62	135.163	0.084	23.2	0.1707	0.0000	OK
120 minute summer	S11	62	134.203	0.090	26.4	0.0965	0.0000	OK
120 minute summer	S12	62	133.292	0.239	104.5	0.4312	0.0000	OK
120 minute summer	S13	62	133.195	0.239	109.8	0.4094	0.0000	OK
120 minute summer	S14	62	132.633	0.033	1.9	0.0560	0.0000	OK
120 minute summer	S15	62	132.215	0.272	111.4	0.4809	0.0000	OK
120 minute summer	S16	64	132.065	0.254	110.0	0.3636	0.0000	OK
120 minute summer	S17	124	131.654	0.542	110.6	0.0000	0.0000	OK
120 minute summer	S18	124	131.654	0.654	60.9	0.0000	0.0000	<b>SURCHARGED</b>
120 minute summer	S19	124	131.653	0.689	8.6	1.2173	0.0000	<b>SURCHARGED</b>
120 minute summer	Outfall	2	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute summer	S1	1.000	S2	12.2	1.596	0.382	0.1694	
120 minute summer	S2	1.001	S3	15.2	1.491	0.408	0.0824	
120 minute summer	S3	1.002	S4	22.7	1.942	0.664	0.1099	
120 minute summer	S4	1.003	S5	32.3	1.684	0.299	0.2920	
120 minute summer	S5	1.004	S7	37.7	1.635	0.553	0.2149	
120 minute summer	S6	2.000	S7	20.7	1.223	0.395	0.4785	
120 minute summer	S7	1.005	S8	58.4	1.081	0.357	0.4662	
120 minute summer	S8	1.006	S12	77.3	1.207	0.474	3.1620	
120 minute summer	S9	3.000	S10	10.1	1.263	0.288	0.0777	
120 minute summer	S10	3.001	S11	23.2	2.196	0.571	0.1975	
120 minute summer	S11	3.002	S12	26.4	2.518	0.591	0.1403	
120 minute summer	S12	1.007	S13	104.4	1.407	0.522	0.7204	
120 minute summer	S13	1.008	S15	109.5	1.546	0.672	2.3953	
120 minute summer	S14	4.000	S15	1.9	0.413	0.046	1.0997	
120 minute summer	S15	1.009	S16	110.0	1.338	0.778	2.1613	
120 minute summer	S16	1.010	S17	110.6	1.422	0.784	2.6428	
120 minute summer	S17	Flow through pond	S18	60.9	0.098	0.001	162.7351	
120 minute summer	S18	1.011	S19	8.6	0.463	0.216	0.2411	
120 minute summer	S19	Hydro-Brake®	Outfall	8.1				151.7

**Results for 30 year +30% CC +10% A 120 minute winter. 360 minute analysis at 2 minute timestep. Mass balance: 99.83%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute winter	S1	62	135.939	0.056	9.1	0.1081	0.0000	OK
120 minute winter	S2	62	135.230	0.058	11.3	0.0617	0.0000	OK
120 minute winter	S3	62	134.901	0.081	16.9	0.1123	0.0000	OK
120 minute winter	S4	62	134.472	0.072	24.0	0.1493	0.0000	OK
120 minute winter	S5	62	133.862	0.112	28.1	0.2001	0.0000	OK
120 minute winter	S6	62	133.964	0.086	15.4	0.2687	0.0000	OK
120 minute winter	S7	62	133.594	0.154	43.5	0.2727	0.0000	OK
120 minute winter	S8	62	133.538	0.156	57.5	0.4407	0.0000	OK
120 minute winter	S9	62	135.500	0.047	7.5	0.0710	0.0000	OK
120 minute winter	S10	62	135.149	0.070	17.3	0.1426	0.0000	OK
120 minute winter	S11	62	134.187	0.074	19.7	0.0799	0.0000	OK
120 minute winter	S12	62	133.248	0.195	77.8	0.3515	0.0000	OK
120 minute winter	S13	62	133.154	0.198	81.9	0.3382	0.0000	OK
120 minute winter	S14	64	132.629	0.029	1.4	0.0489	0.0000	OK
120 minute winter	S15	62	132.165	0.222	83.2	0.3916	0.0000	OK
120 minute winter	S16	64	132.021	0.210	83.0	0.3005	0.0000	OK
120 minute winter	S17	122	131.723	0.611	83.1	0.0000	0.0000	OK
120 minute winter	S18	122	131.723	0.723	46.8	0.0000	0.0000	<b>SURCHARGED</b>
120 minute winter	S19	122	131.721	0.757	8.5	1.3381	0.0000	<b>SURCHARGED</b>
120 minute winter	Outfall	2	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute winter	S1	1.000	S2	9.1	1.494	0.285	0.1350	
120 minute winter	S2	1.001	S3	11.3	1.416	0.303	0.0648	
120 minute winter	S3	1.002	S4	16.9	1.828	0.494	0.0870	
120 minute winter	S4	1.003	S5	24.0	1.578	0.222	0.2325	
120 minute winter	S5	1.004	S7	28.1	1.532	0.412	0.1711	
120 minute winter	S6	2.000	S7	15.4	1.134	0.294	0.3840	
120 minute winter	S7	1.005	S8	43.5	1.012	0.266	0.3710	
120 minute winter	S8	1.006	S12	57.5	1.139	0.353	2.4979	
120 minute winter	S9	3.000	S10	7.5	1.175	0.214	0.0622	
120 minute winter	S10	3.001	S11	17.3	2.063	0.426	0.1568	
120 minute winter	S11	3.002	S12	19.7	2.359	0.441	0.1117	
120 minute winter	S12	1.007	S13	77.8	1.333	0.389	0.5667	
120 minute winter	S13	1.008	S15	81.8	1.449	0.502	1.9095	
120 minute winter	S14	4.000	S15	1.4	0.417	0.035	0.5964	
120 minute winter	S15	1.009	S16	83.0	1.266	0.588	1.7248	
120 minute winter	S16	1.010	S17	83.1	1.336	0.589	2.1128	
120 minute winter	S17	Flow through pond	S18	46.8	0.121	0.001	187.8996	
120 minute winter	S18	1.011	S19	8.5	0.458	0.213	0.2411	
120 minute winter	S19	Hydro-Brake®	Outfall	8.1				149.2

**Results for 30 year +30% CC +10% A 180 minute summer. 420 minute analysis at 4 minute timestep. Mass balance: 99.90%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute summer	S1	92	135.940	0.057	9.5	0.1104	0.0000	OK
180 minute summer	S2	92	135.231	0.059	11.7	0.0629	0.0000	OK
180 minute summer	S3	92	134.903	0.083	17.6	0.1148	0.0000	OK
180 minute summer	S4	92	134.473	0.073	25.0	0.1522	0.0000	OK
180 minute summer	S5	92	133.864	0.114	29.2	0.2042	0.0000	OK
180 minute summer	S6	92	133.966	0.088	16.2	0.2745	0.0000	OK
180 minute summer	S7	92	133.597	0.157	44.9	0.2778	0.0000	OK
180 minute summer	S8	92	133.540	0.158	59.4	0.4478	0.0000	OK
180 minute summer	S9	92	135.501	0.048	7.9	0.0728	0.0000	OK
180 minute summer	S10	92	135.151	0.072	18.2	0.1466	0.0000	OK
180 minute summer	S11	92	134.189	0.076	20.6	0.0819	0.0000	OK
180 minute summer	S12	92	133.250	0.197	79.8	0.3546	0.0000	OK
180 minute summer	S13	92	133.155	0.199	83.1	0.3395	0.0000	OK
180 minute summer	S14	92	132.629	0.029	1.5	0.0494	0.0000	OK
180 minute summer	S15	92	132.163	0.220	83.3	0.3889	0.0000	OK
180 minute summer	S16	96	132.020	0.209	82.0	0.2985	0.0000	OK
180 minute summer	S17	184	131.674	0.562	82.7	0.0000	0.0000	OK
180 minute summer	S18	184	131.674	0.674	46.6	0.0000	0.0000	<b>SURCHARGED</b>
180 minute summer	S19	184	131.672	0.708	8.5	1.2516	0.0000	<b>SURCHARGED</b>
180 minute summer	Outfall	4	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute summer	S1	1.000	S2	9.4	1.508	0.295	0.1388	
180 minute summer	S2	1.001	S3	11.7	1.422	0.313	0.0666	
180 minute summer	S3	1.002	S4	17.5	1.840	0.511	0.0893	
180 minute summer	S4	1.003	S5	24.9	1.594	0.230	0.2386	
180 minute summer	S5	1.004	S7	29.0	1.541	0.424	0.1752	
180 minute summer	S6	2.000	S7	15.9	1.143	0.304	0.3944	
180 minute summer	S7	1.005	S8	44.7	1.016	0.273	0.3796	
180 minute summer	S8	1.006	S12	58.7	1.144	0.360	2.5370	
180 minute summer	S9	3.000	S10	7.9	1.190	0.224	0.0645	
180 minute summer	S10	3.001	S11	18.1	2.085	0.445	0.1620	
180 minute summer	S11	3.002	S12	20.5	2.379	0.458	0.1150	
180 minute summer	S12	1.007	S13	78.8	1.339	0.394	0.5713	
180 minute summer	S13	1.008	S15	81.9	1.446	0.502	1.9147	
180 minute summer	S14	4.000	S15	1.4	0.423	0.036	0.5847	
180 minute summer	S15	1.009	S16	82.0	1.266	0.580	1.7033	
180 minute summer	S16	1.010	S17	82.7	1.338	0.586	2.1000	
180 minute summer	S17	Flow through pond	S18	46.6	0.070	0.001	169.7849	
180 minute summer	S18	1.011	S19	8.5	0.411	0.212	0.2411	
180 minute summer	S19	Hydro-Brake®	Outfall	8.1				173.0

**Results for 30 year +30% CC +10% A 180 minute winter. 420 minute analysis at 4 minute timestep. Mass balance: 99.83%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute winter	S1	92	135.931	0.048	6.9	0.0932	0.0000	OK
180 minute winter	S2	92	135.221	0.049	8.6	0.0528	0.0000	OK
180 minute winter	S3	92	134.889	0.069	12.9	0.0948	0.0000	OK
180 minute winter	S4	92	134.463	0.063	18.4	0.1301	0.0000	OK
180 minute winter	S5	92	133.845	0.095	21.5	0.1699	0.0000	OK
180 minute winter	S6	92	133.952	0.074	11.8	0.2319	0.0000	OK
180 minute winter	S7	92	133.571	0.131	33.2	0.2317	0.0000	OK
180 minute winter	S8	92	133.515	0.133	43.9	0.3774	0.0000	OK
180 minute winter	S9	92	135.494	0.041	5.8	0.0621	0.0000	OK
180 minute winter	S10	92	135.139	0.060	13.3	0.1226	0.0000	OK
180 minute winter	S11	92	134.176	0.063	15.1	0.0681	0.0000	OK
180 minute winter	S12	92	133.216	0.163	59.2	0.2942	0.0000	OK
180 minute winter	S13	92	133.123	0.167	62.2	0.2862	0.0000	OK
180 minute winter	S14	92	132.625	0.025	1.1	0.0430	0.0000	OK
180 minute winter	S15	92	132.129	0.186	63.0	0.3278	0.0000	OK
180 minute winter	S16	96	131.989	0.178	62.9	0.2541	0.0000	OK
180 minute winter	S17	180	131.749	0.636	63.0	0.0000	0.0000	OK
180 minute winter	S18	180	131.749	0.748	36.3	0.0000	0.0000	<b>SURCHARGED</b>
180 minute winter	S19	180	131.747	0.783	8.4	1.3833	0.0000	<b>SURCHARGED</b>
180 minute winter	Outfall	4	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute winter	S1	1.000	S2	6.9	1.394	0.216	0.1096	
180 minute winter	S2	1.001	S3	8.6	1.337	0.231	0.0523	
180 minute winter	S3	1.002	S4	12.9	1.718	0.377	0.0706	
180 minute winter	S4	1.003	S5	18.4	1.486	0.170	0.1893	
180 minute winter	S5	1.004	S7	21.4	1.437	0.314	0.1392	
180 minute winter	S6	2.000	S7	11.7	1.054	0.224	0.3151	
180 minute winter	S7	1.005	S8	33.2	0.956	0.202	0.2995	
180 minute winter	S8	1.006	S12	43.7	1.081	0.268	2.0033	
180 minute winter	S9	3.000	S10	5.8	1.103	0.165	0.0513	
180 minute winter	S10	3.001	S11	13.3	1.941	0.327	0.1278	
180 minute winter	S11	3.002	S12	15.1	2.210	0.337	0.0912	
180 minute winter	S12	1.007	S13	59.1	1.263	0.295	0.4540	
180 minute winter	S13	1.008	S15	62.0	1.354	0.380	1.5473	
180 minute winter	S14	4.000	S15	1.1	0.420	0.027	0.2812	
180 minute winter	S15	1.009	S16	62.9	1.191	0.445	1.3884	
180 minute winter	S16	1.010	S17	63.0	1.250	0.446	1.7125	
180 minute winter	S17	Flow through pond	S18	36.3	0.115	0.001	197.7164	
180 minute winter	S18	1.011	S19	8.4	0.392	0.209	0.2411	
180 minute winter	S19	Hydro-Brake®	Outfall	8.1				172.0

**Results for 30 year +30% CC +10% A 240 minute summer. 480 minute analysis at 4 minute timestep. Mass balance: 99.91%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute summer	S1	124	135.934	0.051	7.6	0.0980	0.0000	OK
240 minute summer	S2	124	135.224	0.052	9.5	0.0558	0.0000	OK
240 minute summer	S3	124	134.893	0.073	14.2	0.1006	0.0000	OK
240 minute summer	S4	124	134.466	0.066	20.2	0.1366	0.0000	OK
240 minute summer	S5	124	133.851	0.101	23.6	0.1798	0.0000	OK
240 minute summer	S6	124	133.956	0.078	12.9	0.2438	0.0000	OK
240 minute summer	S7	124	133.579	0.139	36.5	0.2452	0.0000	OK
240 minute summer	S8	124	133.523	0.141	48.2	0.3985	0.0000	OK
240 minute summer	S9	124	135.496	0.043	6.3	0.0648	0.0000	OK
240 minute summer	S10	124	135.142	0.063	14.5	0.1288	0.0000	OK
240 minute summer	S11	124	134.180	0.067	16.5	0.0718	0.0000	OK
240 minute summer	S12	124	133.227	0.174	65.2	0.3132	0.0000	OK
240 minute summer	S13	124	133.134	0.178	68.6	0.3037	0.0000	OK
240 minute summer	S14	124	132.627	0.027	1.2	0.0454	0.0000	OK
240 minute summer	S15	124	132.141	0.198	69.8	0.3496	0.0000	OK
240 minute summer	S16	124	132.000	0.189	69.8	0.2702	0.0000	OK
240 minute summer	S17	216	131.676	0.564	69.8	0.0000	0.0000	OK
240 minute summer	S18	216	131.676	0.676	39.9	0.0000	0.0000	<b>SURCHARGED</b>
240 minute summer	S19	216	131.675	0.711	8.4	1.2559	0.0000	<b>SURCHARGED</b>
240 minute summer	Outfall	4	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute summer	S1	1.000	S2	7.6	1.427	0.238	0.1181	
240 minute summer	S2	1.001	S3	9.5	1.368	0.255	0.0565	
240 minute summer	S3	1.002	S4	14.2	1.758	0.415	0.0760	
240 minute summer	S4	1.003	S5	20.2	1.519	0.187	0.2035	
240 minute summer	S5	1.004	S7	23.6	1.470	0.346	0.1497	
240 minute summer	S6	2.000	S7	12.9	1.082	0.246	0.3372	
240 minute summer	S7	1.005	S8	36.5	0.975	0.223	0.3229	
240 minute summer	S8	1.006	S12	48.2	1.101	0.296	2.1666	
240 minute summer	S9	3.000	S10	6.3	1.126	0.180	0.0546	
240 minute summer	S10	3.001	S11	14.5	1.981	0.357	0.1368	
240 minute summer	S11	3.002	S12	16.5	2.261	0.369	0.0976	
240 minute summer	S12	1.007	S13	65.2	1.288	0.326	0.4915	
240 minute summer	S13	1.008	S15	68.6	1.389	0.421	1.6695	
240 minute summer	S14	4.000	S15	1.2	0.415	0.030	0.3818	
240 minute summer	S15	1.009	S16	69.8	1.219	0.494	1.5059	
240 minute summer	S16	1.010	S17	69.8	1.281	0.495	1.8509	
240 minute summer	S17	Flow through pond	S18	39.9	0.079	0.001	170.6807	
240 minute summer	S18	1.011	S19	8.4	0.400	0.210	0.2411	
240 minute summer	S19	Hydro-Brake®	Outfall	8.1				195.8

**Results for 30 year +30% CC +10% A 240 minute winter. 480 minute analysis at 4 minute timestep. Mass balance: 99.84%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	S1	124	135.927	0.043	5.7	0.0843	0.0000	OK
240 minute winter	S2	124	135.216	0.044	7.1	0.0476	0.0000	OK
240 minute winter	S3	124	134.881	0.061	10.6	0.0845	0.0000	OK
240 minute winter	S4	124	134.457	0.056	15.0	0.1174	0.0000	OK
240 minute winter	S5	124	133.834	0.084	17.5	0.1508	0.0000	OK
240 minute winter	S6	124	133.945	0.066	9.6	0.2081	0.0000	OK
240 minute winter	S7	124	133.557	0.117	27.1	0.2060	0.0000	OK
240 minute winter	S8	124	133.501	0.119	35.8	0.3375	0.0000	OK
240 minute winter	S9	124	135.490	0.037	4.7	0.0559	0.0000	OK
240 minute winter	S10	124	135.133	0.054	10.8	0.1093	0.0000	OK
240 minute winter	S11	124	134.169	0.056	12.3	0.0607	0.0000	OK
240 minute winter	S12	124	133.197	0.144	48.4	0.2601	0.0000	OK
240 minute winter	S13	124	133.105	0.149	50.9	0.2554	0.0000	OK
240 minute winter	S14	124	132.623	0.023	0.9	0.0395	0.0000	OK
240 minute winter	S15	124	132.108	0.165	51.8	0.2919	0.0000	OK
240 minute winter	S16	124	131.970	0.159	51.8	0.2273	0.0000	OK
240 minute winter	S17	232	131.755	0.643	51.8	0.0000	0.0000	OK
240 minute winter	S18	232	131.755	0.755	30.5	0.0000	0.0000	<b>SURCHARGED</b>
240 minute winter	S19	232	131.753	0.789	8.3	1.3947	0.0000	<b>SURCHARGED</b>
240 minute winter	Outfall	4	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute winter	S1	1.000	S2	5.7	1.327	0.178	0.0952	
240 minute winter	S2	1.001	S3	7.1	1.282	0.191	0.0451	
240 minute winter	S3	1.002	S4	10.6	1.638	0.310	0.0609	
240 minute winter	S4	1.003	S5	15.0	1.416	0.139	0.1623	
240 minute winter	S5	1.004	S7	17.5	1.367	0.257	0.1194	
240 minute winter	S6	2.000	S7	9.6	0.999	0.183	0.2718	
240 minute winter	S7	1.005	S8	27.1	0.914	0.165	0.2558	
240 minute winter	S8	1.006	S12	35.8	1.037	0.220	1.7080	
240 minute winter	S9	3.000	S10	4.7	1.044	0.134	0.0440	
240 minute winter	S10	3.001	S11	10.8	1.844	0.266	0.1095	
240 minute winter	S11	3.002	S12	12.3	2.100	0.275	0.0784	
240 minute winter	S12	1.007	S13	48.4	1.212	0.242	0.3878	
240 minute winter	S13	1.008	S15	50.9	1.289	0.312	1.3351	
240 minute winter	S14	4.000	S15	0.9	0.415	0.022	0.1823	
240 minute winter	S15	1.009	S16	51.8	1.137	0.366	1.1984	
240 minute winter	S16	1.010	S17	51.8	1.188	0.367	1.4816	
240 minute winter	S17	Flow through pond	S18	30.5	0.076	0.001	200.2105	
240 minute winter	S18	1.011	S19	8.3	0.389	0.208	0.2411	
240 minute winter	S19	Hydro-Brake®	Outfall	8.1				195.9

**Results for 30 year +30% CC +10% A 360 minute summer. 600 minute analysis at 8 minute timestep. Mass balance: 99.94%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute summer	S1	184	135.927	0.044	5.9	0.0858	0.0000	OK
360 minute summer	S2	184	135.217	0.045	7.3	0.0481	0.0000	OK
360 minute summer	S3	184	134.882	0.062	10.9	0.0855	0.0000	OK
360 minute summer	S4	184	134.457	0.057	15.4	0.1190	0.0000	OK
360 minute summer	S5	184	133.836	0.086	18.0	0.1530	0.0000	OK
360 minute summer	S6	184	133.945	0.067	9.9	0.2107	0.0000	OK
360 minute summer	S7	184	133.558	0.118	27.7	0.2086	0.0000	OK
360 minute summer	S8	184	133.503	0.121	36.7	0.3413	0.0000	OK
360 minute summer	S9	184	135.491	0.038	4.9	0.0570	0.0000	OK
360 minute summer	S10	184	135.134	0.055	11.2	0.1114	0.0000	OK
360 minute summer	S11	184	134.170	0.057	12.7	0.0615	0.0000	OK
360 minute summer	S12	184	133.199	0.146	49.4	0.2626	0.0000	OK
360 minute summer	S13	184	133.106	0.150	51.7	0.2571	0.0000	OK
360 minute summer	S14	184	132.623	0.023	0.9	0.0390	0.0000	OK
360 minute summer	S15	184	132.109	0.166	52.2	0.2930	0.0000	OK
360 minute summer	S16	184	131.970	0.159	52.0	0.2270	0.0000	OK
360 minute summer	S17	288	131.668	0.556	51.5	0.0000	0.0000	OK
360 minute summer	S18	288	131.668	0.668	30.5	0.0000	0.0000	<b>SURCHARGED</b>
360 minute summer	S19	288	131.667	0.703	8.3	1.2414	0.0000	<b>SURCHARGED</b>
360 minute summer	Outfall	8	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute summer	S1	1.000	S2	5.9	1.341	0.184	0.0972	
360 minute summer	S2	1.001	S3	7.3	1.289	0.195	0.0458	
360 minute summer	S3	1.002	S4	10.8	1.646	0.316	0.0619	
360 minute summer	S4	1.003	S5	15.4	1.426	0.143	0.1655	
360 minute summer	S5	1.004	S7	17.9	1.374	0.263	0.1216	
360 minute summer	S6	2.000	S7	9.8	1.004	0.187	0.2763	
360 minute summer	S7	1.005	S8	27.7	0.918	0.169	0.2601	
360 minute summer	S8	1.006	S12	36.4	1.041	0.223	1.7320	
360 minute summer	S9	3.000	S10	4.9	1.057	0.139	0.0452	
360 minute summer	S10	3.001	S11	11.2	1.862	0.274	0.1120	
360 minute summer	S11	3.002	S12	12.6	2.113	0.282	0.0799	
360 minute summer	S12	1.007	S13	49.1	1.217	0.246	0.3920	
360 minute summer	S13	1.008	S15	51.3	1.290	0.315	1.3450	
360 minute summer	S14	4.000	S15	0.9	0.411	0.022	0.1788	
360 minute summer	S15	1.009	S16	52.0	1.140	0.368	1.2006	
360 minute summer	S16	1.010	S17	51.5	1.185	0.365	1.4779	
360 minute summer	S17	Flow through pond	S18	30.5	0.046	0.001	167.6470	
360 minute summer	S18	1.011	S19	8.3	0.382	0.208	0.2411	
360 minute summer	S19	Hydro-Brake®	Outfall	8.1				238.7

**Results for 30 year +30% CC +10% A 360 minute winter. 600 minute analysis at 8 minute timestep. Mass balance: 99.85%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	S1	184	135.921	0.038	4.3	0.0728	0.0000	OK
360 minute winter	S2	184	135.211	0.039	5.4	0.0414	0.0000	OK
360 minute winter	S3	184	134.872	0.052	8.0	0.0719	0.0000	OK
360 minute winter	S4	184	134.449	0.049	11.4	0.1023	0.0000	OK
360 minute winter	S5	184	133.822	0.072	13.3	0.1291	0.0000	OK
360 minute winter	S6	184	133.935	0.057	7.2	0.1790	0.0000	OK
360 minute winter	S7	184	133.539	0.099	20.5	0.1755	0.0000	OK
360 minute winter	S8	184	133.485	0.103	27.0	0.2902	0.0000	OK
360 minute winter	S9	184	135.486	0.032	3.6	0.0489	0.0000	OK
360 minute winter	S10	184	135.126	0.046	8.2	0.0944	0.0000	OK
360 minute winter	S11	184	134.161	0.048	9.3	0.0520	0.0000	OK
360 minute winter	S12	184	133.175	0.122	36.6	0.2200	0.0000	OK
360 minute winter	S13	184	133.084	0.128	38.5	0.2185	0.0000	OK
360 minute winter	S14	184	132.620	0.020	0.7	0.0345	0.0000	OK
360 minute winter	S15	184	132.084	0.141	39.1	0.2483	0.0000	OK
360 minute winter	S16	184	131.947	0.136	39.0	0.1943	0.0000	OK
360 minute winter	S17	304	131.744	0.632	39.0	0.0000	0.0000	OK
360 minute winter	S18	296	131.744	0.744	23.9	0.0000	0.0000	<b>SURCHARGED</b>
360 minute winter	S19	304	131.742	0.778	8.2	1.3747	0.0000	<b>SURCHARGED</b>
360 minute winter	Outfall	8	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute winter	S1	1.000	S2	4.3	1.223	0.134	0.0779	
360 minute winter	S2	1.001	S3	5.4	1.201	0.145	0.0366	
360 minute winter	S3	1.002	S4	8.0	1.524	0.234	0.0493	
360 minute winter	S4	1.003	S5	11.4	1.322	0.105	0.1320	
360 minute winter	S5	1.004	S7	13.3	1.274	0.195	0.0972	
360 minute winter	S6	2.000	S7	7.2	0.921	0.137	0.2206	
360 minute winter	S7	1.005	S8	20.4	0.857	0.125	0.2059	
360 minute winter	S8	1.006	S12	27.0	0.976	0.166	1.3703	
360 minute winter	S9	3.000	S10	3.6	0.974	0.103	0.0361	
360 minute winter	S10	3.001	S11	8.2	1.720	0.202	0.0890	
360 minute winter	S11	3.002	S12	9.3	1.949	0.208	0.0637	
360 minute winter	S12	1.007	S13	36.6	1.140	0.183	0.3114	
360 minute winter	S13	1.008	S15	38.4	1.197	0.235	1.0848	
360 minute winter	S14	4.000	S15	0.7	0.381	0.017	0.1487	
360 minute winter	S15	1.009	S16	39.0	1.061	0.276	0.9683	
360 minute winter	S16	1.010	S17	39.0	1.101	0.276	1.2024	
360 minute winter	S17	Flow through pond	S18	23.9	0.078	0.001	195.8496	
360 minute winter	S18	1.011	S19	8.2	0.383	0.206	0.2411	
360 minute winter	S19	Hydro-Brake®	Outfall	8.1				241.5

**Results for 30 year +30% CC +10% A 480 minute summer. 720 minute analysis at 8 minute timestep. Mass balance: 99.98%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute summer	S1	248	135.922	0.039	4.7	0.0763	0.0000	OK
480 minute summer	S2	248	135.212	0.040	5.8	0.0429	0.0000	OK
480 minute summer	S3	248	134.875	0.055	8.7	0.0754	0.0000	OK
480 minute summer	S4	248	134.451	0.051	12.4	0.1067	0.0000	OK
480 minute summer	S5	248	133.826	0.076	14.5	0.1356	0.0000	OK
480 minute summer	S6	248	133.938	0.060	7.9	0.1880	0.0000	OK
480 minute summer	S7	248	133.545	0.105	22.4	0.1847	0.0000	OK
480 minute summer	S8	248	133.490	0.108	29.6	0.3045	0.0000	OK
480 minute summer	S9	248	135.487	0.034	3.9	0.0509	0.0000	OK
480 minute summer	S10	248	135.128	0.049	8.9	0.0986	0.0000	OK
480 minute summer	S11	248	134.164	0.051	10.1	0.0544	0.0000	OK
480 minute summer	S12	248	133.182	0.129	40.0	0.2320	0.0000	OK
480 minute summer	S13	248	133.090	0.134	42.1	0.2297	0.0000	OK
480 minute summer	S14	248	132.621	0.021	0.7	0.0353	0.0000	OK
480 minute summer	S15	248	132.091	0.148	42.8	0.2615	0.0000	OK
480 minute summer	S16	248	131.954	0.143	42.8	0.2044	0.0000	OK
480 minute summer	S17	352	131.658	0.546	42.8	0.0000	0.0000	OK
480 minute summer	S18	352	131.658	0.658	25.9	0.0000	0.0000	<b>SURCHARGED</b>
480 minute summer	S19	352	131.657	0.693	8.3	1.2242	0.0000	<b>SURCHARGED</b>
480 minute summer	Outfall	8	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
480 minute summer	S1	1.000	S2	4.7	1.261	0.147	0.0826	
480 minute summer	S2	1.001	S3	5.8	1.217	0.156	0.0388	
480 minute summer	S3	1.002	S4	8.7	1.559	0.254	0.0525	
480 minute summer	S4	1.003	S5	12.4	1.349	0.115	0.1409	
480 minute summer	S5	1.004	S7	14.5	1.303	0.213	0.1038	
480 minute summer	S6	2.000	S7	7.9	0.946	0.151	0.2361	
480 minute summer	S7	1.005	S8	22.4	0.876	0.137	0.2207	
480 minute summer	S8	1.006	S12	29.6	0.997	0.182	1.4702	
480 minute summer	S9	3.000	S10	3.9	0.995	0.111	0.0383	
480 minute summer	S10	3.001	S11	8.9	1.757	0.219	0.0947	
480 minute summer	S11	3.002	S12	10.1	1.993	0.226	0.0678	
480 minute summer	S12	1.007	S13	40.0	1.163	0.200	0.3341	
480 minute summer	S13	1.008	S15	42.1	1.227	0.258	1.1603	
480 minute summer	S14	4.000	S15	0.7	0.387	0.017	0.1539	
480 minute summer	S15	1.009	S16	42.8	1.085	0.303	1.0377	
480 minute summer	S16	1.010	S17	42.8	1.130	0.303	1.2874	
480 minute summer	S17	Flow through pond	S18	25.9	0.050	0.001	164.1243	
480 minute summer	S18	1.011	S19	8.3	0.379	0.207	0.2411	
480 minute summer	S19	Hydro-Brake®	Outfall	8.1				281.3

**Results for 30 year +30% CC +10% A 480 minute winter. 720 minute analysis at 8 minute timestep. Mass balance: 99.89%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute winter	S1	248	135.917	0.034	3.5	0.0655	0.0000	OK
480 minute winter	S2	248	135.207	0.035	4.4	0.0374	0.0000	OK
480 minute winter	S3	248	134.867	0.047	6.5	0.0642	0.0000	OK
480 minute winter	S4	248	134.444	0.044	9.2	0.0921	0.0000	OK
480 minute winter	S5	248	133.814	0.064	10.8	0.1152	0.0000	OK
480 minute winter	S6	248	133.930	0.052	5.9	0.1617	0.0000	OK
480 minute winter	S7	248	133.529	0.089	16.7	0.1567	0.0000	OK
480 minute winter	S8	248	133.474	0.092	22.0	0.2608	0.0000	OK
480 minute winter	S9	248	135.482	0.029	2.9	0.0440	0.0000	OK
480 minute winter	S10	248	135.121	0.041	6.6	0.0842	0.0000	OK
480 minute winter	S11	248	134.156	0.043	7.5	0.0463	0.0000	OK
480 minute winter	S12	248	133.161	0.108	29.7	0.1950	0.0000	OK
480 minute winter	S13	248	133.070	0.114	31.3	0.1955	0.0000	OK
480 minute winter	S14	264	132.618	0.018	0.5	0.0303	0.0000	OK
480 minute winter	S15	248	132.069	0.125	31.8	0.2217	0.0000	OK
480 minute winter	S16	248	131.933	0.122	31.8	0.1742	0.0000	OK
480 minute winter	S17	376	131.730	0.618	31.8	0.0000	0.0000	OK
480 minute winter	S18	376	131.730	0.730	20.2	0.0000	0.0000	<b>SURCHARGED</b>
480 minute winter	S19	376	131.728	0.764	8.2	1.3507	0.0000	<b>SURCHARGED</b>
480 minute winter	Outfall	8	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
480 minute winter	S1	1.000	S2	3.5	1.154	0.109	0.0672	
480 minute winter	S2	1.001	S3	4.4	1.140	0.118	0.0314	
480 minute winter	S3	1.002	S4	6.5	1.445	0.190	0.0423	
480 minute winter	S4	1.003	S5	9.2	1.249	0.085	0.1130	
480 minute winter	S5	1.004	S7	10.8	1.208	0.158	0.0834	
480 minute winter	S6	2.000	S7	5.9	0.872	0.112	0.1913	
480 minute winter	S7	1.005	S8	16.7	0.818	0.102	0.1763	
480 minute winter	S8	1.006	S12	22.0	0.933	0.135	1.1675	
480 minute winter	S9	3.000	S10	2.9	0.918	0.083	0.0309	
480 minute winter	S10	3.001	S11	6.6	1.624	0.162	0.0760	
480 minute winter	S11	3.002	S12	7.5	1.841	0.168	0.0545	
480 minute winter	S12	1.007	S13	29.7	1.087	0.149	0.2653	
480 minute winter	S13	1.008	S15	31.3	1.134	0.192	0.9334	
480 minute winter	S14	4.000	S15	0.5	0.351	0.013	0.1213	
480 minute winter	S15	1.009	S16	31.8	1.006	0.225	0.8316	
480 minute winter	S16	1.010	S17	31.8	1.042	0.225	1.0372	
480 minute winter	S17	Flow through pond	S18	20.2	0.057	0.000	190.6450	
480 minute winter	S18	1.011	S19	8.2	0.381	0.206	0.2411	
480 minute winter	S19	Hydro-Brake®	Outfall	8.1				286.6

**Results for 30 year +30% CC +10% A 600 minute summer. 840 minute analysis at 15 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute summer	S1	315	135.919	0.036	3.9	0.0694	0.0000	OK
600 minute summer	S2	315	135.208	0.036	4.8	0.0390	0.0000	OK
600 minute summer	S3	315	134.869	0.049	7.2	0.0679	0.0000	OK
600 minute summer	S4	315	134.447	0.047	10.2	0.0968	0.0000	OK
600 minute summer	S5	315	133.818	0.068	11.9	0.1215	0.0000	OK
600 minute summer	S6	315	133.932	0.054	6.5	0.1700	0.0000	OK
600 minute summer	S7	315	133.534	0.094	18.4	0.1654	0.0000	OK
600 minute summer	S8	315	133.479	0.097	24.3	0.2746	0.0000	OK
600 minute summer	S9	315	135.484	0.031	3.2	0.0461	0.0000	OK
600 minute summer	S10	315	135.123	0.044	7.3	0.0888	0.0000	OK
600 minute summer	S11	315	134.158	0.045	8.3	0.0489	0.0000	OK
600 minute summer	S12	315	133.168	0.114	32.8	0.2065	0.0000	OK
600 minute summer	S13	315	133.077	0.121	34.5	0.2061	0.0000	OK
600 minute summer	S14	315	132.619	0.019	0.6	0.0329	0.0000	OK
600 minute summer	S15	315	132.075	0.132	35.1	0.2340	0.0000	OK
600 minute summer	S16	315	131.939	0.128	35.1	0.1836	0.0000	OK
600 minute summer	S17	420	131.643	0.531	35.1	0.0000	0.0000	OK
600 minute summer	S18	420	131.643	0.643	21.9	0.0000	0.0000	<b>SURCHARGED</b>
600 minute summer	S19	420	131.642	0.678	8.2	1.1974	0.0000	<b>SURCHARGED</b>
600 minute summer	Outfall	15	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
600 minute summer	S1	1.000	S2	3.9	1.197	0.122	0.0722	
600 minute summer	S2	1.001	S3	4.8	1.159	0.129	0.0337	
600 minute summer	S3	1.002	S4	7.2	1.484	0.211	0.0457	
600 minute summer	S4	1.003	S5	10.2	1.286	0.094	0.1217	
600 minute summer	S5	1.004	S7	11.9	1.239	0.174	0.0896	
600 minute summer	S6	2.000	S7	6.5	0.896	0.124	0.2052	
600 minute summer	S7	1.005	S8	18.4	0.836	0.112	0.1900	
600 minute summer	S8	1.006	S12	24.3	0.954	0.149	1.2605	
600 minute summer	S9	3.000	S10	3.2	0.943	0.091	0.0332	
600 minute summer	S10	3.001	S11	7.3	1.668	0.180	0.0818	
600 minute summer	S11	3.002	S12	8.3	1.892	0.186	0.0587	
600 minute summer	S12	1.007	S13	32.8	1.113	0.164	0.2863	
600 minute summer	S13	1.008	S15	34.5	1.164	0.212	1.0024	
600 minute summer	S14	4.000	S15	0.6	0.369	0.015	0.1385	
600 minute summer	S15	1.009	S16	35.1	1.032	0.248	0.8948	
600 minute summer	S16	1.010	S17	35.1	1.071	0.249	1.1143	
600 minute summer	S17	Flow through pond	S18	21.9	0.062	0.001	158.7772	
600 minute summer	S18	1.011	S19	8.2	0.377	0.206	0.2411	
600 minute summer	S19	Hydro-Brake®	Outfall	8.1				321.6

**Results for 30 year +30% CC +10% A 600 minute winter. 840 minute analysis at 15 minute timestep. Mass balance: 99.95%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute winter	S1	315	135.914	0.031	2.9	0.0597	0.0000	OK
600 minute winter	S2	315	135.204	0.032	3.6	0.0338	0.0000	OK
600 minute winter	S3	315	134.862	0.042	5.4	0.0581	0.0000	OK
600 minute winter	S4	315	134.441	0.041	7.7	0.0844	0.0000	OK
600 minute winter	S5	315	133.808	0.058	9.0	0.1044	0.0000	OK
600 minute winter	S6	315	133.926	0.048	5.0	0.1487	0.0000	OK
600 minute winter	S7	315	133.521	0.081	14.0	0.1423	0.0000	OK
600 minute winter	S8	315	133.466	0.084	18.5	0.2385	0.0000	OK
600 minute winter	S9	315	135.480	0.027	2.4	0.0401	0.0000	OK
600 minute winter	S10	315	135.117	0.038	5.6	0.0774	0.0000	OK
600 minute winter	S11	315	134.153	0.040	6.4	0.0426	0.0000	OK
600 minute winter	S12	315	133.151	0.098	25.1	0.1772	0.0000	OK
600 minute winter	S13	315	133.060	0.104	26.4	0.1786	0.0000	OK
600 minute winter	S14	315	132.618	0.018	0.5	0.0302	0.0000	OK
600 minute winter	S15	315	132.058	0.115	26.9	0.2024	0.0000	OK
600 minute winter	S16	315	131.922	0.111	26.9	0.1595	0.0000	OK
600 minute winter	S17	465	131.707	0.595	26.9	0.0000	0.0000	OK
600 minute winter	S18	465	131.707	0.707	17.7	0.0000	0.0000	<b>SURCHARGED</b>
600 minute winter	S19	465	131.705	0.741	8.2	1.3099	0.0000	<b>SURCHARGED</b>
600 minute winter	Outfall	15	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
600 minute winter	S1	1.000	S2	2.9	1.098	0.091	0.0586	
600 minute winter	S2	1.001	S3	3.6	1.075	0.097	0.0273	
600 minute winter	S3	1.002	S4	5.4	1.375	0.158	0.0370	
600 minute winter	S4	1.003	S5	7.7	1.194	0.071	0.0990	
600 minute winter	S5	1.004	S7	9.0	1.151	0.132	0.0729	
600 minute winter	S6	2.000	S7	5.0	0.832	0.095	0.1700	
600 minute winter	S7	1.005	S8	14.0	0.783	0.085	0.1545	
600 minute winter	S8	1.006	S12	18.5	0.894	0.114	1.0241	
600 minute winter	S9	3.000	S10	2.4	0.861	0.068	0.0273	
600 minute winter	S10	3.001	S11	5.6	1.551	0.138	0.0675	
600 minute winter	S11	3.002	S12	6.4	1.762	0.143	0.0486	
600 minute winter	S12	1.007	S13	25.1	1.047	0.126	0.2329	
600 minute winter	S13	1.008	S15	26.4	1.083	0.162	0.8245	
600 minute winter	S14	4.000	S15	0.5	0.351	0.013	0.1213	
600 minute winter	S15	1.009	S16	26.9	0.964	0.190	0.7344	
600 minute winter	S16	1.010	S17	26.9	0.995	0.191	0.9185	
600 minute winter	S17	Flow through pond	S18	17.7	0.028	0.000	181.9204	
600 minute winter	S18	1.011	S19	8.2	0.380	0.205	0.2411	
600 minute winter	S19	Hydro-Brake®	Outfall	8.1				327.5

<b>TWEDDELL &amp; SLATER</b> <small>CONSULTING CIVIL &amp; STRUCTURAL ENGINEERS</small>	Tweddell & Slater Ltd Unit 2 Mereside Eden Business Park Penrith, CA11 9FB	File: Surface Water Calculations 16.0 Network: Storm Network Andrew Carr 16/06/2021	Page 50 Residential Development at School Brow, Moresby Parks Surface Water Calculations
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**Results for 30 year +30% CC +10% A 720 minute summer. 960 minute analysis at 15 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute summer	S1	375	135.917	0.034	3.5	0.0657	0.0000	OK
720 minute summer	S2	375	135.207	0.034	4.3	0.0369	0.0000	OK
720 minute summer	S3	375	134.866	0.046	6.4	0.0637	0.0000	OK
720 minute summer	S4	375	134.444	0.044	9.1	0.0916	0.0000	OK
720 minute summer	S5	375	133.814	0.064	10.6	0.1141	0.0000	OK
720 minute summer	S6	375	133.929	0.051	5.8	0.1603	0.0000	OK
720 minute summer	S7	375	133.528	0.088	16.4	0.1552	0.0000	OK
720 minute summer	S8	375	133.474	0.092	21.7	0.2589	0.0000	OK
720 minute summer	S9	375	135.482	0.029	2.9	0.0440	0.0000	OK
720 minute summer	S10	375	135.121	0.041	6.6	0.0842	0.0000	OK
720 minute summer	S11	375	134.156	0.043	7.5	0.0463	0.0000	OK
720 minute summer	S12	375	133.161	0.107	29.4	0.1939	0.0000	OK
720 minute summer	S13	375	133.070	0.114	30.9	0.1942	0.0000	OK
720 minute summer	S14	375	132.618	0.018	0.5	0.0302	0.0000	OK
720 minute summer	S15	375	132.068	0.125	31.4	0.2201	0.0000	OK
720 minute summer	S16	375	131.932	0.121	31.4	0.1730	0.0000	OK
720 minute summer	S17	495	131.630	0.518	31.4	0.0000	0.0000	OK
720 minute summer	S18	495	131.630	0.630	20.0	0.0000	0.0000	<b>SURCHARGED</b>
720 minute summer	S19	495	131.629	0.664	8.2	1.1741	0.0000	<b>SURCHARGED</b>
720 minute summer	Outfall	15	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
720 minute summer	S1	1.000	S2	3.5	1.162	0.109	0.0668	
720 minute summer	S2	1.001	S3	4.3	1.130	0.115	0.0310	
720 minute summer	S3	1.002	S4	6.4	1.439	0.187	0.0419	
720 minute summer	S4	1.003	S5	9.1	1.250	0.084	0.1117	
720 minute summer	S5	1.004	S7	10.6	1.202	0.155	0.0822	
720 minute summer	S6	2.000	S7	5.8	0.868	0.111	0.1890	
720 minute summer	S7	1.005	S8	16.4	0.813	0.100	0.1742	
720 minute summer	S8	1.006	S12	21.7	0.929	0.133	1.1566	
720 minute summer	S9	3.000	S10	2.9	0.918	0.083	0.0309	
720 minute summer	S10	3.001	S11	6.6	1.624	0.162	0.0760	
720 minute summer	S11	3.002	S12	7.5	1.841	0.168	0.0545	
720 minute summer	S12	1.007	S13	29.4	1.086	0.147	0.2629	
720 minute summer	S13	1.008	S15	30.9	1.130	0.189	0.9246	
720 minute summer	S14	4.000	S15	0.5	0.351	0.013	0.1213	
720 minute summer	S15	1.009	S16	31.4	1.003	0.222	0.8238	
720 minute summer	S16	1.010	S17	31.4	1.038	0.223	1.0276	
720 minute summer	S17	Flow through pond	S18	20.0	0.071	0.000	154.1445	
720 minute summer	S18	1.011	S19	8.2	0.377	0.206	0.2411	
720 minute summer	S19	Hydro-Brake®	Outfall	8.1				360.4

**Results for 30 year +30% CC +10% A 720 minute winter. 960 minute analysis at 15 minute timestep. Mass balance: 99.99%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute winter	S1	375	135.912	0.029	2.6	0.0565	0.0000	OK
720 minute winter	S2	375	135.202	0.030	3.2	0.0319	0.0000	OK
720 minute winter	S3	375	134.860	0.040	4.8	0.0546	0.0000	OK
720 minute winter	S4	375	134.438	0.038	6.8	0.0794	0.0000	OK
720 minute winter	S5	375	133.805	0.055	8.0	0.0981	0.0000	OK
720 minute winter	S6	375	133.923	0.045	4.4	0.1394	0.0000	OK
720 minute winter	S7	375	133.515	0.075	12.4	0.1332	0.0000	OK
720 minute winter	S8	375	133.461	0.079	16.4	0.2243	0.0000	OK
720 minute winter	S9	375	135.479	0.026	2.2	0.0384	0.0000	OK
720 minute winter	S10	375	135.115	0.036	5.0	0.0730	0.0000	OK
720 minute winter	S11	375	134.150	0.037	5.7	0.0401	0.0000	OK
720 minute winter	S12	375	133.145	0.092	22.3	0.1659	0.0000	OK
720 minute winter	S13	375	133.054	0.098	23.5	0.1680	0.0000	OK
720 minute winter	S14	375	132.616	0.016	0.4	0.0275	0.0000	OK
720 minute winter	S15	375	132.051	0.107	23.9	0.1899	0.0000	OK
720 minute winter	S16	375	131.916	0.105	23.9	0.1499	0.0000	OK
720 minute winter	S17	540	131.685	0.573	23.9	0.0000	0.0000	OK
720 minute winter	S18	540	131.685	0.685	16.1	0.0000	0.0000	<b>SURCHARGED</b>
720 minute winter	S19	540	131.684	0.720	8.2	1.2717	0.0000	<b>SURCHARGED</b>
720 minute winter	Outfall	15	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
720 minute winter	S1	1.000	S2	2.6	1.067	0.081	0.0540	
720 minute winter	S2	1.001	S3	3.2	1.041	0.086	0.0251	
720 minute winter	S3	1.002	S4	4.8	1.332	0.140	0.0339	
720 minute winter	S4	1.003	S5	6.8	1.151	0.063	0.0906	
720 minute winter	S5	1.004	S7	8.0	1.115	0.117	0.0669	
720 minute winter	S6	2.000	S7	4.4	0.802	0.084	0.1551	
720 minute winter	S7	1.005	S8	12.4	0.759	0.076	0.1411	
720 minute winter	S8	1.006	S12	16.4	0.868	0.101	0.9352	
720 minute winter	S9	3.000	S10	2.2	0.849	0.063	0.0253	
720 minute winter	S10	3.001	S11	5.0	1.505	0.123	0.0621	
720 minute winter	S11	3.002	S12	5.7	1.706	0.128	0.0447	
720 minute winter	S12	1.007	S13	22.3	1.017	0.112	0.2129	
720 minute winter	S13	1.008	S15	23.5	1.048	0.144	0.7579	
720 minute winter	S14	4.000	S15	0.4	0.334	0.010	0.1021	
720 minute winter	S15	1.009	S16	23.9	0.934	0.169	0.6730	
720 minute winter	S16	1.010	S17	23.9	0.963	0.169	0.8435	
720 minute winter	S17	Flow through pond	S18	16.1	0.029	0.000	173.9669	
720 minute winter	S18	1.011	S19	8.2	0.378	0.205	0.2411	
720 minute winter	S19	Hydro-Brake®	Outfall	8.1				370.8

**Results for 30 year +30% CC +10% A 960 minute summer. 1200 minute analysis at 15 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute summer	S1	495	135.914	0.031	2.9	0.0597	0.0000	OK
960 minute summer	S2	495	135.204	0.032	3.6	0.0338	0.0000	OK
960 minute summer	S3	495	134.862	0.042	5.4	0.0581	0.0000	OK
960 minute summer	S4	495	134.440	0.040	7.6	0.0839	0.0000	OK
960 minute summer	S5	495	133.808	0.058	8.9	0.1038	0.0000	OK
960 minute summer	S6	495	133.925	0.047	4.8	0.1457	0.0000	OK
960 minute summer	S7	495	133.520	0.080	13.7	0.1406	0.0000	OK
960 minute summer	S8	495	133.465	0.083	18.1	0.2359	0.0000	OK
960 minute summer	S9	495	135.480	0.027	2.4	0.0401	0.0000	OK
960 minute summer	S10	495	135.117	0.038	5.5	0.0768	0.0000	OK
960 minute summer	S11	495	134.152	0.039	6.2	0.0419	0.0000	OK
960 minute summer	S12	495	133.150	0.097	24.5	0.1748	0.0000	OK
960 minute summer	S13	495	133.059	0.103	25.8	0.1764	0.0000	OK
960 minute summer	S14	510	132.616	0.016	0.4	0.0275	0.0000	OK
960 minute summer	S15	495	132.056	0.113	26.2	0.1995	0.0000	OK
960 minute summer	S16	495	131.921	0.110	26.2	0.1573	0.0000	OK
960 minute summer	S17	630	131.589	0.477	26.2	0.0000	0.0000	OK
960 minute summer	S18	630	131.589	0.589	17.4	0.0000	0.0000	<b>SURCHARGED</b>
960 minute summer	S19	630	131.587	0.623	8.2	1.1013	0.0000	<b>SURCHARGED</b>
960 minute summer	Outfall	15	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
960 minute summer	S1	1.000	S2	2.9	1.098	0.091	0.0586	
960 minute summer	S2	1.001	S3	3.6	1.075	0.097	0.0273	
960 minute summer	S3	1.002	S4	5.4	1.375	0.158	0.0370	
960 minute summer	S4	1.003	S5	7.6	1.189	0.070	0.0981	
960 minute summer	S5	1.004	S7	8.9	1.147	0.130	0.0723	
960 minute summer	S6	2.000	S7	4.8	0.822	0.092	0.1651	
960 minute summer	S7	1.005	S8	13.7	0.778	0.084	0.1520	
960 minute summer	S8	1.006	S12	18.1	0.890	0.111	1.0062	
960 minute summer	S9	3.000	S10	2.4	0.867	0.068	0.0271	
960 minute summer	S10	3.001	S11	5.5	1.550	0.135	0.0663	
960 minute summer	S11	3.002	S12	6.2	1.747	0.139	0.0475	
960 minute summer	S12	1.007	S13	24.5	1.040	0.123	0.2288	
960 minute summer	S13	1.008	S15	25.8	1.076	0.158	0.8109	
960 minute summer	S14	4.000	S15	0.4	0.334	0.010	0.1021	
960 minute summer	S15	1.009	S16	26.2	0.957	0.185	0.7203	
960 minute summer	S16	1.010	S17	26.2	0.988	0.186	0.9011	
960 minute summer	S17	Flow through pond	S18	17.4	0.061	0.000	139.9897	
960 minute summer	S18	1.011	S19	8.2	0.377	0.205	0.2411	
960 minute summer	S19	Hydro-Brake®	Outfall	8.1				394.7

**Results for 30 year +30% CC +10% A 960 minute winter. 1200 minute analysis at 15 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute winter	S1	480	135.909	0.026	2.1	0.0509	0.0000	OK
960 minute winter	S2	480	135.199	0.027	2.6	0.0288	0.0000	OK
960 minute winter	S3	480	134.856	0.036	3.9	0.0490	0.0000	OK
960 minute winter	S4	495	134.435	0.035	5.6	0.0723	0.0000	OK
960 minute winter	S5	495	133.799	0.049	6.5	0.0879	0.0000	OK
960 minute winter	S6	495	133.918	0.040	3.6	0.1263	0.0000	OK
960 minute winter	S7	495	133.508	0.068	10.1	0.1194	0.0000	OK
960 minute winter	S8	495	133.454	0.072	13.4	0.2030	0.0000	OK
960 minute winter	S9	495	135.476	0.023	1.8	0.0349	0.0000	OK
960 minute winter	S10	495	135.112	0.032	4.1	0.0660	0.0000	OK
960 minute winter	S11	495	134.147	0.034	4.7	0.0363	0.0000	OK
960 minute winter	S12	495	133.135	0.082	18.2	0.1482	0.0000	OK
960 minute winter	S13	495	133.044	0.088	19.1	0.1509	0.0000	OK
960 minute winter	S14	480	132.614	0.014	0.3	0.0242	0.0000	OK
960 minute winter	S15	495	132.039	0.096	19.4	0.1701	0.0000	OK
960 minute winter	S16	495	131.905	0.094	19.4	0.1347	0.0000	OK
960 minute winter	S17	690	131.633	0.521	19.4	0.0000	0.0000	OK
960 minute winter	S18	690	131.633	0.633	13.9	0.0000	0.0000	<b>SURCHARGED</b>
960 minute winter	S19	690	131.631	0.667	8.2	1.1791	0.0000	<b>SURCHARGED</b>
960 minute winter	Outfall	15	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
960 minute winter	S1	1.000	S2	2.1	1.000	0.066	0.0466	
960 minute winter	S2	1.001	S3	2.6	0.982	0.070	0.0216	
960 minute winter	S3	1.002	S4	3.9	1.258	0.114	0.0292	
960 minute winter	S4	1.003	S5	5.6	1.099	0.052	0.0780	
960 minute winter	S5	1.004	S7	6.5	1.055	0.095	0.0575	
960 minute winter	S6	2.000	S7	3.6	0.756	0.069	0.1346	
960 minute winter	S7	1.005	S8	10.1	0.718	0.062	0.1215	
960 minute winter	S8	1.006	S12	13.4	0.826	0.082	0.8029	
960 minute winter	S9	3.000	S10	1.8	0.802	0.051	0.0219	
960 minute winter	S10	3.001	S11	4.1	1.424	0.101	0.0538	
960 minute winter	S11	3.002	S12	4.7	1.618	0.105	0.0389	
960 minute winter	S12	1.007	S13	18.2	0.970	0.091	0.1822	
960 minute winter	S13	1.008	S15	19.1	0.990	0.117	0.6524	
960 minute winter	S14	4.000	S15	0.3	0.308	0.008	0.0830	
960 minute winter	S15	1.009	S16	19.4	0.883	0.137	0.5778	
960 minute winter	S16	1.010	S17	19.4	0.908	0.138	0.7262	
960 minute winter	S17	Flow through pond	S18	13.9	0.033	0.000	155.1245	
960 minute winter	S18	1.011	S19	8.2	0.377	0.204	0.2411	
960 minute winter	S19	Hydro-Brake®	Outfall	8.1				444.4

**Results for 30 year +30% CC +10% A 1440 minute summer. 1680 minute analysis at 30 minute timestep. Mass balance: 100.00**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute summer	S1	750	135.909	0.026	2.1	0.0509	0.0000	OK
1440 minute summer	S2	750	135.199	0.027	2.6	0.0288	0.0000	OK
1440 minute summer	S3	750	134.856	0.036	3.9	0.0490	0.0000	OK
1440 minute summer	S4	750	134.435	0.034	5.5	0.0717	0.0000	OK
1440 minute summer	S5	750	133.799	0.049	6.4	0.0872	0.0000	OK
1440 minute summer	S6	750	133.918	0.040	3.6	0.1263	0.0000	OK
1440 minute summer	S7	750	133.507	0.067	10.0	0.1187	0.0000	OK
1440 minute summer	S8	750	133.453	0.071	13.2	0.2015	0.0000	OK
1440 minute summer	S9	750	135.476	0.023	1.7	0.0339	0.0000	OK
1440 minute summer	S10	750	135.111	0.032	4.0	0.0653	0.0000	OK
1440 minute summer	S11	750	134.146	0.033	4.5	0.0355	0.0000	OK
1440 minute summer	S12	750	133.134	0.081	17.8	0.1464	0.0000	OK
1440 minute summer	S13	750	133.043	0.087	18.7	0.1492	0.0000	OK
1440 minute summer	S14	750	132.614	0.014	0.3	0.0242	0.0000	OK
1440 minute summer	S15	750	132.038	0.095	19.0	0.1683	0.0000	OK
1440 minute summer	S16	750	131.904	0.093	19.0	0.1333	0.0000	OK
1440 minute summer	S17	900	131.502	0.390	19.0	0.0000	0.0000	OK
1440 minute summer	S18	900	131.502	0.502	13.7	0.0000	0.0000	<b>SURCHARGED</b>
1440 minute summer	S19	900	131.500	0.536	8.2	0.9467	0.0000	<b>SURCHARGED</b>
1440 minute summer	Outfall	30	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute summer	S1	1.000	S2	2.1	1.000	0.066	0.0466	
1440 minute summer	S2	1.001	S3	2.6	0.982	0.070	0.0216	
1440 minute summer	S3	1.002	S4	3.9	1.258	0.114	0.0292	
1440 minute summer	S4	1.003	S5	5.5	1.093	0.051	0.0771	
1440 minute summer	S5	1.004	S7	6.4	1.050	0.094	0.0568	
1440 minute summer	S6	2.000	S7	3.6	0.756	0.069	0.1346	
1440 minute summer	S7	1.005	S8	10.0	0.717	0.061	0.1203	
1440 minute summer	S8	1.006	S12	13.2	0.825	0.081	0.7917	
1440 minute summer	S9	3.000	S10	1.7	0.777	0.048	0.0214	
1440 minute summer	S10	3.001	S11	4.0	1.422	0.098	0.0526	
1440 minute summer	S11	3.002	S12	4.5	1.598	0.101	0.0377	
1440 minute summer	S12	1.007	S13	17.8	0.965	0.089	0.1792	
1440 minute summer	S13	1.008	S15	18.7	0.984	0.115	0.6424	
1440 minute summer	S14	4.000	S15	0.3	0.308	0.008	0.0830	
1440 minute summer	S15	1.009	S16	19.0	0.878	0.134	0.5690	
1440 minute summer	S16	1.010	S17	19.0	0.903	0.135	0.7155	
1440 minute summer	S17	Flow through pond	S18	13.7	0.021	0.000	111.5060	
1440 minute summer	S18	1.011	S19	8.2	0.377	0.205	0.2411	
1440 minute summer	S19	Hydro-Brake®	Outfall	8.1				440.1

**Results for 30 year +30% CC +10% A 1440 minute winter. 1680 minute analysis at 30 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	S1	750	135.906	0.023	1.6	0.0444	0.0000	OK
1440 minute winter	S2	750	135.196	0.024	2.0	0.0254	0.0000	OK
1440 minute winter	S3	750	134.851	0.031	3.0	0.0427	0.0000	OK
1440 minute winter	S4	750	134.430	0.030	4.2	0.0630	0.0000	OK
1440 minute winter	S5	750	133.792	0.042	4.9	0.0759	0.0000	OK
1440 minute winter	S6	750	133.913	0.035	2.7	0.1095	0.0000	OK
1440 minute winter	S7	750	133.498	0.058	7.6	0.1027	0.0000	OK
1440 minute winter	S8	750	133.444	0.062	10.0	0.1760	0.0000	OK
1440 minute winter	S9	720	135.473	0.020	1.3	0.0298	0.0000	OK
1440 minute winter	S10	750	135.107	0.028	3.0	0.0565	0.0000	OK
1440 minute winter	S11	750	134.142	0.029	3.4	0.0308	0.0000	OK
1440 minute winter	S12	750	133.123	0.070	13.5	0.1260	0.0000	OK
1440 minute winter	S13	750	133.032	0.076	14.2	0.1296	0.0000	OK
1440 minute winter	S14	660	132.612	0.012	0.2	0.0199	0.0000	OK
1440 minute winter	S15	750	132.026	0.082	14.4	0.1457	0.0000	OK
1440 minute winter	S16	750	131.892	0.081	14.4	0.1158	0.0000	OK
1440 minute winter	S17	960	131.489	0.377	14.4	0.0000	0.0000	OK
1440 minute winter	S18	960	131.489	0.489	11.3	0.0000	0.0000	SURCHARGED
1440 minute winter	S19	960	131.487	0.523	8.1	0.9239	0.0000	SURCHARGED
1440 minute winter	Outfall	30	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute winter	S1	1.000	S2	1.6	0.922	0.050	0.0385	
1440 minute winter	S2	1.001	S3	2.0	0.914	0.054	0.0178	
1440 minute winter	S3	1.002	S4	3.0	1.170	0.088	0.0241	
1440 minute winter	S4	1.003	S5	4.2	1.014	0.039	0.0635	
1440 minute winter	S5	1.004	S7	4.9	0.975	0.072	0.0469	
1440 minute winter	S6	2.000	S7	2.7	0.696	0.051	0.1097	
1440 minute winter	S7	1.005	S8	7.6	0.668	0.046	0.0982	
1440 minute winter	S8	1.006	S12	10.0	0.768	0.061	0.6447	
1440 minute winter	S9	3.000	S10	1.3	0.735	0.037	0.0175	
1440 minute winter	S10	3.001	S11	3.0	1.308	0.074	0.0429	
1440 minute winter	S11	3.002	S12	3.4	1.475	0.076	0.0308	
1440 minute winter	S12	1.007	S13	13.5	0.900	0.068	0.1457	
1440 minute winter	S13	1.008	S15	14.2	0.911	0.087	0.5271	
1440 minute winter	S14	4.000	S15	0.2	0.271	0.005	0.0629	
1440 minute winter	S15	1.009	S16	14.4	0.815	0.102	0.4647	
1440 minute winter	S16	1.010	S17	14.4	0.834	0.102	0.5866	
1440 minute winter	S17	Flow through pond	S18	11.3	0.035	0.000	107.5014	
1440 minute winter	S18	1.011	S19	8.1	0.377	0.204	0.2411	
1440 minute winter	S19	Hydro-Brake®	Outfall	8.1				495.2

**Results for 100 year +30% CC +10% A 15 minute summer. 1455 minute analysis at 1 minute timestep. Mass balance: 99.83%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S1	10	136.871	0.988	41.9	1.9155	0.0000	SURCHARGED
15 minute summer	S2	10	136.300	1.128	37.2	1.2084	0.0000	SURCHARGED
15 minute summer	S3	10	135.938	1.118	55.6	1.5423	0.0000	SURCHARGED
15 minute summer	S4	10	135.048	0.648	79.3	1.3471	0.0000	SURCHARGED
15 minute summer	S5	10	134.707	0.957	89.7	1.7124	0.0000	SURCHARGED
15 minute summer	S6	10	134.681	0.803	70.9	2.5146	0.0000	SURCHARGED
15 minute summer	S7	10	134.378	0.938	132.9	1.6578	0.0000	SURCHARGED
15 minute summer	S8	10	134.304	0.922	178.8	2.6074	0.0000	SURCHARGED
15 minute summer	S9	10	136.819	1.366	34.8	2.0558	0.0000	SURCHARGED
15 minute summer	S10	10	136.661	1.582	64.1	3.2122	0.0000	FLOOD RISK
15 minute summer	S11	10	135.222	1.109	54.5	1.1941	0.0000	SURCHARGED
15 minute summer	S12	10	133.875	0.822	223.1	1.4825	0.0000	SURCHARGED
15 minute summer	S13	10	133.646	0.690	234.6	1.1794	0.0000	SURCHARGED
15 minute summer	S14	12	132.830	0.230	16.9	0.3924	0.0000	SURCHARGED
15 minute summer	S15	10	132.827	0.884	235.3	1.5622	0.0000	SURCHARGED
15 minute summer	S16	10	132.405	0.594	218.0	0.8495	0.0000	SURCHARGED
15 minute summer	S17	20	131.493	0.381	217.0	0.0000	0.0000	OK
15 minute summer	S18	21	131.492	0.492	152.4	0.0000	0.0000	SURCHARGED
15 minute summer	S19	21	131.493	0.529	11.4	0.9355	0.0000	SURCHARGED
15 minute summer	Outfall	1	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	S1	1.000	S2	26.9	1.771	0.841	0.3902	
15 minute summer	S2	1.001	S3	32.6	1.851	0.875	0.1427	
15 minute summer	S3	1.002	S4	47.2	2.683	1.381	0.1656	
15 minute summer	S4	1.003	S5	71.0	1.862	0.658	0.6049	
15 minute summer	S5	1.004	S7	80.4	2.022	1.179	0.3707	
15 minute summer	S6	2.000	S7	54.0	1.357	1.029	1.1244	
15 minute summer	S7	1.005	S8	130.6	1.184	0.797	0.9518	
15 minute summer	S8	1.006	S12	171.6	1.556	1.053	5.4508	
15 minute summer	S9	3.000	S10	19.6	1.358	0.559	0.1708	
15 minute summer	S10	3.001	S11	44.7	2.541	1.101	0.3291	
15 minute summer	S11	3.002	S12	50.4	2.866	1.129	0.2355	
15 minute summer	S12	1.007	S13	223.6	2.028	1.118	1.0709	
15 minute summer	S13	1.008	S15	235.3	2.134	1.442	3.6498	
15 minute summer	S14	4.000	S15	-14.9	0.465	-0.372	3.3909	
15 minute summer	S15	1.009	S16	218.0	1.976	1.542	2.9011	
15 minute summer	S16	1.010	S17	217.0	1.969	1.538	3.6367	
15 minute summer	S17	Flow through pond	S18	152.4	0.205	0.004	108.3857	
15 minute summer	S18	1.011	S19	11.4	0.713	0.286	0.2411	
15 minute summer	S19	Hydro-Brake®	Outfall	8.1				117.9

**Results for 100 year +30% CC +10% A 15 minute winter. 1455 minute analysis at 1 minute timestep. Mass balance: 99.75%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S1	10	136.814	0.931	37.3	1.8040	0.0000	SURCHARGED
15 minute winter	S2	11	136.252	1.080	35.4	1.1568	0.0000	SURCHARGED
15 minute winter	S3	10	135.900	1.080	52.9	1.4887	0.0000	SURCHARGED
15 minute winter	S4	10	135.021	0.621	75.3	1.2925	0.0000	SURCHARGED
15 minute winter	S5	10	134.682	0.932	85.9	1.6671	0.0000	SURCHARGED
15 minute winter	S6	10	134.664	0.786	63.1	2.4592	0.0000	SURCHARGED
15 minute winter	S7	10	134.359	0.919	127.8	1.6246	0.0000	SURCHARGED
15 minute winter	S8	10	134.290	0.908	173.0	2.5666	0.0000	SURCHARGED
15 minute winter	S9	11	136.822	1.369	31.0	2.0602	0.0000	SURCHARGED
15 minute winter	S10	11	136.666	1.587	58.9	3.2226	0.0000	FLOOD RISK
15 minute winter	S11	11	135.235	1.121	52.8	1.2078	0.0000	SURCHARGED
15 minute winter	S12	10	133.861	0.808	222.0	1.4582	0.0000	SURCHARGED
15 minute winter	S13	10	133.637	0.681	234.1	1.1645	0.0000	SURCHARGED
15 minute winter	S14	12	132.900	0.299	16.8	0.5109	0.0000	SURCHARGED
15 minute winter	S15	12	132.911	0.968	233.2	1.7106	0.0000	SURCHARGED
15 minute winter	S16	12	132.461	0.650	227.2	0.9301	0.0000	SURCHARGED
15 minute winter	S17	21	131.537	0.425	228.6	0.0000	0.0000	OK
15 minute winter	S18	22	131.537	0.537	144.1	0.0000	0.0000	SURCHARGED
15 minute winter	S19	19	131.538	0.574	10.8	1.0149	0.0000	SURCHARGED
15 minute winter	Outfall	1	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S1	1.000	S2	27.1	1.730	0.848	0.3902	
15 minute winter	S2	1.001	S3	32.4	1.839	0.869	0.1427	
15 minute winter	S3	1.002	S4	47.2	2.683	1.381	0.1656	
15 minute winter	S4	1.003	S5	69.3	1.807	0.642	0.6049	
15 minute winter	S5	1.004	S7	80.4	2.021	1.178	0.3707	
15 minute winter	S6	2.000	S7	49.4	1.405	0.942	1.1244	
15 minute winter	S7	1.005	S8	129.2	1.171	0.789	0.9518	
15 minute winter	S8	1.006	S12	170.4	1.545	1.045	5.4508	
15 minute winter	S9	3.000	S10	21.4	1.361	0.611	0.1708	
15 minute winter	S10	3.001	S11	44.6	2.536	1.098	0.3291	
15 minute winter	S11	3.002	S12	50.9	2.894	1.140	0.2355	
15 minute winter	S12	1.007	S13	221.0	2.004	1.105	1.0709	
15 minute winter	S13	1.008	S15	233.2	2.116	1.430	3.6465	
15 minute winter	S14	4.000	S15	12.9	0.475	0.323	3.3909	
15 minute winter	S15	1.009	S16	227.2	2.060	1.608	2.9011	
15 minute winter	S16	1.010	S17	228.6	2.074	1.620	3.6579	
15 minute winter	S17	Flow through pond	S18	144.1	0.232	0.004	122.4886	
15 minute winter	S18	1.011	S19	10.8	0.682	0.271	0.2411	
15 minute winter	S19	Hydro-Brake®	Outfall	8.1				132.2

**Results for 100 year +30% CC +10% A 30 minute summer. 1470 minute analysis at 1 minute timestep. Mass balance: 99.97%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	S1	18	136.556	0.673	35.3	1.3049	0.0000	SURCHARGED
30 minute summer	S2	18	136.038	0.866	34.7	0.9273	0.0000	SURCHARGED
30 minute summer	S3	18	135.693	0.873	50.6	1.2036	0.0000	SURCHARGED
30 minute summer	S4	18	134.843	0.443	74.0	0.9222	0.0000	SURCHARGED
30 minute summer	S5	18	134.523	0.773	84.4	1.3822	0.0000	SURCHARGED
30 minute summer	S6	17	134.459	0.581	59.7	1.8189	0.0000	SURCHARGED
30 minute summer	S7	18	134.213	0.773	121.1	1.3666	0.0000	SURCHARGED
30 minute summer	S8	18	134.149	0.767	164.5	2.1677	0.0000	SURCHARGED
30 minute summer	S9	18	136.529	1.076	29.3	1.6189	0.0000	SURCHARGED
30 minute summer	S10	18	136.383	1.304	55.7	2.6483	0.0000	SURCHARGED
30 minute summer	S11	18	135.049	0.936	50.5	1.0083	0.0000	SURCHARGED
30 minute summer	S12	18	133.774	0.721	210.4	1.3001	0.0000	SURCHARGED
30 minute summer	S13	18	133.570	0.614	221.3	1.0497	0.0000	SURCHARGED
30 minute summer	S14	19	132.798	0.198	14.9	0.3382	0.0000	OK
30 minute summer	S15	18	132.773	0.830	222.2	1.4668	0.0000	SURCHARGED
30 minute summer	S16	18	132.378	0.567	211.7	0.8119	0.0000	SURCHARGED
30 minute summer	S17	36	131.614	0.502	211.8	0.0000	0.0000	OK
30 minute summer	S18	36	131.614	0.613	122.9	0.0000	0.0000	SURCHARGED
30 minute summer	S19	36	131.612	0.648	9.6	1.1455	0.0000	SURCHARGED
30 minute summer	Outfall	1	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	S1	1.000	S2	27.1	1.736	0.848	0.3902	
30 minute summer	S2	1.001	S3	31.3	1.781	0.842	0.1427	
30 minute summer	S3	1.002	S4	46.3	2.629	1.353	0.1656	
30 minute summer	S4	1.003	S5	68.7	1.778	0.636	0.6049	
30 minute summer	S5	1.004	S7	76.9	1.933	1.127	0.3707	
30 minute summer	S6	2.000	S7	46.0	1.427	0.877	1.1244	
30 minute summer	S7	1.005	S8	122.7	1.153	0.749	0.9518	
30 minute summer	S8	1.006	S12	160.4	1.454	0.984	5.4508	
30 minute summer	S9	3.000	S10	18.8	1.357	0.536	0.1708	
30 minute summer	S10	3.001	S11	43.1	2.447	1.060	0.3291	
30 minute summer	S11	3.002	S12	48.8	2.774	1.093	0.2355	
30 minute summer	S12	1.007	S13	211.2	1.915	1.056	1.0709	
30 minute summer	S13	1.008	S15	222.2	2.016	1.362	3.6273	
30 minute summer	S14	4.000	S15	-11.4	0.481	-0.284	3.2753	
30 minute summer	S15	1.009	S16	211.7	1.920	1.498	2.9011	
30 minute summer	S16	1.010	S17	211.8	1.923	1.502	3.6272	
30 minute summer	S17	Flow through pond	S18	122.9	0.181	0.003	148.3806	
30 minute summer	S18	1.011	S19	9.6	0.623	0.240	0.2411	
30 minute summer	S19	Hydro-Brake®	Outfall	8.1				163.8

**Results for 100 year +30% CC +10% A 30 minute winter. 1470 minute analysis at 1 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	S1	18	136.239	0.356	27.7	0.6895	0.0000	SURCHARGED
30 minute winter	S2	18	135.747	0.575	31.5	0.6161	0.0000	SURCHARGED
30 minute winter	S3	18	135.419	0.599	45.8	0.8256	0.0000	SURCHARGED
30 minute winter	S4	18	134.604	0.204	66.0	0.4251	0.0000	OK
30 minute winter	S5	18	134.351	0.601	76.6	1.0744	0.0000	SURCHARGED
30 minute winter	S6	18	134.274	0.396	46.9	1.2388	0.0000	SURCHARGED
30 minute winter	S7	18	134.069	0.629	114.0	1.1109	0.0000	SURCHARGED
30 minute winter	S8	18	134.013	0.631	151.0	1.7841	0.0000	SURCHARGED
30 minute winter	S9	19	136.204	0.751	23.0	1.1307	0.0000	SURCHARGED
30 minute winter	S10	19	136.071	0.992	47.0	2.0154	0.0000	SURCHARGED
30 minute winter	S11	19	134.851	0.738	47.4	0.7952	0.0000	SURCHARGED
30 minute winter	S12	18	133.680	0.627	198.3	1.1308	0.0000	SURCHARGED
30 minute winter	S13	18	133.500	0.544	208.8	0.9304	0.0000	SURCHARGED
30 minute winter	S14	20	132.740	0.140	7.8	0.2395	0.0000	OK
30 minute winter	S15	18	132.709	0.766	208.4	1.3538	0.0000	SURCHARGED
30 minute winter	S16	18	132.342	0.531	203.8	0.7603	0.0000	SURCHARGED
30 minute winter	S17	35	131.670	0.558	203.4	0.0000	0.0000	OK
30 minute winter	S18	35	131.670	0.670	119.4	0.0000	0.0000	SURCHARGED
30 minute winter	S19	35	131.669	0.705	9.6	1.2460	0.0000	SURCHARGED
30 minute winter	Outfall	1	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute winter	S1	1.000	S2	25.0	1.732	0.783	0.3902	
30 minute winter	S2	1.001	S3	30.3	1.719	0.813	0.1427	
30 minute winter	S3	1.002	S4	45.3	2.574	1.325	0.1643	
30 minute winter	S4	1.003	S5	64.7	1.795	0.599	0.5908	
30 minute winter	S5	1.004	S7	73.8	1.857	1.082	0.3707	
30 minute winter	S6	2.000	S7	43.0	1.415	0.820	1.1244	
30 minute winter	S7	1.005	S8	114.1	1.178	0.696	0.9518	
30 minute winter	S8	1.006	S12	150.5	1.364	0.923	5.4508	
30 minute winter	S9	3.000	S10	18.6	1.362	0.531	0.1708	
30 minute winter	S10	3.001	S11	41.2	2.348	1.014	0.3291	
30 minute winter	S11	3.002	S12	46.9	2.666	1.050	0.2355	
30 minute winter	S12	1.007	S13	198.1	1.796	0.990	1.0709	
30 minute winter	S13	1.008	S15	208.4	1.893	1.278	3.6013	
30 minute winter	S14	4.000	S15	9.9	0.436	0.248	2.8057	
30 minute winter	S15	1.009	S16	203.8	1.848	1.442	2.9011	
30 minute winter	S16	1.010	S17	203.4	1.850	1.442	3.6060	
30 minute winter	S17	Flow through pond	S18	119.4	0.196	0.003	168.4316	
30 minute winter	S18	1.011	S19	9.6	0.651	0.240	0.2411	
30 minute winter	S19	Hydro-Brake®	Outfall	8.1				183.9

**Results for 100 year +30% CC +10% A 60 minute summer. 1500 minute analysis at 1 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	S1	32	135.998	0.115	25.0	0.2224	0.0000	OK
60 minute summer	S2	32	135.586	0.414	30.1	0.4438	0.0000	SURCHARGED
60 minute summer	S3	32	135.302	0.482	42.5	0.6643	0.0000	SURCHARGED
60 minute summer	S4	33	134.532	0.132	60.1	0.2742	0.0000	OK
60 minute summer	S5	33	134.122	0.372	69.9	0.6650	0.0000	SURCHARGED
60 minute summer	S6	31	134.038	0.160	42.4	0.5003	0.0000	OK
60 minute summer	S7	33	133.883	0.443	108.6	0.7829	0.0000	SURCHARGED
60 minute summer	S8	33	133.837	0.455	143.3	1.2856	0.0000	SURCHARGED
60 minute summer	S9	33	135.776	0.323	20.8	0.4856	0.0000	SURCHARGED
60 minute summer	S10	33	135.659	0.580	44.9	1.1784	0.0000	SURCHARGED
60 minute summer	S11	33	134.591	0.478	44.5	0.5146	0.0000	SURCHARGED
60 minute summer	S12	33	133.566	0.513	180.6	0.9252	0.0000	SURCHARGED
60 minute summer	S13	33	133.416	0.460	189.7	0.7873	0.0000	SURCHARGED
60 minute summer	S14	32	132.646	0.046	3.9	0.0777	0.0000	OK
60 minute summer	S15	34	132.613	0.670	193.3	1.1832	0.0000	SURCHARGED
60 minute summer	S16	34	132.291	0.480	191.1	0.6870	0.0000	SURCHARGED
60 minute summer	S17	65	131.728	0.616	191.2	0.0000	0.0000	OK
60 minute summer	S18	65	131.728	0.728	104.2	0.0000	0.0000	SURCHARGED
60 minute summer	S19	65	131.726	0.762	9.1	1.3472	0.0000	SURCHARGED
60 minute summer	Outfall	1	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	S1	1.000	S2	23.9	1.712	0.748	0.3554	
60 minute summer	S2	1.001	S3	28.2	1.599	0.756	0.1427	
60 minute summer	S3	1.002	S4	41.8	2.376	1.223	0.1655	
60 minute summer	S4	1.003	S5	59.5	1.795	0.551	0.4862	
60 minute summer	S5	1.004	S7	67.6	1.785	0.990	0.3707	
60 minute summer	S6	2.000	S7	41.6	1.417	0.793	0.9601	
60 minute summer	S7	1.005	S8	104.8	1.181	0.640	0.9518	
60 minute summer	S8	1.006	S12	135.8	1.296	0.833	5.4508	
60 minute summer	S9	3.000	S10	18.5	1.360	0.527	0.1708	
60 minute summer	S10	3.001	S11	38.5	2.342	0.948	0.3291	
60 minute summer	S11	3.002	S12	43.7	2.660	0.977	0.2355	
60 minute summer	S12	1.007	S13	180.7	1.639	0.904	1.0709	
60 minute summer	S13	1.008	S15	189.9	1.735	1.164	3.5475	
60 minute summer	S14	4.000	S15	3.6	0.416	0.091	1.9397	
60 minute summer	S15	1.009	S16	191.1	1.733	1.352	2.9011	
60 minute summer	S16	1.010	S17	191.2	1.746	1.356	3.5703	
60 minute summer	S17	Flow through pond	S18	104.2	0.151	0.003	189.8829	
60 minute summer	S18	1.011	S19	9.1	0.567	0.227	0.2411	
60 minute summer	S19	Hydro-Brake®	Outfall	8.1				217.6

**Results for 100 year +30% CC +10% A 60 minute winter. 1500 minute analysis at 1 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute winter	S1	30	135.966	0.083	18.6	0.1605	0.0000	OK
60 minute winter	S2	32	135.281	0.109	23.2	0.1166	0.0000	OK
60 minute winter	S3	32	135.083	0.263	34.3	0.3622	0.0000	<span style="color: orange;">SURCHARGED</span>
60 minute winter	S4	32	134.506	0.105	48.5	0.2194	0.0000	OK
60 minute winter	S5	32	133.935	0.185	56.7	0.3307	0.0000	OK
60 minute winter	S6	31	134.009	0.131	31.5	0.4107	0.0000	OK
60 minute winter	S7	32	133.683	0.243	87.9	0.4291	0.0000	OK
60 minute winter	S8	32	133.617	0.235	116.3	0.6641	0.0000	OK
60 minute winter	S9	31	135.524	0.071	15.5	0.1061	0.0000	OK
60 minute winter	S10	31	135.194	0.115	35.6	0.2330	0.0000	OK
60 minute winter	S11	31	134.240	0.127	40.4	0.1366	0.0000	OK
60 minute winter	S12	33	133.408	0.355	157.9	0.6405	0.0000	OK
60 minute winter	S13	33	133.304	0.348	164.9	0.5951	0.0000	OK
60 minute winter	S14	32	132.640	0.040	2.9	0.0685	0.0000	OK
60 minute winter	S15	34	132.436	0.493	167.5	0.8714	0.0000	<span style="color: orange;">SURCHARGED</span>
60 minute winter	S16	34	132.199	0.388	165.8	0.5555	0.0000	<span style="color: orange;">SURCHARGED</span>
60 minute winter	S17	64	131.794	0.682	165.9	0.0000	0.0000	OK
60 minute winter	S18	64	131.794	0.794	91.4	0.0000	0.0000	<span style="color: orange;">SURCHARGED</span>
60 minute winter	S19	64	131.793	0.829	8.9	1.4640	0.0000	<span style="color: orange;">SURCHARGED</span>
60 minute winter	Outfall	1	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute winter	S1	1.000	S2	18.6	1.715	0.582	0.2605	
60 minute winter	S2	1.001	S3	22.9	1.526	0.616	0.1269	
60 minute winter	S3	1.002	S4	34.1	2.019	0.998	0.1656	
60 minute winter	S4	1.003	S5	48.5	1.792	0.449	0.4044	
60 minute winter	S5	1.004	S7	56.7	1.762	0.831	0.2986	
60 minute winter	S6	2.000	S7	31.3	1.350	0.597	0.6567	
60 minute winter	S7	1.005	S8	88.0	1.192	0.537	0.6390	
60 minute winter	S8	1.006	S12	116.6	1.273	0.715	4.4595	
60 minute winter	S9	3.000	S10	15.5	1.356	0.441	0.1096	
60 minute winter	S10	3.001	S11	35.5	2.362	0.873	0.2836	
60 minute winter	S11	3.002	S12	40.4	2.673	0.904	0.2114	
60 minute winter	S12	1.007	S13	156.7	1.479	0.784	1.0426	
60 minute winter	S13	1.008	S15	164.7	1.637	1.010	3.3942	
60 minute winter	S14	4.000	S15	2.8	0.415	0.070	1.8994	
60 minute winter	S15	1.009	S16	165.8	1.503	1.173	2.9011	
60 minute winter	S16	1.010	S17	165.9	1.579	1.176	3.4775	
60 minute winter	S17	Flow through pond	S18	91.4	0.180	0.002	215.6276	
60 minute winter	S18	1.011	S19	8.9	0.550	0.224	0.2411	
60 minute winter	S19	Hydro-Brake®	Outfall	8.1				244.0

**Results for 100 year +30% CC +10% A 120 minute summer. 1560 minute analysis at 2 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	S1	62	135.960	0.077	16.1	0.1493	0.0000	OK
120 minute summer	S2	62	135.255	0.083	20.1	0.0887	0.0000	OK
120 minute summer	S3	62	134.948	0.128	30.0	0.1765	0.0000	OK
120 minute summer	S4	62	134.498	0.098	42.6	0.2031	0.0000	OK
120 minute summer	S5	62	133.916	0.165	49.8	0.2960	0.0000	OK
120 minute summer	S6	62	133.998	0.120	27.2	0.3748	0.0000	OK
120 minute summer	S7	62	133.662	0.222	77.0	0.3919	0.0000	OK
120 minute summer	S8	62	133.599	0.217	101.7	0.6131	0.0000	OK
120 minute summer	S9	62	135.517	0.064	13.3	0.0965	0.0000	OK
120 minute summer	S10	62	135.181	0.102	30.6	0.2064	0.0000	OK
120 minute summer	S11	62	134.223	0.110	34.8	0.1187	0.0000	OK
120 minute summer	S12	62	133.353	0.300	137.7	0.5407	0.0000	OK
120 minute summer	S13	62	133.252	0.296	144.6	0.5055	0.0000	OK
120 minute summer	S14	62	132.638	0.038	2.5	0.0641	0.0000	OK
120 minute summer	S15	64	132.300	0.357	146.5	0.6311	0.0000	OK
120 minute summer	S16	64	132.127	0.316	143.9	0.4527	0.0000	OK
120 minute summer	S17	124	131.818	0.706	145.4	0.0000	0.0000	OK
120 minute summer	S18	124	131.818	0.818	78.8	0.0000	0.0000	<b>SURCHARGED</b>
120 minute summer	S19	124	131.816	0.852	8.6	1.5054	0.0000	<b>SURCHARGED</b>
120 minute summer	Outfall	2	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute summer	S1	1.000	S2	16.1	1.688	0.504	0.2115	
120 minute summer	S2	1.001	S3	20.1	1.527	0.540	0.1053	
120 minute summer	S3	1.002	S4	30.0	2.011	0.877	0.1397	
120 minute summer	S4	1.003	S5	42.6	1.768	0.394	0.3636	
120 minute summer	S5	1.004	S7	49.8	1.727	0.730	0.2683	
120 minute summer	S6	2.000	S7	27.2	1.307	0.519	0.5885	
120 minute summer	S7	1.005	S8	77.0	1.151	0.470	0.5774	
120 minute summer	S8	1.006	S12	101.9	1.259	0.625	3.9643	
120 minute summer	S9	3.000	S10	13.3	1.333	0.379	0.0965	
120 minute summer	S10	3.001	S11	30.6	2.301	0.753	0.2484	
120 minute summer	S11	3.002	S12	34.8	2.645	0.779	0.1758	
120 minute summer	S12	1.007	S13	137.4	1.465	0.687	0.9109	
120 minute summer	S13	1.008	S15	144.1	1.623	0.883	2.9968	
120 minute summer	S14	4.000	S15	2.5	0.422	0.061	1.8130	
120 minute summer	S15	1.009	S16	143.9	1.391	1.018	2.7298	
120 minute summer	S16	1.010	S17	145.4	1.543	1.031	3.1942	
120 minute summer	S17	Flow through pond	S18	78.8	0.127	0.002	224.9984	
120 minute summer	S18	1.011	S19	8.6	0.453	0.216	0.2411	
120 minute summer	S19	Hydro-Brake®	Outfall	8.1				278.6

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**Results for 100 year +30% CC +10% A 120 minute winter. 1560 minute analysis at 2 minute timestep. Mass balance: 100.00%**

Node Event	US	Peak	Level	Depth	Inflow	Node	Flood	Status
	Node	(mins)	(m)	(m)	(l/s)	Vol (m³)	(m³)	
120 minute winter	S1	62	135.948	0.065	11.9	0.1253	0.0000	OK
120 minute winter	S2	62	135.240	0.068	14.8	0.0725	0.0000	OK
120 minute winter	S3	62	134.918	0.098	22.2	0.1354	0.0000	OK
120 minute winter	S4	62	134.483	0.083	31.6	0.1726	0.0000	OK
120 minute winter	S5	62	133.883	0.133	36.9	0.2385	0.0000	OK
120 minute winter	S6	62	133.978	0.100	20.2	0.3135	0.0000	OK
120 minute winter	S7	62	133.623	0.183	57.1	0.3225	0.0000	OK
120 minute winter	S8	62	133.564	0.182	75.5	0.5139	0.0000	OK
120 minute winter	S9	62	135.508	0.055	9.9	0.0821	0.0000	OK
120 minute winter	S10	62	135.162	0.083	22.8	0.1689	0.0000	OK
120 minute winter	S11	62	134.202	0.088	25.9	0.0953	0.0000	OK
120 minute winter	S12	62	133.288	0.235	102.1	0.4244	0.0000	OK
120 minute winter	S13	62	133.192	0.236	107.4	0.4034	0.0000	OK
120 minute winter	S14	64	132.632	0.032	1.8	0.0551	0.0000	OK
120 minute winter	S15	62	132.213	0.270	109.2	0.4770	0.0000	OK
120 minute winter	S16	64	132.063	0.252	108.9	0.3606	0.0000	OK
120 minute winter	S17	122	131.897	0.785	109.0	0.0000	0.0000	OK
120 minute winter	S18	122	131.897	0.897	60.0	0.0000	0.0000	<b>SURCHARGED</b>
120 minute winter	S19	122	131.895	0.931	8.5	1.6454	0.0000	<b>SURCHARGED</b>
120 minute winter	Outfall	2	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US	Link	DS	Outflow	Velocity	Flow/Cap	Link	Discharge
	Node		Node	(l/s)	(m/s)		Vol (m³)	Vol (m³)
120 minute winter	S1	1.000	S2	11.9	1.589	0.372	0.1660	
120 minute winter	S2	1.001	S3	14.8	1.482	0.397	0.0808	
120 minute winter	S3	1.002	S4	22.2	1.934	0.649	0.1080	
120 minute winter	S4	1.003	S5	31.6	1.676	0.293	0.2872	
120 minute winter	S5	1.004	S7	36.9	1.628	0.541	0.2113	
120 minute winter	S6	2.000	S7	20.2	1.216	0.385	0.4698	
120 minute winter	S7	1.005	S8	57.1	1.076	0.349	0.4578	
120 minute winter	S8	1.006	S12	75.5	1.201	0.463	3.1047	
120 minute winter	S9	3.000	S10	9.9	1.256	0.282	0.0767	
120 minute winter	S10	3.001	S11	22.8	2.190	0.561	0.1946	
120 minute winter	S11	3.002	S12	25.9	2.508	0.580	0.1382	
120 minute winter	S12	1.007	S13	102.1	1.401	0.511	0.7075	
120 minute winter	S13	1.008	S15	107.4	1.540	0.658	2.3563	
120 minute winter	S14	4.000	S15	1.8	0.415	0.045	1.0751	
120 minute winter	S15	1.009	S16	108.9	1.332	0.770	2.1505	
120 minute winter	S16	1.010	S17	109.0	1.416	0.773	2.6155	
120 minute winter	S17	Flow through pond	S18	60.0	0.129	0.001	258.0590	
120 minute winter	S18	1.011	S19	8.5	0.508	0.213	0.2411	
120 minute winter	S19	Hydro-Brake®	Outfall	8.1				313.0

**Results for 100 year +30% CC +10% A 180 minute summer. 1620 minute analysis at 4 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute summer	S1	92	135.949	0.066	12.5	0.1285	0.0000	OK
180 minute summer	S2	92	135.242	0.070	15.5	0.0746	0.0000	OK
180 minute summer	S3	92	134.921	0.101	23.1	0.1391	0.0000	OK
180 minute summer	S4	92	134.485	0.085	32.8	0.1758	0.0000	OK
180 minute summer	S5	92	133.886	0.136	38.3	0.2437	0.0000	OK
180 minute summer	S6	92	133.980	0.102	21.2	0.3203	0.0000	OK
180 minute summer	S7	92	133.626	0.186	58.9	0.3288	0.0000	OK
180 minute summer	S8	92	133.567	0.185	77.9	0.5228	0.0000	OK
180 minute summer	S9	92	135.509	0.056	10.4	0.0841	0.0000	OK
180 minute summer	S10	92	135.164	0.085	23.9	0.1735	0.0000	OK
180 minute summer	S11	92	134.204	0.091	27.0	0.0978	0.0000	OK
180 minute summer	S12	92	133.291	0.238	104.8	0.4287	0.0000	OK
180 minute summer	S13	92	133.193	0.237	109.1	0.4055	0.0000	OK
180 minute summer	S14	92	132.633	0.033	1.9	0.0556	0.0000	OK
180 minute summer	S15	92	132.210	0.267	109.4	0.4725	0.0000	OK
180 minute summer	S16	96	132.061	0.250	107.5	0.3577	0.0000	OK
180 minute summer	S17	184	131.851	0.739	108.4	0.0000	0.0000	OK
180 minute summer	S18	184	131.851	0.851	59.3	0.0000	0.0000	<b>SURCHARGED</b>
180 minute summer	S19	184	131.849	0.885	8.4	1.5635	0.0000	<b>SURCHARGED</b>
180 minute summer	Outfall	4	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute summer	S1	1.000	S2	12.4	1.602	0.389	0.1719	
180 minute summer	S2	1.001	S3	15.4	1.494	0.415	0.0835	
180 minute summer	S3	1.002	S4	23.0	1.945	0.673	0.1112	
180 minute summer	S4	1.003	S5	32.7	1.690	0.303	0.2946	
180 minute summer	S5	1.004	S7	38.0	1.636	0.557	0.2165	
180 minute summer	S6	2.000	S7	20.9	1.224	0.398	0.4822	
180 minute summer	S7	1.005	S8	58.7	1.080	0.358	0.4686	
180 minute summer	S8	1.006	S12	77.1	1.206	0.473	3.1553	
180 minute summer	S9	3.000	S10	10.4	1.271	0.296	0.0793	
180 minute summer	S10	3.001	S11	23.7	2.207	0.584	0.2011	
180 minute summer	S11	3.002	S12	26.9	2.525	0.601	0.1424	
180 minute summer	S12	1.007	S13	103.5	1.408	0.518	0.7139	
180 minute summer	S13	1.008	S15	107.6	1.537	0.660	2.3657	
180 minute summer	S14	4.000	S15	1.8	0.406	0.046	1.0528	
180 minute summer	S15	1.009	S16	107.5	1.333	0.760	2.1199	
180 minute summer	S16	1.010	S17	108.4	1.418	0.768	2.5973	
180 minute summer	S17	Flow through pond	S18	59.3	0.097	0.001	238.5314	
180 minute summer	S18	1.011	S19	8.4	0.403	0.211	0.2411	
180 minute summer	S19	Hydro-Brake®	Outfall	8.1				317.7

<b>TWEDDELL &amp; SLATER</b> <small>CONSULTING CIVIL &amp; STRUCTURAL ENGINEERS</small>	Tweddell & Slater Ltd Unit 2 Mereside Eden Business Park Penrith, CA11 9FB	File: Surface Water Calculations 16.0 Network: Storm Network Andrew Carr 16/06/2021	Page 65 Residential Development at School Brow, Moresby Parks Surface Water Calculations
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**Results for 100 year +30% CC +10% A 180 minute winter. 1620 minute analysis at 4 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute winter	S1	92	135.939	0.056	9.1	0.1080	0.0000	OK
180 minute winter	S2	92	135.230	0.058	11.3	0.0616	0.0000	OK
180 minute winter	S3	92	134.901	0.081	16.9	0.1121	0.0000	OK
180 minute winter	S4	92	134.472	0.072	24.1	0.1495	0.0000	OK
180 minute winter	S5	92	133.862	0.112	28.2	0.2002	0.0000	OK
180 minute winter	S6	92	133.964	0.086	15.4	0.2683	0.0000	OK
180 minute winter	S7	92	133.594	0.154	43.5	0.2725	0.0000	OK
180 minute winter	S8	92	133.538	0.156	57.4	0.4402	0.0000	OK
180 minute winter	S9	92	135.501	0.047	7.6	0.0714	0.0000	OK
180 minute winter	S10	92	135.149	0.070	17.4	0.1431	0.0000	OK
180 minute winter	S11	92	134.187	0.074	19.8	0.0801	0.0000	OK
180 minute winter	S12	92	133.247	0.194	77.7	0.3507	0.0000	OK
180 minute winter	S13	92	133.153	0.197	81.6	0.3373	0.0000	OK
180 minute winter	S14	96	132.629	0.029	1.4	0.0489	0.0000	OK
180 minute winter	S15	92	132.164	0.221	82.8	0.3902	0.0000	OK
180 minute winter	S16	96	132.020	0.209	82.6	0.2995	0.0000	OK
180 minute winter	S17	180	131.937	0.825	82.7	0.0000	0.0000	OK
180 minute winter	S18	180	131.937	0.937	46.1	0.0000	0.0000	<b>SURCHARGED</b>
180 minute winter	S19	180	131.935	0.971	8.4	1.7154	0.0000	<b>SURCHARGED</b>
180 minute winter	Outfall	4	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute winter	S1	1.000	S2	9.1	1.494	0.284	0.1349	
180 minute winter	S2	1.001	S3	11.3	1.415	0.303	0.0647	
180 minute winter	S3	1.002	S4	16.9	1.827	0.493	0.0869	
180 minute winter	S4	1.003	S5	24.1	1.580	0.223	0.2328	
180 minute winter	S5	1.004	S7	28.1	1.532	0.412	0.1712	
180 minute winter	S6	2.000	S7	15.4	1.133	0.293	0.3832	
180 minute winter	S7	1.005	S8	43.4	1.012	0.265	0.3706	
180 minute winter	S8	1.006	S12	57.3	1.138	0.352	2.4923	
180 minute winter	S9	3.000	S10	7.6	1.183	0.217	0.0626	
180 minute winter	S10	3.001	S11	17.4	2.066	0.428	0.1573	
180 minute winter	S11	3.002	S12	19.8	2.361	0.442	0.1120	
180 minute winter	S12	1.007	S13	77.5	1.332	0.388	0.5649	
180 minute winter	S13	1.008	S15	81.4	1.447	0.499	1.9024	
180 minute winter	S14	4.000	S15	1.4	0.417	0.035	0.5896	
180 minute winter	S15	1.009	S16	82.6	1.265	0.584	1.7179	
180 minute winter	S16	1.010	S17	82.7	1.335	0.586	2.1306	
180 minute winter	S17	Flow through pond	S18	46.1	0.092	0.001	275.1685	
180 minute winter	S18	1.011	S19	8.4	0.469	0.210	0.2411	
180 minute winter	S19	Hydro-Brake®	Outfall	8.1				356.3

**Results for 100 year +30% CC +10% A 240 minute summer. 1680 minute analysis at 4 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute summer	S1	124	135.942	0.059	10.0	0.1137	0.0000	OK
240 minute summer	S2	124	135.233	0.061	12.5	0.0655	0.0000	OK
240 minute summer	S3	124	134.907	0.087	18.6	0.1196	0.0000	OK
240 minute summer	S4	124	134.475	0.075	26.4	0.1569	0.0000	OK
240 minute summer	S5	124	133.869	0.118	30.8	0.2119	0.0000	OK
240 minute summer	S6	124	133.968	0.090	16.9	0.2831	0.0000	OK
240 minute summer	S7	124	133.603	0.163	47.7	0.2884	0.0000	OK
240 minute summer	S8	124	133.546	0.164	63.0	0.4638	0.0000	OK
240 minute summer	S9	124	135.503	0.050	8.3	0.0748	0.0000	OK
240 minute summer	S10	124	135.153	0.074	19.0	0.1509	0.0000	OK
240 minute summer	S11	124	134.192	0.079	21.6	0.0846	0.0000	OK
240 minute summer	S12	124	133.260	0.207	85.2	0.3736	0.0000	OK
240 minute summer	S13	124	133.165	0.209	89.6	0.3580	0.0000	OK
240 minute summer	S14	124	132.630	0.030	1.5	0.0505	0.0000	OK
240 minute summer	S15	124	132.179	0.236	91.1	0.4173	0.0000	OK
240 minute summer	S16	124	132.034	0.223	91.1	0.3189	0.0000	OK
240 minute summer	S17	240	131.858	0.746	91.1	0.0000	0.0000	OK
240 minute summer	S18	240	131.858	0.858	50.6	0.0000	0.0000	<b>SURCHARGED</b>
240 minute summer	S19	240	131.856	0.892	8.4	1.5767	0.0000	<b>SURCHARGED</b>
240 minute summer	Outfall	4	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute summer	S1	1.000	S2	10.0	1.524	0.313	0.1455	
240 minute summer	S2	1.001	S3	12.5	1.446	0.336	0.0701	
240 minute summer	S3	1.002	S4	18.6	1.867	0.544	0.0938	
240 minute summer	S4	1.003	S5	26.4	1.614	0.244	0.2498	
240 minute summer	S5	1.004	S7	30.8	1.564	0.451	0.1836	
240 minute summer	S6	2.000	S7	16.9	1.162	0.322	0.4114	
240 minute summer	S7	1.005	S8	47.7	1.034	0.291	0.3982	
240 minute summer	S8	1.006	S12	63.0	1.160	0.387	2.6857	
240 minute summer	S9	3.000	S10	8.3	1.209	0.237	0.0669	
240 minute summer	S10	3.001	S11	19.0	2.107	0.467	0.1685	
240 minute summer	S11	3.002	S12	21.6	2.410	0.483	0.1199	
240 minute summer	S12	1.007	S13	85.2	1.357	0.426	0.6099	
240 minute summer	S13	1.008	S15	89.6	1.480	0.549	2.0467	
240 minute summer	S14	4.000	S15	1.5	0.416	0.037	0.7359	
240 minute summer	S15	1.009	S16	91.1	1.289	0.645	1.8585	
240 minute summer	S16	1.010	S17	91.1	1.364	0.646	2.2688	
240 minute summer	S17	Flow through pond	S18	50.6	0.073	0.001	241.6280	
240 minute summer	S18	1.011	S19	8.4	0.409	0.210	0.2411	
240 minute summer	S19	Hydro-Brake®	Outfall	8.1				345.8

**Results for 100 year +30% CC +10% A 240 minute winter. 1680 minute analysis at 4 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	S1	124	135.933	0.050	7.4	0.0967	0.0000	OK
240 minute winter	S2	124	135.223	0.051	9.2	0.0548	0.0000	OK
240 minute winter	S3	124	134.892	0.072	13.8	0.0988	0.0000	OK
240 minute winter	S4	124	134.465	0.065	19.6	0.1345	0.0000	OK
240 minute winter	S5	124	133.849	0.099	22.9	0.1766	0.0000	OK
240 minute winter	S6	124	133.955	0.077	12.6	0.2407	0.0000	OK
240 minute winter	S7	124	133.577	0.137	35.5	0.2412	0.0000	OK
240 minute winter	S8	124	133.521	0.139	46.9	0.3923	0.0000	OK
240 minute winter	S9	124	135.496	0.043	6.2	0.0643	0.0000	OK
240 minute winter	S10	124	135.142	0.063	14.2	0.1273	0.0000	OK
240 minute winter	S11	124	134.179	0.066	16.1	0.0708	0.0000	OK
240 minute winter	S12	124	133.224	0.171	63.5	0.3080	0.0000	OK
240 minute winter	S13	124	133.131	0.175	66.8	0.2990	0.0000	OK
240 minute winter	S14	128	132.626	0.026	1.1	0.0437	0.0000	OK
240 minute winter	S15	124	132.137	0.194	67.9	0.3436	0.0000	OK
240 minute winter	S16	124	131.997	0.186	67.9	0.2658	0.0000	OK
240 minute winter	S17	236	131.952	0.840	67.9	0.0000	0.0000	OK
240 minute winter	S18	236	131.952	0.952	38.4	0.0000	0.0000	<b>SURCHARGED</b>
240 minute winter	S19	236	131.950	0.986	8.3	1.7421	0.0000	<b>SURCHARGED</b>
240 minute winter	Outfall	4	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute winter	S1	1.000	S2	7.4	1.420	0.231	0.1155	
240 minute winter	S2	1.001	S3	9.2	1.356	0.247	0.0551	
240 minute winter	S3	1.002	S4	13.8	1.746	0.404	0.0744	
240 minute winter	S4	1.003	S5	19.6	1.508	0.181	0.1989	
240 minute winter	S5	1.004	S7	22.9	1.460	0.336	0.1463	
240 minute winter	S6	2.000	S7	12.6	1.075	0.240	0.3315	
240 minute winter	S7	1.005	S8	35.5	0.970	0.217	0.3160	
240 minute winter	S8	1.006	S12	46.9	1.094	0.288	2.1203	
240 minute winter	S9	3.000	S10	6.2	1.123	0.177	0.0539	
240 minute winter	S10	3.001	S11	14.2	1.974	0.349	0.1345	
240 minute winter	S11	3.002	S12	16.1	2.247	0.360	0.0959	
240 minute winter	S12	1.007	S13	63.5	1.281	0.318	0.4812	
240 minute winter	S13	1.008	S15	66.8	1.380	0.410	1.6363	
240 minute winter	S14	4.000	S15	1.1	0.417	0.028	0.3492	
240 minute winter	S15	1.009	S16	67.9	1.212	0.480	1.4741	
240 minute winter	S16	1.010	S17	67.9	1.273	0.481	2.3014	
240 minute winter	S17	Flow through pond	S18	38.4	0.102	0.001	281.9190	
240 minute winter	S18	1.011	S19	8.3	0.398	0.208	0.2411	
240 minute winter	S19	Hydro-Brake®	Outfall	8.1				388.5

**Results for 100 year +30% CC +10% A 360 minute summer. 10080 minute analysis at 8 minute timestep. Mass balance: 100.00**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute summer	S1	184	135.934	0.051	7.6	0.0979	0.0000	OK
360 minute summer	S2	184	135.224	0.052	9.5	0.0557	0.0000	OK
360 minute summer	S3	184	134.893	0.073	14.1	0.1002	0.0000	OK
360 minute summer	S4	184	134.466	0.065	20.1	0.1361	0.0000	OK
360 minute summer	S5	184	133.850	0.100	23.5	0.1789	0.0000	OK
360 minute summer	S6	184	133.956	0.078	12.9	0.2429	0.0000	OK
360 minute summer	S7	184	133.578	0.138	36.2	0.2438	0.0000	OK
360 minute summer	S8	184	133.522	0.140	47.8	0.3958	0.0000	OK
360 minute summer	S9	184	135.496	0.043	6.3	0.0648	0.0000	OK
360 minute summer	S10	184	135.142	0.063	14.5	0.1286	0.0000	OK
360 minute summer	S11	184	134.180	0.066	16.4	0.0716	0.0000	OK
360 minute summer	S12	184	133.225	0.172	64.4	0.3096	0.0000	OK
360 minute summer	S13	184	133.131	0.175	67.4	0.2997	0.0000	OK
360 minute summer	S14	184	132.626	0.026	1.2	0.0448	0.0000	OK
360 minute summer	S15	184	132.137	0.194	68.1	0.3429	0.0000	OK
360 minute summer	S16	184	131.996	0.185	67.6	0.2641	0.0000	OK
360 minute summer	S17	304	131.850	0.738	66.9	0.0000	0.0000	OK
360 minute summer	S18	304	131.850	0.850	38.2	0.0000	0.0000	<b>SURCHARGED</b>
360 minute summer	S19	304	131.848	0.884	8.3	1.5628	0.0000	<b>SURCHARGED</b>
360 minute summer	Outfall	8	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute summer	S1	1.000	S2	7.6	1.426	0.237	0.1178	
360 minute summer	S2	1.001	S3	9.4	1.366	0.254	0.0562	
360 minute summer	S3	1.002	S4	14.1	1.754	0.412	0.0757	
360 minute summer	S4	1.003	S5	20.1	1.518	0.186	0.2023	
360 minute summer	S5	1.004	S7	23.4	1.466	0.343	0.1487	
360 minute summer	S6	2.000	S7	12.8	1.079	0.244	0.3354	
360 minute summer	S7	1.005	S8	36.1	0.973	0.220	0.3202	
360 minute summer	S8	1.006	S12	47.5	1.098	0.291	2.1397	
360 minute summer	S9	3.000	S10	6.3	1.125	0.179	0.0545	
360 minute summer	S10	3.001	S11	14.4	1.980	0.355	0.1364	
360 minute summer	S11	3.002	S12	16.4	2.257	0.367	0.0972	
360 minute summer	S12	1.007	S13	64.0	1.285	0.320	0.4836	
360 minute summer	S13	1.008	S15	66.9	1.379	0.410	1.6399	
360 minute summer	S14	4.000	S15	1.2	0.411	0.029	0.3505	
360 minute summer	S15	1.009	S16	67.6	1.212	0.478	1.4664	
360 minute summer	S16	1.010	S17	66.9	1.267	0.475	1.7963	
360 minute summer	S17	Flow through pond	S18	38.2	0.043	0.001	238.3654	
360 minute summer	S18	1.011	S19	8.3	0.385	0.208	0.2411	
360 minute summer	S19	Hydro-Brake®	Outfall	8.1				386.4

**Results for 100 year +30% CC +10% A 360 minute winter. 10080 minute analysis at 8 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	S1	184	135.926	0.043	5.6	0.0835	0.0000	OK
360 minute winter	S2	184	135.216	0.044	7.0	0.0472	0.0000	OK
360 minute winter	S3	184	134.881	0.061	10.4	0.0834	0.0000	OK
360 minute winter	S4	184	134.456	0.056	14.8	0.1165	0.0000	OK
360 minute winter	S5	184	133.834	0.084	17.3	0.1496	0.0000	OK
360 minute winter	S6	184	133.944	0.066	9.4	0.2056	0.0000	OK
360 minute winter	S7	184	133.555	0.115	26.6	0.2038	0.0000	OK
360 minute winter	S8	184	133.500	0.118	35.1	0.3337	0.0000	OK
360 minute winter	S9	184	135.490	0.037	4.6	0.0553	0.0000	OK
360 minute winter	S10	184	135.132	0.053	10.6	0.1082	0.0000	OK
360 minute winter	S11	184	134.169	0.056	12.1	0.0601	0.0000	OK
360 minute winter	S12	184	133.195	0.142	47.4	0.2567	0.0000	OK
360 minute winter	S13	184	133.104	0.148	49.9	0.2523	0.0000	OK
360 minute winter	S14	184	132.623	0.023	0.9	0.0391	0.0000	OK
360 minute winter	S15	184	132.106	0.163	50.6	0.2880	0.0000	OK
360 minute winter	S16	184	131.968	0.157	50.6	0.2241	0.0000	OK
360 minute winter	S17	344	131.948	0.836	50.5	0.0000	0.0000	OK
360 minute winter	S18	344	131.948	0.948	29.4	0.0000	0.0000	<b>SURCHARGED</b>
360 minute winter	S19	344	131.946	0.982	8.3	1.7347	0.0000	<b>SURCHARGED</b>
360 minute winter	Outfall	8	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute winter	S1	1.000	S2	5.6	1.319	0.175	0.0940	
360 minute winter	S2	1.001	S3	7.0	1.280	0.188	0.0444	
360 minute winter	S3	1.002	S4	10.4	1.629	0.303	0.0599	
360 minute winter	S4	1.003	S5	14.8	1.410	0.137	0.1606	
360 minute winter	S5	1.004	S7	17.2	1.362	0.253	0.1181	
360 minute winter	S6	2.000	S7	9.4	0.992	0.179	0.2673	
360 minute winter	S7	1.005	S8	26.6	0.912	0.162	0.2519	
360 minute winter	S8	1.006	S12	35.1	1.033	0.215	1.6797	
360 minute winter	S9	3.000	S10	4.6	1.036	0.131	0.0434	
360 minute winter	S10	3.001	S11	10.6	1.833	0.261	0.1080	
360 minute winter	S11	3.002	S12	12.1	2.090	0.270	0.0774	
360 minute winter	S12	1.007	S13	47.4	1.206	0.237	0.3813	
360 minute winter	S13	1.008	S15	49.8	1.281	0.305	1.3132	
360 minute winter	S14	4.000	S15	0.9	0.412	0.022	0.1793	
360 minute winter	S15	1.009	S16	50.6	1.131	0.358	1.1768	
360 minute winter	S16	1.010	S17	50.5	1.180	0.358	2.2577	
360 minute winter	S17	Flow through pond	S18	29.4	0.064	0.001	280.0414	
360 minute winter	S18	1.011	S19	8.3	0.391	0.207	0.2411	
360 minute winter	S19	Hydro-Brake®	Outfall	8.1				435.0

**Results for 100 year +30% CC +10% A 480 minute summer. 1920 minute analysis at 8 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute summer	S1	248	135.928	0.045	6.0	0.0866	0.0000	OK
480 minute summer	S2	248	135.218	0.046	7.5	0.0490	0.0000	OK
480 minute summer	S3	248	134.883	0.063	11.2	0.0872	0.0000	OK
480 minute summer	S4	248	134.458	0.058	15.9	0.1209	0.0000	OK
480 minute summer	S5	248	133.837	0.087	18.6	0.1563	0.0000	OK
480 minute summer	S6	248	133.947	0.069	10.2	0.2149	0.0000	OK
480 minute summer	S7	248	133.561	0.121	28.8	0.2134	0.0000	OK
480 minute summer	S8	248	133.506	0.123	38.1	0.3492	0.0000	OK
480 minute summer	S9	248	135.491	0.038	5.0	0.0577	0.0000	OK
480 minute summer	S10	248	135.135	0.056	11.5	0.1131	0.0000	OK
480 minute summer	S11	248	134.171	0.058	13.1	0.0629	0.0000	OK
480 minute summer	S12	248	133.203	0.150	51.6	0.2705	0.0000	OK
480 minute summer	S13	248	133.111	0.155	54.3	0.2650	0.0000	OK
480 minute summer	S14	248	132.623	0.023	0.9	0.0398	0.0000	OK
480 minute summer	S15	248	132.115	0.172	55.2	0.3031	0.0000	OK
480 minute summer	S16	248	131.976	0.165	55.2	0.2356	0.0000	OK
480 minute summer	S17	368	131.840	0.728	55.2	0.0000	0.0000	OK
480 minute summer	S18	368	131.840	0.840	32.0	0.0000	0.0000	<b>SURCHARGED</b>
480 minute summer	S19	368	131.838	0.874	8.3	1.5439	0.0000	<b>SURCHARGED</b>
480 minute summer	Outfall	8	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
480 minute summer	S1	1.000	S2	6.0	1.344	0.188	0.0989	
480 minute summer	S2	1.001	S3	7.5	1.299	0.201	0.0470	
480 minute summer	S3	1.002	S4	11.2	1.660	0.328	0.0635	
480 minute summer	S4	1.003	S5	15.9	1.434	0.147	0.1699	
480 minute summer	S5	1.004	S7	18.6	1.388	0.273	0.1250	
480 minute summer	S6	2.000	S7	10.2	1.015	0.194	0.2841	
480 minute summer	S7	1.005	S8	28.8	0.926	0.176	0.2684	
480 minute summer	S8	1.006	S12	38.1	1.050	0.234	1.7959	
480 minute summer	S9	3.000	S10	5.0	1.061	0.143	0.0461	
480 minute summer	S10	3.001	S11	11.5	1.873	0.283	0.1148	
480 minute summer	S11	3.002	S12	13.1	2.134	0.293	0.0821	
480 minute summer	S12	1.007	S13	51.6	1.228	0.258	0.4081	
480 minute summer	S13	1.008	S15	54.3	1.310	0.333	1.4011	
480 minute summer	S14	4.000	S15	0.9	0.417	0.022	0.1838	
480 minute summer	S15	1.009	S16	55.2	1.154	0.391	1.2579	
480 minute summer	S16	1.010	S17	55.2	1.208	0.391	1.5533	
480 minute summer	S17	Flow through pond	S18	32.0	0.045	0.001	233.9128	
480 minute summer	S18	1.011	S19	8.3	0.380	0.207	0.2411	
480 minute summer	S19	Hydro-Brake®	Outfall	8.1				417.6

**Results for 100 year +30% CC +10% A 480 minute winter. 1920 minute analysis at 8 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute winter	S1	248	135.922	0.038	4.5	0.0746	0.0000	OK
480 minute winter	S2	248	135.211	0.039	5.6	0.0422	0.0000	OK
480 minute winter	S3	248	134.874	0.054	8.4	0.0739	0.0000	OK
480 minute winter	S4	248	134.450	0.050	11.9	0.1046	0.0000	OK
480 minute winter	S5	248	133.824	0.074	13.9	0.1325	0.0000	OK
480 minute winter	S6	248	133.937	0.059	7.6	0.1842	0.0000	OK
480 minute winter	S7	248	133.542	0.102	21.5	0.1805	0.0000	OK
480 minute winter	S8	248	133.487	0.105	28.4	0.2979	0.0000	OK
480 minute winter	S9	248	135.486	0.033	3.7	0.0496	0.0000	OK
480 minute winter	S10	248	135.126	0.047	8.5	0.0961	0.0000	OK
480 minute winter	S11	248	134.162	0.049	9.7	0.0532	0.0000	OK
480 minute winter	S12	248	133.179	0.126	38.4	0.2265	0.0000	OK
480 minute winter	S13	248	133.087	0.131	40.4	0.2245	0.0000	OK
480 minute winter	S14	256	132.621	0.021	0.7	0.0353	0.0000	OK
480 minute winter	S15	248	132.088	0.145	41.1	0.2556	0.0000	OK
480 minute winter	S16	248	131.951	0.140	41.1	0.1999	0.0000	OK
480 minute winter	S17	392	131.932	0.820	41.1	0.0000	0.0000	OK
480 minute winter	S18	392	131.932	0.932	24.6	0.0000	0.0000	<b>SURCHARGED</b>
480 minute winter	S19	392	131.930	0.966	8.2	1.7076	0.0000	<b>SURCHARGED</b>
480 minute winter	Outfall	8	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
480 minute winter	S1	1.000	S2	4.5	1.243	0.141	0.0803	
480 minute winter	S2	1.001	S3	5.6	1.206	0.150	0.0378	
480 minute winter	S3	1.002	S4	8.4	1.544	0.246	0.0512	
480 minute winter	S4	1.003	S5	11.9	1.336	0.110	0.1366	
480 minute winter	S5	1.004	S7	13.9	1.289	0.204	0.1005	
480 minute winter	S6	2.000	S7	7.6	0.936	0.145	0.2296	
480 minute winter	S7	1.005	S8	21.5	0.867	0.131	0.2139	
480 minute winter	S8	1.006	S12	28.4	0.988	0.174	1.4239	
480 minute winter	S9	3.000	S10	3.7	0.978	0.106	0.0370	
480 minute winter	S10	3.001	S11	8.5	1.733	0.209	0.0917	
480 minute winter	S11	3.002	S12	9.7	1.972	0.217	0.0658	
480 minute winter	S12	1.007	S13	38.4	1.152	0.192	0.3236	
480 minute winter	S13	1.008	S15	40.4	1.213	0.248	1.1257	
480 minute winter	S14	4.000	S15	0.7	0.387	0.018	0.1542	
480 minute winter	S15	1.009	S16	41.1	1.074	0.291	1.0067	
480 minute winter	S16	1.010	S17	41.1	1.118	0.291	2.0866	
480 minute winter	S17	Flow through pond	S18	24.6	0.079	0.001	273.2384	
480 minute winter	S18	1.011	S19	8.2	0.389	0.206	0.2411	
480 minute winter	S19	Hydro-Brake®	Outfall	8.1				470.1

**Results for 100 year +30% CC +10% A 600 minute summer. 2040 minute analysis at 15 minute timestep. Mass balance: 100.00**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute summer	S1	315	135.924	0.041	5.0	0.0788	0.0000	OK
600 minute summer	S2	315	135.214	0.041	6.2	0.0444	0.0000	OK
600 minute summer	S3	315	134.876	0.056	9.2	0.0778	0.0000	OK
600 minute summer	S4	315	134.453	0.053	13.1	0.1097	0.0000	OK
600 minute summer	S5	315	133.828	0.078	15.3	0.1398	0.0000	OK
600 minute summer	S6	315	133.940	0.062	8.4	0.1940	0.0000	OK
600 minute summer	S7	315	133.548	0.108	23.7	0.1907	0.0000	OK
600 minute summer	S8	315	133.493	0.111	31.3	0.3138	0.0000	OK
600 minute summer	S9	315	135.488	0.035	4.1	0.0522	0.0000	OK
600 minute summer	S10	315	135.129	0.050	9.4	0.1015	0.0000	OK
600 minute summer	S11	315	134.165	0.052	10.7	0.0561	0.0000	OK
600 minute summer	S12	315	133.186	0.133	42.3	0.2398	0.0000	OK
600 minute summer	S13	315	133.095	0.139	44.5	0.2369	0.0000	OK
600 minute summer	S14	315	132.622	0.022	0.8	0.0376	0.0000	OK
600 minute summer	S15	315	132.096	0.153	45.3	0.2702	0.0000	OK
600 minute summer	S16	315	131.958	0.147	45.3	0.2109	0.0000	OK
600 minute summer	S17	435	131.831	0.719	45.3	0.0000	0.0000	OK
600 minute summer	S18	435	131.831	0.831	26.9	0.0000	0.0000	<b>SURCHARGED</b>
600 minute summer	S19	435	131.829	0.865	8.2	1.5280	0.0000	<b>SURCHARGED</b>
600 minute summer	Outfall	15	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
600 minute summer	S1	1.000	S2	5.0	1.281	0.156	0.0865	
600 minute summer	S2	1.001	S3	6.2	1.244	0.167	0.0406	
600 minute summer	S3	1.002	S4	9.2	1.581	0.269	0.0548	
600 minute summer	S4	1.003	S5	13.1	1.369	0.121	0.1467	
600 minute summer	S5	1.004	S7	15.3	1.321	0.224	0.1080	
600 minute summer	S6	2.000	S7	8.4	0.962	0.160	0.2468	
600 minute summer	S7	1.005	S8	23.7	0.887	0.145	0.2305	
600 minute summer	S8	1.006	S12	31.3	1.009	0.192	1.5360	
600 minute summer	S9	3.000	S10	4.1	1.007	0.117	0.0398	
600 minute summer	S10	3.001	S11	9.4	1.780	0.231	0.0987	
600 minute summer	S11	3.002	S12	10.7	2.024	0.239	0.0707	
600 minute summer	S12	1.007	S13	42.3	1.177	0.212	0.3489	
600 minute summer	S13	1.008	S15	44.5	1.245	0.273	1.2086	
600 minute summer	S14	4.000	S15	0.8	0.402	0.020	0.1695	
600 minute summer	S15	1.009	S16	45.3	1.100	0.321	1.0832	
600 minute summer	S16	1.010	S17	45.3	1.147	0.321	1.3423	
600 minute summer	S17	Flow through pond	S18	26.9	0.055	0.001	230.1763	
600 minute summer	S18	1.011	S19	8.2	0.378	0.206	0.2411	
600 minute summer	S19	Hydro-Brake®	Outfall	8.1				444.1

**Results for 100 year +30% CC +10% A 600 minute winter. 2040 minute analysis at 15 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute winter	S1	315	135.918	0.035	3.8	0.0684	0.0000	OK
600 minute winter	S2	315	135.208	0.036	4.7	0.0386	0.0000	OK
600 minute winter	S3	315	134.869	0.048	7.0	0.0669	0.0000	OK
600 minute winter	S4	315	134.446	0.046	10.0	0.0959	0.0000	OK
600 minute winter	S5	315	133.817	0.067	11.7	0.1204	0.0000	OK
600 minute winter	S6	315	133.932	0.054	6.4	0.1686	0.0000	OK
600 minute winter	S7	315	133.533	0.093	18.1	0.1639	0.0000	OK
600 minute winter	S8	315	133.478	0.096	23.9	0.2722	0.0000	OK
600 minute winter	S9	315	135.483	0.030	3.1	0.0454	0.0000	OK
600 minute winter	S10	315	135.122	0.043	7.2	0.0881	0.0000	OK
600 minute winter	S11	315	134.158	0.045	8.2	0.0486	0.0000	OK
600 minute winter	S12	315	133.167	0.113	32.3	0.2047	0.0000	OK
600 minute winter	S13	315	133.076	0.120	34.0	0.2045	0.0000	OK
600 minute winter	S14	330	132.619	0.019	0.6	0.0329	0.0000	OK
600 minute winter	S15	315	132.074	0.131	34.6	0.2321	0.0000	OK
600 minute winter	S16	315	131.938	0.127	34.6	0.1822	0.0000	OK
600 minute winter	S17	465	131.917	0.805	34.6	0.0000	0.0000	OK
600 minute winter	S18	465	131.917	0.917	21.3	0.0000	0.0000	<b>SURCHARGED</b>
600 minute winter	S19	465	131.915	0.951	8.2	1.6805	0.0000	<b>SURCHARGED</b>
600 minute winter	Outfall	15	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
600 minute winter	S1	1.000	S2	3.8	1.187	0.119	0.0710	
600 minute winter	S2	1.001	S3	4.7	1.156	0.126	0.0331	
600 minute winter	S3	1.002	S4	7.0	1.473	0.205	0.0447	
600 minute winter	S4	1.003	S5	10.0	1.277	0.093	0.1201	
600 minute winter	S5	1.004	S7	11.7	1.234	0.171	0.0885	
600 minute winter	S6	2.000	S7	6.4	0.892	0.122	0.2029	
600 minute winter	S7	1.005	S8	18.1	0.833	0.111	0.1876	
600 minute winter	S8	1.006	S12	23.9	0.950	0.147	1.2452	
600 minute winter	S9	3.000	S10	3.1	0.927	0.088	0.0327	
600 minute winter	S10	3.001	S11	7.2	1.661	0.177	0.0810	
600 minute winter	S11	3.002	S12	8.2	1.886	0.183	0.0582	
600 minute winter	S12	1.007	S13	32.3	1.109	0.162	0.2830	
600 minute winter	S13	1.008	S15	34.0	1.159	0.208	0.9918	
600 minute winter	S14	4.000	S15	0.6	0.369	0.015	0.1385	
600 minute winter	S15	1.009	S16	34.6	1.028	0.245	0.8853	
600 minute winter	S16	1.010	S17	34.6	1.066	0.245	1.9125	
600 minute winter	S17	Flow through pond	S18	21.3	0.060	0.001	266.6269	
600 minute winter	S18	1.011	S19	8.2	0.378	0.205	0.2411	
600 minute winter	S19	Hydro-Brake®	Outfall	8.1				499.5

**Results for 100 year +30% CC +10% A 720 minute summer. 2160 minute analysis at 15 minute timestep. Mass balance: 100.00**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute summer	S1	375	135.921	0.038	4.4	0.0737	0.0000	OK
720 minute summer	S2	375	135.211	0.039	5.5	0.0418	0.0000	OK
720 minute summer	S3	375	134.873	0.053	8.2	0.0730	0.0000	OK
720 minute summer	S4	375	134.450	0.050	11.7	0.1037	0.0000	OK
720 minute summer	S5	375	133.823	0.073	13.7	0.1314	0.0000	OK
720 minute summer	S6	375	133.936	0.058	7.5	0.1830	0.0000	OK
720 minute summer	S7	375	133.541	0.101	21.2	0.1790	0.0000	OK
720 minute summer	S8	375	133.487	0.105	28.0	0.2956	0.0000	OK
720 minute summer	S9	375	135.486	0.033	3.7	0.0496	0.0000	OK
720 minute summer	S10	375	135.126	0.047	8.5	0.0961	0.0000	OK
720 minute summer	S11	375	134.162	0.049	9.7	0.0532	0.0000	OK
720 minute summer	S12	375	133.178	0.125	38.0	0.2251	0.0000	OK
720 minute summer	S13	375	133.087	0.131	40.0	0.2233	0.0000	OK
720 minute summer	S14	375	132.621	0.021	0.7	0.0353	0.0000	OK
720 minute summer	S15	375	132.087	0.144	40.7	0.2542	0.0000	OK
720 minute summer	S16	375	131.950	0.139	40.7	0.1989	0.0000	OK
720 minute summer	S17	510	131.820	0.708	40.7	0.0000	0.0000	OK
720 minute summer	S18	510	131.820	0.820	24.6	0.0000	0.0000	<b>SURCHARGED</b>
720 minute summer	S19	510	131.818	0.854	8.2	1.5087	0.0000	<b>SURCHARGED</b>
720 minute summer	Outfall	15	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
720 minute summer	S1	1.000	S2	4.4	1.233	0.138	0.0791	
720 minute summer	S2	1.001	S3	5.5	1.204	0.148	0.0372	
720 minute summer	S3	1.002	S4	8.2	1.535	0.240	0.0503	
720 minute summer	S4	1.003	S5	11.7	1.329	0.108	0.1350	
720 minute summer	S5	1.004	S7	13.7	1.285	0.201	0.0995	
720 minute summer	S6	2.000	S7	7.5	0.932	0.143	0.2274	
720 minute summer	S7	1.005	S8	21.2	0.865	0.129	0.2116	
720 minute summer	S8	1.006	S12	28.0	0.983	0.172	1.4105	
720 minute summer	S9	3.000	S10	3.7	0.978	0.106	0.0370	
720 minute summer	S10	3.001	S11	8.5	1.733	0.209	0.0917	
720 minute summer	S11	3.002	S12	9.7	1.972	0.217	0.0658	
720 minute summer	S12	1.007	S13	38.0	1.149	0.190	0.3210	
720 minute summer	S13	1.008	S15	40.0	1.210	0.245	1.1175	
720 minute summer	S14	4.000	S15	0.7	0.387	0.018	0.1542	
720 minute summer	S15	1.009	S16	40.7	1.071	0.288	0.9993	
720 minute summer	S16	1.010	S17	40.7	1.115	0.289	1.2410	
720 minute summer	S17	Flow through pond	S18	24.6	0.059	0.001	225.7437	
720 minute summer	S18	1.011	S19	8.2	0.378	0.206	0.2411	
720 minute summer	S19	Hydro-Brake®	Outfall	8.1				468.2

**Results for 100 year +30% CC +10% A 720 minute winter. 2160 minute analysis at 15 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute winter	S1	375	135.916	0.033	3.3	0.0637	0.0000	OK
720 minute winter	S2	375	135.206	0.034	4.1	0.0361	0.0000	OK
720 minute winter	S3	375	134.865	0.045	6.1	0.0620	0.0000	OK
720 minute winter	S4	375	134.443	0.043	8.7	0.0896	0.0000	OK
720 minute winter	S5	375	133.813	0.062	10.2	0.1117	0.0000	OK
720 minute winter	S6	375	133.928	0.050	5.6	0.1575	0.0000	OK
720 minute winter	S7	375	133.526	0.086	15.8	0.1521	0.0000	OK
720 minute winter	S8	375	133.472	0.090	20.9	0.2539	0.0000	OK
720 minute winter	S9	375	135.482	0.029	2.8	0.0432	0.0000	OK
720 minute winter	S10	375	135.120	0.041	6.4	0.0829	0.0000	OK
720 minute winter	S11	375	134.155	0.042	7.3	0.0457	0.0000	OK
720 minute winter	S12	375	133.158	0.105	28.4	0.1901	0.0000	OK
720 minute winter	S13	375	133.068	0.112	29.9	0.1908	0.0000	OK
720 minute winter	S14	375	132.618	0.018	0.5	0.0303	0.0000	OK
720 minute winter	S15	375	132.065	0.122	30.4	0.2163	0.0000	OK
720 minute winter	S16	375	131.930	0.119	30.4	0.1701	0.0000	OK
720 minute winter	S17	540	131.899	0.787	30.4	0.0000	0.0000	OK
720 minute winter	S18	540	131.899	0.899	19.2	0.0000	0.0000	<b>SURCHARGED</b>
720 minute winter	S19	540	131.897	0.933	8.2	1.6481	0.0000	<b>SURCHARGED</b>
720 minute winter	Outfall	15	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
720 minute winter	S1	1.000	S2	3.3	1.139	0.103	0.0642	
720 minute winter	S2	1.001	S3	4.1	1.116	0.110	0.0299	
720 minute winter	S3	1.002	S4	6.1	1.421	0.178	0.0404	
720 minute winter	S4	1.003	S5	8.7	1.231	0.081	0.1084	
720 minute winter	S5	1.004	S7	10.2	1.190	0.150	0.0799	
720 minute winter	S6	2.000	S7	5.6	0.859	0.107	0.1843	
720 minute winter	S7	1.005	S8	15.8	0.805	0.096	0.1693	
720 minute winter	S8	1.006	S12	20.9	0.919	0.128	1.1252	
720 minute winter	S9	3.000	S10	2.8	0.907	0.080	0.0302	
720 minute winter	S10	3.001	S11	6.4	1.609	0.157	0.0744	
720 minute winter	S11	3.002	S12	7.3	1.827	0.163	0.0534	
720 minute winter	S12	1.007	S13	28.4	1.077	0.142	0.2562	
720 minute winter	S13	1.008	S15	29.9	1.120	0.183	0.9027	
720 minute winter	S14	4.000	S15	0.5	0.351	0.013	0.1213	
720 minute winter	S15	1.009	S16	30.4	0.994	0.215	0.8043	
720 minute winter	S16	1.010	S17	30.4	1.029	0.215	1.7045	
720 minute winter	S17	Flow through pond	S18	19.2	0.028	0.000	258.7040	
720 minute winter	S18	1.011	S19	8.2	0.379	0.205	0.2411	
720 minute winter	S19	Hydro-Brake®	Outfall	8.1				524.8

**Results for 100 year +30% CC +10% A 960 minute summer. 2400 minute analysis at 15 minute timestep. Mass balance: 100.00**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute summer	S1	495	135.917	0.034	3.6	0.0665	0.0000	OK
960 minute summer	S2	495	135.207	0.035	4.5	0.0378	0.0000	OK
960 minute summer	S3	495	134.867	0.047	6.7	0.0653	0.0000	OK
960 minute summer	S4	495	134.445	0.045	9.6	0.0940	0.0000	OK
960 minute summer	S5	495	133.816	0.066	11.2	0.1175	0.0000	OK
960 minute summer	S6	495	133.931	0.053	6.2	0.1659	0.0000	OK
960 minute summer	S7	495	133.531	0.091	17.4	0.1604	0.0000	OK
960 minute summer	S8	495	133.476	0.094	23.0	0.2668	0.0000	OK
960 minute summer	S9	495	135.483	0.030	3.0	0.0447	0.0000	OK
960 minute summer	S10	495	135.121	0.042	6.9	0.0861	0.0000	OK
960 minute summer	S11	495	134.157	0.044	7.9	0.0476	0.0000	OK
960 minute summer	S12	495	133.164	0.111	31.1	0.2003	0.0000	OK
960 minute summer	S13	495	133.073	0.117	32.7	0.2002	0.0000	OK
960 minute summer	S14	495	132.619	0.019	0.6	0.0329	0.0000	OK
960 minute summer	S15	495	132.072	0.129	33.3	0.2273	0.0000	OK
960 minute summer	S16	495	131.936	0.125	33.3	0.1785	0.0000	OK
960 minute summer	S17	645	131.789	0.677	33.3	0.0000	0.0000	OK
960 minute summer	S18	645	131.789	0.789	20.8	0.0000	0.0000	<b>SURCHARGED</b>
960 minute summer	S19	645	131.787	0.823	8.2	1.4548	0.0000	<b>SURCHARGED</b>
960 minute summer	Outfall	15	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
960 minute summer	S1	1.000	S2	3.6	1.165	0.113	0.0685	
960 minute summer	S2	1.001	S3	4.5	1.143	0.121	0.0321	
960 minute summer	S3	1.002	S4	6.7	1.456	0.196	0.0433	
960 minute summer	S4	1.003	S5	9.6	1.266	0.089	0.1163	
960 minute summer	S5	1.004	S7	11.2	1.220	0.164	0.0856	
960 minute summer	S6	2.000	S7	6.2	0.884	0.118	0.1983	
960 minute summer	S7	1.005	S8	17.4	0.825	0.106	0.1821	
960 minute summer	S8	1.006	S12	23.0	0.942	0.141	1.2090	
960 minute summer	S9	3.000	S10	3.0	0.923	0.086	0.0318	
960 minute summer	S10	3.001	S11	6.9	1.640	0.170	0.0787	
960 minute summer	S11	3.002	S12	7.9	1.867	0.177	0.0566	
960 minute summer	S12	1.007	S13	31.1	1.100	0.156	0.2746	
960 minute summer	S13	1.008	S15	32.7	1.147	0.200	0.9638	
960 minute summer	S14	4.000	S15	0.6	0.369	0.015	0.1385	
960 minute summer	S15	1.009	S16	33.3	1.018	0.236	0.8606	
960 minute summer	S16	1.010	S17	33.3	1.055	0.236	1.0725	
960 minute summer	S17	Flow through pond	S18	20.8	0.073	0.001	213.5448	
960 minute summer	S18	1.011	S19	8.2	0.377	0.205	0.2411	
960 minute summer	S19	Hydro-Brake®	Outfall	8.1				504.8

**Results for 100 year +30% CC +10% A 960 minute winter. 2400 minute analysis at 15 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute winter	S1	495	135.913	0.030	2.7	0.0575	0.0000	OK
960 minute winter	S2	495	135.203	0.031	3.4	0.0329	0.0000	OK
960 minute winter	S3	495	134.861	0.041	5.1	0.0564	0.0000	OK
960 minute winter	S4	495	134.439	0.039	7.2	0.0817	0.0000	OK
960 minute winter	S5	495	133.806	0.056	8.4	0.1007	0.0000	OK
960 minute winter	S6	495	133.924	0.046	4.6	0.1426	0.0000	OK
960 minute winter	S7	495	133.517	0.077	13.0	0.1367	0.0000	OK
960 minute winter	S8	495	133.463	0.081	17.2	0.2299	0.0000	OK
960 minute winter	S9	480	135.479	0.026	2.2	0.0384	0.0000	OK
960 minute winter	S10	495	135.115	0.036	5.1	0.0738	0.0000	OK
960 minute winter	S11	495	134.151	0.038	5.8	0.0405	0.0000	OK
960 minute winter	S12	495	133.147	0.094	23.2	0.1696	0.0000	OK
960 minute winter	S13	495	133.056	0.100	24.4	0.1714	0.0000	OK
960 minute winter	S14	480	132.616	0.016	0.4	0.0275	0.0000	OK
960 minute winter	S15	495	132.053	0.110	24.8	0.1937	0.0000	OK
960 minute winter	S16	495	131.918	0.107	24.8	0.1528	0.0000	OK
960 minute winter	S17	705	131.858	0.746	24.8	0.0000	0.0000	OK
960 minute winter	S18	705	131.858	0.858	16.4	0.0000	0.0000	<b>SURCHARGED</b>
960 minute winter	S19	705	131.856	0.892	8.2	1.5761	0.0000	<b>SURCHARGED</b>
960 minute winter	Outfall	15	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
960 minute winter	S1	1.000	S2	2.7	1.071	0.084	0.0559	
960 minute winter	S2	1.001	S3	3.4	1.058	0.091	0.0262	
960 minute winter	S3	1.002	S4	5.1	1.354	0.149	0.0355	
960 minute winter	S4	1.003	S5	7.2	1.173	0.067	0.0941	
960 minute winter	S5	1.004	S7	8.4	1.130	0.123	0.0693	
960 minute winter	S6	2.000	S7	4.6	0.812	0.088	0.1601	
960 minute winter	S7	1.005	S8	13.0	0.767	0.079	0.1462	
960 minute winter	S8	1.006	S12	17.2	0.881	0.106	0.9665	
960 minute winter	S9	3.000	S10	2.2	0.849	0.063	0.0256	
960 minute winter	S10	3.001	S11	5.1	1.514	0.125	0.0630	
960 minute winter	S11	3.002	S12	5.8	1.715	0.130	0.0453	
960 minute winter	S12	1.007	S13	23.2	1.027	0.116	0.2193	
960 minute winter	S13	1.008	S15	24.4	1.059	0.150	0.7788	
960 minute winter	S14	4.000	S15	0.4	0.334	0.010	0.1021	
960 minute winter	S15	1.009	S16	24.8	0.943	0.175	0.6916	
960 minute winter	S16	1.010	S17	24.8	0.973	0.176	1.3183	
960 minute winter	S17	Flow through pond	S18	16.4	0.029	0.000	241.4865	
960 minute winter	S18	1.011	S19	8.2	0.378	0.205	0.2411	
960 minute winter	S19	Hydro-Brake®	Outfall	8.1				564.7

**Results for 100 year +30% CC +10% A 1440 minute summer. 2880 minute analysis at 30 minute timestep. Mass balance: 100.0**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute summer	S1	750	135.912	0.029	2.6	0.0564	0.0000	OK
1440 minute summer	S2	750	135.202	0.030	3.3	0.0324	0.0000	OK
1440 minute summer	S3	750	134.860	0.040	4.9	0.0552	0.0000	OK
1440 minute summer	S4	750	134.439	0.039	7.0	0.0806	0.0000	OK
1440 minute summer	S5	750	133.806	0.056	8.2	0.0994	0.0000	OK
1440 minute summer	S6	750	133.923	0.045	4.5	0.1410	0.0000	OK
1440 minute summer	S7	750	133.516	0.076	12.7	0.1349	0.0000	OK
1440 minute summer	S8	750	133.462	0.080	16.8	0.2270	0.0000	OK
1440 minute summer	S9	750	135.479	0.026	2.2	0.0384	0.0000	OK
1440 minute summer	S10	750	135.115	0.036	5.1	0.0738	0.0000	OK
1440 minute summer	S11	750	134.151	0.038	5.8	0.0405	0.0000	OK
1440 minute summer	S12	750	133.146	0.093	22.8	0.1679	0.0000	OK
1440 minute summer	S13	750	133.055	0.099	24.0	0.1699	0.0000	OK
1440 minute summer	S14	750	132.616	0.016	0.4	0.0275	0.0000	OK
1440 minute summer	S15	750	132.052	0.109	24.4	0.1921	0.0000	OK
1440 minute summer	S16	750	131.917	0.106	24.4	0.1516	0.0000	OK
1440 minute summer	S17	930	131.725	0.612	24.4	0.0000	0.0000	OK
1440 minute summer	S18	930	131.725	0.724	16.3	0.0000	0.0000	<b>SURCHARGED</b>
1440 minute summer	S19	930	131.723	0.759	8.2	1.3409	0.0000	<b>SURCHARGED</b>
1440 minute summer	Outfall	30	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute summer	S1	1.000	S2	2.6	1.057	0.081	0.0545	
1440 minute summer	S2	1.001	S3	3.3	1.054	0.089	0.0255	
1440 minute summer	S3	1.002	S4	4.9	1.339	0.143	0.0344	
1440 minute summer	S4	1.003	S5	7.0	1.162	0.065	0.0924	
1440 minute summer	S5	1.004	S7	8.2	1.123	0.120	0.0681	
1440 minute summer	S6	2.000	S7	4.5	0.807	0.086	0.1576	
1440 minute summer	S7	1.005	S8	12.7	0.763	0.078	0.1436	
1440 minute summer	S8	1.006	S12	16.8	0.874	0.103	0.9517	
1440 minute summer	S9	3.000	S10	2.2	0.842	0.063	0.0256	
1440 minute summer	S10	3.001	S11	5.1	1.514	0.125	0.0630	
1440 minute summer	S11	3.002	S12	5.8	1.715	0.130	0.0453	
1440 minute summer	S12	1.007	S13	22.8	1.023	0.114	0.2165	
1440 minute summer	S13	1.008	S15	24.0	1.055	0.147	0.7695	
1440 minute summer	S14	4.000	S15	0.4	0.334	0.010	0.1021	
1440 minute summer	S15	1.009	S16	24.4	0.939	0.173	0.6834	
1440 minute summer	S16	1.010	S17	24.4	0.969	0.173	0.8561	
1440 minute summer	S17	Flow through pond	S18	16.3	0.021	0.000	188.5112	
1440 minute summer	S18	1.011	S19	8.2	0.377	0.205	0.2411	
1440 minute summer	S19	Hydro-Brake®	Outfall	8.1				558.7

**Results for 100 year +30% CC +10% A 1440 minute winter. 2880 minute analysis at 30 minute timestep. Mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	S1	750	135.909	0.026	2.0	0.0496	0.0000	OK
1440 minute winter	S2	750	135.198	0.026	2.5	0.0283	0.0000	OK
1440 minute winter	S3	750	134.855	0.035	3.7	0.0476	0.0000	OK
1440 minute winter	S4	750	134.434	0.034	5.3	0.0704	0.0000	OK
1440 minute winter	S5	750	133.798	0.048	6.2	0.0858	0.0000	OK
1440 minute winter	S6	750	133.917	0.039	3.4	0.1227	0.0000	OK
1440 minute winter	S7	750	133.506	0.066	9.6	0.1162	0.0000	OK
1440 minute winter	S8	750	133.452	0.070	12.7	0.1978	0.0000	OK
1440 minute winter	S9	750	135.476	0.023	1.7	0.0339	0.0000	OK
1440 minute winter	S10	750	135.110	0.031	3.8	0.0636	0.0000	OK
1440 minute winter	S11	750	134.145	0.032	4.3	0.0347	0.0000	OK
1440 minute winter	S12	750	133.132	0.079	17.1	0.1432	0.0000	OK
1440 minute winter	S13	750	133.042	0.086	18.0	0.1463	0.0000	OK
1440 minute winter	S14	720	132.614	0.014	0.3	0.0242	0.0000	OK
1440 minute winter	S15	750	132.036	0.093	18.3	0.1650	0.0000	OK
1440 minute winter	S16	750	131.902	0.091	18.3	0.1308	0.0000	OK
1440 minute winter	S17	1020	131.760	0.648	18.3	0.0000	0.0000	OK
1440 minute winter	S18	1020	131.760	0.760	13.2	0.0000	0.0000	SURCHARGED
1440 minute winter	S19	1020	131.758	0.794	8.1	1.4037	0.0000	SURCHARGED
1440 minute winter	Outfall	30	130.800	0.000	8.1	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute winter	S1	1.000	S2	2.0	0.983	0.063	0.0451	
1440 minute winter	S2	1.001	S3	2.5	0.977	0.067	0.0208	
1440 minute winter	S3	1.002	S4	3.7	1.240	0.108	0.0281	
1440 minute winter	S4	1.003	S5	5.3	1.080	0.049	0.0753	
1440 minute winter	S5	1.004	S7	6.2	1.041	0.091	0.0555	
1440 minute winter	S6	2.000	S7	3.4	0.744	0.065	0.1293	
1440 minute winter	S7	1.005	S8	9.6	0.709	0.059	0.1169	
1440 minute winter	S8	1.006	S12	12.7	0.818	0.078	0.7689	
1440 minute winter	S9	3.000	S10	1.7	0.795	0.048	0.0209	
1440 minute winter	S10	3.001	S11	3.8	1.399	0.093	0.0508	
1440 minute winter	S11	3.002	S12	4.3	1.577	0.096	0.0365	
1440 minute winter	S12	1.007	S13	17.1	0.955	0.086	0.1740	
1440 minute winter	S13	1.008	S15	18.0	0.974	0.110	0.6249	
1440 minute winter	S14	4.000	S15	0.3	0.308	0.008	0.0830	
1440 minute winter	S15	1.009	S16	18.3	0.870	0.129	0.5536	
1440 minute winter	S16	1.010	S17	18.3	0.893	0.130	0.6991	
1440 minute winter	S17	Flow through pond	S18	13.2	0.030	0.000	202.1559	
1440 minute winter	S18	1.011	S19	8.1	0.377	0.204	0.2411	
1440 minute winter	S19	Hydro-Brake®	Outfall	8.1				629.4