

Design Settings

Rainfall Methodology	FSR	CV	0.750	Minimum Backdrop Height (m)	0.200
Return Period (years)	100	Time of Entry (mins)	5.00	Preferred Cover Depth (m)	1.200
Additional Flow (%)	40	Maximum Time of Concentration (mins)	30.00	Include Intermediate Ground	✓
FSR Region	England and Wales	Maximum Rainfall (mm/hr)	50.0	Enforce best practice design rules	x
M5-60 (mm)	17.000	Minimum Velocity (m/s)	1.00		
Ratio-R	0.400	Connection Type	Level Soffits		

1 STANDARD Link Type

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

Available Diameters (mm)
100 | 150

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
S1	0.051	4.00	152.550	1200	399883.189	342559.498	0.740
S2			152.550	1200	399870.378	342581.696	1.000
S3	0.035	4.00	152.550	1200	399849.291	342569.275	1.250
S4	0.081	4.00	152.550	1200	399859.875	342551.481	1.550
S5	0.067	4.00	151.604	1200	399847.004	342544.355	1.954
S7	0.038	4.00	150.550	1200	399888.600	342534.474	0.750
S6			150.367	1200	399873.981	342498.361	1.367
S8	0.051	4.00	150.350	1200	399800.553	342539.865	
S9	0.131	4.00	150.350	1200	399820.595	342551.221	0.950
S10	0.032	4.00	150.350	1200	399839.292	342475.679	1.350
S11			150.050	1200	399857.769	342486.098	1.600
S12	0.076	4.00	151.093	1200	399834.399	342544.374	1.350
S13			150.321	1200	399865.619	342490.332	2.021
S14	0.043	4.00	150.050	1200	399903.204	342469.483	1.800
TANK			149.914	1	399869.699	342482.995	2.764
S15			149.509	1200	399854.195	342473.960	2.459
OUTFALL			145.934		399837.149	342464.734	0.184

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	25.630	0.600	151.810	151.550	0.260	98.6	225	4.32	50.0
1.001	S2	S3	24.474	0.600	151.550	151.300	0.250	97.9	225	4.63	50.0
1.002	S3	S4	20.704	0.600	151.300	151.000	0.300	69.0	225	4.85	50.0
1.003	S4	S5	14.712	0.600	151.000	150.800	0.200	73.6	225	5.01	50.0
1.004	S5	S6	77.000	0.600	150.800	149.000	1.800	42.8	225	5.65	50.0
2.000	S7	S6	18.000	0.600	149.800	149.000	0.800	22.5	225	4.11	50.0
1.005	S6	S13	8.350	0.600	149.000	148.300	0.700	11.9	225	5.69	50.0
3.000	S5	S9	22.660	0.600	149.650	149.400	0.250	90.6	225	5.27	50.0
3.001	S9	S11	98.000	0.600	149.400	148.450	0.950	103.2	225	6.54	50.0
4.000	S10	S11	12.820	0.600	149.000	148.450	0.550	23.3	225	4.08	50.0
3.002	S11	S13	13.000	0.600	148.450	148.300	0.150	86.7	225	6.70	50.0
5.000	S12	S13	84.900	0.600	149.743	148.300	1.443	58.8	225	4.83	50.0
1.006	S13	TANK	4.800	0.600	148.300	148.000	0.300	16.0	225	6.72	50.0
6.000	S14	TANK	2.500	0.600	148.250	148.000	0.250	10.0	150	4.01	50.0
1.007	TANK	S15	1.000	0.600	147.150	147.050	0.100	10.0	150	6.73	50.0
1.008	S15	OUTFALL	13.100	0.600	147.050	145.750	1.300	10.1	150	6.80	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)
1.000	1.317	52.4	9.7	0.515	0.775	0.051	0.0
1.001	1.321	52.5	9.7	0.775	1.025	0.051	0.0
1.002	1.576	62.7	16.3	1.025	1.325	0.086	0.0
1.003	1.526	60.7	31.7	1.325	0.579	0.167	0.0
1.004	2.005	79.7	44.4	0.579	1.142	0.234	0.0
2.000	2.770	110.1	7.2	0.525	1.142	0.038	0.0
1.005	3.809	151.5	51.6	1.142	1.796	0.272	0.0
3.000	1.374	54.6	0.0	1.729	0.725	0.000	0.0
3.001	1.287	51.2	24.9	0.725	1.375	0.131	0.0
4.000	2.721	108.2	6.1	1.125	1.375	0.032	0.0
3.002	1.405	55.9	30.9	1.375	1.796	0.163	0.0
5.000	1.708	67.9	14.4	1.125	1.796	0.076	0.0
1.006	3.287	130.7	97.0	1.796	1.689	0.511	0.0
6.000	3.204	56.6	8.2	1.650	1.764	0.043	0.0
1.007	3.204	56.6	105.1	2.614	2.309	0.554	0.0
1.008	3.192	56.4	105.1	2.309	0.034	0.554	0.0



Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.000	25.630	98.6	225	1 STANDARD	152.550	151.810	0.515	152.550	151.550	0.775
1.001	24.474	97.9	225	1 STANDARD	152.550	151.550	0.775	152.550	151.300	1.025
1.002	20.704	69.0	225	1 STANDARD	152.550	151.300	1.025	152.550	151.000	1.325
1.003	14.712	73.6	225	1 STANDARD	152.550	151.000	1.325	151.604	150.800	0.579
1.004	77.000	42.8	225	1 STANDARD	151.604	150.800	0.579	150.367	149.000	1.142
2.000	18.000	22.5	225	1 STANDARD	150.550	149.800	0.525	150.367	149.000	1.142
1.005	8.350	11.9	225	1 STANDARD	150.367	149.000	1.142	150.321	148.300	1.796
3.000	22.660	90.6	225	1 STANDARD	151.604	149.650	1.729	150.350	149.400	0.725
3.001	98.000	103.2	225	1 STANDARD	150.350	149.400	0.725	150.050	148.450	1.375
4.000	12.820	23.3	225	1 STANDARD	150.350	149.000	1.125	150.050	148.450	1.375
3.002	13.000	86.7	225	1 STANDARD	150.050	148.450	1.375	150.321	148.300	1.796
5.000	84.900	58.8	225	1 STANDARD	151.093	149.743	1.125	150.321	148.300	1.796
1.006	4.800	16.0	225	1 STANDARD	150.321	148.300	1.796	149.914	148.000	1.689
6.000	2.500	10.0	150	1 STANDARD	150.050	148.250	1.650	149.914	148.000	1.764
1.007	1.000	10.0	150	1 STANDARD	149.914	147.150	2.614	149.509	147.050	2.309
1.008	13.100	10.1	150	1 STANDARD	149.509	147.050	2.309	145.934	145.750	0.034

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	S1	1200	Manhole	Adoptable	S2	1200	Manhole	Adoptable
1.001	S2	1200	Manhole	Adoptable	S3	1200	Manhole	Adoptable
1.002	S3	1200	Manhole	Adoptable	S4	1200	Manhole	Adoptable
1.003	S4	1200	Manhole	Adoptable	S5	1200	Manhole	Adoptable
1.004	S5	1200	Manhole	Adoptable	S6	1200	Manhole	Adoptable
2.000	S7	1200	Manhole	Adoptable	S6	1200	Manhole	Adoptable
1.005	S6	1200	Manhole	Adoptable	S13	1200	Manhole	Adoptable
3.000	S5	1200	Manhole	Adoptable	S9	1200	Manhole	Adoptable
3.001	S9	1200	Manhole	Adoptable	S11	1200	Manhole	Adoptable
4.000	S10	1200	Manhole	Adoptable	S11	1200	Manhole	Adoptable
3.002	S11	1200	Manhole	Adoptable	S13	1200	Manhole	Adoptable
5.000	S12	1200	Manhole	Adoptable	S13	1200	Manhole	Adoptable
1.006	S13	1200	Manhole	Adoptable	TANK	1	Manhole	Adoptable
6.000	S14	1200	Manhole	Adoptable	TANK	1	Manhole	Adoptable
1.007	TANK	1	Manhole	Adoptable	S15	1200	Manhole	Adoptable
1.008	S15	1200	Manhole	Adoptable	OUTFALL		Manhole	Adoptable

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
S1	399883.189	342559.498	152.550	0.740	1200				
S2	399870.378	342581.696	152.550	1.000	1200	0 	1.000	151.810	225
S3	399849.291	342569.275	152.550	1.250	1200	1 	1.001	151.300	225
S4	399859.875	342551.481	152.550	1.550	1200	0 	1.002	151.300	225
S5	399847.004	342544.355	151.604	1.954	1200	1 	1.003	150.800	225
S7	399888.600	342534.474	150.550	0.750	1200	0-1 0-2 	1.004 3.000	150.800 149.650	225
S6	399873.981	342498.361	150.367	1.367	1200	0 1 2 	2.000 1.004	149.800 149.000	225
S8	399800.553	342539.865	150.350		1200	0 	1.005	149.000	225
S9	399820.595	342551.221	150.350	0.950	1200	1 	3.000	149.400	225
S10	399839.292	342475.679	150.350	1.350	1200	0 	3.001	149.400	225
S11	399857.769	342486.098	150.050	1.600	1200	0 1 2 	4.000 3.001	149.000 148.450	225

Manhole Schedule									
Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
S12	399834.399	342544.374	151.093	1.350	1200		0	5.000	149.743 225
S13	399865.619	342490.332	150.321	2.021	1200		1 2 3 0	5.000 3.002 1.005 1.006	148.300 148.300 148.300 148.300 225 225 225 225
S14	399903.204	342469.483	150.050	1.800	1200		0	6.000	148.250 150
TANK	399869.699	342482.995	149.914	2.764	1		1 2 0	6.000 1.006 1.007	148.000 148.000 147.150 150 225
S15	399854.195	342473.960	149.509	2.459	1200		1 0	1.007 1.008	147.050 147.050 150
OUTFALL	399837.149	342464.734	145.934	0.184			1	1.008	145.750 150

Simulation Settings									
Rainfall Methodology	FSR	Winter CV	0.840	Starting Level (m)					
Rainfall Events	Singular	Analysis Speed	Normal	Check Discharge Rate(s)	x				
FSR Region	England and Wales	Skip Steady State	x	Check Discharge Volume	x				
M5-60 (mm)	17.000	Drain Down Time (mins)	240						
Ratio-R	0.400	Additional Storage (m³/ha)	0.0						

Storm Durations									
15	60	180	360	600	960	2160	4320	7200	10080
30	120	240	480	720	1440	2880	5760	8640	

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0	100	50	0	0
2	0	0	0	100	60	0	0
30	0	0	0	100	70	0	0
100	40	0	0	100	80	0	0

Node S15 Online Orifice Control									
Flap Valve	x	Invert Level (m)	147.050	Design Flow (l/s)	6.2	Discharge Coefficient	0.600		
Replaces Downstream Link	x	Design Depth (m)	1.000	Diameter (m)	0.053				

Node S5 Carpark Storage Structure									
Base Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Width (m)	21.500	Depth (m)			
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	149.650	Length (m)	13.000	Inf Depth (m)			
Safety Factor	2.0	Time to half empty (mins)	0	Slope (1:X)	22.0				

Node S9 Carpark Storage Structure									
Base Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Width (m)	16.000	Depth (m)			
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	149.400	Length (m)	5.000	Inf Depth (m)			
Safety Factor	2.0	Time to half empty (mins)	19	Slope (1:X)	20.0				

Node TANK Depth/Area Storage Structure									
Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	147.150				
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)					

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	300.0	0.0	0.500	300.0	0.0	1.000	300.0	0.0	1.500	0.0	0.0	2.000	0.0	0.0	2.500	0.0	0.0
0.100	300.0	0.0	0.600	300.0	0.0	1.001	0.0	0.0	1.600	0.0	0.0	2.100	0.0	0.0			
0.200	300.0	0.0	0.700	300.0	0.0	1.051	0.0	0.0	1.700	0.0	0.0	2.200	0.0	0.0			
0.300	300.0	0.0	0.800	300.0	0.0	1.300	0.0	0.0	1.800	0.0	0.0	2.300	0.0	0.0			
0.400	300.0	0.0	0.900	300.0	0.0	1.400	0.0	0.0	1.900	0.0	0.0	2.400	0.0	0.0			

Rainfall					
Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
1 year 15 minute winter	64.927	26.180	1 year 240 minute winter	10.165	4.043
1 year 30 minute winter	42.121	16.984	1 year 360 minute winter	7.654	3.030
1 year 60 minute winter	26.839	10.676	1 year 480 minute winter	6.207	2.469
1 year 120 minute winter	16.596	6.602	1 year 600 minute winter	5.249	2.101
1 year 180 minute winter	12.527	4.959	1 year 720 minute winter	4.609	1.838

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Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
1 year 960 minute winter	3.745	1.489	100 year +50% CC 240 minute winter	46.814	18.621
1 year 1440 minute winter	2.773	1.106	100 year +50% CC 360 minute winter	34.384	13.612
1 year 2160 minute winter	2.050	0.822	100 year +50% CC 480 minute winter	27.256	10.842
1 year 2880 minute winter	1.671	0.666	100 year +50% CC 600 minute winter	22.688	9.083
1 year 4320 minute winter	1.250	0.496	100 year +50% CC 720 minute winter	19.720	7.864
1 year 5760 minute winter	1.016	0.402	100 year +50% CC 960 minute winter	15.750	6.261
1 year 7200 minute winter	0.864	0.341	100 year +50% CC 1440 minute winter	11.369	4.534
1 year 8640 minute winter	0.756	0.299	100 year +50% CC 2160 minute winter	8.173	3.278
1 year 10080 minute winter	0.676	0.267	100 year +50% CC 2880 minute winter	6.524	2.602
2 year 15 minute winter	84.042	33.888	100 year +50% CC 4320 minute winter	4.725	1.876
2 year 30 minute winter	54.399	21.935	100 year +50% CC 5760 minute winter	3.758	1.486
2 year 60 minute winter	34.361	13.668	100 year +50% CC 7200 minute winter	3.137	1.240
2 year 120 minute winter	20.961	8.338	100 year +50% CC 8640 minute winter	2.704	1.069
2 year 180 minute winter	15.687	6.210	100 year +50% CC 10080 minute winter	2.385	0.943
2 year 240 minute winter	12.649	5.032	100 year +60% CC 15 minute winter	327.597	132.096
2 year 360 minute winter	9.436	3.735	100 year +60% CC 30 minute winter	215.559	86.919
2 year 480 minute winter	7.598	3.022	100 year +60% CC 60 minute winter	137.396	54.652
2 year 600 minute winter	6.398	2.561	100 year +60% CC 120 minute winter	83.802	33.334
2 year 720 minute winter	5.605	2.235	100 year +60% CC 180 minute winter	62.367	24.690
2 year 960 minute winter	4.535	1.803	100 year +60% CC 240 minute winter	49.935	19.863
2 year 1440 minute winter	3.338	1.331	100 year +60% CC 360 minute winter	36.676	14.519
2 year 2160 minute winter	2.451	0.983	100 year +60% CC 480 minute winter	29.074	11.565
2 year 2880 minute winter	1.989	0.793	100 year +60% CC 600 minute winter	24.201	9.688
2 year 4320 minute winter	1.476	0.586	100 year +60% CC 720 minute winter	21.035	8.389
2 year 5760 minute winter	1.195	0.473	100 year +60% CC 960 minute winter	16.800	6.678
2 year 7200 minute winter	1.012	0.400	100 year +60% CC 1440 minute winter	12.127	4.836
2 year 8640 minute winter	0.883	0.349	100 year +60% CC 2160 minute winter	8.717	3.496
2 year 10080 minute winter	0.787	0.311	100 year +60% CC 2880 minute winter	6.959	2.775
30 year 15 minute winter	158.733	64.005	100 year +60% CC 4320 minute winter	5.040	2.001
30 year 30 minute winter	103.475	41.724	100 year +60% CC 5760 minute winter	4.008	1.585
30 year 60 minute winter	65.517	26.061	100 year +60% CC 7200 minute winter	3.346	1.322
30 year 120 minute winter	39.827	15.842	100 year +60% CC 8640 minute winter	2.884	1.140
30 year 180 minute winter	29.640	11.734	100 year +60% CC 10080 minute winter	2.544	1.005
30 year 240 minute winter	23.758	9.450	100 year +70% CC 15 minute winter	348.072	140.352
30 year 360 minute winter	17.511	6.932	100 year +70% CC 30 minute winter	229.031	92.351
30 year 480 minute winter	13.940	5.545	100 year +70% CC 60 minute winter	145.983	58.068
30 year 600 minute winter	11.642	4.661	100 year +70% CC 120 minute winter	89.040	35.418
30 year 720 minute winter	10.143	4.045	100 year +70% CC 180 minute winter	66.265	26.233
30 year 960 minute winter	8.133	3.233	100 year +70% CC 240 minute winter	53.056	21.104
30 year 1440 minute winter	5.906	2.355	100 year +70% CC 360 minute winter	38.968	15.427
30 year 2160 minute winter	4.273	1.714	100 year +70% CC 480 minute winter	30.891	12.287
30 year 2880 minute winter	3.428	1.367	100 year +70% CC 600 minute winter	25.714	10.294
30 year 4320 minute winter	2.501	0.993	100 year +70% CC 720 minute winter	22.350	8.913
30 year 5760 minute winter	2.000	0.791	100 year +70% CC 960 minute winter	17.850	7.096
30 year 7200 minute winter	1.677	0.663	100 year +70% CC 1440 minute winter	12.885	5.138
30 year 8640 minute winter	1.451	0.574	100 year +70% CC 2160 minute winter	9.262	3.715
30 year 10080 minute winter	1.284	0.507	100 year +70% CC 2880 minute winter	7.394	2.949
100 year +40% CC 15 minute winter	286.647	115.584	100 year +70% CC 4320 minute winter	5.355	2.126
100 year +40% CC 30 minute winter	188.614	76.054	100 year +70% CC 5760 minute winter	4.259	1.684
100 year +40% CC 60 minute winter	120.222	47.821	100 year +70% CC 7200 minute winter	3.555	1.405
100 year +40% CC 120 minute winter	73.327	29.168	100 year +70% CC 8640 minute winter	3.065	1.211
100 year +40% CC 180 minute winter	54.572	21.604	100 year +70% CC 10080 minute winter	2.703	1.068
100 year +40% CC 240 minute winter	43.693	17.380	100 year +80% CC 15 minute winter	368.547	148.608
100 year +40% CC 360 minute winter	32.092	12.705	100 year +80% CC 30 minute winter	242.504	97.784
100 year +40% CC 480 minute winter	25.439	10.119	100 year +80% CC 60 minute winter	154.571	61.484
100 year +40% CC 600 minute winter	21.176	8.477	100 year +80% CC 120 minute winter	94.278	37.501
100 year +40% CC 720 minute winter	18.406	7.340	100 year +80% CC 180 minute winter	70.163	27.776
100 year +40% CC 960 minute winter	14.700	5.844	100 year +80% CC 240 minute winter	56.177	22.346
100 year +40% CC 1440 minute winter	10.611	4.232	100 year +80% CC 360 minute winter	41.261	16.334
100 year +40% CC 2160 minute winter	7.628	3.059	100 year +80% CC 480 minute winter	32.708	13.010
100 year +40% CC 2880 minute winter	6.089	2.428	100 year +80% CC 600 minute winter	27.226	10.899
100 year +40% CC 4320 minute winter	4.410	1.751	100 year +80% CC 720 minute winter	23.665	9.437
100 year +40% CC 5760 minute winter	3.507	1.387	100 year +80% CC 960 minute winter	18.900	7.513
100 year +40% CC 7200 minute winter	2.928	1.157	100 year +80% CC 1440 minute winter	13.643	5.441
100 year +40% CC 8640 minute winter	2.524	0.998	100 year +80% CC 2160 minute winter	9.807	3.934
100 year +40% CC 10080 minute winter	2.226	0.880	100 year +80% CC 2880 minute winter	7.829	3.122
100 year +50% CC 15 minute winter	307.122	123.840	100 year +80% CC 4320 minute winter	5.670	2.251
100 year +50% CC 30 minute winter	202.086	81.486	100 year +80% CC 5760 minute winter	4.509	1.783
100 year +50% CC 60 minute winter	128.809	51.237	100 year +80% CC 7200 minute winter	3.764	1.488
100 year +50% CC 120 minute winter	78.565	31.251	100 year +80% CC 8640 minute winter	3.245	1.283
100 year +50% CC 180 minute winter	58.469	23.147	100 year +80% CC 10080 minute winter	2.862	1.131

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.63%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S1	10	151.864	0.054	6.4	0.0612	0.0000	OK
15 minute winter	S2	10	151.603	0.053	6.4	0.0595	0.0000	OK
15 minute winter	S3	10	151.362	0.062	10.8	0.0706	0.0000	OK
15 minute winter	S4	10	151.096	0.096	20.8	0.1090	0.0000	OK
15 minute winter	S5	11	149.768	0.118	29.0	1.1380	0.0000	OK
15 minute winter	S7	10	149.834	0.034	4.8	0.0379	0.0000	OK
15 minute winter	S6	10	149.027	0.027	4.8	0.0310	0.0000	OK
15 minute winter	S8							
15 minute winter	S9	11	149.552	0.152	43.1	1.2908	0.0000	OK
15 minute winter	S10	10	149.030	0.030	4.0	0.0334	0.0000	OK
15 minute winter	S11	12	148.614	0.164	44.1	0.1858	0.0000	OK
15 minute winter	S12	10	149.800	0.057	9.6	0.0640	0.0000	OK
15 minute winter	S13	12	148.427	0.127	55.1	0.1437	0.0000	OK
15 minute winter	S14	10	148.285	0.035	5.4	0.0398	0.0000	OK
240 minute winter	TANK	192	147.318	0.167	13.1	47.7371	0.0000	SURCHARGED
240 minute winter	S15	192	147.317	0.267	9.1	0.3015	0.0000	SURCHARGED
240 minute winter	OUTFALL	192	145.773	0.023	2.9	0.0000	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S1	1.000	S2	6.4	0.894	0.122	0.1841	
15 minute winter	S2	1.001	S3	6.4	0.797	0.121	0.1958	
15 minute winter	S3	1.002	S4	10.6	0.851	0.170	0.2608	
15 minute winter	S4	1.003	S5	20.6	1.331	0.340	0.2281	
15 minute winter	S5	1.004	S6	0.0	0.000	0.000	0.1056	
15 minute winter	S5	3.000	S9	27.7	1.118	0.508	0.5629	
15 minute winter	S7	2.000	S6	4.8	1.509	0.044	0.0578	
15 minute winter	S6	1.005	S13	4.8	0.664	0.032	0.1059	
15 minute winter	S9	3.001	S11	40.6	1.378	0.793	2.8853	
15 minute winter	S10	4.000	S11	4.0	0.763	0.037	0.2138	
15 minute winter	S11	3.002	S13	43.5	1.599	0.778	0.3521	
15 minute winter	S12	5.000	S13	9.5	0.795	0.140	1.2798	
15 minute winter	S13	1.006	TANK	54.8	2.715	0.420	0.0969	
15 minute winter	S14	6.000	TANK	5.4	1.865	0.095	0.0072	
240 minute winter	TANK	1.007	S15	9.1	0.626	0.162	0.0176	
240 minute winter	S15	1.008	OUTFALL	2.9	1.658	0.051	0.0227	63.3



Results for 2 year Critical Storm Duration. Lowest mass balance: 99.63%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S1	10	151.872	0.062	8.3	0.0699	0.0000	OK
15 minute winter	S2	10	151.610	0.060	8.3	0.0682	0.0000	OK
15 minute winter	S3	10	151.372	0.071	14.0	0.0809	0.0000	OK
15 minute winter	S4	10	151.113	0.113	27.1	0.1276	0.0000	OK
15 minute winter	S5	11	149.791	0.141	37.7	1.5821	0.0000	OK
15 minute winter	S7	10	149.838	0.038	6.2	0.0431	0.0000	OK
15 minute winter	S6	10	149.031	0.031	6.2	0.0350	0.0000	OK
	S8							
15 minute winter	S9	11	149.585	0.185	55.3	1.8561	0.0000	OK
15 minute winter	S10	10	149.034	0.033	5.2	0.0379	0.0000	OK
15 minute winter	S11	12	148.652	0.202	55.2	0.2285	0.0000	OK
15 minute winter	S12	10	149.808	0.065	12.4	0.0730	0.0000	OK
15 minute winter	S13	12	148.450	0.150	69.5	0.1700	0.0000	OK
15 minute winter	S14	10	148.291	0.041	7.0	0.0461	0.0000	OK
180 minute winter	TANK	172	147.370	0.220	20.1	62.6093	0.0000	SURCHARGED
180 minute winter	S15	172	147.369	0.319	8.6	0.3602	0.0000	SURCHARGED
180 minute winter	OUTFALL	172	145.774	0.024	3.2	0.0000	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S1	1.000	S2	8.3	0.957	0.159	0.2229	
15 minute winter	S2	1.001	S3	8.3	0.857	0.158	0.2371	
15 minute winter	S3	1.002	S4	13.9	0.906	0.221	0.3182	
15 minute winter	S4	1.003	S5	26.8	1.419	0.442	0.2782	
15 minute winter	S5	1.004	S6	0.0	0.000	0.000	0.1263	
15 minute winter	S5	3.000	S9	35.9	1.168	0.658	0.6917	
15 minute winter	S7	2.000	S6	6.2	1.623	0.056	0.0694	
15 minute winter	S6	1.005	S13	6.2	0.713	0.041	0.1294	
15 minute winter	S9	3.001	S11	51.3	1.418	1.002	3.5422	
15 minute winter	S10	4.000	S11	5.2	0.865	0.048	0.2585	
15 minute winter	S11	3.002	S13	54.7	1.661	0.980	0.4276	
15 minute winter	S12	5.000	S13	12.3	0.839	0.181	1.5592	
15 minute winter	S13	1.006	TANK	69.1	2.831	0.529	0.1169	
15 minute winter	S14	6.000	TANK	7.0	1.985	0.124	0.0088	
180 minute winter	TANK	1.007	S15	8.6	0.662	0.152	0.0176	
180 minute winter	S15	1.008	OUTFALL	3.2	1.704	0.056	0.0244	62.8



Results for 30 year Critical Storm Duration. Lowest mass balance: 99.63%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S1	10	151.897	0.087	15.7	0.0984	0.0000	OK
15 minute winter	S2	10	151.636	0.086	15.7	0.0969	0.0000	OK
15 minute winter	S3	10	151.401	0.101	26.5	0.1145	0.0000	OK
15 minute winter	S4	10	151.178	0.178	51.4	0.2011	0.0000	OK
15 minute winter	S5	13	149.978	0.328	71.7	8.0140	0.0000	OK
15 minute winter	S7	10	149.853	0.052	11.7	0.0593	0.0000	OK
15 minute winter	S6	10	149.042	0.042	11.7	0.0477	0.0000	OK
	S8							
15 minute winter	S9	13	149.839	0.439	88.7	8.0539	0.0000	SURCHARGED
15 minute winter	S10	10	149.046	0.046	9.9	0.0518	0.0000	OK
15 minute winter	S11	11	148.731	0.280	60.2	0.3172	0.0000	SURCHARGED
15 minute winter	S12	10	149.833	0.090	23.4	0.1022	0.0000	OK
15 minute winter	S13	11	148.496	0.196	94.7	0.2219	0.0000	OK
15 minute winter	S14	10	148.310	0.060	13.2	0.0673	0.0000	OK
240 minute winter	TANK	232	147.616	0.466	30.7	132.8706	0.0000	SURCHARGED
240 minute winter	S15	232	147.614	0.564	9.2	0.6380	0.0000	SURCHARGED
240 minute winter	OUTFALL	232	145.778	0.028	4.3	0.0000	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S1	1.000	S2	15.7	1.122	0.300	0.3589	
15 minute winter	S2	1.001	S3	15.7	1.009	0.299	0.3814	
15 minute winter	S3	1.002	S4	26.4	1.022	0.422	0.5276	
15 minute winter	S4	1.003	S5	51.1	1.616	0.842	0.4645	
15 minute winter	S5	1.004	S6	0.0	0.000	0.000	0.1977	
15 minute winter	S5	3.000	S9	48.4	1.225	0.885	0.9012	
15 minute winter	S7	2.000	S6	11.7	1.939	0.106	0.1093	
15 minute winter	S6	1.005	S13	11.7	0.843	0.077	0.1747	
15 minute winter	S9	3.001	S11	54.8	1.425	1.071	3.8976	
15 minute winter	S10	4.000	S11	9.9	1.044	0.091	0.2920	
15 minute winter	S11	3.002	S13	60.3	1.767	1.080	0.4974	
15 minute winter	S12	5.000	S13	23.3	0.954	0.343	2.1906	
15 minute winter	S13	1.006	TANK	93.5	2.940	0.715	0.1504	
15 minute winter	S14	6.000	TANK	13.2	2.290	0.233	0.0144	
240 minute winter	TANK	1.007	S15	9.2	0.624	0.162	0.0176	
240 minute winter	S15	1.008	OUTFALL	4.3	1.860	0.076	0.0302	97.7



Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.63%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S1	10	151.933	0.123	28.4	0.1389	0.0000	OK
15 minute winter	S2	11	151.748	0.198	28.5	0.2240	0.0000	OK
15 minute winter	S3	11	151.681	0.381	46.7	0.4304	0.0000	SURCHARGED
15 minute winter	S4	10	151.521	0.521	84.5	0.5890	0.0000	SURCHARGED
15 minute winter	S5	15	150.303	0.653	121.7	30.7053	0.0000	OK
15 minute winter	S7	10	149.872	0.072	21.1	0.0810	0.0000	OK
15 minute winter	S6	10	149.057	0.057	21.1	0.0639	0.0000	OK
15 minute winter	S8							
15 minute winter	S9	13	150.190	0.789	107.6	16.8530	0.0000	FLOOD RISK
15 minute winter	S10	10	149.062	0.061	17.8	0.0695	0.0000	OK
15 minute winter	S11	11	149.055	0.605	67.6	0.6841	0.0000	SURCHARGED
15 minute winter	S12	10	149.871	0.127	42.3	0.1442	0.0000	OK
15 minute winter	S13	11	148.756	0.456	128.5	0.5154	0.0000	SURCHARGED
15 minute winter	S14	10	148.339	0.089	23.9	0.1001	0.0000	OK
360 minute winter	TANK	344	148.091	0.941	41.1	268.2634	0.0000	SURCHARGED
360 minute winter	S15	344	148.087	1.037	7.7	1.1731	0.0000	SURCHARGED
360 minute winter	OUTFALL	344	145.783	0.033	5.9	0.0000	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S1	1.000	S2	28.5	1.305	0.544	0.7166	
15 minute winter	S2	1.001	S3	29.3	1.061	0.559	0.9398	
15 minute winter	S3	1.002	S4	45.4	1.141	0.724	0.8234	
15 minute winter	S4	1.003	S5	84.4	2.123	1.391	0.5792	
15 minute winter	S5	1.004	S6	0.0	0.000	0.000	0.3002	
15 minute winter	S5	3.000	S9	47.5	1.255	0.870	0.9012	
15 minute winter	S7	2.000	S6	21.1	2.273	0.192	0.1679	
15 minute winter	S6	1.005	S13	21.1	0.903	0.139	0.1986	
15 minute winter	S9	3.001	S11	59.7	1.500	1.166	3.8976	
15 minute winter	S10	4.000	S11	17.8	1.188	0.165	0.3112	
15 minute winter	S11	3.002	S13	67.7	1.775	1.212	0.5170	
15 minute winter	S12	5.000	S13	42.2	1.193	0.622	2.6727	
15 minute winter	S13	1.006	TANK	125.6	3.240	0.961	0.1751	
15 minute winter	S14	6.000	TANK	23.9	2.572	0.422	0.0232	
360 minute winter	TANK	1.007	S15	7.7	0.606	0.136	0.0176	
360 minute winter	S15	1.008	OUTFALL	5.9	2.035	0.104	0.0378	162.9



Results for 100 year +50% CC Critical Storm Duration. Lowest mass balance: 99.63%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S1	9	151.939	0.128	30.4	0.1453	0.0000	OK
15 minute winter	S2	11	151.867	0.317	30.7	0.3582	0.0000	SURCHARGED
15 minute winter	S3	11	151.779	0.479	47.1	0.5413	0.0000	SURCHARGED
15 minute winter	S4	11	151.570	0.570	89.1	0.6447	0.0000	SURCHARGED
15 minute winter	S5	15	150.352	0.702	127.6	34.9346	0.0000	OK
15 minute winter	S7	10	149.874	0.074	22.6	0.0841	0.0000	OK
15 minute winter	S6	10	149.059	0.059	22.6	0.0662	0.0000	OK
	S8							
15 minute winter	S9	13	150.238	0.838	111.2	18.0815	0.0000	FLOOD RISK
15 minute winter	S10	11	149.104	0.104	19.1	0.1179	0.0000	OK
15 minute winter	S11	11	149.099	0.649	68.1	0.7344	0.0000	SURCHARGED
15 minute winter	S12	10	149.876	0.133	45.3	0.1506	0.0000	OK
15 minute winter	S13	11	148.800	0.500	133.8	0.5650	0.0000	SURCHARGED
360 minute winter	S14	344	148.500	0.250	3.4	0.2822	0.0000	SURCHARGED
360 minute winter	TANK	344	148.500	1.350	44.0	285.1425	0.0000	SURCHARGED
360 minute winter	S15	344	148.494	1.444	8.1	1.6330	0.0000	SURCHARGED
360 minute winter	OUTFALL	344	145.786	0.036	7.0	0.0000	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S1	1.000	S2	30.7	1.324	0.587	0.7935	
15 minute winter	S2	1.001	S3	30.2	1.057	0.575	0.9734	
15 minute winter	S3	1.002	S4	46.4	1.166	0.740	0.8234	
15 minute winter	S4	1.003	S5	88.7	2.230	1.461	0.5792	
15 minute winter	S5	1.004	S6	0.0	0.000	0.000	0.3152	
15 minute winter	S5	3.000	S9	49.1	1.247	0.899	0.9012	
15 minute winter	S7	2.000	S6	22.6	2.315	0.205	0.1766	
15 minute winter	S6	1.005	S13	22.6	0.902	0.149	0.2002	
15 minute winter	S9	3.001	S11	60.4	1.520	1.181	3.8976	
15 minute winter	S10	4.000	S11	18.9	1.227	0.175	0.3702	
15 minute winter	S11	3.002	S13	69.9	1.775	1.251	0.5170	
15 minute winter	S12	5.000	S13	45.2	1.261	0.666	2.7262	
15 minute winter	S13	1.006	TANK	129.6	3.259	0.991	0.1909	
360 minute winter	S14	6.000	TANK	3.4	1.658	0.060	0.0440	
360 minute winter	TANK	1.007	S15	8.1	0.649	0.143	0.0176	
360 minute winter	S15	1.008	OUTFALL	7.0	2.132	0.123	0.0428	171.8



Results for 100 year +60% CC Critical Storm Duration. Lowest mass balance: 99.63%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S1	11	152.020	0.210	32.4	0.2370	0.0000	OK
15 minute winter	S2	11	151.935	0.385	31.6	0.4350	0.0000	SURCHARGED
15 minute winter	S3	11	151.844	0.544	46.8	0.6154	0.0000	SURCHARGED
15 minute winter	S4	10	151.645	0.645	96.0	0.7298	0.0000	SURCHARGED
30 minute winter	S5	24	150.406	0.756	109.0	39.4698	0.0000	OK
15 minute winter	S7	10	149.877	0.077	24.2	0.0873	0.0000	OK
360 minute winter	S6	312	149.153	0.153	3.3	0.1730	0.0000	OK
	S8							
15 minute winter	S9	13	150.286	0.886	114.7	19.2689	0.0000	FLOOD RISK
15 minute winter	S10	11	149.161	0.160	20.3	0.1815	0.0000	OK
360 minute winter	S11	312	149.155	0.705	33.7	0.7978	0.0000	SURCHARGED
15 minute winter	S12	10	149.882	0.139	48.3	0.1570	0.0000	OK
360 minute winter	S13	312	149.153	0.853	43.4	0.9647	0.0000	SURCHARGED
360 minute winter	S14	312	149.151	0.901	3.7	1.0191	0.0000	SURCHARGED
360 minute winter	TANK	304	149.150	2.000	47.0	285.1425	0.0000	SURCHARGED
360 minute winter	S15	312	149.143	2.093	13.7	2.3670	0.0000	SURCHARGED
360 minute winter	OUTFALL	312	145.789	0.039	8.4	0.0000	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S1	1.000	S2	31.6	1.272	0.604	1.0037	
15 minute winter	S2	1.001	S3	32.7	1.011	0.623	0.9734	
15 minute winter	S3	1.002	S4	49.3	1.240	0.787	0.8234	
15 minute winter	S4	1.003	S5	93.7	2.357	1.544	0.5792	
30 minute winter	S5	1.004	S6	0.0	0.000	0.000	0.2695	
30 minute winter	S5	3.000	S9	45.9	1.210	0.841	0.9012	
15 minute winter	S7	2.000	S6	24.2	2.357	0.220	0.1857	
360 minute winter	S6	1.005	S13	3.3	0.342	0.022	0.2860	
15 minute winter	S9	3.001	S11	61.2	1.539	1.196	3.8976	
15 minute winter	S10	4.000	S11	20.1	1.240	0.186	0.4492	
360 minute winter	S11	3.002	S13	33.6	1.514	0.601	0.5170	
15 minute winter	S12	5.000	S13	48.2	1.328	0.710	2.7797	
360 minute winter	S13	1.006	TANK	43.3	2.590	0.331	0.1909	
360 minute winter	S14	6.000	TANK	3.7	1.693	0.065	0.0440	
360 minute winter	TANK	1.007	S15	13.7	0.781	0.243	0.0176	
360 minute winter	S15	1.008	OUTFALL	8.4	2.247	0.149	0.0490	188.2



Results for 100 year +70% CC Critical Storm Duration. Lowest mass balance: 99.63%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S1	11	152.169	0.359	34.4	0.4061	0.0000	SURCHARGED
15 minute winter	S2	11	152.067	0.517	33.9	0.5849	0.0000	SURCHARGED
15 minute winter	S3	11	151.962	0.662	50.6	0.7489	0.0000	SURCHARGED
15 minute winter	S4	10	151.709	0.709	99.6	0.8022	0.0000	SURCHARGED
30 minute winter	S5	25	150.464	0.814	114.4	44.4539	0.0000	OK
15 minute winter	S7	10	149.880	0.080	25.7	0.0903	0.0000	OK
360 minute winter	S6	272	149.538	0.538	4.1	0.6089	0.0000	SURCHARGED
30 minute winter	S9	23	150.342	0.942	95.1	20.6803	0.0000	FLOOD RISK
360 minute winter	S10	272	149.545	0.545	2.9	0.6167	0.0000	SURCHARGED
360 minute winter	S11	272	149.545	1.095	35.9	1.2388	0.0000	SURCHARGED
15 minute winter	S12	10	149.888	0.145	51.3	0.1636	0.0000	OK
360 minute winter	S13	272	149.538	1.238	46.2	1.4005	0.0000	SURCHARGED
360 minute winter	S14	272	149.533	1.282	3.9	1.4505	0.0000	SURCHARGED
360 minute winter	TANK	272	149.532	2.382	50.0	285.1425	0.0000	SURCHARGED
360 minute winter	S15	264	149.509	2.459	19.5	2.7811	7.6354	FLOOD
240 minute winter	OUTFALL	200	145.791	0.041	9.1	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 winter	S1	1.000	S2	33.9	1.291	0.648	1.0193	
15 minute winter	S2	1.001	S3	33.9	1.014	0.645	0.9734	
15 minute winter	S3	1.002	S4	51.2	1.287	0.817	0.8234	
15 minute winter	S4	1.003	S5	98.9	2.488	1.630	0.5792	
30 minute winter	S5	1.004	S6	0.0	0.000	0.000	0.2817	
30 minute winter	S5	3.000	S9	45.3	1.219	0.830	0.9012	
15 minute winter	S7	2.000	S6	25.7	2.394	0.233	0.1941	
360 minute winter	S6	1.005	S13	3.5	0.344	0.023	0.3321	
30 minute winter	S9	3.001	S11	62.2	1.564	1.216	3.8976	
360 minute winter	S10	4.000	S11	2.9	0.216	0.027	0.5099	
360 minute winter	S11	3.002	S13	35.8	1.533	0.641	0.5170	
15 minute winter	S12	5.000	S13	51.2	1.392	0.754	2.8332	
360 minute winter	S13	1.006	TANK	46.1	2.623	0.353	0.1909	
360 minute winter	S14	6.000	TANK	3.9	1.716	0.069	0.0440	
360 minute winter	TANK	1.007	S15	19.5	1.110	0.345	0.0176	
360 minute winter	S15	1.008	OUTFALL	9.1	2.297	0.162	0.0520	201.1

Results for 100 year +80% CC Critical Storm Duration. Lowest mass balance: 99.63%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S1	11	152.314	0.504	36.5	0.5698	0.0000	FLOOD RISK
15 minute winter	S2	11	152.199	0.649	36.5	0.7336	0.0000	SURCHARGED
15 minute winter	S3	11	152.081	0.781	53.6	0.8828	0.0000	SURCHARGED
15 minute winter	S4	11	151.794	0.794	105.1	0.8981	0.0000	SURCHARGED
30 minute winter	S5	25	150.510	0.860	119.7	48.3529	0.0000	OK
15 minute winter	S7	10	149.882	0.082	27.2	0.0932	0.0000	OK
360 minute winter	S6	248	149.579	0.579	7.5	0.6548	0.0000	SURCHARGED
	S8							
30 minute winter	S9	21	150.350	0.950	97.2	20.8870	1.9602	FLOOD
360 minute winter	S10	248	149.595	0.595	3.1	0.6729	0.0000	SURCHARGED
360 minute winter	S11	248	149.595	1.145	38.1	1.2948	0.0000	SURCHARGED
15 minute winter	S12	10	149.898	0.155	54.4	0.1751	0.0000	OK
360 minute winter	S13	248	149.579	1.279	49.0	1.4464	0.0000	SURCHARGED
360 minute winter	S14	248	149.565	1.315	4.1	1.4876	0.0000	SURCHARGED
360 minute winter	TANK	248	149.565	2.415	53.0	285.1425	0.0000	SURCHARGED
360 minute winter	S15	240	149.509	2.459	21.9	2.7811	28.8319	FLOOD
120 minute winter	OUTFALL	118	145.791	0.041	9.1	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 winter	S1	1.000	S2	36.5	1.321	0.697	1.0193	
15 minute winter	S2	1.001	S3	35.2	1.029	0.669	0.9734	
15 minute winter	S3	1.002	S4	54.3	1.365	0.866	0.8234	
15 minute winter	S4	1.003	S5	104.9	2.638	1.729	0.5792	
30 minute winter	S5	1.004	S6	0.0	0.000	0.000	0.2931	
30 minute winter	S5	3.000	S9	46.1	1.214	0.844	0.9012	
15 minute winter	S7	2.000	S6	27.2	2.429	0.247	0.2024	
360 minute winter	S6	1.005	S13	-5.3	0.346	-0.035	0.3321	
30 minute winter	S9	3.001	S11	62.6	1.574	1.224	3.8976	
360 minute winter	S10	4.000	S11	3.1	0.217	0.029	0.5099	
360 minute winter	S11	3.002	S13	38.0	1.550	0.680	0.5170	
15 minute winter	S12	5.000	S13	53.6	1.429	0.789	2.9247	
360 minute winter	S13	1.006	TANK	48.9	2.654	0.374	0.1909	
360 minute winter	S14	6.000	TANK	4.1	1.739	0.072	0.0440	
360 minute winter	TANK	1.007	S15	21.9	1.244	0.387	0.0176	
360 minute winter	S15	1.008	OUTFALL	9.1	2.297	0.162	0.0520	205.1