



Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	2	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	1.000
CV	1.000	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	x
Maximum Rainfall (mm/hr)	50.0		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
S2	0.055	5.00	55.643	1350	479608.821	162728.548	1.493
S4	0.035	5.00	55.270	1350	479589.176	162728.450	1.470
S6	0.071	5.00	54.625	1350	479554.574	162718.639	1.550
S8	0.000		54.607	1350	479540.130	162718.795	1.593
S10	0.029	5.00	54.184	1350	479536.531	162697.104	1.482
S12	0.000		53.900	1350	479533.696	162679.606	1.375
S14	0.008	5.00	53.644	1350	479563.965	162672.079	1.305
S16	0.164	5.00	54.119	1350	479609.228	162676.877	2.037
S49	0.000		53.753	1350	479659.323	162672.816	1.832
S38	0.063	5.00	54.517	1200	479717.592	162705.201	1.807
S40	0.040	5.00	54.833	1200	479673.015	162705.430	2.310
S48	0.031	5.00	55.743	1350	479653.293	162729.795	1.593
S42	0.032	5.00	54.740	1350	479662.270	162701.325	2.390
S44	0.051	5.00	54.119	1350	479666.728	162683.161	1.844
S46	0.063	5.00	53.181	1350	479671.105	162669.474	1.299
HW1			53.050	1500	479671.231	162658.828	1.350
HW2			53.050	1500	479661.050	162656.807	1.360
S24			53.850	1500	479656.866	162663.431	2.210
S51			53.722	1200	479650.307	162671.552	2.126
S50			54.116	1200	479610.682	162674.977	2.687
S26			53.173	1200	479557.365	162669.971	1.968
S28			53.430	1200	479531.484	162677.491	2.360
S30			53.897	1200	479514.016	162677.242	2.877
S32			51.972	1350	479495.536	162586.035	1.340
S34			51.881	1350	479478.864	162503.256	1.601
HW3			51.453	1500	479474.400	162498.833	1.199

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	S2	S4	19.645	0.600	54.150	53.800	0.350	56.1	225	5.19	50.0
1.001	S4	S6	35.966	0.600	53.800	53.150	0.650	55.3	225	5.53	49.3
1.002	S6	S8	14.445	0.600	53.075	53.014	0.061	236.8	300	5.76	48.2
1.003	S8	S10	21.987	0.600	53.014	52.702	0.312	70.5	300	5.96	47.4
1.004	S10	S12	17.727	0.600	52.702	52.600	0.102	173.8	300	6.21	46.4
1.005	S12	S14	31.075	0.600	52.525	52.339	0.186	167.1	375	6.58	45.2
1.006	S14	S16	45.529	0.600	52.339	52.157	0.182	250.2	375	7.24	43.0
1.007	S16	S49	50.259	0.600	52.082	51.921	0.161	312.2	450	7.98	40.9
1.008	S49	S46	12.247	0.600	51.921	51.882	0.039	314.0	450	8.15	40.4
2.000	S38	S40	44.578	0.600	52.710	52.523	0.187	238.4	300	5.73	48.4
2.001	S40	S42	11.502	0.600	52.523	52.425	0.098	117.4	300	5.87	47.8
3.000	S48	S42	29.851	0.600	54.150	52.500	1.650	18.1	225	5.16	50.0
2.002	S42	S44	18.704	0.600	52.350	52.275	0.075	249.4	375	6.14	46.7
2.003	S44	S46	14.370	0.600	52.275	51.957	0.318	45.2	375	6.23	46.4
1.009	S46	HW1	10.647	0.600	51.882	51.850	0.032	332.7	450	8.31	40.0
1.010	HW1	HW2	10.380	0.600	51.700	51.690	0.010	1038.0	600	8.55	39.5
1.011	HW2	S24	7.835	0.600	51.690	51.640	0.050	156.7	600	8.61	39.3
1.012	S24	S51	10.439	0.600	51.640	51.596	0.044	237.3	300	8.78	38.9
1.013	S51	S50	39.773	0.600	51.596	51.429	0.167	238.2	300	9.44	37.4
1.014	S50	S26	53.361	0.600	51.429	51.205	0.224	238.2	300	10.31	35.7
1.015	S26	S28	32.133	0.600	51.205	51.070	0.135	238.0	300	10.84	34.7
1.016	S28	S30	11.897	0.600	51.070	51.020	0.050	237.9	300	11.04	34.3
1.017	S30	S32	93.060	0.600	51.020	50.632	0.388	239.8	300	12.57	31.9
1.018	S32	S34	84.441	0.600	50.632	50.280	0.352	239.9	300	13.97	30.0

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	1.749	69.5	9.9	1.268	1.245	0.055	0.0	58	1.253
1.001	1.762	70.0	16.0	1.245	1.250	0.090	0.0	73	1.431
1.002	1.017	71.9	28.1	1.250	1.293	0.161	0.0	130	0.955
1.003	1.875	132.5	27.6	1.293	1.182	0.161	0.0	92	1.489
1.004	1.189	84.1	31.9	1.182	1.000	0.190	0.0	128	1.110
1.005	1.399	154.5	31.0	1.000	0.930	0.190	0.0	113	1.101
1.006	1.141	126.0	30.8	0.930	1.587	0.198	0.0	126	0.947
1.007	1.145	182.1	53.5	1.587	1.382	0.362	0.0	167	1.000
1.008	1.142	181.6	52.9	1.382	0.849	0.362	0.0	166	0.995
2.000	1.014	71.7	11.0	1.507	2.010	0.063	0.0	79	0.738
2.001	1.450	102.5	17.8	2.010	2.015	0.103	0.0	84	1.095
3.000	3.091	122.9	5.6	1.368	2.015	0.031	0.0	32	1.570
2.002	1.143	126.2	28.0	2.015	1.469	0.166	0.0	120	0.926
2.003	2.701	298.3	36.4	1.469	0.849	0.217	0.0	88	1.850
1.009	1.109	176.3	92.9	0.849	0.750	0.642	0.0	232	1.123
1.010	0.747	211.3	91.6	0.750	0.760	0.642	0.0	276	0.721
1.011	1.943	549.2	91.2	0.760	1.610	0.642	0.0	164	1.455
1.012	1.016	71.8	90.2	1.910	1.826	0.642	0.0	300	1.029
1.013	1.014	71.7	86.9	1.826	2.387	0.642	0.0	300	1.027
1.014	1.014	71.7	82.8	2.387	1.668	0.642	0.0	300	1.027
1.015	1.015	71.7	80.5	1.668	2.060	0.642	0.0	300	1.028
1.016	1.015	71.7	79.7	2.060	2.577	0.642	0.0	300	1.028
1.017	1.011	71.4	74.1	2.577	1.040	0.642	0.0	259	1.141
1.018	1.011	71.4	69.7	1.040	1.301	0.642	0.0	241	1.146



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)
1.019	S34	HW3	6.284	0.600	50.280	50.254	0.026	241.7	300	14.07	29.9
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)		
1.019	1.007	71.2	69.4	1.301	0.899	0.642	0.0	241	1.141		

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	19.645	56.1	225	Circular	55.643	54.150	1.268	55.270	53.800	1.245
1.001	35.966	55.3	225	Circular	55.270	53.800	1.245	54.625	53.150	1.250
1.002	14.445	236.8	300	Circular	54.625	53.075	1.250	54.607	53.014	1.293
1.003	21.987	70.5	300	Circular	54.607	53.014	1.293	54.184	52.702	1.182
1.004	17.727	173.8	300	Circular	54.184	52.702	1.182	53.900	52.600	1.000
1.005	31.075	167.1	375	Circular	53.900	52.525	1.000	53.644	52.339	0.930
1.006	45.529	250.2	375	Circular	53.644	52.339	0.930	54.119	52.157	1.587
1.007	50.259	312.2	450	Circular	54.119	52.082	1.587	53.753	51.921	1.382
1.008	12.247	314.0	450	Circular	53.753	51.921	1.382	53.181	51.882	0.849
2.000	44.578	238.4	300	Circular	54.517	52.710	1.507	54.833	52.523	2.010
2.001	11.502	117.4	300	Circular	54.833	52.523	2.010	54.740	52.425	2.015
3.000	29.851	18.1	225	Circular	55.743	54.150	1.368	54.740	52.500	2.015
2.002	18.704	249.4	375	Circular	54.740	52.350	2.015	54.119	52.275	1.469
2.003	14.370	45.2	375	Circular	54.119	52.275	1.469	53.181	51.957	0.849
1.009	10.647	332.7	450	Circular	53.181	51.882	0.849	53.050	51.850	0.750
1.010	10.380	1038.0	600	Circular	53.050	51.700	0.750	53.050	51.690	0.760
1.011	7.835	156.7	600	Circular	53.050	51.690	0.760	53.850	51.640	1.610
1.012	10.439	237.3	300	Circular	53.850	51.640	1.910	53.722	51.596	1.826
1.013	39.773	238.2	300	Circular	53.722	51.596	1.826	54.116	51.429	2.387

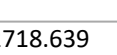
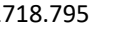
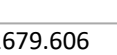
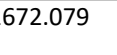
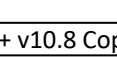
Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	S2	1350	Manhole	Adoptable	S4	1350	Manhole	Adoptable
1.001	S4	1350	Manhole	Adoptable	S6	1350	Manhole	Adoptable
1.002	S6	1350	Manhole	Adoptable	S8	1350	Manhole	Adoptable
1.003	S8	1350	Manhole	Adoptable	S10	1350	Manhole	Adoptable
1.004	S10	1350	Manhole	Adoptable	S12	1350	Manhole	Adoptable
1.005	S12	1350	Manhole	Adoptable	S14	1350	Manhole	Adoptable
1.006	S14	1350	Manhole	Adoptable	S16	1350	Manhole	Adoptable
1.007	S16	1350	Manhole	Adoptable	S49	1350	Manhole	Adoptable
1.008	S49	1350	Manhole	Adoptable	S46	1350	Manhole	Adoptable
2.000	S38	1200	Manhole	Adoptable	S40	1200	Manhole	Adoptable
2.001	S40	1200	Manhole	Adoptable	S42	1350	Manhole	Adoptable
3.000	S48	1350	Manhole	Adoptable	S42	1350	Manhole	Adoptable
2.002	S42	1350	Manhole	Adoptable	S44	1350	Manhole	Adoptable
2.003	S44	1350	Manhole	Adoptable	S46	1350	Manhole	Adoptable
1.009	S46	1350	Manhole	Adoptable	HW1	1500	Manhole	Adoptable
1.010	HW1	1500	Manhole	Adoptable	HW2	1500	Manhole	Adoptable
1.011	HW2	1500	Manhole	Adoptable	S24	1500	Manhole	Adoptable
1.012	S24	1500	Manhole	Adoptable	S51	1200	Manhole	Adoptable
1.013	S51	1200	Manhole	Adoptable	S50	1200	Manhole	Adoptable

Pipeline Schedule

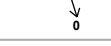
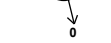
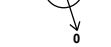
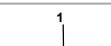
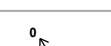
Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.014	53.361	238.2	300	Circular	54.116	51.429	2.387	53.173	51.205	1.668
1.015	32.133	238.0	300	Circular	53.173	51.205	1.668	53.430	51.070	2.060
1.016	11.897	237.9	300	Circular	53.430	51.070	2.060	53.897	51.020	2.577
1.017	93.060	239.8	300	Circular	53.897	51.020	2.577	51.972	50.632	1.040
1.018	84.441	239.9	300	Circular	51.972	50.632	1.040	51.881	50.280	1.301
1.019	6.284	241.7	300	Circular	51.881	50.280	1.301	51.453	50.254	0.899

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.014	S50	1200	Manhole	Adoptable	S26	1200	Manhole	Adoptable
1.015	S26	1200	Manhole	Adoptable	S28	1200	Manhole	Adoptable
1.016	S28	1200	Manhole	Adoptable	S30	1200	Manhole	Adoptable
1.017	S30	1200	Manhole	Adoptable	S32	1350	Manhole	Adoptable
1.018	S32	1350	Manhole	Adoptable	S34	1350	Manhole	Adoptable
1.019	S34	1350	Manhole	Adoptable	HW3	1500	Manhole	Adoptable

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
S2	479608.821	162728.548	55.643	1.493	1350	 0	1.000	54.150	225
S4	479589.176	162728.450	55.270	1.470	1350	 0	1.000	53.800	225
						 0	1.001	53.800	225
S6	479554.574	162718.639	54.625	1.550	1350	 0	1.001	53.150	225
						 0	1.002	53.075	300
S8	479540.130	162718.795	54.607	1.593	1350	 0	1.002	53.014	300
						 0	1.003	53.014	300
S10	479536.531	162697.104	54.184	1.482	1350	 0	1.003	52.702	300
						 0	1.004	52.702	300
S12	479533.696	162679.606	53.900	1.375	1350	 0	1.004	52.600	300
						 0	1.005	52.525	375
S14	479563.965	162672.079	53.644	1.305	1350	 0	1.005	52.339	375
						 0	1.006	52.339	375
S16	479609.228	162676.877	54.119	2.037	1350	 0	1.006	52.157	375
						 0	1.007	52.082	450

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
S49	479659.323	162672.816	53.753	1.832	1350		1	1.007	51.921	450
							0	1.008	51.921	450
S38	479717.592	162705.201	54.517	1.807	1200		0	2.000	52.710	300
S40	479673.015	162705.430	54.833	2.310	1200		1	2.000	52.523	300
							0	2.001	52.523	300
S48	479653.293	162729.795	55.743	1.593	1350		0	3.000	54.150	225
S42	479662.270	162701.325	54.740	2.390	1350		1	3.000	52.500	225
							2	2.001	52.425	300
							0	2.002	52.350	375
S44	479666.728	162683.161	54.119	1.844	1350		1	2.002	52.275	375
							0	2.003	52.275	375
S46	479671.105	162669.474	53.181	1.299	1350		1	2.003	51.957	375
							2	1.008	51.882	450
							0	1.009	51.882	450
HW1	479671.231	162658.828	53.050	1.350	1500		1	1.009	51.850	450
							0	1.010	51.700	600
HW2	479661.050	162656.807	53.050	1.360	1500		1	1.010	51.690	600
							0	1.011	51.690	600
S24	479656.866	162663.431	53.850	2.210	1500		1	1.011	51.640	600
							0	1.012	51.640	300
S51	479650.307	162671.552	53.722	2.126	1200		1	1.012	51.596	300
							0	1.013	51.596	300
S50	479610.682	162674.977	54.116	2.687	1200		1	1.013	51.429	300
							0	1.014	51.429	300
S26	479557.365	162669.971	53.173	1.968	1200		1	1.014	51.205	300
							0	1.015	51.205	300

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
S28	479531.484	162677.491	53.430	2.360	1200		1	1.015	51.070	300
							0	1.016	51.070	300
S30	479514.016	162677.242	53.897	2.877	1200		1	1.016	51.020	300
							0	1.017	51.020	300
S32	479495.536	162586.035	51.972	1.340	1350		1	1.017	50.632	300
							0	1.018	50.632	300
S34	479478.864	162503.256	51.881	1.601	1350		1	1.018	50.280	300
							0	1.019	50.280	300
HW3	479474.400	162498.833	51.453	1.199	1500		1	1.019	50.254	300

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Normal	Additional Storage (m³/ha)	0.0
Summer CV	1.000	Skip Steady State	x	Check Discharge Rate(s)	x
Winter CV	1.000	Drain Down Time (mins)	240	Check Discharge Volume	x

Storm Durations

15	30	60	120	180	240	360	480	600	720	960	1440
----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	------

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
2	0	0	0
30	0	0	0
100	40	0	0

Node S24 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	✓	Sump Available	✓
Invert Level (m)	51.640	Product Number	CTL-SHE-0102-4600-0950-4600
Design Depth (m)	0.950	Min Outlet Diameter (m)	0.150
Design Flow (l/s)	4.6	Min Node Diameter (mm)	1200

Node HW2 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	51.690
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	396.0	0.0	1.200	846.3	0.0

Results for 2 year Critical Storm Duration. Lowest mass balance: 99.52%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S2	10	54.205	0.055	9.1	0.0781	0.0000	OK
15 minute summer	S4	10	53.871	0.071	14.8	0.1012	0.0000	OK
15 minute summer	S6	10	53.201	0.126	26.2	0.1810	0.0000	OK
15 minute summer	S8	11	53.104	0.090	26.0	0.1291	0.0000	OK
15 minute summer	S10	11	52.835	0.133	30.8	0.1908	0.0000	OK
15 minute summer	S12	11	52.642	0.117	30.9	0.1676	0.0000	OK
15 minute summer	S14	12	52.469	0.130	32.1	0.1860	0.0000	OK
15 minute summer	S16	11	52.246	0.164	54.7	0.2348	0.0000	OK
15 minute summer	S49	10	52.172	0.251	53.7	0.3586	0.0000	OK
15 minute summer	S38	10	52.786	0.076	10.5	0.0862	0.0000	OK
15 minute summer	S40	11	52.610	0.087	16.9	0.0984	0.0000	OK
15 minute summer	S48	10	54.182	0.032	5.2	0.0452	0.0000	OK
15 minute summer	S42	11	52.469	0.119	26.8	0.1707	0.0000	OK
15 minute summer	S44	11	52.361	0.086	35.0	0.1230	0.0000	OK
15 minute summer	S46	10	52.163	0.281	103.4	0.4022	0.0000	OK
15 minute summer	HW1	10	52.122	0.422	106.9	0.7459	0.0000	OK
360 minute summer	HW2	264	51.903	0.213	27.6	93.1952	0.0000	OK
360 minute winter	S24	320	51.912	0.272	12.7	0.4812	0.0000	OK
360 minute summer	S51	272	51.648	0.052	4.6	0.0584	0.0000	OK
360 minute summer	S50	264	51.480	0.051	4.6	0.0582	0.0000	OK
360 minute summer	S26	264	51.257	0.052	4.6	0.0583	0.0000	OK
360 minute summer	S28	264	51.123	0.053	4.6	0.0600	0.0000	OK
360 minute summer	S30	264	51.071	0.051	4.6	0.0581	0.0000	OK
360 minute summer	S32	272	50.683	0.051	4.6	0.0731	0.0000	OK
360 minute summer	S34	272	50.334	0.054	4.6	0.0776	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	S2	1.000	S4	9.0	1.006	0.130	0.1776	
15 minute summer	S4	1.001	S6	14.5	1.384	0.207	0.3777	
15 minute summer	S6	1.002	S8	26.0	1.139	0.361	0.3316	
15 minute summer	S8	1.003	S10	26.2	1.096	0.198	0.5282	
15 minute summer	S10	1.004	S12	30.9	1.069	0.368	0.5126	
15 minute summer	S12	1.005	S14	30.8	1.021	0.200	0.9670	
15 minute summer	S14	1.006	S16	31.3	0.948	0.249	1.5059	
15 minute summer	S16	1.007	S49	53.7	0.804	0.295	3.4492	
15 minute summer	S49	1.008	S46	58.2	0.668	0.321	1.1929	
15 minute summer	S38	2.000	S40	10.3	0.672	0.144	0.6870	
15 minute summer	S40	2.001	S42	16.7	1.035	0.163	0.1858	
15 minute summer	S48	3.000	S42	5.1	1.524	0.042	0.1000	
15 minute summer	S42	2.002	S44	27.0	1.105	0.214	0.4592	
15 minute summer	S44	2.003	S46	35.2	1.281	0.118	0.5802	
15 minute summer	S46	1.009	HW1	106.9	1.200	0.606	1.0887	
15 minute summer	HW1	1.010	HW2	112.1	2.092	0.530	1.1124	
360 minute summer	HW2	1.011	S24	13.3	0.358	0.024	0.8283	
360 minute winter	S24	Hydro-Brake®	S51	4.6				
360 minute summer	S51	1.013	S50	4.6	0.571	0.064	0.3197	
360 minute summer	S50	1.014	S26	4.6	0.572	0.064	0.4285	
360 minute summer	S26	1.015	S28	4.6	0.559	0.064	0.2638	
360 minute summer	S28	1.016	S30	4.6	0.561	0.064	0.0974	
360 minute summer	S30	1.017	S32	4.6	0.576	0.064	0.7415	
360 minute summer	S32	1.018	S34	4.6	0.554	0.064	0.7003	
360 minute summer	S34	1.019	HW3	4.6	0.559	0.065	0.0517	128.4



Results for 2 year Critical Storm Duration. Lowest mass balance: 99.52%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute summer	HW3	272	50.304	0.050	4.6	0.0000	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.52%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S2	10	54.241	0.091	23.3	0.1300	0.0000	OK
15 minute summer	S4	10	53.918	0.118	37.9	0.1683	0.0000	OK
15 minute summer	S6	10	53.297	0.222	67.7	0.3178	0.0000	OK
15 minute summer	S8	10	53.177	0.163	67.3	0.2331	0.0000	OK
15 minute summer	S10	11	52.959	0.257	79.5	0.3679	0.0000	OK
15 minute summer	S12	11	52.730	0.205	79.6	0.2939	0.0000	OK
15 minute summer	S14	12	52.570	0.231	83.1	0.3307	0.0000	OK
15 minute summer	S16	12	52.494	0.412	148.1	0.5896	0.0000	OK
15 minute summer	S49	12	52.393	0.472	140.9	0.6753	0.0000	SURCHARGED
15 minute summer	S38	10	52.836	0.126	26.7	0.1426	0.0000	OK
15 minute summer	S40	11	52.672	0.149	43.4	0.1682	0.0000	OK
15 minute summer	S48	10	54.200	0.050	13.1	0.0718	0.0000	OK
15 minute summer	S42	10	52.547	0.197	69.0	0.2823	0.0000	OK
15 minute summer	S44	10	52.414	0.139	90.2	0.1992	0.0000	OK
15 minute summer	S46	11	52.351	0.469	245.5	0.6708	0.0000	SURCHARGED
15 minute winter	HW1	8	52.256	0.556	230.0	0.9829	0.0000	OK
360 minute winter	HW2	352	52.184	0.494	39.7	242.4666	0.0000	OK
360 minute winter	S24	352	52.187	0.547	13.8	0.9659	0.0000	SURCHARGED
15 minute winter	S51	11	51.648	0.052	4.6	0.0591	0.0000	OK
15 minute summer	S50	14	51.481	0.052	4.6	0.0585	0.0000	OK
15 minute summer	S26	17	51.257	0.052	4.6	0.0584	0.0000	OK
15 minute summer	S28	19	51.123	0.053	4.6	0.0601	0.0000	OK
15 minute summer	S30	19	51.074	0.054	4.6	0.0605	0.0000	OK
15 minute summer	S32	23	50.683	0.051	4.7	0.0737	0.0000	OK
15 minute summer	S34	27	50.334	0.054	4.7	0.0778	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	S2	1.000	S4	23.1	1.287	0.333	0.3536	
15 minute summer	S4	1.001	S6	37.6	1.575	0.537	0.8718	
15 minute summer	S6	1.002	S8	67.3	1.421	0.936	0.6860	
15 minute summer	S8	1.003	S10	67.3	1.297	0.507	1.1251	
15 minute summer	S10	1.004	S12	79.6	1.324	0.947	1.0612	
15 minute summer	S12	1.005	S14	79.9	1.215	0.517	2.0425	
15 minute summer	S14	1.006	S16	81.8	1.064	0.649	3.9987	
15 minute summer	S16	1.007	S49	140.9	0.912	0.774	7.8030	
15 minute summer	S49	1.008	S46	142.0	0.910	0.782	1.9405	
15 minute summer	S38	2.000	S40	26.4	0.841	0.369	1.4019	
15 minute summer	S40	2.001	S42	42.9	1.315	0.418	0.3749	
15 minute summer	S48	3.000	S42	13.0	1.998	0.105	0.1937	
15 minute summer	S42	2.002	S44	68.8	1.444	0.545	0.8969	
15 minute summer	S44	2.003	S46	89.7	1.373	0.301	1.0593	
15 minute summer	S46	1.009	HW1	244.0	1.617	1.384	1.5436	
15 minute winter	HW1	1.010	HW2	256.3	2.604	1.213	1.4281	
360 minute winter	HW2	1.011	S24	13.8	0.327	0.025	2.0300	
360 minute winter	S24	Hydro-Brake®	S51	4.6				
15 minute winter	S51	1.013	S50	4.6	0.701	0.064	0.3201	
15 minute summer	S50	1.014	S26	4.6	0.657	0.064	0.4292	
15 minute summer	S26	1.015	S28	4.6	0.567	0.064	0.2643	
15 minute summer	S28	1.016	S30	4.6	0.676	0.064	0.1004	
15 minute summer	S30	1.017	S32	4.7	0.709	0.066	0.7481	
15 minute summer	S32	1.018	S34	4.7	0.603	0.065	0.7030	
15 minute summer	S34	1.019	HW3	4.6	0.559	0.065	0.0519	63.9

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.52%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	HW3	27	50.305	0.051	4.6	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
--------------------------------	------------	------	------------	------------------	-------------------	----------	------------------	-----------------------

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.52%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S2	12	54.756	0.606	42.4	0.8673	0.0000	SURCHARGED
15 minute summer	S4	12	54.649	0.849	65.1	1.2147	0.0000	SURCHARGED
15 minute summer	S6	12	54.157	1.082	112.4	1.5481	0.0000	SURCHARGED
15 minute summer	S8	12	53.983	0.969	107.0	1.3867	0.0000	SURCHARGED
15 minute summer	S10	12	53.737	1.035	119.0	1.4816	0.0000	SURCHARGED
15 minute summer	S12	12	53.445	0.920	120.3	1.3166	0.0000	SURCHARGED
15 minute summer	S14	11	53.304	0.965	129.1	1.3816	0.0000	SURCHARGED
15 minute summer	S16	11	53.110	1.028	236.1	1.4717	0.0000	SURCHARGED
15 minute summer	S49	11	52.779	0.858	235.6	1.2275	0.0000	SURCHARGED
15 minute summer	S38	11	53.002	0.292	48.6	0.3301	0.0000	OK
15 minute summer	S40	11	52.925	0.402	79.7	0.4551	0.0000	SURCHARGED
15 minute summer	S48	10	54.217	0.067	23.9	0.0957	0.0000	OK
15 minute summer	S42	11	52.861	0.511	112.4	0.7306	0.0000	SURCHARGED
15 minute summer	S44	11	52.779	0.504	146.2	0.7211	0.0000	SURCHARGED
15 minute summer	S46	11	52.656	0.774	427.3	1.1074	0.0000	SURCHARGED
600 minute winter	HW1	585	52.594	0.894	45.4	1.5804	0.0000	SURCHARGED
600 minute winter	HW2	585	52.595	0.905	45.1	513.6486	0.0000	SURCHARGED
600 minute winter	S24	585	52.595	0.955	14.5	1.6875	0.0000	SURCHARGED
15 minute summer	S51	10	51.649	0.053	4.6	0.0602	0.0000	OK
15 minute summer	S50	13	51.481	0.052	4.6	0.0591	0.0000	OK
15 minute winter	S26	15	51.257	0.052	4.6	0.0585	0.0000	OK
1440 minute winter	S28	600	51.123	0.053	4.6	0.0601	0.0000	OK
15 minute winter	S30	17	51.074	0.054	4.6	0.0607	0.0000	OK
30 minute winter	S32	24	50.683	0.051	4.7	0.0732	0.0000	OK
720 minute winter	S34	285	50.334	0.054	4.6	0.0777	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	S2	1.000	S4	39.4	1.389	0.567	0.7813	
15 minute summer	S4	1.001	S6	60.2	1.556	0.860	1.4304	
15 minute summer	S6	1.002	S8	107.0	1.522	1.488	1.0172	
15 minute summer	S8	1.003	S10	101.5	1.442	0.766	1.5483	
15 minute summer	S10	1.004	S12	120.3	1.709	1.431	1.2483	
15 minute summer	S12	1.005	S14	126.1	1.241	0.816	3.4275	
15 minute summer	S14	1.006	S16	135.6	1.230	1.076	5.0217	
15 minute summer	S16	1.007	S49	235.6	1.487	1.294	7.9632	
15 minute summer	S49	1.008	S46	235.1	1.484	1.295	1.9405	
15 minute summer	S38	2.000	S40	48.9	0.920	0.682	3.1262	
15 minute summer	S40	2.001	S42	73.7	1.315	0.719	0.8100	
15 minute summer	S48	3.000	S42	23.8	1.995	0.194	0.7408	
15 minute summer	S42	2.002	S44	113.2	1.411	0.897	2.0630	
15 minute summer	S44	2.003	S46	146.4	1.453	0.491	1.5850	
15 minute summer	S46	1.009	HW1	427.1	2.696	2.422	1.6677	
600 minute winter	HW1	1.010	HW2	45.1	0.879	0.213	2.9238	
600 minute winter	HW2	1.011	S24	14.5	0.311	0.026	2.2069	
600 minute winter	S24	Hydro-Brake®	S51	4.6				
15 minute summer	S51	1.013	S50	4.6	0.725	0.065	0.3228	
15 minute summer	S50	1.014	S26	4.7	0.661	0.065	0.4293	
15 minute winter	S26	1.015	S28	4.6	0.573	0.064	0.2636	
1440 minute winter	S28	1.016	S30	4.6	0.561	0.064	0.0976	
15 minute winter	S30	1.017	S32	4.7	0.719	0.066	0.7380	
30 minute winter	S32	1.018	S34	4.6	0.598	0.064	0.6943	
720 minute winter	S34	1.019	HW3	4.6	0.559	0.065	0.0518	230.1

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.52%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute winter	HW3	285	50.305	0.051	4.6	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
--------------------------------	------------	------	------------	------------------	-------------------	----------	------------------	-----------------------