

Design Settings

Rainfall Methodology	FEH-22	Maximum Time of Concentration (mins)	30.00	Preferred Cover Depth (m)	1.200
Return Period (years)	100	Maximum Rainfall (mm/hr)	50.0	Include Intermediate Ground	✓
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00	Enforce best practice design rules	x
CV	1.000	Connection Type	Level Soffits		
Time of Entry (mins)	4.00	Minimum Backdrop Height (m)	0.200		

Simulation Settings

Rainfall Methodology	FEH-22	Winter CV	0.950	Drain Down Time (mins)	1440	Check Discharge Rate(s)	x
Rainfall Events	Singular	Analysis Speed	Detailed	Additional Storage (m³/ha)	0.0	Check Discharge Volume	x
Summer CV	0.950	Skip Steady State	✓	Starting Level (m)			

Storm Durations

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

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0	30	0	0	0
2	0	0	0	100	45	0	0
10	0	0	0				

Node 7 Online Pump Control

Flap Valve	x	Replaces Downstream Link	✓	Switch on depth (m)	0.100
Downstream Link	6.001	Invert Level (m)	4.400	Switch off depth (m)	0.050

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.001	141.000	5.000	141.000

Results for 1 year Critical Storm Duration. Lowest mass balance: 98.72%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	12	5.460	0.070	10.3	0.0000	0.0000	OK
15 minute summer	2	11	5.179	0.064	19.9	0.0005	0.0000	OK
15 minute summer	3	12	4.645	0.145	33.3	0.2078	0.0000	OK
15 minute summer	4	12	4.645	0.170	32.4	0.0000	0.0000	OK
15 minute summer	5	13	4.692	0.267	32.1	0.0000	0.0000	OK
15 minute summer	6	12	4.650	0.275	50.0	0.3936	0.0000	SURCHARGED

15 minute summer 10 10 5.292 0.092 21.1 0.0000 0.0000 OK

15 minute summer 11 12 4.653 0.103 27.9 0.1167 0.0000 OK

15 minute summer 12 12 4.601 0.351 27.9 0.3974 0.0000 SURCHARGED

15 minute summer 14 12 4.191 0.141 27.2 0.0000 0.0000 OK

15 minute summer 7 1 4.400 0.000 0.0 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	1	1.000	10	10.3	0.720	0.122	0.4938	
15 minute summer	2	2.001	11	19.9	2.399	0.130	0.0304	
15 minute summer	3	1.003_1	4	32.4	1.126	0.136	0.1133	
15 minute summer	4	1.004	5	32.1	1.137	0.151	0.4216	
15 minute summer	5	1.005	6	50.0	0.926	0.134	0.1665	
15 minute summer	6	1.006	12	27.9	0.994	0.542	0.5077	
15 minute summer	6	6.000	7	0.0	0.000	0.000	0.0000	
15 minute summer	10	1.001	11	8.1	1.173	0.117	0.1715	
15 minute summer	10	2.000	2	12.7	0.874	0.206	0.4018	
15 minute summer	11	1.002	3	27.7	0.743	0.299	0.2814	
15 minute summer	12	1.003	14	27.2	1.544	1.301	0.2522	17.0
15 minute summer	7	Pump	15	0.0				0.0

Results for 1 year Critical Storm Duration. Lowest mass balance: 98.72%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	15	1	4.100	0.000	0.0	0.0000	0.0000	OK
15 minute summer	16	10	4.858	0.039	2.3	0.0000	0.0000	OK
15 minute summer	17	10	4.887	0.037	3.3	0.0000	0.0000	OK
15 minute summer	18	1	4.750	0.000	0.0	0.0000	0.0000	OK
15 minute summer	19	10	4.648	0.061	5.6	0.0691	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	16	3.000	19	2.3	0.648	0.142	0.0523	
15 minute summer	17	4.000	19	3.3	1.000	0.127	0.0291	
15 minute summer	18	5.000	19	0.0	0.000	0.000	0.0000	
15 minute summer	19	3.001	3	5.6	0.606	0.140	0.0906	

Results for 2 year Critical Storm Duration. Lowest mass balance: 99.11%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	19	5.478	0.088	16.1	0.0000	0.0000	OK
15 minute summer	2	10	5.195	0.080	29.2	0.0006	0.0000	OK
15 minute summer	3	11	4.762	0.262	49.7	0.3745	0.0000	OK
15 minute summer	4	11	4.760	0.285	49.7	0.0000	0.0000	OK
15 minute summer	5	11	4.765	0.340	52.2	0.0000	0.0000	OK
15 minute summer	6	11	4.762	0.387	54.6	0.5542	0.0000	SURCHARGED

15 minute summer 10 10 5.310 0.110 32.8 0.0000 0.0000 OK

15 minute summer 11 11 4.782 0.232 43.5 0.2618 0.0000 SURCHARGED

15 minute summer 12 11 4.699 0.449 30.8 0.5082 0.0000 SURCHARGED

15 minute summer 14 10 4.192 0.142 30.3 0.0000 0.0000 OK

30 minute winter 7 20 4.502 0.102 10.4 0.2583 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)
30 minute summer	1	1.000	10	16.0	0.850	0.190	0.6435	
15 minute summer	2	2.001	11	29.1	2.611	0.189	0.0409	
15 minute summer	3	1.003_1	4	49.7	1.139	0.209	0.2252	
15 minute summer	4	1.004	5	52.2	1.149	0.245	0.6476	
15 minute summer	5	1.005	6	54.6	0.933	0.146	0.2404	
15 minute summer	6	1.006	12	30.8	1.003	0.599	0.5077	
15 minute summer	6	6.000	7	18.4	2.377	0.068	0.0645	
15 minute summer	10	1.001	11	14.4	1.376	0.207	0.2580	
15 minute summer	10	2.000	2	18.1	0.942	0.294	0.5293	
15 minute summer	11	1.002	3	42.8	0.772	0.461	0.4992	
15 minute summer	12	1.003	14	30.3	1.719	1.448	0.2527	22.7

30 minute winter 7 Pump 15 0.0 0.0

Results for 2 year Critical Storm Duration. Lowest mass balance: 99.11%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	15	1	4.100	0.000	0.0	0.0000	0.0000	OK
15 minute summer	16	10	4.868	0.048	3.5	0.0000	0.0000	OK
15 minute summer	17	9	4.896	0.046	5.1	0.0000	0.0000	OK
15 minute summer	18	11	4.770	0.020	0.3	0.0000	0.0000	OK
15 minute summer	19	11	4.764	0.177	8.6	0.2003	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	16	3.000	19	3.5	0.727	0.216	0.0875	
15 minute summer	17	4.000	19	5.1	1.118	0.196	0.0735	
15 minute summer	18	5.000	19	-0.3	-0.040	-0.015	0.0624	
15 minute summer	19	3.001	3	8.1	0.617	0.201	0.2604	

Results for 10 year Critical Storm Duration. Lowest mass balance: 99.09%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	19	5.517	0.127	31.9	0.0000	0.0000	OK
15 minute summer	2	10	5.228	0.113	53.5	0.0009	0.0000	OK
15 minute summer	3	11	4.871	0.371	101.9	0.5316	0.0000	OK
15 minute summer	4	10	4.866	0.391	104.2	0.0000	0.0000	OK
15 minute summer	5	11	4.848	0.423	101.7	0.0000	0.0000	SURCHARGED
15 minute summer	6	11	4.837	0.462	105.8	0.6617	0.0000	SURCHARGED

15 minute summer 10 10 5.348 0.148 64.6 0.0000 0.0000 OK

15 minute summer 11 10 4.948 0.398 86.1 0.4496 0.0000 SURCHARGED

15 minute summer 12 10 4.770 0.520 32.2 0.5880 0.0000 SURCHARGED

15 minute summer 14 8 4.192 0.142 32.3 0.0000 0.0000 OK

15 minute winter 7 12 4.507 0.107 64.8 0.2735 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)
30 minute summer	1	1.000	10	31.8	1.090	0.378	1.0023	
15 minute summer	2	2.001	11	53.3	2.863	0.348	0.0870	
15 minute summer	3	1.003_1	4	104.2	1.182	0.437	0.3028	
15 minute summer	4	1.004	5	101.7	1.177	0.478	0.7738	
15 minute summer	5	1.005	6	105.8	1.116	0.283	0.2535	
15 minute summer	6	1.006	12	32.2	0.991	0.627	0.5077	
15 minute summer	6	6.000	7	71.4	3.388	0.262	0.1268	
15 minute summer	10	1.001	11	32.8	1.654	0.472	0.5726	
15 minute summer	10	2.000	2	31.5	1.071	0.513	0.8088	
15 minute summer	11	1.002	3	86.0	1.082	0.928	0.4992	
15 minute summer	12	1.003	14	32.3	1.835	1.546	0.2527	28.9
15 minute winter	7	Pump	15	141.0				16.9

Results for 10 year Critical Storm Duration. Lowest mass balance: 99.09%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	15	1	4.100	0.000	141.0	0.0000	0.0000	OK
15 minute summer	16	10	4.893	0.073	7.0	0.0000	0.0000	OK
15 minute summer	17	10	4.914	0.064	10.0	0.0000	0.0000	OK
15 minute summer	18	10	4.886	0.136	0.0	0.0000	0.0000	OK
15 minute summer	19	10	4.885	0.298	17.0	0.3368	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	16	3.000	19	6.9	0.801	0.424	0.1926	
15 minute summer	17	4.000	19	10.0	1.260	0.384	0.1093	
15 minute summer	18	5.000	19	0.7	0.044	0.041	0.1511	
15 minute summer	19	3.001	3	15.8	0.624	0.394	0.2841	

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.16%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	19	5.538	0.148	41.6	0.0000	0.0000	OK
15 minute summer	2	11	5.260	0.145	66.8	0.0012	0.0000	OK
15 minute summer	3	11	4.934	0.434	130.5	0.6217	0.0000	SURCHARGED
15 minute summer	4	11	4.916	0.441	130.5	0.0000	0.0000	SURCHARGED
15 minute summer	5	11	4.900	0.475	131.0	0.0000	0.0000	SURCHARGED
15 minute summer	6	10	4.878	0.503	132.8	0.7194	0.0000	SURCHARGED
15 minute summer	10	10	5.370	0.170	83.6	0.0000	0.0000	OK
15 minute summer	11	10	5.057	0.507	110.2	0.5733	0.0000	SURCHARGED
15 minute summer	12	11	4.805	0.555	33.6	0.6274	0.0000	SURCHARGED
15 minute summer	14	8	4.192	0.142	33.3	0.0000	0.0000	OK
30 minute summer	7	17	4.518	0.118	96.2	0.3008	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)
30 minute summer	1	1.000	10	41.5	1.201	0.493	1.2071	
15 minute summer	2	2.001	11	66.2	2.883	0.431	0.1223	
15 minute summer	3	1.003_1	4	130.5	1.146	0.547	0.3093	
15 minute summer	4	1.004	5	131.0	1.158	0.616	0.7762	
15 minute summer	5	1.005	6	132.8	1.061	0.356	0.2535	
15 minute summer	6	1.006	12	33.6	0.998	0.652	0.5077	
15 minute summer	6	6.000	7	105.7	3.806	0.388	0.1607	
15 minute summer	10	1.001	11	44.5	1.622	0.640	0.7831	
15 minute summer	10	2.000	2	38.3	1.078	0.623	1.0258	
15 minute summer	11	1.002	3	110.0	1.382	1.187	0.4992	
15 minute summer	12	1.003	14	33.3	1.889	1.592	0.2527	31.2
30 minute summer	7	Pump	15	141.0				42.3

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.16%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	15	1	4.100	0.000	141.0	0.0000	0.0000	OK
15 minute summer	16	10	4.993	0.173	9.0	0.0000	0.0000	SURCHARGED
15 minute summer	17	10	5.003	0.153	13.0	0.0000	0.0000	SURCHARGED
15 minute summer	18	10	4.952	0.202	5.1	0.0000	0.0000	SURCHARGED
15 minute summer	19	10	4.955	0.368	20.5	0.4164	0.0000	SURCHARGED
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	16	3.000	19	8.6	0.747	0.530	0.2597	
15 minute summer	17	4.000	19	11.9	1.180	0.458	0.1550	
15 minute summer	18	5.000	19	-5.1	-0.377	-0.286	0.1546	
15 minute summer	19	3.001	3	20.5	0.640	0.511	0.2841	

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.18%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	5.750	0.360	72.9	0.0000	0.0000	FLOOD RISK
15 minute summer	2	9	5.475	0.360	138.1	0.0029	10.2026	FLOOD
15 minute summer	3	9	5.049	0.549	185.5	0.7856	0.0000	SURCHARGED
15 minute summer	4	9	5.014	0.539	184.5	0.0000	0.0000	SURCHARGED
15 minute summer	5	9	4.986	0.561	183.8	0.0000	0.0000	SURCHARGED
15 minute summer	6	9	4.942	0.567	183.2	0.8113	0.0000	SURCHARGED
15 minute summer	10	9	5.560	0.360	147.5	0.0000	0.0000	FLOOD RISK
15 minute summer	11	11	5.265	0.715	148.4	0.8083	0.0000	FLOOD RISK
15 minute summer	12	9	4.853	0.603	37.4	0.6819	0.0000	SURCHARGED
15 minute summer	14	6	4.192	0.142	34.4	0.0000	0.0000	OK
15 minute summer	7	12	4.685	0.285	148.1	0.7255	0.0000	SURCHARGED
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	10	74.9	1.284	0.890	2.3207	
15 minute summer	2	2.001	11	92.9	2.748	0.606	0.1456	
15 minute summer	3	1.003_1	4	184.5	1.474	0.773	0.3093	
15 minute summer	4	1.004	5	183.8	1.468	0.864	0.7762	
15 minute summer	5	1.005	6	183.2	1.464	0.490	0.2535	
15 minute summer	6	1.006	12	37.4	1.174	0.727	0.5077	
15 minute summer	6	6.000	7	148.1	3.668	0.544	0.3125	
15 minute summer	10	1.001	11	64.7	1.649	0.930	0.9814	
15 minute summer	10	2.000	2	87.8	1.247	1.429	1.9345	
15 minute summer	11	1.002	3	148.4	1.865	1.601	0.4992	
15 minute summer	12	1.003	14	34.4	1.955	1.647	0.2527	36.1
15 minute summer	7	Pump	15	141.0				76.1

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.18%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	15	1	4.100	0.000	141.0	0.0000	0.0000	OK
15 minute summer	16	10	5.235	0.415	16.2	0.0000	0.0000	FLOOD RISK
15 minute summer	17	10	5.277	0.427	23.3	0.0000	0.0000	FLOOD RISK
15 minute summer	18	11	5.109	0.359	2.6	0.0000	0.0000	FLOOD RISK
15 minute summer	19	10	5.108	0.521	39.7	0.5891	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	16	3.000	19	15.5	0.878	0.955	0.2597	
15 minute summer	17	4.000	19	22.5	1.280	0.865	0.1550	
15 minute summer	18	5.000	19	-2.6	-0.148	-0.147	0.1546	
15 minute summer	19	3.001	3	37.2	0.935	0.924	0.2841	