

Pre-development Discharge Rate

Site Makeup	Greenfield	Region	7	QMed	0.2
Greenfield Method	FEH	QBar/QMed conversion factor	1.136	QBar	0.2
Positively Drained Area (ha)	0.038	Growth Factor 2 year	0.88	Q 2 year (l/s)	0.2
SAAR (mm)	832	Growth Factor 30 year	1.95	Q 30 year (l/s)	0.4
Host	1	Growth Factor 100 year	2.48	Q 100 year (l/s)	0.5
BFIHost	0.478	Betterment (%)	0		

Node S5 Online Orifice Control

Flap Valve	x	Design Depth (m)	0.300	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	0.4		
Invert Level (m)	114.200	Diameter (m)	0.020		

Node HW2 Flow through Pond Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Main Channel Length (m)	8.770
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	114.300	Main Channel Slope (1:X)	9999.0
Safety Factor	2.0	Time to half empty (mins)		Main Channel n	0.040

Inlets

HW1

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	119.8	119.8	0.200	156.3	157.2	0.500	215.3	218.0

Results for 2 year Critical Storm Duration. Lowest mass balance: 98.76%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S1	10	115.119	0.019	1.3	0.0030	0.0000	OK
15 minute summer	S2	10	114.529	0.029	1.3	0.0046	0.0000	OK
15 minute summer	S3	10	114.471	0.041	2.6	0.0065	0.0000	OK
15 minute summer	S4	11	114.389	0.039	2.5	0.0062	0.0000	OK
240 minute winter	HW1	224	114.351	0.050	1.6	0.0000	0.0000	OK
240 minute winter	HW2	220	114.351	0.051	7.2	0.0000	0.0000	OK
120 minute winter	S5	98	114.381	0.181	6.7	0.0288	0.0000	SURCHARGED
240 minute winter	S6	220	113.665	0.015	0.3	0.0206	0.0000	OK
240 minute winter	S7	220	113.645	0.015	0.3	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 summer	S1	1.000	S3	1.3	0.519	0.034	0.0385	
15 minute summer	S2	2.000	S3	1.3	0.412	0.083	0.0287	
15 minute summer	S3	1.001	S4	2.5	0.667	0.149	0.0336	
15 minute summer	S4	1.002	HW1	2.5	0.715	0.134	0.0063	
240 minute winter	HW1	Flow through Pond	HW2	1.9	0.008	0.002	6.2766	
240 minute winter	HW2	1.004	S5	5.7	0.480	0.111	0.0141	
120 minute winter	S5	1.005	S6	0.3	0.615	0.003	0.0007	
240 minute winter	S6	1.006	S7	0.3	0.348	0.020	0.0023	7.6

Results for 30 year +20% CC Critical Storm Duration. Lowest mass balance: 98.97%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S1	10	115.133	0.032	3.9	0.0052	0.0000	OK
15 minute summer	S2	10	114.551	0.051	3.9	0.0081	0.0000	OK
15 minute summer	S3	10	114.506	0.076	7.8	0.0121	0.0000	OK
480 minute summer	S4	408	114.440	0.090	1.4	0.0142	0.0000	OK
480 minute summer	HW1	408	114.440	0.139	3.9	0.0000	0.0000	OK
480 minute summer	HW2	408	114.440	0.140	5.9	0.0000	0.0000	OK
480 minute summer	S5	408	114.440	0.240	5.4	0.0381	0.0000	SURCHARGED
480 minute summer	S6	416	113.667	0.017	0.4	0.0230	0.0000	OK
480 minute summer	S7	416	113.647	0.016	0.4	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 summer	S1	1.000	S3	3.9	0.744	0.103	0.0881	
15 minute summer	S2	2.000	S3	3.9	0.545	0.250	0.0654	
15 minute summer	S3	1.001	S4	7.6	0.879	0.457	0.0781	
480 minute summer	S4	1.002	HW1	2.2	0.520	0.119	0.0220	
480 minute summer	HW1	Flow through Pond	HW2	4.1	0.005	0.005	18.4458	
480 minute summer	HW2	1.004	S5	5.4	0.460	0.105	0.0214	
480 minute summer	S5	1.005	S6	0.4	0.634	0.003	0.0008	
480 minute summer	S6	1.006	S7	0.4	0.372	0.025	0.0027	14.4

Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 99.08%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S1	10	115.137	0.037	5.1	0.0059	0.0000	OK
15 minute summer	S2	10	114.559	0.059	5.1	0.0094	0.0000	OK
15 minute summer	S3	10	114.521	0.091	10.1	0.0144	0.0000	OK
600 minute winter	S4	585	114.487	0.137	1.3	0.0217	0.0000	OK
600 minute winter	HW1	585	114.487	0.186	2.5	0.0000	0.0000	OK
600 minute winter	HW2	585	114.487	0.187	3.1	0.0000	0.0000	SURCHARGED
600 minute winter	S5	585	114.487	0.287	7.1	0.0456	0.0000	SURCHARGED
600 minute winter	S6	585	113.668	0.018	0.4	0.0241	0.0000	OK
600 minute winter	S7	585	113.647	0.017	0.4	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 summer	S1	1.000	S3	5.1	0.712	0.134	0.1083	
15 minute summer	S2	2.000	S3	5.1	0.575	0.327	0.0806	
15 minute summer	S3	1.001	S4	10.0	0.934	0.596	0.0959	
600 minute winter	S4	1.002	HW1	1.0	0.473	0.051	0.0307	
600 minute winter	HW1	Flow through Pond	HW2	1.6	0.005	0.002	25.4873	
600 minute winter	HW2	1.004	S5	7.1	0.551	0.140	0.0217	
600 minute winter	S5	1.005	S6	0.4	0.652	0.004	0.0008	
600 minute winter	S6	1.006	S7	0.4	0.382	0.028	0.0029	18.1