

Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	30.00
Return Period (years)	2	Maximum Rainfall (mm/hr)	50.0
Additional Flow (%)	0	Minimum Velocity (m/s)	0.75
FSR Region	England and Wales	Connection Type	Level Soffits
M5-60 (mm)	19.600	Minimum Backdrop Height (m)	0.500
Ratio-R	0.350	Preferred Cover Depth (m)	1.200
CV	0.750	Include Intermediate Ground	✓
Time of Entry (mins)	5.00	Enforce best practice design rules	✓

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
301	0.015	5.00	15.866	1200	507588.925	104294.379	1.300
302			15.961	1200	507590.247	104290.516	1.435
303	0.010	5.00	16.547	1200	507607.286	104269.957	1.300
304			16.264	1200	507596.848	104280.175	1.502
305	0.015	5.00	16.291	1200	507595.867	104279.455	1.885
306			16.375	1200	507598.257	104277.053	2.002

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	301	302	4.084	0.600	14.566	14.526	0.040	102.9	100	5.09	50.0
1.001	302	305	12.407	0.600	14.526	14.406	0.121	103.0	100	5.36	50.0
2.000	303	304	14.607	0.600	15.247	14.762	0.485	30.1	100	5.17	50.0
2.001	304	305	1.217	0.600	14.762	14.406	0.356	3.4	100	5.18	50.0
1.002	305	306	3.389	0.600	14.406	14.373	0.033	103.0	100	5.44	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	0.758	6.0	2.0	1.200	1.335	0.015	0.0
1.001	0.757	5.9	2.0	1.335	1.785	0.015	0.0
2.000	1.411	11.1	1.4	1.200	1.402	0.010	0.0
2.001	4.214	33.1	1.4	1.402	1.785	0.010	0.0
1.002	0.757	5.9	5.4	1.785	1.902	0.040	0.0

Simulation Settings

Rainfall Methodology	FSR	Analysis Speed	Normal
FSR Region	England and Wales	Skip Steady State	x
M5-60 (mm)	19.500	Drain Down Time (mins)	240
Ratio-R	0.350	Additional Storage (m³/ha)	20.0
Summer CV	0.750	Check Discharge Rate(s)	x
Winter CV	0.840	Check Discharge Volume	x

Storm Durations

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Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	40	0	0

Results for 1 year +40% CC Critical Storm Duration. Lowest 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	301	10	14.618	0.052	2.8	0.0702	0.0000	OK
15 minute winter	302	11	14.574	0.047	2.7	0.0534	0.0000	OK
15 minute summer	303	10	15.277	0.030	1.8	0.0390	0.0000	OK
15 minute summer	304	10	14.778	0.016	1.8	0.0177	0.0000	OK
15 minute winter	305	11	14.529	0.124	7.2	0.1596	0.0000	SURCHARGED
15 minute winter	306	11	14.458	0.085	7.1	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	301	1.000	302	2.7	0.714	0.460	0.0157	
15 minute winter	302	1.001	305	2.7	0.409	0.454	0.0711	
15 minute summer	303	2.000	304	1.8	1.307	0.160	0.0203	
15 minute summer	304	2.001	305	1.8	0.382	0.053	0.0052	
15 minute winter	305	1.002	306	7.1	0.912	1.192	0.0253	3.4