Existing Network Details for Storm

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type
1.000	18.700	0.120	155.8	0.054	2.00	0.0	0.600	o	300	Pipe/Conduit
1.001	22.000	0.140	157.1	0.058	0.00	0.0	0.600	o	300	Pipe/Conduit
1.002	16.200	0.100	162.0	0.047	0.00	0.0	0.600	o	300	Pipe/Conduit
1.003	20.700	0.130	159.2	0.023	0.00	0.0	0.600	o	300	Pipe/Conduit
1.004	6.000	0.035	171.4	0.035	0.00	0.0	0.600	o	300	Pipe/Conduit
1.005	15.900	0.100	159.0	0.025	0.00	0.0	0.600	o	300	Pipe/Conduit
1.006	5.900	0.040	147.5	0.033	0.00	0.0	0.600	o	300	Pipe/Conduit
1.007	12.000	0.075	160.0	0.032	0.00	0.0	0.600	o	300	Pipe/Conduit
1.008	20.650	0.000	0.0	0.017	0.00	0.0	0.600	o	300	Pipe/Conduit
1.009	1.000	0.000	0.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
1.010	1.000	0.000	0.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
1.011	1.000	0.000	0.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit

Network Results Table

PN	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Vel (m/s)	Cap (l/s)
1.000	49.675	0.054	0.0	1.26	88.9
1.001	49.555	0.112	0.0	1.25	88.5
1.002	49.415	0.159	0.0	1.23	87.1
1.003	49.315	0.182	0.0	1.24	87.9
1.004	49.185	0.217	0.0	1.20	84.7
1.005	49.150	0.242	0.0	1.24	88.0
1.006	49.050	0.275	0.0	1.29	91.4
1.007	49.010	0.307	0.0	1.24	87.7
1.008	48.935	0.324	0.0	0.00	0.0
1.009	48.935	0.324	0.0	0.00	0.0
1.010	48.935	0.324	0.0	0.00	0.0
1.011	48.935	0.324	0.0	0.00	0.0

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Manhole Schedules for Storm

MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam.,L*W (mm)	Pipe Out PN	Pipe Out Invert Level (m)	Pipe Out Diameter (mm)	Pipes In PN	Pipes In Invert Level (m)	Pipes In Diameter (mm)	Backdrop (mm)
S1.0	51.175	1.500	Open Manhole	1200	1.000	49.675	300				
S1.1	50.950	1.395	Open Manhole	1200	1.001	49.555	300	1.000	49.555	300	
S1.2	51.140	1.725	Open Manhole	1200	1.002	49.415	300	1.001	49.415	300	
S1.3	51.310	1.995	Open Manhole	1200	1.003	49.315	300	1.002	49.315	300	
S1.4	51.055	1.870	Open Manhole	1200	1.004	49.185	300	1.003	49.185	300	
S1.5	50.990	1.840	Open Manhole	1200	1.005	49.150	300	1.004	49.150	300	
S1.6	51.110	2.060	Open Manhole	1200	1.006	49.050	300	1.005	49.050	300	
S1.7	51.230	2.220	Open Manhole	1200	1.007	49.010	300	1.006	49.010	300	
Pond Inlet	51.230	2.295	Open Manhole	1200	1.008	48.935	300	1.007	48.935	300	
Pond Outlet	51.230	2.295	Open Manhole	1200	1.009	48.935	300	1.008	48.935	300	
Soakaway	51.230	2.295	Open Manhole	1200	1.010	48.935	300	1.009	48.935	300	
dummy	51.230	2.295	Open Manhole	1200	1.011	48.935	300	1.010	48.935	300	
dummy	51.230	2.295	Open Manhole	0		OUTFALL		1.011	48.935	300	

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PIPELINE SCHEDULES for Storm

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
1.000	o	300	S1.0	51.175	49.675	1.200	Open Manhole	1200
1.001	o	300	S1.1	50.950	49.555	1.095	Open Manhole	1200
1.002	o	300	S1.2	51.140	49.415	1.425	Open Manhole	1200
1.003	o	300	S1.3	51.310	49.315	1.695	Open Manhole	1200
1.004	o	300	S1.4	51.055	49.185	1.570	Open Manhole	1200
1.005	o	300	S1.5	50.990	49.150	1.540	Open Manhole	1200
1.006	o	300	S1.6	51.110	49.050	1.760	Open Manhole	1200
1.007	o	300	S1.7	51.230	49.010	1.920	Open Manhole	1200
1.008	o	300	Pond Inlet	51.230	48.935	1.995	Open Manhole	1200
1.009	o	300	Pond Outlet	51.230	48.935	1.995	Open Manhole	1200
1.010	o	300	Soakaway	51.230	48.935	1.995	Open Manhole	1200
1.011	o	300	dummy	51.230	48.935	1.995	Open Manhole	1200

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
1.000	18.700	155.8	S1.1	50.950	49.555	1.095	Open Manhole	1200
1.001	22.000	157.1	S1.2	51.140	49.415	1.425	Open Manhole	1200
1.002	16.200	162.0	S1.3	51.310	49.315	1.695	Open Manhole	1200
1.003	20.700	159.2	S1.4	51.055	49.185	1.570	Open Manhole	1200
1.004	6.000	171.4	S1.5	50.990	49.150	1.540	Open Manhole	1200
1.005	15.900	159.0	S1.6	51.110	49.050	1.760	Open Manhole	1200
1.006	5.900	147.5	S1.7	51.230	49.010	1.920	Open Manhole	1200
1.007	12.000	160.0	Pond Inlet	51.230	48.935	1.995	Open Manhole	1200
1.008	20.650	0.0	Pond Outlet	51.230	48.935	1.995	Open Manhole	1200
1.009	1.000	0.0	Soakaway	51.230	48.935	1.995	Open Manhole	1200
1.010	1.000	0.0	dummy	51.230	48.935	1.995	Open Manhole	1200
1.011	1.000	0.0	dummy	51.230	48.935	1.995	Open Manhole	0

Free Flowing Outfall Details for Storm

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
1.011	dummy	51.230	48.935	48.935	0	0

Simulation Criteria for Storm

Volumetric Runoff Coeff	0.750	Additional Flow - % of Total Flow	0.000
Areal Reduction Factor	1.000	MADD Factor * 10m³/ha Storage	2.000
Hot Start (mins)	0	Inlet Coeffiecient	0.800
Hot Start Level (mm)	0	Flow per Person per Day (l/per/day)	0.000
Manhole Headloss Coeff (Global)	0.500	Run Time (mins)	60
Foul Sewage per hectare (l/s)	0.000	Output Interval (mins)	1

Number of Input Hydrographs 0 Number of Offline Controls 0 Number of Time/Area Diagrams 0
Number of Online Controls 1 Number of Storage Structures 2 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Return Period (years) 5

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Synthetic Rainfall Details

Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	19.800	Cv (Winter)	0.840
Ratio R	0.391	Storm Duration (mins)	30
Profile Type	Summer		

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Online Controls for Storm

Pump Manhole: dummy, DS/PN: 1.011, Volume (m³): 2.6

Invert Level (m) 48.935

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.200	0.0000	1.400	0.0000	2.600	0.0000	3.800	0.0000	5.000	0.0000
0.400	0.0000	1.600	0.0000	2.800	0.0000	4.000	0.0000	5.200	0.0000
0.600	0.0000	1.800	0.0000	3.000	0.0000	4.200	0.0000	5.400	0.0000
0.800	0.0000	2.000	0.0000	3.200	0.0000	4.400	0.0000	5.600	0.0000
1.000	0.0000	2.200	0.0000	3.400	0.0000	4.600	0.0000	5.800	0.0000
1.200	0.0000	2.400	0.0000	3.600	0.0000	4.800	0.0000	6.000	0.0000

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Summary of Critical Results by Maximum Level (Rank 1) for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs 0 Number of Offline Controls 0 Number of Time/Area Diagrams 0
Number of Online Controls 1 Number of Storage Structures 2 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model	FSR	M5-60 (mm) 19.800	Cv (Summer) 0.750
Region	England and Wales	Ratio R 0.391	Cv (Winter) 0.840

Margin for Flood Risk Warning (mm)	100.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 30

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Flooded Volume (m³)	Flow / Cap.	Discharge Vol (m³)	Pipe Flow (l/s)
1.000	S1.0	30 minute 100 year Summer I+30%	51.175	50.683	0.000	0.32	16.804	24.4
1.001	S1.1	30 minute 100 year Summer I+30%	50.950	50.665	0.000	0.62	34.615	47.9
1.002	S1.2	30 minute 100 year Summer I+30%	51.140	50.569	0.000	0.89	48.186	65.5
1.003	S1.3	30 minute 100 year Summer I+30%	51.310	50.474	0.000	0.93	53.954	71.3
1.004	S1.4	30 minute 100 year Summer I+30%	51.055	50.362	0.000	1.47	62.764	86.5
1.005	S1.5	30 minute 100 year Summer I+30%	50.990	50.241	0.000	1.31	69.502	97.2
1.006	S1.6	240 minute 100 year Winter I+30%	51.110	50.099	0.000	0.42	163.558	25.6
1.007	S1.7	240 minute 100 year Winter I+30%	51.230	50.097	0.000	0.42	182.262	28.5
1.008	Pond Inlet	240 minute 100 year Winter I+30%	51.230	50.093	0.000	1.54	191.173	29.9
1.009	Pond Outlet	240 minute 100 year Winter I+30%	51.230	50.088	0.000	0.15	123.932	8.5
1.010	Soakaway	240 minute 100 year Winter I+30%	51.230	50.086	0.000	0.01	1.000	0.8
1.011	dummy	240 minute 100 year Winter I+30%	51.230	50.092	0.000	0.00	0.000	0.0

PN	US/MH Name	Status
1.000	S1.0	SURCHARGED
1.001	S1.1	SURCHARGED
1.002	S1.2	SURCHARGED
1.003	S1.3	SURCHARGED
1.004	S1.4	SURCHARGED
1.005	S1.5	SURCHARGED
1.006	S1.6	SURCHARGED
1.007	S1.7	SURCHARGED
1.008	Pond Inlet	SURCHARGED
1.009	Pond Outlet	SURCHARGED
1.010	Soakaway	SURCHARGED
1.011	dummy	SURCHARGED

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