

Patrick Parsons Ltd		Page 1
5 Waverley Road Huddersfield West Yorkshire, HD1 5NA	N16417 Saunderson Road SW Calculations Revision 05	
Date May 2018 File PENISTONE SW-R5.MDX	Designed by TB Checked by	
XP Solutions	Network 2016.1	

STORM SEWER DESIGN by the Modified Rational Method

Design Criteria for Storm

Pipe Sizes STANDARD Manhole Sizes STANDARD

FSR Rainfall Model - England and Wales

Return Period (years)	2	Add Flow / Climate Change (%)	0
M5-60 (mm)	19.300	Minimum Backdrop Height (m)	0.000
Ratio R	0.311	Maximum Backdrop Height (m)	0.000
Maximum Rainfall (mm/hr)	50	Min Design Depth for Optimisation (m)	1.200
Maximum Time of Concentration (mins)	30	Min Vel for Auto Design only (m/s)	1.00
Foul Sewage (l/s/ha)	0.000	Min Slope for Optimisation (1:X)	500
Volumetric Runoff Coeff.	0.750		

Designed with Level Soffits

Time Area Diagram for Storm

Time (mins)	Area (ha)	Time (mins)	Area (ha)
0-4	0.256	4-8	0.148

Total Area Contributing (ha) = 0.404

Total Pipe Volume (m³) = 291.680

Network Design Table for Storm

- Indicates pipe length does not match coordinates
« - Indicates pipe capacity < flow

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	Auto Design
1.000	5.400#	0.035	154.3	0.054	5.00	0.0	0.600	o	225	Pipe/Conduit	🔒
1.001	31.700#	0.050	634.0	0.014	0.00	0.0	0.600	[]	-9	Pipe/Conduit	🔒
2.000	3.600#	0.025	144.0	0.043	5.00	0.0	0.600	o	225	Pipe/Conduit	🔒

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
1.000	50.00	5.09	200.160	0.054	0.0	0.0	0.0	1.05	41.8	7.3
1.001	50.00	5.44	199.550	0.068	0.0	0.0	0.0	1.48	2383.8	9.2
2.000	50.00	5.06	200.150	0.043	0.0	0.0	0.0	1.09	43.2	5.8

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Network Design Table 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	Auto Design
2.001	29.000#	0.050	580.0	0.016	0.00	0.0	0.600	[]	-9	Pipe/Conduit	
3.000	5.500	0.080	68.8	0.024	5.00	0.0	0.600	o	150	Pipe/Conduit	
1.002	32.200	0.050	644.0	0.005	0.00	0.0	0.600	[]	-9	Pipe/Conduit	
4.000	5.400#	0.140	38.6	0.004	5.00	0.0	0.600	o	150	Pipe/Conduit	
4.001	31.700#	0.050	634.0	0.027	0.00	0.0	0.600	[]	-9	Pipe/Conduit	
1.003	23.900#	0.350	68.3	0.042	0.00	0.0	0.600	[]	-9	Pipe/Conduit	
5.000	5.100	0.055	92.7	0.042	5.00	0.0	0.600	o	150	Pipe/Conduit	
6.000	5.100	0.060	85.0	0.031	5.00	0.0	0.600	o	150	Pipe/Conduit	
1.004	31.200#	0.100	312.0	0.000	0.00	0.0	0.600	[]	-9	Pipe/Conduit	
1.005	2.500	0.050	50.0	0.000	0.00	0.0	0.600	o	450	Pipe/Conduit	
7.000	5.000	0.150	33.3	0.102	5.00	0.0	0.600	o	300	Pipe/Conduit	
1.006	5.200	0.055	94.5	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
1.007	28.900	0.470	61.5	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
2.001	50.00	5.37	199.550	0.059	0.0	0.0	0.0	1.55	2493.3	8.0
3.000	50.00	5.08	200.200	0.024	0.0	0.0	0.0	1.21	21.5	3.2
1.002	50.00	5.81	199.500	0.156	0.0	0.0	0.0	1.47	2365.1	21.1
4.000	50.00	5.06	200.250	0.004	0.0	0.0	0.0	1.63	28.7	0.5
4.001	50.00	5.41	199.500	0.031	0.0	0.0	0.0	1.48	2383.8	4.2
1.003	50.00	5.90	199.450	0.229	0.0	0.0	0.0	4.53	7305.8	31.0
5.000	50.00	5.08	199.800	0.042	0.0	0.0	0.0	1.04	18.4	5.7
6.000	50.00	5.08	199.720	0.031	0.0	0.0	0.0	1.09	19.3	4.2
1.004	50.00	6.14	199.100	0.302	0.0	0.0	0.0	2.11	3406.8	40.9
1.005	50.00	6.16	199.000	0.302	0.0	0.0	0.0	2.88	458.1	40.9
7.000	50.00	5.03	199.250	0.102	0.0	0.0	0.0	2.73	193.2	13.8
1.006	50.00	6.24	198.900	0.404	0.0	0.0	0.0	1.03	18.3<	54.7
1.007	50.00	6.62	198.845	0.404	0.0	0.0	0.0	1.28	22.7<	54.7

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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)
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1.007	S1	199.475	198.375	197.330	1200	0
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Simulation Criteria for Storm

Volumetric Runoff Coeff	0.750	Additional Flow - % of Total Flow	0.000
Areal Reduction Factor	1.000	MADD Factor * 10m ³ /ha Storage	0.000
Hot Start (mins)	0	Inlet Coefficient	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 Storage Structures	0
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model	FSR	Profile Type	Summer
Return Period (years)	2	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	19.100	Storm Duration (mins)	30
Ratio R	0.322		

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Online Controls for Storm

Hydro-Brake Optimum® Manhole: S3, DS/PN: 1.006, Volume (m³): 6.8

Unit Reference	MD-SHE-0082-3500-1500-3500
Design Head (m)	1.500
Design Flow (l/s)	3.5
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	82
Invert Level (m)	198.900
Minimum Outlet Pipe Diameter (mm)	100
Suggested Manhole Diameter (mm)	1200

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	1.500	3.5
Flush-Flo™	0.359	3.1
Kick-Flo®	0.730	2.5
Mean Flow over Head Range	-	2.9

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake Optimum® as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	2.4	1.200	3.2	3.000	4.8	7.000	7.2
0.200	2.9	1.400	3.4	3.500	5.2	7.500	7.4
0.300	3.1	1.600	3.6	4.000	5.5	8.000	7.7
0.400	3.1	1.800	3.8	4.500	5.8	8.500	7.9
0.500	3.1	2.000	4.0	5.000	6.1	9.000	8.1
0.600	2.9	2.200	4.2	5.500	6.4	9.500	8.3
0.800	2.6	2.400	4.3	6.000	6.7		
1.000	2.9	2.600	4.5	6.500	6.9		

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Summary Wizard of 30 minute 2 year Summer I+0% 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 0.000
 Hot Start Level (mm) 0 Inlet Coefficient 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 Storage Structures 0
 Number of Online Controls 1 Number of Time/Area Diagrams 0
 Number of Offline Controls 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.311
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 19.300 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0
 Analysis Timestep 2.5 Second Increment (Extended)
 DTS Status OFF
 DVD Status ON
 Inertia Status ON

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600,
 720, 960, 1440
 Return Period(s) (years) 2
 Climate Change (%) 0

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Pipe Flow / Overflow Cap. (l/s)	Pipe Flow (l/s)	Status
1.000	S8A	3	200.237	-0.148	0.000	0.26	7.7	OK
1.001	S8	3	199.565	-0.785	0.000	0.01	9.4	OK
2.000	S7B	3	200.220	-0.155	0.000	0.21	6.1	OK
2.001	S7A	3	199.563	-0.787	0.000	0.00	8.1	OK
3.000	S6C	3	200.244	-0.106	0.000	0.19	3.4	OK
1.002	S7	7	199.527	-0.773	0.000	0.01	21.1	OK
4.000	S6B	3	200.266	-0.134	0.000	0.02	0.6	OK
4.001	S6A	9	199.506	-0.794	0.000	0.00	3.9	OK
1.003	S6	20	199.460	-0.790	0.000	0.01	29.9	OK
5.000	S4B	3	199.866	-0.084	0.000	0.41	6.0	OK
6.000	S4A	3	199.775	-0.095	0.000	0.29	4.4	OK
1.004	S5	19	199.431	-0.469	0.000	0.01	26.7	OK
1.005	S4	19	199.431	-0.019	0.000	0.02	2.9	OK
7.000	S3A	19	199.431	-0.119	0.000	0.15	14.5	OK
1.006	S3	19	199.430	0.380	0.000	0.21	3.1	SURCHARGED
1.007	S2	22	198.883	-0.112	0.000	0.14	3.1	OK

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Summary Wizard of 120 minute 2 year Summer I+0% 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 0.000
 Hot Start Level (mm) 0 Inlet Coefficient 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 Storage Structures 0
 Number of Online Controls 1 Number of Time/Area Diagrams 0
 Number of Offline Controls 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.311
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 19.300 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0
 Analysis Timestep 2.5 Second Increment (Extended)
 DTS Status OFF
 DVD Status ON
 Inertia Status ON

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
 Return Period(s) (years) 2
 Climate Change (%) 0

PN	US/MH Name	Storm Rank	Water	Surcharged	Flooded	Pipe		Status
			Level (m)	Depth (m)	Volume (m³)	Flow / Overflow (l/s)	Flow (l/s)	
1.000	S8A	7	200.216	-0.169	0.000	0.14	4.2	OK
1.001	S8	7	199.558	-0.792	0.000	0.00	5.2	OK
2.000	S7B	7	200.200	-0.175	0.000	0.11	3.3	OK
2.001	S7A	7	199.557	-0.793	0.000	0.00	4.5	OK
3.000	S6C	7	200.232	-0.118	0.000	0.10	1.9	OK
1.002	S7	12	199.516	-0.784	0.000	0.01	11.9	OK
4.000	S6B	7	200.259	-0.141	0.000	0.01	0.3	OK
4.001	S6A	15	199.503	-0.797	0.000	0.00	2.3	OK
1.003	S6	10	199.500	-0.750	0.000	0.01	17.3	OK
5.000	S4B	7	199.847	-0.103	0.000	0.22	3.2	OK
6.000	S4A	7	199.759	-0.111	0.000	0.16	2.4	OK
1.004	S5	10	199.500	-0.400	0.000	0.01	14.4	OK
1.005	S4	10	199.500	0.050	0.000	0.02	3.0	SURCHARGED
7.000	S3A	10	199.500	-0.050	0.000	0.08	7.7	OK
1.006	S3	10	199.500	0.450	0.000	0.21	3.1	SURCHARGED
1.007	S2	17	198.883	-0.112	0.000	0.14	3.1	OK

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Summary Wizard of 180 minute 2 year Summer I+0% 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	0.000
Hot Start Level (mm)	0	Inlet Coefficient	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 Storage Structures	0
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model	FSR	Ratio R	0.311
Region England and Wales Cv (Summer)	0.750		
M5-60 (mm)	19.300	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	2
Climate Change (%)	0

PN	US/MH Name	Storm Rank	Water	Surcharged	Flooded	Pipe		Status
			Level (m)	Depth (m)	Volume (m³)	Flow / Overflow (l/s)	Pipe Flow (l/s)	
1.000	S8A	8	200.209	-0.176	0.000	0.11	3.3	OK
1.001	S8	8	199.556	-0.794	0.000	0.00	4.1	OK
2.000	S7B	8	200.195	-0.180	0.000	0.09	2.6	OK
2.001	S7A	8	199.555	-0.795	0.000	0.00	3.6	OK
3.000	S6C	8	200.229	-0.121	0.000	0.08	1.5	OK
1.002	S7	13	199.513	-0.787	0.000	0.01	9.4	OK
4.000	S6B	8	200.257	-0.143	0.000	0.01	0.2	OK
4.001	S6A	14	199.504	-0.796	0.000	0.00	1.8	OK
1.003	S6	9	199.504	-0.746	0.000	0.00	13.7	OK
5.000	S4B	8	199.842	-0.108	0.000	0.17	2.6	OK
6.000	S4A	8	199.755	-0.115	0.000	0.12	1.9	OK
1.004	S5	9	199.504	-0.396	0.000	0.01	11.6	OK
1.005	S4	9	199.504	0.054	0.000	0.02	3.1	SURCHARGED
7.000	S3A	9	199.504	-0.046	0.000	0.06	6.1	OK
1.006	S3	9	199.504	0.454	0.000	0.21	3.1	SURCHARGED
1.007	S2	4	198.883	-0.112	0.000	0.14	3.1	OK

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Summary Wizard of 240 minute 2 year Summer I+0% 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 0.000
 Hot Start Level (mm) 0 Inlet Coefficient 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 Storage Structures 0
 Number of Online Controls 1 Number of Time/Area Diagrams 0
 Number of Offline Controls 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.311
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 19.300 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0
 Analysis Timestep 2.5 Second Increment (Extended)
 DTS Status OFF
 DVD Status ON
 Inertia Status ON

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
 Return Period(s) (years) 2
 Climate Change (%) 0

PN	US/MH Name	Storm Rank	Water	Surcharged	Flooded	Pipe		Status
			Level (m)	Depth (m)	Volume (m³)	Flow / Overflow (l/s)	Flow (l/s)	
1.000	S8A	10	200.206	-0.179	0.000	0.09	2.8	OK
1.001	S8	10	199.555	-0.795	0.000	0.00	3.5	OK
2.000	S7B	10	200.191	-0.184	0.000	0.08	2.2	OK
2.001	S7A	10	199.554	-0.796	0.000	0.00	3.0	OK
3.000	S6C	10	200.226	-0.124	0.000	0.07	1.2	OK
1.002	S7	14	199.511	-0.789	0.000	0.00	7.9	OK
4.000	S6B	10	200.256	-0.144	0.000	0.01	0.2	OK
4.001	S6A	13	199.505	-0.795	0.000	0.00	1.6	OK
1.003	S6	8	199.504	-0.746	0.000	0.00	11.6	OK
5.000	S4B	10	199.838	-0.112	0.000	0.15	2.1	OK
6.000	S4A	10	199.752	-0.118	0.000	0.10	1.6	OK
1.004	S5	8	199.504	-0.396	0.000	0.00	10.0	OK
1.005	S4	8	199.504	0.054	0.000	0.02	3.1	SURCHARGED
7.000	S3A	8	199.505	-0.045	0.000	0.05	5.1	OK
1.006	S3	8	199.505	0.455	0.000	0.21	3.1	SURCHARGED
1.007	S2	10	198.883	-0.112	0.000	0.14	3.1	OK

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Summary Wizard of 360 minute 2 year Summer I+0% 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 0.000
 Hot Start Level (mm) 0 Inlet Coefficient 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 Storage Structures 0
 Number of Online Controls 1 Number of Time/Area Diagrams 0
 Number of Offline Controls 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.311
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 19.300 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0
 Analysis Timestep 2.5 Second Increment (Extended)
 DTS Status OFF
 DVD Status ON
 Inertia Status ON

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
 Return Period(s) (years) 2
 Climate Change (%) 0

PN	US/MH Name	Storm Rank	Water	Surcharged	Flooded	Pipe		Status
			Level (m)	Depth (m)	Volume (m³)	Flow / Cap.	Overflow (l/s)	
1.000	S8A	12	200.199	-0.186	0.000	0.07	2.1	OK
1.001	S8	12	199.554	-0.796	0.000	0.00	2.7	OK
2.000	S7B	12	200.185	-0.190	0.000	0.06	1.7	OK
2.001	S7A	12	199.553	-0.797	0.000	0.00	2.3	OK
3.000	S6C	12	200.222	-0.128	0.000	0.05	0.9	OK
1.002	S7	15	199.508	-0.792	0.000	0.00	6.1	OK
4.000	S6B	12	200.255	-0.145	0.000	0.01	0.2	OK
4.001	S6A	16	199.502	-0.798	0.000	0.00	1.2	OK
1.003	S6	11	199.500	-0.750	0.000	0.00	8.9	OK
5.000	S4B	12	199.833	-0.117	0.000	0.11	1.7	OK
6.000	S4A	12	199.748	-0.122	0.000	0.08	1.2	OK
1.004	S5	11	199.500	-0.400	0.000	0.00	8.0	OK
1.005	S4	11	199.500	0.050	0.000	0.02	3.0	SURCHARGED
7.000	S3A	11	199.500	-0.050	0.000	0.04	3.9	OK
1.006	S3	11	199.500	0.450	0.000	0.21	3.1	SURCHARGED
1.007	S2	5	198.883	-0.112	0.000	0.14	3.1	OK

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Summary Wizard of 480 minute 2 year Summer I+0% 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 0.000
 Hot Start Level (mm) 0 Inlet Coefficient 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 Storage Structures 0
 Number of Online Controls 1 Number of Time/Area Diagrams 0
 Number of Offline Controls 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.311
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 19.300 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0
 Analysis Timestep 2.5 Second Increment (Extended)
 DTS Status OFF
 DVD Status ON
 Inertia Status ON

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
 Return Period(s) (years) 2
 Climate Change (%) 0

PN	US/MH Name	Storm Rank	Water	Surcharged	Flooded	Pipe		Status
			Level (m)	Depth (m)	Volume (m³)	Flow / Cap.	Overflow (l/s)	
1.000	S8A	14	200.195	-0.190	0.000	0.06	1.7	OK
1.001	S8	14	199.553	-0.797	0.000	0.00	2.2	OK
2.000	S7B	14	200.182	-0.193	0.000	0.05	1.4	OK
2.001	S7A	14	199.553	-0.797	0.000	0.00	1.9	OK
3.000	S6C	14	200.220	-0.130	0.000	0.04	0.8	OK
1.002	S7	17	199.507	-0.793	0.000	0.00	5.1	OK
4.000	S6B	14	200.254	-0.146	0.000	0.01	0.1	OK
4.001	S6A	17	199.501	-0.799	0.000	0.00	1.0	OK
1.003	S6	12	199.491	-0.759	0.000	0.00	7.4	OK
5.000	S4B	14	199.831	-0.119	0.000	0.09	1.4	OK
6.000	S4A	14	199.745	-0.125	0.000	0.07	1.0	OK
1.004	S5	12	199.491	-0.409	0.000	0.00	6.9	OK
1.005	S4	12	199.491	0.041	0.000	0.02	3.0	SURCHARGED
7.000	S3A	12	199.492	-0.058	0.000	0.03	3.2	OK
1.006	S3	12	199.491	0.441	0.000	0.21	3.1	SURCHARGED
1.007	S2	3	198.883	-0.112	0.000	0.14	3.1	OK

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Summary Wizard of 600 minute 2 year Summer I+0% 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 0.000
 Hot Start Level (mm) 0 Inlet Coefficient 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 Storage Structures 0
 Number of Online Controls 1 Number of Time/Area Diagrams 0
 Number of Offline Controls 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.311
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 19.300 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0
 Analysis Timestep 2.5 Second Increment (Extended)
 DTS Status OFF
 DVD Status ON
 Inertia Status ON

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
 Return Period(s) (years) 2
 Climate Change (%) 0

PN	US/MH Name	Storm Rank	Water	Surcharged	Flooded	Pipe		Status
			Level (m)	Depth (m)	Volume (m³)	Flow / Overflow (l/s)	Flow (l/s)	
1.000	S8A	16	200.192	-0.193	0.000	0.05	1.5	OK
1.001	S8	16	199.553	-0.797	0.000	0.00	1.9	OK
2.000	S7B	16	200.179	-0.196	0.000	0.04	1.2	OK
2.001	S7A	16	199.552	-0.798	0.000	0.00	1.6	OK
3.000	S6C	16	200.219	-0.131	0.000	0.04	0.7	OK
1.002	S7	18	199.506	-0.794	0.000	0.00	4.3	OK
4.000	S6B	16	200.253	-0.147	0.000	0.00	0.1	OK
4.001	S6A	18	199.501	-0.799	0.000	0.00	0.9	OK
1.003	S6	14	199.480	-0.770	0.000	0.00	6.4	OK
5.000	S4B	16	199.828	-0.122	0.000	0.08	1.2	OK
6.000	S4A	16	199.743	-0.127	0.000	0.06	0.9	OK
1.004	S5	14	199.480	-0.420	0.000	0.00	6.3	OK
1.005	S4	14	199.480	0.030	0.000	0.02	3.0	SURCHARGED
7.000	S3A	14	199.480	-0.070	0.000	0.03	2.8	OK
1.006	S3	14	199.480	0.430	0.000	0.21	3.1	SURCHARGED
1.007	S2	12	198.883	-0.112	0.000	0.14	3.1	OK

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Summary Wizard of 720 minute 2 year Summer I+0% 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	0.000
Hot Start Level (mm)	0	Inlet Coefficient	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 Storage Structures	0
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model	FSR	Ratio R	0.311
Region England and Wales Cv (Summer)	0.750		
M5-60 (mm)	19.300	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	2
Climate Change (%)	0

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Pipe Flow / Overflow Cap. (l/s)	Pipe Flow (l/s)	Status
1.000	S8A	17	200.190	-0.195	0.000	0.04	1.3	OK
1.001	S8	17	199.552	-0.798	0.000	0.00	1.7	OK
2.000	S7B	17	200.178	-0.197	0.000	0.04	1.1	OK
2.001	S7A	17	199.552	-0.798	0.000	0.00	1.5	OK
3.000	S6C	17	200.218	-0.132	0.000	0.03	0.6	OK
1.002	S7	19	199.505	-0.795	0.000	0.00	3.8	OK
4.000	S6B	17	200.253	-0.147	0.000	0.00	0.1	OK
4.001	S6A	19	199.501	-0.799	0.000	0.00	0.8	OK
1.003	S6	16	199.467	-0.783	0.000	0.00	5.6	OK
5.000	S4B	17	199.826	-0.124	0.000	0.07	1.0	OK
6.000	S4A	17	199.741	-0.129	0.000	0.05	0.8	OK
1.004	S5	16	199.467	-0.433	0.000	0.00	5.8	OK
1.005	S4	16	199.467	0.017	0.000	0.02	3.0	SURCHARGED
7.000	S3A	16	199.468	-0.082	0.000	0.03	2.5	OK
1.006	S3	16	199.467	0.417	0.000	0.21	3.1	SURCHARGED
1.007	S2	2	198.883	-0.112	0.000	0.14	3.1	OK

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Summary Wizard of 960 minute 2 year Summer I+0% 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 0.000
 Hot Start Level (mm) 0 Inlet Coefficient 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 Storage Structures 0
 Number of Online Controls 1 Number of Time/Area Diagrams 0
 Number of Offline Controls 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.311
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 19.300 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0
 Analysis Timestep 2.5 Second Increment (Extended)
 DTS Status OFF
 DVD Status ON
 Inertia Status ON

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
 Return Period(s) (years) 2
 Climate Change (%) 0

PN	US/MH Name	Storm Rank	Water	Surcharged	Flooded	Pipe		Status
			Level (m)	Depth (m)	Volume (m³)	Flow / Cap.	Overflow (l/s)	
1.000	S8A	19	200.188	-0.197	0.000	0.04	1.1	OK
1.001	S8	19	199.552	-0.798	0.000	0.00	1.4	OK
2.000	S7B	19	200.176	-0.199	0.000	0.03	0.9	OK
2.001	S7A	19	199.552	-0.798	0.000	0.00	1.2	OK
3.000	S6C	19	200.216	-0.134	0.000	0.03	0.5	OK
1.002	S7	20	199.504	-0.796	0.000	0.00	3.2	OK
4.000	S6B	19	200.252	-0.148	0.000	0.00	0.1	OK
4.001	S6A	20	199.501	-0.799	0.000	0.00	0.6	OK
1.003	S6	21	199.452	-0.798	0.000	0.00	4.6	OK
5.000	S4B	19	199.823	-0.127	0.000	0.06	0.9	OK
6.000	S4A	19	199.739	-0.131	0.000	0.04	0.6	OK
1.004	S5	18	199.436	-0.464	0.000	0.00	5.0	OK
1.005	S4	18	199.435	-0.015	0.000	0.02	2.9	OK
7.000	S3A	18	199.435	-0.115	0.000	0.02	2.1	OK
1.006	S3	18	199.435	0.385	0.000	0.21	3.1	SURCHARGED
1.007	S2	6	198.883	-0.112	0.000	0.14	3.1	OK

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Summary Wizard of 15 minute 2 year Winter I+0% 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 0.000
 Hot Start Level (mm) 0 Inlet Coefficient 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 Storage Structures 0
 Number of Online Controls 1 Number of Time/Area Diagrams 0
 Number of Offline Controls 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.311
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 19.300 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0
 Analysis Timestep 2.5 Second Increment (Extended)
 DTS Status OFF
 DVD Status ON
 Inertia Status ON

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
 Return Period(s) (years) 2
 Climate Change (%) 0

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Pipe Flow / Overflow Cap. (l/s)	Pipe Flow (l/s)	Status
1.000	S8A	1	200.243	-0.142	0.000	0.29	8.6	OK
1.001	S8	1	199.567	-0.783	0.000	0.01	10.5	OK
2.000	S7B	1	200.224	-0.151	0.000	0.24	6.9	OK
2.001	S7A	1	199.564	-0.786	0.000	0.01	9.0	OK
3.000	S6C	1	200.247	-0.103	0.000	0.22	3.8	OK
1.002	S7	5	199.529	-0.771	0.000	0.01	23.5	OK
4.000	S6B	1	200.266	-0.134	0.000	0.03	0.6	OK
4.001	S6A	7	199.506	-0.794	0.000	0.00	4.3	OK
1.003	S6	18	199.461	-0.789	0.000	0.01	32.9	OK
5.000	S4B	1	199.872	-0.078	0.000	0.46	6.7	OK
6.000	S4A	1	199.779	-0.091	0.000	0.32	5.0	OK
1.004	S5	21	199.397	-0.503	0.000	0.01	29.7	OK
1.005	S4	21	199.397	-0.053	0.000	0.02	3.1	OK
7.000	S3A	21	199.396	-0.154	0.000	0.17	16.3	OK
1.006	S3	21	199.396	0.346	0.000	0.21	3.1	SURCHARGED
1.007	S2	23	198.883	-0.112	0.000	0.14	3.1	OK

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Summary Wizard of 30 minute 2 year Winter I+0% 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 0.000
 Hot Start Level (mm) 0 Inlet Coefficient 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 Storage Structures 0
 Number of Online Controls 1 Number of Time/Area Diagrams 0
 Number of Offline Controls 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.311
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 19.300 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0
 Analysis Timestep 2.5 Second Increment (Extended)
 DTS Status OFF
 DVD Status ON
 Inertia Status ON

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
 Return Period(s) (years) 2
 Climate Change (%) 0

PN	US/MH Name	Storm Rank	Water	Surcharged	Flooded	Pipe		Status
			Level (m)	Depth (m)	Volume (m³)	Flow / Overflow (l/s)	Pipe Flow (l/s)	
1.000	S8A	4	200.233	-0.152	0.000	0.23	6.9	OK
1.001	S8	4	199.564	-0.786	0.000	0.01	8.6	OK
2.000	S7B	4	200.216	-0.159	0.000	0.19	5.5	OK
2.001	S7A	4	199.561	-0.789	0.000	0.00	7.4	OK
3.000	S6C	4	200.242	-0.108	0.000	0.17	3.1	OK
1.002	S7	8	199.525	-0.775	0.000	0.01	19.5	OK
4.000	S6B	4	200.265	-0.135	0.000	0.02	0.5	OK
4.001	S6A	10	199.506	-0.794	0.000	0.00	3.7	OK
1.003	S6	17	199.466	-0.784	0.000	0.01	28.0	OK
5.000	S4B	4	199.863	-0.087	0.000	0.37	5.4	OK
6.000	S4A	4	199.772	-0.098	0.000	0.26	4.0	OK
1.004	S5	17	199.466	-0.434	0.000	0.01	24.4	OK
1.005	S4	17	199.466	0.016	0.000	0.02	3.0	SURCHARGED
7.000	S3A	17	199.467	-0.083	0.000	0.14	13.1	OK
1.006	S3	17	199.466	0.416	0.000	0.21	3.1	SURCHARGED
1.007	S2	24	198.883	-0.112	0.000	0.14	3.1	OK

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Summary Wizard of 360 minute 2 year Winter I+0% 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	0.000
Hot Start Level (mm)	0	Inlet Coefficient	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 Storage Structures	0
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model	FSR	Ratio R	0.311
Region England and Wales Cv (Summer)	0.750		
M5-60 (mm)	19.300	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	2
Climate Change (%)	0

PN	US/MH Name	Storm Rank	Water	Surcharged	Flooded	Pipe		Status
			Level (m)	Depth (m)	Volume (m³)	Flow / Overflow (l/s)	Pipe Flow (l/s)	
1.000	S8A	15	200.193	-0.192	0.000	0.05	1.5	OK
1.001	S8	15	199.553	-0.797	0.000	0.00	1.9	OK
2.000	S7B	15	200.180	-0.195	0.000	0.04	1.2	OK
2.001	S7A	15	199.552	-0.798	0.000	0.00	1.7	OK
3.000	S6C	15	200.219	-0.131	0.000	0.04	0.7	OK
1.002	S7	4	199.537	-0.763	0.000	0.00	4.4	OK
4.000	S6B	15	200.253	-0.147	0.000	0.00	0.1	OK
4.001	S6A	4	199.537	-0.763	0.000	0.00	0.9	OK
1.003	S6	4	199.537	-0.713	0.000	0.00	6.5	OK
5.000	S4B	15	199.828	-0.122	0.000	0.08	1.2	OK
6.000	S4A	15	199.743	-0.127	0.000	0.06	0.9	OK
1.004	S5	4	199.537	-0.363	0.000	0.00	6.2	OK
1.005	S4	4	199.537	0.087	0.000	0.02	3.1	SURCHARGED
7.000	S3A	4	199.538	-0.012	0.000	0.03	2.8	OK
1.006	S3	4	199.538	0.488	0.000	0.21	3.1	SURCHARGED
1.007	S2	15	198.883	-0.112	0.000	0.14	3.1	OK

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Summary Wizard of 480 minute 2 year Winter I+0% 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 0.000
 Hot Start Level (mm) 0 Inlet Coefficient 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 Storage Structures 0
 Number of Online Controls 1 Number of Time/Area Diagrams 0
 Number of Offline Controls 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.311
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 19.300 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0
 Analysis Timestep 2.5 Second Increment (Extended)
 DTS Status OFF
 DVD Status ON
 Inertia Status ON

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
 Return Period(s) (years) 2
 Climate Change (%) 0

PN	US/MH Name	Storm Rank	Water	Surcharged	Flooded	Pipe		Status
			Level (m)	Depth (m)	Volume (m³)	Flow / Overflow Cap. (l/s)	Flow (l/s)	
1.000	S8A	18	200.190	-0.195	0.000	0.04	1.3	OK
1.001	S8	18	199.552	-0.798	0.000	0.00	1.6	OK
2.000	S7B	18	200.177	-0.198	0.000	0.03	1.0	OK
2.001	S7A	18	199.552	-0.798	0.000	0.00	1.4	OK
3.000	S6C	18	200.217	-0.133	0.000	0.03	0.6	OK
1.002	S7	9	199.523	-0.777	0.000	0.00	3.7	OK
4.000	S6B	18	200.253	-0.147	0.000	0.00	0.1	OK
4.001	S6A	5	199.523	-0.777	0.000	0.00	0.7	OK
1.003	S6	5	199.523	-0.727	0.000	0.00	5.4	OK
5.000	S4B	18	199.825	-0.125	0.000	0.07	1.0	OK
6.000	S4A	18	199.741	-0.129	0.000	0.05	0.7	OK
1.004	S5	5	199.523	-0.377	0.000	0.00	5.3	OK
1.005	S4	5	199.523	0.073	0.000	0.02	3.0	SURCHARGED
7.000	S3A	5	199.524	-0.026	0.000	0.02	2.4	OK
1.006	S3	5	199.524	0.474	0.000	0.21	3.1	SURCHARGED
1.007	S2	16	198.883	-0.112	0.000	0.14	3.1	OK

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Summary Wizard of 720 minute 2 year Winter I+0% 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 0.000
 Hot Start Level (mm) 0 Inlet Coefficient 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 Storage Structures 0
 Number of Online Controls 1 Number of Time/Area Diagrams 0
 Number of Offline Controls 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.311
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 19.300 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0
 Analysis Timestep 2.5 Second Increment (Extended)
 DTS Status OFF
 DVD Status ON
 Inertia Status ON

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
 Return Period(s) (years) 2
 Climate Change (%) 0

PN	US/MH Name	Storm Rank	Water	Surcharged	Flooded	Pipe		Status
			Level (m)	Depth (m)	Volume (m³)	Flow / Overflow (l/s)	Flow (l/s)	
1.000	S8A	21	200.186	-0.199	0.000	0.03	1.0	OK
1.001	S8	21	199.552	-0.798	0.000	0.00	1.2	OK
2.000	S7B	21	200.174	-0.201	0.000	0.03	0.8	OK
2.001	S7A	21	199.551	-0.799	0.000	0.00	1.1	OK
3.000	S6C	21	200.216	-0.134	0.000	0.02	0.4	OK
1.002	S7	21	199.504	-0.796	0.000	0.00	2.8	OK
4.000	S6B	21	200.252	-0.148	0.000	0.00	0.1	OK
4.001	S6A	22	199.501	-0.799	0.000	0.00	0.6	OK
1.003	S6	13	199.483	-0.767	0.000	0.00	4.1	OK
5.000	S4B	21	199.822	-0.128	0.000	0.05	0.7	OK
6.000	S4A	21	199.738	-0.132	0.000	0.04	0.6	OK
1.004	S5	13	199.483	-0.417	0.000	0.00	4.4	OK
1.005	S4	13	199.483	0.033	0.000	0.02	3.0	SURCHARGED
7.000	S3A	13	199.484	-0.066	0.000	0.02	1.8	OK
1.006	S3	13	199.484	0.434	0.000	0.21	3.1	SURCHARGED
1.007	S2	14	198.883	-0.112	0.000	0.14	3.1	OK

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Summary Wizard of 960 minute 2 year Winter I+0% 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 0.000
 Hot Start Level (mm) 0 Inlet Coefficient 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 Storage Structures 0
 Number of Online Controls 1 Number of Time/Area Diagrams 0
 Number of Offline Controls 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.311
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 19.300 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0
 Analysis Timestep 2.5 Second Increment (Extended)
 DTS Status OFF
 DVD Status ON
 Inertia Status ON

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
 Return Period(s) (years) 2
 Climate Change (%) 0

PN	US/MH Name	Storm Rank	Water	Surcharged	Flooded	Pipe		Status
			Level (m)	Depth (m)	Volume (m³)	Flow / Overflow (l/s)	Flow (l/s)	
1.000	S8A	23	200.184	-0.201	0.000	0.03	0.8	OK
1.001	S8	23	199.551	-0.799	0.000	0.00	1.0	OK
2.000	S7B	23	200.173	-0.202	0.000	0.02	0.6	OK
2.001	S7A	23	199.551	-0.799	0.000	0.00	0.9	OK
3.000	S6C	23	200.214	-0.136	0.000	0.02	0.4	OK
1.002	S7	23	199.503	-0.797	0.000	0.00	2.3	OK
4.000	S6B	23	200.252	-0.148	0.000	0.00	0.1	OK
4.001	S6A	23	199.501	-0.799	0.000	0.00	0.5	OK
1.003	S6	22	199.451	-0.799	0.000	0.00	3.4	OK
5.000	S4B	23	199.820	-0.130	0.000	0.04	0.6	OK
6.000	S4A	23	199.737	-0.133	0.000	0.03	0.5	OK
1.004	S5	20	199.430	-0.470	0.000	0.00	3.8	OK
1.005	S4	20	199.430	-0.020	0.000	0.02	2.9	OK
7.000	S3A	20	199.430	-0.120	0.000	0.02	1.5	OK
1.006	S3	20	199.430	0.380	0.000	0.21	3.1	SURCHARGED
1.007	S2	7	198.883	-0.112	0.000	0.14	3.1	OK

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Summary Wizard of 1440 minute 2 year Winter I+0% 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 0.000
 Hot Start Level (mm) 0 Inlet Coefficient 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 Storage Structures 0
 Number of Online Controls 1 Number of Time/Area Diagrams 0
 Number of Offline Controls 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.311
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 19.300 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0
 Analysis Timestep 2.5 Second Increment (Extended)
 DTS Status OFF
 DVD Status ON
 Inertia Status ON

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
 Return Period(s) (years) 2
 Climate Change (%) 0

PN	US/MH Name	Storm Rank	Water	Surcharged	Flooded	Pipe		Status
			Level (m)	Depth (m)	Volume (m³)	Flow / Overflow (l/s)	Flow (l/s)	
1.000	S8A	24	200.181	-0.204	0.000	0.02	0.6	OK
1.001	S8	24	199.551	-0.799	0.000	0.00	0.8	OK
2.000	S7B	24	200.168	-0.207	0.000	0.02	0.5	OK
2.001	S7A	24	199.551	-0.799	0.000	0.00	0.7	OK
3.000	S6C	24	200.211	-0.139	0.000	0.02	0.3	OK
1.002	S7	24	199.502	-0.798	0.000	0.00	1.7	OK
4.000	S6B	24	200.251	-0.149	0.000	0.00	0.0	OK
4.001	S6A	21	199.501	-0.799	0.000	0.00	0.3	OK
1.003	S6	24	199.451	-0.799	0.000	0.00	2.6	OK
5.000	S4B	24	199.817	-0.133	0.000	0.03	0.5	OK
6.000	S4A	24	199.735	-0.135	0.000	0.02	0.3	OK
1.004	S5	24	199.309	-0.591	0.000	0.00	3.2	OK
1.005	S4	24	199.309	-0.141	0.000	0.02	2.8	OK
7.000	S3A	24	199.309	-0.241	0.000	0.01	1.1	OK
1.006	S3	24	199.309	0.259	0.000	0.21	3.1	SURCHARGED
1.007	S2	18	198.883	-0.112	0.000	0.14	3.1	OK

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