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Marsland House, Marsland Road, Brooklands, Sale, Cheshire. M33 3AQ	Base Building MSP, Manchester	
Date Nov 2019 File SW.MDX	Designed by NR Checked by	
Innovyze	Network 2018.1.1	

STORM SEWER DESIGN by the Modified Rational Method

Design Criteria for Surface Network 1

Pipe Sizes STANDARD Manhole Sizes UU

FSR Rainfall Model - England and Wales

Return Period (years)	2	Add Flow / Climate Change (%)	0
M5-60 (mm)	18.000	Minimum Backdrop Height (m)	0.200
Ratio R	0.364	Maximum Backdrop Height (m)	1.500
Maximum Rainfall (mm/hr)	0	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

Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Auto Design
1.000	25.835	0.323	80.0	0.045	5.00	0.0	0.600	o	300	
1.001	37.169	0.310	120.0	0.126	0.00	0.0	0.600	o	300	
1.002	13.180	0.066	200.0	0.105	0.00	0.0	0.600	o	300	
1.003	3.176	0.016	200.0	0.038	0.00	0.0	0.600	o	300	
1.004	35.864	0.179	200.0	0.051	0.00	0.0	0.600	o	300	
1.005	22.190	0.111	200.0	0.000	0.00	0.0	0.600	o	300	
1.006	28.810	0.295	97.7	0.022	0.00	0.0	0.600	o	150	

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	0.00	5.24	33.800	0.045	0.0	0.0	0.0	1.76	124.4	0.0
1.001	0.00	5.68	33.477	0.171	0.0	0.0	0.0	1.43	101.4	0.0
1.002	0.00	5.87	33.167	0.276	0.0	0.0	0.0	1.11	78.3	0.0
1.003	0.00	5.92	33.101	0.314	0.0	0.0	0.0	1.11	78.3	0.0
1.004	0.00	6.46	33.086	0.365	0.0	0.0	0.0	1.11	78.3	0.0
1.005	0.00	6.80	32.906	0.365	0.0	0.0	0.0	1.11	78.3	0.0
1.006	0.00	7.27	32.795	0.387	0.0	0.0	0.0	1.02	18.0	0.0

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Area Summary for Surface Network 1

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
1.000	-	-	100	0.045	0.045	0.045
1.001	-	-	100	0.126	0.126	0.126
1.002	-	-	100	0.105	0.105	0.105
1.003	-	-	100	0.038	0.038	0.038
1.004	-	-	100	0.051	0.051	0.051
1.005	-	-	100	0.000	0.000	0.000
1.006	User	-	100	0.022	0.022	0.022
				Total	Total	Total
				0.387	0.387	0.387

Free Flowing Outfall Details for Surface Network 1

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
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1.006	S9	34.290	32.500	0.000	0	0
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Simulation Criteria for Surface Network 1

Volumetric Runoff Coeff	0.750	Additional Flow - % of Total Flow	0.000
Areal Reduction Factor	1.000	MADD Factor * 10m ³ /ha Storage	2.000
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	1
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)	18.000	Storm Duration (mins)	30
Ratio R	0.364		

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Online Controls for Surface Network 1

Hydro-Brake Optimum® Manhole: S7, DS/PN: 1.006, Volume (m³): 6.4

Unit Reference MD-SHE-0124-7000-1005-7000
Design Head (m) 1.005
Design Flow (l/s) 7.0
Flush-Flo™ Calculated
Objective Minimise upstream storage
Diameter (mm) 124
Invert Level (m) 32.795
Minimum Outlet Pipe Diameter (mm) 150
Suggested Manhole Diameter (mm) 1200

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	1.005	7.0
Flush-Flo™	0.301	7.0
Kick-Flo®	0.659	5.7
Mean Flow over Head Range	-	6.0

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	4.4	1.200	7.6	3.000	11.7	7.000	17.5
0.200	6.8	1.400	8.2	3.500	12.6	7.500	18.1
0.300	7.0	1.600	8.7	4.000	13.4	8.000	18.7
0.400	6.9	1.800	9.2	4.500	14.2	8.500	19.2
0.500	6.7	2.000	9.7	5.000	14.9	9.000	19.8
0.600	6.3	2.200	10.1	5.500	15.6	9.500	20.3
0.800	6.3	2.400	10.5	6.000	16.3		
1.000	7.0	2.600	10.9	6.500	16.9		

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Summary Wizard of 15 minute 2 year Summer I+0% for Surface Network 1

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 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	1
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	0.364
Region England and Wales	Cv (Summer)		0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	ON
Analysis Timestep	Fine	Inertia Status	OFF
DTS Status	ON		

Profile(s)

Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080	Summer and Winter
Return Period(s) (years)	2, 30, 100	
Climate Change (%)	0, 0, 40	

PN	US/MH Name	Rank	Water Level (m)	Surch'd Depth (m)	Flooded Volume (m³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)	Status
1.000	S1	19	33.848	-0.252	0.000	0.06	0.0	6.7	OK
1.001	S2	28	33.577	-0.200	0.000	0.24	0.0	22.2	OK
1.002	S3	33	33.338	-0.130	0.000	0.55	0.0	35.1	OK
1.003	S4	36	33.302	-0.099	0.000	0.78	0.0	39.6	OK
1.004	S5	39	33.259	-0.126	0.000	0.62	0.0	44.8	OK
1.005	S6	54	33.092	-0.114	0.000	0.16	0.0	11.0	OK
1.006	S7	55	33.086	0.140	0.000	0.40	0.0	6.9	SURCHARGED

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Summary Wizard of 30 minute 2 year Summer I+0% for Surface Network 1

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 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	1
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	0.364
Region England and Wales	Cv (Summer)		0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	ON
Analysis Timestep	Fine	Inertia Status	OFF
DTS Status	ON		

Profile(s)

Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080	Summer and Winter
Return Period(s) (years)	2, 30, 100	
Climate Change (%)	0, 0, 40	

PN	US/MH Name	Rank	Water Level (m)	Surch'd Depth (m)	Flooded Volume (m³)	Flow / O'flow Cap. (l/s)	Pipe Flow (l/s)	Status
1.000	S1	21	33.845	-0.255	0.000	0.05	0.0	6.1 OK
1.001	S2	30	33.573	-0.204	0.000	0.22	0.0	20.9 OK
1.002	S3	35	33.331	-0.137	0.000	0.51	0.0	32.9 OK
1.003	S4	37	33.295	-0.107	0.000	0.74	0.0	37.4 OK
1.004	S5	40	33.253	-0.133	0.000	0.59	0.0	42.5 OK
1.005	S6	50	33.110	-0.096	0.000	0.13	0.0	9.1 OK
1.006	S7	50	33.103	0.158	0.000	0.40	0.0	6.9 SURCHARGED

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Summary Wizard of 480 minute 2 year Summer I+0% for Surface Network 1

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 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 1
 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 0.364
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 18.000 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0 DVD Status ON
 Analysis Timestep Fine Inertia Status OFF
 DTS Status ON

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600,
 720, 960, 1440, 2160, 2880, 4320, 5760,
 7200, 8640, 10080
 Return Period(s) (years) 2, 30, 100
 Climate Change (%) 0, 0, 40

PN	US/MH Name	Rank	Water Level (m)	Surch'd Depth (m)	Flooded Volume (m³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)	Status
1.000	S1	59	33.815	-0.285	0.000	0.01	0.0	1.2	OK
1.001	S2	59	33.519	-0.258	0.000	0.05	0.0	4.6	OK
1.002	S3	59	33.234	-0.233	0.000	0.11	0.0	7.4	OK
1.003	S4	59	33.183	-0.219	0.000	0.17	0.0	8.4	OK
1.004	S5	59	33.158	-0.227	0.000	0.13	0.0	9.7	OK
1.005	S6	64	33.032	-0.174	0.000	0.10	0.0	6.8	OK
1.006	S7	64	33.027	0.082	0.000	0.40	0.0	6.9	SURCHARGED

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Summary Wizard of 960 minute 2 year Summer I+0% for Surface Network 1

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 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	1
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	0.364
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	ON
Analysis Timestep	Fine	Inertia Status	OFF
DTS Status	ON		

Profile(s)

Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080	Summer and Winter
Return Period(s) (years)	2, 30, 100	
Climate Change (%)	0, 0, 40	

PN	US/MH Name	Rank	Water	Surch'd Depth (m)	Flooded	Pipe			Status
			Level (m)		Volume (m³)	Flow / Cap.	O'flow (l/s)	Flow (l/s)	
1.000	S1	72	33.809	-0.291	0.000	0.01	0.0	0.7	OK
1.001	S2	72	33.511	-0.266	0.000	0.03	0.0	2.8	OK
1.002	S3	71	33.219	-0.248	0.000	0.07	0.0	4.5	OK
1.003	S4	71	33.165	-0.237	0.000	0.10	0.0	5.1	OK
1.004	S5	71	33.143	-0.243	0.000	0.08	0.0	5.9	OK
1.005	S6	71	32.972	-0.234	0.000	0.09	0.0	5.9	OK
1.006	S7	72	32.934	-0.012	0.000	0.36	0.0	6.3	OK

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Summary Wizard of 2160 minute 2 year Summer I+0% for Surface Network 1

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 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 1
 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 0.364
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 18.000 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0 DVD Status ON
 Analysis Timestep Fine Inertia Status OFF
 DTS Status ON

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600,
 720, 960, 1440, 2160, 2880, 4320, 5760,
 7200, 8640, 10080
 Return Period(s) (years) 2, 30, 100
 Climate Change (%) 0, 0, 40

PN	US/MH Name	Rank	Water	Surch'd Depth (m)	Flooded	Pipe			Status
			Level (m)		Volume (m³)	Flow / Cap.	O'flow (l/s)	Flow (l/s)	
1.000	S1	86	33.805	-0.295	0.000	0.00	0.0	0.4	OK
1.001	S2	86	33.501	-0.276	0.000	0.02	0.0	1.6	OK
1.002	S3	86	33.206	-0.262	0.000	0.04	0.0	2.6	OK
1.003	S4	86	33.148	-0.254	0.000	0.06	0.0	2.9	OK
1.004	S5	86	33.127	-0.259	0.000	0.05	0.0	3.4	OK
1.005	S6	86	32.949	-0.258	0.000	0.05	0.0	3.4	OK
1.006	S7	86	32.882	-0.063	0.000	0.21	0.0	3.6	OK

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Summary Wizard of 4320 minute 2 year Summer I+0% for Surface Network 1

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 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 1
 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 0.364
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 18.000 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0 DVD Status ON
 Analysis Timestep Fine Inertia Status OFF
 DTS Status ON

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600,
 720, 960, 1440, 2160, 2880, 4320, 5760,
 7200, 8640, 10080
 Return Period(s) (years) 2, 30, 100
 Climate Change (%) 0, 0, 40

PN	US/MH Name	Rank	Water	Surch'd Depth (m)	Flooded	Pipe			Status
			Level (m)		Volume (m³)	Flow / Cap.	O'flow (l/s)	Flow (l/s)	
1.000	S1	98	33.803	-0.297	0.000	0.00	0.0	0.3	OK
1.001	S2	98	33.492	-0.285	0.000	0.01	0.0	1.0	OK
1.002	S3	98	33.199	-0.269	0.000	0.02	0.0	1.6	OK
1.003	S4	98	33.138	-0.264	0.000	0.04	0.0	1.8	OK
1.004	S5	98	33.119	-0.267	0.000	0.03	0.0	2.1	OK
1.005	S6	98	32.940	-0.266	0.000	0.03	0.0	2.1	OK
1.006	S7	98	32.860	-0.086	0.000	0.13	0.0	2.2	OK

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Summary Wizard of 5760 minute 2 year Summer I+0% for Surface Network 1

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 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 1
 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 0.364
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 18.000 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0 DVD Status ON
 Analysis Timestep Fine Inertia Status OFF
 DTS Status ON

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600,
 720, 960, 1440, 2160, 2880, 4320, 5760,
 7200, 8640, 10080
 Return Period(s) (years) 2, 30, 100
 Climate Change (%) 0, 0, 40

PN	US/MH Name	Rank	Water	Surch'd Depth (m)	Flooded	Pipe			Status
			Level (m)		Volume (m³)	Flow / Cap.	O'flow (l/s)	Flow (l/s)	
1.000	S1	103	33.803	-0.297	0.000	0.00	0.0	0.2	OK
1.001	S2	103	33.489	-0.288	0.000	0.01	0.0	0.8	OK
1.002	S3	103	33.195	-0.272	0.000	0.02	0.0	1.3	OK
1.003	S4	103	33.135	-0.267	0.000	0.03	0.0	1.4	OK
1.004	S5	103	33.117	-0.269	0.000	0.02	0.0	1.7	OK
1.005	S6	103	32.938	-0.269	0.000	0.02	0.0	1.7	OK
1.006	S7	103	32.852	-0.093	0.000	0.10	0.0	1.8	OK

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Summary Wizard of 10080 minute 2 year Summer I+0% for Surface Network 1

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		

Synthetic Rainfall Details

Margin for Flood Risk Warning (mm)	300.0	DVD Status	ON
Analysis Timestep	Fine	Inertia Status	OFF
DTS Status	ON		

PN	US/MH		Water	Surch'd Depth (m)	Flooded	Flow / Cap.	O'flow	Pipe	Status
	Name	Rank	Level (m)		Volume (m³)		Flow (l/s)	Flow (l/s)	
1.000	S1	111	33.802	-0.298	0.000	0.00	0.0	0.1	OK
1.001	S2	111	33.485	-0.292	0.000	0.01	0.0	0.5	OK
1.002	S3	111	33.186	-0.281	0.000	0.01	0.0	0.9	OK
1.003	S4	111	33.129	-0.273	0.000	0.02	0.0	1.0	OK
1.004	S5	111	33.108	-0.278	0.000	0.02	0.0	1.1	OK
1.005	S6	111	32.929	-0.277	0.000	0.02	0.0	1.1	OK
1.006	S7	111	32.841	-0.104	0.000	0.07	0.0	1.2	OK

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Date Nov 2019 File SW.MDX	Designed by NR Checked by	
Innovyze	Network 2018.1.1	

Summary Wizard of 30 minute 30 year Summer I+0% for Surface Network 1

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 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 1
 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 0.364
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 18.000 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0 DVD Status ON
 Analysis Timestep Fine Inertia Status OFF
 DTS Status ON

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600,
 720, 960, 1440, 2160, 2880, 4320, 5760,
 7200, 8640, 10080
 Return Period(s) (years) 2, 30, 100
 Climate Change (%) 0, 0, 40

PN	US/MH Name	Rank	Water Level (m)	Surch'd Depth (m)	Flooded Volume (m³)	Flow / O'flow Cap. (l/s)	Pipe Flow (l/s)	Status
1.000	S1	13	33.864	-0.236	0.000	0.10	11.6	OK
1.001	S2	17	33.699	-0.078	0.000	0.46	43.4	OK
1.002	S3	20	33.638	0.171	0.000	1.02	65.8	SURCHARGED
1.003	S4	23	33.554	0.152	0.000	1.47	74.6	SURCHARGED
1.004	S5	25	33.461	0.076	0.000	1.20	86.3	SURCHARGED
1.005	S6	34	33.265	0.059	0.000	0.16	10.9	SURCHARGED
1.006	S7	37	33.261	0.315	0.000	0.40	6.9	SURCHARGED

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Innovyze				Network 2018.1.1			
<u>Summary Wizard of 60 minute 30 year Summer I+0% for Surface Network 1</u>							
<u>Simulation Criteria</u>							
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 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		1	
Number of Online Controls		1		Number of Time/Area Diagrams		0	
Number of Offline Controls		0		Number of Real Time Controls		0	
<u>Synthetic Rainfall Details</u>							
Rainfall Model		FSR		Ratio R		0.364	
Region England and Wales		Cv (Summer)		0.750			
M5-60 (mm)		18.000		Cv (Winter)		0.840	
Margin for Flood Risk Warning (mm)		300.0		DVD Status		ON	
Analysis Timestep		Fine		Inertia Status		OFF	
DTS Status		ON					
Profile(s)				Summer and Winter			
Duration(s) (mins)		15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080					
Return Period(s) (years)		2, 30, 100					
Climate Change (%)		0, 0, 40					

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Summary Wizard of 180 minute 30 year Summer I+0% for Surface Network 1																																																																																																
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<table><tr><th colspan="3">US/MH</th><th colspan="2">Water</th><th colspan="2">Flooded</th><th colspan="2">Pipe</th><th rowspan="2">Status</th></tr><tr><th>PN</th><th>Name</th><th>Rank</th><th>Level (m)</th><th>Surch'd Depth (m)</th><th>Volume (m³)</th><th>Flow / Cap.</th><th>O'flow (l/s)</th><th>Flow (l/s)</th></tr><tr><td>1.000</td><td>S1</td><td>26</td><td>33.839</td><td>-0.261</td><td>0.000</td><td>0.04</td><td>0.0</td><td>4.5</td><td>OK</td></tr><tr><td>1.001</td><td>S2</td><td>32</td><td>33.563</td><td>-0.214</td><td>0.000</td><td>0.18</td><td>0.0</td><td>17.0</td><td>OK</td></tr><tr><td>1.002</td><td>S3</td><td>39</td><td>33.311</td><td>-0.157</td><td>0.000</td><td>0.42</td><td>0.0</td><td>27.3</td><td>OK</td></tr><tr><td>1.003</td><td>S4</td><td>38</td><td>33.294</td><td>-0.107</td><td>0.000</td><td>0.61</td><td>0.0</td><td>30.9</td><td>OK</td></tr><tr><td>1.004</td><td>S5</td><td>35</td><td>33.292</td><td>-0.093</td><td>0.000</td><td>0.50</td><td>0.0</td><td>35.8</td><td>OK</td></tr><tr><td>1.005</td><td>S6</td><td>32</td><td>33.284</td><td>0.078</td><td>0.000</td><td>0.11</td><td>0.0</td><td>7.5</td><td>SURCHARGED</td></tr><tr><td>1.006</td><td>S7</td><td>28</td><td>33.313</td><td>0.368</td><td>0.000</td><td>0.40</td><td>0.0</td><td>6.9</td><td>SURCHARGED</td></tr></table>								US/MH			Water		Flooded		Pipe		Status	PN	Name	Rank	Level (m)	Surch'd Depth (m)	Volume (m³)	Flow / Cap.	O'flow (l/s)	Flow (l/s)	1.000	S1	26	33.839	-0.261	0.000	0.04	0.0	4.5	OK	1.001	S2	32	33.563	-0.214	0.000	0.18	0.0	17.0	OK	1.002	S3	39	33.311	-0.157	0.000	0.42	0.0	27.3	OK	1.003	S4	38	33.294	-0.107	0.000	0.61	0.0	30.9	OK	1.004	S5	35	33.292	-0.093	0.000	0.50	0.0	35.8	OK	1.005	S6	32	33.284	0.078	0.000	0.11	0.0	7.5	SURCHARGED	1.006	S7	28	33.313	0.368	0.000	0.40	0.0	6.9	SURCHARGED
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1.003	S4	44	33.251	-0.151	0.000	0.37	0.0	18.8	OK																																																																																												
1.004	S5	41	33.249	-0.136	0.000	0.30	0.0	21.8	OK																																																																																												
1.005	S6	37	33.241	0.035	0.000	0.10	0.0	7.2	SURCHARGED																																																																																												
1.006	S7	38	33.247	0.302	0.000	0.40	0.0	6.9	SURCHARGED																																																																																												
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<u>Summary Wizard of 960 minute 30 year Summer I+0% for Surface Network 1</u>									
<u>Simulation Criteria</u>									
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 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		1			
Number of Online Controls		1		Number of Time/Area Diagrams		0			
Number of Offline Controls		0		Number of Real Time Controls		0			
<u>Synthetic Rainfall Details</u>									
Rainfall Model		FSR		Ratio R		0.364			
Region England and Wales		Cv (Summer)		0.750					
M5-60 (mm)		18.000		Cv (Winter)		0.840			
Margin for Flood Risk Warning (mm)		300.0		DVD Status		ON			
Analysis Timestep		Fine		Inertia Status		OFF			
DTS Status		ON							
Profile(s)				Summer and Winter					
Duration(s) (mins)		15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080							
Return Period(s) (years)		2, 30, 100							
Climate Change (%)		0, 0, 40							
US/MH		Water		Flooded		Pipe			
PN		Name Rank		Level Surch'd		Volume Flow / O'flow		Flow Status	
				Depth (m)		Cap. (l/s)		(l/s)	
1.000		S1 56		33.816 -0.284		0.000 0.01		0.0 1.3 OK	
1.001		S2 56		33.521 -0.256		0.000 0.05		0.0 4.9 OK	
1.002		S3 57		33.237 -0.231		0.000 0.12		0.0 7.9 OK	
1.003		S4 58		33.186 -0.216		0.000 0.18		0.0 9.0 OK	
1.004		S5 58		33.161 -0.225		0.000 0.14		0.0 10.4 OK	
1.005		S6 56		33.087 -0.119		0.000 0.10		0.0 6.9 OK	
1.006		S7 56		33.083 0.137		0.000 0.40		0.0 6.9 SURCHARGED	
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Summary Wizard of 1440 minute 30 year Summer I+0% for Surface Network 1

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 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	1
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	0.364
Region England and Wales	Cv (Summer)		0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	ON
Analysis Timestep	Fine	Inertia Status	OFF
DTS Status	ON		

Profile(s)

Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080	Summer and Winter
Return Period(s) (years)	2, 30, 100	
Climate Change (%)	0, 0, 40	

PN	US/MH Name	Rank	Water Level (m)	Surch'd Depth (m)	Flooded Volume (m³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)	Status
1.000	S1	65	33.812	-0.288	0.000	0.01	0.0	0.9	OK
1.001	S2	65	33.515	-0.262	0.000	0.04	0.0	3.6	OK
1.002	S3	65	33.228	-0.240	0.000	0.09	0.0	5.8	OK
1.003	S4	65	33.173	-0.229	0.000	0.13	0.0	6.6	OK
1.004	S5	65	33.150	-0.235	0.000	0.11	0.0	7.6	OK
1.005	S6	65	33.032	-0.175	0.000	0.09	0.0	6.5	OK
1.006	S7	62	33.062	0.117	0.000	0.40	0.0	6.9	SURCHARGED

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Summary Wizard of 2160 minute 30 year Summer I+0% for Surface Network 1

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 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	1
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	0.364
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	ON
Analysis Timestep	Fine	Inertia Status	OFF
DTS Status	ON		

Profile(s)

Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080	Summer and Winter
Return Period(s) (years)	2, 30, 100	
Climate Change (%)	0, 0, 40	

PN	US/MH Name	Rank	Water	Surch'd Depth (m)	Flooded	Pipe			Status
			Level (m)		Volume (m³)	Flow / Cap.	O'flow (l/s)	Flow (l/s)	
1.000	S1	73	33.809	-0.291	0.000	0.01	0.0	0.7	OK
1.001	S2	73	33.510	-0.267	0.000	0.03	0.0	2.7	OK
1.002	S3	73	33.218	-0.249	0.000	0.07	0.0	4.3	OK
1.003	S4	73	33.164	-0.237	0.000	0.10	0.0	4.9	OK
1.004	S5	73	33.142	-0.244	0.000	0.08	0.0	5.8	OK
1.005	S6	73	32.970	-0.236	0.000	0.08	0.0	5.8	OK
1.006	S7	73	32.930	-0.015	0.000	0.35	0.0	6.1	OK

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Summary Wizard of 2880 minute 30 year Summer I+0% for Surface Network 1

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 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 1
 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 0.364
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 18.000 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0 DVD Status ON
 Analysis Timestep Fine Inertia Status OFF
 DTS Status ON

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600,
 720, 960, 1440, 2160, 2880, 4320, 5760,
 7200, 8640, 10080
 Return Period(s) (years) 2, 30, 100
 Climate Change (%) 0, 0, 40

PN	US/MH Name	Rank	Water	Surch'd Depth (m)	Flooded	Pipe			Status
			Level (m)		Volume (m³)	Flow / Cap.	O'flow (l/s)	Flow (l/s)	
1.000	S1	77	33.807	-0.293	0.000	0.01	0.0	0.6	OK
1.001	S2	77	33.508	-0.269	0.000	0.02	0.0	2.2	OK
1.002	S3	77	33.212	-0.255	0.000	0.05	0.0	3.5	OK
1.003	S4	77	33.157	-0.244	0.000	0.08	0.0	4.0	OK
1.004	S5	77	33.135	-0.251	0.000	0.06	0.0	4.7	OK
1.005	S6	77	32.959	-0.247	0.000	0.07	0.0	4.7	OK
1.006	S7	77	32.905	-0.040	0.000	0.29	0.0	4.9	OK

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Summary Wizard of 4320 minute 30 year Summer I+0% for Surface Network 1

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 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 1
 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 0.364
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 18.000 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0 DVD Status ON
 Analysis Timestep Fine Inertia Status OFF
 DTS Status ON

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600,
 720, 960, 1440, 2160, 2880, 4320, 5760,
 7200, 8640, 10080
 Return Period(s) (years) 2, 30, 100
 Climate Change (%) 0, 0, 40

PN	US/MH Name	Rank	Water	Surch'd Depth (m)	Flooded	Pipe			Status
			Level (m)		Volume (m³)	Flow / Cap.	O'flow (l/s)	Flow (l/s)	
1.000	S1	83	33.805	-0.295	0.000	0.00	0.0	0.4	OK
1.001	S2	83	33.501	-0.276	0.000	0.02	0.0	1.6	OK
1.002	S3	83	33.206	-0.262	0.000	0.04	0.0	2.6	OK
1.003	S4	83	33.148	-0.254	0.000	0.06	0.0	2.9	OK
1.004	S5	84	33.127	-0.258	0.000	0.05	0.0	3.4	OK
1.005	S6	83	32.949	-0.257	0.000	0.05	0.0	3.4	OK
1.006	S7	83	32.882	-0.063	0.000	0.21	0.0	3.6	OK

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Summary Wizard of 5760 minute 30 year Summer I+0% for Surface Network 1

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 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	1
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	0.364
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	ON
Analysis Timestep	Fine	Inertia Status	OFF
DTS Status	ON		

Profile(s) Summer and Winter

Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080
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Return Period(s) (years)	2, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Rank	Water	Surch'd Depth (m)	Flooded	Pipe			Status
			Level (m)		Volume (m³)	Flow / Cap.	O'flow (l/s)	Flow (l/s)	
1.000	S1	92	33.804	-0.296	0.000	0.00	0.0	0.3	OK
1.001	S2	92	33.496	-0.281	0.000	0.01	0.0	1.3	OK
1.002	S3	92	33.202	-0.265	0.000	0.03	0.0	2.1	OK
1.003	S4	92	33.143	-0.259	0.000	0.05	0.0	2.3	OK
1.004	S5	92	33.123	-0.263	0.000	0.04	0.0	2.7	OK
1.005	S6	92	32.944	-0.262	0.000	0.04	0.0	2.7	OK
1.006	S7	92	32.871	-0.074	0.000	0.17	0.0	2.9	OK

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Summary Wizard of 7200 minute 30 year Summer I+0% for Surface Network 1

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 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 1
 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 0.364
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 18.000 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0 DVD Status ON
 Analysis Timestep Fine Inertia Status OFF
 DTS Status ON

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600,
 720, 960, 1440, 2160, 2880, 4320, 5760,
 7200, 8640, 10080
 Return Period(s) (years) 2, 30, 100
 Climate Change (%) 0, 0, 40

			Water		Flooded		Pipe		
	US/MH		Level	Surch'd	Volume	Flow /	O'flow	Pipe	
PN	Name	Rank	(m)	Depth (m)	(m³)	Cap.	(l/s)	(l/s)	Status
1.000	S1	96	33.804	-0.296	0.000	0.00	0.0	0.3	OK
1.001	S2	96	33.493	-0.284	0.000	0.01	0.0	1.1	OK
1.002	S3	96	33.200	-0.267	0.000	0.03	0.0	1.7	OK
1.003	S4	96	33.139	-0.262	0.000	0.04	0.0	2.0	OK
1.004	S5	96	33.120	-0.265	0.000	0.03	0.0	2.3	OK
1.005	S6	96	32.942	-0.265	0.000	0.03	0.0	2.3	OK
1.006	S7	96	32.864	-0.082	0.000	0.14	0.0	2.4	OK

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Summary Wizard of 30 minute 100 year Summer I+40% for Surface Network 1

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 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	1
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	0.364
Region England and Wales	Cv (Summer)		0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	ON
Analysis Timestep	Fine	Inertia Status	OFF
DTS Status	ON		

Profile(s)

Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080	Summer and Winter
Return Period(s) (years)	2, 30, 100	
Climate Change (%)	0, 0, 40	

PN	US/MH Name	Rank	Water Level (m)	Surch'ed Depth (m)	Flooded Volume (m³)	Flow / O'flow Cap. (l/s)	Pipe Flow (l/s)	Status
1.000	S1	3	34.737	0.637	0.000	0.18	0.0	20.5 FLOOD RISK
1.001	S2	3	34.717	0.940	0.000	0.76	0.0	71.0 SURCHARGED
1.002	S3	3	34.535	1.068	0.000	1.77	0.0	114.0 SURCHARGED
1.003	S4	3	34.319	0.917	0.000	2.56	0.0	129.8 SURCHARGED
1.004	S5	5	34.041	0.656	0.000	2.07	0.0	149.4 SURCHARGED
1.005	S6	18	33.541	0.335	0.000	0.19	0.0	13.2 SURCHARGED
1.006	S7	17	33.537	0.591	0.000	0.40	0.0	6.9 SURCHARGED

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Summary Wizard of 480 minute 100 year Summer I+40% for Surface Network 1

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 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	1
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	0.364
Region England and Wales	Cv (Summer)		0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	ON
Analysis Timestep	Fine	Inertia Status	OFF
DTS Status	ON		

Profile(s)

Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080	Summer and Winter
Return Period(s) (years)	2, 30, 100	
Climate Change (%)	0, 0, 40	

PN	US/MH Name	Rank	Water Level (m)	Surch'd Depth (m)	Flooded Volume (m³)	Flow / Cap. (l/s)	O'flow (l/s)	Pipe Flow (l/s)	Status
1.000	S1	28	33.836	-0.264	0.000	0.04	0.0	3.9	OK
1.001	S2	20	33.666	-0.111	0.000	0.16	0.0	14.8	OK
1.002	S3	19	33.663	0.196	0.000	0.35	0.0	22.6	SURCHARGED
1.003	S4	16	33.660	0.259	0.000	0.49	0.0	25.0	SURCHARGED
1.004	S5	16	33.659	0.273	0.000	0.40	0.0	29.0	SURCHARGED
1.005	S6	12	33.651	0.445	0.000	0.10	0.0	6.9	SURCHARGED
1.006	S7	15	33.566	0.620	0.000	0.40	0.0	6.9	SURCHARGED

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Summary Wizard of 600 minute 100 year Summer I+40% for Surface Network 1

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 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 1
 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 0.364
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 18.000 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0 DVD Status ON
 Analysis Timestep Fine Inertia Status OFF
 DTS Status ON

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600,
 720, 960, 1440, 2160, 2880, 4320, 5760,
 7200, 8640, 10080
 Return Period(s) (years) 2, 30, 100
 Climate Change (%) 0, 0, 40

PN	US/MH Name	Rank	Water Level (m)	Surch'd Depth (m)	Flooded Volume (m³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)	Status
1.000	S1	33	33.834	-0.266	0.000	0.03	0.0	3.3	OK
1.001	S2	23	33.606	-0.172	0.000	0.13	0.0	12.6	OK
1.002	S3	22	33.601	0.133	0.000	0.30	0.0	19.5	SURCHARGED
1.003	S4	21	33.596	0.195	0.000	0.43	0.0	21.6	SURCHARGED
1.004	S5	19	33.595	0.209	0.000	0.35	0.0	25.0	SURCHARGED
1.005	S6	16	33.587	0.380	0.000	0.10	0.0	6.9	SURCHARGED
1.006	S7	18	33.530	0.584	0.000	0.40	0.0	6.9	SURCHARGED

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<u>Summary Wizard of 2160 minute 100 year Summer I+40% for Surface Network 1</u>																																																																																																														
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Areal Reduction Factor 1.000				Additional Flow - % of Total Flow 0.000																																																																																																										
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Region England and Wales				Cv (Summer) 0.750																																																																																																										
M5-60 (mm)				18.000		Cv (Winter) 0.840																																																																																																								
Margin for Flood Risk Warning (mm) 300.0				DVD Status ON																																																																																																										
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Duration(s) (mins)				15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080																																																																																																										
Return Period(s) (years)				2, 30, 100																																																																																																										
Climate Change (%)				0, 0, 40																																																																																																										
<table><tr><th colspan="3">US/MH</th><th colspan="2">Water</th><th colspan="2">Flooded</th><th colspan="2">Pipe</th><th colspan="2"></th></tr><tr><th>PN</th><th>Name</th><th>Rank</th><th>Level (m)</th><th>Surch'd Depth (m)</th><th>Volume (m³)</th><th>Flow / Cap.</th><th>O'flow (l/s)</th><th>Pipe Flow (l/s)</th><th>Status</th><th></th></tr><tr><td>1.000</td><td>S1</td><td>57</td><td>33.816</td><td>-0.284</td><td>0.000</td><td>0.01</td><td>0.0</td><td>1.3</td><td>OK</td><td></td></tr><tr><td>1.001</td><td>S2</td><td>57</td><td>33.520</td><td>-0.257</td><td>0.000</td><td>0.05</td><td>0.0</td><td>4.8</td><td>OK</td><td></td></tr><tr><td>1.002</td><td>S3</td><td>58</td><td>33.236</td><td>-0.231</td><td>0.000</td><td>0.12</td><td>0.0</td><td>7.7</td><td>OK</td><td></td></tr><tr><td>1.003</td><td>S4</td><td>54</td><td>33.194</td><td>-0.207</td><td>0.000</td><td>0.17</td><td>0.0</td><td>8.7</td><td>OK</td><td></td></tr><tr><td>1.004</td><td>S5</td><td>49</td><td>33.191</td><td>-0.194</td><td>0.000</td><td>0.14</td><td>0.0</td><td>10.2</td><td>OK</td><td></td></tr><tr><td>1.005</td><td>S6</td><td>42</td><td>33.182</td><td>-0.024</td><td>0.000</td><td>0.10</td><td>0.0</td><td>7.2</td><td>OK</td><td></td></tr><tr><td>1.006</td><td>S7</td><td>16</td><td>33.544</td><td>0.598</td><td>0.000</td><td>0.40</td><td>0.0</td><td>6.9</td><td>SURCHARGED</td><td></td></tr></table>												US/MH			Water		Flooded		Pipe				PN	Name	Rank	Level (m)	Surch'd Depth (m)	Volume (m³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)	Status		1.000	S1	57	33.816	-0.284	0.000	0.01	0.0	1.3	OK		1.001	S2	57	33.520	-0.257	0.000	0.05	0.0	4.8	OK		1.002	S3	58	33.236	-0.231	0.000	0.12	0.0	7.7	OK		1.003	S4	54	33.194	-0.207	0.000	0.17	0.0	8.7	OK		1.004	S5	49	33.191	-0.194	0.000	0.14	0.0	10.2	OK		1.005	S6	42	33.182	-0.024	0.000	0.10	0.0	7.2	OK		1.006	S7	16	33.544	0.598	0.000	0.40	0.0	6.9	SURCHARGED	
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US/MH			Water		Flooded		Pipe																																																																																																							
PN	Name	Rank	Level (m)	Surch'd Depth (m)	Volume (m³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)	Status																																																																																																					
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Summary Wizard of 4320 minute 100 year Summer I+40% for Surface Network 1

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 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 1
 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 0.364
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 18.000 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0 DVD Status ON
 Analysis Timestep Fine Inertia Status OFF
 DTS Status ON

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600,
 720, 960, 1440, 2160, 2880, 4320, 5760,
 7200, 8640, 10080
 Return Period(s) (years) 2, 30, 100
 Climate Change (%) 0, 0, 40

PN	US/MH Name	Rank	Water	Surch'd Depth (m)	Flooded	Pipe			Status
			Level (m)		Volume (m³)	Flow / Cap.	O'flow (l/s)	Flow (l/s)	
1.000	S1	70	33.809	-0.291	0.000	0.01	0.0	0.7	OK
1.001	S2	70	33.511	-0.266	0.000	0.03	0.0	2.8	OK
1.002	S3	70	33.219	-0.248	0.000	0.07	0.0	4.5	OK
1.003	S4	70	33.165	-0.237	0.000	0.10	0.0	5.1	OK
1.004	S5	70	33.143	-0.243	0.000	0.08	0.0	5.9	OK
1.005	S6	70	32.972	-0.234	0.000	0.09	0.0	5.9	OK
1.006	S7	70	32.934	-0.011	0.000	0.37	0.0	6.3	OK

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Innovyze	Network 2018.1.1	

Summary Wizard of 5760 minute 100 year Summer I+40% for Surface Network 1

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 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 1
 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 0.364
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 18.000 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0 DVD Status ON
 Analysis Timestep Fine Inertia Status OFF
 DTS Status ON

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600,
 720, 960, 1440, 2160, 2880, 4320, 5760,
 7200, 8640, 10080
 Return Period(s) (years) 2, 30, 100
 Climate Change (%) 0, 0, 40

PN	US/MH Name	Rank	Water	Surch'd Depth (m)	Flooded	Pipe			Status
			Level (m)		Volume (m³)	Flow / Cap.	O'flow (l/s)	Flow (l/s)	
1.000	S1	76	33.807	-0.293	0.000	0.01	0.0	0.6	OK
1.001	S2	76	33.508	-0.269	0.000	0.02	0.0	2.2	OK
1.002	S3	76	33.213	-0.255	0.000	0.06	0.0	3.6	OK
1.003	S4	76	33.158	-0.244	0.000	0.08	0.0	4.1	OK
1.004	S5	76	33.135	-0.250	0.000	0.07	0.0	4.7	OK
1.005	S6	76	32.960	-0.247	0.000	0.07	0.0	4.7	OK
1.006	S7	76	32.906	-0.039	0.000	0.29	0.0	5.0	OK

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Summary Wizard of 10080 minute 100 year Summer I+40% for Surface Network 1

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 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	1
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	0.364
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	ON
Analysis Timestep	Fine	Inertia Status	OFF
DTS Status	ON		

Profile(s)

Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080	Summer and Winter
Return Period(s) (years)	2, 30, 100	
Climate Change (%)	0, 0, 40	

PN	US/MH Name	Rank	Water	Surch'd Depth (m)	Flooded	Pipe			Status
			Level (m)		Volume (m³)	Flow / Cap.	O'flow (l/s)	Flow (l/s)	
1.000	S1	89	33.805	-0.295	0.000	0.00	0.0	0.4	OK
1.001	S2	89	33.498	-0.279	0.000	0.02	0.0	1.4	OK
1.002	S3	89	33.204	-0.264	0.000	0.04	0.0	2.3	OK
1.003	S4	89	33.145	-0.257	0.000	0.05	0.0	2.6	OK
1.004	S5	89	33.125	-0.261	0.000	0.04	0.0	3.0	OK
1.005	S6	89	32.946	-0.260	0.000	0.04	0.0	3.0	OK
1.006	S7	89	32.876	-0.070	0.000	0.19	0.0	3.2	OK

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Summary Wizard of 60 minute 2 year Winter I+0% for Surface Network 1

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 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	1
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	0.364
Region England and Wales	Cv (Summer)		0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	ON
Analysis Timestep	Fine	Inertia Status	OFF
DTS Status	ON		

Profile(s)

Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080	Summer and Winter
Return Period(s) (years)	2, 30, 100	
Climate Change (%)	0, 0, 40	

PN	US/MH Name	Rank	Water Level (m)	Surch'd Depth (m)	Flooded Volume (m³)	Flow / Cap. (l/s)	O'flow (l/s)	Pipe Flow (l/s)	Status
1.000	S1	29	33.835	-0.265	0.000	0.03	0.0	3.7	OK
1.001	S2	36	33.553	-0.224	0.000	0.15	0.0	13.8	OK
1.002	S3	42	33.292	-0.176	0.000	0.35	0.0	22.2	OK
1.003	S4	43	33.251	-0.150	0.000	0.50	0.0	25.2	OK
1.004	S5	45	33.218	-0.167	0.000	0.40	0.0	29.1	OK
1.005	S6	45	33.134	-0.072	0.000	0.11	0.0	7.8	OK
1.006	S7	47	33.128	0.182	0.000	0.40	0.0	6.9	SURCHARGED

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Summary Wizard of 2880 minute 2 year Winter I+0% for Surface Network 1

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 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	1
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	0.364
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	ON
Analysis Timestep	Fine	Inertia Status	OFF
DTS Status	ON		

Profile(s)

Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080	Summer and Winter
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Return Period(s) (years)	2, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Rank	Water	Surch'd Depth (m)	Flooded	Pipe			Status
			Level (m)		Volume (m³)	Flow / Cap.	O'flow (l/s)	Flow (l/s)	
1.000	S1	99	33.803	-0.297	0.000	0.00	0.0	0.2	OK
1.001	S2	99	33.491	-0.286	0.000	0.01	0.0	0.9	OK
1.002	S3	99	33.198	-0.269	0.000	0.02	0.0	1.5	OK
1.003	S4	99	33.137	-0.264	0.000	0.03	0.0	1.7	OK
1.004	S5	99	33.118	-0.267	0.000	0.03	0.0	2.0	OK
1.005	S6	99	32.940	-0.266	0.000	0.03	0.0	2.0	OK
1.006	S7	99	32.858	-0.087	0.000	0.12	0.0	2.1	OK

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Summary Wizard of 4320 minute 2 year Winter I+0% for Surface Network 1

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 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 1
 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 0.364
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 18.000 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0 DVD Status ON
 Analysis Timestep Fine Inertia Status OFF
 DTS Status ON

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600,
 720, 960, 1440, 2160, 2880, 4320, 5760,
 7200, 8640, 10080
 Return Period(s) (years) 2, 30, 100
 Climate Change (%) 0, 0, 40

PN	US/MH Name	Rank	Water	Surch'd Depth (m)	Flooded	Pipe			Status
			Level (m)		Volume (m³)	Flow / Cap.	O'flow (l/s)	Flow (l/s)	
1.000	S1	105	33.802	-0.298	0.000	0.00	0.0	0.2	OK
1.001	S2	105	33.488	-0.289	0.000	0.01	0.0	0.7	OK
1.002	S3	105	33.192	-0.275	0.000	0.02	0.0	1.1	OK
1.003	S4	105	33.133	-0.268	0.000	0.03	0.0	1.3	OK
1.004	S5	105	33.115	-0.271	0.000	0.02	0.0	1.5	OK
1.005	S6	105	32.936	-0.270	0.000	0.02	0.0	1.5	OK
1.006	S7	105	32.849	-0.097	0.000	0.09	0.0	1.6	OK

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Summary Wizard of 7200 minute 2 year Winter I+0% for Surface Network 1

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 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	1
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	0.364
Region England and Wales	Cv (Summer)		0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	ON
Analysis Timestep	Fine	Inertia Status	OFF
DTS Status	ON		

Profile(s)

Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080	Summer and Winter
--------------------	---	-------------------

Return Period(s) (years)	2, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Rank	Water	Surch'd Depth (m)	Flooded	Pipe			Status
			Level (m)		Volume (m³)	Flow / Cap.	O'flow (l/s)	Flow (l/s)	
1.000	S1	112	33.802	-0.298	0.000	0.00	0.0	0.1	OK
1.001	S2	112	33.484	-0.293	0.000	0.01	0.0	0.5	OK
1.002	S3	112	33.185	-0.283	0.000	0.01	0.0	0.8	OK
1.003	S4	112	33.126	-0.275	0.000	0.02	0.0	0.9	OK
1.004	S5	112	33.106	-0.280	0.000	0.01	0.0	1.0	OK
1.005	S6	112	32.927	-0.279	0.000	0.01	0.0	1.0	OK
1.006	S7	112	32.839	-0.106	0.000	0.06	0.0	1.1	OK

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Summary Wizard of 8640 minute 2 year Winter I+0% for Surface Network 1

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 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	1
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	0.364
Region England and Wales	Cv (Summer)	0.750	
M5-60 (mm)	18.000 Cv (Winter)	0.840	

Margin for Flood Risk Warning (mm)	300.0	DVD Status	ON
Analysis Timestep	Fine	Inertia Status	OFF
DTS Status	ON		

Profile(s)

Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080	Summer and Winter
Return Period(s) (years)	2, 30, 100	
Climate Change (%)	0, 0, 40	

PN	US/MH Name	Rank	Water	Surch'd Depth (m)	Flooded	Pipe			Status
			Level (m)		Volume (m³)	Flow / Cap.	O'flow (l/s)	Flow (l/s)	
1.000	S1	113	33.801	-0.299	0.000	0.00	0.0	0.1	OK
1.001	S2	113	33.484	-0.294	0.000	0.00	0.0	0.4	OK
1.002	S3	113	33.182	-0.285	0.000	0.01	0.0	0.7	OK
1.003	S4	113	33.123	-0.278	0.000	0.02	0.0	0.8	OK
1.004	S5	113	33.103	-0.282	0.000	0.01	0.0	0.9	OK
1.005	S6	113	32.925	-0.281	0.000	0.01	0.0	0.9	OK
1.006	S7	113	32.836	-0.109	0.000	0.06	0.0	1.0	OK

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Summary Wizard of 10080 minute 2 year Winter I+0% for Surface Network 1

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 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 1
 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 0.364
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 18.000 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0 DVD Status ON
 Analysis Timestep Fine Inertia Status OFF
 DTS Status ON

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600,
 720, 960, 1440, 2160, 2880, 4320, 5760,
 7200, 8640, 10080
 Return Period(s) (years) 2, 30, 100
 Climate Change (%) 0, 0, 40

PN	US/MH Name	Rank	Water	Surch'd Depth (m)	Flooded	Pipe			Status
			Level (m)		Volume (m³)	Flow / Cap.	O'flow (l/s)	Flow (l/s)	
1.000	S1	114	33.801	-0.299	0.000	0.00	0.0	0.1	OK
1.001	S2	114	33.483	-0.294	0.000	0.00	0.0	0.4	OK
1.002	S3	114	33.181	-0.286	0.000	0.01	0.0	0.6	OK
1.003	S4	114	33.121	-0.280	0.000	0.01	0.0	0.7	OK
1.004	S5	114	33.102	-0.284	0.000	0.01	0.0	0.8	OK
1.005	S6	114	32.923	-0.283	0.000	0.01	0.0	0.8	OK
1.006	S7	114	32.834	-0.112	0.000	0.05	0.0	0.9	OK

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Summary Wizard of 15 minute 30 year Winter I+0% for Surface Network 1

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 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 1
 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 0.364
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 18.000 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0 DVD Status ON
 Analysis Timestep Fine Inertia Status OFF
 DTS Status ON

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600,
 720, 960, 1440, 2160, 2880, 4320, 5760,
 7200, 8640, 10080
 Return Period(s) (years) 2, 30, 100
 Climate Change (%) 0, 0, 40

	US/MH		Water		Flooded		Pipe		
	Name	Rank	Level	Surch'd	Volume	Flow / O'flow	Flow		Status
PN			(m)	Depth (m)	(m³)	Cap.	(l/s)	(l/s)	
1.000	S1	11	33.871	-0.229	0.000	0.12	0.0	13.2	OK
1.001	S2	12	33.821	0.044	0.000	0.48	0.0	45.4	SURCHARGED
1.002	S3	15	33.709	0.242	0.000	1.10	0.0	70.6	SURCHARGED
1.003	S4	18	33.626	0.225	0.000	1.60	0.0	81.2	SURCHARGED
1.004	S5	22	33.516	0.130	0.000	1.30	0.0	94.0	SURCHARGED
1.005	S6	36	33.242	0.036	0.000	0.19	0.0	13.3	SURCHARGED
1.006	S7	40	33.237	0.292	0.000	0.40	0.0	6.9	SURCHARGED

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Micro Drainage

Summary Wizard of 180 minute 30 year Winter I+0% for Surface Network 1

Simulation Criteria

Areal Reduction Factor 1.000

Hot Start (mins) 0

Hot Start Level (mm) 0

Manhole Headloss Coeff (Global) 0.500

Foul Sewage per hectare (l/s) 0.000

Additional Flow - % of Total Flow 0.000

MADD Factor * 10m³/ha Storage 2.000

Inlet Coeffiecient 0.800

Flow per Person per Day (l/per/day) 0.000

Number of Input Hydrographs 0

Number of Online Controls 1

Number of Offline Controls 0

Number of Storage Structures 1

Number of Time/Area Diagrams 0

Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model

Region England and Wales

M5-60 (mm)

FSR

Cv (Summer)

18.000 Cv (Winter)

Ratio R 0.364

0.750

0.840

Margin for Flood Risk Warning (mm) 300.0

Analysis Timestep

DTS Status

DVD Status ON

Fine Inertia Status OFF

ON

Profile(s)

Duration(s) (mins)

Return Period(s) (years)

Climate Change (%)

Summer and Winter

15, 30, 60, 120, 180, 240, 360, 480, 600,
720, 960, 1440, 2160, 2880, 4320, 5760,
7200, 8640, 10080

2, 30, 100

0, 0, 40

PN

US/MH

Name

Rank

Water

Level

Surch'ed

Depth (m)

Flooded

Volume

Flow /

Cap.

Pipe

O'flow

Flow

Status

1.000

S1

32

33.834

-0.266

0.000

0.03

0.0

3.4

OK

1.001

S2

37

33.550

-0.227

0.000

0.14

0.0

12.8

OK

1.002

S3

31

33.350

-0.118

0.000

0.32

0.0

20.6

OK

1.003

S4

31

33.345

-0.057

0.000

0.46

0.0

23.4

OK

1.004

S5

30

33.343

-0.042

0.000

0.37

0.0

27.0

OK

1.005

S6

26

33.335

0.128

0.000

0.11

0.0

7.8

SURCHARGED

1.006

S7

25

33.361

0.416

0.000

0.40

0.0

6.9

SURCHARGED

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<u>Summary Wizard of 240 minute 30 year Winter I+0% for Surface Network 1</u>									
<u>Simulation Criteria</u>									
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 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		1			
Number of Online Controls		1		Number of Time/Area Diagrams		0			
Number of Offline Controls		0		Number of Real Time Controls		0			
<u>Synthetic Rainfall Details</u>									
Rainfall Model		FSR		Ratio R		0.364			
Region England and Wales		Cv (Summer)		0.750					
M5-60 (mm)		18.000		Cv (Winter)		0.840			
Margin for Flood Risk Warning (mm)		300.0		DVD Status		ON			
Analysis Timestep		Fine		Inertia Status		OFF			
DTS Status		ON							
Profile(s)				Summer and Winter					
Duration(s) (mins)		15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080							
Return Period(s) (years)		2, 30, 100							
Climate Change (%)		0, 0, 40							

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Summary Wizard of 360 minute 30 year Winter I+0% for Surface Network 1

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 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	1
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	0.364
Region England and Wales	Cv (Summer)		0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	ON
Analysis Timestep	Fine	Inertia Status	OFF
DTS Status	ON		

Profile(s)

Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080	Summer and Winter
Return Period(s) (years)	2, 30, 100	
Climate Change (%)	0, 0, 40	

PN	US/MH Name	Rank	Water Level (m)	Surch'd Depth (m)	Flooded Volume (m³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)	Status
1.000	S1	45	33.826	-0.274	0.000	0.02	0.0	2.0	OK
1.001	S2	46	33.534	-0.243	0.000	0.08	0.0	7.6	OK
1.002	S3	44	33.273	-0.194	0.000	0.19	0.0	12.3	OK
1.003	S4	41	33.269	-0.133	0.000	0.28	0.0	14.0	OK
1.004	S5	37	33.267	-0.119	0.000	0.22	0.0	16.2	OK
1.005	S6	35	33.257	0.051	0.000	0.10	0.0	7.1	SURCHARGED
1.006	S7	35	33.272	0.326	0.000	0.40	0.0	6.9	SURCHARGED

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Summary Wizard of 480 minute 30 year Winter I+0% for Surface Network 1

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 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	1
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	0.364
Region England and Wales	Cv (Summer)		0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	ON
Analysis Timestep	Fine	Inertia Status	OFF
DTS Status	ON		

Profile(s)

Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080	Summer and Winter
Return Period(s) (years)	2, 30, 100	
Climate Change (%)	0, 0, 40	

PN	US/MH Name	Rank	Water Level (m)	Surch'd Depth (m)	Flooded Volume (m³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)	Status
1.000	S1	51	33.821	-0.279	0.000	0.01	0.0	1.6	OK
1.001	S2	51	33.527	-0.250	0.000	0.07	0.0	6.1	OK
1.002	S3	52	33.245	-0.222	0.000	0.15	0.0	9.9	OK
1.003	S4	46	33.228	-0.174	0.000	0.22	0.0	11.3	OK
1.004	S5	44	33.226	-0.159	0.000	0.18	0.0	13.1	OK
1.005	S6	38	33.219	0.013	0.000	0.10	0.0	6.9	SURCHARGED
1.006	S7	42	33.207	0.262	0.000	0.40	0.0	6.9	SURCHARGED

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<u>Summary Wizard of 600 minute 30 year Winter I+0% for Surface Network 1</u>																																																																																																															
<u>Simulation Criteria</u>																																																																																																															
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 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 1																																																																																																															
Number of Online Controls 1 Number of Time/Area Diagrams 0																																																																																																															
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Innovyze	Network 2018.1.1	

Summary Wizard of 1440 minute 30 year Winter I+0% for Surface Network 1

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 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 1
 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 0.364
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 18.000 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0 DVD Status ON
 Analysis Timestep Fine Inertia Status OFF
 DTS Status ON

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600,
 720, 960, 1440, 2160, 2880, 4320, 5760,
 7200, 8640, 10080
 Return Period(s) (years) 2, 30, 100
 Climate Change (%) 0, 0, 40

PN	US/MH Name	Rank	Water	Surch'd Depth (m)	Flooded	Pipe			Status
			Level (m)		Volume (m³)	Flow / Cap.	O'flow (l/s)	Flow (l/s)	
1.000	S1	74	33.809	-0.291	0.000	0.01	0.0	0.7	OK
1.001	S2	74	33.510	-0.267	0.000	0.03	0.0	2.7	OK
1.002	S3	74	33.218	-0.250	0.000	0.07	0.0	4.3	OK
1.003	S4	74	33.164	-0.238	0.000	0.10	0.0	4.9	OK
1.004	S5	74	33.141	-0.244	0.000	0.08	0.0	5.7	OK
1.005	S6	74	32.970	-0.236	0.000	0.08	0.0	5.7	OK
1.006	S7	74	32.928	-0.017	0.000	0.35	0.0	6.0	OK

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Innovyze	Network 2018.1.1	

Summary Wizard of 5760 minute 30 year Winter I+0% for Surface Network 1

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 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	1
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	0.364
Region England and Wales	Cv (Summer)	0.750	
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	ON
Analysis Timestep	Fine	Inertia Status	OFF
DTS Status	ON		

Profile(s)

Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080	Summer and Winter
Return Period(s) (years)	2, 30, 100	
Climate Change (%)	0, 0, 40	

PN	US/MH Name	Rank	Water	Surch'd Depth (m)	Flooded	Pipe			Status
			Level (m)		Volume (m³)	Flow / Cap.	O'flow (l/s)	Flow (l/s)	
1.000	S1	101	33.803	-0.297	0.000	0.00	0.0	0.2	OK
1.001	S2	101	33.491	-0.286	0.000	0.01	0.0	0.9	OK
1.002	S3	101	33.198	-0.269	0.000	0.02	0.0	1.5	OK
1.003	S4	101	33.137	-0.265	0.000	0.03	0.0	1.7	OK
1.004	S5	101	33.118	-0.267	0.000	0.03	0.0	2.0	OK
1.005	S6	101	32.940	-0.267	0.000	0.03	0.0	2.0	OK
1.006	S7	101	32.858	-0.088	0.000	0.12	0.0	2.1	OK

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Summary Wizard of 7200 minute 30 year Winter I+0% for Surface Network 1

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 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 1
 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 0.364
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 18.000 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0 DVD Status ON
 Analysis Timestep Fine Inertia Status OFF
 DTS Status ON

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600,
 720, 960, 1440, 2160, 2880, 4320, 5760,
 7200, 8640, 10080
 Return Period(s) (years) 2, 30, 100
 Climate Change (%) 0, 0, 40

PN	US/MH Name	Rank	Water	Surch'd Depth (m)	Flooded	Pipe			Status
			Level (m)		Volume (m³)	Flow / Cap.	O'flow (l/s)	Flow (l/s)	
1.000	S1	104	33.803	-0.297	0.000	0.00	0.0	0.2	OK
1.001	S2	104	33.489	-0.288	0.000	0.01	0.0	0.8	OK
1.002	S3	104	33.195	-0.272	0.000	0.02	0.0	1.3	OK
1.003	S4	104	33.135	-0.267	0.000	0.03	0.0	1.4	OK
1.004	S5	104	33.116	-0.269	0.000	0.02	0.0	1.7	OK
1.005	S6	104	32.937	-0.269	0.000	0.02	0.0	1.7	OK
1.006	S7	104	32.852	-0.093	0.000	0.10	0.0	1.8	OK

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Summary Wizard of 8640 minute 30 year Winter I+0% for Surface Network 1

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 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	1
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	0.364
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	ON
Analysis Timestep	Fine	Inertia Status	OFF
DTS Status	ON		

Profile(s) Summer and Winter

Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080
--------------------	---

Return Period(s) (years)	2, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Rank	Water	Surch'd Depth (m)	Flooded	Pipe			Status
			Level (m)		Volume (m³)	Flow / Cap.	O'flow (l/s)	Flow (l/s)	
1.000	S1	106	33.802	-0.298	0.000	0.00	0.0	0.2	OK
1.001	S2	106	33.487	-0.290	0.000	0.01	0.0	0.7	OK
1.002	S3	106	33.191	-0.276	0.000	0.02	0.0	1.1	OK
1.003	S4	106	33.133	-0.269	0.000	0.02	0.0	1.2	OK
1.004	S5	106	33.114	-0.272	0.000	0.02	0.0	1.4	OK
1.005	S6	106	32.936	-0.270	0.000	0.02	0.0	1.4	OK
1.006	S7	106	32.848	-0.098	0.000	0.09	0.0	1.5	OK

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Summary Wizard of 10080 minute 30 year Winter I+0% for Surface Network 1

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 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 1
 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 0.364
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 18.000 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0 DVD Status ON
 Analysis Timestep Fine Inertia Status OFF
 DTS Status ON

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600,
 720, 960, 1440, 2160, 2880, 4320, 5760,
 7200, 8640, 10080
 Return Period(s) (years) 2, 30, 100
 Climate Change (%) 0, 0, 40

PN	US/MH Name	Rank	Water	Surch'd Depth (m)	Flooded	Pipe			Status
			Level (m)		Volume (m³)	Flow / Cap.	O'flow (l/s)	Flow (l/s)	
1.000	S1	108	33.802	-0.298	0.000	0.00	0.0	0.2	OK
1.001	S2	108	33.486	-0.291	0.000	0.01	0.0	0.6	OK
1.002	S3	108	33.189	-0.279	0.000	0.02	0.0	1.0	OK
1.003	S4	108	33.132	-0.270	0.000	0.02	0.0	1.1	OK
1.004	S5	108	33.111	-0.275	0.000	0.02	0.0	1.3	OK
1.005	S6	108	32.932	-0.274	0.000	0.02	0.0	1.3	OK
1.006	S7	108	32.844	-0.101	0.000	0.08	0.0	1.4	OK

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<u>Summary Wizard of 30 minute 100 year Winter I+40% for Surface Network 1</u>																						
<u>Simulation Criteria</u>																						
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 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		1																
Number of Online Controls		1		Number of Time/Area Diagrams		0																
Number of Offline Controls		0		Number of Real Time Controls		0																
<u>Synthetic Rainfall Details</u>																						
Rainfall Model		FSR		Ratio R		0.364																
Region England and Wales		Cv (Summer)		0.750																		
M5-60 (mm)		18.000		Cv (Winter)		0.840																
Margin for Flood Risk Warning (mm)		300.0		DVD Status		ON																
Analysis Timestep		Fine		Inertia Status		OFF																
DTS Status		ON																				
Profile(s)				Summer and Winter																		
Duration(s) (mins)		15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080																				
Return Period(s) (years)		2, 30, 100																				
Climate Change (%)		0, 0, 40																				
<table><tr><th rowspan="2">PN</th><th rowspan="2">US/MH Name</th><th rowspan="2">Rank</th><th>Water</th><th rowspan="2">Surch'd Depth (m)</th><th>Flooded</th><th rowspan="2">Flow / Cap.</th><th rowspan="2">O'flow (l/s)</th><th>Pipe</th><th rowspan="2">Status</th></tr><tr><th>Level (m)</th><th>Volume (m³)</th><th>Flow (l/s)</th></tr></table>										PN	US/MH Name	Rank	Water	Surch'd Depth (m)	Flooded	Flow / Cap.	O'flow (l/s)	Pipe	Status	Level (m)	Volume (m³)	Flow (l/s)
PN	US/MH Name	Rank	Water	Surch'd Depth (m)	Flooded	Flow / Cap.	O'flow (l/s)	Pipe	Status													
			Level (m)		Volume (m³)			Flow (l/s)														
1.000	S1	4	34.572	0.472	0.000	0.16	0.0	18.1	SURCHARGED													
1.001	S2	4	34.552	0.775	0.000	0.70	0.0	65.8	SURCHARGED													
1.002	S3	4	34.400	0.932	0.000	1.65	0.0	106.3	SURCHARGED													
1.003	S4	6	34.221	0.820	0.000	2.39	0.0	120.8	SURCHARGED													
1.004	S5	6	33.991	0.606	0.000	1.93	0.0	139.3	SURCHARGED													
1.005	S6	14	33.615	0.409	0.000	0.19	0.0	13.2	SURCHARGED													
1.006	S7	14	33.611	0.665	0.000	0.40	0.0	6.9	SURCHARGED													

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Summary Wizard of 60 minute 100 year Winter I+40% for Surface Network 1

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 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	1
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	0.364
Region England and Wales	Cv (Summer)		0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	ON
Analysis Timestep	Fine	Inertia Status	OFF
DTS Status	ON		

Profile(s)

Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080	Summer and Winter
Return Period(s) (years)	2, 30, 100	
Climate Change (%)	0, 0, 40	

PN	US/MH Name	Rank	Water Level (m)	Surch'd Depth (m)	Flooded Volume (m³)	Flow / Cap. (l/s)	O'flow (l/s)	Pipe Flow (l/s)	Status
1.000	S1	8	34.073	-0.027	0.000	0.11	0.0	12.1	OK
1.001	S2	8	34.057	0.280	0.000	0.47	0.0	44.2	SURCHARGED
1.002	S3	9	33.934	0.466	0.000	1.13	0.0	72.5	SURCHARGED
1.003	S4	9	33.848	0.446	0.000	1.63	0.0	82.5	SURCHARGED
1.004	S5	10	33.784	0.399	0.000	1.33	0.0	95.8	SURCHARGED
1.005	S6	6	33.750	0.544	0.000	0.14	0.0	9.4	SURCHARGED
1.006	S7	7	33.722	0.777	0.000	0.40	0.0	6.9	SURCHARGED

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<u>Summary Wizard of 120 minute 100 year Winter I+40% for Surface Network 1</u>							
<u>Simulation Criteria</u>							
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 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		1	
Number of Online Controls		1		Number of Time/Area Diagrams		0	
Number of Offline Controls		0		Number of Real Time Controls		0	
<u>Synthetic Rainfall Details</u>							
Rainfall Model		FSR		Ratio R		0.364	
Region England and Wales		Cv (Summer)		0.750			
M5-60 (mm)		18.000		Cv (Winter)		0.840	
Margin for Flood Risk Warning (mm)		300.0		DVD Status		ON	
Analysis Timestep		Fine		Inertia Status		OFF	
DTS Status		ON					
Profile(s)				Summer and Winter			
Duration(s) (mins)		15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080					
Return Period(s) (years)		2, 30, 100					
Climate Change (%)		0, 0, 40					

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Summary Wizard of 360 minute 100 year Winter I+40% for Surface Network 1

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 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	1
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	0.364
Region England and Wales	Cv (Summer)		0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	ON
Analysis Timestep	Fine	Inertia Status	OFF
DTS Status	ON		

Profile(s)

Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080	Summer and Winter
Return Period(s) (years)	2, 30, 100	
Climate Change (%)	0, 0, 40	

PN	US/MH Name	Rank	Water Level (m)	Surch'd Depth (m)	Flooded Volume (m³)	Flow / Cap. (l/s)	O'flow (l/s)	Pipe Flow (l/s)	Status
1.000	S1	31	33.835	-0.265	0.000	0.03	0.0	3.7	OK
1.001	S2	13	33.802	0.025	0.000	0.15	0.0	13.7	SURCHARGED
1.002	S3	12	33.798	0.330	0.000	0.32	0.0	20.9	SURCHARGED
1.003	S4	10	33.793	0.392	0.000	0.47	0.0	23.8	SURCHARGED
1.004	S5	9	33.792	0.406	0.000	0.38	0.0	27.7	SURCHARGED
1.005	S6	4	33.783	0.577	0.000	0.10	0.0	7.0	SURCHARGED
1.006	S7	5	33.736	0.791	0.000	0.40	0.0	6.9	SURCHARGED

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File SW.MDX				Checked by																																																																																																							
Innovyze				Network 2018.1.1																																																																																																							
<u>Summary Wizard of 960 minute 100 year Winter I+40% for Surface Network 1</u>																																																																																																											
<u>Simulation Criteria</u>																																																																																																											
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 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 Online Controls				1																																																																																																							
Number of Offline Controls				0																																																																																																							
<u>Synthetic Rainfall Details</u>																																																																																																											
Rainfall Model		FSR		Ratio R		0.364																																																																																																					
Region England and Wales		Cv (Summer)		0.750																																																																																																							
M5-60 (mm)		18.000		Cv (Winter)		0.840																																																																																																					
Margin for Flood Risk Warning (mm)				300.0																																																																																																							
Analysis Timestep				DVD Status ON																																																																																																							
DTS Status				ON																																																																																																							
Profile(s)				Summer and Winter																																																																																																							
Duration(s) (mins)				15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080																																																																																																							
Return Period(s) (years)				2, 30, 100																																																																																																							
Climate Change (%)				0, 0, 40																																																																																																							
<table><tr><th colspan="3">US/MH</th><th colspan="2">Water</th><th colspan="2">Flooded</th><th colspan="2">Pipe</th><th rowspan="3">Status</th></tr><tr><th colspan="3"></th><th>Level</th><th>Surch'd</th><th>Volume</th><th>Flow /</th><th>O'flow</th><th>Flow</th></tr><tr><th>PN</th><th>Name</th><th>Rank</th><th>(m)</th><th>Depth (m)</th><th>(m³)</th><th>Cap.</th><th>(l/s)</th><th>(l/s)</th></tr><tr><td>1.000</td><td>S1</td><td>49</td><td>33.822</td><td>-0.278</td><td>0.000</td><td>0.02</td><td>0.0</td><td>1.7</td><td>OK</td></tr><tr><td>1.001</td><td>S2</td><td>38</td><td>33.547</td><td>-0.230</td><td>0.000</td><td>0.07</td><td>0.0</td><td>6.5</td><td>OK</td></tr><tr><td>1.002</td><td>S3</td><td>25</td><td>33.543</td><td>0.076</td><td>0.000</td><td>0.16</td><td>0.0</td><td>10.4</td><td>SURCHARGED</td></tr><tr><td>1.003</td><td>S4</td><td>24</td><td>33.540</td><td>0.138</td><td>0.000</td><td>0.23</td><td>0.0</td><td>11.7</td><td>SURCHARGED</td></tr><tr><td>1.004</td><td>S5</td><td>21</td><td>33.539</td><td>0.153</td><td>0.000</td><td>0.19</td><td>0.0</td><td>13.5</td><td>SURCHARGED</td></tr><tr><td>1.005</td><td>S6</td><td>19</td><td>33.530</td><td>0.324</td><td>0.000</td><td>0.10</td><td>0.0</td><td>6.7</td><td>SURCHARGED</td></tr><tr><td>1.006</td><td>S7</td><td>21</td><td>33.470</td><td>0.525</td><td>0.000</td><td>0.40</td><td>0.0</td><td>6.9</td><td>SURCHARGED</td></tr></table>										US/MH			Water		Flooded		Pipe		Status				Level	Surch'd	Volume	Flow /	O'flow	Flow	PN	Name	Rank	(m)	Depth (m)	(m³)	Cap.	(l/s)	(l/s)	1.000	S1	49	33.822	-0.278	0.000	0.02	0.0	1.7	OK	1.001	S2	38	33.547	-0.230	0.000	0.07	0.0	6.5	OK	1.002	S3	25	33.543	0.076	0.000	0.16	0.0	10.4	SURCHARGED	1.003	S4	24	33.540	0.138	0.000	0.23	0.0	11.7	SURCHARGED	1.004	S5	21	33.539	0.153	0.000	0.19	0.0	13.5	SURCHARGED	1.005	S6	19	33.530	0.324	0.000	0.10	0.0	6.7	SURCHARGED	1.006	S7	21	33.470	0.525	0.000	0.40	0.0	6.9	SURCHARGED
US/MH			Water		Flooded		Pipe		Status																																																																																																		
			Level	Surch'd	Volume	Flow /	O'flow	Flow																																																																																																			
PN	Name	Rank	(m)	Depth (m)	(m³)	Cap.	(l/s)	(l/s)																																																																																																			
1.000	S1	49	33.822	-0.278	0.000	0.02	0.0	1.7	OK																																																																																																		
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1.002	S3	25	33.543	0.076	0.000	0.16	0.0	10.4	SURCHARGED																																																																																																		
1.003	S4	24	33.540	0.138	0.000	0.23	0.0	11.7	SURCHARGED																																																																																																		
1.004	S5	21	33.539	0.153	0.000	0.19	0.0	13.5	SURCHARGED																																																																																																		
1.005	S6	19	33.530	0.324	0.000	0.10	0.0	6.7	SURCHARGED																																																																																																		
1.006	S7	21	33.470	0.525	0.000	0.40	0.0	6.9	SURCHARGED																																																																																																		
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<u>Summary Wizard of 1440 minute 100 year Winter I+40% for Surface Network 1</u>																																																																																																			
<u>Simulation Criteria</u>																																																																																																			
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 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		1																																																																																													
Number of Online Controls		1		Number of Time/Area Diagrams		0																																																																																													
Number of Offline Controls		0		Number of Real Time Controls		0																																																																																													
<u>Synthetic Rainfall Details</u>																																																																																																			
Rainfall Model		FSR		Ratio R		0.364																																																																																													
Region England and Wales		Cv (Summer)		0.750																																																																																															
M5-60 (mm)		18.000		Cv (Winter)		0.840																																																																																													
Margin for Flood Risk Warning (mm)		300.0		DVD Status		ON																																																																																													
Analysis Timestep		Fine		Inertia Status		OFF																																																																																													
DTS Status		ON																																																																																																	
Profile(s)				Summer and Winter																																																																																															
Duration(s) (mins)		15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080																																																																																																	
Return Period(s) (years)		2, 30, 100																																																																																																	
Climate Change (%)		0, 0, 40																																																																																																	
<table><tr><th colspan="3">US/MH</th><th colspan="2">Water</th><th colspan="2">Flooded</th><th colspan="2">Pipe</th><th></th></tr><tr><th>PN</th><th>Name</th><th>Rank</th><th>Level (m)</th><th>Surch'd Depth (m)</th><th>Volume (m³)</th><th>Flow / Cap.</th><th>O'flow (l/s)</th><th>Pipe Flow (l/s)</th><th>Status</th></tr><tr><td>1.000</td><td>S1</td><td>58</td><td>33.816</td><td>-0.284</td><td>0.000</td><td>0.01</td><td>0.0</td><td>1.2</td><td>OK</td></tr><tr><td>1.001</td><td>S2</td><td>58</td><td>33.520</td><td>-0.257</td><td>0.000</td><td>0.05</td><td>0.0</td><td>4.7</td><td>OK</td></tr><tr><td>1.002</td><td>S3</td><td>38</td><td>33.315</td><td>-0.152</td><td>0.000</td><td>0.12</td><td>0.0</td><td>7.7</td><td>OK</td></tr><tr><td>1.003</td><td>S4</td><td>34</td><td>33.310</td><td>-0.091</td><td>0.000</td><td>0.17</td><td>0.0</td><td>8.7</td><td>OK</td></tr><tr><td>1.004</td><td>S5</td><td>33</td><td>33.309</td><td>-0.077</td><td>0.000</td><td>0.14</td><td>0.0</td><td>10.1</td><td>OK</td></tr><tr><td>1.005</td><td>S6</td><td>29</td><td>33.301</td><td>0.095</td><td>0.000</td><td>0.10</td><td>0.0</td><td>7.0</td><td>SURCHARGED</td></tr><tr><td>1.006</td><td>S7</td><td>27</td><td>33.316</td><td>0.371</td><td>0.000</td><td>0.40</td><td>0.0</td><td>6.8</td><td>SURCHARGED</td></tr></table>										US/MH			Water		Flooded		Pipe			PN	Name	Rank	Level (m)	Surch'd Depth (m)	Volume (m³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)	Status	1.000	S1	58	33.816	-0.284	0.000	0.01	0.0	1.2	OK	1.001	S2	58	33.520	-0.257	0.000	0.05	0.0	4.7	OK	1.002	S3	38	33.315	-0.152	0.000	0.12	0.0	7.7	OK	1.003	S4	34	33.310	-0.091	0.000	0.17	0.0	8.7	OK	1.004	S5	33	33.309	-0.077	0.000	0.14	0.0	10.1	OK	1.005	S6	29	33.301	0.095	0.000	0.10	0.0	7.0	SURCHARGED	1.006	S7	27	33.316	0.371	0.000	0.40	0.0	6.8	SURCHARGED
US/MH			Water		Flooded		Pipe																																																																																												
PN	Name	Rank	Level (m)	Surch'd Depth (m)	Volume (m³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)	Status																																																																																										
1.000	S1	58	33.816	-0.284	0.000	0.01	0.0	1.2	OK																																																																																										
1.001	S2	58	33.520	-0.257	0.000	0.05	0.0	4.7	OK																																																																																										
1.002	S3	38	33.315	-0.152	0.000	0.12	0.0	7.7	OK																																																																																										
1.003	S4	34	33.310	-0.091	0.000	0.17	0.0	8.7	OK																																																																																										
1.004	S5	33	33.309	-0.077	0.000	0.14	0.0	10.1	OK																																																																																										
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Summary Wizard of 2160 minute 100 year Winter I+40% for Surface Network 1

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 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	1
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	0.364
Region England and Wales	Cv (Summer)	0.750	
M5-60 (mm)	18.000 Cv (Winter)	0.840	

Margin for Flood Risk Warning (mm)	300.0	DVD Status	ON
Analysis Timestep	Fine	Inertia Status	OFF
DTS Status	ON		

Profile(s)

Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080	Summer and Winter
Return Period(s) (years)	2, 30, 100	
Climate Change (%)	0, 0, 40	

PN	US/MH Name	Rank	Water Level (m)	Surch'd Depth (m)	Flooded Volume (m³)	Flow / Cap. (l/s)	O'flow (l/s)	Pipe Flow (l/s)	Status
1.000	S1	66	33.812	-0.288	0.000	0.01	0.0	0.9	OK
1.001	S2	66	33.514	-0.263	0.000	0.04	0.0	3.5	OK
1.002	S3	66	33.227	-0.241	0.000	0.09	0.0	5.6	OK
1.003	S4	66	33.172	-0.230	0.000	0.13	0.0	6.4	OK
1.004	S5	66	33.149	-0.236	0.000	0.10	0.0	7.4	OK
1.005	S6	59	33.066	-0.140	0.000	0.10	0.0	6.9	OK
1.006	S7	57	33.082	0.137	0.000	0.40	0.0	6.9	SURCHARGED

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Summary Wizard of 2880 minute 100 year Winter I+40% for Surface Network 1

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 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	1
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	0.364
Region England and Wales	Cv (Summer)	0.750	
M5-60 (mm)	18.000 Cv (Winter)	0.840	

Margin for Flood Risk Warning (mm)	300.0	DVD Status	ON
Analysis Timestep	Fine	Inertia Status	OFF
DTS Status	ON		

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080
Return Period(s) (years)	2, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Rank	Water	Surch'd Depth (m)	Flooded	Pipe			Status
			Level (m)		Volume (m³)	Flow / Cap.	O'flow (l/s)	Flow (l/s)	
1.000	S1	71	33.809	-0.291	0.000	0.01	0.0	0.7	OK
1.001	S2	71	33.511	-0.266	0.000	0.03	0.0	2.8	OK
1.002	S3	72	33.219	-0.248	0.000	0.07	0.0	4.5	OK
1.003	S4	72	33.165	-0.237	0.000	0.10	0.0	5.1	OK
1.004	S5	72	33.143	-0.243	0.000	0.08	0.0	5.9	OK
1.005	S6	72	32.972	-0.234	0.000	0.09	0.0	5.9	OK
1.006	S7	71	32.934	-0.012	0.000	0.36	0.0	6.3	OK

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Summary Wizard of 4320 minute 100 year Winter I+40% for Surface Network 1

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 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 1
 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 0.364
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 18.000 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0 DVD Status ON
 Analysis Timestep Fine Inertia Status OFF
 DTS Status ON

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600,
 720, 960, 1440, 2160, 2880, 4320, 5760,
 7200, 8640, 10080
 Return Period(s) (years) 2, 30, 100
 Climate Change (%) 0, 0, 40

PN	US/MH Name	Rank	Water	Surch'd Depth (m)	Flooded	Pipe			Status
			Level (m)		Volume (m³)	Flow / Cap.	O'flow (l/s)	Flow (l/s)	
1.000	S1	80	33.807	-0.293	0.000	0.00	0.0	0.5	OK
1.001	S2	80	33.507	-0.270	0.000	0.02	0.0	2.0	OK
1.002	S3	80	33.210	-0.257	0.000	0.05	0.0	3.2	OK
1.003	S4	80	33.154	-0.247	0.000	0.07	0.0	3.7	OK
1.004	S5	80	33.133	-0.253	0.000	0.06	0.0	4.3	OK
1.005	S6	80	32.955	-0.251	0.000	0.06	0.0	4.3	OK
1.006	S7	80	32.898	-0.048	0.000	0.26	0.0	4.5	OK

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Summary Wizard of 7200 minute 100 year Winter I+40% for Surface Network 1

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 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	1
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	0.364
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	ON
Analysis Timestep	Fine	Inertia Status	OFF
DTS Status	ON		

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080
Return Period(s) (years)	2, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Rank	Water	Surch'd Depth (m)	Flooded	Pipe			Status
			Level (m)		Volume (m³)	Flow / Cap.	O'flow (l/s)	Flow (l/s)	
1.000	S1	90	33.804	-0.296	0.000	0.00	0.0	0.4	OK
1.001	S2	90	33.497	-0.280	0.000	0.01	0.0	1.3	OK
1.002	S3	90	33.203	-0.265	0.000	0.03	0.0	2.2	OK
1.003	S4	90	33.144	-0.258	0.000	0.05	0.0	2.4	OK
1.004	S5	90	33.124	-0.262	0.000	0.04	0.0	2.8	OK
1.005	S6	90	32.945	-0.261	0.000	0.04	0.0	2.8	OK
1.006	S7	90	32.873	-0.072	0.000	0.18	0.0	3.0	OK

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Summary Wizard of 8640 minute 100 year Winter I+40% for Surface Network 1

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 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	1
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	0.364
Region England and Wales	Cv (Summer)	0.750	
M5-60 (mm)	18.000 Cv (Winter)	0.840	

Margin for Flood Risk Warning (mm)	300.0	DVD Status	ON
Analysis Timestep	Fine	Inertia Status	OFF
DTS Status	ON		

Profile(s)

Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080	Summer and Winter
Return Period(s) (years)	2, 30, 100	
Climate Change (%)	0, 0, 40	

PN	US/MH Name	Rank	Water	Surch'd Depth (m)	Flooded	Pipe			Status
			Level (m)		Volume (m³)	Flow / Cap.	O'flow (l/s)	Flow (l/s)	
1.000	S1	95	33.804	-0.296	0.000	0.00	0.0	0.3	OK
1.001	S2	95	33.495	-0.283	0.000	0.01	0.0	1.2	OK
1.002	S3	95	33.201	-0.267	0.000	0.03	0.0	1.9	OK
1.003	S4	95	33.141	-0.261	0.000	0.04	0.0	2.1	OK
1.004	S5	95	33.121	-0.264	0.000	0.03	0.0	2.5	OK
1.005	S6	95	32.943	-0.264	0.000	0.04	0.0	2.5	OK
1.006	S7	95	32.866	-0.079	0.000	0.15	0.0	2.6	OK

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Summary Wizard of 10080 minute 100 year Winter I+40% for Surface Network 1

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 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	1
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	0.364
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	ON
Analysis Timestep	Fine	Inertia Status	OFF
DTS Status	ON		

Profile(s) Summer and Winter

Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080
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Return Period(s) (years)	2, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Rank	Water	Surch'd Depth (m)	Flooded	Pipe			Status
			Level (m)		Volume (m³)	Flow / Cap.	O'flow (l/s)	Flow (l/s)	
1.000	S1	97	33.803	-0.297	0.000	0.00	0.0	0.3	OK
1.001	S2	97	33.492	-0.285	0.000	0.01	0.0	1.0	OK
1.002	S3	97	33.199	-0.268	0.000	0.03	0.0	1.6	OK
1.003	S4	97	33.138	-0.263	0.000	0.04	0.0	1.9	OK
1.004	S5	97	33.120	-0.266	0.000	0.03	0.0	2.2	OK
1.005	S6	97	32.941	-0.265	0.000	0.03	0.0	2.2	OK
1.006	S7	97	32.861	-0.084	0.000	0.13	0.0	2.3	OK

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