



DRAINAGE CALCULATIONS

MODEL 2 - 30% CLIMATE CHANGE.

LIMIT DISCHARGE TO 2.9 L/S

Turner & Company

New Development

Former Snooty Fox

Hartshone road

Swadlincote

DE11 7HW

Job No: L-009

Date: July 2020

Design Principles

The drainage has been modelled Microdrainage computer software. The surface water discharges into the existing main surface water sewer with the discharge limited using a flow control device and on site attenuation.

The surface water discharge flow rates from the site into the main sewer have been limited to 2.9l/s .

To check that the system is adequate for future climate change the computer model was used to model the following three storms:

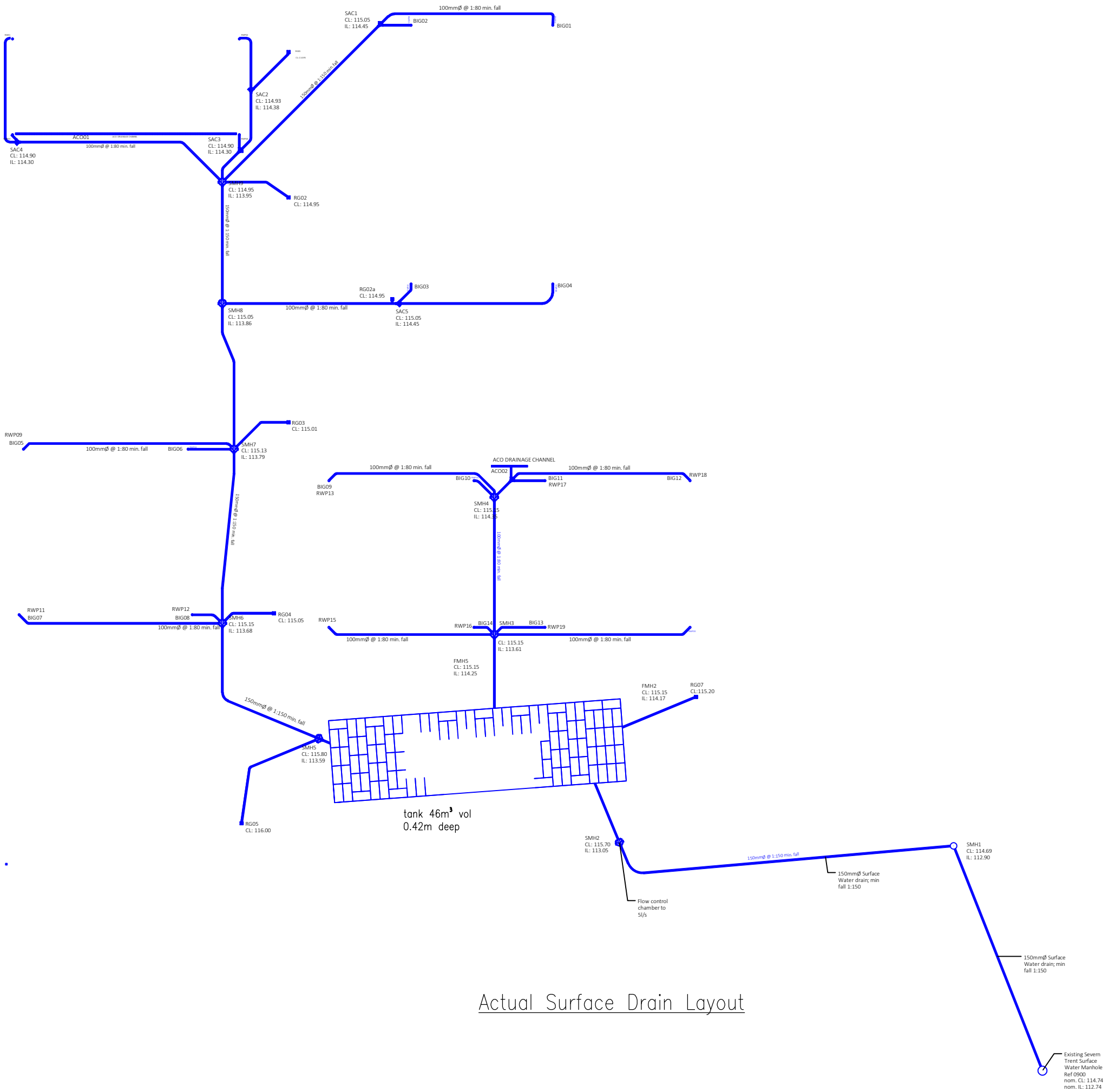
- 1 in 1 year storm plus 30% for climate change
- 1 in 30 year storm plus 30% for climate change
- 1 in 100 year storm plus 30% for climate change

The design has been undertaken on the principle that no pipe surcharge should occur for the 1:1 year storms, water can back up in manholes for the 1: 30 year storms but no flooding is permitted, whilst local flooding is permitted for a 1 in 100 year storm providing buildings are not flooded and any flood water does not cross site boundaries to flood adjacent land.

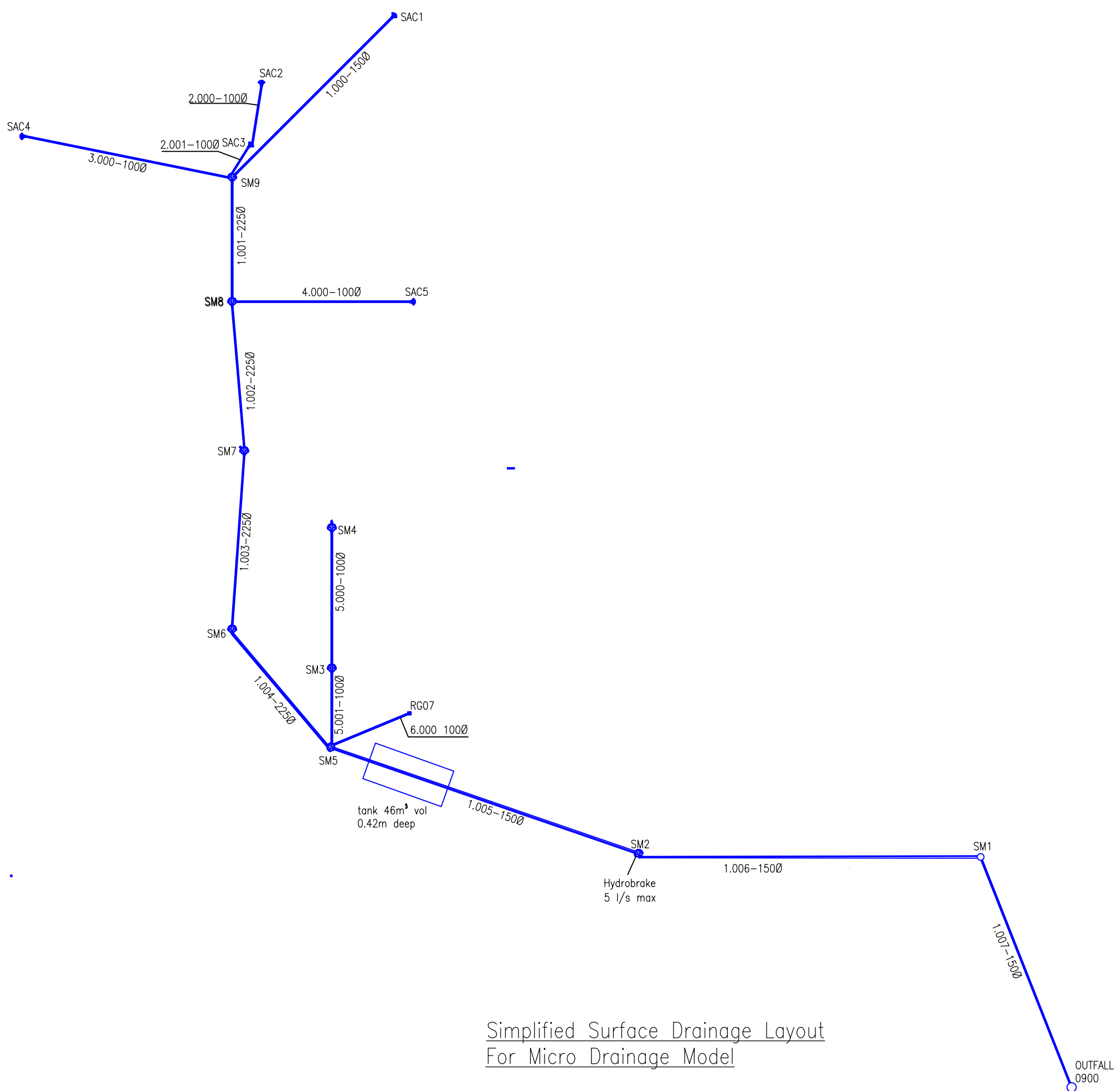
Our computer model demonstrated that the permitted 2.9 l/s flow into the sewer in the road was not exceeded.

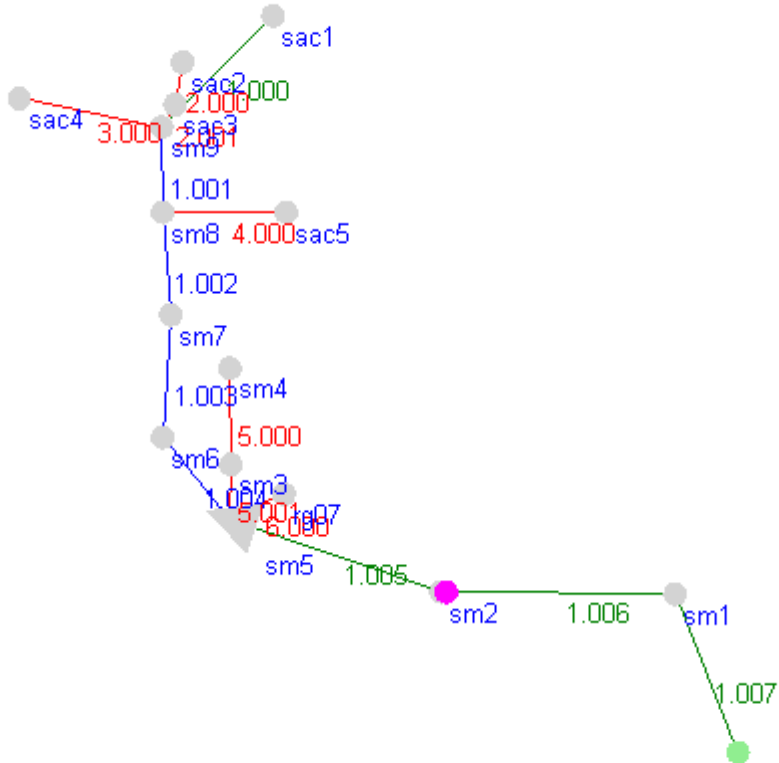
The model identified that no flooding occurred for the 1 in 1 year storm plus 30% climate change but pipe surcharge did occur. The pipes and storage tanks were surcharged for the 1 in 30 year storm plus 30% climate change but no overland flooding occurred. The pipes and storage tanks were surcharged for the 1 in 100 year storm plus 30% climate change and overland flooding occurred. The overland flooding occurred in areas which could potentially flood into buildings

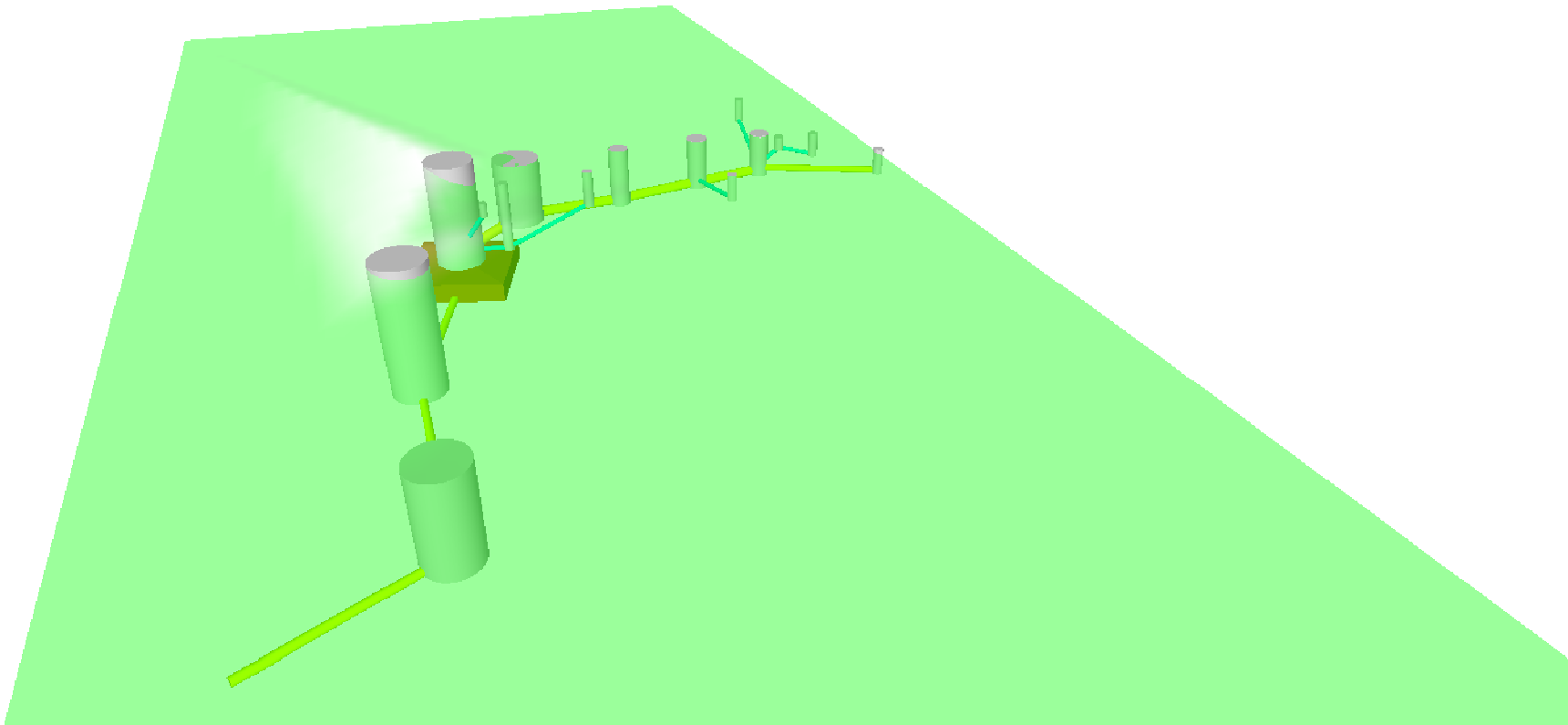
The computer model therefore confirmed that the drainage system is not acceptable.



Actual Surface Drain Layout



Stroud Associates Ltd		Page 1
Suite F, Harkstead Hall Barns		
Harkstead, Ipswich		
Suffolk IP9 1DB		
Date 06/05/2020 20:44	Designed by Spare	
File snooty fox run 2 bigger pipes.MDX	Checked by	
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Suite F, Harkstead Hall Barns		
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<u>Existing Network Details for Existing</u> * - Indicates pipe has been modified outside of System 1 <table><thead><tr><th>PN</th><th>Length (m)</th><th>Fall (m)</th><th>Slope (1:X)</th><th>I.Area (ha)</th><th>T.E. (mins)</th><th>k (mm)</th><th>HYD SECT</th><th>DIA (mm)</th><th>Section</th><th>Type</th></tr></thead><tbody><tr><td>* 1.000</td><td>14.600</td><td>0.425</td><td>34.4</td><td>0.011</td><td>4.00</td><td>0.600</td><td>o</td><td>150</td><td>Pipe/Conduit</td><td></td></tr><tr><td>* 2.000</td><td>4.000</td><td>0.080</td><td>50.0</td><td>0.004</td><td>4.00</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td></tr><tr><td>* 2.001</td><td>2.429</td><td>0.225</td><td>10.8</td><td>0.014</td><td>0.00</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td></tr><tr><td>* 3.000</td><td>13.800</td><td>0.225</td><td>61.3</td><td>0.004</td><td>4.00</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td></tr><tr><td>* 1.001</td><td>8.000</td><td>0.090</td><td>88.9</td><td>0.008</td><td>0.00</td><td>0.600</td><td>o</td><td>225</td><td>Pipe/Conduit</td><td></td></tr><tr><td>* 4.000</td><td>11.500</td><td>0.465</td><td>24.7</td><td>0.016</td><td>4.00</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td></tr><tr><td>* 1.002</td><td>9.600</td><td>0.070</td><td>137.1</td><td>0.000</td><td>0.00</td><td>0.600</td><td>o</td><td>225</td><td>Pipe/Conduit</td><td></td></tr><tr><td>* 1.003</td><td>11.500</td><td>0.110</td><td>104.5</td><td>0.016</td><td>0.00</td><td>0.600</td><td>o</td><td>225</td><td>Pipe/Conduit</td><td></td></tr><tr><td>* 1.004</td><td>10.000</td><td>0.090</td><td>111.1</td><td>0.015</td><td>0.00</td><td>0.600</td><td>o</td><td>225</td><td>Pipe/Conduit</td><td></td></tr><tr><td>* 5.000</td><td>9.000</td><td>0.950</td><td>9.5</td><td>0.014</td><td>4.00</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td></tr><tr><td>* 5.001</td><td>5.000</td><td>0.060</td><td>83.3</td><td>0.018</td><td>0.00</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td></tr><tr><td>* 6.000</td><td>5.544</td><td>1.050</td><td>5.3</td><td>0.001</td><td>4.00</td><td>0.600</td><td>o</td><td>100</td><td>Pipe/Conduit</td><td></td></tr></tbody></table> <table><thead><tr><th>PN</th><th>US/MH Name</th><th>US/CL (m)</th><th>US/IL (m)</th><th>US C.Depth (m)</th><th>DS/CL (m)</th><th>DS/IL (m)</th><th>DS C.Depth (m)</th><th>Ctrl</th><th>US/MH (mm)</th></tr></thead><tbody><tr><td>* 1.000</td><td>sac1</td><td>115.050</td><td>114.450</td><td>0.450</td><td>114.950</td><td>114.025</td><td>0.775</td><td></td><td>225</td></tr><tr><td>* 2.000</td><td>sac2</td><td>114.930</td><td>114.380</td><td>0.450</td><td>114.900</td><td>114.300</td><td>0.500</td><td></td><td>225</td></tr><tr><td>* 2.001</td><td>sac3</td><td>114.900</td><td>114.300</td><td>0.500</td><td>114.950</td><td>114.075</td><td>0.775</td><td></td><td>225</td></tr><tr><td>* 3.000</td><td>sac4</td><td>114.900</td><td>114.300</td><td>0.500</td><td>114.950</td><td>114.075</td><td>0.775</td><td></td><td>225</td></tr><tr><td>* 1.001</td><td>sm9</td><td>114.950</td><td>113.950</td><td>0.775</td><td>115.050</td><td>113.860</td><td>0.965</td><td></td><td>450</td></tr><tr><td>* 4.000</td><td>sac5</td><td>115.050</td><td>114.450</td><td>0.500</td><td>115.050</td><td>113.985</td><td>0.965</td><td></td><td>225</td></tr><tr><td>* 1.002</td><td>sm8</td><td>115.050</td><td>113.860</td><td>0.965</td><td>115.130</td><td>113.790</td><td>1.115</td><td></td><td>450</td></tr><tr><td>* 1.003</td><td>sm7</td><td>115.130</td><td>113.790</td><td>1.115</td><td>115.150</td><td>113.680</td><td>1.245</td><td></td><td>450</td></tr><tr><td>* 1.004</td><td>sm6</td><td>115.150</td><td>113.680</td><td>1.245</td><td>115.800</td><td>113.590</td><td>1.985</td><td></td><td>1000</td></tr><tr><td>* 5.000</td><td>sm4</td><td>115.150</td><td>114.350</td><td>0.700</td><td>115.150</td><td>113.400</td><td>1.650</td><td></td><td>225</td></tr><tr><td>* 5.001</td><td>sm3</td><td>115.150</td><td>113.610</td><td>1.440</td><td>115.800</td><td>113.550</td><td>2.150</td><td></td><td>225</td></tr><tr><td>* 6.000</td><td>rg07</td><td>115.200</td><td>114.450</td><td>0.650</td><td>115.800</td><td>113.400</td><td>2.300</td><td></td><td>450</td></tr></tbody></table>											PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	k (mm)	HYD SECT	DIA (mm)	Section	Type	* 1.000	14.600	0.425	34.4	0.011	4.00	0.600	o	150	Pipe/Conduit		* 2.000	4.000	0.080	50.0	0.004	4.00	0.600	o	100	Pipe/Conduit		* 2.001	2.429	0.225	10.8	0.014	0.00	0.600	o	100	Pipe/Conduit		* 3.000	13.800	0.225	61.3	0.004	4.00	0.600	o	100	Pipe/Conduit		* 1.001	8.000	0.090	88.9	0.008	0.00	0.600	o	225	Pipe/Conduit		* 4.000	11.500	0.465	24.7	0.016	4.00	0.600	o	100	Pipe/Conduit		* 1.002	9.600	0.070	137.1	0.000	0.00	0.600	o	225	Pipe/Conduit		* 1.003	11.500	0.110	104.5	0.016	0.00	0.600	o	225	Pipe/Conduit		* 1.004	10.000	0.090	111.1	0.015	0.00	0.600	o	225	Pipe/Conduit		* 5.000	9.000	0.950	9.5	0.014	4.00	0.600	o	100	Pipe/Conduit		* 5.001	5.000	0.060	83.3	0.018	0.00	0.600	o	100	Pipe/Conduit		* 6.000	5.544	1.050	5.3	0.001	4.00	0.600	o	100	Pipe/Conduit		PN	US/MH Name	US/CL (m)	US/IL (m)	US C.Depth (m)	DS/CL (m)	DS/IL (m)	DS C.Depth (m)	Ctrl	US/MH (mm)	* 1.000	sac1	115.050	114.450	0.450	114.950	114.025	0.775		225	* 2.000	sac2	114.930	114.380	0.450	114.900	114.300	0.500		225	* 2.001	sac3	114.900	114.300	0.500	114.950	114.075	0.775		225	* 3.000	sac4	114.900	114.300	0.500	114.950	114.075	0.775		225	* 1.001	sm9	114.950	113.950	0.775	115.050	113.860	0.965		450	* 4.000	sac5	115.050	114.450	0.500	115.050	113.985	0.965		225	* 1.002	sm8	115.050	113.860	0.965	115.130	113.790	1.115		450	* 1.003	sm7	115.130	113.790	1.115	115.150	113.680	1.245		450	* 1.004	sm6	115.150	113.680	1.245	115.800	113.590	1.985		1000	* 5.000	sm4	115.150	114.350	0.700	115.150	113.400	1.650		225	* 5.001	sm3	115.150	113.610	1.440	115.800	113.550	2.150		225	* 6.000	rg07	115.200	114.450	0.650	115.800	113.400	2.300		450
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Date 06/07/2020 10:36 File snooty fox 6.7.20 1 in ...	Designed by Spare Checked by	
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Existing Network Details for Existing

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	k (mm)	HYD SECT	DIA (mm)	Section Type
* 1.005	20.851	0.030	695.0	0.014	0.00	0.600	o	150	Pipe/Conduit
1.006	22.000	0.150	146.7	0.000	0.00	0.600	o	150	Pipe/Conduit
1.007	15.895	0.110	144.5	0.000	0.00	0.600	o	150	Pipe/Conduit

PN	US/MH Name	US/CL (m)	US/IL (m)	US C.Depth (m)	DS/CL (m)	DS/IL (m)	DS C.Depth (m)	Ctrl	US/MH (mm)
* 1.005	sm5	115.800	113.080	2.570	115.700	113.050	2.500		1000
1.006	sm2	115.700	113.050	2.500	114.690	112.900	1.640	Hydro-Brake®	1000
1.007	sm1	114.690	112.900	1.640	114.740	112.790	1.800		1000

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Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
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File snooty fox 6.7.20 1 in ...	Checked by	
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Manhole Schedules for Existing

MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam., L*W (mm)	PN	Pipe Out Invert Level (m)	Pipe Out Diameter (mm)	PN	Pipes In Invert Level (m)	Pipes In Diameter (mm)	Backdrop (mm)
sac1	115.050	0.600	Open Manhole	225	1.000	114.450	150				
sac2	114.930	0.550	Open Manhole	225	2.000	114.380	100				
sac3	114.900	0.600	Open Manhole	225	2.001	114.300	100	2.000	114.300	100	
sac4	114.900	0.600	Open Manhole	225	3.000	114.300	100				
sm9	114.950	1.000	Open Manhole	450	1.001	113.950	225	1.000	114.025	150	
								2.001	114.075	100	
								3.000	114.075	100	
sac5	115.050	0.600	Open Manhole	225	4.000	114.450	100				
sm8	115.050	1.190	Open Manhole	450	1.002	113.860	225	1.001	113.860	225	
								4.000	113.985	100	
sm7	115.130	1.340	Open Manhole	450	1.003	113.790	225	1.002	113.790	225	
sm6	115.150	1.470	Open Manhole	1000	1.004	113.680	225	1.003	113.680	225	
sm4	115.150	0.800	Open Manhole	225	5.000	114.350	100				
sm3	115.150	1.750	Open Manhole	225	5.001	113.610	100	5.000	113.400	100	
rg07	115.200	0.750	Open Manhole	450	6.000	114.450	100				
sm5	115.800	2.720	Open Manhole	1000	1.005	113.080	150	1.004	113.590	225	585
								5.001	113.550	100	420
								6.000	113.400	100	270
sm2	115.700	2.650	Open Manhole	1000	1.006	113.050	150	1.005	113.050	150	
sm1	114.690	1.790	Open Manhole	1000	1.007	112.900	150	1.006	112.900	150	
	114.740	1.950	Open Manhole	0		OUTFALL		1.007	112.790	150	

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
sac1	40.607	81.838	40.607	81.838	Required	
sac2	32.148	77.532	32.148	77.532	Required	
sac3	31.431	73.563	31.431	73.563	Required	
sac4	16.838	74.129	16.838	74.129	Required	
sm9	30.200	71.469	30.200	71.469	Required	

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Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 06/07/2020 10:36 File snooty fox 6.7.20 1 in ...	Designed by Spare Checked by	
Innovyze		Network 2019.1

Manhole Schedules for Existing

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
sac5	41.851	63.520	41.851	63.520	Required	
sm8	30.265	63.520	30.265	63.520	Required	
sm7	31.034	53.950	31.034	53.950	Required	
sm6	30.265	42.506	30.265	42.506	Required	
sm4	36.589	48.984	36.589	48.984	Required	
sm3	36.654	39.999	36.654	39.999	Required	
rg07	41.640	37.216	41.640	37.216	Required	
sm5	36.620	34.863	36.620	34.863	Required	
sm2	56.345	28.103	56.345	28.103	Required	
sm1	78.272	27.889	78.272	27.889	Required	
	84.160	13.125			No Entry	

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PIPELINE SCHEDULES for Existing

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
1.000	o	150	sac1	115.050	114.450	0.450	Open Manhole	225
2.000	o	100	sac2	114.930	114.380	0.450	Open Manhole	225
2.001	o	100	sac3	114.900	114.300	0.500	Open Manhole	225
3.000	o	100	sac4	114.900	114.300	0.500	Open Manhole	225
1.001	o	225	sm9	114.950	113.950	0.775	Open Manhole	450
4.000	o	100	sac5	115.050	114.450	0.500	Open Manhole	225
1.002	o	225	sm8	115.050	113.860	0.965	Open Manhole	450
1.003	o	225	sm7	115.130	113.790	1.115	Open Manhole	450
1.004	o	225	sm6	115.150	113.680	1.245	Open Manhole	1000
5.000	o	100	sm4	115.150	114.350	0.700	Open Manhole	225
5.001	o	100	sm3	115.150	113.610	1.440	Open Manhole	225
6.000	o	100	rg07	115.200	114.450	0.650	Open Manhole	450
1.005	o	150	sm5	115.800	113.080	2.570	Open Manhole	1000

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
1.000	14.600	34.4	sm9	114.950	114.025	0.775	Open Manhole	450
2.000	4.000	50.0	sac3	114.900	114.300	0.500	Open Manhole	225
2.001	2.429	10.8	sm9	114.950	114.075	0.775	Open Manhole	450
3.000	13.800	61.3	sm9	114.950	114.075	0.775	Open Manhole	450
1.001	8.000	88.9	sm8	115.050	113.860	0.965	Open Manhole	450
4.000	11.500	24.7	sm8	115.050	113.985	0.965	Open Manhole	450
1.002	9.600	137.1	sm7	115.130	113.790	1.115	Open Manhole	450
1.003	11.500	104.5	sm6	115.150	113.680	1.245	Open Manhole	1000
1.004	10.000	111.1	sm5	115.800	113.590	1.985	Open Manhole	1000
5.000	9.000	9.5	sm3	115.150	113.400	1.650	Open Manhole	225
5.001	5.000	83.3	sm5	115.800	113.550	2.150	Open Manhole	1000
6.000	5.544	5.3	sm5	115.800	113.400	2.300	Open Manhole	1000
1.005	20.851	695.0	sm2	115.700	113.050	2.500	Open Manhole	1000

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Online Controls for Existing

Hydro-Brake® Optimum Manhole: sm2, DS/PN: 1.006, Volume (m³): 2.4

Unit Reference	MD-SHE-0069-2900-2000-2900
Design Head (m)	2.000
Design Flow (l/s)	2.9
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	69
Invert Level (m)	113.050
Minimum Outlet Pipe Diameter (mm)	100
Suggested Manhole Diameter (mm)	1200

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	2.000	2.9
Flush-Flo™	0.303	2.1
Kick-Flo®	0.619	1.7
Mean Flow over Head Range	-	2.2

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	1.7	1.200	2.3	3.000	3.5	7.000	5.2
0.200	2.0	1.400	2.5	3.500	3.8	7.500	5.4
0.300	2.1	1.600	2.6	4.000	4.0	8.000	5.5
0.400	2.1	1.800	2.8	4.500	4.2	8.500	5.7
0.500	2.0	2.000	2.9	5.000	4.4	9.000	5.9
0.600	1.8	2.200	3.0	5.500	4.6	9.500	6.0
0.800	1.9	2.400	3.2	6.000	4.8		
1.000	2.1	2.600	3.3	6.500	5.0		

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Storage Structures for Existing Cellular Storage Manhole: sm5, DS/PN: 1.005 Invert Level (m) 113.080 Safety Factor 2.0 Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95 Infiltration Coefficient Side (m/hr) 0.00000 <table><thead><tr><th>Depth (m)</th><th>Area (m²)</th><th>Inf. Area (m²)</th><th>Depth (m)</th><th>Area (m²)</th><th>Inf. Area (m²)</th></tr></thead><tbody><tr><td>0.000</td><td>108.0</td><td>108.0</td><td>0.500</td><td>0.0</td><td>127.2</td></tr><tr><td>0.400</td><td>108.0</td><td>127.2</td><td></td><td></td><td></td></tr></tbody></table>			Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	0.000	108.0	108.0	0.500	0.0	127.2	0.400	108.0	127.2			
Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)															
0.000	108.0	108.0	0.500	0.0	127.2															
0.400	108.0	127.2																		
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Summary Wizard of 15 minute 1 year Summer I+30% for Existing

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	0.400
Region England and Wales	Cv (Summer)	0.750	
M5-60 (mm)	19.400 Cv (Winter)	0.840	

Margin for Flood Risk Warning (mm)	300.0	DVD Status	OFF
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	30, 30, 30

			Water	Surcharged	Flooded		Pipe	
	US/MH	Storm	Level	Depth	Volume	Flow /	Overflow	Flow
PN	Name	Rank	(m)	(m)	(m³)	Cap.	(l/s)	(l/s)
1.000	sac1	20	114.477	-0.123	0.000	0.07		2.1
2.000	sac2	22	114.401	-0.079	0.000	0.10		0.8
2.001	sac3	23	114.331	-0.069	0.000	0.21		2.7
3.000	sac4	22	114.321	-0.079	0.000	0.10		0.8
1.001	sm9	25	114.010	-0.165	0.000	0.16		6.7
4.000	sac5	20	114.485	-0.065	0.000	0.26		3.0
1.002	sm8	25	113.938	-0.147	0.000	0.26		9.7
1.003	sm7	27	113.870	-0.145	0.000	0.27		11.9
1.004	sm6	27	113.771	-0.134	0.000	0.34		13.9
5.000	sm4	22	114.375	-0.075	0.000	0.14		2.6
5.001	sm3	27	113.684	-0.026	0.000	0.89		5.2
6.000	rg07	21	114.454	-0.096	0.000	0.01		0.2
1.005	sm5	67	113.163	-0.067	0.000	0.36		2.2
1.006	sm2	68	113.154	-0.046	0.000	0.13		1.8
1.007	sm1	68	112.936	-0.114	0.000	0.13		1.8

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Summary Wizard of 30 minute 1 year Summer I+30% for Existing

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	0.400
Region England and Wales	Cv (Summer)	0.750	
M5-60 (mm)	19.400 Cv (Winter)	0.840	

Margin for Flood Risk Warning (mm)	300.0	DVD Status	OFF
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	30, 30, 30

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Pipe Flow / Overflow Cap. (l/s)	Pipe Flow (l/s)	Status
1.000	sac1	23	114.475	-0.125	0.000	0.06	1.8	OK
2.000	sac2	24	114.400	-0.080	0.000	0.09	0.6	OK
2.001	sac3	24	114.329	-0.071	0.000	0.19	2.5	OK
3.000	sac4	24	114.320	-0.080	0.000	0.09	0.6	OK
1.001	sm9	26	114.006	-0.169	0.000	0.14	5.9	OK
4.000	sac5	23	114.482	-0.068	0.000	0.22	2.6	OK
1.002	sm8	26	113.934	-0.151	0.000	0.23	8.5	OK
1.003	sm7	28	113.865	-0.150	0.000	0.25	10.6	OK
1.004	sm6	28	113.765	-0.140	0.000	0.31	12.5	OK
5.000	sm4	24	114.373	-0.077	0.000	0.12	2.3	OK
5.001	sm3	28	113.678	-0.032	0.000	0.79	4.6	OK
6.000	rg07	23	114.453	-0.097	0.000	0.01	0.2	OK
1.005	sm5	62	113.182	-0.048	0.000	0.38	2.3	OK
1.006	sm2	64	113.173	-0.027	0.000	0.13	1.9	OK
1.007	sm1	63	112.937	-0.113	0.000	0.14	1.9	OK

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Summary Wizard of 60 minute 1 year Summer I+30% for Existing

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	0.400
Region England and Wales Cv (Summer)	0.750		
M5-60 (mm)	19.400	Cv (Winter)	0.840

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

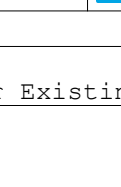
Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 30, 100
Climate Change (%)	30, 30, 30

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	sac1	28	114.471	-0.129	0.000	0.05		1.3	OK
2.000	sac2	28	114.397	-0.083	0.000	0.06		0.5	OK
2.001	sac3	29	114.325	-0.075	0.000	0.14		1.9	OK
3.000	sac4	28	114.316	-0.084	0.000	0.06		0.5	OK
1.001	sm9	30	113.999	-0.176	0.000	0.10		4.4	OK
4.000	sac5	28	114.477	-0.073	0.000	0.16		1.9	OK
1.002	sm8	30	113.923	-0.162	0.000	0.17		6.1	OK
1.003	sm7	32	113.855	-0.160	0.000	0.18		7.8	OK
1.004	sm6	32	113.754	-0.151	0.000	0.23		9.5	OK
5.000	sm4	28	114.370	-0.080	0.000	0.09		1.6	OK
5.001	sm3	32	113.666	-0.044	0.000	0.59		3.4	OK
6.000	rg07	28	114.452	-0.098	0.000	0.00		0.1	OK
1.005	sm5	57	113.196	-0.034	0.000	0.35		2.1	OK
1.006	sm2	58	113.192	-0.008	0.000	0.14		1.9	OK
1.007	sm1	57	112.937	-0.113	0.000	0.14		1.9	OK

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<u>Summary Wizard of 480 minute 1 year Summer I+30% for Existing</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		0.400	
Region England and Wales		Cv (Summer)		0.750			
M5-60 (mm)		19.400		Cv (Winter)		0.840	
Margin for Flood Risk Warning (mm)		300.0		DVD Status		OFF	
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					
Return Period(s) (years)		1, 30, 100					
Climate Change (%)		30, 30, 30					

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<u>Summary Wizard of 1440 minute 1 year Summer I+30% for Existing</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		0.400				
Region England and Wales Cv (Summer)		0.750								
M5-60 (mm)		19.400		Cv (Winter)		0.840				
Margin for Flood Risk Warning (mm)		300.0		DVD Status		OFF				
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								
Return Period(s) (years)		1, 30, 100								
Climate Change (%)		30, 30, 30								

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Summary Wizard of 15 minute 30 year Summer I+30% for Existing

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

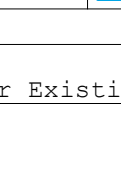
Rainfall Model	FSR	Ratio R	0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	19.400	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	OFF
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	30, 30, 30

PN	US/MH Name	Storm Rank	Water	Surcharged	Flooded	Flow / Overflow Cap.	Pipe	Status
			Level (m)	Depth (m)	Volume (m³)		Flow (l/s)	
1.000	sac1	11	114.493	-0.107	0.000	0.18	5.1	OK
2.000	sac2	13	114.414	-0.066	0.000	0.25	1.8	OK
2.001	sac3	14	114.357	-0.043	0.000	0.63	8.3	OK
3.000	sac4	14	114.334	-0.066	0.000	0.25	1.8	OK
1.001	sm9	16	114.055	-0.120	0.000	0.45	18.9	OK
4.000	sac5	11	114.508	-0.042	0.000	0.64	7.4	OK
1.002	sm8	15	114.003	-0.082	0.000	0.72	26.3	OK
1.003	sm7	15	113.940	-0.075	0.000	0.78	33.6	OK
1.004	sm6	17	113.859	-0.046	0.000	0.97	39.7	OK
5.000	sm4	14	114.391	-0.059	0.000	0.35	6.4	OK
5.001	sm3	15	114.037	0.327	0.000	2.54	14.7	SURCHARGED
6.000	rg07	12	114.459	-0.091	0.000	0.02	0.5	OK
1.005	sm5	46	113.295	0.065	0.000	0.68	4.1	SURCHARGED
1.006	sm2	43	113.289	0.089	0.000	0.15	2.1	SURCHARGED
1.007	sm1	35	112.939	-0.111	0.000	0.15	2.1	OK

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Summary Wizard of 120 minute 30 year Summer I+30% for Existing

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	0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	19.400	Cv (Winter)	0.840

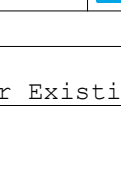
Margin for Flood Risk Warning (mm)	300.0	DVD Status	OFF
Analysis Timestep	Fine	Inertia Status	OFF
DTS Status	ON		

Profile(s)

Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 30, 100
Climate Change (%)	30, 30, 30

PN	US/MH Name	Storm Rank	Water	Surcharged	Flooded	Pipe		Status
			Level (m)	Depth (m)	Volume (m³)	Flow / Overflow Cap. (l/s)	Flow (l/s)	
1.000	sac1	22	114.475	-0.125	0.000	0.07	1.9	OK
2.000	sac2	23	114.401	-0.079	0.000	0.09	0.7	OK
2.001	sac3	21	114.333	-0.067	0.000	0.24	3.1	OK
3.000	sac4	23	114.321	-0.079	0.000	0.09	0.7	OK
1.001	sm9	23	114.011	-0.164	0.000	0.17	7.1	OK
4.000	sac5	22	114.483	-0.067	0.000	0.24	2.8	OK
1.002	sm8	24	113.939	-0.146	0.000	0.27	9.9	OK
1.003	sm7	25	113.873	-0.142	0.000	0.29	12.6	OK
1.004	sm6	25	113.775	-0.130	0.000	0.37	15.2	OK
5.000	sm4	23	114.374	-0.076	0.000	0.13	2.4	OK
5.001	sm3	25	113.687	-0.023	0.000	0.96	5.5	OK
6.000	rg07	22	114.453	-0.097	0.000	0.01	0.2	OK
1.005	sm5	28	113.432	0.202	0.000	0.50	3.0	SURCHARGED
1.006	sm2	21	113.589	0.389	0.000	0.15	2.1	SURCHARGED
1.007	sm1	29	112.939	-0.111	0.000	0.15	2.1	OK

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Summary Wizard of 240 minute 30 year Summer I+30% for Existing

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

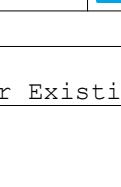
Rainfall Model	FSR	Ratio R	0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	19.400	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	OFF
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	30, 30, 30

PN	US/MH Name	Storm Rank	Water	Surcharged	Flooded	Flow / Overflow Cap.	Pipe	Status
			Level (m)	Depth (m)	Volume (m³)		Flow (l/s)	
1.000	sac1	29	114.470	-0.130	0.000	0.04	1.2	OK
2.000	sac2	29	114.396	-0.084	0.000	0.06	0.4	OK
2.001	sac3	28	114.326	-0.074	0.000	0.15	2.0	OK
3.000	sac4	29	114.316	-0.084	0.000	0.06	0.4	OK
1.001	sm9	31	113.999	-0.176	0.000	0.11	4.5	OK
4.000	sac5	29	114.476	-0.074	0.000	0.15	1.8	OK
1.002	sm8	31	113.922	-0.163	0.000	0.17	6.2	OK
1.003	sm7	33	113.855	-0.160	0.000	0.19	8.0	OK
1.004	sm6	33	113.754	-0.151	0.000	0.23	9.6	OK
5.000	sm4	29	114.369	-0.081	0.000	0.08	1.5	OK
5.001	sm3	33	113.666	-0.044	0.000	0.61	3.5	OK
6.000	rg07	29	114.452	-0.098	0.000	0.00	0.1	OK
1.005	sm5	30	113.429	0.199	0.000	0.52	3.1	SURCHARGED
1.006	sm2	22	113.561	0.361	0.000	0.15	2.1	SURCHARGED
1.007	sm1	27	112.939	-0.111	0.000	0.15	2.1	OK

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Summary Wizard of 480 minute 30 year Summer I+30% for Existing

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

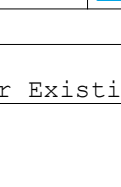
Rainfall Model	FSR	Ratio R	0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	19.400	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	OFF
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	30, 30, 30

PN	US/MH Name	Storm Rank	Water	Surcharged	Flooded	Flow / Overflow Cap.	Pipe	Status
			Level (m)	Depth (m)	Volume (m³)		Flow (l/s)	
1.000	sac1	38	114.466	-0.134	0.000	0.03	0.7	OK
2.000	sac2	38	114.392	-0.088	0.000	0.04	0.3	OK
2.001	sac3	38	114.320	-0.080	0.000	0.09	1.2	OK
3.000	sac4	38	114.312	-0.088	0.000	0.03	0.3	OK
1.001	sm9	39	113.986	-0.189	0.000	0.06	2.6	OK
4.000	sac5	38	114.470	-0.080	0.000	0.09	1.0	OK
1.002	sm8	39	113.907	-0.178	0.000	0.10	3.7	OK
1.003	sm7	40	113.839	-0.176	0.000	0.11	4.7	OK
1.004	sm6	40	113.735	-0.170	0.000	0.14	5.6	OK
5.000	sm4	38	114.364	-0.086	0.000	0.05	0.9	OK
5.001	sm3	40	113.651	-0.059	0.000	0.35	2.1	OK
6.000	rg07	38	114.451	-0.099	0.000	0.00	0.1	OK
1.005	sm5	35	113.395	0.165	0.000	0.39	2.4	SURCHARGED
1.006	sm2	36	113.369	0.169	0.000	0.15	2.1	SURCHARGED
1.007	sm1	44	112.939	-0.111	0.000	0.15	2.1	OK

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Summary Wizard of 600 minute 30 year Summer I+30% for Existing

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 0.400
Region England and Wales Cv (Summer)	0.750	
M5-60 (mm)	19.400 Cv (Winter)	0.840

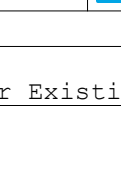
Margin for Flood Risk Warning (mm) 300.0	DVD Status OFF
Analysis Timestep	Fine Inertia Status OFF
DTS Status	ON

Profile(s)

Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 30, 100
Climate Change (%)	30, 30, 30

PN	US/MH Name	Storm Rank	Water	Surcharged	Flooded	Pipe		Status
			Level (m)	Depth (m)	Volume (m³)	Flow / Overflow Cap. (l/s)	Flow (l/s)	
1.000	sac1	43	114.465	-0.135	0.000	0.02	0.6	OK
2.000	sac2	43	114.391	-0.089	0.000	0.03	0.2	OK
2.001	sac3	43	114.318	-0.082	0.000	0.07	1.0	OK
3.000	sac4	44	114.311	-0.089	0.000	0.03	0.2	OK
1.001	sm9	44	113.983	-0.192	0.000	0.05	2.2	OK
4.000	sac5	43	114.468	-0.082	0.000	0.07	0.9	OK
1.002	sm8	44	113.903	-0.182	0.000	0.08	3.1	OK
1.003	sm7	45	113.836	-0.179	0.000	0.09	3.9	OK
1.004	sm6	45	113.731	-0.174	0.000	0.12	4.7	OK
5.000	sm4	43	114.363	-0.087	0.000	0.04	0.8	OK
5.001	sm3	45	113.647	-0.063	0.000	0.30	1.7	OK
6.000	rg07	43	114.451	-0.099	0.000	0.00	0.1	OK
1.005	sm5	39	113.371	0.141	0.000	0.36	2.2	SURCHARGED
1.006	sm2	33	113.433	0.233	0.000	0.15	2.1	SURCHARGED
1.007	sm1	25	112.939	-0.111	0.000	0.15	2.1	OK

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Summary Wizard of 720 minute 30 year Summer I+30% for Existing

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

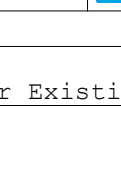
Rainfall Model	FSR	Ratio R	0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	19.400	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	OFF
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	30, 30, 30

PN	US/MH Name	Storm Rank	Water	Surcharged	Flooded	Pipe		Status
			Level (m)	Depth (m)	Volume (m³)	Flow / Overflow Cap. (l/s)	Flow (l/s)	
1.000	sac1	48	114.463	-0.137	0.000	0.02	0.5	OK
2.000	sac2	48	114.391	-0.089	0.000	0.03	0.2	OK
2.001	sac3	48	114.316	-0.084	0.000	0.06	0.8	OK
3.000	sac4	48	114.311	-0.089	0.000	0.03	0.2	OK
1.001	sm9	48	113.981	-0.194	0.000	0.05	1.9	OK
4.000	sac5	48	114.467	-0.083	0.000	0.07	0.7	OK
1.002	sm8	48	113.900	-0.185	0.000	0.07	2.7	OK
1.003	sm7	49	113.832	-0.183	0.000	0.08	3.4	OK
1.004	sm6	49	113.727	-0.178	0.000	0.10	4.1	OK
5.000	sm4	48	114.362	-0.088	0.000	0.04	0.7	OK
5.001	sm3	49	113.644	-0.066	0.000	0.26	1.5	OK
6.000	rg07	48	114.451	-0.099	0.000	0.00	0.0	OK
1.005	sm5	42	113.351	0.121	0.000	0.35	2.1	SURCHARGED
1.006	sm2	44	113.264	0.064	0.000	0.15	2.1	SURCHARGED
1.007	sm1	30	112.939	-0.111	0.000	0.15	2.1	OK

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Summary Wizard of 960 minute 30 year Summer I+30% for Existing

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

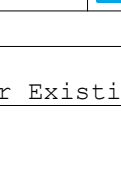
Rainfall Model	FSR	Ratio R	0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	19.400	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	OFF
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	30, 30, 30

PN	US/MH Name	Storm Rank	Water	Surcharged	Flooded	Flow / Overflow Cap.	Pipe	Status
			Level (m)	Depth (m)	Volume (m³)		Flow (l/s)	
1.000	sac1	52	114.460	-0.140	0.000	0.01	0.4	OK
2.000	sac2	52	114.390	-0.090	0.000	0.02	0.1	OK
2.001	sac3	52	114.314	-0.086	0.000	0.05	0.7	OK
3.000	sac4	52	114.310	-0.090	0.000	0.02	0.1	OK
1.001	sm9	52	113.978	-0.197	0.000	0.04	1.5	OK
4.000	sac5	52	114.465	-0.085	0.000	0.05	0.6	OK
1.002	sm8	52	113.895	-0.190	0.000	0.06	2.1	OK
1.003	sm7	52	113.826	-0.189	0.000	0.06	2.7	OK
1.004	sm6	52	113.722	-0.183	0.000	0.08	3.3	OK
5.000	sm4	52	114.361	-0.089	0.000	0.03	0.5	OK
5.001	sm3	52	113.641	-0.069	0.000	0.21	1.2	OK
6.000	rg07	52	114.451	-0.099	0.000	0.00	0.0	OK
1.005	sm5	43	113.325	0.095	0.000	0.38	2.3	SURCHARGED
1.006	sm2	45	113.259	0.059	0.000	0.15	2.1	SURCHARGED
1.007	sm1	36	112.939	-0.111	0.000	0.15	2.1	OK

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Summary Wizard of 15 minute 100 year Summer I+30% for Existing

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

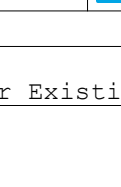
Rainfall Model	FSR	Ratio R	0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	19.400	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	OFF
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	30, 30, 30

PN	US/MH Name	Storm Rank	Water	Surcharged	Flooded	Pipe		Status
			Level (m)	Depth (m)	Volume (m³)	Flow / Overflow Cap. (l/s)	Flow (l/s)	
1.000	sac1	8	114.499	-0.101	0.000	0.23	6.6	OK
2.000	sac2	10	114.419	-0.061	0.000	0.33	2.4	OK
2.001	sac3	11	114.369	-0.031	0.000	0.81	10.7	OK
3.000	sac4	11	114.339	-0.061	0.000	0.33	2.4	OK
1.001	sm9	13	114.135	-0.040	0.000	0.56	23.9	OK
4.000	sac5	8	114.520	-0.030	0.000	0.83	9.6	OK
1.002	sm8	13	114.108	0.023	0.000	0.88	32.4	SURCHARGED
1.003	sm7	13	114.049	0.034	0.000	0.96	41.3	SURCHARGED
1.004	sm6	13	113.943	0.038	0.000	1.21	49.9	SURCHARGED
5.000	sm4	8	114.473	0.023	0.000	0.44	8.1	SURCHARGED
5.001	sm3	12	114.282	0.572	0.000	3.22	18.6	SURCHARGED
6.000	rg07	9	114.461	-0.089	0.000	0.03	0.6	OK
1.005	sm5	40	113.363	0.133	0.000	0.84	5.0	SURCHARGED
1.006	sm2	38	113.355	0.155	0.000	0.15	2.1	SURCHARGED
1.007	sm1	13	112.939	-0.111	0.000	0.15	2.1	OK

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Summary Wizard of 30 minute 100 year Summer I+30% for Existing

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

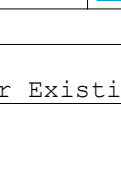
Rainfall Model	FSR	Ratio R	0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	19.400	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	OFF
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	30, 30, 30

PN	US/MH Name	Storm Rank	Water	Surcharged	Flooded	Pipe		Status
			Level (m)	Depth (m)	Volume (m³)	Flow / Overflow Cap. (l/s)	Flow (l/s)	
1.000	sac1	9	114.496	-0.104	0.000	0.20	5.7	OK
2.000	sac2	11	114.416	-0.064	0.000	0.28	2.1	OK
2.001	sac3	12	114.363	-0.037	0.000	0.70	9.3	OK
3.000	sac4	12	114.336	-0.064	0.000	0.28	2.1	OK
1.001	sm9	14	114.063	-0.112	0.000	0.50	21.0	OK
4.000	sac5	9	114.514	-0.036	0.000	0.72	8.3	OK
1.002	sm8	14	114.027	-0.058	0.000	0.78	28.7	OK
1.003	sm7	14	113.985	-0.030	0.000	0.84	36.5	OK
1.004	sm6	14	113.908	0.003	0.000	1.06	43.6	SURCHARGED
5.000	sm4	12	114.394	-0.056	0.000	0.40	7.3	OK
5.001	sm3	13	114.146	0.436	0.000	2.82	16.3	SURCHARGED
6.000	rg07	10	114.460	-0.090	0.000	0.02	0.5	OK
1.005	sm5	26	113.444	0.214	0.000	0.56	3.4	SURCHARGED
1.006	sm2	32	113.438	0.238	0.000	0.15	2.1	SURCHARGED
1.007	sm1	19	112.939	-0.111	0.000	0.15	2.1	OK

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Summary Wizard of 60 minute 100 year Summer I+30% for Existing

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

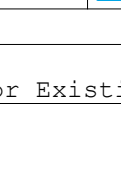
Rainfall Model	FSR	Ratio R 0.400
Region England and Wales Cv (Summer)	0.750	
M5-60 (mm)	19.400 Cv (Winter)	0.840

Margin for Flood Risk Warning (mm) 300.0	DVD Status OFF
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	30, 30, 30

PN	US/MH Name	Storm Rank	Water	Surcharged	Flooded	Flow / Overflow Cap.	Pipe	Status
			Level (m)	Depth (m)	Volume (m³)		Flow (l/s)	
1.000	sac1	14	114.488	-0.112	0.000	0.15	4.1	OK
2.000	sac2	16	114.411	-0.069	0.000	0.20	1.5	OK
2.001	sac3	17	114.351	-0.049	0.000	0.50	6.6	OK
3.000	sac4	17	114.331	-0.069	0.000	0.20	1.5	OK
1.001	sm9	19	114.044	-0.131	0.000	0.36	15.0	OK
4.000	sac5	14	114.501	-0.049	0.000	0.52	5.9	OK
1.002	sm8	19	113.984	-0.101	0.000	0.56	20.6	OK
1.003	sm7	19	113.920	-0.095	0.000	0.60	26.1	OK
1.004	sm6	21	113.834	-0.071	0.000	0.75	31.0	OK
5.000	sm4	17	114.386	-0.064	0.000	0.28	5.2	OK
5.001	sm3	19	113.903	0.193	0.000	2.01	11.6	SURCHARGED
6.000	rg07	15	114.458	-0.092	0.000	0.02	0.4	OK
1.005	sm5	14	113.726	0.496	0.000	0.55	3.3	SURCHARGED
1.006	sm2	15	113.717	0.517	0.000	0.15	2.1	SURCHARGED
1.007	sm1	17	112.939	-0.111	0.000	0.15	2.1	OK

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Summary Wizard of 120 minute 100 year Summer I+30% for Existing

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

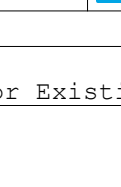
Rainfall Model	FSR	Ratio R 0.400
Region England and Wales Cv	(Summer)	0.750
M5-60 (mm)	19.400 Cv	(Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0	DVD Status OFF
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	30, 30, 30

PN	US/MH Name	Storm Rank	Water	Surcharged	Flooded	Flow / Overflow Cap.	Pipe	Status
			Level (m)	Depth (m)	Volume (m³)		Flow (l/s)	
1.000	sac1	17	114.480	-0.120	0.000	0.09	2.5	OK
2.000	sac2	8	114.446	-0.034	0.000	0.12	0.9	OK
2.001	sac3	8	114.445	0.045	0.000	0.31	4.1	SURCHARGED
3.000	sac4	8	114.445	0.045	0.000	0.12	0.9	SURCHARGED
1.001	sm9	8	114.444	0.269	0.000	0.22	9.3	SURCHARGED
4.000	sac5	17	114.488	-0.062	0.000	0.32	3.6	OK
1.002	sm8	8	114.444	0.359	0.000	0.35	13.0	SURCHARGED
1.003	sm7	8	114.442	0.427	0.000	0.38	16.6	SURCHARGED
1.004	sm6	8	114.440	0.535	0.000	0.49	20.0	SURCHARGED
5.000	sm4	10	114.444	-0.006	0.000	0.17	3.2	OK
5.001	sm3	8	114.441	0.731	0.000	1.26	7.3	SURCHARGED
6.000	rg07	18	114.455	-0.095	0.000	0.01	0.2	OK
1.005	sm5	8	114.438	1.208	0.000	0.52	3.1	SURCHARGED
1.006	sm2	8	114.426	1.226	0.000	0.18	2.4	SURCHARGED
1.007	sm1	8	112.942	-0.108	0.000	0.18	2.4	OK

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Summary Wizard of 240 minute 100 year Summer I+30% for Existing

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

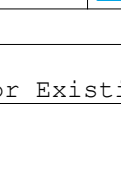
Rainfall Model	FSR	Ratio R	0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	19.400	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	OFF
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	30, 30, 30

PN	US/MH Name	Storm Rank	Water	Surcharged	Flooded	Pipe		Status
			Level (m)	Depth (m)	Volume (m³)	Flow / Overflow Cap. (l/s)	Flow (l/s)	
1.000	sac1	24	114.473	-0.127	0.000	0.06	1.6	OK
2.000	sac2	20	114.402	-0.078	0.000	0.08	0.6	OK
2.001	sac3	9	114.401	0.001	0.000	0.20	2.6	SURCHARGED
3.000	sac4	9	114.401	0.001	0.000	0.08	0.6	SURCHARGED
1.001	sm9	9	114.400	0.225	0.000	0.14	5.9	SURCHARGED
4.000	sac5	24	114.480	-0.070	0.000	0.20	2.3	OK
1.002	sm8	9	114.399	0.314	0.000	0.22	8.2	SURCHARGED
1.003	sm7	9	114.398	0.383	0.000	0.24	10.5	SURCHARGED
1.004	sm6	9	114.396	0.491	0.000	0.31	12.6	SURCHARGED
5.000	sm4	11	114.399	-0.051	0.000	0.11	2.0	OK
5.001	sm3	9	114.397	0.687	0.000	0.79	4.6	SURCHARGED
6.000	rg07	24	114.453	-0.097	0.000	0.01	0.1	OK
1.005	sm5	9	114.394	1.164	0.000	0.52	3.1	SURCHARGED
1.006	sm2	9	114.382	1.182	0.000	0.17	2.4	SURCHARGED
1.007	sm1	9	112.942	-0.108	0.000	0.18	2.4	OK

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Summary Wizard of 360 minute 100 year Summer I+30% for Existing

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

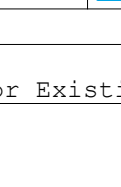
Rainfall Model	FSR	Ratio R	0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	19.400	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	OFF
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	30, 30, 30

PN	US/MH Name	Storm Rank	Water	Surcharged	Flooded	Pipe		Status
			Level (m)	Depth (m)	Volume (m³)	Flow / Overflow Cap. (l/s)	Flow (l/s)	
1.000	sac1	30	114.469	-0.131	0.000	0.04	1.1	OK
2.000	sac2	30	114.395	-0.085	0.000	0.06	0.4	OK
2.001	sac3	30	114.325	-0.075	0.000	0.14	1.9	OK
3.000	sac4	30	114.315	-0.085	0.000	0.06	0.4	OK
1.001	sm9	11	114.142	-0.033	0.000	0.10	4.3	OK
4.000	sac5	30	114.475	-0.075	0.000	0.14	1.7	OK
1.002	sm8	11	114.141	0.056	0.000	0.16	5.9	SURCHARGED
1.003	sm7	11	114.140	0.125	0.000	0.18	7.6	SURCHARGED
1.004	sm6	11	114.138	0.233	0.000	0.22	9.2	SURCHARGED
5.000	sm4	30	114.369	-0.081	0.000	0.08	1.5	OK
5.001	sm3	14	114.139	0.429	0.000	0.57	3.3	SURCHARGED
6.000	rg07	30	114.452	-0.098	0.000	0.00	0.1	OK
1.005	sm5	11	114.136	0.906	0.000	0.38	2.3	SURCHARGED
1.006	sm2	11	114.125	0.925	0.000	0.16	2.2	SURCHARGED
1.007	sm1	11	112.940	-0.110	0.000	0.16	2.2	OK

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Summary Wizard of 480 minute 100 year Summer I+30% for Existing

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

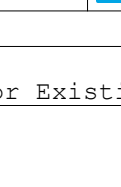
Rainfall Model	FSR	Ratio R	0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	19.400	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	OFF
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	30, 30, 30

PN	US/MH Name	Storm Rank	Water	Surcharged	Flooded	Pipe		Status
			Level (m)	Depth (m)	Volume (m³)	Flow / Overflow Cap. (l/s)	Flow (l/s)	
1.000	sac1	33	114.468	-0.132	0.000	0.03	0.9	OK
2.000	sac2	33	114.394	-0.086	0.000	0.05	0.3	OK
2.001	sac3	33	114.322	-0.078	0.000	0.11	1.5	OK
3.000	sac4	33	114.314	-0.086	0.000	0.05	0.3	OK
1.001	sm9	34	113.992	-0.183	0.000	0.08	3.4	OK
4.000	sac5	33	114.472	-0.078	0.000	0.12	1.3	OK
1.002	sm8	34	113.913	-0.172	0.000	0.13	4.7	OK
1.003	sm7	22	113.890	-0.125	0.000	0.14	6.1	OK
1.004	sm6	15	113.888	-0.017	0.000	0.18	7.3	OK
5.000	sm4	33	114.366	-0.084	0.000	0.06	1.2	OK
5.001	sm3	21	113.888	0.178	0.000	0.46	2.7	SURCHARGED
6.000	rg07	33	114.452	-0.098	0.000	0.00	0.1	OK
1.005	sm5	13	113.885	0.655	0.000	0.44	2.6	SURCHARGED
1.006	sm2	12	113.876	0.676	0.000	0.15	2.1	SURCHARGED
1.007	sm1	43	112.939	-0.111	0.000	0.15	2.1	OK

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Summary Wizard of 720 minute 100 year Summer I+30% for Existing

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

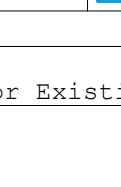
Rainfall Model	FSR	Ratio R	0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	19.400	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	OFF
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	30, 30, 30

PN	US/MH Name	Storm Rank	Water	Surcharged	Flooded	Pipe		Status
			Level (m)	Depth (m)	Volume (m³)	Flow / Overflow Cap. (l/s)	Flow (l/s)	
1.000	sac1	39	114.466	-0.134	0.000	0.02	0.7	OK
2.000	sac2	39	114.392	-0.088	0.000	0.03	0.2	OK
2.001	sac3	39	114.319	-0.081	0.000	0.08	1.1	OK
3.000	sac4	39	114.312	-0.088	0.000	0.03	0.2	OK
1.001	sm9	40	113.985	-0.190	0.000	0.06	2.5	OK
4.000	sac5	39	114.469	-0.081	0.000	0.08	1.0	OK
1.002	sm8	40	113.906	-0.179	0.000	0.09	3.4	OK
1.003	sm7	41	113.838	-0.177	0.000	0.10	4.4	OK
1.004	sm6	41	113.733	-0.172	0.000	0.13	5.3	OK
5.000	sm4	39	114.364	-0.086	0.000	0.05	0.8	OK
5.001	sm3	41	113.650	-0.060	0.000	0.33	1.9	OK
6.000	rg07	39	114.451	-0.099	0.000	0.00	0.1	OK
1.005	sm5	19	113.484	0.254	0.000	0.40	2.4	SURCHARGED
1.006	sm2	37	113.357	0.157	0.000	0.15	2.1	SURCHARGED
1.007	sm1	31	112.939	-0.111	0.000	0.15	2.1	OK

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Summary Wizard of 960 minute 100 year Summer I+30% for Existing

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	0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	19.400	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	OFF
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	30, 30, 30

PN	US/MH Name	Storm Rank	Water	Surcharged	Flooded	Pipe		Status
			Level (m)	Depth (m)	Volume (m³)	Flow / Overflow Cap. (l/s)	Flow (l/s)	
1.000	sac1	46	114.463	-0.137	0.000	0.02	0.5	OK
2.000	sac2	46	114.391	-0.089	0.000	0.03	0.2	OK
2.001	sac3	46	114.317	-0.083	0.000	0.07	0.9	OK
3.000	sac4	46	114.311	-0.089	0.000	0.03	0.2	OK
1.001	sm9	46	113.981	-0.194	0.000	0.05	2.0	OK
4.000	sac5	46	114.467	-0.083	0.000	0.07	0.8	OK
1.002	sm8	46	113.900	-0.185	0.000	0.07	2.7	OK
1.003	sm7	47	113.832	-0.183	0.000	0.08	3.5	OK
1.004	sm6	47	113.728	-0.177	0.000	0.10	4.2	OK
5.000	sm4	46	114.362	-0.088	0.000	0.04	0.7	OK
5.001	sm3	47	113.645	-0.065	0.000	0.26	1.5	OK
6.000	rg07	46	114.451	-0.099	0.000	0.00	0.0	OK
1.005	sm5	24	113.449	0.219	0.000	0.37	2.2	SURCHARGED
1.006	sm2	17	113.656	0.456	0.000	0.15	2.1	SURCHARGED
1.007	sm1	47	112.939	-0.111	0.000	0.15	2.1	OK

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Summary Wizard of 1440 minute 100 year Summer I+30% for Existing

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	0.400
Region England and Wales	Cv (Summer)		0.750
M5-60 (mm)	19.400 Cv (Winter)		0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	OFF
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	30, 30, 30

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Pipe Flow / Overflow Cap. (l/s)	Pipe Flow (l/s)	Status
1.000	sac1	57	114.460	-0.140	0.000	0.01	0.4	OK
2.000	sac2	57	114.389	-0.091	0.000	0.02	0.1	OK
2.001	sac3	57	114.314	-0.086	0.000	0.05	0.6	OK
3.000	sac4	57	114.309	-0.091	0.000	0.02	0.1	OK
1.001	sm9	57	113.977	-0.198	0.000	0.03	1.4	OK
4.000	sac5	57	114.464	-0.086	0.000	0.05	0.6	OK
1.002	sm8	57	113.893	-0.192	0.000	0.05	2.0	OK
1.003	sm7	57	113.825	-0.190	0.000	0.06	2.5	OK
1.004	sm6	57	113.720	-0.185	0.000	0.07	3.0	OK
5.000	sm4	57	114.361	-0.089	0.000	0.03	0.5	OK
5.001	sm3	57	113.639	-0.071	0.000	0.19	1.1	OK
6.000	rg07	57	114.451	-0.099	0.000	0.00	0.0	OK
1.005	sm5	36	113.390	0.160	0.000	0.33	2.0	SURCHARGED
1.006	sm2	14	113.719	0.519	0.000	0.14	2.0	SURCHARGED
1.007	sm1	45	112.939	-0.111	0.000	0.15	2.0	OK

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Summary Wizard of 15 minute 1 year Winter I+30% for Existing

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 0.400
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 19.400 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0 DVD Status OFF
 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
 Return Period(s) (years) 1, 30, 100
 Climate Change (%) 30, 30, 30

PN	US/MH Name	Storm Rank	Water	Surcharged	Flooded	Flow / Cap.	Overflow	Pipe	Status
			Level (m)	Depth (m)	Volume (m³)		(l/s)	Flow (l/s)	
1.000	sac1	19	114.477	-0.123	0.000	0.07	2.1	OK	
2.000	sac2	21	114.401	-0.079	0.000	0.10	0.8	OK	
2.001	sac3	22	114.331	-0.069	0.000	0.21	2.8	OK	
3.000	sac4	21	114.321	-0.079	0.000	0.10	0.8	OK	
1.001	sm9	24	114.010	-0.165	0.000	0.16	6.8	OK	
4.000	sac5	19	114.485	-0.065	0.000	0.26	3.0	OK	
1.002	sm8	23	113.939	-0.146	0.000	0.27	9.8	OK	
1.003	sm7	26	113.871	-0.144	0.000	0.28	12.1	OK	
1.004	sm6	26	113.772	-0.133	0.000	0.35	14.4	OK	
5.000	sm4	21	114.375	-0.075	0.000	0.14	2.6	OK	
5.001	sm3	26	113.685	-0.025	0.000	0.92	5.3	OK	
6.000	rg07	20	114.454	-0.096	0.000	0.01	0.2	OK	
1.005	sm5	64	113.173	-0.057	0.000	0.40	2.4	OK	
1.006	sm2	66	113.164	-0.036	0.000	0.13	1.8	OK	
1.007	sm1	65	112.936	-0.114	0.000	0.13	1.8	OK	

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Summary Wizard of 30 minute 1 year Winter I+30% for Existing

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	0.400
Region England and Wales	Cv (Summer)	0.750	
M5-60 (mm)	19.400 Cv (Winter)	0.840	

Margin for Flood Risk Warning (mm)	300.0	DVD Status	OFF
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	30, 30, 30

PN	US/MH Name	Storm Rank	Water	Surcharged	Flooded	Flow / Overflow Cap.	Pipe	Status
			Level (m)	Depth (m)	Volume (m³)		Flow (l/s)	
1.000	sac1	25	114.473	-0.127	0.000	0.05	1.5	OK
2.000	sac2	25	114.398	-0.082	0.000	0.08	0.6	OK
2.001	sac3	27	114.328	-0.072	0.000	0.18	2.3	OK
3.000	sac4	25	114.318	-0.082	0.000	0.08	0.6	OK
1.001	sm9	29	114.003	-0.172	0.000	0.13	5.4	OK
4.000	sac5	25	114.480	-0.070	0.000	0.19	2.2	OK
1.002	sm8	29	113.929	-0.156	0.000	0.21	7.6	OK
1.003	sm7	31	113.862	-0.153	0.000	0.22	9.7	OK
1.004	sm6	31	113.761	-0.144	0.000	0.28	11.5	OK
5.000	sm4	25	114.372	-0.078	0.000	0.11	2.0	OK
5.001	sm3	31	113.673	-0.037	0.000	0.73	4.2	OK
6.000	rg07	25	114.453	-0.097	0.000	0.01	0.1	OK
1.005	sm5	59	113.196	-0.034	0.000	0.38	2.3	OK
1.006	sm2	59	113.186	-0.014	0.000	0.14	1.9	OK
1.007	sm1	59	112.937	-0.113	0.000	0.14	1.9	OK

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Summary Wizard of 60 minute 1 year Winter I+30% for Existing

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

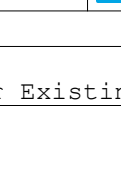
Rainfall Model	FSR	Ratio R	0.400
Region England and Wales	Cv (Summer)	0.750	
M5-60 (mm)	19.400 Cv (Winter)	0.840	

Margin for Flood Risk Warning (mm)	300.0	DVD Status	OFF
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	30, 30, 30

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Pipe Flow / Overflow Cap. (l/s)	Pipe Flow (l/s)	Status
1.000	sac1	32	114.468	-0.132	0.000	0.04	1.0	OK
2.000	sac2	32	114.394	-0.086	0.000	0.05	0.4	OK
2.001	sac3	32	114.323	-0.077	0.000	0.12	1.6	OK
3.000	sac4	32	114.314	-0.086	0.000	0.05	0.4	OK
1.001	sm9	33	113.995	-0.180	0.000	0.09	3.7	OK
4.000	sac5	32	114.474	-0.076	0.000	0.13	1.5	OK
1.002	sm8	33	113.916	-0.169	0.000	0.14	5.1	OK
1.003	sm7	35	113.848	-0.167	0.000	0.15	6.6	OK
1.004	sm6	35	113.747	-0.158	0.000	0.19	7.9	OK
5.000	sm4	32	114.367	-0.083	0.000	0.07	1.3	OK
5.001	sm3	35	113.660	-0.050	0.000	0.50	2.9	OK
6.000	rg07	32	114.452	-0.098	0.000	0.00	0.1	OK
1.005	sm5	51	113.212	-0.018	0.000	0.35	2.1	OK
1.006	sm2	52	113.203	0.003	0.000	0.14	2.0	SURCHARGED
1.007	sm1	53	112.938	-0.112	0.000	0.14	2.0	OK

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Summary Wizard of 180 minute 1 year Winter I+30% for Existing

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

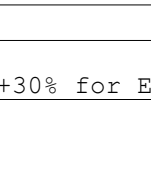
Rainfall Model	FSR	Ratio R	0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	19.400	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	OFF
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	30, 30, 30

PN	US/MH Name	Storm Rank	Water	Surcharged	Flooded	Flow / Overflow Cap.	Pipe	Status
			Level (m)	Depth (m)	Volume (m³)		Flow (l/s)	
1.000	sac1	50	114.462	-0.138	0.000	0.02	0.5	OK
2.000	sac2	50	114.390	-0.090	0.000	0.02	0.2	OK
2.001	sac3	50	114.316	-0.084	0.000	0.06	0.8	OK
3.000	sac4	50	114.310	-0.090	0.000	0.02	0.2	OK
1.001	sm9	50	113.980	-0.195	0.000	0.04	1.8	OK
4.000	sac5	50	114.466	-0.084	0.000	0.06	0.7	OK
1.002	sm8	50	113.898	-0.187	0.000	0.07	2.5	OK
1.003	sm7	50	113.830	-0.185	0.000	0.07	3.2	OK
1.004	sm6	50	113.726	-0.179	0.000	0.09	3.8	OK
5.000	sm4	50	114.362	-0.088	0.000	0.03	0.6	OK
5.001	sm3	50	113.643	-0.067	0.000	0.24	1.4	OK
6.000	rg07	50	114.451	-0.099	0.000	0.00	0.0	OK
1.005	sm5	50	113.219	-0.011	0.000	0.37	2.2	OK
1.006	sm2	50	113.212	0.012	0.000	0.14	2.0	SURCHARGED
1.007	sm1	50	112.938	-0.112	0.000	0.14	2.0	OK

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Summary Wizard of 240 minute 1 year Winter I+30% for Existing

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	0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	19.400	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	OFF
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	30, 30, 30

PN	US/MH Name	Storm Rank	Water	Surcharged	Flooded	Pipe		Status
			Level (m)	Depth (m)	Volume (m³)	Flow / Overflow Cap. (l/s)	Flow (l/s)	
1.000	sac1	54	114.460	-0.140	0.000	0.01	0.4	OK
2.000	sac2	54	114.389	-0.091	0.000	0.02	0.1	OK
2.001	sac3	54	114.314	-0.086	0.000	0.05	0.6	OK
3.000	sac4	54	114.309	-0.091	0.000	0.02	0.1	OK
1.001	sm9	54	113.977	-0.198	0.000	0.03	1.5	OK
4.000	sac5	54	114.464	-0.086	0.000	0.05	0.6	OK
1.002	sm8	54	113.894	-0.191	0.000	0.06	2.0	OK
1.003	sm7	54	113.826	-0.189	0.000	0.06	2.6	OK
1.004	sm6	54	113.721	-0.184	0.000	0.08	3.2	OK
5.000	sm4	54	114.361	-0.089	0.000	0.03	0.5	OK
5.001	sm3	54	113.640	-0.070	0.000	0.20	1.2	OK
6.000	rg07	54	114.451	-0.099	0.000	0.00	0.0	OK
1.005	sm5	52	113.211	-0.019	0.000	0.37	2.2	OK
1.006	sm2	51	113.203	0.003	0.000	0.14	2.0	SURCHARGED
1.007	sm1	52	112.938	-0.112	0.000	0.14	2.0	OK

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Summary Wizard of 360 minute 1 year Winter I+30% for Existing									
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 0.400							
Region England and Wales Cv (Summer) 0.750									
M5-60 (mm)		19.400 Cv (Winter) 0.840							
Margin for Flood Risk Warning (mm) 300.0 DVD Status OFF									
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							
Return Period(s) (years)		1, 30, 100							
Climate Change (%)		30, 30, 30							
Water Surcharged Flooded Pipe									
PN	US/MH Name	Storm Rank	Level (m)	Depth (m)	Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	sac1	61	114.457	-0.143	0.000	0.01		0.3	OK
2.000	sac2	61	114.387	-0.093	0.000	0.01		0.1	OK
2.001	sac3	61	114.312	-0.088	0.000	0.04		0.5	OK
3.000	sac4	61	114.307	-0.093	0.000	0.01		0.1	OK
1.001	sm9	61	113.974	-0.201	0.000	0.03		1.1	OK
4.000	sac5	61	114.462	-0.088	0.000	0.04		0.4	OK
1.002	sm8	61	113.889	-0.196	0.000	0.04		1.5	OK
1.003	sm7	61	113.821	-0.194	0.000	0.05		2.0	OK
1.004	sm6	61	113.715	-0.190	0.000	0.06		2.4	OK
5.000	sm4	61	114.360	-0.090	0.000	0.02		0.4	OK
5.001	sm3	61	113.636	-0.074	0.000	0.15		0.9	OK
6.000	rg07	61	114.451	-0.099	0.000	0.00		0.0	OK
1.005	sm5	56	113.199	-0.031	0.000	0.37		2.2	OK
1.006	sm2	55	113.198	-0.002	0.000	0.14		1.9	OK
1.007	sm1	56	112.937	-0.113	0.000	0.14		1.9	OK
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<u>Summary Wizard of 480 minute 1 year Winter I+30% for Existing</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		0.400	
Region England and Wales		Cv (Summer)		0.750			
M5-60 (mm)		19.400		Cv (Winter)		0.840	
Margin for Flood Risk Warning (mm)		300.0		DVD Status		OFF	
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					
Return Period(s) (years)				1, 30, 100			
Climate Change (%)				30, 30, 30			

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Summary Wizard of 600 minute 1 year Winter I+30% for Existing

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

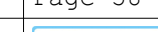
Rainfall Model	FSR	Ratio R	0.400
Region England and Wales	Cv (Summer)	0.750	
M5-60 (mm)	19.400 Cv (Winter)	0.840	

Margin for Flood Risk Warning (mm)	300.0	DVD Status	OFF
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	30, 30, 30

PN	US/MH Name	Storm Rank	Water	Surcharged	Flooded	Flow / Cap.	Overflow	Pipe	Status
			Level (m)	Depth (m)	Volume (m³)		(l/s)	Flow (l/s)	
1.000	sac1	67	114.455	-0.145	0.000	0.01		0.2	OK
2.000	sac2	67	114.385	-0.095	0.000	0.01		0.1	OK
2.001	sac3	67	114.311	-0.089	0.000	0.03		0.3	OK
3.000	sac4	67	114.305	-0.095	0.000	0.01		0.1	OK
1.001	sm9	67	113.969	-0.206	0.000	0.02		0.8	OK
4.000	sac5	67	114.461	-0.089	0.000	0.03		0.3	OK
1.002	sm8	67	113.885	-0.200	0.000	0.03		1.1	OK
1.003	sm7	67	113.816	-0.199	0.000	0.03		1.4	OK
1.004	sm6	67	113.709	-0.196	0.000	0.04		1.6	OK
5.000	sm4	67	114.357	-0.093	0.000	0.01		0.3	OK
5.001	sm3	67	113.631	-0.079	0.000	0.10		0.6	OK
6.000	rg07	67	114.450	-0.100	0.000	0.00		0.0	OK
1.005	sm5	66	113.168	-0.062	0.000	0.33		2.0	OK
1.006	sm2	67	113.161	-0.039	0.000	0.13		1.8	OK
1.007	sm1	64	112.936	-0.114	0.000	0.13		1.8	OK

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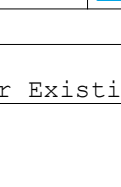
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Innovyze	Network 2019.1	

Summary Wizard of 30 minute 30 year Winter I+30% for Existing

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

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 30, 100
Climate Change (%)	30, 30, 30

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Summary Wizard of 120 minute 30 year Winter I+30% for Existing

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 0.400
Region England and Wales Cv (Summer)	0.750	
M5-60 (mm)	19.400 Cv (Winter)	0.840

Margin for Flood Risk Warning (mm) 300.0	DVD Status OFF
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	30, 30, 30

PN	US/MH Name	Storm Rank	Water	Surcharged	Flooded	Pipe		Status
			Level (m)	Depth (m)	Volume (m³)	Flow / Overflow Cap. (l/s)	Flow (l/s)	
1.000	sac1	27	114.472	-0.128	0.000	0.05	1.5	OK
2.000	sac2	27	114.398	-0.082	0.000	0.07	0.5	OK
2.001	sac3	26	114.329	-0.071	0.000	0.19	2.4	OK
3.000	sac4	27	114.318	-0.082	0.000	0.07	0.5	OK
1.001	sm9	28	114.004	-0.171	0.000	0.13	5.6	OK
4.000	sac5	27	114.479	-0.071	0.000	0.19	2.2	OK
1.002	sm8	28	113.930	-0.155	0.000	0.21	7.7	OK
1.003	sm7	30	113.863	-0.152	0.000	0.23	9.9	OK
1.004	sm6	30	113.763	-0.142	0.000	0.29	12.0	OK
5.000	sm4	27	114.371	-0.079	0.000	0.10	1.9	OK
5.001	sm3	30	113.675	-0.035	0.000	0.75	4.3	OK
6.000	rg07	27	114.453	-0.097	0.000	0.01	0.1	OK
1.005	sm5	18	113.487	0.257	0.000	0.50	3.0	SURCHARGED
1.006	sm2	18	113.643	0.443	0.000	0.15	2.1	SURCHARGED
1.007	sm1	40	112.939	-0.111	0.000	0.15	2.1	OK