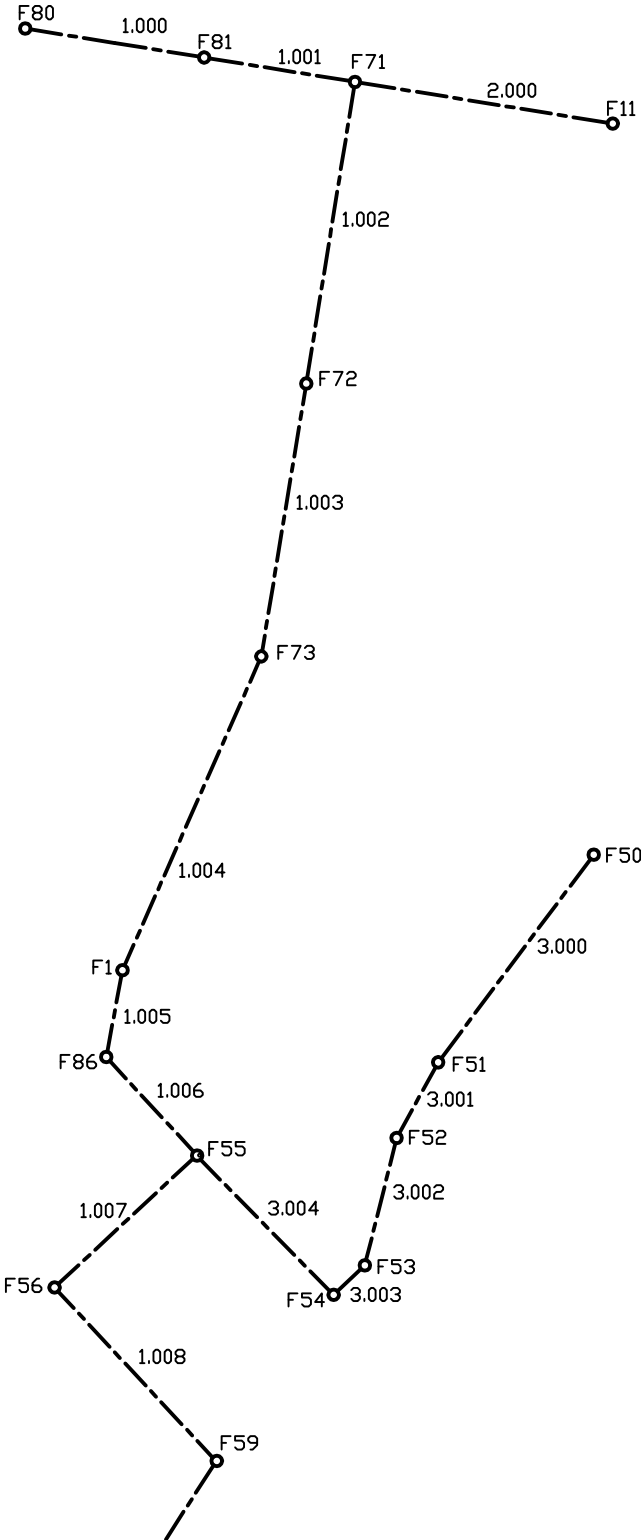


















# FOUL WATER NETWORK



RAB Engineering Design Ltd		Page 0
12 Berry Holm Close Sheffield S35 1AB	High grange cleator moor foul calculation	
Date 26/06/2023 05:57 File FOUL 14-4-23.MDX	Designed by RAB Checked by	
XP Solutions	Network 2019.1	

FOUL SEWERAGE DESIGN

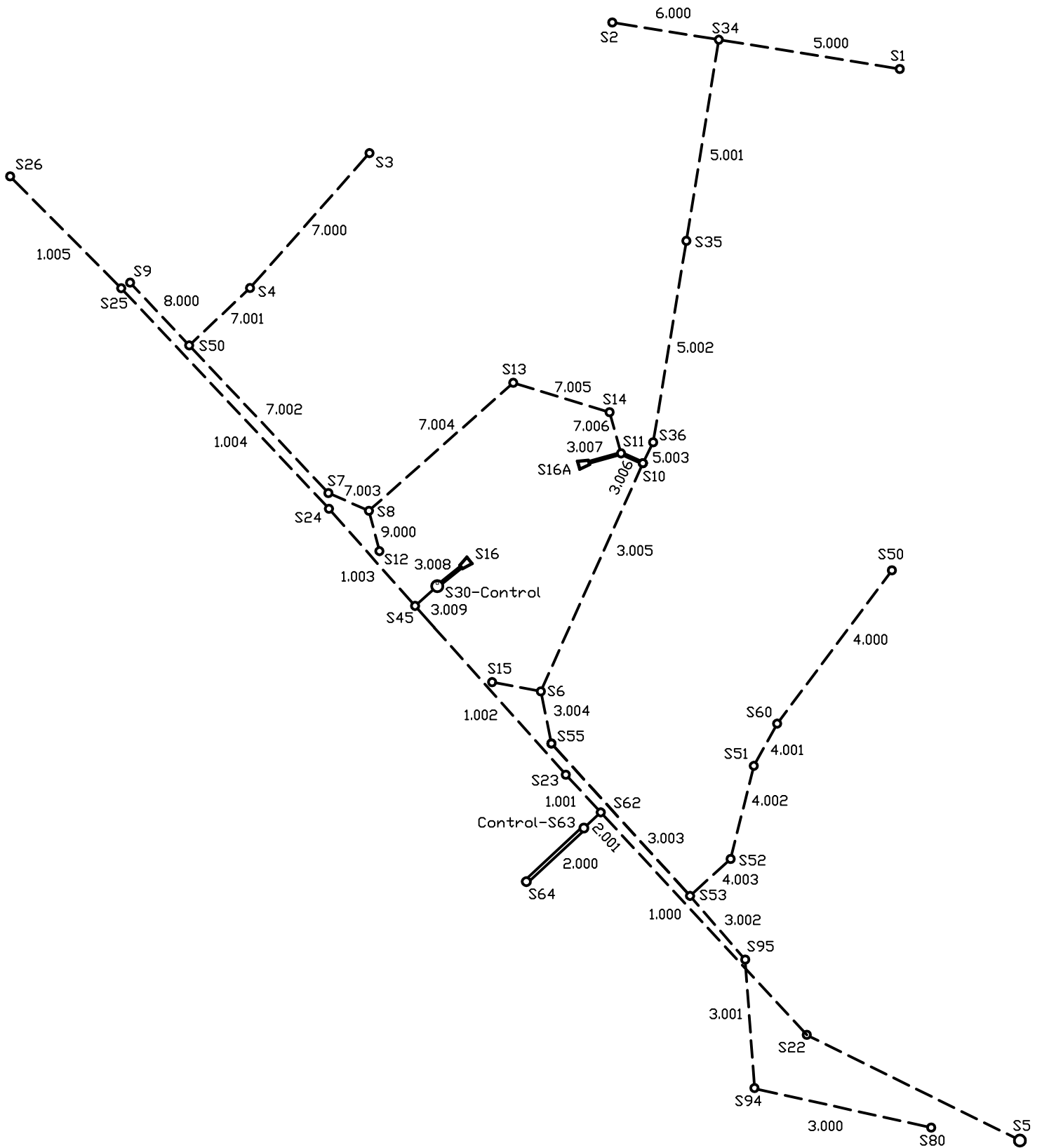
Network Design Table for FOUL 14-4-23.FWS

PN	Length (m)	Fall (m)	Slope (1:X)	Area (ha)	Houses	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
1.000	34.021	0.425	80.0	0.000	10	0.0	1.500	o	150	Pipe/Conduit	
1.001	28.693	0.287	100.0	0.000	7	0.0	1.500	o	150	Pipe/Conduit	
2.000	49.026	1.082	45.3	0.000	9	0.0	1.500	o	150	Pipe/Conduit	
1.002	57.367	0.546	105.1	0.000	5	0.0	1.500	o	150	Pipe/Conduit	
1.003	51.879	0.494	105.0	0.000	14	0.0	1.500	o	150	Pipe/Conduit	
1.004	64.423	0.586	109.9	0.000	18	0.0	1.500	o	150	Pipe/Conduit	
1.005	16.569	0.138	120.0	0.000	2	0.0	1.500	o	150	Pipe/Conduit	
1.006	25.160	0.209	120.4	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
3.000	48.689	0.398	122.3	0.000	12	0.0	1.500	o	150	Pipe/Conduit	
3.001	16.194	0.130	124.6	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
3.002	24.651	0.197	125.1	0.000	9	0.0	1.500	o	150	Pipe/Conduit	
3.003	8.066	0.175	46.1	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
3.004	36.611	1.598	22.9	0.000	9	0.0	1.500	o	150	Pipe/Conduit	
1.007	36.449	0.243	150.0	0.000	8	0.0	1.500	o	150	Pipe/Conduit	
1.008	44.572	0.318	140.2	0.000	2	0.0	1.500	o	150	Pipe/Conduit	

Network Results Table

PN	US/IL (m)	Σ Area (ha)	Σ Base Flow (l/s)	Σ Hse	Add Flow (l/s)	P.Dep (mm)	P.Vel (m/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
1.000	79.880	0.000	0.0	10	0.0	17	0.41	0.98	17.3	0.5
1.001	79.455	0.000	0.0	17	0.0	23	0.45	0.88	15.5	0.8
2.000	80.250	0.000	0.0	9	0.0	14	0.49	1.30	23.0	0.4
1.002	79.168	0.000	0.0	31	0.0	32	0.54	0.85	15.1	1.5
1.003	78.622	0.000	0.0	45	0.0	38	0.60	0.85	15.1	2.1
1.004	78.128	0.000	0.0	63	0.0	46	0.65	0.84	14.8	3.0
1.005	77.542	0.000	0.0	65	0.0	47	0.64	0.80	14.1	3.0
1.006	77.404	0.000	0.0	65	0.0	47	0.63	0.80	14.1	3.0
3.000	81.550	0.000	0.0	12	0.0	21	0.38	0.79	14.0	0.6
3.001	81.152	0.000	0.0	12	0.0	21	0.38	0.78	13.9	0.6
3.002	81.022	0.000	0.0	21	0.0	27	0.45	0.78	13.8	1.0
3.003	80.825	0.000	0.0	21	0.0	21	0.63	1.29	22.8	1.0
3.004	80.650	0.000	0.0	30	0.0	22	0.90	1.84	32.4	1.4
1.007	77.195	0.000	0.0	103	0.0	64	0.67	0.71	12.6	4.8
1.008	76.952	0.000	0.0	105	0.0	64	0.69	0.74	13.1	4.9

# SURFACE WATER NETWORK



## Technical Specification

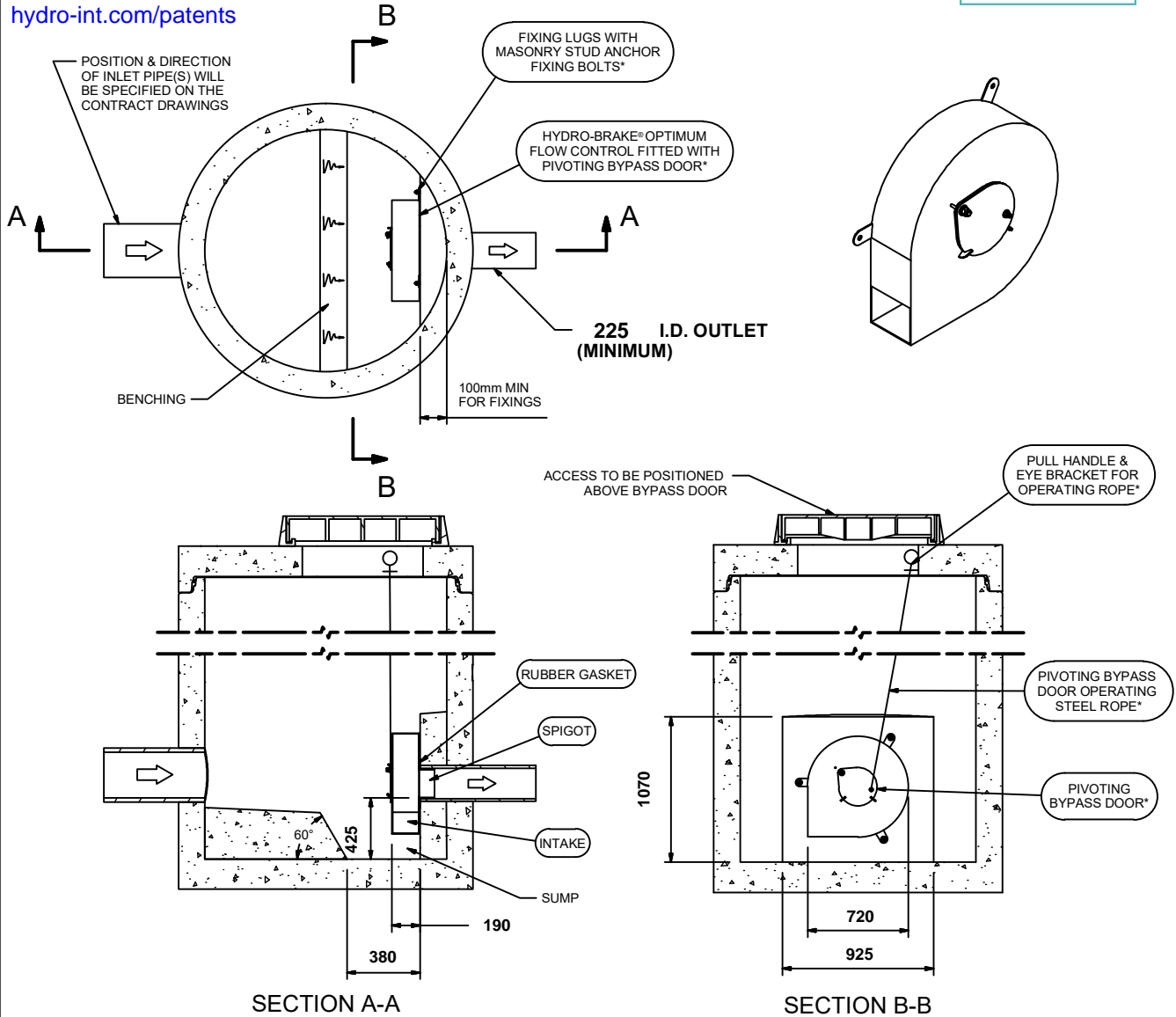
Control Point	Head (m)	Flow (l/s)
Primary Design	1.200	17.000
Flush-Flo™	0.368	16.987
Kick-Flo®	0.814	14.144
Mean Flow		14.562

Hydro-Brake® Optimum Flow Control including:

- 3 mm grade 304L stainless steel
- Integral stainless steel pivoting by-pass door allowing clear line of sight through to outlet, c/w stainless steel operating rope
- Beed blasted finish to maximise corrosion resistance
- Stainless steel fixings
- Rubber gasket to seal outlet
- Indicative Weight: 30 kg



[hydro-int.com/patents](http://hydro-int.com/patents)



**IMPORTANT:** ○ LIMIT OF HYDRO INTERNATIONAL SUPPLY  
 THE DEVICE WILL BE HANDED TO SUIT SITE CONDITIONS  
 FOR SITE SPECIFIC DETAILS AND MINIMUM CHAMBER SIZE REFER TO HYDRO INTERNATIONAL  
 ALL CIVIL AND INSTALLATION WORK BY OTHERS  
 \* WHERE SUPPLIED  
 HYDRO-BRAKE® FLOW CONTROL & HYDRO-BRAKE® OPTIMUM FLOW CONTROL ARE REGISTERED TRADEMARKS FOR FLOW  
 CONTROLS DESIGNED AND MANUFACTURED EXCLUSIVELY BY HYDRO INTERNATIONAL

**THIS DESIGN LAYOUT IS FOR ILLUSTRATIVE PURPOSES ONLY. NOT TO SCALE.**

### DESIGN ADVICE



The head/flow characteristics of this SHE-0182-1700-1200-1700 Hydro-Brake® Optimum Flow Control are unique. Dynamic hydraulic modelling evaluates the full head/flow characteristic curve.  
**The use of any other flow control will invalidate any design based on this data and could constitute a flood risk.**

**Hydro International**®

DATE 26/06/2023 13:58

SITE High grange

DESIGNER richard bland

REF S63

SHE-0182-1700-1200-1700

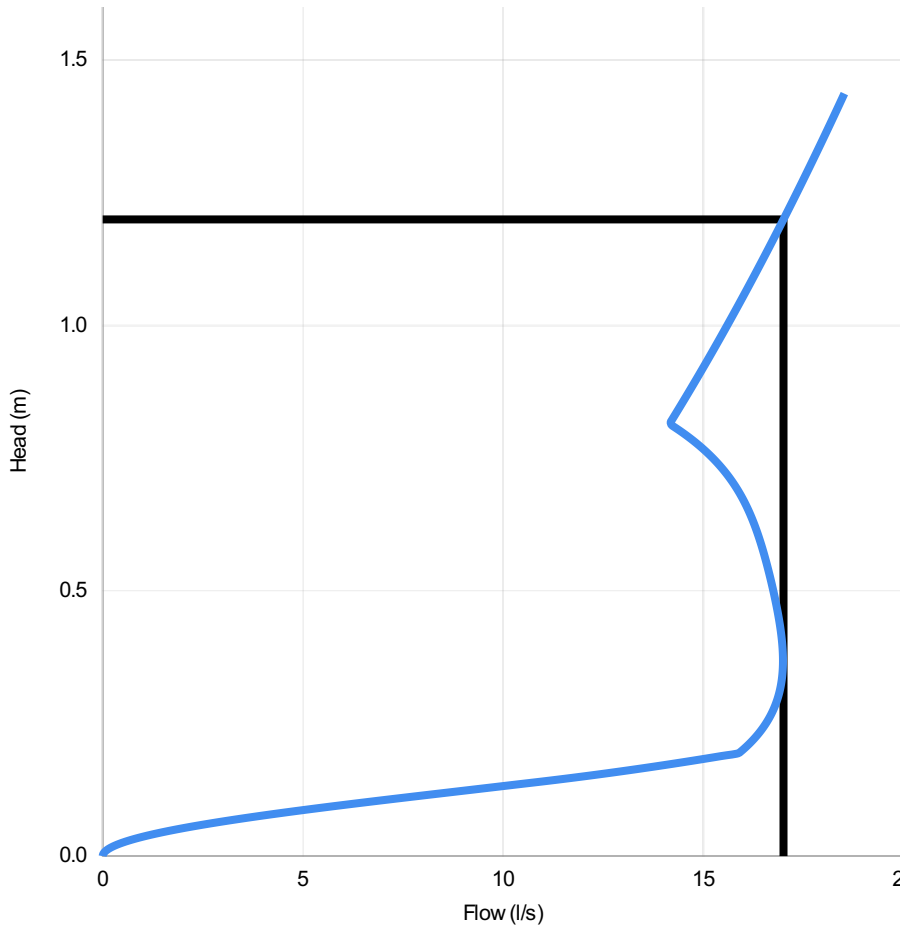
Hydro-Brake® Optimum

## Technical Specification

Control Point	Head (m)	Flow (l/s)
Primary Design	1.200	17.000
Flush-Flo	0.368	16.987
Kick-Flo®	0.814	14.144
Mean Flow		14.562



[hydro-int.com/patents](http://hydro-int.com/patents)



Head (m)	Flow (l/s)
0.000	0.000
0.041	1.268
0.083	4.603
0.124	9.109
0.166	13.480
0.207	16.080
0.248	16.546
0.290	16.820
0.331	16.954
0.372	16.987
0.414	16.949
0.455	16.867
0.497	16.756
0.538	16.625
0.579	16.475
0.621	16.293
0.662	16.059
0.703	15.742
0.745	15.302
0.786	14.693
0.828	14.258
0.869	14.590
0.910	14.915
0.952	15.231
0.993	15.541
1.034	15.844
1.076	16.141
1.117	16.433
1.159	16.719
1.200	16.999

### DESIGN ADVICE

The head/flow characteristics of this SHE-0182-1700-1200-1700 Hydro-Brake Optimum® Flow Control are unique. Dynamic hydraulic modelling evaluates the full head/flow characteristic curve.



**The use of any other flow control will invalidate any design based on this data and could constitute a flood risk.**



DATE	26/06/2023 13:58
Site	High grange
DESIGNER	richard bland
Ref	S63

SHE-0182-1700-1200-1700  
Hydro-Brake Optimum®

## Technical Specification

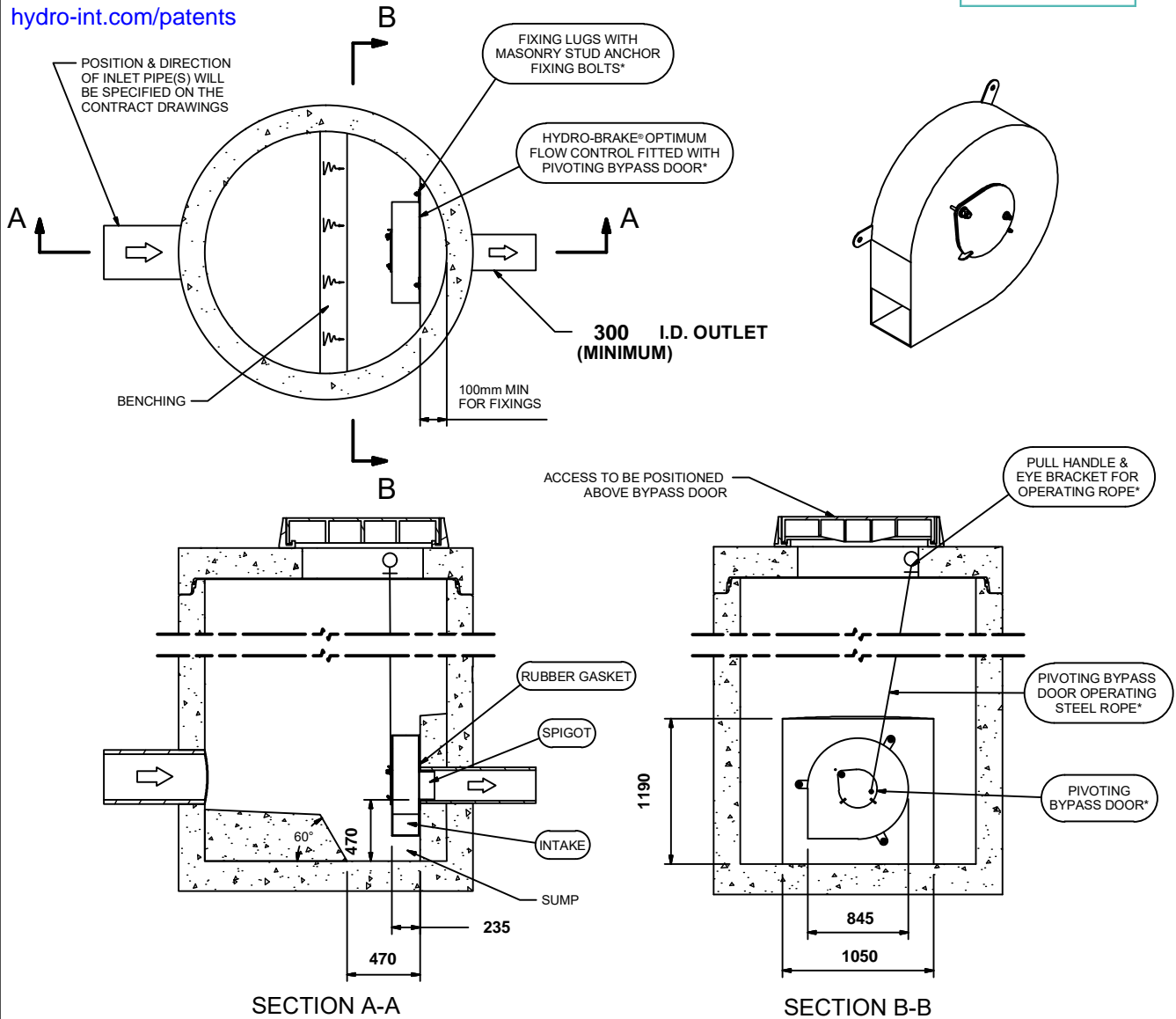
Control Point	Head (m)	Flow (l/s)
Primary Design	1.295	29.000
Flush-Flo™	0.419	28.997
Kick-Flo®	0.909	24.476
Mean Flow		24.628

Hydro-Brake® Optimum Flow Control including:

- 5 mm grade 304L stainless steel
- Integral stainless steel pivoting by-pass door allowing clear line of sight through to outlet, c/w stainless steel operating rope
- Beed blasted finish to maximise corrosion resistance
- Stainless steel fixings
- Rubber gasket to seal outlet
- Indicative Weight: 70 kg



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**IMPORTANT:** ○ LIMIT OF HYDRO INTERNATIONAL SUPPLY  
 THE DEVICE WILL BE HANDED TO SUIT SITE CONDITIONS  
 FOR SITE SPECIFIC DETAILS AND MINIMUM CHAMBER SIZE REFER TO HYDRO INTERNATIONAL  
 ALL CIVIL AND INSTALLATION WORK BY OTHERS  
 \* WHERE SUPPLIED  
 HYDRO-BRAKE® FLOW CONTROL & HYDRO-BRAKE® OPTIMUM FLOW CONTROL ARE REGISTERED TRADEMARKS FOR FLOW  
 CONTROLS DESIGNED AND MANUFACTURED EXCLUSIVELY BY HYDRO INTERNATIONAL

**THIS DESIGN LAYOUT IS FOR ILLUSTRATIVE PURPOSES ONLY. NOT TO SCALE.**

### DESIGN ADVICE



The head/flow characteristics of this SHE-0230-2900-1295-2900 Hydro-Brake® Optimum Flow Control are unique. Dynamic hydraulic modelling evaluates the full head/flow characteristic curve.  
**The use of any other flow control will invalidate any design based on this data and could constitute a flood risk.**

**Hydro  
International**

DATE 11/08/2023 07:03

SITE High grange

DESIGNER richard bland

REF S30

SHE-0230-2900-1295-2900

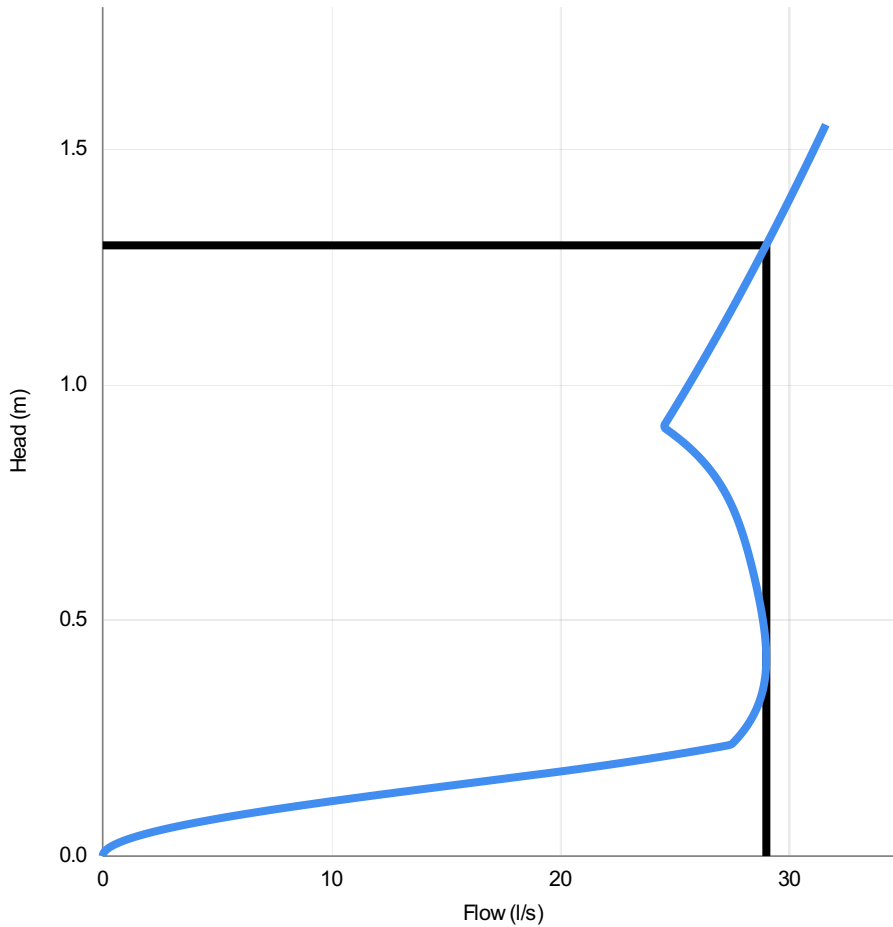
Hydro-Brake® Optimum

## Technical Specification

Control Point	Head (m)	Flow (l/s)
Primary Design	1.295	29.000
Flush-Flo	0.419	28.997
Kick-Flo®	0.909	24.476
Mean Flow		24.628



[hydro-int.com/patents](http://hydro-int.com/patents)



Head (m)	Flow (l/s)
0.000	0.000
0.045	1.685
0.089	6.229
0.134	12.699
0.179	19.872
0.223	25.975
0.268	28.036
0.313	28.573
0.357	28.870
0.402	28.989
0.447	28.978
0.491	28.878
0.536	28.722
0.581	28.528
0.625	28.306
0.670	28.049
0.714	27.736
0.759	27.329
0.804	26.776
0.848	26.012
0.893	24.966
0.938	24.847
0.982	25.404
1.027	25.948
1.072	26.480
1.116	27.001
1.161	27.512
1.206	28.013
1.250	28.504
1.295	28.986

### DESIGN ADVICE

The head/flow characteristics of this SHE-0230-2900-1295-2900 Hydro-Brake Optimum® Flow Control are unique. Dynamic hydraulic modelling evaluates the full head/flow characteristic curve.




**The use of any other flow control will invalidate any design based on this data and could constitute a flood risk.**



DATE	11/08/2023 07:03
Site	High grange
DESIGNER	richard bland
Ref	S30














SHE-0230-2900-1295-2900  
Hydro-Brake Optimum®

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12 Berry Holm Close Sheffield S35 1AB	Cleator Moor 04087452 Surface water design	
Date 17/08/2023 17:11 File BASIN CATCHMENT 15-8-23...	Designed by RAB-Highgrange Checked by	
XP Solutions	Network 2019.1	

STORM SEWER DESIGN by the Modified Rational Method

Network Design Table for BASIN CATCHMENT 15-8-23.SWS


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

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section	Type	Auto Design
1.000	81.127	1.212	66.9	0.000	5.00	0.0	0.600	o	300	Pipe/Conduit		
2.000	21.035	0.084	250.4	0.166	5.00	0.0	0.600	o	1050	Pipe/Conduit		
2.001	6.172	0.041	150.5	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit		
1.001	13.735	0.205	67.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit		
1.002	60.548	0.381	158.9	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit		
3.000	48.450	0.420	115.4	0.155	5.00	0.0	0.600	o	225	Pipe/Conduit		
3.001	34.444	1.037	33.2	0.043	0.00	0.0	0.600	o	225	Pipe/Conduit		
3.002	22.530	0.451	50.0	0.016	0.00	0.0	0.600	o	300	Pipe/Conduit		
4.000	51.221	0.366	139.9	0.201	5.00	0.0	0.600	o	300	Pipe/Conduit		
4.001	12.898	0.092	140.2	0.130	0.00	0.0	0.600	o	300	Pipe/Conduit		
4.002	25.684	0.230	111.7	0.088	0.00	0.0	0.600	o	300	Pipe/Conduit		
4.003	14.656	0.325	45.1	0.054	0.00	0.0	0.600	o	300	Pipe/Conduit		
3.003	55.115	0.950	58.0	0.080	0.00	0.0	0.600	o	375	Pipe/Conduit		

Network Results Table














PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
1.000	33.70	5.70	80.041	0.000	0.0	0.0	0.0	1.92	136.0	0.0
2.000	35.00	5.16	79.052	0.166	0.0	0.0	6.3	2.17	1881.8	22.0
2.001	34.76	5.26	78.918	0.166	0.0	0.0	6.3	1.06	42.3	22.0
1.001	33.43	5.82	78.802	0.166	0.0	0.0	6.3	1.92	136.0	22.0
1.002	31.71	6.63	78.597	0.166	0.0	0.0	6.3	1.24	88.0	22.0
3.000	33.79	5.66	82.970	0.155	0.0	0.0	5.7	1.22	48.4	19.9
3.001	33.22	5.92	82.550	0.198	0.0	0.0	7.1	2.28	90.6	24.9
3.002	32.84	6.08	81.438	0.214	0.0	0.0	7.6	2.23	157.6	26.6
4.000	33.84	5.64	82.000	0.201	0.0	0.0	7.4	1.33	93.8	25.8
4.001	33.46	5.81	81.634	0.331	0.0	0.0	12.0	1.33	93.7	42.0
4.002	32.83	6.09	81.542	0.419	0.0	0.0	14.9	1.49	105.1	52.1
4.003	32.60	6.20	81.312	0.473	0.0	0.0	16.7	2.35	165.9	58.5
3.003	31.81	6.58	80.912	0.767	0.0	0.0	26.4	2.38	263.2	92.5



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12 Berry Holm Close Sheffield S35 1AB	Cleator Moor 04087452 Surface water design	
Date 17/08/2023 17:11 File BASIN CATCHMENT 15-8-23...	Designed by RAB-Highgrange Checked by	
XP Solutions	Network 2019.1	


STORM SEWER DESIGN by the Modified Rational Method

Network Design Table for BASIN CATCHMENT 15-8-23.SWS

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
3.004	14.238	0.255	55.8	0.011	0.00	0.0	0.600	o	450	Pipe/Conduit	
3.005	66.867	0.268	249.5	0.136	0.00	0.0	0.600	o	450	Pipe/Conduit	
5.000	49.026	0.669	73.3	0.235	5.00	0.0	0.600	o	225	Pipe/Conduit	
6.000	28.880	0.175	165.0	0.228	5.00	0.0	0.600	o	225	Pipe/Conduit	
5.001	54.513	0.218	250.1	0.161	0.00	0.0	0.600	o	450	Pipe/Conduit	
5.002	54.599	0.218	250.5	0.340	0.00	0.0	0.600	o	450	Pipe/Conduit	
5.003	6.213	0.025	248.5	0.098	0.00	0.0	0.600	o	450	Pipe/Conduit	
3.006	6.398	0.026	246.1	0.000	0.00	0.0	0.600	o	600	Pipe/Conduit	
7.000	48.215	0.321	150.2	0.135	5.00	0.0	0.600	o	225	Pipe/Conduit	
7.001	22.347	0.149	150.0	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit	
8.000	23.045	0.610	37.8	0.038	5.00	0.0	0.600	o	150	Pipe/Conduit	
7.002	54.284	0.271	200.0	0.032	0.00	0.0	0.600	o	300	Pipe/Conduit	
7.003	11.838	0.519	22.8	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	











Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
3.004	31.63	6.67	79.887	0.778	0.0	0.0	26.7	2.73	433.4	93.3
3.005	30.03	7.54	79.632	0.914	0.0	0.0	29.7	1.28	204.0	104.1
5.000	34.09	5.53	80.720	0.235	0.0	0.0	8.7	1.53	60.8	30.4
6.000	34.24	5.47	80.226	0.228	0.0	0.0	8.5	1.02	40.4	29.6
5.001	32.50	6.24	79.826	0.624	0.0	0.0	22.0	1.28	203.7	76.9
5.002	31.08	6.95	79.608	0.964	0.0	0.0	32.5	1.28	203.6	113.6
5.003	30.93	7.03	79.390	1.062	0.0	0.0	35.6	1.29	204.4	124.6
3.006	29.91	7.61	79.214	1.976	0.0	0.0	64.0	1.55	437.7	224.1
7.000	33.58	5.75	81.225	0.135	0.0	0.0	4.9	1.06	42.3	17.2
7.001	32.80	6.10	80.904	0.135	0.0	0.0	4.9	1.07	42.4	17.2
8.000	34.82	5.23	81.440	0.038	0.0	0.0	1.4	1.64	29.0	5.0
7.002	31.15	6.92	80.680	0.205	0.0	0.0	6.9	1.11	78.3	24.2
7.003	31.03	6.98	80.409	0.205	0.0	0.0	6.9	3.31	233.7	24.2

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12 Berry Holm Close Sheffield S35 1AB	Cleator Moor 04087452 Surface water design	
Date 17/08/2023 17:11 File BASIN CATCHMENT 15-8-23...	Designed by RAB-Highgrange Checked by	
XP Solutions	Network 2019.1	


STORM SEWER DESIGN by the Modified Rational Method

Network Design Table for BASIN CATCHMENT 15-8-23.SWS

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
9.000	11.149	0.074	150.7	0.027	5.00	0.0	0.600	o	225	Pipe/Conduit	
7.004	51.602	0.211	244.6	0.130	0.00	0.0	0.600	o	300	Pipe/Conduit	
7.005	26.930	0.110	244.8	0.044	0.00	0.0	0.600	o	300	Pipe/Conduit	
7.006	11.423	0.081	141.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
3.007	9.686#	0.039	248.4	0.025	0.00	0.0	0.600	o	600	Pipe/Conduit	
3.008	8.242#	0.245	33.6	0.000	0.00	0.0	0.600	o	600	Pipe/Conduit	
3.009	7.967	0.389	20.5	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
1.003	34.722	0.216	160.8	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
1.004	81.040	0.492	164.7	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
1.005	42.176	0.321	131.4	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
9.000	34.96	5.17	80.039	0.027	0.0	0.0	1.0	1.06	42.3	3.6
7.004	29.51	7.84	79.890	0.362	0.0	0.0	11.6	1.00	70.7	40.5
7.005	28.79	8.29	79.679	0.406	0.0	0.0	12.7	1.00	70.7	44.3
7.006	28.57	8.43	79.569	0.406	0.0	0.0	12.7	1.32	93.4	44.3
3.007	28.41	8.54	79.188	2.407	0.0	0.0	74.1	1.54	435.6	259.3
3.008	28.36	8.57	78.900	2.407	0.0	0.0	74.1	4.21	1189.9	259.3
3.009	28.30	8.61	78.605	2.407	0.0	0.0	74.1	3.49	246.7«	259.3
1.003	27.63	9.08	78.216	2.573	0.0	0.0	77.0	1.24	87.5«	269.5
1.004	26.17	10.18	78.000	2.573	0.0	0.0	77.0	1.22	86.4«	269.5
1.005	25.56	10.69	77.507	2.573	0.0	0.0	77.0	1.37	96.8«	269.5

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Simulation Criteria for BASIN CATCHMENT 14-7-23.SWS

Volumetric Runoff Coeff	0.840	Additional Flow - % of Total Flow	0.000
Areal Reduction Factor	1.000	MADD Factor * 10m <sup>3</sup> /ha Storage	0.000
Hot Start (mins)	0	Inlet Coefficient	0.800
Hot Start Level (mm)	0	Flow per Person per Day (l/per/day)	0.000
Manhole Headloss Coeff (Global)	0.500	Run Time (mins)	60
Foul Sewage per hectare (l/s)	0.000	Output Interval (mins)	1

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	2	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	Winter
Return Period (years)	1	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	16.000	Storm Duration (mins)	15
Ratio R	0.261		

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Online Controls for BASIN CATCHMENT 14-7-23.SWS

Hydro-Brake® Optimum Manhole: 63, DS/PN: 2.001, Volume (m³): 34.1

Unit Reference	MD-SHE-0182-1700-1200-1700
Design Head (m)	1.200
Design Flow (l/s)	17.0
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	182
Invert Level (m)	78.918
Minimum Outlet Pipe Diameter (mm)	225
Suggested Manhole Diameter (mm)	1500


Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	1.200	17.0
Flush-Flo™	0.368	17.0
Kick-Flo®	0.814	14.1
Mean Flow over Head Range	-	14.6

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	6.4	1.200	17.0	3.000	26.3	7.000	39.6
0.200	16.0	1.400	18.3	3.500	28.3	7.500	40.9
0.300	16.9	1.600	19.5	4.000	30.2	8.000	42.2
0.400	17.0	1.800	20.6	4.500	32.0	8.500	43.5
0.500	16.7	2.000	21.7	5.000	33.7	9.000	44.7
0.600	16.4	2.200	22.7	5.500	35.2	9.500	45.9
0.800	14.4	2.400	23.7	6.000	36.8		
1.000	15.6	2.600	24.6	6.500	38.2		

Hydro-Brake® Optimum Manhole: 30, DS/PN: 3.009, Volume (m³): 17.8

Unit Reference	MD-SHE-0230-2900-1295-2900
Design Head (m)	1.295
Design Flow (l/s)	29.0
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	230
Invert Level (m)	78.505
Minimum Outlet Pipe Diameter (mm)	300
Suggested Manhole Diameter (mm)	1800


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Hydro-Brake® Optimum Manhole: 30, DS/PN: 3.009, Volume (m³): 17.8

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	1.295	29.0
Flush-Flo™	0.419	29.0
Kick-Flo®	0.909	24.5
Mean Flow over Head Range	-	24.6

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	7.6	1.200	27.9	3.000	43.4	7.000	65.4
0.200	23.0	1.400	30.1	3.500	46.8	7.500	67.7
0.300	28.4	1.600	32.1	4.000	49.9	8.000	69.8
0.400	29.0	1.800	33.9	4.500	52.8	8.500	71.9
0.500	28.9	2.000	35.7	5.000	55.6	9.000	73.9
0.600	28.4	2.200	37.4	5.500	58.2	9.500	75.9
0.800	26.8	2.400	39.0	6.000	60.7		
1.000	25.6	2.600	40.5	6.500	63.1		


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Storage Structures for BASIN CATCHMENT 14-7-23.SWS

Tank or Pond Manhole: 16, DS/PN: 3.008

Invert Level (m) 78.800


Depth (m)	Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )
0.000	275.0	0.700	1363.0	1.400	1599.0	2.100	1599.0
0.100	945.0	0.800	1440.0	1.500	1599.0	2.200	1599.0
0.200	1007.0	0.900	1519.0	1.600	1599.0	2.300	1599.0
0.300	1074.0	1.000	1599.0	1.700	1599.0	2.400	1599.0
0.400	1143.0	1.100	1599.0	1.800	1599.0	2.500	1599.0
0.500	1214.0	1.200	1599.0	1.900	1599.0		
0.600	1288.0	1.300	1599.0	2.000	1599.0		

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Summary of Results for 15 minute 1 year Winter (BASIN CATCHMENT  
14-7-23.SWS)

Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	22	80.041	-0.300	0.000	0.00		0.0	OK
2.000	64	79.135	-0.967	0.000	0.01		15.6	OK
2.001	63	79.095	-0.048	0.000	0.48		14.4	OK
1.001	62	78.873	-0.229	0.000	0.13		14.4	OK
1.002	23	78.680	-0.217	0.000	0.17		14.1	OK
3.000	80	83.058	-0.137	0.000	0.32		14.6	OK
3.001	94	82.620	-0.155	0.000	0.21		18.2	OK
3.002	95	81.512	-0.226	0.000	0.14		19.5	OK
4.000	50	82.095	-0.205	0.000	0.21		19.0	OK
4.001	60	81.764	-0.170	0.000	0.39		29.7	OK
4.002	51	81.672	-0.170	0.000	0.39		36.6	OK
4.003	52	81.423	-0.189	0.000	0.29		40.6	OK
3.003	53	81.045	-0.242	0.000	0.27		65.8	OK
3.004	55	80.023	-0.314	0.000	0.20		67.0	OK
3.005	6	79.732	-0.250	0.000	0.39		74.7	OK
5.000	1	80.814	-0.131	0.000	0.36		22.4	OK
6.000	2	80.251	-0.100	0.000	0.58		21.9	OK
5.001	34	79.899	-0.277	0.000	0.30		56.3	OK
5.002	35	79.718	-0.240	0.000	0.43		80.8	OK
5.003	36	79.567	-0.173	0.000	0.70		86.2	OK
3.006	10	79.483	-0.232	0.000	0.66		157.3	OK
7.000	3	81.313	-0.137	0.000	0.31		12.7	OK
7.001	4	80.992	-0.137	0.000	0.32		12.6	OK
8.000	9	81.476	-0.114	0.000	0.13		3.7	OK
7.002	5	80.782	-0.198	0.000	0.24		18.1	OK
7.003	7	80.472	-0.237	0.000	0.10		18.1	OK
9.000	12	80.079	-0.185	0.000	0.07		2.6	OK
7.004	8	80.032	-0.158	0.000	0.44		29.2	OK
7.005	13	79.830	-0.149	0.000	0.50		32.0	OK
7.006	14	79.681	-0.188	0.000	0.30		31.8	OK
3.007	11	79.463	-0.225	0.000	0.71		191.8	OK
3.008	16	78.930	-0.470	0.000	0.08		38.5	OK
3.009	30	78.923	0.118	0.000	0.22		29.0	SURCHARGED
1.003	45	78.362	-0.154	0.000	0.47		38.1	OK
1.004	24	78.142	-0.158	0.000	0.44		36.5	OK
1.005	25	77.639	-0.168	0.000	0.40		36.2	OK


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Summary of Results for 30 minute 1 year Winter (BASIN CATCHMENT  
14-7-23.SWS)

Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	22	80.041	-0.300	0.000	0.00		0.0	OK
2.000	64	79.119	-0.983	0.000	0.01		13.1	OK
2.001	63	79.074	-0.069	0.000	0.42		12.5	OK
1.001	62	78.868	-0.234	0.000	0.11		12.5	OK
1.002	23	78.674	-0.223	0.000	0.15		12.3	OK
3.000	80	83.049	-0.146	0.000	0.26		12.2	OK
3.001	94	82.614	-0.161	0.000	0.18		15.3	OK
3.002	95	81.507	-0.231	0.000	0.12		16.5	OK
4.000	50	82.085	-0.215	0.000	0.18		15.8	OK
4.001	60	81.754	-0.180	0.000	0.33		25.3	OK
4.002	51	81.662	-0.180	0.000	0.34		31.8	OK
4.003	52	81.415	-0.197	0.000	0.26		35.7	OK
3.003	53	81.035	-0.252	0.000	0.24		57.8	OK
3.004	55	80.013	-0.324	0.000	0.17		58.4	OK
3.005	6	79.719	-0.263	0.000	0.35		67.2	OK
5.000	1	80.804	-0.141	0.000	0.30		18.7	OK
6.000	2	80.236	-0.115	0.000	0.48		18.1	OK
5.001	34	79.882	-0.294	0.000	0.26		48.1	OK
5.002	35	79.703	-0.255	0.000	0.39		71.8	OK
5.003	36	79.549	-0.191	0.000	0.63		77.6	OK
3.006	10	79.458	-0.256	0.000	0.60		143.7	OK
7.000	3	81.303	-0.147	0.000	0.26		10.6	OK
7.001	4	80.984	-0.145	0.000	0.27		10.6	OK
8.000	9	81.473	-0.117	0.000	0.11		3.0	OK
7.002	5	80.774	-0.206	0.000	0.21		15.6	OK
7.003	7	80.468	-0.241	0.000	0.09		15.6	OK
9.000	12	80.075	-0.189	0.000	0.06		2.1	OK
7.004	8	80.022	-0.167	0.000	0.40		26.5	OK
7.005	13	79.822	-0.157	0.000	0.46		29.3	OK
7.006	14	79.675	-0.194	0.000	0.27		29.3	OK
3.007	11	79.439	-0.249	0.000	0.64		174.1	OK
3.008	16	78.956	-0.444	0.000	0.08		39.0	OK
3.009	30	78.953	0.148	0.000	0.22		29.0	SURCHARGED
1.003	45	78.366	-0.150	0.000	0.50		40.1	OK
1.004	24	78.146	-0.154	0.000	0.47		39.1	OK
1.005	25	77.645	-0.162	0.000	0.43		39.0	OK




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Summary of Results for 60 minute 1 year Winter (BASIN CATCHMENT 14-7-23.SWS)

Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF


PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Pipe Flow / Cap. (l/s)	Overflow Flow (l/s)	Pipe Flow (l/s)	Status
1.000	22	80.041	-0.300	0.000	0.00		0.0	OK
2.000	64	79.097	-1.005	0.000	0.01		9.3	OK
2.001	63	79.044	-0.099	0.000	0.31		9.3	OK
1.001	62	78.859	-0.243	0.000	0.08		9.2	OK
1.002	23	78.663	-0.234	0.000	0.11		9.2	OK
3.000	80	83.036	-0.159	0.000	0.19		8.7	OK
3.001	94	82.604	-0.171	0.000	0.13		11.1	OK
3.002	95	81.497	-0.241	0.000	0.09		12.0	OK
4.000	50	82.071	-0.229	0.000	0.13		11.3	OK
4.001	60	81.734	-0.200	0.000	0.24		18.5	OK
4.002	51	81.643	-0.199	0.000	0.25		23.4	OK
4.003	52	81.400	-0.212	0.000	0.19		26.4	OK
3.003	53	81.017	-0.270	0.000	0.17		42.8	OK
3.004	55	79.994	-0.343	0.000	0.13		43.3	OK
3.005	6	79.690	-0.292	0.000	0.27		50.4	OK
5.000	1	80.790	-0.155	0.000	0.21		13.2	OK
6.000	2	80.217	-0.134	0.000	0.34		12.8	OK
5.001	34	79.858	-0.318	0.000	0.19		34.9	OK
5.002	35	79.672	-0.286	0.000	0.28		53.1	OK
5.003	36	79.507	-0.233	0.000	0.47		58.5	OK
3.006	10	79.403	-0.312	0.000	0.46		108.9	OK
7.000	3	81.291	-0.159	0.000	0.19		7.6	OK
7.001	4	80.971	-0.158	0.000	0.20		7.6	OK
8.000	9	81.468	-0.122	0.000	0.08		2.1	OK
7.002	5	80.758	-0.222	0.000	0.15		11.4	OK
7.003	7	80.457	-0.251	0.000	0.06		11.4	OK
9.000	12	80.069	-0.195	0.000	0.04		1.5	OK
7.004	8	80.002	-0.188	0.000	0.30		19.8	OK
7.005	13	79.801	-0.178	0.000	0.35		22.3	OK
7.006	14	79.661	-0.208	0.000	0.21		22.2	OK
3.007	11	79.383	-0.305	0.000	0.49		132.4	OK
3.008	16	78.976	-0.424	0.000	0.07		36.2	OK
3.009	30	78.972	0.167	0.000	0.22		29.0	SURCHARGED
1.003	45	78.361	-0.155	0.000	0.47		38.0	OK
1.004	24	78.142	-0.158	0.000	0.46		37.9	OK
1.005	25	77.642	-0.165	0.000	0.42		37.8	OK

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Summary of Results for 120 minute 1 year Winter (BASIN CATCHMENT  
14-7-23.SWS)

Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF


PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Overflow Cap. (l/s)	Pipe Flow (l/s)	Status
1.000	22	80.041	-0.300	0.000	0.00	0.0	OK
2.000	64	79.080	-1.022	0.000	0.01	6.4	OK
2.001	63	79.018	-0.125	0.000	0.21	6.4	OK
1.001	62	78.848	-0.254	0.000	0.06	6.4	OK
1.002	23	78.652	-0.245	0.000	0.08	6.3	OK
3.000	80	83.024	-0.171	0.000	0.13	6.0	OK
3.001	94	82.595	-0.180	0.000	0.09	7.7	OK
3.002	95	81.485	-0.253	0.000	0.06	8.3	OK
4.000	50	82.060	-0.240	0.000	0.09	7.8	OK
4.001	60	81.716	-0.218	0.000	0.17	12.8	OK
4.002	51	81.625	-0.217	0.000	0.17	16.2	OK
4.003	52	81.384	-0.228	0.000	0.13	18.2	OK
3.003	53	80.998	-0.289	0.000	0.12	29.5	OK
3.004	55	79.978	-0.359	0.000	0.09	29.9	OK
3.005	6	79.663	-0.319	0.000	0.18	34.9	OK
5.000	1	80.777	-0.168	0.000	0.15	9.1	OK
6.000	2	80.200	-0.151	0.000	0.23	8.8	OK
5.001	34	79.833	-0.343	0.000	0.13	24.1	OK
5.002	35	79.644	-0.314	0.000	0.20	36.9	OK
5.003	36	79.468	-0.272	0.000	0.33	40.5	OK
3.006	10	79.350	-0.364	0.000	0.32	75.2	OK
7.000	3	81.278	-0.172	0.000	0.13	5.2	OK
7.001	4	80.959	-0.170	0.000	0.13	5.2	OK
8.000	9	81.462	-0.128	0.000	0.05	1.5	OK
7.002	5	80.745	-0.235	0.000	0.11	7.9	OK
7.003	7	80.449	-0.260	0.000	0.04	7.9	OK
9.000	12	80.064	-0.200	0.000	0.03	1.0	OK
7.004	8	79.982	-0.207	0.000	0.21	13.8	OK
7.005	13	79.779	-0.199	0.000	0.24	15.5	OK
7.006	14	79.645	-0.224	0.000	0.14	15.4	OK
3.007	11	79.329	-0.358	0.000	0.34	91.8	OK
3.008	16	78.988	-0.412	0.000	0.06	32.0	OK
3.009	30	78.984	0.179	0.000	0.22	29.0	SURCHARGED
1.003	45	78.355	-0.161	0.000	0.44	35.3	OK
1.004	24	78.136	-0.164	0.000	0.42	35.3	OK
1.005	25	77.637	-0.170	0.000	0.39	35.3	OK

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Summary of Results for 180 minute 1 year Winter (BASIN CATCHMENT  
14-7-23.SWS)

Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF


PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Overflow Cap. (1/s)	Pipe Flow (1/s)	Status
1.000	22	80.041	-0.300	0.000	0.00	0.0	OK
2.000	64	79.074	-1.028	0.000	0.00	5.2	OK
2.001	63	79.006	-0.137	0.000	0.17	5.1	OK
1.001	62	78.843	-0.259	0.000	0.05	5.1	OK
1.002	23	78.645	-0.252	0.000	0.06	5.1	OK
3.000	80	83.018	-0.177	0.000	0.10	4.8	OK
3.001	94	82.590	-0.185	0.000	0.07	6.1	OK
3.002	95	81.480	-0.258	0.000	0.05	6.6	OK
4.000	50	82.052	-0.248	0.000	0.07	6.2	OK
4.001	60	81.707	-0.227	0.000	0.13	10.2	OK
4.002	51	81.616	-0.226	0.000	0.14	12.9	OK
4.003	52	81.377	-0.235	0.000	0.11	14.6	OK
3.003	53	80.990	-0.297	0.000	0.10	23.6	OK
3.004	55	79.966	-0.371	0.000	0.07	24.0	OK
3.005	6	79.647	-0.335	0.000	0.15	28.2	OK
5.000	1	80.771	-0.174	0.000	0.12	7.3	OK
6.000	2	80.192	-0.159	0.000	0.19	7.1	OK
5.001	34	79.822	-0.354	0.000	0.10	19.3	OK
5.002	35	79.628	-0.330	0.000	0.16	29.7	OK
5.003	36	79.447	-0.293	0.000	0.26	32.8	OK
3.006	10	79.321	-0.393	0.000	0.26	61.0	OK
7.000	3	81.273	-0.177	0.000	0.10	4.2	OK
7.001	4	80.953	-0.176	0.000	0.11	4.2	OK
8.000	9	81.460	-0.130	0.000	0.04	1.2	OK
7.002	5	80.739	-0.241	0.000	0.09	6.3	OK
7.003	7	80.445	-0.264	0.000	0.04	6.3	OK
9.000	12	80.062	-0.202	0.000	0.02	0.8	OK
7.004	8	79.972	-0.218	0.000	0.17	11.2	OK
7.005	13	79.769	-0.210	0.000	0.20	12.5	OK
7.006	14	79.637	-0.232	0.000	0.12	12.5	OK
3.007	11	79.300	-0.387	0.000	0.27	74.3	OK
3.008	16	78.987	-0.413	0.000	0.07	32.8	OK
3.009	30	78.983	0.178	0.000	0.22	29.0	SURCHARGED
1.003	45	78.352	-0.164	0.000	0.42	34.1	OK
1.004	24	78.133	-0.167	0.000	0.41	34.1	OK
1.005	25	77.634	-0.173	0.000	0.38	34.1	OK

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Summary of Results for 240 minute 1 year Winter (BASIN CATCHMENT  
14-7-23.SWS)

Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF


PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Overflow Cap. (1/s)	Pipe Flow (1/s)	Status
1.000	22	80.041	-0.300	0.000	0.00	0.0	OK
2.000	64	79.070	-1.032	0.000	0.00	4.4	OK
2.001	63	78.998	-0.145	0.000	0.15	4.4	OK
1.001	62	78.840	-0.262	0.000	0.04	4.4	OK
1.002	23	78.641	-0.256	0.000	0.05	4.3	OK
3.000	80	83.015	-0.180	0.000	0.09	4.1	OK
3.001	94	82.586	-0.189	0.000	0.06	5.2	OK
3.002	95	81.477	-0.261	0.000	0.04	5.6	OK
4.000	50	82.047	-0.253	0.000	0.06	5.3	OK
4.001	60	81.701	-0.233	0.000	0.11	8.7	OK
4.002	51	81.610	-0.232	0.000	0.12	11.0	OK
4.003	52	81.372	-0.240	0.000	0.09	12.4	OK
3.003	53	80.984	-0.303	0.000	0.08	20.1	OK
3.004	55	79.959	-0.378	0.000	0.06	20.4	OK
3.005	6	79.638	-0.344	0.000	0.13	23.9	OK
5.000	1	80.767	-0.178	0.000	0.10	6.2	OK
6.000	2	80.186	-0.165	0.000	0.16	6.0	OK
5.001	34	79.816	-0.360	0.000	0.09	16.4	OK
5.002	35	79.618	-0.340	0.000	0.14	25.3	OK
5.003	36	79.434	-0.306	0.000	0.22	27.8	OK
3.006	10	79.304	-0.410	0.000	0.22	51.7	OK
7.000	3	81.270	-0.180	0.000	0.09	3.5	OK
7.001	4	80.950	-0.179	0.000	0.09	3.5	OK
8.000	9	81.458	-0.132	0.000	0.04	1.0	OK
7.002	5	80.733	-0.247	0.000	0.07	5.4	OK
7.003	7	80.442	-0.266	0.000	0.03	5.4	OK
9.000	12	80.060	-0.204	0.000	0.02	0.7	OK
7.004	8	79.965	-0.225	0.000	0.14	9.5	OK
7.005	13	79.760	-0.218	0.000	0.17	10.6	OK
7.006	14	79.632	-0.237	0.000	0.10	10.6	OK
3.007	11	79.283	-0.404	0.000	0.23	63.0	OK
3.008	16	78.980	-0.420	0.000	0.06	31.3	OK
3.009	30	78.976	0.171	0.000	0.22	29.0	SURCHARGED
1.003	45	78.350	-0.166	0.000	0.41	33.3	OK
1.004	24	78.132	-0.168	0.000	0.40	33.3	OK
1.005	25	77.633	-0.174	0.000	0.37	33.3	OK

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Summary of Results for 360 minute 1 year Winter (BASIN CATCHMENT  
14-7-23.SWS)

Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF


PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Overflow Cap. (1/s)	Pipe Flow (1/s)	Status
1.000	22	80.041	-0.300	0.000	0.00	0.0	OK
2.000	64	79.066	-1.036	0.000	0.00	3.4	OK
2.001	63	78.988	-0.155	0.000	0.12	3.4	OK
1.001	62	78.836	-0.266	0.000	0.03	3.4	OK
1.002	23	78.636	-0.261	0.000	0.04	3.4	OK
3.000	80	83.009	-0.186	0.000	0.07	3.2	OK
3.001	94	82.582	-0.193	0.000	0.05	4.1	OK
3.002	95	81.473	-0.265	0.000	0.03	4.4	OK
4.000	50	82.042	-0.258	0.000	0.05	4.2	OK
4.001	60	81.695	-0.239	0.000	0.09	6.9	OK
4.002	51	81.603	-0.239	0.000	0.09	8.7	OK
4.003	52	81.364	-0.248	0.000	0.07	9.8	OK
3.003	53	80.974	-0.313	0.000	0.06	15.9	OK
3.004	55	79.950	-0.387	0.000	0.05	16.1	OK
3.005	6	79.627	-0.355	0.000	0.10	18.9	OK
5.000	1	80.762	-0.183	0.000	0.08	4.9	OK
6.000	2	80.179	-0.172	0.000	0.13	4.7	OK
5.001	34	79.803	-0.373	0.000	0.07	12.9	OK
5.002	35	79.606	-0.352	0.000	0.11	20.0	OK
5.003	36	79.417	-0.323	0.000	0.18	22.0	OK
3.006	10	79.282	-0.433	0.000	0.17	41.0	OK
7.000	3	81.264	-0.186	0.000	0.07	2.8	OK
7.001	4	80.944	-0.185	0.000	0.07	2.8	OK
8.000	9	81.457	-0.133	0.000	0.03	0.8	OK
7.002	5	80.726	-0.254	0.000	0.06	4.3	OK
7.003	7	80.440	-0.269	0.000	0.02	4.3	OK
9.000	12	80.056	-0.208	0.000	0.02	0.6	OK
7.004	8	79.956	-0.233	0.000	0.11	7.5	OK
7.005	13	79.751	-0.228	0.000	0.13	8.4	OK
7.006	14	79.624	-0.244	0.000	0.08	8.4	OK
3.007	11	79.261	-0.427	0.000	0.18	49.9	OK
3.008	16	78.960	-0.440	0.000	0.06	30.1	OK
3.009	30	78.957	0.152	0.000	0.22	29.0	SURCHARGED
1.003	45	78.348	-0.168	0.000	0.40	32.4	OK
1.004	24	78.130	-0.170	0.000	0.39	32.4	OK
1.005	25	77.631	-0.176	0.000	0.36	32.4	OK

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12 Berry Holm Close Sheffield S35 1AB	Mill Hill - Final phase 1year storm Climate change removed	
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Summary of Results for 480 minute 1 year Winter (BASIN CATCHMENT  
14-7-23.SWS)

Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF


PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	22	80.041	-0.300	0.000	0.00		0.0	OK
2.000	64	79.064	-1.038	0.000	0.00		2.9	OK
2.001	63	78.982	-0.161	0.000	0.10		2.9	OK
1.001	62	78.834	-0.268	0.000	0.03		2.9	OK
1.002	23	78.633	-0.264	0.000	0.03		2.9	OK
3.000	80	83.005	-0.190	0.000	0.06		2.7	OK
3.001	94	82.579	-0.196	0.000	0.04		3.4	OK
3.002	95	81.471	-0.267	0.000	0.03		3.7	OK
4.000	50	82.038	-0.262	0.000	0.04		3.5	OK
4.001	60	81.688	-0.246	0.000	0.08		5.8	OK
4.002	51	81.597	-0.245	0.000	0.08		7.3	OK
4.003	52	81.359	-0.253	0.000	0.06		8.2	OK
3.003	53	80.968	-0.319	0.000	0.05		13.4	OK
3.004	55	79.945	-0.392	0.000	0.04		13.6	OK
3.005	6	79.619	-0.363	0.000	0.08		15.9	OK
5.000	1	80.757	-0.188	0.000	0.07		4.1	OK
6.000	2	80.175	-0.176	0.000	0.11		4.0	OK
5.001	34	79.796	-0.380	0.000	0.06		10.9	OK
5.002	35	79.599	-0.359	0.000	0.09		16.8	OK
5.003	36	79.405	-0.335	0.000	0.15		18.5	OK
3.006	10	79.266	-0.449	0.000	0.14		34.4	OK
7.000	3	81.260	-0.190	0.000	0.06		2.4	OK
7.001	4	80.940	-0.189	0.000	0.06		2.4	OK
8.000	9	81.456	-0.134	0.000	0.02		0.7	OK
7.002	5	80.722	-0.258	0.000	0.05		3.6	OK
7.003	7	80.437	-0.272	0.000	0.02		3.6	OK
9.000	12	80.053	-0.211	0.000	0.01		0.5	OK
7.004	8	79.951	-0.238	0.000	0.09		6.3	OK
7.005	13	79.745	-0.234	0.000	0.11		7.1	OK
7.006	14	79.619	-0.250	0.000	0.07		7.1	OK
3.007	11	79.244	-0.443	0.000	0.15		41.9	OK
3.008	16	78.938	-0.462	0.000	0.06		30.3	OK
3.009	30	78.932	0.127	0.000	0.22		29.0	SURCHARGED
1.003	45	78.347	-0.169	0.000	0.40		31.9	OK
1.004	24	78.128	-0.172	0.000	0.38		31.8	OK
1.005	25	77.630	-0.177	0.000	0.35		31.8	OK

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Summary of Results for 600 minute 1 year Winter (BASIN CATCHMENT  
14-7-23.SWS)

Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Overflow Cap. (l/s)	Pipe Flow (l/s)	Status
1.000	22	80.041	-0.300	0.000	0.00	0.0	OK
2.000	64	79.062	-1.040	0.000	0.00	2.5	OK
2.001	63	78.978	-0.165	0.000	0.08	2.5	OK
1.001	62	78.833	-0.269	0.000	0.02	2.5	OK
1.002	23	78.631	-0.266	0.000	0.03	2.5	OK
3.000	80	83.002	-0.193	0.000	0.05	2.4	OK
3.001	94	82.577	-0.198	0.000	0.04	3.0	OK
3.002	95	81.469	-0.269	0.000	0.02	3.3	OK
4.000	50	82.036	-0.264	0.000	0.03	3.1	OK
4.001	60	81.684	-0.250	0.000	0.07	5.0	OK
4.002	51	81.593	-0.249	0.000	0.07	6.4	OK
4.003	52	81.356	-0.256	0.000	0.05	7.2	OK
3.003	53	80.964	-0.323	0.000	0.05	11.7	OK
3.004	55	79.941	-0.396	0.000	0.04	11.8	OK
3.005	6	79.612	-0.370	0.000	0.07	13.9	OK
5.000	1	80.755	-0.190	0.000	0.06	3.6	OK
6.000	2	80.172	-0.179	0.000	0.09	3.5	OK
5.001	34	79.791	-0.385	0.000	0.05	9.5	OK
5.002	35	79.591	-0.367	0.000	0.08	14.7	OK
5.003	36	79.397	-0.343	0.000	0.13	16.2	OK
3.006	10	79.256	-0.459	0.000	0.13	30.1	OK
7.000	3	81.257	-0.193	0.000	0.05	2.1	OK
7.001	4	80.937	-0.192	0.000	0.05	2.1	OK
8.000	9	81.455	-0.135	0.000	0.02	0.6	OK
7.002	5	80.719	-0.261	0.000	0.04	3.1	OK
7.003	7	80.433	-0.275	0.000	0.02	3.1	OK
9.000	12	80.051	-0.213	0.000	0.01	0.4	OK
7.004	8	79.947	-0.243	0.000	0.08	5.5	OK
7.005	13	79.741	-0.238	0.000	0.10	6.2	OK
7.006	14	79.615	-0.254	0.000	0.06	6.2	OK
3.007	11	79.233	-0.454	0.000	0.14	36.6	OK
3.008	16	78.918	-0.482	0.000	0.06	29.9	OK
3.009	30	78.907	0.102	0.000	0.22	29.0	SURCHARGED
1.003	45	78.346	-0.170	0.000	0.39	31.5	OK
1.004	24	78.127	-0.173	0.000	0.38	31.5	OK
1.005	25	77.629	-0.178	0.000	0.35	31.5	OK


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12 Berry Holm Close Sheffield S35 1AB	Mill Hill - Final phase 1year storm Climate change removed	
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XP Solutions	Network 2019.1	

Summary of Results for 720 minute 1 year Winter (BASIN CATCHMENT  
14-7-23.SWS)

Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Overflow Cap. (l/s)	Pipe Flow (l/s)	Status
1.000	22	80.041	-0.300	0.000	0.00	0.0	OK
2.000	64	79.061	-1.041	0.000	0.00	2.3	OK
2.001	63	78.974	-0.169	0.000	0.08	2.3	OK
1.001	62	78.831	-0.271	0.000	0.02	2.3	OK
1.002	23	78.630	-0.267	0.000	0.03	2.3	OK
3.000	80	83.001	-0.194	0.000	0.05	2.1	OK
3.001	94	82.576	-0.199	0.000	0.03	2.7	OK
3.002	95	81.468	-0.270	0.000	0.02	2.9	OK
4.000	50	82.034	-0.266	0.000	0.03	2.7	OK
4.001	60	81.681	-0.253	0.000	0.06	4.5	OK
4.002	51	81.590	-0.252	0.000	0.06	5.7	OK
4.003	52	81.353	-0.259	0.000	0.05	6.4	OK
3.003	53	80.961	-0.326	0.000	0.04	10.4	OK
3.004	55	79.939	-0.398	0.000	0.03	10.6	OK
3.005	6	79.607	-0.375	0.000	0.07	12.5	OK
5.000	1	80.753	-0.192	0.000	0.05	3.2	OK
6.000	2	80.169	-0.182	0.000	0.08	3.1	OK
5.001	34	79.787	-0.389	0.000	0.05	8.5	OK
5.002	35	79.586	-0.372	0.000	0.07	13.1	OK
5.003	36	79.392	-0.348	0.000	0.12	14.5	OK
3.006	10	79.248	-0.466	0.000	0.11	26.9	OK
7.000	3	81.256	-0.194	0.000	0.05	1.8	OK
7.001	4	80.935	-0.194	0.000	0.05	1.8	OK
8.000	9	81.453	-0.137	0.000	0.02	0.5	OK
7.002	5	80.717	-0.263	0.000	0.04	2.8	OK
7.003	7	80.431	-0.278	0.000	0.02	2.8	OK
9.000	12	80.050	-0.214	0.000	0.01	0.4	OK
7.004	8	79.943	-0.247	0.000	0.07	4.9	OK
7.005	13	79.738	-0.241	0.000	0.09	5.5	OK
7.006	14	79.612	-0.256	0.000	0.05	5.5	OK
3.007	11	79.226	-0.462	0.000	0.12	32.8	OK
3.008	16	78.902	-0.498	0.000	0.06	29.5	OK
3.009	30	78.886	0.081	0.000	0.21	29.0	SURCHARGED
1.003	45	78.345	-0.171	0.000	0.39	31.2	OK
1.004	24	78.127	-0.173	0.000	0.37	31.2	OK
1.005	25	77.628	-0.179	0.000	0.35	31.2	OK




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Summary of Results for 60 minute 30 year Winter (BASIN CATCHMENT  
14-7-23.SWS)

Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF


PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	22	80.041	-0.300	0.000	0.00		0.0	OK
2.000	64	79.272	-0.830	0.000	0.02		22.2	OK
2.001	63	79.270	0.127	0.000	0.57		16.9	SURCHARGED
1.001	62	78.879	-0.223	0.000	0.15		16.9	OK
1.002	23	78.688	-0.209	0.000	0.20		16.9	OK
3.000	80	83.078	-0.117	0.000	0.46		21.3	OK
3.001	94	82.638	-0.137	0.000	0.32		27.2	OK
3.002	95	81.532	-0.206	0.000	0.21		29.4	OK
4.000	50	82.115	-0.185	0.000	0.31		27.7	OK
4.001	60	81.803	-0.131	0.000	0.60		45.5	OK
4.002	51	81.714	-0.128	0.000	0.61		57.8	OK
4.003	52	81.458	-0.154	0.000	0.47		65.3	OK
3.003	53	81.085	-0.202	0.000	0.43		106.0	OK
3.004	55	80.062	-0.275	0.000	0.32		107.6	OK
3.005	6	79.836	-0.146	0.000	0.65		123.6	OK
5.000	1	80.836	-0.109	0.000	0.52		32.3	OK
6.000	2	80.285	-0.066	0.000	0.83		31.4	OK
5.001	34	79.947	-0.229	0.000	0.46		85.9	OK
5.002	35	79.855	-0.103	0.000	0.68		126.5	OK
5.003	36	79.751	0.011	0.000	1.12		138.7	SURCHARGED
3.006	10	79.720	0.005	0.000	1.10		262.0	SURCHARGED
7.000	3	81.332	-0.118	0.000	0.46		18.6	OK
7.001	4	81.014	-0.115	0.000	0.48		18.6	OK
8.000	9	81.484	-0.106	0.000	0.19		5.3	OK
7.002	5	80.808	-0.172	0.000	0.38		28.0	OK
7.003	7	80.487	-0.221	0.000	0.15		28.0	OK
9.000	12	80.099	-0.165	0.000	0.10		3.7	OK
7.004	8	80.083	-0.107	0.000	0.73		48.9	OK
7.005	13	79.894	-0.084	0.000	0.86		54.5	OK
7.006	14	79.731	-0.138	0.000	0.51		54.6	OK
3.007	11	79.688	0.000	0.000	1.18		319.8	OK
3.008	16	79.230	-0.170	0.000	0.07		35.1	OK
3.009	30	79.223	0.418	0.000	0.22		29.0	SURCHARGED
1.003	45	78.378	-0.138	0.000	0.57		45.6	OK
1.004	24	78.158	-0.142	0.000	0.55		45.6	OK
1.005	25	77.658	-0.149	0.000	0.50		45.6	OK

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12 Berry Holm Close Sheffield S35 1AB	Mill Hill - Final phase 1year storm Climate change removed	
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Summary of Results for 960 minute 1 year Winter (BASIN CATCHMENT  
14-7-23.SWS)

Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF


PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	22	80.041	-0.300	0.000	0.00		0.0	OK
2.000	64	79.060	-1.042	0.000	0.00		1.9	OK
2.001	63	78.969	-0.174	0.000	0.06		1.9	OK
1.001	62	78.826	-0.276	0.000	0.02		1.9	OK
1.002	23	78.628	-0.269	0.000	0.02		1.9	OK
3.000	80	82.998	-0.197	0.000	0.04		1.8	OK
3.001	94	82.574	-0.201	0.000	0.03		2.3	OK
3.002	95	81.463	-0.275	0.000	0.02		2.5	OK
4.000	50	82.032	-0.268	0.000	0.03		2.3	OK
4.001	60	81.677	-0.257	0.000	0.05		3.8	OK
4.002	51	81.585	-0.257	0.000	0.05		4.8	OK
4.003	52	81.350	-0.262	0.000	0.04		5.4	OK
3.003	53	80.958	-0.329	0.000	0.04		8.8	OK
3.004	55	79.936	-0.401	0.000	0.03		8.9	OK
3.005	6	79.600	-0.382	0.000	0.06		10.5	OK
5.000	1	80.750	-0.195	0.000	0.04		2.7	OK
6.000	2	80.165	-0.186	0.000	0.07		2.6	OK
5.001	34	79.782	-0.394	0.000	0.04		7.1	OK
5.002	35	79.578	-0.380	0.000	0.06		11.0	OK
5.003	36	79.384	-0.356	0.000	0.10		12.2	OK
3.006	10	79.238	-0.476	0.000	0.10		22.6	OK
7.000	3	81.253	-0.197	0.000	0.04		1.5	OK
7.001	4	80.933	-0.196	0.000	0.04		1.5	OK
8.000	9	81.451	-0.139	0.000	0.02		0.4	OK
7.002	5	80.715	-0.265	0.000	0.03		2.3	OK
7.003	7	80.427	-0.282	0.000	0.01		2.3	OK
9.000	12	80.048	-0.216	0.000	0.01		0.3	OK
7.004	8	79.938	-0.252	0.000	0.06		4.1	OK
7.005	13	79.732	-0.247	0.000	0.07		4.6	OK
7.006	14	79.609	-0.260	0.000	0.04		4.6	OK
3.007	11	79.215	-0.473	0.000	0.10		27.6	OK
3.008	16	78.889	-0.511	0.000	0.05		26.9	OK
3.009	30	78.736	-0.069	0.000	0.20		26.9	OK
1.003	45	78.340	-0.176	0.000	0.36		28.8	OK
1.004	24	78.121	-0.179	0.000	0.35		28.8	OK
1.005	25	77.623	-0.184	0.000	0.32		28.8	OK

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12 Berry Holm Close Sheffield S35 1AB	Mill Hill - Final phase 1year storm Climate change removed	
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Summary of Results for 1440 minute 1 year Winter (BASIN CATCHMENT  
14-7-23.SWS)

Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF


PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	22	80.041	-0.300	0.000	0.00		0.0	OK
2.000	64	79.058	-1.044	0.000	0.00		1.5	OK
2.001	63	78.963	-0.180	0.000	0.05		1.5	OK
1.001	62	78.821	-0.281	0.000	0.01		1.5	OK
1.002	23	78.622	-0.275	0.000	0.02		1.5	OK
3.000	80	82.995	-0.200	0.000	0.03		1.4	OK
3.001	94	82.572	-0.203	0.000	0.02		1.8	OK
3.002	95	81.458	-0.280	0.000	0.01		1.9	OK
4.000	50	82.029	-0.271	0.000	0.02		1.8	OK
4.001	60	81.672	-0.262	0.000	0.04		3.0	OK
4.002	51	81.580	-0.262	0.000	0.04		3.8	OK
4.003	52	81.346	-0.266	0.000	0.03		4.2	OK
3.003	53	80.953	-0.334	0.000	0.03		6.9	OK
3.004	55	79.931	-0.406	0.000	0.02		7.0	OK
3.005	6	79.592	-0.390	0.000	0.04		8.2	OK
5.000	1	80.747	-0.198	0.000	0.03		2.1	OK
6.000	2	80.160	-0.191	0.000	0.05		2.0	OK
5.001	34	79.777	-0.399	0.000	0.03		5.6	OK
5.002	35	79.570	-0.388	0.000	0.05		8.7	OK
5.003	36	79.372	-0.368	0.000	0.08		9.5	OK
3.006	10	79.222	-0.492	0.000	0.07		17.7	OK
7.000	3	81.250	-0.200	0.000	0.03		1.2	OK
7.001	4	80.930	-0.199	0.000	0.03		1.2	OK
8.000	9	81.449	-0.141	0.000	0.01		0.3	OK
7.002	5	80.712	-0.268	0.000	0.02		1.8	OK
7.003	7	80.423	-0.286	0.000	0.01		1.8	OK
9.000	12	80.046	-0.218	0.000	0.01		0.2	OK
7.004	8	79.932	-0.258	0.000	0.05		3.2	OK
7.005	13	79.725	-0.254	0.000	0.06		3.6	OK
7.006	14	79.604	-0.264	0.000	0.03		3.6	OK
3.007	11	79.200	-0.488	0.000	0.08		21.6	OK
3.008	16	78.880	-0.520	0.000	0.04		21.3	OK
3.009	30	78.694	-0.111	0.000	0.16		21.3	OK
1.003	45	78.325	-0.191	0.000	0.28		22.8	OK
1.004	24	78.107	-0.193	0.000	0.27		22.8	OK
1.005	25	77.609	-0.198	0.000	0.25		22.8	OK

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12 Berry Holm Close Sheffield S35 1AB	Mill Hill - Final phase 30year storm Climate change removed	
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Summary of Results for 120 minute 30 year Winter (BASIN CATCHMENT  
14-7-23.SWS)

Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	22	80.041	-0.300	0.000	0.00		0.0	OK
2.000	64	79.141	-0.961	0.000	0.01		15.4	OK
2.001	63	79.105	-0.038	0.000	0.51		15.1	OK
1.001	62	78.875	-0.227	0.000	0.13		15.1	OK
1.002	23	78.683	-0.214	0.000	0.18		15.1	OK
3.000	80	83.056	-0.139	0.000	0.31		14.4	OK
3.001	94	82.620	-0.155	0.000	0.22		18.3	OK
3.002	95	81.513	-0.225	0.000	0.14		19.8	OK
4.000	50	82.093	-0.207	0.000	0.21		18.6	OK
4.001	60	81.766	-0.168	0.000	0.40		30.7	OK
4.002	51	81.676	-0.166	0.000	0.41		38.8	OK
4.003	52	81.428	-0.184	0.000	0.32		43.8	OK
3.003	53	81.049	-0.238	0.000	0.29		71.0	OK
3.004	55	80.028	-0.309	0.000	0.21		72.0	OK
3.005	6	79.743	-0.239	0.000	0.45		84.3	OK
5.000	1	80.812	-0.133	0.000	0.35		21.8	OK
6.000	2	80.247	-0.104	0.000	0.56		21.1	OK
5.001	34	79.897	-0.279	0.000	0.31		57.7	OK
5.002	35	79.728	-0.230	0.000	0.48		89.0	OK
5.003	36	79.594	-0.146	0.000	0.79		97.6	OK
3.006	10	79.523	-0.192	0.000	0.76		180.7	OK
7.000	3	81.310	-0.140	0.000	0.31		12.5	OK
7.001	4	80.992	-0.137	0.000	0.32		12.5	OK
8.000	9	81.476	-0.114	0.000	0.13		3.5	OK
7.002	5	80.783	-0.197	0.000	0.25		18.9	OK
7.003	7	80.473	-0.235	0.000	0.10		18.9	OK
9.000	12	80.078	-0.186	0.000	0.07		2.5	OK
7.004	8	80.040	-0.149	0.000	0.50		33.3	OK
7.005	13	79.845	-0.134	0.000	0.58		37.2	OK
7.006	14	79.691	-0.177	0.000	0.35		37.1	OK
3.007	11	79.503	-0.185	0.000	0.81		219.7	OK
3.008	16	79.292	-0.108	0.000	0.06		31.9	OK
3.009	30	79.281	0.476	0.000	0.22		29.0	SURCHARGED
1.003	45	78.374	-0.142	0.000	0.54		43.6	OK
1.004	24	78.154	-0.146	0.000	0.52		43.7	OK
1.005	25	77.654	-0.153	0.000	0.48		43.6	OK

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Simulation Criteria for BASIN CATCHMENT 14-7-23.SWS

Volumetric Runoff Coeff	0.840	Additional Flow - % of Total Flow	0.000
Areal Reduction Factor	1.000	MADD Factor * 10m <sup>3</sup> /ha Storage	0.000
Hot Start (mins)	0	Inlet Coefficient	0.800
Hot Start Level (mm)	0	Flow per Person per Day (l/per/day)	0.000
Manhole Headloss Coeff (Global)	0.500	Run Time (mins)	60
Foul Sewage per hectare (l/s)	0.000	Output Interval (mins)	1

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	2	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	Winter
Return Period (years)	30	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	16.000	Storm Duration (mins)	15
Ratio R	0.261		

Summary of Results for 15 minute 30 year Winter (BASIN CATCHMENT  
14-7-23.SWS)


Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Overflow Cap. (l/s)	Pipe Flow (l/s)	Status
1.000	22	80.041	-0.300	0.000	0.00	0.0	OK
2.000	64	79.382	-0.720	0.000	0.03	36.3	OK
2.001	63	79.377	0.234	0.000	0.57	16.9	SURCHARGED
1.001	62	78.879	-0.223	0.000	0.15	16.9	OK
1.002	23	78.688	-0.209	0.000	0.20	16.9	OK
3.000	80	83.121	-0.074	0.000	0.76	35.2	OK
3.001	94	82.668	-0.107	0.000	0.53	44.9	OK
3.002	95	81.562	-0.176	0.000	0.35	48.6	OK
4.000	50	82.156	-0.144	0.000	0.52	45.6	OK
4.001	60	81.886	-0.048	0.000	0.98	74.7	OK
4.002	51	81.799	-0.043	0.000	1.00	94.1	OK
4.003	52	81.512	-0.100	0.000	0.77	106.1	OK
3.003	53	81.148	-0.139	0.000	0.70	172.5	OK
3.004	55	80.221	-0.116	0.000	0.51	171.1	OK
3.005	6	80.158	0.176	0.000	0.96	182.3	SURCHARGED
5.000	1	80.885	-0.060	0.000	0.86	53.5	OK
6.000	2	80.513	0.162	0.000	1.38	51.8	SURCHARGED
5.001	34	80.305	0.129	0.000	0.69	128.4	SURCHARGED
5.002	35	80.200	0.242	0.000	0.93	173.0	SURCHARGED
5.003	36	80.033	0.293	0.000	1.47	182.9	SURCHARGED
3.006	10	79.930	0.215	0.000	1.50	355.6	SURCHARGED
7.000	3	81.376	-0.074	0.000	0.75	30.5	OK
7.001	4	81.055	-0.074	0.000	0.77	29.9	OK
8.000	9	81.499	-0.091	0.000	0.32	8.8	OK
7.002	5	80.850	-0.130	0.000	0.59	43.7	OK
7.003	7	80.509	-0.200	0.000	0.24	43.8	OK
9.000	12	80.267	0.003	0.000	0.14	5.1	SURCHARGED
7.004	8	80.261	0.072	0.000	1.05	69.8	SURCHARGED
7.005	13	80.075	0.097	0.000	1.07	68.1	SURCHARGED
7.006	14	79.945	0.076	0.000	0.65	68.8	SURCHARGED
3.007	11	79.798	0.111	0.000	1.56	423.5	SURCHARGED
3.008	16	79.074	-0.326	0.000	0.09	45.0	OK
3.009	30	79.070	0.265	0.000	0.22	29.0	SURCHARGED
1.003	45	78.378	-0.138	0.000	0.57	45.8	OK
1.004	24	78.159	-0.141	0.000	0.55	45.6	OK
1.005	25	77.658	-0.149	0.000	0.51	45.6	OK

Summary of Results for 30 minute 30 year Winter (BASIN CATCHMENT  
14-7-23.SWS)

Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Overflow Cap. (l/s)	Pipe Flow (l/s)	Status
1.000	22	80.041	-0.300	0.000	0.00	0.0	OK
2.000	64	79.379	-0.723	0.000	0.03	30.5	OK
2.001	63	79.376	0.233	0.000	0.57	16.9	SURCHARGED
1.001	62	78.879	-0.223	0.000	0.15	16.9	OK
1.002	23	78.688	-0.209	0.000	0.20	16.9	OK
3.000	80	83.103	-0.092	0.000	0.65	29.9	OK
3.001	94	82.656	-0.119	0.000	0.45	38.2	OK
3.002	95	81.550	-0.188	0.000	0.30	41.2	OK
4.000	50	82.139	-0.161	0.000	0.44	38.8	OK
4.001	60	81.846	-0.088	0.000	0.84	64.1	OK
4.002	51	81.758	-0.084	0.000	0.86	81.0	OK
4.003	52	81.491	-0.121	0.000	0.66	91.2	OK
3.003	53	81.123	-0.164	0.000	0.60	147.2	OK
3.004	55	80.097	-0.240	0.000	0.45	149.6	OK
3.005	6	80.035	0.053	0.000	0.88	166.9	SURCHARGED
5.000	1	80.864	-0.081	0.000	0.73	45.7	OK
6.000	2	80.409	0.058	0.000	1.17	43.8	SURCHARGED
5.001	34	80.158	-0.018	0.000	0.62	115.1	OK
5.002	35	80.066	0.108	0.000	0.86	159.5	SURCHARGED
5.003	36	79.923	0.183	0.000	1.37	169.6	SURCHARGED
3.006	10	79.829	0.115	0.000	1.40	333.5	SURCHARGED
7.000	3	81.357	-0.093	0.000	0.64	25.9	OK
7.001	4	81.039	-0.090	0.000	0.67	25.9	OK
8.000	9	81.493	-0.097	0.000	0.27	7.4	OK
7.002	5	80.835	-0.145	0.000	0.52	38.3	OK
7.003	7	80.502	-0.207	0.000	0.21	38.2	OK
9.000	12	80.204	-0.060	0.000	0.14	4.9	OK
7.004	8	80.198	0.009	0.000	0.95	63.5	SURCHARGED
7.005	13	80.040	0.061	0.000	1.01	64.5	SURCHARGED
7.006	14	79.925	0.056	0.000	0.61	65.1	SURCHARGED
3.007	11	79.777	0.090	0.000	1.47	399.0	SURCHARGED
3.008	16	79.154	-0.246	0.000	0.09	44.9	OK
3.009	30	79.151	0.346	0.000	0.22	29.0	SURCHARGED
1.003	45	78.378	-0.138	0.000	0.57	45.8	OK
1.004	24	78.159	-0.141	0.000	0.55	45.7	OK
1.005	25	77.658	-0.149	0.000	0.51	45.7	OK


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XP Solutions	Network 2019.1	

Summary of Results for 180 minute 30 year Winter (BASIN CATCHMENT  
14-7-23.SWS)

Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	22	80.041	-0.300	0.000	0.00		0.0	OK
2.000	64	79.114	-0.988	0.000	0.01		12.1	OK
2.001	63	79.069	-0.074	0.000	0.40		12.0	OK
1.001	62	78.867	-0.235	0.000	0.11		12.0	OK
1.002	23	78.672	-0.225	0.000	0.14		12.0	OK
3.000	80	83.045	-0.150	0.000	0.24		11.3	OK
3.001	94	82.612	-0.163	0.000	0.17		14.4	OK
3.002	95	81.505	-0.233	0.000	0.11		15.5	OK
4.000	50	82.081	-0.219	0.000	0.17		14.6	OK
4.001	60	81.750	-0.184	0.000	0.32		24.1	OK
4.002	51	81.659	-0.183	0.000	0.32		30.4	OK
4.003	52	81.413	-0.199	0.000	0.25		34.3	OK
3.003	53	81.033	-0.254	0.000	0.23		55.6	OK
3.004	55	80.010	-0.327	0.000	0.17		56.4	OK
3.005	6	79.716	-0.266	0.000	0.35		66.1	OK
5.000	1	80.800	-0.145	0.000	0.27		17.1	OK
6.000	2	80.230	-0.121	0.000	0.44		16.6	OK
5.001	34	79.876	-0.300	0.000	0.24		45.3	OK
5.002	35	79.699	-0.259	0.000	0.37		69.7	OK
5.003	36	79.547	-0.193	0.000	0.62		76.9	OK
3.006	10	79.458	-0.257	0.000	0.60		143.1	OK
7.000	3	81.300	-0.150	0.000	0.24		9.8	OK
7.001	4	80.981	-0.148	0.000	0.25		9.8	OK
8.000	9	81.472	-0.118	0.000	0.10		2.8	OK
7.002	5	80.771	-0.209	0.000	0.20		14.8	OK
7.003	7	80.466	-0.243	0.000	0.08		14.8	OK
9.000	12	80.073	-0.191	0.000	0.05		2.0	OK
7.004	8	80.020	-0.170	0.000	0.39		26.1	OK
7.005	13	79.822	-0.157	0.000	0.46		29.3	OK
7.006	14	79.675	-0.193	0.000	0.28		29.4	OK
3.007	11	79.438	-0.250	0.000	0.64		174.3	OK
3.008	16	79.311	-0.089	0.000	0.07		32.3	OK
3.009	30	79.299	0.494	0.000	0.22		29.0	SURCHARGED
1.003	45	78.367	-0.149	0.000	0.50		40.5	OK
1.004	24	78.147	-0.153	0.000	0.49		40.4	OK
1.005	25	77.647	-0.160	0.000	0.45		40.4	OK




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12 Berry Holm Close Sheffield S35 1AB	Mill Hill - Final phase 30year storm Climate change removed	
Date 07/08/2023 12:02 File BASIN CATCHMENT 14-7-23...	Designed by RAB - High Grange Checked by	
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Summary of Results for 240 minute 30 year Winter (BASIN CATCHMENT 14-7-23.SWS)

Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF


PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Pipe		Status
					Flow / Cap. (l/s)	Overflow Flow (l/s)	
1.000	22	80.041	-0.300	0.000	0.00	0.0	OK
2.000	64	79.101	-1.001	0.000	0.01	10.0	OK
2.001	63	79.050	-0.093	0.000	0.33	10.0	OK
1.001	62	78.862	-0.240	0.000	0.09	10.0	OK
1.002	23	78.666	-0.231	0.000	0.12	10.0	OK
3.000	80	83.038	-0.157	0.000	0.20	9.3	OK
3.001	94	82.606	-0.169	0.000	0.14	11.9	OK
3.002	95	81.499	-0.239	0.000	0.09	12.9	OK
4.000	50	82.073	-0.227	0.000	0.14	12.1	OK
4.001	60	81.738	-0.196	0.000	0.26	20.0	OK
4.002	51	81.647	-0.195	0.000	0.27	25.3	OK
4.003	52	81.404	-0.208	0.000	0.21	28.5	OK
3.003	53	81.022	-0.265	0.000	0.19	46.2	OK
3.004	55	79.998	-0.339	0.000	0.14	46.9	OK
3.005	6	79.697	-0.285	0.000	0.29	55.1	OK
5.000	1	80.792	-0.153	0.000	0.23	14.2	OK
6.000	2	80.220	-0.131	0.000	0.37	13.8	OK
5.001	34	79.863	-0.313	0.000	0.20	37.6	OK
5.002	35	79.680	-0.278	0.000	0.31	58.1	OK
5.003	36	79.519	-0.221	0.000	0.52	63.9	OK
3.006	10	79.420	-0.294	0.000	0.50	118.8	OK
7.000	3	81.293	-0.157	0.000	0.20	8.1	OK
7.001	4	80.974	-0.155	0.000	0.21	8.1	OK
8.000	9	81.469	-0.121	0.000	0.08	2.3	OK
7.002	5	80.762	-0.218	0.000	0.17	12.3	OK
7.003	7	80.460	-0.249	0.000	0.07	12.3	OK
9.000	12	80.070	-0.194	0.000	0.05	1.6	OK
7.004	8	80.007	-0.182	0.000	0.33	21.8	OK
7.005	13	79.807	-0.171	0.000	0.38	24.4	OK
7.006	14	79.666	-0.203	0.000	0.23	24.4	OK
3.007	11	79.400	-0.287	0.000	0.53	144.6	OK
3.008	16	79.314	-0.086	0.000	0.06	31.2	OK
3.009	30	79.301	0.496	0.000	0.22	29.0	SURCHARGED
1.003	45	78.362	-0.154	0.000	0.48	38.4	OK
1.004	24	78.143	-0.157	0.000	0.46	38.4	OK
1.005	25	77.643	-0.164	0.000	0.43	38.4	OK

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12 Berry Holm Close Sheffield S35 1AB	Mill Hill - Final phase 30year storm Climate change removed	
Date 07/08/2023 12:03 File BASIN CATCHMENT 14-7-23...	Designed by RAB - High Grange Checked by	
XP Solutions	Network 2019.1	

Summary of Results for 360 minute 30 year Winter (BASIN CATCHMENT  
14-7-23.SWS)

Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF


PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Overflow Cap. (1/s)	Pipe Flow (1/s)	Status
1.000	22	80.041	-0.300	0.000	0.00	0.0	OK
2.000	64	79.087	-1.015	0.000	0.01	7.6	OK
2.001	63	79.029	-0.114	0.000	0.26	7.6	OK
1.001	62	78.853	-0.249	0.000	0.07	7.6	OK
1.002	23	78.658	-0.239	0.000	0.09	7.6	OK
3.000	80	83.029	-0.166	0.000	0.15	7.1	OK
3.001	94	82.599	-0.176	0.000	0.11	9.1	OK
3.002	95	81.490	-0.248	0.000	0.07	9.8	OK
4.000	50	82.064	-0.236	0.000	0.10	9.2	OK
4.001	60	81.725	-0.209	0.000	0.20	15.2	OK
4.002	51	81.634	-0.208	0.000	0.20	19.3	OK
4.003	52	81.391	-0.221	0.000	0.16	21.7	OK
3.003	53	81.006	-0.281	0.000	0.14	35.2	OK
3.004	55	79.984	-0.353	0.000	0.11	35.7	OK
3.005	6	79.675	-0.307	0.000	0.22	42.0	OK
5.000	1	80.782	-0.163	0.000	0.17	10.8	OK
6.000	2	80.207	-0.144	0.000	0.28	10.5	OK
5.001	34	79.843	-0.333	0.000	0.15	28.7	OK
5.002	35	79.656	-0.302	0.000	0.24	44.3	OK
5.003	36	79.485	-0.255	0.000	0.39	48.8	OK
3.006	10	79.374	-0.340	0.000	0.38	90.8	OK
7.000	3	81.283	-0.167	0.000	0.15	6.2	OK
7.001	4	80.964	-0.165	0.000	0.16	6.2	OK
8.000	9	81.464	-0.126	0.000	0.06	1.7	OK
7.002	5	80.751	-0.229	0.000	0.13	9.4	OK
7.003	7	80.452	-0.256	0.000	0.05	9.4	OK
9.000	12	80.066	-0.198	0.000	0.03	1.2	OK
7.004	8	79.991	-0.199	0.000	0.25	16.6	OK
7.005	13	79.789	-0.190	0.000	0.29	18.6	OK
7.006	14	79.653	-0.216	0.000	0.17	18.6	OK
3.007	11	79.354	-0.334	0.000	0.41	110.6	OK
3.008	16	79.306	-0.094	0.000	0.06	30.8	OK
3.009	30	79.294	0.489	0.000	0.22	29.0	SURCHARGED
1.003	45	78.357	-0.159	0.000	0.45	36.1	OK
1.004	24	78.138	-0.162	0.000	0.43	36.1	OK
1.005	25	77.639	-0.168	0.000	0.40	36.1	OK

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12 Berry Holm Close Sheffield S35 1AB	Mill Hill - Final phase 30year storm Climate change removed	
Date 07/08/2023 12:03 File BASIN CATCHMENT 14-7-23...	Designed by RAB - High Grange Checked by	
XP Solutions	Network 2019.1	

Summary of Results for 480 minute 30 year Winter (BASIN CATCHMENT  
14-7-23.SWS)

Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF


PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Overflow Cap. (1/s)	Pipe Flow (1/s)	Status
1.000	22	80.041	-0.300	0.000	0.00	0.0	OK
2.000	64	79.079	-1.023	0.000	0.01	6.3	OK
2.001	63	79.017	-0.126	0.000	0.21	6.3	OK
1.001	62	78.847	-0.255	0.000	0.06	6.3	OK
1.002	23	78.651	-0.246	0.000	0.08	6.3	OK
3.000	80	83.023	-0.172	0.000	0.13	5.9	OK
3.001	94	82.595	-0.180	0.000	0.09	7.5	OK
3.002	95	81.485	-0.253	0.000	0.06	8.1	OK
4.000	50	82.059	-0.241	0.000	0.09	7.6	OK
4.001	60	81.715	-0.219	0.000	0.16	12.5	OK
4.002	51	81.624	-0.218	0.000	0.17	15.9	OK
4.003	52	81.383	-0.229	0.000	0.13	17.9	OK
3.003	53	80.997	-0.290	0.000	0.12	29.0	OK
3.004	55	79.976	-0.361	0.000	0.09	29.4	OK
3.005	6	79.661	-0.321	0.000	0.18	34.6	OK
5.000	1	80.776	-0.169	0.000	0.14	8.9	OK
6.000	2	80.199	-0.152	0.000	0.23	8.6	OK
5.001	34	79.832	-0.344	0.000	0.13	23.6	OK
5.002	35	79.643	-0.315	0.000	0.20	36.5	OK
5.003	36	79.466	-0.274	0.000	0.32	40.2	OK
3.006	10	79.347	-0.367	0.000	0.31	74.8	OK
7.000	3	81.278	-0.172	0.000	0.13	5.1	OK
7.001	4	80.958	-0.171	0.000	0.13	5.1	OK
8.000	9	81.462	-0.128	0.000	0.05	1.4	OK
7.002	5	80.744	-0.236	0.000	0.10	7.8	OK
7.003	7	80.448	-0.260	0.000	0.04	7.8	OK
9.000	12	80.064	-0.200	0.000	0.03	1.0	OK
7.004	8	79.981	-0.208	0.000	0.21	13.7	OK
7.005	13	79.778	-0.201	0.000	0.24	15.4	OK
7.006	14	79.644	-0.225	0.000	0.14	15.4	OK
3.007	11	79.327	-0.361	0.000	0.34	91.1	OK
3.008	16	79.288	-0.112	0.000	0.06	30.5	OK
3.009	30	79.278	0.473	0.000	0.22	29.0	SURCHARGED
1.003	45	78.354	-0.162	0.000	0.43	34.8	OK
1.004	24	78.135	-0.165	0.000	0.42	34.8	OK
1.005	25	77.636	-0.171	0.000	0.39	34.8	OK

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12 Berry Holm Close Sheffield S35 1AB	Mill Hill - Final phase 30year storm Climate change removed	
Date 07/08/2023 12:04 File BASIN CATCHMENT 14-7-23...	Designed by RAB - High Grange Checked by	
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Summary of Results for 600 minute 30 year Winter (BASIN CATCHMENT  
14-7-23.SWS)

Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF


PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Overflow Cap. (1/s)	Pipe Flow (1/s)	Status
1.000	22	80.041	-0.300	0.000	0.00	0.0	OK
2.000	64	79.075	-1.027	0.000	0.00	5.4	OK
2.001	63	79.009	-0.134	0.000	0.18	5.4	OK
1.001	62	78.844	-0.258	0.000	0.05	5.4	OK
1.002	23	78.646	-0.251	0.000	0.06	5.4	OK
3.000	80	83.019	-0.176	0.000	0.11	5.0	OK
3.001	94	82.591	-0.184	0.000	0.08	6.4	OK
3.002	95	81.481	-0.257	0.000	0.05	7.0	OK
4.000	50	82.054	-0.246	0.000	0.07	6.5	OK
4.001	60	81.709	-0.225	0.000	0.14	10.8	OK
4.002	51	81.618	-0.224	0.000	0.14	13.6	OK
4.003	52	81.378	-0.234	0.000	0.11	15.4	OK
3.003	53	80.992	-0.295	0.000	0.10	25.0	OK
3.004	55	79.968	-0.369	0.000	0.08	25.3	OK
3.005	6	79.650	-0.332	0.000	0.16	29.7	OK
5.000	1	80.772	-0.173	0.000	0.12	7.6	OK
6.000	2	80.194	-0.157	0.000	0.20	7.4	OK
5.001	34	79.824	-0.352	0.000	0.11	20.3	OK
5.002	35	79.631	-0.327	0.000	0.17	31.4	OK
5.003	36	79.451	-0.289	0.000	0.28	34.6	OK
3.006	10	79.328	-0.387	0.000	0.27	64.3	OK
7.000	3	81.274	-0.176	0.000	0.11	4.4	OK
7.001	4	80.954	-0.175	0.000	0.11	4.4	OK
8.000	9	81.460	-0.130	0.000	0.04	1.2	OK
7.002	5	80.740	-0.240	0.000	0.09	6.7	OK
7.003	7	80.446	-0.263	0.000	0.04	6.7	OK
9.000	12	80.063	-0.201	0.000	0.02	0.9	OK
7.004	8	79.974	-0.216	0.000	0.18	11.8	OK
7.005	13	79.771	-0.208	0.000	0.21	13.2	OK
7.006	14	79.638	-0.230	0.000	0.12	13.2	OK
3.007	11	79.307	-0.381	0.000	0.29	78.3	OK
3.008	16	79.265	-0.135	0.000	0.06	29.8	OK
3.009	30	79.257	0.452	0.000	0.22	29.0	SURCHARGED
1.003	45	78.352	-0.164	0.000	0.42	34.0	OK
1.004	24	78.133	-0.167	0.000	0.41	34.0	OK
1.005	25	77.634	-0.173	0.000	0.38	34.0	OK

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12 Berry Holm Close Sheffield S35 1AB	Mill Hill - Final phase 30year storm Climate change removed	
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XP Solutions	Network 2019.1	

Summary of Results for 720 minute 30 year Winter (BASIN CATCHMENT 14-7-23.SWS)

Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF


PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Pipe Flow / Overflow Cap. (1/s)	Pipe Flow (1/s)	Status
1.000	22	80.041	-0.300	0.000	0.00	0.0	OK
2.000	64	79.072	-1.030	0.000	0.00	4.8	OK
2.001	63	79.002	-0.141	0.000	0.16	4.8	OK
1.001	62	78.841	-0.261	0.000	0.04	4.8	OK
1.002	23	78.643	-0.254	0.000	0.06	4.8	OK
3.000	80	83.017	-0.178	0.000	0.10	4.5	OK
3.001	94	82.588	-0.187	0.000	0.07	5.7	OK
3.002	95	81.478	-0.260	0.000	0.04	6.2	OK
4.000	50	82.050	-0.250	0.000	0.07	5.8	OK
4.001	60	81.704	-0.230	0.000	0.13	9.5	OK
4.002	51	81.613	-0.229	0.000	0.13	12.0	OK
4.003	52	81.375	-0.237	0.000	0.10	13.6	OK
3.003	53	80.988	-0.299	0.000	0.09	22.0	OK
3.004	55	79.962	-0.375	0.000	0.07	22.4	OK
3.005	6	79.643	-0.339	0.000	0.14	26.3	OK
5.000	1	80.769	-0.176	0.000	0.11	6.8	OK
6.000	2	80.189	-0.162	0.000	0.17	6.6	OK
5.001	34	79.819	-0.357	0.000	0.10	17.9	OK
5.002	35	79.623	-0.335	0.000	0.15	27.7	OK
5.003	36	79.441	-0.299	0.000	0.25	30.5	OK
3.006	10	79.313	-0.401	0.000	0.24	56.8	OK
7.000	3	81.272	-0.178	0.000	0.10	3.9	OK
7.001	4	80.951	-0.178	0.000	0.10	3.9	OK
8.000	9	81.459	-0.131	0.000	0.04	1.1	OK
7.002	5	80.736	-0.244	0.000	0.08	5.9	OK
7.003	7	80.444	-0.265	0.000	0.03	5.9	OK
9.000	12	80.062	-0.202	0.000	0.02	0.8	OK
7.004	8	79.968	-0.221	0.000	0.16	10.4	OK
7.005	13	79.765	-0.214	0.000	0.18	11.7	OK
7.006	14	79.634	-0.234	0.000	0.11	11.7	OK
3.007	11	79.292	-0.395	0.000	0.26	69.2	OK
3.008	16	79.238	-0.162	0.000	0.06	29.8	OK
3.009	30	79.231	0.426	0.000	0.22	29.0	SURCHARGED
1.003	45	78.350	-0.166	0.000	0.42	33.5	OK
1.004	24	78.132	-0.168	0.000	0.40	33.5	OK
1.005	25	77.633	-0.174	0.000	0.37	33.5	OK

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12 Berry Holm Close Sheffield S35 1AB	Mill Hill - Final phase 100year storm 40% Climate change added MADD = 2	
Date 07/08/2023 12:10 File BASIN CATCHMENT 14-7-23...	Designed by RAB - High Grange Checked by	
XP Solutions	Network 2019.1	

Summary of Results for 60 minute 100 year Winter (BASIN CATCHMENT 14-7-23.SWS)

Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF


PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Overflow Cap. (l/s)	Pipe Flow (l/s)	Status
1.000	22	80.041	-0.300	0.000	0.00	0.0	OK
2.000	64	79.927	-0.175	0.000	0.03	38.2	OK
2.001	63	79.916	0.773	0.000	0.57	16.9	SURCHARGED
1.001	62	78.879	-0.223	0.000	0.15	16.9	OK
1.002	23	78.688	-0.209	0.000	0.20	16.9	OK
3.000	80	83.130	-0.065	0.000	0.84	39.1	OK
3.001	94	82.675	-0.100	0.000	0.59	49.9	OK
3.002	95	81.568	-0.170	0.000	0.39	54.0	OK
4.000	50	82.164	-0.136	0.000	0.57	50.7	OK
4.001	60	81.986	0.052	0.000	1.08	81.8	SURCHARGED
4.002	51	81.878	0.036	0.000	1.10	103.2	SURCHARGED
4.003	52	81.524	-0.088	0.000	0.84	116.2	OK
3.003	53	81.218	-0.069	0.000	0.76	187.1	OK
3.004	55	80.680	0.343	0.000	0.56	186.9	SURCHARGED
3.005	6	80.476	0.494	0.000	1.14	215.7	SURCHARGED
5.000	1	81.303	0.358	0.000	0.87	54.3	SURCHARGED
6.000	2	81.061	0.710	0.000	1.38	51.9	SURCHARGED
5.001	34	80.725	0.549	0.000	0.76	141.0	SURCHARGED
5.002	35	80.600	0.642	0.000	1.16	215.7	SURCHARGED
5.003	36	80.305	0.565	0.000	1.91	237.2	SURCHARGED
3.006	10	80.126	0.412	0.000	1.90	452.3	SURCHARGED
7.000	3	81.385	-0.065	0.000	0.84	34.1	OK
7.001	4	81.068	-0.061	0.000	0.88	34.1	OK
8.000	9	81.501	-0.089	0.000	0.35	9.6	OK
7.002	5	80.865	-0.115	0.000	0.69	51.2	OK
7.003	7	80.694	-0.015	0.000	0.29	52.4	OK
9.000	12	80.614	0.350	0.000	0.20	7.1	SURCHARGED
7.004	8	80.605	0.416	0.000	1.21	81.0	SURCHARGED
7.005	13	80.289	0.310	0.000	1.43	90.9	SURCHARGED
7.006	14	80.066	0.197	0.000	0.85	90.8	SURCHARGED
3.007	11	79.921	0.233	0.000	2.02	548.0	SURCHARGED
3.008	16	79.537	0.137	0.000	0.07	35.5	SURCHARGED
3.009	30	79.538	0.733	0.000	0.22	29.0	SURCHARGED
1.003	45	78.378	-0.138	0.000	0.57	45.7	OK
1.004	24	78.159	-0.141	0.000	0.55	45.6	OK
1.005	25	77.658	-0.149	0.000	0.51	45.6	OK

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12 Berry Holm Close Sheffield S35 1AB	Mill Hill - Final phase 30year storm Climate change removed	
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Summary of Results for 960 minute 30 year Winter (BASIN CATCHMENT  
14-7-23.SWS)

Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Overflow Cap. (1/s)	Pipe Flow (1/s)	Status
1.000	22	80.041	-0.300	0.000	0.00	0.0	OK
2.000	64	79.068	-1.034	0.000	0.00	3.9	OK
2.001	63	78.994	-0.149	0.000	0.13	3.9	OK
1.001	62	78.838	-0.264	0.000	0.03	3.9	OK
1.002	23	78.638	-0.259	0.000	0.05	3.9	OK
3.000	80	83.012	-0.183	0.000	0.08	3.7	OK
3.001	94	82.584	-0.191	0.000	0.05	4.7	OK
3.002	95	81.475	-0.263	0.000	0.04	5.1	OK
4.000	50	82.044	-0.256	0.000	0.05	4.7	OK
4.001	60	81.698	-0.236	0.000	0.10	7.8	OK
4.002	51	81.607	-0.235	0.000	0.11	9.9	OK
4.003	52	81.368	-0.244	0.000	0.08	11.2	OK
3.003	53	80.979	-0.308	0.000	0.07	18.1	OK
3.004	55	79.954	-0.383	0.000	0.05	18.4	OK
3.005	6	79.633	-0.349	0.000	0.11	21.6	OK
5.000	1	80.765	-0.180	0.000	0.09	5.5	OK
6.000	2	80.182	-0.169	0.000	0.14	5.4	OK
5.001	34	79.810	-0.366	0.000	0.08	14.7	OK
5.002	35	79.612	-0.346	0.000	0.12	22.8	OK
5.003	36	79.427	-0.313	0.000	0.20	25.1	OK
3.006	10	79.294	-0.420	0.000	0.20	46.7	OK
7.000	3	81.267	-0.183	0.000	0.08	3.2	OK
7.001	4	80.947	-0.182	0.000	0.08	3.2	OK
8.000	9	81.458	-0.132	0.000	0.03	0.9	OK
7.002	5	80.730	-0.250	0.000	0.07	4.8	OK
7.003	7	80.441	-0.267	0.000	0.03	4.8	OK
9.000	12	80.058	-0.206	0.000	0.02	0.6	OK
7.004	8	79.961	-0.229	0.000	0.13	8.5	OK
7.005	13	79.756	-0.223	0.000	0.15	9.6	OK
7.006	14	79.629	-0.240	0.000	0.09	9.6	OK
3.007	11	79.273	-0.415	0.000	0.21	56.8	OK
3.008	16	79.176	-0.224	0.000	0.06	29.4	OK
3.009	30	79.170	0.365	0.000	0.22	29.0	SURCHARGED
1.003	45	78.349	-0.167	0.000	0.41	32.7	OK
1.004	24	78.130	-0.170	0.000	0.39	32.7	OK
1.005	25	77.632	-0.175	0.000	0.36	32.7	OK


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12 Berry Holm Close Sheffield S35 1AB	Mill Hill - Final phase 30year storm Climate change removed	
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Summary of Results for 1440 minute 30 year Winter (BASIN CATCHMENT  
14-7-23.SWS)

Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Overflow Cap. (1/s)	Pipe Flow (1/s)	Status
1.000	22	80.041	-0.300	0.000	0.00	0.0	OK
2.000	64	79.064	-1.038	0.000	0.00	3.0	OK
2.001	63	78.983	-0.160	0.000	0.10	3.0	OK
1.001	62	78.834	-0.268	0.000	0.03	3.0	OK
1.002	23	78.633	-0.264	0.000	0.04	3.0	OK
3.000	80	83.005	-0.190	0.000	0.06	2.8	OK
3.001	94	82.579	-0.196	0.000	0.04	3.5	OK
3.002	95	81.471	-0.267	0.000	0.03	3.8	OK
4.000	50	82.039	-0.261	0.000	0.04	3.6	OK
4.001	60	81.689	-0.245	0.000	0.08	5.9	OK
4.002	51	81.598	-0.244	0.000	0.08	7.5	OK
4.003	52	81.360	-0.252	0.000	0.06	8.4	OK
3.003	53	80.969	-0.318	0.000	0.06	13.7	OK
3.004	55	79.946	-0.391	0.000	0.04	13.9	OK
3.005	6	79.620	-0.362	0.000	0.09	16.3	OK
5.000	1	80.758	-0.187	0.000	0.07	4.2	OK
6.000	2	80.175	-0.176	0.000	0.11	4.1	OK
5.001	34	79.797	-0.379	0.000	0.06	11.1	OK
5.002	35	79.600	-0.358	0.000	0.09	17.2	OK
5.003	36	79.407	-0.333	0.000	0.15	19.0	OK
3.006	10	79.268	-0.447	0.000	0.15	35.3	OK
7.000	3	81.260	-0.190	0.000	0.06	2.4	OK
7.001	4	80.940	-0.189	0.000	0.06	2.4	OK
8.000	9	81.456	-0.134	0.000	0.02	0.7	OK
7.002	5	80.723	-0.257	0.000	0.05	3.7	OK
7.003	7	80.437	-0.271	0.000	0.02	3.7	OK
9.000	12	80.053	-0.211	0.000	0.01	0.5	OK
7.004	8	79.952	-0.238	0.000	0.10	6.5	OK
7.005	13	79.746	-0.233	0.000	0.11	7.3	OK
7.006	14	79.619	-0.249	0.000	0.07	7.3	OK
3.007	11	79.246	-0.441	0.000	0.16	43.0	OK
3.008	16	79.058	-0.342	0.000	0.06	29.1	OK
3.009	30	79.054	0.249	0.000	0.22	29.0	SURCHARGED
1.003	45	78.347	-0.169	0.000	0.40	31.9	OK
1.004	24	78.128	-0.172	0.000	0.38	31.9	OK
1.005	25	77.630	-0.177	0.000	0.35	31.9	OK




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12 Berry Holm Close Sheffield S35 1AB	Mill Hill - Final phase 100year storm 40% Climate change added MADD = 2	
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Summary of Results for 120 minute 100 year Winter (BASIN CATCHMENT 14-7-23.SWS)

Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	22	80.041	-0.300	0.000	0.00		0.0	OK
2.000	64	79.677	-0.425	0.000	0.02		26.5	OK
2.001	63	79.673	0.530	0.000	0.57		16.9	SURCHARGED
1.001	62	78.879	-0.223	0.000	0.15		16.9	OK
1.002	23	78.688	-0.209	0.000	0.20		16.9	OK
3.000	80	83.092	-0.103	0.000	0.57		26.4	OK
3.001	94	82.648	-0.127	0.000	0.40		33.8	OK
3.002	95	81.542	-0.196	0.000	0.26		36.5	OK
4.000	50	82.129	-0.171	0.000	0.39		34.3	OK
4.001	60	81.828	-0.106	0.000	0.74		56.5	OK
4.002	51	81.739	-0.103	0.000	0.76		71.5	OK
4.003	52	81.477	-0.135	0.000	0.58		80.7	OK
3.003	53	81.107	-0.180	0.000	0.53		130.7	OK
3.004	55	80.083	-0.254	0.000	0.39		132.5	OK
3.005	6	80.004	0.022	0.000	0.81		153.9	SURCHARGED
5.000	1	80.851	-0.094	0.000	0.64		40.1	OK
6.000	2	80.354	0.003	0.000	1.02		38.4	SURCHARGED
5.001	34	80.163	-0.013	0.000	0.55		102.1	OK
5.002	35	80.066	0.108	0.000	0.83		155.0	SURCHARGED
5.003	36	79.915	0.175	0.000	1.37		170.2	SURCHARGED
3.006	10	79.823	0.108	0.000	1.36		322.6	SURCHARGED
7.000	3	81.347	-0.103	0.000	0.57		23.0	OK
7.001	4	81.029	-0.100	0.000	0.59		22.9	OK
8.000	9	81.489	-0.101	0.000	0.24		6.5	OK
7.002	5	80.825	-0.155	0.000	0.47		34.8	OK
7.003	7	80.498	-0.211	0.000	0.19		34.7	OK
9.000	12	80.224	-0.040	0.000	0.13		4.5	OK
7.004	8	80.217	0.028	0.000	0.89		59.7	SURCHARGED
7.005	13	80.041	0.063	0.000	1.05		66.9	SURCHARGED
7.006	14	79.920	0.051	0.000	0.63		67.0	SURCHARGED
3.007	11	79.774	0.086	0.000	1.45		393.8	SURCHARGED
3.008	16	79.665	0.265	0.000	0.07		33.1	SURCHARGED
3.009	30	79.664	0.859	0.000	0.22		29.0	SURCHARGED
1.003	45	78.377	-0.139	0.000	0.56		45.1	OK
1.004	24	78.157	-0.143	0.000	0.54		45.1	OK
1.005	25	77.657	-0.150	0.000	0.50		45.1	OK

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12 Berry Holm Close Sheffield S35 1AB	Mill Hill - Final phase 100year storm 40% Climate change added MADD = 2	
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Simulation Criteria for BASIN CATCHMENT 14-7-23.SWS

Volumetric Runoff Coeff	0.840	Additional Flow - % of Total Flow	40.000
Areal Reduction Factor	1.000	MADD Factor * 10m <sup>3</sup> /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	2	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	Winter
Return Period (years)	100	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	16.000	Storm Duration (mins)	15
Ratio R	0.261		

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12 Berry Holm Close Sheffield S35 1AB	Mill Hill - Final phase 100year storm 40% Climate change added MADD = 2	
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Summary of Results for 15 minute 100 year Winter (BASIN CATCHMENT  
14-7-23.SWS)

Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF


PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Overflow Cap. (1/s)	Pipe Flow (1/s)	Status
1.000	22	80.041	-0.300	0.000	0.00	0.0	OK
2.000	64	79.798	-0.304	0.000	0.05	61.1	OK
2.001	63	79.790	0.647	0.000	0.57	16.9	SURCHARGED
1.001	62	78.879	-0.223	0.000	0.15	16.9	OK
1.002	23	78.688	-0.209	0.000	0.20	16.9	OK
3.000	80	83.495	0.300	0.000	1.29	59.7	SURCHARGED
3.001	94	82.717	-0.058	0.000	0.88	75.1	OK
3.002	95	82.035	0.297	0.000	0.56	77.3	SURCHARGED
4.000	50	82.972	0.672	0.000	0.79	69.7	SURCHARGED
4.001	60	82.763	0.829	0.000	1.46	110.6	SURCHARGED
4.002	51	82.598	0.756	0.000	1.45	136.8	SURCHARGED
4.003	52	82.188	0.576	0.000	1.03	143.0	SURCHARGED
3.003	53	81.857	0.570	0.000	0.94	229.6	SURCHARGED
3.004	55	81.007	0.670	0.000	0.69	231.2	SURCHARGED
3.005	6	80.811	0.829	0.000	1.34	254.7	SURCHARGED
5.000	1	82.285	1.340	0.000	1.17	73.3	FLOOD RISK
6.000	2	81.592	1.241	2.271	1.82	68.4	FLOOD
5.001	34	81.234	1.058	0.000	0.92	171.9	FLOOD RISK
5.002	35	81.044	1.086	0.000	1.44	267.4	SURCHARGED
5.003	36	80.582	0.842	0.000	2.37	293.5	SURCHARGED
3.006	10	80.314	0.600	0.000	2.25	535.0	SURCHARGED
7.000	3	81.716	0.266	0.000	1.24	50.2	SURCHARGED
7.001	4	81.357	0.228	0.000	1.12	43.4	SURCHARGED
8.000	9	81.522	-0.068	0.000	0.57	15.8	OK
7.002	5	81.190	0.210	0.000	0.84	62.6	SURCHARGED
7.003	7	81.038	0.329	0.000	0.37	66.4	SURCHARGED
9.000	12	80.882	0.618	0.000	0.22	7.8	SURCHARGED
7.004	8	80.872	0.683	0.000	1.36	90.6	SURCHARGED
7.005	13	80.453	0.474	0.000	1.56	98.9	SURCHARGED
7.006	14	80.180	0.312	0.000	0.93	99.0	SURCHARGED
3.007	11	80.027	0.339	0.000	2.36	638.9	SURCHARGED
3.008	16	79.250	-0.150	0.000	0.11	55.0	OK
3.009	30	79.253	0.448	0.000	0.21	28.9	SURCHARGED
1.003	45	78.377	-0.139	0.000	0.56	45.0	OK
1.004	24	78.157	-0.143	0.000	0.53	43.9	OK
1.005	25	77.654	-0.153	0.000	0.48	43.7	OK

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12 Berry Holm Close Sheffield S35 1AB	Mill Hill - Final phase 100year storm 40% Climate change added MADD = 2	
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Summary of Results for 30 minute 100 year Winter (BASIN CATCHMENT  
14-7-23.SWS)

Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF


PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Overflow Cap. (l/s)	Pipe Flow (l/s)	Status
1.000	22	80.041	-0.300	0.000	0.00	0.0	OK
2.000	64	79.928	-0.174	0.000	0.04	52.2	OK
2.001	63	79.917	0.774	0.000	0.57	16.9	SURCHARGED
1.001	62	78.879	-0.223	0.000	0.15	16.9	OK
1.002	23	78.688	-0.209	0.000	0.20	16.9	OK
3.000	80	83.329	0.134	0.000	1.14	52.9	SURCHARGED
3.001	94	82.702	-0.073	0.000	0.79	67.0	OK
3.002	95	81.908	0.170	0.000	0.51	70.8	SURCHARGED
4.000	50	82.700	0.400	0.000	0.73	64.4	SURCHARGED
4.001	60	82.538	0.604	0.000	1.33	100.8	SURCHARGED
4.002	51	82.394	0.552	0.000	1.34	126.2	SURCHARGED
4.003	52	82.027	0.415	0.000	0.97	134.4	SURCHARGED
3.003	53	81.728	0.441	0.000	0.89	218.2	SURCHARGED
3.004	55	80.975	0.638	0.000	0.65	219.7	SURCHARGED
3.005	6	80.771	0.789	0.000	1.31	249.0	SURCHARGED
5.000	1	82.082	1.137	0.000	1.09	67.8	SURCHARGED
6.000	2	81.591	1.240	0.947	1.71	64.2	FLOOD
5.001	34	81.167	0.991	0.000	0.91	169.5	FLOOD RISK
5.002	35	80.986	1.028	0.000	1.40	260.2	SURCHARGED
5.003	36	80.558	0.818	0.000	2.30	285.6	SURCHARGED
3.006	10	80.299	0.585	0.000	2.23	529.5	SURCHARGED
7.000	3	81.572	0.122	0.000	1.11	45.1	SURCHARGED
7.001	4	81.301	0.172	0.000	1.04	40.3	SURCHARGED
8.000	9	81.514	-0.076	0.000	0.49	13.4	OK
7.002	5	81.159	0.179	0.000	0.82	60.4	SURCHARGED
7.003	7	81.015	0.307	0.000	0.35	62.8	SURCHARGED
9.000	12	80.875	0.611	0.000	0.25	8.8	SURCHARGED
7.004	8	80.866	0.676	0.000	1.36	91.1	SURCHARGED
7.005	13	80.463	0.485	0.000	1.58	100.6	SURCHARGED
7.006	14	80.184	0.316	0.000	0.95	101.0	SURCHARGED
3.007	11	80.021	0.334	0.000	2.34	634.9	SURCHARGED
3.008	16	79.396	-0.004	0.000	0.08	41.7	OK
3.009	30	79.408	0.603	0.000	0.22	29.0	SURCHARGED
1.003	45	78.378	-0.138	0.000	0.57	45.8	OK
1.004	24	78.159	-0.141	0.000	0.55	45.5	OK
1.005	25	77.658	-0.149	0.000	0.50	45.4	OK

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12 Berry Holm Close Sheffield S35 1AB	Mill Hill - Final phase 100year storm 40% Climate change added MADD = 2	
Date 07/08/2023 12:11 File BASIN CATCHMENT 14-7-23...	Designed by RAB - High Grange Checked by	
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Summary of Results for 180 minute 100 year Winter (BASIN CATCHMENT 14-7-23.SWS)

Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF


PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Pipe Flow / Cap. (l/s)	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	22	80.041	-0.300	0.000	0.00		0.0	OK
2.000	64	79.408	-0.694	0.000	0.02		21.3	OK
2.001	63	79.405	0.262	0.000	0.57		16.9	SURCHARGED
1.001	62	78.879	-0.223	0.000	0.15		16.9	OK
1.002	23	78.688	-0.209	0.000	0.20		16.9	OK
3.000	80	83.075	-0.120	0.000	0.45		20.7	OK
3.001	94	82.636	-0.139	0.000	0.31		26.5	OK
3.002	95	81.530	-0.208	0.000	0.21		28.6	OK
4.000	50	82.113	-0.187	0.000	0.30		26.9	OK
4.001	60	81.799	-0.135	0.000	0.58		44.2	OK
4.002	51	81.709	-0.133	0.000	0.59		56.0	OK
4.003	52	81.454	-0.158	0.000	0.46		63.1	OK
3.003	53	81.081	-0.206	0.000	0.42		102.3	OK
3.004	55	80.058	-0.279	0.000	0.31		103.7	OK
3.005	6	79.831	-0.151	0.000	0.64		121.7	OK
5.000	1	80.833	-0.112	0.000	0.50		31.4	OK
6.000	2	80.281	-0.070	0.000	0.81		30.5	OK
5.001	34	79.946	-0.230	0.000	0.45		83.1	OK
5.002	35	79.856	-0.102	0.000	0.69		128.0	OK
5.003	36	79.752	0.012	0.000	1.14		140.9	SURCHARGED
3.006	10	79.737	0.023	0.000	1.11		262.7	SURCHARGED
7.000	3	81.330	-0.120	0.000	0.44		18.0	OK
7.001	4	81.012	-0.117	0.000	0.46		18.0	OK
8.000	9	81.483	-0.107	0.000	0.19		5.1	OK
7.002	5	80.806	-0.174	0.000	0.37		27.3	OK
7.003	7	80.486	-0.222	0.000	0.15		27.3	OK
9.000	12	80.097	-0.167	0.000	0.10		3.6	OK
7.004	8	80.080	-0.110	0.000	0.72		48.1	OK
7.005	13	79.891	-0.087	0.000	0.85		54.0	OK
7.006	14	79.739	-0.129	0.000	0.51		54.0	OK
3.007	11	79.734	0.047	0.000	1.18		320.0	SURCHARGED
3.008	16	79.730	0.330	0.000	0.06		31.9	SURCHARGED
3.009	30	79.721	0.916	0.000	0.22		29.0	SURCHARGED
1.003	45	78.375	-0.141	0.000	0.55		44.3	OK
1.004	24	78.156	-0.144	0.000	0.53		44.3	OK
1.005	25	77.655	-0.152	0.000	0.49		44.3	OK

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12 Berry Holm Close Sheffield S35 1AB	Mill Hill - Final phase 100year storm 40% Climate change added MADD = 2	
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Summary of Results for 240 minute 100 year Winter (BASIN CATCHMENT 14-7-23.SWS)

Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF


PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Pipe Flow / Overflow Cap. (l/s)	Pipe Flow (l/s)	Status
1.000	22	80.041	-0.300	0.000	0.00	0.0	OK
2.000	64	79.215	-0.887	0.000	0.02	18.1	OK
2.001	63	79.210	0.067	0.000	0.56	16.8	SURCHARGED
1.001	62	78.879	-0.223	0.000	0.15	16.8	OK
1.002	23	78.688	-0.209	0.000	0.20	16.8	OK
3.000	80	83.065	-0.130	0.000	0.37	17.1	OK
3.001	94	82.627	-0.148	0.000	0.26	21.9	OK
3.002	95	81.521	-0.217	0.000	0.17	23.7	OK
4.000	50	82.102	-0.198	0.000	0.25	22.2	OK
4.001	60	81.781	-0.153	0.000	0.48	36.6	OK
4.002	51	81.691	-0.151	0.000	0.49	46.3	OK
4.003	52	81.439	-0.173	0.000	0.38	52.3	OK
3.003	53	81.064	-0.223	0.000	0.35	84.8	OK
3.004	55	80.041	-0.296	0.000	0.26	86.0	OK
3.005	6	79.781	-0.201	0.000	0.53	100.9	OK
5.000	1	80.821	-0.124	0.000	0.42	26.0	OK
6.000	2	80.261	-0.090	0.000	0.67	25.2	OK
5.001	34	79.915	-0.261	0.000	0.37	69.0	OK
5.002	35	79.794	-0.164	0.000	0.57	106.4	OK
5.003	36	79.769	0.029	0.000	0.94	117.0	SURCHARGED
3.006	10	79.766	0.052	0.000	0.91	217.4	SURCHARGED
7.000	3	81.319	-0.131	0.000	0.37	14.9	OK
7.001	4	81.001	-0.128	0.000	0.39	14.9	OK
8.000	9	81.479	-0.111	0.000	0.15	4.2	OK
7.002	5	80.793	-0.187	0.000	0.31	22.6	OK
7.003	7	80.479	-0.230	0.000	0.13	22.6	OK
9.000	12	80.085	-0.179	0.000	0.08	3.0	OK
7.004	8	80.057	-0.132	0.000	0.60	39.9	OK
7.005	13	79.865	-0.114	0.000	0.70	44.7	OK
7.006	14	79.768	-0.101	0.000	0.42	44.6	OK
3.007	11	79.763	0.076	0.000	0.98	264.9	SURCHARGED
3.008	16	79.759	0.359	0.000	0.06	31.1	SURCHARGED
3.009	30	79.758	0.953	0.000	0.22	29.0	SURCHARGED
1.003	45	78.372	-0.144	0.000	0.53	42.7	OK
1.004	24	78.153	-0.147	0.000	0.51	42.8	OK
1.005	25	77.652	-0.155	0.000	0.47	42.7	OK

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12 Berry Holm Close Sheffield S35 1AB	Mill Hill - Final phase 100year storm 40% Climate change added MADD = 2	
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Summary of Results for 360 minute 100 year Winter (BASIN CATCHMENT  
14-7-23.SWS)

Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Overflow Cap. (1/s)	Pipe Flow (1/s)	Status
1.000	22	80.041	-0.300	0.000	0.00	0.0	OK
2.000	64	79.128	-0.974	0.000	0.01	13.9	OK
2.001	63	79.088	-0.055	0.000	0.46	13.9	OK
1.001	62	78.872	-0.230	0.000	0.12	13.9	OK
1.002	23	78.678	-0.219	0.000	0.17	13.8	OK
3.000	80	83.051	-0.144	0.000	0.28	12.9	OK
3.001	94	82.617	-0.158	0.000	0.19	16.5	OK
3.002	95	81.509	-0.229	0.000	0.13	17.9	OK
4.000	50	82.088	-0.212	0.000	0.19	16.8	OK
4.001	60	81.759	-0.175	0.000	0.36	27.7	OK
4.002	51	81.668	-0.174	0.000	0.37	35.0	OK
4.003	52	81.421	-0.191	0.000	0.29	39.5	OK
3.003	53	81.042	-0.245	0.000	0.26	64.1	OK
3.004	55	80.021	-0.316	0.000	0.19	65.0	OK
3.005	6	79.790	-0.192	0.000	0.40	76.4	OK
5.000	1	80.806	-0.139	0.000	0.31	19.6	OK
6.000	2	80.239	-0.112	0.000	0.51	19.0	OK
5.001	34	79.887	-0.289	0.000	0.28	52.1	OK
5.002	35	79.800	-0.158	0.000	0.43	80.5	OK
5.003	36	79.782	0.042	0.000	0.72	88.7	SURCHARGED
3.006	10	79.779	0.065	0.000	0.69	165.0	SURCHARGED
7.000	3	81.305	-0.145	0.000	0.28	11.3	OK
7.001	4	80.987	-0.142	0.000	0.29	11.3	OK
8.000	9	81.474	-0.116	0.000	0.12	3.2	OK
7.002	5	80.777	-0.203	0.000	0.23	17.1	OK
7.003	7	80.470	-0.238	0.000	0.09	17.1	OK
9.000	12	80.075	-0.189	0.000	0.06	2.3	OK
7.004	8	80.031	-0.159	0.000	0.45	30.2	OK
7.005	13	79.834	-0.144	0.000	0.53	33.9	OK
7.006	14	79.781	-0.088	0.000	0.32	33.9	OK
3.007	11	79.777	0.089	0.000	0.74	201.0	SURCHARGED
3.008	16	79.773	0.373	0.000	0.06	30.3	SURCHARGED
3.009	30	79.773	0.968	0.000	0.22	29.0	SURCHARGED
1.003	45	78.365	-0.151	0.000	0.50	39.8	OK
1.004	24	78.146	-0.154	0.000	0.48	39.7	OK
1.005	25	77.646	-0.161	0.000	0.44	39.7	OK


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12 Berry Holm Close Sheffield S35 1AB	Mill Hill - Final phase 100year storm 40% Climate change added MADD = 2	
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Summary of Results for 480 minute 100 year Winter (BASIN CATCHMENT 14-7-23.SWS)

Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Pipe Flow / Overflow Cap. (l/s)	Pipe Flow (l/s)	Status
1.000	22	80.041	-0.300	0.000	0.00	0.0	OK
2.000	64	79.109	-0.993	0.000	0.01	11.4	OK
2.001	63	79.062	-0.081	0.000	0.38	11.4	OK
1.001	62	78.865	-0.237	0.000	0.10	11.4	OK
1.002	23	78.670	-0.227	0.000	0.14	11.4	OK
3.000	80	83.043	-0.152	0.000	0.23	10.6	OK
3.001	94	82.610	-0.165	0.000	0.16	13.5	OK
3.002	95	81.503	-0.235	0.000	0.11	14.6	OK
4.000	50	82.079	-0.221	0.000	0.16	13.8	OK
4.001	60	81.746	-0.188	0.000	0.30	22.6	OK
4.002	51	81.655	-0.187	0.000	0.30	28.7	OK
4.003	52	81.410	-0.202	0.000	0.23	32.4	OK
3.003	53	81.029	-0.258	0.000	0.21	52.5	OK
3.004	55	80.006	-0.331	0.000	0.16	53.2	OK
3.005	6	79.784	-0.198	0.000	0.33	62.5	OK
5.000	1	80.797	-0.148	0.000	0.26	16.1	OK
6.000	2	80.227	-0.124	0.000	0.41	15.6	OK
5.001	34	79.871	-0.305	0.000	0.23	42.7	OK
5.002	35	79.794	-0.164	0.000	0.35	66.0	OK
5.003	36	79.776	0.036	0.000	0.59	72.7	SURCHARGED
3.006	10	79.773	0.059	0.000	0.57	134.5	SURCHARGED
7.000	3	81.297	-0.153	0.000	0.23	9.2	OK
7.001	4	80.978	-0.151	0.000	0.24	9.2	OK
8.000	9	81.471	-0.119	0.000	0.09	2.6	OK
7.002	5	80.768	-0.212	0.000	0.19	14.0	OK
7.003	7	80.464	-0.245	0.000	0.08	14.0	OK
9.000	12	80.072	-0.192	0.000	0.05	1.8	OK
7.004	8	80.016	-0.174	0.000	0.37	24.8	OK
7.005	13	79.817	-0.162	0.000	0.44	27.8	OK
7.006	14	79.774	-0.094	0.000	0.26	27.8	OK
3.007	11	79.771	0.083	0.000	0.60	163.7	SURCHARGED
3.008	16	79.767	0.367	0.000	0.06	29.7	SURCHARGED
3.009	30	79.767	0.962	0.000	0.22	29.0	SURCHARGED
1.003	45	78.359	-0.157	0.000	0.47	37.5	OK
1.004	24	78.140	-0.160	0.000	0.45	37.4	OK
1.005	25	77.641	-0.166	0.000	0.41	37.4	OK




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12 Berry Holm Close Sheffield S35 1AB	Mill Hill - Final phase 100year storm 40% Climate change added MADD = 2	
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Summary of Results for 600 minute 100 year Winter (BASIN CATCHMENT 14-7-23.SWS)

Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF


PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Pipe		Status
					Flow / Cap. (l/s)	Overflow Flow (l/s)	
1.000	22	80.041	-0.300	0.000	0.00	0.0	OK
2.000	64	79.099	-1.003	0.000	0.01	9.7	OK
2.001	63	79.048	-0.095	0.000	0.33	9.7	OK
1.001	62	78.861	-0.241	0.000	0.09	9.7	OK
1.002	23	78.665	-0.232	0.000	0.12	9.7	OK
3.000	80	83.037	-0.158	0.000	0.20	9.1	OK
3.001	94	82.605	-0.170	0.000	0.14	11.6	OK
3.002	95	81.498	-0.240	0.000	0.09	12.5	OK
4.000	50	82.072	-0.228	0.000	0.13	11.8	OK
4.001	60	81.736	-0.198	0.000	0.26	19.4	OK
4.002	51	81.646	-0.196	0.000	0.26	24.5	OK
4.003	52	81.403	-0.209	0.000	0.20	27.7	OK
3.003	53	81.020	-0.267	0.000	0.18	44.9	OK
3.004	55	79.997	-0.340	0.000	0.14	45.5	OK
3.005	6	79.776	-0.206	0.000	0.28	53.5	OK
5.000	1	80.791	-0.154	0.000	0.22	13.8	OK
6.000	2	80.218	-0.133	0.000	0.35	13.3	OK
5.001	34	79.861	-0.315	0.000	0.20	36.5	OK
5.002	35	79.794	-0.164	0.000	0.30	56.4	OK
5.003	36	79.768	0.028	0.000	0.50	62.2	SURCHARGED
3.006	10	79.766	0.051	0.000	0.48	114.6	SURCHARGED
7.000	3	81.292	-0.158	0.000	0.20	7.9	OK
7.001	4	80.973	-0.156	0.000	0.20	7.9	OK
8.000	9	81.468	-0.122	0.000	0.08	2.2	OK
7.002	5	80.760	-0.220	0.000	0.16	12.0	OK
7.003	7	80.459	-0.250	0.000	0.07	12.0	OK
9.000	12	80.069	-0.195	0.000	0.04	1.6	OK
7.004	8	80.005	-0.184	0.000	0.32	21.2	OK
7.005	13	79.805	-0.173	0.000	0.37	23.8	OK
7.006	14	79.767	-0.102	0.000	0.22	23.8	OK
3.007	11	79.763	0.076	0.000	0.51	139.5	SURCHARGED
3.008	16	79.759	0.359	0.000	0.06	29.5	SURCHARGED
3.009	30	79.753	0.948	0.000	0.22	29.0	SURCHARGED
1.003	45	78.356	-0.160	0.000	0.45	36.1	OK
1.004	24	78.138	-0.162	0.000	0.43	36.0	OK
1.005	25	77.639	-0.168	0.000	0.40	36.0	OK

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12 Berry Holm Close Sheffield S35 1AB	Mill Hill - Final phase 100year storm 40% Climate change added MADD = 2	
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Summary of Results for 720 minute 100 year Winter (BASIN CATCHMENT 14-7-23.SWS)

Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF


PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Pipe		Status
					Flow / Cap. (l/s)	Overflow Flow (l/s)	
1.000	22	80.041	-0.300	0.000	0.00	0.0	OK
2.000	64	79.092	-1.010	0.000	0.01	8.5	OK
2.001	63	79.037	-0.106	0.000	0.29	8.5	OK
1.001	62	78.856	-0.246	0.000	0.08	8.5	OK
1.002	23	78.661	-0.236	0.000	0.10	8.5	OK
3.000	80	83.032	-0.163	0.000	0.17	8.0	OK
3.001	94	82.601	-0.174	0.000	0.12	10.2	OK
3.002	95	81.494	-0.244	0.000	0.08	11.0	OK
4.000	50	82.068	-0.232	0.000	0.12	10.4	OK
4.001	60	81.730	-0.204	0.000	0.22	17.0	OK
4.002	51	81.639	-0.203	0.000	0.23	21.6	OK
4.003	52	81.396	-0.216	0.000	0.18	24.4	OK
3.003	53	81.012	-0.275	0.000	0.16	39.5	OK
3.004	55	79.990	-0.347	0.000	0.12	40.1	OK
3.005	6	79.765	-0.217	0.000	0.25	47.1	OK
5.000	1	80.787	-0.158	0.000	0.19	12.1	OK
6.000	2	80.212	-0.139	0.000	0.31	11.7	OK
5.001	34	79.852	-0.324	0.000	0.17	32.1	OK
5.002	35	79.794	-0.164	0.000	0.27	49.6	OK
5.003	36	79.758	0.018	0.000	0.44	54.7	SURCHARGED
3.006	10	79.755	0.041	0.000	0.42	100.9	SURCHARGED
7.000	3	81.287	-0.163	0.000	0.17	7.0	OK
7.001	4	80.968	-0.161	0.000	0.18	7.0	OK
8.000	9	81.466	-0.124	0.000	0.07	2.0	OK
7.002	5	80.755	-0.225	0.000	0.14	10.6	OK
7.003	7	80.455	-0.253	0.000	0.06	10.6	OK
9.000	12	80.067	-0.197	0.000	0.04	1.4	OK
7.004	8	79.997	-0.193	0.000	0.28	18.6	OK
7.005	13	79.797	-0.182	0.000	0.33	20.9	OK
7.006	14	79.757	-0.112	0.000	0.20	20.9	OK
3.007	11	79.753	0.065	0.000	0.45	122.7	SURCHARGED
3.008	16	79.749	0.349	0.000	0.06	29.4	SURCHARGED
3.009	30	79.742	0.937	0.000	0.22	29.0	SURCHARGED
1.003	45	78.354	-0.162	0.000	0.44	35.2	OK
1.004	24	78.136	-0.164	0.000	0.42	35.2	OK
1.005	25	77.637	-0.170	0.000	0.39	35.2	OK

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12 Berry Holm Close Sheffield S35 1AB	Mill Hill - Final phase 100year storm 40% Climate change added MADD = 2	
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XP Solutions	Network 2019.1	

Summary of Results for 960 minute 100 year Winter (BASIN CATCHMENT 14-7-23.SWS)

Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF


PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Pipe		Status
					Flow / Cap. (l/s)	Overflow Flow (l/s)	
1.000	22	80.041	-0.300	0.000	0.00	0.0	OK
2.000	64	79.083	-1.019	0.000	0.01	7.0	OK
2.001	63	79.023	-0.120	0.000	0.23	7.0	OK
1.001	62	78.850	-0.252	0.000	0.06	7.0	OK
1.002	23	78.655	-0.242	0.000	0.08	7.0	OK
3.000	80	83.026	-0.169	0.000	0.14	6.5	OK
3.001	94	82.597	-0.178	0.000	0.10	8.3	OK
3.002	95	81.487	-0.251	0.000	0.06	9.0	OK
4.000	50	82.062	-0.238	0.000	0.10	8.4	OK
4.001	60	81.720	-0.214	0.000	0.18	13.9	OK
4.002	51	81.629	-0.213	0.000	0.19	17.6	OK
4.003	52	81.387	-0.225	0.000	0.14	19.9	OK
3.003	53	81.002	-0.285	0.000	0.13	32.2	OK
3.004	55	79.981	-0.356	0.000	0.10	32.7	OK
3.005	6	79.756	-0.226	0.000	0.20	38.4	OK
5.000	1	80.779	-0.166	0.000	0.16	9.9	OK
6.000	2	80.203	-0.148	0.000	0.25	9.6	OK
5.001	34	79.840	-0.336	0.000	0.14	26.2	OK
5.002	35	79.786	-0.172	0.000	0.22	40.5	OK
5.003	36	79.740	0.000	0.000	0.36	44.6	OK
3.006	10	79.726	0.012	0.000	0.35	82.5	SURCHARGED
7.000	3	81.281	-0.169	0.000	0.14	5.7	OK
7.001	4	80.961	-0.168	0.000	0.15	5.7	OK
8.000	9	81.463	-0.127	0.000	0.06	1.6	OK
7.002	5	80.748	-0.232	0.000	0.12	8.6	OK
7.003	7	80.450	-0.258	0.000	0.05	8.6	OK
9.000	12	80.065	-0.199	0.000	0.03	1.1	OK
7.004	8	79.986	-0.203	0.000	0.23	15.2	OK
7.005	13	79.784	-0.195	0.000	0.27	17.1	OK
7.006	14	79.728	-0.141	0.000	0.16	17.1	OK
3.007	11	79.724	0.036	0.000	0.37	100.4	SURCHARGED
3.008	16	79.720	0.320	0.000	0.06	29.5	SURCHARGED
3.009	30	79.719	0.914	0.000	0.22	29.0	SURCHARGED
1.003	45	78.352	-0.164	0.000	0.42	34.1	OK
1.004	24	78.133	-0.167	0.000	0.41	34.1	OK
1.005	25	77.634	-0.173	0.000	0.38	34.2	OK


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12 Berry Holm Close Sheffield S35 1AB	Mill Hill - Final phase 100year storm 40% Climate change added MADD = 2	
Date 07/08/2023 12:24 File BASIN CATCHMENT 14-7-23...	Designed by RAB - High Grange Checked by	
XP Solutions	Network 2019.1	

Summary of Results for 1440 minute 100 year Winter (BASIN CATCHMENT 14-7-23.SWS)

Margin for Flood Risk Warning (mm) 200.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status ON  
 Inertia Status OFF

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Pipe		Status
					Flow / Cap. (1/s)	Overflow Flow (1/s)	
1.000	22	80.041	-0.300	0.000	0.00	0.0	OK
2.000	64	79.074	-1.028	0.000	0.00	5.2	OK
2.001	63	79.007	-0.136	0.000	0.17	5.2	OK
1.001	62	78.843	-0.259	0.000	0.05	5.2	OK
1.002	23	78.645	-0.252	0.000	0.06	5.2	OK
3.000	80	83.018	-0.177	0.000	0.11	4.9	OK
3.001	94	82.590	-0.185	0.000	0.07	6.2	OK
3.002	95	81.480	-0.258	0.000	0.05	6.7	OK
4.000	50	82.052	-0.248	0.000	0.07	6.3	OK
4.001	60	81.707	-0.227	0.000	0.14	10.4	OK
4.002	51	81.616	-0.226	0.000	0.14	13.2	OK
4.003	52	81.377	-0.235	0.000	0.11	14.9	OK
3.003	53	80.990	-0.297	0.000	0.10	24.1	OK
3.004	55	79.967	-0.370	0.000	0.07	24.5	OK
3.005	6	79.730	-0.252	0.000	0.15	28.7	OK
5.000	1	80.771	-0.174	0.000	0.12	7.4	OK
6.000	2	80.192	-0.159	0.000	0.19	7.2	OK
5.001	34	79.823	-0.353	0.000	0.11	19.6	OK
5.002	35	79.759	-0.199	0.000	0.16	30.3	OK
5.003	36	79.740	0.000	0.000	0.27	33.4	OK
3.006	10	79.714	0.000	0.000	0.26	61.8	OK
7.000	3	81.273	-0.177	0.000	0.10	4.2	OK
7.001	4	80.953	-0.176	0.000	0.11	4.2	OK
8.000	9	81.460	-0.130	0.000	0.04	1.2	OK
7.002	5	80.739	-0.241	0.000	0.09	6.4	OK
7.003	7	80.445	-0.264	0.000	0.04	6.4	OK
9.000	12	80.062	-0.202	0.000	0.02	0.8	OK
7.004	8	79.972	-0.217	0.000	0.17	11.4	OK
7.005	13	79.769	-0.209	0.000	0.20	12.8	OK
7.006	14	79.693	-0.175	0.000	0.12	12.8	OK
3.007	11	79.688	0.000	0.000	0.28	75.2	OK
3.008	16	79.640	0.240	0.000	0.06	29.2	SURCHARGED
3.009	30	79.640	0.835	0.000	0.22	29.0	SURCHARGED
1.003	45	78.349	-0.167	0.000	0.41	33.0	OK
1.004	24	78.131	-0.169	0.000	0.40	33.0	OK
1.005	25	77.632	-0.175	0.000	0.37	33.0	OK

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12 Berry Holm Close Sheffield S35 1AB	Cleator Moor 04087452 Surface water design	
Date 17/08/2023 17:12 File BASIN CATCHMENT 15-8-23...	Designed by RAB-Highgrange Checked by	
XP Solutions	Network 2019.1	
<p><u>Saul Gupta Pollution Details for Pipe 1.000 US/MH 22 (BASIN CATCHMENT 15-8-23.SWS)</u></p> <p><u>30 minute 1 year Winter</u></p> <p>Unable to calculate pollutants as total flow is zero.</p>		
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12 Berry Holm Close Sheffield S35 1AB	Cleator Moor 04087452 Surface water design	
Date 17/08/2023 17:12 File BASIN CATCHMENT 15-8-23...	Designed by RAB-Highgrange Checked by	
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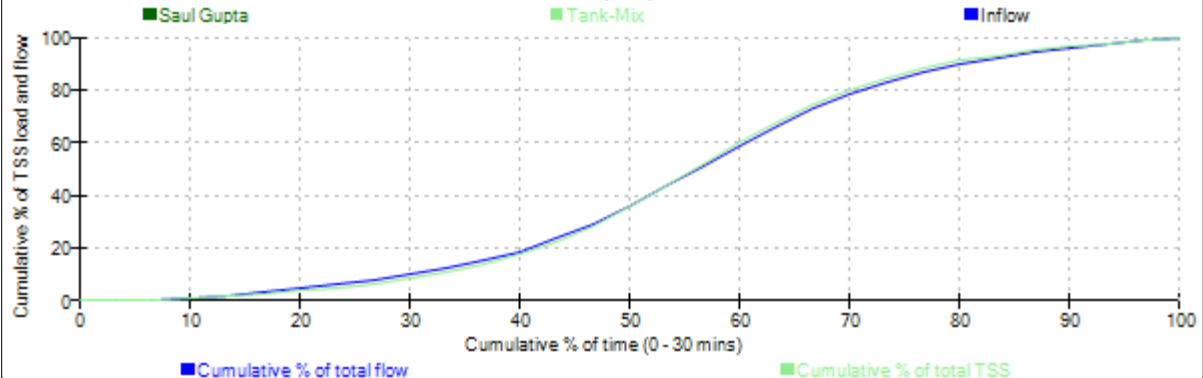
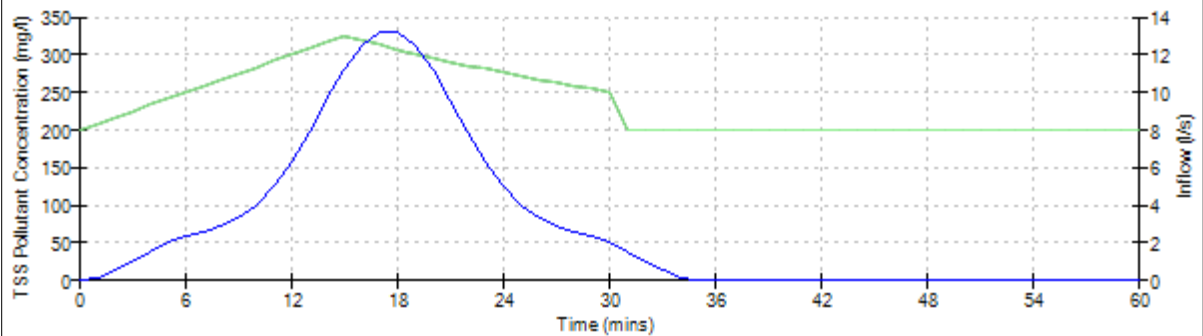
Saul Gupta Pollution Details for Pipe 2.000 US/MH 64 (BASIN CATCHMENT 15-8-23.SWS)  
30 minute 1 year Winter

Pollution Variables

Starting Concentration (mg/l)	200.00	Site Constant e	0.17
Loading Ratio	0.70	Site Constant ^k	1.23
Antecedent dry weather period (hr)	10.00	Site Constant C	7.00
Run On Time (mins)	0	Average Rainfall (mm/hr)	3.00
Site Constant K	123.00	Over time period (mins)	10
Site Constant d	0.64		

Pollution Results

% flow in first flush	72.820
Lead in Time (mins)	0
Event Duration (mins)	30
Time To Peak (mins)	15
TP Shift (mins)	64
Peak concentration (mg/l)	325
First Flush Time (mins)	20
First Flush Load (kg)	2.221
Event Duration Load (kg)	2.982
Average FF concentration (mg/l)	301.119
Continuation Load at Run Time (kg)	3.014
Overflow Load at Run Time (kg)	0.000
Av. Continuation concentration (mg/l)	291.907
Av. Overflow concentration (mg/l)	0.000
Pollution Split	1.000
Flow Split	1.000



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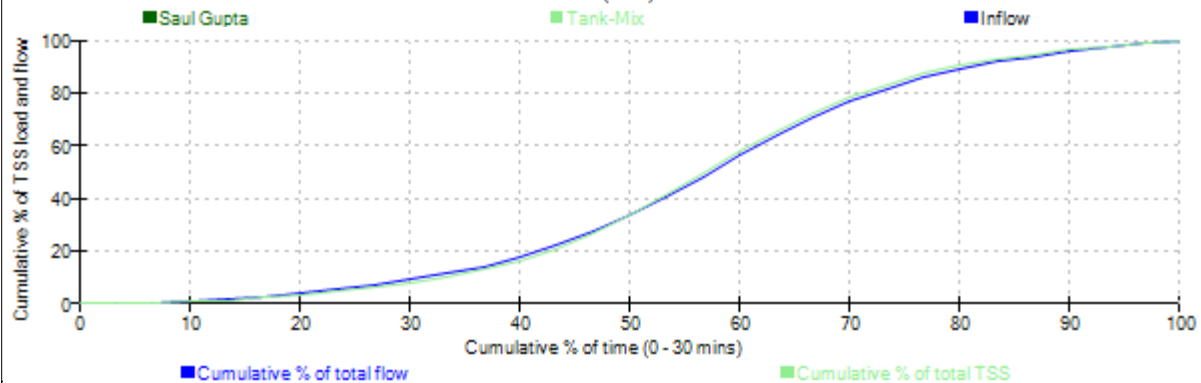
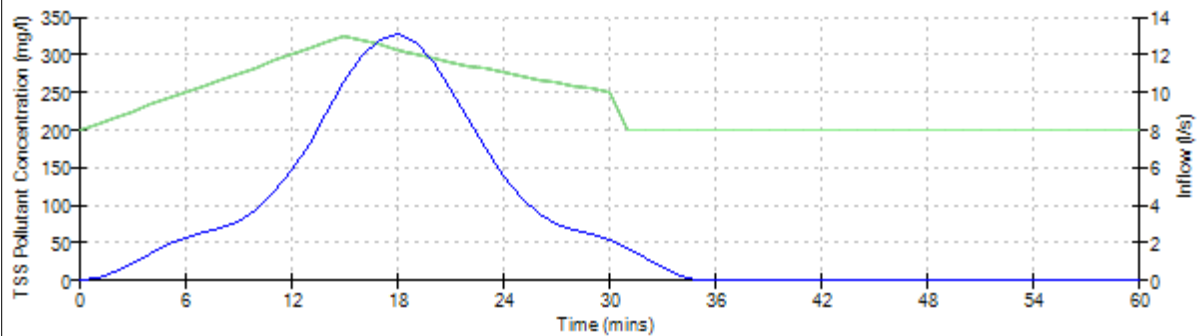
Saul Gupta Pollution Details for Pipe 2.001 US/MH 63 (BASIN CATCHMENT 15-8-23.SWS)  
30 minute 1 year Winter

Pollution Variables

Starting Concentration (mg/l)	200.00	Site Constant e	0.17
Loading Ratio	0.70	Site Constant ^k	1.23
Antecedent dry weather period (hr)	10.00	Site Constant C	7.00
Run On Time (mins)	0	Average Rainfall (mm/hr)	3.00
Site Constant K	123.00	Over time period (mins)	10
Site Constant d	0.64		

Pollution Results

% flow in first flush	70.522
Lead in Time (mins)	0
Event Duration (mins)	30
Time To Peak (mins)	15
TP Shift (mins)	64
Peak concentration (mg/l)	325
First Flush Time (mins)	20
First Flush Load (kg)	2.144
Event Duration Load (kg)	2.967
Average FF concentration (mg/l)	301.266
Continuation Load at Run Time (kg)	2.970
Overflow Load at Run Time (kg)	0.000
Av. Continuation concentration (mg/l)	288.115
Av. Overflow concentration (mg/l)	0.000
Pollution Split	1.000
Flow Split	1.000



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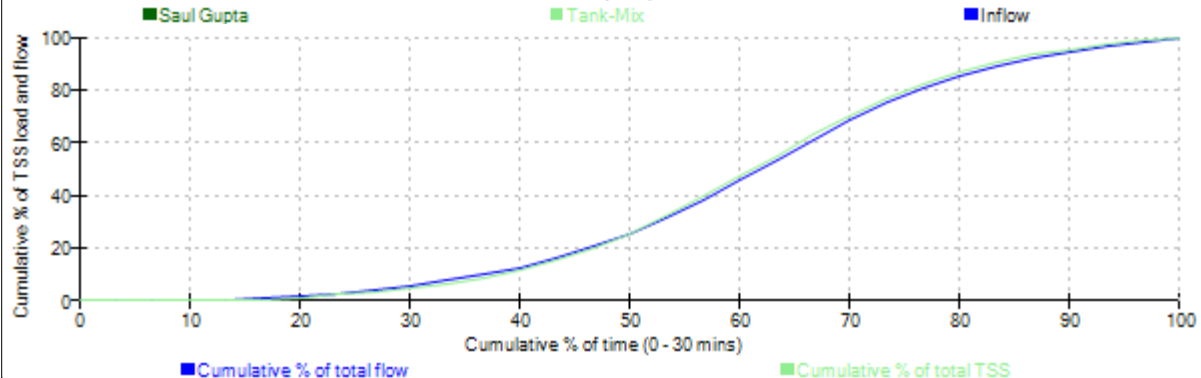
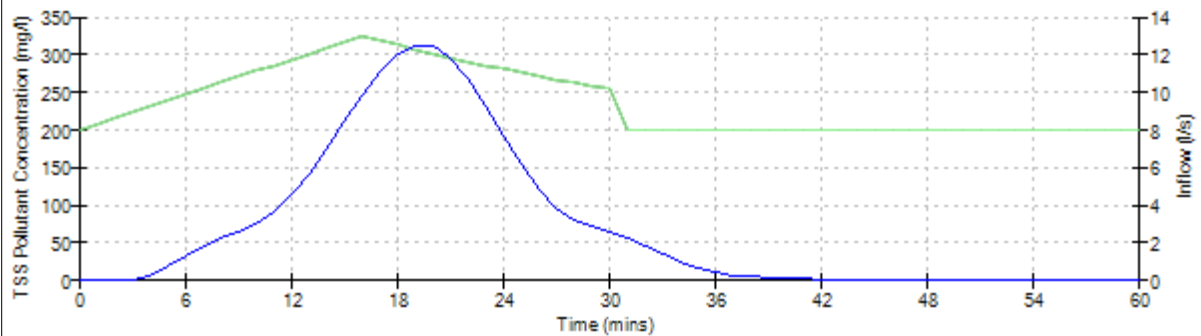
Saul Gupta Pollution Details for Pipe 1.001 US/MH 62 (BASIN CATCHMENT 15-8-23.SWS)  
30 minute 1 year Winter

Pollution Variables

Starting Concentration (mg/l)	200.00	Site Constant e	0.17
Loading Ratio	0.70	Site Constant ^k	1.23
Antecedent dry weather period (hr)	10.00	Site Constant C	7.00
Run On Time (mins)	0	Average Rainfall (mm/hr)	3.00
Site Constant K	123.00	Over time period (mins)	10
Site Constant d	0.64		

Pollution Results

% flow in first flush	68.477
Lead in Time (mins)	0
Event Duration (mins)	30
Time To Peak (mins)	16
TP Shift (mins)	64
Peak concentration (mg/l)	325
First Flush Time (mins)	21
First Flush Load (kg)	2.027
Event Duration Load (kg)	2.882
Average FF concentration (mg/l)	303.491
Continuation Load at Run Time (kg)	2.986
Overflow Load at Run Time (kg)	0.000
Av. Continuation concentration (mg/l)	289.681
Av. Overflow concentration (mg/l)	0.000
Pollution Split	1.000
Flow Split	1.000





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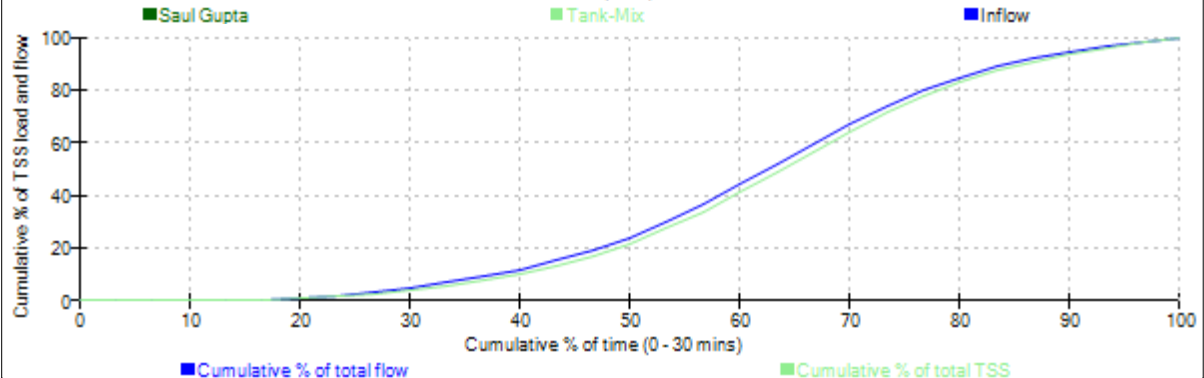
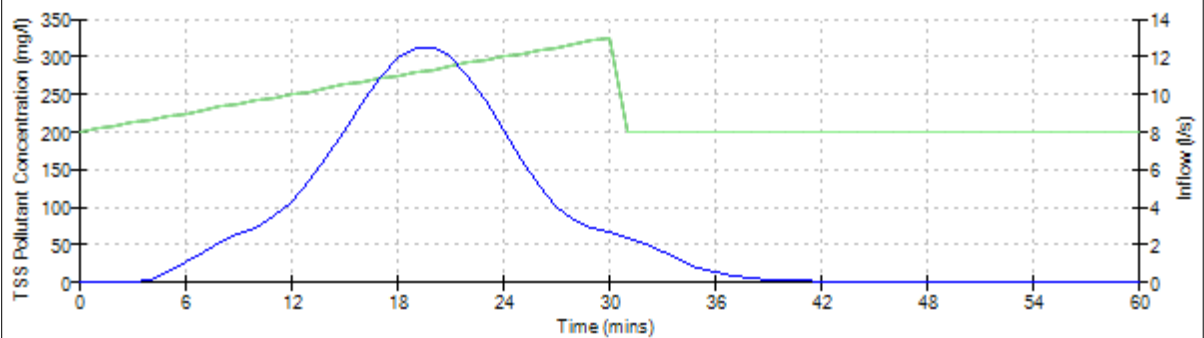
Saul Gupta Pollution Details for Pipe 1.002 US/MH 23 (BASIN CATCHMENT 15-8-23.SWS)  
30 minute 1 year Winter

Pollution Variables

Starting Concentration (mg/l)	200.00	Site Constant e	0.17
Loading Ratio	0.70	Site Constant ^k	1.23
Antecedent dry weather period (hr)	10.00	Site Constant C	7.00
Run On Time (mins)	0	Average Rainfall (mm/hr)	3.00
Site Constant K	123.00	Over time period (mins)	10
Site Constant d	0.64		

Pollution Results

% flow in first flush	51.822
Lead in Time (mins)	0
Event Duration (mins)	30
Time To Peak (mins)	30
TP Shift (mins)	64
Peak concentration (mg/l)	325
First Flush Time (mins)	19
First Flush Load (kg)	1.319
Event Duration Load (kg)	2.711
Average FF concentration (mg/l)	262.527
Continuation Load at Run Time (kg)	2.850
Overflow Load at Run Time (kg)	0.000
Av. Continuation concentration (mg/l)	276.515
Av. Overflow concentration (mg/l)	0.000
Pollution Split	1.000
Flow Split	1.000



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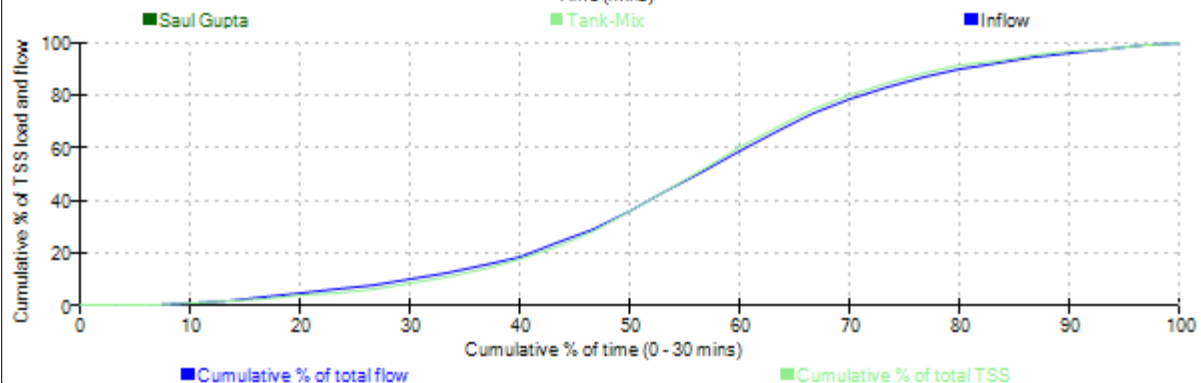
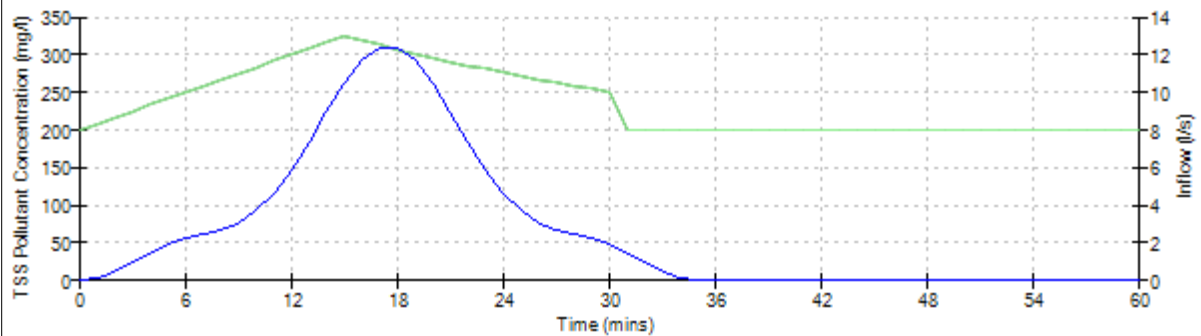
Saul Gupta Pollution Details for Pipe 3.000 US/MH 80 (BASIN CATCHMENT 15-8-23.SWS)  
30 minute 1 year Winter

Pollution Variables

Starting Concentration (mg/l)	200.00	Site Constant e	0.17
Loading Ratio	0.70	Site Constant ^k	1.23
Antecedent dry weather period (hr)	10.00	Site Constant C	7.00
Run On Time (mins)	0	Average Rainfall (mm/hr)	3.00
Site Constant K	123.00	Over time period (mins)	10
Site Constant d	0.64		

Pollution Results

% flow in first flush	72.820
Lead in Time (mins)	0
Event Duration (mins)	30
Time To Peak (mins)	15
TP Shift (mins)	64
Peak concentration (mg/l)	325
First Flush Time (mins)	20
First Flush Load (kg)	2.074
Event Duration Load (kg)	2.785
Average FF concentration (mg/l)	301.119
Continuation Load at Run Time (kg)	2.805
Overflow Load at Run Time (kg)	0.000
Av. Continuation concentration (mg/l)	290.934
Av. Overflow concentration (mg/l)	0.000
Pollution Split	1.000
Flow Split	1.000



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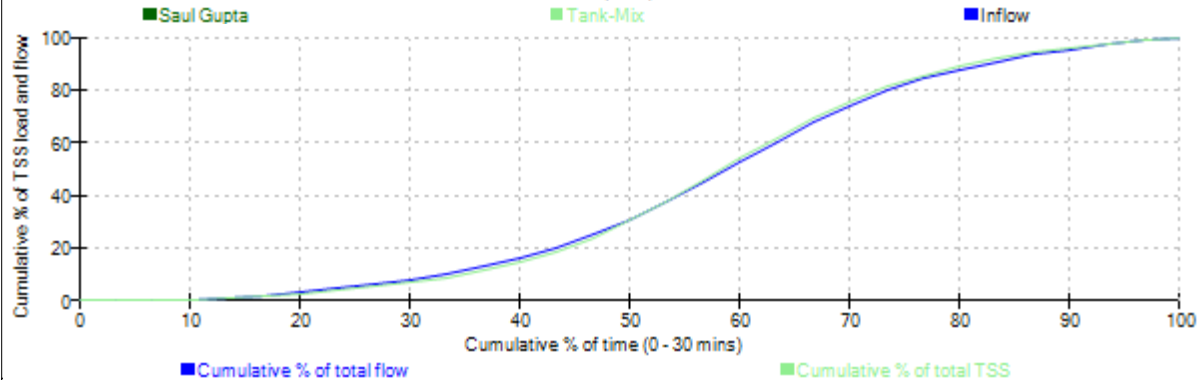
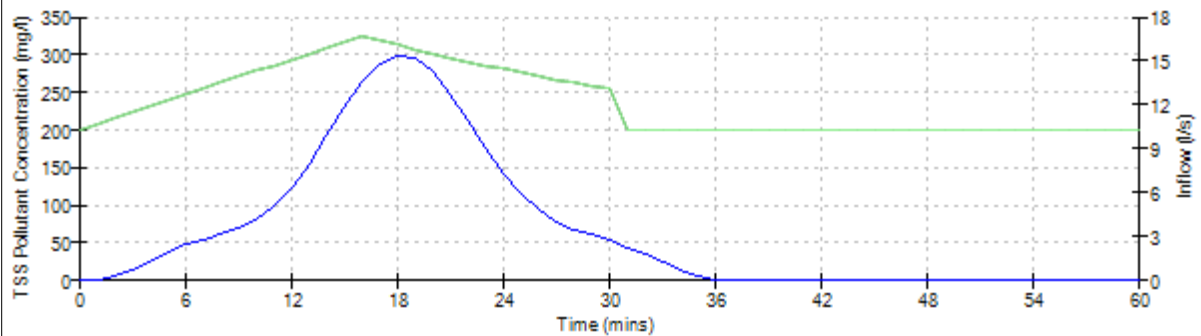
Saul Gupta Pollution Details for Pipe 3.001 US/MH 94 (BASIN CATCHMENT 15-8-23.SWS)  
30 minute 1 year Winter

Pollution Variables

Starting Concentration (mg/l)	200.00	Site Constant e	0.17
Loading Ratio	0.70	Site Constant ^k	1.23
Antecedent dry weather period (hr)	10.00	Site Constant C	7.00
Run On Time (mins)	0	Average Rainfall (mm/hr)	3.00
Site Constant K	123.00	Over time period (mins)	10
Site Constant d	0.64		

Pollution Results

% flow in first flush	74.078
Lead in Time (mins)	0
Event Duration (mins)	30
Time To Peak (mins)	16
TP Shift (mins)	64
Peak concentration (mg/l)	325
First Flush Time (mins)	21
First Flush Load (kg)	2.666
Event Duration Load (kg)	3.525
Average FF concentration (mg/l)	301.862
Continuation Load at Run Time (kg)	3.597
Overflow Load at Run Time (kg)	0.000
Av. Continuation concentration (mg/l)	292.056
Av. Overflow concentration (mg/l)	0.000
Pollution Split	1.000
Flow Split	1.000



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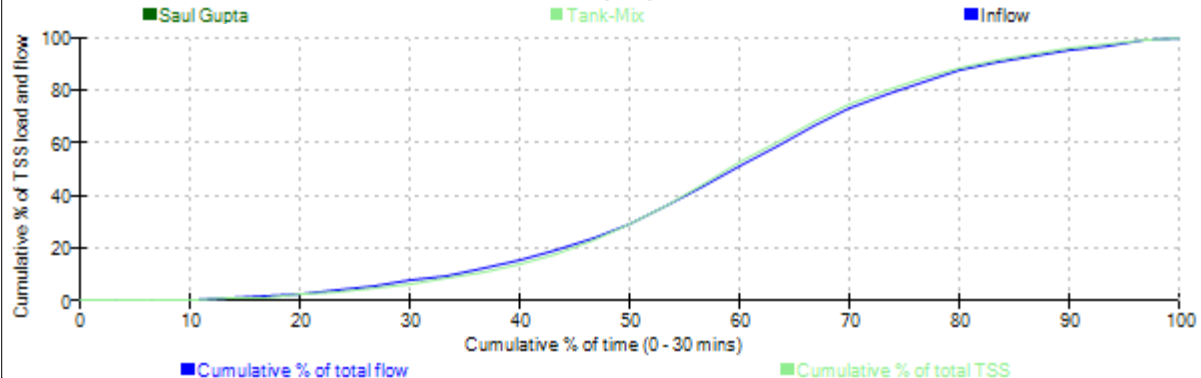
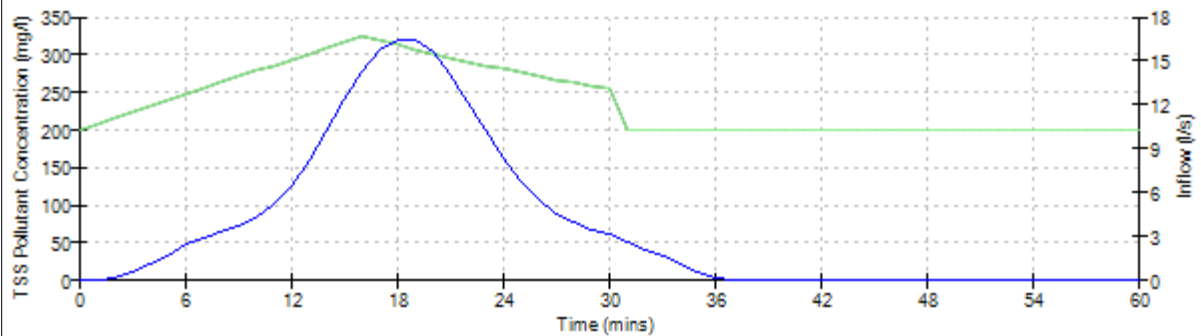
Saul Gupta Pollution Details for Pipe 3.002 US/MH 95 (BASIN CATCHMENT 15-8-23.SWS)  
30 minute 1 year Winter

Pollution Variables

Starting Concentration (mg/l)	200.00	Site Constant e	0.17
Loading Ratio	0.70	Site Constant ^k	1.23
Antecedent dry weather period (hr)	10.00	Site Constant C	7.00
Run On Time (mins)	0	Average Rainfall (mm/hr)	3.00
Site Constant K	123.00	Over time period (mins)	10
Site Constant d	0.64		

Pollution Results

% flow in first flush	72.730
Lead in Time (mins)	0
Event Duration (mins)	30
Time To Peak (mins)	16
TP Shift (mins)	64
Peak concentration (mg/l)	325
First Flush Time (mins)	21
First Flush Load (kg)	2.819
Event Duration Load (kg)	3.789
Average FF concentration (mg/l)	302.291
Continuation Load at Run Time (kg)	3.882
Overflow Load at Run Time (kg)	0.000
Av. Continuation concentration (mg/l)	291.620
Av. Overflow concentration (mg/l)	0.000
Pollution Split	1.000
Flow Split	1.000



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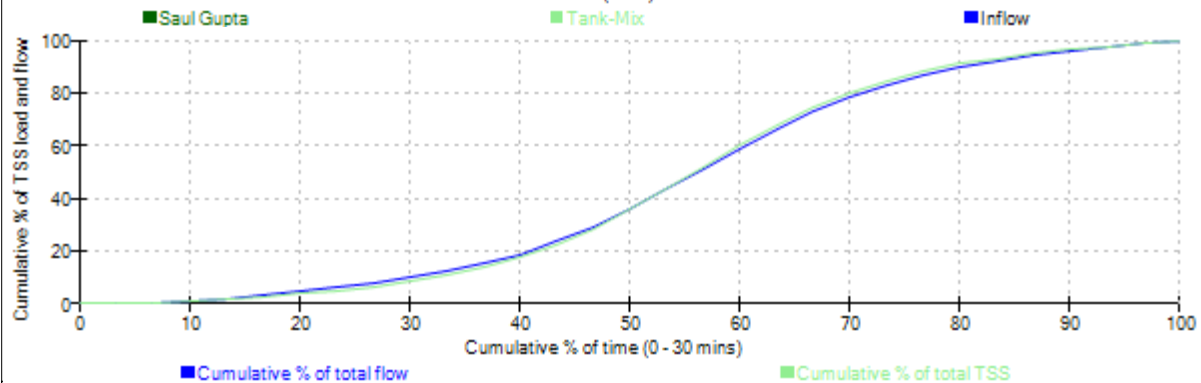
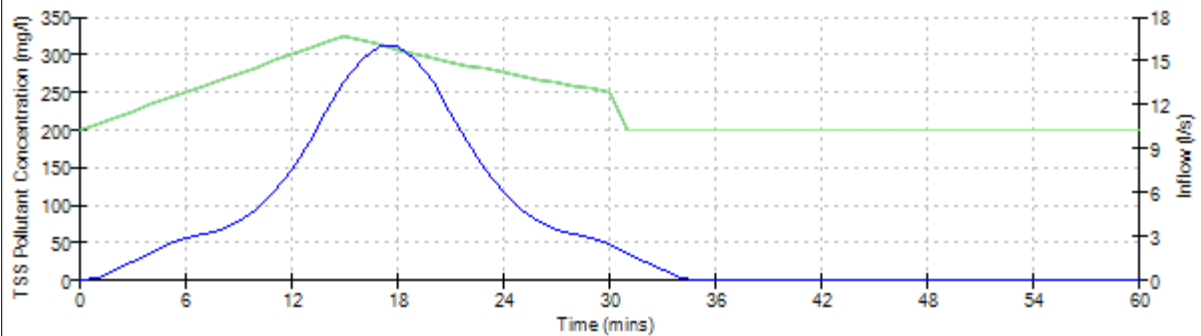
Saul Gupta Pollution Details for Pipe 4.000 US/MH 50 (BASIN CATCHMENT 15-8-23.SWS)  
30 minute 1 year Winter

Pollution Variables

Starting Concentration (mg/l)	200.00	Site Constant e	0.17
Loading Ratio	0.70	Site Constant ^k	1.23
Antecedent dry weather period (hr)	10.00	Site Constant C	7.00
Run On Time (mins)	0	Average Rainfall (mm/hr)	3.00
Site Constant K	123.00	Over time period (mins)	10
Site Constant d	0.64		

Pollution Results

% flow in first flush	72.820
Lead in Time (mins)	0
Event Duration (mins)	30
Time To Peak (mins)	15
TP Shift (mins)	64
Peak concentration (mg/l)	325
First Flush Time (mins)	20
First Flush Load (kg)	2.689
Event Duration Load (kg)	3.611
Average FF concentration (mg/l)	301.119
Continuation Load at Run Time (kg)	3.639
Overflow Load at Run Time (kg)	0.000
Av. Continuation concentration (mg/l)	291.097
Av. Overflow concentration (mg/l)	0.000
Pollution Split	1.000
Flow Split	1.000



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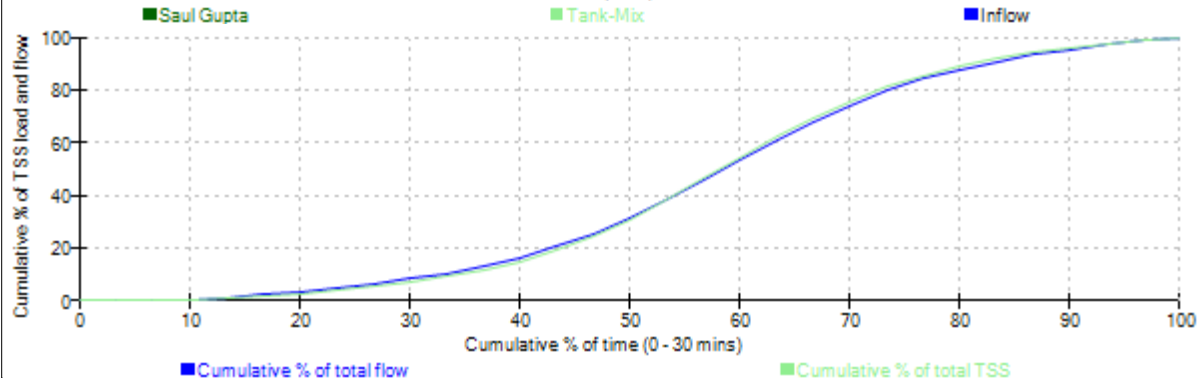
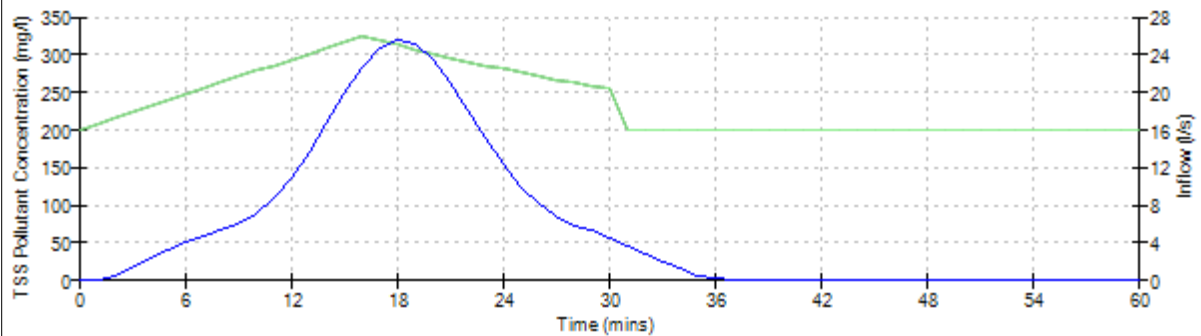
Saul Gupta Pollution Details for Pipe 4.001 US/MH 60 (BASIN CATCHMENT 15-8-23.SWS)  
30 minute 1 year Winter

Pollution Variables

Starting Concentration (mg/l)	200.00	Site Constant e	0.17
Loading Ratio	0.70	Site Constant ^k	1.23
Antecedent dry weather period (hr)	10.00	Site Constant C	7.00
Run On Time (mins)	0	Average Rainfall (mm/hr)	3.00
Site Constant K	123.00	Over time period (mins)	10
Site Constant d	0.64		

Pollution Results

% flow in first flush	74.153
Lead in Time (mins)	0
Event Duration (mins)	30
Time To Peak (mins)	16
TP Shift (mins)	64
Peak concentration (mg/l)	325
First Flush Time (mins)	21
First Flush Load (kg)	4.463
Event Duration Load (kg)	5.894
Average FF concentration (mg/l)	301.623
Continuation Load at Run Time (kg)	6.008
Overflow Load at Run Time (kg)	0.000
Av. Continuation concentration (mg/l)	291.837
Av. Overflow concentration (mg/l)	0.000
Pollution Split	1.000
Flow Split	1.000



12 Berry Holm Close  
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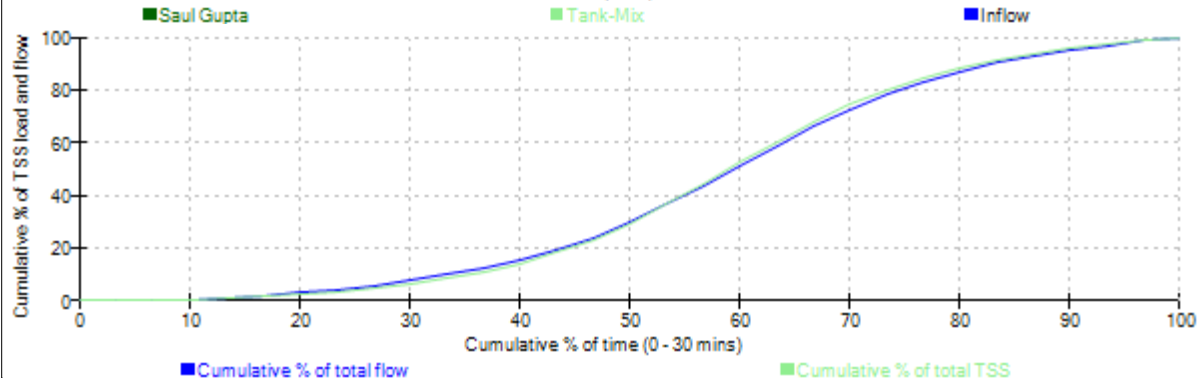
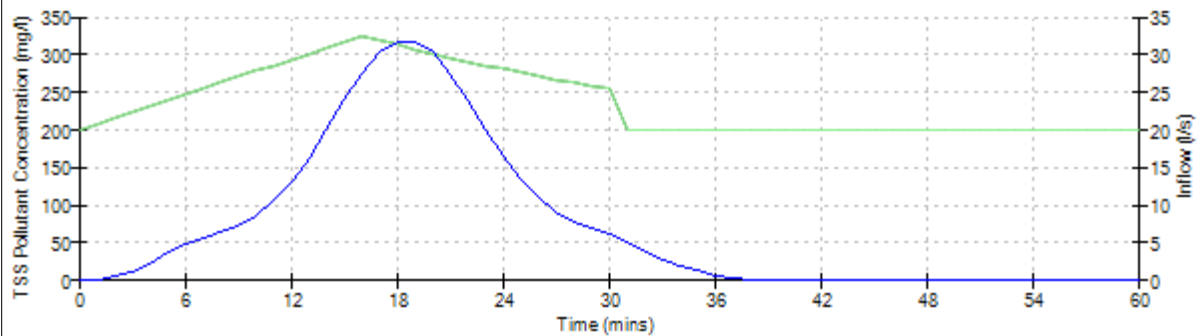
Saul Gupta Pollution Details for Pipe 4.002 US/MH 51 (BASIN CATCHMENT 15-8-23.SWS)  
30 minute 1 year Winter


Pollution Variables

Starting Concentration (mg/l)	200.00	Site Constant e	0.17
Loading Ratio	0.70	Site Constant ^k	1.23
Antecedent dry weather period (hr)	10.00	Site Constant C	7.00
Run On Time (mins)	0	Average Rainfall (mm/hr)	3.00
Site Constant K	123.00	Over time period (mins)	10
Site Constant d	0.64		

Pollution Results

% flow in first flush	72.578
Lead in Time (mins)	0
Event Duration (mins)	30
Time To Peak (mins)	16
TP Shift (mins)	64
Peak concentration (mg/l)	325
First Flush Time (mins)	21
First Flush Load (kg)	5.504
Event Duration Load (kg)	7.415
Average FF concentration (mg/l)	302.043
Continuation Load at Run Time (kg)	7.584
Overflow Load at Run Time (kg)	0.000
Av. Continuation concentration (mg/l)	291.010
Av. Overflow concentration (mg/l)	0.000
Pollution Split	1.000
Flow Split	1.000



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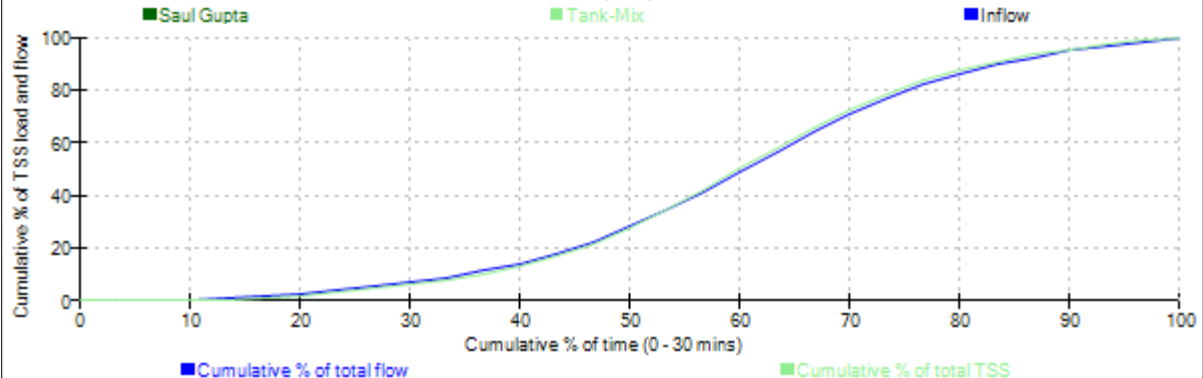
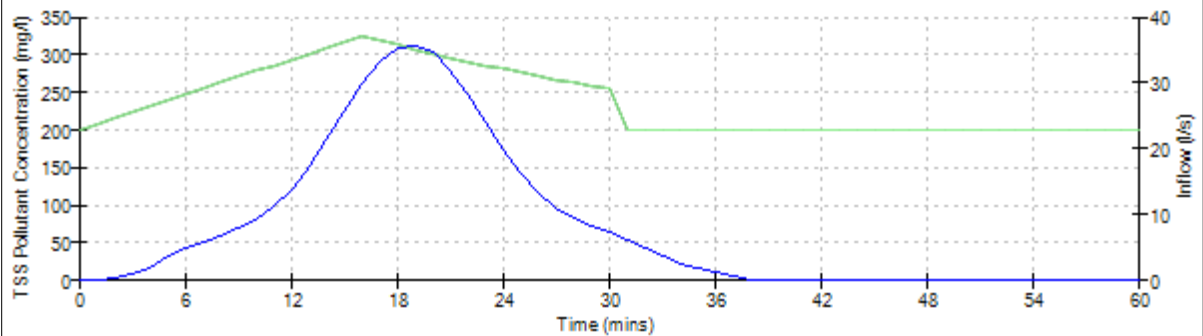
Saul Gupta Pollution Details for Pipe 4.003 US/MH 52 (BASIN CATCHMENT 15-8-23.SWS)  
30 minute 1 year Winter

Pollution Variables

Starting Concentration (mg/l)	200.00	Site Constant e	0.17
Loading Ratio	0.70	Site Constant ^k	1.23
Antecedent dry weather period (hr)	10.00	Site Constant C	7.00
Run On Time (mins)	0	Average Rainfall (mm/hr)	3.00
Site Constant K	123.00	Over time period (mins)	10
Site Constant d	0.64		

Pollution Results

% flow in first flush	70.700
Lead in Time (mins)	0
Event Duration (mins)	30
Time To Peak (mins)	16
TP Shift (mins)	64
Peak concentration (mg/l)	325
First Flush Time (mins)	21
First Flush Load (kg)	6.022
Event Duration Load (kg)	8.312
Average FF concentration (mg/l)	302.505
Continuation Load at Run Time (kg)	8.547
Overflow Load at Run Time (kg)	0.000
Av. Continuation concentration (mg/l)	290.530
Av. Overflow concentration (mg/l)	0.000
Pollution Split	1.000
Flow Split	1.000





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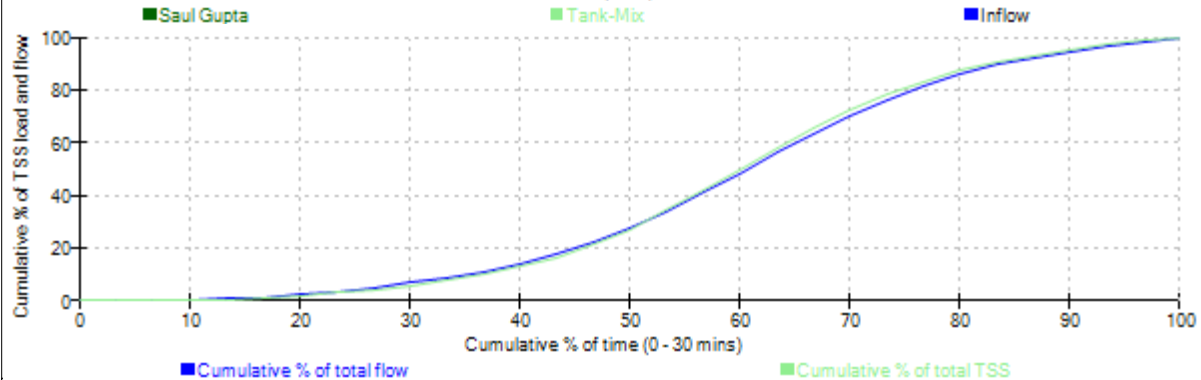
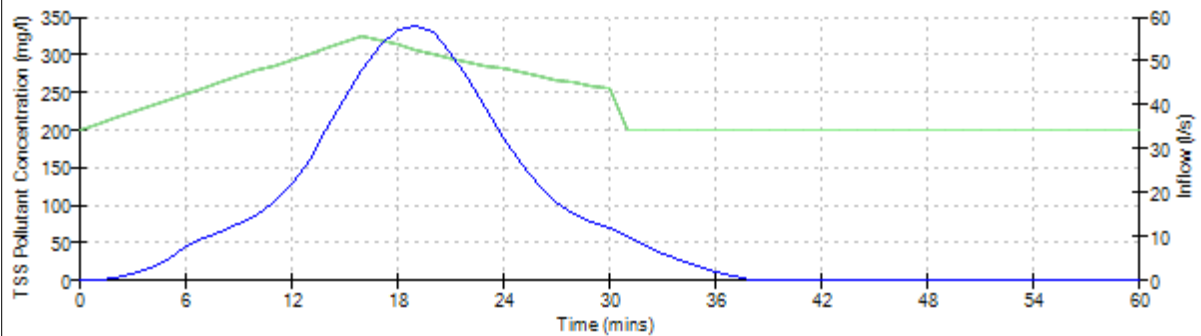
Saul Gupta Pollution Details for Pipe 3.003 US/MH 53 (BASIN CATCHMENT 15-8-23.SWS)  
30 minute 1 year Winter

Pollution Variables

Starting Concentration (mg/l)	200.00	Site Constant e	0.17
Loading Ratio	0.70	Site Constant ^k	1.23
Antecedent dry weather period (hr)	10.00	Site Constant C	7.00
Run On Time (mins)	0	Average Rainfall (mm/hr)	3.00
Site Constant K	123.00	Over time period (mins)	10
Site Constant d	0.64		

Pollution Results

% flow in first flush	70.323
Lead in Time (mins)	0
Event Duration (mins)	30
Time To Peak (mins)	16
TP Shift (mins)	64
Peak concentration (mg/l)	325
First Flush Time (mins)	21
First Flush Load (kg)	9.701
Event Duration Load (kg)	13.455
Average FF concentration (mg/l)	302.693
Continuation Load at Run Time (kg)	13.836
Overflow Load at Run Time (kg)	0.000
Av. Continuation concentration (mg/l)	290.035
Av. Overflow concentration (mg/l)	0.000
Pollution Split	1.000
Flow Split	1.000



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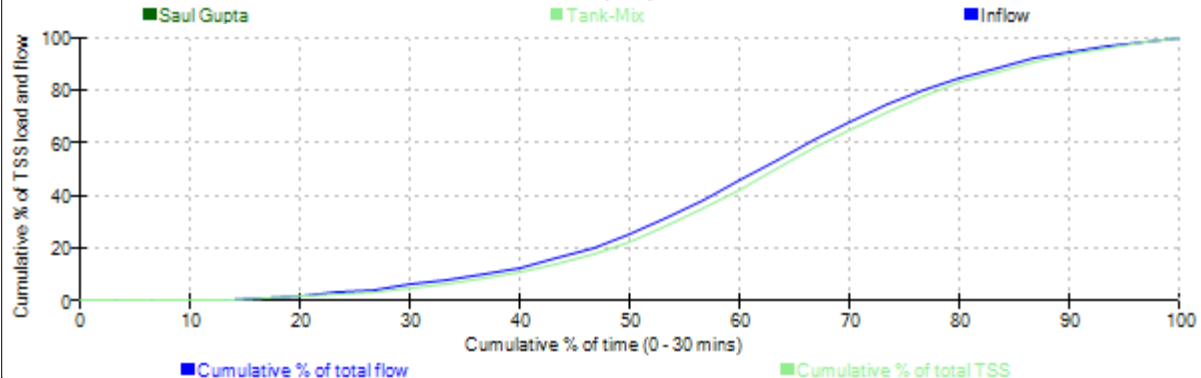
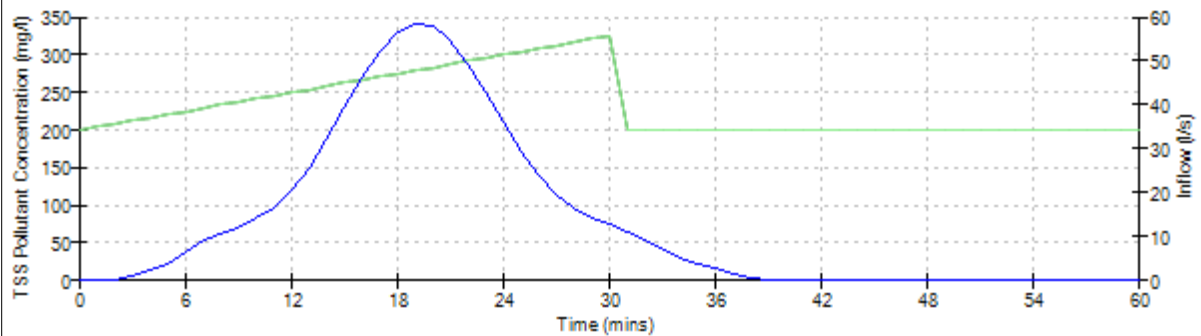
Saul Gupta Pollution Details for Pipe 3.004 US/MH 55 (BASIN CATCHMENT 15-8-23.SWS)  
30 minute 1 year Winter


Pollution Variables

Starting Concentration (mg/l)	200.00	Site Constant e	0.17
Loading Ratio	0.70	Site Constant ^k	1.23
Antecedent dry weather period (hr)	10.00	Site Constant C	7.00
Run On Time (mins)	0	Average Rainfall (mm/hr)	3.00
Site Constant K	123.00	Over time period (mins)	10
Site Constant d	0.64		

Pollution Results

% flow in first flush	45.573
Lead in Time (mins)	0
Event Duration (mins)	30
Time To Peak (mins)	30
TP Shift (mins)	64
Peak concentration (mg/l)	325
First Flush Time (mins)	18
First Flush Load (kg)	5.414
Event Duration Load (kg)	12.795
Average FF concentration (mg/l)	258.855
Continuation Load at Run Time (kg)	13.313
Overflow Load at Run Time (kg)	0.000
Av. Continuation concentration (mg/l)	275.125
Av. Overflow concentration (mg/l)	0.000
Pollution Split	1.000
Flow Split	1.000



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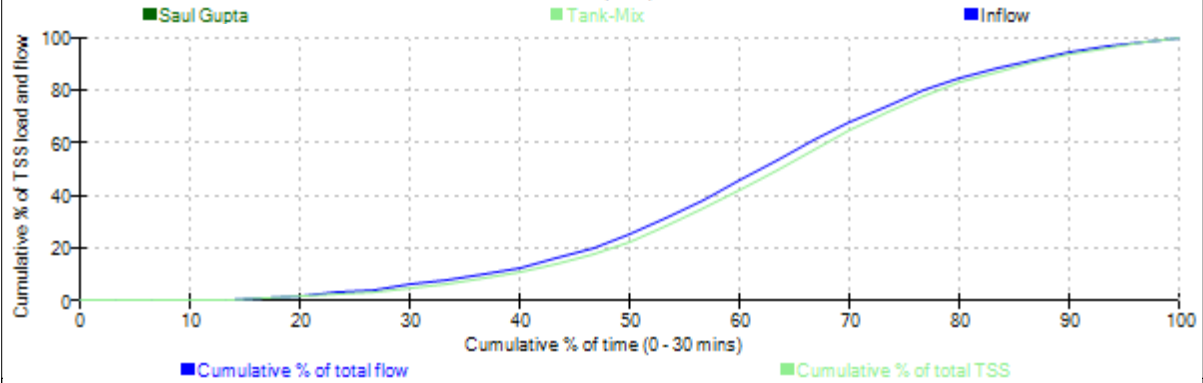
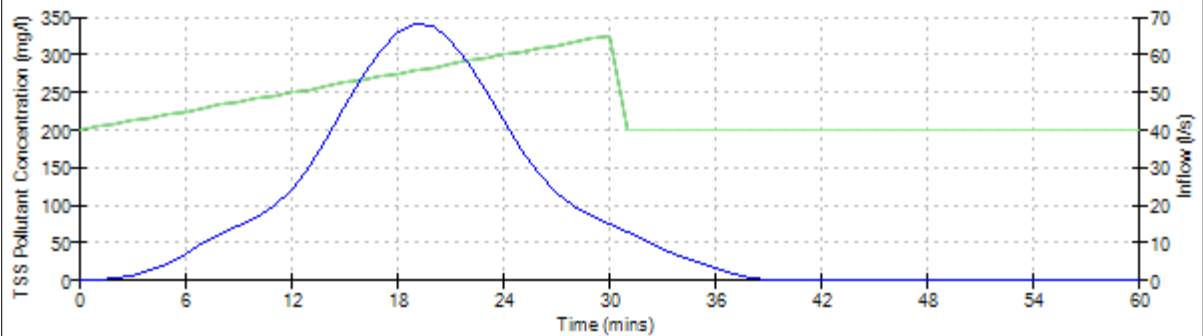
Saul Gupta Pollution Details for Pipe 3.005 US/MH 6 (BASIN CATCHMENT 15-8-23.SWS)  
30 minute 1 year Winter

Pollution Variables

Starting Concentration (mg/l)	200.00	Site Constant e	0.17
Loading Ratio	0.70	Site Constant ^k	1.23
Antecedent dry weather period (hr)	10.00	Site Constant C	7.00
Run On Time (mins)	0	Average Rainfall (mm/hr)	3.00
Site Constant K	123.00	Over time period (mins)	10
Site Constant d	0.64		

Pollution Results

% flow in first flush	45.438
Lead in Time (mins)	0
Event Duration (mins)	30
Time To Peak (mins)	30
TP Shift (mins)	64
Peak concentration (mg/l)	325
First Flush Time (mins)	18
First Flush Load (kg)	6.336
Event Duration Load (kg)	15.025
Average FF concentration (mg/l)	258.769
Continuation Load at Run Time (kg)	15.729
Overflow Load at Run Time (kg)	0.000
Av. Continuation concentration (mg/l)	276.688
Av. Overflow concentration (mg/l)	0.000
Pollution Split	1.000
Flow Split	1.000



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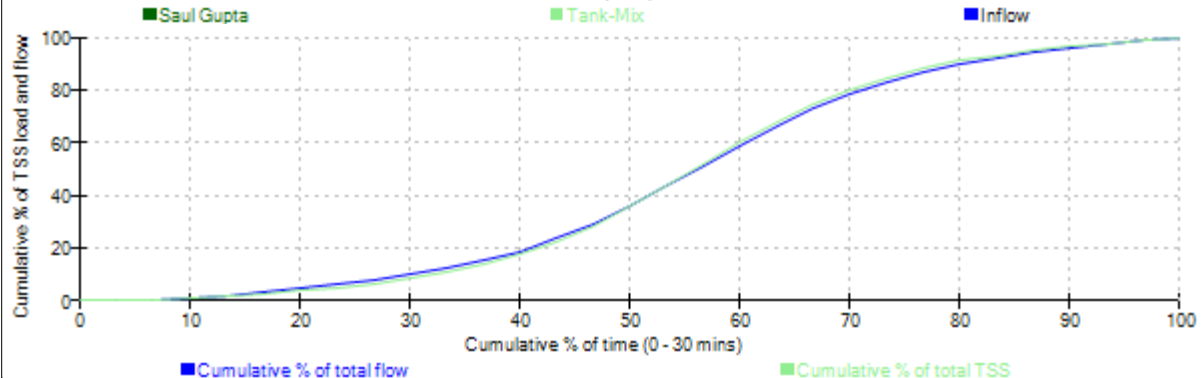
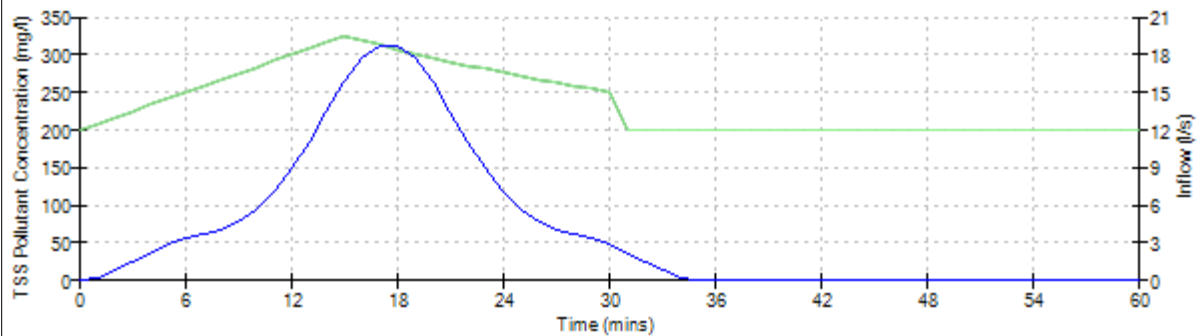
Saul Gupta Pollution Details for Pipe 5.000 US/MH 1 (BASIN CATCHMENT 15-8-23.SWS)  
30 minute 1 year Winter

Pollution Variables

Starting Concentration (mg/l)	200.00	Site Constant e	0.17
Loading Ratio	0.70	Site Constant ^k	1.23
Antecedent dry weather period (hr)	10.00	Site Constant C	7.00
Run On Time (mins)	0	Average Rainfall (mm/hr)	3.00
Site Constant K	123.00	Over time period (mins)	10
Site Constant d	0.64		

Pollution Results

% flow in first flush	72.820
Lead in Time (mins)	0
Event Duration (mins)	30
Time To Peak (mins)	15
TP Shift (mins)	64
Peak concentration (mg/l)	325
First Flush Time (mins)	20
First Flush Load (kg)	3.144
Event Duration Load (kg)	4.222
Average FF concentration (mg/l)	301.119
Continuation Load at Run Time (kg)	4.260
Overflow Load at Run Time (kg)	0.000
Av. Continuation concentration (mg/l)	291.447
Av. Overflow concentration (mg/l)	0.000
Pollution Split	1.000
Flow Split	1.000



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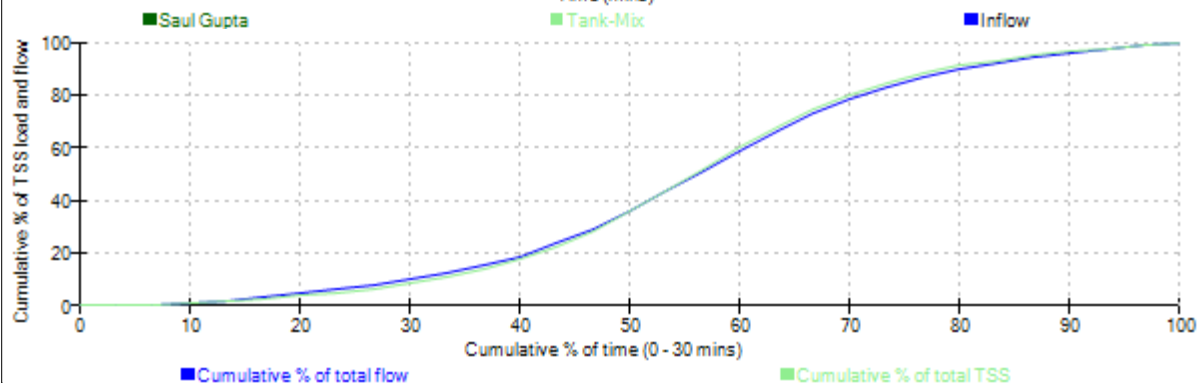
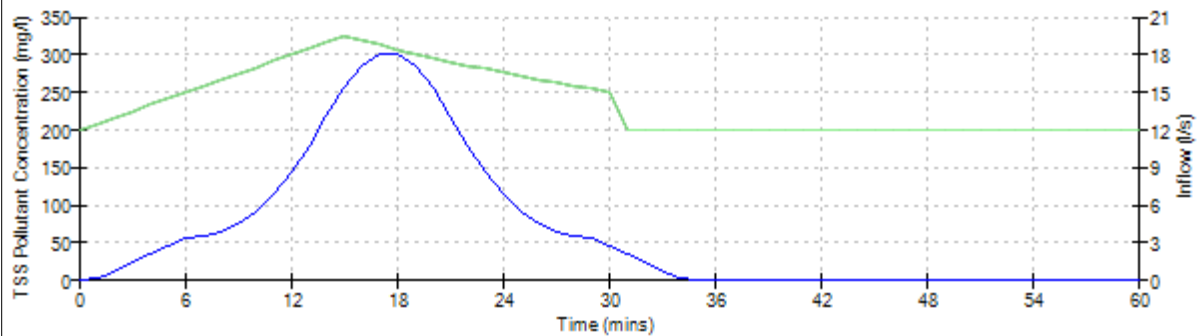
Saul Gupta Pollution Details for Pipe 6.000 US/MH 2 (BASIN CATCHMENT 15-8-23.SWS)  
30 minute 1 year Winter

Pollution Variables

Starting Concentration (mg/l)	200.00	Site Constant e	0.17
Loading Ratio	0.70	Site Constant ^k	1.23
Antecedent dry weather period (hr)	10.00	Site Constant C	7.00
Run On Time (mins)	0	Average Rainfall (mm/hr)	3.00
Site Constant K	123.00	Over time period (mins)	10
Site Constant d	0.64		

Pollution Results

% flow in first flush	72.820
Lead in Time (mins)	0
Event Duration (mins)	30
Time To Peak (mins)	15
TP Shift (mins)	64
Peak concentration (mg/l)	325
First Flush Time (mins)	20
First Flush Load (kg)	3.050
Event Duration Load (kg)	4.096
Average FF concentration (mg/l)	301.119
Continuation Load at Run Time (kg)	4.131
Overflow Load at Run Time (kg)	0.000
Av. Continuation concentration (mg/l)	291.295
Av. Overflow concentration (mg/l)	0.000
Pollution Split	1.000
Flow Split	1.000



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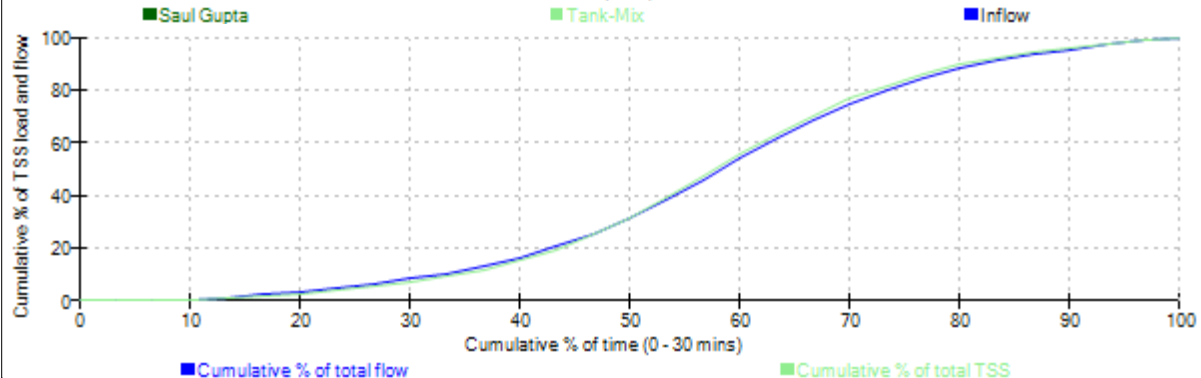
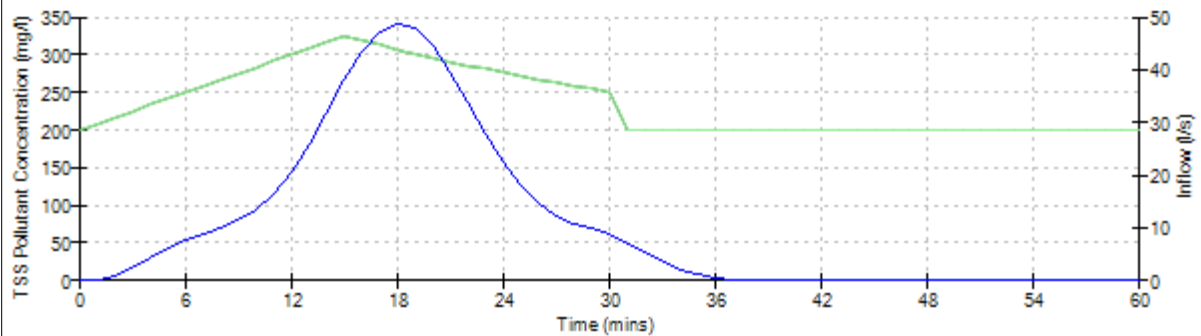
Saul Gupta Pollution Details for Pipe 5.001 US/MH 34 (BASIN CATCHMENT 15-8-23.SWS)  
30 minute 1 year Winter

Pollution Variables

Starting Concentration (mg/l)	200.00	Site Constant e	0.17
Loading Ratio	0.70	Site Constant ^k	1.23
Antecedent dry weather period (hr)	10.00	Site Constant C	7.00
Run On Time (mins)	0	Average Rainfall (mm/hr)	3.00
Site Constant K	123.00	Over time period (mins)	10
Site Constant d	0.64		

Pollution Results

% flow in first flush	68.453
Lead in Time (mins)	0
Event Duration (mins)	30
Time To Peak (mins)	15
TP Shift (mins)	64
Peak concentration (mg/l)	325
First Flush Time (mins)	20
First Flush Load (kg)	7.778
Event Duration Load (kg)	11.061
Average FF concentration (mg/l)	301.909
Continuation Load at Run Time (kg)	11.211
Overflow Load at Run Time (kg)	0.000
Av. Continuation concentration (mg/l)	288.864
Av. Overflow concentration (mg/l)	0.000
Pollution Split	1.000
Flow Split	1.000



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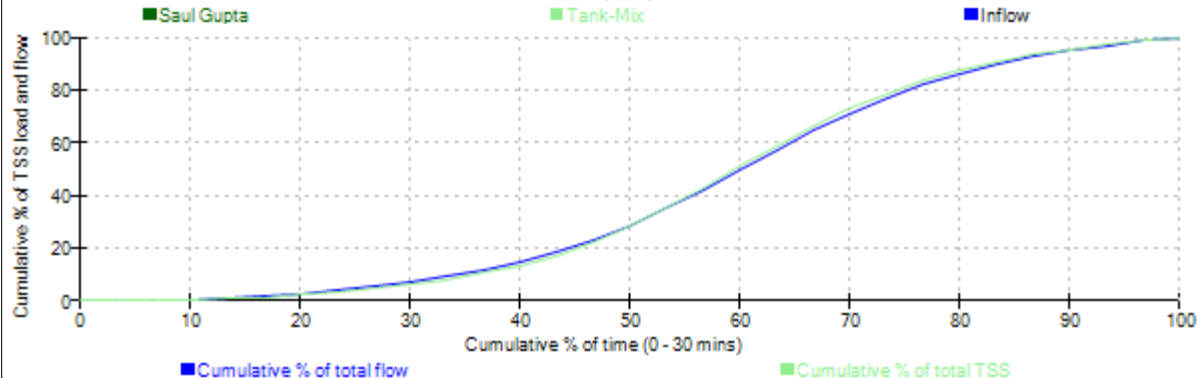
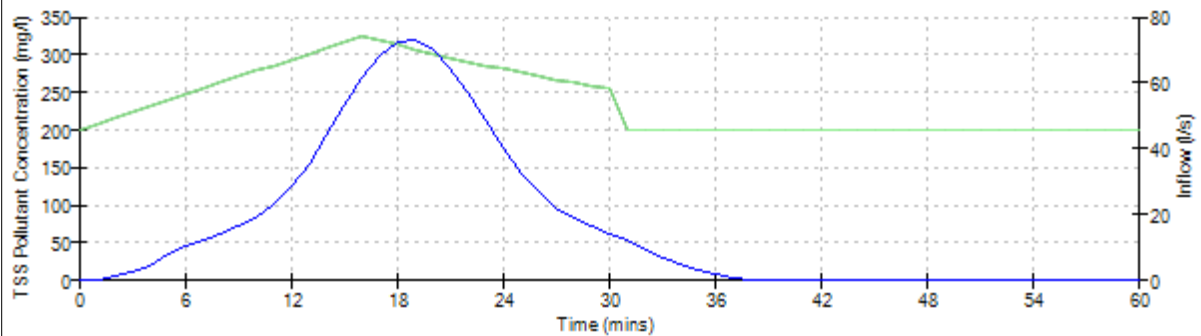
Saul Gupta Pollution Details for Pipe 5.002 US/MH 35 (BASIN CATCHMENT 15-8-23.SWS)  
30 minute 1 year Winter

Pollution Variables

Starting Concentration (mg/l)	200.00	Site Constant e	0.17
Loading Ratio	0.70	Site Constant ^k	1.23
Antecedent dry weather period (hr)	10.00	Site Constant C	7.00
Run On Time (mins)	0	Average Rainfall (mm/hr)	3.00
Site Constant K	123.00	Over time period (mins)	10
Site Constant d	0.64		

Pollution Results

% flow in first flush	71.157
Lead in Time (mins)	0
Event Duration (mins)	30
Time To Peak (mins)	16
TP Shift (mins)	64
Peak concentration (mg/l)	325
First Flush Time (mins)	21
First Flush Load (kg)	12.380
Event Duration Load (kg)	16.988
Average FF concentration (mg/l)	302.210
Continuation Load at Run Time (kg)	17.292
Overflow Load at Run Time (kg)	0.000
Av. Continuation concentration (mg/l)	288.394
Av. Overflow concentration (mg/l)	0.000
Pollution Split	1.000
Flow Split	1.000



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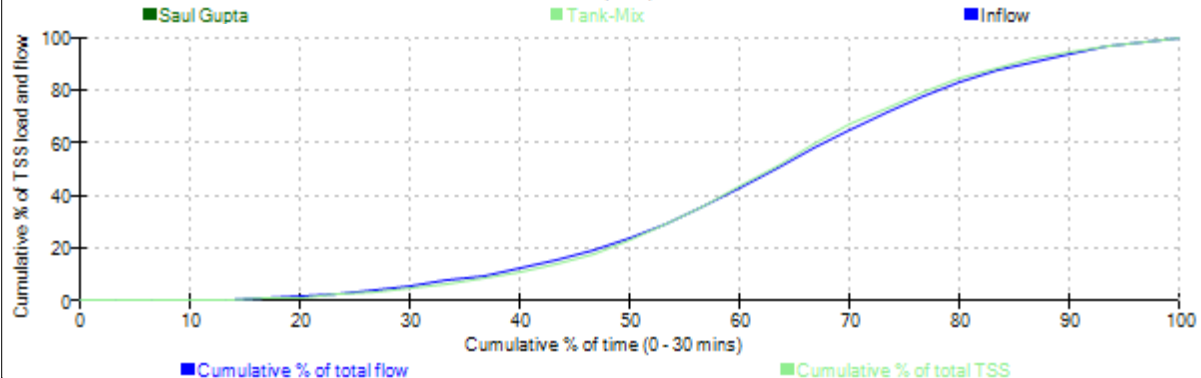
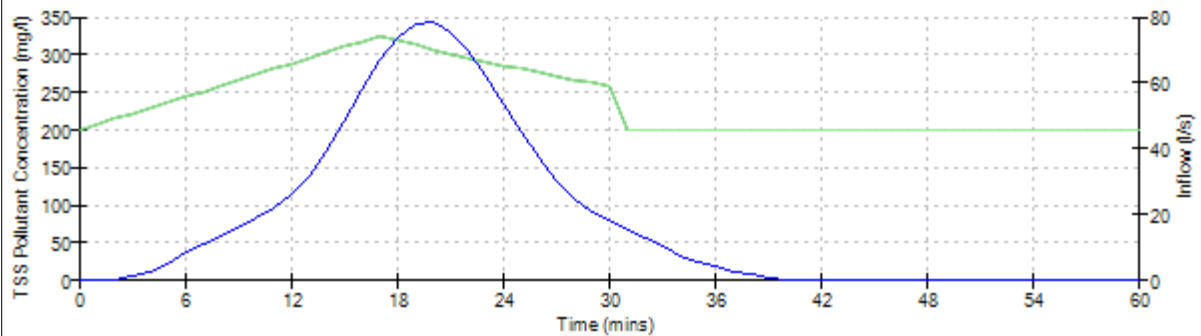
Saul Gupta Pollution Details for Pipe 5.003 US/MH 36 (BASIN CATCHMENT 15-8-23.SWS)  
30 minute 1 year Winter

Pollution Variables

Starting Concentration (mg/l)	200.00	Site Constant e	0.17
Loading Ratio	0.70	Site Constant ^k	1.23
Antecedent dry weather period (hr)	10.00	Site Constant C	7.00
Run On Time (mins)	0	Average Rainfall (mm/hr)	3.00
Site Constant K	123.00	Over time period (mins)	10
Site Constant d	0.64		

Pollution Results

% flow in first flush	71.786
Lead in Time (mins)	0
Event Duration (mins)	30
Time To Peak (mins)	17
TP Shift (mins)	64
Peak concentration (mg/l)	325
First Flush Time (mins)	22
First Flush Load (kg)	13.553
Event Duration Load (kg)	18.455
Average FF concentration (mg/l)	302.905
Continuation Load at Run Time (kg)	19.068
Overflow Load at Run Time (kg)	0.000
Av. Continuation concentration (mg/l)	288.671
Av. Overflow concentration (mg/l)	0.000
Pollution Split	1.000
Flow Split	1.000





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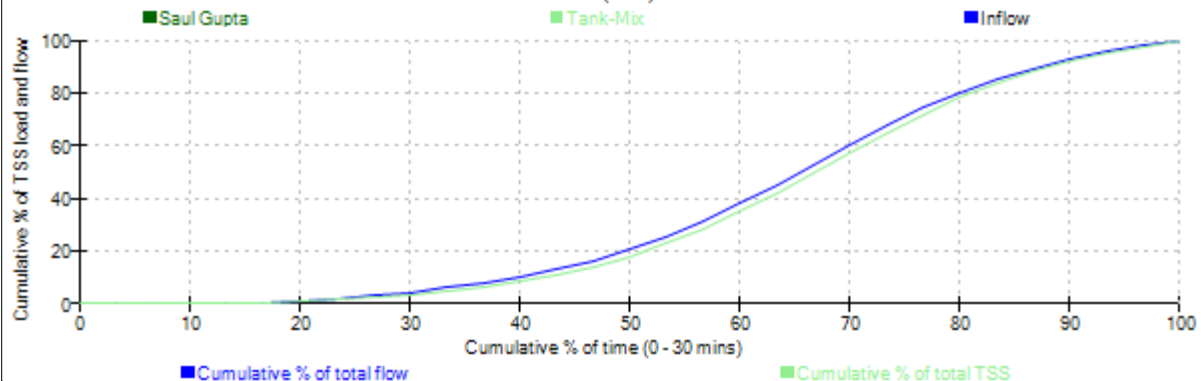
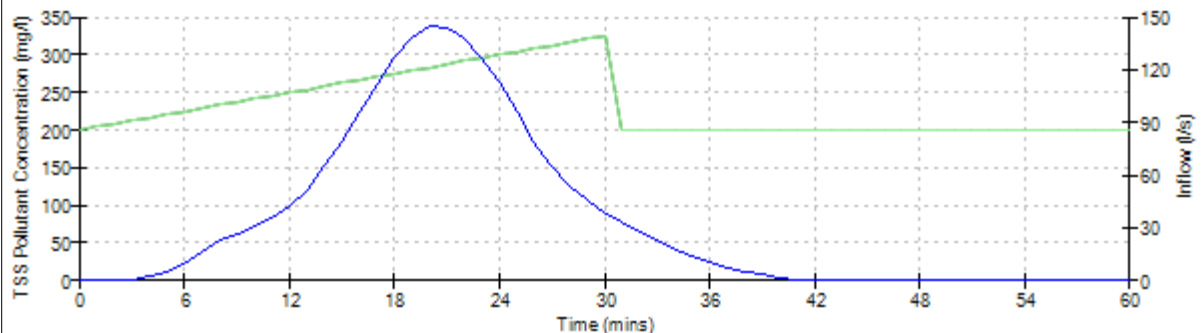
Saul Gupta Pollution Details for Pipe 3.006 US/MH 10 (BASIN CATCHMENT 15-8-23.SWS)  
30 minute 1 year Winter


Pollution Variables

Starting Concentration (mg/l)	200.00	Site Constant e	0.17
Loading Ratio	0.70	Site Constant ^k	1.23
Antecedent dry weather period (hr)	10.00	Site Constant C	7.00
Run On Time (mins)	0	Average Rainfall (mm/hr)	3.00
Site Constant K	123.00	Over time period (mins)	10
Site Constant d	0.64		

Pollution Results

% flow in first flush	45.233
Lead in Time (mins)	0
Event Duration (mins)	30
Time To Peak (mins)	30
TP Shift (mins)	64
Peak concentration (mg/l)	325
First Flush Time (mins)	19
First Flush Load (kg)	13.586
Event Duration Load (kg)	32.302
Average FF concentration (mg/l)	262.881
Continuation Load at Run Time (kg)	34.116
Overflow Load at Run Time (kg)	0.000
Av. Continuation concentration (mg/l)	277.585
Av. Overflow concentration (mg/l)	0.000
Pollution Split	1.000
Flow Split	1.000



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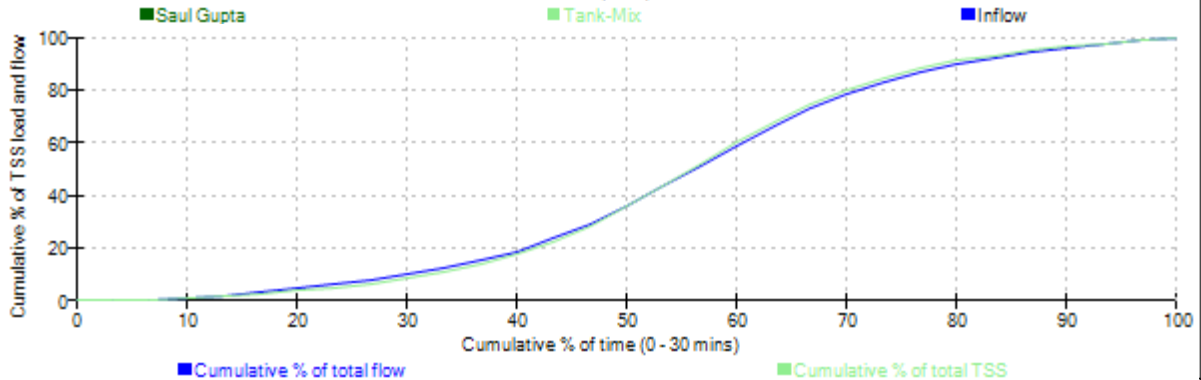
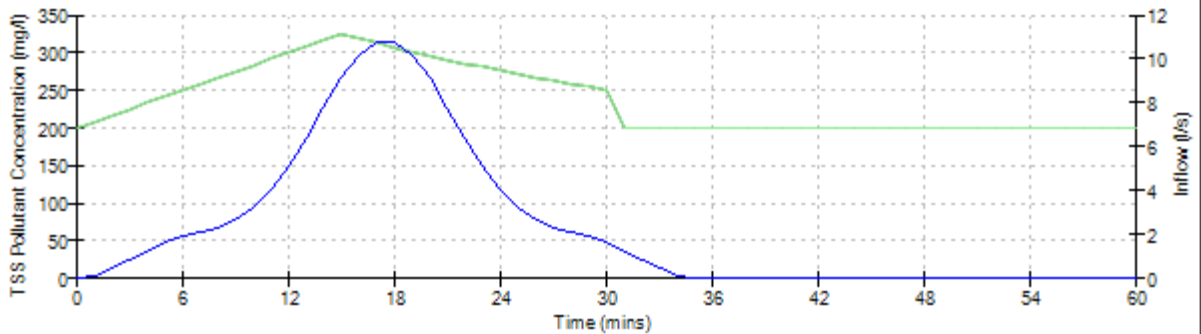
Saul Gupta Pollution Details for Pipe 7.000 US/MH 3 (BASIN CATCHMENT 15-8-23.SWS)  
30 minute 1 year Winter

Pollution Variables

Starting Concentration (mg/l)	200.00	Site Constant e	0.17
Loading Ratio	0.70	Site Constant ^k	1.23
Antecedent dry weather period (hr)	10.00	Site Constant C	7.00
Run On Time (mins)	0	Average Rainfall (mm/hr)	3.00
Site Constant K	123.00	Over time period (mins)	10
Site Constant d	0.64		

Pollution Results

% flow in first flush	72.820
Lead in Time (mins)	0
Event Duration (mins)	30
Time To Peak (mins)	15
TP Shift (mins)	64
Peak concentration (mg/l)	325
First Flush Time (mins)	20
First Flush Load (kg)	1.806
Event Duration Load (kg)	2.425
Average FF concentration (mg/l)	301.119
Continuation Load at Run Time (kg)	2.441
Overflow Load at Run Time (kg)	0.000
Av. Continuation concentration (mg/l)	290.657
Av. Overflow concentration (mg/l)	0.000
Pollution Split	1.000
Flow Split	1.000



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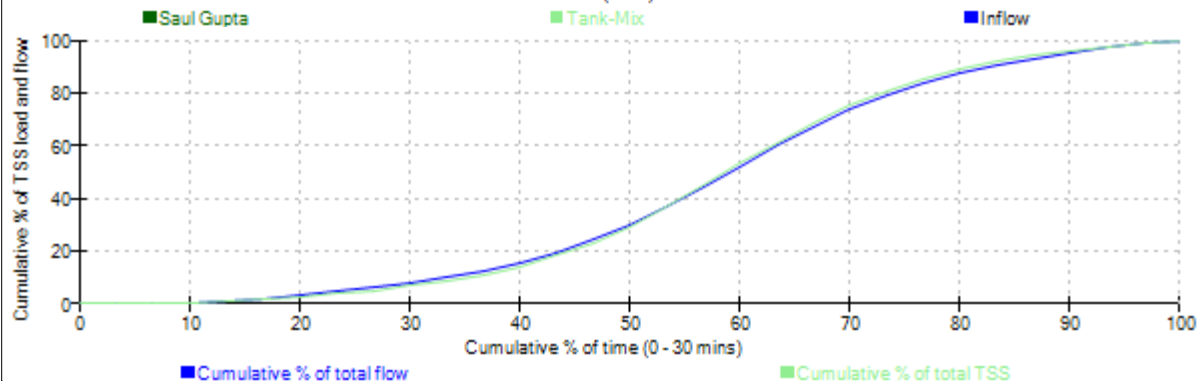
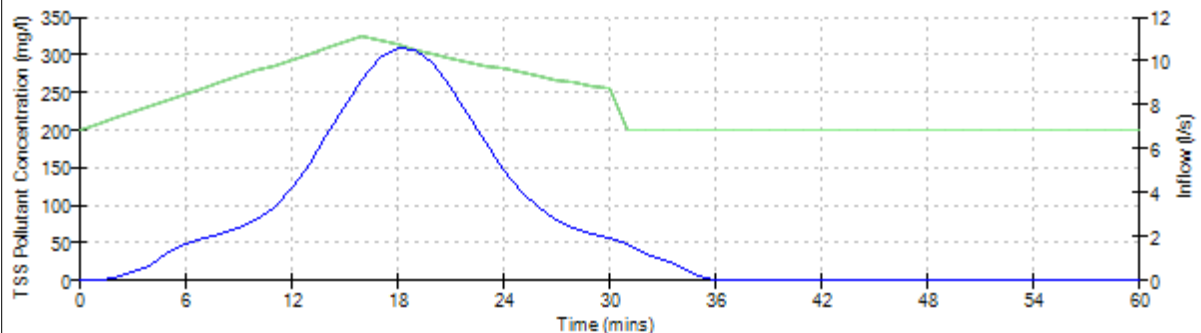
Saul Gupta Pollution Details for Pipe 7.001 US/MH 4 (BASIN CATCHMENT 15-8-23.SWS)  
30 minute 1 year Winter


Pollution Variables

Starting Concentration (mg/l)	200.00	Site Constant e	0.17
Loading Ratio	0.70	Site Constant ^k	1.23
Antecedent dry weather period (hr)	10.00	Site Constant C	7.00
Run On Time (mins)	0	Average Rainfall (mm/hr)	3.00
Site Constant K	123.00	Over time period (mins)	10
Site Constant d	0.64		

Pollution Results

% flow in first flush	73.705
Lead in Time (mins)	0
Event Duration (mins)	30
Time To Peak (mins)	16
TP Shift (mins)	64
Peak concentration (mg/l)	325
First Flush Time (mins)	21
First Flush Load (kg)	1.807
Event Duration Load (kg)	2.399
Average FF concentration (mg/l)	302.187
Continuation Load at Run Time (kg)	2.446
Overflow Load at Run Time (kg)	0.000
Av. Continuation concentration (mg/l)	291.325
Av. Overflow concentration (mg/l)	0.000
Pollution Split	1.000
Flow Split	1.000



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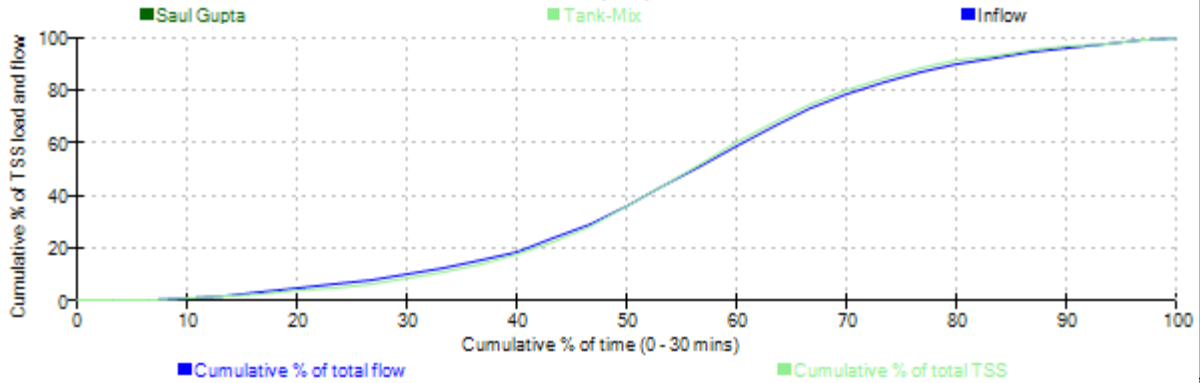
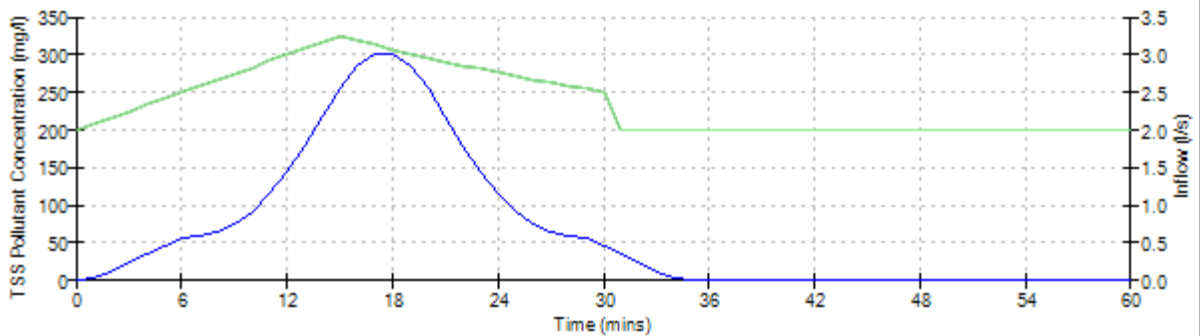
Saul Gupta Pollution Details for Pipe 8.000 US/MH 9 (BASIN CATCHMENT 15-8-23.SWS)  
30 minute 1 year Winter


Pollution Variables

Starting Concentration (mg/l)	200.00	Site Constant e	0.17
Loading Ratio	0.70	Site Constant ^k	1.23
Antecedent dry weather period (hr)	10.00	Site Constant C	7.00
Run On Time (mins)	0	Average Rainfall (mm/hr)	3.00
Site Constant K	123.00	Over time period (mins)	10
Site Constant d	0.64		

Pollution Results

% flow in first flush	72.820
Lead in Time (mins)	0
Event Duration (mins)	30
Time To Peak (mins)	15
TP Shift (mins)	64
Peak concentration (mg/l)	325
First Flush Time (mins)	20
First Flush Load (kg)	0.508
Event Duration Load (kg)	0.683
Average FF concentration (mg/l)	301.119
Continuation Load at Run Time (kg)	0.690
Overflow Load at Run Time (kg)	0.000
Av. Continuation concentration (mg/l)	292.027
Av. Overflow concentration (mg/l)	0.000
Pollution Split	1.000
Flow Split	1.000



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Date 17/08/2023 17:12 File BASIN CATCHMENT 15-8-23...	Designed by RAB-Highgrange Checked by	
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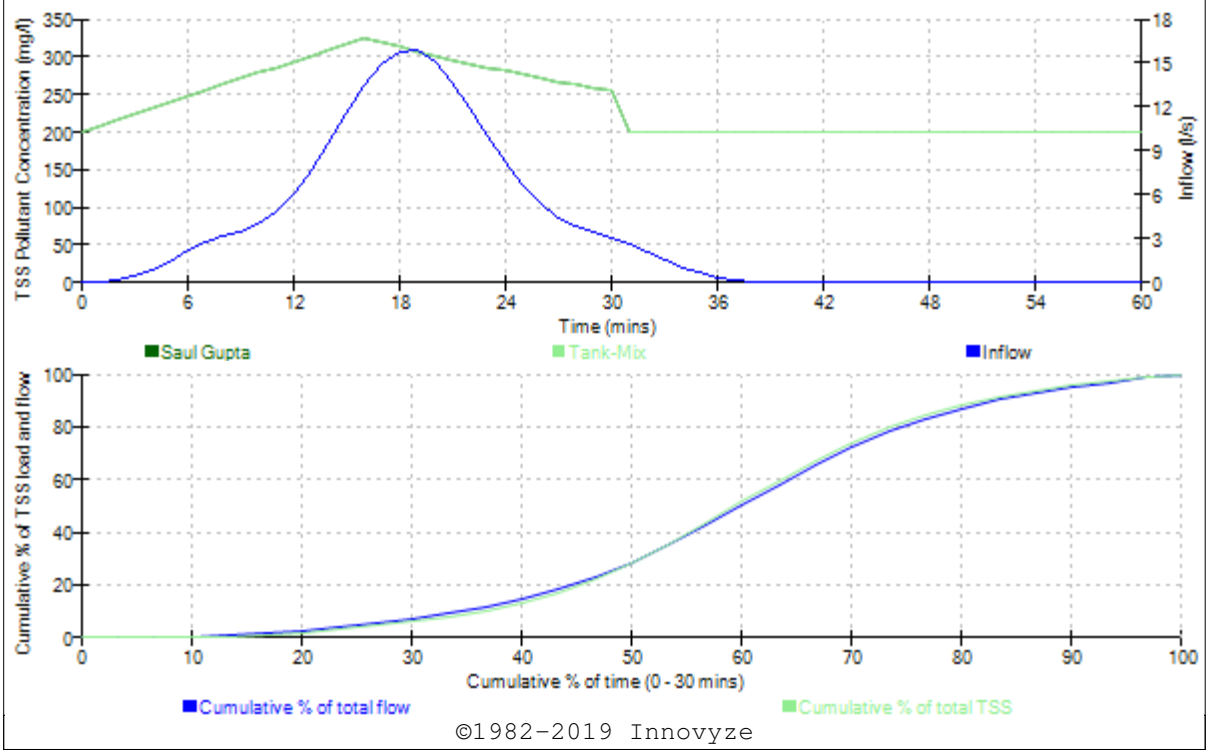
Saul Gupta Pollution Details for Pipe 7.002 US/MH 5 (BASIN CATCHMENT 15-8-23.SWS)  
30 minute 1 year Winter

Pollution Variables

Starting Concentration (mg/l)	200.00	Site Constant e	0.17
Loading Ratio	0.70	Site Constant ^k	1.23
Antecedent dry weather period (hr)	10.00	Site Constant C	7.00
Run On Time (mins)	0	Average Rainfall (mm/hr)	3.00
Site Constant K	123.00	Over time period (mins)	10
Site Constant d	0.64		

Pollution Results

% flow in first flush	72.172
Lead in Time (mins)	0
Event Duration (mins)	30
Time To Peak (mins)	16
TP Shift (mins)	64
Peak concentration (mg/l)	325
First Flush Time (mins)	21
First Flush Load (kg)	2.674
Event Duration Load (kg)	3.620
Average FF concentration (mg/l)	302.543
Continuation Load at Run Time (kg)	3.692
Overflow Load at Run Time (kg)	0.000
Av. Continuation concentration (mg/l)	289.551
Av. Overflow concentration (mg/l)	0.000
Pollution Split	1.000
Flow Split	1.000



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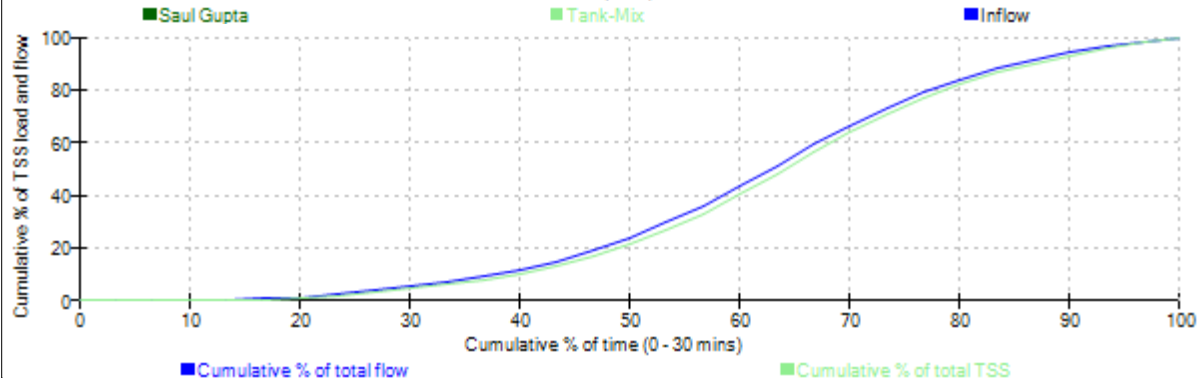
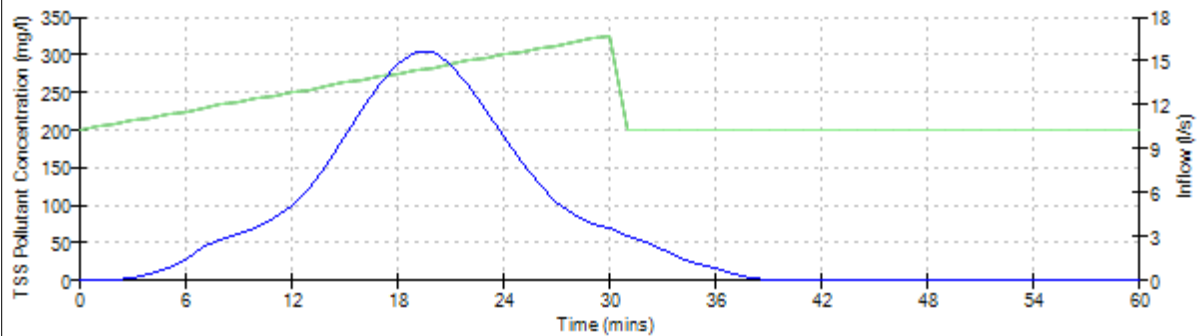
Saul Gupta Pollution Details for Pipe 7.003 US/MH 7 (BASIN CATCHMENT 15-8-23.SWS)  
30 minute 1 year Winter

Pollution Variables

Starting Concentration (mg/l)	200.00	Site Constant e	0.17
Loading Ratio	0.70	Site Constant ^k	1.23
Antecedent dry weather period (hr)	10.00	Site Constant C	7.00
Run On Time (mins)	0	Average Rainfall (mm/hr)	3.00
Site Constant K	123.00	Over time period (mins)	10
Site Constant d	0.64		

Pollution Results

% flow in first flush	51.406
Lead in Time (mins)	0
Event Duration (mins)	30
Time To Peak (mins)	30
TP Shift (mins)	64
Peak concentration (mg/l)	325
First Flush Time (mins)	19
First Flush Load (kg)	1.625
Event Duration Load (kg)	3.370
Average FF concentration (mg/l)	262.315
Continuation Load at Run Time (kg)	3.517
Overflow Load at Run Time (kg)	0.000
Av. Continuation concentration (mg/l)	275.801
Av. Overflow concentration (mg/l)	0.000
Pollution Split	1.000
Flow Split	1.000



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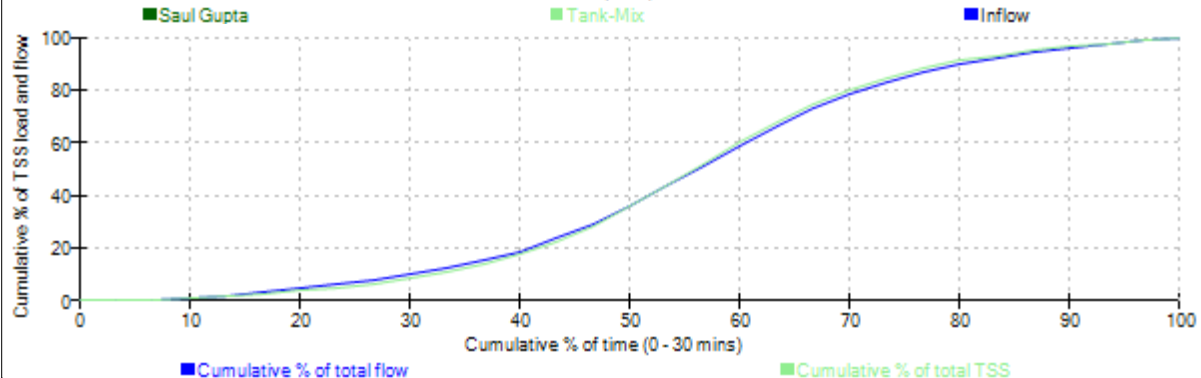
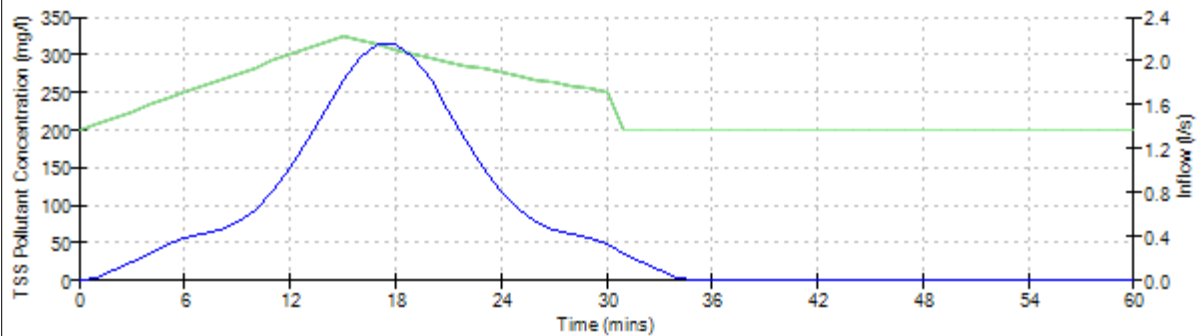
Saul Gupta Pollution Details for Pipe 9.000 US/MH 12 (BASIN CATCHMENT 15-8-23.SWS)  
30 minute 1 year Winter

Pollution Variables

Starting Concentration (mg/l)	200.00	Site Constant e	0.17
Loading Ratio	0.70	Site Constant ^k	1.23
Antecedent dry weather period (hr)	10.00	Site Constant C	7.00
Run On Time (mins)	0	Average Rainfall (mm/hr)	3.00
Site Constant K	123.00	Over time period (mins)	10
Site Constant d	0.64		

Pollution Results

% flow in first flush	72.820
Lead in Time (mins)	0
Event Duration (mins)	30
Time To Peak (mins)	15
TP Shift (mins)	64
Peak concentration (mg/l)	325
First Flush Time (mins)	20
First Flush Load (kg)	0.361
Event Duration Load (kg)	0.485
Average FF concentration (mg/l)	301.119
Continuation Load at Run Time (kg)	0.490
Overflow Load at Run Time (kg)	0.000
Av. Continuation concentration (mg/l)	291.729
Av. Overflow concentration (mg/l)	0.000
Pollution Split	1.000
Flow Split	1.000



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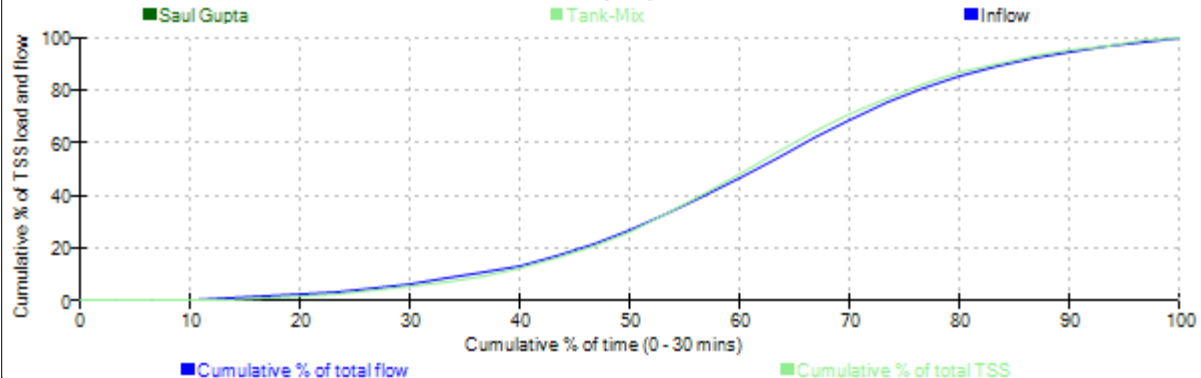
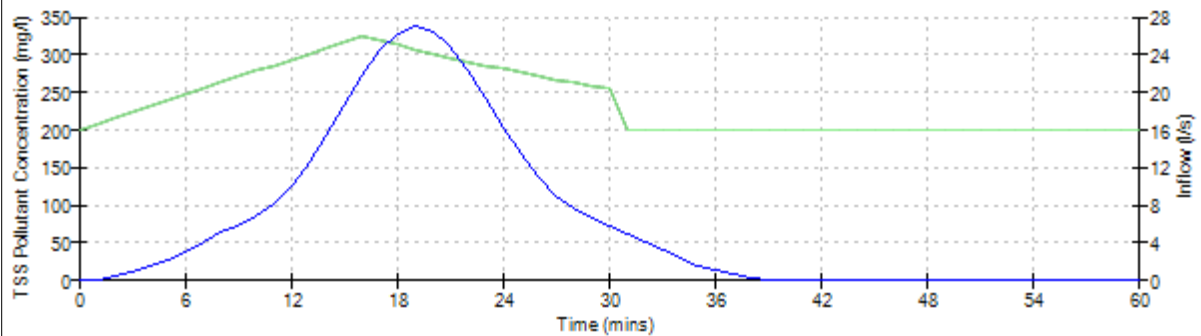
Saul Gupta Pollution Details for Pipe 7.004 US/MH 8 (BASIN CATCHMENT 15-8-23.SWS)  
30 minute 1 year Winter

Pollution Variables

Starting Concentration (mg/l)	200.00	Site Constant e	0.17
Loading Ratio	0.70	Site Constant ^k	1.23
Antecedent dry weather period (hr)	10.00	Site Constant C	7.00
Run On Time (mins)	0	Average Rainfall (mm/hr)	3.00
Site Constant K	123.00	Over time period (mins)	10
Site Constant d	0.64		

Pollution Results

% flow in first flush	68.744
Lead in Time (mins)	0
Event Duration (mins)	30
Time To Peak (mins)	16
TP Shift (mins)	64
Peak concentration (mg/l)	325
First Flush Time (mins)	21
First Flush Load (kg)	4.457
Event Duration Load (kg)	6.315
Average FF concentration (mg/l)	302.671
Continuation Load at Run Time (kg)	6.472
Overflow Load at Run Time (kg)	0.000
Av. Continuation concentration (mg/l)	287.444
Av. Overflow concentration (mg/l)	0.000
Pollution Split	1.000
Flow Split	1.000





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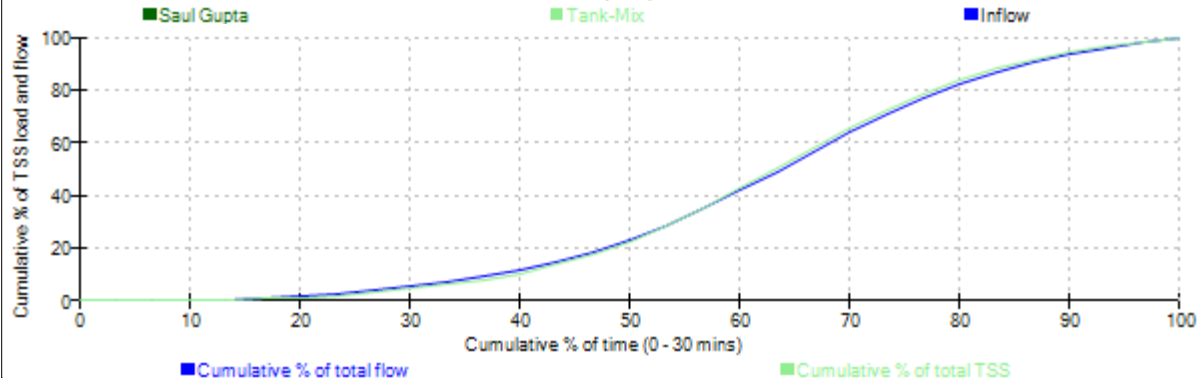
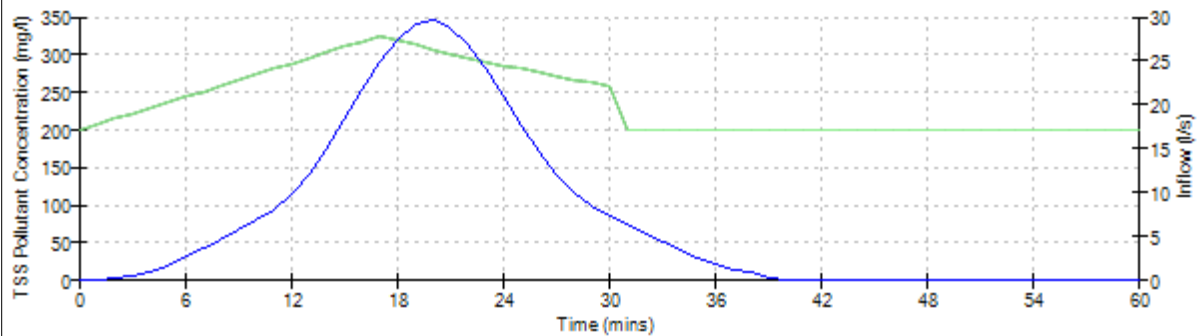
Saul Gupta Pollution Details for Pipe 7.005 US/MH 13 (BASIN CATCHMENT 15-8-23.SWS)  
30 minute 1 year Winter

Pollution Variables

Starting Concentration (mg/l)	200.00	Site Constant e	0.17
Loading Ratio	0.70	Site Constant ^k	1.23
Antecedent dry weather period (hr)	10.00	Site Constant C	7.00
Run On Time (mins)	0	Average Rainfall (mm/hr)	3.00
Site Constant K	123.00	Over time period (mins)	10
Site Constant d	0.64		

Pollution Results

% flow in first flush	70.771
Lead in Time (mins)	0
Event Duration (mins)	30
Time To Peak (mins)	17
TP Shift (mins)	64
Peak concentration (mg/l)	325
First Flush Time (mins)	22
First Flush Load (kg)	5.076
Event Duration Load (kg)	7.003
Average FF concentration (mg/l)	303.126
Continuation Load at Run Time (kg)	7.263
Overflow Load at Run Time (kg)	0.000
Av. Continuation concentration (mg/l)	287.607
Av. Overflow concentration (mg/l)	0.000
Pollution Split	1.000
Flow Split	1.000



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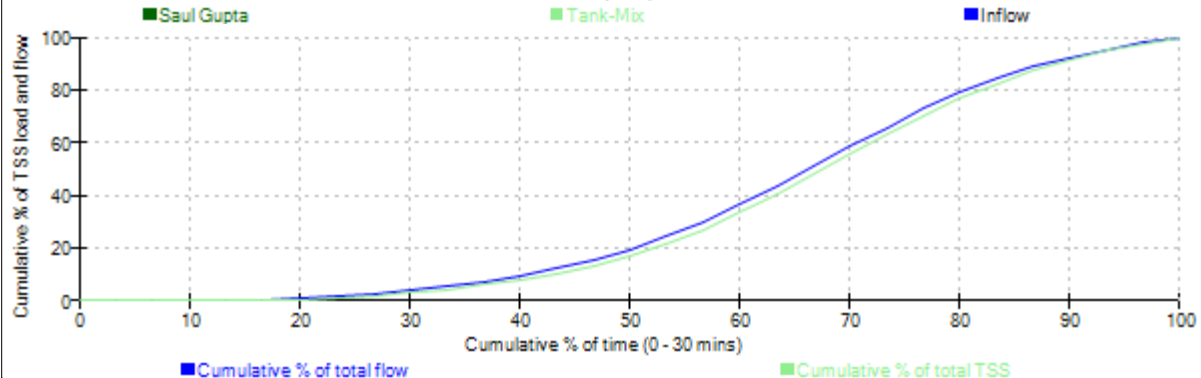
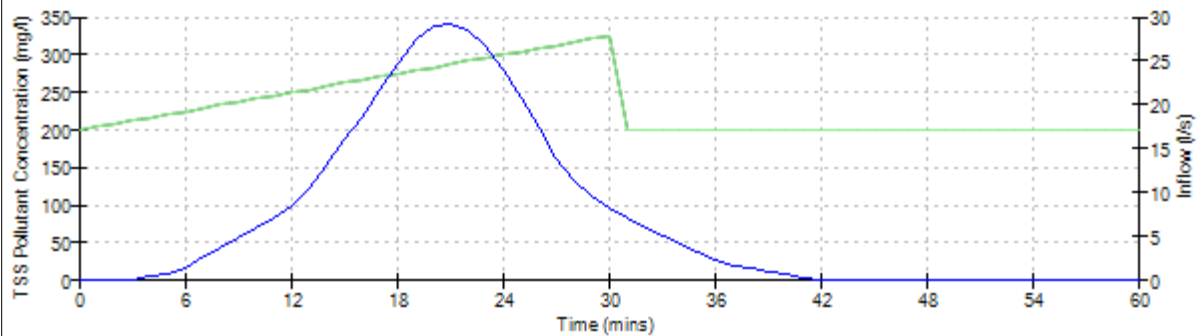
Saul Gupta Pollution Details for Pipe 7.006 US/MH 14 (BASIN CATCHMENT 15-8-23.SWS)  
30 minute 1 year Winter

Pollution Variables

Starting Concentration (mg/l)	200.00	Site Constant e	0.17
Loading Ratio	0.70	Site Constant ^k	1.23
Antecedent dry weather period (hr)	10.00	Site Constant C	7.00
Run On Time (mins)	0	Average Rainfall (mm/hr)	3.00
Site Constant K	123.00	Over time period (mins)	10
Site Constant d	0.64		

Pollution Results

% flow in first flush	50.870
Lead in Time (mins)	0
Event Duration (mins)	30
Time To Peak (mins)	30
TP Shift (mins)	64
Peak concentration (mg/l)	325
First Flush Time (mins)	20
First Flush Load (kg)	3.144
Event Duration Load (kg)	6.587
Average FF concentration (mg/l)	266.127
Continuation Load at Run Time (kg)	7.005
Overflow Load at Run Time (kg)	0.000
Av. Continuation concentration (mg/l)	277.408
Av. Overflow concentration (mg/l)	0.000
Pollution Split	1.000
Flow Split	1.000



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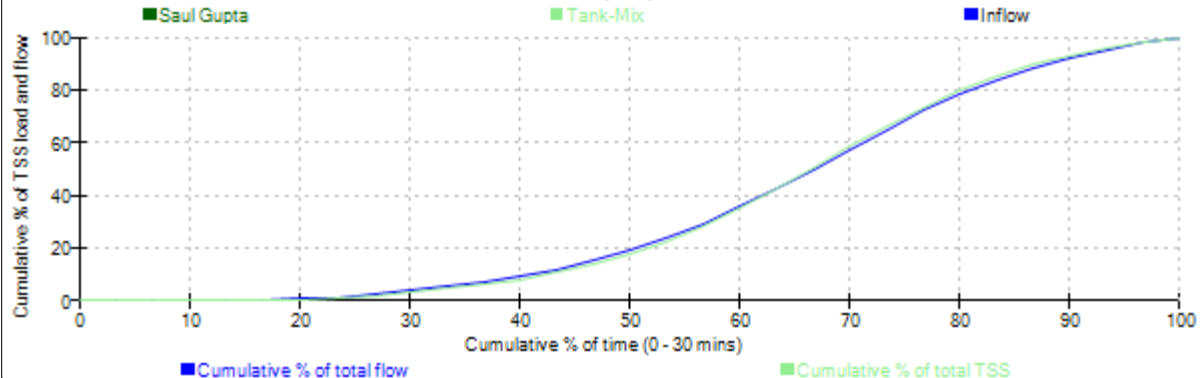
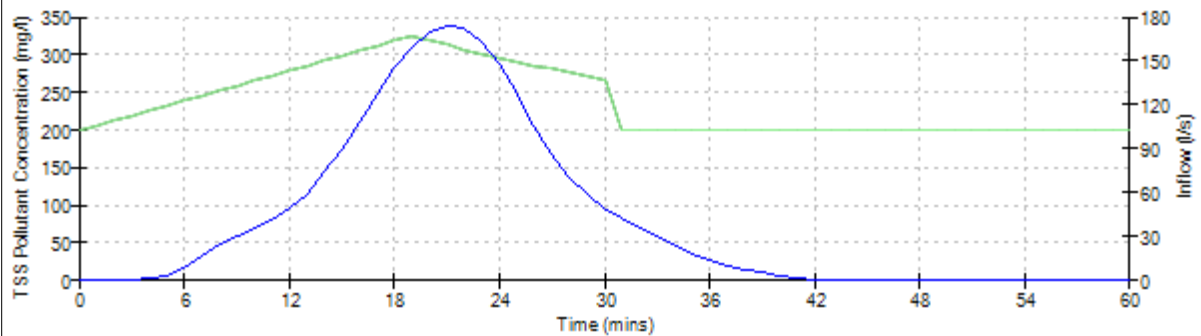
Saul Gupta Pollution Details for Pipe 3.007 US/MH 11 (BASIN CATCHMENT 15-8-23.SWS)  
30 minute 1 year Winter

Pollution Variables

Starting Concentration (mg/l)	200.00	Site Constant e	0.17
Loading Ratio	0.70	Site Constant ^k	1.23
Antecedent dry weather period (hr)	10.00	Site Constant C	7.00
Run On Time (mins)	0	Average Rainfall (mm/hr)	3.00
Site Constant K	123.00	Over time period (mins)	10
Site Constant d	0.64		

Pollution Results

% flow in first flush	71.953
Lead in Time (mins)	0
Event Duration (mins)	30
Time To Peak (mins)	19
TP Shift (mins)	64
Peak concentration (mg/l)	325
First Flush Time (mins)	23
First Flush Load (kg)	30.197
Event Duration Load (kg)	41.227
Average FF concentration (mg/l)	304.144
Continuation Load at Run Time (kg)	43.481
Overflow Load at Run Time (kg)	0.000
Av. Continuation concentration (mg/l)	290.437
Av. Overflow concentration (mg/l)	0.000
Pollution Split	1.000
Flow Split	1.000



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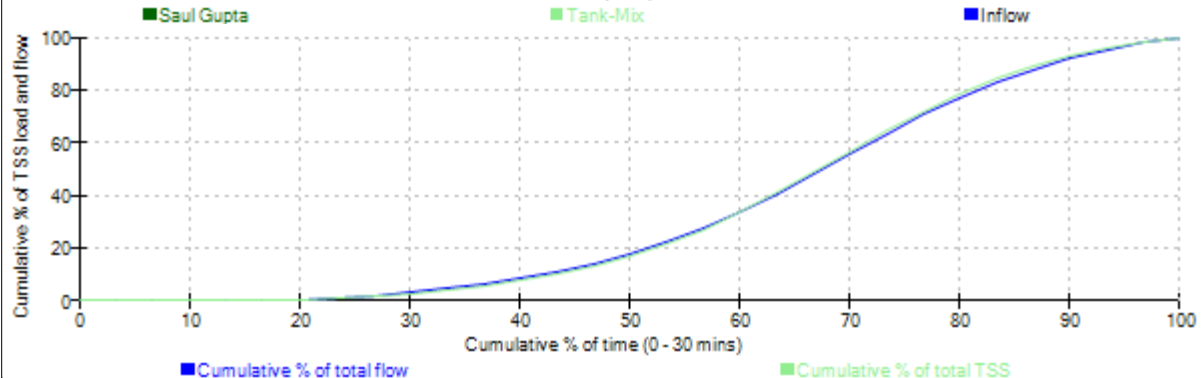
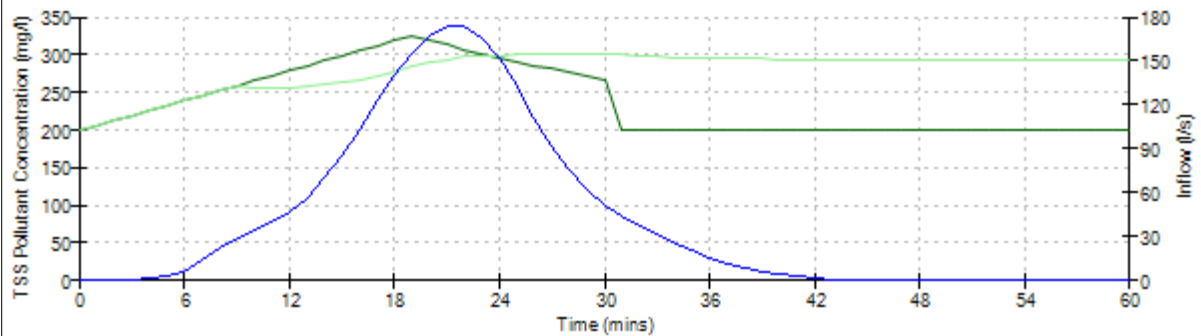
Saul Gupta Pollution Details for Pipe 3.008 US/MH 16 (BASIN CATCHMENT 15-8-23.SWS)  
30 minute 1 year Winter

Pollution Variables

Starting Concentration (mg/l)	200.00	Site Constant e	0.17
Loading Ratio	0.70	Site Constant ^k	1.23
Antecedent dry weather period (hr)	10.00	Site Constant C	7.00
Run On Time (mins)	0	Average Rainfall (mm/hr)	3.00
Site Constant K	123.00	Over time period (mins)	10
Site Constant d	0.64		

Pollution Results

% flow in first flush	70.418
Lead in Time (mins)	0
Event Duration (mins)	30
Time To Peak (mins)	19
TP Shift (mins)	64
Peak concentration (mg/l)	325
First Flush Time (mins)	23
First Flush Load (kg)	29.391
Event Duration Load (kg)	40.940
Average FF concentration (mg/l)	304.647
Continuation Load at Run Time (kg)	23.136
Overflow Load at Run Time (kg)	0.000
Av. Continuation concentration (mg/l)	294.006
Av. Overflow concentration (mg/l)	0.000
Pollution Split	1.000
Flow Split	1.000



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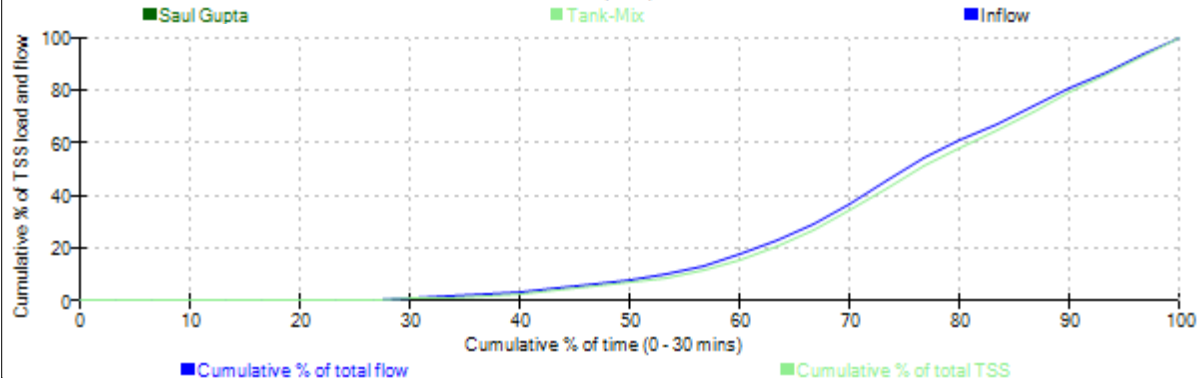
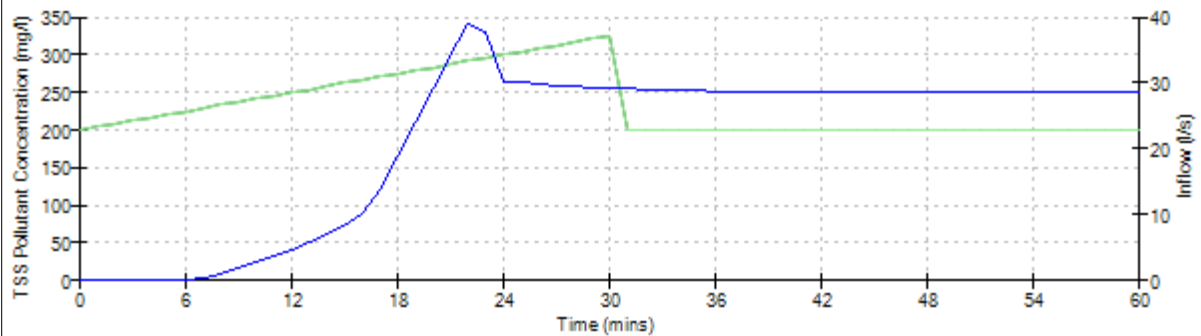
Saul Gupta Pollution Details for Pipe 3.009 US/MH 30 (BASIN CATCHMENT 15-8-23.SWS)  
30 minute 1 year Winter

Pollution Variables

Starting Concentration (mg/l)	200.00	Site Constant e	0.17
Loading Ratio	0.70	Site Constant ^k	1.23
Antecedent dry weather period (hr)	10.00	Site Constant C	7.00
Run On Time (mins)	0	Average Rainfall (mm/hr)	3.00
Site Constant K	123.00	Over time period (mins)	10
Site Constant d	0.64		

Pollution Results

% flow in first flush	45.571
Lead in Time (mins)	0
Event Duration (mins)	30
Time To Peak (mins)	30
TP Shift (mins)	64
Peak concentration (mg/l)	325
First Flush Time (mins)	22
First Flush Load (kg)	3.421
Event Duration Load (kg)	7.989
Average FF concentration (mg/l)	277.418
Continuation Load at Run Time (kg)	17.404
Overflow Load at Run Time (kg)	0.000
Av. Continuation concentration (mg/l)	230.281
Av. Overflow concentration (mg/l)	0.000
Pollution Split	1.000
Flow Split	1.000



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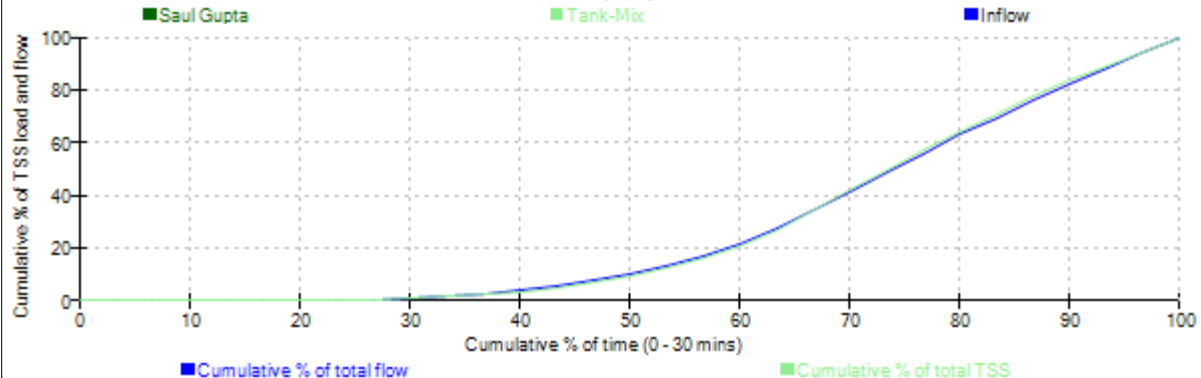
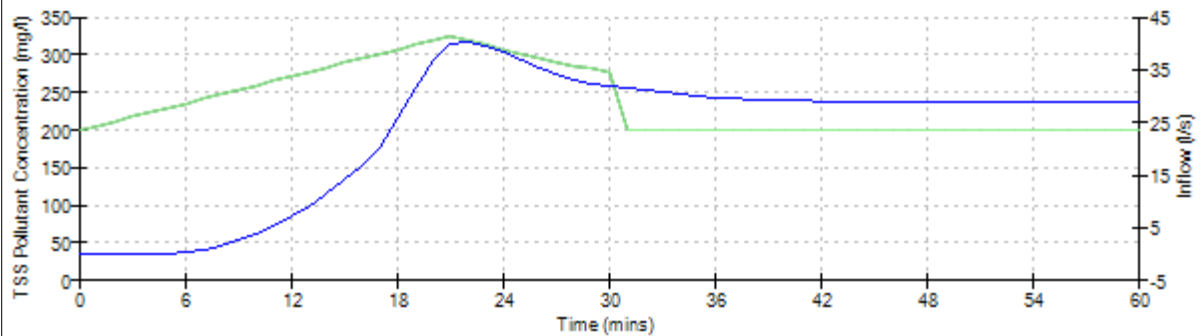
Saul Gupta Pollution Details for Pipe 1.003 US/MH 45 (BASIN CATCHMENT 15-8-23.SWS)  
30 minute 1 year Winter


Pollution Variables

Starting Concentration (mg/l)	200.00	Site Constant e	0.17
Loading Ratio	0.70	Site Constant ^k	1.23
Antecedent dry weather period (hr)	10.00	Site Constant C	7.00
Run On Time (mins)	0	Average Rainfall (mm/hr)	3.00
Site Constant K	123.00	Over time period (mins)	10
Site Constant d	0.64		

Pollution Results

% flow in first flush	69.653
Lead in Time (mins)	0
Event Duration (mins)	30
Time To Peak (mins)	21
TP Shift (mins)	64
Peak concentration (mg/l)	325
First Flush Time (mins)	25
First Flush Load (kg)	7.048
Event Duration Load (kg)	9.918
Average FF concentration (mg/l)	306.624
Continuation Load at Run Time (kg)	20.115
Overflow Load at Run Time (kg)	0.000
Av. Continuation concentration (mg/l)	237.620
Av. Overflow concentration (mg/l)	0.000
Pollution Split	1.000
Flow Split	1.000



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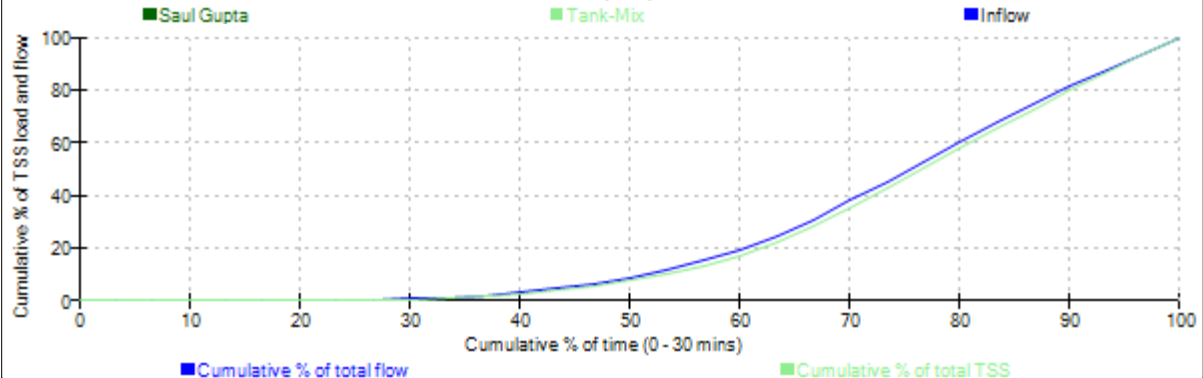
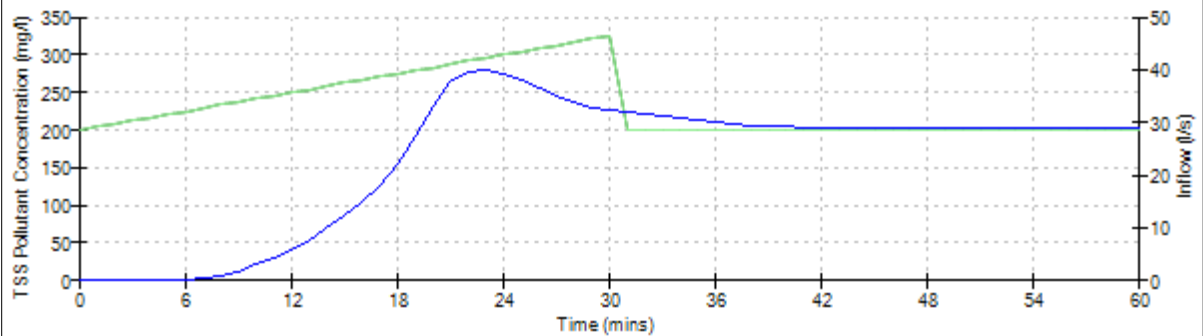
Saul Gupta Pollution Details for Pipe 1.004 US/MH 24 (BASIN CATCHMENT 15-8-23.SWS)  
30 minute 1 year Winter

Pollution Variables

Starting Concentration (mg/l)	200.00	Site Constant e	0.17
Loading Ratio	0.70	Site Constant ^k	1.23
Antecedent dry weather period (hr)	10.00	Site Constant C	7.00
Run On Time (mins)	0	Average Rainfall (mm/hr)	3.00
Site Constant K	123.00	Over time period (mins)	10
Site Constant d	0.64		

Pollution Results

% flow in first flush	45.371
Lead in Time (mins)	0
Event Duration (mins)	30
Time To Peak (mins)	30
TP Shift (mins)	64
Peak concentration (mg/l)	325
First Flush Time (mins)	22
First Flush Load (kg)	3.969
Event Duration Load (kg)	9.327
Average FF concentration (mg/l)	276.569
Continuation Load at Run Time (kg)	19.285
Overflow Load at Run Time (kg)	0.000
Av. Continuation concentration (mg/l)	234.367
Av. Overflow concentration (mg/l)	0.000
Pollution Split	1.000
Flow Split	1.000



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Saul Gupta Pollution Details for Pipe 1.005 US/MH 25 (BASIN CATCHMENT 15-8-23.SWS)  
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Pollution Variables

Starting Concentration (mg/l)	200.00	Site Constant e	0.17
Loading Ratio	0.70	Site Constant ^k	1.23
Antecedent dry weather period (hr)	10.00	Site Constant C	7.00
Run On Time (mins)	0	Average Rainfall (mm/hr)	3.00
Site Constant K	123.00	Over time period (mins)	10
Site Constant d	0.64		

Pollution Results

% flow in first flush	46.829
Lead in Time (mins)	0
Event Duration (mins)	30
Time To Peak (mins)	30
TP Shift (mins)	64
Peak concentration (mg/l)	325
First Flush Time (mins)	23
First Flush Load (kg)	3.810
Event Duration Load (kg)	8.620
Average FF concentration (mg/l)	280.969
Continuation Load at Run Time (kg)	18.939
Overflow Load at Run Time (kg)	0.000
Av. Continuation concentration (mg/l)	233.676
Av. Overflow concentration (mg/l)	0.000
Pollution Split	1.000
Flow Split	1.000

