

Pinnacle Consulting Engineers Limited		Page 11
Pinnacle House 3 Meridian Way Norwich NR7 0TA	Havant Catchment A, B and F	
Date 04/05/2021 File SW NETWORK 1.MDX	Designed by iran.limbu Checked by	
XP Solutions	Network 2017.1.2	

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

Simulation Criteria

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

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

Synthetic Rainfall Details

Rainfall Model FEH D3 (1km) 0.387
 FEH Rainfall Version 1999 E (1km) 0.310
 Site Location GB 472400 107400 SU 72400 07400 F (1km) 2.252
 C (1km) -0.029 Cv (Summer) 0.750
 D1 (1km) 0.457 Cv (Winter) 0.840
 D2 (1km) 0.295

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

 Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
 Return Period(s) (years) 1, 30, 100
 Climate Change (%) 0, 0, 20

PN	US/MH		Return Period	Climate Change	First (X) Surge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level	Surcharged Depth	Flooded Volume
	Name	Storm							(m)	(m)	(m³)
5.000	QMAX 15	Winter	1	+0%	100/15	Winter			13.022	-0.797	0.000
5.001	QMAX 15	Winter	1	+0%	100/15	Winter			13.009	-0.785	0.000
5.002	QMAX 15	Winter	1	+0%	100/15	Winter			12.991	-0.778	0.000
5.003	QMAX 15	Winter	1	+0%	100/15	Winter			12.965	-0.779	0.000
6.000	QMAX 15	Winter	1	+0%	100/15	Winter			12.946	-0.873	0.000
5.004	S1 15	Winter	1	+0%	30/15	Summer			12.905	-0.064	0.000
7.000	QMAX 15	Winter	1	+0%					14.242	-0.858	0.000
7.001	QMAX 30	Winter	1	+0%	100/15	Summer	100/15	Winter	13.771	-0.729	0.000
7.002	QMAX 30	Winter	1	+0%	100/15	Summer	100/15	Summer	13.762	-0.663	0.000
7.003	QMAX 30	Winter	1	+0%	100/15	Summer	100/15	Summer	13.754	-0.571	0.000
8.000	QMAX 30	Winter	1	+0%	100/15	Summer			13.750	-0.850	0.000
7.004	QMAX 30	Winter	1	+0%	1/15	Summer	100/15	Summer	13.744	0.169	0.000
5.005	S2 30	Winter	1	+0%	30/15	Summer	100/15	Summer	13.615	-0.205	0.000
9.000	QMAX 15	Winter	1	+0%					14.413	-0.787	0.000
9.001	QMAX 15	Winter	1	+0%					14.401	-0.774	0.000
9.002	QMAX 15	Winter	1	+0%					14.380	-0.770	0.000
9.003	QMAX 30	Winter	1	+0%					14.346	-0.779	0.000
9.004	QMAX 30	Winter	1	+0%	30/15	Summer			14.272	-0.078	0.000
10.000	QMAX 15	Winter	1	+0%					14.228	-0.872	0.000
10.001	QMAX 15	Winter	1	+0%	100/30	Winter			13.901	-0.739	0.000
10.002	QMAX 30	Winter	1	+0%	100/15	Winter			13.882	-0.728	0.000
10.003	QMAX 30	Winter	1	+0%	100/15	Winter			13.864	-0.716	0.000

Pinnacle Consulting Engineers Limited		Page 12
Pinnacle House 3 Meridian Way Norwich NR7 0TA	Havant Catchment A, B and F	
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PN	US/MH Name	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
5.000	QMAX	0.03		5.6	OK	
5.001	QMAX	0.03		9.8	OK	
5.002	QMAX	0.04		14.1	OK	
5.003	QMAX	0.06		18.3	OK	
6.000	QMAX	0.01		5.3	OK	
5.004	S1	4.90		26.9	OK*	
7.000	QMAX	0.01		13.5	OK	
7.001	QMAX	0.04		20.5	OK	2
7.002	QMAX	0.05		28.0	OK	12
7.003	QMAX	0.08		26.0	OK	12
8.000	QMAX	0.01		4.1	OK	
7.004	QMAX	1.57		23.1	SURCHARGED*	11
5.005	S2	0.48		43.9	OK	4
9.000	QMAX	0.01		3.7	OK	
9.001	QMAX	0.02		5.9	OK	
9.002	QMAX	0.02		8.0	OK	
9.003	QMAX	0.03		10.1	OK	
9.004	QMAX	0.46		12.0	OK*	
10.000	QMAX	0.01		6.4	OK	
10.001	QMAX	0.03		10.7	OK	
10.002	QMAX	0.04		12.9	OK	
10.003	QMAX	0.05		15.3	OK	

Pinnacle Consulting Engineers Limited		Page 13
Pinnacle House 3 Meridian Way Norwich NR7 0TA	Havant Catchment A, B and F	
Date 04/05/2021	Designed by iran.limbu	
File SW NETWORK 1.MDX	Checked by	
XP Solutions	Network 2017.1.2	

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

PN	US/MH Name	Storm	Return Climate		First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water	Surcharged
			Period	Change					Level (m)	Depth (m)
9.005	QMAX	30 Winter	1	+0%	1/15 Summer				13.839	0.049
5.006	S3	30 Winter	1	+0%	30/15 Summer				13.548	-0.299
5.007	S4	30 Winter	1	+0%	30/15 Summer				13.507	-0.294
5.008	S5	30 Winter	1	+0%	30/15 Summer				13.457	-0.202
5.009	S6	60 Winter	1	+0%	30/15 Summer				13.397	-0.239
5.010	S8	60 Winter	1	+0%	30/15 Summer	100/15 Summer			13.344	-0.067
11.000	S14	15 Winter	1	+0%	30/15 Summer	100/15 Summer			13.590	-0.194
11.001	S15	60 Winter	1	+0%	30/15 Summer				13.292	-0.034
5.011	S9	60 Winter	1	+0%	30/15 Summer	100/15 Summer			13.280	-0.071
5.012	S10	60 Winter	1	+0%	30/15 Summer	100/15 Winter			13.079	-0.262
12.000	ATT	480 Winter	1	+0%	100/60 Winter				12.996	-0.387
5.013	S11	60 Winter	1	+0%	30/15 Summer				13.046	-0.187
5.014	S12	60 Winter	1	+0%					12.595	-0.301
5.015	S13	60 Winter	1	+0%					12.494	-0.306

PN	US/MH Name	Flooded		Pipe	Status	Level Exceeded
		Volume (m³)	Flow / Cap.	Overflow (l/s)		
9.005	QMAX	0.000	0.96	24.6	SURCHARGED*	
5.006	S3	0.000	0.36	66.9	OK	
5.007	S4	0.000	0.29	72.6	OK	
5.008	S5	0.000	0.54	69.1	OK	
5.009	S6	0.000	0.25	75.7	OK	
5.010	S8	0.000	0.45	75.6	OK	4
11.000	S14	0.000	0.26	25.0	OK	4
11.001	S15	0.000	0.18	20.5	OK	
5.011	S9	0.000	1.00	87.0	OK	4
5.012	S10	0.000	0.40	87.8	OK	
12.000	ATT	0.000	0.08	8.9	OK	
5.013	S11	0.000	0.13	41.9	OK	
5.014	S12	0.000	0.24	41.9	OK	
5.015	S13	0.000	0.22	41.9	OK	

Pinnacle Consulting Engineers Limited		Page 14
Pinnacle House 3 Meridian Way Norwich NR7 0TA	Havant Catchment A, B and F	
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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

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 C (1km) -0.029 Cv (Summer) 0.750
 D1 (1km) 0.457 Cv (Winter) 0.840
 D2 (1km) 0.295

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

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
 Return Period(s) (years) 1, 30, 100
 Climate Change (%) 0, 0, 20

PN	US/MH		Return Period	Climate Change	First (X) Surge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level	Surcharged Depth	Flooded Volume
	Name	Storm							(m)	(m)	(m³)
5.000	QMAX 15	Winter	30	+0%	100/15	Winter			13.267	-0.552	0.000
5.001	QMAX 15	Winter	30	+0%	100/15	Winter			13.266	-0.528	0.000
5.002	QMAX 15	Winter	30	+0%	100/15	Winter			13.261	-0.508	0.000
5.003	QMAX 15	Winter	30	+0%	100/15	Winter			13.254	-0.490	0.000
6.000	QMAX 15	Winter	30	+0%	100/15	Winter			13.249	-0.570	0.000
5.004	S1 15	Winter	30	+0%	30/15	Summer			13.247	0.278	0.000
7.000	QMAX 30	Winter	30	+0%					14.347	-0.753	0.000
7.001	QMAX 30	Winter	30	+0%	100/15	Summer	100/15	Winter	14.346	-0.154	0.000
7.002	QMAX 30	Winter	30	+0%	100/15	Summer	100/15	Summer	14.328	-0.097	0.000
7.003	QMAX 30	Winter	30	+0%	100/15	Summer	100/15	Summer	14.274	-0.051	0.000
8.000	QMAX 30	Winter	30	+0%	100/15	Summer			14.203	-0.397	0.000
7.004	QMAX 30	Winter	30	+0%	1/15	Summer	100/15	Summer	14.202	0.627	0.000
5.005	S2 30	Winter	30	+0%	30/15	Summer	100/15	Summer	14.061	0.241	0.000
9.000	QMAX 15	Winter	30	+0%					14.539	-0.661	0.000
9.001	QMAX 15	Winter	30	+0%					14.536	-0.639	0.000
9.002	QMAX 15	Winter	30	+0%					14.531	-0.619	0.000
9.003	QMAX 15	Winter	30	+0%					14.525	-0.600	0.000
9.004	QMAX 30	Winter	30	+0%	30/15	Summer			14.516	0.166	0.000
10.000	QMAX 60	Winter	30	+0%					14.298	-0.802	0.000
10.001	QMAX 60	Winter	30	+0%	100/30	Winter			14.295	-0.345	0.000
10.002	QMAX 60	Winter	30	+0%	100/15	Winter			14.293	-0.317	0.000
10.003	QMAX 30	Winter	30	+0%	100/15	Winter			14.287	-0.293	0.000

Pinnacle Consulting Engineers Limited		Page 15
Pinnacle House 3 Meridian Way Norwich NR7 0TA	Havant Catchment A, B and F	
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PN	US/MH Name	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
5.000	QMAX	0.08		17.4	OK	
5.001	QMAX	0.09		29.5	OK	
5.002	QMAX	0.13		40.8	OK	
5.003	QMAX	0.16		50.5	OK	
6.000	QMAX	0.03		15.3	OK	
5.004	S1	11.87		65.0	SURCHARGED*	
7.000	QMAX	0.03		34.1	OK	
7.001	QMAX	0.10		57.0	OK	2
7.002	QMAX	0.13		72.1	FLOOD RISK*	12
7.003	QMAX	0.20		61.1	OK	12
8.000	QMAX	0.02		11.0	OK	
7.004	QMAX	2.84		41.7	SURCHARGED*	11
5.005	S2	1.01		91.8	SURCHARGED	4
9.000	QMAX	0.04		12.1	OK	
9.001	QMAX	0.06		18.9	OK	
9.002	QMAX	0.07		23.6	OK	
9.003	QMAX	0.08		25.4	OK	
9.004	QMAX	0.93		24.4	SURCHARGED*	
10.000	QMAX	0.01		11.1	OK	
10.001	QMAX	0.05		16.1	OK	
10.002	QMAX	0.05		16.8	OK	
10.003	QMAX	0.07		22.4	OK	