

The Gatehouse
Pattenden Lane
TN12 9QS

19-014 - Culls Farm
Dean Street
ME15 0PS



Date 28/03/2024

Designed by Reiss Rampton

File 19-014 - NETWORK REV B.MDX

Checked by

XP Solutions

Network 2020.1.3

Existing Network Details for Existing

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
E1.000	27.774	0.460	60.4	0.007	5.00	0.0	0.600	o	150	Pipe/Conduit
E1.001	9.229	0.170	54.3	0.016	5.00	0.0	0.600	o	150	Pipe/Conduit
E1.002	11.386	0.340	33.5	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit
E2.000	19.146	0.240	79.8	0.034	5.00	0.0	0.600	o	150	Pipe/Conduit
E3.000	23.273	0.830	28.0	0.038	5.00	0.0	0.600	o	150	Pipe/Conduit
E1.003	30.526	0.970	31.5	0.019	5.00	0.0	0.600	o	225	Pipe/Conduit
E4.000	22.405	0.790	28.4	0.013	5.00	0.0	0.600	o	150	Pipe/Conduit
E4.001	6.155	0.040	153.9	0.012	5.00	0.0	0.600	o	150	Pipe/Conduit
E4.002	16.803	0.110	152.8	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit
E4.003	21.765	0.140	155.5	0.035	5.00	0.0	0.600	o	225	Pipe/Conduit
E1.004	6.505	0.140	46.5	0.040	5.00	0.0	0.600	o	300	Pipe/Conduit
E5.000	17.917	0.040	447.9	0.034	5.00	0.0	0.600	o	150	Pipe/Conduit
E1.005	11.523	0.060	192.0	0.012	5.00	0.0	0.600	o	300	Pipe/Conduit
E6.000	4.278	0.010	427.8	0.000	5.00	0.0	0.600	o	225	Pipe/Conduit

Network Results Table

PN	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Vel (m/s)	Cap (l/s)
E1.000	78.640	0.007	0.0	1.30	22.9
E1.001	78.180	0.024	0.0	1.37	24.2
E1.002	78.010	0.024	0.0	1.75	30.8
E2.000	77.910	0.034	0.0	1.13	19.9
E3.000	78.500	0.038	0.0	1.91	33.7
E1.003	77.670	0.115	0.0	2.34	93.1
E4.000	77.780	0.013	0.0	1.90	33.5
E4.001	76.990	0.025	0.0	0.81	14.3
E4.002	76.950	0.025	0.0	0.81	14.3
E4.003	76.840	0.060	0.0	1.05	41.6
E1.004	76.700	0.214	0.0	2.31	163.5
E5.000	77.120	0.034	0.0	0.47	8.3
E1.005	76.560	0.261	0.0	1.13	79.9
E6.000	76.510	0.000	0.0	0.63	24.9

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Existing Network Details for Existing

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
E1.006	3.645	0.000	0.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
E1.007	3.055	-1.000	-3.1	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit
E7.000	7.192	0.090	79.9	0.018	5.00	0.0	0.600	o	150	Pipe/Conduit
E7.001	20.675	0.260	79.5	0.005	5.00	0.0	0.600	o	150	Pipe/Conduit
E7.002	6.795	0.090	75.5	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit
E7.003	23.968	0.300	79.9	0.012	5.00	0.0	0.600	o	150	Pipe/Conduit
E7.004	17.825	0.220	81.0	0.045	5.00	0.0	0.600	o	225	Pipe/Conduit
E8.000	2.627	1.230	2.1	0.011	5.00	0.0	0.600	o	150	Pipe/Conduit
E7.005	7.269	0.010	726.9	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit
E7.006	3.079	-1.410	-2.2	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit

Network Results Table

PN	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Vel (m/s)	Cap (l/s)
E1.006	76.500	0.261	0.0	0.00	0.0
E1.007	76.500	0.261	0.0	0.00	0.0
E7.000	75.980	0.018	0.0	1.13	19.9
E7.001	75.890	0.024	0.0	1.13	19.9
E7.002	75.630	0.024	0.0	1.16	20.5
E7.003	75.540	0.035	0.0	1.13	19.9
E7.004	75.240	0.080	0.0	1.45	57.8
E8.000	76.250	0.011	0.0	6.95	122.8
E7.005	74.400	0.091	0.0	0.48	19.0
E7.006	74.390	0.091	0.0	0.00	0.0

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Area Summary for Existing

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
1.000	User	-	100	0.007	0.007	0.007
1.001	User	-	100	0.016	0.016	0.016
1.002	-	-	100	0.000	0.000	0.000
2.000	User	-	100	0.008	0.008	0.008
	User	-	100	0.008	0.008	0.016
	User	-	100	0.019	0.019	0.034
3.000	User	-	100	0.011	0.011	0.011
	User	-	100	0.027	0.027	0.038
1.003	User	-	100	0.016	0.016	0.016
	User	-	100	0.002	0.002	0.019
4.000	User	-	100	0.013	0.013	0.013
4.001	User	-	100	0.012	0.012	0.012
4.002	User	-	100	0.000	0.000	0.000
4.003	User	-	100	0.007	0.007	0.007
	User	-	100	0.007	0.007	0.013
	User	-	100	0.022	0.022	0.035
1.004	User	-	100	0.019	0.019	0.019
	User	-	100	0.010	0.010	0.029
	User	-	100	0.010	0.010	0.040
5.000	User	-	100	0.021	0.021	0.021
	User	-	100	0.004	0.004	0.025
	User	-	100	0.004	0.004	0.029
	User	-	100	0.005	0.005	0.034
1.005	User	-	100	0.012	0.012	0.012
6.000	-	-	100	0.000	0.000	0.000
1.006	-	-	100	0.000	0.000	0.000
1.007	-	-	100	0.000	0.000	0.000
7.000	User	-	100	0.018	0.018	0.018
7.001	User	-	100	0.005	0.005	0.005
7.002	-	-	100	0.000	0.000	0.000
7.003	User	-	100	0.004	0.004	0.004
	User	-	100	0.006	0.006	0.010
	User	-	100	0.001	0.001	0.012
7.004	User	-	100	0.035	0.035	0.035
	User	-	100	0.010	0.010	0.045
8.000	User	-	100	0.011	0.011	0.011
7.005	-	-	100	0.000	0.000	0.000
7.006	-	-	100	0.000	0.000	0.000
				Total	Total	Total
				0.352	0.352	0.352

Free Flowing Outfall Details for Existing

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
E1.007	E	77.800	77.500	0.000	0	0

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Free Flowing Outfall Details for Existing

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
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E7.006	E	76.100	75.800	0.000	0	0
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Simulation Criteria for Existing

Volumetric Runoff Coeff 0.750 Hot Start Level (mm) 0 Additional Flow - % of Total Flow 0.000 Flow per Person per Day (l/per/day) 0.000
 Areal Reduction Factor 1.000 Manhole Headloss Coeff (Global) 0.500 MADD Factor * 10m³/ha Storage 2.000 Run Time (mins) 60
 Hot Start (mins) 0 Foul Sewage per hectare (l/s) 0.000 Inlet Coefficient 0.800 Output Interval (mins) 1

Number of Input Hydrographs 0 Number of Online Controls 2 Number of Offline Controls 0 Number of Storage Structures 4 Number of Time/Area Diagrams 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FEH Data Type Point Cv (Winter) 0.840
 Return Period (years) 2 Summer Storms Yes Storm Duration (mins) 30
 FEH Rainfall Version 2013 Winter Storms No
 Site Location GB 574241 152869 TQ 74241 52869 Cv (Summer) 0.750

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Online Controls for Existing

Pump Manhole: ESA1, DS/PN: E1.007, Volume (m³): 1.6

Invert Level (m) 76.500

Depth (m) Flow (l/s)

0.001 5.5000

Pump Manhole: ESA2, DS/PN: E7.006, Volume (m³): 2.2

Invert Level (m) 74.390

Depth (m) Flow (l/s)

0.001 5.5000

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Storage Structures for Existing

Swale Manhole: ESWALE, DS/PN: E5.000

Warning:- Volume should always be included unless the upstream pipe is being used for storage and/or as a carrier

Infiltration Coefficient Base (m/hr)	0.00000	Porosity	1.00	Length (m)	16.0	Cap Volume Depth (m)	0.000
Infiltration Coefficient Side (m/hr)	0.00000	Invert Level (m)	77.120	Side Slope (1:X)	3.0	Cap Infiltration Depth (m)	0.000
Safety Factor	2.0	Base Width (m)	0.1	Slope (1:X)	200.0	Include Swale Volume	Yes

Tank or Pond Manhole: EPOND, DS/PN: E1.005

Invert Level (m) 76.560

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	14.0	1.340	120.0

Cellular Storage Manhole: EATT1, DS/PN: E6.000

Invert Level (m) 76.510 Infiltration Coefficient Side (m/hr) 0.00000 Porosity 0.95
 Infiltration Coefficient Base (m/hr) 0.00000 Safety Factor 2.0

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	122.0	30.0	0.800	122.0	50.8	0.801	0.0	50.8

Cellular Storage Manhole: EATT2, DS/PN: E7.005

Invert Level (m) 74.400 Infiltration Coefficient Side (m/hr) 0.00000 Porosity 0.95
 Infiltration Coefficient Base (m/hr) 0.00000 Safety Factor 2.0

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	40.0	30.0	0.800	40.0	57.2	0.801	0.0	57.2

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

Simulation Criteria

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

Number of Input Hydrographs 0 Number of Online Controls 2 Number of Offline Controls 0 Number of Storage Structures 4 Number of Time/Area Diagrams 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FEH Site Location GB 574241 152869 TQ 74241 52869 Cv (Summer) 0.750
 FEH Rainfall Version 2013 Data Type Point Cv (Winter) 0.840

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

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440
 Return Period(s) (years) 2, 10, 30, 100
 Climate Change (%) 0, 0, 0, 40

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Surcharged Flooded			Half Drain Pipe		Status	Level Exceeded
									Level (m)	Depth (m)	Volume (m³)	Flow / Overflow (l/s)	Time (mins)		
E1.000	ES1 15	Winter	2	+0%					78.663	-0.127	0.000	0.06		1.2	OK
E1.001	ES2 15	Winter	2	+0%					78.224	-0.106	0.000	0.19		4.0	OK
E1.002	ES3 15	Winter	2	+0%	100/15	Winter			78.048	-0.112	0.000	0.14		4.0	OK
E2.000	ES7 15	Winter	2	+0%	100/15	Summer			77.968	-0.092	0.000	0.31		5.8	OK
E3.000	ES11 15	Winter	2	+0%					78.546	-0.104	0.000	0.20		6.5	OK
E1.003	ES4 15	Winter	2	+0%	100/15	Summer			77.742	-0.153	0.000	0.22		19.1	OK
E4.000	ES15 15	Winter	2	+0%					77.806	-0.124	0.000	0.07		2.2	OK
E4.001	ES16 15	Winter	2	+0%	30/15	Summer			77.052	-0.088	0.000	0.35		4.2	OK
E4.002	ES17 15	Winter	2	+0%	30/15	Summer			77.009	-0.091	0.000	0.32		4.3	OK
E4.003	ES18 15	Winter	2	+0%	30/15	Summer			76.919	-0.146	0.000	0.26		10.0	OK
E1.004	ES14 15	Winter	2	+0%	10/15	Winter			76.833	-0.167	0.000	0.38		35.9	OK
E5.000	ESWALE 15	Winter	2	+0%	30/15	Summer			77.212	-0.058	0.000	0.68	5	5.2	OK
E1.005	EPOND 15	Winter	2	+0%	10/15	Summer			76.820	-0.040	0.000	0.56		34.1	OK
E6.000	EATT1 30	Winter	2	+0%	10/30	Winter			76.639	-0.096	0.000	0.20		4.9	OK
E1.006	ES23 15	Winter	2	+0%	10/15	Summer			76.782	-0.018	0.000	0.17		8.4	OK
E1.007	ESA1 15	Winter	2	+0%	2/15	Summer			76.780	0.130	0.000	0.52		5.5	SURCHARGED
E7.000	ES26 15	Winter	2	+0%					76.024	-0.106	0.000	0.18		3.1	OK
E7.001	ES25 15	Winter	2	+0%	100/15	Winter			75.937	-0.103	0.000	0.21		3.9	OK
E7.002	ES27 15	Winter	2	+0%	100/15	Summer			75.679	-0.101	0.000	0.23		4.0	OK
E7.003	ES28 15	Winter	2	+0%	100/15	Summer			75.598	-0.092	0.000	0.31		5.9	OK
E7.004	ES32 15	Winter	2	+0%					75.318	-0.147	0.000	0.26		13.3	OK
E8.000	ES34 15	Winter	2	+0%					76.266	-0.134	0.000	0.03		1.9	OK
E7.005	EATT2 30	Winter	2	+0%	10/30	Winter			74.515	-0.110	0.000	0.36	15	7.0	OK
E7.006	ESA2 30	Winter	2	+0%	10/15	Summer			74.507	-0.033	0.000	0.52		5.5	OK

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

Simulation Criteria

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

Number of Input Hydrographs 0 Number of Online Controls 2 Number of Offline Controls 0 Number of Storage Structures 4 Number of Time/Area Diagrams 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FEH Site Location GB 574241 152869 TQ 74241 52869 Cv (Summer) 0.750
FEH Rainfall Version 2013 Data Type Point Cv (Winter) 0.840

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

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440
Return Period(s) (years) 2, 10, 30, 100
Climate Change (%) 0, 0, 0, 40

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water	Surcharged	Flooded	Half Drain Pipe		Status	Level Exceeded
									Level (m)	Depth (m)	Volume (m³)	Flow / Cap.	Overflow (l/s)		
E1.000	ES1	15 Winter	10	+0%					78.672	-0.118	0.000	0.10			OK
E1.001	ES2	15 Winter	10	+0%					78.239	-0.091	0.000	0.32			OK
E1.002	ES3	15 Winter	10	+0%	100/15 Winter				78.061	-0.099	0.000	0.24			OK
E2.000	ES7	15 Winter	10	+0%	100/15 Summer				77.989	-0.071	0.000	0.53			OK
E3.000	ES11	15 Winter	10	+0%					78.561	-0.089	0.000	0.35			OK
E1.003	ES4	15 Winter	10	+0%	100/15 Summer				77.767	-0.128	0.000	0.38			OK
E4.000	ES15	15 Winter	10	+0%					77.815	-0.115	0.000	0.12			OK
E4.001	ES16	15 Winter	10	+0%	30/15 Summer				77.078	-0.062	0.000	0.60			OK
E4.002	ES17	15 Winter	10	+0%	30/15 Summer				77.068	-0.032	0.000	0.55			OK
E4.003	ES18	15 Winter	10	+0%	30/15 Summer				77.049	-0.016	0.000	0.44			OK
E1.004	ES14	15 Winter	10	+0%	10/15 Winter				77.027	0.027	0.000	0.60			SURCHARGED
E5.000	ESWALE	15 Winter	10	+0%	30/15 Summer				77.255	-0.015	0.000	1.00	4	7.7	OK
E1.005	EPOND	15 Winter	10	+0%	10/15 Summer				76.907	0.047	0.000	0.86			SURCHARGED
E6.000	EATT1	60 Winter	10	+0%	10/30 Winter				76.783	0.048	0.000	0.18			SURCHARGED
E1.006	ES23	15 Winter	10	+0%	10/15 Summer				76.849	0.049	0.000	0.17			SURCHARGED
E1.007	ESA1	15 Winter	10	+0%	2/15 Summer				76.848	0.198	0.000	0.52			SURCHARGED
E7.000	ES26	15 Winter	10	+0%					76.038	-0.092	0.000	0.31			OK
E7.001	ES25	15 Winter	10	+0%	100/15 Winter				75.953	-0.087	0.000	0.36			OK
E7.002	ES27	15 Winter	10	+0%	100/15 Summer				75.696	-0.084	0.000	0.39			OK
E7.003	ES28	15 Winter	10	+0%	100/15 Summer				75.619	-0.071	0.000	0.53			OK
E7.004	ES32	15 Winter	10	+0%					75.345	-0.120	0.000	0.44			OK
E8.000	ES34	15 Winter	10	+0%					76.271	-0.129	0.000	0.05			OK
E7.005	EATT2	30 Winter	10	+0%	10/30 Winter				74.635	0.010	0.000	0.40	21	7.7	SURCHARGED
E7.006	ESA2	30 Winter	10	+0%	10/15 Summer				74.630	0.090	0.000	0.52			SURCHARGED

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

Simulation Criteria

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

Number of Input Hydrographs 0 Number of Online Controls 2 Number of Offline Controls 0 Number of Storage Structures 4 Number of Time/Area Diagrams 0 Number of Real Time Controls 0

Synthetic Rainfall Details

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 FEH Rainfall Version 2013 Data Type Point Cv (Winter) 0.840

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

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440
 Return Period(s) (years) 2, 10, 30, 100
 Climate Change (%) 0, 0, 0, 40

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Surcharged Flooded			Half Drain Time (mins)	Pipe Flow (l/s)	Status	Level Exceeded	
									Level (m)	Depth (m)	Volume (m ³)					
E1.000	ES1	15 Winter	30	+0%					78.676	-0.114	0.000	0.13			2.8	OK
E1.001	ES2	15 Winter	30	+0%					78.249	-0.081	0.000	0.42			9.1	OK
E1.002	ES3	15 Winter	30	+0%	100/15 Winter				78.069	-0.091	0.000	0.32			9.0	OK
E2.000	ES7	15 Winter	30	+0%	100/15 Summer				78.004	-0.056	0.000	0.70			13.1	OK
E3.000	ES11	15 Winter	30	+0%					78.572	-0.078	0.000	0.46			14.7	OK
E1.003	ES4	15 Winter	30	+0%	100/15 Summer				77.785	-0.110	0.000	0.50			43.5	OK
E4.000	ES15	15 Winter	30	+0%					77.820	-0.110	0.000	0.16			5.1	OK
E4.001	ES16	15 Winter	30	+0%	30/15 Summer				77.212	0.072	0.000	0.75			8.9	SURCHARGED
E4.002	ES17	15 Winter	30	+0%	30/15 Summer				77.191	0.091	0.000	0.64			8.6	SURCHARGED
E4.003	ES18	15 Winter	30	+0%	30/15 Summer				77.155	0.090	0.000	0.51			19.3	SURCHARGED
E1.004	ES14	15 Winter	30	+0%	10/15 Winter				77.113	0.113	0.000	0.80			74.9	SURCHARGED
E5.000	ESWALE	15 Winter	30	+0%	30/15 Summer				77.292	0.022	0.000	1.30	5		10.1	SURCHARGED
E1.005	EPOND	15 Winter	30	+0%	10/15 Summer				76.997	0.137	0.000	1.10			67.5	SURCHARGED
E6.000	EATT1	60 Winter	30	+0%	10/30 Winter				76.895	0.160	0.000	0.20			4.9	SURCHARGED
E1.006	ES23	15 Winter	30	+0%	10/15 Summer				76.928	0.128	0.000	0.18			8.9	SURCHARGED
E1.007	ESA1	360 Winter	30	+0%	2/15 Summer				76.944	0.294	0.000	0.52			5.5	SURCHARGED
E7.000	ES26	15 Winter	30	+0%					76.048	-0.082	0.000	0.42			7.1	OK
E7.001	ES25	15 Winter	30	+0%	100/15 Winter				75.964	-0.076	0.000	0.47			8.9	OK
E7.002	ES27	15 Winter	30	+0%	100/15 Summer				75.708	-0.072	0.000	0.52			9.0	OK
E7.003	ES28	15 Winter	30	+0%	100/15 Summer				75.635	-0.055	0.000	0.71			13.4	OK
E7.004	ES32	15 Winter	30	+0%					75.365	-0.100	0.000	0.58			30.2	OK
E8.000	ES34	15 Winter	30	+0%					76.274	-0.126	0.000	0.06			4.3	OK
E7.005	EATT2	30 Winter	30	+0%	10/30 Winter				74.747	0.122	0.000	0.44	27		8.5	SURCHARGED
E7.006	ESA2	30 Winter	30	+0%	10/15 Summer				74.741	0.201	0.000	0.52			5.5	SURCHARGED

The Gatehouse
 Pattenden Lane
 TN12 9QS

19-014 - Culls Farm
 Dean Street
 ME15 0PS



Date 28/03/2024
 File 19-014 - NETWORK REV B.MDX

Designed by Reiss Rampton
 Checked by

XP Solutions

Network 2020.1.3

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

Simulation Criteria

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

Number of Input Hydrographs 0 Number of Online Controls 2 Number of Offline Controls 0 Number of Storage Structures 4 Number of Time/Area Diagrams 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FEH Site Location GB 574241 152869 TQ 74241 52869 Cv (Summer) 0.750
 FEH Rainfall Version 2013 Data Type Point Cv (Winter) 0.840

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

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440
 Return Period(s) (years) 2, 10, 30, 100
 Climate Change (%) 0, 0, 0, 40

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water			Half Drain		Pipe Flow (l/s)	Status	Level Exceeded	
									Level (m)	Depth (m)	Volume (m ³)	Flow / Cap.	Overflow (l/s)				Time (mins)
E1.000	ES1	15 Winter	100	+40%					78.689	-0.101	0.000	0.23				5.1	OK
E1.001	ES2	15 Winter	100	+40%					78.280	-0.050	0.000	0.76				16.3	OK
E1.002	ES3	15 Winter	100	+40%	100/15 Winter				78.183	0.023	0.000	0.58				16.1	SURCHARGED
E2.000	ES7	15 Winter	100	+40%	100/15 Summer				78.411	0.351	0.000	1.16				21.6	SURCHARGED
E3.000	ES11	15 Winter	100	+40%					78.605	-0.045	0.000	0.82				26.4	OK
E1.003	ES4	15 Winter	100	+40%	100/15 Summer				78.093	0.198	0.000	0.81				70.1	SURCHARGED
E4.000	ES15	15 Winter	100	+40%					77.841	-0.089	0.000	0.29				9.1	OK
E4.001	ES16	15 Winter	100	+40%	30/15 Summer				77.795	0.655	0.000	1.28				15.3	FLOOD RISK
E4.002	ES17	15 Winter	100	+40%	30/15 Summer				77.731	0.631	0.000	1.14				15.1	FLOOD RISK
E4.003	ES18	15 Winter	100	+40%	30/15 Summer				77.592	0.527	0.000	0.94				35.8	FLOOD RISK
E1.004	ES14	15 Winter	100	+40%	10/15 Winter				77.485	0.485	0.000	1.36				127.3	SURCHARGED
E5.000	ESWALE	15 Winter	100	+40%	30/15 Summer				77.388	0.118	0.000	1.95		6		15.1	FLOOD RISK
E1.005	EPOND	240 Winter	100	+40%	10/15 Summer				77.324	0.464	0.000	0.46				28.2	SURCHARGED
E6.000	EATT1	240 Winter	100	+40%	10/30 Winter				77.302	0.567	0.000	0.18		228		4.6	SURCHARGED
E1.006	ES23	240 Winter	100	+40%	10/15 Summer				77.362	0.562	0.000	0.13				6.2	SURCHARGED
E1.007	ESA1	240 Winter	100	+40%	2/15 Summer				77.385	0.735	0.000	0.52				5.5	SURCHARGED
E7.000	ES26	15 Winter	100	+40%					76.117	-0.013	0.000	0.75				12.7	OK
E7.001	ES25	15 Winter	100	+40%	100/15 Winter				76.072	0.032	0.000	0.82				15.4	SURCHARGED
E7.002	ES27	15 Winter	100	+40%	100/15 Summer				75.904	0.124	0.000	0.89				15.5	SURCHARGED
E7.003	ES28	15 Winter	100	+40%	100/15 Summer				75.839	0.149	0.000	1.17				22.1	SURCHARGED
E7.004	ES32	15 Winter	100	+40%					75.426	-0.039	0.000	1.00				51.7	OK
E8.000	ES34	15 Winter	100	+40%					76.283	-0.117	0.000	0.11				7.7	OK
E7.005	EATT2	60 Winter	100	+40%	10/30 Winter				75.191	0.566	0.000	0.37		53		7.2	SURCHARGED
E7.006	ESA2	60 Winter	100	+40%	10/15 Summer				75.186	0.646	0.000	0.52				5.5	SURCHARGED