

CGH02 - Rossett Road, Rossett: Northern Parcel Surface Water (SAB) Details Rev 4.0 Results with a Factor of Safety of 10	Date: 20/10/0023			
	Designed by: CP	Checked by: RDN	Approved By: RA	
	Report Title: Rainfall Analysis Criteria			
			Betts-Associates: Old Marsh Farm Barns, Welsh Road, Sealand Flintshire, CH5 2LY	

Runoff Type	Dynamic
Output Interval (mins)	5
Time Step	Default
Urban Creep	Use Catchment Values
Junction Flood Risk Margin (mm)	300
Pre-fill Manhole Sumps	☒
Perform No Discharge Analysis	☐

Rainfall	
Rossett	Type: FSR
Region	England And Wales
M5-60 (mm)	18.0
Ratio R	0.354
Summer	☒
Winter	☒

Return Period	
Return Period (years)	Increase Rainfall (%)
10.0	0.000

Storm Durations	
Duration (mins)	Run Time (mins)
15	30
30	60
60	120
120	240
180	360
240	480
360	720
480	960
600	1200
720	1440
960	1920
1440	2880

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	CP	RDN	RA	
Report Details: Type: Junctions Summary Storm Phase: Surface Network 1	Betts-Associates: Old Marsh Farm Barns, Welsh Road, Sealand Flintshire, CH5 2LY			



Critical Storm Per Item: Rank By: Max. Depth

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
S9	Rossett: 10 years: +0 %: 15 mins: Winter	13.194	12.025	12.122	0.097	26.5	0.139	0.000	25.9	13.701	OK
S8	Rossett: 10 years: +0 %: 15 mins: Winter	13.058	12.133	12.253	0.120	21.9	0.172	0.000	20.5	10.637	OK
S7	Rossett: 10 years: +0 %: 15 mins: Winter	13.282	12.377	12.472	0.095	17.0	0.136	0.000	16.4	7.866	OK
S5	Rossett: 10 years: +0 %: 15 mins: Winter	13.123	11.964	12.229	0.265	70.8	0.675	0.000	66.6	42.133	OK
S4	Rossett: 10 years: +0 %: 15 mins: Winter	13.401	12.060	12.271	0.211	49.8	0.537	0.000	44.6	28.537	OK
S3	Rossett: 10 years: +0 %: 15 mins: Winter	13.616	12.138	12.311	0.173	37.9	0.306	0.000	35.4	21.212	OK
S2	Rossett: 10 years: +0 %: 15 mins: Winter	13.520	12.184	12.363	0.179	39.7	0.316	0.000	37.9	21.381	OK
S11	Rossett: 10 years: +0 %: 15 mins: Winter	13.097	11.781	11.959	0.178	37.1	0.315	0.000	33.8	18.995	OK
S10	Rossett: 10 years: +0 %: 15 mins: Winter	12.782	11.940	12.020	0.080	11.7	0.141	0.000	11.2	5.412	OK
S6	Rossett: 10 years: +0 %: 15 mins: Winter	13.013	11.917	12.154	0.237	66.6	0.602	0.000	63.8	42.003	OK
Ex Manhole	Rossett: 10 years: +0 %: 720 mins: Winter	11.258	10.878	10.935	0.057	5.7	0.000	0.000	5.7	362.731	OK
S19HB	Rossett: 10 years: +0 %: 720 mins: Winter	12.500	10.984	11.402	0.418	5.7	0.598	0.000	5.7	362.764	Surcharged
S18 Catchpit	Rossett: 10 years: +0 %: 720 mins: Winter	12.346	11.166	11.434	0.268	15.5	0.384	0.000	15.5	383.231	OK
S17 (Downstream Def)	Rossett: 10 years: +0 %: 720 mins: Winter	12.295	11.195	11.435	0.240	15.6	0.830	0.000	15.5	383.346	OK
S15	Rossett: 10 years: +0 %: 720 mins: Winter	12.374	11.365	11.439	0.074	5.9	0.050	0.000	5.9	198.452	OK
S14	Rossett: 10 years: +0 %: 360 mins: Winter	12.453	11.480	11.542	0.062	6.3	0.042	0.000	6.3	148.094	OK
S13	Rossett: 10 years: +0 %: 240 mins: Winter	12.547	11.593	11.654	0.061	6.3	0.046	0.000	6.3	112.479	OK
S12HB	Rossett: 10 years: +0 %: 240 mins: Winter	12.702	11.616	11.794	0.178	6.3	0.453	0.000	6.3	112.650	OK
S1	Rossett: 10 years: +0 %: 15 mins: Winter	13.518	12.235	12.375	0.140	17.8	0.247	0.000	16.5	8.946	OK
S16	Rossett: 10 years: +0 %: 720 mins: Winter	12.301	11.237	11.435	0.198	13.1	0.134	0.000	13.1	339.080	OK
Catch Pit SA (3)	Rossett: 10 years: +0 %: 120 mins: Winter	13.000	11.866	12.808	0.942	1.2	0.150	0.000	1.1	3.159	Flood Risk

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Catch Pit SA (2)	Rossett: 10 years: +0 %: 120 mins: Winter	13.007	11.866	12.808	0.942	1.0	0.150	0.000	0.9	2.493	Flood Risk
Catch Pit SA (1)	Rossett: 10 years: +0 %: 120 mins: Winter	13.106	11.866	12.808	0.942	1.0	0.150	0.000	0.9	2.493	Flood Risk
Catch Pit SA	Rossett: 10 years: +0 %: 120 mins: Winter	13.148	11.866	12.808	0.942	0.8	0.150	0.000	0.7	1.833	Surcharged
Catch Pit (25)	Rossett: 10 years: +0 %: 15 mins: Summer	13.300	11.702	12.152	0.450	6.0	0.072	0.000	5.7	2.770	Surcharged
Plot 55	Rossett: 10 years: +0 %: 15 mins: Winter	12.900	11.949	11.978	0.029	2.4	0.005	0.000	2.4	1.108	OK
Plot 52	Rossett: 10 years: +0 %: 15 mins: Winter	12.763	12.012	12.071	0.059	3.7	0.009	0.000	3.6	1.713	OK
Plot 53-54 (1)	Rossett: 10 years: +0 %: 15 mins: Winter	12.762	12.100	12.173	0.073	6.1	0.012	0.000	6.0	2.850	OK
Plot 50-51	Rossett: 10 years: +0 %: 15 mins: Winter	12.850	12.041	12.122	0.081	5.7	0.013	0.000	5.5	2.625	OK
Plot 50-51 (1)	Rossett: 10 years: +0 %: 15 mins: Winter	12.850	11.938	12.028	0.090	8.7	0.014	0.000	8.4	4.099	OK
Catch Pit (1)	Rossett: 10 years: +0 %: 15 mins: Winter	12.875	11.414	11.955	0.541	8.4	0.086	0.000	8.2	4.095	OK
Catch Pit	Rossett: 10 years: +0 %: 15 mins: Winter	12.927	11.249	11.791	0.542	2.8	0.086	0.000	2.5	1.281	OK
Catch Pit (14)	Rossett: 10 years: +0 %: 15 mins: Winter	12.916	11.254	11.792	0.538	2.7	0.085	0.000	2.4	1.251	OK
Catch Pit (16)	Rossett: 10 years: +0 %: 15 mins: Winter	12.847	11.139	11.791	0.652	3.1	0.104	0.000	2.8	1.375	Surcharged
Catch Pit (17)	Rossett: 10 years: +0 %: 15 mins: Winter	12.795	11.063	11.792	0.729	3.7	0.116	0.000	3.4	1.577	Surcharged
Catch Pit (20)	Rossett: 10 years: +0 %: 15 mins: Winter	12.581	11.013	11.791	0.778	3.7	0.124	0.000	3.4	1.514	Surcharged
Catch Pit (21)	Rossett: 10 years: +0 %: 15 mins: Winter	12.565	10.940	11.791	0.851	3.2	0.135	0.000	2.7	1.171	Surcharged
Catch Pit (22)	Rossett: 10 years: +0 %: 15 mins: Winter	12.459	10.850	11.795	0.945	2.6	0.150	0.000	3.6	0.804	Surcharged
Catch Pit (36)	Rossett: 10 years: +0 %: 720 mins: Winter	12.444	10.826	11.435	0.609	0.6	0.097	0.000	0.6	11.011	Surcharged
Manhole (20)	Rossett: 10 years: +0 %: 15 mins: Winter	12.331	11.453	11.471	0.018	1.0	0.003	0.000	1.0	0.481	OK
Manhole (21)	Rossett: 10 years: +0 %: 15 mins: Winter	12.300	11.600	11.624	0.024	1.6	0.004	0.000	1.6	0.753	OK
Catch Pit (35)	Rossett: 10 years: +0 %: 720 mins: Winter	12.317	11.255	11.435	0.180	0.7	0.029	0.000	0.7	11.448	Surcharged
Plot27-30	Rossett: 10 years: +0 %: 720 mins: Winter	12.300	11.351	11.435	0.084	0.3	0.013	0.000	0.3	5.304	OK
Catch Pit (23)	Rossett: 10 years: +0 %: 15 mins: Winter	12.399	10.943	11.793	0.850	5.1	0.135	0.000	4.7	2.076	Surcharged
Catch Pit (19)	Rossett: 10 years: +0 %: 15 mins: Winter	12.600	10.965	11.792	0.827	4.0	0.131	0.000	3.7	1.591	Surcharged
Catch Pit (18)	Rossett: 10 years: +0 %: 15 mins: Winter	12.610	11.022	11.792	0.770	3.9	0.122	0.000	3.5	1.591	Surcharged

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Catch Pit (15)	Rossett: 10 years: +0 %: 15 mins: Winter	12.750	11.415	11.908	0.493	2.4	0.078	0.000	2.3	1.108	OK
Manhole (28)	Rossett: 10 years: +0 %: 15 mins: Winter	12.850	12.442	12.483	0.041	2.0	0.007	0.000	2.0	0.943	OK
Manhole (29)	Rossett: 10 years: +0 %: 15 mins: Winter	12.888	12.346	12.386	0.041	2.0	0.006	0.000	1.9	0.940	OK
Manhole (30)	Rossett: 10 years: +0 %: 15 mins: Winter	12.986	12.275	12.325	0.050	3.9	0.008	0.000	3.9	1.862	OK
Manhole (31)	Rossett: 10 years: +0 %: 15 mins: Winter	13.007	12.204	12.290	0.086	11.5	0.014	0.000	10.3	5.373	OK
Catch Pit (32)	Rossett: 10 years: +0 %: 15 mins: Winter	13.100	11.687	12.256	0.569	12.7	0.090	0.000	11.8	6.677	Surcharged
Catch Pit (27)	Rossett: 10 years: +0 %: 15 mins: Winter	13.266	11.787	12.272	0.485	3.2	0.077	0.000	2.5	1.701	Surcharged
Manhole (34)	Rossett: 10 years: +0 %: 15 mins: Winter	13.697	12.446	12.469	0.023	3.1	0.004	0.000	3.0	1.414	OK
Catch Pit (30)	Rossett: 10 years: +0 %: 15 mins: Winter	13.665	11.920	12.371	0.451	6.2	0.072	0.000	5.7	3.092	Surcharged
Catch Pit (31)	Rossett: 10 years: +0 %: 15 mins: Summer	13.300	12.006	12.456	0.450	9.0	0.072	0.000	8.4	4.334	Surcharged
Manhole (37)	Rossett: 10 years: +0 %: 15 mins: Winter	13.300	12.503	12.547	0.044	9.5	0.007	0.000	9.5	4.521	OK
Manhole (38)	Rossett: 10 years: +0 %: 15 mins: Winter	13.250	12.548	12.637	0.089	9.7	0.014	0.000	9.5	4.524	OK
Manhole (39)	Rossett: 10 years: +0 %: 15 mins: Winter	13.250	12.616	12.659	0.043	2.8	0.007	0.000	2.7	1.270	OK
Catch Pit (29)	Rossett: 10 years: +0 %: 15 mins: Winter	13.617	11.942	12.468	0.526	18.1	0.084	0.000	17.4	9.375	Surcharged
Manhole (41)	Rossett: 10 years: +0 %: 15 mins: Winter	13.391	12.453	12.533	0.080	16.0	0.013	0.000	15.3	7.836	OK
Manhole (42)	Rossett: 10 years: +0 %: 15 mins: Winter	13.350	12.480	12.598	0.118	15.7	0.019	0.000	15.0	7.357	OK
Manhole (43)	Rossett: 10 years: +0 %: 15 mins: Winter	13.350	12.611	12.655	0.044	3.0	0.007	0.000	2.8	1.430	OK
Manhole (44)	Rossett: 10 years: +0 %: 15 mins: Winter	13.425	12.656	12.702	0.046	2.7	0.007	0.000	2.6	1.276	OK
Manhole (45)	Rossett: 10 years: +0 %: 15 mins: Winter	13.528	12.318	12.344	0.026	3.7	0.004	0.000	3.6	1.708	OK
Catch Pit (28)	Rossett: 10 years: +0 %: 15 mins: Winter	13.497	11.800	12.327	0.527	6.7	0.084	0.000	6.6	3.160	OK
Catch Pit (33)	Rossett: 10 years: +0 %: 15 mins: Winter	13.266	11.704	12.235	0.531	3.7	0.084	0.000	3.0	1.710	OK
Manhole (48)	Rossett: 10 years: +0 %: 15 mins: Winter	13.210	12.313	12.333	0.020	2.8	0.003	0.000	2.8	1.285	OK
Catch Pit (34)	Rossett: 10 years: +0 %: 15 mins: Winter	13.204	11.782	12.261	0.479	5.7	0.076	0.000	5.5	2.773	Surcharged
Catch Pit SA (4)	Rossett: 10 years: +0 %: 60 mins: Winter	13.500	12.073	12.978	0.905	1.7	0.144	0.000	1.6	2.254	Surcharged
Catch Pit SA (5)	Rossett: 10 years: +0 %: 60 mins: Winter	13.505	12.063	12.978	0.915	1.0	0.146	0.000	1.0	1.220	Surcharged

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Catch Pit SA (6)	Rossett: 10 years: +0 %: 60 mins: Winter	13.572	12.094	12.978	0.884	1.2	0.141	0.000	1.0	1.442	Surcharged
Catch Pit SA (7)	Rossett: 10 years: +0 %: 60 mins: Winter	13.600	12.071	12.978	0.907	1.5	0.144	0.000	1.4	1.900	Surcharged
Catch Pit SA (8)	Rossett: 10 years: +0 %: 60 mins: Winter	13.700	12.126	12.978	0.852	1.6	0.136	0.000	1.4	2.085	Surcharged
Catch Pit SA (9)	Rossett: 10 years: +0 %: 60 mins: Winter	13.700	12.123	12.978	0.855	1.1	0.136	0.000	1.0	1.352	Surcharged
Manhole	Rossett: 10 years: +0 %: 15 mins: Winter	13.400	12.835	12.879	0.044	2.8	0.007	0.000	2.7	1.279	OK
Manhole (1)	Rossett: 10 years: +0 %: 15 mins: Winter	12.761	11.990	12.097	0.107	12.8	0.093	0.000	12.4	6.000	OK
Manhole (2)	Rossett: 10 years: +0 %: 15 mins: Winter	12.752	11.950	12.080	0.130	18.6	0.113	0.000	18.1	8.860	OK
Manhole (3)	Rossett: 10 years: +0 %: 15 mins: Winter	12.898	11.844	11.971	0.127	23.6	0.110	0.000	22.3	11.680	OK
Manhole (4)	Rossett: 10 years: +0 %: 15 mins: Winter	12.725	11.675	11.816	0.141	22.3	0.122	0.000	21.1	11.626	OK
Simple Junction	Rossett: 10 years: +0 %: 15 mins: Winter		11.920	12.049	0.129	21.7			21.2	10.571	OK
Plot 53-54	Rossett: 10 years: +0 %: 15 mins: Winter	12.800	12.279	12.324	0.045	2.4	0.007	0.000	2.3	1.117	OK
Plot27-30 (1)	Rossett: 10 years: +0 %: 15 mins: Winter	12.100	11.685	11.710	0.025	0.8	0.004	0.000	0.8	0.388	OK
Plot27-30 (2)	Rossett: 10 years: +0 %: 15 mins: Winter	12.100	11.597	11.622	0.025	0.8	0.004	0.000	0.8	0.385	OK
Plot27-30 (3)	Rossett: 10 years: +0 %: 15 mins: Winter	12.205	11.564	11.599	0.035	1.6	0.006	0.000	1.5	0.776	OK
Plot27-30 (4)	Rossett: 10 years: +0 %: 720 mins: Winter	12.301	11.364	11.435	0.071	0.3	0.011	0.000	0.3	5.264	OK
Road Gully (1)	Rossett: 10 years: +0 %: 15 mins: Winter	12.080	11.630	11.668	0.038	5.0	0.006	0.000	4.9	2.308	OK
Road Gully	Rossett: 10 years: +0 %: 15 mins: Winter	12.080	11.630	11.691	0.061	4.7	0.010	0.000	4.6	2.154	OK
Highway Drain (1)	Rossett: 10 years: +0 %: 15 mins: Winter	12.190	11.454	11.542	0.088	9.2	0.076	0.000	8.5	4.320	OK
Highway Drain	Rossett: 10 years: +0 %: 15 mins: Winter	12.280	11.557	11.589	0.032	4.6	0.027	0.000	4.5	2.153	OK
Gully	Rossett: 10 years: +0 %: 15 mins: Winter	12.010	11.560	11.614	0.054	4.4	0.009	0.000	4.3	2.019	OK
IC Plot 53 (1)	Rossett: 10 years: +0 %: 15 mins: Winter	12.650	12.350	12.375	0.025	0.7	0.004	0.000	0.6	0.310	Flood Risk
IC Plot 53	Rossett: 10 years: +0 %: 15 mins: Winter	12.650	12.350	12.373	0.023	0.6	0.004	0.000	0.6	0.271	Flood Risk

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Critical Storm Per Item: Rank By: Max. Avg. Depth

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Porous Paving	Rossett: 10 years: +0 %: 60 mins: Winter	11.769	11.698	0.106	0.461	45.7	34.783	0.000	0.000	22.3	65.444	73.184	OK
Outlet	Rossett: 10 years: +0 %: 240 mins: Winter	11.881	11.881	0.225	0.225	26.3	104.028	0.000	0.000	6.4	113.409	64.816	OK
Cellular Storage	Rossett: 10 years: +0 %: 720 mins: Winter	11.434	11.434	0.289	0.289	15.5	156.387	0.000	0.000	5.7	363.141	63.938	OK
Plots 1-6 Porous Paving	Rossett: 10 years: +0 %: 60 mins: Winter	12.978	12.606	0.093	0.106	13.1	8.743	0.000	19.184	0.0	0.000	88.590	OK
Plots 58-61 SA	Rossett: 10 years: +0 %: 120 mins: Winter	12.807	12.550	0.148	0.250	6.7	10.977	0.000	16.014	0.0	0.000	67.382	OK
SA Plot 53	Rossett: 10 years: +0 %: 1440 mins: Winter	12.096	12.096	0.196	0.196	0.1	1.473	0.000	2.277	0.0	0.000	57.307	OK

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Critical Storm Per Item: Rank By: Total Discharge Volume

Connection	Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
1.013	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	S17 (Downstream Def)	S18 Catchpit	12.295	11.407	0.226	466.481	0.5	0.15	10.8	OK
1.012	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	S16	S17 (Downstream Def)	12.301	11.408	0.191	413.129	0.5	0.13	9.3	OK
1.011	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	S15	S16	12.374	11.417	0.111	242.922	0.4	0.07	5.0	OK
1.000	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	S1	S2	13.518	12.260	0.032	35.285	0.3	0.01	1.0	OK
1.002	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	S3	S4	13.616	12.176	0.041	84.256	0.4	0.03	2.5	OK
1.004	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	S5	S6	13.123	12.019	0.055	168.363	0.5	0.07	4.9	OK
1.001	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	S2	S3	13.520	12.223	0.038	84.282	0.5	0.03	2.5	OK
1.003	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	S4	S5	13.401	12.104	0.050	113.404	0.4	0.05	3.3	OK
1.008	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	S12HB	S13	12.702	11.769	0.056	242.931	0.5	0.07	5.0	OK
1.009	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	S13	S14	12.547	11.647	0.054	242.926	0.6	0.07	5.0	OK
2.002	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	S9	S11	13.194	12.048	0.032	54.883	0.5	0.02	1.6	OK
3.000	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	S10	S11	12.782	11.960	0.031	21.864	0.2	0.02	0.6	OK
2.001	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	S8	S9	13.058	12.161	0.025	42.852	0.5	0.03	1.3	OK
2.000	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	S7	S8	13.282	12.400	0.025	31.817	0.4	0.02	0.9	OK
1.010	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	S14	S15	12.453	11.534	0.053	242.920	0.6	0.07	5.0	OK
Pipe (5)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Porous Paving	S16	12.714	11.303	0.150	170.219	0.5	0.38	5.0	OK
1.015	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	S19HB	Ex Manhole	12.500	11.374	0.058	461.212	0.7	0.14	5.6	Surcharged
1.005	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	S6	Outlet	13.013	11.972	0.054	168.354	0.6	0.07	4.9	OK
2.003	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	S11	Outlet	13.097	11.826	0.070	76.727	0.5	0.06	2.3	OK

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1.007	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Outlet	S12HB	12.542	11.823	0.100	242.946	0.6	1.04	5.0	Surcharged
1.014	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	S18 Catchpit	Cellular Storage	12.346	11.407	0.251	466.476	0.7	0.19	10.7	OK
1.014 (1)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Cellular Storage	S19HB	12.402	11.406	0.150	461.264	0.3	0.4	5.6	Surcharged
Pipe	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Catch Pit SA (9)	Plots 1-6 Porous Paving	13.700	12.885	0.150	3.742	0.0	0.01	0.1	Surcharged
Pipe (1)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Catch Pit SA (8)	Plots 1-6 Porous Paving	13.700	12.885	0.150	5.522	0.0	0.01	0.2	Surcharged
Pipe (2)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Catch Pit SA (7)	Plots 1-6 Porous Paving	13.600	12.885	0.150	5.175	0.0	0.01	0.2	Surcharged
Pipe (3)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Catch Pit SA (6)	Plots 1-6 Porous Paving	13.572	12.885	0.150	3.984	0.0	0.01	0.1	Surcharged
Pipe (4)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Catch Pit SA (5)	Plots 1-6 Porous Paving	13.505	12.885	0.150	3.546	0.0	0.01	0.1	Surcharged
Pipe (6)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Catch Pit SA (4)	Plots 1-6 Porous Paving	13.500	12.885	0.150	5.940	0.0	0.01	0.2	Surcharged
Pipe (7)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Catch Pit SA	Plots 58-61 SA	13.148	12.660	0.150	3.897	0.0	0.01	0.1	Surcharged
Pipe (8)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Catch Pit SA (1)	Plots 58-61 SA	13.106	12.660	0.150	5.265	0.0	0.01	0.2	Surcharged
Pipe (9)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Catch Pit SA (2)	Plots 58-61 SA	13.007	12.660	0.150	5.265	0.0	0.01	0.2	Surcharged
Pipe (10)	Rossett: 10 years: +0 %: 15 mins: Summer	Pipe	Catch Pit (25)	S9	13.300	12.152	0.150	0.000	0.3	0.43	5.7	Surcharged
Pipe (11)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Manhole (48)	Catch Pit (34)	13.210	12.318	0.100	5.298	0.0	0.01	0.2	OK
Pipe (12)	Rossett: 10 years: +0 %: 15 mins: Summer	Pipe	Catch Pit (34)	S8	13.204	12.257	0.150	0.000	0.3	0.39	5.2	Surcharged
Pipe (17)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Plot 50-51	Plot 50-51 (1)	12.850	12.057	0.015	10.763	0.4	0.05	0.3	OK
Pipe (18)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Plot 50-51 (1)	Catch Pit (1)	12.850	11.953	0.017	16.745	0.5	0.05	0.5	OK
Pipe (19)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Catch Pit (1)	Porous Paving	12.875	11.884	0.019	16.744	0.4	0.03	0.5	OK
Pipe (20)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Catch Pit	Porous Paving	12.927	11.710	0.021	5.273	0.1	0.01	0.2	OK
Pipe (21)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Catch Pit (14)	Porous Paving	12.916	11.715	0.017	5.165	0.2	0.01	0.2	OK
Pipe (22)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Catch Pit (15)	Porous Paving	12.750	11.876	0.010	4.445	0.3	0.01	0.1	OK
Pipe (23)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Catch Pit (16)	Porous Paving	12.847	11.705	0.127	5.733	0.0	0.01	0.2	OK
Pipe (24)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Catch Pit (17)	Porous Paving	12.795	11.705	0.150	6.880	0.0	0.01	0.2	Surcharged
Pipe (25)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Catch Pit (18)	Porous Paving	12.610	11.705	0.150	7.055	0.0	0.02	0.2	Surcharged
Pipe (26)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Catch Pit (19)	Porous Paving	12.600	11.705	0.150	7.252	0.0	0.02	0.2	Surcharged

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Pipe (27)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Catch Pit (20)	Porous Paving	12.581	11.705	0.150	6.816	0.0	0.01	0.2	Surcharged
Pipe (28)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Catch Pit (21)	Porous Paving	12.565	11.705	0.150	5.621	0.0	0.01	0.2	Surcharged
Pipe (29)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Catch Pit (22)	Porous Paving	12.459	11.705	0.150	4.550	0.0	0.01	0.2	Surcharged
Pipe (31)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Manhole (20)	Catch Pit (36)	12.331	11.458	0.100	1.950	0.0	0	0.1	OK
Pipe (32)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Manhole (21)	Catch Pit (36)	12.300	11.606	0.100	3.366	0.0	0.01	0.1	OK
Pipe (33)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Catch Pit (36)	S17 (Downstream Def)	12.444	11.407	0.150	13.332	0.1	0.02	0.4	OK
Pipe (34)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Plot27-30	Catch Pit (35)	12.300	11.407	0.104	6.465	0.2	0.01	0.2	OK
Pipe (35)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Catch Pit (35)	S17 (Downstream Def)	12.317	11.407	0.150	13.896	0.1	0.03	0.4	Surcharged
Pipe (30)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Catch Pit (23)	Porous Paving	12.399	11.705	0.150	9.275	0.0	0.02	0.3	Surcharged
Pipe (36)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Catch Pit SA (3)	Plots 58-61 SA	13.000	12.660	0.150	6.656	0.0	0.01	0.2	Surcharged
Pipe (37)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Catch Pit (33)	S5	13.266	12.167	0.013	7.025	0.3	0.01	0.2	OK
Pipe (38)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Manhole (45)	Catch Pit (28)	13.528	12.323	0.100	7.008	0.0	0.01	0.2	OK
Pipe (39)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Catch Pit (28)	S4	13.497	12.267	0.017	12.899	0.3	0.03	0.4	OK
Pipe (40)	Rossett: 10 years: +0 %: 15 mins: Summer	Pipe	Catch Pit (27)	S4	13.266	12.259	0.150	0.000	0.1	0.18	2.3	Surcharged
Pipe (41)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Manhole (44)	Manhole (43)	13.425	12.667	0.011	5.219	0.2	0.01	0.2	OK
Pipe (42)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Manhole (43)	Manhole (42)	13.350	12.622	0.019	5.770	0.1	0.01	0.2	OK
Pipe (43)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Manhole (42)	Manhole (41)	13.350	12.506	0.020	29.698	0.6	0.06	0.9	OK
Pipe (44)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Manhole (41)	Catch Pit (29)	13.391	12.467	0.148	31.648	0.1	0.02	0.9	OK
Pipe (45)	Rossett: 10 years: +0 %: 15 mins: Summer	Pipe	Catch Pit (29)	S2	13.617	12.455	0.150	0.000	1.0	1.27	16.9	Surcharged
Pipe (46)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Manhole (34)	Catch Pit (30)	13.697	12.451	0.100	5.748	0.0	0.01	0.2	OK
Pipe (47)	Rossett: 10 years: +0 %: 15 mins: Summer	Pipe	Catch Pit (30)	S2	13.665	12.370	0.150	0.000	0.3	0.41	5.4	Surcharged
Pipe (48)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Manhole (39)	Manhole (38)	13.250	12.627	0.016	5.201	0.2	0.01	0.2	OK
Pipe (49)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Manhole (38)	Manhole (37)	13.250	12.569	0.016	18.347	0.5	0.04	0.5	OK
Pipe (50)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Manhole (37)	Catch Pit (31)	13.300	12.514	0.132	18.347	0.0	0.01	0.5	OK

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Pipe (51)	Rossett: 10 years: +0 %: 15 mins: Summer	Pipe	Catch Pit (31)	S1	13.300	12.456	0.150	0.000	0.5	0.63	8.4	Surcharged
Pipe (52)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Manhole (28)	Manhole (29)	12.850	12.452	0.010	3.839	0.3	0.02	0.1	OK
Pipe (53)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Manhole (29)	Manhole (30)	12.888	12.355	0.010	3.838	0.3	0.02	0.1	OK
Pipe (54)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Manhole (30)	Manhole (31)	12.986	12.285	0.011	7.594	0.5	0.02	0.2	OK
Pipe (55)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Manhole (31)	Catch Pit (32)	13.007	12.217	0.150	21.766	0.0	0.02	0.6	OK
Pipe (56)	Rossett: 10 years: +0 %: 15 mins: Summer	Pipe	Catch Pit (32)	S5	13.100	12.241	0.150	0.000	0.6	0.85	11.3	Surcharged
Pipe (57)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Manhole	Manhole (44)	13.400	12.845	0.011	5.219	0.3	0.02	0.2	OK
Pipe (13)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Manhole (1)	Manhole (2)	12.761	12.011	0.023	24.363	0.3	0.02	0.7	OK
Pipe (15)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Manhole (3)	Manhole (4)	12.898	11.873	0.032	47.497	0.4	0.03	1.4	OK
Pipe (16)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Manhole (4)	Porous Paving	12.725	11.710	0.038	47.487	0.3	0.03	1.4	OK
Pipe (58)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Plot 53-54 (1)	Manhole (1)	12.762	12.116	0.016	11.589	0.3	0.02	0.3	OK
Pipe (14)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Manhole (2)	Simple Junction	12.752	11.976	0.027	36.002	0.4	0.03	1.1	OK
Pipe (14) (1)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Simple Junction	Manhole (3)	12.807	11.947	0.028	43.051	0.4	0.03	1.3	OK
Pipe (59)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Plot 52	Simple Junction	12.763	12.025	0.013	7.049	0.3	0.01	0.2	OK
Pipe (60)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Plot 55	Manhole (3)	12.900	11.957	0.018	4.446	0.1	0.01	0.1	OK
Pipe (61)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Plot 53-54	Plot 53-54 (1)	12.800	12.289	0.010	4.498	0.3	0.02	0.1	OK
Pipe (62)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Plot27-30 (1)	Plot27-30 (2)	12.100	11.692	0.007	1.613	0.2	0.01	0.1	OK
Pipe (63)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Plot27-30 (2)	Plot27-30 (3)	12.100	11.603	0.008	1.613	0.2	0.01	0.1	OK
Pipe (64)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Plot27-30 (3)	Plot27-30 (4)	12.205	11.573	0.009	3.244	0.3	0.02	0.1	OK
Pipe (65)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Plot27-30 (4)	Plot27-30	12.301	11.407	0.050	6.465	0.3	0.01	0.2	OK
Pipe (66)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Road Gully (1)	Highway Drain (1)	12.080	11.639	0.014	9.318	0.3	0.01	0.3	OK
Pipe (67)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Highway Drain (1)	S17 (Downstream Def)	12.190	11.474	0.036	17.464	0.4	0.04	0.5	OK
Pipe (68)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Road Gully	Highway Drain	12.080	11.645	0.012	8.675	0.4	0.02	0.3	OK
Pipe (69)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Highway Drain	S17 (Downstream Def)	12.280	11.565	0.108	8.676	0.1	0.01	0.3	OK

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Pipe (70)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Gully	Highway Drain (1)	12.010	11.573	0.016	8.154	0.2	0.02	0.2	OK
Pipe (71)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	IC Plot 53 (1)	SA Plot 53	12.650	12.356	0.006	1.348	0.2	0.01	0.0	Flood Risk
Pipe (72)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	IC Plot 53	SA Plot 53	12.650	12.355	0.005	1.204	0.2	0.01	0.0	Flood Risk