

UK Design Flood Estimation

Generated on 05 May 2021 08:40:01 by User

Printed from the ReFH2 Flood Modelling software package, version 3.1.7439.12207

Summary of estimate using the Flood Estimation Handbook revitalised flood hydrograph method (ReFH2)

Site details

Checksum: C338-6498

Site name: FEH_Point_Descriptors_588788_217031

Easting: 588788

Northing: 217031

Country: England, Wales or Northern Ireland

Catchment Area (km²): 0.02

Using plot scale calculations: Yes

Model: ReFH2.3

Site description: None

Model run: 1 year

Summary of results

Rainfall - FEH 2013 model (mm):	20.75	Total runoff (ML):	0.10
Total Rainfall (mm):	13.29	Total flow (ML):	0.29
Peak Rainfall (mm):	3.02	Peak flow (m ³ /s):	0.01

Parameters

Where the user has overridden a system-generated value, this original value is shown in square brackets after the value used.

* Indicates that the user locked the duration/timestep

Rainfall parameters (Rainfall - FEH 2013 model)

Name	Value	User-defined?
Duration (hh:mm:ss)	05:30:00	No
Timestep (hh:mm:ss)	00:30:00	No
SCF (Seasonal correction factor)	0.64	No
ARF (Areal reduction factor)	0.99	No
Seasonality	Winter	No

Loss model parameters

Name	Value	User-defined?
Cini (mm)	119.46	No
Cmax (mm)	357.53	No
Use alpha correction factor	No	No
Alpha correction factor	n/a	No

Routing model parameters

Name	Value	User-defined?
Tp (hr)	3.25 [1.34]	Yes
Up	0.65	No
Uk	0.8	No

Baseflow model parameters

Name	Value	User-defined?
BF0 (m ³ /s)	0	No
BL (hr)	38.89 [32.37]	Yes
BR	1.84	No

Urbanisation parameters

Name	Value	User-defined?
Urban area (km ²)	0	No
Urbext 2000	0	No
Impervious runoff factor	0.7	No
Imperviousness factor	0.4	No
Tp scaling factor	0.75	No
Depression storage depth (mm)	0.5	No
Exporting drained area (km ²)	0.00	Yes
Sewer capacity (m ³ /s)	0.00	Yes

Time series data

Time (hh:mm:ss)	Rain (mm)	Sewer Loss (mm)	Net Rain (mm)	Runoff (m ³ /s)	Baseflow (m ³ /s)	Total Flow (m ³ /s)
00:00:00	0.2918	0.0000	0.0976	0.0000	0.000658	0.000658
00:30:00	0.4888	0.0000	0.1641	0.0000	0.000649	0.000658
01:00:00	0.8147	0.0000	0.2749	0.0000	0.000642	0.000683
01:30:00	1.3471	0.0000	0.4587	0.0001	0.000635	0.00075
02:00:00	2.1923	0.0000	0.7573	0.0003	0.000631	0.000887
02:30:00	3.0201	0.0000	1.0652	0.0005	0.000632	0.00114
03:00:00	2.1923	0.0000	0.7892	0.0009	0.000641	0.00157
03:30:00	1.3471	0.0000	0.4916	0.0015	0.000661	0.00217
04:00:00	0.8147	0.0000	0.2998	0.0022	0.000696	0.00288
04:30:00	0.4888	0.0000	0.1808	0.0029	0.000747	0.00363
05:00:00	0.2918	0.0000	0.1082	0.0035	0.000813	0.00436
05:30:00	0.0000	0.0000	0.0000	0.0041	0.000892	0.00498
06:00:00	0.0000	0.0000	0.0000	0.0044	0.00098	0.00541
06:30:00	0.0000	0.0000	0.0000	0.0045	0.00107	0.00555
07:00:00	0.0000	0.0000	0.0000	0.0043	0.00116	0.00547
07:30:00	0.0000	0.0000	0.0000	0.0040	0.00124	0.00524
08:00:00	0.0000	0.0000	0.0000	0.0036	0.00132	0.00492
08:30:00	0.0000	0.0000	0.0000	0.0032	0.00138	0.00456
09:00:00	0.0000	0.0000	0.0000	0.0028	0.00143	0.0042
09:30:00	0.0000	0.0000	0.0000	0.0024	0.00147	0.00387
10:00:00	0.0000	0.0000	0.0000	0.0021	0.00151	0.00359
10:30:00	0.0000	0.0000	0.0000	0.0018	0.00153	0.00335
11:00:00	0.0000	0.0000	0.0000	0.0016	0.00155	0.00312
11:30:00	0.0000	0.0000	0.0000	0.0013	0.00157	0.0029
12:00:00	0.0000	0.0000	0.0000	0.0011	0.00158	0.00268
12:30:00	0.0000	0.0000	0.0000	0.0009	0.00158	0.00247
13:00:00	0.0000	0.0000	0.0000	0.0007	0.00158	0.00226
13:30:00	0.0000	0.0000	0.0000	0.0005	0.00157	0.00206
14:00:00	0.0000	0.0000	0.0000	0.0003	0.00156	0.00187
14:30:00	0.0000	0.0000	0.0000	0.0002	0.00155	0.00173
15:00:00	0.0000	0.0000	0.0000	0.0001	0.00153	0.00163
15:30:00	0.0000	0.0000	0.0000	0.0000	0.00151	0.00156
16:00:00	0.0000	0.0000	0.0000	0.0000	0.00149	0.00151
16:30:00	0.0000	0.0000	0.0000	0.0000	0.00148	0.00148
17:00:00	0.0000	0.0000	0.0000	0.0000	0.00146	0.00146

Time (hh:mm:ss)	Rain (mm)	Sewer Loss (mm)	Net Rain (mm)	Runoff (m ³ /s)	Baseflow (m ³ /s)	Total Flow (m ³ /s)
17:30:00	0.0000	0.0000	0.0000	0.0000	0.00144	0.00144
18:00:00	0.0000	0.0000	0.0000	0.0000	0.00142	0.00142
18:30:00	0.0000	0.0000	0.0000	0.0000	0.0014	0.0014
19:00:00	0.0000	0.0000	0.0000	0.0000	0.00138	0.00138
19:30:00	0.0000	0.0000	0.0000	0.0000	0.00137	0.00137
20:00:00	0.0000	0.0000	0.0000	0.0000	0.00135	0.00135
20:30:00	0.0000	0.0000	0.0000	0.0000	0.00133	0.00133
21:00:00	0.0000	0.0000	0.0000	0.0000	0.00131	0.00131
21:30:00	0.0000	0.0000	0.0000	0.0000	0.0013	0.0013
22:00:00	0.0000	0.0000	0.0000	0.0000	0.00128	0.00128
22:30:00	0.0000	0.0000	0.0000	0.0000	0.00126	0.00126
23:00:00	0.0000	0.0000	0.0000	0.0000	0.00125	0.00125
23:30:00	0.0000	0.0000	0.0000	0.0000	0.00123	0.00123
24:00:00	0.0000	0.0000	0.0000	0.0000	0.00122	0.00122
24:30:00	0.0000	0.0000	0.0000	0.0000	0.0012	0.0012
25:00:00	0.0000	0.0000	0.0000	0.0000	0.00119	0.00119
25:30:00	0.0000	0.0000	0.0000	0.0000	0.00117	0.00117
26:00:00	0.0000	0.0000	0.0000	0.0000	0.00116	0.00116
26:30:00	0.0000	0.0000	0.0000	0.0000	0.00114	0.00114
27:00:00	0.0000	0.0000	0.0000	0.0000	0.00113	0.00113
27:30:00	0.0000	0.0000	0.0000	0.0000	0.00111	0.00111
28:00:00	0.0000	0.0000	0.0000	0.0000	0.0011	0.0011
28:30:00	0.0000	0.0000	0.0000	0.0000	0.00108	0.00108
29:00:00	0.0000	0.0000	0.0000	0.0000	0.00107	0.00107
29:30:00	0.0000	0.0000	0.0000	0.0000	0.00106	0.00106
30:00:00	0.0000	0.0000	0.0000	0.0000	0.00104	0.00104
30:30:00	0.0000	0.0000	0.0000	0.0000	0.00103	0.00103
31:00:00	0.0000	0.0000	0.0000	0.0000	0.00102	0.00102
31:30:00	0.0000	0.0000	0.0000	0.0000	0.001	0.001
32:00:00	0.0000	0.0000	0.0000	0.0000	0.00099	0.00099
32:30:00	0.0000	0.0000	0.0000	0.0000	0.000978	0.000978
33:00:00	0.0000	0.0000	0.0000	0.0000	0.000965	0.000965
33:30:00	0.0000	0.0000	0.0000	0.0000	0.000953	0.000953
34:00:00	0.0000	0.0000	0.0000	0.0000	0.000941	0.000941
34:30:00	0.0000	0.0000	0.0000	0.0000	0.000929	0.000929
35:00:00	0.0000	0.0000	0.0000	0.0000	0.000917	0.000917

Time (hh:mm:ss)	Rain (mm)	Sewer Loss (mm)	Net Rain (mm)	Runoff (m ³ /s)	Baseflow (m ³ /s)	Total Flow (m ³ /s)
35:30:00	0.0000	0.0000	0.0000	0.0000	0.000905	0.000905
36:00:00	0.0000	0.0000	0.0000	0.0000	0.000893	0.000893
36:30:00	0.0000	0.0000	0.0000	0.0000	0.000882	0.000882
37:00:00	0.0000	0.0000	0.0000	0.0000	0.000871	0.000871
37:30:00	0.0000	0.0000	0.0000	0.0000	0.00086	0.00086
38:00:00	0.0000	0.0000	0.0000	0.0000	0.000849	0.000849
38:30:00	0.0000	0.0000	0.0000	0.0000	0.000838	0.000838
39:00:00	0.0000	0.0000	0.0000	0.0000	0.000827	0.000827
39:30:00	0.0000	0.0000	0.0000	0.0000	0.000816	0.000816
40:00:00	0.0000	0.0000	0.0000	0.0000	0.000806	0.000806
40:30:00	0.0000	0.0000	0.0000	0.0000	0.000796	0.000796
41:00:00	0.0000	0.0000	0.0000	0.0000	0.000786	0.000786
41:30:00	0.0000	0.0000	0.0000	0.0000	0.000776	0.000776
42:00:00	0.0000	0.0000	0.0000	0.0000	0.000766	0.000766
42:30:00	0.0000	0.0000	0.0000	0.0000	0.000756	0.000756
43:00:00	0.0000	0.0000	0.0000	0.0000	0.000746	0.000746
43:30:00	0.0000	0.0000	0.0000	0.0000	0.000737	0.000737
44:00:00	0.0000	0.0000	0.0000	0.0000	0.000727	0.000727
44:30:00	0.0000	0.0000	0.0000	0.0000	0.000718	0.000718
45:00:00	0.0000	0.0000	0.0000	0.0000	0.000709	0.000709
45:30:00	0.0000	0.0000	0.0000	0.0000	0.0007	0.0007
46:00:00	0.0000	0.0000	0.0000	0.0000	0.000691	0.000691
46:30:00	0.0000	0.0000	0.0000	0.0000	0.000682	0.000682
47:00:00	0.0000	0.0000	0.0000	0.0000	0.000673	0.000673
47:30:00	0.0000	0.0000	0.0000	0.0000	0.000665	0.000665

Appendix

Catchment descriptors

Name	Value	User-defined value used?
BFIHOST	0.38	No
BFIHOST19	0.42	No
PROPWET (mm)	0.23	No
SAAR (mm)	569	No