

# UK Design Flood Estimation

Generated on 05 May 2021 08:43:00 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 (km<sup>2</sup>): 0.02

Using plot scale calculations: Yes

Model: ReFH2.3

Site description: None

## Model run: 2 year

### Summary of results

Rainfall - FEH 2013 model (mm):	23.78	Total runoff (ML):	0.12
Total Rainfall (mm):	15.23	Total flow (ML):	0.33
Peak Rainfall (mm):	3.46	Peak flow (m <sup>3</sup> /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?
BFO (m <sup>3</sup> /s)	0	No
BL (hr)	38.89 [32.37]	Yes
BR	1.81	No

#### Urbanisation parameters

Name	Value	User-defined?
Urban area (km <sup>2</sup> )	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 <sup>2</sup> )	0.00	Yes
Sewer capacity (m <sup>3</sup> /s)	0.00	Yes

Time series data

Time (hh:mm:ss)	Rain (mm)	Sewer Loss (mm)	Net Rain (mm)	Runoff (m <sup>3</sup> /s)	Baseflow (m <sup>3</sup> /s)	Total Flow (m <sup>3</sup> /s)
00:00:00	0.3344	0.0000	0.1119	0.0000	0.000658	0.000658
00:30:00	0.5602	0.0000	0.1881	0.0000	0.000649	0.00066
01:00:00	0.9337	0.0000	0.3155	0.0000	0.000642	0.00069
01:30:00	1.5438	0.0000	0.5271	0.0001	0.000636	0.000767
02:00:00	2.5124	0.0000	0.8720	0.0003	0.000632	0.000925
02:30:00	3.4610	0.0000	1.2301	0.0006	0.000634	0.00122
03:00:00	2.5124	0.0000	0.9140	0.0011	0.000645	0.00171
03:30:00	1.5438	0.0000	0.5704	0.0017	0.00067	0.00241
04:00:00	0.9337	0.0000	0.3482	0.0025	0.00071	0.00323
04:30:00	0.5602	0.0000	0.2101	0.0033	0.000769	0.00409
05:00:00	0.3344	0.0000	0.1258	0.0041	0.000845	0.00493
05:30:00	0.0000	0.0000	0.0000	0.0047	0.000936	0.00566
06:00:00	0.0000	0.0000	0.0000	0.0051	0.00104	0.00615
06:30:00	0.0000	0.0000	0.0000	0.0052	0.00114	0.00632
07:00:00	0.0000	0.0000	0.0000	0.0050	0.00125	0.00622
07:30:00	0.0000	0.0000	0.0000	0.0046	0.00134	0.00596
08:00:00	0.0000	0.0000	0.0000	0.0042	0.00143	0.00559
08:30:00	0.0000	0.0000	0.0000	0.0037	0.0015	0.00518
09:00:00	0.0000	0.0000	0.0000	0.0032	0.00156	0.00476
09:30:00	0.0000	0.0000	0.0000	0.0028	0.00161	0.00438
10:00:00	0.0000	0.0000	0.0000	0.0024	0.00165	0.00406
10:30:00	0.0000	0.0000	0.0000	0.0021	0.00168	0.00378
11:00:00	0.0000	0.0000	0.0000	0.0018	0.0017	0.00351
11:30:00	0.0000	0.0000	0.0000	0.0015	0.00172	0.00326
12:00:00	0.0000	0.0000	0.0000	0.0013	0.00173	0.00301
12:30:00	0.0000	0.0000	0.0000	0.0010	0.00174	0.00276
13:00:00	0.0000	0.0000	0.0000	0.0008	0.00173	0.00252
13:30:00	0.0000	0.0000	0.0000	0.0006	0.00173	0.00229
14:00:00	0.0000	0.0000	0.0000	0.0004	0.00172	0.00208
14:30:00	0.0000	0.0000	0.0000	0.0002	0.0017	0.00191
15:00:00	0.0000	0.0000	0.0000	0.0001	0.00168	0.00179
15:30:00	0.0000	0.0000	0.0000	0.0001	0.00166	0.00172
16:00:00	0.0000	0.0000	0.0000	0.0000	0.00164	0.00166
16:30:00	0.0000	0.0000	0.0000	0.0000	0.00162	0.00163
17:00:00	0.0000	0.0000	0.0000	0.0000	0.0016	0.0016

Time (hh:mm:ss)	Rain (mm)	Sewer Loss (mm)	Net Rain (mm)	Runoff (m <sup>3</sup> /s)	Baseflow (m <sup>3</sup> /s)	Total Flow (m <sup>3</sup> /s)
17:30:00	0.0000	0.0000	0.0000	0.0000	0.00158	0.00158
18:00:00	0.0000	0.0000	0.0000	0.0000	0.00156	0.00156
18:30:00	0.0000	0.0000	0.0000	0.0000	0.00154	0.00154
19:00:00	0.0000	0.0000	0.0000	0.0000	0.00152	0.00152
19:30:00	0.0000	0.0000	0.0000	0.0000	0.0015	0.0015
20:00:00	0.0000	0.0000	0.0000	0.0000	0.00148	0.00148
20:30:00	0.0000	0.0000	0.0000	0.0000	0.00146	0.00146
21:00:00	0.0000	0.0000	0.0000	0.0000	0.00145	0.00145
21:30:00	0.0000	0.0000	0.0000	0.0000	0.00143	0.00143
22:00:00	0.0000	0.0000	0.0000	0.0000	0.00141	0.00141
22:30:00	0.0000	0.0000	0.0000	0.0000	0.00139	0.00139
23:00:00	0.0000	0.0000	0.0000	0.0000	0.00137	0.00137
23:30:00	0.0000	0.0000	0.0000	0.0000	0.00136	0.00136
24:00:00	0.0000	0.0000	0.0000	0.0000	0.00134	0.00134
24:30:00	0.0000	0.0000	0.0000	0.0000	0.00132	0.00132
25:00:00	0.0000	0.0000	0.0000	0.0000	0.0013	0.0013
25:30:00	0.0000	0.0000	0.0000	0.0000	0.00129	0.00129
26:00:00	0.0000	0.0000	0.0000	0.0000	0.00127	0.00127
26:30:00	0.0000	0.0000	0.0000	0.0000	0.00125	0.00125
27:00:00	0.0000	0.0000	0.0000	0.0000	0.00124	0.00124
27:30:00	0.0000	0.0000	0.0000	0.0000	0.00122	0.00122
28:00:00	0.0000	0.0000	0.0000	0.0000	0.00121	0.00121
28:30:00	0.0000	0.0000	0.0000	0.0000	0.00119	0.00119
29:00:00	0.0000	0.0000	0.0000	0.0000	0.00118	0.00118
29:30:00	0.0000	0.0000	0.0000	0.0000	0.00116	0.00116
30:00:00	0.0000	0.0000	0.0000	0.0000	0.00115	0.00115
30:30:00	0.0000	0.0000	0.0000	0.0000	0.00113	0.00113
31:00:00	0.0000	0.0000	0.0000	0.0000	0.00112	0.00112
31:30:00	0.0000	0.0000	0.0000	0.0000	0.0011	0.0011
32:00:00	0.0000	0.0000	0.0000	0.0000	0.00109	0.00109
32:30:00	0.0000	0.0000	0.0000	0.0000	0.00108	0.00108
33:00:00	0.0000	0.0000	0.0000	0.0000	0.00106	0.00106
33:30:00	0.0000	0.0000	0.0000	0.0000	0.00105	0.00105
34:00:00	0.0000	0.0000	0.0000	0.0000	0.00103	0.00103
34:30:00	0.0000	0.0000	0.0000	0.0000	0.00102	0.00102
35:00:00	0.0000	0.0000	0.0000	0.0000	0.00101	0.00101

Time (hh:mm:ss)	Rain (mm)	Sewer Loss (mm)	Net Rain (mm)	Runoff (m <sup>3</sup> /s)	Baseflow (m <sup>3</sup> /s)	Total Flow (m <sup>3</sup> /s)
35:30:00	0.0000	0.0000	0.0000	0.0000	0.000996	0.000996
36:00:00	0.0000	0.0000	0.0000	0.0000	0.000983	0.000983
36:30:00	0.0000	0.0000	0.0000	0.0000	0.00097	0.00097
37:00:00	0.0000	0.0000	0.0000	0.0000	0.000958	0.000958
37:30:00	0.0000	0.0000	0.0000	0.0000	0.000946	0.000946
38:00:00	0.0000	0.0000	0.0000	0.0000	0.000934	0.000934
38:30:00	0.0000	0.0000	0.0000	0.0000	0.000922	0.000922
39:00:00	0.0000	0.0000	0.0000	0.0000	0.00091	0.00091
39:30:00	0.0000	0.0000	0.0000	0.0000	0.000898	0.000898
40:00:00	0.0000	0.0000	0.0000	0.0000	0.000887	0.000887
40:30:00	0.0000	0.0000	0.0000	0.0000	0.000875	0.000875
41:00:00	0.0000	0.0000	0.0000	0.0000	0.000864	0.000864
41:30:00	0.0000	0.0000	0.0000	0.0000	0.000853	0.000853
42:00:00	0.0000	0.0000	0.0000	0.0000	0.000842	0.000842
42:30:00	0.0000	0.0000	0.0000	0.0000	0.000832	0.000832
43:00:00	0.0000	0.0000	0.0000	0.0000	0.000821	0.000821
43:30:00	0.0000	0.0000	0.0000	0.0000	0.00081	0.00081
44:00:00	0.0000	0.0000	0.0000	0.0000	0.0008	0.0008
44:30:00	0.0000	0.0000	0.0000	0.0000	0.00079	0.00079
45:00:00	0.0000	0.0000	0.0000	0.0000	0.00078	0.00078
45:30:00	0.0000	0.0000	0.0000	0.0000	0.00077	0.00077
46:00:00	0.0000	0.0000	0.0000	0.0000	0.00076	0.00076
46:30:00	0.0000	0.0000	0.0000	0.0000	0.00075	0.00075
47:00:00	0.0000	0.0000	0.0000	0.0000	0.000741	0.000741
47:30:00	0.0000	0.0000	0.0000	0.0000	0.000731	0.000731
48:00:00	0.0000	0.0000	0.0000	0.0000	0.000722	0.000722
48:30:00	0.0000	0.0000	0.0000	0.0000	0.000713	0.000713
49:00:00	0.0000	0.0000	0.0000	0.0000	0.000704	0.000704
49:30:00	0.0000	0.0000	0.0000	0.0000	0.000695	0.000695
50:00:00	0.0000	0.0000	0.0000	0.0000	0.000686	0.000686
50:30:00	0.0000	0.0000	0.0000	0.0000	0.000677	0.000677
51:00:00	0.0000	0.0000	0.0000	0.0000	0.000668	0.000668

## 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