

# UK Design Flood Estimation

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 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: 1ACA-BF0A

Site name: FEH\_Point\_Descriptors\_588788\_217031

Easting: 588788

Northing: 217031

Country: England, Wales or Northern Ireland

Catchment Area (km<sup>2</sup>): 0.05

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):	0.27
Total Rainfall (mm):	13.26	Total flow (ML):	0.68
Peak Rainfall (mm):	3.01	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 [1.71]	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 [34.57]	Yes
BR	1.84	No

#### Urbanisation parameters

Name	Value	User-defined?
Urban area (km <sup>2</sup> )	0 [0]	Yes
Urbext 2000	0.04 [0]	Yes
Impervious runoff factor	1 [0.7]	Yes
Imperviousness factor	1 [0.4]	Yes
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	0.2912	0.0000	0.1094	0.0000	0.00147	0.00147
00:30:00	0.4879	0.0000	0.1838	0.0000	0.00145	0.00148
01:00:00	0.8131	0.0000	0.3076	0.0001	0.00143	0.00156
01:30:00	1.3445	0.0000	0.5125	0.0003	0.00142	0.00177
02:00:00	2.1880	0.0000	0.8442	0.0008	0.00141	0.00218
02:30:00	3.0141	0.0000	1.1835	0.0015	0.00141	0.00294
03:00:00	2.1880	0.0000	0.8740	0.0028	0.00143	0.00419
03:30:00	1.3445	0.0000	0.5433	0.0045	0.00148	0.00594
04:00:00	0.8131	0.0000	0.3309	0.0064	0.00156	0.00795
04:30:00	0.4879	0.0000	0.1994	0.0083	0.00167	0.01
05:00:00	0.2912	0.0000	0.1193	0.0101	0.00182	0.0119
05:30:00	0.0000	0.0000	0.0000	0.0114	0.00199	0.0134
06:00:00	0.0000	0.0000	0.0000	0.0121	0.00219	0.0143
06:30:00	0.0000	0.0000	0.0000	0.0120	0.0024	0.0144
07:00:00	0.0000	0.0000	0.0000	0.0114	0.0026	0.014
07:30:00	0.0000	0.0000	0.0000	0.0104	0.00278	0.0132
08:00:00	0.0000	0.0000	0.0000	0.0093	0.00294	0.0123
08:30:00	0.0000	0.0000	0.0000	0.0081	0.00308	0.0112
09:00:00	0.0000	0.0000	0.0000	0.0070	0.0032	0.0102
09:30:00	0.0000	0.0000	0.0000	0.0060	0.00329	0.00932
10:00:00	0.0000	0.0000	0.0000	0.0052	0.00337	0.00854
10:30:00	0.0000	0.0000	0.0000	0.0044	0.00343	0.00785
11:00:00	0.0000	0.0000	0.0000	0.0037	0.00347	0.00721
11:30:00	0.0000	0.0000	0.0000	0.0031	0.0035	0.00661
12:00:00	0.0000	0.0000	0.0000	0.0025	0.00352	0.00606
12:30:00	0.0000	0.0000	0.0000	0.0020	0.00353	0.00554
13:00:00	0.0000	0.0000	0.0000	0.0015	0.00352	0.00505
13:30:00	0.0000	0.0000	0.0000	0.0011	0.00351	0.00459
14:00:00	0.0000	0.0000	0.0000	0.0007	0.00349	0.00419
14:30:00	0.0000	0.0000	0.0000	0.0004	0.00345	0.00386
15:00:00	0.0000	0.0000	0.0000	0.0002	0.00342	0.00363
15:30:00	0.0000	0.0000	0.0000	0.0001	0.00338	0.00348
16:00:00	0.0000	0.0000	0.0000	0.0000	0.00334	0.00338
16:30:00	0.0000	0.0000	0.0000	0.0000	0.00329	0.00331
17:00:00	0.0000	0.0000	0.0000	0.0000	0.00325	0.00325

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	0.00321	0.00321
18:00:00	0.0000	0.0000	0.0000	0.0000	0.00317	0.00317
18:30:00	0.0000	0.0000	0.0000	0.0000	0.00313	0.00313
19:00:00	0.0000	0.0000	0.0000	0.0000	0.00309	0.00309
19:30:00	0.0000	0.0000	0.0000	0.0000	0.00305	0.00305
20:00:00	0.0000	0.0000	0.0000	0.0000	0.00301	0.00301
20:30:00	0.0000	0.0000	0.0000	0.0000	0.00297	0.00297
21:00:00	0.0000	0.0000	0.0000	0.0000	0.00293	0.00293
21:30:00	0.0000	0.0000	0.0000	0.0000	0.0029	0.0029
22:00:00	0.0000	0.0000	0.0000	0.0000	0.00286	0.00286
22:30:00	0.0000	0.0000	0.0000	0.0000	0.00282	0.00282
23:00:00	0.0000	0.0000	0.0000	0.0000	0.00279	0.00279
23:30:00	0.0000	0.0000	0.0000	0.0000	0.00275	0.00275
24:00:00	0.0000	0.0000	0.0000	0.0000	0.00272	0.00272
24:30:00	0.0000	0.0000	0.0000	0.0000	0.00268	0.00268
25:00:00	0.0000	0.0000	0.0000	0.0000	0.00265	0.00265
25:30:00	0.0000	0.0000	0.0000	0.0000	0.00261	0.00261
26:00:00	0.0000	0.0000	0.0000	0.0000	0.00258	0.00258
26:30:00	0.0000	0.0000	0.0000	0.0000	0.00255	0.00255
27:00:00	0.0000	0.0000	0.0000	0.0000	0.00251	0.00251
27:30:00	0.0000	0.0000	0.0000	0.0000	0.00248	0.00248
28:00:00	0.0000	0.0000	0.0000	0.0000	0.00245	0.00245
28:30:00	0.0000	0.0000	0.0000	0.0000	0.00242	0.00242
29:00:00	0.0000	0.0000	0.0000	0.0000	0.00239	0.00239
29:30:00	0.0000	0.0000	0.0000	0.0000	0.00236	0.00236
30:00:00	0.0000	0.0000	0.0000	0.0000	0.00233	0.00233
30:30:00	0.0000	0.0000	0.0000	0.0000	0.0023	0.0023
31:00:00	0.0000	0.0000	0.0000	0.0000	0.00227	0.00227
31:30:00	0.0000	0.0000	0.0000	0.0000	0.00224	0.00224
32:00:00	0.0000	0.0000	0.0000	0.0000	0.00221	0.00221
32:30:00	0.0000	0.0000	0.0000	0.0000	0.00218	0.00218
33:00:00	0.0000	0.0000	0.0000	0.0000	0.00216	0.00216
33:30:00	0.0000	0.0000	0.0000	0.0000	0.00213	0.00213
34:00:00	0.0000	0.0000	0.0000	0.0000	0.0021	0.0021
34:30:00	0.0000	0.0000	0.0000	0.0000	0.00207	0.00207
35:00:00	0.0000	0.0000	0.0000	0.0000	0.00205	0.00205

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	0.00202	0.00202
36:00:00	0.0000	0.0000	0.0000	0.0000	0.002	0.002
36:30:00	0.0000	0.0000	0.0000	0.0000	0.00197	0.00197
37:00:00	0.0000	0.0000	0.0000	0.0000	0.00194	0.00194
37:30:00	0.0000	0.0000	0.0000	0.0000	0.00192	0.00192
38:00:00	0.0000	0.0000	0.0000	0.0000	0.0019	0.0019
38:30:00	0.0000	0.0000	0.0000	0.0000	0.00187	0.00187
39:00:00	0.0000	0.0000	0.0000	0.0000	0.00185	0.00185
39:30:00	0.0000	0.0000	0.0000	0.0000	0.00182	0.00182
40:00:00	0.0000	0.0000	0.0000	0.0000	0.0018	0.0018
40:30:00	0.0000	0.0000	0.0000	0.0000	0.00178	0.00178
41:00:00	0.0000	0.0000	0.0000	0.0000	0.00175	0.00175
41:30:00	0.0000	0.0000	0.0000	0.0000	0.00173	0.00173
42:00:00	0.0000	0.0000	0.0000	0.0000	0.00171	0.00171
42:30:00	0.0000	0.0000	0.0000	0.0000	0.00169	0.00169
43:00:00	0.0000	0.0000	0.0000	0.0000	0.00167	0.00167
43:30:00	0.0000	0.0000	0.0000	0.0000	0.00165	0.00165
44:00:00	0.0000	0.0000	0.0000	0.0000	0.00162	0.00162
44:30:00	0.0000	0.0000	0.0000	0.0000	0.0016	0.0016
45:00:00	0.0000	0.0000	0.0000	0.0000	0.00158	0.00158
45:30:00	0.0000	0.0000	0.0000	0.0000	0.00156	0.00156
46:00:00	0.0000	0.0000	0.0000	0.0000	0.00154	0.00154
46:30:00	0.0000	0.0000	0.0000	0.0000	0.00152	0.00152
47:00:00	0.0000	0.0000	0.0000	0.0000	0.0015	0.0015
47:30:00	0.0000	0.0000	0.0000	0.0000	0.00148	0.00148

## 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

*Values in square brackets are the original values loaded from the FEH Web Service or FEH CD-ROM*