

UK Design Flood Estimation

Generated on 05 May 2021 08:22:44 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: 1ACA-BF0A

Site name: FEH_Point_Descriptors_588788_217031

Easting: 588788

Northing: 217031

Country: England, Wales or Northern Ireland

Catchment Area (km²): 0.05

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):	0.31
Total Rainfall (mm):	15.20	Total flow (ML):	0.78
Peak Rainfall (mm):	3.45	Peak flow (m ³ /s):	0.02

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 ³ /s)	0	No
BL (hr)	38.89 [34.57]	Yes
BR	1.81	No

Urbanisation parameters

Name	Value	User-defined?
Urban area (km ²)	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 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	0.3337	0.0000	0.1254	0.0000	0.00147	0.00147
00:30:00	0.5591	0.0000	0.2107	0.0000	0.00145	0.00148
01:00:00	0.9318	0.0000	0.3530	0.0001	0.00144	0.00158
01:30:00	1.5408	0.0000	0.5887	0.0004	0.00142	0.00182
02:00:00	2.5075	0.0000	0.9713	0.0009	0.00141	0.00229
02:30:00	3.4542	0.0000	1.3650	0.0017	0.00142	0.00317
03:00:00	2.5075	0.0000	1.0105	0.0032	0.00144	0.00461
03:30:00	1.5408	0.0000	0.6291	0.0051	0.0015	0.00663
04:00:00	0.9318	0.0000	0.3835	0.0074	0.00159	0.00895
04:30:00	0.5591	0.0000	0.2312	0.0096	0.00172	0.0113
05:00:00	0.3337	0.0000	0.1384	0.0116	0.00189	0.0135
05:30:00	0.0000	0.0000	0.0000	0.0132	0.00209	0.0153
06:00:00	0.0000	0.0000	0.0000	0.0140	0.00232	0.0163
06:30:00	0.0000	0.0000	0.0000	0.0139	0.00256	0.0164
07:00:00	0.0000	0.0000	0.0000	0.0132	0.00279	0.0159
07:30:00	0.0000	0.0000	0.0000	0.0120	0.003	0.015
08:00:00	0.0000	0.0000	0.0000	0.0108	0.00319	0.0139
08:30:00	0.0000	0.0000	0.0000	0.0094	0.00335	0.0128
09:00:00	0.0000	0.0000	0.0000	0.0081	0.00348	0.0116
09:30:00	0.0000	0.0000	0.0000	0.0070	0.00359	0.0106
10:00:00	0.0000	0.0000	0.0000	0.0060	0.00368	0.00966
10:30:00	0.0000	0.0000	0.0000	0.0051	0.00375	0.00886
11:00:00	0.0000	0.0000	0.0000	0.0043	0.0038	0.00812
11:30:00	0.0000	0.0000	0.0000	0.0036	0.00384	0.00744
12:00:00	0.0000	0.0000	0.0000	0.0029	0.00387	0.0068
12:30:00	0.0000	0.0000	0.0000	0.0023	0.00388	0.00621
13:00:00	0.0000	0.0000	0.0000	0.0018	0.00387	0.00564
13:30:00	0.0000	0.0000	0.0000	0.0013	0.00386	0.00511
14:00:00	0.0000	0.0000	0.0000	0.0008	0.00383	0.00464
14:30:00	0.0000	0.0000	0.0000	0.0005	0.0038	0.00427
15:00:00	0.0000	0.0000	0.0000	0.0002	0.00376	0.00401
15:30:00	0.0000	0.0000	0.0000	0.0001	0.00372	0.00383
16:00:00	0.0000	0.0000	0.0000	0.0000	0.00367	0.00372
16:30:00	0.0000	0.0000	0.0000	0.0000	0.00362	0.00364
17:00:00	0.0000	0.0000	0.0000	0.0000	0.00358	0.00358

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	0.00353	0.00353
18:00:00	0.0000	0.0000	0.0000	0.0000	0.00349	0.00349
18:30:00	0.0000	0.0000	0.0000	0.0000	0.00344	0.00344
19:00:00	0.0000	0.0000	0.0000	0.0000	0.0034	0.0034
19:30:00	0.0000	0.0000	0.0000	0.0000	0.00335	0.00335
20:00:00	0.0000	0.0000	0.0000	0.0000	0.00331	0.00331
20:30:00	0.0000	0.0000	0.0000	0.0000	0.00327	0.00327
21:00:00	0.0000	0.0000	0.0000	0.0000	0.00323	0.00323
21:30:00	0.0000	0.0000	0.0000	0.0000	0.00319	0.00319
22:00:00	0.0000	0.0000	0.0000	0.0000	0.00315	0.00315
22:30:00	0.0000	0.0000	0.0000	0.0000	0.00311	0.00311
23:00:00	0.0000	0.0000	0.0000	0.0000	0.00307	0.00307
23:30:00	0.0000	0.0000	0.0000	0.0000	0.00303	0.00303
24:00:00	0.0000	0.0000	0.0000	0.0000	0.00299	0.00299
24:30:00	0.0000	0.0000	0.0000	0.0000	0.00295	0.00295
25:00:00	0.0000	0.0000	0.0000	0.0000	0.00291	0.00291
25:30:00	0.0000	0.0000	0.0000	0.0000	0.00288	0.00288
26:00:00	0.0000	0.0000	0.0000	0.0000	0.00284	0.00284
26:30:00	0.0000	0.0000	0.0000	0.0000	0.0028	0.0028
27:00:00	0.0000	0.0000	0.0000	0.0000	0.00277	0.00277
27:30:00	0.0000	0.0000	0.0000	0.0000	0.00273	0.00273
28:00:00	0.0000	0.0000	0.0000	0.0000	0.0027	0.0027
28:30:00	0.0000	0.0000	0.0000	0.0000	0.00266	0.00266
29:00:00	0.0000	0.0000	0.0000	0.0000	0.00263	0.00263
29:30:00	0.0000	0.0000	0.0000	0.0000	0.00259	0.00259
30:00:00	0.0000	0.0000	0.0000	0.0000	0.00256	0.00256
30:30:00	0.0000	0.0000	0.0000	0.0000	0.00253	0.00253
31:00:00	0.0000	0.0000	0.0000	0.0000	0.0025	0.0025
31:30:00	0.0000	0.0000	0.0000	0.0000	0.00246	0.00246
32:00:00	0.0000	0.0000	0.0000	0.0000	0.00243	0.00243
32:30:00	0.0000	0.0000	0.0000	0.0000	0.0024	0.0024
33:00:00	0.0000	0.0000	0.0000	0.0000	0.00237	0.00237
33:30:00	0.0000	0.0000	0.0000	0.0000	0.00234	0.00234
34:00:00	0.0000	0.0000	0.0000	0.0000	0.00231	0.00231
34:30:00	0.0000	0.0000	0.0000	0.0000	0.00228	0.00228
35:00:00	0.0000	0.0000	0.0000	0.0000	0.00225	0.00225

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	0.00222	0.00222
36:00:00	0.0000	0.0000	0.0000	0.0000	0.00219	0.00219
36:30:00	0.0000	0.0000	0.0000	0.0000	0.00217	0.00217
37:00:00	0.0000	0.0000	0.0000	0.0000	0.00214	0.00214
37:30:00	0.0000	0.0000	0.0000	0.0000	0.00211	0.00211
38:00:00	0.0000	0.0000	0.0000	0.0000	0.00208	0.00208
38:30:00	0.0000	0.0000	0.0000	0.0000	0.00206	0.00206
39:00:00	0.0000	0.0000	0.0000	0.0000	0.00203	0.00203
39:30:00	0.0000	0.0000	0.0000	0.0000	0.00201	0.00201
40:00:00	0.0000	0.0000	0.0000	0.0000	0.00198	0.00198
40:30:00	0.0000	0.0000	0.0000	0.0000	0.00195	0.00195
41:00:00	0.0000	0.0000	0.0000	0.0000	0.00193	0.00193
41:30:00	0.0000	0.0000	0.0000	0.0000	0.00191	0.00191
42:00:00	0.0000	0.0000	0.0000	0.0000	0.00188	0.00188
42:30:00	0.0000	0.0000	0.0000	0.0000	0.00186	0.00186
43:00:00	0.0000	0.0000	0.0000	0.0000	0.00183	0.00183
43:30:00	0.0000	0.0000	0.0000	0.0000	0.00181	0.00181
44:00:00	0.0000	0.0000	0.0000	0.0000	0.00179	0.00179
44:30:00	0.0000	0.0000	0.0000	0.0000	0.00176	0.00176
45:00:00	0.0000	0.0000	0.0000	0.0000	0.00174	0.00174
45:30:00	0.0000	0.0000	0.0000	0.0000	0.00172	0.00172
46:00:00	0.0000	0.0000	0.0000	0.0000	0.0017	0.0017
46:30:00	0.0000	0.0000	0.0000	0.0000	0.00168	0.00168
47:00:00	0.0000	0.0000	0.0000	0.0000	0.00165	0.00165
47:30:00	0.0000	0.0000	0.0000	0.0000	0.00163	0.00163
48:00:00	0.0000	0.0000	0.0000	0.0000	0.00161	0.00161
48:30:00	0.0000	0.0000	0.0000	0.0000	0.00159	0.00159
49:00:00	0.0000	0.0000	0.0000	0.0000	0.00157	0.00157
49:30:00	0.0000	0.0000	0.0000	0.0000	0.00155	0.00155
50:00:00	0.0000	0.0000	0.0000	0.0000	0.00153	0.00153
50:30:00	0.0000	0.0000	0.0000	0.0000	0.00151	0.00151
51:00:00	0.0000	0.0000	0.0000	0.0000	0.00149	0.00149

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