

APPENDIX 2 – FEH RAINFALL DATA

VERSION	"FEH Web S:Version	1.0.0	exported at	18:00:25 GMT	Tue	30-Nov-21
Parameters						
Rainfall mod FEH 2013						
Calculation tyDesign rainfall						
Calculation nFor a point						
Calculation lcPoint	GB	509020	190259	TQ 09020 90259		
Fixed durationno						
Annual maxiiyes						
Duration hou	Duration day:2 year rainfal	5 year rainfal	10 year rainfal	20 year rainfal	30 year rainfal	50 year rainfal:75 year rainfal:100 year rainfal
0.25	0.01041667	7.63	12.68	16.16	19.69	21.76 24.56 26.81 28.46
0.5	0.02083333	9.73	16.21	20.82	25.44	28.27 31.95 35.03 37.32
0.75	0.03125	11.03	18.35	23.55	28.91	32.06 36.38 39.92 42.53
1	0.04166667	12.03	20	25.62	31.41	34.9 39.52 43.41 46.32
1.25	0.05208333	13.42	21.89	27.83	33.93	37.65 42.55 46.75 49.92
1.5	0.0625	14.87	23.7	29.88	36.21	40.09 45.25 49.72 53.12
1.75	0.07291667	16.29	25.36	31.73	38.23	42.25 47.64 52.35 55.97
2	0.08333333	17.6	26.86	33.38	40.03	44.15 49.77 54.7 58.5
2.25	0.09375	18.58	28.05	34.72	41.52	45.76 51.56 56.7 60.68
2.5	0.10416667	19.45	29.11	35.91	42.84	47.18 53.17 58.49 62.63
2.75	0.11458333	20.23	30.06	36.98	44.02	48.46 54.61 60.1 64.39
3	0.125	20.95	30.92	37.94	45.09	49.62 55.91 61.56 65.99
3.25	0.13541667	21.6	31.71	38.81	46.06	50.67 57.1 62.9 67.46
3.5	0.14583333	22.2	32.43	39.61	46.95	51.64 58.2 64.13 68.8
3.75	0.15625	22.75	33.09	40.34	47.77	52.53 59.2 65.26 70.04
4	0.16666667	23.26	33.71	41.02	48.53	53.35 60.13 66.31 71.2
4.25	0.17708333	23.73	34.26	41.63	49.23	54.1 60.98 67.27 72.26
4.5	0.1875	24.16	34.78	42.19	49.87	54.8 61.77 68.17 73.25
4.75	0.19791667	24.57	35.27	42.72	50.47	55.45 62.51 69 74.17
5	0.20833333	24.95	35.73	43.21	51.04	56.06 63.19 69.78 75.03
5.25	0.21875	25.31	36.15	43.68	51.57	56.63 63.84 70.51 75.83
5.5	0.22916667	25.65	36.56	44.12	52.06	57.17 64.44 71.2 76.59
5.75	0.23958333	25.97	36.94	44.53	52.53	57.68 65.01 71.85 77.3
6	0.25	26.28	37.3	44.92	52.98	58.16 65.55 72.45 77.97

APPENDIX 3 - GREENFIELD RUNOFF CALCULATIONS

Greenfield runoff rate estimation - members | UK SuDS

25/11/2021, 09:41



Greenfield runoff rate estimation for sites

www.uksuds.com | Greenfield runoff tool

Calculated by:

Site name:

Site location:

Site Details

Latitude:

Longitude:

This is an estimation of the greenfield runoff rates that are used to meet normal best practice criteria in line with Environment Agency guidance "Rainfall runoff management for developments", SC030219 (2013), the SuDS Manual C753 (Ciria, 2015) and the non-statutory standards for SuDS (Defra, 2015). This information on greenfield runoff rates may be the basis for setting consents for the drainage of surface water runoff from sites.

Reference:

Date:

Runoff estimation approach

Site characteristics

Total site area (ha):

Methodology

Q_{BAR} estimation method:

SPR estimation method:

Soil characteristics

Soil characteristics

SOIL type:	4	4
HOST class:	N/A	N/A
SPR/SPRHOST:	0.47	0.47

Hydrological characteristics

Hydrological characteristics

SAAR (mm):	617	617
Hydrological region:	6	6
Growth curve factor 1 year:	0.85	0.85
Growth curve factor 30 years:	2.3	2.3
Growth curve factor 100 years:	3.19	3.19

Notes

(1) Is Q_{BAR} < 2.0 l/s/ha?

When Q_{BAR} is < 2.0 l/s/ha then limiting discharge rates are set at 2.0 l/s/ha.

(2) Are flow rates < 5.0 l/s?

Where flow rates are less than 5.0 l/s consent for discharge is usually set at 5.0 l/s if blockage from vegetation and other materials is possible. Lower consent flow rates may be set where the blockage risk is addressed by using appropriate drainage elements.

(3) Is SPR/SPRHOST ≤ 0.3?

Where groundwater levels are low enough the use of soakaways to avoid discharge offsite would normally be preferred for disposal of surface water runoff.

Growth curve factor 200 years:

3,74

3,74

Greenfield runoff rates	Default	Edited
Q _{BAR} (l/s):	4.17	4.17
1 in 1 year (l/s):	3.54	3.54
1 in 30 years (l/s):	9.58	9.58
1 in 100 year (l/s):	13.29	13.29
1 in 200 years (l/s):	15.58	15.58

This report was produced using the greenfield runoff tool developed by HR Wallingford and available at www.uksuds.com. The use of this tool is subject to the UK SuDS terms and conditions and licence agreement , which can both be found at www.uksuds.com/terms-and-conditions.htm. The outputs from this tool are estimates of greenfield runoff rates. The use of these results is the responsibility of the users of this tool. No liability will be accepted by HR Wallingford, the Environment Agency, CEH, Hydrosolutions or any other organisation for the use of this data in the design or operational characteristics of any drainage scheme.