



Greenfield runoff rate estimation tool

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hr wallingford

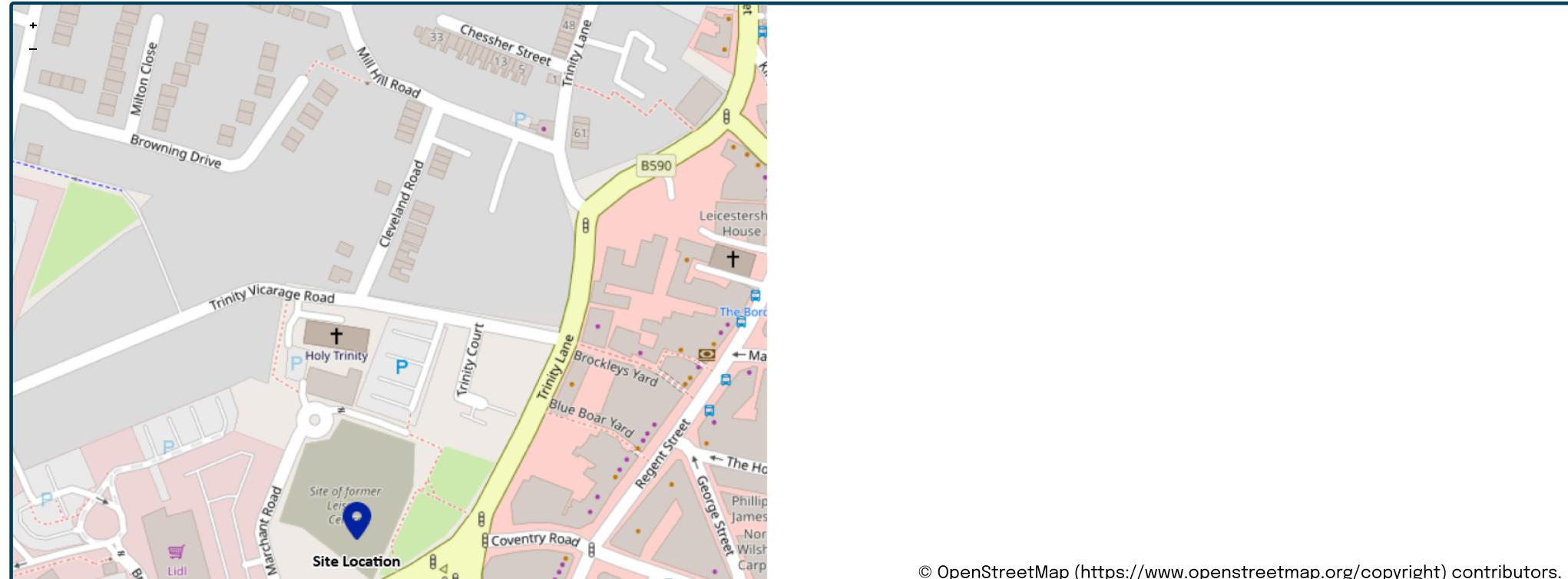
This is an estimation of the greenfield runoff rates that are used to meet normal best practice criteria in line with Environment Agency guidance "Rainfall runoff management for developments", SC030219 (2013), the SuDS Manual C753 (CIRIA, 2015) and the non-statutory standards for SuDS (Defra, 2015).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

Project details

Date	22/08/2025
Calculated by	JMcK
Reference	MA12204
Model version	2.1.2

Location

Site name	Hinkley Square
Site location	Hinkley



Site easting (British National Grid)

442333

Site northing (British National Grid)

293747

Site details

Total site area (ha)	0.46	ha
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Greenfield runoff

Method

Method	IH124
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IH124

SAAR (mm)	<u>My value</u> 642	<u>Map value</u> 642
How should SPR be derived?	WRAP soil type	
WRAP soil type	4	4
SPR	0.47	
QBar (IH124) (l/s)	2.01	l/s

Growth curve factors

Hydrological region	<u>My value</u> 4	<u>Map value</u> 4
1 year growth factor	0.83	
2 year growth factor	0.89	
10 year growth factor	1.49	
30 year growth factor	2	
100 year growth factor	2.57	
200 year growth factor	3.04	

Results

Method

IH124	
1.7	l/s
1.8	l/s
3.0	l/s
4.0	l/s
5.2	l/s
6.1	l/s

Please note runoff estimation is subject to significant uncertainty. Results are therefore normally reported to only 1 decimal place. Where 2 decimal places are provided, this does not indicate accuracy to this level, it has been adopted to prevent 'zero' figures from being reported. Outputs less than 0.01 l/s are reported as 0.01 l/s.

Disclaimer

This report was produced using the Greenfield runoff rate estimation tool (2.1.2) developed by HR Wallingford and available at [eksuds.com](https://www.eksuds.com/) (<https://www.eksuds.com/>). The use of this tool is subject to the UK SuDS terms and conditions and licence agreement, which can both be found at [eksuds.com/terms-conditions](https://www.eksuds.com/terms-conditions) (<https://www.eksuds.com/terms-conditions>). The outputs from this tool have been used to estimate 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, Centre for Ecology and Hydrology, Wallingford Hydrosolutions or any other organisation for the use of these data in the design or operational characteristics of any drainage scheme.