

Appendix B Greenfield / Brownfield Runoff Rates

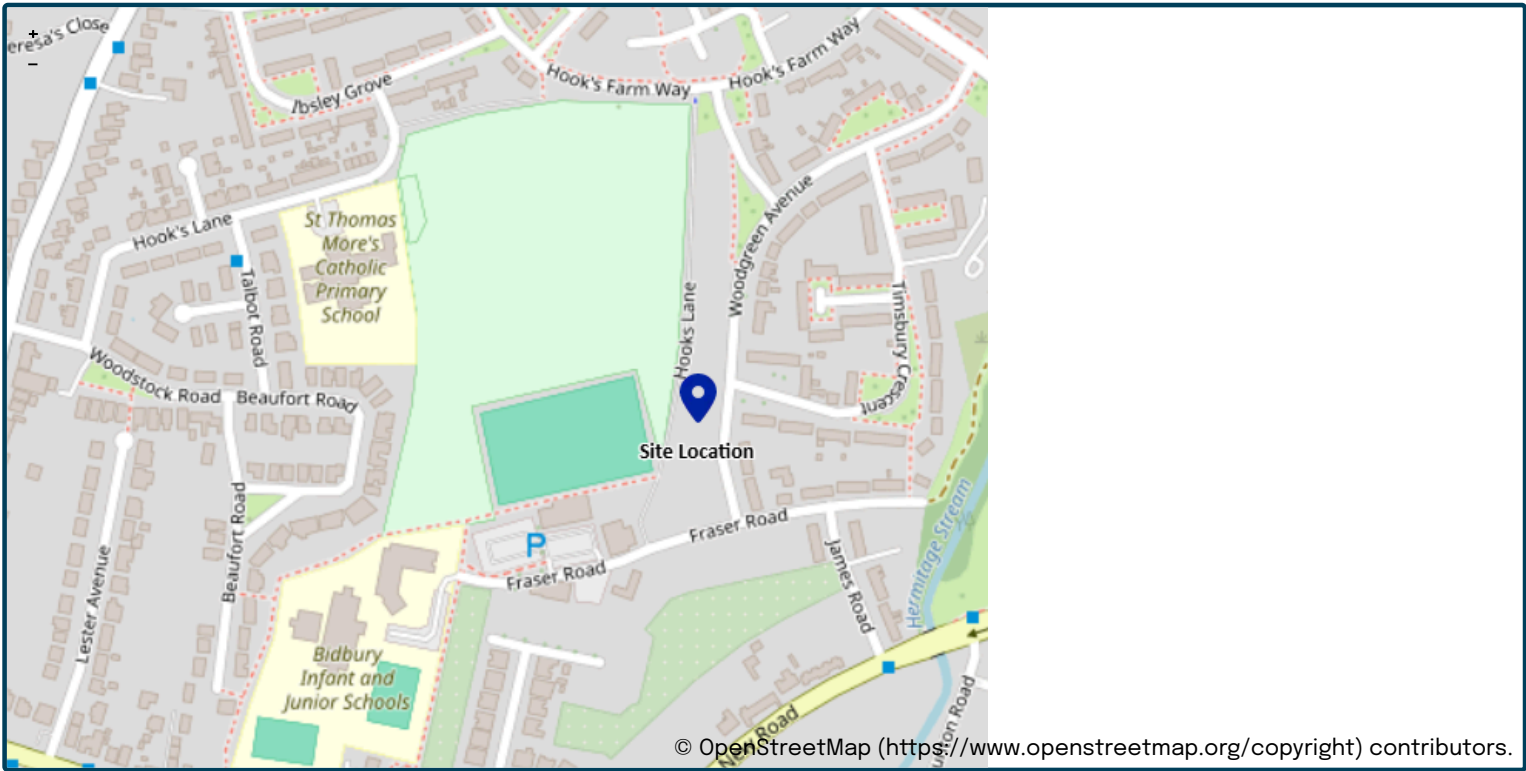
This is an estimation of the greenfield runoff rates that are used to meet normal best practice criteria in line with Environment Agency guidance “Rainfall runoff management for developments”, SC030219 (2013), the SuDS Manual C753 (CIRIA, 2015) and the non-statutory standards for SuDS (Defra, 2015). 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	<input type="text" value="26/11/2025"/>
Calculated by	<input type="text" value="Thomas Foster"/>
Reference	<input type="text" value="C725 Havant Thicket Pipeline"/>
Model version	<input type="text" value="2.2.2"/>

Location

Site name	<input type="text" value="Havant W2/W3"/>
Site location	<input type="text" value="Havant"/>



Site easting (British National Grid)	<input type="text" value="470890"/>
Site northing (British National Grid)	<input type="text" value="106921"/>

Site details

Total site area (ha)	<input type="text" value="1.3"/>	ha
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Greenfield runoff

Method

Method	IH124
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IH124

	<u>My value</u>	☐	<u>Map value</u>
SAAR (mm)	<input type="text" value="731"/> mm		<input type="text" value="731"/>
How should SPR be derived?	<input type="text" value="WRAP soil type"/>		
WRAP soil type	<input type="text" value="4"/>	☐	<input type="text" value="4"/>
SPR	<input type="text" value="0.47"/>		
QBar (IH124) (l/s)	<input type="text" value="6.6"/> l/s		

Growth curve factors

	<u>My value</u>	☐	<u>Map value</u>
Hydrological region	<input type="text" value="7"/>		<input type="text" value="7"/>
1 year growth factor	<input type="text" value="0.85"/>		
2 year growth factor	<input type="text" value="0.88"/>		
10 year growth factor	<input type="text" value="1.62"/>		
30 year growth factor	<input type="text" value="2.3"/>		
100 year growth factor	<input type="text" value="3.19"/>		
200 year growth factor	<input type="text" value="3.74"/>		

Results

Method	IH124
Flow rate 1 year (l/s)	<input type="text" value="5.6"/> l/s
Flow rate 2 year (l/s)	<input type="text" value="5.8"/> l/s
Flow rate 10 years (l/s)	<input type="text" value="10.7"/> l/s
Flow rate 30 years (l/s)	<input type="text" value="15.2"/> l/s
Flow rate 100 years (l/s)	<input type="text" value="21.1"/> l/s
Flow rate 200 years (l/s)	<input type="text" value="24.7"/> 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 (2.2.2) developed by HR Wallingford and available at [uksuds.com](https://www.uksuds.com/) (<https://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 [uksuds.com/terms-conditions](https://www.uksuds.com/terms-conditions) (<https://www.uksuds.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.

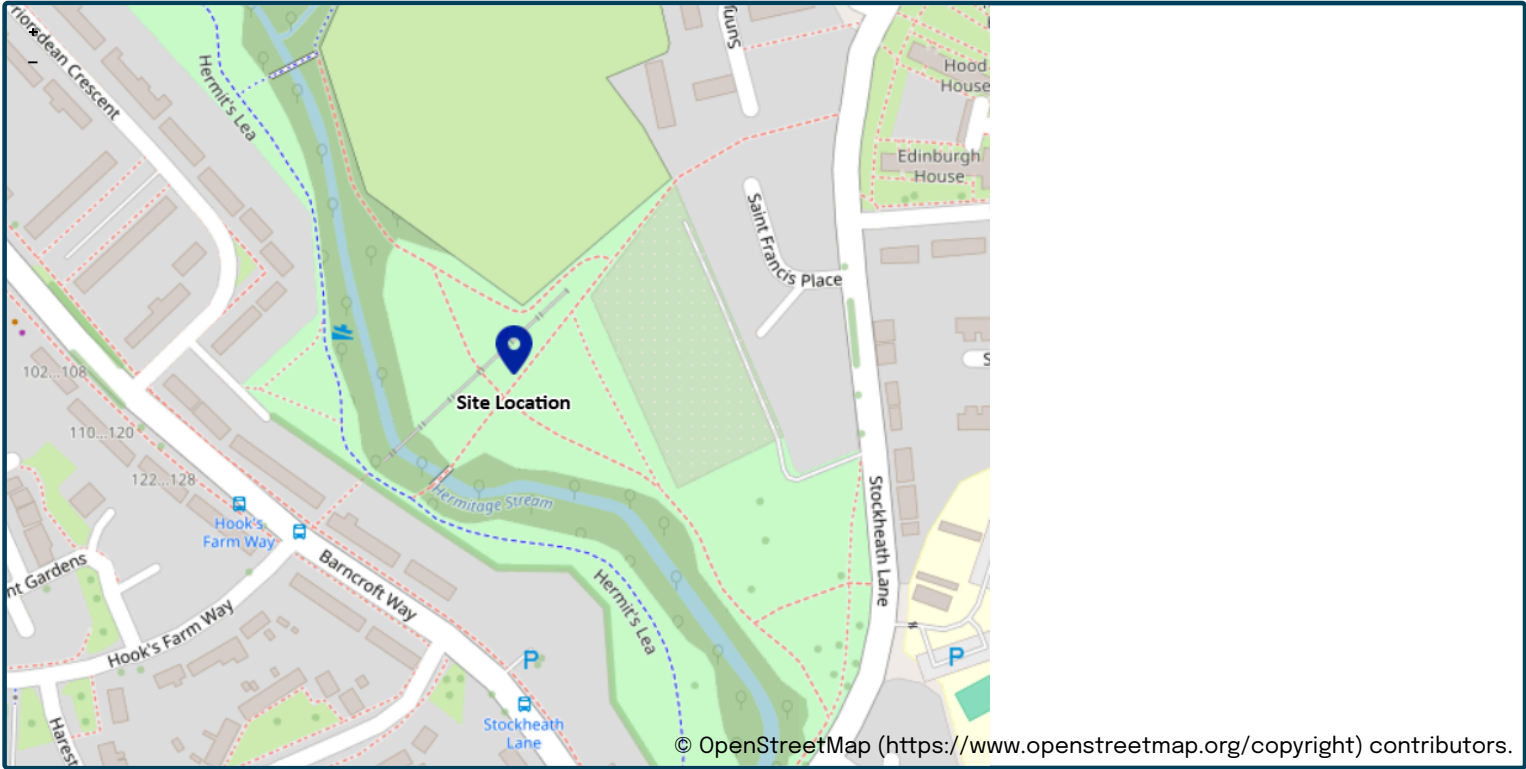
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Project details

Date	09/10/2026
Calculated by	Thomas Foster
Reference	C725 Havant Thicket Pipeline
Model version	2.2.3

Location

Site name	Havant W4
Site location	Havant



Site easting (British National Grid)	471127
Site northing (British National Grid)	107331

Site details

Total site area (ha)	0.8	ha
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Greenfield runoff

Method

Method	IH124	
IH124		
	<u>My value</u>	<u>Map value</u>
SAAR (mm)	<div><div>743</div><div>mm</div></div>	<div><div><div></div></div><div>743</div></div>
How should SPR be derived?	WRAP soil type	
WRAP soil type	<div><div>4</div></div>	<div><div><div></div></div><div>4</div></div>
SPR	<div><div>0.47</div><div></div></div>	
QBar (IH124) (l/s)	<div><div>4.1</div><div>l/s</div></div>	

Growth curve factors

	<u>My value</u>	<u>Map value</u>
Hydrological region	<div><div>7</div></div>	<div><div><div></div></div><div>7</div></div>
1 year growth factor	<div><div>0.85</div><div></div></div>	
2 year growth factor	<div><div>0.88</div><div></div></div>	
10 year growth factor	<div><div>1.62</div><div></div></div>	
30 year growth factor	<div><div>2.3</div><div></div></div>	
100 year growth factor	<div><div>3.19</div><div></div></div>	
200 year growth factor	<div><div>3.74</div><div></div></div>	

Results

Method	IH124	
Flow rate 1 year (l/s)	<div><div>3.5</div><div>l/s</div></div>	
Flow rate 2 year (l/s)	<div><div>3.6</div><div>l/s</div></div>	
Flow rate 10 years (l/s)	<div><div>6.7</div><div>l/s</div></div>	
Flow rate 30 years (l/s)	<div><div>9.5</div><div>l/s</div></div>	
Flow rate 100 years (l/s)	<div><div>13.2</div><div>l/s</div></div>	
Flow rate 200 years (l/s)	<div><div>15.5</div><div>l/s</div></div>	

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.

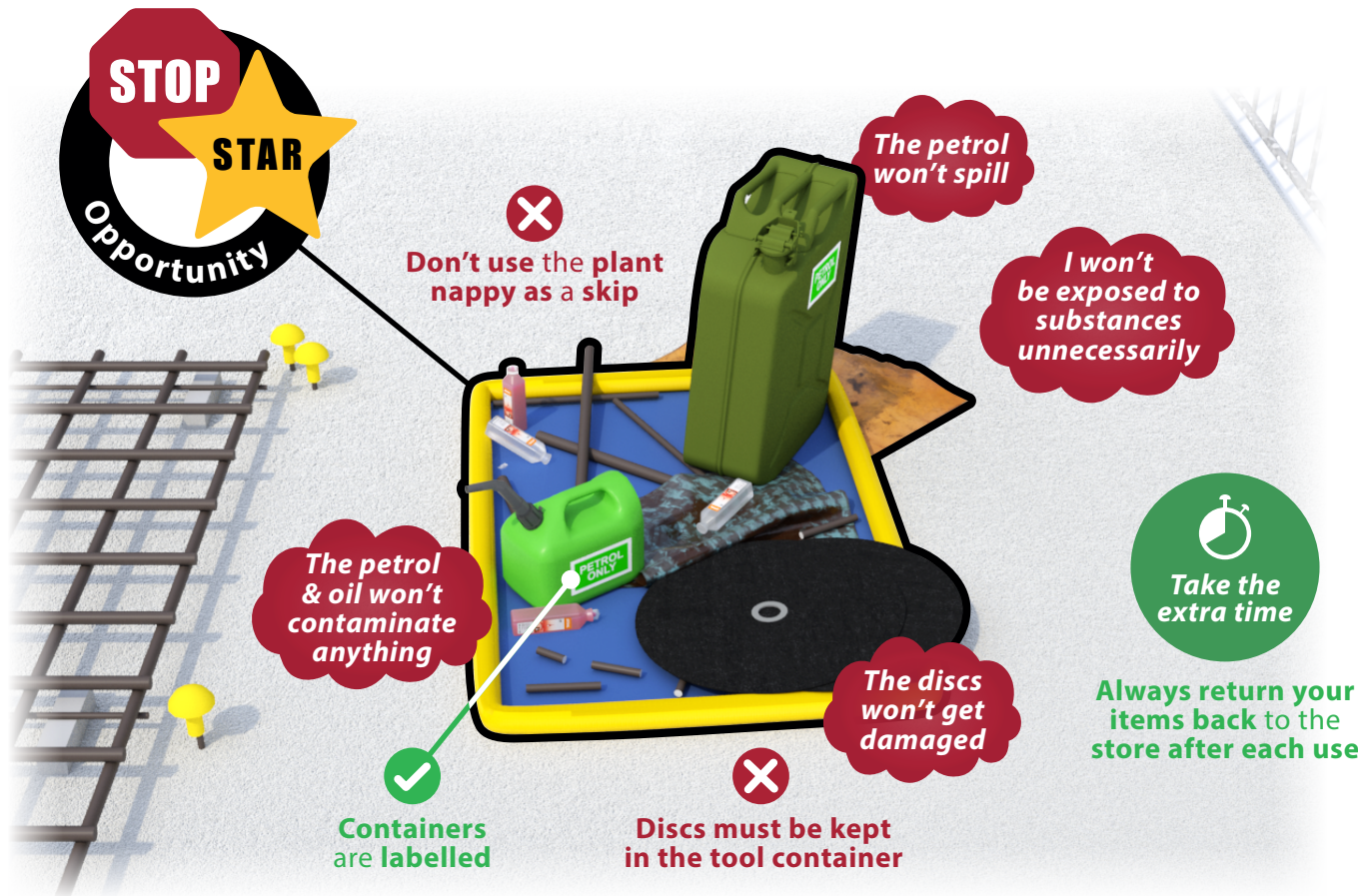
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Appendix C COSHH Storage Guidance

Best Practice Guide To The Use of Your COSHH Store

Control Of Substances Hazardous to Health



Locate your store away from drains & 10m away from watercourses

