

The London Sustainable Drainage Proforma

Introduction

This proforma is intended to accompany a drainage strategy prepared for a planning application where required by national or local planning policy. It should be used to summarise the key outputs from the strategy to allow assessing officers at the Lead Local Flood Authority (LLFA) to quickly assess compliance with sustainable drainage (SuDS) planning

The proforma is divided into 4 sections, which are intended to be used as follows:

1. Site and project information - Provide summary details of the development, site and drainage
2. Proposed discharge arrangement – Summarise site ground conditions to determine potential for infiltration. Select a surface water discharge method (or mix of methods) following the hierarchical approach set out in the London Plan.
3. Drainage strategy – Prioritise SuDS measures that manage runoff as close to source as possible and contribute to the four main pillars of SuDS; amenity, biodiversity, water quality and water quantity.
4. Supporting information – Provide cross references to the page or section of the drainage strategy report where the detailed information to support each element can be found. This may be more than one reference for each

Policy

Drainage strategies for developments in the London Borough of Hillingdon need to comply with the following policies on SuDS:

1. [London Borough of Hillingdon Local Plan policies EM 6 and DMEI 10](#)
2. [London Plan policy 5.13](#) and draft [New London Plan policy SI13](#)
3. [The National Planning Policy Framework \(NPPF\)](#)

Technical Guidance

- Post-development surface water discharge rate should be limited to greenfield runoff rates. Proposals for higher discharge rates should be agreed with the LLFA ahead of submission of the Planning Application. Clear evidence should be provided with the Planning Application to show why greenfield rates cannot be achieved.
- Greenfield runoff rate is the runoff rate from a site in its natural state, prior to any development. This should be calculated using one of the runoff estimation methods set out in Table 24.1 of CIRIA C753 The SuDS Manual.
- Attenuation storage volumes required to reduce post-development discharge rates to greenfield rates should be calculated using one of the runoff estimation methods set out in Table 24.1 of CIRIA C753 The SuDS Manual.
- 'CC' refers to climate change allowance from the current Environment Agency guidance.
- An operation and maintenance strategy for proposed SuDS measures should be submitted with the Planning Application and include the details set out in section 32.2 of CIRIA C753 The SuDS Manual. The manual should be site-specific and not directly reproduce parts of The SuDS Manual.
- Other useful sources of guidance are:
 - [o London Borough of Hillingdon sustainable drainage requirements](#)
 - [o The London Plan Sustainable Design and Construction SPG](#)
 - [o DEFRA non-statutory technical standards for sustainable drainage](#)
 - [o Environment Agency climate change guidance](#)
 - [o CIRIA C753 The SuDS Manual](#)

1. Project & Site Details	Project / Site Name (including sub-catchment / stage / phase where appropriate)	New 2 Bedroom Detached Bungalow (Chalet Style) Situated in the Rear Garden of 22 Stafford Road, HA4 6PJ
	Address & post code	22 Stafford Road, Ruislip, HA4 6PJ
	OS Grid ref. (Easting, Northing)	E 509638 N 185742
	LPA reference (if applicable)	
	Brief description of proposed work	Erection of a single residential dwelling
	Total site Area	154 m ²
	Total existing impervious area	0 m ²
	Total proposed impervious area	66 m ²
	Is the site in a surface water flood risk catchment (ref. local Surface Water Management Plan)?	No
	Existing drainage connection type and location	None
	Designer Name	Antony Rousou
	Designer Position	Graduate Flood Risk and Drainage Consultant
Designer Company	Unda Consulting Limited	

2. Proposed Discharge Arrangements	2a. Infiltration Feasibility		
	Superficial geology classification	None	
	Bedrock geology classification	London Clay Formation – clay, silt and sand	
	Site infiltration rate	- m/s	
	Depth to groundwater level	- m below ground level	
	Is infiltration feasible?	No	
	2b. Drainage Hierarchy		
		Feasible (Y/N)	Proposed (Y/N)
	1 store rainwater for later use	Y	Y
	2 use infiltration techniques, such as porous surfaces in non-clay areas	N	N
	3 attenuate rainwater in ponds or open water features for gradual release	N	N
	4 attenuate rainwater by storing in tanks or sealed water features for gradual release	Y	Y
	5 discharge rainwater direct to a watercourse	N	N
	6 discharge rainwater to a surface water sewer/drain	Y	Y
	7 discharge rainwater to the combined sewer.	N	N
2c. Proposed Discharge Details			
Proposed discharge location	Thames Water Surface Water Sewer MH660		
Has the owner/regulator of the discharge location been consulted?	Yes		

3. Drainage Strategy

3a. Discharge Rates & Required Storage				
	Greenfield (GF) runoff rate (l/s)	Existing discharge rate (l/s)	Required storage for GF rate (m ³)	Proposed discharge rate (l/s)
Qbar	0.1			
1 in 1	0	0	3.6	0.1
1 in 30	0.1	0.1	2.1	0.1
1 in 100	0.1	0.1	2.9	0.1
1 in 100 + CC			4.4	0.1
Climate change allowance used		40%		
3b. Principal Method of Flow Control		Hydro-Brake		
3c. Proposed SuDS Measures				
	Catchment area (m ²)	Plan area (m ²)	Storage vol. (m ³)	
Rainwater harvesting	0		0	
Infiltration systems	0		0	
Green roofs	0	0	0	
Blue roofs	0	0	0	
Filter strips	0	0	0	
Filter drains	0	0	0	
Bioretention / tree pits	0	0	0	
Pervious pavements	0	0	0	
Swales	0	0	0	
Basins/ponds	0	0	0	
Attenuation tanks	66		3.76	
Total	66	0	3.76	

4. Supporting Information	4a. Discharge & Drainage Strategy	Page/section of drainage report
	Infiltration feasibility (2a) – geotechnical factual and interpretive reports, including infiltration results	13
	Drainage hierarchy (2b)	13
	Proposed discharge details (2c) – utility plans, correspondence / approval from owner/regulator of discharge location	14 and Appendix
	Discharge rates & storage (3a) – detailed hydrologic and hydraulic calculations	Appendix
	Proposed SuDS measures & specifications (3b)	Appendix
	4b. Other Supporting Details	Page/section of drainage report
	Detailed Development Layout	Appendix
	Detailed drainage design drawings, including exceedance flow routes	Appendix
	Detailed landscaping plans	
	Maintenance strategy	14
	Demonstration of how the proposed SuDS measures improve:	14
	a) water quality of the runoff?	
	b) biodiversity?	
	c) amenity?	