

# 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

SuDS:

1. [London Borough of Sutton Local Plan policy 32](#)
2. [London Plan policy 5.13](#) and draft [New London Plan policy S113](#)
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 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)	Sutton United Football Club
	Address & post code	The Borough Sports Ground Gander Green Lane Sutton SM1 2EY
	OS Grid ref. (Easting, Northing)	E 525100 N 164699
	LPA reference (if applicable)	
	Brief description of proposed work	Provision of new grandstand to eastern end of ground, new turnstiles to replace existing and replacement of artificial grass with real grass.
	Total site Area	24,432m <sup>2</sup>
	Total existing impervious area	11143 m <sup>2</sup>
	Total proposed impervious area	11207 m <sup>2</sup>
	Is the site in a surface water flood risk catchment (ref. local Surface Water Management Plan)?	No.
	Existing drainage connection type and location	Sewers
	Designer Name	Matthew Ashdown
	Designer Position	Environmental Consultant
	Designer Company	STM Environmental

2. Proposed Discharge Arrangements	<b>2a. Infiltration Feasibility</b>		
	Superficial geology classification	None on site.	
	Bedrock geology classification	London Clay.	
	Site infiltration rate	0	m/s
	Depth to groundwater level	Less than 1 m below ground level	
	Is infiltration feasible?	No.	
	<b>2b. Drainage Hierarchy</b>		
		<i>Feasible (Y/N)</i>	<i>Proposed (Y/N)</i>
	1 store rainwater for later use	Y	N
	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	N
	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
	<b>2c. Proposed Discharge Details</b>		
Proposed discharge location	Utilize existing drainage on site into surface water sewer.		
Has the owner/regulator of the discharge location been consulted?	No. Existing connection to be use.		

3a. Discharge Rates & Required Storage				
	Greenfield (GF) runoff rate (l/s)	Existing discharge rate (l/s)	Required storage for GF rate (m <sup>3</sup> )	Proposed discharge rate (l/s)
Qbar				
1 in 1	3.5033	7.3890	75	
1 in 30	9.4795	19.9938	204	
1 in 100	13.1477	27.7305	283.	
1 in 100 + CC			420	
Climate change allowance used		40%		
3b. Principal Method of Flow Control		Existing Field Drainage, new grass pitch & and new drainage channel;		
3c. Proposed SuDS Measures				
	Catchment area (m <sup>2</sup> )	Plan area (m <sup>2</sup> )	Storage vol. (m <sup>3</sup> )	
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	128	120	12	
Swales	0	0	0	
Basins/ponds	0	0	0	
Attenuation tanks	0		0	
<b>Total</b>	<b>0</b>	<b>0</b>	<b>12</b>	

4a. Discharge & Drainage Strategy	Page/section of drainage report
Infiltration feasibility (2a) – geotechnical factual and interpretive reports, including infiltration results	Section 10: Site Investigation Appendix 9;
Drainage hierarchy (2b)	Section 11.1
Proposed discharge details (2c) – utility plans, correspondence / approval from owner/regulator of discharge location	Appendix 8
Discharge rates & storage (3a) – detailed hydrologic and hydraulic calculations	Appendix 10
Proposed SuDS measures & specifications (3b)	Section 12.2
4b. Other Supporting Details	Page/section of drainage report
Detailed Development Layout	15.10.1 Layout of Network
Detailed drainage design drawings, including exceedance flow routes	15.10.2 Layout of Network - Features, Exceedance flows
Detailed landscaping plans	15.1 Appendix 1 – Development Plans
Maintenance strategy	15.7 Appendix 7 – SuDS Maintenance
Demonstration of how the proposed SuDS measures improve:	
a) water quality of the runoff?	Grass pitch - 12.2
b) biodiversity?	Grass pitch
c) amenity?	