SEFTON SuDS PRO-FORMA

This pro-forma is a requirement for any planning application for Major Development¹, as set out in Sefton Council's <u>Validation Checklist</u>. It supports applicants in summarising and confirming how surface water from a development will be managed sustainably under current and future conditions. Your sustainable drainage system should be designed in accordance with <u>CIRIA The SuDS Manual C753</u> and any necessary adoption standards.

HOW TO COMPLETE

Blue Box	Instruction/ Question	
Orange Box	Evidence Required	
White Box	To be completed by Developer / Consultant	

1. Complete ALL white boxes

2. Submit this pro-forma to the Local Planning Authority, along with:

- Sustainable Drainage Strategy
- Site Specific Flood Risk Assessment (if required)
- Supporting evidence, as indicated in orange boxes of this pro-forma.

GUIDANCE TO SUPPORT YOU

The pro-forma should be completed in conjunction with 'Completing your SuDS Pro Forma Guide.'

The pro-forma can be completed using freely available tools such as **Tools for Sustainable Drainage Systems** or appropriate industry standard surface water management design software.

¹ as defined in Section 2 of <u>Statutory Instrument 2015 No. 595</u> or on sites in Critical Drainage Areas.



SECTION 1. APPLICATION & DEVELOPMENT DETAILS

Planning Application Reference (if available)	
State type of planning application <i>i.e. Pre-application, Outline, Full, Hybrid, Reserved</i> Matters*	
*Information only required if drainage is to be considered as part of reserved matters application	
Developer(s) Name:	
Consultant(s) Name:	
Development Address (including postcode)	
Development Grid Reference (Eastings/Northings)	
Total Development Site Area (Ha)	
Drained Area (Ha)* of Development	
Please indicate the flood zone that your development is in. Tick all that apply.	Flood Zone 1
Based on the Environment Agency Flood Map for Planning and Sefton's Strategic Flood Risk	Flood Zone 2
Assessment (to identify Flood Zones 3a/3b).	Flood Zone 3a 🗌 Flood Zone 3b 🗍
	High
What is the surface water risk of the site? Tick all that apply.	Medium 🗆
Based on the Environment Agency Surface Water Flood Map.	Low 🗆
Is your site in a Critical Drainage Area? Based on Sefton Council's Strategic Flood Risk Assessment and shown in the SuDS and Flood Risk Information Note	Yes 🗆 No 🗆
Have you submitted a Site Specific Flood Risk Assessment (FRA)? See separate guidance notes for clarification on when a FRA is required	Yes 🗆 No 🗆



Have you submitted a Sustainable Drainage Strategy?	Yes 🗌 No 🗆		
Does your drainage proposal provide multi-functional benefits via SuDS? <i>Please refer to section 29.1 of the SuDS Manual.</i>	Yes 🗆 No 🗆		
Expected Lifetime of Development (years) Refer to Planning Practice Guidance "Flood Risk and Coastal Change" Paragraph 006			
Development Type:		State Proposed Number of Units	
Greenfield Site			
Site is wholly undeveloped, and a new drainage system will be installed			
Previously Developed/ Brownfield Site			
 Site is already developed, and the <u>entirety</u> of the existing surface water drainage system will be used to serve the new development (evidence must be provided to prove existing surface water drainage system is reusable); <u>OR</u> 			
 Where records of the previously developed system are not available so that the hydraulic characteristics of the system cannot be determined or where the drainage system is not in reasonable working order i.e. broken, blocked or no longer operational for other reasons. 			
Please list any relevant document and or drawing numbers (including revision reference) to support your answers to Section 1.			

SECTION 2: IMPERMEABLE AREA AND EXISTING DRAINAGE

	Existing (E)	Proposed (P)	Change (P – E)	Urban Creep (UC) (P) + 10% for UC
State Impermeable Area (Ha) 10% Urban Creep allowance required for all residential developments.				
Evidence Required: Plans showing development layout of	f site with existing and proposed imperm	neable areas.		

Are there existing sewers, watercourses, water bodies, highway drains, soakaways or filter drains on the site?	Yes 🗌 No 🗆 Don't Know 🗆
Evidence Required:	
Plan(s) showing existing layout to include all:	
Watercourses, open and culverted	
Water bodies – ponds, swales etc.	
Sewers, including manholes	
Highway drains, include manholes, gullies etc.	
Infiltration features - soakaways, filter drains etc.	

Drainage Design		
Outline planning applications should be able to demonstrate that a suitable drainage system is achievable.		
All other type of planning application should provide full details or reference to previous planning application where drainage details have been submitted or approved.		
Select which design approach you are taking to manage water quantity (refer to Section		
.3 SuDS Manual)		



 Approach 1 – Volume control / Long Term Storage (Technical Standards S2/3, S4/5) The attenuated runoff volume for the 1 in 100 year 6 hour event (plus climate change allowance) is limited to the greenfield runoff volume for the 1 in 100 year 6 hour event, with any additional runoff volume utilising long term storage and either infiltrated or released at 2 l/s/ha The discharge rate for the critical duration 1 in 1 year event is restricted to the 1 in 1 year greenfield runoff rate The discharge rate for the critical duration 1 in 100 year event (plus climate change allowance) is restricted to the 1 in 100 year greenfield runoff rate 	
 Approach 2 – Qbar (Technical Standards S6) Justification has been provided that the provision of volume control/long term storage is not appropriate and an attenuation only approach is proposed. All events up to the critical duration 1 in 100 year event (plus climate change allowance) are limited to Qbar (1 in 2 year greenfield rate) or 2 l/s/ha, whichever is greater. 	
 Evidence Required: Plans showing: Existing flow routes and flood risks Modified flow routes Contributing and impermeable areas Current (if any) and proposed 'source control' and 'management train' locations of sustainable drainage components (C753 Chapter 7) Details of drainage ownership Details of exceedance routes (Technical Standards S9) Topographic survey Locations and number of existing and proposed discharge points 	
Note consideration should be given to manage surface water from both impermeable and permeable surfaces (including gardens and verges) likely to enter the drainage system.	



SECTION 3: PEAK RUNOFF <u>RATES</u> - TECHNICAL STANDARDS S2, S3 AND S6 (UNLESS S1 APPLIES)

Rainfall Event	Existing Rate (I/s)		Greenfield Rate (I/s)	Proposed Rate (I/s) Previously developed sites – discharge rates must be reduced by at least 20%, in line with Local Plan policy EQ8 'Flood risk and surface water' Greenfield sites - S3 should be equivalent to Greenfield runoff rates –discuss with LLFA if this is not achievable pre-application
Qbar (Approach 2)				
1 in 1 Year Event (Approach 1)				
1 in 30 Year Event				
1 in 100 Year Event* (Approach 1)				
1 in 100 Year Plus 45% for Climate Change	N/A		N/A	
* Total discharge at the 1 in 100 year rate should be restricted to the greenfield runoff volume for the 1 in 100 Year 6 hour event with additional volumes (long-term storage volume, released at a rate no greater than 2 l/s/ha where infiltration is not possible. The climate change allowance should only be applied to the proposed rate and not the existing or greenfield rate.				
Evidence Required: Methodology used to calculate peak runoff rate clearly stated and justified.				
Impermeable areas plan, supported by topographical survey confirming positive drainage.				
Hydraulic calculations and details of software used.				
	State the hydraulic method used in your calculations (Refer to Table 24.1 of The SuDS Manual)			



Please list any relevant document and or drawing numbers (including revision reference) to support your answers to Section 3.

SECTION 4: DISCHARGE <u>VOLUME</u> – TECHNICAL STANDARDS S4, S5 AND S6 (UNLESS S1 APPLIES)

Rainfall Event	Existing Volume (m ³)	Greenfield Volume (m ³)	Proposed Volume (m³)
1 in 100 Year 6 Hour Event (Approach 1)			
Does the below statement apply to your development proposal? Long term storage is not achievable on this site and, in accordance with S6 of the Non Statutory Technical Standards for SuDS, the surface water discharge rates for events up to and including the 1 in 100 year critical event are limited to Qbar (Approach 2)			Yes 🗌 No 🗖
Evidence Required: Approach to managing the quantity of surface water leaving the site clearly stated and justified			
Methodology used to calculate discharge volume clearly stated and justified.			
Hydraulic calculations and details of	f software used.		

Please list any relevant document and or drawing numbers (including revision reference)	
to support your answers to Section 4.	

SECTION 5: STORAGE - TECHNICAL STANDARDS S7 AND S8

State climate change allowance used (%)	
Sefton requires 45% as climate change allowance.	





State housing density (houses per ha)	
State urban creep allowance used (%) Sefton requires 10% allowance on proposed impermeable area for all residential developments.	
Evidence Required: State / used in appropriate industry standard surface water management design software.	

State storage volume required (m ³) (excluding non-void spaces)	
Must include an allowance for climate change and urban creep	
Have you incorporated interception into your design? (Refer to Chapter 24 of The SuDS Manual C753) Where possible, infiltration or other techniques are to be used to try and achieve zero discharge to receiving waters for rainfall depths up to 5mm.	Yes 🗌 No 🗆
Evidence Required: Drainage plans showing location of attenuation and all flow control devices and supporting calculations.	

Storage must be designed to ensure that at no flooding occurs onsite in a 1 in 30 year event except in designed areas <u>and</u> no flooding occurs offsite in a 1 in 100 year (plus climate change allowance) event.	
Summarise how storage will be provided for 1 in 100 year (plus 45% for climate change) event on site. Where storage above the 1 in 30 year rainfall event is provided in designated areas designed to accommodate excess surface water volumes, plans showing storage locations and surface water depths and supported by calculations used in appropriate industry standard surface water management design software. It is important to run a range of duration events to ensure the worst case condition is found for each drainage element on the site	



Evi	idence Required:	
Plan	ns showing size and location of storage and supporting calculations. Where there is controlled	
floo	oding, extents and depths must be indicated.	

Please list any relevant document and or drawing numbers (including revision reference) to support your answers to Section 5.

SECTION 6: WATER QUALITY PROTECTION

Contaminated surface water run-off can have negative impacts on the quality of receiving water bodies. The potential level of contamination will influence the final design of an appropriate treatment train as part of your sustainable drainage system.

Is the proposal site known to be or potentially contaminated?	Yes 🗆	No
• If the site is contaminated, it should be demonstrated that the sustainable drainage system will not increase the risk of pollution to controlled waters though the mobilisation of contaminants and/or creation of new pollution pathways.		

Confirm the Pollution Hazard Level of the proposed development - Tick <u>ALL</u> that apply Refer to Pollution Hazard Indices for different Land Use Classifications in Table 26.2 of The SuDS Manual C753 for further guidance.		
Pollution Hazard Level Surface water run-off from the proposed development will drain from:		
VERY LOW		Residential roofs
LOW		 Other roofs (typically commercial/industrial roofs) Individual property driveways, residential car parks, low traffic roads (e.g. cul-de-sacs, home-zones and general access roads) Non-residential car parking with infrequent change (e.g. schools, offices) i.e. < 300 traffic movements/day
MEDIUM		 Commercial yard and delivery areas Non-residential car parking with frequent change (e.g. hospitals, retail)



	All roads except low traffic roads and trunk roads/motorways ²
	Sites with heavy pollution (e.g. haulage yards, lorry parks, highly frequented lorry approaches to industrial estates, waste sites)
HIGH	 Sites where chemicals and fuels (other than domestic fuel oil) are to be delivered, handled, stored, used or manufactured Industrial sites
	Trunk roads and motorways ¹

If the development's Pollution Hazard Level is 'Very Low' or 'Low', has the sustainable drainage design been risk assessed and appropriate mitigation measures included?	Yes 🗆	No□
• If the proposed development has a very low or low polluting potential, you should design your sustainable drainage system to include an appropriate treatment train in accordance		

• If the proposed development has a very low or low polluting potential, you should design your sustainable drainage system to include an appropriate treatment train in accordance with The SuDS Manual (C753).

If the development's Pollution Hazard Level is 'Medium' or 'High', is the application supported by a detailed water quality risk assessment?	Yes 🗆	No□
• If the proposed development has a high polluting potential, a detailed risk assessment will be requ	ired to identify	an appropriate SuDS treatment train and ensure compliance with

Paragraph 170 of the National Planning Policy Framework.

• If the proposed development has a medium polluting potential, a detailed risk assessment <u>may</u> be required depending on the nature, scale and location of the development.

Has pre-application advice on water quality been obtained from the Environment Agency?		Yes 🗆	No□
If YES, provide details:			

² Motorways and trunk roads should follow the guidance and risk assessment process set out in Highways Agency (2009).



SECTION 7: DETAILS OF YOUR SUSTAINABLE DRAINAGE SYSTEM

a) Function of your Sustainable Drainage System

Do your proposals store rainwater for later use (as a resource)?	Yes 🗆 No 🗆
Evidence Required:	
Please provide a brief sentence in the adjacent white box to describe how this function has	
been achieved.	

Do your proposals promote source control to manage rainfall close to where it falls? (e.g. promoting natural losses through soakage, infiltration and evapotranspiration)	Yes 🗆 No 🗆
Evidence Required:	
Please provide a brief sentence in the adjacent white box to describe how this function has	
been achieved.	

b) Hierarchy of Drainage Options – Planning Practice Guidance

The proposed method of discharge are set out within order of priority. Generally, the aim should be to discharge surface run off as high up the following hierarchy of drainage options as reasonably practicable.

Proposed method of surface water discharge	Is this proposed?
Hierarchy Level 1: Into the ground (via infiltration)	Yes 🗌 No 🗆



If YES - Evidence Required	If NO – Evidence Required Tick <u>ALL</u> that apply		
 Completed Infiltration Checklist from The SuDS Manual (C753) Appendix B An editable version of this form is available on <u>SusDrain website</u>. 		 A. Site investigation to demonstrate that the ground is not free draining. Test results to be provided in accordance with: The methodology within BRE 365 (2016), <u>OR</u> Falling head permeability tests BS EN ISO 22282-2: 2012 	
B. British Geological Survey (BGS) Infiltration SuDS Map		B. NOTE: where an applicant is unable to access a site to undertake testing, e.g. where unable to access a site for an outline application, they can submit a <u>SuDS GeoReport</u> or similar.	
C. Infiltration testing to BRE 365 (2016) or falling head permeability tests to BS EN ISO 2228-2: 2012 (optional for outline)		C. Evidence to confirm that infiltration to ground would result in a risk of deterioration to ground water quality.	
'Plan B' sustainable drainage plan and statement of approach with an alternative discharge method, in case infiltration proposals are proven not feasible upon further site specific ground investigation e.g. to consider seasonal variations to groundwater.		 D. Geotechnical advice from a competent person* which determines that infiltration of water to ground would pose an unacceptable risk of geohazards to the site and/or local area. *Note: Competent person may include a Chartered Engineer, Chartered Geologists, Registered Ground Engineering Professionals (RoGEP). 	

Proposed me	thod of surface water discharge	Is this proposed?				
Hierarchy Level 2: To a surface water body (select type)			Yes 🗆 No 🗆 N/A 🗆			
NOTE: Consent from LLFA or Permit from Environment Agency may be required – refer to guidance			Main river Canal			
			galaanee	□ Ordinary watercourse □ Other water body		
If YES - Evidence Required			If NO – Evidence Required			
			Tick <u>ALL</u> that apply			
	Surface water body / watercourse survey and report		Plan showing	ing nearby watercourses and waterbodies		
			AND			
			Statement p	providing justification in your Sustainable Drainage Strategy		
				ere discharge of any element in the hierarchy is discounted, an applicant should provide		
				n. If the reasoning for discounting a discharge of surface water to watercourse relates to issues		
			associated w	with third party land or the securing of any other required consent, it may be necessary for the		
			applicant to	o provide evidence to the local planning authority to support their proposed approach.		



Proposed me	thod of surface water discharge	Is this proposed?		
Hierarchy Level 3: To a surface water sewer			Yes 🗆 No 🗆 N/A 🗆	
	If YES - Evidence Required			If NO – Evidence Required Tick <u>ALL</u> that apply
	Written correspondence from Water and Sewerage Company or Relevant Organisation/Authority regarding proposed connection.		AND	g nearby sewers and highway drains roviding justification in your Sustainable Drainage Strategy

Proposed me	thod of surface water discharge	Is this proposed?	
Hierarchy Lev	rel 4: To combined sewer	Yes 🗆 No 🗆 N/A 🗆	
	If YES - Evidence Required		If NO – Evidence Required
Written correspondence from Water and Sewerage Company		N/A	

Please list any relevant document and or drawing numbers (including revision
erence) to support your answers to Section 7b.

c) Proposed SuDS Component Types

_		Tick ALL that apply				
	Within property boundary	□ Rainwater harvesting	□ Green/ blue roofs	□ Pervious pavements [Type: A □ B □ C □]	🗆 Soakaway	□ Bio retention systems

	Tick ALL that apply			
	\Box Infiltration system	Filter strips	□ Filter drains	□ Swales





	[Type:	urface level 🛛 Below			
Within development site boundary	Bio retention system	Detention basins	Ponds and wetlands	 Attenuation tanks/ Oversized pipes 	\Box Other (state below)
(not property)	lf 'Other' ple	ease state:			

Off site	Please state:
(not within the boundary of	
the proposed development)	

I confirm that the above selected components have been designed in accordance with The SuDS Manual (C753).	I confirm 🗆
I confirm that the management of flows resulting from rainfall more than a 1 in 100 year plus climate change rainfall event, and their exceedance route(s), has been fully considered to minimise the risks to people, property (new and existing) and infrastructure.	I confirm 🗆

SECTION 8: OPERATION AND MAINTENANCE – TECHNICAL STANDARD S12 AND NATIONAL PLANNING POLICY FRAMEWORK

The applicant is responsible to ensure that ALL components selected in Section 7 can be maintained for the design life of the development. This information is required so the Local Planning Authority can ensure the maintenance and management of the sustainable drainage system. The Local Planning Authority will discuss how this will be secured (e.g. via planning condition or planning obligation).

	Information Provided?
Management Plan	Yes 🗆 No 🗆
 Evidence Required: Plan/ drawing provided to show the position of the different SuDS components with: Key included, to identify any of the adopting bodies that you will be offering your sustainable drainage components for adoption (relates to maintenance and management arrangements below). Key to also identify any of SuDS components which will not be adopted by any of the adopting bodies (previous bullet point), and to set out what the management and maintenance arrangements for these SuDS components are (relates to maintenance and management arrangement below). Plan/ drawing to identify any areas where certain activities are prohibited, detailing reasons why. 	
Action plan for accidental pollutant spillages.	

	Information Provided?
Maintenance Schedule	Yes 🗆 No 🗆
Evidence Required:	
The maintenance schedule should accord with the relevant part of The SuDS Manual (C753).	
A copy of the maintenance schedule must be submitted, to include:	
1. Proactive and preventative maintenance	
Detailing regular, occasional and remedial maintenance activities including	
recommendations for inspection and monitoring. This should include recommended	



	frequencies, advice on plant/ machinery required and an explanation of the objectives
	for the maintenance proposed and potential implications of not meeting them.
2.	Reactive and corrective maintenance (e.g. product repair and replacement).
	Including advice on excavations, or similar works, in locations that could affect the SuDS
	components/ adjacent structures.

	Information Provided?
Maintenance and Management Arrangements	Yes 🗆 No 🗆
Evidence Required: Evidence of formal agreement with the party responsible for undertaking maintenance.	
Please select any of the adopting bodies that you will be offering your sustainable drainage components for adoption. Tick all that apply.	
Water and Sewerage Company Section 104 agreement (Water Industry Act 1991)	
Highway Authority Section 278/38 agreement (Highways Act 1980)	
□ Local Authority Public Open Space [Please be aware that currently Sefton Council does not usually adopt new public open space]	
Please select the arrangement(s) for all non-adopted sustainable drainage components. Tick all that apply. Management Company	
Property Owner (for SuDS components within property boundary only)	
Other (please state)	

Declaration and Submission

This pro-forma has been completed using evidence from information which has been submitted with the planning application. The information submitted in the Sustainable Drainage Strategy and site-specific Flood Risk Assessment (FRA), where submitted, is proportionate to the site conditions, flood risks and magnitude of development and I agree that this information can be used as evidence to this sustainable drainage approach.

Submitter Details				
		Email Address		
Completed by			_	
		Telephone Number(s)		
<u>Signed off</u> by		Accreditation(s) and/or Qualification(s) of Signatory		
Date (dd/mm/yyyy)		Company		
Client Details				
Name		Company		