

SURFACE WATER MANAGEMENT

As of April 2015, all major planning applications now have to demonstrate the use of sustainable drainage as part of their development. South Gloucestershire Council, as Lead Local Flood Authority (LLFA), is now a statutory consultee on these planning applications. This page sets out how sustainable drainage should be delivered in South Gloucestershire.

Sustainable Drainage System

Sustainable drainage is a way of replicating natural drainage in a built environment. Instead of surface water being piped underground, water remains at the surface, where it is cleaned and stored, reducing flood risk and improving the quality of the water before it either soaks into the ground or discharges to a watercourse. This allows for greater biodiversity and amenity to be created.

SusDrain have developed a simple animated video overview of what Sustainable Drainage Systems (SuDS) are, which can be viewed at:

<https://www.youtube.com/watch?v=LMq6FYiF1mo>

South Gloucestershire Council encourages all new development and redevelopment that requires planning permission to use SuDS in order to reduce flood risk, improve water quality and present options for biodiversity and public amenity. This is consistent with existing national guidance and local planning policy.

General SUDS advice for developers

The demands of each individual development will lead to a wide variety of solutions. Understanding South Gloucestershire Council's priorities in terms of SuDS will help ensure these solutions are appropriate to our requirements.

Early engagement promoted through voluntary Proof of Concept as part of pre-app

It is important that developers establish the constraints plan for their sites including; overland flow paths, proposed 'blue' corridors, geological and hydrological conditions of their site, any discharge/maintenance requirements, at an early stage through desktop studies and ground investigations, before coming to any conclusions about the suitability of any particular SuDS system.

A 'proof of concept' for surface water drainage design at an early pre-planning application stage is recommended to pre-empt or reduce the chance of issues that could later arise and conflict with the ability of development proposals to incorporate SuDS. Development proposals progressed without undertaking this early consultation stage risk the possibility that the proposed layout would not be capable of being drained in a sustainable way to meet national and local policy.

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General SUDS advice for developers

The pre-application 'proof of concept' stage should involve the preparation of:

- location plan identifying existing natural flow paths (blue corridors)
- site constraints plan identifying potential physical restrictions within the site such as areas of contaminated ground
- access issues due to legal easements or existing utility locations
- an indication of the hydraulic discharge restrictions that will apply to the site that will impact on the sustainable drainage strategy (surface water) for the site, This may include agreed discharge restrictions, infiltration potential and potential maintenance issues

Also, an estimation of the surface water attenuation volume will be required.

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Once a proof concept has been agreed in principle, it can be used to inform the site masterplan, and once the master plan has been agreed, the detailed SuDS design can commence. For more info please visit: <http://www.southglos.gov.uk/documents/WoE-Sustainable-Drainage-Developer-Guide.pdf>

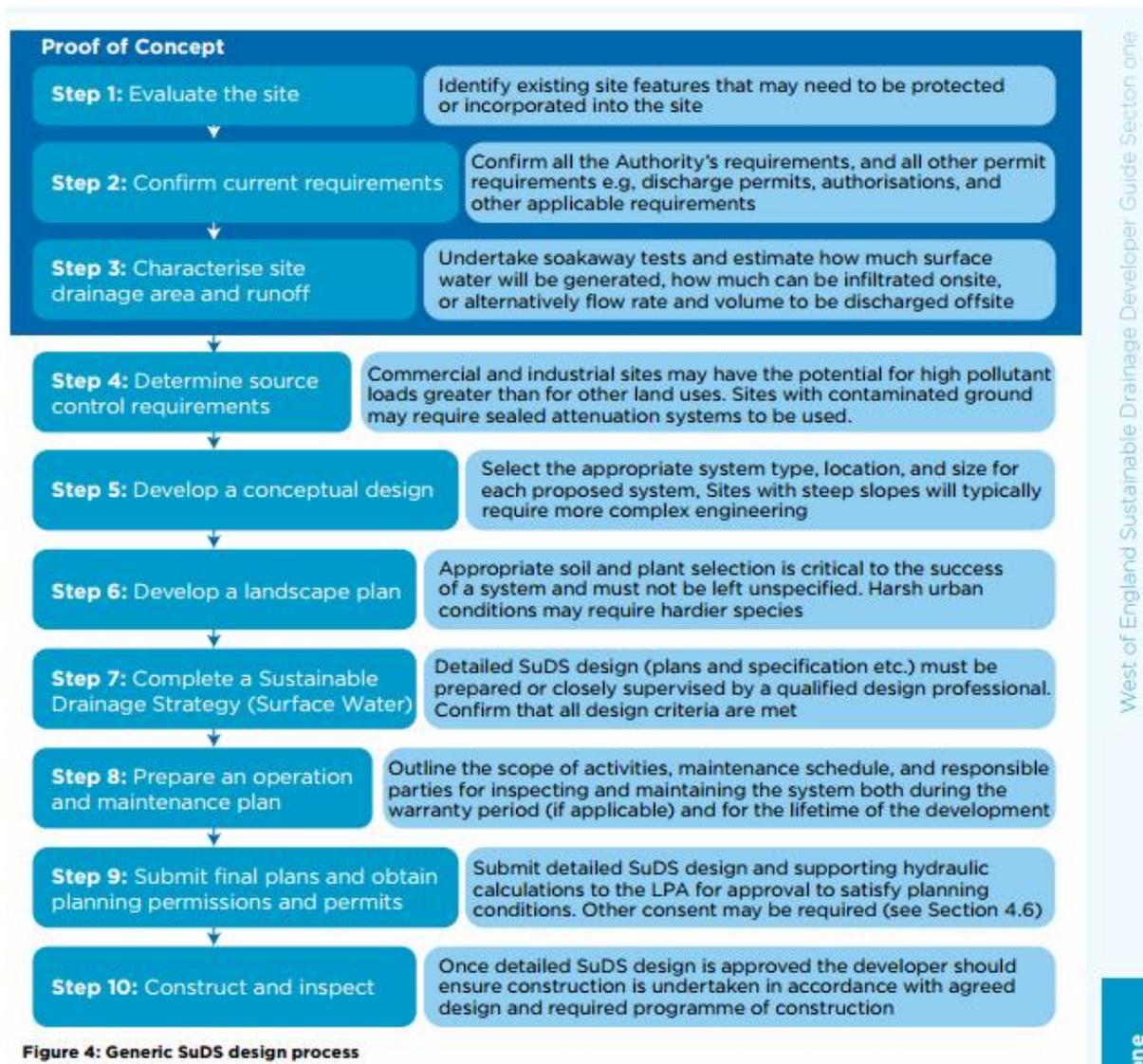


Figure 4: Generic SuDS design process

Flooding Data and Information Requests

South Gloucestershire Council can provide the following information to inform and supplement any flood risk/drainage assessment and surface water drainage strategy, regardless of the size or nature of the development:

- A review of surface water drainage constraints from national mapping;
- A review of site specific flood risk issues;
- A summary of any historic flood incidents that have occurred on the site or within the related locality;
- A review of flood related assets that are within the related locality;
- A statement of any flood related issues you should consider further;

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- Advice on the type and nature of surface water drainage that could be designed into the relevant development; and
- Information about flood risk consenting that may be required for your proposed development.

From April this service will be charged at the following rates ----- for the provision of an email/letter. Please be aware this cost is to cover our time to investigate the site in question and to prepare a full response. Therefore where no historic flooding information is available or where there is no risk identified this charge will still apply.

How to obtain the data

Please complete and send an email to the LeadLocalFloodAuthority@southglos.gov.uk if you would like to use this service. We will then provide you with a unique reference number with which you will be able to use to make the required online payment. A full response to the data request will then be provided within 21 days of receipt of payment.

The email should include the following information:

- Site address of the proposed development including postcode and NGR
- A brief description of the proposed development
- Site plan showing the red line boundary
- Applicant name ,address and contact details
- Details of any agent(s) acting on behalf of the applicant
- A signed declaration (see below)

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You also need to sign and submit the following acknowledgement:

Acknowledgement:

I confirm that I have read and understood the information provided on this website for South Gloucestershire Council's Flood Risk Data Request service. In the event that further advice is required following the Council's response, I accept that this will be subject to a further charge before the further advice is provided.

I understand that any advice given represents the professional views of Council Officers and although given in good faith, cannot prejudice any decision which the Local Planning Authority may make at either Development Control Committee or delegated officer level.

I understand that any advice given is based upon the matters raised at any meeting(s) and upon any plans/details/ information submitted by me with this enquiry form or supplied before any meeting(s) and that any alteration or addition to these could affect the outcome of a subsequent planning application. I understand that if I do not submit a location plan with the site outlined in red, the officer may not be able to give reliable advice if the boundaries of the site are unclear.

I understand that the older the data or advice is, the less reliable it will be when submitting a formal application and that data or advice given more than 2 years ago may no longer be applicable. I accept that the Council has no legal liability in contract or in tort for the accuracy and/or quality of the advice given.

I have read and agree to this acknowledgement

Advice Services

SGC can provide technical advice on the surface water drainage design and other local sources of flood risk, for any proposed development in the area. We also advocate the use of pre-application discussions to ensure SuDS can be incorporated into developments at the early stage of design, and to streamline the planning approval process.

We may provide advice on documents and plans you provide, advice on aligning planning and consenting requirements, and other specific tasks we agree. Furthermore, we may carry out desk based analysis, arrange meetings and make site visits as set out in our agreement with you.

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Following the request for provision of an advice an officer will contact you to discuss the advice you want and prepare an agreement that is made up of an offer letter and our standard terms and conditions. We will give you the approximate timetable and an order of cost for our advice.

Planning Application - What to include in your submission:

Detailed guidance relating to the information we would like to see in any Flood Risk Assessment or Drainage Strategy is provided in **Developers & Designers** section of the Drainage and Flood Risk Management webpage.

The Local Planning Authority may have additional requirements for planning submissions so you should contact **Local Planning Authority prior** to submitting an application.

Under the revised planning guidance, SuDS must be included in any new development unless demonstrated inappropriate. If a traditional (below-ground piped) drainage system is proposed over a sustainable drainage system, the onus is on the applicant to provide evidence to demonstrate that SuDS would be inappropriate for the development. If we are not satisfied with the evidence provided, we may object to the proposal.

The following pages include a checklist of what to submit as part of a planning application

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Planning Application- what to include in your submission:

Application Type	Information Required	Check ✓	Objective of Lead Local Flood Authority Review
Preapp*	<ul style="list-style-type: none"> • Proof of Concept¹ 		Agreement of “Proof of Concept” and/or recommendations for future application
Outline	<ul style="list-style-type: none"> • Proof of Concept 		
	<ul style="list-style-type: none"> • Non-technical summary of the proposed drainage strategy 		
	<ul style="list-style-type: none"> • Description of the type of development and location plan 		
	<ul style="list-style-type: none"> • Assessment of all the existing flood risks on the site 		
	<ul style="list-style-type: none"> • Explanation of how each of these flood risks will be mitigated 		
	<ul style="list-style-type: none"> • Plans 		
	<ul style="list-style-type: none"> • Evidence that the SuDS hierarchy has been followed 		
	<ul style="list-style-type: none"> • Evidence that the site has an agreed point of discharge 		
	<ul style="list-style-type: none"> • Calculations of current runoff from site (for greenfield sites, existing runoff rates and volumes can be produced through the UK SuDS website² 		
	<ul style="list-style-type: none"> • Calculations of proposed runoff from site 		
	<ul style="list-style-type: none"> • A calculation of storage volume 		
	<ul style="list-style-type: none"> • Plans showing a logical location of storage within the proposed development 		
	<ul style="list-style-type: none"> • Explanation of likely forms of SuDS for the site 		
<ul style="list-style-type: none"> • Operation and maintenance plan 			

¹ See section 3.2 (general) and section 4.4 (checklist) West of England SuDS Developer Guide

² (<http://www.ukSuDS.com/>)

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Application Type	Information Required	Check ✓	Objective of Lead Local Flood Authority Review
	<ul style="list-style-type: none"> Phasing 		
Full and Reserved Matters	<ul style="list-style-type: none"> Proof of Concept (unless already agreed; see above) 		Agreement of the sustainable drainage strategy based on the proof of concept (may include Pre-commencement Conditions)
	<ul style="list-style-type: none"> Sustainable Drainage Strategy in line with agreed Proof of Concept³ 		
	<ul style="list-style-type: none"> Non-technical summary of the proposed drainage strategy 		
	<ul style="list-style-type: none"> Description of the type of development and location plan 		
	<ul style="list-style-type: none"> Assessment of all existing flooding risks to site 		
	<ul style="list-style-type: none"> Explanation of how each of these flood risks will be mitigated 		
	<ul style="list-style-type: none"> Plans 		
	<ul style="list-style-type: none"> Evidence that the SuDS hierarchy has been followed 		
	<ul style="list-style-type: none"> Evidence that the site has an agreed point of discharge 		
	<ul style="list-style-type: none"> Calculations of current runoff from site (for green field sites, existing runoff rates and volumes can be produced through the UK SuDS website) 		
	<ul style="list-style-type: none"> Calculations of proposed runoff from site 		
	<ul style="list-style-type: none"> A calculation of storage volume 		
	<ul style="list-style-type: none"> Infiltration design 		
	<ul style="list-style-type: none"> Residual risk 		
<ul style="list-style-type: none"> Designing for exceedance 			
<ul style="list-style-type: none"> Detailed drainage plans for the proposed development 			

³ See section 4.4 West of England SuDS Developer Guide, (Page 38)

Application Type	Information Required	Check ✓	Objective of Lead Local Flood Authority Review
	<ul style="list-style-type: none"> • Full explanation of the form/s of SuDS used on site • Operation and maintenance plan • Phasing 		
Condition	<ul style="list-style-type: none"> • Evidence that required condition has been met 		

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Further Information:

The WoE SUDS Developers Guide Part 1 contains a lot of information on the design and management of SuDS, alongside a range of case studies.

<http://www.southglos.gov.uk/documents/WoE-Sustainable-Drainage-Developer-Guide.pdf>

The Lead Local Flood Authority has developed LLFA drainage requirements list for the use of applicants and planners to help them make an application and determination respectively. The list can be found on our website under the *Planning and Development* section

The SusDrain website, an online community for sustainable drainage, contains a whole host of resources relating to the design and management of SuDS, alongside a range of case studies.

<http://www.susdrain.org/resources/>

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