

Surface Water and Sustainable Drainage

Guidance for Developers, Designers and Planners

Surface Water and SuDS Guidance

The purpose of this guide is to provide information on what Hampshire County Council as the Lead Local Flood Authority require developers, designers and planners to provide to support planning applications for new developments.

Further information on our role as the Lead Local Flood Authority can be found at <http://www3.hants.gov.uk/flooding.htm>

What is Hampshire County Council's role as the Lead Local Flood Authority within the Planning Process?

We are a statutory consultee for major developments¹ in relation to surface water drainage

- *We are not responsible for commenting on other matters and we do not determine the planning applications*

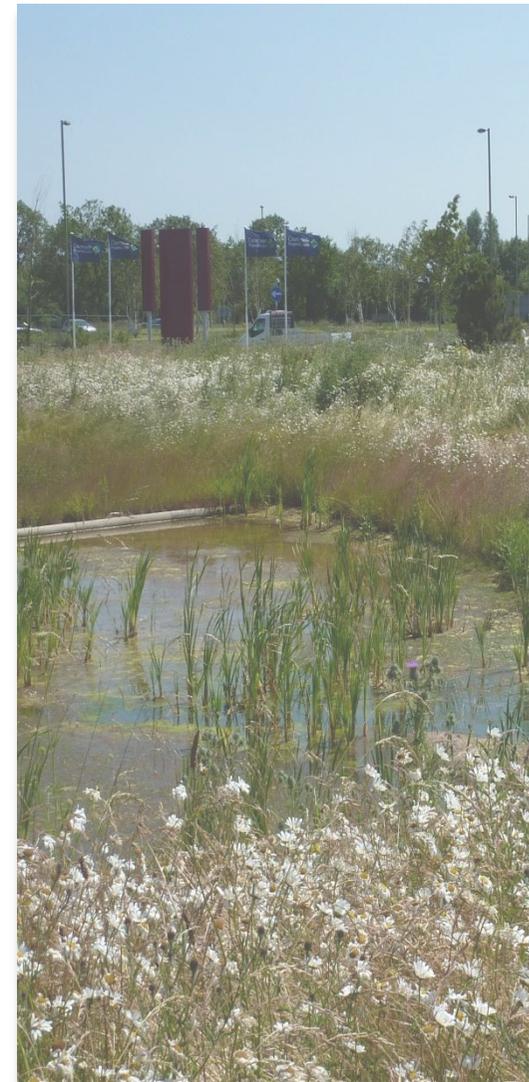
How are we consulted?

We are consulted through the Local Planning Authority directly when an application is submitted for determination that meets the 'major' definition. We respond back to the Local Planning Authority, our statutory consultation period is 21 days.

- Information should be submitted to the planning authority and should be clear and concise

Do we provide Pre-application advice?

Yes, however there is a charge for this advice at pre-application, please see <http://www3.hants.gov.uk/flooding/hampshireflooding/drainagesystems.htm> and click on 'Complete our online form' to access the pre-application pro-forma



¹"Major development" means development involving any one or more of the following:

- 1) the winning and working of minerals or the use of land for mineral-working deposits
- 2) waste development
- 3) residential development: 10 dwellings or more, or residential development with a site area of 0.5 hectares or more where the number of dwellings is not yet known.
- 4) non-residential development: provision of a building or buildings where the total floorspace to be created is 1000 square metres or more, or where the floor area is not yet known, a site area of 1 hectare or more.

General Principles of SuDS

Sustainable Drainage Systems (SuDS) are designed to mimic the natural drainage of surface water, typically managing rainfall close to where it falls. Surface water flows are then slowed down and discharged at a controlled rate before it enters a watercourse. They can also store water, allow it to soak into the ground or enable evaporation from surface. SuDS offer a wide range of benefits, as they can:

- manage flood risk
- maintain and improve water quality
- maintain and increase biodiversity
- provide amenity and green open spaces
- maintain groundwater recharge through infiltration

SuDS features include; filter strips and swales, filter drains and permeable surfaces, infiltration devices and basins and ponds.

The proposals should consider the location of discharge as a hierarchy, Planning Practice Guidance states:

“Generally, the aim should be to discharge surface run off as high up the following hierarchy of drainage options as reasonably practicable:

1. *into the ground (infiltration);*
2. *to a surface water body;*
3. *to a surface water sewer, highway drain, or another drainage system;*
4. *to a combined sewer.”*

More information can be found in the links at the end of the document under the ‘Further information’ section.

What information do we request as part of a planning application submission?

The proposals for surface water drainage should be considered:

- **Early in the development process where this should consider the constraints to the type and location of the use of these systems.**

Other key considerations are:

- ❖ **Layout of the proposals**
- ❖ **Density**
- ❖ **Topography**
- ❖ **Ground Conditions**
- ❖ **Discharge destinations**
- ❖ **Potential for multiple benefits**



| | | Why does this information need to be provided? | Level of detail for specific types of applications | |
|---|--|---|---|---|
| | | | Outline | Full |
| Existing Flood Risk | Information on existing flood risk from modelled and historical sources | This should be reviewed to ensure that surface water drainage features and SuDS measures are not likely to be affected by existing flood risk. | ✓ Yes Desktop assessment | ✓ Yes Desktop assessment and calculations where required |
| SuDS Design | Information on the proposed SuDS Strategy | To show that SuDS have been properly considered within the layout and proposals for the development | ✓ Yes | ✓ Yes |
| | Information on the potential discharge points and locations including the sensitivity of those locations | To show that these have been fully considered within the SuDS Design and that the appropriate number of treatment stages have been provided | ✓ Yes Desktop assessment | ✓ Yes Full information on the location and number of stages |
| Existing Drainage of the site | Information on the existing drainage regime of the site including where appropriate existing drainage locations and networks | To show that the design of the surface water system has taken into account the existing low regime and that surface water is not being directed to a different location without flood risk being affected | ✓ Yes Desktop assessment | ✓ Yes Full information of the existing regime including runoff and discharge information |
| Ground conditions and infiltration | Information on existing ground conditions | To be used in the design philosophy as well as for specific issues that may affect the surface water and SuDS Design | ✓ Yes Desktop assessment no specific tests required | ✓ Yes Full hydrogeological assessment including groundwater levels, infiltration tests, land contamination issues |
| | <ul style="list-style-type: none"> Contamination that may affect the use of infiltration devices | | X No – unless known problem | |
| | <ul style="list-style-type: none"> Ground investigation | | X No – Desktop assessment of geology | |
| | <ul style="list-style-type: none"> Groundwater levels Infiltration tests | | X No – Desktop assessment of infiltration potential | |
| Runoff calculations | Information on the existing and proposed runoff rates and volumes | To show that the proposals are not increasing flood risk off site | ✓ Yes Can be based on estimates of impermeable area and broad proposals for surface water and SuDS design | ✓ Yes Full calculations |
| Attenuation | Information on how surface water flows and volumes will be contained on site | To show that appropriate attenuation is being provided and that this is in suitable areas | ✓ Yes Broad estimate of volumes | ✓ Yes Full calculations and detailed locations of attenuation |
| Exceedance flows and runoff in excess of design criteria | Information on what happens if the proposals exceed the design event | To show that a failure in the system would not lead to flooding on or off the site and would be contained on the site in a suitable locations | ✓ Yes Description of where these flows are likely to be located | ✓ Yes Calculations to show the location of ponding or flow if the system overwhelmed |

Other things that you may need to consider

Whilst this is not an exhaustive list you may need to consider the following items when considering the surface water drainage and SuDS proposals on any new development.



Maintenance and securing this long-term

Ongoing maintenance of SuDS features and surface water drainage on any new development is an important consideration. Those proposing development will need to consider how the proposed systems will be maintained in the future and who will be responsible for this in the long term. It is recommended that the applicant has early discussion with the relevant authorities, organisations and groups that they are proposing become responsible for the scheme in the long term.

Local Planning Authorities should be satisfied that suitable ongoing maintenance and management of these systems are adequate and can be secured for the lifetime of the development.



Discharge Consents

The requirement to discharge into the water bodies is administered by the Environment Agency. The applicant should consider and check if their proposals require this permit at an early stage. Information on this can be found at <https://www.gov.uk/environmental-permit-check-if-you-need-one/permits>

Runoff to a watercourse

Where you are proposing to connect the surface water to a existing watercourse you may require a flood defence consent or a land drainage consent depending on the designation of the watercourse and the proposed works.

Where you are proposing to connect to a 'main river' you may require a **Flood defence consent** from the Environment Agency. If you are not sure whether the watercourse is designated as main river you will need to confirm this with the Environment Agency.

Where you are proposing to connect to an 'ordinary watercourse' you may require a Land Drainage Consent from the Lead Local Flood Authority (Hampshire County Council), further information on this can be found at <http://www3.hants.gov.uk/flooding/hampshireflooding/watercourses.htm>

Permissions from third parties

You are also likely to require other permissions from third parties whose systems or land you are connecting to. For example you will need permission from private owners for connection into any private sewer systems, water companies for any connection to the public sewers and the Highway Authority for connection into the highway drainage network. It is the responsibility of the developer/applicant to secure the necessary permissions.

➤ **Further information on SuDS**

Susdrain – The community for sustainable drainage <http://www.susdrain.org/>

Non-statutory SuDS standards <https://www.gov.uk/government/publications/sustainable-drainage-systems-non-statutory-technical-standards>

Practice guidance for the English non-statutory SuDS standards <http://www.lasoo.org.uk/non-statutory-technical-standards-for-sustainable-drainage>

Rainfall Runoff management for developments http://evidence.environment-agency.gov.uk/FCERM/Libraries/FCERM_Project_Documents/Rainfall_Runoff_Management_for_Developments_-_Revision_E.sflb.ashx

National Planning Policy Framework <http://planningguidance.planningportal.gov.uk/>

National Planning Practice Guidance <http://planningguidance.planningportal.gov.uk/>

Flood and Water Management Team

General enquiries relating to flooding – fwm@hants.gov.uk

Pre-application requests – <http://www3.hants.gov.uk/flooding/hampshireflooding/drainagesystems.htm>

Surface water consultations – swm.consultee@hants.gov.uk