

Factsheet

Strategic Surface Water Drainage

Introduction to the Importance of Drainage

Surface water flooding occurs when rainfall falls onto a low permeability surface such that it can not infiltrate into the ground. This type of flooding is predicted to increase with climate change. It is therefore important that surface water and any existing or proposed drainage system is considered early on in the planning process.

Purpose

The purpose of this factsheet is to provide an outline of generic guidance and requirements for Surface Water Drainage Systems for developers and other interested parties. The following is an overview of the benefits in implementing a strategic approach to Surface Water Management. This factsheet should be read in conjunction with other documentation as listed at the end of the text.

Strategic approach

It is the responsibility of the Local Planning Authority to produce a Strategic Flood Risk Assessment (SFRA), which should identify existing surface water drainage issues and whether the production of a Surface Water Management Plan (SWMP) is appropriate for a catchment wide or discrete area. SWMPs are detailed further within the SWMP Factsheet.

Developing a strategic approach in development planning plays a key role in creating an effective and sustainable method to manage surface water drainage and reducing flood risk. The key benefits of this approach are to:

- Ensure that sufficient land has been allocated within the development area to accommodate any drainage or Sustainable Drainage Systems (SuDS) systems
- Avoid the 'piecemeal' approach to drainage whereby single systems may not be maintained adequately nor provide other benefits which may be afforded to one larger system
- Minimise cost per property and overall development costs
- Ensure future occupiers are aware of the systems and are aware of any responsibilities they may have
- Ensure the system has been identified and that a suitable adoption and maintenance system has been identified
- Provide wider benefits such as ecological or recreational

In order to maximise the benefits of drainage investment and to provide a sustainable and robust system it is preferable for potential developers to consider surface water management in advance of any on site works.



The Bedford Borough SWMP will seek to mitigate surface water flooding by promoting the implementation of SuDS. This approach should also be used for site specific drainage strategies and catchment wide drainage strategies.

Developer requirements

Developers should consult the publications listed within this factsheet, the appropriate SFRA, the Bedford Water Cycle Strategy (WCS) and the SWMP (when available) to inform site-specific Flood Risk Assessments (FRA) in accordance with Planning Policy Statement 25 (PPS25). This would provide guidance for identifying preferred options to minimise and reduce the risk of surface water flooding by the control of surface water runoff from impermeable areas through the implementation of (SuDS).

The implementation of SuDS measures is a more sustainable method of dealing with water drainage than conventional methods as the purpose is to mimic natural drainage. SuDS operate to reduce the rate of flow from a site using infiltration and storage techniques. Attenuation should be to the greenfield runoff rates for the design storm with an allowance for climate change.

It is important that the developer considers the following prior to SuDS proposals:

- Early discussions with stakeholders;
- Ground and groundwater investigation;
- Drainage impact assessment;
- Interaction with sewer systems; and
- Long term maintenance requirements.

In order for the developer to demonstrate that the development complies with the latest guidance on surface water management a set of calculations must be provided with the planning application. See Appendix F of the Bedford Borough WCS.

Additional Information

C697 – The SuDs Manual (2007).

C609 – SuDs, hydraulic structural advice and water quality advice (2004).

The Interim Code of Practice for Sustainable Drainage Systems, National SuDs Working Group. July 2004.