

# **Lead Local Flood Authority SuDS Policy Statement**

## **Meeting Sustainable Drainage System Standards in Hertfordshire**

**Revision 1 - March 2017**

This policy will be approved as a part of the 2017/2018 Local Flood Risk Management Strategy review.

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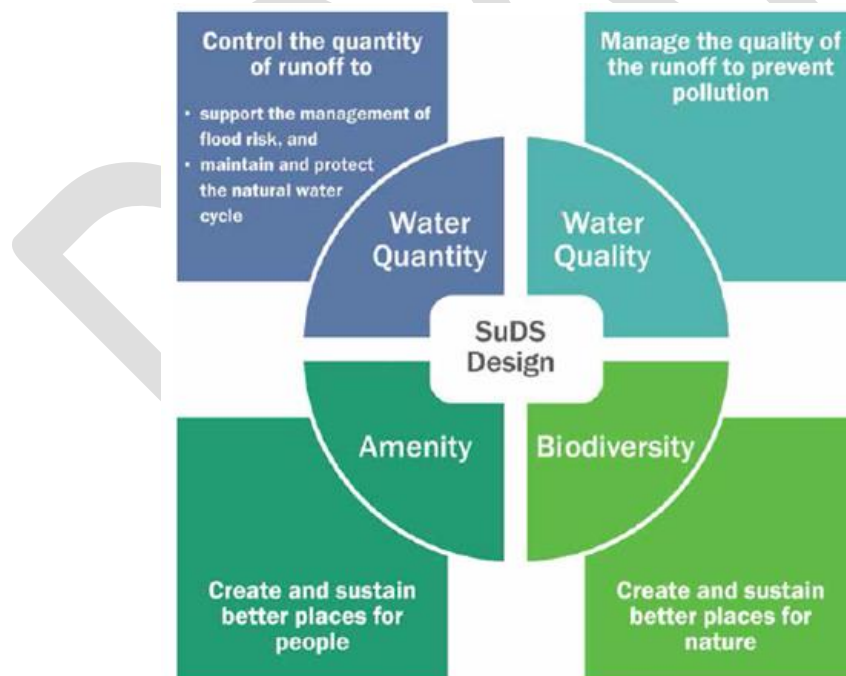
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## Role of this Policy Document

This document sets out how Hertfordshire County Council, in its role as the Lead Local Flood Authority (LLFA) for Hertfordshire, and as a statutory consultee of the planning process, will evaluate drainage schemes. In accordance with national policy and local guidance it provides an interpretation of how schemes are expected to demonstrate their compliance with the National Planning Policy Framework (NPPF) with reference to the National Planning Policy Guidance (NPPG).

This document sets out a number of policies which are based upon the National non-statutory Technical Standards for SuDS and guidance in a Hertfordshire context. The guidance is aimed at a range of audiences, in particular developers, and those involved in the decision making process. As well as ensuring that all schemes comply with the NPPF and supporting guidance, the LLFA will aim to secure SuDS schemes which demonstrate best practice and maximise water quality, amenity, biodiversity and other benefits to the local area.

Fundamental to this approach is that the four components of the SuDS philosophy, as set out in the CIRIA SuDS Manual, quantity, quality, amenity and biodiversity, cannot be separated and should be considered in a holistic way to achieve the 'best value' from the SuDS design process.



**Figure 1.** The four pillars of SuDS Design. The overarching purpose of the SuDS Design is that surface water run-off should be managed for maximum benefit (The SuDS Manual C753, Ciria)

## SuDS Design, the Planning Process and Consultation with the LLFA

The evolution of the SuDS design should run in parallel with the planning process. The LPA will consult with the LLFA at key points throughout the process, including the pre-application and full application stages, and for the satisfaction of conditions where relevant. Further details on the stages of the design process are included within Hertfordshire's supporting SuDS Guidance documents. Other statutory consultees involved in the decision making process may also be involved at pre-application stage on larger or more complex scheme.

This policy statement is supported by references to the following sources of further information:

- The non –statutory Technical National Standards –published by DCLG and DEFRA.
- CIRIA SuDS manual – provides industry-accepted national best practice.
- Building Futures website – provides more detailed technical and planning-related information and acts as jointly-owned guidance for Hertfordshire's planning authorities.
- Strategic Flood Risk Assessments covering Hertfordshire
- HCC SuDS Guidance document

## Run-off Destination (disposal hierarchy)

### SuDS Policy 1

The non- statutory National Standards and guidance specify a preference hierarchy for runoff destinations, and set out conditions under which a less preferred route may be allowable. Further details on the specific requirements are set out within the HCC Guidance for SuDS in Hertfordshire.

#### **SuDS Policy 1**

Proposals for SuDS must follow the discharge hierarchy as set out in the non-statutory technical standards for sustainable drainage systems

The discharge hierarchy should be appropriately assessed and the selected discharge point for proposed SuDS must be justified in accordance with the SuDS standard requirement for runoff destination using a methodology acceptable to Hertfordshire County Council and the Local Planning Authority.

To support the drainage strategy approval for discharge should be sought from owner/operator of receiving system. This should include and permission to cross the land adjacent to the site and in third-party ownership to secure access to the proposed connection point.

## Peak Flow and Volume Control

### SuDS Policy 2

#### Greenfield Sites

The introduction of impermeable areas as a result of development will lead to an increase in rate and volume of runoff. Significant changes to greenfield runoff characteristics as a result of development will not be acceptable.

#### **SuDS Policy 2**

For greenfield sites, the peak runoff rate from the development for the 1 in 1 year rainfall event and the 1 in 100 year rainfall event must not exceed the peak greenfield runoff rate from the whole site for the same event.

The runoff volume from the developed site in the 1 in 100 year, 6 hour rainfall event must not exceed the greenfield runoff volume for the same event.

## SuDS Policy 3

### Previously developed sites

It is accepted that that rate and volume of runoff from previously developed land will be higher than on equivalent greenfield sites, however the redevelopment process presents opportunities for redesign of drainage to restore greenfield runoff characteristics.

#### **SuDS Policy 3**

Previously developed sites should aim to discharge at the original pre-development greenfield rate for the whole site area where possible. If not, a significant reduction in the current rate of discharge should be achieved and evidence provided as to why greenfield rates are not viable.

The volume of attenuation storage that would be required for the site should be based on the 100 year critical storm duration with an allowance for climate change and the allowable discharge rate.

HCC Guidance for SuDS in Hertfordshire provides an approach for meeting peak flow rate and volume requirements on previously developed land, in particular by requiring betterment of existing runoff conditions where Greenfield runoff cannot be achieved. Flow rate and storage volume calculations should be presented in a manner that is acceptable to the LLFA. For further guidance on the calculations that should be provided; please see HCC SuDS Guidance document.

## Flood Risk Within & Outside the Development

### SuDS Policy 4

The design of the SuDS must demonstrate:

- a) The management of water falling directly on the development site by SuDS.
- b) The management of runoff produced by the site to prevent increase in flood risk downstream.

It is essential that the drainage scheme proposed protects the development site from flooding; and does not increase flood risk to the development or surrounding area. Any drainage scheme must manage all sources of surface water, including exceedance flows and surface flows from offsite, provide for emergency, ingress and egress and ensure adequate connectivity

#### **SuDS Policy 4**

Flooding must not occur on any part of the site for a 1 in 30 year rainfall event except in areas that are designed to hold and convey water

During a 1 in 100 year plus climate change rainfall event no flooding should occur in any part of a building (including a basement); utility plant susceptible to water (e.g. pumping station or electrical sub-station) or on neighbouring sites.

If there is flooding during 1 in 100 year plus climate change rainfall event, this should be indicated on plan showing extent and depth. Flows that exceed design criteria must be managed in exceedance routes) that minimise risks to people and property both on and off the site.

### **Managing Overland Flow Routes**

#### **SuDS Policy 5**

Where a site or its immediate surroundings have been identified to be at flood risk, all opportunities to reduce the identified risk should be explored. New development should be designed to take full account of any existing flood risk, irrespective of the source of flooding. This includes any existing or predicted flow routes entering the site.

The information should indicate areas for flood storage and/or exceedance and the volumes that need to be managed. These volumes can be accommodated can be within the drainage system itself or within other designated areas within the site for conveyance and storage.

#### **SuDS Policy 5**

Where a development alters the natural flow route, or located in an area with existing flooding issues or a high risk of potential flooding; proposals must demonstrate the management of any existing and predicted overland flows entering the site from adjacent areas for all rainfall events up to and including 1 in 100 year plus climate change event.



## Maximise Resilience and Source Control

### SuDS Policy 6

SuDS should be provided above ground where possible in line with the SuDS hierarchy. For Greenfield sites, the proposed SuDS features should be above ground. Underground attenuation in Greenfield sites are considered unacceptable and a technical justification should be provided for its usage.

Where it is necessary to provide underground drainage measures, more regular and extensive inspection and maintenance will be required.

Current figures that should be applied for climate changes and urban creep can be found in HCC SuDS Guidance document.

#### **SuDS Policy 6**

Proposals must demonstrate that the SuDS have been designed at or near the surface in line with the SuDS hierarchy. Underground attenuation features will only be acceptable where it can be proved that alternate surface based methods are not appropriate or feasible.

The design of the drainage system must account for the likely impacts of climate change and changes in impermeable area over the design life of the development. Appropriate allowances should be applied in each case.

## Management of drainage during construction period

### SuDS Policy 7

It is necessary to provide appropriate temporary infrastructure on site to deal with surface water during the construction period. This includes providing appropriate attenuation and water quality control water for surface water that would collect within the construction site.

If a proposed development is to be delivered in phases, a commitment should be made for a site-wide SuDS scheme to be delivered with the first phase of development, designed to be capable of accommodating the runoff from each of the subsequent phases. If this is not possible, the runoff from each separate phase must be controlled independently. Whichever approach is taken, the control of surface water runoff during construction should be considered.

### **SuDS Policy 7**

There should be appropriate arrangements for surface water drainage during the construction phase of a development site. A construction management plan to address all surface water runoff and any flooding issues during the construction stage should be submitted at detailed design stage.

## **Maintenance, Structural Integrity & Construction**

### **SuDS Policy 8**

It is important to ensure that all SuDS features are constructed as designed so that they perform as intended and are easy to maintain. Drainage components should have a design life compatible with that development. Therefore materials used should ensure the structural stability of the features and construction should comply with appropriate standards.

Maintenance requirements should be considered at all stages including during design and construction. It is essential that suitable access is provided to be able to facilitate monitoring and works. For further guidance, please see HCC SuDS Guidance document.

Maintenance is a key issue throughout the planning process and information will need to be provided to demonstrate that SuDS are designed with easy and affordable maintenance. The LPA will need to be satisfied that arrangements are in place for the long term maintenance of SuDS.

### **SuDS Policy 8**

Drainage components should have a design life compatible with the development. Design should be based on actual site levels, ensuring that the construction of any other infrastructure and services does not compromise the final construction of the SuDS.

Proposals for SuDS must include a management and maintenance plan for the lifetime of the development which shall include arrangements for adoption and any other arrangements to secure the operation of the scheme throughout its lifetime.

## Sustainability and additional design criteria

### SuDS Policy 9

In addition to the National Planning Policy Guidance and non- statutory Standards, more detailed local design guidance is set out on the HCC SuDS Guidance document.

What wider benefits are appropriate will depend on the site and its particular context in terms of local plans, strategies and policies, and physical environment factors. These are likely to be similar to those that are required to be addressed as part of the development management process i.e. linked to wider landscape and biodiversity objectives. Other benefits may also be sought where appropriate to the scheme and its wider context.

#### **SuDS Policy 9**

In accordance with relevant local plan policies and guidance, proposals for SuDS must maximise wider benefits as appropriate, including for:

- Safeguard Water Quality
- Design for Amenity and Multi-Functionality

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