

The need to provide sustainable drainage systems (SUDS) has been well documented but has, so far, failed to be delivered.

This is the first in a series of papers that will deal with SUDS to develop and provide a systematic approach to sustainable drainage.

This paper explores how recent changes to legislation and technology could aid the long overdue implementation.

The Flood and Water Management Act 2010 was passed by Parliament in April and includes a section, Schedule 3, dedicated to sustainable drainage. The schedule covers a range of measures to ensure the current inertia is overcome and lists the following aims to manage rainwater (including snow and other precipitation);

- ⊕ Reducing damage from flooding
- ⊕ Improving water quality
- ⊕ Protecting and improving the environment
- ⊕ Protecting health and safety
- ⊕ Ensuring the stability and durability of drainage systems

## National Standards

The Minister will publish national standards for the implementation of sustainable drainage. The standards will address the way in which drainage systems are designed, constructed, maintained and operated. There will be an opportunity to contribute ideas through a mandatory consultation period prior to publication.

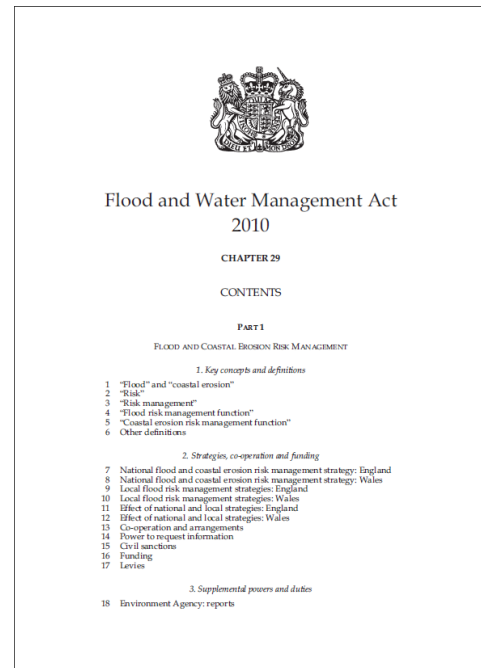
## Approving Body

Historically, the issue of maintenance and adoption has been a sticking point. The Act clarifies this by declaring that the approving body for a drainage system is the unitary authority for the area. If there is no unitary authority, the county council for the area will be responsible.

The Minister may, by order, appoint a body as approving body for drainage systems in all areas or in one or more specified areas, instead of the unitary authority or county council.

## Drainage Approval

Construction work with drainage implications may not be commenced unless a drainage system for the site has been approved by the approving body.



If the construction work requires planning permission, the application for drainage approval is submitted with the planning application. The drainage application must be in any form and contain any information required by the approving body. The approving body can charge a fee to cover their costs.

The approving body must grant approval if the drainage system is designed in accordance with the national standards for sustainable drainage.

The applicant must provide a non-performance bond in case the drainage system is constructed below standard or is unlikely to be completed.

Prior to determining an application the approving body must consult with any affected parties such as;

- ⊕ Any sewerage undertaker whose public sewer is involved
- ⊕ The Environment Agency if a watercourse is affected
- ⊕ The relevant highway authority
- ⊕ British Waterways
- ⊕ Internal Drainage Board

A developer has a right to connect to the public sewer under section 106 if drainage approval has been granted under Schedule 3.

# Legislation for SUDS Implementation

## Duty to Adopt

The approving body must adopt a drainage system which satisfies the following three conditions;

- 1) The drainage system was constructed in pursuance of the proposals approved under paragraph 7, which details the requirement for approval
- 2) The approving body is satisfied that;
  - a) The drainage system was constructed, and functions, in accordance with the approved proposals, or
  - b) The approving body can issue, or has issued, a certificate under paragraph 12(2)
- 3) The drainage system is a sustainable drainage system

## Power to Adopt

An approving body may voluntarily adopt all or part of a sustainable drainage system, as defined by regulations made by the Minister, to which the duty to adopt does not apply.

## Effect of Adoption

When an approving body adopts a drainage system it becomes responsible for the maintenance in accordance with national standards for sustainable drainage.

## Process of Adoption

An approving body may adopt a drainage system on its own initiative or at the request of the developer. A request must be made in the form prescribed by the approving body who must determine the submission in a timely manner, notify the developer of the decision and of any right of appeal.

When the approving body notifies an intent to adopt, the notice must;

- ⊕ Specify the extent of the drainage system being adopted
- ⊕ Copy the notice to the sewerage undertaker
- ⊕ Copy the notice to any other person whom the approving body were obliged to consult on the application
- ⊕ Copy the notice to any person who appears to the approving body to own or occupy land from which water will be drained by the drainage system
- ⊕ Arrange for the inclusion of the drainage system in the relevant register
- ⊕ Release any bond

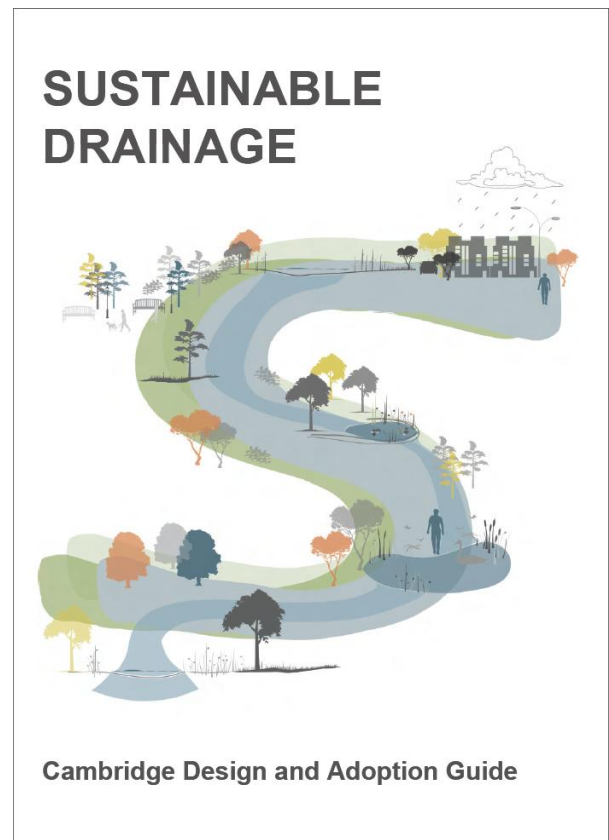
- ⊕ Arrange for the designation under Schedule 1 of any part of the drainage system (whether an adopted part or not) which is eligible for designation
- ⊕ Designate under section 63 of the New Roads and Street Works Act 1991 (streets with special engineering difficulties) any adopted part of the drainage system that is a street within the meaning of section 48 of that Act

## Appeals

The Minister must, by regulations, provide a right of appeal against decisions about applications for approval and the duty to adopt.

## Summary

The Flood and Water Management Act 2010 has clarified responsibility for the adoption and maintenance of SUDS with the unitary authority for the area. If there is no unitary authority, the county council for the area will be responsible.



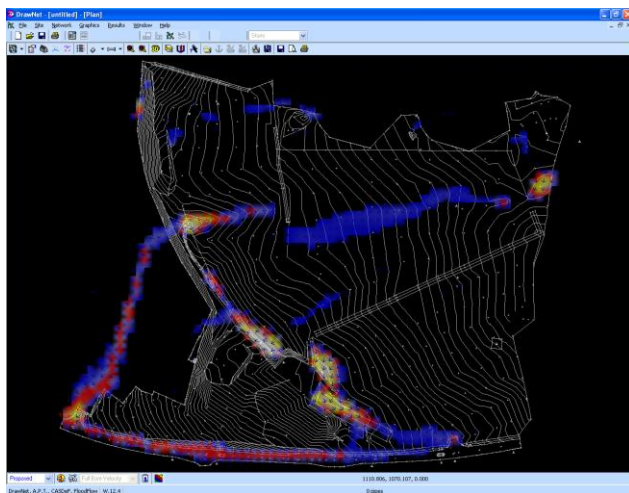
The Minister may appoint another suitable body. In the lead up to the general election the conservative party declared a preference for water companies to be held responsible, as they have proven their ability to deliver such duties.

The Minister will publish national standards which will be subject to consultation before the end of 2010.

## Technology

WinDes, the industry standard drainage design software, was upgraded in June 2010 to aid implementation of sustainable drainage throughout the planning process.

It is crucial to analyse the existing greenfield condition and identify the current overland flood flow routing from all sources.



The identification of existing blue corridor routes will enable the pathways to be treated with due respect, highlight existing areas at greatest risk to flooding and produce the optimum infrastructure layout.

Progressive urban designers will work with pluvial flood zones and pathways with a view to satisfying the SUDS quantity, quality and amenity objectives.



## SUDS Series of Papers

In the next paper (Planning for SUDS) the issue of pre-planning is explored. The complete series will comprise of the following papers;

- ⊖ Legislation for SUDS Implementation
- ⊖ Planning for SUDS
- ⊖ Preliminary Design for SUDS
- ⊖ Detailed Design for SUDS
- ⊖ Auditing SUDS for extreme rainfall

## Contact Details

For further information about WinDes, training and workshops, visit [www.microdrainage.co.uk](http://www.microdrainage.co.uk), email [info@microdrainage.co.uk](mailto:info@microdrainage.co.uk) or call +44 (0)1635 582555.

To share your views and keep abreast of legislation and research, visit Piped Up! the Micro Drainage blog at <http://pipedup.wordpress.com>