

## SUSTAINABLE DRAINAGE SYSTEMS (SuDS)



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## SUSTAINABLE DRAINAGE SYSTEMS (SuDS)

<b>Section 27</b>	<b>Sustainable Development</b>
<b>Section 32</b>	<b>Sustainable Drainage</b>
<b>Schedule 3</b>	<b>SuDS</b>

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**PART 1 – FLOOD AND COASTAL EROSION MANAGEMENT**

**SECTION 5 - GENERAL**

**Section 27 Sustainable Development**

(1) In exercising a flood or coastal erosion risk management function, an authority listed in subsection (3) must aim to make a contribution towards the achievement of sustainable development

(3) The authorities are –

- (a) lead local flood authorities,
- (b) district councils,
- (c) internal drainage boards, and
- (d) highway authorities

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**PART 1 – FLOOD AND COASTAL EROSION MANAGEMENT**

**SECTION 5 - GENERAL**

**Section 27 Sustainable Development**

The Act provides environmental powers for works that

- (a) Have a net beneficial impact,
- (b) Are consistent with the national FCERM Strategy and,
- (c) Are deemed by the relevant authority to be desirable for the natural environment, historic environment, landscape, or have amenity or leisure benefits.

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**PART 2 – MISCELLANEOUS**

**Section 32 Sustainable drainage**

Schedule 3 (sustainable drainage) shall have effect.

**SCHEDULE 3 – SUSTAINABLE DRAINAGE**

“*Drainage system*” means a structure designed to receive rainwater

- except –
- (a) a public sewer, or
  - (b) a natural watercourse

### SCHEDULE 3 – SUSTAINABLE DRAINAGE

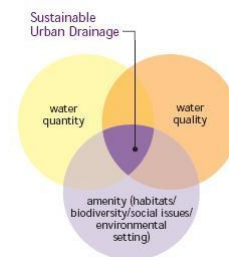
“Sustainable drainage” means managing rainwater (including snow and other precipitation) with the aim of –

- (a) reducing damage from flooding,
- (b) improving water quality,
- (c) protecting and improving the environment,
- (d) protecting health and safety, and
- (e) ensuring the stability and durability of drainage systems

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### SUSTAINABLE urban DRAINAGE SYSTEMS

- Not a new concept:
- SUDS based on principles that are over 4000 years old
- Use of old technology in a modern strategy
- Solution is based on natural drainage pattern
- Schemes successfully implemented in UK
- Barriers have been overcome
- Balance between quantity, water quality and amenity
- Many different SuDs devices which include:  
Dry Ponds, Wet Ponds, Infiltration trench,  
Infiltration basin, Porous pavement,  
Grassed swale, Filter strip, Over land  
grass flow, House storage, etc...



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**SUSTAINABLE urban DRAINAGE SYSTEMS**



Filter Drain

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**SUSTAINABLE urban DRAINAGE SYSTEMS**



Wet Pond – Detention Basin

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**SUSTAINABLE urban DRAINAGE SYSTEMS**



Porous pavements

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**SUSTAINABLE urban DRAINAGE SYSTEMS**



Water butts

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### **SuDS Approving Body (SAB)**

The Act establishes a SuDS Approving Body (the “SAB”) at county or unitary authority levels. It is likely to rest with the Lead Local Flooding Authority (LLFA) but there is provision in the act for this to be another body and must be independent.

Duties of the SAB

- (a) Approval of drainage systems, (Design and Construction)
- (b) Adoption of drainage systems, (Maintenance and Operation)

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### **SuDS Approving Body (SAB) (2)**

SABs will also be responsible for:

- designating SuDS on private property via local land charges (prevent property owners from altering SuDS)
- placing all SuDS on the local authority asset register to ensure that the location of all SuDS is known

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### SuDS National Standards

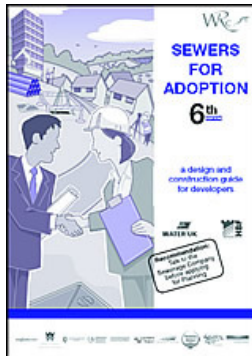
A National Standard is to be produced that will:

- (a) permit or require SABs to form judgments by reference to specific criteria (National Standard)
- (b) Require SABs to have regard to guidance to be issued by the Minister

This part of the F&WM Act will not be introduced until a National Standard has been agreed and introduced

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### SuDS National Standards



It is likely that the National Standard will be similar to Sewers for Adoption giving guidance on how drainage systems will be designed, constructed, maintained and operated

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## SuDS National Standards

There is existing guidance and design standards:



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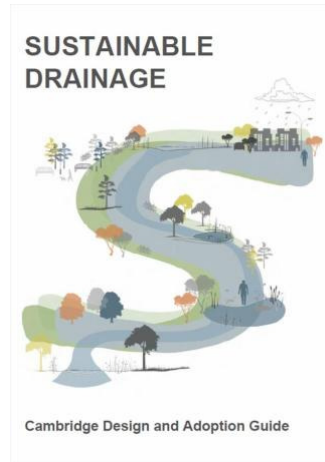
## SuDS National Standards

The existing guidance and standards include:

- SuDS Interim Code of Practice supersedes 'Framework for SuDS' – National SuDS Working Group
- CIRIA 609 – advice on the design and construction of SuDS
- CIRIA 522 – Design Manual for England and Wales
- CIRIA 523 – SuDS Best Practice Manual
- CIRIA 625 – Model Agreements for SuDS
- SuDS Working Party for Wales – SuDS Matrix

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## SuDS – Guidance



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## SuDS -Development covered by the new Act

What is covered by the ACT?

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

Construction means anything done in connection with the creation of a building or other structure, and has implications if the building or structure will affect the ability of the land to absorb rainwater

Does not apply to work requiring development consent under section 31 of the Planning Act 2008 (nationally significant infrastructure projects)

Anything that covers land (patio or other surface) is classed as a structure

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### **SuDS - Applications and the Planning Process**

The National Planning Policy Framework (NPPF) is currently being consulted on, the purpose is to simplify the planning process and remove barriers to growth. The introduction of SuDS will add another level of control into the planning system and ultimately make the system more complicated.

If planning permission is required:

Application can be combined with planning application (or as a free-standing application for approval)

Planning authority must

- consult SAB in determining application and
- inform SAB of its determination
- inform the applicant of the SAB determination of the application

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### **SuDS - Applications and the Planning Process**

Free-standing application:

Application must be in the form required by the SAB

Be accompanied by any information required by SAB

Be accompanied by any fee chargeable

It is intended that SABs will have 13 weeks to process applications

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### **SuDS - Requirements for Approval – Determination**

On consideration of the application the SAB must:

- grant it if satisfied drainage system will comply with national standards, or
- refuse it

Approval can be subject to conditions which can:

- relate to construction ( may involve modifications)
- ensure approval takes effect only if a non performance bond is paid
- relate it to inspection of construction
- ensure payment of a fee

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### **SuDS - Requirements for Approval – Consultation**

SAB must consult the following in order to determine the application:

- Sewerage Undertaker
- Highway Authority
- Environment Agency (if system directly or indirectly discharges into watercourse)
- British Waterways (if system affects managed waterway)
- Internal Drainage Board ( if applicable and water discharges into ordinary watercourse)

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### **SuDS - After determination of application**

SAB must notify:

- Applicant
- Planning Authority (if combined application)
- Other consultees

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### **Cost to Implement**

Fees for applications must be:

- determined by reference to specific criteria (including nature and extent of work)
- paid by reference to work done by approving authority
- fee income cannot significantly exceed the cost (direct and indirect) that the approving bodies incur in connection with approval

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### **SuDS - Non-performance Bonds**

SABs can impose a non-performance bond on the applicant to a value that is specified in a condition of application approval which is payable to the SAB if it certifies that the drainage system is:

- constructed in a manner that is not in accordance with approved proposals, or
- unlikely to be completed

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### **SuDS - Enforcement Powers**

There will also be enforcement powers available to SABs to ensure that drainage systems are constructed to the approved application.

Financial penalties and rights of appeal will also exist.

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### SuDS - Sewers and Roads

Existing rights to connect to a public sewer (WIA 1991) has been amended such that this right can now only be exercised in respect of surface water if:

- the construction of the drainage system was approved by Schedule 3 of the F&WMA
- the proposal for approval included a proposal for the communication with the sewer
- Sewerage Undertakers must accept any use by a highway authority which is accordance with a drainage system approved by the SAB

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### SuDS - Duty to Adopt

The SAB must adopt a drainage system if it was constructed as stated in the agreed application and is a sustainable drainage system as defined by the regulations

A SAB may voluntarily adopt all or part of a sustainable drainage system to which the duty under the F&WMA does not apply

The SAB will become responsible for maintaining an adopted system which must then continue to comply with the national standards

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### **SuDS - Exceptions from Adoptions**

There are drainage systems that will be exempt from adoption.

These include:

1. single property drainage systems, or
2. parts of a system which form part of a highway drainage system.

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### **SuDS - Maintenance Costs**

Likely to be Developer Contributions

EA have commissioned a study on the Long Term Costing of flood risk measures, which includes SuDS

Draft report was published in June 2011, considered procurement, design, construction, operation/maintenance, monitoring and replacement/decommissioning

Sources of information included CIRIA manual, DTI Report, a previous EA Study and a good practice manual from Anglian Water on SuDS maintenance activities and frequencies

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**How does this affect you?**



**How does this affect you?**

If you are a LLFA and subsequently a SAB you will be responsible for:

1. Approving the applications and vetting designs
2. Ensuring that the new drainage systems are constructed as approved
3. Operating and Maintaining new Sustainable Drainage Systems

Even in the event that all three are done properly this is creating a new liability on SABs (Local Authorities)

### What happens next ?

The Minister is to:

- consult before publishing standards
- publish National Standard for the implementation of sustainable drainage
- F&WMA to be phased in the implementation of the SAB's responsibilities enabling you and developers to build capacity with relation to SuDS
- Defra and WAG are working hard to ensure that everything is in place (the National Standards, potential funding mechanisms etc) before enacting the provisions in the FWMA related to SuDS. At present this is likely to be Autumn 2012.

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### What you can do

Before this section of the Act is empowered you should:

- Familiarise yourself with the existing guidance
- Be ready for the Consultation process when the National Standards are circulated (and get involved)
- Inform your Elected Members of the new Statutory duties
- Set new working practices with your Planning Department – tell them about the Act and your new roles and responsibilities
- Set up a shadow SAB (potential collaborative working with other Las)
- Prepare an application form and decide what information you require from the applicants
- Agree amount of fees and systems for collection
- Raise awareness with developers of the F&WMA to enable pre-application discussions to take place.

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**Shropshire County Council – An example of good practice**



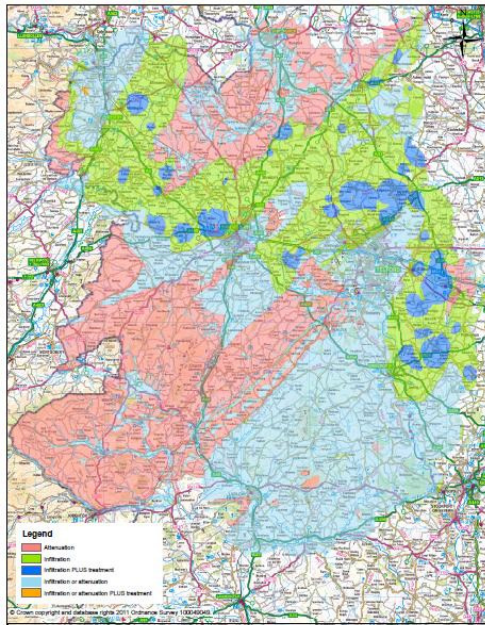
Surface Water Management:  
Interim Guidance for Developers



[www.shropshire.gov.uk](http://www.shropshire.gov.uk)

- National Policy
- Local Policy
- Traditional Approaches to Flood Risk Management
- Delivery of Sustainable Water Solutions
- Design of SuDS
- Design Criteria
- Design Guidance
- Surface Water Flood Risk Map
- SuDS Applicability Map
- SWM Plan Proforma
- SWM Statment Proforma

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Shropshire Council SuDS Applicability Map  
Development Services  
The Shirehall, Abbey Foregate  
Shrewsbury, Shropshire, SY2 4ND  
Scale: 1:250,000

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### How we can help you

MWA can help you by:

- Presentations to Planners and Elected Members
- Facilitating workshops
- Help develop skills
- Technical expertise in SuDS design and checking of developers' designs
- Site Inspections
- Asset Management

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### How we can help you



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### How we can help you



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### What are the risks of not implementing SuDS correctly?

There are many risks of not implementing SuDS correctly, and these will be similar to traditional drainage systems. These risks will include an increased risk of flooding, increased pollution in local watercourses and groundwater, increased operation and maintenance costs, decreases in amenity and biodiversity levels, lower house prices and unhappy communities.

Following the National Standards for sustainable drainage and using the principles of good SuDS delivery should prevent these risks from becoming reality.

Do you have the expertise, man power and skills base to implement Schedule 3 of the Flood and Water Management Act?

**Now is the time to Act**

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“A decision on lifting the hosepipe ban will be made in due course.”

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### Other sources of information

- [www.ciria.com/suds](http://www.ciria.com/suds)
- [www.ciria.com/landform](http://www.ciria.com/landform)
- <http://www.lga.gov.uk/>
- [www.ciria.org](http://www.ciria.org)
- <http://www.idea.gov.uk/>
- <http://services.parliament.uk/bills/2009-10/floodandwatermanagement.html>

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Coastal & flood risk management engineers

### QUESTIONS ?

For further information:

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or assistance please do not hesitate to contact:

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Mike Wellington

**Thank You**

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