Paper 6 - National Standards for Sustainable Drainage

Nick Orman – Principal Consultant, WRc Email: nick.orman@btinternet.com

Paul Shaffer – Associate, CIRIA Email: paul.shaffer@ciria.org

Bridget Woods-Ballard - Principal Engineer, HR Wallingford b.woods-ballard@hrwallingford.co.uk

Background

The need for more sustainable forms of surface water drainage to reduce the impact of urbanisation on flooding and river water quality has been recognised for a number of years. Considerable progress has been made on their implementation in a number of countries. However legal and administrative issues have restricted progress on the implementation of Sustainable Drainage Systems (SuDS) in England and Wales.

In 2004, the National SuDS working group published an *Interim Code of Practice for Sustainable Drainage Systems.* This proposed an interim framework for the implementation of SuDS through the planning system, building on existing national planning guidance that highlighted the potential contribution of SuDS to flood risk management. The publication of updated planning guidance in the form of TAN15 in Wales in 2004 and PPS25 in England in 2006 strengthened the ability of the planning system to deliver SuDS, but a number of problems still remained in their delivery.

In his report on the 2007 Flooding, Sir Michael Pitt made a number of recommendations in relation to surface water drainage. In particular:

> ***RECOMMENDATION 9****: Householders should no longer be able to lay impermeable surfaces as of right on front gardens and the Government should consult on extending this to back gardens and business premises.*
>
> ***RECOMMENDATION 10****: The automatic right to connect surface water drainage of new developments to the sewerage system should be removed.*
>
> ***RECOMMENDATION 20****: The Government should resolve the issue of which organisations should be responsible for the ownership and maintenance of sustainable drainage systems.*

The new framework for flood risk management

The Flood and Water Management Act 2010 (FWMA), together with the Flood Risk Regulations 2009 (implementing the EU Floods Directive), introduced a whole new framework for flood and coastal erosion risk management in England and Wales.

Central to the new arrangements is:

- The new strategic overview role of the Environment Agency in respect of all forms of flooding and the creation of the Lead Local Flood Authority role, (county or unitary local authority) tasked to deliver local flood risk management
- The strategic framework created by the development of a National Flood and Coastal Erosion Risk Management Strategy within which Local Flood Risk Management Strategies can be developed.

Flood risk management authorities, with one exception, are required to carry out their flood risk functions in accordance with both the national and local strategies. They must also take account of the strategies when carrying out any of their other functions. This effectively provides a link to the planning system as the local planning authority is a flood risk management authority.

Effectively this changes the role of the planning system in flood risk management, making it a vehicle for implementation of policy rather than the means of making that policy. References formerly made to a Surface Water Management Plan that form part of a Local Development Framework should be replaced by a reference to the Local Flood Risk Management Strategy.

Surface Water Drainage in the Flood and Water Management Act 2010

Scope

The Flood and Water Management Act 2010 introduces new arrangements for the approval and adoption of surface water drainage systems in England and Wales. Schedule 3 of the Act 2010 when commenced, requires surface water drainage for all new developments and re-developments (including local roads) to be approved by the SuDS Approving Body (SAB), which will be at unitary and county council level, *before* construction can commence.

The proposed drainage system will have to meet *new* National Standards for design, construction, operation and maintenance of SuDS in England and Wales before approval can be given.

The Act also amends the automatic right to connect surface water to the public sewer to make it conditional on approval of the proposed drainage plans.

The Act establishes a SuDS Approving Body (or SAB) within county and unitary local authorities who will be responsible for approving surface water drainage systems. The Act also provides for the SAB to be responsible for adopting and maintaining SuDS that serve more than one property, in accordance with the SuDS National Standards.

The county or unitary authority is also the Lead Local Flood Authority and the local Highway Authority (which is already an operator of drainage systems). This should ensure that the SAB has a critical mass of functions to develop the necessary skills (it is likely that this will require a mix of engineering, planning and landscape design skills).

Application process

There will be two routes to submit a drainage approval application:

1) A freestanding application direct to SAB. A direct application may be made either where planning permission is **not** required, e.g. permitted development, or when the developer wants SAB approval before submitting the full planning permission application
2) With planning application (where planning permission required) -where a development requires planning approval, the developer may submit an application to the local planning authority for both planning and drainage approval. The two applications are then determined concurrently. In such circumstances the planning authority is required to consult with the SAB and the SAB will inform the planning authority of its decision so that the planning authority can make a single response to the developer. Secondary legislation will set timescales for SAB approval so the planning process will not be delayed.

The SAB may charge a fee for drainage approval on a cost-recovery basis, and the applicant may be charged a non-performance bond.

Pre-application discussions between the SAB and the developer are encouraged as consideration of SuDS in early site design will maximise the opportunities for incorporation of Sustainable Drainage Systems.

The Approval Process

In determining an application, the SAB may only do so in accordance with the new National Standards for sustainable drainage. If they are satisfied that the application would comply with the Standards then they are required to approve the application, otherwise they must refuse it. They are also required to consult with the sewerage undertaker, the Environment Agency, the Highway Authority, the Internal Drainage Board and British Waterways where the system may have an effect on their responsibilities.

The Act also requires the SAB to have regard to any guidance issued by the Minster in determining any application.

Any decision is independent of any planning permission. The SAB either notifies developer (if it is a freestanding application) or local planning authority, who in turn notifies developer (when application is combined with planning application). It will be possible for a development to get planning approval and still not get drainage approval.

An appeals process will be defined in regulations.

Adoption of approved drainage

The SAB is under a duty to adopt any SuDS that are approved and constructed and function in accordance with the National Standards, and which serve more than one property. The SAB may require the developer to provide a non-performance bond to ensure that the system is so constructed.

The SAB is not required to adopt systems that form part of a publically maintained road (these are adopted by the highway authority). Other exceptions may be specified by the Minister.

Once adopted, the SAB will be required to maintain the drainage system in accordance with the maintenance requirements of the National Standards.

Any SuDS on private land (whether adopted or not) will be designated as features under FWMA via a land charge. This ensures that property owners and buyers would be notified of SuDS on their property during the house-buying process and title searches. The owner will have to seek permission from the SAB to alter, remove or replace the SuDS in a way that affects their ability to function as a drainage system.

Adoption of other SuDS

The SAB are under no duty to adopt other sustainable drainage systems, however the FWMA does give the SAB powers to voluntarily adopt existing SuDS systems.

Funding

The governments have assured local authorities that the new duty to adopt and maintain SuDS will be fully funded. In the short term SuDS adoption will be funded from the savings to local authorities following the transfer of private sewers. The government is currently developing options for long term funding for SuDS maintenance.

The National Standards for Sustainable Drainage

Introduction

The National Standards for Sustainable Drainage are fundamental to this new approach. The FWMA requires the Minister to publish National Standards and consult on them prior to publication. The standards may permit or require the SAB to take judgements by reference to specified criteria and may also require them to have regard to guidance issued by the Minsters.

The standards and guidance are being developed by a CIRIA consortia and also including WRc, HR Wallingford and the Pennine Water Group.

A project advisory board, with representation from developers, local authorities, sewerage undertakers, regulators and other interested groups is guiding the development of the National Standards and Guidance.

Scope of National Standards

The FWMA defines sustainable drainage as:

"… 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. "

The FWMA also requires the standards to address the design, construction, maintenance and operation of drainage systems.

The National Standards for Sustainable Drainage need to apply to a wide range of developments including both domestic and commercial buildings; on greenfield sites and previously developed sites; on pervious soils and impermeable soils; and in dense urban centres and less densely urbanised peripheral areas. The standards must therefore have the flexibility to cope with the differing constraints of the sites while delivering the most sustainable drainage system that is appropriate for that site.

The standards will therefore likely set out a hierarchy of approaches to deliver the most sustainable drainage practicable within the different constraints although this is subject to consultation.

Principles

The standards will be guided by principles which Defra and the Welsh Assembly Government will consult on in due course. These principles might include:

- Considering drainage at the earliest stage of planning a development
- Multi-functional use of space (e.g. public open space) to make best use of the site
- Using the SuDS management train
- Managing rainwater on the surface and as close as possible to the source
- No connection to foul sewers

Hierarchy standards

Some standards will be adaptable to work within the site constraints. Again these will be subject to consultation, but they are likely to cover:

- The runoff destination - with the sewer as a last resort
- The peak rate of run-off
- The volume of run-off
- The visibility, adaptability and biodiversity
- The water quality treatment

Design, construction and maintenance standards

Design standards will also be incorporated covering, for example, the hydraulic performance of the drainage system.

Construction standards will need to ensure that the drainage system is built to the approved design and that, for example, the manner of construction does not compromise the future operation of the drainage system.

Operation and maintenance standards will need to ensure that the SAB carries out the necessary maintenance to ensure that the drainage system continues to function and provide drainage for the properties served.

Conclusions

The new arrangements will have a significant impact on the way in which we design and construct new drainage systems. There will be a consultation on the standards in the near future and all drainage professionals should be encouraged to read and comment on the proposals when they are published.

Acknowledgement

The authors wish to thank Defra and Welsh Assembly Government for permission to publish this paper. However, the views expressed in this paper are those of the authors and do not necessarily represent the views of Defra or the Welsh Assembly Government.