National Standards for Sustainable Drainage Systems

A consistent approach to delivering sustainable drainage with multiple benefits

24th September 2025

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Agenda

1. Introduction
2. Safety Moment
3. Development of the Standards
4. The need for National Standards
5. How do the Standards work
6. Principles of the Standards
7. Individual Standards
8. Conclusions
9. Questions

Introduction

National Standards for Sustainable Drainage Systems

Meet the Team

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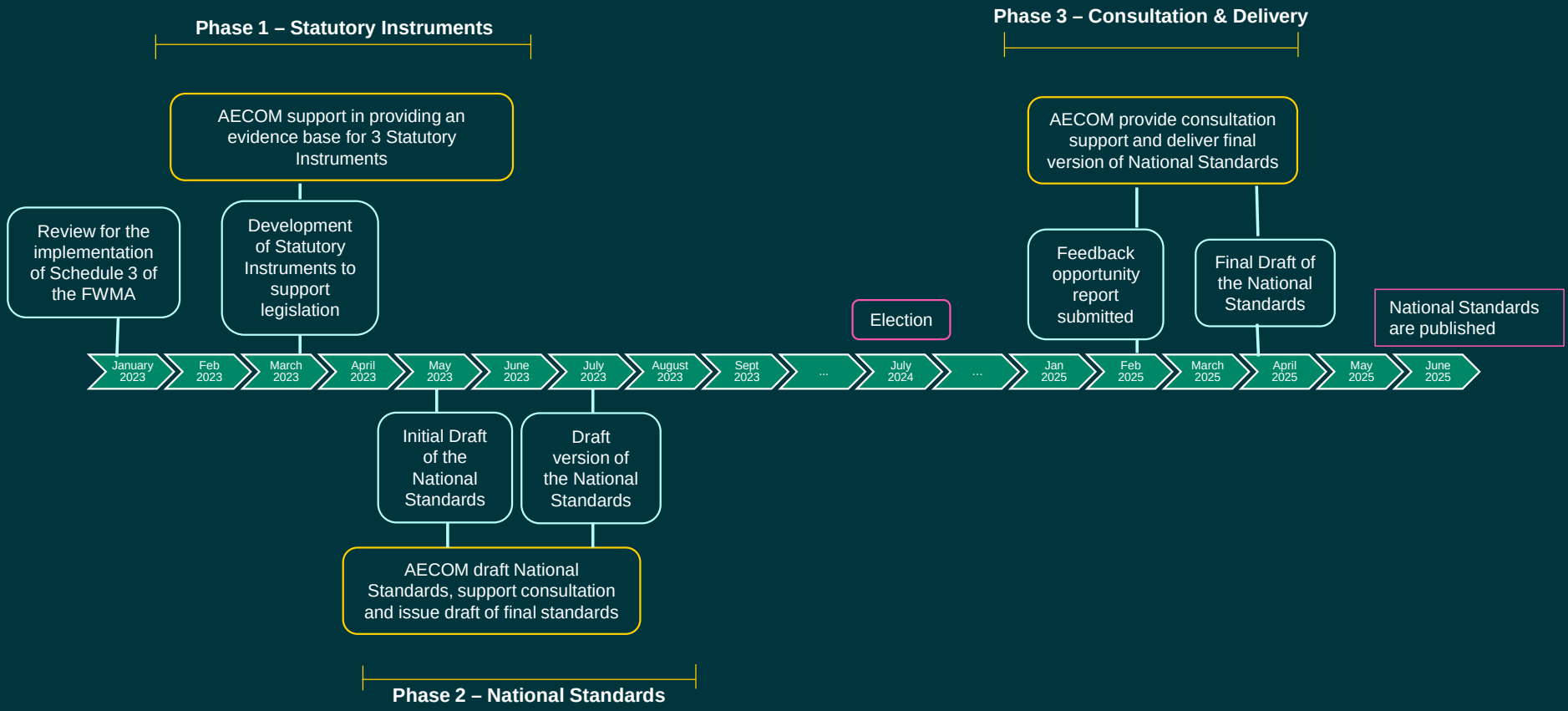
River safety

- River Right & River Left.
- This describes the position on the river as you look downstream.
- Downstream is ALWAYS the frame of reference.
- So when looking upstream, 'River Right' would then be on your lefthand side.
- Using these terms can help when making a call to the emergency services to ensure there is no misunderstanding about the location of either a potential casualty or an access point.

Development of the Standards

Timeline


Phase 1 – Statutory Instruments
Phase 3 – Consultation & Delivery
AECOM support in providing an evidence base for 3 Statutory Instruments
AECOM provide consultation support and deliver final version of National Standards
Review for the implementation of Schedule 3 of the FWMA
Development of Statutory Instruments to support legislation
Feedback opportunity report submitted
Final Draft of the National Standards
Election
National Standards are published
January 2023
Feb 2023
March 2023
April 2023
May 2023
June 2023
July 2023
August 2023
Sept 2023
...
July 2024
...
Jan 2025
Feb 2025
March 2025
April 2025
May 2025
June 2025
Initial Draft of the National Standards
Draft version of the National Standards
AECOM draft National Standards, support consultation and issue draft of final standards
Phase 2 – National Standards

Phase 1 & 2 – Statutory Instruments & Drafting National Standards

- Phase 1
  - Data Gathering - Review of key legislation, technical standards, research and interviews with key stakeholders.
  - Workshop with Project Advisory Group (PAG) and other key stakeholders.
  - Development of National Standards for Sustainable Drainage report published.
- Phase 2
  - Draft wording was developed for each of the standards and focus sessions held with the Project Steering Group (members of the PAG) to discuss detail.
  - First draft of National Standards was produced, based on the outcomes of the PSG focus sessions.
  - Draft National Standards were shared for comment with the 'Defra Family'
  - Draft version of National Standards updated following Defra Family feedback and then finalised.

Phase 3 – Consultation & Delivery

- Consultation:
- January 2025 – Formal feedback opportunity for PAG members on the updated National Standards
- PAG members were asked the following 3 questions:

- 21 responses received
- Plus detailed paragraph-by- paragraph comments

1) Drainage for surface runoff should be sustainable and affordable to build and maintain. Do the standards deliver this?

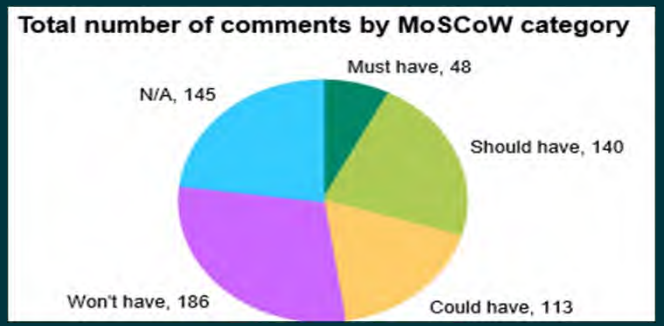
2) Sustainable surface water drainage systems should mimic natural processes so far as possible. Do you agree the Principles and SuDS Approach support the delivery of this?

3) Do you agree that the draft National Standards reference the most relevant supporting documents, legislation, and guidance. Please suggest additional references and/or updates to those provided."

Phase 3 – Consultation & Delivery

- Feedback analysis:
- February 2025 – Feedback responses for each question were given unique reference ID's and qualitative responses were split into individual comments to allow analysis of each response element.
- Total of 632 individual comments were identified. Each was reviewed by the relevant technical leads (biodiversity, amenity, landscape, water quality & flood risk) and a unique response provided with a MoSCoW categorisation.

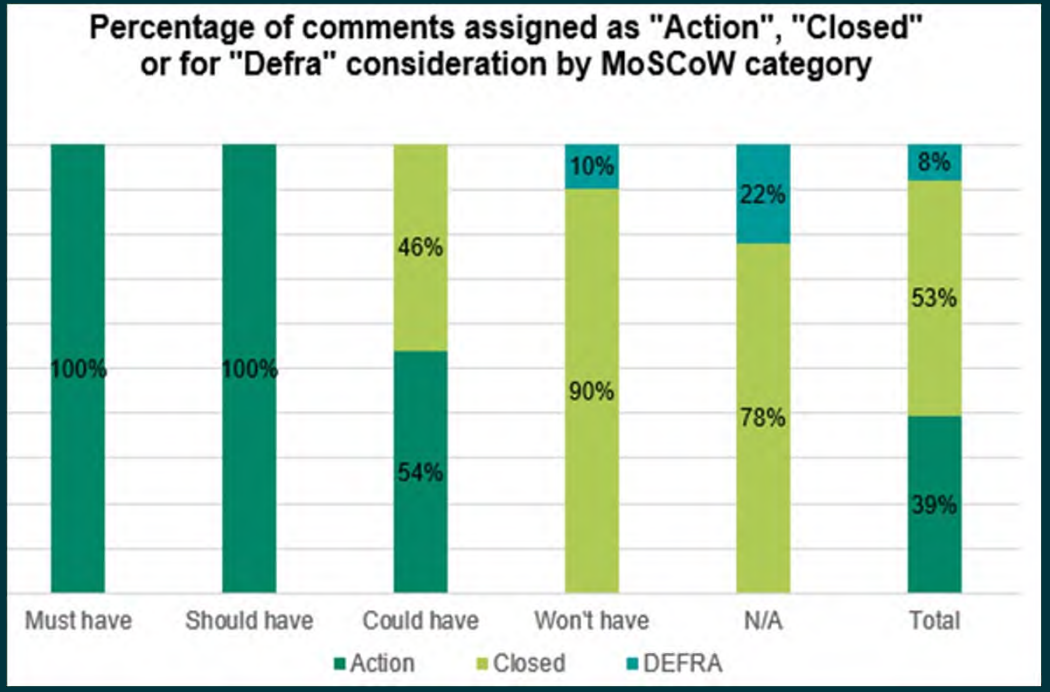
Prioritisation	Description
Must have	Non-negotiable
Should have	Important, but not critical
Could have	"Nice to have" but are not essential
Won't have	Not a priority
N/A	Not applicable



- All individual comments were then further categorised as 'Action' or 'Closed' to indicate whether a either a proposed change or no further action was recommended.

Phase 3 – Consultation & Delivery

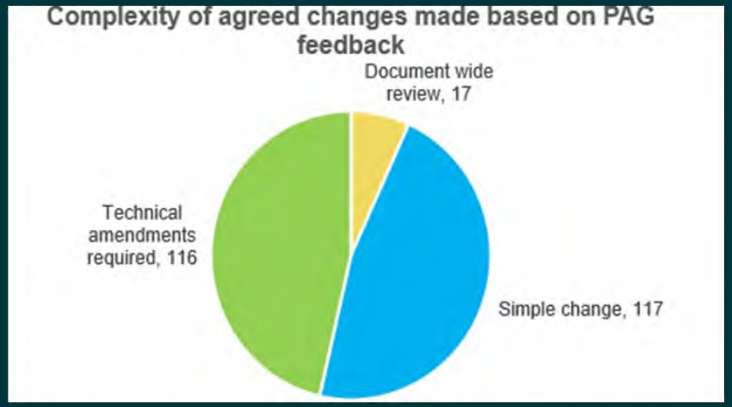
- Recommendations:
- February 2025 – Draft Feedback Opportunity Report submitted to Defra. AECOM recommendations to action 249 individual comments provided by PAG members.
- March 2025 – Defra, Environment Agency & Natural England review recommendations
- Most recommendations were considered reasonable and should be included.
- Small number required further consideration particularly relating to water quality and Rainwater Harvesting.



Phase 3 – Consultation & Delivery

- Updating the Standards:
- March/April 2025 – AECOM updated text and format of draft National Standards following agreement from Defra.
- Updates were broadly categorised as follows:

- simple changes (including minor amendments to text to improve writing style, format, ease of use and clarity)
- more detailed technical amendments of specific clauses (including addition or deletion of references/footnotes and additional glossary entries where relevant and including any re-drafting of specific clauses requiring technical input from specialists)
- document-wide reviews relating to certain terminology (for example the use of shall/should/must and consideration of whether the standards were suitable for all scales of development)



- April 2025 – Final version of National Standards submitted to Defra
- 19th June 2025 – National Standards for Sustainable Drainage Systems is published on Gov.uk website. National standards for sustainable drainage systems (SuDS) - GOV.UK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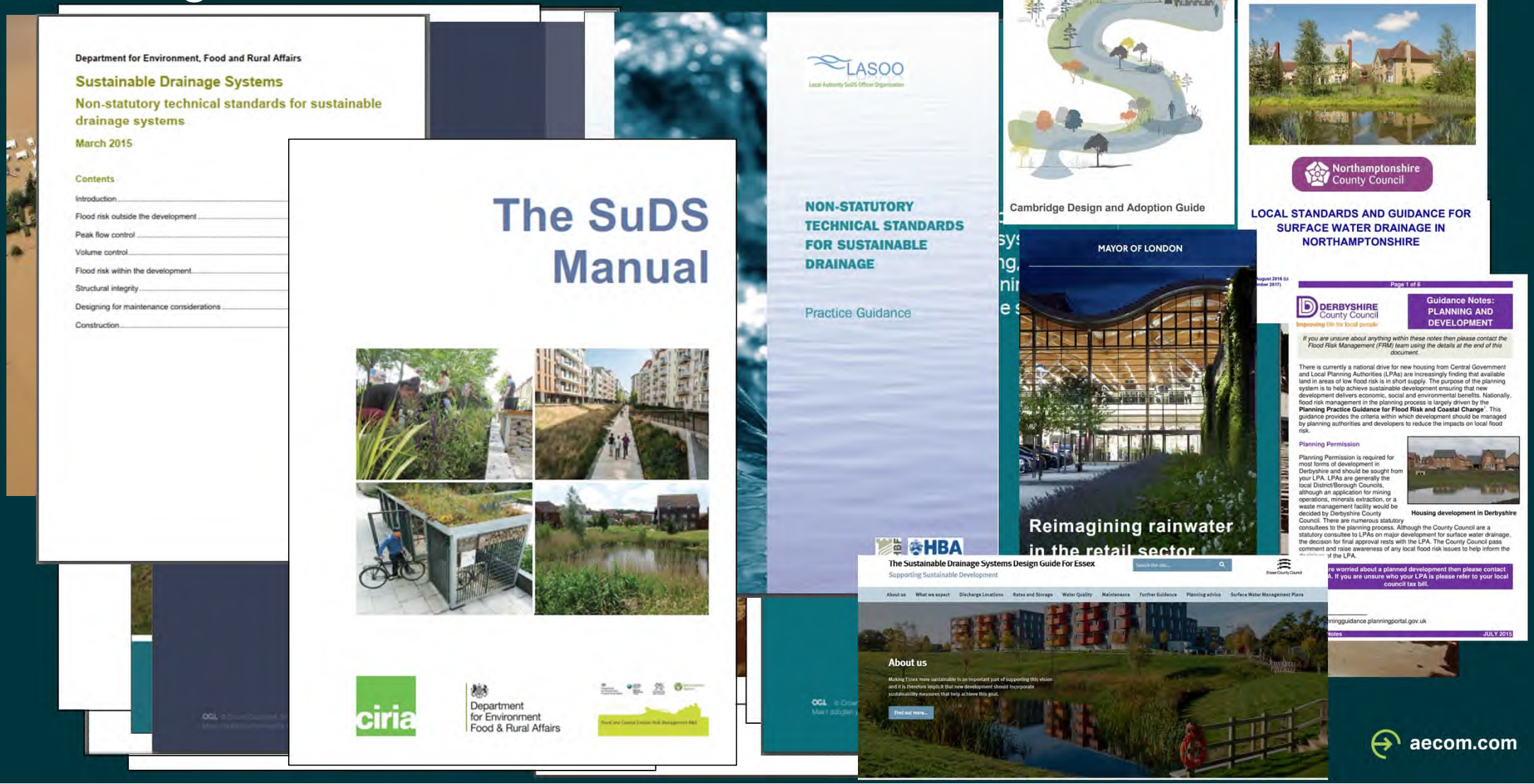
How we got here…



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Requirement for National Standards

- Consistent standard across all authorities
- Allow approving bodies to be able to judge design against specific criteria
- Ensure design meets four pillars of SuDS
- Standardise design, construction, maintenance and operation to enable better approval and adoption

Extract from FWMA Schedule 3

National standards

5 (1) The Minister shall publish national standards for the implementation of sustainable drainage.

(2) Standards must address the way in which drainage systems—

(a) are designed,

(b) are constructed,

(c) are maintained, and

(d) operate.

(3) Standards may—

(a) permit or require approving bodies to form judgments by reference to specified criteria;

(b) require approving bodies to have regard to guidance to be issued by the Minister.

(4) The Minister must consult before publishing standards.

(a) the unitary authority for the area in which it is, or in which it is to be constructed, or

(b) if there is no unitary authority, the county council for the area.

How do the Standards work

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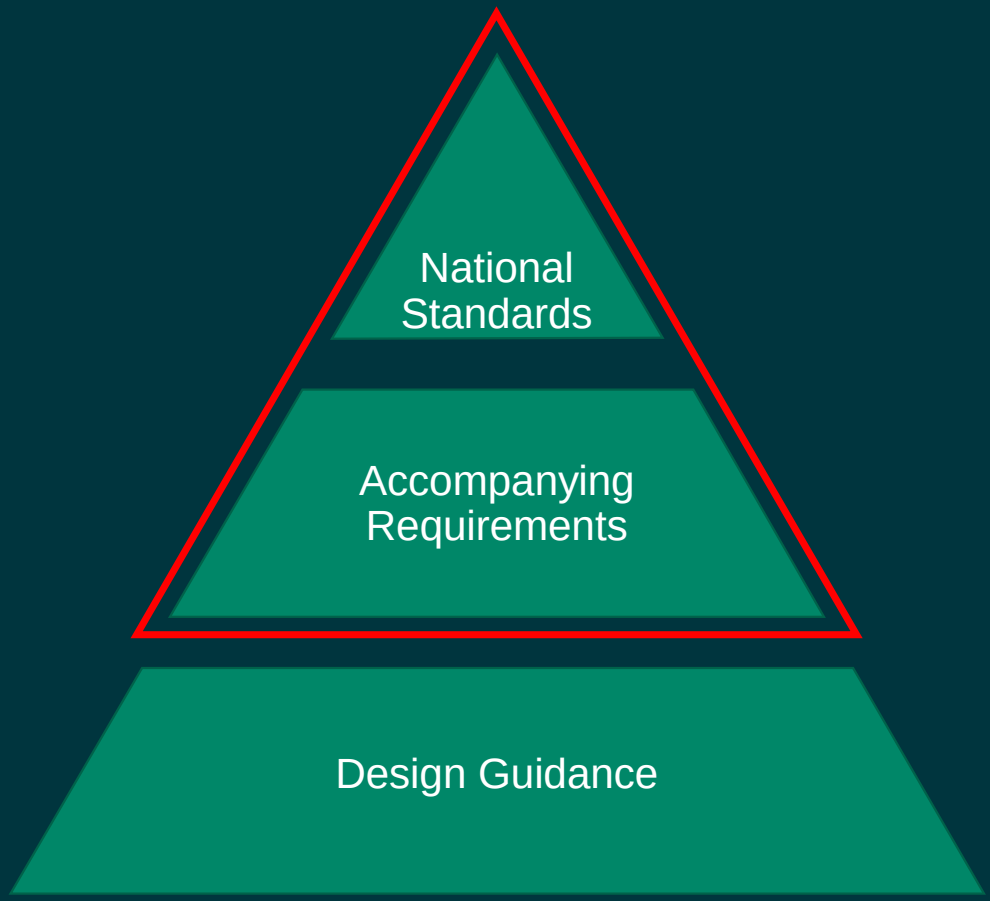
National Standards for SuDS

- National Standards cover main clauses (shown in grey boxes within document) supported by accompanying requirements with further criteria and clarifications
- Design guidance, such as The SuDS Manual sits below these and is referenced within standards



National Standards for SuDS

National Standards for SuDS

- Two types of Standards:
  - Hierarchy Standard (Standard 1)
  - Fixed Standards (Standards 2 to 7)
- Standards are complementary
- Formatting set out with:
  - 1.1 Primary requirement clauses
  - 1.1.1 Supportive or explanatory requirements
- Verbal forms used purposely (“must”, “shall”, “should”, “may” and “can”)

Principles of the Standards

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Principles

- Eleven key principles in three areas are embedded into the Standards throughout, which are just as important as the individual Standards.

  1) Natural Approach to Managing Water (a “SuDS Approach”)

    - Mimic natural drainage and recognise value of rainfall
    - Manage flooding through control of runoff now and in the future
    - Contribute to cleansing water pollution
    - Use as a management train which is integrated into landscape
    - Manage close to source and prioritise surface level features
    - Deliver multiple benefits over the lifetime of the SuDS
    - Be sustainable in construction and long term operation

Principles

2) Early and Integrated Design

- Surface water design should be integrated at the very earliest stage so it can be integrated with the existing topography, water supply strategy, layout, biodiversity strategy etc.
- Key to ensuring Standards can be met and minimising cost of surface water drainage features
- Early engagement with LPA and stakeholders to improve efficiency of application process

Principles

3) Links with Development Planning

- Demonstrate compliance from the conceptual phase of planning process
- “All planning applications should demonstrate how the National Standards have been met in the site design”
- Where developments are phased, the standards should be delivered for each phase


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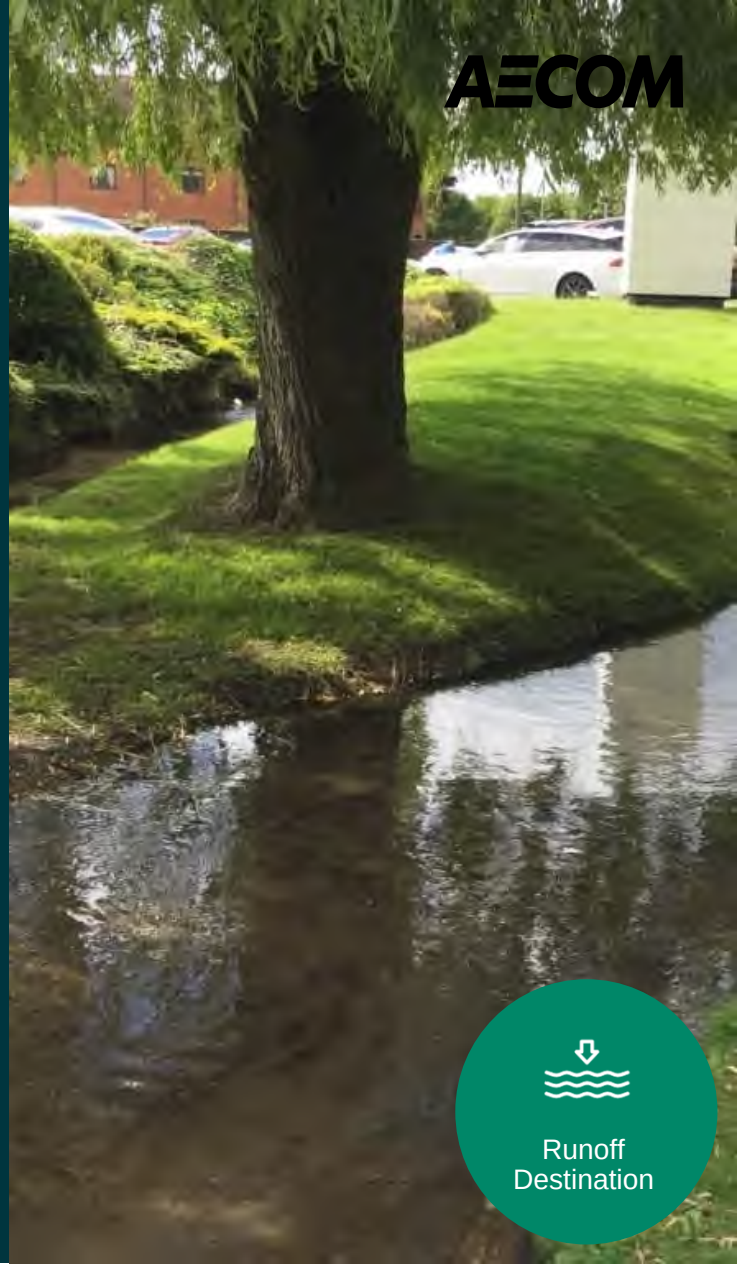
Standard 1 – Runoff destination

- Reinforces the SuDS hierachy.

  - priority 1: collected for non-potable use
  - priority 2: infiltrated to ground
  - priority 3: discharged to an above ground surface water body
  - priority 4: discharged to a surface water sewer, or another piped surface water drainage system
  - priority 5: discharged to a combined sewer

- Introduces of rainwater harvesting
- Clarifications
- Evidence requirements
- Everything agreed in writing with the relevant risk management authority



Standard 2 – Management of everyday rainfall (interception)

- Puts focus on everyday rainfall as well as extreme rainfall.
- Pushes source control
- Refers to the detailed hydraulic calculations but also provides a simplified method of calculation as back up
- If the simplified method is used, expects contributing area plans to prove compliance per feature.

Standard 3 – Management of extreme rainfall and flooding

- Puts detail/clarifications on the well understood management of extreme rainfall.
- Provides detail on infiltration
- Rate and volume detail
  - 50% event to match greenfield (or 3 l/s/h)
  - 1% event – incentivising volume reduction
  - Move away from long term storage
  - Brownfield sites – based on greenfield with relaxation factor
  - Clarifications – Orifice Sizes, contributing areas.

Standard 4 – Water Quality

- Still looks to follow the Water Quality approach in the SuDS Manual.
- With specifics on -
  - Local improvement opportunities
  - Proprietary products
  - High Risk Areas – permitting still applies
  - Sediment remobilisation
  - Pollution incidents
  - Different methods of discharge

Standard 5 – Amenity

- Maximise benefits for amenity
- Create multi-functional places and landscapes
- Keep water at the surface
- Be influenced by local topography, landscape and policy
- Use trees and vegetation
- High quality visual impact
- Maximise leisure and recreation opportunities
- Provide signage and interpretation boards
- Maintain movement and visual amenity value

Standard 6 – Biodiversity

- Add biodiversity value by creating diverse, self-sustaining, resilient local ecosystems and supporting local habitats and strategies
- Evidence required should be proportional to scale and sensitivity of the site
- Biodiversity risk and opportunity assessment, to include certain set aspects e.g. review of local strategies
- Evidence required to show how the final design demonstrates certain criteria e.g. increasing species diversity

Standard 7 – Design of drainage for construction, operation, maintenance, decommissioning and structural integrity

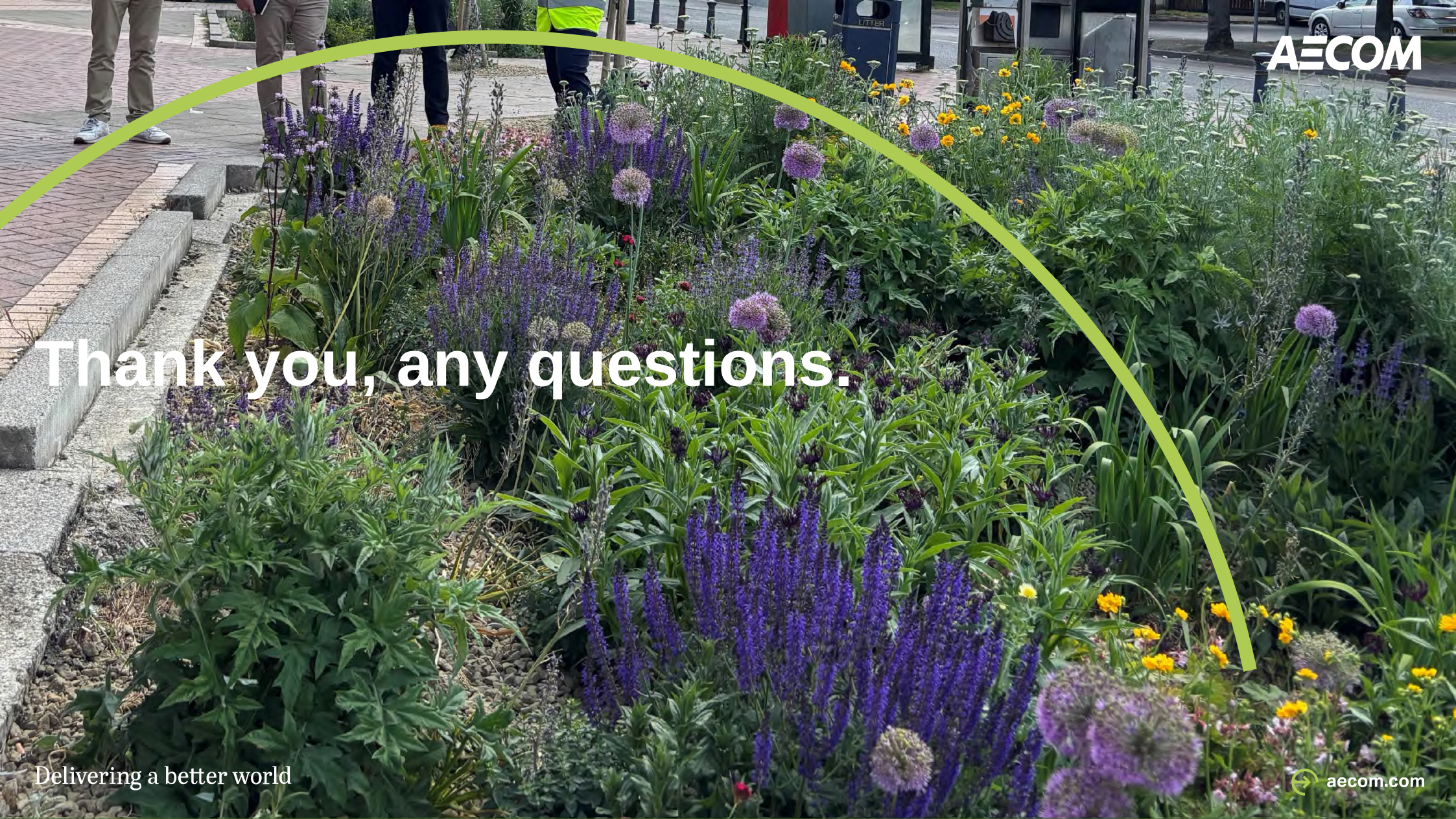
- Maintenance & Management Plan, to include certain set aspects
- Ensure performance throughout lifetime is met, including continuing to meet all Standards
- For phased developments, demonstrate how the surface water drainage system will operate at each phase
- Access required for all drainage features likely to require maintenance, particularly those at risk of blockage
- Allow for monitoring, visual inspections and alarms for motorised or proprietary features

Standard 7 – Design of drainage for construction, operation, maintenance, decommissioning and structural integrity

- Examine and assess any potential failure scenarios and safely manage risks
- Impact of blockage or failures shall be evaluated on flood risk and water quality
- Ensure structural integrity for lifetime of all components and any existing or proposed structures within or adjacent to the development
- Provide details of any required rehabilitation or replacement within design life

Conclusion

- Currently sits as non-statutory technical standards, replacing the previous March 2015 version
- Purpose is to support decisions made via the existing SuDS implementation mechanism (paragraphs 181 and 182 of NPPF)
- References industry guidance, rather than including guidance, such as The SuDS Manual
- They aim to be flexible enough to deal with a variety of development types and scales, while being robust enough to ensure compliance
- A wide level of review and consultation went into the National Standards and further revision and refinement likely in the future as they are implemented



Thank you, any questions.

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