

Draft update of the Non-statutory technical standards for sustainable drainage systems

ASA Proposed Response

About you

Draft update of the Non-statutory technical standards for sustainable drainage systems

1. Do you agree to participate in the survey? The data collected will be used to inform the review of the Non-statutory technical standards for SuDS (NSTS)

Yes

No

2. Are you responding as an individual or on behalf of an organisation?

Individual

Organisation (please specify)

If you answered 'organisation', please let us know which organisation you're responding on behalf of.

Association of Sustainable Drainage Authorities (ASA)

3. What is your role in the delivery of SuDS?

Approval (i.e. I approve and/or provide advice for planning applications)

Practitioner/designer (i.e. I'm involved in the design of SuDS)

Developer/client (i.e. I commission other people to design SuDS)

Other (i.e. I am none of the above)

7. What role do you have in SuDS?

Other

ASA is a membership association representing the interests of Lead Local Flood Authorities in their duty to advise LPAs on the suitability of surface water management arrangements for major development.
--

The draft standards make reference to 'a SuDS approach'. We are proposing that the definition of that approach is provided with the standards and should be as follows:

Definition of 'a SuDS approach'

A SuDS approach mimics natural drainage systems in delivering effective surface water management alongside environmental and social benefits. The approach uses SuDS components in combination that harvest, absorb, infiltrate, convey, store, treat and control runoff – integrating these through the development and its landscape to help create high quality, resilient amenity spaces and habitats for wildlife.

SuDS components can take many forms, both above and below ground. In general, SuDS that are designed to be multi-functional, manage and use rainwater close to where it falls, and are on the surface and incorporate vegetation, tend to provide the most opportunities for multiple benefits.

8. How clear is this definition? Please select one.

Clear

Not clear

Don't know

9. If you answered 'not clear' or 'don't know', please provide details of the clarification needed. (Max 500characters)

It may be preferable to refer to "mimics natural drainage" and drop "system", which would therefore also include consideration of overland flow paths and sites which do not have extensive "systems" and discharge to ground.

With reference to the objectives and desired outcomes for each standard, please provide your feedback on each proposed standard and accompanying clarification statements.

STANDARD 1: DESTINATION OF RUNOFF

Apply 'a SuDS approach' that uses the following process for determining runoff destinations:

- a) Clearly consider and, where possible, use surface water runoff as a resource for non-potable uses
- b) Clearly consider and, where appropriate, maximise opportunities across the site to infiltrate runoff into the ground
- c) Discharge runoff, if it has not been used or infiltrated into the ground, to a watercourse or other open surface water body
- d) Where (c) is not possible, discharge runoff, if it has not been used or infiltrated into the ground, to an underground (i.e. closed) surface water sewer, highway drain or other surface water drainage system
- e) Where (d) is not possible, discharge runoff, if it has not been used or infiltrated into the ground, to a combined sewer.

10. How clear is this standard and clarification statements? Please select one.

	Clear	Not clear	Don't know
Standard	✓		
Clarification statements		✓	

11. If you answered 'not clear' or 'don't know' please provide details of any changes to the wording of the standard and/or clarification statements that may be needed. (Max 500 characters)

Standard

N/A

Clarification statements

Clarification 1 is replicated on almost every standard which is not useful and how this is met is uncertain. It is not obvious what would be “clear evidence” to demonstrate that the approach “has been developed from the earliest stages of planning.

We would recommend that paragraph 1 states “Consideration should be given to the discharge destination and the SuDS approach at the earliest stages of planning. The SuDS approach should then be demonstrated through development and landscape design.” This clarification statement should only be necessary on one standard as long as it is made clear that it applies to all.

The document uses “clear evidence” repeatedly. We would recommend that “evidence” or “an assessment” should be sufficient.”

There is mixed usage of the individual building scale and community scale systems.

We would recommend that the start of Clarification point 3 should read as follows: “It should be demonstrated that the use of surface water runoff as a resource for non-potable water supply has been clearly considered”. Then it may be possible to delete point 3b and amend 3c to read “A need for very low potable water consumption....”

There are perceived conflicts between attenuation provision and rainwater harvesting provision. Any water storage provision must also meet delivery of Standard 3 if attenuation is required by Standard 3. Therefore, there may be an additional constraint if the site must also accommodate attenuation volume.

When discharge is proposed to any other drainage system (watercourses or sewers) any capacity constraints should be considered as well as any associated local flood risk problems if assessing the acceptability of the discharge location and discharge rate, as required under Standard 3.

The additional focus on rainwater harvesting, whilst supported will need clarification in respect of how this will impact on drain down regimes and timescales. The capacity of systems could be adversely affected by including rainwater harvesting provision where there is not a reliable and predictable use for this stored water. Clarification should be provided as to calculations of re-use rates for various development types as well as how to treat volume availability for consecutive storm events.

12. Can this standard be delivered? Please select one.

- Always
- ✓ Most of the time
- Sometimes
- Never
- Don't know

13. If you answered 'sometimes' or 'never', what changes to the wording of the standard and/or clarification statements would make it easier to deliver? (Max 500 characters)

Standard

N/A

Clarification statements

N/A

14. Will it be possible to assess compliance with this standard? Please select one.

Always

Most of the time

Sometimes

Never

Don't know

15. If you answered 'sometimes' or 'never', what changes to the wording of the standard and/or clarification statements would make it easier to assess? (Max 500 characters)

Standard

N/A

Clarification statements

N/A

16. What additional guidance or tools are needed to deliver and/or assess compliance with this standard? Please select all that apply.

None

Reference to the CIRIA SuDS Manual

Design proforma

Design process diagram

Checklist

Design tools (please specify)

Other (please specify)

Specify here (max 100 characters)

As stated under Q 11 clarification will be needed to ensure that volumes set aside for rainwater harvesting and longer-term water storage are dealt with consistently across different LPAs and LLFAs

17. Are there any other aspects related to the delivery and/or assessment of this standard that we should consider? (Max 500 characters)

A number of the standards make reference to compliance to other standards e.g. Standard 1 requires meeting Standard 4 for groundwater quality and discharge to any surface water body or sewer. We would suggest that this is duplicative in that any drainage system is required to meet Standard 4 for water quality; therefore, why does this need to be specifically stated within the clarification statements for Standard 1. It would be more specific to state within Standard 4 that specific requirements to protect groundwater quality must be assessed with consideration of advice from the Environment Agency.

STANDARD 2: RUNOFF FROM EVERYDAY RAINFALL

Apply 'a SuDS approach' so that the majority of frequent rainfall events do not cause runoff from the site to waterbodies or sewers.

18. How clear is this standard and clarification statements? Please select one.

	Clear	Not clear	Don't know
Standard	✓		
Clarification statements		✓	

19. If you answered 'not clear' or 'don't know' please provide details of any changes to the wording of the standard and/or clarification statements that may be needed. (Max 500 characters)

Standard

N/A

Clarification statements

The inclusion of and expectation to manage everyday rainfall locally is supported. However, clarification needs to be provided as to how this is expected to be undertaken and whether there should be exceptions, e.g. if you have a site which is not infiltrating, how is this delivered.

It should also be noted that restricting everyday rainfall running to existing watercourses could have an adverse impact on local water ecosystems and this may require additional clarification as to the relationship and dependencies in this circumstance with Standard 6.

20. Can this standard be delivered? Please select one.

- Always
- ✓ Most of the time
- Sometimes
- Never
- Don't know

21. If you answered 'sometimes' or 'never', what changes to the wording of the standard and/or clarification statements would make it easier to deliver? (Max 500 characters)

Standard

N/A

Clarification statements

N/A

22. Will it be possible to assess compliance with this standard? Please select one.

- Always
- Most of the time
- Sometimes
- Never
- Don't know

23. If you answered 'sometimes' or 'never', what changes to the wording of the standard and/or clarification statements would make it easier to assess? (Max 500 characters)

Standard

N/A

Clarification statements

N/A

24. What additional guidance or tools are needed to deliver and/or assess compliance with this standard? Please select all that apply.

- None
- Reference to the CIRIA SuDS Manual
- Design proforma
- Design process diagram
- Checklist
- Design tools (please specify)
- Other (please specify)

Specify here (max 100 characters)

The impact of this approach on sensitive watercourses should be explored and appropriate guidance provided, especially into management of ecology within the surrounding water environment

25. Are there any other aspects related to the delivery and/or assessment of this standard that we should consider? (Max 500 characters)

Consideration should be given as to how the implementation of this standard may impact on the implementation of Standards 4, 5 and 6

STANDARD 3: RUNOFF FROM EXTREME RAINFALL

Apply 'a SuDS approach' that manages the rates and volumes of runoff that are discharged from the site to a receiving waterbody or sewer so that:

Either:

- a) The peak allowable discharge rate from the site for all rainfall events up to the 1 in 100 year return period including appropriate allowances for climate change and urban creep is limited to:
 - For greenfield sites: the Q_{bar}^* (or Q_{med}^{**}) greenfield runoff rate or a fixed rate which is considered not to exacerbate flood risk in the receiving waterbody (whichever is the greater); or
 - For previously developed sites: the Q_{bar} (or Q_{med}) greenfield runoff rate or an agreed relaxation of this rate or a fixed rate which is considered not to exacerbate flood risk in the receiving waterbody (whichever is the greater); or
 - An alternative rate specified by the local authority (in conjunction with the sewerage undertaker for discharges to sewers).

Or:

- b) Where it can be demonstrated that the volume of runoff from the development site is no greater than the volume of greenfield runoff (for the 1 in 100 year, 6 hour event), then the peak allowable discharge rate from the site (including appropriate allowances for climate change and urban creep) is limited to:
 - For rainfall up to the Q_{bar} (or Q_{med}) event: the rate as defined in (a) above;
 - For larger rainfall events up to the 1 in 100 year return period: the 1 in 100 year greenfield rate.

* Q_{bar} is the peak rate of flow from a catchment for the mean annual flood. This has a return period of approximately 1 in 2.3 years.

** Q_{med} is the peak rate of flow from a catchment for the median annual flood. This has a return period of approximately 1 in 2 years.

26. How clear is this standard and clarification statements? Please select one.

	Clear	Not clear	Don't know
Standard		✓	
Clarification statements		✓	

27. If you answered 'not clear' or 'don't know' please provide details of any changes to the wording of the standard and/or clarification statements that may be needed. (Max 500 characters)

Standard

The standard sets alternative rates specified for the local authority in conjunction with the sewerage undertaker for discharges to sewers (section a). This gives no consideration for constraints on discharges to local ordinary watercourses, discharges to highway sewers or locations with local flood risk. It would be recommended that any alternative rates should be set with regard of the specific asset owner, land drainage regulating authority or constraints in relation to local flood risk.

Clarification statements

The clarification statements seem to make space for local interpretation and whilst that is welcomed as a universal approach may be difficult to apply.

There will be challenges for LLFAs and LPAs to define and identify what appropriate local amendments are necessary. Is there an expectation that any local amendments will need to be set out in Local planning Policy or is it acceptable for the LLFA to make that determination and set out these modifications within the surface water management section of a Local Flood Risk management Strategy. In two tier local government areas and where LLFAs are advising multiple Local Planning Authorities it may be advantageous for there to be an approach that would cover an area supported by the LLFA rather than it needing to be specific to each LPA.

It should be clearly stated that the proposed discharge rate should not exceed existing discharge rate for any development proposal where site specific discharge rates may be set.

Paragraph 10 may not be easily stated for standard application to all sites. For example if the positive drainage system does not capture the entire developable area, because the piped invert levels/gradients do not reflect the surface topography, the discharge rate may be based on a greater area which it does not capture, then this discharge rate will be higher than should be permitted based on the actual contributing area. It is not clear that this approach delivers the outcome required so we would recommend further consideration of the explanation of the approach.

Urban creep would not normally be applicable to apartments, agricultural premises or commercial buildings so a statement applicable to all impermeable areas may be unnecessary. Similarly, creep would not normally be applied to the highway impermeable area.

It should be noted that the local planning authority is unlikely to be the authority who would provide direction on design considerations, for example specification of creep factors paragraph 12.

28. Can this standard be delivered? Please select one.

- Always
- Most of the time
- Sometimes
- Never
- Don't know

29. If you answered 'sometimes' or 'never', what changes to the wording of the standard and/or clarification statements would make it easier to deliver? (Max 500 characters)

Standard

N/A

Clarification statements

N/A

30. Will it be possible to assess compliance with this standard? Please select one.

- Always
- Most of the time
- Sometimes
- Never
- Don't know

31. If you answered 'sometimes' or 'never', what changes to the wording of the standard and/or clarification statements would make it easier to assess? (Max 500 characters)

Standard

N/A

Clarification statements

N/A

32. What additional guidance or tools are needed to deliver and/or assess compliance with this standard? Please select all that apply.

- None
- Reference to the CIRIA SuDS Manual
- Design proforma
- Design process diagram
- Checklist
- Design tools (please specify)
- Other (please specify)

Specify here (max 100 characters)

33. Are there any other aspects related to the delivery and/or assessment of this standard that we should consider? (Max 500 characters)

STANDARD 4: WATER QUALITY

Apply 'a SuDS approach' that manages the quality of the surface water runoff to prevent pollution and protect both groundwater and surface water.

34. How clear is this standard and clarification statements? Please select one.

	Clear	Not clear	Don't know
Standard		✓	
Clarification statements		✓	

35. If you answered 'not clear' or 'don't know' please provide details of any changes to the wording of the standard and/or clarification statements that may be needed. (Max 500 characters)

Standard

There are various mechanisms and methods around for assessing water quality and the quality of any water discharge. Clarity is required as to how this assessment is to be undertaken by LLFAs and to what standard. It should also be clarified if consideration should be given to water quality when surface water is being discharged to a sewer system This is required as most surface water sewers will eventually discharge to a water body and as such can have an adverse impact on that water body even when there is not a direct discharge.

There is also a requirement to set out clearly the expectations for the management of diffuse pollution arising from Highway run-off and how this should be dealt with outside of the planning system in relation to Section 278 and Section 38 processes for highway adoption.

Clarification statements

Quality of water runoff is not only important for impermeable surfaces. Water quality from all surfaces needs to be considered e.g. runoff from rural agricultural areas/uses, green spaces, runoff into/from permeable pavements, or construction areas with silt/erosion control requirements.

We have concerns as to what responsibilities will be required of the LLFA, who do not have a water quality regulatory role; therefore the explanations need to ensure that approval under this standard does not constitute meeting very specific (numerical) standards.

The EA as regulator may not have the same concerns as the LPA and LLFA. The regulatory aspect of this standard needs to be properly defined i.e. in which cases the EA will be consulted.

It is not clear what "clear evidence" would be required for paragraph 5. Paragraph 5 would seem unnecessary or better covered in a preamble in the introduction to cover the linkages between each standard.

Clarification should also be provided for the cases where there is a sensitive receiving environment or designated site. Additional treatments may be required to ensure additional protection is provided.

36. Can this standard be delivered? Please select one.

- Always
- Most of the time
- Sometimes
- Never
- Don't know

37. If you answered 'sometimes' or 'never', what changes to the wording of the standard and/or clarification statements would make it easier to deliver? (Max 500 characters)

Standard

N/A

Clarification statements

N/A

38. Will it be possible to assess compliance with this standard? Please select one.

- Always
- Most of the time
- Sometimes
- Never
- Don't know

39. If you answered 'sometimes' or 'never', what changes to the wording of the standard and/or clarification statements would make it easier to assess? (Max 500 characters)

Standard

N/A

Clarification statements

N/A

40. What additional guidance or tools are needed to deliver and/or assess compliance with this standard? Please select all that apply.

- None
- Reference to the CIRIA SuDS Manual

Design proforma

✓ Design process diagram

Checklist

✓ Design tools (please specify)

✓ Other (please specify)

Specify here (max 100 characters)

Need for highways specific guidance for the management of urban diffuse pollution in S278 and S38 processes to ensure that technical approval of Highway elements of schemes does not compromise agreements achieved at the planning application stage..

41. Are there any other aspects related to the delivery and/or assessment of this standard that we should consider? (Max 500 characters)

This standard reflects an urban context as references in objectives to “urban diffuse pollutants” does not include the variety of proposed development, specifically agricultural or equestrian proposals, intensive open space such as golf courses, industrial proposals.

No reference is made to specific requirements in source protection zones.

Exceptions should be stated, that is instances where surface water should be captured and not discharged e.g. fuel filling, waste handling or where surface water would be either collected or discharged to the foul sewer.

STANDARD 5: AMENITY

Design SuDS that generate amenity benefits.

42. How clear is this standard and clarification statements? Please select one.

	Clear	Not clear	Don't know
Standard		✓	
Clarification statements		✓	

43. If you answered 'not clear' or 'don't know' please provide details of any changes to the wording of the standard and/or clarification statements that may be needed. (Max 500 characters)

Standard

It is unclear how assessment of this standard is to be undertaken and whose responsibility it will be. Clarity on both the assessment methodology to be used and how this should be undertaken between the LLFA and LPA should be provided.

However, the inclusion of this as a means to promote multi-functionality of Suds is supported.

Clarification statements

The definition of amenity needs to be fully stated.

Clarity on the assessment methodology to be used and how this should be undertaken between the LLFA and LPA should be provided.

44. Can this standard be delivered? Please select one.

- Always
- ✓ Most of the time
- Sometimes
- Never
- Don't know

45. If you answered 'sometimes' or 'never', what changes to the wording of the standard and/or clarification statements would make it easier to deliver? (Max 500 characters)

Standard

N/A

Clarification statements

N/A

46. Will it be possible to assess compliance with this standard? Please select one.

Always

Most of the time

Sometimes

Never

Don't know

47. If you answered 'sometimes' or 'never', what changes to the wording of the standard and/or clarification statements would make it easier to assess? (Max 500 characters)

Standard

It is unclear who will be responsible for the assessment of this standard is it the LPA or the LLFA or both?

Clarification statements

See above.

48. What additional guidance or tools are needed to deliver and/or assess compliance with this standard? Please select all that apply.

None

Reference to the CIRIA SuDS Manual

Design proforma

Design process diagram

Checklist

Design tools (please specify)

Other (please specify)

Specify here (max 100 characters)

There needs to be a clear understanding of the definition of amenity at the local level. This could be set out in the Local Plan, but is this to be done by the LPA in consultation with the LLFA or by the LPA to guide the LLFAs interpretation.

49. Are there any other aspects related to the delivery and/or assessment of this standard that we should consider? (Max 500 characters)

The inclusion of amenity as a standard should promote the use of landscape led SuDS and multifunctionality in SuDS design. However, this could be a problem with small urban sites where space is at a premium.

We have significant concerns about small developments and re-developments where density is high. If no landscape features are incorporated, what is the outcome for this situation. It would not appear to be a reason for refusal if other planning requirements are met. It raises the question as to which authority determines that amenity has been delivered and concerns that amenity definition or priorities may be different between the LPA and the LLFA.

We would recommend that consideration is given to other land uses. It would be beneficial for industrial uses to have amenity improvement but the delivery of amenity in both industrial developments, waste applications and agriculture proposals may have no benefactors or be practicable. There will be situations where amenity is not a justifiable consideration.

We would also recommend that consideration is given to potential exceptions for single curtilage developments. Site area alone can qualify development as major development. If the proposed development is a single site in a rural area, then additional requirements for amenity may be unnecessary.

STANDARD 6: BIODIVERSITY

Design SuDS that generate habitat and biodiversity benefits.

50. How clear is this standard and clarification statements? Please select one.

	Clear	Not clear	Don't know
Standard		✓	
Clarification statements		✓	

51. If you answered 'not clear' or 'don't know' please provide details of any changes to the wording of the standard and/or clarification statements that may be needed. (Max 500 characters)

Standard

It is unclear how assessment of this standard is to be undertaken and whose responsibility it will be. Clarity on both the assessment methodology to be used and how this should be undertaken between the LLFA and LPA should be provided.

However, the inclusion of this as a means to promote multi-functionality of SuDS is supported.

Clarification statements

There is a significant concern that the clarification statements are all focused on Biodiversity Net Gain and not biodiversity recommendations for sustainable drainage systems. We have not yet been fully sighted on the Defra Metric 2.0 so it is not possible to fully understand the implications for development proposals of the approach being proposed within the Environment Bill

Defra has introduced exemptions for specific development types including extensions, small development sites and certain urban brownfield sites. The items suggested under paragraph 2 are not practicable for the majority of applications we receive. The clarification statements therefore do not look applicable, feasible or deliverable if looking at this standard from sustainable drainage design.

52. Can this standard be delivered? Please select one.

- Always
- Most of the time
- ✓ Sometimes
- Never
- Don't know

53. If you answered 'sometimes' or 'never', what changes to the wording of the standard and/or clarification statements would make it easier to deliver? (Max 500 characters)

Standard

N/A

Clarification statements

We would recommend that the standard is untied slightly from the delivery of Biodiversity Net Gain. We appreciate that BNG and SuDS are related but focusing upon BNG does not assist with the outcomes and quality of sustainable drainage schemes at a practical level at the present time.

Not all development schemes will require ecology input. There is reference within Defra documents to allowing the LPA to use a proportional response. Paragraph 4 may therefore be too onerous.

However for many applications looked at and commented on by LLFAs assessment of this standard is likely to require input from ecology professionals and this may well be difficult to achieve within the statutory consultation timescales

54. Will it be possible to assess compliance with this standard? Please select one.

Always

Most of the time

Sometimes

Never

Don't know

55. If you answered 'sometimes' or 'never', what changes to the wording of the standard and/or clarification statements would make it easier to assess? (Max 500 characters)

Standard

See answer to question 53.

Clarification statements

N/A

56. What additional guidance or tools are needed to deliver and/or assess compliance with this standard? Please select all that apply.

None

Reference to the CIRIA SuDS Manual

Design proforma

Design process diagram

Checklist

Design tools (please specify)

✓ Other (please specify)

Specify here (max 100 characters)

Clarity on the assessment requirements is required and whether a qualified ecologist will be required to contribute to any assessment for this standard

57. Are there any other aspects related to the delivery and/or assessment of this standard that we should consider? (Max 500 characters)

We would recommend a more simplistic approach is taken until such time as the BNG requirements are bedded in and the expectations of BNG delivery are clearly understood. Requiring compliance with BNG through the NSTS suggests duplication of "regulation". It may also lead to unnecessary complication of processes for review and consultation which may be better assessed once BNG is fully implemented.

Skills and knowledge

58. What expertise do you foresee you will require within your organisation to deliver and/or assess compliance with the standards? Please select all that apply.

Standard 1: Runoff destination	Standard 2: Managing everyday rainfall	Standard 3: Managing extreme rainfall	Standard 4: Water quality	Standard 5: Amenity	Standard 6: Biodiversity
--------------------------------------	--	---	------------------------------	------------------------	-----------------------------

Drainage engineer

Landscape architect

Planner

Ecologist

Highways engineer

Architect

Other (please specify)

Specify here (max 100 characters)

ASA has no comments to make on this question

59. Please indicate whether the necessary expertise is present in your organisation and would be an available resource for the purpose of either designing SuDS to meet the standards or assessing compliance with the standards? Please select all that apply.

Standard 1: Runoff destination	Standard 2: Managing everyday rainfall	Standard 3: Managing extreme rainfall	Standard 4: Water quality	Standard 5: Amenity	Standard 6: Biodiversity
--------------------------------------	--	---	------------------------------	------------------------	-----------------------------

Drainage engineer

Landscape architect

Planner

Ecologist

Highways engineer

Architect

Other (please specify)

Specify here (max 100 characters)

ASA has no comments to make on this question

60. Please use the text box to provide any other additional comments. (Max 500 characters)

ASA support the inclusion of the additional standards to address multi-functionality; however, we would advise that a simplistic approach for assessment is explored to ensure that these new standards are capable of being delivered consistently across LPAs and LLFAs.

It is understood that input will be required by a range of professions and there should be an appreciation of the size of the additional burden which will be placed upon LLFAs to assess or coordinate with LPAs and the implications that this will have on the planning process.

Consideration should be given as to the need for a transition period in implementing these new standards as well as support and training for LPAs and LLFAs to ensure that implementation is consistent across the country.