

# Survey for the recommendations to update the Non-Statutory Technical Standards (NSTS) for SuDS

## Introduction

The Department for Environment, Food and Rural Affairs (Defra) has commissioned research to explore whether updating the English [Non-Statutory Technical Standards for SuDS](#) (NSTS) could help deliver SuDS that provide multiple benefits beyond managing surface water runoff, contributing to improved climate adaptation, health and wellbeing and better places and spaces.

A key part of this work is to understand how the current NSTS are used and recommend how they could be improved to:

1. Support the National Planning Policy Framework and deliver multiple benefits
2. Ensure greater consistency with respect to designing for effective local flood risk management.

This research is being undertaken by a team led by HR Wallingford that includes CIRIA, McCloy Consulting, Illman Young and others. A key element of this research is to engage with those stakeholders that approve, design and commission SuDS for new developments in England to understand the challenges, opportunities and enablers to the delivery of SuDS schemes that deliver multiple benefits.

We would therefore appreciate it if you could complete the following survey, the outputs of which will be used to directly inform any potential update of the NSTS. The survey should, depending on your level of involvement in SuDS delivery, take between 20 and 30 minutes to complete. Responses will be anonymised, unless you wish to share case studies - where it would be helpful to have contact details.

Your input will help to improve local flood risk management and deliver an improved local environment.

Many thanks.

## Survey for the recommendations to update the Non-Statutory Technical Standards (NSTS) for SuDS

\* 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

## Survey for the recommendations to update the Non-Statutory Technical Standards (NSTS) for SuDS

\* 2. What is your role in the delivery of SuDS?

- Approval (i.e. local authorities, LLFA, LPA, WaSCs)
- Practitioner/designer (i.e. engineer, landscape architect)
- Developer (i.e. those commissioning SuDS)
- Other (i.e. supply chain members, regulators)

# Survey for the recommendations to update the Non-Statutory Technical Standards (NSTS) for SuDS

## Questions for approvers

### Your role

\* 3. How many years' experience do you have with SuDS in England?

- Less than 1 year
- 1 -3 years
- 3 - 5 years
- More than 5 years

\* 4. What kind of organisation do you work in?

- Unitary authority
- Metropolitan Borough or London Borough district
- County Council
- District Council
- Sewerage undertaker
- Other (please specify - max 70 characters)

\* 5. What role do you have within the approval process for SuDS? Please select from the drop down menu.

### Drainage submission requirements

Assuming you answer all the questions in this survey there are now 42 questions that need to be answered. There are 4 questions in this section.

\* 6. What do you require the drainage submissions to demonstrate?

|   | Never required        | Sometimes required    | Always required       | Don't know            |
|---|-----------------------|-----------------------|-----------------------|-----------------------|
| Compliance with Non-statutory Technical Standards for SuDS (NSTS)         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Compliance with Local Plan Policy on local drainage/flood risk            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Compliance with Local Plan Policy on SuDS, or SuDS guidance (SPD)         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Compliance with Local Plan Policy on green infrastructure or biodiversity | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Management of runoff peak flows   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Management of runoff flows and volumes                                    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Management of water quality   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Improvements to biodiversity (biodiversity net gain)                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Improvements to amenity   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Certainty on long term maintenance  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Management of water close/on surface                                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Delivery of source control  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Management of runoff in sub-catchments                                    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Consideration of drainage exceedance                                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

|   | Never required        | Sometimes required    | Always required       | Don't know            |
|---|-----------------------|-----------------------|-----------------------|-----------------------|
| Delivery of the SuDS Management Train                     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Provision of rainwater harvesting                         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Climate resilient development (adaptation and mitigation) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Other (please specify - max 70 characters)

7. Do the requirements for and/or evaluation of drainage submissions differ from site to site?

Yes

No

## Survey for the recommendations to update the Non-Statutory Technical Standards (NSTS) for SuDS

8. If your requirements for, and/or evaluation of drainage submissions do differ from site to site what is the level of influence these factors have on the differentiation?

|   | High influence        | Some influence        | No influence          |
|---|-----------------------|-----------------------|-----------------------|
| Flood risk (i.e. location of the development) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Scale of development                          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Type of proposed development/land use         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Density of development                        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Ground conditions                             | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Conditions of previously developed land       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Sensitivity of receiving catchment            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Quality and quantity of previous submissions  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Financial viability of the site               | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Other (please specify - max 70 characters)

9. If necessary, please use the text box to provide more detail about how your requirements and evaluation processes differ between sites. (Max 500 characters)

Comment:

### Approval of drainage submissions

There are 6 questions in this section.

\* 10. Which following departments are normally involved in reviewing drainage submissions in your local authority? Please select all that apply.

- Flood risk management/drainage
- Landscape design
- Planning
- Biodiversity/ecology
- Highways
- Operations
- Building/Development control
- Developer services
- Other (please specify - max 70 characters)

\* 11. In general terms, what is the quality of drainage submissions in relation to the following?

|   | Not included          | Poor                  | Average               | Good                  |
|---|-----------------------|-----------------------|-----------------------|-----------------------|
| Compliance with Non-statutory Technical Standards for SuDS (NSTS)         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Compliance with Local Plan Policy on local drainage/flood risk            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Compliance with Local Plan Policy on SuDS, or SuDS guidance (SPD)         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Compliance with Local Plan Policy on green infrastructure or biodiversity | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Management of runoff peak flows   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Management of runoff flows and volumes                                    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Management of water quality   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Improvements to biodiversity (biodiversity net gain)                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |



|   | Not included          | Poor                  | Average               | Good                  |
|---|-----------------------|-----------------------|-----------------------|-----------------------|
| Improvements to amenity                                   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Certainty on long term maintenance                        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Management of water close/on surface                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Delivery of source control                                | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Management of runoff in sub-catchments                    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Consideration of drainage exceedance                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Delivery of the SuDS Management Train                     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Provision of rainwater harvesting                         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Climate resilient development (adaptation and mitigation) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Other (please specify - max 70 characters)

12. How frequently does a poor drainage submission relate to the following planning and approval challenges (particularly with respect to multiple benefits)?

|  | Never                 | Rarely                | About half the time   | Frequently            | Always                |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Lack of/poor Local Plan Policies on drainage                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Late consideration of drainage on site layout                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Poor engagement with those that developed the drainage submission  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Poor quality of drainage submission                                | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Poor assessment and evaluation (within the approving organisation) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Poor consideration of long term maintenance                        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Lack of enforcement (powers/responsibilities)                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Other (please specify)   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Specify here (max 70 characters)

13. How frequently does a poor drainage submission relate to the following design challenges (particularly with respect to multiple benefits)?

|   | Never                 | Rarely                | About half the time   | Frequently            | Always                |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Poor consideration of site ground conditions                  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Challenges around maximising development viability            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Poor appreciation of how challenges can be overcome           | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Poor understanding of design methods and requirements of NSTS | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

|   | Never                 | Rarely                | About half the time   | Frequently            | Always                |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Focus primarily on runoff flows and volumes (no consideration of multiple benefits) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| No provision for water quality treatment  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Lack of design integration between SuDS and the development                         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Poor SuDS scheme design   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Lack of source control  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Runoff predominantly managed underground in pipes and tanks                         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Poor consideration of buildability  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Other (please specify)  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Specify here (max 70 characters)

14. If necessary, please use the text boxes to provide more detail about the challenges faced in obtaining good drainage submissions and SuDS design (particularly multiple benefits).

Comment 1 (max 500 characters)

Comment 2 (max 500 characters)

\* 15. Are you involved in reviewing the technical detail of drainage submissions (i.e. hydraulics, runoff estimation, evaluating design etc)?

Yes

No

# Survey for the recommendations to update the Non-Statutory Technical Standards (NSTS) for SuDS

## Hydraulic requirements

There are 20 questions in this section.

\* 16. Which hydraulic criteria are required by your organisation and routinely delivered for Greenfield Sites?  
Please select one.

- Peak flow control to 1 year greenfield rate only
- Peak flow control to 30 year greenfield rate only
- Peak flow control to 100 year greenfield rate only
- Peak flow control to 2 l/s/ha only
- Peak flow control to other rates e.g. specific rates set by the LA for flood risk or betterment objectives (please specify below)
- Peak flow control to both 1 year and 100 year greenfield rates
- Peak flow control and volume control (please specify below)
- Other (please specify below)
- Don't know

Specify here - max 70 characters)

17. If necessary, please use the text box to provide additional information on the hydraulic criteria required by your organisation for Greenfield Sites. (Max 500 characters)

\* 18. Which hydraulic criteria are required by your organisation and routinely delivered for Previously Developed Sites? Please select one.

- |   |  |
|---|--|
| <input type="radio"/> Peak flow control to 1 year greenfield rate only  | <input type="radio"/> Peak flow control to other fixed rate e.g. specific rates set by the LA for flood risk or betterment objectives (please specify below) |
| <input type="radio"/> Peak flow control to 30 year greenfield rate only   |  |
| <input type="radio"/> Peak flow control to 100 year greenfield rate only  | <input type="radio"/> Peak flow control to both 1 year and 100 year greenfield rates   |
| <input type="radio"/> Peak flow control to 2 l/s/ha only  | <input type="radio"/> Peak flow control and volume control (please specify below)  |
| <input type="radio"/> Peak flow control to design rate estimated for previously developed site plus betterment (please specify below) | <input type="radio"/> Other (please specify)   |
|   | <input type="radio"/> Don't know   |

Specify here (max 70 characters)

19. If necessary, please use the text box to provide additional information on the hydraulic criteria required by your organisation for Previously Developed Sites. (Max 500 characters)

20. What specific requirements are set by your organisation for small sites (e.g. < 1 ha)? Please select all that apply.

- |  |   |
|--|---|
| <input type="checkbox"/> None  | <input type="checkbox"/> Other (please specify) |
| <input type="checkbox"/> Minimum allowable discharge rate (please specify below) | <input type="checkbox"/> Don't know             |
| <input type="checkbox"/> Minimum allowable orifice size (please specify below)   |   |

Specify here (max 70 characters)

21. If necessary, please use the text box to provide additional information on requirements for small sites set by your organisation. (Max 500 characters)

22. What specific requirements are set by your organisation for sites discharging to sewers? Please select all that apply.

- None
- Greenfield rates (please specify return periods below)
- Fixed rate of betterment (from previously developed runoff rates) agreed with sewerage undertaker (please specify below)
- Fixed discharge rates agreed with sewerage undertaker (please specify below)
- Sewerage undertaker defers to LLFA in setting rates (please specify below)
- Other (please specify)
- Don't know

Specify here (max 70 characters)

23. If necessary, please use the text box to provide additional information on any requirements for sites discharging to sewers are set by your organisation. (Max 500 characters)

\* 24. Please indicate the greenfield runoff estimation methods (accepted by your organisation) that are used?

|                          | Not used              | Used but not common   | Commonly used         | Don't know            |
|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| IH124 equation           | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| FEH statistical equation | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| ReFH2 model              | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Other (please specify)   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Specify here (max 70 characters)

\* 25. What factors (if any) do you believe lead to inconsistencies in agreed discharge rates and storage volumes? Please select all that apply.

- |   |  |
|---|--|
| <input type="checkbox"/> None   | <input type="checkbox"/> Percentage runoff factors used in runoff estimation calculations (please specify below) |
| <input type="checkbox"/> Greenfield runoff estimation method                                | <input type="checkbox"/> Assumptions on soil types   |
| <input type="checkbox"/> Previously developed runoff estimation method                      | <input type="checkbox"/> Modelling approach (please specify below)   |
| <input type="checkbox"/> Estimation tools used (please specify below)                       | <input type="checkbox"/> Other (please specify)  |
| <input type="checkbox"/> Area used in runoff estimation calculations (please specify below) |  |

Specify here (max 70 characters)

26. If necessary, please use the text box to provide further details about the factors that lead to inconsistencies in discharge rates and storage volumes. (Max 500 characters)

27. What design rainfall model do you accept in submissions? Please select all that apply.

- FSR
- FEH99
- FEH13
- Don't know
- Other (please specify - max 70 characters)

28. What climate change uplift factor do you require to be applied to the design rainfall for the development? Please select one.

- None required
- 20%
- 30%
- Other (please specify - max 70 characters)
- 40%
- Don't know

29. What urban creep factor do you require to be applied to the impervious areas of the development (where future urban creep could be accommodated)? Please select one.

- None required
- 5%
- 10%
- Don't know
- Other (please specify - max 70 characters)

\* 30. What are the key constraints (if any) to delivering the current NSTS? Please select all that apply.

- None
- Allowable discharge rates are too low (storage is unachievable)
- Volume control is unachievable
- Other (please provide detail and case study evidence if available - max 70 characters)
- Complexity and lack of understanding of the hydraulic standards
- Lack of consistent guidance on runoff estimation

31. Please use the text boxes to provide further detail on key constraints to submissions delivering NSTS and case study information (with reference details). Alternatively, please email [paul.shaffer@ciria.org](mailto:paul.shaffer@ciria.org).

Comment 1 (max 500 characters)

Comment 2 (max 500 characters)



\* 32. Interception (the prevention of runoff from the first 5mm of rainfall) is a good practice concept promoted in [The SuDS Manual](#) but not required by the NSTS. Please select the statements you agree with (can be more than one).

- |   |   |
|---|---|
| <input type="checkbox"/> We do not require Interception in drainage submissions   | <input type="checkbox"/> Interception would be impossible to deliver for most sites (please provide further detail)         |
| <input type="checkbox"/> Interception is a requirement of local SuDS policy   | <input type="checkbox"/> Interception is difficult to require without simple tools to facilitate planning and design for it |
| <input type="checkbox"/> We require / aim to deliver Interception on all sites and it is often achieved (please provide case study evidence if available) | <input type="checkbox"/> A requirement for Interception would help deliver multiple benefits                                |
| <input type="checkbox"/> We require / aim to deliver Interception on all sites and it is rarely achieved  |   |

33. Please use the text box to provide further details. Either a case study demonstrating delivery of Interception (with reference details) or detail explaining how and why Interception is difficult to deliver. Alternatively, please email [paul.shaffer@ciria.org](mailto:paul.shaffer@ciria.org). (Max 500 characters)

\* 34. Do you consider the current NSTS are appropriate for controlling runoff from development?

- Yes – I would not like to see these criteria changed
- No – the criteria should be changed (please specify)
- Maybe – changes to the criteria should be considered (please specify)

Specify here (max 70 characters)

## Survey for the recommendations to update the Non-Statutory Technical Standards (NSTS) for SuDS

35. Please use the text boxes to provide more detail on your views of the appropriateness of NSTS and any changes you would like to suggest

Comment 1 - (max 500 characters)

Comment 2 - (max 500 characters)

### Delivering SuDS that provide multiple benefits

There are 12 questions in this section.

\* 36. What multiple benefits would you desire SuDS to provide (in addition to hydraulic control required by NSTS)? Please select all that apply.

- None  Improvements to amenity
- Management of water quality  Provision of rainwater harvesting
- Improvements to biodiversity (biodiversity net gain)  Climate resilient development (adaptation and mitigation)
- Other (please specify - max 70 characters)

37. Please suggest the level of influence the following factors have on achieving SuDS that provide multiple benefits. With 5 having a high level of influence.

|   | 1 - Low influence     | 2                     | 3                     | 4                     | 5 - High influence    |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| A developer that appreciates the value of SuDS that provide multiple benefits | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

|   | 1 - Low influence     | 2                     | 3                     | 4                     | 5 - High influence    |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| A competent design team committed and able to deliver SuDS that provide multiple benefits | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Early consideration of the site characteristics and layout                                | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Pre-application discussions with those that develop the drainage submission               | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Compliance with Non-statutory Technical Standards for SuDS (NSTS)                         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Experience and knowledge of those assessing/evaluating schemes within the local authority | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Drainage submission follows guidance in the CIRIA SuDS Manual                             | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Drainage submission complies with Local Plan Policy                                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Drainage submission complies with local drainage/flood risk policy                        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Drainage submission complies with local green infrastructure or biodiversity policy       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Drainage submission complies with local authority SuDS guidance (SPD etc)                 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

1 - Low influence

2

3

4

5 - High influence

The requirement to complete a drainage submission proforma by the developer or practitioner

The requirement to complete a (construction) verification report by the developer or practitioner

Drainage submission complies with other standards (please specify)

Drainage submission refers to other guidance (please specify)

Drainage submission includes consideration of responsibilities for long term operation and requirements of the proposed SuDS

38. If necessary, please use the text boxes to provide more detail about the factors that influence the delivery of SuDS that provide multiple benefits.

Comment 1 (max 500 characters)

Comment 2 (max 500 characters)

\* 39. Should the NSTS be updated to include requirements for SuDS to provide multiple benefits?

Yes

No

## Survey for the recommendations to update the Non-Statutory Technical Standards (NSTS) for SuDS

40. If you answered yes, and assuming guidance is provided, how would you like to see the updated NSTS and requirements for multiple benefits introduced? Please select all that apply.

- |  |  |
|--|--|
| <input type="checkbox"/> Update and re-issue the NSTS  | <input type="checkbox"/> Update Local Plan Policy documents with reference to meeting updated NSTS |
| <input type="checkbox"/> Update the National Planning Policy Framework (NPPF) with reference to meeting updated NSTS | <input type="checkbox"/> Update Local Design Guide with reference to meeting updated NSTS          |
| <input type="checkbox"/> Update the Planning Practice Guidance with reference to meeting updated NSTS                | <input type="checkbox"/> Link Biodiversity Net Gain requirements to updated NSTS                   |

## Survey for the recommendations to update the Non-Statutory Technical Standards (NSTS) for SuDS

41. If you answered no, please select an option.

- There is no need to strengthen requirements for SuDS to provide multiple benefits.
- The requirements for SuDS to provide multiple benefits should be included elsewhere (please specify).

Other (please specify - max 70 characters)

## Survey for the recommendations to update the Non-Statutory Technical Standards (NSTS) for SuDS

42. If necessary, please use the text box to provide more detail about updating the NSTS to provide multiple benefits. (Max 500 characters)

\* 43. Generally speaking, are there significant differences between the quality of the approved drainage submission and what gets delivered on site?

Yes

No

## Survey for the recommendations to update the Non-Statutory Technical Standards (NSTS) for SuDS

44. Please use the text box to provide more detail on what the differences are and how they arise? (Max 500 characters)

45. What approaches are being used to agree maintenance obligations? (Max 500 characters)

\* 46. Can you suggest examples of planning submissions, or completed developments that demonstrate the opportunities and challenges of delivering SuDS that provide multiple benefits? Alternatively, please send an email to [paul.shaffer@ciria.org](mailto:paul.shaffer@ciria.org).

Yes

No



## Survey for the recommendations to update the Non-Statutory Technical Standards (NSTS) for SuDS

### 47. Case study details (500 characters each max)

Planning reference:

Name of development:

Street or postcode:

Scale of development (area/houses):

Type of development:

Built (yes/no):

Provides multiple benefits (yes/no):

Demonstrates challenge (yes/no):

Please provide details

## Survey for the recommendations to update the Non-Statutory Technical Standards (NSTS) for SuDS

### Final comments

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

153. Thank you for taking the time to complete the survey.

Your response will help inform the research into developing recommendations to update the Non-Statutory Technical Standards for SuDS.

We may need to obtain some further information, particularly around any case studies, or examples. If you would be willing for us to contact you to follow up the survey please leave your contact details below. Your details will only be used for this purpose of this research. Alternatively, please email [paul.shaffer@ciria.org](mailto:paul.shaffer@ciria.org).

Name

Email Address

Phone Number