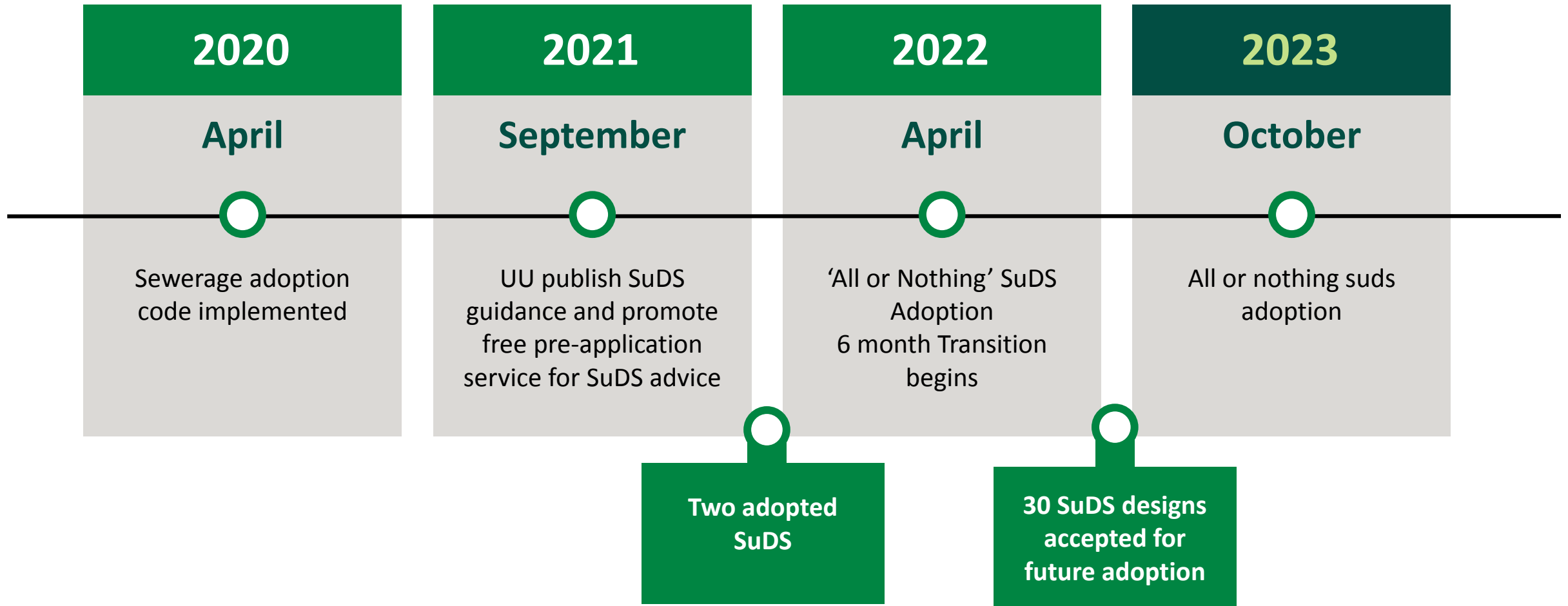




Developer Day Sustainable Drainage Systems

Building a greener future for the North West

SuDS adoption timeline



SuDS adoption policy

Applicable to all new S104 surface water sewerage adoption applications that include SuDS from 1 October 2022.

Applications will:

- Include any SuDS that are acting as sewers (serving at least 2 properties) that form part of a continuous network, we refer to this as an 'all or nothing' adoption policy.
- Serve predominantly domestic properties.
- Be assessed against the standards within the sewerage sector guidance (design & construction guidance & CIRIA SuDS manual)
- Incorporate SuDS as part of a management train of drainage features.

Applications will not:

- Allow sewers to be offered for adoption that discharge to privately owned SuDS components.
- Include off-line exceedance overflow storage for adoption
- Permit land drainage connectivity into adoptable SuDS.
- Include adoptable SuDS located in private property curtilage

SuDS adoption policy

Roles and responsibilities

UU SuDS responsibilities

- Adoption of the function as a sewer. (upon adoption will maintain this)
- Rights to access SuDS via deed of grant easement with the land owner

Developer/landowner SuDS responsibilities

- All management of the amenity, aesthetics (grass cutting)
- all planning conditions associated with open space and landscaping
- Long term Landscaping Biodiversity management plan



What SuDS can we adopt?

Updated SuDS guidance



Basins - Infiltration and attenuation



Infiltration systems

New guidance



Filter drains



Swales



Ponds and wetlands

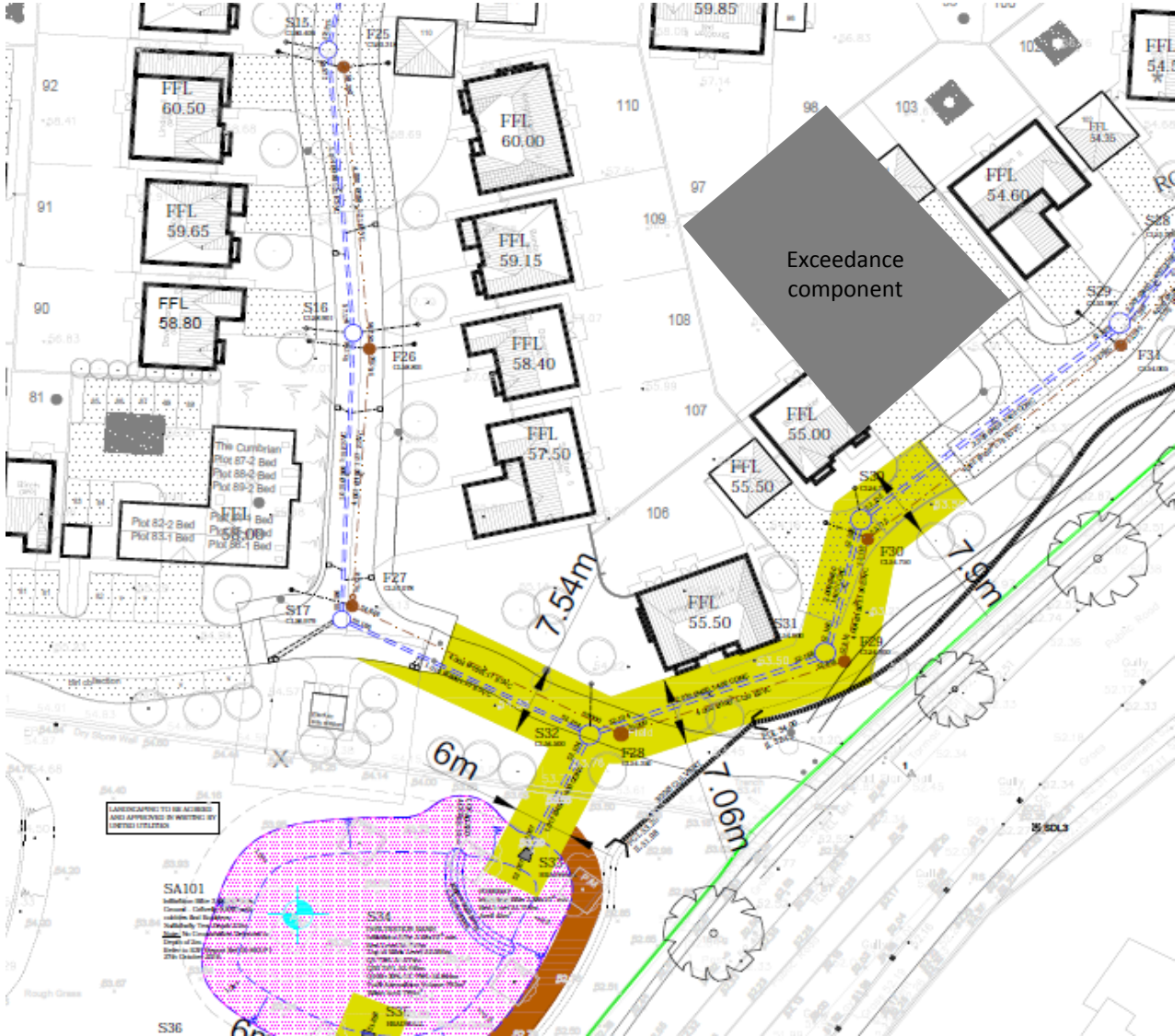


Bio-retention systems

Adoptable communal infiltration solution



Adoptable inline SuDS



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1. Are you clear on what this policy means for you?

Yes

No

2. What maintenance activities rest with developers/
landowners following adoption by UU?
(select any that apply)

Grass cutting

Litter removal

Dealing with vegetation

De-silting



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SuDS design guidance

SuDS technical library



S104 SuDS guidance documents



Sample S104 technical appraisal forms



SuDS FAQ's



SuDS landscaping and planting guidance

Please note: this is a sample document to support designers in the preparation of designs under Section 104

S104 SuDS Technical Appraisal Form

Basin

Version 2 (June 22)

Proposed Section 104 Development at
UU Reference

Section 1 - Information required for SuDS assessment

Note: any item selected as 'not submitted' will need to be provided to support and progress the application to Technical Acceptance.

Section 1	Submitted	Not submitted	N/A	Designer
Information required				Tick to highlight where information noted as 'not submitted' has now been provided
<ul style="list-style-type: none"> SuDS component(s) Layout Plan(s). The type of basin(s) included within your design must be shown as one of the following: <ul style="list-style-type: none"> Infiltration basin Dry detention/attenuation basin Vegetated detention/attenuation basin S104 SuDS Technical Appraisal Form: Infiltration Sectional Drawing(s) Com... 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> 10 17 				

S104 SuDS Guidance Document

Version 2 (June 22)
This document should be read in conjunction with S104 SuDS Technical appraisal form for Basins

Comment no.	Technical Guidance
1	High level SuDS considerations Maintenance considerations must include any specific features that are likely to pose difficulties and any associated mitigation measures that have been put in place - see chapter 32 of CIRIA C753 for guidance.
2	Flood risk to existing features No surrounding properties or features should be at risk - see chapter 36 of CIRIA C753 for guidance.
3	Topography Slope sites can result in increased velocities resulting in risks to scouring, erosion, resuspension of sediment and health & safety - see chapter 8 of CIRIA C753 for guidance.
4	The Slope should be symmetrical forms, it should not be constructed in symmetrical shapes, have any angular corners and the gradient shall be varied (a single gradient around the perimeter would not be acceptable). This links to the function and performance, as well as customer perception and will also help achieve a component designed to maximise their adaptive capacity.
5	Design requirements Water quality For the 1yr, 30 minute event: Average residence time in basin > 9 minutes for effective treatment. Flow height to be < 100mm. Flow velocity to be < 0.3m/s for effective treatment. This is to ensure good pollutant removal performance - see CIRIA C753 section 22.5 for further guidance. The residence time in component can be calculated by the following: length of low flow channel or component (m) / velocity (m/s) = residence time (seconds) / 60 = residence time in component (mins)
6	Water depths should not exceed 2m in the 100 year event and the maximum water depth in any event should not exceed 2m. This can be achieved by having a robust SuDS management train. Most Local Authorities will require a maximum maximum depth, for safety reasons. Any depth must be justified in checklist 8.5 (Health and Safety) - see CIRIA C753 chapters 21.3 & 21.3 for further guidance.
7	Side slopes need to be within a gradient of 1:5 and 1:5 for the perimeter of the component, 1:5 is preferred around any access to ancillaries (i.e. inlets & outlets).
8	UU will not adopt a feature with the maximum slope around the entire perimeter of the surface. Flow path requirements: Flow paths should be maximised through the length of the component. Flow path requirements: Flow paths should be maximised through the length of the component. If a low-flow channel is required through the basin, a weale shall be the preferred option. Weale design shall follow CIRIA C753 - SuDS Manual Chapter 17. Any engineered channels should be between 100-150mm deep. The minimum width design shall follow CIRIA C753 - SuDS Manual Chapter 17. Any engineered channels should be between 100-150mm deep. The minimum width design shall follow CIRIA C753 - SuDS Manual Chapter 17. Infiltration basins do not require low flow channels.



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3. Has the SuDS guidance and example appraisal sheets in our Technical library on the website been useful?

Yes

No

Haven't needed to use it yet



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Sustainable Drainage Systems (SuDS)

Planning practice guidance changes
and their effect on suds design

Laura Bigley
Lancashire County Council



In partnership with:



Planning practice guidance update

What is the change?

Updates to the Planning Practice Guidance were published on 25 August 2022. There are a number of significant changes, including:

'Sustainable drainage systems (or SuDS) are designed to control surface water run off close to where it falls, combining a mixture of built and nature-based techniques to mimic natural drainage as closely as possible, and accounting for the predicted impacts of climate change. They provide benefits for water quantity, water quality, biodiversity and amenity.'

Paragraph 055, Flood Risk and Coastal Change: Planning Practice Guidance



Clarification from the Environment Agency is clear that:

To be considered a 'SuDS', drainage systems must now meet the four pillars. Therefore, as per NPPF paras 167c and 169, if drainage proposals for developments requiring SuDS (majors and development in flood risk areas) don't include SuDS meeting the four pillars, the applicant would have to provide 'clear evidence' that doing so would be 'inappropriate.'



Hence there is a need to ensure SuDS proposals deliver on the four pillars of SuDS (and not just quantity) to satisfy Lead Local Flood Authorities and Local Planning Authorities.

Planning practice guidance update

The North West SuDS Pro-forma

- However, we recognise there are challenges to this which we face as much as you. For example, it is unclear how 'amenity' is to be measured or considered on SuDS.
- The Sustainable Drainage Pro-forma for the North West is a tool which acts as a checklist in helping you evidence your approach to SuDS design.
- United Utilities and Lead Local Flood Authorities across our region encourage you to submit that with your pre-development enquires and planning applications.
- You can download a copy at 'the flood hub'
https://thefloodhub.co.uk/wp-content/uploads/2020/05/FAQs_Launch_Final.pdf



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4. Do you or your drainage consultant complete the NW SuDS pro-forma SPD (supplementary planning document) as part of your planning applications?

Yes

No

Don't know what it is

Depends on the council area

5. If so at what stage are they completed?

Outline

Full

Reserved Matters

N/A



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6. Would there be any problem supplying a completed NW SuDS pro-forma with S104 applications?

Yes

No

7. What section of the NW SuDS pro-forma do you struggle to satisfy throughout the planning application process? (select all that apply)

Section 3 – Peak runoff rates

Section 4 – Discharge volume

Section 5 – Storage requirements

Section 6 – Water quality protection

Section 7 – Details of SuDS

Section 8 – Operation and maintenance



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How can we get more SuDS components?

We are keen to understand what property level SuDS components are popular with house buyers, and why this is.

We recognise that many Local Authorities are currently unable to allow property level SuDS components to be included within the drainage calculations. Concerns are that residents may remove SuDS components and the cumulative impact this could have on storage capacity.

In this session, we'd like to explore how this challenge could be addressed to enable you to deliver property level SuDS components house buyers want and which Local Authorities are able to accept within drainage calculations.



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8. What property level SuDS components are your customers most likely to want?

Rain garden
Soakaway
Water Butt
Green/Blue Roof
Rainwater harvesting
Permeable paving

9. Do you consider the potential for future removal/modification of property level SuDS components an issue?

Yes – A big issue
Yes – A small issue
Maybe / Unsure
No



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10. What do you consider the best option for ensuring property level SuDS are not removed?

Section 106 agreement with Local Planning Authority
Designation of features under Schedule 1 of the FWMA
Local land charge
Management companies with easements
Other



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