

Paul Armin

Flood and Coastal Group Engineer

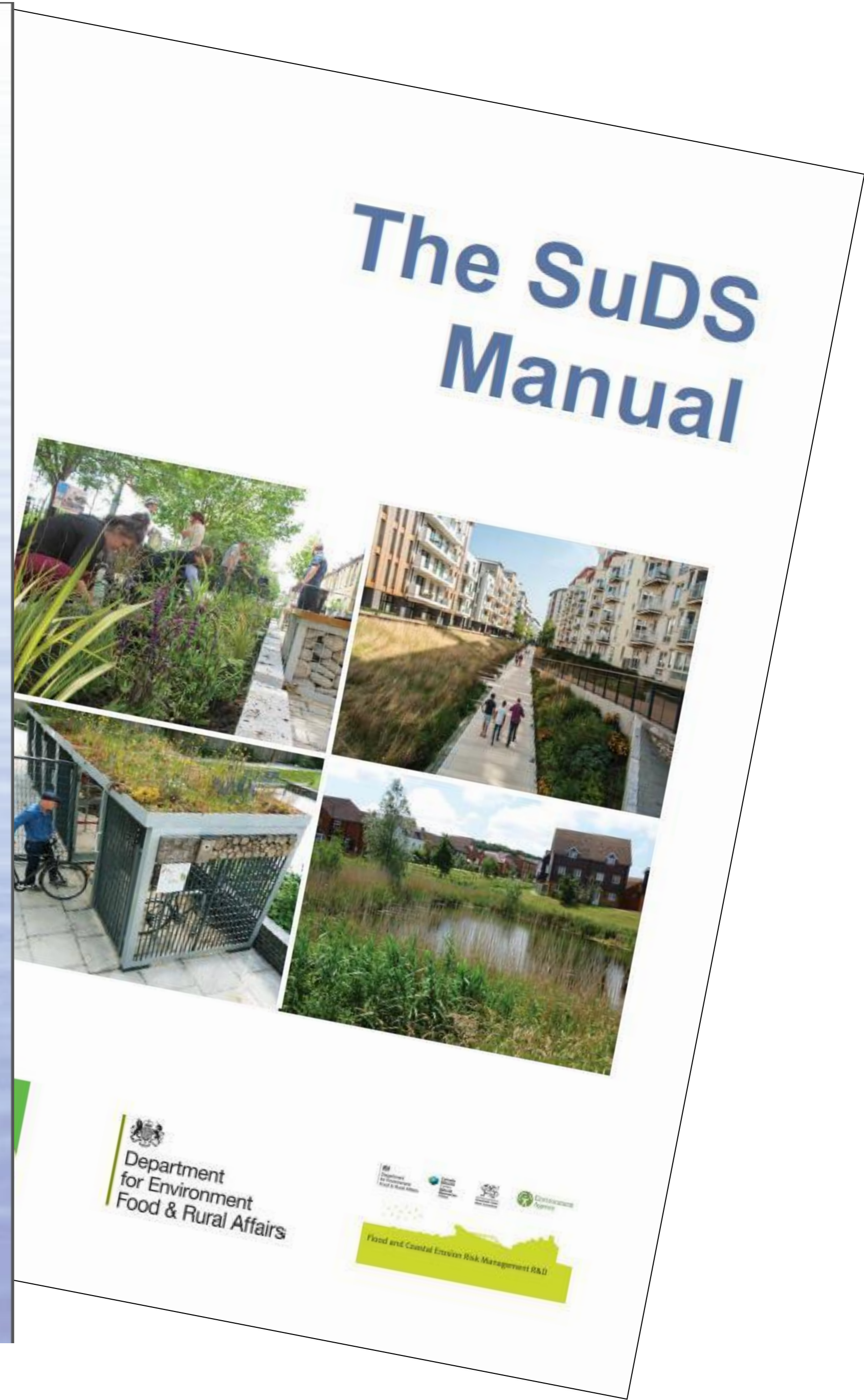
Flood and Coastal Team
(Lead Local Flood Authority)

CURRENT GUIDANCE

Department for Environment, Food and Rural Affairs
Sustainable Drainage Systems
Non-statutory technical standards for sustainable drainage systems
March 2015

Contents

- Introduction
- Flood risk outside the development
- Peak flow control
- Volume control
- Flood risk within the development
- Structural integrity
- Designing for maintenance considerations
- Construction



NPPF

Changes made to NPPF – 6th April 2015

- Surface Water Management to be made part of Planning Process (NPPF para 100-105)
- All Major Developments must have SUDS (unless proven not suitable)
- Minor developments not affected
- If Flood risk is increased elsewhere then recommend Planning Refusal

LLFA Statutory Consultee on Major Developments – 15th April 2015

- Legal Obligation to provide a substantive response in 21 days on Flood Matters

SO WHATS GOING TO CHANGE WITH SFA 8 ??

Adoption of SUDS

Local Authority

Water Company

Private Management Company

LLFA REQUIREMENTS

Pre-app	Outline	Full	Reserved	Discharge	Document submitted
✓	✓	✓			Flood Risk Assessment/Statement (checklist)
✓	✓	✓			Drainage Strategy/Statement & sketch layout plan (checklist)
	✓				Preliminary layout drawings
	✓				Preliminary "Outline" hydraulic calculations
	✓				Preliminary landscape proposals
	✓				Ground investigation report (for infiltration)
	✓	✓			Evidence of third party agreement for discharge to their system (in principle/ consent to discharge)
		✓		✓	Maintenance program and on-going maintenance responsibilities
		✓	✓		Detailed development layout
		✓	✓	✓	Detailed flood & drainage design drawings
		✓	✓	✓	Full Structural, hydraulic & ground investigations
		✓	✓	✓	Geotechnical factual and interpretive reports, including infiltration results
		✓	✓	✓	Detailed landscaping details
		✓	✓	✓	Discharge agreements (temporary and permanent)
		✓	✓	✓	Development Management & Construction Phasing Plan

North North East LLFA's



LLFA STANDARDS

Question	Durham	Sunderland	South Tyneside	Gateshead	Newcastle	North Tyneside	Northumberland
1 What do you use for calculating Greenfield Runoff rate (whole area or impermeable area)	Redline Boundary, removing any large areas of open space.	Impermeable Area	Impermeable area but like Gateshead considering change following some training at Wallingford	Impermeable area but considering changing to development area less significant areas of open space	Development area less significant areas of open space	Impermeable Area	Whole site area minus significant areas of PoS
2 What Discharge rate do you use (1in1, 1in1 and 1in100, Qbar, or other)	Qbar	1in1 and 1in100	1in1 and 1in100	1 in 1, 1in 100 in accordance with DEFRA Standards but will accept Qbar as alternative	QBAR as generally no infiltration and therefore volume discharged post-development is higher than pre-development	1in1 and 1in100	1 in 1, 1 in 100 in accordance with DEFRA Standards may accept Qbar as alternative
3 What the LA consider to be SuDS. Some accept tanks and oversize pipes but others would want 'proper' suds like rain gardens etc.	Surface SuDS Features only, not underground storage	Tanks or Pipes only accepted as part of a wider SuDS treatment train	will accept tanks and pipes as last case but only where discharge is not to a watercourse	Push for 'proper' SuDS but often have to accept pipes/ tanks - usually on low viability sites or where e	Push for green SuDS but accept tanks in combination with other SuDS	Site dependant, will accept tanks and pipes within sites discharging into sewer network or constrained by size. We view any development which attenuates surface water within the site as being served by SuDS	Push for overland "green SuDS". Will only accept tanks where all other options have been exhausted and this has been demonstrated within the DS.
4 Climate change allowances. What is asked for i.e.; 20%, 30%, 40%	40%	40%	40%	the above requirements will be set out in Flood Risk and Water Management SPD - however this is delayed awaiting the outcome of Sfa8. Requirement for SuDS set out in Core Strategy. Emerging Local Plan requires consideration of water quality, including fro	40%	40%	40%
5 What degree and detail of information is asked for at outline and full planning with respect to drainage design.	we have our own but similar to Lasoo recommendation	As per the Lasoo Document - Full Drainage Design for Full Application	As per LASOO guidance	Maintenance plan, health and safety assessment, SuDS construction method statement, and construction detail usually conditioned, everything else up front.	Maintenance plan, health and safety assessment, SuDS construction method statement, and construction detail usually conditioned, everything else up front.	As per LASOO guidance & Developments Flood Risk - Outline stage FRA or drainage strategy, method of attenuation, current & proposed discharge rate. Usually condition detailed drainage design, the SuDS maintenance plan, health and safety assessment, SuDS construction method statement and pollution control measures.	As per LASOO Guidance. Condition maintenance plan; H&S assessment (sometimes); surface water design through construction; and other bespoke aspects
6 Urban creep varies across LLFAs. What do you ask for is it 0, 5%, 10%, 20% or other	0%	0%	10%	10% for housing schemes unless high density would prevent future creep.	10% or lower in accordance with LASOO	10% for housing schemes unless high density would prevent future creep.	10% for housing schemes as default. Would accept lower as per LASOO guidance. 0% for most commercial developments
7 Do you ask for Greenfield Runoff rates for Brownfield Sites or a Embetterment say 30%, 50% or other	Greenfield	Greenfield Runoff	As close as reasonable to greenfield	As DEFRA standard - As close as possible to greenfield.	As DEFRA standard - As close as possible to greenfield.	Depends on the current flood risk of site and surrounding areas. Ask for Greenfield but depending on proposed site use and the point of discharge may accept 50% betterment	As DEFRA standard S3 - As close as possible to greenfield
8 Do you use 5l/s or Greenfield Runoff rate for the minimum discharge or do you base it on a 75mm orifice / Hydrobrake	3.5l/s but are looking to reduce further based on hydrobrake optimum claims they can go as low as 0.7	75mm Orifice	5l/s	5l/s	5l/s	5l/s	75mm Orifice
9 Do you over rule NWL discharge rates - Always, sometimes, depends on site, never	Always	Always	Always	Nearly always	If discharging into the Tyne or tidal part of Ouseburn through NW network, as per NW. If not we would over rule their discharge as needed.	Sometimes	Yes - always
10 Do you ask for water quality information and how they can achieve a 1 stage, 2 stage, etc.	Yes	Yes	Yes Simple index approach is currently accepted	Always - ask for demonstration of use of Simple Index Approach	Yes, assessed against criteria set in the SuDS Manual	No	No. This is a separate planning requirement to that of the LLFA. We leave this aspect to our planners, who can look at enacting other parts of the NPPF / PPG. Currently no local plan which specifically looks at or has a requirement for water quality with direct regards to surface water management. I am looking to change this within the updated local plan and forthcoming SPD

LLFA STANDARDS

<u>Combined</u>	
1	Impermeable area or development area less significant areas of open space
2	1 in 1, 1 in 100 in accordance with DEFRA Standards but will accept Qbar as alternative
3	Push for overland "green SuDS". Will only accept tanks where all other options have been exhausted and this has been demonstrated within the DS.
4	40%
5	As per LASOO guidance - see individual LLFA for further requirement
6	10% for housing schemes as default. Would accept lower as per LASOO guidance. 0% for most commercial developments
7	Greenfield or As DEFRA standard S3 - As close as possible to greenfield
8	Greenfield or SI/s
9	Always
10	Yes, assessed against criteria set in the SuDS Manual

- All LLFA's in North North East have same Standards.
- Hopefully be in place 1st October 2019 (to match SFA8)