





Sewers for Adoption in England

A changed approach to surface water sewers

Brian Smith, Yorkshire Water Services
Lian Lundy, Middlesex University







- Why are we doing it
- Our approach
- Our journey so far
- Translation into practice
- What does this mean for WaSCs







- 2007 floods
- Economic damage
- National review of strategic flood risk management
- Flood and Water Management Act Schedule 3
- Abandonment of Schedule
- No systematic, consistent implementation of SuDS
- Vacuum with lack of an adoptable body
- Government keen to see water and sewerage companies (WaSCs) adopt a more active approach









Approach

Included / Positive criteria	Excluded / negative criteria
Constructed for the drainage of buildings and yards appurtenant to buildings	Watercourses as defined in law
Has a channel	Built primarily for the drainage of surface water from streets or for the drainage of land
Conveys and returns flows to a sewer or to a surface water body or to groundwater	Built to manage groundwater
Has an effective point of discharge, which must have lawful authority to discharge into a watercourse or other water body or onto or into land	Part of the structure of a building or yard
May allow for some infiltration into the system - provided that is not the designed purpose of the system	An integral part of the structure of a street
	Forms part of a private curtilage







In simple terms

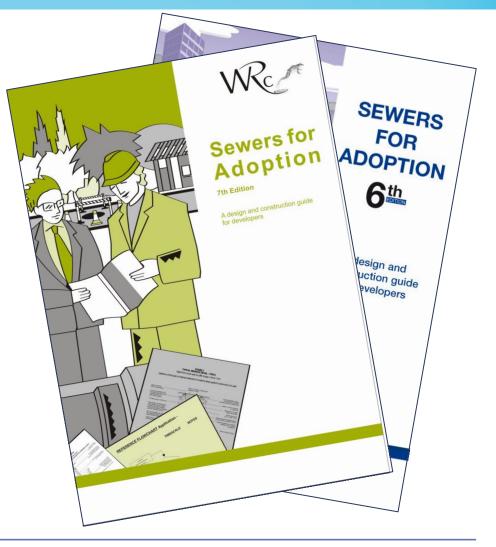
- Constructed for purpose of draining buildings and land appurtenant (*i.e. surrounding the building*)
- Has a channel
- Conveys and returns flow to a sewer or the environment
- Has an effective outfall







These criteria formed the basis for Sewers for Adoption to be amended to set out standards that sustainable drainage elements must meet to be capable of adoption under WaSCs' statutory powers







PUBLIC OPEN SPACE FOR DEVELOPMENT

Surface water routes to bring water out of development.

DEVELOPMENT

Surface based series of shallow swales and basins decreases the invert level of drainage and maintains a shallow system following the land contours

Public sewers

Source control and interception storage within development reduces volume of water to be transported to ponds

Final shallow wetlands designed for biodiversity

Gravity discharge to river









Our journey, so far

- Lengthy process with expert QC advice
- Case law complex, the basic idea is simple
 - i.e. if it performs a sewerage function, it is a sewer even if it's not in a pipe
- Through Water UK, WaSCs worked with a range of interested parties inc. LPAs, LLFAs, Developers, Defra, CCW, CIRIA
- SfA 8
- Expected that content of SfA 8 will be incorporated into new sectoral guidance
- Support from SoS for the work that Water UK is doing in this space







Translation into practice

- Launch a series of seminars
- On-going capacity building materials
- Brochure for cross industry use
- Use a multi-agency approach to increase awareness







Capacity building

- Support for development of bespoke training modules for companies
- A comprehensive training plan is being developed
- Approach consistent with expectations of Defra, which is needed nationally
- Aligns with the 25-year Environment Plan
- Allows for upskilling to a common standard before implementation of Adoption Codes







Asset management

- Sewerage asset data recorded but until now data on SuDS has not been recorded
- SuDS data storage requirements are more complex
- No national or international standard or tools to facilitate populating, interrogating, sharing or retrieving information
- Legacy of 'lost' SuDS and uncertainty will grow over the hydraulic response that will occur in receiving sewers following rainfall
- Inability to predict and design for flooding from extreme events
- Developing a common approach to annotating SuDS on statutory sewer maps
- Defra, EA and LLFA support







What does this mean for WaSCs

- Industry needs to be prepared for implementation of SfA 8
- All associated systems and procedures will need to be in place
- Need to identify liabilities and future investment requirements
- Legacy SuDS (YWS example)
 - o 845 new developments
 - 384 Outfalls, that discharge to green open space
 - o 85 basins
 - **2,627m of swales**
 - ~170,000m3 -Geo-cell or bespoke tank systems







To conclude

- Major opportunity for WaSCs to play an active role
- Pragmatic, forward-thinking approach
- Leadership and vision
- Positive reputational effect on the sector
- Aligns with key governmental objectives, including SDGs







30th & 31st August 2018. Coventry University, England. UK.



Thank you for listening

Brian Smith, Yorkshire Water Services
Lian Lundy, Middlesex University

