

Water UK Standards Board Strategy: Sewer Management

1. Purpose of this document

This document has been developed by the Water UK Standards Board (WSB) to ensure that the appropriate international (ISO), European (CEN), and British (BS) – and, if necessary, Water Industry Standards (WIS) or Industry Guidance Notes (IGN) - are in place to support the efficient and effective operation of sewer networks for the UK water industry to achieve the long term goal to eliminate spills from sewer overflows and sewer flooding events. The standards will need to develop to incorporate advances necessary to adapt to climatic change and extreme weather events.

2. Key Standards

The key outcomes within this area are to understand the need for any standards associated with sewer management arising from the UK Water industry's operation. This is a mature area for standards, for example, the Environment Agency developed and published the standard for Combined Sewer Overflows, which would then be incorporated into WaSc asset strategies and standards. Though with challenges arising from public expectations on river quality and discharges from sewers, along with extreme weather events arising from climate change, which may drive a need for change in current standards or result in gaps. However, such standards will only inform the how. Reducing spills from sewer overflows and sewer flooding events can only be achieved through a coordinated catchment-based application of standards. Vehicles such as the Water Industry National Environment Program and 25 Year Drainage Water Management Plans help the water industry to establish what needs improvement, whilst the standards provide instruction and guidance on the how.

The management of sewers is further supported by industry guidance such as the 'Sewer Rehabilitation Manual', 'Sewers for Adoption' & 'CESWI' (Civil Engineering Specification for the Water Industry), and the soon to be published ICE PAS for Climate Adaption Pathways.

The Standards Committees below may reference these as part of their future work: -

CEN/TC	UK Mirror Committee
CEN/TC 155 WG26 <i>Storm Water Management</i> (re: underground infiltration; attenuation)	PR1/88/5 - <i>Underground infiltration, attenuation and storage systems</i>
CEN/TC 165 <i>Wastewater engineering</i>	B/505 <i>Wastewater Engineering</i>
CEN/TC 165/WG 4 <i>Manhole tops, gully tops, drainage channels and other ancillary components for use outside buildings</i>	B/505/4 <i>Manhole tops, gully tops, drainage channels and other ancillary components for use outside buildings</i> (re: covers and gullies)
CEN/TC 165/WG 13 <i>Renovation and repairs of drains & sewers</i>	B/505/13 <i>Renovation and repair of drains and sewers</i>
CEN/TC 165/WG22 <i>Drainage outside buildings</i>	B/505/22 <i>Drainage outside buildings</i> (re: climate change & rainfall mapping)
	B/505/22/7 <i>prEN Management & control of rehabilitation of drains & sewers</i>

	B/505/22/9 <i>Security of wastewater systems</i>
CEN/TC 165/WG 8 <i>Separators</i>	B/505/8 <i>Separators</i>
CEN/TC 318/WG 14 <i>Hydrometric network design and its optimization</i>	CPI/113 <i>Hydrometry</i>
ISO	
ISO/TC 224 <i>Drinking water, wastewater and stormwater systems and services</i>	CB/503 <i>Drinking water and wastewater service levels</i>
ISO/TC 224/WG11 <i>Drinking water, wastewater and stormwater systems and services – Urban Storm Water Management</i>	
ISO/TC 251 <i>Asset Management</i>	AMS/1 <i>Asset Management</i>
BSI	BSI Committee
	CB/501 <i>Flood risk & watercourses</i>

In addition, the following current WIS and IGNs are supported by the Water Standards Board: -

- **WIS 4-02-04** Operational requirements: in situ polymeric lining of sewer pipelines
- **WIS 4-02-06** Fine to Flush
- **WIS 4-04-01** Specification for type 1 package pumping stations
- **WIS 4-04-02** Specification for package pumping stations
- **WIS 4-08-02 (Incl 02A)** Specification for bedding and sidefill materials for buried pipelines
- **WIS 4-12-06** Specification for Precast and Insitu Ferrocement
- **WIS 4-12-14** Specification for glass fibre reinforced cement (GRC) sewer linings
- **WIS 4-34-06** Specification for localised sewer repairs using cured-in-place systems
- **WIS 4-35-05** Specification for polyester resin concrete (PRC) sewer linings
- **IGN 4-01-02** The determination of end-loads for the performance testing of fittings for polyethylene pipe
- **IGN 4-08-01 (Inc 01A)** Bedding and sidefill materials for buried pipelines
- **IGN 4-11-01** Vitrified clay pipes and fittings
- **IGN 4-11-02** Revised bedding factors for vitrified clay drains and sewers
- **IGN 4-12-01** Precast concrete pipes - unreinforced and reinforced, with flexible joints
- **IGN 4-12-05** Specification for precast gunite sewer linings
- **IGN 4-21-01** Ductile iron pipes and fittings
- **IGN 4-32-05** Specification for polyethylene (PE) pipes for sewer linings
- **IGN 4-32-18** The choice of pressure ratings for polyethylene pipe systems
- **IGN 4-34-02** Specification for Glass fibre Reinforced Plastics (GRP) Sewer Linings
- **IGN 4-37-02** Design against surge and fatigue conditions for thermoplastic pipes
- **IGN 4-50-03** Operating guidelines for the use of site applied, factory applied, and reinforced factory applied polyethylene sleeving on ductile iron pipeline systems
- **IGN 4-51-01 (Incl 01A)** Specifications for Polymeric Anti-Corrosion (Barrier) Coatings
- **IGN 4-52-02** The use of Polymeric Anti-Corrosion (Barrier) Coatings

3. Key Areas of Activity for the Standards Board

To support the Water Industry, the WSB will undertake the following activities: -

Action	Detail	Owner	Completion Date
Horizon scan	Seek regular feedback from Water UK Committees and Networks, water industry trade associations, and UKWIR as this area develops to identify the need for any standards that would assist the UK water industry.	Jason Dearlove	Annual Review
Support	Support the refresh and review of all WIS an IGN as a priority, see separate strategy document.	Jason Dearlove	Annual Review

4. Outcomes and Further Action

To be completed as the above actions are completed.