

DWMP Programme Planning Objectives

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Version 1



from
**Southern
Water** 

Planning objectives

The Water UK guidance on DWMPs sets out the need to establish planning objectives for a long-term planning horizon (minimum period of 25 years). The planning objectives are used to assess the current and future performance of the wastewater systems and identify where action and/or future investment is required.

The guidance says that planning objectives should reflect performance commitments (see Table 1) which provide a significant contribution to achievement of outcomes relating to drainage and wastewater services to be delivered in the current asset management plan (AMP) period and over the longer term. We will need to consider stretch/aspirational planning objective levels and, where appropriate, longer term risks and uncertainties that may require assessment beyond the standard 25-year timeframe.

Table 1: Performance Commitments to Ofwat.

Performance commitment	Summary definition
Internal sewer flooding	The number of internal flooding incidents per year (hydraulic overload and other causes), including sewer flooding due to severe weather events, per 10,000 sewer connections.
Pollution incidents	Category 1 – 3 pollution incidents per 1,000km of wastewater network, as reported to the Environment Agency and Natural Resources Wales.
Risk of sewer flooding in a storm (new risk-based resilience metric)	Percentage of population at risk of sewer flooding in a 1-in-50-year return period storm.
Sewer collapses (asset health metric 3)	Number of sewer collapses per thousand kilometres of all sewers. Include bursts to rising mains, even where failures are accidental rather than due to weakness in pipe condition.
Treatment works compliance (asset health metric 4)	Performance of wastewater assets to treat and dispose of sewage in line with the discharge permit conditions imposed on sewage treatment works. Measure includes the performance of water treatment assets for the water supply service in line with the discharge permit conditions imposed on water treatment works. The discharge permit compliance metric is reported as the number of failing sites and not the number of failing discharges.
Asset health metric	Summary definition
Sewer blockages	Number of sewer blockage events that required clearing.
External sewer flooding	Number of incidents.
Sewage treatment works compliance	The percentage of population equivalent served by sewage treatment works discharges which were sampled during the calendar year and found to be noncompliant with sanitary look-up table limits or nutrient limits, Urban Wastewater Treatment Directive look-up table limits or nutrients limits.

The planning objectives are developed for the DWMP during the strategic context stage.

Our aim is to work with partner organisations to develop shared planning objectives for each of the river basin catchment (Level 2) DWMPs. These can include additional planning objectives for other performance commitments from Ofwat's 'long-list' of asset health metrics, or bespoke planning objectives that reflect specific concerns in the plan area. We hope this approach will drive co-ordination of plans and investments so partnership projects can be developed with multiple funding streams and deliver multiple benefits to our customers, businesses and the environment. Water UK requires all companies to report on six planning objectives. The six common, national planning objectives are:

- Risk of sewer flooding in a 1 in 50-year storm
- Storm overflow performance
- Risk of WwTW compliance failure
- Internal sewer flooding risk
- Pollution risk
- Sewer collapse risk

A summary of each of these planning objectives is provided below.

National planning objectives required by Water UK

1. Risk of sewer flooding in a 1 in 50-year storm

This metric has been designed to measure the existing (2020) and future (2050) resilience of drainage systems to an extreme wet weather event causing sewers to flood. This will provide a sewer flood risk input to complement the National Infrastructure Assessment of properties at risk from river/sea & surface water flooding. It will be consistent with, but will not reflect exactly, the annual reporting for the Ofwat common resilience performance commitment. The approach follows Ofwat reporting guidance on the risk of sewer flooding in a storm published in March 2019. This planning objective includes 'internal' hydraulic sewer flooding only but, unlike the Ofwat methodology, will not exclude catchments under 2,000 PE or apply vulnerability grades/functional areas. The 2050 assessment will uplift rainfall forecasts to include climate change impacts. Growth and creep are also added in line with best available information.

2. Storm overflow performance

The purpose is to assess baseline (2020) storm overflow performance and provide an indication of future vulnerability by 2050 under a 'do nothing' scenario due to climate change, new development, and permeable area creep. This will identify catchments with the greatest probability of increasing spill frequency and duration during heavy rainfall. Storm overflows include those in the sewer network and at the treatment works (e.g. from storm tanks). For Cycle 1 of DWMPs the assessment is to exclude receiving water quality, amenity use and dilution.

3. Risk of WwTW quality compliance failure

This planning objective defines the 'Risk of WwTW quality compliance failure'. A compliance failure is when our sewage treatment works do not treat and dispose of sewage in line with the Environment Agency's discharge permit conditions. The discharge permit compliance metric is reported as the number of failing sites and not the number of failing discharges.

The 2020 assessment considers compliance with current permit only, and long term (2050) compliance risk is determined with updated population equivalent projections, updated flow and load projections, and updated permit conditions (where known). The approach for how climate change will impact this will be developed with stakeholders in advance of cycle 2 of DWMPs. The approach for forecasting UV compliance will be reviewed and added later by Water UK. The 2050 assessment is based on continued maintenance of the treatment works and assets such that the condition remain the same between 2020 and 2050.

4. Internal sewer flooding risk

This planning objective defines the 'Internal Sewer Flooding Risk' for both hydraulic & Other Causes e.g. blockages. It allows for a comparison to be drawn between the likely scale of all 'Internal sewer flooding' experienced each year compared to the scale of hydraulic only flooding that may be observed during a rare event such as a 1 in 50-year storm. It covers internal sewer flooding due to hydraulic incapacity and other causes (e.g. blockages, collapses & equipment failure). It excludes: Non-sewer related flooding such as privately owned sewerage, fluvial, pluvial (except where linked to the incapacity of a sewer), Land Drainage, Highway drainage and private drains. A 2050 assessment is not to be produced for the first round of DWMPs.

5. Pollution risk

This planning objective defines the 'Pollution risk'. It allows for a comparison to be drawn between the likely scale of pollution risk, and covers pollution incidents as set out in Environmental Performance Assessment (EPA) relating to wastewater assets only. It includes incidents from sewerage infrastructure such as pumping stations, WwTW and Sludge/Bio-solids plant, and comprises of pollution from 'other causes' (i.e. blockages, collapses and equipment failure) and those caused by hydraulic overload (i.e. sewer overflows operating outside permit conditions or due to overland rainfall induced pollution). Only includes Serious Pollutions (formerly Cat 1 and 2) and Category 3 incidents, although all pollution incidents are counted equally for the purposes of this measure. This measure excludes non-sewer related pollutions such as water treatment/supply assets, third party private assets. A 2050 assessment is not to be produced for the first round of DWMPs.

6. Sewer collapse risk

This planning objective defines the 'Sewer Collapse Risk' in accordance with the Ofwat reporting guidance for sewer collapses. It includes rising mains, pipe bridges and failures on the infrastructure network, including inlets to WwTW and terminal pumping stations. A 2050 assessment is not to be produced for the first round of DWMPs.

The planning objectives for each river basin catchment DWMP will be used throughout the development of the DWMPs, especially for the baseline risk and vulnerability assessment (BRAVA) stage and the options development and appraisal (ODA) stage to support evaluation of strategic options.