

Future Trend: Increasing Overflow and Water Quality Monitoring

Trend definition and relevance to DWMP

The monitoring of storm overflows and continuous river water quality provides valuable insights into permit compliance, environmental performance and the impact of pollution incidents. Monitoring is expected to increase in scope, providing greater transparency and accountability for water company performance. The resulting data will enhance our understanding of catchment dynamics and support more effective collaboration to identify and address the root causes of pollution.

This trend is important for our DWMP, as the monitoring data will improve the calibration and validation of the models used for long-term performance forecasting. Over time, it will increase confidence in our risk forecasts and improve the long-term strategies that we promote through the DWMP.

Trend description, uncertainty and potential impact on our region

Water quality monitoring stations



Source: Thames Water, 2026

- Thames Water has achieved 100% Event Duration Monitoring (EDM) coverage of storm overflows, providing comprehensive data on historical spill frequency and duration.
- By 2030, we will have monitored 50% of our emergency storm overflows, with the remaining sites due to be completed by 2035.
- By 2030, we will also have installed Continuous Water Quality Monitors (CWQM) in rivers upstream and downstream of 25% of our storm overflow and sewage treatment works discharges. Examples of these monitors are shown in the figure. They will measure key water quality parameters, including temperature, conductivity, pH, ammonium (NH₄), turbidity and dissolved oxygen (DO), helping to improve our understanding of the environmental impacts of wastewater discharges.
- The Department for Environment, Food and Rural Affairs (Defra) will review progress of the CWQM rollout before confirming the scale and pace of deployment for the 2030-2035 planning period. As a result, the extent of future monitoring remains uncertain, although the network could expand to around 1,200 monitors if upstream and downstream monitoring is required at all storm overflow discharge locations across the Thames Water region.

Stage of DWMP used	
Risk assessment	×
Plan development	×
Impact/Importance	
Short term (2035)	Low
Medium term (2045)	Medium
Long term (2055)	High
Example PIs affected by this trend	
	Storm overflow performance
	Treatment works compliance (numeric)
	Good ecological and/or chemical status: Public sewerage