Cross Cheddar Infiltration Reduction Plan Summary

This provides an update on the last year's groundwater situation, what mitigation actions, if any, were taken and a summary of our action plan to prevent flooding due to groundwater infiltration of our sewer network.

April 2024 – March 2025

Regional Summary

2024 continued to be a very wet year in the Wessex Water region, with above average rainfall in the majority of months. In particular, groundwater levels rose dramatically in September 2024, where the region recieved over 250% of the monthly average rainfall. This resulted in many catchments experiencing inundation from groundwater much earlier than usual.
Whilst December was relatively dry, above-average rainfall for the remainder of the autumn and winter meant that groundwater levels remained elevated until March, at which point the drier weather enabled the majority of catchments to recover.

Record-breaking rainfall for some this September - Met Office

Local Summary

The groundwater levels were high in the Cross, Cheddar catchment during 2024/2025. However the pumping station was able to cope, and no incidents attributed to Inadequate Hydraulic Capacity (IHC) reported during this period.

Action Plan

Annual Activity
Review asset and operational data and update annual reports.
Continue monitoring system performance using telemetry, rainfall records and local groundwater levels to inform the operational response during high-groundwater periods, and to monitor changing infiltration levels in the catchment.
Undertake pro-active cleaning (jetting) of sewers to maximise capacity.
Proactive inspections and maintenance of sewerage assets.

Completed
Installed permanent flow meters at key pumping stations to continuously record pump performance.
Investigated nature-based solutions in the catchment.
Updated the catchment hydraulic model.
Reviewed incidents of sewer flooding.
Inspected public sewer network to identify points of infiltration.
Sealed sewers and manholes to prevent groundwater infiltration.

Completed (cont.)
Undertaken pumping station or flow surveys to analyse flows in sewers.
Upgraded pumping stations where appropriate, to improve the reliability and performance of the site.

Short Term
Use machine learning to predict flows in sewers and proactively identify blockages and other issues.
Install in-sewer monitors at key locations to better understand flows in the network.
Undertake review of incidents of sewer flooding suspected to be affected by groundwater infiltration.
Implement Nature-based Solutions in the wider catchment.

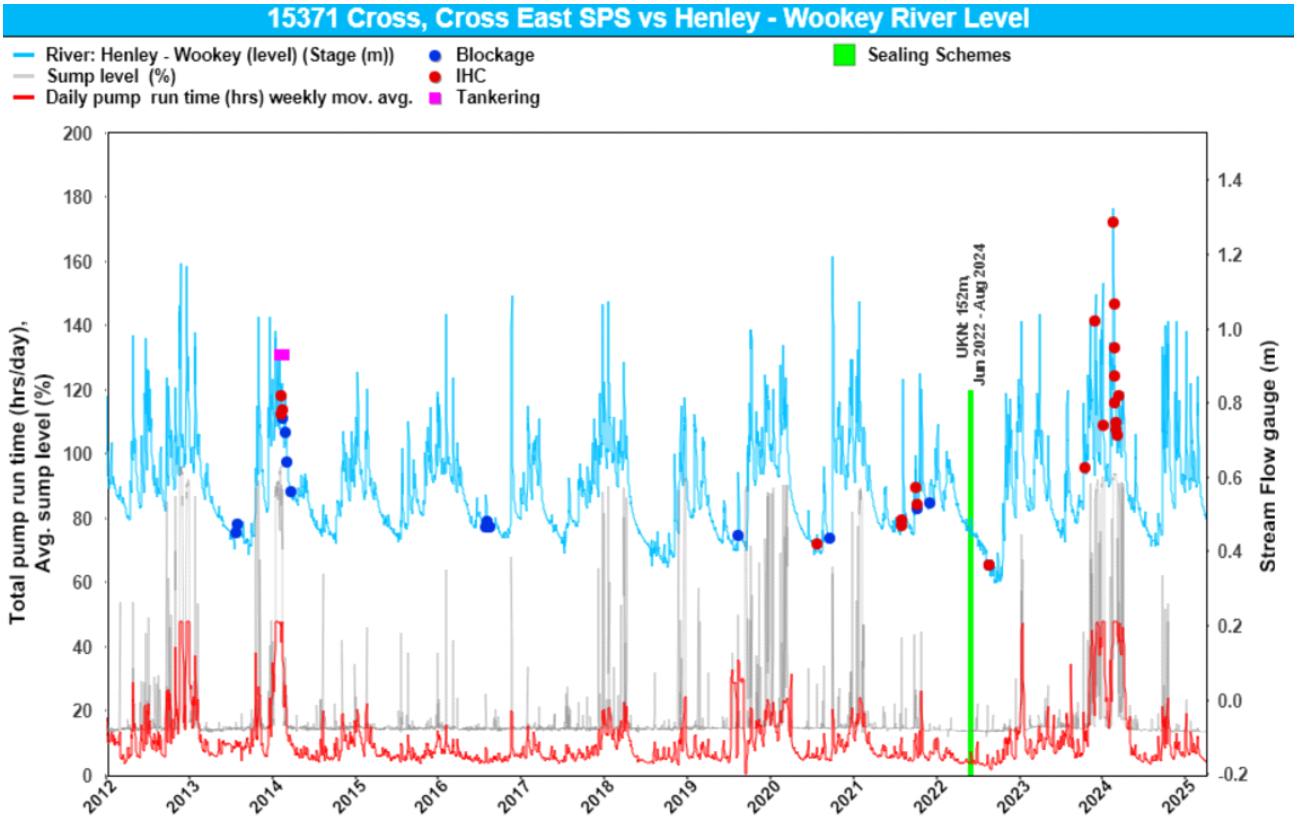
Medium Term
Undertake pro-active inspection of public sewers and manholes using CCTV to identify points of infiltration.
Infiltration sealing of sewers and manholes, where deemed cost-effective, targeting work according to study findings.

Long Term
Inspect private gullies, drains, and manholes where applicable.
Consider sustainable solutions to rainwater management, for example above-ground attenuation and property-level interventions.

When Necessary
Implement emergency tankering procedure for preventing restricted toilet use and sewer flooding during high groundwater periods, in order to protect public health.
Implement Operational Mitigation Action Plan (OMAP) for discharging excess flows to the environment as a last resort, when tankering would not prevent restricted toilet use or sewer flooding, and public health is at risk.
Implement a scheme to address capacity issues in the sewer network.

Current Performance

This graph shows performance of Cross East Sewage Pumping Station with the daily average river level at nearby Wookey, which is an indication of local groundwater levels. In 2023/2024, local groundwater levels were extremely high, resulting in several incidents attributed to Inadequate Hydraulic Capacity being reported.



Inspection and sealing since 2011

	2011-20	2020-21	2021-22	2022-23	2023-24	2024-25
Length of sewer inspected (m)	0	-	645	-	-	-
Length of sewer sealed (m)	0	-	-	68	-	94