

Wookey 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 received 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

River levels were very high at Wookey in winter 2024/25, reaching critical levels in the catchment and resulting flooding incidents attributed to inadequate hydraulic capacity (IHC). Flow measurements at Wookey Water Recycling Centre (WRC) shows a strong correlation with river levels, indicating infiltration is still affecting the catchment.

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.

Use machine learning to predict flows in sewers and proactively identify blockages and other issues.

Undertake pro-active cleaning (jetting) of sewers to maximise capacity.

Proactive inspections and maintenance of sewerage assets.

Completed

Installed in-sewer monitors at key locations to better understand flows in the network.

Installed permanent flow meters at key pumping stations to continuously record pump performance.

Implemented a scheme to address capacity issues in the sewer network.

Updated the catchment hydraulic model.

Inspected public sewer network to identify points of infiltration.

Completed (cont.)

Sealed sewers and manholes to prevent groundwater infiltration.

Investigated nature-based solutions in the catchment.

Undertaken pumping station or flow surveys to analyse flows in sewers.

Inspected private gullies, drains or manholes to identify points of infiltration.

Reviewed incidents of sewer flooding.

Upgraded pumping stations where appropriate, to improve the reliability and performance of the site.

Installed sealed covers on manhole chambers vulnerable to overland flow or river water entering through the cover.

Short 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.

Implement a scheme to improve the local water recycling centre (WRC).

Medium Term

Investigate nature-based solutions in the catchment.

Long Term

Identify road gullies and other impermeable areas that are connected into the foul sewers.

Consider sustainable solutions to rainwater management, for example above-ground attenuation and property-level interventions.

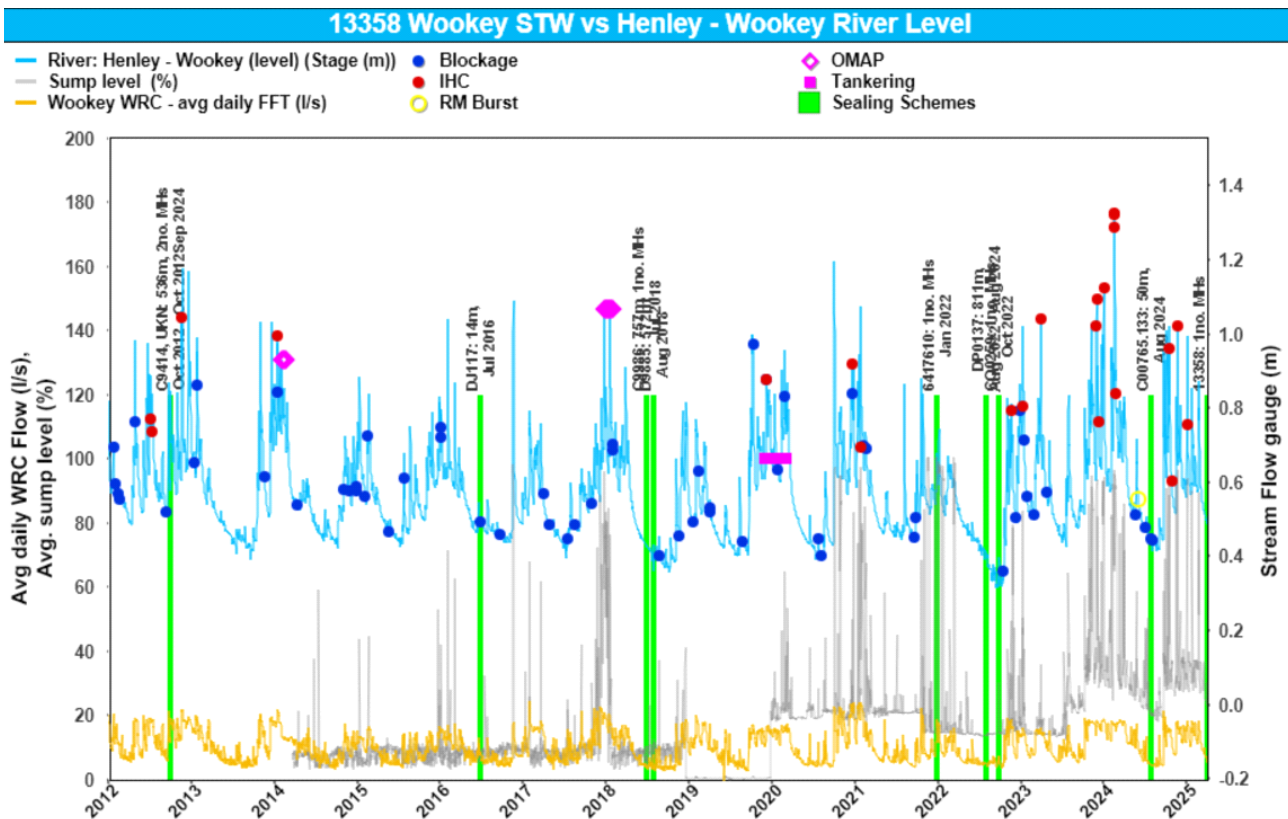
When Necessary

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.

Current Performance

The graph below displays the incidents against river levels (as measured at Wookey) and the inflow at Wookey Water Recycling Centre (WRC). Infiltration sealing in 2014, 2016, and 2017/18 appeared to help reduce incidents attributed to inadequate hydraulic capacity (IHC). Tankering prevented flooding during the winter of 2019/20, when groundwater levels were higher than 2013/14. However, infiltration remains still an issue in the catchment, with further incidents attributed to IHC recorded between 2020 and 2025. Telemetry data also still shows a correlation between river levels (an indicator of groundwater levels) and inflow at Wookey WRC.



Inspection and sealing since 2011

	2011-20	2020-21	2021-22	2022-23	2023-24	2024-25
Length of sewer inspected (m)	13,475	6,291	-	4,680	99	100
Length of sewer sealed (m)	3,260	56	5	1,085	12	159