Teffont Evias 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

Groundwater levels in the Teffont Evias catchment reached critical levels and several incidents attributed to inadequate hydraulic capacity (IHC) were reported in winter 2024/25. Tankering was required in April 2024 to and early April 2025 due high groundwater levels.

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.
Reviewed incidents of sewer flooding.
Updated the catchment hydraulic model.
Inspected public sewer network to identify points of infiltration.
Sealed sewers and manholes to prevent groundwater infiltration.
Undertake remedial works at a property-level.

Completed (cont.)

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

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

Short Term

Undertake pro-active inspection of public sewers and manholes using CCTV to identify points of infiltration.

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.

Medium Term

Infiltration sealing of sewers and manholes, where deemed cost-effective, targeting work according to study findings.

Long Term

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

Investigate nature-based solutions in the catchment.

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

When Necessary

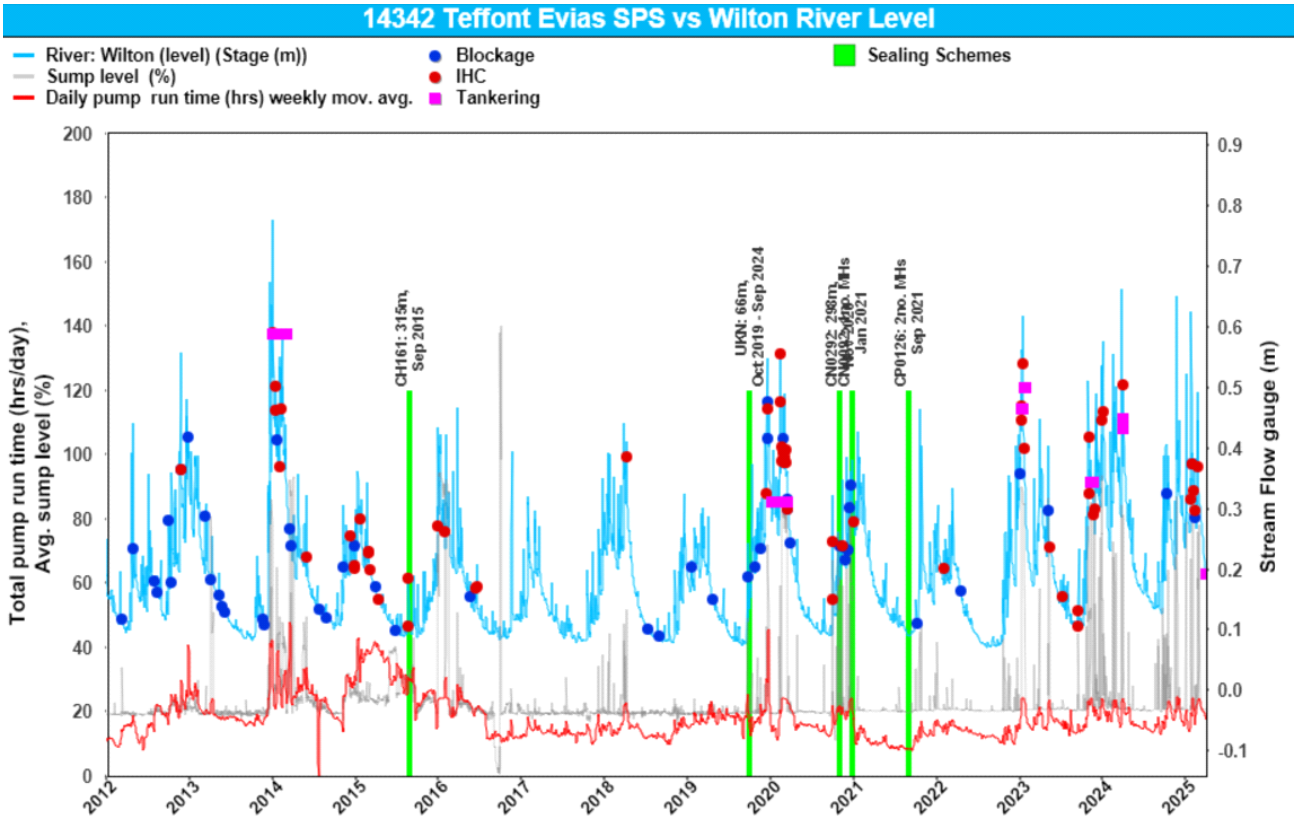
Implement emergency tankering procedure for preventing restricted toilet use and sewer flooding during high groundwater periods, in order to protect public health.

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.

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

Current Performance

This graph shows incidents against river level (as measured at Wilton river gauge) and the telemetry at Teffont Evias Sewage Pumping Station. Incidents caused by inadequate hydraulic capacity (IHC) have occurred only when river levels are high in the area, suggesting groundwater inundation to be the main cause of flooding in Teffont Evias. This was evident during winter 2022/23, despite extensive sewer and manhole sealing carried out in the area 2015, 2019, 2020 and 2021. Additional lining of private sewers was undertaken in 2023/24.



Inspection and sealing since 2011

	2011-20	2020-21	2021-22	2022-23	2023-24	2024-25
Length of sewer inspected (m)	4,531	1,650	191	-	631	6,032
Length of sewer sealed (m)	360	288	-	-	39	1