Dinton and Fovant 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

In Dinton, whilst groundwater levels were high on various occasions through the winter, the network was not inundated for long periods, and no incidents attributed to inadequate hydraulic capacity (IHC) were reported. However, in Fovant multiple incidents attributed to IHC were reported between September and February due to groundwater inundation.

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
Identified road gullies and/or impermeable areas connected to the foul network.
Used machine learning to predict flows in sewers and proactively identify blockages and other issues.
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.
Implemented Nature-based Solutions in the wider catchment.

Completed (cont.)
Inspected public sewer network to identify points of infiltration.
Installed in-sewer monitors at key locations to better understand flows in the network.
Sealed sewers and manholes to prevent groundwater infiltration.
Considered sustainable solutions to rainwater management.
Undertaken pumping station or flow surveys to analyse flows in sewers.
Reviewed incidents of sewer flooding.
Upgraded pumping stations where appropriate, to improve the reliability and performance of the site.
Implemented a scheme to address capacity issues in the sewer network.

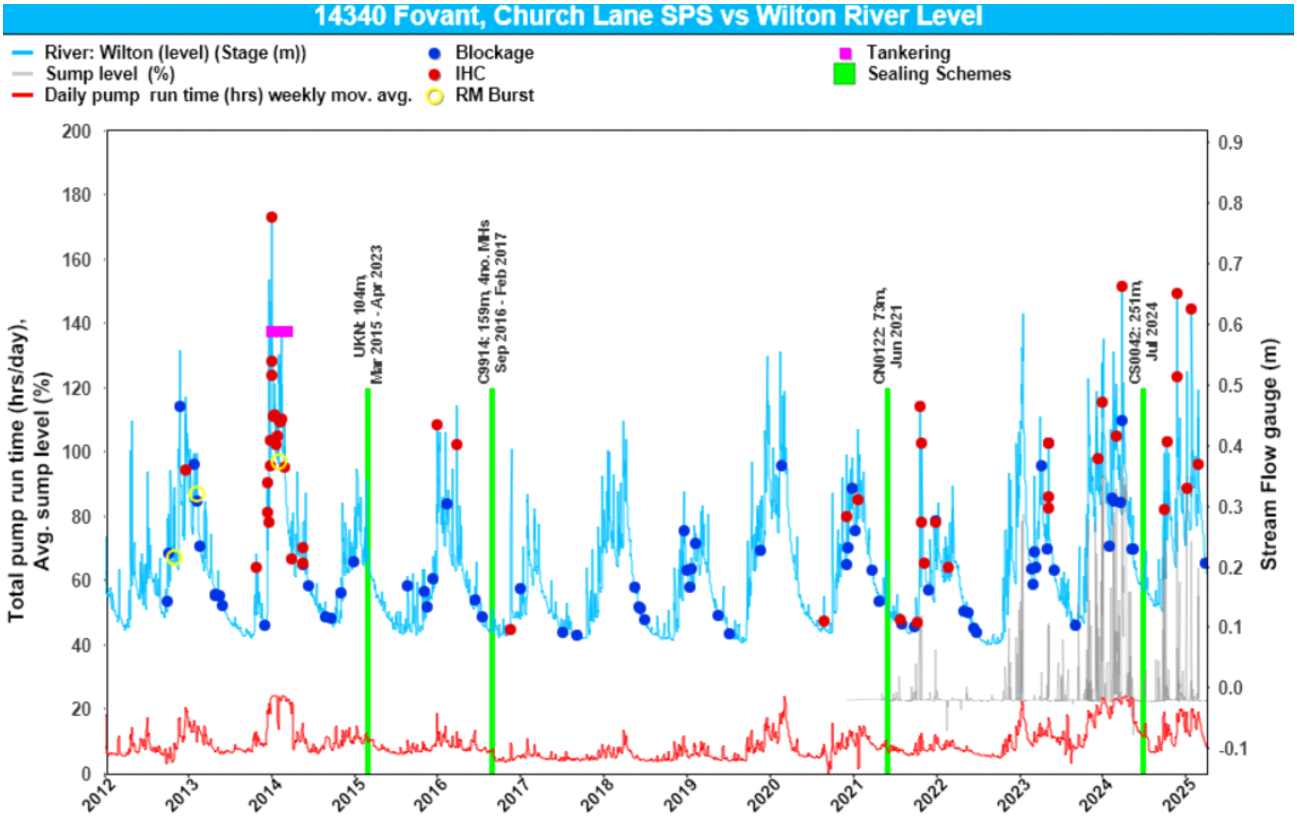
Short Term
Undertake pro-active inspection of public sewers and manholes using CCTV to identify points of infiltration.
Inspect private gullies, drains, and manholes where applicable.
Install in-sewer monitors at key locations to better understand flows in the network.
Infiltration sealing of sewers and manholes, where deemed cost-effective, targeting work according to study findings.

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

Current Performance

The below graph shows incidents in Fovant against river level (as measured at Wilton river gauge) and the pump run times at Church Lane sewage pumping station (SPS). There is a strong correlation between high river levels in recent years and high pump run times. Incidents in the past two years due to inadequate hydraulic capacity (IHC) have generally occurred on days experiencing heavy rainfall combined with very high groundwater levels.



Inspection and sealing since 2011

	2011-20	2020-21	2021-22	2022-23	2023-24	2024-25
Length of sewer inspected (m)	15,192	-	2,126	224	909	876
Length of sewer sealed (m)	822	9	840	220	335	274