

Gurney Slade 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

Despite groundwater reaching critical levels within the Gurney Slade catchment, the sewers were able to cope with no incidents attributed to inadequate hydraulic capacity (IHC) reported.

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.

Proactive inspections and maintenance of sewerage assets.

Completed

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.

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

Inspected public sewer network to identify points of infiltration.

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

Reviewed incidents of sewer flooding.

Completed (cont.)

Sealed sewers and manholes to prevent groundwater infiltration.

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

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

Updated the catchment hydraulic model.

Short Term

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

Medium Term

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

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.

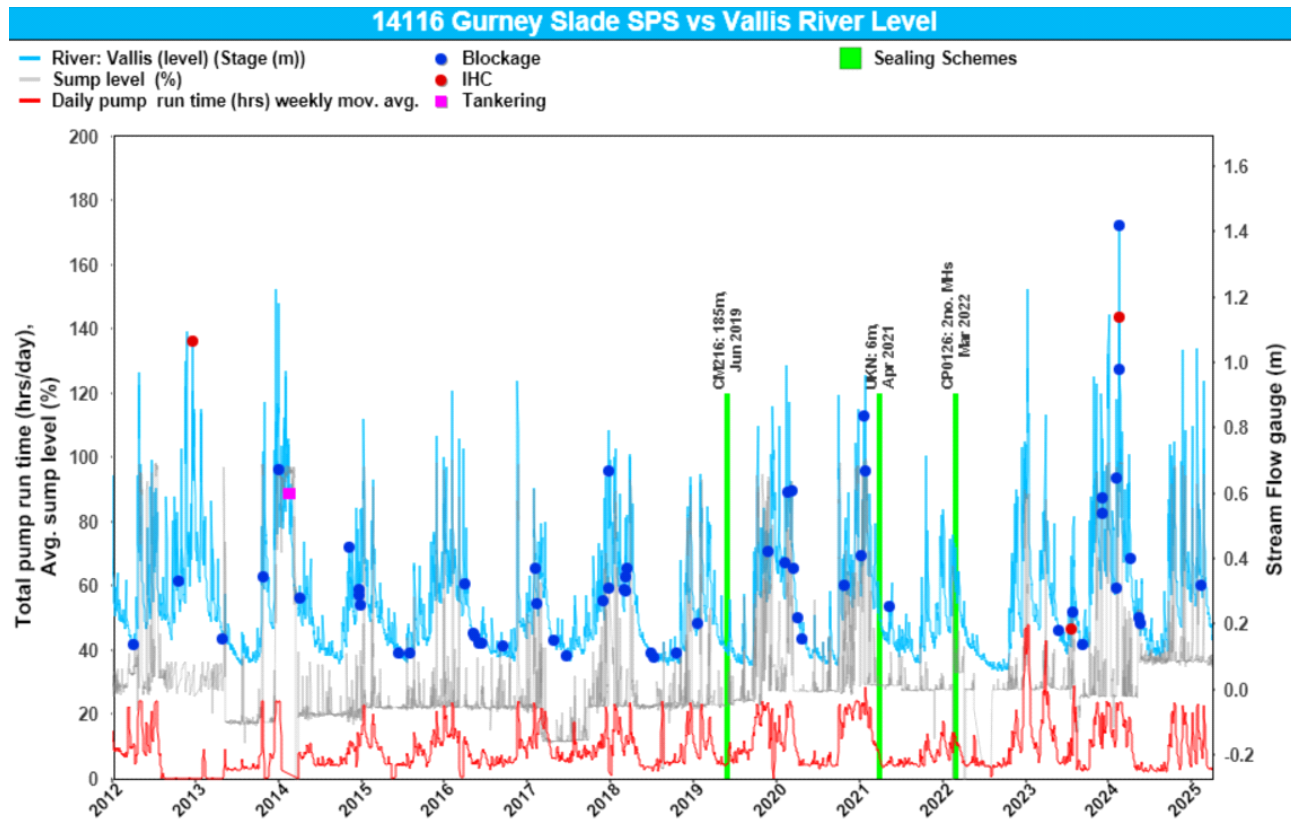
Implement Operational Mitigation Action Plan (OMAP) for discharging excess flows to the environment as a last resort, when tankering would not prevent restricted toilet use or sewer flooding, and public health is at risk.

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

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

Current Performance

This graph shows incidents against River Level (as measured at Vallis River Gauge) and the flow at Gurney Slade Sewage Pumping Station. Incidents caused by inadequate hydraulic capacity (IHC) occurred when river levels have been high, although one IHC incident was reported during the summer of 2023. Pump run times have been high for prolonged periods when river level has been high, suggesting groundwater infiltration to be affecting the catchment.



Inspection and sealing since 2011

	2011-20	2020-21	2021-22	2022-23	2023-24	2024-25
Length of sewer inspected (m)	3,408	-	-	-	743	256
Length of sewer sealed (m)	183	-	6	-	-	-