

Chilmark 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

Groundwater levels in the Chilmark catchment reached critical levels in winter 2024/2025 which meant that tankering was required within the catchment. However, the Operational Mitigation Action Plan was not required.

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.

Reviewed incidents of sewer flooding.

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

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

Completed (cont.)

Updated the catchment hydraulic model.

Inspected public sewer network to identify points of infiltration.

Sealed sewers and manholes to prevent groundwater infiltration.

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.

Medium Term

Inspect private gullies, drains, and manholes where applicable.

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

Analyse flows in sewers using pumping station surveys, flow surveys and/or hydraulic modelling.

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

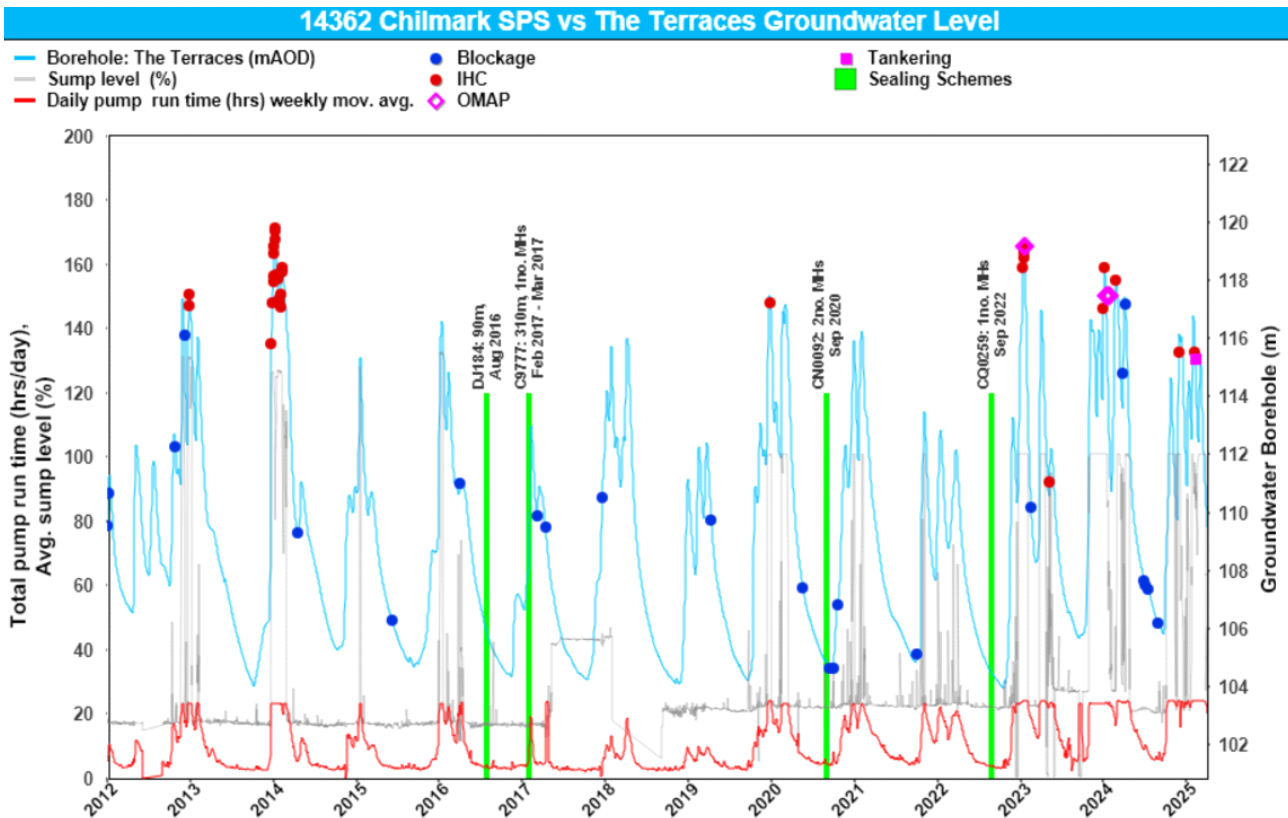
Implement Operational Mitigation Action Plan (OMAP) for discharging excess flows to the environment as a last resort, when tankering would not prevent restricted toilet use or sewer flooding, and public health is at risk.

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

Current Performance

This graph shows incidents against groundwater level (as measured at The Terraces, Fonthill Borehole) and the telemetry at Chilmark Sewage Pumping Station (SPS).

The majority of incidents caused by inadequate hydraulic capacity (IHC) have occurred when groundwater levels are very high in the catchment, showing infiltration to be the main cause of flooding in Chilmark. This has been most evident when groundwater levels were exceptionally high in winter 2013/14, 2022/23 and 2023/24.



Inspection and sealing since 2011

	2011-20	2020-21	2021-22	2022-23	2023-24	2024-25
Length of sewer inspected (m)	3,189	-	-	-	-	3,026
Length of sewer sealed (m)	400	-	-	-	-	-