

Enford 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 2023 – March 2024

Regional Summary

The Wessex region experienced incredibly wet weather across 2023-24, with higher-than-average rainfall in nine months during the period. February 2024 was both the warmest on record and the wettest in 30 years, with the 12-month sequence to the end of February being the wettest since our records began in 1911.

Groundwater levels rose rapidly during the autumn, and whilst drier weather in January 2024 provided a brief reprieve, levels remained high for the majority of the winter.

[*Warmest February on record for England and Wales - Met Office*](#)

Local Summary

The network in Enford was inundated for at least two weeks, in January and March 2024, when the river avon burst its banks and flooded the village. There were three incidents due to inadequate hydraulic capacity (IHC) reported across these 2 weeks.

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

Updated the catchment hydraulic model.

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.

Short Term

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

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

Medium Term

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.

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

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.

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.

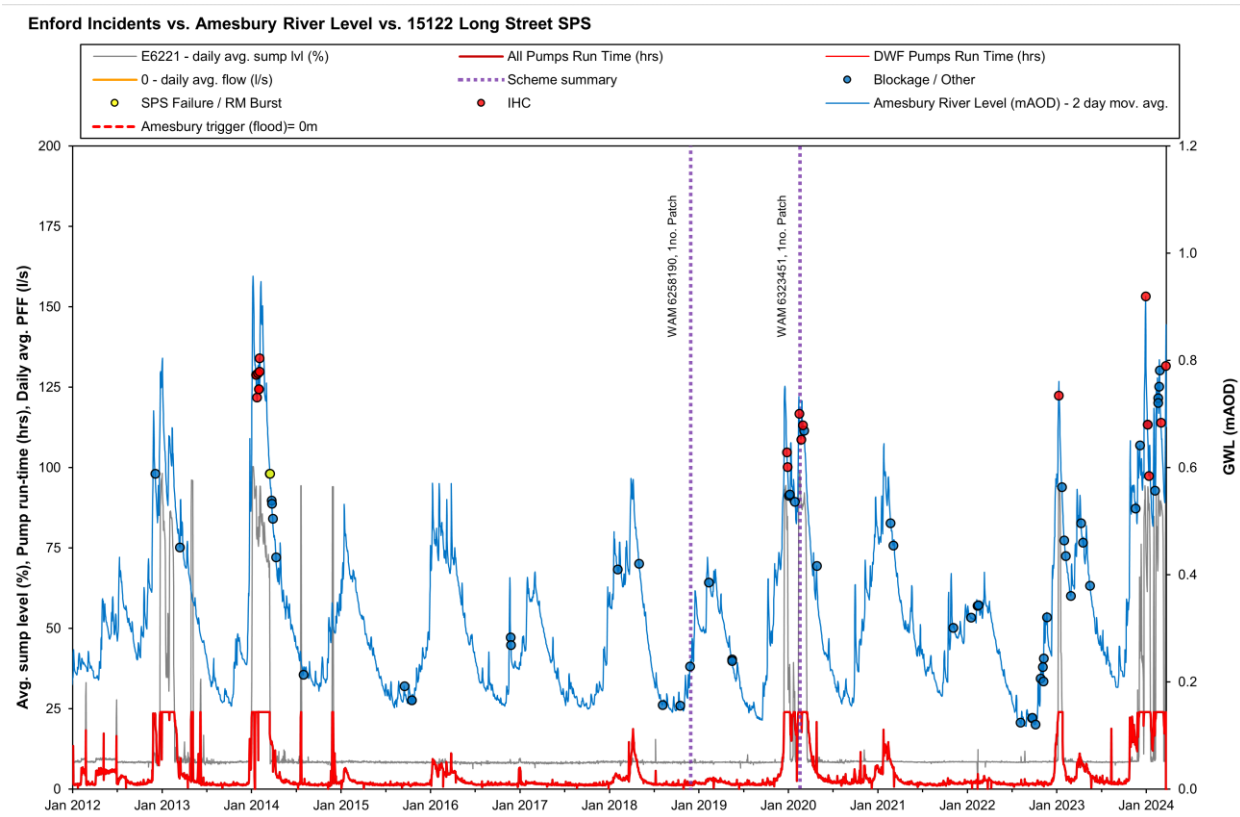
Upgrade pumping stations where appropriate, to improve the reliability and performance of the site.

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

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

Current Performance

This graph compares river level at Amesbury to inadequate hydraulic capacity incidents and pumping station performance in Enford. Although there is a correlation between ground water level and pump station performance, the network is only severely affected by groundwater during the wettest winters, such as 2013/14, 2019/20, and 2023/24.



Inspection and sealing since 2011

	2011-20	2020-21	2021-22	2022-23	2023-24
Length of sewer inspected (m)	531	776	-	-	-
Length of sewer sealed (m)	2	-	-	-	-