

# Long Sutton 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

The groundwater in Long Sutton reached critical levels during the winter period, causing the sewer to become inundated. Several incidents due to inadequate hydraulic capacity (IHC) were reported in the Bennetts Orchard and Knole catchments.

## 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.

Used specialist cameras to visually monitor critical assets.

Investigated nature-based solutions in the catchment.

### Completed (cont.)

Updated the catchment hydraulic model.

Inspected public sewer network to identify points of infiltration.

Sealed sewers and manholes to prevent groundwater infiltration.

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

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

### 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

Implement Nature-based Solutions in the wider catchment.

### 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.

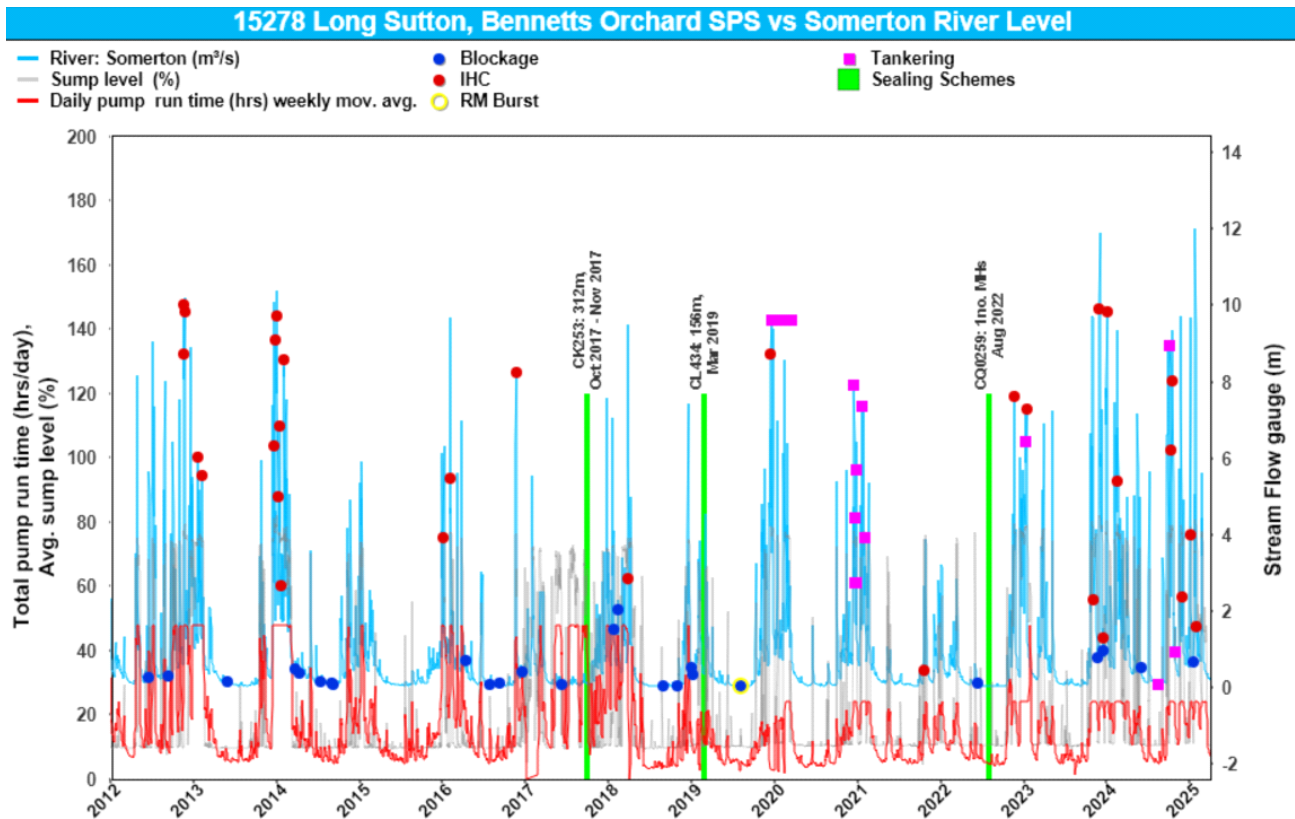
### When Necessary

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.

## Current Performance

This graph shows incidents against Somerton River level and Bennetts Orchard Sewage Pumping Station (SPS) telemetry. There is a clear correlation between river levels, which are an indication of local groundwater, and the telemetry at the SPS. Although infiltration sealing has had a positive impact, incidents attributed to inadequate hydraulic capacity have persisted. As a result, tankering has been required during wet winters.



## Inspection and sealing since 2011

|                               | 2011-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 |
|-------------------------------|---------|---------|---------|---------|---------|---------|
| Length of sewer inspected (m) | 10,973  | -       | 213     | 2,468   | -       | 1,164   |
| Length of sewer sealed (m)    | 558     | -       | -       | -       | -       | -       |