Compton Dundon 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

Groundwater reached critical levels in the Compton Dundon catchment with multiple incidents of backing-up and external flooding reported attributed to inadequate hydraulic capacity (IHC). The Operational Mitigation Action Pan (OMAP) was instigated three times at Moor Close sewage pumping station (SPS), between September 2024 and March 2025, to prevent loss of service and protect public health.

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.
Use specialist cameras to visually monitor critical assets.
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.
Implemented a scheme to address capacity issues in the sewer network.
Updated the catchment hydraulic model.
Inspected public sewer network to identify points of infiltration.

Completed (cont.)
Reviewed incidents of sewer flooding.
Identified road gullies and/or impermeable areas connected to the foul network.
Sealed sewers and manholes to prevent groundwater infiltration.
Inspected private gullies, drains or manholes to identify points of 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.
Undertake review of incidents of sewer flooding suspected to be affected by groundwater infiltration.

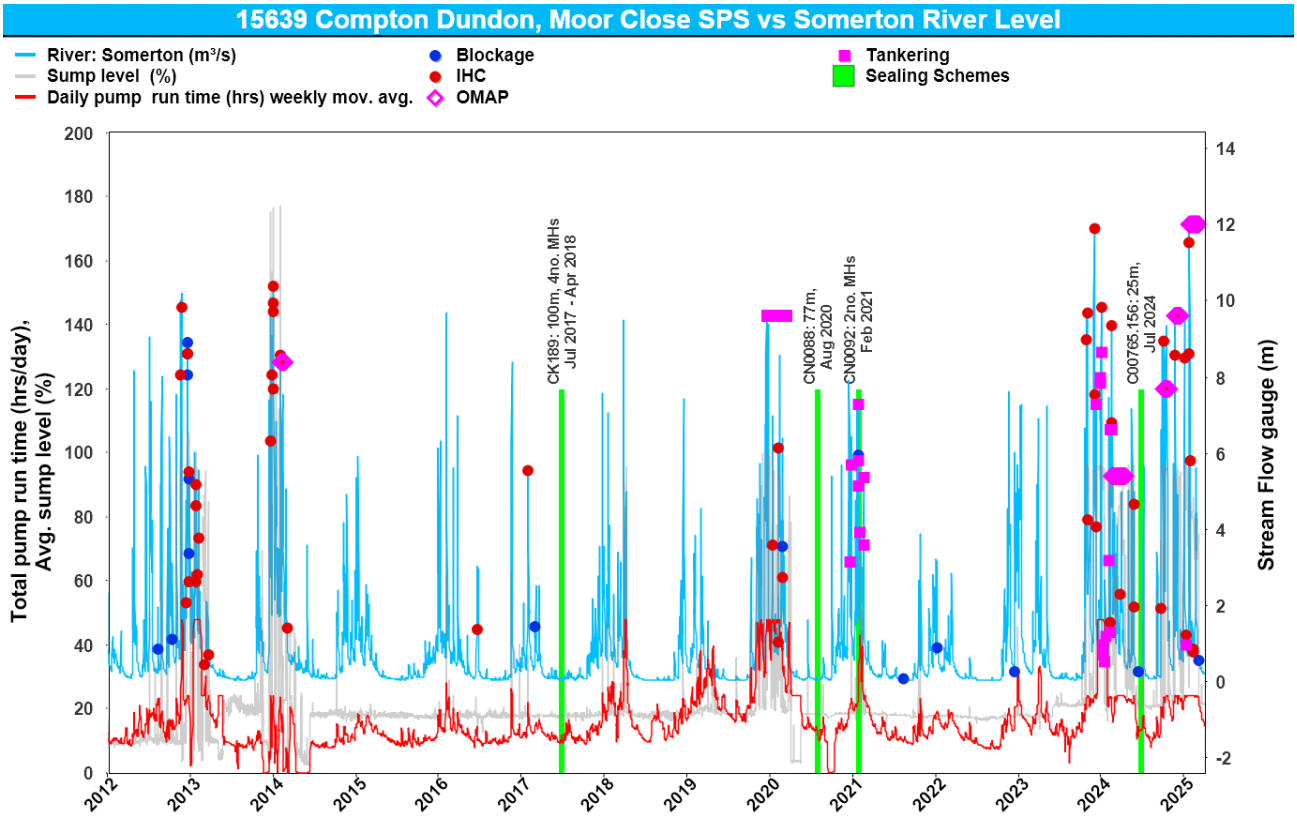
Medium Term
Identify road gullies and other impermeable areas that are connected into the foul sewers.
Infiltration sealing of sewers and manholes, where deemed cost-effective, targeting work according to study findings.

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.

Current Performance

The graph below displays incidents against river level (a representation of local groundwater levels) as measured at Somerton and the telemetry at Moor Close sewage pumping station (SPS). Sealing in 2017/18 and the installation of new pumps at Moor Close in March 2020 appears to have had a positive impact on the catchment between 2020 and 2023. However, following extremely high river levels in 2023/24 & 2024/2025 further incidents attributed to inadequate hydraulic capacity (IHC) were reported.



Inspection and sealing since 2011

	2011-20	2020-21	2021-22	2022-23	2023-24	2024-25
Length of sewer inspected (m)	4,778	417	-	712	13	6
Length of sewer sealed (m)	184	414	-	2	-	748