Hulton Lane Ends

Infiltration Reduction Plan

Last Updated: October 2026



United Utilities

Water for the North West

Executive summary

Hulton Lane Ends in Greater Manchester is currently in the monitoring stage (see Figure 1) to address infiltration and reduce spills at the Hulton Lane Ends Wastewater Treatment Works Storm Overflow. An initial desktop assessment concluded that infiltration was unlikely. However, CCTV surveys found that infiltration was present and interventions were completed in Autumn 2025.

As groundwater infiltration has been found but is yet to be confirmed as the leading cause of spills to the environment, interventions have been completed to address the localised infiltration identified during surveys. As more is known on the outcome of the interventions, this Infiltration Reduction Plan will be updated accordingly.

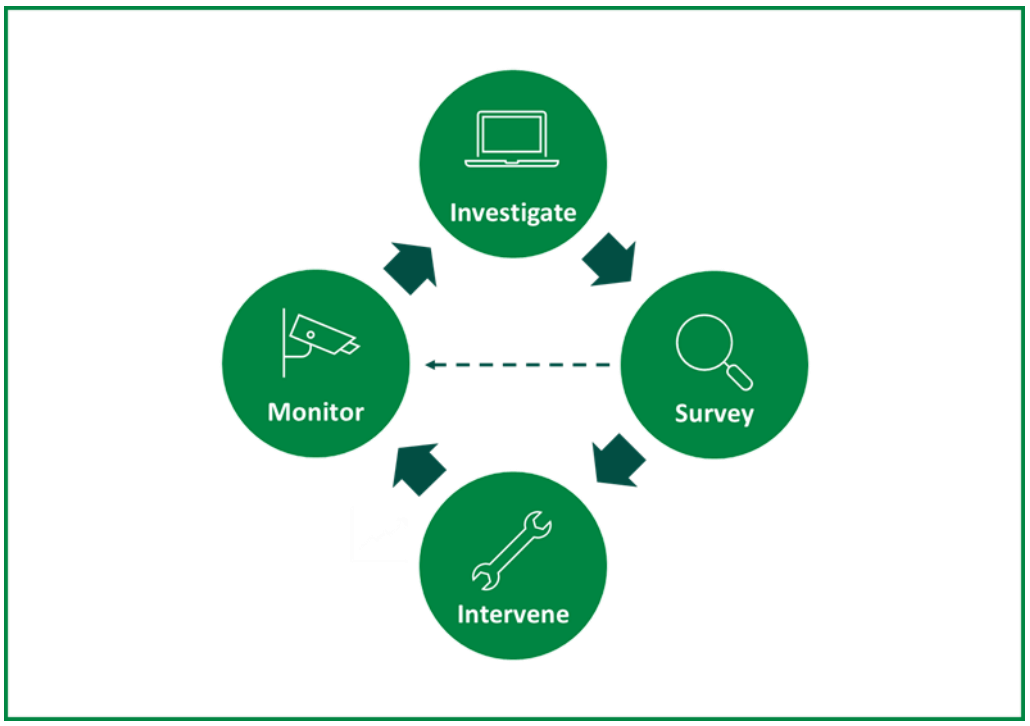


Figure 1: Iterative process to investigate, identify and address groundwater infiltration

Context

Sometimes, water can enter our wastewater pipes for which they were not designed to receive. One source of these additional flows can be groundwater infiltration which can occur through pipe defects, leaky joints, or issues with manholes. Extra water in the network can cause the sewer capacity to be exceeded, leading to sewer flooding or contributing to storm overflow activations.

As part of our ongoing work to maintain an effective network and achieve Better Rivers for the North West, our Infiltration Reduction Plans demonstrate our efforts to date and next steps to address infiltration and inflows in the catchment. This plan covers the Hulton Lane Ends drainage area and its associated overflow, Hulton Lane Ends Wastewater Treatment Works Storm Overflow. In 2022, infiltration was identified as a potential leading cause of the storm overflow discharging. The purpose of this plan is to capture the process to investigate, identify and address significant groundwater infiltration.

Investigation

An initial desktop study was undertaken using available data to understand the extent of infiltration in the sewer network of the drainage catchment. The following data (where available) was analysed to determine the scale and location of potential infiltration:

- Relevant flow and depth data
- Operational information
- MCERTS Data
- Hydraulic models of the catchment
- River Levels
- Groundwater (borehole) data
- Spill analysis
- Topographical and Sewer maps

The assessment identified points where sewers crossed over a watercourse; further investigation was recommended to check for any infiltration from the watercourse into the sewer network. The assessment also found evidence of rainfall-induced infiltration.

From these findings, it was recommended that CCTV surveys be completed to see if there was infiltration from the watercourse into the sewers. CCTV surveys could also identify if there was land drainage connected into the sewers, which would be assessed for removal.

Survey

To confirm any presence of infiltration, 975m of CCTV surveys were completed in Autumn 2024. The surveys were assessed using Artificial Intelligence to rapidly identify and locate points of infiltration. They were then reviewed by an engineer to assess for any required remedial works. Multiple points of infiltration were found, and interventions were recommended as a result.

The network was also checked for inflows; no lateral connections are suspected of receiving flows not bound to receive.

Intervention

As recommended, interventions were completed in Autumn 2025. This involved lining 253m of the sewer network and sealing a manhole chamber via grout injection.

Next steps

Hulton Lane Ends is currently in the monitoring stage of identifying and addressing infiltration (see Figure 1). The site will follow the iterative process displayed in Figure 1 to monitor the efficacy of the completed interventions and identify new points of infiltration, should they arise.