

Hulton Lane Ends

Infiltration Reduction Plan

Last Updated: March 2025



Executive summary

Hulton Lane Ends in Greater Manchester is currently in the intervention stage (see Figure 1) to address infiltration and reduce spills at the Hulton Lane Ends Wastewater Treatment Works Storm Overflow (016950037SO). A desktop assessment concluded that infiltration is unlikely however, surveys clarified that infiltration was present and remedial works are expected to be completed in Spring / Summer 2025.

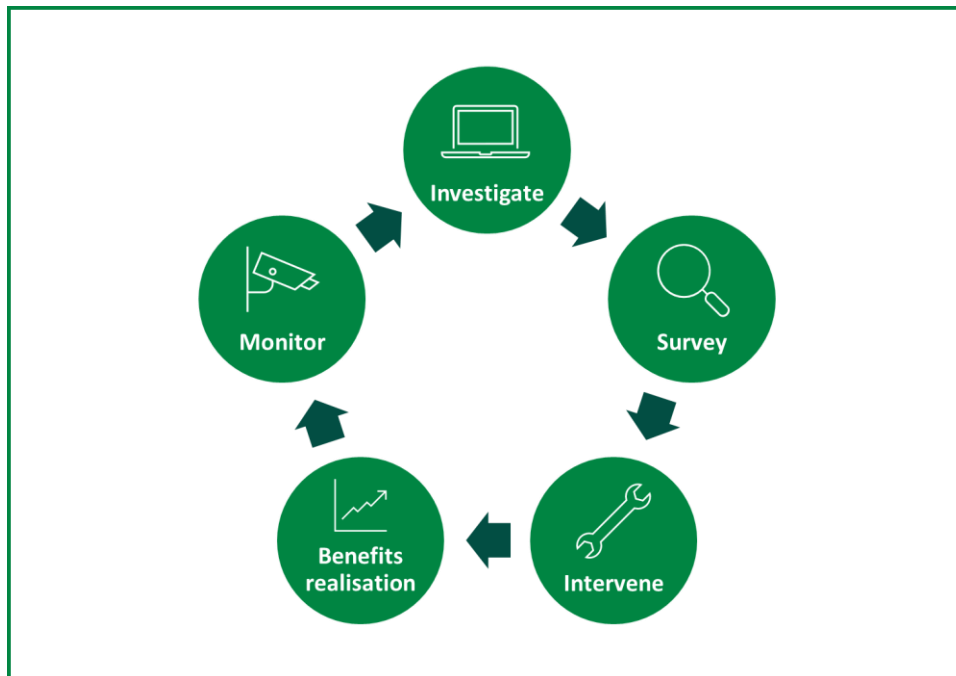


Figure 1: Iterative process to investigate, identify and address groundwater infiltration

Context

Sometimes, water can enter our wastewater pipes that 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 the associated overflow Hulton Lane Ends Wastewater Treatment Works Storm Overflow (016950037SO). In 2022, infiltration was identified as a potential leading cause of the storm overflow discharging. The purpose of this plan is to further investigate and address this.

Investigate

A 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 concluded that infiltration is unlikely in the catchment.

Survey

Despite the desktop assessment determining groundwater infiltration as unlikely, to confirm this, over 975m of CCTV surveys were completed in Winter 2024 and identified multiple points of infiltration. The CCTV surveys were reviewed by an engineer and assessed using Artificial Intelligence to rapidly identify and locate points of infiltration requiring remedial works.

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

Intervention

Remedial works to address infiltration are due to be completed in Spring / Summer 2025. Plans include relining over 253m of the sewer network where infiltration was found.

Next steps

Hulton Lane Ends is currently in the intervention stage of identifying and addressing infiltration (see Figure 1). The site will follow the iterative process displayed in Figure 1 to complete remedial works and monitor the area for their efficacy and identify any more significant areas of infiltration, should they arise.