

Edington (Shapwick and Catcott) 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 2019 – March 2020

Following above average rainfall in June, the summer of 2019 was relatively dry. However, in late Autumn 2019 regional groundwater levels rose sharply and remained high throughout the winter, reaching the highest levels since 2014. February 2020 was particularly wet with 151mm of regional rainfall equating to 228% of the monthly average, as well as the average annual rainfall for the preceding 12 months being 122% of the long-term average.

Action Plan

Annual activity

- Pro-active maintenance of vulnerable sewers including 6 monthly routine jetting.
- Continue monitoring of system performance using telemetry data within the area.
- Promotion of multiple agency approach. Regular meetings with lead local flood authority and other risk authorities where appropriate.

Completed to date

- Procedure for recording, investigating and resolving incidents put in place.
- Proactive inspections of vulnerable sewers using CCTV.
- Analysed inspection data to identify infiltration.
- Analysis of flows in sewers using flow survey and modelling.
- Commissioned pump station survey and asset update.
- Appraised incidents of sewer and surface water flooding.
- Reviewed historic telemetry and rainfall records.
- Carried out Infiltration sealing of sewer and manholes where deemed cost-effective, targeting work according to study findings.
- Raised awareness of the mechanisms of sewer overloading and need for a risk-based approach to improvements.
- Routinely reviewed telemetry, comparing borehole, watercourse, rainfall data with customer incidents to assess critical infiltration levels.

	2015-16	2016-17	2017-18	2018-19	2019-20
Length of sewer inspected (m)	-	-	6,603	-	127
Length of sewer sealed (m)	87	-	-	-	370.5

Short term

- Liaise with the Environment Agency about groundwater warning service.

Medium term

- Update the current hydraulic model for Chilton Polden, including Edington catchments, using flow surveys.
- Further targeted infiltration studies and CCTV informed by analysis of previous surveys.
- Commissioned further pump station survey.

Long term

- Carry out additional CCTV to identify infiltration areas, including inspection of private gullies, drains and manholes.
- Remedial works of private assets creating an inflow into the foul only sewer.
- Monitor and regulate surface water disposal to prevent surface water to foul misconnections.

Current Performance

This graph shows incidents against groundwater level (as measured at Barcombe Farm borehole) and the telemetry at Edington Sewage Pumping Station. Although several lengths were rehabilitated in July 2019, infiltration is still evident in the catchment. However, there is a significant decrease in reported incidents in the year, with the last flooding instance due to inadequate hydraulic capacity (IHC) being recorded in March 2018.

