

Sydling St. Nicholas 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

- Routine jetting of vulnerable sewers to maximise capacity.
- Review existing asset and operational data and produce an Infiltration Reduction Report.
- Investigate and review Annual Infiltration Reduction Update.
- Continued monitoring of telemetry.
- Promotion of multi-agency approach particularly during times of high groundwater level.

Completed to date

- Stakeholders meeting to establish roles and responsibilities with local authorities.
- Put in place a procedure for recording, investigating and resolving incidents.
- Pro-active inspection of public sewers and identified infiltration using CCTV.
- Analysed flows in the sewers using flow survey and modelling.
- Sewer and manhole sealing of the public system where proven to be cost effective.
- Carried out pump station surveys and asset updates, where necessary.
- Reviewed existing boreholes in the area.
- Wessex Water infiltration [video](#) added to website.

	2015-16	2016-17	2017-18	2018-19	2019-20
Length of sewer inspected (m)	737	-	-	-	-
Length of sewer sealed (m)	420	-	-	-	-
Manholes sealed	-	-	6	4	-

Medium term

- CCTV and infiltration studies according to analysis from previous surveys.
- Existing highway outfalls to be inspected and cleared of any silt where necessary.
- Remove impermeable areas identified from the foul sewers where cost effective.

- Pass information on to council regarding private drainage infiltration.
- Install long term depth monitoring at key "hot spot" locations.

Long term

- Liaise with the Environment Agency about their groundwater warning service.
- Investigate and monitor options for surface water separation.
- Consider sustainable solutions such as above ground attenuation.

Current Performance

This graph shows incidents against groundwater level (as measured at Barcombe Farm borehole) and the flow at Sydling St Nicholas Water Recycling Centre. In the Sydling St Nicholas catchment there is a strong correlation between the inflow and the groundwater levels indicating that this area suffers from infiltration. Since the sealing in March 2015 there is still a strong correlation however the number of insufficient hydraulic capacity (IHC) incidents has decreased significantly.

