This provides an update on 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 2017 – March 2018

Regional groundwater in 2017/2018, was relatively low compared to previous winters but experienced a very wet period at the end of 2017 until April 2018. This caused groundwater levels to rise and the catchment to suffer inundation.

Action Plan

Annual activity
- Pro-active maintenance of vulnerable sewers including 6 monthly routine jetting.
- Monitoring of system performance using telemetry.
- Review data, update reports and meet with stakeholders for annual update and share findings.
- Promote a multiple agency approach to managing solutions during high groundwater levels.

Completed to date
- Review existing asset and operational data, infiltration reduction report produced.
- Procedure for recording, investigating and resolving incidents in place.
- Proactive inspection using CCTV of vulnerable public sewers.
- Analysis of inspection data to identify infiltration.
- Analyse flows in sewers using flow survey and modelling.
- Commission pump station survey and asset update.
- Appraise incidents of sewer and surface water flooding.
- Review historic telemetry and rainfall records.
- Carry out infiltration sealing of sewer and manholes where deemed cost-effective, targeting work according to study findings.
- Raise awareness about mechanisms of sewer overloading and need for risk-based approach for improvements.
- Identify road and gullies and other impermeable areas connected to the foul sewer and separate where appropriate.
- Routine review of telemetry and compare with borehole, watercourse, rainfall data and customer incidents to assess infiltration levels.

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<thead>
<tr>
<th></th>
<th>2015-2016</th>
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<tbody>
<tr>
<td>Length of sewer inspected (m)</td>
<td>3365.93</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Length of sewer sealed (m)</td>
<td>-</td>
<td>34.3</td>
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Medium term
- Targeted infiltration studies and CCTV informed by analysis of previous surveys.
- Targeted sewer lining to make vulnerable assets watertight.
Long term
- Inspect and remediate where appropriate private drainage networks.
- Monitor and regulate surface water disposal to prevent misconnection of surface water and foul sewers.

Current Performance

This graph shows incidents against groundwater level (as measured at Barcombe Farm borehole) and the flow at Wookey Sewage Treatment Works. There is a strong relationship between flow into Wookey STW and groundwater level, sealing in 2014 and 2016 has appeared to help reduce incidents due to inadequate hydraulic capacity (IHC) until recently. Infiltration in this catchment appears to still be an on-going problem. We will continue to investigate and make this system watertight.