**Ruishton Infiltration Reduction Plan Summary**

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 levels in 2017/2018, were relatively low compared to previous winters but experienced a very wet period with high groundwater levels at the end of March 2018 and into April, causing groundwater levels to rise. The groundwater did not reach critical levels and the sewerage system was not overloaded, so no mitigation works were carried out.

**Action Plan**

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

**Completed to date**
- Proactive inspection using CCTV of vulnerable public sewers undertaken.
- Analysis of inspection data to identify infiltration.
- Analysis of sewer flows using flow surveys and modelling.
- Cost effective sewer and manhole sealing of the public system.
- Pump station surveys and asset updates.
- Removal of road gullies and other impermeable areas connected into foul sewers where cost effective.
- Educated some residents about mechanisms of sewer overloading and need for a risk-based approach to improvements.
- Reviewed existing boreholes in the area.

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<th>2015-2016</th>
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<tbody>
<tr>
<td>Length of sewer inspected (m)</td>
<td>2186</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Length of sewer sealed (m)</td>
<td>13.5</td>
<td>-</td>
<td>298</td>
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**Short term**
- Appraisal of flooding incidents.

**Medium term**
- Install long term depth monitoring at key “hot spot” locations, as necessary.
- Investigate watercourse monitoring in the local area as a possible indicator of groundwater levels.
**Long term**
- Liaise with the Environment Agency about their groundwater warning service.
- Inspection of private gullies, drains and manholes.
- Remedial works of private assets.
- 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 flow at Barton Lane Sewage Pumping Station, Ruishton. Prior to the sewer sealing, there was a strong correlation between the groundwater level and the flow at Barton Lane. However, post sealing, this relationship reduced considerably, with only blockages being reported when groundwater levels peaked in April 2018. The groundwater levels did not reach critical levels and the sewerage system could cope; therefore, no mitigation measures were put in place.