<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 04 Jan 2016 For 1 week (WSX) | Chard, Somerset | 2 | Tarmac taste or odour due affecting a single property due to misconnection to a stagnant main | **Company Actions:**  
• Flushed mains.  
• Sampled affected area.  
• Issued a do not drink notice.  
• Provided bottled water on request.  
• Identified the new connection had been made to a stagnant section of main.  
• Reviewed procedures and introduced the requirement for chlorine checks before supply connections are completed.  
**DWI Comments and Findings:**  
• The company was issued with a formal warning letter.  
**Risk classification:** Significant. |
| 05 Jan 2016 For 5 hours (SRN) | Sarum Road service reservoir, Winchester, Hampshire | 7,099 | Loss of supplies and discolouration caused by low water level in reservoir during planned work on the reservoir. | **Company Actions:**  
• Returned reservoir to service to restore supplies.  
• Sampled affected area.  
• Flushed mains.  
**DWI Comments and Findings:**  
• Recommended the company review its procedures to ensure that arrangements in place to maintain sufficiency of supplies during planned work on service reservoirs are strengthened.  
**Risk classification:** Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 08 Jan 2016 For 2 days (SEW) | Tunbridge Wells, Kent | 11,923 | Brown discolouration due to planned work. | **Company Actions:**
  • Sampled affected area.
  • Flushed mains.

**DWI Comments and Findings:**
  • Caused by transcription error leading to the work being carried out during peak demand increasing the risk of discolouration.
  • Recommended the company remind all staff of the importance of accurately transcribing information.

Risk classification: Significant.

| 11 Jan 2016 For 5 days (ANG) | Risby, Suffolk | 115 | Third party damage to a main and sewer. | **Company Actions:**
  • Issued a boil water notice.
  • Sampled affected area.
  • Repaired main.
  • Issued a written warning to the third party.

**DWI Comments and Findings:**
  • The company's response to this event was satisfactory and no further DWI action to be taken.

Risk classification: Significant.

| 12 Jan 2016 For 4 days (SBW) | Knapp Mill works, Bournemouth, Dorset | 134,000 | UV treatment compromised following raw water deterioration after heavy rainfall. | **Company Actions:**
  • Sampled affected area.
  • Reduced flows through the UV reactors and increased power.
  • The works was subsequently shut down.

**DWI Comments and Findings:**
  • The Inspectorate concluded that the operation of the UV reactor outside of its validated range constituted a breach of Regulation 26(1).
  • Recommended the company embeds learning from this event into future design criteria where similar UV installations are required.

Risk classification: Significant.
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 12 Jan 2016 For 5 days (SRN) | The Isle of Sheppey | 44,549 | Loss of supplies due to burst main located under a main road. | **Company Actions:**  
• Rezoned area (brought in water from different source).  
• Provided alternative supply by tanker/bowser.  
• Provided bottled water on request.  
• Repaired and flushed mains.  
• Sampled affected area.  
• Company installed new dual mains to restore supplies and increase resilience.  
**DHI Comments and Findings:**  
• Inadequate risk assessment.  
• Suggestion made to review risk assessments for vulnerable infrastructure.  
Risk classification: Significant. |
| 12 Jan 2016 For 3 days (TMS) | Childrey Warren works, Wantage, Oxfordshire | 10,494 | Cryptosporidium detection following raw water deterioration. | **Company Actions:**  
• Sampled affected area.  
• Considering additional measures to mitigate the risk of Cryptosporidium.  
**DHI Comments and Findings:**  
• The company's response to this event was satisfactory and no further DHI action to be taken.  
Risk classification: Significant. |
| 13 Jan 2016 For 1 day (TMS) | Bourne Hill service reservoir, South Enfield, Essex | 61,580 | Evidence of microbiological contamination of a service reservoir. | **Company Actions:**  
• Sampled affected area.  
• Removed reservoir from supply for inspection and repaired points of ingress.  
**DHI Comments and Findings:**  
• Suggested the company update their risk assessment.  
Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 14 Jan 2016 For 24 hours (YKS) | Sheffield, Rotherham, South Yorkshire | 95,000 | Brown discolouration due to disturbance of mains deposits following a pump failure. | Company Actions:  
• Flushed mains.  
• Repaired faulty equipment.  
• Sampled affected area.  
• Reviewed risk assessments for the trunk mains and the affected areas  
D威尔评论和发现:  
• 设备维护不足。  
• 建议公司审查风险评估
Risk classification: Significant. |
| 18 Jan 2016 For 12 hours (TMS) | Central Reading, Berkshire | 88 | Brown discolouration due to planned work on the network causing mobilisation of stagnant water. | Company Actions:  
• Sampled affected area.  
• Rezoned area (brought in water from different source).  
• The company has provided a revised methodology for risk assessment and an action plan to address the shortcomings highlighted during this event.  
D威尔评论和发现:  
The company received recommendations regarding:  
• Inadequate contingency planning.  
• Inadequate investigations into root cause.  
• Inadequate procedures.  
• Inadequate risk assessment.  
• Inadequate training / competence of staff.  
• The Inspectorate considered this to be an avoidable event.  
• Enforcement action was considered.  
Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 19 Jan 2016 For 10 hours (SVT) | Birmingham | 1,300,000 | Treatment failure at Frankley works: issues with coagulation dosing leading to breach of iron PCV on final water, compromising final disinfection | **Company Actions:**  
  • Sampled affected area.  

**DWI Comments and Findings:**  
• Investigation ongoing. |
| 20 Jan 2016 For 3 days (SEW) | Groombridge works, Tunbridge Wells, Kent | 2,393 | Consumer complaints of musty taste and odour caused by stagnant water entering the contact tank at Groombridge works. | **Company Actions:**  
  • Works shut down  
  • The contact tanks were inspected and cleaned  
  • The filtration plant was drained and a faulty valve replaced to prevent stagnant water from entering the contact tank.  
  • Sampled affected area.  
  • Flushed mains.  

**DWI Comments and Findings:**  
• Investigation ongoing. |
| 21 Jan 2016 For 2 days (DWR) | Merthyr Tydfil, South Wales | 28,750 | Brown discoloration due to low level in Pengarnddu service reservoir, following an unplanned shutdown of Pontsticil water treatment works.  
  • Sampled affected area.  
  • Repaired faulty equipment.  

**DWI Comments and Findings:**  
• Lack of maintenance of equipment.  
  • A Notice is in place for the company to build a new reservoir at Pengarnddu.  

Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 25 Jan 2016 For 1.5 hours (SVT) | Birmingham | 1,300,000 | Loss of coagulation at Frankley works leading to breach of iron PCV compromising final disinfection | **Company Actions:**  
  • Sampled affected area.  
  **DVI Comments and Findings:**  
  • A repeat of the event that occurred on 19 January (see above)  
  • Investigation ongoing. |
| 28 Jan 2016 For 3 days (SVT) | Worksop, Nottinghamshire | 6,137 | Brown discoulouration due to planned work. | **Company Actions:**  
  • The planned work was immediately stopped.  
  • Flushed mains.  
  • Sampled affected area.  
  **DVI Comments and Findings:**  
  • The company's response to this event was satisfactory and no further DWI action to be taken.  
  Risk classification: Significant.
| 01 Feb 2016 For 20 hours (CHO) | Shipton Bellinger and Cholderton, Hampshire | 1,260 | Treatment failure: Loss of chlorination due to plant failure at Cholderton works. | **Company Actions:**  
  • Repaired faulty equipment.  
  • Review of procedures.  
  • Shut down treatment works.  
  • Increased chlorine residuals at treatment works.  
  The company has instigated twice daily monitoring of chlorine levels using portable analytical equipment.  
  **DVI Comments and Findings:**  
  • Inadequate treatment process--Disinfection.  
  • Did not liaise with local/health authorities.  
  • Inadequate follow-up sampling.  
  • Inadequate risk assessment.  
  Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 02 Feb 2016 For 0.5 hours (NNE) | Gunnerton works, Northumberland | 29,648 | Improperly disinfected water due to failure of pH control following planned work. | **Company Actions:**  
  • The company reviewed procedures and retrained staff.  
**DWI Comments and Findings:**  
  • Procedures were inadequate and sampling not timely enough. There was inadequate communication causing a delay in response.  
  • Recommendations were made regarding these deficiencies and that learning from this event is shared across all sites.  
Risk classification: Significant. |
| 05 Feb 2016 For 2 days (SVT) | Hucknall, Nottinghamshire | 40,000 | Brown discoloration due to unauthorised valve operation by a third party. | **Company Actions:**  
  • Sampled affected area.  
  • Flushed mains.  
  • Retrained staff.  
**DWI Comments and Findings:**  
  • The company’s response to this event was satisfactory and no further DWI action to be taken.  
Risk classification: Significant. |
| 06 Feb 2016 For 3 days (TMS) | Childrey Warren works, Wantage, Oxfordshire | 10,494 | Cryptosporidium detection following raw water deterioration. | **Company Actions:**  
  • Sampled affected area.  
  • Installed a membrane treatment plant to mitigate the risk.  
**DWI Comments and Findings:**  
  • The company’s response to this event was satisfactory and no further DWI action to be taken.  
Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 07 Feb 2016 For 4 days (SVT) | Perry Bar, Birmingham | 263 | Mains damage during planned work to repair a sewer. | **Company Actions:**  
  • Issued do not drink notices.  
  • Provided bottled water on request.  
  • Repaired and chlorinated main.  

**DWI Comments and Findings:**  
• The company's response to this event was satisfactory and no further DWI action to be taken.  

Risk classification: Significant. |
| 10 Feb 2016 For 1 day (YKS) | Bransholme, Hull | 5,750 | Brown discolouration due to burst main following third party damage. | **Company Actions:**  
  • Sampled affected area.  
  • Repaired main.  
  • Rezoned area (brought in water from different source).  
  • Increased flows due to the rezone caused discolouration.  

**DWI Comments and Findings:**  
• Metal and turbidity failures were noted during this event, a review within the zone identified previous iron failures and a high customer contact rate for discolouration.  
  • Recommended the company review their risk assessment for the zone ensuring adequate recording of risks associated with discolouration and metals.  

Risk classification: Significant. |
| 11 Feb 2016 For 5 days (TMS) | Whitehall, Central London | 52,876 | Loss of supplies/poor pressure due to burst main caused by third party damage. | **Company Actions:**  
  • Sampled affected area.  
  • Rezoned area (brought in water from different source).  
  • Repaired and flushed main.  

**DWI Comments and Findings:**  
• Suggested the company review liaison procedures with the third party; this was the second time this main was damaged.  

Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 12 Feb 2016 For 10 hours (UUT) | Lancaster works, Morecombe, Langthwaite | 146,667 | Treatment failure: elevated turbidity on contact tank outlet. | **Company Actions:**  
  • Outlet valves on second stage filters were passing.  
  • Partial draining of the main between the filters and contact tank resulted in air entrainment affecting the turbidity monitors.  
  • Repaired faulty equipment.  
  • Blended supply with another source.  
  **DWI Comments and Findings:**  
  The company's response to this event was satisfactory and no further DWI action to be taken.  
  Risk classification: Significant. |
| 16 Feb 2016 For 3 hours (SVT) | Nottinghamshire | 75,000 | Loss of supplies/poor pressure due to a planned shutdown at Church Wilne works. | **Company Actions:**  
  • Issued do not drink notices to consumers reporting blue water due to backsiphonage.  
  • Flushed mains.  
  • Review of procedures and internal reorganisation of personnel.  
  **DWI Comments and Findings:**  
  Recommendations were made to address the following:  
  • Inadequate risk assessment for changes to the planned work.  
  • Inadequate training / competence of staff.  
  • Inadequate number of samples taken and sampling was not timely enough.  
  • Inadequate complaints response procedures.  
  • Prioritisation of backflow installation to protect the wider network as quickly as possible.  
  Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 18 Feb 2016 For 2 days (SVT) | Draycote works, Warwickshire | 91,199 | Evidence of microbiological contamination (*E. coli*). | **Company Actions:**  
• Sampled affected area.  
**DWI Comments and Findings:**  
• There is an existing Notice in place for coliforms and *E. coli* across all Severn Trent Water's treatment works.  
Risk classification: Significant. |
| 26 Feb 2016 For 60 weeks (TMS) | Thames Water Laboratory | N/A | Deliberate alteration of baseline AQC data for organic chemistry. | **Company Actions:**  
• Retrained staff.  
• Review of procedures implementing preventative measures.  
• Engaged with instrument manufacturers.  
**DWI Comments and Findings:**  
• The Inspectorate required the company to re-submit affected data, with comments appended to reflect the inaccuracies.  
Risk classification: Significant. |
| 29 Feb 2016 For 1 day (YKS) | Eastfield, near Scarborough, Yorkshire | 8,000 | Treatment failure due to elevated turbidity in raw water at Cayton Carr Lane works. | **Company Actions:**  
• Sampled affected area.  
• Rezoned area (brought in water from different source).  
• Company contained affected water in one reservoir compartment and removed this to waste.  
• Retrained staff and reviewed procedures to ensure compliance with Regulation 26.  
**DWI Comments and Findings:**  
• Inadequate training/competence of staff.  
• Inadequate treatment process–Disinfection.  
• Lack of maintenance of equipment.  
Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>02 Mar 2016 For 10 hours (SVT)</td>
<td>Chapel en Le Frith, Derbyshire</td>
<td>1,500</td>
<td>Loss of supplies/poor pressure due to burst main.</td>
<td><strong>Company Actions:</strong>&lt;br&gt;• Repaired main. • Sampled affected area. • Flushed mains. &lt;br&gt;<strong>DUI Comments and Findings:</strong>&lt;br&gt;• The company's response to this event was satisfactory and no further DWI action to be taken. &lt;br&gt;Risk classification: Significant.</td>
</tr>
<tr>
<td>03 Mar 2016 For 12 hours (UUT)</td>
<td>Huyton, Liverpool</td>
<td>30,865</td>
<td>Brown discolouration due to burst main.</td>
<td><strong>Company Actions:</strong>&lt;br&gt;• Flushed mains. • Repaired main. • Sampled affected area. • Updated their risk assessment to reflect the potential risk of discolouration within the area. &lt;br&gt;<strong>DUI Comments and Findings:</strong>&lt;br&gt;• The company's response to this event was satisfactory and no further DWI action to be taken. &lt;br&gt;Risk classification: Significant.</td>
</tr>
<tr>
<td>04 Mar 2016 For 2 weeks (SWT)</td>
<td>Clyst St George near Exeter, Devon</td>
<td>375</td>
<td>Risk of contamination due to illegal cross connection with private water supply.</td>
<td><strong>Company Actions:</strong>&lt;br&gt;• Liaised with the local authority regarding known private water supplies. • Carried out water fittings inspections, identified and disconnected a cross connection with a private water supply. • Provided bottled water on request. • Flushed mains to remove the private supply water. &lt;br&gt;<strong>DUI Comments and Findings:</strong>&lt;br&gt;• The company's response to this event was satisfactory and no further DWI action to be taken. &lt;br&gt;Risk classification: Significant.</td>
</tr>
<tr>
<td>Date and duration</td>
<td>Area</td>
<td>Estimate of population affected</td>
<td>Nature and cause of event</td>
<td>Main actions and findings from the Inspectorate investigation</td>
</tr>
<tr>
<td>-------------------</td>
<td>------</td>
<td>---------------------------------</td>
<td>---------------------------</td>
<td>----------------------------------------------------------</td>
</tr>
</tbody>
</table>
| 05 Mar 2016 For 2 days (UUT) | Woodgate Hill No.2 works, Greater Manchester | 1,463,048 | Cryptosporidium detection. | **Company Actions:**  
  • Sampled affected area.  
  • Removed contact tank from supply.  

**DWI Comments and Findings:**  
  • Caused by ingress whilst contact tank roof was being repaired  
  • Investigation ongoing.  

Risk classification: **Serious.** |
| 09 Mar 2016 For 6 hours (ANG) | Barrow-Upon-Humber, Lincolnshire | 2,530 | Brown discolouration due to planned work. | **Company Actions:**  
  • Flushed mains.  
  • Sampled affected area.  

**DWI Comments and Findings:**  
  • Inadequate and delayed follow-up sampling.  

Risk classification: **Significant.** |
| 09 Mar 2016 For 5 days (SWT) | Greatwell and Willmington, Devon | 2,000 | Risk of contamination from flooding of Hook works following heavy rainfall. | **Company Actions:**  
  • Shut down treatment works.  
  • Flushed mains.  
  • Inspected the contact tank and repaired routes of ingress.  
  • Issued a boil water notice.  
  • Worked with local farmer to avoid slurry spreading when heavy rain is forecast.  
  • Upgraded drainage at the works and installed a diversion pipe to divert surface water away from the site.  

**DWI Comments and Findings:**  
  • Supplied unwholesome water in breach of regulations.  
  • Inadequate risk assessment.  

Risk classification: **Significant.** |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 11 Mar 2016 For 26 hours (SVT) | Castle Donington, Derbyshire | 8,198 | Do not use notice issued to consumers following high chlorine caused by dosing failure at Castle Donington service reservoir. | **Company Actions:**  
  - Removed service reservoir from supply.  
  - Flushed mains.  
  - Issued a do not use notice.  
  - Provided bottled water.  
  - Sampled affected area.  
  **DWI Comments and Findings:**  
  - Chaotic communications with consumers resulted in up to 125,000 people included in the do not use advice at one point.  
  - The company missed a number of opportunities to prevent the event.  
  - Inadequate risk assessment prior to planned operational changes.  
  - Inadequate contingency plan for provision of alternative supplies.  
  - The company accepted a caution for the offence of supplying water unfit for human consumption.  
  Risk classification: Serious. |
| 24 Mar 2016 For 20 weeks (SRN) | Sarisbury Green, Hampshire | 3 | Evidence of microbiological contamination (*P. aeruginosa*) at a single property due to contamination of the private domestic system | **Company Actions:**  
  - Sampled affected area.  
  **DWI Comments and Findings:**  
  - The company's response to this event was satisfactory and no further DWI action to be taken.  
  Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>29 Mar 2016 For 12 hours (YKS)</td>
<td>Keighley, West Yorkshire</td>
<td>8,860</td>
<td>Loss of supplies and discolouration due to burst main.</td>
<td>Company Actions: • Repaired and flushed main. • Sampled affected area.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>DWI Comments and Findings: • The company's response to this event was satisfactory and no further DWI action to be taken.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Risk classification: Significant.</td>
</tr>
<tr>
<td>30 Mar 2016 For 20 hours (HPL)</td>
<td>Hartlepool, County Durham</td>
<td>17,745</td>
<td>Brown discolouration due to burst main.</td>
<td>Company Actions: • Repaired main. • Provided bottled water on request.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Sampled affected area. • Flushed mains.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>DWI Comments and Findings: • The company's response to this event was satisfactory and no further DWI action to be taken.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Risk classification: Significant.</td>
</tr>
<tr>
<td>31 Mar 2016 For 4 days (UUT)</td>
<td>Halewood, Merseyside</td>
<td>97,558</td>
<td>Brown discolouration due to burst main following third party damage.</td>
<td>Company Actions: • Provided an alternative supply direct injection into the distribution system from tankers.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Provided bottled water on request. • Repaired and flushed main.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Sampled affected area. • Liaised with building contractors regarding the protection of a main running through building site.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>DWI Comments and Findings: • Unacceptable delay in notifying Inspectorate.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Reminder to follow best practice for maintaining wholesome water supplied via tankers.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Queried an elevated plate count result from an associated reservoir, which was subsequently taken out of service for inspection and ingress identified.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Risk classification: Significant.</td>
</tr>
<tr>
<td>Date and duration</td>
<td>Area</td>
<td>Estimate of population affected</td>
<td>Nature and cause of event</td>
<td>Main actions and findings from the Inspectorate investigation</td>
</tr>
<tr>
<td>-------------------</td>
<td>------</td>
<td>-------------------------------</td>
<td>--------------------------</td>
<td>-------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| 01 Apr 2016 For 1 hour (NNE) | Horsley works, Newcastle | 619,333 | Compromised final disinfection due to loss of control of pH correction. | **Company Actions:**  
  - Repaired faulty equipment.  
  - Sampled affected area.  
  - Installed new labelling for critical instrumentation and improved visibility of potential impact on contact time when jobs are raised.  

**DWI Comments and Findings:**  
- The company's response to this event was satisfactory and no further DWI action to be taken.  

**Risk classification:** Significant. |
| 06 Apr 2016 For 5 weeks (BRL) | Bristol Water Laboratory | N/A | Deliberate falsification of on-site chlorine analytical quality control (AQC) data by a company employee. | **Company Actions:**  
  - Company interviewed employee and started disciplinary proceedings.  
  - Company reviewed training and completed retraining of all staff.  
  - Reviewed procedures and introduced additional quality control checks.  
  - Sample data resubmitted.  

**DWI Comments and Findings:**  
- Inadequate training/competence of staff.  
- Recommendation under Regulation 16 to resubmit all sample data for the associated time period with the comment that no valid AQC data associated with it.  

**Risk classification:** Significant. |
| 09 Apr 2016 For 1 day (SVT) | Mossgate works, Stoke on Trent | 31,365 | Evidence of microbiological contamination: *(E. coli)*. | **Company Actions:**  
  - Sampled affected area.  
  - Shut down treatment works.  
  - Brought forward programme of work and installed ultraviolet (UV) treatment.  

**DWI Comments and Findings:**  
- The company’s response to this event was satisfactory and no further DWI action to be taken.  

**Risk classification:** Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 09 Apr 2016 For 2 hours (YKS) | Chellow Heights works, Bradford, Yorkshire | 670,000                          | Treatment failure: loss of chlorination following power failure. | **Company Actions:**  
  • Sampled affected area.  
  • Increased chlorine residuals at treatment works by slug dosing the tanks.  
  **DWI Comments and Findings:**  
  • Inadequate risk assessment.  
  Risk classification: Significant. |
| 11 Apr 2016 For 24 hours (SVT) | Strensham works, Worcestershire          | 691,132                          | Evidence of microbiological contamination: (E. coli) at Strensham works | **Company Actions:**  
  • Sampled affected area.  
  • Replaced faulty equipment.  
  • Carried out a programme of work to rectify potential sources of contamination.  
  **DWI Comments and Findings:**  
  • An existing Notice is in place at the works requiring improvements to the disinfection processes. The work is on target for completion by the due date.  
  Risk classification: Significant. |
| 12 Apr 2016 For 3 days (SRN)   | Deal, Kent                               | 37,039                           | Deliberate collection of samples from incorrect location by company employee. | **Company Actions:**  
  • Retrained staff.  
  • Review of procedures.  
  • Improved sampler auditing and tracking.  
  • Repeated the samples.  
  **DWI Comments and Findings:**  
  • The company’s response to this event was satisfactory and no further DWI action to be taken.  
  Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 Apr 2016 For 25 hours (SEW)</td>
<td>Maidstone, Kent</td>
<td>623</td>
<td>Brown discoloration due to burst main.</td>
<td><strong>Company Actions:</strong> • Repaired faulty equipment. • Flushed mains. • Sampled affected area. <strong>DWI Comments and Findings:</strong> • The company's response to this event was satisfactory and no further DWI action to be taken. <strong>Risk classification:</strong> Significant.</td>
</tr>
<tr>
<td>16 Apr 2016 For 3 days (ANG)</td>
<td>Snitterby, Atterby, Bishop Norton villages, Lincolnshire</td>
<td>980</td>
<td>Risk of contamination following third party damage to a main.</td>
<td><strong>Company Actions:</strong> • Issued a boil water notice. • Increased chlorine residuals in the distribution system. • Repaired main. • Sampled affected area. <strong>DWI Comments and Findings:</strong> • The company's response was satisfactory; no further DWI action to be taken. <strong>Risk classification:</strong> Significant.</td>
</tr>
<tr>
<td>19 Apr 2016 For 4 hours (ANG)</td>
<td>Grafham works, Perry, Cambridgeshire</td>
<td>26,000</td>
<td>Media interest following chlorine gas leak and evacuation of a nearby village.</td>
<td><strong>Company Actions:</strong> • Shut down treatment works. • Rezoned area (brought in water from different source). <strong>DWI Comments and Findings:</strong> • Drinking water quality was unaffected and no further DWI action was taken. <strong>Risk classification:</strong> Significant.</td>
</tr>
<tr>
<td>Date and duration</td>
<td>Area</td>
<td>Estimate of population affected</td>
<td>Nature and cause of event</td>
<td>Main actions and findings from the Inspectorate investigation</td>
</tr>
<tr>
<td>-------------------</td>
<td>------</td>
<td>---------------------------------</td>
<td>---------------------------</td>
<td>-------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| 22 Apr 2016 For 1 week (YKS) | Hull and Holderness, Yorkshire | 200,000 | Earthy taste and odour due to increase of geosmin and methy-lisoborneol in the raw water at Tophill Low works. | **Company Actions:**<br>• Attempted to commence powdered activated carbon (PAC) dosing, however there was an electrical fault.<br>• Reduced flow through the works and repaired faulty equipment.<br>• Due to customer contacts the dose was increased, this then caused damage to the power inverter and the system failed.<br>• Sampled affected area. • Reviewed triggers to initiate PAC dosing.<br>• Introduced a proactive process to test dosing systems.  
**DWI Comments and Findings:**<br>• Recommended the company consider earlier responses from maintenance personnel for systems critical to maintain compliance with Regulation 4.<br>• Recommended the company advance investigations to mitigate the risk of treatment failure.<br>• Suggested the company ensure they have spare parts available for critical assets.<br>Risk classification: Significant. |
| 28 Apr 2016 For 24 hours (SEW) | Bexhill, Surrey | 12,785 | Loss of supply/low pressure followed by aeration and discolouration caused by planned work. | **Company Actions:**<br>• Sampled affected area.<br>• Flushed mains.  
**DWI Comments and Findings:**<br>• Recommended the company ensure sampling is more timely.<br>• Inadequate training/competence of staff.<br>Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 03 May 2016 For 3 days (YKS) | Silkstone and Cawthorne, South Yorkshire | 4,750 | Brown discoulouration due to burst main associated with planned work on the network. | **Company Actions:**  
  - Replaced faulty equipment.  
  - Sampled affected area.  
  - Rezoned area (brought in water from different source).  

**DWi Comments and Findings:**  
- Inadequate communication caused delay in response.  
- Lack of maintenance of equipment.  
- Recommended the company review the operation of all automated valve and pumping station controllers.  

Risk classification: Significant. |
| 04 May 2016 For 3 weeks (DWR) | New Moat, Pembrokeshire | 3 | Evidence of contamination with hydrocarbons affecting a single property | **Company Actions:**  
  - Sampled affected area.  
  - Provided bottled water on request.  
  - Issued a do not drink notice.  
  - Served a notice on the property owner to replace plastic service pipe with barrier pipe.  

**DWi Comments and Findings:**  
- The company's response to this event was satisfactory and no further DWI action to be taken.  

Risk classification: Significant. |
| 04 May 2016 For 4 weeks (UUT) | Liverpool | 125 | Metallic taste and evidence of contamination in a block of flats. | **Company Actions:**  
  - Sampled affected properties.  
  - Issued a do not drink notice.  
  - Provided bottled water on request.  
  - Fittings inspections identified contraventions likely to have caused contamination.  

**DWi Comments and Findings:**  
- Recommended the company review complaint responses as the initial complaint was not recorded properly delaying the investigation.  

Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 09 May 2016 For 4 weeks (SWT) | Plymouth, Devon | 172,112 | Musty taste or odour due to an increase in concentrations of geosmin in the raw water at Crownhill WTW. | **Company Actions:**  
  - Flushed mains.  
  - Sampled affected area.  

**DWI Comments and Findings:**  
- Inadequate contingency planning.  
- Inadequate treatment process—lack of effective carbon dosing.  
- Recommended the company improve its investigative monitoring of raw water.  

Risk classification: Significant. |
| 12 May 2016 For 3 days (SEW) | Paddlesworth and West Malling, Snodland, Kent | 15,263 | Brown discolouration due to planned work (incorrect valve operation). | **Company Actions:**  
  - Flushed mains.  
  - Sampled affected area.  
  - Reviewing the flushing regime.  

**DWI Comments and Findings:**  
- Inadequate procedures.  
- There was a known risk of discolouration in this area and the procedures in place to manage this risk were not followed.  
- An existing Notice is in place to address discolouration within the zone.  

Risk classification: Significant. |
| 12 May 2016 For 1 day (WSX) | East Burton and Wool, Dorset | 1,438 | Loss of supplies/poor pressure due to burst main. | **Company Actions:**  
  - Provided an alternative supply by tanker / bowser.  
  - Provided bottled water on request.  
  - Repaired main.  
  - Assessed options to increase resilience of mains travelling beneath railways.  

**DWI Comments and Findings:**  
- The company’s response to this event was satisfactory and no further DWI action to be taken.  

Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 16 May 2016 For 10 hours (SRN) | Southampton, Hampshire | 3,360 | Brown discoloration due to planned work. | **Company Actions:**  
  • Repaired main.  
  • Sampled affected area.  
  **DWI Comments and Findings:**  
  • Inadequate risk assessment.  
  • Inadequate contingency planning.  
  • Enforcement action considered.  
  **Risk classification:** Significant. |
| 20 May 2016 For 20 weeks (ANG) | Leighton Buzzard, Bedfordshire | 125 | Do not drink advice issued to consumers, including inhabitants of a caravan park, due to an illegal connection running through a cess pit. | **Company Actions:**  
  • Do not drink advice issued  
  • Installed backflow protection.  
  • Sampled affected area.  
  • Replaced and extended the existing main to ensure sufficient supply of water to the area.  
  **DWI Comments and Findings:**  
  • The company’s response to this event was satisfactory and no further DWI action to be taken.  
  **Risk classification:** Significant. |
| 03 Jun 2016 For 18 hours (SVT) | Groby, Leicestershire | 18,610 | Brown discoloration due to burst main. | **Company Actions:**  
  • Sampled affected area.  
  **DWI Comments and Findings:**  
  • Sampling was not timely enough.  
  • Supplied unwholesome water in breach of regulations.  
  • Inadequate follow up sampling.  
  **Risk classification:** Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 06 Jun 2016 For 1 week (UUT) | Clitheroe, Lancashire        | 3                               | Brown discolouration and loss of supply due to property connected to an untreated source. | Company Actions:  
• Sampled affected property and neighbours.  
• Issued a do not drink notice.  
• Connected the property to the public supply.  
• Carried out water fittings inspections.  
• Investigated other former concessionary supplies connected to the mains to confirm absence of similar issue elsewhere.  

DWI Comments and Findings:  
• Supplied unwholesome water in breach of regulations.  
• This property had previously been supplied with an untreated concessionary supply, operated by UUT, which the company had connected to the public supply network under the terms of a formal Notice. Contractors employed by UUT reconnected the plumbing to the untreated supply in error. Numerous breaches of the Water Fittings Regulations were identified.  
• The company failed to comply with the conditions of the Notice  
• See also 21 June, (UUT), Rossendale, Lancashire below.  
 Risk classification: Significant. |
| 08 Jun 2016 For 4 days (SVT) | Tewkesbury, Gloucestershire | 30,000                           | Loss of supplies/poor pressure due to burst outlet main at Mythe works.                   | Company Actions:  
• Rezoned area (brought in water from different source).  
• Provided bottled water on request.  
• Sampled affected area to ensure no contamination caused by the complex repair.  

DWI Comments and Findings:  
• Recommended the development of a robust risk based procedure ensuring water quality risks associated with valve operations are assessed prior to their operation.  
 Risk classification: Significant. |
### Drinking water 2016 – Summary of all significant, serious and major events – England and Wales

<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 09 Jun 2016 For 1 hour (ANG) | Stotfold, Bedfordshire | 40 | Brown discolouration due to burst main. | **Company Actions:**  
  • Repaired main.  
  • Sampled affected area.  

**DWI Comments and Findings:**  
• Made a suggestion that risk and impact assessments are carried out for jobs in areas known to be at risk of discolouration.  

Risk classification: Significant. |
| 10 Jun 2016 For 12 hours (AFW) | Mill Hill and Harrow, North London | 45,000 | Loss of supplies/poor pressure due to burst main. | **Company Actions:**  
  • Repaired main.  
  • Provided bottled water on request.  
  • Rezoned area (brought in water from different source).  
  • Flushed mains.  
  • Risk assessment prior to recharge of the main and reduced the likelihood of any discolouration upon restoration of supplies.  

**DWI Comments and Findings:**  
• The company’s response to this event was satisfactory and no further DWI action to be taken.  

Risk classification: Significant. |
| 14 Jun 2016 For 49 hours (WSX) | Trowbridge, Wiltshire | 22,163 | Aerated water due to planned work. | **Company Actions:**  
  • Repaired main.  
  • Flushed mains.  
  • Sampled affected area.  

**DWI Comments and Findings:**  
• Inadequate procedures.  
• Recommended the company review their risk assessment.  

Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 16 Jun 2016 For 48 hours (UUT) | Huntington works, near Chester | 1,204,982 | Cryptosporidium detection due to raw water deterioration. | **Company Actions:**  
  • Shut down treatment works.  
  • Improperly treated water retained on site and run to waste until conditions stabilised.  
  • Rezoned area (brought in water from different source).  
  • Sampled affected area.  
  **DWF Comments and Findings:**  
  The Inspectorate made recommendations regarding the following:  
  • Inadequate contingency planning.  
  • Inadequate communication caused delay in response.  
  • Inadequate sampling response including number taken and timeliness.  
  • Inadequate investigations into root cause.  
  • Inadequate procedures.  
  • Inadequate risk assessment.  
  • Inadequate treatment process–Clarification.  
  • Enforcement action was considered.  
  **Risk classification:** Significant. |
| 20 Jun 2016 For 20 weeks (SRN) | Southern Water Supply area | N/A | Inaccuracies in the application of the reduced sampling frequency flag in compliance data. | **Company Actions:**  
  • Retrained staff.  
  • Repaired faulty equipment.  
  • Introduced additional manual checks.  
  **DWF Comments and Findings:**  
  • A final enforcement order (FEO) was previously served (under section 18 of the Water Industry Act 1991) for similar issues.  
  • The corrective actions required by the enforcement order are sufficient to prevent a recurrence.  
  • The DWI has carried out an audit of the company's compliance with the requirements of the FEO, which was found to be unsatisfactory.  
  **Risk classification:** Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 20 Jun 2016 For 13 hours (SVT) | Handsworth and Smethwick, Birmingham | 10,713 | Brown discolouration due to burst main. | **Company Actions:**  
  • Repaired main.  
  • Rezoned area (brought in water from different source).  
  • Sampled affected area.  

**DWI Comments and Findings:**  
• The company's response to this event was satisfactory and no further DWI action to be taken.  

Risk classification: Significant. |
| 21 Jun 2016 For 3 years (UUT) | Rossendale, Lancashire | 3 | Evidence of microbiological contamination (coliforms) at a concessionary supply. | **Company Actions:**  
  • Property found to be connected to a raw water main.  
  • Issued a boil water notice.  
  • Inspected and confirmed there were no cross connections with the mains supply.  
  • Sampled affected area.  
  • The property should have been transferred to the public supply network under the terms of a formal notice, by contractors who failed to complete the necessary work. The work was completed following this event.  

**DWI Comments and Findings:**  
• Poor control of contractors.  
• Delay in lifting the boil water notice, recommended the company review these timescales.  
• This property should have been connected to the public supply network under the terms of a formal Notice.  
• The company had failed to comply with the conditions of this Notice for the second occasion in 2016 - see also event on 6 June, (UUT), Clitheroe, Lancashire above.  

Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 22 Jun 2016 For 3 days (UUT) | Sandbach, Cheshire | 5 | Consumer advised to boil water following third party damage to supply pipe. | **Company Actions:**  
• Issued boil water advice.  
• Sampled affected area.  

**DWI Comments and Findings:**  
• The company’s response to this event was satisfactory and no further DWI action to be taken.  

Risk classification: Significant. |
| 24 Jun 2016 For 15 days (SES) | Gravelly Hill Tower, Caterham, Surrey | 1,640 | Evidence of microbiological contamination (*E. coli*) at a service reservoir. | **Company Actions:**  
• Sampled affected area.  
• Likely cause due to ingress following heavy rainfall.  
• Improved roof drainage and installed a new raised access cover.  

**DWI Comments and Findings:**  
• The company’s response to this event was satisfactory and no further DWI action to be taken.  

Risk classification: Significant. |
| 24 Jun 2016 For 48 hours (TMS) | Chigwell reservoir, Essex | 110,240 | Evidence of microbiological contamination: (*E. coli*). | **Company Actions:**  
• Removed service reservoir from supply.  
• Company to review service reservoir turnover.  

**DWI Comments and Findings:**  
• The company’s response to this event was satisfactory and no further DWI action to be taken.  

Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 Jun 2016 For 1 day (TMS)</td>
<td>Hampstead Heath and Cockfosters service reservoirs, London</td>
<td>146,199</td>
<td>Evidence of microbiological contamination: (coliiforms and E. coli) caused by ingress into two service reservoirs (structural failure).</td>
<td><strong>Company Actions:</strong>&lt;br&gt;• Samples were taken following heavy rainfall.&lt;br&gt;• Removed both service reservoirs from supply for internal inspections, ingress and a contaminated sample line were discovered as the root causes.&lt;br&gt;• Replaced roof membrane and disinfected sample lines.&lt;br&gt;• Company completed a sampling programme including dip samples following reservoir isolation.&lt;br&gt;• Retrained staff.  • Review of procedures implementing preventative measures.&lt;br&gt;&lt;br&gt;<strong>DWI Comments and Findings:</strong>&lt;br&gt;• Suggested a review of sample tap material and sample tap disinfection frequency.&lt;br&gt;• Suggested a review of the condition and effectiveness of roof membranes at service reservoirs.&lt;br&gt;&lt;br&gt;Risk classification: Significant.</td>
</tr>
<tr>
<td>26 Jun 2016 For 3 days (SEW)</td>
<td>Maidstone, Kent</td>
<td>71,620</td>
<td>Cryptosporidium detection in bulk supply from Southern Water (Eastling Works).</td>
<td><strong>Company Actions:</strong>&lt;br&gt;• Sampled affected area.&lt;br&gt;• Rezoned area (brought in water from different source).&lt;br&gt;• Turned off the bulk supply.&lt;br&gt;&lt;br&gt;<strong>DWI Comments and Findings:</strong>&lt;br&gt;• Inadequate risk assessment.&lt;br&gt;&lt;br&gt;See 26 June (SRN), Eastling works - below.&lt;br&gt;&lt;br&gt;Risk classification: Serious.</td>
</tr>
<tr>
<td>Date and duration</td>
<td>Area</td>
<td>Estimate of population affected</td>
<td>Nature and cause of event</td>
<td>Main actions and findings from the Inspectorate investigation</td>
</tr>
<tr>
<td>-------------------</td>
<td>------</td>
<td>---------------------------------</td>
<td>---------------------------</td>
<td>-------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| 26 Jun 2016 For 18 days (SRN) | Eastling works, Faversham, Kent | 235,895 | Cryptosporidium detection. | **Company Actions:**  
- Removed raw water sources from supply.  

**DWI Comments and Findings:**  
- Investigation ongoing. |
| 26 Jun 2016 For 1 week (SRN) | Ventnor, Isle of Wight | 7,999 | Cryptosporidium detection in Ventnor works treated water. | **Company Actions:**  
- Flushed mains.  
- Shut down treatment works.  
- Sampled affected area.  
- Rezoned area (brought in water from different source).  
- Increased chlorine residuals at treatment works.  

**DWI Comments and Findings:**  
- Inadequate risk assessment.  
- Inadequate contingency planning.  
- Inadequate follow-up sampling.  
- Samples not analysed for appropriate parameters.  
- Sampling was not timely enough.  
- Enforcement action was initiated requiring the risk of Cryptosporidium to be addressed before Ventnor works was returned to supply.  
- Risk classification: Significant.
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 28 Jun 2016 For 3 days (SWT) | Boohay service reservoir, Kingwear, South Devon | 500 | Evidence of microbiological contamination: (coliforms) at a service reservoir. | **Company Actions:**  
• Sampled affected area.  
• Removed service reservoir from supply.  
• Rezoned area (brought in water from different source).  
• Reviewed their reservoir operation to reduce the storage age of the water in the network.  

**DWI Comments and Findings:**  
• Inadequate procedures.  
• Suggested the company review their risk assessment in relation to their internal standard for chlorine residuals.  
Risk classification: Significant. |
| 29 Jun 2016 For 5 days (HPL) | Hartlepool, County Durham | 13,750 | Loss of supplies/poor pressure due to burst main. | **Company Actions:**  
• Repaired main.  
• Sampled affected area.  
• Rezoned area (brought in water from different source).  

**DWI Comments and Findings:**  
• The company's response to this event was satisfactory and no further DWI action to be taken.  
Risk classification: Significant. |
### Drinking water 2016 – Summary of all significant, serious and major events – England and Wales

<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 29 Jun 2016 For 1 hour (SRN) | Otterbourne works, near Winchester, Hampshire | 250,000 | Treatment failure: Loss of chlorination due to planned work. | **Company Actions:**  
  - Upon restart there were three short intermittent periods where chlorine dosing did not operate resulting in a drop of chlorine within the contact tank.  
  - Retrained staff.  
  - Review of procedures.  
  - Sampled affected area.  
  - The company produced an action plan identifying the need for an increase in investment for the resource, maintenance, equipment and assets.  
  
  **DWI Comments and Findings:**  
  - Carried out a technical audit.  
  - Made recommendations to improve final disinfection arrangements.  
  - Initiated enforcement action requiring risks associated with Cryptosporidium and inadequate disinfection to be addressed.  
  
  See also 18 October (SRN), Otterbourne works treatment failure.  
  Risk classification: Significant. |
| 29 Jun 2016 For 1 day (TMS) | Horton Kirby works, London | 90,000 | Cryptosporidium detection. | **Company Actions:**  
  - Shut down treatment works.  
  - Sampled affected area.  
  - Filtration to be installed before the works is returned to service.  
  
  **DWI Comments and Findings:**  
  Recommendations were made regarding:  
  - Inadequate risk assessments.  
  - Inadequate procedures for investigating the causes of microbiological detections at groundwater sites.  
  - Ensure hydraulic risks have been appropriately considered.  
  - Improve understanding of the source, potential pathways and how the operation of aquifer storage and recovery schemes may affect water quality.  
  - The specification of the proposed filtration units.  
  
  Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 30 Jun 2016 For 6 days (SRN) | Meopham, Gravesend, Kent | 8 | Consumer concern about cases of illness. | **Company Actions:**<br>• Sampled affected area.<br>• Investigated both public and private mains in the area.  
**DWI Comments and Findings:**<br>• The company's response to this event was satisfactory and no further DWI action to be taken.  
Risk classification: Significant. |
| 30 Jun 2016 For 3 weeks (SRN) | Burpham works, West Sussex | 61,134 | Potential contamination of source with hydrocarbons due to third-party spillage of fuel within the source protection zone. | **Company Actions:**<br>• Sampled affected area.<br>• Liaised with the Environment Agency and other organisations to assess the risk of borehole contamination.<br>• Carried out hydraulic modelling.<br>• Developed contingency plans.  
**DWI Comments and Findings:**<br>• Recommended the company update their Regulation 27 risk assessment to reflect the risk of hydrocarbon contamination.<br>• Suggested robust contingency plans are produced should there be a risk on sufficiency of supply from this site.  
Risk classification: Significant. |
| 01 Jul 2016 For 1 day (SEW) | Blackmoor, Hampshire | 3,500 | Brown discolouration due to burst main. | **Company Actions:**<br>• Repaired and flushed main.<br>• Sampled affected area.  
**DWI Comments and Findings:**<br>• Suggested the company review its risk assessment.  
Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 02 Jul 2016 For 2 days (UUT) | Accrington, Lancashire | 15,000 | Loss of supplies/poor pressure due to burst main. | **Company Actions:**  
- Provided an alternative supply by tanker/bowser.  
- Provided bottled water on request.  
- Repaired main.  
- Assessing the condition of the main and will make repairs as required.  

**DWI Comments and Findings:**  
- The company's response to this event was satisfactory and no further DWI action to be taken.  

Risk classification: Significant. |
| 03 Jul 2016 For 1 day (TMS) | Merton, London | 87,500 | Loss of supplies/poor pressure due to burst main. | **Company Actions:**  
- Repaired main.  
- Sampled affected area.  
- Retrained staff.  

**DWI Comments and Findings:**  
- Inadequate communication caused delay in response.  
- Inadequate follow-up sampling, company procedures were not followed.  
- No information regarding sampling results was provided in reports, upon receipt the sampling deficiency was identified.  

Risk classification: Significant. |
| 03 Jul 2016 For 3 weeks (UUT) | Blackpool, Lancashire | 13 | Petrol taste and odour due to bitumen-lined main. | **Company Actions:**  
- Issued a do not drink notice.  
- Sampled affected area.  
- Replaced the section of main.  

**DWI Comments and Findings:**  
- Recommended the company review their risk assessment.  

Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 03 Jul 2016 For 3 days (YKS) | Rivelin works, Sheffield | 575,000                         | Cryptosporidium detection.               | **Company Actions:**  
  • Review of procedures.  
  • Plan to upgrade treatment processes.  
  • Reviewed performance and operation of the sludge thickener system and repaired associated monitoring equipment.  

**DWI Comments and Findings:**  
• The company's response to this event was satisfactory and no further DWI action to be taken.  
Risk classification: Significant. |
| 07 Jul 2016 For 3 days (SVT) | Whitchurch, Shropshire | 48                              | Loss of supply due to burst main following third party damage. | **Company Actions:**  
  • Issued a do not drink notice due to risk of ingress.  
  • Repaired and flushed the main.  
  • Increased chlorine residuals in the distribution system.  
  • Sampled affected area.  

**DWI Comments and Findings:**  
• The company's response to this event was satisfactory and no further DWI action to be taken.  
Risk classification: Significant. |
| 08 Jul 2016 For 73 hours (SVT) | Areas of Birmingham | 24,000                          | Brown discoloration due to burst main. | **Company Actions:**  
  • Provided bottled water on request.  
  • Rezoned area (brought in water from different source).  
  • Sampled affected area.  

**DWI Comments and Findings:**  
Made recommendations to:  
• Undertake modelling in future to inform planned flushing operations.  
• Promptly visit other sites operated by the contractor to ensure any mains protection measures have been implemented.  
• Plan how to reduce the likelihood of discoloration during future flow increases.  
• Include liaison with third parties working over strategic mains as a control measure in risk assessment reports.  
Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 11 Jul 2016 For 19 hours (SVT) | Areas of Nottingham | 10,000                           | Loss of supplies due to burst main. | **Company Actions:**  
  • Repaired main.  
  • Rezoned area (brought in water from different source).  
  • Sampled affected area.  

**DWI Comments and Findings:**  
The company’s response to this event was satisfactory and no further DWI action to be taken.  

Risk classification: Significant. |
| 12 Jul 2016 For 2 days (ESK) | Occold, West Suffolk | 1,540                            | Brown discolouration due to flow changes following a pump failure, caused by a mains cleaning swab lodged in the pump. | **Company Actions:**  
  • Flushed mains.  
  • Provided bottled water on request.  
  • Removed service reservoir from supply.  
  • Review of procedures.  
  • Sampled affected area.  
  • Retrained staff.  

**DWI Comments and Findings:**  
• Inadequate communication caused delay in response.  
• Inadequate procedures.  
• Recommended the tracking of swabs and water quality contact escalation processes are improved.  

Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 13 Jul 2016 For 1 day (AFW) | Preston service reservoir, Stevenage, Hertfordshire | 150,000 | Evidence of microbiological contamination at a service reservoir: (coliforms) due to ingress. | **Company Actions:**  
- Removed service reservoir from supply  
- Inspected and repaired the reservoir before returning to supply.  
- Increased chlorine residuals in the distribution system.  
**DWI Comments and Findings:**  
- Sampling point was 8km downstream of the service reservoir outlets and consumers were supplied before this point.  
Risk classification: Significant. |
| 13 Jul 2016 For 1 day (SVT) | Bordesley, Birmingham, West Midlands | 133 | Backsiphonage of blue water due to a cross connection affecting a block of flats. | **Company Actions:**  
- Issued a do not drink notice.  
- Provided bottled water on request.  
- Sampled affected area.  
- Carried out fittings inspection.  
- Double non-return valve (NRV) installed on the inlet to the building and worked with the flat management company to install NRVs on each flat.  
**DWI Comments and Findings:**  
- The company’s response to this event was satisfactory and no further DWI action to be taken.  
Risk classification: Significant. |
| 14 Jul 2016 For 8 days (ANG) | Barrow works, Lincolnshire | 104,190 | Treatment failure: elevated fluoride caused by failure of dosing equipment. | **Company Actions:**  
- Sampled affected area.  
- Repaired faulty equipment.  
- Shut down treatment works.  
**DWI Comments and Findings:**  
- The failed to comply with the Code of Practice on Fluoridation of Water Supplies.  
- Inadequate treatment process.  
- Enforcement action was considered, however the causes were resolved and additional monitoring installed.  
Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 Jul 2016 For 1 day (SRN)</td>
<td>Rochester, Kent</td>
<td>37,068</td>
<td>Discolouration caused by flow changes following low reservoir level caused by pump failure.</td>
<td><strong>Company Actions:</strong>&lt;br&gt;• Sampled affected area.&lt;br&gt;• Provided bottled water on request.&lt;br&gt;• Flushed mains.&lt;br&gt;<strong>DWI Comments and Findings:</strong>&lt;br&gt;• Investigation ongoing.</td>
</tr>
<tr>
<td>18 Jul 2016 For 2 days (SVT)</td>
<td>Westbourne, Telford, Shropshire</td>
<td>58</td>
<td>Risk of contamination from ingress during planned work.</td>
<td><strong>Company Actions:</strong>&lt;br&gt;• Repaired faulty equipment.&lt;br&gt;• Issued a do not drink notice.&lt;br&gt;• Provided bottled water.&lt;br&gt;<strong>DWI Comments and Findings:</strong>&lt;br&gt;• The company's response to this event was satisfactory and no further DWI action to be taken. Risk classification: Significant.</td>
</tr>
<tr>
<td>19 Jul 2016 For 13 hours (SVT)</td>
<td>Trimpley works, near Kidderminster, Worcestershire</td>
<td>418,195</td>
<td>Treatment failure: low pH due to lime dosing failure.</td>
<td><strong>Company Actions:</strong>&lt;br&gt;• Replaced faulty equipment.&lt;br&gt;• Review of procedures.&lt;br&gt;• Resized area (brought in water from different source).&lt;br&gt;• Shut down treatment works.&lt;br&gt;• Sampled affected area.&lt;br&gt;• Introduced better testing of batch strength of lime for dosing.&lt;br&gt;<strong>DWI Comments and Findings:</strong>&lt;br&gt;• The company's response to this event was satisfactory and no further DWI action to be taken. Risk classification: Significant.</td>
</tr>
<tr>
<td>Date and duration</td>
<td>Area</td>
<td>Estimate of population affected</td>
<td>Nature and cause of event</td>
<td>Main actions and findings from the Inspectorate investigation</td>
</tr>
<tr>
<td>-------------------</td>
<td>------</td>
<td>---------------------------------</td>
<td>--------------------------</td>
<td>-------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| 26 Jul 2016 For 1 day (NNE) | Warkworth works, Morpeth, Northumberland | 153,496 | Cryptosporidium detection following heavy rainfall and increase in raw water colour. | **Company Actions:**  
• Sampled affected area.  

**DWI Comments and Findings:**  
• The company’s response to this event was satisfactory and no further DWI action to be taken.  

Risk classification: Significant. |
| 26 Jul 2016 For 10 months (TMS) | Newbury, Berkshire | 3 | Evidence of contamination with hydrocarbons affecting a single property. | **Company Actions:**  
• Issued a do not drink notice.  
• Provided bottled water on request.  
• Inspected barrier pipe previously installed at the site.  

**DWI Comments and Findings:**  
• The company’s response to this event was satisfactory and no further DWI action to be taken.  

Risk classification: Significant. |
| 29 Jul 2016 For 4 days (YKS) | Thorne, near Doncaster, South Yorkshire | 3,500 | Evidence of microbiological contamination following backsiphonage due to an illegal cross connection at a poultry processing factory. | **Company Actions:**  
• Carried out fittings inspections and identified a number of contraventions at a nearby poultry factory including two tanks with no backflow protection.  
• Immediately isolated the supply to the poultry factory.  
• Issued do not drink notices to affected consumers.  
• Provided an alternative supply by tanker/bowser and bottled water on request.  
• Thoroughly flushed the network to remove all the contaminated water.  
• Learning from the event has been incorporated into company procedures.  

**DWI Comments and Findings:**  
• The company’s response to this event was satisfactory and no further DWI action to be taken.  

Risk classification: Serious. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 03 Aug 2016 For 2 hours (ESK) | Layer works, Colchester, Essex | 191,967 | Treatment failure: elevated turbidity due to planned work. | **Company Actions:**  
  • Review of procedures.  
  • Company has checked all similar sites where disinfection improvements have been carried out to ensure that associated software upgrades have been carried out.  
**DWI Comments and Findings:**  
  • Inadequate procedures.  
  • Company to improve its planning and commissioning of capital schemes.  
**Risk classification:** Significant. |
| 04 Aug 2016 For 1 day (DWR) | Llanelli, Carmarthenshire | 65,000 | Brown discolouration due to defective valve on inlet to Felinfoel service reservoir, causing flow changes and disturbance of deposits in the network. | **Company Actions:**  
  • Repaired faulty equipment and flushed mains.  
  • To prevent a recurrence a larger mesh filter to increase the surface area and decrease the likelihood of blockage has been installed.  
  • Automatic flow control has also been commissioned.  
**DWI Comments and Findings:**  
  • The company’s response to this event was satisfactory and no further DWI action to be taken.  
**Risk classification:** Significant. |
| 05 Aug 2016 For 5 days (SVT) | Belper, Derbyshire | 4,198 | Brown discolouration caused by flow changes following a burst on the inlet main of Boundary Tower service reservoir. | **Company Actions:**  
  • Repaired inlet main.  
  • Provided bottled water on request.  
  • Sampled affected area.  
**DWI Comments and Findings:**  
  • The company’s response to this event was satisfactory and no further DWI action to be taken.  
**Risk classification:** Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 06 Aug 2016 For 4 days (SVT) | Shipston-on-Stour, Warwickshire | 1,260 | Loss of supplies/poor pressure due to burst main. | **Company Actions:**  
- Repaired main.  
- Rezoned area (brought in water from different source).  
- Sampled affected area.  
- The main has been identified for investment and is awaiting approval.  

**DWI Comments and Findings:**  
- The company's response to this event was satisfactory and no further DWI action to be taken.  

Risk classification: Significant. |
| 15 Aug 2016 For 2 weeks (DWR) | Ceredigion, West Wales | 5 | Evidence of microbiological contamination (*E. coli*) following a burst main repair. | **Company Actions:**  
- Issued a boil water notice.  
- Provided bottled water on request.  
- Sampled affected area.  
- Chlorinated and flushed the main.  

**DWI Comments and Findings:**  
- The company's response to this event was satisfactory and no further DWI action to be taken.  

Risk classification: Significant. |
| 15 Aug 2016 For 4 weeks (UUT) | Carlisle, Cumbria | 90,639 | Brown discolouration due to planned work. | **Company Actions:**  
- Review of procedures.  
- Repaired main.  
- New communication plan to better inform consumers.  
- Installed network turbidity meters.  
- Made improvements to network models.  

**DWI Comments and Findings:**  
- Did not keep customers informed.  
- Unacceptable delay in notifying local/health authorities.  
- Inadequate investigations into root cause.  

Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 17 Aug 2016 For 3 days (SVT) | Redditch, Worcestershire | 18,000 | Loss of supplies due to burst main. | **Company Actions:**
  • Sampled affected area.
  • Provided bottled water on request.
  • Repaired main.
  • Rezoned area (brought in water from different source).

**DWI Comments and Findings:**
  • Inadequate investigations into root cause.
  • Recommended the company improve event reports in line with the information direction.

Risk classification: Significant.

| 18 Aug 2016 For 24 hours (DWR) | Tynywaun works, South Wales | 23,000 | Treatment failure: lime dosing malfunction due to faulty sensor. | **Company Actions:**
  • Sampled affected area.
  • Repaired faulty equipment.

**DWI Comments and Findings:**
  • Inadequate treatment process—Filtration.
  • Samples not analysed for appropriate parameters.
  • Recommended sampling for Cryptosporidium is undertaken during similar event investigations.
  • Recommended the company improve their response time to suspected treatment failures.

Risk classification: Significant.
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 18 Aug 2016 For 24 hours (WSX) | Kingston St Mary reservoir, Taunton, Somerset | 100,000 | Evidence of microbiological contamination: *(E. coli).* | **Company Actions:**  
- Sampled affected area.  
- Bypassed service reservoir and removed from supply for inspection.  
- Replaced the sample line and tap.  

**DWI Comments and Findings:**  
- The company's response to this event was satisfactory and no further DWI action to be taken.  
- Risk classification: Significant. |
| 19 Aug 2016 For 2 days (DWR) | Aberdare and Merthyr Tydfil, South Wales | 50,000 | Brown discolouration due to burst main. | **Company Actions:**  
- Repaired main.  
- Flushed mains.  
- Sampled affected area.  

**DWI Comments and Findings:**  
- The company's response to this event was satisfactory and no further DWI action to be taken.  
- Risk classification: Significant. |
| 19 Aug 2016 For 72 hours (SEW) | East Meon works, Hampshire | 1,350 | Cryptosporidium detection. | **Company Actions:**  
- Shut down treatment works.  
- Sampled affected area.  
- Flushed mains to remove any potentially contaminated water.  
- Installed a temporary continuous sampling rig for Cryptosporidium.  

**DWI Comments and Findings:**  
An audit was carried out and recommendations made:  
- Review procedures for the maintenance, calibration and checking of pressure sensors for membrane integrity tests.  
- Review risk assessments for *Cryptosporidium* mitigation and pathways for contamination in response to all similar events.  
- Inadequate investigations into root cause.  
- Review the volume of water sampled for *Cryptosporidium* monitoring across all at risk sites.  
- Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 19 Aug 2016 For 4 days (SVT) | Malvern, Worcestershire | 25,000 | Loss of supplies/poor pressure due to burst main. | **Company Actions:**  
• Provided an alternative supply of water by tanker/bowser.  
• Rezoned area (brought in water from different source).  
• Provided bottled water on request.  
• Sampled affected area.  
• Repaired and flushed mains.  
• Review of procedures.  

**DWI Comments and Findings:**  
• Recommended the improve procedures for assessing the condition of assets.  
• Suggested a review of procedures to ensure water supplied by tankers is wholesome  
• Enforcement action considered.  

**Risk classification:** Significant. |
| 22 Aug 2016 For 1 hour (HPL) | Dalton Piercy works, Hartlepool | 88,875 | Treatment failure: Elevated turbidity due to sediment in the on-line analyser’s sample line. | **Company Actions:**  
• Flushed mains.  
• Sampled affected area.  
• Sample line was cleared.  

**DWI Comments and Findings:**  
• Lack of maintenance of equipment.  

**Risk classification:** Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 23 Aug 2016 For 8 hours (DWR) | South Pembrokeshire, Wales | 17,500 | Brown discoloration following third party damage to a main. | **Company Actions:**  
- Provided bottled water on request.  
- Rezoned area (brought in water from different source).  
- Sampled affected area.  
- Repaired main.  

**DWI Comments and Findings:**  
- The company's response to this event was satisfactory and no further DWI action to be taken.  

Risk classification: Significant. |
| 23 Aug 2016 For 1 hour (ESK) | Langham works, Chelmsford, Essex | 1,689,928 | Elevated turbidity from debris entering the process during an inspection of an unsealed former dosing point. | **Company Actions:**  
- Sampled affected area.  
- Sealed the dosing point and repaired similar issues at other sites.  

**DWI Comments and Findings:**  
- Suggested Regulation 28 reports for the site are reviewed.  

Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 24 Aug 2016 For 4 weeks (DWR) | North Cardiff, Wales | 94,000 | Musty taste and odour due to increased levels of methylisoborneol in raw water at Llwynon works. | **Company Actions:**  
• Blended supply with another source and rezoned areas.  
• Sampled affected area.  
• Initiated PAC dosing at the works for more effective removal of methylisoborneol.  

**DVI Comments and Findings:**  
• Inadequate communication caused delay in response.  
• Inadequate training/competence of staff.  
• Inadequate treatment process–filtration.  
• Sampling was not timely enough.  
• Inadequate risk assessment.  
• Enforcement action has been initiated requiring the company to investigate the emergence of taste and odour giving compounds in the impounding reservoirs.  
Risk classification: Significant. |
| 24 Aug 2016 For 8 days (SRN) | Ryde, Isle of Wight | 3 | Cryptosporidium detection at a consumer's property following burst main repair in vicinity of damaged sewer. | **Company Actions:**  
• Sampled the affected area.  

**DVI Comments and Findings:**  
• The company's response to this event was satisfactory and no further DVI action to be taken.  
Risk classification: Significant. |
| 27 Aug 2016 For 11 hours (SRN) | Ryde, Isle of Wight | 7,500 | Loss of supplies/poor pressure due to burst main. | **Company Actions:**  
• Rezoned area (brought in water from different source).  
• Sampled affected area.  
• Identified two sections of mains that need replacing.  

**DVI Comments and Findings:**  
• Enforcement action has been initiated requiring improvements to the network to mitigate risks associated with loss of supply and discolouration.  
Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 01 Sep 2016 For 5 days (UUT) | South Liverpool | 56,000 | Brown discolouration due to burst main. | **Company Actions:**  
• Retrained staff on updating records.  
**DWI Comments and Findings:**  
• Inaccurate mains records.  
• Recommended appropriate training is given to both company network operators and contractors.  
Risk classification: Significant. |
| 03 Sep 2016 For 5 days (AFW) | Dovercourt service reservoir, Harwich, Essex | 48,665 | Evidence of microbiological contamination (coliforms) in service reservoir. | **Company Actions:**  
• Removed reservoir from service.  
• Sampled affected area.  
• Repaired faulty equipment.  
**DWI Comments and Findings:**  
• Recommended the company reviews its procedures and puts in place adequate checks to ensure compliance with Regulation 31.  
• Recommended the company reviews its risk assessment procedure for the inspection of storage tanks and puts in place adequate checks to mitigate the ingress risks.  
Risk classification: Significant. |
| 04 Sep 2016 For 2 days (BRL) | Skinners Hill, Bristol | 5 | Evidence of microbiological contamination (coliforms) following planned work to repair a main. | **Company Actions:**  
• Sampled affected area.  
• Identified as associated with the hydrant which has since been disinfected.  
• Updated hydrant sampling procedures.  
**DWI Comments and Findings:**  
• Inadequate procedures.  
Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 04 Sep 2016 For 1 week (UUT) | Ravenglass, Cumbria | 5 | Issue of boil notice to two properties following failure of UV disinfection at a point-of-use treatment unit. | **Company Actions:**  
- Issued a boil water notice.  
- Took investigational samples at the treatment works and in the properties supplied  
- Repaired faulty equipment.  
- Made improvements to the treatment process  
- Carried out a plumbing inspection at the properties and repaired defects  
**DwI Comments and Findings:**  
- Inadequate risk assessment.  
- Inadequate maintenance regime.  
- The properties are supplied with a concessionary supply. A Notice was in place (UUT 3173) that was closed without all available sample results been submitted to the DWI. This was revealed as part of the event review, and a recommendation was made to improve reports submitted under the requirements of formal notices.  
- A technical audit of the company’s point of use treatment units was carried out in July 2017.  
Risk classification: Significant. |
| 09 Sep 2016 For 20 days (YKS) | Skirlaugh, Yorkshire | 3 | Taste or odour due to coal tar lined mains. | **Company Actions:**  
- Issued a do not drink notice and provided bottled water on request.  
- Sampled affected area.  
- Weekly flushing programme for the main.  
- Cut out a section of main confirming the presence of a bitumen lining.  
**DwI Comments and Findings:**  
- The company’s response to this event was satisfactory and no further DWI action to be taken.  
Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 Sep 2016 For 8 days (UUT)</td>
<td>Low Gill, Lancashire</td>
<td>15</td>
<td>Use of a tank for temporary storage of treated water supplied to consumers which was manufactured from an unapproved material.</td>
<td><strong>Company Actions:</strong>&lt;br&gt;• The temporary tank was removed from supply immediately.&lt;br&gt;• Provided an alternative supply by tanker/bowser.&lt;br&gt;<strong>DWI Comments and Findings:</strong>&lt;br&gt;• The company failed to comply with the requirements of Regulation 31, which is a criminal offence.&lt;br&gt;• Prosecution considered for breach of Regulation 31, but not progressed due to procedural improvements made by the company.&lt;br&gt;<strong>Risk classification:</strong> Significant.</td>
</tr>
<tr>
<td>16 Sep 2016 For 3 days (ANG)</td>
<td>Norwich, Norfolk</td>
<td>15,150</td>
<td>Microbiological contamination (<em>E. coli</em>) at Framingham No.2 water tower.</td>
<td><strong>Company Actions:</strong>&lt;br&gt;• Increased chlorine residuals at service reservoir.&lt;br&gt;• Sampled affected area.&lt;br&gt;• Bypassed service reservoir.&lt;br&gt;• Removed service reservoir from supply.&lt;br&gt;• Rezoned area (brought in water from different source).&lt;br&gt;• Repaired points of ingress in reservoir.&lt;br&gt;<strong>DWI Comments and Findings:</strong>&lt;br&gt;• The company's response to this event was satisfactory and no further DWI action to be taken.&lt;br&gt;<strong>Risk classification:</strong> Significant.</td>
</tr>
<tr>
<td>16 Sep 2016 For 2 days (SVT)</td>
<td>Milford works, Stafford</td>
<td>33,619</td>
<td>Evidence of microbiological contamination: (Enterococci).</td>
<td><strong>Company Actions:</strong>&lt;br&gt;• Sampled affected area.&lt;br&gt;• Reviewed treatment process and found no issues.&lt;br&gt;<strong>DWI Comments and Findings:</strong>&lt;br&gt;• The company’s response to this event was satisfactory and no further DWI action to be taken.&lt;br&gt;<strong>Risk classification:</strong> Significant.</td>
</tr>
<tr>
<td>Date and duration</td>
<td>Area</td>
<td>Estimate of population affected</td>
<td>Nature and cause of event</td>
<td>Main actions and findings from the Inspectorate investigation</td>
</tr>
<tr>
<td>-------------------</td>
<td>------</td>
<td>---------------------------------</td>
<td>---------------------------</td>
<td>-------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| 17 Sep 2016 For 2 days (WSX) | Penridge reservoir, Wincanton, Somerset | 7,500 | Loss of supplies/poor pressure due to equipment failure. | **Company Actions:**  
• Bypassed service reservoir.  
• Provided an alternative supply by tanker/bowser.  
• Replaced faulty equipment.  
• Sampled affected area.  

**DWI Comments and Findings:**  
• The company's response to this event was satisfactory and no further DWI action to be taken.  

**Risk classification:** Significant. |
| 19 Sep 2016 For 12 hours (DVW) | Wrexham, North Wales | 42,000 | Brown discolouration due to burst main. | **Company Actions:**  
• Repaired main.  
• Rezoned area (brought in water from different source).  
• Sampled affected area.  

**DWI Comments and Findings:**  
• The company's response to this event was satisfactory and no further DWI action to be taken.  

**Risk classification:** Significant. |
| 19 Sep 2016 For 4 weeks (UUT) | Broughton near Preston, Lancashire | 3 | Tarmac taste or odour and microbiological contamination caused by ingress following accidental damage to a consumer's service pipe during planned work. | **Company Actions:**  
• Sampled affected area.  
• Repaired main.  
• Issued a do not drink notice.  
• Provided bottled water on request.  

**DWI Comments and Findings:**  
• Did not forewarn consumers.  
• Inadequate training/competence of staff.  

**Risk classification:** Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 20 Sep 2016 For 1 week (SES) | Worcester Park, South West London | 3 | Evidence of contamination following the connection of a property's supply pipe to a stagnant main. | **Company Actions:**  
- Sampled affected area.  
- Provided bottled water on request.  
- Reviewed procedures associated with customer communication and records.  
- Retrained staff on basic water quality checks before completing a connection.  
- Checked to ensure all resilience mains are not acting as dead legs.  
- Transferred the property's supply to the correct main  

**DWI Comments and Findings:**  
- Supplied unwholesome water in breach of regulations.  
- Inadequate communication with consumer caused a delay in response.  
- The company was issued with a formal warning letter.  

Risk classification: Significant. |
| 20 Sep 2016 For 3 days (SVT) | Ranton, Staffordshire | 60 | Chemical taste and odour due to unknown cause. | **Company Actions:**  
- Issued a do not drink notice.  
- Sampled affected area.  
- Carried out water fittings inspections.  

**DWI Comments and Findings:**  
- The company's response to this event was satisfactory and no further DWI action to be taken.  

Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 21 Sep 2016 For 3 days (UUT) | Atherton, Walkden and Swinton, Greater Manchester | 425,000 | Brown discoloration due to planned work. | **Company Actions:**  
  • Sampled affected area.  
  • Improved valving configurations to better balance flows in the ring main.  
  • Introduced a high flow alarm to prevent a recurrence.  

  **DWI Comments and Findings:**  
  • Recommend the company embeds learning from this event during any future network reconfigurations and adequately monitor flow.  
  • Recommend appropriate recording of network changes on the company systems.  

  Risk classification: Significant. |
| 22 Sep 2016 For 8 hours (TMS) | Aylesbury, Buckinghamshire | 63,500 | Loss of supplies/poor pressure due to planned work. | **Company Actions:**  
  • The area was rezoned and alternative supplies made from other sources.  
  • Repaired main.  
  • Sampled affected area.  

  **DWI Comments and Findings:**  
  Recommendations were made regarding:  
  • Inadequate training/competence of staff.  
  • Inadequate risk assessment; did not capture the issue with the valve.  
  • Inadequate maintenance of equipment.  
  • Inadequate number of samples taken.  

  Risk classification: Significant. |
| 26 Sep 2016 For 33 days (UUT) | Manchester | 600,000 | Musty taste and odour due contamination of aqueduct supplying Lostock works. | **Company Actions:**  
  • Sampled affected area  
  • Carried out catchment investigations  
  • Installed powdered activated carbon dosing at Lostock works  
  • Flushed the distribution system  

  **DWI Comments and Findings:**  
  • Investigation ongoing. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>27 Sep 2016 For 7 hours (ANG)</td>
<td>Kings Lynn, Norfolk</td>
<td>22,500</td>
<td>Loss of supplies/poor pressure due to burst main.</td>
<td><strong>Company Actions:</strong>&lt;br&gt;• Provided an alternative supply by tanker/bowser.&lt;br&gt;• Repaired and flushed the main.&lt;br&gt;&lt;br&gt;<strong>DWI Comments and Findings:</strong>&lt;br&gt;• The company’s response to this event was satisfactory and no further DWI action to be taken.&lt;br&gt;• Risk classification: Significant.</td>
</tr>
<tr>
<td>27 Sep 2016 For 2 days (SEW)</td>
<td>Maidstone, Kent</td>
<td>47,000</td>
<td><em>Cryptosporidium</em> detection in bulk supply from Southern Water (Eastling works).</td>
<td><strong>Company Actions:</strong>&lt;br&gt;• Turned off the bulk supply.&lt;br&gt;• Rezoned area (brought in water from different sources).&lt;br&gt;• Sampled affected area.&lt;br&gt;&lt;br&gt;<strong>DWI Comments and Findings:</strong>&lt;br&gt;• Recommended the company review risk assessment as prolonged water quality problems with bulk supply are not fully mitigated and the likelihood increased.&lt;br&gt;• See 27 September (SRN), Eastling works, below.&lt;br&gt;• Risk classification: Significant.</td>
</tr>
<tr>
<td>27 Sep 2016 For 3 days (SRN)</td>
<td>Eastling works, Faversham, Kent</td>
<td>1,004,741</td>
<td><em>Cryptosporidium</em> detection.</td>
<td><strong>Company Actions:</strong>&lt;br&gt;• Removed raw water source from supply.&lt;br&gt;• Initiated enhanced monitoring of the raw water.&lt;br&gt;&lt;br&gt;<strong>DWI Comments and Findings:</strong>&lt;br&gt;• Investigation ongoing.</td>
</tr>
<tr>
<td>Date and duration</td>
<td>Area</td>
<td>Estimate of population affected</td>
<td>Nature and cause of event</td>
<td>Main actions and findings from the Inspectorate investigation</td>
</tr>
<tr>
<td>-------------------</td>
<td>------</td>
<td>---------------------------------</td>
<td>---------------------------</td>
<td>-------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| 28 Sep 2016 For 3 days (AFW) | Staines-upon-Thames, Surrey | 8 | Petrol/bitumen taste and odour following planned work. | **Company Actions:**  
  • Issued do not drink notices.  
  • Flushed mains.  
  • Risk assessed other valves which could be at risk of a similar event occurring and incorporating the findings into their drinking water safety plan.  
  **DWH Comments and Findings:**  
  • Cause was found to be a valve opened in error releasing stagnant water.  
  • Inadequate risk assessment prior to planned work.  
  • Poor internal communications.  
  Risk classification: Serious. |
| 02 Oct 2016 For 3 days (SRN) | Nashenden works, Kent | 207,996 | Cryptosporidium detection following deterioration in raw water. | **Company Actions:**  
  • Shut down treatment works.  
  • Surveyed the local catchment.  
  • Improved water quality monitoring.  
  **DWH Comments and Findings:**  
  • Inadequate risk assessment.  
  • Recommended improvements to water quality monitoring.  
  Risk classification: Significant. |
| 06 Oct 2016 For 5 days (UUT) | Haslingden, Lancashire | 3 | Backsiphonage of water in a golf club’s premises, from drinks carbonator reacting with copper pipework causing blue water. | **Company Actions:**  
  • Issued a do not drink notice.  
  • Provided bottled water on request.  
  • Sampled affected area.  
  • Carried out a fittings inspection and repaired faulty valve on appliance.  
  **DWH Comments and Findings:**  
  • The company’s response to this event was satisfactory and no further DWH action to be taken.  
  Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 07 Oct 2016 For 5 days (ESK) | Mayland, Chelmsford | 3                               | Evidence of microbiological contamination (*E.coli*) following a burst main repair.        | **Company Actions:**  
• Issued boil water advice to a single property.  
• Sampled the affected area  
• Implemented actions to mitigate against a recurrence  

**DWH Comments and Findings:**  
• A turbidity breach had not been responded to, follow-up sampling was inadequate and samples were not analysed for appropriate parameters.  
• Suggested procedures were reviewed to include actions when ingress during a mains repair is suspected.  

Risk classification: Significant. |
| 08 Oct 2016 For 1 hour (TMS) | Deptford works, London          | 145,550                          | Elevated turbidity in water supplied from treatment works.                               | **Company Actions:**  
• Shut down the treatment works.  
• Cleaned sampling lines and associated apparatus and returned the works to service.  

**DWH Comments and Findings:**  
• Lack of maintenance of sampling apparatus.  
• Inadequate maintenance regime for online instruments  
• Recommended that the company ensures that its asset inventory is complete.  
• The borehole headworks were found to be uncovered following planned work.  
The company was reminded of the requirements of good practice for protection of sources.  

Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 09 Oct 2016 For 36 hours (DWR) | Swansea and Morriston, South Wales | 13,250 | Brown discolouration due to burst main. | Company Actions:  
• Repaired main.  
• Provided an alternative supply by tanker/bowser.  
• Sampled affected area.  

DWI Comments and Findings:  
• Lack of maintenance of equipment.  
• Recommendation made to not delay the implementation of the zonal study.  
Risk classification: Significant. |
| 09 Oct 2016 For 48 other (TMS) | Dartford, Kent | 50,000 | Loss of supplies due to mains damage during planned work. | Company Actions:  
• Rezoned area (brought in water from different source).  
• Repaired and flushed mains.  

DWI Comments and Findings:  
• Investigation ongoing. |
| 11 Oct 2016 For 48 hours (YKS) | York | 11,000 | Brown discolouration due to suspected scouring of mains following planned work. | Company Actions:  
• During work to replace a flow meter on site at a treatment works, a valve used to isolate the meter did not fully close allowing reverse flow from a trunk main.  
• Flushed main and sampled affected area.  
• Review of procedures.  

DWI Comments and Findings:  
• The company's response to this event was satisfactory and no further DWI action to be taken.  
Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 12 Oct 2016 For 48 hours (SST) | Walsall, Brownhills, Streetly, Sutton Coldfield & surrounding areas, West Midlands | 19,000 | Brown discolouration due to flow fluctuations from treatment Seedy Mill works. | **Company Actions:** • Sampled affected area. • Flushed mains.  
**DWI Comments and Findings:** • Investigation ongoing. |
| 15 Oct 2016 For 36 hours (TMS) | Norwood South London | 350,000 | Loss of supplies due to burst main. | **Company Actions:** • Rezoned area (brought in water from different source). • Repaired main. • Sampled affected area.  
**DWI Comments and Findings:** • The company's response to this event was satisfactory and no further DWI action to be taken. Risk classification: Significant. |
| 18 Oct 2016 For 1 hour (SRN) | Otterbourne works, near Winchester, Hampshire | 284,450 | Treatment failure: Filtration failure caused by failure of valves and actuators. | **Company Actions:** • Following backwash of rapid gravity filter turbid water was released on return to service, the filter was immediately shut down. • A valve failure caused the filter to dry out. • Sampled affected area. • Repaired faulty equipment. • The company produced an action to address the lack of investment and maintenance.  
**DWI Comments and Findings:** • Inadequate treatment process–Filtration. • Inadequate risk assessment. • Inadequate training/competence of staff. • Lack of maintenance of equipment. • Carried out a technical audit. • Made recommendations to improve final disinfection arrangements. • Initiated enforcement action requiring risks associated with Cryptosporidium and inadequate disinfection to be addressed. See also 29 June (SRN), Otterbourne works treatment failure (above). Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 18 Oct 2016 For 3 weeks (SWT) | South West Water Laboratory, Exeter | N/A | Laboratory taste and odour method suspended following independent audit. | **Company Actions:**  
- Review of procedures for method changes.  
- Updated taste and odour method to meet the requirements of the 2014 Blue Book method and regained accreditation.  
**DWI Comments and Findings:**  
- Recommended the company ensure the procedure is fully briefed to all staff and results provided to customers have an appropriate flag if the unaccredited method is used.  
Risk classification: Significant. |
| 07 Nov 2016 For 24 hours (ESK) | Hanningfield works, Chelmsford, Essex | 949,204 | Cryptosporidium detection. | **Company Actions:**  
- Sampled affected area.  
- Increased frequency of raw and final treated Cryptosporidium monitoring.  
**DWI Comments and Findings:**  
- Recommended the company reviews its risk-based approach to raw water monitoring across all surface water sites ensuring sampling frequencies are appropriate to the level of risk associated with Cryptosporidium.  
Risk classification: Significant. |
| 09 Nov 2016 For 1 hour (SRN) | Eastling works, Faversham, Kent | 247,363 | Treatment failure: loss of chlorination due to power supply failure. | **Company Actions:**  
- The works shutdown preventing water from entering supply.  
- Manually dosed water with sodium hypochlorite.  
**DWI Comments and Findings:**  
- Investigation ongoing. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>09 Nov 2016 For 8 hours (SVT)</td>
<td>Nottingham</td>
<td>7,500</td>
<td>Loss of supplies/poor pressure due to burst main.</td>
<td><strong>Company Actions:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Identified cause a mains fitting failure.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Rezoned area (brought in water from different source).</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Provided an alternative supply by tanker/bowser.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Repaired main.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>DWI Comments and Findings:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• The company's response to this event was satisfactory and no further DWI action to be taken.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Risk classification:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Significant.</td>
</tr>
<tr>
<td>10 Nov 2016 For 8 days (NNE)</td>
<td>Boulby, Cleveland</td>
<td>80</td>
<td>Evidence of microbiological contamination (<em>E. coli</em>) following a burst main repair.</td>
<td><strong>Company Actions:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Issued a do not drink notice.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Sampled affected area.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Increased chlorine residuals in the distribution system.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Regular flushing programme initiated and supply main due to be replaced.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>DWI Comments and Findings:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Recommended a review of mains records and maintenance activities ensuring accuracy.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Recommended the company review internal quality control regarding quality of reports.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Risk classification:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Significant.</td>
</tr>
<tr>
<td>Date and duration</td>
<td>Area</td>
<td>Estimate of population affected</td>
<td>Nature and cause of event</td>
<td>Main actions and findings from the Inspectorate investigation</td>
</tr>
<tr>
<td>-------------------</td>
<td>------</td>
<td>---------------------------------</td>
<td>--------------------------</td>
<td>------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| 12 Nov 2016 For 1 day (BRL) | Nailsea, Bristol | 8 | Evidence of microbiological contamination (Enterococci) following planned work to repair a main. | **Company Actions:**  
  • Sampled the affected area.  
  • The standpipe was removed from use and cleaned.  
  **DWI Comments and Findings:**  
  • Inadequately disinfected hydrant standpipe used for sampling was the most likely cause.  
  • Inadequate sampling procedures.  
  • Raised concerns with the company because this was a repeat event.  
  Risk classification: Significant. |
| 13 Nov 2016 For 14 hours (SRN) | Horsham, West Sussex | 3,710 | Loss of supplies/poor pressure due to burst main. | **Company Actions:**  
  • Sampled affected area.  
  **DWI Comments and Findings:**  
  • Inadequate risk assessment.  
  Risk classification: Significant. |
| 14 Nov 2016 For 1 week (SBW) | Knapp Mill works, Bournemouth, Dorset | 134,000 | UV disinfection operating outside validated range following raw water deterioration. | **Company Actions:**  
  • Sampled affected area.  
  • Assessed mitigation measures.  
  **DWI Comments and Findings:**  
  • The existing notice for this site has been amended to require mitigation for the deterioration of raw water quality.  
  Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 14 Nov 2016 For 16 hours (UUT) | Bury and Bolton, Greater Manchester | 122,387 | Brown discolouration due to burst main. | Company Actions:  
- Rezoned area (brought in water from different source).
- Repaired and flushed main.
- Sampled affected area.
- Two incidents of blue water backsiphonage caused by depressurisation were investigated.  
DWI Comments and Findings:  
- The company's response to this event was satisfactory and no further DWI action to be taken.  
Risk classification: Significant. |
| 16 Nov 2016 For 24 hours (NNE) | Mosswood works, County Durham | 1,564,161 | Cryptosporidium detection. | Company Actions:  
- Investigated changes in catchment.
- Improved in-process water quality monitoring.  
DWI Comments and Findings:  
- Investigation on going |
| 16 Nov 2016 For 1 day (SRN) | Burpham works, West Sussex | 109,426 | Cryptosporidium detection. | Company Actions:  
- Inspected the structural integrity of the boreholes.
- Reviewed procedures.  
DWI Comments and Findings:  
- Investigation ongoing. |
| 17 Nov 2016 duration N/A (SRN) | Ringwould, Kent | N/A | Failure to sample a service reservoir. | Company Actions:  
- Notified the Inspectorate in January 2017  
DWI Comments and Findings:  
- The sampling shortfall incurred is not recoverable  
- Investigation ongoing. |
## Drinking water 2016 – Summary of all significant, serious and major events – England and Wales

<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 17 Nov 2016 For 3 days (YKS) | Elvington works, Yorkshire | 750,000 | Evidence of microbiological contamination: *(Clostridium perfringens).* | Company Actions:  
- Sampled affected area.  
- Identified a number of actions to improve treatment optimisation and prevent a recurrence.  

**DWI Comments and Findings:**  
- The company's response to this event was satisfactory and no further DWI action to be taken.  
- Risk classification: Significant. |
| 20 Nov 2016 For 2 days (SRN) | Testwood works, Totton, Hampshire | 160,000 | Cryptosporidium detection. | Company Actions:  
- Reviewed treatment process.  
- Reviewed the catchment.  
- A cause for the detection has not been identified.  

**DWI Comments and Findings:**  
- Investigation ongoing. |
| 21 Nov 2016 For 2 days (SWT) | Sourton, Lydford, Brentor and Mary Tavy, Devon | 2,500 | Brown discoloration due to disturbance of mains deposits during valve operations. | Company Actions:  
- Provided an alternative supply by tanker/bowser.  
- Rezoned area (brought in water from different source).  
- Flushed mains.  
- Sampled affected area.  

**DWI Comments and Findings:**  
- Inadequate contingency planning.  
- Lack of maintenance of equipment.  
- There is an existing Notice in place for the water supply zone to mitigate the risk of discoloration.  
- Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 22 Nov 2016 For 2 days (SWT) | South Devon | 1,250 | Musty taste or odour due to an increase in concentrations of geosmin in the raw water at Avon works. | Company Actions:  
• Review of procedures.  
• New treatment process on standby to address a recurrence.  
• Sampled affected area.  

DWI Comments and Findings:  
• The company's response to this event was satisfactory and no further DWI action to be taken.  

Risk classification: Significant. |
| 24 Nov 2016 For 1 week (HPL) | Hartlepool, County Durham | 220,000 | Loss of supplies/poor pressure due to burst main, with localised flooding. | Company Actions:  
• Repaired and flushed mains.  
• Sampled affected area.  
• Carrying out structural integrity testing of the main and investigating possible pressure changes that caused the burst.  

• DWI Comments and Findings:  
• The company's response to this event was satisfactory and no further DWI action to be taken.  
• There is an existing Notice for this zone to address issues with discolouration.  

Risk classification: Significant. |
| 24 Nov 2016 For 1 hour (NNE) | Gunnerton works, Hexham, Northumberland | 29,833 | Compromised final disinfection due to loss of control of pH correction. | Company Actions:  
• Repaired faulty equipment.  
• Sampled affected area.  
• Reviewed procedures and made changes to equipment on site.  
• Revised risk assessments.  

DWI Comments and Findings:  
• The Inspectorate considered this to be an avoidable event.  
• Recommendation made to review risk assessment for the works.  

Risk classification: Significant. |
### Drinking water 2016 – Summary of all significant, serious and major events – England and Wales

<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 25 Nov 2016 For 1 week (WSX) | Bridgwater, Somerset | 3 | Lead uptake from service pipe at a single property. | **Company Actions:**  
• Issued a do not drink notice.  
• Provided bottled water on request.  
• Sampled affected area.  
• Replaced service pipe.  
**DwI Comments and Findings:**  
• The company's response to this event was satisfactory and no further DWI action to be taken.  
**Risk classification:** Significant. |
| 26 Nov 2016 For 24 hours (NNE) | Whittle Dene works, Newcastle | 650,000 | Cryptosporidium detection following heavy rainfall and raw water deterioration. | **Company Actions:**  
• Sampled affected area.  
• Catchment area review.  
• Implemented a performance plan when operating under challenging raw water conditions.  
**DwI Comments and Findings:**  
• The company's response to this event was satisfactory and no further DWI action to be taken.  
**Risk classification:** Significant. |
| 30 Nov 2016 For 6 days (TMS) | Muswell Hill and Hampstead Heath, North London | 125 | Potential contamination of supply due to mains burst in close proximity to sewer repair. | **Company Actions:**  
• Issued a boil water notice.  
• Provided bottled water on request.  
• Flushed and disinfected mains.  
• Sampled affected area.  
**DwI Comments and Findings:**  
• The company's response to this event was satisfactory and no further DWI action to be taken.  
**Risk classification:** Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 02 Dec 2016 For 3 days (SRN) | Weirwood works, Hampshire | 18,115 | Evidence of microbiological contamination. | Company Actions:  
• Shut down treatment works.  
• Rezoned area (brought in water from different source).  
• Sampled affected area.  

DWI Comments and Findings:  
• The company provided credible evidence that the sample bottle was contaminated and taken appropriate steps to prevent a recurrence.  
• The company's response to this event was satisfactory and no further DWI action to be taken.

Risk classification: Significant. |
| 06 Dec 2016 For 1 hour (SVT) | Trimpley works, near Kidderminster, Worcestershire | 418,000 | Evidence of microbiological contamination (*E. coli*). | Company Actions:  
• Sampled affected area.  
• Reviewed procedures.  

DWI Comments and Findings:  
• The company was unable to determine a root cause.  
• There is an existing Regulation 28 Notice in place at Trimpley works to improve treatment processes.

Risk classification: Significant. |
| 06 Dec 2016 For 9 hours (UUT) | Stockport, Greater Manchester | 171,377 | Brown discolouration due to valve operations. | Company Actions:  
• During the isolation of a burst a closed valve, thought to be open, was operated and reversed the flow through a main resulting in the suspension of sediment.  
• Sampled affected areas.  

DWI Comments and Findings:  
• Made recommendations to review the risk of discolouration in the supply zone and to improve risk assessments prior to working on the network.

Risk classification: Significant. |
## Drinking water 2016 – Summary of all significant, serious and major events – England and Wales

<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 09 Dec 2016 Less than 1 hour (SRN) | Falmer works, Brighton | 3,000 | Treatment failure: loss of chlorination. | **Company Actions.**  
• Shut down treatment works  
• Removed the undisinfected water.  
• Review of procedures and retrained staff.  
• Sampled affected area.  

**DWI Comments and Findings:**  
• Inadequate investigations into root cause.  
• Inadequate risk assessment.  
• Inadequate training/competence of staff.  
• Inadequate treatment process–disinfection.  
• Recommendations made that company ensures critical alarms are responded to appropriately and improves record keeping.  

**Risk classification:** Significant. |
| 10 Dec 2016 For 63 hours (UUT) | Buckton Castle works, near Ashton under Lyne, Stockport | 42,785 | Treatment failure: elevated turbidity due to clarification failure, which compromised final disinfection. | **Company Actions:**  
• Rezoned area (brought in water from different source).  
• Issued boil water notice to affected consumers.  

**DWI Comments and Findings:**  
• Investigation ongoing. |
| 12 Dec 2016 For 1 week (SRN) | Whitwell, Isle of Wight | 377 | Localised contamination of network with hydrocarbons caused by fuel spillages from petrol station. | **Company Actions:**  
• Issued a do not drink notice.  

**DWI Comments and Findings:**  
• Samples were taken four months after the contamination was reported to the company and a recommendation was made to improve the timeliness of investigations.  
• Inadequate identification of risk associated with potentially permeable water mains and service pipes.  

**Risk classification:** Significant. |
## Drinking water 2016 – Summary of all significant, serious and major events – England and Wales

<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 13 Dec 2016 For 3 hours (NNE) | Mosswood works, County Durham | 1,564,161 | Treatment failure: elevated turbidity following planned work on a filter. | **Company Actions:**  
- Increased chlorine concentrations at Mosswood works.  
- Sampled the affected area.  

**D大数据ğu Comments and Findings:**  
- Inadequate sampling.  
- Inadequate contingency planning.  
- Inadequate risk assessment.  
- Inadequate procedures.  

Risk classification: Significant. |
| 14 Dec 2016 For 7 days (BRL) | Wells, Somerset | 3 | Evidence of microbiological contamination (*E. coli*) at a single property. | **Company Actions:**  
- Review of procedures.  
- Sampled affected area.  
- Provided consumers with advice on tap hygiene.  

**D大数据ğu Comments and Findings:**  
- Inadequate investigation into root cause.  
- Recommended the company review its risk assessment procedure to thoroughly consider probable causes when microbiological failures at consumers' properties.  

Risk classification: Significant. |
| 14 Dec 2016 For 24 hours (SVT) | Hagley, West Midlands | 83,525 | Brown discoloration due to planned work in the network. | **Company Actions:**  
- Flushed mains.  
- Sampled affected area.  
- Review of procedures.  

**D大数据ğu Comments and Findings:**  
- Inadequate procedures.  
- Enforcement action was considered due previous similar events associated with inaccurate records of underground assets. This will be taken into account as part of the Inspectorate's risk-based audit programme.  

Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 14 Dec 2016 For 5 days (SWT) | Paignton, Devon | 10,000 | Brown discolouration due to burst main. | **Company Actions:**  
  • Repaired and flushed mains.  
  • Retrained staff regarding valve operations.  
  • Risk-based distribution operation and maintenance flushing.  
  **DHI Comments and Findings:**  
  • Inadequate risk assessment.  
  • The company’s response to this event was satisfactory and no further DWI action to be taken.  
  Risk classification: Significant. |
| 17 Dec 2016 For 3 days (NNE) | Stanley, County Durham | 10,054 | Chemical taste and odour following recommissioning of South Moor SR after planned maintenance work. | **Company Actions:**  
  • Removed service reservoir from supply.  
  **DHI Comments and Findings:**  
  • Investigation ongoing. |
| 23 Dec 2016 For 2 days (SWT) | Winkleigh and surrounding area, mid Devon | 5,000 | Brown discolouration due to burst main. | **Company Actions:**  
  • Repaired and flushed mains.  
  • Rezoned area (brought in water from a different source).  
  • Retrained staff.  
  **DHI Comments and Findings:**  
  • Unacceptable delay in notifying Inspectorate and local/health authorities.  
  • Sampling was not timely enough.  
  • Inadequate risk assessment.  
  Risk classification: Significant. |
<table>
<thead>
<tr>
<th>Date and duration</th>
<th>Area</th>
<th>Estimate of population affected</th>
<th>Nature and cause of event</th>
<th>Main actions and findings from the Inspectorate investigation</th>
</tr>
</thead>
</table>
| 25 Dec 2016 For 12 hours (TMS) | South West London | 35,000 | Unplanned failure of Hampton works due to electrical fault. | **Company Actions:**  
  - Repaired faulty equipment.  
  - Managed return to operation to avoid over pressurising mains.  
  - Sampled affected areas.  
  - Bottled water provided on request.  

**DWI Comments and Findings:**  
- Investigation ongoing. |
| 26 Dec 2016 For 2 hours (YKS) | Blackmorefoot works, Huddersfield | 125,000 | Treatment failure: loss of chlorination. | **Company Actions:**  
  - Power interruption led to failure of automatic shutdown system.  
  - Shut down treatment works.  
  - Review of procedures and retrained staff.  
  - Sampled affected area.  

**DWI Comments and Findings:**  
- Recommendations made that company ensures critical alarms are responded to appropriately and improves record keeping.  
Risk classification: Significant. |