



guardians of drinking water quality

DRINKING WATER INSPECTORATE

Area 1A
Nobel House
17 Smith Square
London SW1P 3JR

Enquiries: 0300 068 6400

E-mail: Marcus.Rink@defra.gsi.gov.uk

DWI Website: <http://www.dwi.gov.uk>

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To: Hannah Blythyn AM Minister for Environment

I am pleased to inform you that *Drinking water 2017* will be published on 11 July 2018. The report is the 28th published by the Inspectorate and it covers both private and public water supplies.

Drinking water 2017 provides a record of the work of the Drinking Water Inspectorate in checking that water companies and local authorities have taken the appropriate action to maintain confidence in drinking water quality and to safeguard public health.

Overall, in 2017, in England and Wales, the figure for public water supply compliance with the EU Drinking Water Directive was 99.96%. This figure is certainly good news and would indicate that the drinking water supply is excellent. It remains largely unchanged since 2004 but represents the high standards for compliance in England and Wales recorded since 1990.

2016 saw the introduction, by the Inspectorate, of a new measure designed to a numerical value to risk called the Compliance Risk Index, (CRI). CRI is a measure designed to illustrate the risk arising from treated water compliance failures, and it aligns with the current risk-based approach to regulation of water supplies used by the Drinking Water Inspectorate (DWI). Unlike the previous measure of compliance, it assigns a value to the significance of the failing parameter, the proportion of consumers potentially affected and an assessment of the company response thereby deriving a proportional measure across companies. For companies wholly or mainly in Wales, the CRI in 2017 was 2.63, a value already improving from 2016 where it was 3.55. Prominent areas for attention in the future include pesticides from catchment, microbiological parameters and turbidity in treatment works and service reservoirs, metals resulting in discoloration in distribution and lead in domestic distribution systems.

This year a new drinking water quality measure called the Event Risk Index, (ERI), was introduced to illustrate the risk arising from drinking water quality events which also aligns with the current risk-based approach to regulation of water supplies used by the DWI. The measure, unlike the current event

response categorisation, considers a risk-based methodology to assess impact of events on consumers and promote proactive risk mitigation. Like CRI, it assigns a value to the significance of the event, the number and duration of consumers potentially affected and the company response thereby deriving a proportional measure across companies. The ERI in 2017 for England and Wales combined is 249 which is an improvement from retrospectively calculated value of 346 in 2016. An improving figure, not as a result of reducing the total numbers of events, but from a reduction in the seriousness of those events, the number of consumers potentially affected by those failures, the time consumers were affected by the event or by an improved response from companies resulting in a reduction in the future likelihood of an event or a combination of these factors.

In 2017, four serious events were highlighted in the public supply for wider learning. The first was a serious event brought about by supplementing river water with borehole water due to abstraction constraints on the original source which resulted in large numbers of consumers contacting the company because of concerns about noticeable changes to their drinking water quality, in particular the hardness of the water and unacceptable tastes and odours. Consumers also made direct contact with the Drinking Water Inspectorate and Copeland Borough Council. The local Member of Parliament was inundated with contacts from concerned consumers. The second and third events occurred following microbiological contamination, from the environment, of service reservoirs. These arose through poor planning, assessment, control and maintenance of the assets, something that was a feature of the Franklaw incident in Lancashire in 2015. The last event for learning was the delivery of ferric sulphate to a works which was inadvertently mixed with sodium hypochlorite by pumping it into the wrong tank (a feature of the Camelford incident in 1988) highlighting the continuing importance of controlled deliveries. Fortunately, in this incident, there were no water quality risks.

In 2017, there were two successful prosecutions of water companies for events, the first was when *Cryptosporidium* contamination was detected from Franklaw works in 2015. This prosecution was brought about because the company failed to follow nationally recognised and published good practice in assessing the risks of returning stored water to critical stages within the treatment works and to take appropriate and rapid action to protect consumers when the contamination was known. A second prosecution was taken against Southern Water for an event in Southampton in 2015 where customers in the Rownhams area experienced discoloured water and disruption to the supply and traffic on the M27 after a burst main. This prosecution was brought because of deficiencies in the company's planning of changes to its distribution system that, in the view of District Judge Anthony Callaway, was reckless in its execution and aggravated by time pressures. This was a serious deviation from good practice, and without regard to the impact on consumers in the Southampton area, and warranted intervention by the Inspectorate.

The picture in relation to private water supplies in Wales, whilst improving, continues to require keen focus with 4.7% of tests failing to meet the drinking water standards. Nonetheless, this figure represents an improvement when compared to the 9.6% of tests that failed in 2010, the year when reporting for private supplies was first introduced. Across England, the number of private supplies that had been risk assessed was 1,803 in Wales covering over three-quarters (75%) of all relevant private supplies. In comparison *Drinking Water 2016* figures were very similar (77%), and indicate a stalling of progress towards completion of all required risk assessments. Additionally, in 2017 there were 166 supplies in Wales that were a potential danger to human health where local authorities had to require the owners to make improvements and take steps to protect public health. In Wales, around two-thirds (63%) of these failing private supplies are large supplies or supply commercial premises or premises where the public may access water e.g. B&Bs, cafés and tourist attractions.

During 2017, there were five private water supply events identified for wider learning. Two are noteworthy of mention: The first was a study of a large and historic military site, the owner of which is a water company customer that further distributes water from a public supply to consumers located on one of many parcels of land that have been sold off from the primary premise at various times over many years. The Inspectorate has found that such cases will often result in a civil dispute between the relevant persons, usually in relation to apportioning cost where no agreement has been made when selling these properties. In the second, a sample was taken from the supply which was found to contain indicators of faecal pollution. In response the local authority served a notice which instructed users of the supply to boil water before consumption and which did not contain any long term measures for the estate owner to rectify the source of the contamination. As none of the deficiencies were rectified potential contamination pathways still exist on the supply and consumers remain at risk, a situation not that uncommon in small private supplies.

Yours sincerely



Marcus Rink
Chief Inspector of Drinking Water