

Drinking water 2017

Quarter 3

July - September 2017

A report by the Chief Inspector of Drinking Water



This page is intentionally blank



Drinking water 2017
Public water supplies for
England and Wales

Quarter 3
July - September 2017

Published by
Drinking Water Inspectorate
Area 1A
Nobel House
17 Smith Square
London
SW1P 3JR

Tel: 0300 068 6400

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

© Crown Copyright 2018

978-1-911087-23-6

Copyright in the typographical arrangement and design rests with the Crown.

This publication (excluding the logo) may be reproduced free of charge in any format or medium provided that it is reproduced accurately and not used in a misleading context. The material must be acknowledged as Crown copyright with the title and source of the publication specified.

Contents

Foreword	4
Drinking water sources and catchment management	6
Water quality at treatment works	9
Water quality at service reservoirs and in distribution	10
Water quality at consumers' taps	14
Consumer complaint audit programme	16
Implementation of amendments to the Drinking Water Directive	20

Foreword

Drinking water 2017 is the annual publication of the Chief Inspector of Drinking Water for England and Wales. It is published as a series of quarterly reports which cover public water supplies in England and Wales.

The report sets out to develop a source to tap approach in the supply of water, developing learning points from recent data, events and company strategies. It builds upon the strategic objective of DWI for wholesome and safe, clean drinking water to all consumers at all times.

This report describes one of the most significant events of recent times as a result of the acceptability of a water supply following the introduction of a new source to the supply. The change of supply by the company was as a result of the need to reduce the use of a surface water source for environmental reasons. The company did not communicate this change before doing so, causing customers to be concerned when they noticed a perceptible difference. Whilst the new source, when analysed, was wholesome in isolation, the introduction caused widespread rejection based upon taste as a result of hardness being introduced to a soft water. A significant number of complaints, media interest and involvement of the Local Authority and MPs as well as a continuing loss of confidence in tap water was an unnecessary outcome. This event is published for companies' learning. Companies should consider the taste and odour of the supply when introducing new sources, moving water or planning any resilience initiative since water as supplied must be acceptable to consumers for it to be wholesome even if all parameters are compliant.

This quarter has identified an increase in coliforms in reservoirs. Whilst there is no causal link in the evidence provided by companies, the increase is coincident with heavy rainfall in the same period. Company investigations have identified a number of reasons for the failures where a cause was found, including ingress but a significant number remain without a known cause. Companies should take note that historical evidence of events throughout the world has shown strong correlation between heavy rain and contamination of water supplies either directly or indirectly. Companies must consider the risk presented by rain particularly through asset deterioration and integrity loss. Whilst the detection of coliforms may not be the direct risk, they indicate the increasing likelihood of ingress. The point of reservoir maintenance and risk has been made a number of times in my report and has been shown to result in serious events such as

Saltcoats & Stevenston, Ayrshire, (1988), Broadway, (SVT) in 2012 and Franklaw (UU) in 2015. Affinity Water, Thames Water and Yorkshire Water account for half of the total coliform failures between them, a point not lost in this report.

It has been long recognised that information from consumers represent the eyes and ears of the company. It is, with this in mind, that a series of audits of consumer complaint handling were completed. It is somewhat disappointing that some companies including United Utilities and South East Water are not recording complaints received through more modern channels such as social media, now one of the primary communication mechanisms of a younger generation. I am pleased however to see that Northumbrian Water are using an 'app' which allows users to provide live video of the quality issue they are experiencing, an example of utilising modern technology to connect with their consumers. However, when complaint data is accounted for, companies are not necessarily analysing it to inform risk assessments for predictive and proactive action. The discolouration contacts in three supply zones near Newcastle upon Tyne were considered to be high due to flushing activities, however, Northumbrian Water had not undertaken any analysis to substantiate this claim. Missed opportunities lead to failure, not just in flushing programmes, but when considering mains replacement and strategic planning of treatment options such as tackling taste and odour at Crownhill works by South West Water. Again, these points have not been missed by my audit team who will maintain scrutiny in these areas.

Finally, my report discusses changes to regulation and the preparations necessary for this. The update introduces risk-based monitoring permitting companies to reduce monitoring on the basis of a reduced risk of specific parameters arising. The transition to this methodology is intended to remove unnecessary monitoring and cost but initially will result in an increase in some parameters to meet the minimum requirements. The attention of companies is drawn to this initial phase which will occur part way through the year.

Drinking water sources and catchment management

Change of water quality characteristics causing loss of consumer confidence in Copeland, Cumbria

In Q3 2017, the Inspectorate concluded its assessment of an event which commenced in Cumbria and affected consumers supplied by Ennerdale treatment works operated by United Utilities. The affected areas included the towns of Workington and Whitehaven and surrounding areas, mainly within Copeland Borough Council's (BC) area. Some consumers in Allerdale District Council's (DC) area were also affected.

This was a serious event which resulted in large numbers of consumers contacting United Utilities because of concerns about noticeable changes to their drinking water quality, in particular the hardness of the water and unacceptable tastes and odours. Many consumers also complained about health effects. 85 consumers made direct contact with the Drinking Water Inspectorate to express their concern. Copeland BC and the local Member of Parliament were inundated with contacts from concerned consumers.

The event was caused when, towards the end of May 2017, United Utilities made a planned change to the supply from Ennerdale works, introducing a 50:50 blend with local borehole sources without any prior engagement with stakeholders and without warning consumers about the possible changes they might notice affecting the quality of their tap water. This led to widespread anxiety, with many consumers rejecting the water for consumption.

Consumers began contacting United Utilities around 7 June, complaining about a change to the hardness of their tap water, with effects such as "popping" and exploding kettles, very black tea, inability to obtain a lather when using soap and detergent, oily film on the top of hot drinks, scum appearing in sinks and washbasins. Many consumers also noticed a change to the taste and/or smell of their tap water, with descriptions such as "dry", "chalky", "metallic", "chemical", "bitter", with some consumers reporting foul or sewage-like odours. A significant number of consumers reported health effects, ranging from dry skin, skin rashes, sore eyes and mouth ulcers to diarrhoea and vomiting. It was not until 30 June 2017 that the company formally notified the Inspectorate of the issue, as required by the Water Industry (Suppliers' Information) Direction. By this time the Inspectorate had already been contacted directly by a significant number of concerned consumers.

The changes that consumers were noticing to their water quality were causing widespread alarm and anxiety, which gained momentum as coverage on social media and by the local press, television and radio, increased. Consumers were angered that United Utilities had not informed them in advance of the planned changes to their water supply. The local authorities in the affected areas, principally Copeland Borough Council (BC), and the local Member of Parliament, received numerous contacts from residents complaining about their tap water and requesting that something be done to restore normality. A petition was established in support of forcing the company to stop using borehole water in the Ennerdale supply.

United Utilities was obliged to begin a belated communication exercise, publishing statements to explain the reasons for the change, and tried to reassure consumers that the water was safe to drink. The company took investigational samples from Ennerdale works and in the distribution system to support these statements.

The Inspectorate was also contacted by a significant number of concerned consumers from the Copeland area, and sent nearly 200 questionnaires to consumers who had contacted United Utilities and DWI. DWI also arranged for an independent accredited laboratory to take and analyse samples of the individual borehole sources and Ennerdale treated water, for a range of microbiological, chemical and radiochemical parameters. There were no results that exceeded any statutory or other health-related limit, or that gave any indication of a risk to human health. The results were consistent with United Utilities' own sample data, and confirmed that hardness was the most likely cause of consumers' concerns. There is no legal upper or lower limit for hardness in drinking water, and no known association with health effects.

Public Health England (PHE) undertook surveillance for illness in the community, and concluded that there were no cases of illness that could be linked to the water supply.

The Inspectorate concluded that United Utilities failed to carry out a robust risk assessment before the planned introduction of borehole sources into water supplied from Ennerdale works. This change caused the hardness of the water to increase from very soft (similar to the softness of rainwater) to soft, or slightly hard. The water company thought that this change to the hardness level would not be noticed by consumers – an assumption that proved to be significantly wide of the mark.

The Inspectorate published the outcome of its investigation into this event because of the important lessons to be learned for the industry as a whole. United Utilities did not inform consumers in advance of this planned change at Ennerdale, and did not forewarn them about changes to

tap water quality that they might notice. The company's customer service advisers were also not informed of the planned change, and were unable to provide appropriate advice and reassurance to consumers who contacted the company in the days after the change. Consumers posting comments and photographs on social media escalated the issue, people became more alarmed, and the perception developed that the company was hiding something. Copeland Borough Council recorded around 9,000 communications with residents on social media, which gives an indication of the scale of the concern.

It has been well documented over the years in the Chief Inspector's report that consumers should be informed in advance of any planned changes to their water supply, because of the potential for people to become alarmed by a change to the taste or odour, appearance or hardness. This can have serious consequences for consumers. An analysis of questionnaires returned to the Inspectorate indicates that 50% of concerned consumers rejected their tap water for consumption. Rejection of tap water is, in itself, a public health concern, and United Utilities did not discuss this in its communications with PHE. Nor did the company notify the Inspectorate, as required by the Water Industry (Suppliers' Information) Direction until the end of June 2017 – around three weeks after the start of the event.

The Inspectorate made a number of recommendations to the company to change its procedures to prevent a similar events occurring in the future.

Water quality at treatment works

During the third quarter of 2017, the Inspectorate continued assessing the compliance data supplied by companies.

Review of compliance – microbiological failures at treatment works

Table 1: Q3: 2017 – Microbiological tests

The number of tests performed and the number of tests not meeting the standard

Parameter	Total Number of tests	Number of tests not meeting the standard
Water leaving water treatment works		
<i>E.coli</i>	39,134	0
Coliform bacteria	39,133	8

During Q3 2017, there were no *E.coli* detections and eight detections of coliforms at treatment works in England (AFW 1, ANH 1, SEW 1, SST 2, TMS 2, YKS 1). In two cases, the investigation did not identify a cause. In one of these case, (TMS), failures were reported from four assets on the same day but investigations ruled out sample contamination.

A common theme to three further coliform detections was issues in the integrity of pumping equipment. In one (SST), ingress was identified via the roof of the treated water pump sump. A recommendation was made for the company to carry out company-wide risk assessment of any similar roof arrangements over treated water. In the second instance (ANH) the company attributed the cause to pinprick sized holes around a valve spindle causing ingress to a pump sump. Investigation of the third detection (YKS), found ingress into a high lift pump.

The remaining three failures were attributed to

- leaking hatches allowing ingress to a contact tank (SST),
- a deteriorated well head plate seal and damaged gasket to a high lift pump (TMS) and

- a common tapping point for the compliance sample tap and additional instrumentation leading the company (AFW) to install a dedicated sample line.

Water quality at service reservoirs and in distribution

Assessment of compliance

In Q3 2017, there were eight detections of *E.coli* at service reservoirs (AFW 1, BRL 1, NNE 2, SVT 1, SWT 1, YKS 1) but there were 60 coliform detections (AFW 10, BRL 1, CAM 1, DWR 1, ESK 1, NNE 3, SBW 1, SEW 5, SRN 1, SVT 5, SWT 6, TMS 11, UUT 4, YKS 9).

Table 2 : Q3 – Microbiological tests

Parameter	Total Number of tests	Number of tests not meeting the standard
Water leaving service reservoirs		
<i>E.coli</i>	51,533	8
Coliform bacteria	51,533	60

E.coli detections at three reservoirs (AFW, BRL, NNE) were suspected to be issues with sample lines and whilst one was attributed to human error during the sample pump change over, (AFW), the further two did not have a definitive cause identified despite adequate investigations but it was suspected that pooling water in a sample cabinet or a pump chamber were implicated.

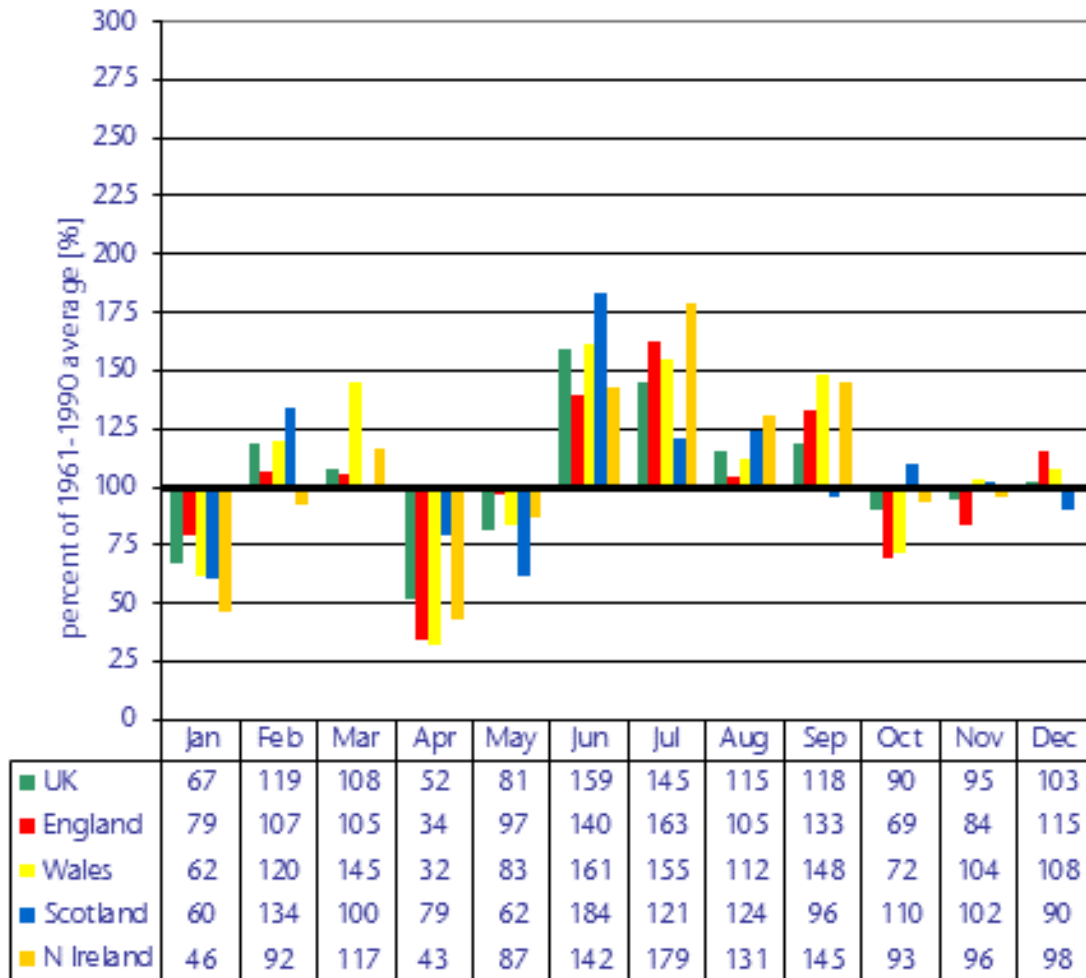
Ingress was confirmed at two sites (NNE, SWT) where *E.coli* and coliforms were detected in the same sample. Northumbrian Water isolated and inspected the asset and found several points of ingress. The service reservoir remained isolated and was planned to be abandoned after additional enabling work.

E.coli was detected at Mapperley service reservoir (SVT). The Inspectorate took enforcement action to protect public health and the circumstances of the failure are under investigation.

A review of weather data for the period illustrates that in England and Wales, June, July, August and September saw increased levels of rainfall by between 112 and 163% when compared to the average of 1961-1990 (see Figure 3).

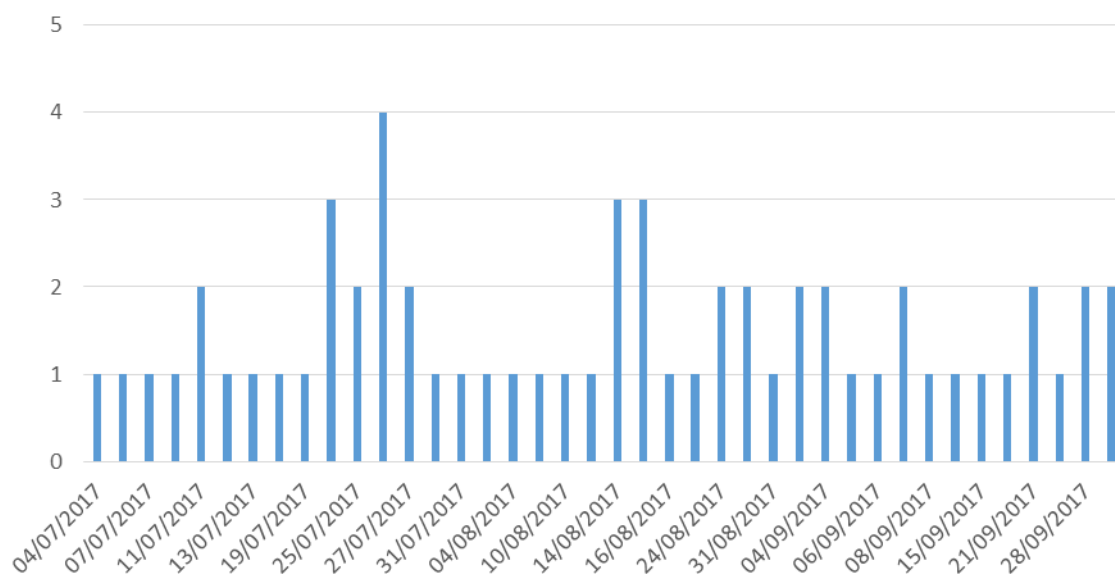
The following graph is provided by the Meteorological Office.

Figure 3: Rainfall for 2017 compared to the average of rainfall from 1961-1990



Presenting the failures by date illustrates that there was a group of failures in the period 24-27 July during a period of high and intense rainfall that occurred in the second half of July.

Figure x: Coliform detections by date July-September 2017



When reviewing the circumstances of failures there are some sites which stand out as they have reported more than one failure in the year so far.

Jacks Hill reservoir (AFW) reported a coliform and *E.coli* failure on 4 July and additional coliform failures on 15 and 21 September. The investigation into failures on 4 July concluded that human error in a sample pump changeover caused the failure, however ingress was also identified round an access hatch following a flood test. The company has had previous recommendations about hatch integrity. The failures in September were also attributed to issues with the sample line which has been replaced. The company were reminded of the requirements of Regulation 16 requiring samples to be representative of the quality of water in supply.

Affinity Water’s Harefield service reservoir recorded a coliform failure on the outlet of the West cell on 16 August 2017, repeat sampling the day after identified a coliform failure on a sample from the East cell and the company concluded low turnover was to blame. The company changed the demand on the reservoir to increase the flow to the network. The reservoir was not being operated to the company’s own turnover policy and the company subsequently set up a reservoir steering group in response to these and other reservoir water quality issues, however further coliform failures were recorded at the East and West cells on 1 September and the Inspectorate recommended that the company carry out a thorough review of the risks, operation, monitoring and control measures for the reservoir

and supplying assets and update their Regulation 28 risk assessment accordingly.

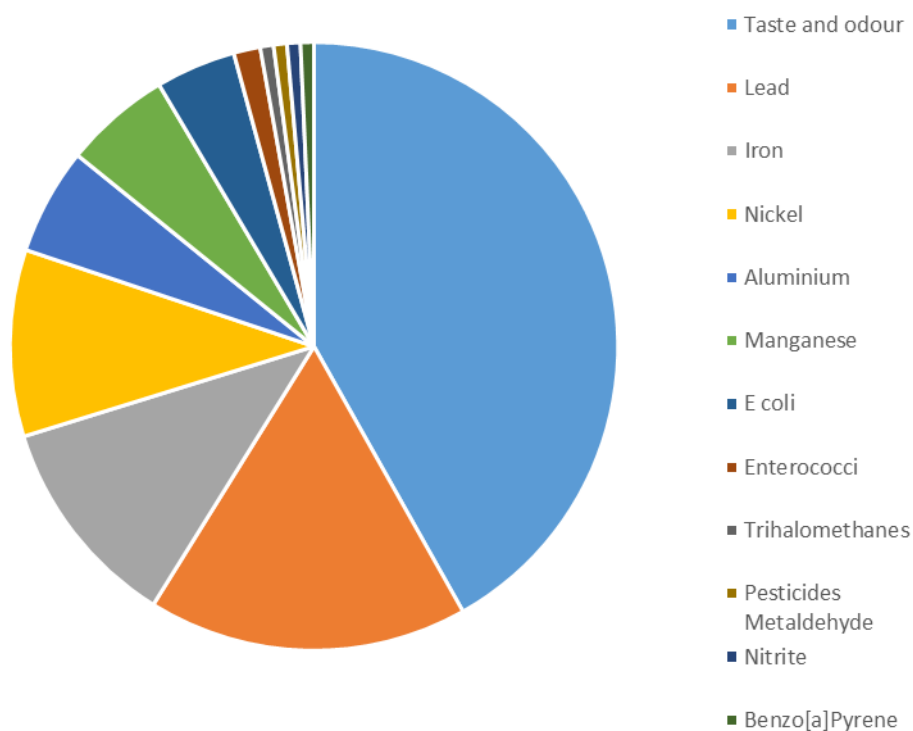
Yorkshire Water's West End service reservoir had a coliform detection on 30 June which was attributed to a leaking air valve in an upstream asset, as an internal inspection of the reservoir under inundation did not identify any ingress. A subsequent investigation of pressure identified two depressurisation events which, though not proven to be the cause, could have been contributory. The air valve was repaired, however a further failure on 15 August prompted a more thorough investigation and a wash out chamber was identified to 'theoretically' cause backflow into the asset. The asset was removed from supply and the company have installed secondary chlorination onto the outlet (as chlorine levels within the distribution system are low). The company also planned to modify the pipework to isolate the wash out chamber. Long term plans are to install a water pumping station into the distribution system between the failing asset and the upstream distribution asset. This will enable an increased pressure to be maintained upstream of the failing asset thereby reducing the risk of ingress into the distribution network. Additional modifications were made to allow further secondary chlorination upstream of the asset. The modifications to the upstream pumping station will be completed in order to allow abandonment of West End.

Water quality at consumers' taps

Most samples taken to assess regulatory compliance are taken from consumers' taps, and testing takes place for 51 parameters that have numerical standards. Sampling frequencies are determined by the size of the population in the water supply zone. The vast majority of samples taken complied fully with regulatory requirements. From the samples taken to demonstrate compliance with a Directive or national standards, there were a total of 141 failures for 13 parameters in Q3 2017. For microbiological parameters, six samples contained *E.coli* and two contained Enterococci. With regard to the parameters, the most prevalent detections were for taste and odour, lead, iron, nickel, aluminium, manganese and *E.coli* which together accounted for 135 failures (96% of the total).

Looking at the failures in more detail, Figure 4 shows the proportion of failures for the 14 parameters.

Figure 4: Directive and national parameters failing in Q3 2017 – percentage of the 141 failures recorded at taps



A review of the circumstances of the failures for taste and odour, lead, iron and nickel showed the following :

- Taste and odour – 59 results (14 taste and 45 odour) from 47 samples. Of these results, 21 were earthy / musty tastes or odours of which, 14 were in areas where there is a recognised problem being addressed either PAC dosing or where a further study or work is underway. In one instance (YKS) there were three failures (from two samples) in the Skipton/Craven zone and PAC dosing was subsequently installed. There were no further failures in Q3 in this zone. Five failures on three separate occasions were detected in the Willenhall zone (SVT) and a Notice and a longer term study are in place.

There were 20 results reporting a pencil or woody taste or odour, the majority of which were identified as being related to black alkathene piping. A sample taken by Bristol Water failed for taste and odour, described as ‘pencil wood’ was found to be related to the use of an antioxidant, ‘Santonox’, which had its approval revoked in the 1980s as consumers reported pencil/woody tastes and odours when it leached into water.

Additionally, there were further failures with assorted descriptors (almond, burnt plastic, peppery) where investigations suggested the most likely cause was a fitting to the kitchen tap.

- Lead – 24 failures of the standard were reported by ten companies (AFW 2, ANH 2, ESK 1, NNE 1, SEW 1, SRN 1, SVT 5, TMS 7, UUT 2, YKS 2). Two failures were in areas covered by a legal instrument. The failures were dealt with by a combination of communication pipe replacement and advice to consumers. One failure was in a public building in Thames Water’s area where the communication pipe was replaced in January 2016; the company sought access to the basement of the building to identify if it had been removed in its entirety.
- Iron – 16 failures (DWR 2, NNE 1, SEW 2, SST 1, SVT 2, TMS 2, UUT 3, YKS 3). Two were in zones covered by legal instruments. Where sediment in the main was identified, flushing was implemented and trickle caps installed where appropriate. In one instance, Severn Trent Water reviewed the operation of the network and concluded that opening a strategic valve could help alleviate future problems. One failure in Thames Water’s area was in a public building (health centre) and whilst the quality of water provided to the building was of adequate quality, the problem arose due to a

tank in the property which was subsequently removed allowing the tap to be directly fed. A water fittings inspection was planned but the centre was closed due to concerns about asbestos prior to the inspection taking place.

- Nickel – 14 failures were reported (AFW 1, ANH 3, BRL 1, CAM 1, ESK 1, SSE 1, SVT 2, TMS 1, UUT 2, YKS 1). The majority of investigations attributed failures to new or changed plumbing arrangements within consumers' properties. In one instance (YKS) the company returned to the property identified by the sampler on the company's records but the resident claimed no sample had ever been taken and refused entry. The sampler had since left the company and the details of the records and where the original sample was taken from could not be verified.

Consumer Complaint Audit Programme

A very important part of the Inspectorate's role is ensuring consumers remain confident in their water supplies and in July and August 2017 audits were carried out looking at how water companies deal with consumer complaints.

Water companies are required to provide the Inspectorate with summaries of water quality complaint data annually, which is broken down by type of complaint, for example illness, taste and odour, or discolouration and by area within a company (water supply zone).

The data returns allow for a comparison between companies and also allow information to be trended across years to determine whether consumers are raising more or less complaints about the quality of the water they receive.

The audit programme was developed based upon the data returns for the calendar year 2016. Two water supply zones were selected for each company where data showed above average discoloured water consumer complaint rates over recent years. Discolouration was selected as the level of consumer complaints in this category was high compared to other types of complaint.

Accuracy of the Data returns

Information on consumer complaints is held by companies in data systems and covers a much wider remit than water quality, so a subset of the data needs to be prepared for the data returns. The data cleansing exercise was examined to ensure companies were compiling the returns appropriately.

Dŵr Cymru Welsh Water carried out an internal audit some time before the Inspectorate's visit and identified three sources of error, including data unassigned to water quality zones; the logging of some inbound calls as outbound calls and thus excluding them and some formatting errors in the data submission spreadsheet. The company took action to correct these errors.

Some data had been excluded in error from the United Utilities data return and recommendations were made with regard to the estimates of numbers of consumers in zones, where the population data had not been updated beyond the figures available in the 2011 census. South West Water were required to amend its documented procedure to incorporate how the consumer complaint data return is compiled.

Good practice, in the form of an independent audit of Severn Trent's data return, was welcomed by the Inspectorate and other companies are encouraged to follow this example.

Social Media

It was observed that a significant number of social media contacts were excluded from the data returns, in many cases because the company did not gather enough data to confirm that the complainant was a resident of a specific water supply zone. One quarterly report from United Utilities was seen to exclude over 99% of social media contacts. South East Water do not report social media contacts at all.

This is of concern to the Inspectorate. The use of social media as a form of communication is now commonplace and is replacing more traditional forms of consumer contact, particularly among the young. By excluding this source of information companies are potentially under reporting the number of water quality complaints from consumers. Water companies collectively should consider simpler ways in which to confirm that those using social media are genuinely affected by water quality issues and capture the information appropriately.

Complaint handling process

Contact centres for handling consumer complaints are well established within companies and in general the process works well. Some companies have gone further with social media desks and Northumbrian Water are using an 'app' which allows users to provide live video of the quality issue they are experiencing. While not all consumers will choose to use such tools, these innovations are to be welcomed as they give the opportunity for more useful information to be collected.

Training for call handlers followed similar process at the companies visited, induction training lasted between two and four weeks, which

normally included a short number of days of specialist training in handling water quality complaints. Many companies had developed scripts for call handlers to use to determine the cause of a complaint so that it could be responded to appropriately. Call handler performance was often checked monthly by internal audit, procedures and training competence records were of variable quality.

Investigations and actions being taken to reduce complaints

The issues with discolouration, that were a focus of this audit, are sometimes caused by poorly performing water treatment works but are more often caused by deterioration of iron mains within the water distribution network. There was a focus on two water supply zones per company and the activities being undertaken to reduce the number of complaints.

Dŵr Cymru Welsh Water characterised the Monmouth Trellech zone as a small rural supply zone with a long length of small diameter cast iron pipe. There were protracted problems with the supply to a business property. The company demonstrated its plans to replace 1.2 km of cast iron pipe to address this, whilst in Dolgellau supply zone the company have a plan of targeted mains replacement (2.4km) to improve water quality.

The discolouration contacts in three supply zones near Newcastle upon Tyne were considered to be high due to flushing activities, however, Northumbrian Water had not undertaken any analysis to substantiate this claim. No reviews were undertaken in 2016 in response to the increase in consumer complaints and the Inspectorate concluded that the company's procedures for detecting emerging issues was not robust. Companies have been required to send consumer contact figures to the Inspectorate since 2006 but it has been the Inspectorate's view that companies should be using the data themselves to identify and rectify issues for consumers.

South West Water attributed increased taste and odour contacts in its St Cleer East supply zone to the presence of geosmin in the final water at Crownhill works. Geosmin is a product of the breakdown of plant material in the water supplying the works. An improvement notice is in place for the company to improve the treatment of water supplied to this zone. In the Pynes West supply zone, South West Water reported that an increase in the number of mains burst and low levels of manganese passing through its Prewley works were the likely cause of the discolouration issues. The company has carried out ad hoc flushing in the zone and is investigating the cause of the mains bursts. There are longer term plans to improve the removal of manganese at Prewley works. The Inspectorate considered that these plans had not been reflected in the company's risk assessments and an improvement notice may be considered if sufficient progress in resolving these issues cannot be demonstrated.

A campaign to reduce the amount of disturbance of mains sediment in the Birmingham area has been launched by Severn Trent Water, which includes a standpipe rental scheme. The company also has a strategic mains flushing programme, however the Inspectorate considered that these activities were not sufficiently addressing discolouration issues in the Small Heath supply zone. There is a process in place to analyse the location of consumer complaints, yet the company appeared unaware of the above average number of complaints in Small Heath and Newtown supply zones. Whilst cluster analysis has identified short term causes such as burst mains, the cumulative nature of the high consumer contact rates did not appear to have informed the company's drinking water safety plans. Improvement notices are being considered for both zones.

United Utilities was able to demonstrate that discolouration complaints in its Haydock zone had been caused by two events, a burst main and disturbance by a gulley cleaner. Sufficient remedial action had been taken to resolve these issues. The company had identified long standing issues in the Carlisle South zone and had planned to clean 30km of trunk main to reduce the level of complaints, but the company changed their plans to replacement of mains following a discolouration event. A recommendation was made for the company to carry out appropriate risk mitigation measures for such planned work and give consumers advanced warning of the likelihood of discolouration from these activities. Further recommendations were raised with regard to planned work and the training and competence of those involved in the sign-off process.

Improvement notices were already in place for South East Water's Burwash and Cuckfield supply zones and the company was able to demonstrate compliance with the flushing programmes, additional monitoring and treatment steps defined within. However, information from the flushing exercises were not reflected in the company's risk assessments and a recommendation was made for the company to rectify this. The company is unable to demonstrate robust processes for addressing water quality issues due to a lack of documented procedures. A recommendation was made for the company to rectify this failing.

Yorkshire Water were able to demonstrate that flushing programmes in its Hull West and Airedale supply zones had had an effect in reducing consumer complaints mid-way through 2017. The company has put a considerable effort into reducing consumer complaints and now has 24 flushing teams to target poor performing areas.

In summary, by giving appropriate consideration to the location and number of water quality complaints companies can take both short and long-term actions to reduce the number of complaints and increase confidence in the public water supply. Companies that fail to appropriately

consider these issues are likely to face closer scrutiny from regulators and more importantly a higher proportion of dissatisfied customers.

Implementation of amendments to the Drinking Water Directive

Article 11(2) of the Drinking Water Directive (Council Directive 98/83/EC) states:

At least every five years, the Commission shall adapt Annexes II and III to scientific and technical progress. Such changes as are necessary shall be adopted in accordance with the procedure laid down in Article 12.

Such a review was undertaken in 2015 and a new Annex II was outlined. The changes remove the ability for companies to undertake their sampling programmes with reduced monitoring frequency as is currently implemented, instead all compliance sampling must be undertaken at standard frequency as specified within the Water Supply (Water Quality) Regulations 2016.

Companies may be allowed to reduce or cease their monitoring for some specific parameters, as determined by the regulatory body, if certain specific conditions are met. This means that company risk assessments must be inspected and that companies should be able to demonstrate three years of sample monitoring data which shows no exceedance of the regulatory standard, 30% of the regulatory standard or 60% of the regulatory standard to allow for a cessation of, or reduction in, monitoring (to 50% the original frequency as already exists under to current regulations). This changes the monitoring frequency to a risk-based approach and reduces the burden on companies to monitor parameters that can be evidenced not to be a current or future risk.

Should any sample fail the regulatory standard or be greater than 30% or 60% of the regulatory standard then any reduction or cessation of required compliance monitoring that has been granted, will need to be amended.

Companies will be required to notify the DWI of any representative sample - compliance or operational, which does not meet the required standard. This notification must be as soon as practicable and is separate from the current compliance reporting timescales.

The risk assessments currently produced by companies will be required to have an accredited status before the Inspectorate can accept them and any applications for a parameter monitoring variation. A Water Industry Specification has been published, detailing water safety plan best practice and can be obtained from the Water UK website.

Negotiations are currently ongoing with UKAS and other potential inspection bodies in order to make the process as straightforward, efficient and cost effective for companies as possible, whilst adhering to the principles of better regulation and achieving the aims of the Directive.

This further embeds the principles of the World Health Organisation's risk based approach to the management of water supplies benefiting consumers and the industry alike.



Drinking Water Inspectorate | Nobel House, 17 Smith Square | London | SW1P 3JR | Tel: 0300 068 6400

www.dwi.gov.uk