



Drinking Water Quality Regulator
for Scotland

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CPHM Newsletter

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Welcome

This is our fourth newsletter for CPHMs which aims to keep you updated on drinking water quality issues from around Scotland. We realise that drinking water is, quite rightly, only a small part of the CPHM role but that it is nonetheless important that you are aware of developments in this area as it is so crucial to public health. We hope these occasional newsletters provide a succinct means of keeping in touch and letting you know what is going on. If you have any suggestions as to how we could improve our communications or any other aspect of our work please let us know.

Water Quality Event Reporting

You are no doubt aware that Scottish Water is trialling an approach to reporting that ensures only the most significant events are reported to you immediately, with the remaining, lesser events reported at the end of the month. The aim of this trial is to cut down the amount of unnecessary information Health Boards are receiving to better enable you to focus on the most relevant events for public health.

DWQR is fully supportive of this trial and has adopted a similar reporting approach with Scottish Water that is also working successfully. We continue to assess all events, regardless of priority, and are continuing to investigate those that we declare incidents. This more efficient working is

enabling us to investigate incidents in more detail, which should ensure that lessons are fully learned and disseminated and actions followed up. We will continue to forward incident reports to the relevant CPHM when we receive them from Scottish Water to provide the opportunity for your comments to be considered in our investigation.

We recently commissioned a study into the root causes of drinking water quality events in Scotland. The contractor, Black and Veatch, produced a number of interesting conclusions and recommendations, both for how Scottish Water reports events and incidents investigations and how we process and investigate them. We are currently discussing the findings with Scottish Water, but this work should bring about improvements to the depth of Scottish Water's investigation of failures. The statistical analysis of events will also provide a useful evidence base on which to plan our risk-based auditing. From this study, service reservoirs and water mains repairs have been highlighted as areas generating larger numbers of events that could benefit from increased DWQR inspection activity.



Scottish Water Investment

Scottish Water is planning for the regulatory investment period from 2015 to 2021 and beyond. For the first time this investment period will use the outputs of Scottish Water's Drinking Water Safety Plans to prioritise and address risks before they cause failures of drinking water standards. There remain some Scottish Water assets that are not meeting regulatory standards. It is expected that by the end of the current investment period in 2015 these will have been reduced significantly, but some investment to ensure compliance with regulatory standards will still be required in the next period. Looking beyond that, the process will very much shift to anticipating and managing risks before failures occur. DWQR is currently working closely with Scottish Water to agree the content of the drinking water quality elements of Scottish Water's business plan for this next period.



Undertakings

Usually DWQR is satisfied that the inclusion of a water quality project in Scottish Water's business plan is sufficient to ensure it is delivered. However, in line with DWQR's enforcement policy, a number of issues have been identified that DWQR feels require a higher priority and a legally binding commitment to delivery by a certain date. Undertakings have been requested from Scottish Water at the following locations:

Tullich WTW, Oban – THMs, *Cryptosporidium*

Amlaird WTW, Ayrshire – Iron, THMs

Bradán WTW, Ayrshire – Manganese, THMs

Craignure WTW, Mull – *Cryptosporidium*

Scottish Water is currently considering its response to this request. Once agreed these undertakings will join the two existing ones covering Muirdykes WTW, Renfrew (manganese) and Forehill WTW, Aberdeenshire (pesticide).

DWQR will continue to review water quality data and request further commitments from Scottish Water as appropriate.

INCIDENT SUMMARY

Woodilee, Kirkintilloch

During the evening of 22 August 2012, Scottish Water began to receive complaints from consumers on a large, new housing development in Kirkintilloch, of discoloration, taste and odour in the water supply. The supply was shut off until the full extent of the problem could be assessed and to enable consumers to be warned that they should only use the water supply for sanitation purposes.

Operations staff undertook a controlled flushing of the system and a staged re-introduction of supply to the area, and during this work, two foam swabs, which are used to clean new mains, were found to stuck in the pipeline at different points, causing stagnant water in the supply system. Once clear water samples had been confirmed across the area, all-clear notices were issued to consumers.

DWQR found there to have been significant shortcomings in Scottish Water's control of Developers and self-lay Contractors providing water mains on new developments prior to adoption by Scottish Water. A number of recommendations have been made to Scottish Water, and this area is likely to be the focus of future inspection activity by DWQR.

Audit and Inspection

This is a key part of our role as it enables us to monitor how well Scottish Water is performing in a range of activities and make recommendations for improvements. Audits have the added benefit of keeping us in touch with Scottish Water staff at all levels and in all areas of the organisation and to enable us to see and discuss developments the company is making in various areas of its operations.

In 2012 DWQR undertook the following inspections:

- 9 water treatment works

- 5 distribution activities
- 2 sampling and analysis
- Consumer contacts about quality to Scottish Water
- Delivery of recommendations
- Mains rehabilitation investment

The audits of water treatment works resulted in 70 recommendations, and these have been tracked closely by Scottish Water to ensure they are delivered. The audit programme for 2013 is currently being developed.

Private Water Supplies

There are approximately 20,000 private water supplies (PWS) in Scotland. As most of you know, some of these supplies can present a significant risk to health, with nearly 20% of samples containing *E.coli*, many of these from supplies claiming to have disinfection. Regulation of PWS rests with local authorities and DWQR has a supervisory role. DWQR is concerned that the quality of private water supplies appears to be showing minimal improvement, despite several years of effort by local authorities. We are actively looking at alternative means of supporting local authorities in driving improvement, including the provision of enhanced guidance, encouraging the appropriate use of enforcement powers and reporting on local authority performance.

DWQR Annual Report

Drinking Water Quality in Scotland 2012 is due to be published by the end of August. This annual report details private and public water quality across Scotland during the preceding year, as well as the activities of the DWQR. This year, responding to pressure on costs and sustainability, we are producing an electronic only version of the full report. It will be available on our website, but we will also email a copy to each CPHM contact on the day the report is published.

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INCIDENT SUMMARY

Clashbuie SR and the Calder WTW supply system, Caithness

This incident affected consumers supplied from the service reservoir at Clashbuie, near Scourie in Caithness. Following repeated failures of the microbiological standards over a number of days in September 2012, a boil water notice was delivered to the properties supplied by the reservoir affecting approximately 96 consumers in total. The notice remained in place for six days.

The installation of more efficient disinfection equipment at Calder Hoy WTW earlier in the year had caused Scottish Water to review the need to add additional chlorine at the reservoir. Chlorine concentrations began to drop off in the few weeks prior to the first failure and it is likely that nitrifying bacteria took hold within the distribution system as a result. Sample evidence suggests that coliform contamination was limited to Clashbuie Service Reservoir and the area it supplied, although a nitrite failure occurred elsewhere in the system, potentially indicating a wider issue.

Following a number of sets of clear samples from the storage tank and within the supply area, the boil notice was lifted. The disinfection approach at Calder Hoy WTW was also changed, with the ratio of disinfection chemicals adjusted. DWQR audited Calder works in December 2012, partly in response to this incident and four recommendations were made. This incident serves to demonstrate the importance of a comprehensive understanding of all aspects of disinfection across a water supply system.

DWQR – What Do We Do?

DWQR regulates the quality of drinking water in Scotland. Sue Petch is the DWQR and she has a small team of technical experts to assist her. They are based in Edinburgh but they ensure that they cover the whole of Scotland.

Public Water Supplies

DWQR regulates the quality of water supplies provided by Scottish Water by monitoring analytical data and by inspecting Scottish Water's assets and operational practices.

Events and Incidents

When failures and events occur we monitor and assess them. We classify the most significant events as incidents and request a full report from Scottish Water, before investigating and making our own assessment and recommendations.

Powers

DWQR has the power to obtain any information and enter any premises required in the exercise of his / her duties. Where Scottish Water persistently fails to supply water of an acceptable quality, DWQR may issue an enforcement notice, requiring Scottish Water to undertake the required actions by a certain date. We will notify consumers and stakeholders when we issue an enforcement notice. Enforcement notices are issued as a last resort where discussion with Scottish Water has failed to resolve the problem.

Prosecution

Where other methods have failed, or if an incident is particularly serious, DWQR may send a report to the Procurator Fiscal recommending a prosecution under Section 76 C of the Water (Scotland) Act 1980.

Investment

Investment in the Scottish Water Industry is controlled by the Water Industry Commission (WICS). DWQR has a significant input into the investment process relating to projects to improve water quality, but does not have the final say when it comes to the funding of water quality projects. It is sometimes the case that projects to improve quality will not be funded until the next five year investment period. In such instances DWQR will require Scottish Water to have a strategy in place to maintain quality as far as possible and to protect consumers.

Private Water Supplies

These are supplies that are not operated by Scottish Water. They serve approximately 3% of the population and are regulated by the relevant local authority using the Water Supply (Water Quality) (Scotland) Regulations 2006. DWQR has a responsibility to oversee the quality of private supplies and how Local Authorities are enforcing them. Grant funding is available to owners of failing private supplies to make the necessary improvements.

Small Supply Best Practice

DWQR is actively involved in promoting best practice in treating and distributing water from small supplies. This includes acting as a central point of contact and advice for local authorities in Scotland, at a UK level via other drinking water quality regulators and on a global scale through participation in programmes developed by organisations such as the European Union and World Health Organisation.

Private Water Supply Quality Data

The 2006 regulations have greatly increased the amount of information available on the quality of private water supplies. DWQR is collating this data and aims to present it via the DWQR Annual Report.