

Incident Summary

Craigie Zone
Microbiology failure
4 January 2017

DWQR Inspector:
William Byers

Event No. 8230

Event Category: Significant

Following a number of consumer contacts of discoloured water from the evening of 31 December 2016 and related flushing of the water mains, a water sample taken on 4th January failed microbiological standards when it was shown to contain *Clostridium perfringens*. After further flushing and sampling in response to the failure, resamples continued to show *Clostridium* at consumers taps. In discussions with the Consultant in Public Health Medicine on 13th January, a decision was taken to issue a boiled water notice to homes and businesses. Colpy Service Reservoir (SR) which supplies the area, was isolated from the system on 15th January after a sample taken there, also failed and a temporary tanker was located to maintain supplies in the distribution system. Inspection within the SR found there to be ingress of external surface water into the tank from roof faults and this was thought to be the cause of contamination and discoloration.

Continuing sampling at consumer's taps and of the tankered water supplies showed all microbiological standards to be met from the time the tanker was put in place and the boil water notice was lifted on 19th January. The temporary tanker provision was removed on 25 February 2017, following installation of a permanent means of bypassing Colpy SR.

Clostridium perfringens is a secondary indicator of faecal pollution. Clostridial spores can survive in water much longer than organisms of the coliform group and will resist disinfection. Their presence in distribution systems and at consumer taps, can be an indicator of some historic contamination having occurred and DWQR accepts Scottish Water's determination of the integrity of Colpy SR to be the cause of this contamination incident.

The event has been categorised as Significant. Scottish Water has identified five actions which DWQR accepts are appropriate and will monitor to ensure they are completed prior to signing off the incident. DWQR made one additional recommendation.