Drinking Water Quality Regulator for Scotland

Incident Summary

Marchbank A RSZ Microbiological Contamination 30th May - 9th June 2024

Event No. 14529

Event Category: Significant

On the 24th May 2024, a consumer contacted Scottish Water reporting an earthy/musty taste in their supply, and another consumer with the same postcode reported the same concern on the 25th May. A third contact, again with the same postcode, reported a metallic taste on the 26th May. Samples were taken from the first and the third properties on the 30th May, and from the second property on the 31st May. On the 31st May at 15:00, Scottish Water's Public Health Team (PHT) was made aware that the first two samples taken had failed the *Clostridium perfringens* standard; one with 17 and the other with 10 CFU/100ml. The sample from the 31st May also failed the *Clostridium perfringens* standard, this time with 33 CFU/100ml.

An incident call was set up within Scottish Water at 18:00 on the 1st June, with the initial assumption that recent flash flooding could be responsible. A boil water notice was hand delivered to twenty-two properties that evening and information was put on Scottish Water's website and on its social media accounts. The Health Board and the local authority were notified. The following day, Scottish Water held a second incident call, and in the evening it was reported that three out of eight resamples had failed the *Clostridium perfringens* standard. The Health Board was updated. One further sample failed on the 3rd June. Further samples were taken on the 4th June and discussions were had internally to discuss the potential for contamination of the network by nearby private water supplies; this was later ruled out.

Actions by Operational staff involved flushing the system, which started on the 1st June and continued throughout the following week. Investigations focussed on air valves in the area, but this was discounted when no issues were found. Staff working onsite were advised by consumers that they had noticed a different taste in their supply at different times over a number of years, but had not reported this to Scottish Water. On the 4th June byelaws inspections were started to assist in the search for sources of contamination. Network inspections, including measurement and analysis of chlorine residuals at different hydrants, led the investigating team to believe that GIS drawings of the area were inaccurate. They also found that an abandoned and now privately owned storage tank, Belstane DSR, which had been removed from service around 25 years previously, had simply been separated from the live network by a shut valve instead of being completely separated from it; this was seen as the source of the contamination and the tank was fully isolated.

Superchlorination of the system was started on the 7th June at 12:51; consumers were issued with ‘do not use’ notices in advance to ensure that they did not use the supply during this time. The system was then flushed with water, samples were taken to confirm that the supply was free from contamination, and restrictions for water used were lifted at 14:30 on the 9th June.

There were 30 failures of the *Clostridium perfringens* standard and 39 consumer contacts

The root cause of the incident was contamination of the supply from an abandoned tank that had been decommissioned around twenty-five years previously. The tank had not been appropriately disconnected from the live network and the GIS records of the network were incorrect.

The event has been categorised as significant. Scottish Water has identified three 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.