

Incident Summary

Bradán WTW
Taste and Odour Complaints
14 April 2019

DWQR Inspector:
Colette Robertson-Kellie

Event No. 10112

Event Category: Serious

On Sunday 14 April 2019 at 07:00, the Water Treatment Operative (WTO) for Bradán WTW arrived at the treatment works to be met by the Fire and Rescue Service. Fire Fighters were dealing with a moorland fire at an unspecified location several miles from the works and were attending the treatment works to protect the generators and ensure the safety of the fuel. The WTO informed the standby Team Leader of the situation and then carried out his routine tasks. On leaving the works, the WTO met Forestry Commission staff, who had closed the road to Loch Bradán. They advised the WTO that the fire had spread to the Bradán reservoir dam, but it was no longer burning. However, the fire had also spread to Loch Finlas, which also supplies Bradán WTW and that fire was still alight. The fire service advised that they would be using a helicopter to extinguish the fire but the WTO told them not to use water from Loch Bradán due to the risk of contamination. Inspection of the Loch Bradán and Loch Finlas catchments by the WTO at 09:10 revealed extensive fire damage at Loch Bradán and that water had been used to extinguish the fire. At 09:45, the WTO again escalated the situation and advised the Team Leader that the situation was much worse than originally thought, and that raw water pumping from the affected area should be halted. He continued to carry out his scheduled tasks at the treatment works, but took additional raw water samples at the treatment works and tested them to check that the processes at the treatment works would not be adversely affected. The Standby Team Leader escalated the situation to the Water Operations Team Leader at 10:00, and at 10:15 left a voicemail for the Public Health Team (PHT) to advise them of the situation. At 22:47, the PHT was contacted by Field Response to advise of customer contacts describing a smoky taste and smell in the water in parts of the network, and burnt plastic in others. Arrangements were made for sampling and transportation of samples from the treatment works and from the network, and standby laboratory staff were called to arrange sample analysis. Scottish Water held a conference call to discuss the situation at 16:00 on 15 April, held an Incident Team conference call at 19:30 and thereafter held conference calls four times a day until 20 April. Samples were taken for Scottish Water's routine taste and odour suite of parameters, as well as phenols and geosmin. Additionally, GCMS screening was carried out for hydrocarbons. Sampling of the supply continued until 21 April, with sample locations based on customer contact locations. On the 22 April the incident team was stood down.

From samples taken during the incident, there were no failures of regulatory standards using accredited analytical techniques. However, low levels of a number of chloro and bromophenols, which have very low organoleptic thresholds, were detected in the Bradan network using an unaccredited GCMS screening method used by Scottish Water during its investigation of the incident. Advice was sought from WRc and the National Centre for Environmental Toxicology, which confirmed that organoleptic effects might occur in the presence of the compounds detected. There were 231 consumer contacts reporting taste and odour during this incident.

The likely cause of the incident was a wildfire in the catchment, which released phenolic compounds into the raw water from smoke, ash or firefighting water.

The event has been categorised as Serious. Scottish Water has identified four actions which DWQR accepts are appropriate and will monitor to ensure they are completed prior to signing off the incident. DWQR made two additional recommendations.

