Drinking Water Quality Regulator for Scotland

Incident Summary

Rawburn WTW
Failure of Supply
26th August 2025

Event No. 16174

Event Category: Major

As a result of catastrophic failure of the inlet pipe to the contact tank, Rawburn Water Treatment Works (WTW) was removed from supply for approximately 24 hours to facilitate repair (12:45 on 26 August 2025 until 12:20 on 27 August 2025). Rawburn WTW provides the sole supply to approximately 18,000 consumers.

During the outage most of the downstream area continued to be supplied via treated water storage, however, supply interruptions were quicky experienced within direct-fed areas (approximately 275 properties). Additionally, and as a precautionary measure, properties within these direct-fed areas were issued with a restriction of use notice (do not drink or cook) due to inadequately treated water having entered supply prior to the works being removed from supply. Affected water was prevented from moving further through the system and entering treated water storage through the closure of network valves.

Following completion of the repair on 27 August, Rawburn WTW was returned to supply. However, due to reduced storage levels (resulting from the outage) and because of a restricted output from the works during reintroduction, this resulted in low pressure and loss of supply in downstream areas. In response, tankering operations were initiated and bottled water stations established.

During the afternoon of 27 August, following reintroduction of the works and receipt of sample results, clearance to recommence drinking of supplies was provided to consumers within direct fed areas.

774 supply related customer contacts (no water, low pressure and requests for bottled water) were received on 27 August, with a further 186 contacts received on 28 August. An additional 249 contacts were logged by 02 September.

As a result of disruption to flows within the distribution system, 109 discolouration contacts were received, the majority occurring between 28 August and 05 September.

Appropriate liaison with the Health Board was undertaken during the incident to review the public health risk assessment. 145 water quality samples were taken in response to the incident. No exceedances of microbiological standards were identified. However, forty samples exceeded the standard for iron, five exceeded the standard for manganese, seven exceeded the standard for turbidity, and eight exceeded the standard for polycyclic aromatic hydrocarbons (PAHs); these failures being due to the disturbance of mains deposits because of changes to flow. The public health risk associated with all failures was assessed as low. Appropriate resamples were collected following each breach to confirm that the quality of supplies had returned within regulatory requirements.

This incident had a significant media interest in the affected area and elected officials were also informed and updated throughout the incident.

The incident was caused by a failure of the pipe transferring water from filtration to the chlorine contact tank. The pipe was in an underground chamber, submerged by flood water, where a leak from the orthophosphate dosing point created acidic conditions, leading to corrosion of the pipework. During activity to remove floodwater, the weakened pipe fractured, disturbing sediment and allowing an estimated 4,000 litres of acidic ‘flood water’ within the chamber to be ‘siphoned’ into the contact tank. This failure required the treatment works to be taken out of service for repair.

Contributing factors included longstanding flooding of the chamber without resolution, restricted access due to confined space risks, and the absence of regular inspection. The orthophosphate dosing system had not been recently inspected despite actions identified to provide safe access from as far back as 2013. Since 2020, it has been a company requirement to inspect such dosing points at least every four years.

The root cause is concluded to be due to failure to inspect and manage the orthophosphate dosing system in line with company procedures, allowing deterioration to go undetected and ultimately resulting in pipe failure.

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