

Hopes WTW Turbidity Failures 15th December 2023

DWQR Inspector:
Colette Robertson-Kellie

Event No. 14069

Event Category: Significant

At 00:58 on the 15th December 2023, a burst in the network occurred, causing the flow from Hopes WTW Clear Water Tank (CWT) to increase sharply from 20 litres/second to 70 l/s, peaking at 83 l/s. The high flow is thought to have disturbed sediment in the CWT and scoured the main, and from 01:07 to 01:30 the final water turbidity breached the final water turbidity regulatory standard of 1.0 NTU. The Intelligent Control Centre (ICC) called out a Network Service Operator (NSO) to locate the burst. At 04:00 to 04:25 the turbidity standard was again breached, and a treatment Operator was called out. No treatment processes or other water quality parameters at the works were affected. The Operator arrived onsite at 04:40 and increased depleted CWT levels by increasing the flow through the works from 2.7 to 3.2 Ml/day.

At around 05:30 a burst nine inch main was found and shut down, but the flows from the CWT did not reduce, so other NSOs were called out and another burst was found at 10:30 on a 12 inch main. An incident team had been formed at 07:45, and tankering was arranged to maintain supplies. At 13:30 the 12 inch main repair was completed and the main recharged, and tankers were stood down.

Sampling detected six sample failures of regulatory standards in the network, for aluminium, iron and manganese; there were no failures at the treatment works and no Cryptosporidium was detected. There were eight water quality consumer complaints, three for discoloured water and five for milky or cloudy water.

The cause of the incident was bursts in the network which significantly increased flow through the CWT, disturbing sediment and scouring the main.

The event has been categorised as significant. 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 zero additional recommendations.

