

Amlaird Water Supply Zone

Impaired Water Quality 16 December 2017

DWQR Inspector:
Colette Robertson-Kellie

Event No. 9027

Event Category: Significant

Scottish Water received a call from a consumer advising that they had no water supply at their property at 13:59 on the 16th December 2017. There had been a burst on a 14" trunk main supplying 5,500 properties; there was flooding in the area, and since it was a large diameter pipe burst with the potential for supply to be lost to a significant number of consumers, Scottish Water's emergency planning standby team was informed.

Locating and repairing the main took longer than expected. The main was not in the area expected, as GIS records had not been upgraded following a realignment of the road and footpath. Also, the burst was caused by a significant longitudinal split in the pipe, which required the replacement of four metres of pipe, the repair was complex, and fittings had to be brought in from a nearby store.

Scottish Water set up backfeeds into the area so that the main could be shut and repaired while still maintaining supply to consumers, but ongoing consumer contacts reporting no water showed that the backfeeds were not sufficient. Alternative backfeeds were investigated, but could not be utilised due to valves being inaccessible or inoperable, and while attempts were made to mobilise tankers, demands in the Central Belt of Scotland at the time meant that tanker resources were limited. The one tanker available at the time was used to supply a new housing development near to the location of the burst – further tankers were located and placed on standby by 07:23 on the 17th December.

An Incident Management Team was set up and focussed on the delivery of alternative



means of supply to the area. It is noted that the IMT was not convened until 13 hours after the first report of no water. Bottled water was delivered to consumers on request, and Scottish Water customers with additional support needs were contacted and had water delivered to them.

Once the pipe had been located and repaired, the main was recharged slowly to minimise disturbance of sediment. Scottish Water staff proactively arranged sampling of the network to monitor water quality when the main was recharged on the 17th December. Analytical results show that all ten properties sampled for manganese failed the regulatory standard on the day that the main was recharged, reaching a maximum of 1908µg/l, 38 times the standard of 50 µg/l, and eight of the samples failed the iron standard, with a maximum value of 4511µg/l, 22 times the legal limit of 200µg/l. The analytical results over the next two days show a reduction in both metals, although two of the six samples taken on the 19th December still exceeded the manganese standard. Resamples from the 22nd December showed that results were well within regulatory limits.

The number of consumer contacts cannot be accurately reported, as Messagelink, an automated messaging service, was activated from 14:15 on the 16th December until 19:21 on the 17th December because of a high volume of calls from consumers. Messagelink counts all contacts, including those for unaffected areas and for wastewater. 1,867 contacts were received when Messagelink was activated, and 261 in the affected area opted to connect to a Scottish Water advisor to discuss the incident.

The cause of the incident was a burst trunk main. The cause of the burst is likely due to the age and condition of the pipe, ground movement due to heavy traffic loading in the area of the main, and ground movement due to low temperatures.

The event has been categorised as Significant. Scottish Water has identified thirteen actions which DWQR accepts are appropriate and will monitor to ensure they are completed prior to signing off the incident. DWQR made no additional recommendations.