

Balmore Carron Valley Zone Coliform failures September 2016

DWQR Inspector:
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Event No. 7992

Event Category: Significant

During September 2016, fourteen samples containing coliforms were collected from consumer's taps in Balmore Carron Valley Regulatory Supply Zone, which covers an area of central Scotland around Cumbernauld. At a similar time, three samples collected from one of the final water sample taps at Carron Valley WTW were also found to contain coliforms. Carron Valley is one of the treatment works which supplies this area. The majority of the coliforms detected are of the same *Enterobacter* species, suggesting the potential for a link between the failures. The concern that this link may not have been thoroughly considered by Scottish Water, and the prolonged duration of the period when failures were detected, resulted in DWQR declaring the incident.

Scottish Water's investigations suggest that a number of factors have contributed to the failures. These include low chlorine residuals due to high residence times, both in the trunk main supplying the Carron Valley feed to the zone and in the wider distribution system itself as well as potential integrity issues at the main tank supplying the zone, where the Balmore and Carron Valley supplies mix. The possibility that microbiological issues in water leaving Carron Valley WTW could be the origin of the issue has been deemed unlikely by Scottish Water on the basis that other zones supplied by Carron Valley are not showing similar issues, however Scottish Water admits that this cannot be categorically ruled out. DWQR is of the opinion that the absence of apparent issues in other Carron Valley supply zones may simply be due to higher chlorine concentrations and that investigations and monitoring at Carron Valley need to continue.

The issue does seem to be a recent one, as there was only a single microbiological failure in the zone in 2015.

The event has been categorised as Significant. Scottish Water has identified nine 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.