Drinking Water Quality Regulator for Scotland

Incident Assessment

Tullich Water Supply Zone, Oban Deteriorated Microbiological Quality Oct 2012

DWQR Inspector:
Matt Bower

Summary of Incident

A routine water sample from the Dunollie area of Oban taken on 17 October was found to contain coliform bacteria and have negligible chlorine concentrations. Having resampled the failing property and a number of others in the area it was established that the area around Dunollie and Ganavan had low chlorine residuals in the water. As a result, some low level microbiological growth was occurring, which, although not harmful to health, needed to be eliminated. It was quickly established that the supply from the treatment works and service reservoir was satisfactory. Scottish Water took action to increase chlorine residuals in the local area and this was effective at restoring water quality.

DWQR Assessment of Cause of Incident

This incident was caused by low turnover of water in a main causing chlorine concentrations to fall away. This, in turn, resulted in microbiological growth that was picked up as a coliform failure during regulatory sampling, and in subsequent resamples from the area. Scottish Water needs to manage turnover and chlorine concentrations in distribution systems in order to ensure that water stays fresh.

DWQR Assessment of Actions Taken by Scottish Water

Once the initial failure was detected, Scottish Water acted promptly in advising the consumer to boil water prior to consumption. Although the resample taken from the property was clear, a sample from a different property in the same area failed for coliforms, with the resample passing a few days later. Many of the samples taken from the area showed higher than usual colony counts and non-coliform organisms, indicative of poor water quality. When a sample from a third property contained coliforms, Scottish Water appears to have realised that there was a more general issue and took steps to improve quality by flushing and increasing chlorine residuals at the service reservoir. Later, chlorine was injected directly into the main for a few days in order to boost residuals. This was successful, and 12 days after the original sample failure, chlorine residuals were greatly increased and there was no evidence of microbiological growth.

Scottish Water has identified an action to produce a programme for regular flushing in the area.

Actions Identified by Scottish Water

Action Number	Action Description	Action Status
1	Create a programme for flushing of the Oban distribution network	To be completed 28/2/13