



Drinking Water Quality Regulator
for Scotland

Incident Assessment

North Ronaldsay WTW Microbiological Failure 30 August 2011

DWQR Inspector:
William Byers

Summary of Incident

Very heavy rain on 28 August 2011 caused ingress of surface water into the natural spring source which forms the North Ronaldsay supply. Samples taken on 30 August of the final water from the treatment works showed a small failure of the coliform standard but samples from Holland service reservoir failed with 73 coliforms and 73 *E.Coli*. Discussions with NHS Orkney resulted in a boil water notice being issued to consumers. This was lifted on 1 September after clear samples had been confirmed at the works and at the service reservoir. A further failure of 4 coliforms and 3 *E.Coli* on 6 September led to a request for Holland SR to be cleaned and this was completed on 12 September. All subsequent samples from 7 September onwards show the supply to be meeting the required quality standards.

DWQR Assessment of Cause of Incident

The microbiological failures were caused by the ingress of surface water into the Ancum Loch spring supply. This caused a very high chlorine demand in the raw water which resulted in difficulties at the works to maintain chlorine residuals in the final supply. The low chlorine provided inadequate disinfection to the supply.

DWQR Assessment of Actions Taken by Scottish Water

Scottish Water responded adequately to the situation and put the necessary sampling in place to monitor microbiological and cryptosporidium risks. In the event, there was no detection of cryptosporidium oocysts. They also put in place the necessary restrictions on use and provided bottled water for consumers.

Scottish Water are currently carrying out works to replace the Ancum Loch spring with a new borehole supply and this is expected to be brought into service in September 2012.

