

## Carron Valley B RSZ Microbiological Failure 09 February 2011

DWQR Inspector:  
William Byers

### Summary of Incident

Regulation samples taken at two addresses in Lenzie, Kirkintilloch failed the microbiological standard for coliforms necessitating the issue of a boil notice and bottled water to households. A sampling programme was established in neighbouring addresses and streets and at the service reservoir supplying the area to determine the extent of possible contamination and the source. The service reservoir was inspected and the secondary disinfection system at the tank was found to be empty. Checks made on chlorine residuals in the tank and at customer taps was found to be lower than normal. The Network Operators re-filled the secondary chlorination equipment and boosted the levels of chlorine in the tank before flushing the mains to draw the water through the system. The additional sampling carried out showed the problem was limited to the original two addresses and a combination of mains flushing and hygiene advice to householders enabled closure of the incident.

### DWQR Assessment of Cause of Incident

DWQR considers the microbiological failure was likely to be due to the condition of the domestic taps from which the samples were taken. A contributory factor however was the low chlorine residual in the water supply at this point of the distribution system and the status of the secondary chlorination equipment at the time had a significant bearing on the chlorine levels in the system.

### DWQR Assessment of Actions Taken by Scottish Water

DWQR considers Scottish Water undertook the appropriate steps to deal with the microbiological failures. The extremities of water distribution systems are however areas where it is important that good chlorine residuals are maintained to guard against the conditions where bacteria can develop and DWQR considers the failure to maintain secondary chlorination equipment in a functioning condition to be unacceptable.

Scottish Water has identified a number of actions from this incident. DWQR accepts that these are appropriate and will be monitoring to ensure they are completed prior to signing off the incident:

Action Number	Action Description	Completion Date
1	Review the frequency of chlorine residual checks at the Service Reservoir	Complete
2	Review the inspection and maintenance requirements for secondary disinfection	Complete