

Glencorse C Supply Zone
Turbidity, iron, and manganese failures
6 July 2013

DWQR Inspector:
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Event No. 5407

Event Category: Significant

Summary of Incident

In the early hours of Saturday the 6th July 2013, a number of alarms for low inlet flow and low tank level at Firhill New Service Reservoir alerted Scottish Water staff to an issue with the inlet control valve. Following investigations, the inlet control valve was bypassed to prevent a loss of supply to around 20,000 properties in the Colinton area of Edinburgh.

The bypassing of this valve resulted in a significant increase in flow, causing disturbance of iron and manganese deposits in the water mains network. This led to a total of 48 Consumer Contacts complaining about water quality, and samples which were taken as a result of this incident failing for iron, manganese and turbidity. Bottled water was supplied to consumers who complained and flushing of the network was carried out on the 7th July.

DWQR Assessment of Cause of Incident

While Scottish Water has reported that the root cause of the incident was the failure of the inlet control valve at Firhill Service Reservoir, DWQR is of the opinion that the root cause of the incident was that the inlet control valve bypass was not opened in a controlled manner, causing a disturbance of sediment in the pipework downstream of the valve.

Only one of the two staff who were called on to deal with the incident had appropriate DOMS training; this is unacceptable. It is critical that only suitably trained staff carry out operational activities on Scottish Water's networks.

DWQR Assessment of Actions Taken by Scottish Water

While it is acknowledged that the bypassing of the inlet valve was essential to ensure that around 20,000 properties did not have an interruption to supply, better control of the valve sequencing and operation and pre-flushing of pipework to bring the bypass into service would have minimised or prevented water quality issues for consumers.

Scottish Water reported that all staff were suitably trained for valving operations, but on further investigation by DWQR this was found not to be the case. While one member of staff involved had up to date Distribution, Operation and Maintenance (DOMS) training, the other individual's training expired in September 2010. DWQR considers it important that only suitably trained personnel are used in carrying out work on the public

water supply distribution networks. Managers should maintain training records and only allocate work tasks to appropriately trained staff.

There was an unacceptable delay by Scottish Water in flushing the affected network. At 1715 on the 6th of July, a decision was taken to flush the affected mains to remove the disturbed sediment. However, it was not until 1225 on the 7th July, more than 19 hours later, that the system was flushed, during which time there continued to be complaints from consumers.

DWQR has designated the event as significant.

Scottish Water identified six actions as a result of this incident which DWQR considers to be appropriate, and DWQR identified a further two. All of these actions shall be monitored by DWQR.

