

# Incident Summary

Rosebery A zone  
Discolouration  
28 June 2017

DWQR Inspector:  
Matthew Bower

Event No. 8564

## Event Category: Serious

On 28 June 2017, Scottish Water undertook planned work to remove Chalkieside Service Reservoir in East Lothian from supply so that it could be cleaned. The bypass to the reservoir was opened to maintain supplies to the area downstream, which includes Musselburgh, Whitecraigs and Wallyford.

That evening, approximately 140 consumers contacted Scottish Water to report discoloured water that, in some cases, smelled unpleasant. Scottish Water flushed the distribution system which improved the situation. Scottish Water undertook three samples in the affected area. Initially a number of samples failed regulatory standards for iron and manganese, with a few also exceeding the standard for benzo-a-pyrene. The detection of this latter substance, which is derived from old coal tar mains linings, explains the reports of foul-smelling water from a small proportion of the consumers who contacted Scottish Water. The third sample survey, on the evening of 29<sup>th</sup> June, showed all parameters to be compliant and confirmed that water quality had been restored.

This incident was undoubtedly caused by Scottish Water's planned work at Chalkieside service reservoir. Following the incident, Scottish Water undertook a thorough investigation and considered a number of potential causes, with the most likely being that the increase in pressure when the reservoir was bypassed, and subsequent increase in water velocity, disturbed deposits in the trunk main that washed down into Musselburgh. Parts of the system that were partially protected from the increase by pressure reducing valves did not experience such severe water quality issues. Although Scottish Water had undertaken this same work on several previous occasions, this is the first time that these issues had been encountered. Although it is not entirely clear what was different about this occasion, it is possible that hydraulic changes to the system since the last time the work was undertaken had increased the risk.

The event has been categorised as Serious. DWQR made no recommendations in addition to the actions carried out by Scottish Water.