

Dufftown Service Reservoir Discoloured Water 1 June 2018

DWQR Inspector:
William Byers

Event No. 9355

Event Category: Significant

A customer contact of poor pressure in the Aberlour area alerted Scottish Water to a failure of pumps to activate to maintain the level in Bluehill service reservoir (SR) which was due to a communications problem with the signal from the reservoir to the pumping station. This was found to have been caused by a power interruption and the field operator activated the pumps on manual control. With flow restored on 1st June, the distribution system re-pressurised with the exception of the supply main to Dufftown SR. The problem was believed to be an air lock in the water main and work was carried out to try and pinpoint where the issue lay. Ultimately, the cause of loss of flow was a blockage of the meter by a buoyancy float. It was later identified that the float had become detached from a tether connected to a submersible remotely operated vehicle (ROV) used in a reservoir cleaning operation at Bluehill SR in 2017. With the blockage removed and the meter re-installed, the water supply was restored to the service reservoir. Samples taken at consumers taps on 2nd June, to monitor the loss of supply event, showed failure of the standards for aluminium, manganese, iron, and turbidity, the maximum values for which were 543µg/l Al; 88.5 µg/l Mn; 879 µg/l Fe and 13,7 NTU turbidity. Further samples taken on 3rd June showed water quality to have returned to normal.

The overriding factor causing the failure of water quality standards was the drain down of the main and re-establishing flow causing the disturbance of deposits in the supply main. The ROV float had been drawn towards and into the outlet pipe from the reservoir as the level of water dropped within the SR and subsequently transported within the water mains to the meter point.

The event has been categorised as Significant. Scottish Water has identified two actions which DWQR accepts are appropriate and will monitor to ensure they are completed prior to signing off the incident. DWQR made no additional recommendations.