

Glendevon A RSZ Loss of supply and discolouration 4th November 2021

DWQR Inspector:
Bill Byers

Event No. 12206

Event Category: Serious

There were two unrelated events occurring within the supply zone on 4th November, each causing loss of supply and water quality issues for consumers. The management of the response however is connected and the consequence for consumers similar and I have therefore treated the events as a single incident.

Following receipt of a consumer contact at 10:00am reporting water rising, the investigating Network Service Operator identified a burst to have occurred on the 18" trunk water main at Oakley. At this time, it was assessed as being non urgent and arrangements were made for planned repair work. The situation had deteriorated by 2:00pm and it was clear an emergency repair would be required. Arrangements were made to plan the necessary isolation of the burst pipe, to arrange switching of supplies from adjacent areas and to mobilise tankered water supplies for areas likely to suffer low pressure or supply outages. The repair was then scheduled to be carried out the following day. As these arrangements were being made, a second event at Redcraigs Service Reservoir was unfolding where a reports of no water were being taken by the Consumer Contact Centre. Investigations here at 3:30pm showed that there was no inlet flow to the tank which had caused it to drain down. This tank is formed of two cells and only one was fully operational due to a faulty inlet flange in the other awaiting maintenance attention. The full flow was opened up into this section to replenish the tank and the drained-down water mains leading from the site to the wider distribution network. Investigations by Scottish Water have identified a signal control fault within the polymer dosing pump to be the root cause of the failure of the coagulation process. Replacement of the timer unit appears to have resolved the problems and I am content with their findings. It is clear however that there was an issue at this site with the individual filter turbidity monitors where the 'Hi' alarm point had not been linked to telemetry. Had this been the case, an earlier indication of the issue could have been raised and steps taken to arrest the process failure.

The inflow of water caused disturbance of deposits in the water mains and consequently reports of discoloured water to be made by consumers.

In both cases, the occurrence of the problems, their isolation for repair, restoration of water flow and introduction of tankered water supplies into water mains, caused a significant number of complaints to be made by consumers. Sampling was arranged to be carried out in the areas affected by the two operations and 23 of those, taken between 5th and 7th November, showed there to be failures of standards for aluminium, iron and manganese. One also failed the microbiological standard for total coliforms. Subsequent resampling



over the following days showed water quality to have been restored in all the affected areas by 12th November. In all, over the course of the events and the following days, a total of 1,355 contacts were received by Scottish Water, of which 624 related to discoloured water or taste and odour issues.

It is clear the burst water main at Oakley was the cause of the water quality issues in that locality. The failure of the inlet valve at Redcraigs SR and the consequent draining down of the water mains downstream of that point, the cause of similar water quality problems for consumers in that supply area.

It is a significant concern however that this is the second water quality incident in which failure of the inlet valve at Redcraigs SR has been a feature (Event No 11230, 20 September 2020). The reliability of this asset must be addressed if future incidents of this type are to be avoided and I note Scottish water has identified three actions to address this issue.

The event has been categorised as serious. Scottish Water has identified six 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.

