



Drinking Water Quality Regulator
for Scotland

Incident Summary

Kerse RSZ
Significant Consumer Contacts
29th October 2022

DWQR Inspector:
Colette Robertson-Kellie

Event No 13007

Event Category: Significant

Kerse SR was bypassed and removed from service on the 25th October 2022 for essential inspection and cleaning on the 28th October, due to repeat microbiological failures from the outlet of the tank (please refer to my incident assessment for event 12854, sent to Douglas Millican on the 19th May this year). Scottish Water was aware that there were risks in bypassing this tank as there was a history of bursts on both the inlet and outlet mains as well as hydraulic limitations. The inlet main is a 250 mm pipe, but the bypass is 100 mm, and this significant difference in the diameters of the pipes, as well as a pressure reducing valve on the bypass, creates a significant hydraulic limitation, leading to lower pressure and flow into the downstream area. The network was reconfigured to help support the bypass work, resulting in the water main being subjected to higher pressures than normal. Scottish Water held several planning meetings in advance of the tank being taken out of service and had a response plan in place to deal with potential issues on the network.

On the 29th October at 07:30, a burst on the inlet main to Kerse SR was reported, and when the standby Network Service Operator (NSO) investigated at 09:00, it was found that water was shooting 40 feet in the air. The Standby Team Leader was notified, and a repair squad and traffic management was organised, allowing an excavation to begin safely at 12:30. An attempt was made to carry the repair out under pressure, but the main had to be shut down at around 17:20, causing some consumers' supply to be cut off. The main was repaired and the supply restored at 18:48. The first consumer contact for discoloured water was received at 22:34.

The following day there were reports of low pressure and no water, despite no further bursts



being found in the area, so contractors were engaged to check pressure reducing valves in the area for faults and bottled water was supplied to consumers. By 20:00 all consumers were back in supply and bottled water deliveries were stood down.

From samples taken to monitor this incident, there were four failures of the iron standard, two of the manganese standard, one for aluminium, and one turbidity failure. There were 46 consumer contacts for water quality issues and 109 reports of no water. There were 263 requests for bottled water.

The cause of the burst was determined by Scottish Water to be a hole in the ductile iron pipe which caused a longer pipe split. The pipe had localised pitting on the surface, indicative of age related deterioration. The water quality failures were caused by sediment in the network being disturbed by the burst and the network activities.



The event has been categorised as significant. Scottish Water has identified four 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.

