

Turriff WTW Microbiology failures 27th March – 4th April 2024

Event No. 14391

Event Category: Significant

Turriff WTW is sampled daily for coliforms. On three occasions within a week (27th March, 2nd April and 3rd April), coliform detections were made. Analysis of the samples showed that all three were the species *Serratia fonticola*.

Scottish Water instigated a comprehensive investigation into the failures. Sampling both at the WTW and downstream yielded no further coliform failures, and no further coliform failures have occurred at Turriff WTW to this date.

Scottish Water's investigation was thorough, but did not give a conclusive root cause for the incident. The plant was operating well, with UV transmissivity at over 90%, and no issues with disinfection.

The most likely cause is the condition of the treated water storage tank, which has not been inspected or cleaned since 2021, and cannot be bypassed for detailed inspection. In addition, access hatches into this tank may be a further route of ingress. There were small rainfall events around the time of the failures, and whilst in themselves do not appear significant; the overall rainfall in March/April in the area was the highest in a decade.

Scottish Water has fitted a temporary membrane over the treated water storage tank as an interim measure, and is investigating options for a permanent membrane to be installed. The need for sealed access hatches has also been raised for progress.

The event has been categorised as significant. Scottish Water has identified one action which DWQR accepts are appropriate and will monitor to ensure they are completed prior to signing off the incident. DWQR made zero additional recommendations.

