

Tighnabruaich WTW  
Flow Disturbance causing PCV  
exceedances  
20<sup>th</sup> February 2024

DWQR Inspector:  
Robert Brooks

Event No. 14232

## Event Category: Significant

On the 20<sup>th</sup> February 2024 Scottish Water shutdown Tighnabruaich WTW to carry out a routine six-monthly flush of the raw water main. Tankers were used to maintain demand which was higher than usual for the time of year due to leakage in the network. Water was tankered into a very small tank at the WTW called the 'instrument tank' as there is no suitable access route for a tanker to the discharge directly into the clear water tank (CWT). The level in the instrument tank dropped quicker than the rate at which water was being pumped into it, resulting in air being drawn into the pumps and the treated water main being scoured between the works and the CWT resulting in a breach of the turbidity PCV.

Scottish Water did not receive any discoloured water contacts associated with this incident between the 20<sup>th</sup> and 27<sup>th</sup> February 2024. Sampling was arranged for the 20<sup>th</sup> – 23<sup>rd</sup> February 2024, covering the WTW, Kames service reservoir (SR) and from the affected district metered areas (DMAs). Of the 15 samples taken, 2 failed for manganese and 1 failed for turbidity (both taken from the WTW). Resamples were taken on the 22<sup>nd</sup> February, with all results meeting the required standards.

It is clear from Scottish Water's event outcome report that this incident was caused by the entry of air and subsequent remobilisation of sediment and biofilm following a scouring of the treated water main leading to a transient discolouration.

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 two additional recommendations.

