



Drinking Water Quality Regulator  
for Scotland

# Incident Summary

## Achiltibuie WTW *Cryptosporidium* failures September 2022-February 2023

DWQR Inspector:  
Moira Malcolm

Event No. 12969

### Event Category: Significant

In September 2022 Achiltibuie WTW had a scheduled full membrane replacement. Following the replacement the works reported a series of four combined permeate (CP) microbiology failures and related *Cryptosporidium* failures.

Each CP failure was investigated as per Scottish Water's procedure, with dissolved organic carbon (DOC) measurements at individual membrane stacks being able to identify the failing component so it could be isolated and replaced. The membrane stacks were cleaned and the limestone contact tank (LCT) flushed. In addition to the CP failures, the turbidity meter became faulty and the *Cryptosporidium* sampling rig was put on as a precaution. This yielded another *Cryptosporidium* failure. Following the fourth CP failure the LCT media was replaced and no further *Cryptosporidium* detections have been made from this site. There were a total of four *Cryptosporidium* detections during the incident.

Scottish Water's investigations concluded that the root cause was "juvenile" failures of the new membranestacks, with oocysts also remaining in the LCT, despite flushing.

In addition to this a catchment investigation determined that there is a significant deer population in the catchment, impacting on raw *Cryptosporidium* numbers.

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

