

Benbecula WTW Hydrocarbon contamination 12th September 2023

DWQR Inspector:
Moira Malcolm

Event No. 13802

Event Category: Major

On 12th September 2023 Scottish Water received a call from a consumer reporting an oily odour from their drinking water in Balivanich, Benbecula. The following day the Operations Team Leader reported to the Public Health Team (PHT) that several further consumers had contacted him directly regarding a similar smell.

Samples were taken from the reporting property and investigations into the source of the contamination began, which was discovered to be from a redundant diesel fuel tank sited on top of the raw water wet well supplying Benbecula WTW. In conjunction with NHS Western Isles, a 'Do not drink, wash, cook' notice was applied to the entire distribution network covering Benbecula and the north of South Uist fed by Benbecula WTW. Consumers were supplied with bottled water whilst contingency plans to remediate the WTW and network were scheduled. Following the rezoning of South Uist and receipt of satisfactory sampling, the notice was lifted for the South Uist area affected on Thursday 14th September. Remediation continued on Benbecula: the CWTs were cleaned, and a new raw water tank put in place, whilst the WTW and network were flushed using tankered water from other treatment works. The notice serving Benbecula was lifted on 16th September following further clear samples demonstrating that no hydrocarbon contamination was present, in agreement with NHS Western Isles.

A total of 47 samples were taken while water restrictions were in place, with a further 66 taken over the next fortnight to ensure water remained compliant. Only one sample in distribution gave a hydrocarbon level of $>10\mu\text{g/l}$ ($10.0\mu\text{g/l}$ total hydrocarbons).



There were 166 consumer contacts received from 12th to 16th September, the majority of which were requests for bottled water. 8 contacts were for taste and odour. When water was restored, a further 21 contacts were made, including 15 for taste/odour and two for discoloured water. DWQR received one contact.

Scottish Water's investigation determined the hydrocarbon contamination originated from a redundant diesel storage tank. This tank was sited above the raw water wet well and had not been emptied and fully decommissioned when it was removed from service in 2017. Since then the bund had been compromised, with holes drilled in the concrete wall surrounding the storage tank. Prior to the incident the tank integrity failed and approximately 20-30 litres of diesel leaked into the raw water wet well, with volatile fractions of diesel being transferred along the raw water supply pipe, through the treatment works and into distribution.

The event has been categorised as major. Scottish Water has identified fourteen 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.

