

### Graemsay Service Reservoir, East Region

10-Oct-17

**DWQR Staff Present**

Bill Byers, Alison Seton

**Scottish Water Staff Present**

Colin Luke, Colin Napier, Jon Moses, David Hill,

### Summary of Inspection

#### Overall Summary

Graemsay Service Reservoir appears in reasonable condition structurally but with the construction of new Clear Water tank at North Hoy WTW, there is now an excess of storage at Graemsay for the demand provided by the island community. A review is being made of the optimum configuration of the tank to provide sufficient storage whilst reducing the age of water stored and bringing stability to chlorine levels in the supply to consumers.

**Number of Findings:** 3

#### Quality of Water

The water quality is generally good but there is a history of minor microbiological failures. These have been attributed to issues of maintaining supply levels and through tankering operations on Hoy prior to the construction of the new clear water tank at North Hoy WTW in 2015. Due to the variability of demand between community use and flow/return requirements, there has been difficulty in maintaining a consistent chlorine residual in the ongoing supply from the site.

#### Asset Robustness

This service reservoir is constructed of concrete and is entirely grassed over. The last cleaning inspection report in 2013 reported no concerns over the integrity of the tank. There is a good stockproof fence around the site and reasonable access for inspection and maintenance vehicles.

#### Operational Practices

Weekly site visits for sampling and to check secondary chlorination and chlorine residual. The tank was last cleaned in 2013 with next scheduled cleaning and inspection in 2018. There is minimal evidence of active ground maintenance but there is no sappling growth on site and no evidence of vermin.

#### Management of Risk

The water supply is delivered to the island by subsea water main from North Hoy WTW. Site telemetry appears reliable and provides effective notification of water levels and other alarms.

#### Recording Information

Records of attendance, equipment or chlorine levels are not retained on site.

#### Water Safety Plan

The Water Safety Plan details appropriate risks for Service Reservoirs within the supply system. Works are identified at Graemsay in the plan to address the capacity issue and optimisation of secondary chlorination.