

### Shapinsay Service Reservoir, East Region

11-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

Shapinsay Service Reservoir appears in reasonable condition structurally but there are some concerns from this audit relating to possible ingress from the roof or wallhead joints that require investigation and ensuring all cable and pipe access points are sealed against possible ingress. The tank provides a good volume of storage for consumers on the island.

**Number of Findings: 4**

#### Quality of Water

The water quality is generally good with only one failing microbiological sample over the past 5 years occurring in 2017. Flows through the tank are managed to the demand to achieve a consistent water quality and chlorine level.

#### Asset Robustness

This service reservoir is constructed of concrete which appears in good condition at points where it is visible. Evidence from the last cleaning report show the internal condition to be reasonable but identify concerns with floor joint sealing. No recent flood tests of the roof area have been carried out giving rise to concern there may also be issues with the integrity of roof joint seals. There is a good stockproof fence around the site and good access for inspection and maintenance vehicles.

#### Operational Practices

The volume of water stored in the tank is managed well within its capacity to achieve a balance of turnover and security of supply for the supply zone. The tank was last cleaned in July 2017 by SW's specialist contractor. There is minimal evidence of active ground maintenance but there is no sappling growth on site and only minor evidence of rabbit presence.

#### Management of Risk

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

#### Recording Information

There is good evidence of record of valve and pipe layout

#### Water Safety Plan

The Water Safety Plan details appropriate risks for Service Reservoirs within the supply system. Works are identified at Shapinsay in the plan to address possible ingress to the water space