

Technical Inspection of Scottish Water's Water Treatment Works

Sandy Loch WTW

15/10/2019

DWQR Staff Present Bill Byers

Scottish Water Staff Present Kenny Johnston, James Hudson, Alan Blance, Dave Marwick, David Hill,

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Summary of Inspection

Overall Summary

The raw water supply is drawn from Sandy Loch, adjacent to the works and this can be supplemented with a feed from Brindister Loch. The catchment is mostly peat based moorland with sheep & cattle grazing. The audit of this works was held to confirm progress with a number of actions identified by Scottish Water as a result of water quality events which had occurred earlier in the year. The audit found that identified key process instrumentation and controls had been replaced and the works was producing good quality water.

There were a number of issues noted however which give rise to continuing DWQR concerns around the ability of the works to respond to changing raw water quality without manual intervention of operators. There are projects in place to add an additional filter, improve existing filters and to seperate out backwash and contact tanks to bring greater control over the disinfection process. These measures, expected to be completed by summer 2021, will bring much needed resilience to those processes but I retain some concern over the performance of the clarifier stage and the ongoing need to dose additional poly prior to filtration which places additional risk to the filtration process and consequently, treated water quality for disinfection. The programmed improvements will not reduce this risk.

The operators displayed a very good level of knowledge about their processes and there was a very good level of documented calibrations and task completion. Attention should be given to ensuring a consistent reference to the different 'stage' waters in the processes on tags, notices, instrument and SCADA labelling to avoid any confusion in communications for visiting maintenance and other staff.