

Eela WTW

27/07/2021

DWQR Staff Present

William Byers

Scottish Water Staff Present

Kenneth Johnston, Mathew Henderson, Ian Smith, Jon Moses, David Hill

Summary of Inspection

Overall Summary

The works is generally supplied from Roer Water with only occasional use of Eela Water, as it provides the better and more stable raw water quality. A new water main has however recently been installed from Eela which is able to deliver the full requirement for the WTW if the need arises. The catchment is generally of moorland with some areas of degraded peat and is used for rough grazing for livestock. There are no particular issues with raw water quality but with there being no online monitors, vigilance of changing conditions is provided by daily manual bench tests for colour, turbidity and pH.

Recent completion of the improvements to water filtration has seen a complete renewal of the four filters and addition of a fifth to provide additional capacity and resilience for media washing. This is a welcome improvement to the site, particularly as it is frequently required to operate beyond its design capacity. Inspection of records of recent water quality trends showed there to be a consistent performance in key water quality parameters and records of manual bench tests, site task scheduling and instrument calibrations were of a high standard. Generally however the performance of the works is reliant upon key experienced local staff to maintain this through manual operation of flow control valves and manual adjustment of treatment chemical dosing equipment. Operation and control of the coagulation and clarification processes remain a significant concern since one clarifier cannot sustain the required throughput of the works whilst the other is removed from operation for cleaning.

The site produces a chloraminated water after disinfection. SCADA trends for disinfection showed this to be operating well. Examination of sample data also shows there to be no issue of microbiological failures nor disinfection byproducts in the final water or at the extremity of the distribution system. The Clear Water Tank is an above ground structure of steel construction. The tank appears in poor condition with evident corrosion and is overdue inspection, integrity testing and internal cleaning.

The Drinking Safety Plan for the Eela system identifies a number of issues for the treatment works where investment is required and whilst these are scheduled to be met within the next investment period, there is no certainty of when individual elements will be delivered. I consider the key risk to the performance of the works to be of flow controls and automation of chemical dosing and SW should ensure all measures practicable are taken meantime to ensure the production of high quality drinking water.

I have made seven recommendations which will be monitored by DWQR to ensure completion.