Drinking Water Quality Regulator for Scotland

Technical Audit Summary

Camphill WTW
Disinfection Byproduct Risk
July 2025

The purpose of this audit was to understand what Scottish Water were doing to address the high risk from Haloacetic Acids (HAAs) and chlorates. Operations were clearly very knowledgeable about the site and were able to speak confidently about the plant, its processes and checks on water quality. It was pleasing to hear that a number of improvements have been made since the last audit, particularly to the filtration which has been refurbished with a much improved backwash observed.

It is recommended that Scottish Water carry out ongoing optimisation activities to ensure the site is running as efficiently as possible, for example, the backwash rates and filter run times to help with the poor sludge plant capacity which is impacting on supernatant return quality. The install and operation of a zeta sizer on site appears to be helping to reduce the peak of HAAs from the WTW, however there still remains elevated levels very close to the prescribed concentration value (PCV) in the network.

I and my colleague were disappointed that findings from the previous audit appear, in our view, not to have been adequately addressed. Given that Scottish Water have committed to optimisation activities to reduce the risk of HAAs, and that clarification can be challenged when raw water quality worsens in the summer months, I am surprised for example that raw water monitoring of dissolved organics and colour is not in place.

I reviewed a needs statement that was created in 2020 which highlighted the rise in raw water colour, iron and TOC along with key incapabilities that need addressing. I noted that a lot of the information in the needs statement is no longer up to date and asked whether more

recent water quality and risk assessment data need to be factored in to proposed investments. I have been assured that the needs have been reviewed during the appraisal process to reflect the latest situation on site and that additional needs have been identified as part of a 2023 project technical assessment. These include design flow restrictions within clarification and sludge treatment processes, primary and secondary rapid gravity filters, clear water tank, instrumentation and lack of Policy compliant auto shutdown and run to waste. It has also identified health and safety issues associated with the WTW: ortho dosing, segregation of dosing skids, access road, etc and water supply resilience issues associated with the lack of secondary treatment source.

DWQR identified eleven findings. Proposed interventions to address DWQR's findings, along with completion dates and any interim mitigations that will be put in place have been agreed with Scottish Water.

DWQR will monitor completion of agreed interventions, and may request evidence of completion or re-visit the site.