



**Water Industry (Scotland) Act 2002
Enforcement Notice Under Section
10 (1)**

**Mannofield Water Treatment
Works**

The Drinking Water Quality Regulator for Scotland (“the Regulator”), in exercise of the powers conferred by section 10(1) of the Water Industry (Scotland) Act 2002 hereby gives notice that she believes that Scottish Water has in the period 1 January 2021 to 31 December 2022, contravened and is likely to continue to contravene, regulation 4(2)(a) of the Public Water Supplies (Scotland) Regulations 2014 (“the Regulations”) and Regulation 29(1)(a), (b) and (c) in relation to the supply of drinking water from Mannofield Water Treatment Works (WTW) by failing to consistently ensure that *Cryptosporidium* oocysts are removed from or rendered harmless in the supply:

Therefore, Scottish Water is hereby required to:

1. Maintain the following **short term measures** until such time as the steps in this Notice are complete:
 - a. Optimise the existing coagulation and clarification process to minimise filter turbidities, with appropriate alarms, triggers and response procedures;
 - b. Monitor the turbidity of the water from each filter using online turbidity monitors linked to telemetry.
 - c. Ensure appropriate individual filter turbidity alarms, triggers and response procedure are in place and acted upon;

- d. Review filter performance on a monthly basis, and instigate an investigation into any unusual trends or observations;
 - e. Ensure water quality monitors are calibrated and maintained at the pre-defined frequency;
 - f. Monitor Mannofield WTW final water continuously for *Cryptosporidium*;
 - g. Notify Grampian NHS Board and DWQR of any detections of *Cryptosporidium* and, if necessary, implement any agreed measures to minimise risk to public health.
2. By 30 September 2023, have a suitable consultant complete an independent review of treatment effectiveness for the removal of *Cryptosporidium*;
 3. Within 28 days from the date of receiving the independent review report, to confirm in writing to DWQR acceptance or otherwise of each recommendation contained within the report produced from the review and confirm progress against each action or alternative approach taken;
 4. By 30 September 2023 upgrade the existing individual filter turbidity monitors;
 5. By 31 March 2024, to have designed, constructed, commissioned and optimised UV disinfection for all water entering supply, as an additional interim measure to minimise the risk from *Cryptosporidium*;
 6. To complete the following in relation to ongoing planned improvements:
 - a. By 30 June 2024, to have completed improvements to inlet mixing;
 - b. By 31 May 2025, to have completed commissioning of both sodium hydroxide and acid dosing for coagulation pH adjustment.
 - c. By 31 October 2025, to have optimised inlet pH for coagulation;

- d. By 31 March 2026, to have completed remedial works on all in service rapid gravity filters.
7. Notwithstanding the above requirements, to complete the following in relation to Mannofield WTW:
 - a. By 29 February 2024, to have assessed the need for further investment to ensure the effective sustainable operation of processes at Mannofield WTW to minimise the risk from *Cryptosporidium*;
 - b. By 31 March 2024, to have agreed with DWQR the need for further investment at Mannofield WTW and provide a timeline for completion to ensure the water treatment works is able to present a robust and consistent process to minimise the risk from *Cryptosporidium*, to be achieved no later than 1 September 2028 ;
 - c. By 1 September 2028, to have designed, constructed and commissioned appropriate modifications agreed under 7(b) to ensure that the water treatment works is able to present a robust and consistent process to minimise the risk from *Cryptosporidium*.
 8. Provide DWQR with a progress report every three months or as requested by DWQR, with the first report to be submitted by 30 September 2023

This notice takes effect 15 days after the date shown below.



David Reynolds

DRINKING WATER QUALITY REGULATOR FOR SCOTLAND

Date: 31 January 2025