

# Site Visit Report

Under the *European Union (Drinking Water) Regulations 2023*, the Environmental Protection Agency (EPA) is the supervisory authority in relation to Uisce Éireann and its role in the provision of public drinking water supplies. This audit was carried out to assess the performance of Uisce Éireann in providing clean and wholesome water to the public water supply named below.

The audit process is a sample of the performance of a water treatment plant and public water supply on a given date.

| Water Supply Zone        |               |
|--------------------------|---------------|
| Name of Installation     | Trim          |
| Organisation             | Uisce Éireann |
| Scheme Code              | 2300PUB1009   |
| County                   | Meath         |
| Site Visit Reference No. | SV32035       |

| Report Detail |            |
|---------------|------------|
| Issue Date    | 16/12/2025 |
| Prepared By   | Lisa Noone |

| Site Visit Detail   |   |           |       |
|---------------------|---|-----------|-------|
| Date Of Inspection  | 27/11/2025  | Announced | Yes   |
| Time In             | 10:30   | Time Out  | 12:50 |
| EPA Inspector(s)    | Lisa Noone  |           |       |
| Additional Visitors |   |           |       |
| Company Personnel   | Uisce Éireann: Joseph Moran, Conor Flanagan, Daniel Puz, Kieran Lacey, Diarmuid Connell |           |       |

## > Summary of Key Findings

1. The audit found shortcomings in relation to access and availability of information pertinent to the audit. The audit was specifically focused on progress made towards the Remedial Action List Action Programme, however the relevant information in relation to the scope of works proposed to address plant deficiencies was not made available to the inspector prior to or during the audit to facilitate this. This information was subsequently provided to the EPA.
2. Uisce Éireann could not provide any update on interim actions taken, if any, to address ongoing THM failures in the Trim Public Water Supply network.
3. Issues regarding Trident filter maintenance and cleaning were observed during the audit.

## > Introduction

Trim Public Water Supply (PWS) supplies approximately 3000m<sup>3</sup> of water per day, serving a population of circa. 12,000 people. Raw water is abstracted from the River Boyne and treated through coagulation, flocculation, and filtration processes with two Trident adsorption clarifiers/filters and one Dissolved Air Flootation (DAFF) unit operating in parallel. Disinfection is achieved by chlorination, with treated water pumped to Bray Hill Reservoir and further pumped to Summerhill Reservoir where the water is boosted with additional chlorine.

Trim PWS has been on the EPA's Remedial Action List (RAL) since Q1 2022 under the RAL category 'EPA Audit Observation - Treatment and Management Issues'. This was done to reflect the significant infrastructural deficit which the Water Treatment Plant (WTP) operates under, due to pressures on volume in the supply and the ageing water treatment plant which was originally constructed as an interim facility. Trihalomethanes (THMs) were added to the Trim RAL categories in Q2 2025 due to elevated THMs in the network. An upgrade of the WTP is proposed under the RAL Action Programme with an expected completion date of Q4 2026.

The audit was undertaken to assess Uisce Éireann's progress with the RAL programme of works, the management of THMs in the network, and to assess performance in producing clean and wholesome water in the interim.

## > Supply Zones Areas Inspected

All treatment processes on site were inspected as part of the audit.



## 1. Filtration

1.1

Was there visual indication that the filters were operating effectively?

**Answer**

No

**Comment**

1. The Trident filters in place at the WTP utilise adsorption beads in the clarification stage to facilitate the capture of flocculated solids in an up-flow process. During the audit, these beads were observed being carried over into the filtration stage with a build up on the filter walls. Operational staff stated that these beads can impact the filtration process and clog up the filter bed media.

2. A significant build up of algae and organics were observed in the channels and filter walls of the Trident filters. Operational staff stated that filters are cleaned on a regular basis but the variation in the quality of raw water can mean it is difficult to maintaining filter cleanliness



## 2. Management and Control

2.1

Is the water treatment plant resilient enough to cope with significant variations in raw water quality or demand?

**Answer**

No

**Comment**

1. Plant operators stated that the WTP is under pressure for demand under the plant's current operating capacity and limited treated water storage capacity. The WTP currently has a maximum storage capacity of 24 hours in the off-site reservoirs, which can lead to difficulties when the plant is shut down, filter cleaning or maintenance, or when water is required for network flushing.

2. Uisce Éireann could not confirm if storage capacity issues were being addressed under the Remedial Action List (RAL) action programme.

2.2

Are online monitors operational?

**Answer**

No

**Comment**

1. The raw water ammonia monitor, raw water turbidity monitor, and the final water aluminium monitor were not operational at the time of the audit. Manual sampling and analysis is being carried out by operational staff in the interim prior to repair.

2. Issues with the final water aluminium monitor were raised at a previous EPA audit in 2022.



### 3. Supply on the Remedial Action List

3.1

|   | Answer |
|---|--------|
| Do the audit findings support progress made with the Remedial Action List upgrades?   | No     |
| <b>Comment</b>  |        |
| <p>1. Trim PWS has been on the EPA's Remedial Action List (RAL) since Q1 2022 under the RAL category 'EPA Audit Observation - Treatment and Management Issues' due to the significant infrastructural deficit which the WTP operates under.</p> <p>2. Uisce Éireann had previously stated in RAL progress reports that an upgrade to the WTP was proposed with an expected completion date of Q4 2026. As an interim measure, Uisce Éireann had commissioned a new Dissolved Air Flotation and Filtration (DAFF) system in Q1 2025 at Trim WTP and a run-to-waste system to improve reliability and resilience until upgrade works are complete.</p> <p>3. During the audit, Uisce Éireann could not provide any detail on the scope or programme of works proposed under their RAL Action Programme upgrade works. Groundworks were being carried out at the time of the audit, however any other progress made with the RAL upgrades could not be observed or assessed during the audit as this information was not made available to the EPA.</p> <p>4. Trihalomethanes (THMs) were added to the Trim RAL categories in Q2 2025 due to elevated THMs in the network. At the time of the audit, seven parametric failures for THMs had been reported to the EPA in 2025 with results ranging from 101ug/l to 142ug/l versus the parametric value of 100ug/l.</p> <p>4. Uisce Éireann could not confirm during the audit if the RAL Action Programme addresses the ongoing THM failures in the network. Uisce Éireann could also not confirm interim actions taken, if any, to address the THMs issue, including flushing/scouring of the network or whether THM formation potential testing had been carried out.</p> <p>5. In the days following the audit, Uisce Éireann provided the following information to the EPA regarding the RAL Action Programme and summary of works planned under the upgrade of Trim WTP:</p> <ul style="list-style-type: none"><li>• Construction of new single storey buildings and a control/administration building;</li><li>• Internal repurposing / reconfiguration of the existing water treatment building;</li><li>• Replacement of the existing adsorption clarifiers and DAFF process with a sedimentary Coagulation, Flocculation and Clarification (CFC) process. The new CFC process will be designed and constructed separately to the existing treatment plant building</li><li>• A supplementary treatment process (Polyaluminium Chloride dosing (PAC)) prior to the CFC process</li><li>• Rapid Gravity Filtration</li><li>• UV Treatment (Duty/Standby)</li><li>• Orthophosphate Dosing</li><li>• Upgrade to the sludge handling and liquid residual facilities and removal of one existing sludge lagoon</li><li>• Miscellaneous works, including tie-ins to existing infrastructure, removal of redundant equipment, upgrade SCADA and general building improvements.</li><li>• Further to this project, Uisce Éireann continues to replace old and problematic water mains in the town to reduce disruption from bursts and outages, which have been affecting homes and businesses</li></ul> <p>6. Uisce Éireann has stated that the works remain on track for completion in Q4 2026.</p> |        |

## Recommendations

| Subject     | Trim PWS Audit Recommendations   | Due Date | 20/01/2026 |
|-------------|--|----------|------------|
| Action Text | <p><b>Uisce Éireann is responsible for ensuring a clean and wholesome supply of drinking water and should implement the following recommendation without delay.</b></p> <ol style="list-style-type: none"> <li>1. Ensure that information requested by the EPA prior to an audit is provided for and made accessible to inspectors promptly.</li> <li>2. Proceed with the plant upgrade works proposed under the RAL Action Programme and plant optimisation works in the interim to address current deficiencies and the ongoing failures to meet the parametric value for THMs.</li> <li>3. Provide an update to the EPA regarding how THMs and other disinfection by-products are being addressed in the interim, including flushing schedules, THM formation potential testing etc.</li> <li>4. Provide clarification on whether RAL upgrades address the resilience of the plant with regard to current and increasing demand and treated water storage.</li> <li>5. Filters: (i) Ensure that the Trident filters are cleaned as required, and a regular cleaning regime is put in place prevent the build-up of algae and organics, and (ii) Investigate and rectify the cause of carryover of the adsorption beads from the clarification stage into the filtration stage of the Trident filters, having regard to the <i>EPA Water Treatment Manual: Coagulation, Flocculation and Clarification</i> and <i>EPA Water Treatment Manual: Filtration</i>.</li> <li>6. Repair or replace the raw water ammonia and turbidity monitors, and final water aluminium monitor.</li> </ol> <p><b>Actions required by Uisce Éireann</b></p> <p>During the audit, Uisce Éireann representatives were advised of the audit findings and that action must be taken by Uisce Éireann to address the issues raised.</p> <p>Uisce Éireann should submit a report to the EPA on or before the above due date detailing the actions taken and planned, with timescales, to close out the above recommendations.</p> <p>The EPA advises that the findings and recommendations from this audit report should, where relevant, be addressed at other public water supplies.</p> |          |            |