

# 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     | Bilboa        |
| Organisation             | Uisce Éireann |
| Scheme Code              | 0100PUB1106   |
| County                   | Carlow        |
| Site Visit Reference No. | SV33299       |

| Report Detail |              |
|---------------|--------------|
| Issue Date    | 11/12/2025   |
| Prepared By   | Sean O'Leary |

| Site Visit Detail   |  |           |       |
|---------------------|--|-----------|-------|
| Date Of Inspection  | 13/11/2025   | Announced | Yes   |
| Time In             | 11:00  | Time Out  | 12:30 |
| EPA Inspector(s)    | Sean O'Leary   |           |       |
| Additional Visitors |  |           |       |
| Company Personnel   | Uisce Éireann: Denis McGrath, Larry Bolger, and Niall Byrne<br><br>Carlow County Council (working in partnership with Uisce Éireann): Michael Cullen |           |       |

## > Summary of Key Findings

1. The audit found that the Bilboa Water Treatment Plant is well managed and was producing satisfactory water on the day of the audit.
2. The setpoint for the “Low Low” residual chlorine shutdown is set at 0.35 mg/l. This is less than the minimum residual chlorine level required by the contact time calculation
3. There is no documented site specific alarm response procedure in place at the treatment plant.

## > Introduction

The Bilboa Public Water Supply (PWS) supplies an average of 18 m<sup>3</sup>/day of water, serving a population of 56 (EDEN).

The source for the supply is one onsite borehole. Treatment consists of chlorination and iron removal via pressure filtration.

The audit was undertaken to assess Uisce Éireann's performance in producing clean and wholesome water with a focus on the alarms and inhibits in place at the water treatment plant (WTP).

## > Supply Zones Areas Inspected

The onsite borehole, chlorination dosing system, iron removal system and pumps at the water treatment plant were inspected.



## 1. Source Protection

1.1

Is the abstraction source(s) adequately protected against contamination?

**Answer**

No

**Comment**

1. The onsite borehole is inadequately capped and sealed in line with EPA guidance.



## 2. Alarms, Inhibits & Oversight Audits 2025

2.1

Are suitable plant shutdowns/inhibits in place to prevent inadequately treated water entering the distribution network?

**Answer**

No

**Comment**

1. The low low chlorine shutdown (0.35 mg/l) setpoint on the CL002 chlorine monitor on the final water is lower than the minimum free chlorine concentration of 0.40 mg/l as detailed in the site specific chlorine contact time calculation sheet.
2. On the day of the audit a potential issue was identified with the backwash system for the two iron removal pressure filters. If a shutdown occurs while the filters are backwashing, high-turbidity water could enter the treated clear water tank. As the shutdown is controlled by the water pump rather than the outflow pump, there is potential risk of high turbidity water entering the supply network.

2.2

Is there a documented procedure for responding to specific alarms?

**Answer**

No

**Comment**

1. There is no documented alarm response procedure for responding to specific alarms at the WTP.

## Recommendations

| Subject     | Audit Recommendations  | Due Date | 11/01/2026 |
|-------------|--|----------|------------|
| Action Text | <p><b>Uisce Éireann is responsible for ensuring a clean and wholesome supply of drinking water and should implement the following recommendations without delay.</b></p> <ol style="list-style-type: none"> <li>1. Ensure the borehole is adequately capped. Uisce Éireann should have regard to EPA Advice Note No. 14: Borehole Construction and Wellhead Protection when carrying out these works.</li> <li>2. Assess the feasibility of installing a shutdown on the outflow pipe leaving the clearwater tank.</li> <li>3. Ensure that: (i) a formal site specific alarm response procedure is in place at the treatment plant, and (ii) provide training to relevant staff (including relief and temporary staff) on the requirements of the alarm response procedure.</li> <li>4. Review the low and low low chlorine alarm settings for chlorine monitor CL002 to ensure that the settings reflect the minimum free chlorine concentration required at the contact time validation point as per the site specific contact time calculation sheet.</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 11/01/2025 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> |          |            |