

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	Ballinakill 1 PWS
Organisation	Uisce Éireann
Scheme Code	1600PUB1095
County	Laois
Site Visit Reference No.	SV32009

Report Detail	
Issue Date	04/06/2025
Prepared By	Lisa Noone

Site Visit Detail			
Date Of Inspection	08/05/2025	Announced	Yes
Time In	12:25	Time Out	14:45
EPA Inspector(s)	Lisa Noone		
Additional Visitors			
Company Personnel	Uisce Éireann: Edward Haythornthwaite, Maria Lloyd Laois County Council (working in partnership with Uisce Éireann): Eddie Kelly, Larry Gittens, Tom O'Carroll		

> Summary of Key Findings

1. The audit found that alarms did not dial out and Cloghogue Water Treatment Plant did not automatically shut down in response to elevated turbidity on 02/05/2025 and 03/05/2025.
2. The high turbidity levels were not identified and acted on, indicating inadequate oversight of plant performance trends.
3. The site specific incident escalation flowchart on display at the WTP was incomplete.

> Introduction

Ballinakill 1 Public Water Supply (PWS) produces circa. 170 m³/day of water serving a population of approximately 140 people. Raw water is abstracted from a spring source and treatment at Cloghogue Water Treatment Plant (WTP) consists of primary disinfection via duty/standby UV units and secondary disinfection by chlorination.

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 WTP and the procedures in place to ensure appropriate oversight of treatment processes.

> Supply Zones Areas Inspected

The spring source and treatment processes at the water treatment plant were inspected as part of the audit.



1. Alarms, Inhibits & Oversight Audits 2025

		Answer
1.1	Is there a documented site specific incident response and incident escalation process?	Yes
	Comment	
	1. The Uisce Éireann incident escalation flowchart was displayed at the WTP. However, the site specific trigger levels for the UVT and UVI were not recorded on the flowchart.	
		Answer
1.2	Are suitable plant shutdowns/inhibits in place to prevent inadequately treated water entering the distribution network?	No
	Comment	
	1. SCADA trends inspected during the audit showed a spike in turbidity of up to 1.6 NTU for a number of hours between 02/05/2025 and 03/05/2025. It was confirmed at the audit that turbidity monitors were serviced on 01/05/2025, but the cause of the spikes in the days following could not be confirmed.	
	2. Alarms were not dialled-out to operators during this time period and the plant did not automatically shut down as intended.	
		Answer
1.3	Is there appropriate oversight of plant performance trends?	No
	Comment	
	1. Oversight of the plant performance trends is not adequate since the turbidity spikes identified during the audit as detailed in section 1.2 were not identified at the time or in the following days.	
		Answer
1.4	Are there appropriate procedures covering verification of alarms and inhibits status following maintenance or other work on site?	No

Recommendations

Subject	Ballinakill 1 PWS Audit Recommendations	Due Date	07/07/2025
Action Text	<p>Uisce Éireann is responsible for ensuring a clean and wholesome supply of drinking water and should implement the following recommendations without delay.</p> <ol style="list-style-type: none">1. Provide (i) confirmation that alarms and auto shutdowns are in operation and (ii) clarification as to the cause of elevated turbidity identified in the audit.2. Ensure there is appropriate oversight and checks on water treatment plant performance and trends via SCADA.3. Ensure that the Uisce Éireann Incident Communication Response Guidance Form displayed at the WTP contains site specific trigger levels for UVT and UVI to protect critical processes at the WTP.4. Develop a procedure and deliver appropriate training covering the verification of alarms/shutdowns status following maintenance or other works completed at the treatment plant. <p>Actions required by Uisce Éireann</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>		