

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	Portlao
Organisation	Uisce Éireann
Scheme Code	3100PUB1081
County	Waterford
Site Visit Reference No.	SV32049

Report Detail	
Issue Date	21/10/2025
Prepared By	Sean O'Leary

Site Visit Detail			
Date Of Inspection	22/09/2025	Announced	Yes
Time In	13:00	Time Out	15:00
EPA Inspector(s)	Sean O'Leary		
Additional Visitors			
Company Personnel	Uisce Éireann: Siobhán Clifford, Patrick Kirwan and Melissa Devane		

> Summary of Key Findings

1. Uisce Éireann have not addressed the majority of the recommendations from the previous EPA audit undertaken on the 23/02/2023.
2. There is no chlorine monitor with alarms or inhibits to verify contact time has been achieved.
3. There are no alarms or inhibits on the turbidity monitor to prevent inadequately disinfected water entering the supply.
4. Uisce Éireann advised that this supply is to be prioritised for an upgrade but no timeframe is available yet.

> Introduction

The Portlaw Public Water Supply (PWS) serves a population of 1,646 and produces 425 m³/day. Raw water is sourced from a spring which is located 1.5 km from the plant. The spring is the main source for the supply. There is also a borehole located adjacent to the planthouse but this is not in use due to historic high manganese levels.

Treatment consists of chlorination and UV disinfection. Treated water is fed to an onsite reservoir which in turn supplies Portlaw town.

The focus of the audit was on the progress with addressing previous audit report recommendations.

> Supply Zones Areas Inspected

The audit consisted of an inspection of the UV and chlorination treatment systems.



1. Management and Control

1.1

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

Answer

No

Comment

1. The supply is served from a spring source which is approximately 1.5km from the plant. This spring does not consistently meet the required water demand for the Portlaw network.

2. On the day of the audit water was being tankered from Adamstown water treatment plant in order to meet demand.



2.1

		Answer
Have the recommendations from the previous EPA audit been satisfactorily completed?		No
Comment		
<p>A number of recommendations from the previous EPA audit undertaken on 23/02/23 have not been completed to date. The outstanding recommendations are as follows:</p>		
<p><i>No 1. Ensure that there are duty and standby UV disinfection units with automatic changeover or plant shutdown in the event of failure of one of the UV disinfection units.</i></p>		
<p>Update: No duty and standby UV disinfection units have been installed at present. Uisce Éireann could not confirm when or if this will be progressed.</p>		
<p><i>No 4. Install a continuous chlorine residual monitor with alarm after contact time to verify contact time is achieved.</i></p>		
<p>Update: No continuous chlorine residual monitor with alarm after contact time to verify contact time has been installed. Uisce Éireann could not confirm a timeline for installation.</p>		
<p><i>No 5. Install a continuous turbidity monitor with alarm and shutdown to prevent inadequately treated water entering the supply.</i></p>		
<p>Update: A continuous turbidity monitor has been installed, however no alarms or shutdowns are in place to verify that turbidity remains < 1 NTU at all times. No timeline for installation of alarms and shutdowns was given, due to the lack of run to waste at the water treatment plant.</p>		
<p><i>No 7. Review a) the alarm and inhibit settings to ensure that critical treatment processes and statutory limits are protected, b) Install shutdown of the plant based on high and low chlorine levels in the final water and c) install shutdown in the event that the UV unit fails to operate within its validated range.</i></p>		
<p>Update: a) An Uisce Éireann Alarm and inhibit review has taken place with a number of recommendations given, however to date these recommendations have not been implemented. b) No shutdowns based on high or low chlorine levels have been installed to date in this water treatment plant, and c) No shutdown based on the UV unit operating outside its validated range is in place at the water treatment plant.</p>		
<p><i>No 8. Ensure that operational staff have access to plant performance trends at the water treatment plant.</i></p>		
<p>Update: Uisce Éireann confirmed work to install a new HMI and SCADA system to enable operational staff to access plant performance trends had commenced, however no timeline for completion was confirmed.</p>		
<p><i>No 9. Ensure that a) the supervisor is added to the alarms cascade system so that there is appropriate oversight of alarm responses, b) there are documented site specific alarm response procedures c) there are appropriate procedures covering verification of alarms and inhibits status following maintenance of other work at the water treatment plant and d) training is provided to all relevant staff on the procedures.</i></p>		
<p>Update: a) Uisce Éireann confirmed the supervisor was added to the alarms cascade system, b) On the day of the audit a documented alarm response procedure was in place at the water treatment plant, however it did not include site specific alarms and contained generic alarms which were not in place at the Water treatment plant and d) Uisce Éireann confirmed training had taken place.</p>		



3. Site Specific Issues

3.1

Are final water pH results compliant with parametric values?

Answer

No

Comment

1. The Portlaw Public Water Supply (PWS) is on Uisce Éireann's National pH file due to persistent low pH (< 6.5).
2. Uisce Éireann have not confirmed an action programme or timeframe to address the issue

Recommendations

Subject	Audit Recommendations	Due Date	21/11/2025
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. Install a continuous chlorine residual monitor with alarm after contact time to verify contact time is achieved. 2. Investigate the feasibility of installing a run to waste system at the treatment plant. 3. Ensure remedial measures are put in place to restore compliance with the pH parametric value in the supply where necessary. 4. Ensure that there are duty and standby UV disinfection units with automatic changeover or plant shutdown in the event of failure of one of the UV disinfection units. 5. Review a) the alarm and inhibit settings to ensure that critical treatment processes and statutory limits are protected, b) Install shutdown of the plant based on high and low chlorine levels in the final water and c) install shutdown in the event that the UV unit fails to operate within its validated range, and d) Install suitable turbidity alarms and shutdowns to prevent inadequately treated water entering the supply. 6. Ensure that operational staff have access to plant performance trends at the water treatment plant. 7. Ensure the documented site specific alarm response procedure is updated to reflect the actual alarms and inhibits in place at the water treatment plant. 8. Provide details of Uisce Éireann plans to improve resilience and meet the supply demand for Portlaw PWS. <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 21/11/2025 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>		