

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	Ardmore Grange
Organisation	Uisce Éireann
Scheme Code	3800PUB1143
County	Waterford
Site Visit Reference No.	SV29598

Report Detail	
Issue Date	09/02/2024
Prepared By	Paul Buckley

Site Visit Detail			
Date Of Inspection	25/01/2024	Announced	Yes
Time In	12:30	Time Out	13:25
EPA Inspector(s)	Paul Buckley		
Additional Visitors			
Company Personnel	Uisce Éireann - Denis McGrath and Maura Phelan. Waterford City and County Council (working in partnership with Uisce Éireann) - Dave Whelan, John Beecher, and David Hourigan.		

> Summary of Key Findings

1. The audit found that the Ardmore/Grange Public Water Supply was operating satisfactorily on the day of the audit.
2. There is no plant shutdown on low residual chlorine readings as per the EPA Water Treatment Disinfection Manual.
3. There is no high turbidity alarms or shutdowns at the plant to prevent inadequately treated water entering the supply.
4. The Ardmore/Grange Public Water Supply is on the Uisce Éireann National pH file as it has persistent low pH (< 6.5 pH). At present the remedial works required to correct the pH issue have not been determined by Uisce Éireann.

> Introduction

The Ardmore/Grange Public Water Supply (PWS) supplies an average of 91 m³/day of water, serving a population of 200 people. This is not reflective of the volume supplied and population served on the EPA EDEN system.

The source for the supply is a borehole located adjacent to the water treatment plant (WTP). Treatment consists of ultraviolet (UV) disinfection and 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 water treatment plant.

> Supply Zones Areas Inspected

The borehole, ultraviolet disinfection system and chlorine dosing system at the water treatment plant were inspected.



1. Alarms, Inhibits & Oversight Audits 2024

		Answer
1.1	Is suitable continuous monitoring in place to verify treatment performance?	Yes
Comment		
Uisce Éireann stated that the turbidity monitor installed on site is a temporary monitor.		

		Answer
1.2	Are suitable alarm settings in place to alert operators to deteriorating water quality or the failure of a critical treatment process?	No
Comment		
There is no alarm in place at the water treatment plant for high turbidity.		

		Answer
1.3	Has UÉ carried out an alarm and inhibit review at the water treatment plant?	No
Comment		
Uisce Éireann could not confirm at the audit that the Alarm and Inhibit review had been completed for the plant.		

		Answer
1.4	Are suitable plant shutdowns/inhibits in place to prevent the entry of inadequately treated water entering the distribution network?	No
Comment		
There are no shutdowns associated with low chlorine or high turbidity in place at the water treatment plant.		



2. Site Specific Issues

	Answer	
2.1	Has UÉ identified the protozoal compliance log treatment requirement for the water treatment plant?	No
Comment		
Uisce Éireann stated that the protozoal compliance log treatment requirement has not been determined for the supply.		

	Answer	
2.2	Are there duty and standby UV units in operation?	No
Comment		
There is only a single UV disinfection unit at the water treatment plant.		

	Answer	
2.3	Are final water pH results compliant with parametric values?	No
Comment		
The Ardmore/Grange Public Water Supply is on the Uisce Éireann National pH file. In the Q4 2023 update submitted by Uisce Éireann on 16/01/2024, there was no timeframe available for the completion of the remedial works required at the water treatment plant.		

Recommendations

Subject	Ardmore/Grange PWS Audit 25012024	Due Date	08/03/2024
Action Text	<p>Uisce Éireann is responsible for ensuring a clean and wholesome supply of drinking water and should implement the following recommendation(s) without delay.</p> <ol style="list-style-type: none">1. Complete the Alarm and Inhibit Review for the plant to ensure that details are correct.2. i) Confirm the protozoal log treatment requirement for the supply, and ii) provide details of how any protozoal log treatment deficit, if identified, will be addressed.3. Install a permanent continuous turbidity monitor at the water treatment plant, with associated alarms and shutdowns to verify treatment performance.4. Install a standby UV unit with automatic switchover between the two units.5. Provide details of the remedial actions proposed to restore compliance with the pH parametric value.6. Update EDEN with the correct volume supplied and population served figures for the supply. <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 08/03/2024 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>		