

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	Pollan Dam PUB
Organisation	Uisce Éireann
Scheme Code	0600PUB1020
County	Donegal
Site Visit Reference No.	SV30032

Report Detail	
Issue Date	29/10/2024
Prepared By	Veronica Boland

Site Visit Detail			
Date Of Inspection	03/10/2024	Announced	Yes
Time In	10:00	Time Out	13:15
EPA Inspector(s)	Ruth Barrington		
Additional Visitors			
Company Personnel	Uisce Éireann: Regina Burke, Yvonne McMonagle, Geraldine Friel Donegal County Council (working in partnership with Uisce Éireann): Philip Doherty, Michael Barrett, Bernard Doherty		

> Summary of Key Findings

1. An upgrade of the Illies Water Treatment Plant is ongoing, with construction of disinfection and chemical storage infrastructure well progressed.
2. Temporary storage tanks intended for sodium hypochlorite to address winter site access difficulties are not located appropriately, being placed close to yard surface water drains during the audit.

> Introduction

Pollan Dam Public Water Supply serves a population of 24,079 people and is one of the largest 26 public water supplies in Ireland. Raw water abstracted at Fullerton Dam is treated at the Illies Water Treatment Plant. Treatment processes include dissolved air flotation, rapid gravity filtration, prechlorination for oxidation of manganese, secondary rapid gravity filtration for manganese removal, and disinfection using sodium hypochlorite.

The audit was undertaken as part of the EPA's ongoing audits of the largest 26 public water supplies. Uisce Éireann progress against the recommendations of the previous EPA audit on 01/06/2022, and on open compliance plans, was also assessed.

> Supply Zones Areas Inspected

The audit included an inspection of the treatment processes on-site.



1. Filtration

	Answer
1.1 Does monitoring indicate that the filters are operating effectively?	No
Comment	
<p>1. Continuous filter turbidity trends assessed during the audit showed good turbidity levels at the filter outlets.</p> <p>2. Assessments of filter sand depth and backwash performance undertaken by operational staff on 19/09/2024 indicated a dead zone during filter backwash for Filter 5. This has been escalated within Uisce Éireann for action and additional work (e.g. sand replacement or work on filter nozzles) will be undertaken to ensure Filter 5 backwash is effective. The scope of such work will be defined by Uisce Éireann on the basis of further assessment of the filter.</p>	



2. Disinfection

2.1

Is there adequate chlorine contact time before the first connection?

Answer

Yes

Comment

1. Chlorine monitors have been provided at the Illies and Ballymagan Reservoirs to verify primary disinfection, as recommended at the previous EPA audit.
2. A new clearwater tank is being constructed on-site as part of the WTP upgrade. On completion of the upgrade, primary disinfection will be verifiable prior to treated water leaving the WTP site.



3. Treatment Process Chemicals

3.1

	Answer
Are treatment process chemicals appropriately managed and stored?	No
Comment 1. Four IBC tanks on mobile bunds were located in the yard beside the existing sodium hypochlorite tank. Staff described that these are intended for storage of additional sodium hypochlorite due to concerns about truck delivery difficulties during winter and the limitations of the site access road during bad weather. 2. It was noted that there are two surface water drains adjacent to the IBCs and the location is in a vehicle parking/ turning area. 3. The WTP upgrade currently underway will increase the amount of storage for sodium hypochlorite but the completion date for the works is Q4 2025. If there is a valid process need to increase the amount of temporary chemical storage over the winter of 2024, a more suitable location on site should be chosen where the risk of spillage can be risk assessed and managed.	



4. Management and Control

	Answer	
4.1	Has the protozoal compliance log treatment requirement been identified for the water treatment plant?	No
Comment		
<p>1. Uisce Éireann is re-mapping elements of the abstraction as part of a revision of the protozoal log requirement for the Pollan Dam public water supply. At the time of the audit, it was unknown by staff whether the outcome of this work will have an impact on the log requirement for the supply or implications for the treatment provided.</p>		

	Answer	
4.2	Have the recommendations from the previous EPA audit been satisfactorily addressed?	No
Comment		
<p>1. The previous EPA audit was undertaken on 01/06/2022. Recommendations on chlorine contact time, interim disinfection validation, filter media assessments have been completed, but a number of recommendations remain in progress and are being dealt with by way of a WTP upgrade which is in progress.</p> <p>2. The progress on the construction elements of the WTP (chemical storage areas and contact tank) was noted. The next phase of the works on electrical upgrades has not yet commenced. Uisce Éireann has provided a completion date for the works of Q4 2025.</p> <p>3. Pieces of pipe were observed located within the construction area placed on top of the clear water tank.</p> <p>4. Additional controls have been placed on the post coagulation pH, however the work on automation of the coagulant dose was paused due to problems with controlling dosing pump power. Additional alarm and shutdown controls have been requested by operational staff linked to dosing pump percentage.</p> <p>5. Works on providing automated backwash of the rapid gravity filters have not yet been carried out. According to operational staff the programming to enable automated backwash is already in place. Uisce Éireann have received a quote for the replacement of actuators and other valves identified as needing replacement for safe activation of automated backwash. No timeframe was available at the time of the audit for these replacements to be complete.</p>		

Recommendations

Subject	Pollan Dam Audit 03/10/2024	Due Date	24/11/2024
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. Continue reporting to the EPA on progress (with timescales for each action) against Recommendation Numbers 1, 3 and 4 from the EPA's previous audit in 2022, covering progress on the WTP upgrade, filter backwash automation, and further enhancement of the dose control upgrade.2. Carry out works at Filter 5 to remedy the dead zone identified by operational assessments. Provide a timescale to the EPA for carrying out this work.3. Review and report to the EPA on the need and location for temporary winter chemical storage on-site with reference to spill risks and potential environmental contamination.4. Ensure that the construction site is maintained so that materials and waste are not placed on treated water facilities such as the clear water tank.5. Confirm the log requirement assigned to the Illies WTP on completion of the current mapping exercise. <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 24/11/2024 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>		