

# 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	
<b>Name of Installation</b>	Kilsellagh PWSS
<b>Organisation</b>	Uisce Éireann
<b>Scheme Code</b>	2700PUB2706
<b>County</b>	Sligo
<b>Site Visit Reference No.</b>	SV28015

Report Detail	
<b>Issue Date</b>	21/08/2023
<b>Prepared By</b>	Lisa Noone

Site Visit Detail			
<b>Date Of Inspection</b>	26/07/2023	<b>Announced</b>	Yes
<b>Time In</b>	10:00	<b>Time Out</b>	12:00
<b>EPA Inspector(s)</b>	Lisa Noone Maria O'Connell		
<b>Additional Visitors</b>			
<b>Company Personnel</b>	Uisce Éireann: Fionnuala Bonner EPS (DBO Contractor): Anthony Nangle, David Logue		

## > Summary of Key Findings

1. Residual chlorine monitoring in the network is not carried out by Sligo County Council several times a week at different points of the network.
2. Storage of treatment chemicals was inadequately maintained at Kilsellagh Water Treatment Plant (WTP) at the time of the audit.

## > Introduction

Kilsellagh Public Water Supply (PWS) serves a population of approximately 8,843 people in County Sligo. The plant has an average daily output of 4,525m<sup>3</sup>/day. Raw water is abstracted by an impoundment/lake source fed by three inlet streams. The DBO plant, operated under contract by EPS has water treatment including two DAFF systems, primary disinfection via two UV units and secondary disinfection via chlorination.

The audit of Kilsellagh WTP was carried out to assess the performance of Uisce Éireann in providing clean and wholesome drinking water, focusing mainly on the operation and management of protozoal barriers at the treatment plant.

## > Supply Zones Areas Inspected

All treatment processes on site were inspected as part of the audit. The offsite reservoir at Barnacardy was not inspected during the audit.



## 1. Disinfection

	Answer
1.1	Is there a suitable monitoring frequency for residual chlorine in the network with records available?
	No
<b>Comment</b>	
<p>1. Network chlorine residual monitoring records were requested as part of the audit to be provided by Sligo County Council.</p> <p>2. Following the audit, Uisce Éireann notified the EPA that residual chlorine monitoring is not carried out by Sligo County Council in the network bar monitoring at treated water reservoirs.</p>	



## 2. Treatment Process Chemicals

	Answer
2.1 Are treatment process chemicals appropriately managed and stored?	No
<b>Comment</b>	
1. Sulphuric acid was observed leaking from an outdoor tank into a drain and corroding a portion of the hard standing in an outdoor area of the WTP. The drain led to an underground bunded area.	



### 3. Protozoal Barriers Audits 2023

	<b>Answer</b>
<b>3.1</b> Is there a documented site specific incident response and incident escalation process?	No

	<b>Answer</b>
<b>3.2</b> Are the filters designed and managed in accordance with EPA guidance?	No

**Comment**

1. Polyelectrolyte (Poly) is dosed into DAFF tank 1 via a spreader bar prior. At the time of the audit, at the time of the audit, a number of injection nozzles for poly dosing were observed to be blocked.
2. Organic debris was observed on the side walls of the DAFF tank despite recent maintenance and cleaning of the full DAFF system.

## Recommendations

Subject	Kilsellagh Audit Recommendations	Due Date	26/09/2023
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 that residual chlorine monitoring is undertaken in the extremities of the network several times a week.</li><li>2. Repair sulfuric acid storage tanks and ensure all chemical storage and bunds are appropriately maintained.</li><li>3. Maintain the poly dosing spreader bar on a regular basis to ensure all injection nozzles are free from blockage for the equal distribution of coagulant over the entire DAFF tank.</li><li>4. Update the Uisce Éireann Incident Communications Response Guidance Form with site specific information including contacts for escalation and relevant trigger levels protecting critical processes at the water treatment plant.</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 26/09/2023 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>		