

# 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	Kiltegan Public Supply
Organisation	Uisce Éireann
Scheme Code	3400PUB1031
County	Wicklow
Site Visit Reference No.	SV32066

Report Detail	
Issue Date	24/09/2025
Prepared By	Derval Devaney

Site Visit Detail			
Date Of Inspection	05/09/2025	Announced	No
Time In	10:30	Time Out	12:15
EPA Inspector(s)	Derval Devaney		
Additional Visitors			
Company Personnel	Uisce Éireann (UÉ): Linda Doran, Trevor Smullen. EPS Group: David Logue, Brendan Walker.		

## > Summary of Key Findings

1. A chlorine monitor was not in place at the outlet of the reservoir to verify adequate disinfection was being achieved.
2. There is no alarm to alert operators or automatic plant shutdown in the event that adequate disinfection is not achieved in the reservoir.

## > Introduction

Kiltegan Public Water Supply (PWS) produces approximately 11 m<sup>3</sup>/hour (75 - 95 m<sup>3</sup>/day) serving a population of 300.

The raw water source is a borehole located at the treatment plant. Treatment is provided for nitrate removal by ion exchange, disinfection using sodium hypochlorite, pH correction using sodium hydroxide and radon removal by aeration and is managed by a contractor under a design, build and operate (DBO) contract.

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

## > Supply Zones Areas Inspected

The borehole and treatment processes at the water treatment plant were inspected in addition to the radon aerator and chlorine contact tank located at the water treatment plant. The reservoir off-site was not inspected.



## 1. Disinfection

1.1

Is there a suitable monitoring frequency for residual chlorine in the network with records available?

**Answer**

No

**Comment**

1. Chlorine residual readings taken in the network during August 2025 were reviewed during the audit and were found to be satisfactory with all readings above 0.1 mg/l.
2. However, it appears that samples were primarily taken in the village of Kiltegan, rather than across the broader network, making it unclear whether chlorine residuals meet at least 0.1 mg/l throughout the full supply.



## 2. Alarms, Inhibits & Oversight Audits 2025

2.1

Is there a chlorine residual monitor located after contact time for verification of primary disinfection?

**Answer**

No

**Comment**

1. Although the calculation sheet indicates sufficient chlorine contact time—considering the contact tank at the plant, the pipeline to the off-site reservoir, and the reservoir itself—there is no continuous chlorine residual monitor at the outlet of the off-site reservoir to confirm the effectiveness of the disinfection process.
2. A chlorine residual sample is taken once per week at the outlet of the reservoir.

2.2

Is there a documented site specific incident response and incident escalation process?

**Answer**

Yes

**Comment**

1. UÉ's Water Incident Communication Response Guidance Form was displayed at the plant, but it needs to be updated to reflect the minimum chlorine required for the site and all relevant contacts.

2.3

Are suitable alarm settings in place to alert operators to deteriorating water quality or the failure of a critical treatment process?

**Answer**

No

**Comment**

1. There is no chlorine monitor with an alarm and automatic plant shutdown located on the outlet of the reservoir (when contact time has elapsed) to alert operators and prevent inadequately disinfected water entering the network.

2.4

Are suitable plant shutdowns/inhibits in place to prevent inadequately treated water entering the distribution network?

**Answer**

No

**Comment**

1. See Q 2.3 relating to the lack of a plant shutdown post disinfection contact time.

## Recommendations

Subject	Kiltegan PWS 2025 Audit Recommendations	Due Date	24/10/2025
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. Update the UÉ Incident Communications Response Guidance Form at the plant to include site-specific target values and relevant contacts.</li><li>2.<ol style="list-style-type: none"><li>i. Install a chlorine monitor with appropriate alarms and plant inhibits post contact time, to validate adequate disinfection has been achieved and to protect water quality targets.</li><li>ii. Carry out and document daily chlorine monitoring at the reservoir's outlet until online monitoring is in place.</li></ol></li><li>3. Monitor chlorine residual across the network to ensure a minimum of 0.1 mg/L is maintained.</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 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>		