

# 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>	Rathdangan Public Supply
<b>Organisation</b>	Uisce Éireann
<b>Scheme Code</b>	3400PUB1034
<b>County</b>	Wicklow
<b>Site Visit Reference No.</b>	SV32069

Report Detail	
<b>Issue Date</b>	13/10/2025
<b>Prepared By</b>	Derval Devaney

Site Visit Detail			
<b>Date Of Inspection</b>	19/09/2025	<b>Announced</b>	Yes
<b>Time In</b>	11:00	<b>Time Out</b>	12:30
<b>EPA Inspector(s)</b>	Derval Devaney		
<b>Additional Visitors</b>			
<b>Company Personnel</b>	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 or automatic plant shutdown mechanism in the event that adequate disinfection is not achieved in the reservoir.
3. Chemical dosing pumps lacked visible service records to confirm past or scheduled maintenance.

## > Introduction

Rathdangan Public Water Supply (PWS) produces approximately 4 m<sup>3</sup>/hour (avg. 19 - 26 m<sup>3</sup>/day) serving a population of 166. The raw water source is a borehole (Rathdangan well) located off-site. Treatment provided includes disinfection using sodium hypochlorite and pH correction using sodium hydroxide 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 treatment processes at the water treatment plant were inspected in addition to the chlorine contact tank and reservoir located at the water treatment plant. The borehole off-site was not inspected.



## 1. Alarms, Inhibits & Oversight Audits 2025

		Answer
1.1	Is there a chlorine residual monitor located after contact time for verification of primary disinfection?	No
	<b>Comment</b>	
	<ol style="list-style-type: none"><li>1. The calculation sheet indicates sufficient chlorine contact time at the water treatment plant —considering the contact tank and on-site reservoir.</li><li>2. However there is no continuous chlorine residual monitor at the outlet of the reservoir to confirm the effectiveness of the disinfection process.</li><li>3. A chlorine residual sample is taken once per week at the outlet of the reservoir.</li></ol>	
		Answer
1.2	Is there a documented site specific incident response and incident escalation process?	Yes
	<b>Comment</b>	
	<ol style="list-style-type: none"><li>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.</li></ol>	
		Answer
1.3	Is suitable continuous monitoring in place to verify treatment performance?	No
	<b>Comment</b>	
	<ol style="list-style-type: none"><li>1. There is no chlorine monitor with an alarm and automatic plant shutdown located on the outlet of the reservoir on-site (when contact time has elapsed) to alert operators and prevent inadequately disinfected water entering the network.</li></ol>	
		Answer
1.4	Were online monitors within their calibration dates?	Yes
	<b>Comment</b>	
	<ol style="list-style-type: none"><li>1. All critical water quality online monitors at the water treatment plant had calibration stickers indicating that they were adequately calibrated.</li><li>2. However, the chemical dosing pumps (for sodium hypochlorite and sodium hydroxide) lacked visible service dates. While it was stated that the pumps were adequately serviced, no on site documentation was available to confirm past or upcoming maintenance.</li></ol>	
		Answer
1.5	Are suitable alarm settings in place to alert operators to deteriorating water quality or the failure of a critical treatment process?	No
	<b>Comment</b>	

1. See Q. 1.3 relating to the lack of chlorine alarms post disinfection contact time.

1.6

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

**Answer**

No

**Comment**

1. See Q. 1.3 relating to the lack of a plant shutdown mechanism post disinfection contact time.

## Recommendations

Subject	Rathdangan PWS 2025 Audit Recommendations	Due Date	13/11/2025
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><b>1. Verifying Disinfection</b><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>2. Update the UÉ Incident Communications Response Guidance Form at the plant to include site-specific target values and relevant contacts.</li><li>3. Implement a service tracking system for chemical dosing pumps, including visible labelling to confirm last maintenance, next due date, and technician details.</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>		