

# 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>	Gorey Regional Creagh
<b>Organisation</b>	Uisce Éireann
<b>Scheme Code</b>	3300PUB1512
<b>County</b>	Wexford
<b>Site Visit Reference No.</b>	SV30239

Report Detail	
<b>Issue Date</b>	20/08/2024
<b>Prepared By</b>	Joanne Creedon

Site Visit Detail			
<b>Date Of Inspection</b>	23/07/2024	<b>Announced</b>	Yes
<b>Time In</b>	11:00	<b>Time Out</b>	11:20
<b>EPA Inspector(s)</b>	Joanne Creedon		
<b>Additional Visitors</b>			
<b>Company Personnel</b>	Uisce Éireann: Denis McGrath, Neville Collier.  Wexford County Council (working in partnership with Uisce Éireann): Tom McLoughlin, John Breen, Martin Vargaese.		

## > Summary of Key Findings

1) Disinfection consists of chlorination. The audit found that the disinfection system was operating satisfactorily during the inspection.

2) Uisce Éireann should ensure that residual free chlorine concentrations in the network extremities are at least 0.1 mg/l to maintain adequate disinfection and that monitoring of residual chlorine is undertaken several times a week at different points of the network to include the network extremities.

## > Introduction

The Gorey Regional Creagh WTP produces approximately 1,780m<sup>3</sup>/d of water serving a population 7,459 (EDEN figures). The audit focused on the disinfection system at Gorey Regional Creagh WTP.

## > Supply Zones Areas Inspected

This audit assessed the chlorination disinfection system at Gorey Regional Creagh WTP.



## 1. Disinfection Audits 2024

		<b>Answer</b>
1.1	Is chlorination used for primary disinfection?	Yes
		<b>Answer</b>
1.2	Did Uisce Éireann confirm the type of chlorine disinfectant in use?	Yes
		<b>Answer</b>
1.3	Are there duty and standby chlorine dosing pumps in place?	Yes
		<b>Answer</b>
1.4	Is there automatic switchover in the event of failure of one of the chlorine dosing pumps?	Yes
		<b>Answer</b>
1.5	Is the chlorine dosing rate flow proportional?	Yes
		<b>Answer</b>
1.6	Is there a continuous residual chlorine monitor, with alarm, to verify chlorine dosing is taking place at the target level?	Yes
		<b>Answer</b>
1.7	Is there a continuous residual chlorine monitor, with alarm, at a suitable sample location after contact time has been completed?	Yes
		<b>Answer</b>
1.8	Can data trends from the online residual monitor be viewed on site?	Yes
		<b>Answer</b>
1.9	Are there low and high chlorine alarm settings on each chlorine monitor?	Yes
		<b>Answer</b>
1.10	Is there a documented alarm response procedure for responding to chlorine alarms?	Yes

		<b>Answer</b>
1.11	Have staff been trained on the chlorine alarm response procedure?	Yes

		<b>Answer</b>
1.12	Are chlorine alarms dialled out via a cascade system to allow a timely response by plant operators?	Yes

		<b>Answer</b>
1.13	Is there automatic shutdown of the supply in the event of the chlorine level dropping below the low level or rising above the high chlorine alarm setting?	Yes

		<b>Answer</b>
1.14	Are service due / monitoring instrument calibration dates for the chlorine monitors within date?	Yes

		<b>Answer</b>
1.15	Is the site specific target contact time being achieved?	Yes

		<b>Answer</b>
1.16	Is the residual chlorine level $\geq 0.1$ mg/l at the extremity of the distribution network?	No
	<b>Comment</b>	
	Records not available onsite	

		<b>Answer</b>
1.17	Is monitoring of network residual chlorine undertaken several times per week?	No
	<b>Comment</b>	
	Records kept in vehicles. Checked several times per week at the network. Records not available onsite.	

## Recommendations

<b>Subject</b>	Gorey Creagh Regional - Disinfection Audit	<b>Due Date</b>	20/09/2024
<b>Action Text</b>	<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 free chlorine concentrations in the network extremities are at least 0.1 mg/l to maintain adequate disinfection.</li><li>2. Ensure monitoring of residual chlorine is undertaken several times a week at different points of the network to include the network extremities.</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 20/09/2024 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>		