

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	Downing Bridge
Organisation	Uisce Éireann
Scheme Code	0500PUB1206
County	Cork
Site Visit Reference No.	SV29546

Report Detail	
Issue Date	28/06/2024
Prepared By	Paul Buckley

Site Visit Detail			
Date Of Inspection	29/05/2024	Announced	Yes
Time In	10:30	Time Out	11:15
EPA Inspector(s)	Paul Buckley		
Additional Visitors			
Company Personnel	Uisce Éireann: Claire Hurley, Sharon O'Dwyer, Cormac Bergin. Cork County Council (working in partnership with Uisce Éireann): Frances Whorisky, Tony Hally.		

> Summary of Key Findings

1. The Downing Bridge water treatment plant was operating satisfactorily on the day of the audit.
2. There is no residual chlorine monitor located after contact time to verify that contact time has been achieved. Contact time calculations submitted by Uisce Éireann indicate that adequate contact time is available.

> Introduction

The Downing Bridge Public Water Supply (PWS) supplies an average of 900 m³/day of water, serving a population of 1,651 people.

The supply is sourced from 1 No. borehole located adjacent to the treatment plant. Treatment consists of chlorination disinfection.

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 treatment plant and the procedures in place to ensure appropriate oversight of treatment processes.

> Supply Zones Areas Inspected

The borehole and chlorine disinfection system at the water treatment plant were inspected.



1. Management and Control

	Answer
1.1 Has the protozoal compliance log treatment requirement been identified for the water treatment plant?	No
Comment	
<p>The protozoal compliance log treatment requirement has not been identified for the water treatment plant. The sanitary survey has not been completed and no timeline for the completion of the survey was available during the audit.</p> <p><i>Cryptosporidium</i> monitoring has not been conducted for the supply.</p>	



2. Alarms, Inhibits & Oversight Audits 2024

	Answer	
2.1	Is there a chlorine residual monitor located after contact time for verification of primary disinfection?	No
Comment		
<p>The contact time calculations submitted show that sufficient contact time is achieved in the pipeline before the first customer is supplied. The chlorine residual monitor for this pipeline is located at the water treatment plant, prior to contact time being achieved.</p> <p>Monitoring of the chlorine residual in the network showed compliant results at all locations.</p>		

	Answer	
2.2	Is continuous monitoring located appropriately to verify treatment performance?	No
Comment		
<p>The chlorine residual monitor for the supply is located at the water treatment plant and not after contact time has been achieved.</p>		

	Answer	
2.3	Are suitable alarm settings in place to alert operators to deteriorating water quality or the failure of a critical treatment process?	No
Comment		
<p>The low chlorine alarm setpoint at the water treatment plant is 0.4 mg/L which is below the target chlorine residual of 0.7 mg/L.</p> <p>This is not in line with EPA guidance.</p>		

	Answer	
2.4	Were all findings of the UÉ alarm and inhibit review implemented?	No
Comment		
<p>There are two findings from the Uisce Éireann alarms and inhibits review that were yet to be implemented on the day of the audit.</p>		

Recommendations

Subject	Downing Bridge Audit Recommendations 29/05/2024	Due Date	29/07/2024
Action Text	<p>Uisce Éireann is responsible for ensuring a clean and wholesome supply of drinking water and should implement the following recommendation(s) without delay.</p> <ol style="list-style-type: none">1. Install a chlorine monitor after contact time to verify that adequate disinfection is being achieved.2. Complete the implementation of the findings of the alarms and inhibits review.3. i) Confirm the protozoal log treatment requirement for the supply; (ii) confirm how the protozoal log deficit will be addressed and (iii) undertake monitoring for <i>Cryptosporidium</i> as per the Uisce Éireann <i>Rationale for Determining the Frequency of Cryptosporidium in Public Water Supplies</i>.4. Review the low chlorine alarm settings for the chlorine monitor to ensure that the settings reflect the minimum free chlorine concentration required at the contact time verification point as per the site specific contact time calculation sheet. <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 29/07/2024 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>		