

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	Cork Harbour and City
Organisation	Uisce Éireann
Scheme Code	0500PUB3401
County	Cork
Site Visit Reference No.	SV33231

Report Detail	
Issue Date	05/11/2025
Prepared By	Regina Campbell

Site Visit Detail			
Date Of Inspection	16/10/2025	Announced	Yes
Time In	12:00	Time Out	13:00
EPA Inspector(s)	Regina Campbell		
Additional Visitors			
Company Personnel	Uisce Éireann: Killian Twomey Cork County Council: Brian O' Flynn		

> Summary of Key Findings

1. On the 15/10/25 there was a discharge of sludge into the River Lee from the Inniscarra drinking water sludge treatment plant. An estimated volume of 100 m3 of sludge with turbidity levels of up to 100 NTU entered the river for approximately 40 minutes.
2. The discharge occurred due to the opening of a wrong valve on SCADA by the operator on duty. Once the operator became aware of the discharge, it was immediately stopped.
3. The IFI were notified of the incident on 15/10/25. There were no reports of fish mortalities.

> Introduction

The Cork Harbour and City Public Water Supply (PWS) serves a population of 143,555 with an average output of 64,135 m3/day (EPA EDEN figures 2025). Raw water is abstracted from the River Lee at the Inniscarra Lake. Treatment at the Inniscarra Water Treatment Plant (WTP) includes coagulation, flocculation, clarification, filtration, disinfection, final pH correction, fluoridation and sludge treatment.

Backwash water and clarifier sludge are treated at the adjacent sludge treatment plant. The focus of the audit was on the discharge of sludge incident which was notified to the EPA on 16/10/25.

> Supply Zones Areas Inspected

The audit took place at the drinking water sludge treatment plant. The discharge point into the River Lee was also inspected.



1. Site Specific Issues

1.1

		Answer
Was the sludge incident suitably alerted to plant operators ?		Yes
Comment		
<p>1. Between 16.00 and 16.40 on 15/10/25 there was a discharge of an estimated 100 m3 of drinking water treatment plant sludge to the River Lee, at a point approximately 400m downstream of Inniscarra Dam.</p> <p>2. Due to operational issues being experienced at the sludge treatment plant, thickened sludge was being temporarily stored in one of the Backwash Water Holding Tanks. When the contents of this tank were being pumped across to the Sludge Holding Tank to be tankered away from site, the incorrect valve was manually opened on SCADA which led to the thickened sludge discharging through the backwash supernatant discharge line directly to the river. As the valve was opening in Manual mode, the automatic shut down on high turbidity (>10NTU) did not operate. The incident lasted about 40 minutes and SCADA trends viewed at the site showed that the turbidity of the discharge was up to 100 NTU.</p> <p>3. The valve was closed by the operator as soon as the error was noticed and the Inniscarra Water Treatment Plant Manager was notified immediately.</p> <p>4. The IFI were notified on 15/10/25. There were no reports of fish mortalities.</p> <p>5. Records viewed showed that drinking water treatment operations at Inniscarra drinking water treatment plant were unaffected. Records also showed that the raw water abstraction monitors for the Lee Road Water Treatment Plant (over 10km downstream) did not show any deterioration in raw water quality as a result of the incident.</p> <p>6. The discharge point into the river was inspected during the audit and no plume was observed.</p> <p>7. Uisce Éireann said that they are undertaking a review of the incident and operations at the sludge treatment plant. The feasibility of installing a turbidity probe with an automatic shutdown on high turbidity, at the discharge point into the river is being investigated. Other corrective actions are also being investigated.</p>		

Recommendations

Subject	Inniscarra Sludge Incident Recommendations	Due Date	05/12/2025
Action Text	<p>Uisce Éireann is responsible for ensuring a clean and wholesome supply of drinking water and should implement the following recommendations without delay.</p> <ol style="list-style-type: none">1. Install a turbidity probe with automatic shutdown on high turbidity at a suitable location on the discharge pipe from the plant. The shutdown should operate when the valve is opened in automatic or manual mode.2. Review the current capacity and operations at the sludge treatment plant and identify any improvements required.3. Submit details of further corrective actions identified to prevent a similar incident occurring. <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 05/12/2025 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>		