

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	Carrick-On-Suir (Lingaun River)
Organisation	Uisce Éireann
Scheme Code	2900PUB0108
County	Tipperary
Site Visit Reference No.	SV32839

Report Detail	
Issue Date	31/07/2025
Prepared By	David O'Malley

Site Visit Detail			
Date Of Inspection	18/07/2025	Announced	Yes
Time In	10:30	Time Out	12:00
EPA Inspector(s)	David O'Malley		
Additional Visitors			
Company Personnel	Uisce Éireann: Denis McGrath, Noel Maher and Melissa Devane. Tipperary County Council (working in partnership with Uisce Éireann): Martin Ryan.		

> Summary of Key Findings

1. The Carrick On Suir (Lingaun River) water treatment plant was shutdown due to elevated turbidity on the 09/06/2025. Following consultation with the HSE a Boil Water Notice was put in place on the 09/06/2025. The Boil Water Notice was rescinded on the 18/06/2025.
2. The elevated turbidity was caused by the incorrect operation of sludge bleeding in the settlement tanks at the water treatment plant. Turbidity alarms and shutdowns were not reinstated after restarting the plant to alert operators of increased turbidity and to prevent elevated turbidity entering the final water supply.

> Introduction

The Carrick On Suir (Lingaun River) Public Water Supply serves a population of 4,170 and produces on average 1,363 m³/d of treated water. The plant is sourced by the Linguan River. Treatment includes coagulation, flocculation, clarification, filtration, disinfection and fluoridation.

The audit was undertaken in response to elevated turbidity in the final treated water on the 08/06/2025 to the 09/06/2025 which lead to a subsequent Boil Water Notice that was put in place affecting a population of 4,170. The Boil Water Notice was rescinded on 18/06/2025.

> Supply Zones Areas Inspected

The audit consisted of a review of the incident response to the elevated turbidity at the water treatment plant.



1.1

Was the incident suitably alerted to the plant operators, escalated and managed in order to maintain water quality and protect public health?

Answer

No

Comment

Incident Investigation:

1. The Carrick On Suir (Lingaun River) water treatment plant (WTP) shut down on high combined turbidity (above 0.3NTU) after the rapid gravity filters (RGF) at approximately 15:30 on the 07/06/2025. The plant was restarted at 17:00 and turbidity levels were satisfactory. On the 08/06/2025 the plant shut down on high turbidity at approximately 10:00. The operator arrived at the WTP at approximately 11:00 and disabled the turbidity alarm and restarted the plant when the turbidity levels came back to satisfactory levels. On Monday 09/06/2025, the plant operator arrived at 08:00 and observed high turbidity in the RGF and shutdown the plant. The turbidity alarms were not reinstated on the 08/06/2025 and turbidity trends show that the turbidity started to rise after 15:00 on the 08/07/2025.

2. The relief operator working from the 07/06/2025 to the 09/06/2025 was covering for the regular operator who was on annual leave. On 09/06/2025 with the assistance of another operator the RGF were backwashed, turbidity monitors were cleaned and the sludge bleeding on the settlement tanks was increased. From the 07/06/2025 to 09/06/2025 the rate at which the sludge was bleed in the settlement tanks was not increased accordingly to remove excess sludge. Increased bleeding of the sludge blankets is done to manage the level of material in the settlement tanks and in turn lowering turbidity levels.

3. Uisce Éireann contacted the HSE on 09/06/2025 and following consultation a Boil Water Notice was put in place on the 09/06/2025 affecting a population of 4,170. *Cryptosporidium*, Giardia and microbiological tests conducted on 11/06/2025 returned clear and microbiological tests conducted on 13/06/2025 returned clear results. The turbidity in the final water was below 0.1 NTU on 11/06/2025 and 13/06/2025 and continued to stay within satisfactory levels. Chlorine residuals were within the applicable range. The Boil Water Notice was rescinded on 18/06/2025.

4. On the day of the audit turbidity levels were at satisfactory levels.



2. Supply on the Remedial Action List

2.1

Is the Action Programme on track to meet the Remedial Action List completion date?

Answer

Yes

Comment

1. The Carrick On Suir (Lingaun) WTP is on the EPA Remedial Action List (RAL) under the category of inadequate treatment for *Cryptosporidium*. Uisce Éireann provided an interim progress report on the RAL upgrade works for the WTP.

The main work items completed at the WTP are summarised as follows:

- Groundwater trial wells have been drilled with quantity and quality testing completed in Q4 2024 showing positive results.

Quality testing is continuing until Q4 2025. The main work items to be completed at the water treatment plant are summarised as follows:

- Detailed design is currently ongoing, future treatment upgrades will depend on quantity and quality testing.
- Planning permission application to be submitted in Q4 2025.
- Construction works are anticipated to commence in Q2 2026 and be completed by Q1 2027.



3. Site Specific Issues

3.1

Is there a documented site specific incident response?

Answer

No

Comment

1. The documented site specific incident response did not include high ammonia set points for the raw water at intake.

3.2

Is there a procedure in place for plant operators to check and sign-off that all alarms and shutdowns have been correctly re-set on completion of any maintenance work?

Answer

No

Comment

1. There is no procedure in place to ensure alarms and shutdowns are enabled after plant operators complete maintenance work.

2. The sludge in the 2 settlement tanks are bleed on a set time daily. The timing is adjusted accordingly depending on sludge build up and rising turbidity. Changes in raw water turbidity and colour influence how often the settlement tanks are bleed. The relief operator was not trained accordingly in the operation of the settlement tanks. The high turbidity alarms and shutdowns were not reinstated on the 08/06/2025 after restarting the plant. This caused increased turbidity leaving the settlement tanks and in turn higher turbidity entering the final water.

Recommendations

Subject	Carrick On Suir (Lingaun River) - Audit Report	Due Date	01/09/2025
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. Ensure that all staff, including relief staff and new staff, are adequately trained to manage and control the operation of the water treatment plant and that records of such training are maintained. Adequate supervision should be maintained at all times. 2 (i) Ensure there is a procedure in place for operators to check and sign-off that all alarms have been correctly re-set on completion of any maintenance work. (ii) Undertake regular checks of all alarms and shutdowns to ensure they are correctly enabled. 3. Ensure the documented site specific incident response includes high ammonia set points for the raw water intake. 4. Complete the plant upgrade works as per the Remedial Action Programme completion date of March 2027. <p>Follow-Up 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 01/09/2025 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>		