

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	Rosenallis PWS
Organisation	Uisce Éireann
Scheme Code	1600PUB1094
County	Laois
Site Visit Reference No.	SV32492

Report Detail	
Issue Date	01/05/2025
Prepared By	Derval Devaney

Site Visit Detail			
Date Of Inspection	17/04/2025	Announced	Yes
Time In	10:20	Time Out	11:50
EPA Inspector(s)	Derval Devaney Ruth Barrington		
Additional Visitors			
Company Personnel	Uisce Éireann (UÉ): Linda Doran, Maria Lloyd. Laois County Council (working in partnership with UÉ): Paul Fogarty, Conor Ryle, Tom O'Carroll.		

> Summary of Key Findings

1. The management and operation of the Rosenallis PWS has significantly improved since the EPA's audit in 2022. Such completed works include: (i) well head protection and installation of turbidity monitors, (ii) amendments to the disinfection system to enable verification of the treatment process at the plant, and (iii) reservoir inspection and cleaning.
2. Some recommendations remain outstanding from the 2022 audit. These include: (i) confirmation that local landowners have been written to regarding the *European Union (Good Agricultural Practise for the Protection of Waters) 2022, as amended*, (ii) the commencement of raw water monitoring, and (ii) updates to the plant's incident response procedure.

> Introduction

Rosenallis Public Water Supply (PWS) serves a population of 219 and produces 31 m3/day (figures from EDEN). The plant sources its water from three boreholes. Two of the boreholes are located at the Water Treatment Plant (WTP) and a third is located approximately 300m away on the verge of a main road. Treatment at the plant consists of chlorination of the combined water from the three boreholes.

The audit was undertaken to assess Uisce Éireann's performance in producing clean and wholesome water and its progress in addressing the recommendations of the EPA's audit undertaken on 04/11/2022.

> Supply Zones Areas Inspected

The audit included an inspection of the three borehole sources for the supply and the treatment processes and controls in place at Rosenallis water treatment plant. The treated water reservoir off-site was not visited.



1. Source Protection

1.1

		Answer
	Is the abstraction source(s) adequately protected against contamination?	Yes
Comment		
<ol style="list-style-type: none">1. Rosenallis WTP is fed from three boreholes. BH1 is located approximately 300m away on the side of a road, BH2 is located in the pumphouse of the treatment plant, and BH3 is located beside the treatment plant.2. Significant upgrade works were carried out at each borehole to fulfill the recommendations of the EPA's 2022 audit report. Works included replacing the kiosk at BH1, capping BH2 and installing a kiosk at BH3 and improving the security fencing around each source.3. On the day of the audit UÉ or Laois County Council could not provide dates of when landowners were last contacted concerning setback distances. This matter was also raised at the EPA's 2022 audit.		



2. Management and Control

2.1

Is the water treatment plant resilient enough to cope with significant variations in raw water quality or demand?

Answer

Yes

Comment

1. On the day of the audit the plant appeared to be coping with the water presented. However it is unclear if the WTP is resilient enough to cope with the raw water quality, as UÉ does not have a raw water monitoring programme in place for the groundwater sources.
2. Turbidity monitors were installed at each of the three sources since the EPA's 2022 audit and they are trending on SCADA and linked to an alarm. Turbidity on the day of the audit was 0.277 NTU at BH1, 0.063 NTU at BH2 and 0.098 NTU at BH3. The final water combined turbidity monitor read 0.125 NTU.
3. It was stated that iron and manganese can be elevated in the raw water, particularly at BH1, leading to elevated turbidity in that raw water source.

2.2

Has the protozoal compliance log treatment requirement been identified for the water treatment plant?

Answer

No

Comment

1. UÉ has identified from a desktop review and model that the protozoal log treatment requirement for the plant is < 1 and defaults to 3 Log. However, the log requirement is to be confirmed using further evidence (raw water data).
2. Raw water monitoring is scheduled to commence in 2025. UÉ plan to have a monitoring start date by Q2, 2025.

2.3

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

Answer

No

Comment

1. While there is an alarm to alert staff of a high chlorine residual in the final treated water, there does not appear to be any plant shutdown associated with a high chlorine residual reading in the final water.



3. Site Specific Issues

3.1

Is there a documented site specific incident response and incident escalation process?

Answer

Yes

Comment

1. While the incident response procedure at the plant was updated since the EPA's audit in 2022 to include site specific contacts, it did not contain site-specific parametric target values. For example it stated the minimum chlorine residual target was 0.5 mg/l when it is 0.3 mg/l.

Recommendations

Subject	Rosenallis 2025 Audit Recommendations	Due Date	02/06/2025
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. Confirm local landowners have been written to in relation to their obligations under the <i>European Union (Good Agricultural Practice for the Protection of Waters) 2022, as amended</i>. 2. Raw Water monitoring: <ol style="list-style-type: none"> i. Confirm when raw water monitoring has commenced, to inform the protozoal log treatment requirement for the plant; ii. Include iron and manganese in the raw water monitoring programme. 3. Install a high chlorine plant inhibit linked to the final water chlorine monitor at the plant. 4. Update the incident response procedure at the plant to include site-specific target values. <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 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>		