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	Tullohea
Organisation	Uisce Éireann
Scheme Code	2900PUB0124
County	Tipperary
Site Visit Reference No.	SV32681

Report Detail

Issue Date	04/07/2025
Prepared By	Joanne Creedon

Site Visit Detail

Date Of Inspection	17/06/2025	**Announced**	Yes
Time In	10:27	**Time Out**	11:00
EPA Inspector(s) **Additional Visitors**	Joanne Creedon		
Company Personnel	Uisce Éireann: Denis McGrath, Melissa Devane, Noel Maher, Eamon O' Gorman. Tipperary County Council (working in partnership with Uisce Éireann): Finbarr Kelly.		

Summary of Key Findings

1. Disinfection consists of chlorination and ultraviolet (UV).

2. Chlorine monitors require up to date service/calibration.

3. Monitoring of the network residual chlorine is currently not being carried out.

Introduction

The Tullohea water treatment plant (WTP) produces approximately 252 m3/d of water serving a population of 406. This audit is an inspection of the Tullohea WTP and is focused on the disinfection system.

Supply Zones Areas Inspected

This audit assessed the chlorination and UV disinfection system at the Tullohea WTP.

1. Disinfection Audits 2025

		Answer
1.1	Is chlorination used for primary disinfection?	No
	Comment	
	UV is primary.	

		Answer
1.2	Did Uisce Éireann confirm the type of chlorine disinfectant in use?	Yes

		Answer
1.3	Are there duty and standby chlorine dosing pumps in place?	Yes

		Answer
1.4	Is there automatic switchover in the event of failure of one of the chlorine dosing pumps?	Yes

		Answer
1.5	Is the chlorine dosing rate flow proportional?	Yes

		Answer
1.6	Is there a continuous residual chlorine monitor, with alarm, to verify chlorine dosing is taking place at the target level?	Yes

		Answer
1.7	Is there a continuous residual chlorine monitor, with alarm, at a suitable sample location after contact time has been completed?	Yes

		Answer
1.8	Can data trends from the online residual monitor be viewed on site?	Yes

		Answer
1.9	Are there low and high chlorine alarm settings on each chlorine monitor?	Yes

		Answer
1.10	Is there a documented alarm response procedure for responding to chlorine alarms?	Yes

		Answer
1.11	Have staff been trained on the chlorine alarm response procedure?	Yes

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

		Answer
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

		Answer
1.14	Are service due / monitoring instrument calibration dates for the chlorine monitors within date?	No

		Answer
1.15	Is the site specific target contact time being achieved?	Yes

		Answer
1.16	Is the residual chlorine level ≥ 0.1 mg/l at the extremity of the distribution network?	No
	Comment	
	No records currently.	

		Answer
1.17	Is monitoring of network residual chlorine undertaken several times per week?	No
	Comment	

No records currently.

		Answer
1.18	Is UV treatment used for primary disinfection?	Yes

		Answer
1.19	Are there duty and standby UV units in operation?	Yes

		Answer
1.20	Is there automatic changeover between the duty and standby UV units?	Yes

		Answer
1.21	Is there automatic shut-off of the supply in the event of UV units failing or operating outside of their validated range?	Yes

		Answer
1.22	Is there continuous monitoring of the UV units to verify operation within validation range at all times?	Yes

		Answer
1.23	Can data trends from the online UV monitor(s) be viewed on-site?	Yes

		Answer
1.24	Is there a documented alarm response procedure for responding to UV alarms?	Yes

		Answer
1.25	Have staff been trained on the UV alarm response procedure?	Yes

		Answer

1.26	Are UV alarms dialled out via a cascade system to allow a timely response by plant operators?	Yes

		Answer
1.27	Are service due / monitoring instrument calibration dates for the UV units within date?	Yes

		Answer
1.28	Is the UV disinfection system validated to an appropriate international standard ?	Yes

		Answer
1.29	Did UÉ confirm that the UV disinfection system is operating within the validated range?	Yes

Recommendations

Subject	Tullohea Disinfection Audit	**Due Date**	04/08/2025
Action Text	**Uisce Éireann is responsible for ensuring a clean and wholesome supply of drinking water and should implement the following recommendations without delay.** 1. Ensure that the chlorine monitors are regularly serviced and calibrated in accordance with the manufacturer's instructions. 2. Ensure that residual free chlorine concentrations in the network extremities are at least 0.1 mg/l to maintain adequate secondary disinfection. 3. Ensure monitoring of residual chlorine is undertaken several times a week at different points of the network to include the network extremities. **Actions required by Uisce Éireann** 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. Uisce Éireann should submit a report to the EPA on or before 04/08/2025 detailing the actions taken and planned, with timescales, to close out the above recommendations. The EPA advises that the findings and recommendations from this audit report should, where relevant, be addressed at other public water supplies.		