

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	Ballymacoda
Organisation	Uisce Éireann
Scheme Code	0500PUB2501
County	Cork
Site Visit Reference No.	SV35012

Report Detail	
Issue Date	10/04/2026
Prepared By	Pauline Gillard

Site Visit Detail			
Date Of Inspection	06/03/2026	Announced	No
Time In	11:30	Time Out	12:15
EPA Inspector(s)	Pauline Gillard Patrick Kenny		
Additional Visitors			
Company Personnel	Uisce Éireann: Sharon O'Dwyer, Claire Kelly, M Hassan Shabbir, Dominic Mc Evoy and Donal Fenton. Cork County Council: Pdraig Griffin and Killian Tate.		



Summary of Key Findings

1. Disinfection consists of primary UV. The audit found that the disinfections system was operating correctly at the time of inspection.

Uisce Éireann should submit a report to the EPA on or before 10/05/2026 detailing the actions taken and planned, with timescales, to close out the recommendations in this audit report.



Introduction

Ballymacoda PWS produces approximately 99 m³/day of water serving a population of 406 (EDEN figures). The audit focused on the disinfection system at Ballymacoda WTP.



Supply Zones Areas Inspected

The audit assessed the Chlorination and UV disinfection system at Ballymacoda PWS.



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

1.2			Answer
	Did Uisce Éireann confirm the type of chlorine disinfectant in use?		Yes
	Comment		
	1. 5% & 10% Sodium Hypochlorite		

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

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

1.5			Answer
	Is the chlorine dosing rate flow proportional?		Yes

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

1.7			Answer
	Is there a continuous residual chlorine monitor, with alarm, at a suitable sample location after contact time has been completed?		No
	Comment		

1. UV is primary disinfection.

		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?	Yes
		Answer
1.15	Is the site specific target contact time being achieved?	Not Applicable
		Answer
1.16	Is the residual chlorine level ≥ 0.1 mg/l at the extremity of the distribution network?	Yes

		Answer
1.17	Is monitoring of network residual chlorine undertaken several times per week?	No
	Comment	
	1. Monitoring of the network residual chlorine is carried out once per week.	
	Recommendation:	
	1. Uisce Éireann should ensure monitoring of residual chlorine is undertaken several times a week at different points of the network to include the network extremities.	

		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?	No
	Comment	
	1. There is no automatic shut-off of the UV units triggered in the event the UV units operate outside their validated range.	
	Recommendation:	
	2. Uisce Éireann should ensure there is automatic plant shutdown in the event the UV units drop outside of the validated range.	

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

		Answer
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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

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 is responsible for ensuring a clean and wholesome supply of drinking water and should implement the recommendations raised in this report without delay.

Response to Audit Report

Uisce Éireann should submit a report to the EPA on or before the date specified in the Summary of Key Findings detailing the actions taken and planned, with timescales, to close out the recommendations in this audit report.

The EPA advises that the findings and recommendations from this report should, where relevant, be addressed at other public water supplies.

Publication of Reports

Audit reports are published to the EPA's website, www.epa.ie, typically 1 month after the audit report is issued to Uisce Éireann.