

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	Portmagee PWS 064H
Organisation	Uisce Éireann
Scheme Code	1300PUB1055
County	Kerry
Site Visit Reference No.	SV29536

Report Detail	
Issue Date	10/04/2024
Prepared By	Regina Campbell

Site Visit Detail			
Date Of Inspection	15/03/2024	Announced	Yes
Time In	11:30	Time Out	12:50
EPA Inspector(s)	Regina Campbell		
Additional Visitors			
Company Personnel	Uisce Éireann: Tommy Roche Kerry County Council (working in partnership with Uisce Éireann): Seamus O'Mahony, Adrian O'Sullivan, Brian Lennon.		

> Summary of Key Findings

1. The Portmagee water treatment plant was operating satisfactorily on the day of the audit and has appropriate alarms and shutdowns in place.
2. An Uisce Éireann Incident Communications Response Guidance Form with up to date site specific contacts and trigger levels was not displayed at the water treatment plant.
3. The supply is sourced from four boreholes and upgrade works are necessary to ensure that all boreholes are capped and sealed and are housed appropriately.

> Introduction

The Portmagee Public Water Supply (PWS) supplies an average of 471 m³/day and serves a population of 691 in the Portmagee, Knightstown and Valentia Island areas.

The supply is sourced from 4 no. boreholes with the combined boreholes undergoing treatment comprising of UV disinfection (primary), chlorination disinfection (secondary) and final water pH correction using caustic soda.

The EPA EDEN system refers to a well at Knightstown also but it was confirmed at the audit that this well is no longer in use.

> Supply Zones Areas Inspected

The 4 boreholes, UV and chlorination disinfection systems were inspected.



1. Source Protection

	Answer
1.1	Is the abstraction source(s) adequately protected against contamination? Comment The supply is sourced from 4 no. boreholes. The boreholes were inspected during the audit and a number of shortcomings were found including the following: <ol style="list-style-type: none">1. Boreholes 1 and 2 were not capped.2. Borehole 2 was redrilled last year and the wellhead is exposed with no protection surrounding it.3. Access to the wellheads of boreholes 1, 3 and 4 is poor and should be upgraded. Kerry County Council said that installation of a turbidity monitor and run to waste facilities on each borehole is also planned. Borehole 3 is prone to rising turbidity during heavy rainfall events and Borehole 3 is shutdown if turbidity in the combined borehole water reaches 0.7 NTU.



2. Disinfection

2.1

Is there a suitable monitoring frequency for residual chlorine in the network with records available?

Answer

No

Comment

Records submitted after the audit of network chlorine monitoring showed a gap in monitoring since 18/02/2024 which was attributed to a lack of additional staff available to do the monitoring during staff leave.

Records showed residual chlorine levels were all greater than 0.1 mg/l in the network which is satisfactory.



3. Reservoirs and Distribution Networks

		Answer
3.1	Is treated water in tanks and reservoirs suitably protected against contamination?	No
Comment		
There is a crack in the hatch on the 60 cubic meter underground treated water storage tank at the plant.		



4. Alarms, Inhibits & Oversight Audits 2024

		Answer
4.1	Is there a documented site specific incident response and incident escalation process?	No
Comment		
The Uisce Éireann incident escalation flowchart displayed at the water treatment plant does not contain up to date site specific contacts and trigger levels.		

		Answer
4.2	Were online monitors within their calibration dates?	Yes
Comment		
All monitors inspected were within calibration dates. An in date calibration certificate was provided for the UVT monitor but a sticker was not displayed on the monitor with the relevant data.		

		Answer
4.3	Is there a documented alarm response procedure?	No
Comment		
There were no formal site specific procedures available at the audit setting out how alarms are responded to.		

Recommendations

Subject	Portmagee Audit Recommendations	Due Date	10/05/2024
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. Upgrade the boreholes to ensure that i) they are capped and sealed and that the wellheads are protected with suitable access for people and machinery in accordance with EPA Advice Note no. 14: Borehole Construction and Wellhead Protection; ii) there is a continuous turbidity monitor with alarm on each borehole source to alert the operator to any changes in the raw water quality; iii) there are run to waste facilities on each borehole.2. Ensure that the Uisce Éireann Incident Communications Response Guidance form with site specific information including up to date contacts for escalation and relevant trigger levels protecting critical processes at the plant is displayed at the Portmagee water treatment plant and that staff are trained in its use.3. Ensure that i) there are formal site specific procedures setting out how alarms are responded in order to protect water quality and public health and ii) training is provided to all relevant staff on the procedures.4. Ensure that the calibration sticker for the UVT monitor is displayed.5. Ensure that all openings on the reservoirs are secured against ingress of animals or deliberate introduction of any contaminant or acts of vandalism.6. Ensure that monitoring of residual chlorine is undertaken at representative locations in the network several times a week. <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 10/05/2024 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>		