

# 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	
<b>Name of Installation</b>	Kilbrien
<b>Organisation</b>	Uisce Éireann
<b>Scheme Code</b>	3100PUB1104
<b>County</b>	Waterford
<b>Site Visit Reference No.</b>	SV28256

Report Detail	
<b>Issue Date</b>	01/11/2023
<b>Prepared By</b>	Paul Buckley

Site Visit Detail			
<b>Date Of Inspection</b>	16/10/2023	<b>Announced</b>	Yes
<b>Time In</b>	10:55	<b>Time Out</b>	12:00
<b>EPA Inspector(s)</b>	Paul Buckley Regina Campbell		
<b>Additional Visitors</b>			
<b>Company Personnel</b>	Uisce Éireann: Maura Phelan, Pat Duggan Waterford City and County Council (working in partnership with Uisce Éireann): David Whelan, Richie Hayes, David Hourigan		

## > Summary of Key Findings

1. The plant was operating satisfactorily on the day of the audit.
2. Persistent low pH is an issue on the supply. While there is a proposed action programme to address the issue, there is no completion date available.

## > Introduction

The Kilbrien Public Water Supply (PWS) supplies an average of 38 m<sup>3</sup>/day of water, serving a population of 81. The source for the supply is a borehole, producing an average of approximately 2 m<sup>3</sup>/hour. Treatment consists of ultraviolet (UV) disinfection and chlorination. UV treatment is not listed as a type of treatment in the supply on the EPA EDEN system.

The audit was undertaken to assess Uisce Éireann's performance in producing clean and wholesome water with a focus on the alarms and inhibits in place at the water treatment plant (WTP) and the procedures in place to ensure appropriate oversight of treatment processes.

## > Supply Zones Areas Inspected

The borehole, UV disinfection system and chlorination dosing system at the water treatment plant were inspected.



## 1. Source Protection

	Answer	
1.1	Is the abstraction source(s) adequately protected against contamination?	No
<b>Comment</b>		
<p>Raw water is obtained from 1 no. borehole located inside of the pumphouse at the Water Treatment Plant (WTP) which is located within the locked and fenced compound.</p> <p>The borehole is protected by a concrete bund structure however the area adjacent to the dip tube in the borehole was not adequately sealed.</p> <p>Landuse in the immediate vicinity comprises of agricultural land. Uisce Éireann and Waterford City and County Council could not confirm when the local landowners were written to in relation to their obligations under the European Union (Good Agricultural Practice for Protection of Waters) Regulations 2022.</p>		



## 2. Management and Control

		Answer
2.1	Are instrument calibrations within date?	No
<b>Comment</b>		
During the audit it was noted the chlorine dosing pumps did not have adequate calibration stickers displayed. The next "calibration due by" date was not shown on the label.		



### 3. Drinking Water Quality

3.1

	Answer
Have relevant failures to comply with the requirements of the European Union (Drinking Water) Regulations 2023 been notified to the EPA?	No
<b>Comment</b>	
<p>1. Manganese: There is a persistent manganese issue in the network monitoring results for the supply and all failures to date have been notified to the EPA.</p> <p>Uisce Éireann indicated during the audit the the most recent round of monitoring, taken in the week prior to the audit, returned a result of 48 mg/L, which is compliant with the parametric value set out in the Drinking Water Regulations 2023.</p> <p>While there is a proposed action programme to address the issue and ensure ongoing compliance, there is no completion date available.</p>	
<p>2. pH: There is a persistent low pH issue in the treated water for this supply.</p> <p>The supply is on the Uisce Éireann National pH file, however no timeline for the completion of the required actions was available on the day of the audit.</p>	

## Recommendations

<b>Subject</b>	Kilbrien PWS Audit Recommendations 16/10/2023	<b>Due Date</b>	01/12/2023
<b>Action Text</b>	<p><b>Uisce Éireann is responsible for ensuring a clean and wholesome supply of drinking water and should implement the following recommendations without delay.</b></p> <ol style="list-style-type: none"><li>1. a) Continue to report pH exceedances as part of the Uisce Éireann National pH file updates submitted to the EPA, and b) provide details of the remedial actions required to restore compliance with the pH parametric value, including timelines.</li><li>2. a) Continue to undertake regular manganese monitoring in the network and notify the EPA of any failure to comply with the parametric value on CRM in a timely manner, and b) provide an action programme for the restoration and maintenance of compliance with the manganese parametric value, to include options for future flushing regime and the feasibility of providing additional processes for manganese removal at Kilbrien WTP.</li><li>3. Ensure the borehole is adequately capped. Uisce Éireann should have regard to EPA Advice Note No. 14: Borehole Construction and Wellhead Protection when carrying out these works.</li><li>4. Ensure all plant monitors are calibrated in accordance with manufacturers instructions, and clearly labelled to show the date of calibration and the next 'calibration due by' date.</li><li>5. Liaise with Waterford City and County Council to ensure that local landowners have been written to in relation to their obligations under the European Union (Good Agricultural Practice for Protection of Waters) Regulations 2022 as amended.</li><li>6. Update EDEN with the correct supply volume, supply and disinfection type in place at the water treatment plant.</li></ol> <p><b>Actions required by Uisce Éireann</b></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 01/12/2023 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>		