

# 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>     | Obriens Bridge PWS |
| <b>Organisation</b>             | Uisce Éireann      |
| <b>Scheme Code</b>              | 0300PUB1020        |
| <b>County</b>                   | Clare              |
| <b>Site Visit Reference No.</b> | SV34821            |

| Report Detail      |                 |
|--------------------|-----------------|
| <b>Issue Date</b>  | 20/03/2026      |
| <b>Prepared By</b> | Orla Harrington |

| Site Visit Detail          |   |                  |       |
|----------------------------|---|------------------|-------|
| <b>Date Of Inspection</b>  | 17/02/2026  | <b>Announced</b> | Yes   |
| <b>Time In</b>             | 10:30   | <b>Time Out</b>  | 12:00 |
| <b>EPA Inspector(s)</b>    | Orla Harrington<br>Maeve McHugh   |                  |       |
| <b>Additional Visitors</b> |   |                  |       |
| <b>Company Personnel</b>   | Uisce Éireann: Des O Halloran, Liam Honan, Tommy Roche, Flan Real.<br><br>Clare County Council (working in partnership with Uisce Éireann): Damian Madden, Kieran McNamara. |                  |       |

## > Summary of Key Findings

1. While gathering trend data for the EPA audit, graphed turbidity results were reviewed by Uisce Éireann and it was observed that turbidity spikes in excess of 1 NTU were detected from 30/12/2025 to 19/01/2026 at O'Brien's Bridge water treatment plant. There is an automatic shutdown linked to a turbidity alarm setpoint of 1 NTU. The audit found that the high turbidity alarm and shutdowns had been disabled at the time of the incident.
2. The UV disinfection system was operating outside of its validated range from 15/01/2026 and 18/01/2026. The alarms and inhibits on the UV unit had been turned off and as a result, the water treatment plant did not automatically shutdown in response to the UV unit dropping outside of its validated range.
3. The incidents were not reported to the HSE or the EPA when they occurred. The failure by Uisce Éireann to report these incidents prevented the HSE in determining the potential risk to consumer health on the O'Brien's Bridge supply, and also prevented any timely actions to protect consumer health. The audit found that the incident was not managed or escalated appropriately due to lack of oversight, alarms and appropriate operational controls.
4. The plant was operating satisfactorily on the day of the audit.

***Uisce Éireann should submit a report to the EPA on or before 20/04/2026 detailing the actions taken and planned, with timescales, to close out the eight recommendations in this audit report.***

## > Introduction

O'Brien's Bridge Public Water Supply (PWS) produces approximately 514 m<sup>3</sup>/day serving a population of 973 in Montpelier, Co. Limerick and Bridgetown and O'Brien's Bridge, Co. Clare. Raw water is abstracted from one borehole located just outside the boundary of the water treatment plant (WTP) in Montpelier, Co Limerick, but is managed by Clare County Council and Uisce Éireann. Treatment consists of primary disinfection using ultraviolet (UV) treatment and secondary disinfection by chlorinating the supply with sodium hypochlorite. The treatment reported on EDEN is incorrect and should be updated.

This audit was carried out in response to the notification by Uisce Éireann to the EPA on 12/02/2026 of elevated turbidity in excess of 1 NTU at the O'Brien's Bridge water treatment plant (WTP) between 30/12/2025 to 19/01/2026.

## > Supply Zones Areas Inspected

The borehole and the treatment processes on-site were inspected.



## 1. Incident Management

1.1

|   | Answer |
|---|--------|
| Was the incident suitably alerted to the plant operators, escalated and managed in order to maintain water quality and protect public health?   | No     |
| <b>Comment</b>  |        |
| <p>1. On 12/02/2026 the EPA was notified by Uisce Éireann of an incident relating to elevated turbidity trends, with turbidity spikes above 1 NTU in final water between 30/12/2025 and 19/01/2026. Uisce Éireann only became aware of the elevated turbidity trends when gathering data for an EPA audit. The alarms and inhibits in place for turbidity were disabled the end of December 2025 without prior approval or communication with Uisce Éireann. The WTP did not shut down in response to elevated turbidity.</p> <p>2. Trend data submitted to the EPA subsequent to the audit, shows that UVT had dropped below the minimum 75.5% (at maximum flow of 21.9m<sup>3</sup>/hr) required for validated UV treatment between 15/01/2026 and 18/01/2026. The UV unit is alarmed and set to shutdown at 80% UVT, however the WTP did not automatically shutdown in response to the UV unit dropping outside of its validated range. This meant that the barrier to <i>Cryptosporidium</i> entering the supply had failed during that time. The validated operating range is a minimum of 75.5% UVT and 73 W/m<sup>2</sup> UVI for flows up to 21.9 m<sup>3</sup>/hr. The UVI trend data submitted was not informative as the scale appeared incorrect and it was not possible to assess whether the UVI had dropped below the minimum 73 W/m<sup>2</sup> UVI.</p> <p>3. The failure by Uisce Éireann to notify the EPA or the HSE in a timely manner, prevented the HSE in determining the potential risk to consumer health on the O'Brien's Bridge supply, and also prevented any timely actions to protect consumer health. The audit found a lack of appropriate oversight and routine supervision of WTP performance by Uisce Éireann. It was confirmed that the operators had received incident awareness and response training. The training and procedures were not adhered to in this instance.</p> <p>4. There is a lack of resilience in the O'Brien's Bridge supply. Primary disinfection is provided by UV disinfection with secondary disinfection provided by chlorination. There is no treated water storage available at the WTP and so there is no supply if the treatment plant shuts down due to any issue. Uisce Éireann said that the exact reasons for the turbidity spikes are not known but may be linked to increased pumping rate, indicating that the borehole is being pumped above a safe yield to meet demand. The treatment processes on-site are unable to cope responsively to raw water changes when demand increases.</p> <p>5. Uisce Éireann are investigating a number of possible corrective actions to address the turbidity issues including looking at alterations to the borehole pump operating regime, additional treatment steps, network alterations to reduce demand on supply and possible rationalisation of the supply in the longer term. At the audit the turbidity reading for the raw water at the borehole was 0.3 NTU and the pumping rate was 19 m<sup>3</sup>/hr. The plant was operating satisfactorily on the day of the audit.</p> |        |
| <b>Recommendations:</b>   |        |
| <ol style="list-style-type: none"> <li>1. Ensure the review and oversight of trends is undertaken on a daily basis and that plant performance issues are escalated immediately.</li> <li>2. Ensure appropriate oversight of alarm and inhibit responses on an ongoing basis.</li> <li>3. Consult with the HSE on public health advice regarding the high turbidity and disinfection issue between 30/12/2025 and 19/01/2026.</li> <li>4. Complete investigations into the causes of the high turbidity in the supply and undertake remedial actions to address the issues identified and ensure ongoing security of the supply.</li> <li>5. Ensure all trend data submitted to the EPA is scaled appropriately.</li> </ol>  |        |



## 2. Source Protection

|     | Answer   |
|-----|--|
| 2.1 | Is the abstraction source(s) adequately protected against contamination?<br><b>Comment</b><br>1. Uisce Éireann stated the nearby houses served by the WTP have septic tanks. These tanks are likely to be within the supply's zone of contribution.<br>2. The borehole is not sealed or capped in accordance with EPA Drinking Water Advice Note No. 14: Borehole Construction and Wellhead Protection.<br><b>Recommendations:</b><br>6. Liaise with Clare County Council and ensure inspections are carried out of the nearby septic tanks within the water supply's zone of contribution to assess if they are operating optimally and do not present a risk to human health or the environment.<br>7. Ensure the borehole is adequately capped and sealed. Uisce Éireann should have regard to EPA Advice Note No. 14: Borehole Construction and Wellhead Protection when carrying out these works. |



### 3. Disinfection

3.1

Is the UV system suitably validated?

**Answer**

Yes

**Comment**

1. Primary disinfection is provided by a "VISADES T860T" UV disinfection system. The UV system is validated to ONORM standards. A copy of the validation certificate was provided on the day of the audit.
2. The validated operating range is a minimum of 75.5% UVT and 73 W/m<sup>2</sup> UVI for flows up to 21.9 m<sup>3</sup>/hr. The UV Unit No. 2, which was in operation at the time of the audit had a reading of 292.2 W/m<sup>2</sup> UVI, 98.1 % UVT and 400 j/m<sup>2</sup> UV dose indicating that the UV system was operating within its validated range during the audit.



## 4. Site Specific Issues

|  | Answer   |
|--|--|
| 4.1  | Is the information reported by Uisce Éireann on the EPA EDEN portal correct? |
|  | No   |
| <b>Comment</b>   |  |
| 1. Information regarding treatment reported on the EPA EDEN portal was inaccurate. |  |
| <b>Recommendation:</b>   |  |
| 8. Update EDEN with the correct treatment at the plant.                            |  |

## 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](http://www.epa.ie), typically 1 month after the audit report is issued to Uisce Éireann.