

# 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>	Kilmallock PWS
<b>Organisation</b>	Uisce Éireann
<b>Scheme Code</b>	1900PUB1036
<b>County</b>	Limerick
<b>Site Visit Reference No.</b>	SV33401

Report Detail	
<b>Issue Date</b>	08/01/2026
<b>Prepared By</b>	Orla Harrington

Site Visit Detail			
<b>Date Of Inspection</b>	02/12/2025	<b>Announced</b>	Yes
<b>Time In</b>	10:50	<b>Time Out</b>	11:45
<b>EPA Inspector(s)</b>	Orla Harrington		
<b>Additional Visitors</b>			
<b>Company Personnel</b>	Uisce Éireann: Flan Real, Ted Ahern.  Limerick City and County Council (acting in partnership with Uisce Éireann): Edward Douglas.		

## > Summary of Key Findings

1. A chemical spill at Kilmallock water treatment plant on 27/11/2025 resulted in approximately 8.6 m<sup>3</sup> of 8% aluminium sulphate entering the washwater holding tank, resulting in a supernatant/aluminium sulphate mixture discharging to the River Loobagh via the washwater supernatant discharge pipe. The audit confirmed that the spillage occurred due to a malfunction of the dead man's switch, which shuts off the transfer of chemical between the bulk storage tank and the day tank.
2. Inland Fisheries Ireland were notified of the incident. There have been no reports of fish kills associated with the chemical spill from the Kilmallock water treatment plant.
3. At the audit, trend data assessed confirmed the incident did not have any effect on the quality of drinking water entering the supply. The audit found that drinking water quality entering the Kilmallock public water supply was not affected as there was sufficient aluminium sulphate in the day tank to allow normal treatment operations to continue unaffected.

## > Introduction

The Kilmallock Public Water Supply (PWS) serves a population of 2,613 and produces 894 m<sup>3</sup>/day. Raw water is sourced from the River Loobagh that runs parallel to the plant. Treatment consists of coagulation, flocculation and clarification, rapid gravity filtration and chlorination.

The audit was carried out in response to Uisce Éireann's notification to the EPA of a chemical spill at the plant which occurred on 27/11/2025.

## > Supply Zones Areas Inspected

The inspection focused on chemical storage facilities and drinking water quality trends at the time of the incident.



## 1. Treatment Process Chemicals

1.1

	Answer
Are treatment process chemicals appropriately managed and stored?	No
<p><b>Comment</b></p> <p>1. An aluminium sulphate spill occurred at the Kilmallock water treatment plant between 2pm and 5pm on 27/11/2025. The investigations undertaken since the incident identified that the dead man's switch (which controls the transfer of aluminium sulphate from the bulk storage tank to the day tank) malfunctioned. This resulted in the continued pumping of chemical from the bulk tank to the day tank which over topped the bund and gained access to the washwater holding tank via underground pipework. This washwater tank holds backwash water and sludge bleeds, with supernatant discharging via an outlet pipe to the River Loobagh.</p> <p>2. Based on figures recieved from Uisce Éireann, it is estimated that 8.6 m3 of 8% aluminium sulphate was discharged to the wash water holding tank, resulting in a supernatant / aluminium sulphate mixture discharge to the River Loobagh.</p> <p>3. Corrective actions taken or planned by Uisce Éireann in response to the incident include the following:</p> <ul style="list-style-type: none"> <li>• fully de-sludge the washwater holding tank and annually thereafter;</li> <li>• split samples taken with IFI upstream and downstream of the discharge point in response to the incident. The results of this monitoring were not available at the audit;</li> <li>• connecting the level sensor on the bulk storage tank to a dial out alarm or SCADA;</li> <li>• ongoing investigations to determine the cause of the failure of the dead man's switch.</li> </ul> <p>4. Further proposed remedial works include the installation of (i) a bigger bund on the day tank and (ii) a level sensor on the day tank bund which could be connected to the automatic shutdown on the transfer pumps.</p> <p>5. The discharge point into the river was inspected during the audit and no plume was observed.</p> <p>6. Raw water is abstracted upstream of the discharge point and trends viewed at the audit confirmed that the incident did not have any effect on the quality of drinking water entering the supply.</p>	

## Recommendations

<b>Subject</b>	Kilmallock PWS - Audit Report	<b>Due Date</b>	09/02/2026
<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 recommendation(s) without delay.</b></p> <ol style="list-style-type: none"><li>1. (i) submit the findings of the investigation into the cause of the malfunction of the dead man's switch between the bulk storage tank and the day tank and (ii) put in place corrective actions to ensure a similar incident does not occur.</li><li>2. (i) ensure the bulk and day tanks are all located within a bunded area capable of containing at least 110% of the volume of the chemicals stored therein and (ii) refer to EPA Guidance Document - "IPC Guidance Note on Storage and Transfer of Materials for Scheduled Activities".</li><li>3. Confirm that the washwater holding tank has been fully desludged.</li><li>4. Submit any monitoring results undertaken in response to the incident.</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 09/02/2026 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>		