

# Local Authority Monitoring Programme Audit Report

Under the *European Union (Drinking Water) Regulations 2023*, the Environmental Protection Agency (EPA) is the supervisory authority in relation to Local Authority’s monitoring functions of regulated private drinking water supplies. This audit was carried out to assess the performance of Kilkenny County Council in carrying out its 2023 compliance monitoring programme of regulated private supplies in its functional area.

The audit process is a sample of the performance of a Local Authority in carrying out its monitoring functions of regulated private drinking water supplies.

Audit Detail	
<b>Date of Audit</b>	10/10/2024
<b>Local Authority</b>	Kilkenny County Council
<b>Representing the Local Authority</b>	Tim Butler, John Ormond, James Brennan, Kevin Hogan
<b>EPA Inspectors</b>	Lisa Noone, Derval Devaney.

Report Detail	
<b>Audit Specification</b>	2023 Regulated Private Drinking Water Supply Compliance Monitoring Programme and Regulated Private Drinking Water Supply Register
<b>Issue Date</b>	18/11/2024
<b>Prepared By</b>	Lisa Noone, Inspector, EPA

## > Report Main Findings and Recommendations

The audit of Kilkenny County Council's Compliance Monitoring Programme found a number of shortcomings in relation to the assessment of the quality of Private Water Supplies during 2023.

1. The Private Supply Register for 2023 was not in accordance with the requirements of the Regulations and did not contain up-to-date and accurate data regarding treatment, volume and source.
2. Kilkenny County Council did not monitor all Private Water Supplies for all Group A or Group B parameters as required. Sampling for Group B parameters was not undertaken for 94% of Private Water Supplies, nor was compliance monitoring for colony count or taste taken for a number of private Group Water Schemes at water treatment plants.
3. There was a lack of pre-determined sampling by Kilkenny County Council to ensure samples are spatially and temporally distributed and, where appropriate, representative of the water supply zone year.

## > Introduction

Each Local Authority is required under Regulation 13 of the *European Union (Drinking Water) Regulations 2023 (S.I. 99 of 2023)* to establish a Compliance Monitoring Programme and monitor all Private Water Supplies in its functional area, other than exempted supplies, to determine whether they comply with the standards and other requirements of the Regulations.

This audit was carried out in accordance with Regulation 30(3) of the *European Union (Drinking Water) Regulations 2023 (S.I. 99 of 2023)*, to assess the performance by Kilkenny County Council of its statutory functions in relation to the monitoring of regulated Private Water Supplies to ensure the provision of clean and wholesome drinking water.

Prior to the audit, the EPA assessed the 2023 monitoring returns submitted to the EPA by Kilkenny County Council to identify whether there were any areas of discrepancy between the required number of samples to be taken and analysed and that reported to EPA. Using a questionnaire as a guide, Kilkenny County Council staff were interviewed to ascertain the principles and methodology for establishing its Private Supply Register and Compliance Monitoring Programme.



## Register of Private Drinking Water Supplies

1.1

	Answer
Does the Private Supply Register contain all that is required by Regulation 14(5) of the European Union (Drinking Water) Regulations 2023 (S.I. 99 of 2023)?	No
<b>Observation</b>	
<ol style="list-style-type: none"> <li>1. Kilkenny County Council currently has 178 regulated Private Water Supplies in its functional area, including 23 Private Group Water Schemes (PRGs), 25 Public Group Water Schemes (PUGs) and 130 Small Private Supplies (SPSs - supplies serving a commercial or public activity such as hotels, schools and restaurants, etc.).</li> <li>2. A complete Register in accordance with Regulation 14(5) is not in place. Kilkenny County Council have a combined Register and Compliance Monitoring Programme which identifies the Private Water Supply name, entity number, and the target number of Group A and Group B samples intended to be carried out for each supply.</li> <li>3. The Register did not include:               <ol style="list-style-type: none"> <li>a) the type of Private Water Supply</li> <li>b) the source of each Private Water Supply.</li> <li>c) the treatment type and of each Private Water Supply.</li> <li>d) the volume/population for each Private Water Supply.</li> <li>e) the address of the SPS or PRG's water treatment plant.</li> </ol> </li> </ol>	

1.2

	Answer
Is the Private Supply Register maintained and kept up to date as required by Regulation 14(7), and does it contain all that is required by Regulation 14(5) of the European Union (Drinking Water) Regulations 2023 (S.I. 99 of 2023)?	No
<b>Observation</b>	
<ol style="list-style-type: none"> <li>1. The population/volume for each supply has not been reviewed to ensure accuracy. The frequency of monitoring is based on the supply's population/volume and as such it is important that this information is accurate.</li> <li>2. The treatment and source are not known for many supplies. Kilkenny County Council are currently in the process of updating this via Data Collection Sheets when carrying out monitoring. It is important that this information is accurate to inform if certain parameters are required to be monitored under the Group A or Group B monitoring frequency.</li> <li>3. A number of decorative fountains are contained within the Kilkenny County Council's list of supplies to be monitored, however these are not required to be regulated and are exempt in accordance with the Regulations as they are not used for drinking water purposes.</li> <li>4. Kilkenny County Council stated that they liaised closely with the HSE when they carried out monitoring of SPSs on behalf of Kilkenny County Council, however this contract is no longer in place. Kilkenny County Council uses local knowledge in order to maintain its register but could not demonstrate evidence of efforts made to identify SPSs required to be regulated and included in the Register.</li> </ol>	



## 2023 Compliance Monitoring Programme

2.1

	Answer
Have sampling locations been pre-determined for each water supply zone as required by Regulation 13(6) of the <i>European Union (Drinking Water) Regulations 2023 (S.I. 99 of 2023)</i> ?	No
<b>Observation</b>	
<ol style="list-style-type: none"><li>1. Kilkenny County Council does not have an annual predetermined Compliance Monitoring Programme. A combined plan which includes the Register and Compliance Monitoring Programme is in place, which identifies the Private Water Supply name, entity number, and the target number of Group A and Group B samples intended to be carried out for each supply.</li><li>2. This plan does not contain treatment type, sampling locations, proposed dates, or the required number of Group A and Group B to be carried out in accordance with the supply's population/volume.</li><li>3. The locations for sampling during 2023 were not randomly selected and pre-determined by Kilkenny County Council at the start of the year and entered into a Compliance Monitoring Programme.</li></ol>	

2.2

	Answer
Are sampling locations evenly distributed for each water supply zone as required by Regulation 13(8) of the <i>European Union (Drinking Water) Regulations 2023 (S.I. 99 of 2023)</i> ?	No
<b>Observation</b>	
<ol style="list-style-type: none"><li>1. The monitoring returns provided to the EPA show sampling of PRGs was regularly carried out at the same location throughout 2023 – and therefore not evenly distributed as required. For example, in Castlewarren GWS and Clifden GWS, one private residence was used as the sampling location for all Group A compliance samples taken during 2023.</li><li>2. GIS is currently utilised by Kilkenny County Council for the mapping of the location of SPSs and PRGs water treatment plants, and supply zone mapping of larger PRGs.</li><li>3. The pre-determined compliance plan did not contain dates that sampling is to take place, to ensure sampling events are evenly spread throughout the year.</li><li>4. Once sampling is complete, the sampling location is recorded however due to the inability of the Labwork system to accept Eircodes, sampling locations are not mapped under the current GIS system to ensure even distribution within the water supply zone. Therefore, a review of compliance sampling locations is not carried out annually to ensure sampling is representative of the entire water supply zone.</li></ol>	

	Answer
<p>Was the required compliance monitoring for regulated private supplies undertaken during 2023 as required by Regulation 13(5) of the <i>European Union (Drinking Water) Regulations 2023 (S.I. 99 of 2023)</i>???</p>	No
<b>Observation</b>	
<p>1. Kilkenny County Council had several shortfalls in its 2023 compliance monitoring;</p> <ol style="list-style-type: none"> <li>a) Group A monitoring was carried out for all Private Water Supplies however it was not carried out at the required frequency.</li> <li>b) One round of Group A monitoring was carried out for all SPS regardless of the population/volume, and a second Group A sample was carried out for supplies that are considered more vulnerable e.g., schools and creches.</li> <li>c) Two rounds of Group A monitoring were carried out for all PUGs in 2023.</li> <li>d) Two or more rounds of Group A monitoring was carried out for all PRGs except for Graine GWS (Urlingford) where only one Group A sample was taken.</li> <li>e) Required monitoring of Group B parameters was only carried out in 10 of the 178 Private Water Supplies. This resulted in a shortfall of 94% of Group B samples in Private Water Supplies as a whole in 2023.</li> <li>f) 10 of the 25 PRGs with a large population were selected for Group B monitoring in 2023, and no Group B monitoring was carried out for PUGs.</li> <li>g) Required monitoring of Group B parameters was not carried out in any of the 130 SPSs in Kilkenny County Council's functional area. Group B monitoring is usually carried out for St Kieran's College due to the population size however this was not completed in 2023.</li> <li>h) Colony count was not included in Group A monitoring for a number of PRGs that are operated by DBOs.</li> <li>i) Taste was not monitored as part of Group A monitoring for many PRGs.</li> <li>j) Nitrite compliance monitoring was not carried out at water treatment plants of PRGs.</li> <li>k) <i>Enterococci</i> was not monitored at the required Group A monitoring frequency during 2023. The requirement to monitor for <i>Enterococci</i> as a Group A parameter is a recent requirement under the 2023 Drinking Water Regulations (<i>S.I. 99 of 2023</i>).</li> </ol>	



4.1

	Answer
Was 2023 data for Private Water Supplies reported accurately to the EPA (on EDEN) as required by Section 58 of <i>The EPA Act 1992 to 2007</i> ?	No
<b>Observation</b>	
<p>1. Information provided by Kilkenny County Council to the EPA via the EDEN portal does not reflect what is in Kilkenny County Councils records as follows:</p> <ul style="list-style-type: none"><li>a) There was no volume/population or treatment listed in EDEN for a large amount of Private Water Supplies, this was particularly the case for SPSs.</li><li>b) The volume of water supplied differs between the two datasets e.g. EDEN data states that Castlewarren GWS supply volume is 86 m<sup>3</sup>/day, however Kilkenny County Council's records state a daily volume of 336 m<sup>3</sup>/day. Similar inconsistencies were recorded for many Private Water Supplies.</li><li>c) The water treatment recorded on EDEN for many Private Water Supplies does not accurately represent actual treatment in place e.g. EDEN states that Sugarstown GWS has chlorination and fluoridation only, however UV disinfection is in place at this supply.</li></ul> <p>2. Some parameters' monitoring categories (Group A or Group B) were incorrectly categorised on the 2023 compliance monitoring returns submitted to the EPA. For example, aluminum was regularly categorised as a Group A parameter when it is only required to be categorised as a Group B parameter where it is not used as flocculant. In addition, some Group A parameters were categorised incorrectly on EDEN as Group B parameters. This results in incorrect monitoring frequencies being implemented.</p>	



### 2023 Monitoring Programme Audit Recommendations

**Kilkenny County Council is responsible for undertaking compliance monitoring of regulated private drinking water supplies and should implement the following recommendations without delay.**

1. Establish a Private Water Supply register which records all relevant information pertaining to each Private Water Supply as required by 14(5) of the *European Union (Drinking Water) Regulations 2023 (S.I. 99 of 2023)*. Ensure that the register is accurate, up-to-date, and appropriately maintained in accordance with the requirements of the Regulations. Ensure documentation relating the upkeep of the Register is maintained.
2. Put in place a pre-determined Compliance Monitoring Programme before the start of each year which meets the requirements of Regulation 13 of the *European Union (Drinking Water) Regulations 2023 (S.I. 99 of 2023)*. Include predetermined sampling locations in the Compliance Monitoring Programme in accordance with *Regulation 13(6)*.
3. Review the temporal and spatial distribution of sampling for compliance monitoring for Group Water Schemes (PRGs and PUGs). A formal and structured method of assessment should be developed and implemented by Kilkenny County Council to ensure that sampling represents the entire water supply zone as accurately as possible. The spread of sample days, times and locations within a monitoring programme should be as wide as possible to ensure that compliance samples are representative of water quality consumed throughout the year as required by *Regulation 13(8) of the European Union (Drinking Water) Regulations 2023 (S.I. 99 of 2023)*.
4. Ensure the water supply zones for all Group Water Schemes are mapped and samplers have access, to ensure sampling locations are in accordance with the pre-determined compliance monitoring plan and represent the water supply being sampled.
5. In agreement with the HSE, ensure that there is an appropriate procedure in place for notification of exceedances by Kilkenny County Council to the HSE.
6. Ensure that all regulated private supplies are monitored for compliance, more specifically:
  - (a) for the required Group A and B parameters at their required frequencies in accordance with the requirements of the *European Union (Drinking Water) Regulations 2023 (S.I. 99 of 2023)* and
  - (b) for nitrite at the water treatment plant (WTP). Regarding nitrite, where there is no chloramination treatment, sampling at the WTP is at the Group B sampling frequency.
7. Ensure data on regulated private water supplies entered into the EPA's database, EDEN, is accurate, correctly categorised and updated annually. The results of all Group A and Group B compliance samples required to be taken should be uploaded to EDEN to ensure there is no annual shortfall in compliance monitoring.