

# Focus on Private Water Supplies 2019



## ENVIRONMENTAL PROTECTION AGENCY

The EPA is responsible for protecting and improving the environment as a valuable asset for the people of Ireland. We are committed to protecting people and the environment from the harmful effects of radiation and pollution.

### The work of the EPA can be divided into three main areas:

**Regulation:** *Implementing regulation and environmental compliance systems to deliver good environmental outcomes and target those who don't comply.*

**Knowledge:** *Providing high quality, targeted and timely environmental data, information and assessment to inform decision making.*

**Advocacy:** *Working with others to advocate for a clean, productive and well protected environment and for sustainable environmental practices.*

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- Large-scale industrial, waste and petrol storage activities;
- Urban waste water discharges;
- The contained use and controlled release of Genetically Modified Organisms;
- Sources of ionising radiation;
- Greenhouse gas emissions from industry and aviation through the EU Emissions Trading Scheme.

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- Audit and inspection of EPA licensed facilities;
- Drive the implementation of best practice in regulated activities and facilities;
- Oversee local authority responsibilities for environmental protection;
- Regulate the quality of public drinking water and enforce urban waste water discharge authorisations;
- Assess and report on public and private drinking water quality;
- Coordinate a network of public service organisations to support action against environmental crime;
- Prosecute those who flout environmental law and damage the environment.

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- Prepare and publish national waste statistics and the National Hazardous Waste Management Plan;
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- Engage with national and regional governance and operational structures to implement the Water Framework Directive;
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- Publish Ireland's greenhouse gas emission inventories and projections;
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- Design and implement national environmental monitoring systems: technology, data management, analysis and forecasting;
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- Oversee the implementation of the Environmental Noise Directive;
- Assess the impact of proposed plans and programmes on the Irish environment.

### Environmental Research and Development

- Coordinate and fund national environmental research activity to identify pressures, inform policy and provide solutions;
- Collaborate with national and EU environmental research activity.

### Radiological Protection

- Monitoring radiation levels and assess public exposure to ionising radiation and electromagnetic fields;
- Assist in developing national plans for emergencies arising from nuclear accidents;
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- Provide, or oversee the provision of, specialist radiation protection services.

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- Provide independent evidence-based reporting, advice and guidance to Government, industry and the public on environmental and radiological protection topics;
- Promote the link between health and wellbeing, the economy and a clean environment;
- Promote environmental awareness including supporting behaviours for resource efficiency and climate transition;
- Promote radon testing in homes and workplaces and encourage remediation where necessary.

### Partnership and networking

- Work with international and national agencies, regional and local authorities, non-governmental organisations, representative bodies and government departments to deliver environmental and radiological protection, research coordination and science-based decision making.

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The EPA is managed by a full time Board, consisting of a Director General and five Directors. The work is carried out across five Offices:

- Office of Environmental Sustainability
- Office of Environmental Enforcement
- Office of Evidence and Assessment
- Office of Radiation Protection and Environmental Monitoring
- Office of Communications and Corporate Services

The EPA is assisted by advisory committees who meet regularly to discuss issues of concern and provide advice to the Board.

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## Executive Summary

Private water supplies provide drinking water to people who are not connected to the public water mains. There are over 400 private group schemes (serving just under 200,000 people) where a group water scheme, set up by the local community, manages the abstraction, treatment and distribution of treated water. There are also over 1,750 small private supplies registered with local authorities, serving a commercial or public activity such as hotels, pubs and restaurants, crèches, nursing homes and national schools. Private wells, of which there are approximately 180,000 in the country, are not regulated under the Drinking Water Regulations and are not discussed in this report. Collectively, one fifth of the people of Ireland get their water from these private supplies.

Of the 417 private group schemes monitored during the year, 20 supplies failed to meet the standards relating to bacteria. Of the 1,418 small private supplies monitored, 88 similarly failed to meet the standards. This failure in more than 100 private water supplies is of significant concern to the EPA as some of these bacteria can make people very ill, particularly young children, the elderly, or those who are immunocompromised.

Drinking water can also become contaminated with nitrates if human or animal organic waste or nitrate from fertiliser enters the water supply. Four private group water schemes and 20 small private supplies which were monitored for nitrates in 2019 failed to meet the standard. In addition, eight private group schemes and four small private supplies failed to meet the Trihalomethanes (THM) standard in 2019. THMs are disinfection by-products, which form when natural organic matter in the water source reacts with chlorine used in disinfection. Disinfection is the most important aspect of providing safe drinking water, so the challenge is to minimise the amount of trihalomethanes formed, while still ensuring that disinfection is effective.

19% of registered small private supplies were not monitored in 2019. The EPA is concerned that water suppliers are not monitoring their supplies to ensure they are safe to drink. If a supply has not been monitored, it makes it impossible to be confident that this water is safe to drink.

The Department of Housing, Local Government and Heritage has put in place the Multi-Annual Rural Water Programme 2019-2021 to support investment in private water supplies. The Department is also working with the National Federation of Group Water Schemes to address a remedial action list of supplies to protect public health. Progress is being made with the supplies on that list and the Department has stated that it expects that all these supplies will be addressed by the end of 2021. It will be a significant challenge for the Group Water Schemes to address these deficiencies within this timeframe. Notwithstanding current circumstances, any additional delay in addressing issues with supplies on the Group Water Scheme Remedial Action List will continue to mean poorer water quality for consumers on those group water schemes. It is critical that the Department puts in place an improved governance framework and supports for the rural water sector so that the appropriate actions can be taken to improve these supplies and ensure public health is protected.

**Private suppliers of water need to:**

- Manage and maintain any treatment system;
- Monitor their supply at the correct frequency, or engage with the local authority if they are carrying out monitoring of the supply;
- Make sure their supply is on the local authority's register;
- Where monitoring results indicate an issue with the quality of water or a risk to the supply, take action to rectify the problem.

**Local authorities need to:**

- Review their register of private supplies to make sure it is accurate and up-to-date;
- Make sure that either the private supplier undertakes monitoring of the supply, or undertake it on the supplier's behalf;
- Prepare a monitoring plan at the beginning of each year, that includes all regulated private water supplies in their area, and ensure all monitoring is carried out;
- Consult with the Health Service Executive when a water quality failure is found, to assess whether there is a risk to public health, and notify the supplier as soon as possible, so the cause of the failure can be investigated and fixed;
- Carry out an audit of supplies where monitoring indicates a compliance issue and require the suppliers to act to address the contamination or risk identified.

**The Department of Housing, Local Government and Heritage needs to:**

- Work with the Rural Water Sector to ensure the works on remaining supplies on the Group Water Scheme Remedial Action List are completed by the end of 2021;
- Prioritise the establishment of a new framework for the delivery of Rural Water Services to improve water quality.

# 1 Private Supplies

Private water supplies provide drinking water to people who are not connected to the public water mains. One fifth of the people of Ireland get their water from private supplies.

There are several different types of private supply and this report covers:

- **Private Group Schemes** are supplies where a group water scheme, set up by the local community, manages the abstraction, treatment and distribution of treated water. They are generally supplied by springs or wells. There are over **400 private group schemes serving just under 200,000 people**. A quarter are supplied by surface water (rivers, lakes or streams) and nearly three-quarters are supplied by wells or springs. If the scheme supplies more than 50 people or 10m<sup>3</sup>/day, or provides water to a commercial or public activity, it is **regulated** under the Drinking Water Regulations<sup>1</sup>.
- **Small Private Supplies** are supplies serving a commercial or public activity such as hotels, pubs and restaurants, crèches and national schools. The owner or manager of the activity manages the abstraction, treatment, and delivery of the water. **Small private supplies** are mostly supplied by wells. There are over **1,750 small private supplies** registered with local authorities but there may be many more that have not registered. It is difficult to calculate how many people use these supplies as they can provide water to employees, customers and service users of these premises. These supplies are **regulated** under the Drinking Water Regulations, **regardless of the population or volume that they supply**.

The other types of private water supply are:

- **Public Group Schemes** are supplies where a group water scheme, set up by the local community, manages the distribution of treated water to the users. Irish Water manage the abstraction and treatment of the water. The water quality in public group schemes is discussed in the EPA's [Drinking Water Quality in Public Supplies Report 2019](#).
- **Household Wells** serve individual private homes, mostly in rural areas. The householder is responsible for managing this type of supply. Household wells are not covered by the Drinking Water Regulations and are referred to as **exempt** supplies. More information on household wells can be found on the [EPA website](#).

A list of private supplies is available for each county on the [EPA website](#).

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<sup>1</sup> European Union (Drinking Water) Regulations 2014 (S.I. 122 of 2014) (as amended by European Union (Drinking Water) Regulations 2017 (S.I. 464 of 2017))

## 2 Key Stakeholders

The water **supplier** is legally responsible for making sure the water they provide is safe to drink. Most private water supplies are served by wells and it is extremely important that these wells are properly constructed to prevent contamination, and that the water is tested. Where results show the water is contaminated, it is crucial that the supplier acts to prevent that water being supplied, as drinking contaminated water can cause serious gastrointestinal illness.

The **local authorities** oversee private water supplies and are responsible for ensuring those supplies meet the requirements of the drinking water regulations by:

- Keeping a register of all private water supplies in their area;
- Making sure that private water supplies are monitored at the correct frequency;
- Investigating where water quality standards are not met; and
- Taking enforcement action if suppliers are not taking steps to ensure the safety of the water they supply.

The local authority also has the responsibility to provide advice to owners of exempt supplies, namely household wells and small group schemes.

The **Department of Housing, Local Government and Heritage** is responsible for policy and for providing supports to the private water sector. It makes funding available to group water schemes and household well owners for improvements to their supplies. Local authorities distribute the funding through the Multi-Annual Rural Water Programme 2019-2021.

The **Health Service Executive (HSE)** provides advice to the local authorities if a failure to meet a water quality standard is thought to pose a risk to the health of the users of a private water supply.

The **Environmental Protection Agency (EPA)** is responsible for auditing the local authorities' yearly monitoring plans; and reporting every year on water quality in private water supplies. The EPA also supports the private water sector by providing guidance to local authorities on investigating water quality failures, and publishing drinking water treatment advice and guidance.

The **National Federation of Group Water Schemes (NFGWS)** represents and works with the community-owned rural water services sector in Ireland. The NFGWS also works with local authorities and individual group water schemes to identify and address ongoing water quality issues and risks. The NFGWS assists schemes to access funding from the Department of Housing, Local Government and Heritage.

### 3 Drinking Water Quality in 2019

All water supplies should be monitored to check the quality of the drinking water. This is to make sure that the water is safe to drink.

In 2019, there were 417 supplies designated as private group schemes by local authorities. Of these, approximately 350 are regulated group schemes which are registered with the National Federation of Group Water Schemes. The remaining supplies include:

- private group schemes not affiliated with the NFGWS;
- exempt supplies (i.e. providing <10m<sup>3</sup>/day and serving < 50 people, with no associated commercial or public activity);
- disputed supplies (i.e. the local authority considered them public supplies but Irish Water disputes this);
- public group schemes; or
- supplies now operated by Irish Water.

More than 20 of the supplies reported by Local Authorities appear to be exempt from the Drinking Water Regulations, meaning that no monitoring was legally required. The EPA recognises the positive efforts of local authorities to monitor water quality in these supplies to protect human health and in four cases the monitoring undertaken identified that the supplies were failing to meet the microbiological standards. Some classification issues were noted in the 2019 dataset and the EPA is engaging with Local Authorities to address this, to make sure that each supply is correctly classified as a private group scheme, public group scheme or small private supply.

#### Compliance with microbiological standards

Certain bacteria can cause illness and if they are found in water, it shows that the supply is contaminated. Over 100 private supplies failed to meet the microbiological standards in 2019 (Table 1).

**Table 1: Bacterial compliance in private supplies in 2019**

	Supplies monitored	% of supplies complying	Supplies with failures	Population affected
Private Group Schemes	417	95.2%	20	2,744
Small Private Supplies	1,418	93.8%	88	Footnote <sup>2</sup>

Failures in group schemes were due to a lack of operational disinfection infrastructure in four schemes<sup>3</sup> with temporary loss of power supply and management practices accounting for most of the other failures. Disinfection is critical to protecting public health and water providers must ensure that they have the necessary infrastructure and manage their supplies to protect consumers.

<sup>2</sup> It is difficult to calculate how many people use these supplies as they can provide water to employees, customers and service users of these premises

<sup>3</sup> Castlefrench/Ballyvoneen GWS, Carrownadargney GWS, Roo, and Seehan

## Compliance with nitrates standards

Drinking water can become contaminated with nitrates from fertiliser use, or when human or animal organic waste enters the water supply. Four private group water schemes which were monitored for nitrates failed to meet the standard<sup>4</sup>. Twenty small private supplies, across seven Local Authorities<sup>5</sup>, which were monitored for nitrates also failed to meet the standard. The EPA is concerned about this level of non-compliance with nitrates standards.

## Compliance with trihalomethane standards

Trihalomethanes (THMs) form when natural organic matter in the water source, such as rotting vegetation, reacts with chlorine used in the disinfection treatment process. This is a problem when river and lake waters are used as drinking water sources, as they contain more natural organic matter than groundwater. The EPA and the HSE have prepared a Joint Position Paper summarising the issues in relation to Trihalomethanes in drinking water.<sup>6</sup>

The European Commission started infringement proceedings against Ireland in 2015 for failure to comply with the THM standard<sup>7</sup>. In May 2020, the Commission issued a Reasoned Opinion that it considers that Ireland has failed to take the measures necessary to ensure THM compliance. The Department of Housing, Local Government and Heritage has responded to the Commission and is engaging with them on this issue.

Of the 13 private group water schemes listed in the Reasoned Opinion, 11 schemes are included on the Department of Housing, Local Government and Heritage Remedial Action List for Group Water Schemes. The other two supplies are Ballymagroarty, Donegal and Curramore (Ballinrobe), Mayo. Ballymagroarty is now managed by Irish Water and has been added to the EPA's Remedial Action List for public water supplies.

In 2019, eight private group schemes failed to meet the THM standard. Of these:

- three are in the Reasoned Opinion and also on the Remedial Action List for Group Water Schemes;
- two are on the Remedial Action List<sup>8</sup>;
- three schemes are not listed in the Reasoned Opinion or on the Remedial Action List<sup>9</sup>.

One scheme on the Reasoned Opinion was not monitored for THMs during the year (Curramore, Ballinrobe). Four small private supplies which were monitored for THMs also failed to meet the standard in 2019. More information is available in Appendix 3.

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<sup>4</sup> Kiltiernan GWS Co-Operative Society Ltd, Dunmore GWS, Seskin Lisdowney GWS and Culahill

<sup>5</sup> Carlow, Wicklow, Wexford, Kilkenny, Laois, Waterford, Westmeath.

<sup>6</sup> <https://www.epa.ie/pubs/advice/drinkingwater/trihalomethanesjointpositionstatement.html>

<sup>7</sup> Reference 7554/2015/ENVI

<sup>8</sup> Ballyroebuckbeg, Sraheen

<sup>9</sup> Killeen (Mayo), Corrick (Ballinafad)(Sligo), Geevagh Highwood (Sligo)

Appendix 1 gives the collated national information for the supplies designated as private group schemes by local authorities in 2019. See the full list of results for 2019 in Appendices 1 and 2 and online from the EPA<sup>10</sup>.

### Compliance with monitoring requirements

If a supply has not been monitored, it makes it impossible to be confident that this water is safe to drink. The supplier is responsible for monitoring the water they supply.

In 2019, all private group schemes were monitored for *E. coli*. Of these, 19 schemes had *E. coli* failures which represents 98.5% compliance with the standards.

340 (19%) of the 1,778 small private supplies registered were not monitored (Table 2). The EPA understands that in some cases monitoring has not been carried out due to issues gaining access to the premises. This is an improvement from 2018 when 399 were not monitored, but it is still not sufficient to ensure these supplies do not pose a risk to public health.

The supplies in Cork County account for three-quarters of the unmonitored supplies in 2019. Cork County Council has taken steps to ensure that its register of private supplies is complete and due to the large number of small private supplies in the county, the Council monitors them on a multi-year programme. While it remains the responsibility of the water supplier to ensure their supply is safe, and this should include monitoring of the water they supply, the local authority needs to make sure that all supplies on the register are monitored.

**Table 2: Number of small private supplies not monitored for *E.coli* in 2019**

County/area	Number of supplies	Number of supplies not monitored
Carlow	62	6
Cavan	48	6
Clare	20	1
Cork County	390	259
Fingal	7	1
Galway County	93	17
Kerry	98	3
Kildare	52	1
Kilkenny	143	9
Laois	86	1
Louth	9	1
Mayo	37	6
Monaghan	9	3
Tipperary	100	23
Westmeath	39	1
Wexford	164	2

<sup>10</sup> <http://erc.epa.ie/safer/resourcelisting.jsp?oID=10206&username=EPA%20Drinking%20Water>.

## 4 Stakeholder Activities in 2019

### Environmental Protection Agency

In 2019, the EPA carried out audits of the monitoring plans in Galway, Kerry and Limerick. The audit reports are published on the [EPA website](#).

While the EPA does not have an oversight role of local authority drinking water activities other than their monitoring programmes, several local authorities have provided the EPA with some information on their enforcement activities in 2019, including the number of audits, directions and boil water notices issued (Appendix 4).

### Department of Housing, Local Government and Heritage

The Department developed a Remedial Action List for Group Water Schemes in 2016. This is a list of group water schemes that require upgrades to improve drinking water quality for the longer term. Table 3 shows the progress made up to the end of 2019.

**Table 3: Progress on Remedial Action List for Group Water Schemes at end 2019**

	No. of schemes	% of total schemes on List
Fully completed	21	20%
Started but not completed	58	55%
Not started	27	25%

The Department stated that it expects that works will be completed at all the supplies on the List over the course of the Multi-Annual Rural Water Programme 2019-2021.

The Department set up a working group in 2018 to review how private water supplies and private wastewater treatment systems are monitored, maintained and financed. This followed from a recommendation made by the Joint Oireachtas Committee on the Future Funding of Domestic Water Services in 2017. The terms of reference for the review provided for a two-strand approach.

Strand 1 considered the composition and distribution of funding for the Multi-Annual Rural Water Programme from 2019 up to 2021. In February 2019, the Minister invited local authorities to bid for funding in consultation with local group water schemes. Following an assessment process, in October 2019 the Minister approved 621 projects for funding of over €54 million. This funding is provided through local authorities to support infrastructure improvements for group water schemes in rural areas.

Strand 2 is considering the more complex longer-focus issues surrounding the long-term future resourcing of the Rural Water Sector. The group oversaw a project to assess options and this project was completed in 2019. The report on this project was considered by the working group and the Department has decided to undertake a further assessment before developing a long-term plan for the support of the sector.

## National Federation of Group Water Schemes activities

The National Federation of Group Water Schemes (NFGWS) published 'A Framework for Drinking Water Source Protection' in 2019. The NFGWS is working with group water schemes to use this framework to prepare their own source protection plans and identify suitable measures to protect the water source for their own supplies. The NFGWS also adopted a six-year strategic plan for 2019-2024 for rationalisation/amalgamation of smaller and more vulnerable schemes as a means of introducing professional and consistent management of community-owned drinking water supplies. Further information can be found at [www.nfgws.ie](http://www.nfgws.ie).

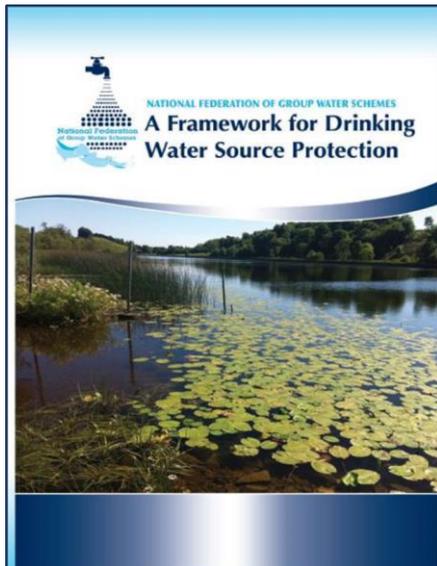


Figure 1: NFGWS Source Protection Framework



Figure 2: Caretaker taking chlorine residual sample

## 5 Recommendations & Concluding Remarks

This report has identified many issues affecting the private water supply sector. Action is needed by water suppliers, local authorities and the Department of Housing, Local Government and Heritage to improve the situation and ensure public health is protected.

### Water Suppliers

The water supplier is responsible for making sure that their water is safe to drink. There are steps that a supplier should take, whether the supply is part of a group scheme; or a supply for a public or commercial activity; or a home:

- Manage and maintain any treatment system.
- Monitor the supply at the correct frequency, or engage the local authority if the council is carrying out monitoring of the supply;
- Make sure the supply is on the Local Authority's register;
- Where monitoring results indicate an issue with the quality of water or a risk to the supply, take action to rectify the problem.



Figure 3: Protecting a private supply

More information on how to protect a well, whether it supplies a scheme or a household, can be found on the [EPA website](#).

## Local Authorities

Local authorities are responsible for ensuring that all regulated private supplies are monitored each year at the required frequency and regulating private water suppliers. The EPA recommends that local authorities should:

- Review their register of private supplies to make sure it is accurate and up-to-date;
- Make sure that either the private supplier undertakes monitoring of the supply or undertake it on the supplier's behalf;
- Prepare a monitoring plan at the beginning of each year, that includes all regulated private water supplies in their area, and ensure all monitoring is carried out;
- Consult with the Health Service Executive when a water quality failure is found, to assess whether there is a risk to public health, and notify the supplier as soon as possible, so the cause of the failure can be investigated and fixed;
- Audit supplies where monitoring indicates a compliance issue and require the suppliers to act to address the contamination or risk identified.

## Department of Housing, Local Government and Heritage

The Department of Housing, Local Government and Heritage is responsible for policy making and for providing supports to the private water sector.

The Department has stated that it expects that works will be completed at all the supplies on the Group Water Scheme Remedial Action List by the end of 2021, which will be a significant challenge to meet. The EPA is concerned that any additional delay in addressing issues with supplies on the Group Water Scheme Remedial Action List will continue to mean poorer water quality for consumers on those group water schemes.

The Department set up a working group in 2018 to review how private water supplies are monitored, maintained and financed. The work of this group continues to examine issues in the private water supply sector, with a goal of identifying a new framework for the delivery of Rural Water Service. The EPA recognises the importance of this framework to support the rural water sector and recommends that priority should be placed on arriving at a sustainable approach to supporting the provision of safe and secure water for all consumers in the group water sector.

The Department needs to:

- Work with the Rural Water Sector to ensure the remaining supplies on the Group Water Scheme Remedial Action List are addressed by the end of 2021;
- Prioritise the establishment of a new framework for the delivery and governance of Rural Water Services.

## Concluding Remarks

Private supplies provide water for about a fifth of the population of Ireland. Many more people can be affected by drinking the water from these supplies, if it is not clean. The consequences of getting ill from water-borne bacteria or pathogens can be very severe.

The sector faces many challenges in supplying sufficient, clean water to consumers. Private supplies must be properly protected, monitored and regulated to ensure that they meet the drinking water standards.

It is essential that all people and organisations with responsibility for private supplies play their part, to protect public health and to ensure that, no matter where you live, you can be confident that your drinking water is safe.

## Appendix 1: Summary of National compliance monitoring results for Private Group Schemes

Parameter	No. of Zones Monitored	No of Zones with Exceedances	% of Zones Complying	No. of Samples Analysed	No. of Samples Exceeding	% of Samples Complying
<b>Microbiological</b>						
<i>E. coli</i>	417	19	95.4	1405	21	98.5
<i>Enterococci</i>	286	2	99.3	308	2	99.4
<b>Chemical</b>						
<b>1,2-dichloroethane</b>	287	0	100.0	307	0	100.0
<b>Antimony</b>	294	0	100.0	322	0	100.0
<b>Arsenic</b>	294	0	100.0	322	0	100.0
<b>Benzene</b>	287	0	100.0	307	0	100.0
<b>Benzo(a)pyrene</b>	287	0	100.0	307	0	100.0
<b>Boron</b>	283	0	100.0	303	0	100.0
<b>Bromate</b>	295	0	100.0	323	0	100.0
<b>Cadmium</b>	294	0	100.0	322	0	100.0
<b>Chromium</b>	294	0	100.0	322	0	100.0
<b>Copper</b>	295	1	99.7	326	1	99.7
<b>Cyanide</b>	287	1	99.7	307	1	99.7
<b>Fluoride</b>	259	1	99.6	279	1	99.6
<b>Lead</b>	296	3	99.0	325	3	99.1
<b>Mercury</b>	294	0	100.0	322	0	100.0
<b>Nickel</b>	294	1	99.7	322	1	99.7
<b>Nitrate</b>	349	4	98.9	526	4	99.2
<b>Nitrite (at tap)</b>	368	0	100.0	703	0	100.0
<b>PAH</b>	287	0	100.0	307	0	100.0
<b>Pesticides - Total</b>	291	0	100.0	318	0	100.0
<b>Selenium</b>	294	0	100.0	322	0	100.0
<b>Tetrachloroethene &amp; Trichloroethene</b>	284	0	100.0	304	0	100.0
<b>Total Trihalomethanes</b>	291	8	97.3	319	8	97.5
<b>Indicator</b>						
<b>Aluminium</b>	371	10	97.3	968	14	98.6
<b>Ammonium</b>	373	1	99.7	717	9	98.7
<b>Chloride</b>	285	1	99.6	308	2	99.4
<i>Clostridium perfringens</i>	310	7	97.7	462	7	98.5
<b>Coliform Bacteria</b>	417	64	84.7	1416	73	94.8
<b>Colony Count @ 22°C</b>	414	56	86.5	1376	63	95.4
<b>Colour</b>	417	19	95.4	1389	25	98.2
<b>Conductivity</b>	417	0	100.0	1390	0	100.0
<b>Iron</b>	391	7	98.2	1083	8	99.3
<b>Manganese</b>	322	12	96.3	479	16	96.7
<b>Odour</b>	416	5	98.8	1396	5	99.6
<b>pH</b>	417	31	92.6	1401	50	96.4
<b>Sodium</b>	282	1	99.6	304	1	99.7
<b>Sulphate</b>	284	0	100.0	306	0	100.0
<b>Taste</b>	405	4	99.0	1360	4	99.7
<b>Total Organic Carbon</b>	287	21	92.7	311	22	92.9
<b>Turbidity (at tap)</b>	415	3	99.3	1356	3	99.8

## Appendix 2: Summary of National compliance monitoring results for Small Private Supplies

Parameter	No. of Zones Monitored	No of Zones with Exceedances	% of Zones Complying	No. of Samples Analysed	No. of Samples Exceeding	% of Samples Complying
<b>Microbiological</b>						
<i>E. coli</i>	1418	83	94.1	2788	94	96.6
<i>Enterococci</i>	295	10	96.6	367	10	97.3
<b>Chemical</b>						
<b>1,2-dichloroethane</b>	159	0	100.0	166	0	100.0
<b>Antimony</b>	252	0	100.0	284	0	100.0
<b>Arsenic</b>	257	2	99.2	292	3	99.0
<b>Benzene</b>	159	0	100.0	166	0	100.0
<b>Benzo(a)pyrene</b>	168	0	100.0	175	0	100.0
<b>Boron</b>	238	0	100.0	259	0	100.0
<b>Bromate</b>	179	0	100.0	196	0	100.0
<b>Cadmium</b>	254	0	100.0	287	0	100.0
<b>Chromium</b>	254	0	100.0	287	0	100.0
<b>Copper</b>	298	1	99.7	342	1	99.7
<b>Cyanide</b>	168	0	100.0	175	0	100.0
<b>Fluoride</b>	132	0	100.0	140	0	100.0
<b>Lead</b>	457	4	99.1	593	4	99.3
<b>Mercury</b>	181	0	100.0	204	0	100.0
<b>Nickel</b>	255	0	100.0	288	0	100.0
<b>Nitrate</b>	650	20	96.9	1075	33	96.9
<b>Nitrite (at tap)</b>	521	1	99.8	810	1	99.9
<b>PAH</b>	168	0	100.0	175	0	100.0
<b>Pesticides - Total</b>	151	0	100	169	0	100
<b>Selenium</b>	254	1	99.6	287	1	99.7
<b>Tetrachloroethene &amp; Trichloroethene</b>	154	1	99.4	161	1	99.4
<b>Total Trihalomethanes</b>	161	4	97.5	170	4	97.6
<b>Indicator</b>						
<b>Aluminium</b>	488	8	98.4	802	9	98.9
<b>Ammonium</b>	641	13	98	921	20	97.8
<b>Chloride</b>	301	4	98.7	367	5	98.6
<b>Clostridium perfringens</b>	252	7	97.2	327	8	97.6
<b>Coliform Bacteria</b>	1418	259	81.7	2693	311	88.5
<b>Colony Count @ 22°C</b>	1297	213	83.6	2398	256	89.3
<b>Colour</b>	1397	63	95.5	2591	75	97.1
<b>Conductivity</b>	1374	2	99.9	2538	9	99.6
<b>Iron</b>	1079	66	93.9	1811	84	95.4
<b>Manganese</b>	550	45	91.8	791	54	93.2
<b>Odour</b>	1349	13	99.0	2514	15	99.4
<b>pH</b>	1412	275	80.5	2624	401	84.7
<b>Sodium</b>	264	16	93.9	334	23	93.1
<b>Sulphate</b>	252	1	99.6	308	1	99.7
<b>Taste</b>	1211	4	99.7	2194	5	99.8
<b>Total Organic Carbon</b>	167	1	99.4	176	1	99.4
<b>Turbidity (at tap)</b>	1402	35	97.5	2593	39	98.5

### Appendix 3: Private supplies with trihalomethane failures and/or on Reasoned Opinion or RAL

Supply	County	Compliant in 2019	On Reasoned Opinion	On 2017 DHPLG RAL
<b>Private group schemes</b>				
Crossdowney	Cavan	✗	✓	✓
Ballymagroarty <sup>Note 1</sup>	Donegal	✓	✓	✗
Townawilly	Donegal	✗	✓	✓
Balroebugbeg	Galway	✗	✗	✓
Cloonluane	Galway	✓	✓	✓
Lettergesh/ Mullaghgloss	Galway	✓	✓	✓
Bonane	Kerry	✓	✓	✓
Callow Lake	Mayo	✓	✓	✓
Curramore (Ballinrobe)	Mayo	Not monitored for THM	✓	✗
Killeen	Mayo	✗	✗	✗
Nephin Valley	Mayo	✓	✓	✓
Parke	Mayo	✓	✓	✓
PBKS	Mayo	✓	✓	✓
Robeen	Mayo	✓	✓	✓
Sraheen	Mayo	✗	✗	✓
Corrick (Ballinafad)	Sligo	✗	✗	✗
Geevagh Highwood	Sligo	✗	✗	✗
Keash	Sligo	✗	✓	✓
<b>Small private supplies</b>				
Shannon Airport	Clare	✗	N/A	N/A
Gallaghers Bakery Ardara	Donegal	✗	N/A	N/A
Student Residences - St Angela's College	Sligo	✗	N/A	N/A
Yeats Country Hotel	Sligo	✗	N/A	N/A

Note 1: Ballymagroarty, Donegal has been taken in charge by Irish Water and is now on the EPA's Remedial Action List for public water supplies

#### Appendix 4: Private supplies enforcement actions carried out by local authorities in 2019

County/ Area	Boil Notices		Audits	Directions
	Number issued	Population Affected <sup>1</sup>	Number carried out	Number issued
<b>Carlow</b>	12	Unknown	20	0
<b>Cavan</b>	11	unknown	1	0
<b>Clare</b>	No enforcement information was submitted for 2019			
<b>Cork</b>	15	Unknown	7	0
<b>Cork City</b>	0	0	0	0
<b>Dun Laoghaire-Rathdown</b>	0	0	0	0
<b>Donegal</b>	1	333	0	0
<b>Dublin City</b>	No private supplies			
<b>Fingal</b>	No enforcement information was submitted for 2019			
<b>Galway</b>	No enforcement information was submitted for 2019			
<b>Galway City</b>	No private supplies			
<b>Kerry</b>	8	790	6	0
<b>Kildare</b>	No enforcement information was submitted for 2019			
<b>Kilkenny</b>	4 Private group schemes, 6 small private supplies	Private group schemes – 60 Small private supplies - unknown	0	0
<b>Laois</b>	10	350	6	0
<b>Leitrim</b>	2	150	0	0
<b>Limerick</b>	1	70	2	0
<b>Longford</b>	5	Unknown	0	0
<b>Louth</b>	0	0	0	0
<b>Mayo</b>	14 Boil notices, 1 Do Not Consume notice	2696	4	0
<b>Meath</b>	9	310	4	0
<b>Monaghan</b>	0	0	4	0
<b>Offaly</b>	1	11	13	0
<b>Roscommon</b>	0	0	0	0
<b>Sligo</b>	5	350	0	0
<b>South Dublin</b>	0	0	2	0
<b>Tipperary</b>	6	446	11	0
<b>Waterford</b>	1	150	4	0
<b>Westmeath</b>	1	Unknown	0	0
<b>Wexford</b>	15	985	8	0
<b>Wicklow</b>	17	1399	10	0

**Note 1:** Where the boil notice affects a small private supply, it is difficult to calculate how many people use these supplies as they can provide water to employees, customers and service users of these premises.

## AN GHNÍOMHAIREACHT UM CHAOMHNÚ COMHSHAOIL

Tá an GCC freagrach as an gcomhshaol a chosaint agus a fheabhsú, mar shócmhainn luachmhar do mhuintir na hÉireann. Táimid tiomanta do dhaoine agus don chomhshaol a chosaint ar thionchar díobhálach na radaíochta agus an truaillithe.

## Is féidir obair na Gníomhaireachta a roinnt ina trí phríomhréimse:

**Rialáil:** Rialáil agus córais chomhlíonta comhshaoil éifeachtacha a chur i bhfeidhm, chun dea-thorthaí comhshaoil a bhaint amach agus díriú orthu siúd nach mbiann ag cloí leo.

**Eolas:** Sonraí, eolas agus measúnú ardchaighdeán, spriocdhírthe agus tráthúil a chur ar fáil i leith an chomhshaoil chun bonn eolais a chur faoin gcinnteoireacht.

**Abhcóideacht:** Ag obair le daoine eile ar son timpeallachta glaine, tairgíúla agus dea-chosanta agus ar son cleachtas inbhuanaithe i dtaobh an chomhshaoil.

## I measc ár gcuid freagrachtaí tá: Ceadúnú

- Gníomhaíochtaí tionscail, dramhaíola agus stórála peitрил ar scála mór;
- Sceitheadh fuíolluisce uirbigh;
- Úsáid shrianta agus scaoileadh rialaithe Orgánach Géinmhodhnaithe;
- Foinsí radaíochta ianúcháin;
- Astaíochtaí gás ceaptha teasa ó thionscal agus ón eitlíocht trí Scéim an AE um Thrádáil Astaíochtaí.

## Forfheidhmiú Náisiúnta i leith Cúrsaí Comhshaoil

- Iniúchadh agus cigireacht ar shaoráidí a bhfuil ceadúnas acu ón GCC;
- Cur i bhfeidhm an dea-chleachtais a stiúradh i ngníomhaíochtaí agus i saoráidí rialáilte;
- Maoirseacht a dhéanamh ar fhreagrachtaí an údaráis áitiúil as cosaint an chomhshaoil;
- Caighdeán an uisce óil phoiblí a rialáil agus údaruithe um sceitheadh fuíolluisce uirbigh a fhorfheidhmiú
- Caighdeán an uisce óil phoiblí agus phríobháidigh a mheasúnú agus tuairisciú air;
- Comhordú a dhéanamh ar líonra d'agraíochtaí seirbhíse poiblí chun tacú le gníomhú i gcoinne coireachta comhshaoil;
- An dlí a chur orthu siúd a bhriseann dlí an chomhshaoil agus a dhéanann dochar don chomhshaol.

## Bainistíocht Dramhaíola agus Ceimiceáin sa Chomhshaol

- Rialacháin dramhaíola a chur i bhfeidhm agus a fhorfheidhmiú lena n-áirítear saincheisteanna forfheidhmithe náisiúnta;
- Staitisticí dramhaíola náisiúnta a ullmhú agus a fhoilsiú chomh maith leis an bPlean Náisiúnta um Bainistíocht Dramhaíola Guaisí;
- An Clár Náisiúnta um Chosc Dramhaíola a fhorbairt agus a chur i bhfeidhm;
- Reachtaíocht ar rialú ceimiceáin sa timpeallacht a chur i bhfeidhm agus tuairisciú ar an reachtaíocht sin.

## Bainistíocht Uisce

- Plé le struchtúir náisiúnta agus réigiúnacha rialachais agus oibriúcháin chun an Chreat-treoir Uisce a chur i bhfeidhm;
- Monatóireacht, measúnú agus tuairisciú a dhéanamh ar chaighdeán aibhneacha, lochanna, uiscí idirchreasa agus cósta, uiscí snámha agus screamhuisce chomh maith le tomhas ar leibhéil uisce agus sreabhadh abhann.

## Eolaíocht Aeráide & Athrú Aeráide

- Fardail agus réamh-mheastacháin a fhoilsiú um astaíochtaí gás ceaptha teasa na hÉireann;
- Rúnaíocht a chur ar fáil don Chomhairle Chomhairleach ar Athrú Aeráide agus tacaíocht a thabhairt don Idirphlé Náisiúnta ar Ghníomhú ar son na hAeráide;
- Tacú le gníomhaíochtaí forbartha Náisiúnta, AE agus NA um Eolaíocht agus Beartas Aeráide.

## Monatóireacht & Measúnú ar an gComhshaol

- Córais náisiúnta um monatóireacht an chomhshaoil a cheapadh agus a chur i bhfeidhm: teicneolaíocht, bainistíocht sonraí, anailís agus réamhaisnéisiú;
- Tuairiscí ar Staid Timpeallacht na hÉireann agus ar Tháscairí a chur ar fáil;
- Monatóireacht a dhéanamh ar chaighdeán an aeir agus Treoir an AE i leith Aeir Ghlain don Eoraip a chur i bhfeidhm chomh maith leis an gCoinbhinsiún ar Aerthruailliú Fadraoin Trasteorann, agus an Treoir i leith na Teorann Náisiúnta Astaíochtaí;
- Maoirseacht a dhéanamh ar chur i bhfeidhm na Treorach i leith Torainn Timpeallachta;
- Measúnú a dhéanamh ar thionchar pleananna agus clár beartaithe ar chomhshaol na hÉireann.

## Taighde agus Forbairt Comhshaoil

- Comhordú a dhéanamh ar ghníomhaíochtaí taighde comhshaoil agus iad a mhaoiniú chun brú a aithint, bonn eolais a chur faoin mbeartas agus réitigh a chur ar fáil;
- Comhoibriú le gníomhaíocht náisiúnta agus AE um thaighde comhshaoil.

## Cosaint Raideolaíoch

- Monatóireacht a dhéanamh ar leibhéil radaíochta agus nochtadh an phobail do radaíocht ianúcháin agus do réimsí leictreamaighnéadacha a mheas;
- Cabhrú le pleananna náisiúnta a fhorbairt le haghaidh éigeandálaí ag eascairt as taismí núicléacha;
- Monatóireacht a dhéanamh ar fhorbairtí thar lear a bhaineann le saoráidí núicléacha agus leis an tsábháilteacht raideolaíochta;
- Sainseirbhísí um chosaint ar an radaíocht a sholáthar, nó maoirsiú a dhéanamh ar sholáthar na seirbhísí sin.

## Treoir, Ardú Feasachta agus Faisnéis Inrochtana

- Tuairisciú, comhairle agus treoir neamhspleách, fianaise-bhunaithe a chur ar fáil don Rialtas, don tionscal agus don phobal ar ábhair maidir le cosaint comhshaoil agus raideolaíoch;
- An nasc idir sláinte agus folláine, an geilleagar agus timpeallacht ghlan a chur chun cinn;
- Feasacht comhshaoil a chur chun cinn lena n-áirítear tacú le hiompraíocht um éifeachtúlacht acmhainní agus aistriú aeráide;
- Tástáil radóin a chur chun cinn i dtithe agus in ionaid oibre agus feabhsúchán a mholadh áit is gá.

## Comhpháirtíocht agus Líonrú

- Oibriú le gníomhaireachtaí idirnáisiúnta agus náisiúnta, údaráis réigiúnacha agus áitiúla, eagraíochtaí neamhrialtais, comhlachtaí ionadaíochta agus ranna rialtais chun cosaint comhshaoil agus raideolaíoch a chur ar fáil, chomh maith le taighde, comhordú agus cinnteoireacht bunaithe ar an eolaíocht.

## Bainistíocht agus struchtúr na Gníomhaireachta um Chaomhnú Comhshaoil

Tá an GCC á bainistiú ag Bord Lánaimeartha, ar a bhfuil Ard-Stiúrthóir agus cúigear Stiúrthóir. Déantar an obair ar fud cúig cinn d'Oifigí:

- An Oifig um Inbhuanaitheacht i leith Cúrsaí Comhshaoil
- An Oifig Forfheidhmithe i leith Cúrsaí Comhshaoil
- An Oifig um Fhianaise agus Measúnú
- An Oifig um Chosaint ar Radaíocht agus Monatóireacht Comhshaoil
- An Oifig Cumarsáide agus Seirbhísí Corparáideacha

Tugann coistí comhairleacha cabhair don Ghníomhaireacht agus tagann siad le chéile go rialta le plé a dhéanamh ar ábhair inní agus le comhairle a chur ar an mBord.



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