Focus on Private Water Supplies 2018

Environmental Protection Agency
An Ghníomhaireacht um Chaomhnú Comhshaoil

ENVIRONMENTAL PROTECTION AGENCY

The Environmental Protection Agency (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: *We implement effective regulation and environmental compliance systems to deliver good environmental outcomes and target those who don't comply.*

Knowledge: *We provide high quality, targeted and timely environmental data, information and assessment to inform decision making at all levels.*

Advocacy: *We work with others to advocate for a clean, productive and well protected environment and for sustainable environmental behaviour.*

Our Responsibilities

Licensing

We regulate the following activities so that they do not endanger human health or harm the environment:

- waste facilities *(e.g. landfills, incinerators, waste transfer stations)*;
- large scale industrial activities (*e.g. pharmaceutical, cement manufacturing, power plants)*;
- intensive agriculture *(e.g. pigs, poultry)*;
- the contained use and controlled release of Genetically Modified Organisms *(GMOs)*;
- sources of ionising radiation *(e.g. x-ray and radiotherapy equipment, industrial sources)*;
- large petrol storage facilities;
- waste water discharges;
- dumping at sea activities.

National Environmental Enforcement

- Conducting an annual programme of audits and inspections of EPA licensed facilities.
- Overseeing local authorities' environmental protection responsibilities.
- Supervising the supply of drinking water by public water suppliers.
- Working with local authorities and other agencies to tackle environmental crime by co-ordinating a national enforcement network, targeting offenders and overseeing remediation.
- Enforcing Regulations such as Waste Electrical and Electronic Equipment (WEEE), Restriction of Hazardous Substances (RoHS) and substances that deplete the ozone layer.
- Prosecuting those who flout environmental law and damage the environment.

Water Management

- Monitoring and reporting on the quality of rivers, lakes, transitional and coastal waters of Ireland and groundwaters; measuring water levels and river flows.
- National coordination and oversight of the Water Framework Directive.
- Monitoring and reporting on Bathing Water Quality.

Monitoring, Analysing and Reporting on the Environment

- Monitoring air quality and implementing the EU Clean Air for Europe (CAFÉ) Directive.
- Independent reporting to inform decision making by national and local government *(e.g. periodic reporting on the State of Ireland's Environment and Indicator Reports)*.

Regulating Ireland's Greenhouse Gas Emissions

- Preparing Ireland's greenhouse gas inventories and projections.
- Implementing the Emissions Trading Directive, for over 100 of the largest producers of carbon dioxide in Ireland.

Environmental Research and Development

- Funding environmental research to identify pressures, inform policy and provide solutions in the areas of climate, water and sustainability.

Strategic Environmental Assessment

- Assessing the impact of proposed plans and programmes on the Irish environment *(e.g. major development plans)*.

Radiological Protection

- Monitoring radiation levels, assessing exposure of people in Ireland to ionising radiation.
- Assisting in developing national plans for emergencies arising from nuclear accidents.
- Monitoring developments abroad relating to nuclear installations and radiological safety.
- Providing, or overseeing the provision of, specialist radiation protection services.

Guidance, Accessible Information and Education

- Providing advice and guidance to industry and the public on environmental and radiological protection topics.
- Providing timely and easily accessible environmental information to encourage public participation in environmental decision-making *(e.g. My Local Environment, Radon Maps)*.
- Advising Government on matters relating to radiological safety and emergency response.
- Developing a National Hazardous Waste Management Plan to prevent and manage hazardous waste.

Awareness Raising and Behavioural Change

- Generating greater environmental awareness and influencing positive behavioural change by supporting businesses, communities and householders to become more resource efficient.
- Promoting radon testing in homes and workplaces and encouraging remediation where necessary.

Management and structure of the EPA

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 an Advisory Committee of twelve members who meet regularly to discuss issues of concern and provide advice to the Board.

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An Ghníomhaireacht um Chaomhnú Comhshaoil

P.O. Box 3000, Johnstown Castle Estate, County Wexford, Ireland

Telephone: +353 53 9160600 Fax: +353 53 9160699

E-mail: info@epa.ie | Website: www.epa.ie

LoCall: 1890 335599

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Drinking Water Quality in Private Supplies 2018

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Almost 20%

of Ireland's population is supplied by private water supplies, including household wells

Water quality in regulated private water supplies is consistently poorer than public water supplies

2018 E.coli compliance in

Public water supplies	Public group schemes	Private group schemes	Small private supplies
99.9%	100%	95.4%	95.4%

Protecting private supplies

Step 1 : Check your source

Step 2 : Check for any sources of pollution

Step 3: Test the supply annually

ideally following wet weather
(treatment may be necessary if contaminated)

Key findings for 2018

Quality of private water supplies

- The quality of water in tested private supplies remains poorer than that in public supplies, posing a serious risk to public health.
- No testing was done on 16% of registered private supplies.
- The number of cases of VTEC infection increased by 22% from 2017.

Action required by local authorities

- Make sure that all regulated private supplies are registered.
- Monitor all regulated private supplies and audit supplies where monitoring indicates an issue.
- Require suppliers to take action where contamination is found.

Action required by suppliers

- Register supply with local authority and test it at least annually.
- Protect water source from contamination.
- Take action where contamination is found.

1 Introduction to private supplies

What is a private supply?

Private water supplies are those supplies not operated by Irish Water. They are mostly in rural areas and provide drinking water to people who are not connected to the public water mains. The water source for most private supplies is a spring or a well. Private supplies include group schemes; supplies that provide water to public buildings and businesses that do not have a public mains supply; and wells that people have drilled for their own homes. One fifth of the people of Ireland get their water from private supplies.

Who operates private supplies?

Private supplies are operated by a group scheme; the owner of a business or public building that sources its own water; or the homeowner who gets their water from a well. If you are responsible for a private supply, you are responsible for making sure it is safe to drink. Some private supplies are overseen by the local authority because they are covered by the Drinking Water Regulations. This makes them **regulated** supplies. Other supplies are not covered by the regulations; these are called **exempt** supplies.

Why is the EPA concerned about private supplies?

Every year, the EPA looks at the monitoring results for regulated private supplies. The EPA always finds that the quality of the water in private supplies is not as good as the quality of water in publicly-sourced supplies. Drinking water should always be clean and safe to drink; as drinking contaminated water can make you sick.

What is contaminated drinking water?

Drinking water is contaminated if something gets into it that makes it unsafe to drink. A spring or well can be contaminated if it is not properly protected. Figures 1 and 2 show an unprotected borehole and a properly sealed borehole. Contamination can come from poorly managed septic tanks, slurry spreading close to the source, or animals being allowed to roam too close to the source. If the water supply becomes contaminated, it may contain bacteria, such as *E. coli*, which can cause an upset stomach if the water is consumed. These bacteria can cause more serious illnesses in infants, young children, the elderly, and those who already have an underlying health condition.

Figure 1: an unprotected borehole

Figure 2: a properly sealed borehole

Photos courtesy of the Drinking Water Inspectorate for Northern Ireland

I've never had any problem with my supply before, why should I worry?

Just because you haven't had a problem before, it doesn't guarantee that your water is safe. People using a well with low levels of bacteria may become used to it, but a visitor, particularly a child, elderly person, or someone with poor health, may become ill from drinking your water. Also, something might change in the area surrounding your well that could cause contamination, for example, a new house with a septic tank is built, or a farmer starts landspreading in a nearby field.

What's the worst that could happen?

There is a very dangerous form of *E. coli* called VTEC. This can cause severe diarrhoea and stomach cramps and it is particularly dangerous for children under five or elderly people. In about 10% of cases[1] it causes haemolytic uraemic syndrome, the most common cause of kidney failure in children.

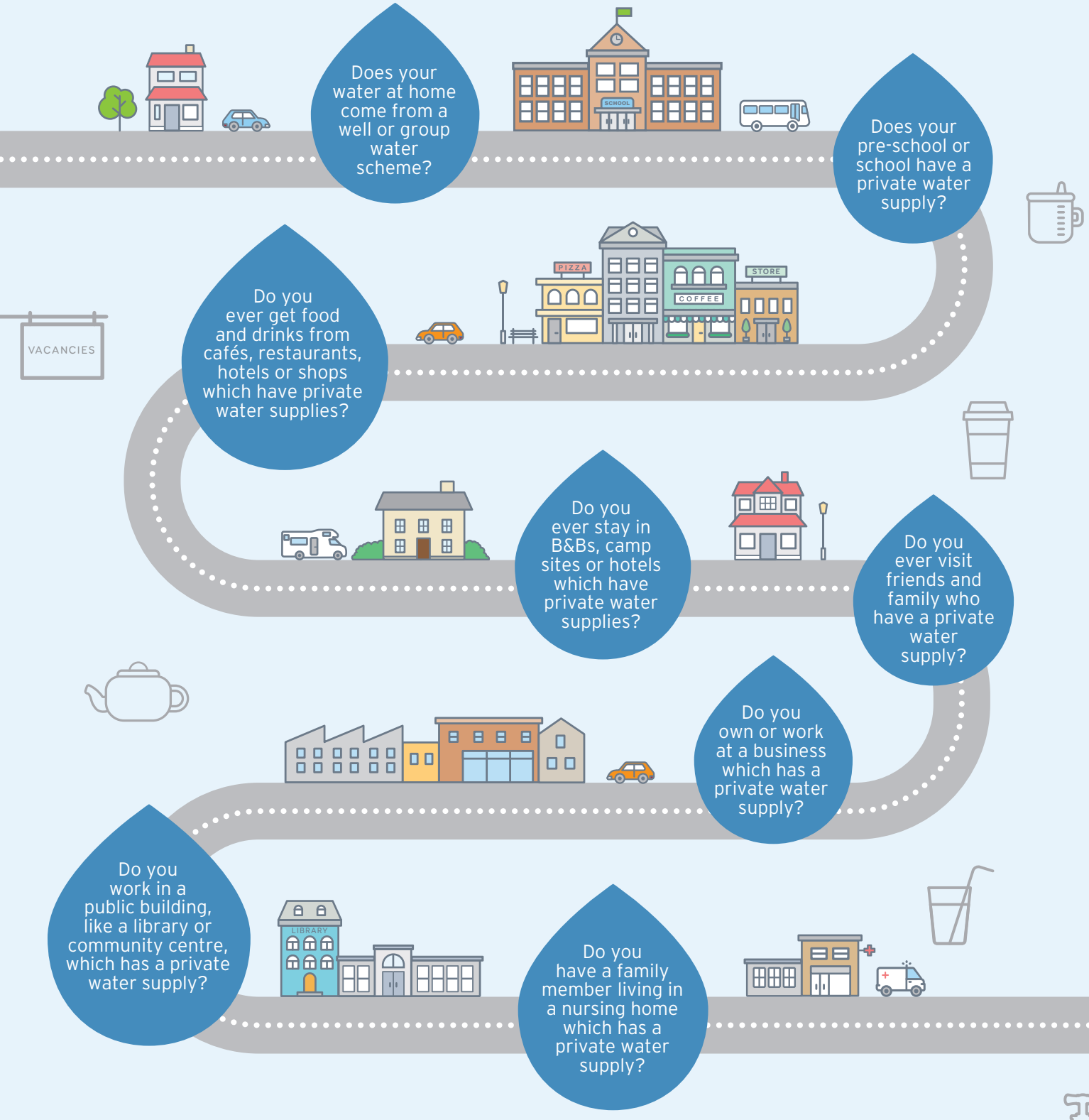
I get my water from Irish Water, does this concern me?

The people most likely to be affected by drinking water from private supplies are those whose homes are served by such supplies. However, many of us may drink water from such supplies when we visit friends, family, restaurants, or other premises that get their water from a private supply. The picture on the next page shows the types of places we might go where the water could be coming from a private supply.

Private supplies must be properly protected, monitored, regulated and funded 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.

[1] https://www.hpsc.ie/a-z/gastroenteric/gastroenteritisoriid/guidance/iidpublichealthandclinicalguidancediseasespecificchapters/File,13525,en.pdf

Are you affected by private water supplies?



If you answered 'Yes' or 'I'm not sure' to any of the questions above, you may be affected by the quality of water in private supplies.

If you are the person in charge of the household well or private water supply, then **you are responsible for making sure that the water is safe to drink.**

Who is responsible for regulated private supplies?

The **supplier** and the **local authorities** have legal responsibilities under the Drinking Water Regulations[2]. The local authorities regulate private supplies. The **Department of Housing, Planning and Local Government** also has an important role in policy making and funding. Two other organisations play a part also:

- 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)** has a limited responsibility for regulated private supplies, namely:
    - 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 supply sector by:
    - Providing guidance to local authorities on investigating water quality failures; and
    - Publishing drinking water treatment advice and guidance.

[2] 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 The different types of water supply in Ireland

There are many different types of water supply in Ireland. They will involve some, or all, of the following steps:

- **Abstraction:** where the water is taken from a river, spring or well for use in a water supply;
- **Treatment:** where the water is cleaned to make it safe to drink; and
- **Distribution:** where the water is piped into a home, village or business for use.

The person, group or organisation supplying water is always responsible for ensuring it is safe to drink. Group water schemes and the owners or managers of commercial or public activities supplying water are responsible for making sure the water they supply is safe to drink. Householders are responsible for their own household wells. More information on what suppliers should do to protect their supply is in Section 5 of this report.

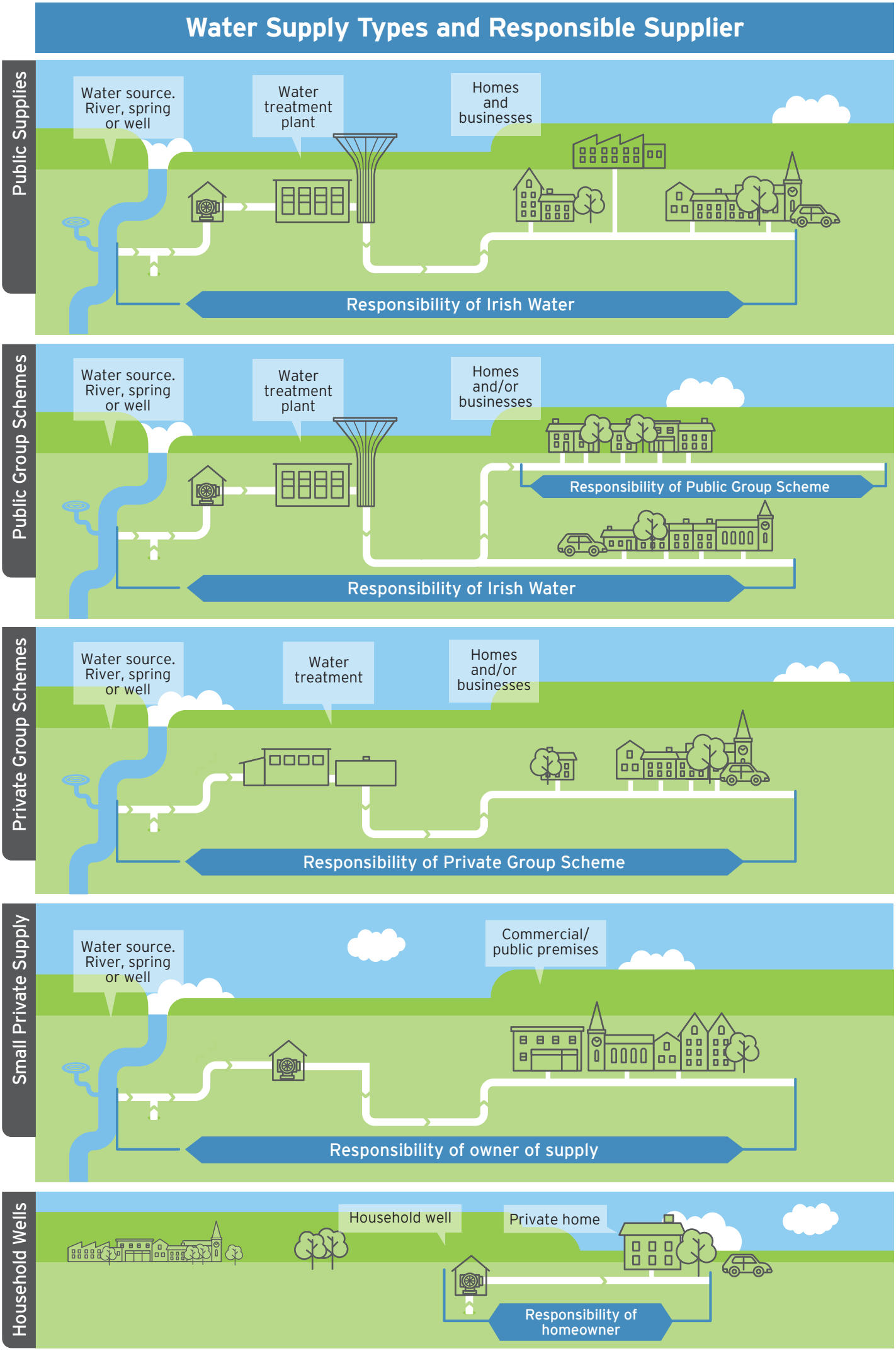
Public supplies: these are supplies where Irish Water manage the abstraction, treatment and distribution of treated water. These supplies are covered by the Drinking Water Regulations and regulated by the EPA. The EPA publishes a separate report on public water supplies that you can find on the EPA website.

Private supplies: there are several different types of private supply.

1. **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.
2. **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 just under **400 private group schemes serving nearly 200,000 people**. A quarter are supplied by surface water (rivers, lakes or streams) and nearly three-quarters are supplied by wells or springs.
3. **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 also mostly supplied by wells. There are over **1,700 small private supplies** registered with local authorities. 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.
4. **Household Wells** serve individual private homes, mostly in rural areas. Household wells are also referred to as private wells. The householder is responsible for managing this type of supply. There are around **172,000 household wells serving about 476,000 people** (CSO, 2016) in Ireland.

The picture on the next page helps to explain the different types of water supplies and who is responsible for them.

Water Supply Types and Responsible Supplier



Regulated and exempt supplies

Some private supplies are overseen by the local authority because they are covered by the Drinking Water Regulations. This makes them **regulated** supplies. Other supplies are not covered by the regulations; these are called **exempt** supplies. Table 1 shows which supplies are regulated and which are exempt, along with the **minimum number of *E. coli* samples** required to be taken every year. Where a supply is regulated, this is the minimum number of *E. coli* samples required by law. Where a supply is exempt, the EPA recommends that at least one sample is taken each year.

Table 1: Regulated and exempt supplies

Type of supply	Number of people served or volume supplied	Regulated or exempt?	Minimum number of *E. coli* samples per year
Public Group Scheme or Private Group Scheme	>50 people or 10,000 litres per day	Regulated	Two
	<50 people or 10,000 litres per day, not supplying any public/commercial activity	Exempt	One
	<50 people or 10,000 litres per day, but supplying a public/commercial activity	Regulated	Two
Small private supply	Supplying a public or commercial activity regardless of the number of people served or volume supplied	Regulated	Two
Household well (also called private well)	Single house only	Exempt	One

What other testing is required in a regulated private supply?

The EPA has focused here on *E. coli* as it is the most important indicator of whether a water supply is contaminated, but other substances and characteristics (called 'parameters') also need to be monitored every year. The list specified in the Regulations can be seen in Appendices 1, 2 and 3 of this report. The number of samples required every year will depend on the size of the supply.

Anyone who owns, manages or regulates a supply needs to be aware of the monitoring requirements and will find more information in the Drinking Water Regulations: European Union (Drinking Water) Regulations 2014 (S.I. 122 of 2014), as amended by European Union (Drinking Water) (Amendment) Regulations 2017 (S.I. 464 of 2017).

What testing is required in an exempt private supply?

Exempt supplies, such as household wells, are not covered by the regulations and so there is no legal requirement to test them. However, the EPA recommends that these supplies are tested for *E. coli* at least once a year, to check for contamination. These results do not have to be reported to the local authority or the EPA; but should be used by supply owners to assess their own water quality. If a supply owner finds their supply is contaminated, they can find information on what to do next on the webpage www.protectyourwell.ie.

Connecting to a public water supply

If you find that the quality of your drinking water is consistently poor and the work or cost of cleaning and maintaining your well or supply is too demanding, you may be able to connect to a group scheme or a public water supply. Details of how to connect to the public water supply are on the Irish Water website (https://www.water.ie/connections/).

3 Drinking water quality in private supplies in 2018

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

What is known about the quality of water from regulated private supplies

This section sets out what the EPA found when assessing the local authorities' monitoring results for 2018 for regulated private supplies. See the full list of results for 2018 in Appendices 1, 2 and 3 and online from the EPA[3].

According to the information sent to the EPA by local authorities, there were over 2,500 regulated private water supplies registered in Ireland in 2018. Appendix 4 shows the number of each type of supply in each local authority area. The EPA assessed the results of *E. coli* monitoring carried out. If *E. coli* is found in water, it shows that the supply is contaminated.

The two main findings from this assessment are:

- The quality of the water from private supplies is not as good as the quality of water from public supplies; and
- Not all registered private supplies were monitored in 2018.

Finding 1: The quality of the water from private supplies is not as good as the quality of water from public supplies

This year, as in previous years, the EPA has found that the quality of drinking water in regulated private water supplies is poorer than that of public water supplies (Table 2). Public group water schemes (serving 2% of the population) have the best water quality as the water comes from the public water supply provider, Irish Water.

Table 2: *E. coli* compliance in each regulated water supply type in 2018

***E. coli* compliance in regulated supplies in 2018**	
Quality of water provided by publicly-sourced supplies	
99.3%	of public (Irish Water) supplies monitored met the *E. coli* standard.
100.0%	of public group water supplies met the *E. coli* standard.
Quality of water provided by privately-sourced supplies	
95.4%	of private group water supplies met the *E. coli* standard.
95.4%	of small private supplies monitored met the *E. coli* standard.

[3] http://erc.epa.ie/safer/resourcelisting.jsp?oID=10206&username=EPA%20Drinking%20Water.

Figure 3 shows the trends in compliance for the different regulated supply types over the last eight years.

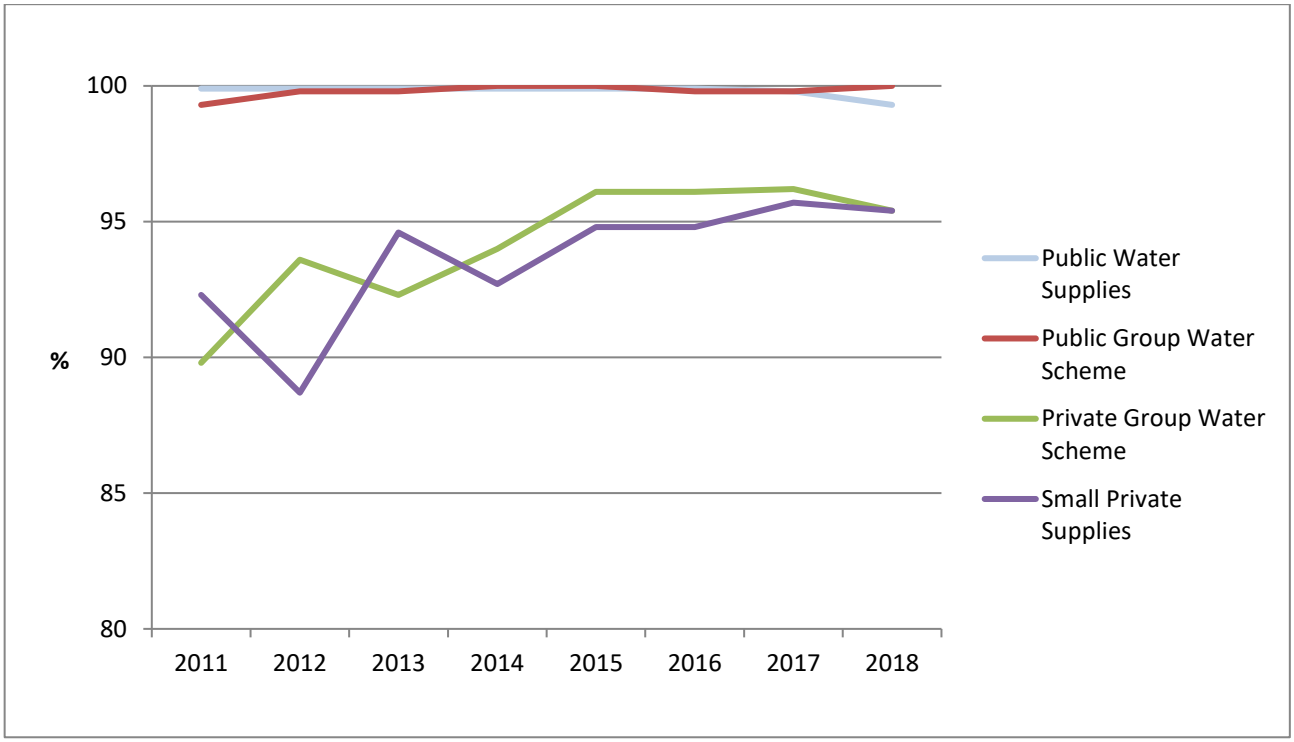


Figure 3: *E. coli* compliance per water supply type, from 2011 to 2018

Previous improvements in the quality of water from private group schemes and small private supplies appear to have stalled, and the gap between water quality in private supplies and the supplies provided by Irish Water is not closing.

E.coli failures in private group schemes were largely confined to a number of schemes that have been identified by the National Federation of Group Water Schemes as having poor or no treatment systems in place and/or where management is poor.

Regarding small private supplies, there is no umbrella organisation working on their behalf and there is no funding mechanism in place for them. Small private supplies consist of individual premises such as schools, childcare facilities, nursing homes and hotels that have the potential to cause a serious risk to public health if they are contaminated.

Finding 2: Not all registered private supplies were monitored in 2018

Not all registered supplies were monitored in 2018. Looking at just *E. coli*, it can be seen from Table 3 that 16% of supplies were not monitored. The breakdown per county can be seen in Appendix 5.

Table 3: Number of regulated private supplies not monitored for *E. coli* in 2018

	Public group	Private Group	Small private	Total
Total number of supplies	398	396	1781	2575
Number not monitored	12	1	399	412
% not monitored	3.0%	0.2%	22.4%	16.0%

Local Authorities have no recent water quality information on a sixth of registered private supplies. This makes it impossible to be confident that this water is safe to drink. Local authorities are responsible for ensuring that all registered private supplies are monitored each year at the required frequency.

What is known about the quality of water in exempt supplies

Household wells and group schemes serving <50 people or 10,000 litres per day which are not supplying any public/commercial activity, are not covered by the drinking water regulations and therefore are not monitored by the local authorities. Responsibility for looking after these supplies rests with the householder or scheme. There is very little information on the quality of the water in these supplies, but it is estimated that between 15%[4] and 30%[5] of all wells are contaminated by *E. coli* and that around two-thirds of wells could be at risk of contamination[4].

What does this information tell us?

To sum up:

- The EPA doesn't know the quality of all the known regulated private supplies as not all are being monitored;
- Where monitoring is being carried out, many supplies are found to have poor quality water; and
- Consequently, there is a serious health risk to the public.

[4] http://www.epa.ie/pubs/reports/research/water/research251.html
[5] 'Water Quality in Ireland 2007-2009', EPA 2010

4 The risks to private supplies and public health

Private group schemes, small private supplies, and household well owners are all responsible for getting their own water. Most of these 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. Figure 4 shows the risks to health if a well is contaminated.

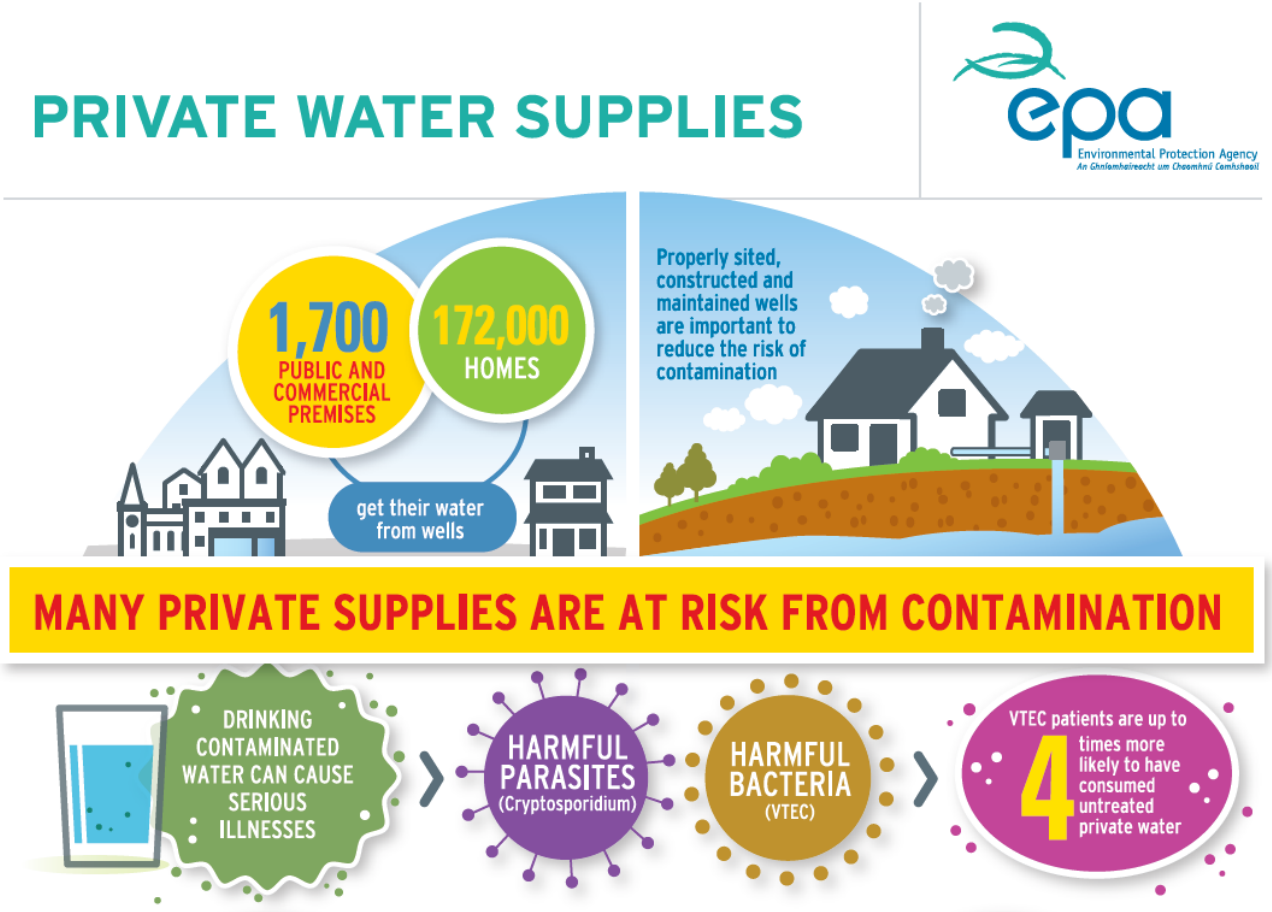


Figure 4: Risks to health from contaminated well water

The serious threat from VTEC

If water is contaminated with *E. coli*, it could give you a sick stomach or diarrhoea. There is also a dangerous form of *E. coli* called VTEC (Verocytotoxigenic E. coli). This can arise from contamination of a water supply by cattle slurry. VTEC can cause severe diarrhoea and stomach cramps and it is particularly dangerous for children under five and elderly people. In Ireland, more than 40% of people who are infected with VTEC will be hospitalised[6].

[6] http://www.hpsc.ie/a-z/gastroenteric/vtec/publications/annualreportsonepidemiologyofverotoxigenicecoli/

In about 10% of cases, VTEC infection can lead to the patient developing haemolytic uraemic syndrome, the most common cause of kidney failure in children[6]. This can lead to long-term illness or even death.

Ireland has the highest incidence of VTEC infection in Europe, with 10 times the European average in 2017. The Health Protection Surveillance Centre (HPSC) has reported an increasing number of cases of VTEC infection in Ireland: in 2018, cases of VTEC infection increased by 22% from 2017[7]. In Ireland, rural families are most commonly affected. A study of VTEC data in the HSE Midlands Region in 2012 concluded that around 83% of all VTEC cases were due to the patient being exposed to waterborne VTEC[8].

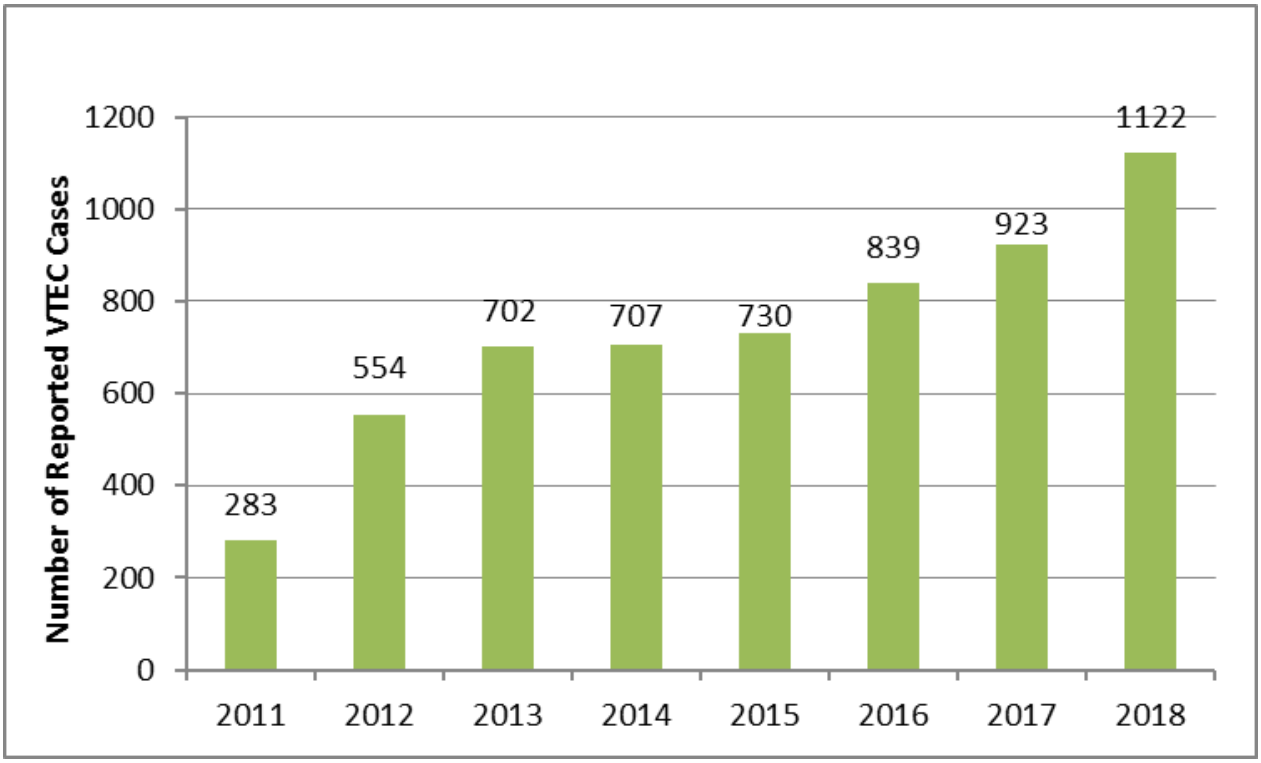


Figure 5: Number of VTEC infection cases reported by the HSPC

[7] HSPC Weekly Infectious Diseases Report Week 52 2018
[8] https://www.hse.ie/eng/services/list/5/publichealth/publichealthdepts/pub/vtec-spec-report-1.pdf

Extreme weather events in 2018

During 2018, Ireland experienced extreme weather events which impacted on water supplies and the delivery of water to consumers. In March 2018, Storm Emma resulted in large amounts of snow and extremely cold weather conditions. Many people were affected by water restrictions or had no water at all. Other supplies were at risk of having water cut off or restricted.

The summer of 2018 posed other challenges for drinking water supplies. High temperatures and no rainfall in June and July meant that Ireland experienced drought conditions. The National Federation of Group Water Schemes reported that 22 group water schemes across the country experienced very serious water loss, with alternative and supplementary water sources required in many cases, particularly on supplies with shallow groundwater sources. The EPA received calls from members of the public whose wells ran dry and had no back-up water supply.

We also experienced many days of extremely heavy rainfall during the year. This can have the effect of washing contamination into wells which are not properly protected. Two thirds of private wells are not sufficiently protected to prevent contamination of the water from those wells. The HSPC reports that exposure to water from contaminated, untreated or poorly treated private water supplies has long been recognised as a strong risk factor for VTEC infection in Ireland[7]. This has been particularly pronounced following periods of heavy rainfall. The Chair of the HSE Public Health Medicine Environment and Health Group has warned that our susceptibility to serious water-borne disease from severe rainfall events is very high.

What does this information tell us?

Water quality in many private supplies is already not good enough and we may be facing more and more of these severe weather events in the future. We need to have resilient water supplies that can cope.

5 Information for water suppliers

The water supplier is responsible for making sure that their water is safe to drink. There are four main 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:

- Monitor the supply to see if it is contaminated;
- Take action to stop contamination to the supply;
- Identify the risks to the supply; and
- Take action to reduce the risks to the supply.

Monitor the quality of the water in the supply

The local authority must ensure that all regulated private supplies are registered and monitored at the correct frequency every year. However, if you are a supplier, you should register your supply with the local authority. You should also request a test with the local authority if one has not been done within a year.

For household wells and other exempt supplies, the responsibility for monitoring the supply lies with the owners. In this case, the EPA recommends that you monitor your supply at least once a year, at least for *E. coli,* preferably following heavy rain when the supply is most at risk from contamination. If well water changes in smell, taste or colour, it is a strong indication that contamination has taken place.

Identify the risks to the supply

The EPA has developed a 'Protect Your Well' web application that provides a step-by-step guide to inspecting your well for contamination or the risk of contamination (see Figure 6). You can find the 'Protect Your Well' application on the EPA website at www.protectyourwell.ie. A video providing a summary of the main risks to wells is at https://www.youtube.com/watch?v=Vm7R1MMz1D8.

Take action to stop contamination and reduce the risks to the supply

The 'Protect Your Well' application identifies several actions to help reduce the contamination risks identified for your supply. These may include properly sealing the wellhead, ensuring septic tank effluent or slurry does not enter the well, and disinfecting the well if necessary.

A dedicated EPA webpage, www.protectyourwell.ie provides more information. The webpage includes an information booklet on best practice methods of borehole construction and wellhead protection and step-by-step instructions on how to disinfect your well. The webpage also gives advice on monitoring and treatment of your well water and has a list of frequently asked questions. Table 4 lists recommendations for private suppliers.

The NFGWS Quality Assurance scheme outlines actions that should be taken to reduce risks identified by group water schemes for their supply. More information can be found in Section 8 of this report.

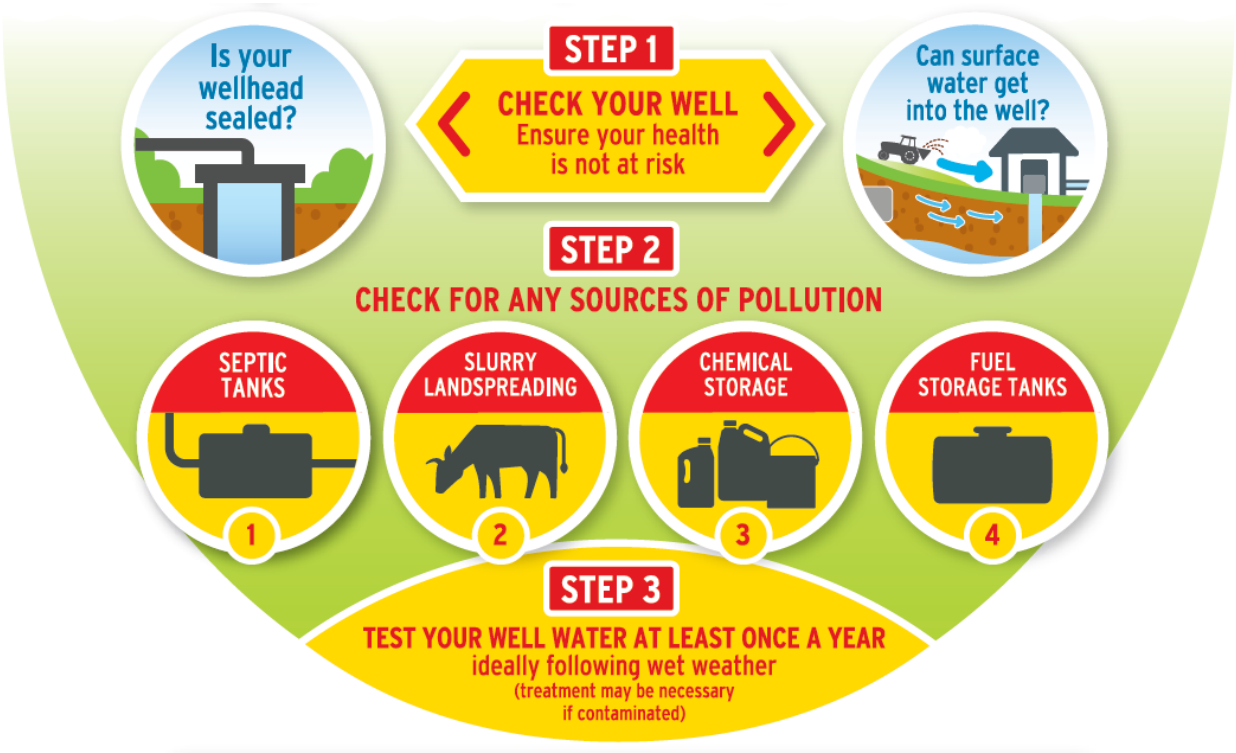


Figure 6: Understanding the risks to your well

Table 4: Recommendations for private water suppliers

Recommendations
If regulated, make sure you are on the Local Authority's register.
Monitor your supply at the correct frequency.
Identify the risks to your supply and take action to reduce them.
Protect your water source by: • Constructing wellheads above ground level and sealing and capping the wellhead. See EPA guidance on borehole construction and wellhead protection. • Fencing off around the well and surface water abstraction points to prevent animal access. • Being aware of set-back distances for landspreading close to wells or surface water abstraction points and ensuring that any local landowners are adhering to them. • Not using or storing pesticides or other chemicals near a well or surface water abstraction point. • Visually inspecting abstraction points for contamination on a regular basis.
Manage and maintain your water treatment system.
Use the guidance developed by the local authorities, EPA and National Federation of Group Water Schemes.

6 Local authority responsibilities for private supplies

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

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

These are covered in greater detail below. The local authority also has the responsibility to provide advice to owners of exempt supplies, namely household wells and small group schemes. The EPA is the supervisory authority over the local authority for their monitoring functions only.

Local authority register

Local authorities are required under the Drinking Water Regulations to keep an up-to-date register of all private water supplies in their area. The register shall include the information required under Regulation 8(3) of the 2014 Drinking Water Regulations. The local authorities may find it useful to map the location of all the customers on the supply as this will be helpful when preparing the annual monitoring plan.

While the local authorities are legally obliged to keep a register of all regulated private supplies, there is no legal obligation for a regulated private supplier to register with the local authority.

So, there is an unknown number of private supplies in the country that the local authority has no information about. If the local authority doesn't know about a supply, they can't monitor it. These supplies are most likely to be small private supplies, that is, businesses that have the potential to cause a serious health risk to the public, if their water is contaminated. Private water suppliers can help local authorities by letting them know that they own a private water supply.

Another factor is that although some local authorities are aware that there are unregistered supplies in their areas, they may not be making sure that all such supplies are registered with them. Local authorities also need to take steps to identify all private supplies in their area.

The local authority register is important for two reasons:

- The local authorities need to know which supplies to monitor each year, and
- The Department of Housing, Planning and Local Government needs to know how many supplies could require funding and support to provide good quality water.

Local authorities must enter details of all private regulated water supplies into the Environmental Data Exchange Network (EDEN) system.

Monitoring of regulated private supplies

Local authority monitoring activities

Local authorities are required to ensure that all regulated private supplies are monitored at the appropriate frequency each year. Section 3 of this report highlights that even if private supplies are on the local authority register, not all of them are being monitored. Around one-sixth of the registered private water supplies were not monitored at all in 2018.

Local authorities should prepare a monitoring plan at the beginning of each year, that includes all private water supplies in their area. The monitoring plan is used by the local authority themselves, or by any contract samplers, to make sure that all supplies are monitored.

If local authorities find a water quality failure in a supply, they should notify the supplier as soon as possible, so the cause of the failure can be fixed. If the local authority, in consultation with the HSE, considers that the supply poses a risk to health, the local authority may issue a boil water notice.

EPA audits of local authority monitoring plans

The EPA audits the local authorities' yearly monitoring plans and makes recommendations to the local authorities on the actions they need to take to make sure their plan is satisfactory. The reports of these audits are published on the EPA website.

In 2018, the EPA carried out audits of the private water supply monitoring plans in three local authorities. The EPA made recommendations under the following headings:

- Register of supplies;
- Sampling programme and procedures;
- Monitoring programme;
- Data handling; and
- Investigation of sample failures.

The EPA advises that all local authorities read these audit reports and review the Drinking Water Regulations to ensure that they are meeting all the necessary requirements.

Investigating failures to meet water quality standards

If a local authority finds a water quality failure at a supply as part of their monitoring, they should consult with the HSE if there could be a risk to health, and notify the supplier as soon as possible, so the cause of the failure can be fixed. Local authorities then have a responsibility to fully investigate the failure and request that the water supplier prepare an action plan to fix the cause. Local authorities should review the action plan and amend where necessary to make sure the supply will be properly fixed. They should then oversee the action plan and make sure it is carried out. Local authorities have several enforcement tools they can use to help them with this process, which will be discussed next.

Enforcing the drinking water regulations

As part of the local authorities' role as regulator, they are required under the Regulations to:

- Audit private drinking water supplies; and
- Ensure that a water supply owner acts to improve their water supply if the water quality does not meet the standards in the Regulations.

An audit is a useful way to see first-hand how a water supply is operating. Where a water failure has occurred, an audit will help identify the root cause of the problems. Otherwise, it is difficult to know what the problems are.

Only 15 local authorities carried out audits of private supplies in 2018. The 91 audits carried out represent 3.5% of registered private regulated supplies. There are counties where boil water notices were issued where no audits were undertaken.

At the start of every year, the local authority should create an audit plan listing the supplies they plan to audit that year. The supplies should be chosen based on the level of risk to the supply. An example of risk would be if the supply has a boil water notice in place or has had several *E. coli* failures. Guidance on preparing an audit plan can be found in the EPA Handbook[9].

Local authorities should also audit a supply when they become aware of a water quality failure that could pose a risk to health, or a significant issue at a supply. This should form part of their investigation. Most small private supply owners will benefit from the assistance of the local authority in identifying issues with the supply.

Local authorities may also:

- Issue legal Directions if supply owners do not act; and
- Prosecute water supply owners if necessary.

Local authorities have provided the EPA with some information on their enforcement activities in 2018, including the number of audits, directions and boil water notices issued (Appendix 6).

The responses for 2018 show that:

- One local authority (Wexford) issued a Direction (for persistent coliform problems in a supply), and
- 18 local authorities issued 126 boil notices.

Local authorities should use their enforcement tools when required, particularly if a water quality issue has been found on a private supply. Table 5 gives recommendations for enforcement activities.

[9] http://www.epa.ie/pubs/advice/drinkingwater/privatewatersupplieshandbook/

Table 5: EPA recommendations for local authorities' enforcement activities

Recommendations
Carry out audits of private water supplies, focusing on those with known water quality problems.
Use the enforcement powers available to drive water quality improvements.
Prioritise supplies that have serious water quality issues or are slow to implement local authority recommendations.
Take action to ensure public health is protected when a water quality issue is identified in a private supply.

What does this information tell us?

Local authorities have significant responsibilities for private drinking water supplies, under the Drinking Water Regulations. They need to target resources to ensure that they meet their obligations in terms of monitoring and enforcement of private supplies, to protect the health of those using private supplies.

7 Department of Housing, Planning and Local Government

The Department of Housing, Planning and Local Government is responsible for policy making and for providing supports to the private water sector. The aim is to ensure that everyone gets clean water, no matter where they live.

Provision of funding for private water supplies

The Department of Housing, Planning and Local Government makes funding available to group water schemes and household well owners for improvements to their supplies. Local authorities administer and distribute the funding through the Multi-Annual Rural Water Programme 2019-2021. The funding includes:

- Annual subsidies and capital grants to group water schemes, and
- Household well grants[10] to householders who have their own wells.

Other types of private supplies currently receive no funding.

Rural Water Review Group

The Department of Housing, Planning and Local Government set up a working group in 2018 to review how private water supplies and private wastewater treatment systems are monitored, maintained and financed. The overall aim of the working group is to improve water quality in private water supplies and bring it up to the same level as public water supply quality. The working group is made up of representatives from the Department, EPA, HSE, local authorities and the NFGWS. It is looking at what resources, support, policies and finance private water supplies need to improve their water quality and protect the people that use these supplies. All private water supply types, including household wells, are being considered in the review.

Remedial action list for group water schemes

The Department of Housing, Planning and Local Government developed a **Remedial Action List for Group Water Schemes** in 2016. The list, which is modelled on the EPA's Remedial Action List for public water supplies, identifies private group water schemes that are at risk of supplying poor quality drinking water because their water treatment systems are inadequate. Group water schemes on the list are prioritised for grants to improve their treatment systems. The list was started in 2016, and further updated in 2017. The 2017 Remedial Action List for Group Water Schemes consisted of 106 private group water schemes (nearly 30% of all private group water schemes). Table 6 shows the number of schemes on the Remedial Action List for Group Water Schemes, by county, at the end of 2017 and Table 7 shows the status of those schemes. The high number of schemes in the list from Mayo and Galway reflect the high numbers of schemes in those counties.

The 2017 list has not been updated by the Department of Housing, Planning and Local Government to reflect any activity that took place in 2018.

[10] https://www.housing.gov.ie/water/water-services/rural-water-programme/private-wells

Table 6: Number of schemes on Remedial Action List for Group Water Schemes at end of 2017, by county

County	Number of schemes	County	Number of schemes
Cavan	3	Leitrim	1
Clare	3	Limerick	2
Cork	3	Louth	5
Donegal	2	Mayo	34
Galway	29	Offaly	5
Kerry	4	Roscommon	1
Kildare	3	Sligo	2
Kilkenny	2	Waterford	2
Laois	2	Wicklow	3

Table 7: Status of schemes on Remedial Action List for Group Water Schemes at end of 2017

	No. of schemes (total = 106)	% of total schemes on List	% of population on List
Fully completed	19	17.9	29.5
Started but not completed	51	48.1	56.9
Not started	36	34.0	13.6

The EPA recommends that the Remedial Action List for Group Water Schemes should be a dynamic process and updated at least annually to reflect the improvements achieved and highlight the areas where work is still required.

8 Developments in private group schemes sector

National Federation of Group Water Schemes

The National Federation of Group Water Schemes (NFGWS) was formed in 1997 to represent the community-owned rural water services sector in Ireland and works with schemes to assist them to comply with the Drinking Water Regulations. The NFGWS also works closely with local authorities and individual group water schemes to identify and address ongoing water quality issues and risks to supplies. The NFGWS also assists schemes to access funding from the Department of Housing, Planning and Local Government.

The NFGWS developed a Quality Assurance System (Figure 7). Following this system helps the scheme identify Critical Control Measures that, if taken, provide a very strong level of assurance that treated water is delivered safely to the homes and businesses of the scheme members. The NFGWS has also developed specific programmes to deal with contamination of supplies caused by septic tanks and poor source protection.

For more information, see www.nfgws.ie .

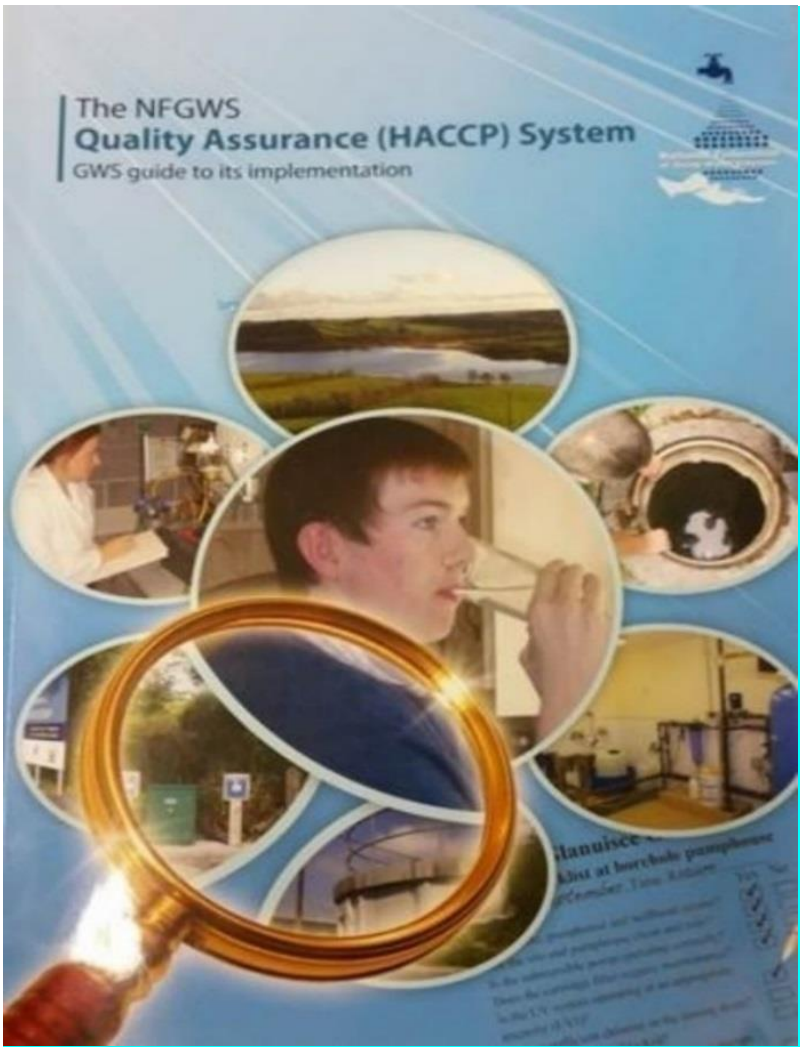


Figure 7: NFGWS Quality Assurance Manual

Developments in 2018

Improving source protection

A **catchment** is an area of land around a river, lake or other body of water. Any activities that take place in a catchment have the potential to affect the water quality of the water body. If a water body is used as a drinking water source, then its catchment can be considered a **source protection area**, that is, an area where it is necessary to protect your source by making sure that any activities won't cause contamination of the water body. The cleaner you can keep the drinking water source, the better chance you have of making sure that the water delivered to consumers is clean.

The **NFGWS Source Protection Project** is working to develop a framework for drinking water source protection. The framework would help schemes come up with a plan of actions for the catchment around their drinking water source. In **Phase 1** of the project, the NFGWS worked with the Geological Survey of Ireland (GSI) and others, to outline and **map the catchment/source protection areas** associated with over 300 group water scheme sources. This was to find out the areas that need to be protected. **Phase 2** of the project began in 2018. The aim of this phase was to **develop a source protection plan for each catchment/source protection area** to better understand likely sources of contamination and identify appropriate actions to protect or improve source water quality.

To develop the process for source protection planning, a pilot project has been established. A steering committee was formed in May 2018 with community groups, farming organisations, and State agencies/organisations. Nine schemes were included in the pilot project, representing schemes of different size, water type (surface and groundwater) and water quality issues. These schemes' source protection areas were assessed to identify pressures impacting on each water source and identify a range of typical measures that could be implemented by the schemes. Interim reports were completed in December 2018 and in 2019, the NFGWS published 'A Framework for Drinking Water Source Protection' (Figure 8) as one of the first outputs from the project. Using the framework, a range of measures have been identified on the pilot schemes including:

- Weed wiping for the control of rushes, to prevent contamination of drinking water sources with herbicides;
- Fencing along streams and rivers for upland surface water sources to prevent direct access by livestock to water (Figure 9);
- Planting to promote nutrient uptake, prevent riverbank erosion and enhance local biodiversity;
- Providing alternative drinking water sources for livestock denied access to rivers and streams;
- Installing traps to collect sediment from sinking streams;
- Desludging of septic tanks as part of a community-led initiative; and
- Awareness raising measures within communities, including information meetings, working with primary schools and newsletters.

Group water schemes can now use this framework to prepare their own source protection plan and identify suitable measures to protect the water source for their own supplies.

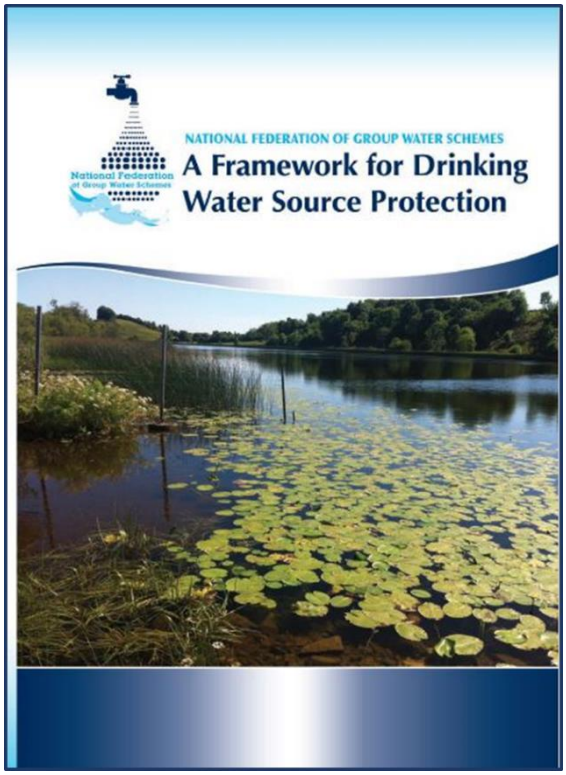


Figure 8: NFGWS Source Protection Framework

Figure 9: A stream fenced off to prevent cattle entering it and contaminating it

NFGWS's Amalgamation and Rationalisation Strategy

Many private group water schemes are relying on volunteers to maintain them. The NFGWS would like to see more professional management of schemes, as people have less free time to commit to this work; and may not have the technical expertise that is required. For this reason, the NFGWS submitted a rationalisation and amalgamation strategy to the Department of Housing, Planning and Local Government in 2016. 'Amalgamation' means to physically join two or more schemes together by connecting their distribution networks, and ideally, using a single water source. 'Rationalisation' means having one management group for two or more schemes, rather than having small groups managing each scheme. The strategy set out a series of potential clusters of small group water schemes that would benefit from amalgamation or rationalisation. It also included two 'Pathfinder Projects':

- The first Pathfinder project involved two schemes in County Offaly physically amalgamating to become a larger, more viable, and professional community-owned water supply. Construction commenced during 2017 and was completed in 2019 with the scheme now operating successfully with a professional management system in place.
- The second Pathfinder project involved three group water schemes from County Limerick. These three schemes were located too far from each other to physically amalgamate, but instead agreed to work together by forming a new co-operative structure to manage the three schemes as one. The new community-owned entity was established in 2018 and has appointed a manager.

During 2018, the Department of Housing, Planning and Local Government requested several local authorities to carry out a feasibility study for such projects on group water schemes within their jurisdiction. A number of these reports have been completed which identify viable amalgamation and rationalisation options.

Many of these options require difficult decisions to be made by group water schemes, including dramatically changing how they have operated since they were originally established. There are significant challenges in delivering these projects. Participation is voluntary and the final decision to take part is reached by the members who own these supplies.

Information meetings were held, and project steering committees were established in 2018, with the aim of allowing small schemes to put sustainable management solutions in place to ensure safe, resilient supplies into the future.

Ensuring the successful delivery of projects

The Department of Housing Planning and Local Government's Multi-Annual Rural Water Programme makes funding available to group schemes. For solutions to succeed, they also require engagement, support and long-term commitment from the community, to ensure sustainable management of the supply from catchment to tap.

9 Conclusions

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. Private supplies must be properly protected, monitored and regulated to ensure that they meet the drinking water standards.

The EPA's assessment of the 2018 monitoring data showed us that:

- The quality of the water from private supplies is not as good as the quality of water from public supplies, which poses a risk to public health; and
- Not all registered private supplies were monitored in 2018.

This means that the quality of your drinking water and, therefore, the chance of you getting ill from it, very much depends on the type of supply you are drinking water from. The consequences of getting ill from water-borne bacteria or pathogens can be very severe.

Our review of the activities of local authorities showed us that:

- Not all local authorities take action to audit supplies which have a water quality issue; and
- Very few supplies are being audited, to see if they pose a risk.

The sector faces many challenges in supplying sufficient, clean water to consumers. These challenges include managing the risks posed by extreme weather events and accessing funding to make much-needed improvements to supplies.

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.

Appendices

Appendices 1, 2, and 3 list compliance monitoring results for three groups of regulated private drinking water supplies:

- Public Group Schemes
- Private Group Schemes
- Small Private Supplies.

Appendix 4 lists, for each local authority area, the number of private water supplies and the populations served by each supply type.

Appendix 5 lists, for each local authority area, the number of private water supplies that were not monitored for *E. coli* during 2018.

Appendix 6 lists, for each local authority area, the enforcement activities carried out in 2018; that is, the number of boil notices in place and the population affected, and the number of audits and directions taken in 2018.

Appendix 1: Public Group Water Schemes – Zones Monitored and Samples Analysed in 2018

Parameter	No. of Zones Monitored	No of Zones with Exceedances	% of Zones Complying	No. of Samples Analysed	No. of Samples Exceeding	% of Samples Complying
Microbiological						
E. coli	386	0	100	952	0	100
Enterococci	55	0	100	58	0	100
Chemical						
1,2-dichloroethane	54	0	100.0	57	0	100.0
Antimony	57	0	100.0	59	0	100.0
Arsenic	57	0	100.0	59	0	100.0
Benzene	54	0	100.0	57	0	100.0
Benzo(a)pyrene	57	0	100.0	60	0	100.0
Boron	57	0	100.0	60	0	100.0
Bromate	57	0	100.0	59	0	100.0
Cadmium	57	0	100.0	59	0	100.0
Chromium	57	1	98.2	59	1	98.3
Copper	60	0	100.0	63	0	100.0
Cyanide	57	0	100.0	60	0	100.0
Fluoride	48	2	95.8	50	2	96.0
Lead	57	0	100.0	59	0	100.0
Mercury	57	0	100.0	60	0	100.0
Nickel	60	0	100.0	63	0	100.0
Nitrate	134	1	99.3	242	1	99.6
Nitrite (at tap)	168	0	100.0	311	0	100.0
PAH	57	0	100.0	60	0	100.0
Pesticides - Total	54	0	100.0	57	0	100.0
Selenium	57	0	100.0	59	0	100.0
Tetrachloroethene & Trichloroethene	54	0	100.0	57	0	100.0
Total Trihalomethanes	55	7	87.3	58	7	87.9
Indicator						
Aluminium	318	7	97.8	704	8	98.9
Ammonium	221	0	100.0	444	0	100.0
Chloride	58	0	100.0	60	0	100.0
Clostridium perfringens	135	1	99.3	276	1	99.6
Coliform Bacteria	386	20	94.8	952	21	97.8
Colony Count @ 22°C	381	27	92.9	878	30	96.6
Colour	386	6	98.4	920	6	99.3
Conductivity	386	0	100.0	920	0	100.0
Iron	328	8	97.6	750	8	98.9
Manganese	121	1	99.2	216	1	99.5
Odour	368	46	87.5	887	58	93.5
pH	386	8	97.9	919	8	99.1
Sodium	58	0	100.0	61	0	100.0
Sulphate	58	0	100.0	60	0	100.0
Taste	368	3	99.2	881	3	99.7
Total Organic Carbon	57	3	94.7	59	3	94.9
Turbidity (at tap)	386	4	99.0	920	4	99.6

Appendix 2: Private Group Water Schemes – Zones Monitored and Samples Analysed in 2018

Parameter	No. of Zones Monitored	No of Zones with Exceedances	% of Zones Complying	No. of Samples Analysed	No. of Samples Exceeding	% of Samples Complying
Microbiological						
E. coli	392	18	95.4	1422	22	98.5
Enterococci	274	10	96.4	306	10	96.7
Chemical						
1,2-dichloroethane	251	0	100.0	277	0	100.0
Antimony	272	0	100.0	299	0	100.0
Arsenic	272	0	100.0	299	0	100.0
Benzene	251	0	100.0	277	0	100.0
Benzo(a)pyrene	250	0	100.0	276	0	100.0
Boron	265	0	100.0	291	0	100.0
Bromate	256	0	100.0	283	0	100.0
Cadmium	272	0	100.0	299	0	100.0
Chromium	272	0	100.0	299	0	100.0
Copper	272	1	99.6	302	1	99.7
Cyanide	250	0	100.0	276	0	100.0
Fluoride	226	3	98.7	245	3	98.8
Lead	272	1	99.6	300	1	99.7
Mercury	271	1	99.6	302	1	99.7
Nickel	272	1	99.6	300	1	99.7
Nitrate	329	3	99.1	616	4	99.4
Nitrite (at tap)	315	0	100.0	614	0	100.0
PAH	249	0	100.0	275	0	100.0
Pesticides - Total	258	0	100.0	291	0	100.0
Selenium	272	0	100.0	299	0	100.0
Tetrachloroethene & Trichloroethene	251	0	100.0	277	0	100.0
Total Trihalomethanes	254	16	93.7	289	16	94.5
Indicator						
Aluminium	331	15	95.5	1006	23	97.7
Ammonium	336	2	99.4	748	5	99.3
Chloride	272	0	100.0	305	0	100.0
Clostridium perfringens	312	12	96.2	592	13	97.8
Coliform Bacteria	392	66	83.2	1422	80	94.4
Colony Count @ 22°C	389	68	82.5	1370	86	93.7
Colour	392	16	95.9	1347	21	98.4
Conductivity	392	0	100.0	1407	0	100.0
Iron	345	14	95.9	1063	17	98.4
Manganese	306	11	96.4	471	13	97.2
Odour	384	18	95.3	1363	23	98.3
pH	392	29	92.6	1407	52	96.3
Sodium	266	1	99.6	288	1	99.7
Sulphate	272	0	100.0	306	0	100.0
Taste	375	0	100.0	1333	0	100.0
Total Organic Carbon	272	18	93.4	302	18	94.0
Turbidity (at tap)	392	7	98.2	1406	8	99.4

Appendix 3: Small Private Supplies – Zones Monitored and Samples Analysed in 2018

Parameter	No. of Zones Monitored	No of Zones with Exceedances	% of Zones Complying	No. of Samples Analysed	No. of Samples Exceeding	% of Samples Complying
Microbiological						
E. coli	1356	62	95.4	2264	66	97.1
Enterococci	180	2	98.9	264	2	99.2
Chemical						
1,2-dichloroethane	38	0	100.0	40	0	100.0
Antimony	164	0	100.0	193	0	100.0
Arsenic	166	2	98.8	195	2	99.0
Benzene	39	0	100.0	41	0	100.0
Benzo(a)pyrene	38	0	100.0	40	0	100.0
Boron	146	0	100.0	157	0	100.0
Bromate	50	0	100.0	64	0	100.0
Cadmium	168	0	100.0	197	0	100.0
Chromium	169	0	100.0	198	0	100.0
Copper	238	3	98.7	280	3	98.9
Cyanide	38	0	100.0	40	0	100.0
Fluoride	46	1	97.8	51	1	98.0
Lead	288	5	98.3	373	5	98.7
Mercury	58	0	100.0	78	0	100.0
Nickel	170	2	98.8	199	2	99.0
Nitrate	682	13	98.1	1117	14	98.7
Nitrite (at tap)	406	1	99.8	620	1	99.8
PAH	38	0	100.0	40	0	100.0
Pesticides - Total	37	0	100.0	48	0	100.0
Selenium	164	0	100.0	193	0	100.0
Tetrachloroethene & Trichloroethene	38	0	100.0	40	0	100.0
Total Trihalomethanes	32	1	96.9	36	1	97.2
Indicator						
Aluminium	291	9	96.9	488	9	98.2
Ammonium	578	14	97.6	772	15	98.1
Chloride	209	5	97.6	252	7	97.2
Clostridium perfringens	222	11	95.0	345	11	96.8
Coliform Bacteria	1356	241	82.2	2264	284	87.5
Colony Count @ 22°C	1121	192	82.9	1895	226	88.1
Colour	1340	67	95.0	2223	79	96.4
Conductivity	1309	2	99.8	2160	5	99.8
Iron	855	61	92.9	1457	77	94.7
Manganese	378	46	87.8	553	56	89.9
Odour	1250	8	99.4	2007	8	99.6
pH	1347	286	78.8	2236	402	82.0
Sodium	204	16	92.2	321	21	93.5
Sulphate	156	0	100.0	181	0	100.0
Taste	1073	2	99.8	1676	2	99.9
Total Organic Carbon	40	0	100.0	44	0	100.0
Turbidity (at tap)	1346	42	96.9	2234	49	97.8

Appendix 4: Number of each type of private supply in each local authority area in 2018[1]

	Public Group Schemes		Private Group Schemes		Small Private Supplies	
County/ Area	Number	Population	Number	Population	Number	Population
Carlow	0	0	4	1851	63	3087
Cavan	1	90	24	26076	52	2569
Clare	70	16783	12	14175	20	1380
Cork	0	0	23	2084	391	2380
Cork City	0	0	0	0	4	200
Dun Laoghaire-Rathdown	0	0	0	0	2	450
Donegal	6	3190	4	670	29	1682
Dublin City	0	0	0	0	0	0
Fingal	0	0	0	0	7	602
Galway	58	9847	76	28905	110	0
Galway City	0	0	0	0	0	0
Kerry	39	9599	10	1775	90	4571
Kildare	0	0	5	2110	21	1855
Kilkenny	24	2166	26	3497	141	2965
Laois	18	1300	10	5000	85	2685
Leitrim	33	3471	5	1581	0	0
Limerick	32	6609	24	7280	37	110
Longford	0	0	3	350	16	100
Louth	0	0	7	3376	8	820
Mayo	66	12028	52	33761	41	184
Meath	0	0	3	947	143	8221
Monaghan	0	0	13	26612	5	83
Offaly	11	1035	16	10068	29	1758
Roscommon	21	4464	8	5436	12	275
Sligo	4	339	13	5973	8	950
South Dublin	0	0	0	0	0	0
Tipperary	0	0	39	8439	126	3759
Waterford	0	0	2	130	14	525
Westmeath	15	2043	2	875	39	62
Wexford	0	0	7	3400	169	7367
Wicklow	0	0	8	768	119	24588
Totals	**398**	**72964**	**396**	**195139**	**1781**	**73228**

[1]Full list of private supplies is available at: **http://www.epa.ie/pubs/advice/drinkingwater/drinkingwatersupplies2018/**

Appendix 5: Number of private supplies not monitored for *E.coli* in each local authority area in 2018

County/area	Total	Public group schemes	Private group schemes	Small private supplies
Carlow	40			40
Cavan	11			11
Cork City	1			1
Cork County	225			225
Donegal	1			1
Galway County	19	6		13
Kerry	9			9
Kildare	7			7
Laois	1			1
Louth	1			1
Mayo	19	6	1	12
Offaly	3			3
Tipperary	71			71
Westmeath	1			1
Wexford	3			3
Totals:	**412**	**12**	**1**	**399**

Appendix 6: Private supplies enforcement actions carried out by each local authority in 2018

	Boil Notices		Audits	Directions
County/ Area	**Number issued**	**Population Affected**	**Number carried out**	**Number issued**
Carlow	Enforcement information not provided by local authority			
Cavan	7	Not known[1]	2	0
Clare	10	2000	5	0
Cork	11	259	9	0
Cork City	0	0	0	0
Dun Laoghaire-Rathdown	2	750	0	0
Donegal	9	967	0	0
Dublin City	No private supplies details were submitted for 2018			
Fingal	0	0	7	0
Galway	12	1311	14	0
Galway City	No private supplies details were submitted for 2018			
Kerry	7	312	5	0
Kildare	0	20	4	0
Kilkenny	Enforcement information not provided by local authority			
Laois	9	1010	4	0
Leitrim	2	150	0	0
Limerick	3	275	3	0
Longford	3	Not known[1]	0	0
Louth	0	0	0	0
Mayo	2	675	0	0
Meath	4	33	4	0
Monaghan	0	0	2	0
Offaly	1	11	0	0
Roscommon	Enforcement information not provided by local authority			
Sligo	4	84	0	0
South Dublin	No private supplies details were submitted for 2018			
Tipperary	2	186	20	0
Waterford	0	0	2	0
Westmeath	0	0	0	0
Wexford	16	1383	1	1
Wicklow	22	1246	9	0
Totals	**126**	**10672**	**91**	**1**

[1] Population figure not reported as the number of people affected by the commercial premises is not known

AN GHNÍOMHAIREACHT UM CHAOMHNÚ COMHSHAOIL
Tá an Ghníomhaireacht um Chaomhnú Comhshaoil (GCC) freagrach as an gcomhshaol a chaomhnú agus a fheabhsú mar shócmhainn luachmhar do mhuintir na hÉireann. Táimid tiomanta do dhaoine agus don chomhshaol a chosaint ó éifeachtaí díobhálacha na radaíochta agus an truaillithe.

Is féidir obair na Gníomhaireachta a roinnt ina trí phríomhréimse:

Rialú: *Déanaimid córais éifeachtacha rialaithe agus comhlíonta comhshaoil a chur i bhfeidhm chun torthaí maithe comhshaoil a sholáthar agus chun díriú orthu siúd nach gcloíonn leis na córais sin.*

Eolas: *Soláthraímid sonraí, faisnéis agus measúnú comhshaoil atá ar ardchaighdeán, spriocdhírithe agus tráthúil chun bonn eolais a chur faoin gcinnteoireacht ar gach leibhéal.*

Tacaíocht: *Bímid ag saothrú i gcomhar le grúpaí eile chun tacú le comhshaol atá glan, táirgiúil agus cosanta go maith, agus le hiompar a chuirfidh le comhshaol inbhuanaithe.*

Ár bhFreagrachtaí

Ceadúnú
Déanaimid na gníomhaíochtaí seo a leanas a rialú ionas nach ndéanann siad dochar do shláinte an phobail ná don chomhshaol:
- saoráidí dramhaíola *(m.sh. láithreáin líonta talún, loisceoirí, stáisiúin aistrithe dramhaíola)*;
- gníomhaíochtaí tionsclaíocha ar scála mór *(m.sh. déantúsaíocht cógaisíochta, déantúsaíocht stroighne, stáisiúin chumhachta)*;
- an diantalmhaíocht *(m.sh. muca, éanlaith)*;
- úsáid shrianta agus scaoileadh rialaithe Orgánach Géinmhodhnaithe *(OGM)*;
- foinsí radaíochta ianúcháin *(m.sh. trealamh x-gha agus radaiteiripe, foinsí tionsclaíocha)*;
- áiseanna móra stórála peitril;
- scardadh dramhuisce;
- gníomhaíochtaí dumpála ar farraige.

Forfheidhmiú Náisiúnta i leith Cúrsaí Comhshaoil
- Clár náisiúnta iniúchtaí agus cigireachtaí a dhéanamh gach bliain ar shaoráidí a bhfuil ceadúnas ón nGníomhaireacht acu.
- Maoirseacht a dhéanamh ar fhreagrachtaí cosanta comhshaoil na n-údarás áitiúil.
- Caighdeán an uisce óil, arna sholáthar ag soláthraithe uisce phoiblí, a mhaoirsiú.
- Obair le húdaráis áitiúla agus le gníomhaireachtaí eile chun dul i ngleic le coireanna comhshaoil trí chomhordú a dhéanamh ar líonra forfheidhmiúcháin náisiúnta, trí dhíriú ar chiontóirí, agus trí mhaoirsiú a dhéanamh ar leasúchán.
- Cur i bhfeidhm rialachán ar nós na Rialachán um Dhramhthrealamh Leictreach agus Leictreonach (DTLL), um Shrian ar Shubstaintí Guaiseacha agus na Rialachán um rialú ar shubstaintí a ídíonn an ciseal ózóin.
- An dlí a chur orthu siúd a bhriseann dlí an chomhshaoil agus a dhéanann dochar don chomhshaol.

Bainistíocht Uisce
- Monatóireacht agus tuairisciú a dhéanamh ar cháilíocht aibhneacha, lochanna, uiscí idirchriosacha agus cósta na hÉireann, agus screamhuiscí; leibhéil uisce agus sruthanna aibhneacha a thomhas.
- Comhordú náisiúnta agus maoirsiú a dhéanamh ar an gCreat-Treoir Uisce.
- Monatóireacht agus tuairisciú a dhéanamh ar Cháilíocht an Uisce Snámha.

Monatóireacht, Anailís agus Tuairisciú ar an gComhshaol
- Monatóireacht a dhéanamh ar cháilíocht an aeir agus Treoir an AE maidir le hAer Glan don Eoraip (CAFÉ) a chur chun feidhme.
- Tuairisciú neamhspleách le cabhrú le cinnteoireacht an rialtais náisiúnta agus na n-údarás áitiúil *(m.sh. tuairisciú tréimhsiúil ar staid Chomhshaol na hÉireann agus Tuarascálacha ar Tháscairí)*.

Rialú Astaíochtaí na nGás Ceaptha Teasa in Éirinn
- Fardail agus réamh-mheastacháin na hÉireann maidir le gáis cheaptha teasa a ullmhú.
- An Treoir maidir le Trádáil Astaíochtaí a chur chun feidhme i gcomhair breis agus 100 de na táirgeoirí dé-ocsaíde carbóin is mó in Éirinn.

Taighde agus Forbairt Comhshaoil
- Taighde comhshaoil a chistiú chun brúnna a shainaithint, bonn eolais a chur faoi bheartais, agus réitigh a sholáthar i réimsí na haeráide, an uisce agus na hinbhuanaitheachta.

Measúnacht Straitéiseach Timpeallachta
- Measúnacht a dhéanamh ar thionchar pleananna agus clár beartaithe ar an gcomhshaol in Éirinn *(m.sh. mórphleananna forbartha)*.

Cosaint Raideolaíoch
- Monatóireacht a dhéanamh ar leibhéil radaíochta, measúnacht a dhéanamh ar nochtadh mhuintir na hÉireann don radaíocht ianúcháin.
- 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 cosanta ar an radaíocht a sholáthar, nó maoirsiú a dhéanamh ar sholáthar na seirbhísí sin.

Treoir, Faisnéis Inrochtana agus Oideachas
- Comhairle agus treoir a chur ar fáil d'earnáil na tionsclaíochta agus don phobal maidir le hábhair a bhaineann le caomhnú an chomhshaoil agus leis an gcosaint raideolaíoch.
- Faisnéis thráthúil ar an gcomhshaol ar a bhfuil fáil éasca a chur ar fáil chun rannpháirtíocht an phobail a spreagadh sa chinnteoireacht i ndáil leis an gcomhshaol *(m.sh. Timpeall an Tí, léarscáileanna radóin)*.
- Comhairle a chur ar fáil don Rialtas maidir le hábhair a bhaineann leis an tsábháilteacht raideolaíoch agus le cúrsaí práinnfhreagartha.
- Plean Náisiúnta Bainistíochta Dramhaíola Guaisí a fhorbairt chun dramhaíl ghuaiseach a chosc agus a bhainistiú.

Múscailt Feasachta agus Athrú Iompraíochta
- Feasacht chomhshaoil níos fearr a ghiniúint agus dul i bhfeidhm ar athrú iompraíochta dearfach trí thacú le gnóthais, le pobail agus le teaghlaigh a bheith níos éifeachtúla ar acmhainní.
- Tástáil le haghaidh radóin a chur chun cinn i dtithe agus in ionaid oibre, agus gníomhartha leasúcháin a spreagadh nuair is gá.

Bainistíocht agus struchtúr na Gníomhaireachta um Chaomhnú Comhshaoil
Tá an ghníomhaíocht á bainistiú ag Bord lánaimseartha, ar a bhfuil Ard-Stiúrthóir agus cúigear Stiúrthóirí. Déantar an obair ar fud cúig cinn d'Oifigí:
- An Oifig um Inmharthanacht Comhshaoil
- An Oifig Forfheidhmithe i leith cúrsaí Comhshaoil
- An Oifig um Fianaise is Measúnú
- Oifig um Chosaint Radaíochta agus Monatóireachta Comhshaoil
- An Oifig Cumarsáide agus Seirbhísí Corparáideacha

Tá Coiste Comhairleach ag an nGníomhaireacht le cabhrú léi. Tá dáréag comhaltaí air agus tagann siad le chéile go rialta le plé a dhéanamh ar ábhair imní agus le comhairle a chur ar an mBord.

Environmental Protection Agency
An Ghníomhaireacht um Chaomhnú Comhshaoil

Headquarters
PO Box 3000, Johnstown Castle Estate
County Wexford, Y35 W821, Ireland
Bosca Poist 3000, Eastát Chaisleán Bhaile Sheáin Contae Loch Garman, Y35 W821, Éire

T: +353 53 9160600
F: +353 53 9160699
E: info@epa.ie
W: www.epa.ie
Lo Call: 1890 33 55 99

EPA Regional Inspectorate Dublin
McCumiskey House
Richview
Clonskeagh Road
Dublin 14
D14 YR62
Tel: 01-268 0100
Fax: 01-268 0199

EPA Regional Inspectorate Cork
Inniscarra
Co. Cork
P31 VX59
Tel: 021-4875540
Fax: 021-4875545

EPA Regional Inspectorate Castlebar
John Moore Road
Castlebar
Co. Mayo
F23 KT91
Tel: 094-9048400
Fax: 094-9021934

EPA Regional Inspectorate Kilkenny
Seville Lodge
Callan Road
Kilkenny
R95 ED28
Tel: 056-7796700
Fax: 056-7796798

EPA Regional Inspectorate Monaghan
The Glen
Monaghan
H18 YT02
Tel: 047-77600
Fax: 047-84987

E: info@epa.ie
W: www.epa.ie
LoCall: 1890 33 55 99