Drinking Water Quality in Private Group Schemes and Small Private Supplies 2020

Key Findings for 2020

- The quality of drinking water in private supplies was not as good as it should be: one in 20 private water supplies were contaminated with *E. coli*.
- 93% of Private Group Schemes complied with the Trihalomethanes standard. However, 13 supplies are cited on EU infringement proceedings against Ireland for failing to take the measures necessary to ensure compliance.
- Over a quarter of Small Private Supplies were not monitored by Local Authorities.

Introduction

Private Group Schemes (PGS) are set up by community groups. They get water from a local source and manage the treatment and distribution of the water to the scheme members. There are around **380 private group schemes** serving almost 200,000 people.

The National Federation of Group Water Schemes (NFGWS) represents and works with the community-owned rural water services sector in Ireland. The NFGWS helps local authorities and individual group water schemes identify and address water quality issues and risks. An example of a risk is farm animals accessing the water source and contaminating it. The source can be protected by installing fencing - a measure known as a 'smart buffer' (pictured). The NFGWS also assists schemes to access funding from the Department of Housing, Local Government and Heritage.

FIGURE 1: Smart Buffer – Stranooden, Co. Monaghan *(Photo courtesy of the NFGWS)*

Many rural commercial or public activities (e.g. national schools, holiday accommodation and premises providing food and drink) get their water from a well. These are known as **Small Private Supplies (SPS)**. There are over **1,700 SPSs** registered with local authorities but there may be many more that have not registered. Thousands of people use these supplies each day as they provide water to employees, customers and service users.

The **water supplier** (PGS or SPS owner/manager) is legally responsible for making sure the water they provide complies with the water quality standards set in the Drinking Water Regulations and is safe to drink.

Local authorities have responsibility for ensuring that private drinking water supplies are monitored for compliance with drinking water standards. The results of monitoring undertaken in 2020 can be found on the EPA website and here: SAFER-Data: Welcome to SAFER.

Findings for 2020

Compliance in Private Group Schemes

The presence of ***E. coli*** bacteria in drinking water indicates that the supply has been contaminated and the water has not been fully disinfected. Drinking water contaminated with *E. coli* can cause serious gastrointestinal illness, so it is critical to have properly functioning disinfection systems.

Compliance with *E. coli* standards was 95% for PGS (20 supplies with failures, serving 2,900 people – see Figure 2).

FIGURE 2: Private Group Schemes with *E. coli* failures

Trihalomethanes (THMs) are formed when natural organic matter in the water source, such as rotting vegetation, reacts with chlorine used in the disinfection treatment process. THM levels should be kept as low as possible and in compliance with the drinking water quality standards, while ensuring that the water is fully disinfected.

In May 2020, the European Commission issued a Reasoned Opinion (further to infringement proceedings Ref. 7554/2015/ENVI) that it considered that Ireland had failed to take the measures necessary to ensure THM compliance in 44 drinking water supplies, which included 13 PGSs.

Compliance with THM standards in 2020 was 93% for PGS (22 supplies with failures, serving 23,000 people – see Figure 3). The supplies with failures are mostly concentrated in the north-west of the country.

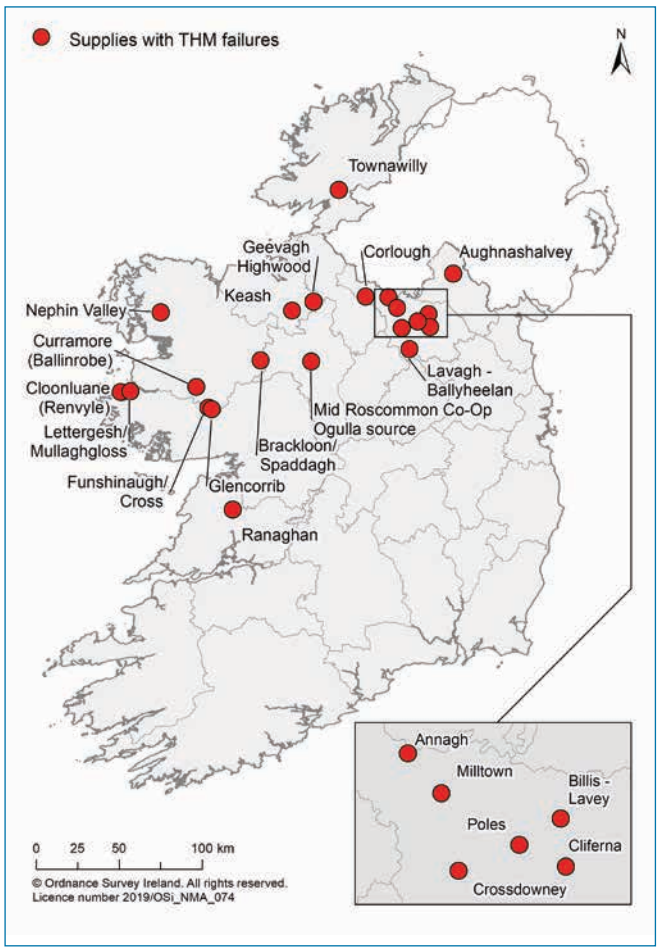

FIGURE 3: Private Group Schemes with THM failures

Compliance in Small Private Supplies

96% of SPSs monitored were compliant with *E. coli* standards and 99% of SPSs monitored were compliant with THM standards.

In 2020, Covid restrictions meant that many premises were closed, and this prevented samples being taken. Over a quarter (480) of SPSs were not monitored, which means that there is no information as to whether the water from these supplies was safe to drink. However, the EPA acknowledges the efforts made to carry out sampling once restrictions eased and premises re-opened.

Department of Housing, Local Government and Heritage

The Department of Housing, Local Government and Heritage is responsible for water policy and for providing supports to the rural 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 (MARWP). See example in Figure 4 below.

The Department works with the National Federation of Group Water Schemes to address a priority list of supplies to protect public health. Progress is being made with the supplies on this list and these will remain a priority for the Department until they are resolved.

The Department has also set up a working group to review the governance of how private water supplies and private wastewater treatment systems are monitored, maintained and financed. The outcome of this review is expected in 2022.

FIGURE 4: Upgraded treatment system at Coole Group Water Scheme, County Galway

The treatment system at Coole Group Water Scheme, County Galway, was upgraded in 2020. The project was 90% funded under the MARWP, with the remaining costs contributed by the scheme's membership. The new system comprises sand filtration, an ultra-violet (UV) reactor and duty-standby chlorine dosing pumps. Permanent fencing around the facility has also been installed as a key source protection and security measure. *(Information and photo courtesy of the NFGWS)*

What needs to be done

Water suppliers must:

- Carry out infrastructural upgrades where required, to comply with drinking water quality standards;
- Protect the water source, and manage and maintain any treatment system;
- Make sure the supply is on the Local Authority's register for monitoring;
- Rectify problems where monitoring results indicate an issue with water quality.

Local authorities must:

- Make sure that all private drinking water supplies are monitored;
- Investigate supplies that fail to meet drinking water quality standards and take enforcement action if necessary;
- Keep a register of all private drinking water supplies in their area.

Department of Housing, Local Government & Heritage must:

- Ensure works are supported for all group schemes on the priority list to protect public health;
- Finalise the review and progress the governance and funding model for the delivery of rural water services.