

# Is Your PRIVATE Water Supply **SAFE?**

Keeping it Safe



# Is Your PRIVATE Water Supply SAFE?

The purpose of this leaflet is to alert the owners and users of private water supplies to the risks of contamination of their water. Although most private water supplies are probably safe to drink most of the time, this leaflet gives details of the risks and what you can do to protect your supply. A number of serious illnesses can be contracted from contaminated water supplies.

**The Drinking Water Inspectorate**

# What is the Problem ?

Safe drinking water is essential to good health. All private water supplies can pose a threat to health unless they are properly protected and treated. They may become contaminated with bacteria, protozoa, parasites and viruses (micro-organisms) or other substances. Many of these are harmless, but some may cause serious illness or even death in vulnerable people. You may not be able to tell whether your water is contaminated as it may not change the smell, taste or colour of the water. Unlike public supplies, most private supplies are not treated to remove contamination.

This leaflet explains a number of things you can do to protect your supply and reduce the risk of contamination. It also gives you information about different types of private water supply, and things which may contaminate them.

## What Should I Do?

### Find Out About Your Supply

- who is responsible for the upkeep and maintenance (if this is not clear, consider reaching an agreement with the other users).
- where the source is.
- where it goes to get to your property.
- is it treated in any way.
- if the treatment equipment is in good order and serviced regularly.

### Keep Your Supply Safe

Make sure you inspect all parts of your supply, including the catchment area, regularly to check it is in good order and has not been interfered with or damaged.



If your supply has water collection chambers and/or storage tanks:

- these should have watertight walls and lids;
- tops of chambers or tanks should be above ground level to prevent water from surrounding land flowing onto them;
- any overflow pipes or vents in chambers and tanks should be designed to stop animals and debris from entering;
- the collection chamber should not be close to any soakaway or drain.

### Supplies from Springs, Wells or Boreholes

- check that the source is adequately protected to stop surface water getting into your supply, particularly at times of heavy rain.
- ensure that the water being collected is not contaminated by discharges from a septic tank.

### Supplies from Farmland/Land Where Animals Graze or Manure is Spread

- divert rain-water run-off so it does not flow into your supply (for example with a small ditch leading away from your supply).
- check that the farmer is aware of the drinking water supply and the need to avoid contaminating it by farming activity.
- fencing may be necessary to stop farm and other animals from interfering with the water.

## Supplies from Streams, Rivers or Lakes

- the collection arrangement should include a settlement pond to allow larger particles to settle out before the water flows into your supply.
- the collection arrangement should include a sand or gravel filter to remove organic material and small animals. These filters will not remove all micro-organisms or chemical contamination.
- ensure that the water being collected is not contaminated by discharges from a septic tank.

## If You Supply Water to Others

If you supply water to other people in the course of a business, for example by renting out holiday accommodation or using water for food production, you may have a duty of care towards customers for the safety of water you supply. For example, you may have to:

- advise boiling all water;
- use or suggest others use bottled water.



## Should I Get My Supply Checked?

The Drinking Water Inspectorate (DWI) is responsible for monitoring the quality of all private supplies, except those that serve only one household, although this may not happen very often. In Northern Ireland local Councils and DANI cooperate with the DWI in carrying out its responsibilities in relation to private water supplies. If you want to know the results of previous tests of your supply contact your local Council, or DANI in the case of dairy



farms, to obtain a copy of the analysis.

You can also contact the local Council if:

- you would like to have your water supply tested for the first time;
- you would like to have an additional test done.

Your local Council may charge you for this service. Remember that a water test can only tell you about the quality of the water at the time of the test. The quality

of your water supply may change at different times. Your local Council can advise you what the result of your test means.

### Should I Get My Supply Treated?

You can install treatment of your private water supply. If it serves more than one household it will probably make some sense to install treatment for the supply as a whole rather than in individual households. Many different forms of treatment are available, and your choice must suit your particular supply. Your local Council or DANI will be able to give advice about treatment methods or other improvements to your water supply.

### What Else Can I Do?

If you no longer want to use your private supply, you can ask Water Service about the possibility of connecting to the public supply (“mains”). You will probably have to pay part of the costs. Contact the Water Service on their WATERLINE (0345 440088) for further information.

# Types of Private Supply

## Springs, Boreholes and Wells

Springs, boreholes and *deep* wells that draw water from *deep* underground sources are less likely to be contaminated than supplies from other sources but water may become contaminated where:

- the spring emerges;
- the water collects in the borehole or well.

In farmland, underground water can pick up nitrates (from fertilisers) or pesticides which may be harmful to health. Water from *shallow* wells, and springs which draw water from *close to the surface* of the ground, is usually less wholesome and more likely to be contaminated.

## Streams, Rivers and Lakes

The quality of water from streams, rivers and lakes will generally not be as good as that from springs, boreholes and deep wells. The quality of this water will also vary depending on the weather conditions. It is most likely to be contaminated, particularly with bacteria, at times of:

- high rainfall;
- warm weather.

Water that runs across the land into streams, rivers and lakes picks up contamination from various sources, for example, from the soil and from the droppings of farm animals, wild animals and birds. Some of this contamination may be dangerous to health.

# Sources of Contamination

## Micro-organisms

A number of serious illnesses can be contracted from water that is contaminated with micro-organisms (bacteria, viruses, parasites and protozoa). The most likely source of contamination of the water will be animal droppings. Water supplies drawn from farmed land where animals graze or where manure is spread are at most risk. The risk is particularly high at times of heavy rainfall when water may run directly off farmland and carry micro-organisms into private water supplies.



People who do not drink the water regularly and are not used to it, such as visitors and guests may be at greatest risk of infection from micro-organisms in private water supplies.

## Chemicals

Private water supplies may be affected by chemicals used in:

- farming or forestry (for example, nitrates, pesticides and sheep-dip);
- old industrial premises or workshops.

### Nitrates

Nitrates are not generally a problem in Northern Ireland. Water containing high levels of nitrates may not be suitable for:

- young children;
- bottle-fed infants;
- pregnant women.

### Lead

Some private water supplies in Northern Ireland are naturally acidic and may dissolve lead. If your supply passes through a lead tank or pipes, either outside or inside the home, it is possible there will be a significant amount of dissolved lead in your water.

### Other Materials

Some water contains naturally occurring materials picked up from the ground such as iron or manganese. These may affect the appearance, taste or smell of the water. On the whole, these are not dangerous to health.

### Advice

If you are not sure whether your water is affected, ask your local council for advice about the level of nitrates, lead or other chemicals in your water supply.

If you have any questions or want any advice about your private water supply, contact the Environmental Health Department of your local Council (or DANI in the case of dairy farms) whose address is shown in the box below.



**ENVIRONMENT  
AND HERITAGE  
SERVICE**

*Our aim is to protect and conserve the  
natural and built environment and to  
promote its appreciation for the benefit of  
present and future generations.*

Drinking Water Inspectorate  
Environment & Heritage Service  
Calvert House, 23 Castle Place, Belfast BT1 1FY Tel.01232 254754 Fax 01232 254865