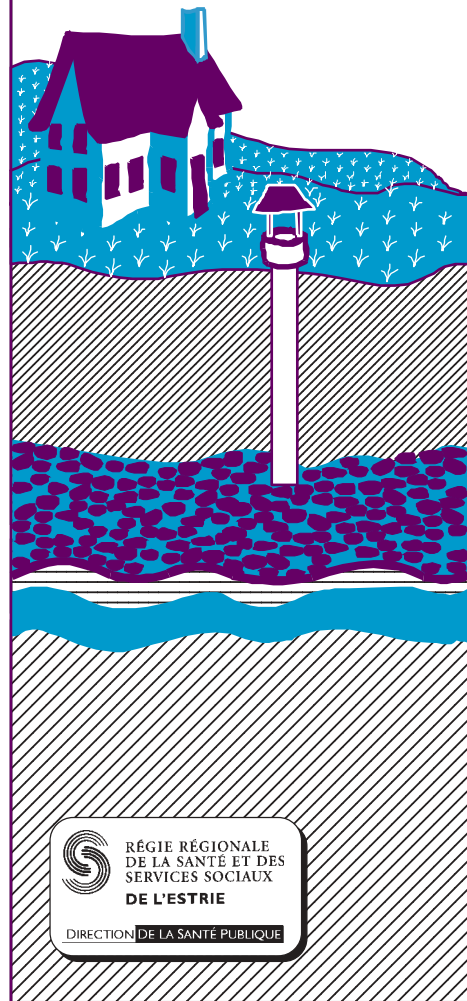


Domestic wells and your health



Well owners...

For many rural area residents, underground water is often the only available source of drinking water to meet individual and agricultural needs.

A well owner must pay particular attention to any activity around the well and to any changes in the characteristics of the water and its health. If any doubts arise about the water quality, common sense dictates that an analysis be conducted by an accredited laboratory.

Watch out for bacteria and nitrates...

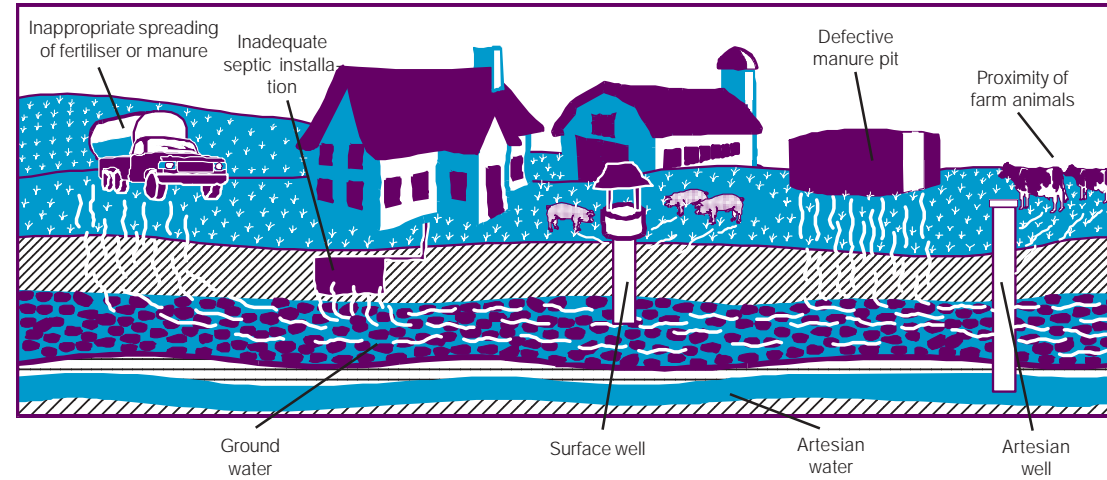
Bacteria

Drinking water contaminated by pathological bacteria may provoke symptoms such as diarrhoea, nausea, abdominal cramps and vomiting. The level of contamination of the water is determined according to the fecal coliform bacteria content. Good quality water must be coliform-free. The presence of pathological bacteria is often caused by farm animal excrement close to the well.

Nitrates

An over-abundance of nitrates in the water may cause cell oxygenation problems in young babies (methemoglobinemia). The presence of nitrates in water is often caused by inappropriate spreading of fertiliser or manure close to wells.

How can bacteria and nitrates contaminate wells?



Practical advice on the maintenance of your well...

The risk of bacteria and nitrate contamination of your well can be reduced by respecting the following rules :

Disinfection of wells

As a preventive measure, disinfect your well once a year as follows :

- Pour bleach in your well (1 litre per 1000 litres of water);
- If possible, mix the bleach with the well water and scrub the sides to remove attached particles;
- Run each tap in the house until you can smell the odour of chlorine ;
- Turn taps off and let stand for 24 hours;
- Turn all taps on and let water run until chlorine odour disappears.

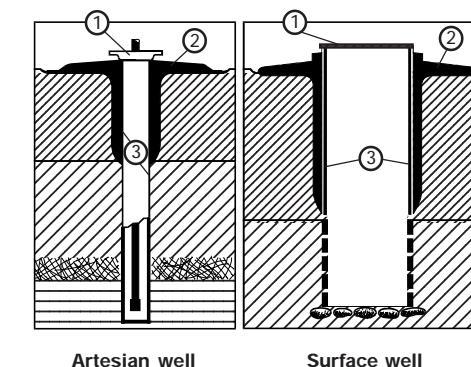
Quantity of bleach to use

Depth of water	Diameter	5% Bleach
3 meters 10 feet	91 cm. 3 feet	2 litres 0.5 gal.
60 meters 200 feet	15 cm. 0.5 feet	1.1 litres 0.25 gal.

Watertightness of wells

Bacteriological contamination of well water is often caused by infiltration of surface water. To prevent this, particular precautions must be taken :

- 1 = Watertight cover above the ground
- 2 = Waterproof platform and collar (cement)
- 3 = Watertight sides



Location of well

The well must be located on high ground, at least 30 meters away from possible contamination zones such as septic installations, manure piles, stables and other areas where garbage and chemical products accumulate.

Furthermore, it is recommended that farm animals be kept away from wells.

Faucet maintenance

Faucets may also facilitate bacteria growth on matter collected in the screen filter and release that bacteria in the water. It is recommended to clean the faucets periodically by removing matter which has accumulated there.

Taste and Colour

Certain substances which are present in the water may alter its aesthetic quality without causing a health hazard. Here are some of the most frequently encountered problems:

Problem	Origin	Solution
Hard water (Detergents don't work)	Excessive presence of calcium, magnesium or iron	Use a water softener when hardness is higher than 180 mg/L
Rotten egg odour	Presence of sulphur in its H ₂ S form	Oxygenate or aerate water
Dark spots on clothes	Presence of manganese	Green sand-filter
Red spots	Presence of iron	Green sand-filter

For more information contact....

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