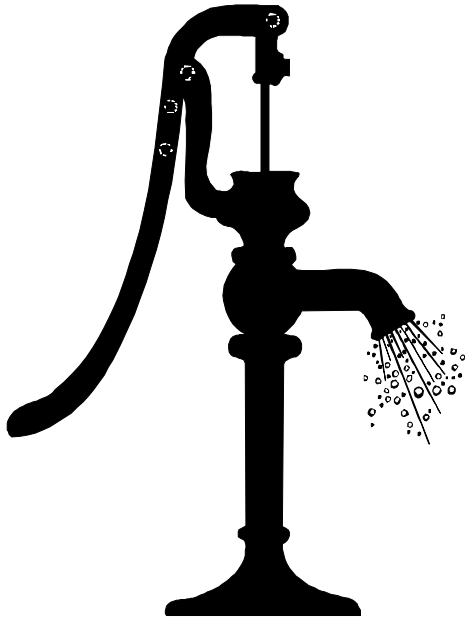


## Public Health Newsletter – June 2001

### St Charles County Division of Public Health

#### Private Drinking Water Supplies



Does your drinking water come from a private well?

Do you know what's in it?

Is it safe for you and your family to drink?

When was the last time you had your private well water tested? 5 years ago – 10 years ago – never !!

We can help. If you have concerns about your private well water supply you can [contact us](#) for help.

There is estimated to be in excess of 5,000 private drinking water wells in St. Charles County. Many of those wells are more than 20 years old and were built before any minimum construction standards were established by the Missouri Department of

Natural Resources. Whether old or new, the bacteriological and chemical quality of the water produced by private wells is not required to be routinely tested by anyone. Therefore, it's up to you.

#### ***What to Test For***

- Bacteria

The most common test used to check the quality of all drinking water is the sample for coliform bacteria. This broad category of bacteria is associated with fecal waste of human and other animal origin. Its presence in well water indicates that contaminated surface water or septic tank effluent may be getting into a well. The design of a well is intended to keep surface water out but various types of water-tight seals used on wells can dry out, crack, and leak over time.

- Nitrate

The presence of high nitrate levels in well water is generally an indication of surface water contamination entering the well. Nitrate levels above 10 parts per million (expressed as nitrogen) are of particular concern if infants will be consuming the water. The digestive system of infants converts nitrate into nitrite which interferes with the blood's ability to carry normal amounts of oxygen, a condition known as methemoglobinemia.

- Fluoride

Naturally occurring fluoride may or may not be present in your well water depending on the composition of the bedrock through which the water flows. Fluoride plays an important role in the reduction of tooth decay and the optimum amount in drinking

water is 1.0 parts per million. Excessive amounts have been shown to cause a brown mottling discoloration of the teeth. Most well water in St. Charles County is very low in fluoride but some localized areas have levels exceeding 3.0 p.p.m. Many pediatricians request parents of their young patients to have private well water tested for fluoride.

- Other chemicals

A variety of chemical tests are available to help determine the cause of specific problems associated with individual well water supplies.

For example:

- Calcium, Magnesium, Alkalinity, and Hardness are all associated with hard water which tends to clog pipes and water heaters with mineral deposits.
- Iron and Manganese, which give water a metallic taste and can cause red, brown, or black stains on fixtures (sinks, tubs, toilets) and laundry.
- Sodium may be a concern for anyone on a medically restricted low-salt diet, especially if a water softener has been installed on the system. Water softeners add sodium to the water in proportion to the amount of hardness they remove.

### ***How Often to Test***

The Missouri Department of Health recommends that all private well water supplies be tested for coliform bacteria at least once a year. New wells should also be tested for a standard series of common chemicals in order to establish a baseline of drinking water quality. Routine testing for specific chemicals may be appropriate on an individual basis. Remember that a well is a man-made hole in the ground that interacts with Mother Nature. Conditions can change over time that affects the safety of the water you drink from any source. But,

the quality of private well water is tested **only** when you have it tested.

### ***What Does It Cost***

The Missouri Department of Health Laboratory provides appropriate bacteriological and chemical testing for private drinking water supplies. They supply the County Department of Community Health and the Environment with approved sampling containers which we provide at no charge to you. After the water sample is analyzed by the state laboratory they will bill you a standard fee per sample. Currently that standard fee is **\$10.00** per sample.

### ***What If I'm on a Public Water Supply***

If your drinking water comes from a public water supply such as: city, municipal, county water district, subdivision community well, mobile home park community well, etc., then it is already tested routinely by the Missouri Department of Natural Resources (DNR). The results of those tests are available by contacting that state agency (DNR).

### ***To Sum Up***

Information on private well testing and public water testing can be found on the Department of Community Health and the Environment Website listed below. This newsletter is also available online.

Once again, if you have questions or concerns about your private drinking water supply, [contact us](#) – we can help.

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