



# WHAT YOU NEED TO KNOW ABOUT WATER QUALITY IN YOUR WELL

*Butte County Public Health Department - Division of Environmental Health*

## DO YOU GET YOUR WATER FROM A WELL? PLEASE READ ON!

Private well owners are responsible to make sure that their own water is safe. Butte County joins you in concern for your family's well being, and is pleased to help answer these important questions:

- ◆ What is a well?
- ◆ Do you know your surroundings?
- ◆ How do wells become contaminated?
- ◆ How do I know if my water is safe?
- ◆ What should I test my water for?
- ◆ How can I protect my water?
- ◆ Who can help me?

## WHAT IS A WELL?

Simply stated, a well is a hole drilled into the earth to obtain water. Slotted plastic or metal well casing is placed in the hole and a pump is installed to pump the water out. Properly constructed wells have a seal installed around the upper well casing to reduce the chance of surface water entering the well. Improperly constructed wells including hand-dug wells and some older wells may allow contaminants to enter the well. Wells must be drilled and constructed properly under permit from the Butte County Environmental Health Division. Further information is available from Environmental Health at 530-538-7281 or 530-891-2727.

## DO YOU KNOW YOUR SURROUNDINGS?

The types of businesses and activities in your neighborhood could affect groundwater. Are you located near any of the activities mentioned in the next section? Look around your community for any possible contamination threats to your water quality.

## HOW DO WELLS BECOME CONTAMINATED?

Some groundwater contains dissolved elements such as arsenic, boron, selenium, or radon (a gas formed by the natural breakdown of radioactive uranium in the soil). Whether these natural contaminants can cause health problems depends on the amount of the substance present, how long you have been exposed to the substance and on your overall health. In addition to natural substances, groundwater is often polluted by human activities generating contaminants such as:

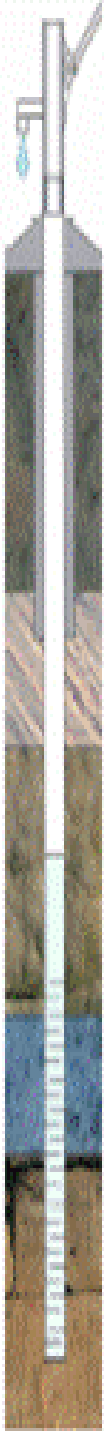
- ◆ Microorganisms (agricultural operations, sewage treatment ponds, septic systems)
- ◆ Fuels- gasoline & diesel (gas stations, auto body shops, maintenance yards, industrial facilities)
- ◆ Solvents – Volatile Organic Compounds such as trichlorethylene and perchlorethylene (dry cleaners, industrial facilities, auto repair shops, chemical storage facilities)
- ◆ Nitrates (agricultural operations, septic systems)
- ◆ Pesticides (agricultural operations, suburban yards)
- ◆ Metals – lead, arsenic & copper (mining, old agricultural operations, industrial operations, leaded fuel, household plumbing)

## HOW DO I KNOW IF MY WATER IS SAFE?

Although your water may taste and smell fine, the only way to know for sure that your water is safe is by testing it. Harmful bacteria or chemicals that you cannot see, smell or taste could be present. Water testing is important because it:

- ◆ Helps you identify if contaminants are present
- ◆ Tells you how much contaminant is present
- ◆ Establishes a comparison with past or future results

Having your water tested regularly will help you become aware of a potential problem early so that you take steps to address it.



## WHAT SHOULD I TEST MY WATER FOR?

There are a variety of drinking water tests available. Wells are most often tested for bacteria only. This test is important but does not provide information about other possible contaminants. Based on your knowledge of activities in your neighborhood, you can work with the analytical laboratory to select the appropriate tests. Below are examples of common contaminants and appropriate tests:

1. Gasoline and Diesel/Motor Oil - *EPA Method 8015*
2. Volatile Organic Compounds - *EPA Method 8260*
3. Pesticides - *EPA Method 8080*
4. Herbicides - *EPA Method 8150*
5. Metals and Inorganics (I.e. arsenic, lead, nitrates, chromium, fluoride) - *EPA Method 200 Series*
6. Bacteria (Total Coliform and Fecal Coliform)  
*EPA Colilert Method*

Some contaminants that have been found in Butte County include: *trichloroethylene (TCE), tetrachloroethylene (PCE), arsenic, nitrates, methyl tert-butyl ether (MTBE), and a variety of volatile organic compounds.* For a list of qualified laboratories, please refer to the *Yellow Pages* under the listing of "Laboratory Testing".

## HOW OFTEN SHOULD I HAVE MY WATER TESTED?\*

The following is offered as a guideline:

- ◆ **Bacteriological** tests should be run at least twice a year.
- ◆ **Volatile Organic Compounds and Pesticides** should be run at least every 3 to 5 years.
- ◆ **Nitrates and Metals** should be run at least once every five years.

If you are in an area of high risk, you may choose to test more often. If any of the above are detected, you should immediately consult with the Butte County Environmental Health Office, one of the agencies listed below, or with a licensed well or water system professional.

\*\*The results of your well tests are usually considered private information. Check with your laboratory regarding confidentiality.\*\*

## DO MY RESULTS PRESENT A HEALTH RISK? CAN I PROTECT MY WATER?

The Environmental Protection Agency (EPA) and State of California set the Maximum Contaminant Level (MCL) for many substances in public drinking water. There are no regulations for private water supplies. Call our local Environmental Health office in Oroville 530-538-7281 or 530-891-2727 for more information or visit the CA-DHS Drinking Water Office website at: <http://www.dhs.ca.gov/ps/ddwem/chemicals/MCL/mclindex.htm>

## HOW CAN I PROTECT MY WATER?

- ◆ Periodically inspect exposed parts of the well for damaged casing, broken or missing well cap, or cracked seals.
- ◆ Slope the area around your well to drain surface runoff away from the well.
- ◆ Avoid mixing or storing pesticides, fertilizers, fuels or other chemicals near the well.
- ◆ Pump and inspect your sewage disposal system regularly.
- ◆ Never dispose of toxic chemicals down household drains.
- ◆ Hire a licensed well driller for any new well construction, modification, abandonment, or closure.

Most types of water contamination can be treated. Water softeners or filters do not guarantee water safety. Different contaminants may require specific treatment systems. If you have contaminated water, contact the agencies listed below for advice.

## WHO REGULATES MY WELL?

Water quality from private wells is not regulated. Butte County has adopted a well ordinance, but it is your responsibility as a homeowner to maintain your well, to monitor your water quality, and to help protect the quality of drinking water in Butte County.

## WHO CAN HELP ME?

**Butte County Public Health Department**  
**Division of Environmental Health**  
202 Mira Loma Drive  
Oroville, CA 95965  
530-538-7281 or 530-891-2727

**State of California**  
**Regional Water Quality Control Board**  
Central Valley Region  
415 Knollcrest, Suite 100  
Redding, CA 96002  
530-224-4845

