

Private Wells

In Idaho, the Department of Environmental Quality (DEQ) and the <u>Idaho Department of Water</u> <u>Resources</u> (IDWR) share responsibility for managing Idaho's ground water resources. DEQ is charged with protecting the quality of ground water in Idaho. IDWR is charged with regulating ground water quantity and drilling of all wells in Idaho, including private drinking water wells.

Well Owner Responsibilities

Private well owners are responsible for the safety of their own water. Contaminants that are present in ground water, such as nitrate and arsenic, can also be present in private well water. Public water systems are required to test their drinking water and make those tests available to the public. Private well owners are responsible for maintaining their well and ensuring the water is safe to drink. To accomplish this, private well owners need to periodically test their well for contaminants and protect their wellhead.

Testing Private Well Water

DEQ recommends that private drinking water wells be tested for contaminants at least once per year. The most common contaminants in Idaho include:

- Nitrate
- Total coliform
- Arsenic

Testing for nitrate should be more frequent if a pregnant woman or an infant will be using the water. Additional contaminants may be present in certain areas of the state. DEQ recommends that you contact your <u>DEQ regional office</u> or <u>local public health district</u> to learn about contaminants of concernin your area. Additional information can be found in the Idaho Department of Health and Welfare's - <u>Is My Well Water Safe</u> document and <u>Well Water Safety</u> webpage.

Private well owners can take their own drinking water samples and have them analyzed by an <u>Idaho-certified laboratory</u>. Laboratories and environmental consultants may also offer to sample a private well for an additional fee. The laboratory, DEQ regional office, or local public health district can provide information on how to:

- Get the necessary sample containers,
- Properly take a drinking water sample, and
- How quickly you must get the sample to the laboratory.

Sudden changes in the taste, odor, or appearance of water obtained from a private well may indicate contamination or a problem with the well equipment. These conditions may warrant testing the water. If this occurs contact your local public health district for advice.

Protecting Your Wellhead

Proper well design, construction, and maintenance can reduce the chance that surface contaminants will get into your well water. Sources of contaminants near the well should be removed. Common sources of contaminants include, but are not limited to:

- Fertilizers
- Animal wastes
- Pesticides

Sources of contamination should be managed so that they do not contaminate the well. If a contaminant source impacts a well, it may be necessary to hire a <u>licensed well contractor</u> to permanently seal and relocate the well.

To properly install and maintain a well a private well owner should:

- Research ground water, area conditions, potential contaminant sources, and neighboring and historical land uses prior to drilling a new well.
- Hire a licensed well contractor for well construction, modification, and abandonment or closure. Idaho law requires all well drillers to be licensed and to obtain a permit before drilling a well.
- If an existing well was constructed prior to 1987 it may not be constructed to current standards and may need to be updated.
- Keep accurate records of well maintenance.
- Obtain a copy of your well log from your licensed well contractor or IDWR.

Take precautions when working on or near a well to:

- Avoid mixing or using fertilizers, herbicides, fuels, motor oil, and other pollutants near the well.
- Not pile snow, leaves, or other materials around the well.
- Not damage the casing or well cap when working or mowing the lawn near the well.

Take precautions with septic systems to:

- Install your septic system at least 100 feet from the well, and downgradient of the well, to reduce the potential of contaminant migration from the septic system to the well.
- Maintain your septic system and never dispose of hazardous materials such as paint, pesticides, fuels, motor oils or other common household chemicals.
- Pump and service your septic system every two to three years.

Well Inspections

If a well is old or it is not known whether the well is structurally sound, DEQ recommends that the well be inspected by a licensed well contractor. Problems with land use-related contaminants, such as nitrates and pesticides, are sometimes caused by structural flaws. Structural flaws allow contaminated surface water to enter wells. A licensed well contractor should be able to repair the well or construct a new well if necessary. Repaired or newly constructed wells may reduce the level of land use-related contaminants in your drinking water.

Wells and the surrounding area should be inspected regularly as follows:

- Exposed parts of the well
 - Verify that the well casing, well cap, and surface seals are intact.
 - Verify that the top of the well is at least 18 inches above the ground
- Area around the well
 - Verify that the area is sloped to drain surface water away from the well.
- Lawn watering system
 - Verify that an appropriate backflow prevention device is installed and is properly operating through annual inspection by a <u>licensed backflow assembly tester</u>.

Problems with Water Quality

Water quality problems may either be:

- Harmful to your health, or
- Aesthetic in nature and not harmful to your health.

If your well water tests positive for a contaminant that may harm your health, DEQ encourages you to discuss the test results with your local public health district to determine the risk, severity, and methods to potentially address the contamination. Contamination that may be harmful to your health should be addressed as soon as possible. If potential solutions are not immediately available you may need to find an alternative drinking water source, whether permanent or temporary. Solutions to contamination may include:

- Disinfecting the well
- Repairing the well or associated equipment
- Installing a water treatment device

Water Treatment Devices

Many different water treatment devices are available for in-home use. However, no one treatment unit can solve all water quality or contamination problems. You may need to purchase more than one treatment unit and combine them into one treatment system to solve your water quality problems. In-home water treatment devices should be researched carefully to find the best solution for your problem. Before you purchase a water treatment system, contact the National Sanitation Foundation (1-800-673-6275) to ensure the treatment system is certified to perform as stated or has the National Sanitation Foundation seal of approval.

Additional Resources

Environmental Protection Agency

- <u>Private Drinking Water Wells</u> webpage
- <u>Citizen's Guide to Ground-Water Protection</u>

United States Geological Survey

• <u>Groundwater Wells</u> webpage

• <u>Ground Water and the Rural Homeowner</u> webpage

Centers for Disease Control and Prevention

• <u>Private Ground Water Wells</u> webpage

Groundwater Foundation

- <u>Wells and How they Work</u> webpage
- <u>The Importance of Private Well Water Testing</u> webpage

Wellowner.org

• Informing Consumers About Water Wells webpage