

Private Wells

Information for owners

Contaminated wells

Contaminants could show up in your drinking water, potentially putting your family's health at risk. Because you may not taste, smell, or see many types of contaminants, the state Department of Health (DOH) believes regular water testing is very important.

Legal rights to water

State law says the waters of Washington belong to the state. No individual or group can own them, but they can get rights to use them. The state Department of Ecology (Ecology) issues individuals or groups the right to use water. Sometimes private wells are exempt from the groundwater permit system if they do not expect to withdraw a lot of water or do much irrigating.

Well construction standards

State laws establish minimum well-construction standards. These laws require you to submit a *Notice of Intent to Construct a Water Well* form and the appropriate fee to Ecology at least 72-hours before construction begins.

Well water testing

If you own a private well, you are responsible for testing your own water. In most counties when you buy or sell a home with a private well, the county health or planning department, or the lending institution involved, may require the seller to provide water-sampling results to show the water is safe to drink. Contact your local county health or planning department for information on the requirements and the testing needed.

DOH recommends that private well owners test their drinking water every year for coliform bacteria and nitrate. These two contaminants rapidly could affect a person's health—possibly even with just one drink of water. If your nitrate level is 5 milligrams per liter (mg/L) or higher, you may want to re-test in six months.

At least twice, while you own the well we also suggest testing for arsenic—once in summer and again in winter—to check any seasonal influences that may occur. Though arsenic does not cause rapid health affects, continued consumption over a relatively short time could lead to health concerns.

Many certified labs in Washington perform these tests. The 2010 costs generally range from \$20 to \$40 per test. Lab staff can answer questions and tell you how to collect water samples.

For a list of certified labs, visit Ecology online at <http://www.ecy.wa.gov/apps/eap/acclabs/labquery.asp> Under "Location," select your state, city, and county. Scroll down and click on "Show results." Click on the name of the labs to see what tests they perform.



Testing results

Contact your local health department for advice if the results of the tests show:

- **Coliform is present.** You may need to fix a coliform problem by disinfecting the well, installing treatment, or repairing a portion of your piping.
- **Nitrate in excess of 10 mg/L.** For high nitrates, the concern is for infants younger than 12 months. Infants and pregnant women should not drink the water until the well has a treatment system that provides continuous water quality below the health standard.
- **Arsenic higher than 0.01 mg/L.** For arsenic problems, you should try to find an alternative water source or use bottled water until treatment can be installed at the well, or in the house at the tap (point-of-use treatment).

These findings all indicate your water exceeds drinking water standards applicable to public water systems.

Special times to test well water

- **Test your well for coliform when** a household member has an unexplained illness, you hear your neighbor's well is contaminated or has a failing septic tank system, you notice a change in the water's appearance, taste or smell, you replace or repair any part of your well system, or when your well has been flooded.
- **Test for nitrate when:**
 - A household member is an infant under 12 months.
 - A household member is pregnant, nursing, or trying to get pregnant.
 - You live in area where fertilizers are, or have been, used near your well.
- **Test for arsenic** if you live in an area known to have naturally occurring arsenic in the groundwater, or if you know of neighbors that have high arsenic in their wells.

Water rights exemptions for private wells

In 2005, the Attorney General's Office issued a formal opinion clarifying exemptions from state water-right permitting requirements for four types of groundwater uses:

1. **Watering livestock** (No gallon-per-day limit or acre restriction).
2. **Watering a private lawn or garden less than ½ acre** (No gallon-per-day limit).
3. **Water for single homes or a small group of homes** (Limited to 5,000 gallons per day).
4. **Water for industrial uses, including irrigation** (Limited to 5,000 gallons per day, but no acre limit).

The permit exemption allows certain users of small quantities of groundwater (most commonly, single home well owners) to construct wells without first obtaining a water right permit from Ecology. But you should know that:

- The limits of the exemption apply to all wells for any given project. *For example, you can't irrigate two acres by installing four wells (each serving ½ acre). Or, if you wish to develop land and supply the commercial or domestic development with water from several wells, all the wells combined cannot exceed the 5,000-gallon a day limit. If they exceed the limit, you must obtain a water right permit from Ecology.*
- Even if water use falls under the permit exemption criteria, you may still apply for a water right permit from Ecology.
- Although exempt groundwater withdrawals don't require a water right, they are subject to state water law. Ecology may place conditions on groundwater withdrawals when they interfere with prior, "senior" water rights.

For More Information

Department of Ecology

These and other Ecology publications are online at <<http://www.ecy.wa.gov/pubs.shtm>>

- *Frequently Asked Questions: Water Rights in Washington*, #96-1804-S&WR
- *The Ground Water Permit Exemption*, #F-WR-92-104
- *Well Caps: Problems and Solutions*, #96-br-098
- *Surface Seals: Problems and Solutions*, #96-br-099
- *Focus on: Well Tagging Requirements*, #98-1805-WR

Wells - licensing, construction, and reporting

<<http://www.ecy.wa.gov/programs/wr/wells/wellhome.html>>

Well logs - location, ownership, construction details, and so on

<<http://apps.ecy.wa.gov/welllog>>

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Ecology's Regional Offices

Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452
(425) 649-7000

Southwest Regional Office
PO Box 47775
Olympia, WA 98504-7775
(360) 407-6300

Central Regional Office
15 W. Yakima Avenue, Suite 200
Yakima, WA 98902-3452
(509) 575-2490

Eastern Regional Office
North 4601 Monroe
Spokane, WA 99205-1295
(509) 329-3400



Department of Health

To order these and other publications from the Office of Drinking Water:

Call: (800) 521-0323 (within Washington State)

(360) 236-3100 (outside of Washington)

Visit the Web site at <<https://fortress.wa.gov/doh/eh/dw/publications/publications.cfm>>

- *Coliform Sampling Procedure* brochure, 331-225
- *Coliform Bacteria and Drinking Water* fact sheet, 331-181
- *Color, taste and odor problems in drinking water* fact sheet, 331-286
- *Correct Completion of a Coliform Lab Slip*, 331-247
- *General Sampling Procedure* brochure, 331-219
- *Nitrate in Drinking Water* fact sheet, 331-214
- *Nitrate Sampling Procedure* brochure, 331-222
- *Treatment of Drinking Water for Emergency Use* brochure, 331-115
- *Water Sampling: What we test for and why* booklet, 331-262



U. S. Environmental Protection Agency

- For a list of drinking water contaminants, potential health effects, and sources of drinking water contamination, call the safe drinking water hotline at (800) 426-4791, or visit <<http://www.epa.gov/safewater/mcl.html#mcls>>
- General information for private well owners. <http://www.epa.gov/nc/eco/drinkwater/private_well_owners.html>

NSF International

Information on water quality and the special needs of well water users.

<http://www.nsf.org/consumer/drinking_water/dw_well.asp?program=WaterTre>

Wellwater.org

Information on private water well systems and groundwater.

<<http://www.wellowner.org/index.shtml>>

Water Systems Council

Individual water wells and other private well-based water systems.

<<http://www.watersystemscouncil.org/>>

If you need this publication in alternate format, call (800) 525-0127. For TTY/TDD, call (800) 833-6388.