



HOMEOWNER'S GUIDE TO WELL CONSTRUCTION

Introduction

This brochure provides helpful guidance in planning the construction of your well. State law requires that all wells meet certain minimum construction standards. You may find them outlined in Chapter 173-160 of the Washington Administrative Code (WAC) - *Minimum Standards for Construction and Maintenance of Wells*. You and your well driller share the responsibility to make sure the well on your property is constructed to these standards.

Please read through all of the information. If you have questions, contact the Department of Ecology (Ecology) well drilling coordinator for your area. You can find their phone numbers listed on pages 6 and 7 of this brochure.

Do you need a water right?

Some uses of water require a water right. If your project does not meet the exemption below, contact the water rights coordinator for your region (pages 6 and 7). Water use of any sort is subject to the "first in time, first in right" clause, originally established in historical Western water law and now part of Washington State law. This means that a senior right may not be harmed by use of a junior right. Seniority is established by priority date, set by:

- a) The date an application was filed for a permitted or certificated water right.
- b) The date that water was first put to beneficial use in the case of claims and permit-exempt groundwater withdrawals.

On November 18, 2005, the state Attorney General's Office issued a formal opinion regarding how the groundwater exemption, especially for watering livestock, should be applied.

There are four types of groundwater uses exempt from the state water right permitting requirements:

- Providing water for livestock (no gallon per day limit or acre restriction).
- Watering a non-commercial lawn or garden one-half acre in size or less (no gallon per day limit).
- Providing water for a single home or groups of homes (limited to 5,000 gallons per day).
- Providing water for industrial purposes, including irrigation (limited to 5,000 gallons per day but no acre limit).

Plan ahead

Research the area in which you intend to construct your well. You can obtain well data from neighbors, local well drillers, county health offices, and Ecology's website (see page 6). Such valuable data as size, depth, capacity, and location of nearby wells are often available. However, there is no guarantee that the well driller will find water based on this data. Because the geology in a given area may be complex, groundwater might not be available on your property even though a neighbor's well may be close to your planned well site.

Locate your well

Always locate the well on high or well drained ground and observe all required distances from septic tanks, privies, stockyards, and other sources of contamination (at least 100 feet). Contact your county health office or county planning department to check for any additional county regulations or ordinances. Public water supplies (serving two or more homes) must have prior approval by local or state health officials. (Refer to WAC 173-160-171, available at your public library or Ecology's website at: <http://www.ecy.wa.gov/biblio/wac173160.html>).

Choosing a water well contractor

Only a licensed well driller may construct wells in the state of Washington. The license must be issued by Ecology. The well driller must also obtain a general contractor's registration and insurance bond with the Department of Labor and Industries. To verify Washington State well driller licenses please contact: Ecology's Well Driller Licensing Coordinator or the regional Well Drilling Coordinator.

Step 1. Consult the following sources for the names of local well drilling companies:

- Classified section of telephone directory.
- Well equipment suppliers.
- Well owners in your neighborhood (see well reports in online database—see page 6 for web address).
- Ecology's headquarters or regional offices to verify Washington State Well Drilling licenses.

Step 2. Seek information on well contractors as follows:

- Reputation.
- Reliability.
- Competence.
- Experience.
- Up-to-date Washington State Well Drilling License.
- Registered and bonded through the Department of Labor and Industries.
- To verify if any enforcement actions have been issued against a specific well driller, please contact the well drilling coordinator in your area (see page 6-7).

Step 3. Consult with well drillers on the following:

- A written contract for mutual protection
- Insurance protection
- Construction of the well to include:
 1. Size of hole.
 2. Casing diameters.
 3. Casing quality and type.
 4. Screening and perforation requirements, if any (also called well development).
 5. Sealing requirements under state codes (WAC 173-160-221).
 6. Water quality and water production tests.
 7. Filing a certified copy of well report for the owner.
 - a) Water well reports are filed at Ecology's regional offices.
 - b) Well reports are filed by Section, Township and Range, and county. Please have this information before contacting us.
 - c) Well drillers must **file well reports** with us within **30 days after constructing the well**.

8. An Ecology well identification tag.
 - a) Well drillers must attach a well identification tag and record the well identification number on the well report.
 - b) The tag should be attached in a reasonably permanent fashion.
9. Guarantee of materials and workmanship.
10. Estimated depth of well to be cased.
11. Estimated total depth of well.

Step 4. Require that the prospective well driller itemize an estimate of costs to include the following:

- Cost per foot of drilling.
- Cost per foot of casing.
- Cost of sealing materials and labor involved.
- Cost of other materials (drive shoe, screen, perforated casing, and so on).
- Cost of well development (including bailer test when appropriate).
- Cost of pump test on wells drilled under water right permit (required by regulations).
- Cost of pump installation, riser pipe, control box, wiring, and wellcap, if appropriate.

Step 5. Notify us and pay fee.

The property owner **must submit a notification form to Ecology at least 72 hours prior to well** construction or decommissioning along with the appropriate fee. Notification forms are available through any Ecology office, licensed well drillers, and county building departments. The forms can be filled out by the property owner or the well driller.

It is also the responsibility of the property owner to decommission any well that is abandoned, unusable, not intended for future use, or that poses an environmental, safety, or public health hazard.

A fee is charged for construction and decommissioning of water wells and is to be paid by the property owner when the notification form is sent in. Ecology uses these fees to support inspections of wells.

The fee for construction of a new water well with a minimum top casing diameter:

- Of **less** than twelve (12) inches is **\$200**.
- Twelve (12) inches or **greater** is **\$300**.

The fee for decommissioning a water well is **\$50**.

Pay to:
Department of Ecology
Cashiering Unit
PO Box 47611
Olympia WA 98504-7611

Installing a pump

When selecting pump and water system equipment, be sure to:

- Select a proper pump and water system adaptable to your present and future needs.
- Properly house and protect your pump and equipment.
- Arrange to have your pump equipment serviced on a regular basis.

NOTE: If your pump installer breaks the surface seal when installing the pump, it is their responsibility to re-install or fix the surface seal. **This is very important** since contaminants can enter your well if the seal is broken.

Check with your county health department

As of 1992, counties or local health districts may have received authority to inspect well seals and oversee decommissioning portions of the drilling regulations, known as “county delegation.” **For a listing of counties with delegated authority, see page 8. Before constructing a well, check with your county environmental health department to get any additional information on local well construction ordinances.**

Do's and don'ts

- ✓ *Do* give primary consideration to property boundaries, septic system location, and other potential sources of contaminants when choosing the location for your well.
- ✓ *Do* make certain that you and the well driller understand all the terms of your written contract.
- ✓ *Do* select a proper pump and water system adaptable to your present and future needs.
- ✓ *Do* have your well water analyzed to determine bacterial and mineral content.
- ✓ *Do* properly house and protect your pump and other equipment.
- ✓ *Do* arrange to have your pump equipment serviced regularly.
- ✓ *Do* make sure that the driller files a copy of the well report with us.
- ✓ *Do* obtain a certified copy of the well report on your completed well, including a bill of materials and record of work performed.
- ✓ *Do* make sure your driller seals the well.
- ✓ *Do* decommission any well that is abandoned, unusable, not intended for future use, or that poses an environmental, safety, or public health hazard.
- ✓ *Do* make sure your driller attaches a **well identification tag** to your well.
- ✓ *Do* remember that conservation means using what you have more efficiently. Conservation is a great tool for the individual well owner to use to save money and benefit the environment.

- ✓ *Don't* hire an **unlicensed** driller.
- ✓ *Don't* ask a driller to construct a well that will not meet state standards. (You will be subject to future costs to remedy the problems that result from improperly constructed wells, and the driller's license would be in jeopardy.)
- ✓ *Don't* purchase your pump prior to well construction.
- ✓ *Don't* store pesticides, fuels, or other chemicals in your well house or near your well.

Wells serving 15 or more homes

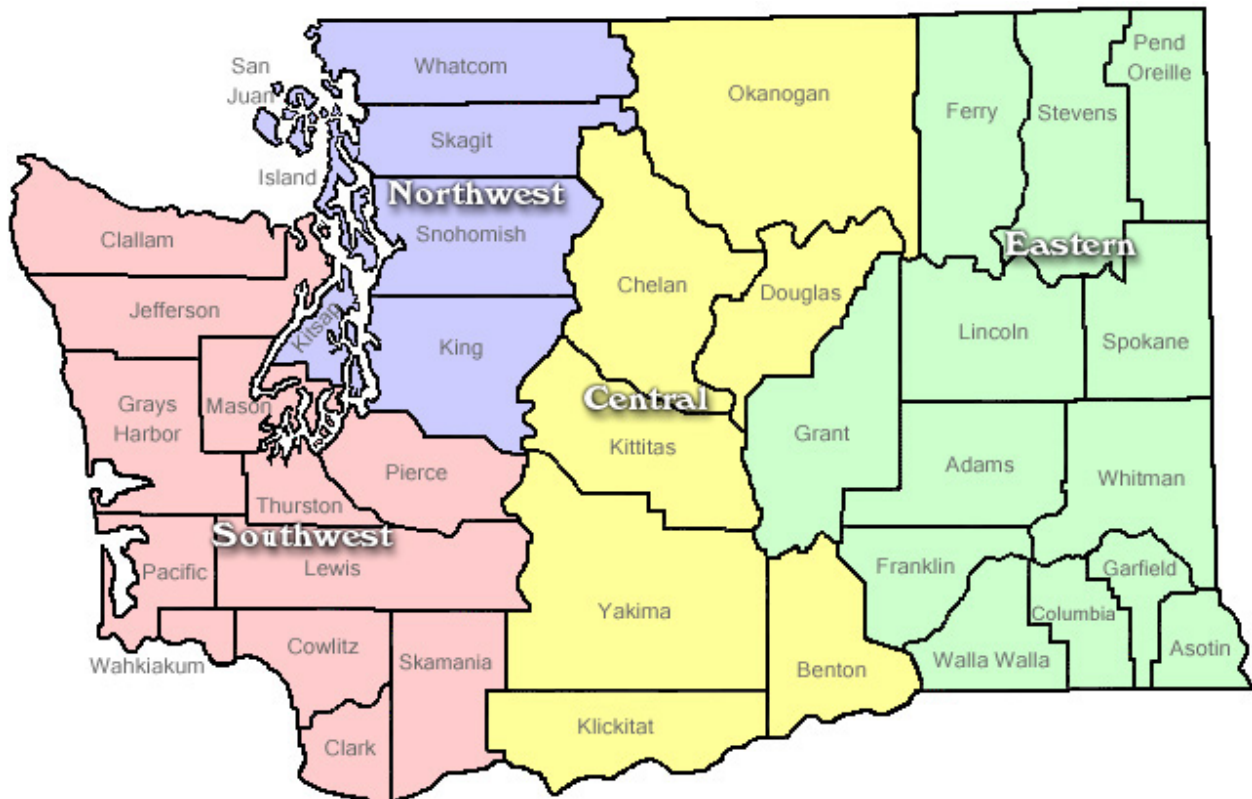
If your well will serve 15 or more connections, or 25 or more people, contact the Washington Department of Health's Wellhead Protection Program at (360) 586-9041 for information on how to protect your wellhead from contamination.

If your well serves 2 to 15 homes, contact your county health department for information regarding siting standards associated with the size of the well.

Well Contacts:

Below is a map of the state of Washington, with the outlines of Ecology's four regions. Before drilling your well, contact the appropriate **Ecology** staff listed below, as well as the **county** environmental health department for additional regulations. A number of counties have been authorized to manage and enforce the well drilling standards that affect sealing, decommissioning, and well tagging for their particular counties (page 7).

If you need this publication in an alternate format, please call the Water Resources Program at 360-407-6600. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.



Department of Ecology Addresses:

Water Resources Program

(360) 407-6000

Headquarters Office

PO Box 47600

Olympia Washington 98504-7600

Ecology's Water Resources Web site: <http://www.ecy.wa.gov/programs/wr/wrhome.html>

Well Construction and Identification

Bill Lum

(360) 407-6648

Well Driller Licensing/Testing

Marian Bruner

(360) 407-6650

Northwest Regional Office

(425) 649-7000

3190 160th Avenue SE

Bellevue Washington 98008-5452

Well Drilling Coordinator

Noel Philip

(425) 649-7044

Water Rights Coordinator

Dorothy Glenn

(425) 649-7278

Southwest Regional Office

(360) 407-6300

300 Desmond Drive

Olympia, Washington 98504-7775

PO Box 47775

Olympia Washington 98504-7775

Well Drilling Coordinator

John Pearch

(360) 407-0297

Water Rights Coordinator

Sheri Carroll

(360) 407-0240

Central Regional Office
15 West Yakima Avenue Suite 200
Yakima Washington 98902-3452

(509) 575-2490

Well Drilling Coordinator

Avery Richardson

(509) 575-2639

Water Rights Coordinator

Teresa Mitchell

(509) 575-2597

Eastern Regional Office
N 4601 Monroe St.
Spokane Washington 99205-1295

(509) 329-3400

Well Drilling Coordinator

Mark Ader

(509) 329-3544

Water Rights Coordinator

Karen Tusa

(509) 329-3585