



HOME OWNER'S GUIDE TO WELL CONSTRUCTION

Introduction

This fact sheet will provide you with helpful information in planning the construction of your well. State law requires that all wells meet certain minimum standards for construction. These standards are outlined in the Department of Ecology's publication, *Minimum Standards for Construction and Maintenance of Wells*. You and your well driller share the responsibility to ensure that the well on your property is constructed to these standards.

Please read through all of this information. If you have questions, contact the Department of Ecology (Ecology) well drilling coordinator for your area. The phone numbers are listed on an insert accompanying this publication.

Plan ahead

You do not need a water right if you will use less than 5,000 gallons per day for domestic or industrial supplies and will irrigate less than half an acre of lawn or non-commercial garden. If you will be using more than 5,000 gallons per day or want to irrigate a larger area, contact the Ecology's Water Resources Program Regional Office for your area to obtain information on applying for a water right. (see insert)

Ordinarily, water for a single domestic dwelling, to include some stock and irrigation of one-half acre of non-commercial garden, would not exceed the 5,000 gallon a day limitation.

Research the area in which the well is to be constructed. Well log data can be obtained from your neighbors, local well contractors, county health offices, and Ecology's website (see insert). Such valuable data as size, depth, capacity, and location of these wells are often available. One must realize, however, that there is no guarantee that the well contractor will find water based on this data. The complexities of the geology in a given area may be such that groundwater may not be available on your property even though a neighbor's well may be close to your proposed well site.

Location of the well

Always locate the well on high or well drained ground and observe the prescribed distances from septic tanks, privies, stockyards, and other sources of contamination (at least 100 feet). Contact your county health offices and/or county planning departments 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 Washington Administrative Code (WAC) 173-160-205, available at your public library).

Selection of a water well contractor

Only a duly licensed well contractor is permitted to construct wells in the state of Washington. The license must be issued by Ecology. A general contractor's registration and insurance bond with the Department of Labor and Industries is also necessary for the construction of wells.

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To verify Washington State well driller licenses please contact: Department of Ecology, Well Driller Licensing Coordinator or the Ecology Well Driller Coordinator (see insert).

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 data base—see insert for web address)
- Department of Ecology, Headquarters or Regional Offices for verification of Washington State Well Drilling licenses (Addresses/phone numbers on back page)

Step 2. Seek information on well contractors as follows:

- Reputation
- Reliability
- Competence
- Experience
- Current license
 - Up-to-date well drilling license
 - Registered and bonded through the Department of Labor and Industries
- To verify enforcement actions (if any) issued against specific well drillers, please contact the Regional Office of the Department of Ecology in your area. (Addresses/phone numbers on back page)

Step 3. Consult with well contractors on the following:

- A written contract for mutual protection
- Insurance protection
- Construction of well to include:
 1. Size of hole.
 2. Casing diameters including reduction.
 3. Casing quality and type.
 4. Screening and perforation requirements, if any (also called well development).
 5. Sealing requirements under state codes (WAC 173-160-075).
 6. Water quality and water production tests.
 7. Filing a certified copy of well log for the owner.
 - a) Water well logs are filed at the Department of Ecology's Regional Offices.
 - b) Well logs are filed by County, Section, Township and Range. Please have this information before contacting the appropriate office.
 - c) Well Drillers are required to **file well logs** with the Department of Ecology **30 days after completion of the well.**
- 8. A Department of Ecology well identification tag.
 - a) Well drillers are required to attach a well identification tag and record the well identification number on the well log.
 - 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 contractor itemizes an estimate of costs to include the following:

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- 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, etc.).
- 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. Pay fee.

A fee is charged for construction of water wells and is to be paid by the property owner when the notification form (see below) 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 **\$100**.
- Twelve (12) inches or **greater** is **\$200**.

Pay to:

Department of Ecology
 Fiscal Office
 P.O. Box 5128
 Lacey, WA 98509-5128

Important information about property owner responsibilities

The property owner must submit a **notification** form to Ecology at least **72 hours prior to well construction** along with the fee mentioned above. Notification forms are available through Ecology's Regional Offices, licensed well drillers, and county building departments. The forms can be filled out by the property owner or the 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.

Pump Installation

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 periodically.

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

Delegation

As of 1992, counties or local health districts may have received authority to inspect well seals and the decommissioning aspects of the drilling regulations. **Prior to having your well constructed, check with your county environmental health department to get any additional information on local well construction ordinances.**

Do's and don'ts

- ✓ *Do* obtain a water-right permit prior to construction if you intend to withdraw more than 5,000 gallons a day or irrigate more than 1/2 acre of non-commercial lawn or garden from a well (estimate your needs.)
- ✓ *Do* consider your neighbors' present well location, septic system location, and other potential contaminants in locating your own.
- ✓ *Do* make certain that you and the water well contractor fully understand the terms of your written contract.
- ✓ *Do* locate your well, giving primary consideration to sanitation requirements.
- ✓ *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 periodically.
- ✓ *Do* make sure that the driller files a copy of the well report with the appropriate office of the Department of Ecology.
- ✓ *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 Department of Ecology **well identification tag** to your well.
- ✓ *Do* remember that conservation means using what you have more efficiently. Conservation can be 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 would be subject to probable future costs to remedy the deficiencies 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.

Wellhead protection

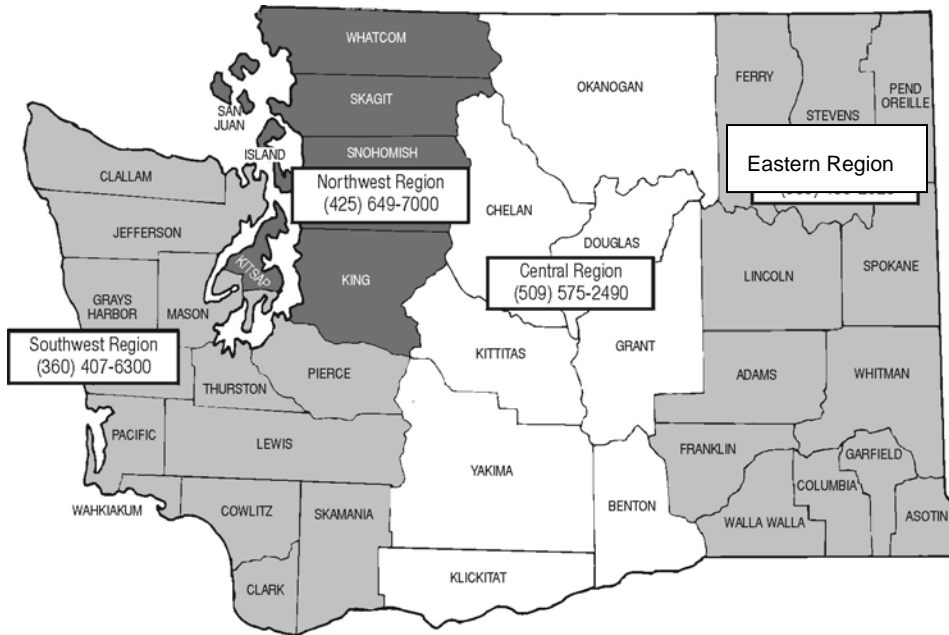
If your well will serve 15 or more connections or 25 people, contact the Washington Department of Health's Wellhead Protection Program at (360) 586-9041 for information on how to protect your wellhead from contamination.

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

Well Contacts:

Below is a map of the state of Washington, with the outlines of the four Ecology Regional Offices. Prior to drilling your well, contact the appropriate **Ecology** staff listed below, as well as the **county** environmental health department for additional regulations. The counties that are shaded on the map below, have been authorized to administer and enforce the well drilling standards that pertain to sealing, decommissioning, and well tagging.

If you have special accommodation needs or require this publication in alternative format, please contact 407-6600 (voice) or TTY (for the speech or hearing impaired) at 711 or 1-800-833-6388.



Department of Ecology Addresses:

Water Resources Program

(360) 407-6000

Headquarters Office

P.O. Box 47600

Olympia, Washington 98504-7600

Well Construction and Identification

Dick Szymarek

(360) 407-6648

Well Driller Licensing/Testing

Marian Bruner

(360) 407-6650

Northwest Regional Office
3190 - 160th Avenue SE
Bellevue, Washington 98008-5452

(425) 649-7000

Well Drilling Coordinator

Trevor Contreras

(425) 649-7044

Water Rights Coordinator

Dorothy Glenn

(425) 649-7278

Southwest Regional Office
510 Desmond Drive
Olympia, Washington 98504-7775
P.O. Box 47600
Olympia, Washington 98504-7600

(360) 407-6300

Well Drilling Coordinator

Igor Vern

(360) 407-0281

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

Gene Potts

(509) 575-2639

Water Rights Coordinator

Bryce Bealba

(509) 575-2597

Eastern Regional Office
N. 4601 Monroe, Suite 100
Spokane, Washington 99205-1295

(509) 329-3400

Well Drilling Coordinator

Mark Ader (509) 329-3544

Water Rights Coordinator

Karen Tusa (509) 329-3585

County Delegation Contacts:

Kitsap	Bill Lum	(360) 337-5221
Clark	Paul Greenwalt, Joe Ellingson	(360) 397-8428
Cowlitz	Melissa Sutton, Cynthia Johnson	(360)557-3052 ext. 2667, 2676
Jefferson	Linda Adkins	(360) 385-9444
King	Steve Koppelman	(206) 269-9773
Kittitas	Holly Duncan	(509) 962-7580
Mason	Stephanie Kenney	(360) 427-9670 ext. 297
San Juan	Mark Tompkins	(360) 378-4474
Skagit	Corinne Story	(360) 336-9380
Skamania	Bruce Scherling	(509) 427-5138
Snohomish	Kevin Plemel	(425) 339-5250
Spokane	Jim Sackville-West	(509) 324-1459
Tacoma-Pierce	Rich Dickerson	(253) 789-2885
Thurston	Heather Saunders	(360) 754-2963
Whatcom	Sarah Cierebiej	(360) 676-6724