

Private Well Fact Sheet

Private (domestic) wells are an important source of drinking water in Oregon. A recent estimate by the U.S. Geological Survey indicates that approximately 1,000,000 Oregonians obtain their drinking water from private wells. The vast majority of these wells are located within rural areas as opposed to within city limits. Wells are drilled into aquifers in order to bring water to the surface. However, if they are not constructed or maintained properly, these same wells can serve as conduits for pollutants to migrate down to the aquifer and contaminate water supplies. Listed below are some important facts related to private wells.

Wells are drilled below the ground surface to a depth where all the open spaces in the subsurface geologic material (sand and gravel, fractured bedrock, etc.) are filled with water. At this level we have crossed the water table and are into the aquifer.

Components of a Well (refer to diagram)

- **Well Casing:** the metal or plastic pipe that is placed in the hole to keep it from caving in. In bedrock wells, casing isn't always used. The casing does not provide adequate protection against contamination.
- **Casing Seal:** Oregon law requires that the initial hole be drilled a minimum of four inches greater than the diameter of the casing and that this open space be filled with cement or bentonite in order to seal out shallow water. The depth of the casing seal depends on the local geology.
- **Sanitary Seal:** a rubber gasket or other type of seal at the top of the casing to ensure that nothing can gain access to the well's interior.
- **Screens or Perforations:** holes or slots in the casing or liner that provide direct access of groundwater to the well. Generally placed at the same depth as the water-bearing zone.
- **Concrete Slab:** concrete pad around well at surface sloping away from the well. Prevents water and spills from gaining access to the well casing.

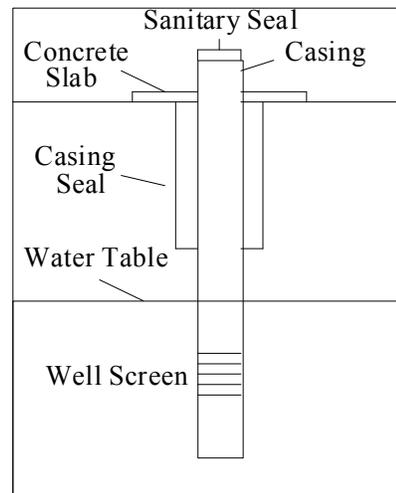
Protecting Your Drinking Water

Even deep wells can become polluted if they are not constructed or maintained properly. Provide protective housing. Do not allow animals in the vicinity of the well house. Do not store chemicals in or near the well house. A leaking container or accidental spill could contaminate the drinking water for both you and your neighbor. Avoid applying pesticides and fertilizers near the well house.

Drinking Water Program, Oregon Department of Human Services

Testing Your Well Water

Testing your water frequently is good practice. Water quality can change with time and it may not be possible to detect that change without an analysis. Test annually for coliform bacteria and nitrate, or at any time that your water changes character, i.e., appearance, odor, taste, etc. Advice and analyses are available from a number of state-certified drinking water laboratories.



For More Information

Well Construction: contact an Oregon-licensed well driller, your local county watermaster or call the Water Resources Department at 503-986-0900 or see WRD website (see below).

Water Quality or Water Testing: contact your County Health Department or call the Oregon Drinking Water Program at 971-673-0405.

Assessing Private Wells: contact your local OSU Extension agent and ask for information on the Home*A*Syst Program.

Useful Websites:

National Groundwater Association: www.wellowner.org

Water Resources Department: www.wrd.state.or.us

U.S. Geological Survey: www.usgs.org

Drinking Water Program:

www.dhs.state.or.us/publichealth/dwp/gwater.cfm

Department of Environmental Quality:

www.deq.state.or.us/wq/dwp/dwphome.htm

Oregon State Extension: <http://wellwater.orst.edu>

U.S. EPA: www.epa.gov/safewater/pwells1.html

