

Water Levels: Static, Pumping, & Recovering

If you are interested in taking your own water depth measurements make sure to use approved sanitary procedures to prevent bacteria or other surface contaminants from entering the system.¹⁻²

Measure the **static water level**, rather than the pumping or recovering water level by letting your well rest for several hours before measuring. *Pumping and recovering water levels do not reflect the water level of the surrounding aquifer, and should not be used as indicators of whether a well is going dry.*



Groundwater. Water that naturally occurs in porous rock materials underground.

Static water level: the water level in the aquifer from which you are pumping, measured after the well has rested for three to four hours (so as not to measure the pumping or recovering water level).

Pumping water level: the water level in the well during drawdown. Pumping causes the formation of a “cone of depression”.

Recovering water level: the water level after pumping has stopped, but before the well has fully returned to the static water level.

OSU - Measuring Your Well's Water Level

<http://wellwater.orst.edu/measuringwells.htm>

Water Level Indicator

Use of an electric depth gauge is the easiest, and most common method used to measure your well's static water level. This equipment typically consists of a weight suspended on stranded insulated wire with depth markings and an electronic sensor that indicates when, and at what depth, the wire has hit water.



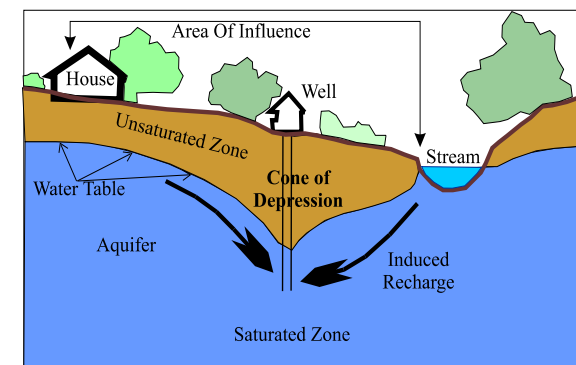
Current flows through the circuit when the end of the wire touches the water surface. Current is supplied by a small battery. To make a reading, lower the electric wire or sounding line until the needle deflects or the buzzer sounds.

Read the distance from the water to the top of casing on the wire. Mark the reference point on the casing where you measured the depth. Use a standard tape measure to measure the distance between the marks on the line.

More Information

Aquifer. A water-bearing geologic formation and/or a saturated soil or rock layer with spaces that allow water to move through it. Aquifers may be separated by layers of rock or clay that do not allow water to move through them.

Aquifers that are *not* below a confining layer are called **unconfined aquifers**. Because the top of these aquifers is the water table, they also are called **water table aquifers**. In a water table aquifer, the water level in a well is the same as the water table level outside the well.



Want more information? Contact an officer of the *Hugo Neighborhood* on how you can become involved in this volunteer well water monitoring program.

1. Hugo Neighborhood Association & Historical Society. 2005. *Volunteer Well Monitoring Program*. Hugo, OR.
2. Hugo Neighborhood Association & Historical Society. 2005. *Scoping — Volunteer Well Monitoring Program*. Hugo, OR.

Hugo Neighborhood Association & Historical Society's Mission

This information brochure is one of a series of documents published by the Hugo Neighborhood Association & Historical Society (*Hugo Neighborhood*). It is designed to be shared with neighbors for the purpose of helping protect our rural quality of life by promoting an informed citizenry in decision-making. The *Hugo Neighborhood* is an informal nonprofit charitable and educational organization with a land use and history mission of promoting the social welfare of its neighbors.

Land Use & History

The *Hugo Neighborhood's* land use mission is to promote Oregon Statewide Goal 1 — Citizen Involvement, and to preserve, protect, and enhance the livability and economic viability of its farms, forests, and rural neighbors. It will act, if requested, as a technical resource assisting neighbors to represent themselves.

Its history mission is to educate, collect, preserve, interpret, and research its local history and to encourage public interest in the history of the Hugo area.

Volunteer membership dues are \$10.00 annually per family and normally used for paper, ink, envelopes, publications and mailings. Make checks to the *Hugo Neighborhood* and send them to our Treasurer.

Email: hugo@jeffnet.org

Web Page: <http://www.hugoneighborhood.org/>

Edited by Hal Anthony, Jacque Hardwick, Karen Rose, Wayne McKy, & Mike Walker,

HNA&HS Officers

Wayne McKy, Chair
6497 Hugo Road
Grants Pass, Oregon 97526

Mike Walker, Education Chair
3388B Merlin Rd #195
Grants Pass, Oregon 97526

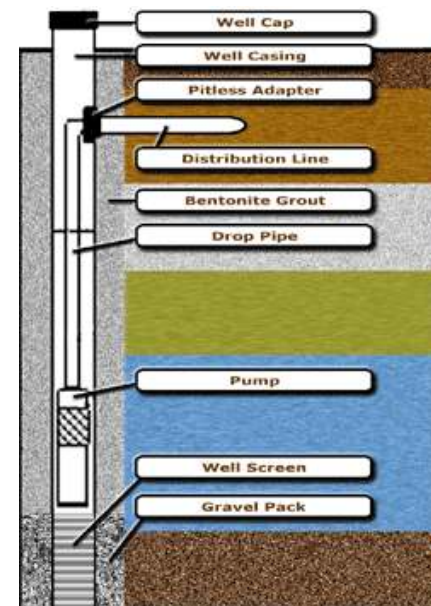
Hal Anthony, Outreach Chair
3995 Russell Road
Grants Pass, Oregon 97526

Jacqueline Hardwick, Treasurer
885 Red Mountain Drive
Grants Pass, Oregon 97526

Karen Rose, Web Master
575 Red Mountain Drive
Grants Pass, Oregon 97526

Ann Lyneis, Secretary
5100 Tunnel Loop Road
Grants Pass, Oregon 97526
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Training On Water Levels



*Static Water Level (stable),
Pumping Water Level (declining), or
Recovering Water Level (rising)*

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**Hugo Neighborhood Association &
Historical Society**

Oregon Water Resources Department