Information and Guidelines for Your Water Well

Water Well Records

It is your responsibility to determine the quality of your private water system. For you and your family’s health, keep records on your well water quality and any maintenance performed on your well, and consult a professional with any concerns.

Folder Contents
- Construction report
- Well Permit
- Well log
- Water quality test results

Property Service Address

Maintenance Record

<table>
<thead>
<tr>
<th>Date</th>
<th>Work Performed and Comments</th>
<th>Contractor</th>
<th>Cost</th>
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System Description
- Max gallons per minute (gpm)
- Well depth
- Pump depth
- Pump type
- Pump installation date

Water Quality Treatment System
- Yes
- No

If “yes,” what type?
- water softener
- chlorination
- distillation
- reverse osmosis
- ozonation
- oxidizing filters
- activated carbon filters
- mechanical filtration
- ultraviolet radiation

Date installed

Important Contact Information

Maintenance
- Well servicing contractor
- Plumber

Health
- Local/County Health Dept.
- State Health Dept.
- Water testing laboratory

General Questions
- State water agency
- Local Extension office

Maintenance Record

Date Well Drilled

For more information, please visit www.region8water.org

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Your Well System

How the pump works
1. Instead of lifting the water to the ground surface, most wells have submersible pumps that actually push the water up.
2. The pitless adapter provides access to the submersible pump and well piping from the top of the well casing, at the same time directing water from the pump into the house plumbing system. A submersible pump is highly reliable, sometimes running for 20 years without servicing.
3. Your pump is not supposed to run constantly. The pressure tank and the air bladder inside the tank ensure that your pump is not always running. Water is pumped into the tank until the air bladder is filled. When the pressure in the tank reaches 40 to 60 pounds per square inch (psi), water exits the pressure tank as it is used in the home plumbing system. A submersible pump is highly reliable, sometimes running for 20 years without servicing.

Typical System Terminology
- **Aquifer** – a water-bearing layer of sediment or rock
- **Bentonite** – a highly plastic clay consisting of the minerals montmorillonite and beidelite (smectites), which swell extensively when wet
- **Borehole** – the cylindrical hole drilled into the aquifer
- **Casing** – steel or PVC pipe placed in the borehole to keep the borehole open and allow a void to store water and install a pump; this includes surface casing, which is typically steel casing at least 25 feet deep and at least 1 foot above ground that prevents surface contaminants from entering the well
- **Drop Pipe** – pipe placed in the casing to connect the pump to the surface
- **Electrical Control Box** – a switch box that turns the well pump on and off
- **Grout** – a mixture of cement or cementitious material designed to fill voids in structural and rock formations
- **Pitless Adapter** – a device placed in the well casing that allows water to be diverted from the drop pipe to piping on the exterior of the well below the frost line
- **Power Cord/Pump Wire** – wiring from the pump control box to the pump that supplies power for the pump and sends command signals
- **Pressure Tank** – a water holding tank equipped with an air bladder that regulates water pressure into the home and demand to the pump; this air bladder is in place so the pump will not run constantly
- **Submersible Pump** – the most common type of water well pump; includes the pump and pump motor placed at the bottom of the drop pipe, below the pumping water level
- **Water Table** – the natural level of the upper limit of a saturated portion of ground
- **Well Cap** – a sealed cap on the top of the well casing that prevents surface contaminants from entering the inside of the well

Maintenance
- **Your family’s health depends on the quality of water your well supplies. Regular well maintenance and water testing will enable you to track the quality of your water. Keeping your records provides good information in the case of adverse effects on your water from outside activity.**

Trouble Shooting Q&A
- **Why does my water smell or taste like chemicals?**
  - First, check your breaker box to see if the breaker is tripped. Also check the pump reset button on the control box near the breaker. If these do not solve the problem, call a licensed pump installer to check the pump and pump control equipment, which may have tripped. The pump installer also can check the water level in the well.
- **Why does my water have a lot of sediment in it?**
  - Overuse or seasonal lack of recharge of the aquifer also can cause the groundwater level to drop, decreasing the amount of water that can enter the well. A licensed well driller or pump installer can check the pressure tank, check valve, and check for a high water table.
- **Why does my water smell like sulfur or have a sewerlike smell?**
  - Your water likely has a high level of dissolved minerals. Have a laboratory test the water to determine its chemical composition.

Trouble Shooting Q&A
- **Why doesn’t water come from my well anymore?**
  - First, check your breaker box to see if the breaker is tripped. Also check the pump reset button on the control box near the breaker. If these do not solve the problem, call a licensed pump installer to check the pump and pump control equipment, which may have tripped. The pump installer also can check the pressure tank, check valve, and check for a high water table.
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