PRIVATE WELL WATER IN CONNECTICUT

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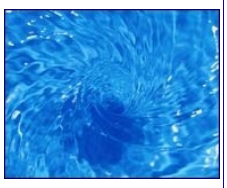
Some private wells run dry or experience low water quantity every year, while others, which may be right next-door, flow without a problem even during a drought. Geographical or physical conditions of the soil or rock and well construction may cause these differences.

Groundwater levels all across Connecticut may drop due to a lack of precipitation. This can happen anytime of the year but is more likely to be most severe during greater water consumption periods in the spring, summer and fall. Typically, dug wells and point wells are more likely to go dry because of their shallow construction and are less reliable than deeper drilled wells constructed into bedrock.

How Do I Know if I Have a Problem?

Indicators that your well water supply is having trouble keeping up with demand for water in your house may include:

- If your well pump turns on more frequently than normal. You are more likely to realize this is happening if your well pump is not located deep inside the well. Some well pumps are located in a crawl space or basement.
- If you notice frequent fluctuation of the pressure gauge on your storage tank. This is possibly indicating short cycling of a submersible pump located deep inside your well.
- If you are experiencing water surges or a complete loss of water from your taps.
- If you experience a drop in water pressure.
- If the water quality becomes cloudy, turbid, or, silty.



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About My Well

Where is it? How deep is it? These are some basic questions and having the answers ahead of time can be helpful when trying to troubleshoot any issues with your well water system. If you do not know the answers, refer to EHS Circular Letter 2014-27, Well Completion Reports for information on how to locate your well by getting a copy of the well completion report. A well completion report should have general information you need to become more familiar with your well's location and construction.

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If you are unable to locate a well completion report, you may be able to find a copy at your Local Health Department or with the well driller. Wells constructed in the last 30 to 40 years should also be visible above grade where you will see a steel well casing with a well cap. Wells constructed prior to this general time-frame were often buried below grade or buried within well pits. Well pits typically were constructed using a 36-inch diameter circular concrete tile with a cement cover slab. The well pit structure may be completely buried or may be visible above ground.

If you are unable to locate your well through a well completion report or by visual observation you can try to locate it yourself. Start by finding where the well line enters your home and use a metal detector to trace back to the well on the same side of the house where the water lines enter.

The piping from newer wells is most likely polyethylene plastic; however a metal detector may still be useful if a tracer wire was laid in the trench with the well piping or for detecting the electrical wires that lead to the pump in the well. A metal detector may also help be helpful in detecting the well's steel casing or if the well cap was made of metal.

Conserving Water

Implementing water conservation methods when you experience water quantity problems can be helpful. You and your family can significantly reduce your daily water demand by:

- Cutting back on outdoor water use by reducing or eliminating lawn irrigation and washing of vehicles, etc.
- Finding and fixing any leaks in your home's plumbing system (i.e. toilets, fixtures, plumbing, appliances, etc.)
- Limiting time used to bathe and shower.
- Using dishwashers and clothes washers only when there is a full load.
- Turning off the water while washing dishes, brushing teeth, etc.
- Timing water use to spread it out over the entire day. This may allow time for the water level in the well to recover between uses.

Options for Improving Your Well Water Supply

- Increase the amount of water storage in your house by installing additional water storage tanks. This should be done by a licensed plumber and could be a cost effective way to address your water demand problems. Water in the storage tank(s) will be used up first and will allow the well to recover for a longer period of time before the well pump turns on to refill the tank(s).

- If your well is equipped with a submersible pump it may be possible to lower the pump deeper into your well. This may be an option depending on where your pump is currently set, how deep your well is, and the amount of sediment in your well. Contact a certified well driller or licensed pump installer to discuss whether this is a viable option for your well.

- Deepening an existing well may improve the yield and/or the water column storage in your well. A well permit application must be submitted to and approved by the Local Health Department prior to commencement of work and must be performed by a licensed well driller or well drilling contractor.

- Drilling an additional well at a different location on your property may be another option. A well permit application must be submitted to and approved by the Local Health Department prior to commencement of work, and must be performed by a licensed well driller or well drilling contractor.

• Hydrofracturing the well may improve the yield of your well. Hydrofracturing a well is not always effective and may sometimes negatively impact neighboring wells. Contact a licensed well driller or well drilling contractor to discuss whether this is a viable option for your situation. A well permit application must be submitted to and approved by the Local Health Department prior to commencement of work.

NOTE: If your well has gone dry, you should not attempt to fill it back up with water that is hauled in from a bulk water delivery company. If you were to do this, most of the water would likely be dispersed back into the ground and may not be retained in your well. Homeowners that receive bulk water deliveries should ensure that the water source is regularly tested and meets water quality standards. Additionally the tank used for bulk water hauling should exclusively be for bulk water hauling of potable water. It is recommended that the bulk water hauler meet criteria listed in the CT DPH Bulk Water Hauling Guidelines.

If you seek the advice and services of a well driller and/or plumber always be sure that they are licensed or certified to do the work they are performing.

What about Well Water Contamination during Well Repairs?

Anytime work is done on your well or water system, before the water is used again for domestic purposes the well, storage tanks and the home's entire plumbing system should be disinfected. Refer to Publication #27: Disinfection Procedure for Private Wells for information on how to properly disinfect your private well.

Regardless of circumstances, private well owners should have their wells tested at least annually for coliform bacteria and other basic indicators that may show contamination. Refer to Publication #24: Private Well Testing for more information. Contact your Local Health Department or the Connecticut Department of Public Health – Private Well Program at (860) 509-7296 for more information.

For More Information

Please contact: CT DPH, Private Well Program, (860) 509-7296