

COPING WITH LOW WATER LEVELS

Why Water Levels Change

Pumping too much water from a well or pumping it too fast can cause low water levels. This is particularly important in times of drought and low rainfall. Typically, water levels fluctuate on a seasonal basis, rising in wet months and falling in dry months. It takes time before you see a drop in water levels and time for the water to be replenished.

Your well will need several slow, soaking rains for the water to filter through the ground and replenish the supply. Shallower wells may see water levels rise more quickly with a return of rain. Deeper wells tend to withstand a drought with little or no problems. But if your well is affected, it can take several months of adequate rain or snow to restore the supply.

If you aren't experiencing drought conditions but you have lower levels of water in your well, consider whether there has been an impact on local groundwater supplies. Has there been a major new source of groundwater pumping nearby for municipal, industrial, or agricultural use? Your local environmental health department might know if increased groundwater pumping is affecting local wells.

A final factor that can affect the water level is the age of your well. The life of a well is estimated at 20-30 years, or longer, depending on the quality of materials used during construction. However, over time the yield of the well may decline due to sediment or mineral scale build up inside of the well. If this occurs, your well may need to be cleaned or treated to restore it to its former condition.

Measuring Water Levels

Knowing the exact yield of your well is critical to managing the use of water or considering options to expand the supply.

First, review the well's history. Check the well records (also known as a well log, well drillers report, or well completion report). Most states require well contractors to file a well log when a new well is drilled, and many states have searchable databases to retrieve this information electronically. Local environmental health department may also keep a copy of these records. Well records contain information about the well depth and its capacity in gallons per minute when it was first drilled and/or tested in later years. Compare this historical data to the actual water level in your well today.

There are three ways to measure water levels: use an electric sounder or depth gauge, the wetted tape method, or the air line method. Each can be complicated to use, and it is very difficult to measure water levels in a deep well. Ask your licensed well contractor to measure the water level and review our [wellcare® information sheet, *Determining Static Water Level in a Well*](#).

Try to limit the demand on your well by spreading out your daily and weekly water use activities, such as bathing, watering the garden, and washing dishes or clothes. Take the time to repair dripping faucets or leaking toilets. Invest in water efficient fixtures for faucets and showerheads. Replace older toilets with low flow models.

Even seemingly small measures can save thousands of gallons of water per year in the average household. Our [wellcare®](#) information sheet, [Water Conservation](#) offers tips on how to measure household water use and implement the most effective conservation options.

Providing Greater Water Storage

The capacity of your well and the size of your well pump determine the efficiency of your water well system. Added storage can help provide greater capacity when water levels are low. Usually, a large size pressure tank can perform this function. In fact, a larger tank can prolong the life of your well pump as it reduces the need for the pump to cycle as often. Most wear and tear on the well pump occurs when it stops and starts.

There are times when the well capacity is so low that a two-pump system is needed. In a two-pump system, the well pump supplies water to a storage tank. A second pump, a shallow well unit, takes water from the storage tank and sends it to the pressure tank or directly into the household system. Operation is controlled with a pressure switch.

Contact your [licensed well contractor](#) to see how added water storage can meet your household water needs.

Additional Options

There are a few additional options you can explore if the measures mentioned previously have not helped. Perhaps the well's pump can be lowered; if there is room, the pump can potentially be placed deeper into the well's borehole.

For low-yielding wells, specialized pressure switches, floats, and sensors can help prevent damage to the well pump and maintain a steady water level.

Deepening a well so that it reaches further below the water table may help to ensure a more drought-resistant water supply. However, deepening a well is never a guarantee that you will get more water, and it can be as expensive as drilling a new deep well.

Redeveloping an existing well may make it more efficient. There are options like hydrofracturing, high pressure jetting, and well surging that may increase water flow.

Ask your licensed well contractor about these options. If you need help locating a licensed well contractor in your area, use [our interactive map](#). Also remember to test your well water after any deepening, maintenance, repairs, or other procedures to ensure it is safe.

For More Information on Coping with Low Water Levels

Contact your licensed well contractor, local health department, state environmental agency, or the wellcare® Hotline at 888-395-1033.

Additional wellcare® information sheets are available on this topic:

[*Drought and Your Well*](#)

[*What to Do If Your Well Runs Dry*](#)



Information to help maintain and protect your water well system:

wellcare® is a program of the [Water Systems Council \(WSC\)](#). WSC is the only national organization solely focused on protecting the health and water supply of an estimated 23 million households nationwide who depend on private wells (according to the U.S. EPA).

This publication is one of more than 100 wellcare® information sheets available FREE at www.watersystemscouncil.org.

Well owners and others with questions about wells and well water can contact the wellcare® Hotline at 1-888-395-1033 or visit www.wellcarehotline.org to fill out a contact form or chat with us live!

JOIN THE WELLCARE® WELL OWNERS NETWORK!

By joining the FREE wellcare® Well Owners Network, you will receive regular information on how to maintain your well and protect your well water.

Contact us at 1-888-395-1033 or visit www.wellcarehotline.org to join!