

Drought

 www.wellowner.org/groundwater/drought/

Drought conditions can have wide-ranging impacts including effects on ground water supplies. The following are some frequently asked questions about the impacts of drought on household water wells.

Are water wells running dry?

Wells that are placed near the water table are the ones that you hear about “running dry” during droughts or when there is an increase in groundwater pumping. The reason for this is that the water table falls further below the surface when it is not replenished by rainfall or if more water is pumped out than is coming in. It’s like putting a straw into the top of a glass of water. If you drink and don’t lower the straw toward the glass bottom, you will end up sucking air. There is still water in the glass; your straw is just sitting above it.

How quickly will water levels in a well recover after a rain?

Typically, water levels fluctuate on a seasonal basis, raising in the “wet” months and falling in the “dry” months. So, a well will not recover after just one rainfall event. It takes several slow, soaking rains for the water to filter through the ground. Shallower wells may see their water levels rise more quickly with a return of rain. Deeper wells are likely to ride out a drought with no problems; but if they are affected, it will take more rainfall-maybe several months-to filter down to their depth.

What should I do if my well is affected?

The answer depends on your well. Is the drought worse than usual? Has this happened during pervious droughts? Have your neighbors’ wells also been affected? Have you observed other changes in your well: taste or smells in the water? Answers to these questions will determine if the problem is with a falling water table or failing well. Deepening a well so that it is well below the water table may help to insure a more drought-resistant water supply, although deepening a well is never a guarantee that you will get more water. Redeveloping an existing well may also make it more efficient. Hydrofracturing, a technique that uses high-pressure water to open fractures in surrounding rock and thereby increase water flow, may also improve your water supply. Talk with a [qualified water well contractor](#) to determine which strategy may work best in your situation.

How do I go about getting my drilled well deepened?

Contact a local, reputable [drilling contractor](#) who is familiar with local groundwater conditions and is familiar with the state-of-the-art drinking water construction methods. States and local governments may have contractor licensing and well construction laws. For additional information, you may wish to contact a local National Ground Water Association member in your area or the state groundwater or water well association.

Will nearby, larger well systems impact home wells?

The increased pumping of larger capacity well systems during a drought may cause the groundwater level to be drawn down. The declining groundwater level may then be below your pump’s intake. The answer again is to drill deeper, rehabilitation, or fracturing.

Does the drought impact groundwater quality?

In general, there is no adverse impact on overall groundwater quality from a drought. If a homeowner drills a deeper well in response to a drought, the homeowner may end up with more mineralized water. This is because the water

has been in the ground longer and may have taken on some of the characteristics of the surrounding rock formations. The homeowner may also gain water quality benefits from a deeper, properly constructed well. These deeper wells are better protected from surface man-induced contamination sources, such as lawn fertilizer applications or accidental spills.

Is this drought a one-year event or multi-year cycle?

Droughts vary in severity and length. The National Ground Water Association recommends that you contact the [National Weather Service](#), or forecasters in your area for their assessment of long-term weather patterns.

More info:

Visit the [National Integrated Drought Information System](#)