



Managing Water Use at Home During Drought In Connecticut

If I went to the desert southwest and told them that I was concerned about drought here in Connecticut, I would probably get laughed out of the room! Despite the fact that we get about 48 inches of precipitation annually, we

still can experience periods that are classified as drought. The purpose of this fact sheet is to provide recommendations for residential water users to prepare for drought conditions. The primary focus will be on private wells.

Although it can be said that drought is part of our natural cycle here in Connecticut, higher global temperatures have impacted our precipitation patterns. Over the last century, our annual precipitation totals have not changed substantially, however we are experiencing more extreme precipitation events, along with, you guessed it: longer and more intense droughts. These extremes are easy to see: in 2020 and 2021, we saw extreme drought conditions in the state; in 2023 the state received around 65 inches of precipitation, the third highest on record.

These dry periods can impact local agriculture, which tends to rely on natural precipitation instead of irrigation. In extreme cases our public water supplies such as lakes/reservoirs can be impacted, causing mandatory restrictions on use of public waters. Those with a private well on their property can also be impacted by drought conditions, even if a modern drilled well is in use. Most of us take our tap water for granted. However, if your well has run dry, you are immediately reminded of how precious a resource our water really is.

What can I do?

If you have a shallow dug well (<20 feet deep), you are most vulnerable to drought, but even drilled wells can run dry in extreme conditions. The

Who determines when we are in a drought?

This can be confusing, as the definition of an agricultural drought may be different from a meteorological drought. The National Oceanic and Atmospheric Administration (NOAA) has lots of great information on different types of drought. The United States Drought Monitor is updated weekly, with drought conditions across the entire country. Their categories (D0-D4) are based on various criteria, including impacts to agricultural crops, ecosystems, drinking water supplies, among others.

easiest and cheapest thing you can do right away is to implement water conservation measures at your home. Simple improvements like taking shorter showers (impossible if teenagers are present?!), making sure leaks are fixed, and upgrading older faucets and toilets to newer models that use less water is also an easy step. You can look at your larger appliances that use water such as washing machines and dishwashers. Front loading washers use a fraction of the water that top loaders use. Although these can be somewhat costly, this change could help reduce your water use so that more expensive fixes are not necessary. Outside your home, you can also

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What if I have city water?

If you are connected to a public water supply or “city water”, you will not likely run out of water, even in a drought. Many of our large public water supply companies (such as the Metropolitan District Commission (MDC) and Connecticut Water) have large reservoirs that allow them to store large quantities of water, so that they will have adequate supplies in a drought. Smaller municipalities will have some reserves, but they may choose to enact voluntary or mandatory restrictions on water use for certain activities during a drought, to ensure that supplies are adequate for basic needs for all of their customers at home. Even if you have city water, this doesn’t mean that you don’t need to conserve! Your efforts to conserve water year-round will save you money and ensure that our precious resource is available to supply the citizens of our state with high quality water at home.

minimize watering of turf. This can be a substantial drain on your well. If you do feel compelled to irrigate turf, see UConn Extension’s guidance on tips to reduce water use on your landscape (s.uconn.edu/landscape-BMPs) and lawn (s.uconn.edu/turf-BMPs).

Understanding “Flash Drought”

Flash drought, also known as rapid-onset drought, is an emerging concept within the field of climatology. Flash drought occurs when a short-term precipitation deficit is paired with a period of substantially high temperatures, strong winds, and/or low relative humidity. The result is an abrupt decline in soil moisture, extreme vegetative stress, and enhanced wildfire conditions. Flash drought can occur as part of an already established drought or as a stand-alone event. They are expected to become more common in the future as precipitation patterns become more unpredictable and the frequency, duration, and severity of heat waves increase. Flash droughts can develop in as little as two or three days and last for weeks.

What should I do during a flash drought?

During a flash drought, conduct any irrigation or outdoor watering activities in the early morning or early evening to minimize the volume of water lost to evaporation. Ensure that any watering activities are conducted in accordance with any water use restrictions or conservation guidelines from state or local officials, or from public water suppliers. If a flash drought event occurs within an already established drought cycle, water conservation is more crucial than if the preceding period featured normal or above normal precipitation. The reason for this is that groundwater levels are typically more susceptible to conventional long-term droughts than flash droughts. If using a private well, water using common sense, experience, and a keen awareness of hydrologic conditions. Always have a back-up plan if your well runs dry.

If your water conservation measures aren’t enough and your well continues to run dry, you may have to consider more serious options. Although having a new well drilled can be expensive, usually you will have more reliable, better-quality water. If your drilled well is running dry, a well driller can use methods such as hydrofracking (see inset) to increase the yield in your well. Or they can drill the well deeper to try to contact more water-bearing fractures in the bedrock.

What is hydrofracking?

Many people associate “fracking” with oil and gas wells and assume that all fracking can contaminate groundwater. Hydro-fracking is a technique to increase the yield of water in drilled wells and does not release any harmful chemicals. Drillers will inject water under high pressure to open up more fractures in the bedrock. Read more about it here: s.uconn.edu/hydrofracking

For more information, visit:
ctiwr.uconn.edu/welltesting

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