

Your Water Supply

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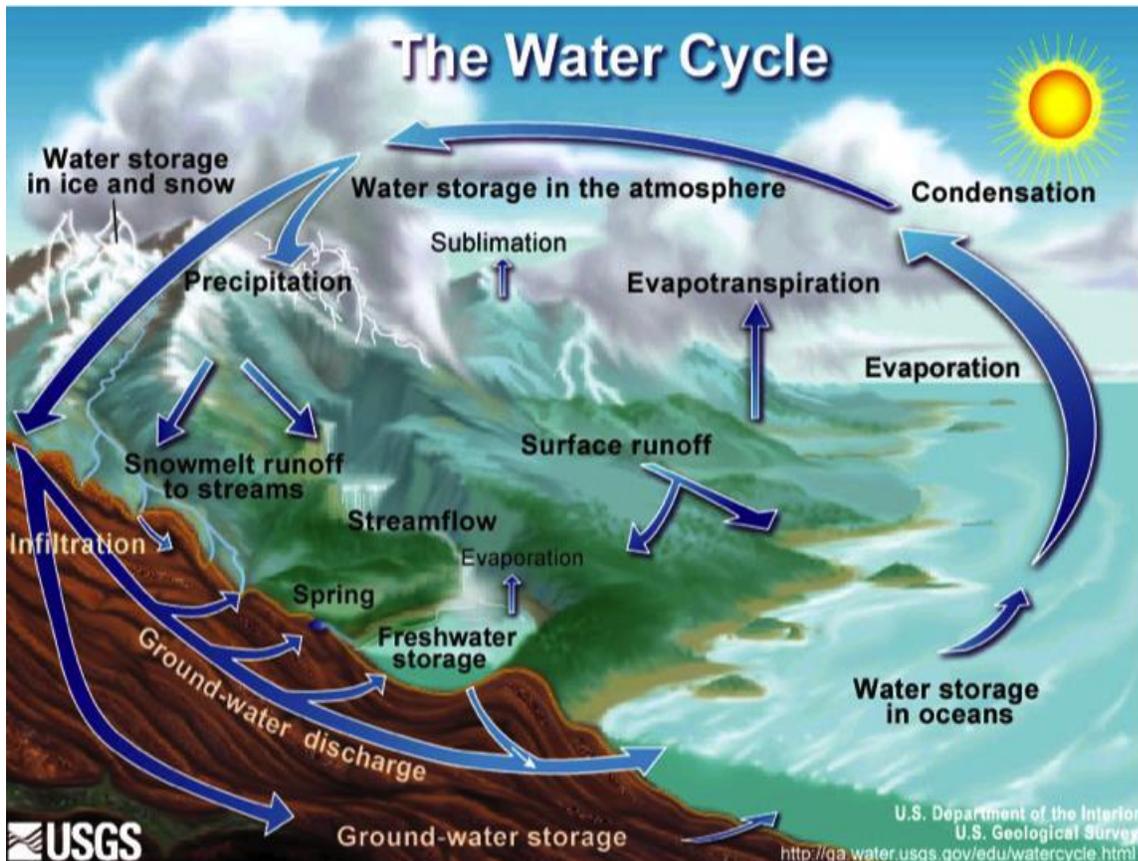
By Karen Huber, former Travis County Commissioner (who convened the Coalition that produced the *Lake Travis Economic Impact Report*)

Are you worried about your water supply? I am. Alarms are going off everywhere. Some communities have already lost their usual water sources and are resorting to drastic means to keep basic water flows to residents and businesses. Water for landscape use isn't even in the picture. Even the City of Austin recently announced it would look for other sources of water because there is no assurance Lake Travis will continue to yield the amount of water reserved by Austin. Cedar Park and Leander recently closed their new intake in Lake Travis (10% of their water source) because of low lake levels.

Worrying, however, is not enough. The State Water Plan (click [here](#) to view the Plan – especially helpful is the State Water Plan Presentation link on this webpage) gives priority to conservation as the quickest, most cost effective way to increase the future water supplies. Urban water use for landscaping is extremely high ranging from 30% to over 50%. So landscaping could be your place to start helping out. Many are turning to well water (groundwater) thinking it a readily available water source. Myths abound in this thinking and understanding “water” complexities will help sort this out.

So you say, “I don't have a well so this article isn't for me”? Please read on. We all use groundwater whether we know it or not. Many believe groundwater is unrelated to surface water but actually they are interconnected. Perhaps lending to the confusion, Texas categorizes surface and groundwater differently. Groundwater is stored underground in aquifers, generally extracted through wells and by state law is owned by the individual property owner above it. Surface water is stored in lakes and rivers and by law is owned by the people of Texas for the benefit of the public good. The Blanco River is an excellent example of this interconnectedness. Its headwaters are in Western Kendall County and it flows east into Blanco County where much of it goes underground and becomes “groundwater” -- subjected to well pumping-- then re-emerges at Jacob's Well near Wimberley to become surface water again and flows via the Blanco River in to the Guadalupe River. The Blanco River is interconnected with both the Trinity and Edwards Aquifers.

Aquifers primarily receive water from rain soaking into the ground. Historically, aquifers yielded a goodly bit of groundwater to surface water through springs flowing into streams that feed our rivers and lakes, even during droughts. And in extreme droughts some surface water can even drain back into a diminished aquifer. The connectivity between surface and groundwater is demonstrated in the hydrological cycle.



Aquifers are only a reliable water source for as long as they can recharge (refill) themselves by absorbing rainfall in equal or greater portions to what is removed from them – removed either naturally via springs or mechanically by wells.

Outside of cities, most residences and some communities rely on wells. Some believe there are long-lived supplies of groundwater. Scientific data indicates otherwise for western Travis County. Trinity Aquifer wells in central Texas have had documented problems for decades. As new residences are built, more wells are drilled and more water removed. More “straws” means less spring water to supply creeks running into the lakes. Many have either quit flowing or only flow intermittently when it rains. New residents don’t have the history of seeing water in these creeks. They may think dry creek beds have always been that way – only serving as avenues for stormwater runoff. Population increases combined with the drought have seriously reduced the normal creek flows in recent years. Take note, too, that according to LCRA reporting, the average inflows into the Highland lakes over the past five years are the lowest they have ever been and are on a comparable track this year to that of 2011. This is impacting our surface water supplies, including Lake Travis.

10 Lowest Annual Inflows on Record		
Rank	Year	Annual Total (in acre-feet)
1	2011	127,802
2	2008	284,462
3	2006	285,229
4	1963	392,589
5	2012	393,426
6	1983	433,312
7	1999	448,162
8	2009	499,732
9	1950	501,926
10	1967	503,572
Average	1942 – 2012	1,244,586

Source: LCRA Fact Sheet June 2013

Residential construction over the Trinity Aquifer is increasing. Population growth is projected to double every twenty years in our area – with pockets being even higher. Good management of watershed is important to ensure good recharge. Many ranchers practice good land management that allows rainwater to soak in rather than run off during storms. This is important to aquifers and surface water and something we urban dwellers can learn from them. It doesn't matter how large or small the land parcel, if it is planted with drought tolerant plants and landscaped to catch the rainwater, it is the right way to go and something we can do for good water management and our current and future water supplies.

Yes, we have a drought and it is impacting all our water supplies. But yes, there is a significant relationship between population growth and surface and groundwater supplies. It is truly important to think outside the usual boundaries, municipal and neighborhood, to insure our future water supplies.

So don't assume groundwater is a viable additional water source in our area. It has been tapped, and in the case of Western Travis County, it is over-tapped and that impacts all of our

water sources. Using groundwater and surface water judiciously is important to our water supplies. Think about how you can landscape with less water. According to TCEQ well drillers reporting, there have been 190 new wells drilled just for irrigation in the past ten years – the overwhelming majority of those drilled in the last 2 ½ years and most within municipal city limits. Don't drill a well just to water your landscape there are other better (and less expensive) ways to go. Help educate your friends and neighbors about this.

To find out more about groundwater and surface water, check out the resources on these websites:

- [Hill Country Alliance Groundwater Resource Library](#)
- Texas Water Development Board – [Groundwater resource information](#)
- Low Water Landscaping – there are many resources on the web and can be easily found by doing an internet search – but here are a few direct links:
 - [Lady Bird Johnson Wildflower Center](#)
 - [Hill Country Alliance - Native Plants](#)
 - [City of Austin Landscape Resources](#)