Future Water

Guest Article re: critical Hill Country groundwater decision on July 26th

By Milan J. Michalec
Photo by Jason Merlo

Beneath many places in the Texas Hill Country, more groundwater is being pumped out than can be replaced through the water cycle. "What does a Desired Future Condition (DFC) have to do with your water?"

On 26 July 2010, you can comment on this question. After nearly four years of joint meetings intended to encourage public participation and stakeholder input, the District representatives of Groundwater Management Area-9 are scheduled to meet in Boerne to decide the DFC of the Trinity Aquifer for all of Kendall, Kerr, Bandera and Blanco Counties, as well as the northern portions of Bexar and Medina and western Hays. Southwest Travis and Western Comal are included although no District currently exists in those areas.

In simple terms, a DFC is a statement of what an aquifer should look like in the future. A DFC may represent water levels, amount of water in storage, discharge to springs, or base flow to streams and rivers. Common sense dictates such a DFC must be attainable.

In practical terms, a DFC is used to establish a management goal. Hence, it is primarily a policy decision to be used for water planning purposes. Representing opposite ends of practical application, it can reflect a groundwater management strategy that can cause aquifer depletion or sustainment and certainly can be somewhere in between.

Science, such as hydrogeology, should provide the parameters that will be used to establish such a policy and will be used to determine how much water can be pumped-the Managed Available Groundwater (MAG).

Public participation is crucial in developing a DFC. Much of this is input based on the perspective of each individual. Picture a pair of fish swimming together. They pass another fish going the opposite direction who asks, "How's the water?" The pair swims a bit further when one turns to the other and says, "What's water?"

Each of us views water uses from different perspectives. The question might now be, "What is a DFC and what does it mean to my current access to water?" Though the elected representatives must work together to gain consensus for a DFC that is best everyone in GMA-9, the public has a say as well. Overwhelmingly the public preference is to set a goal of zero net drawdown for the Trinity Aquifer.

But to be acceptable, the DFC must be attainable. To reach this goal it is crucial for Groundwater Conservation Districts to have the ability to manage groundwater through their management plans and rules as many have done so well since 1949.

Based on the available science available to the District in Kendall County, a goal of zero net drawdown is not attainable because the only DFC that would leave groundwater left for permitting in future years is one that would result in significant drawdown.

In Hays County, the District is considered to be "mining the aquifer" as it pumps an estimated several thousand acre feet more groundwater than precipitation can recharge. Clear evidence of this condition was seen during the 2007-2009 Drought when Jacob's Well, a well known perennial spring, ceased to flow for the second time in history.

Another District in north Bexar County considers local annual recharge sufficient to justify pumping approximately 25 percent of all the groundwater pumped in GMA-9. A supporter of a DFC that will yield the highest possible MAG has contractual interests to sell significant quantities of groundwater to the San Antonio Water System.

From Kendall County, another land owner tells the decision makers that despite the contributions of multiple generations of his family who have practiced land stewardship to reduce runoff, enhance recharge and draw no more water today than was pumped in the mid 1800s, his well has begun to slowly decline and not recover as others have done after periods of drought end.

Included in the public comments are my own observations. Physical evidence recorded during the 2007-2009 Drought showed many examples that the demand on the available groundwater in GMA-9 has already exceeded the existing water supply.

This is not only the discharge from wells to meet local needs, but also the discharge of the springs that provide the baseflow for the area rivers and streams that in turn replace water consumed from storage dams many miles away and to provide critical recharge as these flows pass over the Balcones Fault Zone to recharge the Edwards Aquifer.

When the voting concludes, a two thirds majority will determine the DFC and resultant MAG that will become the management goal for the GCDs of GMA-9 for the next five years.

Time will tell if this is an attainable goal that can be used to manage the available groundwater of Trinity Aquifer equitably for all today and tomorrow.

More resources on this issue can be found at www.hillcountryalliance.org

Michalec is a Director on the Cow Creek Groundwater Conservation District, a Board Member of the Hill Country Alliance and a Texas Master Naturalist.