

EXECUTIVE SUMMARY

PETITION OF WIMBERLEY VALLEY WATERSHED ASSOCIATION APPEALING THE DFC SET BY GMA 9 FOR THE TRINITY AQUIFER WITHIN THE HAYS-TRINITY GROUNDWATER CONSERVATION DISTRICT

Desired Future Condition Being Appealed: Wimberley Valley Watershed Association (“WVWA” or “Petitioner”) files this petition to appeal the desired future condition (DFC) adopted by GMA 9 on July 26, 2010 (Resolution No. 072610-01) of “an average drawdown of approximately 30 feet through 2060,” as it applies to the Trinity Aquifer within the boundaries of the Hays-Trinity Groundwater Conservation District (HTGCD).

Appeal:

The 30 ft. average drawdown for the Trinity Aquifer, as adopted by GMA 9 on July 26, 2010, and as it applies to the Trinity Aquifer in the HTGCD, is unreasonable and will cause excessive economic and ecological impacts to private well owners, landowners, aquatic habitats and businesses dependent on spring and base flows to streams, and to downstream users in the Edwards Aquifer region. **The proposed DFC does not take into account the desired future condition of the Trinity Aquifers during drought periods**, when impacts on water resources are most acute.

If you aim at 30ft drawdown on average, you could see much higher drawdowns in many areas during drought years. A lot of misunderstanding exists about the implications of implementing a 30ft average decline across the GMA9 area. Under the proposed policy, the 30 feet drawdown is **not** the maximum that you might see; the 30’ DFC is a regional and multi-year average and actual drawdowns in pumping centers (such as around cities) will likely see much more extreme declines during droughts. Areas in northern Hays Country experienced actual drawdowns of over 175 feet in the drought of 2008-2009.

It is highly likely that the adopted DFC, allowing for 19 additional feet of *average* decline across Western Hays Country, **will result in many dry wells and significant periods of zero spring flow from Jacob’s Well and other springs that supply base flows to Cypress Creek, the Blanco River, and Onion Creek.** The proposed DFC would allow more pumping in Hays County than the TWDB-approved District Management Plan’s available groundwater. Recent experience shows that current pumping may itself be unsustainable, as evidenced by the unavailability of water in wells and springs during the 2008-2009 drought. In 2009, 42 existing and operating groundwater wells in the HTGCD were reported dry. This required residents to purchase and haul water and/or lower pumps due to declining water levels, all at high cost.

Some residents were forced to spend up to \$15,000 to drill a new deep well. The Blanco River, Onion Creek, Jacob’s Well, and many other springs and streams in the Hill Country stopped flowing. This was during a period of significantly less pumping than would be allowed in the adopted DFC.

Additionally, the proposed DFC will have **unreasonable ecological and economic consequences, by reducing base flows to springs and streams that sustain aquatic habitats and recreational waters.** Jacob’s Well is a prime example of how current pumping is already

stressing the limits of water availability in the Trinity Aquifer. During the height of the 2008-2009 drought, daily mean flow at Jacob's Well essentially stopped for 167 days (6 months). Before 2000, the spring had not stopped flowing in recorded history. The 2009 cessation of flow occurred with only an approximate 2 to 3 ft of drawdown immediately up gradient of the spring, much less than the 19 ft average drawdown allowed in the proposed DFC.

Base flow in springs and rivers is critical for maintaining habitat, for ensuring good water quality, for sustaining property values along streams and for sustaining businesses involved in recreation and tourism. A study of property values along the perennial Cypress Creek near Wimberley predicted a 25 to 45% drop in market values if creek flow is substantially reduced, a loss of up to \$15 million dollars to land owners and a corresponding loss in property tax revenues. The drying up of springs and rivers also jeopardizes the substantial public and private investment in riverine parks and nature preserves such as Blue Hole Regional Park and Jacob's Well Natural Area. To date, public and private investments in these two parks alone total over \$13 million.

Furthermore, the proposed DFC will have **unreasonable impacts on downstream users in the Edwards Aquifer region, by reducing lateral, subsurface inflows** from the Trinity Aquifer that substantially impact critical spring flows during droughts. Recent studies have shown that the Blanco River contributes water to Barton Springs during drought conditions, when flow is most critical to maintain habitat and water quality. Adoption of the proposed DFC would shift the economic burden of water conservation from Trinity Aquifer users to Edwards Aquifer users. The modeling used to support the proposed DFC has several limitations in how the assumptions and results will be applied to the real world. First, the coarse resolution of the model means that it is impossible for any person or agency to predict with confidence the actual number, location, and longevity of dried up wells and springs due to the proposed increases in pumping. Moreover, the adopted DFC does not properly account for the distinctive character of the Upper, Middle and Lower Trinity Aquifers. Each of these aquifers functions in a manner that is sufficiently independent to justify separate DFC criteria for each aquifer. The limitations of the model and the averaging that goes into reporting the results make the proposed DFC inconsistent with sound water-resource management, given the sheer number of environmental and economic unknowns it creates.

In short, **the adopted DFC fails to ensure conservation and protection of groundwater in the Trinity Aquifer within Hays County.** The conservation and protection of groundwater to balance multiple and competing uses is a primary mission of groundwater conservation districts and regional water planning groups. HTGCD and Regions K and L Water Planning Groups have formally adopted management goals that work to ensure the long-term sustainability of aquifers, and thus the prevention of aquifer mining. **The proposed DFC directly contradicts the stated goals of these groups,** making it difficult or impossible to implement the kind of adaptive management strategy that has the greatest chance of success.