

Comal County Conservation Alliance

9-20-18

Joel Dunnington

Glossary and Acronyms

5/5/2/1 - this refers to the discharge limits set in a TCEQ Discharge permit for Biochemical Oxygen Demand (5-day) of 5 mg/l, Total Dissolved Solids of 5 mg/L, Ammonia Nitrogen of 2 mg/L, and Total Phosphorus of 1 mg/L. This is not a formula set in statute, but is about the best that is used in regulating wastewater discharge. These numbers can vary permit by permit.

Acre-Foot of Water- A common measurement of water, especially in lakes, ponds and extraction from wells. It is the amount of water one foot deep in an acre. It equals 325,851 gallons. http://www.twdb.texas.gov/conservation/education/doc/Acre-Foot_flyer.pdf

Atlas 14 National Weather Service- contains the updated rainfall data for the US and will be used for updating storm runoff estimates, 100 year flood plains and building codes. https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html

ASR- Aquifer Storage and Recovery- Injecting water back into the aquifer to use at another time. <https://www.epa.gov/uic/aquifer-recharge-and-aquifer-storage-and-recovery>

Brightstar Capitol Properties- a private investment firm that has put significant capital into the Texas Water Supply Company to supply more water from about 40 wells in the Central Trinity Aquifer. Many if not all of these wells are grandfathered. <https://www.prnewswire.com/news-releases/brightstar-capital-partners-closes-investment-in-texas-water-supply-company-300533867.html>

<http://www.brightstarcapital.com>

BSEACD-Barton Springs Edwards Aquifer Conservation District- the 70th Texas Legislature passed Senate Bill 988 in 1987 and created the Barton Springs/Edwards Aquifer Conservation District as a GCD under what is now Chapter 36, with a directive to conserve, protect, and enhance the groundwater resources in its jurisdictional area. This area encompasses approximately 247 square miles in Caldwell, Hays, and Travis Counties. June 19, 2015 marked the effective date of House Bill 3405, which brings the previously unregulated Trinity Aquifer portion of Hays County under management of BSEACD. <https://bseacd.org/>

CCN- Certificates of Convenience and Necessity- a Certificate of Convenience and Necessity (CCN) gives a CCN holder the exclusive right to provide retail water and/or sewer utility services to an identified geographic area. CCNs are administered through the Public Utility Commission of Texas (PUC). Chapter 13 of the Texas Water Code requires a CCN holder to provide continuous and adequate service to the area within the boundary of its CCN. Municipalities and

districts normally are not required to have a CCN; however some municipalities and districts do have a CCN. A district or municipality may not provide retail water or sewer services within an area for which another utility holds a CCN unless the district or municipality has a CCN for the area. <https://www.puc.texas.gov/industry/water/utilities/gis.aspx>

Chapter 210- TCEQ regulations on Beneficial Reuse of Graywater
http://txrules.elaws.us/rule/title30_chapter210

CLWSC- Canyon Lake Water Service Company- Canyon Lake Water Service Company is a state-regulated investor owned utility providing water service to approximately 36,000 people through more than 13,400 connections in Comal and southern Blanco Counties. On May 31, 2006 the utility became part of the **SJW Corp.** and a member of the **San Jose Water** family via the purchase of Canyon Lake Water Supply Corporation by SJWTX, Inc. The original Canyon Lake Water Supply Corporation became an operating entity in 1994 as a member-owned non-profit water utility, consolidating 46 separate ground water systems. The residents of the 46 independent systems were consuming groundwater from Trinity Aquifer wells which yielded an insufficient quantity of water to meet the summer peak demand. The Supply Corporation founders recognized that groundwater supplies alone were inadequate to support the water demands of a growing community and that centralized surface water treatment plants would make it possible to distribute surface water from Canyon Lake to the residents in Comal County.

<https://www.clwsc.com/>

CRP- Clean Rivers Program- the Texas Clean Rivers Program is a partnership between the Texas Commission on Environmental Quality (TCEQ) and regional water authorities to coordinate and conduct water quality monitoring, assessment, and stakeholder participation to improve the quality of surface water within each river basin in Texas. GBRA (Guadalupe Blanco River Authority), along with the Upper Guadalupe River Authority (UGRA) manages our area.

<https://www.tceq.texas.gov/waterquality/clean-rivers>

CTGCD- Comal Trinity Groundwater Conservation District- the Comal Trinity Groundwater Conservation District (CTGCD) was created to help Comal County residents conserve, preserve, recharge, protect, and prevent waste of groundwater from the Trinity Aquifer which underlies all of Comal County.

The Comal Trinity GCD was created during the 2015 84th Texas Legislature with the enrollment of House Bill 2407 and became effective 17 June 2015. The bill provides the GCD the authority to issue bonds; and impose assessments, fees, or surcharges.

<https://www.comaltrinitygcd.com/>

CZP- Contributing Zone Plan- A contributing zone plan is submitted to the TCEQ and it outlines best management practices that will be implemented in order to protect water quality when a **regulated activity**  is conducted in the contributing zone of the Edwards Aquifer. The contributing zone is the area or watershed where runoff from precipitation flows to the recharge zone of the Edwards Aquifer.

<https://www.tceq.texas.gov/permitting/eapp/czplan.html>

DFC- Desired Future Conditions- are defined in Title 31, Part 10, §356.10 (6) of the Texas Administrative Code as "the desired, quantified condition of groundwater resources (such as water levels, spring flows, or volumes) within a management area at one or more specified future times as defined by participating groundwater conservation districts within a groundwater management area as part of the joint planning process.

http://www.twdb.texas.gov/groundwater/management_areas/DFC.asp

EAA- Edwards Aquifer Authority- the EAA was created by the Texas Legislature in 1993, at the behest of United States District Judge Lucius Bunton. The judge's ruling earlier that year ordered the U.S. Fish & Wildlife Service to set minimum spring flow standards for Comal and San Marcos springs, the two largest springs in the southwestern United States. Endangered species that relied on those springs for their survival must be protected. The Texas Legislature reacted to Bunton's decision by creating the Edwards Aquifer Authority as the regulatory agency overseeing groundwater in the Edwards Aquifer. Pumping limits were written into the law designating the conservation and reclamation district, a first for Texas.

<https://www.edwardsaquifer.org/>

EACZ- Edwards Aquifer Contributing Zone- The area or watershed where runoff from precipitation flows downgradient to the recharge zone of the Edwards Aquifer.

EAHCP- Edwards Aquifer Habitat Conservation Plan- is intended to provide assurance that suitable habitat for **covered species** will remain in both the San Marcos and Comal Springs, despite lawful water use activities within the Edwards Aquifer region.

Through a stakeholder driven process, the **Edwards Aquifer Recovery Implementation Program** recommended that the Edwards Aquifer Authority, the City of San Antonio--represented by the San Antonio Water System, the City of San Marcos, the City of New Braunfels, and Texas State University apply for an **Incidental Take Permit (ITP)** under the Endangered Species Act. This Habitat Conservation Plan (HCP) is intended to support the issuance of an ITP which would allow the "incidental take" of threatened or endangered species resulting from the otherwise lawful activities involving regulating and pumping of groundwater from the Edwards Aquifer (Aquifer) within the boundaries of the EAA for beneficial use for irrigation, industrial, municipal and domestic and livestock uses, and the use of the Comal and San Marcos spring and river systems for recreational and other activities.

All projects outlined in the HCP are designed to provide overall benefit to the spring systems and the species that inhabit those springs through the three major project categories:

- Habitat protection measures
- Flow protection measures
- Supporting measures

<http://eahcp.org/>

EARIP- Edwards Aquifer Recovery Implementation Plan- the EARIP was the process through which stakeholders recommended the establishment of the Edwards Aquifer Habitat Conservation Plan (see EAHCP, above).

https://www.fws.gov/southwest/es/Documents/R2ES/EARIP_HCP_Final_Nov_2012.pdf

EARZ- Edwards Aquifer Recharge Zone- Generally, that area where the stratigraphic units constituting the Edwards Aquifer crop out, including the outcrops of other geologic formations in proximity to the Edwards Aquifer, where caves, sinkholes, faults, fractures, or other permeable features would create a potential for recharge of surface waters into the Edwards Aquifer. <http://www.edwardsaquifer.net/intro.html>

Edwards Aquifer- The San Antonio Segment of the Balcones Fault Zone Edwards Aquifer (Aquifer) in South-Central Texas is one of the most productive aquifers in the United States. The Edwards Aquifer is a karst aquifer and is characterized by the presence of sinkholes, sinking streams, caves, large springs and highly productive water wells. Karst aquifers are considered triple permeability aquifers. Water is contained in the rock matrix, in fractures and faults and in caves and conduits. Conduits or solution channels within the Aquifer range from the size of a finger to tens of feet in diameter. The interconnected fractures and conduits in the Edwards Aquifer accounts for its extremely high yielding wells and springs. As is characteristic of many karst aquifers, the Aquifer exhibits extremely high (cavernous) porosity and permeability, allowing for the transmission of large volumes of water and enabling groundwater levels within the Aquifer to respond quickly to rainfall events (known as recharge). The large interconnected openings in the rock also exhibit a diverse fauna of more than 40 species including eyeless salamanders, shrimp and two species of catfish. Geographically, the Aquifer extends through parts of Kinney, Uvalde, Zavala, Medina, Frio, Atascosa, Bexar, Comal, Guadalupe and Hays counties and covers an area approximately 180 miles long and five to 40 miles wide.

<https://www.edwardsaquifer.org/science-and-maps/about-the-edwards-aquifer>

ETJ- Extra Territorial Jurisdiction- The contiguous area around a municipality. The size varies by the population of the municipality. <https://statutes.capitol.texas.gov/Docs/LG/htm/LG.42.htm>

GBRA- Guadalupe Blanco River Authority- GBRA provides stewardship for the water resources in its ten-county statutory district, which begins near the headwaters of the Guadalupe and Blanco Rivers, ends at San Antonio Bay in the Gulf of Mexico, and includes Kendall, Comal, Hays, Caldwell, Guadalupe, Gonzales, DeWitt, Victoria, Calhoun and Refugio counties. The GBRA controls the water level in Canyon Lake up to 909 feet mean sea level. The US Corp of Engineers controls the lake above 909 feet. <http://www.gbra.org/>

GBRT- Guadalupe Blanco River Trust- The mission is to preserve the unique natural heritage of the Guadalupe watershed for future generations, by protecting open landscapes, working farms and ranches, and wildlife habitat through conservation easements, education, and outreach that connects people to the water and the land. <http://www.gbrtrust.org/>

GEAA- Greater Edwards Aquifer Alliance- The Greater Edwards Aquifer Alliance (GEAA) is a 501(c)(3) nonprofit organization that promotes effective broad-based advocacy for protection and preservation of the Edwards Aquifer, its springs, watersheds, and the Texas Hill Country that sustains it. The Edwards Aquifer is the source of the largest springs in Texas and the sole source of drinking water for more than 1.5 million Central Texas residents.

<https://aquiferalliance.org/>

GMA- Groundwater Management Area - Groundwater Management Areas were created "in order to provide for the conservation, preservation, protection, recharging, and prevention of waste of the groundwater, and of groundwater reservoirs or their subdivisions, and to control subsidence caused by withdrawal of water from those groundwater reservoirs or their subdivisions, consistent with the objectives of Section 59, Article XVI, Texas Constitution, groundwater management areas may be created...". GMAs are comprised of Groundwater Conservation Districts (GCDs) within the same area; they report to the TWDB. Comal County lies in GMA 9 & GMA 10. https://www.twdb.texas.gov/groundwater/conservation_districts/

Grandfathered wells- Usually when Groundwater Conservation Districts are created the existing wells in the district are exempted from regulation. This allows a way for developers to bypass regulations on new subdivisions by using old grandfathered wells to be utilized to supply the new subdivisions. Other commercial entities can also use grandfathered wells.

HCA- Hill Country Alliance- A private, non-profit organization, "The mission of the Hill Country Alliance is to bring together an ever-expanding alliance of groups throughout a multi- county region of Central Texas with the long-term objective of preserving open spaces, water supply, water quality and the unique character of the Texas Hill Country."

<http://www.hillcountryalliance.org/>

HTGCD -Hays Trinity Groundwater Conservation District- Our mission is to conserve, preserve, recharge and prevent waste of groundwater within western Hays County. In support of the District's mission, we provide educational materials and information about our water resources.

<http://haysgroundwater.com/>

ITP- Incidental Take Permit- the Endangered Species Act (ESA) prohibits the "**take**" of listed species through direct harm or habitat destruction. In the 1982 ESA amendments, Congress authorized the U.S Fish and Wildlife Service (through the Secretary of the Interior) to issue permits for the "incidental take" of endangered and threatened wildlife species ([See Section 10a\(1\)\(B\) of the ESA](#)). Thus, permit holders can proceed with an activity that is legal in all other respects, but that results in the "incidental" taking of a listed species.

The 1982 amendment requires that permit applicants design, implement, and secure funding for a conservation plan that minimizes and mitigates harm to the impacted species during the

proposed project. That plan is commonly called a Habitat Conservation Plan. Habitat Conservation Plans are legally binding agreements between the Secretary of the Interior and the permit holder. <https://www.fws.gov/midwest/endangered/permits/hcp/index.html>

MAG- Modeled Available Groundwater- is defined in TWC Section 36.001 as “the amount of water that the executive administrator determines may be produced on an average annual basis to achieve a desired future condition established under Section 36.108.” The Desired Future Condition (DFC) of an aquifer may only be determined through Joint Planning with other Groundwater Conservation Districts (GCDs) within the same Groundwater Management Area in accordance with TWC 36.108.

MUD- Municipal Utility District- A Municipal Utility District is one of several types of special districts that function as independent, limited governments. The purpose of a MUD is to provide a developer an alternate way to finance infrastructure, such as water, sewer, drainage, and road facilities. <http://www.austintexas.gov/edims/document.cfm?id=227010>

NBU- New Braunfels Utilities- A public utility that supplies electricity, water and waste management services to the city of New Braunfels and the surrounding area. <http://www.nbutexas.com/>

Nonpoint Source Pollution- results when small amounts of contaminants from a large number of sources are carried by rainfall runoff into streams, lakes, or bays. For example, pollutants may be washed off lawns, construction areas, farms, or highways during a heavy rain and carried to a nearby creek. <https://www.tceq.texas.gov/waterquality/nonpoint-source/mgmt-plan>

NRCS- National Resources Conservation Service- It is part of the USDA and works with farmers and ranchers with financial and technical assistance to help with conservation efforts. <https://www.nrcs.usda.gov/wps/portal/nrcs/site/national/home/>

OSSF- On Site Septic Systems- these systems are used to treat and dispose of relatively small volumes of wastewater, usually from houses and businesses that are located relatively close together. <https://www.epa.gov/septic/septic-systems-overview>

PDR- Purchase of Development Rights- In working with Conservation Easements sometimes the development rights of the land owner are purchase by another entity, like a land trust. <https://valuwetlands.tamu.edu/2015/07/22/purchase-of-conservation-easements/>

PID- Public Improvement Districts- a way that a private development can fund the preservation of a natural area within the development.

PGMA- Priority Groundwater Management Area- PGMA's were identified as areas likely to experience groundwater shortages, and they were created to encourage the establishment of GCDs in those areas. Even though GCDs have now been established in the whole Hill Country

PGMA, it is still a useful way to describe this area as being at risk of groundwater over-pumping. Western Comal County is in the Hill Country PGMA, which basically follows the outcrop of the Trinity Aquifer.

https://www.tceq.texas.gov/assets/public/permitting/watersupply/groundwater/maps/pgma_areas.pdf

Point Source Pollution- pollution that comes in large amounts from a single source, such as an industrial operation or a wastewater treatment plant. Pollution from most point sources is controlled through regulations that require treatment of a facility's wastewater before it is discharged into a nearby lake or stream. <https://www.tceq.texas.gov/waterquality/nonpoint-source/mgmt-plan>

PWS- Public Water System Wells- Public wells serve public water supply systems and are regulated by the [Public Drinking Water Section](#) of the TCEQ. These public water supply systems must have at least 15 service connections or serve at least 25 individuals at least 60 days out of the year. <https://tgpc.state.tx.us/water-wells/#5>

Rule of Capture- Groundwater in Texas is governed by the legal doctrine known as the Rule of Capture. The Rule of Capture essentially provides that because a landowner also owns the water beneath his property, the landowner has the right to pump as much water as he wishes even at the expense of his neighbor. Under the Rule of Capture, a landowner needs no permit to drill a well and pump groundwater, and he may pump as much water as he may beneficially use even if that causes his neighbor's well to go dry. He may also sell the water withdrawn from the ground for use at any location. What is the remedy for a neighbor who worried about his well going dry? Drill a bigger/deeper well. In light of this, many refer to Texas groundwater law as the "law of the biggest pump." Groundwater Conservation Districts are able to enact rules and regulations, including requiring permits, metering, and limitations on the amount of water that may be withdrawn in their area. However, existing wells are often grandfathered allowing for a big loophole to the GCD rules.. <https://agriflife.org/texasaglaw/2013/10/22/texas-water-basics-of-groundwater-law/>

RWCP- Regional Water Conservation Plan- one of the four flow protection measures that was drafted to provide additional water to the Edwards aquifer through conservation activities. <http://twri.tamu.edu/publications/txh2o/summer-2014/regional-plan-provides-regional-solutions/>

SARA- San Antonio River Authority- the river authority is established by the state government to preserve, protect, and manage the resources and environment of the San Antonio River and its basin. <https://www.sara-tx.org/>

SAWS -San Antonio Water System- is a public water utility owned by the City of San Antonio. <http://www.saws.org/>

Section 210 Beneficial Reuse Plan- a TCEQ regulation for reusing wastewater for uses other than drinking, such as irrigation.

https://www.tceq.texas.gov/assistance/water/reclaimed_water.html

South Comal Water Supply Corporation- a water company that appears to be in the process of developing a pipeline right-a-way connecting Bexar and Comal counties.

<https://www.expressnews.com/news/local/article/Backed-by-private-capital-company-plans-heavy-12309946.php>

Surface Water- Surface Water in Texas is owned by the state and held in trust for the citizens of the state. The state grants the right to use this water to different people, such as farmers or ranchers, cities, industries, business, and other public and private interests.

https://www.tceq.texas.gov/permitting/water_rights/wr-permitting/wr_amiregulated.html

TAP- The Aransas Project- an organization on the Texas coast interested in adequate river flow in the Guadalupe River basin to protect the endangered Whooping Cranes in San Antonio Bay. They sued the TCEQ because of low flow rates in 2008/2009 that allegedly led to the death of 8.5% of the Whooping Cranes that year. There is now an agreement between TAP and the GBRA to manage the flow in the Guadalupe River. <http://thearansasproject.org/about/>

TCEQ- Texas Commission on Environmental Quality- According to the TCEQ website, “The Texas Commission on Environmental Quality strives to protect our state's public health and natural resources consistent with sustainable economic development. Our goal is clean air, clean water, and the safe management of waste.” <https://www.tceq.texas.gov/>

TESPA- Trinity Edwards Springs Protection Association- The mission of The Trinity Edwards Springs Protection Association (TESPA) is to protect the Trinity and Edwards aquifers from over pumping, the springs that flow from this interconnected system, and the property rights of landowners who depend on and wish to conserve this precious natural resource.

<https://tespatexas.org/>

TALT- Texas Agricultural Land Trust- promotes the conservation of open space, wildlife habitats, and natural resources on Texas’ private working lands. <http://www.txaglandtrust.org/>

TGRGCD-Trinity Glen Rose Groundwater Conservation District- This GCD was set up in 2004. It is located in Bexar County north of Loop 1604. <https://www.trinityglenrose.com/>
<https://www.trinityglenrose.com/district-business>

TLAP- Texas Land Application Permit- Domestic facilities that dispose of treated effluent by land application (surface irrigation, evaporation, drain fields or subsurface land application) are required to obtain this permit. https://www.tceq.texas.gov/permitting/wastewater/municipal/WQ_Domestic_Wastewater_Permits.html

TPDEA- Texas Pollutant Discharge Elimination System- Domestic facilities that dispose of treated effluent by discharge into waters in the state are required to obtain this permit.

https://www.tceq.texas.gov/permitting/wastewater/municipal/WQ_Domestic_Wastewater_Permits.html

TPGC- Texas Groundwater Protection Committee- Groundwater is vital to the health and economy of Texas. In 1999, groundwater provided 58% of the water used in Texas. Texas groundwater is used as drinking water, irrigation for crops, and has numerous industrial functions. Managing such an essential resource requires a lot of coordination. Nine state agencies and an association of groundwater districts manage aspects of groundwater. Together, these entities comprise the Texas Groundwater Protection Committee (TGPC). Created by the Texas Legislature's House Bill 1458 in 1989, the TGPC bridges the gap between state groundwater programs, improves coordination between member agencies, and works to protect groundwater as a vital resource. A brochure (TCEQ publication [GI-088](#)) and a [flyer](#) describing the TGPC are available. <https://tgpc.state.tx.us/water-wells/>

Trinity Aquifer- a major aquifer, extends across much of the central and northeastern part of the state. It is composed of several smaller aquifers contained within the Trinity Group. Although referred to differently in different parts of the state, they include the Antlers, Glen Rose, Paluxy, Twin Mountains, Travis Peak, Hensell, and Hosston aquifers. These aquifers consist of limestones, sands, clays, gravels, and conglomerates. Their combined freshwater saturated thickness averages about 600 feet in North Texas and about 1,900 feet in Central Texas. Approximately 80-90% of the water pumped from the Trinity Aquifer is grandfathered and not regulated by the GCDs. <https://www.expressnews.com/news/local/article/Backed-by-private-capital-company-plans-heavy-12309946.php>
<http://www.twdb.texas.gov/groundwater/aquifer/majors/trinity.asp>

TRWPG L- Texas Regional Water Planning Group L- Reaching from the Gulf Coast to the Hill Country, the South Central Texas Regional Water Planning Area includes all or parts of 21 counties, portions of nine river and coastal basins, the Guadalupe Estuary, and San Antonio Bay. There are six water use categories which are planned for in accordance with TWDB rules (31 TAC §357.31). These categories are municipal, manufacturing, irrigation, steam electric power generation, mining, and livestock. For planning purposes, rural water use, including domestic use, is aggregated and categorized under a sub-set of municipal water user groups referred to as “county-other”. <https://www.twdb.texas.gov/waterplanning/rwp/>

TPWD- Texas Parks and Wildlife Department- To manage and conserve the natural and cultural resources of Texas and to provide hunting, fishing and outdoor recreation opportunities for the use and enjoyment of present and future generations.
<https://tpwd.texas.gov/>

TWDB- Texas Water Development Board- A state agency, the mission of TWDB is “to provide leadership, information, education, and support for planning, financial assistance, and outreach for the conservation and responsible development of water for Texas. To accomplish our goals of planning for the state's water resources and providing affordable water and wastewater services, the TWDB provides water planning, data collection and dissemination, financial

assistance, and technical assistance services to the citizens of Texas. The tremendous population growth that the state continues to experience and the recurrent threat of severe drought only intensify the need for the TWDB to accomplish its goals in an effective and efficient manner.” It was created in 1957. <http://www.twdb.texas.gov/>

TWS- Texas Water Supply Company- founded in 1999, supplies the San Antonio Water System from well fields that draw water from the Middle Trinity Aquifer. The Company's current well fields have an annual production capacity of over 32,000 acre-feet of potable water. They will also supply the New Honey Creek Ranch development and the Ventana Development.. Many if not all of their wells have been grandfathered from regulation by the GCD.

<https://www.texaswatersupply.com/>

WCID- Water Control and Improvement Districts- WCIDs are another type of special governmental district which allow a developer to issue tax-exempt bonds to finance infrastructure such as drainage, water distribution, and wastewater collection and treatment systems. WCIDs are often established in unincorporated areas where infrastructure is not in place. TCEQ provides a General Guide to Texas water districts:

https://www.tceq.texas.gov/assets/public/comm_exec/pubs/gi/gi-043.pdf

WUG- Water User Groups- the list of categories of different water end users used in water planning by Texas Statute. . i.e., Municipal/PWS, Industrial, Irrigation, Small Business, Federal Exempt, and Exempt. Other groups have used- municipal, industrial, steam-electric, mining, irrigation, and livestock.

https://docs.wixstatic.com/ugd/e62693_1350a246b863437796c2772eba91d3ff.pdf

Very Extensive TCEQ Acronym Page- Probably more than you need.

<https://www.tceq.texas.gov/agency/acron.html>

VISPO- Voluntary Irrigation Suspension Program- a program under the EAHCP that will pay people to suspend the use of aquifer water when the J-17 index well is below 635 feet.

http://www.eahcp.org/index.php/flow_protection/vispo