"It won't be easy… nothing about water is easy."

Introduction to Texas Water Rights

Lessons in Geographic Competency

Groundwater Rights for Real Estate 2.0

June 27, 2023

By: Dr. Charles Porter

House Bill 1221 requires sellers of residential real estate to disclose whether any part of a property is in a groundwater conservation district (GCD) or subsidence district. The law affects all transfers taking place January 1, 2016 or later.

For Brokers, REALTORS®, Concerned Landowners and Title Companies

Water Rights and Real Estate

This two-hour continuing education credit course is designed to give the real estate licensee a broad overview of water rights in a 21st-century Texas which faces droughts, floods, and freshwater crises mainly caused by exuberant population growth. The student will learn about the duties agents owe their clients in relation to water issues, with a special focus on groundwater policy and changes. The knowledge gained from this course will better educate them so they can better serve the public.

June 27, 2023

512-455-9900
admin@posgcd.org
www.posgcd.org/education
please register by June 22, 2023

11:00 am Registration
11:30 BBQ meal served
11:45 Dr. Charles Porter, Introduction to Texas Water Rights, TREC Course #44032*
Continuing Education Course Agenda:
Overview of water rights and agent duties
Focus on groundwater district rules that affect agents and landowners
Local programs that benefit agents and landowners in Burleson and Milam Counties
Q&A - get your water rights questions answered by the experts

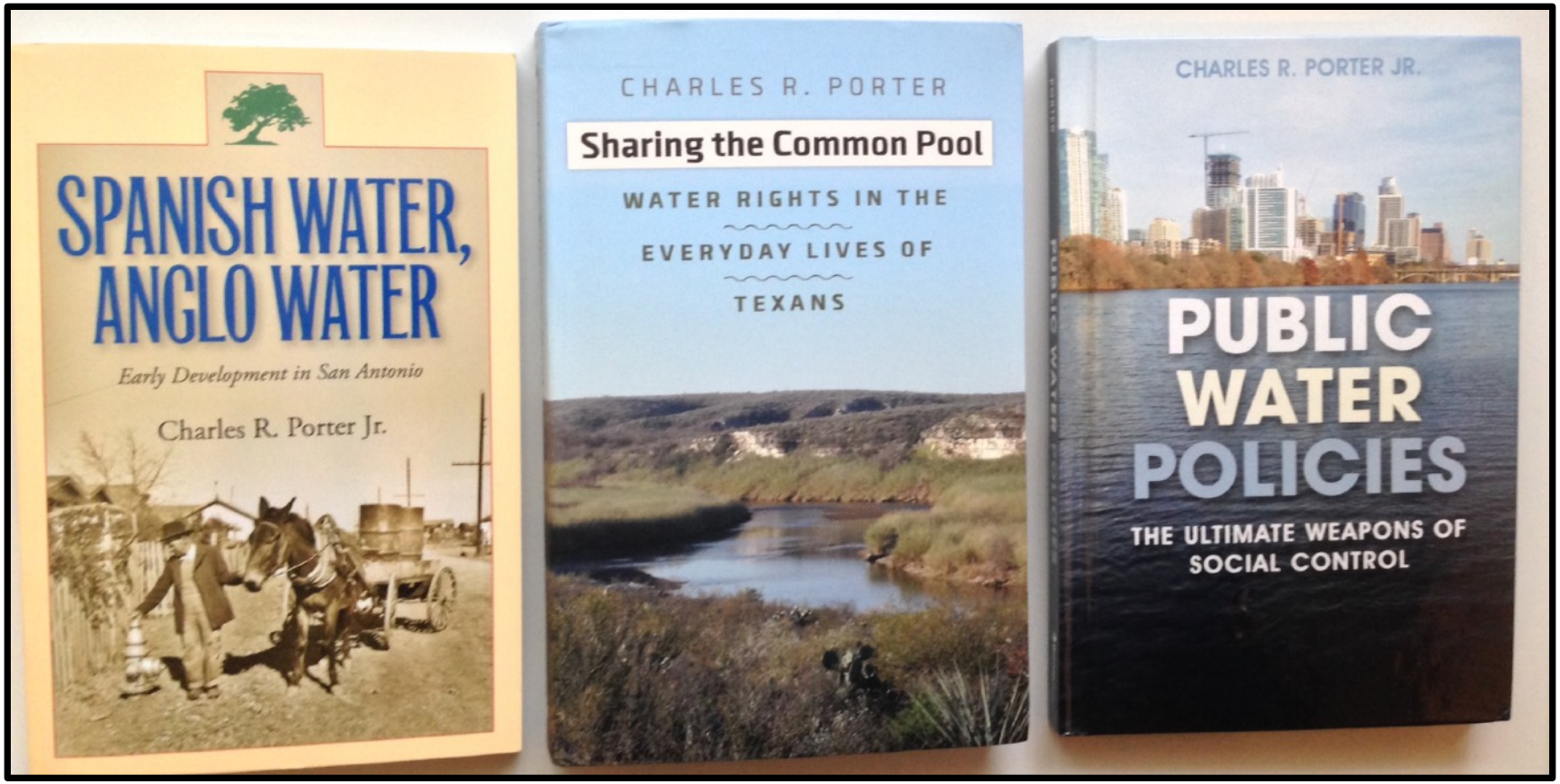
** To receive continuing education credit according to TREC rules, real estate agents must sign in/sign out and attend the entire two-hour class.*

Chrles Porter, Ph.D. is an award-winning author, speaker and testifying real estate expert and water rights expert with over 700 cases nationwide. He is also a water rights expert.
He served as the elected Chair of the Education Standards Committee of the Texas Real Estate Commission in 2022, served as co-author of TREC's Legal I and Legal II 2022-2023 Manual Writing Committee ,and TREC's Broker Responsibility Manual for 2022-2023. He serves on the Board of Directors of the National Association of Realtors.

Gary Westbrook is the General Manager of Post Oak Savannah GCD swhich serves Milam and Burleson Counties from 2003 to current .He was the President of Texas Alliance of Groundwater Districts (TAGD) from 2005 to 2007.He is currently POSGCD Representative to Groundwater Management Areas 8 and 12 (GMA8 & GMA12), GMA 12 Representative to Brazos G Regional Water Planning Group .

Michael received a Bachelor's of Science in Biology: Environmental studies and a Master's in Business Administration from Schreiner University. Michael worked at Bandera County River Authority & Groundwater District. Michael worked at Barton Springs Edwards Aquifer Conservation District where he served as the GMA 10 Chairman and he served as the Region K Representative for GMA 10.

There is no cost to attend this program. Program attendees will receive two hours of TREC - approved Continuing Education Credit.



Porter's Water Policy *Trilogy*

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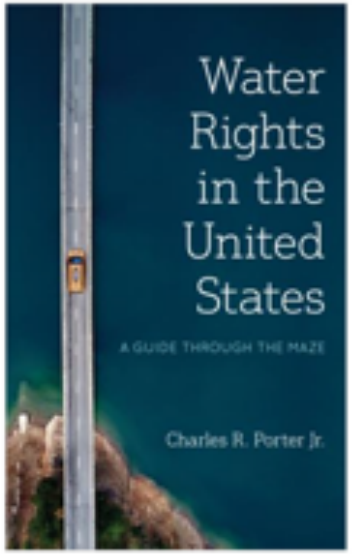

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Water Rights in the United States

A Guide Through the Maze

CHARLES R. PORTER JR.

As water becomes ever more important in a rapidly growing United States challenged by lessening firm-yield water reliability, the public needs to understand the myriads of quite different state-by-state water policies. States share surface water and groundwater sources that relate to each other conjunctively. Texans for example, should understand New Mexico water ownership and state policies because they share surface water and groundwater sources. Californians should understand Nevada's water policies for the same reasons. Above all else, the people of the United States must realize that a water policy in one state can drastically impact water availability in neighboring states. Although the federal government has supra-legal authority over some state water policies and acts as the ultimate arbiter of interstate disputes, no one current book exists that explains the complicated relationships between state water policies with an analysis of federal water policies.

Water Rights and Polices in the United States is a one-stop resource providing a state-by-state analysis of water ownership, regulatory agencies, and water polices. It explains the complicated relationships between state water policies and provides...

[>>]

Details **Author** **TOC**

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Subjects: Political Science / Public Policy / Environmental Policy, Law / Natural Resources, Political Science / Public Policy / Social Policy

As its population grows, Texas worries about water supply

The state is plagued by outdated treatment plants, aging infrastructure and increasing drought.

About 1,000 people flock to the Lone Star State every day, drawn mainly by the promise of abundant jobs. The state's population is expected to double to more than 50 million people by 2050.

BY Mary Elizabeth Williams-Villano

https://igin.com/article-7416-As-its-population-grows-Texas-worries-about-water-supply.html

Significant Consequences: BE PREPARED!

- Drought has been and will be our norm
- Exuberance of population growth continues
- Abnormal? intensity of weather events

REMEMBER!

Determining a tract or person's water rights, in Texas especially, involve *widely varying local circumstances*.

ADVISE YOUR CLIENTS TO *CONSULT AN ATTORNEY* WHO HAS EXPERIENCE IN WATER RIGHTS AND REGULATIONS IN THE APPROPRIATE LOCALITY.

(Real Estate agents - keep in mind your geographic competency duties.)

Today's Agenda

- Current Conditions and Some History of Water Policies
- Surface Water and Diffused Surface Water
- Groundwater (Intro by Porter/Gary Westbrook lecturer)
- Problems and the Future
- Water Valuation Issues

All the while in the context of our duties as license holders.

NAVIGATING
SELLER'S DISCLOSURE AFTER HARVEY

by Charles Porter, Ph.D., and Gary L. Pate

In the aftermath of Harvey, many are wondering about the duties of disclosure real estate agents owe to buyers and sellers.

The Texas Real Estate License Act (Chapter 1101, Texas Occupations Code) lists a number of ways in which real estate agents' behavior could result in suspension or revocation of licensure. Among others, Sections 1101.652 (b) (1-4) are germane to agents' behavior related to the disclosure of flooding. Specifically, agents are required to disclose to a potential buyer "a significant defect, including a latent structural defect, known to the license holder that would be a significant factor to a reasonable and prudent buyer in making a decision to purchase real property."

As to flooding of real property, there is no doubt this condition is a *significant defect* that must be disclosed to a potential buyer if *actually known* to the agent. Although the License Act only requires disclosure of what is *actually known*, it is possible a court could impose a broader standard of "ought to have known" on license holders. As a fiduciary, license holders must represent the interest of their clients and perform services with the necessary levels of integrity and competency. After Hurricane Harvey flooding in Houston and the massive publicity worldwide, it seems improbable that any real estate agent in the southeast Texas area did not know about the event. An agent's fiduciary duty may require a license holder to investigate for their clients whether a property in the Houston area actually flooded.

Do's and don'ts for disclosure about flooding

Do ask questions about flooding events. You may need to contact FEMA or local authorities to dig deeper into the flooding event and what, if anything, governmental authorities had done to remedy future flooding. TREC rules also indicate that if an agent doesn't ask these kinds of questions, the agent could be guilty of an act of omission if the agent chooses not to make further inquiries.

Do advise clients to inquire about the flood zone. Buyer's agents should have their clients determine if the property is situated in a flood zone and to check on the availability of flood insurance. You may want to provide this information to your buyers in writing.

Don't offer legal or engineering advice. This is only appropriate if you hold licenses in those professions. Tell your client to instead seek the assistance of an attorney, civil engineer, or other appropriate professional so he or she can understand the risks involved in a property that has flooded or could flood in the future.

Do carefully consider what you disclose. In the event a homeowner whose property flooded seeks legal action against you for flood-related disclosures, attorneys will question

- What did you actually know about prior flooding of the property in question or about the property's location inside a FEMA-designated flood zone?
- What did you tell potential buyers or sellers of your actual knowledge?
- When did you tell potential buyers or sellers of your actual knowledge of the property's flooding issues?

Will there be court rulings in future lawsuits involving real estate agents in the aftermath of Hurricane Harvey's flooding that clarify the duties agents owe clients and customers? Perhaps, but there is no doubt you already must disclose your actual knowledge about flooding events to any purchaser.

DR. CHARLES PORTER *is an author, teacher, Texas real estate broker, and testifying water rights and real estate expert named in over 600 cases. He is a visiting professor in the College of Arts and Humanities-University Studies at St. Edward's University in Austin.*

GARY L. PATE *is a partner with Martin, Disiere, Jefferson & Wisdom, L.L.P. in Houston and is co-chair of the commercial and residential real estate section of the firm.*

The seller's disclosure notice is not the real estate agent's disclosure but the *seller's* disclosure. While you may provide the form and answer questions about it, you should not complete the form for a seller. Stress to sellers the importance of answering the questions honestly and thoroughly. It is hard to imagine a seller harmed by over-disclosure.

Members of the Texas Association of REALTORS® have exclusive access to the *Seller's Disclosure Notice* (TAR 1406), which has options to disclose information about a property's flooding history, including whether there has been flooding and if there is present flood insurance coverage.

Photo: Amnaj Khetsamtip/Shutterstock.com

Legal Update
Part II
Edition 10.0

Contents

CHAPTER
02
WATER AND MINERAL RIGHTS

Learning Objectives

After this chapter, you will be able to

- Identify the three types of water sources in Texas and which government entities regulate each.
- Understand the obligations and duties license holders owe clients and customers regarding water rights.
- Be aware of water right situations that require reporting on the seller's disclosure notice.
- Understand how real estate transactions involving mineral rights should be handled, including the use of the correct TREC promulgated form.
- Describe the role of title insurance where mineral rights are a factor.

Introduction

Most Texans' understanding of water rights goes only as far as their monthly water bill. Most believe that as long as the faucet turns and water flows, their water "right" is limited only by their ability to pay.

However, Texas has often been plagued with long droughts. The Texas Water Development Board's (TWDB) State Water Plan for 2012 asked: Do we have enough water for the future?" Their startling and unequivocal answer was:

"We do not have enough existing water supplies today to meet the demand for water during times of drought. In the event of severe drought conditions, the state would face an immediate need for additional water supplies of 3.6 million acre-feet per year with 86 percent of that need in irrigation and about 9 percent associated directly with municipal water users. Total needs are projected to increase by 130 percent between 2010 and 2060 to 8.3 million acre-feet per year. In 2060, irrigation represents 45 percent of the total and municipal users account for 41 percent of needs."

The shortages of water Texans are predicted to face in our future, coupled with the obvious impact water has on our everyday lives, including water's impact on real property values, means real estate license holders and consumers must be better educated about water rights in Texas.

Assessing the water characteristics of any particular property presents unique challenges to buyers, sellers, lessors, lessees, and real estate agents. The water scarcity predicted in our future requires potential buyers to consider a variety of less often considered assessment criteria. The potential of future water scarcity requires sellers and their real estate agents to exercise extreme caution and prudence in their duties of disclosure regarding the water situation of any property being offered for sale.

Real estate license holders in Texas must keep one very important thought in mind when considering water rights – advise your clients to **consult an attorney** while making their decision to purchase a property or making representations about water rights when selling a property.

Three Types of Water Sources and Their Owners

Water in Texas varies between the water flowing on the surface and the water flowing underground. The regulation of water is actually conducted by multiple government agencies.

There are three basic types of water sources this chapter discusses: **surface water, diffused surface water, and groundwater.**

Surface Water is water that flows on the surface of the ground in a watercourse. According to Title 30, Texas Administrative Code (30 TAC) §297.7(61) a "watercourse" is defined as "a definite channel of a stream in which water flows within a defined bed and banks, originating from a definite source or sources. (The water may flow continuously or intermittently, and if the latter, with some degree of regularity, depending on the characteristics of the sources.)"
http://texreg.sos.state.tx.us/public/readtac$ext.ViewTAC?tac_view=5&ti=30&pt=1&ch=297&sch=C&rl=Y

The courts have described watercourses as having:

(1) a defined bed and banks;
(2) a current of water; and
(3) a permanent supply source of water.

Who owns the rights to surface water like lakes, streams, or creeks? The State of Texas owns the water in a watercourse, held in trust for the citizens of the state. The Texas Commission on Environmental Quality (TCEQ) regulates the use of surface water in Texas by a system of water rights. Texas follows the legal concept of and allocates surface water rights and permits based on "first in time is first in right." The TCEQ, through its authority in allocating water rights, oversees 17 statewide river authorities and 8 watermasters.

Diffused surface water can be described as rainwater that runs off your roof or over the surface of your land without flowing in a stream or channel. This type of water is owned by the landowner and is subject to very limited or no regulation.

Groundwater is water held underground in aquifers and pools. Ownership of groundwater in Texas was debated for many decades, but in the fall of 2011 the debate about ownership of groundwater ended. The Texas Legislature passed a bill, SB 332, which states "The legislature recognizes that a landowner owns the groundwater below the surface of the landowner's land as real property."

However, groundwater is regulated by 101 groundwater conservation districts (GCDs) with 101 different sets of rules and regulations within the parameters of Chapter 36 of the Texas Water Code. Note that not all of Texas groundwater is covered under the jurisdiction of a GCD, either. Many citizens in these jurisdictions are unaware of these regulatory agencies.

Now that you are familiar with the three types of water sources in Texas, let's dive deeper into how surface water and groundwater is regulated in our state (and yes, that pun was intended).

Surface Water Regulators and Regulations

The "buck-stops-here" surface water regulator in Texas is the TCEQ. Generally, a permit is required from TCEQ in order to use surface water for any purpose outside of domestic and livestock use, emergency use by fire departments, and other similar public services.

The TCEQ website offers a very large Excel spreadsheet of all the surface water rights holders in the state and can be found at https://www.tceq.texas.gov/permitting/water_rights/wr-permitting/wrwud.

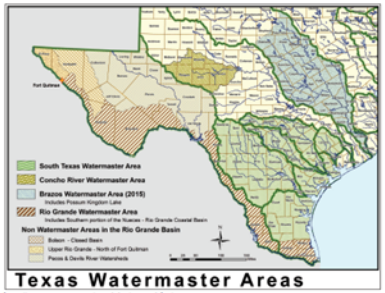
License holders should advise clients to seek the help of attorneys familiar with surface water rights and permitting in Texas and/or to seek the assistance of licensed engineers or hydrologists. Unfortunately, some older, and even more recent, surface water deeds are not filed or recorded in the county's real property records. Title insurers have been very reluctant to offer any insurance coverage on the water rights associated with a property.

An example of the public's lack of knowledge about surface water regulations is evidenced in a common question about lake water use. Often this question comes from Lake Travis property owners or potential purchasers of land there: "May I pump water from the lake to my home since I am adjacent to the water?" The answer is "No. You must obtain a permit from the Lower Colorado River Authority (LCRA) to do so." Without a permit, the homeowner may incur fines for the violation of unpermitted water use on a state-owned lake. Note that none of the seller's disclosure notices or promulgated contract or forms mention the TCEQ's authority over the use of surface water or the river authorities' jurisdiction within their boundaries.

Watermasters

There is another level of surface water regulation that even fewer Texans understand - the jurisdiction and duties of our four state **watermasters**. The role of the watermaster is one of the oldest regulatory activities concerning surface water in Texas.

Similar to getting a permit from the TCEQ for using surface water, before diverting a water source regulated by a watermaster, the water right holder must notify the watermaster of the intent to divert at a specific time and the specific amount of water to be diverted. If the water is available and the water right holder will not exceed its annual authorized appropriation of water, the watermaster then authorizes the diversion and records this against the right. The watermaster program includes staff "deputies" who perform regular field inspections of authorized diversions to insure compliance with the water right.



Texas Watermaster Areas

https://www.tceq.texas.gov/permitting/water_rights/wmaster

Groundwater Regulators and Regulations

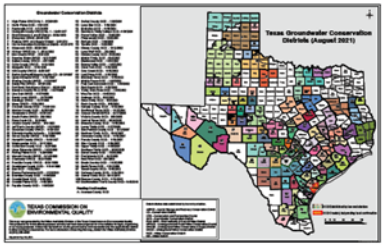
How is water from aquifers and underground pools that feed springs and wells regulated? Groundwater is regulated through groundwater conservation districts (GCDs). Today there are 101 GCDs in Texas covering a large portion of the state, but not all of the state. Each GCD has its own set of rules and regulations, its own definition of terms such as "domestic and livestock uses," and its own permitting requirements in accordance with the Texas Water Code. Most of the districts have boundaries set by county lines, even though the water doesn't stop flowing at county lines.

Many consumers in Texas may not realize that GCD's even exist until a property owner wants to drill a well on their property or apply for an irrigation permit that would require drilling into the ground to access the groundwater.

Below is a map showing the existing Texas Groundwater Conservation Districts. It can be found at https://www.tceq.texas.gov/assets/public/permitting/watersupply/groundwater/maps/gcdmap.pdf

License holders can assist their clients by referring them to the TCEQ map site above to determine if a property lies in the jurisdiction of a GCD. Remember that a license holder, unless they hold a license to practice law in Texas or hold an engineering license, may not attempt to interpret the by-laws and rules of any individual GCD on behalf of a client.

What can happen if a seller fails to disclose to a potential buyer that the property lies within the jurisdiction of a GCD? The Buyer could find themselves the victim of misrepresentation by the Seller and/or the Seller's agent. For example, property in the Barton Springs Edwards Aquifer Groundwater Conservation District (BSEAGCD), domestic and livestock wells are exempt from needing a permit to drill for groundwater. However, if a water provider delivers water to the property line and the owner of the property ties in and uses the water for domestic and livestock use, then their original permit exemption for a water well now needs a permit. If the Seller and the Seller's agent advertise that the property has two water sources (the well and the public water line), they may be guilty of misrepresenting the water sources. Few (if any) Sellers or Seller's agents are aware of this rule in the BSEAGCD, yet they should be if they want to avoid misrepresentation and a possible lawsuit.



Water and the Seller's Disclosure Notice

For over two decades, any defect actually known to the seller of a single-family home must be disclosed on a seller's disclosure notice, including defects not covered on the form. The prudent Seller, Buyer and Agent should keep in mind the source and availability of water to any property. Any known defects about the property's water rights must be fully and truthfully disclosed.

TREC's Seller's Disclosure Notice is the minimum required by law and mirrors the provision in the Texas Property Code. It contains the opportunity to disclose information about the property's water and water rights in these areas:

1. The Property has the items checked below (Write Yes (Y), No (N), or Unknown (U)):

Water Supply: ____City ____Well ____MUD ____Co-op

Are you (Seller) aware of any of the above items that are not in working condition, that have known defects, or that are in need of repair? ☐ Yes ☐ No ☐ Unknown. If yes, then describe. (Attach additional sheets if necessary):_____

9. Are you (Seller) aware of any of the following? Write Yes (Y) if you are aware, write No (N) if you are not aware.

____Any notices of violations of deed restrictions or governmental ordinances affecting the condition or use of the Property.

____Any rainwater harvesting system located on the property that is larger than 500 gallons and that uses a public water supply as an auxiliary water source.

____Any portion of the property that is located in a groundwater conservation district or a subsidence district.

If the answer to any of the above is yes, explain. (Attach additional sheets if necessary):_____

3. Location of the subject property within a GCD or district.

The Seller's Disclosure Notice does not have a place to disclose specific information about surface water rights at this time. **A license holder should advise their client to consult an attorney and/or an engineer about the surface water rights to a property containing a watercourse.**

There is also no promulgated form that a license holder may use if the seller wants to reserve all or a portion of a property's water rights at this time. A **license holder should advise their client to consult an attorney.**

The next drought will inevitably bring with it a

Water Right Issues That Require Reporting

Below are examples of water right issues that would require disclosure on a seller's disclosure notice:

1. A notice of violation of deed restrictions or governmental ordinances affecting the condition or use of the property, such as a non-permitted groundwater well;
2. A condition on the property which materially affects the physical health or safety of an individual, such as a water well that is located inside the minimum distance from a septic tank or field; and

greater awareness of the water rights or defects in the water rights of properties in Texas. Best practices for license holders concerning water rights include:

- Advise clients to consult an attorney to determine the water rights on a property.
- Assist clients by providing resources to help determine if the groundwater rights to the property are in the jurisdiction of a GCD.
- Assist clients by providing them links to the TCEQ's website for information about a property's surface water rights.
- Avoid interpretation of any laws, regulations,

geological data, or other information outside their duties as a license holder.

A dutiful and diligent license holder will become familiar with property water rights to gain geographic competency and avoid misrepresentation or acts of omission.

Mineral Rights

Mineral rights are complicated and often confusing. Just determining the ownership and rights of any mineral holdings for any property in Texas can be highly controversial and strongly debated in courts of law. **Sellers may not know what mineral rights they own!** Additionally, developments in mineral extraction or discovery of new mineral resources in different parts of the state can cause a significant shift in the value of the mineral rights themselves seemingly overnight. It is also important for you and your client to understand that title insurance often does not cover mineral rights and may require your client to obtain additional coverage.

Because of this, license holders who are not attorneys or oil and gas experts such as petroleum landmen should never give advice to their clients on mineral rights. Minerals and mineral rights are a significant part of real property values in many parts of Texas.

Advise your client to hire an attorney to assist when drafting contracts involving oil and gas mineral rights related to a real estate transaction.

Mineral rights can be severed from the real property and sold. Once severed and sold, the mineral right owners can have rights to the use of the surface of the property in order to lease, extract, and use the minerals they own. In many parts of the state, it is common to discover that all or part of the mineral rights have been severed, and in some cases, for over a hundred years! Severed mineral rights are often split between multiple individuals who have never had contact with each other. Whether the license holder represents the buyer or seller of a property with minerals, the license holder should advise their client to **CONSULT AN ATTORNEY** in all matters involving mineral rights.

that has a storage capacity of at least 5,000 acre-feet at the impoundment's normal operating level, Seller hereby notifies Buyer: "The water level of the impoundment of water adjoining the Property fluctuates for various reasons, including as a result of: (1) an entity lawfully exercising its right to use the water stored in the impoundment; or (2) drought or flood conditions."

(11) NOTICE OF WATER RIGHTS: There are three basic types of water rights related to property ownership in Texas: (1) GROUNDWATER RIGHTS, which relate to the right to pump water under the land surface of the property by using a water well; (2) SURFACE WATER RIGHTS, which relate to the right to pump or divert water from rivers, creeks, streams, or lakes/reservoirs; and (3) DIFFUSED SURFACE WATER RIGHTS, which relate to rainwater or snowmelt on the surface of the property prior to it either percolating below ground or reaching a creek, stream, river, or other surface watercourse.

The laws and regulations governing each of these three types of water rights differ substantially, and it is important for the Property owner to know if and how each of these rights can be exercised on the Property.

(A) **GROUNDWATER RIGHTS/WATER WELLS:** There are many governmental entities in Texas that regulate water wells, including drilling, altering, or operating a water well. These regulations can vary substantially depending on the location of the property and can affect whether a water well can be drilled on a property or at certain locations on the property, the size of the well or well pump, how much water can be pumped, how the water can be used, whether the owner must obtain a permit or registration for the well, whether the well must have a meter, and whether there are any fees or reporting requirements related to drilling or using a well. If the owner subdivides or otherwise sells part of the Property in the future, it may impact the right to drill a new well or to continue to use an existing well. The primary governmental entities in Texas that regulate water wells are Groundwater Conservation Districts and Subsidence Districts, although some cities, counties, and other types of special districts, as well as the Texas Department of Licensing and Regulation, have regulations related to water wells. If Buyer purchases the Property, Buyer should not drill or operate a water well prior to understanding the regulations of each governmental entity that regulates water wells on the Property. If Buyer purchases the Property, Buyer is responsible for the proper maintenance of any active wells and the closure of any inactive wells.

If any of the following apply to the Property, an addendum containing further information should be used (attach Addendum for Information Concerning the Property's Groundwater Rights, Wells, Groundwater Conservation Districts, and/or Subsidence Districts ("groundwater addendum")):

(i) the Property has one or more existing water wells, whether such wells are currently in use, not currently in use, and/or have been capped, covered, plugged, or otherwise abandoned;

☐ Yes (attach groundwater addendum) ☐ No

☐ Seller has no knowledge

(ii) the Property is located in whole or in part in a Groundwater Conservation District, Underground Water Conservation District, Subsidence District, or other special district that regulates the drilling or operation of water wells; or

☐ Yes (attach groundwater addendum) ☐ No

(iii) the groundwater rights to the Property have been previously severed, sold, or leased in whole or in part, or a water well on the Property will rely in whole or in part on groundwater rights leased or owned from land outside the boundaries of the Property.

☐ Yes (attach groundwater addendum) ☐ No

☐ Seller has no knowledge

(B) **SURFACE WATER RIGHTS**: The use of surface water in Texas from a watercourse, including a river, creek, stream, or lake/reservoir, is regulated by the Texas Commission on Environmental Quality (TCEQ), even if the watercourse is regularly dry between rain events. If a watercourse runs through any part of the Property or forms any part of the Property's boundaries, an addendum containing further information should be used (attach Addendum for Information Concerning the Property's Surface Water Rights). The owner should not pump or otherwise use surface water from a watercourse located on or bordering the property prior to determining the legal right to do so.

Is there a watercourse on or bordering any part of the property?

☐ Yes (attach surface water rights addendum)
☐ No ☐ Seller has no knowledge

If there is no watercourse on or bordering any part of the property, does Seller otherwise have a Certificate of Adjudication, Amendment to a Certificate of Adjudication, or Permit administered by the TCEQ to use surface water from another source on the Property?

☐ Yes (attach surface water rights addendum)
☐ No ☐ Seller has no knowledge

(C) **DIFFUSED SURFACE WATER RIGHTS**: Rainwater and snowmelt on the ground surface of the Property prior to either percolating below ground into the soil or reaching a watercourse is "diffused surface water" and may be used by the Property owner. This may sometimes include the right to impound the water in a pond, stock tank, or other impoundment that is not located on a surface watercourse. Diffused surface water is owned by and may be used by the Property owner.

Water rights in Texas are materially significant and complex. It is strongly advised the parties CONSULT AN ATTORNEY.

7. PROPERTY CONDITION:

A. ACCESS, INSPECTIONS AND UTILITIES: Seller shall permit Buyer and Buyer's agents access to the Property at reasonable times. Buyer may have the Property inspected by inspectors selected by Buyer and licensed by TREC or otherwise permitted by law to make inspections. Any hydrostatic testing must be separately authorized by Seller in writing. Seller at Seller's expense shall immediately cause existing utilities to be turned on and shall keep the utilities on during the time this contract is in effect.

NOTICE: Buyer should determine the availability of utilities to the P roperty suitable to satisfy Buyer's needs.

B. SELLER'S DISCLOSURE NOTICE PURSUANT TO §5.008, TEXAS PROPERTY CODE (Notice):

PROMULGATED BY THE TEXAS REAL ESTATE COMMISSION (TREC)

Addendum for Information Concerning the Property's Groundwater Rights, Wells, Groundwater Conservation Districts, and/or Subsidence Districts

EQUAL HOUSING OPPORTUNITY

ADDENDUM TO CONTRACT CONCERNING THE PROPERTY AT

_____

(Street Address and City)

A. Groundwater is water found under the land surface in aquifers, and is pumped to the land surface by water wells. In Texas, groundwater is owned by the surface landowner, but drilling or operating a water well can be subject to the jurisdiction of a local Groundwater Conservation District, Underground Water Conservation District, Subsidence District, or other special district or authority that regulates the drilling or operation of water wells (**collectively "Groundwater Districts"**).. Not all land in Texas is located in or subject to the regulations of a Groundwater District. The rules and regulations of Groundwater Districts differ from district to district. Some Groundwater Districts have ad valorem taxing authority, others do not. Please consult the Property's Ad Valorem Tax Appraisal District for current GCD tax rates, if any. **The statutes, rules and regulations, and court rulings concerning groundwater in Texas are significant and complex, consequently it is strongly advised that the parties CONSULT AN ATTORNEY.**

B. ❑ The Property is located in whole or in part in the _____ (name of Groundwater District). The district's website can be found at: _____.

❑ The Property is not located in whole or in part in a Groundwater District, as defined above.

C. A "water well" is any artificial excavation that was drilled or dug for the purpose of exploring for or producing groundwater. The Property has ____ total existing water wells. Of that total, the Property has ___ water wells that are currently in use, and __ water wells that are not currently in use and/or have been capped, covered, plugged, or otherwise abandoned. The Property has _____ wells that have approved registrations or permits from a Groundwater District. The registration or permit number(s) are (attach additional addenda as necessary):

(1) _____.

(2) _____.

D. Have the groundwater rights to the Property previously been severed, sold, or leased in whole or in part (either with or without the right of a third person to drill or operate a water well on the Property)?

☐ Yes ☐ No

E. Is any water well on the Property or water produced from a water well on the Property shared with another property? ☐ Yes ☐ No Does the Property receive water from a water well located on another property? ☐ Yes ☐ No . If "Yes," to either of these questions, is there a written agreement about the shared well or shared water? ☐ Yes ☐ No Will a water well on the Property rely in whole or in part from groundwater rights owned or leased from land outside the boundaries of the Property? ☐ Yes ☐ No

Please attach copies of all documents referenced in or related to any questions in this Addendum that are in your possession.

IMPORTANT NOTICE: Groundwater Rights affect important rights, the full extent of which may be unknown to Seller. A full examination of the title to the Property completed by an attorney with expertise in this area is the only proper means for determining title to the Groundwater Rights with certainty. In addition, attempts to convey or reserve certain interests out of the Groundwater Rights separately from other rights and benefits owned by Seller may have unintended consequences. Precise contract language is essential to preventing disagreements between present and future owners of the Groundwater Rights. If Seller or Buyer has any questions about their respective rights and interests in the Groundwater Rights and how such rights and interests may be affected by this contract, they are strongly encouraged to consult an attorney with expertise in this area. If Buyer purchases the Property, Buyer should not drill or operate a water well prior to understanding the regulations of each governmental entity that regulates water wells on the Property.

CONSULT AN ATTORNEY BEFORE SIGNING: TREC rules prohibit real estate licensees from giving legal advice. READ THIS FORM CAREFULLY.

PROMULGATED BY THE TEXAS REAL ESTATE COMMISSION (TREC)

EQUAL HOUSING OPPORTUNITY

Addendum for Information Concerning the Property's Surface Water Rights

ADDENDUM TO CONTRACT CONCERNING THE PROPERTY AT

_____
(Street Address and City)

*** ONLY COMPLETE THIS ADDENDUM IF THERE IS A WATERCOURSE LOCATED ON THE PROPERTY, A WATERCOURSE FORMS ANY PART OF THE PROPERTY'S BOUNDARIES, OR IF SELLER OTHERWISE HAS A SURFACE WATER RIGHT, AS DEFINED IN PARAGRAPH C. BELOW, TO USE SURFACE WATER ON THE PROPERTY.**

A. Surface water, defined in Texas as water in a *watercourse*, is owned by the State of Texas and regulated by the Texas Commission on Environmental Quality (TCEQ). A *watercourse* is defined "as a channel with well-defined bed and banks, a current of water, and a "permanent source of supply," although it is not necessary that the supply of water be continuous to satisfy the "'permanent source of supply' requirement." It may be dry for long periods of time. The right to use surface water in Texas is determined by statute, TCEQ rules and regulations, and court rulings. **The statutes, rules and regulations, and court rulings concerning surface water in Texas are materially significant and highly complex; consequently, it is strongly advised that the parties *CONSULT AN ATTORNEY*.**

B. ☐ A watercourse runs through part of the Property or forms a part of the boundaries of the Property. The watercourse is known as _____. (Do NOT include stock tanks, wildlife ponds, on other water impoundments that are not located on a watercourse) (Attach a separate Surface Water Rights Addendum for more than one watercourse)

☐ There is no watercourse on the Property nor forming any boundary of the Property, but Seller has a Certificate of Adjudication, Amendment to a Certificate of Adjudication, or Permit to use surface water on the Property from a watercourse that is neither located on the Property nor forms any boundary of the Property.

C. ☐ Seller has a Certificate of Adjudication, Amendment to a Certificate of Adjudication, or Permit (collectively "Surface Water Right") administered by the TCEQ to divert, impound, or use surface water at a location on or adjacent to the Property. The Certificate of Adjudication, Amendment to Certificate of Adjudication, or Permit number(s) of the surface water rights are:

(1) _____.

(2) _____.

☐ Seller does not have a Certificate of Adjudication, Amendment to a Certificate of Adjudication, or Permit number administered by the TCEQ to divert, impound, or use surface water from the watercourse described in Paragraph B above.

IMPORTANT NOTICE: Surface Water Rights affect important rights, the full extent of which may be unknown to Seller. A full examination of the title to the Property completed by an attorney with expertise in this area is the only proper means for determining title to the Surface Water Rights with certainty. In addition, attempts to convey or reserve certain interests out of the Surface Water Rights separately from other rights and benefits owned by Seller may have unintended consequences. Precise contract language is essential to preventing disagreements between present and future owners of the Surface Water Rights. If Seller or Buyer has any questions about their respective rights and interests in the Surface Water Rights and how such rights and interests may be affected by this contract, they are strongly encouraged to consult an attorney with expertise in this area.

CONSULT AN ATTORNEY BEFORE SIGNING: TREC rules prohibit real estate licensees from giving legal advice. READ THIS FORM CAREFULLY.

_____ _____

Buyer Seller

Surface Water Right Disclosure Worksheet*	Comments
(It is strongly recommended that you consult an attorney or hydrologist.)	
https://www.tceq.texas.gov/permitting/water_rights/wr-permitting/wrwud	
Who owns the water right?	
TCEQ water right file number?	
TCEQ classification of right?	
Priority date of water right?	
Temporary water permit from TCEQ?	
Expiration date of temporary water permit from TCEQ?	
Diversion point and brief description?	
Location of diversion (attach map)?	
Delivery system - Pump? Canal?	
Volume of water permitted to be diverted?	
Water Use Reports (Amounts) filed at TCEQ?	
Use - Domestic and Livestock?	
Use - Irrigation?	
Meter present?	
Meter records available?	
Water Right Deed available? From owner possibly.	
Water Right Deed filed of record? From county real property records.	
Any water leases to others? From owner or possibly real property records.	
Past or pending TCEQ violations? From TCEQ files.	
Type of crops irrigated in past?	
Type of crops irrigated currently?	
Please attach copies of any and all available documents.	
**This disclosure sheet is to be used for preliminary research purposes only.*	
Ask for enough time in the purchase contract to seek the advice of and attorney	
and hydrologist to determine the details of any surface water right!	

Groundwater Water Right Disclosure Worksheet from Owner*	**Comments (or Unknown)**
(It is strongly recommended that you consult an attorney or hydrologist.)	
Does the landowner own 100% of the groundwater right?	
Is the property subject to GCD (regulatory agency) jurisdiction?	
GCD or other regulatory agency contact information?	
GCD or agency website?	
Single family residence on property?	
Swimming pool on property?	
Existing well(s) on property? How many?	
Any abandoned wells on property? How many? Covered?	
Pump type (submersible, deisel or electric)?	
Water Quality Report Available?	
Use - Domestic and Livestock?	
Use - Irrigation?	
Use - Other?	
Iirrigation permit number/copy/authorized volume?	
Transfer permit and volume?	
Is the well registered at the GCD? Registration Number?	
Are there volume meters present?	
Volume allowed to be pumped per day?	
Meter records available?	
Well driller's name and contact information?	
Distance from septic system?	
Depth of well(s)?	
Any past or present violations of GCD rules?	
Any current leases of water to others?	
Crops irrigated currently?	
Crops irrigated in past?	
Type of irrigation system - Center Pivot? Canal? Drip?	
Knowledge of past contested permit hearings?	
Past or pending lawsuits involving the property?	
Any current permit in process?	
Any current contested permit hearing?	
Please attach copies of all documents mentioned above	
that are in your possession.	
**This disclosure sheet is to be used for preliminary research purposes only.*	
Ask for enough time in the purchase contract to seek the advice of and attorney	
and hydrologist to determine the details of any groundwater right!	
By: Charles Porter, PhD ALL RIGHTS RESERVED	

A Warning About Reserving Water Rights

Lots of discussion lately about reserving water rights like some do for mineral rights.

Driver of this notion, public perception - water is the new gold and is like oil and gas.

But ….

1. The only way water is generally marketable involves a delivery system – rarely will the buyer/lessee come and get the water.
2. Permitting is very time-consuming and can be very, very expensive.
3. Without eminent domain authority, right-of-way for transport is all but impossible to gain, very expensive, and time consuming to the degree that the buyer/lessee may not be able to wait.
4. Once you buy a property in which the water rights have been severed or even partially severed, the holder of those severed rights is the ***dominant estate!***
5. Even more elementary, **ALL** properties must have a water source for domestic use at a bare minimum.

Will there be a promulgated form published by TREC to reserve water rights?

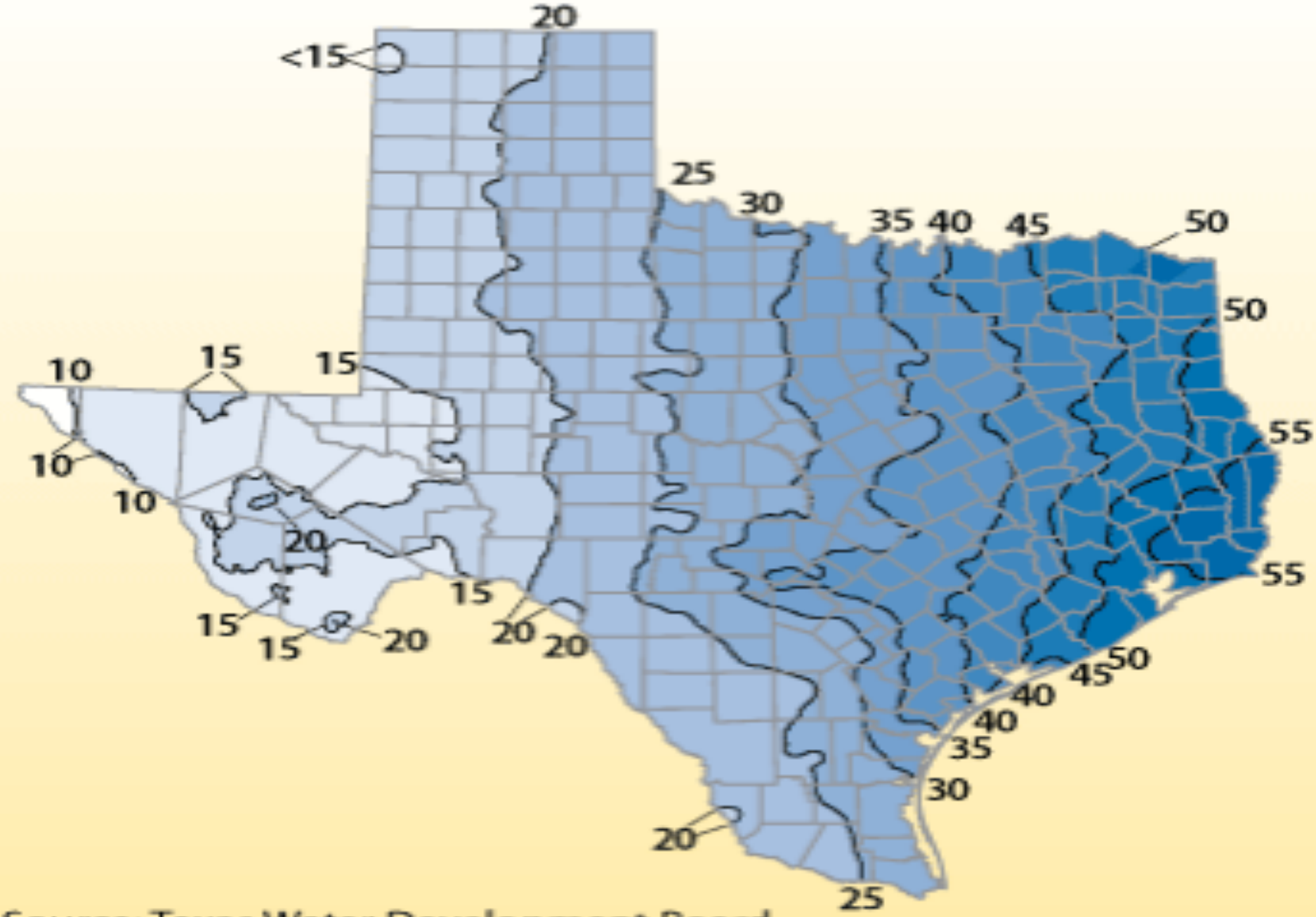
Basics of Texas Water Law

Current Conditions and History

"Water doesn't run downhill . . . it runs towards money."

David Weber, PhD

SMU, 1976



Source: Texas Water Development Board.

We do not have enough existing water supplies today to meet the demand for water during times of drought.

In the event of severe drought conditions, the state would face an immediate need for additional water supplies of 3.6 million acre-feet per year with 86 percent of that need in irrigation and about 9 percent associated directly with municipal water users.

State Water Plan 2007

. . . but at the core, the fundamental issue is that in our state there simply is not enough firm-yield water to support the existing population and growth that is already occurring.

Kirk Holland, P.G., Retired General Manager,
Barton Springs Edwards Aquifer Conservation District

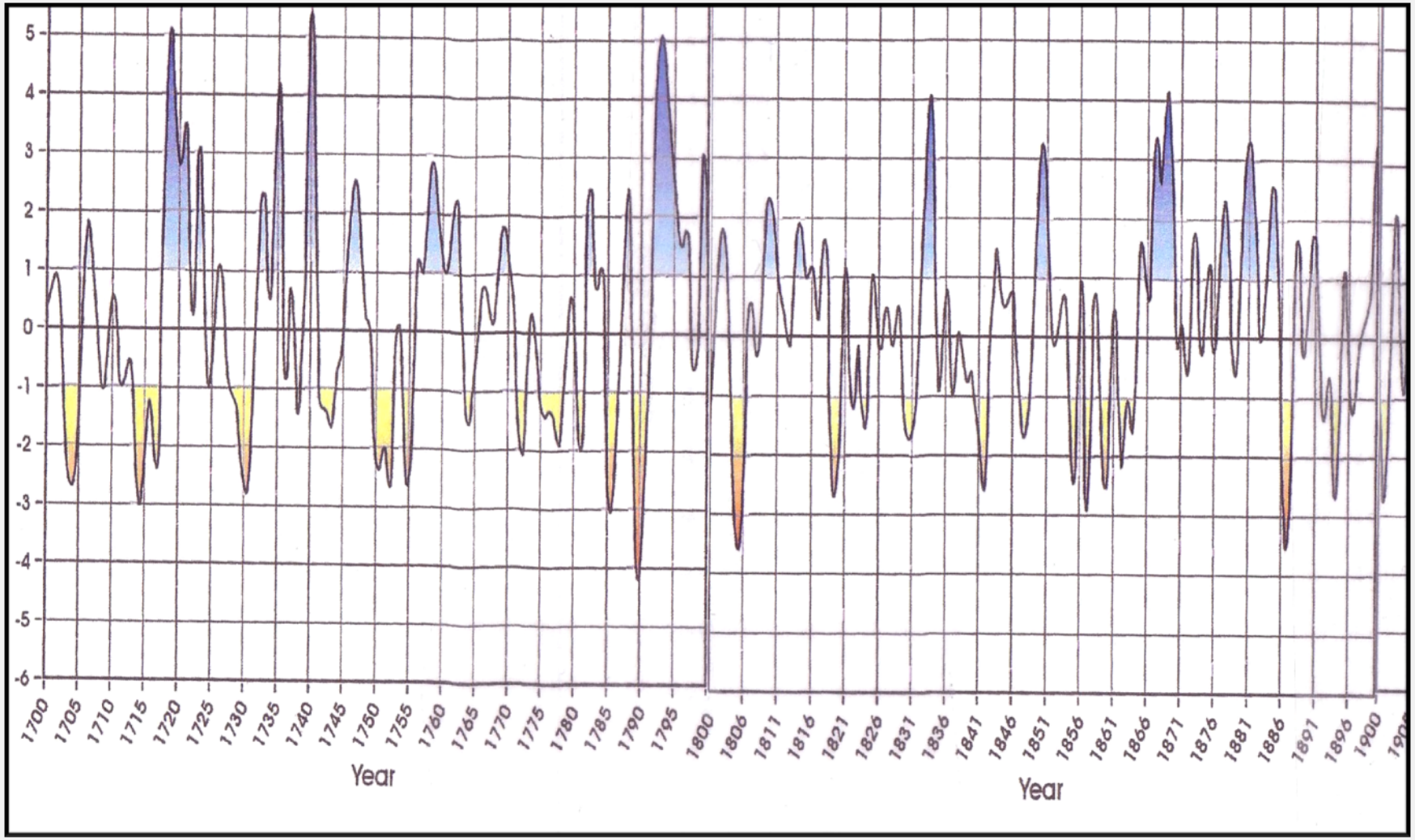
Key Formulas to Keep in Mind All Day

One Acre-foot = the volume of water needed to cover 1 acre to a depth of 1 foot …

325,851 gallons of water.

Every acre of land that receives one inch of rain receives everytime …

27,154 gallons of water.



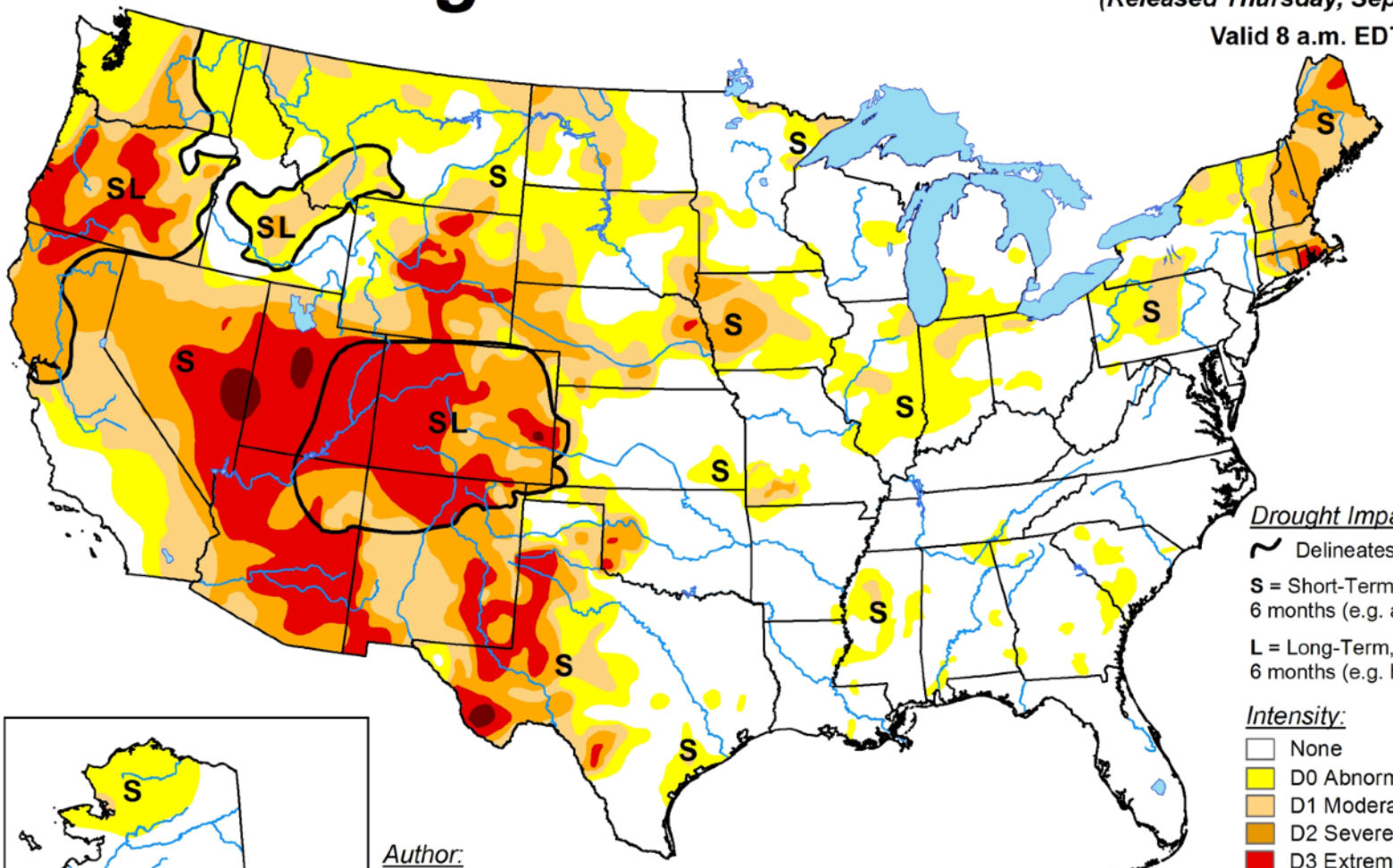
Droughts and Deluges in San Antonio
1700 - 1900

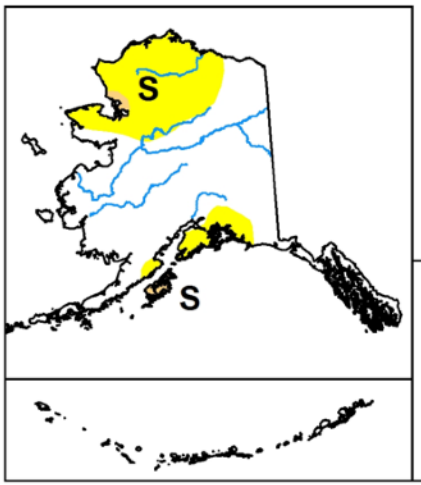
U.S. Drought Monitor

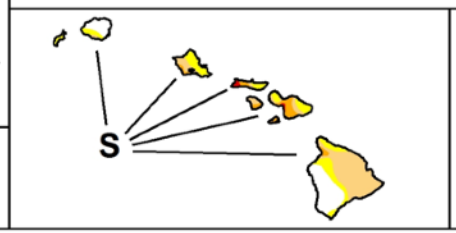
September 15, 2020

(Released Thursday, Sep. 17, 2020)

Valid 8 a.m. EDT







Drought Impact Types:

~ Delineates dominant impacts

S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)

L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

Author:

Brad Rippey

U.S. Department of Agriculture

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

USDA NDMC NOAA

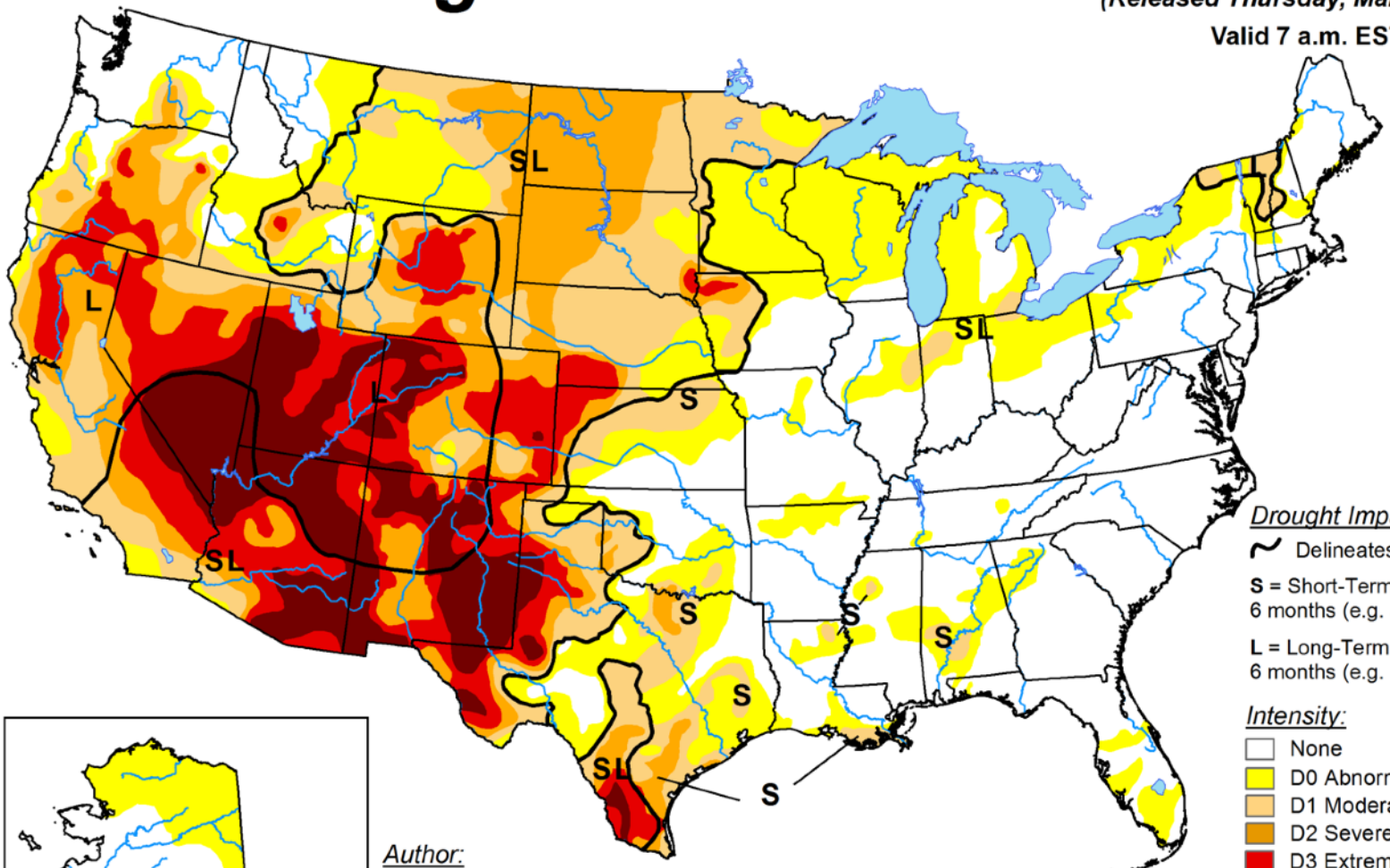
droughtmonitor.unl.edu

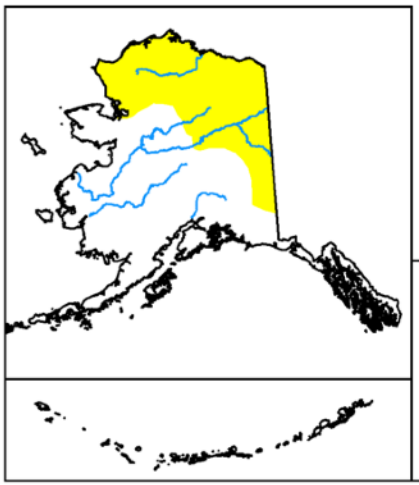
U.S. Drought Monitor

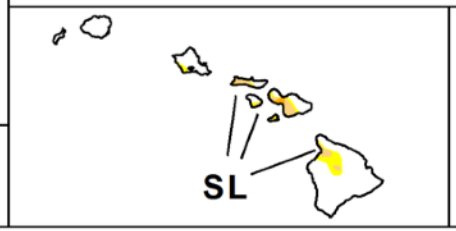
March 9, 2021

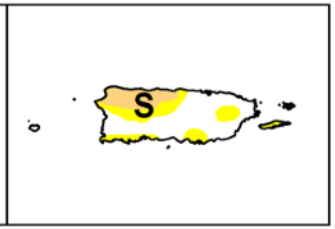
(Released Thursday, Mar. 11, 2021)

Valid 7 a.m. EST









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Author:
Brian Fuchs
National Drought Mitigation Center

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USDA NDMC NOAA

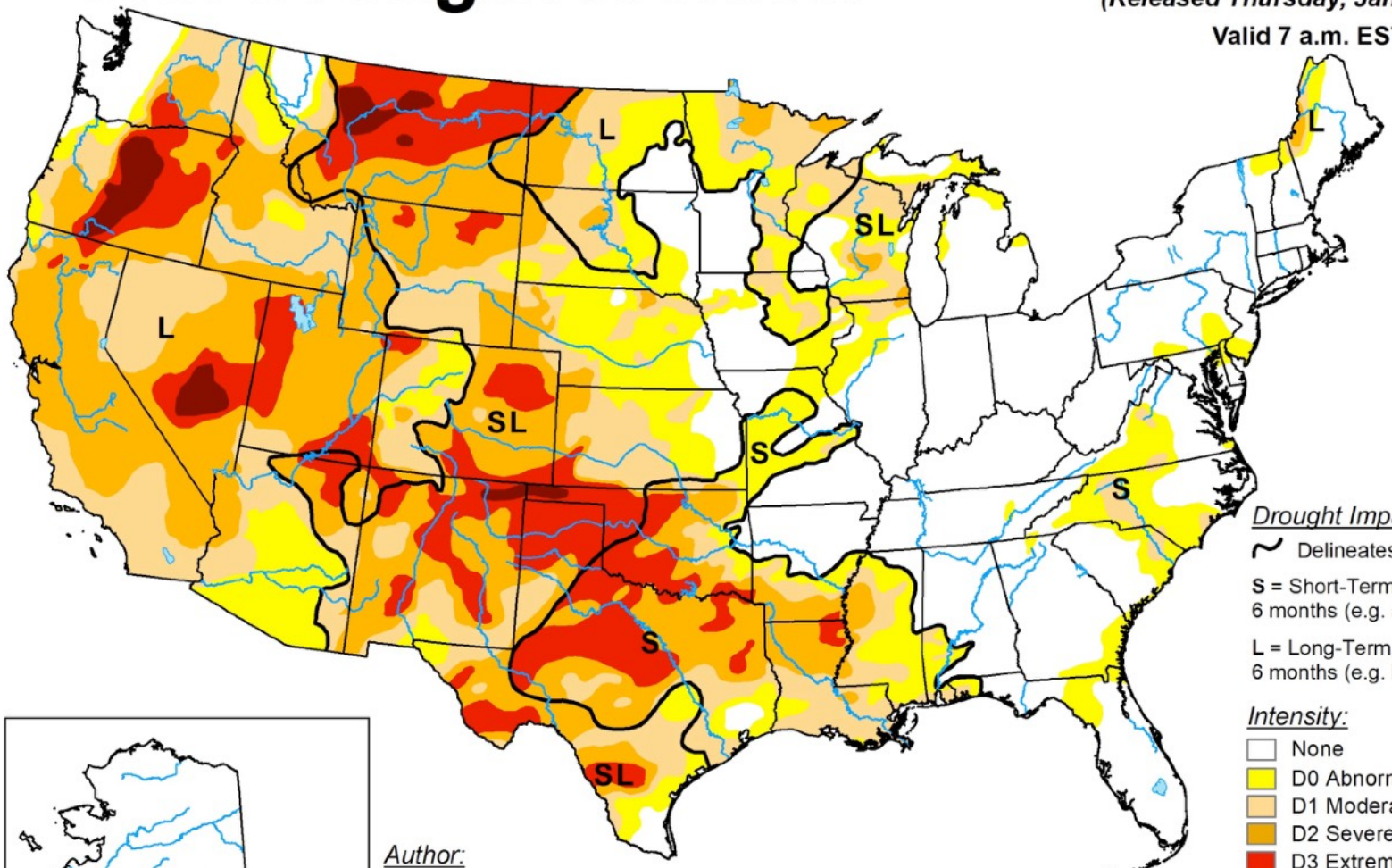
droughtmonitor.unl.edu

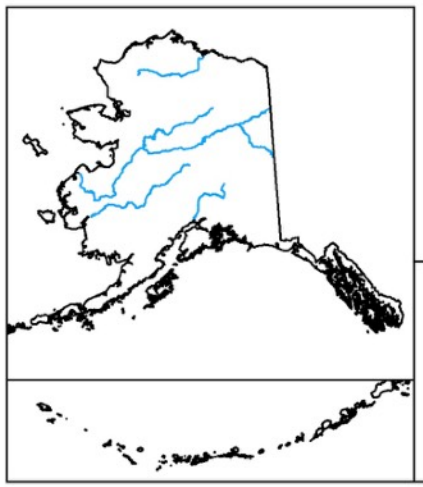
U.S. Drought Monitor

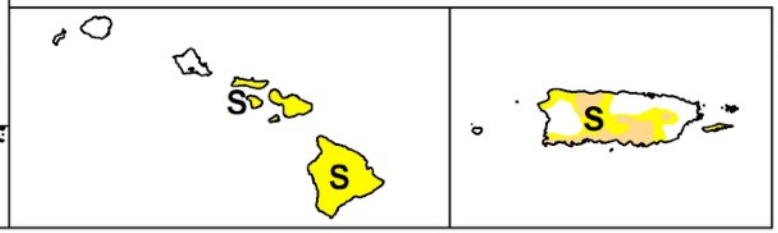
January 25, 2022

(Released Thursday, Jan. 27, 2022)

Valid 7 a.m. EST







Author:
Brad Rippey
U.S. Department of Agriculture

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USDA NDMC NOAA

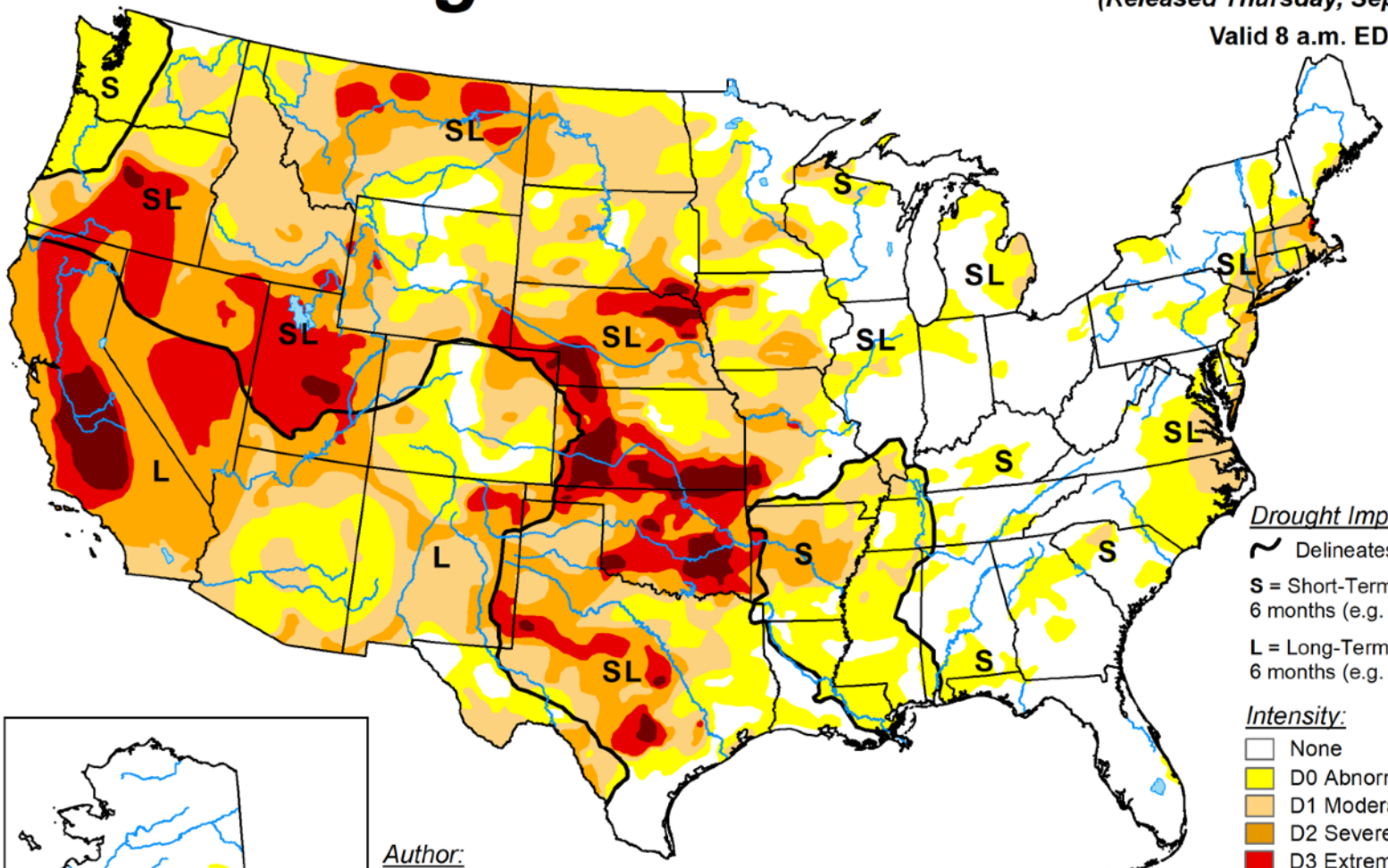
droughtmonitor.unl.edu

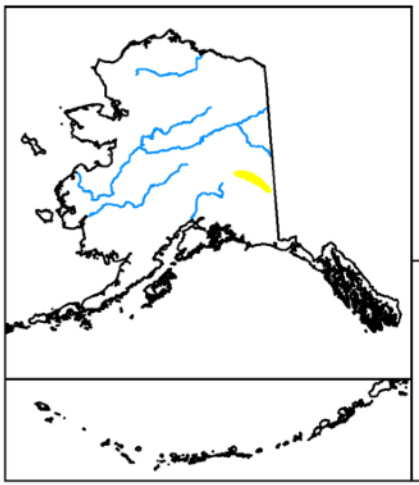
U.S. Drought Monitor

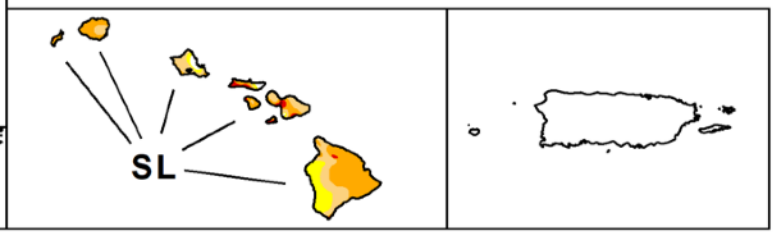
September 27, 2022

(Released Thursday, Sep. 29, 2022)

Valid 8 a.m. EDT







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Author:
Richard Heim
NCEI/NOAA

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USDA NDMC NOAA

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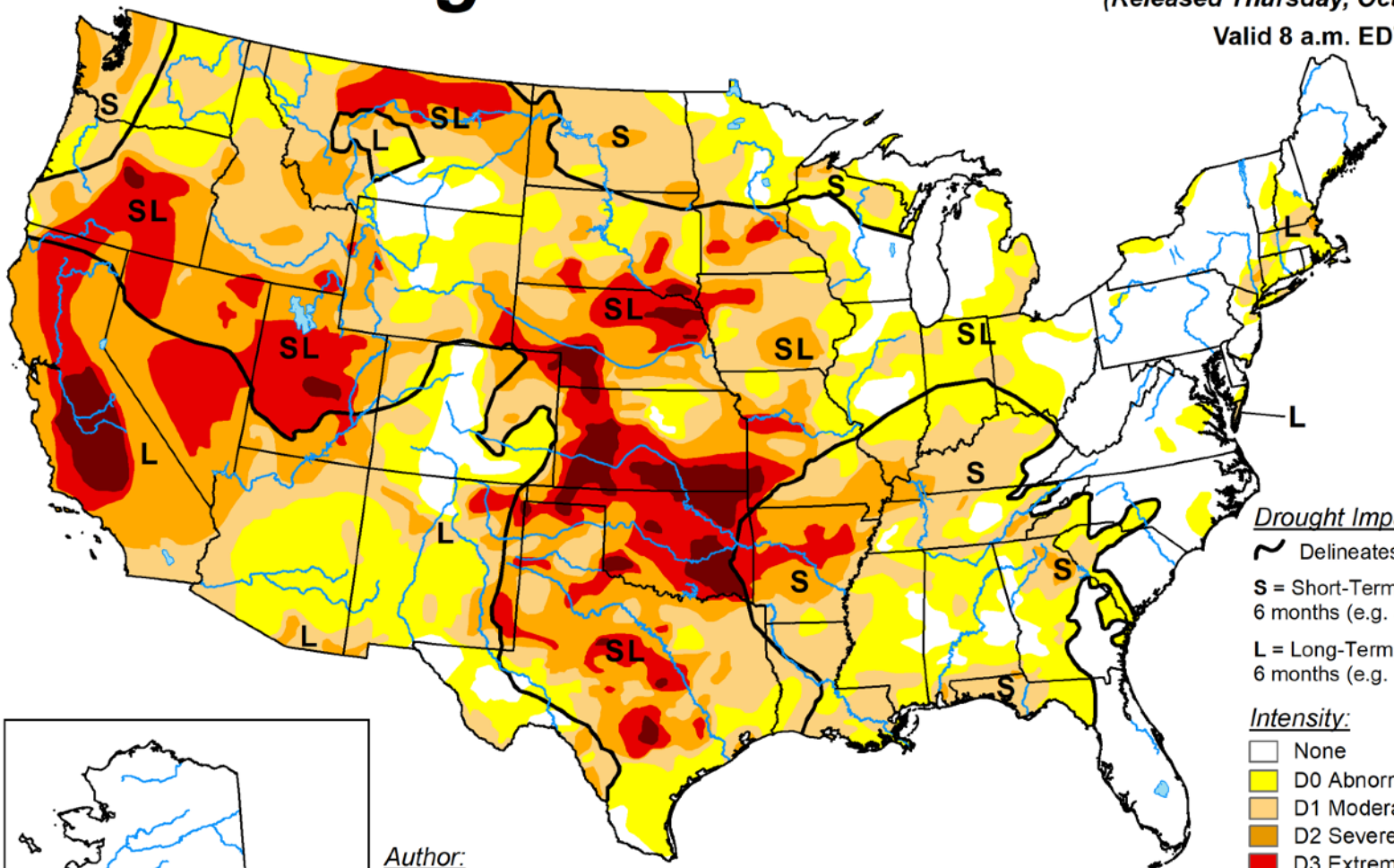
U.S. Drought Monitor

October 18, 2022

(Released Thursday, Oct. 20, 2022)

Valid 8 a.m. EDT



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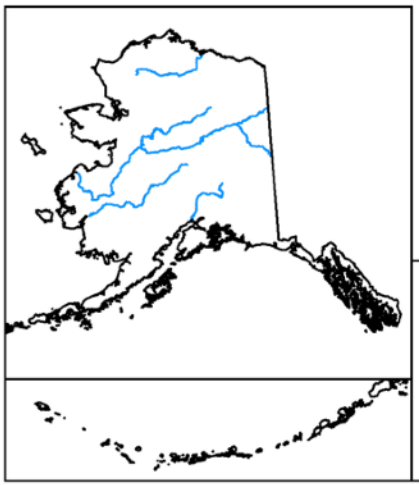

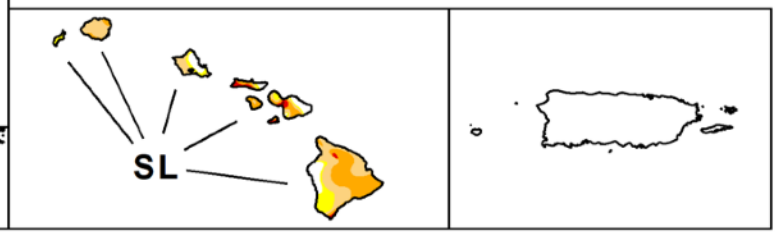

Author:
Adam Hartman
NOAA/NWS/NCEP/CPC

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USDA NDMC NOAA

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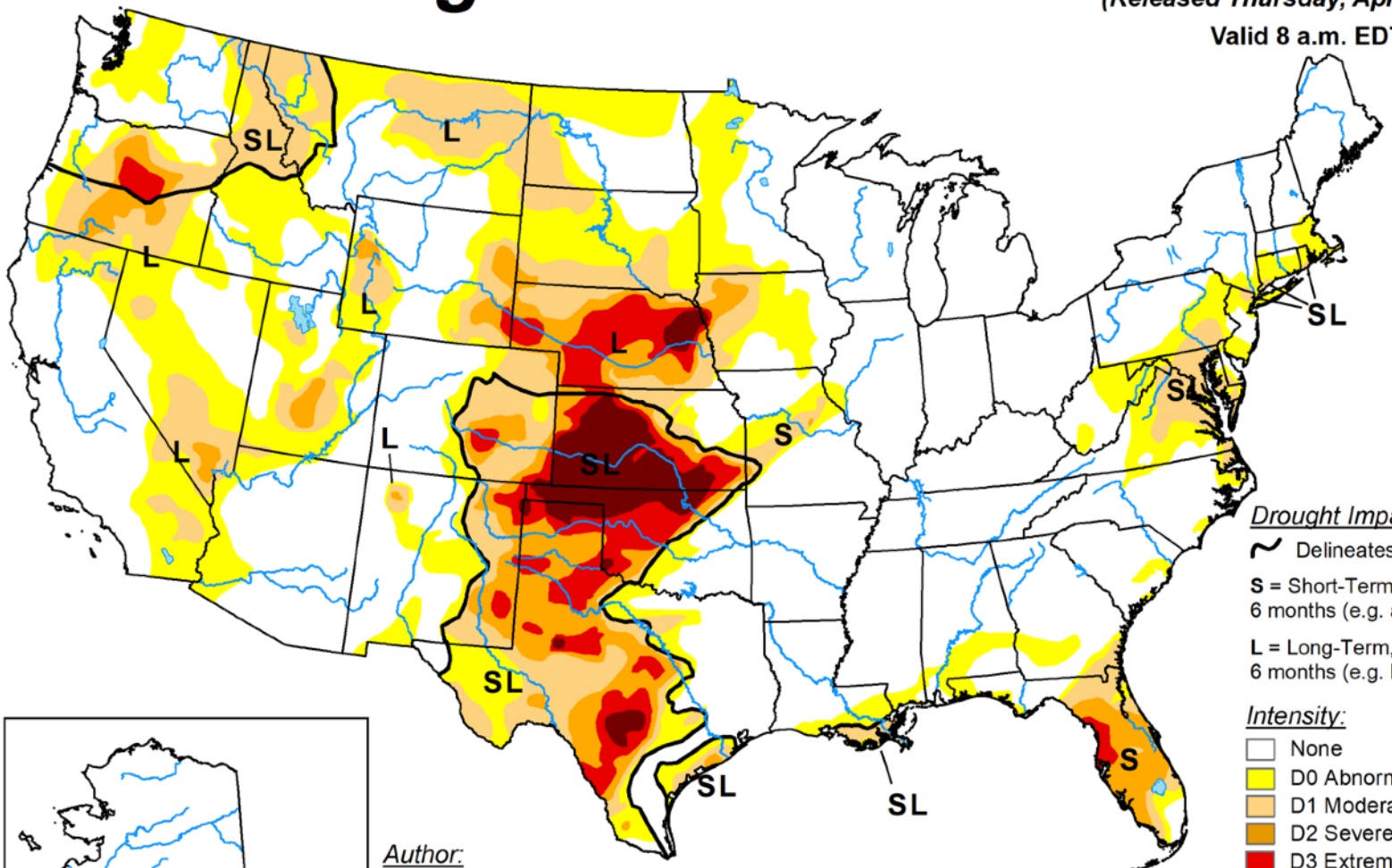
U.S. Drought Monitor

April 25, 2023

(Released Thursday, Apr. 27, 2023)

Valid 8 a.m. EDT



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Intensity:

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Author:
Richard Tinker
CPC/NOAA/NWS/NCEP

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droughtmonitor.unl.edu

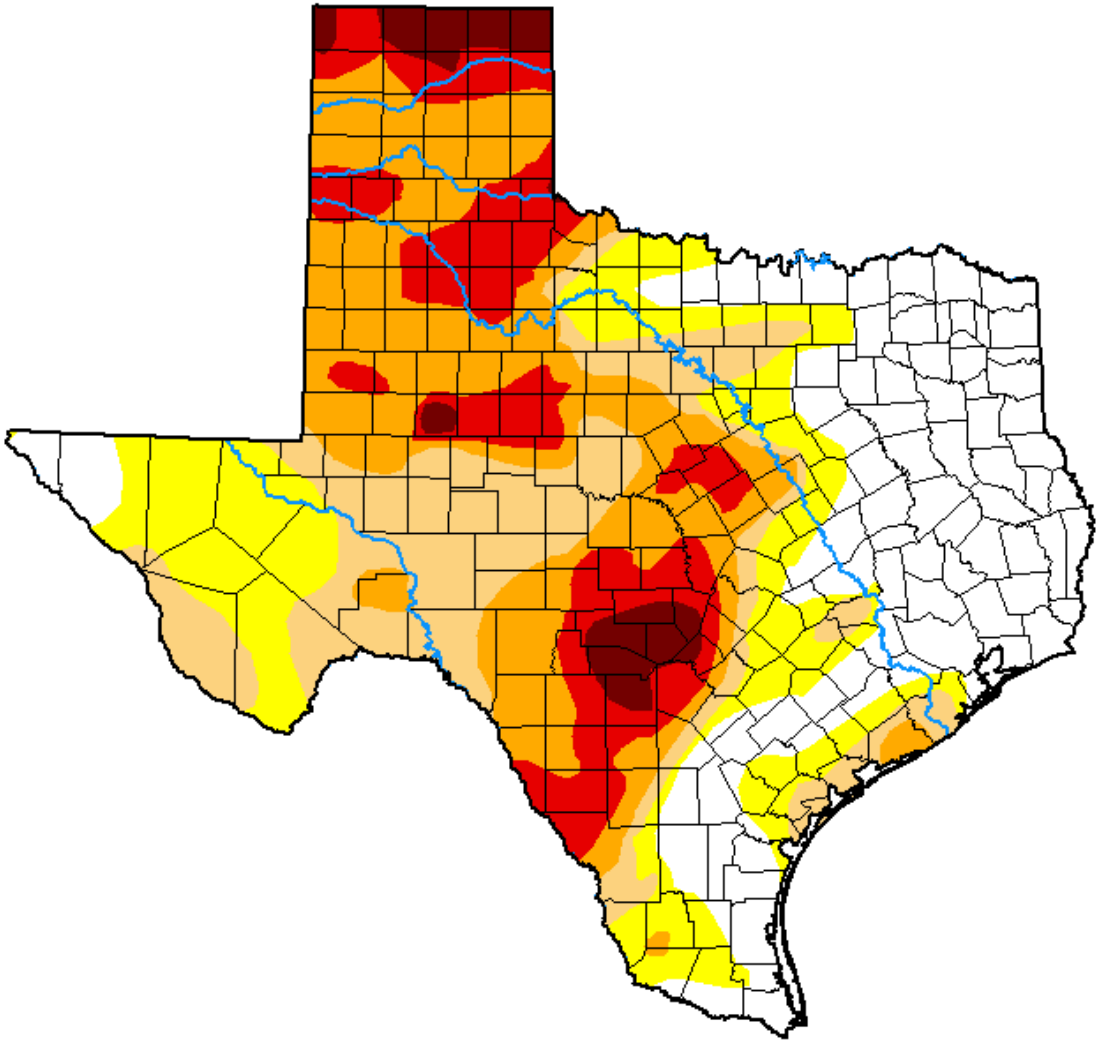
U.S. Drought Monitor

Texas

April 25, 2023

(Released Thursday, Apr. 27, 2023)

Valid 8 a.m. EDT



Intensity:

- None
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Author:

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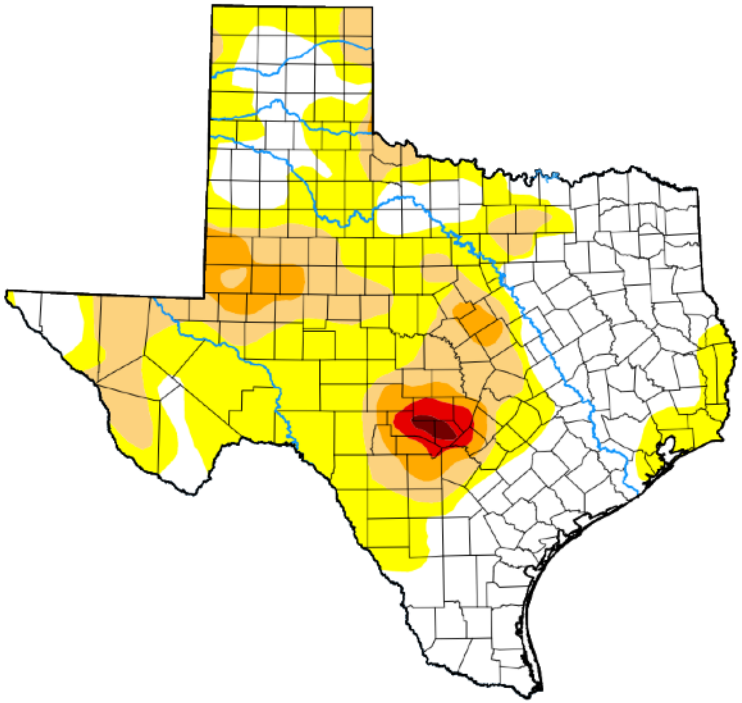


Map released: Thurs. June 22, 2023

Data valid: June 20, 2023 at 8 a.m. EDT

Intensity

- None
- D0 (Abnormally Dry)
- D1 (Moderate Drought)
- D2 (Severe Drought)
- D3 (Extreme Drought)
- D4 (Exceptional Drought)
- No Data

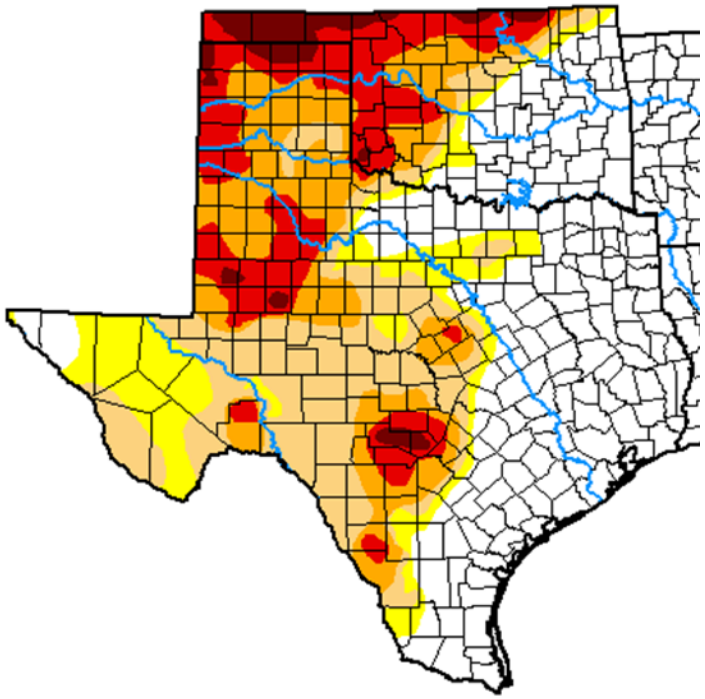
Authors

United States and Puerto Rico Author(s):

Adam Hartman, NOAA/NWS/NCEP/CPC

Pacific Islands and Virgin Islands Author(s):

Richard Heim, NOAA/NCEI



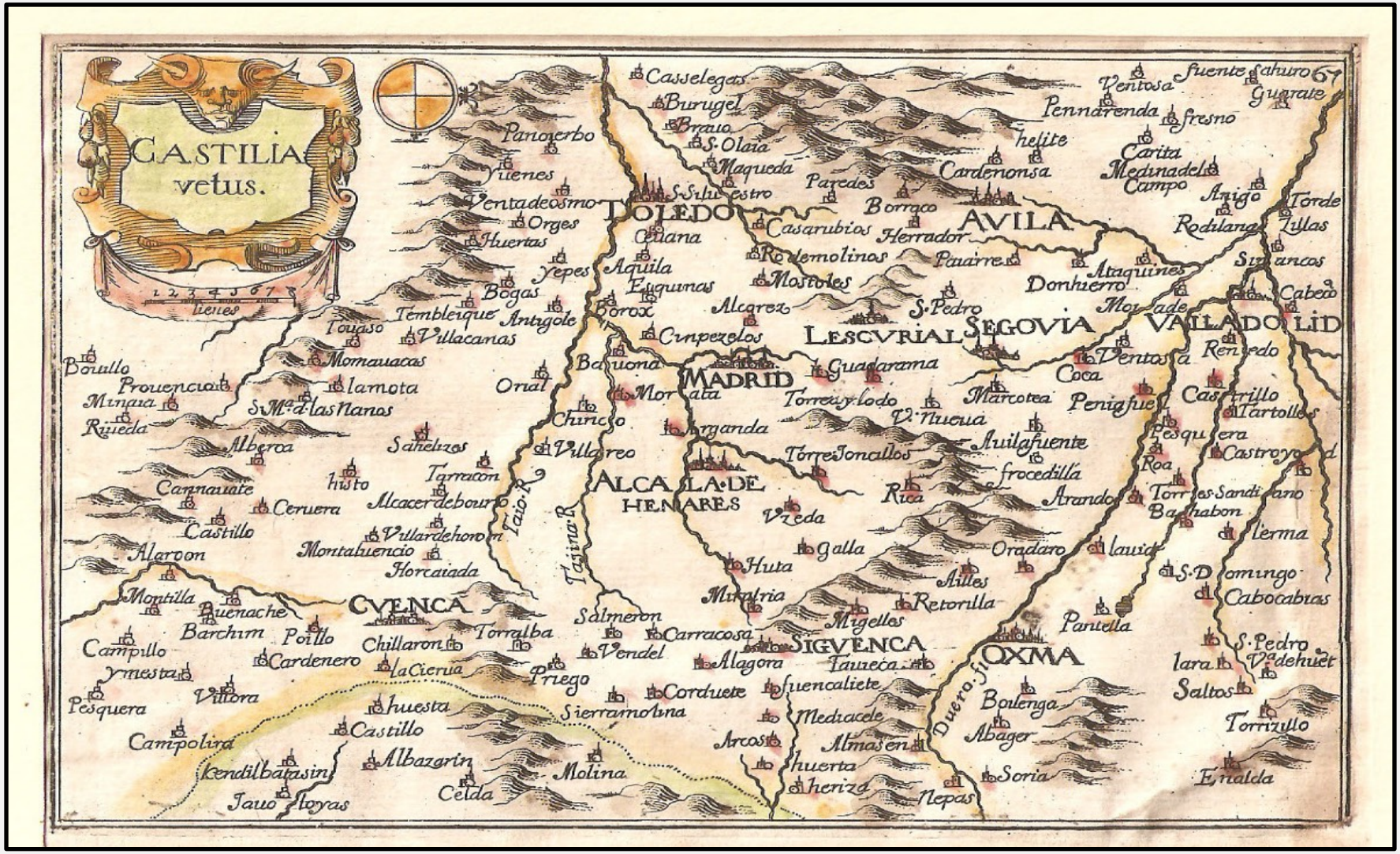
May 18, 2023

Who owns water in Texas?
Whose rights should prevail?

A Brief Walk Through History

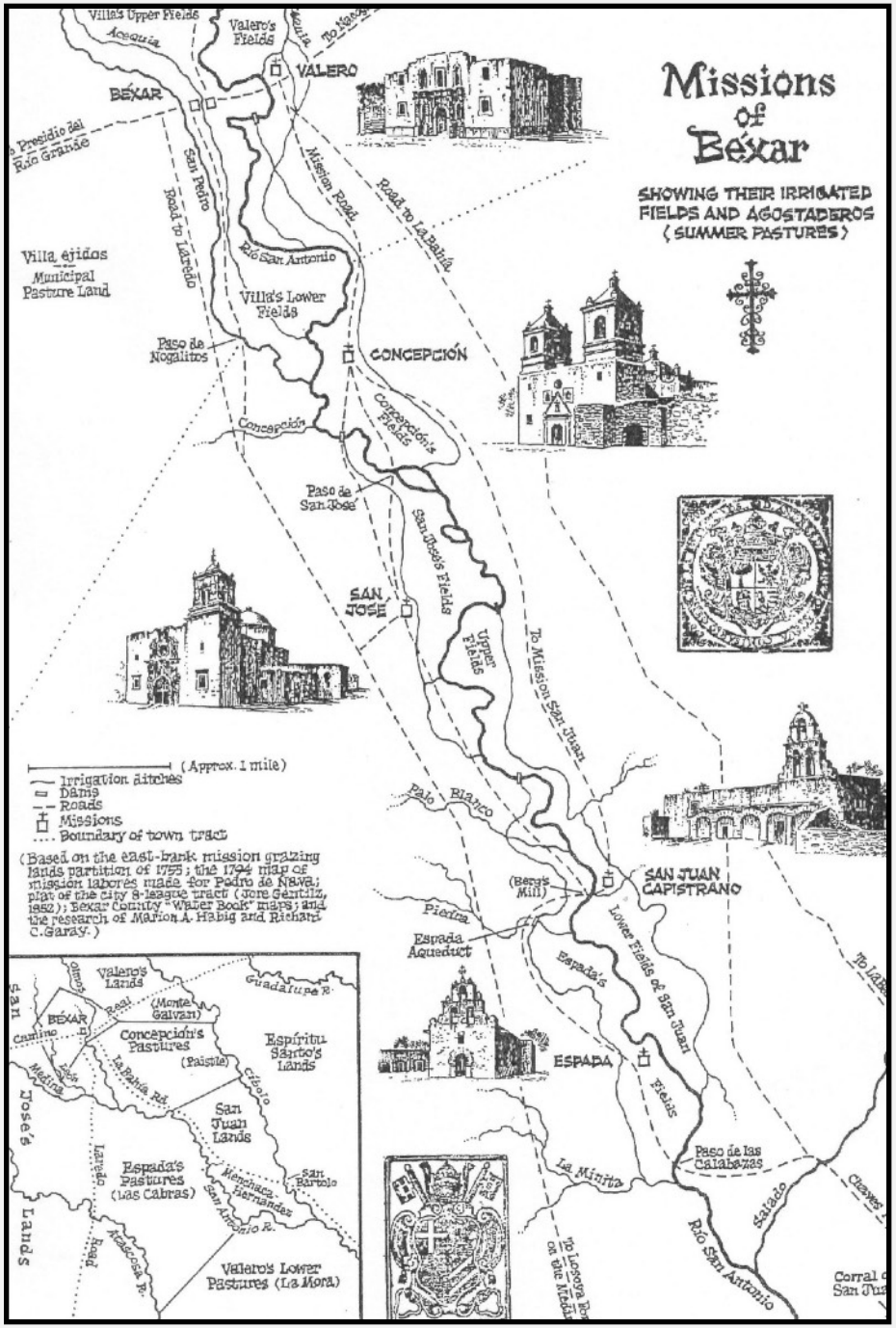
Map of Spain, Ortelius, 1588, La Mancha – The Blot

"Respect for water was bred in the bone of the Spaniard."

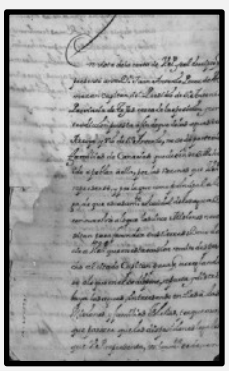


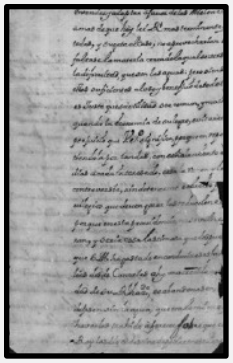
- **Valero – 1718**
- **Concepcion – 1731**
- **San Jose – 1720**
- **San Juan –1731**
- **Espada – 1731**

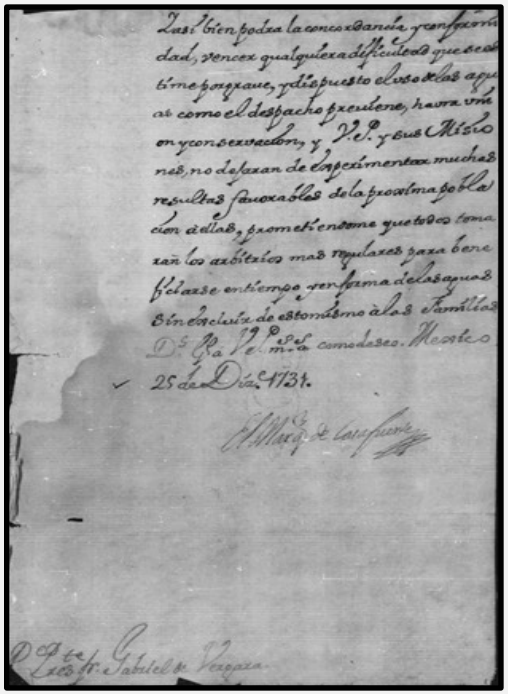
Drawing by Jack Jackson



The First Water Management Policy in Texas







Series 1, General Manuscripts 1717-1789,
Box 2C14, Vol. 2, December 25, 1731.

The Viceroy wrote to Father Vergara:

… shall divide and distribute the water, giving both the missions and the Islander families a share of it …

…the [water] **is sufficient for the use and benefit of all, it is just that its usefulness should be in common…**

By rotating the apportionment of, every interested party being assigned his days …

…there will be cooperation and conservation …

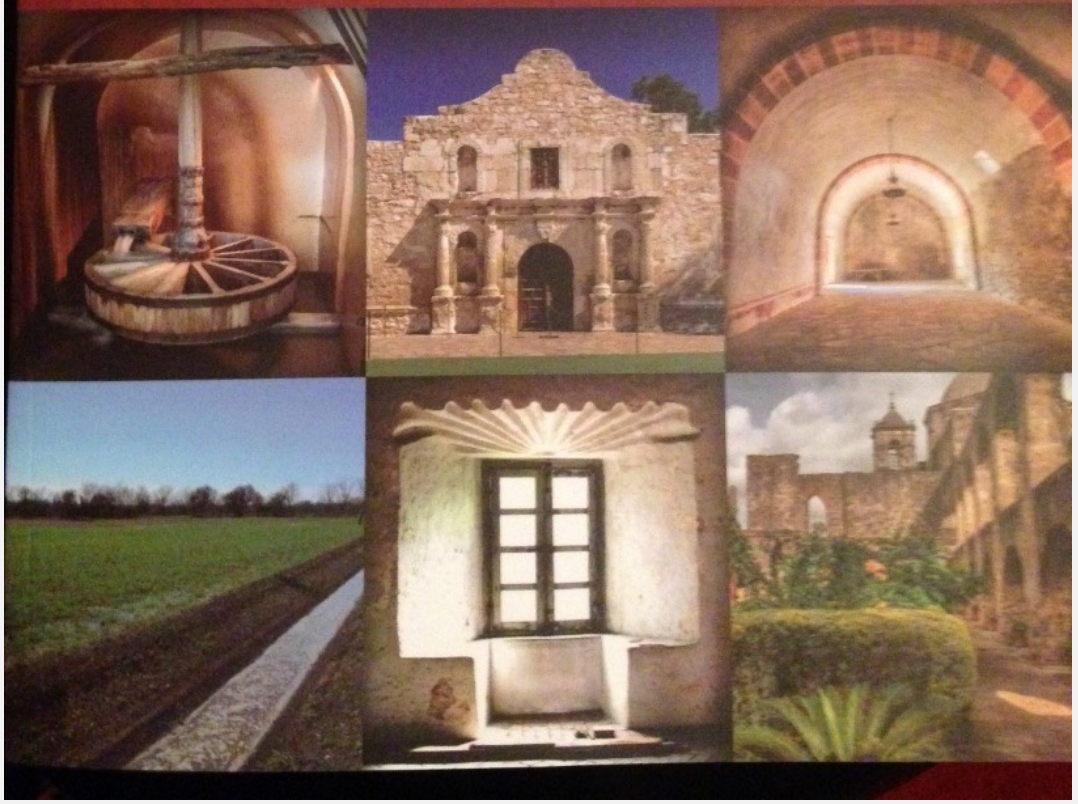
Courtesy Bexar Archives Online.
The Briscoe Center for American History,
The University of Texas at Austin.

San Antonio Missions

Texas, United States of America

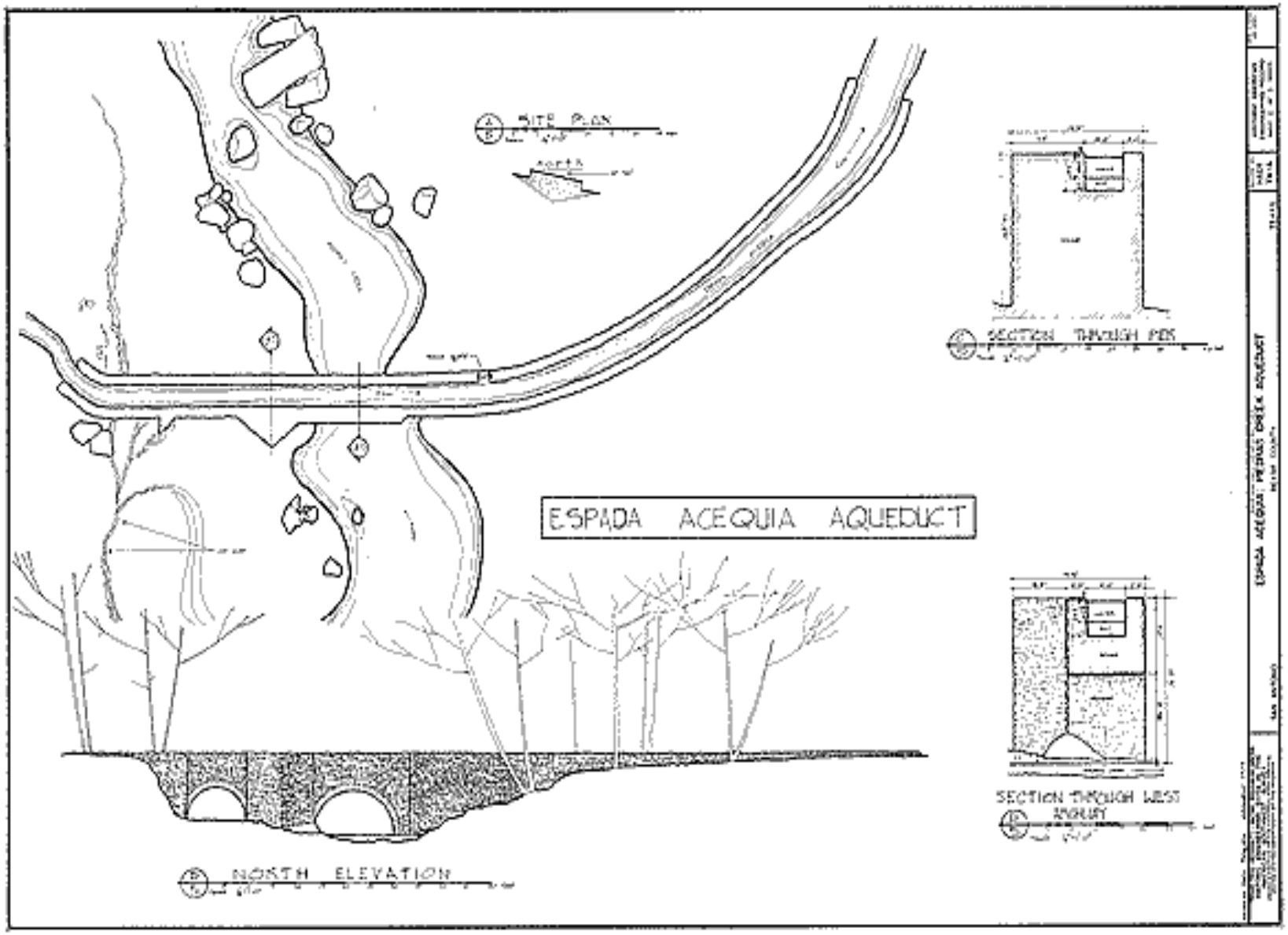
Nomination to the World Heritage List by the United States of America

JANUARY 2014




copyright 1997 George Nelson

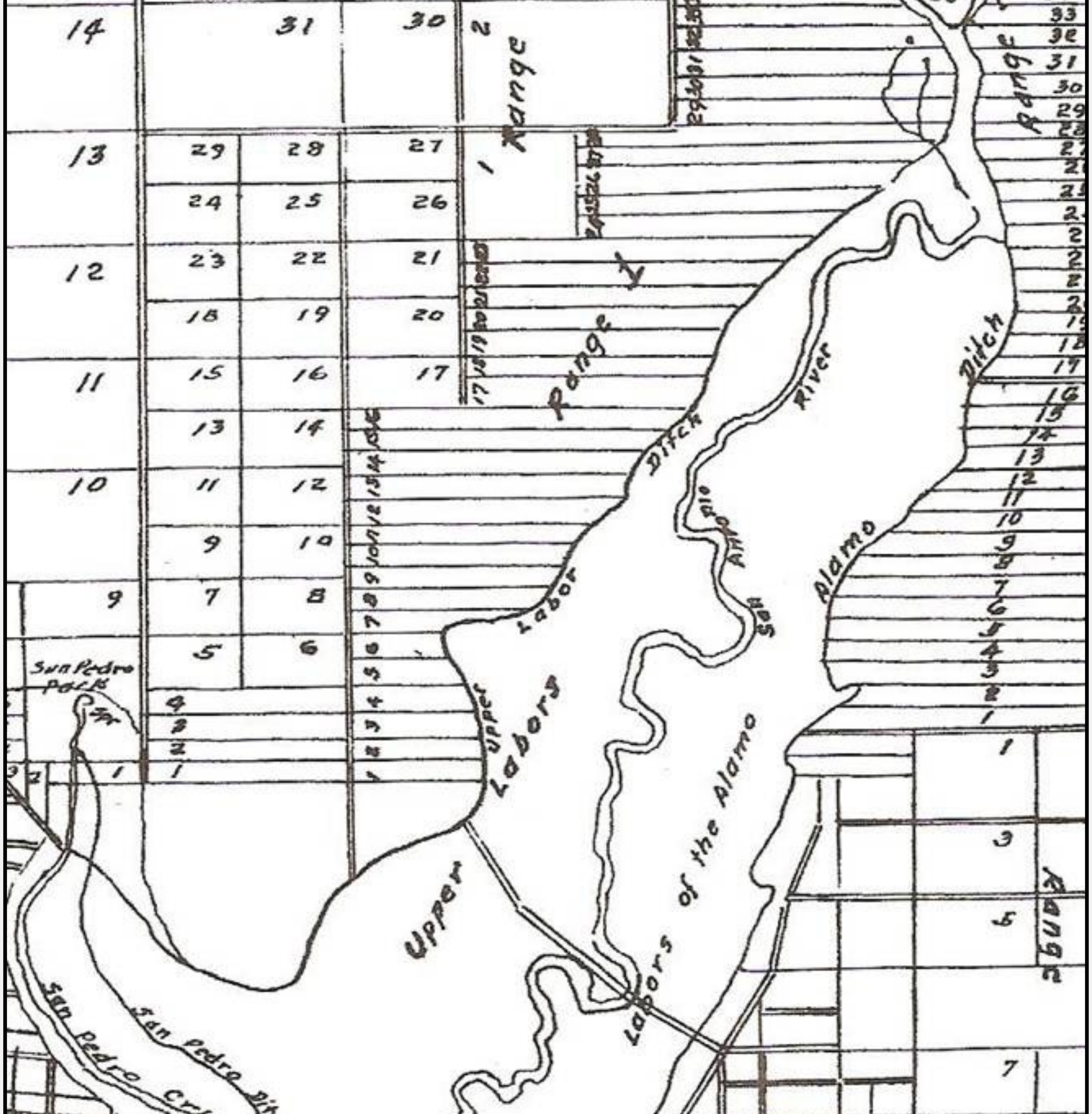
Espada Headgate/*Acequia* Today


SITE PLAN
SECTION THROUGH PIER
ESPADA ACEQUIA AQUEDUCT
SECTION THROUGH WEST ABUTMENT
NORTH ELEVATION

OLD STONE AQUEDUCT CARRYING ESPADA DITCH ACROSS PIEDRAS CREEK.

Water Shaped & Still Shapes our Space

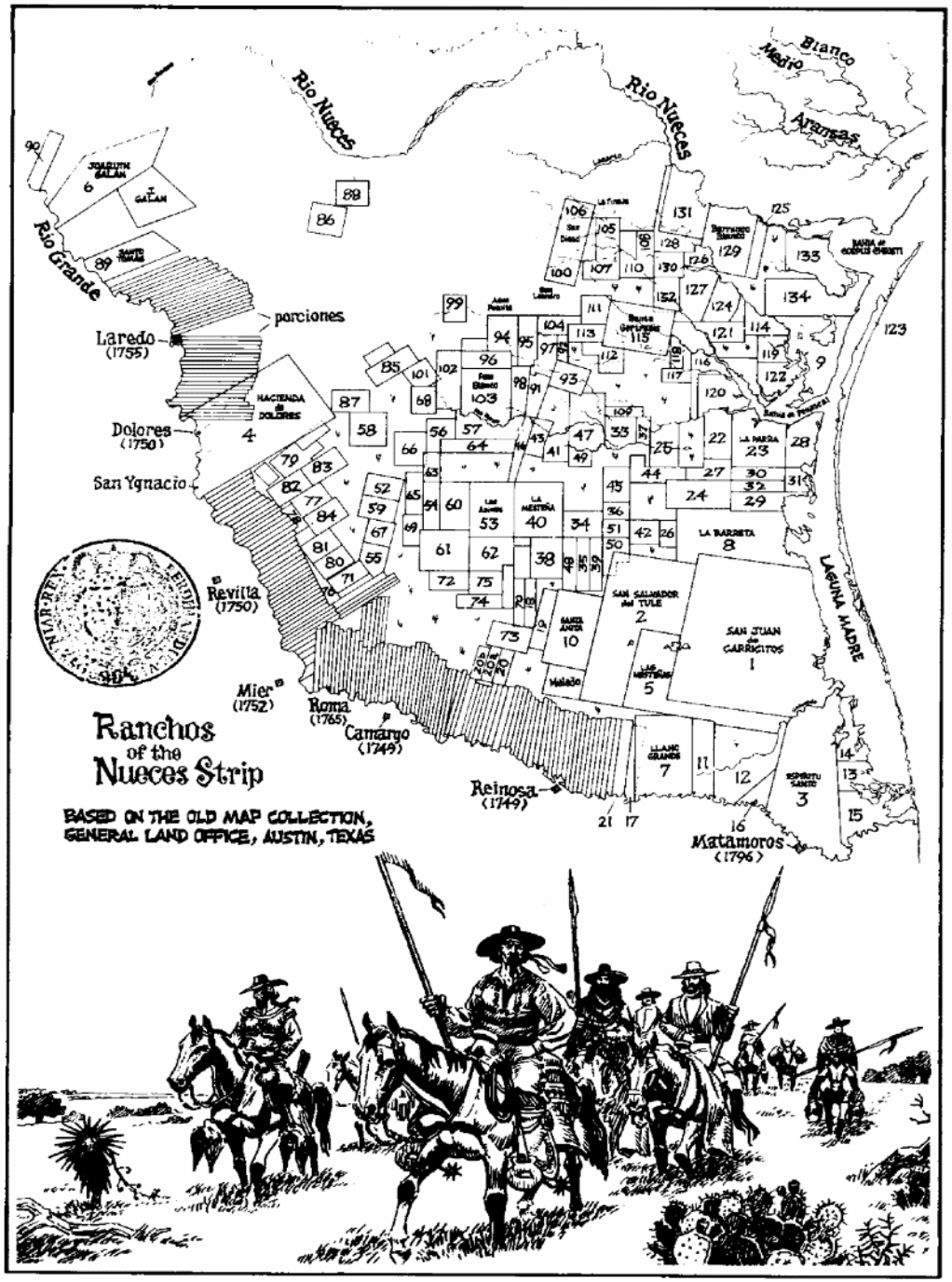
FIG. 6.—Mission ditches below San Antonio.

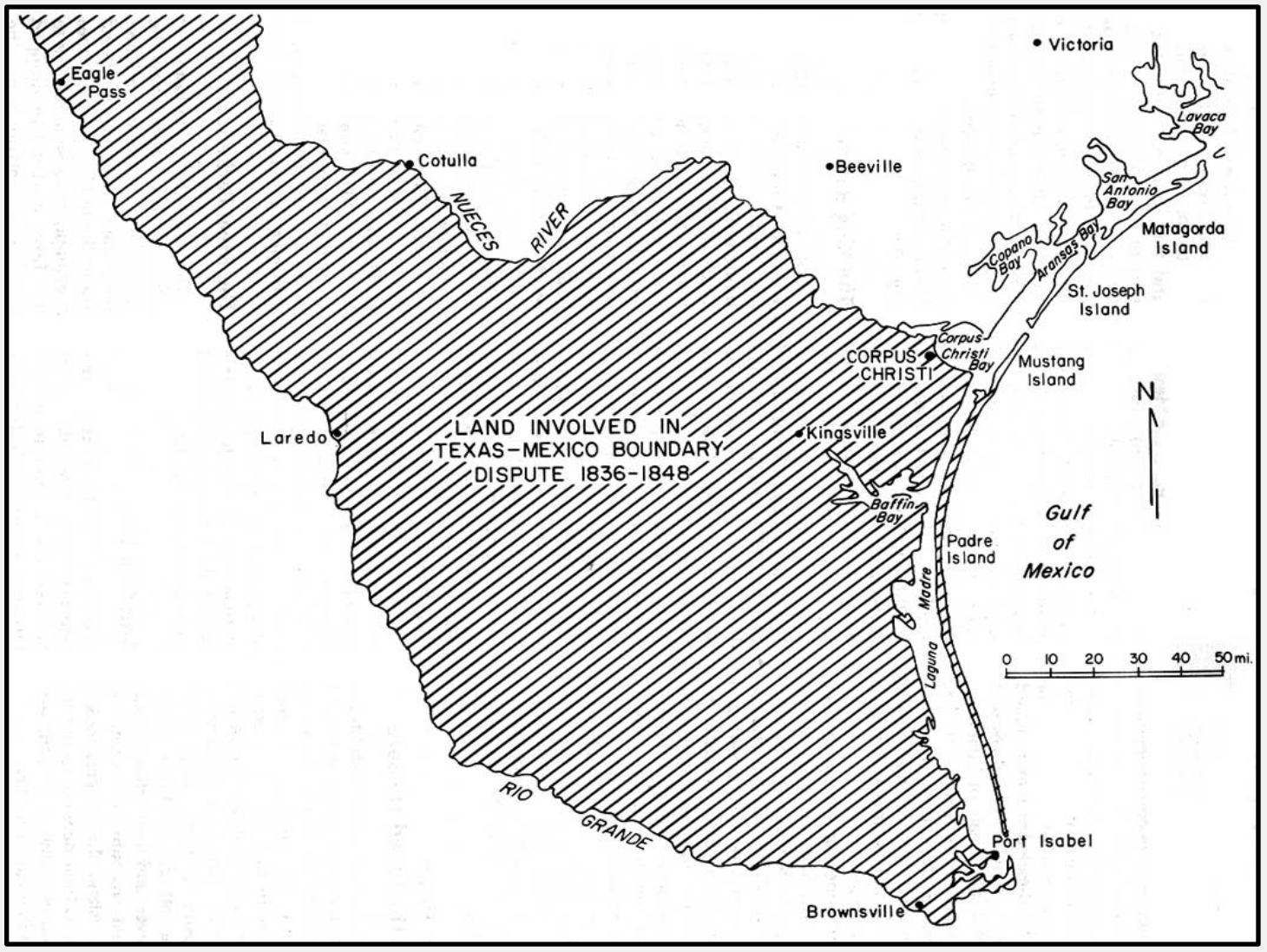


Range 1
Range
Ditch
River
Alamo
San Antonio
San
Labor Ditch
Upper Labors
Upper
Upper Labors
Labors of the Alamo
San Pedro Park
Spr
San Pedro Ditch
San Pedro Crk
Range

Groundwater Formed Communities in the *Wild Horse Desert*

Part of Nuevo Santander

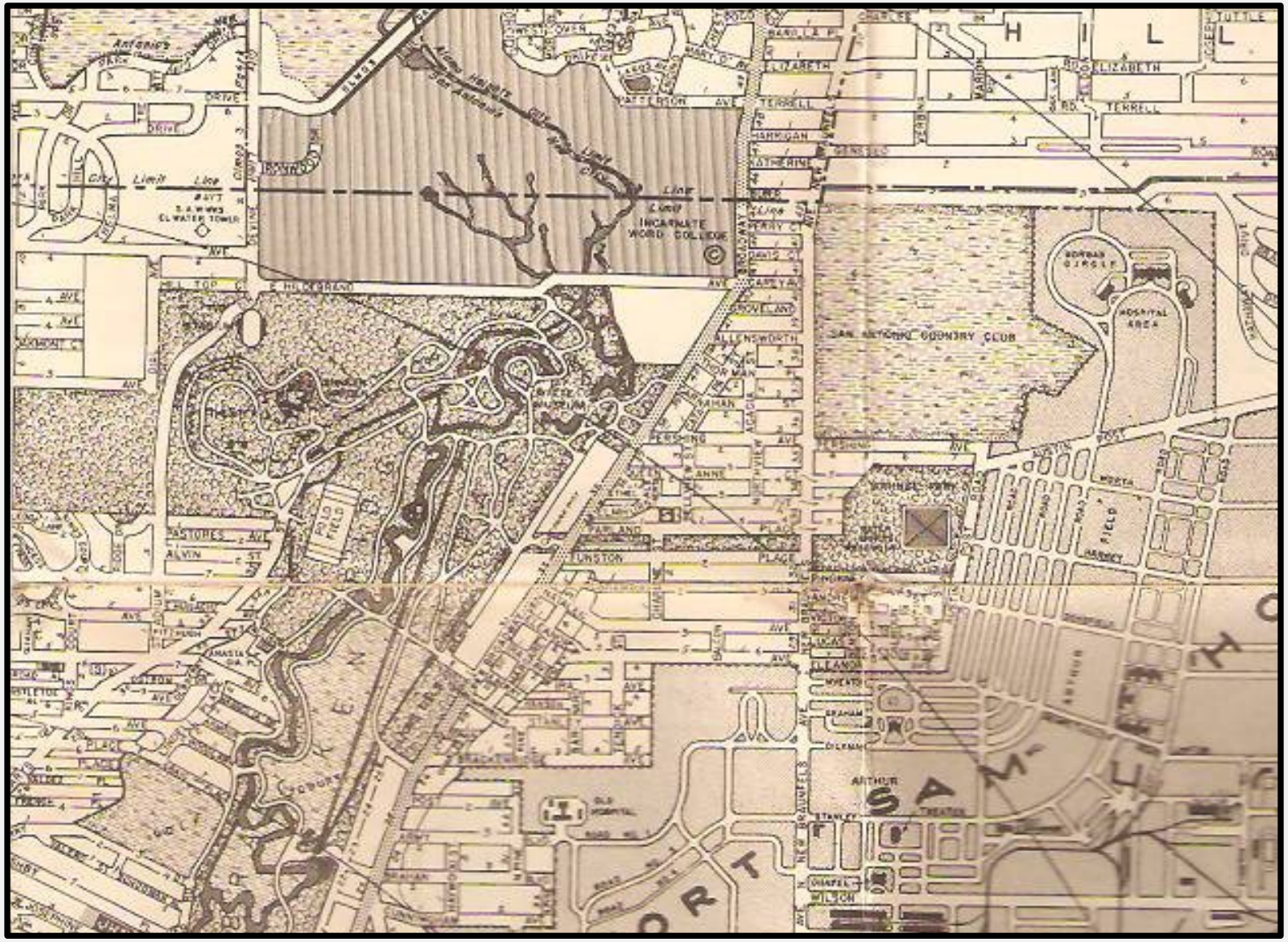

Rio Nueces
Rio Nueces
Blanco
Medio
Aransas
Rio Grande
porciones
Laredo
(1755)
Dolores
(1750)
San Ygnacio
Revilla
(1750)
Mier
(1752)
Roma
(1765)
Camargo
(1749)
Reinosa
(1749)
Matamoros
(1796)
LAGUNA MADRE
Ranchos
of the
Nueces Strip
BASED ON THE OLD MAP COLLECTION,
GENERAL LAND OFFICE, AUSTIN, TEXAS


Eagle Pass
Cotulla
NUECES RIVER
Beeville
Victoria
Lavaca Bay
San Antonio Bay
Matagorda Island
Copano Bay
Aransas Bay
St. Joseph Island
Corpus Christi Bay
CORPUS CHRISTI
Mustang Island
N
LAND INVOLVED IN TEXAS-MEXICO BOUNDARY DISPUTE 1836-1848
Laredo
Kingsville
Baffin Bay
Padre Island
Gulf of Mexico
Laguna Madre
0 10 20 30 40 50 mi.
RIO GRANDE
Port Isabel
Brownsville


Google earth

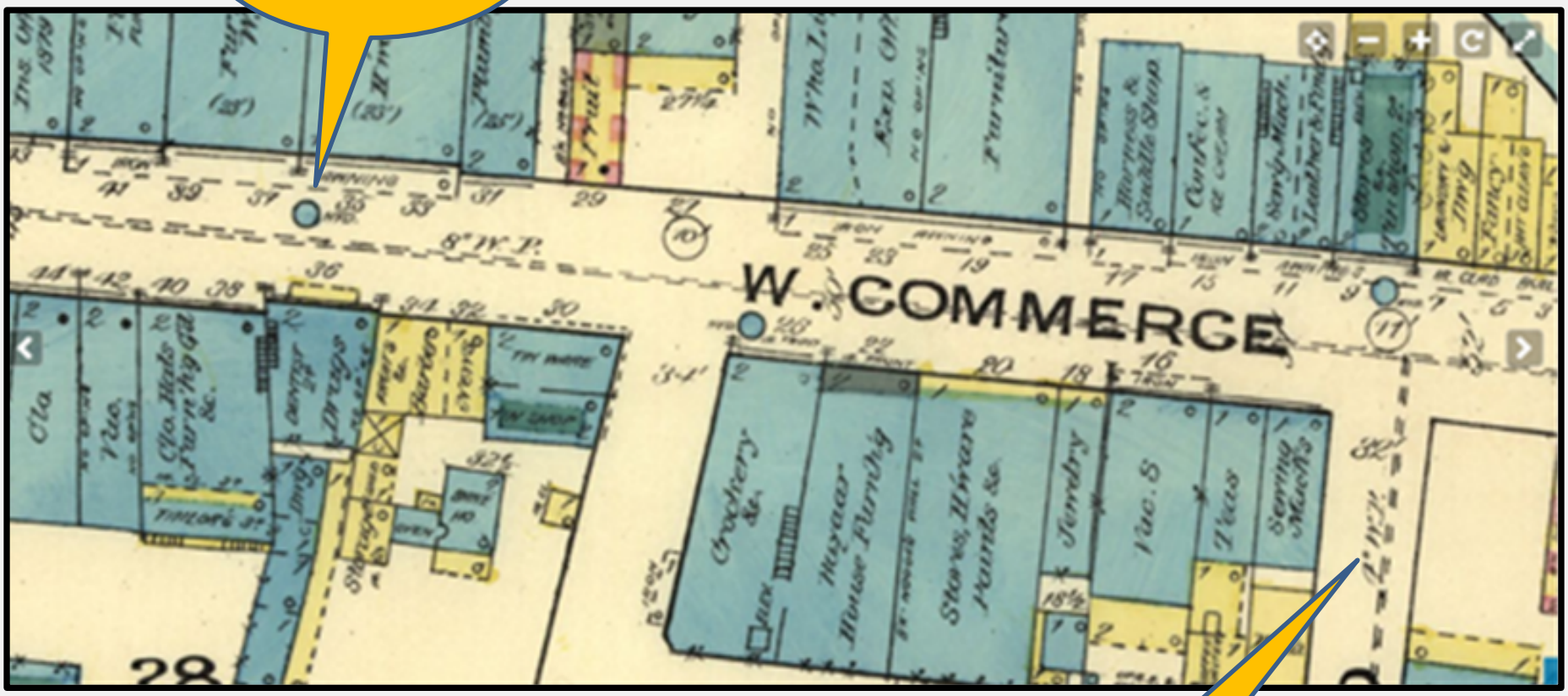
George Washington Brackenridge, 1879
"Water renders the land its value."

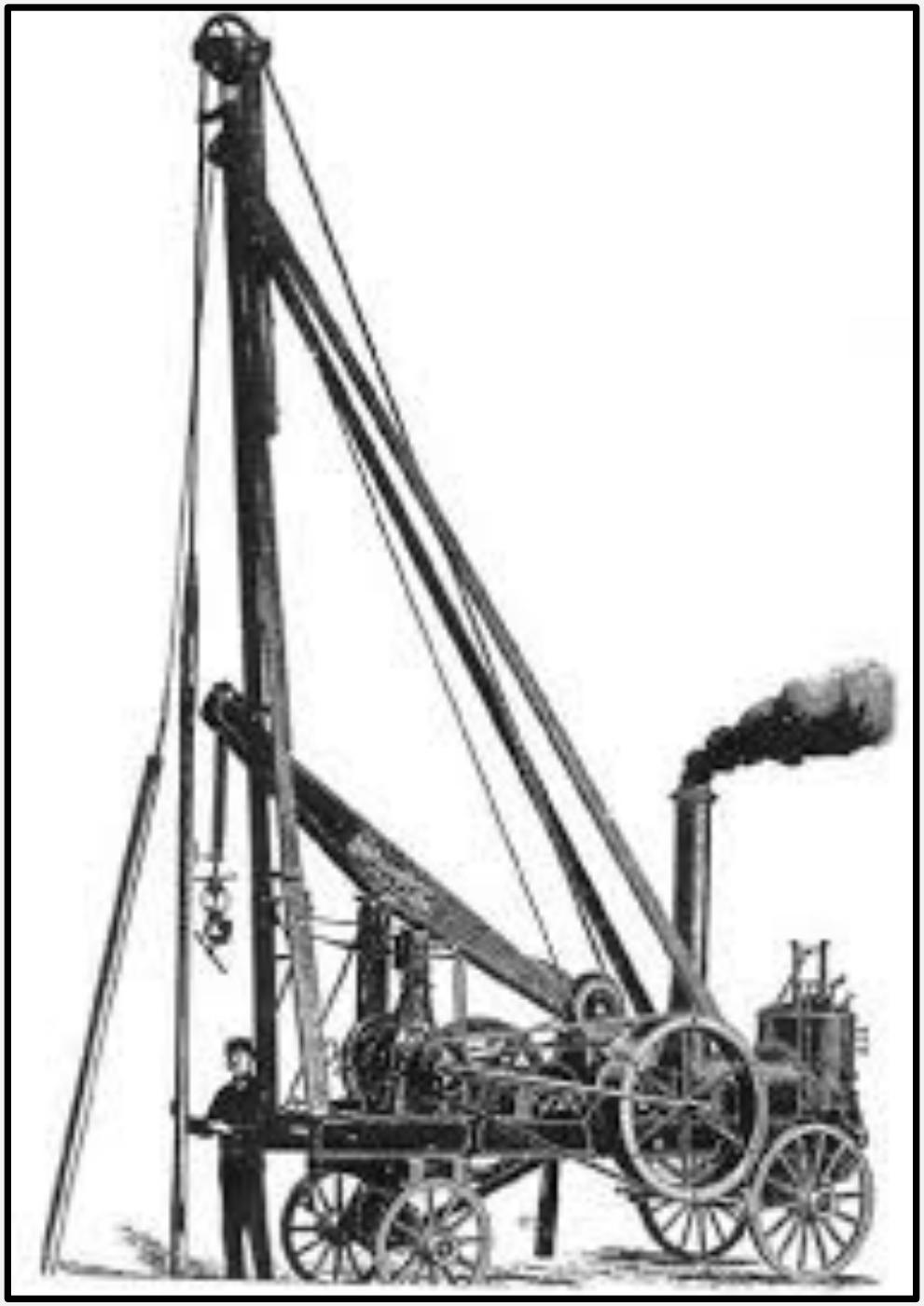
The San Antonio Water Works Company 1879



Sanborn Insurance Maps –
indicates why San Antonio needed
a municipal water system …

for fire insurance coverage.


Fire Hydrant
W. COMMERCE
Water Line Size and Location



What came first …

the chicken or the egg?

1891 Water wells at site of today's Arneson River Theatre on the Riverwalk.

These wells were supposedly drilled by M.C. Judson for Brackenridge's Water Works Company – 3,000,000 gallons per day from …

groundwater.

By 1920, 120+ deep wells drilled into the aquifer in Bexar County.

1930s and 1940s

Very Serious Challenges to Private Ownership of Groundwater

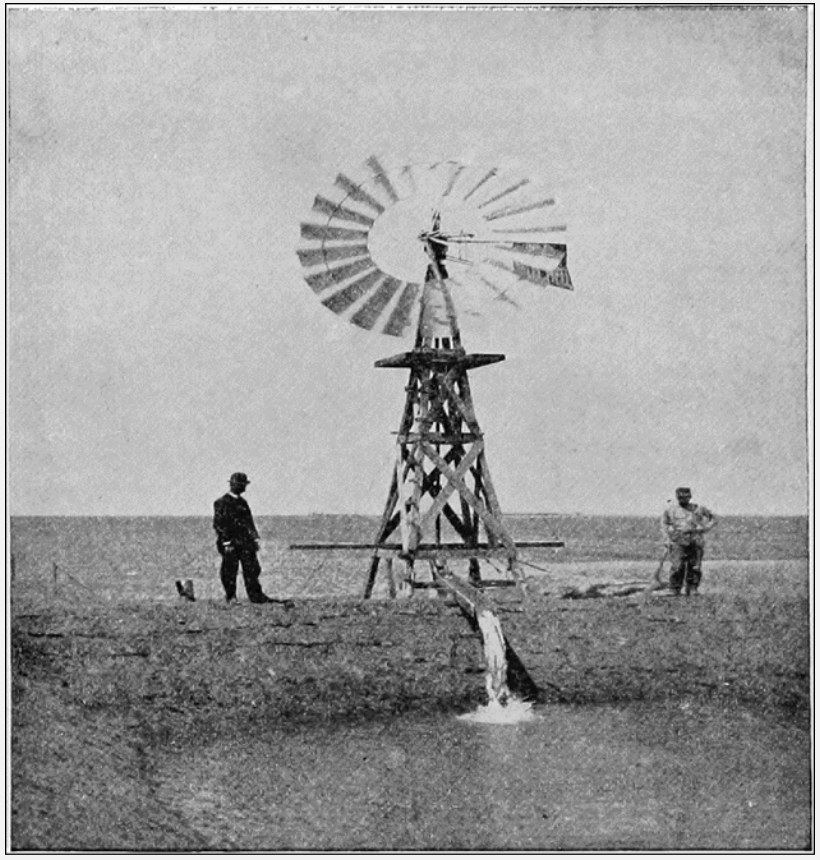
“Of Urgent Concern” –
What Prompted House Bill 162,
the Groundwater Conservation Act of 1949

Published in the Panhandle-Plains Historical Review, 2017

Author: Charles R. Porter, Jr., PhD

Visiting Professor

St. Edward's University



LITTLEFIELD LANDS

THE BEST FARM LANDS

In the Famous Shallow Water Belt of the Upper Brazos Valley, Texas. Rich Land, Ideal Climate, Low Prices, Easy Terms

CROPS GROWN ON LITTLEFIELD LANDS

EVERY ACRE TWINS—LEVEL—ALL TILLABLE

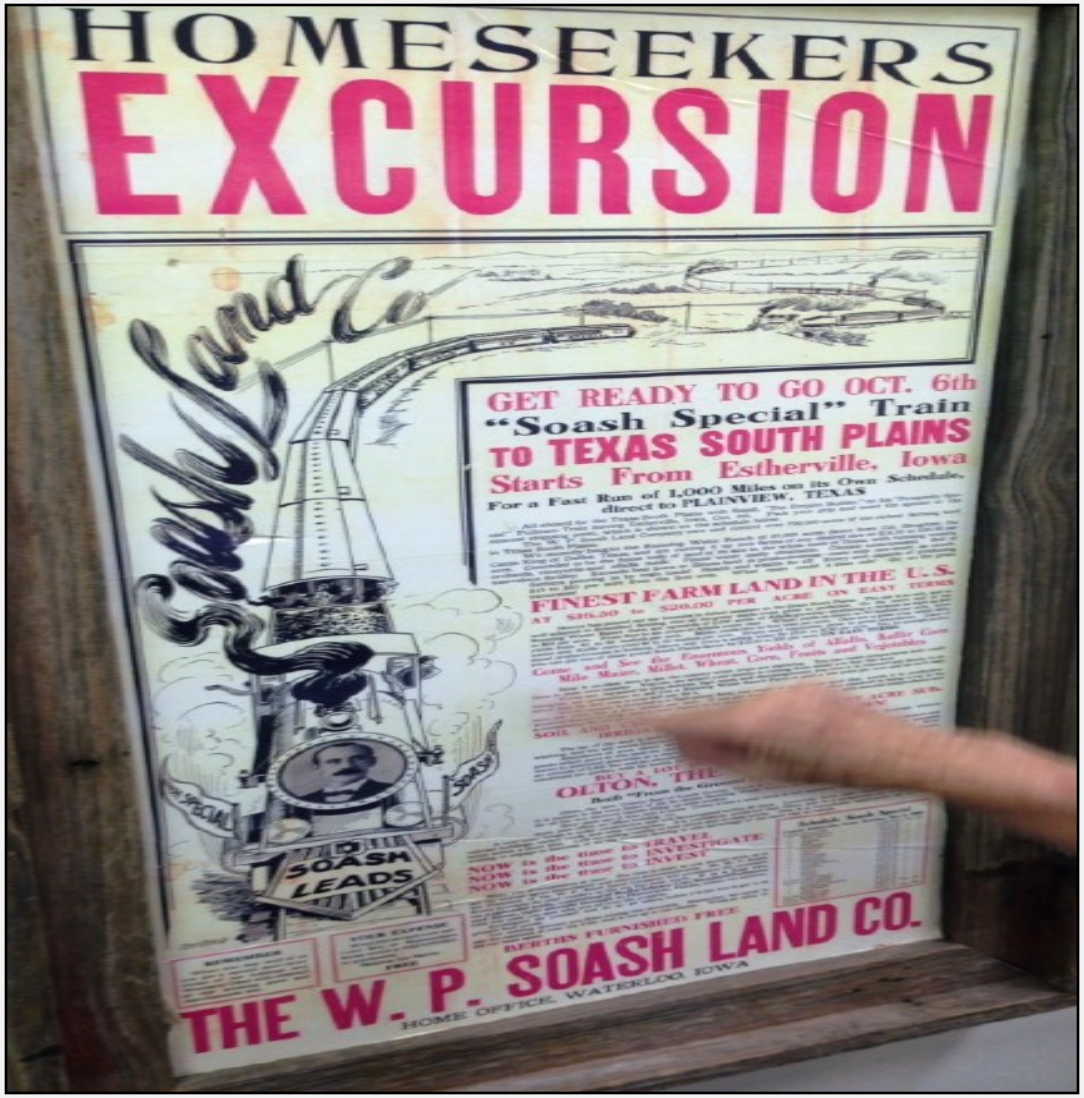
RAWLINGS-KNAPP REALTY COMPANY

419 Commerce Building — GENERAL AGENTS — KANSAS CITY, MISSOURI

ARTHUR P. DUGGAN, Sales Manager

From *Littlefield Lands: Colonization on the Texas Plains, 1912-1920*, by David B. Gracy II

"Finest water easily obtainable. Climate unsurpassed…Soil of marvelous fertility…Health and wealth for all!"



"Pumps came along... and the rest was history."


Irrigation well being pumped at about 1,150 gallons a minute in Hale County, Texas (1938)

1949's New House Member *Dolph Briscoe, Jr.*

My campaign platform was pretty safe…We were going to take action to help conserve our water, but I was against any legislation that would take control away from individual property owners…I was not going to let the state tell a farmer how much water he could pump out of the ground.

Dolph Briscoe: My Life in Texas Ranching and Politics – As Told to Don Carleton

(Austin: Center for American History, 2008) 71.

Three Geological Containers Determine Ownership and Agencies of Regulation

Natural Surface Water – State-owned water/TCEQ

Diffused Surface Water – Landowner-owned water/TCEQ

Groundwater – Landowner-owned water/GCDs (where they exist)

Of Equal Importance - Uses of Water in Texas
For food, drink, and . . . jobs

Irrigation 60%-70%

Municipal/industrial 20%- 30%

Domestic/livestock 10%

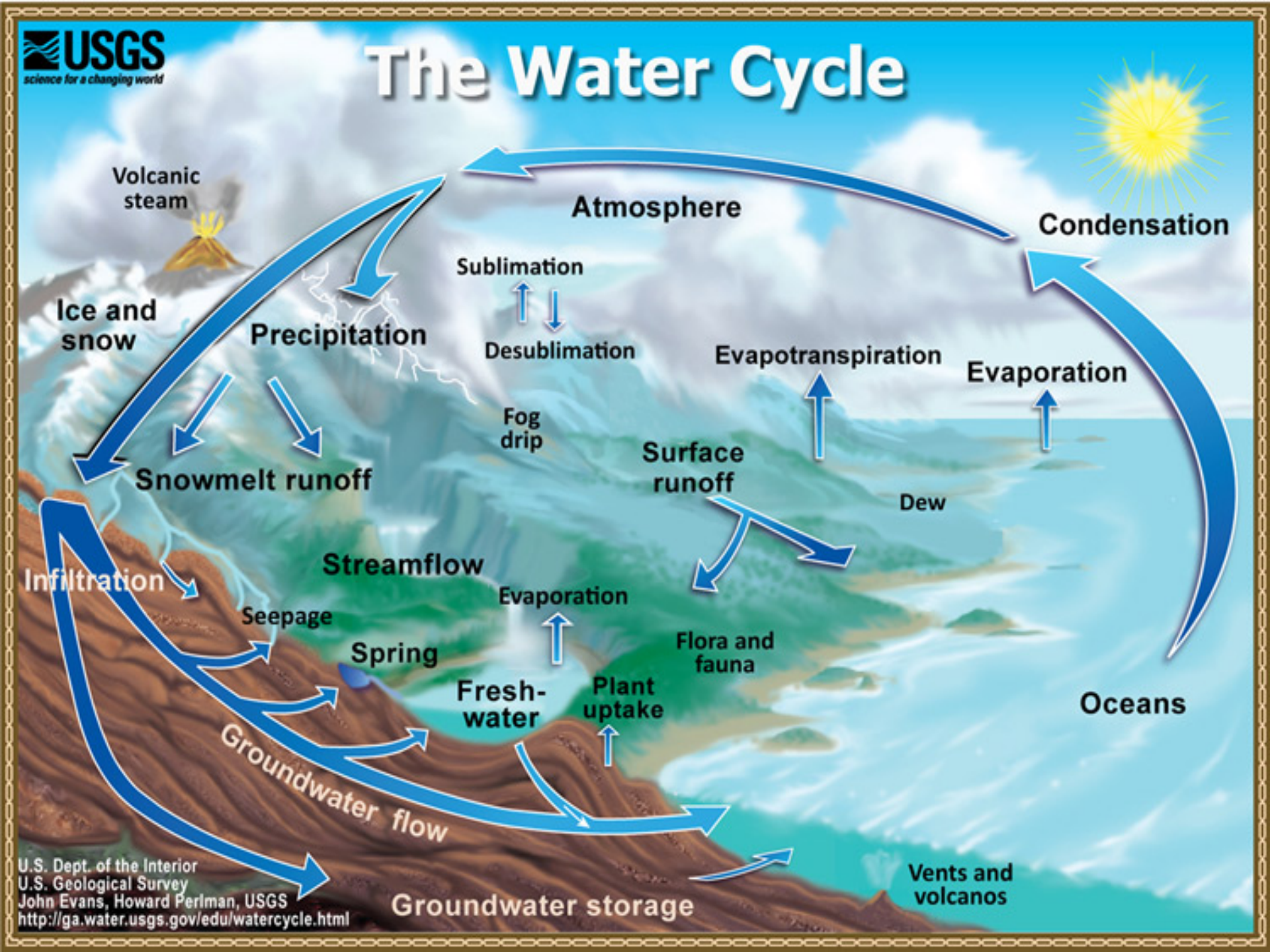
Continue to keep in mind…

Acre-foot – volume of water needed to cover 1 acre to a depth of 1 foot = **325,851 gallons.**

One inch of rain on one acre of land **= 27,154 gallons.**

and . . .

water ignores political boundaries.


USGS
science for a changing world
The Water Cycle
Volcanic steam
Atmosphere
Condensation
Sublimation
Desublimation
Ice and snow
Precipitation
Evapotranspiration
Evaporation
Fog drip
Surface runoff
Snowmelt runoff
Dew
Streamflow
Infiltration
Evaporation
Seepage
Spring
Flora and fauna
Fresh-water
Plant uptake
Oceans
Groundwater flow
Vents and volcanos
Groundwater storage
U.S. Dept. of the Interior
U.S. Geological Survey
John Evans, Howard Perlman, USGS
http://ga.water.usgs.gov/edu/watercycle.html

Surface Water – Container #1

TCEQ including
Watermasters and 17 River Authorities

Spanish Colonial and Texas Water Law - Ownership

Spain: 

Surface water was held in trust by the King for the people.

Groundwater was owned by the surface landowner.

Texas: 

Surface water is owned by the state and held in trust for the people.

Groundwater is owned by the surface landowner. (SB 332, 82nd Texas Legislature, 2011)

Natural Surface Water

Texas Water Code Sec. 11.0235. POLICY REGARDING WATERS OF THE STATE. (a) The waters of the state are held in trust for the public, and the right to use state water may be appropriated only as expressly authorized by law.

Natural Surface Water

Under the Texas Water Code, all natural surface water found in watercourses is owned by the state and is held in trust for the people.

It includes the ordinary flow, underflow and tides of every flowing natural watercourse (has as definite bed and banks) in the state. Storm water and floodwater found in natural lakes, rivers, and streams is also state water, as is the water in springs that form the headwaters of natural streams. A riparian right holder cannot take flowing flood waters.

It is allocated to the most senior rights during scarcity.

Surface Water in Texas

Who is responsible for regulating surface water?

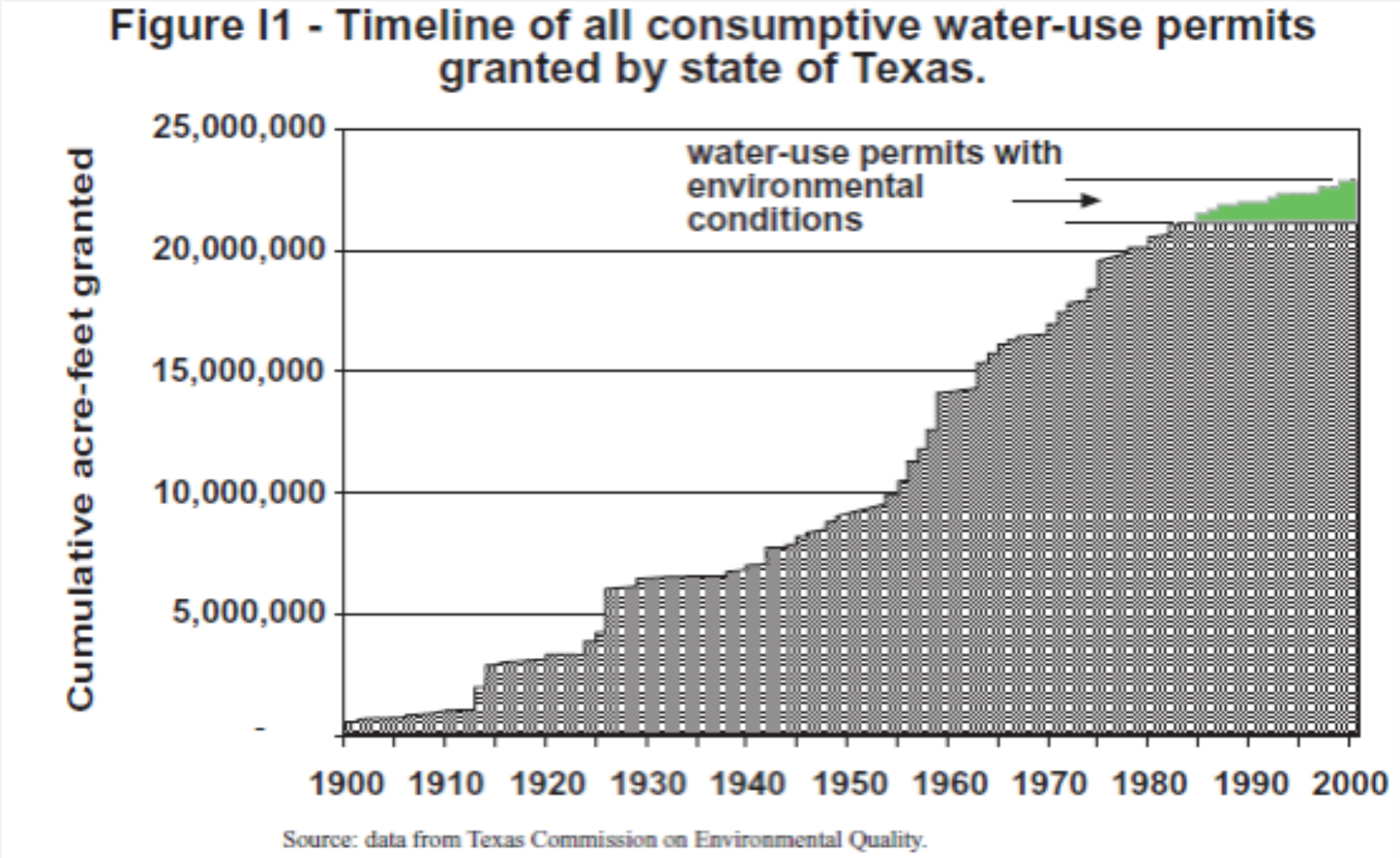
Water Rights Adjudication Act of 1967

- To, for once and for all, establish valid surface water rights in Texas. After 1969, any claims not adjudicated were barred and extinguished. Whatever riparian rights remaining in Texas after the Act were adjudicated and merged into the current appropriative right or "first-in-time, first-in-right" system.

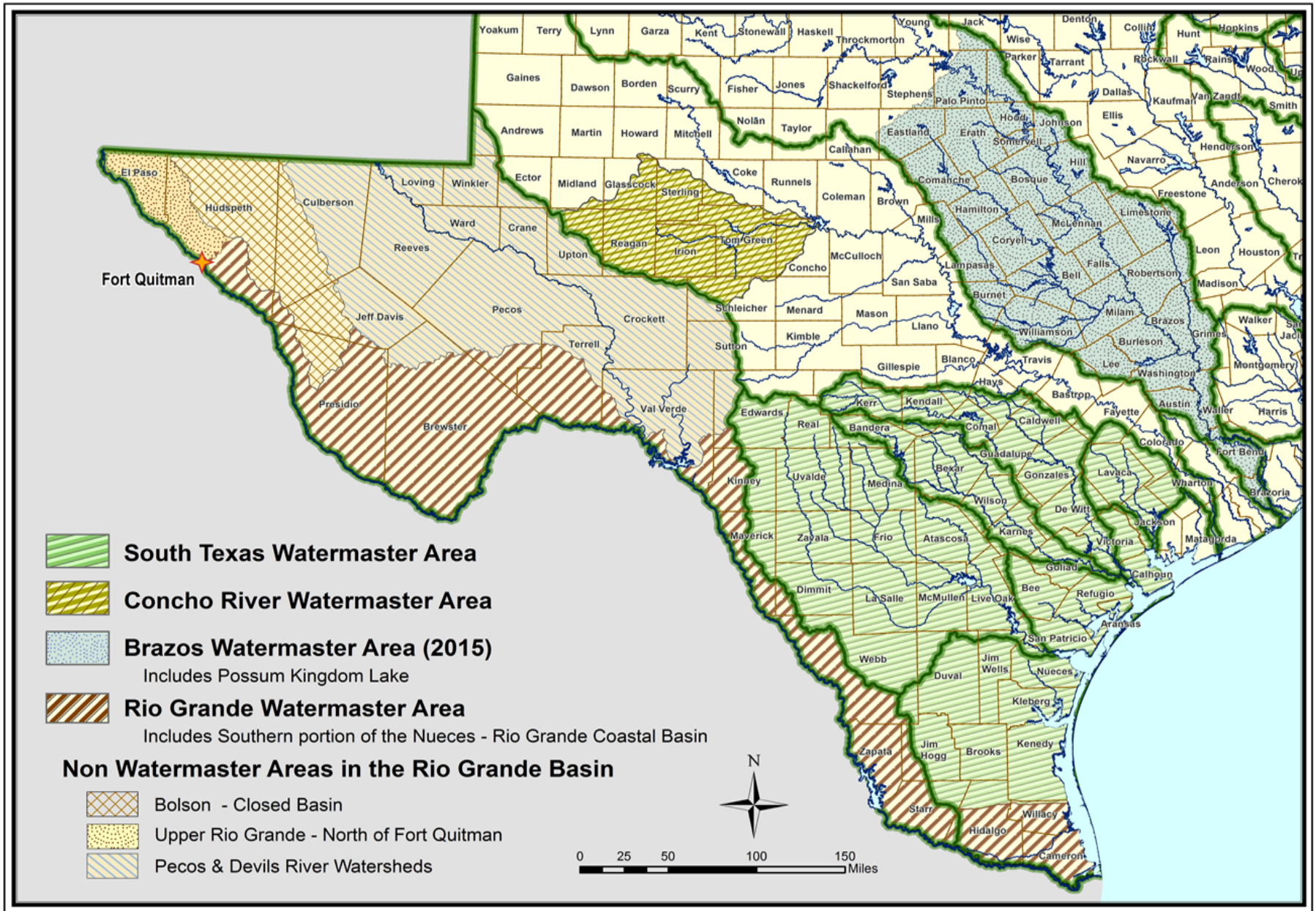
- Authorization to use or to appropriate state water requires that one obtain a permit, or hold a certificate of adjudication authorizing the diversion and use of the water.

- Certificates of adjudication are historic evidences of the right to appropriate state water. They, together with permits, are current evidence of authority to divert and use State water. Riparian rights were limited to domestic and livestock (D&L) and wildlife uses.

Surface Water is Fully Appropriated Today



From the National Wildlife Federation - "Bays in Peril" October, 2004



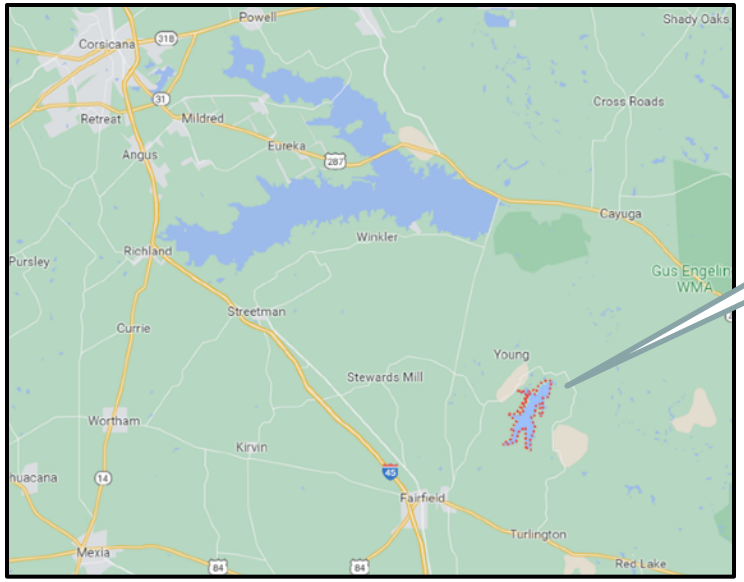
Texas Watermaster Areas

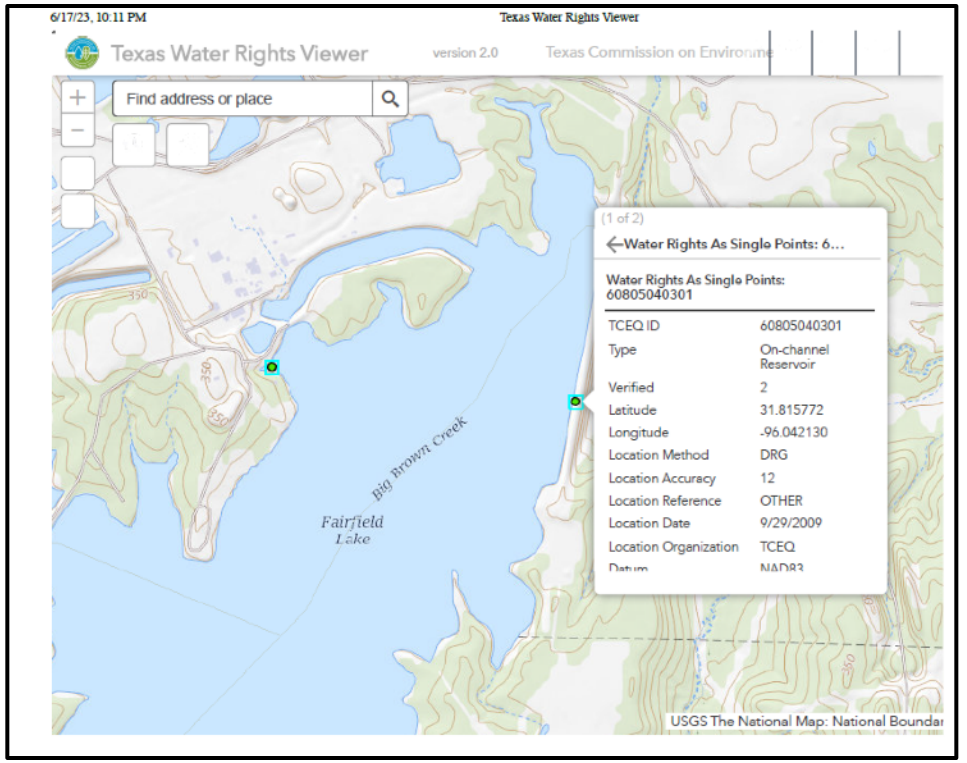
Watermasters in Texas

About 1/3 of all surface water in Texas is allocated by Watermasters

May have a major impact on value of a ranch property with rights to surface water for irrigation.

A future problem for disclosure cases.





Newest Surface Water Issue: Fairfield Lake

Texas Parks & Wildlife's Decision to Use Eminent Domain

An Unfortunate Situation

More places in our state than anyone realizes!

Agent Duties Under the New 2023 Waters of the U.S. (WOTUS) Rules

By: Dr. Charles Porter

May 1, 2023

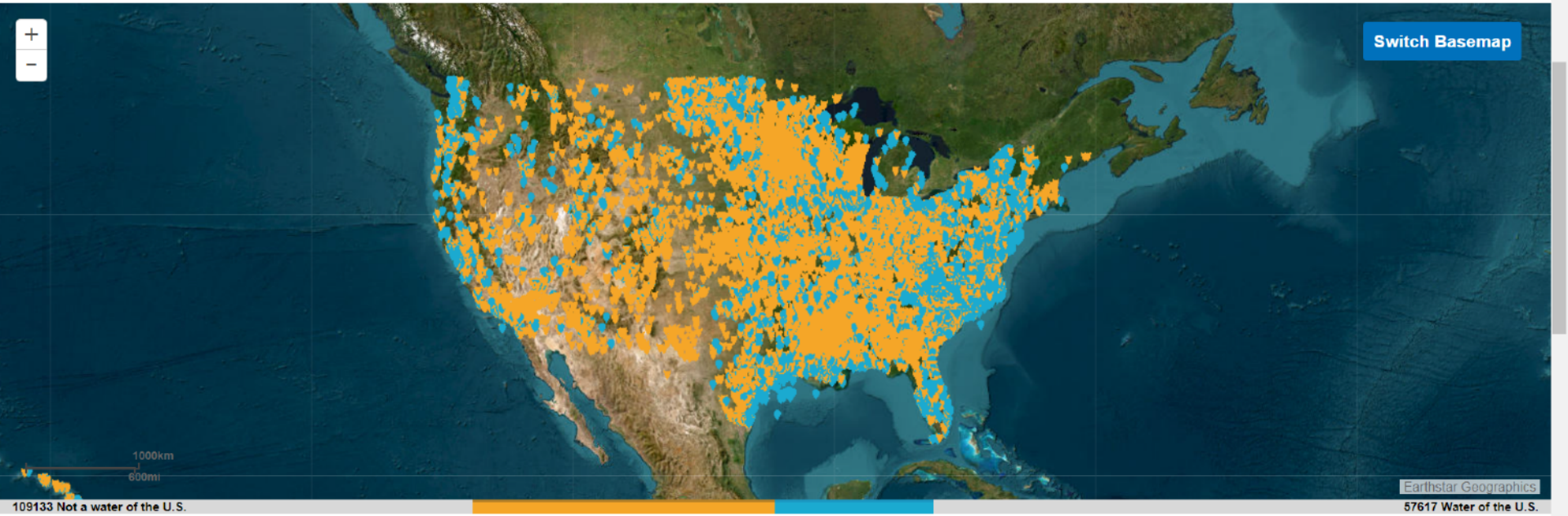
WASHINGTON (January 11, 2023) – National Association of Realtors® President Kenny Parcell issued the following statement in response to the Environmental Protection Agency's and Army Corps of Engineers' final Waters of the United States (WOTUS) rule:

"We are very concerned about the recently announced WOTUS rule. The Environmental Protection Agency's and Army Corps of Engineers' final rule does not provide the clarity and certainty essential for predictable and efficient permitting as we had hoped. In turn, the rule offers vague terms and unclear definitions that will make it exceedingly difficult for anyone or business who develops property to comply with the Clean Water Act's requirements.

"NAR members work to protect and steward water resources, and a clear, efficient definition of WOTUS would support this effort. Regrettably, EPA's new water rule not only makes these efforts more difficult, but it also puts sorely needed infrastructure projects at risk and threatens to make housing even more expensive for America's families."

search, sort, map, view, and download approved JDs from both agencies using different search parameters (e.g., by year, State, watershed). Corps approved JD forms can be found on the Corps JD public interface.

Pins approximate record locations, do not represent the full extent of waters of the U.S., and are not to scale.



166750

total records displayed

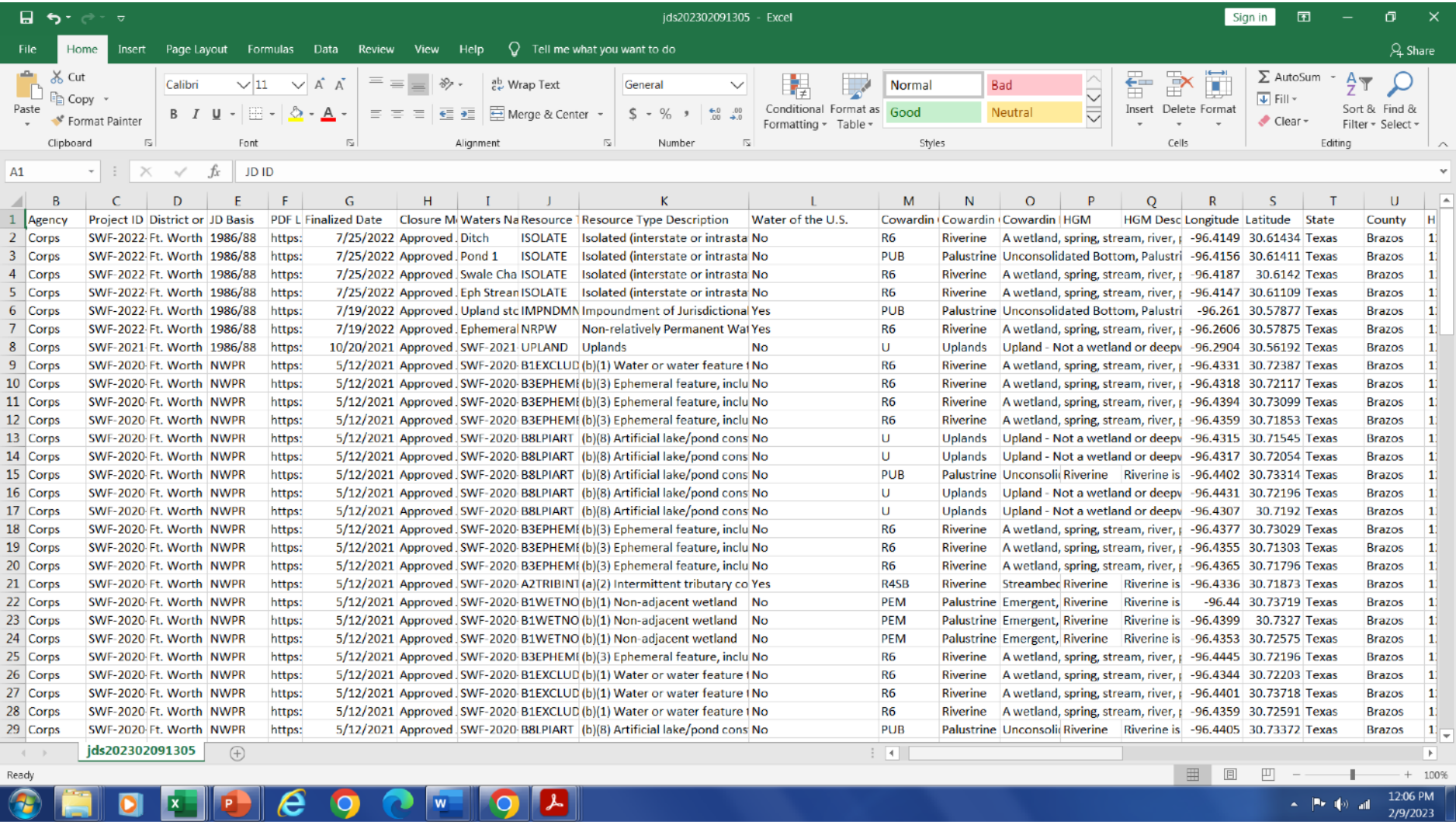
Not a water of the U.S. Water of the U.S.

Search for a determination Search by location

Establishing secure connection...

https://watersgeo.epa.gov/cwa/CWA-JDs/?searchText=colorado%20river%20texas&pageNum=1

Project ID	County	State	Date	JD Basis	Water of the U.S.
SWF-2022-00261 *Show Resources (4)*	Brazos	Texas	07/25/2022	1986/88	No
SWF-2022-00265 *Show Resources (2)*	Brazos	Texas	07/19/2022	1986/88	Yes
SWF-2021-00232 *Show Resources (1)*	Brazos	Texas	10/20/2021	1986/88	No
SWF-2020-00341 *Show Resources (21)*	Brazos	Texas	05/12/2021	NWPR	No, Yes
SWF-2020-00354 *Show Resources (5)*	Brazos	Texas	03/18/2021	NWPR	No
SWG-2018-00174 *Show Resources (2 of 64)*	Fort Bend	Texas	03/11/2021	NWPR	No, Yes
SWF-2020-00499	Brazos	Texas	01/06/2021	NWPR	No



jds202302091305 - Excel

Agency	Project ID	District or	JD Basis	PDF L	Finalized Date	Closure M	Waters Na	Resource	Resource Type Description	Water of the U.S.	Cowardin	Cowardin	Cowardin	HGM	HGM Desc	Longitude	Latitude	State	County	H
Corps	SWF-2022-	Ft. Worth	1986/88	https:	7/25/2022	Approved	Ditch	ISOLATE	Isolated (interstate or intrasta	No	R6	Riverine	A wetland, spring, stream, river,			-96.4149	30.61434	Texas	Brazos	1
Corps	SWF-2022-	Ft. Worth	1986/88	https:	7/25/2022	Approved	Pond 1	ISOLATE	Isolated (interstate or intrasta	No	PUB	Palustrine	Unconsolidated Bottom, Palustri			-96.4156	30.61411	Texas	Brazos	1
Corps	SWF-2022-	Ft. Worth	1986/88	https:	7/25/2022	Approved	Swale Cha	ISOLATE	Isolated (interstate or intrasta	No	R6	Riverine	A wetland, spring, stream, river,			-96.4187	30.6142	Texas	Brazos	1
Corps	SWF-2022-	Ft. Worth	1986/88	https:	7/25/2022	Approved	Eph Strean	ISOLATE	Isolated (interstate or intrasta	No	R6	Riverine	A wetland, spring, stream, river,			-96.4147	30.61109	Texas	Brazos	1
Corps	SWF-2022-	Ft. Worth	1986/88	https:	7/19/2022	Approved	Upland stc	IMPNDMN	Impoundment of Jurisdictiona	Yes	PUB	Palustrine	Unconsolidated Bottom, Palustri			-96.261	30.57877	Texas	Brazos	1
Corps	SWF-2022-	Ft. Worth	1986/88	https:	7/19/2022	Approved	Ephemeral	NRPW	Non-relatively Permanent Wat	Yes	R6	Riverine	A wetland, spring, stream, river,			-96.2606	30.57875	Texas	Brazos	1
Corps	SWF-2021	Ft. Worth	1986/88	https:	10/20/2021	Approved	SWF-2021	UPLAND	Uplands	No	U	Uplands	Upland - Not a wetland or deepv			-96.2904	30.56192	Texas	Brazos	1
Corps	SWF-2020-	Ft. Worth	NWPR	https:	5/12/2021	Approved	SWF-2020-	B1EXCLUD	(b)(1) Water or water feature t	No	R6	Riverine	A wetland, spring, stream, river,			-96.4331	30.72387	Texas	Brazos	1
Corps	SWF-2020-	Ft. Worth	NWPR	https:	5/12/2021	Approved	SWF-2020-	B3EPHEME	(b)(3) Ephemeral feature, inclu	No	R6	Riverine	A wetland, spring, stream, river,			-96.4318	30.72117	Texas	Brazos	1
Corps	SWF-2020-	Ft. Worth	NWPR	https:	5/12/2021	Approved	SWF-2020-	B3EPHEME	(b)(3) Ephemeral feature, inclu	No	R6	Riverine	A wetland, spring, stream, river,			-96.4394	30.73099	Texas	Brazos	1
Corps	SWF-2020-	Ft. Worth	NWPR	https:	5/12/2021	Approved	SWF-2020-	B3EPHEME	(b)(3) Ephemeral feature, inclu	No	R6	Riverine	A wetland, spring, stream, river,			-96.4359	30.71853	Texas	Brazos	1
Corps	SWF-2020-	Ft. Worth	NWPR	https:	5/12/2021	Approved	SWF-2020-	B8LPIART	(b)(8) Artificial lake/pond cons	No	U	Uplands	Upland - Not a wetland or deepv			-96.4315	30.71545	Texas	Brazos	1
Corps	SWF-2020-	Ft. Worth	NWPR	https:	5/12/2021	Approved	SWF-2020-	B8LPIART	(b)(8) Artificial lake/pond cons	No	U	Uplands	Upland - Not a wetland or deepv			-96.4317	30.72054	Texas	Brazos	1
Corps	SWF-2020-	Ft. Worth	NWPR	https:	5/12/2021	Approved	SWF-2020-	B8LPIART	(b)(8) Artificial lake/pond cons	No	PUB	Palustrine	Unconsoli	Riverine	Riverine is	-96.4402	30.73314	Texas	Brazos	1
Corps	SWF-2020-	Ft. Worth	NWPR	https:	5/12/2021	Approved	SWF-2020-	B8LPIART	(b)(8) Artificial lake/pond cons	No	U	Uplands	Upland - Not a wetland or deepv			-96.4431	30.72196	Texas	Brazos	1
Corps	SWF-2020-	Ft. Worth	NWPR	https:	5/12/2021	Approved	SWF-2020-	B8LPIART	(b)(8) Artificial lake/pond cons	No	U	Uplands	Upland - Not a wetland or deepv			-96.4307	30.7192	Texas	Brazos	1
Corps	SWF-2020-	Ft. Worth	NWPR	https:	5/12/2021	Approved	SWF-2020-	B3EPHEME	(b)(3) Ephemeral feature, inclu	No	R6	Riverine	A wetland, spring, stream, river,			-96.4377	30.73029	Texas	Brazos	1
Corps	SWF-2020-	Ft. Worth	NWPR	https:	5/12/2021	Approved	SWF-2020-	B3EPHEME	(b)(3) Ephemeral feature, inclu	No	R6	Riverine	A wetland, spring, stream, river,			-96.4355	30.71303	Texas	Brazos	1
Corps	SWF-2020-	Ft. Worth	NWPR	https:	5/12/2021	Approved	SWF-2020-	B3EPHEME	(b)(3) Ephemeral feature, inclu	No	R6	Riverine	A wetland, spring, stream, river,			-96.4365	30.71796	Texas	Brazos	1
Corps	SWF-2020-	Ft. Worth	NWPR	https:	5/12/2021	Approved	SWF-2020-	A2TRIBINT	(a)(2) Intermittent tributary co	Yes	R4SB	Riverine	Streambec	Riverine	Riverine is	-96.4336	30.71873	Texas	Brazos	1
Corps	SWF-2020-	Ft. Worth	NWPR	https:	5/12/2021	Approved	SWF-2020-	B1WETNO	(b)(1) Non-adjacent wetland	No	PEM	Palustrine	Emergent,	Riverine	Riverine is	-96.44	30.73719	Texas	Brazos	1
Corps	SWF-2020-	Ft. Worth	NWPR	https:	5/12/2021	Approved	SWF-2020-	B1WETNO	(b)(1) Non-adjacent wetland	No	PEM	Palustrine	Emergent,	Riverine	Riverine is	-96.4399	30.7327	Texas	Brazos	1
Corps	SWF-2020-	Ft. Worth	NWPR	https:	5/12/2021	Approved	SWF-2020-	B1WETNO	(b)(1) Non-adjacent wetland	No	PEM	Palustrine	Emergent,	Riverine	Riverine is	-96.4353	30.72575	Texas	Brazos	1
Corps	SWF-2020-	Ft. Worth	NWPR	https:	5/12/2021	Approved	SWF-2020-	B3EPHEME	(b)(3) Ephemeral feature, inclu	No	R6	Riverine	A wetland, spring, stream, river,			-96.4445	30.72196	Texas	Brazos	1
Corps	SWF-2020-	Ft. Worth	NWPR	https:	5/12/2021	Approved	SWF-2020-	B1EXCLUD	(b)(1) Water or water feature t	No	R6	Riverine	A wetland, spring, stream, river,			-96.4344	30.72203	Texas	Brazos	1
Corps	SWF-2020-	Ft. Worth	NWPR	https:	5/12/2021	Approved	SWF-2020-	B1EXCLUD	(b)(1) Water or water feature t	No	R6	Riverine	A wetland, spring, stream, river,			-96.4401	30.73718	Texas	Brazos	1
Corps	SWF-2020-	Ft. Worth	NWPR	https:	5/12/2021	Approved	SWF-2020-	B1EXCLUD	(b)(1) Water or water feature t	No	R6	Riverine	A wetland, spring, stream, river,			-96.4359	30.72591	Texas	Brazos	1
Corps	SWF-2020-	Ft. Worth	NWPR	https:	5/12/2021	Approved	SWF-2020-	B8LPIART	(b)(8) Artificial lake/pond cons	No	PUB	Palustrine	Unconsoli	Riverine	Riverine is	-96.4405	30.73372	Texas	Brazos	1

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Ready

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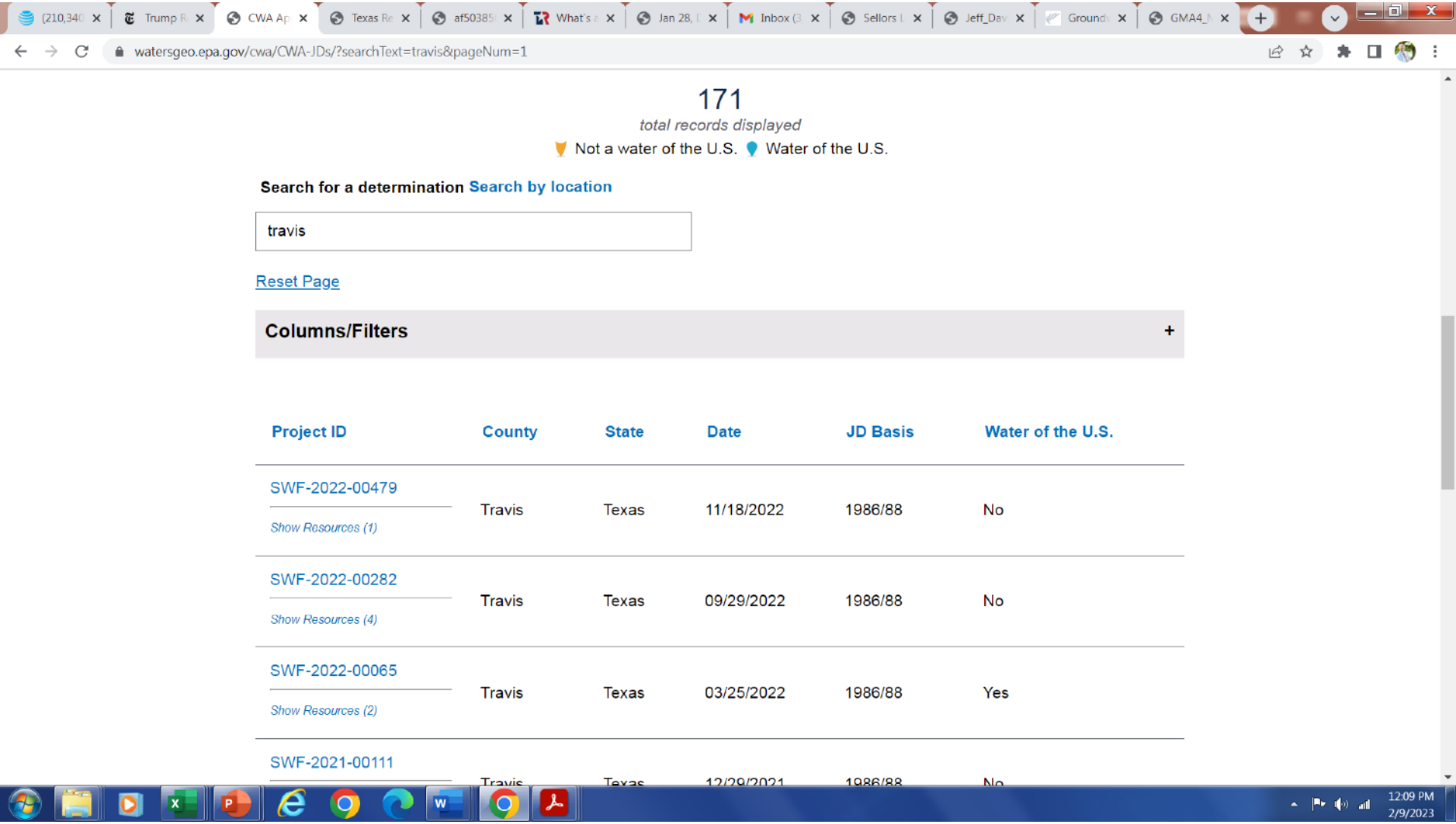
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171
total records displayed
Not a water of the U.S.
Water of the U.S.
Search for a determination
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State
Date
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Water of the U.S.
SWF-2022-00479
Show Resources (1)
Travis
Texas
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1986/88
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SWF-2022-00282
Show Resources (4)
Travis
Texas
09/29/2022
1986/88
No
SWF-2022-00065
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Texas
03/25/2022
1986/88
Yes
SWF-2021-00111
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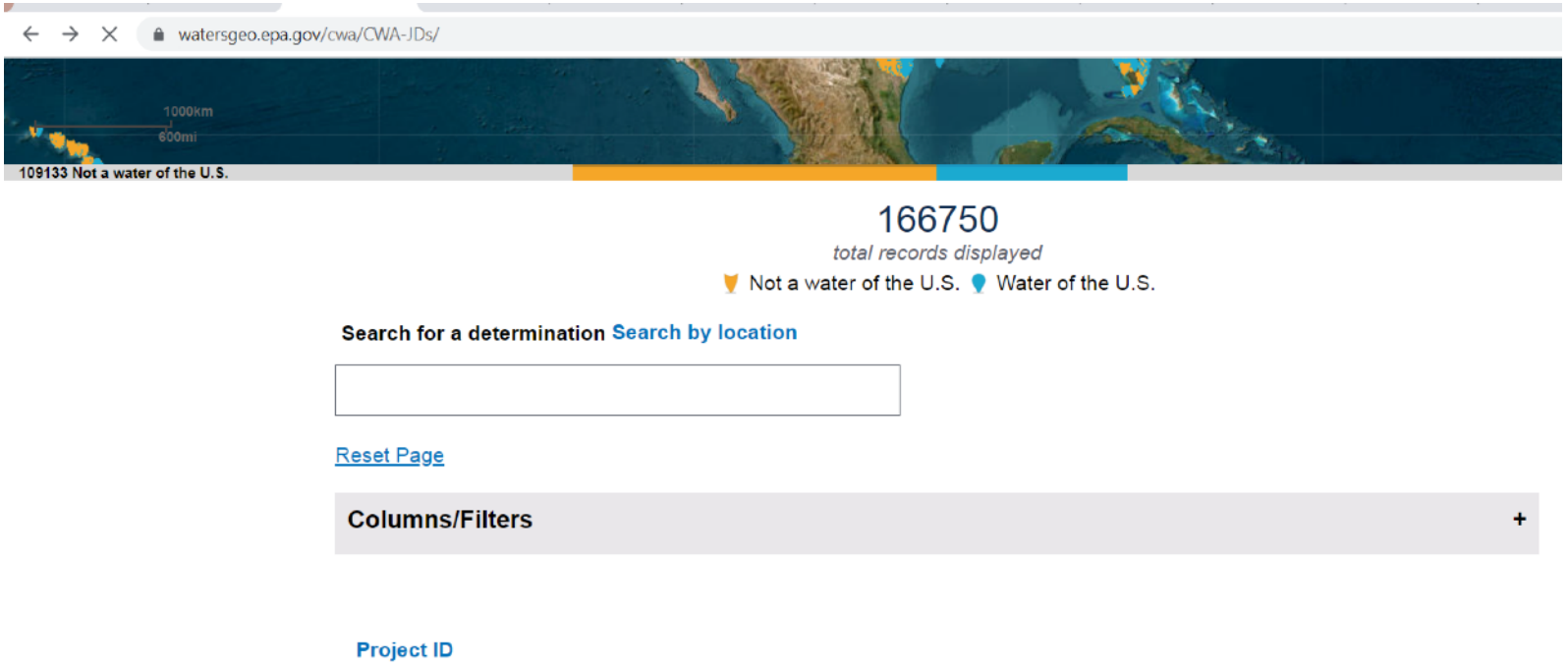
2/9/2023



Always hit the reset page button when changing counties.


Cibolo Creek
Cibolo Creek
3D


ace
Zone A
WILSON COUNTY
48493C0350C
eff. 11/26/2010
AREA OF MINIMAL FLOOD HAZARD
Zone X

Our duties under the new rule

How far is too far?

Diffused Surface Water - Container # 2

Water that does not flow in a defined watercourse, but flows across the surface of the land in a variant and without a pattern is termed diffused surface water.

Generally, this is rain runoff, although water left in upland areas after a flood recedes may also be diffused surface water. Texas courts have ruled that diffused surface water belongs to the landowner until it enters a natural watercourse – then it becomes state water. Tanks, springs that do not create streams, etc. are private water.

Groundwater - Container #3

Local Groundwater Conservation Districts

A Question Asked of Me:
Can I Drill a Well on My Property?

Don't you always love this answer –

It depends.

Your Groundwater Conservation District

Post Oak Savannah Groundwater Conservation District

General Manager: Gary Westbrook

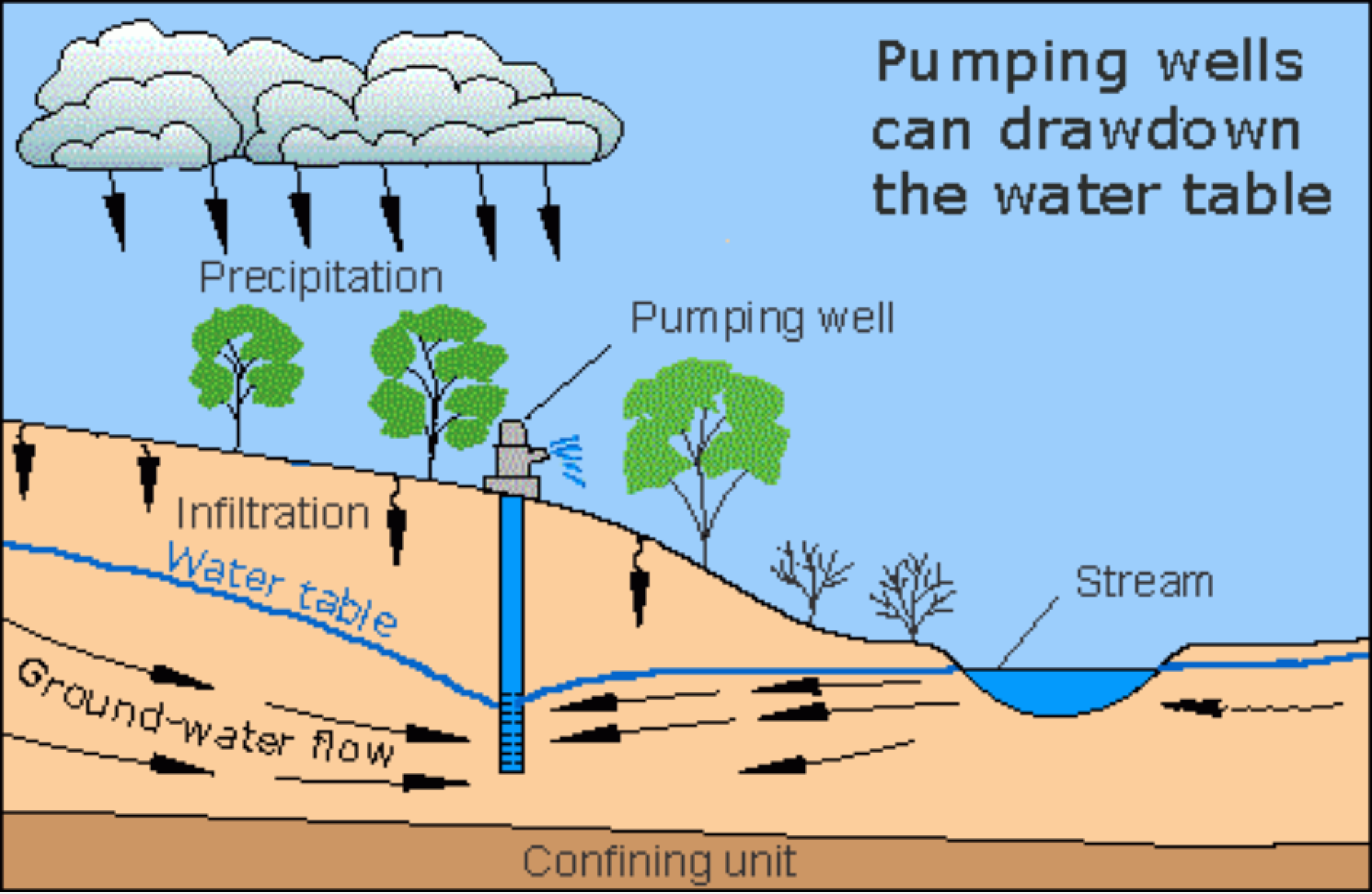
310 East Avenue C
Milano, Texas 76556

Phone: 512.455.9900
https://posgcd.org/

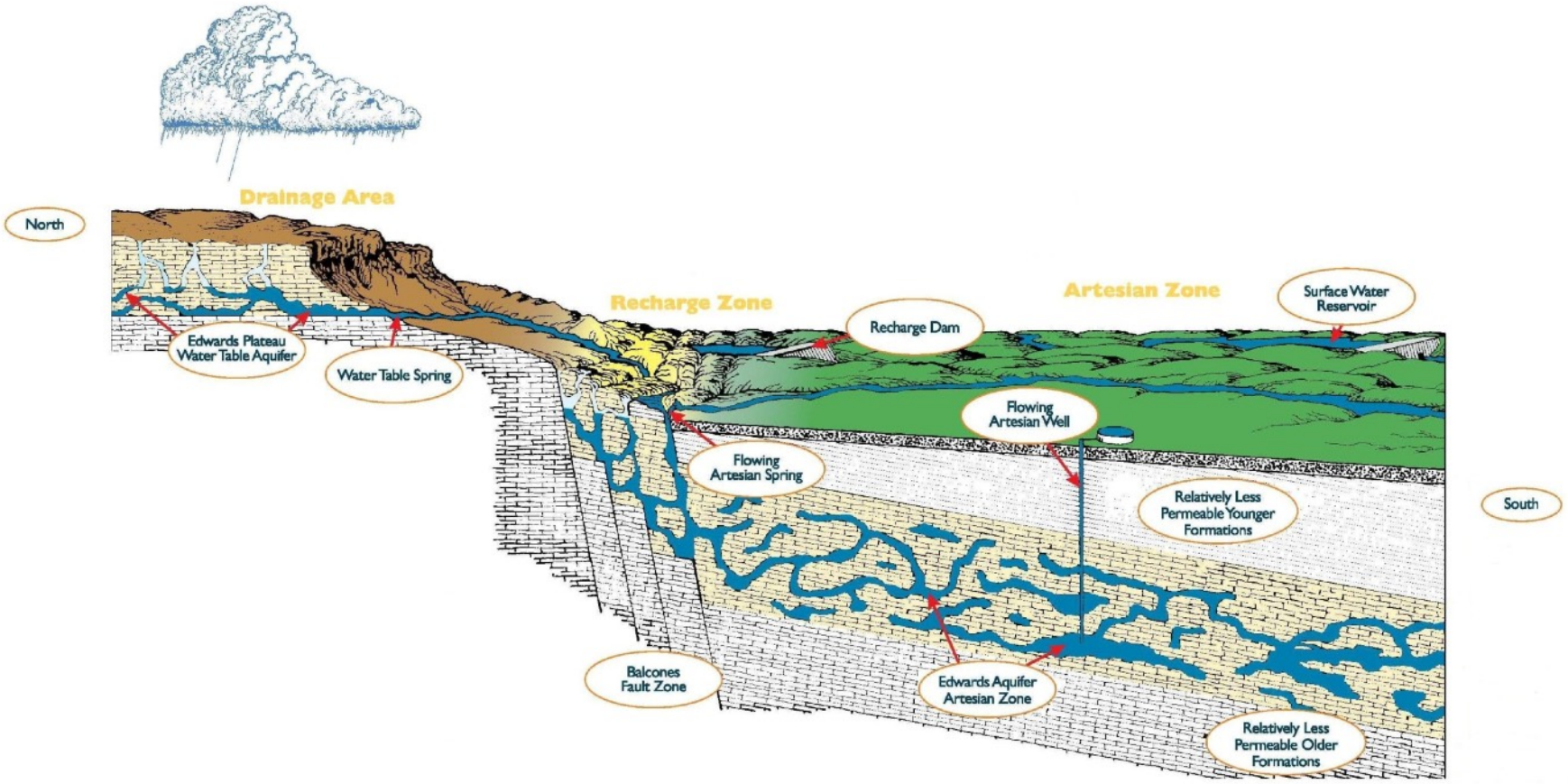
Groundwater

The water that is beneath the land surface and fills the pore spaces of rock and soil material and that supplies wells and springs.

Who owned groundwater in Spanish Texas?



An example of the *conjunctive* relationship of water.


Drainage Area
North
Recharge Zone
Artesian Zone
Surface Water Reservoir
Recharge Dam
Edwards Plateau Water Table Aquifer
Water Table Spring
Flowing Artesian Well
Flowing Artesian Spring
Relatively Less Permeable Younger Formations
South
Balcones Fault Zone
Edwards Aquifer Artesian Zone
Relatively Less Permeable Older Formations

Sources of Ownership of Groundwater in Texas

- The Ancient "Absolute" Rule argument
- Pecos County Water and Improvement District No. 1 v. Clayton W. Williams et al., 1954
- SB 332, 2011
- Day McDaniel v. EAA, 2012

At this time, there remains no dispute that groundwater is owned by the surface landowner in Texas…and that the Rule of Capture is "running loose" in areas without GCDs.

Who is responsible for regulating groundwater?

Local Groundwater Conservation Districts

Not all of Texas has elected to be in a GCD.

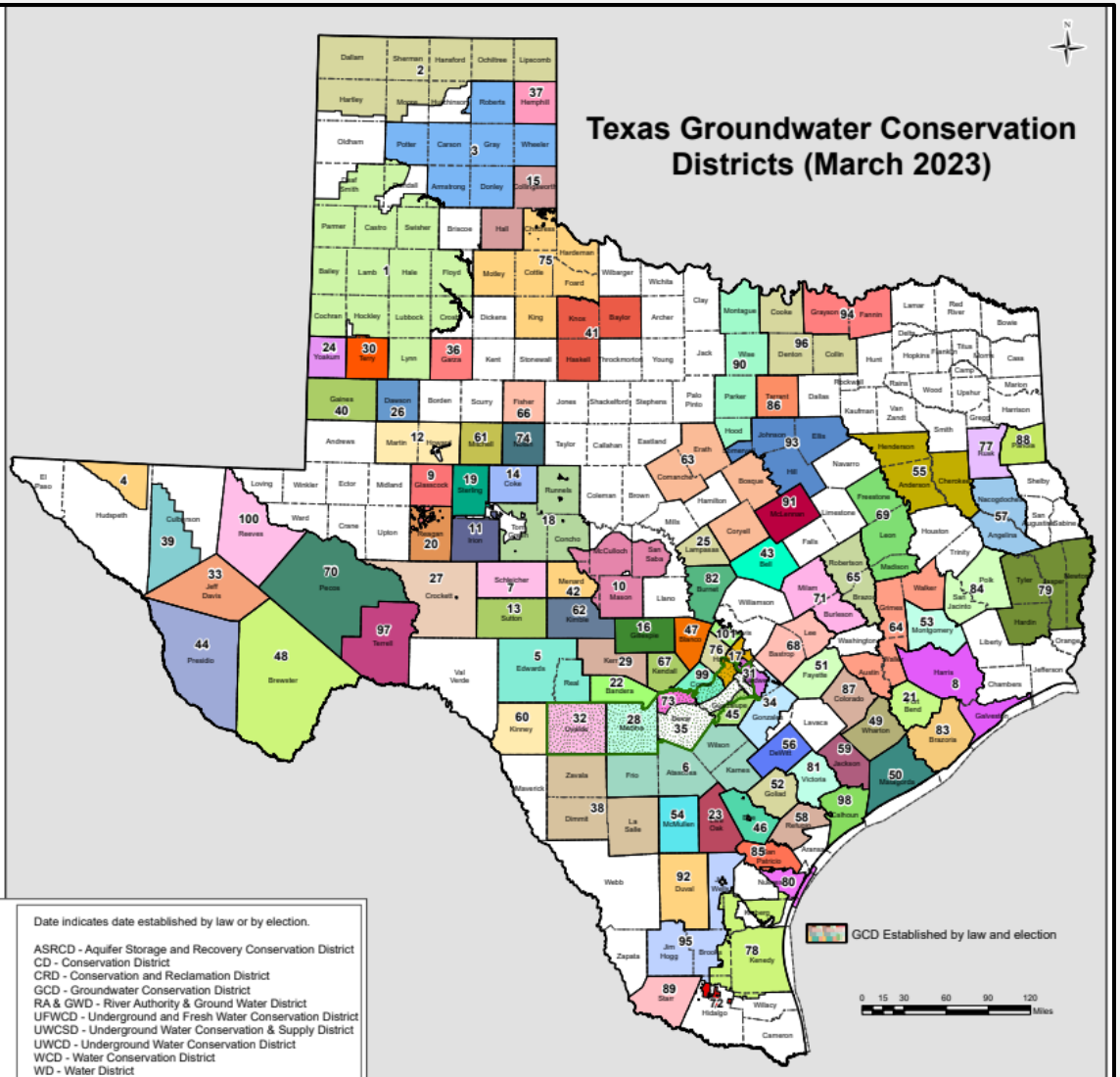
Texans seem to be against transfer of groundwater out of their district to others such as other cities.

We don't really know how many exempt wells are out there.

Sometimes the GCD acts in ways that are inconsistent.

Groundwater Conservation Districts

1 High Plains UWCD No.1 - 9/29/1951
2 North Plains GCD - 1/2/1955
3 Panhandle GCD - 1/21/1956
4 Hudspeth County UWCD No. 1 - 10/5/1957
5 Real-Edwards C and R District - 5/30/1959
6 Evergreen UWCD -8/30/1965
7 Plateau UWC and Supply District - 3/4/1974
8 Harris-Galveston Subsidence District- 4/23/1975
9 Glasscock GCD - 8/22/1981
10 Hickory UWCD No. 1 - 8/14/1982
11 Irion County WCD - 8/2/1985
12 Permian Basin UWCD - 9/21/1985
13 Sutton County UWCD - 4/5/1986
14 Coke County UWCD - 11/4/1986
15 Mesquite GCD - 11/4/1986
16 Hill Country UWCD - 8/8/1987
17 Barton Springs/Edwards Aquifer CD - 8/13/1987
18 Lipan-Kickapoo WCD - 11/3/1987
19 Sterling County UWCD - 11/3/1987
20 Santa Rita UWCD - 8/19/1989
21 Fort Bend Subsidence District - 8/28/1989
22 Bandera County RA & GWD - 11/7/1989
23 Live Oak UWCD - 11/7/1989
24 Sandy Land UWCD - 11/7/1989
25 Saratoga UWCD - 11/7/1989
26 Mesa UWCD - 1/20/1990
27 Crockett County GCD - 1/26/1991
28 Medina County GCD - 8/26/1991
29 Headwaters UWCD - 11/5/1991
30 South Plains UWCD - 2/8/1992
31 Plum Creek CD - 5/1/1993
32 Uvalde County UWCD - 9/1/1993
33 Jeff Davis County UWCD - 11/2/1993
34 Gonzales County UWCD - 11/2/1994
35 Edwards Aquifer Authority - 7/28/1996
36 Garza County UWCD - 11/5/1996
37 Hemphill County UWCD - 11/4/1997
38 Wintergarden GCD - 1/17/1998
39 Culberson County GCD - 5/2/1998
40 Llano Estacado UWCD - 11/3/1998
41 Rolling Plains GCD - 1/26/1999
42 Menard County UWCD - 8/14/1999
43 Clearwater UWCD - 8/21/1999
44 Presidio County UWCD - 8/31/1999
45 Guadalupe County GCD - 11/14/1999
46 Bee GCD - 1/20/2001
47 Blanco-Pedernales GCD - 1/23/2001
48 Brewster County GCD - 11/6/2001
49 Coastal Bend GCD - 11/6/2001
50 Coastal Plains GCD - 11/6/2001
51 Fayette County GCD - 11/6/2001
52 Goliad County GCD - 11/6/2001
53 Lone Star GCD - 11/6/2001
54 McMullen GCD - 11/6/2001
55 Neches & Trinity Valleys GCD -11/6/2001
56 Pecan Valley GCD - 11/6/2001
57 Pineywoods GCD - 11/6/2001
58 Refugio GCD - 11/6/2001
59 Texana GCD - 11/6/2001
60 Kinney County GCD - 1/12/2002
61 Lone Wolf GCD - 2/2/2002
62 Kimble County GCD - 5/3/2002
63 Middle Trinity GCD - 5/4/2002
64 Bluebonnet GCD - 11/5/2002
65 Brazos Valley GCD - 11/5/2002
66 Clear Fork GCD - 11/5/2002
67 Cow Creek GCD - 11/5/2002
68 Lost Pines GCD - 11/5/2002
69 Mid-East Texas GCD - 11/5/2002
70 Middle Pecos GCD - 11/5/2002
71 Post Oak Savannah GCD - 11/5/2002
72 Red Sands GCD - 11/5/2002
73 Trinity Glen Rose GCD - 11/5/2002
74 Wes-Tex GCD - 11/5/2002
75 Gateway GCD - 5/3/2003
76 Hays Trinity GCD - 5/3/2003
77 Rusk County GCD - 6/5/2004
78 Kenedy County GCD - 11/2/2004
79 Southeast Texas GCD - 11/2/2004
80 Corpus Christi ASRCD - 6/17/2005
81 Victoria County GCD - 8/5/2005
82 Central Texas GCD - 9/24/2005
83 Brazoria County GCD - 11/8/2005
84 Lower Trinity GCD - 11/7/2006
85 San Patricio County GCD - 5/12/2007
86 Northern Trinity GCD - 5/15/2007
87 Colorado County GCD - 11/6/2007
88 Panola County GCD - 11/6/2007
89 Starr County GCD - 11/6/2007
90 Upper Trinity GCD - 11/6/2007
91 Southern Trinity GCD - 6/19/2009
92 Duval County GCD - 7/25/2009
93 Prairielands GCD - 9/1/2009
94 Red River GCD - 9/1/2009
95 Brush Country GCD - 11/3/2009
96 North Texas GCD - 12/1/2009
97 Terrell County GCD - 11/6/2012
98 Calhoun County GCD - 11/4/2014
99 Comal Trinity GCD - 6/17/2015
100 Reeves County GCD - 11/3/2015
101 Southwestern Travis County GCD -11/6/2019



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

This map was generated by the Water Availability Division of the Texas Commission on Environmental Quality. This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries. For more information concerning this map, contact the Water Availability Division at (512) 239-4600.

Map printed March 1, 2023.

Date indicates date established by law or by election.

ASRCD - Aquifer Storage and Recovery Conservation District
CD - Conservation District
CRD - Conservation and Reclamation District
GCD - Groundwater Conservation District
RA & GWD - River Authority & Ground Water District
UFWCD - Underground and Fresh Water Conservation District
UWCSD - Underground Water Conservation & Supply District
UWCD - Underground Water Conservation District
WCD - Water Conservation District
WD - Water District

Groundwater Conservation Districts

The preferred method of groundwater management per Texas Legislatures.

1949 Legislature - 1951 first formed - High Plains Underground Water Conservation District No. 1.

101 GCD's cover all or part of 177 counties – ***of 254 counties*** – *about* 70%.

Many GCDs are woefully underfunded – can barely operate – see TWJ Vol. 4, Porter.

GCDs are authorized with powers and duties that enable them to manage groundwater resources.

The three primary GCD legislatively-mandated duties include:

- permitting water wells;
- developing a comprehensive management plan; and,
- adopting the necessary rules to implement the management plan.

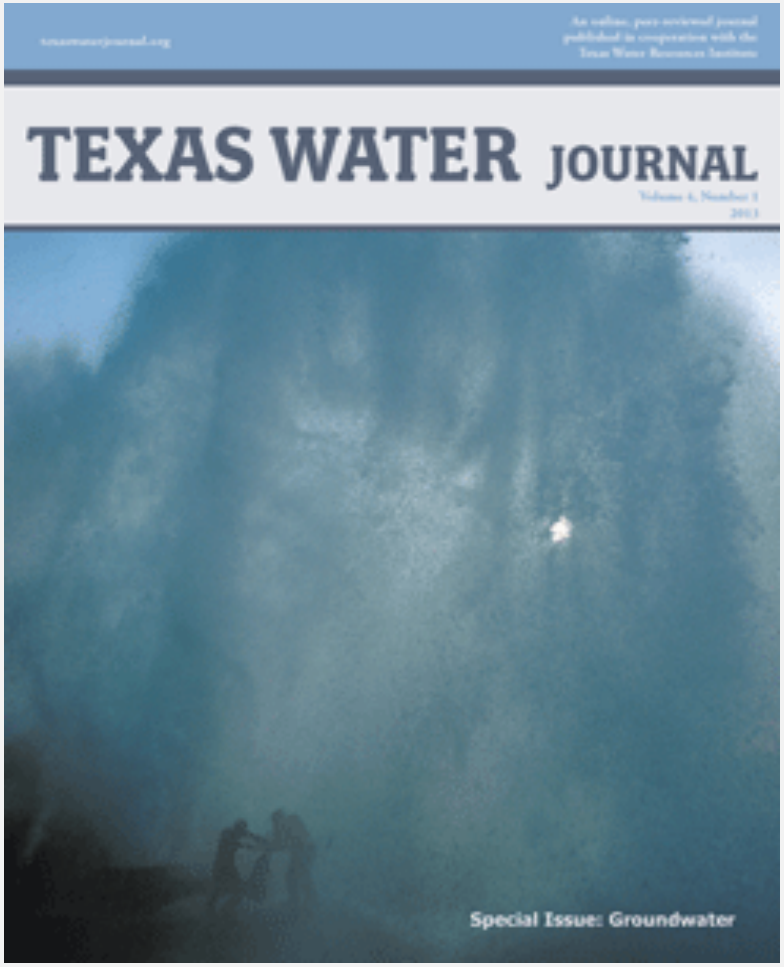
District Funding is a Problem.

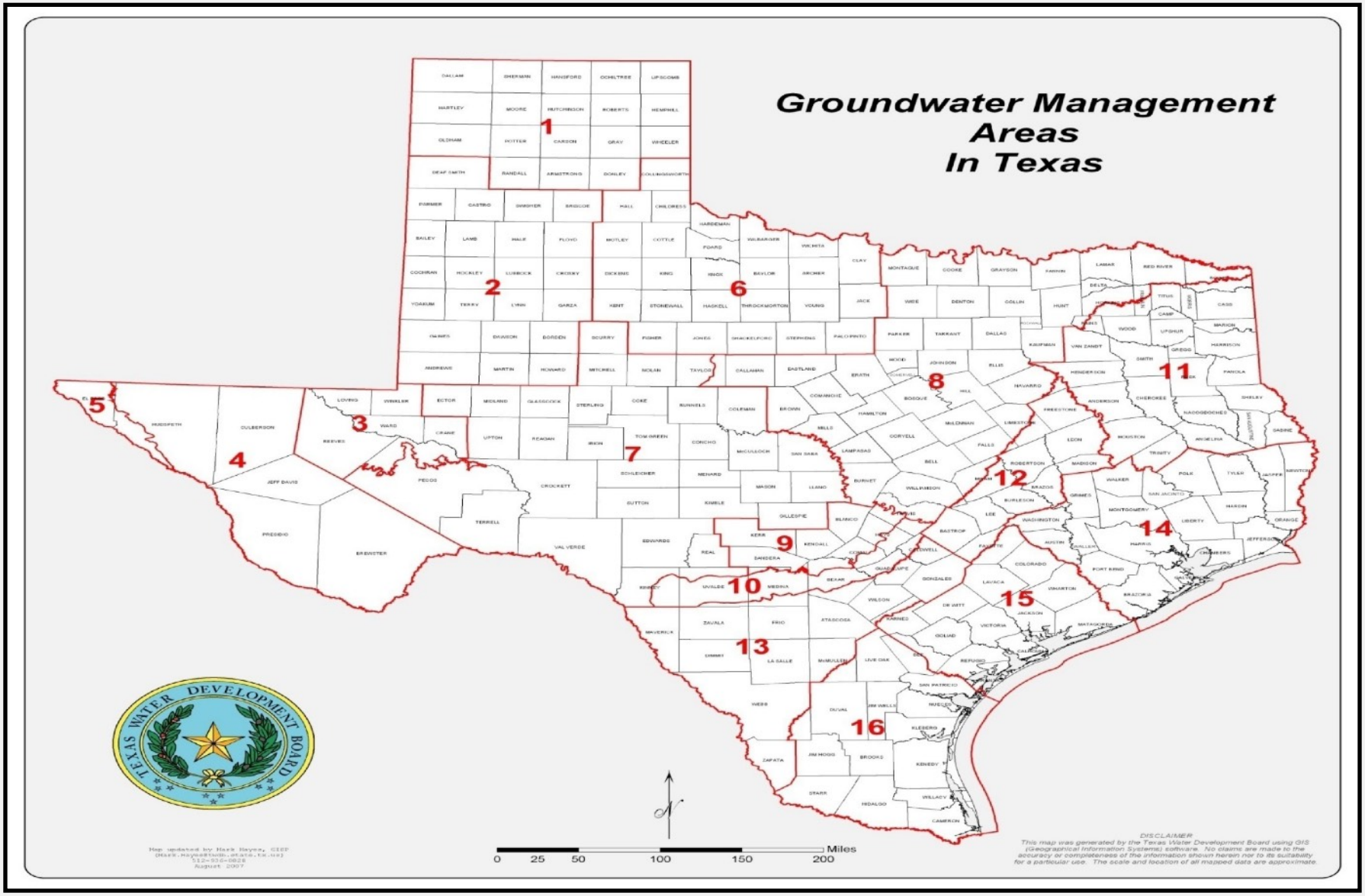
Texas Water Journal
May, 2013, Vol. 4, No. 1

"Groundwater Conservation District Finance in Texas: Results of a Preliminary Study"

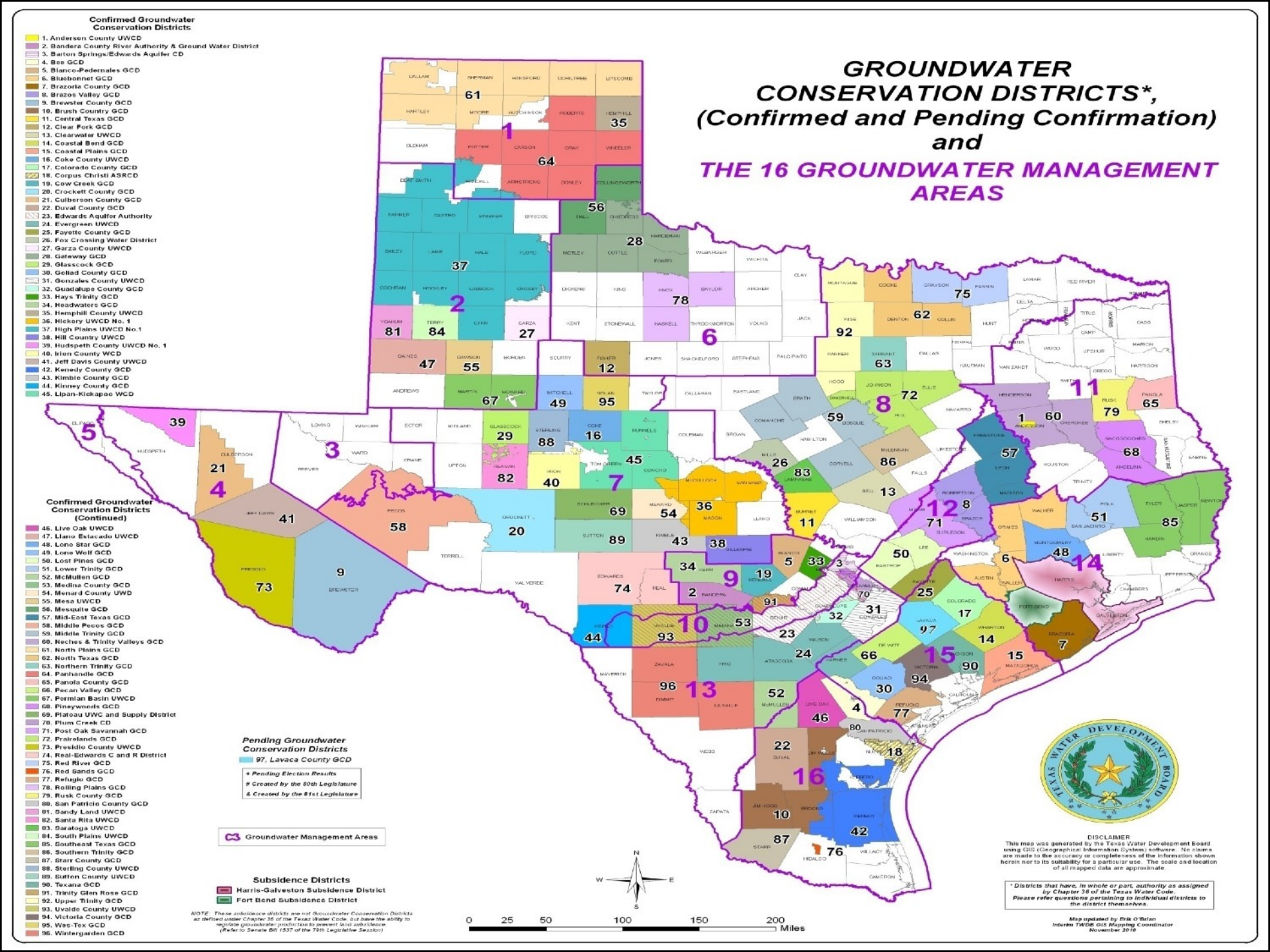
Charles R Porter, Jr., PhD

http://journals.tdl.org/twj/index.php/twj/issue/archive





Why GMAs? ***Water ignores political boundaries.***


GROUNDWATER CONSERVATION DISTRICTS*, (Confirmed and Pending Confirmation) and THE 16 GROUNDWATER MANAGEMENT AREAS
Confirmed Groundwater Conservation Districts
1. Anderson County UWCD
2. Bandera County River Authority & Ground Water District
3. Barton Springs/Edwards Aquifer CD
4. Bee GCD
5. Blanco-Pedernales GCD
6. Bluebonnet GCD
7. Brazoria County GCD
8. Brazos Valley GCD
9. Brewster County GCD
10. Brush Country GCD
11. Central Texas GCD
12. Clear Fork GCD
13. Clearwater UWCD
14. Coastal Bend GCD
15. Coastal Plains GCD
16. Coke County UWCD
17. Colorado County GCD
18. Corpus Christi ASRCD
19. Cow Creek GCD
20. Crockett County GCD
21. Culberson County GCD
22. Duval County GCD
23. Edwards Aquifer Authority
24. Evergreen UWCD
25. Fayette County GCD
26. Fox Crossing Water District
27. Garza County UWCD
28. Gateway GCD
29. Glasscock GCD
30. Goliad County GCD
31. Gonzales County UWCD
32. Guadalupe County GCD
33. Hays Trinity GCD
34. Headwaters GCD
35. Hemphill County UWCD
36. Hickory UWCD No. 1
37. High Plains UWCD No.1
38. Hill Country UWCD
39. Hudspeth County UWCD No. 1
40. Irion County WCD
41. Jeff Davis County UWCD
42. Kenedy County GCD
43. Kimble County GCD
44. Kinney County GCD
45. Lipan-Kickapoo WCD
Confirmed Groundwater Conservation Districts (Continued)
46. Live Oak UWCD
47. Llano Estacado UWCD
48. Lone Star GCD
49. Lone Wolf GCD
50. Lost Pines GCD
51. Lower Trinity GCD
52. McMullen GCD
53. Medina County GCD
54. Menard County UWD
55. Mesa UWCD
56. Mesquite GCD
57. Mid-East Texas GCD
58. Middle Pecos GCD
59. Middle Trinity GCD
60. Neches & Trinity Valleys GCD
61. North Plains GCD
62. North Texas GCD
63. Northern Trinity GCD
64. Panhandle GCD
65. Panola County GCD
66. Pecan Valley GCD
67. Permian Basin UWCD
68. Pineywoods GCD
69. Plateau UWC and Supply District
70. Plum Creek CD
71. Post Oak Savannah GCD
72. Prairielands GCD
73. Presidio County UWCD
74. Real-Edwards C and R District
75. Red River GCD
76. Red Sands GCD
77. Refugio GCD
78. Rolling Plains GCD
79. Rusk County GCD
80. San Patricio County GCD
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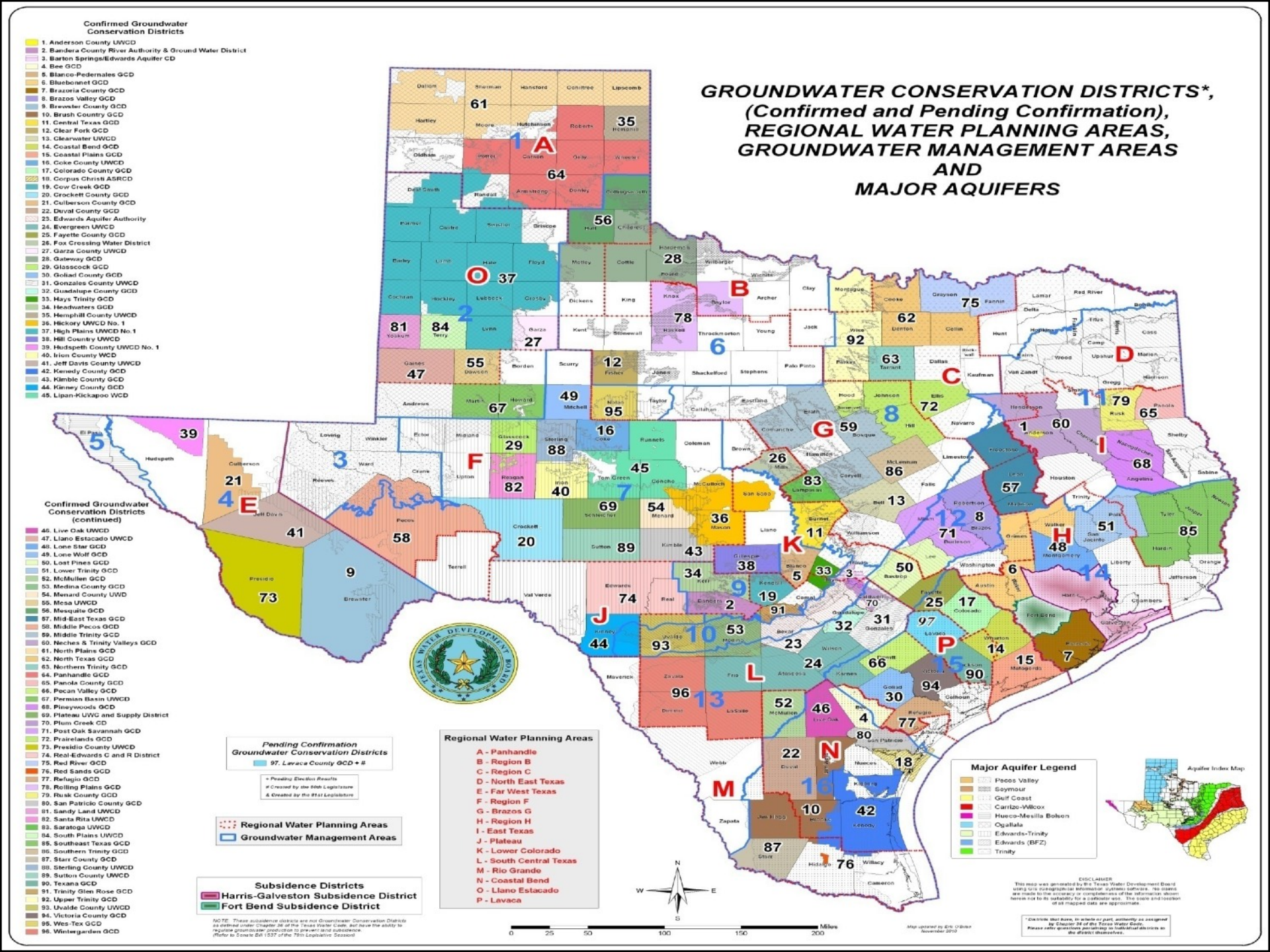
83. Saratoga UWCD
84. South Plains UWCD
85. Southeast Texas GCD
86. Southern Trinity GCD
87. Starr County GCD
88. Sterling County UWCD
89. Sutton County UWCD
90. Texana GCD
91. Trinity Glen Rose GCD
92. Upper Trinity GCD
93. Uvalde County UWCD
94. Victoria County GCD
95. Wes-Tex GCD
96. Wintergarden GCD
Pending Groundwater Conservation Districts
97. Lavaca County GCD
+ Pending Election Results
# Created by the 80th Legislature
& Created by the 81st Legislature
Groundwater Management Areas
Subsidence Districts
Harris-Galveston Subsidence District
Fort Bend Subsidence District
NOTE: These subsidence districts are not Groundwater Conservation Districts as defined under Chapter 36 of the Texas Water Code, but have the ability to regulate groundwater production to prevent land subsidence. (Refer to Senate Bill 1537 of the 79th Legislative Session)
N
W
E
S
0 25 50 100 150 200 Miles
TEXAS WATER DEVELOPMENT BOARD
DISCLAIMER
This map was generated by the Texas Water Development Board using GIS (Geographical Information System) software. No claims are made to the accuracy or completeness of the information shown herein nor to its suitability for a particular use. The scale and location of all mapped data are approximate.
* Districts that have, in whole or part, authority as assigned by Chapter 36 of the Texas Water Code. Please refer questions pertaining to individual districts to the district themselves.
Map updated by Erik O'Brian
Interim TWDB GIS Mapping Coordinator
November 2010


GROUNDWATER CONSERVATION DISTRICTS*,
(Confirmed and Pending Confirmation),
REGIONAL WATER PLANNING AREAS,
GROUNDWATER MANAGEMENT AREAS
AND
MAJOR AQUIFERS
Confirmed Groundwater Conservation Districts
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Pending Confirmation
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Subsidence Districts
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Regional Water Planning Areas
A - Panhandle
B - Region B
C - Region C
D - North East Texas
E - Far West Texas
F - Region F
G - Brazos G
H - Region H
I - East Texas
J - Plateau
K - Lower Colorado
L - South Central Texas
M - Rio Grande
N - Coastal Bend
O - Llano Estacado
P - Lavaca
Major Aquifer Legend
Pecos Valley
Seymour
Gulf Coast
Carrizo-Wilcox
Hueco-Mesilla Bolson
Ogallala
Edwards-Trinity
Edwards (BFZ)
Trinity
Aquifer Index Map
N
W
E
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0 25 50 100 150 200 Miles
Map updated by Eric Oliver November 2010
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Please refer questions pertaining to individual districts to the district themselves.

What do most water projects have in common that is typically ignored in planning and promotions?

The stark "reality"

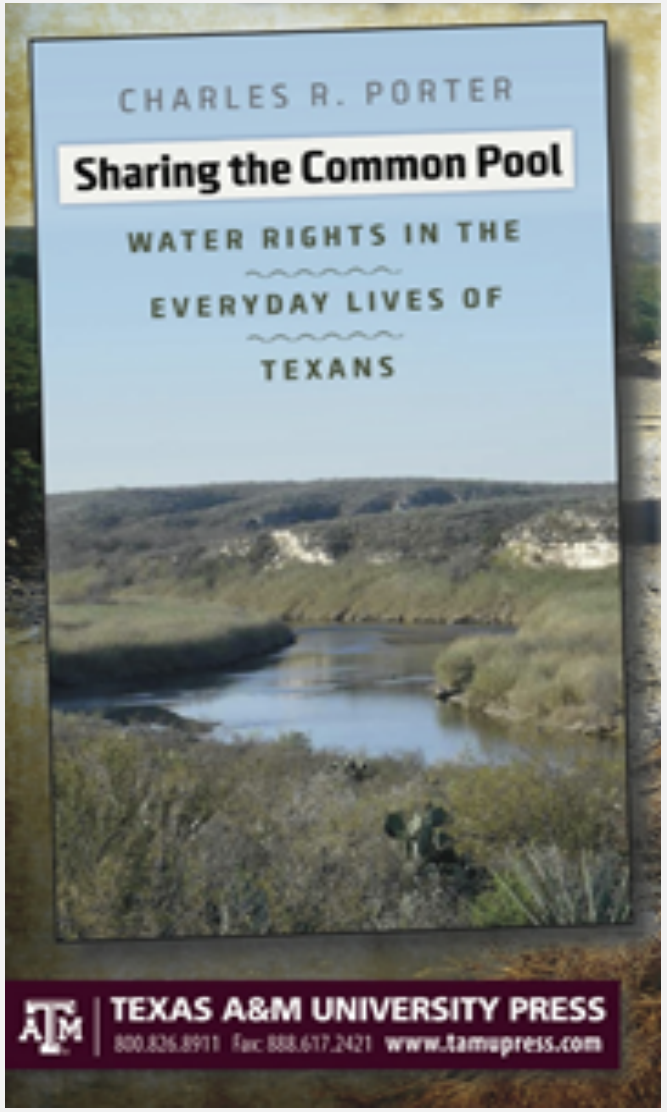
of right of way acquisition.

Problems and the Future ?

The 21st Century
Urban v. Rural

Will We Agree to
Move Water from District to District or Basin to Basin?

Hang the law - No,
not my water – EVER!



Austin American-Statesman

Forestar legal battle could test Texas water policies

Is the debate really about water or issues about population growth?

"Don't come to Texas, ain't no water." Should the legislature make this a statewide policy?

Interim Report

to the 84th Legislature

House Committee on
Natural Resources

January 2015

On the other hand, Chapter 36 of the Texas Water Code currently prohibits a district from discriminating for or against an out-of-district permit in any way.[162] Advocates for GCDs believe that the pressure for exporting out-of-district usually exists because export projects involve a

major investment in pipelines and those projects frequently request special treatment in the form of extended permit terms.[163] There is no question that the state must find a way to balance the need for planning, the need to adjust groundwater withdrawal permits as necessary, and the need for certainty when large investments are required.[164] That balance, however, must include ensuring all well-owners are treated the same, without discriminating for or against anyone based on the place or purpose of use for the groundwater.[165] Providing different permit conditions based on the amount of withdrawal, the point of withdrawal, the rate of withdrawal or the pumping history (historic use) are allowed under Chapter 36 of the Texas Water Code, but those changes must be based on sound science and potential impacts to the aquifer.[166] In fact, some

September 30, 2015
Paul Flahive

"Late last week, Brian Chasnoff at the San Antonio Express-News got his hands on a draft copy of a hotly contested and some might say suppressed city-commissioned report on San Antonio's water security. The study, conducted by Texas A&M University labeled the Vista Ridge pipeline deal, which will cost San Antonio more than $3 billion by the time all is said and done." 142 mile pipeline project to San Antonio.

The Unavoidable Choices on our Doorstep

What Unintended Consequences Await?

Hard Choice Between Urban & Rural

The problem – everyone is right, everyone has rights, and everyone is doing their duty!

Water Valuation Issues

UT LAW CLE THE UNIVERSITY OF TEXAS SCHOOL OF LAW

PRESENTED AT

2016 Texas Water Law Institute

November 3-4, 2016
Austin, Texas

Methods and Challenges in the Credible Valuation of Water Rights in Texas

Charles R. Porter Jr.

Edmond R. McCarthy, Jr.

Time is of the essence.

Absolutely in ***all*** water transactions.

What is ***demand***?

Demand is an economic principle that describes a ***consumer's desire and willingness to pay*** a price for a specific good or service.

I think willingness to pay also means ***ability to pay***. Many local governments cannot afford it and their constituents want no new taxes.

“Fair Market Value” Historical Definition

The price the property would bring when offered for sale by a seller desiring to sell, but not obliged to do so, and bought by a purchaser desiring to buy, but under no necessity of doing so.

– or shorter version -

The price a willing buyer and willing seller, neither being under any duress, will agree to in order to transfer title.

Fair Market Value in Texas now adds …

… as modified by evidence § 51.003(b) authorizes the trial court to consider in its discretion, to the extent such evidence is not subsumed* in the historical definition.

*Included or absorbed (something) in something else

Plains Capital Bank v. William Martin. No. 13-0337, __ S.W.3d__ (Tex. March 27, 2015) [emphasis added]; *see* Tex. Prop. Code §51.003.

From Hirsch Westheimer, Michael D. Conner, April 9, 2015.

http://www.hirschwest.com/fair-market-value-under-texas-property-code-section-51-003/

Best Fair Market Value Definition for Water – by Bruggeman and Fisher – direct quote below.

"Market value is a key consideration when ***financing or investing*** [emphasis added] in income-producing properties. It is defined as follows:

The ***most probable price*** [emphasis added] which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller acting prudently and knowledgably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

Buyer and seller are typically motivated;

Both parties are well-informed or well-advised, and acting in what they consider their best interests;

A reasonable time is allowed for exposure in the open market;

Payment is made in terms of cash in United States dollars or in terms of financial arrangements comparable thereto; and,

The price represents the normal consideration for the property sold unaffected by special or creative financing or sale concessions granted by anyone associated with the sale."

Bruggeman and Fisher. *Real Estate Finance and Investments, Fourteenth Edition*. (New York: McGraw-Hill Irwin, 2011) 296.

"Fair Market Value" Texas Water Code

"Whenever the law requires the payment of fair market value for a water right, fair market value shall be determined by the amount of money that a ***willing buyer*** would pay a ***willing seller***, neither of which is under ***any compulsion to buy or sell***, for the water in an ***arms-length transaction*** and shall not be limited to the amount of money that the owner of the water right has paid or is paying for the water."

"compulsion to sell" or "duress"

Water Code, Title 2, Subt. B Water Rights, Chapter 11, Subchpt. A, sec. 11.0275.

Traditional Valuation Methodology – Can any/all be applied to water valuation? Yes.

1. ***Replacement Value*** – ***challenge*** - water cannot be "built" but it could be found underground or from surface sources – infrastructure cost examination.

2. ***Income Capitalization*** – ***challenge*** - capitalize the "net operating income" based upon planned use (ag) or existing valid contract for lease.

3. ***Comparable Sales or Leases*** – ***challenge*** - convincing proof that the comps are "comparable" and should be **CONFIRMED** – ***very challengeable*****.**

Less traditional in real estate valuations, but should definitely be considered –

4. ***Court Rulings*** – ***challenge*** – very, very fact specific along with the date specific value in the ruling.

Question:

Many water transactions are completed under "duress" or "compulsion to buy"…

meaning to a valuation expert that prices paid during droughts or under pressure due to court rulings must be adjusted for ***duress***.

"Duress" is ever-present in Texas Water?

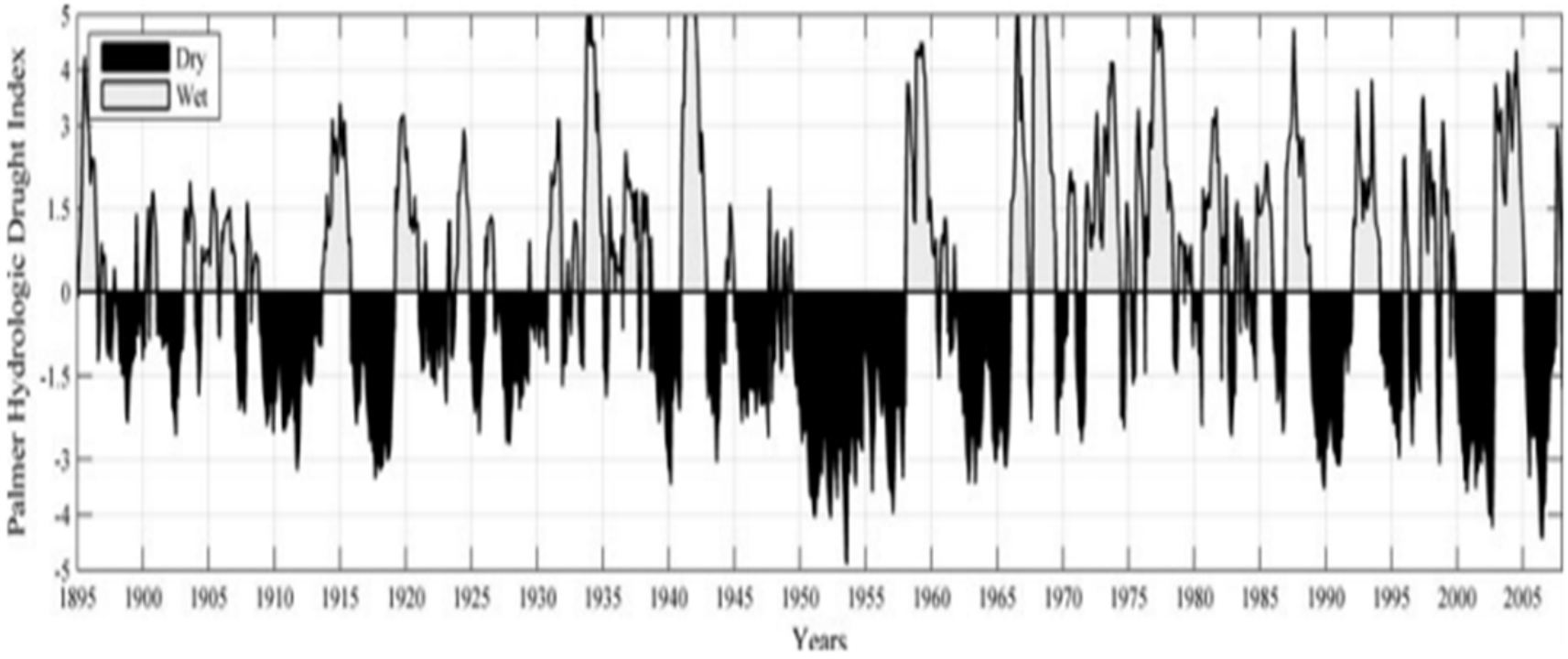


FIGURE 2. The Palmer Hydrologic Drought Index for a Portion of the Texas Lower Rio Grande Valley (i.e., Hidalgo and Cameron Counties). Source: National Climatic Data Center (2007).

From: Leidner, et al.. "The Water Market for the Middle and Lower Portions of the Texas Rio Grande Basin". *Journal of the American Water Resources Association*, 2011, p.3.

What can all of us do now?

Learn about the GCD in your area and visit the TWDB and TCEQ sites.

Go to your Groundwater Conservation District meetings and participate.

Participate as you can in GMA hearings on the new DFCs.

Get to know your GCD board members and staff.

Encourage your neighbors to register their wells and meter to determine amount of water used.

Key Links

- *www.tceq.state.tx.us/*

Texas Commission on Environmental Quality – surface water regulator; information on groundwater

- *www.twdb.state.tx.us/*

Texas Water Development Board – information on groundwater; 2012 State Water Plan

- *www.texasgroundwater.org/*

Texas Alliance of Groundwater Districts - trade association of GCD's – information on member districts

- *http://www.twca.org/*

Texas Water Conservation Association

- *www.texaswaterpolicy.org* **Porter's water journal.**

Thank You

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