

*“It won’t be easy... nothing about water is easy.”*

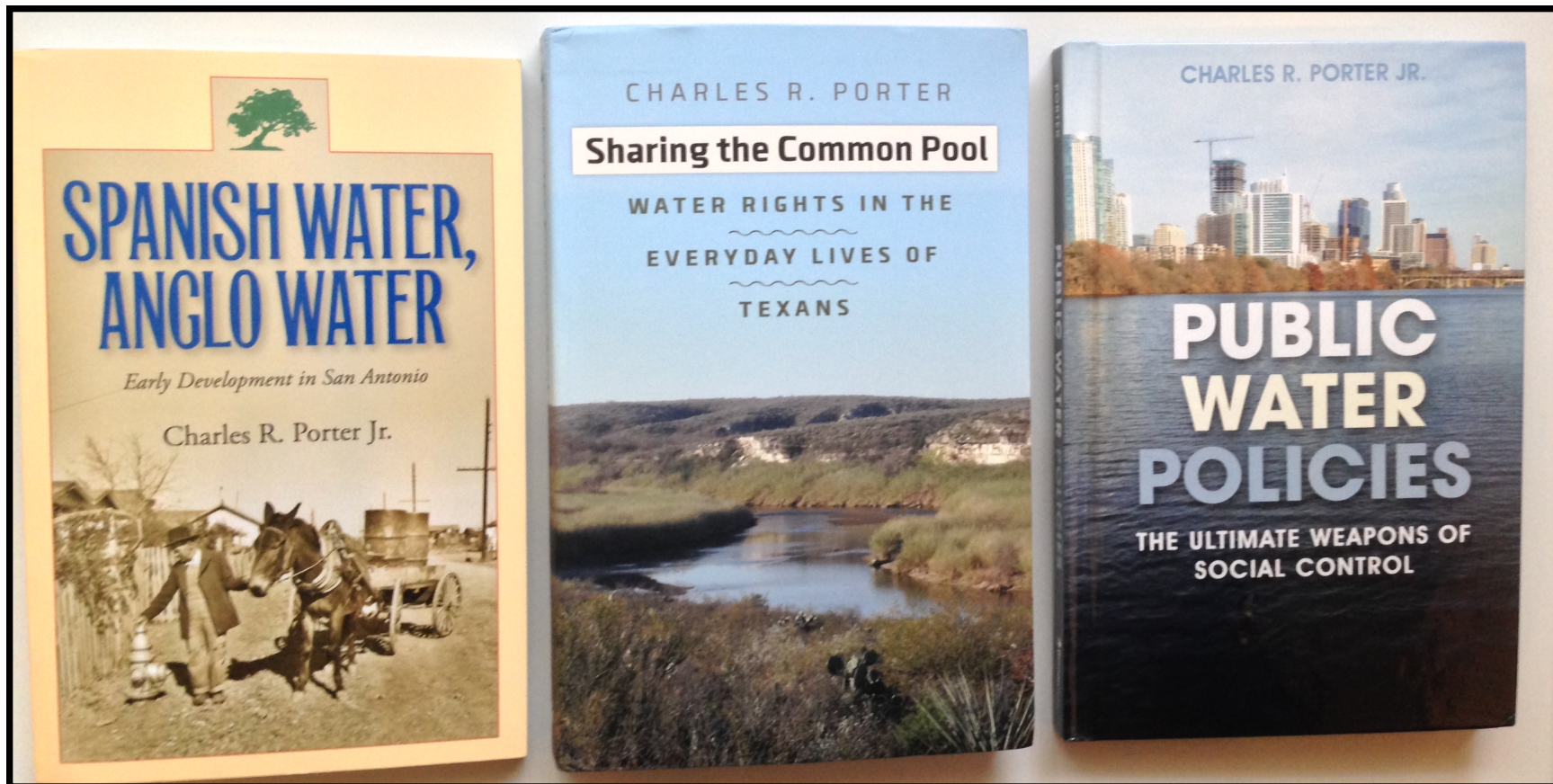
***Post Oak Savannah Groundwater  
Conservation District Presents***

***Groundwater Rights for Real Estate***

**By: Dr. Charles Porter**

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**[www.charlesporter.com](http://www.charlesporter.com)**



**Porter's Water Policy *Trilogy***



***Who owns water in Texas?***  
***Whose rights should prevail?***



# Why Seek Expertise in Water Rights?

- Implications on fair market value of real estate
- Implications for community associations being able to maintain a “going concern”
- Implications for the funding of our most cherished social value in Texas – public school education through the 12<sup>th</sup> grade
- License holders owe fiduciary duties to their clients and must treat the public fairly and honestly

*“Water renders the land its value.”*

***George W. Brackenridge to his brother Thomas in 1879.***



## ***Significant Consequences: BE PREPARED!***

- Extreme Drought
- Exuberance of Population Growth
- Changes in Flood Insurance
- Abnormal Intensity of Weather Events

In 1997, Fort Bend County issued a warning — over the objections of developers — that the federal government could flood the planned subdivisions in case of a storm. But many homeowners never saw the obscure land document, called a plat, where the warning was printed.







# 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. ♦

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**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: iStock.com/Charmist



# **Fiduciary Duties**

Rules of the Texas Real Estate Commission

interconnected to ...

Texas Occupations Code 1101 – The Real Estate License Act

and ...

NAR Code of Ethics (if you are a member)

Geographic Competency Added

Sales Agents GC Must Be Assessed  
by Sponsoring Brokers!

## **SB 624 (Nichols)**

The Agency Sunset bill. This bill implements several of the recommendations made by the Agency's Sunset Commission Report. The Commission and the Board are currently working on implementing the necessary rule amendments and process changes resulting from this bill, including:

- elimination of real estate branch office licenses;
- elimination of education instructor approval;
- repeal of the Texas residency requirement for licensure;
- the Commission's ability to dismiss a complaint determined to be inappropriate or without merit;
- maintaining the confidentiality of a complainant in a complaint notice;
- **consideration of geographic competency in disciplinary actions;**
- authority to deny a renewal if a license holder is in violation of a disciplinary order; and new formal reporting requirements.



# **We owe our clients fiduciary duties!**

## 1. TREC Rules (Canon of Ethics) 531.1 – *Fidelity*

*A real estate broker or salesperson, while acting as an agent for another, is a **fiduciary**. Special obligations are imposed when such fiduciary relationships are created. They demand:*

*(1) that the primary duty of the real estate agent is to represent the interests of the agent's client, and the agent's position, in this respect, should be clear to all parties concerned in a real estate transaction; that, however, the agent, in performing duties to the client, **shall treat other parties to a transaction fairly**\**;

*(2) that the real estate agent be **faithful and observant to trust placed in the agent, and be scrupulous and meticulous** in performing the agent's functions; and,*

*(3) **that the real estate agent place no personal interest above that of the agent's client.***

*\* NAR Code of Ethics Article 1 - must treat other parties honestly.*

*Rules 531.1.2:*

*We must: "... be scrupulous and meticulous..."*

***Scrupulously*** - acting in strict regard for what is considered right or proper; punctiliously [paying great attention to detail or correct behavior] exact; painstaking.

***Meticulously*** - marked by extreme or excessive care in the consideration of details; careful.

(From TREC Ethics Manual 4.0, 4.1, 5.0)

531.2 – Integrity – “...employ prudence and caution so as to avoid **misrepresentation, in any wise, by acts of commission or omission.**”

535.2 – “... brokers owe the highest **fiduciary obligation**...”

*A broker owes the highest fiduciary obligation to the principal and is obliged to convey to the principal all information known to the agent which may affect the principal's decision unless prohibited by other law.*

and the third time TREC says we owe fiduciary duties ...



5. 535.156 – (a) *“A license holder's relationship with the license holder's principal is that of a **fiduciary**. A license holder shall convey to the principal all known information which would affect the principal's decision on whether or not to make, accept or reject offers...”*

*(c) “A license holder has an **affirmative** duty to keep the principal informed at all times of significant information applicable to the transaction or transactions in which the license holder is acting as agent for the principal.”*

## **Added geographic and property-type competency:**

TREC rule §531.3 was amended to make clear that license holders must be knowledgeable about local market issues in the geographic area in which they work and the characteristics involved in the specific type of property being sold or leased.

Penalties for violating this requirement were added to §535.191, with a range of \$500-3,000.

Competency §531.3 Competency. It is the obligation of a license holder [real estate agent] to be knowledgeable and competent as a real estate brokerage practitioner. The license holder must [ agent should]:

(1)be informed on local market issues and conditions affecting [the] real estate in the geographic area where a license holder provides services to a client [business and pledged to continuing education in the intricacies involved in marketing real estate for others;; ]

(2)be informed on national, state, and local issues and developments in the real estate industry; [and]

(3)exercise judgment and skill in the performance of brokerage activities [the work]; and

(4)be educated in the characteristics involved in the specific type of real estate being brokered for others.



CCUPATIONS CODE

TITLE 7. PRACTICES AND PROFESSIONS RELATED TO REAL PROPERTY AND HOUSING

SUBTITLE A. PROFESSIONS RELATED TO REAL ESTATE

CHAPTER 1101. REAL ESTATE BROKERS AND SALES AGENTS

SECTION 15. Amends Section 1101.652(a), Occupations Code, to *include failure to consider **market conditions for the specific geographic area** in which the license holder is providing a service in a list of actions by a license holder for which TREC is authorized to suspend or revoke a license* issued under Chapter 1102 or take other disciplinary action authorized by this chapter or Chapter 1102, and rennumbers the list accordingly. <https://capitol.texas.gov/BillLookup/Text.aspx?LegSess=86R&Bill=SB624>

Sec. 1101.652. GROUNDS FOR SUSPENSION OR  
REVOCATION OF LICENSE.

(6) fails to consider market conditions for the specific geographic area in which the license holder is providing a service;

Changes to 535.2 (i):

A broker who sponsors sales agents or is a designated broker for a business entity shall maintain, on a current basis, written policies and procedures to ensure that:

1. Each sponsored sales agent is advised of the scope of the sales agent's authorized activities subject to the Act and is competent to conduct such activities, **including competence in the geographic market area where the sales agent represents clients.**

*How do we assess competency in the geographic market area?*

# “Failure to Properly Supervise a Sponsored Sales Agent”

## CONCLUSIONS OF LAW

The acts and omissions on the part of Respondent set out in the Findings of Fact constitute the following violation that is cause for the suspension, revocation, or reprimand of Respondent's Texas real estate broker license pursuant to the specific statute and rule cited below and/or Section 1101.656, Texas Occupations Code, and is further cause for the assessment of an administrative penalty against Respondent pursuant to Section 1101.701, Texas Occupations Code:

11. Section 1101.652(b)(1), by acting negligently or incompetently, for failing to properly supervise a sponsored sales agent as required by 22 Tex. Admin Code Section 535.2.

## ORDER

IT IS ORDERED that Respondent is formally reprimanded for its actions in the matter.

IT IS FURTHER ORDERED that Respondent must pay an administrative penalty of \$1500 by cashier's check or money order payable to the Texas Real Estate Commission. The remitter on the cashier's check or money order must be Respondent or Respondent's attorney.

# Model Brokerage Policies and Procedures



2018

## ESTABLISHING COMPETENCY

### ESTABLISHING COMPETENCY POLICY

#### 3.1.1. AUTHORIZATION TO ACT

Sales Associate is authorized to act on behalf of Sponsoring Broker only in areas in which Sponsoring Broker, in writing, has designated Sales Associate as competent to act.

#### 3.1.2. DESIGNATIONS AT SPONSORING BROKER'S DISCRETION

The decision to authorize Sales Associate as competent to act is solely at the discretion of Sponsoring Broker and may be changed or altered by Sponsoring Broker at any time.

#### 3.1.3. MAINTENANCE OF REQUIRED LICENSES AND CERTIFICATIONS

Sales Associate will ensure that their licenses, certifications or other qualifications, that are necessary to act in all areas in which Sponsoring Broker has authorized them to act, remain active, current and in good standing.

#### 3.1.4. REQUIRED EDUCATION REQUIREMENTS

Sales Associate will complete all continuing education requirements in a timely manner.

#### 3.1.5. ADDITIONAL LICENSES, CERTIFICATIONS AND EDUCATION

Requirements for a Sales Associate to obtain additional licenses, certifications and additional education instruction are solely at the discretion of Sponsoring Broker.

#### 3.1.6. COMPLIANCE WITH CODE OF ETHICS

Sales Associate will comply with the National Association of REALTORS® Code of Ethics with regard to competency including, but not limited to, Article 11.

## ESTABLISHING COMPETENCY PROCEDURE

### 3.2.1. AUTHORIZATION AGREEMENT

Sponsoring Broker and each Sales Associate will sign and date an Agreement:

- (a) Detailing all areas in which Sales Associate is authorized to act;
- (b) Describing in detail the licenses, certifications, and other qualifications Sponsoring Broker requires Sales Associate to maintain to continue to qualify as competent in any area; and
- (c) Detailing the additional education instruction Sponsoring Broker requires Sales Associate to complete to continue to be competent in any area.

The written agreement may state areas of practice in which Sponsoring Broker has elected not to practice or to prohibit Sales Associates from practicing, and may be amended to expand or delete additional areas in which a Sales Associate is authorized to practice.

### 3.2.2. MAINTENANCE OF REQUIRED LICENSES AND CERTIFICATION

Sales Associate will maintain the licenses, certifications and other qualifications required by Sponsoring Broker.

- (a) Sponsoring Broker will regularly confirm that each Sales Associate maintains the licenses, certifications and other qualifications designated in the agreement.
- (b) Sales Associates will provide Sponsoring Broker with documentation showing: (i) the timely renewal of all licenses and certifications, (ii) the completion of continuing education classes, and (iii) the completion of additional education instruction required by Sponsoring Broker.

### 3.2.3. REQUEST TO CHANGE AUTHORITY TO ACT

Sales Associate may request Sponsoring Broker to consider expanding Sales Associate's areas of competency and authorization. Upon such request, Sponsoring Broker will inform Sales Associate of the additional licenses, training, certifications and education Sponsoring Broker requires of Sales Associate to achieve such additional competency and authorization.

### 3.2.4. CHANGE IN AUTHORITY TO ACT

If Sponsoring Broker elects to change or alter Sales Associate's authority to act, Sponsoring Broker will immediately notify Sales Associate in writing.

Property of #0204698 Charles Porter at Bryker Properties

### 3.2.5. NOTIFICATION OF TREC CHANGES

Sponsoring Broker will give each Sales Associate notice of any changes to the Texas Real Estate Licensing Act, TREC rules or TREC promulgated contract forms before the effective date of the changes.

### 3.2.6. FORWARDING OF TREC NOTICES

Sponsoring Broker will forward to each Sales Associate any mail or other correspondence from TREC received by Sponsoring Broker concerning Sales Associate within ten (10) calendar days after receipt.



**6**

**FIDUCIARY DUTY OF AGENTS**

**FIDUCIARY DUTY OF AGENTS  
POLICY**

**6.1.1. DUTIES**

In a principal-agent relationship, the Principal is owed the highest level of fiduciary duty by the Agent. This duty includes the following:

- (a) Trust;
- (b) Confidential treatment of information;
- (c) Honest business dealings;
- (d) The highest duty of performance;
- (e) Loyalty;
- (f) Reasonable care in all matters of representation; and
- (g) Proper accounting for all monies and other things of value.

**6.1.2. RELATIONSHIPS**

Brokers and Sales Agents may: (i) represent Principals, and (ii) assist others with whom no agency relationship exists. Sales Associates must provide all parties with a clear explanation of their relationship as being one of the following:

- (a) A client, being represented as a principal by the agent;
- (b) A customer, with no agency relationship, but receiving assistance;
- (c) An unrepresented party, with no agency relationship and receiving no assistance;  
or
- (d) A party represented by a Broker other than Sponsoring Broker.

**6.1.3. DISCLOSURE OF STATUS AS SALES AGENT OR BROKER**

Sales Associate must disclose that he or she is a Sales Agent or Broker acting on his or her own behalf or in a capacity described below, in writing, either before entering into any sales contract or lease or within the sales or lease contract itself, when engaging in a real estate transaction on behalf of:

- (a) Sales Associate;
- (b) A business entity in which Sales Associate is more than a 10% owner;
- (c) A trust for which Sales Associate acts as trustee or is a beneficiary; or

***Representations*** build expectations.

***Misrepresentations destroy*** relationships of trust and confidence (the key elements of fiduciary relationships).

TREC Rules are Connected with the Occupations Code  
1101.652 (b) (1-4)

*(b) The commission may suspend or revoke a license issued under this chapter or take other disciplinary action authorized by this chapter if the license holder, while acting as a broker or salesperson:*

*(1) acts negligently or incompetently;*

*(2) engages in conduct that is dishonest or in bad faith or that demonstrates untrustworthiness;*

*3) makes a **material misrepresentation** to a potential buyer concerning 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;*

*(4) fails to disclose to a potential buyer a defect described by Subdivision  
(3) that is known to the license holder;*

*Actual knowledge* remains the standard, but ...

TREC rules as they stand today could be interpreted to require *constructive knowledge* as our standard.

*What do we really offer the client?*

*Expertise in all of the characteristics  
of the local marketplace ... which must  
include understanding the water issues for  
a particular property!*

## Chapter 2 | 99

**(11) NOTICE OF WATER RIGHTS:** If the Property is in the jurisdiction of a Groundwater Conservation District or Subsidence District, and has groundwater wells of any type such as wells for domestic and livestock use, irrigation use, or other uses, an addendum containing further details about the characteristics of the wells, including permits in place, and other pertinent information should be used (attach Addendum for Information Concerning the Property's Groundwater Rights, Wells, Groundwater Conservation Districts, and/or Subsidence Districts).

If the Property has a permitted surface water right from the TCEQ, an addendum containing further information should be used (attach Addendum for Information Concerning the Property's Surface Water Rights).

Stock tanks and the water therein that are filled with *diffused* surface water (water running across the Property from rain, snow melt, or other atmospheric sources) and used for domestic, livestock, or wildlife use are owned by the land owner in Texas.

The Property has \_\_\_\_\_ stock tanks.

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: See

(check all applicable boxes):

- ☐ Third Party Financing Addendum
- ☐ Seller Financing Addendum
- ☐ Addendum for Property Subject to Mandatory Membership in a Property Owners Association
- ☐ Buyer's Temporary Residential Lease
- ☐ Loan Assumption Addendum
- ☐ Addendum for Sale of Other Property by Buyer
- ☐ Addendum for "Back-Up" Contract
- ☐ Addendum for Coastal Area Property
- ☐ Addendum for Authorizing Hydrostatic Testing
- ☐ Addendum Concerning Right to Terminate Due to Lender's Appraisal
- ☐ Addendum for Reservation of Oil, Gas and Other Minerals

- ☐ Environmental Assessment, Threatened or Endangered Species and Wetlands Addendum
- ☐ Seller's Temporary Residential Lease
- ☐ Short Sale Addendum
- ☐ Addendum for Property Located Seaward of the Gulf Intracoastal Waterway
- ☐ Addendum for Seller's Disclosure of Information on Lead-based Paint and Lead-based Paint Hazards as Required by Federal Law
- ☐ Addendum for Property in a Propane Gas System Service Area
- ☐ Addendum for Information Concerning the Property's Groundwater Rights, Wells, Groundwater Conservation Districts, and/or Subsidence Districts
- ☐ Addendum for Information Concerning the Property's Surface Water Rights

☐ Other (list): \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**23. TERMINATION OPTION:** For nominal consideration, the receipt of which is hereby acknowledged by Seller, and Buyer's agreement to pay Seller \$\_\_\_\_\_ (Option Fee) within 3 days after the Effective Date of this contract, Seller grants Buyer the unrestricted right to

# Basics of Texas Water Law

## ***Two age-old questions***

1. How do we determine fair and just public water policies for all Texans?
2. How do we balance the common good of the people of Texas while protecting individual property rights?



“Water doesn’t run downhill . . . it runs towards money.”

***David Weber, PhD***  
***SMU, 1976***

*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**

**FIGURE ES.1. PROJECTED POPULATION GROWTH.**

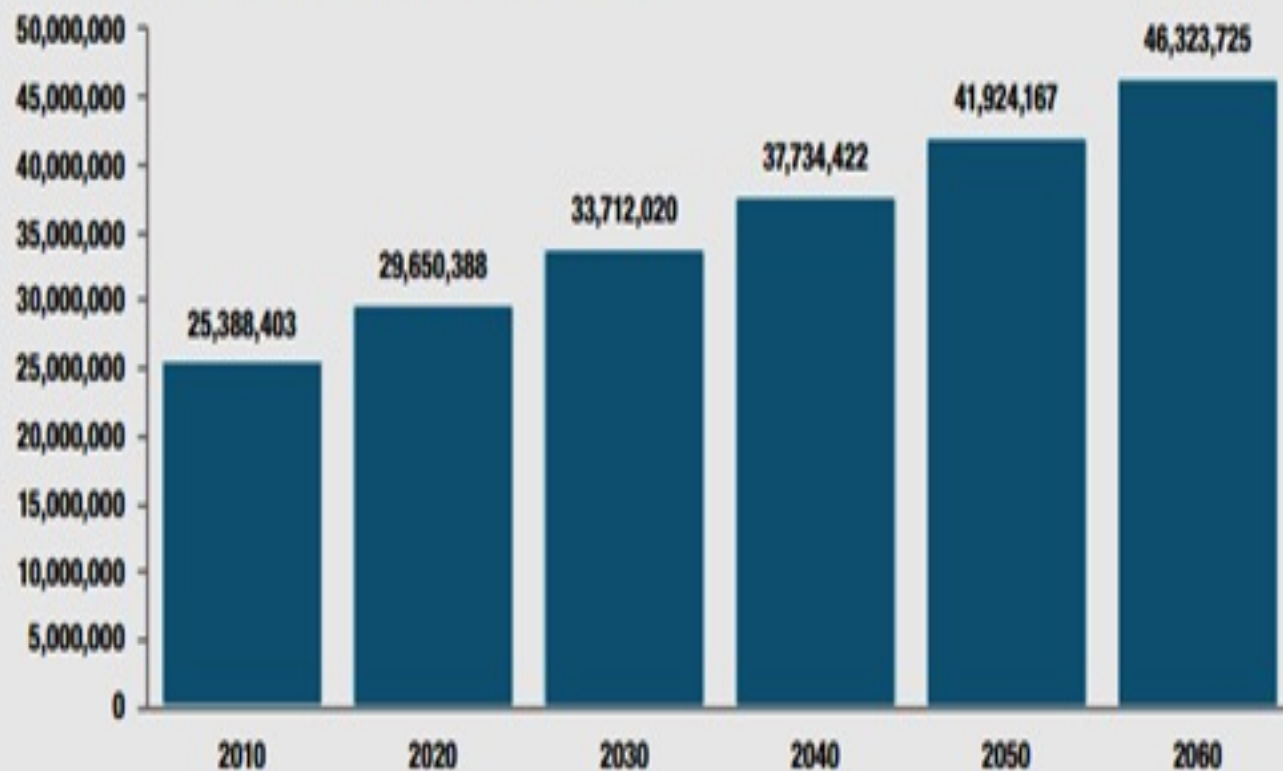
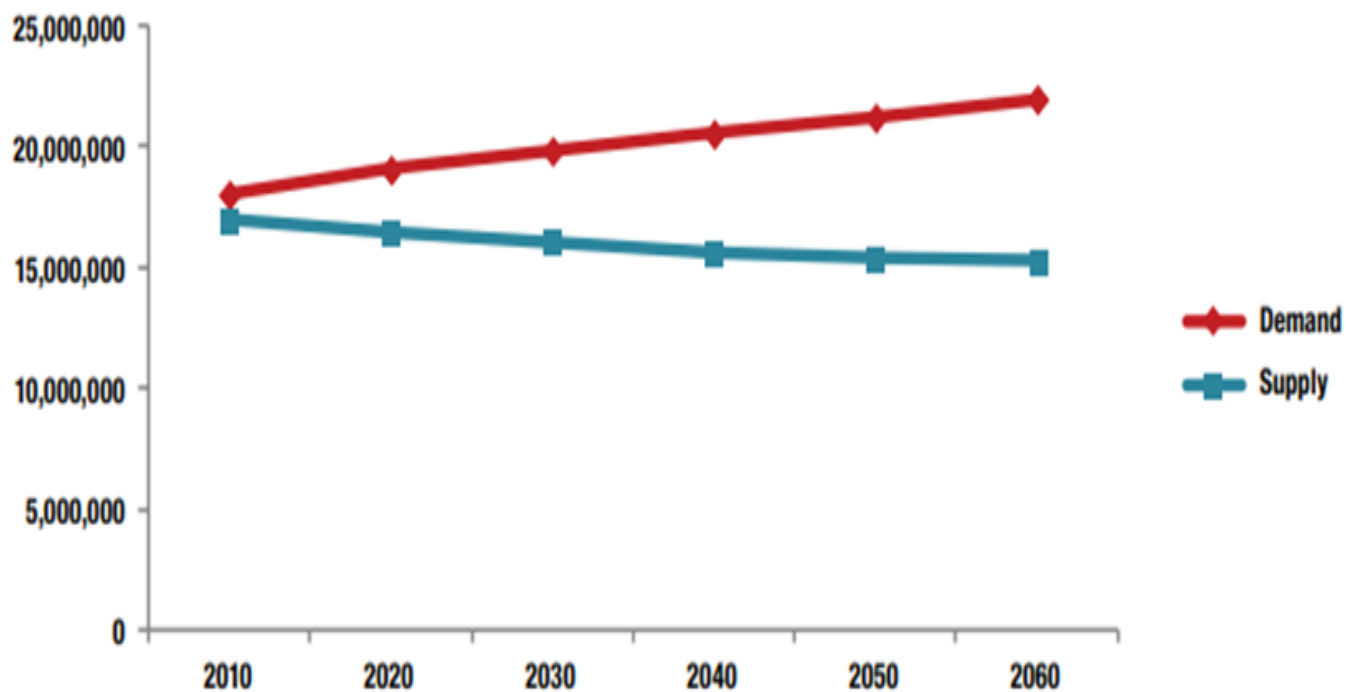


FIGURE ES.2. PROJECTED WATER DEMAND AND EXISTING SUPPLIES (ACRE-FEET PER YEAR).



# 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.**

*. . . 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**

# Basic Glossary

- ***Acre-foot*** – volume of water needed to cover 1 acre to a depth of 1 foot = 325,851 gallons.
- ***Acre of land receives one inch of rain*** = 27,154 gallons.
- ***Conjunctive*** – joined together; combined (*like all water*)
- ***Correlative right*** – rights that are co-equal, relate to one another, so that one owner cannot take more than their share.
- ***Exempt Well*** – well exempt from permit.
- ***Geological Containers*** – the way we determine ownership and regulation of water in Texas – there are 3 containers – surface water, groundwater, and diffused surface water.
- ***Groundwater Conservation District*** – The legislature's preferred method of groundwater management.
- ***Rule of Capture*** – Texas courts' position that allows one landowner to draw groundwater under most conditions without liability to the depletion of other groundwater users.
- ***Well Spacing*** – GCD rules that set minimum spacing distances between neighboring groundwater wells.

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

Don't you always love this answer –

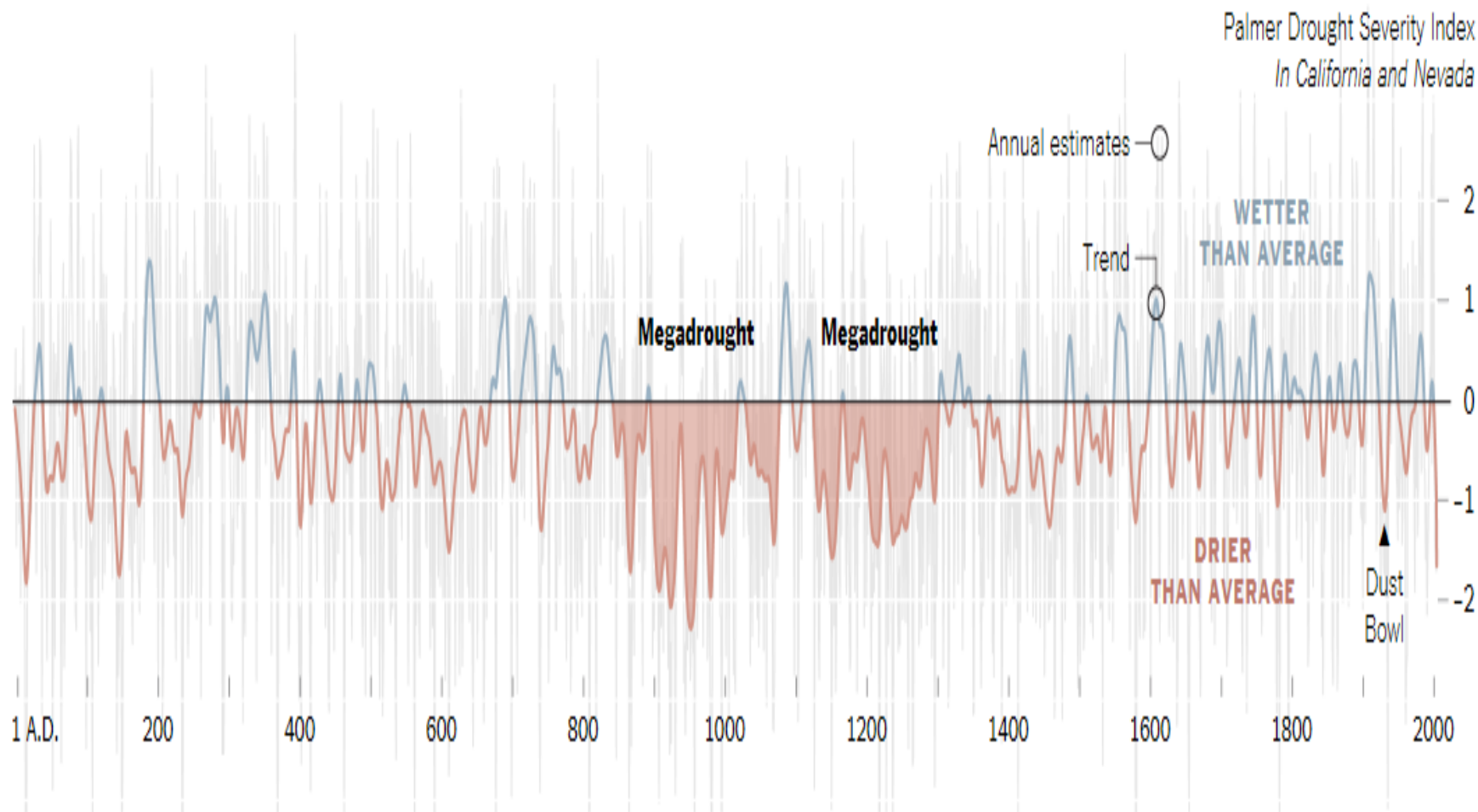
***It depends.***





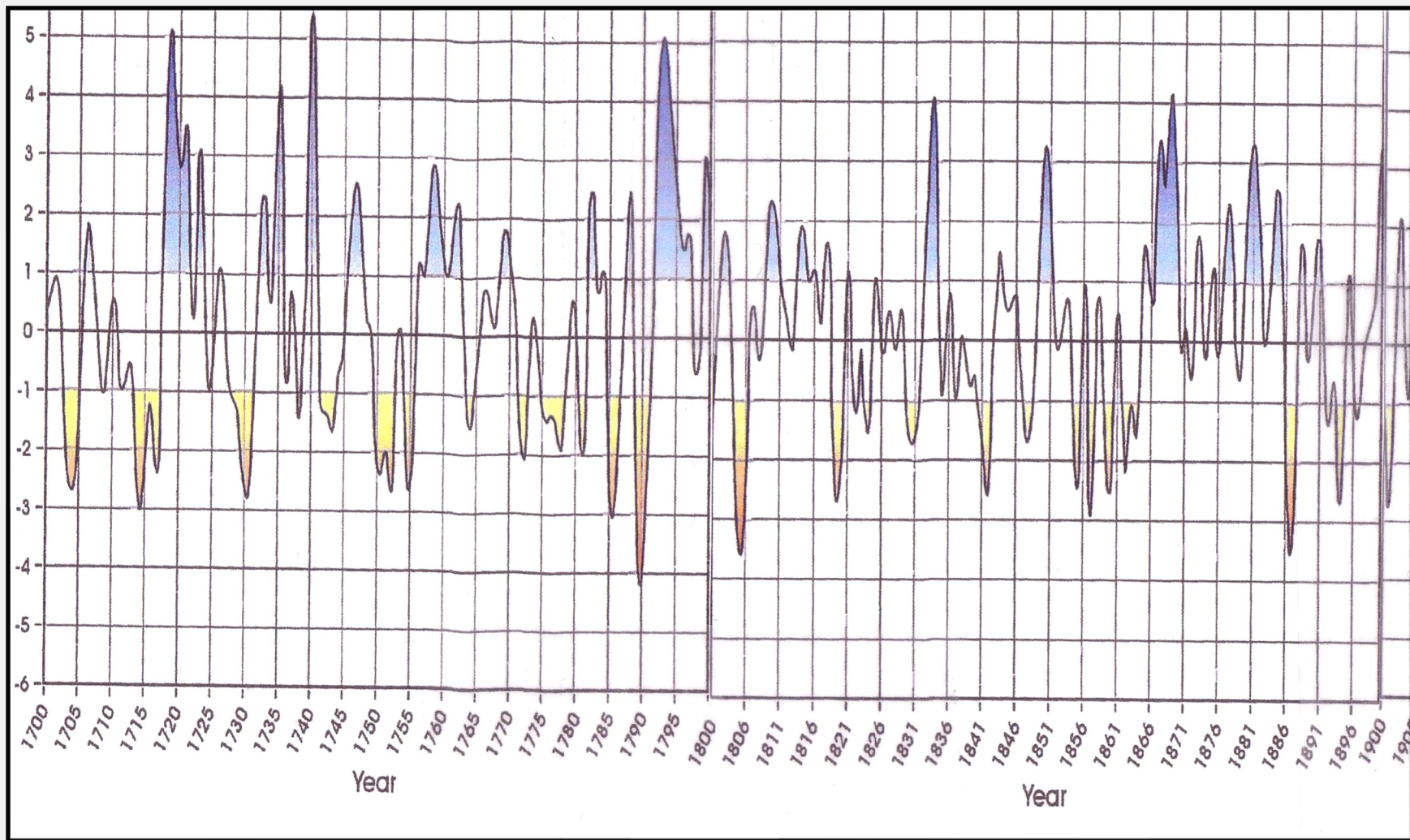
# A Long History of Drought

Analysis of tree rings suggests that western states have had many droughts of two decades or longer, including two megadroughts lasting longer than 100 years.



Sources: North American Drought Atlas, Lamont-Doherty Earth Observatory and the National Science Foundation; Journal of Quaternary Science

By The New York Times



**Droughts and Deluges in San Antonio  
1700 - 1900**

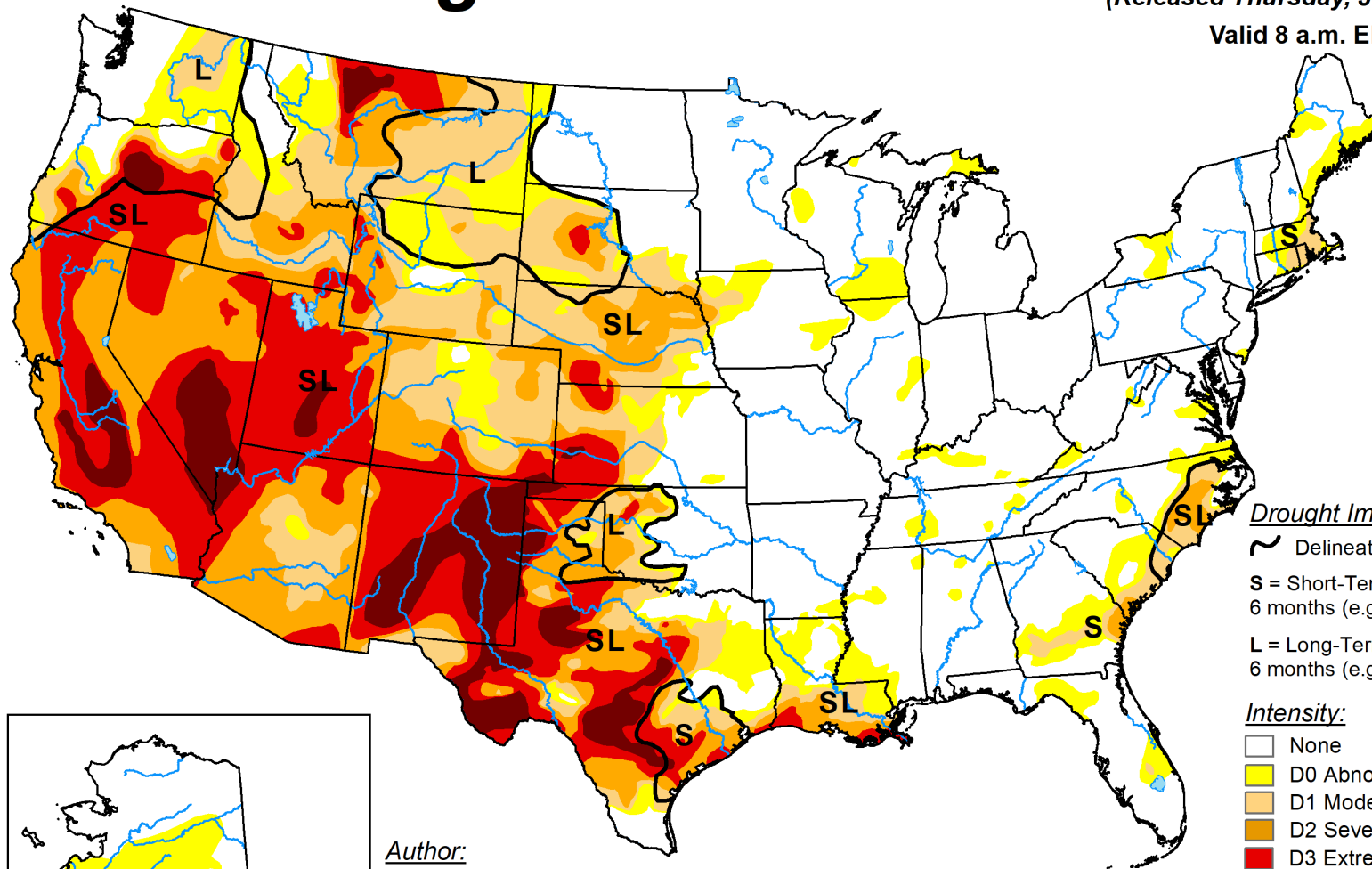


# U.S. Drought Monitor

June 7, 2022

(Released Thursday, Jun. 9, 2022)

Valid 8 a.m. EDT



## Drought Impact Types:

~ Delineates dominant impacts

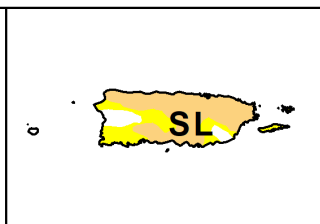
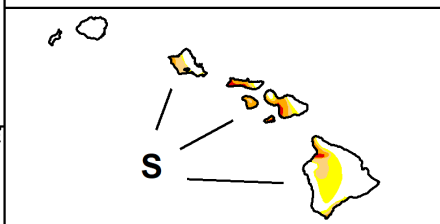
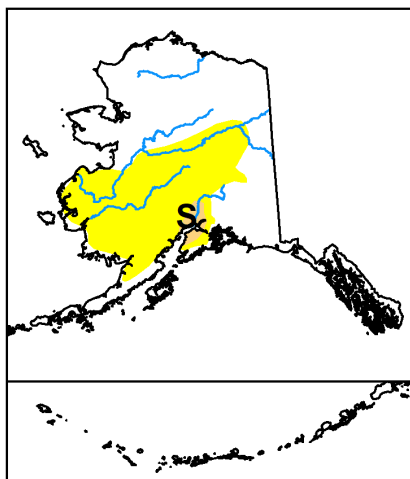
**S** = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)

**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 Pugh  
CPC/NOAA



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>



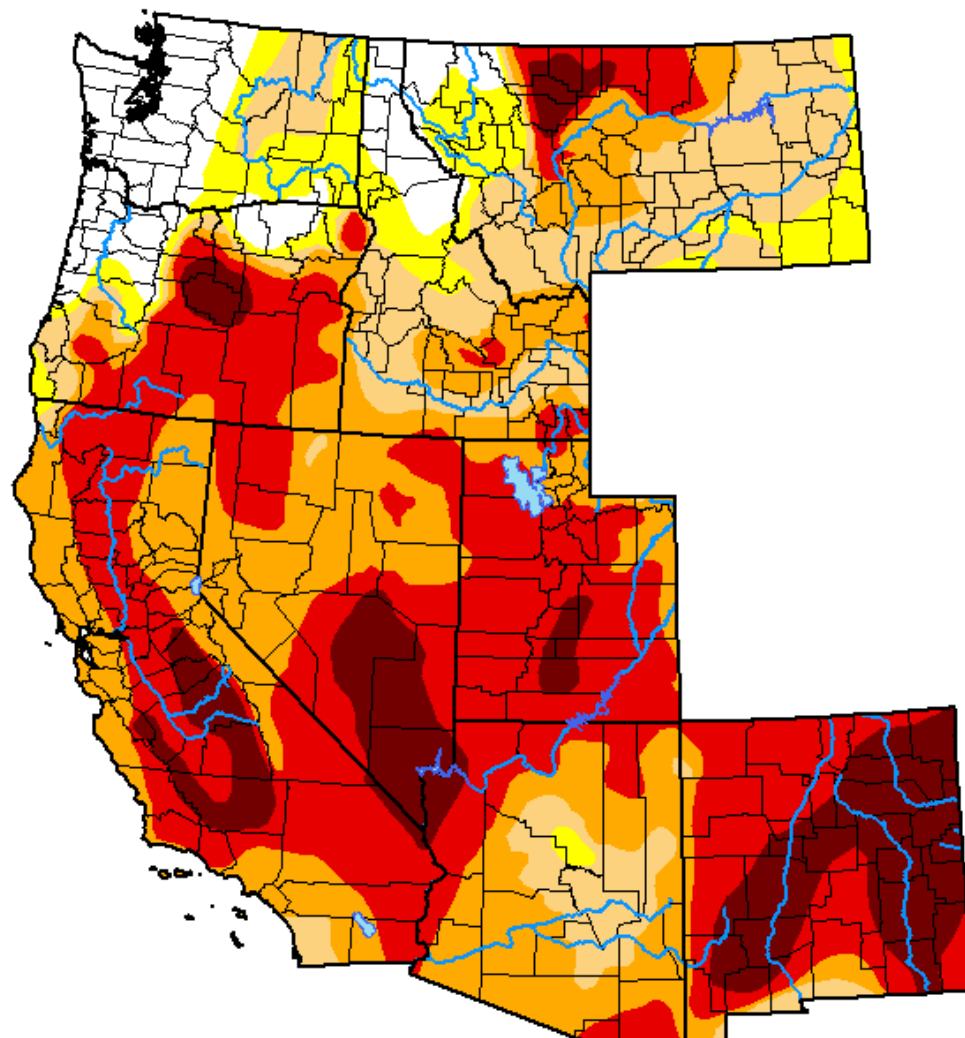
[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)

# U.S. Drought Monitor West







June 7, 2022

(Released Thursday, Jun. 9, 2022)

Valid 8 a.m. EDT



## Intensity:

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

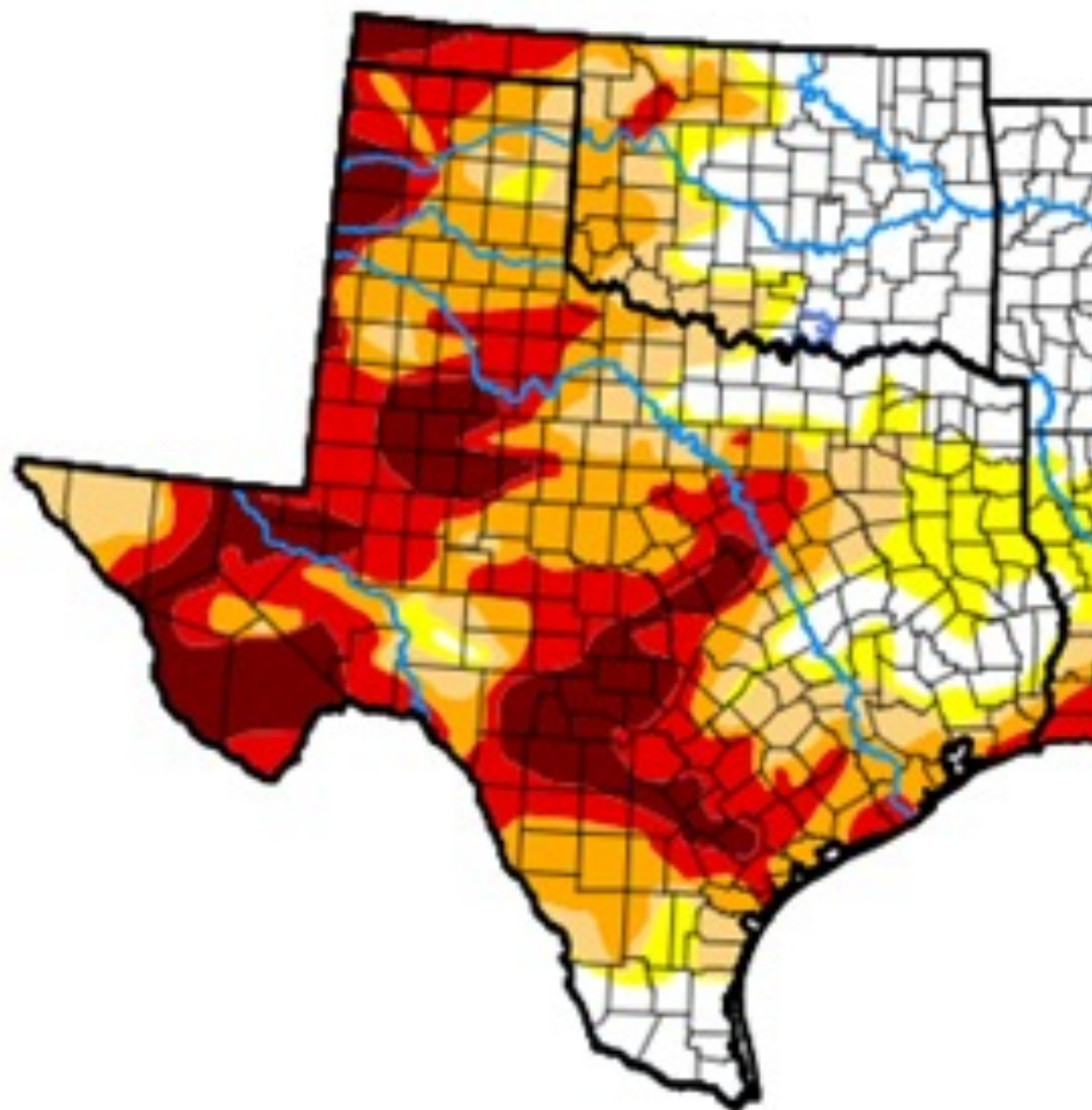
*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>*

## Author:

Brad Pugh  
CPC/NOAA



[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)

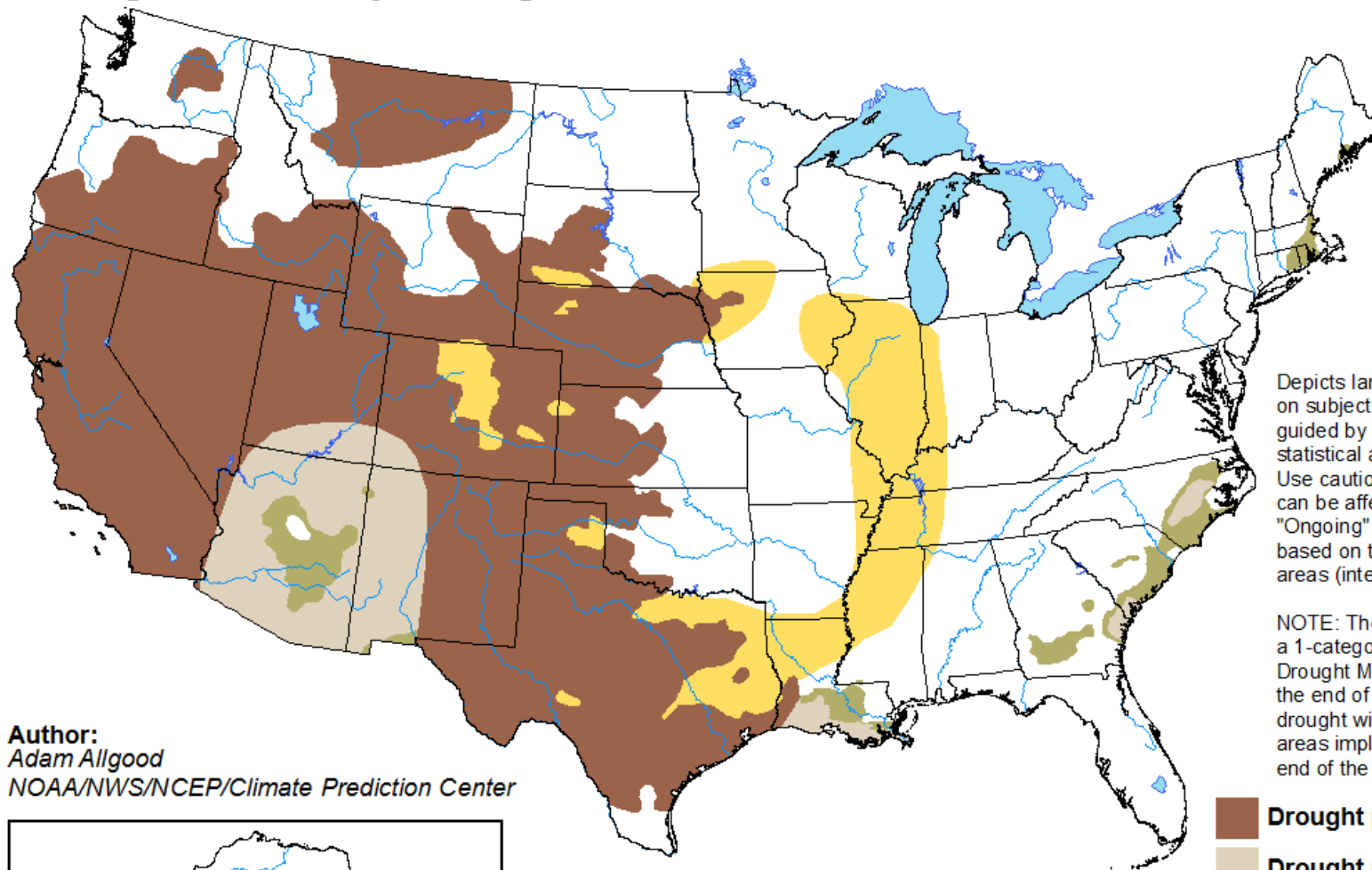




# U.S. Seasonal Drought Outlook

## Drought Tendency During the Valid Period

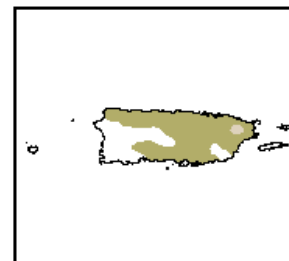
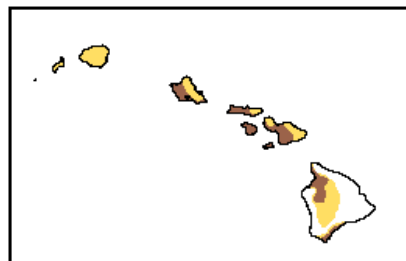
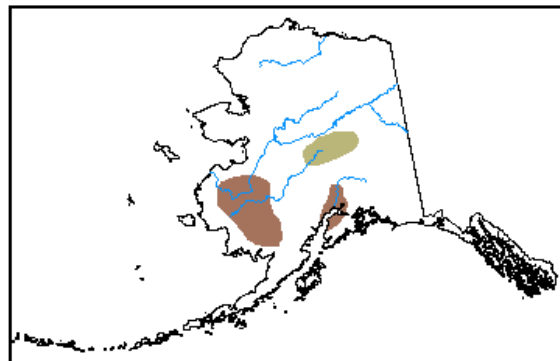
Valid for June 16 - September 30, 2022  
Released June 16







Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

**Author:**  
Adam Allgood  
NOAA/NWS/NCEP/Climate Prediction Center

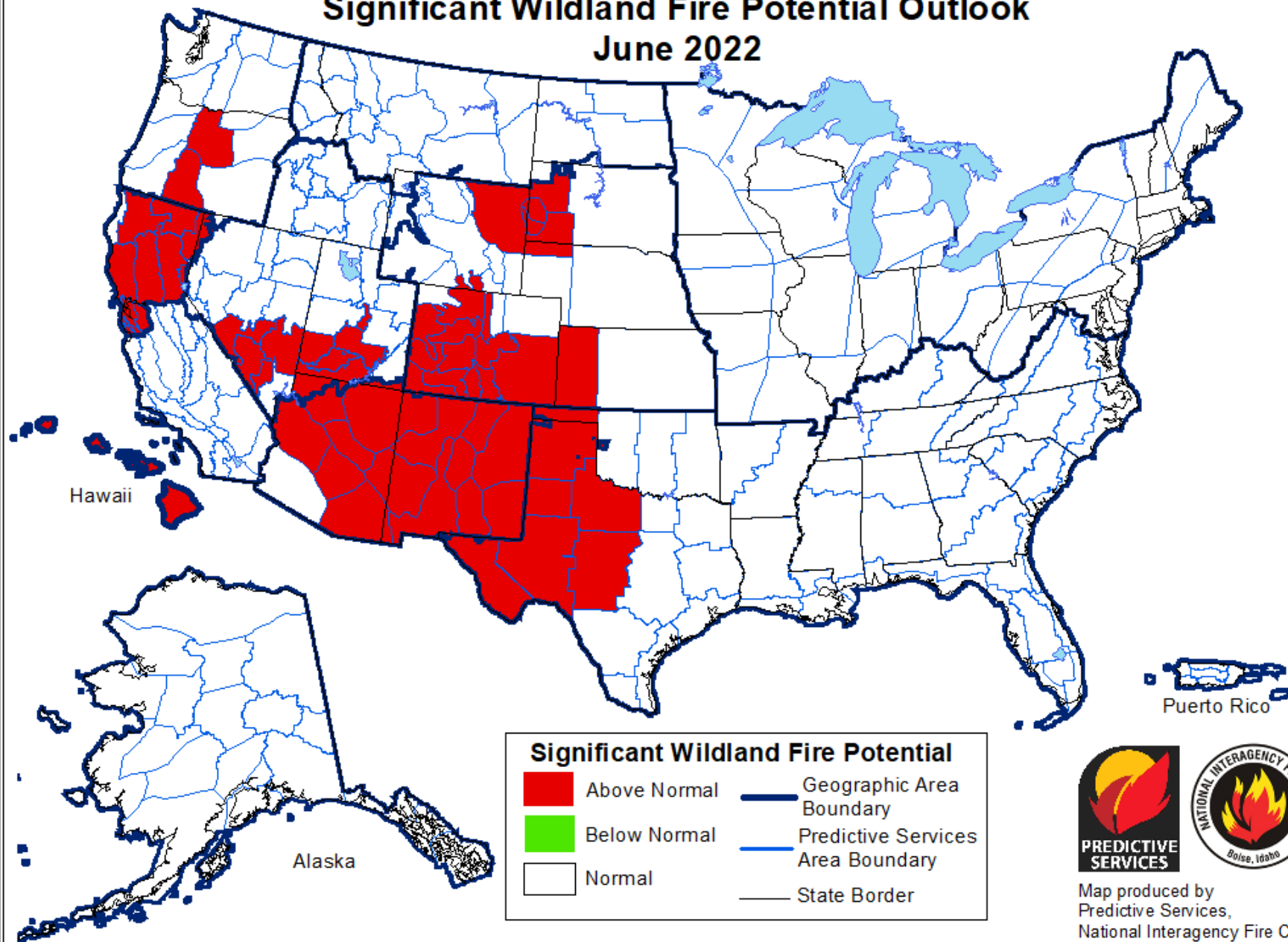


-  Drought persists
-  Drought remains but improves
-  Drought removal likely
-  Drought development likely



<http://go.usa.gov/3eZ73>

# Significant Wildland Fire Potential Outlook June 2022

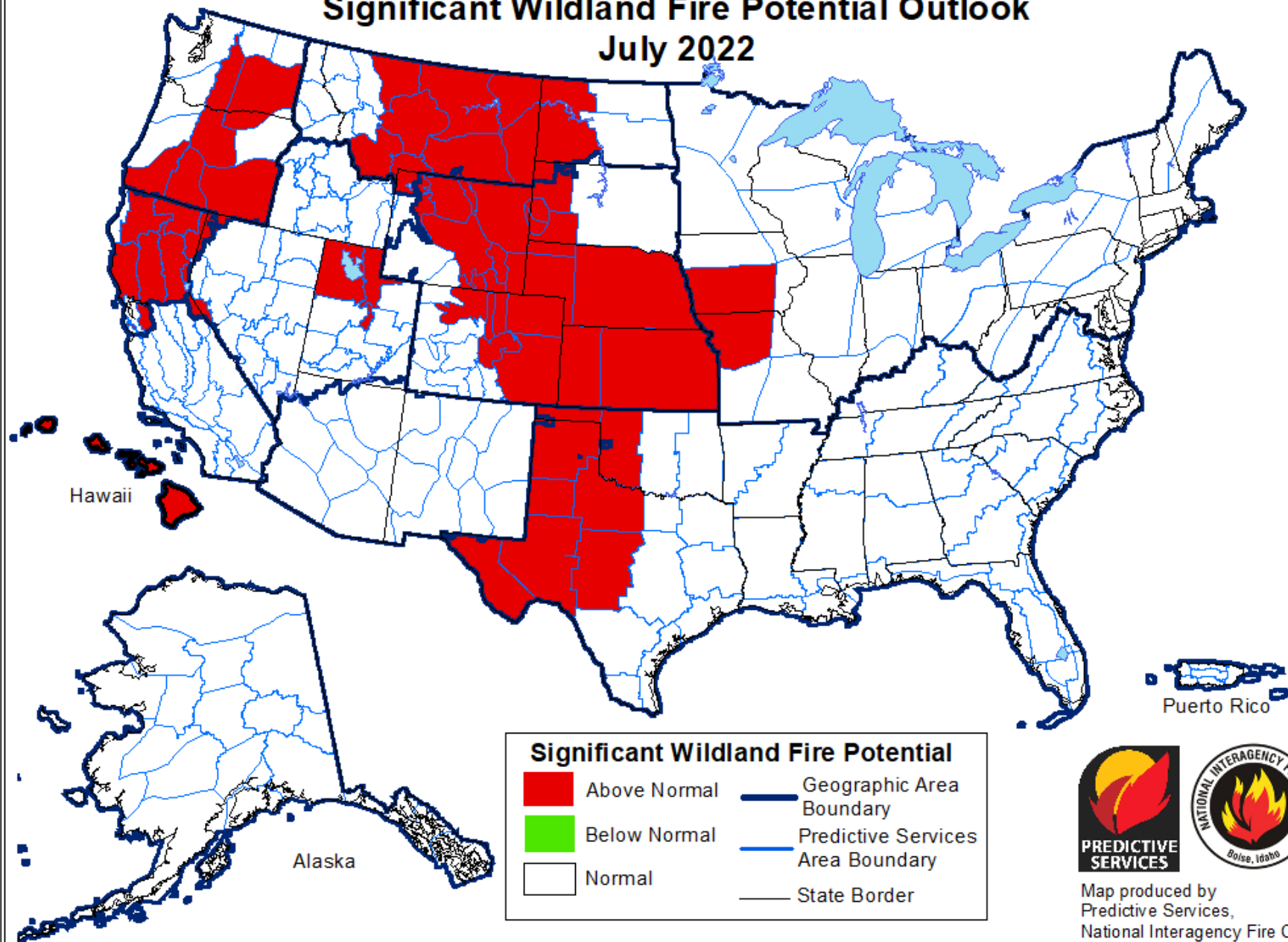


Above normal significant wildland fire potential indicates a greater than usual likelihood that significant wildland fires will occur. Significant wildland fires should be expected at typical times and intervals during normal significant wildland fire potential conditions. Significant wildland fires are still possible but less likely than usual during forecasted below normal periods.



Map produced by  
Predictive Services,  
National Interagency Fire Center  
Boise, Idaho  
Issued June 1, 2022  
Next issuance July 1, 2022

# Significant Wildland Fire Potential Outlook July 2022

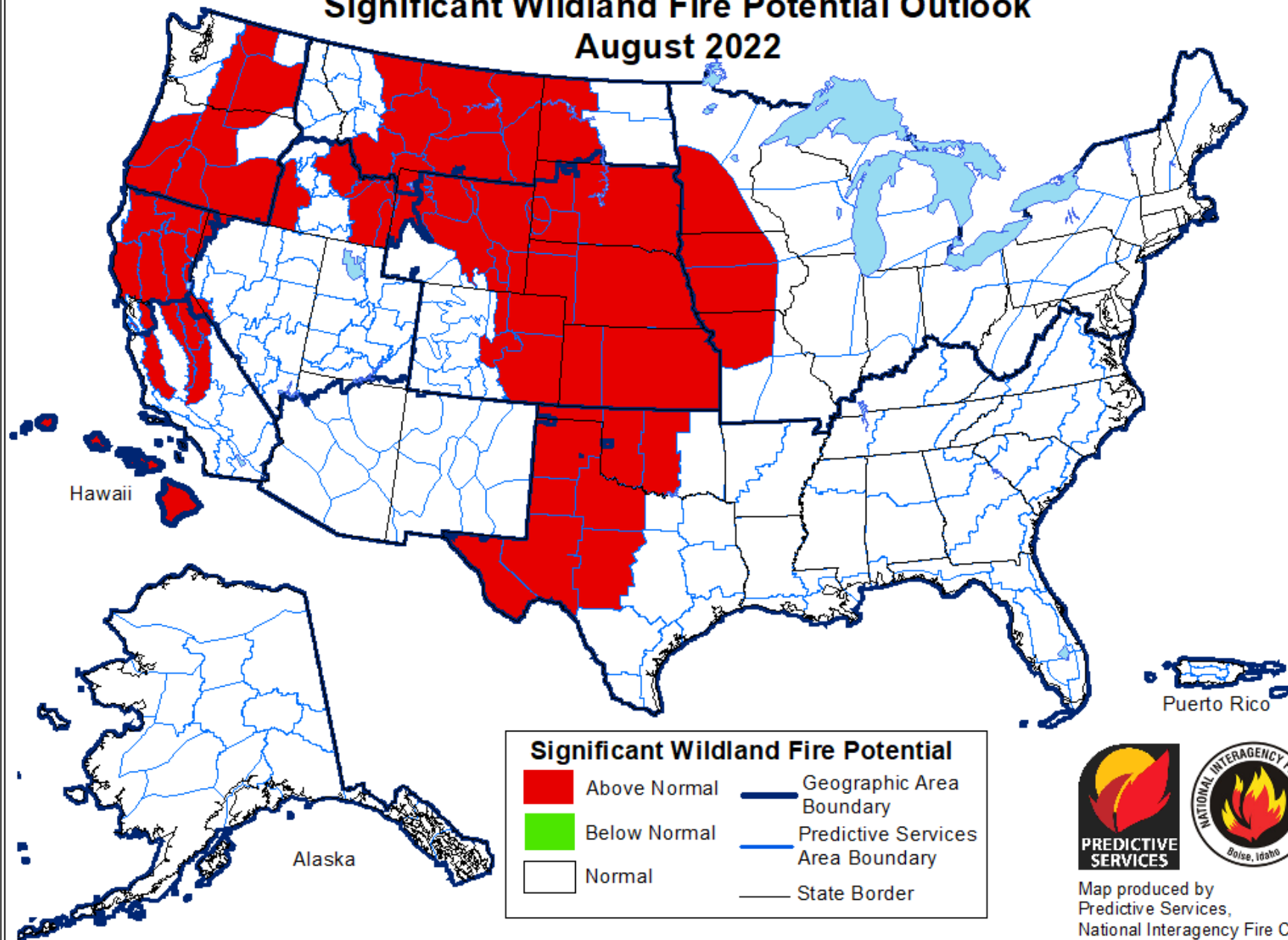


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Predictive Services,  
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# Significant Wildland Fire Potential Outlook August 2022



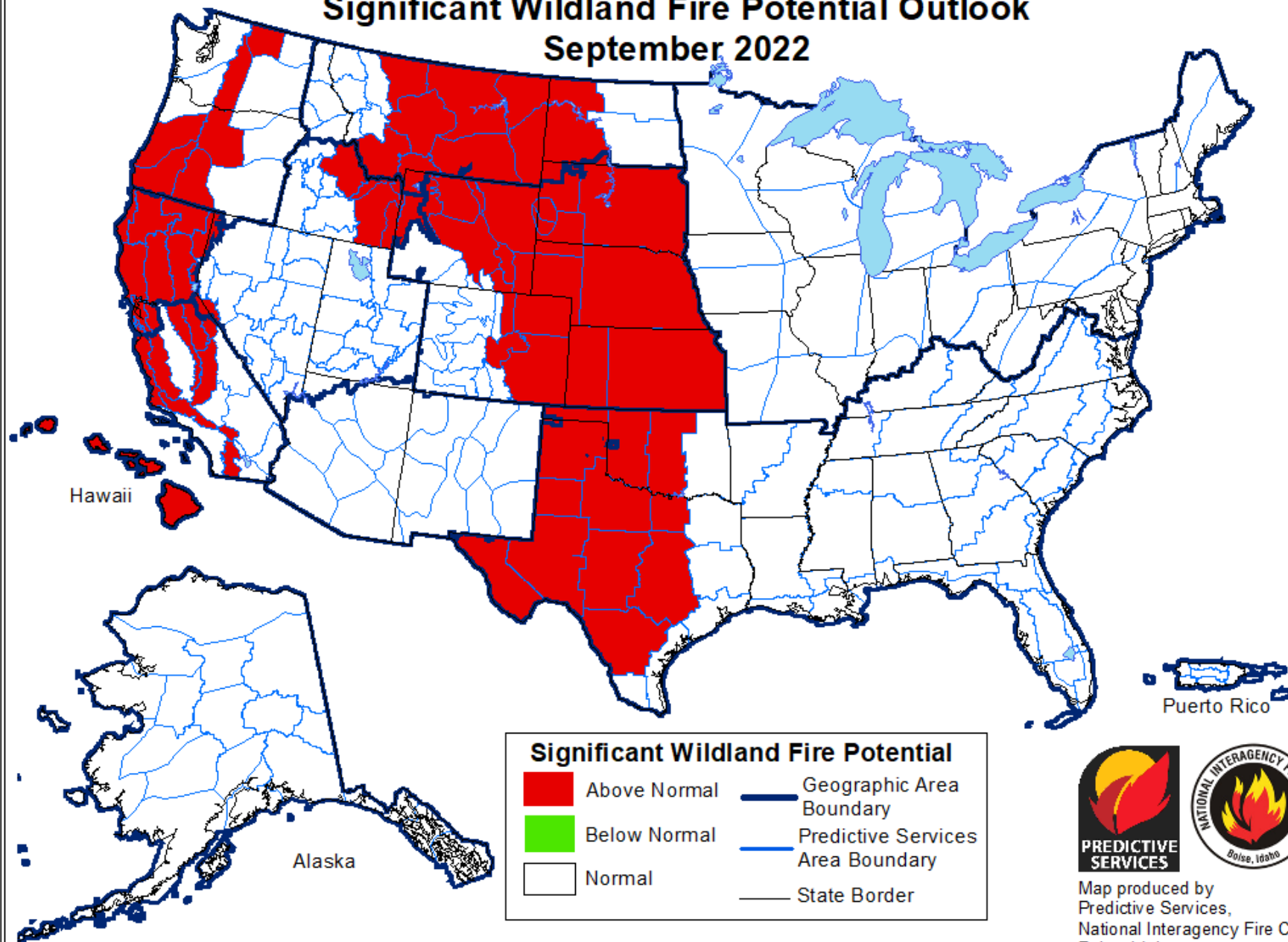
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Boise, Idaho  
Issued June 1, 2022  
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# Significant Wildland Fire Potential Outlook September 2022



Above normal significant wildland fire potential indicates a greater than usual likelihood that significant wildland fires will occur. Significant wildland fires should be expected at typical times and intervals during normal significant wildland fire potential conditions. Significant wildland fires are still possible but less likely than usual during forecasted below normal periods.



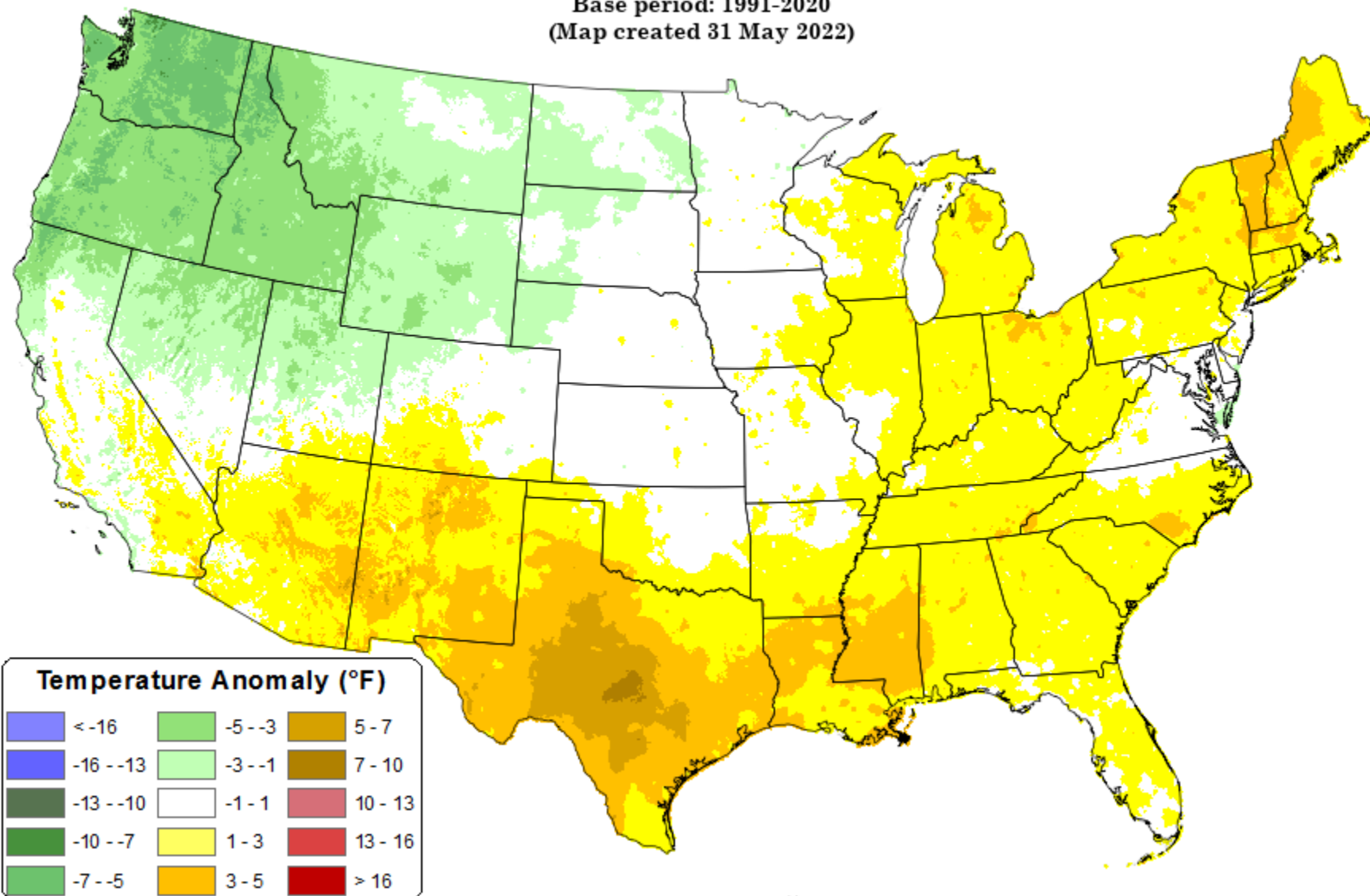
Map produced by  
Predictive Services,  
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Boise, Idaho  
Issued June 1, 2022  
Next issuance July 1, 2022

# Daily Mean Temperature Anomaly: 01 May 2022 - 30 May 2022

Period ending 7 AM EST 30 May 2022

Base period: 1991-2020

(Map created 31 May 2022)

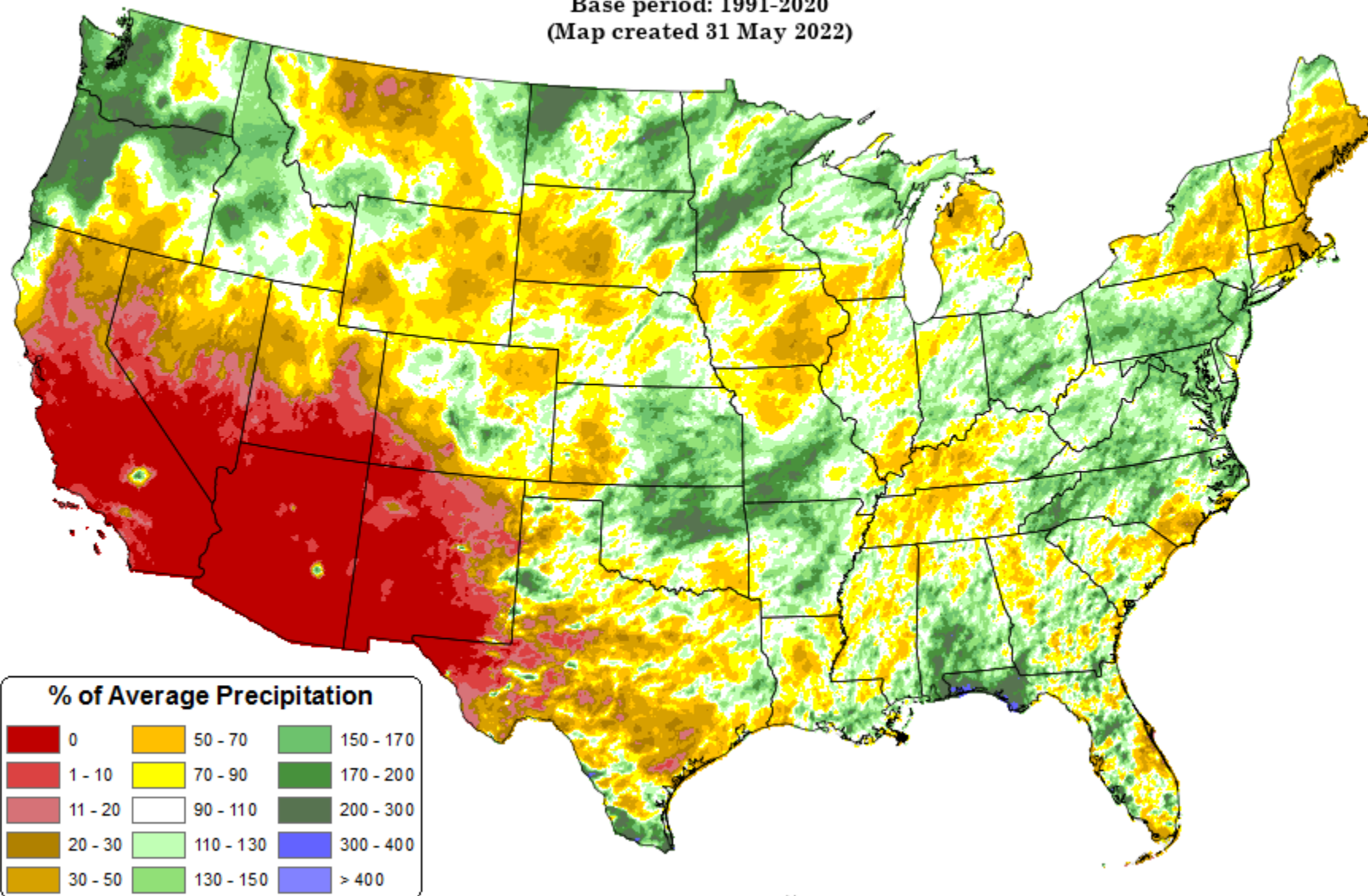


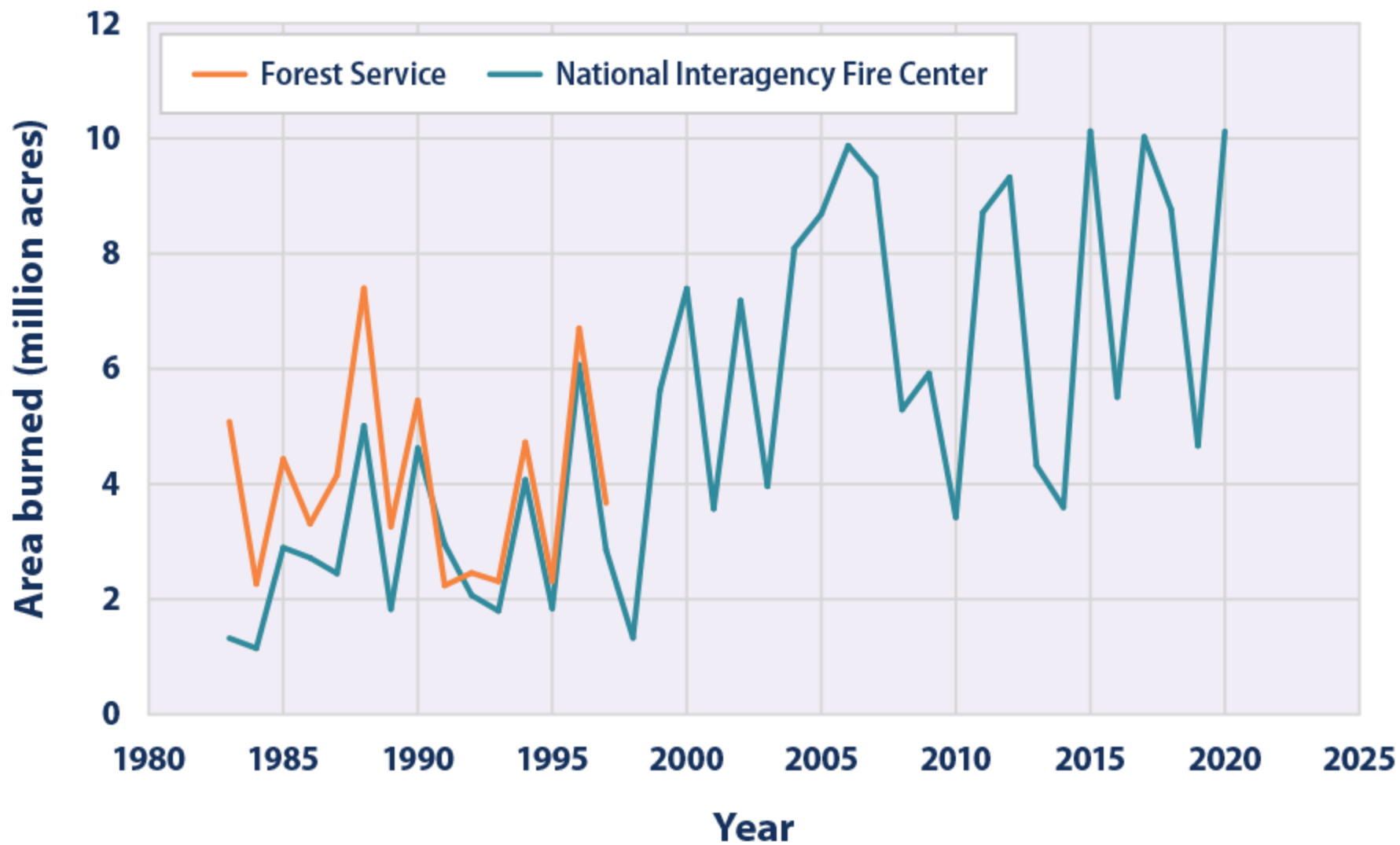
# Total Precipitation Anomaly: 01 May 2022 - 30 May 2022

Period ending 7 AM EST 30 May 2022

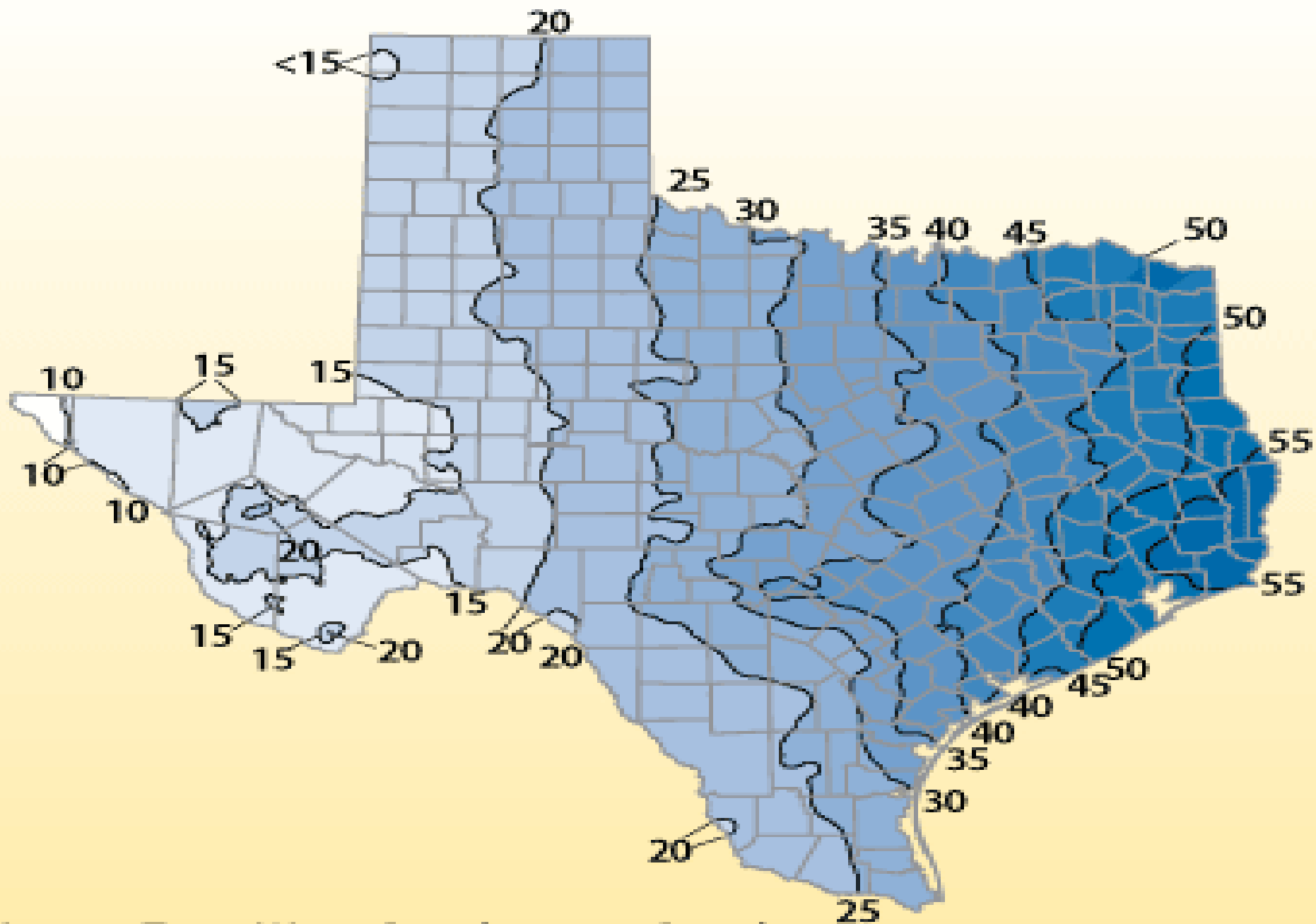
Base period: 1991-2020

(Map created 31 May 2022)









Source: Texas Water Development Board.

# Broad Overview of Society and Water – A Framework

From Porter's New Textbook:

*Public Water Policies: The Ultimate Weapons of Social Control*

*The question is how to manage a resource that is  
fleeting, crosses national boundaries, and  
evaporates into the air.*

Professor Elli Louka

# **Three Geological Containers Determine Ownership and Agencies of Regulation**

Natural Surface Water – State-owned water/TCEQ

Diffused Surface Water – Landowner-owned water

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...

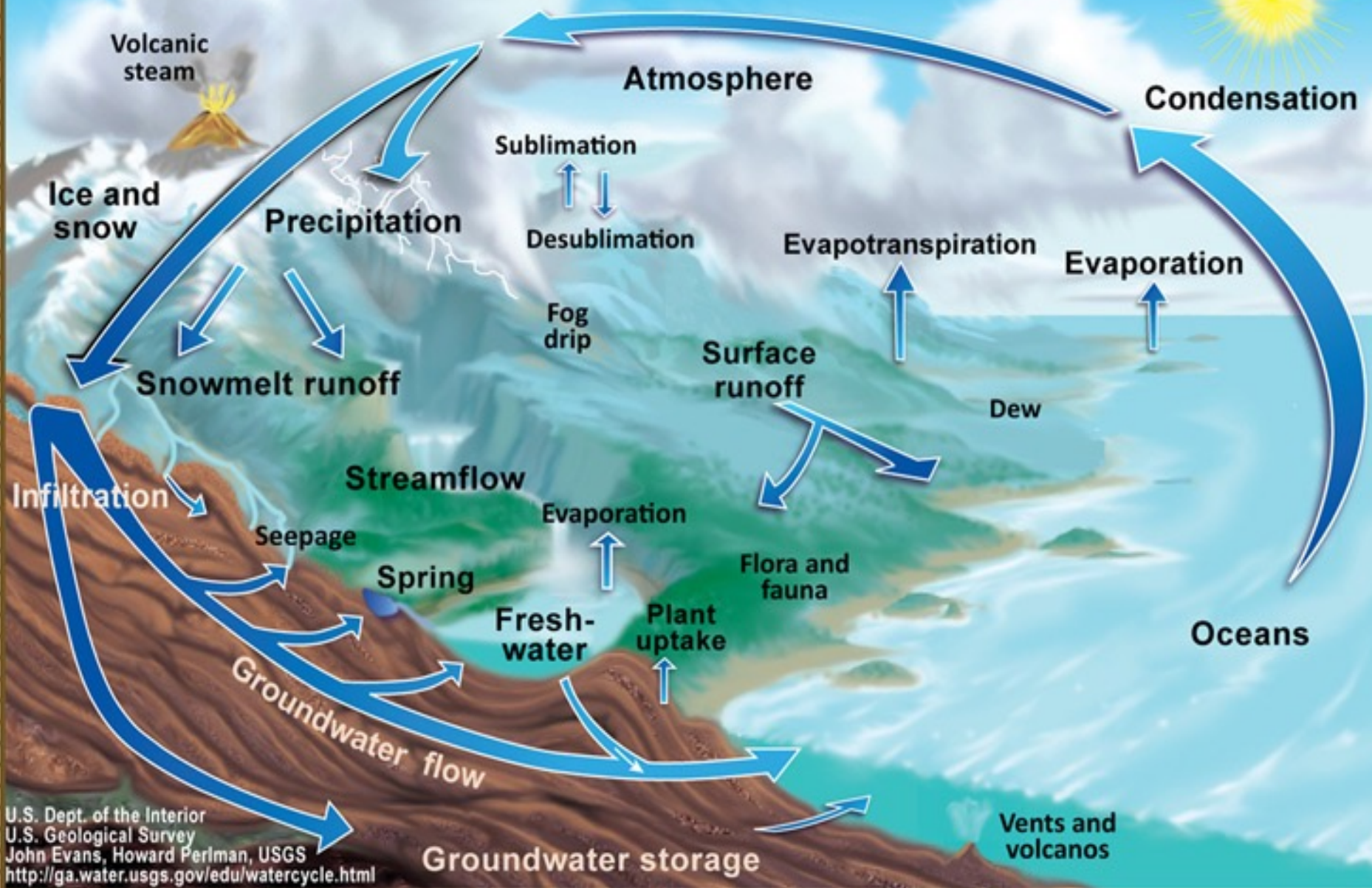
***Acre-foot*** – volume of water needed to cover 1 acre to a depth of 1 foot = **325,851 gallons.**

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

***and . . .***

***water ignores political boundaries.***

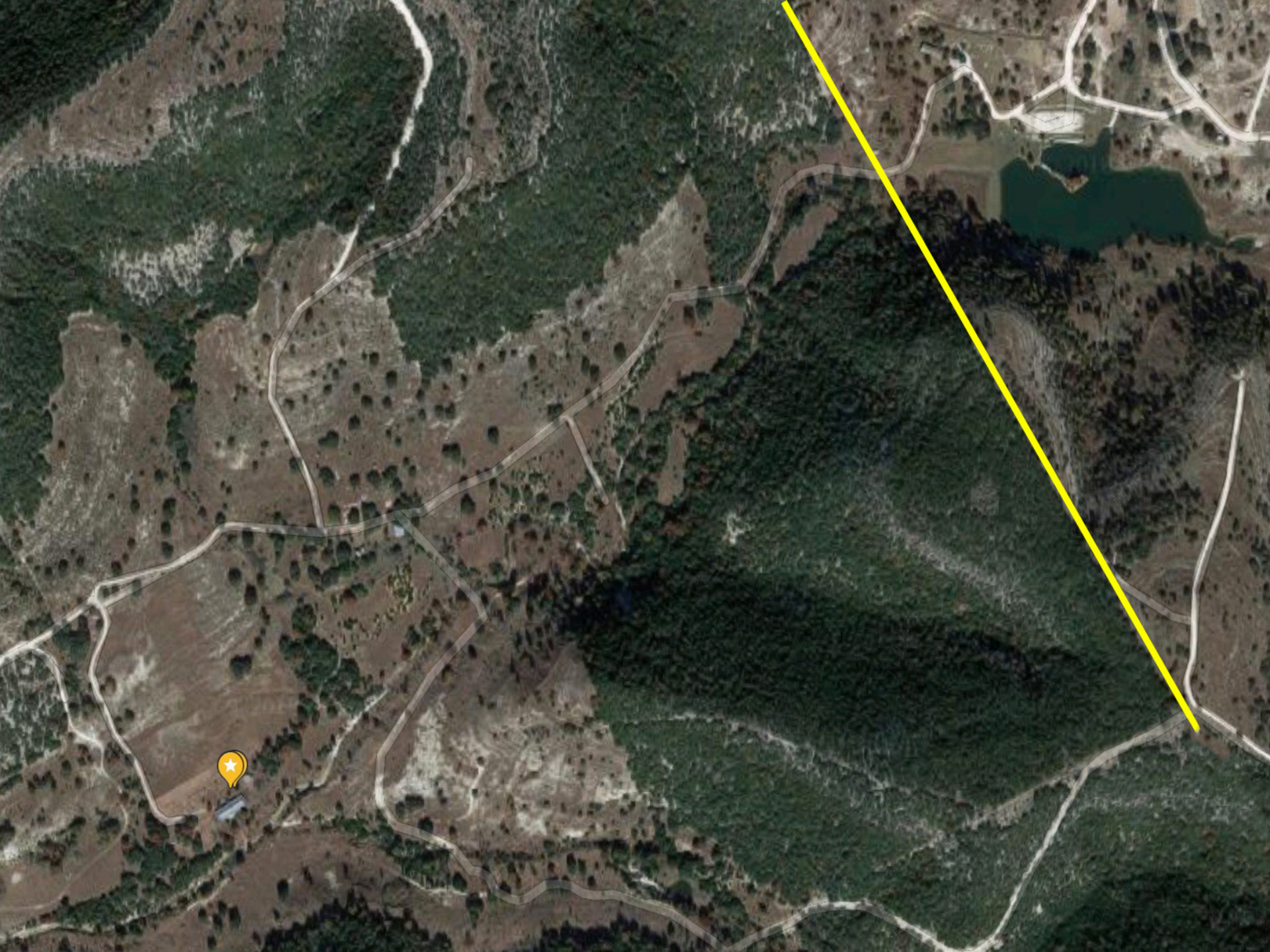
# The Water Cycle



# **Container #1 - Surface Water**

TCEQ including  
Watermasters and 17 River  
Authorities





# **Container # 2 - Diffused Surface Water**

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.

# **Container #3 - Groundwater**

Local Groundwater Conservation  
Districts

# 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.

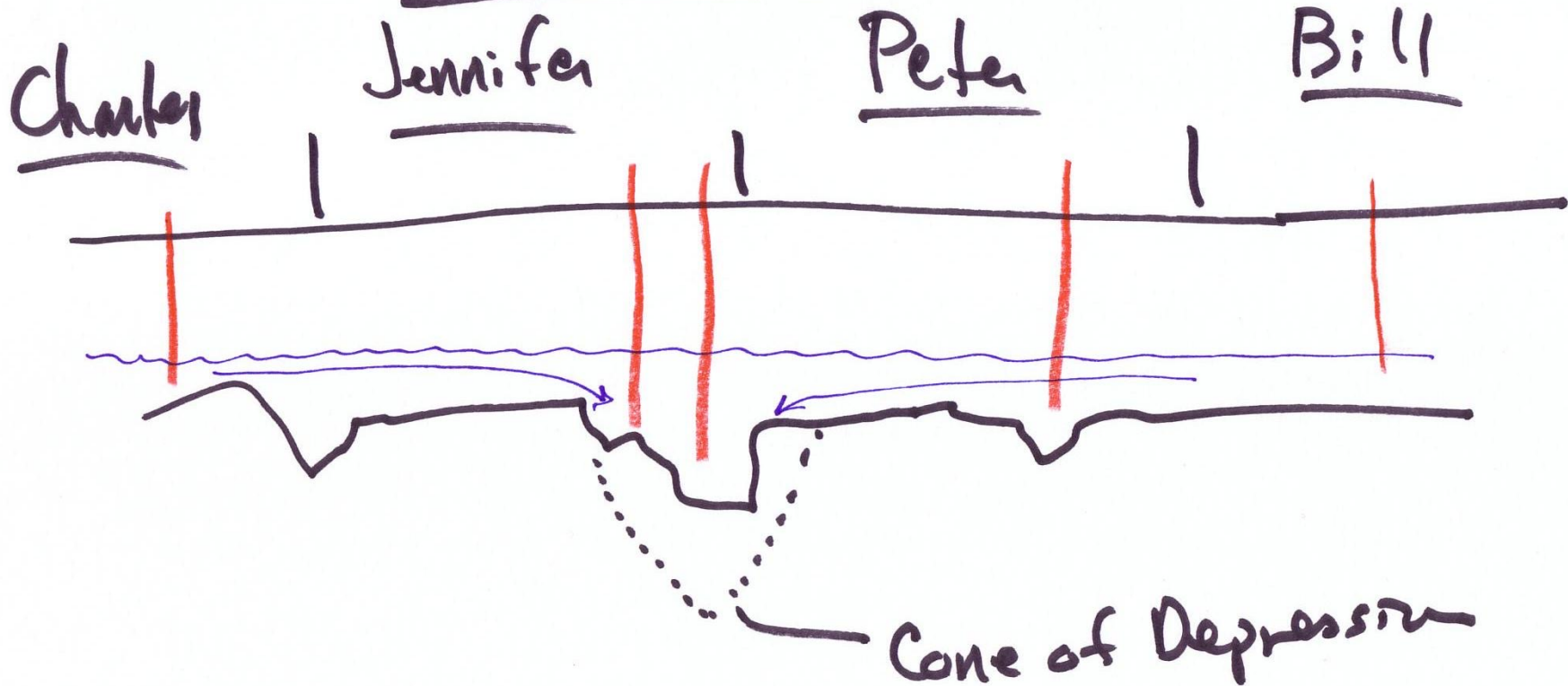
# Sources of Ownership of Groundwater in Texas

- The Ancient “Absolute” Rule –
- In Texas, the precedent is Spanish Colonial law – (reading from Michael Meyer’s textbook)
- 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.**

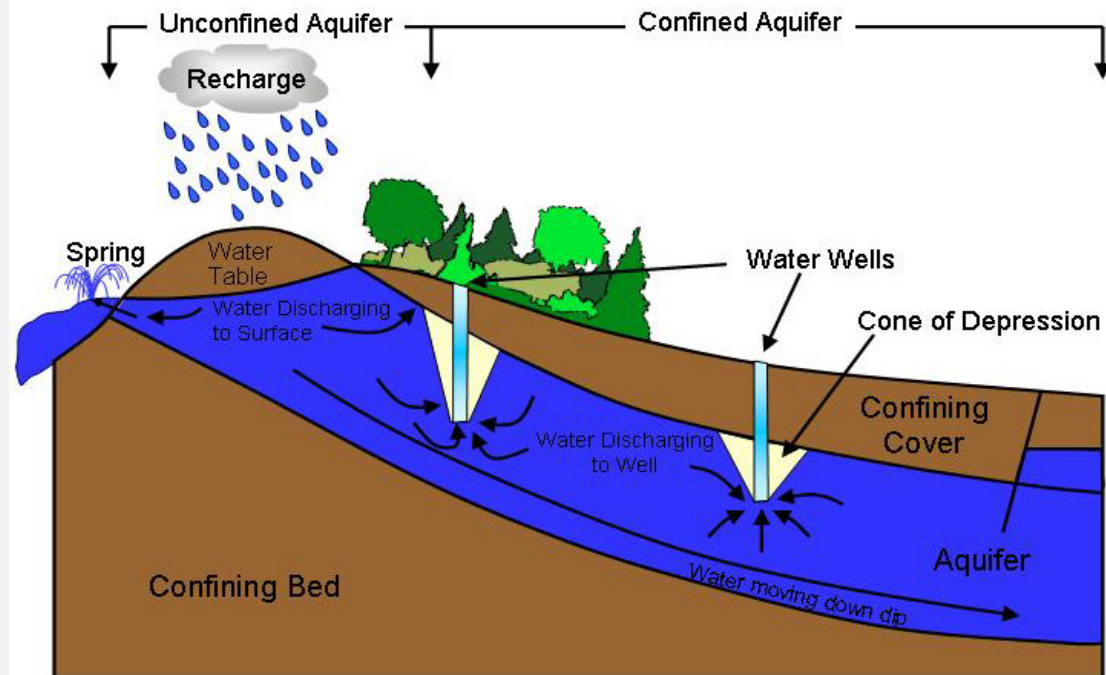
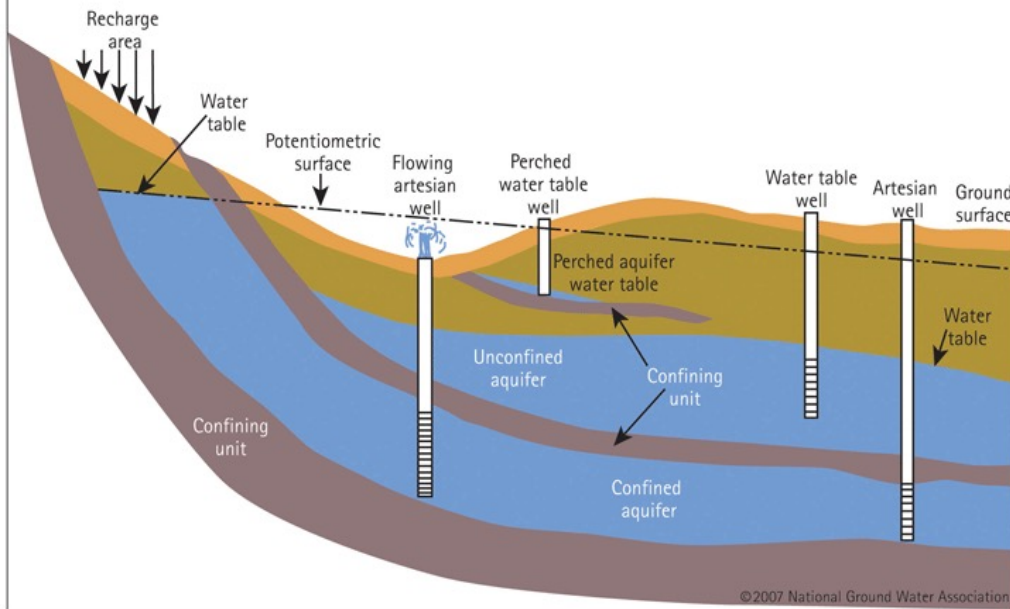


# RULE OF CAPTURE



Jennifer gets all the water.  
Charles, Peter & Bill - wells dry up!  
NO REMEDY TO THEM

## Confined/Unconfined Aquifers



# Limits and “Controls” of the *Rule of Capture*

- Cannot waste water.
- Cannot take water from your neighbor maliciously.
- Cannot cause subsidence.
- Rules and regulations from GCDs (if one exists in your area).



*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.***

***Many GCDs are terribly underfunded!***

## Groundwater Conservation Districts

- 1 High Plains UWCD No. 1 - 9/29/1951
- 2 North Plains GCD - 1/2/1955
- 3 Panhandle GCD - 1/2/1956
- 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 Iron County WCD - 8/2/1985
- 12 Permian Basin UWCD - 9/2/1985
- 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 - 2/6/1992
- 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 West-Tex GCD - 11/5/2002
- 75 Gateway GCD - 5/3/2003
- 76 Hays Trinity GCD - 5/3/2003
- 77 Ruak County GCD - 6/5/2004
- 78 Kennedy 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 Pecos 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 Pecoslands 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 Groundwater Conservation Districts (March 2022)



## 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) 233-4600.

Map printed March 1, 2022.

Date indicates date established by law or by election.

ASRCD - Aquifer Storage and Recovery 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  
 UWCD - Underground Water Conservation & Supply 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 178 counties – **of 254 counties** – 70%.

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





**Panhandle-Plains Historical Review**  
**LXXXVIII 2017**

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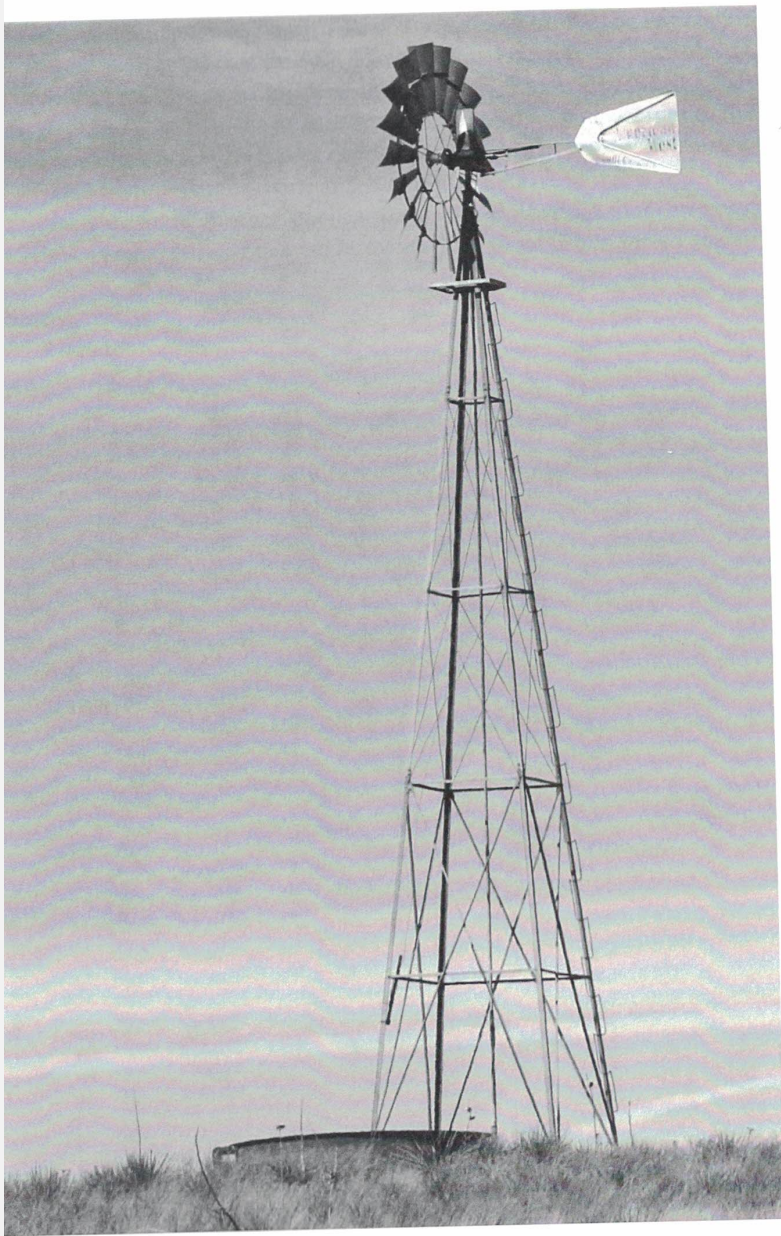


Photo courtesy of AJ McCormick.

## "Of Urgent Concern": What Prompted House Bill 162, the Groundwater Conservation Act of 1949

Charles Porter\*

*"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, Jr.*

Dolph Briscoe, Jr., Governor of Texas from 1973-1979, clearly remembered, even in his mid-80s, that one of the key motivations for his entrance into politics in 1949 was to keep the control of groundwater in the hands of the farmer-landowner. Briscoe's position, typical of most farmers' positions both then and today in Texas, demonstrated the absolute necessity of groundwater to the farmers' business, culture, and overall way of life. Surface water is seen, flows in a watercourse across the land, and is owned by the state of Texas. But groundwater is hidden underground and owned by the landowner. How is the elusive, always-moving groundwater defined under Texas law? According to water law attorneys Douglas G. Caroom and Susan M. Maxwell, "Groundwater or underground water is water occurring under the surface of the land. The term 'groundwater' can include percolating water or artesian water, but not the underflow of a surface water river or stream or the underground flow of water in confined channels. Groundwater is presumed to be percolating, unless proven otherwise."<sup>2</sup> "Groundwater" in Texas is presumed to be "percolating" as well per the Texas Water Code and case law.<sup>3</sup> The Texas Water Development Board claims "Groundwater is a major source of water in Texas, providing about 60 percent of the 16.1 million acre-feet of water used in the state."<sup>4</sup> The vast majority of the total groundwater used in Texas, some 60-70 percent, is used for agricultural irrigation; without groundwater, few crops can be produced west of the Interstate 35 corridor, which runs in a roughly northerly direction, beginning at the Rio Grande River in Laredo through San Antonio, Austin, Waco, Dallas, and entering Oklahoma at Sherman, Texas on its way to Minnesota. One thing is certain in Texas life throughout history—farmers and ranchers want ownership and control of their groundwater.

\*Charles Porter, Ph. D., is a testifying water rights expert and Visiting Professor at St. Edward's University. He is the author of *Sharing the Common Pool: Water Rights in the Everyday Lives of Texans* (Texas A&M Press, 2014) and *Spanish Water/Anglo Water* (Texas A&M Press, 2009).



MacCormack, Zeke. “Fair Oaks Ranch project raises water concerns in Comal County”. San Antonio Express-News, May 8, 2014.

“A proposed development on 345 acres east of the small city of Fair Oaks Ranch close to the county line of Comal County lies mostly in Kendall County under the Cow Creek Groundwater Conservation District jurisdiction.

If the water wells to service the development are dug in Kendall County, then only 86 residences could be built in compliance with the Cow Creek GCD rules.

Yet a very small amount of the land lies in Comal County which has no GCD hence there is no limit to groundwater pumping if the water well or wells are drilled in Comal County which then allows the developer to increase the size of the subdivision to 635 homes. “

***Due to years of hard work by Rep. Doug Miller, Northern Comal County has a district.***

Texans manage Surface Water and  
Groundwater differently.

What about the conjunctive  
relationship of all water?

***Remember there are 101 Groundwater Conservation Districts with 101 slightly different sets of rules and regulations.***

***Why? Local control offers the best opportunity for fair and appropriate rules and regs resulting in community support and compliance.***

# District Funding is a Problem.

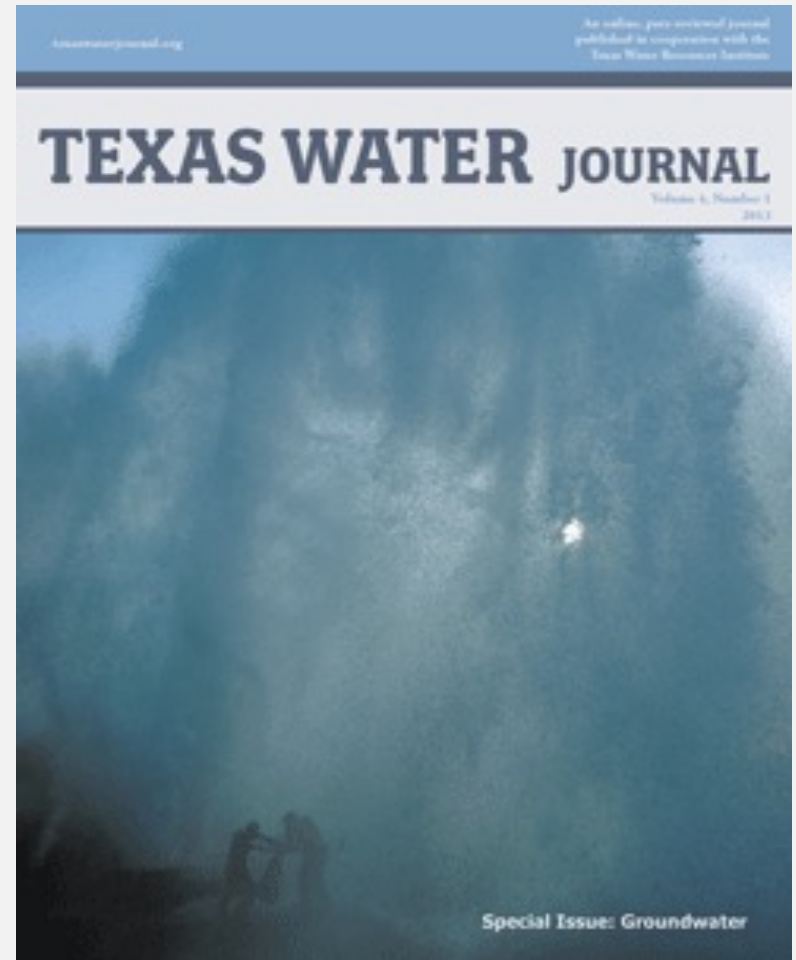
Texas Water Journal

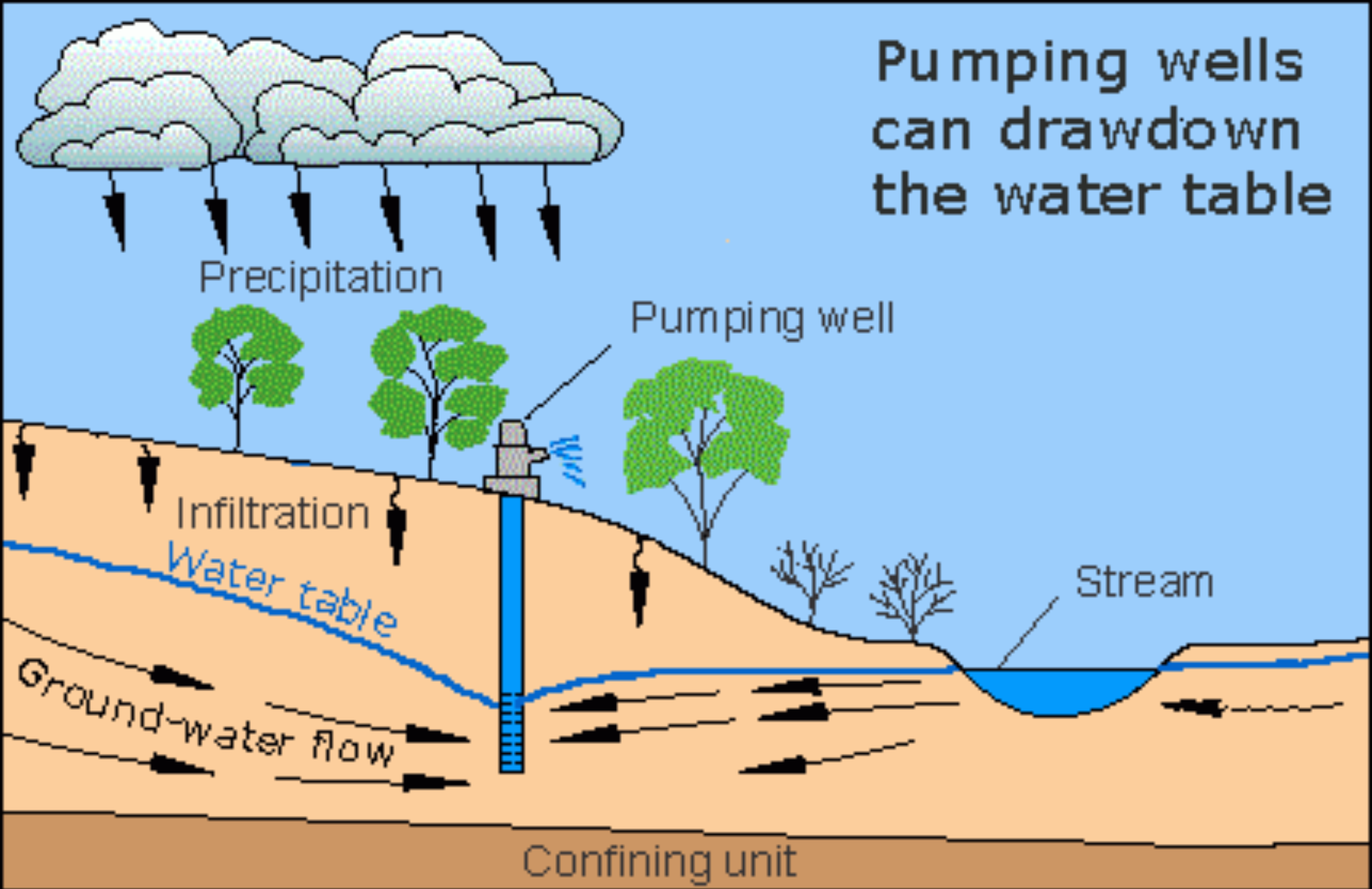
May, 2013, Vol. 4, No. 1

[“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>





An example of the *conjunctive* relationship of water.

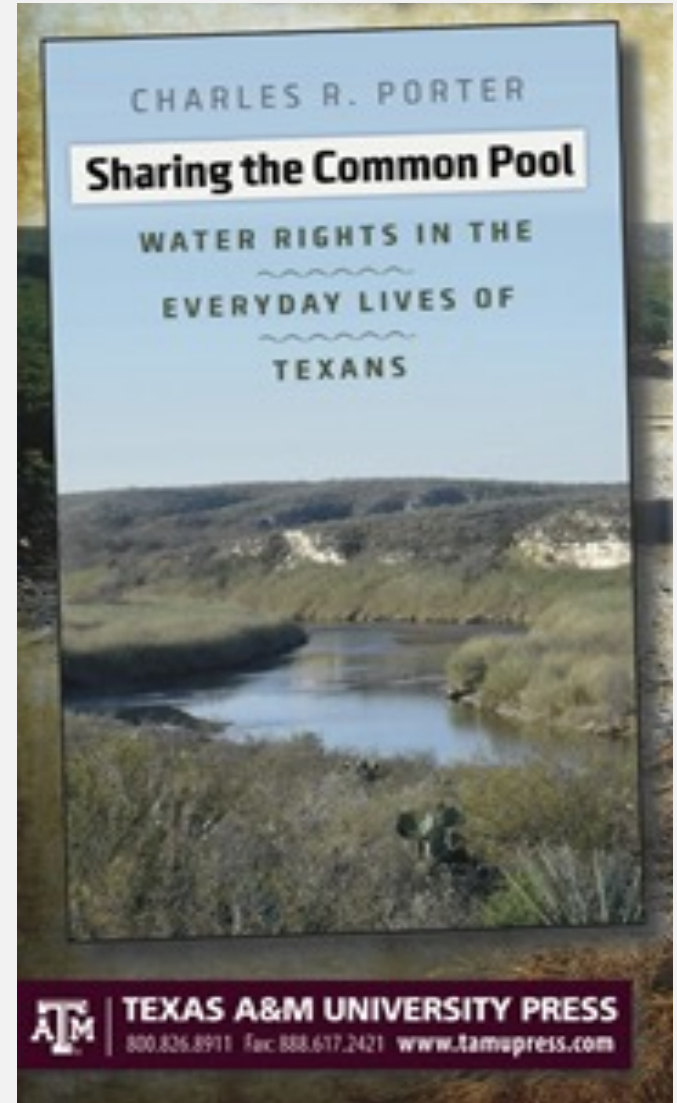
# Exempt Uses

- Exempt uses of the aquifers include:
  - domestic
  - livestock
  - oil and gas exploration
  - any other uses specified in the rules or enabling legislation of a district
- TWDB estimates include only domestic and livestock exempt use through 2060
  - Total exempt use for these categories based on current exempt estimates and projected rural population changes
  - Exempt use divided into individual aquifers based on the percent of domestic and livestock wells completed into each aquifer in each county
- Districts may submit alternative estimates of exempt use for consideration

# ***The 21<sup>st</sup> 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

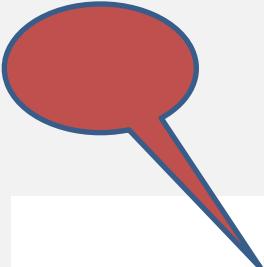
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## to the 84th Legislature

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.<sup>162</sup> 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.<sup>163</sup> 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.<sup>164</sup> 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.<sup>165</sup> 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.<sup>166</sup> In fact, some



# The Wimberley View

Thursday, January 29, 2015

75 cents

## Controversial wells increase potential production

*Local and state officials still looking for answers*

Dalton Sweat  
Editor

Hundreds of people filled in to the Wimberley Community Center last week to hear a discussion from the Hays Trinity Groundwater Conservation District concerning the Electro Purification test wells off FM 3237.

Last week, the city of Buda voted to negotiate an agreement for one million gallons of water per day from the well field bringing Electro Purification's total contracted amount to 5.3 million gallons a day. The wells are drilled in an area that is essentially without regulation when it comes to how much water could be pumped.

"It is a real unfortunate situation," Hays County Commissioner Will Conley said. "Nobody in Hays County should be able to distribute that amount of water commercially without any local oversight or permitting process. That is just completely irresponsible."



PHOTO BY DALTON SWEAT/WIMBERLEY VIEW

Residents packed the community center on Wednesday of last week for the Hays Trinity Groundwater Conservation District meeting.

The amount of water that is currently under contract to be pumped from the well site is roughly equivalent to all of the water that is pumped in northern Hays County, according to Brian Hunt with the Barton Springs Edwards Aquifer Conservation District. The

BSEAC district also ends less than two miles away from the well location along with the Hays Trinity Groundwater Conservation District leaving the area without a regulatory agency concerning the Trinity Aquifer.

The immediate concern is how much impact this

level of pumping would have on surrounding property owners.

Electro Purification has stated to officials that they do not believe there is a significant threat caused by the wells, but those living near by are worried.

"It's a frightening situation," said Louie Bond, who

lives in Rolling Oaks across the street from the well field. "Without water, we don't have anything. Most of the people out here can't afford to drill a deeper well, and we aren't even sure we would be able to drill deep enough... I imagine there

See Wells, Page 4



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

**The stark “reality”**

**of right of way acquisition.**



# **Water Valuation**

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.

## **What's the Market Value of Your Water?**

***It depends on “the highest and best use.”***

1. If you decided to sell your land, would you add the “value” of your groundwater to the asking price?
2. Would your ability to transfer/deliver that water out of a groundwater conservation district or sell/lease your rights become a factor in the “value” of that groundwater?
3. What is the value of the groundwater you own if you “use” it? For a corn crop? For bottled water plant? For other industrial use?
4. If a GCD or other regulatory district restricts the landowner's science-based application for a groundwater well permit, is the amount denied subject to a takings claim?

**Which scientist's studies do the judge and jury accept?**

**Are water transfers from district to district good or bad for Texas?**

***Time is of the essence.***

Absolutely in **all** water transactions.

# Key Links

- [www.tceq.state.tx.us/](http://www.tceq.state.tx.us/)

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

- [www.twdb.state.tx.us/](http://www.twdb.state.tx.us/)

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

- [www.texasgroundwater.org/](http://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](http://www.texaswaterpolicy.org) Porter's water journal.

# Suggestions on Water Value Disputes

- Use all three traditional methods and court rulings.
- Offer the court a range of values.
- Clearly delineate **all** assumptions used and footnote – cite each and every fact offered.
- Prove the water is truly comparable in quality, quantity, “economic life,” and **is able to be transferred** – that the product **can** be delivered. **Above all else, this is fundamental to assessment of risk.**
- If using comps, once proved truly comparable, **confirm both sides (best) or at least one and note clearly the source.**
- Follow USPAP (Uniform Standards of Professional Appraisal Practice) guidelines and/or Article 11 of the NAR Code of Ethics, Standard of Practice 11-1.



***The key to Texas water supply is groundwater.***

***Another key is use of diffused surface water.***

***Eventually the key might become desalination.***

***All water policies must encourage conservation!***

# *What can all of us do now?*

*Inform your members about their GCD and visit the TWDB and TCEQ sites.*

*Go to your Groundwater Conservation District meetings and participate.*

*Get to know your GCD board members and staff.*

*Contact and set up a relationship with a water rights attorney.*

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

*Support new policies such as Aquifer Storage and Recovery (ASR).*

*Support water transportation by pipeline for the future of Texas.*

*Capture each and every drop of water off your roofs and your land.*

*The key to Texas water short-term is groundwater. Eventually it might become desalination, but not yet.*



# Thank You

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512-627-3793