

# About Groundwater & Groundwater Districts

*“Without a groundwater district, you have no protection”*

**John Burke**

Chairman, Lower Colorado Regional Planning Group Region K

# Contents

- ➔ **1. Why Texas created groundwater districts**
2. Science
3. How districts work

# Texas Water Law

**1904** Houston & Texas Central Railway Company v. East

**1954** Pecos County Water v. Clayton W. Williams et al.

**1997** Senate Bill No. 1

**1998** Bart Sipriano, Harold and Doris Fain v. Ozarka Natural Spring Water Co.

**2001** Senate Bill 2

**2005** House Bill 1763

# Rule of Capture

“Rule of Capture” is not about property rights. It is about the ability to harm without recourse.

**“Rule of Capture” is your neighbor’s *absolute right* to pump all the water he can, *without regard* to how it affects you or the aquifer.**

... “Law of the largest pump”

# Threats to Texas Groundwater

- High volume exports from rural areas to big cities
- Rapid growth of big cities
- No protection under “Rule of Capture” – there are no rules

# Why Groundwater Districts

- Created by Texas legislature as the only method for local areas to regulate groundwater
- Groundwater districts are the only legal means to modify “Rule of Capture”
- Without a groundwater district you have no protection

# Comanche Springs







# Contents

1. Why Texas created groundwater districts

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# Aquifers of Texas



**Our aquifer  
as a bathtub...**

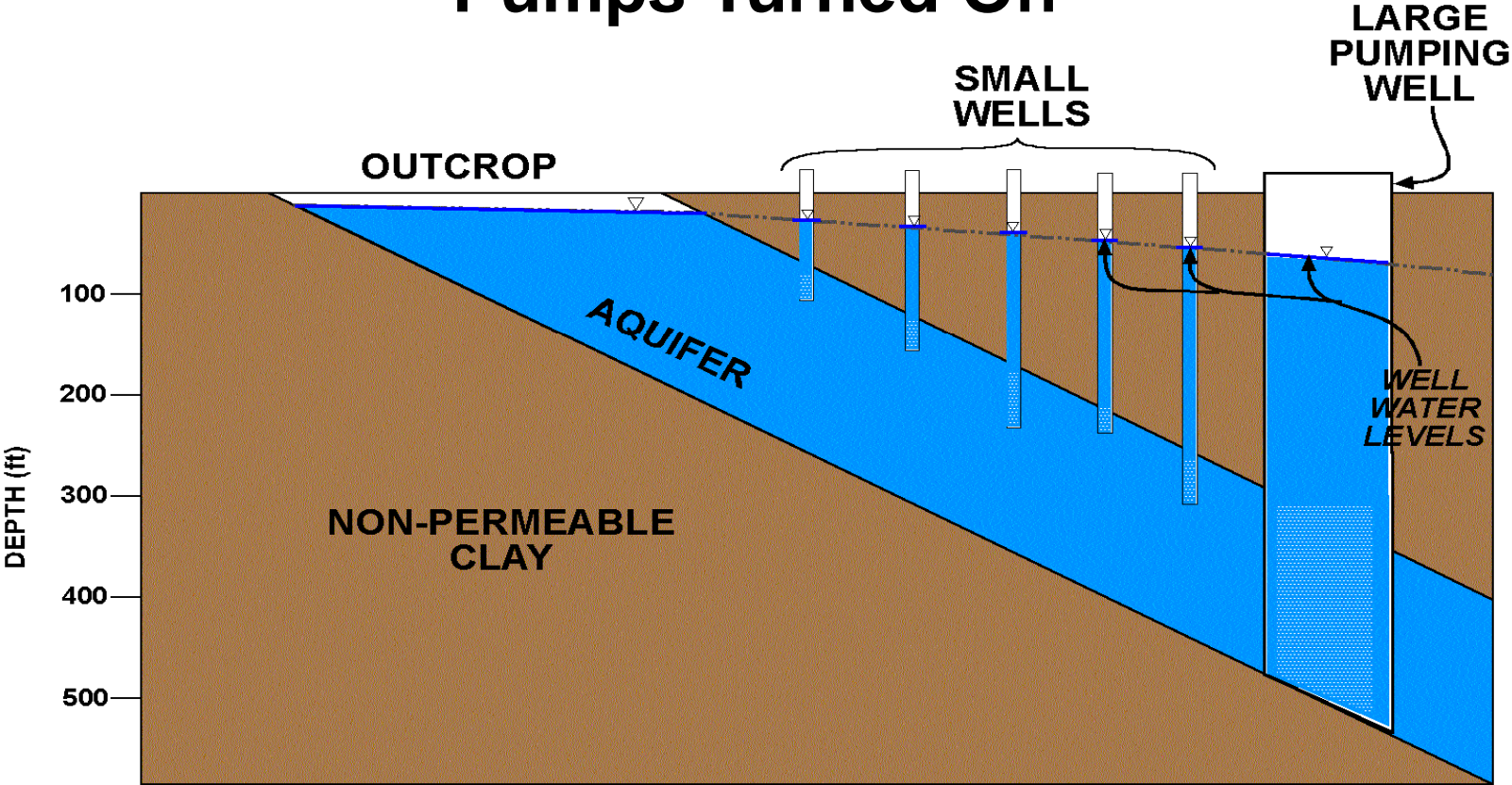
**Recharge**

**Aquifer**

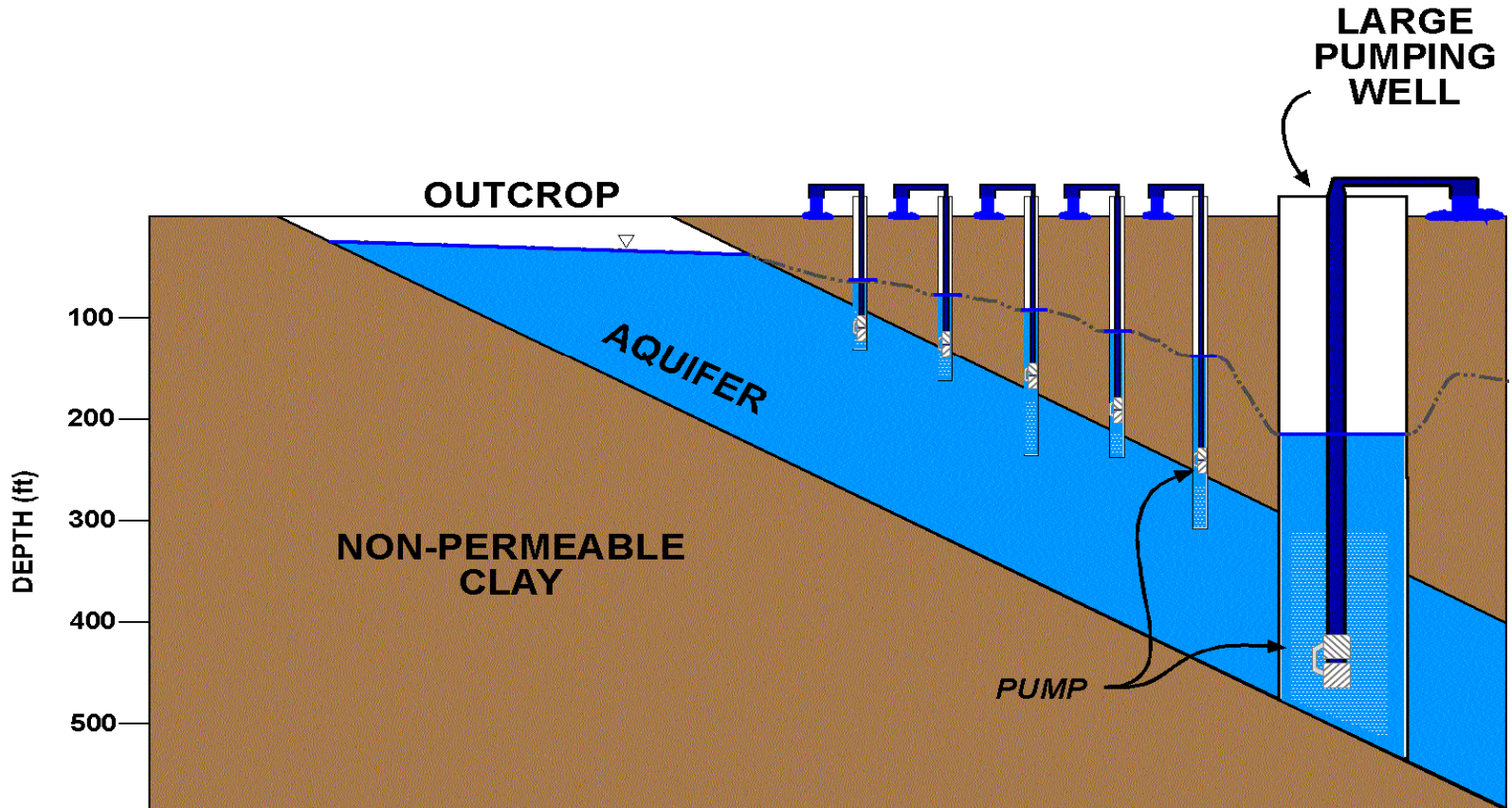
**Discharge**



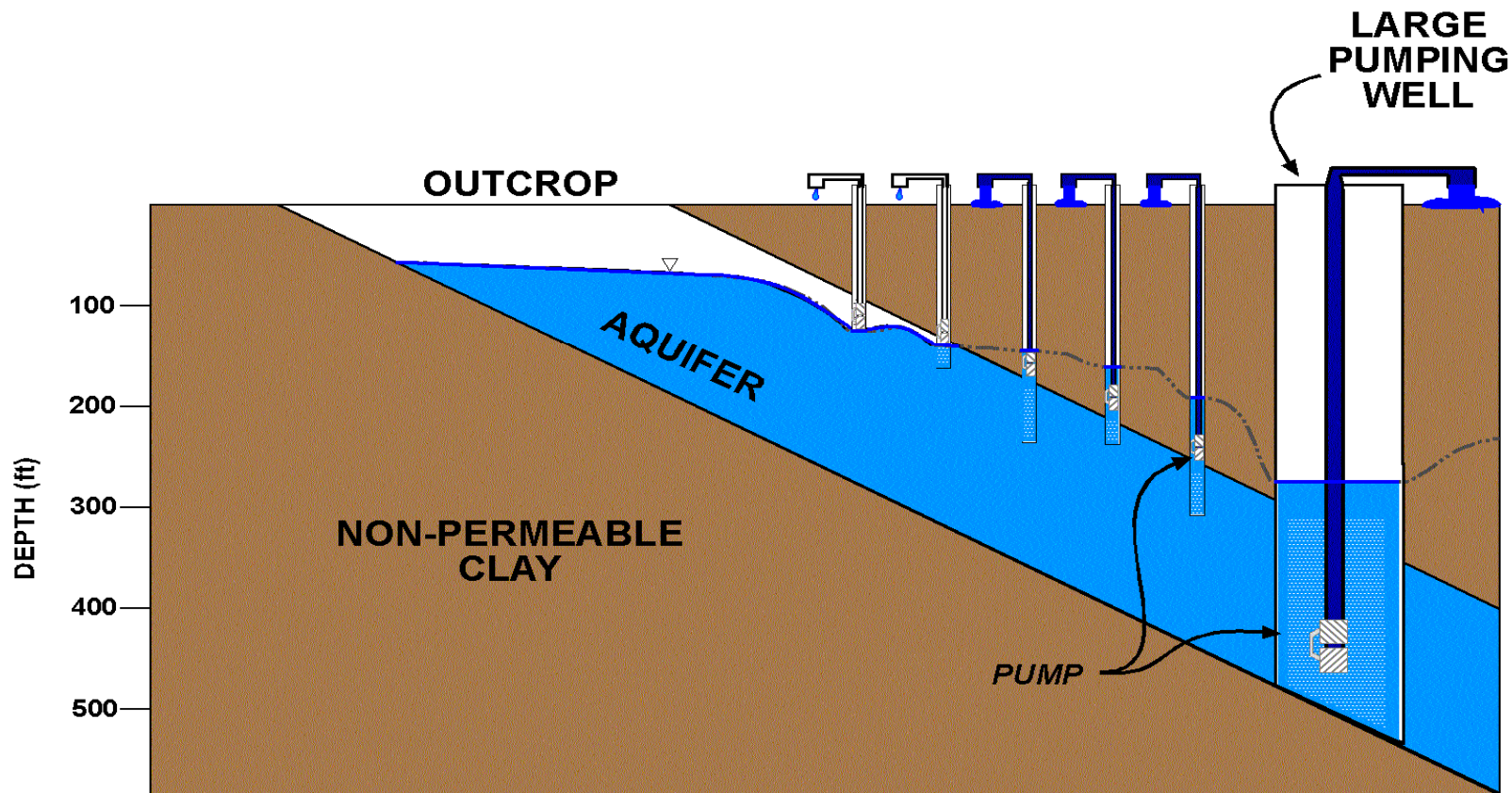
# Cross Section of Aquifer Pumps Turned Off



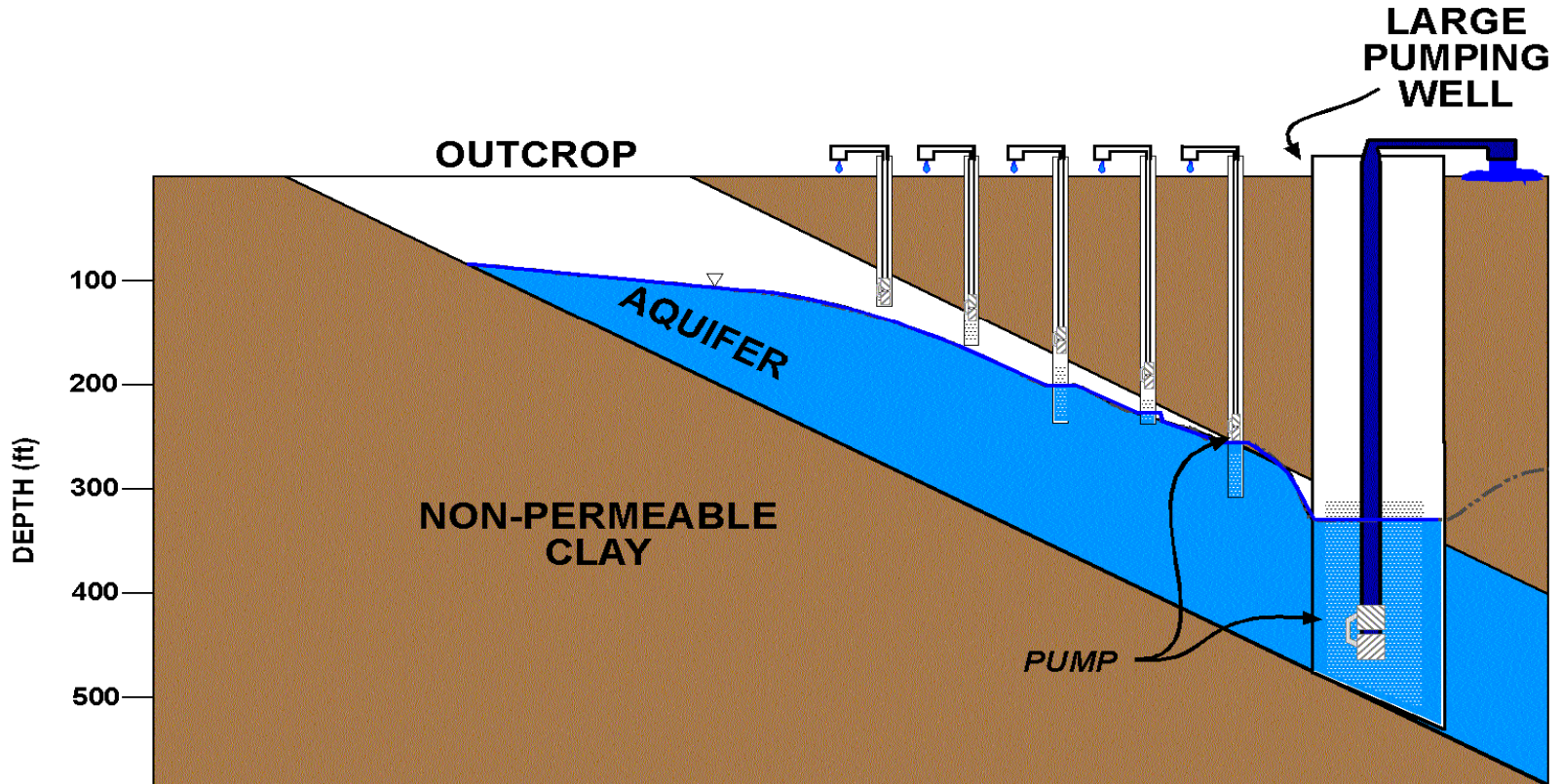
# Normal Pumping – All wells have water



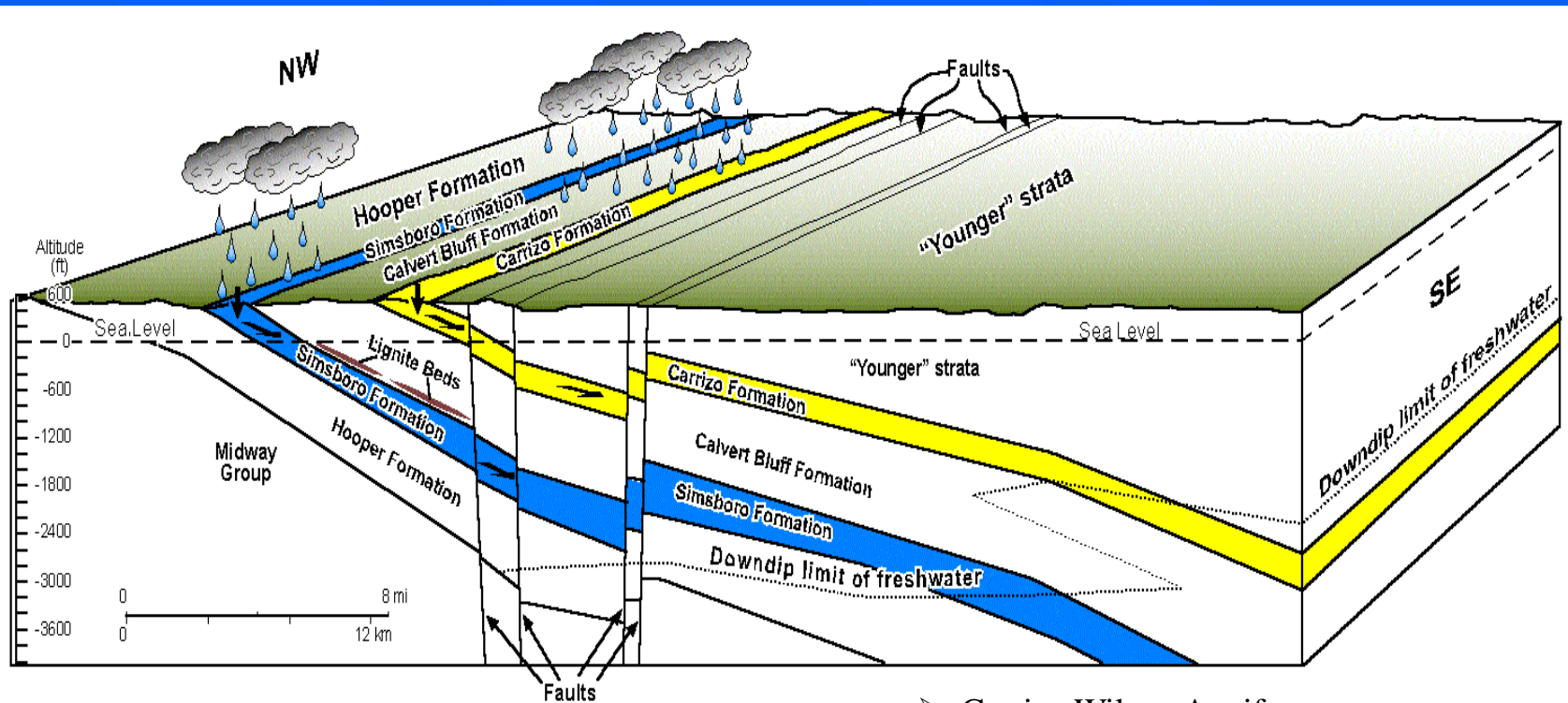
# Overpumping - Water levels drop, some wells lose water



# Continued Overpumping – Aquifer damaged, many decades to recover



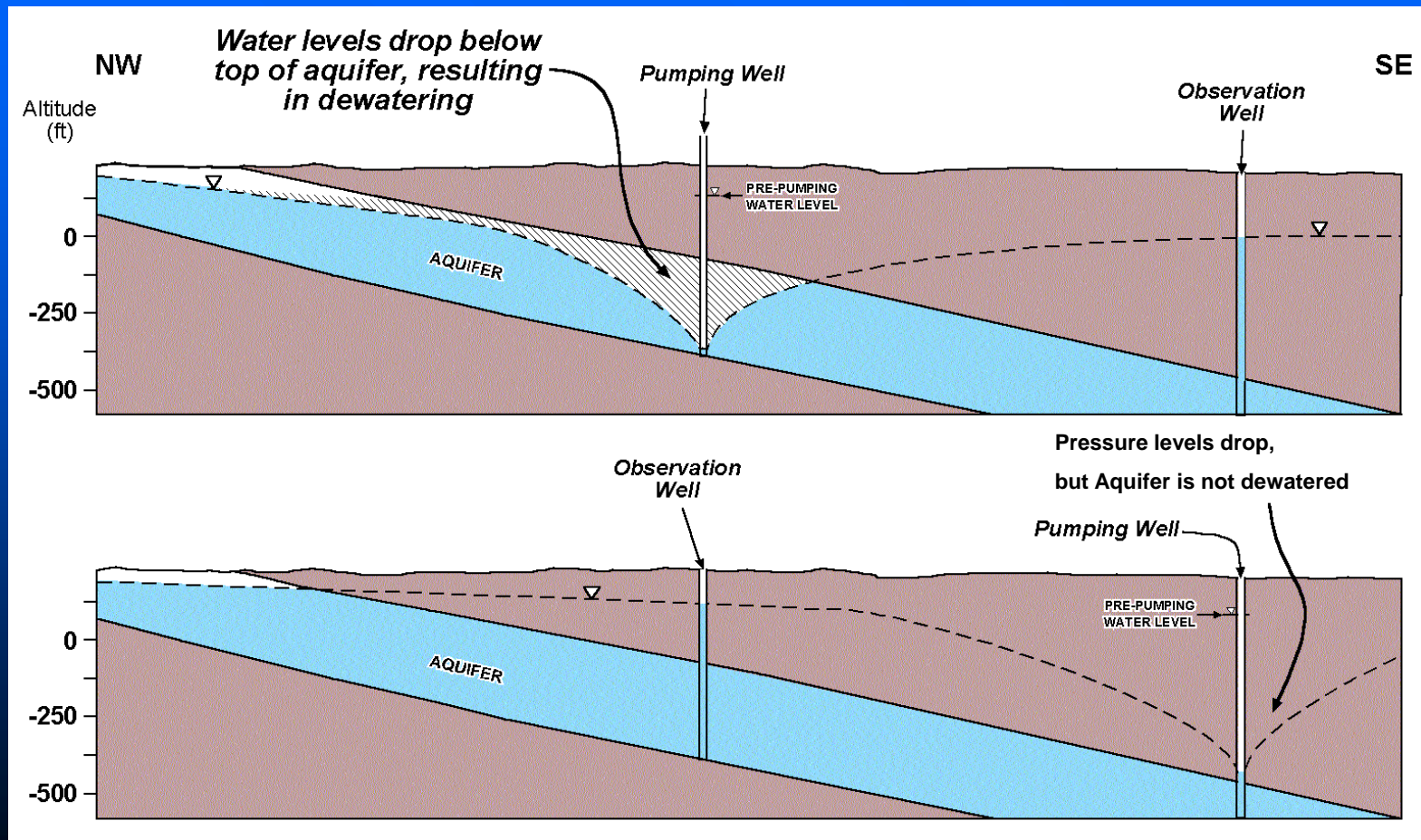
# Cross Section of an Aquifer



➤ Carrizo Wilcox Aquifer



# Geologic Cross Section of Wilcox Formation: Comparison of 500 ft Drawdown in Confined Zone



# Overpumping Destroys Aquifers

- Examples of aquifers that had plenty of water – *until they were overpumped*
  - Ogalla in Panhandle now on 50% rule
  - Gulf Coast Aquifer – near Houston
  - Edwards Aquifer – Central Texas

**Given all of this, how can  
Groundwater Districts  
protect our water supply?**

# Mission of Groundwater Districts

- To protect our groundwater supply so that it exists for future generations

# Powers and Duties

- Monitor the groundwater supply - availability
- Regulate well spacing and pumping rates as needed
- Measure water quality

# Groundwater Availability

Like beauty,  
groundwater availability  
is in the eye  
of the beholder

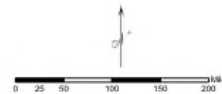
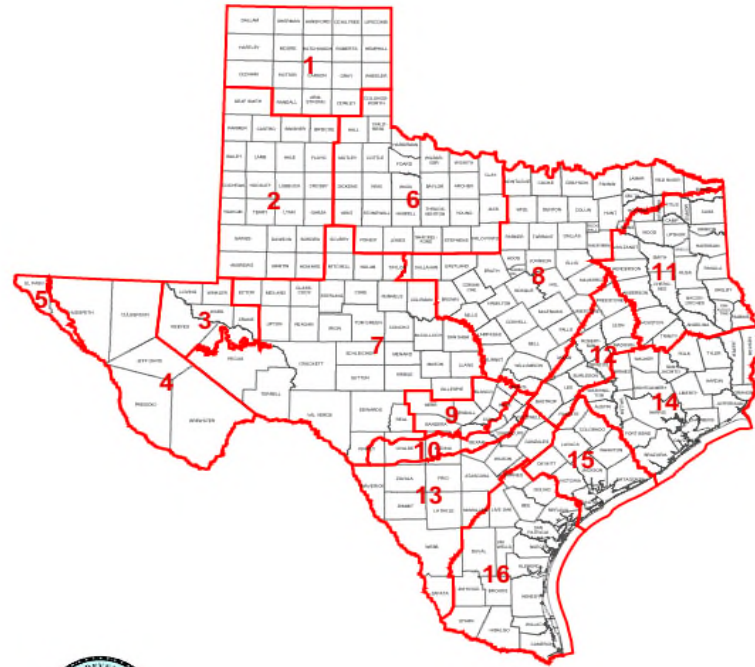
# Groundwater Availability

0



# House Bill 1763

## Groundwater Management Areas in Texas



**DISCLAIMER**  
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# Local Governance

- Directors are elected or appointed
  - County Judges/Commissioners
- Local board means *local control*
  - Not State controlled
  - Responsive

# How Districts are Funded

- Property Taxes (maximum of 5 cents/\$100)  
*OR...*
- Pumping fees paid by large users
  - <25,000 gallons/day exempt
  - Household and farm use wells exempt
  - Compare to average home uses 330 gallons/day
- ***17 cents/1,000 gallons maximum fee***

# What Districts can do About Exports

- *Cannot prohibit exports*
- *But can:*
  - Require permits to transport water out of District
  - Require fees on transport of water out of District
  - Consider effects of exports on aquifer water levels and existing water users
- Without a District, people have no protection from overpumping

# Why This Matters to Texas

- Water is a precious, limited resource
- Texas' "Rule of Capture" allows exploitation
- We've seen aquifers damaged by overpumping
- Groundwater districts are the only solution under current law

# Comanche Springs



# Barton Springs



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