

The Texas Groundwater Trifecta: Rule of Capture, Groundwater Conservation Districts, and Groundwater Management Areas

Edward S. Angle P.G.

presented at :

Texas Springs

Protection, Preservation and Stewardship

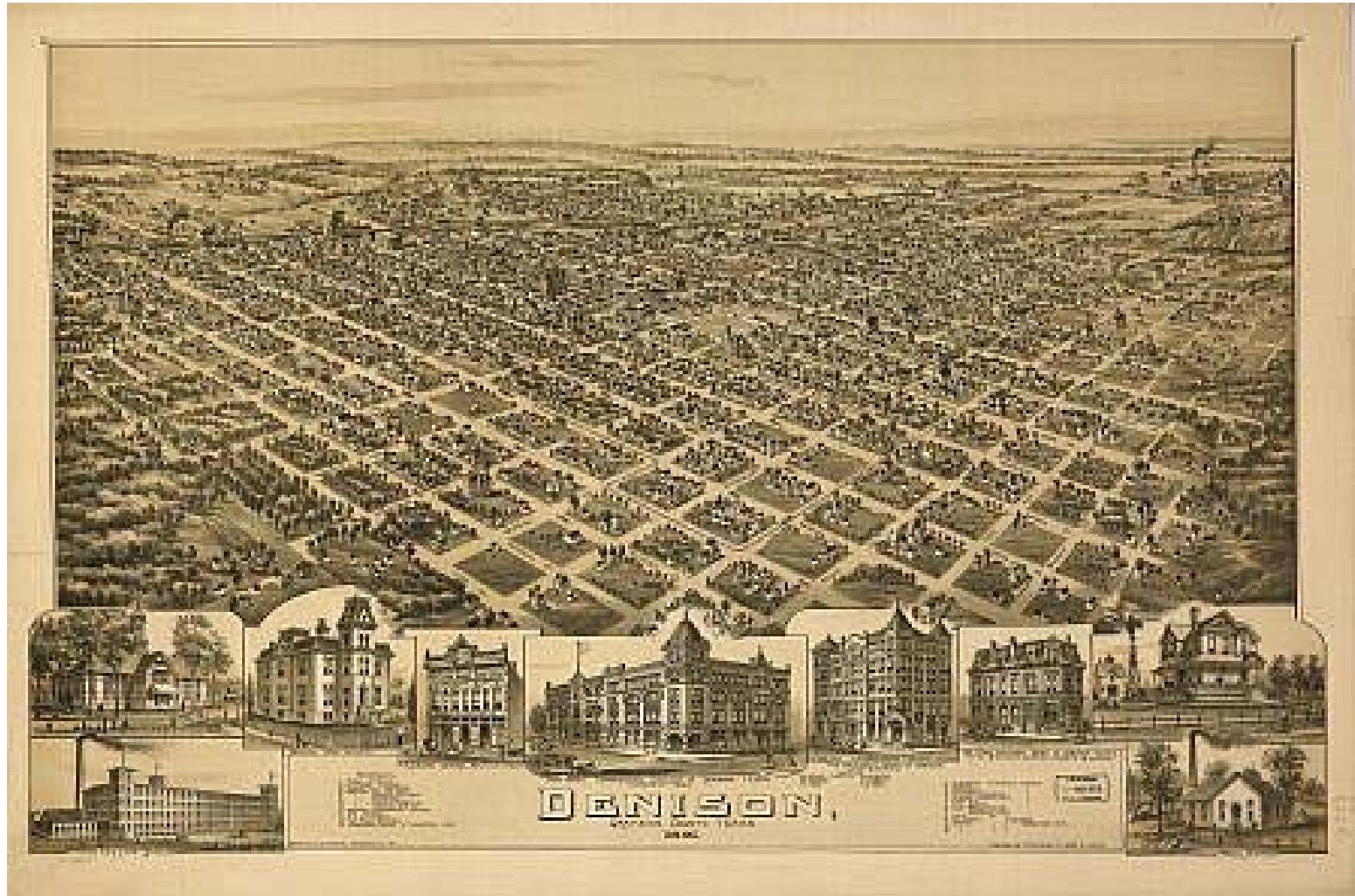


March 30, 2007

Texas Water Development Board

Mission:

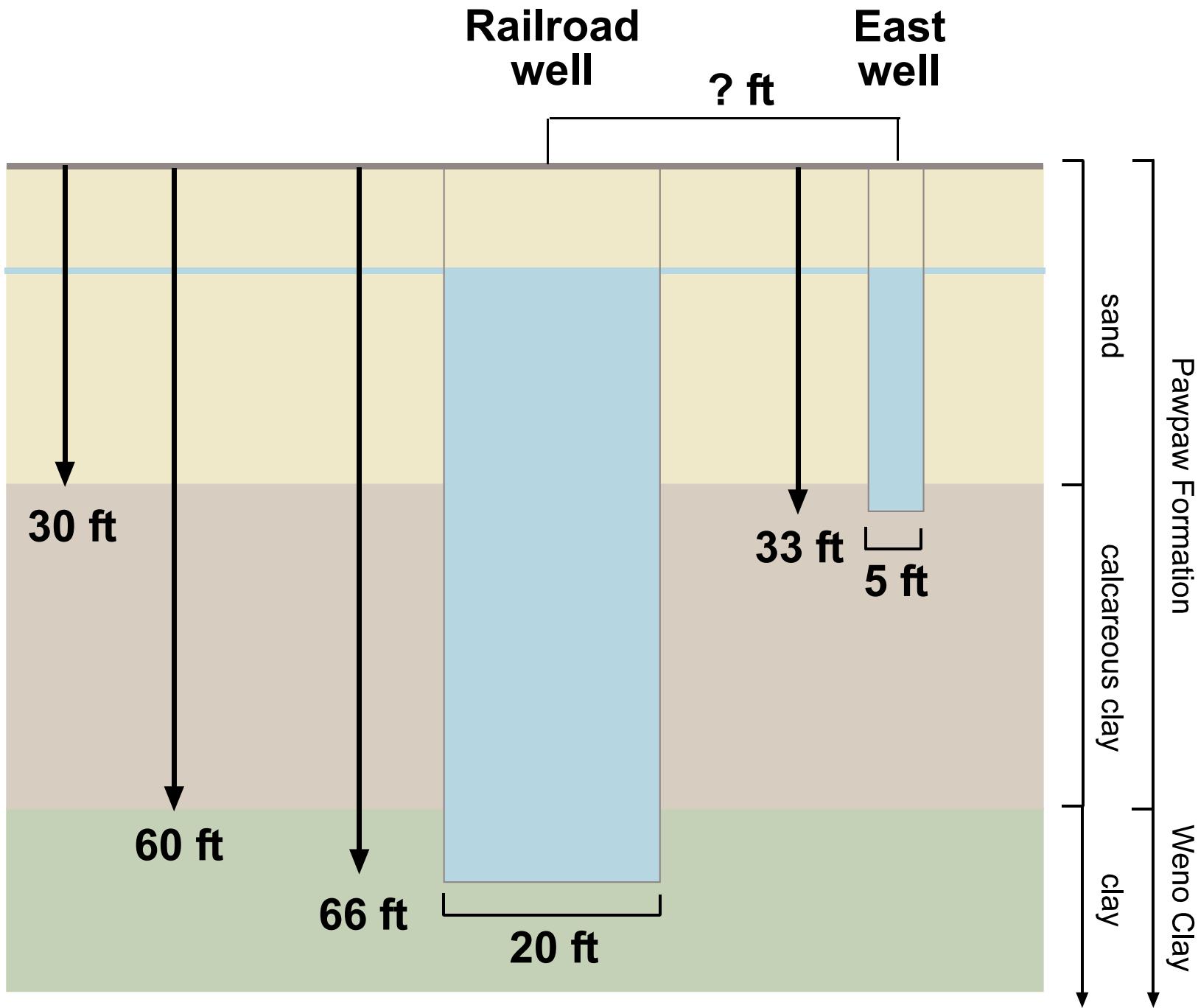
“Sustainable, affordable,
quality water for Texans, our
economy, and our
environment.”



Denison, Texas



Denison, Texas



No. 4018

No. 1333, 5th Dist

Attorneys for Appellant.

P. O. Address.

Attorneys for Appellee.

P. O. Address.

W. A. East
Appellant Plaintiff in Error.
vs.
N. T. C. R. R. Co.
Appellee Defendants in Error.

From the District Court of Grayson Co.

Applied for by Moseley & Epstein Attorneys
for Appellant on the 12th day of January
1903 and delivered to Moseley & Epstein
on the 30th day of January 1903

C. Arnald
Clerk District Court Grayson County.

Filed in Supreme Court

the 2nd day of April 1903

George B. Clark Clerk
Court of Civil Appeals, The Supreme District of Texas.

5th Dist

No 1333

Filed in Supreme Court

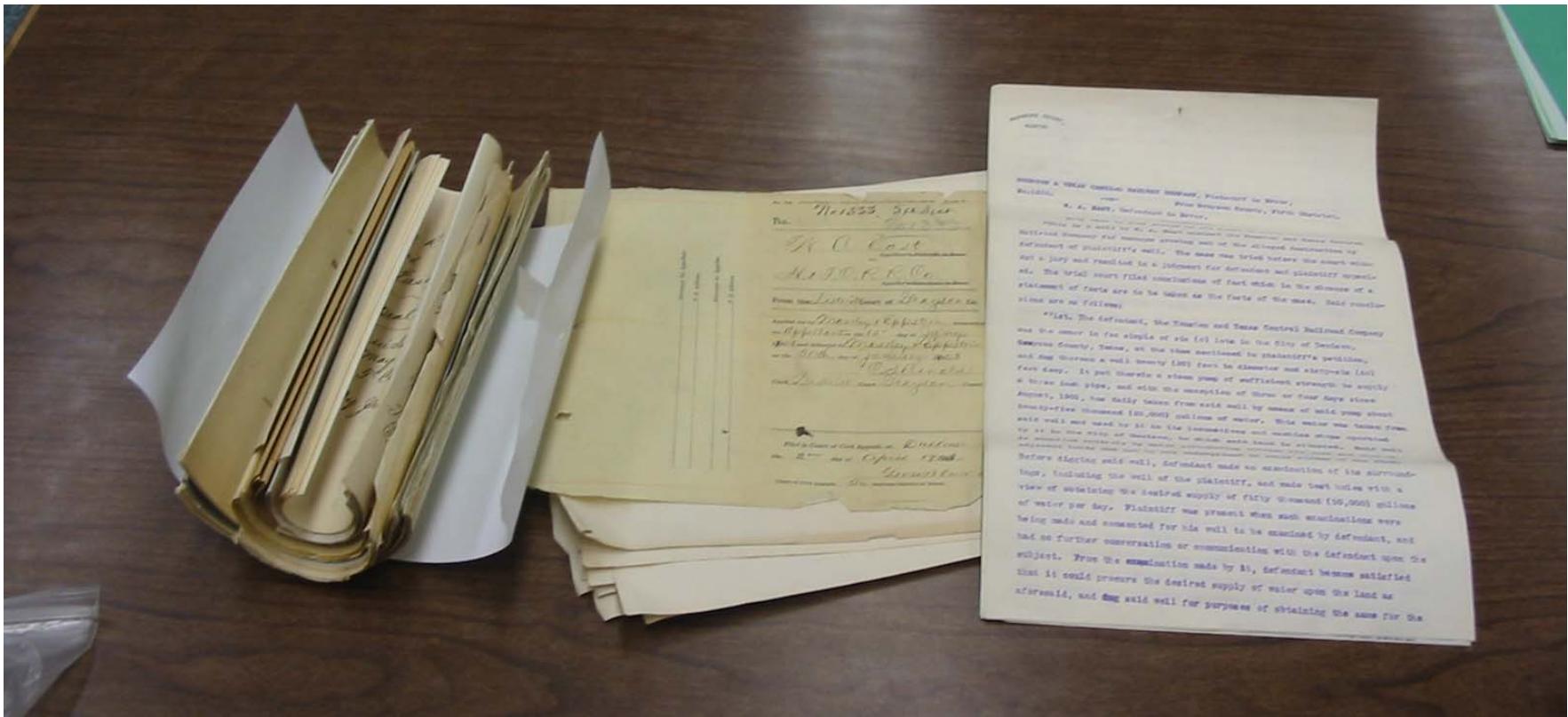
May 18, 1903

F. J. Edwards Clerk

By J. Ellington Deputy

Filed in Supreme Court
the 1st day of May 1903
George B. Clark Clerk
Court of Civil Appeals, The Supreme District of Texas.

Rule of Capture



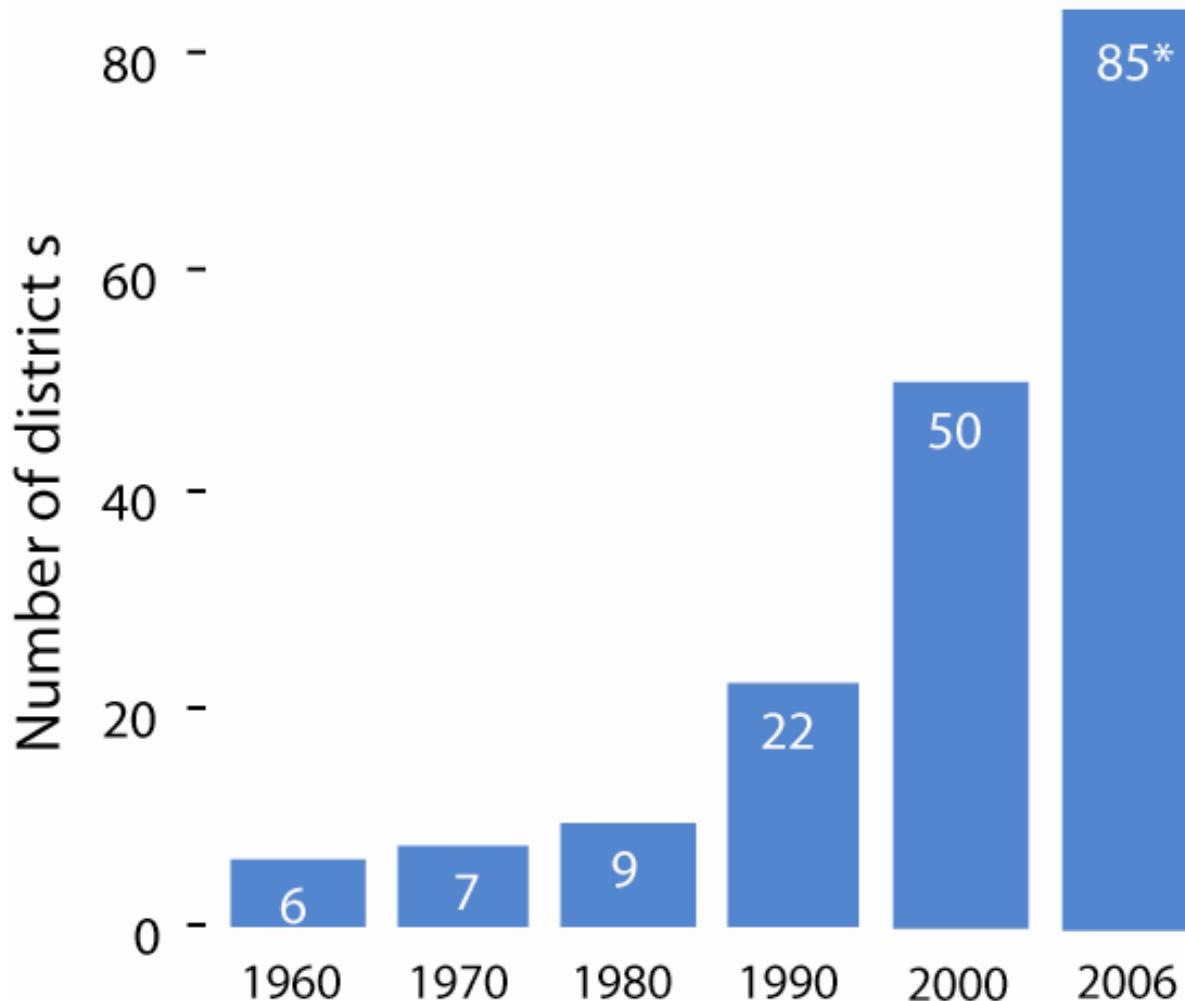
...so secret, occult and concealed...

Comanche Springs





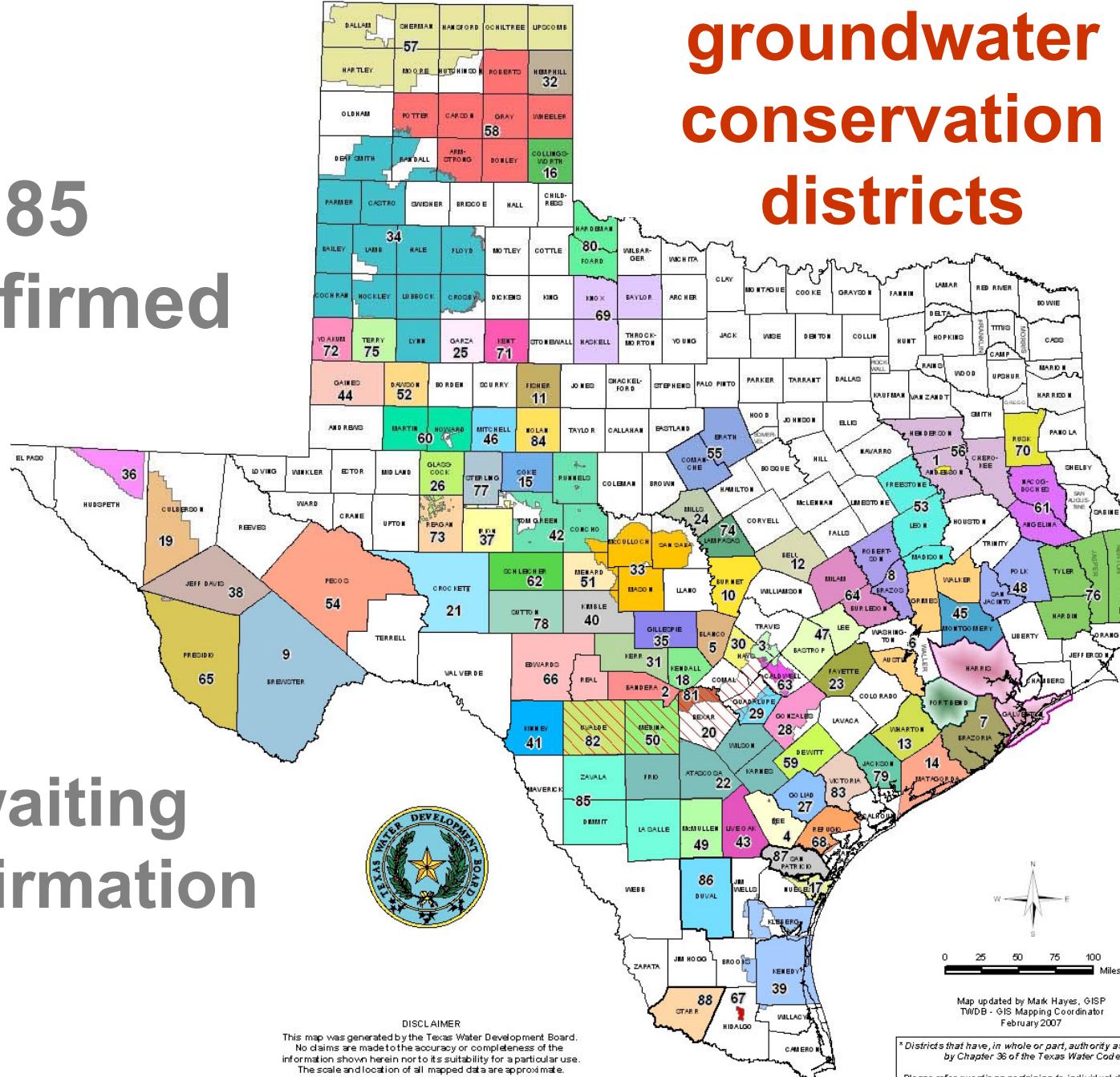
Number of Confirmed Groundwater Conservation Districts



* 3 additional districts waiting
for confirmation as of 2/07

85 confirmed

groundwater conservation districts



3 waiting confirmation

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DISCLAIMER
This map was generated by the Texas Water Development Board.
No claims are made to the accuracy or completeness of the

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.

Boundaries for groundwater conservation districts are approximate and may not accurately depict legal descriptions.

Map updated by Mark Hayes, GISP
TWDB - GIS Mapping Coordinator
February 2007

**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.

EAA

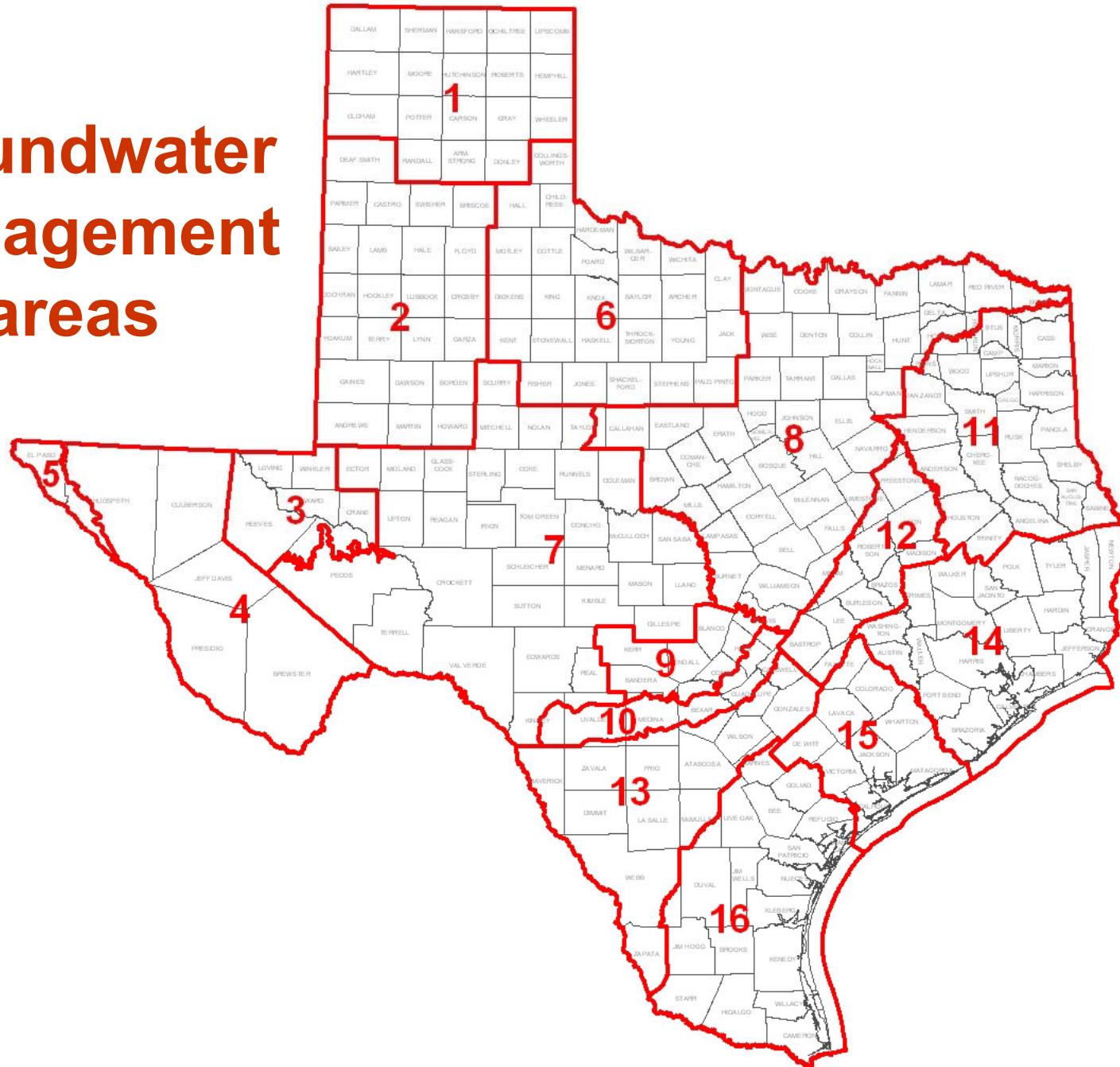
U. S. GEOLOGICAL SURVEY

WATER-SUPPLY PAPER NO. 13 PL. I



RUN-OFF OF SAN MARCOS SPRING.

groundwater management areas





Two new terms



Desired Future Conditions



Managed Available
Groundwater



Desired Future Conditions

- The desired, quantified conditions of groundwater resources (such as water levels, water quality, **spring flows**, or volumes) at a specified time or times in the future or in perpetuity.



Desired Future Conditions: Examples

- water levels do not decline more than 100 feet in 50 years
- water quality is not degraded below 1,000 milligrams per liter of total dissolved solids for 50 years
- **spring flow** is not allowed to fall below 10 cubic feet per second in times during the drought of record for perpetuity



Managed Available Groundwater

- DFC+GAM=MAG
- Desired future conditions + Groundwater Availability Models = **Managed Available Groundwater**

Timing is everything...



More about groundwater in Texas

Groundwater in Texas:

www.twdb.state.tx.us/groundwater

- Ted Angle:
(512) 463-3879



