

# Initial Data-mining and Literature Review Summary for Mapping Brackish Groundwater in the Edwards-Trinity Plateau

South Central Texas Water Research Interest Group  
(SCTWRIG )

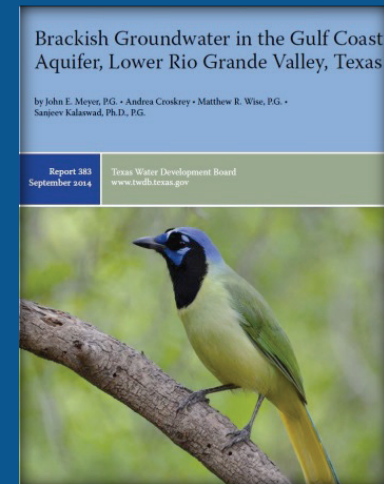
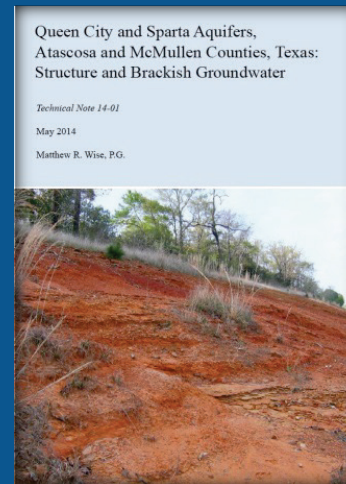
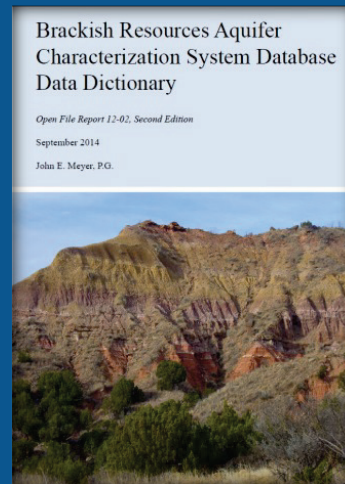
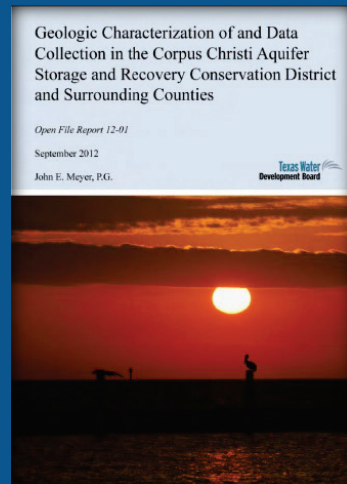
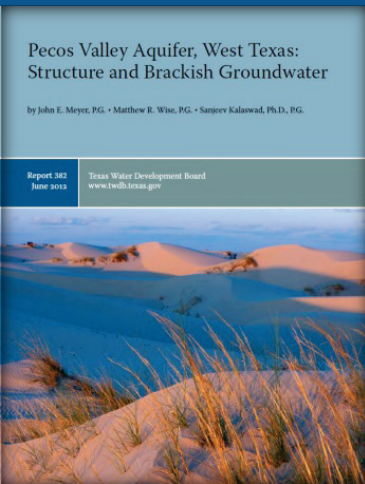
June 2, 2017

Presented by Andrea Croskrey and Alysa Suydam

The following presentation is based upon professional research and analysis within the scope of the Texas Water Development Board's statutory responsibilities and priorities but, unless specifically noted, does not necessarily reflect official Board positions or decisions.

# Texas Water Development Board Brackish Resources Aquifer Characterization System (BRACS)

- 2003 contracted study estimated 2.7 billion acre-feet brackish groundwater and prompted funding
- BRACS program started in 2009 to map brackish aquifers and address knowledge gap



# House Bill 30

84th Texas Legislature, 2015

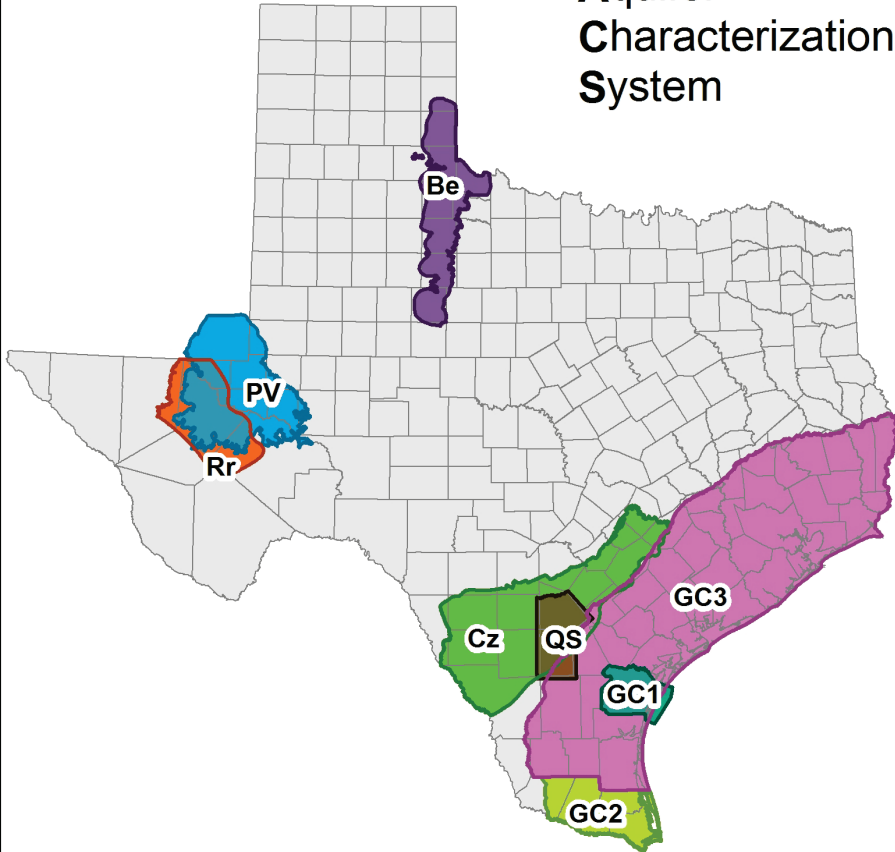
Directed TWDB to:

- ✓ Define brackish groundwater production zones
- ✓ Estimate productivity over 30 & 50 year periods
- ✓ Recommend groundwater monitoring
- ✓ Work with stakeholders and groundwater conservation districts
- ✓ Complete four aquifers December 2016
- ✓ Complete all aquifers December 2022

<http://www.twdb.texas.gov/innovativewater/bracs/HB30.asp>

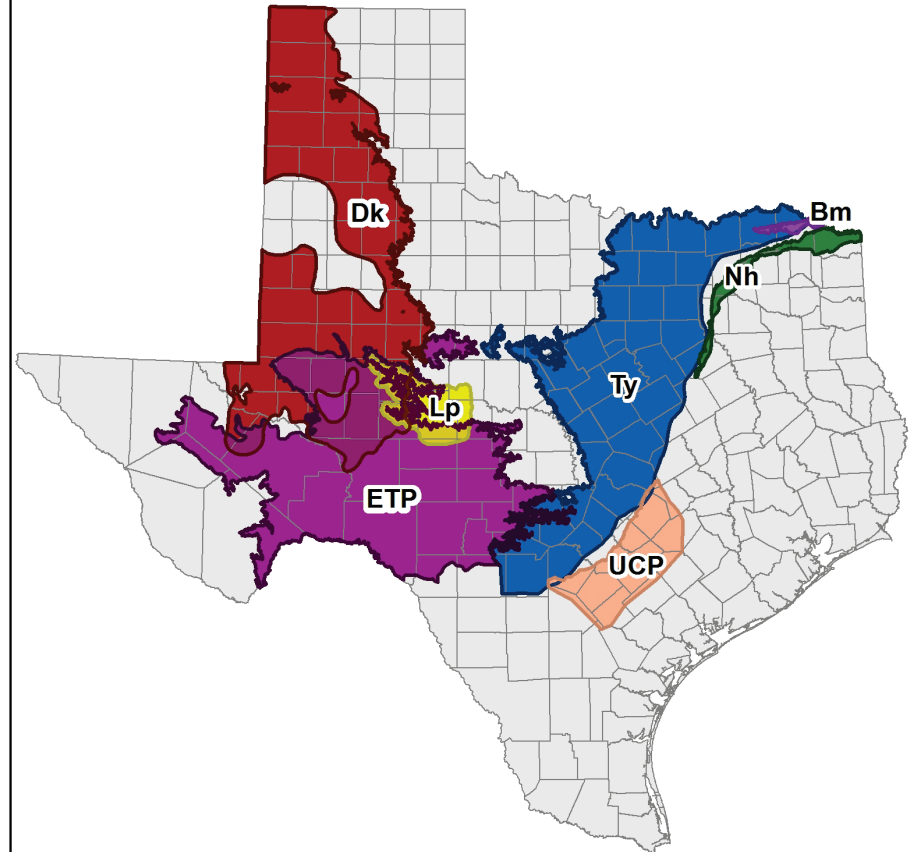
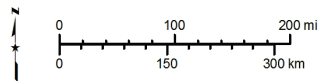
# BRACS Program

Brackish  
Resources  
Aquifer  
Characterization  
System



## Completed studies and projects

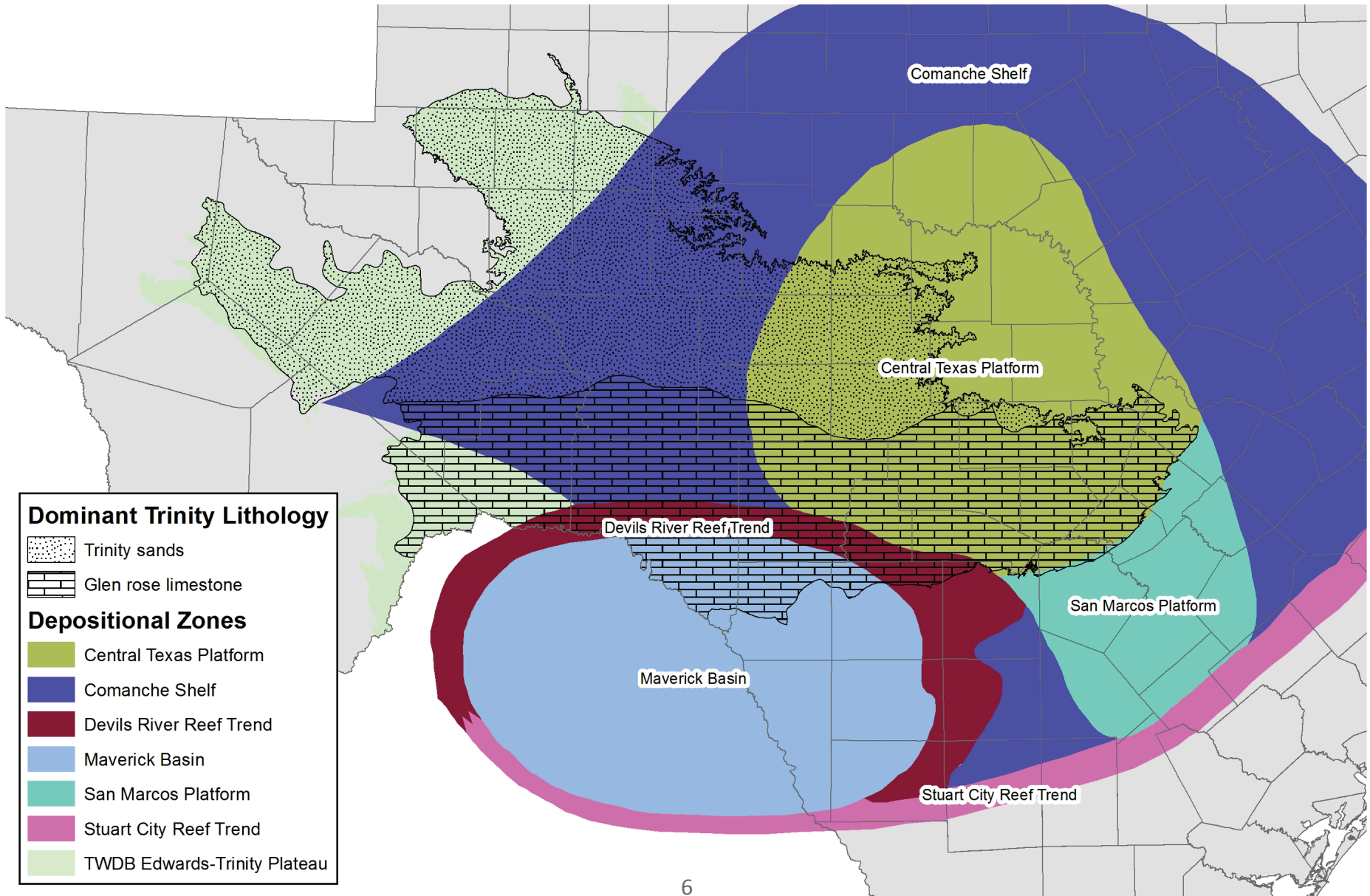
- Be. Blaine Aquifer (Contract No. 1600011948)
- Cz. Carrizo-Wilcox Aquifer (Contract No. 1548301855)
- GC1. Gulf Coast Aquifer (Report 12-01)
- GC2. Gulf Coast Aquifer (Report 383)
- GC3. Gulf Coast Aquifer (Contract No. 1600011947)
- PV. Pecos Valley Aquifer (Report 382)
- QS. Queen City-Sparta Aquifer (Report 14-01)
- Rr. Rustler Aquifer (Contract No. 1600011949)

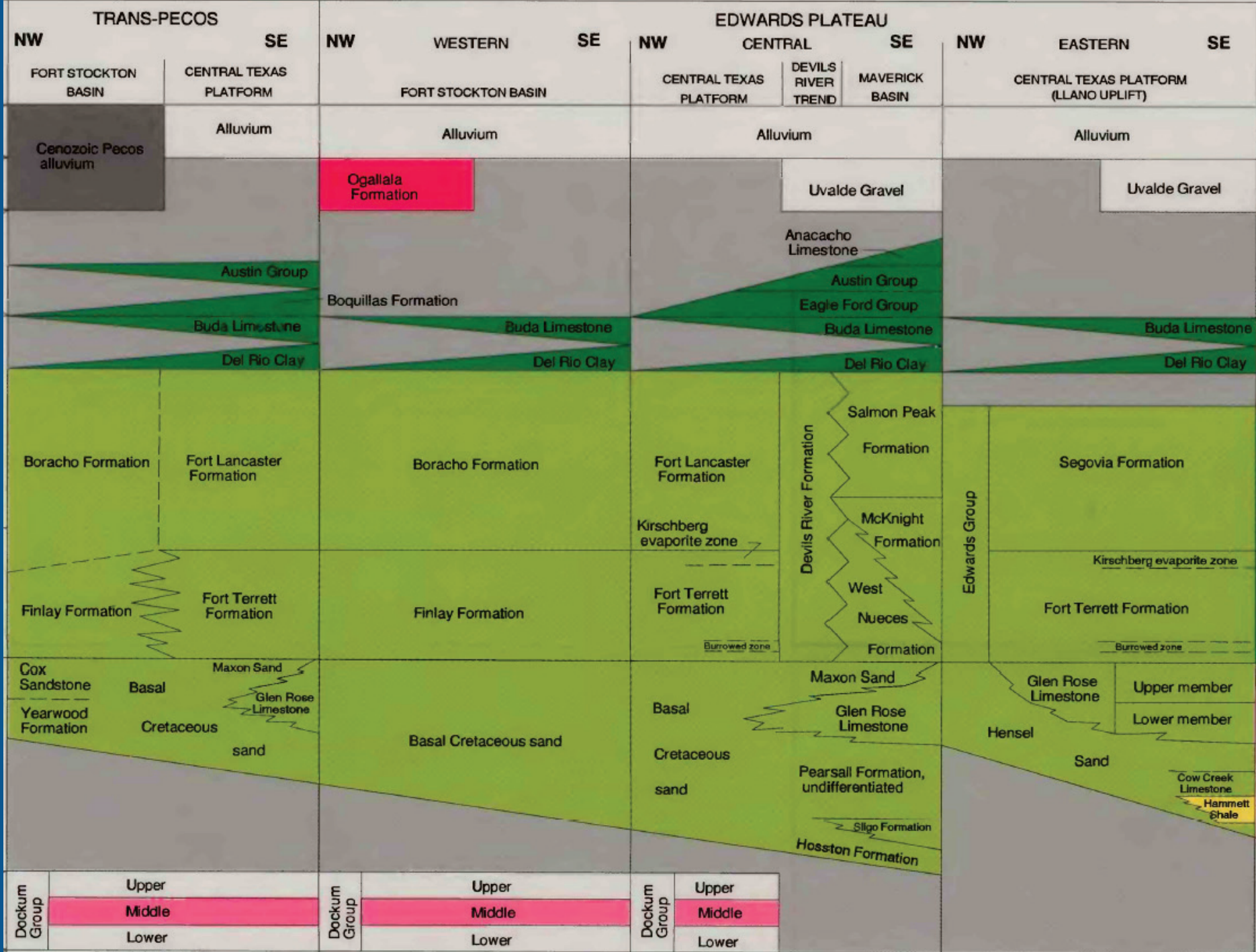


## Current studies and projects

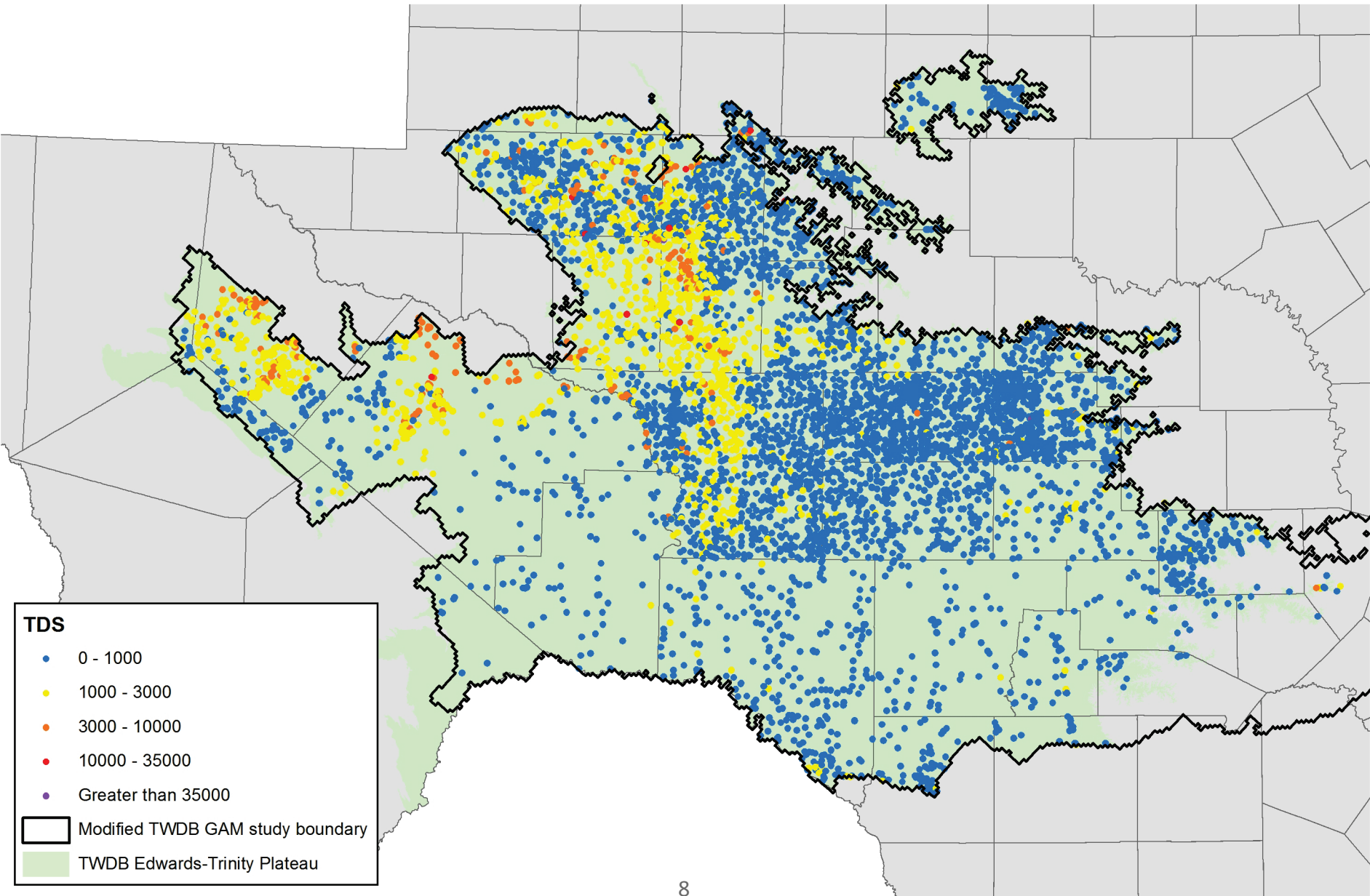
- Bm. Blossom Aquifer (Contract No. 1600011951)
- Lp. Lipan Aquifer
- Nh. Nacatoch Aquifer (Contract No. 1600011952)
- Ty. Trinity Aquifer (Contract No. 1600011950)
- UCP. Upper Coastal Plain Aquifers
- ETP. Edwards-Trinity Plateau Aquifer
- Dk. Dockum Aquifer

# Literature Highlights: TWDB Report 373



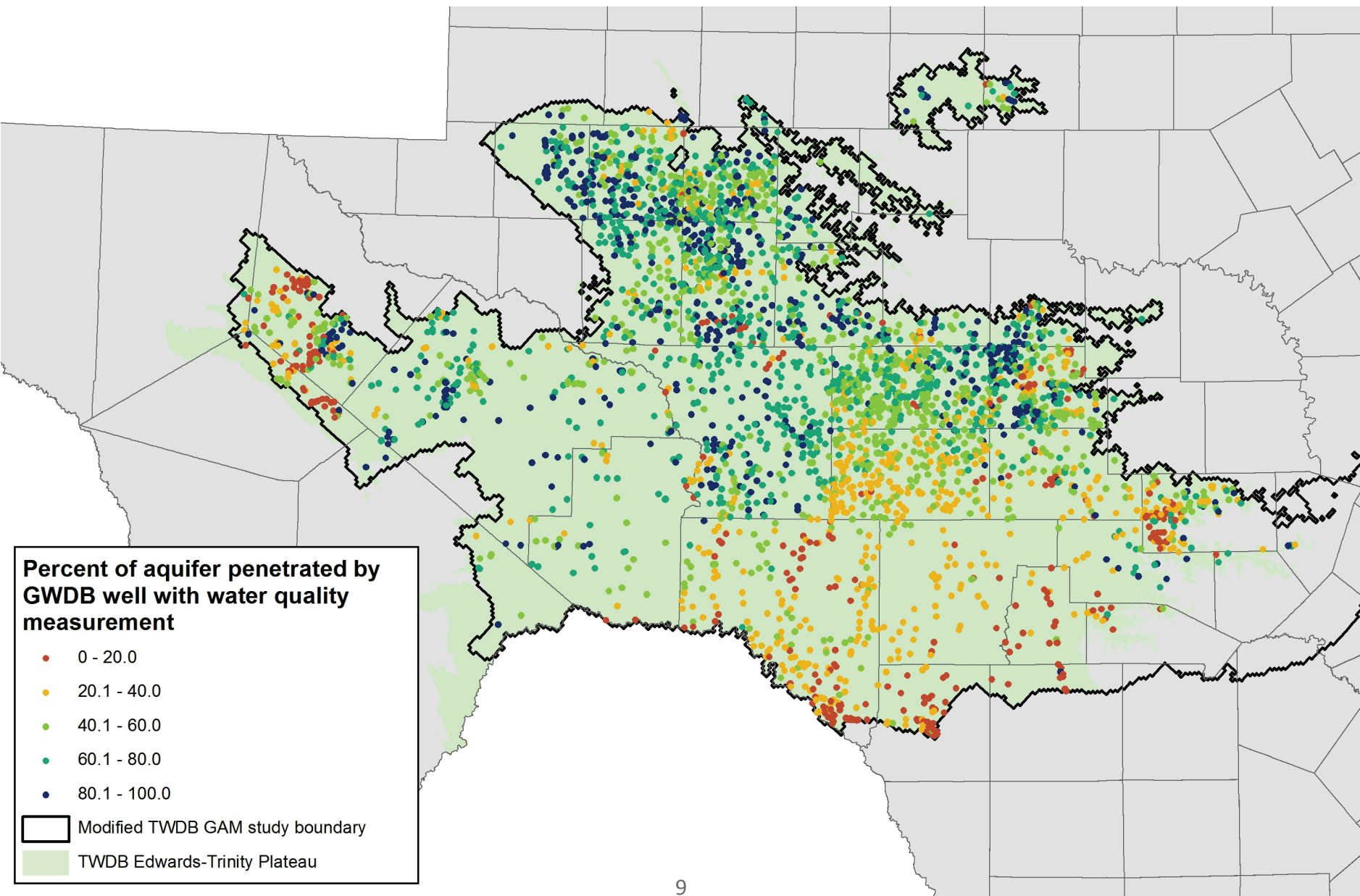


# Data Source Highlights: TWDB Groundwater Database

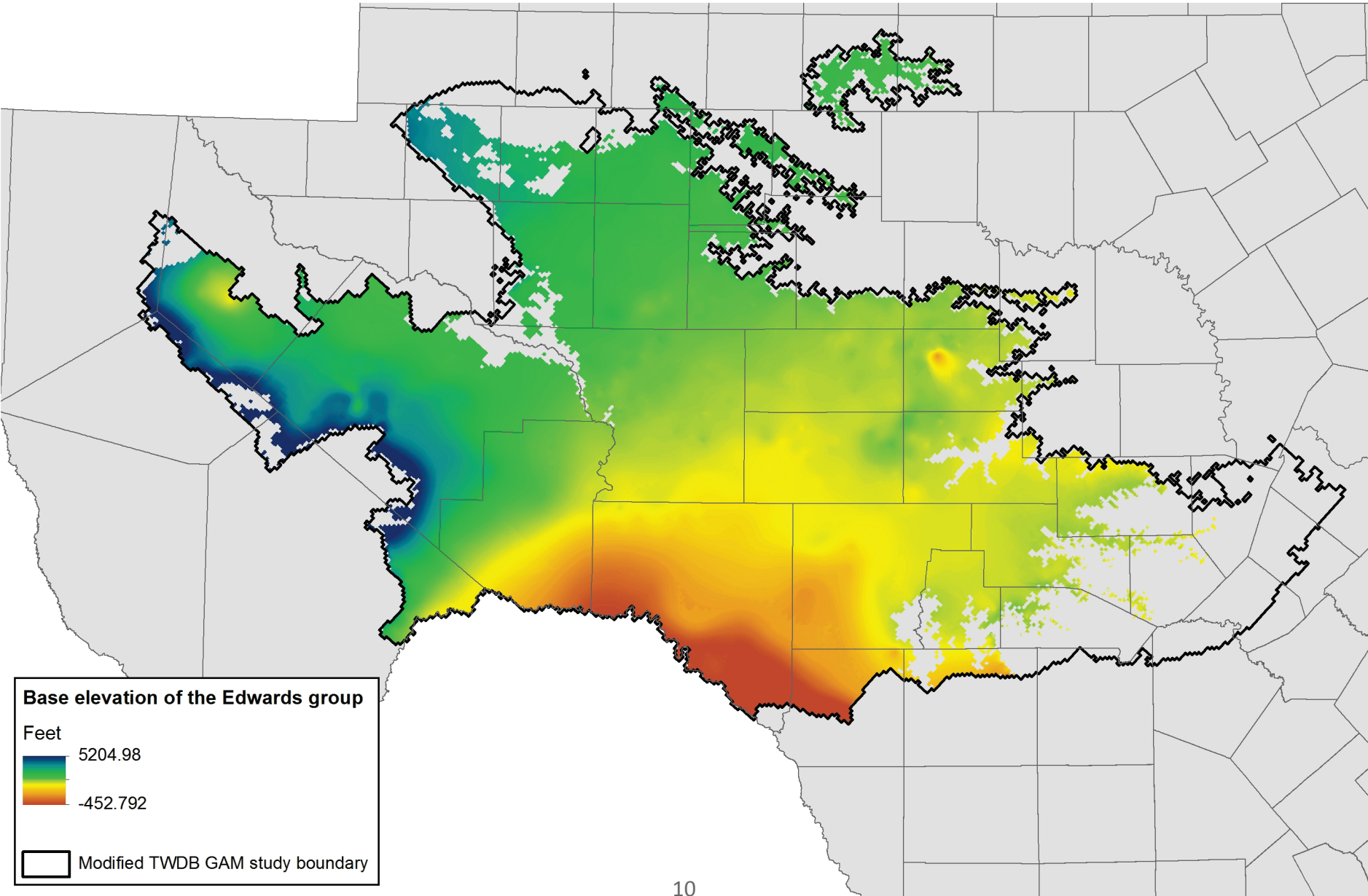




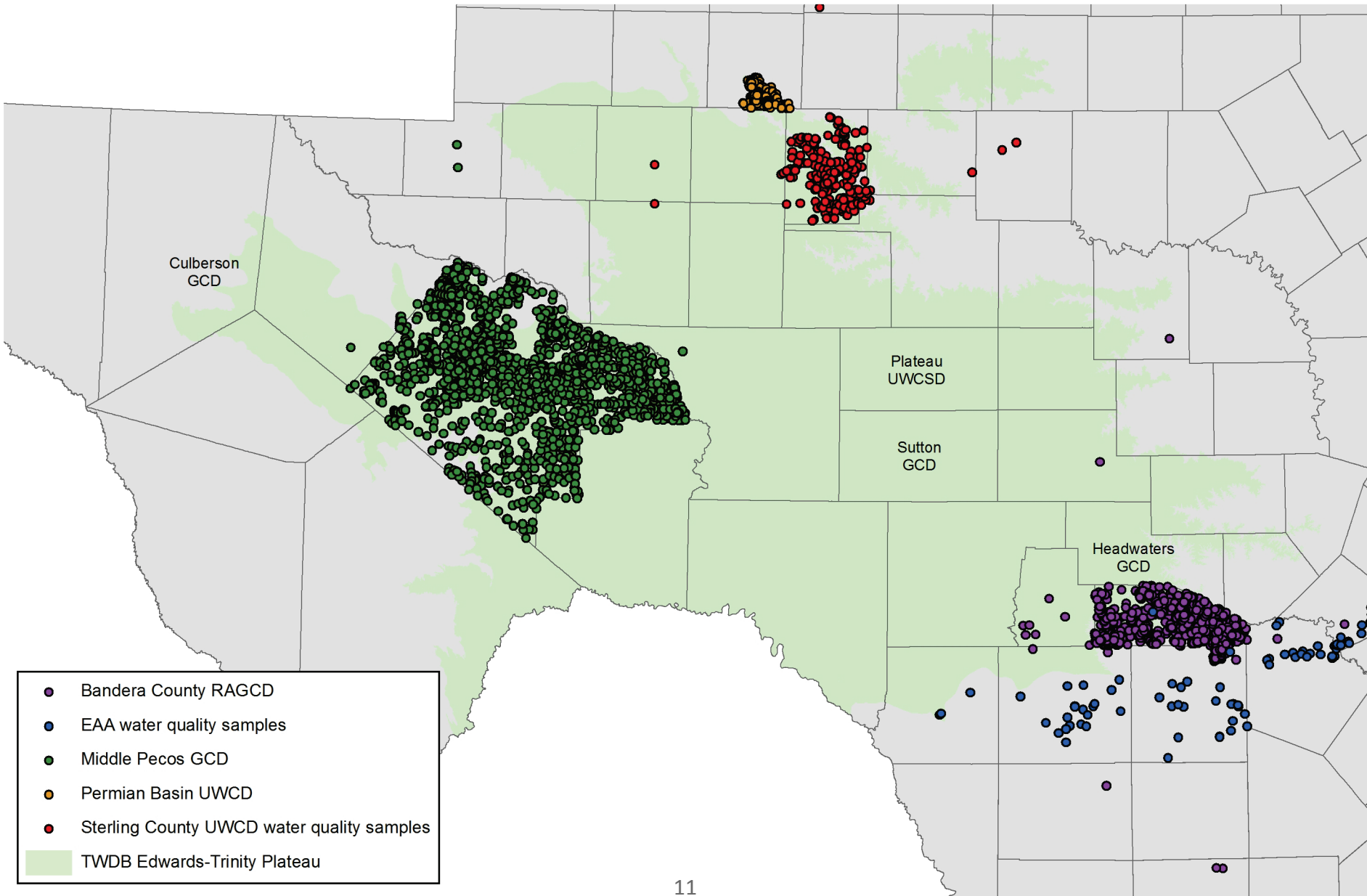
# TWDB Groundwater Database



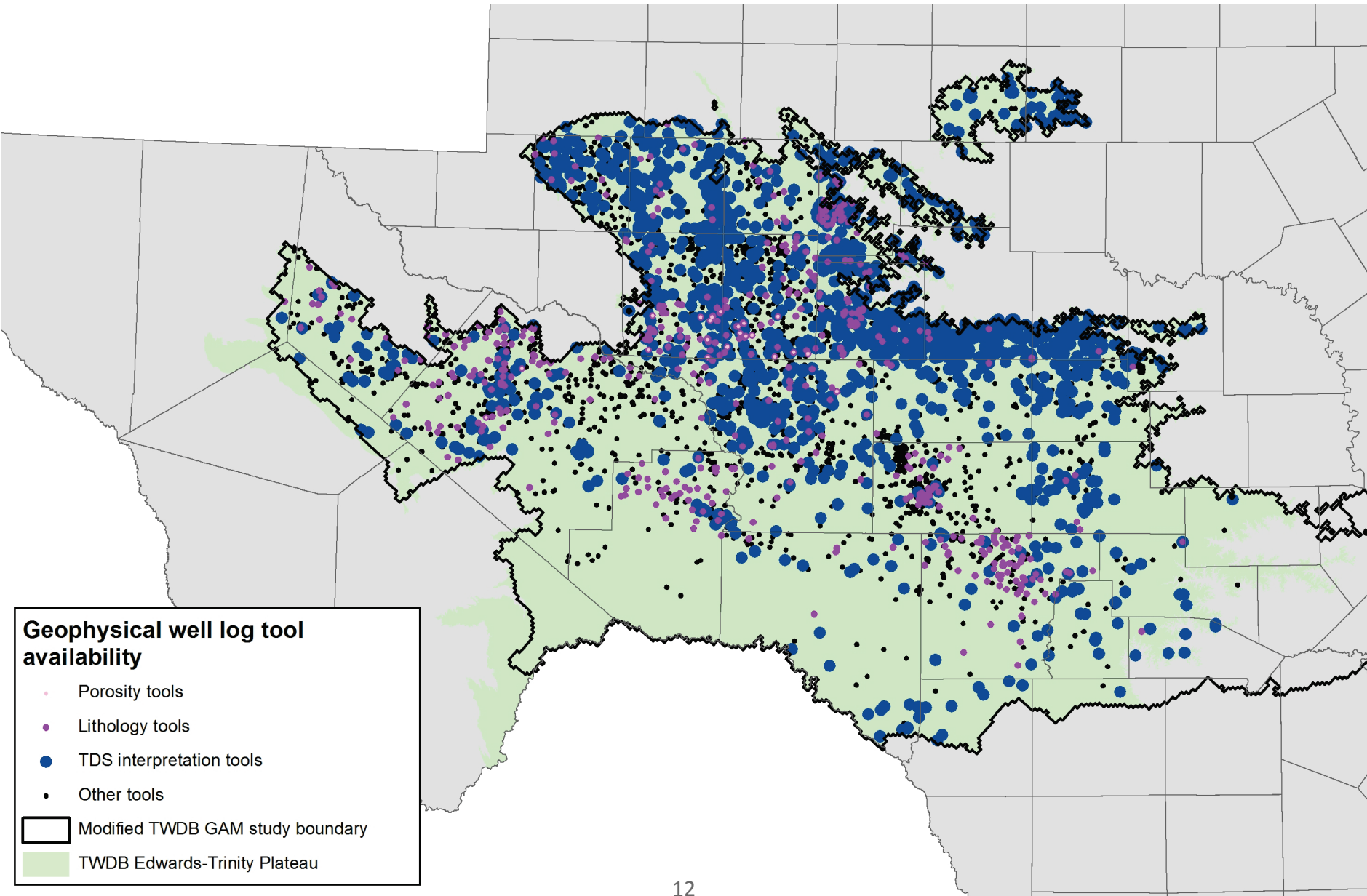
# Data Source Highlights: TWDB Groundwater Availability Model



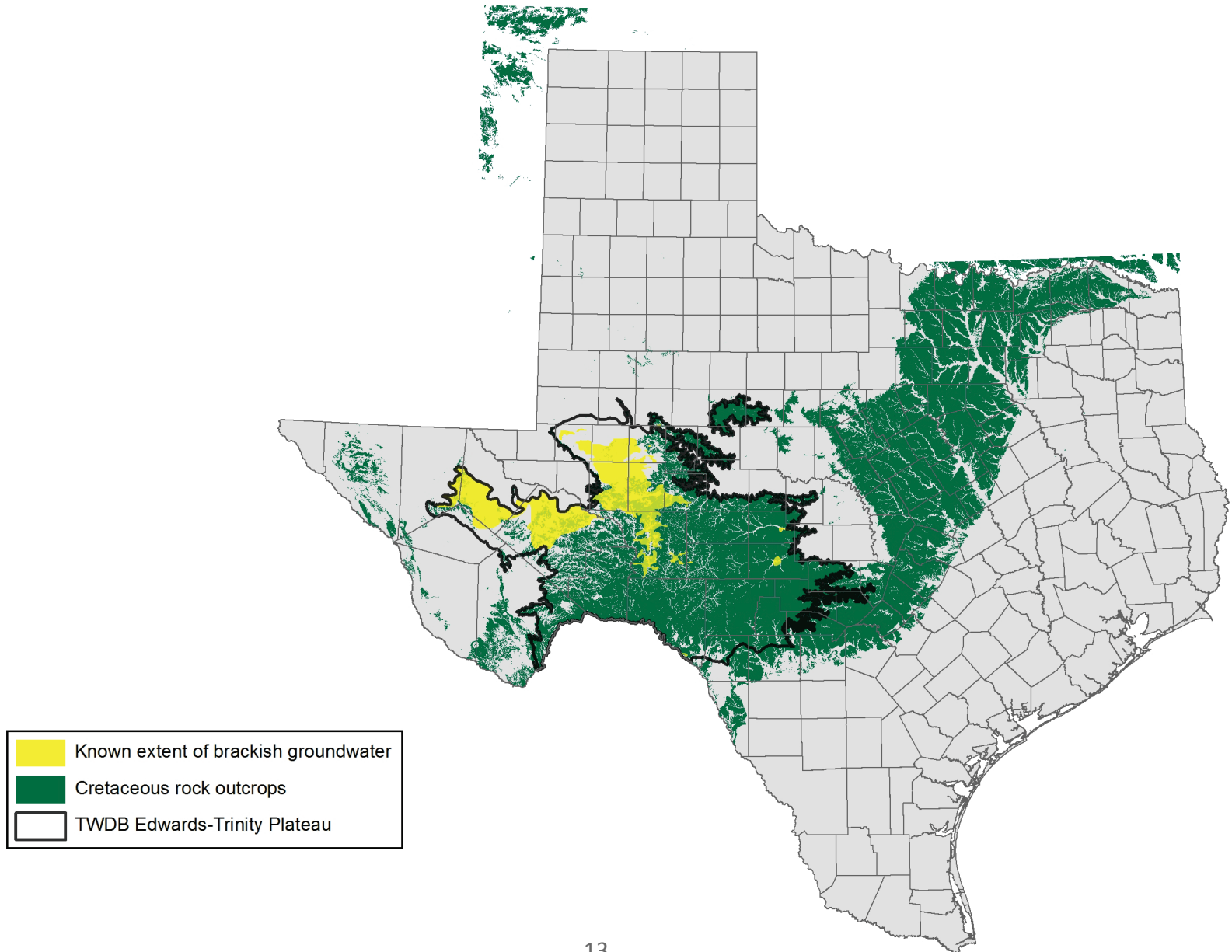
# Data Source Highlights: Submitted Stakeholder Data



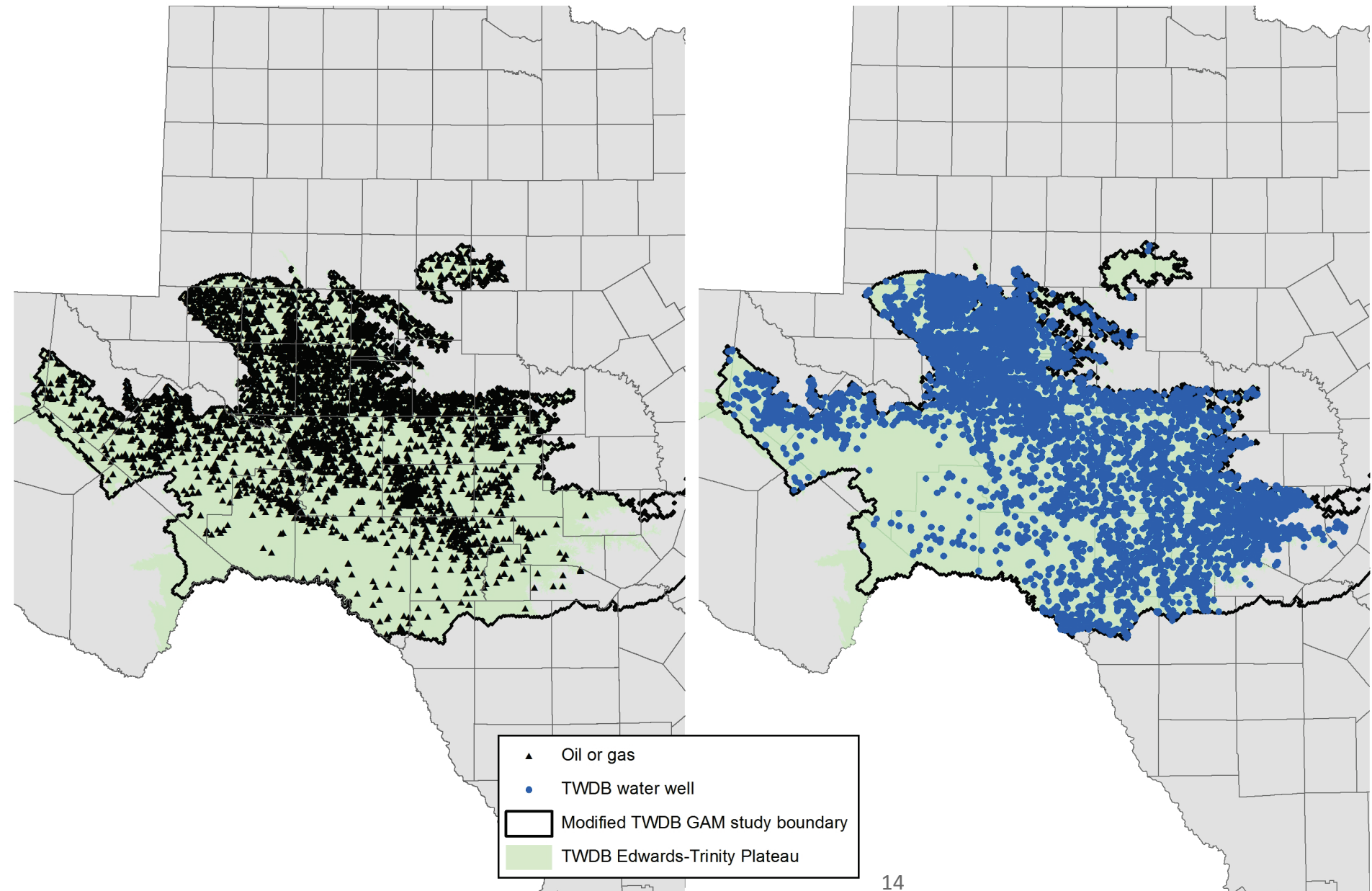
# Data Source Highlights: Public domain geophysical well logs



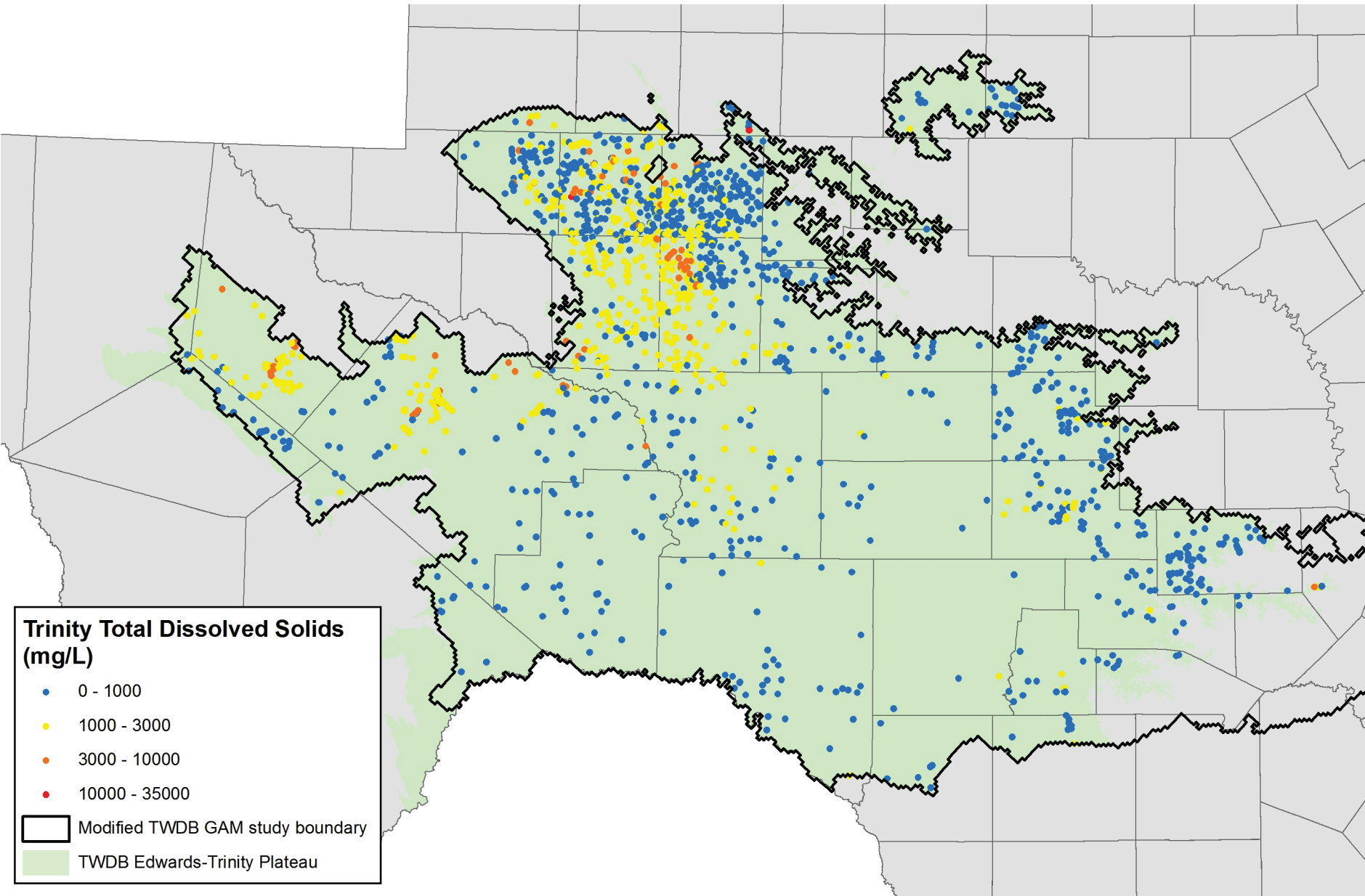
# Data Source Highlights: Extent?



# Known Data Gap Highlights: Southern and downdip portions of the aquifer



# Known Data Gap Highlights: Trinity Group water well samples



# Next Steps:

~1.5-2 year study

- Host kickoff stakeholder meeting
- Map stratigraphy, lithology, measured water quality, calculated water quality, aquifer properties, and existing use
- Calculate the volume of fresh, slightly saline, moderately saline, and very saline groundwater
- Host stakeholder meeting to discuss potential production area analysis
- PPA impact analysis (modeling)
- Final report(s) and stakeholder comment solicitation
- Board possibly designates brackish groundwater production zones (BGPZ)

[http://www.twdb.texas.gov/innovativewater/bracs/studies/Edwards\\_Trinity/index.asp](http://www.twdb.texas.gov/innovativewater/bracs/studies/Edwards_Trinity/index.asp)

**Andrea Croskrey**  
512-463-2365  
andrea.croskrey@twdb.texas.gov

**Alysa Suydam**  
512-936-9488  
alysa.suydam@twdb.texas.gov