

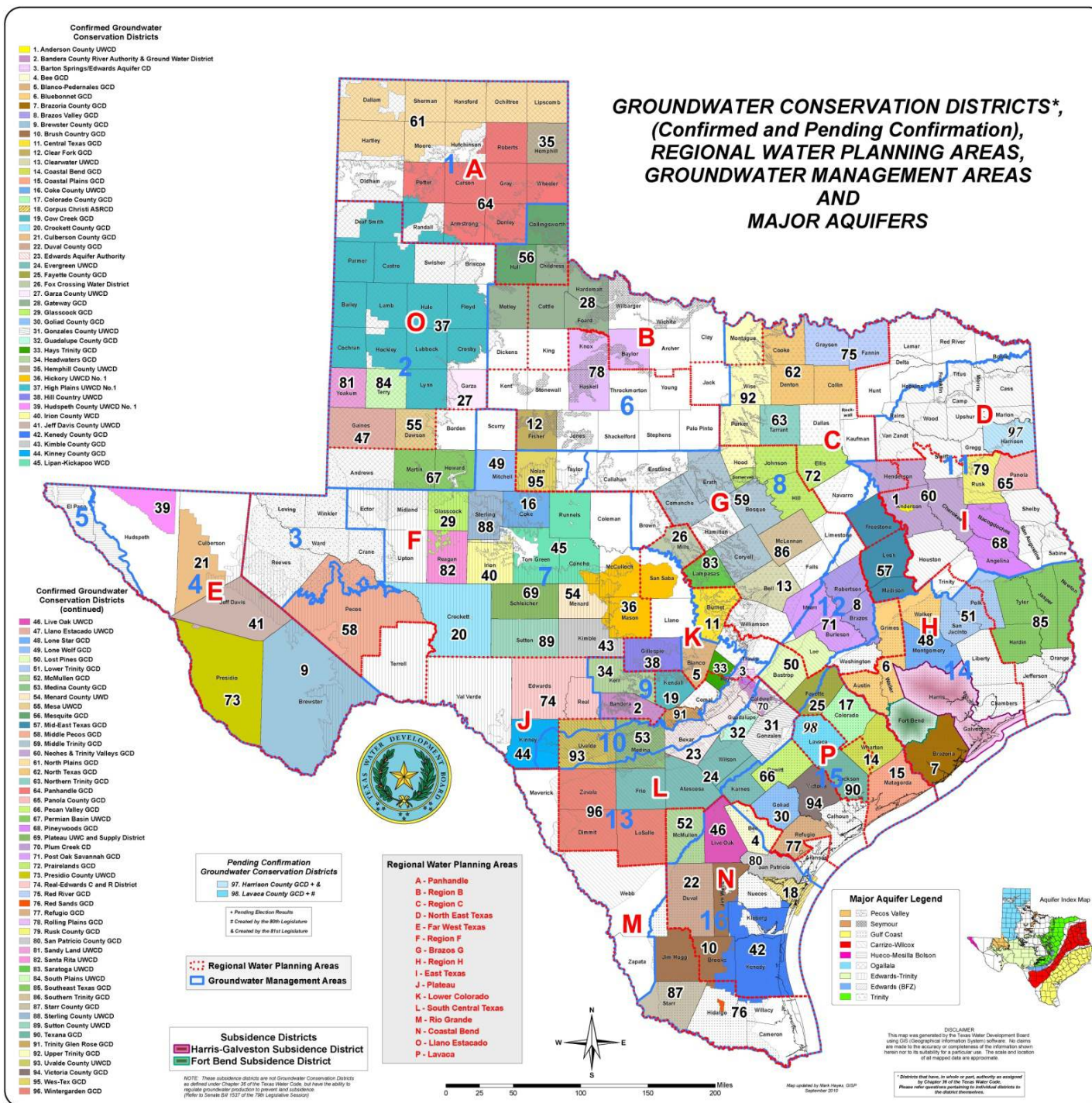
GMA 12 PANEL

MILAM AND BURLESON
COUNTIES GROUNDWATER
SUMMIT

JOINT PLANNING IN OUR
CENTRAL CARRIZO-WILCOX
AREA

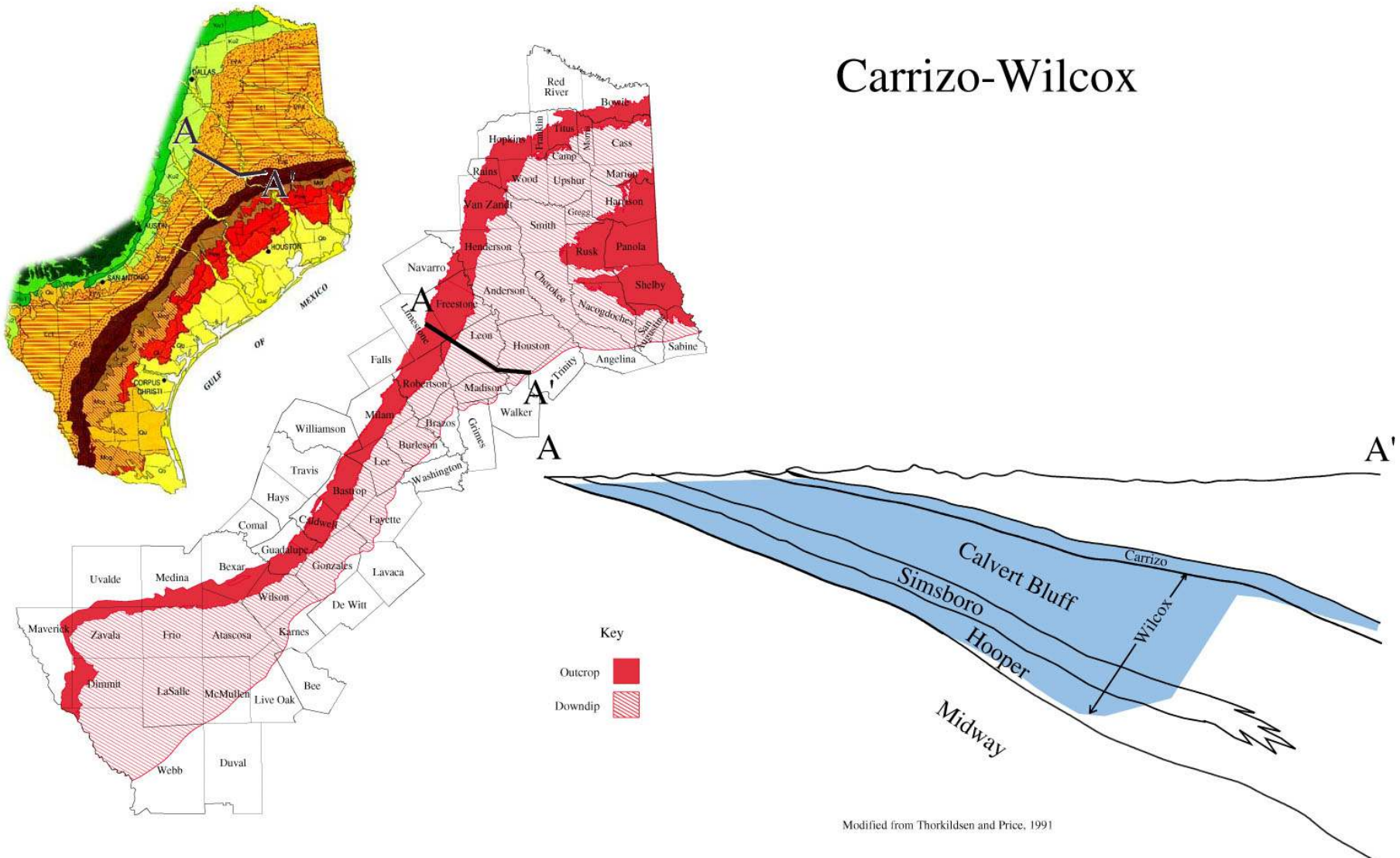
AUGUST 12, 2015

99 Groundwater Conservation Districts are divided into 16 Groundwater Management Areas for purposes of joint planning of groundwater resources



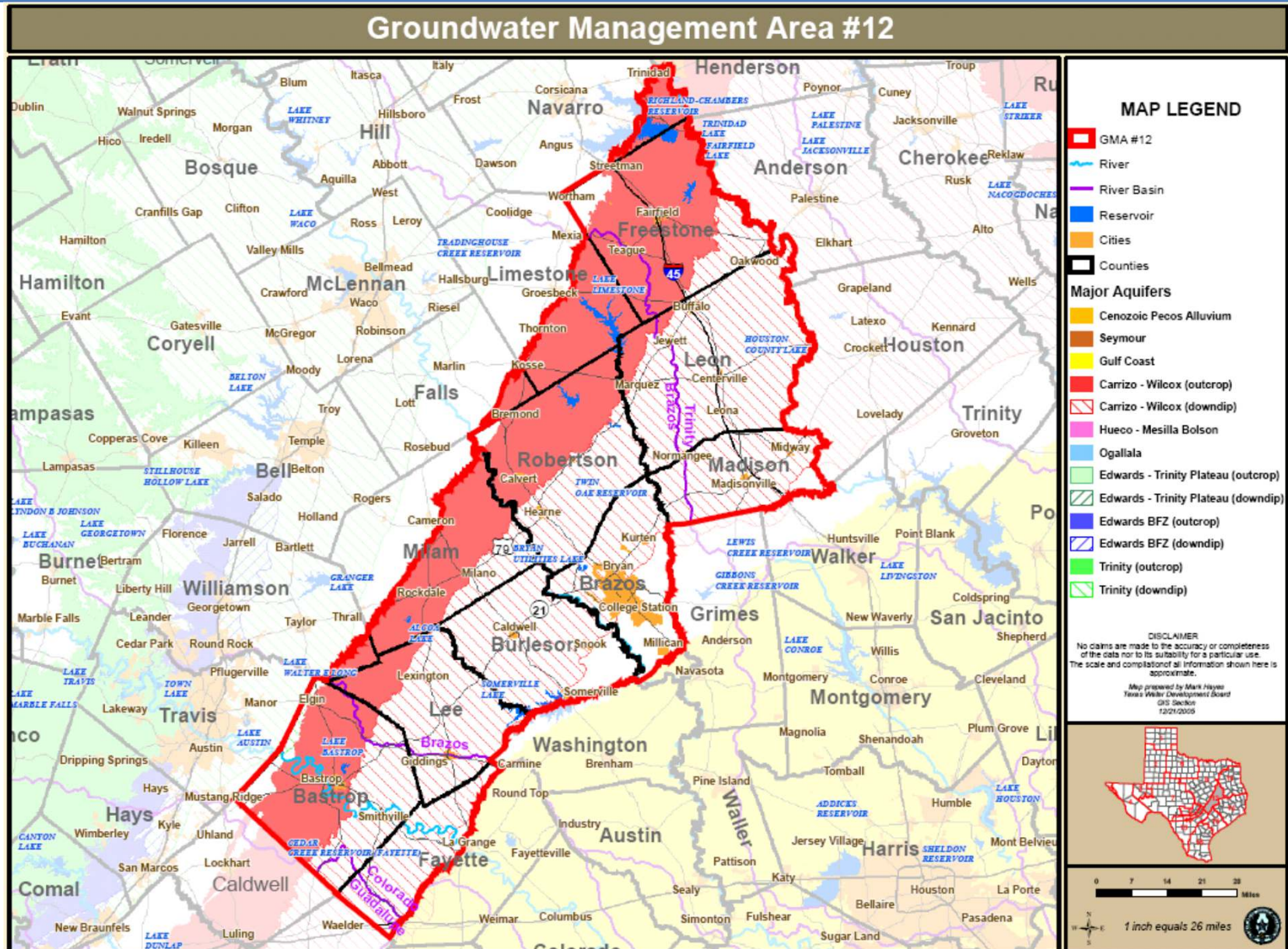
CARRIZO-WILCOX AQUIFER

Carrizo-Wilcox



Modified from Thorkildsen and Price, 1991

CENTRAL CARRIZO-WILCOX AREA



JOINT PLANNING REQUIREMENTS

Texas Water Code, Chapter 36.108

- GCDs required to adopt Desired Future Conditions for aquifers in GMA by May 2016
- Must consider and document 9 factors in process
- DFCs must provide balance between highest practicable level of production and conservation
- TWC 36.108 Allows for reasonable long-term management of groundwater resources
- Requires 2/3 vote of GCDs to adopt a DFC
- Begins 90 day comment period

POSGCD MANAGEMENT- EQUITABLE & FLEXIBLE

- Focus on aquifer conditions through monitoring wells
- Equitably respects private property rights in groundwater while protecting water levels in aquifers
- Equitable distribution of resource at any given time-
All applications equitably approved (spacing/acreage)
 - your right to produce the same as others is always protected.
- Permits are contingent upon availability of resource
- Includes equitable curtailment of permits if necessary, based on allowable production/acre
- Local Water Utilities are exempt from curtailment

POSGCD GROUNDWATER MANAGEMENT

- First Priority- Protection of water levels
 - Overall Desired Future Conditions
 - Shallow zones restrictions
 - District Monitor well network
 - Established Management Strategies
- Second Priority- Property Rights
 - Right to produce (now)
 - Protection when not producing** (for future)
 - Fair Share & Equitable- treat everyone the same on any given day (conditional permits)

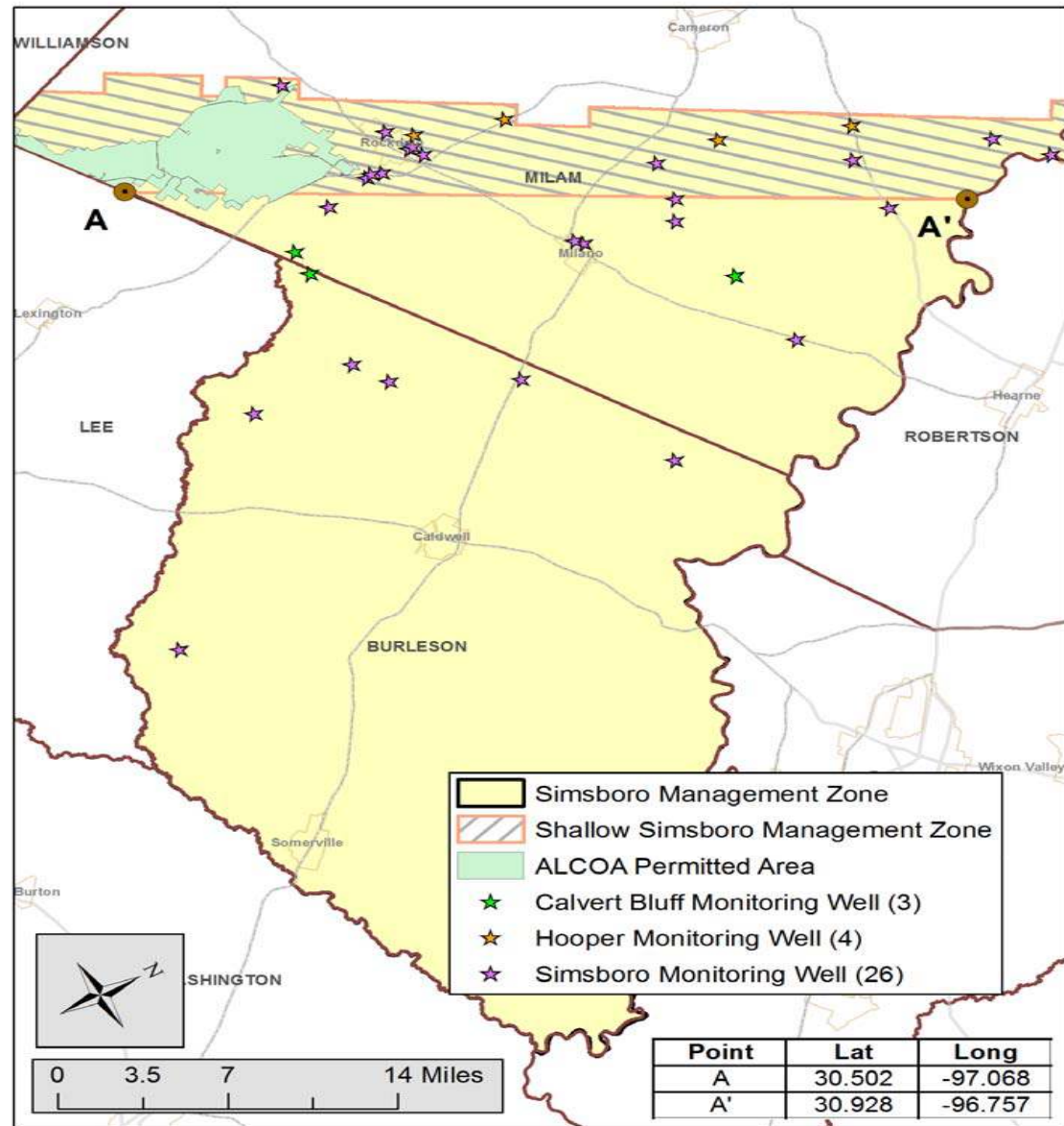
ESTABLISHED TOOLS IN PLACE TO ACHIEVE MANAGEMENT GOALS

- Well Spacing
- Contiguous Acreage requirements
- Management Zones
- Production per acre limits (currently 2 Acre Feet/Acre/Yr)
- Total permitted
- Permit requirements
- Five year reviews
- DFC Process (GMA and District)
- Thresholds (Section 16 of Rules) and Monitoring
- Improvement of Groundwater Modeling Tools

POSGCD CURRENT MONITOR WELL COUNT

Aquifer	Management Zone	
	Shallow	Deep
<i>Hooper</i>	8	0
<i>Simsboro</i>	13	20
<i>Calvert Bluff</i>	5	0
<i>Carrizo</i>	4	4
<i>Queen City</i>	5	6
<i>Sparta</i>	0	10
<i>Yegua-Jackson</i>	N/A	3
<i>Brazos River Alluvium</i>	7	N/A

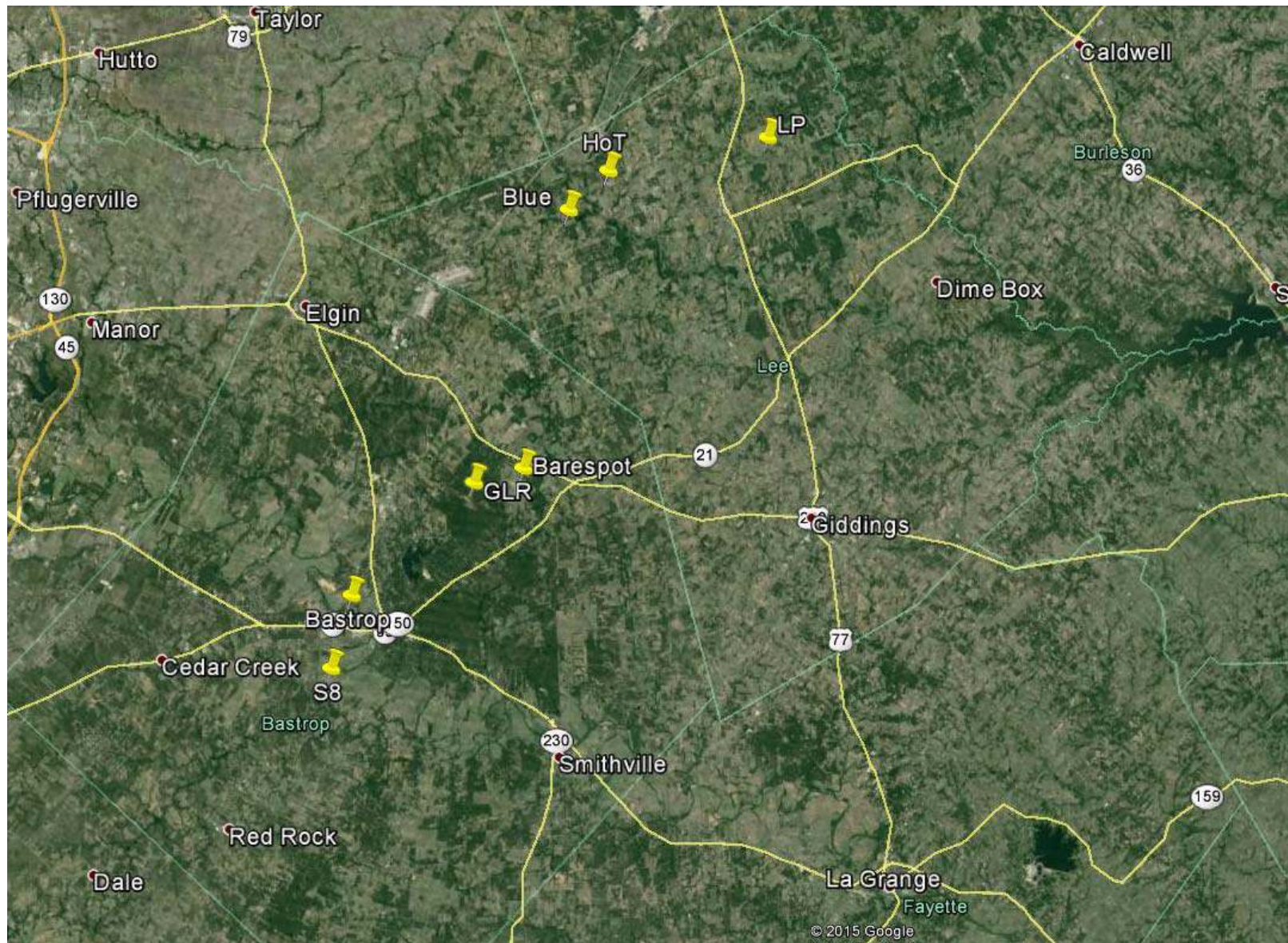
POSGCD MONITORING LOCATIONS FOR WILCOX AQUIFER



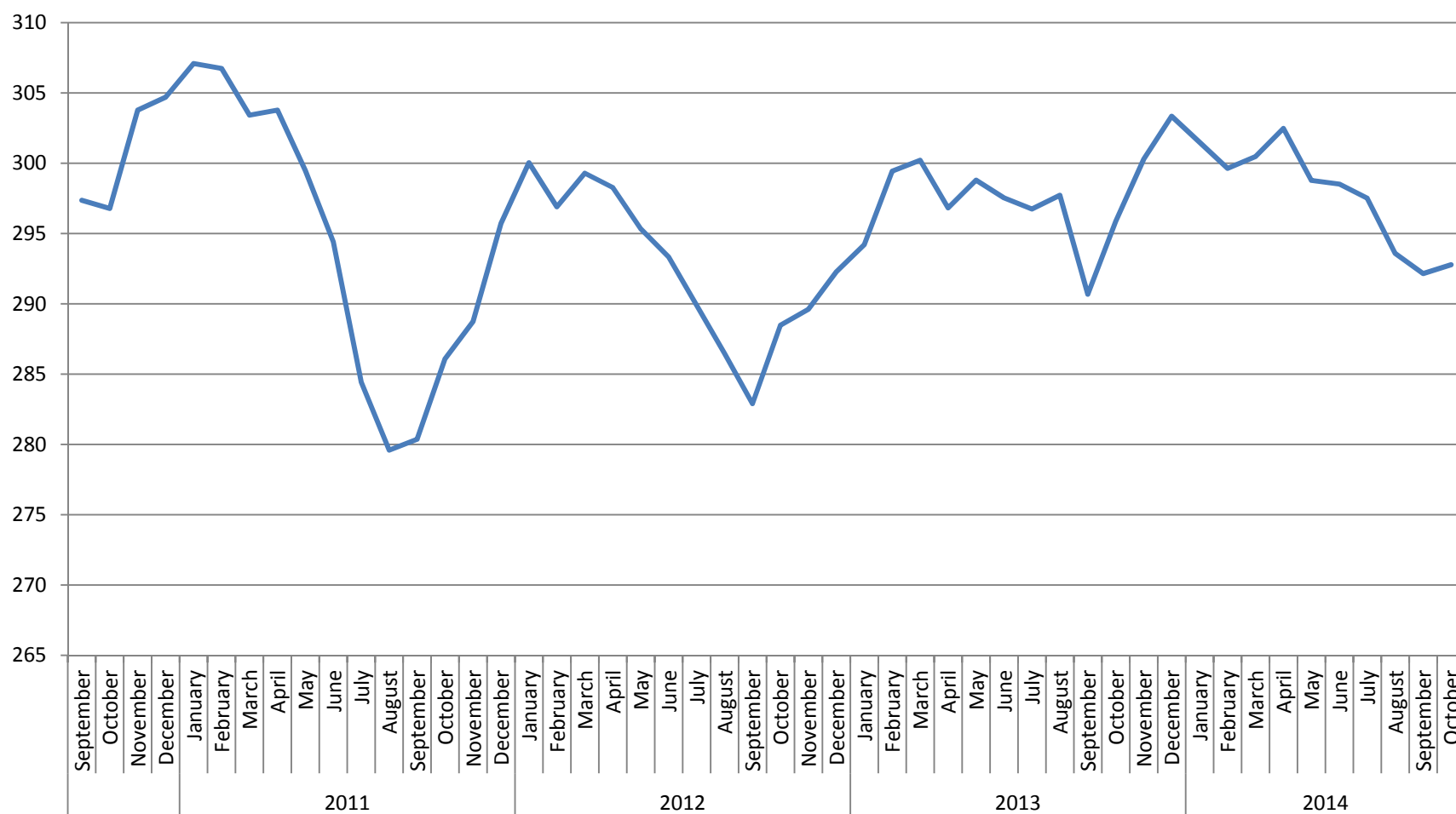
POSGCD 2015 MONITORING SUMMARY

- 88 monitoring wells (adding more)
 - 73 incidental wells (manual measurements)
 - 15 continual wells (hourly measurements)
- 2015 Winter measurements
- Monitoring results available on website
- Continuous evaluations and reports to Board
- Water Level trends are stable
- No change in management at this time

LPGCD SCADA MONITORING LOCATIONS FOR THE SIMSBORO AQUIFER



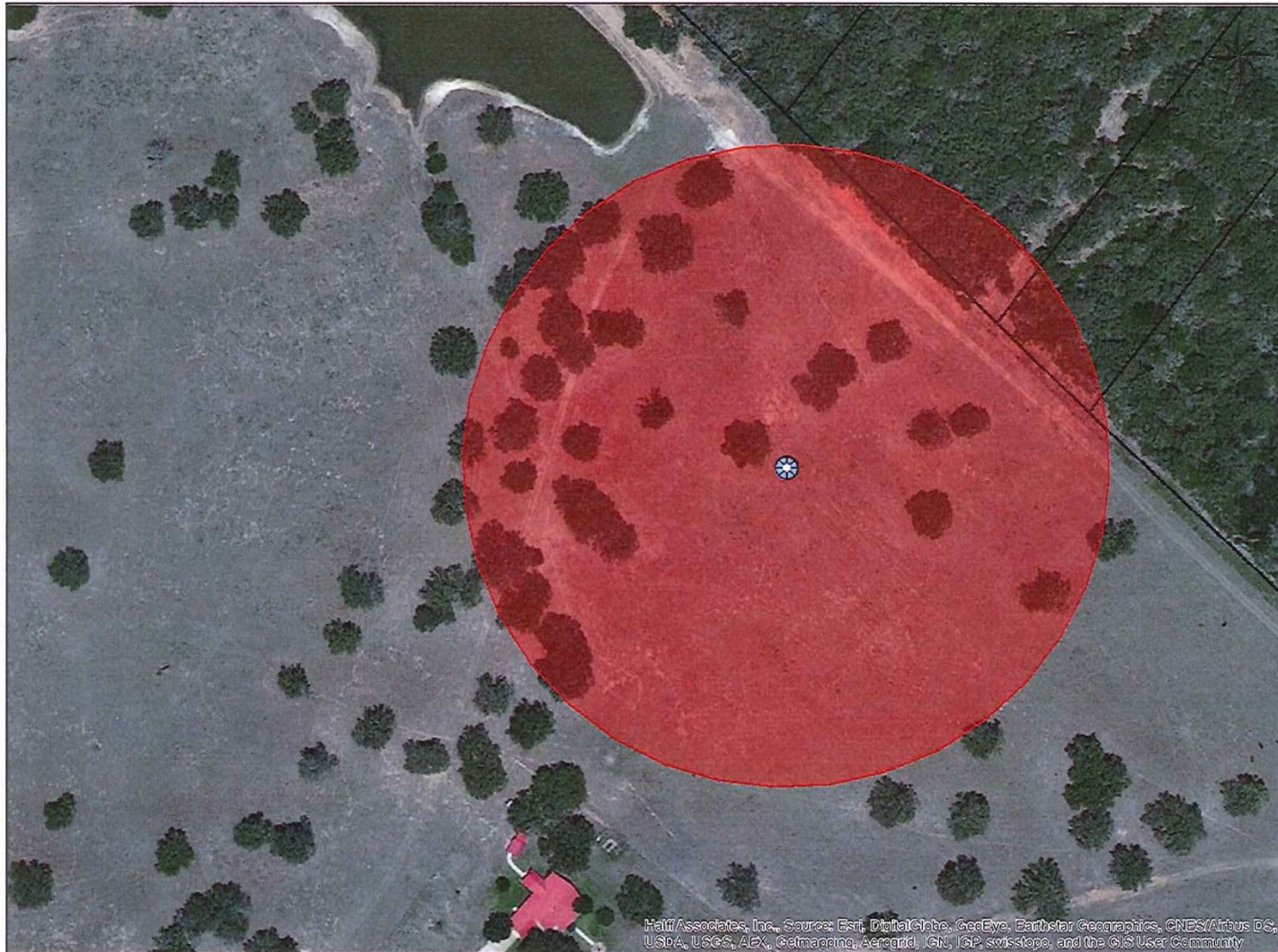
LPGCD SIMSBORO MONITORING SUMMARY

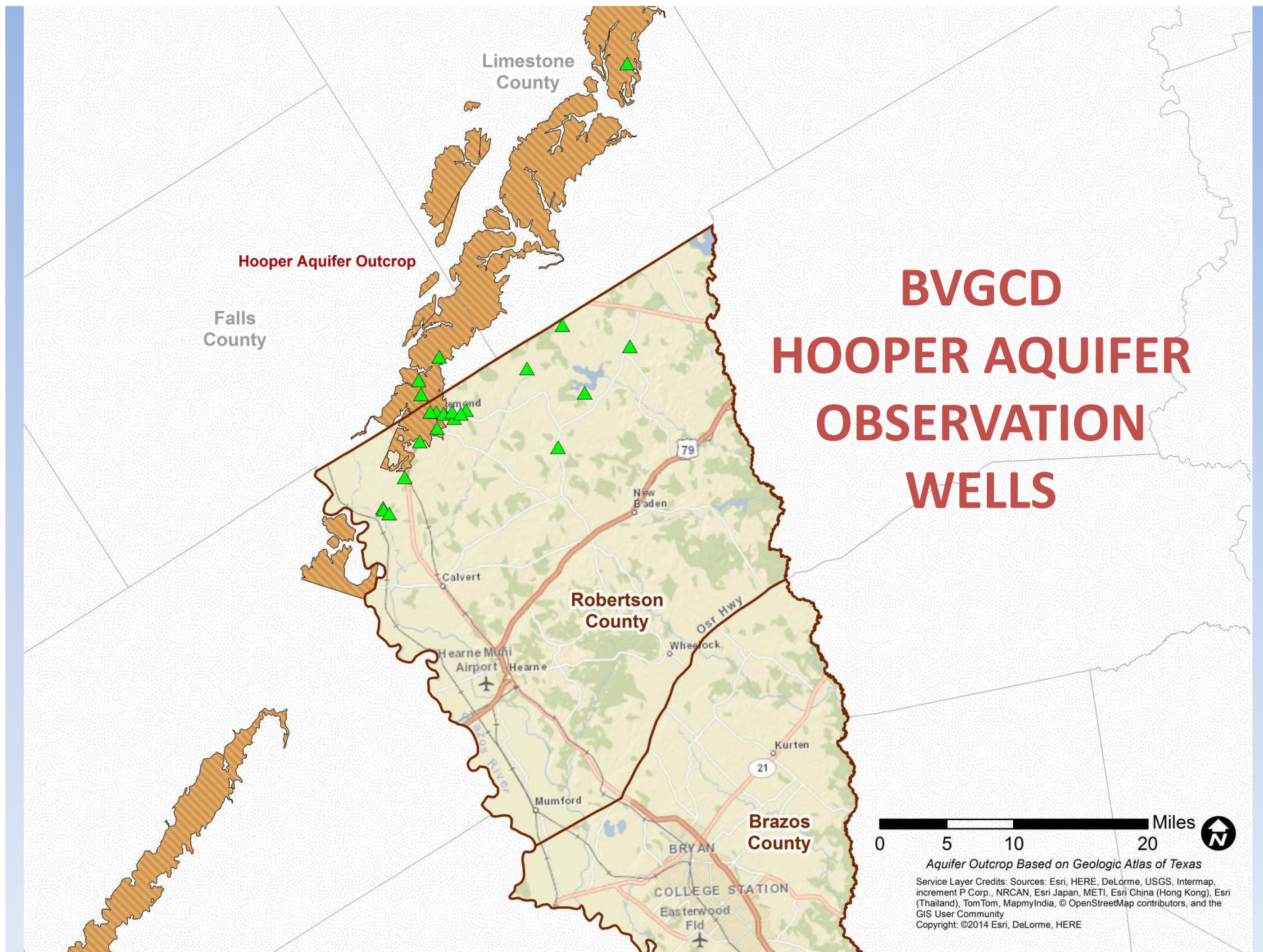


BVGCD 150 ACRE FEET/YEAR

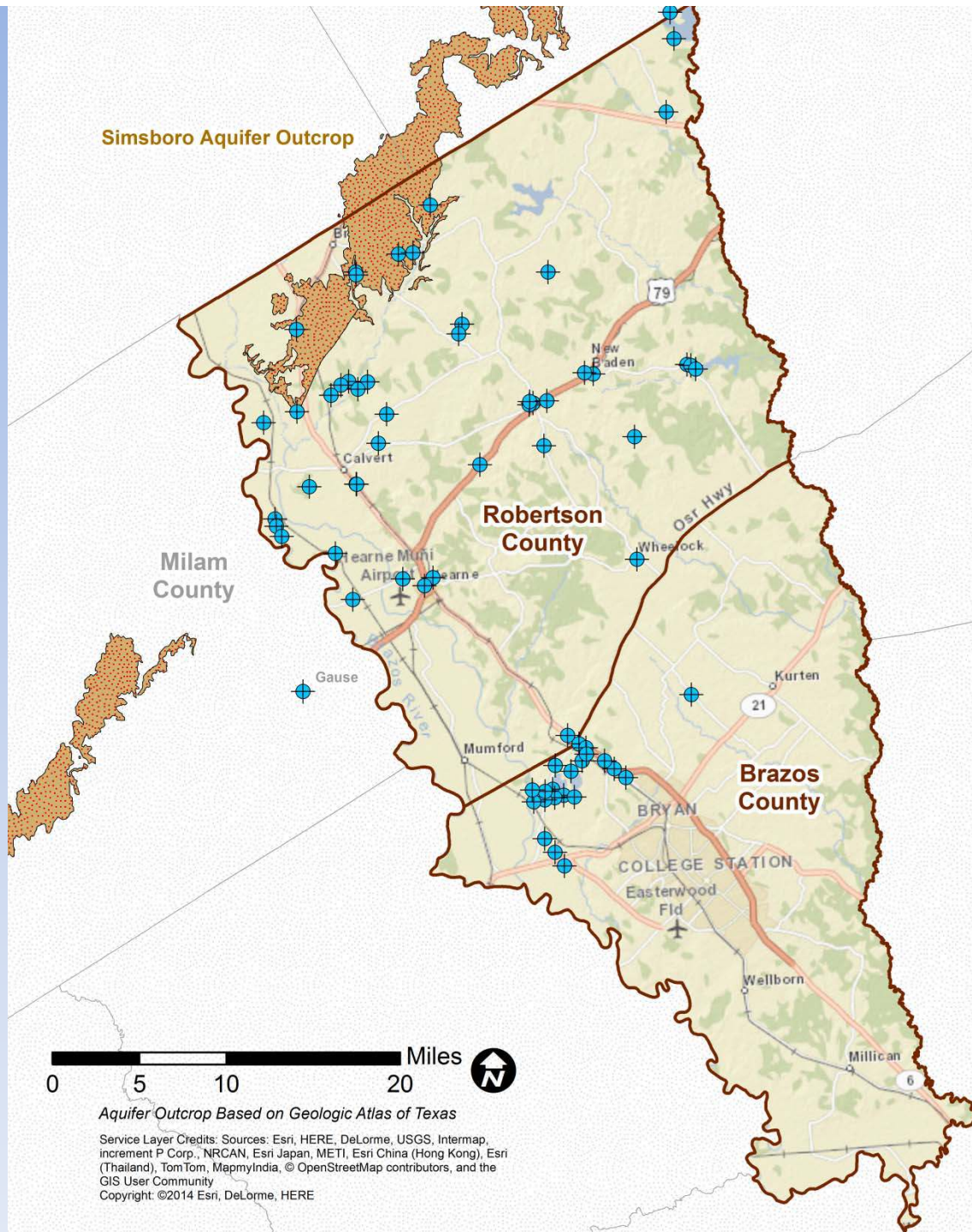


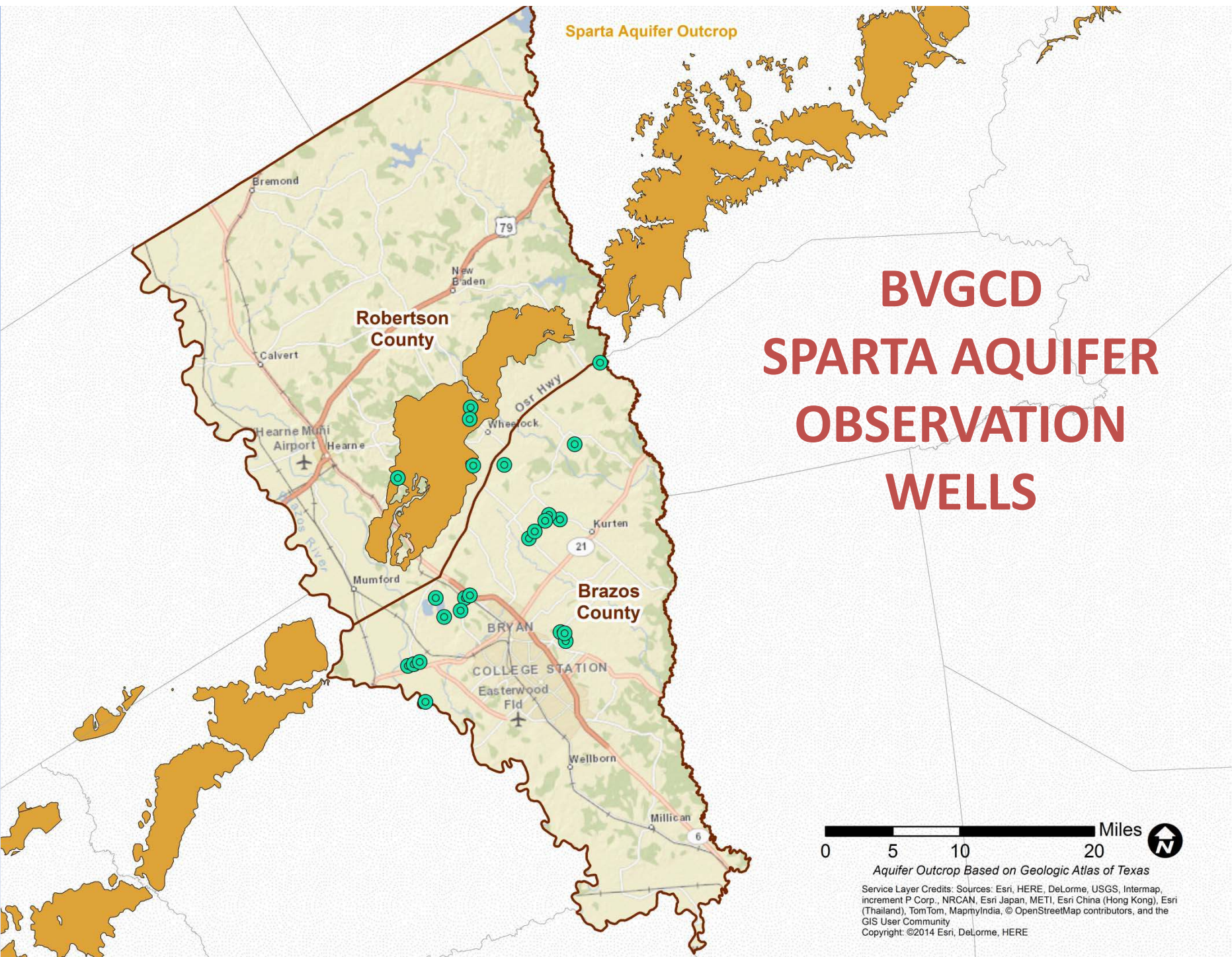
BVGCD 300 ACRE FEET/YEAR





BVGCD SIMSBORO AQUIFER OBSERVATION WELLS





Aquifer Outcrop Based on Geologic Atlas of Texas

Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

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BVGCD CURRENT MONITOR WELL COUNT

Aquifer	Management Zone	
	Unconfined	Confined
<i>Hooper</i>	9	12
<i>Simsboro</i>	7	58
<i>Calvert Bluff</i>	6	4
<i>Carrizo</i>	0	5
<i>Queen City</i>	0	6
<i>Sparta</i>	4	17
<i>Yegua-Jackson</i>	0	13
<i>Brazos River Alluvium</i>	39	0

GMA 12 UPDATE

- Working through 9 item “Laundry List” of 36.108(d) in adopting next round of DFCs (5 of 9 presented)
 - Aquifer Uses and Conditions
 - Water Supply Needs and Strategies in State Water Plan
 - Hydrological Conditions, Total Estimated Recoverable Storage
 - Subsidence
 - Impacts on interests and rights in property TWC 36.002
- Remaining requirements
 - Socioeconomic impacts (next meeting)
 - Environmental Impacts (next meeting)
 - Feasibility of achieving DFCs
 - Other Factors

GMA 12 UPDATE

- Accepting comments on all information- ongoing
- Cooperative effort in Improvement of Central Queen City-Sparta/Carrizo-Wilcox Groundwater Availability Model
- Exchange of information between GCDs
- On track to adopt DFCs timely
- Next Meeting- 10:00 am, August 13, 2015, Milano Civic Center, Milano, TX