



Town Hall Meeting on Hays County Water Concerns

February 10, 2015

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General Manager**

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Senior Hydrogeologist**

**Barton Springs/Edwards Aquifer
Conservation District**

Outline

GCD/BSEACD Overview

**Groundwater Evaluation – Central
Hays County**

GCD Overview

- Decentralized Management – Local Control

- Preferred method of GW management

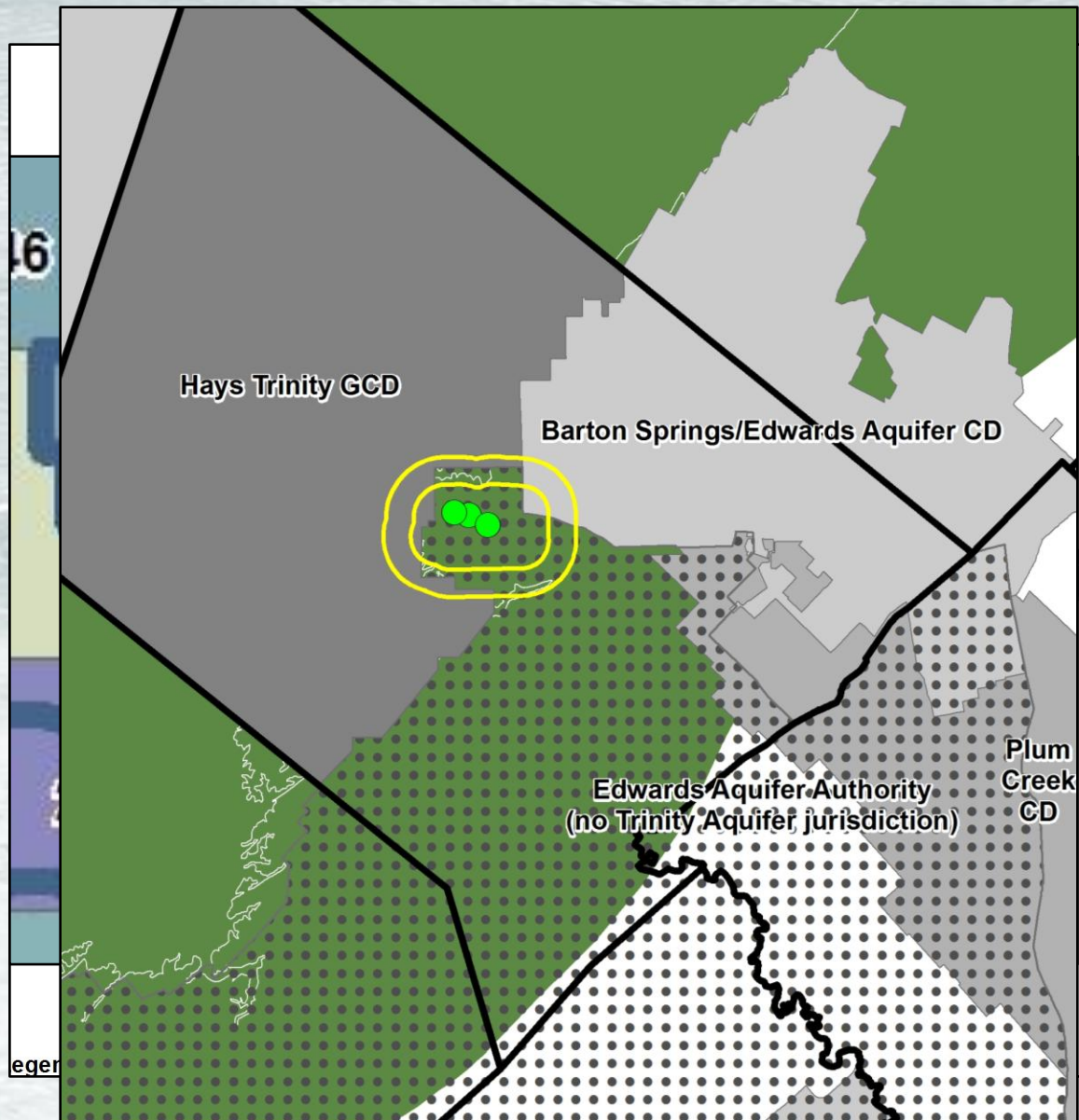
- 100 created to date

- Authority (Ch. 36)

- Register Wells/Permit Pumping
- Well Spacing/Construction
- Aquifer Studies
- Funding

- Purpose: Preserve, conserve, and protect groundwater

- Plan through GMA process



The BSEACD

Established: 1987

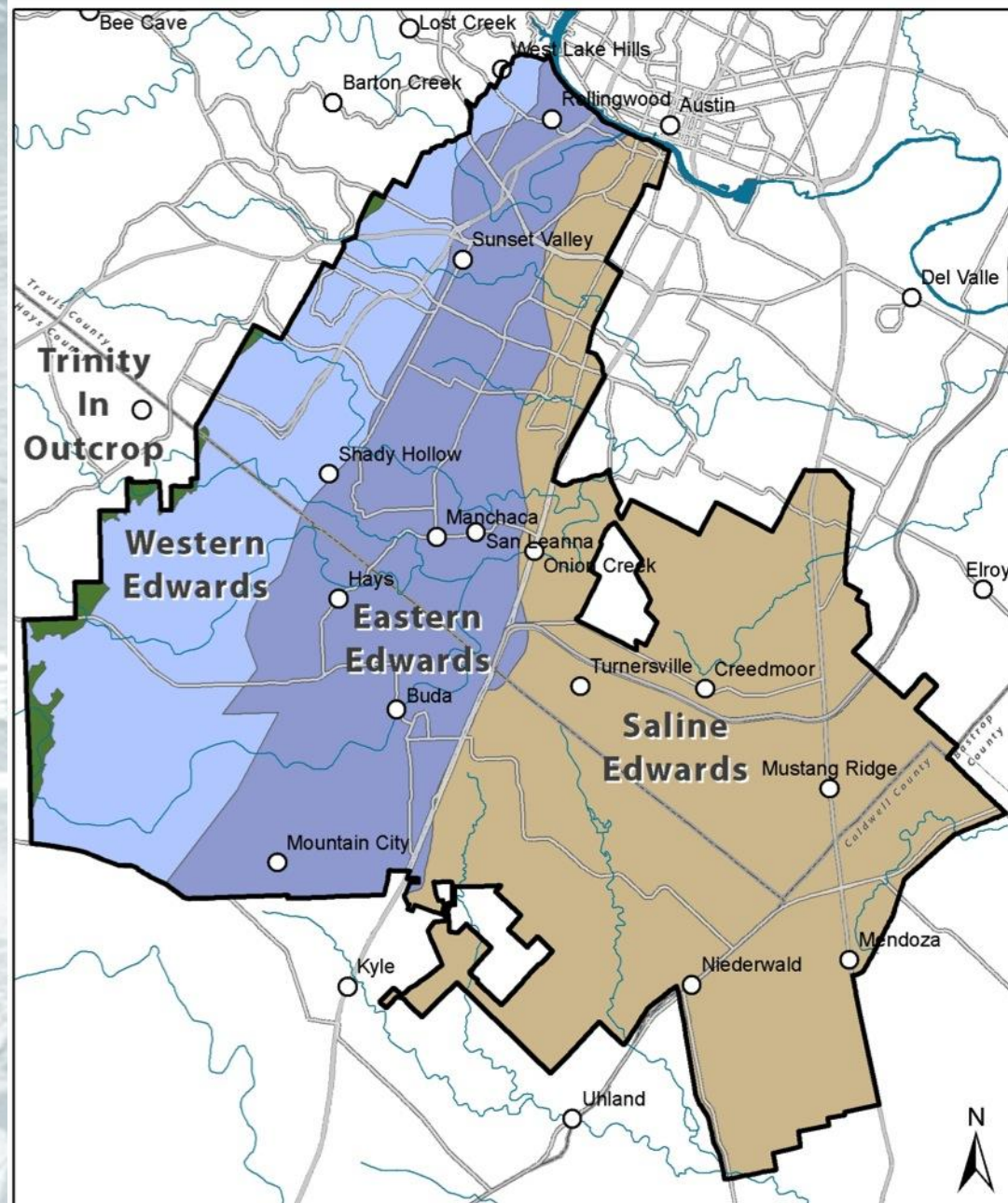
Funding: Fee Based

Applied Aquifer Science

Science-based Policies

Aquifers:

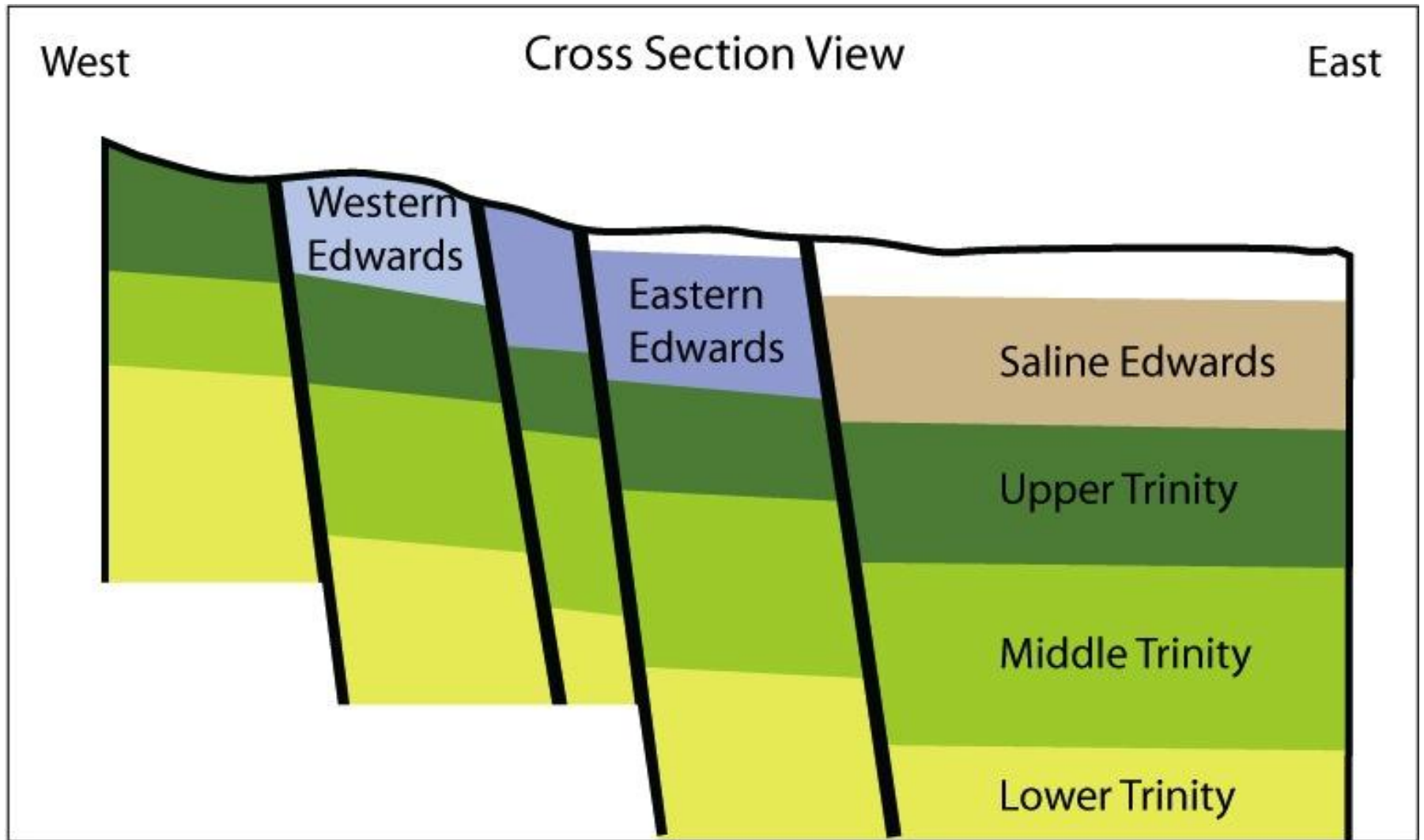
- 🔵 Fresh Edwards (int.)
- 🔵 Saline Edwards (firm)
- 🔵 Middle Trinity (firm)
- 🔵 Lower Trinity (firm)



0 2 4 8 Miles

☐ BSEACD Boundary

Management Zones



not to
scale

Permitting

Permits:

- 💧 Exempt
 - 💧 Low capacity
 - 💧 Livestock and Domestic
- 💧 Nonexempt
 - 💧 Historical (Saline Ed/Trinity)
 - 💧 Conditional (Edwards)

	MGD	Gallons/year	Acre-ft /year
Electro-Purification	5.3	1,934,500,000	5,936
BSEACD-Trinity MAG (GMA 10)	1.15	419,696,088	1,288
BSEACD-Trinity, 2013 Unpermitted MAG	0.80	290,681,088	892
HTGCD-Trinity MAG (GMA 9)	8.13	2,965,244,100	9,100
HTGCD-Trinity, 2013 Unpermitted MAG	2.39	872,954,829	2,679
Hays County, White Space MAG	2.83	1,032,295,968	3,168

Permitting Criteria:

- 💧 Beneficial Use
- 💧 Demand-based permit volume
- 💧 No unreasonable interference (drawdown)
- 💧 Not degrade water quality
- 💧 Not contrary to public welfare
- 💧 Drought plan
- 💧 Preserve DFC (within available MAG)

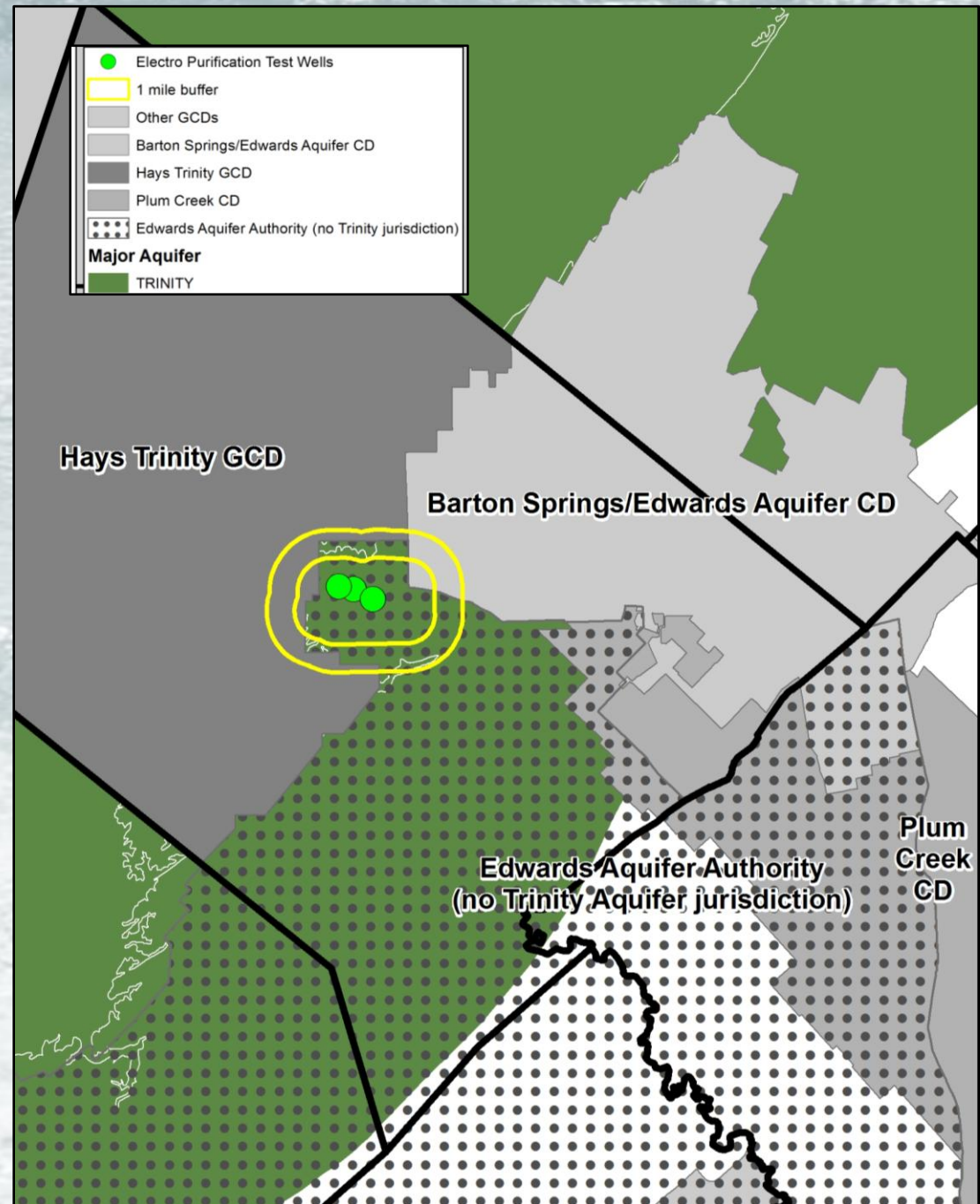
Possible Annexation

Board's Current Position

- 💧 Provide technical support
- 💧 Help with solutions
- 💧 Support legislator's directives

Annexation Questions

- 💧 Redistricting
- 💧 Start up costs
- 💧 Legal issues
- 💧 AG opinion request

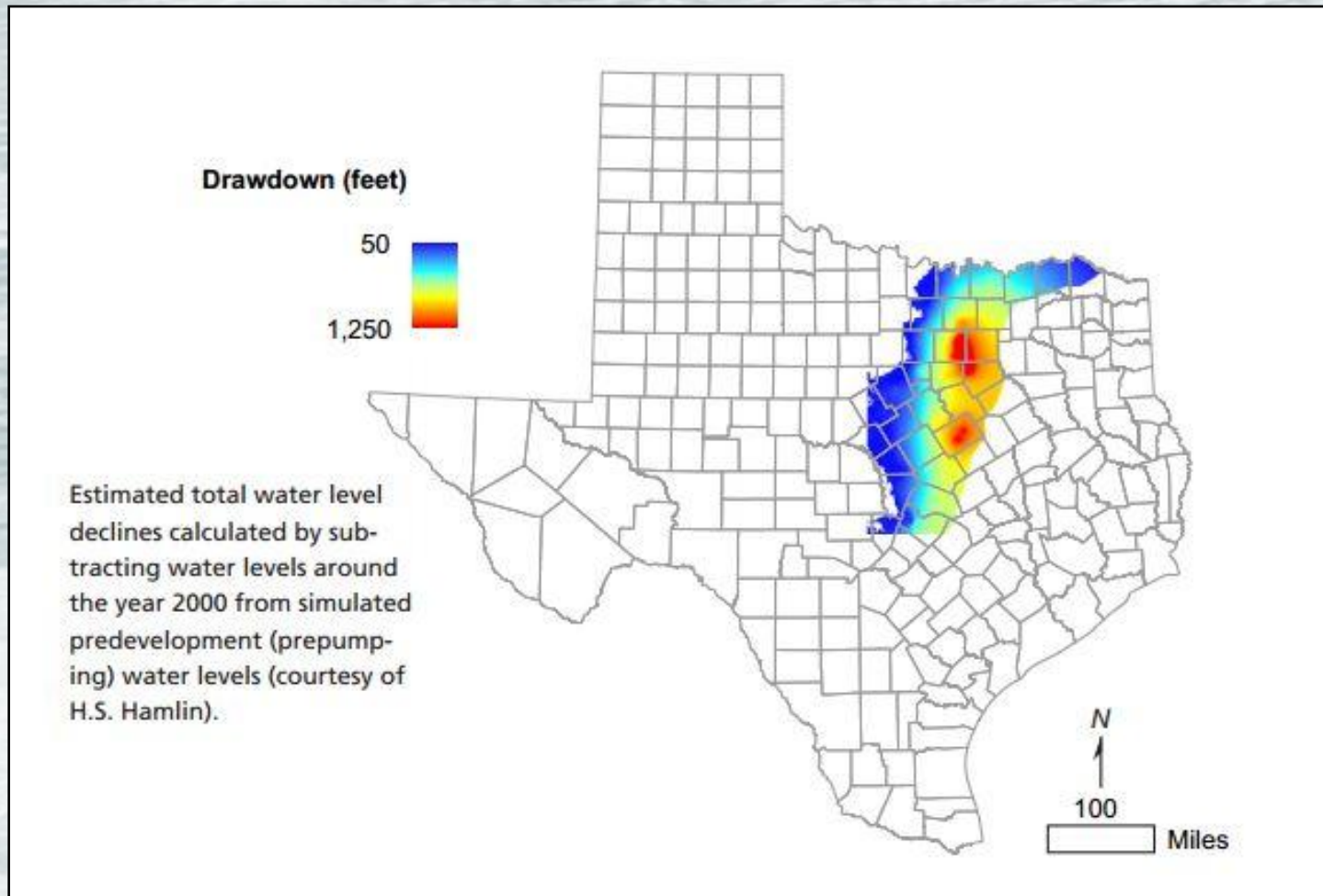


Central Hays County Groundwater Evaluation

BSEACD, HTGCD, EAA, PCGCD and others

Purpose: Evaluate the potential impacts of a high rate of pumping from the unregulated Trinity Aquifer in Central Hays County.

Drawdown



Middle Trinity in Hays County

Modeled drawdown

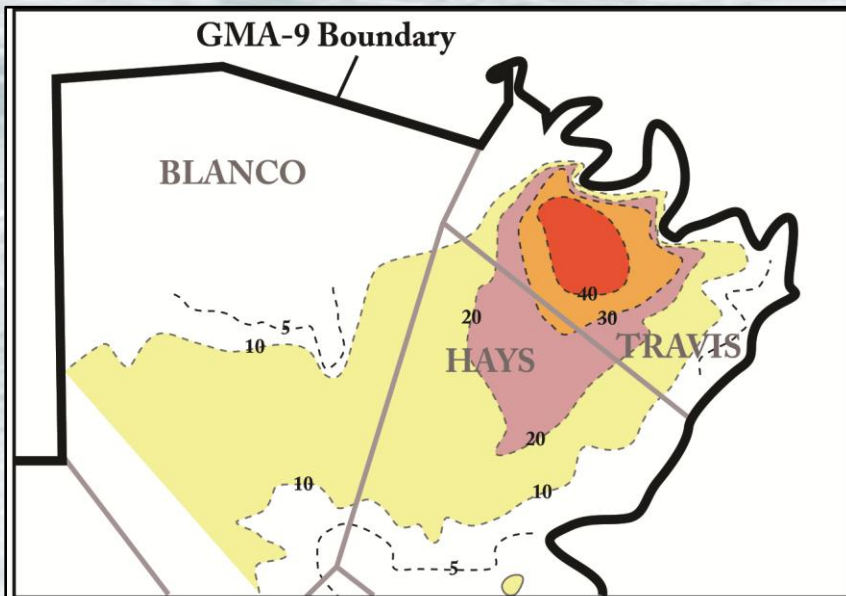
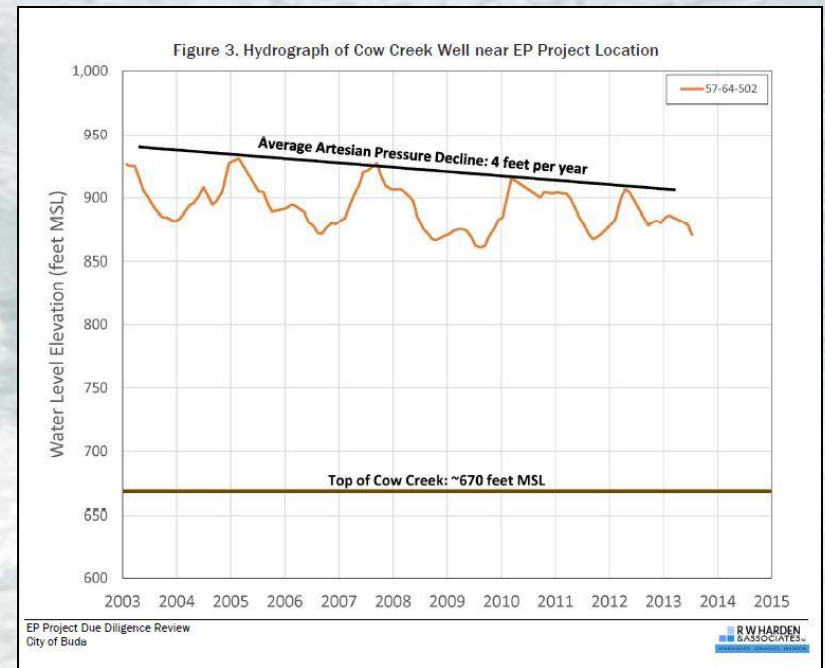


Figure 1. Approximation of results from simulated water-level declines (in feet) in 2060 (relative to 2008; scenario 6) using average recharge conditions. Figure modified from Hutchison and Hassan, 2011, Supplement to TWDB GAM Task 10-005 (Jan 2011).

Monitor wells

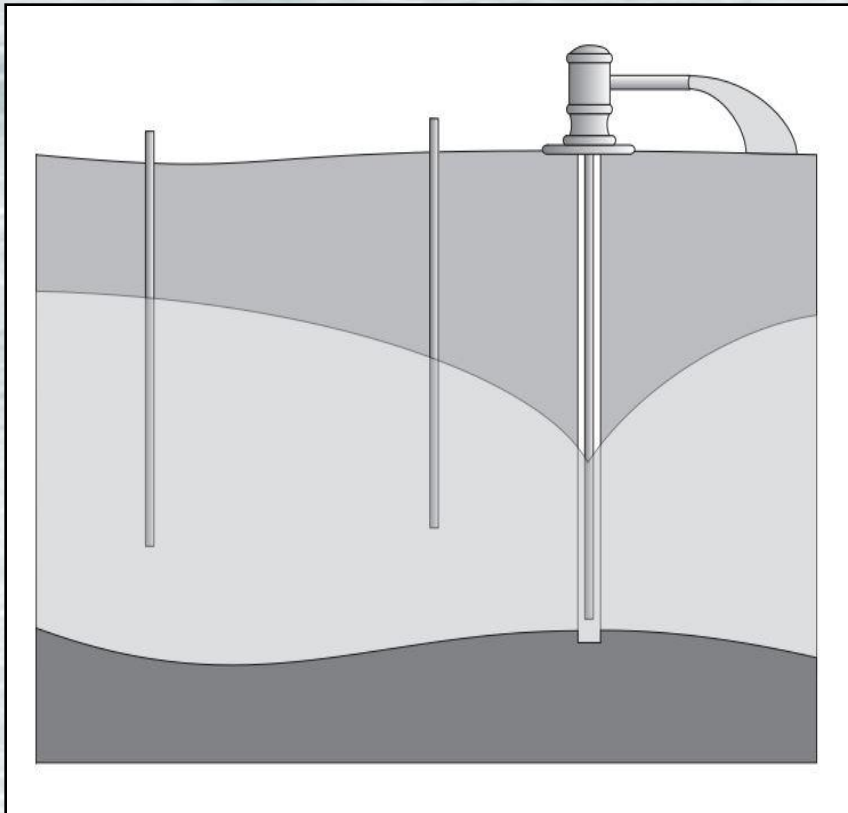


EP Project Due Diligence Review
City of Buda

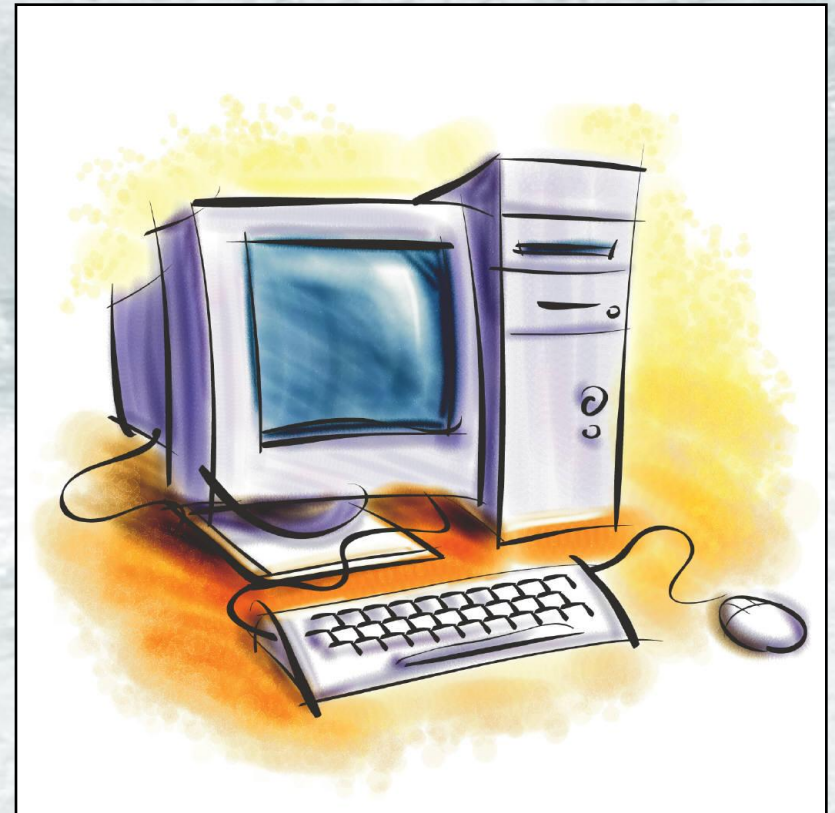
B W HARDEN
ASSOCIATES

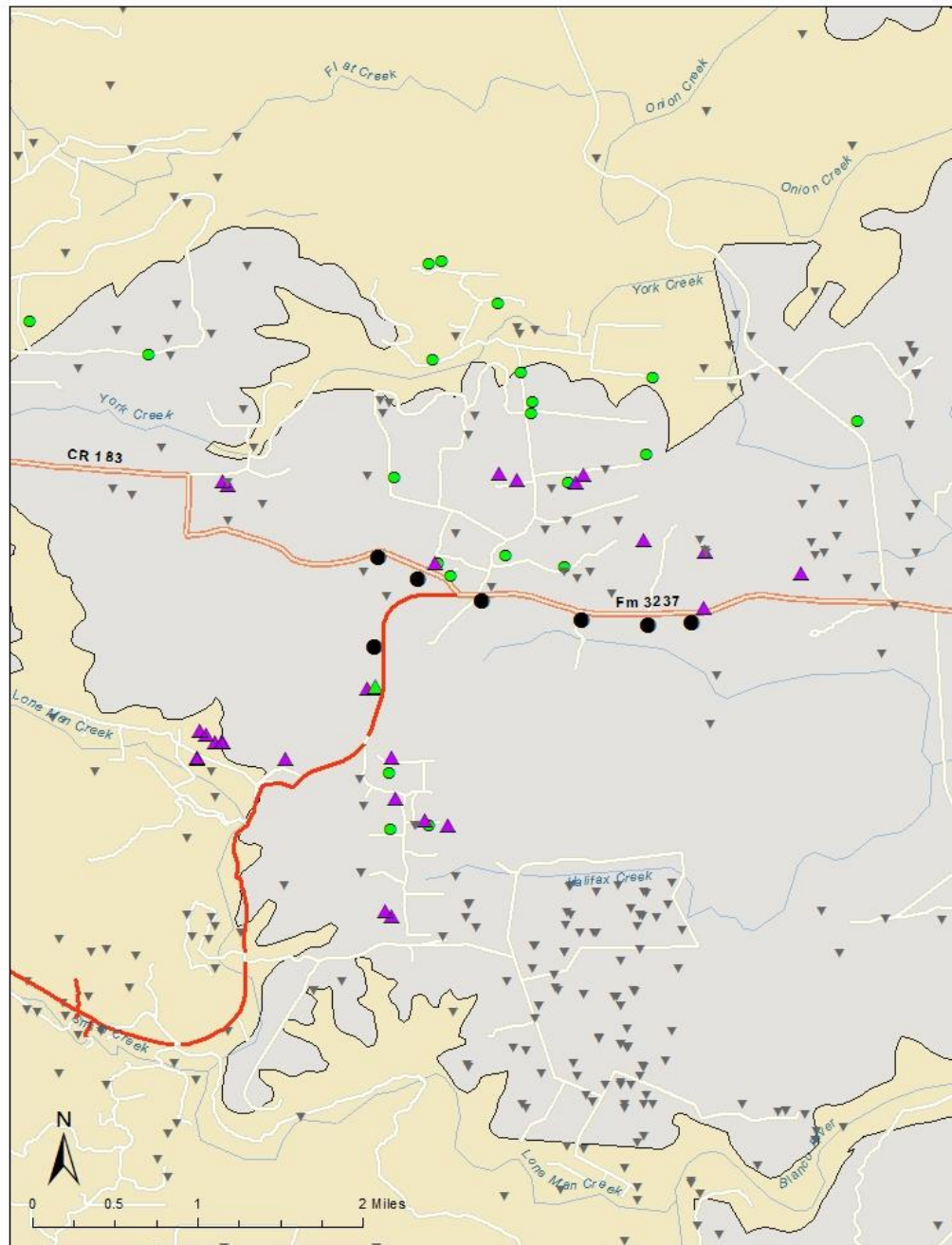
Central Hays County Groundwater Evaluation

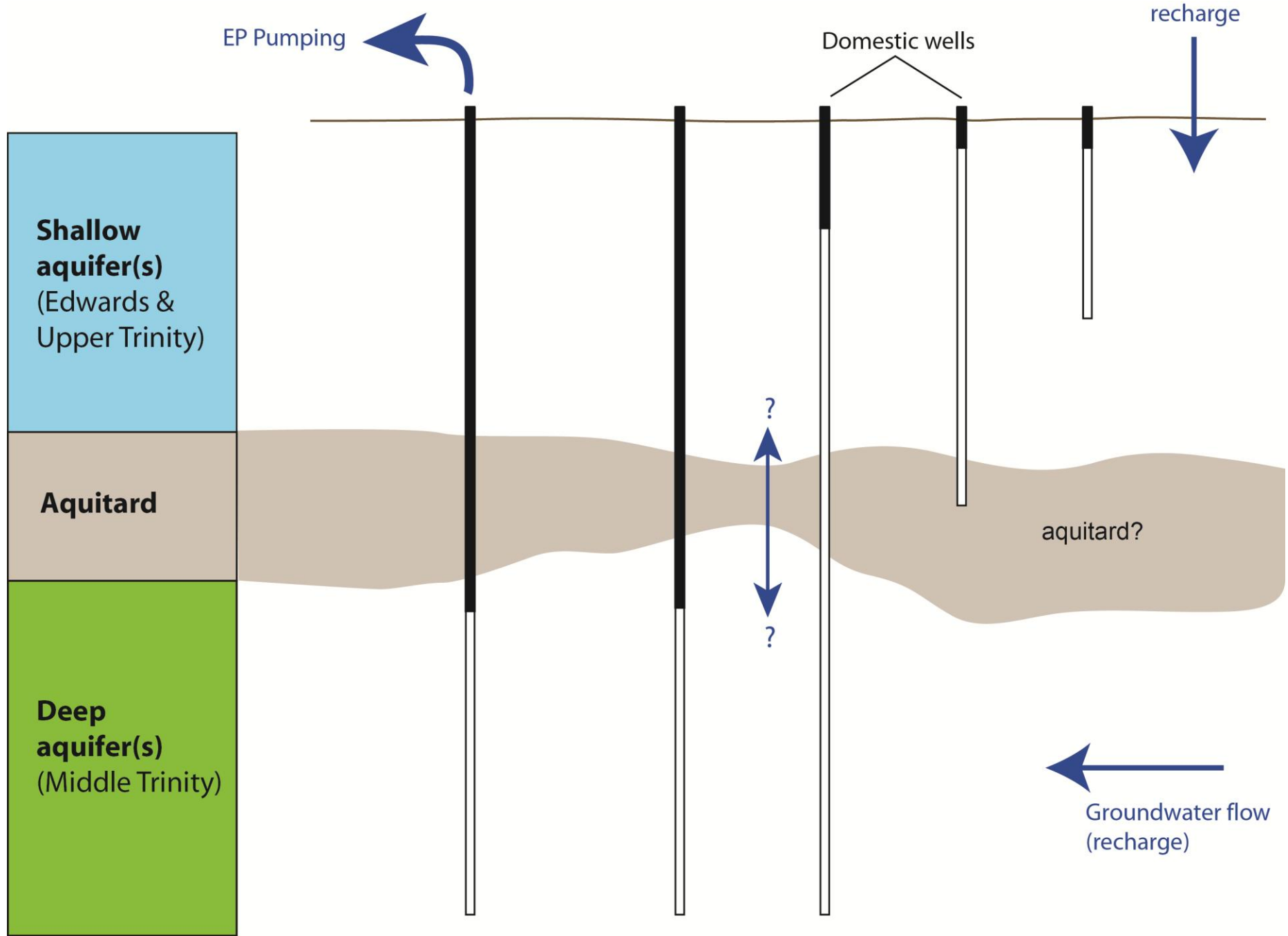
Phase I: Aquifer pumping test



Phase II: Modeling





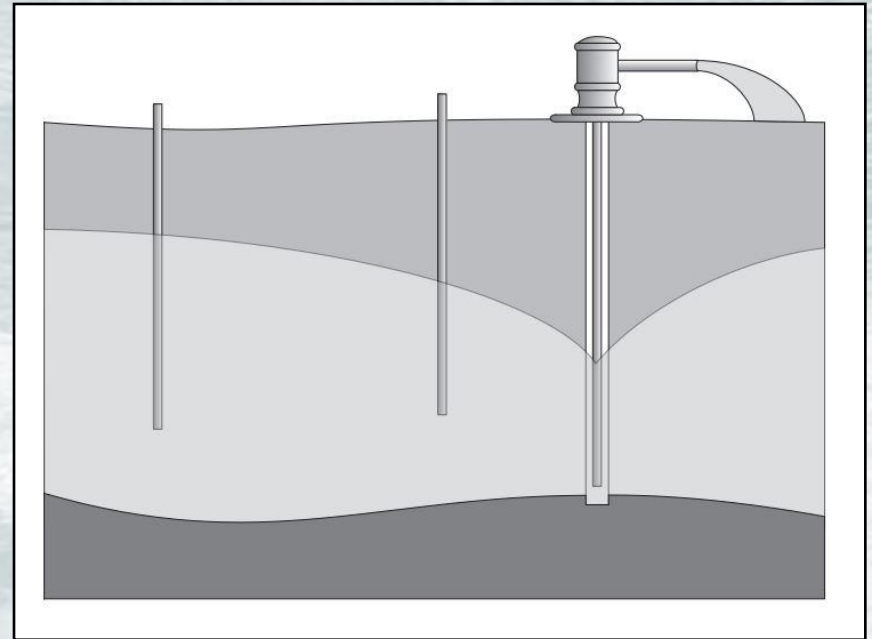


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Central Hays County Groundwater Evaluation

Phase I: Report of Findings—end of 2015?

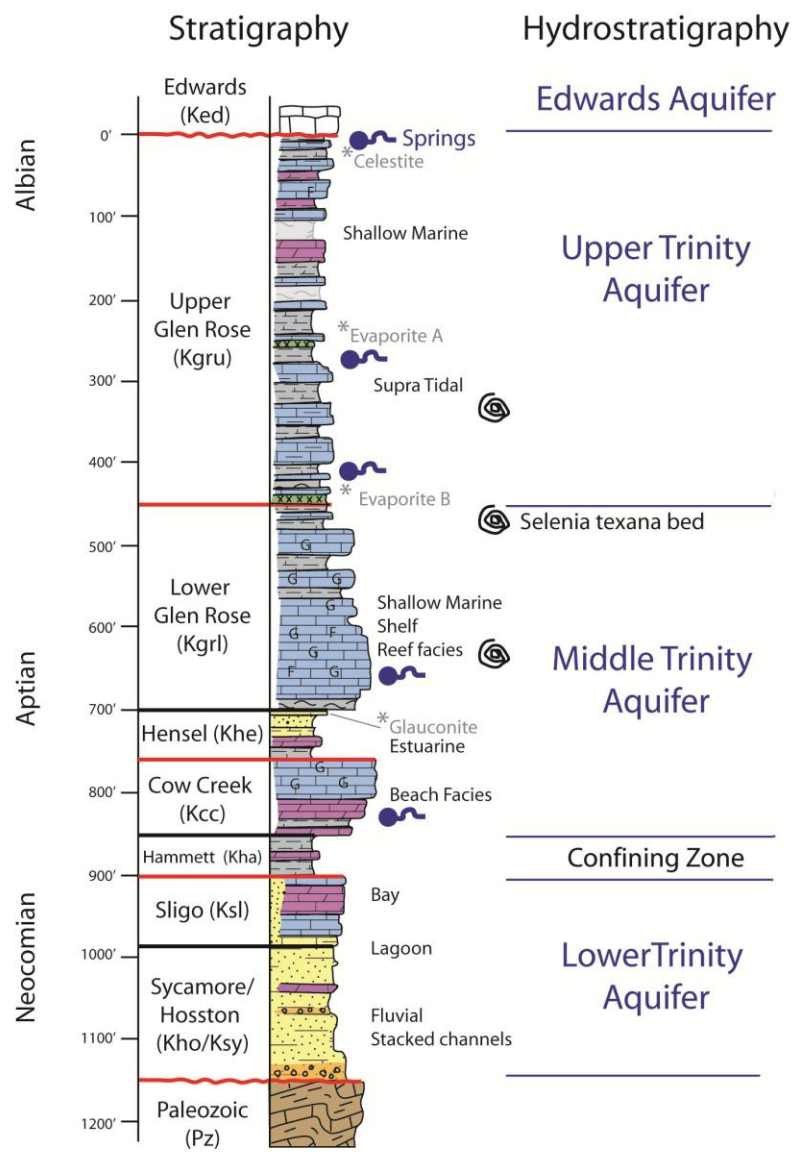
- Broad technical input
- Hydrogeologic setting
- Extent and magnitude of drawdown
- Water quality changes (if any)
- Short- and medium-term predictions of drawdown





**Thanks for
Listening!**

Lower Cretaceous



Modified from Stricklin and Lozo (1971)

Schematic Geologic Cross Section

