

Water Resource Management in Texas

DFCs, MAGs, GAMs and all that Alphabet Soup:
What Does it Mean to the O&G Industry?

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Legislation

- 1990's in Texas
 - Vulnerability to drought
 - Growing population
- Water laws enacted
 - (Senate Bills 1, 2, 3, HB 1763, etc.)



What's new?

- Change from qualitative to quantitative groundwater management
- State aquifers modeled (GAMs)
- Rules and regs for local and regional boards

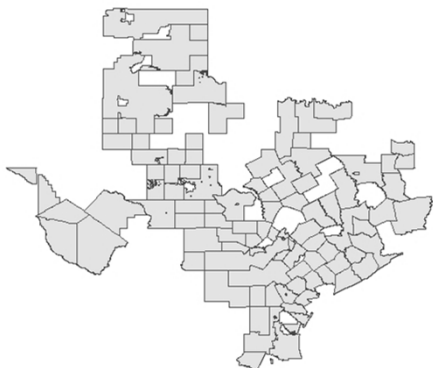


How the Groundwater Availability Models (GAMs) will be used to manage aquifers:

- Desired Future Conditions (DFCs)
 - Local water managers determine how much water to be left in the aquifer(s) in 50 years
- Managed Available Groundwater (MAG)
 - Models used to "back calculate" available water for next 50 years.



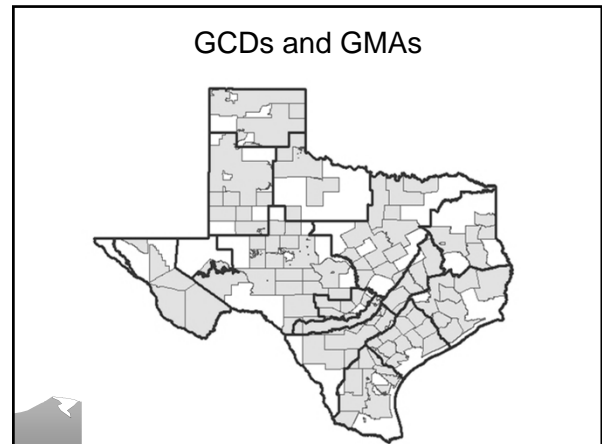
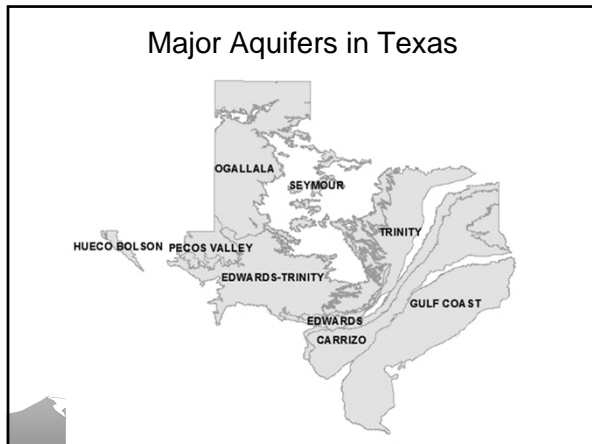
Groundwater Conservation Districts (GCDs)



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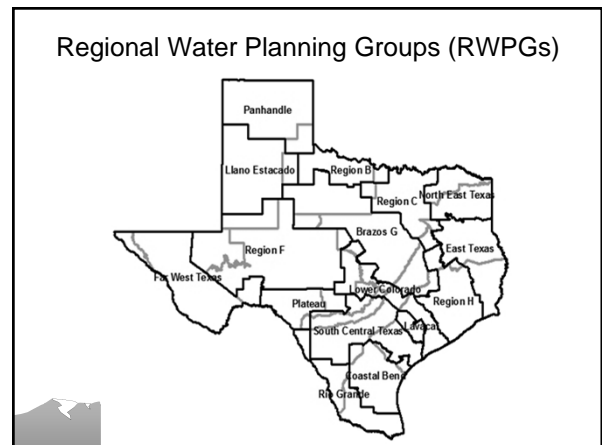
- Local management
- Elected boards
- Determine DFCs and enforce MAGs





Groundwater Management Areas (GMAs)

- One representative/vote for each GCD
- Regional consensus on DFCs



Regional Water Planning Groups (RWPGs)

- Appointed boards
- Represent all stakeholder groups
- Prepare regional water plans every 5 years
- (Regional plans compiled into **State Water Plan**)

Where we're at in the process...

- Today is "D Day" ... (DFC Day)

(All DFCs are required by law to be submitted to the State by Sept 1, 2010)

What does it mean to O&G industry?

- Current and projected O&G water demand are “hard wired” into the State Water Plan
- MAG amounts will be provided to water managers ... then enforcement.



Potential Use of Water Data by other Industries

- Banking and lending institutions
 - Water available through life of loan?
- Real Estate
 - Effect of supply and demand on land values



Current Big Issue

- Texas Water Code Section 36.117

Texas Water Code
Section 36.111. Exemptions; Exception; Limitations.
(a) A district may exempt wells from the requirement of obtaining a drilling permit, an operating permit, or any other permit required by this chapter or the district's rules.
(b) A district may not require any permit issued by the district for:
1. ... (regarding domestic wells)
2. the drilling of a water well used solely to supply water for a rig that is actively engaged in drilling or exploration operations for an oil or gas well permitted by the Railroad Commission of Texas"



Can the O&G industry better position itself for adequate future water supplies?

- Participate in process
- Accurate projection of O&G needs
- Hire professionals with experience in groundwater resource management

