

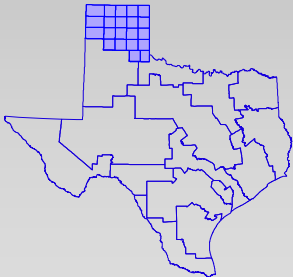
Updates to Chapter 3

Supply by Source

Supply to WUGs

Comparison of Water
to Demand

**Panhandle Water
Planning Area**



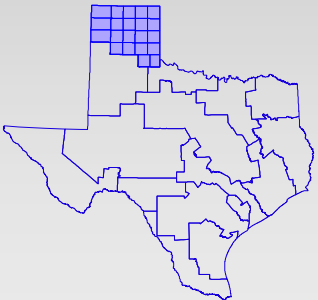
PWPG Meeting

November 19, 2009

Updates since July 2009

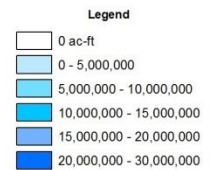
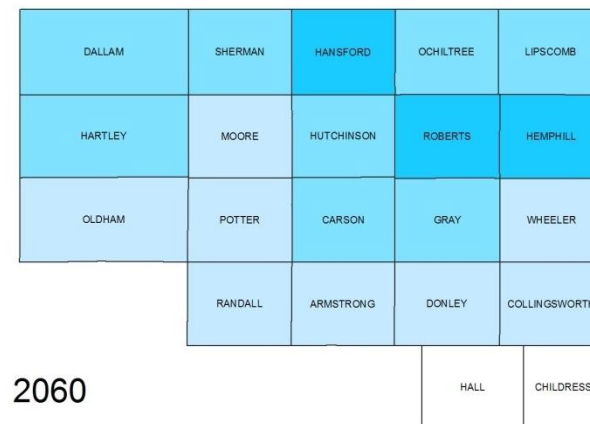
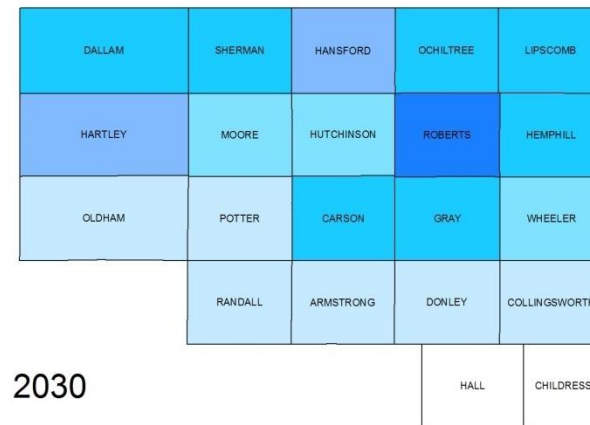
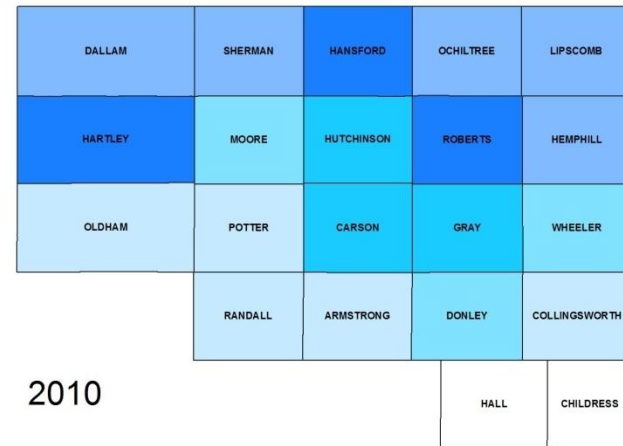
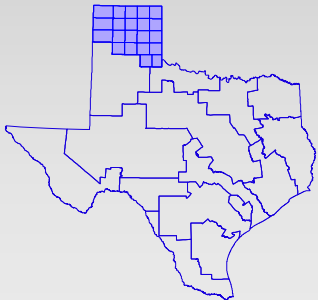
- **Ogallala Availability**
 - ◆ 40/50/80 Approach
 - ◆ 2004 Northern GAM Model
 - ★ Calculated for each 1 sq mi grid
- **Rita Blanca**
 - ◆ Included as part of Ogallala
- **Dockum**
 - ◆ Added volumes and updated supplies for Oldham and Potter
- **Reuse**
 - ◆ Updated supplies from Xcel and IBP

**Panhandle Water
Planning Area**

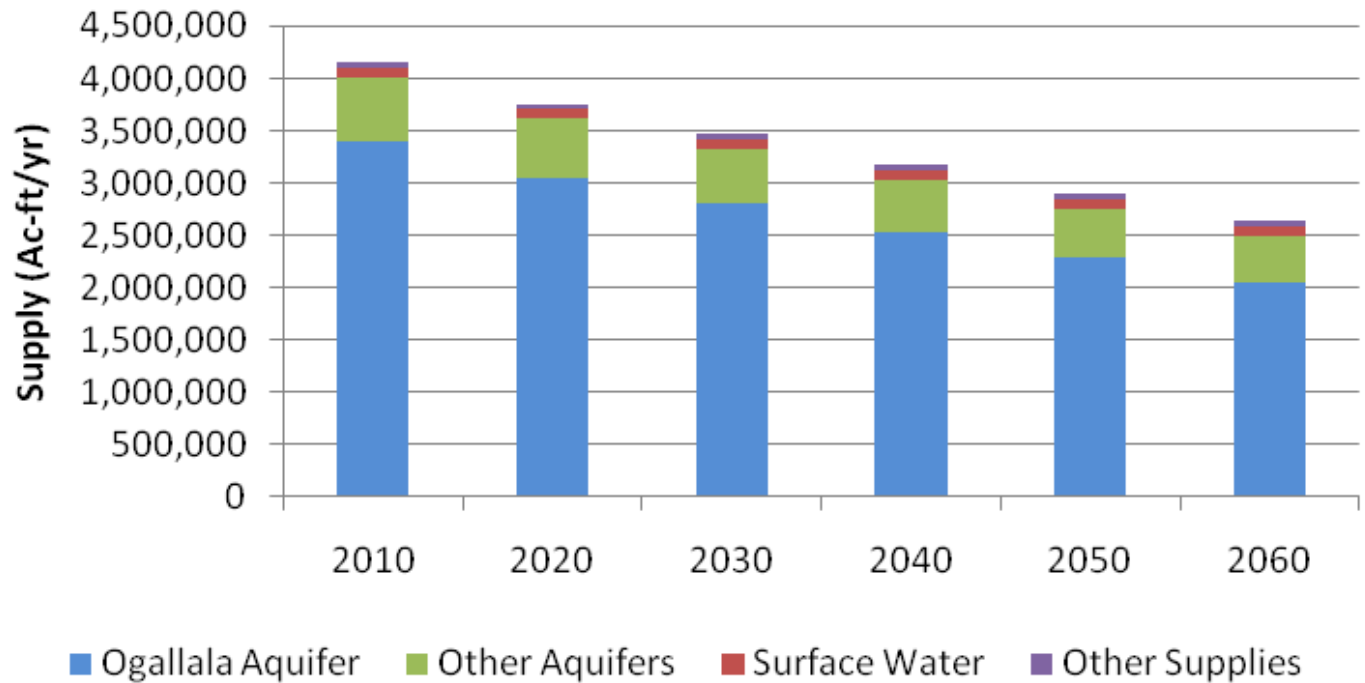


Ogallala Volume

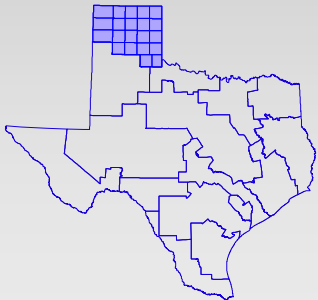
Panhandle Water Planning Area



Total Supply by Source



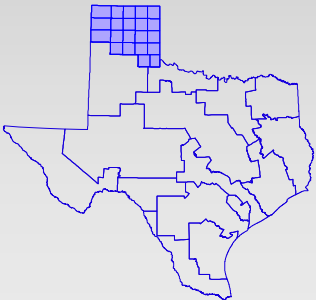
**Panhandle Water
Planning Area**



Supply to Ogallala WUGs

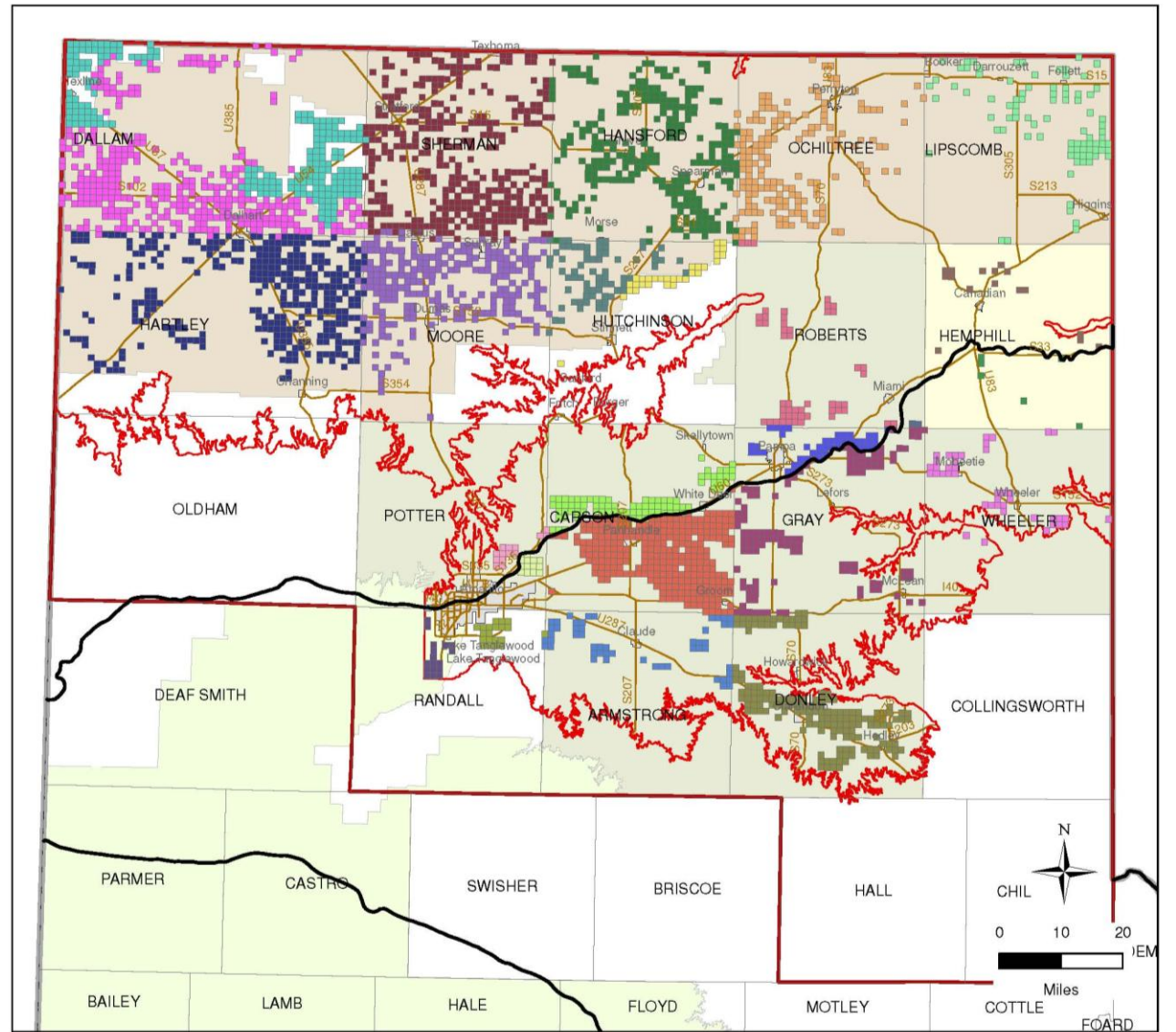
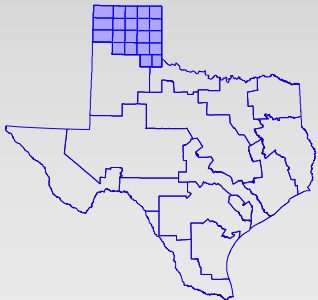
- Used GAM to assist with irrigation and municipal users
- Irrigation Users
 - ◆ Lesser of GAM or demands
- Municipal Users
 - ◆ GAM results (average)
 - ◆ Well field capacity / water rights
 - ◆ Historical use
- Other Users (Mfg, Min, SEP, Stk)
 - ◆ Met demands, unless provided by wholesale provider

**Panhandle Water
Planning Area**

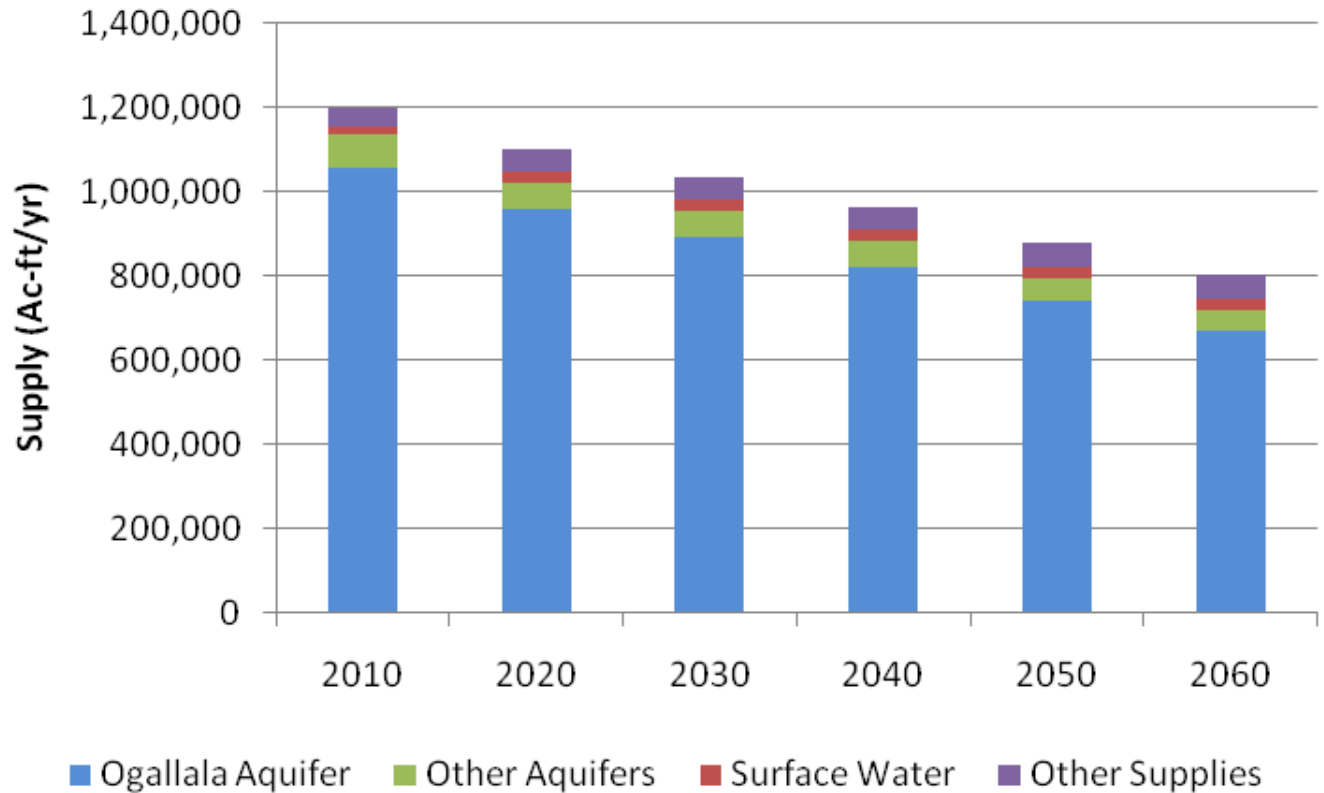


Irrigation Zones

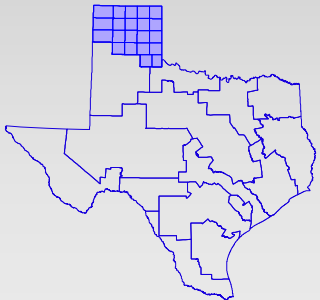
Panhandle Water Planning Area



Supply to WUGs

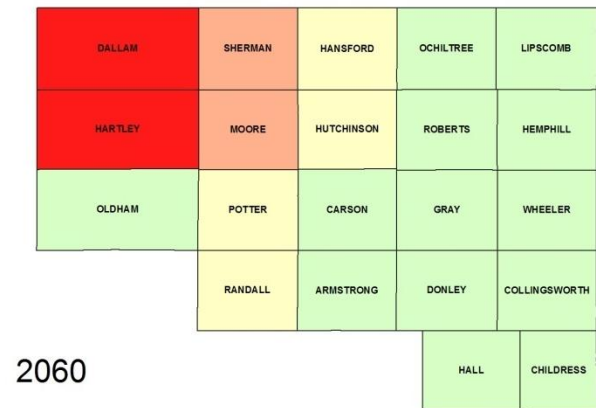
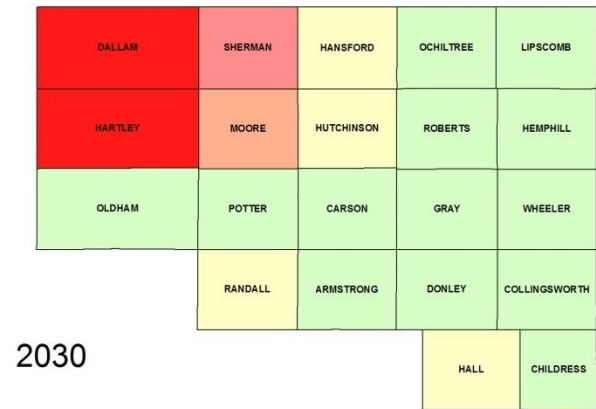
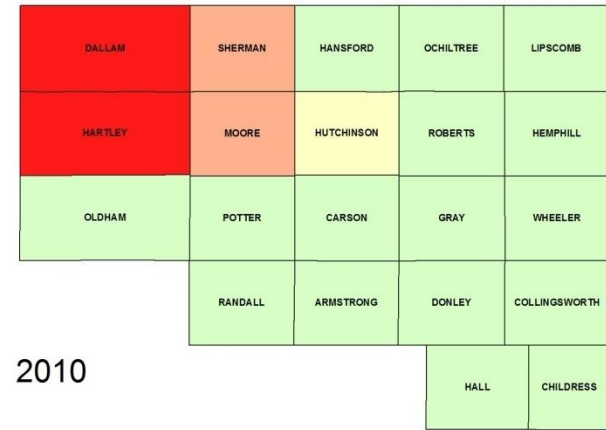
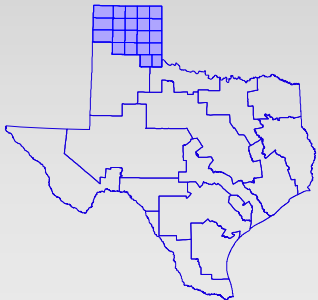


**Panhandle Water
Planning Area**



Comparison of Supply to Demand

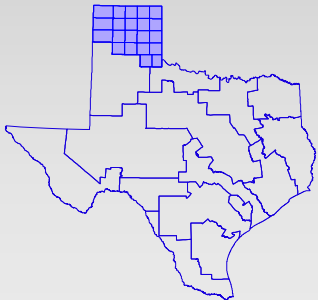
Panhandle Water Planning Area



Comparison of Supply to Demand

- **27 WUGs with Identified Shortages**
 - ◆ 454,726 Acre-Feet in 2010
 - ◆ 484,248 Acre-Feet in 2030
 - ◆ 415,394 Acre-Feet in 2030
- **99% attributed to Irrigation in 2010, 84% in 2060**
 - ◆ Limitations of management goals in irrigation areas

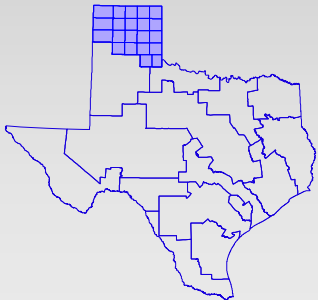
**Panhandle Water
Planning Area**



Other Studies

- Ogallala GAM Update
- Surface water study – Lake Meredith
- Recharge Study - BEG
- Studies will be incorporated in Chapter 3

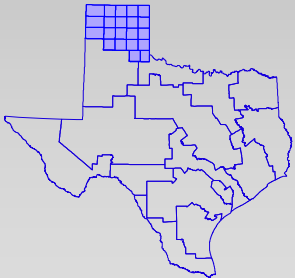
**Panhandle Water
Planning Area**



Chapter 4

Water Management Strategies

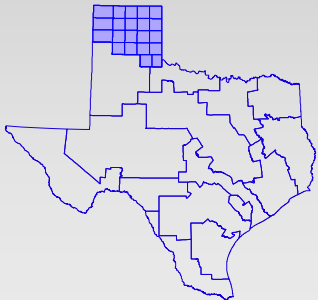
**Panhandle Water
Planning Area**



Water Management Strategies

- Needs identified for :
 - ◆ Municipal
 - ◆ Manufacturing
 - ◆ Steam Electric Power
 - ◆ Irrigation

**Panhandle Water
Planning Area**



Municipal Shortages

Wholesale Water Providers

- ◆ Amarillo
- ◆ Borger
- ◆ Cactus

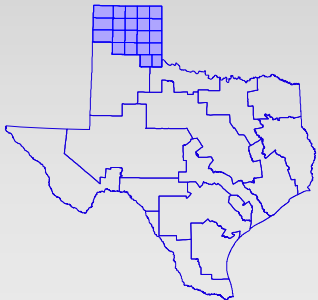
County Other

- ◆ Moore
- ◆ Potter
- ◆ Randall

Cities:

- ◆ Canyon
- ◆ Dumas
- ◆ Gruver
- ◆ Lefors
- ◆ Memphis
- ◆ Spearman
- ◆ Sunray

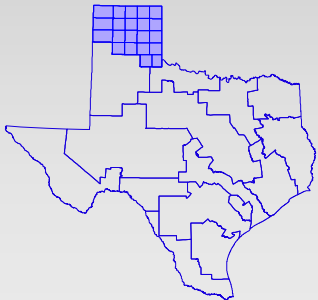
**Panhandle Water
Planning Area**



Amarillo

- Shortage begins in 2030
- Strategy
 - ◆ Conservation
 - ◆ Develop Potter County Well Field
 - ◆ Develop other water rights
 - ★ Roberts County
 - ★ Hartley County

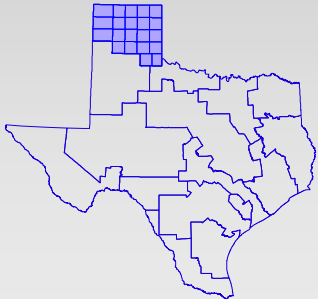
**Panhandle Water
Planning Area**



Borger

- Shortage begins in 2030
- Strategy
 - ◆ Conservation
 - ◆ Develop additional groundwater
 - ◆ Other potential strategies
 - ★ Purchase additional water from CRMWA
 - ★ Develop additional reuse supply for manufacturing

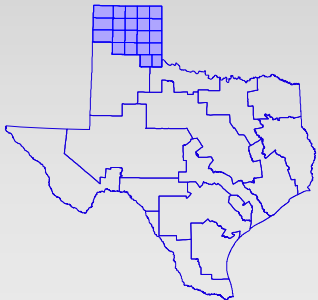
**Panhandle Water
Planning Area**



Cactus

- Shortage begins in 2010
- Strategy
 - ◆ Conservation
 - ◆ Develop additional groundwater
 - ◆ Alternative strategies
 - ★ Purchase additional water from CRMWA
 - ★ Develop additional reuse supply for manufacturing

**Panhandle Water
Planning Area**



Other Shortages

Manufacturing

- ◆ Hutchinson
- ◆ Moore
- ◆ Potter

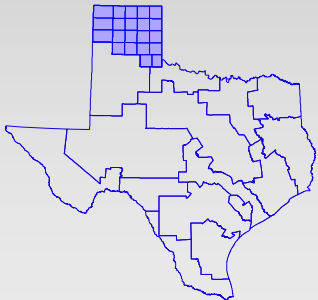
Steam Electric

- ◆ Moore

Irrigation

- ◆ Dallam
- ◆ Hansford
- ◆ Hartley
- ◆ Hutchinson
- ◆ Moore
- ◆ Sherman

**Panhandle Water
Planning Area**



Summary

- Draft Needs Analysis
- Developed Potentially Feasible Strategies
- Developed cost estimates
- Still Working on:
 - ◆ Coordination with Users
 - ◆ Refinements of supplies and strategies

**Panhandle Water
Planning Area**

