Is Local Control Effective in Managing Regional Groundwater Resources?

Managing Groundwater on the Texas High Plains
Great American Desert

- Nearly flat land
- Droughts, blizzards, and dust storms
- 18” – 20” annual rainfall
Settling the Texas High Plains
Settling the Texas High Plains

Great American Dream

- Stirrup-high grasses
- Plenty of elbow room
- Clear, fallow land
- Buffalo chips
- Playa lakes
Developing our Groundwater

- Windmills
Developing our Groundwater

- Windmills
- Commercial irrigation
Developing our Groundwater

- Windmills
- Commercial irrigation
- Improved irrigation technology increased production
Developing our Groundwater

- Windmills
- Commercial irrigation
- Improved irrigation technology increased production
- Tailwater runoff
Right to capture
Groundwater Conservation Districts
Managing the Ogallala Aquifer

Major Aquifers of Texas
Groundwater conservation districts provide...

- Local government control
- A local voice in Austin and Washington
- Locally elected board of directors
- General manager
- Experienced local staff
- Managed water consumption that fits the region’s needs
- Supported by ad valorem taxes
Influencing Groundwater Law

- Right to capture
- Groundwater Conservation Districts
- Management Plans
- Regional Planning
Influencing Groundwater Law

- Right to capture
- Groundwater Conservation Districts
- Management Plans
- Regional Planning
- Groundwater Management Areas
Planning the Ogallala’s future

- Determine how much groundwater we wanted in storage in a specified time period
- Revise our management plan
- Adopt rules that will achieve our goal
- Review this plan and our rules at least once every five years
Minimized tailwater runoff
Constantly Improving our operations...

- Minimized tailwater runoff
- Gated pipe
- Surge irrigation
Constantly Improving our operations...

- Minimized tailwater runoff
- Gated pipe
- Surge irrigation
- Sprinkler Systems
Constantly Improving our operations...

- Minimized tailwater runoff
- Gated pipe
- Surge irrigation
- Sprinkler systems
- Center pivot systems
- Drip irrigation
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