Putting Science into Action

Groundwater Conservation in Support of Agriculture and Rural Communities

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Groundwater in Colorado

18% of Colorado’s water supply

84% used for irrigated agriculture

Many rural counties dependent on groundwater

OgallalaWater.org
OPTIMIZING WATER USE TO SUSTAIN FOOD SYSTEMS
The Ogallala aquifer

~30% of U.S. crop & livestock production

~$35 billion in agricultural products

Direct groundwater use contributes $12 billion

McGuire et al. 2012
Why a regional effort?
Linking science to action
Partnering with water
Informing district policy

“The water is necessary to keep the people in the towns—in the cities, to run the services—water drives our ag-based economy. We realize we need to work together to make the water go as far as possible.”

- Steve Kramer

Informing district policy

- Economic models
  - Groundwater model
  - Crop growth model
  - Surface water model
- Climate
  - Historical & Future
- ‘What if’ scenarios:
  - Crop choice
  - Improved crop genetics
  - Irrigation management
  - Water restrictions
  - Incentives

Developing a shared aquifer identity
Thank you

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