

Agenda Item 9.10E Weather Modification

January 19, 2005



Weather Modification

- Designed to increase precipitation from clouds
- Programs usually operate during growing season
- Success is varied and depends on availability of clouds
- 3 major benefits:
 - Improved rangeland and agriculture
 - Increased runoff to streams (higher soil moisture)
 - Groundwater recharge

Weather Modification

- 2 Programs in Brazos G
 - CRMWD Project
 - Sweetwater and part of Nolan County
 - West Central Texas Program
 - Alliance of 9 counties and city of Abilene
 - 5 counties in Brazos G: Nolan, Taylor, Callahan, Eastland and Comanche

CRMWD Program

- Operating since 1971
- 2.6 million acre target area
- Long-term trends show 35% increase in rainfall within target area vs. 12% increase outside target area
- Increased cotton yields
 - 44% in target area counties
 - 37% in counties downwind of target area

West Central Texas Weather Modification Program

- Began operations in 2001
- Stopped after 2003 season due to budgetary constraints
- Covered 4.9 million acres
- In 2003, seeded clouds produced 1.5 inches more rain than unseeded clouds
- Limited data showed an average of 60% increased rainfall in target areas

West Central Texas Weather Modification Program

- Amount of water available to meet demands is uncertain:
 - Dependent on availability of clouds
 - Losses:
 - Evaporation, Evapotranspiration, Local ponding
- Costs are estimated at approximately \$0.10 per acre
 - 2003 budget was \$496,000