

State of the State's Water

***Governor's Water Conference
November 5, 2003***



Duane Smith
Executive Director
Oklahoma Water Resources Board

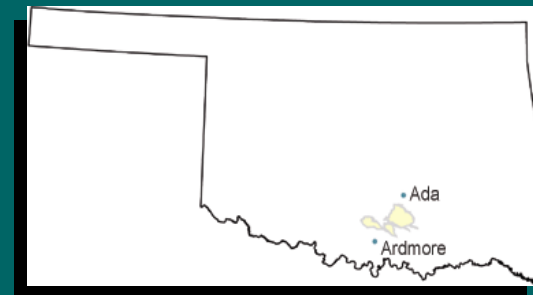
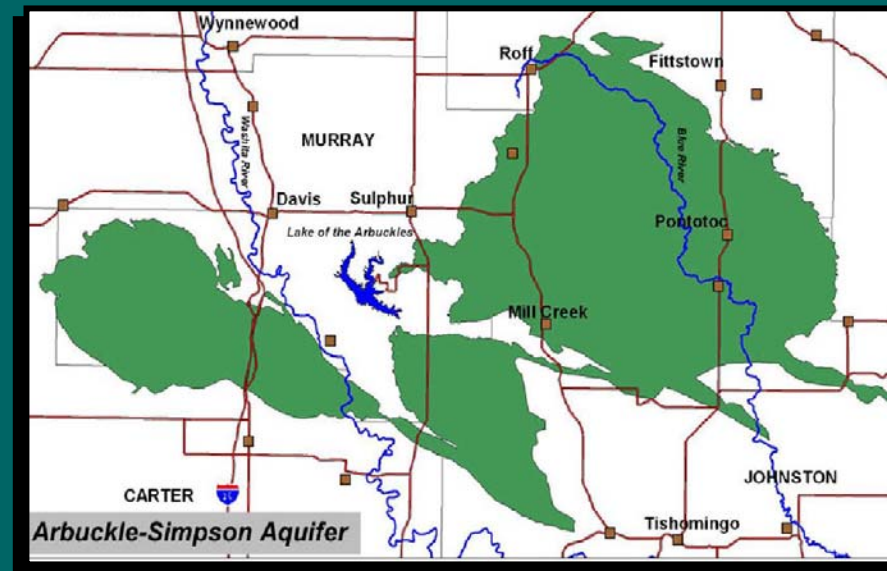
Oklahoma's Priority Water Projects & Issues - 2003

- Arbuckle-Simpson Study and Related Water Use Issues
- Scenic Rivers Nutrient Monitoring Study (Phosphorus Standard)
- Beneficial Use Monitoring Program (BUMP)
- North Fork of the Red River Study
- Weather Modification Research
- Recapitalization of State Financial Assistance Program (Water Development Revolving Fund)
- Oklahoma Comprehensive Water Plan Update (2005)



Arbuckle-Simpson Study & Related Water Use Issues

- Central Oklahoma Water Authority, an organization of central Oklahoma communities seeking to secure future water supply (~46,000 af/yr)
- A private corporation is attempting to secure contracts with Arbuckle-Simpson Aquifer water right holders sufficient to meet COWA member needs
- 9 pending permit applications for 67,583 acre-feet/yr (>1,600 protests)

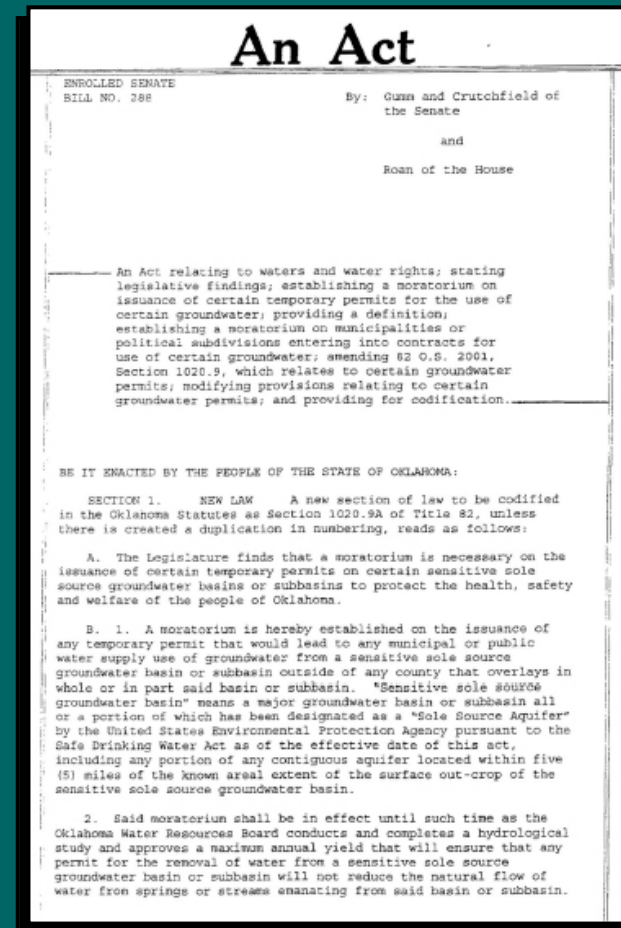




Arbuckle-Simpson Study & Related Water Use Issues

Senate Bill 288:

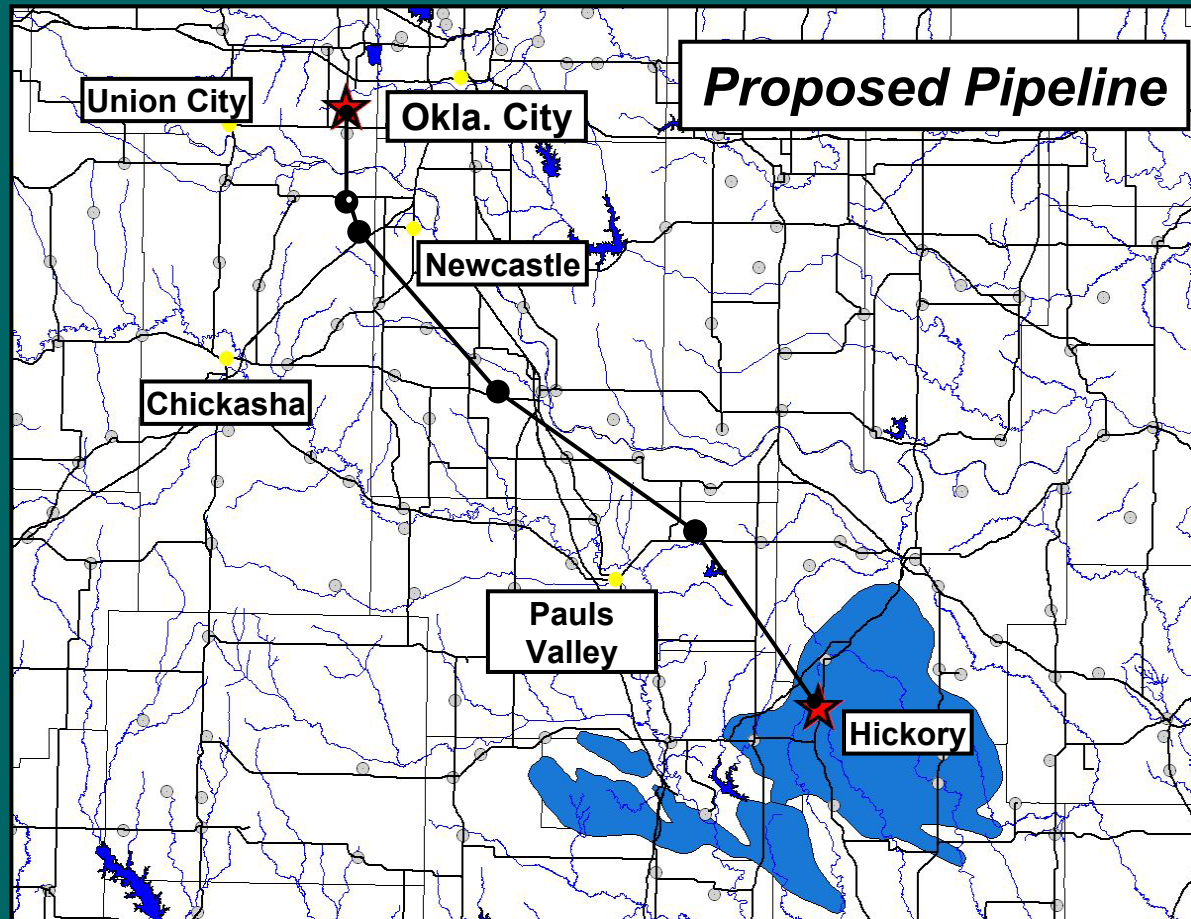
- May 2003
- places a moratorium on the issuance of temporary groundwater permits until OWRB completes a comprehensive study of the Arbuckle-Simpson aquifer and area water resources





Arbuckle-Simpson Study & Related Water Use Issues

- ~\$200 million project
- 88-mile pipeline



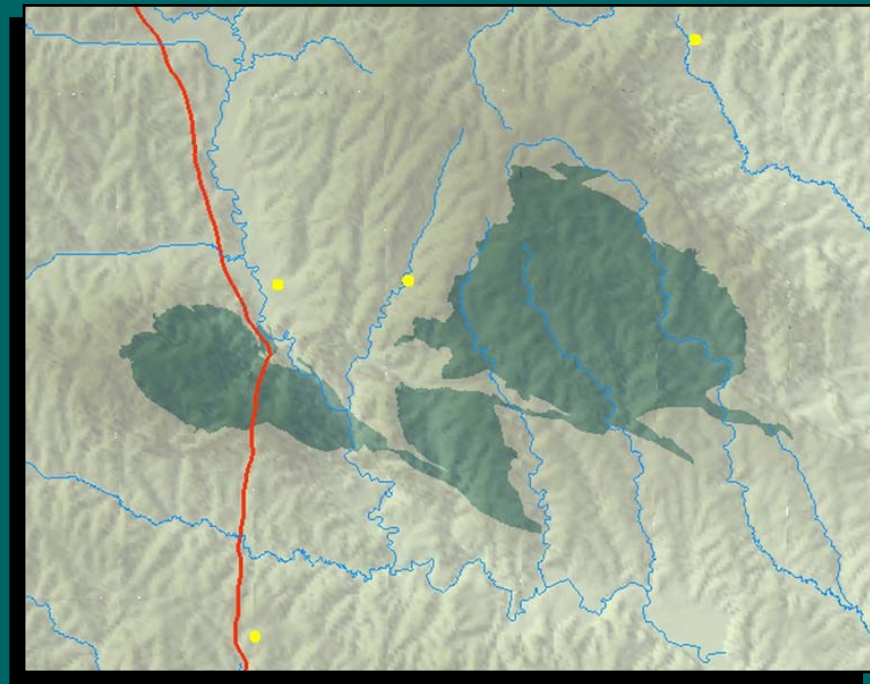


Arbuckle-Simpson Study

- comprehensive multi-year study of south central Oklahoma's primary water supply (~500 square miles)
- \$2 million cost-shared between OWRB/Bureau of Reclamation
 - \$500,000 (FY-03)
 - \$700,000 (FY-04)

Importance of Study:

- principle source of water for cities, towns, industry, farms and ranchers in region
- springs and seeps, including those associated with Chickasaw National Recreation Area
- base flow to Blue River and other important rivers and streams



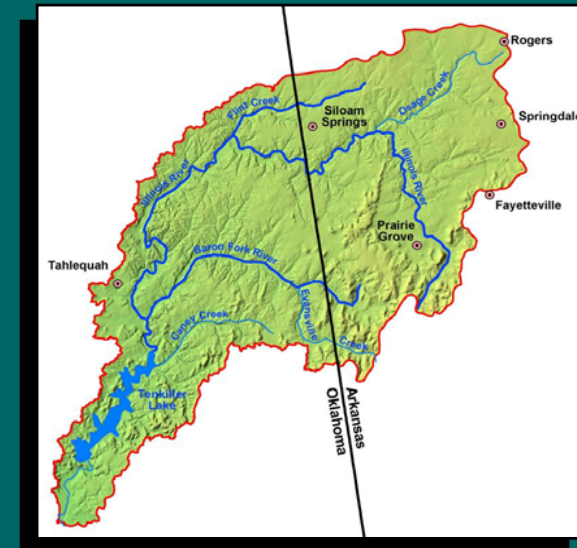


Scenic Rivers Nutrient Monitoring Study

- significant data indicates that the Illinois River's Scenic River status is seriously threatened by excess nutrients, including phosphorus
- Oklahoma's first numeric Water Quality Standard for phosphorus (0.037 mg/L) enacted in 2002:
 - awaiting EPA approval
 - fully implemented in 10 years
- initiate long-term, comprehensive water quality monitoring program in the Illinois River Basin of Oklahoma/Arkansas



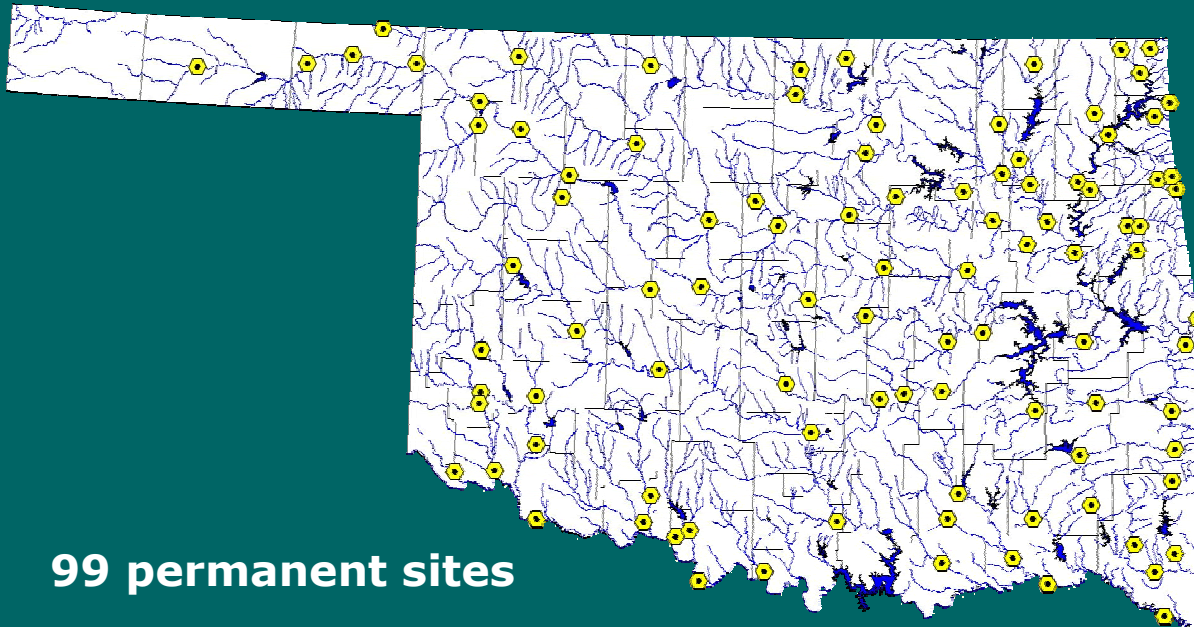
Illinois River Basin





Beneficial Use Monitoring Program

- state's first comprehensive water quality monitoring network (currently developing groundwater monitoring component)
- synchronizes state monitoring efforts
- data collected and analyzed following USAPs
- \$1 million included in OWRB base appropriation beginning in FY-04

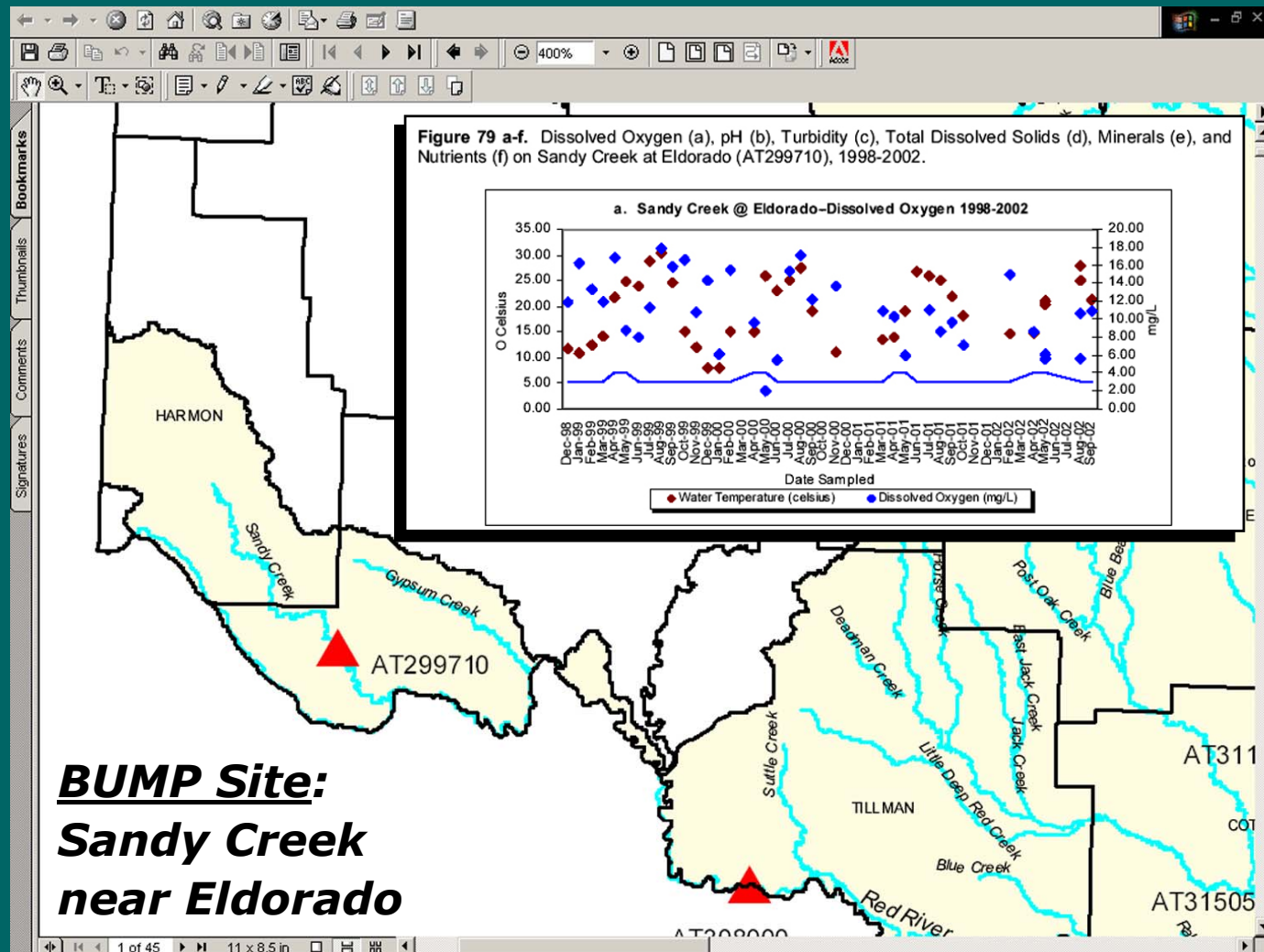
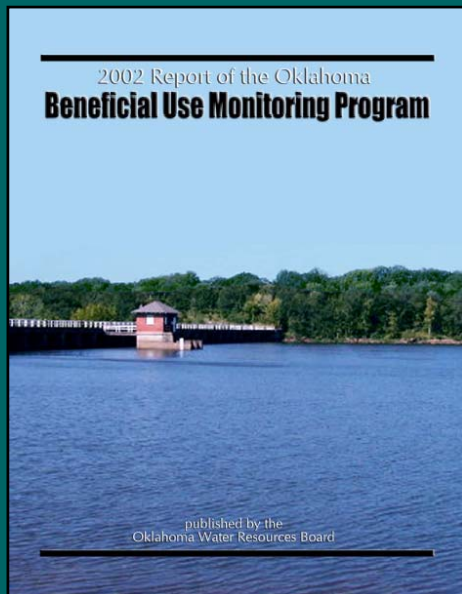


99 permanent sites



Beneficial Use Monitoring Program

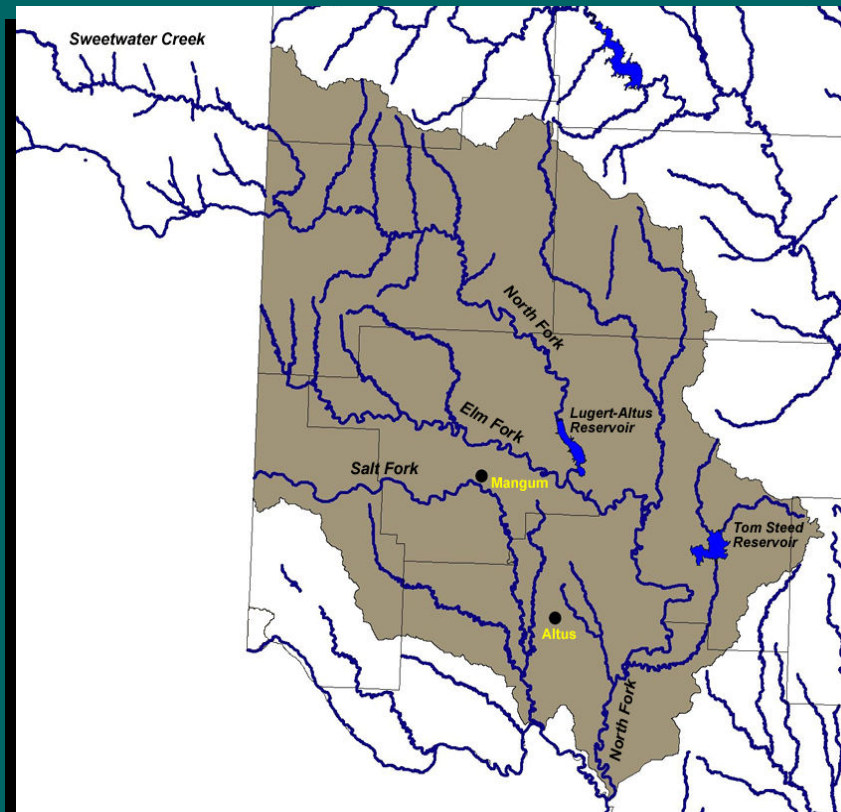
- Annual report
- OWRB Web site





North Fork of the Red River Study

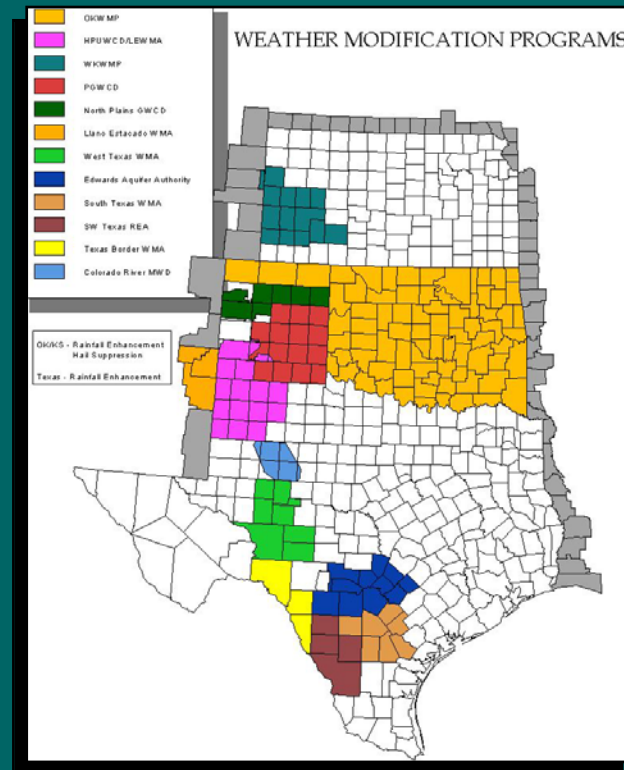
- Water Availability Assessment Study
- Major Issues:
 - inventory of appropriated water in the basin
 - groundwater/stream water interaction
 - seasonal pool plan for Lugert-Altus Reservoir (or raise permanent level)
 - tributary diversions





Weather Modification Research

- Oklahoma/Texas/New Mexico regional effort to verify weather modification technology (Bureau of Reclamation)
- Initial Tasks/Goals:
 - Analyze case studies
 - Collect/analyze data
 - Utilize radars to understand seeded vs non-seeded cloud behavior
 - Develop baseline of climatological data relative to experiment area
 - Quantify impact of seeded vs. nonseeded clouds and storms
 - Utilize blind testing





Weather Modification Research



- School of Meteorology
- Center for Analysis and Prediction of Storms
- Oklahoma Climatological Survey
- Cooperative Institute for Mesoscale Meteorological Studies
- Environmental Verification and Analysis Center
- International Center for Natural Hazard and Disaster Research



- National Severe Storms Laboratory (NSSL)
- Storm Prediction Center (SPC)
- National Weather Service Forecast Office
- NEXRAD Operational Support Facility





Recapitalization of the State Financial Assistance Program

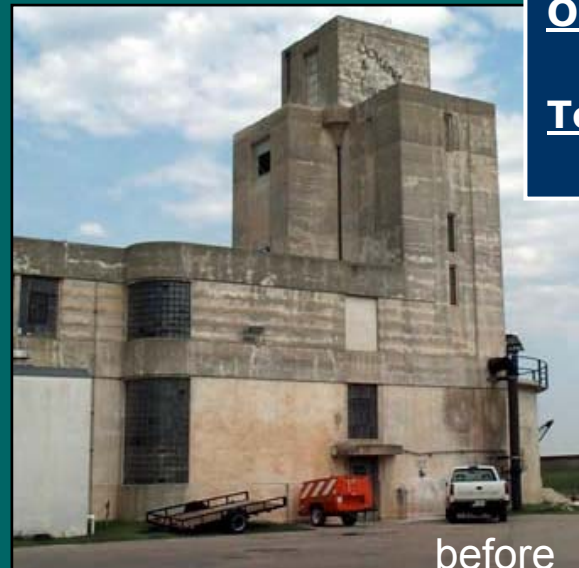
- Anticipated 20-year water/wastewater system demand in Oklahoma = ~\$3.4 billion
- 50-cent/month 'tap fee' would generate:
 - \$9 million/year (\$4.5 million earmarked for FAP Revolving Fund)
 - \$45 million bond issue, \$225,000 in interest earnings for grant awards

Original Investment(s):

= \$39 million

Total Loans/Grants:

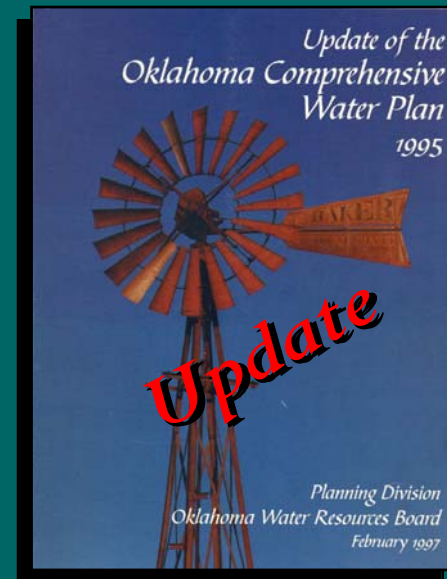
= \$1 billion





Oklahoma Comprehensive Water Plan Update (2005)

- OWRB mandated to update OCWP every 10 years
- 2005 update will provide blueprint emphasizing 'regional' development and extensive public participation
- identify specific infrastructure improvements and management strategies required to meet Oklahoma's future water needs





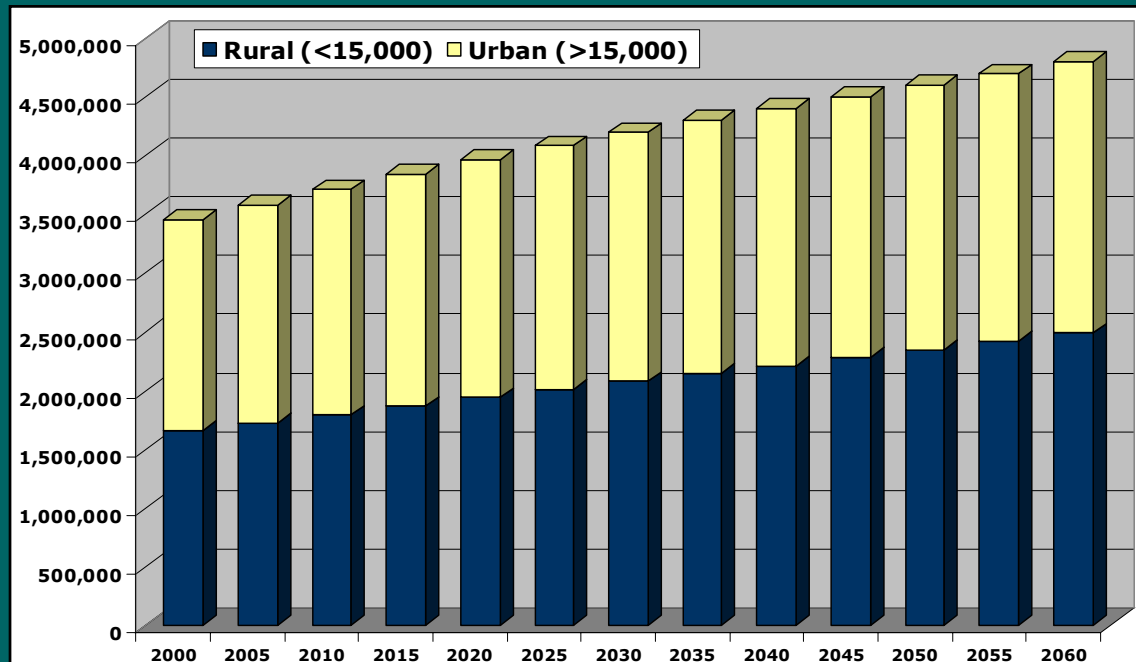
Oklahoma Comprehensive Water Plan Update (2005)



The Challenge:

- Growing population
- Competing interests
- Balancing economic development and the environment
- Financing

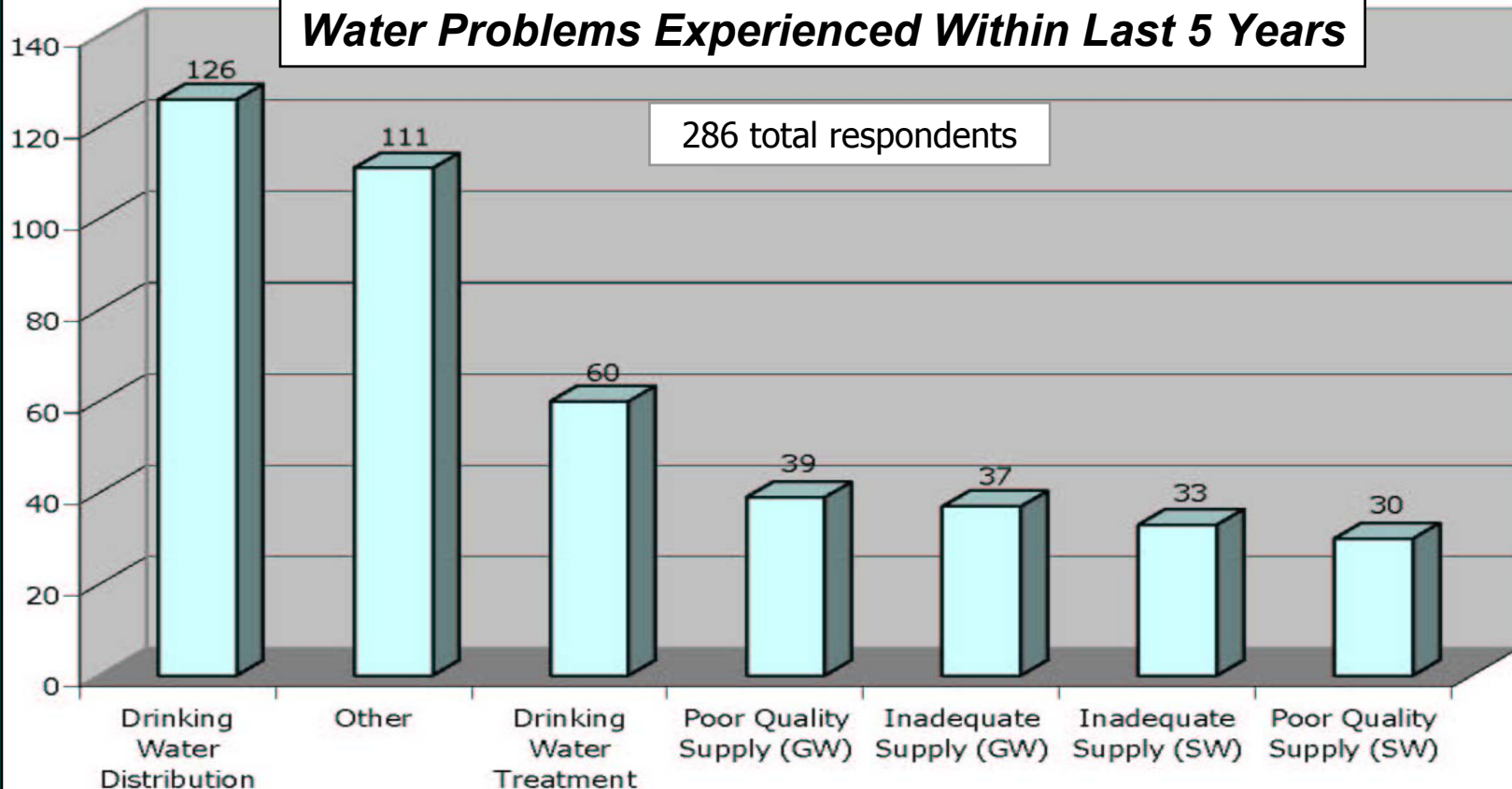
Projected Population Growth - Oklahoma



Oklahoma Comprehensive Water Plan Update (2005)

OWRB Public Water Supply Survey (2002)

Water Problems Experienced Within Last 5 Years



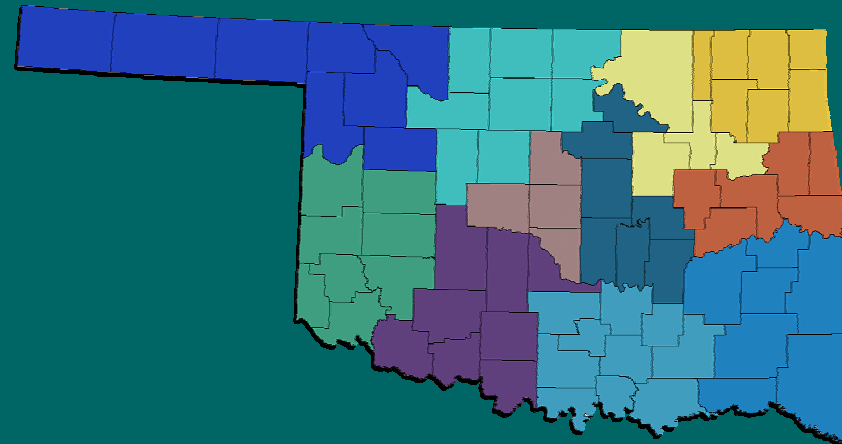


Oklahoma Comprehensive Water Plan Update (2005)

Water for Oklahomans Resources Development (WORD) Plan:

- Oklahoma divided into 11 regional planning districts (with same boundaries as Councils of Oklahoma Governments) as quasi bodies of the State
- Regional Water Planning Groups (RWPGs) submit individual plans to OWRB by January 1, 2006
- Completed January 1, 2007

***OWRB will promulgate rules for
RWPG procedures, notices of
meetings and regional water plan
approval process***





Oklahoma Comprehensive Water Plan Update (2005)

RWPG General Representation:

- Public
 - Agricultural Interests
 - Counties
 - Small Business
 - Water Utilities
 - Electric Generating Utilities
 - Municipalities
 - Industries
 - Environmental Interests
 - Fish/Wildlife Interests
 - Tourism Interests
 - Navigation
 - Rural Water Districts
- **Hold public meetings**
 - **Make recommendations**





Oklahoma Comprehensive Water Plan Update (2005)

■ RWPG Membership:

- Area COG selects one member
- One member each by House and Senate
- OWRB, Wildlife Department and Agriculture Department send one employee as ex officio
- Area COG will provide staff
- Initial coordinating body select others as necessary to ensure representation from public, county, municipal, industry, agriculture, generating utilities, nonprofit environmental groups, water districts, water utilities





Oklahoma Comprehensive Water Plan Update (2005)

Potential Components of Regional Plans:

- county/regional water demand projections for the 50-year planning period
- inventory of existing water supplies
- analysis of water quality constraints/opportunities
- assessment of environmental water needs
- evaluation of potential water management/development strategies:
 - regionalization opportunities
 - drought response and conservation plans (mandated by Texas)
- local funding ability and potential financing alternatives

- **10-year updates**





Oklahoma Comprehensive Water Plan Update (2005)

Potential Funding Mechanism(s):

- Oklahoma Comprehensive Water Plan Account in Statewide Water Development Revolving Fund (not subject to fiscal year limits) to be used by OWRB for water planning, including providing financial assistance to regional water planning groups:
 - Requires Board to submit annual list of expenditures to Legislature
 - Board to provide financial assistance to regional water planning groups through contracts
 - Financial assistance provided by OWRB to eligible entities (after January 1, 2007) only if project is included in the WORD Plan and is consistent with the regional plan



Oklahoma Water Resources Board

Oklahoma's Water Agency



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