Current Reclamation Activities in Oklahoma
Reclamation Background

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.
Reclamation Background

- Constructed more than 600 dams & reservoirs
- Deliver 11 million acre-feet of M&I water to 31 million people annually
- Irrigate 10 million acres per year (one out of 5 Western farmers)
  - 60% U.S. vegetables
  - 25% U.S. fruits/nuts
- Recreation
  - 90 million visitor days per year
- Reclamation and power
  - The 2nd largest hydro producer
  - 58 hydropower facilities
  - 41 billion kilowatt hours
Current Reclamation Activities in Oklahoma and Texas

- Reservoir Operations
- Upper Washita & Upper Red River Basin Studies
- Drought Management and Response
- Research & Technology Development
- Native American Technical Assistance Projects
- WaterSMART Water & Energy Efficiency Grants
- Recreational / Fish & Wildlife Enhancement Projects
Ownership/oversight responsibility for 11 reservoirs with a total capacity of 4.2 million acre-feet.

Total water rights from projects:
- M&I - 571,000 acre-ft/yr to about 2.7 million customers.
- Irrigation - 110,600 acre-ft/yr for about 63,000 acres.

Annual recreation use of over 4 million visitor-days each year.

Ownership/oversight responsibility for 190,000 acres of Federal land.
<table>
<thead>
<tr>
<th>Reservoir</th>
<th>Storage (% Full)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cheney Reservoir, KS</td>
<td>94%</td>
</tr>
<tr>
<td>McGee Creek Reservoir, OK</td>
<td>91%</td>
</tr>
<tr>
<td>Lake Thunderbird, OK</td>
<td>90%</td>
</tr>
<tr>
<td>Lake of the Arbuckles, OK</td>
<td>76%</td>
</tr>
<tr>
<td>Fort Cobb Reservoir, OK</td>
<td>67%</td>
</tr>
<tr>
<td>Foss Reservoir, OK</td>
<td>40%</td>
</tr>
<tr>
<td>Tom Steed Reservoir, OK</td>
<td>25%</td>
</tr>
<tr>
<td>Lake Altus, OK</td>
<td>10%</td>
</tr>
<tr>
<td>Choke Canyon Reservoir, TX</td>
<td>27%</td>
</tr>
<tr>
<td>Lake Meredith, TX</td>
<td>8%</td>
</tr>
<tr>
<td>Twin Buttes Reservoir, TX</td>
<td>6%</td>
</tr>
</tbody>
</table>
Drought Management Program

Interactive Drought Tool

Tool for Planning Temporary Water Supply Response in Drought Emergencies

Developed through collaboration between the U.S. Bureau of Reclamation and Oklahoma Water Resources Board

Visit: http://www.owrb.ok.gov/drought/
Water Supply Reliability and Management Challenge

- Partnership between OWRB & Reclamation
- Emphasized benefits of collaboration between various interests when solving real-world water supply challenges.
- Encourage short-term and long-range planning to mitigate effects of drought.
Research & Technology Development

Desalination
- Brackish ground and surface water
- Treatment system optimization
- Flexible desalination and smart controls
- Renewable energy use and recovery
- Brine minimization, recovery, and beneficial use

Water recycling and reuse
- Direct and indirect potable reuse
- Produced waters from oil and gas
- Environmental buffers
- Benefit/cost analyses
Native American Technical Assistance

Case Study: City of Sulphur and Chickasaw Nation

Arbuckle-Simpson Aquifer

Proposed Water Treatment Plant

Proposed Direct Nonpotable Reuse Pipeline

Proposed Indirect Potable Reuse Pipeline

Sulphur

Wastewater Treatment Plant

Proposed Discharge Pipeline

Existing Discharge Pipeline

Washita River

Lake of the Arbuckles

RECLAMATION
To Learn More.....

WaterSMART Competitive Grants
http://www.usbr.gov/WaterSMART/

Title XVI Program (Reuse & Desalination)
http://www.usbr.gov/WaterSMART/title/

Basin Studies Program
http://www.usbr.gov/WaterSMART/bsp/index.html

Desal & Water Purification Research
http://www.usbr.gov/research/AWT/DWPR/

Science & Technology Program
http://www.usbr.gov/research/programs/science-technology/index.cfm