Oklahoma's Water Resources:

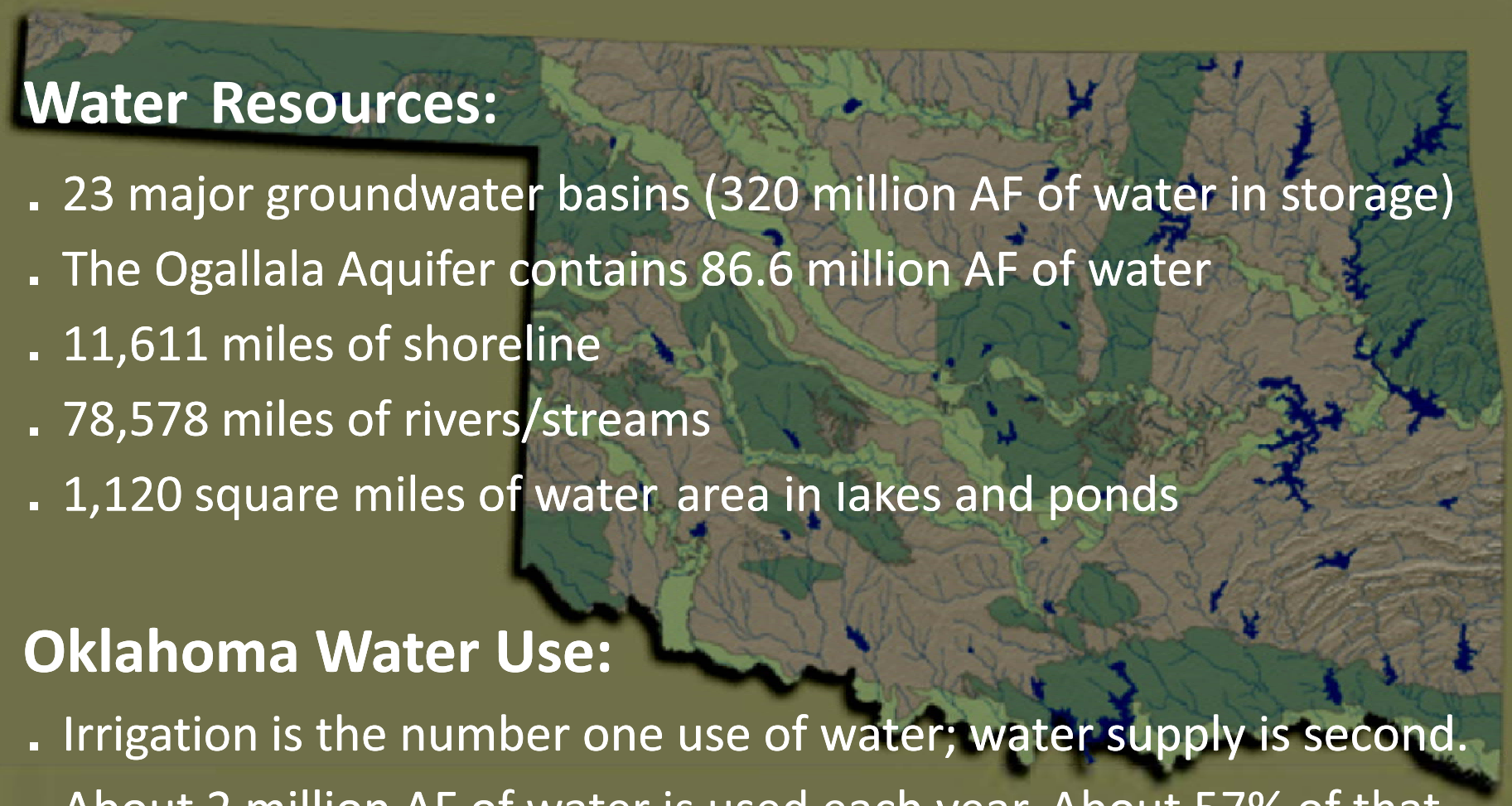
Past, Present, & Future

State of Oklahoma
OWRB
Water Resources Board
the water agency

Duane Smith
Executive Director
OK Water Resources Board

The Origin of Oklahoma's Water Resources

Oklahoma



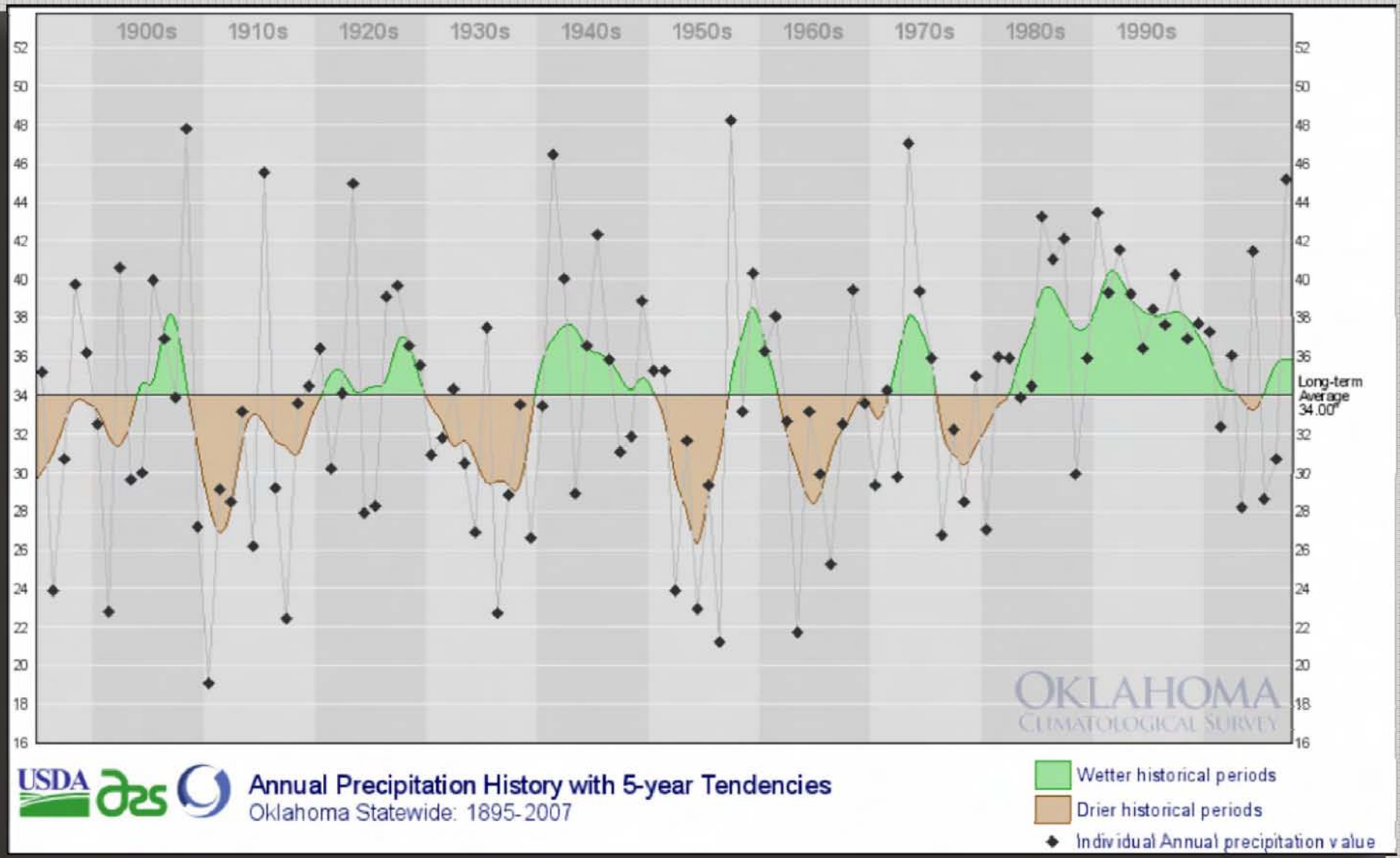
Water Resources:

- 23 major groundwater basins (320 million AF of water in storage)
- The Ogallala Aquifer contains 86.6 million AF of water
- 11,611 miles of shoreline
- 78,578 miles of rivers/streams
- 1,120 square miles of water area in lakes and ponds

Oklahoma Water Use:

- Irrigation is the number one use of water; water supply is second.
- About 2 million AF of water is used each year. About 57% of that water comes from surface water; 43% from groundwater sources.

Oklahoma's Precipitation History



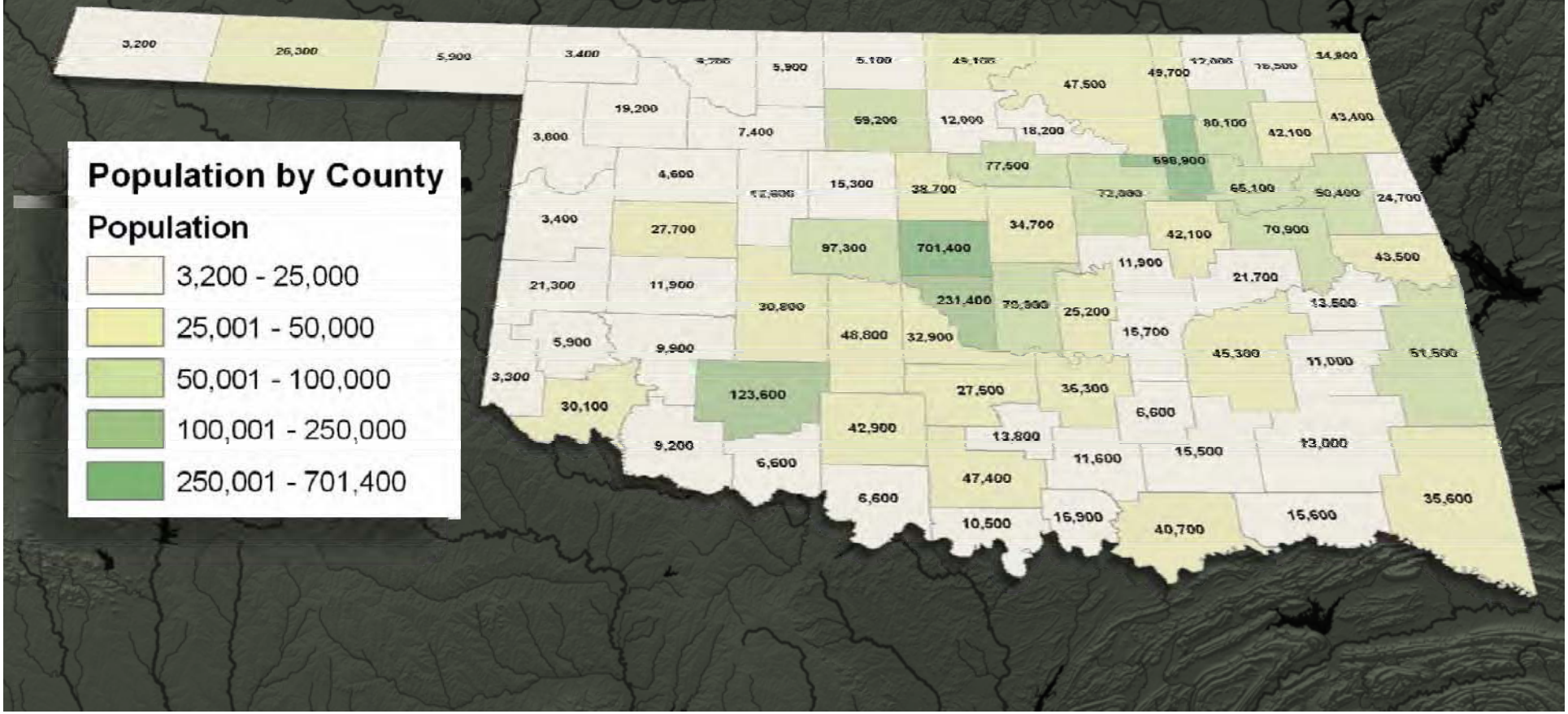

Oklahoma's Water Resources
Diverse Issues & Priorities
Ogallala Aquifer
Groundwater Development
Water Supply for Cities & Industry
Scenic Rivers
Water Quality
Garber-Wellington Aquifer
Reservoir Development
Infrastructure
Arbuckle-Simpson Aquifer
Agricultural Water Supply
Water Conservation
Economic Development
Interstate Stream Compacts

Historic Water Planning & Development

Population

Oklahoma Population:

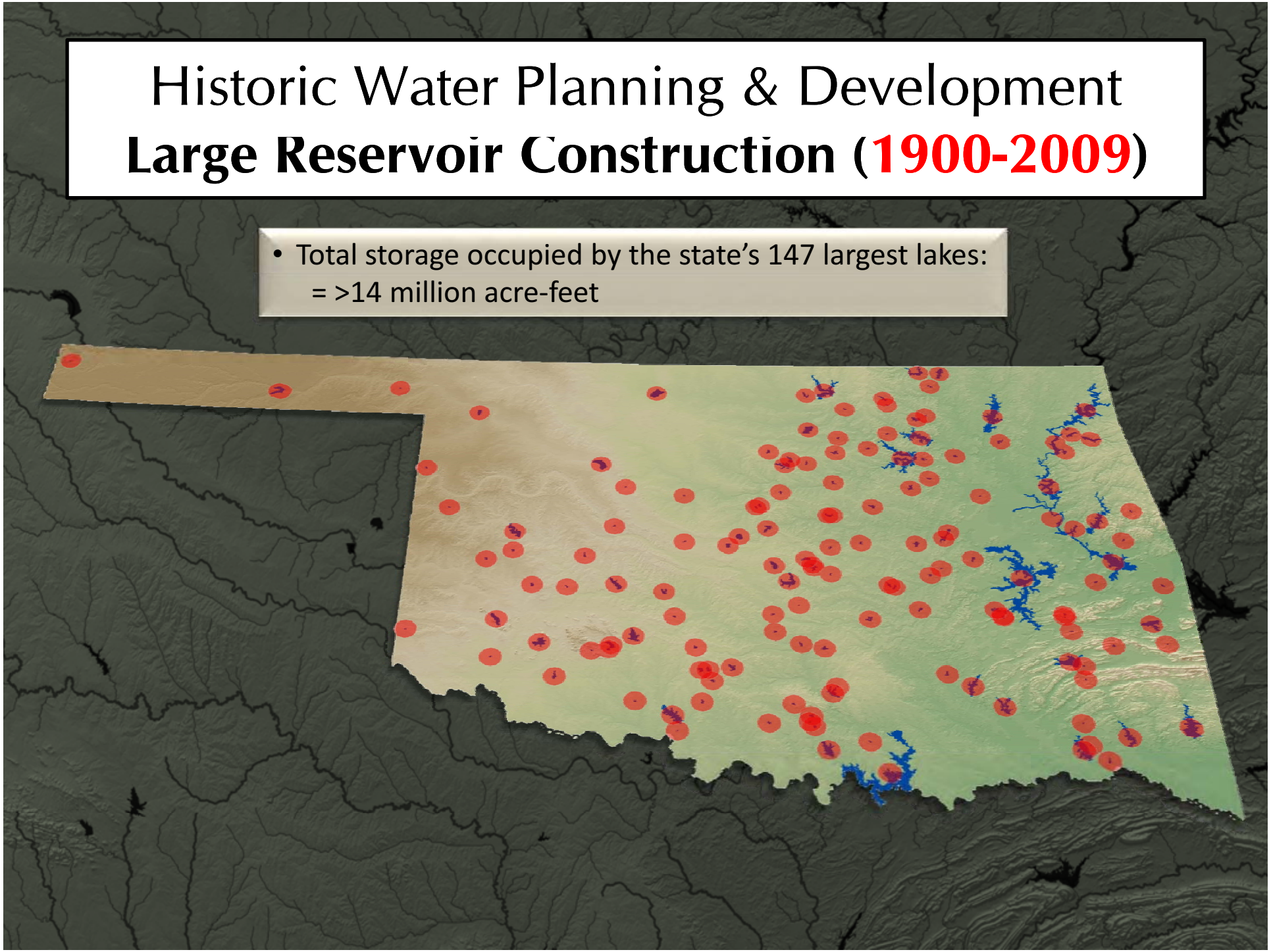
- 1890 = 258,657
- 2010 = 3,700,000 (projected)



Historic Water Planning & Development

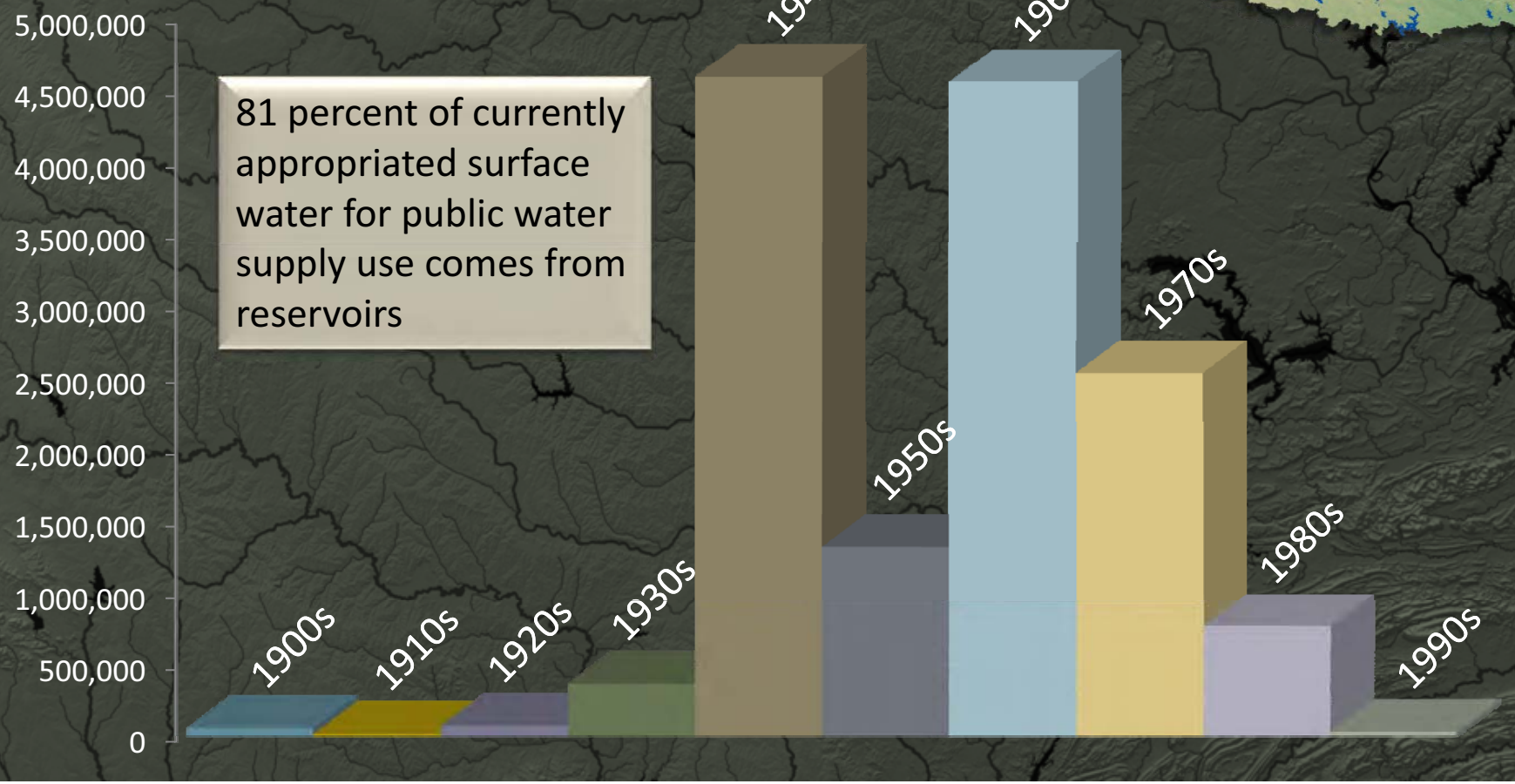
Large Reservoir Construction (1900-2009)

- Total storage occupied by the state's 147 largest lakes:
  = >14 million acre-feet



Historic Water Planning & Development
Large Reservoir Construction

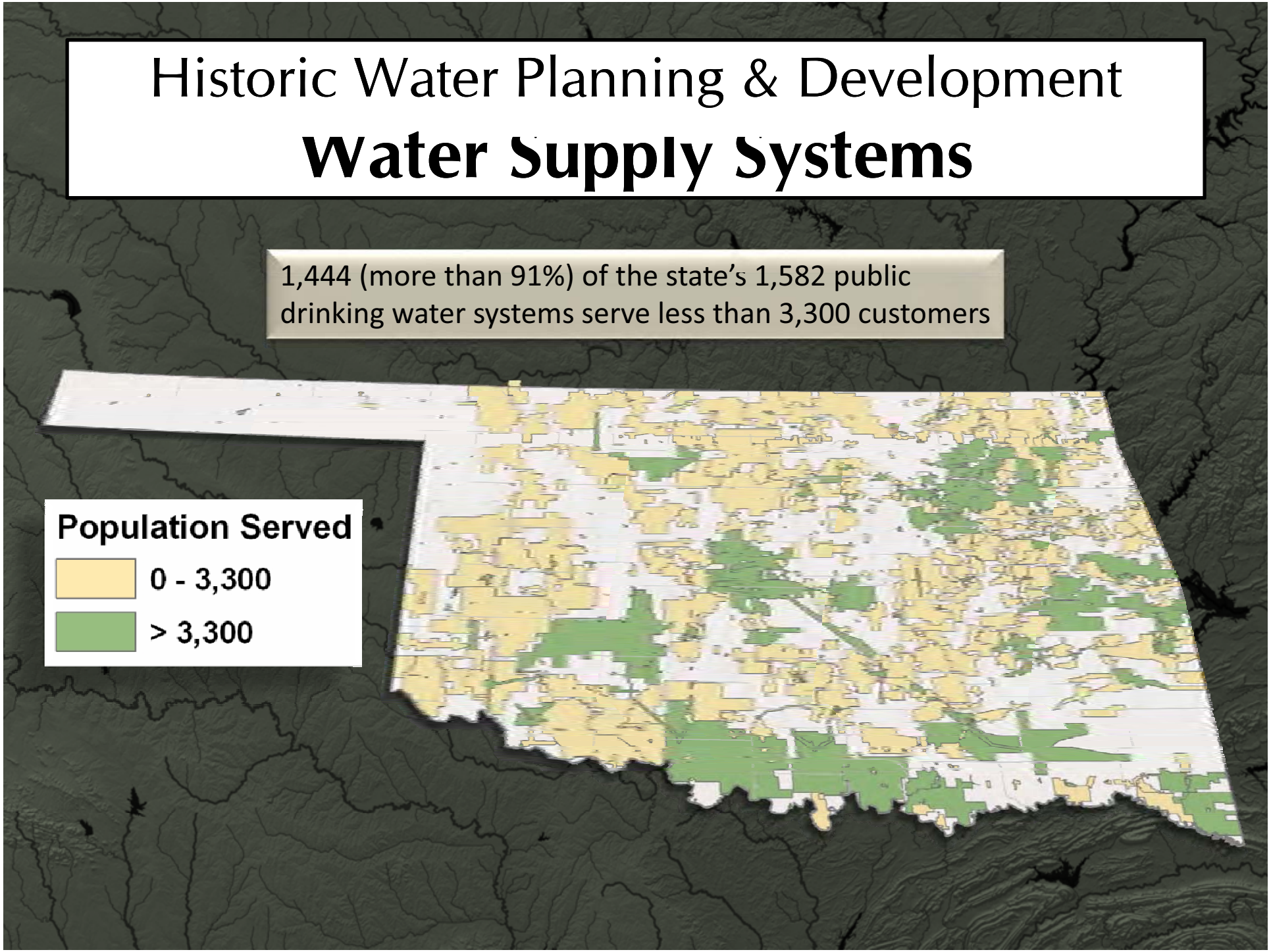
81 percent of currently appropriated surface water for public water supply use comes from reservoirs



Historic Water Planning & Development

Water Supply Systems

1,444 (more than 91%) of the state's 1,582 public drinking water systems serve less than 3,300 customers



Historic Water Planning & Development

Water Supply Systems

Oklahoma City's Water Supply System

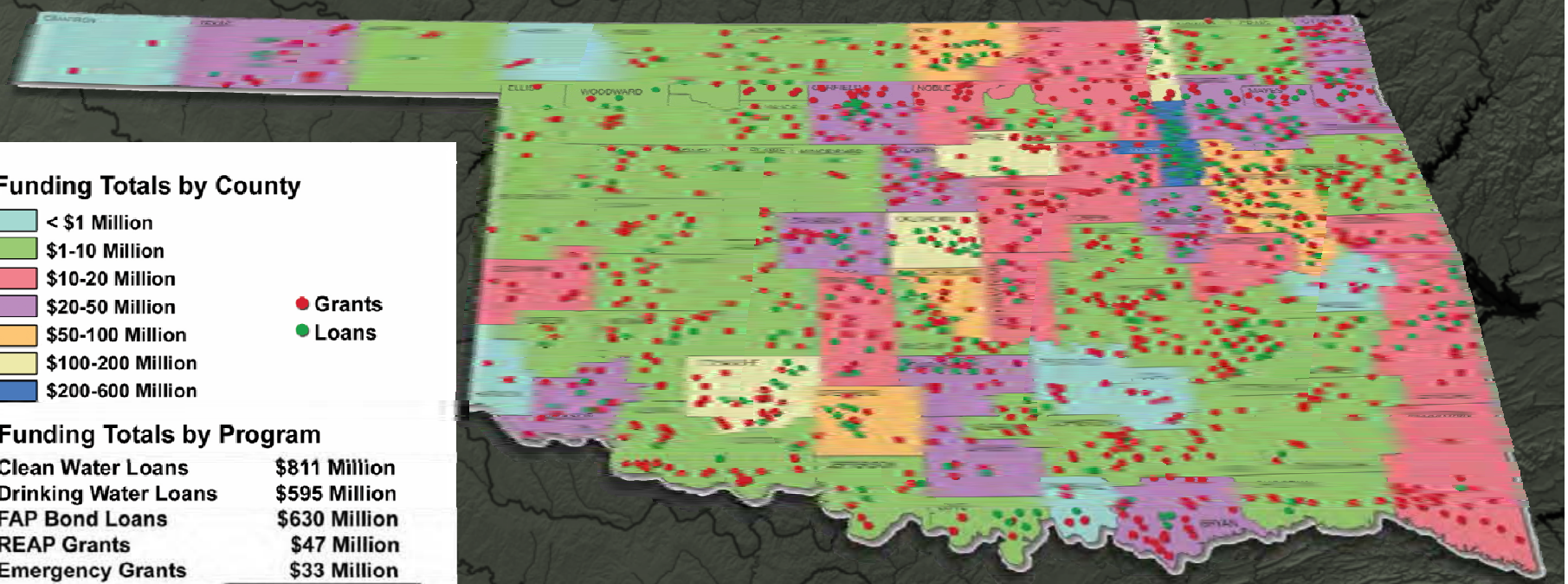
In 2007, Oklahoma City's drinking water was named "Best of the Best" in a national water-tasting competition.

Historic Water Planning & Development

OWRB Financial Assistance Program

Oklahoma's largest FAP borrower:

- Tulsa (19 loans for $185 million)



Funding Totals by County

- < $1 Million
- $1-10 Million
- $10-20 Million
- $20-50 Million
- $50-100 Million
- $100-200 Million
- $200-600 Million

- Grants
- Loans

Funding Totals by Program

Clean Water Loans	$811 Million
Drinking Water Loans	$595 Million
FAP Bond Loans	$630 Million
REAP Grants	$47 Million
Emergency Grants	$33 Million
TOTAL	$2.12 Billion
TOTAL SAVINGS	$747 Million

Historic Water Planning & Development

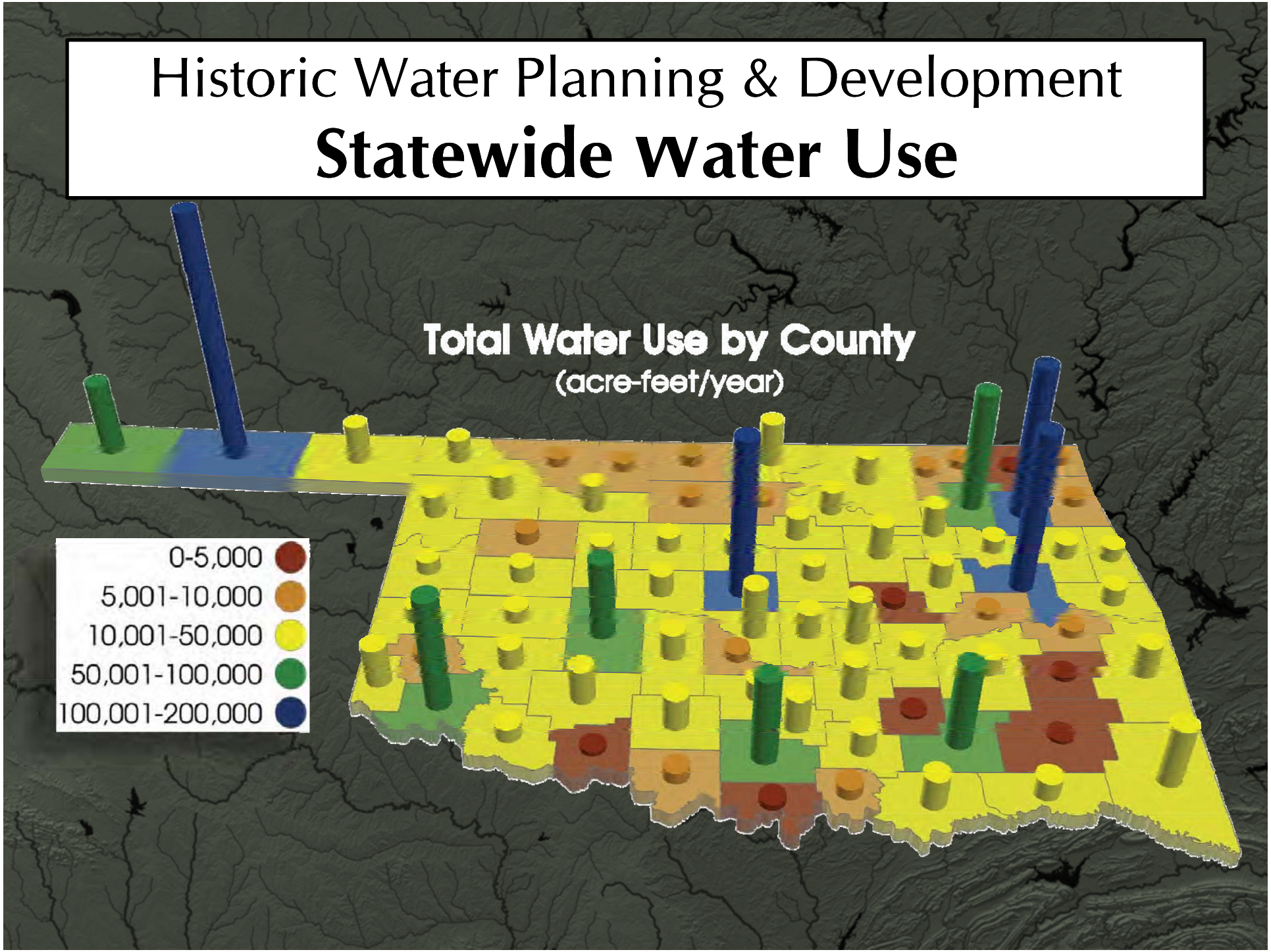
Water for Agriculture

Lugert-Altus Irrigation District

Lugert-Altus Irrigation District supplies irrigation water to some 48,000 acres of farmland in southwestern Oklahoma.

Historic Water Planning & Development

Statewide Water Use

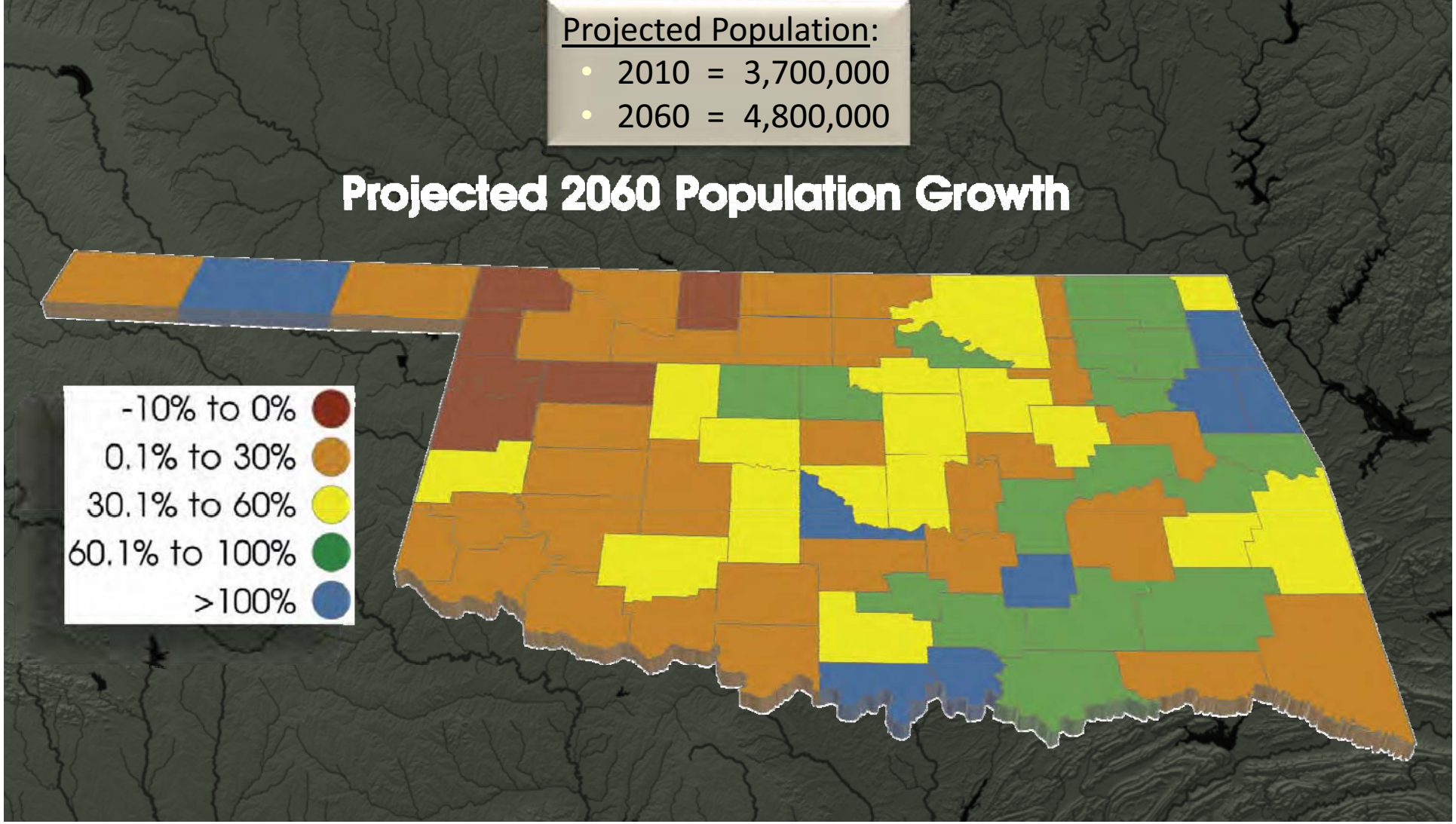


Historic Water Planning & Development

Projected Population Growth

Projected Population:

- 2010 = 3,700,000
- 2060 = 4,800,000



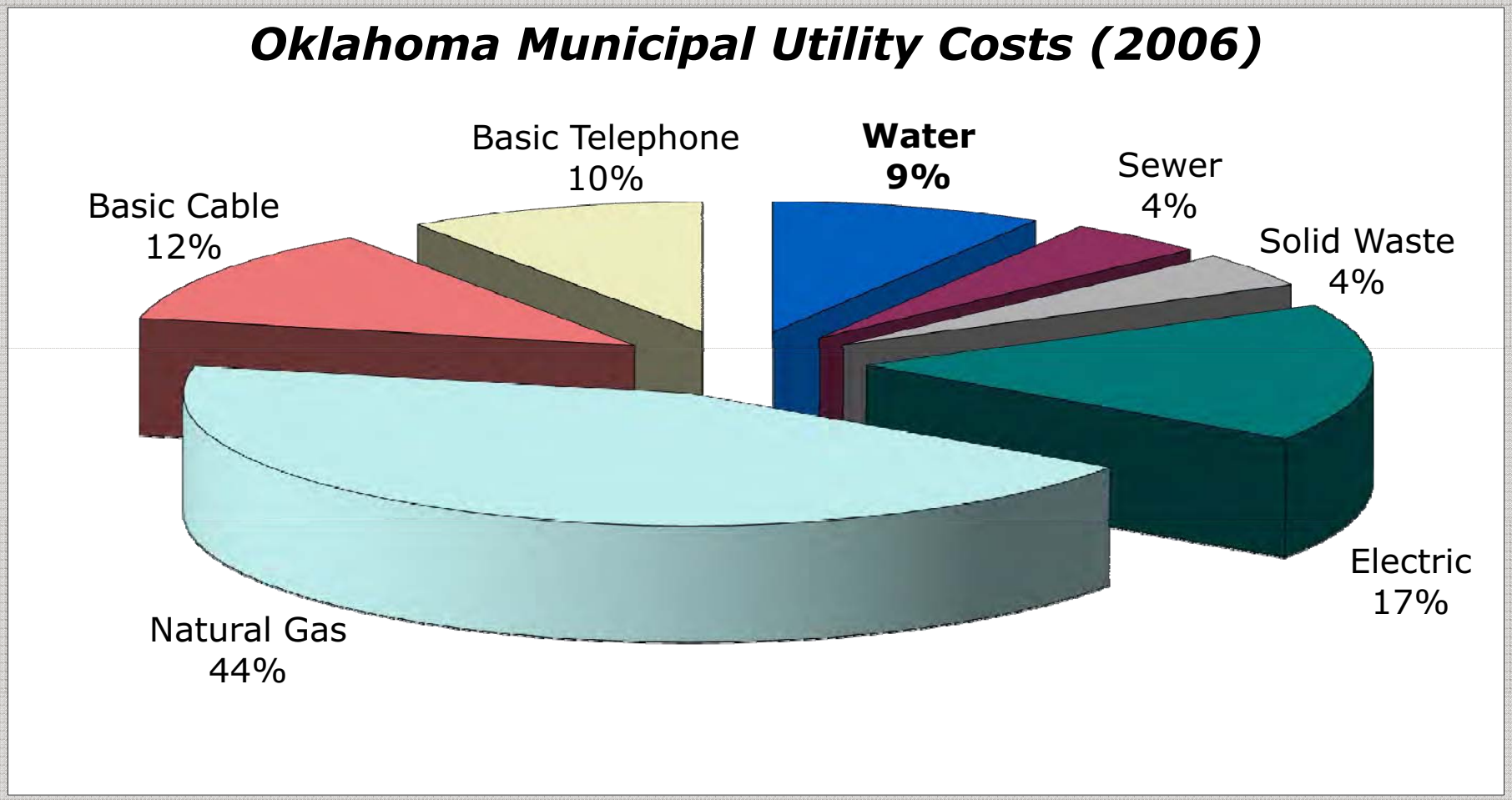
Historic Water Planning & Development

Population Growth

Domestic Groundwater Development

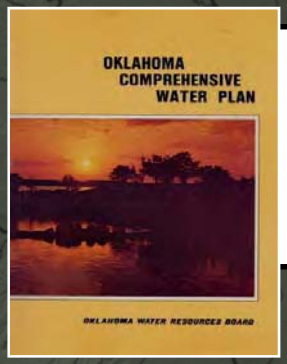
Domestic groundwater use in the Garber-Wellington has grown exponentially in the last 20 years…

What is the Value of Water?



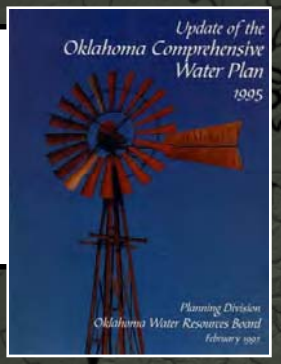
Average Monthly Residential Consumer Bill = $252.27
Water Portion of Bill (9%) = $ 21.83

OK Municipal League and OK Corporation Commission data.
Water cost based on 5,920 gallons per month usage.



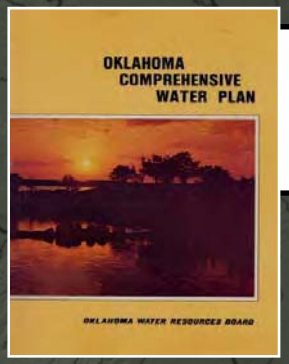
1980 &1995 Water Plans

Oklahoma's Water Planning Statutes

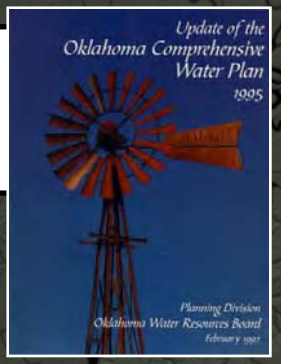


Title 82 directs the OWRB to:

- address issues "for the management, protection, conservation, ...development and utilization of [the state's] water resources."
- "engage in a continuing study of [state] water laws, and of changes... required to carry out... the policies, goals, objectives and recommendations contained in the OCWP and to make recommendations and re are legislation for such purposes."



1980 & 1995 OCWP



A Few Major Water Policy Categories

- Water Rights & Administration
- Indian Water Rights
- GW/SW Relationships

- Instream Flow Protection
- Endangered Species

- Water Quality Monitoring
- Groundwater Quality Standards
- Nonpoint Source Pollution
- Stream Gaging Network

- Water & Wastewater Systems
- Financing

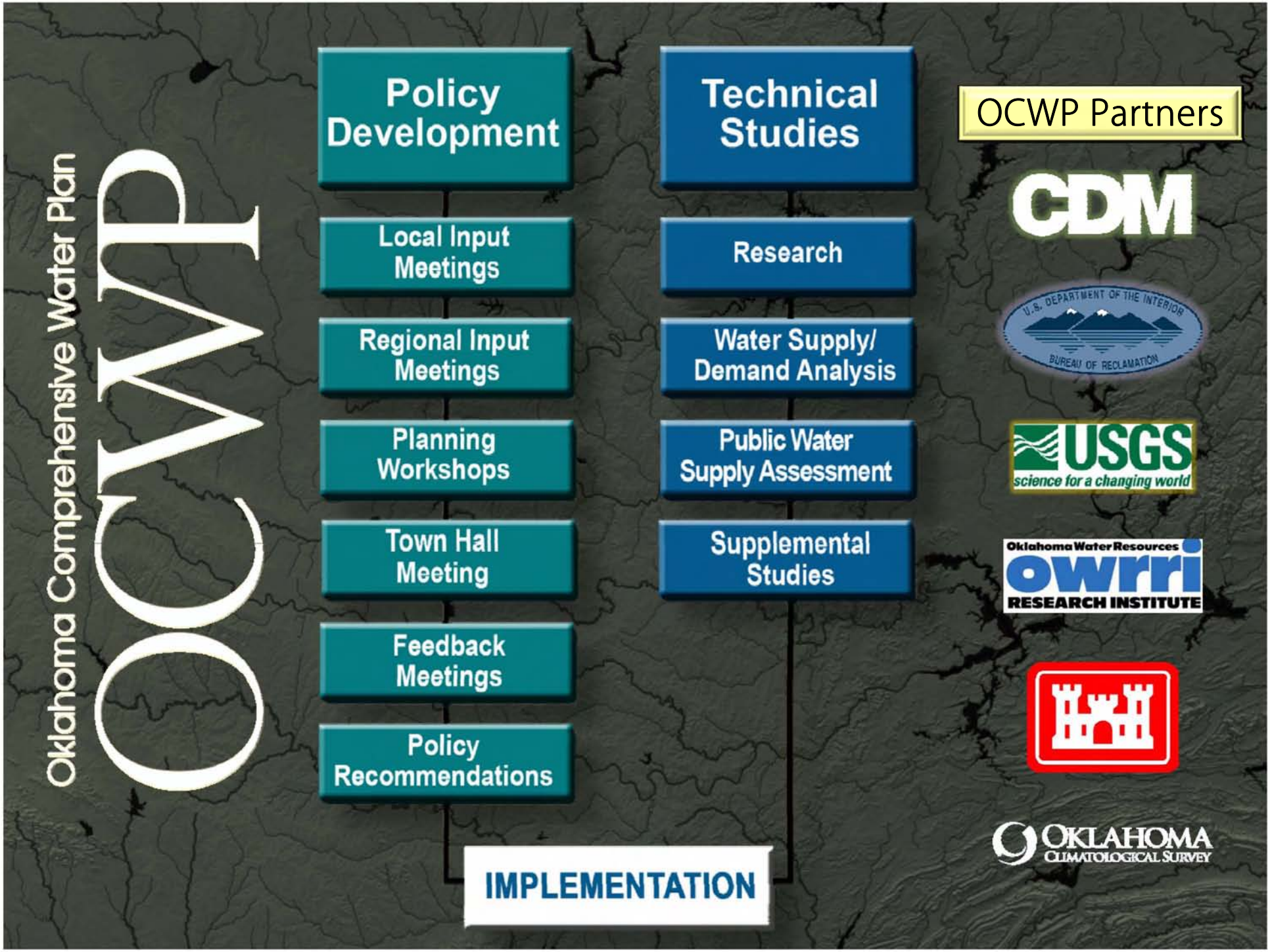
- Water Conservation
- Groundwater Recharge
- Chloride Control

- Drought Preparedness
- Floodplain Protection

- Water Dispute Resolution
- Interstate Water Disputes

Fundin_ for Water Projects: A New Approach

- Traditional funding for state water projects provided through "ad hoc" opportunities
- States require a more effective strategy to identify and implement water resource projects


Oklahoma Comprehensive Water Plan
OCWP
Policy Development
Local Input Meetings
Regional Input Meetings
Planning Workshops
Town Hall Meeting
Feedback Meetings
Policy Recommendations
Technical Studies
Research
Water Supply/ Demand Analysis
Public Water Supply Assessment
Supplemental Studies
IMPLEMENTATION
OCWP Partners
CDM
U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
USGS
science for a changing world
Oklahoma Water Resources
owrri
RESEARCH INSTITUTE
OKLAHOMA
CLIMATOLOGICAL SURVEY


Sound science
is the foundation
of good public policy
Oklahoma Comprehensive Water Plan
OCWP