

## City Council Work Session Handouts

April 1, 2013

- I. Review and Discuss the Texas Water Development Board Presentation on Water Planning in Texas, Drought Conditions and State Funding and the Freese & Nichols Presentation on North Texas Water Supply Past, Present and Future
  
- II. Review and Discuss the Realtors Workshop



# Water Planning in Texas, Drought Conditions and State Funding?

Lewis H. McMahan, Member

April 1, 2013

The mission of the Texas Water Development Board is **to provide leadership, planning, financial assistance, information, and education for the conservation and responsible development of water for Texas.**



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WATER FOR TEXAS **2012** STATE WATER PLAN

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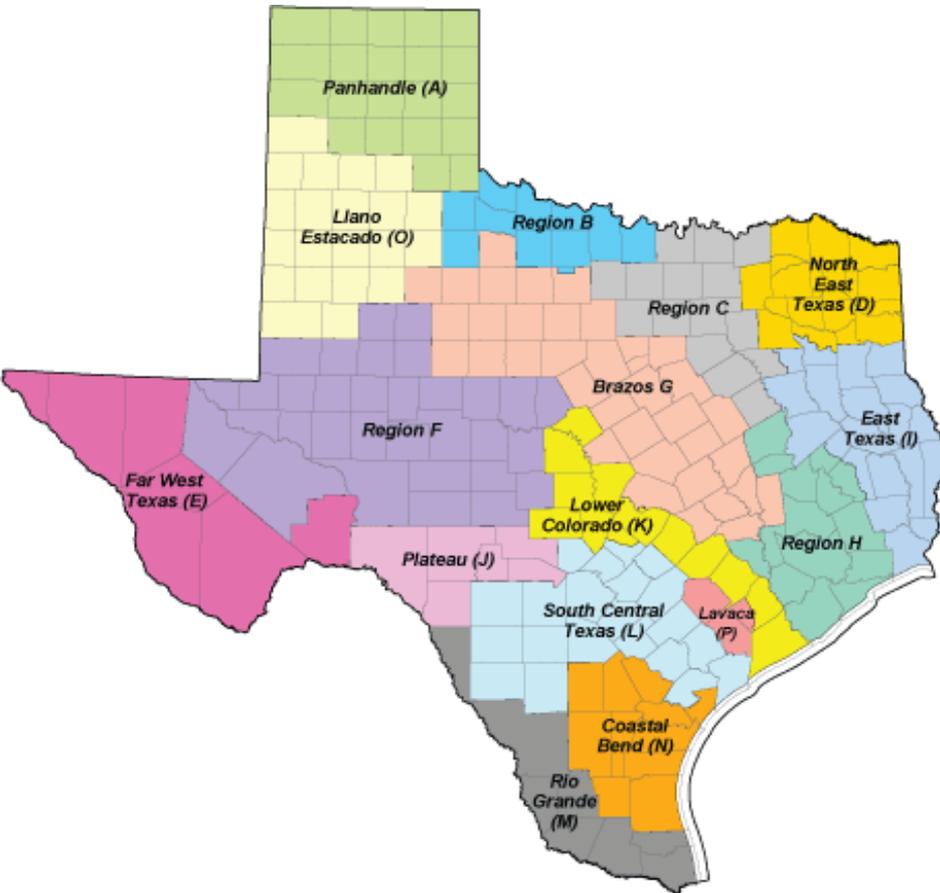
**2012**

# Water for Texas

TEXAS WATER DEVELOPMENT BOARD

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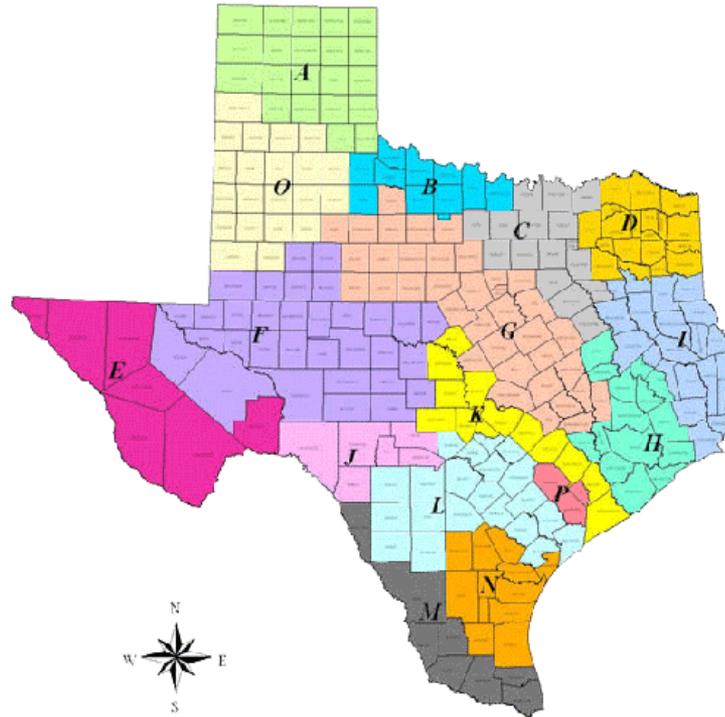
# Regional Water Planning



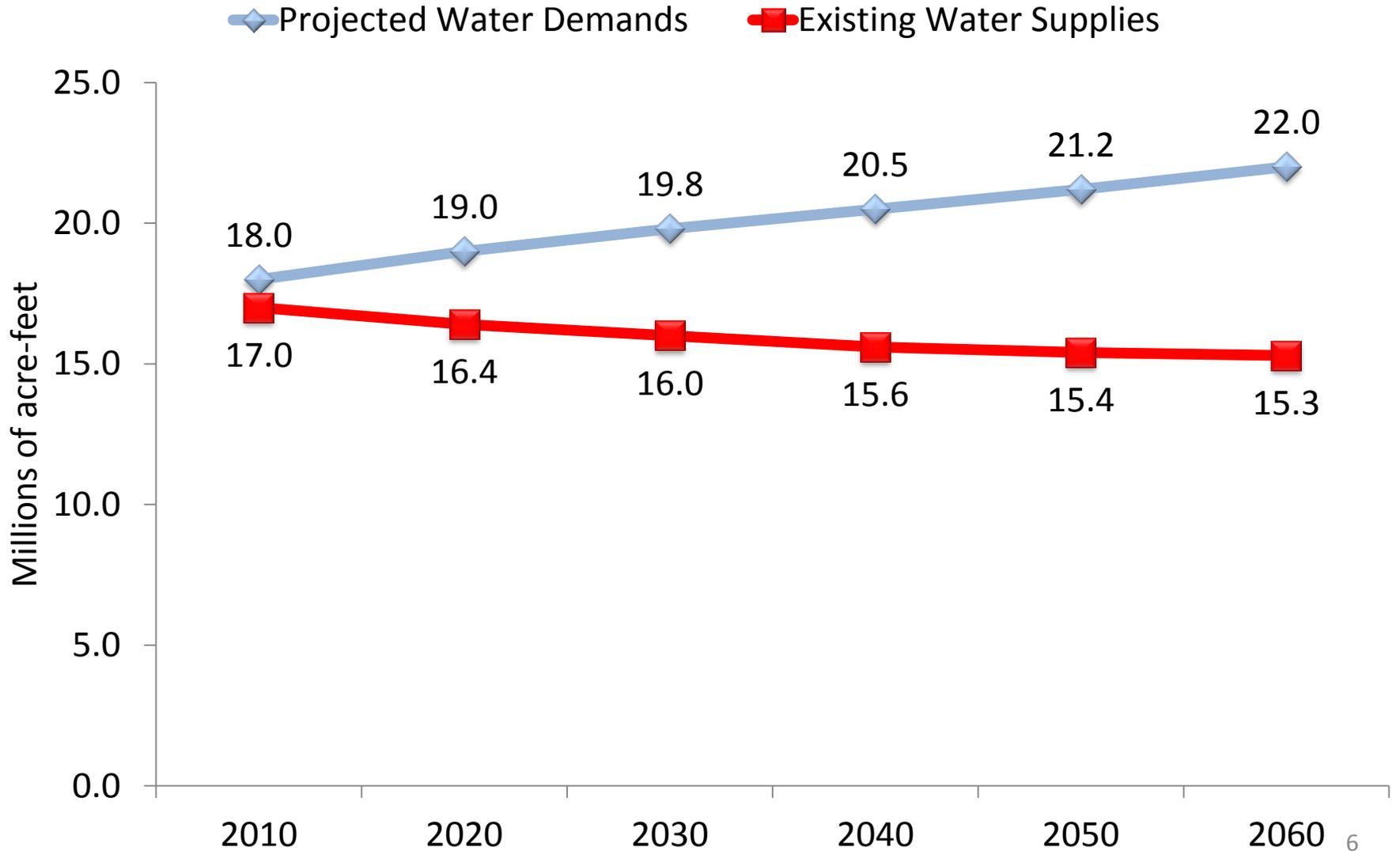
## Statutory interests:

- Public
- Counties
- Municipalities
- Industries
- Agriculture
- Environment
- Small businesses
- Electric-generating utilities
- River authorities
- Water districts
- Water utilities
- GMA'S/GCD'S

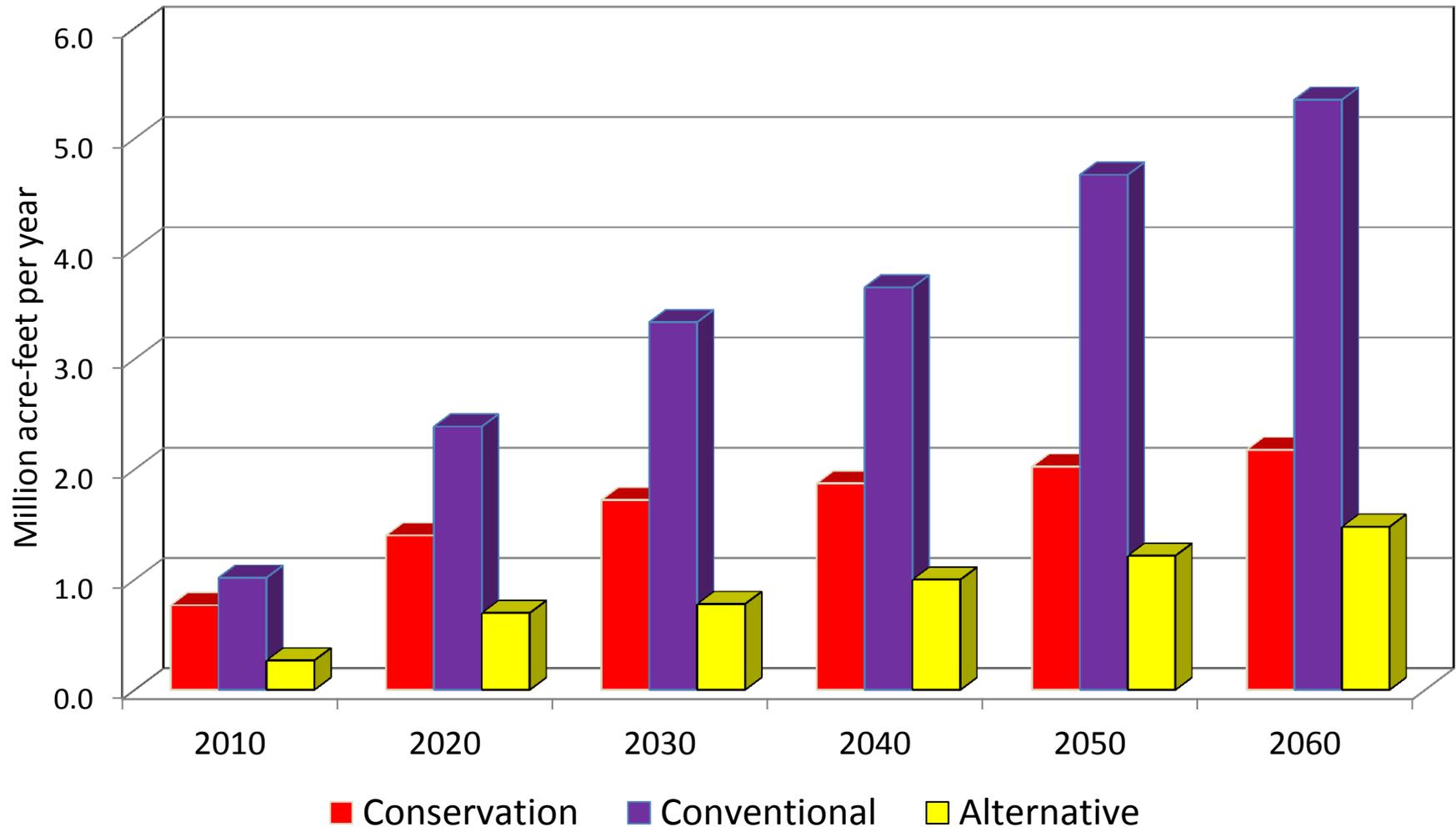
# Regional and State Water Planning: Addressing long-term water supply needs



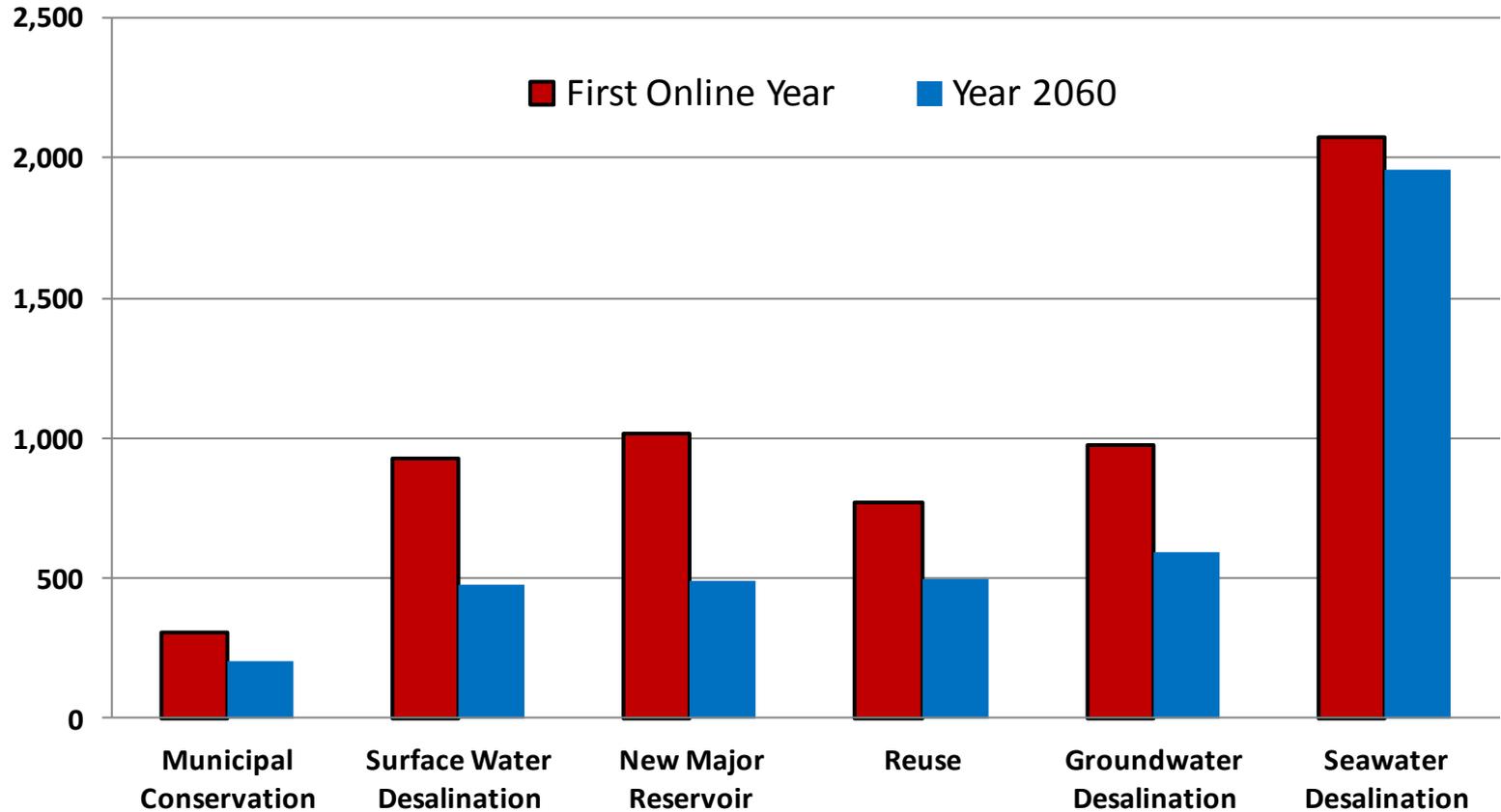
# Projected Water Demands and Existing Supplies



# Recommended water management strategies in the 2011 Regional Water Plans



## Annual Average Unit Costs of Water Management Strategy Categories, 2012 State Water Plan (dollars per acre-foot)

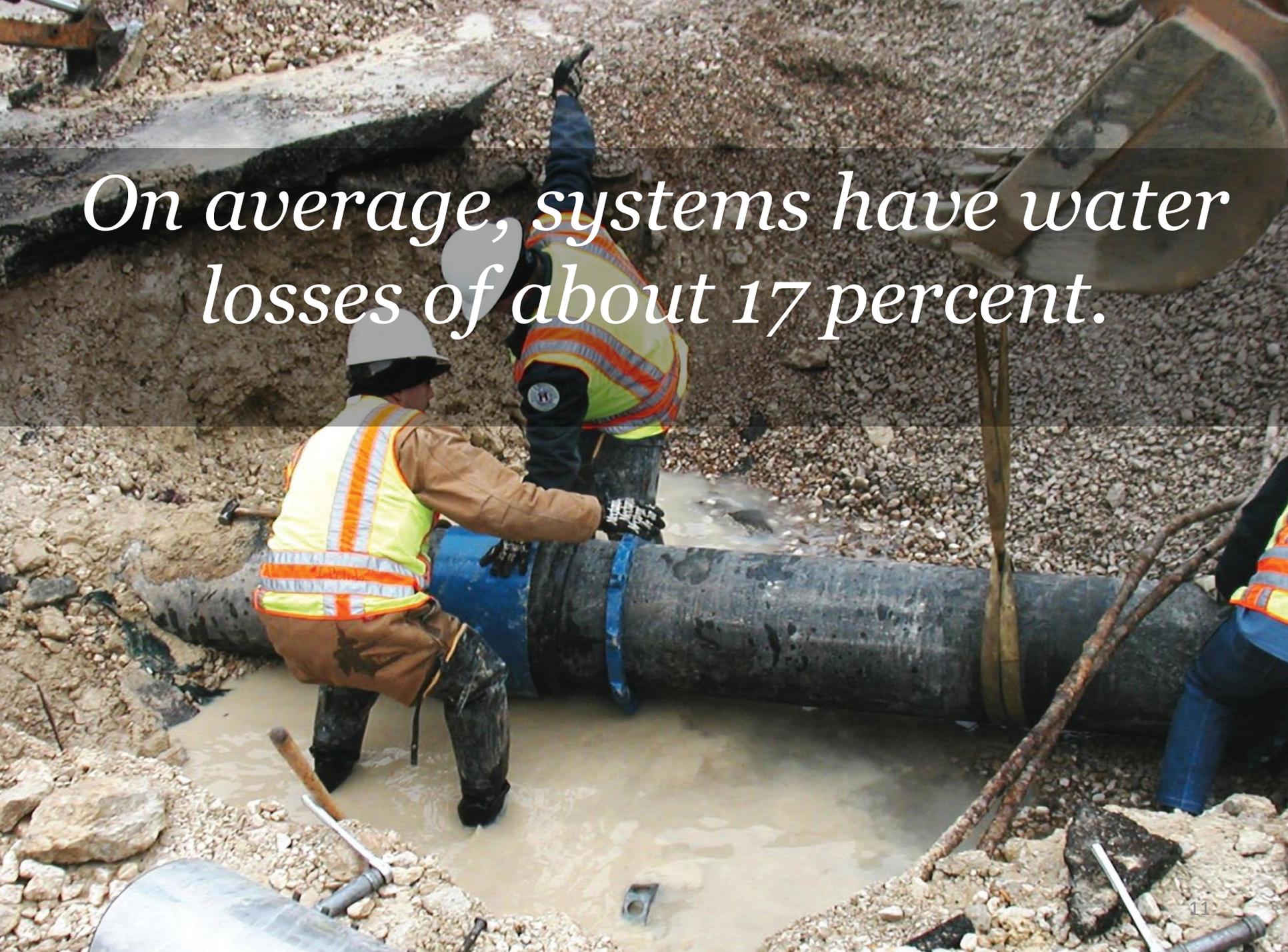


Unit costs are higher in early years and fall significantly once debt on construction costs are paid .  
TWDB 2012



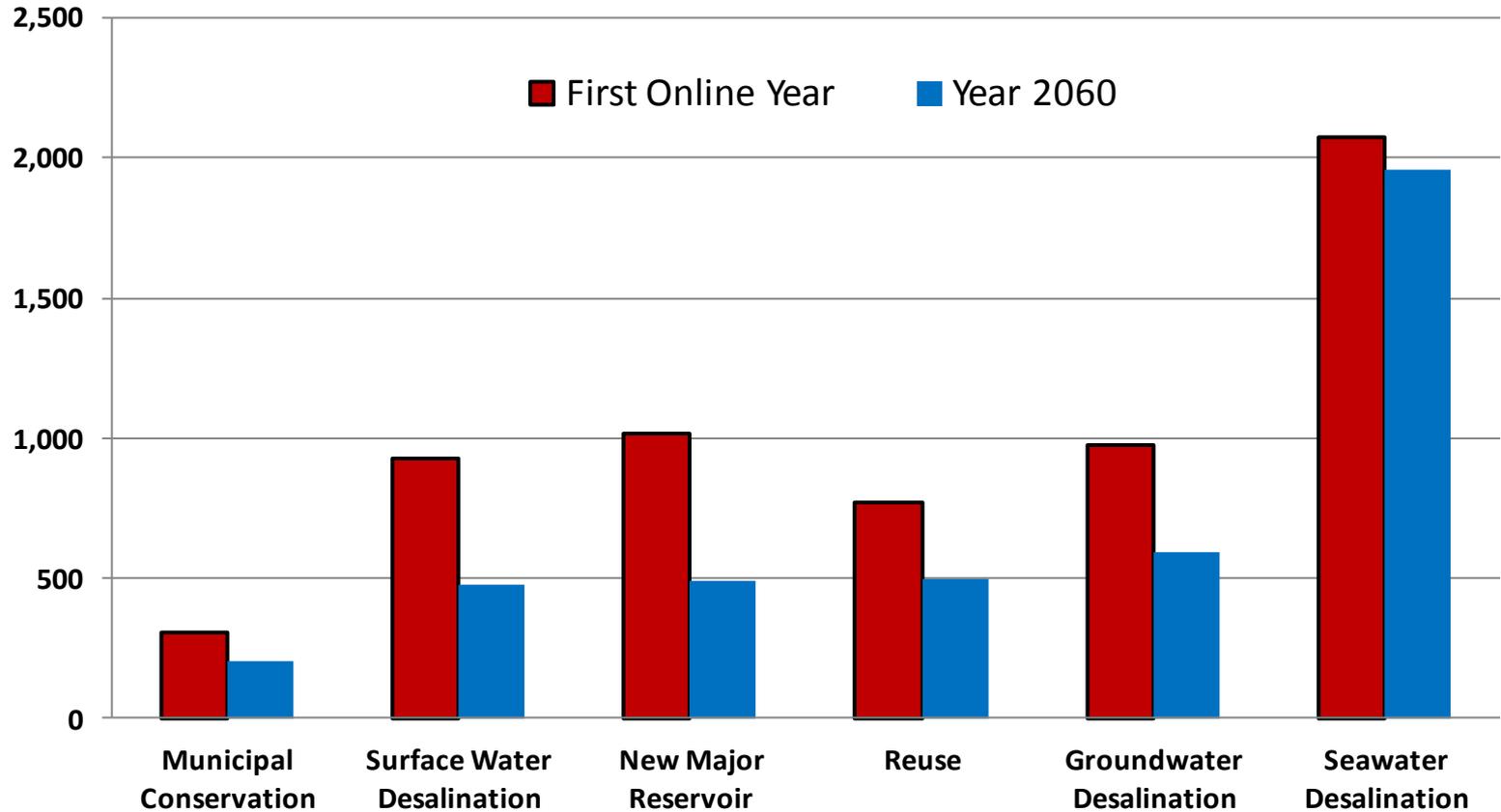
# Advanced conservation



A photograph showing construction workers in a trench installing a large pipe. The workers are wearing high-visibility vests and hard hats. The trench is filled with gravel and muddy water. A large pipe is being laid across the trench, and a worker is standing on top of it. Another worker is in the foreground, wading through the water. The background shows a steep, rocky embankment.

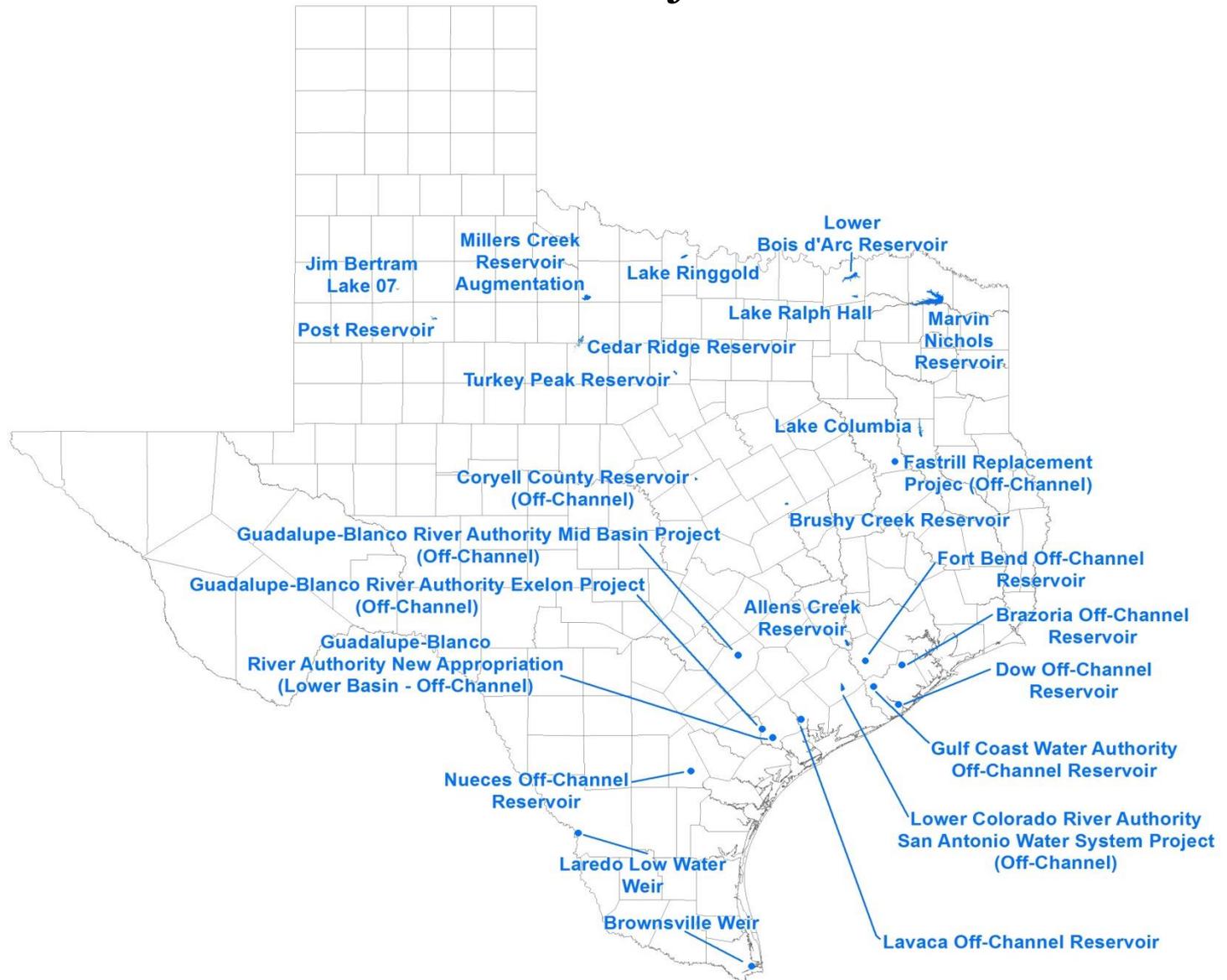
*On average, systems have water losses of about 17 percent.*

## Annual Average Unit Costs of Water Management Strategy Categories, 2012 State Water Plan (dollars per acre-foot)



Unit costs are higher in early years and fall significantly once debt on construction costs are paid .  
TWDB 2012

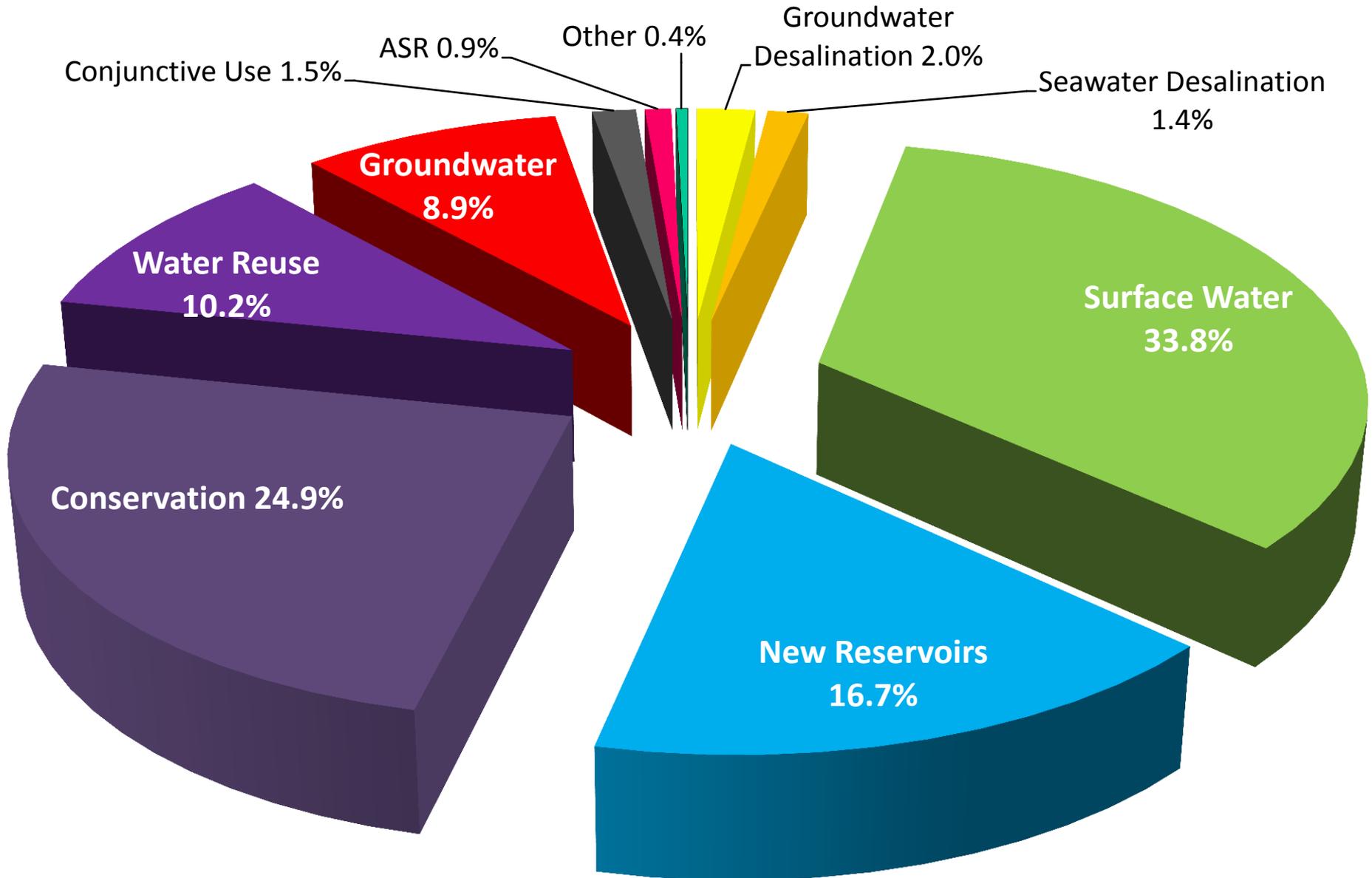
# Recommended new major Reservoirs



An aerial photograph of a large dam and reservoir. The dam is a long, dark structure with water flowing over it. The reservoir is a large body of water to the right. The surrounding landscape is a mix of green vegetation and brownish terrain. A semi-transparent dark blue box is overlaid on the top half of the image, containing white text.

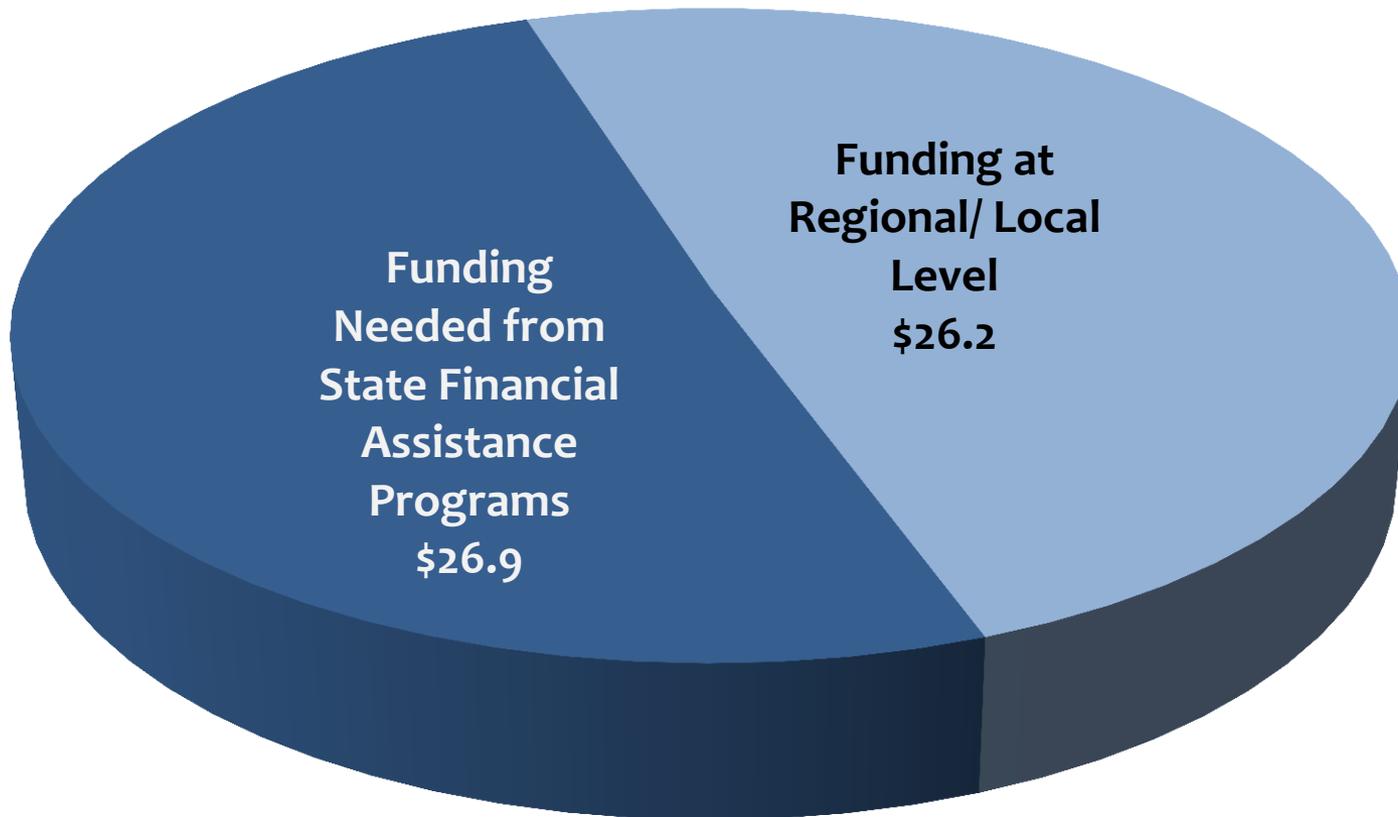
*We must provide support for approval of  
new reservoirs by TCEQ, EPA,  
Texas Parks and Wildlife,  
environmental flow groups, and the  
U.S. Army Corps of Engineers.*

# Cumulative Water Management Strategies by 2060



# 2012 Regional Water Plans Total Capital Costs: \$53 Billion

Estimated cost to implement the **562 strategies** between 2012-2060  
for an additional 9 million acre feet per year



## Socioeconomic impacts of not meeting needs

### **Lost income:**

- \$12 billion in 2010
- \$116 billion in 2060

### **Lost state and local business taxes:**

- \$1 billion in 2010
- \$10 billion in 2060

### **Lost jobs:**

- 115,000 in 2010
- 1 million in 2060

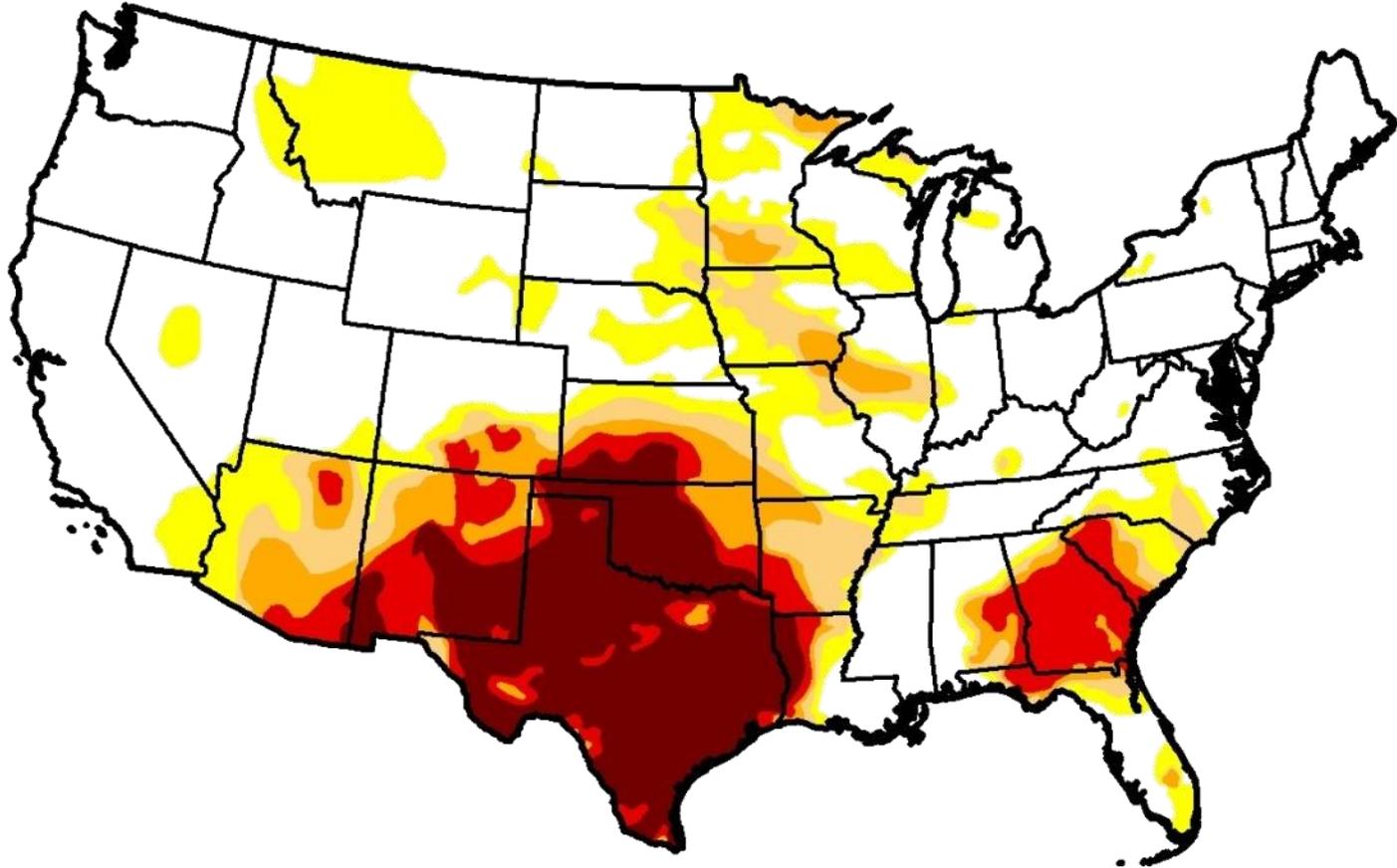
### **Lost population growth:**

- 1.4 million in 2060

# DROUGHT UPDATE

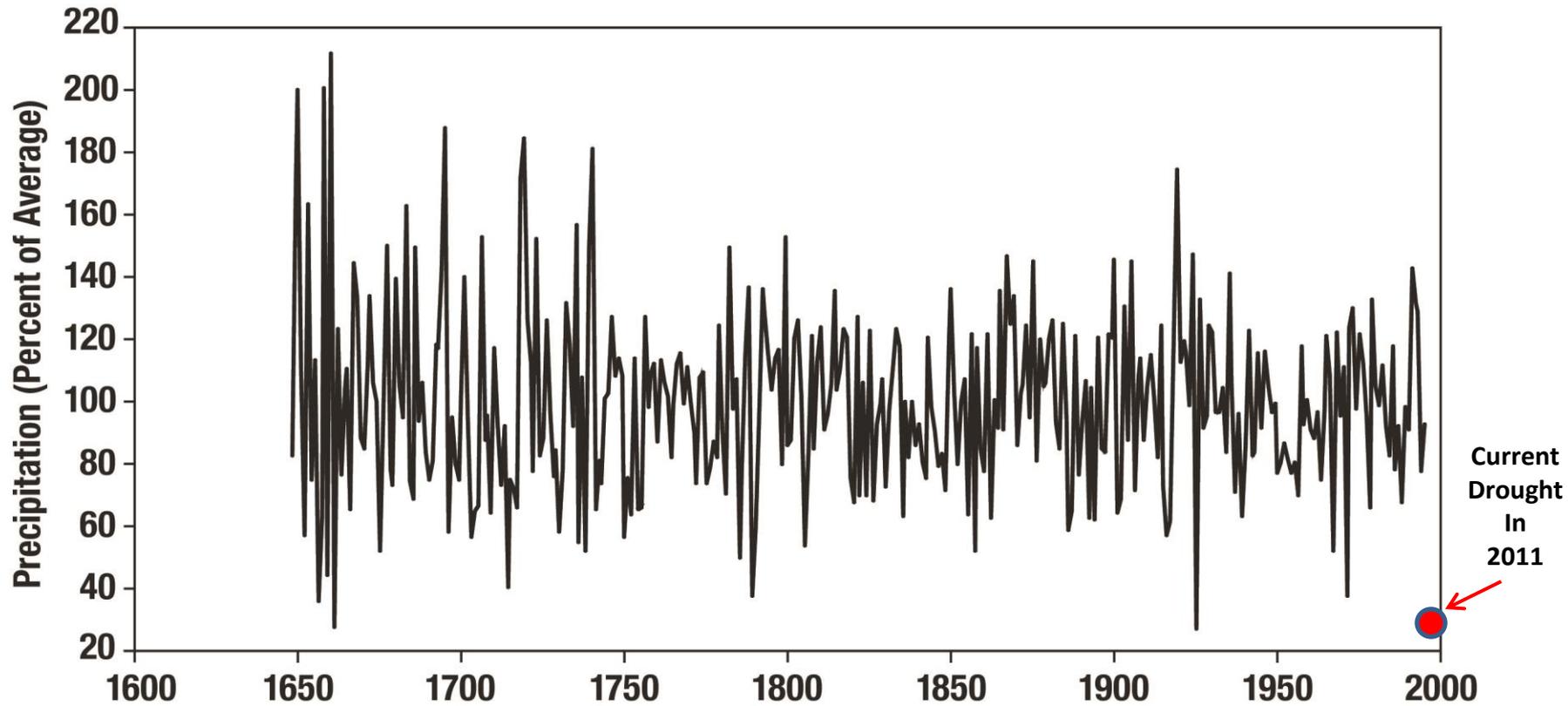


# 2010-2011 drought: Worst one-year drought



October 4, 2011

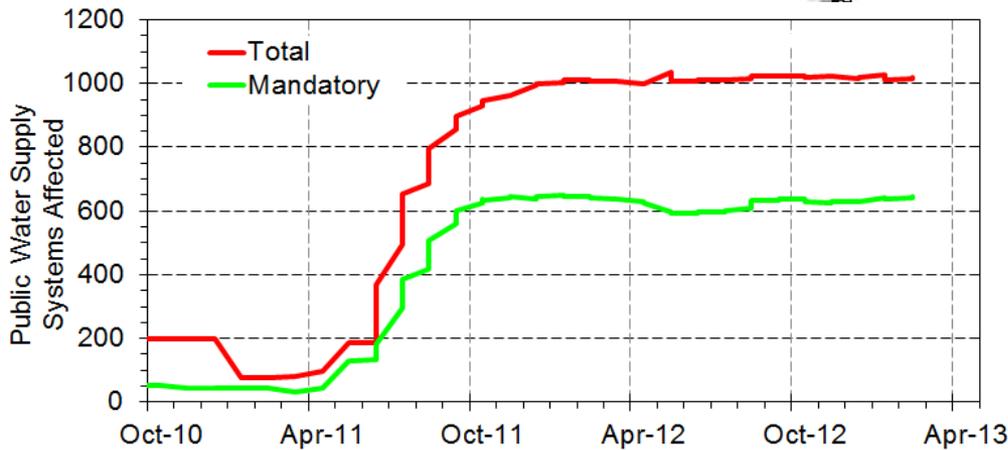
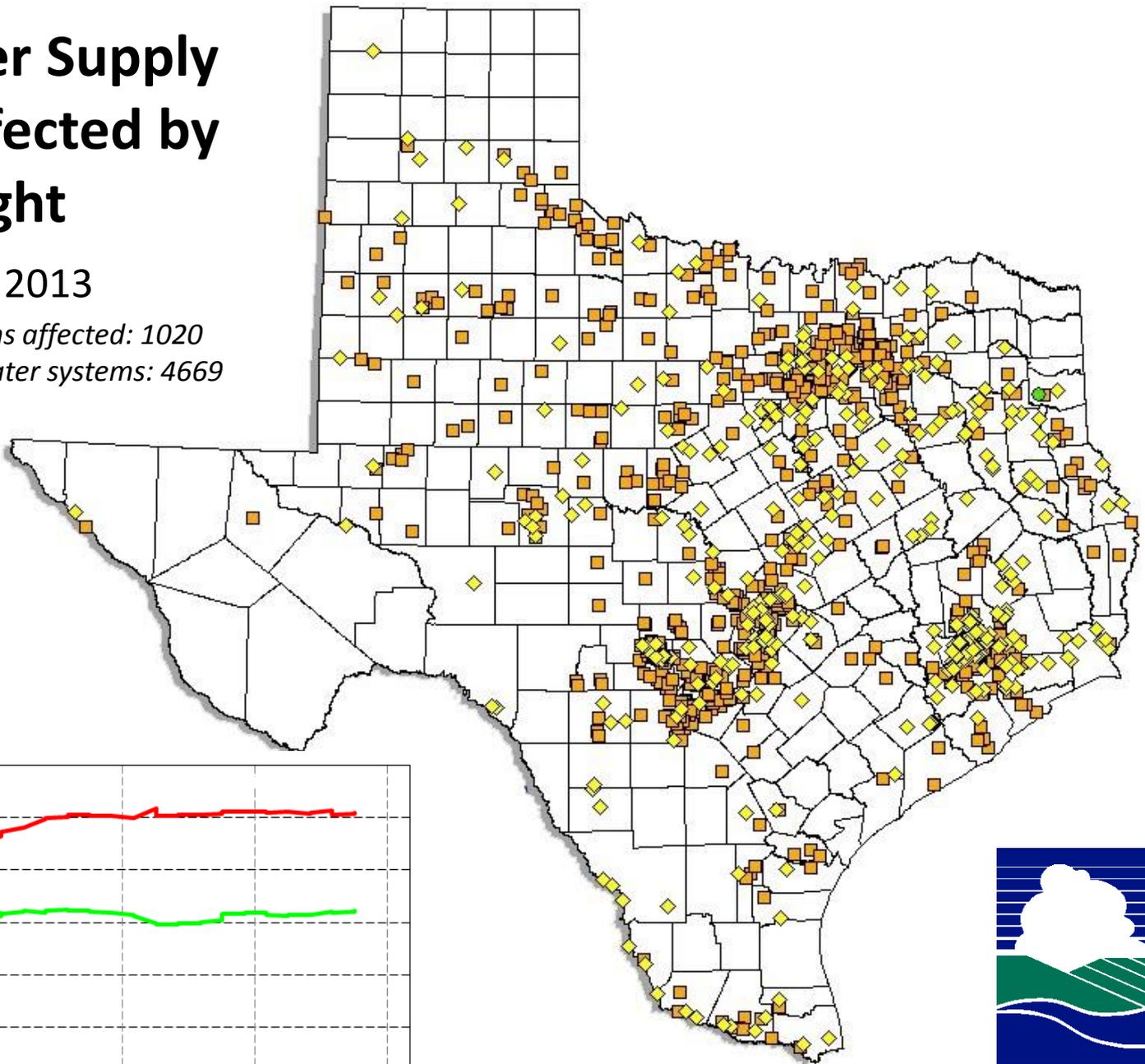
# Drought Severity in Texas



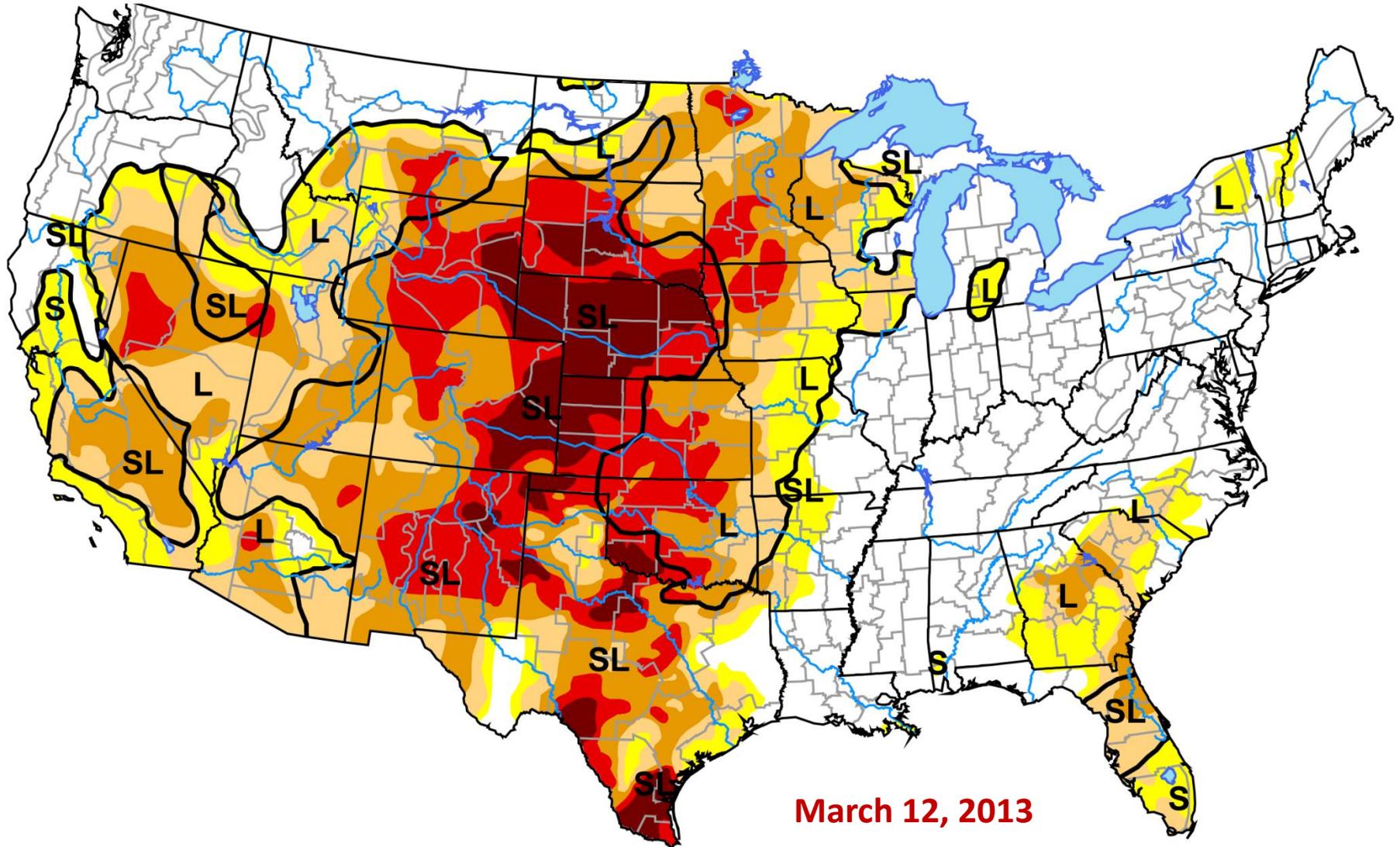
# Public Water Supply Systems Affected by Drought

March 12, 2013

Community water systems affected: 1020  
Total active Community water systems: 4669



# Things are better, but we're still in drought



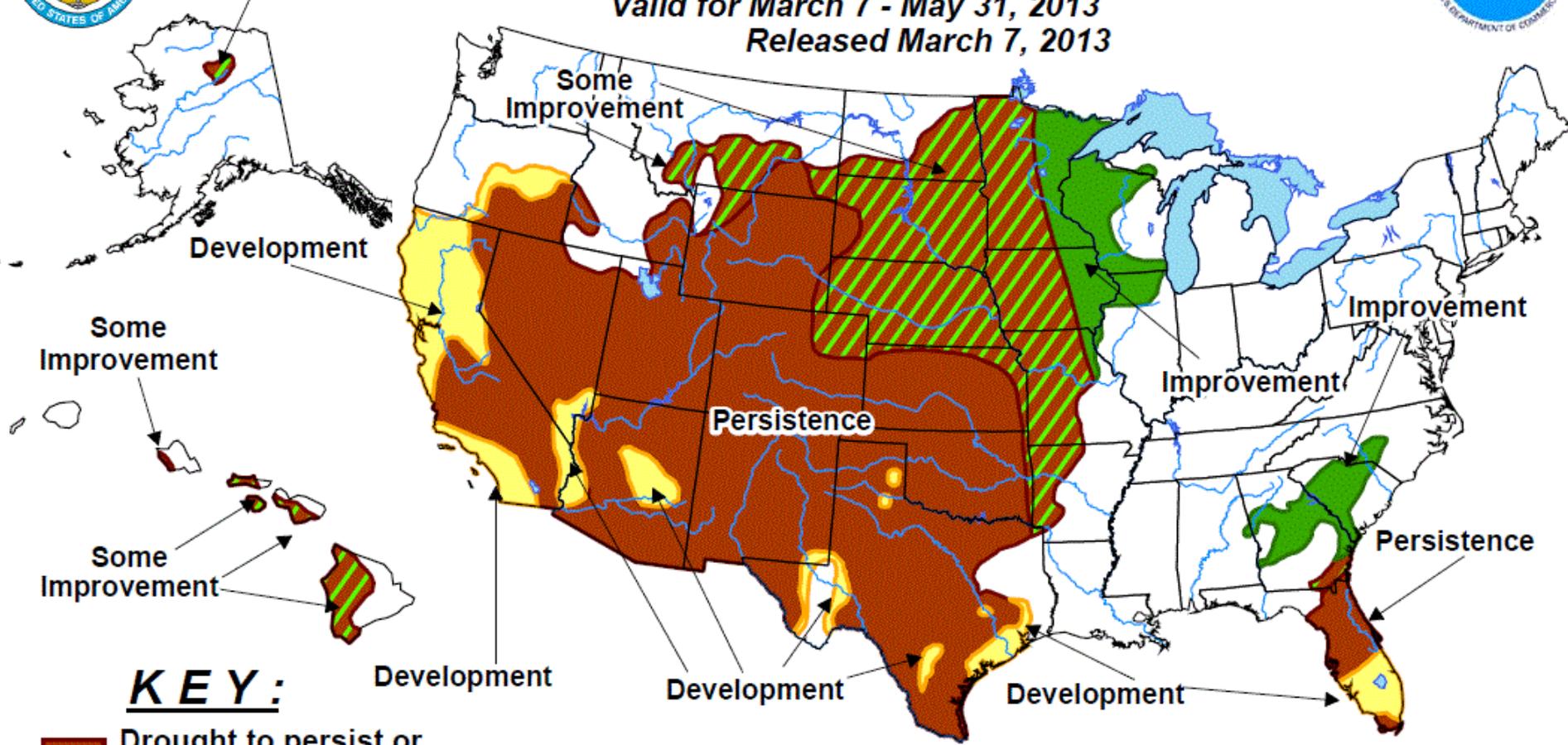
March 12, 2013



# U.S. Seasonal Drought Outlook

## Drought Tendency During the Valid Period

Valid for March 7 - May 31, 2013  
Released March 7, 2013



### KEY:

-  Drought to persist or intensify
-  Drought ongoing, some improvement
-  Drought likely to improve, impacts ease
-  Drought development likely

No Drought Posted/Predicted 

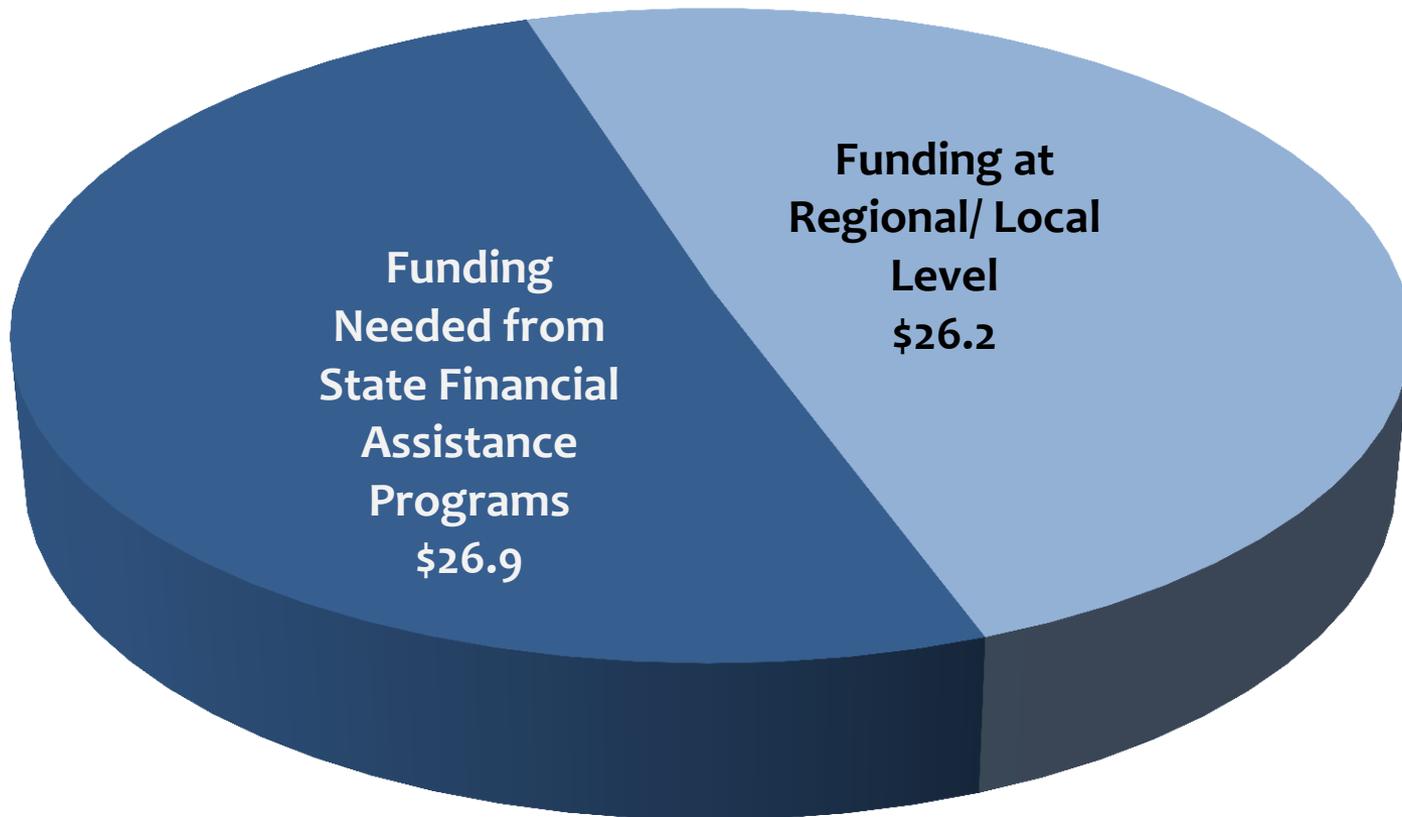
Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events -- such as individual storms -- cannot be accurately forecast more than a few days in advance. Use caution for applications -- such as crops -- that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 intensity). For weekly drought updates, see the latest U.S. Drought Monitor. NOTE: the green improvement areas imply at least a 1-category improvement in the Drought Monitor intensity levels, but do not necessarily imply drought elimination.



# FINANCING THE STATE WATER PLAN

# 2012 Regional Water Plans Total Capital Costs: \$53 Billion

Estimated cost to implement the **562 strategies** between 2012-2060  
for an additional 9 million acre feet per year



# Potential Revenue Sources for Funding Texas Water Programs

1. Repeal Sales Tax Exemption on Retail Sales of Utility Water
2. Repeal Sales Tax Exemption on Bottled Water
3. Water Rights Fee
4. Water Conservation and Development Fee
5. Tap Fee on Public Water Supply Connections
6. “Water Hog” Fee
7. Energy Water Use Fee
8. Using Un-incumbered School District balances to fund local water projects
9. **Use “one shot funding” to build revolving fund**



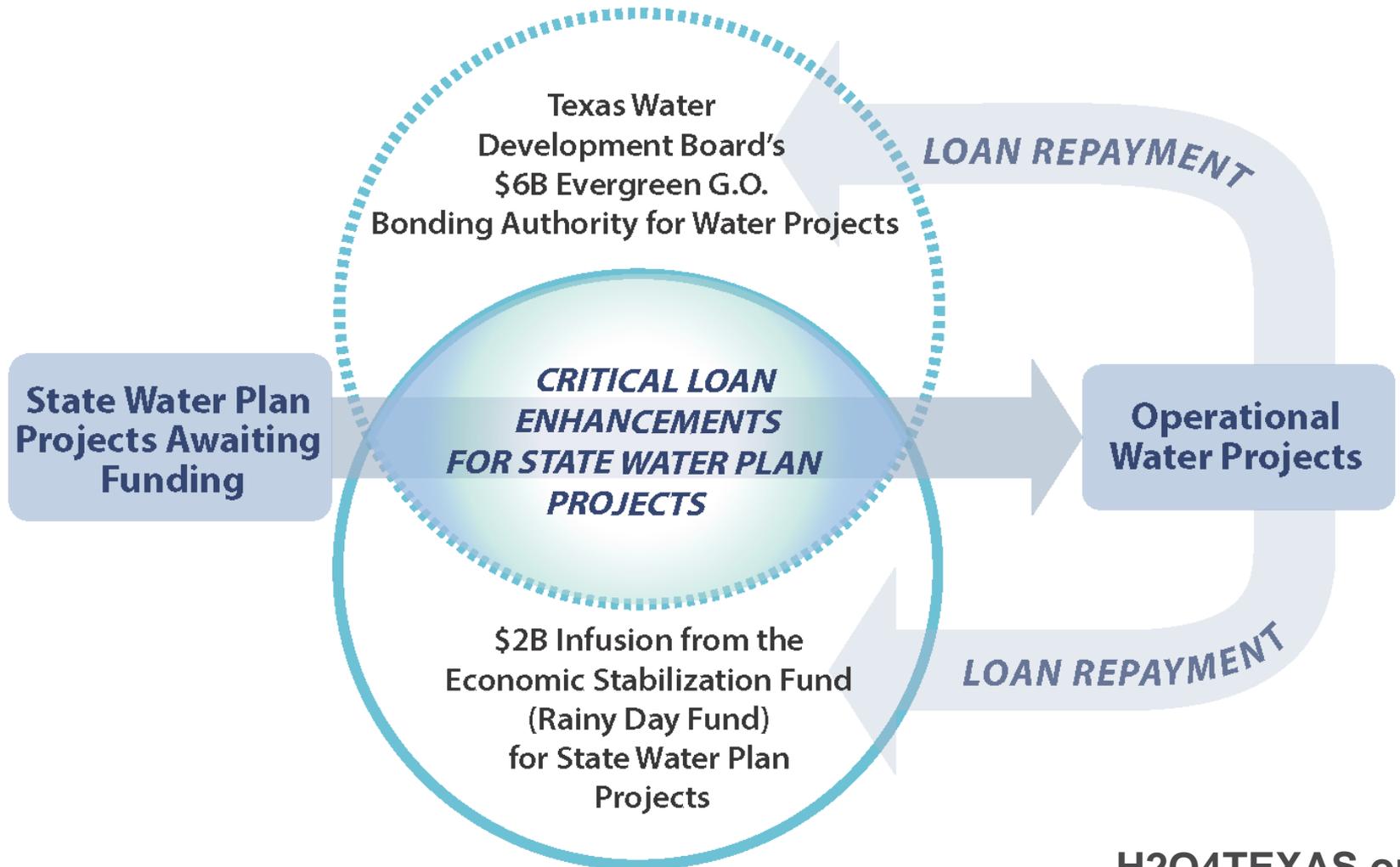
# WATER LEGISLATION ON THE MOVE

## Major Bills

- **SB4/CSHB4 – SB22/HB11**-Creates the State Water Implementation Fund for Texas (SWIFT) and State Water Implementation Revenue Fund for Texas (SWIRFT) to finance state water plan projects. Appropriates \$2 billion from Rainy Day Fund for the SWIFT or Dfund II. **CSHB 4 passed by House by 146-2**
- **HB 857**- Requires retail public utilities to perform and file annual water loss audits (currently required every five years).
- **HB 3603**- Omnibus water conservation bill. Authorizes TWDB to inform TCEQ if a utility fails to perform a water loss audit. Requires that TWDB evaluate applications to determine losses in excess of 15%. If losses exceed 15%, applicant amends application to repair those losses.
- **SB 1039**- Requires that the WCAC make specific recommendations "to improve water conservation and management" to the governor, lieutenant governor, and speaker of the house of representatives.



# State Water Plan Financing Tools



A scenic waterfall cascading over large, mossy rocks. The water is white and frothy as it falls, creating a sense of movement and energy. The rocks are dark and textured, with patches of green moss. The background is slightly blurred, emphasizing the foreground rocks and water.

*Let's keep the water flowing and  
the economy growing!*

# NORTH TEXAS WATER SUPPLY

PAST, PRESENT AND FUTURE



**FREESE  
AND  
NICHOLS**



**City of Richardson**

April 1, 2013

Tom Gooch, P.E.





*WATER,*  
*Not oil, is the*  
*lifeblood of Texas*

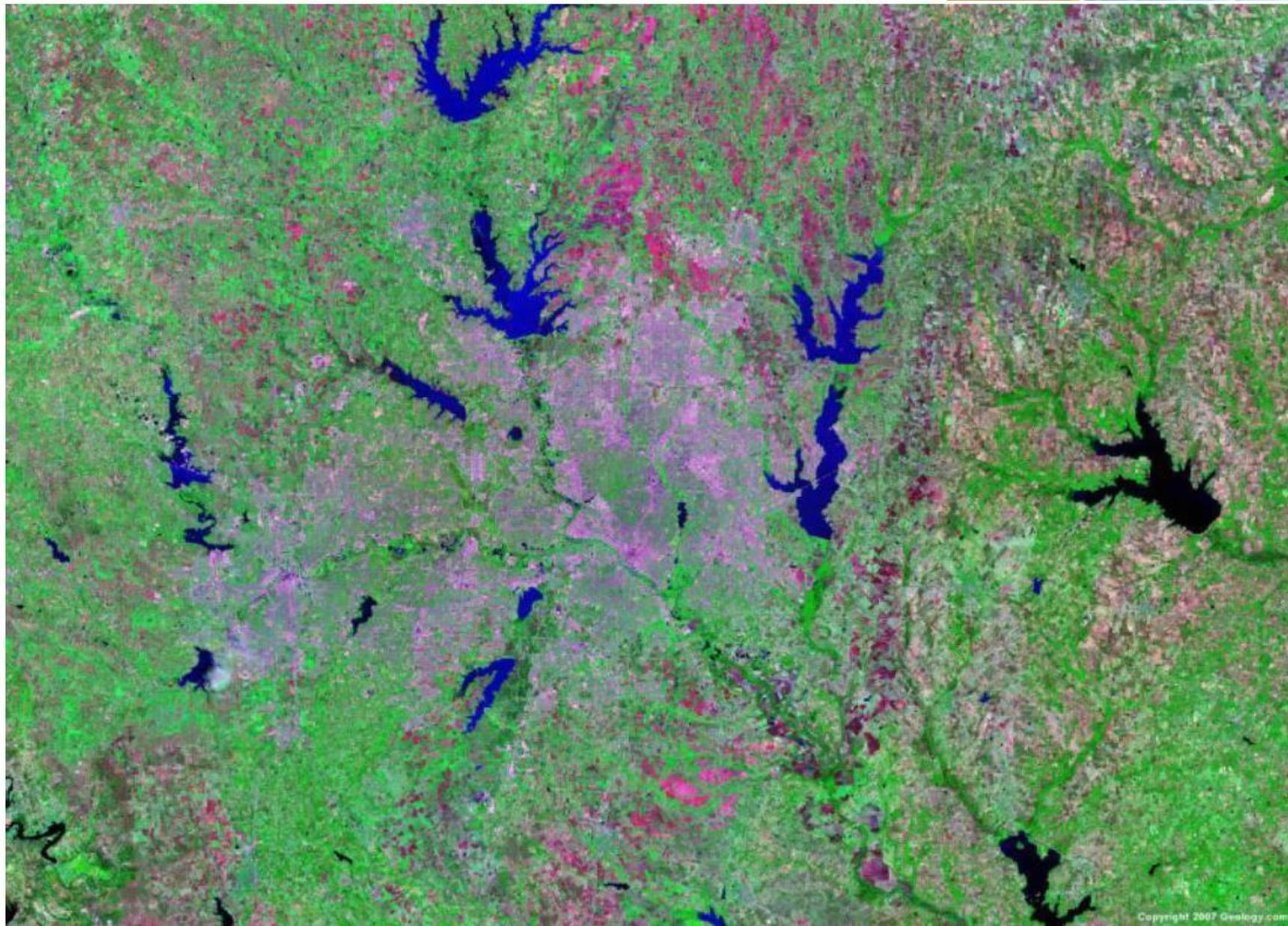
James Michener,  
*Texas: A Novel*



# North Texas Today



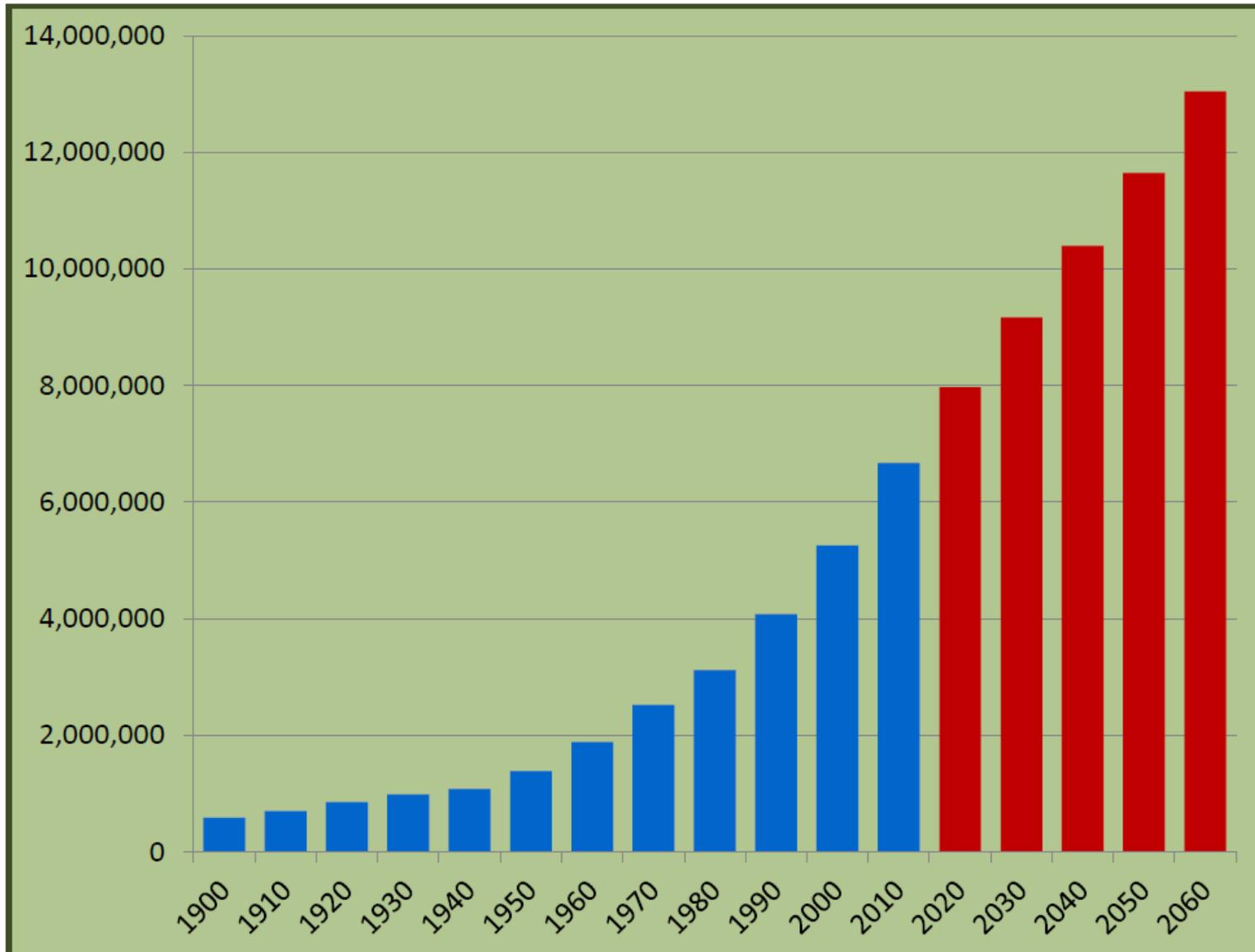
**NORTH TEXAS  
WATER SUPPLY**



# North Texas Population Growth

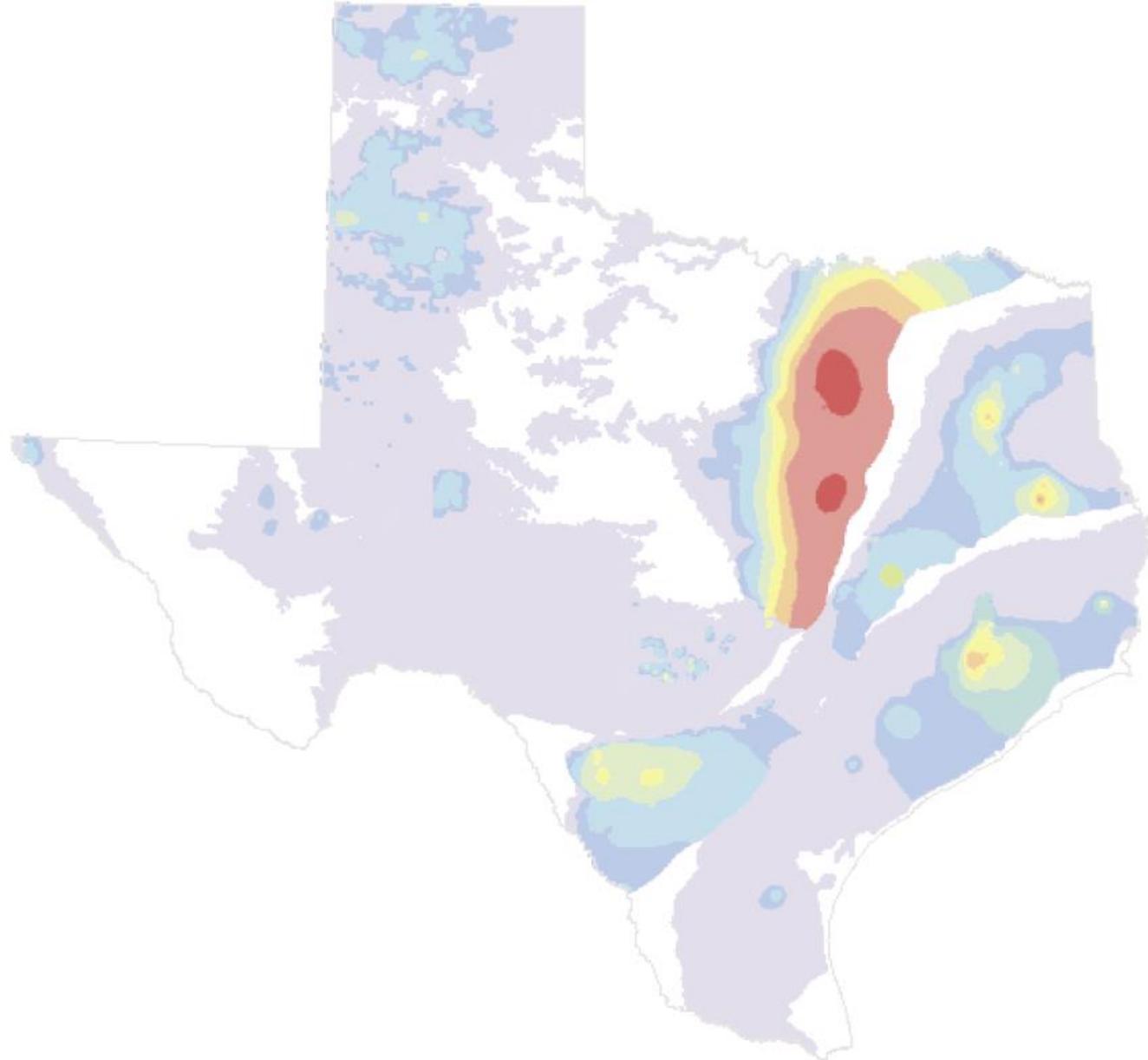


**NORTH TEXAS  
WATER SUPPLY**



# Groundwater

## NORTH TEXAS WATER SUPPLY

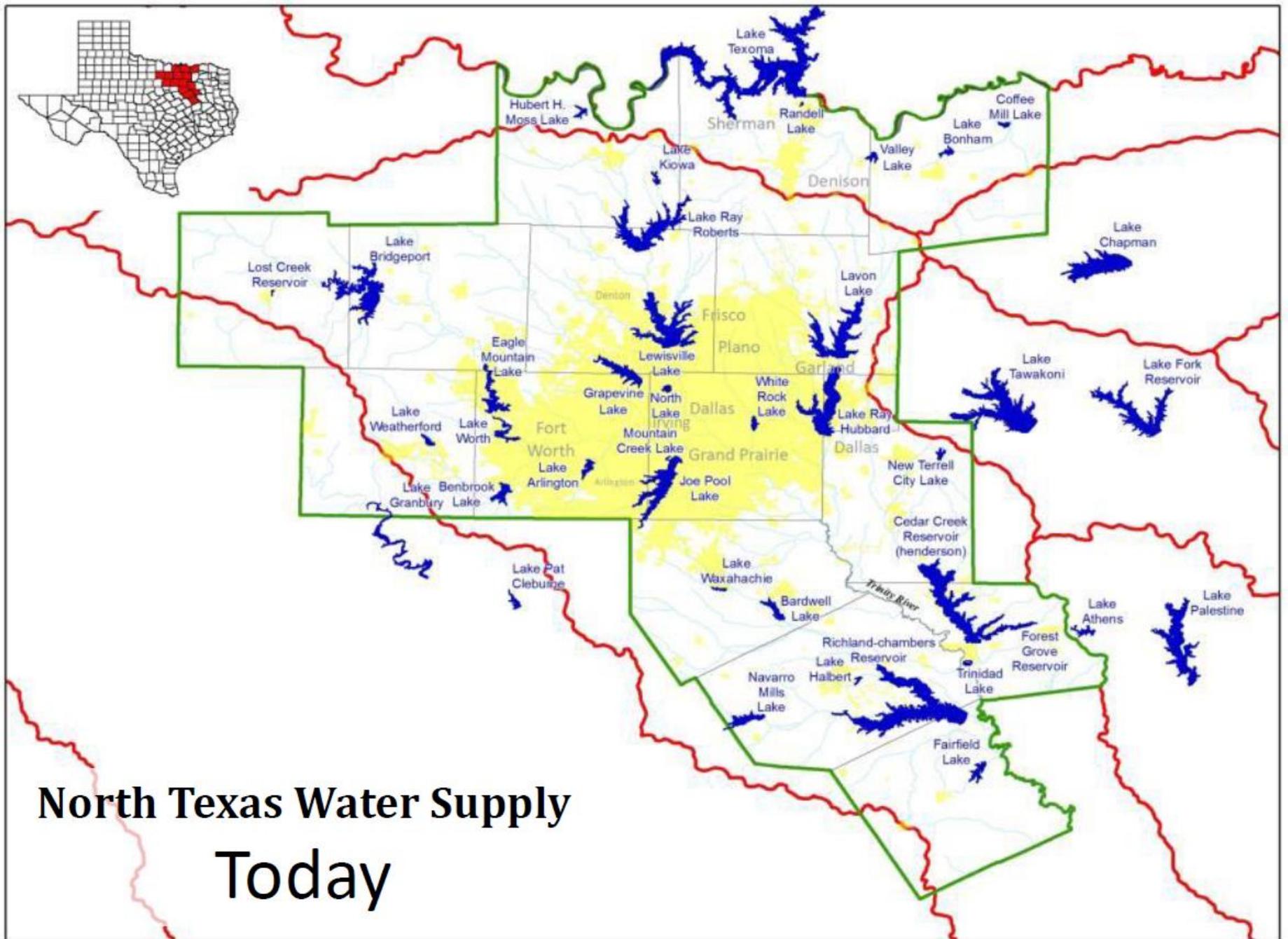


# Timeline of Water Development

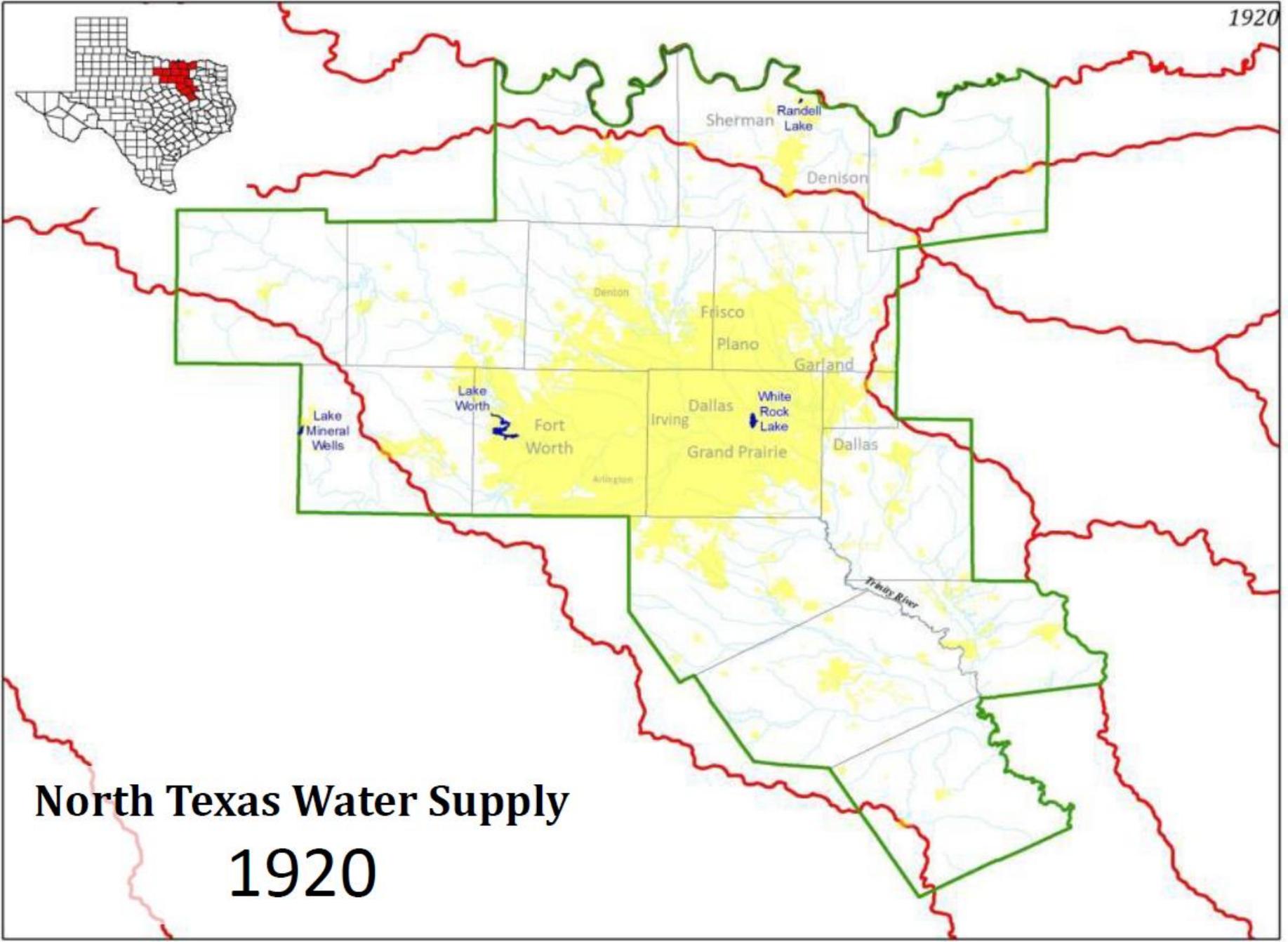


**NORTH TEXAS  
WATER SUPPLY**



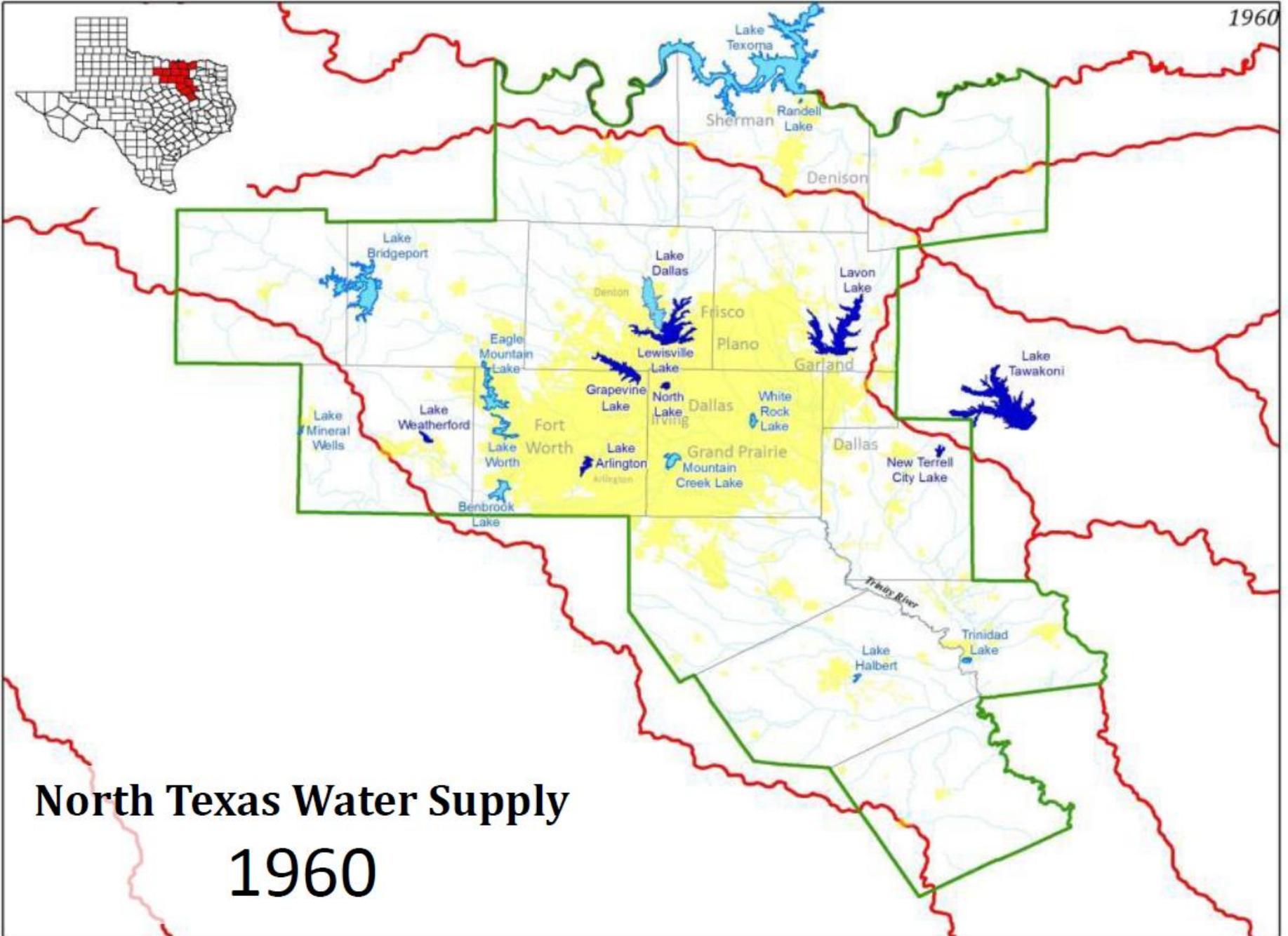


1920



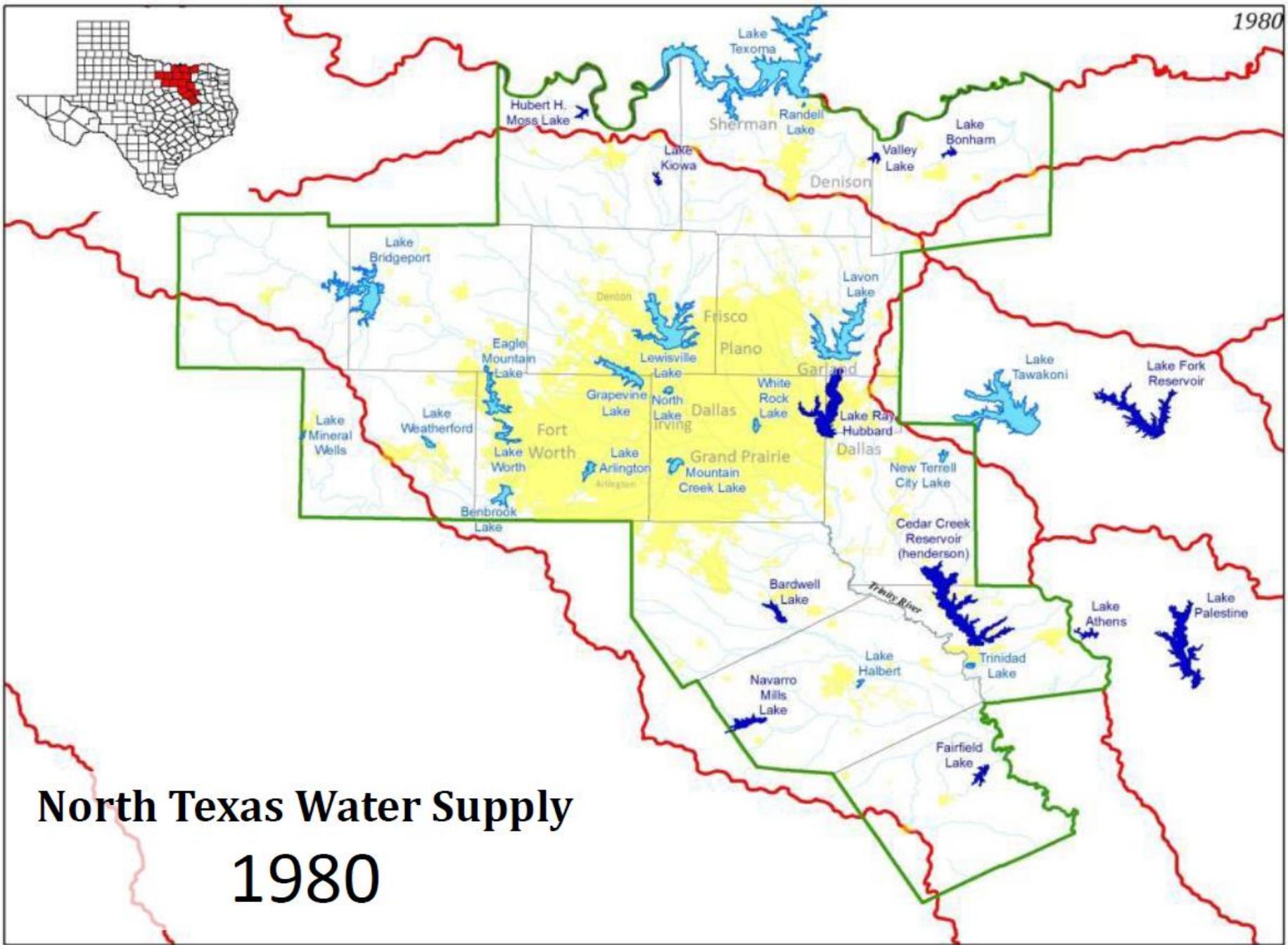
# North Texas Water Supply 1920

1960

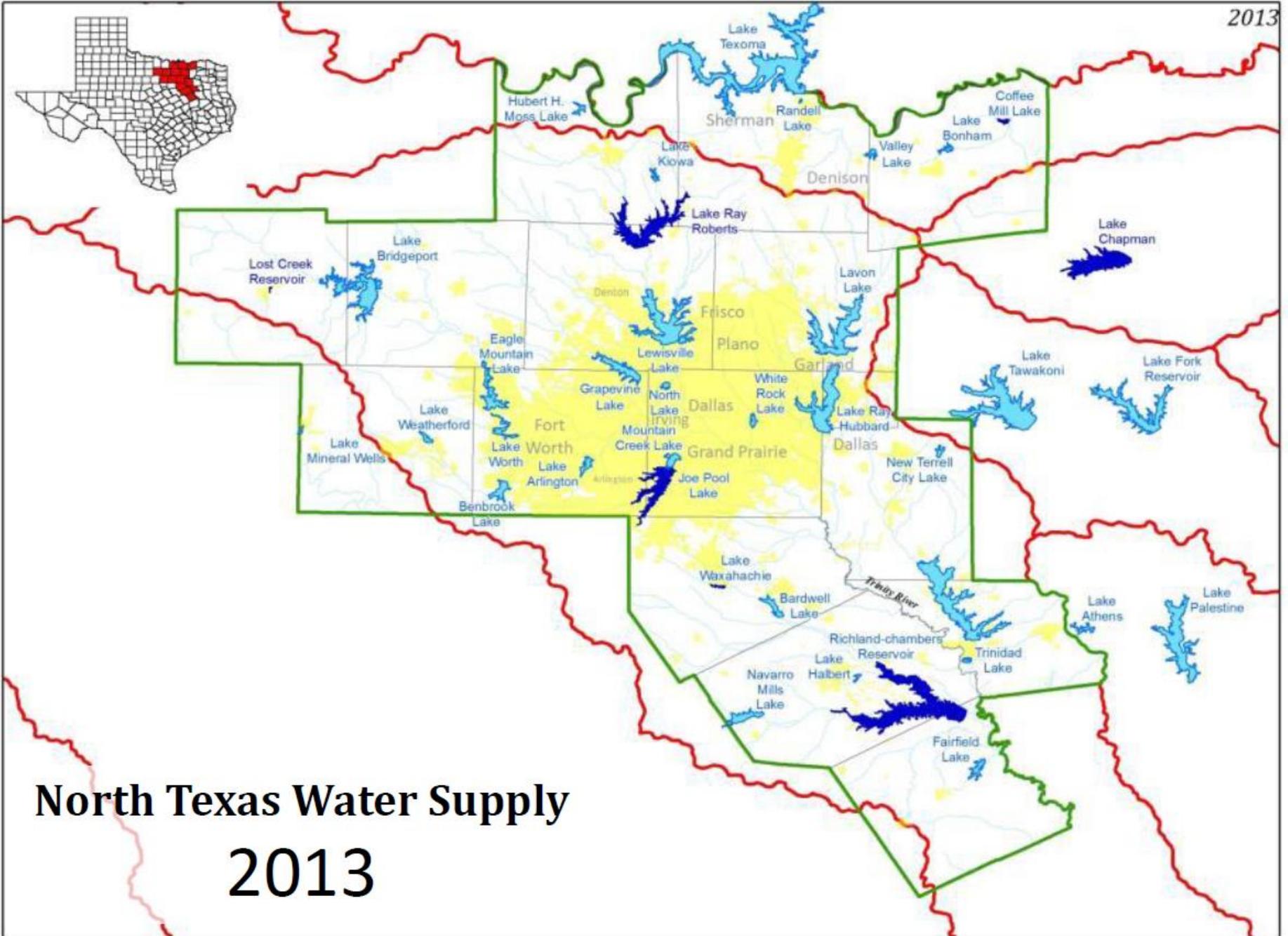


# North Texas Water Supply 1960

1980

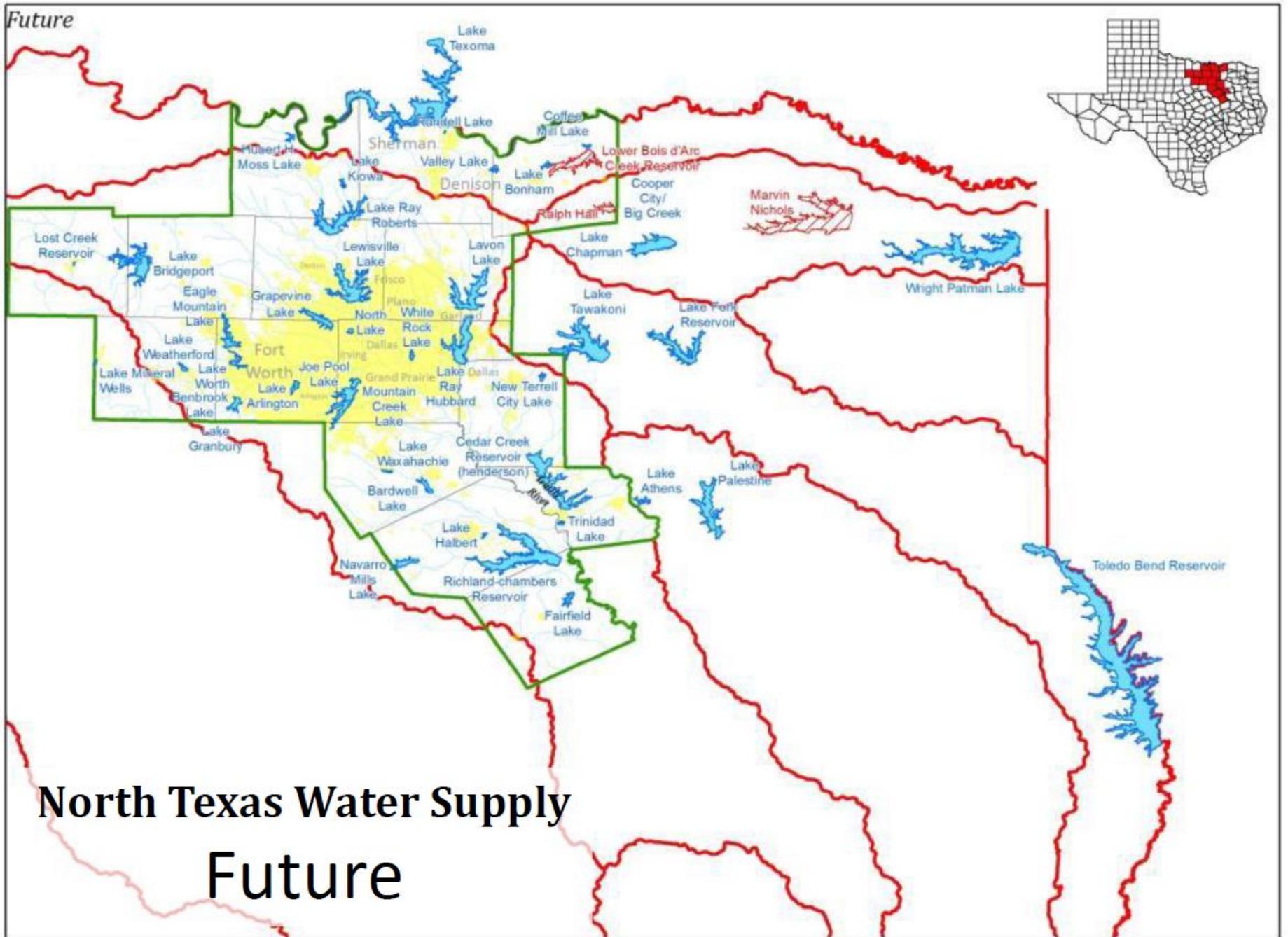


# North Texas Water Supply 1980



# North Texas Water Supply 2013

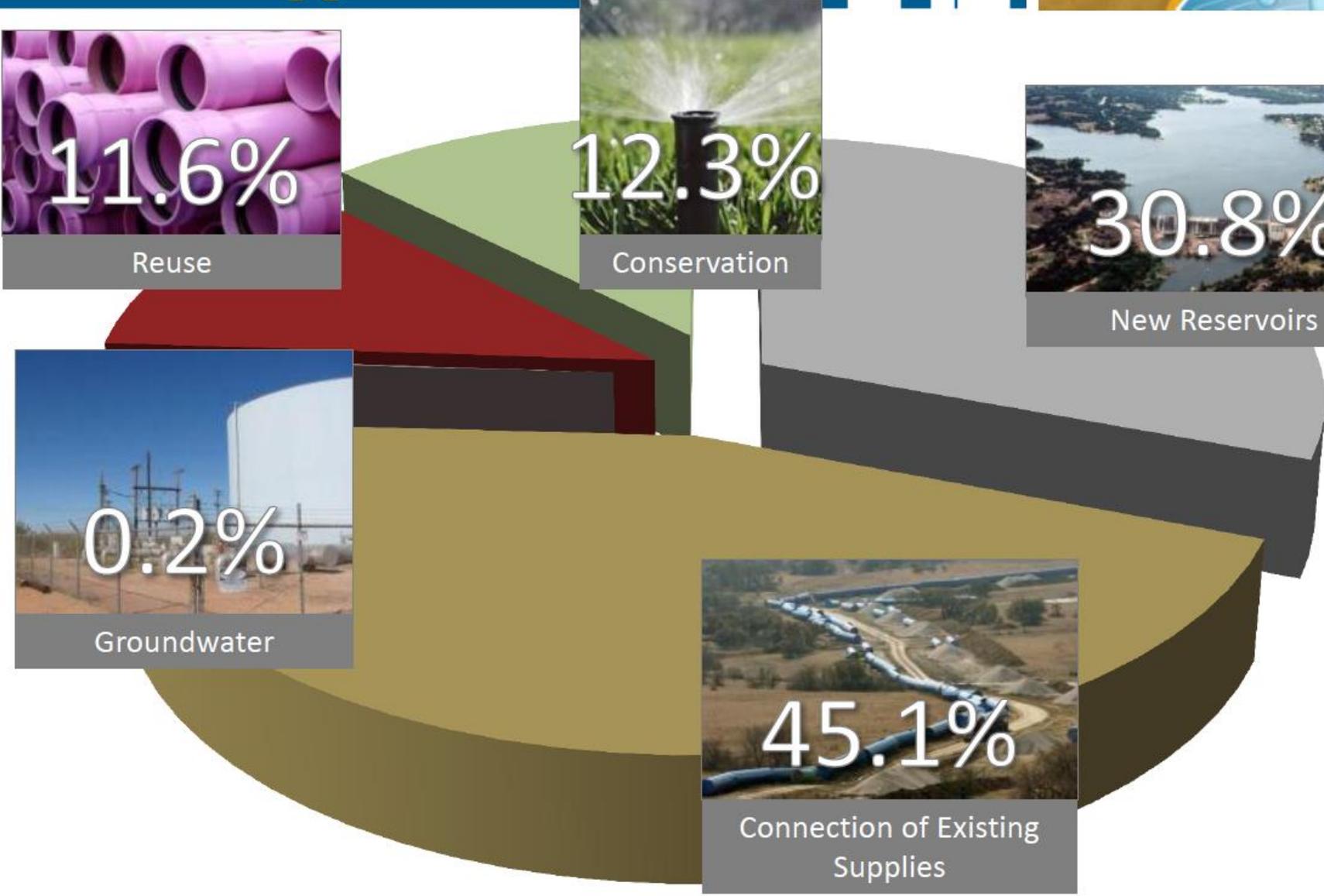
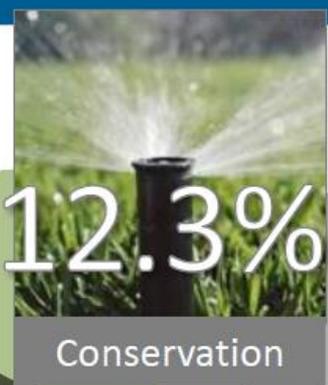
Future

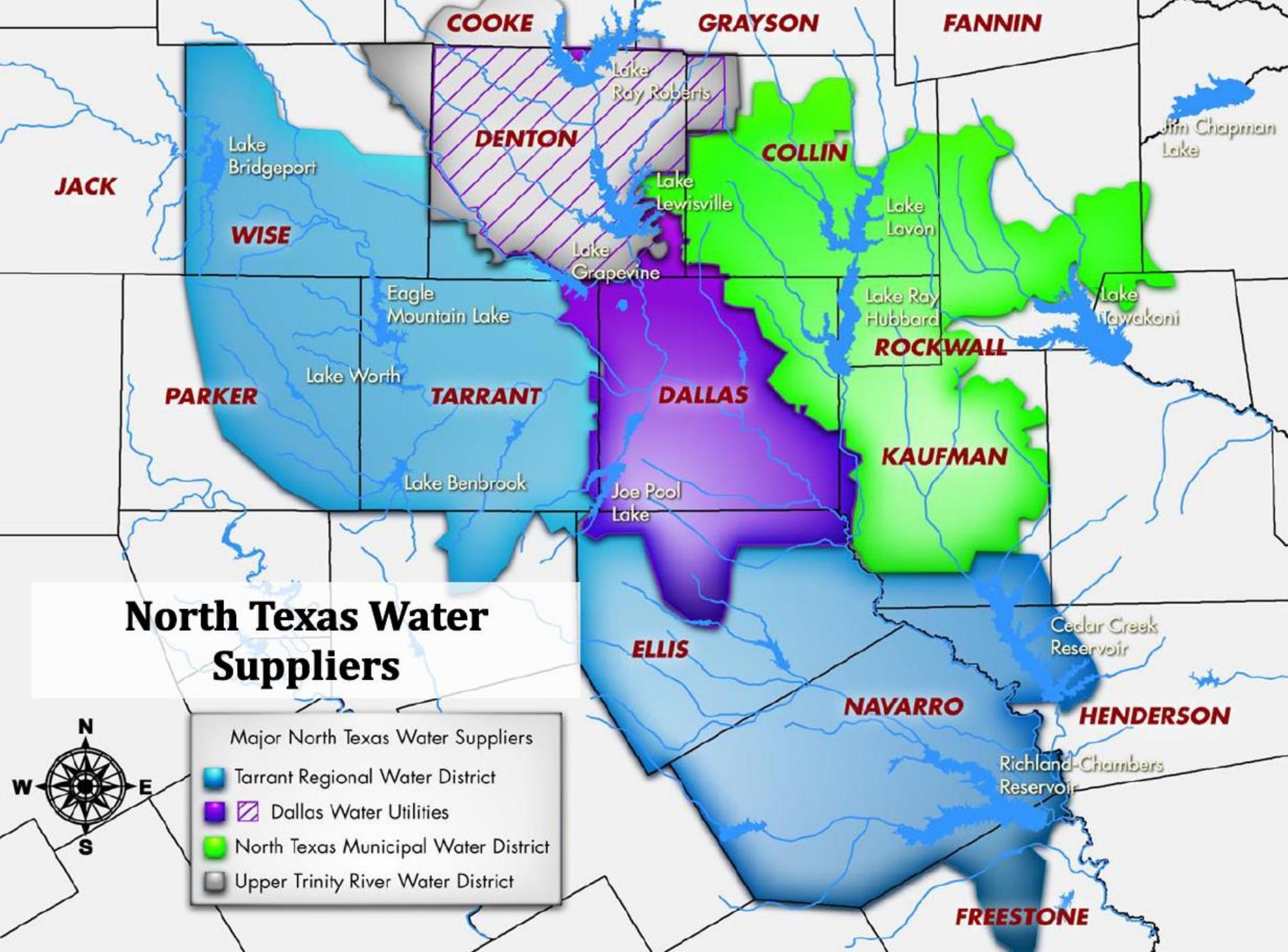


# North Texas Water Supply Future

# North Texas Water Supply Future Supplies

NORTH TEXAS  
WATER SUPPLY

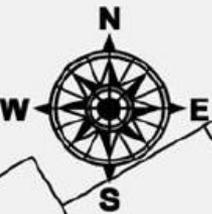




# North Texas Water Suppliers

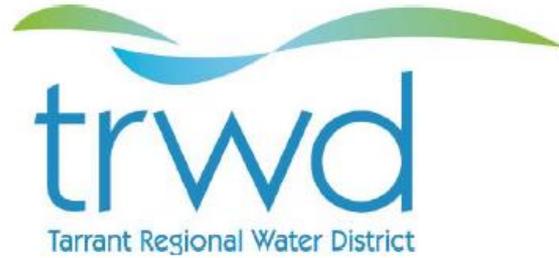
Major North Texas Water Suppliers

- Tarrant Regional Water District
- Dallas Water Utilities
- North Texas Municipal Water District
- Upper Trinity River Water District



# North Texas Water Suppliers

NORTH TEXAS  
WATER SUPPLY



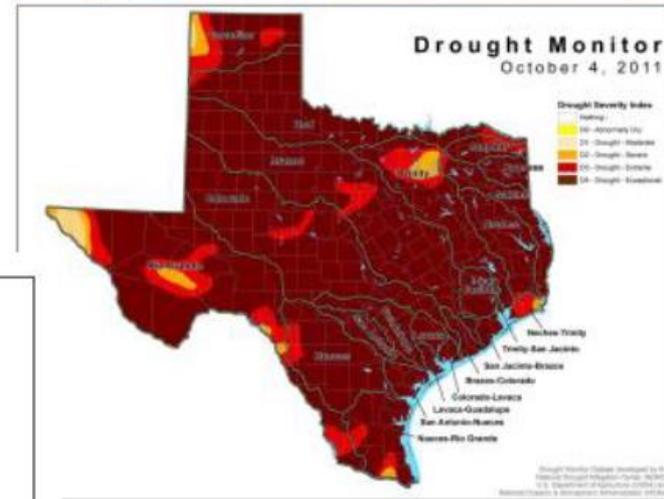


# The "Hydro-Illogical" Cycle



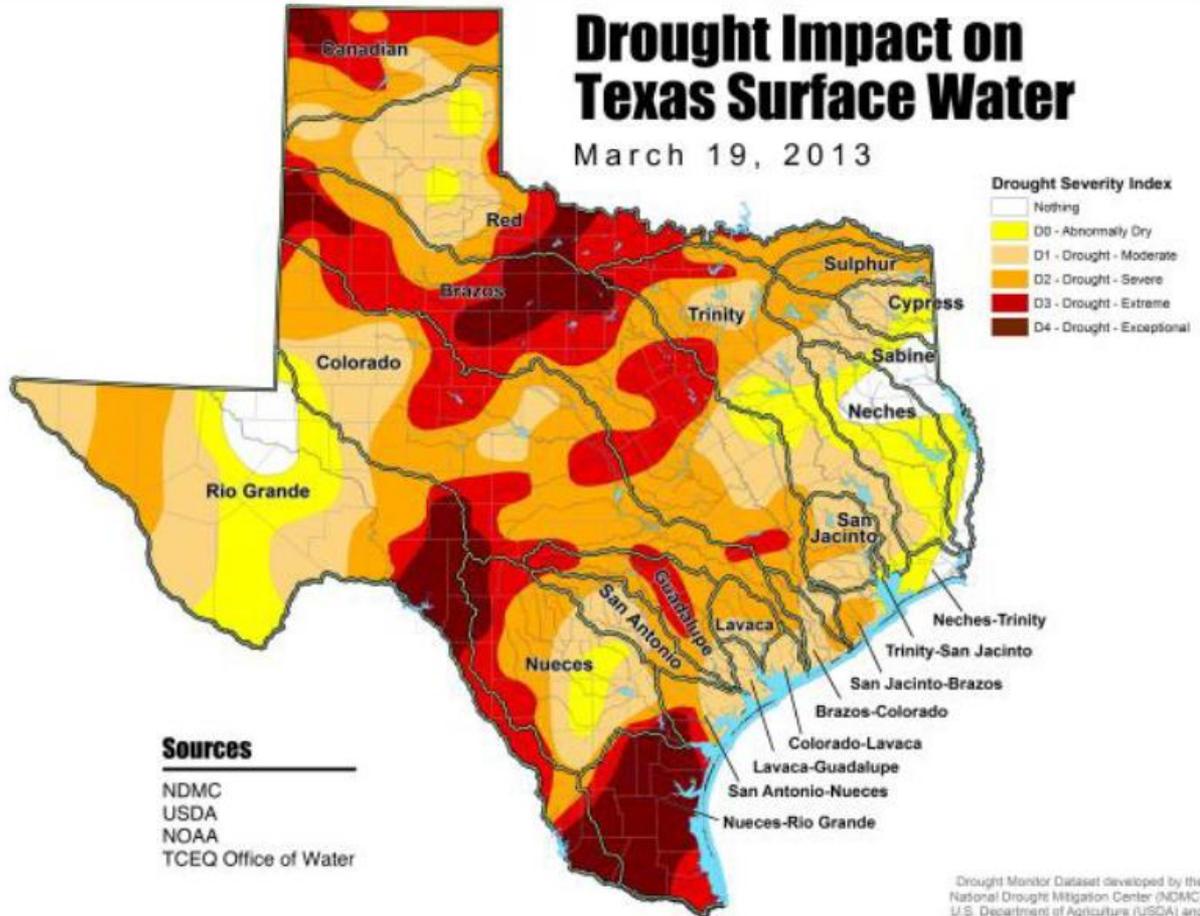
# Drought Impact on Surface Water

NORTH TEXAS  
WATER SUPPLY



## Drought Impact on Texas Surface Water

March 19, 2013



For the latest drought  
information, visit



[www.freese.com/droughtsense](http://www.freese.com/droughtsense)

Drought Monitor Dataset developed by the  
National Drought Mitigation Center (NDMC),  
U.S. Department of Agriculture (USDA) and  
National Oceanic & Atmospheric Administration (NOAA)

# Water Conservation in North Texas



North Texas Municipal  
Water District



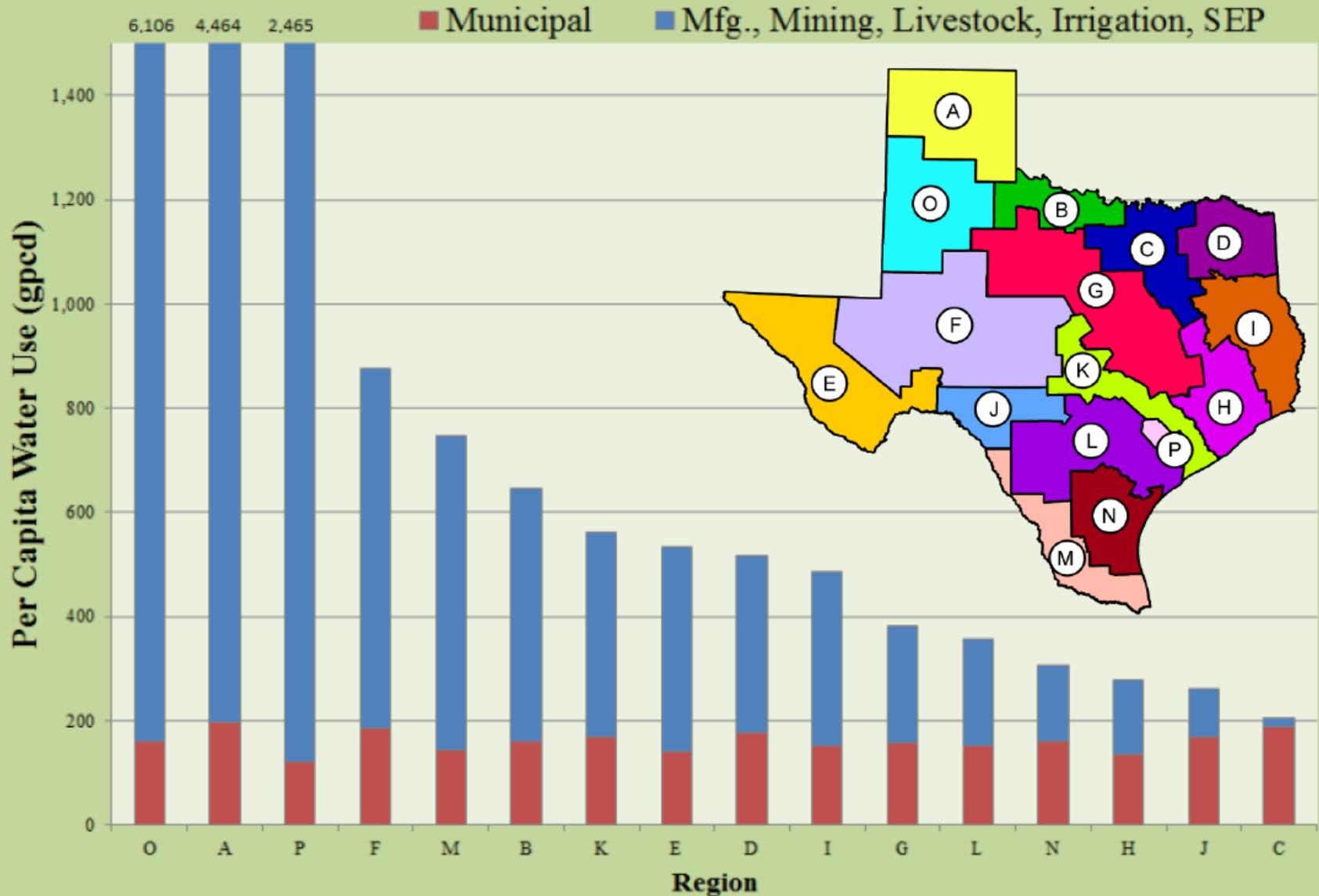
City of Dallas



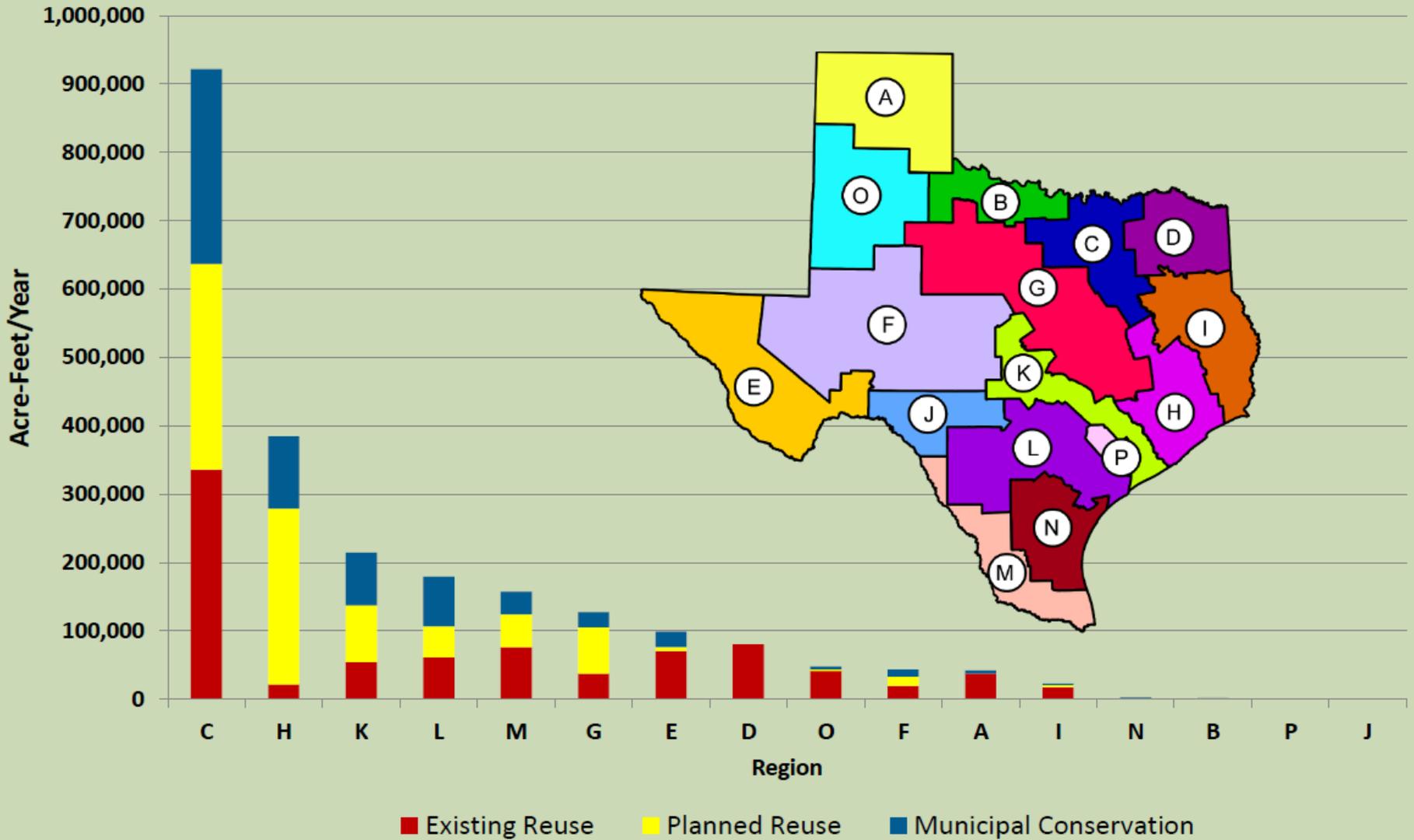
Tarrant Regional  
Water District

# Per Capita Water Use by Region

NORTH TEXAS  
WATER SUPPLY



# Planned Conservation and Reuse by Region





- Contamination
- Invasive Species
- Endangered Species
- Aging Infrastructure
- Growth
- Drought





- Duplication – State and Federal
- Time and Cost
- “NIMBY” Issues
- State Rules on Interbasin Transfers





# \$116 billion

ANNUALLY

Cost of

# NOT IMPLEMENTING

2012 Plan



# \$53 billion

Cost of

# IMPLEMENTING

2012 Plan



# NORTH TEXAS WATER SUPPLY

PAST, PRESENT AND FUTURE



**FREESE  
AND  
NICHOLS**



**City of Richardson**

March 1, 2013

Tom Gooch, P.E.



**2013 CITY OF RICHARDSON  
REALTORS WORKSHOP  
APRIL 5, 2013**

**City Council Briefing: April 1, 2013**

# BACKGROUND

- 2008 - First Realtors Workshop
- 2009 - Added Exhibitors Row
- 2010 - First year to partner with MetroTex Association of Realtors
- 2012 - Largest participation to date
  - 225+ realtors and real estate professionals attended
  - 20+ exhibitors
- Format is reviewed and updated based on participant feedback



# GOALS OF THE WORKSHOP

- Provide realtors with an up close, behind the scenes look at the City and its partners.
- Provide resources to expand realtors' knowledge about economic development, education opportunities, the cultural arts, social services, etc. in the community.
- Empower realtors to sell Richardson!



# HOW REALTORS BENEFIT

- Meeting and interacting with community leaders.
- Networking and establishing relationships with other real estate professionals and local residents.
- Developing a better understanding of city operations and programs.
- Gaining unique insights into our community.
- Developing a better appreciation for neighborhood issues, and for strategies used to address them.

# EXAMPLES OF PREVIOUS TOPICS

- General Overviews
  - City of Richardson
  - University of Texas at Dallas
  - Richardson Independent School District
  - Richardson Chamber of Commerce
- Specific Programs
  - Home Improvement Incentive Program
  - 2010 Bond Program
  - Communication Strategy Overview
  - W. Spring Valley Corridor Reinvestment Strategy



# 2013 AGENDA

- 8:00 – 9:00 am
  - Breakfast/Networking
- 9:00 – 9:15 am
  - Introductions
- 9:15 – 10:00 am
  - State of the City
    - Dan Johnson, City Manager
- 10:00 am – 10:45 am
  - State of UT Dallas
    - Dr. David Daniel, President
- 10:45 am – 11:00 am
  - Closing Remarks/Door Prizes



# EXHIBITORS ROW

- City Departments
  - Police Department
  - Fire Department
  - Parks & Recreation
  - Capital Projects
  - Public Services
  - Community Services
  - Development Services
  - Communications
  - Health/Animal Services
  - Finance



# EXHIBITORS ROW

- Community Partners
  - Richardson YMCA
  - Richardson Kiwanis
  - Richardson ISD
  - Chamber of Commerce



# WHAT'S NEW IN 2013

## ■ Interactive Presentations

- Guests will have the opportunity to ask questions throughout the presentations. Questions will be submitted via mobile device and given to the speakers via moderator.

## ■ Invite A Prospective Resident

- Realtors were encouraged to bring clients to the workshop. We want to help sell our community by allowing potential residents to receive information about our most valued assets first hand.

**2013 CITY OF RICHARDSON  
REALTORS WORKSHOP**

**APRIL 5, 2013**

**8:00 AM - 11:00 AM**

**GRAND HALL, CITY HALL**