

Extreme Events



Require



Extreme Policy

Robert E. Mace, Ph.D., P.G.

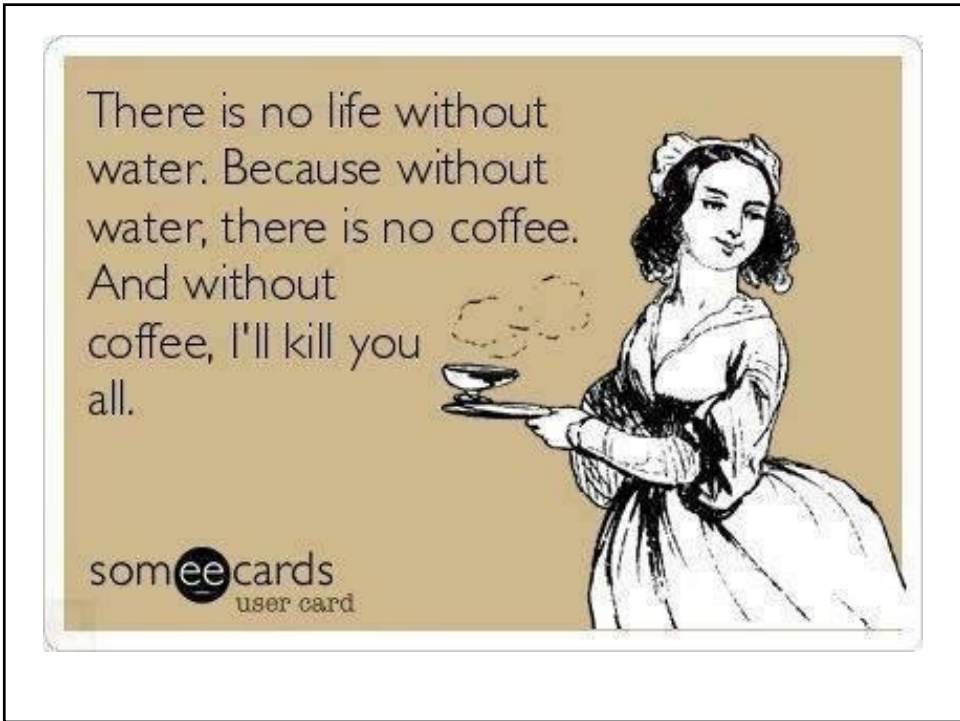
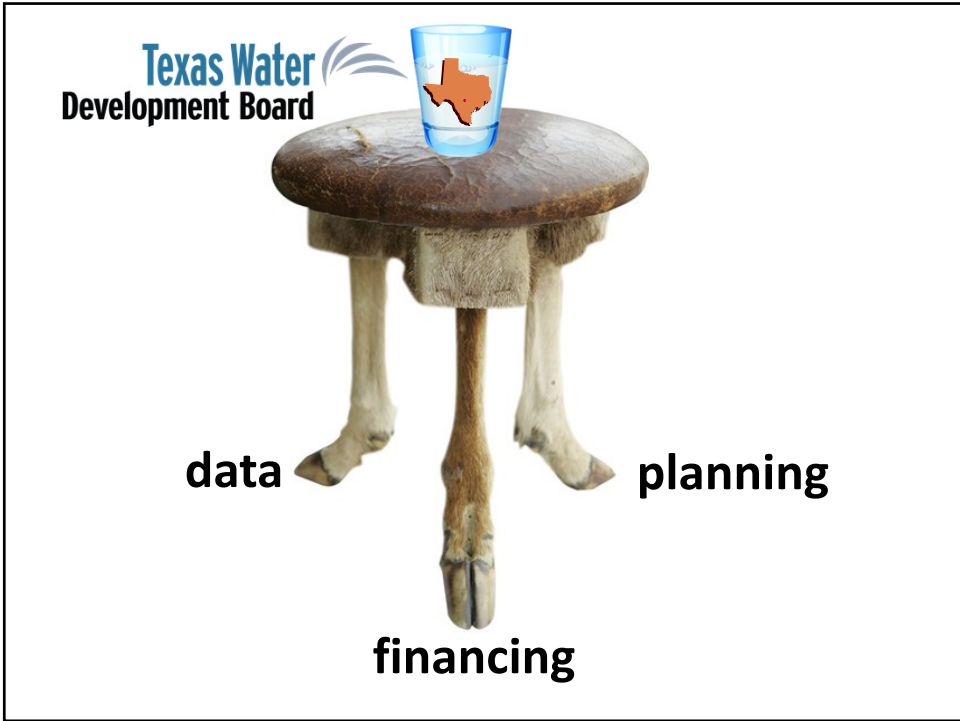
Texas **Water** Development Board

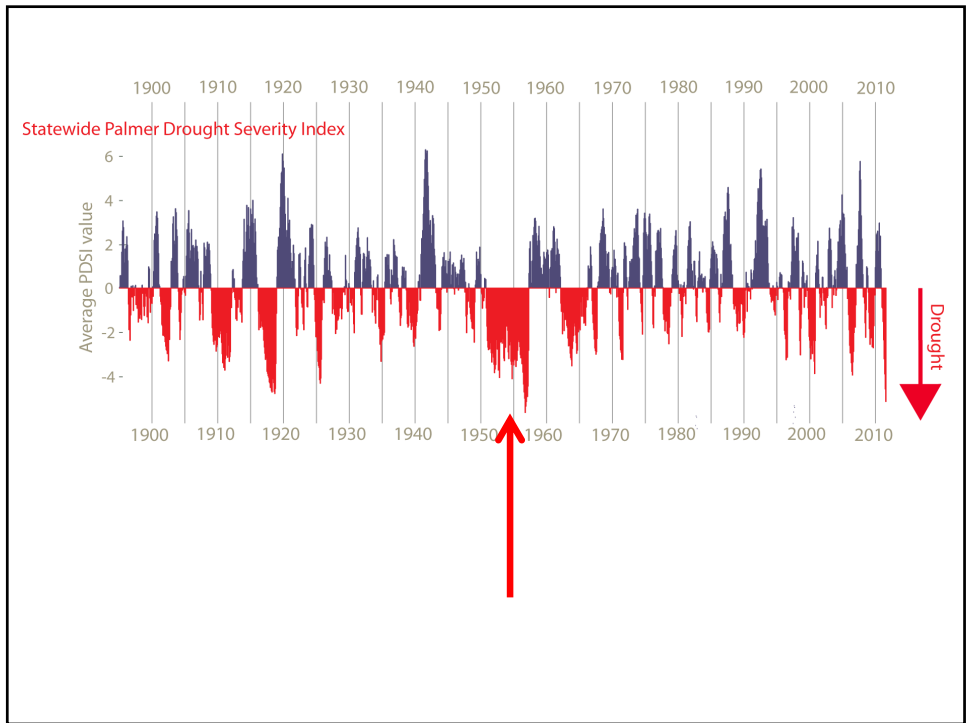
presented to

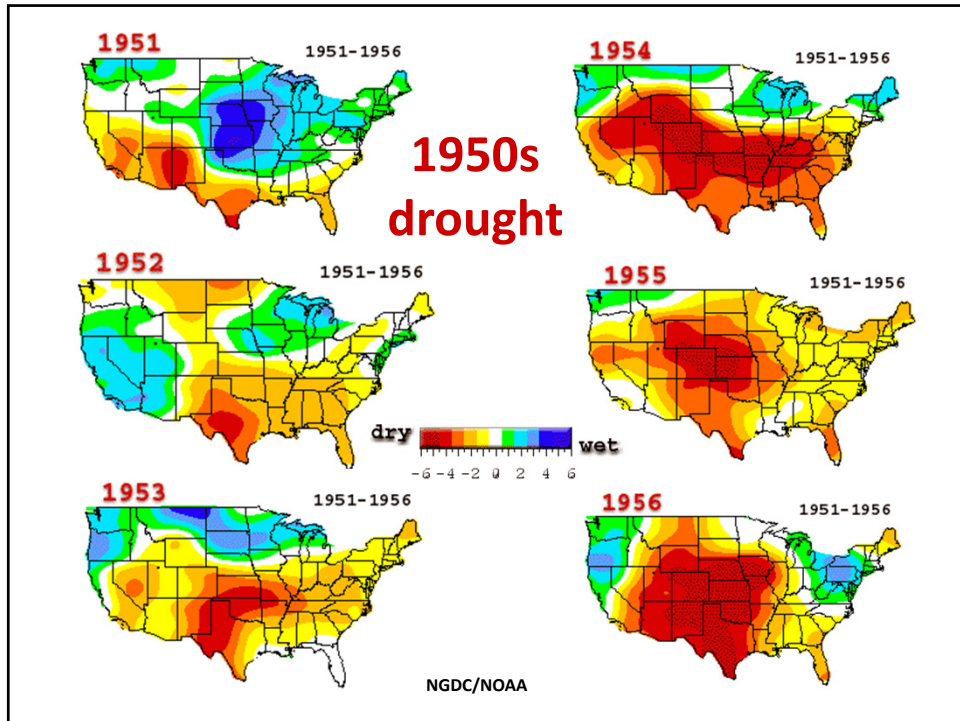
The 6th Austin International **Hydrology** Data Assimilation Workshop and
The 3rd International Workshop on Data Assimilation for Operational **Hydrology** and **Water** Management of the
Hydrologic Ensemble Prediction Experiment
Austin, Texas, September 10, 2014

The following presentation is based upon professional research and analysis within the scope of the Texas Water Development Board's statutory responsibilities and priorities but, unless specifically noted, does not necessarily reflect official Board positions or decisions.

Texas Water 
Development Board







Lake Whitney, one third full, 1954

photo via Texas State Library and Archives Commission

1957

Texas Water Development Board

State Water Planning

focused on drought of record

1961

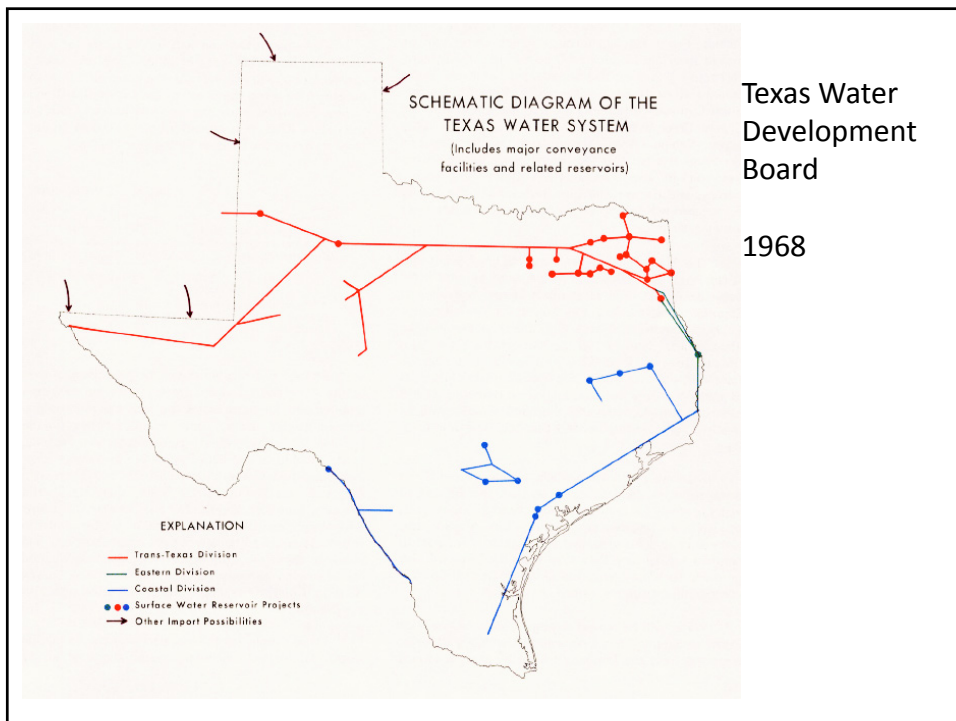
1968

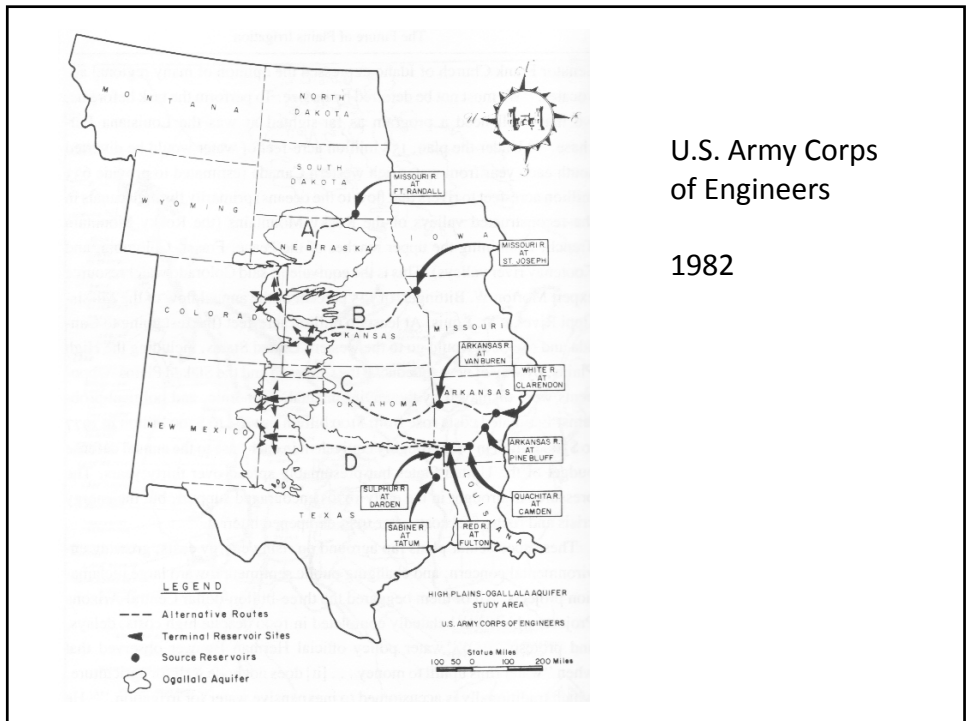
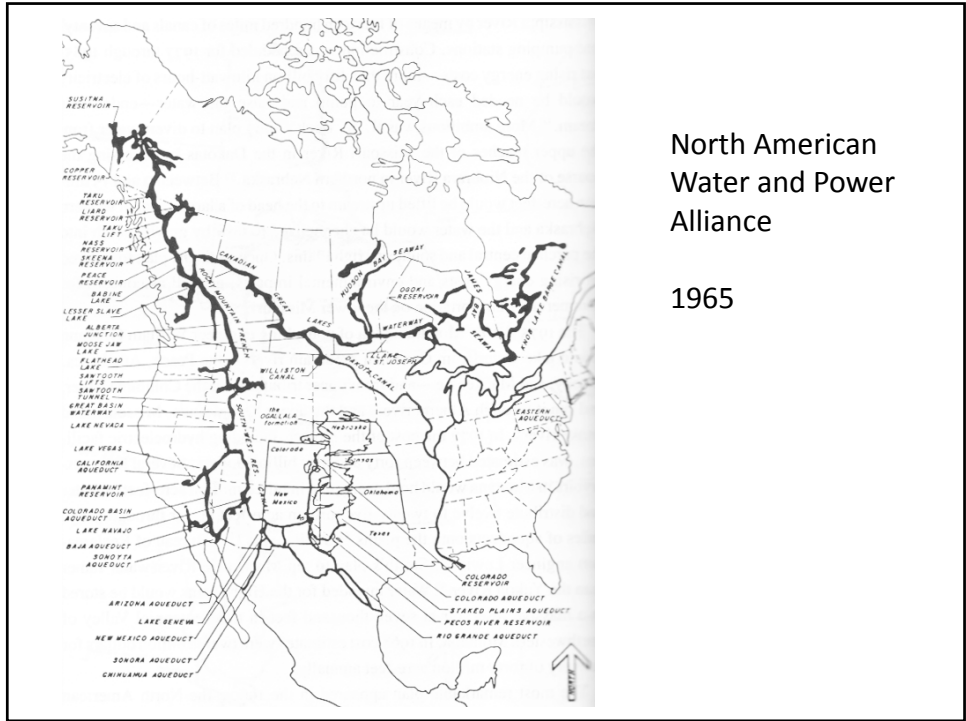
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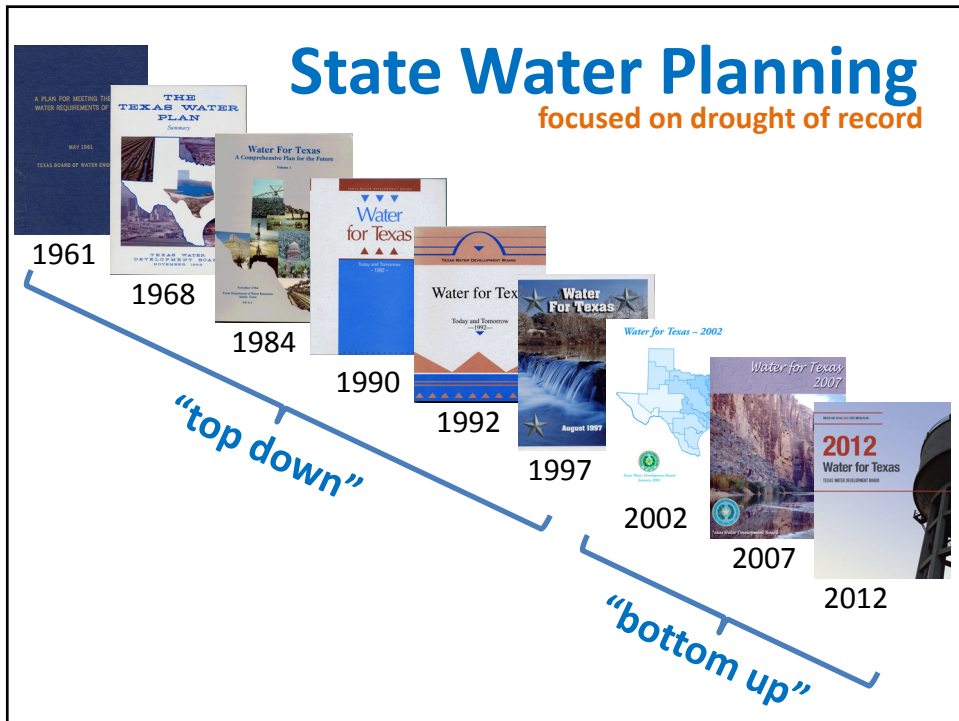
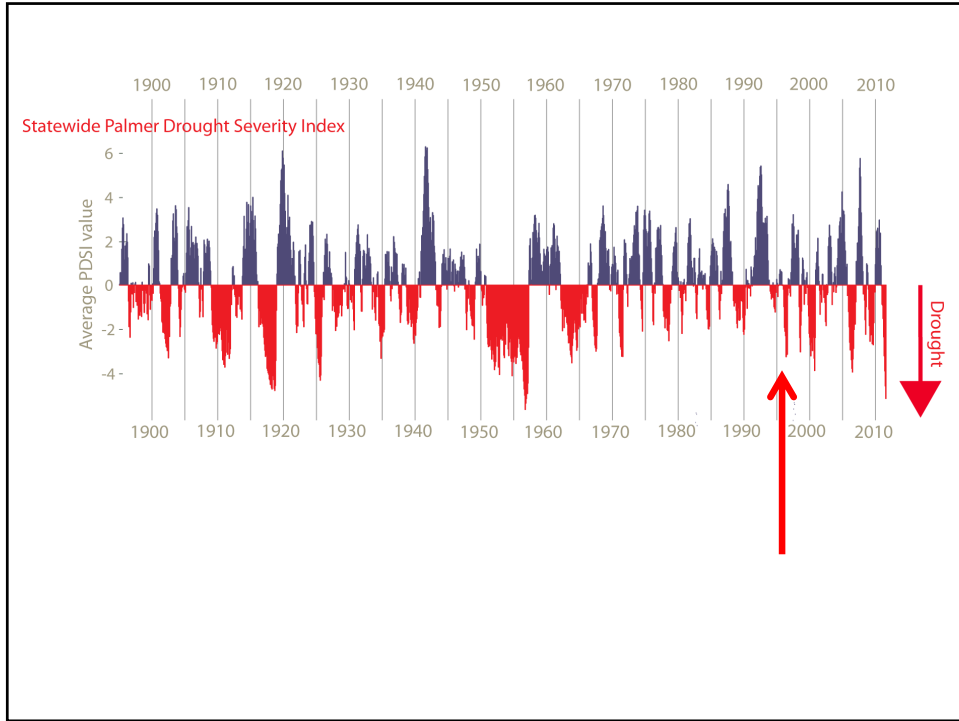
1990

1992

1997



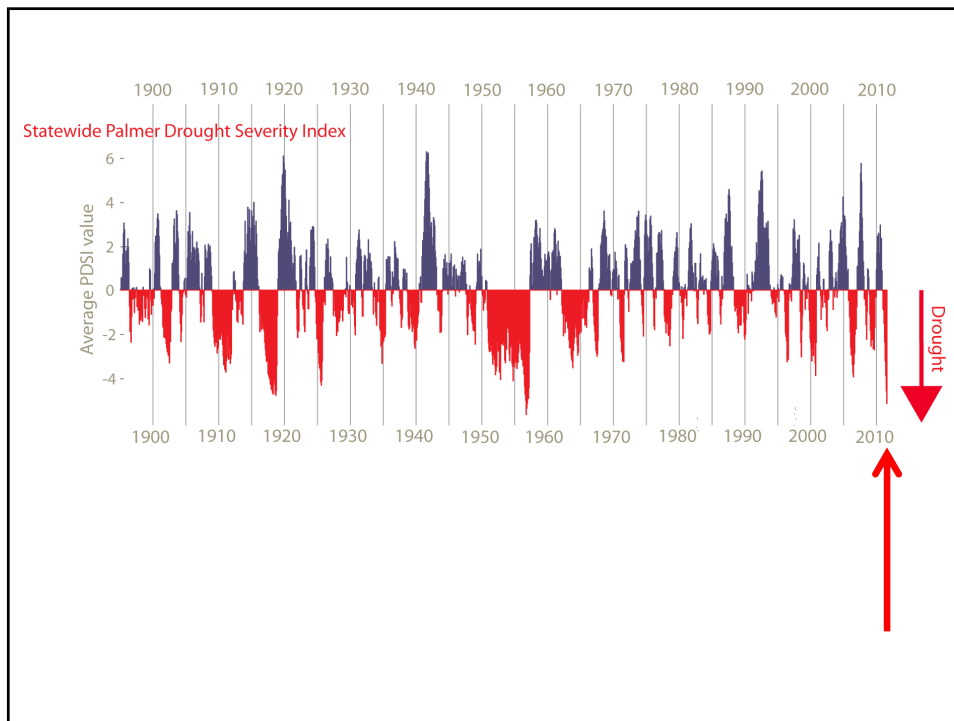




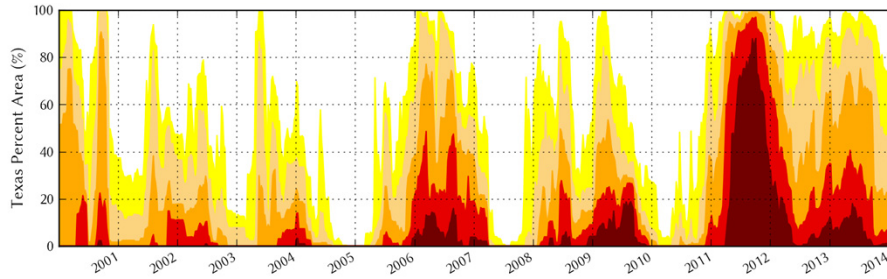


Here a plan, there a plan, everywhere a plan plan!

- Regional water plans
- State water plan
- Water conservation plans
- Drought contingency plans
- Drought preparedness plan
- State emergency management plan



drought severity



Intensity

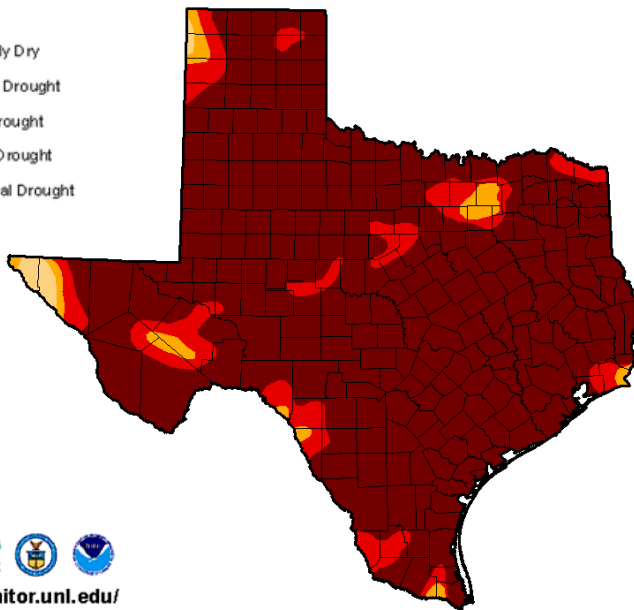
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

USDA    
<http://droughtmonitor.unl.edu/>

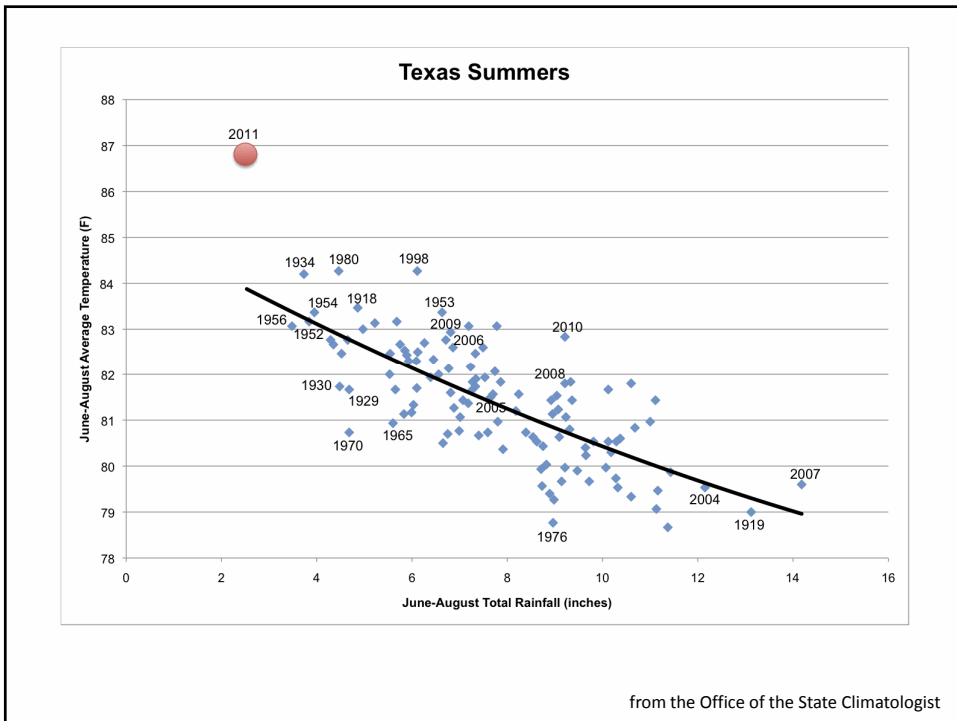
October 4, 2011

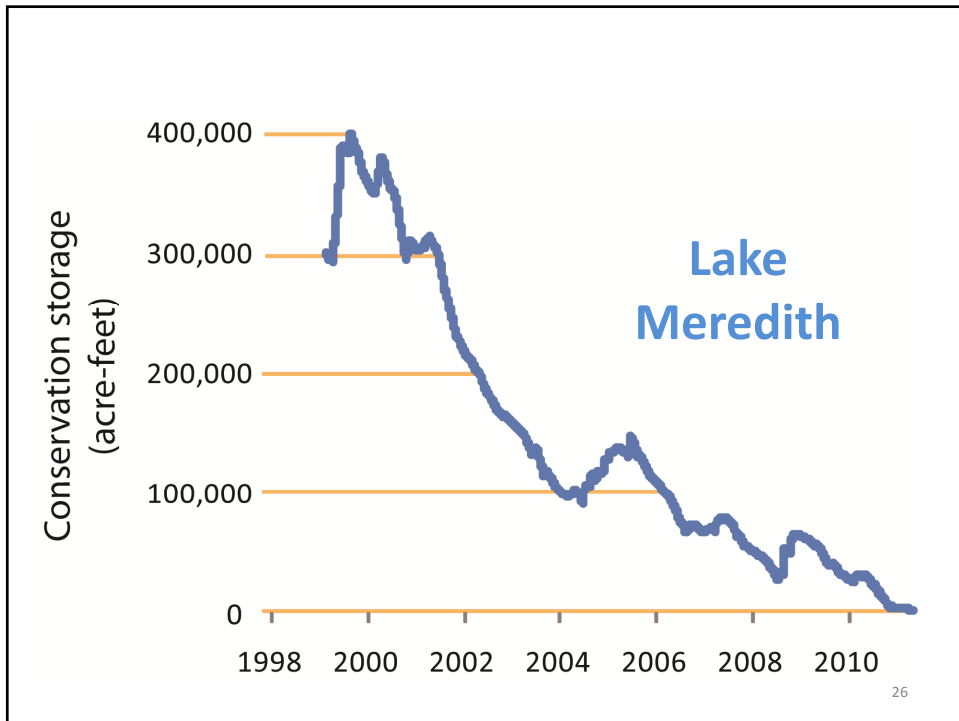
Intensity

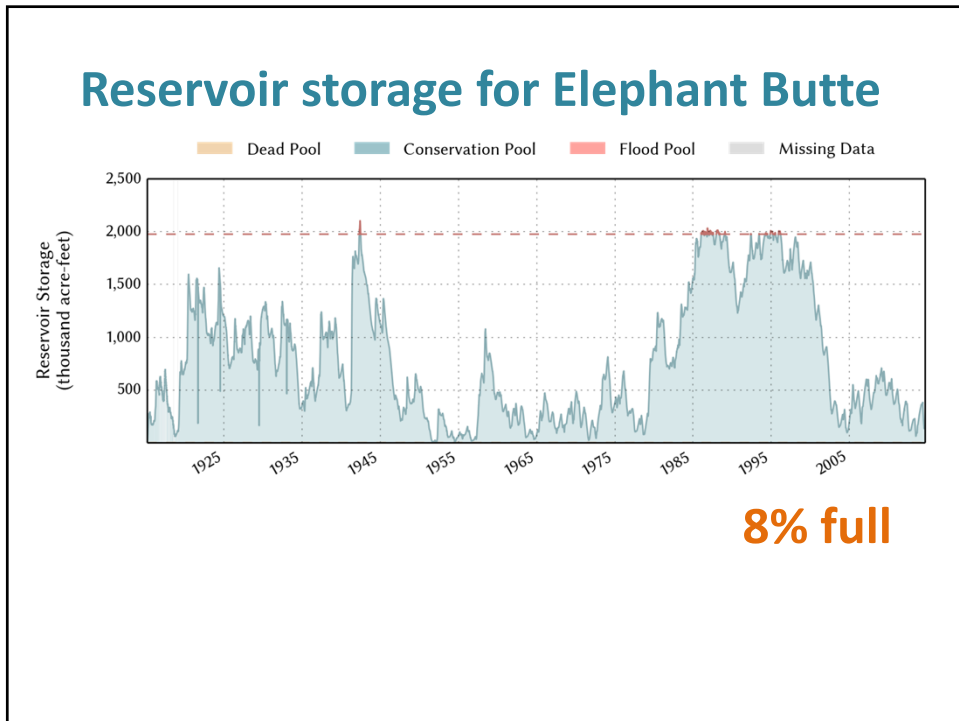
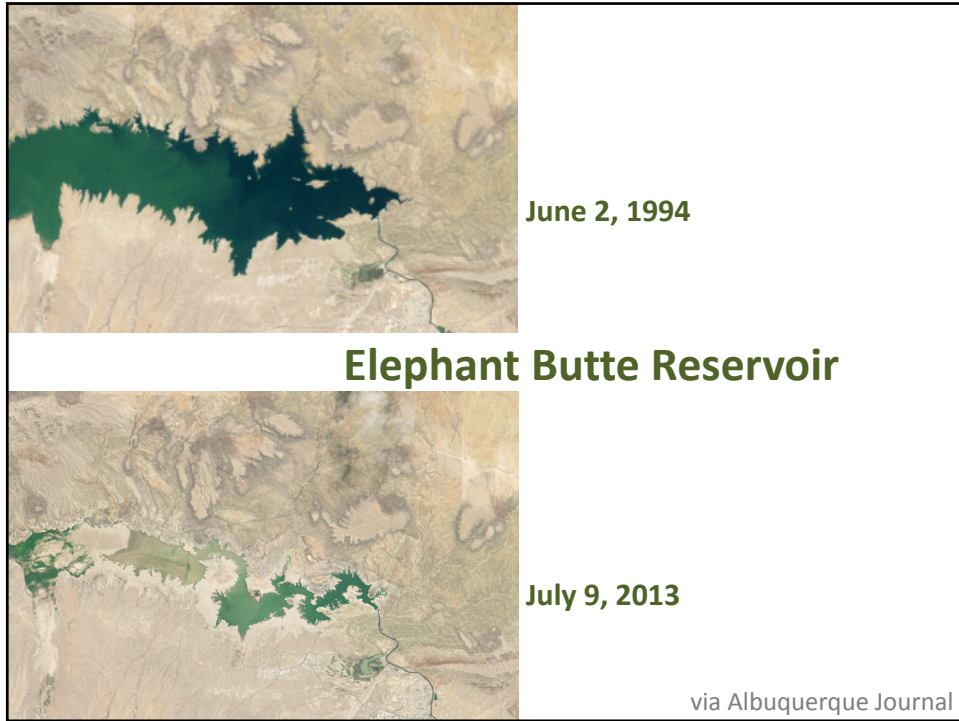
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**State
Water
Implementation
Fund for
Texas** **\$2,000,000,000**
20% for conservation and reuse



Raw Water Production Facility, Big Spring, Texas



John Grant, Colorado River Municipal Water District

photo by Torin Halsey, Time Record News



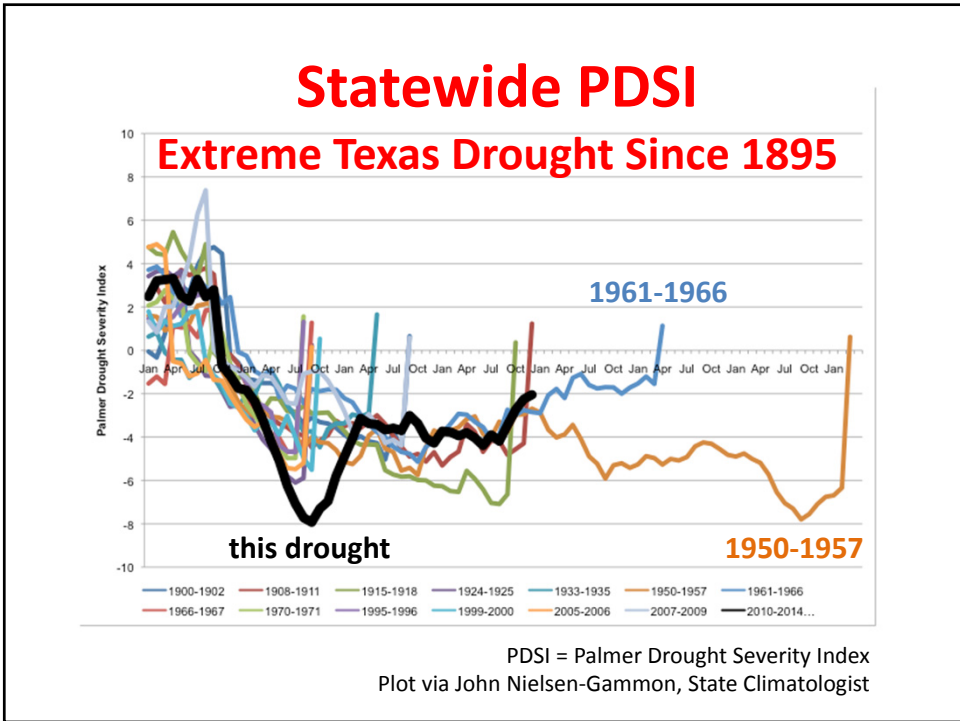
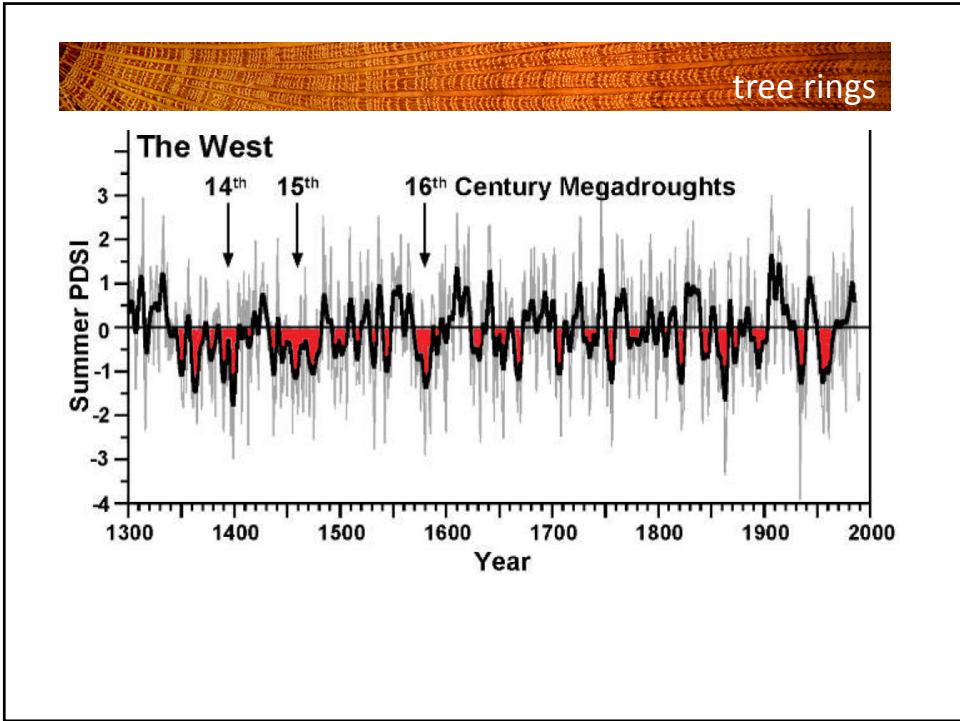


Daniel Nix, City of Wichita Falls, partaking of the water from the reuse project

photo by Torin Halsey, Times Record News



photo by Neena Satija, Texas Tribune





What would help us:



- Better assessment ability
- Better predictive ability
- Recurrence information
- State-specific information
- Look backwards as well as forwards
- Remote sensing of water use
- Usable products

atmospheric prozac?



Questions?



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