



# Drought Preparedness

*Warren Lasher*

Director of System Planning  
ERCOT

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# ERCOT Overview

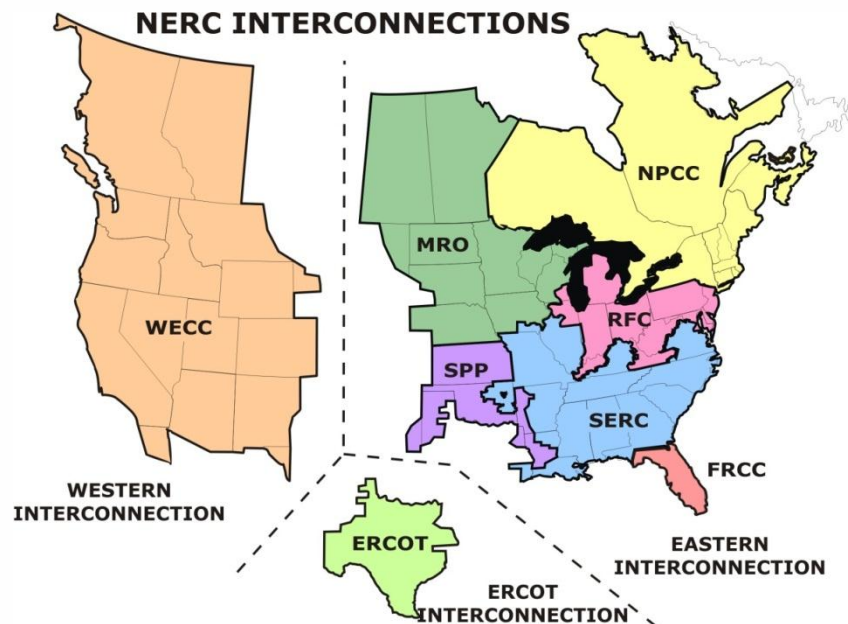
## RESPONSIBILITIES

The Texas Legislature restructured the Texas electric market in 1999 by unbundling the investor-owned utilities and creating retail customer choice in those areas, and assigned ERCOT four primary responsibilities:

- **System Reliability** - Ensure reliability and adequacy of regional electric network
- **Open Access to Transmission** - Ensure nondiscriminatory access to transmission/distribution systems for all buyers and sellers
- **Competitive Retail Market** - Facilitate retail registration and switching
- **Competitive Wholesale Market** - Ensure accurate accounting for electricity production and delivery among the generators and wholesale buyers and sellers in the region

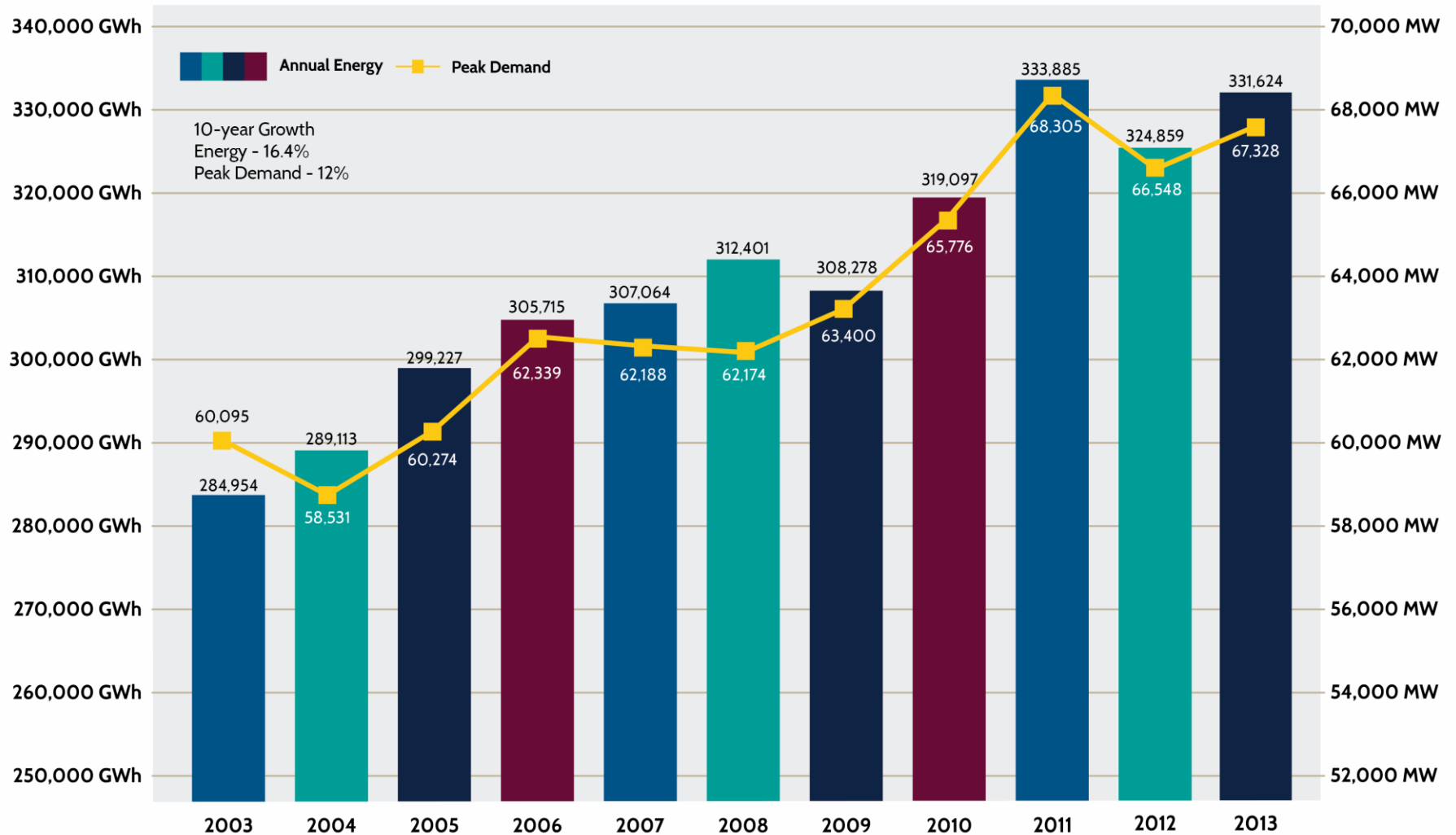
## QUICK FACTS

- 75% of Texas land
- 85% of Texas load
- More than 41,500 miles of transmission lines
- 550+ generation units
- 68,305 MW peak demand (set August 3, 2011)

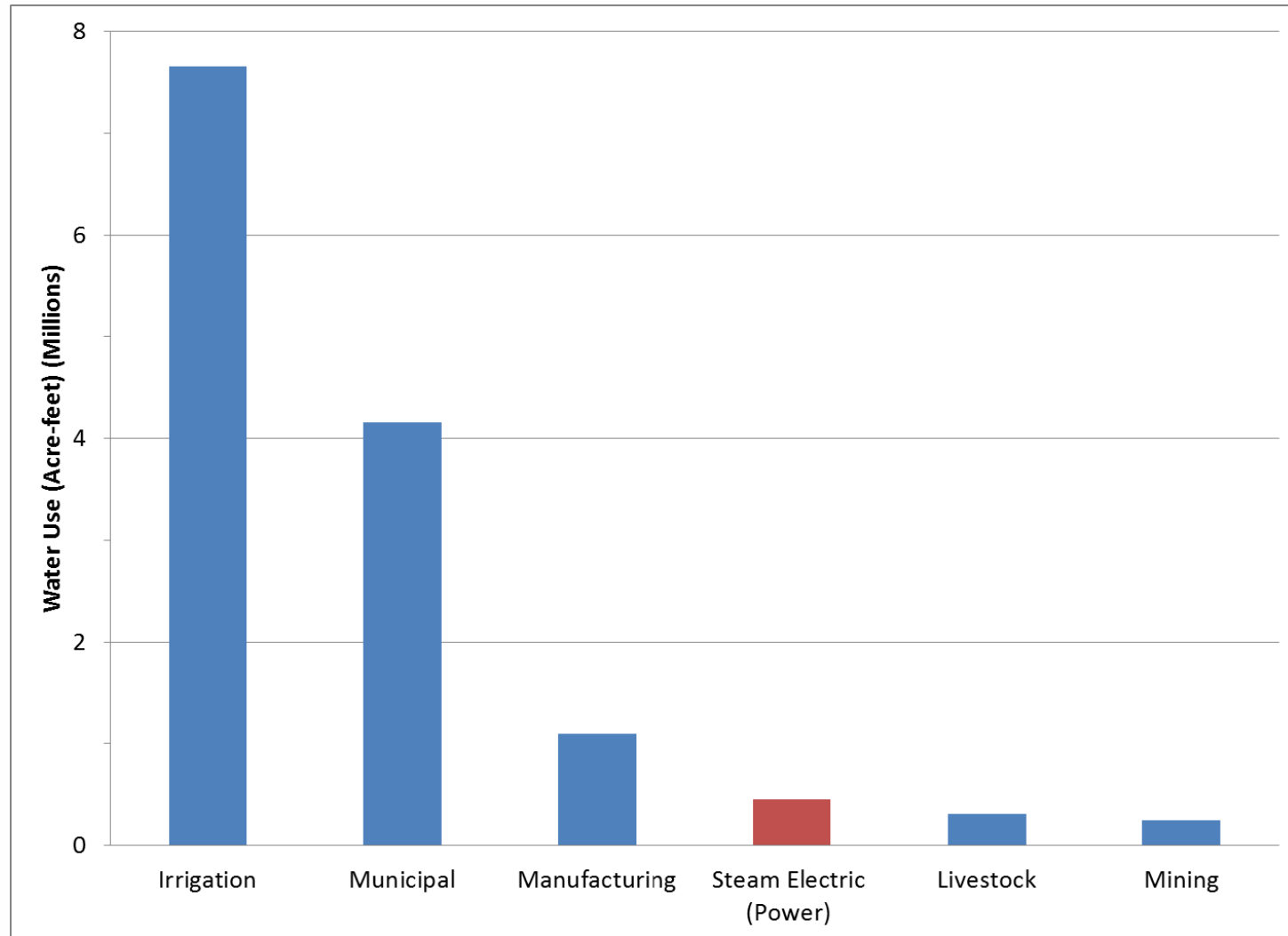


*ERCOT connections to other grids are limited to direct current (DC) ties, which allow control over flow of electricity*

# ERCOT Annual Energy and Peak Demand (2003-2013)



# Water Use in Texas by Use Type (2010)

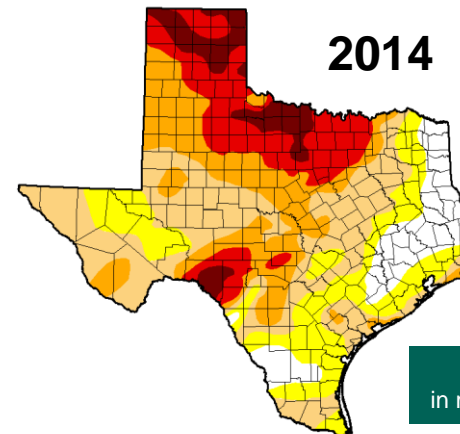
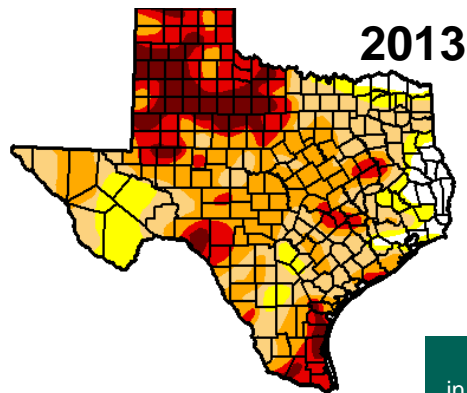
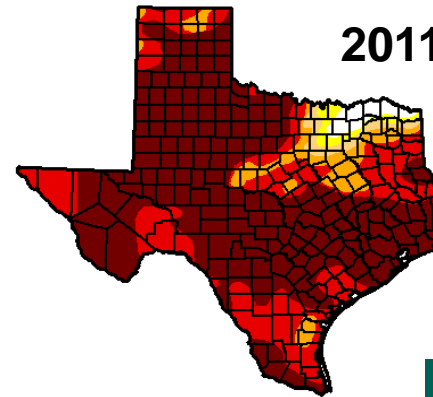
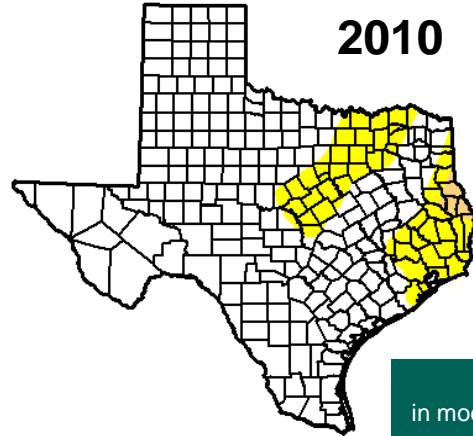


# 2014 Summer SARA (Final)

Item	Summer 2014	Forecasted Season Peak Load	Extreme Load/Typical Generation Outages	Extreme Load/Extreme Generation Outages
1	Total Resources	73,910		
2	Peak Demand	68,096		
3	Uses of Reserve Capacity	2,854	5,167	7,862
4	Capacity Available for Operating Reserves* (1-2-3)	2,960	647	(2,048)
5	Capacity Available for Operating Reserves** after August 1	5,113	2,800	105

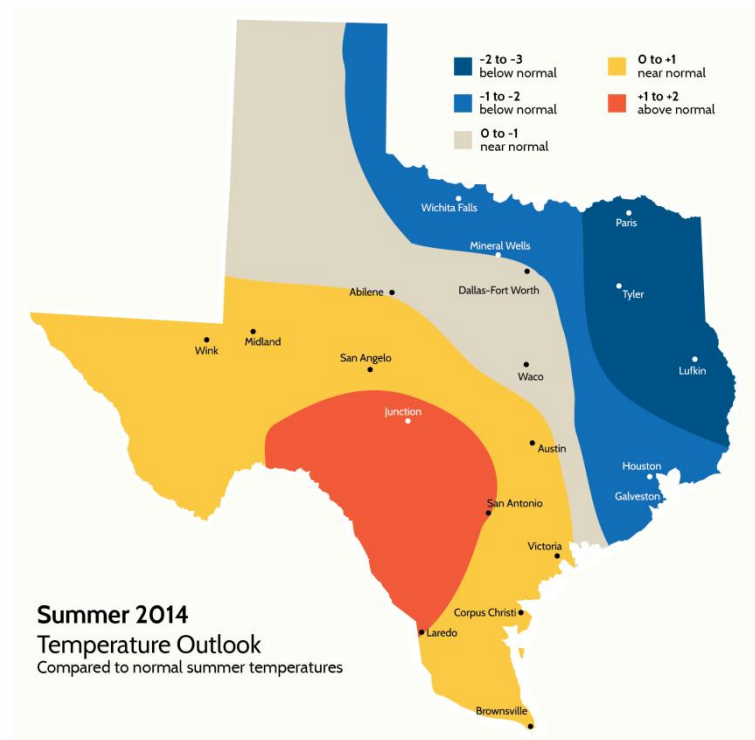
- Tight reserves at start of summer
- Reduced likelihood of scarcity conditions by late summer

# Comparing Mid-June Drought Conditions

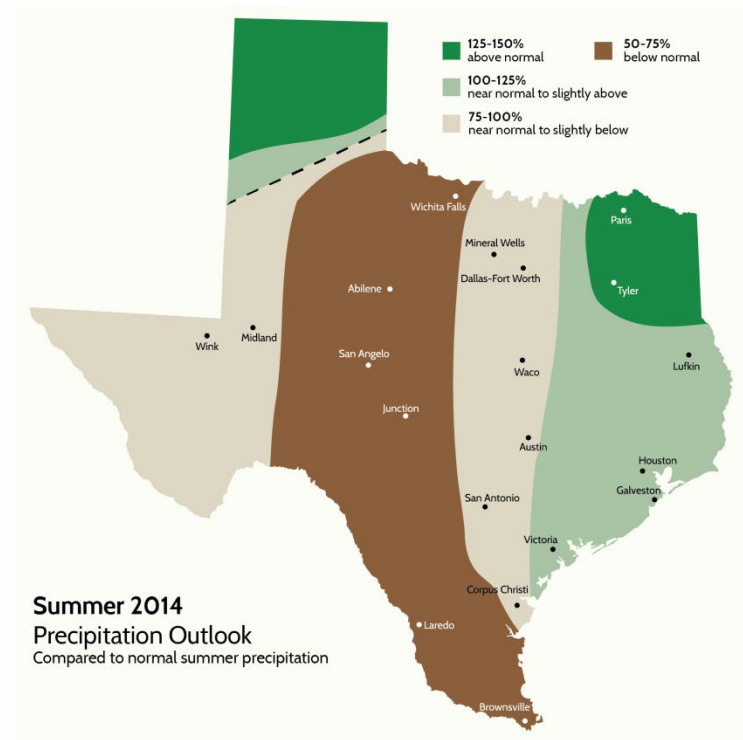


- Current drought began in October 2010.
- A dry winter/early-spring has resulted in deteriorating conditions over the past four months, especially West.
- PDO has gone positive and some hints of El Niño developing mid-to-late summer. Some cautious potential for wetter conditions later this year.

# Temperature and Precipitation Outlooks



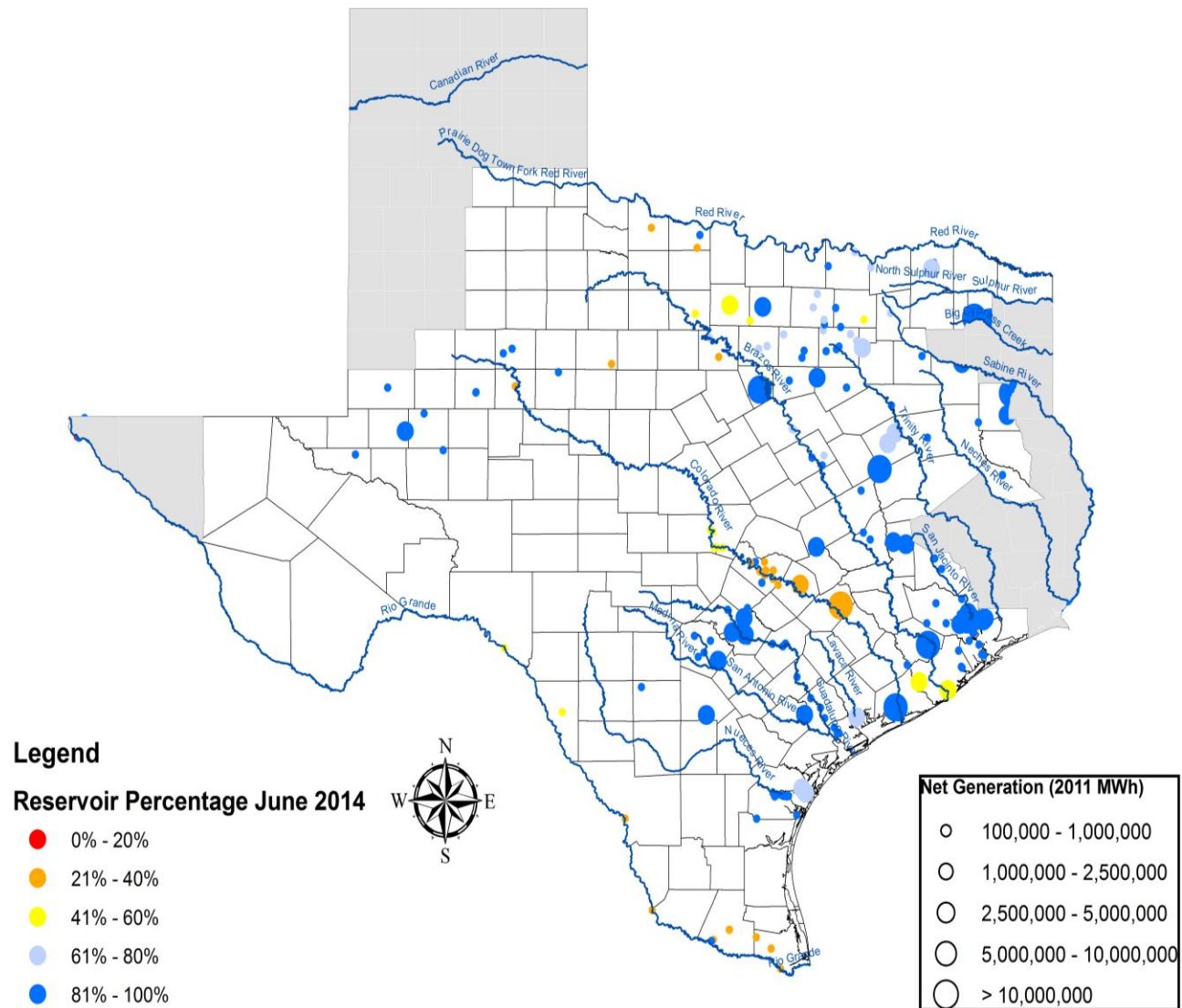
- Overall, slightly hotter than normal\* for ERCOT as a whole
- More opportunities for above normal temperatures West rather than East.
- Not hotter than any of the past four summers (all were top 25)
- More potential for cooler rather than warmer.



- Below normal precipitation expected for the majority of the western half to two-thirds of the state.
- Best opportunities for above normal rainfall within ERCOT will fall within the East, Coast, and eastern North zones.

\*10 year normal (2004-2013)

# Lake Levels Risk Analysis



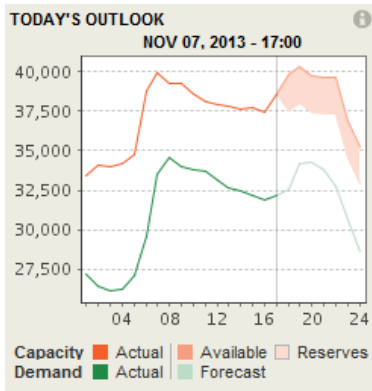


# We are engaged on drought issues

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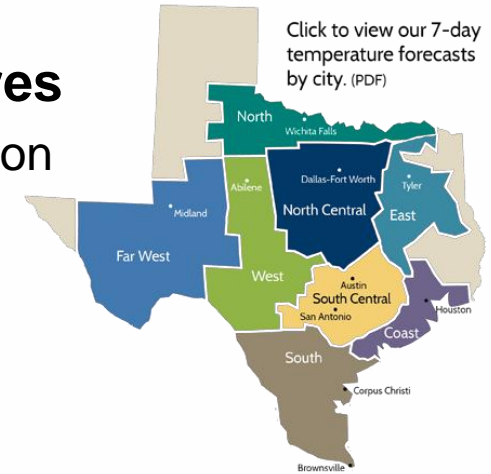
- SB 662 (83R) added ERCOT and the Public Utility Commission to the Drought Preparedness Council
- ERCOT hosted a drought preparedness workshop for generators and transmission owners
- ERCOT has employees focused on resource adequacy issues, including water supply and environmental issues. ERCOT also has a meteorologist on staff.
- ERCOT is in frequent communication with resource owners about water availability and other issues
- ERCOT has developed a drought risk-assessment tool that is used to track the potential near-term impacts of drought conditions
- ERCOT has incorporated drought issues into the near-term and long-term resource adequacy reports

# Improving communications with consumers



## ERCOT website – added features

- **Today's Outlook:** Hourly generation and load information
- **Weather page:** Daily, seasonal



## Social media – join us!

- Twitter: 5,500+ followers
- Facebook: 1,400+ friends
- LinkedIn: 2,507 followers

## ERCOT Energy Saver mobile app – upgraded

- System conditions – hourly and real-time updates
- Wholesale pricing information – Hubs and Load Zones
- Other improved features and information sharing

