

Texas Drought 2010-2011

Texas Drought

Purpose of Brief

- Informal Situational brief for Federal partners.
- Goal of the activity is to initiate appropriate contingency planning and information gathering at the Federal level to support Texas.



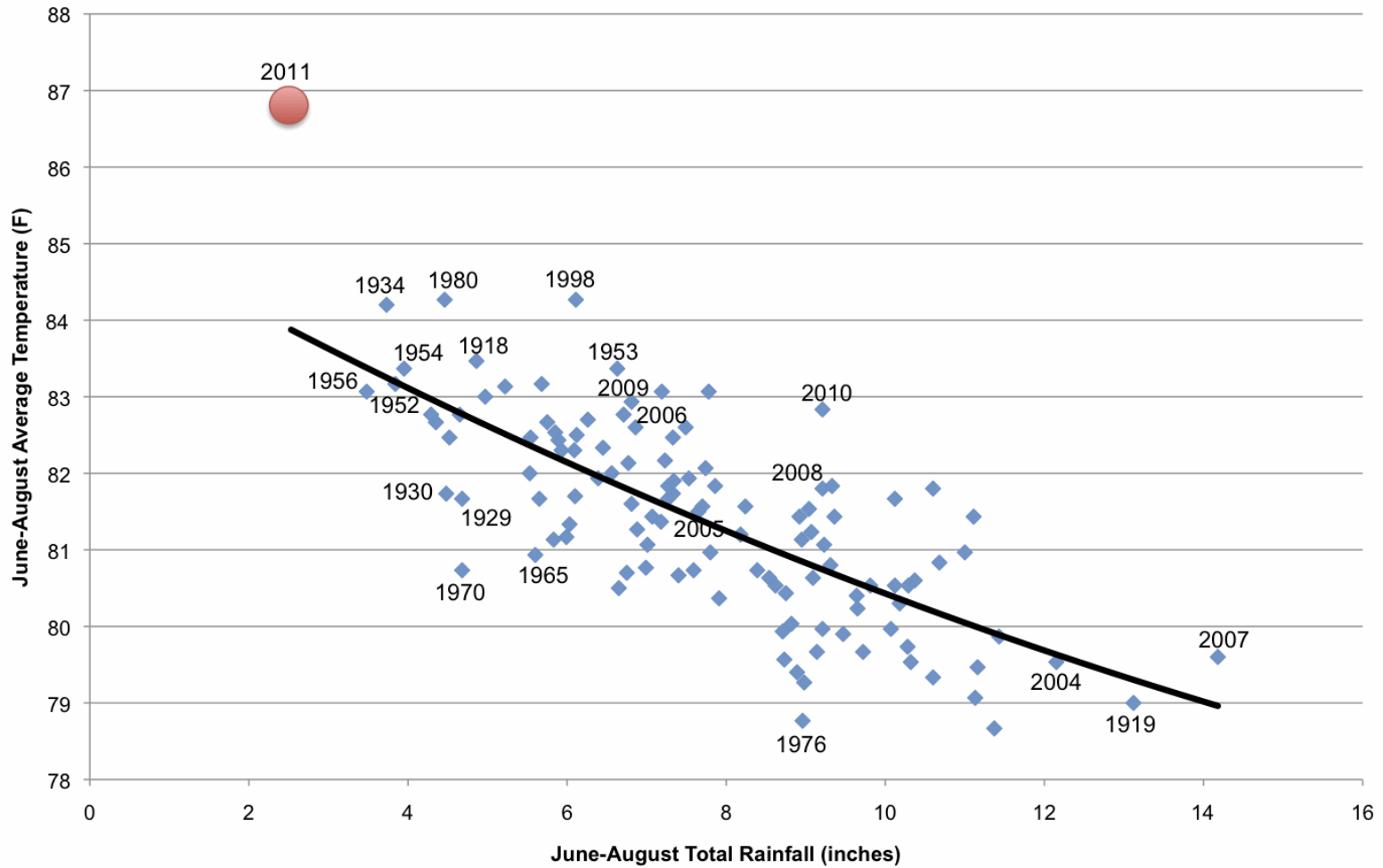
Texas Drought

Texas is in the middle of an unprecedented weather phenomena with possible national implications!

Texas Drought

- 2011 is the worst one year drought in Texas history.
- It has been described as a **500 year drought**.

Texas Summers

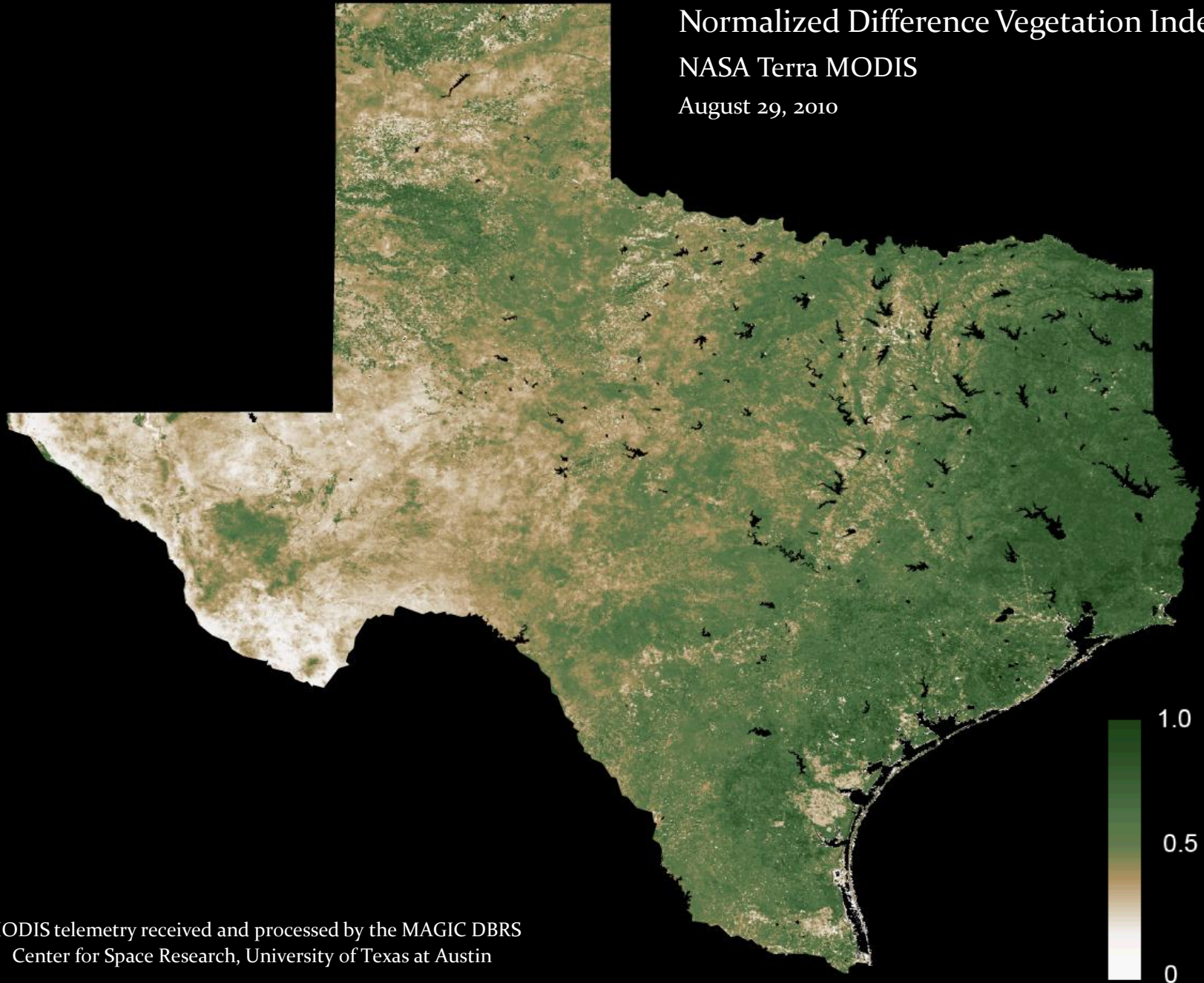


John Nielson-Gammon,
State Climatologist

Normalized Difference Vegetation Index

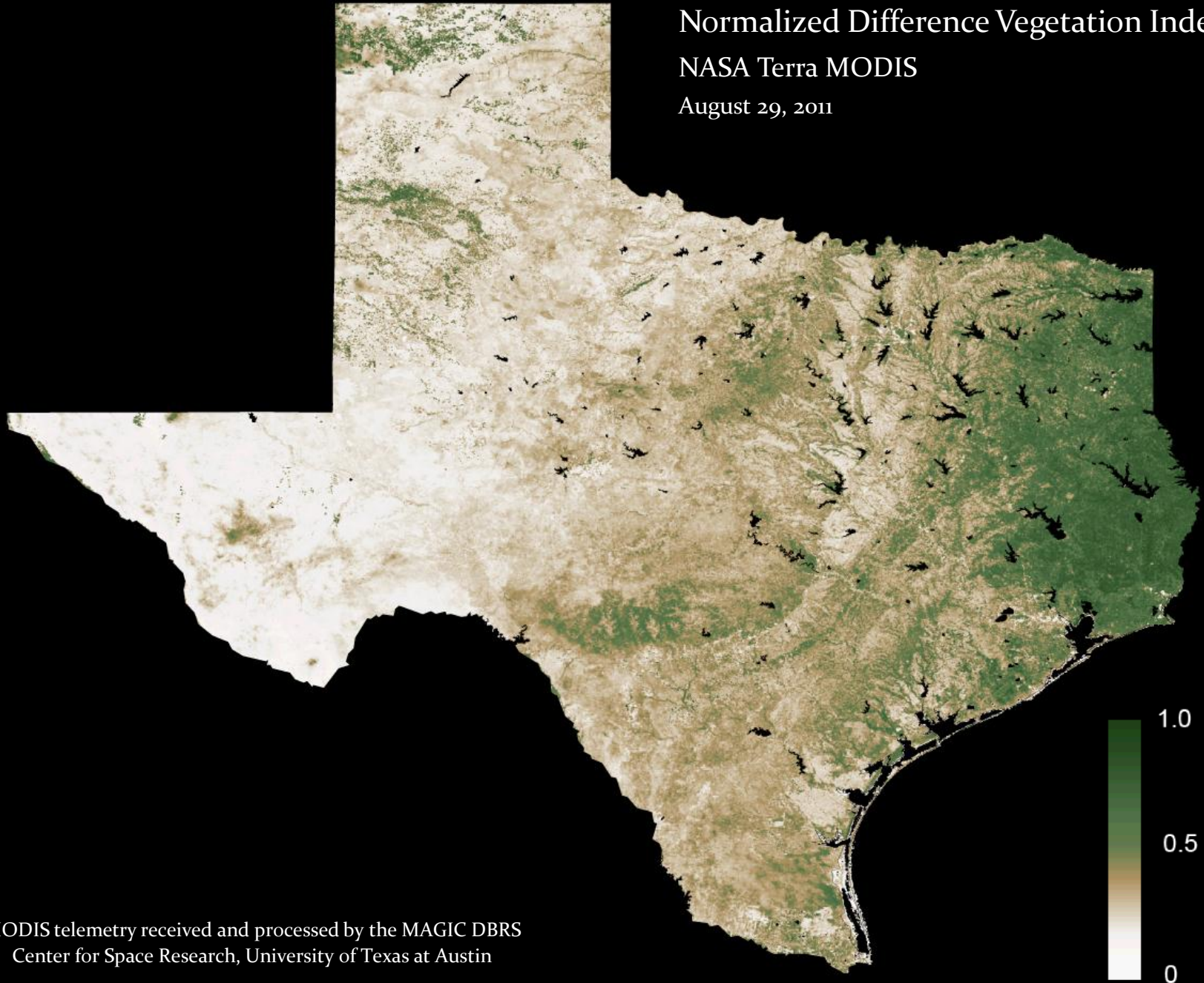
NASA Terra MODIS

August 29, 2010



MODIS telemetry received and processed by the MAGIC DBRS
Center for Space Research, University of Texas at Austin

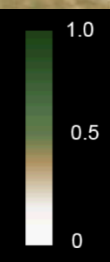
Normalized Difference Vegetation Index
NASA Terra MODIS
August 29, 2011



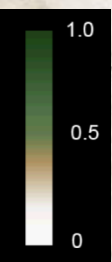
MODIS telemetry received and processed by the MAGIC DBRS
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Normalized Difference Vegetation Index
NASA Terra MODIS
September 30, 2010

Lubbock

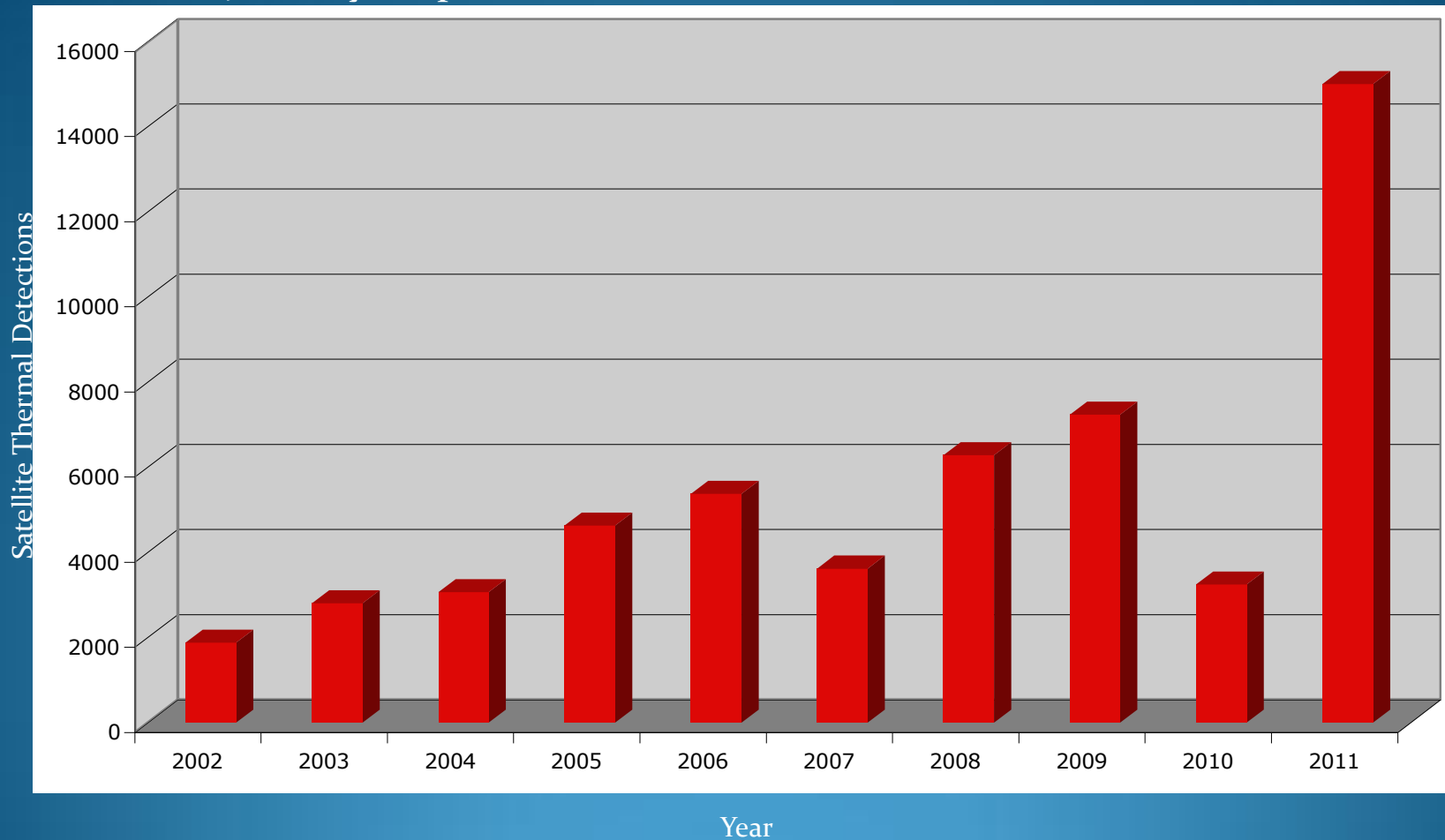


Normalized Difference Vegetation Index
NASA Terra MODIS
September 30, 2011



Lubbock

January - September Satellite Thermal Detections, 2002-2011



NASA MODIS thermal detections (Fire Radiative Power >1 megawatt) in Texas collected by the MAGIC DBRS,
University of Texas at Austin



Texas Drought

According to most forecasters, Texas is entering into another La Nina situation!



Texas Drought

Cascading Effects:

Cities running out of water.

Texas Drought

Groesbeck, Tx

- Surface Water only.
- Upstream of a reservoir.
- Water supply *was* estimated to be depleted the first week of December.
- Effected population is 6000.

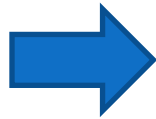
Texas Drought

There are between **100 -200** systems in Texas that are

- Surface water only.
- Upstream of a reservoir.

Pendleton Harbor, Texas

Normal Water Level



Courtesy of TCEQ



Texas Drought

Power Generating Plants

Texas Drought

Water sources with (flows/levels in Oct 2011) < (2000 ->2010 min for Oct)	Row Labels	Sum of Summer 2011 capacity in MW
	Cedar Bayou	2044
	Granbury	705
	Lake Bardwell/City of Ennis sewage	312
	Lake Colorado City	407
	Lake Granbury	278
	Lake Houston	1016
	Lake Limestone	1689
	Lake Ray Hubbard	916
	Lake Texana	56
	Martin Lake Reservoir	2425
	Twin Oak Reservoir	1616
	Grand Total	11464



Texas Drought

The loss of this amount of generating power is enough to cause rolling blackouts at a MINIMUM.

Texas Drought

Information Needed on the status of:

- Refineries
- Chemical plants

Texas Drought

The drought in Texas is massive in scale, as a state, Texas is:

- An area larger than France.
- Has a greater population than that of Australia.

In short, the drought is a **national problem**.