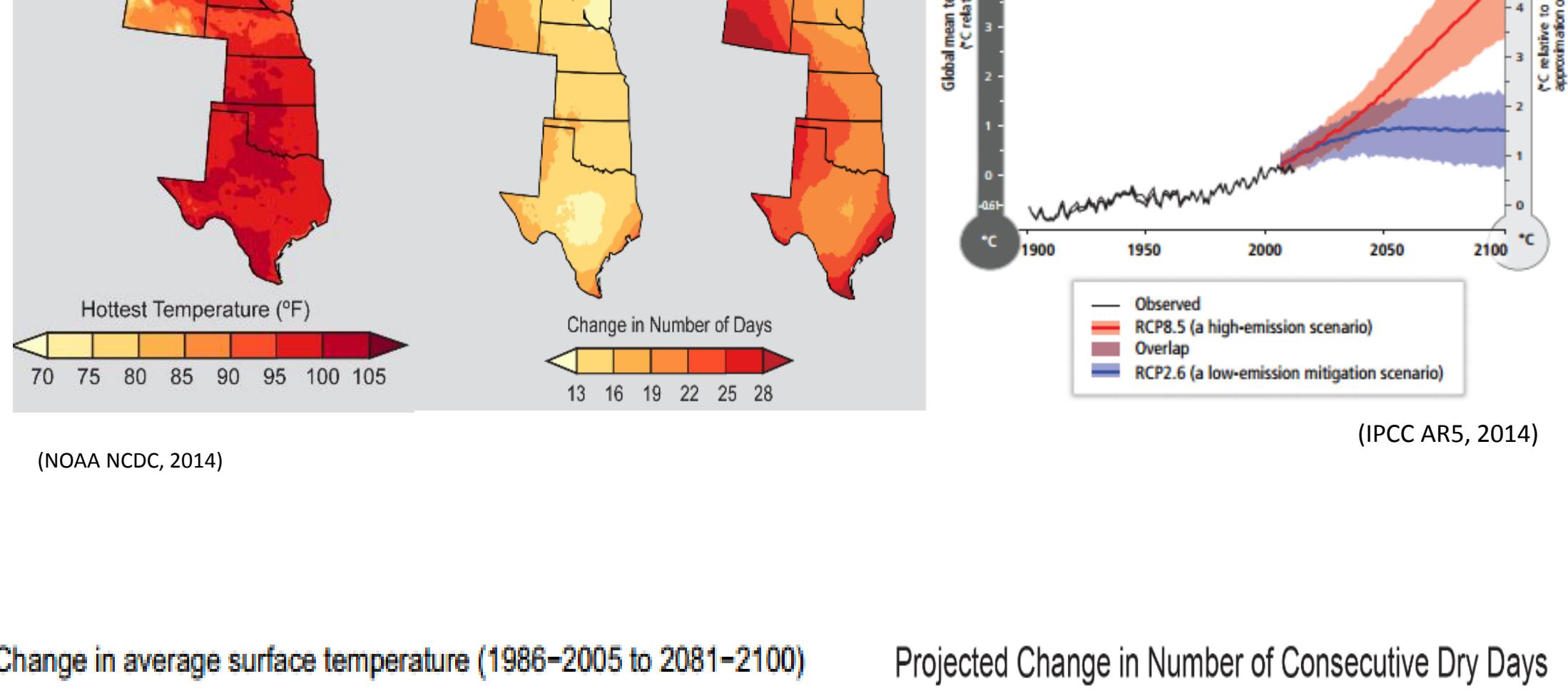


# GLOBAL & REGIONAL

## CLIMATE OBSERVATIONS & PROJECTIONS

### Projected Change

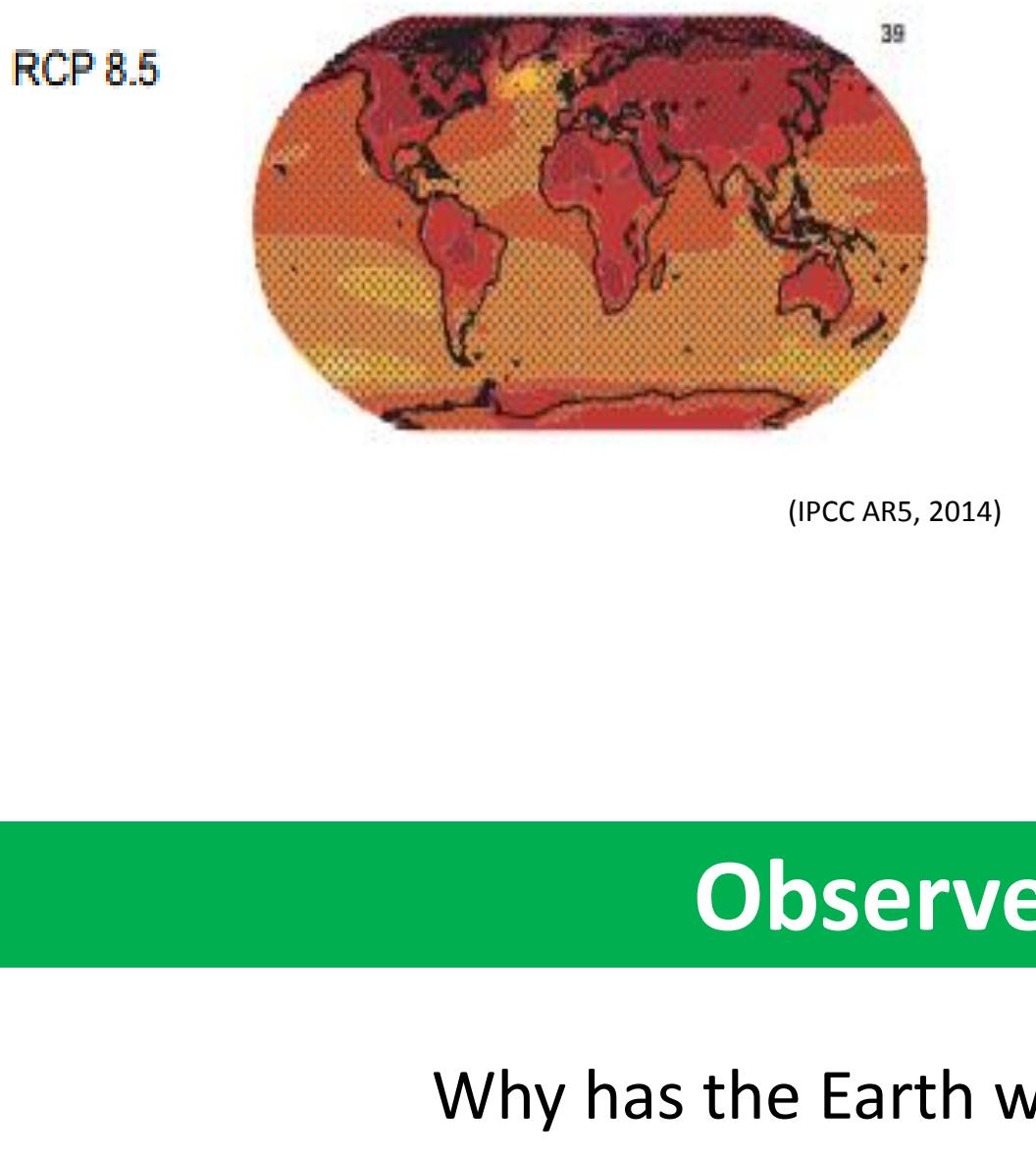
#### Projected Change in Number of Hot Days



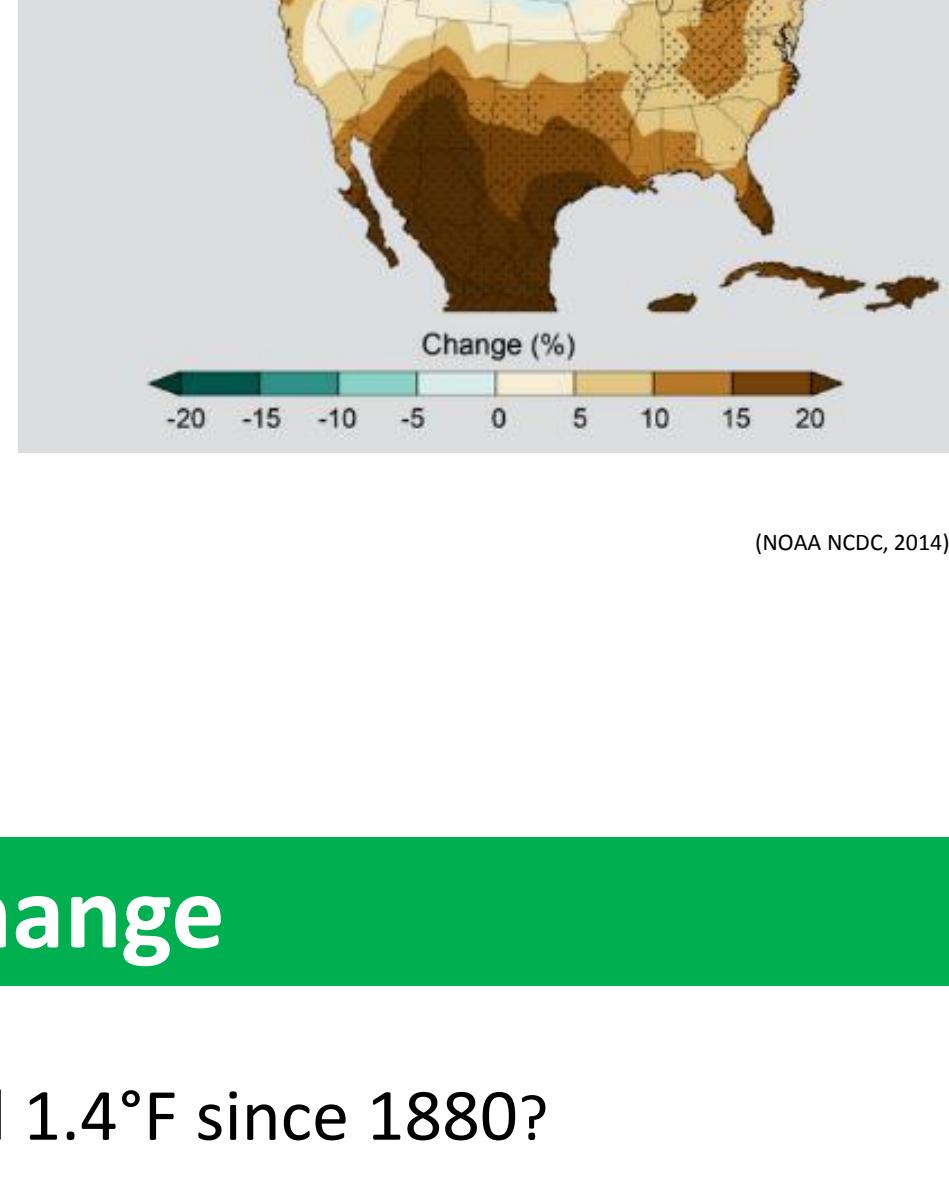
(NOAA NCDC, 2014)

(IPCC AR5, 2014)

#### Change in average surface temperature (1986–2005 to 2081–2100)



#### Projected Change in Number of Consecutive Dry Days



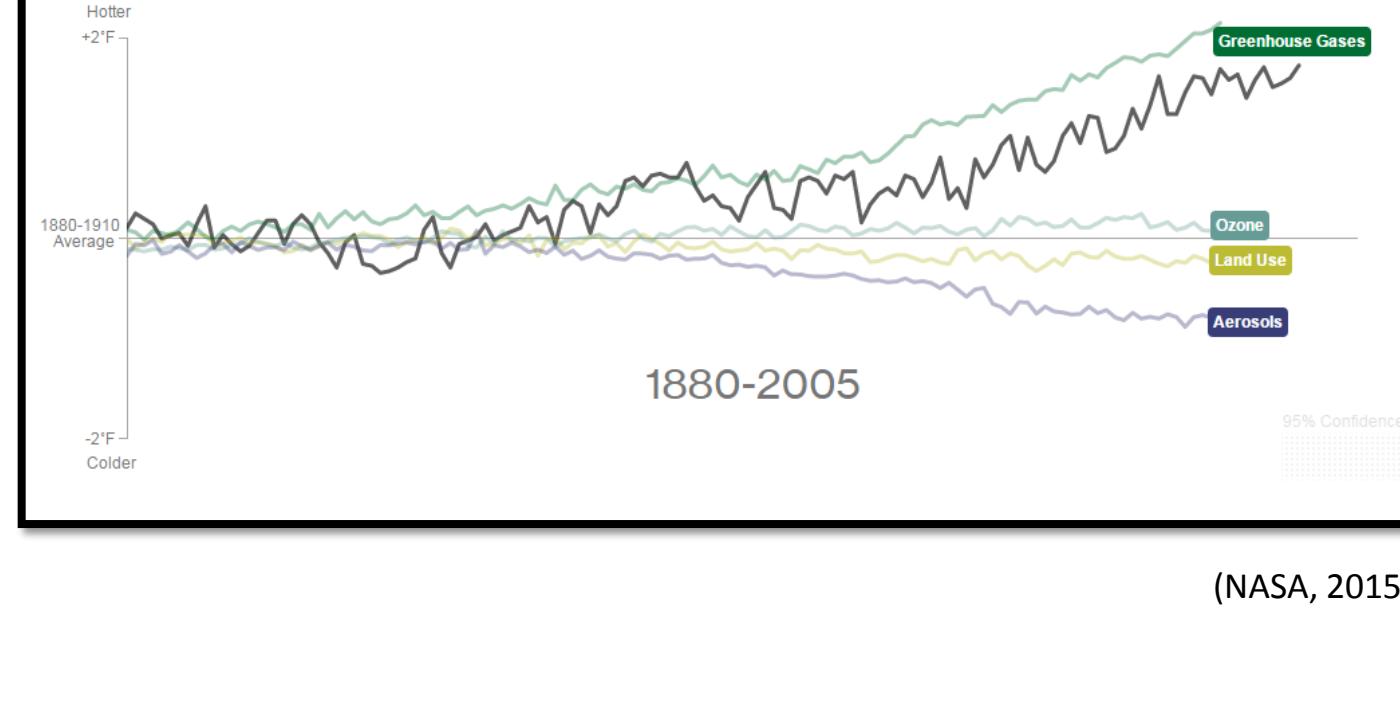
(IPCC AR5, 2014)

(NOAA NCDC, 2014)

### Observed Change

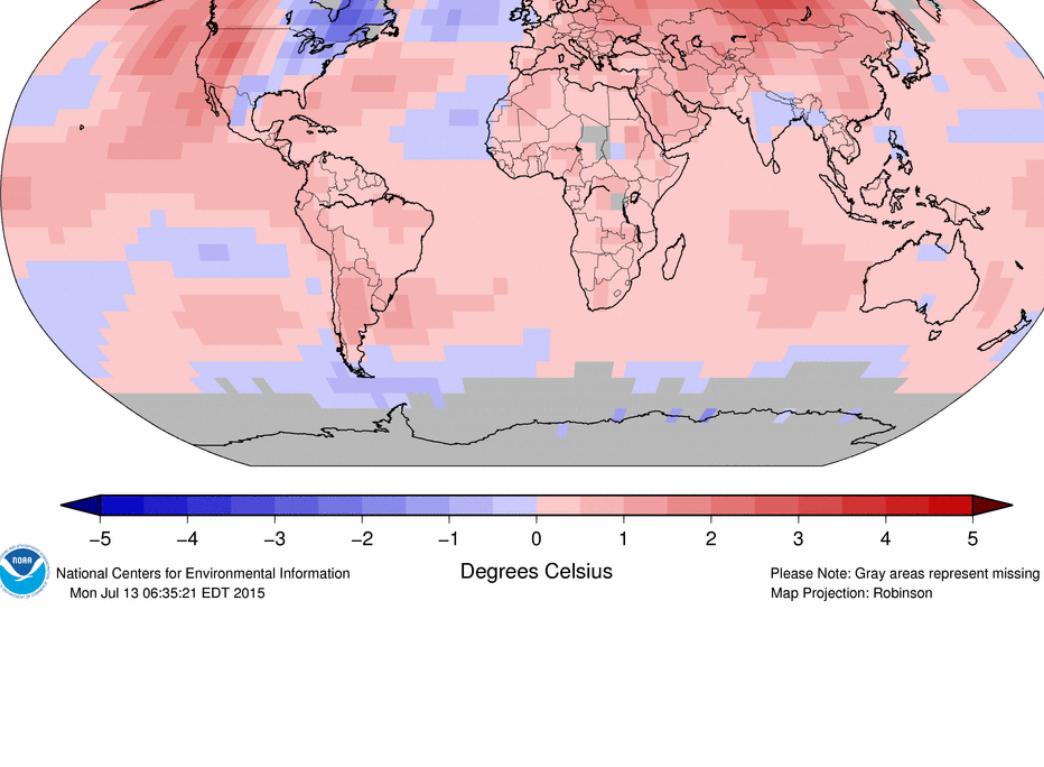
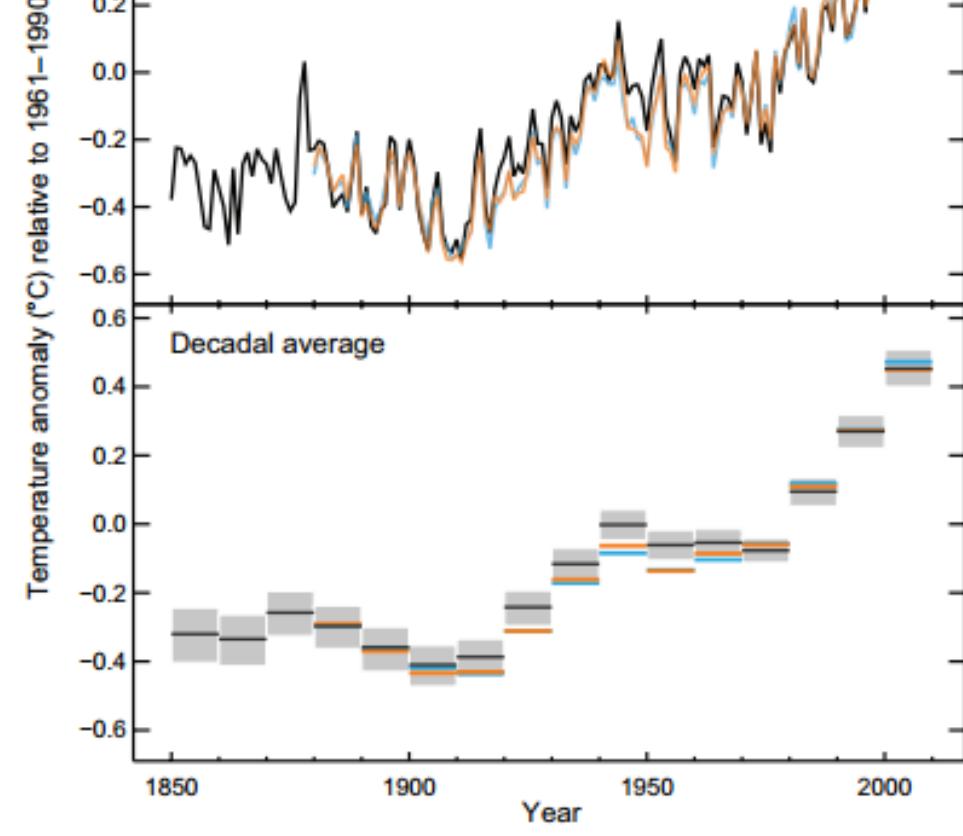
#### Why has the Earth warmed 1.4°F since 1880?

1880 - 2005



(NASA, 2015)

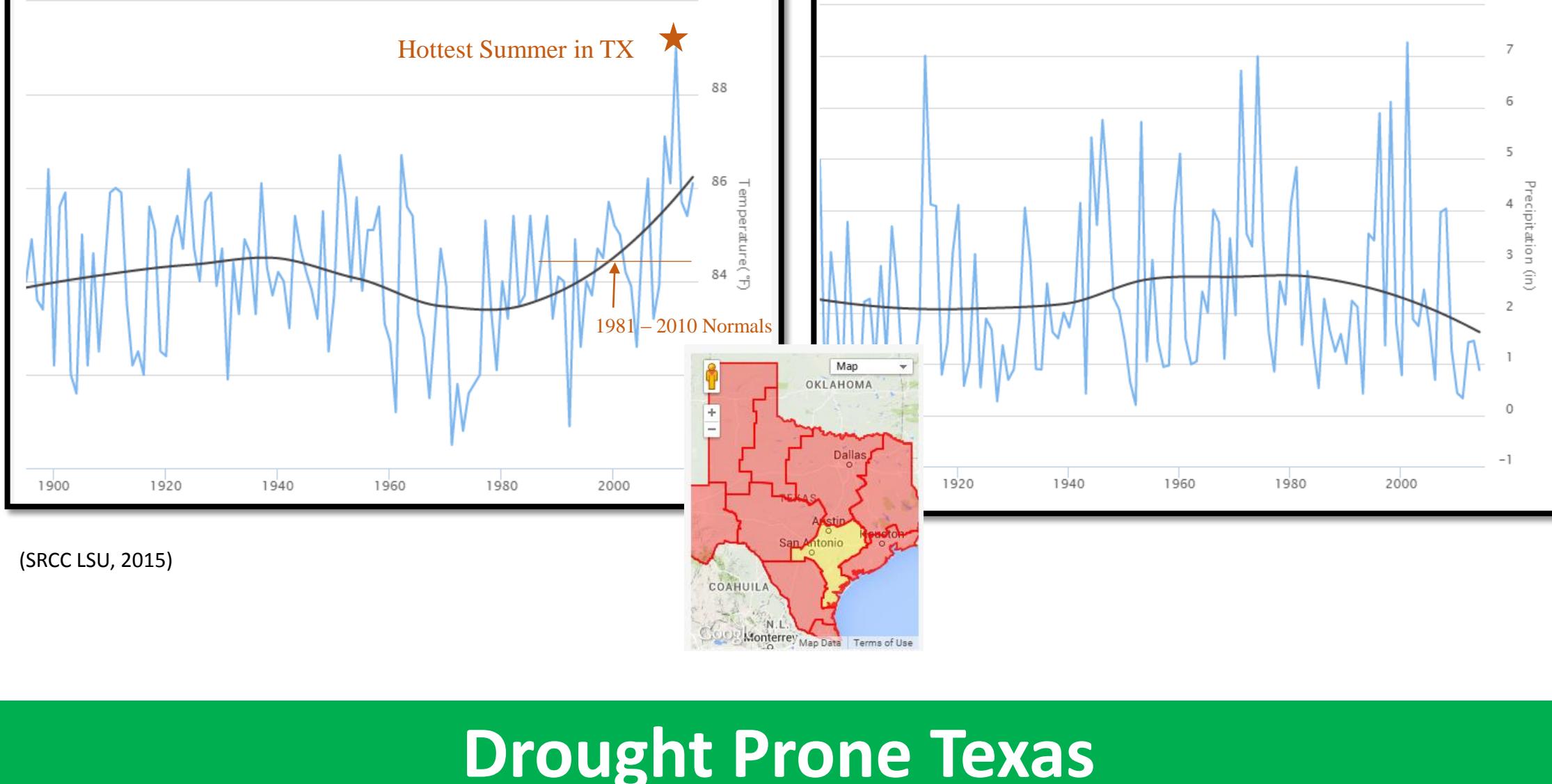
#### Cool N. American temperatures from a global perspective



(IPCC AR5, 2014)

# TEXAS & SAN ANTONIO

## South Central, TX August Precipitation and Temperature 1900 - 2015



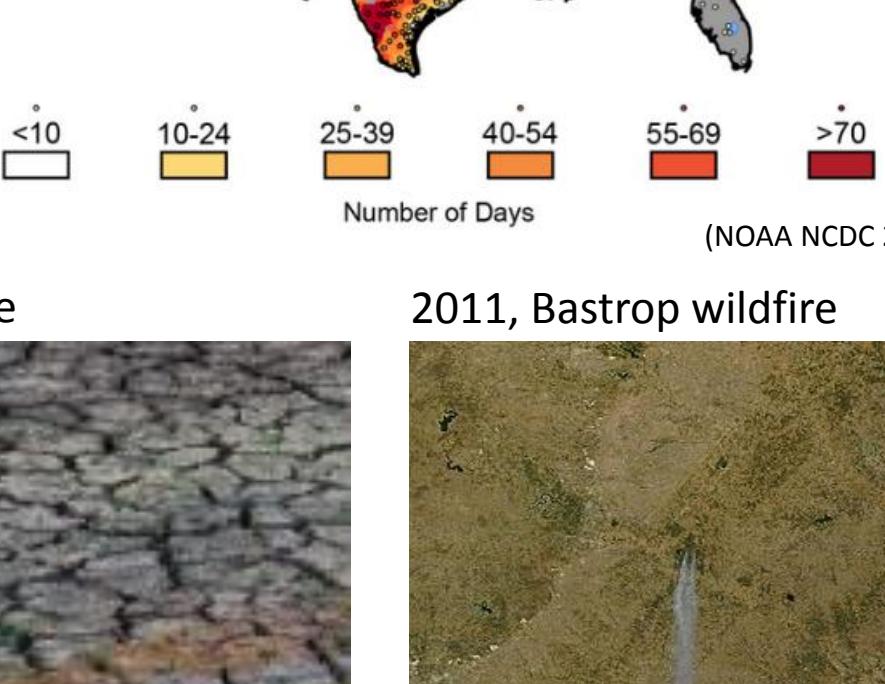
## Drought Prone Texas

### 5 Hottest Days in San Antonio (last 20 years)

Date	°F
1. September 5, 2000	111
2. September 4, 2000	109
3. August 19, 1986	108
4. August 20, 1909	107
4. June 15, 1998	107

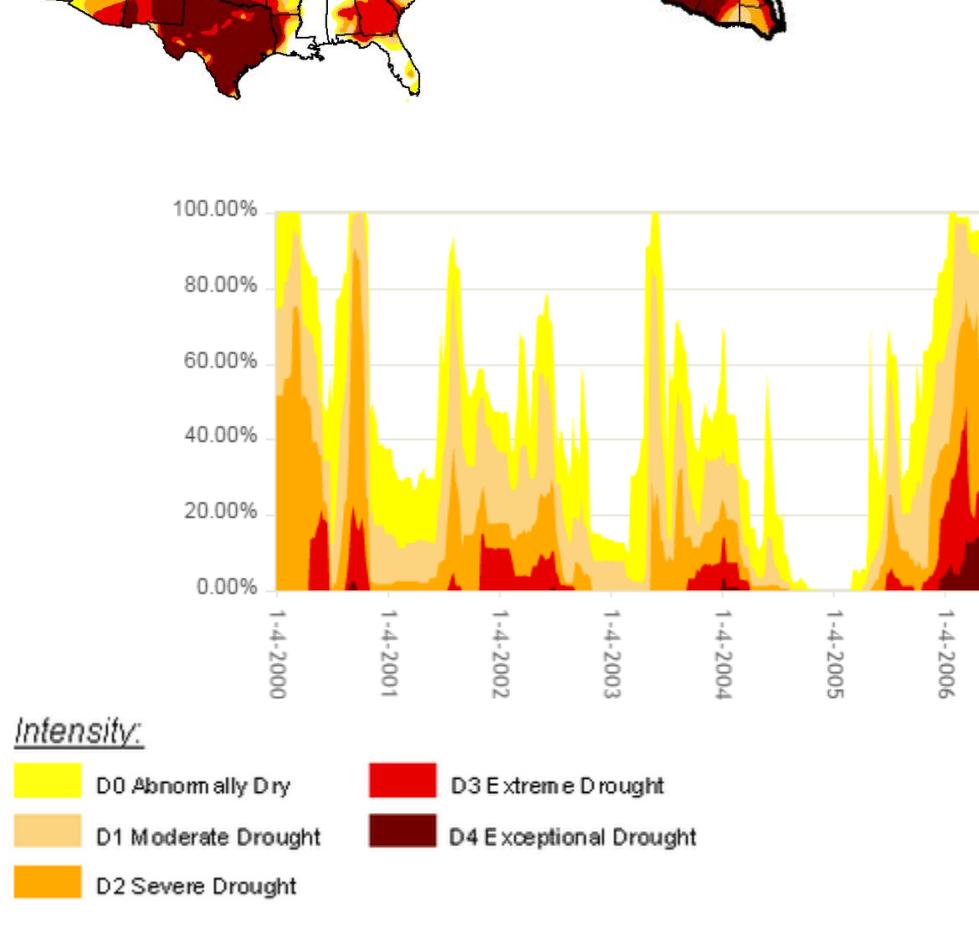
(TAMU, 2013)

### Coast-to-Coast 100-degree Days in 2011

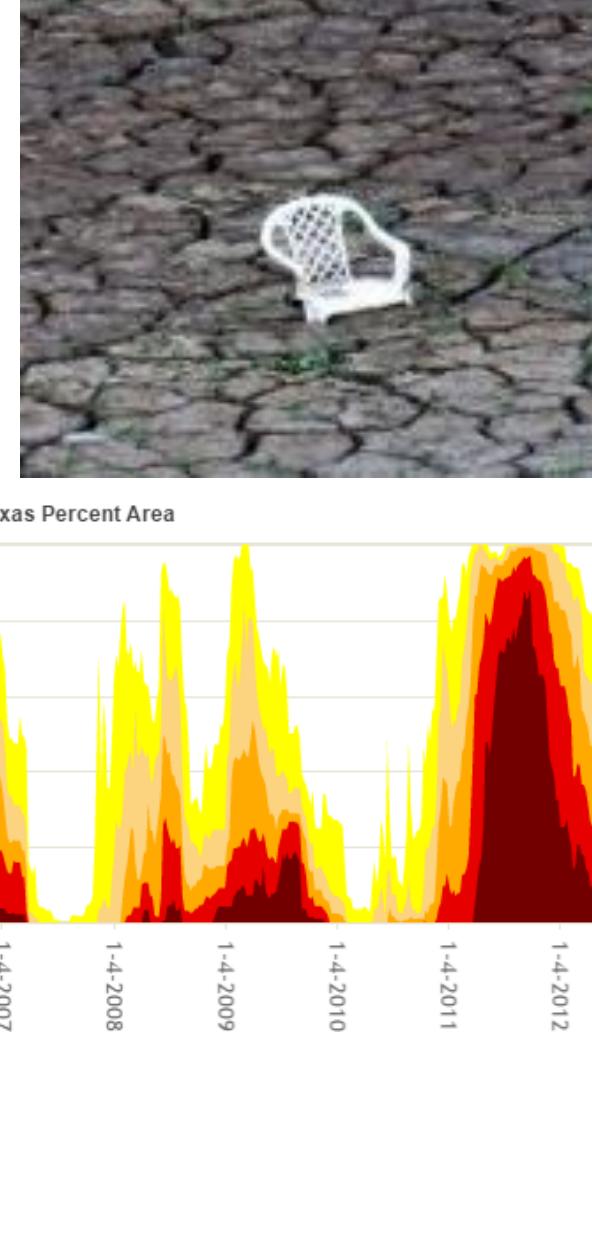


### U.S. Drought Monitor Texas

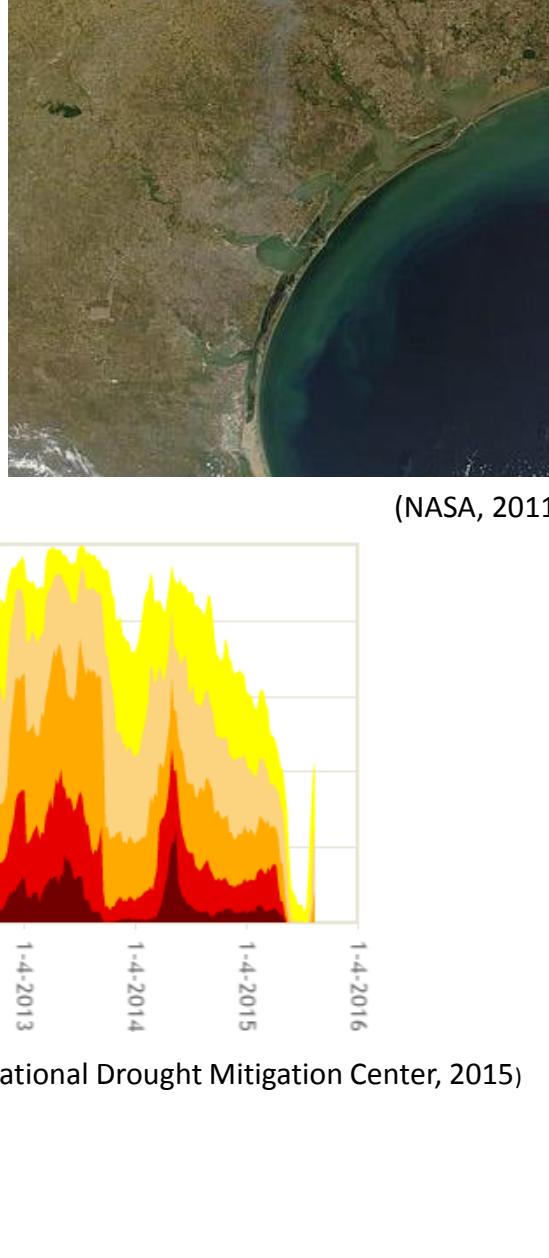
September 13, 2011



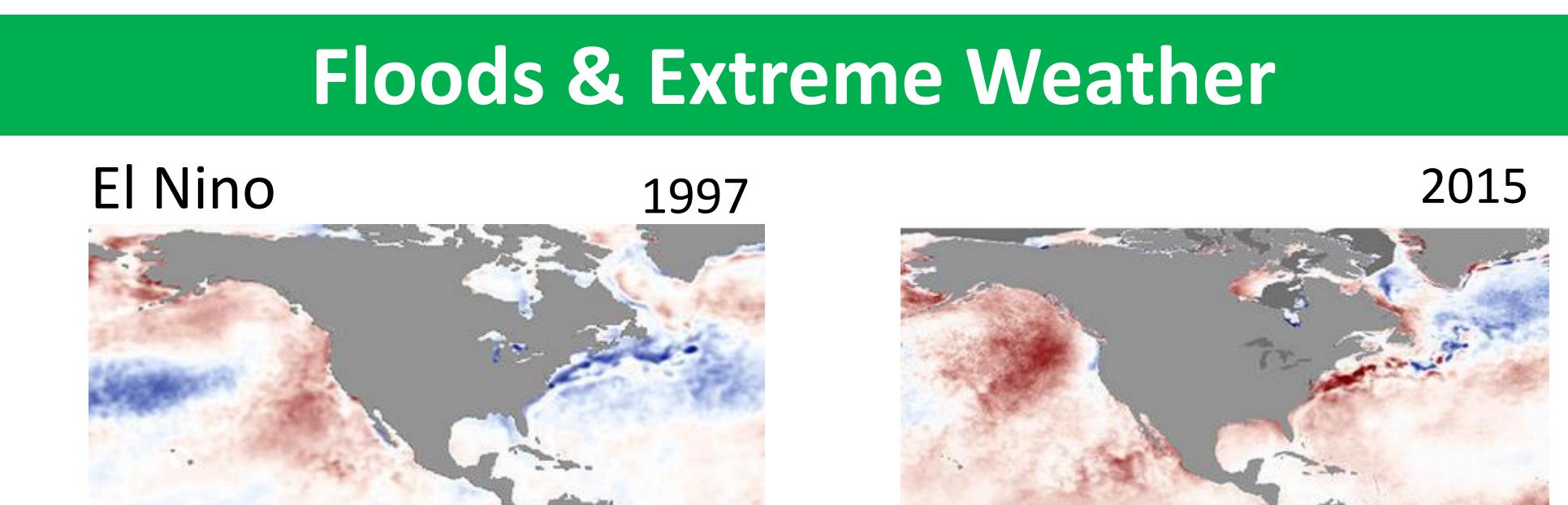
### Medina Lake



### 2011, Bastrop wildfire



### Texas Percent Area



(National Drought Mitigation Center, 2015)

### Intensity:

- [Yellow] D0 Abnormally Dry
- [Orange] D1 Moderate Drought
- [Red] D2 Severe Drought
- [Dark Red] D3 Extreme Drought
- [Maroon] D4 Exceptional Drought

D0 Abnormally Dry

D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

D0 Abnormally Dry

D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

D0 Abnormally Dry

D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

D0 Abnormally Dry

D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

D0 Abnormally Dry

D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

D0 Abnormally Dry

D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

D0 Abnormally Dry

D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

D0 Abnormally Dry

D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

D0 Abnormally Dry

D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

D0 Abnormally Dry

D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

D0 Abnormally Dry

D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

D0 Abnormally Dry

D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

D0 Abnormally Dry

D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

D0 Abnormally Dry

D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

D0 Abnormally Dry

D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

D0 Abnormally Dry

D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

D0 Abnormally Dry

D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

D0 Abnormally Dry

D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

D0 Abnormally Dry

D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

D0 Abnormally Dry

D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

D0 Abnormally Dry

D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

D0 Abnormally Dry

D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

D0 Abnormally Dry

D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

D0 Abnormally Dry

D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

D0 Abnormally Dry

D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

D0 Abnormally Dry

D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

D0 Abnormally Dry

D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

D0 Abnormally Dry

D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

D0 Abnormally Dry

D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

D0 Abnormally Dry

D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

D0 Abnormally Dry

D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

D0 Abnormally Dry

D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

D0 Abnormally Dry