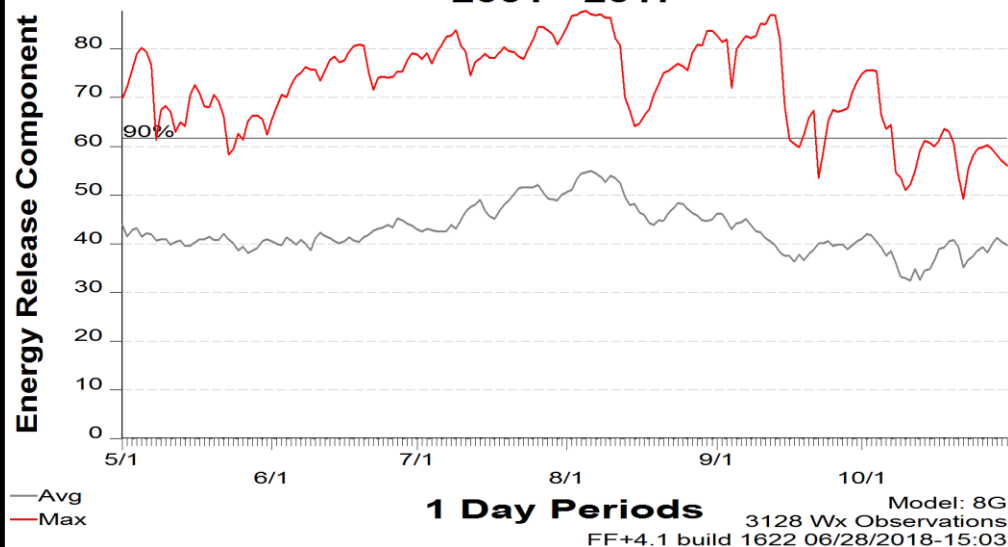


## Fire Danger: Rolling Plains Predictive Service Area

**SIG - Rolling Plains  
2001 - 2017**



### Critical Fire Weather Thresholds:

- Relative Humidity: 20% or less
- 20' Wind speed: 20 mph or greater
- Temperature: 90° or greater

### Critical Dead Fuel Thresholds (10<sup>th</sup> %):

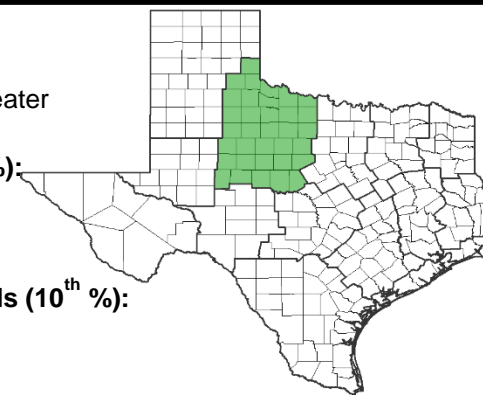
- 10-Hr: 5
- 100-Hr: 9
- 1000-Hr: 11

### Critical Live Fuel Moisture Thresholds (10<sup>th</sup> %):

- Mesquite: 92
- Juniper: 77
- Live Oak: 82
- Sand Sage: 73

### Critical NFDRS Indices (90<sup>th</sup> %):

- Energy Release Component: 62
- Burning Index: 79

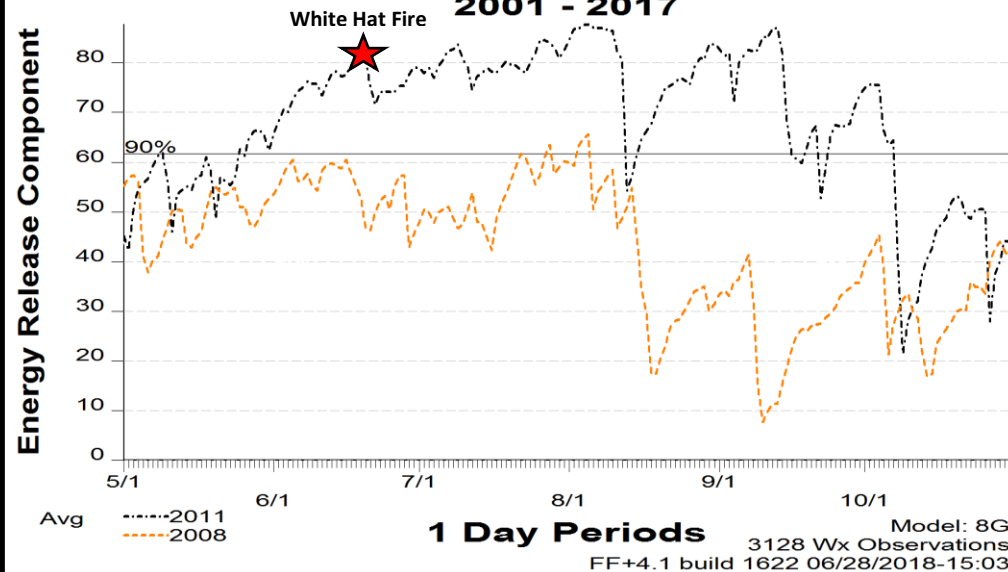


### Rolling Plains Normal Fires and Acres Burned May - October

	May	Jun	Jul	Aug	Sep	Oct
<i>Fires</i>	1	2	4	6	2	0
<i>Acres</i>	500	500	4,000	2,000	300	0

## Years to Remember: 2008, 2011

**SIG - Rolling Plains  
2001 - 2017**



**Fuel Model G – Short Needle (Heavy Dead)**

### Remember what Fire Danger tells you:

- ✓ ERC gives seasonal trends calculated from 2 PM temperature, humidity, daily temperature and RH ranges and precip duration.
- ✓ Wind is part of the BI calculation.
- ✓ Watch local conditions and variations across the landscape – Fuels, Weather and Topography.
- ✓ Stay informed of local fire weather forecasts, especially **WIND**.

### Past Experience:

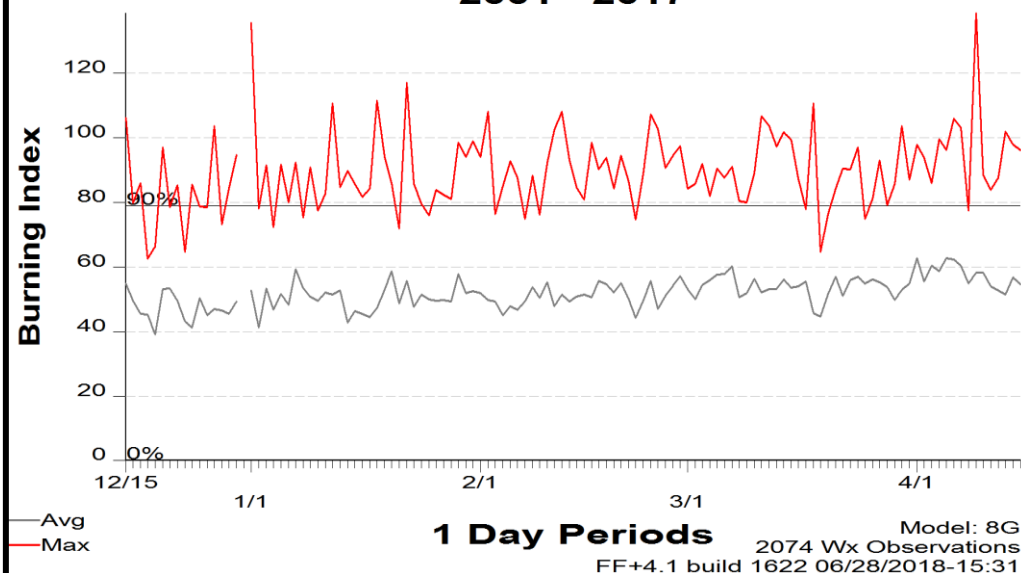
The White Hat fire occurred on 6/20/2011 in Nolan County burning 72,473 acres, destroying 8 homes. Even though this fire occurred in the summer, it did occur under the influence of a Southern Plains Outbreak event. Weather observations from the AWOS in Sweetwater included winds from the West-Southwest becoming North from 6-29 mph with gusts to 37, minimum RH 8% and maximum temperature of 104 degrees. This fire exhibited extreme fire behavior and Initiated in a grass and shrub fuel model. Live fuel moisture measured from juniper in nearby Coke County was 44%. Mortality in juniper begins to occur around 40%. The 3<sup>rd</sup> percentile for juniper in the Rolling Plains PSA is 70%.

Responsible Agency: Mike Dunivan, Texas A&M Forest Service  
June 2018



## Fire Danger: Rolling Plains Predictive Service Area

**SIG - Rolling Plains  
2001 - 2017**



### Critical Fire Weather Thresholds:

- Relative Humidity: 15% or less
- 20' Wind speed: 25 mph or greater
- Temperature: 90° or greater

### Critical Dead Fuel Thresholds (10<sup>th</sup> %):

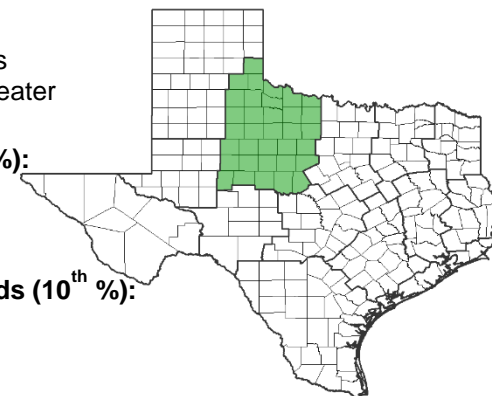
- 10-Hr: 4
- 100-Hr: 8
- 1000-Hr: 10

### Critical Live Fuel Moisture Thresholds (10<sup>th</sup> %):

- Mesquite: 92
- Juniper: 77
- Sand Sage: 73

### Critical NFDRS Indices (90<sup>th</sup> %):

- Energy Release Component: 64
- Burning Index: 89

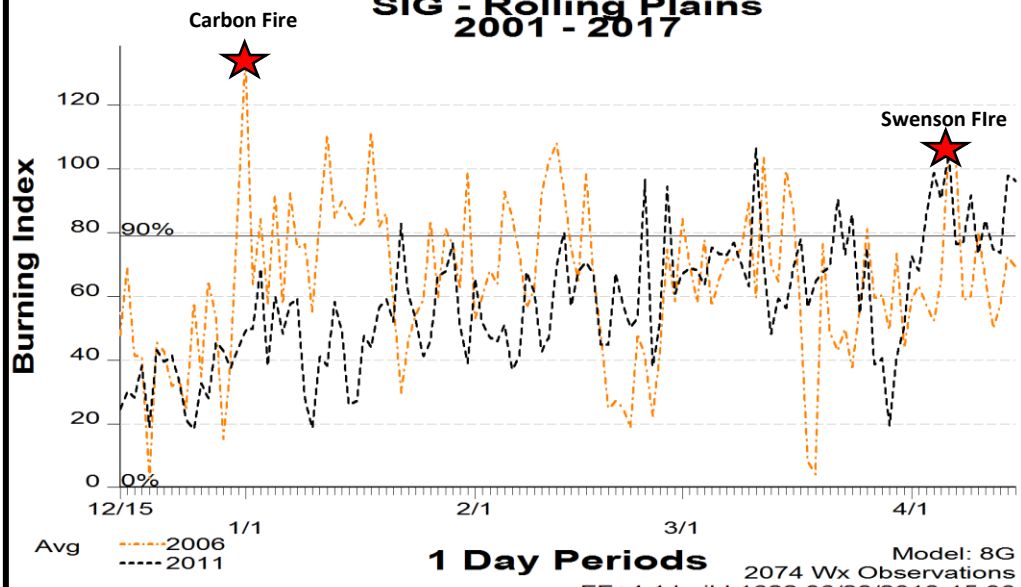


### Rolling Plains Normal Fires and Acres Burned November- April

	Dec	Jan	Feb	March	Apr
<i>Fires</i>	1	3	6	4	1
<i>Acres</i>	100	2,500	3,000	2,500	500

## Years to Remember: 2006 & 2011

**SIG - Rolling Plains  
2001 - 2017**



**Fuel Model G – Short Needle (Heavy Dead)**

### Remember what Fire Danger tells you:

- ✓ BI gives day-to-day fluctuations calculated from 2 PM temperature, humidity and wind.
- ✓ Wind is part of the BI calculation.
- ✓ Watch local conditions and variations across the landscape –Fuels, Weather and Topography.
- ✓ Stay informed of local fire weather forecasts, especially **WIND**.

### Past Experience:

The Southern Plains Outbreak weather pattern was first documented in December of 2005. Since then, numerous Outbreak events have led to many disastrous fires in the Rolling Plains PSA. The Carbon (1/1/06 – Eastland County), Buckle L 2 (3/12/06 – Childress County), Archer (2/25/08 – Archer County), Cedar Mountain (4/7/09 – Eastland County), Two Mile Hill (4/9/09 – Archer County) and the Swenson (4/6/11 – Stonewall County) fires are just a handful of the many fires that can be attributed to these Outbreak events. Extreme weather, large expanses of cured grass and volatile brush fuels, inability of fire fighting resources to combat fires on Outbreak days, etc. are common factors during the winter fire season.

Responsible Agency: Mike Dunivan, Texas A&M Forest Service  
June 2018

