

Western Pineywoods PSA Critical Thresholds and Fire Data

April 2018

Fire Weather Stations:

RAWS – Palestine, Round Prairie, Ratcliff, Lufkin, Huntsville, Coldsprings, Conroe

ASOS – Easterwood Field

Data Years: 2001-2017

Critical Fire Weather Thresholds:

Relative Humidity 30% or less
20' Wind speed 15 mph or more
Temperature 90° or greater



Fuels: Pine Plantation, Mixed Timber, Slash, Improved Grass, Yaupon Brush



Peak Fire Seasons:

July through October with summer drying

January through March with cured grasses and wind events

Normal TFS Wildfire Response and Acres Burned by Month

Based on 2005-2017 Fire Occurrence Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
<i>Fires</i>	15	16	18	10	7	12	18	27	18	15	6	7	170
<i>Acres</i>	150	285	300	120	90	50	300	400	185	120	35	60	2,095

Dead Fuel Moisture Thresholds

	Percentiles				
	3	4-10	11-25	26-50	51-100
1000-hr	14	15-16	17	18-19	20
100-hr	12	13-14	15	16	17
10-hr	6	7	8	9-10	11

NFDRS Thresholds (Fuel Model G)

	Percentiles				
	97	90-96	75-89	50-74	0-49
ERC	49	42-48	35-41	28-34	0-27
BI	48	41-47	34-40	26-33	0-25
KBDI	729	678-728	586-677	466-585	0-465

Live Fuel Moisture

	Percentiles				
	3	4-10	11-25	26-50	51-100
Loblolly Pine	103	104-112	113-124	125-134	135+
Red Oak	82	83-88	89-94	95-100	101+
Yaupon	96	97-102	103-108	109-118	119+

Significant Fire Potential Matrix

The Significant Fire Potential (SFP) Matrix is a **daily** situational awareness and decision making tool at the local level based on a fire weather station’s observed and forecast ERC and forecast BI. A significant fire is defined as a wildland fire that will require the mobilization of additional resources from outside the area of the fires origin (Extended attack, ICT3+).

Huntsville RAWS 2017		Local Preparedness Level Energy Release Component G (ERC)			
		1 0-31	2 32-42	3 43-52	4 53+
Dispatch Level Burning Index G (BI)	1 0-24	Low	Low To Moderate	Moderate To Low	Moderate
	2 25-37	Low To Moderate	Moderate To Low	Moderate	Moderate To High
	3 38-47	Moderate To Low	Moderate	High	High ★
	4 48+	Moderate	Moderate To High	High	Very High

To Use: Find nearest [Fire Weather Station](#) to open Matrix. Open [SFP Indices](#) page for forecast ERC and BI of chosen fire weather station. Plot ERC and BI for intersection and SFP forecast.

*Example: 10/19/15 Huntsville RAWS Forecast
 ERC: 56 BI: 40
 SFP Forecast: High
 Northside Fire, 775 Acres in Walker County*