

Gulf Coast PSA Critical Thresholds and Fire Data

April 2018

Fire Weather Stations: RAWS – McFaddin, Ahahuac, Brazoria, San Bernard, Aransas, Victoria

Data Years: 2001-2017

Critical Fire Weather Thresholds:

Relative Humidity 35% or less
20' Wind speed 15 mph or greater
Temperature 90° or greater



Fuels: Coastal Grasses, Native and Improved Grasslands, Live Oak Timber, Mesquite brush, Coastal Shrubs, Pine/Hardwood Mixed Timber



Peak Fire Seasons:

July through September with late 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>	1	1	2	1	0	1	1	0	1	1	1	0	10
<i>Acres</i>	40	40	100	10	0	10	30	0	15	25	20	0	290

Dead Fuel Moisture Thresholds

	Percentiles				
	3	4-10	11-25	26-50	51-100
1000-hr	17	18	19	20-21	22
100-hr	14	15	16	17-18	19
10-hr	8	9	10	11	12

NFDRS Thresholds (Fuel Model G)

	Percentiles				
	97	90-96	75-89	50-74	0-49
ERC	36	32-35	27-31	22-26	0-21
BI	53	45-52	36-44	27-35	0-26
KBDI	677	617-676	540-616	427-539	0-426

Live Fuel Moisture

	Percentiles				
	3	4-10	11-25	26-50	51-100
Loblolly Pine	115	116-130	131-145	146-155	156+
Live Oak	75	76-85	86-100	101-125	126+

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+).

McFadden RAWS 2017		Local Preparedness Level Energy Release Component G (ERC)			
		1 0-25	2 26-33	3 34-36	4 37+
Dispatch Level Burning Index G (BI)	1 0-27	Low	Low To Moderate	Moderate To Low	Moderate
	2 28-40	Low To Moderate	Moderate To Low	Moderate	Moderate To High
	3 41-49	Moderate To Low	Moderate	High	High
	4 50+	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: 6/14/11 McFadden RAWS Forecast

ERC: 40 BI: 65

SFP Forecast: High

Lamar Fire, 300 Acres in Jefferson County