



# HAYS COUNTY FIRE MARSHAL'S OFFICE



## Burn Ban Evaluation Matrix - December 18, 2018

<u>Evaluation Factor</u>	<u>Source(s)</u>	<u>Range</u>	<u>Comment</u>	<u>Supports Burn Ban</u>
<b>KBDI</b>	Current Condition (TFS & HCOES)	0-200 with an average of 200 across Hays County	County Average continues with a very low KBDI across the entire county	NO
<b>Juniper &amp; Grasses Fuel Moisture</b>	Current Condition (HCOES & COA)	Most recent Juniper moisture samples have risen to more than 115 to 120% moisture content	Juniper ignites more readily at less than 80% moisture content. Recent rains have raised moisture content back into 110 to 120 range	NO
<b>Drought Severity Index (Long Term Palmer)</b>	Current Forecast (NOAA)	Hays County now "Very moist"	Return to drought conditions will be delayed indefinitely with the continuing rains	NO
<b>U.S. Seasonal Drought Outlook</b>	Current & Future Condition	Recent rains will delay onset of drying and maintain "No Drought" status	Forecast period November 30 to March 1	NO
<b>Temperature Range</b>	Current Condition (NWS)	Daytime highs from low 60's throughout the week	Daily temperatures will remain normal with frequent waves of cold front resulting in slow drying of surface fuels	NO
<b>1-Month Temperature Probability</b>	Long Term Forecast (NOAA)	Temperatures likely to be slightly above normal	Decreased temperatures reduce drying of fine fuels & decrease ignition potential	NO
<b>Recent rainfall</b>	NWS	County soils are very moist from recent rains	Vegetation is green and will remain wet for the next 14 days	NO
<b>8-14 Day Temperature Probability</b>	Short Term Forecast (NOAA)	Temperatures likely to be slightly above normal	Moderate temperatures will be expected	NO
<b>8-14 Day Precipitation Probability</b>	Short Term Forecast (NOAA)	Rainfall likely to be slightly above normal	Saturated and wet soils will maintain moisture content for next 7-10 days	NO
<b>1-Month Precipitation Probability</b>	Long Term Forecast (NOAA)	Rainfall likely to be slightly above normal	Scattered showers with passing fronts	NO
<b>Predicted Humidity</b>	Short Term Forecast (NOAA)	70-90% mornings, mid 60-70's in late afternoon with overnight recovery to 90's	High humidity levels, cooler, moister conditions will prevail in next 7-10 days	NO
<b>Texas Drought Monitor</b>	Current Condition	"No Drought" for the region	forecast is for continued chance of wetting rains and delay in drought re-development	NO

**Recommendation: No Burn Ban**

## December 18, 2018 Discussion

The recent broadly distributed rains have continued Hays County in the status of “Well below Normal” fuel dryness for this time of year. The wetter conditions significantly reduce the chance of wildfires. Forecast wildfire danger is very low, 1000-hr fuels are sitting at greater than 30% moisture, 100-hour fuels at 16-20% moisture and 10-hour fuels are at 9-10% moisture. Overall, most of Central Texas counties have experienced a resurgence of late season growth resulting in greening up of vegetation and reduction of potential wildfire conditions.

Moving into the end of December and January, seasonal rain events and consistently high relative humidity values have virtually eliminated the potential for late afternoon ignitions and fires. Overnight relative humidity remains within the 80-100% range. Expect the trend toward low potential fire weather to continue through the next 10 to 14 days.

Our current KBDI is quite low with values approaching an average minimum value of less than 100 over all of Hays County. Long-term forecasts suggest that this wetter weather pattern will persist as more Gulf of Mexico weather systems pump moisture into south and central Texas over the next 7 to 10 days creating continuing chances of rain showers off and on throughout the week. The prospect of an El Nino winter season will also contribute to a lower fire potential.

Much of the vegetation throughout Hays County is slowing the growth created by the unusually wet fall. All of this late season growth may precede a significant increase in wildfire conditions with the onset of winter with its passing fronts and potential freeze killed vegetation. Expect an increased potential for roadside starts later into January as the lush vegetation undergoes seasonal decline and drying.

Soil moisture is expected to slowly dry with occasional rains and slightly above normal temperatures.

**Recommendation: The Burn Ban is not necessary until conditions change significantly.**