

## Characteristic Flame Length

Characteristic Flame Length is the typical or representative flame length of a potential fire based on a weighted average of four percentile weather categories. Flame Length is defined as the distance between the flame tip and the midpoint of the flame depth at the base of the flame, which is generally the ground surface. It is an indicator of fire intensity and is often used to estimate how much heat the fire is generating. Flame length is typically measured in feet (ft). Flame length is the measure of fire intensity used to generate the response index outputs for the SWRA.

Flame length is a fire behavior output, which is influenced by three environmental factors - fuels, weather, and topography. Weather is by far the most dynamic variable as it changes frequently. To account for this variability, four percentile weather categories were

created from historical weather observations to represent low, moderate, high, and extreme weather days for each weather influence zone in the South. A weather influence zone is an area where, for analysis purposes, the weather on any given day is considered uniform.

For all Southern states, except Florida and Texas, this dataset was derived from updated fuels and canopy data as part of the 2010 SWRA Update Project recently completed in May 2014. For Texas, the 2010 Texas risk update data is portrayed. For Florida, the 2010 Florida risk assessment update data is shown.

Characteristic Flame Length - Acres

Flame Length	Acres	Percent
Non-Burnable	48,819	25.4%
0 - 2 ft	36,816	19.2%
2 - 4 ft	36,924	19.2%
4 - 8 ft	34,675	18.1%
8 - 12 ft	17,402	9.1%
12 - 20 ft	10,789	5.6%
20 - 30 ft	4,123	2.1%
30 + ft	2,480	1.3%
<b>Total</b>	<b>192,027</b>	<b>100.0%</b>