



# LANDFIRE National Data Product Table



Data product	Source	Description
<b>Fire Behavior Layers</b>		
<b>13 Anderson (1982) Fire Behavior Fuel Models</b>	Missoula Fire Sciences Laboratory (MFSL)	Descriptions of fuel properties (amount, distribution, and continuity of live and dead vegetation/wood) based upon four groups (grass, shrub, timber, and slash) and categorized into 13 models to help users estimate fire behavior, including rate of fire spread and fire intensity.
<b>40 Scott &amp; Burgan (2005) Fire Behavior Fuel Models</b>	MFSL	A recently developed set of fire behavior fuel models that increases prediction accuracy by providing more models that capture details such as moisture variations and unique fuel differences, thereby increasing the user's ability to plan or illustrate the effects of multiple or varying fuel and fire scenarios.
<b>Forest Canopy Bulk Density</b>	MFSL	Describes the density of available canopy fuel in a stand and is defined as the mass of available canopy fuel per canopy volume unit. (Units of measurement: $\text{kg m}^{-3} * 100$ )
<b>Forest Canopy Base Height</b>	MFSL	Describes the lowest height in a stand at which there is a sufficient amount of forest canopy fuel to propagate fire vertically into the canopy. (Units of measurement: meters * 10)
<b>Forest Canopy Height</b>	Center for Earth Resources Observation and Science (EROS) / MFSL	Describes the average height of the top of the vegetated canopy. (Units of measurement: meters * 10)
<b>Forest Canopy Cover</b>	EROS / MFSL	Describes the percent cover of the tree canopy in a stand. (Units of measurement: percent)
<b>Elevation</b>	EROS / MFSL	Represents land height above mean sea level. (Units of measurement: meters above mean sea level)
<b>Aspect</b>	EROS / MFSL	Represents the azimuth of the sloped surfaces across a landscape. (Units of measurement: degrees)
<b>Slope</b>	EROS / MFSL	Represents the percent change of elevation over a specific area. (Units of measurement: degrees)
<b>Fire Regime Layers</b>		
<b>FRCC</b>	MFSL	Classification (using 3 condition class categories) of the amount that current vegetation has departed from the presumed historical vegetation reference conditions.
<b>FRCC Departure Index</b>	MFSL	Index (using a 0 to 100 percent range) depicting the amount that current vegetation has departed from the presumed historical vegetation reference conditions.
<b>Fire Regime Groups</b>	MFSL	Five groups that represent an integration of the spatial fire regime characteristics of frequency and severity simulated. These groups characterize the presumed historical landscape fire regimes based on interactions between vegetation dynamics, fire spread, fire effects, and spatial context. These definitions were refined to create discrete, mutually exclusive criteria appropriate for use with LANDFIRE's fire frequency and severity data products.

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Data product	Source	Description
<b>Fire Regime Layers, <i>continued</i></b>		
Mean Fire Return Interval	MFSL	Quantifies the average period between fires under the presumed historical fire regime.
Percent Low-severity Fire	MFSL	Quantifies the amount of low-severity fires relative to mixed- and replacement-severity fires under the presumed historical fire regime.
Percent Mixed-severity Fire	MFSL	Quantifies the amount of mixed-severity fires relative to low- and replacement-severity fires under the presumed historical fire regime.
Percent Replacement-severity Fire	MFSL	Quantifies the amount of replacement-severity fires relative to low- and mixed-severity fires under the presumed historical fire regime.
Succession Classes	MFSL	Characterize current vegetation conditions with respect to the vegetation species composition, vegetation cover, and vegetation height ranges of successional states that occur within each biophysical setting.
<b>Vegetation Layers</b>		
Environmental Site Potential	MFSL	Represents the vegetation that could be supported at a given site based on the biophysical environment. Characterized by the natural plant communities that could occur at late or climax stages of successional development in the absence of disturbance.
Biophysical Settings	MFSL	Represents the vegetation that may have been dominant on the landscape prior to Euro-American settlement and is based on both the current biophysical environment and an approximation of the historical disturbance regime. As used in LANDFIRE, map unit names represent the natural plant communities that may have been present during the reference period including disturbance.
Existing Vegetation Type	EROS / MFSL	Represents the vegetation currently present at a given site.
Existing Vegetation Height	EROS / MFSL	Represents the average height of the dominant vegetation for a 30-m grid cell.
Existing Vegetation Cover	EROS / MFSL	Represents the average percent cover of existing vegetation for a 30-m grid cell.
Vegetation Dynamics Models	The Nature Conservancy (TNC)	Describe the vegetation dynamics and disturbance regimes of each biophysical setting.
<b>Fire Effects Layers</b>		
Fuel Loading Models*	MFSL	Fuel models containing information about the specific live and dead fuel amounts for predicting PM2.5 emissions and soil heating. The models may be used in FOFEM, Consume, or other applicable fire effects model for determining other simulated fire effects such as tree mortality and fuel consumption.
Fuel Characteristics Classification System*	Pacific Wild-land Fire Sciences Laboratory (PWFSL)	A system for describing wildland fuels. Fire managers can use the FCCS to assign fuelbed characteristics for the purposes of predicting fuel consumption and smoke production through PWFSL's CONSUME software.

\*Production of these data products awaiting review.

