TU5-Fuelbed is high load conifer litter with shrub understory. Spread rate moderate; flame length moderate.

- ***Humid climate. Extinction moisture content is 30 %.***

TU2-Fuelbed is moderate litter load with shrub component. Spread rate moderate; flame length low.
TU3-Fuelbed is moderate litter load with grass and shrub components. Spread rate high; flame length moderate.

5. Dead and down woody fuel (litter) beneath a forest canopy (Timber Litter)

- ***Fuelbed is recently burned but able to carry wildland fire.***

TL1-Light to moderate load, fuels 1 - 2 in deep. Spread rate very low; flame length very low.

- ***Fuelbed composed of broadleaf (hardwood) litter.***

TL2-Low load, compact. Spread rate very low; flame length very low.
TL6-Moderate load, less compact. Spread rate moderate; flame length low.
TL9-Very high load, fluffy. Spread rate moderate; flame length moderate.

- ***Fuelbed composed of long-needle pine litter.***

TL8-Moderate load and compactness may include small amount of herbaceous load. Spread rate moderate; flame length low.

- ***Fuelbed not composed broadleaf or long-needle pine litter.***

TL4-Moderate load, includes small diameter downed logs. Spread rate low; flame length low.
TL7-Heavy load, includes larger diameter downed logs. Spread rate low; flame length low.
TL3-Moderate load conifer litter. Spread rate very low; flame length low.
TL5-High load conifer litter; light slash or mortality fuel. Spread rate low; flame length low.
TL9-Very high load broadleaf litter; heavy needle-drape in otherwise sparse shrub layer. Spread rate moderate; flame length moderate.

6. Activity fuel (Slash) or debris from wind damage.

- ***Fuelbed is activity fuel.***

SB1-Fine fuel load is 10 - 20 tons/acre, weighted toward fuels 1 - 3 in diameter class, depth is <1 ft. Spread rate moderate; flame length low.
SB2-Fine fuel load is 7 -12 tons/acre, evenly distributed across 0 - 0.25
SB3-Fine fuel load is 7 - 12 tons/acre, weighted toward 0 to 0.25 in diameter class, depth is >1 ft. Spread rate high; flame length high.

- ***Fuelbed is blowdown***

SB2-Blowdown is scattered, with many trees still standing. Spread rate moderate; flame length moderate.
SB3-Blowdown is moderate, trees compacted to near the ground. Spread rate high; flame length high.
SB4-Blowdown is total, fuel bed not compacted, foliage still attached. Spread rate very high; flame length very high.

7. Insufficient wildland fuel to carry wildland fire under any condition (Nonburnable)

NB1-Urban or suburban development; insufficient wildland fuel to carry wildland fire.
NB2-Snow/ice.
NB3-Agricultural field, maintained in nonburnable condition.
NB8-Open water.
NB9-Bare ground.

ANDERSON FUEL MODELS - "THE ORIGINAL 13"

Primary carrier of the fire is GRASS

FM1-Grass is fine structured, generally below knee level, and cured primarily. Grass is essentially continuous. Spread rate moderate; flame length low. ***Grasslands, savanna, grass tundra***

FM2-Grass is usually under an open timber or brush overstory. Litter from overstory is involved, but grass carries the fire. Expected ROS is < FM1 and intensity is < FM3. Spread rate moderate; flame length moderate. ***Open shrub land and pine stands, some pinon-juniper***

FM3-Grass is coarse structured, above knee level (average about 3ft. deep) and can be difficult to walk through. 1/3 of stand is dead or cured. Spread rate high; flame length high.

Primary Carrier of the fire is BRUSH or litter beneath the BRUSH.

FM4-Brush is head height (>6ft.), with heavy loadings of dead woody fuel. Fire may involve foliage, live and dead woody material and canopy. Spread rate very high; flame length very high. ***Mixed chapparal, high pocosins, pine barrens of New Jersey, closed jack pine stands of north central states***

FM5-Brush is about 2ft. high, with light loading of brush litter underneath. Litter may carry fire, especially at low wind speeds. Spread rate low to moderate; flame length low to moderate ***Young green stands with little or no deadwood. Laurel, vine maple, alder, manzanita***

FM6-Live fuels are absent or sparse. Brush averages 2 to 4ft. high. Brush requires moderate winds to carry fire. Spread rate high (with wind); flame length high. FM6 may not predict rate of spread accurately in mature PJ or taller oak brush. ***Chapparal, chamise, oak brush, low pocosin, Alaskan black spruce, taiga, shrub tundra, PJ at high winds (20mph at 20' level)***

FM7-Fires burn through the surface and shrub strata with equal ease and can occur at higher dead fuel moisture contents due to the flammability of live foliage and other live material. Stands of shrubs are generally between 2 and 6ft. high. Spread rate high; flame length high. ***Palmetto-gallberry understory with pine overstory, Alaskan black spruce with shrub***

Primary Carrier of the fire is LITTER beneath a TIMBER stand.

FM8-Dead foliage is tightly compacted, short needle (2 in. or less) conifer or hardwood litter. Spread rate low; flame length low with occasional jackpot of heavy fuels increasing intensity. ***White and lodgepole pine, spruce, true firs, larches***

FM9-Dead foliage litter is loosely compacted long needle pine or hardwoods. Spread rate moderate; flame length moderate. Concentrations of dead-down woody material will contribute to possible torching out of trees, spotting, and crowning. ***Closed stands of long needle pine- Jeffrey ponderosa, and southern pine plantations***

FM10-There is a significant amount of larger fuels with attached branches and twigs, or has rotted enough that it is splintered and broken. The larger fuels are fairly well distributed over the area. Some green fuel may be present. Overall depth of the fuel is primarily below knees, but some fuel may be higher. Any forest type may be considered if heavy down material is present. Crowning out, spotting, and torching of individual trees are more frequent in this fuel situation, leading to potential fire control difficulties. Spread rate moderate to high; flame length high. ***Insect- or disease-ridden stands, windthrown stands, overmature situations with deadfall, and aged light thinning or partial-cut slash***

Primary Carrier of the fire is LOGGING SLASH.

FM11-Slash is not continuous. Needle litter or small amounts of grass or shrubs must be present to carry the fire, but primary carrier is still slash. Live fuels are absent or do not play a significant role in fire behavior. Spread Rate low; flame length moderate. ***Light partial cuts or thinning ops in mixed conifer or hardwood stands and southern pine harvests***

FM12-Slash generally covers the ground (heavier loadings than FM11), though there may be some bare spots or areas of light coverage. Average slash depth is about 2ft. Slash is not excessively compacted. Approximately ½ of the needles may still be on the branches but are not red. Live fuels are absent, or are not expected to affect fire behavior. Spread rate low; flame length moderate to high. ***Heavily thinned conifer stands, clear cuts and med to heavy partial cuts***

FM13-Slash is continuous or nearly so (heavier loadings than FM12). Slash is not extremely compacted and has an average depth of 3ft. Approximately ½ of the needles are still present and are red, or all of the needles are still on the branches but are green. Live fuels are not expected to influence fire behavior. Spread rate low; flame length high. ***Clear cuts and heavy partial cuts in mature or over mature stands where slash is dominated by >3" material or load like FM12 but with "red" needles still attached***