

Slope: Like Fire Weather Severity, slope classes are taken from the CWFDRS. Each class covers a range of slopes: 0-40 percent, 41-60 percent, and over 60 percent. Because an increase in slope produces an increase in the rate of fire spread, slope often determines how a wildland fire is fought. The slope class weights are assigned as follows:

- Class I (>40%); Slope Severity Factor = 1.0
- Class II (41-60%); Slope Severity Factor = 1.6
- Class III (>60%); Slope Severity Factor = 2.0.

Once the severity factors are assigned to the fuel loading, fire weather, and slope classes the values are multiplied together to determine a numerical rating, the Fire Hazard Severity Scale. The fire severity hazard defined by the HUD Study System is as follows:

- Moderate Hazard, 1 - 12.8 Points
- High Hazard, 16 - 32 Points
- Extreme Hazard 51 - 256 Points.

Numerical gaps between categories exist because multiplying the factors does not produce all numbers. The slope can be either mechanically calculated or automatically calculated with a software program containing the USGS Quadrangle data (e.g. TopoScout®).

4.3.2 Bates Bill Process

The Bates Bill Process determines Very High Fire Hazard Severity Zones (VHFHSZs) in Local Responsibility Areas (LRAs). Assembly Bill 337 (the Bates Bill) was a direct result of the great loss of lives and homes in the Oakland Hills Tunnel Fire of 1991. It gave the California Department of Forestry and Fire Prevention (CDF) the responsibility-but not the resources-to map Very High Fire Hazard Severity Zones (VHFHSZs). The CDF formed a working group, comprised of State and local representatives. They devised a weighting system that considered fuel, slope, weather, and dwelling density. The raters were usually one local representative and one CDF or County representative. They could reduce the score by one point for certain mitigation measures, and increase the score one point for certain factors known to contribute to fire spread. Scores can range from 1-16 points. To qualify as a Very High Fire Hazard Severity Zone (VHFHSZ), an area had to score 10 or more points. The recommended system was given extensive field tests by different members of the working group before implementation. A copy of the rating form is found in Table 4-4 below.