

Safety Zones

A safety zone is an area where a firefighter can survive without a fire shelter. Considerations for effective safety zones:

- Take advantage of heat barriers such as lee side of ridges, large rocks, or solid structures.
- When possible, burn out safety zones prior to arrival of the fire front.
- Avoid locations that are upslope or downwind from the fire, chimneys, saddles, narrow canyons, and steep, uphill escape routes.
- Not intended for structure protection.

Separation distance between the firefighter and the flames should be at least four times the maximum continuous flame height. Distance separation **for flat terrain and no wind** is the radius from the center of the safety zone to the nearest fuels.

Flame Height	Separation Distance (firefighters to flames)	Area in Acres*
10'	40'	$\frac{1}{10}$ acre
20'	80'	$\frac{1}{2}$ acre
50'	200'	3 acres
100'	400'	12 acres
200'	800'	46 acres

*Area in acres is calculated to allow for distance separation on all sides for a 3-person engine crew (1 acre is approximately the size of a football field, or 208' by 208'). Calculations are based on radiant heat only and do not account for convective heat from wind and/or terrain influences.

Since calculations assume no wind and no slope, safety zones downwind or upslope from the fire will require larger separation distances.