
APPENDIX C

UPPER FRASER VALLEY CWPP STRUCTURAL TRIAGE AND PREPARATION

Size Up Considerations

- What is the current and expected weather?
- Are fuels heavy, moderate, or light? What is the arrangement and continuity of fuels?
- Note any hazardous topography.
- What have fires in this area done before?
- What is the fire's current and expected behavior?
 - What is the rate and direction of spread?
 - What is the potential for spotting and firebrands?
 - Will topographical features or expected weather changes affect the rate of spread?
- What are the number and density of structures threatened?
- What are the available resources?
- Will you have to evacuate people or animals?
 - Are there residents who will not evacuate?
- How hazardous is the structure?
 - What is the roofing material?
 - Are the gutters full of litter?
 - Are there open eaves and unscreened vents?
 - Does the structure have wooden decking?
 - Is there defensible space?
 - Are there large windows with flammable drapes or curtains?
 - What is the size and location of propane tanks and/or fuel storage tanks?

Fire Fighter Safety

- What are the routes of egress and ingress?
 - What is the largest engine that can access the structure safely?
 - Are the roads two-way or one-way?
 - Are there road grades steeper than 8%?
 - Are the road surfaces all-weather?
 - Are there load-limited bridges?
- Are there anchor points for line construction?
- Are there adequate safety zones?
- What are the escape routes?
- Are there special hazards such as hazardous materials, explosives, high-voltage lines, or above-ground fuel tanks?
- Are communications adequate?

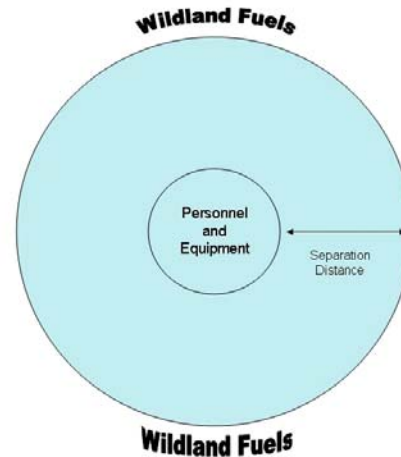
Safety Zone Guidelines

- Avoid locations that are downwind from the fire.
- Avoid locations that are in chimneys, saddles, or narrow canyons.
- Avoid locations that require a steep uphill escape route.
- Take advantage of heat barriers such as lee side of ridges, large rocks, or solid structures.
- Burn out safety zones prior to flame front approach.
- For radiant heat only, the distance separation between the firefighter and the flames must be at least four times the maximum flame height. This distance must be maintained on all sides, if the fire has ability to burn completely around the safety zone. **Convective heat from wind and/or terrain influences will increase this distance requirement.**

Flame Height	Distance Separation (firefighter to flame)	Area in Acres
10 feet	40 feet	1/10 acre
20 feet	80 feet	1/2 acre
50 feet	200 feet	3 acres
75 feet	300 feet	7 acres
100 feet	400 feet	12 acres
200 feet	800 feet	50 acres

(1 acre = 208 feet x 208 feet, or the approximate size of a football field)

CALCULATIONS ASSUME NO SLOPE AND NO WIND



Distance Separation is the radius from the center of the safety zone to the nearest fuels. When fuels are present that will allow the fire to burn on all sides of the safety zone, this distance must be doubled in order maintain effective separation in front, to the sides, and behind the firefighters. Area in Acres is calculated to allow for distance separation on all sides for a three person engine crew. One acre is approximately the size of a football field or exactly 208 feet x 208 feet.¹

Structural Triage Categories

Sort structures into three categories:

1. Stand Alone or Not Threatened
2. Defendable
3. Not Defendable

- Factors that may make an attempt to save a structure too dangerous or hopeless:
 - The fire is making sustained runs in live fuels and there is little or no defensible space

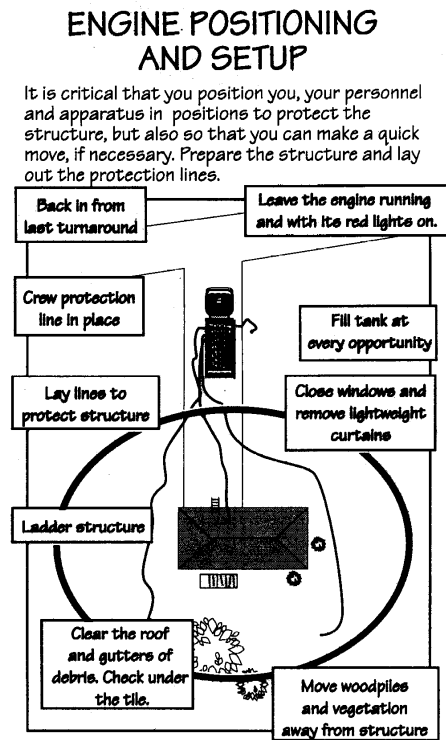
¹ <http://www.nwccg.gov/pms/pubs/nfes1077/nfes1077.pdf>

- Spot fires are too numerous to control with existing resources
- Water supply will be exhausted before the threat has passed
- The roof is more than ¼ involved in flames
- There is fire inside the structure
- Rapid egress from the area is dangerous or may be delayed

Common Ignition Points (remember, in windy conditions, firebrands can enter almost any opening)

- Flammable roof coverings and debris
- Unscreened vents, windows, or holes
- Open doors, windows, or crawl spaces
- Wooden decks, lawn furniture, stacked wood, and trash piles
- Openings under porches or patio covers

Apparatus Placement Considerations



2