

Urbanized Forest Communities

A rapidly spreading wildfire coupled with a lack of defensible space may result in many structures burning simultaneously. Structure protection may not be possible. Sizing up each situation and triaging structures will be extremely important before committing to any structure protection.

Fire behavior will be influenced not only by forest fuels but also by the extreme intensity of multiple burning structures. Expect extreme fire behavior conditions with the potential of homes being a carrier of fire. Hazardous materials, electric and gas lines, and propane tanks will also be a factor.



Safety

The 10 Standard Fire Fighting Orders must be followed as well as the Eighteen Watch-out Situations.

Make it a priority to review the **Wildland Urban Watch-outs**, the **LCES Checklist**, the **Structure Go-No Go/Protection Reference**, the **Common Denominators of Fire Behavior on Tragedy Fires** and utilize the **Pre-Incident Assignment Checklist** (see attachments).

- ✚ Take the time to ensure, and promote a safe working environment, review the following safety points and remember; “Sheltering-in-Place” procedures (both civilian and fire personnel)



Safety (continued)

- ✚ Remain mobile, no supply lines unless crew safety is compromised. When employing protection tactics always back-in apparatus and always employ a backup person.
- ✚ Structure Protection requires the use of appropriate structure personal protective equipment (PPE).
- ✚ Observe vertical hazards (power lines, falling trees, etc.)
- ✚ Strike Team Leaders should scout high danger areas prior to deploying engines/equipment
- ✚ Exercise extreme caution when deployed to areas of limited ingress/egress, high concentration of bug kill, limited or poor water resources, etc.
- ✚ Wood constructed structures with shake roofs may burn intensely and extremely quick. Flying brands from burning roofs may continue downwind igniting additional structures.
- ✚ Situations involving crowning, large flame heights and erratic fire behavior can extend in an unpredictable manner, beyond the control of any number of fire suppression personnel.
- ✚ Do not overextend your personnel, or resources. Anticipate resource needs, and order early.
- ✚ Winds of 25+ mph increase the chance of spotting over the heads of firefighters, and trapping them between both fire areas. Winds also cause greater preheating of fuels in the path of a fire front.
- ✚ When necessary and if time permits attempt to create a defensible space around structures; remember that structures on slopes will require greater clearance.



Safety (continued)

- ✚ Snags are one the overall top killers of Wildland Firefighters in California. Snags by themselves are quite hazardous; when on fire they become extremely dangerous. Do not attempt to fall a snag unless you are qualified to do so. When performing structure protection in and around snags you should post additional lookouts. Place your engine in a position that it will not be blocked or hit by falling snags. Prior to engine placement size up all snags and mark accordingly, either with the standard green and white “Killer Tree” flagging or by yellow and black hazard tape.



- ✚ Evacuation responsibilities can task firefighters from their fire suppression activities, and may distract attention from fire behavior at a time when that focus may be most critical. If possible, utilize law enforcement resources for evacuation needs, especially when establishing perimeter controls.
- ✚ When faced with canyon slopes or "chimneys" with slopes of 30% or more and continuous, flashy fuels the rate of spread of any fire can quickly extend beyond initial containment.
- ✚ Reduced or poor access with narrow, one-way roads could trap apparatus and personnel before they can safely egress the area. Ensure that you always provide for exits. Do not block ingress/egress to others.
- ✚ Always maintain a reserve water supply sufficient to protect your apparatus and personnel. Anticipate the need for additional water resources and evaluate the availability of such.
- ✚ Deploy no more than 300' of hose
- ✚ Use a minimum of 1 1/2 " hose

Safety (continued)

- ✚ Heavy fire apparatus may exceed the normal capacity of rural bridges. Apparatus Operators need to remain alert to changing road and vehicle conditions, and pay close attention to posted load limits.
- ✚ When employing safety zones they should be large enough so that the distance between the firefighters and flames is at least four times the maximum flame height in all directions per firefighter. This is for radiant heat only. There are no studies for convective heat generated from slope, wind gusts, fire whirls, and turbulence. Safety zones in these areas would have to be much larger.

Attachments:

10 Standard Fire Orders
18 Watch-out Situations
Wildland Urban Watch-outs
LCES Checklist
Structure Go-No Go / Protection Reference
Common Denominators of Fire Behavior on Tragedy Fires
Pre-Incident Assignment Checklist