## **Camps' Role in a Wildfire**

- Camps' Role During a Wildfire Nearby - Camps Role Before a Wildfire Approaches the Camp

## Carol Rice, Wildland Res. Mgt

## Imagine you get a call.....

 There's a wildfire in the area
 You may be expected to evacuate in a few days



Do you have an Emergency Action Plan? Do you have an Emergency Response Plan?

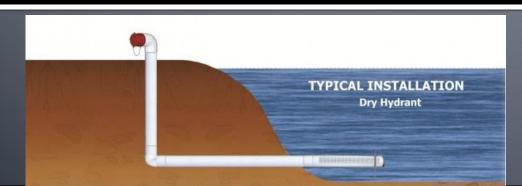
# Talk objectives – spoiler alert

- Preparation (long-term actions)
  - Fuel management (structure and vegetation
  - Training
  - Equipment
  - Infrastructure
- Short-term actionsEvacuation



## **Longer-term Actions**

- Retrofit structures
- Create defensible space
- Train staff and camper
- Ensure adequate access
- Upgrade communications
- Improve campfire rings
- Add water supply
  - Drafting capability
  - Dry hydrants for fire response

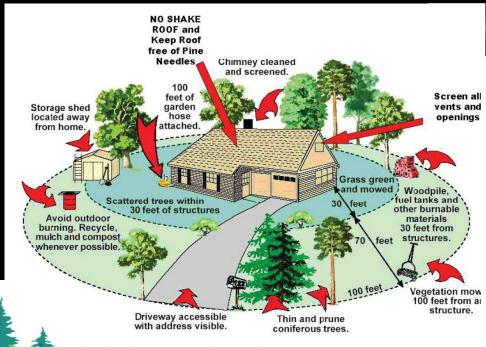






## Create, Improve Defensible Space

- Many guidelines exist
- Target actions based on how fires burn
  - Flame contact
  - Embers (firebrands)
  - Radiation



e treatment zones surrounding a residence



## **Fire Transfer through Flame Contact**

- Dramatic
- Influenced by topography
- Short pulse of high temps
- Vertical surfaces most at risk





Solution: Remove vegetation within 5-ft of structures, lower tree branches

## Vegetation Management to Reduce Flame Contact

- Create and maintain a "non-combustible zone" within 5-ft of structure
- Remove shrubs, branches, small trees within 5-10 ft of structure
- Remove lower branches of trees



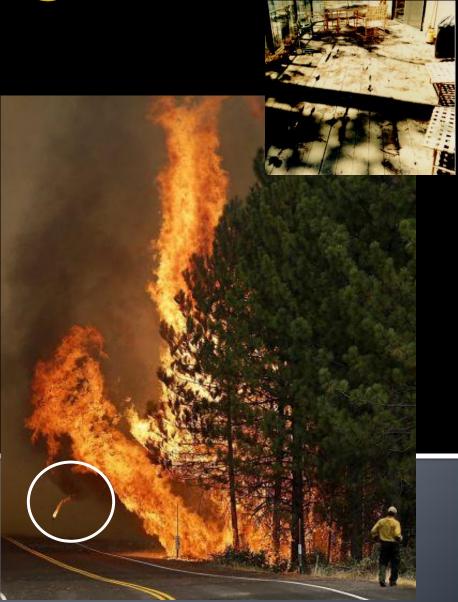
Rake needles from base of cabin

Remove every other small tree Ensure small tree is spaced ~ 6 ft from oak, limb up oak 3Xs height of understory tree

## **Fire Transfer through Embers**



- Focus of most recent efforts
   Inside corners, horizontal surfaces most at risk
- Start at bottom & burn upCan smolder for long time



## Vegetation Management to Prevent Ignition through Embers

 Create and maintain the noncombustible zone
 Keep horizontal surfaces & inside corners clear of needles, leaves





Rake needles at base of structure

Look where needles collect

Keep firewood away from structures-not under deck

## **Fire Transfer through Radiation**



Vertical surfaces most at risk
Higher portion of building/forest most exposed
Usually long-lived type of heat transfer

## Vegetation Management to Reduce Radiation Manage the area in

Manage the area in the background

- Reduce fuel volume

   (i.e. thin) forest 100 300 ft from values at risk
- Remove lowerbranches of trees



## **Staff and Camper Training**

- Safe mechanical equipment use
  Detection and reporting of a fire
- Campfire training



## **Training on Equipment use**



Whether working to create defensible space around your home, just mowing the lawn, or pulling your dirt bike over to the side of the road, if you live in a wildland area you need to

Lawn mowers, weedeaters, chain saws, grinders, welders, tractors, and trimmers can all spark a wildland fire. Do your part, the right way, to keep your community fire safe.

Spark arrestors Weather Conditions Rocky substrates Vehicle towing



### Training on Detection and Reporting PREVENTWILDFIRECA.ORG



Communication (without cell phones?)
Who to call and what to say
Red Flag Conditions

#### Wildfire Risk Forecasting Tools

Industry workers working in wildland areas must be informed of weather and environmenta conditions before performing work to help prevent wildfires.

Wildfire risk <u>forecasting tools</u> are available to help assess when it is safe to conduct work in wildland areas. Click on the links below to sign-up for alert services, access predictive tools, and get more information.

- <u>iNWS</u>
- <u>WFAS</u>
- Northern California Geographic Area Coordinating Center (ONCC) Predictive Services
- Southern California Geographic Area Coordinating Center (OSCC) Predictive Services

## **Training on Campfire Safety**

#### **Campfire Safety**



Staff trainingCamper training

# Equipment to help short-term actions

- Saws, shovels, rake, loppers
- Ladders for fire response
- Personal protective equipment (PPEs)
  - Nomex pants, shirt
  - Hardhat
  - Gloves

### Not water, or hoses



# Equipment to help short-term actions (contd)

- Gel, fire retardant
- Structure retrofit quick-fix
  - Plywood
  - Duct tape (really!)
  - Aluminum
  - Spray on retardant for canvas

Only if there's time

## Evacuation

- Leave early, before required
- Part of Wildfire Action Plan
- Accounting for all
- Contacts for all
- Place to meet
- More than 1 route out





#### WILDFIRE EVACUATION GUIDE.



GIVE YOUR FAMILY THE BEST CHANCE OF SURVIVING A WILDFIRE BY EVACUATING EARLY.

ReadyForWildfire.org

#### **Communicate "The Plan" to all**

# Near term actions before leaving...

Sprucing up the place
Bolstering defense
"Turning out the lights"





#### Only if time allows

The more ready you are, the less time this will take

## Sprucing up the place

- Refresh non-combustible zone around structures
- Remove vegetation near tents, limb up trees
- Take down canvas tents
- Ensure wood piles are scattered away from vulnerable values at risk



## **Bolstering defense**

Remove ember catchments
Cover windows and vents
Apply fire retardant &/or gel











## "Turning out the lights"

Place gels in a visible location (or apply)
Place ladders against roofs

- Close windows
- Turn the lights on ( to see in the smoke)



## Conclusion

- Returning Campers
   Reliaved Camp Manage
- Relieved Camp Manager
- Thriving Camp





### **Questions?**