

# WILDLAND DEFENSIBLE SPACE



# WHAT WE WILL BE COVERING TODAY...

- DEFINITION OF WILDLAND DEFENSIBLE SPACE AND WUI (WILDLAND URBAN INTERFACE).
- PRACTICAL APPLICATIONS:
  - HOW TO MAKE A PROPERTY “FIREWISE”
- QUESTIONS AND COMMENTS

# WHAT IS THE MEANING OF THE TERM WUI?

WUI (Wildland Urban Interface) is the zone where natural space and development meet.

- Fastest growing land use type in the United States between 1990 and 2010.
- Of all new WUI areas 97% were for housing.
- Makes up 10% of the land use in the United States but contains 40% of the homes.
- California contains the highest number of WUI housing units.


# WHAT IS A WILDLAND DEFENSIBLE SPACE?

A defensible space is an area either natural or man-made, where material capable of allowing a fire to spread unchecked has been treated, cleared, or modified to slow the rate and intensity of an advancing wildfire and to create an area for fire suppression operations to occur.







An aerial photograph of a two-story house with a blue roof and red siding. The house is surrounded by a green lawn, trees, and shrubs. A wide driveway with a turnaround is visible on the left. A swimming pool is located near the house. Several callout boxes with red arrows point to specific features: 'Wide Driveway with turnaround' points to the driveway; 'No leaves on the roof' points to the roof; 'Fire resistant shrubs' points to a shrub; 'Trees separated & pruned so branches overhang the roof' points to a tree; 'Low growing plants' points to a low shrub; 'Patios of masonry within 30' of the house' points to a patio; and 'Landscape kept green' points to the lawn.

Wide Driveway  
with turnaround

No leaves on  
the roof

Fire resistant shrubs

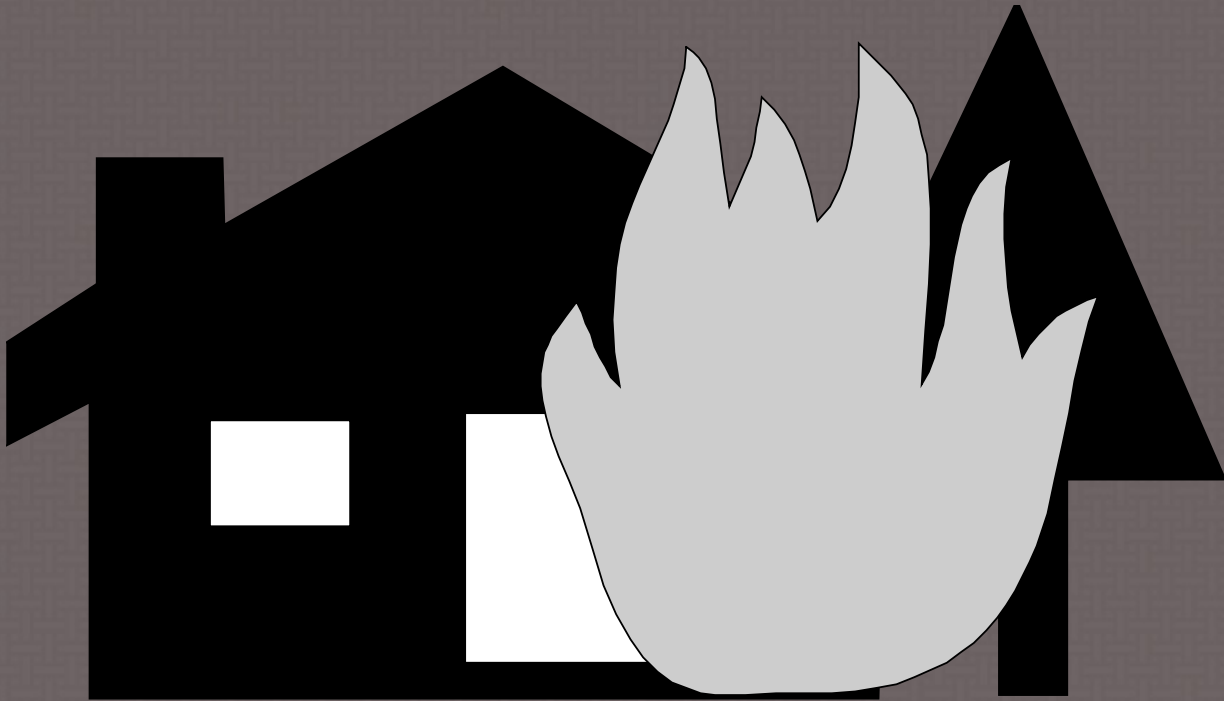
Trees separated &  
pruned so branches  
overhang the roof

Low growing plants

Patios of  
masonry  
within 30' of  
the house

Landscape  
kept green

# MAKING A PROPERTY FIREWISE

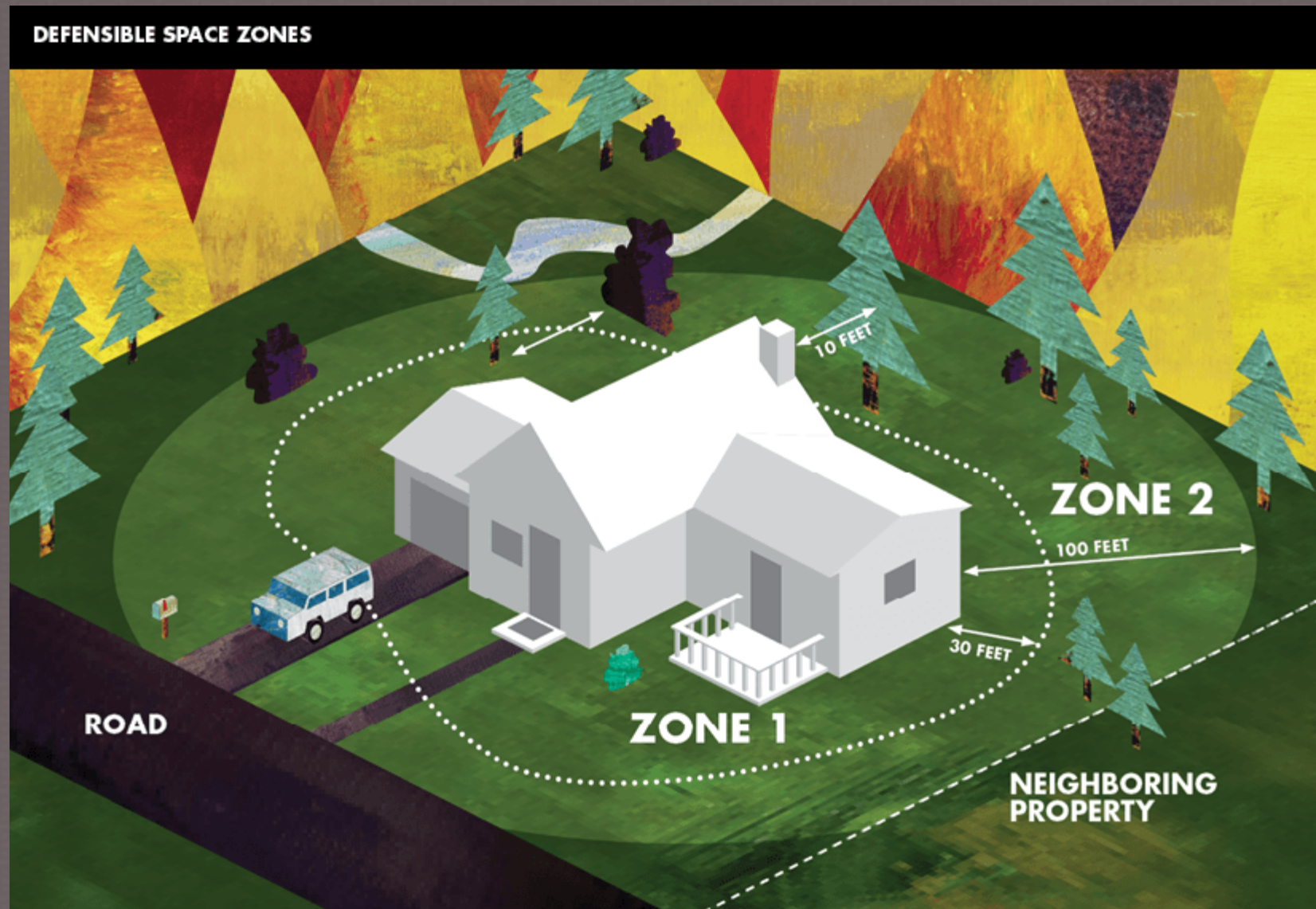


# KEY POINTS TO CREATING AND MAINTAINING A DEFENSIBLE SPACE:

1. Define Your Defensible Space – Two Zones
2. Break things Up
3. Eliminate Ladder Fuels
4. Keep it Lean, Clean and Green
5. Maintain the Space
6. Check the Roof
7. Construction Type and Building Location
8. Emergency Water Supply
9. Fire Proof Signs and Access



# 1. Define and Create a Defensible Space:



## **Zone 1:**

- Extends 30 feet out from the Structure.
- Remove all dead or dry plants, grass, pine needles and weeds from yard, roof and rain gutters.
- Trim trees regularly and keep branches 10' away from other trees.
- Remove branches that hang over roof and are within 10' of chimneys.
- Relocate wood piles to Zone 2.
- Remove or prune flammable plants and shrubs near windows.
- Remove flammable vegetation from under decks or stairs.
- Create space between vegetation and flammable items such as patio furniture, play structures, awnings, etc.

## **Zone 2:**

- Cut or mow annual grasses to a maximum height of 4 inches.
- Create horizontal spacing between shrubs and trees.
- Create vertical spacing between shrubs and trees.
- Remove fallen leaves, needles, twigs, bark, cones, and small branches.

## 2. BREAK THINGS UP:

- Interrupt the layers of vegetation.
- Plant trees and shrubs in small groups.
- Use nonflammable products like crushed rock and organic mulches
- Construction of hard surfaces such as patios, sidewalks, driveways, rock and brick walls also help slow the spread of flames.





### 3. ELIMINATE LADDER FUELS:

- Remove vegetation that allows a fire to move from lower growing plants to taller ones.



# Fuel “Ladder”



SHRUBS

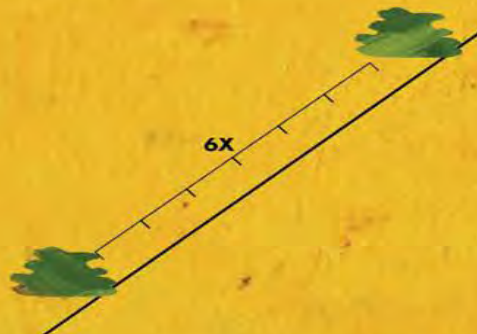


FLAT TO MILD SLOPE (LESS THAN 20%)

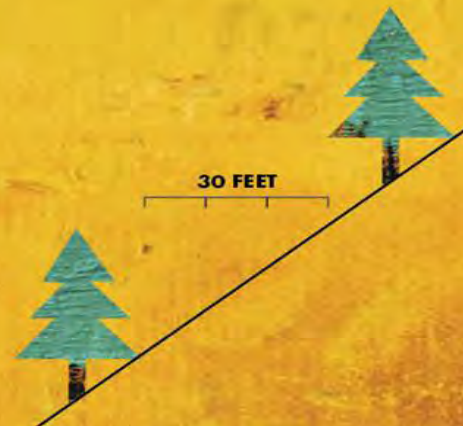
TREES



MILD TO MODERATE SLOPE (20%–40%)



MODERATE TO STEEP SLOPE (GREATER THAN 40%)





- Create vertical spacing between grass, shrubs and trees eliminating a fuel ladder.

#### MINIMUM VERTICAL CLEARANCE



## 4. KEEP IT LEAN, CLEAN, & GREEN:

- Lean: Small amounts of flammable vegetation.
- Clean: No accumulation of dead vegetation or flammable debris.
- Green: Plants are healthy and green during the fire season.





## 5. MAINTAIN THE SPACE:

- Annually, review these defensible space steps and take action accordingly
- An effective defensible space can be quickly diminished through neglect.





## 6. CHECK THE ROOF:

- Remove build-up in gutters and on shingles
- Remove branches over the roof, under the eaves, and within 10 feet of the chimney.
- Install a spark arrestor
- Replace flammable shingles with a fire proof/resistant type.
- Inspect your roof twice a year



## 7. CONSTRUCTION AND BUILDING LOCATION

- Building site location is critical to reducing fire danger
- Locate the building away from ridge tops, canyons and areas between high points on a ridge
- Use fire resistant building materials and enclose the underside of balconies, decks, and eaves with fire resistant materials.
- Cover attic vents with steel mesh.

# SURVIVABLE SPACE



- Make a home survivable on its own.



## 8. HAVE AN EMERGENCY WATER SUPPLY:

- In communities where there is an insufficient water supply, homeowners should provide additional personal water storage.
- Extra water could take the form of an above ground water tank, an underground water tank, or even a swimming pool.
- Clearly mark all water supplies so that firefighters can locate the source quickly.

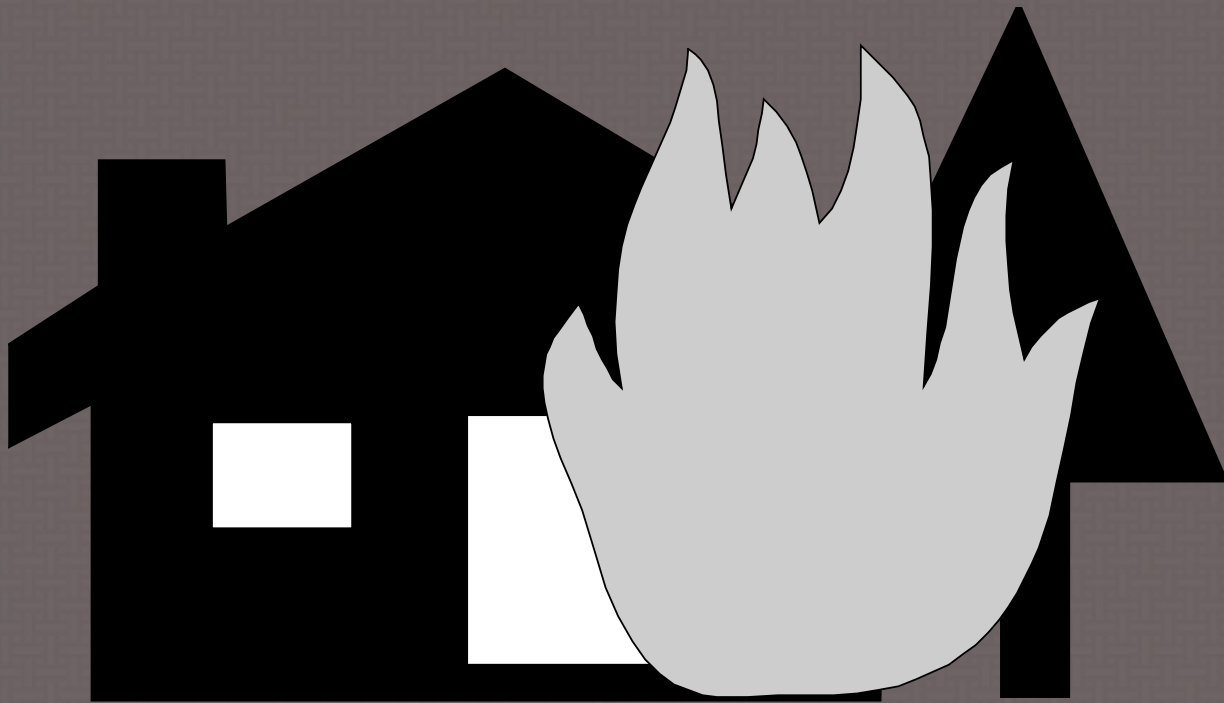


## 9. FIREPROOF YOUR SIGNS AND ACCESS:

- Access to your property is extremely important
- Roads and driveways must be wide enough to accommodate emergency vehicles
- Establish alternate ingress and egress routes
- Make sure your address is clearly displayed on a fireproof sign at the entrance to your property.



# CURRENT REGULATIONS AND REQUIREMENTS:





# WHERE TO FIND APPLICABLE LAWS AND CODES:

California Building Code – Chapter 7

California Residential Code – R337

NFPA 1141, 1142, 1143, 1144, 1145

California Public Resources Code (PRC)

Section 4291









# QUESTIONS OR COMMENTS?

