

# Wildland Fire Assessment Program Toolkit Overview

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## What is the WFAP?

- Wildland Fire Assessment Program
- Free train the trainer program through National Volunteer Fire Council (NVFC) and the U.S. Forest Service
- Easy training to conduct home assessments in the wildland-urban interface (WUI)
- Targeted to volunteers to evaluate a home and provide residents with <u>SUGGESTIONS</u> to protect their property

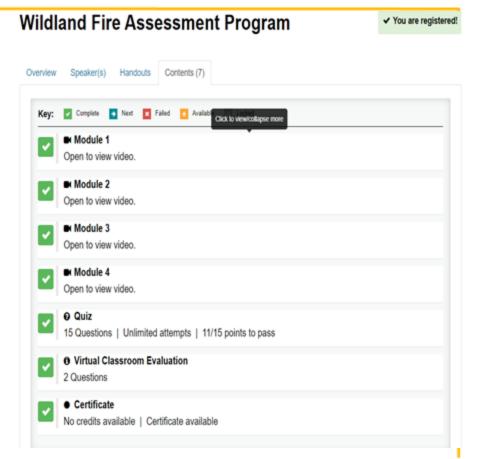






### Overview

- Introduction
- Module 1: Understand the Problem
- Module 2: Identify the Zones
- Module 3: Evaluate the Home
- Examples: Home Assessments
- Module 4: Available Resources





### Introduction

- Online / In-person training (Fellows upcoming in-person training)
- Home Assessment Checklist
- WFAP toolkit
- Quizzes
- Certificate (Upon Completion)



# CALIFORNIA FireSafe

## What the WFAP Toolkit Includes

These include:



Talking Points: information that should be communicated to the audience.



Recommended Discussion Questions: optional, learner-centered questions you can use to engage your audience.



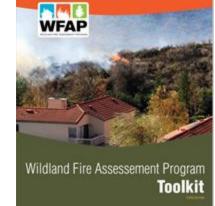
Instructor Notes: ideas for communicating key concepts, getting your audience engaged, or instructor-only information pertaining to the curriculum delivery.



Resource Reference: highlights resources or cites sources of information.

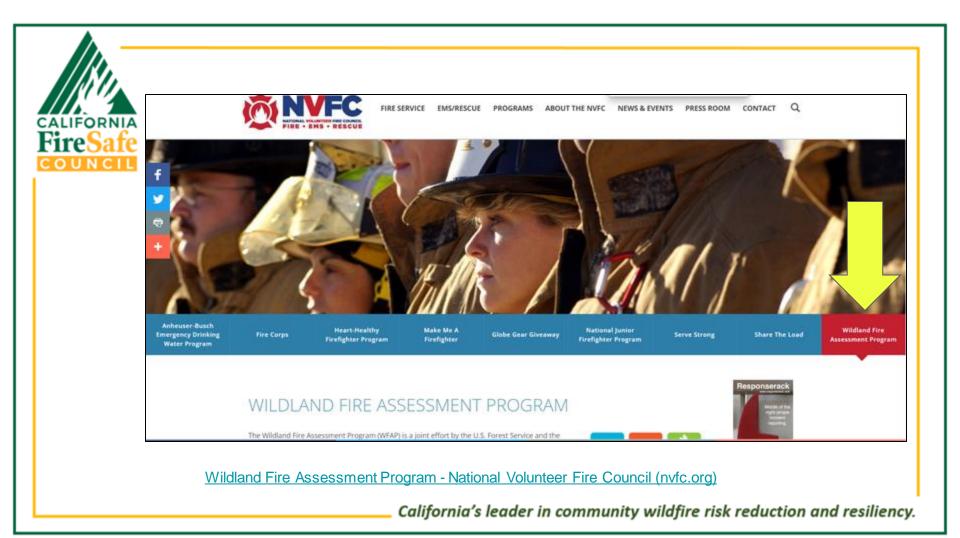


Quiz Question: pinpoints quiz questions and answers.



ONVEC 1

Link to WFAP Toolkit Download





#### In-Person Training:

- The classroom session consists of a four-hour (1/2 day) course that covers understanding the WUI problem, identifying the zones, evaluating the home, and available resources.
- Classroom session plus hands-on component consists of a two-day training that includes the classroom session and an additional
  on-site, mock evaluation where students evaluate a home in the community to put classroom knowledge into action.
- Click here for the upcoming course schedule.
- · Interested in hosting a course? Email Lori Shirley at lori@nvfc.org for additional details

Online Training: This four module course is available in the NVFC Virtual Classroom.

WFAP Toolkit: The toolkit provides information and resources in a train-the-trainer format that can be used to teach the fundagenerals of performing home assessments with and for residents living in communities that are susceptible to wilding any any grouple downloading the file? Right click and choose save to open.)



Assessment Tools: These consist of the WFAP online checklist and online data-tracking system for a fire/EMS department to record how many assessments have been performed and recommendations made to residents. Assessment Tools instructions and additional information are covered in the training and Toolkit.

Supplemental Resources: Customizable documents are available to help implement and market the WFAP program in your community. Instructions for each of the resources below can be found in the WFAP Toolkit.

- Checklist (PDF)
- Certificate Template (DOC)
- Class Evaluation Form (PDF)
- Liability Waiver (DOC)
- Press Release (DOC)
- Flyer (PDF)



## Register

#### Visit: https://virtualclassroom.nvfc.org/wildfire to register for free

#### Wildland Fire Assessment Program

E Contains 7 Component(s)



The Wildland Fire Assessment Program (WFAP) is a joint effort by the U.S. Forest Service and the NVFC to provide departments with training on how to properly conduct assessments for homes located in the wildlandurban interface (WUI). This is the first program targeted to volunteers that specifically prepares them to evaluate a home and provide residents with recommendations to protect their property from wildfires in order to make their community more fire-adapted.

Register More Information

#### Your cart

Product	Actions	Original price	Final price
Wildland Fire Assessment Program	Remove	\$0	\$0
	Total:	\$0	\$0







- Combination of drought, warmer temperature, high winds, and large amounts of dried vegetation in forests and grasslands
- Wildfires can start from: vehicle exhaust, camping, arson, smoking, lightning, and sparks from trains and heavy equipment
- Living in the WUI, wildfires are a problem, but also a natural occurrence
- What are some of the main causes of wildfire in your community?









- Over the years, an increasing number of people have moved to the WUI
- Limited firefighting resources
- Individual efforts to reduce ignitability of their home reduces the chance of exposure of the wildfire
- Learn to identify fuel hazards, assessing and reducing ignition risks, and develop realistic evacuation options







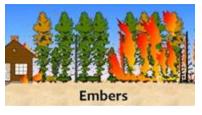
- Three elements required for fire to burn
  - Fuel
  - Oxygen
  - Heat
- Removing any of the element will diminish the fire

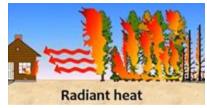




- Three threats or exposures a building could experience during a wildfire, grassfire, or bushfire:
  - Radiant heat
  - Windborne embers
  - Direct flame contact









- Cycle of fire:
  - Topography/terrain, weather, and fuel create extreme fire conditions
  - Wildland fire moves into the WUI and changes its fuel from wildland fuel to urban fuel (homes and property)
  - Fire protection resources can be limited in large-scale disasters, thus fire protection is reduced and minimally effective





- Best ways for residents in the WUI understand the problem is to mitigate and prepare
  - Ready, Set, Go!
  - Firewise
  - Community Wildfire Protection Plan (CWPP)
  - Public education programs
  - Thinning projects and prescribed burning
  - Community fuel breaks
  - Prescribed burning associations





## Module 2: Identify the Zones





## Module 2: Identify the Zones

- Defensible Space
- Structural Ignition Zones (HIZ)
  - 0-5 ft
  - 5-30 ft
  - 30-100 ft and beyond
- Prevention
- Refocusing our Efforts



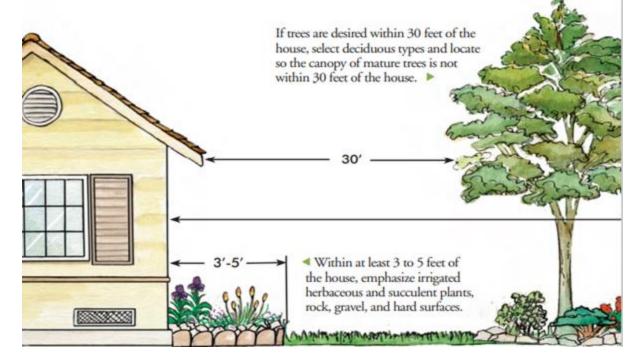


## Module 2: Structural Ignition Zone





Step 1: Measure and mark out defensible space





#### Step 2: Remove Dead Vegetation



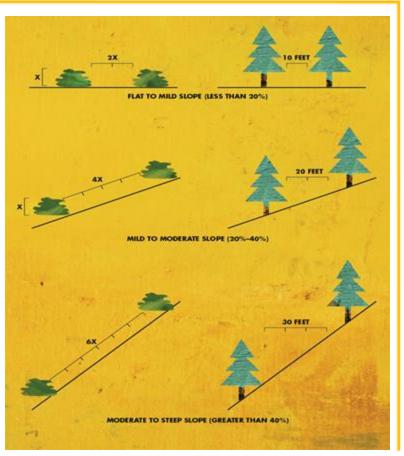
#### **3 R's of Defensible Space**

- **REMOVE** dead and dying grass, shrubs and trees
- **REDUCE** the density of vegetation: prune, mow, and thin
- **REPLACE** hazardous vegetation with less flammable plants or irrigated landscape



#### Step 3: Horizontal Separation

Create separation between shrubs and trees





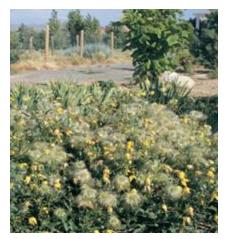
#### Step 4: Vertical Separation

Create a separation between tree branches and lower growing plants





Step 5: Create a lean, clean, and green area in the first 50 feet of the total 100 feet



#### Goals:

 To eliminate combustible materials and vegetation near the house that can ignite from flying embers

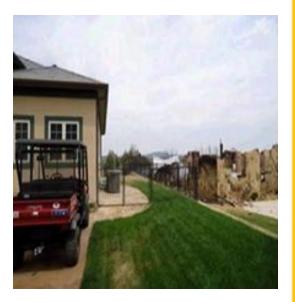
 If a fire does ignite, fire intensity should remain low and likely unable to generate enough heat to ignite the home



#### Step 6: Maintain defensible space zone



Before each fire season, check the property using the previous five steps and continue maintenance throughout the year





## Module 2: Zones of Defensible Space

#### Objectives

- Zone 1 (0-5 ft): reduce the chance of wind-blown embers from a fire landing near the home
- Zone 2 (5-30 ft): create and maintain a landscape that, if ignited, will not readily transmit fire to the home.
- Zone 3 (30-100 ft): is to reduce the energy and speed of the wildfire



Image from Cal Fire



## Module 2: Building Construction

- Non-flammable exteriors-roof and sides
- Dual pane windows
- Ember resistant attic vents
- Non-combustible decks and attachments
- Emergency access



Photo courtesy of California Department of Forestry and Fire Protection



## Module 2: Street Signs/ Home Numbers



#### Street Sign/ Home Numbers

Do they exist? Are they visible? Are they non-combustible?

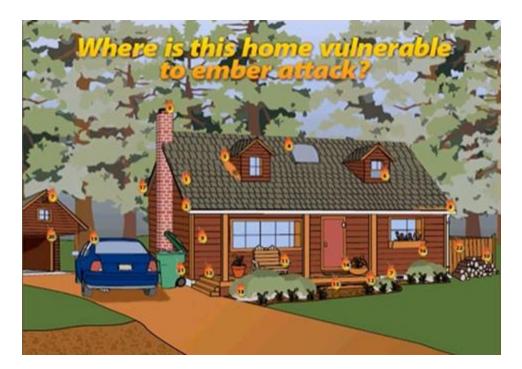






## Module 2: Ember Vulnerability

Depending on fire intensity, wind speed, and the size of materials that are burning, embers can be carried **more than a mile ahead of the fire** 





## Module 2: Prevention

- The safest and cheapest fire is the one that we prevent
- Check for Red Flag Warnings before using power tools, or anything that could cause sparks
- Check power lines near property and see if trees on your property could affect them





## Module 2: Refocusing our Efforts

- Focus on mitigation and preparation actions **before** a wildfire strikes
- Reduce potential fire intensity that vegetation will influence
- Reduce the structures ignitability
- Empower the community to work together to create a fire-resistant landscape





## Module 3: Evaluate the Home





### Module 3: Evaluate the Home

- Conducting a home hazard assessment
- Identifying hazard reduction options
- List homeowner preparedness steps
- Identify evacuation options





# Module 3: Three Things to Keep in Mind as Assessors

- Remember to consider fire history, vegetation, fire regime, and weather conditions in the area
- 2. Well informed recommendations can reduce damage from fire
- Home assessments are valuable to the community





## Module 3: Getting Started

- Get written permission
- Gather your tools
- Utilize the checklist





#### Home Assessment Checklist

This checklist serves as a quick that both the assesser and resident can use to determine problem areas around the hours that can be stooliked or restructational to mitigate damage when a welfate service. Many of the items listed in the checkdat are these or low cost modifications; however, some items range require more significant investment in order to increase a hourn's statety and survivability daming a wildfine. A key for estimating costs is incided if ar many term. Reserverse, if it is predictable, it provestability if and the service of the cost of the statety of the service of the serv

Resident Name:			
Phone:	Ernak		
Address of Horse Being Assessed			
City:	State: Zp:		
Fire Department Name:			
Phone:	Date of the Assessment:		
Assessor(a): Print Name:			
Print Name:			
	Information and recourses were utilized from but not endersed by the following agencies:		
KEY	<ul> <li>Insurance Institute for Business and Horse Safety</li> </ul>		
\$ less than \$500	International Association of Fire Chiefs, Ready, Set, Gol Program		
\$\$ \$500 - \$1,000	Federal Emergency Management Agence, Ready gov		



# Module 3: Checklist Inside the Home Inside the Home

- Y / N / NA Residents have reviewed homeowner's insurance policy and prepared/updated a list of home's contents. Free Suggested Action: \_\_\_\_\_\_
- Y / N / NA All residents know where the gas, electric, and water main shut-off controls are and how to use them. Free Suggested Action:
- Y / N / NA Heavy, fire-resistant drapes are installed throughout the home. \$ \$\$ Suggested Action:
- Y / N / NA Newspapers and rubbish are regularly disposed of at an approved site. Local burning regulations are followed. Free Suggested Action:
- Y / N / NA A screen is installed in front of each fireplace or wood stove. Suggested Action:



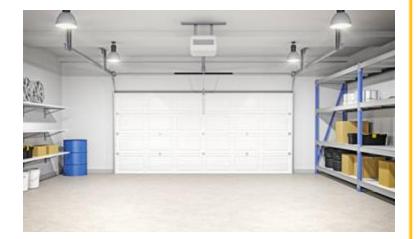
## Module 3: Utility Shut-Offs: Electrical, Water, Gas





# Module 3: Garage and Flammable Materials

- Keep combustibles away from ignition sources such as a water heater
- Make sure flammable materials are in safety cans
- Check the door between the living space and garage is fire-rated and self-closing
- Check for gaps or holes in the garage if necessary





#### Module 3: Personal Preparedness

Step 1: Develop and practice a Family Disaster Plan (at home, at work, in your car)

Step 2: Store drinking water

Step 3: Store food and household goods

Step 4: Protect family assets

Step 5: Have protective clothing (work gloves, cotton or wool)



Step 6: Have first aid supplies California's leader in community wildfire risk reduction and resiliency.



# Module 3: Personal Preparedness Continued

Step 7: Obtain alternate heating & lighting sources

Step 8: Compile emergency preparedness "library"

Step 9: Obtain alternative communications

Step 10: Provide for waste disposal

Step 11: Protect your family and property

Step 12: Care for your pets





#### Module 3: Checklist Outside the Home

# **Outside the Home**

Defensible space is comprised of three zones. The selection and maintenance of vegetation and other combustible items in these zones will determine the adequacy of the defensible space.

#### ZONE 1: 0-5 feet around the perimeter of the home (\$ - \$\$)

- Y / N / NA Hard surfaces are installed in this zone, such as a concrete walkway. Suggested Action:
- Y / N / NA Noncombustible mulch products are used, such as rock. Suggested Action:
- Y / N / NA The lawn is well irrigated and only has low-growing, herbaceous plants. Suggested Action:
- Y / N / NA Dead vegetation is removed and is continuously maintained. Suggested Action:



## Module 3: Roof

Class A: effective against severe fire test exposures (2-4 Hours) Ex: Tile roofing, asphalt, concrete

Class B: effective against moderate fire test exposures (1 hour) Ex: Treated wood material

Class C: effective against light fire test exposures (20 minutes) Ex: Untreated wood material





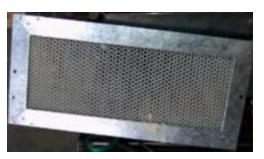




#### Module 3: Ember-Resistant Vents

- Building codes and regulations vary by location.
- Be sure to check with your jurisdiction for approved specifications









#### Module 3: Windows

- One of the most **vulnerable** parts of any home is the **glass windows.**
- Radiant heat from the fire can also impact the glass when there is a fire near the home.
- Dual pane windows= stronger



Outer pane broke from fire. Dual pane windows helped save the house.



#### Module 3: Deck and Fence

- Make sure vegetation does not touch the deck
- Remove patio furniture on red flag days
- Replace any combustible fencing that attaches directly to your home







#### Module 3: Detached Structures

- Create defensible space
- Carefully maintain vegetation
- Play sets should be relocated at least 30 ft. from your home
- Consider a non-combustible material for a trellis







# Module 3: Homes Constructed with Fire-resistant materials

• No home is entirely fireproof

• But fire-resistant materials give the home a better chance.





# **Examples: Home Assessments**



Picture from Cal Fire



#### Home Assessments: Zone 1: 0-5 Feet



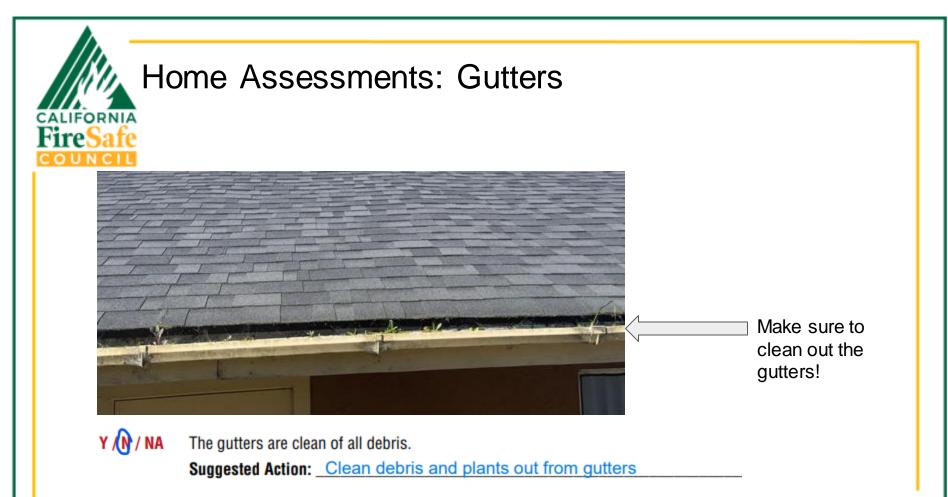


The lawn is well irrigated and only has low-growing, herbaceous plants.
Suggested Action: Remove flammable juniper shrub from side of house.

Y/N/NA

Hard surfaces are installed in this zone, such as a concrete walkway.

Suggested Action: \_





#### Home Assessments: Vents



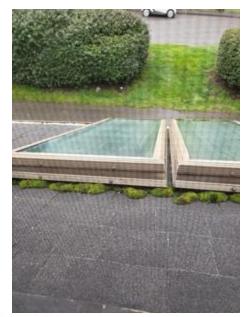


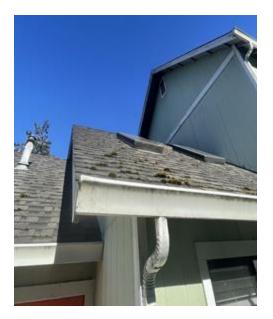
Y/N/NA

Any vents in the eaves are covered with  $\frac{1}{e}$ -inch mesh, corrosion-resistant metal mesh screening. Suggested Action: Consider getting 1/8th mesh and corrosion-resistant metal mesh.



## Roof: Skylights





#### Y / N / NA Accumulated debris is removed, vegetation is pruned, and overhanging limbs are trimmed near any skylight. Suggested Action: Some debris and large clumps of moss growing



# Module 4: Available Resources







Forest Service U.S. DEPARTMENT OF AGRICULTURE





#### WFAP NVFC RESOURCES

- WFAP Toolkit
- The <u>online checklist</u> provided by NVFC is one resource they offer to keep track of forms and data.
- Free web banners, flyers, and more



#### WFAP Home Assessment Checklist

This checklist serves as a guide that both the assessor and resident can use to determine problem areas around the home that can be retrofited or restructured to mitigate damage when a wildfire strikes. Many of the items listed in the checklist are free or low cost modifications; however, some items may require more significant investment in order to increase a home's safety and survivability during a wildfire. A key for estimating costs is included for most items.

KEY (5) less than 5500 (55) 5500 - 51,000 (555) 51,000 - 55,000 (5555) more than 55,000		
Contact Information	(2) inside the Home	() Outside the Home
Resident Name	-	
Phone Number		
<u> </u>		
Get your <mark>free</mark> wild	lland fire home as	sessment done today!



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## OUR WEBSITE

• Feel free to visit <u>California Fire Safe Council</u> website

to find the resources below.



#### Evacuation Guide

Fire Safety

#### List of Fire Safe Councils

Starting a New Fire Council











## Module 4: Available Resources



#### CAL FIRE Incidents Map



Wildland Fire Information

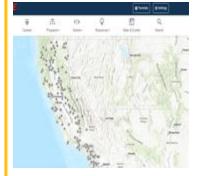




#### <u>Wildfire Hazards Training</u> <u>Public Education</u>











Wildfire Safety



**Questions?** 

# Please fill out the survey <a href="https://bit.ly/WFAPSURVEY">https://bit.ly/WFAPSURVEY</a>

