BEFORE THE COMMISSIONERS APPOINTED BY THE CENTRAL OTAGO DISTRICT COUNCIL

UNDER	the Resource Management Act 1991
IN THE MATTER	of RC230179 an application for a 30-lot subdivision at Rocky Point on Tarras-Cromwell Road (SH8)
BY	**TKO PROPERTIES LIMITED**
	Applicant

SUPPLEMENTARY STATEMENT OF EVIDENCE OF JAMES PATRICK COWAN

Dated: 6 November 2024

TODD & WALKER law
LAWYERS | NOTARY PUBLIC

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Supplementary statement of evidence of Jamie Cowan

Introduction

[1] My name is JAMES PATRICK COWAN (known as Jamie).

[2] I am the Director of Wildfire Management NZ Ltd.

[3] Since the time of writing my evidence chief, I have received further comment from FENZ in respect of proposed recommendations for the proposal.

[4] As set out in the attached email, the recommendations listed by FENZ have all been recommended by me, save for the inclusion of internal sprinklers, and included in the proposed wildfire mitigation strategies as set out in my evidence.

James Cowan
6 November 2024

Attachments: scan_mawhinnm_2024-11-04-14-20-46.pdf

From: Mawhinney, Mark <mark.mawhinney@fireandemergency.nz>
Sent: Monday, November 4, 2024 2:29:54 PM
To: Jamie Cowan <jamie@wildfirenz.nz>
Subject: Rocky Point Subdivision Bendigo

Hi Jamie and Tim. Thanks for showing me around the site. Detailed below are my findings.

As a Risk Reduction Officer for Fire and Emergency NZ, (FENZ) I carried out a site inspection of the proposed Rocky Point subdivision on the 30 October 2024. The following is a brief summary of what is proposed and recommendations from FENZ

- The proposed development sites sit on moderate slopes within an arid manuka/kanuka scrub environment.
- The Kanuka/Manuka is thickest within the gullies and has a limited understory. Where this vegetation is scattered, a fire under moderate fire danger conditions may have a limited ability to spread due to this lack of understory.
- The highest potential for an ignition that may cause a damaging wildfire would be from the highway downslope of the proposed development and the powerlines running through and below the development.
- A wildfire in this environment under very high to extreme fire danger conditions could move upslope with serious consequences to anyone in its path.
- There are to be two points of vehicular access/egress and the vineyards to the east can be utilised by foot traffic as a safety zone

My understanding is that the developers are proposing the following infrastructure relevant to fire risk and wildfire mitigation strategies.

1. Hydrant water supplies that meet the FW2 classification under NZ PAS4509.
2. Approx 26 wildfire sprinklers in the gully's downslope and near to the building platforms.
3. Water storage and supply to enable ember sprinklers to operate on houses where required.
4. All access roads will meet the FENZ width and clearance requirements.
5. As per FENZ fire smart guidance – "preparing home landscaping" (attached), all flammable materials should be cleared to within 1.5m of any proposed buildings (Zone 0).
6. Flammable vegetation should be cleared within Zone 1 (1.5 to 10M from any building) (Some manuka specimens can be left in this zone , however they must be well spaced (6m or more) and pruned at least 1.5m from the ground with any dead material removed from the crown)
7. Flammable vegetation should be thinned and pruned at least 1.5m from the ground within Zone 2 (out to 30m from any proposed buildings)
8. Powerlines that run though the centre of the development and a portion of the line that leads down to the highway pose a risk of starting a wildfire. These should be either designed to not start fires in high winds; dividers to stop lines arching, upgraded line and pole maintenance programmes. Or lines are buried. These and other options should be discussed with the lines company.
9. Plantings of low flammability species to be introduced in key locations.

Other recommendations:

1. That the developers work with CODC to support mowing and clearance of the camping area below the development. If the roadside area is well mown and cleared of weeds and scrub, this will help to ensure any fire originating in this location can be contained from jumping over the highway and up the hill in the proposed development. I am happy to approach CODC and highlight the risks that this reserve poses. I am aware that over the years, this risk has been highlighted and mitigation steps have been introduced.
2. Future homeowners should be made aware of the risks and have the following strategies in place:
    a. Construction materials should be of low flammability particularly on the downslope side of any buildings. See FENZ "Wildfire Safer Housing Guide" Protect your home from outdoor fires | Fire and Emergency New Zealand
    b. All residents should have a fire plan, including a household evacuation plan, Everyone needs to know what to do in the event of a fire.
    c. Activities that could start a fire should be managed to minimise the risk on an ignition, such as mowing grass on hot dry windy days.
    d. Continual management of vegetation to ensure it meets the guidelines as per the attached "fire Smart Documents"
    e. Internal sprinklers are recommended. These will significantly reduce the likelihood of a fire spreading inside a house and from the house to other properties.

Summary:

From my observations and what I have been told by the developer, the resource consent proposal meets all requirements under NZPAS:4509.
The proposed wildfire mitigation strategies, if applied correctly, will adequately mitigate wildfire risk for this development.
The developers are taking practical steps to ensure the safety of the development's future residents.

It must be acknowledged that wildfires are unpredictable. In the most extreme weather events, there is likely to be a greater risk to homes and residents. Where there is a failure of the proposed systems or a failure of residents to carry out the necessary Fire Smart standards this could also lead to increased risk to homes and residents.

Regards

Mark Mawhinney
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Te Kei Otako (Region 5 Otago)

PREPARING HOME LANDSCAPING

Wildfire has the potential to significantly impact on people's lives and homes, but it is possible to design and maintain homes and property in ways that reduce vulnerability to wildfire. A key component of this protection is the proper placement and maintenance of plants around the home. While many are seeking plants that have a label that assures some level of fire resistance, it is important to recognize that **any plant will burn under the right conditions** and thus regular plant maintenance is critical.

To be able to reduce ember, radiant heat, and direct flame contact exposure to a home, develop and implement a three-zone strategy whereby the highest priorities and most restrictive measures are incorporated in the area closest to the home or other building of interest.

Incorporating these strategies does require some adjustment from the ways of the past, but with some small changes to the approach, **it is possible to have both a beautiful landscape and a home that is more resilient to wildfire**. Work from the house outward to make sure the structure itself is hardened against fire, then implement the guidelines here in concentric circles moving away from your structures.

To create a fire-resistant landscape:

1. **Design and implement defensible space**
    - Create fuel breaks surrounding your house and within your garden.
    - Create space vertically and horizontally via plant placement and pruning.
    - Use hardscape and noncombustible materials around structures and to separate individual plants and groups of plants.
    - Use the right plants in the right places with fire, climate, and irrigation needs in mind.
    - Create plant islands that have similar sun, nutrient, and water needs.
    - Replace combustible gates that attach to the house with materials that will not burn.
2. **Maintain your landscape**
    - Keep your garden free from dry and dead wood, dry grasses, and leaf litter, especially near any structures.
    - Prune plants to provide horizontal and vertical space throughout your garden and surrounding structures.
    - Eliminate fire ladders. A grass fire can move up into shrubs and then into trees.
    - Hydrate plants with a water-wise irrigation system. Use non combustible mulches near to the house.

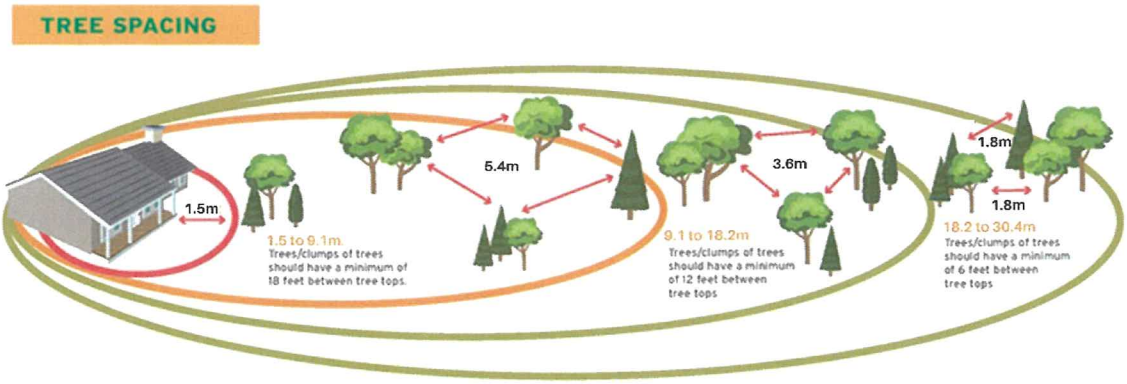
Defensible Space is only part of a larger landscape management strategy, designed to protect your home and property. The general surroundings leading up to your home must be considered as part of your wildfire preparedness planning.

Vegetation management

Treating fuels within the first 1.5 metres of structures is one of the most important aspects of wildfire hazard mitigation.

During wildfire, structures are threatened not only by the flaming front of the fire, but also by flaming embers that are lofted ahead of the fire front and can come into contact with receptive fuels (e.g vegetation or mulch next to the house), igniting new fires. Traditional defensible space tactics are designed to mitigate threats from the flaming front of the fire but do little to address vulnerabilities to embers on or directly adjacent to a structure. Without attention to ember-related risks, defensible space efforts only address a portion of the wildfire threat—especially during wind-driven fires in which embers are the primary source of fire spread.

Helping residents achieve greater wildfire resiliency will take a coupled approach and greater awareness of ember protection. Homes survive wildfire through a combination of 1) careful design and maintenance of landscaping; 2) awareness and management of combustible materials on the property (e.g., leaf litter, wood piles, and lawn furniture); and 3) incorporation of fire- and ember-resistant construction materials with appropriate installation and maintenance.



Source: National Fire Protection Association (nfpa.org)

First responder access

Road access is crucial for your personal safety as well as those of first responders. Ensure that there is **enough space** for firefighting equipment to move onto your lot, as close as possible to your home and **multiple access points** to

your parcel. During incidents, power lines or trees falling across roads are not uncommon. Work to develop:

- Two or more roads in and out of your parcel provides an alternate route in case of emergency. Dead-end roads should have a turnaround as approved by the local fire authority.
- Each road should be accessible year round and at least 4 metres wide
- Road grades should be less than 5% (1.5 metre rise for each 30 metre distance) are more accessible for larger fire equipment.

Steep slopes and wind

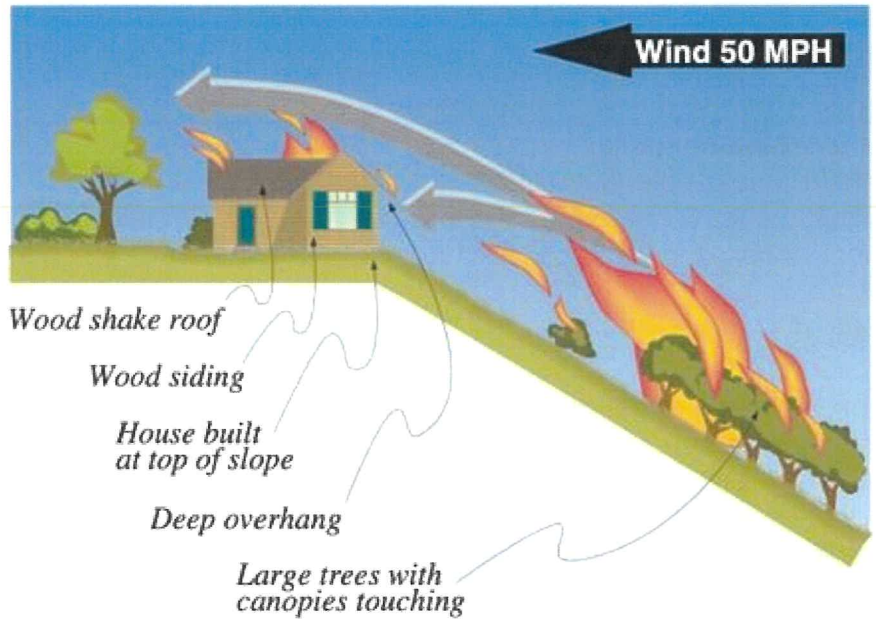
If the home is located on a steeper slope, in a drainage, in a windy area, or an area surrounded by unusually dense, tall, or combustible vegetation, thinning recommendations increase. Additionally, if the home is in a vegetation type that is especially prone to wildfire or has an active fire history, the greater the clearance and separation between plants and plant groupings the better. When the home is at the top of a slope keep in mind that fire and heat rise, allowing for pre-heating of the upslope fuels, resulting in the potential for more intense fire behaviour. In these cases, greater effort should be directed at the area downslope of the home with even higher levels of fuels treatment given to the area below a deck. Recommendations based on the judgement of fire professionals are given below.

Under 20% slope: Space shrubs **2 x** the height

20-40% slope: Space shrubs **4 x** the height

Greater than 40%: Space shrubs **6 x** the height

Dangerous materials and conditions for sloped sites



Source: East Bay Municipal Utility District (ebmud.com)

Wind is another factor to consider alongside aspect and slope. A North-facing slope with Northerly winds can easily span the 10 metre "lean and clean" recommendation. Work with your local resource experts to install adequate measures if your property is at risk.

Decorative Features such as fencing, firewood and gazebos should be considered in laying out your landscape. As with other fuels, these are combustible materials which only serve to add heat and embers during wildfires. Use appropriate clearance or modify positioning for these features to reduce the threat from burning embers.

DEFENSIBLE SPACE

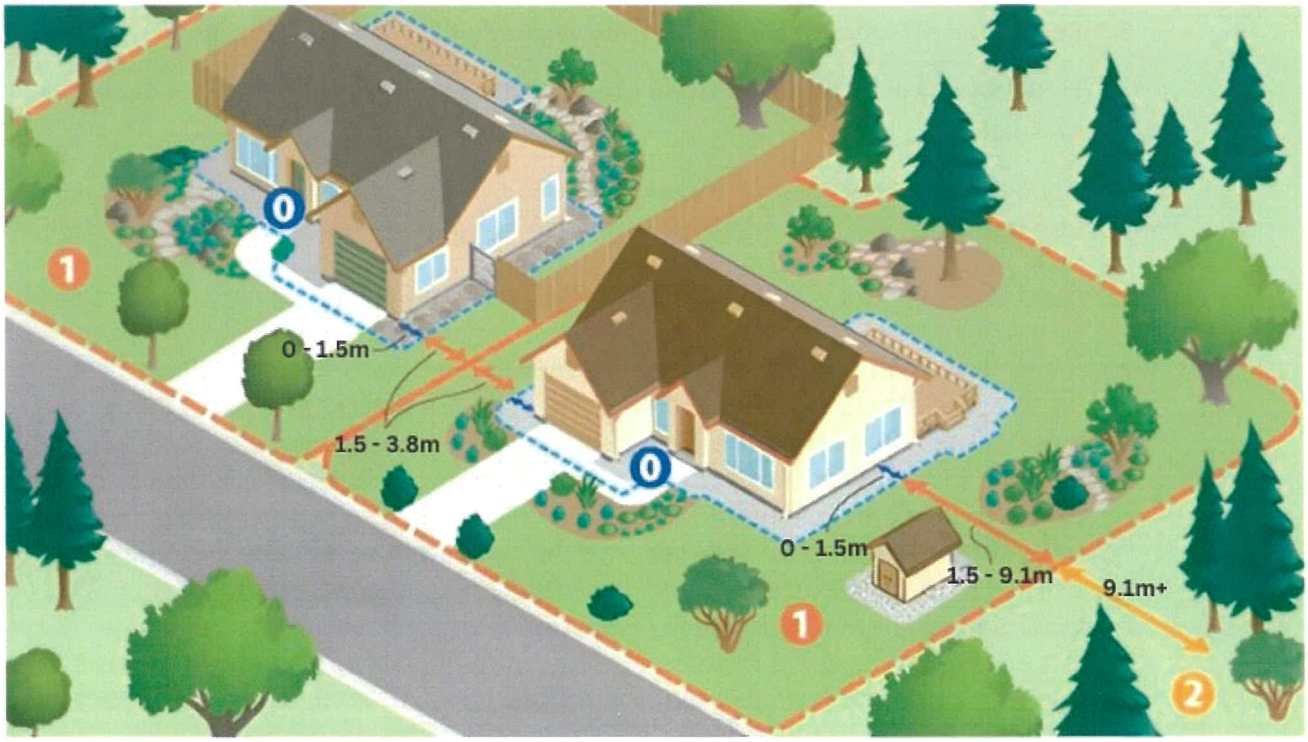
Defensible space is a term used to describe the careful selection, location and maintenance of vegetation and other combustible materials on the property. The purpose of defensible space is to:

1. **Minimize the pathways** of wildfire to burn directly to the home
2. **Reduce radiant heat exposures** to the home and structures
3. Reduce the potential for **embers to ignite vegetation** adjacent to the home
4. Provide a **safe place for fire personnel** to defend the home and allow for safe routes for evacuation.

The priority is to **start at the house and work outwards** giving the greatest effort to eliminating combustible vegetation and other materials within five feet of the house and any attached decks.

- **Zone 0**: In the first 1.5 metres surrounding any structure and attached deck, avoid anything combustible- this includes woody plants, mulch, woodpiles, combustible trellises, and stored items. Zone Zero is an excellent location for walkways, or hardscaping with pavers, rock mulch, or pea gravel. Zone 0 should be coupled with a 150mm noncombustible zone between the ground and the start of the building's exterior siding
- **Zone 1:** 1.5-10 metres from the structure should be "lean and clean". The goal is to eliminate connectivity between islands of vegetation by increasing the spacing between trees, removing lower branches of trees and shrubs, and creating areas of irrigated and mowed grass or hardscape between lush vegetation islands. Plants should be properly irrigated and maintained to remove dead/dry material.

- **Zone 2**: 11-30 + metres out to the property line. The goal is to moderate potential fire behaviour by reducing the density of the trees, shrubs, and herbaceous plants or grasses to slow fire spread and reduce flame heights. Shrubs and trees should be well spaced and pruned to eliminate fuel ladders, where fire can climb from a ground fire to the tops of the vegetation.
- **If you don't own a 30 metre zone or more around the house**: prioritize implementing the recommended actions under Zone 0 and 1. After completing these actions, work with neighbors to support each others efforts.
- **If the property is large**: As the size of the property expands so do the opportunities for strategic fire defense. It is a good practice to thin and prune trees, mow grass, and cut back shrubs along any road systems to allow for safe emergency access to and evacuation from the property. Strategic fuel breaks may be an option, especially along ridgelines or other critical control points that the local fire department can help identify. Broadscale fuel ladder reduction will be of benefit for tree survival. Water storage and installation of easy to access pipe fittings for fire personnel is also recommended.



TREES

Trees have many beneficial qualities, including their ability to absorb solar radiation and provide shade. Unfortunately, a tree that is overhanging a home can cause physical damage to the house from branches rubbing on the roof or walls, and more importantly from a fire perspective, leaf and needle drop will result in greater accumulation of debris on the roof, in gutters, and on decks and surrounding landscape. For these reasons, it is recommended to remove trees or branches that overhang any roof or deck. A healthy and lush green tree canopy itself is not necessary immediately flammable or receptive to embers.

To maintain the benefits of the shade tree while simultaneously increasing fire safety, move trees back to Defensible Space Zone One, prune the lower limbs, and eliminate vegetation, vines, and other dead fuels that would allow for fire to move from the ground to the upper portion of the tree (i.e., the tree crown). If a tree is diseased or showing signs of decline, consider its removal or replacement.

The crown of a tree should be at least 3 metres away from the nearest structure. This reduces the volume of litter drop on the roof and deck, reduces the potential for falling branches to damage the roof, and protects the foundation from root growth.

As plants and trees age they shed bark, limbs, and leaves. These materials become fuels over time. Keep in mind that some tree and shrub species, such as Italian Cypress and junipers, can easily mask their dead materials. Gardeners often miss dead accumulations that can easy be ignited by embers or flames. Maintenance of vegetation near the home is critical.

MULCH

Mulch plays an important role in your landscapes. Proper mulch application provides benefits to water retention, soil temperature, weed inhibition, and soil erosion. These qualities can help reduce fuel risk in fire prone areas, but also introduces a new combustible material into your landscape. For this reason, it is important to consider the **type**, **location**, and **quantity** of mulch used.

Recommendations

Maintaining non-combustible, ignition–resistant areas immediately adjacent to structures is particularly important. Embers often accumulate adjacent to structures, providing an ignition source for combustible materials.

For areas **less than 1.5 Metres** away from structures, non-combustible rock, gravel, concrete and pavers should be used. Live plants, even when irrigated, are **not** recommended.

For areas between **1.5 and 10 metres** of structures, large bark nuggets and composted wood chips may be used in small batches. Since these materials are combustible and will transmit fire across an area, do not use them in a widespread or continuous manner. Within this perimeter, alternate areas between bark and non-combustible materials such as concrete, gravel, rock and lawn.

Spray–on fire retardants are typically only effective at suppressing fire spread for 5 - 10 minutes. Water soluble fire retardants are also at risk of losing their effectiveness due to precipitation or irrigation of mulch material.

Irrigating wood and bark mulches, should not be relied upon to lessen fire hazard. Irrigation does reduce the ignitability of mulches, but water supply and pressure may be limited or unavailable during a wildfire. Furthermore, the dry, hot and windy weather seen during wildfires will dry out the mulch bed well in advance of the flaming front.

Material options

Composted Wood Chips under 75mm in size, should be applied 50-100 mm deep. This material has low burn characteristics, but may smolder. Smoldering combustion produced by this mulch treatment may not be readily noticeable during a wildfire event and may go undetected by firefighters.

Rice Straw or Coconut Fiber mulches are often the most effective treatment to protect gentle slopes from erosion. Find more information about installing post fire erosion control here.

Shredded Rubber, **Pine Needles** and **Shredded Cedar Bark** have among the highest hazardous combustion characteristics and are recommended for use only in areas more than 10 metres from the house. Although shredded rubber is not a natural woody mulch, it is still flammable and will smolder and flame. It should be limited to use under play equipment and more than 10 metres from structures.

Paving Stones, **Gravel**, and **Decomposed Granite** are non-combustible and should be used within 1.5 metres of the home, along pathways, and to segment patches of combustible vegetation.

DO NOT REMOVE

Protect Your Home

7 Ways Residents Can Reduce the Risk that their Homes & Property Will Become Fuel for a Wildfire

#1 Clear

Clear off pine needles, dead leaves & anything that can burn from your rooflines, gutters, decks, porches, patios & along fence lines. Falling embers will have nothing to burn.

#2 Store Away

Store away furniture cushions, rattan mats, potted plants & other decorations from decks, porches & patios. These items catch embers and help ignite your home if you leave them outside.

#3 Screen & Seal

Wind-borne embers can get into homes easily through vents & other openings and burn the home from the inside out. Walk around your house to see what openings you can screen or temporarily seal up.

#4 Rake

Embers landing in mulch that touches your house, deck or fence is a big fire hazard. Rake out any landscaping mulch to at least five feet away.

#5 Trim

Trim back any shrubs or tree branches that come closer than 5 feet to the house and attachments, and any overhanging branches.

#6 Remove

Walk around your house and remove anything within 30 feet that could burn, such as woodpiles, spare lumber, vehicles and boats – anything that can act as a large fuel source.

#7 Close

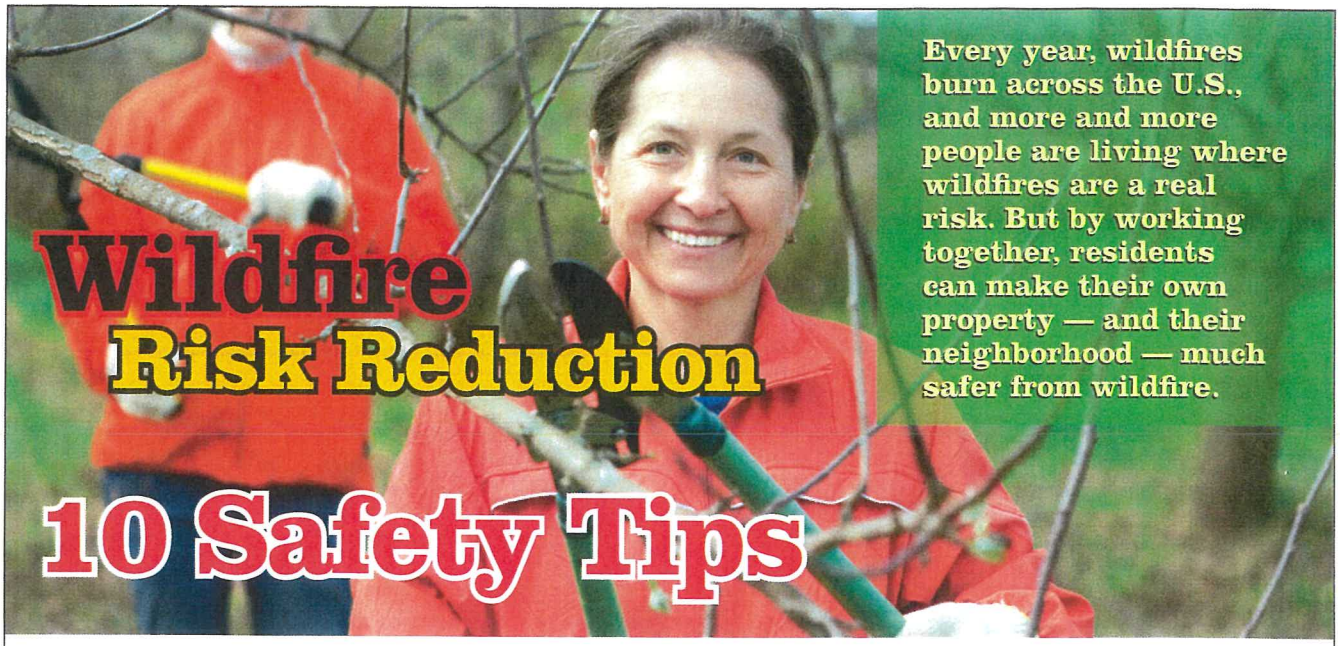
If ordered to evacuate, make sure all windows & doors are closed tightly, and seal up any pet doors. Many homes are destroyed by embers entering these openings and burning the house from the inside out.

NFPA

NFPA has many more tips and safety recommendations on its websites, including www.firewise.org.

DO NOT REMOVE

DO NOT REMOVE



Wildfire Risk Reduction

10 Safety Tips

Every year, wildfires burn across the U.S., and more and more people are living where wildfires are a real risk. But by working together, residents can make their own property — and their neighborhood — much safer from wildfire.

Action Items to Improve Your Home's Survivability:

- **REMOVE** leaves, pine needles, and other flammable material from the roof, gutters, and on and under the deck to help prevent embers from igniting your home.
- **SCREEN** areas below decks and porches with 1/8" wire mesh to help prevent material from accumulating underneath.
- **COVER** exterior attic and soffit vents with 1/8" wire mesh to help prevent sparks from entering your home.
- **ENCLOSE** eaves to help prevent ember entry.
- **INSPECT** shingles or roof tiles. **REPLACE** missing shingles or tiles. **COVER** ends of tiles with bird stops or cement to help prevent ember penetration during a wildfire.

Tips for Landscaping Around Your Home

- **REMOVE** dead vegetation and other flammable materials, especially within the first 5 feet of the home.
- **KEEP** your lawn hydrated and maintained. If it is brown, cut it down to help reduce fire intensity.
- **PRUNE** tree limbs so the lowest branches are 6 to 10 feet above the ground to help reduce the chance of fire getting into the crowns of the trees.
- **MOVE** construction material, trash, and woodpiles at least 30 feet away from the home and other outbuildings.
- **DISPOSE** of branches, weeds, leaves, pine needles, and grass clippings that you have cut to reduce fuel for fire.

YOU CAN MAKE A DIFFERENCE!

Increase your wildfire safety. Make simple low-cost changes to your home and landscape starting today.

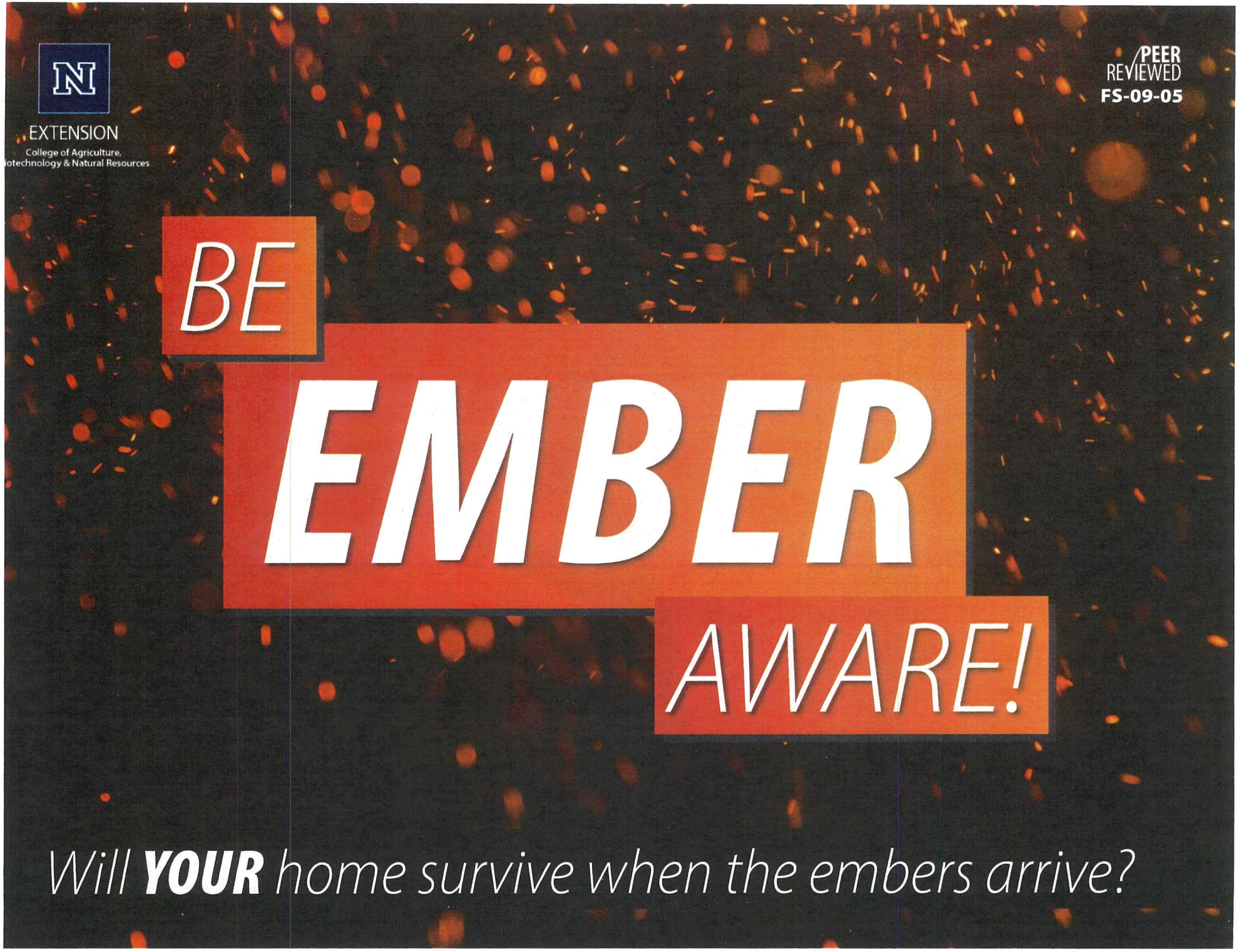
Visit **www.firewise.org** for more information.

Your Logo

NFPA

IT'S A BIG WORLD.
LET'S PROTECT IT TOGETHER.®

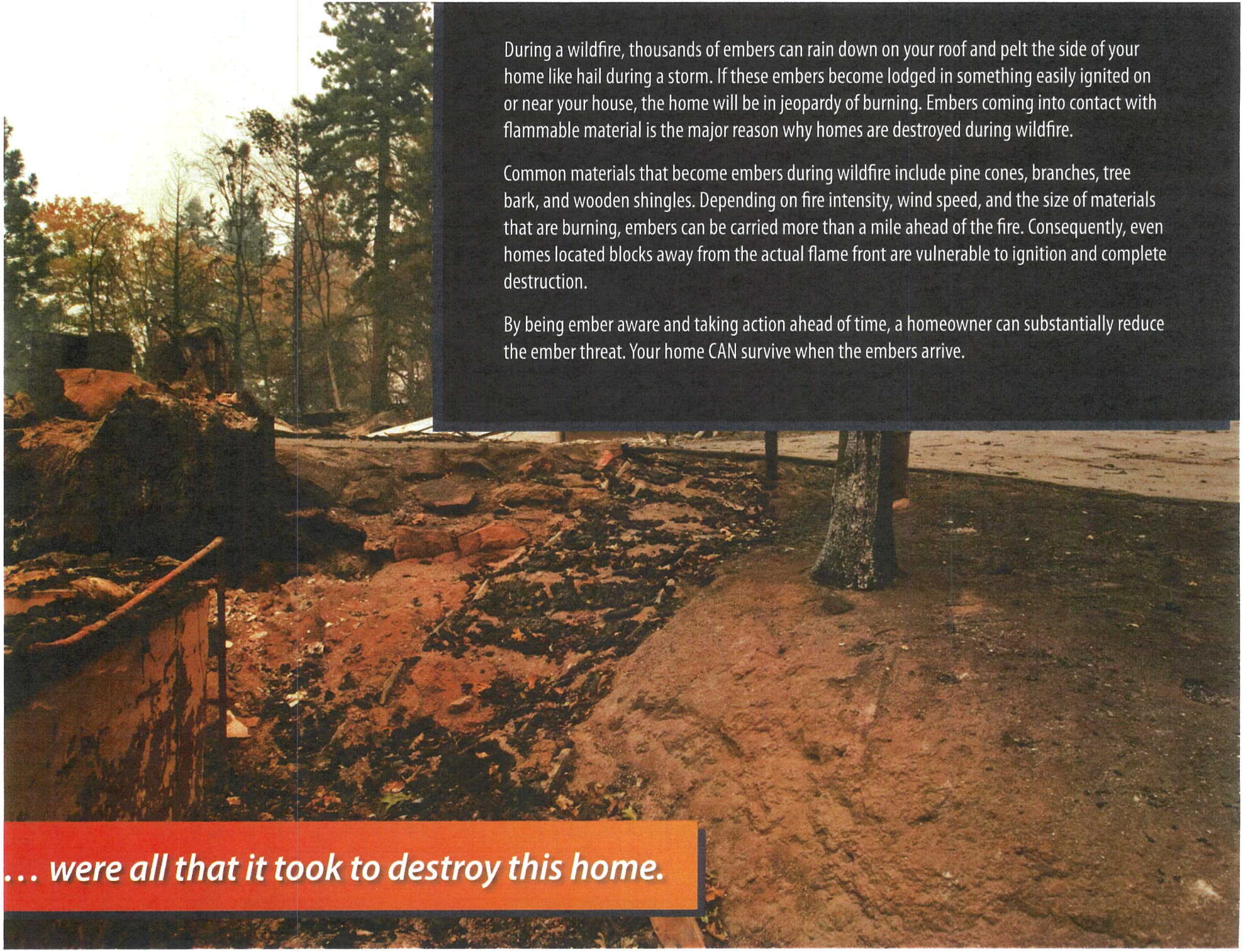
Do not remove



DO NOT REMOVE

A wooden house, a small pile of pine needles and glowing embers . . .

Do not remove



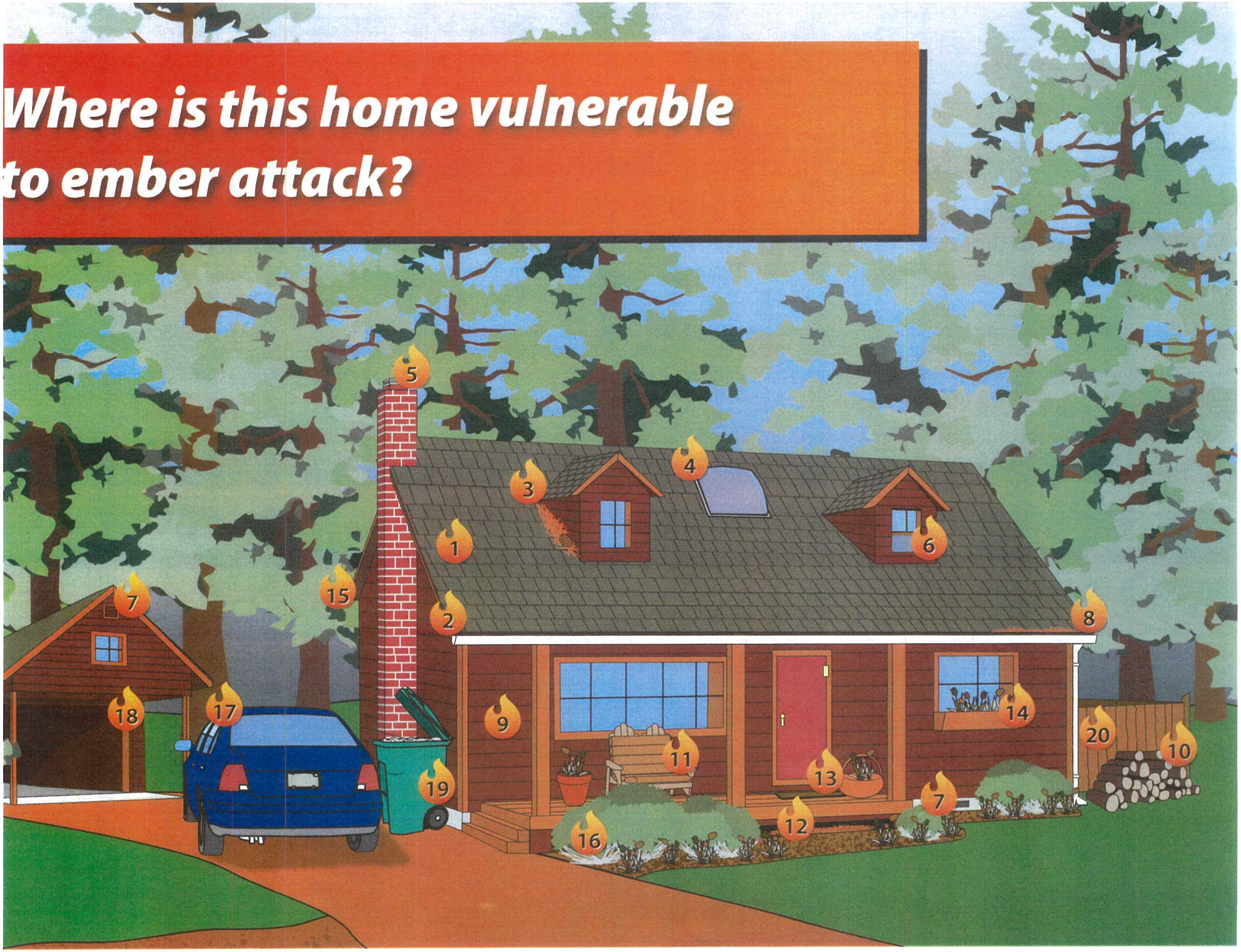
During a wildfire, thousands of embers can rain down on your roof and pelt the side of your home like hail during a storm. If these embers become lodged in something easily ignited on or near your house, the home will be in jeopardy of burning. Embers coming into contact with flammable material is the major reason why homes are destroyed during wildfire.

Common materials that become embers during wildfire include pine cones, branches, tree bark, and wooden shingles. 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. Consequently, even homes located blocks away from the actual flame front are vulnerable to ignition and complete destruction.

By being ember aware and taking action ahead of time, a homeowner can substantially reduce the ember threat. Your home CAN survive when the embers arrive.

. . . were all that it took to destroy this home.

Where is this home vulnerable to ember attack?



Ember Awareness Checklist

1 **Roofs**
Replace wood shake and shingle roofs with fire-resistant types such as composition, metal and tile.

2 **Roof Openings**
Plug openings in roof coverings, such as the open ends of barrel tiles, with non-combustible materials.

3 **Roof Debris**
Remove plant debris, such as pine needles, leaves, branches and bark, from the roof.

4 **Skylights**
Replace plastic skylights with types constructed of double-pane glass. One of the panes should be tempered glass. Close skylights if wildfire is threatening.

5 **Spark Arrester**
Install an approved spark arrester on chimneys.

s house was ignited by burning embers landing on vulnerable
ots. Notice the adjacent forest is not burning.

6 **Windows**
Replace single-pane, non-tempered glass windows with multiple-pane, tempered-glass types. Close all windows if wildfire is threatening.

7 **Vents**
Cover attic, eave and foundation vents with 1/8-inch wire mesh or install new vent types designed to prevent ember entry. If wildfire is threatening, consider covering vent openings with pre-cut plywood or aluminum foil folded several layers thick and stapled.

8 **Rain Gutters**
Keep rain gutters free of plant debris during fire season. Consider using rain gutter covers to reduce maintenance.

9 **Siding and Trim**
Fill gaps in siding and trim materials with a good quality caulk and replace building materials in poor condition.

10 **Woodpiles**
Move firewood stacks and scrap lumber piles at least 30 feet from the house or other buildings.

11 **Patio Furniture**
Place combustible patio furniture, such as lounge chairs, tables and hammocks, inside the house or garage if wildfire is threatening.

12 **Decks**
Replace any weathered or decayed materials, as well as deck boards that are less than one inch thick, with thicker boards in good condition. Use metal flashing between the deck and the house. Routinely remove plant debris from the gaps between deck boards, the gap between the deck and the house, and lying on top of the deck. Remove plant debris, woodpiles and other easily ignited materials from under decks. Consider enclosing the open sides of the deck with ignition-resistant siding materials that are properly vented or 1/8-inch wire mesh to reduce maintenance, the amount of windblown debris and deter ember entry. Do not use wooden lattice to enclose decks.

13 **Porch and Deck Accessories**
Remove combustible materials from the porch and deck if wildfire is threatening. This includes newspapers, wicker baskets, door mats, pine cones and dried flower arrangements. Move barbecues with small propane tanks into the garage. Place larger tanks that are 5 gallons or more away from the house where they can safely vent.

14 **Flowerboxes**
Remove wooden flowerboxes from beneath windows if wildfire is threatening.

15 **Eaves**
Cover open eaves with sheathing, such as plywood or fiber-cement board. Use tongue and groove joints or other intricate joint types and do not use butt joints.

16 **Flowerbeds**
Replace wood mulches with noncombustible types and remove plant debris, including dried grass and flowers, dead leaves and dead branches from flowerbeds next to the house, other buildings and next to wooden fences. Replace ornamental junipers with low-growing deciduous shrubs or flowers under irrigation.

17 **Vehicles**
Close vehicle windows. Back into the garage and close the garage door or park away from the house.

18 **Garage Door**
Adjust garage doors to achieve as tight a fit as possible with the door frame. Consider using trim around the garage door opening to reduce the size of the gaps. Close the garage door if wildfire is threatening.

19 **Garbage Cans and Recycling Bins**
Use metal garbage cans covered with tight fitting lids near the house or other buildings. Move newspaper recycling bins indoors.

20 **Fences**
Maintain wooden fences in good condition and create a noncombustible fence section or gate next to the house for at least five feet.

LIVING WITH FIRE

For more wildfire threat reduction tips, go to livingwithfire.com

Be Ember Aware! Will Your Home Survive When the Embers Arrive? FS-09-05 was produced by University of Nevada, Reno Extension. It was written by Ed Smith, former Natural Resource Specialist, with assistance from Sonya Sistare, former Living With Fire Program Co-manager. The Ember Aware project is part of the Living With Fire Program. The Living With Fire Program works in a complementary and collaborative fashion with the Ready, Set, Go! Program. Funding for the original project was provided by a National Fire Plan grant from the Bureau of Land Management, Nevada State Office. This reprint was made possible by an Assistance Agreement with the BLM. Graphic design and layout provided by the RGJ Custom Publishing Group with 2022 accessibility updates provided by Megan Kay, Living With Fire Outreach & Content Coordinator.

University of Nevada, Reno Extension is a partnership of Nevada counties; University of Nevada, Reno; and the U.S. Department of Agriculture.

EXTENSION
College of Agriculture, Biotechnology & Natural Resources

READY, SET, GO!

DO NOT REMOVE

HOME IGNITION ZONE CHECKLIST

SIMPLE STEPS FROM ROOF TO FOUNDATION TO MAKE A HOME SAFER FROM EMBERS AND RADIANT HEAT

- [ ] Clean roofs and gutters of dead leaves, debris and pine needles that could catch embers
- [ ] Replace or repair any loose or missing shingles or roof tiles to prevent ember penetration
- [ ] Reduce embers that could pass through vents in the eaves by installing 1/8 inch metal mesh screening
- [ ] Clean debris from exterior attic vents and install 1/8 inch metal mesh screening to reduce embers
- [ ] Repair or replace damaged or loose window screens and any broken windows
- [ ] Screen or box-in areas below patios and decks with wire mesh to prevent debris and combustible materials from accumulating
- [ ] Move any flammable material away from wall exteriors – mulch, flammable plants, leaves and needles, firewood piles – anything that can burn
- [ ] Remove anything stored underneath decks or porches

VISIT FIREWISE.ORG FOR MORE DETAILS

Image by NFPA, with funding from USDA Forest Service

DO NOT REMOVE