

Take Control of Your Wildfire Risks

Identify your risks and prepare your property BEFORE a wildfire strikes.



Local non-profit

Lewis & Clark,
Jefferson, and
Broadwater counties.



Protect Your Home From Wildfire

Free Wildfire Risk Assessments
Cost-Share Programs
Outreach & Education

TCFSWG.ORG



Create Ignition Resistant Space



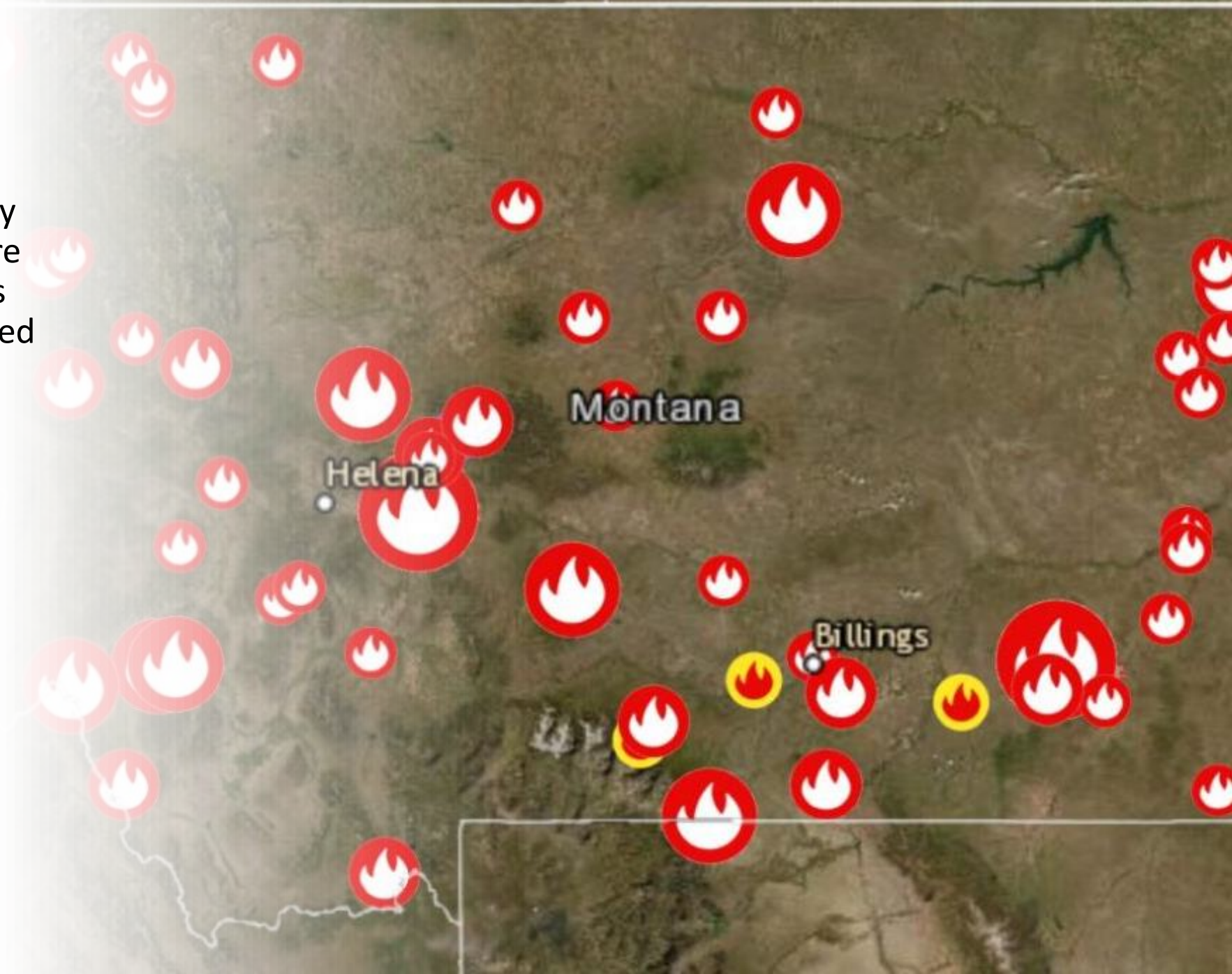
Assisting property owners in identifying and mitigating their property's ignition risks to wildfire.

- Wildfire Risk Assessments/Safety Visits.
- Cost-Share Mitigation Projects.
- Outreach, Education & Planning.

WHAT IS THE
PROBLEM,
WHY THE CONCERN?



- In the absence of low-intensity and frequent burns, forests are less healthy, and communities are threatened by the increased risk of major fire events.
- Wildfires are burning larger, longer and more intense.
- In some areas, wildfire season can be a year-long threat.



An aerial photograph of a wildfire in a forested area. A helicopter is seen dropping a large volume of water, creating a thick white plume that falls towards the fire. The surrounding forest is dense with green trees, and a small house is visible on the left side of the image. The sky is filled with smoke and the fire's glow.

ENVIRONMENTAL CONCERNS

- We live in a fire prone area that is challenged by significant forest health issues resulting in elevated wildfire risks to communities, developments, and critical infrastructure
- Condition of the forests that are ready to burn! Forests are out of balance.

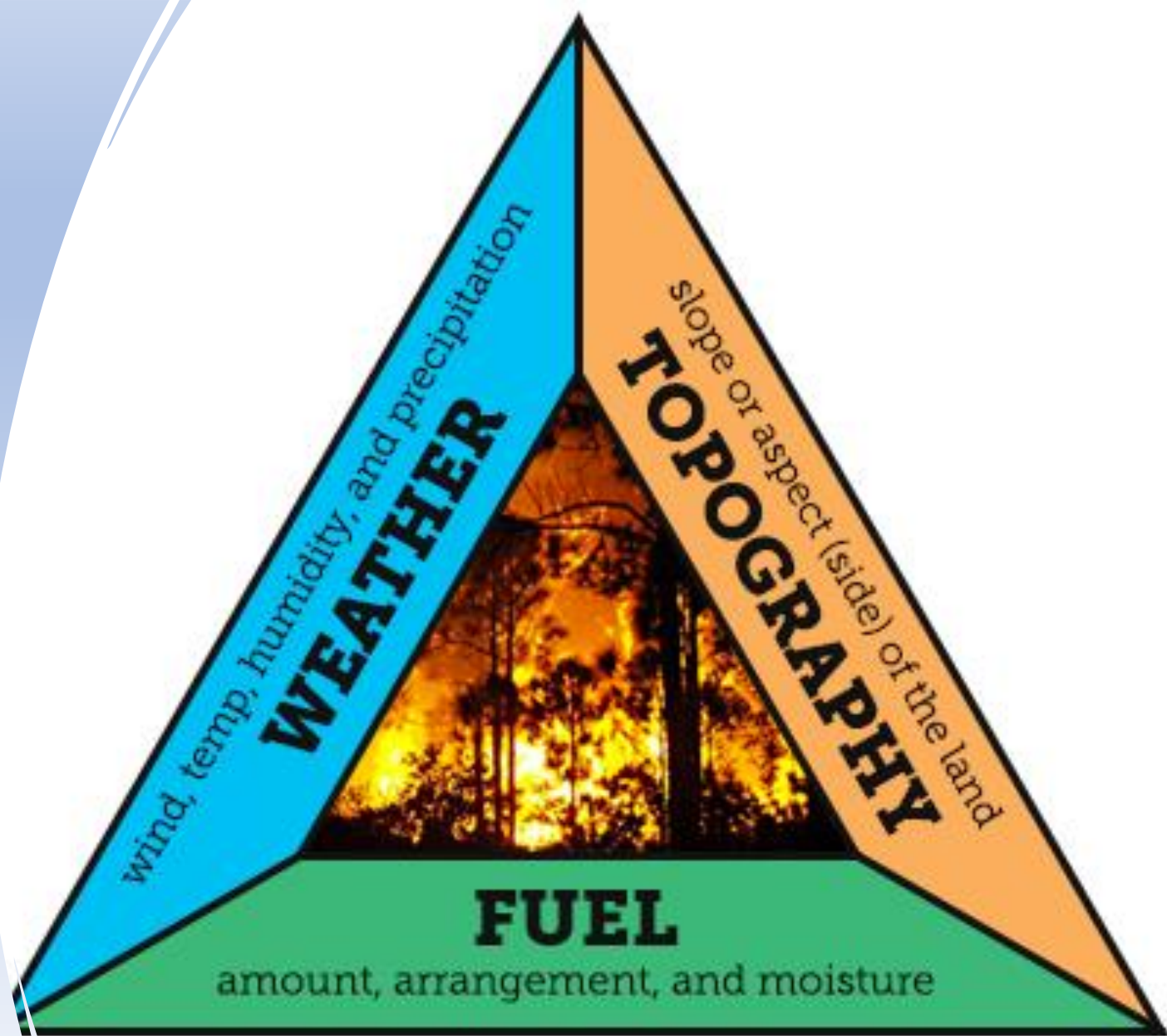
SOCIAL CONCERNS

- WUI- Placement & density of homes intermingled in the forests.
- Lack of situational awareness of living in the WUI environment.
- Structure protection is not always feasible.
- Inadequate evac routes- driveways, and ingress/egress routes.
- Public Health & Safety- air quality, firefighters, etc.
- Economic impact of property losses and cost to suppress fires.
- Loss of life and property.



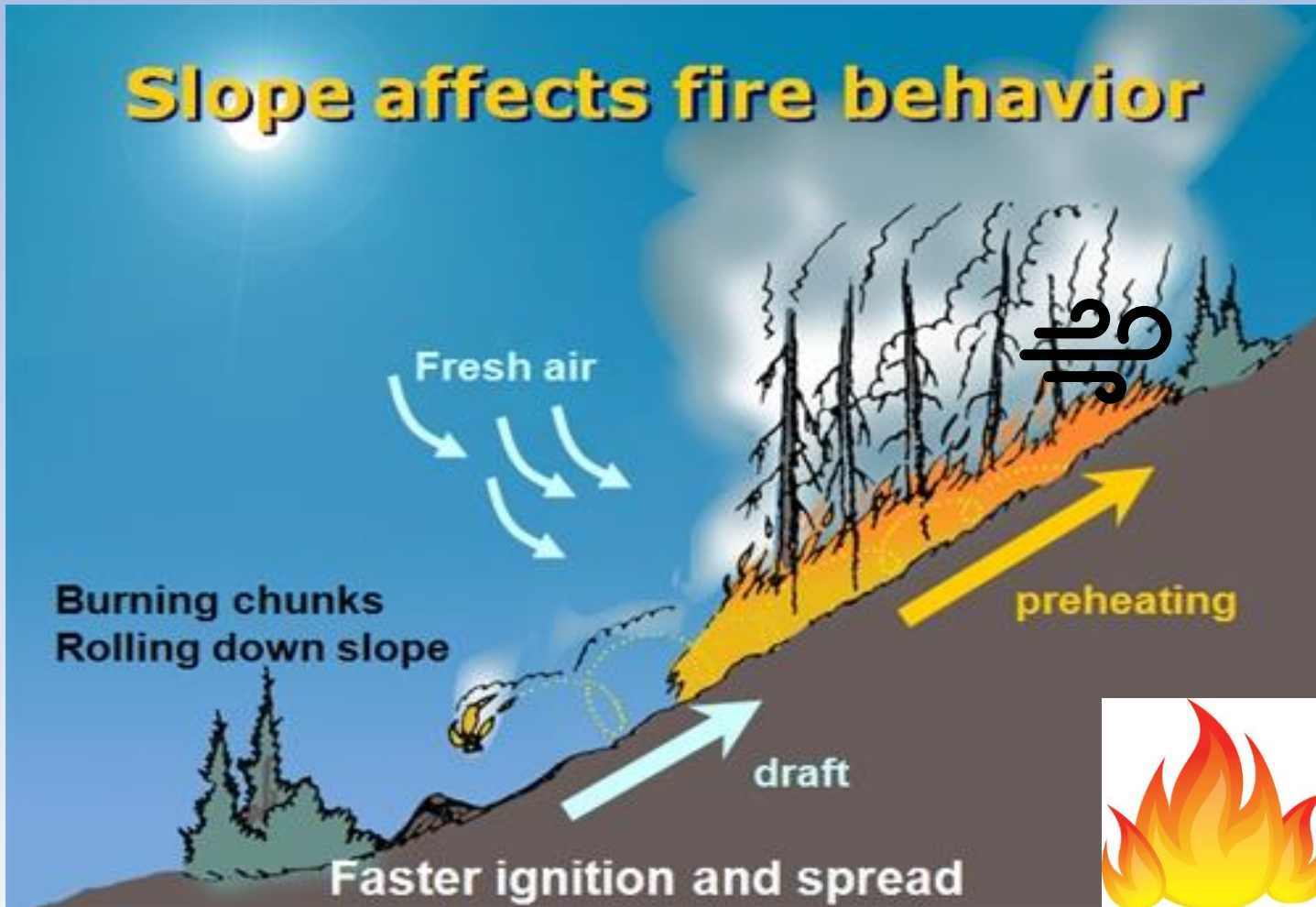
WILDFIRE BEHAVIOR

A set of conditions influence wildfire behavior and home ignition potential.



Fire Behavior Triangle

TOPOGRAPHY



- LAY OF THE LAND....
- ASPECT
- SLOPE

WEATHER

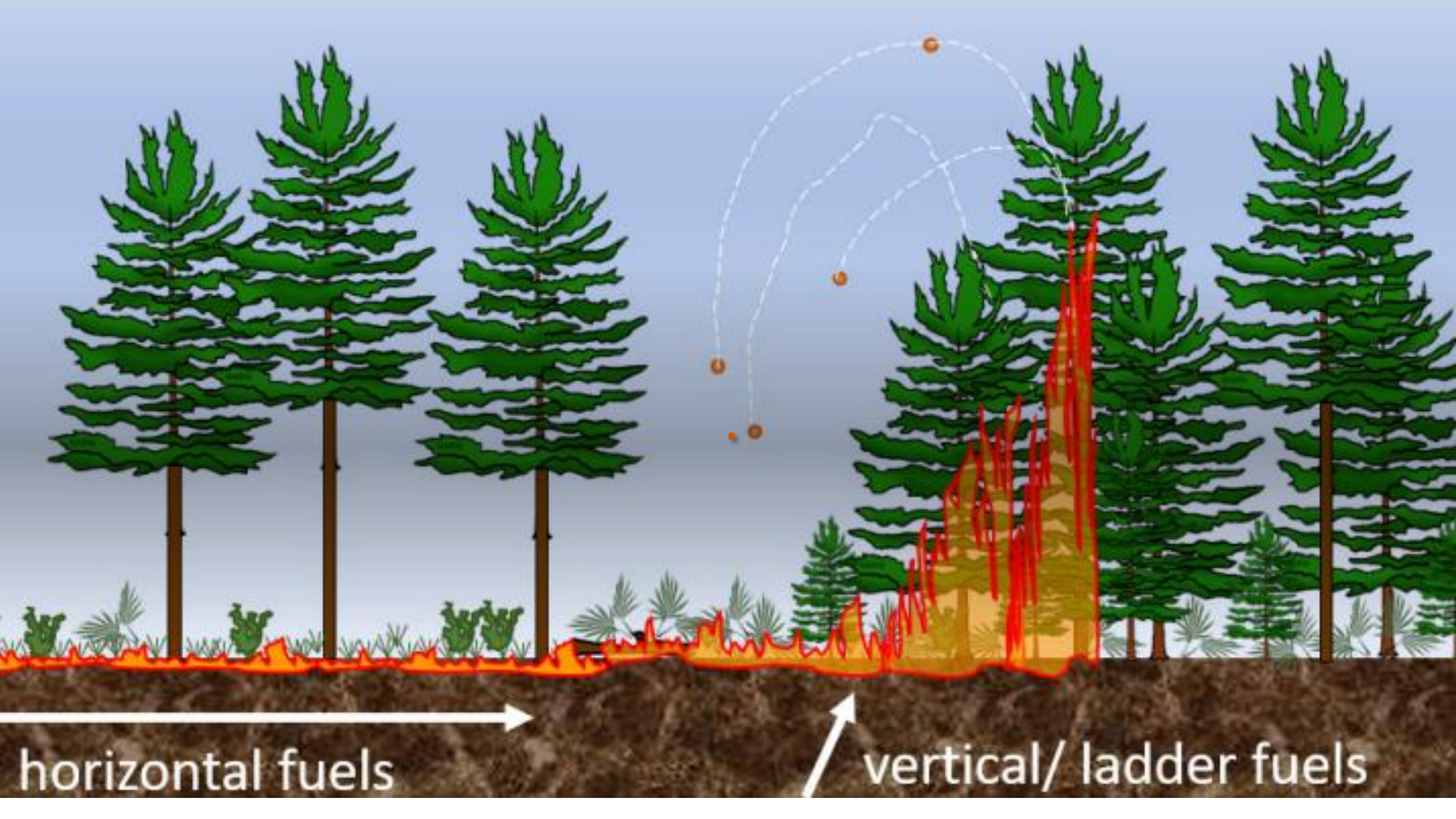


- Wind speed & direction
- Relative humidity
- Ambient temperature
- Drought conditions
- Lightning

FUEL- FUEL IS THE ONLY THING WE CAN INFLUENCE



- VEGETATION
 - Number of and density of trees.
 - Ladder fuels; the composition of trees.
 - Combustible organic materials (trees, pine needles, grasses, shrubs).



horizontal fuels

vertical/ ladder fuels

FUEL- FUEL IS THE ONLY THING WE CAN INFLUENCE



- MAN-MADE STRUCTURES
 - Homes, buildings
 - Fences, decks, equipment
 - Wood piles

FIRE BEHAVIOR & IGNITION

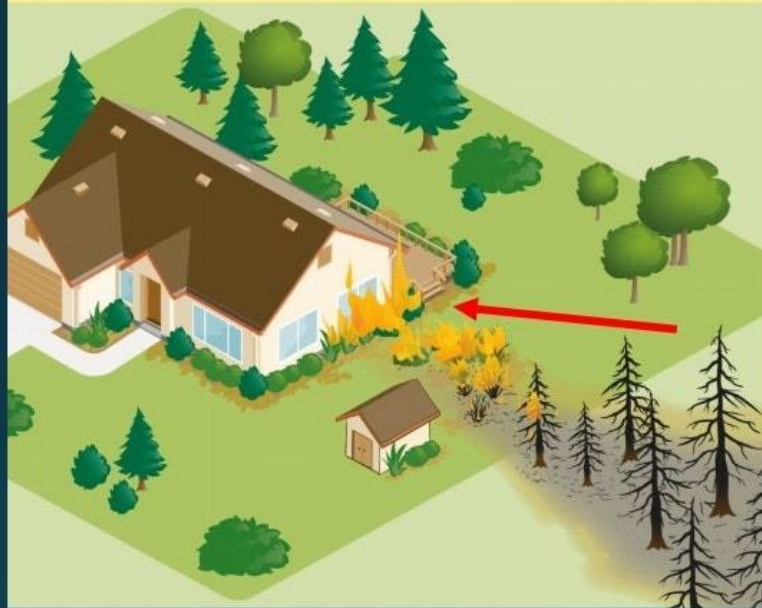
- Prevailing winds & slope.
- Tree canopy and ladder fuels.
- Closed crown fire.
- Ember showers and long-distance spreading.



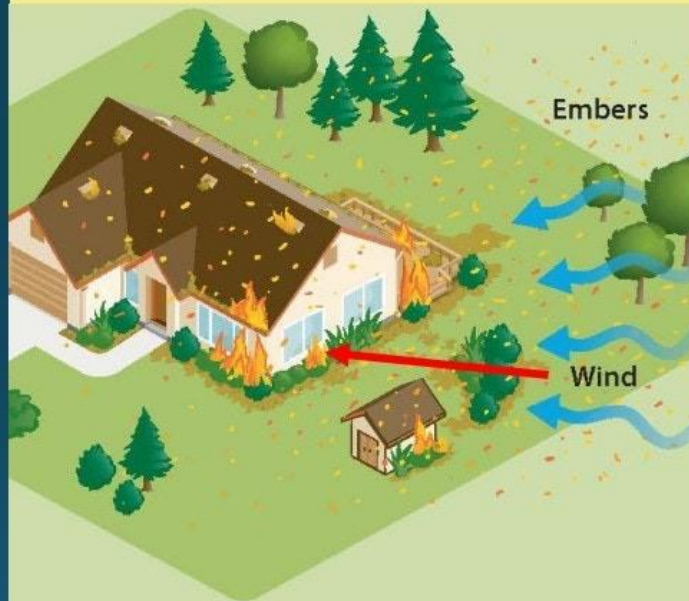
STRUCTURE VULNERABILITY

Three types of fire exposures

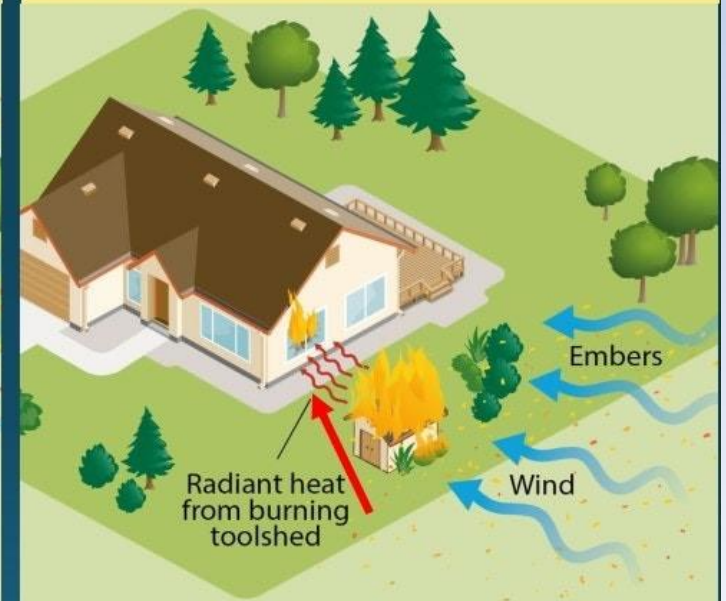
Direct flame contact



Embers



Radiant heat



WHAT INFLUENCES A HOME'S IGNITION RISK?



IMMEDIATE SURROUNDINGS

Roadway and driveway corridor
Tree density and spacing
Landscaping materials
Topography



CONSTRUCTION & BUILDING MATERIALS

Exterior home material- ignition resistant materials
Cleanliness and ember traps



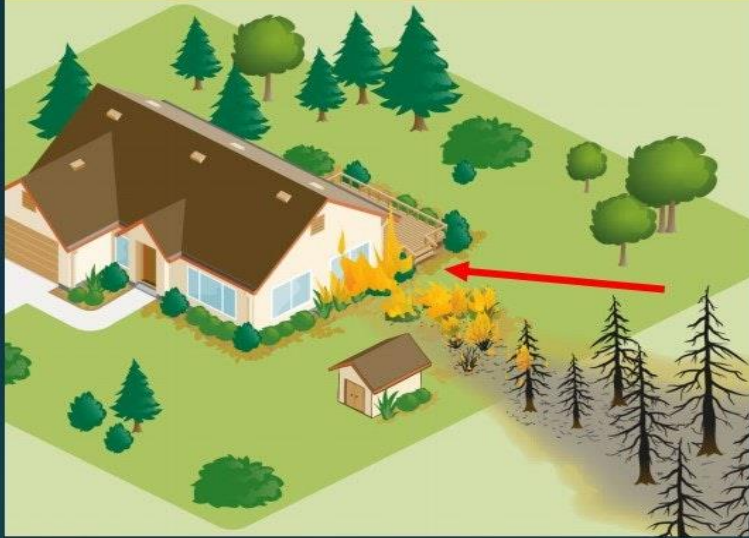
WHAT IS MITIGATION?

- Taking actions to reduce your wildfire ignition risks.
- Cleaning up and maintaining your property.
- Removing ladder fuels, and other combustible objects.
- Neighbors working with neighbors.

STRUCTURE MITIGATION

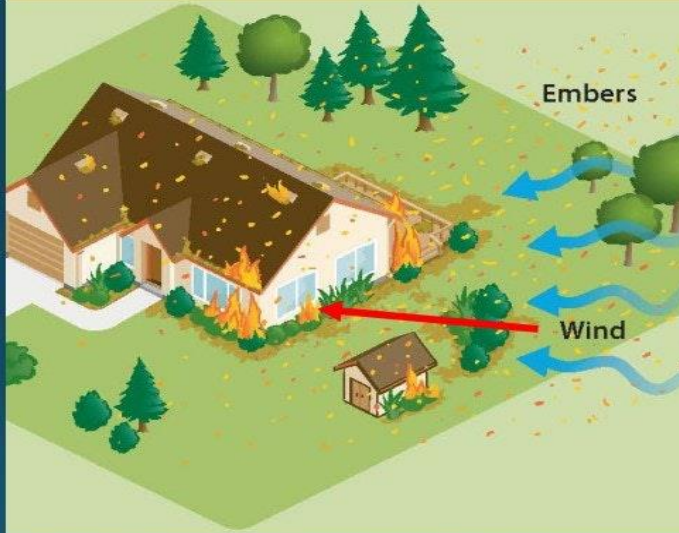
Techniques to reduce exposures

Direct flame contact



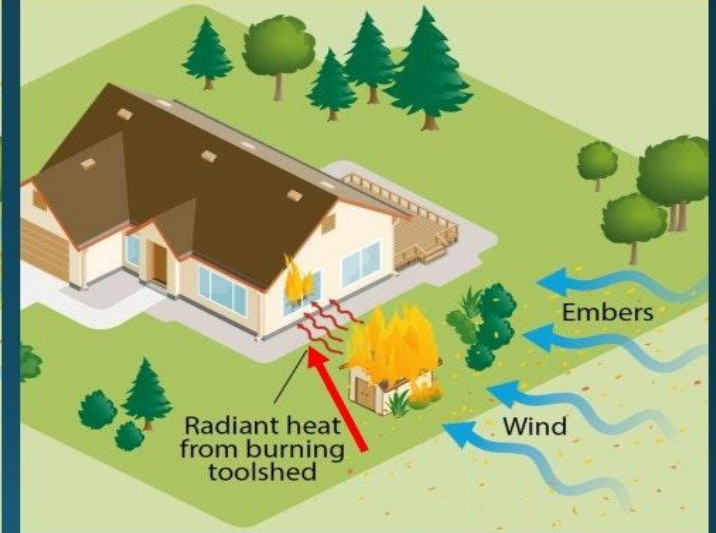
Defensible space implementation interrupts fire pathways and reduces the potential for direct flame contact

Embers



Home hardening with defensible space can help mitigate ember exposure

Radiant heat



Home hardening and fuel reduction can address potential radiant heat exposure

THE HOME IGNITION ZONE

- The home ignition zone (HIZ) is defined as the home and its immediate surroundings up to 200 feet.
- Mitigation in these zones is referred to as “Defensible Space”.
- The HIZ is divided into three zones based on distances from the home that have specific mitigation measures.



ZONE 1

IMMEDIATE ZONE 0-5 FT.

LEAN, CLEAN & GREEN! Maintain a 5' non-combustible buffer around the furthest extension of the structure including porches and decks.



ZONE 2

INTERMEDIATE ZONE 5-30 FT.

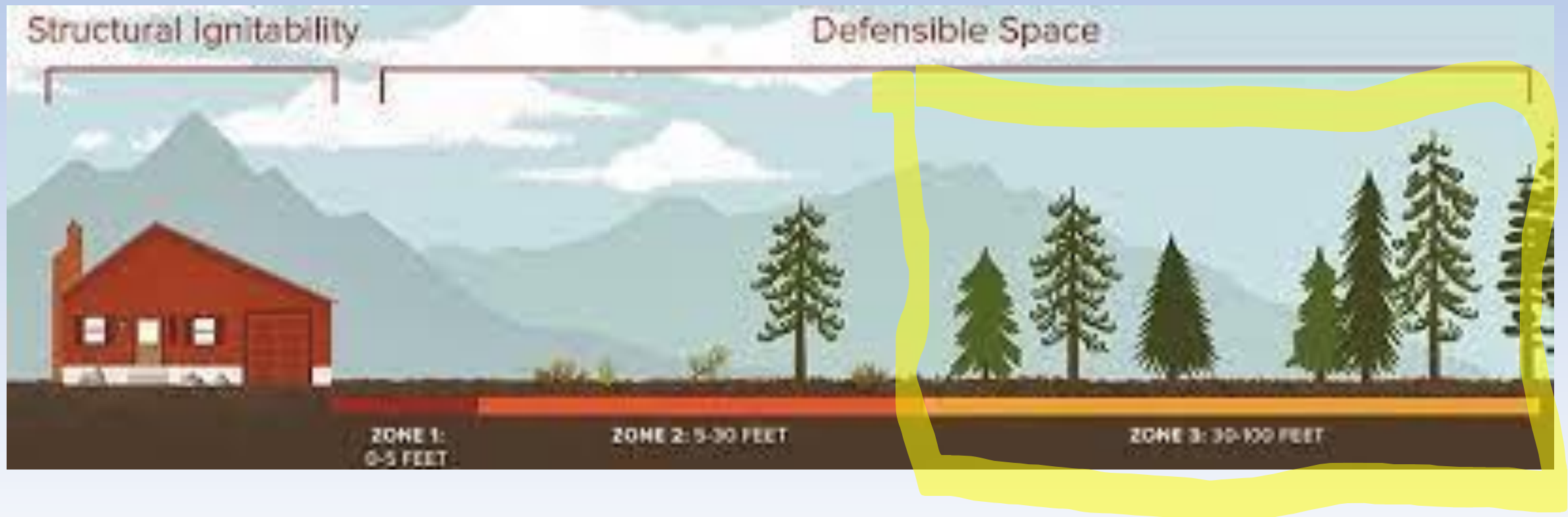
REDUCE, THIN & PRUNE- actively manage & maintain landscaping vegetation.



ZONE 3

EXTENDED ZONE 30-200 FT.

THIN & PRUNE! Not only do well spaced and maintained trees look nicer, but thinning promotes tree health.



HAZARDOUS FUELS

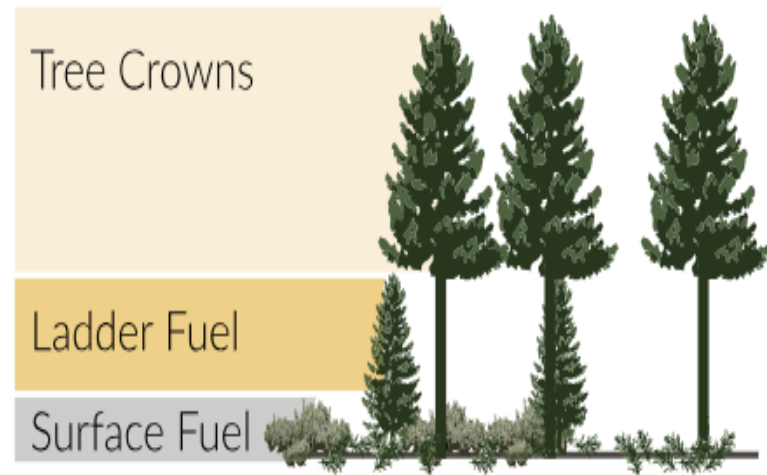


- Vegetation located 200 ft from any structures is referred to as hazardous fuels.
- These fuels may be located on your neighbors' properties.

HAZARDOUS FUELS: BEFORE mitigation treatment.

Forest before fuel reduction

Surface and ladder fuels are present.



Higher intensity fire

Fire spreads from forest surface through ladder fuels to tree crowns.



Higher severity fire

Fire spreads through tree crowns and forest is more damaged by fire.



HAZARDOUS FUELS: AFTER mitigation treatment (replicating what natural wildfires would result in).

Forest after fuel reduction

Surface and ladder fuels are reduced.

Tree Crowns

Surface Fuel



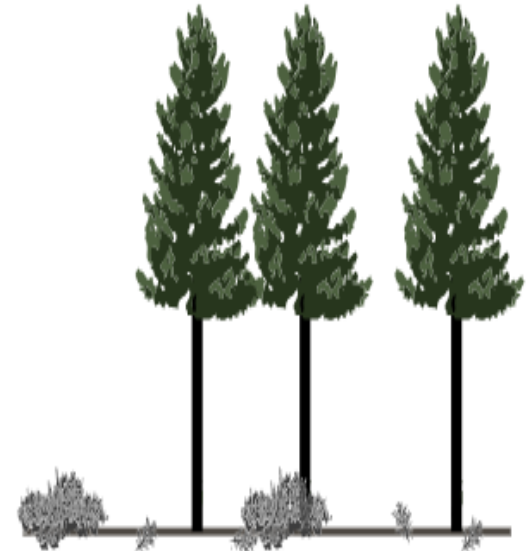
Lower intensity fire

Fire less likely to rise to tree crowns.

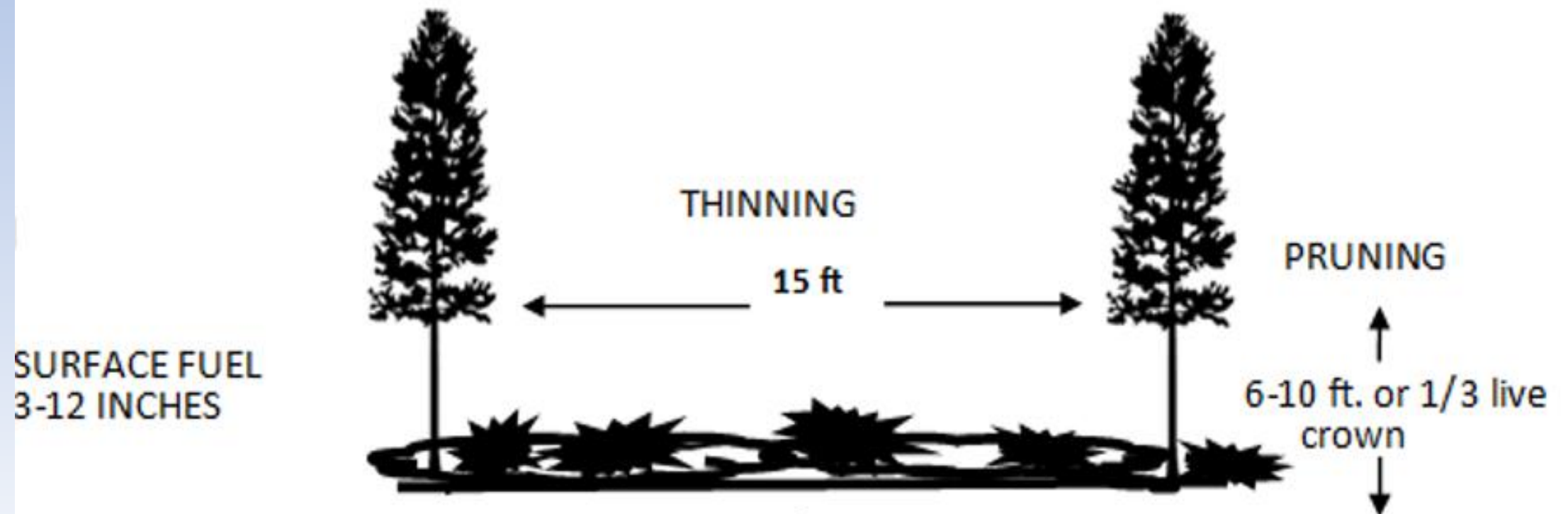


Lower severity fire

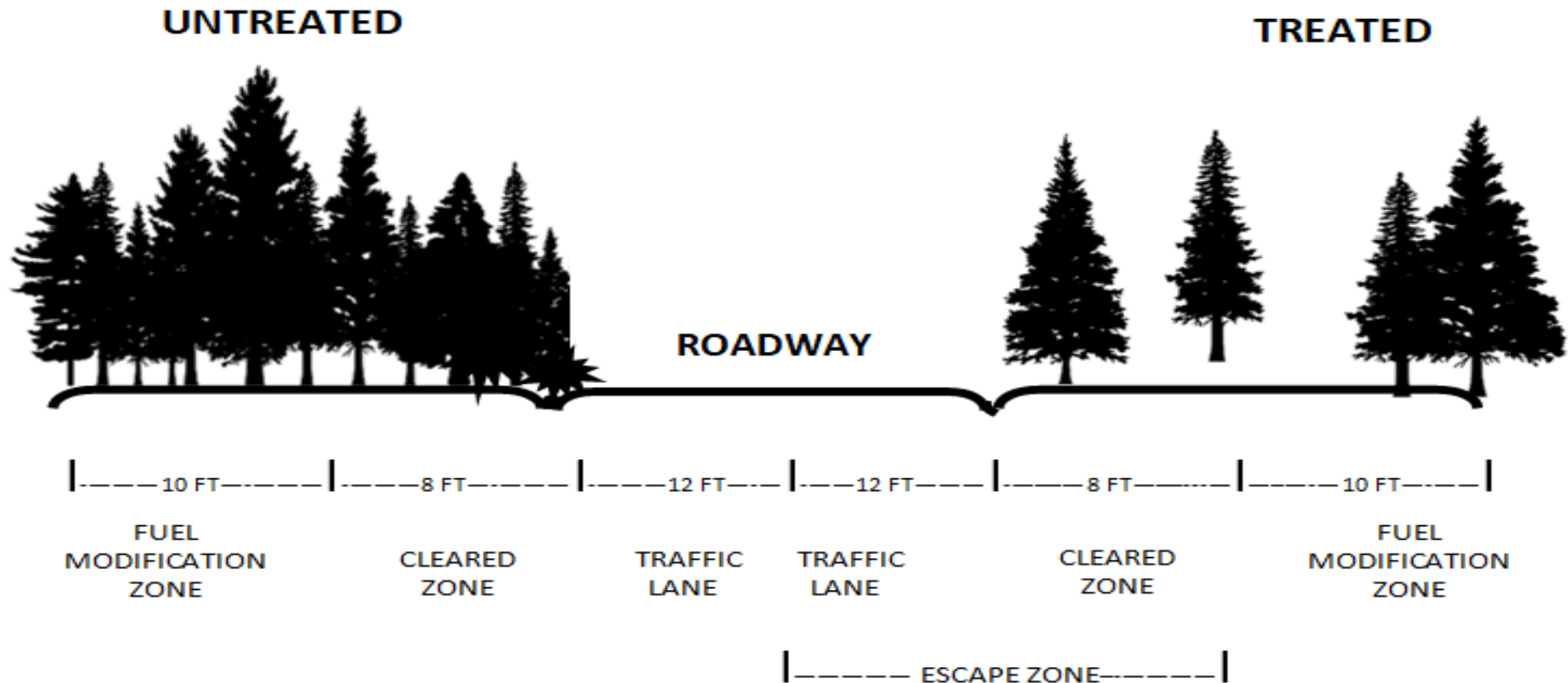
Forest is less damaged by fire.



THINNING & PRUNING- Trees should be spaced to prevent crowns from touching.



ROADWAYS- Create a safe ingress/egress for yourself as well as emergency responders.



HOME HARDENING- Using materials that are resistant to ignition.



- Home Hardening consists of the actions taken and materials used to reduce the chance of ignition from direct flame, firebrand showers, and radiant heat.
- A home's best chance to resist ignition are its construction materials and the quality of defensible space surrounding it.
- Prioritize the roof, vents and creating clean, litter-free spaces within a five-foot perimeter of the home.

HOME HARDENING- Regular maintenance and cleanliness



- Embers cause the majority of wildfire home ignition. Wind-blown embers can destroy homes up to a mile away from a wildfire.
- Embers ignite debris in gutters that can result in flames bypassing the roofing.
- Periodically inspect and remove litter from gutters.

ROAD & DRIVEWAY CORRIDOR



- Create a safe ingress/egress for yourself as well as emergency responders.
- Vegetation should be maintained alongside driveways and road edges.
- Driveways should be wide enough for fire trucks.
- Have a visible address sign that can be seen from the main road. Install reflective address signs that can be seen in the dark and through the smoke.

EVACUATION- Plan, Prepare & Stay Aware!



- Prepare your family and home ahead of time for the possibility of having to evacuate.
- Ensure you have a plan of what to take and where to go.
- Know two ways out of the neighborhood if possible.
- Put together an emergency supply kit and make sure it is readily accessible.
- Register for alerts.
(Smart 911/Code Red)

WHAT CAN YOU DO?

- ✓ Become and stay informed.
- ✓ Know your risks.
- ✓ Be prepared.
- ✓ Create defensible space and remove hazardous fuels.
- ✓ Work with your neighbors.
- ✓ Consult your fire department.
- ✓ Prepare an evacuation plan.



TCFSWG ASSISTANCE

- Wildfire Risk Assessments
- Fuels Specifications Plans
- Cost-Share Mitigation Projects
- Outreach & Education





WILDFIRE RISK ASSESSMENTS- SAFETY VISITS

- Assist property owners in identifying their property's risks to wildfire.
- Identifies actions owners may consider to reduce their property's vulnerability to ignition from wildfire flames and embers.



ASSESSMENT PROCESS

- Schedule on-line at WWW.TCFSWG.ORG
- On-site visit, exterior review.
- Property owner must be present.
- Approximately 1 hour.
- Electronic report that contains specific mitigation recommendations.
- Fuels specifications plan that can be used for obtaining contractor bids or for doing the work yourself.
- The report is only given to the property owner.

Assessment Items	Observation	Mitigation Recommendations	Image
Are trees present?	YES Trees are present but meet recommendations.	Recommend removal of trees in this area that have a main stem within 5 ft. of the main walls of the structure. Regularly prune tree limbs and remove dead branches to prevent the ladder effect where fire can climb from the ground to the tree canopy.	
Is the lawn maintained?	YES Meets recommendations.	Dry grass and shrubs are fuel for wildfire so keep you lawn hydrated and maintained. If it is brown, trim it to reduce fire intensity, and dont let debris and lawn cuttings linger. Maintain grass to a maximum height of 3 in.	

Cost-Share Programs

Reimbursement for expenses associated with defensible space and hazardous fuels removal projects.

75/25 (owner) or 50/50 depending on the grant.

Owner match can be in-kind or \$.



WHAT ARE THE BENEFITS?

- Creating defensible space can slow or even stop a fire before it spreads to your home.
- A clean, lean home ignition zone is less susceptible to trapping embers that cause ignition.
- Defensible space can help protect firefighters and provides them a place to work.
- Thinning and pruning trees can improve forest health by making the remaining tree less susceptible to drought and insect & disease and improving growth.





There is no guarantee that losses won't occur, but being prepared for wildfire and maintaining safety efforts can protect lives and properties.



BEFORE MITIGATION



AFTER MITIGATION

