

# *Community Wildfire Protection Plan*



## Genesee Fire Protection District

Jefferson County, Colorado

# What is a CWPP?

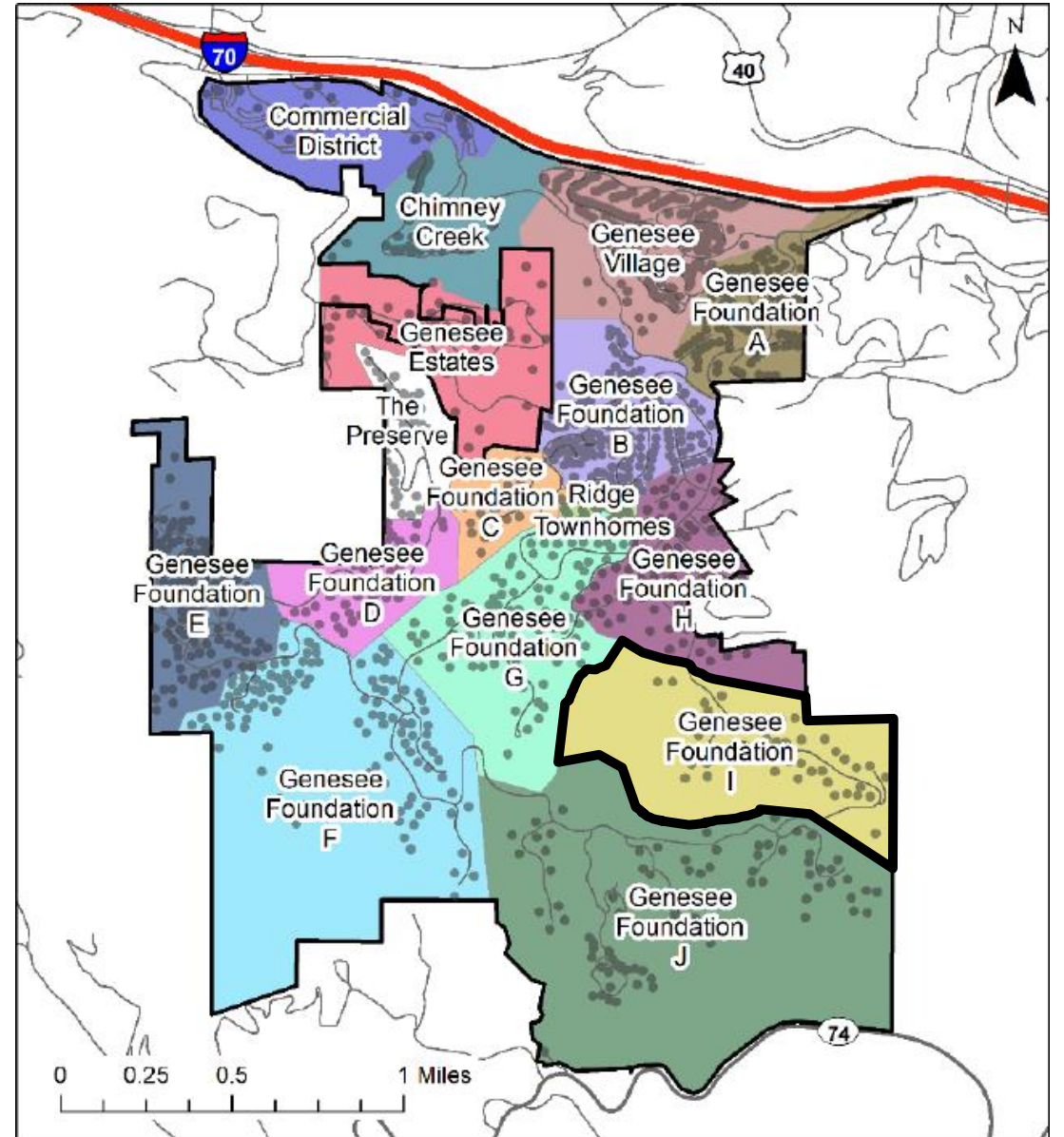
*“Community Wildfire Protection Plans (CWPPs) help communities **assess local hazards** and **identify strategic investments** to mitigate risk and promote preparedness. Assessments and discussions during the planning process can **assist fire protection districts with fire operations** in the event of a wildfire and **help residents prioritize mitigation actions**. These plans also **assist with funding gaps** for fuel mitigation projects since many grants require an approved CWPP.” [emphasis added]*



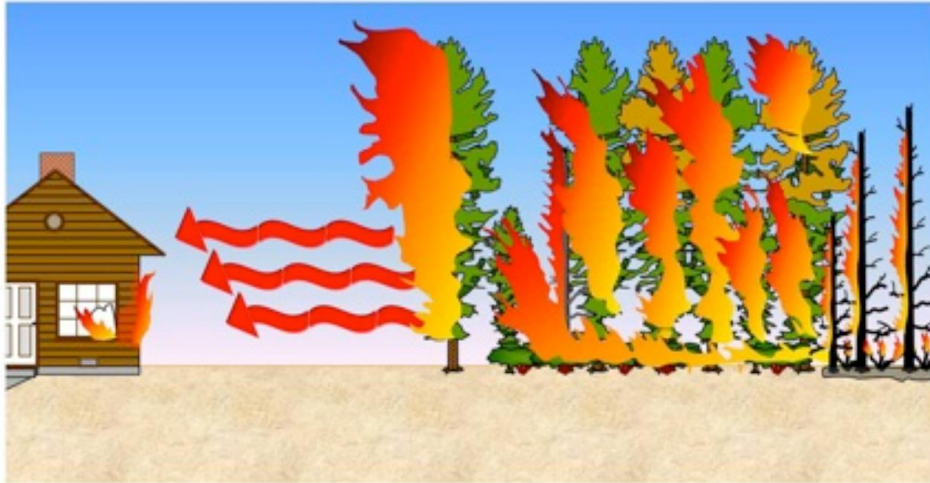
- We modeled potential wildfire behavior under **60th, 90th, and 97th percentile fire weather conditions**—conditions that occurred in the GFPD about 40%, 10%, and 3% of days between June 15th and October 15th (the period often associated with large fires in Colorado) from 2009 to 2019.
- Weather parameters came from data collected at the Lookout Mountain Remote Automatic Weather Station (RAWS) and fuel moisture conditions from FireFamilyPlus.

# Plan Unit Genesee Foundation I

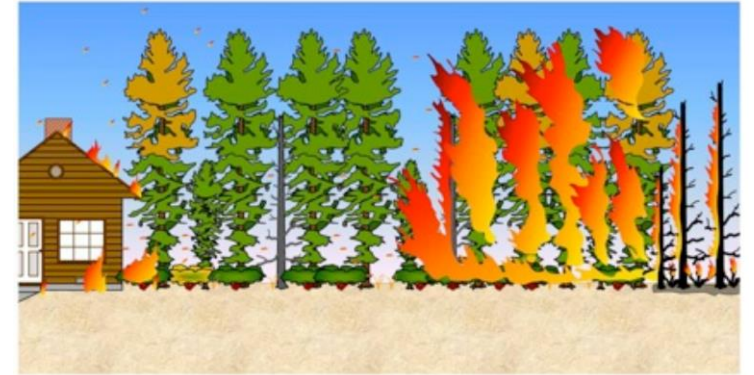
- 1753 – 2152 Montane Drive East



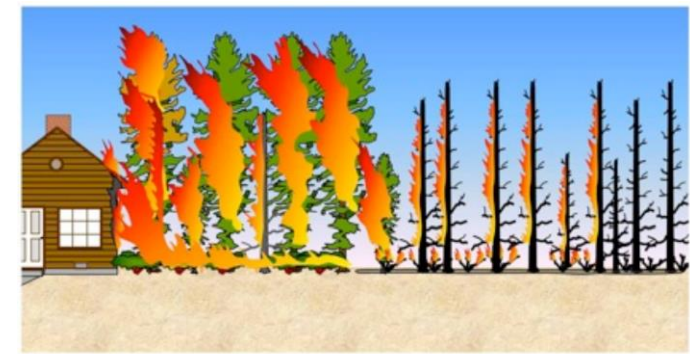
# How Wildfire Threatens Our Homes



Radiant energy from burning trees being transferred to the side of this home.



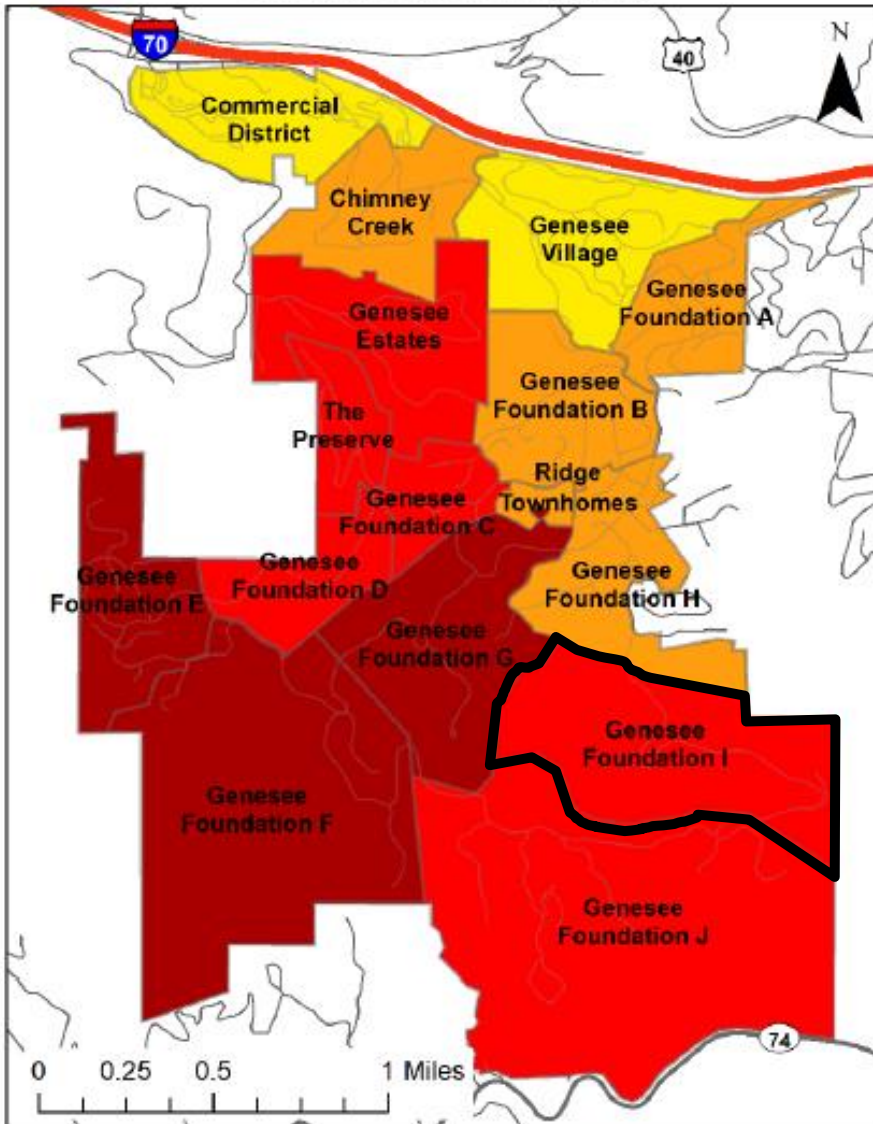
More houses ignite and burn as a result of exposure to wind-blown embers than any other cause.



Burning trees and shrubs resulting in direct flame contact of the siding and roofing on a house.

# HAZARD RATINGS

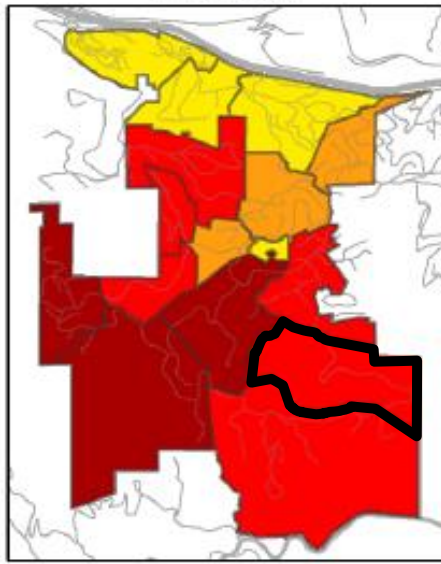
### Overall Hazard Rating



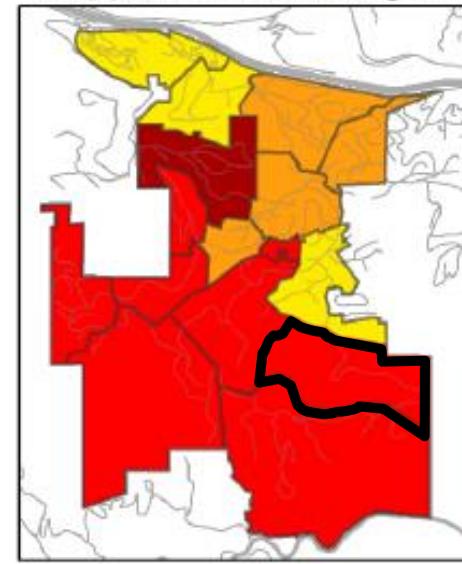
### Relative Hazard Rating



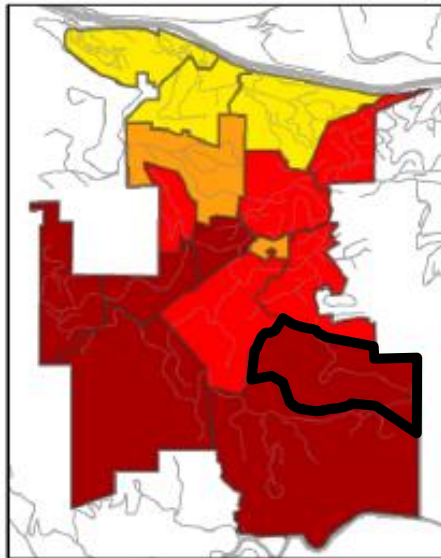
### Fire Risk



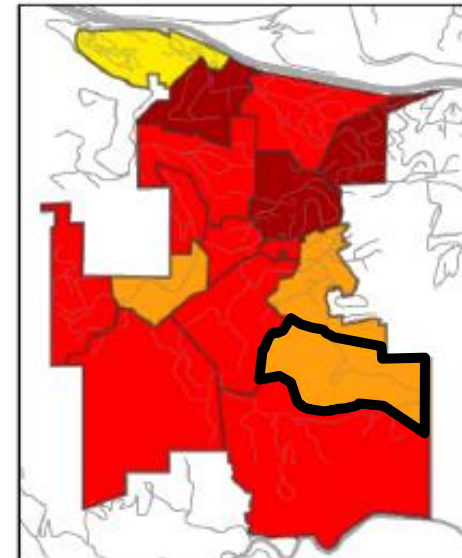
### Suppression Challenges



### Evacuation Hazards



### Home Ignition Zone Hazards

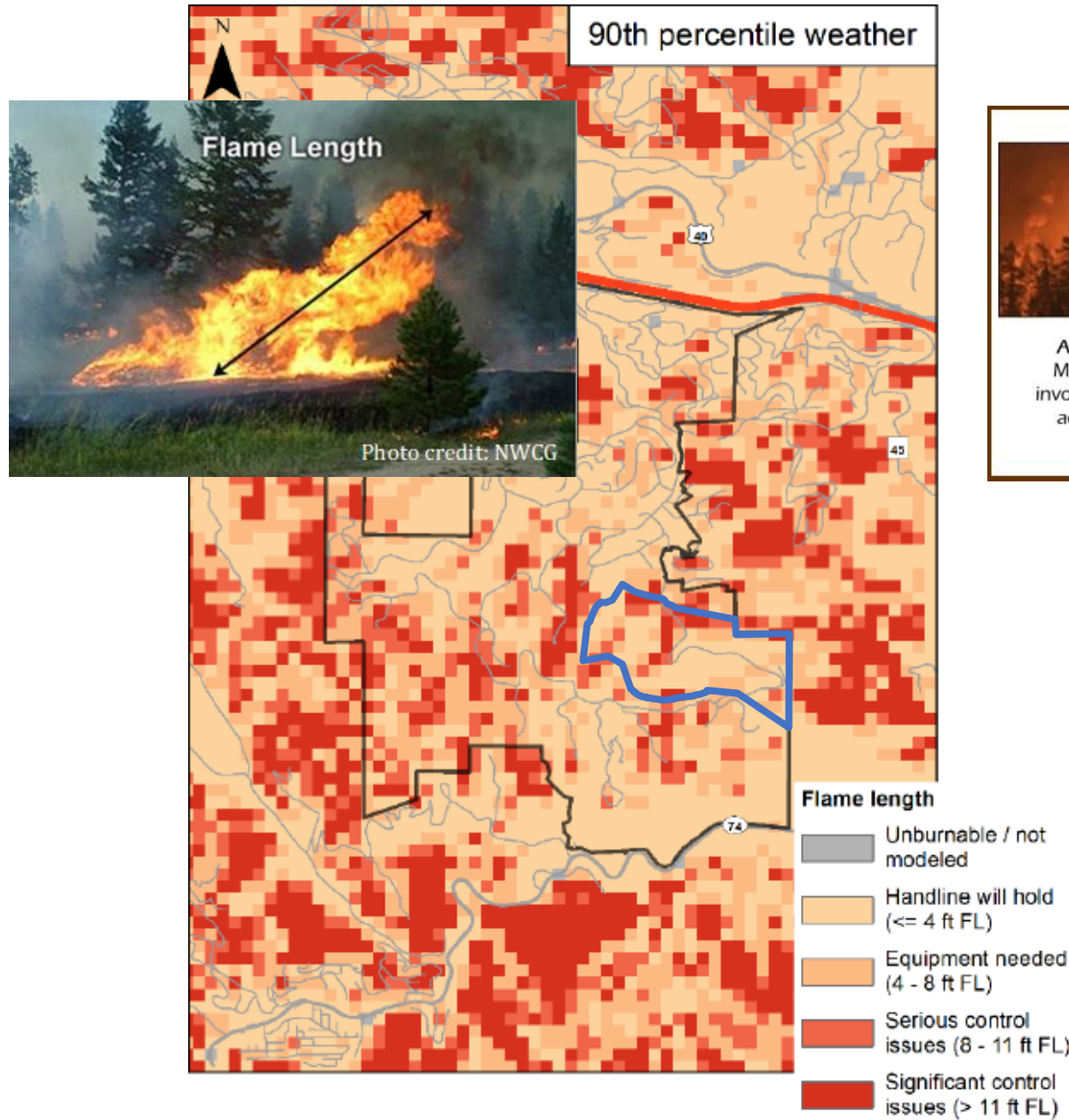


# Plan Unit Genesee Foundation I - Risks

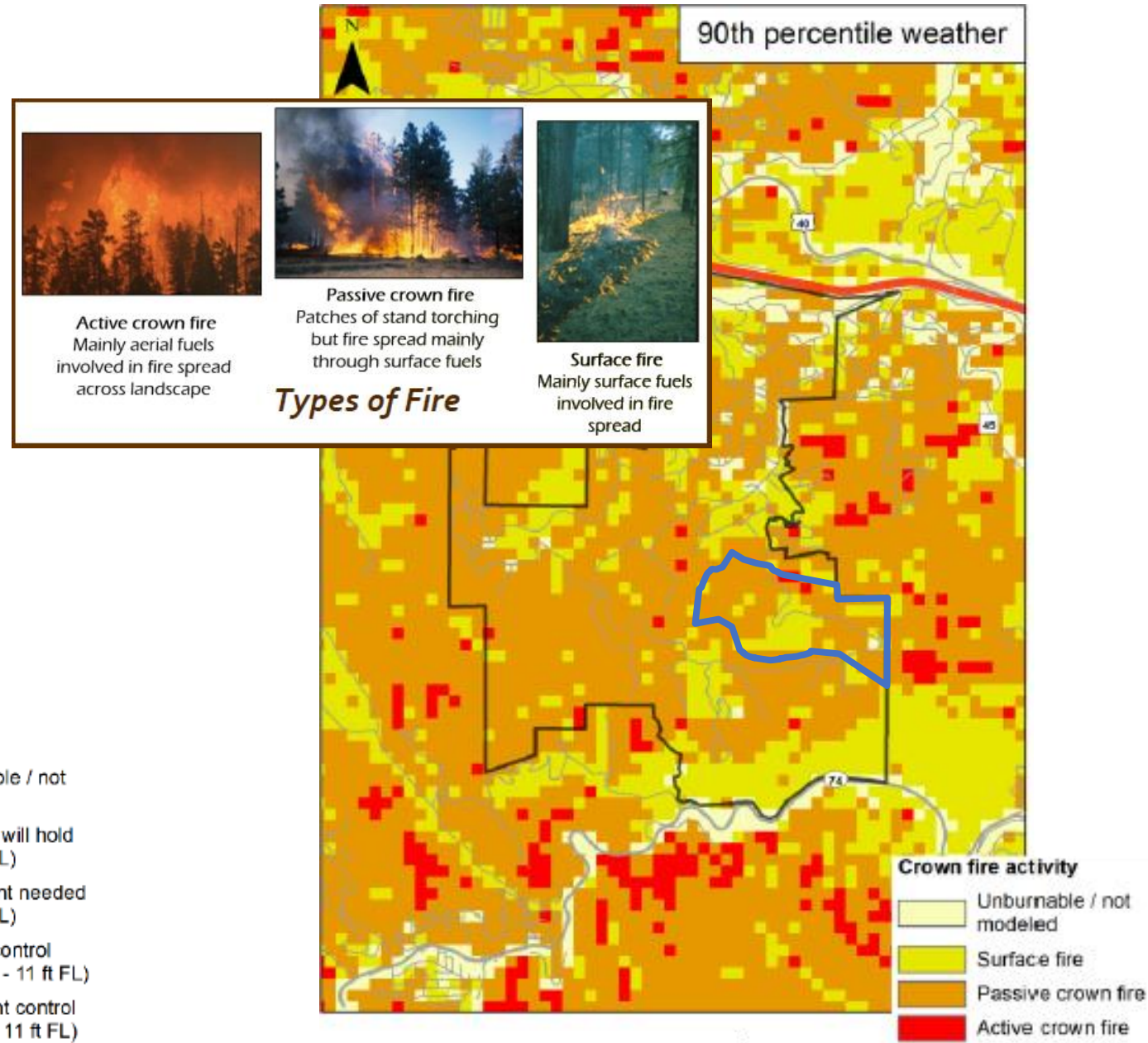
- Most homes situated mid-slope and on ridgetops with dense vegetation close to homes, some steep slopes below with dense forests
- Ravine with dense forest in western portion of Unit I poses a risk for active crown fire
- Most private drives are narrow and do not have turnarounds adequate for firefighting equipment
- Approximately 20% of roads, private drives, and driveways have potentially non-survivable conditions\*
- About 65% of the unit is at risk of passive or crown fire activity\*
- About 40% of homes are at risk of extreme exposure to radiant heat\*

\* Under 90<sup>th</sup> percentile weather conditions

# FLAME LENGTH



# CROWN FIRE



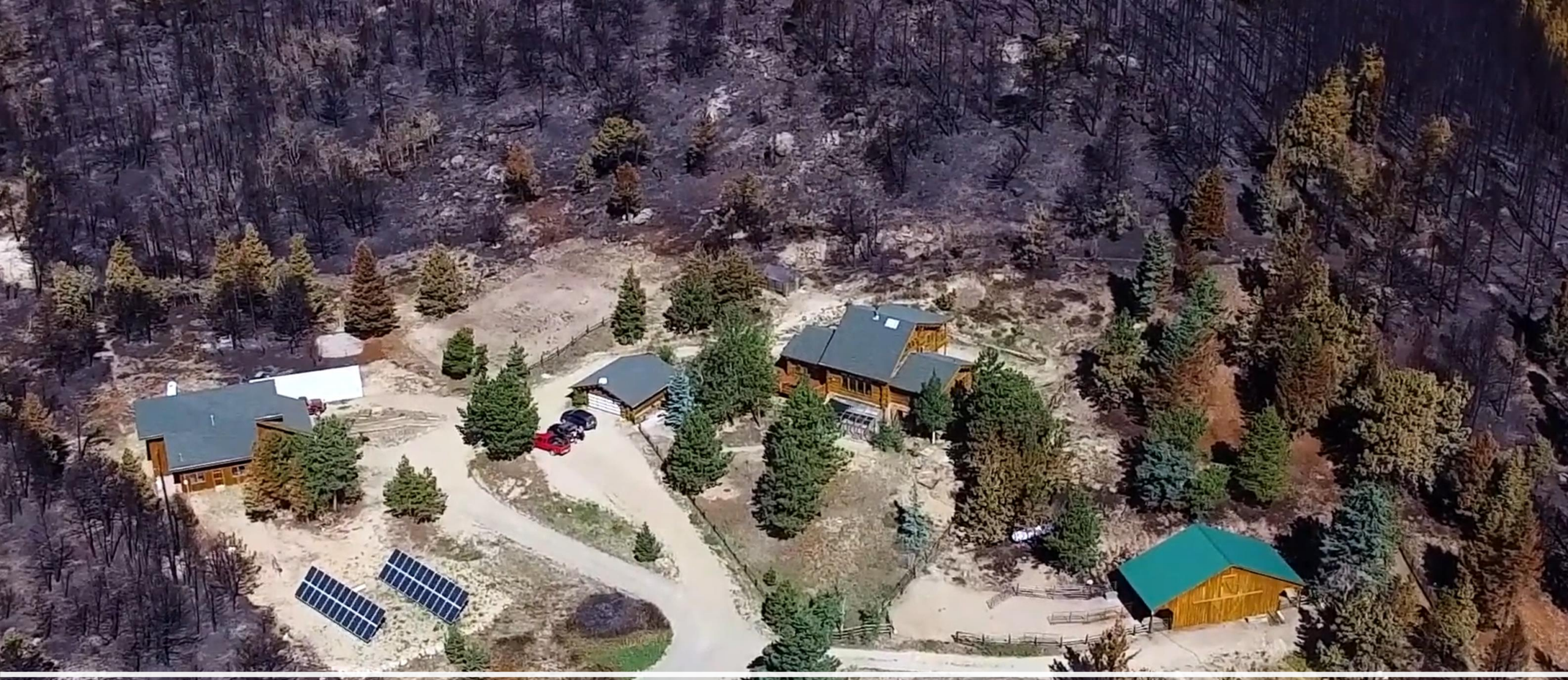




Waldo Canyon neighborhood destroyed by embers.



Neighborhood in Superior destroyed by embers and radiant heat.

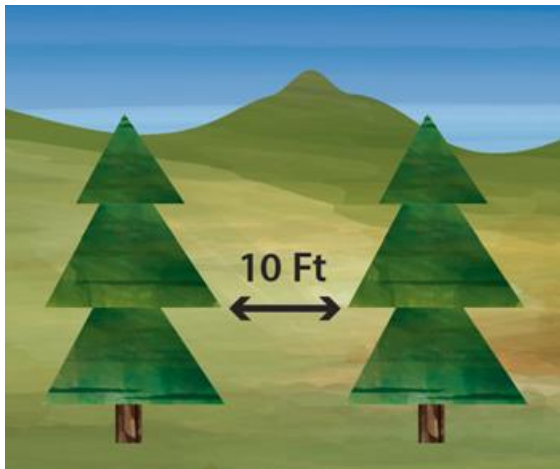


Property that survived Cold Springs Fire in 2016



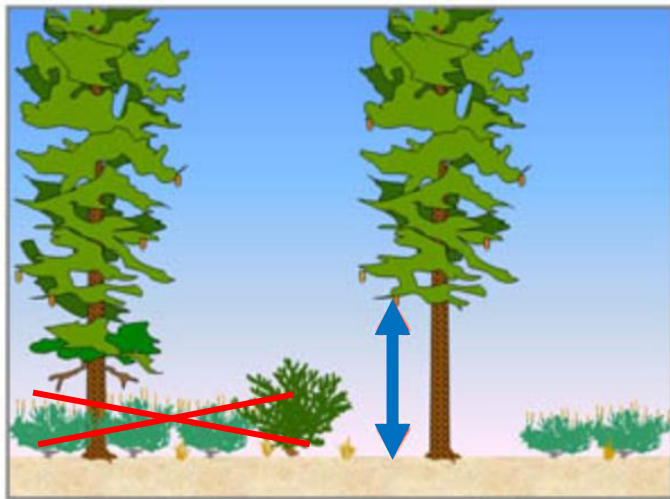
# Canopy Spacing and Minimizing Flame Length

- Recommended spacing is 10 feet between crowns
  - More is needed on steeper ground
- Limb up at least 6-10 feet from the ground or  $\frac{1}{3}$  the total height of the tree, whichever is less.

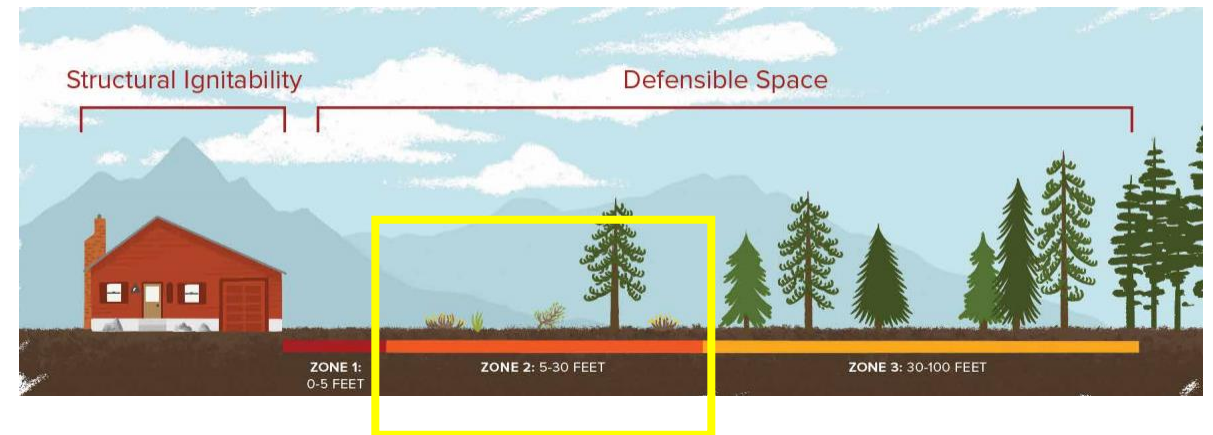


# Canopy Spacing and Minimizing Flame Length

- Remove ladder fuels

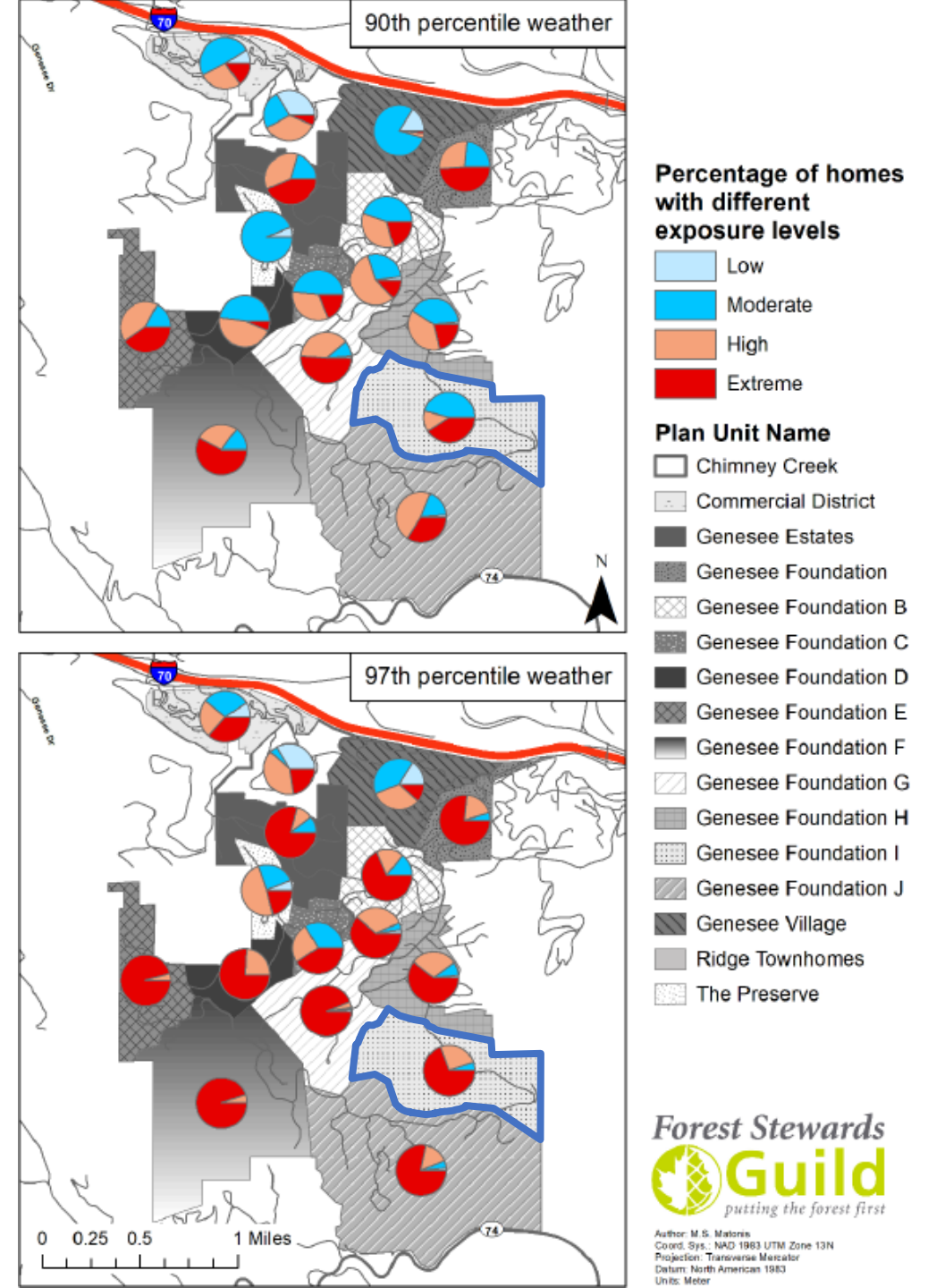


- 5-30' (Zone 2), mow grass to 4 inches

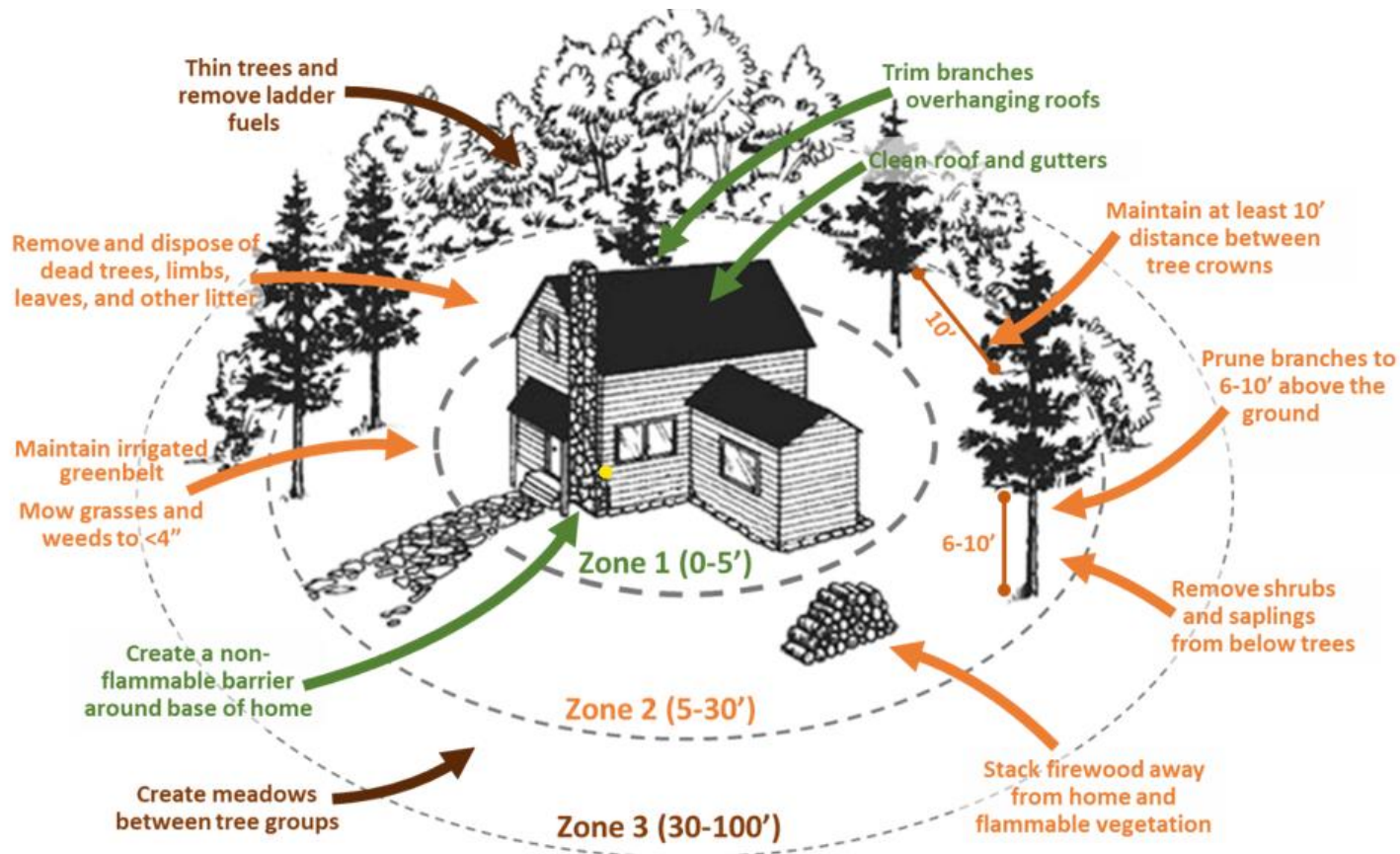


# Plan Unit Genesee Foundation I

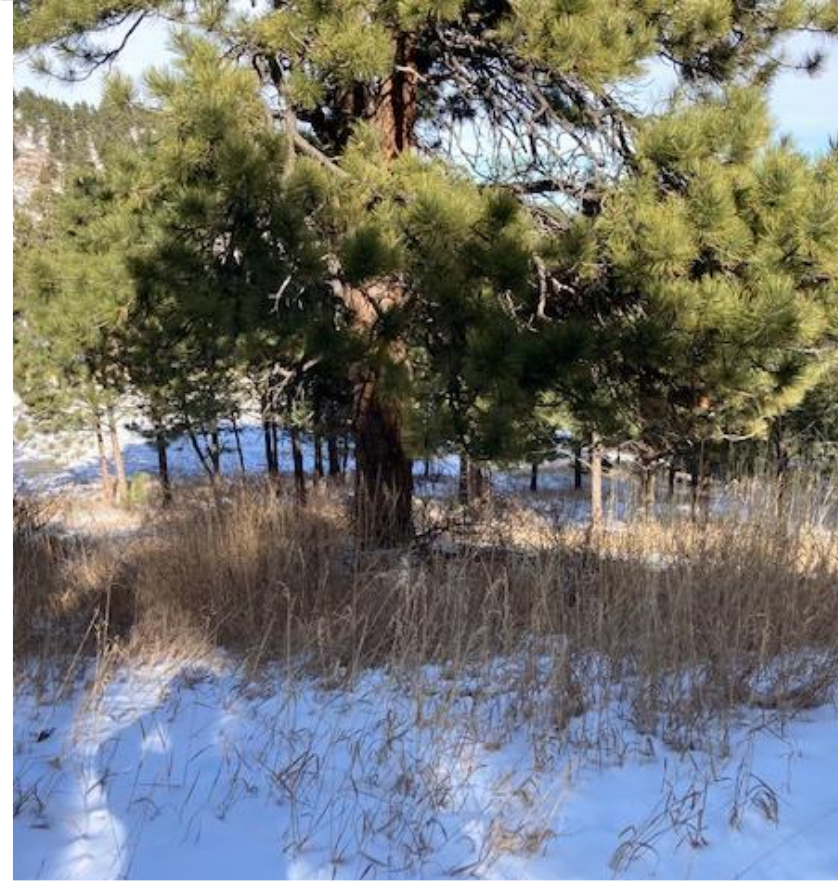
- Home Exposure risk influenced by:
  - Overlapping home ignition zones
  - Potential exposure to short- and long-range spotting (embers)
  - Potential exposure to radiant heat



# Home Hardening and Defensible Space



- 5-foot perimeter with no vegetation
- Remove pine needles from roof valleys & gutters
- Remove flammable materials from beneath decks
- 80%-90% of homes ignite due to embers rather than radiant heat
- Fire-resistant exterior materials



# Home Hardening and Defensible Space Montane Drive East



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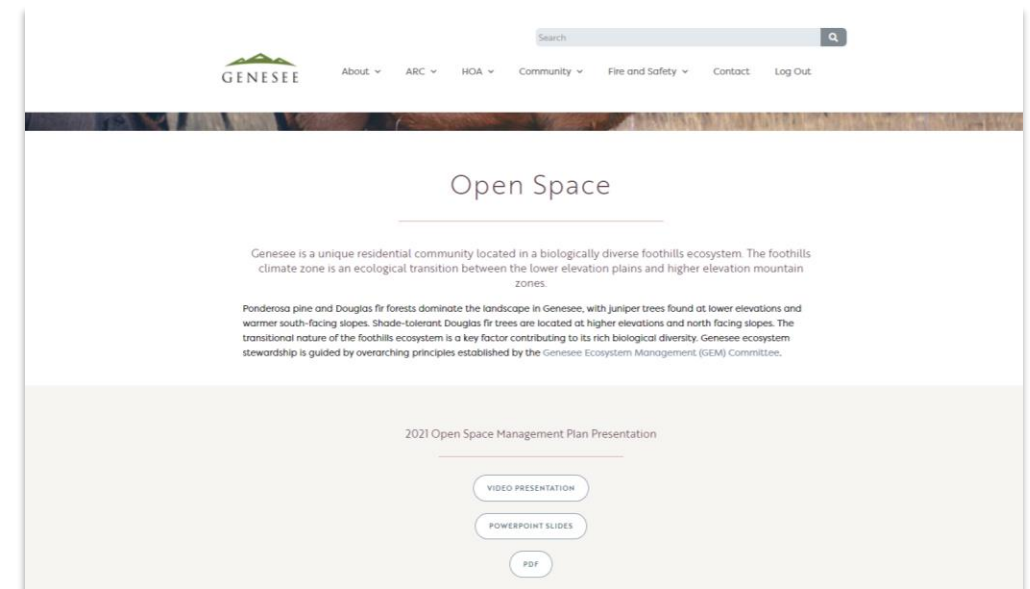
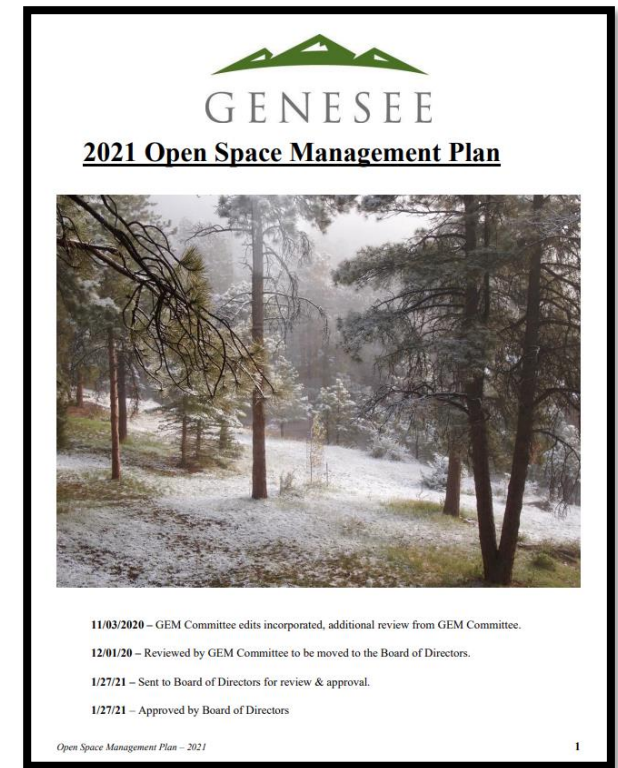
# Home Hardening and Defensible Space Montane Drive East



- Home Ignition Zone and Defensible Space Assessment available for all GFPD Community members
- Receive a thorough report with mitigation recommendations and photographs
- You own the data and report; it is not shared with insurance companies, neighbors, or the Architectural Review Committee. A copy of the report is stored on a secure server off-site and therefore not subject to any Freedom of Information requests.
- Certificated Program
- Contact me: [ddalton@geneseefire.org](mailto:ddalton@geneseefire.org) or go directly to <https://www.wildfireprepared.com/> and fill out an application. Cost \$100

# Open Space Mitigation

- Annual plans for Open Space can be found in the “Open Space Management Plan”
  - Presented each year to the community and documented on the Genesee Foundation website
  - <https://geneseefoundation.org/community/open-space/>
- 70 acres of grant-funded forest restoration work
  - Does not include roadside thinning



# Open Space Mitigation

## 2020-2021

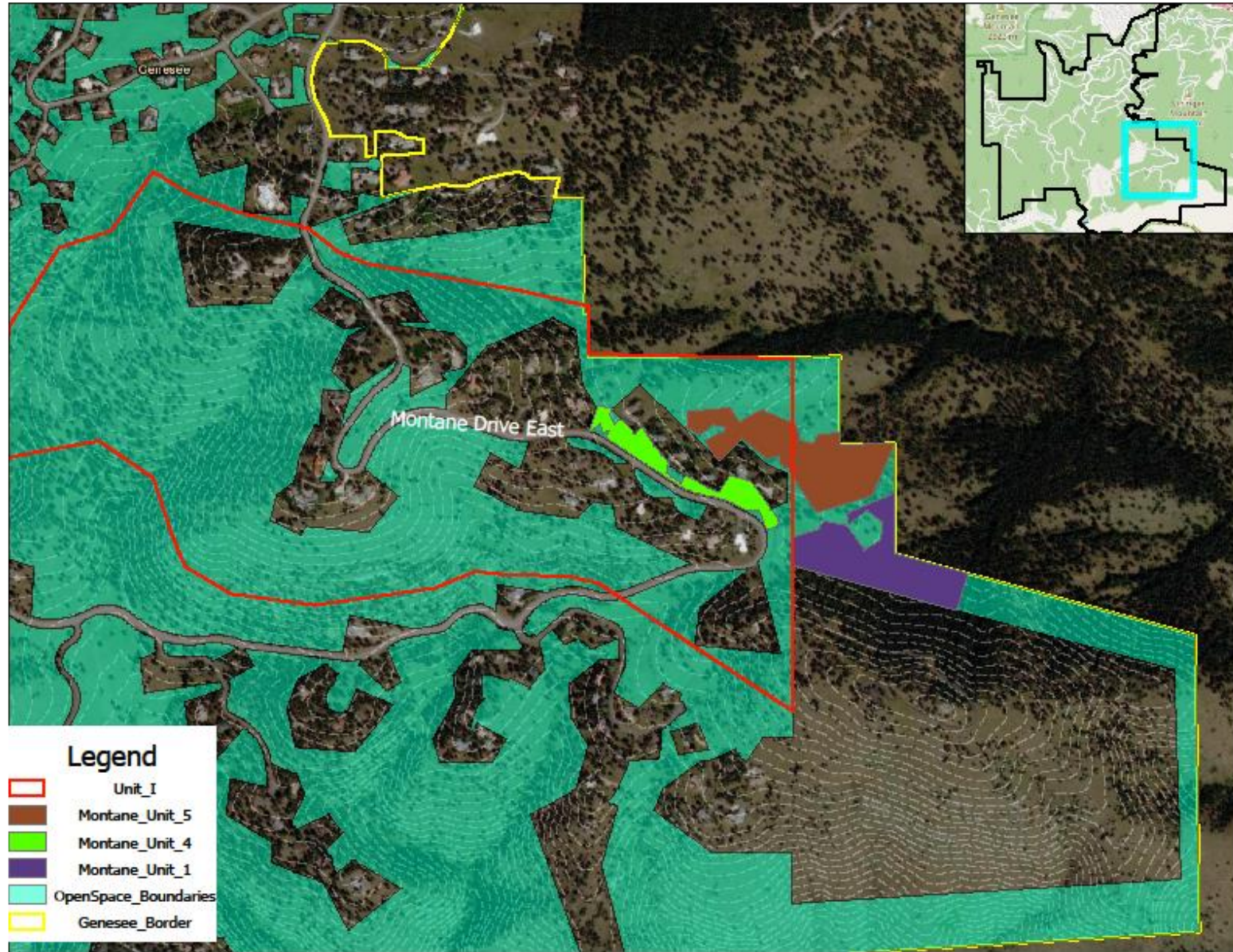
- Completed 20 acres of thinning near Montane Drive East
- 7 acres of roadside thinning on private drives
- 3 acres of thinning near Chokecherry

## 2022-23 Plan

- 24 acres of thinning in between Chokecherry Ln and Genesee Trail Rd
- 16 acres of thinning on the western border of Genesee

## 2023-25 Plan

- 40 acres of thinning along Ryan's Streamside & Miners Mile Trail



# Mitigating Roadways and Open Space

- Priority for Genesee Foundation is major roadways
  - GF's authority to mitigate is only areas of Open Space
- Property Owner should include mitigating roadway as part of their defensible space (*when their property abuts road*)
- Property Owner is responsible for mitigating their own defensible space, even if it extends into Open Space
- GF and ARC will allow efforts to mitigate defensible space on Open Space if it is part of the resident's defensible space

# Open Space Mitigation

- Recommendations are based on best available science and the Colorado State Forest Service
- Hope for the best (*Elephant Butte Fire*) but plan for the worst (*Cameron Peak Fire*).
- *“If its going to burn, why should I do anything?”*



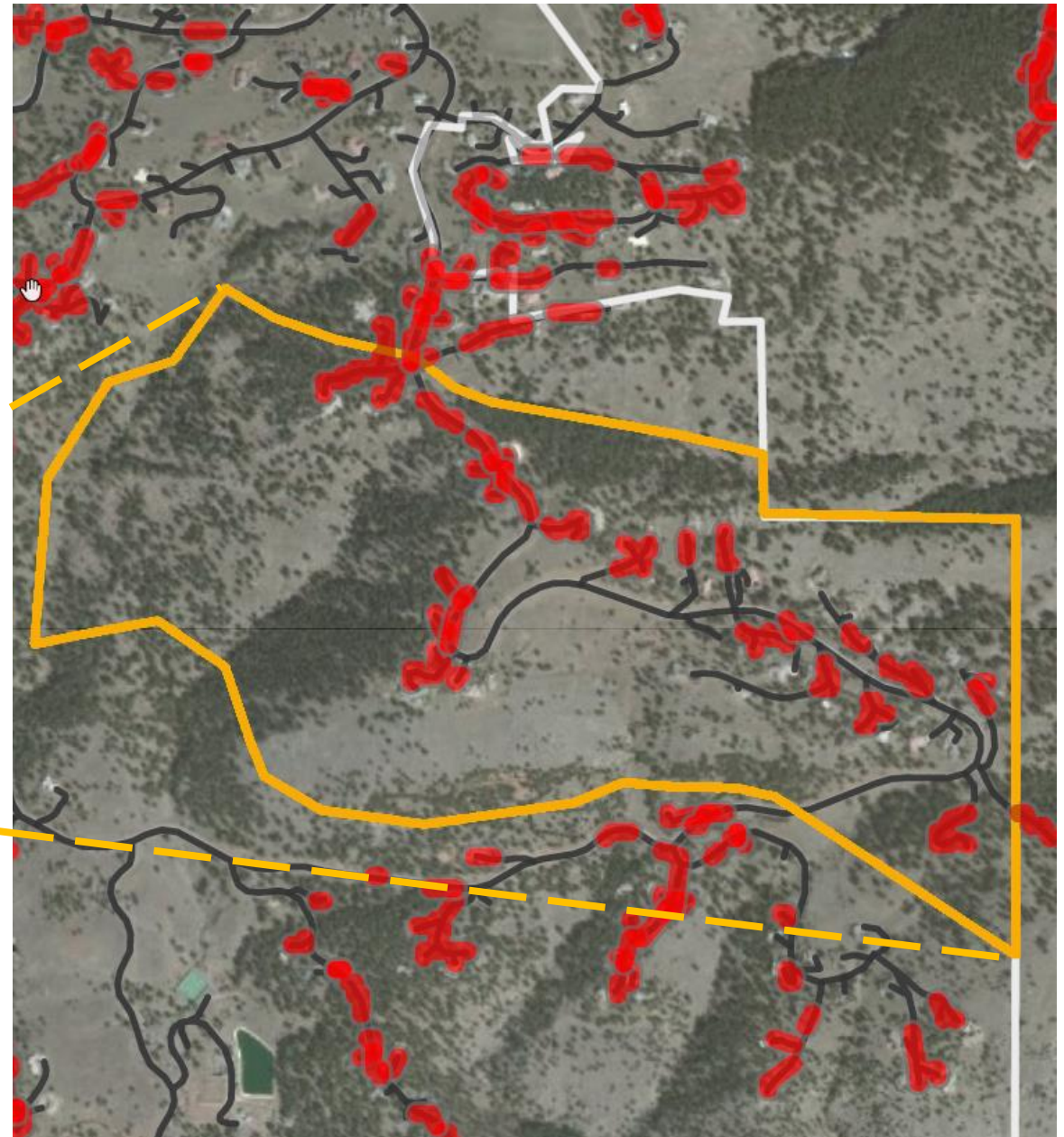
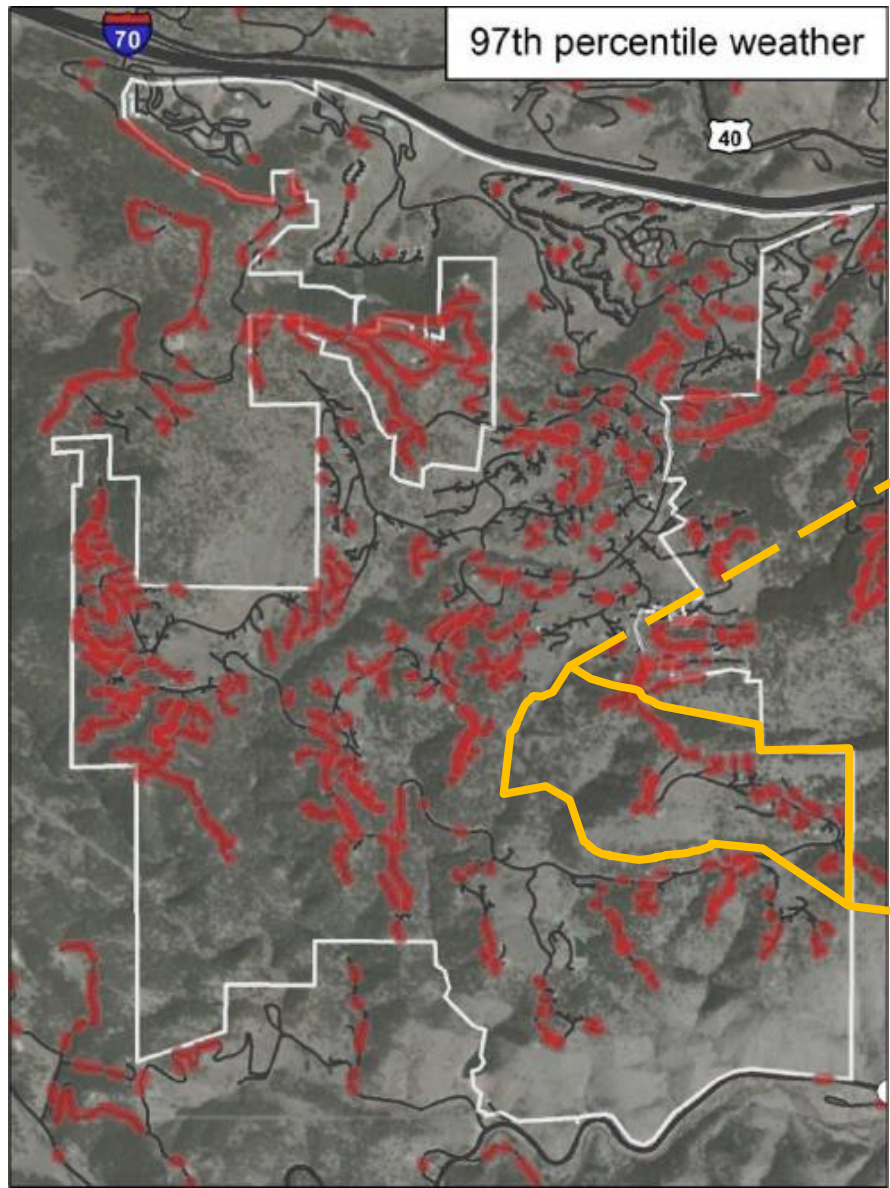
# Open Space Mitigation

- What are we trying to avoid?



Images from recent California wildfires

# Non-survivable Roadways



- Legend
- Genesee FPD
  - Survivable roads, private drives, and driveways
  - Non-survivable roads, private drives, and driveways

# Non-survivable Roadways

**Non-survivable road:** Portions of roads adjacent to areas with predicted flame lengths greater than 8 feet under severe fire weather conditions. Drivers stopped or trapped on these roadways would have a low chance of surviving radiant heat from fires of this intensity. Non-survivable conditions are more common along roads that are lined with thick forests, particularly with trees that have limbs all the way to the ground and/or abundant saplings and seedlings.

# Montane East Private Drive



# Montane East Private Drive



**Less trees = More Sun**

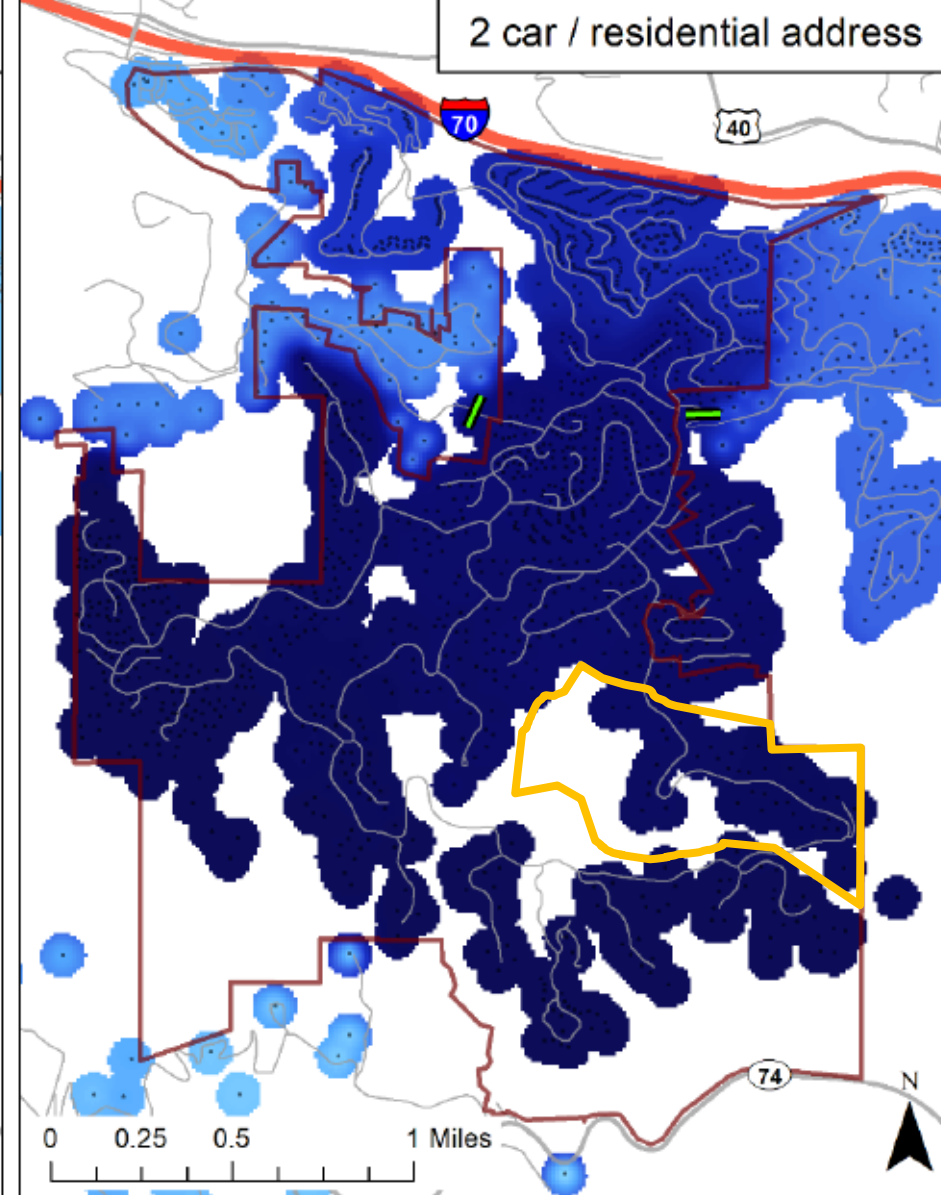
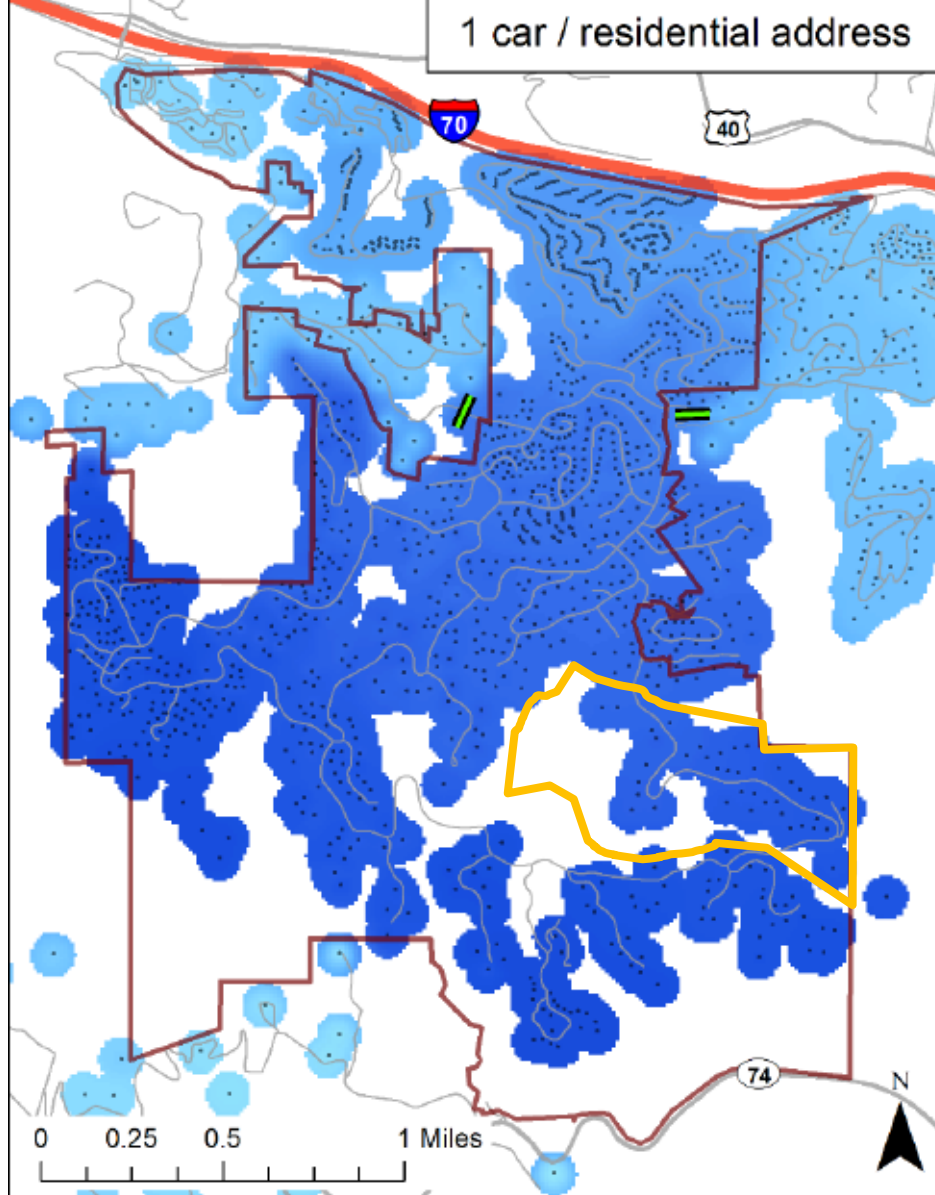
# Montane East Private Drive



Greater than or equal to  
8 Foot Flame Lengths

Slope

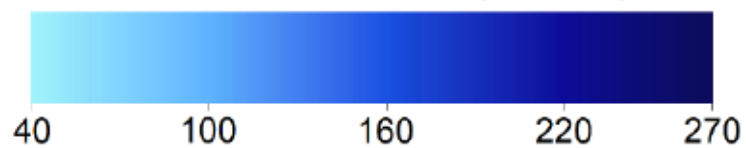
# EVACUATION TIME



## Legend

- Genesee FPD
- Locked gate
- Addresses

## Estimated evacuation time (minutes)



# Egress Challenges

- Trees too close to the road, even overlapping. Creates many areas of “non-survivable roadway”
  - Life safety issue during evacuation
  - Can also be a challenge for fire fighters accessing the area
- Roadway congestion and long evacuation times
  - Increases the chance of being stopped in an area of non-survivable roadway
  - Exacerbated if residents take two cars instead of one
    - If two cars/home evacuate, extreme congestion on 7.8 miles of Genesee roads
    - If one car/home evacuates, extreme congestion on **0.7** miles of Genesee roads
- GF egress only to the north
  - Long evacuation times, especially for residents on south and west side of GF



# Private Driveways

## DRIVEWAYS

- Maintain at least 10 feet between tree crowns, thinning them a minimum of 30 feet back from each side of the driveway from the house to the main access road.
- Remove ladder fuels beneath trees after thinning.
- Remove any shrubs that are within 10 feet of the outer edge of tree crowns.
- Space shrubs apart at least 2 ½ times their mature height, as measured from the edge of the shrubs.
- Post signs at the end of the driveway with your house number that are noncombustible, reflective and easily visible to emergency responders.

Source: Colorado State Forest Service, "Home Ignition Zone Guide". 2021

# Private Driveways

house



# Emergency Preparedness

Register with [CodeRED](#) to be sure you receive emergency notifications

- [www.Your911.net](http://www.Your911.net)

Have a family emergency plan

Talk to your neighbors about :

- Safety concerns
- How you can work together **before and during** an emergency. This could include contingency plans for:
  - Children
  - Disabled family members
  - Elderly family members
  - Pets

Be prepared to leave immediately upon receiving an evacuation notice, especially on [Red Flag](#) days

# Ready-Set-Go Checklist

from Rotary Wildfire Ready

<https://simplebooklet.com/rotarywildfireready/evacuationchecklist>

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## ARE YOU WILDFIRE READY? EVACUATION CHECKLIST

If evacuation is anticipated and time allows, follow this checklist to help your family evacuate. Practice ahead to make sure you are prepared.



### GET READY

BEFORE A WILDFIRE THREATENS  
HAVE AN EMERGENCY GO BAG PACKED



#### PERSONAL ITEMS

- Fire Resistant Clothing: leather gloves and boots, long pants and shirt (100% natural fiber), goggles, floppy hat, two days worth of clothing
- Respirator/face mask (N95 rated)
- Eye drops
- First aid kit (compact)
- Sanitation products: toilet paper, feminine hygiene, wipes, diapers, garbage bags
- Extra eyeglasses or contact lenses
- Wool blanket
- Prescription medicines

#### EQUIPMENT

- Flashlight, headlamp with spare batteries
- Cell phone charger
- Whistle to signal for help
- Pocket knife

#### FOOD, WATER & PET SUPPLIES

- Water: 1 gallon per person or pet per day
- Non-perishable or canned food for 2 day supply
- Pet leashes, food and medications
- Utensils, cups & plates, paper towel & can opener

#### EVACUATION ROUTE MAP

- Mark map with two possible evacuation routes



#### RED FLAG WARNING THIS IS YOUR PRELIMINARY WARNING

The National Weather Service issues **RED FLAG WARNINGS** during weather conditions that can cause extreme fire danger, so it's important to be prepared.

- Put your **EMERGENCY GO BAG** near or in your car
- Review your evacuation checklist
- Put important documents in an area that can be quickly loaded
- Ensure phones are charged
- Ensure car is gassed up

#### HOW DO I GET EMERGENCY NOTIFICATIONS?

**You MUST sign up in advance to receive evacuation notifications with your local Sheriff's Department.**

Consider signing up for multiple counties that surround your area.

#### TO REGISTER

**Go to your local Sheriff's website and sign up for your county's emergency alert system.**

**If you're having trouble finding this information, go to [rotarywildfireready.com/get-notified](https://rotarywildfireready.com/get-notified)**



For complete wildfire ready information go to [rotarywildfireready.com](https://rotarywildfireready.com)  
Contact us:  
[rotarywildfireready@gmail.com](mailto:rotarywildfireready@gmail.com)  
[Facebook@rotarywildfireready](https://facebook.com/rotarywildfireready)

Supported by our Fire Department partners:



# Ready-Set-Go Checklist

from Rotary Wildfire Ready

<https://simplebooklet.com/rotarywildfireready/evacuationchecklist>

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## ARE YOU WILDFIRE READY? EVACUATION CHECKLIST



### GET SET

#### PRE-EVACUATION ALERT

##### EVACUATE AS SOON AS POSSIBLE

There is a potential threat to life. A short delay to prepare your home may be okay. Leave if you feel unsafe.

There is a wildfire in your area that may require you to evacuate in the near future. You should be prepared to leave at a moment's notice. If you feel you are in danger and want to leave, do so. If you need additional time to evacuate, you should consider leaving now.

#### GET DRESSED FOR SURVIVAL

Dress yourself and family in clothes that will shield from heat, embers and flames. 100% natural fabrics such as heavy denim or pure wool are the best. Avoid synthetics no matter how hot.

#### OUTSIDE HOME - IF YOU HAVE TIME

- Turn OFF gas & propane at meter
- Put combustible patio furniture inside
- Bring all doormats inside house
- Move BBQ appliances away from structures
- Remove firewood or any other combustibles from home
- Have a ladder available

#### INSIDE HOME - IF YOU HAVE TIME

- Turn ON exterior lights
- Turn OFF pilot lights and air conditioning
- Close all windows, doors and vents
- Keep power ON
- Get important papers and computers
- Get prescription medications
- Get easy to carry valuables/photos

#### INTO CARS – EMERGENCY GO BAG PLUS:

- People
- Pets with leashes
- Medications
- Photos & Mementos
- Priceless Items: valuables
- Important documents/computers



### GO!

#### EVACUATION ORDER LEAVE NOW!

Evacuate Immediately

This is a MANDATORY Order. Do NOT delay to gather belongings.

There is an immediate threat to life.

There is a wildfire in your area and you have been ordered to evacuate immediately. If you need assistance evacuating yourself or animals, call 911.

Do not delay - evacuation means you need to leave immediately!



[www.rotarywildfireready.com](http://www.rotarywildfireready.com)

### EVACUATION NOTIFICATIONS & INFORMATION

Monitor Official Fire Information Sources

All these sources and more are at [www.rotarywildfireready.com/pre-evacuation-preparations/](http://www.rotarywildfireready.com/pre-evacuation-preparations/)

#### TWITTER FEEDS

Elk Creek Fire - @elkcreekfir  
Evergreen Fire & Rescue - @efr\_co  
Foothills Fire & Rescue - @firefoothills  
Jeffco Sheriff - @jeffcosherrifco  
My Mountain Town - @mymountaintown  
Platte Canyon - @PlatteCanyonFD

#### FACEBOOK

Elk Creek Fire @ElkCreekFireDepartment  
Evergreen Fire Rescue @EvergreenFireRescue  
Foothills Fire & Rescue @FoothillsFire  
Genesee Fire Rescue @GeneseeFire  
Jeffco Sheriff @JeffersonCountySheriff  
My Mountain Town @MyMountainTown  
Platte Canyon: @PlatteCanyonFire

#### InciWeb

Interagency all-risk fire incident information  
[www.inciweb.nwccg.gov](http://www.inciweb.nwccg.gov)

#### MY MOUNTAIN TOWN

[mymountaintown.com](http://mymountaintown.com)

# Neighborhood Walk-Through

Shared goals of the Fire District and Genesee Foundation:

- Educate about shared risk
- Encourage mitigation efforts

Open Space Manager (GF) and Wildland Fire Specialist (GFR) walk the neighborhood to identify and discuss:

- Street-specific risks
- How the Open Space Manager can support your efforts
- What you can do on your private property

# Neighborhood Efforts

Neighborhood Captain(s) to step forward and spearhead the effort

- Coordinate with GFSC to set a time a date
- Notify your neighbors
- Be the point of contact for ongoing efforts
- Contact the GFSC to set up your neighborhood walk-through: [gfsc@geneseefoundation.org](mailto:gfsc@geneseefoundation.org)

Wildfire Prepared home assessment

- Contact Dorie Dalton, [ddalton@geneseefire.org](mailto:ddalton@geneseefire.org)
- The fee for this service is \$100



# Resources

- Rotary Wildfire Ready
  - <https://www.rotarywildfireready.com/>
- Colorado State Forest Service
  - <https://csfs.colostate.edu/homeowners-landowners/>
- Genesee Fire District
  - <https://geneseefpd.colorado.gov/>
- Genesee Foundation
  - <https://geneseefoundation.org/fire-and-safety/>
  - <https://geneseefoundation.org/about/firewise-community/>
  - Fire and Safety Committee:  
<https://geneseefoundation.org/hoa/committees/fire-and-safety-committee/>



