## Indian Hills Fire Protection District

## Resident Action Plan



NEXT STEPS FOR RESIDENTS, LANDOWNERS, AND COMMUNITIES TO REDUCE THE RISK OF WILDFIRE IN THE INDIAN HILLS COMMUNITY

## Goal

The guiding goal is for Indian Hills to become a fire-adapted community, which is a community consisting of informed and prepared citizens collaboratively planning and taking action to safely coexist with wildland fire

## Process

#### Individual Action

Homeowners, residents, and landowners within the Indian Hills Fire Protection District (IHFPD) create defensible space around their homes, harden their homes, and plan for wildfire evacuations.

#### **Neighborhood Action**

Neighborhoods pool resources to educate neighbors, mitigate privately-maintained roads, increase firefighter accessibility, and plan connected defensible space and landscape treatments.

#### **Agency Action**

Major landowners, government agencies, and local organizations work with residents and each other to complete landscapescale forest health and fuel mitigation projects that protect the community.



## Resident Next Steps



#### Defensible Space

Create space around your home to protect it from flames and embers, and create space for firefighters to defend your home.

#### Home Hardening

Build or update your house so it can resist flames and embers in case they come in contact with your house.

#### **Evacuation Preparedness**

Create an evacuation plan with your family and neighbors. Pack go-bags so you are ready to leave immediately during an evacuation order.

## Defensible Space

Goal: Keep fire away from your house

#### Zone 1 - The non-combustible zone 0-5 feet from your home

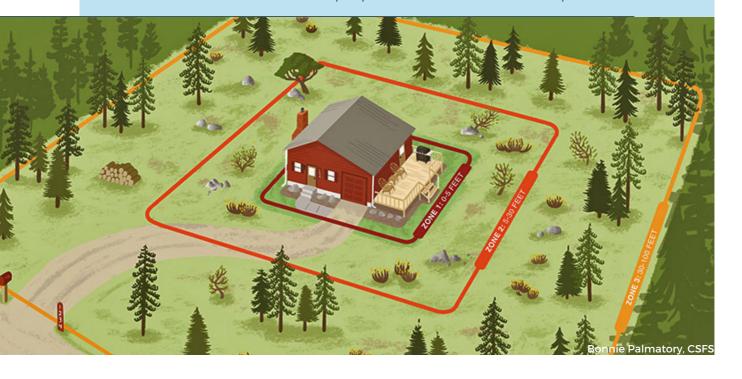
Start your work here - Remove ALL flammable material from 5 feet around your whole house. Mulch, wood fences, wood furniture, firewood, and plants should be removed. Nothing in this area should be flammable.

#### Zone 2 - The lean, clean, green zone 5-30 feet from your home

Keep grass and vegetation adequately watered and mowed. Remove all dead plants and woody materials. Any trees or shrubs should be healthy and spaced at least 10 ft apart. Prune trees up 6-10 ft and remove all material below the tree. Remove all junipers.

#### Zone 3 - The fuel reduction zone 30-100 feet from your home

Trees should be spaced 10 ft apart, measured at the closest branches. All material below trees like limbs and shrubs should be removed. Slash and flammable debris should be removed or relocated. This is a safe distance to store propane tanks and firewood piles.

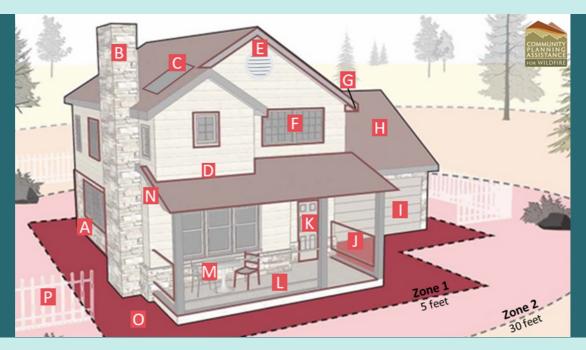


## Home Hardening

Goal: Prevent your house from catching on fire

#### Low-cost actions:

- B. Cover chimneys and stovepipe outlets with ½ inch corrosion-resistant metal mesh.
- C. Minimize debris accumulation under and next to solar panels.
- E. Cover vent openings with 1/16 inch corrosion-resistant metal mesh. Install dryer vents with metal flappers and keep closed unless in use.
- G. Clear debris from roof and gutters regularly.
- I. Install metal flashing around garage doors that goes up at least 6 inches on the door.
- J. Use noncombustible lattice, trellis, or other decorative features.
- K. Install weather stripping around and under doors.
- L. Remove combustible materials from underneath, on top of, or within 5 feet of deck.
- M. Use noncombustible patio future.
- N. Cover all eaves with screened vents.
- O. Establish and maintain a 5-foot noncombustible buffer around the home.



#### Actions to plan and save for:

- A. Use noncombustible siding and trim at least 2 feet up around the base of your home.
- C. Use multipaned glass for skylights, not materials that can melt, and use metal flashing.
- D. Install a 6-inch vertical noncombustible surface on all gables above roofs.
- F. Install multi-pane windows and metal mesh screens. Use noncombustible window frames.
- G. Install noncombustible gutters, gutter covers, and downspouts.
- H. Install ignition-resistant or noncombustible roofs.
- I. Install 1-hour fire rated garage doors.
- K. Install a 1-hour fire rated front and back doors.
- L. Use ignition-resistant or noncombustible decking. Enclose crawl spaces.
- N. Use noncombustible eaves.
- P. Replace wooden fences with noncombustible materials.

## Evacuation Prep Goal: Be ready to leave when needed, safely,

and with confidence

#### Plan

- Create an evacuation and emergency plan with your family. Discuss what will happen with kids, elderly family, and neighbors that may need assistance evacuating.
- Talk to the school and other places where family may be to see what their protocols are.
- Plan for evacuating pets and livestock. If you need extra time, always begin evacuating when you receive a voluntary evacuation notice.

#### **Get Notified**

• Sign your family up for emergency alerts at Lookout Alert.

#### **Pack and Prepare**

- Prepare a go-bag with essentials clothes, snacks, water, emergency contact information, phone chargers, flashlight, etc.
- Include a printed checklist of necessary items around the house to take (medicines, essential documents, urgent pet supplies) and include their locations.
- Update the bag annually based on family needs extra pet food, infant formula, a few kids games, toiletries, batteries, masks, etc.



### Resources

You must take action, but you do not have to do it alone



Website: ihfr.org

Phone: (303) 697-4568 Email: chief@ihfr.org

**Colorado State Forest Service** 

Website: csfs.colostate.edu

Phone: (303) 279-9757, (303) 279-2011 Email: CSFS\_Golden@mail.colostate.edu

**Jefferson Conservation District** 

Website: jeffersoncd.com Phone: (720) 661-1738

Email: jcd@jeffersoncd.com

**Jefferson County Office of Emergency Management** 

Website: jeffco.us/482/Emergency-Management

Phone: (303) 271-4900











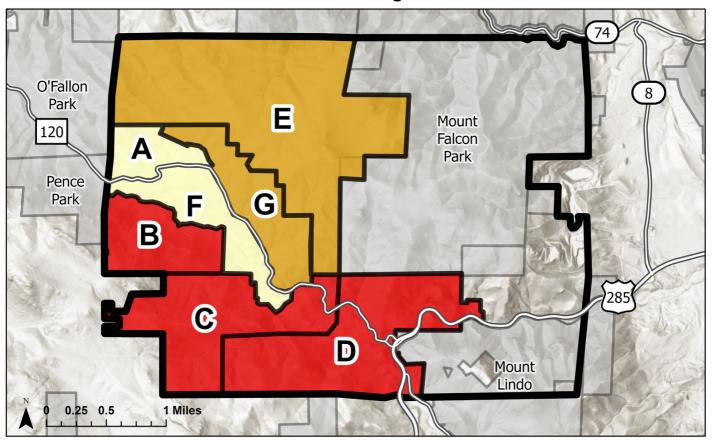
## **Plan Unit Priorities**

The Indian Hills community is at high risk for wildfires that can threaten property, lives, and livelihoods. Some areas of the community are at higher risk than others, and everyone has different risk factors that affect the ability of their home and property to withstand wildfires. Fire risk was mapped based on community input and scientific modelling.

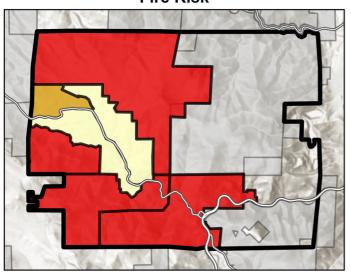
The interactive maps can be found here.



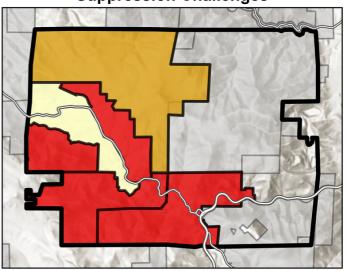
#### **Overall Relative Risk among CWPP Plan Units**



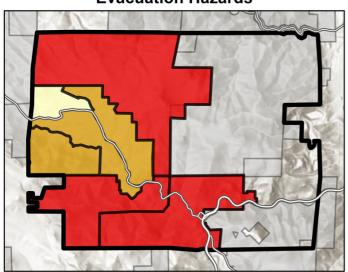
Fire Risk



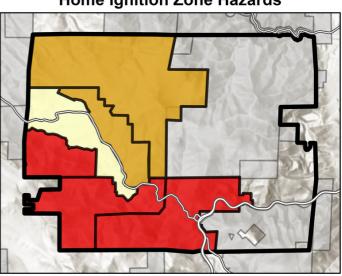
Suppression Challenges



**Evacuation Hazards** 



**Home Ignition Zone Hazards** 



**Relative Risk Rating for IHFPD** 

Coord. Sys.: NAD 1983 UTM Zone 13N Projection: Transverse Mercator Datum: North American 1983

Extreme

High

Moderate

Ember Alliance

#### **Plan Unit A - Moderate Risk**

#### Predicted wildfire exposure under extreme fire weather in Plan Unit A:

- 2% of roadways with potentially non-survivable conditions
- 2% of homes exposed to radiant heat from burning vegetation
- 2% of homes exposed to short-range embers from burning vegetation
- 57% of homes exposed to long-range embers from burning vegetation

Vegetation in plan unit A is primarily grassy meadows with widely spaced ponderosa pine trees. Dense ponderosa pine and mixed-conifer forests occur along Pima Rd and Tongue Rd. Slopes are flat to shallow, except for moderate slopes on the hills traversed by Matterhorn Dr, San Isabel Rd, Pima Rd, and Tongue Rd. Low to moderate fire behavior is predicted for most of the plan unit. However, un-mowed grass can support fast rates of spread. There is a high potential for extreme fire behavior in dense forests on steep slopes to the west of the unit in O'Fallon Park.

Home construction materials are highly mixed across the plan unit. Some homes have ignition-resistant siding (stone, adobe, composite, and treated wood siding), but several homes have flammable siding (untreated wood, plywood, and slab). Most homes have ignition-resistant roofs made from metal, concrete tile, or new asphalt, but they have wooden decks and fences. Wooden fences can serve as a pathway for fire to spread between vegetation, outbuildings, and homes. About half of the homes in this plan unit have abundant hazards in HIZ 1 and 2, including tree branches overhanging roofs, pine needles accumulating in gutters, and tall, un-mowed grass, shrubs, and trees abutting homes. Many homes have old wooden sheds and other outbuildings within 30ft of the home; these secondary structures could emit embers and radiant heat that threaten primary structures.

Conditions along almost all roads in this plan unit are predicted to be survivable during wildfires. All roads and most driveways are accessible for Type 3 engines. All roads can accommodate two-way traffic, except for San Isabel Rd. Several homes have wooden address signs that could burn during a wildfire and would be illegible at night or through heavy smoke.

#### Recommendations for collective action in plan unit A:

- Remove vegetation along the end of San Isabel Road to reduce the risk of non-survivable conditions during wildfires and increase access for firefighters.
- Support ecological restoration and fuel mitigation projects by Denver Mountain Parks (DMP) to reduce the potential for extreme fire behavior in O'Fallen Park to the west of plan unit A.
   Speak with DMP about the potential to coordinate treatments on private land when work begins in the priority project area on O'Fallen Park (see project area in Section 4.b. of the CWPP).
- Work with neighbors to create linked defensible space. Projects
  that span multiple properties are more effective at reducing
  wildfire risk and more attractive to grant funders. Contractor
  costs can sometimes be shared among homeowners, reducing
  the cost for everyone involved. Every homeowner in plan unit A
  should review and consider actions outlined in Section 3.a of the
  CWPP. Many homes in this plan unit have the potential for
  ignition from long-range ember cast during wildfires.
- Encourage all residents to develop evacuation plans for their family, sign up for emergency notifications from Jefferson County, and coordinate with neighbors who might need additional support during evacuations.
- Encourage residents to purchase metal, reflective address signs from IHFR (available through the <u>IHFR website</u>) to make it easier for firefighters to locate homes through heavy smoke and at night.





#### **Plan Unit B- Extreme Risk**

#### Predicted wildfire exposure under extreme fire weather in Plan Unit B:

- 41% of roadways with potentially non-survivable conditions
- 24% of homes exposed to radiant heat from burning vegetation
- 2% of homes exposed to short-range embers from burning vegetation
- 41% of homes exposed to long-range embers from burning vegetation

Much of plan unit B occurs on moderately steep to steep north-facing slopes with dense ponderosa pine and mixed-conifer forests. Douglas-fir saplings are abundant in the understory. Dense forests cover steep slopes in Pence Park to the west of plan unit B. There is a high potential for extreme fire behavior in dense forests with abundant ladder fuels on steep slopes, particularly on hot, dry, and windy days. Grassy meadows with scattered ponderosa pine trees are present at lower elevations in plan unit B along Navajo Rd.

Several homes are located mid-slope, which increases their potential exposure to extreme fire behavior. Home construction materials are highly mixed across the plan unit. Some homes have ignition-resistant siding (stone, adobe, composite, and treated wood siding), but over half of homes have flammable siding (untreated wood, plywood, and slab). Most homes have ignition-resistant roofs made from metal, concrete tile, or new asphalt, but they have wooden decks and fences. Wooden fences can serve as a pathway for fire to spread between vegetation, outbuildings, and homes. A vast majority of homes in this plan unit have abundant hazards in HIZ 1 and 2, including tree branches overhanging roofs, pine needles accumulating in gutters, and tall, unmowed grass, shrubs, and trees abutting homes. Many homes have old wooden sheds and other outbuildings within 30ft of the home; these secondary structures could emit embers and radiant heat that threaten primary structures.

About 40% of roads in plan unit B could potentially experience non-survivable conditions during wildfires due to the presence of dense vegetation and ladder fuels. Over half of roads and driveways can only accommodate one-way traffic and are inaccessible for Type 3 engines due to low vertical and horizontal clearance and an absence of pullovers and turnarounds. Some roads are poorly marked, which could make it hard for firefighters to navigate the neighborhood. About half of residents have flammable address signs that could burn during a wildfire and would be illegible at night or through heavy smoke.





#### Recommendations for collective action in plan unit B:

- Remove vegetation along Inca Rd, Zuni Rd, and driveways to reduce the risk of non-survivable conditions during wildfires and increase access for firefighters.
- Support ecological restoration and fuel mitigation projects by Denver Mountain Parks (DMP) to reduce the potential for extreme fire behavior in Pence Park to the west of plan unit B. Encourage coordination between DMP and private landowners to facilitate access to the priority project area on O'Fallen Park (see project area in Section 4.b. of the CWPP).
- Several homeowners in plan unit B have worked with contractors to create defensible space, and the
  effectiveness of this work could be magnified if neighbors work together to create linked defensible
  space. Projects that span multiple properties are more effective at reducing wildfire risk and more
  attractive to grant funders. Contractor costs can sometimes be shared among homeowners,
  reducing the cost for everyone involved.
- Conduct walking tours to demonstrate home hardening and defensible space practices. Every
  homeowner in plan unit B should review and consider actions outlined in Section 3.a of the CWPP.
  Many homes in this plan unit have the potential for ignition from radiant heat and long-range ember
  cast during wildfires. Old plywood and slab siding and wood shake, wooden shingle, or old asphalt
  roofs are particularly concerning from a flammability perspective.
- Encourage all residents to develop evacuation plans for their family, sign up for emergency notifications from Jefferson County, and coordinate with neighbors who might need additional support during evacuations.
- Install reflective road signs at all junctions and ensure vegetation is pruned so it does not hide road
- Encourage residents to purchase metal, reflective address signs from IHFR (available through the <a href="IHFR website">IHFR website</a>) to make it easier for firefighters to locate homes through heavy smoke and at night.

#### **Plan Unit C - Extreme Risk**

#### Predicted wildfire exposure under extreme fire weather in Plan Unit C:

- 59% of roadways with potentially non-survivable conditions
- 34% of homes exposed to radiant heat from burning vegetation
- 8% of homes exposed to short-range embers from burning vegetation
- 99% of homes exposed to long-range embers from burning vegetation

Much of plan unit C occurs on steep north-facing slopes with dense ponderosa pine and mixed-conifer forests with abundant Englemann spruce and Douglas-fir saplings in the understory. Steep east- and south-facing slopes in the plan unit are covered in ponderosa pine forests with Gambel oak, juniper, and Douglas-fir. Aspen, Englemann and blue spruce, and riparian vegetation occur within a drainage along Mountain Spirit Way. There is a high potential for extreme fire behavior in dense forests with abundant ladder fuels on steep slopes, particularly on hot, dry, and windy days. Grass-shrub understories in lower-density forests could support fast rates of spread, and passive crown fires could occur in areas with ladder fuels.

Numerous homes are located mid-slope and several on ridgetops, which increases their potential exposure to extreme fire behavior. In general, homes in plan unit C are older and have flammable siding (untreated wood, plywood, and slab). Many homes have ignition-resistant roofs made from metal, concrete tile, or new asphalt, but about a quarter of homes have wood shake, wooden shingle, or old asphalt roofs. Many homes have wooden decks and fences. Wooden fences can serve as a pathway for fire to spread between vegetation, outbuildings, and homes. A vast majority of homes in this plan unit have abundant hazards in HIZ 1 and 2, including tree branches overhanging roofs, pine needles accumulating in gutters, and tall, un-mowed grass, shrubs, and trees abutting homes. Many homes have old wooden sheds and other outbuildings within 30 ft of the home; these secondary structures could emit embers and radiant heat that threaten primary structures.

About 60% of roads in plan unit C could potentially experience non-survivable conditions during wildfires due to the presence of dense vegetation and ladder fuels. Over half of roads and driveways can only accommodate one-way traffic and are inaccessible for Type 3 engines due to low vertical and horizontal clearance, steep grades, tight switchbacks, and an absence of pullovers and turnarounds. About half of residents have flammable address signs that could burn during a wildfire and would be illegible at night or through heavy smoke.

#### **Recommendations for collective action in plan unit C:**

 Remove vegetation along Shawnee Rd, Salugi Rd, Adahi Rd, Cherokee Rd, Taos Rd, and driveways to reduce the risk of non-survivable conditions during wildfires and increase access for firefighters. Treatments along Shawnee Rd are called out as priority project areas for this CWPP (see Section 4.b of the CWPP).

- Explore options to widen narrow roads, or at the minimum to create pullouts and turnarounds to assist with evacuation and emergency traffic.
- A couple homeowners in plan unit C have worked with contractors to create defensible space, and the effectiveness of this work could be magnified if neighbors work together to create linked defensible space. Projects that span multiple properties are more effective at reducing wildfire risk and more attractive to grant funders. Contractor costs can sometimes be shared among homeowners, reducing the cost for everyone involved.
- Conduct walking tours to demonstrate home hardening and defensible space practices. Every homeowner in plan unit C should review and consider actions outlined in Section 3.a of the CWPP. Many homes in this plan unit have the potential for ignition from radiant heat and long-range ember cast during wildfires. Old plywood and slab siding and wood shake, wooden shingle, or old asphalt roofs are particularly concerning from a flammability perspective.
- Encourage all residents to develop evacuation plans for their family, sign up for emergency notifications from Jefferson County, and coordinate with neighbors who might need additional support during evacuations.
- Encourage residents to purchase metal, reflective address signs from IHFR (available through the <u>IHFR website</u>) to make it easier for firefighters to locate homes through heavy smoke and at night.





#### **Plan Unit D - Extreme Risk**

#### Predicted wildfire exposure under extreme fire weather in Plan Unit D:

- 33% of roadways with potentially non-survivable conditions
- 29% of homes exposed to radiant heat from burning vegetation
- 16% of homes exposed to short-range embers from burning vegetation
- 95% of homes exposed to long-range embers from burning vegetation

Topography and vegetation are highly varied in plan unit D. Over half of the unit occurs on steep north-and west-facing slopes with dense ponderosa pine and mixed-conifer forests with abundant Englemann spruce and Douglas-fir saplings in the understory. Parts of the unit occur on steep east-and south-facing slopes covered in ponderosa pine forests with Gambel oak, juniper, and Douglas-fir. There is a high potential for extreme fire behavior in dense forests with abundant ladder fuels on steep slopes, particularly on hot, dry, and windy days. Narrow ravines with dense fuel have an even higher risk of extreme fire behavior. Grass-shrub understories in lower-density forests could support fast rates of spread, and passive crown fires could occur in areas with ladder fuels.

Numerous homes are located mid-slope and several on ridgetops, which increases their potential exposure to extreme fire behavior. In general, homes in plan unit D are older and have flammable siding (untreated wood, plywood, and slab). Many homes have ignition-resistant roofs made from metal, concrete tile, or new asphalt, but about a quarter of homes have wood shake, wooden shingle, or old asphalt roofs. Newer homes with ignition-resistant construction materials are more common on Brookmont Rd. Many homes across the plan unit have wooden decks and fences. Wooden fences can serve as a pathway for fire to spread between vegetation, outbuildings, and homes. A vast majority of homes in this plan unit have abundant hazards in HIZ 1 and 2, including tree branches overhanging roofs, pine needles accumulating in gutters, and tall, un-mowed grass, shrubs, and trees abutting homes. Many homes have old wooden sheds and other outbuildings within 30 ft of the home; these secondary structures could emit embers and radiant heat that threaten primary structures.

Geneva Glen has taken steps to harden structures and mitigate fuel on their property. The camp has replaced flammable siding and roofing with ignition-resistant materials and removed trees to create defensible space around many cabins. The camp has conducted fuel treatments on over 100 acres of ponderosa pine and mixed-conifer forests in coordination with Jefferson Conservation District to help protect the camp and adjacent community from wildfires.

A third of roads in plan unit D could potentially experience non-survivable conditions during wildfires due to the presence of dense vegetation and ladder fuels. Over half of roads and driveways can only accommodate one-way traffic and are inaccessible for Type 3 engines due to low vertical and horizontal clearance, steep grades, tight switchbacks, and an absence of pullovers and turnarounds. Some residents have flammable address signs that could burn during a wildfire and would be illegible at night or through heavy smoke.

#### Recommendations for collective action in plan unit D:

- Remove vegetation along Hiawatha Trail, Santa Clara Rd, Brookmont Rd, Seminole Rd, Algonquin Rd, Raven Gulch Rd, and driveways to reduce the risk of non-survivable conditions during wildfires and increase access for firefighters. Treatments along Santa Clara Rd, Seminole Rd, and Algonquin Rd are called out as priority project areas for this CWPP (see Section 4.b in the CWPP).
- Explore options to widen narrow roads, or at the minimum to create pullouts and turnarounds to assist with evacuation and emergency traffic.
- Geneva Glen and a couple homeowners in plan unit D have worked with Jefferson Conservation District or private contractors to create defensible space. The effectiveness of this work could be magnified if neighbors work together to create linked defensible space.
   Projects that span multiple properties are more effective at reducing wildfire risk and more attractive to grant funders.
   Contractor costs can sometimes be shared among homeowners, reducing the cost for everyone involved.
- Conduct walking tours to demonstrate home hardening and defensible space practices. Every homeowner in plan unit D should review and consider actions outlined in Section 3.a of the CWPP.
   Many homes in this plan unit have the potential for ignition from radiant heat and short- and long-range ember cast during wildfires.
   Old plywood and slab siding and wood shake, wooden shingle, or old asphalt roofs are particularly concerning from a flammability perspective.
- Encourage all residents to develop evacuation plans for their family, sign up for emergency notifications from Jefferson County, and coordinate with neighbors who might need additional support during evacuations.
- Encourage residents to purchase metal, reflective address signs from IHFR (available through the <a href="IHFR website">IHFR website</a>) to make it easier for firefighters to locate homes through heavy smoke and at night.





#### Predicted wildfire exposure under extreme fire weather in Plan Unit E:

- 77% of roadways with potentially non-survivable conditions
- 83% of homes exposed to radiant heat from burning vegetation
- 58% of homes exposed to short-range embers from burning vegetation
- 100% of homes exposed to long-range embers from burning vegetation

Topography and vegetation are highly varied in plan unit E. Some south-facing slopes are covered in low- to moderate-density ponderosa pine forest with ponderosa pine saplings, Gamble oak, and juniper understories. Grass-shrub understories in lower-density forests could support fast rates of spread, and passive crown fires could occur in areas with ladder fuels. Other areas have shallow slopes with aspen and open meadows, including large, irrigated pastures. Un-mowed grass can support fast rates of spread under dry conditions. Dense ponderosa pine and mixed-conifer forests cover steep slopes in Mount Falcon Park to the east of plan unit E. There is a high potential for extreme fire behavior in dense forests with abundant ladder fuels on steep slopes, particularly on hot, dry, and windy days.

In general, homes in plan unit E are newer and have ignition-resistant siding (stone, adobe, composite, and treated wood siding). Almost all homes have ignition-resistant roofs made from metal, concrete tile, or new asphalt. Several homes have wooden decks and fences, but others have ignition-resistant decks and vinyl or metal fences. Wooden fences can serve as a pathway for fire to spread between vegetation, outbuildings, and homes. The quality of defensible space is mixed across the unit. Some homes have non-burnable barriers in HIZ1, but others have tall, unmowed grass, shrubs, and trees abutting homes. Some residents have removed trees and limbs in HIZ2, but others have dense vegetation within 30 feet of their homes, including trees with branches overhanging their roofs.

About 77% of roads in plan unit E could potentially experience non-survivable conditions during wildfires due to the presence of dense vegetation and ladder fuels. Ongoing work to remove vegetation along Cameyo Rd and pave the road is a positive step to increase safety in this plan unit. Over half of roads and driveways can only accommodate one-way traffic and are inaccessible for Type 3 engines due to low vertical and horizontal clearance and an absence of pullovers and turnarounds. Most residents have metal, reflective address signs.





#### Recommendations for collective action in plan unit E:

- Remove vegetation along Lakota Rd, Nambe Rd, Clara Rd, Brookmont Rd, Seminole Rd, Algonquin Rd, Raven Gulch Rd, Mount Falcon Rd, Cameyo Rd, Falcon Wing Rd, Talon Trail, and driveways to reduce the risk of non-survivable conditions during wildfires and increase access for firefighters. Treatments on Mount Falcon Rd and Cameyo Rd are called out as priority project areas for this CWPP (see Section 4.b in the CWPP).
- Explore options to widen narrow roads, or at the minimum to create pullouts and turnarounds to assist with evacuation and emergency traffic, particularly on Cameyo Rd.
- Support ecological restoration and fuel mitigation projects by Jefferson County Open Space (JCOS) to reduce the potential for extreme fire behavior in Mount Falcon Park to the east of plan unit E (see project area in Section 4.b. ).
- Tall Timbers has created defensible space and reduced fuel loads across the Leprino property in
  the northwest part of plan unit E. Several other homeowners have worked with private
  contractors to create defensible space. The effectiveness of this work could be magnified if
  neighbors work together to create linked defensible space. Projects that span multiple
  properties are more effective at reducing wildfire risk and more attractive to grant funders.
  Contractor costs can sometimes be shared among homeowners, reducing the cost for everyone
  involved.
- Conduct walking tours to demonstrate home hardening and defensible space practices. Every
  homeowner in plan unit E should review and consider actions outlined in Section 3.a. Many
  homes in this plan unit have the potential for ignition from radiant heat and short- and longrange ember cast during wildfires.
- Encourage all residents to develop evacuation plans for their family, sign up for emergency notifications from Jefferson County, and coordinate with neighbors who might need additional support during evacuations.
- Encourage residents to purchase metal, reflective address signs from IHFR (available through the <u>IHFR website</u>) to make it easier for firefighters to locate homes through heavy smoke and at night.

#### **Plan Unit F - Moderate Risk**

#### Predicted wildfire exposure under extreme fire weather in Plan Unit F:

- 3% of roadways with potentially non-survivable conditions
- 1% of homes exposed to radiant heat from burning vegetation
- 0% of homes exposed to short-range embers from burning vegetation
- 19% of homes exposed to long-range embers from burning vegetation

The majority of plan unit F is flat and covered in open, grassy meadows or valley bottoms with riparian vegetation of willows, cottonwoods, blue spruce, and aspen. Some moderately dense ponderosa pine forests are present along Hopi and Inca Rd, but ladder fuels are sparse. The risk of extreme fire behavior is low in this plan unit.

Home construction materials are highly mixed across the plan unit. Some homes have ignition-resistant siding (stone, adobe, composite, and treated wood siding), but several homes have flammable siding (untreated wood, plywood, and slab). Most homes have ignition-resistant roofs made from metal, concrete tile, or new asphalt, but they have wooden decks and fences. Wooden fences can serve as a pathway for fire to spread between vegetation, outbuildings, and homes. The quality of defensible space is mixed across the unit. Some homes have non-burnable barriers in HIZ1, but others have tall, un-mowed grass, shrubs, and trees abutting homes. Some residents have removed trees and limbs in HIZ2, but others have dense vegetation within 30 feet of their homes, including trees with branches overhanging their roofs. Many homes have old wooden sheds and other outbuildings within 30 ft of the home; these secondary structures could emit embers and radiant heat that threaten primary structures.

Conditions along almost all roads in this plan unit are predicted to be survivable during wildfires. Over half of roads and driveways can only accommodate one-way traffic, but practically all roads are accessible for Type 3 engines. Some residents have flammable address signs that could burn during a wildfire and would be illegible at night or through heavy smoke.

#### Recommendations for collective action in plan unit F:

- Explore options to widen narrow roads, or at the minimum to create pullouts and turnarounds to assist with evacuation and emergency traffic.
- Several other homeowners have worked with private contractors to create defensible space. The effectiveness of this work could be magnified if neighbors work together to create linked defensible space. Projects that span multiple properties are more effective at reducing wildfire risk and more attractive to grant funders. Contractor costs can sometimes be shared among homeowners, reducing the cost for everyone involved.
- Conduct walking tours to demonstrate home hardening and defensible space practices. Every homeowner in plan unit F should review and consider actions outlined in Section 3.a in the CWPP. Some homes in this plan unit have the potential for ignition from long-range ember cast during wildfires.
- Encourage all residents to develop evacuation plans for their family, sign up for emergency notifications from Jefferson County, and coordinate with neighbors who might need additional support during evacuations.
- Encourage residents to purchase metal, reflective address signs from IHFR (available through the <u>IHFR website</u>) to make it easier for firefighters to locate homes through heavy smoke and at night.





#### **Plan Unit G- High Risk**

#### Predicted wildfire exposure under extreme fire weather in Plan Unit G:

- 26% of roadways with potentially non-survivable conditions
- 15% of homes exposed to radiant heat from burning vegetation
- 1% of homes exposed to short-range embers from burning vegetation
- 84% of homes exposed to long-range embers from burning vegetation

Much of plan unit G occurs on moderate to steep southwest-facing slopes covered in ponderosa pine forests with ponderosa pine saplings, Gambel oak, juniper, and grass-shrub understories. There is a high potential for extreme fire behavior in dense forests with abundant ladder fuels on steep slopes, particularly on hot, dry, and windy days. Narrow ravines with dense fuel have an even higher risk of extreme fire behavior. Tall grasses in lower-density forests could support fast rates of spread, and passive crown fires could occur in areas with ladder fuels.

Several homes are located mid-slope, which increases their potential exposure to extreme fire behavior. Many homes in plan unit G are older and have flammable siding (untreated wood, plywood, and slab) and wood shake, wooden shingle, or old asphalt roofs. Many homes across the plan unit have wooden decks and fences. Wooden fences can serve as a pathway for fire to spread between vegetation, outbuildings, and homes. A vast majority of homes in this plan unit have abundant hazards in HIZ 1 and 2, including tree branches overhang roofs, pine needles accumulating in gutters, and tall, un-mowed grass, shrubs, and trees abutting homes. Many homes have old wooden sheds and other outbuildings within 30 ft of the home; these secondary structures could emit embers and radiant heat that threaten primary structures. There were more woodpiles and propane tanks within 30 feet of homes in this plan unit than any other part of IHFPD.

About a quarter of roads in plan unit G could potentially experience non-survivable conditions during wildfires due to the presence of dense vegetation and ladder fuels. Over half of roads and driveways can only accommodate one-way traffic and are inaccessible for Type 3 engines due to low vertical and horizontal clearance, steep grades, tight switchbacks, and an absence of pullovers and turnarounds. Some residents have flammable address signs that could burn during a wildfire and would be illegible at night or through heavy smoke.





#### Recommendations for collective action in plan unit G:

- Remove vegetation along Nambe Rd, Picutis Rd, and driveways to reduce the risk of non-survivable conditions during wildfires and increase access for firefighters (see Figure 3.c.3). Treatments along Nambe Rd and Picutis Rd are called out as priority project areas for this CWPP (see Section 4.b).
- Explore options to widen narrow roads, or at the minimum to create pullouts and turnarounds to assist with evacuation and emergency traffic.
- There is a great need to create defensible space around homes in plan unit G. The effectiveness of
  mitigation work by individual residents could be magnified if neighbors work together to create
  linked defensible space. Projects that span multiple properties are more effective at reducing
  wildfire risk and more attractive to grant funders. Contractor costs can sometimes be shared among
  homeowners, reducing the cost for everyone involved.
- Conduct walking tours to demonstrate home hardening and defensible space practices. Every homeowner in plan unit G should review and consider actions outlined in Section 3.a. Many homes in this plan unit have the potential for ignition from radiant heat and short- and long-range ember cast during wildfires. Old plywood and slab siding and wood shake, wooden shingle, or old asphalt roofs are particularly concerning from a flammability perspective.
- Encourage all residents to develop evacuation plans for their family, sign up for emergency
  notifications from Jefferson County, and coordinate with neighbors who might need additional
  support during evacuations. Encourage residents to purchase metal, reflective address signs from
  IHFR (available through the <a href="IHFR website">IHFR website</a>) to make it easier for firefighters to locate homes through
  heavy smoke and at night.

# Implementation Phases

#### **Short-Term Action**

- Can be implemented within the remainder of 2023.
- Can be accomplished within the current funding capacity for the IHFR, IHIA, and residents.
- Can occur within the context of the current IHFR and IHIA volunteer base, with modest expansion.
- Can capitalize on current relationships with emergency response partners and land managers.

#### **Mid-Term Action**

- Can be implemented within 18-24 months, generally in 2024 and 2025.
- Will require expansion of the current IHFR and IHIA volunteer base.
- Requires new cooperative relationships with emergency response partners, land managers, and non-profit organizations.
- Actions that are already in the planning stages and have some portion of funding already identified.

#### **Long-Term Action**

- Requires planning to start within 18-24 months so implementation can occur after 2025.
- Requires multi-year planning and funding.
- Requires extensive grant funding.
- May require local staffing beyond volunteers.



## Implementation Activities and Responsibilities

#### **Fire Adapted Communities**

Recommendation	Responsibility	Priority
Adopt the <u>Fire Adapted Communities</u> as the overarching vision and strategy for CWPP implementation.	IHFR, IHIA, residents	Short-term
Become designated as a Firewise-USA community. Learn more at:  Becoming a Firewise-USA community and Program Benefits.	IHFR, IHIA	Mid-term
Hold an IHFR Firewise Education Day during the summer to encourage residents to implement home hardening and defensible space. This could be done at a BBQ or dessert potluck with IHIA.	IHFR, IHIA	Mid-term

#### **District Capacity**

Recommendation	Responsibility	Priority
Continue supporting the involvement of volunteer firefighters in out-of-county incidents where they gain invaluable experience.	IHFR	Ongoing
Support ongoing efforts by IHWD to enhance fire water supply as outlined in their 2020 Master Plan.	IHWD, IHFR, Residents	Short-term

#### District Capacity

Recommendation	Responsibility	Priority
Apply for grants to make further enhancements to the community's water infrastructure (see items listed in Section 3.c.).	IHWD, IHFR	Mid-term

#### Community Outreach and Engagement

Recommendation	Responsibility	Priority
Form a volunteer group called the "Mission: Firewise Coalition" within or outside the IHIA, or other mutually agreeable name to continue momentum developed by the CWPP. Have a liaison to create more fluid communication between IHIA and IHFR.	IHFR, IHIA	Short-term
Become a volunteer with the IHFR to inspire fellow residents to engage in wildfire mitigation and emergency preparedness.	Residents	Short-term
Improve the IHFR website, social media, and other outreach materials to increase resident awareness of wildfire risk and resources available for mitigation. Create an account on NextDoor and post regularly on Facebook.	HFR	Short-term

#### Home Ignition Zone

Recommendation	Responsibility	Priority
Engage in annual maintenance of your home ignition zone.	Residents	Short-term
Use the CSFS <u>The Home Ignition Zone</u> guide as the foundation for defensible space and home hardening.	Residents	Shot-term

#### Home Ignition Zone

Recommendation	Responsibility	Priority
Establish defensible space around homes, detached garages, storage buildings, barns, and other structures so that the home can stand alone without relying on limited firefighting resources.	Residents	Short-to mid-term
Conduct home assessments to provide specific recommendations to individual homeowners.	IHFR	Mid-term
Explore a "tool cache" with pole pruners, shears, and other small equipment for residents to checkout and use for mitigation projects.	IHFR	Short-term

#### Linked Defensible Space and Fuel Treatments

Recommendation	Responsibility	Priority
Prioritize mitigating fire risk in CWPP plan units with extreme fire risk (plan units B, C, and D).	IHFR, residents, other partners	Mid-term
Organize neighborhood workdays to help each other with mitigation work and maintenance of the home ignition zone.	Residents	Short-to mid-term
Discuss shared risk and encourage neighborhood-wide implementation of defensible space, for example through walking tours of well-mitigated properties.	Residents	Short-to mid-term
Build off the CWPP to identify projects that improve linked defensible space and create mosaic landscapes. Two priority projects have resulted from the IH CWPP.	IHFR, residents	Short-to mid-term
Work together to pool financial and other resources and pursue grants.	IHFR, residents	Mid- to long-term

#### Linked Defensible Space and Fuel Treatments

Recommendation	Responsibility	Priority
Continue collaborating with large landowners and public lands to conduct priority fuel treatments.	IHFR, other partners	Mid- to long-term

#### Slash Management

Recommendation	Responsibility	Priority
Continue promoting the IHIA Curbside  Chipping Program to residents, expanding participation.	IHIA	Short-term
Continue promoting the <u>Jefferson County</u> <u>Slash Management Program</u> to residents.	IHFR	Short-term
Develop a slash management strategy, including judiciously relaxing slash burning prohibitions.	IHFR	Long-term
Increase resident awareness of the county and state burn permitting systems.	IHFR	Long-term
Participate in the Colorado Certified Burner Program to learn proper burning methods.	Residents	Long-term
Increase resident training on proper burning methods.	IHFR	Long-term



#### **Evacuation Preparedness**

Recommendation	Responsibility	Priority
Develop a family evacuation plan and go-bags. Plans should include considerations of pets and livestock if applicable.	Residents	Short-term
Cooperate with neighbors to develop plans for evacuating children who may be home alone or residents with mobility impairments or other special needs.	Residents	Short-term



Recommendation	Responsibility	Priority
Increase resident awareness of evacuation planning, processes, and <u>Lookout Alert</u> . Provide information on evacuations with visitors at short-term rentals.	IHFR	Short-term
Sign up for emergency notification through the <u>Lookout Alert</u> .	Residents	Short-term
Provide access to water supplies on properties for firefighters when evacuating. Residents must not turn on sprinklers during evacuation.	Residents	Short-term
Cooperate with emergency response partners to conduct district-wide evacuation drills.	IHFR, emergency response partners	Mid-term
Work with Jefferson County Open Space to inform visitors at Mount Falcon Park about evacuation protocol and alert systems. Putting QR codes on signage across the park to direct people to the Lookout Alert website could be a great place to start.	IHFR, Jefferson County Open Space	Mid-term
Explore the potential for warning sirens across IHFPD.	IHFR	Long-term

#### Firefighter Access and Evacuation Safety

Recommendation	Responsibility	Priority
Improve access for firefighters on private drives and driveways.	Residents	Mid-term
Coordinate efforts to mitigate hazardous conditions along roadways.	IHFR, Jefferson Country Road and Bridge, local land managers	Mid- to long- term

You can be a part of Indian Hills becoming a fire-adapted community.

# What will your next step be?

