

Indian Hills Fire Protection District Community Wildfire Protection Plan

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Indian Hills Fire Protection District Community Wildfire Protection Plan

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LIST OF ACROYNMS AND ABBREVIATIONS

| | |
|--------|--|
| AOP | Annual Operating Plan |
| ASTER | Advanced Spaceborne Thermal Emission and Reflection Radiometer |
| BLM | Bureau of Land Management |
| CAPCD | Colorado Air Pollution Control Division |
| CSFS | Colorado State Forest Service |
| CWPP | Community Wildfire Protection Plan |
| ERC | Energy Release Component |
| EV | Existing Vegetation |
| FBFM | Fire Behavior Fuel Model |
| FEMA | Federal Emergency Management Agency |
| FPD | Fire Protection District |
| FRCC | Fire Regime Condition Class |
| HFRA | Healthy Forests Restoration Act |
| HOA | Home Owners Association |
| IC | Incident Commanders |
| IHFDP | Indian Hills Fire Protection District |
| IHIA | Indian Hills Improvement Association |
| IMT | Incident Management Team |
| JFDRS | Jefferson County Fire Danger Rating System |
| JEFFCO | Jefferson County |
| NEPA | National Environmental Protection Act |
| NFDRS | National Fire Danger Rating System |
| NFPA | National Fire Protection Association |
| NWCG | National Wildfire Coordinating Group |
| OEM | Office of Environmental Management |
| PNV | Potential Natural Vegetation |
| psi | pounds per square inch |
| RAWS | Remote Automated Weather Stations |
| USFS | US Forest Service |
| WALSH | Walsh Environmental Scientists and Engineers, LLC |
| WFU | Wildland Fire Use |
| WUI | Wildland Urban Interface |

EXECUTIVE SUMMARY

Steep terrain, large areas of continuous fuels, and frequent high fire danger weather conditions make wildfire a significant concern in Jefferson County, as substantiated by recent large fires. The Community Wildfire Protection Plan (CWPP) is a strategic plan that identifies wildland fire issues facing the community and outlines prioritized mitigation actions. Once the CWPP is adopted, it is the community's responsibility to move forward and implement the action items. This may require further planning at the project level, acquisition of funds, or simply motivating community members.

The Healthy Forests Restoration Act (HFRA) of 2003 provides the impetus for wildfire risk assessment and planning at the county and community level. HFRA refers to this level of planning as Community Wildfire Protection Plans. The CWPP allows a community to evaluate its current situation with regards to wildfire risk and devise ways to reduce risk for protection of human welfare and other important economic or ecological values. The CWPP may address issues such as community wildfire risk, structure flammability, hazardous fuels and non-fuels mitigation, community preparedness, and emergency procedures. A Core Team provides oversight to the development of the CWPP and its implementation in the assessment area.

The focus of this CWPP is on the Jefferson County community of Indian Hills and the Indian Hills Fire Protection District (IHFPD). Human life and welfare are values at risk to wildfire because of the buildup of hazardous fuels around communities and structures and the rural nature of emergency vehicle ingress and egress. Other economic values at risk include businesses, recreational land, wildlife habitat, historic and cultural sites, and critical infrastructure.

Wildfires are common in Jefferson County. In the absence of comprehensive fire data for Indian Hills, the two nearby US Forest Service (USFS) district histories were evaluated showing an average of 45 fires per annum. Significant fires in the area include the 1978 Murphy Gulch fire that scorched 3,300 acres just a couple of miles to the southeast of Indian Hills, and the 1989 Mount Falcon fire that burned over 50 acres on the eastern edge of Indian Hills. The last decade has seen hundreds of thousands of acres burned in the forests near this community, including the Buffalo Creek fire (1996), the Hi Meadow fire (2000), the Snaking fire (2002), the Schoonover fire (2002) and the Hayman fire (2002). While the majority of local forest fires were lightning-caused (65 percent), four out of the five largest fires during the last three decades were human caused.

Natural resource management policy and changing ecological conditions have interacted to produce hazardous fuel situations throughout the assessment area. These forces include historic fire suppression policy, ponderosa pine invasion into shrublands and grasslands, overstocked forests and open spaces, invasive weeds, and changing climatic patterns. The accumulation of hazardous fuels may set the stage for catastrophic wildfire occurrence, resulting in the loss of important economic and ecological values. A variety of hazardous fuel conditions exist in the IHFPD and need to be addressed through the coordinated efforts of fire authorities and private residents.

The IHFPD maintains eight emergency vehicles out of a single fire station. Of the 25 volunteer firefighters, eight are currently trained in wildland firefighting. With these limited resources, the IHFPD faces an expansive wildfire issues, including lack of defensible space, ingress/egress restrictions, and large areas of fuels on public and private lands.

The data used to perform the community risk assessment was obtained through field surveys, interviews with IHFPD and County officials, and public meetings. All information was gathered, analyzed, and prepared in the CWPP format by Walsh Environmental Scientists and Engineers, LLC (WALSH). A project website was maintained by the Jefferson County Division of Emergency Management and project updates and information to promote public awareness and outreach were provided.

Public meetings were convened on October 26 and December 7, 2006 at 7:00 p.m. in the fire station. The meetings were announced by direct mailings, county and community websites, and postings at the fire station and post office. The purpose of the first meeting was to explain the wildfire risk assessment, present the findings of the risk assessment, and provide an opportunity for the public to participate in the process, review the findings, and comment on proposed mitigation possibilities such as hazardous fuels management and non-fuel projects. The purpose of the second meeting was to present the findings of the CWPP to the public. Questionnaires were distributed at meetings and by direct mailings to obtain information on public opinion towards wildfire risk and mitigation (Appendix D). Firewise and defensible space pamphlets and brochures were also handed out at the meetings (Appendix F). A draft report of the CWPP was posted on the County's emergency website to encourage public review and comment.

The National Fire Protection Association (NFPA) Form 1144, Standard for Protection of Life and Property from Wildfire 2002 Edition, was used to assess the level of risk and hazard to communities during the community assessment conducted in October 2006. The evaluation rated attributes such as access, surrounding vegetation (fuels), presence of defensible space, topography, roofing and other construction materials, available fire protection, and placement of utilities. Scores were assigned to each element and then totaled to determine the level of risk. Low, moderate, and high hazard categories were determined based on the total score.

The community of Indian Hills was divided into three assessment areas with the surrounding public lands considered separately (Map 2). Each of the assessment areas was rated as high hazard though this represents a wider range of conditions than the descriptor indicates (Table ES-1).

Table ES-1. Community Hazard Rating and Contributing Factors

| Area | Hazard Rating | Contributing Factors |
|--------------------|-------------------------------|---|
| Upper Indian Hills | High | <ul style="list-style-type: none"> • These neighborhoods are generally at the low end of high. • Many homes are proximate to light or medium fuel loads. Those homes near heavy fuels are at the base of the slope. • Roads are typically narrow and unpaved but with multiple ingress/egress options. • Generally combustible building materials, but very few wood shake roofs. • Most homes would benefit from improved defensible space. |
| Lower Indian Hills | High (approaching extreme) | <ul style="list-style-type: none"> • Several neighborhoods approach an extreme rating. • Narrow, unpaved roads with ingress/egress issues. • Heavy fuels proximate to most homes. • Need to improve defensible space around most homes. • Generally combustible building materials, but very few wood shake roofs. • Slopes in excess of 20% proximate to many homes. |
| 285 Area | High / Extreme | <ul style="list-style-type: none"> • Fuels are generally dense. • Terrain is very steep, often in excess of 40%. • Many homes need improvement to defensible space, though some have already begun this effort. • Access roads are steep, narrow, and dead-end. |
| Public Lands | NA | <ul style="list-style-type: none"> • Effects of fire exclusion are becoming pronounced in some areas. • Build-up of fuels and thick reproduction in forest understory. • Brush stands becoming decadent and possibly expanding into grasslands. • Emergency access difficult. • Formerly established mitigation projects are becoming overgrown. |

Priority hazardous fuels projects include defensible space, community fuel breaks, and larger scale fuel reduction projects. These projects are designed to reduce the likelihood of extreme fire behavior in close proximity to communities, and in many cases will help return vegetation to more natural conditions. Mechanical treatments and the use of saw crews are generally appropriate for creating defensible space and shaded fuel breaks. Prescribed fire is an additional tool available for large-scale treatments.

Table ES-2. Master Schedule of Proposed Projects

| Year | Project | Actions |
|------|---|---|
| 2007 | Annual spring outreach | <ul style="list-style-type: none"> • Community meeting with presenter • Educational materials distribution |
| | Annual spring mitigation (Defensible Space) | <ul style="list-style-type: none"> • Basic yard clean-up and disposal |
| | Begin shaded fuel break coordination | <ul style="list-style-type: none"> • Engage landowners • Secure funding • Line-up contractors |
| 2008 | Annual spring outreach | <ul style="list-style-type: none"> • Community meeting with presenter • Educational materials distribution |
| | Annual spring mitigation (Defensible Space) | <ul style="list-style-type: none"> • Understory thinning near structures |
| | Initiate Shaded fuel break treatments | <ul style="list-style-type: none"> • Santa Clara Rd. • Shawnee Rd. / Salugi Rd. • Osage Rd. / Taos Rd. • Raven Crest area |
| | Plan priority 2 shaded fuel breaks | <ul style="list-style-type: none"> • Engage landowners • Secure funding • Line-up contractors |
| | Initial ingress/egress evaluation | <ul style="list-style-type: none"> • Determine if emergency ingress/egress routes can be developed using existing two tracks • Implement as practicable |
| 2009 | Annual spring outreach | <ul style="list-style-type: none"> • Community meeting with presenter • Educational materials distribution |
| | Annual spring mitigation (Defensible Space) | <ul style="list-style-type: none"> • Understory thinning on private property near roads and in drainages |
| | Initiate priority 2 shaded fuel breaks | <ul style="list-style-type: none"> • Parmalee Gulch Rd. • Inca Rd. • Mt. Falcon Rd. / Mt. Falcon service road |
| | Plan priority 3 shaded fuel breaks | <ul style="list-style-type: none"> • Engage landowners • Secure funding • Line-up contractors |
| | Begin area treatment planning | <ul style="list-style-type: none"> • Develop plan for implementation of area treatments commencing in 2011 |
| | Comprehensive ingress/egress plan | <ul style="list-style-type: none"> • Evaluate need and practicability for creating turnarounds and emergency access routes |
| 2010 | Annual spring outreach | <ul style="list-style-type: none"> • Community meeting with presenter • Educational materials distribution |
| | Annual spring mitigation (Defensible Space) | <ul style="list-style-type: none"> • Overstory treatments on private property |
| | Initiate priority 3 shaded fuel breaks | <ul style="list-style-type: none"> • Cherokee Rd. • Namba Rd. /Picutis Rd. • Cameyo Rd. • Mount Lindo Rd. • US 285 |
| | Ingress/egress improvements | <ul style="list-style-type: none"> • Initiate implementation as planned |
| 2011 | Annual spring outreach | <ul style="list-style-type: none"> • Community meeting with presenter • Educational materials distribution |
| | Annual spring mitigation (Defensible Space) | <ul style="list-style-type: none"> • Restart defensible space treatment cycle |
| | Initiate first area treatment | <ul style="list-style-type: none"> • Implement as practicable |
| | Continue ingress/egress improvements | <ul style="list-style-type: none"> • Implement as planned |

Recommended action items are divided into a number of fuels mitigation and non-fuels related categories. Hazardous fuels reductions categories include: defensible space, shaded fuel break construction, and area treatments. Non-fuels related actions include: education and outreach, Firewise building upgrades, fire department preparedness, and

ingress/egress improvements. Some of these projects require the support and coordination of the fire department and other governmental entities as well as substantial planning and funds. However, those actions most essential to the preservation of homes during a wildfire rest in the hands of the landowners.

Implementing, sustaining, and monitoring the CWPP is key to success. Building partnerships among community-based organizations, fire protection authorities, local governments, public land management agencies, and private landowners is necessary in identifying and prioritizing measures to reduce wildfire risk. Maintaining this cooperation is a long-term effort that requires the commitment of all partners involved. The CWPP encourages citizens to take an active role in identifying needs, developing strategies, and implementing solutions to address wildfire risk by assisting with the development of local community wildfire plans and participating in countywide fire prevention activities.