

**Community Wildfire Protection Plan
Lake County, Colorado**

March 2006

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This CWPP is a living document which the Taskforce hopes will be used to increase the safety of more Lake County neighborhoods in the future, as well as protect the many values these forests have to Lake County residents and Lake County visitors.

**March 2, 2006
Leadville**

**Community Wildfire Protection Plan
Lake County, Colorado
September 2007**

Table of Contents

	Page #
Chapter One: Introduction	5
a. Background	5
b. Wildland Urban Interface	6
c. Fire Regime and Condition Classes	6
d. Relevant Fire Policies	7
i. Federal Policies	7
ii. State Policies	8
iii. Local Policies	9
e. Grants and Current Projects	10
f. Need for the Community Wildfire Protection Plan	13
g. Planning Process	13
 Chapter Two: Wildland-Urban Interface and Community Description	 17
a. Wildland-Urban Interface Delineation	17
b. Community Description	17
 Chapter Three: Community Assessment	 26
a. Fire Regime and Fuel Type	26
b. Risk of Ignition and Wildfire Occurrence	26
c. Community Values at Risk	26
i. Housing, Business, and Essential Infrastructure	26
ii. Recreation Areas/Watersheds/Wildlife Habitat	27
iii. Local Preparedness and Protection Capability	29
iv. Local Hazards and Issues (UXO's, Mining Issues)	29
 Chapter Four: Collaborative Process in Lake County to Identify WUI Treatment Areas.	 30
a. Implementation of collaborative process for CWPP and Neighborhood meetings	30
b. Outcomes of meetings: Maps and descriptions for each neighborhood as follows:	31
Beaver Lakes Estates	31
Colorado Mountain College	34
East Twin Lakes Area	36
Elk Run Subdivision	39
Elk Trail Subdivision	41
Four Seasons Subdivision	43
Gateway Village PUD	45
Grand West Estates	47
Home Stake Trout Club	49
Homestake Subdivision	51
Mountain Pines Ranch	53
Mountainview East and West	55
Nickle Property	57
Pan Ark Subdivision	59
Piney Run Subdivision	61

Silver Hills Subdivision	63
Sugarloaf Mountain Properties, LLLP; Dinero Mining Properties LLC; Silverware Properties, LLC; Turquoise Lake Properties, LLC	65
Town of Twin Lakes	66
Turquoise Lake Estates	69
Chapter Five: Next Steps	71
a. Requested Funding for Fiscal Year 2006/2007 and its administrative oversight	71
b. Effectiveness of Neighborhood Treatments	71
c. Priorities for Protection Capability and Reducing Structural Ignitibility Fiscal Year 2006/2007 – Round 2.	71
d. Priorities for Promoting Community Involvement through Education, Information, and Outreach	71
e. Monitoring Plan	73
f. Planned Projects	73
Declaration of Agreement and Concurrence	75
Literature Cited	77
Appendices	
A: Lodgepole Pine Ecology, Lake County Fire Regimes and Fire Defense Issues: Presentation provided to neighborhoods and public meetings.	78
B: A history of fire in Lake County	108
<u>Acronyms and Abbreviations</u>	
BIA	Bureau of Indian Affairs
BLM	United States Department of Interior Bureau of Land Management
CAP	Community Assistance Program
CMC	Colorado Mountain College
CSFS	Colorado State Forest Service
CSU	Colorado State University
CWPP	Community Wildfire Protection Plan
DOI	Department of Interior
FEPP	Federal Excess Private Property
FWS	United States Fish and Wildlife Service
HFI	Healthy Forest Initiative
HFRA	Healthy Forest Restoration Act of 2003
MAP	Matching Awards Program
NEPA	National Environmental Policy Act
NFF	National Forest Foundation
NFP	National Fire Plan
NRMI	Natural Resource Management Institute (CMC)
UAVWMP	Upper Arkansas Valley Wildfire Management Plan
USFS	United States Forest Service
UXO	Unexploded ordnances
VFA	Volunteer Fire Assistance
WUI	Wildland Urban Interface

Chapter One: Introduction

a. Background

Lake County is a true gem in the State of Colorado, nestled at the northern tip of the Upper Arkansas Valley; it is the headwaters for the Arkansas River. The boundaries of Lake County are the Continental Divide to the west and the north and the ridgeline of the Mosquito Range to the east. A survey line one mile north of the division line between townships 11 & 12 makes up the southern boundary. The county is surrounded by Eagle, Summit, Park, Chaffee, Gunnison, and Pitkin counties. 74% of Lake County is comprised of federally owned land and 26% is comprised of state and private lands. Lake County has a variety of ecosystems ranging from expansive stands of lodgepole pine and open stands of ponderosa pine, to open fields of grassland and exposed hillsides of sagebrush. Lake County is home to 7,812 people of which only 2,821 live in the historic town of Leadville (the only incorporated town in Lake County) according to the 2000 US Census demographic profile. This means that 63% of the population lives in rural areas of the county and are potentially threatened by wildfires.

In 2002, the Lake County Forest Project was initiated to explore the ecological aspects of our surrounding forests, including the role of fire, and any economic opportunities to the community related to these forests. In 2005, the CWPP (Community Wildfire Protection Plan) process was initiated. A CWPP Taskforce was assembled, and these members have been committed collaborators throughout the process:

Colorado State Forest Service
Leadville/Lake County Fire Rescue Department
Lake County Board of County Commissioners
City of Leadville
USDA Forest Service Fred
Allen – Resident Jessica
Clement – Resident

During the process, a number of neighborhoods (subdivisions and other types of Lake County residential entities) as well as large private landowners have become part of the CWPP process and have provided the Taskforce with the types of wildfire remediation work they would like to see on their private property and surrounding public lands. They have also indicated what they do not want disturbed, all of which is listed further in this draft plan. These neighborhoods and landowners were:

Beaver Lakes Estate	Mountain Pines Ranch
Colorado Mountain College	Mountainview East
Elk Run	Pan Ark Subdivision
Four Seasons Estates	Piney Run
Grand West Estates	Silver Hills
Home Stake Trout Club	Turquoise Lake Estates
Homestake Subdivision	Twin Lakes

We thank all our collaborators and neighborhood contacts for their dedication to this effort.

b. Definition of Wildland-Urban Interface

According to the National Fire Plan (NFP) the definition of the wildland urban interface (WUI) is “the line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels. Often incorrectly referred to as the "interzone" or "urban/wildland interface." (National Fire Plan, 2004) Another definition is “A geographical area, formerly wildland that now has structures, primarily homes, built in close proximity to naturally occurring flammable fuels. Term may also apply to program(s) designed to mitigate, prepare for, respond to, or recover from fires within this area” (UAVWMP, 1995).

The wildland urban interface is commonly described as the zone where structures and other features of human development meet and intermingle with undeveloped wildland or vegetative fuels. Communities within the WUI face substantial risk to life, property, and infrastructure. Wildland fire within the WUI is one of the most dangerous and complicated situations firefighters face. Both the National Fire Plan), and the Western Governors’ Association (2002), place a priority on working collaboratively with communities in the WUI to reduce their risk from large-scale wildfire (SAF, 2004).

Depending on local forest conditions, the WUI zone is a geographical area that provides opportunities to reduce fire risks and create defensible space through vegetation treatments on private and surrounding public lands. When reducing fire risks, vegetation treatments can be conducted in a zone that helps to reduce fire risks and creates a defensible space that will allow fire crews and equipment to effectively protect structures or communities. To allow for adequate safety treatments and defensible space, both the Healthy Forest Restoration Act of 2003 (HFRA) and forest ecologists have stipulated a maximum WUI treatment area of 800 meters or half a mile (HFRA, 2003, Aplet and Wilmer, 2003, Wilmer et al., 2005). Within this half mile, treatments may be conducted such as controlled surface fires, thinning or patch cuts, depending on what is most appropriate for the vegetation type, and the preferences of the particular neighborhood. The WUI definition can also include: “an area within 1/2 miles of the boundary of a community that (I) has a sustained steep slope that creates the potential for wildfire behavior endangering the at-risk community; (II) has a geographic feature that aids in creating an effective fire break, such as a road or ridge top; or (III) is in condition class 3, as documented by the Secretary in the project-specific environmental analysis.” (SAF, 2004). The residents, in collaboration with the CWPP Taskforce, have designed treatments within these definitions. In this CWPP, most of the surrounding WUI area is characterized by lodgepole pine, some by ponderosa/pine or a ponderosa pine mix, and sagebrush. Each of these vegetation types have a different fire regime (explained below) and treatments are designed to work in concert with these fire regimes, as well as residents’ forest values.

For full ecological information regarding all vegetation types in Lake County, please refer to Appendix A.

c. Fire regime and Condition Class

The fire regime concept is used to characterize the personality of a fire in a given vegetation type – how often it visits the landscape, the type of pattern created, and the ecological effects.

Federal lands within the WUI were evaluated for fire regime. A natural fire regime is a general classification of the role a fire would play across a landscape in the absence of human intervention. Five categories of natural (historic) fire regimes were created based on the number of years between fires (fire frequency) combined with the severity of fire on dominant overstory vegetation (Schmidt, Menakis, Hardy, Hann and Bunnell, 2002). Lake County CWPP WUI lands are composed of multiple natural fire regimes. See the table below for a description of the fire regimes and example of areas associated with them.

Table 1: Historical Natural Fire Regimes

Fire Regime	Frequency (years)	Severity	Example of Areas in Lake County
I	0 – 35	Surface & mixed	Twin Lakes
II	0 – 35	Replacement	Beaver Lake Estates
III	35 – 100+	Surface & mixed	Twin Lakes, Hayden Meadow
IV	35 – 100+	Replacement	Leadville and surrounding area, Sylvan Lakes Subdivision, Outward Bound
V	200+	Replacement, mixed & surface	Higher elevations (starting at approximately 10, 500 ft) throughout Lake County

No fire history studies have been conducted in Lake County and the above table represents generalizations at a national scale and do not take in the local variability of this particular area. The table serves as a general indicator of possible existing fire regime condition classes on a national scale (Fire Regime Condition Classes, 2006). The five natural (historic) fire regimes are classified based on average number of years between fires (fire frequency) combined with the severity (amount of replacement) of the fire on the dominant overstory vegetation. As scale of application becomes finer these five classes may be defined with more detail, or any one class may be split into finer classes

Fire Regime Condition Class is an interagency classification system to determine the extent of departure from the natural fire regime. For example, a forest in condition class 1 is a forest system within its natural fire range and at low risk for losing ecosystems components from wildland fire. A forest in condition class 2, is a forest that has moderately departed from its historic fire occurrence range and has a moderate risk of losing habitat components. A condition class 3 forest has significantly departed from its historic fire regime range, and the risk of losing key habitat components is high. Currently a condition class rating has not been completed for Lake County. Refer to Chapter three.

d. Relevant Fire Policies

i. Federal Policies

Several federal wildfire policies have been developed within recent years, the most prominent being the National Fire Plan (NFP) (Wildland Fire Leadership Council, 2004). The NFP

incorporates *A Collaborative Approach for Reducing Wildland Fire Risk to Communities and the Environment, 10-Year Comprehensive Strategy*, whose primary goals are to:

- improve prevention and suppression,
- reduce hazardous fuels,
- restore fire-adapted ecosystems, and
- promote community assistance.

Federal wildfire policy is planned and administrated through the Pike & San Isabel National Forests, Bureau of Land Management Royal Gorge Field Office and U S Fish and Wildlife Service, Leadville National Fish Hatchery, which are the governing agencies for the federal lands associated with the CWPP planning area in Lake County.

As part of the FY 2001 Appropriations Act for the Department of Interior and Related Agencies, Congress required federal land management agencies to identify communities that are at high risk from wildfire. The following communities in Lake County were list in the Federal Register, Volume 66, Number 3:

Balltown, CO	Climax, CO
Leadville, CO	Malta, CO
Twin Lakes, CO	

Other “tools” that assist federal hazardous fuel reduction efforts include the Healthy Forest Initiative (HFI) and the Healthy Forest Restoration Act (HFRA). Both tools assist federal land managers in working collaboratively with local communities and completing required environmental assessments within a timely fashion. Firewise™ is a national program that helps communities reduce the risk of wildfires and provides them with information about organizing to protect themselves against large wildfires and mitigating losses from such fires.

ii. State Policies

The Community Wildfire Protection Plan, as described in the Healthy Forest Restoration Act, brings together diverse local interests to discuss their mutual concerns for public safety, community sustainability and natural resources. It offers a positive, solution-oriented environment in which to address challenges such as: local firefighting capability, the need for defensible space around homes and subdivisions, and where and how to prioritize land management – on both federal and non-federal land.

Lake County and the State of Colorado have an Agreement for Wildfire Protection. In the agreement Lake County and the State of Colorado agree to work together in the following areas of wildfire protection: planning, organizing, equipping, training, suppression, prevention, detection/notification, reporting and prescribed burning.

Recent Colorado State Legislation

- HB 1001 Triples damages in civil lawsuits against those starting a wildfire and gives the State Forester authority to give written permission for prescribed burns.

- HB 1006 Strengthens criminal penalties for starting a wildfire, gives the State Forester authority to give written permission for prescribed burns, and provides municipalities with the power to control and limit fires.
- HB 1018 Allows counties to ban the sale and use of fireworks during fire bans.
- HB 1025 Creates a wildfire emergency fund that will pay for an initial air drop during local initial attack.
- SB 7 Protects homeowners near wildfires from undue insurance cancellations.
- SB 12 Enhances the penalty for throwing burning objects (e.g. cigarettes) out of a moving vehicle.

iii. Local Policies

Local policies include the Lake County Land Development Code and the 2003 International Fire Code, as adopted by both the City of Leadville and Lake County.

Under section 6.9.1, all development must comply with applicable fire safety regulations adopted by the Lake County Board of Commissioners.

Other relevant sections of the Lake County Land Development Code include (as paraphrased below):

Section 6.9.3: Centralized water treatment and supply systems shall meet fire supply needs to the satisfaction of the applicable firefighting agency.

Section 6.9.3: The Board of County Commissioners may require proposed developments to include fire lanes where the forested portion of a proposed development joins or parallels National Forest boundaries.

Section 6.9.4: Fire hydrants shall be required in all developments services by a centralized water treatment and distribution system.

Section 6.9.5: Where fire hydrants are not required in a proposed development, the Board of County Commissioners may require that a developer provide alternative fire protection systems.

Additionally, the Lake County Development Code provides for zoning districts, by which certain types of development must meet zoning requirements, which may include lot size requirements (thereby manage density) and activity restrictions (thereby managing concentration of risk). In similar fashion, the development code also establishes overlay zones, which provide for additional management of proposed land use activities.

The 2003 International Fire Code, as adopted by the Lake County Board of Commissioners, does not include amendments or appendices B, C or D. These appendices provide for additional fire-flow, fire hydrant and road requirements designed to improve fire protection. The 2003 International Fire Code, as adopted by the City of Leadville does include amendments or appendices B, C and D.

e. Grants

For more information regarding the grants below or matching programs, please visit <http://www.rockymountainwildlandfire.info/grants.htm> or call the Colorado State Forest Service 719 – 539 2579.

CWPP Matching Programs/Grants:

Colorado Wildland Urban Interface Grants

Funds may be made available annually under the National Fire Plan specifically for projects that address and mitigate wildfire hazard in the wildland urban interface. Five focus areas are eligible for funding: assessment, planning, information/education, hazardous fuels reduction, and monitoring.

National Forest Foundation Grant Programs

The National Forest Foundation (NFF), a private, nonprofit conservation partner of the USDA Forest Service, promotes the health and public enjoyment of the National Forest System through grant programs that facilitate local involvement and encourage grassroots participation in forest stewardship. NFF's grant programs include the Matching Awards Program (MAP) and the Community Assistance Program (CAP). MAP's areas of interest – community-based forestry, watershed health & restoration, wildlife habitat improvement, and recreation – are action-oriented projects that enhance the viability of natural resources while considering benefits to, and the involvement of, surrounding communities. In 2005, MAP will concentrate its efforts in five geographic areas: Southern Appalachians (TN, NC, SC, and GA), Oregon Coast and Central Cascades, the Selway-Bitterroot (MT, ID), Central Colorado Rockies, and Central Sierra (CA). Approximately 80 percent of available funds will be allocated to projects within these five geographic priority areas. The remaining 20 percent is available for projects outside the areas. CAP provides small grants and start-up funds from \$5,000 to \$15,000 for newly-forming collaborative organizations. Funds may be used for a variety of needs including basic start-up and operating costs, materials and equipment, technical assistance, training, community outreach, obtaining 501(c)(3) status, program development, nonprofit management skill-building, and communications.

Soil and Water Conservation Society Grant

The objectives of the Foundation are to advocate the protection, enhancement, and wise use of soil, water, and related natural resources to ensure that present and future generation live in a sustainable environment. The Soil and Water Conservation Society fosters the science and the art of soil, water and related natural resource management to achieve sustainability. They promote and practice an ethic recognizing the interdependence of people and the environment.

Sustainable Forests and Community Initiative

The mission of the Sustainable Forests and Communities Initiative is to promote forest conservation and environmentally sustainable economic development, along with community building, at the local level. The Family Foundation supports programs of national and international significance that promote the welfare of human and natural resources. These efforts will enhance the

creativity; strengths and skills already possessed by those in need and reinforce the sustaining processes inherent in nature.

Wildfire Mitigation/Prevention/Suppression Matching Programs/Grants:

Colorado Wildland Urban Interface Grants

Funds may be made available annually under the National Fire Plan specifically for projects that address and mitigate wildfire hazard in the wildland urban interface. Five focus areas are eligible for funding: assessment, planning, information/education, hazardous fuels reduction, and monitoring.

Colorado Wood Utilization & Marketing Program

The Colorado Wood Utilization and Marketing Program (CO Wood) exists to support and expand Colorado's forest-based business sectors and consumers of wood products by providing technical assistance, applied research, education and extension assistance, industry advocacy, and promotion.

Community Facilities Grant Program

The Community Facilities Grant Program provides assistance for rural areas & towns up to populations of 20,000 to construct, enlarge, or improve essential community facilities. Grants can be used for real estate and equipment such as fire stations and fire trucks.

El Pomar Wildland Fire Fund

El Pomar Foundation's 2005 Wildland Fire Fund supports efforts by volunteer fire agencies to purchase vehicles and vehicle accessories used to fight wildland fires. This program is designed to assist with the local fundraising necessary to acquire major capital items. El Pomar will consider grant proposals up to \$15,000.

Federal Excess Personal Property (FEPP) Program

This program makes long-term loans of USFS equipment to local fire departments through the State Forest Service for use in fire fighting as well as mitigation and rehabilitation. There is no match required, but the equipment must be used for legitimate fire purposes. The "personal" part of the FEPP program simply refers to any tangible property that is not real estate. This can include trucks, aircraft, personal protective equipment, motor oil, nuts, bolts, fire hose, et cetera, but not buildings. Approximately 70% of the property involved in the Forest Service FEPP program is sub-loaned to local fire departments.

GreenWorks!

The Greenworks! grant program promotes environmental community action and service-learning projects, and enables students to pursue community projects in fire management, wildfire, and other general environmental issues. This program provides small mini-grants for environmental education projects to educators who have completed a Project Learning Tree (PLT) workshop. It is the

community action/service-learning component of PLT, a nationwide environmental curriculum program designed for students from pre-kindergarten through 12th grade.

National Forest Foundation Grant Programs

See description above.

Rural Fire Assistance (RFA)

The Rural Fire Assistance (RFA) grant program is designed to support the fire protection capabilities of rural and volunteer fire departments (population or 10,000 or less) that typically fight fires near or on Department of the Interior (DOI) lands. Funding will be used to provide technical assistance, training, supplies, equipment and public education support to rural fire departments, thus enhancing firefighter safety and strengthening wildland fire protection capabilities. DOI lands are administered by one of the following four agencies: Bureau of Land Management (BLM), Bureau of Indian Affairs (BIA), U.S. Fish and Wildlife Service (FWS) and the National Park Service (NPS).

Small Business Innovation Research: Forests and Related Resources

This Small Business Innovation Research (SBIR) program develops environmentally sound techniques that: increase utilization of forestland materials and resources, and productivity of these forests; improve tree pathogen and insect control techniques; reduce ecological damage from forest operations; reduce wildfire risk; and improve wildfire control. Projects may also develop new products or technologies to increase the use of wood. The Cooperative State Research, Education and Extension Service (CSREES) program exists in three phases. The purpose of Phase I is to prove the scientific or technical feasibility of the proposed research and development effort. Phase II is the principal research and development effort. Phase III is the commercialization phase and there is no SBIR support provided for this phase.

State Fire Assistance

The State Fire Assistance (SFA) program objectives are to maintain and improve protection efficiency and effectiveness on non-Federal lands through training, equipment, preparedness, prevention and education. The program provides support directly to state forest fire protection organizations to enhance the firefighting capacity of state, local and rural organizations. There are three areas of emphasis: Preparedness, Hazard Mitigation and Fire Prevention.

Tums Firefighter Grant-in-Aid Program

The Tums Firefighter Grant-in-Aid program was designed to help provide fire departments with the most up-to-date firefighting equipment. With thousands of fire departments across the country struggling on shoestring budgets and lacking adequate protective clothing, breathing apparatus and up-to-date equipment, TUMS is proud to help fire departments. TUMS, America's first response to heartburn, is now supporting America's first responders to fire and local emergencies through the First Responder Institute (FRI). First Responder Institute, Inc. is a not-for-profit organization whose goal is to support local U.S. fire departments as well as emergency service personnel.

Volunteer Fire Assistance (VFA)

The Volunteer Fire Assistance program provides technical, financial, and other assistance to State Foresters and other appropriate officials to organize, train and equip rural and volunteer fire departments in rural communities (with populations of 10,000 or less) to prevent and suppress fires. This 10,000 population limit for participation in the VFA Program facilitates distribution of available VFA funding to the neediest fire departments. These funds can be used to improve communication capabilities, provide critical wildland fire management training, and purchase protective fire clothing and equipment.

f. Need for the Community Wildfire Protection Plan

Approximately 74% of Lake County is federally owned. HFRA provides for community based decision making and empowers local governments to determine the boundaries of the WUI that surrounds their communities. As will be described below, Lake County benefits from a diversity of vegetation types. Each vegetation type has a different fire regime, i.e. each forest, shrub or grassland has a different relationship with fire, which in turn helps determine what treatments are most effective in safeguarding communities and property, as well as determining what treatments are ecologically most appropriate, and therefore most effective from a safety perspective. Besides ecological and infrastructure knowledge, however, residents' own relationship with forests and the community can be included through this process. Thus, in collaboration with land management and other agencies, Lake County neighborhoods have the opportunity to become better acquainted with their surrounding forests, as well as the appropriate treatments that benefit the forest and community, and also to help determine any further course of action.

Thus HFRA allows communities to influence where and how federal agencies implement fuel reduction projects on federal lands and how additional federal funds may be distributed for projects on nonfederal lands, including private residences. The Act emphasizes the need for federal agencies to work collaboratively with communities in developing hazardous fuel reduction projects and it places priority on treatment areas identified by communities themselves in a CWPP.

g. Planning Process

Early in 2004, a number of community members, the USFS, CSFS and the Leadville/Lake County Fire Rescue Department (LLCFRD) came together several times to explore possibilities and methods for engaging the community in a Community Wildfire Protection Plan process. Funding was already available through a Rural Community Assistance Grant, which had been obtained with the assistance of Rick Newton and Bob Dettman of the USFS, Cathy Patti of the Natural Resource Management Program (NRM) at CMC, and Jessica Clement, resident and research assistant at CSU. Any CWPP accomplishments conducted under this grant needed to be completed by January 31, 2006. A public meeting was held in June 2005 where participants determined the members of the CWPP Taskforce, and additional members of the community asked to be included in Taskforce deliberations. A follow-up meeting was held in July, attended by a number of Colorado State Forest Service staff who have been involved in CWPP developments around the state. Discussions then, and at previous meetings included:

What is a healthy forest in Lake County?

What is a community?
Who should be included in a collaborative process such as this?
What format should collaboration in this case follow?
What are our goals?
What can a CWPP achieve for the community, what not?
What is the role of science?

Principles

At the June public meeting and the July Taskforce meeting, collaboration principles were outlined on the basis of these discussions.

1. Collaborative Learning (Daniels and Walker 2001), would be embraced. During collaboration, if there is a willingness to hear and use all opinions and values, there is a real opportunity for communities to learn about local ecological conditions, larger ecological concepts, institutional cultures, institutional decision-making space, community history, the values of participants in the process and the reasons for those values, etc. All this can allow for an increase in trust and understanding, in turn creating more efficient and efficacious relationships and solutions that have a real chance of working in that particular community. This principle has so far proved that although participants and collaborators in this process may not always agree on everything, enough common ground was found to allow members to work together, and to discover solutions that have a chance of acceptance in the community.

2. Science is a key consideration. As a result of new advances in science, and new natural resource management policies, forests are being considered from a “health” perspective, which finds large support among the general public. However, what a “healthy forest” looks like is based to a large extent on the interpretation of science. Although these interpretations may not always coincide among collaborators, it was decided that where there is a common understanding regarding scientific understanding, it would be presented to the public. Where there were different interpretations of scientific evidence, these different interpretations would be presented to all publics, allowing the community to use its best judgment. This principle has allowed science to remain an important component of the CWPP process, while allowing all interpretations to be presented in a productive manner. The presentation that was used in public meetings and neighborhood meetings is in Appendix A.

3. Transparency is key. The process needed to be open to all interested individuals and parties on all occasions, allowing for all values and opinions to be brought to the table. It is understood that although a transparent collaborative process may be more work at the front end, it also allows for a CWPP that has the most chance of finding community agreement and support, in turn providing real benefits to forests and communities.

4. Participation in this CWPP process is completely voluntary. No neighborhood is obligated to participate in this process. As a whole, the process is supported on a county-wide basis by many local, state and federal organizations and local residents, but the final decision to participant is up to individual neighborhoods.

5. Lake County as a whole is considered “the community”. However, our community consists of different neighborhoods or areas, and those neighborhoods and areas are valued by those

residents for a number of unique geographical, social and ecological reasons that can only be articulated by those residents. In order to increase sensitivity to those unique attributes, the CWPP process is designed for the entire community of Lake County, and its approach of eliciting participation and input is on an area by area, or neighborhood by neighborhood, basis.

Process Continued

In August, the Taskforce invited the community to a CWPP Science and Information Workshop, to which a number of neighborhood representatives (subdivision or particular section of Lake County, see below) came, as well as County Commissioner Ken Olsen. Lisa Corbin and Jessica Clement presented information regarding ecological considerations of lodgepole pine forests and other vegetation types. Karl Bauer and Jonathan Bradley presented information regarding wildland fire fighting considerations.

During a working lunch, participants reviewed GIS maps supplied by the USFS regarding subdivisions and neighborhoods in Lake County to assess areas of potential risk. First, considerations were identified which were used to determine whether an area was potentially at risk of being heavily impacted due to a large wildfire event. The following considerations were agreed to by all the participants to determine potential risk areas:

1. Road Access
 - a. Ability for all people to leave.
 - b. Ability for all truck types to be able to enter and maneuver.
 - c. Proximity to Leadville.
2. Fuel Considerations – either due to stands of lodgepole pine being in close vicinity, or due to untreated, dense ponderosa pine stands.
3. Topography – e.g. the presence of a narrowing canyon.
4. Potential for Human Ignitions – either due to residential or visiting recreationists' activities.
5. Water Supply – accessibility for draft stations.
6. Population and/or resident density – a density of population and/or residential housing may create increased risk.
7. Communications and Notifications – Ability of residents to receive warnings.

The group then agreed on the following areas of potential risk using the above considerations list. Numbers identify which considerations were considered to apply to that area:

1. San Juan Placer area (which affects Ridgeview, Gem Valley and Homestake)
(1a & b, 2, 4*, 6, 7.)
2. Elk Run near Lodgepole Flats (2, 4*, 5, 7.)
3. Village of Twin Lakes/Gordon Acres (1a,b,c, 2, 4*, 6, 7).
4. Beaver Lakes Estates #2 (1a,b,c, 2, 3, 4, 5, 6, 7).
5. Turquoise Lake Estates (2,3,6).
6. Sylvan Lakes (1a, b, 2, 3, 4, 6, 7 and UXO's).
7. Home Stake Trout Club (1a, b, 2, 4*, 6, 7 and UXO's).
8. Mountain View East Mobile Home Park (2, 4*, 6, 7).
9. Piney Run (1a,b, 2, 4, 5, 6, 7 and UXO's).
10. Twin Lakes Canyon Estates (1c, 2, 4, 5, 6).
11. PanArk (1a, b, c, 2, 3, 4*, 5, 6).

12. E.E. Hill (1a, b, c, 2, 3, 4*, 5, 6).

Seven of these HOA's/subdivisions/neighborhoods were approached in ensuing months by the CWPP Taskforce to discuss:

- a. whether residents in that area agree they are living in a high wildfire risk area,
- b. what mitigation they would favor, if any,
- c. how and where those treatments should take place,
- d. areas that residents prefer untouched.

The results of these discussions are included in this CWPP, with hopes that mitigations can be executed with funding through the Colorado State Forest Service, for which an application has been submitted by the CWPP Taskforce. The draft CWPP was presented at a public hearing on January 21st, 2006, 9 am in the Auditorium in the National Mining Hall of Fame. An overview of the CWPP process and results were presented with neighborhood maps for participants to review.

Additional funding was secured in a second Rural Community Assistance Grant in 2006. This funding allowed the CWPP Taskforce to continue meeting with HOA's/subdivisions/neighborhoods and large private landowners that were not included in Phase I. Nine HOA's/subdivisions/neighborhoods and 4 large private landowners were approached by the CWPP Taskforce between August 2006 and August 2007 to discuss:

- a. whether residents in that area agree they are living in a high wildfire risk area,
- b. what mitigation they would favor, if any,
- c. how and where those treatments should take place,
- d. areas that residents prefer untouched.

The results of these discussions are included in this September 2007 amended CWPP.

Chapter Two: Wildland-Urban Interface & Community Description

a. Wildland-Urban Interface Delineation Process

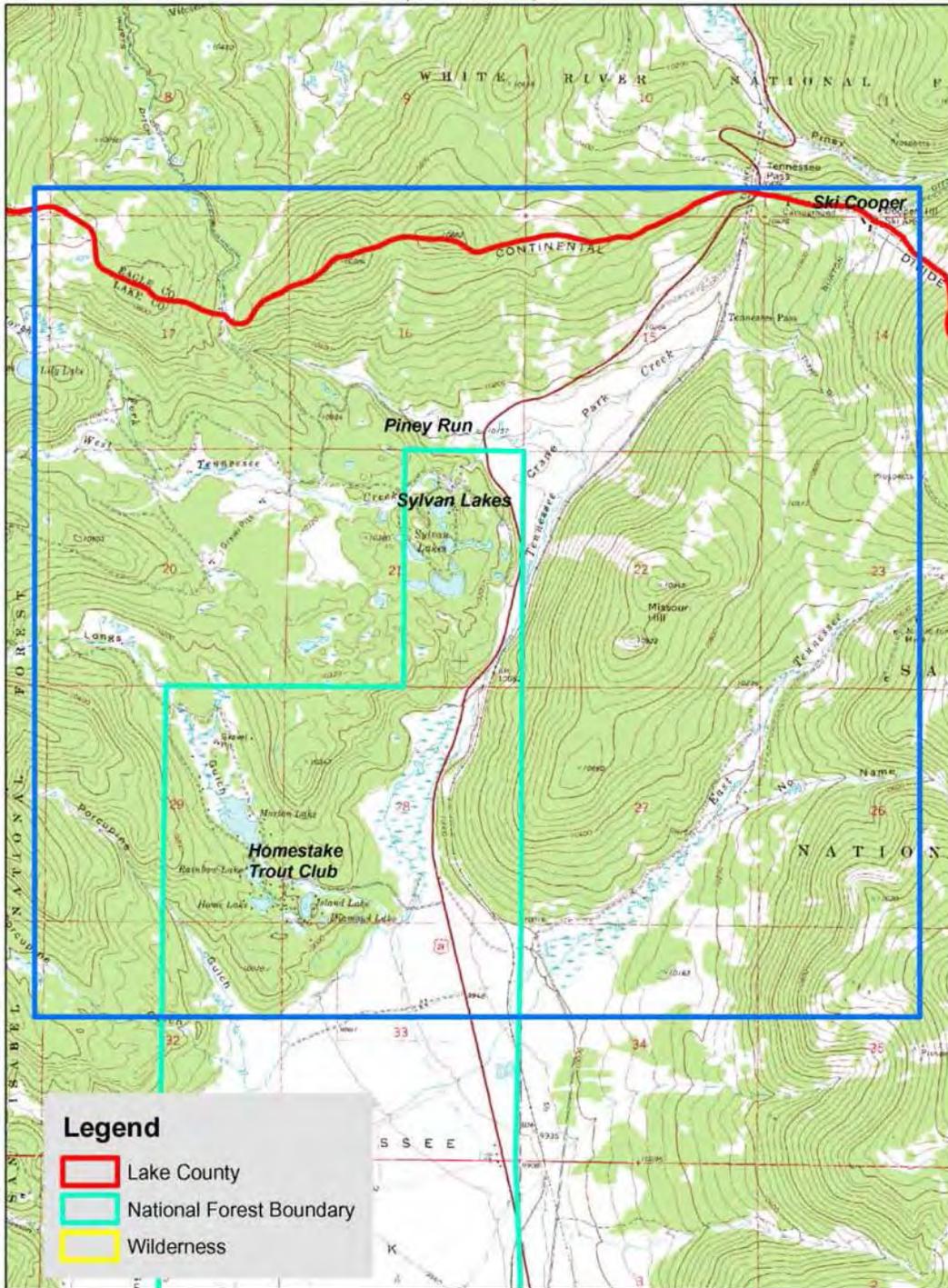
The Wildland Urban interface was earlier described as a geographical area, formerly wildland, that now has structures, primarily homes, built in close proximity to naturally occurring flammable fuels. The term may also apply to program(s) designed to mitigate, prepare for, respond to, or recover from fires within this area. Population dispersion in the U.S. has resulted in rapid development in the outlying fringe of metropolitan areas and in rural areas with attractive recreational and aesthetic amenities, especially forests. This demographic change is increasing the size of the wildland-urban interface (WUI), defined as the area where structures and other human development meet or intermingle with undeveloped wildland. The expansion of the WUI in recent decades has significant implications for wildfire management and impact. The WUI creates an environment in which fire can move readily between structural and vegetation fuels. Its expansion has increased the likelihood that wildfires will threaten structures and people (University of Wisconsin, 2006). The US Forest Service and other federal land management agencies use the Healthy Forests Restoration Act of 2002 guideline of a ½ mile width next to private property lines to create fuels breaks that help to redirect fire away from WUI. Communities that are interested in fuelbreaks wider than ½ mile must indicate that preference in the writing to the managing agency.

During the planning process, the CWPP Taskforce worked with interested members of the community to discuss what makes some WUI areas more susceptible to wildfire than others (see above). The parameters used to define those areas were Road Access, Fuel Type (vegetation type), Topography, Potential for Human Ignitions, Water Supply, Population Density, and Communications & Notifications. More information regarding the WUI areas and how Lake County was divided into zones will be discussed in the next section.

b. Community Description

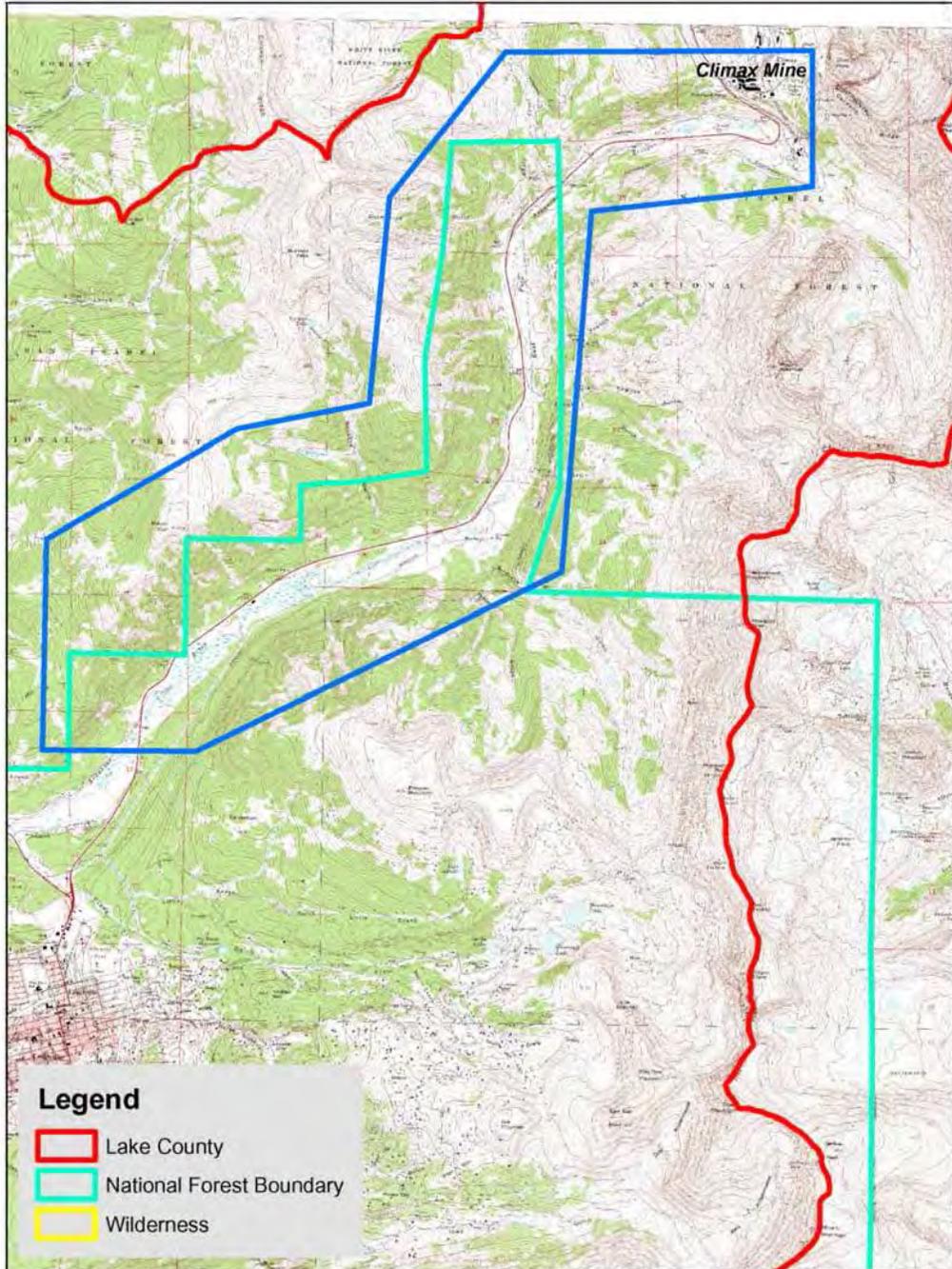
For the purpose of the Community Wildfire Protection Plan, Lake County was divided into eight areas that share similar traits, such as response times for fire personnel, fuel types, and proximity to one another. This organization does not encompass all geographical areas, but the opportunity may exist in the future to address other areas, if funding is granted. Each area below contains the following neighborhoods:

Map 2.1 Northwest Leadville
(1:35,000)



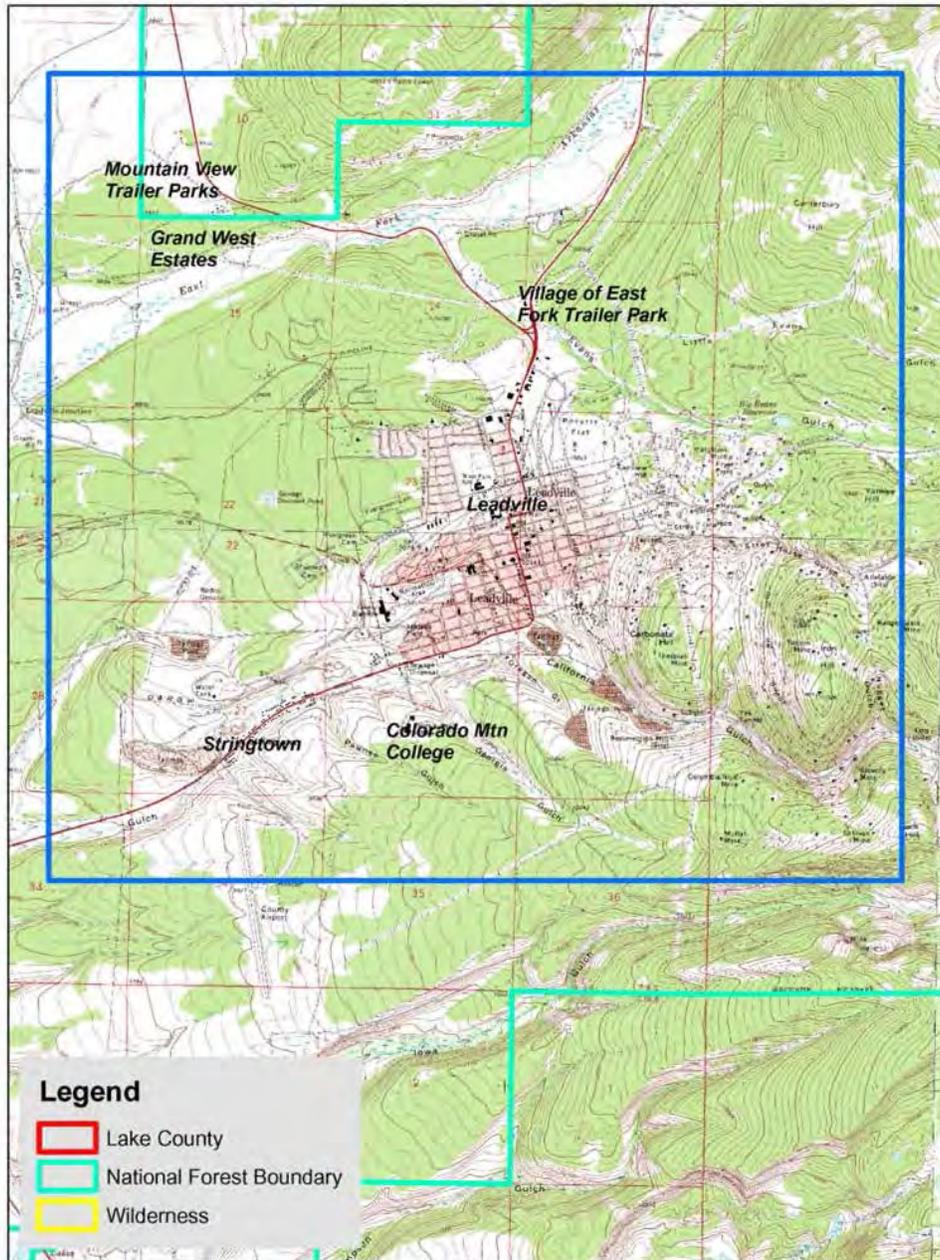
Northeast Leadville: Individual homes along the Hwy 91 corridor, Climax mine.

Map 2.2 Northeast Leadville
(1:75,000)



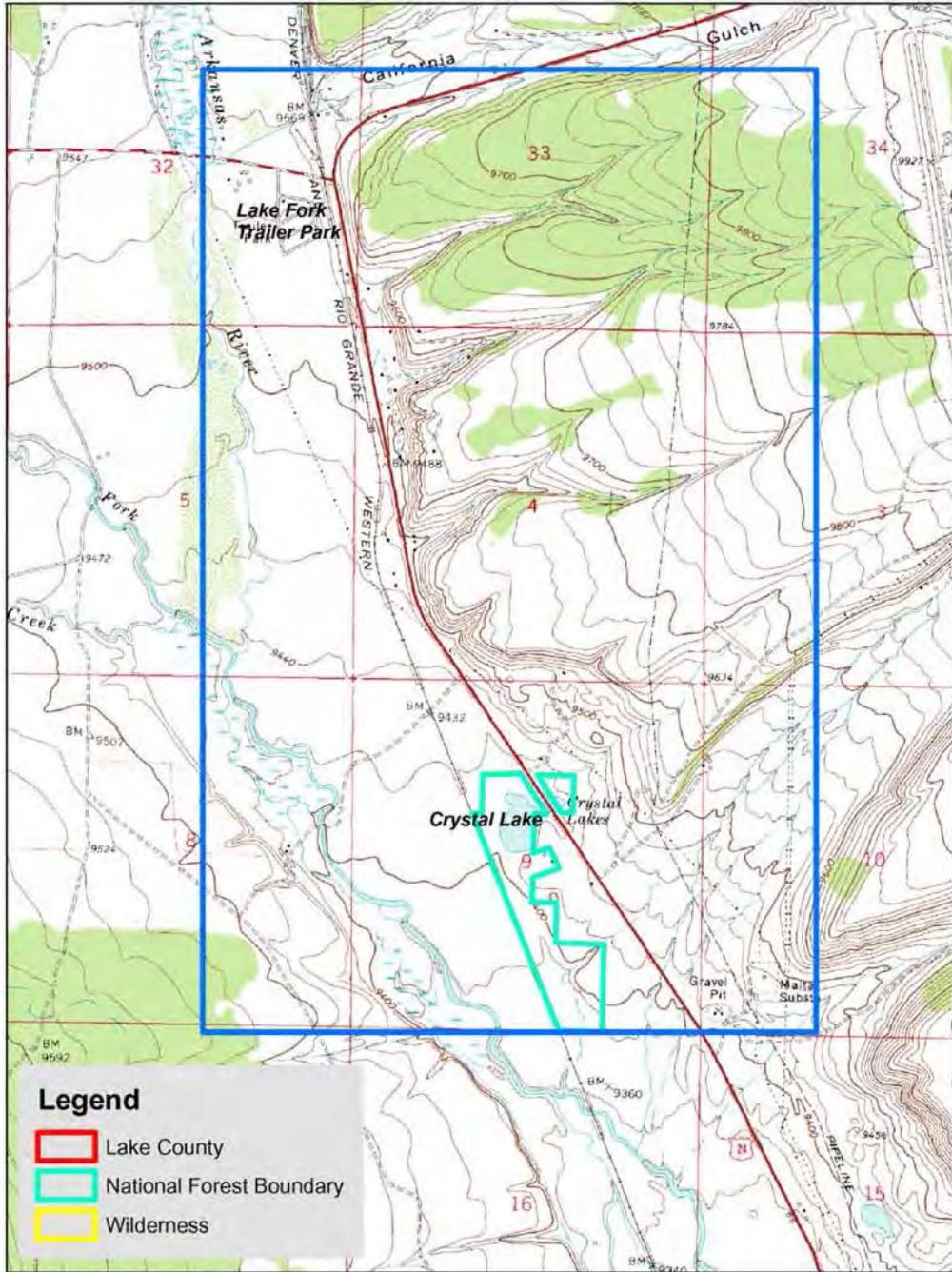
Leadville: Mountain Pines Ranch, Turquoise Lake Estates, Silver Hills, Four Season Estates, Matchless Estates, Gem Valley Subdivision, Homestake Subdivision, Brooklyn Heights, Colorado Mountain College, Westpark. Stringtown, Mountain View Trailer Park West, Mountain View Trailer Park East, San Isabel Trailer Park, Grand West Estates, Village of East Fork Trailer Park, College Park Subdivision, Jacktown, Edmonds Terrace, C. S. Placer, Sun West

Map 2.3 - Leadville
(1:45,000)



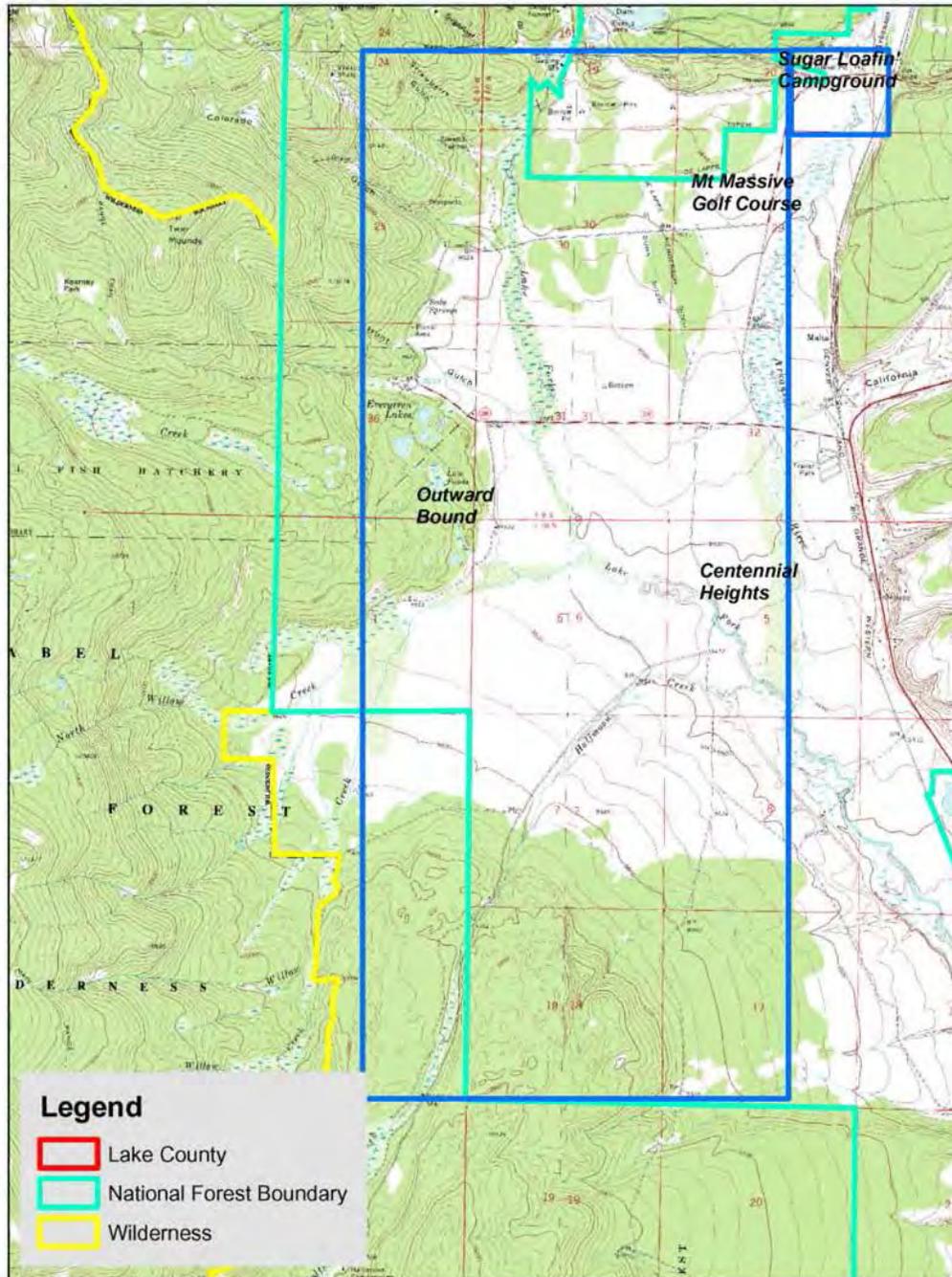
South Leadville: Individual homes located along Hwy 24 from Colorado Hwy 300 to County Road 7., , Lake Fork Trailer Park, Mt. Elbert Trailer Park, Crystal Lake, Dowlen Tract Plat, Kochevar Ranch Development, Dawson Estates

Map 2.4 - South Leadville
(1:25,000)



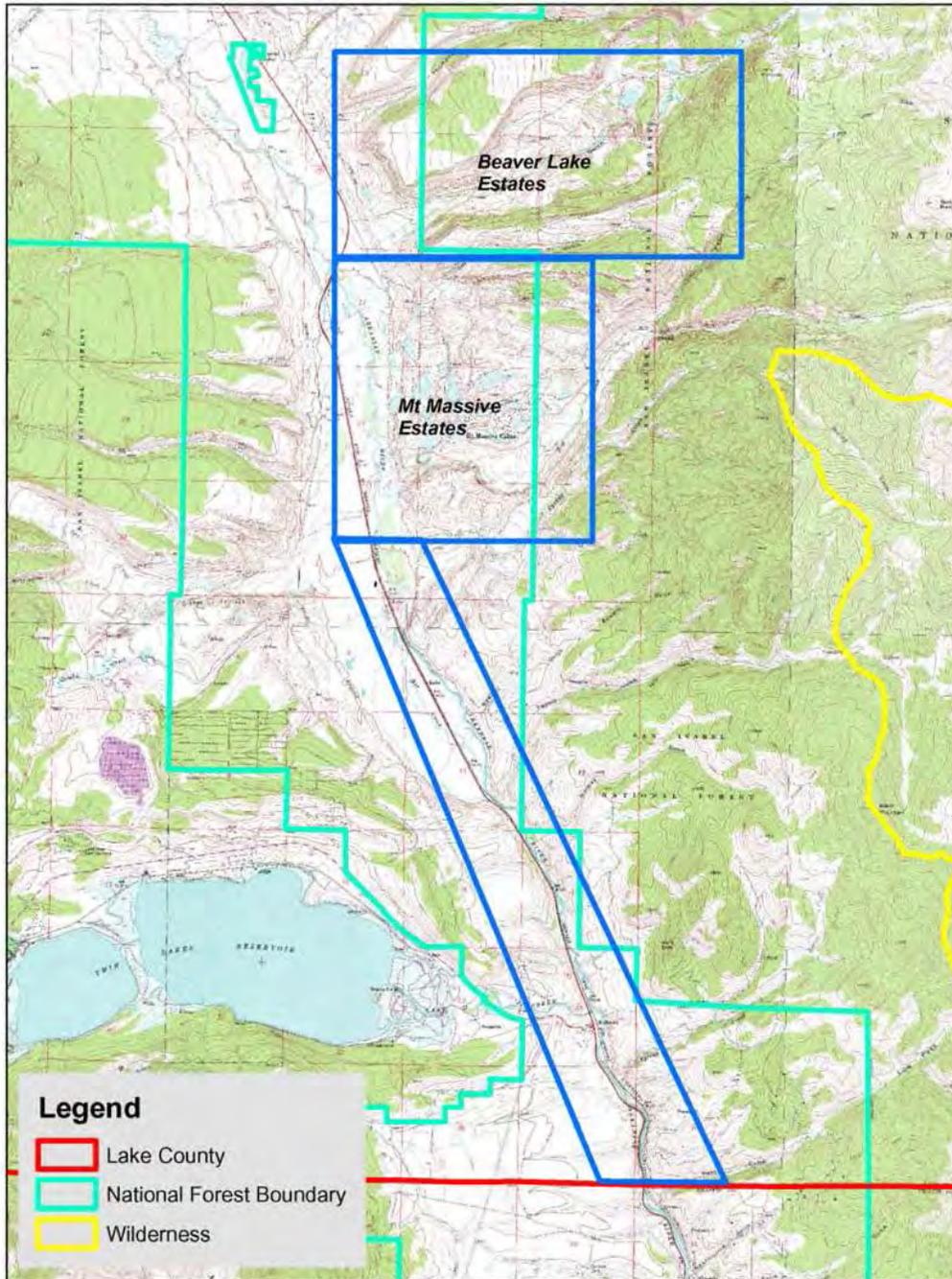
Southwest Leadville: Sugar Loafin' Campground, Mt. Massive Golf Course, High Mountain Institute, Individual homes, U S Fish Hatchery, Outward Bound, Elk Run Subdivision, Centennial Heights Subdivision

Map 2.5 - Southwest Leadville
(1:45,000)



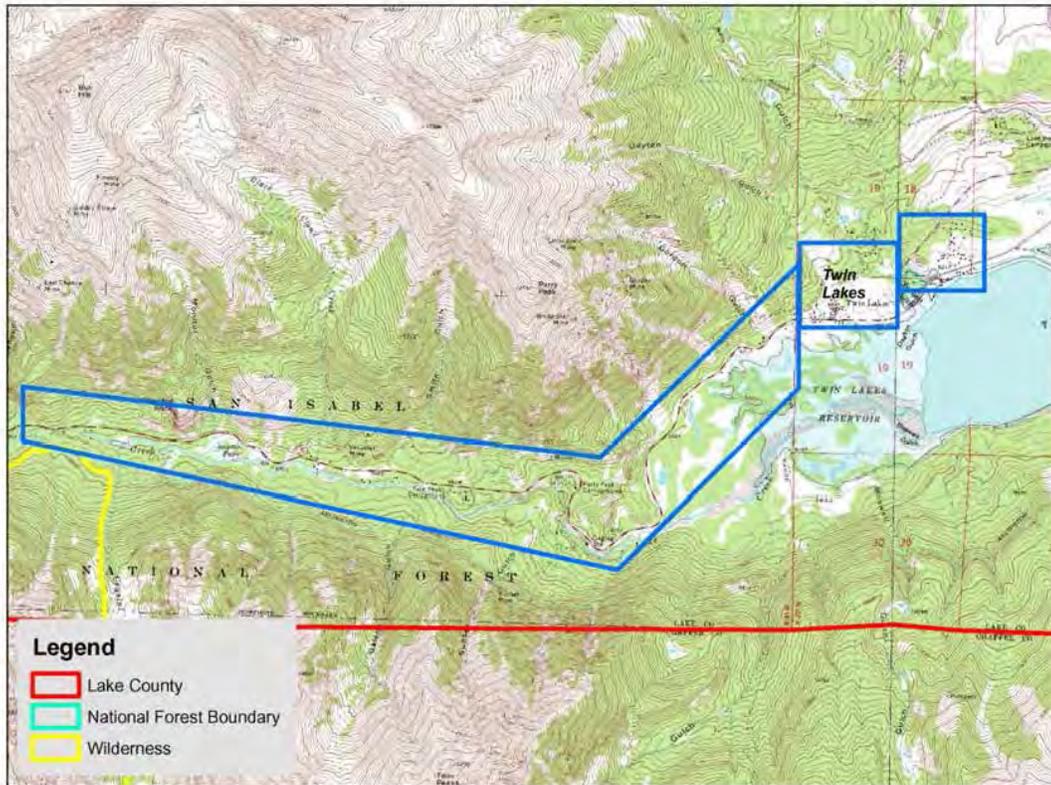
Hwy 24 South: Mt. Massive Estates, Beaver Lake Estates, Balltown, Individual homes located along Hwy 24 from County Road 7 to the Lake County Line, Rocky Acres

Map 2.6 - South
(1:75,000)



Hwy 82: Twin Lakes Village, Gordon Acres, Twin Lakes Cañon Estates, Individual homes located along Hwy 82

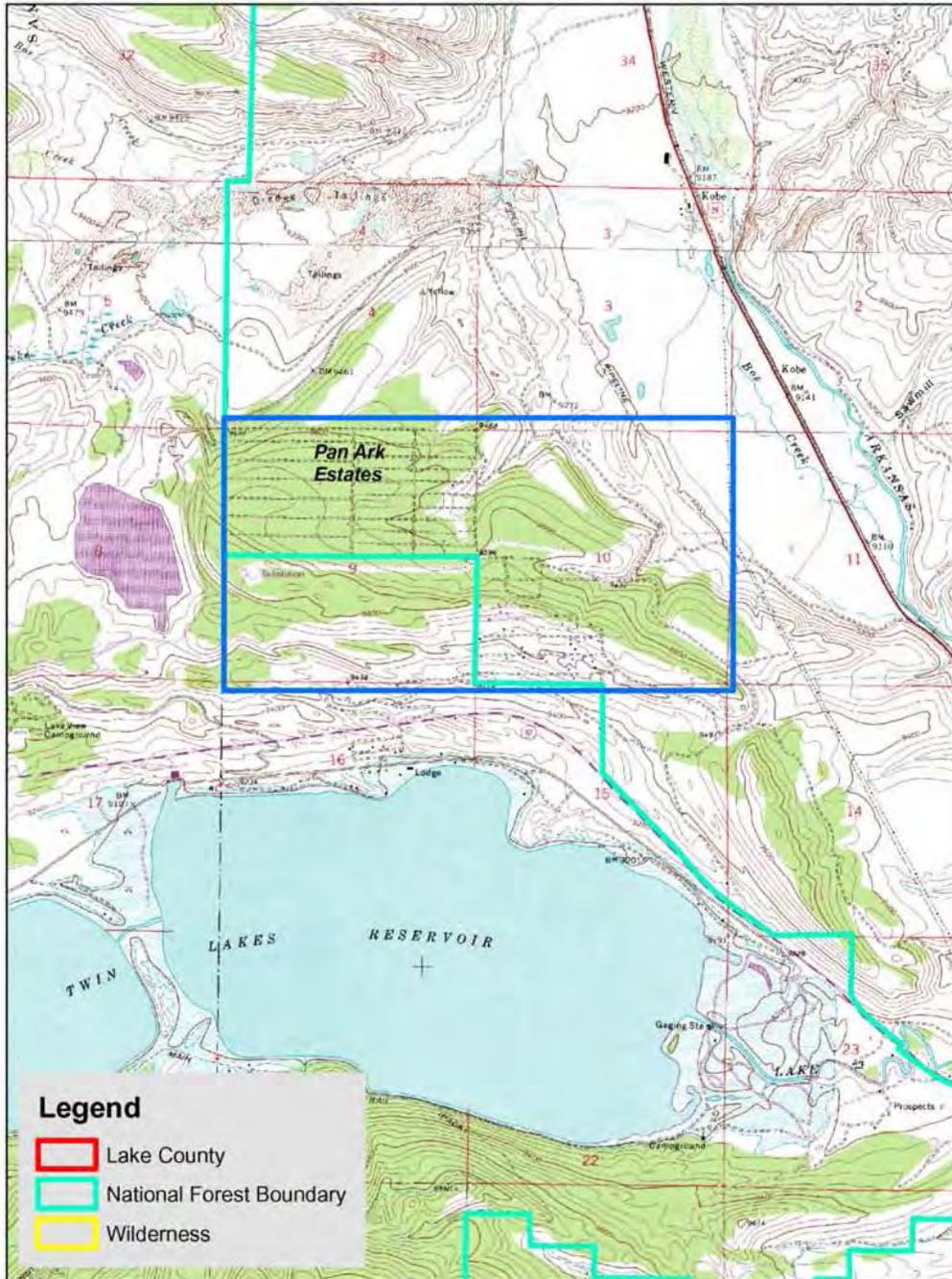
Map 2.7 - Hwy 82
(1:40,000)



PanArk:

- PanArk Estates (Mount Elbert Plamor)
- E. E. Hill Estates

Map 2.8 - Pan Ark
(1:35,000)



Chapter Three: Community Assessment

a. Fuel Type and Fire Regime (Also see Appendix A):

Refer to Chapter 1. Lake County consists of multiple fire types that burn at different intervals and intensities (fire regime – see Chapter 1 for definition). All of the fuel types in Lake County have been affected by man to differing degrees. Grazing, fire suppression, lack of Native American burning and building communities have all affected the role fire plays in the ecosystem.

The following vegetation types all located within Lake County.

- Grass. It typically burns every 0 – 35 years as a low to moderate intensity surface fire.
- Sagebrush. It typically burns every 45 – 65 years as a moderate to high intensity surface fire.
- Ponderosa pine. It typically burns every 0 – 65 years as a low to moderate intensity surface fire. The predominate carrier of fire in ponderosa pine is grass and needle litter.
- Lodgepole pine. It typically burns every 100 – 300 years as a high intensity crown fire. Small fires (< 5 acres) that are low intensity occur between larger crown fires. The average age of the lodgepole pine forests near Leadville is 125 – 150 years.
- Spruce/fir. It typically burns in excess of 300 years as a high intensity crown fire.
- Tundra. Only burns under very extreme conditions. When it does burn, it is as a low intensity surface fire.

b. Risk of Ignition and Wildfire Occurrence (Also see Appendix A)

Causes of wildfire include human and natural ignitions. Types of human ignitions include unattended or abandoned campfires, vehicle fires, cigarettes, arson fires, and sparks or arcs from power lines or transformers. The most typical natural ignition source in Lake County is lightning.

Lake County is at high risk from human caused fires. Federal lands within Lake County are used extensively by recreationists, including hikers, fisherman, hunters, party groups and Off-Highway Vehicle (OHV) users. Multiple, high voltage, power lines cross through the county. Highway 24 and 91 are heavily used in the summer months. An additional concern is areas north and west of the Leadville in city and county areas. These are areas where the Mineral Belt Trail, a number of existing and future housing developments, and the Lake County School District facilities are surrounded by dense post-mining lodgepole pine forests. Remediation work in these areas is needed to reduce the risk of any kind of fire transitioning from federal and county lands into the City of Leadville. In 2005, 6 human caused fires were reported and suppressed; two additional lightning fires were reported but were extinguished by rain prior to locating the fires.

c. Community Values at Risk

i. Housing, Business, and Essential Infrastructure

Lake County's housing profile consists primarily of single-family, detached dwellings. A number of these serve as vacation homes between which adequate spacing tends to prevent the propensity for fire to spread between buildings, provided that contiguous vegetation does not fill the space.

Housing profiles transition dramatically toward the city core. Along the edge of the town, and particularly within the city limits of Leadville, housing changes to primarily full-time residences, with spacing reduced to as little as five feet between buildings. In these areas, the propensity for fire spread greatly increases, with contiguous natural fuel beds becoming less of a factor.

This same pattern repeats itself with regard to the community's business; as expected, the greatest concentration of commercial property lies along the edges of town and occupies the central core of Leadville. Here too, spacing between buildings decreases toward the City, leading to an increased likelihood that fire will spread between buildings with greater efficiency.

These factors create a concern that a wildland-urban interface fire could burn from the forested areas surrounding the community, into the relatively open subdivisions, and from there to the dense neighborhoods and commercial areas. Such a fire would threaten numerous homes along with the area's commercial infrastructure, potentially destroying the tax-base which supports local government and the essential services it provides. This threat is of particular concern with regard to the historical landmarks comprising much of Leadville's and Lake County's tourism trade; a wildfire transitioning into to the city core would call into question the survivability of much of the community's irreplaceable historic buildings.

ii. Recreation Areas/Watersheds/Wildlife Habitat

Lake County contains many special use areas or areas of concerns. These areas include developed recreation sites, watersheds, wilderness areas and identified wildlife habitat (Map 3.1).

Examples include:

- Developed Recreation Sites
- Campgrounds at Turquoise Lake
- Picnic areas at the Leadville National Fish Hatchery
- Halfmoon Campground
- Campgrounds, picnic areas and docks at Twin Lakes
- Watersheds (also of interest to Aurora, Colorado Springs and Pueblo)
 - Upper Arkansas Watershed,
 - Turquoise Lake
 - Mt Elbert Forebay
 - Twin Lakes Reservoir
- Wilderness Areas
 - Holy Cross Wilderness
 - Mt Massive Wilderness
 - Collegiate Peaks Wilderness
 - Buffalo Peaks Wilderness
- Habitat for Sensitive Species
 - Greenback cutthroat trout – Leadville National Fish Hatchery
 - Lynx habitat – Forest Service

Map 3.1 Recreation Areas, Watersheds and Wilderness Areas in Lake County (1:190,000)



iii. Local Preparedness and Protection Capability

The Forest Service is responsible for wildland fire suppression efforts on all federal lands in Lake County; these lands include the Bureau of Land Management, U S Fish and Wildlife Service and US Forest Service lands. The closest Forest Service fire engine is located in Salida, Colorado; it is a Type 6 Engine with a minimum of two personnel and 250 gallon water capacity. Militia forces are available from the Leadville Ranger District, but may be unavailable since wildland fire suppression is a collateral duty and not there primary position.

Under the Annual Wildfire Operating Plan for Chaffee and Lake Counties, Leadville/Lake County Fire provides mutual aid assistance for wildland fire on federal lands.

Leadville Lake County Fire Rescue typically responds to reported wildfires with both a Type 6 and a Type I fire engine. Because the Department maintains a daily staff of 3 firefighters and 1 fire chief, it must split its crew to provide this response, or rely upon non-paid reserves for additional personnel. The ability to provide staffing levels above the on-duty crew remains largely unpredictable (See also Appendix A).

iv. Local Hazards and Issues

Lake County has many hazards within the county that may affect suppression efforts. Hazards within the community include:

- active and abandoned mining shafts;
- chemicals associated with the mining process, e.g. the Leadville Mine Drainage Tunnel, and illicit drug manufacturing;
- unexploded ordnance associated with the historic Camp Hale training site and more recent CIA training sites;
- Old/historic buildings that propagate fire.

Chapter Four: Collaborative Process in Lake County to Identify WUI Treatment Areas.

a. The Collaborative Process and Neighborhood Meetings



Photo courtesy of Frank Walker: Home Stake Trout Club CWPP Meeting

The initial process through the August 27th meeting leading to the neighborhood meetings has been described in Chapter 1, Section g.

At that meeting, discussions covered lodgepole pine ecology and fire behavior within the lodgepole forest, the increased chance of human caused ignition due to high recreational use of Lake County, local suppression capabilities, review of Lake County neighborhoods and plans for wildfire occurrence, and access to funding for private landowners desiring to protect their neighborhoods. Community members, in attendance, identified high risk zones in the county, based on the following parameters: Road access; fuel considerations; topography; potential for human-caused ignition; water supply; population density; and communications and notifications. The core team committed to visit with relevant home owner associations and neighborhoods to seek input from those residents regarding wildfire concerns, possible wildfire protection treatments and other related subjects.

At a meeting held on September 15th, the core team and taskforce discussed the outcomes of the workshop, and the need to visit the high risk areas bringing a condensed version of the workshop to the homeowners. The areas identified at the workshop as being at the highest risk of wildfire, including but not limited to: Home Stake Trout Club; Twin Lakes; Mountain View East; Beaver Lakes Estates; Piney Run; Homestake HOA; Elk Run; Ridgeview; Gem Valley; Gordon Acres; Turquoise Lake Estates; Sylvan Lakes; Panark; and E.E. Hill. Meetings with the homeowners were scheduled for September through November, with the last meeting occurring on November 12th. A second phase to the CWPP process is planned in order to reach out to those areas that were not incorporated into this plan.

Once it was decided what areas the core team would focus on, goals for the meetings were set. It was decided that the number one goal was to bring residents up-to-date on ecology, fire behavior, fire defense, and defining what a treatment is. The number two goal was to have the residents define: whether they wanted to participate in the CWPP process, what type of treatments were acceptable and where they should be located, their assessment of wildfire risk, long range plans to protect life and property from a wildfire, and to open lines of communication between each other and the Lake County community as a whole. In order to accomplish this task, maps were needed of the areas we were visiting, a survey to elicit personal responses from individuals, and extra reading material covering the CWPP process in more depth.

The meetings were most often held in someone's home which made it more convenient for the residents to get there. Meetings would range from two to six hours depending on the number of questions and the level of participation from the residents. Not every neighborhood listed above was visited due to time constraints and scheduling conflicts in Phase I. The neighborhoods visited in Phase I included: Home Stake Trout Club; Homestake Subdivision; Twin Lakes; Mountain View East; Beaver Lakes Estates; Piney Run; Homestake HOA; and Elk Run. The neighborhoods and private landowners visited in Phase II included: Twin Lakes; Pan Ark, Turquoise Lake Estates; Mountain Pines Ranch; Elk Trail; Gateway Village PUD, Grand West Estates; Silver Hills, Four Seasons Estates, East Twin Lakes Area; Colorado Mountain College, Sugarloaf Mountain Properties and the Nickle property. The outcomes of those meetings are explained in the maps and narratives of the next section.

b. Outcomes of Collaborative Neighborhood Meetings: Maps and Descriptions for Each Neighborhood As Follows:

Beaver Lakes Estates

Beaver Lakes Estates is located approximately two miles east of the intersection of Highway 24 and County Road 7. The subdivision of Beaver Lake Estates occupies a narrow valley amid the western slopes of the Mosquito range, below Mounts Sheridan and Peerless.

The community has identified several action items to include in the CWPP, each of which aim to either decrease the likelihood of wildfire entering the community, or provide a place of safe haven in the event that wildfire prevents timely relocation. These action items include:

Action Item: (Beaver Lakes priority 1) reduce the amount of sage brush on the west edge of the subdivision and maintain adequate clearance along the road leading into the subdivision.

This action item, which would occur on USFS land, would include mechanical treatments and prescribed burning.

Justification: Preventing a fast-moving wildfire from burning upslope into the subdivision and reducing the chances that fire will close the community's one year-round route of egress.

Action Item: (Beaver Lakes priority 2) develop two safety zones within the subdivision.

Because Beaver Lakes Estates has only one route of egress, developing safety zones within the subdivision itself will provide the community with places of safe refuge, in which they may safely wait for the passage of a wildfire.

The community selected the following sites for establishing safety zones:

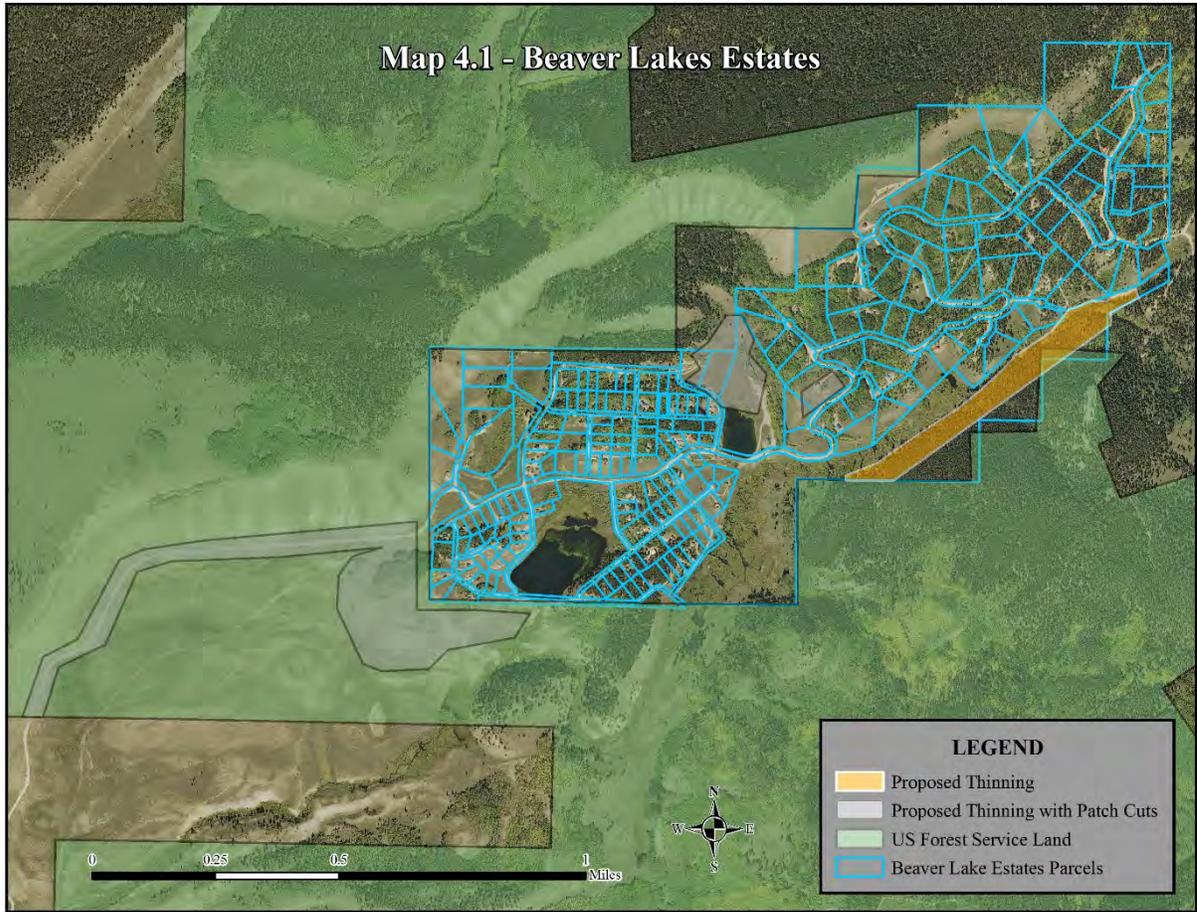
1. Tract C will be the primary safety zone, constructed large enough to hold vehicles and people.
2. The area surrounding the rental cabins/manager's residence will be the secondary safety zone, constructed large enough to hold people only.

Justification: Constructing a secondary route of egress remains cost-prohibitive. Developing safety zones within the subdivision provides areas of safe-haven during a wildfire.

Action Item: (Beaver Lakes priority 3): Thin lodgepole pine stands along the eastern edge of the subdivision.

Justification: By thinning the lodgepole pine stand along its eastern edge, the community intends to reduce the chances of wildfire entering the subdivision, particularly during a crown fire.

Map 4.1 - Beaver Lakes Estates



Colorado Mountain College

Colorado Mountain College is located approximately one mile south of Leadville on Highway 24 at County Road 41. The CMC campus includes residential, academic and maintenance buildings as well as an 11 mile trail system. The campus is approximately 260 acres of Climax Lodgepole Pine forest with isolated pockets of Aspen and Engelmann Spruce.

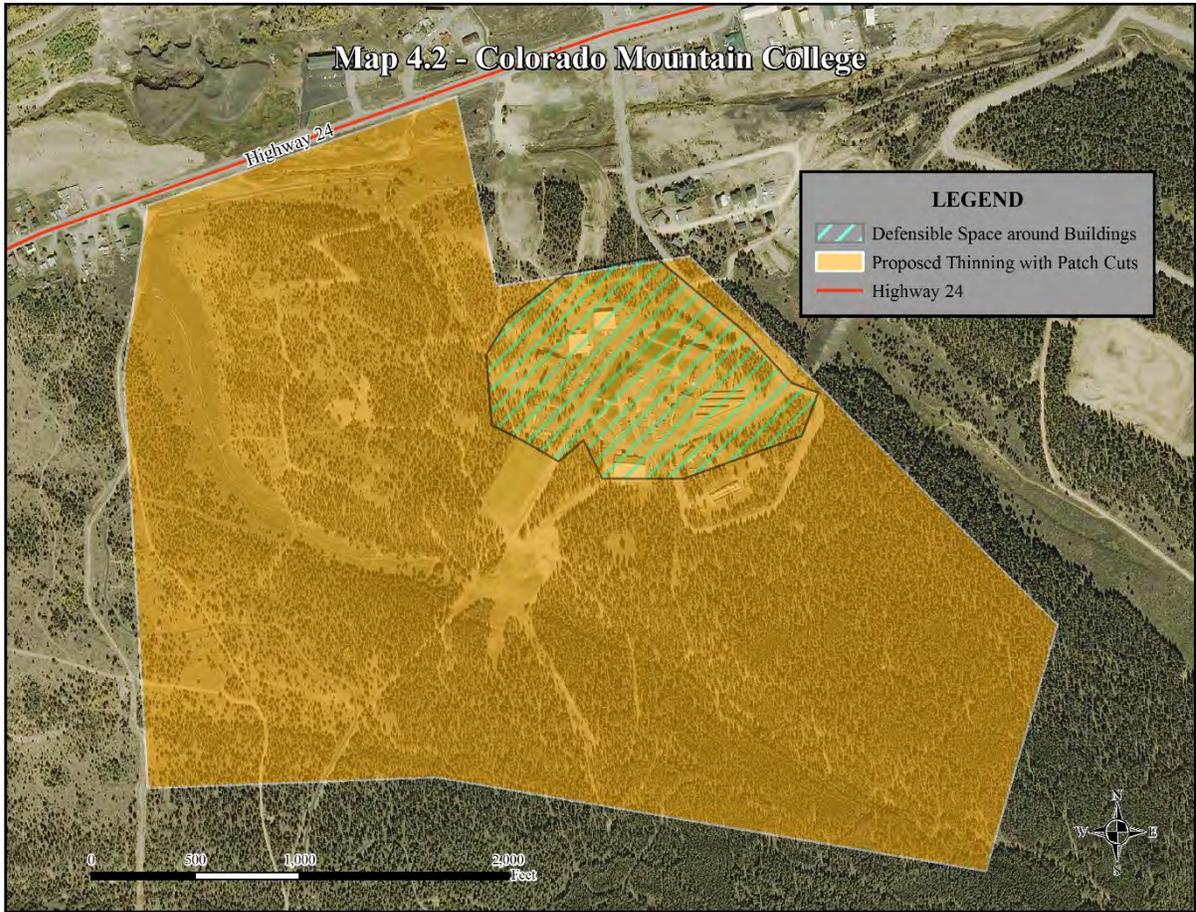
Action items include:

Action Item: Create wildfire defensible space in the area surrounding the central campus buildings and facilities.

Justification: Creating wildfire defensible space will give existing structures more protection in a wildfire situation, and will improve forest health.

Action Item: The campus' densely forested areas will be thinned to encourage species diversity (Aspens and Douglas Firs, Engelmann Spruce) while creating and maintaining a healthy forest stand.

Justification: Thinning and patch cuts will enhance forest health and provide better fire protection for the area.



East Twin Lakes Area (The Greater Twin Lakes Area Wildland Urban Interface)

The East Twin Lakes Area wildland urban interface is contiguous to over 5,000 acres of privately owned land that is in various stages of community and recreation development. Residents of the East Twin Lakes area hold ownership interest in real property, as well as in-holdings in adjacent federal land, that encompass a major portion of the Lake Creek watershed adjacent to the south side of both lakes at the foot of the proposed Quail Mountain Winter Sports Site. Since the initiation of construction on the Frying-Pan Arkansas Project, the greater Twin Lakes area has been recognized as a potential high growth area. The developing urban interface forms a circle around the south, east, northeast, and north sides of the Twin Lakes Reservoir. The Twin Lakes Reservoir is the largest water storage area in Lake County. The viewshed from Highway 82 is rapidly being deteriorated by mountain pine beetle infestations extending from the foot of Quail Mountain at the south shore of the east lake to timberline. Without forest protection, this region is a targeted fire hazard (noted as early as 1977) that will negatively affect: the water quality of the Twin Lakes Reservoir, a major source of water for Front Range development; be detrimental to water supply ditches; be destructive to local wildlife habitat; and seriously reduce the economic potential of the East Twin Lakes Community.

Primary Forest Management Objectives

The primary management objectives are forest health, watershed development, and protection of water resources and wildlife. The interface is made up of numerous privately owned residential tracts and homes in divided and subdivided regions. Other private in-holdings within federal lands include local networks of ditches, ponds, access roads, recreational trails and private mining properties. A surge in the last five years of mountain pine beetle populations in lodgepole pine forests that cover part of the area has increased the public concerns about wildfire damage. A wildfire could have devastating effects on local and Front Range water resources, local tourism and recreational potential, as well as wildlife habitat.

Action Items Include:

Action items previously initiated: In 2006 and 2007, in conjunction with the Colorado State Forest Service, infested MPB trees in alignment with proposed trail systems on private property adjacent to Quail Mountain were patch cut.

Action Item: Propose thinning and forest health treatments on federal lands and continue forest health treatments on private land in the East Twin Lakes area. With assistance of the CSFS, implementation of forest health plans need to be initiated on federal land and continued on private land in the East Twin Lakes area.

Justification: By continuing to reduce the fuel load on federal and private lands, the fire danger to the East Twin Lakes area will be reduced and watershed protection will increase.

Action Item: Removal of standing dead and currently infested mountain pine beetle trees on private land and general thinning on private property to enhance forest health and encourage aspen growth.

Justification: Thinning with patch cuts and removal of dead and dying mountain pine beetle trees will enhance forest health and provide better fire protection for the area.

Action Item: The removal of standing dead and currently infested mountain pine beetle trees on private land and general thinning on adjacent USFS and BLM properties to enhance forest health and encourage aspen growth. Adjacent federal properties include but are not limited to Cache Creek Park, Quail Mountain, Interlaken, and other federal properties surrounding the Twin Lakes.

Justification: Thinning with patch cuts and removal of dead and dying mountain pine beetle trees will enhance forest health and provide better fire protection for the area.

Action Items: The following issues are being addressed on private property located at the foot of Quail Mountain: water sources, dry hydrant system, access for fighting fire, and access for removal of wood products. Private property owners would like to see the USFS and BLM continue fuels reduction treatment on adjacent federal lands as soon as possible.

Justification: The private sector, having recently initiated forest health patch cuts south of Twin Lakes, has established access routes into the area, and has an intermediate location for processing wood products prior to leaving the region. The East Twin Lakes private sector would like to work hand-in-hand with the state and federal agencies to create productive forest health at minimal cost and maximum benefit by continuing the work that has been initiated in the Twin Lakes region on private property.

Action Item: Need to establish a sawmill and wood processing site in the greater Twin Lakes area to continue the active forest health program on the south side of Twin Lakes. It is believed that the best area would be on private property in Cache Creek Park in Lake County which is zoned Industrial and Mining.

Justification: The sawmill and wood processing site would provide for handling wood products that are not readily available as processed materials for immediate distribution to other regions in and out of State.

Map 4.3 - East Twin Lakes Area



Elk Run Subdivision

Elk Run Subdivision is located approximately three miles southwest of Leadville, Elk Run can be accessed by heading west on CR 300 (Fish Hatchery road), turn left on CR 11 (Halfmoon Creek) and finally follow CR 11A to the "Y" and take the southeast road.

Action items include:

Action Item: Address FireWise issues such as water source for fighting fire, defining safety zones, reflective signs, and ingress/egress issues. Residents' main priority is to focus on getting a stand pipe from Halfmoon Creek to Elk Run and explore other water storage options.

Justification: Have water on hand to supply engines fighting structure fires and wildfires.

Action Item: Elk Run borders the BLM to the South of the subdivision and support the ongoing thinning projects on BLM. Elk Run residents want the BLM to focus on selective, strategic patch cuts with less thinning between and start to burn off slash piles that are accumulating.

Justification: Residents would like to see strategically placed patch cuts to slow down any wildfire and less thinning between patch cuts, as well as the removal of the slash piles on neighboring property.

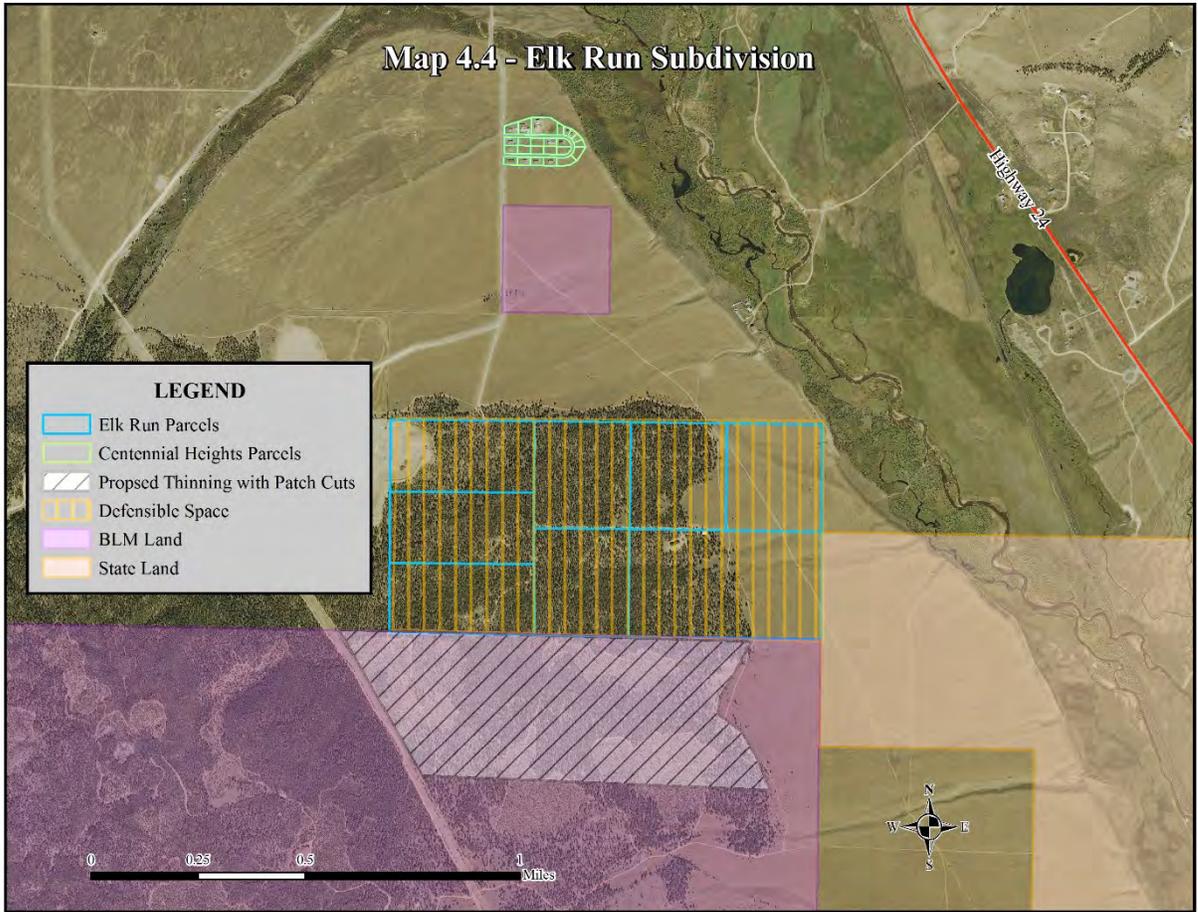
Action Item: Continue fuels thinning and defensible space on private property and create a solution to slash buildup by supporting a chipping program. The residents also support the idea of a county chipping program and biomass utilization.

Justification: By continuing fire mitigation efforts on private property, the residents will increase their chances of survivability in the event of a wildfire.

Action Item: Elk Run has requested several road closures on BLM and USFS land once projects are finished. There are a number of roads that provide access to thinning projects that should be closed after projects have been completed.

Justification: By closing roads developed solely for access to thinning projects on Federal lands once these projects have been completed, vehicular traffic and potential sources of ignition will be reduced.

Map 4.4 - Elk Run Subdivision



Elk Trail Subdivision

Elk Trail subdivision is located northeast of the intersection between Lake County Road 4 and Lake County Road 9D. It is a newly subdivided property where fire mitigation thinning has already taken place on the home sites and a new road system provides two points of ingress/egress, as well as a fire break within the property. A 15,000 gallon cistern, newly installed along with a hydrant, will provide a water source for fighting wildfire. The subdivision is surrounded by other private lands and vegetation throughout the area consists of predominantly lodgepole forests with small occurrences of aspen.

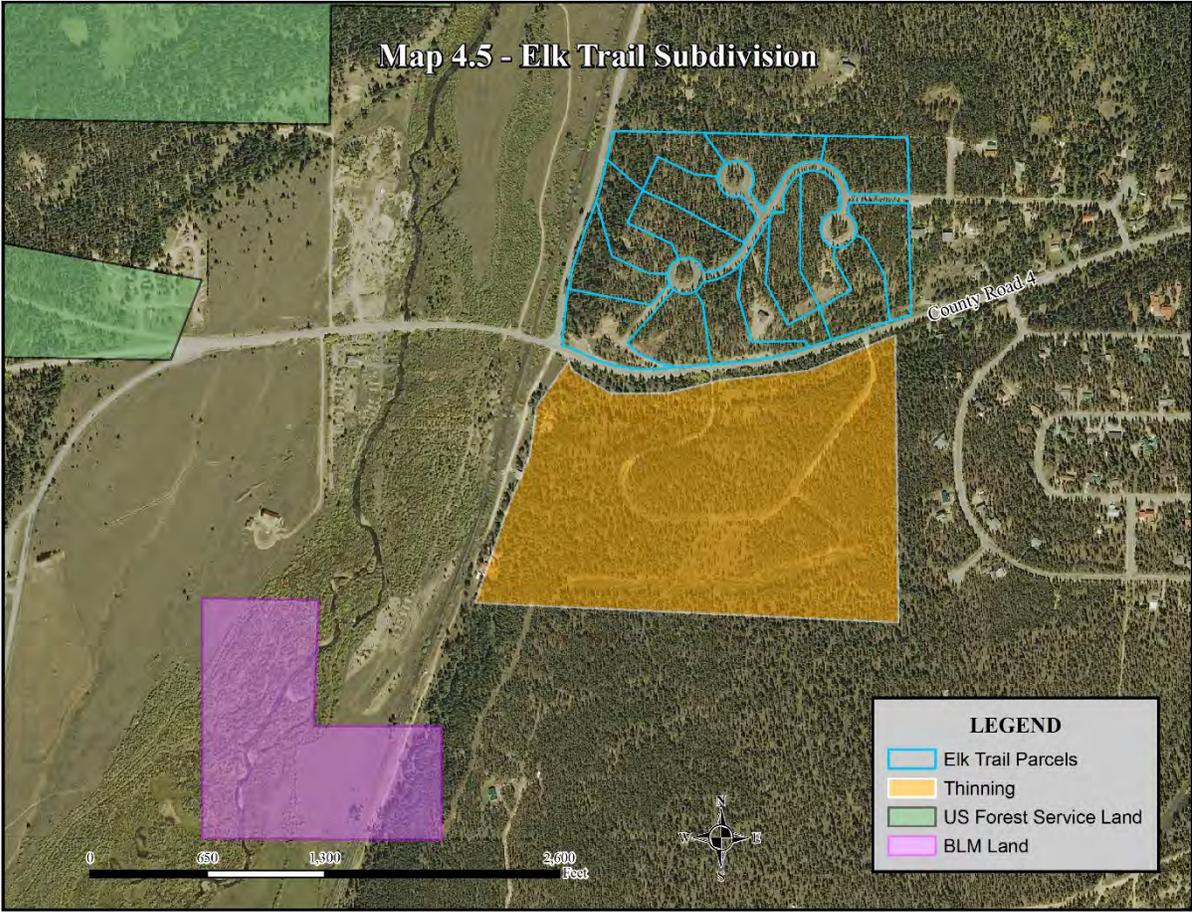
Action items include:

Action Item: Owner will continue thinning to create a fuelbreak on the steeper slopes of the western and southern property boundaries, and will encourage thinning for fire protection on private property north of Elk Trail.

Justification: Thinning will enhance forest health and provide better fire protection for the area.

Action Item: Encourage CSFS to work with BLM to thin BLM property located about $\frac{3}{4}$ miles to the south of the private property.

Justification: Thinning will enhance forest health and provide better fire protection for the area.



Four Seasons Subdivision

Four Seasons subdivision is located west of the City of Leadville along Mountain View Drive (Lake County Road 17) on Four Seasons Boulevard. The development is surrounded by private land on all sides. The subdivision is surrounded by other private lands and vegetation throughout the area consists of predominantly lodgepole forests with small occurrences of aspen.

Action items include:

Action Item: Create wildfire defensible spaces on individual lots and work with absentee landowners to get fire mitigation thinning accomplished on those lots. Thinning will be done to encourage new aspen growth.

Justification: Creating wildfire defensible spaces will give existing structures more protection in a wildfire situation, as well as enhance forest health.

Action Item: Organize an early detection and removal program for insect and diseased trees (mainly mountain pine beetle and dwarf mistletoe), as well as a preventative spraying program for mountain pine beetle prevention.

Justification: Through early detection of currently infested trees and removing them in a timely fashion, mountain pine beetle outbreaks will be kept to a minimum. Focusing on removal of mistletoe infected trees when thinning, in conjunction with mountain pine beetle early detection, will enhance the health of the forest and provide better fire protection.

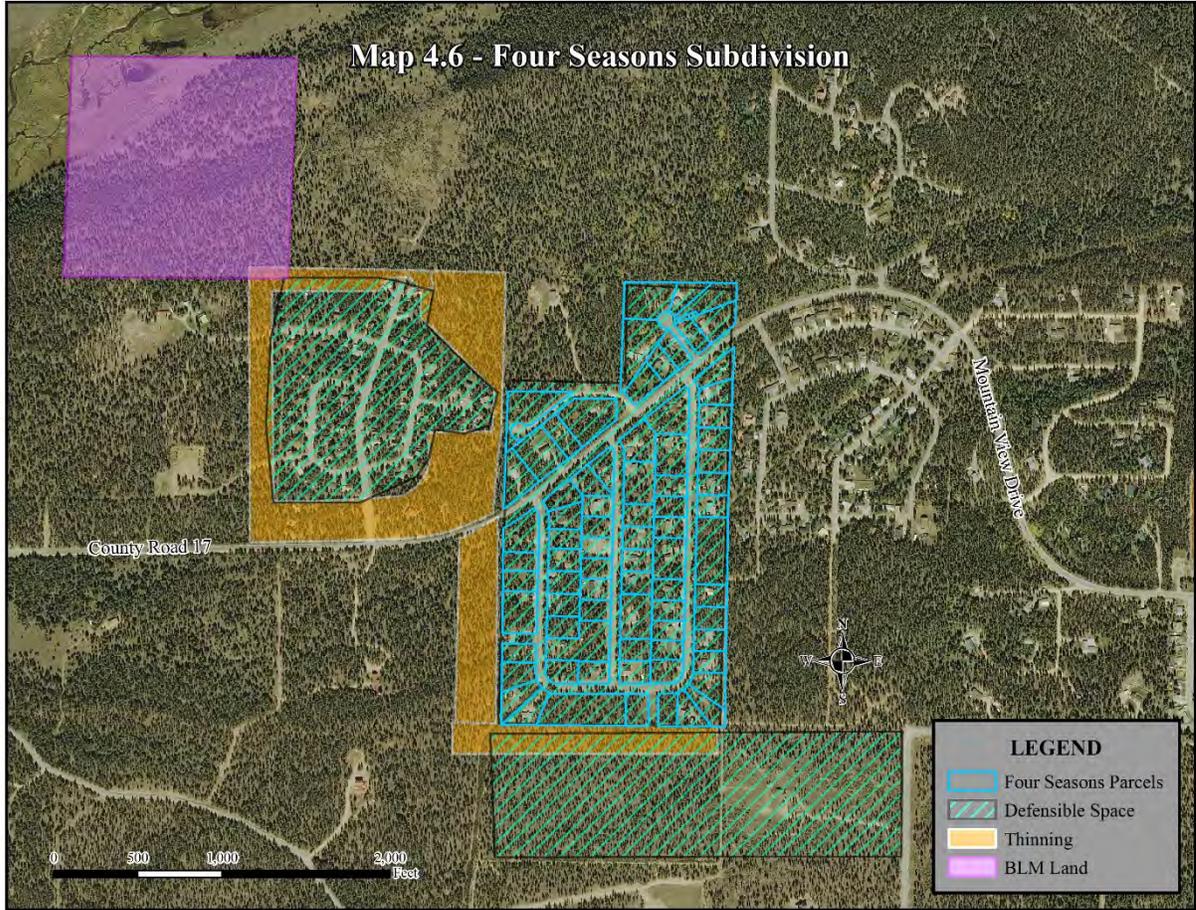
Action Item: Work with neighboring developments to create landscape scale fuelbreak to protect the community as a whole.

Justification: Landscape scale fuelbreaks are more effective in providing wildfire protection to a large area

Action Item: Replant thinned areas with new trees species to encourage species diversity.

Justification: Increasing the species diversity will protect the forest from catastrophic loss to one insect or disease outbreak.

Map 4.6 - Four Seasons Subdivision



Gateway Village PUD

Gateway Village straddles State Highway 91 approximately one half mile north of the Intersection of State Highway 24. It is a newly planned subdivision and planned unit development where fire mitigation thinning has already taken place on the home sites, planned open space, and wildlife corridors. Highway 91 and a new road system provide two points of ingress/egress, as well as a fire break within the property. An impoundment pond north of the property just west of Highway 91, along with a system of hydrants throughout the development will provide a water source for fighting wildfire.

Action items include:

Action Item: Owner will continue thinning in areas of the property designated for open space and wildlife corridors.

Justification: Thinning will enhance forest health and provide better fire protection for the area.

Action Item: Owner will thin along a planned system of roads to create fuelbreaks within the development.

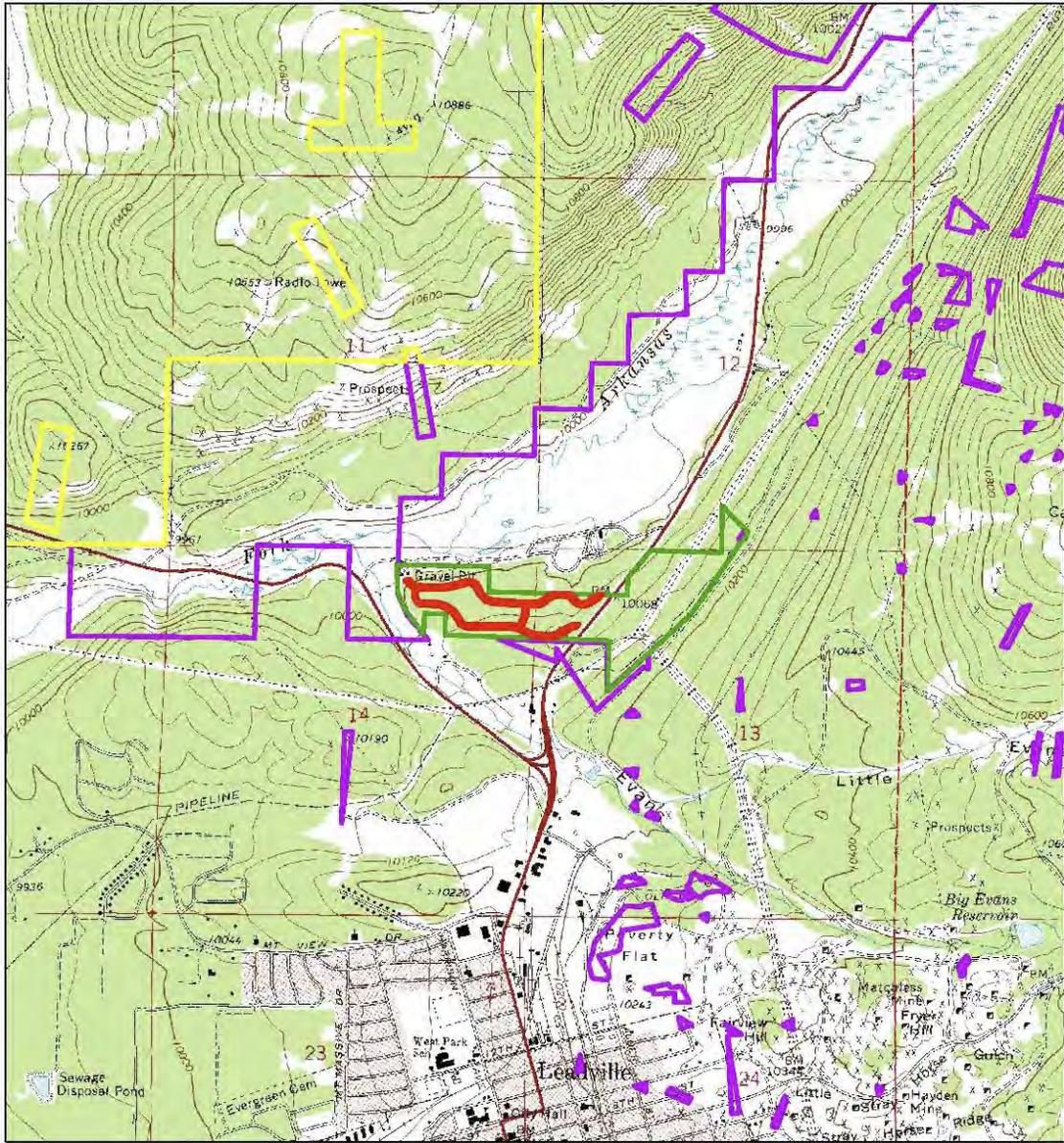
Justification: Thinning will enhance forest health and provide better fire protection for the area.

Action Item: Owner will encourage on thinning for fire protection on private property on the northern slope and eastern property boundary of Gateway Village.

Justification: Thinning will enhance forest health and provide better fire protection for the area.

Action Item: Encourages CSFS to push thinning for fire protection on Bureau of Land Management properties to the East and on the Northwest ridge of this property.

Justification: Thinning will enhance forest health and provide better fire protection for the area.



- - - - - Fuel Breaks
 - - - - - Gateway Village
 - - - - - Bureau of Land Management
- US Forest Service

CWPP EXHIBIT

0 2,000 4,000 Feet



MARCH 2008

Grand West Estates

Grand West Estates is accessed by taking Highway 24 north towards Minturn and turning left on County Road 99. The subdivision is located within and surrounded mainly by lodgepole pine. A large expanse of willows and grasses are located south of (and below) the subdivision.

Action Items Include:

Action Item: Grand West property owners support thinning on federal lands surrounding the subdivision.

Justification: By reducing the fuel load on federal lands, the fire danger to the subdivision will be reduced.

Action Item: Slash removal and other hazardous fuel reduction work are needed within the subdivision to create defensible space.

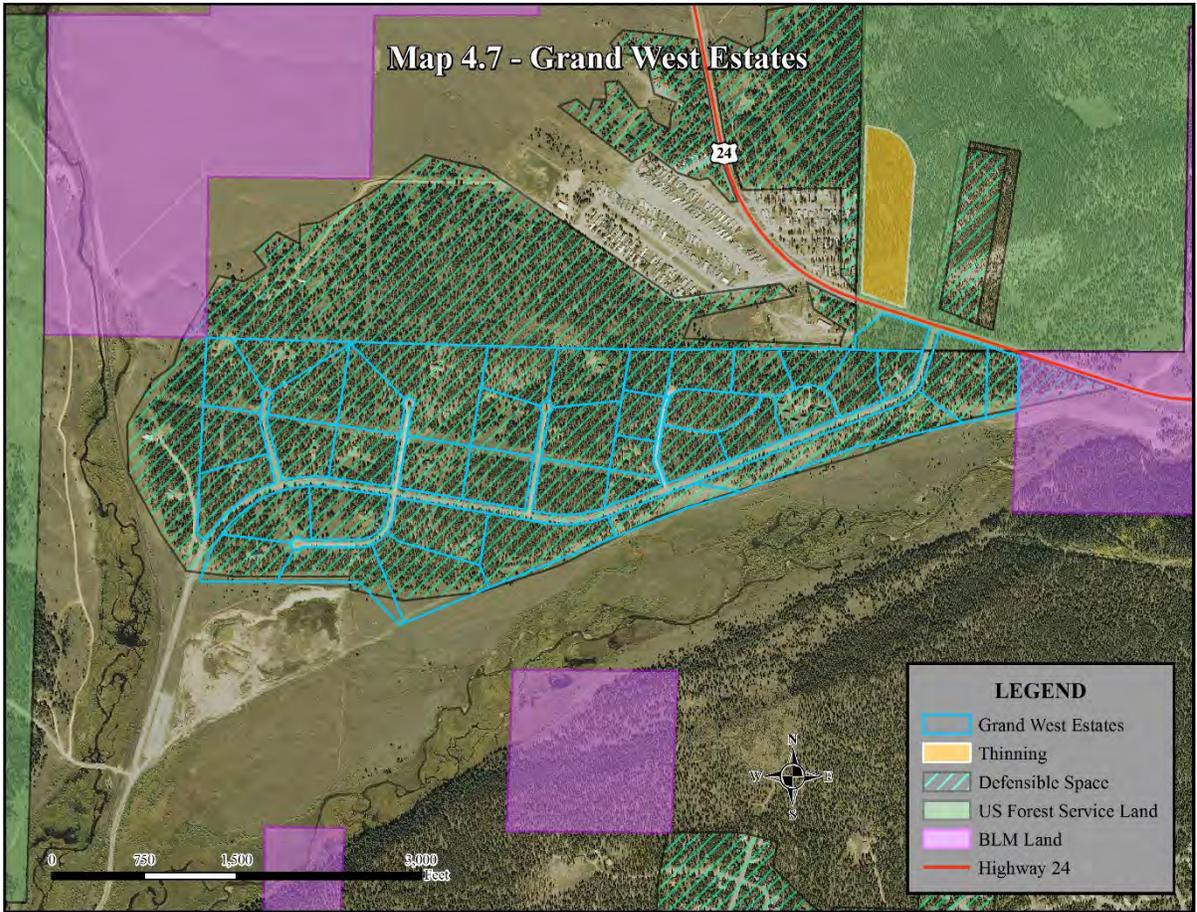
Justification: By reducing the fuel load within and around the subdivision, the community enhances its survivability should wildfire threaten the area.

Action Item: Sagebrush reduction is desired in strategic locations to act as a fuelbreak from railroad tracks to East Fork of the Arkansas River riparian area as well as along Tennessee Creek area.

Justification: By reducing the fuel load on adjacent federal and private lands, the fire danger to the subdivision will be reduced.

Action Item: Work with municipalities and other large land owners on hazardous fuel reduction activities.

Justification: By reducing the fuel load on adjacent federal and private lands, the fire danger to the subdivision will be reduced.



Home Stake Trout Club

Home Stake Trout Club is accessed by heading north on US Highway 24 from Leadville. The community identified riparian and wetlands areas as no treatment zones and Little Porcupine Gulch as an active elk calving area where time restrictions should be established to protect the elk. The subdivision supports and encourages development of plans and methods that protect and enhance wildlife habitat values. The subdivision has a vested interest in the lakes and stream on their property and would like to see every precaution taken to reduce or prevent erosion and run off. Residents of Home Stake Trout Club (HSTC) requested that no old or older growth or spruce and fir be cut on HTSC and surrounding public lands. HSTC also requested that the equipment, means and methods utilized for timber extraction be of the type and kind that minimizes soil disturbance and erosion.

Action Item: Contact experts to recommend areas needing defensible space on private and federal lands without compromising the environment or aesthetics. Final decisions should be up to the individual homeowners. HSTC supported the concept of thinning and fuel break openings, provided they are consistent with the protection, enhancement and preservation of wildlife, riparian and other environmental related values. HTSC requested specifically that no treatments occur in Longs Gulch and other riparian areas to avoid lake and stream disruption and contamination from erosion.

Justification: By reducing the fuel load around and within the subdivision, the community enhances its survivability should wildfire threaten the area.

Action Item: Add up to two additional dry fire hydrants.

Justification: By reducing the fuel load around and within the subdivision, the community enhances its survivability should wildfire threaten the area.

Action Item: Target areas that still need slash and blow-down cleanup and prioritize those areas.

Justification: By reducing the fuel load around and within the subdivision, the community enhances its survivability should wildfire threaten the area.

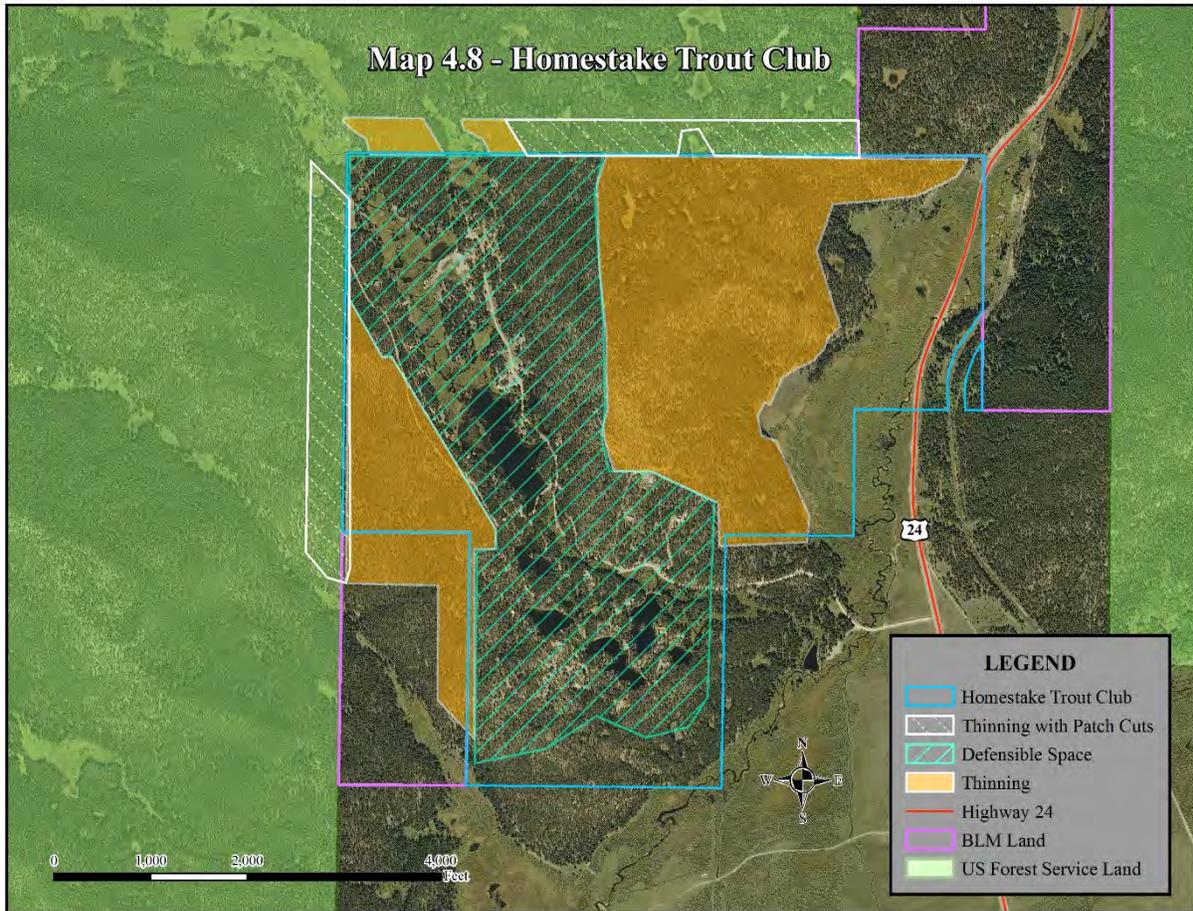
Action Item: Find grants or funding to help accomplish work needed.

Justification: By reducing the fuel load around and within the subdivision, the community enhances its survivability should wildfire threaten the area.

Action Item: Need to investigate improvements of HSTC's roads and bridges to determine what needs to be fixed in order to support fire equipment. Look at other ingress/egress issues including additional exits and possible safety zones.

Justification: By addressing ingress/egress and safety zone issues, members of the community will be able to evacuate while allowing structure protection engines to come in.

Map 4.8 - Homestake Trout Club



Homestake Subdivision

Homestake subdivision is accessed by turning north on Motherlode Drive from Mountain View Drive. Paved roads provide good circulation throughout the community and fire hydrants provide fire suppression water supply. The community, however, has identified a couple areas posing the risk of wildfire either entering the subdivision from outside its boundaries or spreading from within. Principally, these include areas where lodgepole pine stands about the community and undeveloped lots in which fuel reduction measures would lessen the spread of wildfire.

Action Item: Thin lodgepole pine stands along the northern and western boundaries. Provide a “fuel break” of between 50 and 100 feet along this boundary. This action item requires a partnership between the subdivision and the owner of the identified property.

Justification: By reducing the fuel load around and within the subdivision, the community enhances its survivability should wildfire threaten the area.

Action Item: Limb coniferous trees in subdivision green belt and encourage Aspen growth.

Justification: By reducing the fuel load around and within the subdivision, the community enhances its survivability should wildfire threaten the area.

Action Item: Reduce fuel loads in undeveloped lots within the subdivision.

Justification: By reducing the fuel load around and within the subdivision, the community enhances its survivability should wildfire threaten the area.

Action Item: Employ FireWise recommendations throughout subdivision.

Justification: By reducing the fuel load around and within the subdivision, the community enhances its survivability should wildfire threaten the area.

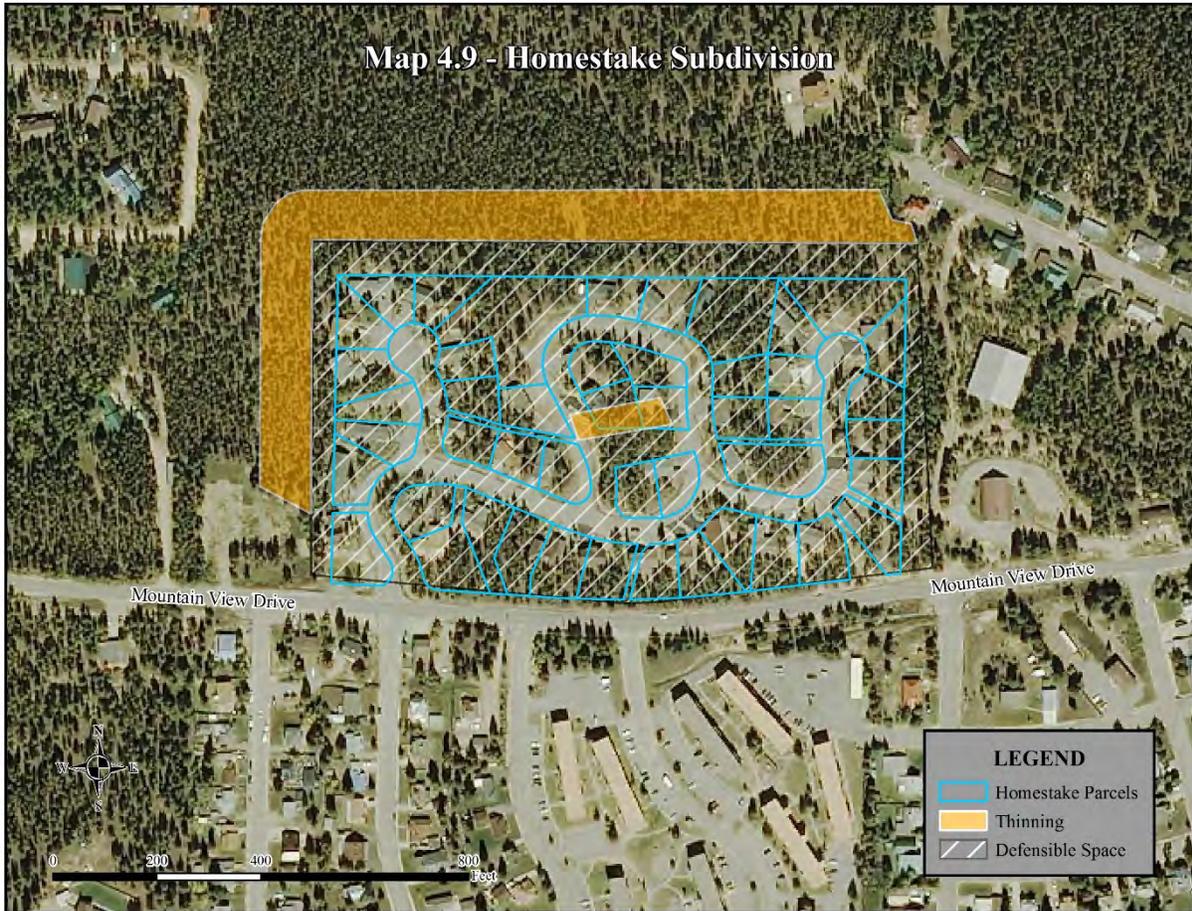
Action Item: A map is needed that shows the location of all structures – aerial photos from CSFS in the future may cover this need.

Justification: A map identifying the location of all structures within the subdivision will assist emergency services personnel in the event of a wildfire.

Action Item: A meeting is needed with the CWPP Taskforce, Homestake Subdivision representatives and John Clapper, whose property borders the subdivision.

Justification: By reducing the fuel load on private lands surrounding the subdivision, the community enhances its survivability should wildfire threaten the area.

Map 4.9 - Homestake Subdivision



Mountain Pines Ranch

Mountain Pines Ranch is located west of the City of Leadville on County Road 4 (Turquoise Lake Road). The subdivision is located within and surrounded mainly by lodgepole pine.

Action Items Include:

Action Item: Slash removal and other hazardous fuel reduction work are needed within the subdivision to create defensible space.

Justification: Fire mitigation efforts on private property will increase property owner's chances of survivability in the event of a wildfire.

Action Item: Request Lake County to establish wider shoulders on County Road 4.

Justification: Widening of shoulders on County Road 4 will allow for effective emergency exits of residents in case of fire.

Action Item: Encourage conservation planting of aspen and other fire resistant species on two or more acre tracks of property within the subdivision.

Justification: Aspen are a more fire resistant species and will increase property owner's chances of survivability in the event of a wildfire.

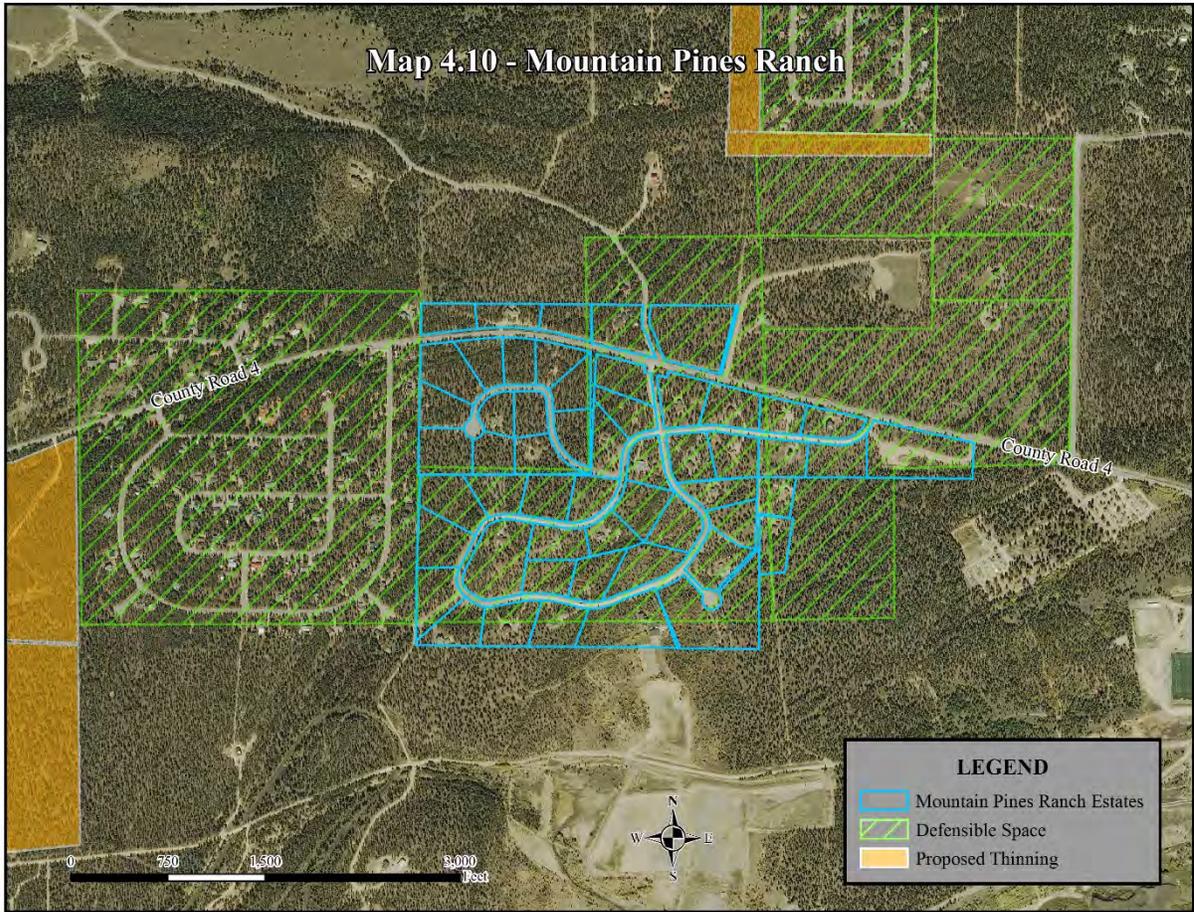
Action Item: Support treatments such as thinning on BLM land.

Justification: By reducing the fuel load on federal forest lands, the fire danger to the subdivision will be reduced.

Action Item: Numbering on houses should be clear and visible for the Fire Department and other organizations to read

Justification: Clear and visible house numbering will make it easier for emergency personnel to identify properties in any emergency, especially at night.

Map 4.10 - Mountain Pines Ranch



Mountain View East and West

Mountain View East and West are located along Highway 24, approximately 1.5 miles northwest of the Leadville City Limit, Mountain View East and West consist of manufactured homes abutting National Forest land. Wildfire spreading into the subdivision from the lodgepole pine stands adjacent to the subdivision's eastern border constitutes the community's principal concern.

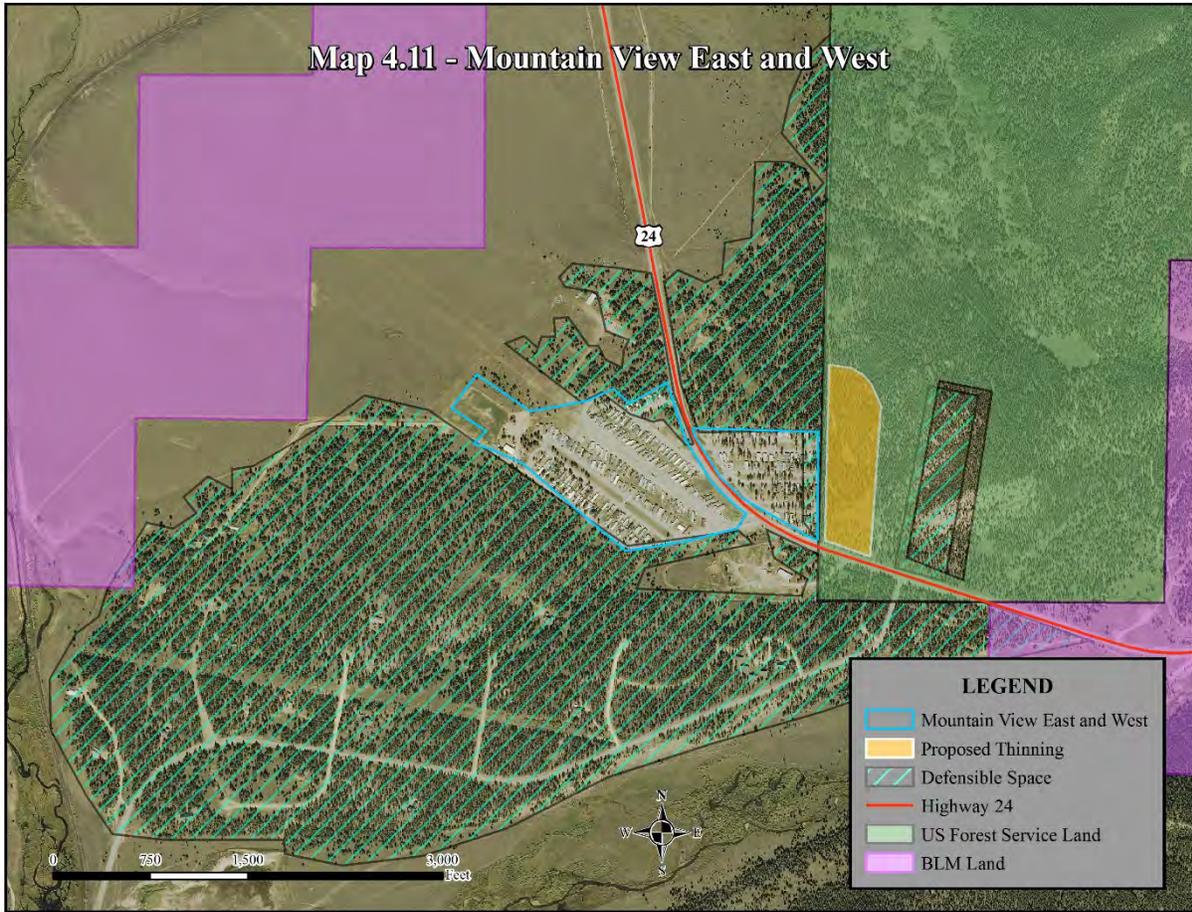
Action Item: Apply appropriate treatments, primarily thinning, along the eastern edge of the subdivision.

Justification: By reducing the fuel load along its eastern edge, the community reduces the propensity for wildfire to transition from Forest land to private property.

Action Item: Remove dead and dying trees, and limb trees in accordance with FireWise techniques within the subdivision.

Justification: By employing FireWise techniques within the subdivision, the community enhances its survivability should wildfire threaten the area.

Map 4.11 - Mountain View East and West



Nickle Property

The Nickle property is located a couple of miles west of Leadville. Lake County Road 36 runs through the property. This property is a part of State of Colorado's Forest Agriculture program. The property is surrounded by other private lands and vegetation throughout the area consists of predominantly lodgepole forests with small occurrences of aspen. The property is mostly undeveloped except for the Nickle Home where most of the fire mitigation efforts are taking place.

Action items include:

Action Item: Continue to thin portions of the property each year for wildfire mitigation. Thinning will be done to encourage new aspen growth.

Justification: Thinning will enhance forest health and provide better fire protection for the area.

Action Item: Desire to see neighbor to the west, Jim Flaum of Vail, thin his property for fire mitigation and treat the current mountain pine beetle infestation.

Justification: Thinning will enhance forest health and provide better fire protection for the area. Through early detection of currently infested trees and removing them in a timely fashion, mountain pine beetle outbreaks will be kept to a minimum. Focusing on removal of mistletoe infected trees when thinning, in conjunction with mountain pine beetle early detection, will enhance the health of the forest and provide better fire protection.

Action Item: Encourage thinning for fire protection on BLM property to the south of the Nickle property.

Justification: Thinning will enhance forest health and provide better fire protection for the area.

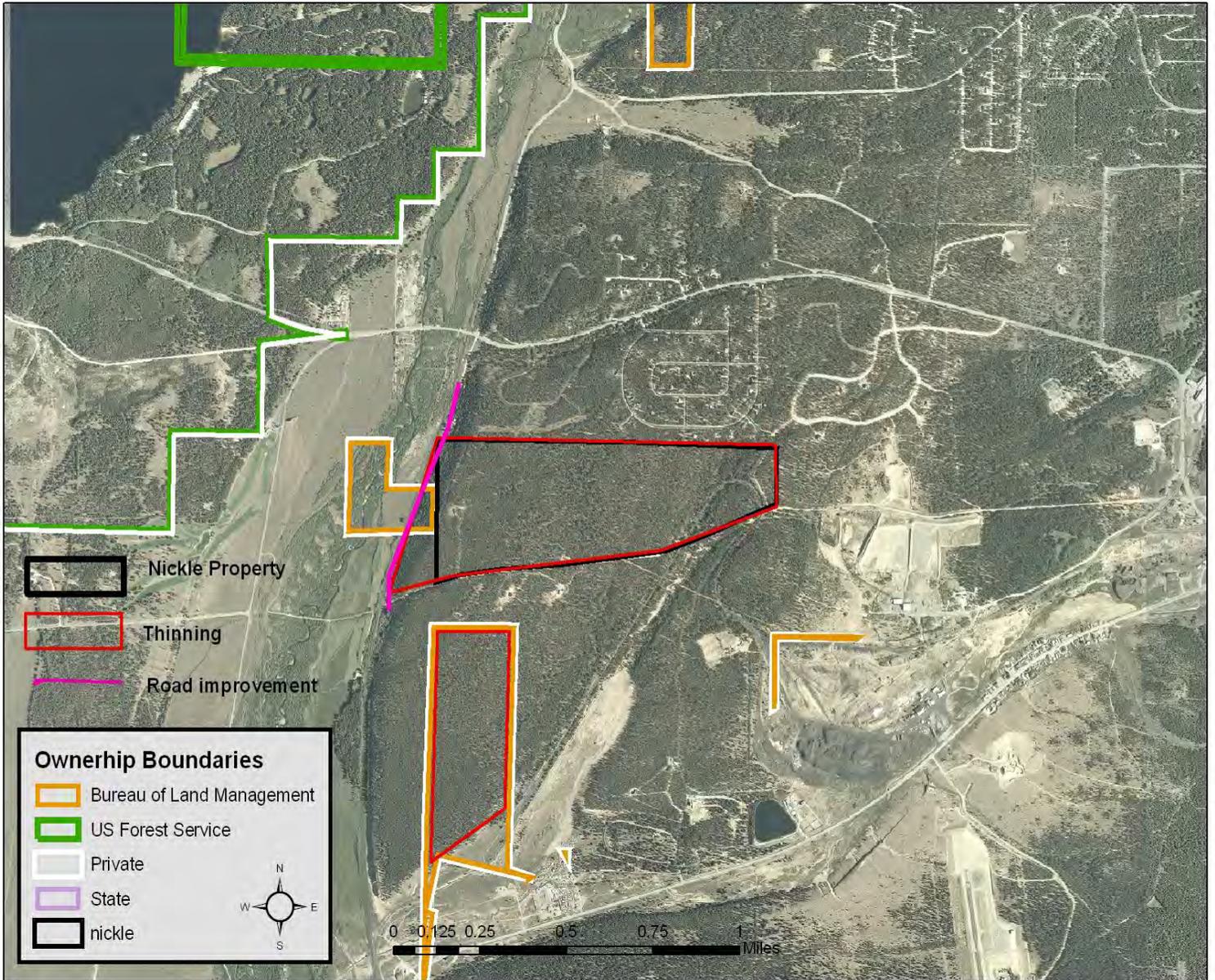
Action Item: Work with neighboring developments to create landscape scale fuelbreak to protect the community as a whole.

Justification: Landscape scale fuelbreaks are more effective in providing wildfire protection to a large area

Action Item: Explore who has ownership over the road that runs north-south and lies to the west of the property. Work with owners to widen road for better ingress/egress in wildfire situations.

Justification: Ingress/ egress can be a dangerous situation when wildfire is threatening an area, planning ahead for those situations can reduce confusion and traffic jams.

Map 4.12 – Nickle Property



Pan Ark Subdivision

Pan Ark subdivision is accessed by heading south of Leadville on Highway 24 to County Road 10 and 24. Stay left on County Road 10 when County Roads 10 & 24 split. Turn right onto County Road 10M. The Pan Ark subdivision is bordered by federal lands on the west and south and state lands on the north and east. The subdivision is located mainly in lodgepole pine, but mixed conifer along with lodgepole pine exists on USFS lands. State lands are a mix of lodgepole pine, aspen and sagebrush. Members of the Pan Ark subdivision have formed a healthy forest committee to try and address forest health and wildfire concerns in their subdivision. There are approximately 1,100 lots in the subdivision and they range in size from one half acre to one-quarter acre. The large majority of lots in the subdivision are undeveloped and owned by out of state parties.

Action Items Include:

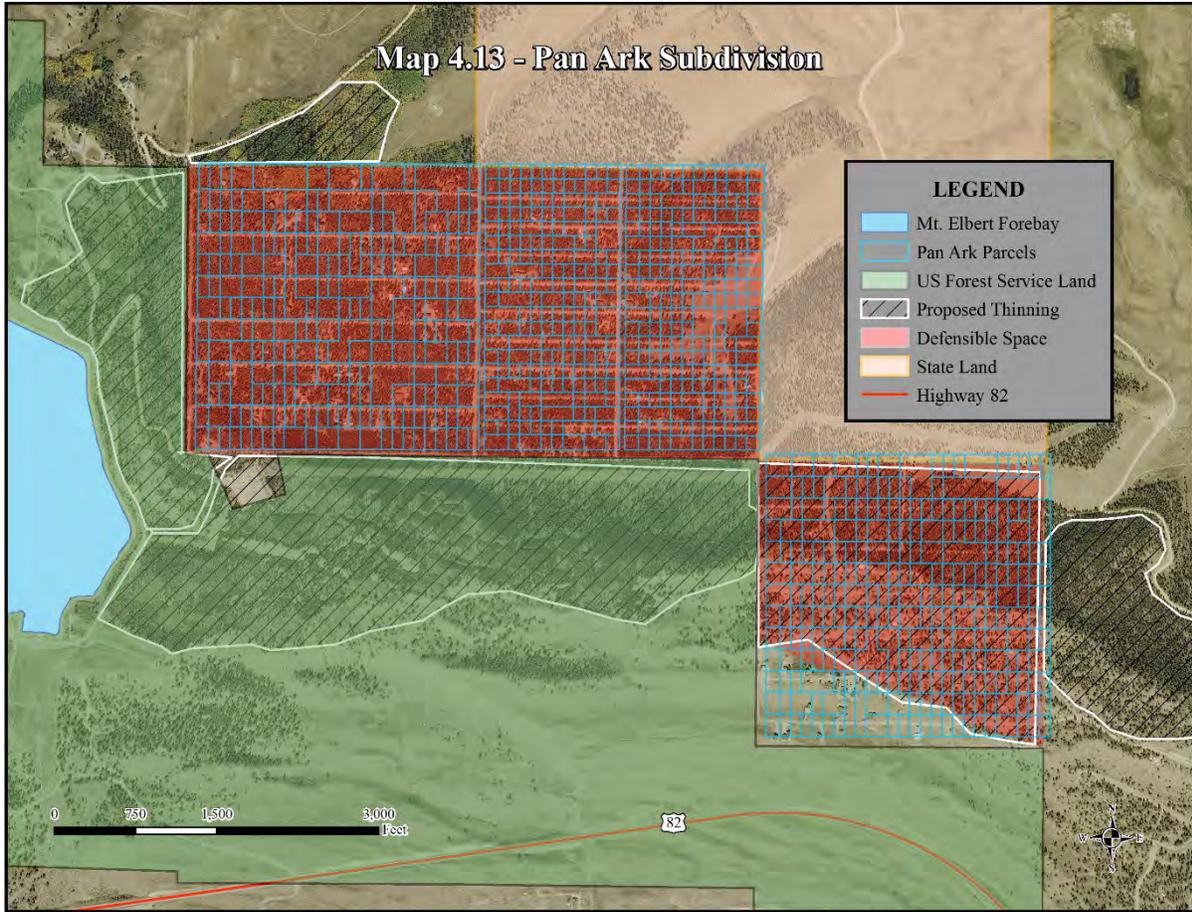
Action Item: The subdivision supports the USFS thinning on the federal lands surrounding the subdivision.

Justification: By reducing the fuel load on federal forest lands, the fire danger to the subdivision will be reduced.

Action Item: Slash removal and other hazardous fuel reduction work are needed within the subdivision to create defensible space.

Justification: Fire mitigation efforts on private property will increase property owner's chances of survivability in the event of a wildfire.

Map 4.13 - Pan Ark Subdivision



Piney Run Subdivision

Piney Run subdivision is accessed by heading north on US highway 24 from Leadville. Piney Run is located directly north of the Sylvan Lakes community. Residents are concerned that minimal fire suppression would occur next to their properties due to unexploded ordnances (UXO) and therefore support aggressive thinning to counter act this.

Action Item: Address FireWise issues such as water source for fighting fire, and request funding to secure some type of water storage or dry hydrant system.

Justification: Have water on hand to supply engines fighting structure fires and wildfires.

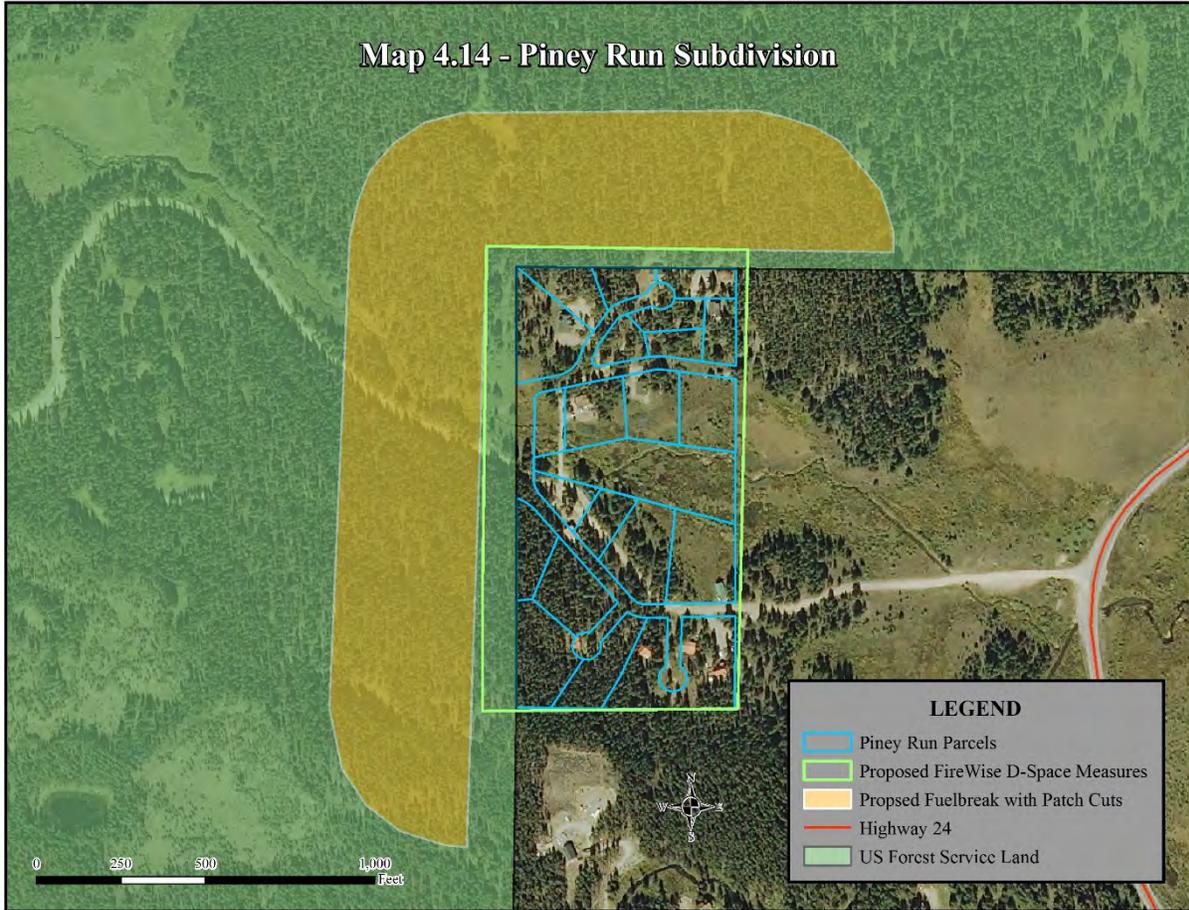
Action Item: Piney Run borders the USFS to the north and the west of the subdivision and support 1-5 acres patch cuts and aggressive thinning treatment. Piney Run residents want the USFS to create a fuelbreak that surrounds the community. The riparian zone around Crane Creek is home to elk, deer, beaver and other small animals. The residents have asked that no treatments take place in the meadows which provide the habitat.

Justification: An aggressive thinning approach ensures the residents of Piney Run a higher chance of survival in the event of a wildfire even without a high level of fire suppression response due to UXO's.

Action Item: On private property, residents will limb trees and reduce ladder fuels and ground fuels.

Justification: By reducing ladder and ground fuels the residents will decrease the chance of spreading ground fires and preventing crown fires on private property.

Map 4.14 - Piney Run Subdivision



Silver Hills Subdivision

Silver Hills subdivision is located west of the City of Leadville along Mountain View Drive (Lake County Road 17) on Prospect Drive. The subdivision is located within and surrounded mainly by lodgepole pine.

Action Items Include:

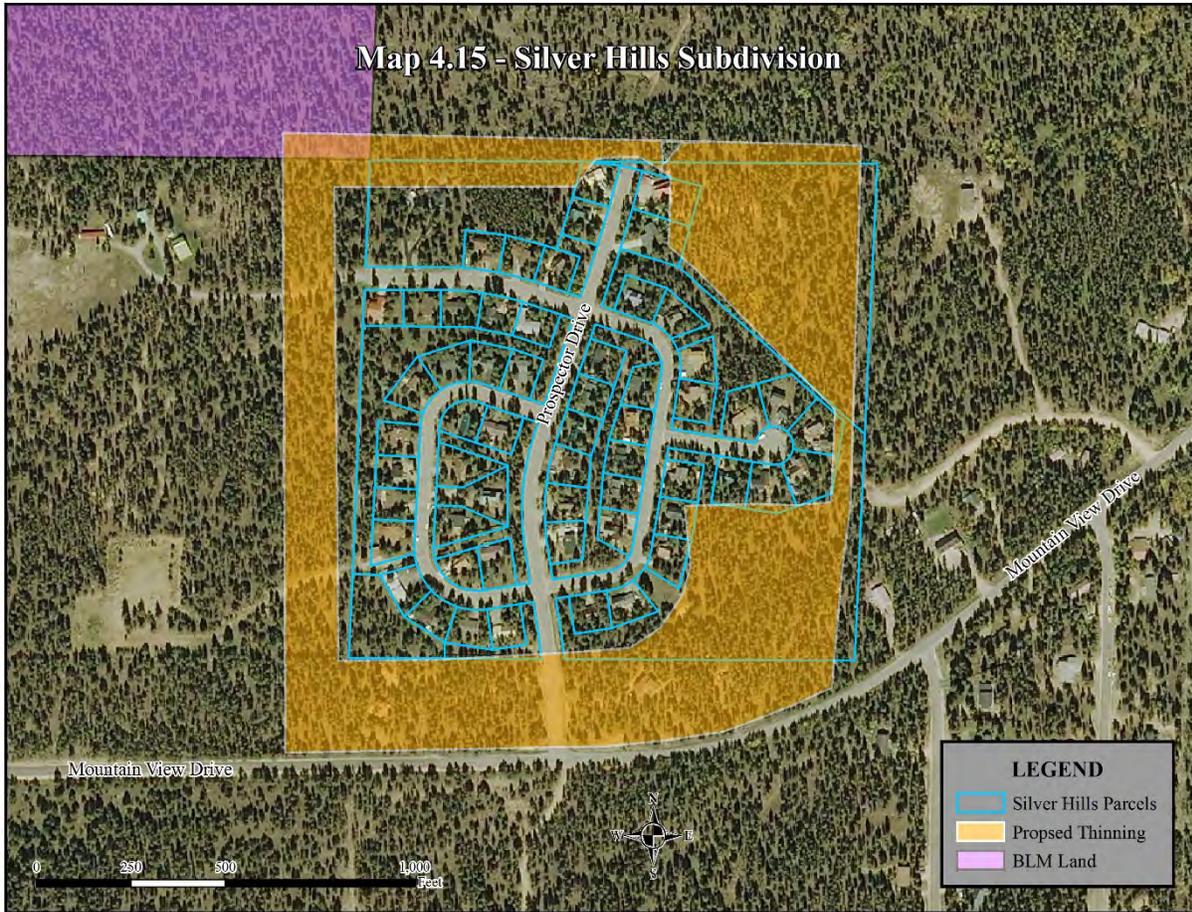
Action Item: Thinning, pruning and limbing are needed on the private HOA greenbelt. The west side of the greenbelt was identified as the priority area.

Justification: By reducing the fuel load in the HOA greenbelt, the fire danger to the subdivision will be reduced.

Action Item: Slash removal and other hazardous fuel reduction work are needed within the subdivision to create defensible space. This action should be second in priority to greenbelt thinning.

Justification: Fire mitigation efforts on private property will increase property owner's chances of survivability in the event of a wildfire.

Map 4.15 - Silver Hills Subdivision



Sugarloaf Mountain Properties, LLLP; Dinero Mining Properties, LLC; Silverwave Properties, LLC; Turquoise Lake Properties, LLC

These properties are a collection of mining claims located less than one mile south of Turquoise Lake. Although the properties are close to the lake there is a ridgeline between the lake and the mining claims. There was active mining on these properties from the 1880's thru the mid-1900's. The dominant species on the properties are lodgepole pine, Engelmann spruce and subalpine fir, respectively. These properties are a part of the State of Colorado's Forest Agriculture program.

These action items include:

Action Item: Continue to thin portions of the property each year for wildfire mitigation.

Justification: Thinning will enhance forest health and provide better fire protection for the area.

Action Item: Encourages thinning for fire protection on Bureau of Land Management and US Forest Service lands adjacent to these properties.

Justification: Thinning will enhance forest health and provide better fire protection for the area.

Action Item: Create a wildfire defensible space around structures.

Justification: By continuing fire mitigation efforts on private property, the owners will increase their chances of survivability and protection of property in the event of a wildfire.

Action Item: Work to widen existing roads for better ingress/egress in wildfire situations. There are many mining reclamation projects going on in and around these properties, which means that people and machinery may be in danger in the case of a wildfire occurrence.

Justification: Ingress/ egress can be a dangerous situation when wildfire is threatening an area, planning ahead for those situations can reduce confusion and traffic jams.

Please note that the map for this property is still being developed.

More Discussion Required before any Implementation

Town of Twin Lakes

Initial discussions with the Twin Lakes community were purely conceptual in nature; any further action is understood to be subject to additional community meetings. This town is located approximately 6 miles west of Balltown on Highway 82. The town was platted in the 1860's and occupies 30 acres with 113 lots. All of the road systems around the town are gravel and will support only one lane of traffic. The nearest pressurized hydrant is located east of town at the Mount Elbert Power Plant. In 1994, an Urban Wildfire Interface Plan was completed for the town. In the plan a wildfire hazard rating of HIGH was given to the town.

A meeting was held on November 5, 2006 at the school house in Twin Lakes to discuss the CWPP process. Input was gathered at the meeting from residents regarding locations for possible fuel treatments such as thinning of lodgepole pine, prescribed burning, or areas where no treatment was desired. It was determined that participants' recommendations were a starting point for further discussions and before implementation, further meetings would need to take place to gather more input from residents of Twin Lakes. Below is a list of action items participants at the November 5th meeting suggested for future consideration:

Topic 1: As a result of high tourist traffic, west of Twin Lakes along the Highway 82 corridor was identified as an area of concern for high probability of ignition. To reduce the fire danger several thinning treatment areas of lodgepole pine were identified; areas identified are located on USFS land.

Justification: By reducing the fuel load, the fire danger would decrease.

Topic 2: A small area of aspen west of town along the Highway 82 corridor was identified as no treatment.

Justification: Aspen can potentially be a good fuel break to reduce the spread of wildfire.

Topic 3: Northwest of town, an area of lodgepole pine on USFS land was identified for thinning.

Justification: To reduce the threat of fire approaching the town.

Topic 4: Two prescribed burn treatments were identified. One is located near the west end of the lake on USFS land and the other is located northeast of town.

Justification: Improve forest health and decrease the threat of wildfire.

Topic 5: Thinning lodgepole pine was identified northeast of town in the area of the White Star campground (USFS lands).

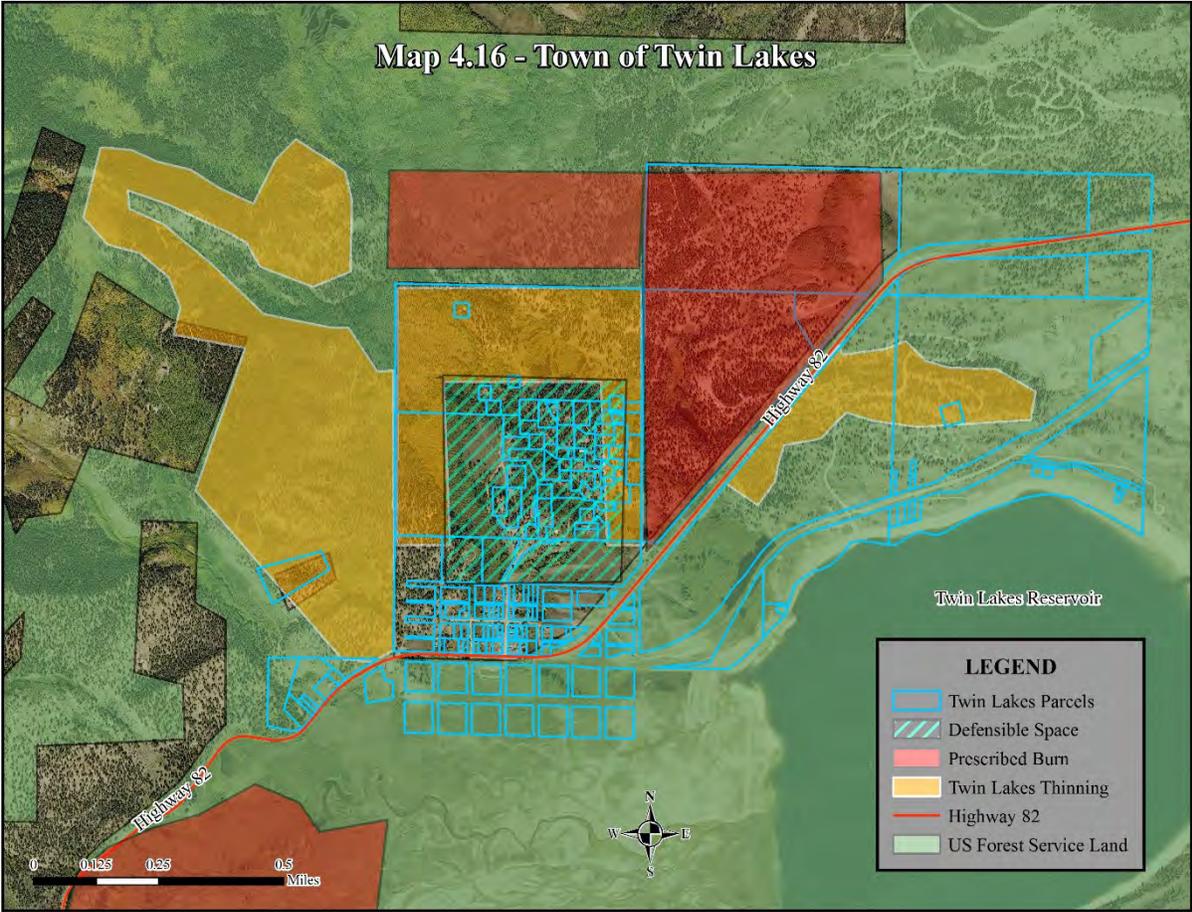
Justification: Campgrounds have the potential to have a high probability of ignition by humans. To reduce the threat of wildfire and increase forest health a thinning was recommended.

Topic 6: Five areas were identified for no treatment – these areas need to be identified in more detail in future meetings.

Topic 7: Decrease fire risk from a grass fire with a prescribed burn in the area south of Highway 82 directly across from the town of Twin Lakes (Twin Lakes Historic District).

Topic 8: The increase of mountain pine beetle infestation on both federal and private lands is of particular concern to the residents of these subdivisions.

Map 4.16 - Town of Twin Lakes



Turquoise Lake Estates

Turquoise Lake Estates is accessed by heading west of the City of Leadville on County Road 4 (Turquoise Lake Road) and turning left on Baby Doe Drive. The subdivision is located within and surrounded mainly by lodgepole pine.

Action Items Include:

Action Item: Slash removal and other hazardous fuel reduction work are needed within the subdivision to create defensible space.

Justification: Fire mitigation efforts on private property will increase property owner's chances of survivability in the event of a wildfire.

Action Item: Request Lake County to establish wider shoulders on County Road 4.

Justification: Widening of shoulders on County Road 4 will allow for effective emergency exits of residents in case of fire.

Action Item: Encourage conservation planting of aspen and other fire resistant species on two or more acre tracks of property within the subdivision.

Justification: Aspen are a more fire resistant species and will increase property owner's chances of survivability in the event of a wildfire.

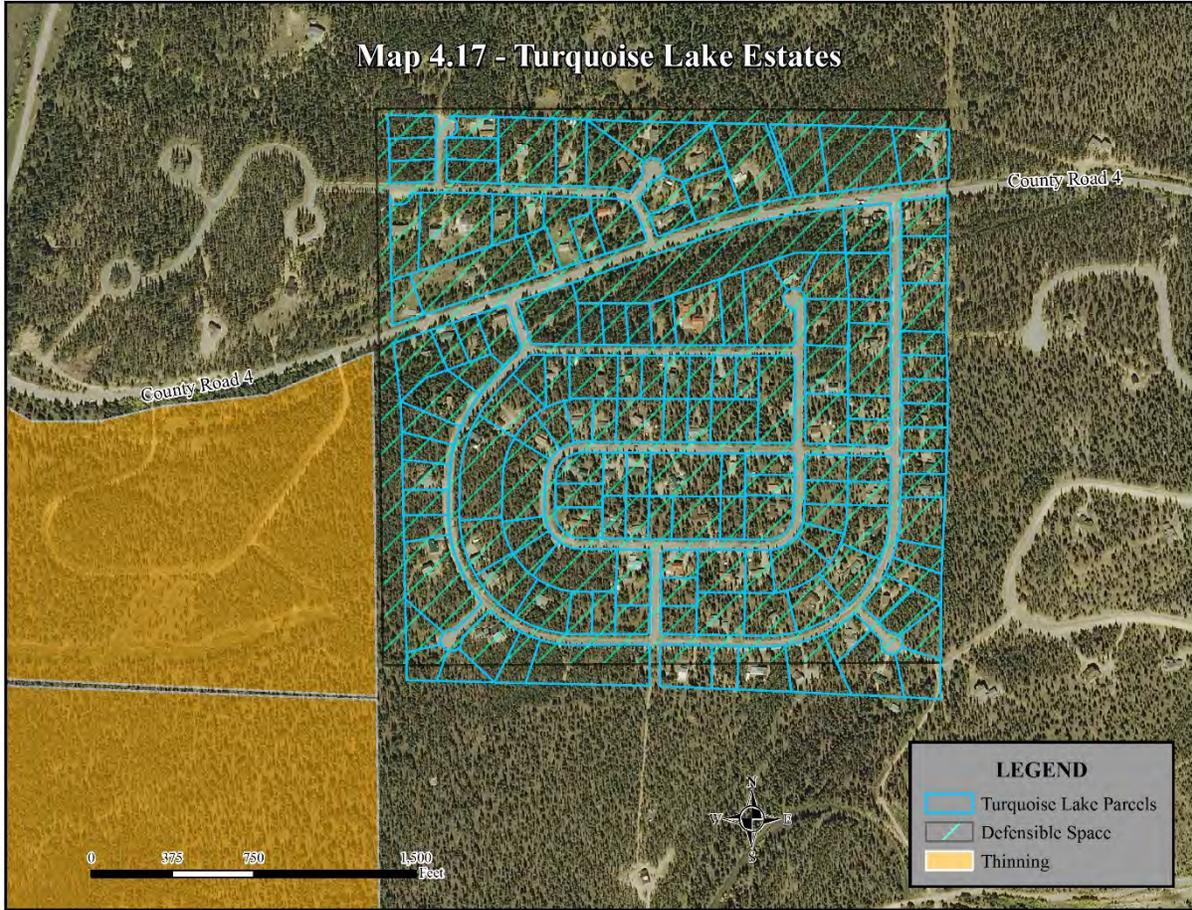
Action Item: Support treatments such as thinning on BLM land.

Justification: By reducing the fuel load on federal lands, the fire danger to the subdivision will be reduced.

Action Item: Numbering on houses should be clear and visible for the Fire Department and other organizations to read

Justification: Clear and visible house numbering will make it easier for emergency personnel to identify properties in any emergency, especially at night.

Map 4.17 - Turquoise Lake Estates



Chapter Five: Next Steps

a. Requested Funding for Fiscal Year 2006/2007 and administrative oversight

In the fall of 2005, the CWPP Taskforce realized that the available funding would not be enough to cover the expenses needed to complete a thorough Lake County CWPP. The CWPP Taskforce, with the Natural Resources Management Program (NRM) at the Colorado Mountain College, submitted and received a Wildland Urban Interface grant from the Colorado State Forest Service for \$25,090 in 2006. NRM, along with other cooperating agencies, plan to match the amount with in-kind work. The grant provided funding to meet with additional HOA's/subdivisions and neighborhoods as well as large private land owners for inclusion in the CWPP. NRM also updated and created new GIS maps and was able to ground truth subdivision boundaries utilizing GPS units.

b. Effectiveness of Neighborhood Treatments

Completion of this CWPP will allow neighborhoods and private property owners to seek funding, with the CWPP Taskforce, any other group, or independently. The neighborhoods' preferred treatments were identified with two objectives in mind:

1. To reduce the risk of ignition of a wildland fire, and reduce the risk of a surface fire evolving into a canopy fire.
2. To maximize defenses by increasing maneuverability around the property/neighborhood, improving the chances for fire crews to suppress and/or modify the direction of a fire, and increasing the chances of safe evacuation for residents and their pets.

All residents have been informed that treatments of any kind may not guarantee the safety of a neighborhood. Once a full-fledged canopy fire has established itself, it has a high chance of being unstoppable and unmaneuverable, even if thinnings and/or patchcuts have taken place. In order to ensure that the two treatment objectives listed above can be met by the identified treatments, neighborhoods should consider increasing the effectiveness of their choices by consulting forest fire experts such as incident commanders, fire ecologists, forest consultants, or other expertise on forest fire dynamics.

c. Priorities for Protection Capabilities and Reducing Structural Ignitability for Fiscal Year 2006/2007 forward.

Learning from the initial CWPP process, the Taskforce continued to reach out to all neighborhoods within Lake County in Phase II of the CWPP. Communities participating in Phase II included: East Twin Lakes Area, Elk Trail, Four Seasons, Mountain Pines Ranch, Pan Ark, Grand West, Pan Ark, Silver Hills, Turquoise Lake Estates, and Twin Lakes. Phase III will be ongoing and will include subdivisions that come to the CWPP Taskforce in the future to be involved in the process.

d. Priorities for Promoting Community Involvement through Education, Information, and Outreach.

At the Public Review of this draft on January 21st, 2006 participants communicated their full support for the collaborative process that has been used in this effort so far. Participants testified to the key

component of visiting with groups of residents in places at times most convenient to them, usually in their homes, or a facility very close by, on the weekend, as opposed to only relying on public hearings in Leadville. Participants also stressed that this willingness of the CWPP Taskforce to go to residents, combined with clear, sound scientific information and an opportunity to discuss all issues was additionally a key component. Without these two components, participants felt their questions and concerns might not have received the response needed to allow productive collaboration that allows trust to evolve among participants. The concepts of collaborative learning, full scientific disclosure and transparency were unanimously supported. In combination with neighborhood visits, participants encouraged future, continued use of all these concepts.

Additionally, the Colorado State Forest Service office in Salida can provide an array of forestry services to private landowners including:

- Forest Management Plans
- FireWise Workshops
- Insect and Disease Site Visits
- Wildfire Defensible Space Consultation
- Mountain Pine Beetle Inspections
- Timber Sale Layout and Administration
- Support for Local Fire Departments
- Tree Seedling Distribution and Survival Product
- Tree Planting Plans (including windbreaks) and Tree Planting
- Conservation Education
- Community Forestry
- Mitigation Services i.e. chipping, thinning, pile burning, small projects
- State Land Forest Management

Other Action Items considered in Phase II and Phase III are:

- Find out when annual home owner association meetings are held as possible venues for CWPP neighborhood meetings.
- Send information for inclusion in HOA newsletters, before their annual meetings.
- Do most active neighborhood meetings in the summer, when forest fire becomes a more salient issue to Lake County residents.
- Include the Division of Wildlife and other wildlife organizations such as Trout Unlimited, Rocky Mountain Elk Foundation, etc. in the CWPP Taskforce.
- Include a list of existing and future subdivisions and ratio of build-out as a reference in future amendments to the CWPP.
- Send copies of CWPP to City and County Planning and Zoning Departments as a reference tool.
- In future versions of the CWPP, fire suppression and water access in neighborhoods needs further discussion.

e. Monitoring Plan.

The CWPP Taskforce will be the monitoring team for projects associated with the CWPP. The Taskforce will serve to ensure that the CWPP remains current and includes additional neighborhoods or other areas as needed. CWPP Taskforce meetings will be held annually to accomplish these objectives. The Colorado State Forest Service, Salida District will use the CWPP in annual work plans to determine where to focus attention and funding to complete forest management on private and state lands. The CWPP Taskforce will coordinate with the CSFS and federal government representatives to ensure goals and objectives are met across property boundaries.

The CWPP Taskforce will schedule bi-annual meetings (March and September) to review the CWPP and to discuss and update the goals and objectives of current and/or future projects.

f. Planned Projects.

The following projects are currently being planned and implemented by the USFS, BLM and FWS.

- Box Creek Vegetation and Travel Management Project (USFS & BLM). A portion of this project will thin stands of lodgepole pine adjacent to the Pan Ark, E.E. Hill, and Elk Run subdivisions. BLM began implementing thinning projects adjacent to the Elk Run subdivision in 2003. In 2006, the USFS began thinning adjacent to the Pan Ark subdivision and the east side of the Mt. Elbert Forebay. In 2007, a mastication project along the south side of the Pan Ark subdivision and the west side of Pan Ark and E. E. Hill subdivisions completed the fuel break in this area.
- Northwest Leadville Hazardous Fuel Reduction Project. The purpose of the project is to create defensible space adjacent to Piney Run and Sylvan Lakes subdivisions, Home Stake Trout Club, Mountain View East Trailer Park, Leadville National Fish Hatchery, and Outward Bound. This project is a cooperative effort between the USFS, FWS, CSFS and affected subdivisions. In 2007, a timber sale was planned to thinning trees behind the Mountain View East Trailer Park; work is scheduled to begin in 2008. Other thinning projects scheduled for 2008 include thinning adjacent to Home Stake Trout Club and Piney Run subdivision.

The following projects are currently in the planning phase by the USFS. These projects are scheduled for implementation in 2008.

- Beaver Lake Estates Fuel Break Project. This project would remove sagebrush along the private property boundary and access road into the subdivision (USFS lands only) to provide a fuel break for Beaver Lakes Estates subdivision on the southern boundary.
- Flume Creek Project. This project would salvage dead trees and trees infested with mountain pine beetle on the southeastern corner of the Twin Lakes.

The following projects are direct results of the CWPP planning process on private lands and are completed or currently underway.

- Pan Ark Healthy Forest Fuels Reduction project- Thirty nine (39) lots were thinned for fire mitigation using federal Steven's Funds as demonstration areas to encourage more lot owners to do the same. This project was completed in the summer of 2007.
- Home Stake Trout Club (HSTC) Fuels Reduction Project- Sixty eight (68) acres of forested land within the HSTC property have been marked for thinning. Thinning will be completed by the Department of Corrections SWIFT crew and will begin in the fall of 2007 and should be completed by the summer of 2008. Funding for this project was provided by the federal Steven's Funds.
- A lot owner in Piney Run subdivision completed fire mitigation on his lot and received financial assistance through the Forest Land Enhancement Program cost share funds.
- A lot owner in Elk Run subdivision started fire mitigation activities on his lot and received financial assistance through the Forest Land Enhancement Program cost share funds

The Colorado State Forest Service remains vigilant in searching for funding opportunities to implement CWPP action items.

DECLARATION OF AGREEMENT AND CONCURRENCE

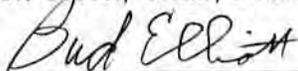
The following partners in the development of this Community Wildfire Protection Plan have reviewed and do mutually agree or concur with its contents:

Agreement



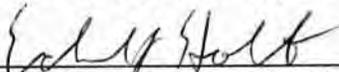
Ken Olsen, Chair, Board of Lake County Commissioners

2/2/06
Date



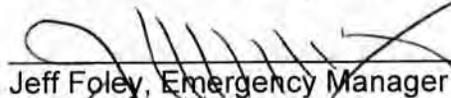
Bud Elliott, Mayor, City of Leadville

1/31/06
Date



Ed Holte, Lake County Sheriff

02-01-06
Date



Jeff Foley, Emergency Manager

1-25-06
Date



Karl Bauer, Chief, Leadville/Lake County
Fire Rescue Department

1/24/06
Date

Concurrence



Damon Lange, Colorado State Forest Service

2-1-06
Date

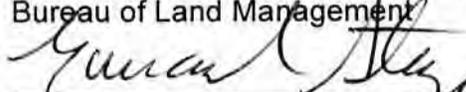


James E. Zornes, District Ranger
Leadville Ranger District, USDA Forest Service

1-30-06
Date

Roy Masinton, Royal Gorge Field Office
Bureau of Land Management

Date



Ed Stege, Leadville National Fish Hatchery
US Fish and Wildlife Service

1/30/06
Date

DECLARATION **OF** AGREEMENT AND CONCURRENCE

The following parties in the development of this Community Wildfire Protection Plan have reviewed and mutually agree or concur with its contents:

Agreement

Mike Hickman, Le6ounty Commissioners

_____ Date

Bud EUJott, Mayor Cfty of Leadville

_____ Date

Ed Hite, Lake County Sheriff

_____ Date

Jell Foley, Erne "fy Manager

_____ Date

Karl Bauer, Chief of Leadville/Lake County Fire Rescue

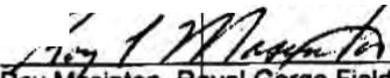
_____ Date

Concurrence

Damon Lange, Colorado State Forest Service

_____ Date

_____ Date


Roy Masinton, Royal Gorge Field Office
Bureau of Land Management

1-23-06
Date

Ed Stege, Leadville National Fish Hatchery
US Fish and Wildlife Service

_____ Date

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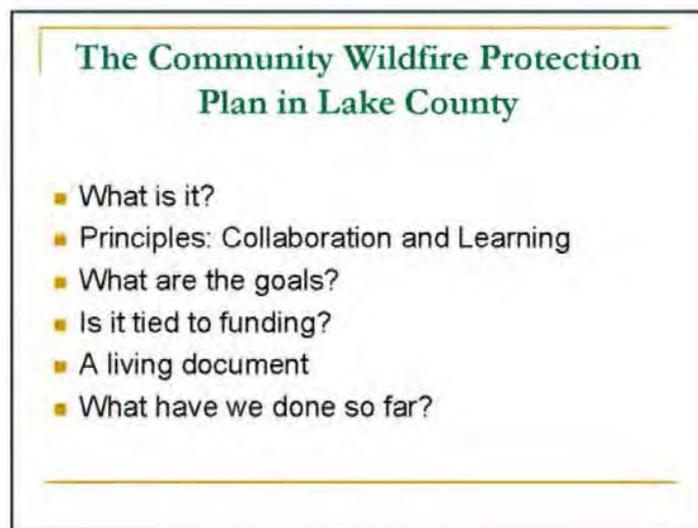
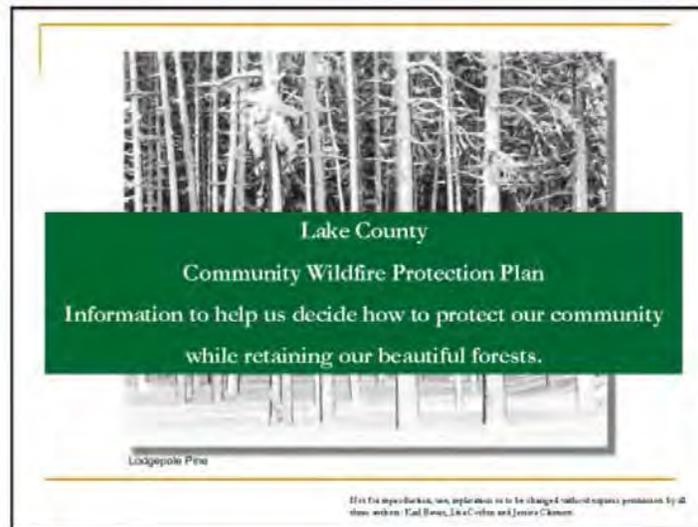
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Appendix A: Lodgepole Pine Ecology, Lake County Fire Regimes and Fire Defense Issues: Presentation provided to neighborhoods and public meetings.

This appendix contains the entire 66 slide presentation made to the neighborhoods for CWPP deliberations in Fall 2005. The first part was compiled by Jessica Clement, as a result of a meeting that was held in May 2004. This meeting was attended by university, land management and non-profit organization forest ecologists and managers to discuss more recent scientific evidence regarding lodgepole pine stand dynamics. The green "Reviewers" notes on these slides are the result of a second review of this scientific evidence by additional academic and USFS forest ecologists and managers. The second part was compiled by Lisa Corbin, Fuels Specialist with the USDA Forest Service Leadville Ranger District and the third part by Leadville and Lake County Fire Rescue Department Chief Karl Bauer.



Lodgepole Pine Ecology Stand development, stand conditions, and fire ecology

Key Points of Forum held in Leadville, May 28, 2004.

Comments from forest ecologists and forest managers from University of Wyoming, Colorado State University and University of Colorado, USDA Forest Service and USDI Bureau of Land Management.

Compiled by Jessica Clement, Colorado State University.

Notes

- The focus of this forum was to review general, lodgepole pine stand ecological knowledge e.g. stand development, historical range of variation and fire behavior, on a large scale.
- Some of the following is based on relatively new scientific evidence using new methodologies, technologies, and larger temporal and spatial scales, and may conflict with previous findings.

Scale:

- Course Scale: Wyoming and Colorado. Variations within this scale may exist.

Notes

- This information provides general ecological information as a possible starting-off point when reviewing your forest conditions. It cannot determine whether treatments in your area are justified, for restoration, WUI or any other purpose. This information is only going to be helpful in combination with:
 - knowledge of local ecological forest conditions and
 - knowledge of community/ collaborative goals.Treatment goals can be related to restoration and/or aesthetics, recreation, wildlife, property protection, etc.

Definitions

- Stand: a group of forest trees of sufficiently uniform species composition, age, and condition to be considered a homogeneous unit for management purposes.
- Historical Range of Variation (HRV): The spatial and temporal variation in composition, structure, function and dynamics experienced in an ecosystem during a period when European-American influences were minimal.



Lodgepole Pine Fire Ecology

1. Lodgepole is not shaped by low intensity, surface fires as in southwest Ponderosa Pine forests.
2. Stand replacing fires have the greatest influence on stand and landscape structure in lodgepole pine forests in Colorado and Wyoming.

Reviewers:

Surface fire on a smaller scale may occur and its role in shaping lodgepole forests in Co. and Wy. needs more investigation: one size may fit most frequently occurring (modal) conditions, but perhaps not all.

Lodgepole Pine Fire Ecology

3. Early scientific literature suggested that low severity surface fires were also important in Lodgepole Pine forests however recent, more methodologically rigorous studies of sufficiently broad spatial scales have found evidence that low severity surface fires were only a minor component.
4. Low intensity surface fires did occur but evidence suggests they did not cover large areas and did not thin the forest.

Reviewers:

- a. "Minor" component might have major ecological, biodiversity importance and b. what about the role of surface fires in mixed stands e.g. LPP/aspen or LPP/subalpine? Thinning might be more prevalent.

Lodgepole Pine Fire Ecology

5. Lodgepole pine can exist as a component of a mixed stand where its fire behavior may be different.
6. Forest management policies over the past 40 years have created lodgepole landscapes characterized by smaller patches and greater fragmentation than would have been seen under natural conditions. Very large patches are expected under historical stand-replacing fire regime.

Reviewers:

In LPP there seems to be room for more investigation. May be very different between Co. (more suburban fragmentation?) and Wy.

Lodgepole Pine Fire Ecology

7. It is not possible to exclude fire from lodgepole pine forests.
Or: No matter how often suppressed, eventually a stand-replacing fire will happen.
8. The ecologically most important fires in Lodgepole pine forests occur under dry windy conditions when the fires burn with high intensity and are essentially uncontrollable, regardless of fuel condition or stand structure.

See reviewers' notes re. "ecologically most important fires" and next slide.

Lodgepole Pine Fire Ecology

9. **These high intensity fires in lodgepole pine under dry windy conditions cannot be suppressed. Like hurricanes and tornadoes these natural events cannot be stopped.**

Reviewers: General agreement that on a large temporal and spatial scale stand-replacing events will happen and cannot be stopped. But: locally, fire behavior can change naturally, due to wind direction/speed and fire physics changes, and by human intervention. These smaller, unburned/less severely burned areas may be ecologically important.

Lodgepole Pine Fire Ecology

10. Fire is not a threat to the long term sustainability of the forest ecosystem. Lodgepole pine can withstand differing fire intensities and severities.
11. Under less extreme weather conditions, mid age, approx. 80-200 year old, lodgepole pine stands are less prone to severe fire. Stands that are more prone are those with ladder fuels such as older stands, stands with dwarf mistletoe and some thinned forests with regeneration and/or activity fuels.



Lodgepole Pine Stand Conditions

1. Dense lodgepole stands are within HRV and are natural.
 2. The open savannah-like stands that we associate with southwestern ponderosa pine forests are rare in lodgepole pine forests.
 3. Lodgepole forests under a natural fire regime are highly variable in density – depending on serotiny, fire severity, site and time since fire.
-

Lodgepole Pine Fire Ecology

12. Under extreme weather conditions, stand structure makes little difference with respect to fire spread and severity. Most of the areas will burn under these conditions.
 13. The techniques available to protect homes and lives in the face of a high intensity lodgepole pine fire should include the Firewise program and creating defensible space.
-

Lodgepole Pine Stand Conditions

4. Thinning would create stand structures that are approximately within HRV, but extensive thinning would create a landscape structure that was unprecedented.

Reviewers: Depends on scale – most agree that thinning on a smaller scale could be within HRV.

5. Thinning is not needed to restore to HRV but individual stands could be thinned and still resemble HRV at the stand level.

Lodgepole Pine Stand Conditions

13. Unplanned consequences of thinning may include:

- Blowdown
- invasive species
- drier and more surface fuels
- increase in herbaceous species
- increased tree regeneration, leading to ladder fuels
- decline of shade tolerant species, e.g. orchids,
- and may generate conditions outside HRV

Reviewers:

- Another unintended consequence of thinning LPP could be increased infestations of dwarf-mistletoe.

Lodgepole Pine Stand Conditions

12. Planned consequences of thinning in lodgepole pine stands may include, depending on management objectives:

- Increased herbaceous production but soils and light deficiency may reduce this effect.
- May reduce the possibility of crown fire and the intensity of crown fire under less extreme conditions.
- Remnant trees will likely increase in height and diameter due to lack of competition.
- Decrease susceptibility to mountain pine beetle.

Reviewers: Add "thinned LPP tend not to self prune and have larger crowns."

Lodgepole Pine Stand Conditions

Dwarf Mistletoe is part of the ecosystem but:

- Although dwarf mistletoe is native, its historical extent is not known.
- Historically a landscape would have included a mosaic of infected and uninfected patches but the extent of infection is unclear.
- Harvest and leaving infected residuals is well-known to artificially increase mistletoe.
- Stand-replacing fires tends to sanitize stands, regeneration tends to be free of mistletoe.

Lodgepole Pine Stand Conditions

Mountain Pine Beetle is a native insect and is an important component of disturbance regime in lodgepole forests and:

- MPB has always been part of the landscape but historical extent and severity of outbreaks is not well understood. Large outbreaks were probably likely given the fire regime for lodgepole pine forests.
- MPB was not an important factor above 10,000 feet but is becoming more important in the future due to changes in climate.

Reviewers: MPB now affecting lodgepole pine stands above 10,000 feet.



Ecologically Compatible Approaches to Treatments

Vegetation treatments that mimic the effects of natural disturbances will be most ecologically compatible. To the extent possible, reconstruction of pre-settlement structure, composition and disturbance dynamics will aid in finding the most ecologically compatible approach for treatments.

- The Empiricist Reviewer say: Forests are robust and can handle some ecological “incompatible” treatments, up to a point. Still, a good philosophy.

Ecologically Compatible Approaches

Reviewers: Depending on Objectives

1. Variable retention harvest – clumps of live and dead trees, large wood on the ground.
2. Aggregate cutting units rather than dispersing them throughout the landscape.
3. Consider prescribed burning within treatment units and allow burning to kill some remnant trees.

Ecologically Compatible Approaches: Possible Examples

5. It may be possible to influence fire spread and intensity through strategic placement of vegetation treatment units. The most effective approach is to concentrate these near structures.
6. Consider allowing wildland fire use.

Thinning – can be various densities



Thinning: May help us redirect fire, keep it to the surface, or even put it out – only under mixed severity or low severity conditions. In extremely severe conditions, there's little chance of manipulating fire at all.



Aspen, Grasses, Defensible Space!



Contributions

Participants at this scientific discourse were:

Greg Aplet, William Baker, Dan Binkley, Jan Burke, Frank Cross, Laurie Huckaby, Merrill Kaufmann, Dominic Kulakowski, Roy Mask, Claudia Regan, William Romme, David Shadis, Jim Worral, Jim Zornes. Organized and facilitated by Jessica Clement.

With thanks to:

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With financial support from:

a USDA Forest Service Rural Community Assistance Grant.

Fire Regimes: How often do fires occur & how intense can they be?

Lisa Corbin
USDA Forest Service

Grass Fire



- Typically burns every 0 – 35 years.
- Typically burns as a low to moderate intensity surface fire.
- Man has influenced fire in grass through:
 - Grazing
 - Lack of Fire (Human)
 - Fire Suppression
 - Building Communities

Sagebrush Fire



- Typically burns every 0 – 50 years.
- Typically burns as a moderate to high intensity crown fire.
- Man has influenced fire in sagebrush through:
 - Grazing
 - Lack of Fire (Human)
 - Fire Suppression
 - Building Communities

Ponderosa Pine Fire

- Typically burns every 0 – 35 years.
- Typically burns as a low to moderate intensity surface fire.
- The predominate carrier of fire in ponderosa pine is grass and needle litter.
- Man's influence in this vegetation type is similar to the grass type.



Lodgepole Pine

- Typically burns every 100 – 300 years.
- The average age of lodgepole pine forests near Leadville is approximately 125 – 150 years.
- 95 – 98% of fires will be single tree or small fires (low number of acres burned).
- The remaining 2 – 5% will be a crown fire (high number of acres burned).



Crown Fire in Trees - Examples





Suppression Capabilities



Suppression Capabilities - Local

- Leadville Lake County Fire Department – Brush Engine and Structure Engine.
- Forest Service Brush Engine – Located in Salida (E-261).
- Militia Forces available from Forest Service – Leadville Ranger District.
 - These are district personnel that are “Red Carded” (qualified to fight fire) but do not do fire as a primary position.

Suppression Capabilities – Large Fire Incident

- Within 2 to 4 hours:
 - Air tankers, helicopters
 - Handcrews
 - Additional Fire Engines from surrounding area (Forest Service, Bureau of Land Management, Fish and Wildlife Service, local County Fire Departments)
- Within 12 to 24 hours:
 - Overhead Team to manage the fire
 - Additional resources such as airtankers, handcrews, fire engines and support personnel

What firefighters can't do.

- **Firefighters cannot stop a crown fire.**
 - Changes in weather typically stop crown fires.
 - Types of changes in weather include:
 - Reduced winds
 - Large snow or rain storm
 - Changes in vegetation types may slow fire spread.
 - Fires moving from timber to grass, brush or tundra.

What firefighters can do.

- Firefighters can stop small fires and fires that remain on the surface.
- Firefighters can mitigate the effects a wildfire has on a community through thinning and prescribed burning treatments.
- Thinning and prescribed fires may help firefighters re-direct a large wildfire in lodgepole pine.

Wildfire Causes



Wildfire Causes

- **Human causes:**
 - Accidental: campfires, vehicle fires, cigarettes
 - Intentional: arson fires
 - Other: power lines, transformers
- **Natural causes:**
 - Lightning
 - Volcanic activity
 - Coal seam fires



Wildfire Consequences

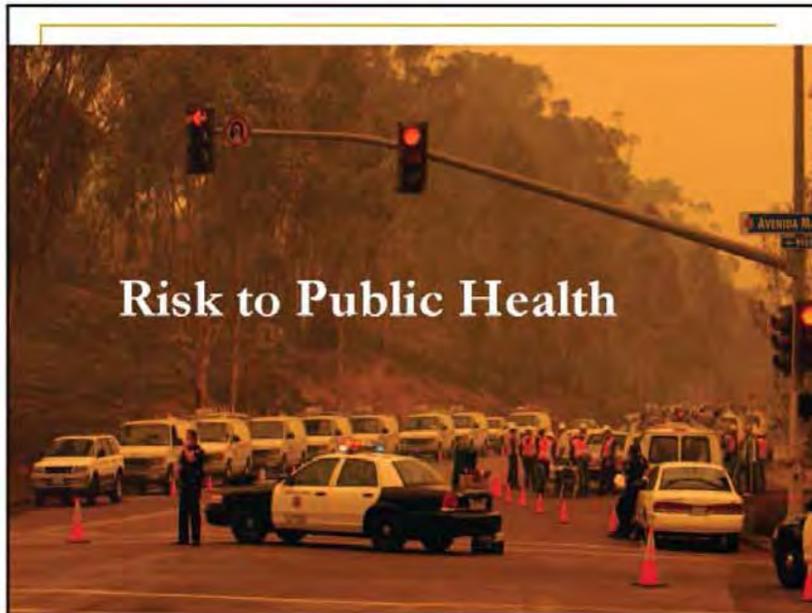
- What happens when they burn?
 - About 95% of all wildfires remain small or are suppressed prior to becoming consequential.
 - *However...*

Wildfire Consequences

Given the right conditions of fuel, weather and topography, small wildfires will quickly grow into large ones that pose serious consequences for people, communities, the forest and surrounding areas.

These consequences include:





Wildfire Consequences

**Large
Suppression
Costs**

**Large
Suppression
Costs**

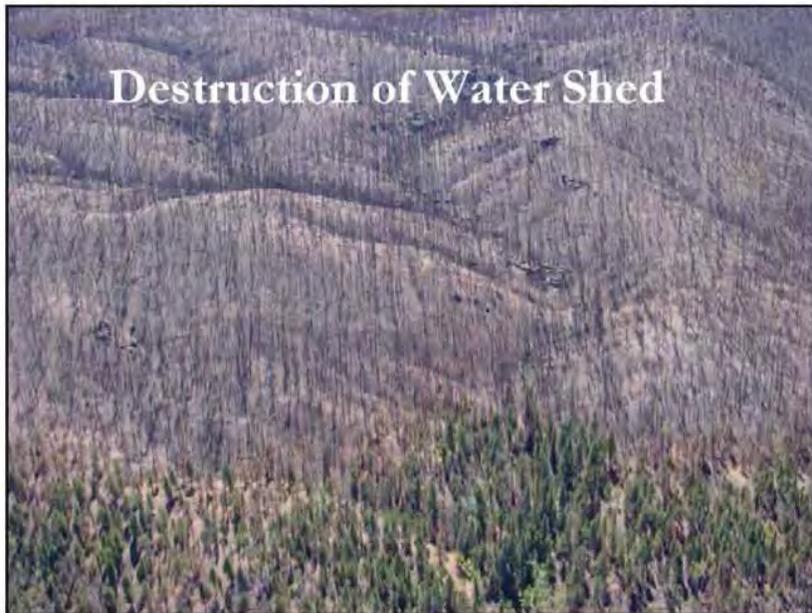
Wildfire Consequences

- **Paradise Fire**
 - Firefighters Assigned at Peak: 2,222
 - Estimated Suppression Cost: \$13,000,000
- **Cedar Fire**
 - Firefighters assigned at Peak: 4,275
 - Estimated Suppression Cost: \$29,880,826
- **Rodeo-Chediski Fire**
 - Firefighters assigned at Peak: 6,000
 - Estimate Suppression Cost: \$43.1 M

Wildfire Consequences

Loss of View Shed





Wildfire Consequences

**Uncontrollable
Fire Behavior**



Wildfire Consequences

Disruption of Personal Lives



Wildfire Consequences

Danger to Suppression Forces



Wildfire Consequences

Deadly Fire Conditions

Lives Lost:

Paradise Fire: 2

Cedar Fire: 14

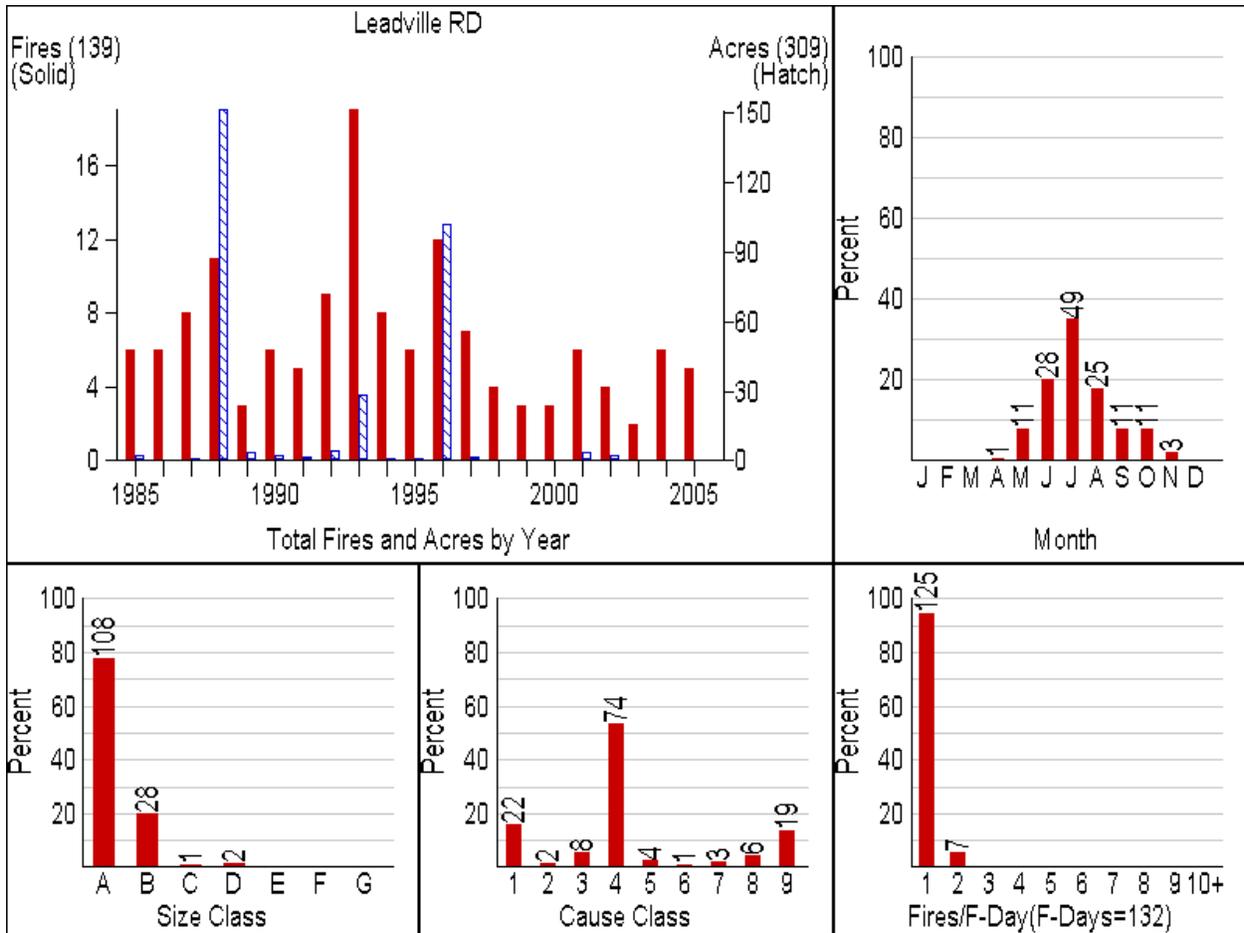
Oakland Hills Fire: 25



**Learning
and
Planning
are the
Keys to
Success
to Living
with
Wildfire!**

Questions/Comments?

Appendix B. A History of Fire in the Leadville Ranger District (provided by USFS)



Sylvan Lakes Community

Wildfire Mitigation Plan



Rev: July 1, 2014

Table of Contents

1. Scope & Purpose
2. Reference Documents
3. Definitions & Terms
4. Policy, Approach & Methods
5. Community Resources
6. Individual Rights & Responsibilities
7. Yearly cycle
8. Responsibility of Sylvan Lakes Property Owner Association (SLPOA)
9. Involvement of Sylvan Lakes Metro District
10. Involvement of the WM group & Mitigation Coordinator
11. Involvement with USFS, CO State Forest Service & The Lake County Office of Emergency Management (LCOEM) & Fire Department
12. Insurance Issues
13. Emergency Egress
14. Taxes issues, HB1009 Tony Exum D-Colorado Tax Issues, up to \$2500.00 deduction
15. Addendum
 - i. Possible Emergency Egress Map
 - ii. Tennessee Creek Project Treatment Area Map
 - iii. DNR CSES Wildfire Risk Assessment 2012 Map
 - iv. Sylvan Lakes Area Google Map

1. Scope & Purpose

The purpose of this plan is to serve as a collective guide for the Sylvan Lakes Community of Lake County, Colorado by describing individual and community methods, objectives and principals used in the lessening or mitigation of vulnerability to the damaging power of residential and forest wildfire to the homes and families of the Sylvan Lakes Community. It is understood that the Sylvan Lakes Community is in the heart of the Wildland Urban Interface (WUI) and that our homes are in the midst of and highly integrated with the San Isabel National Forest in a zone defined by the Forest Service maps a high hazard area.

2. Reference Documents & Maps (found in the Addendum)

- a. 2012 CSFS Wildfire Mitigation QuickGuide
- b. Firewise Communities USA/Recognition Program
- c. The Community Wildfire Protection Plan (CWPP) of Lake County Colorado
- d. Information: CSFS Assistance with Homeowner WM needs & Insurance Co.
- e. Lake County Guide to Forest Health & Defensible Space
- f. CO DOR FYI Tax deduction info from CSFS Income 65
- g. 2014 2-7 TREASURE FIRE AAR 7-1-12 (2)
- h. 2014 2-11 x MAP Egress Road on NFS land
- i. 2011 7-1 § 261.56 Use of vehicles off National Forest System roads
- j. '2014 January 14, 2014 SLMD Master Map w UTM DATUM

Wildfire Mitigation

3. Definitions, Terms and Acronyms.

ASL1 (Arboreal Skill Level 1): Able to drag brush, build a slash pile and do unskilled labor. (Insured as 1099 type private contractor).

ASL2 (Arboreal Skill Level 2): Able to prune fallen trees, cut fallen trees, do simple chainsaw maintenance & direct labor crews (Insured as 1099 type private contractor).

ASL3 (Arboreal Skill Level 3): Able to fall simple, un-obstructed trees, plan an acre cut and all simpler skills. (Insured as 1099 type private contractor).

ASL4 (Arboreal Skill Level 4): Able to fall complex and obstructed trees near structures or other trees, able to prune higher levels, able to supervise teams and all simpler tasks and fully insured for all possible damages or personal injuries.

BOCC: Board of County Commissioners

Crown Fire: A very aggressive & fast moving wild fire jumping from tree top to tree top (crown to crown) as opposed to a slow moving ground or grass fire

CSFS: Colorado State Forest Service

CWPP: Community Wildfire Protection Plan

Firewise: A program under the auspices of the NFPA to identify and promote communities that take Wildfire Mitigation and related issues seriously.

Fuels: Things that burn

Gypsy Moth Fungus: *Entomophaga maimaiga* is a Japanese fungus which has shown striking success in managing Gypsy Moth populations in North America.

Ladder Fuels: Tree branches or shorter trees that will form a ‘burning ladder’ up into the higher canopy of a tree/the forest where fire is much more dangerous.

LC: Lake County

MVUM: Motor Vehicle Use Map (Authorized Road by the USFS)

NFPA: National Fire Protection Agency

Pine Beetle: Mountain pine beetle (MPB), *Dendroctonus ponderosae*, is native to the forests of western North America. Periodic outbreaks of the insect, previously called the Black Hills beetle or Rocky Mountain pine beetle, can result in losses of millions of trees. Outbreaks develop irrespective of property lines, being equally evident in wilderness areas, mountain subdivisions and back yards. Even windbreak or landscape pines many miles from the mountains can succumb to beetles imported in infested firewood.

Pruning: Cutting unwanted branches from a tree.

SLMD: Sylvan Lakes Metro District

SLPOA: Sylvan Lakes Property Owner Association

Thinning: Cutting down & removing weak, diseased or susceptible trees.

USFS: United States Forest Service (Leadville Ranger District)

USFS District Ranger: A government employee whose job is serving the best interest of the citizens of the United States before the administrative devotion to internal regulations and procedures which thereby enhance yearly performance appraisals and therein promotes the personal career at the expense of citizen safety.

Wildfire Mitigation: Describes efforts to decrease the community vulnerability to wildfire as well as minimizing the probability of starting a wildfire due to human residential sources. This involves efforts such as cutting and removing dead trees and brush, removing flammable materials from vulnerable spots (such as removing piles of dead brush, removing cans of gasoline and kindling wood from the surface of or underneath a deck, placing firewood stacks in a safe location, all purpose thinning, etc).

Wildland Urban Interface (WUI): The place where homes meet the forest, or at the city limits where buildings meet the forest.

WM: wildfire Mitigation

Zone 1: Within 30 feet of a residence.

Zone 2: From 30 ft. to 100 ft. of a residence.

Zone 3: Outside of 100 ft. from a residence.

4. Policy, Approach & Methods

The Sylvan Lakes Community approach MUST be 100% voluntary. It is believed that the considerable majority of people realize that when it comes to issues surrounding wildfire and residential fire, the safety of our family members and value of our property, there is a great common cause. The approach of the Sylvan Lakes Community Wildfire Mitigation effort is to learn, to teach and to work for the decreased probability of severe and life threatening effects of fire. Naturally, some residents will be reluctant at first and maybe forever. But once the effort is established as a valid project that is in the best interest of both the individual and the community as a whole, those who are reluctant at first will eventually join the effort. It is believed that an enthusiastic willing volunteer contributes substantially more than an unwilling resident. Who is in favor of burning to death? Maybe a Buddhist Monk in Vietnam, but not the average parent and homeowner in the Sylvan Lakes Community. This is a VOLUNTARY effort. Individuals are absolutely free to participate or not. A voluntary participant is far more valuable than a reluctant person who has been mandated.

It shall be the policy of the Sylvan Lakes Community to support all emergency situations in and around the Sylvan Lakes and Lake County area. This includes search and rescue, fire fighting, medical situations, etc.

It shall be the policy of Sylvan Lakes Community to support the efforts of the USFS Tennessee Creek Wildfire Mitigation effort. This effort shall be briefed at appropriate times for the SLPOA and SLMD.

It shall be the approach of each individual homeowner to minimize the possible onset of a residential or human initiated fire which, in the fairly confined space of the Sylvan Lakes Community, would likely result in a fire situation for everybody else. It shall be the policy of the Sylvan Lakes Community to promote the notification of ALL OTHER RESIDENTS as much as possible (phone call by county sheriff, email, personal phone call, or any other means) in the event of a residential fire so that preparatory measures can be made for firefighting or evacuation.

5. Community Resources

- A. Equipment –None at this point, it is planned to use grant funding, where appropriate and allowed, to use these resources to acquire such equipment as: Annual rental of a heavy duty chipper, chainsaws, flatbed truck trailers and hauling equipment, maintenance and storage of equipment. It has been strongly suggested by professionals in the business of tree removal and mitigation that a very heavy duty ‘chipper’ should be used and that it be rented so the owner can do professional maintenance. Also, the extreme dangers of a good chipper need to be addressed.
- B. People. Community Leaders are expected to be reasonably knowledgeable of ongoing programs, grants and effort within the community and to be knowledgeable a normal mitigation terms, methods and procedures.
- C. The various Youth Programs that are available shall be resource in particular for ASL1 work in all Sylvan Lakes community projects.

6. Individual Rights Responsibilities

Each home owner shall choose their own:

1. Amount of thinning of dead trees, split trees, trees that are too close to each other, trees that are diseased from pine beetles, the Gypsy Moth Fungus (or other maladies), trees that are too close to a residence, trees that are 'leaning' towards a residence & the degree of pruning necessary for each tree (these examples are just for starters).
2. The manner in which trees are removed (chainsaw, winch, back hoe, etc)
3. Disposition of fuels (or... How to get rid of your cut wood), to keep tree trunks for firewood or building materials or give to a contractor for example.
4. Disposition of slash (or... What to do with leftover branches, sticks, twigs etc.)
 - A. Mulch
 - B. Chip
 - C. Haul off
 - D. Cut into kindling
 - E. Burn (Burn permits exist and can be done, BUT THEY HAVE RULES THE LAKE COUNTY SHERIFF enforces, we need to develop this procedure for Sylvan Lakes)
4. Personal Labor OR Contractor Labor and related equipment.
5. Choose to do nothing.
6. The recommended approach for all homeowners is to clear all combustible material from zone 1, to thin unhealthy forest in zone 2 and to reduce density in zone 3.

7. Yearly cycles.

- A. Winter-Equipment Maintenance
- B. Spring- Project Planning & related meetings
- C. Summer & Fall- Project execution
- D. Fall & winter-Slash Disposal (burning at first good snowfall, chipping for mulch when the chipper is available, wood pellet delivery & distribution, etc)

8. Responsibilities of the SLPOA

The SLPOA shall, at all quarterly meetings place the issue of Wildfire Mitigation projects on the Agenda for discussion such as:

- a. Issues about upcoming grants
- b. Approval of Wildfire Mitigation Plan
- c. Coordination with Lake County, CSFS & USFS efforts
- d. Planning training and presentations on WM
- e. Appointment of the WM group and definition of responsibilities
- f. Equipment for collective use
- g. Sub-projects of individual homeowners
- h. Lake County Issues and discussion
- i. Budget issues related to WM
- j. Prioritizing sub-projects and related funding from Grants

9. Involvement of the Sylvan Lakes Metro District (SLMD)

The SLMD shall place the following issues related to WM on the agenda of the quarterly meeting:

- a. WM budget related discussions and decisions
- b. Prioritize projects directed by the SLMD
- c. Provide support to the SLPOA as appropriate
- d. Emergency Water Use Policy issues
- e. Use of the LC Flora 1 water take out (from SLMD perspective)
- f. Use of the LC Mirror Lake cistern location (cistern has not yet been purchased, but the 1/3 acre has been donated and deeded to Lakes County for the purpose of firefighting)
- g. Appoint a contact for WM issues, projects and grants

10. Involvement of the Wildfire Mitigation Group & Mitigation Coordinator

The wildfire mitigation group shall be appointed by the SLPOA and shall be responsible for evaluating and prioritizing of sub-projects (project related to each individual property). The members shall coordinate projects that are funded by different agencies with the related agency and perform related project documentation. The team member shall receive training commensurate with required duties and responsibilities.

The Wildfire Mitigation Coordinator (WMC) shall be appointed through a binding vote of the SLMD and recorded in the meeting minutes. The WMC shall prepare, staff and administer the Sylvan Lakes Wildfire Mitigation Plan making administer recommended changes and distribute to the SLPOA. The WMC shall prepare, staff, submit and administer wildfire grant programs and serve as point of contact for Municipal, State, Federal and Private efforts directed at the better understanding and implementation of Wildfire Mitigation efforts.

11. Involvement with Lake County and CO State Forest Service

The SLPOA and SLMD shall coordinate project work and methods required with appropriate governmental agencies such as the Lake County, CSFS and USFS to assure efforts are consistent with related procedures and regulations.

12. Insurance issues.

The SLPOA and SLMD shall take steps as deemed appropriate to assure coordination with various Insurance Company policies and requirements to minimize the cost of residential Fire Insurance. The following statement is CSFS policy:

“CSFS’ current policy is for its personnel to not conduct wildfire mitigation (defensible space) designation, or to prepare any written documentation regarding the adequacy of mitigation, for insurance company requirements on homeowner policies.”

Thanks to our legal system (apologies to all hard working lawyers), the State of CO cannot write anything about your level of Wildfire Mitigation around your home for fear of creating a liability if a fire does strike and you lose your home or your life. Then the State would possibly be liable (at least this is a potential legal argument). Please read the referenced “Information” bulletin (Reference Document “d. Information...” by the Colorado State Forest Service. The FireWise program has been established by the Allstate Corp. for the improvement of community vulnerability to wildfire.

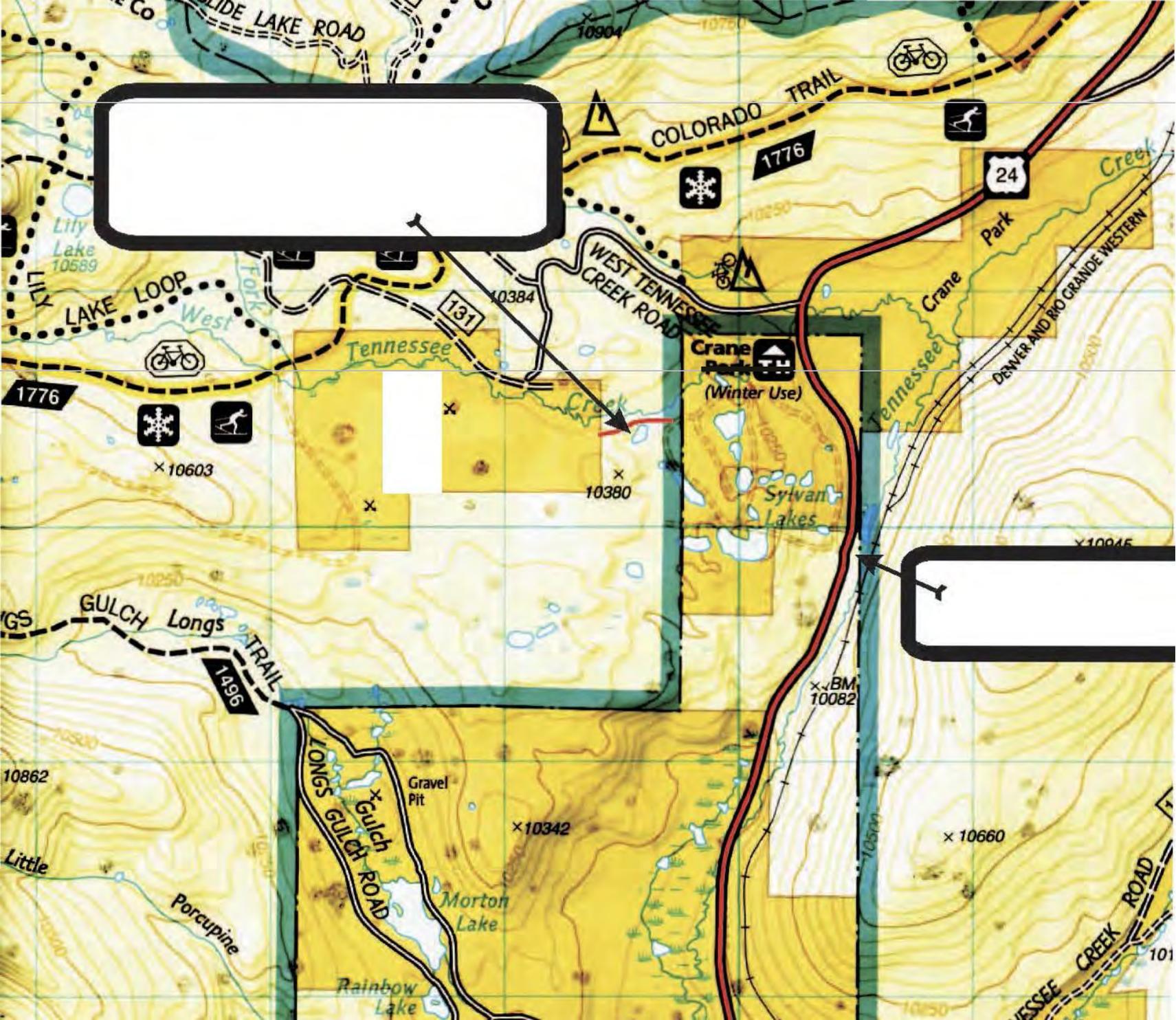
13. Emergency Egress

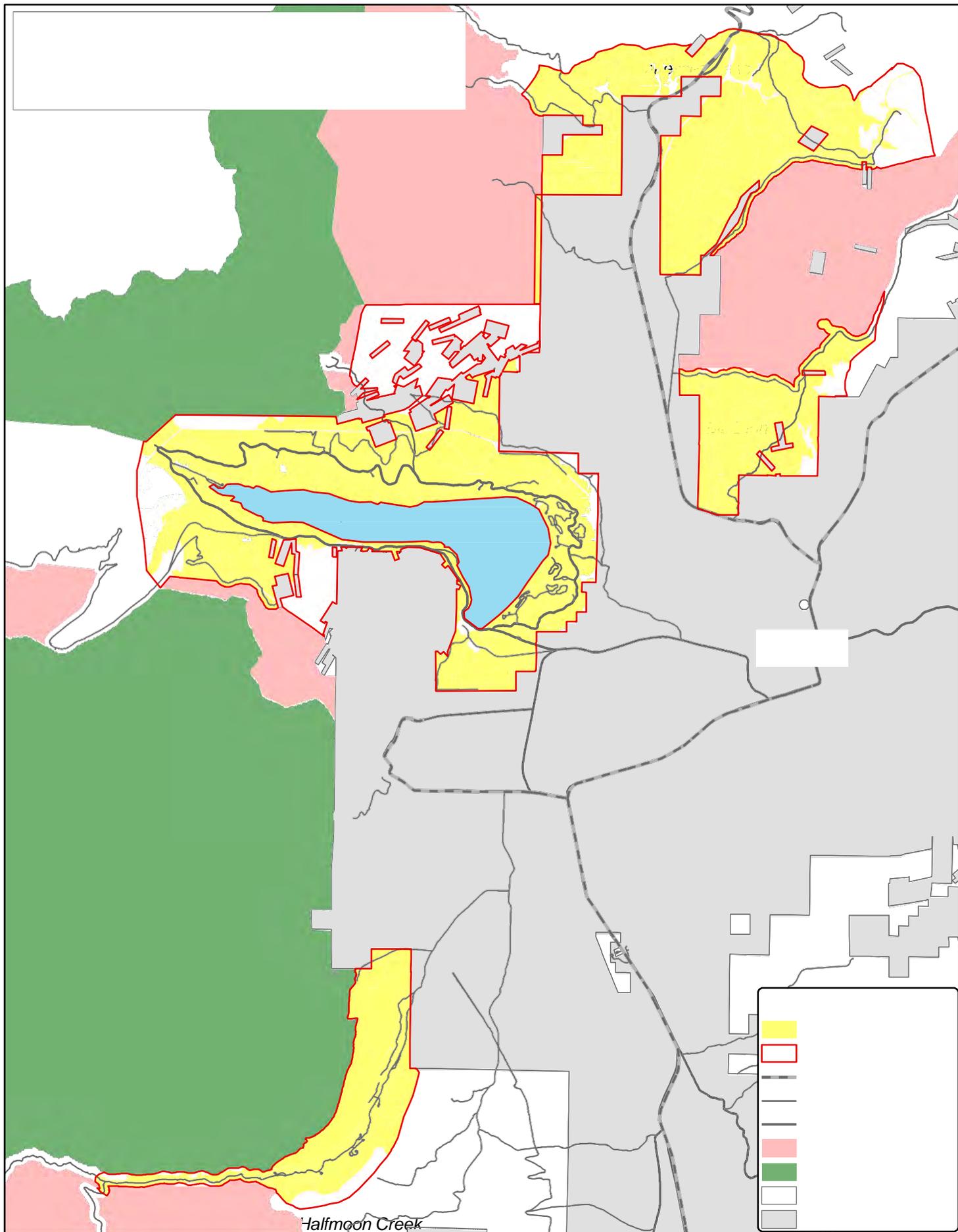
If, in the rare but possible event of a very aggressive and powerful wildfire that closes in on and covers over the south side main entrance/exit of the Sylvan Lakes Community (at the mailboxes) it is proposed to use the Emergency North Meadows USFS road to get to the Meadows and then over to the Webster Sand & Gravel Pit, to Cty Rd 19 and onto Hwy 24 going north. This route begins on the dirt road between Dick Reed & Jerry Vargo's houses on West Dream Home Drive. The secondary USFS road goes between the NAFSGate pond-berm and the West Tennessee Creek where there is an existing USFS gate. The road then continues out to the area known as "The Meadows". On the east side of the Meadows (on Webster Property), there is a road that leads into the Webster Gravel Pit. A Map is included in the addendum to this plan. It is strongly recommended that individuals take an hour to hike this route on foot but avoid trespassing on the Webster's property beyond "The Meadows". An effort is underway to obtain USFS permission for a temporary emergency permit to cross the secondary road with vehicles in a Wildfire Situation. The USFS concern is that this road is NOT Authorized by the Motor Vehicle Use Map (MVUM), only for foot and snowmobile traffic. Secondly, if that USFS permission is received, permission from the Webster Family will be required. A personal tour of this route is available on request.

14. Tax Issues: HB 1009 Tony Exum D-Colorado "Would change wildfire mitigation tax deduction to an income tax credit worth half of what homeowners spend on mitigation up to \$2500.00. Sponsor: Tony Exum D-Colorado Springs and Nicholson. See ref document 2. F. on page 4 of this plan.

15 Addendum Maps

- i. Possible Emergency Egress Map
- ii. Tennessee Creek Project Treatment Area Map
- iii. DNR CSFS Wildfire Risk Assessment 2012 Map
- iv. Sylvan Lakes Area Google Map



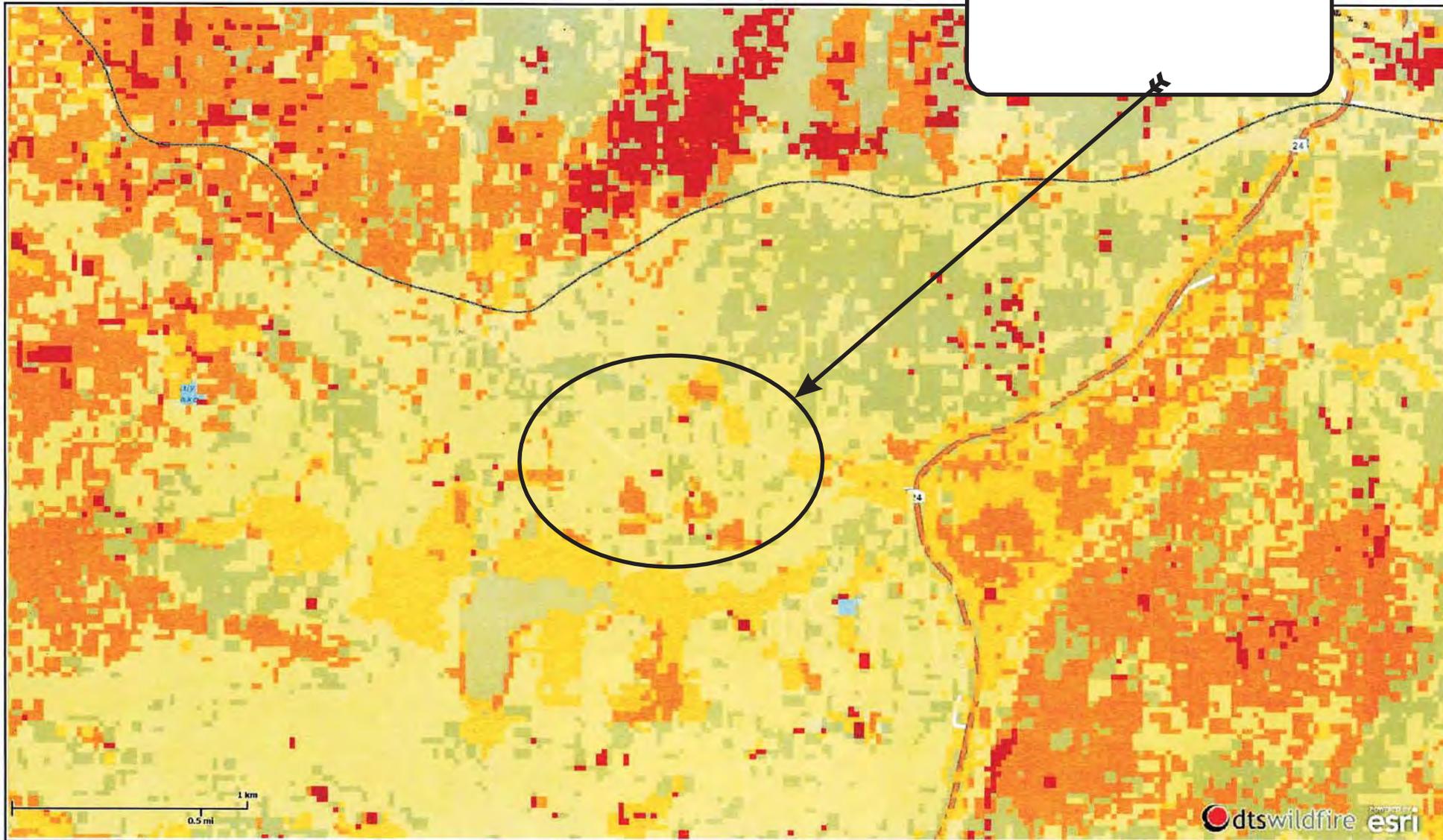


Halfmoon Creek

Cor 6
Other
N

Fire Intensity Scale

Quantifies the potential fire intensity by orders of magnitude.



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Colorado Wildfire Risk Assessment 2012

www.coloradowildfirerisk.com

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