



Ecosphere
Environmental Services

Forest Lakes Community Wildfire Protection Plan

Prepared for:

The Community of Forest Lakes

and

**The Upper Pine River Fire Protection
District**

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ACRONYM LIST

BLM	Bureau of Land Management
CSFS	Colorado State Forest Service
CWPP	Community Wildfire Protection Plan
Ecosphere	Ecosphere Environmental Services
FL	Forest Lakes
FL CWPP	Forest Lakes Community Wildfire Protection Plan
FLMD	Forest Lakes Metro District
GIS	Geographic Information System
OEM	La Plata County Office of Emergency Management
FL POA	Forest Lakes Property Owners Association
SJPL	San Juan Public Lands
Upper Pine	Upper Pine River Fire District
USFS	United State Forest Service
WUI	Wildland Urban Interface

GLOSSARY

Catastrophic Wildfire: An out of control fire that exceeds suppression efforts, which is extremely harmful, bringing physical and financial ruin to FL.

Crown Fire: A forest fire that spreads from treetop to treetop. Crown fires are very high intensity fires, kill trees, and are very difficult to suppress.

Defensible space: Defensible space is an area around a structure where fuels and vegetation are cleared or reduced to slow the spread of wildfire towards the structure.

FireWise: FireWise is an organization which seeks to keep homes, properties and lives from being damaged by wildfire. It does so through neighborhood-based, citizen-driven approaches including overseeing a Neighborhood Ambassador program, completing public education projects, encouraging and facilitating homeowners to undertake mitigation, and changing the public will so as to improve community safety.

<http://www.southwestcoloradofires.org/FireWise/default.htm>

Fuel Mitigation: Removing selected trees, shrubs, and other fuels to reduce fire danger. Used interchangeably in the FL CWPP with thinning.

Fuel: Any living or dead material that will burn. Fuels include vegetation, wood, and structures.

Ground Fire: A forest fire that stays on the ground (as opposed to a crown fire). Ground fires are low intensity, usually do not kill ponderosa pine trees, and are relatively easy to suppress.

Shaded Fuel break: A wide strip of land on which the native vegetation has been reduced, that acts as a buffer to fire spread so that fires burning into them can be more readily controlled. Shaded fuel breaks look like open, somewhat manicured parks with widely spaced trees.

Suppression: Firefighters putting out a fire.

Thinning: Removing selected trees and shrubs in an area to reduce fire danger. Thinning leaves behind some trees and shrubs, as opposed to clear cutting which removes all vegetation. Used interchangeably in the FL CWPP with fuels mitigation.

Treating a parcel: In the context of this FL CWPP, treating a lot means conducting fuels mitigation work or thinning on a particular land parcel

Wildland-Urban Interface: The geographical meeting point of two diverse systems -wildland and structures. In the WUI, structures and vegetation are sufficiently close so that a wildland fire could spread to structures or a structure fire could ignite vegetation.

Forest Lakes CWPP Approval

The Durango District of the Colorado State Forest Service has reviewed this Community Wildfire Protection Plan for Forest Lakes and approves its content and certifies that it meets or exceeds Colorado State Forest Service Community Wildfire Protection Plan standards.

Kent Grant, District Forester

Date

The following entities have received a copy of the Community Wildfire Protection Plan for Forest Lakes and agree with and support its content and recommendations.

Rich Graber, Fire Chief, Upper Pine River Fire Protection District

Date

Butch Knowlton, Director of Office of Emergency Management, La Plata County

Date

Ronnie E. Foster, Vice President, Forest Lakes Metro District Board of Directors

Date

FOREST LAKES CWPP SUMMARY

Forest Lakes is the largest subdivision in southwestern Colorado. This community is located in La Plata County, Colorado and covers 1,865 acres with 1,600 parcels and 764 structures. The subdivision has about 1,800 residents. Forest Lakes (FL) subdivision is surrounded by government and private forested parcels.

FL has been identified by both the La Plata County Community Wildfire Protection Plan (CWPP) and the Wildfire Preparedness Initiative as a high-level risk for wildfire. Some of the factors that create this high risk include:

- FL is located on a steep southern facing hillside
- The vegetation is a dense, overgrown ponderosa pine and Gambel oak forest
- Lightning strikes are common in the area
- Many of the homes in FL have wood exteriors and wood shake shingle roofs
- There are many roads in the subdivision, but only single ingress/egress.

If an uncontrollable crown fire started in FL on a typical windy, hot, summer day, it could spread across the entire subdivision in less than two hours—endangering human life and property. Recognizing this risk, the Upper Pine Fire River Protection District secured grant funds to create a Community Wildfire Protection Plan (CWPP) for FL.

This FL CWPP is a collaborative planning effort, involving:

- FL residents
- FL Metro District (FLMD)
- Upper Pine River Fire Protection District (Upper Pine)
- La Plata County Office of Emergency Management (OEM) and Geographic Information Systems (GIS) Department
- The FireWise Council of Southwest Colorado (FireWise)
- Colorado State Forest Service (CSFS)
- Ecosphere Environmental Services (Ecosphere)
- The U.S. Forest Service (USFS) and Bureau of Land Management (BLM)

Members from these organizations created the FL CWPP Planning Team, and met monthly from November to May of 2011 to create this FL CWPP. The purpose of the FL CWPP is to identify risk factors that contribute to wildfire danger and develop mitigation measures that make FL a safer place to live. This FL CWPP meets and exceeds all CSFS Minimum Standards for Developing a Community Wildfire Protection Plan, as revised November 13, 2009.

The FL CWPP Planning Team’s highest priority is to protect the life and safety of FL residents and emergency responders. The highest priority projects include evacuation measures such as:

1. Reducing fuels at FL
2. Creating evacuation scenarios for FL residents by facilitating a planning meeting with La Plata County OEM, FLMD, and Upper Pine.
3. Identifying, securing, and developing additional ingress and egress options for FL (See Ingress/Egress Map).
4. Creating a Safe Zone around Lake Simpatico (See Fuels Mitigation Map).
5. Organizing and implementing an “Evacuation Route Fuels Mitigation Project” to selectively thin vegetation 100 feet from each side of all evacuation route roads (See Fuels Mitigation Map).

Other mitigation actions in this FL CWPP include targeted multi-parcel fuels mitigation projects, increased fuel mitigation responsibility and funding for FLMD, long-term wildfire risk reduction planning with partners in the FL Wildland Urban Interface (WUI) area, and creating a fire adapted community of residents.

Implementation of this CWPP will depend on the residents of FL. Upper Pine will take the lead in organizing priority projects—pending available funding—and will need extensive volunteer support from FL residents on education efforts, as well as continued collaboration with the CWPP Planning Team.

1. INTRODUCTION

1.1 Purpose and Need

Forest Lakes (FL) is the largest subdivision in southwestern Colorado. This community is located in La Plata County, Colorado and sits between the town of Bayfield and the San Juan Mountains, east of County Road 501 as shown on the Location Map. The subdivision encompasses approximately 1,865 acres, and consists of 1,600 parcels with 764 structures and 1,800 residents. FL has been identified by both the La Plata County Community Wildfire Protection Plan (LPC CWPP) and the Wildfire Preparedness Initiative as a high-level risk for wildfire (available at: http://www.csfs.colostate.edu/pages/documents/LaPlataCounty_CWPP.pdf).

In 2010, Upper Pine River Fire Protection District (Upper Pine) was awarded grant funding to create a CWPP for FL—due to concerns over loss of life and property. Upper Pine hired Ecosphere Environmental Services (Ecosphere) to coordinate the FL CWPP Planning Team, engage the community of FL, and write the FL CWPP. Members of the FL CWPP Planning Team include representatives from the community of Forest Lakes, FLMD, Upper Pine, La Plata County OEM and GIS Department, FL P property owners, FireWise, CSFS, and USFS and BLM, which are managed collectively and referred to as San Juan Public Lands (SJPL).

The development of the FL CWPP is a necessary step in creating a safer environment for the community, and in defining and prioritizing specific fire mitigation and fuels reduction projects for implementation. It is meant to be a living document, and a plan for making FL a safer place to live.

1.2 The FL CWPP Planning Team and Process

In November of 2010, the FL CWPP Planning Team was formed. The FL CWPP Planning team met monthly from November 2010 to May 2011, to formulate the main ideas in the FL CWPP. The list of Planning Team members, the Planning Team schedule, and meeting minutes are in Appendix A.

The FL CWPP Planning Team created a strategy to involve the community of FL (Appendix B). This strategy involved a series of outreach efforts such as six small group focus meetings hosted by residents, two community-wide meetings on the draft FL CWPP, and one final public meeting on the FL CWPP. The meetings were advertised through posters, vinyl banners, the FLMD newsletter and monthly billings, FL CWPP handouts, personal invitations, public service announcements, and the local newspapers. These materials are included in Appendix C. In the spring of 2011, Upper Pine created “WUI checkpoints” and stopped residents as they entered the subdivision to invite them to a meeting and provide them with a handout describing the FL CWPP planning process.

The Planning Team also created a project website (<https://sites.google.com/site/flcwpp/>) that had information on how residents could get involved in the FL CWPP, included maps and drafts of the plan, and provided fuels mitigation information for landowners. A sample is included in Appendix C. Ecosphere maintained an email list of all the residents that expressed interest in the plan, and used the list to advertise meetings and provide status reports. Upper Pine maintained a list of cell phone numbers to provide people

with text reminders and project updates, and included FL CWPP-related material on their Facebook, Twitter, and YouTube social media outlets.



Photograph 1. Public Information Meeting about the FL CWPP



Photograph 2. Upper Pine burning piles of cleared brush from the FL Fuels Mitigation Demonstration Lot

In an effort to demonstrate to residents what a well mitigated property should look like, Upper Pine staff created a “Fuels Mitigation Demonstration Lot” on the southwest corner of East FL Drive and Pine Tree Drive (Lot 267, Unit 2), where they thinned trees, burned slash piles, and are planning a prescribed burn to reduce fuels on the forest floor . The Community Map shows these locations. The FL CWPP Planning Team posted large signs on the demonstration lot—explaining the project to the community and providing handouts on the demo lot process and the FL CWPP project. Appendix C includes copies of these materials.

2. FOREST LAKES COMMUNITY DESCRIPTION AND HISTORY

2.1 Forest Lakes Community Description

FL is a remote rural community nestled in the mountains of La Plata County, north of Bayfield, Colorado as shown on the Location Map. The community borders BLM and state lands on the north, USFS lands to the east, and private lands to the south and west as shown on the WUI Map. FL is home to about 1,800 residents with 75 percent year-round residents and the remainder residing in FL seasonally, primarily during the summer months. Many residents commute to Bayfield, Ignacio, and Durango for work, and many are retired. About half of the 1600 parcels have been built on. The average parcel size is 1 acre with some lots as small as 1/4 acre as shown on the Community Map.

FL was built in a dense ponderosa pine forest, with a Gambel oak understory. The majority of the subdivision starts at an elevation of 7,400 feet and rises on a steady, south-facing slope up to 8,900 feet at the top of the subdivision. The main arterial road is a loop comprised of various road names that were additionally designated “Loop Road” to facilitate travel, with side roads branching off the Loop Road. All the roads funnel into one main entry and exit point onto CR 501as shown on the Community Map. None of the roads in FL are paved. They are graveled, all weather roads maintained by the FLMD.

When FL was first developed in the late 1960’s, wildfire risk was not a broad social concern. The FLMD was formed in 1975 to provide services to the new community. FLMD is a limited service Colorado Special District Governmental Entity, and provides water, sanitation, street, and park and recreational facilities for the residents of FL. Representatives from the FLMD were integral in the FL CWPP Planning Team. Currently, FL does not have an active Property Owners Association (FLPOA).

2.2 Fuels Mitigation at Forest Lakes

Fuels mitigation is not required by the FL Covenants, or by La Plata County.

Fuels mitigation, or “treating lots” involves selectively removing trees and shrubs to reduce the intensity (flame length and rate of spread) of a wildland fire. There are many education resources on the internet, to help property owners know what fuels to remove. CSFS provides guidelines for reducing excess fuel, creating defensible space around structures, and other “FireWise” practices at <http://csfs.colostate.edu/pages/wf-protection.html>. The CSFS publication, “Creating Wildfire Defensible Zones,” is currently the most used reference document to create thinning standards in Colorado and is included as Appendix D. There are several contractors in the area, which are available to help property owners conduct fuels mitigation. These contractors are listed in Appendix D.

At Forest Lakes, there is a mix of treated and untreated lots. Many property owners have done fuels mitigation work themselves, with a chainsaw and a truck. They can dispose of the resulting slash (woody debris) at the FL brush pile, and use the larger diameter wood as firewood. Others hired fuels mitigation contractors to complete the work.

There is no exact count of the number of property owners at FL that have completed fuels mitigation on their property. Some owners have conducted very limited mitigation, or are lacking on maintaining past mitigation. Approximately 20percent of the lots at Forest Lakes have been mitigated to CSFS standards, or are located in the meadow at the base of the neighborhood (FL CWPP Planning Team estimate). The other 80percent remain heavily wooded, and pose a threat to the treated lots and the entire neighborhood. Many residents at Forest Lakes are resistant to conducting fuel mitigation on their property. Some of the reasons that residents give for avoiding fuels mitigation activities include:

- They think the vegetation is “natural” and do not want to remove it
- They do not believe they are in danger of wildfire
- They cannot afford the expense
- They do not want to lose the visual screening from their neighbors and the roads

2.3 Fire History of Forest Lakes

In the late 1800’s, Euro-Americans settled into southwestern Colorado and logged the ponderosa pine forest for its valuable timber to build railroads and new communities. They then grazed their livestock, which affected the grass and forb (a herbaceous flowering plant other than a grass) community and may have removed significant amounts of nutrient rich topsoil. Perhaps most importantly, they started extinguishing all wildfires, and removed fuels through logging and grazing. The current condition of the forest at FL reflects this land use history. FL sits on a south-facing slope in a ponderosa pine forest. This forest type typically experiences lightning strikes with low intensity surface fires every 5 to 20 years. These fires created a relatively open, park-like forest structure. Grasses, shrubs, and forbs grew in the interspaces between clumps of trees. One hundred years ago, the average ponderosa pine tree was bigger (larger diameter at breast height or DBH), and taller than the trees found at FL today. Frequent surface fire reduced the abundance of Gambel oak and juniper, because of their low growing branches.

This land use history created the overgrown, even-aged forest we see today at FL. The majority of the trees are about 100-120 years old, small diameter, and are growing very close to each other. This leads to intense competition for light, growing space, and nutrients, which creates a forest that is vulnerable to insect and disease outbreak. This dense forest also creates favorable conditions for a catastrophic, stand replacing crown fire. This sort of high intensity crown fire is very difficult, if not impossible for firefighters to control in extremely dry and windy conditions.

There have been over 30 small fires documented by the SJPLC since 1980 in the public lands near FL, as shown on the WUI Map. The only major fire to threaten FL was the Missionary Ridge Fire in 2002. This fire was sparked during a severe drought, and burned over 73,000 acres. It destroyed 56 homes and is the second largest wildfire in Colorado history. The Missionary Ridge Fire crested over the north ridge to FL, and could have burned the entire neighborhood if not for the excellent work of the firefighters and available water system at FL. Firefighters evacuated FL and stopped the fire on the northern boundary of the subdivision (WUI Map). After the Missionary Ridge Fire, many residents completed fuels mitigation on their property.

2.4 The Forest Lakes Wildland Urban Interface

The WUI area, in the context of a CWPP, is the area within and adjacent to the community from which a significant wildfire within that area would likely pose an imminent threat to that community. The WUI for FL, was designated by the Planning Team who took into account many factors including vegetation type and continuity, topography, slope, aspect, and values at risk. Values at risk include public and firefighter safety, homes and structures, infrastructure such as power lines and communication sites. Vegetation factors include natural or manmade fire breaks, irrigated pastures, major roadways and bare, rocky ground. The Planning Team also took into account other local fires—like the Missionary Ridge Fire—that traveled eight miles in one day.

Given these considerations, the WUI around FL is relatively large—16,853 acres for the 1,865-acre community as shown on WUI Map. The FL WUI includes over 1,200 privately owned parcels, (not including FL parcels), and a combination of Colorado State Land Board, BLM, and USFS lands. The FL WUI northern boundary is the top of the ridge that the FL neighborhood sits on, the eastern boundary extends to the border of the Grassy Mountain Burn Area and FS Road 604, the southern boundary is the top of the ridge south of Bear Creek Road, and the western is just west of Los Pinos River.

3. FIRE POLICIES AND PROGRAMS

3.1 Healthy Forest Restoration Act

The FL CWPP has been developed in response to the Healthy Forests Restoration Act of 2003 (HFRA). This legislation established incentives for communities to develop comprehensive wildfire protection plans through a collaborative process. Furthermore, this legislation directs the US Departments of Interior and Agriculture to address local community priorities in fuel reduction treatments on both federal and non-federal lands.

The HFRA emphasizes the need for federal agencies to collaborate with communities in developing hazardous fuel reduction projects with priority on treatment areas identified by communities through development of a Community Wildfire Protection Plan. Priority areas include the WUI, municipal watersheds, areas impacted by wind-throw, insect, or disease epidemics, and critical wildlife habitat that would be negatively affected by a catastrophic wildfire. In compliance with Title 1 of the HFRA, the CWPP requires agreement among local governments, fire departments, and the state agency responsible for forest management (in Colorado it is the Colorado State Forest Service). The CWPP must also be developed in consultation with interested parties and the applicable federal agency managing the land surrounding the at-risk communities.

3.2 Consolidated County Annual Operating Plan

Counties, Federal Land Management Agencies, Colorado State Forest Service, and Fire Protection Districts in SW Colorado operate under a Consolidated County Annual Operating Plan for wildfire protection. This plan provides for mutual aid to assist with the management of wildfire incidents in SW Colorado. This plan for mutual aid provides significantly enhanced initial and extended attack capabilities through the rapid convening of fire protection resources for managing a wildfire. The Consolidated County Annual Operating Plan outlines standard operating procedures and the level of participation and available resources of each party under the plan.

3.3 USFS and BLM Land and Resource Management Plan/Fire Management Plan

The San Juan National Forest and Bureau of Land Management San Juan Resource Area, Land and Resource Management Plan and associated Fire Management Plan, describes the role of fire in the native ecosystems in SW Colorado. These plans outline the strategies that the USFS and BLM will utilize to manage wildland fire and fuels on these federal lands in SW Colorado. The San Juan National Forest and San Juan Resource Area Fire Management Plan (2007) specifically describes objectives and strategies to manage fire and fuels on federal lands near communities within the WUI.

3.4 La Plata County

This FL CWPP tiers to the La Plata County CWPP approved in 2006. This plan is consistent with the goals and strategies described within the La Plata County CWPP and provides further strategic and tactical direction specific to wildfire protection and mitigation for the FL community.

As of May 2011, La Plata County does not regulate or influence fuels mitigation on private property. The Land Use Code for the county is currently being revised, and may include regulations promoting wildfire risk reduction and improved emergency response in the future. However, those regulations will likely apply just to new developments or undeveloped properties. The County Tax Code does not promote fuels mitigation, or penalize the lack thereof. The La Plata County Sheriff is responsible for evacuation and public safety.

3.5 FL Covenants

FL is divided into five management units. Each Unit has covenants which are available on the FLMD website at <http://www.flmd.com/COVENANTS/COVENANTS.htm>. The following excerpts from the management unit covenants affect fire risk factors at FL:

Table 1. Summary of FL Covenants and Proposed Changes

Unit	Revision Date	Section	Summary	FL CWPP Planning Team Recommended Changes
Unit 1 Covenants	762817 - FEB 23, 1999	VI. 4. Building Exterior and Roofing	Exterior building materials must be made of wood or wood products	Encourage less flammable building materials* Prohibit the use of wood roofing materials. Encourage the use of non-wood product exteriors.
		VI. 14. Fires and Fireplaces	No outside fires are permitted in FL	Create an exception for Upper Pine Fire to do prescribed burning
Unit 2 Covenants	752440 - AUG 28, 1998	VI. 4 Building Exterior and Roofing	Exterior building materials must be made of wood or wood products	Encourage less flammable building materials* Prohibit the use of wood roofing materials. Encourage the use of non-wood product exteriors.
		VI. 14. Fires and Fireplaces	No outside fires are permitted in FL	Create an exception for Upper Pine Fire to do prescribed burning
Unit 3	444433 -	9. Fires and	Outside fires are discouraged,	No outside fires are

Unit	Revision Date	Section	Summary	FL CWPP Planning Team Recommended Changes
Covenants	JUN 26, 1980	Fireplaces	must be contained and monitored	permitted in FL Create an exception for Upper Pine Fire to do prescribed burning
		17. Roof Colors and Construction	Roofs must be constructed of cedar shake shingles or asphalt shingles	Encourage less flammable roofing materials* Prohibit the use of wood roofing materials. Encourage the use of non-wood product exteriors.
		26. Tree Removal	No tree in excess of 3 inches in diameter may be removed without written consent from the Architectural Committee	Remove. Replace with language encouraging responsible fuels mitigation.
		27. Tree and Ground Cover	May not remove trees or shrubs without written consent from the Architectural Committee	Remove. Replace with language encouraging responsible fuels mitigation.
Unit 4 Covenants**	756009 - OCT 29, 1998	VI. 4. Building Exterior and Roofing	Exterior building materials must be made of wood or wood products	Encourage less flammable building materials* Prohibit the use of wood roofing materials. Encourage the use of non-wood product exteriors.
		VI. 14. Fires and Fireplaces	No outside fires are permitted in FL	Create an exception for Upper Pine Fire to do prescribed burning
Unit 5 Covenants	456898 - JUN 10, 1981	None	None	Due to the brevity of this covenant, no objectionable language was found.

* (Appendix E or see <http://csfs.colostate.edu/pages/construction-design-materials.html>)

** See Court Order regarding Unit 4 covenants at <http://www.flmd.com/>

Currently, there is no FL POA to enforce these covenants, yet they are tied to the land and are still legally binding. When the FL POA is active again, we recommend changing covenants to require fuels mitigation, construction with FireWise materials, and banning open fires (except conducted by the fire department).

4. WILDFIRE RISK ASSESSMENT

4.1 Wildfire Hazard

After reviewing fire hazard risk factors, the FL Planning Team concluded that the wildfire hazard at FL is extremely high, due to a combination of factors addressed in this section.

4.1.1 Slope and Weather Patterns

FL is located on a south-facing slope with an average grade of 5-15 percent. This slope climbs from an elevation of 7,400 feet to 8,900 feet at the top of the subdivision. Local winds and weather tends to move from the southwest to the northeast. Winds frequently blow from the base of the slope to the top. At FL, slope, aspect, and weather patterns align to increase wildfire hazard. The likelihood of lightning strikes is also high, given the slope elevation and position in the surrounding landscape.

4.1.2 Heavy Fuel Loading

In the firefighting world, anything that burns is considered fuel. The amount and the continuity of vegetation and structural fuels at FL make it very vulnerable to wildfire.



Photograph 3. Typical Fuel Loading at FL (Notice the ladder fuels, dense trees, and the house in the background)

Because the ponderosa pine forest at FL has not burned in last century, the forest is overgrown. The forest floor is a dense layer of pine needles and vegetative debris. The dense, second-growth ponderosa pine forest has many low-growing branches. Gambel oak shrubs are prolific, which serve as ladder fuels, carrying

a fire from the forest floor up into the treetops or crowns. In many places, tree crowns are overlapping and close enough to keep the fire burning within the tree canopy. Once the ground fire is transitions to a crow fire it is very difficult and dangerous for firefighters to extinguish.

The structures at FL, most of which are houses, are also considered a fuel source because they can increase the spread and intensity of the wildfire.

As part of the CWPP preparation, the Planning Team hired Dave Dallison, a fire behavior expert, to model potential fire behavior at FL. Modeling of possible fires in FL with fire behavior modeling software such as, *FlamMap* and *Farsite*, demonstrated that under severe conditions, a crown fire could burn across FL in less than two hours. The models also showed that Gambel oak increases flame length up to two times, compared to a ponderosa pine forest without Gambel oak. Dave Dallison's full presentation and resulting CWPP recommendations are available in Appendix F.

4.1.3 Limited Access and Egress

Currently, there is only one permanent access route in and out of FL, for all 1,800 residents. In case of emergency, the gate at the base of Pine Valley Drive can be opened to create a one-way emergency egress out of the subdivision. In the past, volunteers have opened up this gate.

Emergency routes are shown on the Community Map. The further a resident lives from an emergency access route, the more difficult and dangerous the evacuation could be as shown on the Evacuation Hazard Map. Even if the evacuation routes were safe to travel, traffic congestion could be a serious problem during an emergency. If a wildfire, dense smoke, or incoming emergency equipment cut off a section of the evacuation route, there would be no way to evacuate some parts of FL. This limited emergency access and egress poses a serious risk to residents' safety, and the ability of emergency management to respond to a wildfire.

4.1.4 High Density of Residents

The high density of residents in FL raises public safety issues as well as increasing the fire risk. Evacuation, as previously discussed, could be a potentially life threatening problem for the residents and a barrier to emergency response. The large number of residents also increases the chances that a human-caused fire will occur within or adjacent to the community.

4.1.5 High Structural Vulnerability

The likelihood of a structure—such as a home—catching fire is influenced by its exterior building materials. When FL was first developed, the covenants required wood siding and cedar roof shingles so that the houses would blend into the forest. These wood building materials increase the vulnerability of these homes to a wildfire—as well as wooden decks and stacks of firewood against houses. Given the fuels in the forest and the houses at FL, there is a high probability of structural loss (CWPP Planning Team assessment).

4.2 Protection Capabilities

As shown on the Community Map, FLMD maintains 130 fire hydrants spaced at regular intervals to service the neighborhoods. FLMD also has five water tanks that hold 800,000 gallons of water. Lake Simpatico holds an average of 208 acre feet (or 67 million gallons) of water, which would be utilized during a wildfire.

Upper Pine staffs two of their nine stations with 24 hour staff, with typical staffing of six or more on duty each day. Upper Pine Station # 5 is located on County Road 501 near the entrance to FL, and is staffed by a number of volunteer members who reside in the subdivision. Should a wildfire event occur in FL, Upper Pine's initial response would be from their paid staff, two Type 3 Interface Engines, and two 2,100 gallon water tenders. Volunteer members from Station # 5, as well as other stations, would also respond as personnel became available.

If the wildfire exceeds the capabilities of Upper Pine, it would be immediately managed under the Consolidated County Annual Operating Plan, with the help of surrounding counties, federal land management agencies, Colorado State Forest Service, and other Fire Protection Districts in SW Colorado.

4.3 Values at Risk

CSFS CWPP guidelines define values at risk as human and animal life, structures, property and natural resources. There are many values at risk at FL, the most important of which are the 1,800 residents, and their property. Infrastructure at FL includes the La Plata Electric power grid—both underground and overhead—fire hydrants, a network of roads, buried utilities, water tanks, the FL Community Center, real estate offices, and the mailbox stop. Locations of these assets are shown on the Community Map.

Potential impacts of a catastrophic fire at FL include burning a significant portion of the forest down and creating a charred landscape. Catastrophic fire could also cause detrimental air pollution, soil and slope erosion, and damage the road systems. A devastating fire would impact the biological diversity of plants and wildlife and degrade the overall ecosystem health.

A catastrophic fire at FL would impact the water supply for both Bayfield and Ignacio, as they have surface water treatment plants.

A major fire would decimate not only the forest and potentially the residents, it would cause significant economic loss to the county through tax revenue losses and could potentially cost tax payers millions of dollars spent in fire suppression efforts. It would also change recreational opportunities, alter the local view shed, and affect local cultural and historic resources.

5. MITIGATION ACTION PLAN

The FL CWPP planning team combined months of collaborative meetings with comments from the public, to create this prioritized list of actions to make FL a safer place to live. Each action is described, along with implementation details, and a cost estimate.

The cost estimates assumes a general labor rate of \$27/hour, which is a Federal GS-11 Step 1 wage, and an average cost of \$1,000/acre to conduct fuels mitigation. Actual cost will vary, depending on, fuel density and access, and how the mitigation work is completed. In the electronic copy of the FL CWPP, each table is inserted as a working Excel table, to allow for future cost adjustments.

5.1 High Priority Actions

Currently, there are limited emergency evacuation routes for FL. The FL CWPP Planning Team's highest priority is protecting human life and safety for both the residents of FL and emergency responders. Therefore, the FL CWPP actions with the highest priority include:

Corresponding maps: Community Map, Evacuation Hazard Map, Ingress/Egress Options Map, Fuels Mitigation Map

1. Fuels Reduction at FL- The primary goal of the CWPP is to have every lot in FL treated for wildfire mitigation. Given funding limitations, the FL CWPP Planning Team would like to see the following parcels given priority for funding assistance: 1) parcel located along the evacuation routes, 2) along County Road 501, 3) in drainages, and 4) along FL Drive. These locations correspond with targeted multi-owner thinning projects (Fuels Mitigation Map).

- Lead: FL parcel owners, possible assistance from Upper Pine and CSFS
- Maintenance: FL parcel owners
- Costs: Labor and equipment costs for fuels mitigation
- Outcome: create defensible space around houses, decrease wildfire risk for property owners

Reducing Fuels at FL Estimate			
Labor Category	Hours	Rate	Extended
Upper Pine project management time	80	\$27.00	\$2,160.00
Labor Subtotal			\$2,160.00
Directs	Cost/unit	# Units	Extended
Thinning 80% of the acres at FL*	\$1,000	1492	\$1,492,000.00
Directs Subtotal			\$1,492,000.00
BUDGET			\$1,494,160.00
* 80% is a CWPP Planning Team estimate for the amount of acres that need to be treated in FL			

2. Evacuation Planning Meeting – The FL CWPP Planning Team requests that Upper Pine, FLMD, La Plata County OEM, and the La Plata County Sheriff meet to discuss and plan evacuation strategies for FL. This meeting would also establish who is responsible for controlling the Pine Valley Drive gate to CR 501. The outcomes of this meeting should be documented in a memo format, and distributed to all parties, plus communicated to the residents of FL.

- Lead: Upper Pine
- Meeting participants: Upper Pine, FLMD, La Plata County OEM, and the La Plata County Sheriff
- Cost: Labor costs for meeting participants
- Outcome: memo describing strategies and plans for evacuating FL

Evacuation Planning Meeting and Memo Estimate			
Labor Category	Hours	Rate	Extended
4, 4 hour meetings with 4 government staff*	64	\$27.00	\$1,728.00
20 hours for one person to explain the results to FL residents	20	\$27.00	\$540.00
Labor Subtotal			\$2,268.00
Directs	Cost/unit	# Units	Extended
none, covered above			
Directs Subtotal			\$0.00
BUDGET			\$2,268.00
*staff include Upper Pine, FLMD, La Plata County OEM, and the La Plata County Sheriff			

3. Roads Committee – Upper Pine will form a committee to work on securing additional ingress/egress routes for FL. Possible options include BLM Route, Alpine Forest Drive. Route, San Juan National Forest Route, Carlson Route, and Rae Drive. Route (see Ingress/Egress Map for route alignments). The committee would be led by Upper Pine and include a representative from SJPLC, Columbine Ranger District, FLMD, La Plata County OEM, and any interested FL property owners. The FL CWPP Planning Team encourages the committee to consult with a traffic engineer to help analyze options, and model various evacuation scenarios. The traffic engineer could also analyze which roads could be connected to create loop routes, identify key roadways that could be widened to facilitate use by firefighting equipment, and assess options for widening the tight switchback at Berry Drive and Deer Ridge Drive. The information compiled by the traffic engineer would give the committee data to help facilitate road discussions with government agencies and private landowners. This is a multi-year project, and would take place at the same time as other suggested projects. The CWPP Planning Team recommends that one person spearhead this effort.

- Lead: One person from either: Upper Pine or La Plata County OEM

- Roads Committee Members: SJPLC, Columbine Ranger District, FLMD, La Plata County Sheriff, and any interested FL property owners
- Costs: Labor costs for roads committee participants, traffic engineer and resulting study, possible legal fees to ensure permanent easements, fees to purchase easements
- Outcome: Secure additional ingress/egress options for FL

Establishing Additional Ingress/Egress Roads for FL Estimate			
Labor Category	Hours	Rate	Extended
20, 4 hour meetings with 4 government staff*	320	\$27.00	\$8,640.00
Labor Subtotal			\$8,640.00
Directs	Cost/unit	# Units	Extended
Road Feasibility Study by Engineering Firm**	\$20,000	1	\$20,000.00
Time value of working with private landowners			Not estimated
Attorney Fees			Not estimated
Directs Subtotal			\$20,000.00
BUDGET			\$28,640.00
*staff include SJPLC, Columbine Ranger District, FLMD, La Plata County OEM, and volunteers			
**15-30K Estimate from Smith Engineering, personal communication on 6.16.11 with Tom Engell who's done similar studies, 970-375-7694			

4. Lake Simpatico Safe Zone – In the event that FL cannot be evacuated, people can be directed to the area around Lake Simpatico and the FL Community Center. This area can serve as a “Safe Zone” (see the Fuels Mitigation Map for placement). To create a Lake Simpatico Safe Zone, the FL CWPP Planning Team recommends removing all of the larger rocks and boulders from the common space area so it can be cleared. The FLMD would then mow the area twice yearly (or as needed) to keep the common space clear. In addition, approximately 64 acres of vegetation in the Lake Simpatico Safe Zone would need to be selectively thinned. The FLMD funding would have to be increased to cover these associated costs.

- Lead: Upper Pine and FLMD
- Maintenance: FLMD staff and equipment or FLMD hires an outside contractor
- Costs: Prep of Safe Zone (Labor costs for rock removal, equipment costs for Rock Picking Machine, equipment operator labor costs, rock disposal), Fuels Mitigation (man hours and equipment for conducting fuels mitigation), Maintenance of Safe Zone (man hours for mowing two times per year, mowing equipment, Labor and equipment costs for maintaining fuels mitigation every three years)
- Outcome: Create and maintain a Safe Zone at Lake Simpatico for FL

Creating a Safe Zone Around Lake Simpatico Estimate			
Subtotal A. First Year Safe Zone Creation			
Labor Category	Hours	Rate	Extended
Heavy Equipment Operator, 6 days	48	\$27.00	\$1,296.00
FLMD Oversight	8	\$27.00	\$216.00
Labor Subtotal			\$1,296.00
Directs	Cost/unit	# Units	Extended
Brushhog rental for 4 days*	\$100	4	\$400.00
Tractor with 5ft rock picker for 2 days*	\$495	2	\$990
Thinning 64 acres	\$1,000	64	\$64,000
Directs Subtotal			\$65,390.00
BUDGET			\$66,686.00
Subtotal B. Yearly Maintenance			
Labor Category	Hours	Rate	Extended
Heavy Equipment Operator, 2 days	16	\$27.00	\$432.00
FLMD Oversight	2	\$27.00	\$54.00
Labor Subtotal			\$432.00
Directs	Cost/unit	# Units	Extended
Brushhog rental for 2 days*	\$100	2	\$200.00
Directs Subtotal			\$200.00
BUDGET			\$632.00
*Equipment rental quotes from Southwest Ag, 970-884-4141, personal communication on 6.16.11			

5. Evacuation Route Fuels Mitigation Project – To facilitate emergency evacuation and firefighting, the FLCWPP Planning Team recommends completing an “Evacuation Route Fuels Mitigation Project.” This requires selectively thinning a 100-foot buffer from both sides of the evacuation route roads. This large fuels mitigation project would require extensive coordination and management, as it would affect 446 property owners, FLMD right of way, and cover 188 acres. Fuel mitigation needs would be assessed on a property-by-property basis. Some of the lots might not require any mitigation, and some might require extensive mitigation work to lower wildfire danger. In addition, the FL CWPP Planning Team suggests de-limbining all trees up to six feet in height, in areas where a full fuel mitigation treatment cannot be accomplished. Upper Pine will take the lead on managing and implementing this project and it will be up to the landowner to conduct maintenance on their property. A team of volunteers could be assembled to assist Upper Pine in educating residents on the need for this mitigation work.

- Lead: Upper Pine
- Volunteer Team: FireWise Ambassadors at FL, property owners, CSFS or designated forester
- Maintenance: private land owner

- Costs: Labor and equipment costs for fuels mitigation, slash disposal, time coordinating project and working with landowners
- Outcome: Reducing possible fire spread in FL and drastically improving chances of safe evacuation for the residents.

Task 5. Evacuation Routes Fuels Mitigation Project			
Labor Category	Hours	Rate	Extended
Upper Pine project management time	80	\$27.00	\$2,160.00
Labor Subtotal			\$2,160.00
Directs	Cost/unit	# Units	Extended
Thinning 188 acres*	\$1,000	188	\$188,000.00
Directs Subtotal			\$188,000.00
BUDGET			\$190,160.00

6. Formalize the FL CWPP Planning Team – The FL CWPP Planning team recommends that the current members meet once a year (every June) to help facilitate all parties implementing this FL CWPP. This “FL CWPP Implementation Team” will be critical to making sure the goals in this FL CWPP are met over time.

- Lead: Upper Pine
- Volunteer Team: Representatives from Upper Pine, FLMD, SJPLC, CSFS, FireWise, La Plata County OEM, FireWise Ambassadors at FL, property owners, designated forester
- Costs: Labor
- Outcome: Help Upper Pine and FL residents implement the FL CWPP, identify gaps, and brainstorm collaborative assistance.

Annual CWPP Team Meeting Estimate			
Labor Category	Hours	Rate	Extended
1, 4 hour meeting with 7 government staff*	28	\$27.00	\$756.00
Labor Subtotal			\$756.00
Directs	Cost/unit	# Units	Extended
none, covered above			
Directs Subtotal			\$0.00
BUDGET			\$756.00

*Representatives from Upper Pine, FLMD, SJPLC, CSFS, FireWise, La Plata County OEM, FireWise Ambassadors at FL, property owners, designated forester

5.2 Other Actions

Overall, the forest at FL is too dense, and overgrown from over 100 years of fire suppression. The FL CWPP Planning Team has strategized the following fuels mitigation projects to limit the spread and severity of a wildfire. These proposed projects would help protect both people and property at FL. These projects are not listed in order of priority. These projects will be completed as funding, interest, and opportunity match the FL CWPP Planning Team’s goals and objectives.

Corresponding maps: Community Map, Fuels Mitigation Map, Evacuation Hazard Rating Map

5.2.1 Fuels Mitigation Projects

5.2.1.1 Multi-Property Projects

1. CR 501 Fuels Mitigation Project – County Road 501 is a likely place for a human-caused fire to start. The FL CWPP Planning Team recommends thinning 200 feet from County Road 501 to the FL lots to reduce fire danger for the entire community. This project would be headed by La Plata County, the FLMD, and Upper Pine. This project involves 28 property owners and 31 acres of various vegetative conditions (see the Fuels Mitigation Map for alignment).

- Lead: Upper Pine, FLMD, and La Plata County
- Volunteer Team: FireWise Ambassadors at FL, property owners, CSFS or designated forester
- Maintenance: La Plata County would maintain their right-of-way (ROW) and the private landowners would be responsible for maintaining their property.
- Costs: Labor and equipment costs for fuels mitigation, slash disposal, time coordinating project, and working with landowners
- Outcome: If a fire started along CR 501, firefighters would have a better chance of extinguishing it before it could run up the slope into the rest of FL

CR 501 Fuels Mitigation Project Estimate			
Labor Category	Hours	Rate	Extended
Upper Pine project management time	10	\$27.00	\$270.00
Labor Subtotal			\$270.00
Directs	Cost/unit	# Units	Extended
Thinning 31 acres	\$1,000	31	\$31,000.00
Directs Subtotal			\$31,000.00
BUDGET			\$31,270.00

2. Toe of the Slope Fuels Mitigation Project – Since fire naturally runs uphill, the FL CWPP Planning Team recommends creating a 250-foot buffer of thinned vegetation along the toe of the slope, along FL Drive. This would help firefighters control a fire before it could run up the slope to the rest of the neighborhood. This project involves 46 property owners and 45 acres of various vegetative conditions (see the Fuels Mitigation Map for alignment).

- Lead: Upper Pine, FLMD
- Volunteer Team: FireWise Ambassador at FL, property owners, CSFS or designated forester
- Maintenance: FLMD would maintain their ROW and the private landowner would be responsible for maintaining their property
- Costs: man hours and equipment for fuels mitigation, slash disposal, time coordinating project and working with landowners
- Outcome: If a fire started at the base of FL, firefighters would have a better chance of controlling it before it ran up the slope and in to the rest of FL.

Toe of the Slope Fuels Mitigation Project Estimate			
Labor Category	Hours	Rate	Extended
Upper Pine project management time	20	\$27.00	\$540.00
Labor Subtotal			\$540.00
Directs	Cost/unit	# Units	Extended
Thinning 45 acres	\$1,000	45	\$45,000.00
Directs Subtotal			\$45,000.00
BUDGET			\$45,540.00

3. Drainage Fuels Mitigation Project – In drainages, fire rapidly spreads uphill. Thinning the major drainages at FL could help firefighters reduce the spread of wildfire (see the Fuels Mitigation Map for alignment). The FL CWPP Planning Team recommends treating a 200-foot swath in the five major drainages that run north to south in the neighborhood. This project would cross 160 property owner parcels and cover 98 acres. Slash removal on this project would be challenging, given the distance from drainage areas to roads.

- Lead: Upper Pine
- Volunteer Team: FireWise Ambassador at FL, property owners, CSFS or designated forester
- Maintenance: After the drainages are initially treated, it would be the responsibility of the owner to maintain fuels reduction on their property

- Costs: Labor and equipment costs for fuels mitigation, slash disposal, extra time for hauling slash and or chipping, time coordinating project and working with landowners
- Outcome: Reducing the likelihood of fire spreading rapidly up the drainages in FL

Drainage Fuels Mitigation Project Estimate			
Labor Category	Hours	Rate	Extended
Upper Pine project management time	20	\$27.00	\$540.00
Labor Subtotal			\$540.00
Directs	Cost/unit	# Units	Extended
Thinning 98 acres	\$1,000	98	\$98,000.00
Directs Subtotal			\$98,000.00
BUDGET			\$98,540.00

4. Unit 3 Fuels Mitigation Project – Unit 3 is the large block of undeveloped land on the northeastern side of FL (see the Fuels Mitigation Map for alignment). Once developed, this area would be the most difficult and dangerous to evacuate, given its distance from the entrance of FL (Evacuation Hazard Rating Map). It is also the most cost effective block of land to thin at FL, because there are no homes constructed in this unit. This area could be logged or even hydromowed, depending on vegetative conditions and landowner permissions. This fuels mitigation project would involve 53 property owners and 406 acres. If the scale of this project is too large, the Planning Team recommends treating a 500-foot swath of land, on the western border of Unit 3 to create a shaded fuel break. This fuel break would connect to the existing CSFS shaded fuel break, and help create a northern fuel break for the entire neighborhood.

- Lead: undecided – Upper Pine and or FLMD and property owners
- Volunteer Team: FireWise Ambassador at FL, property owners, CSFS or designated forester
- Maintenance: After the lots in Unit 3 are initially treated, it would be the responsibility of the owner to maintain fuels reduction on their property
- Costs: Labor and equipment costs for fuels mitigation and possibly logging, slash disposal, time coordinating project and working with landowners
- Outcome: Increase shaded fuel break continuity on northern boundary of FL, prepare Unit 3 for development

Unit 3 Fuels Mitigation Project Estimate			
Labor Category	Hours	Rate	Extended
Upper Pine project management time	10	\$27.00	\$270.00
Labor Subtotal			\$270.00
Directs	Cost/unit	# Units	Extended
Thinning 406 acres*	\$500	406	\$203,000.00
Directs Subtotal			\$203,000.00
BUDGET			\$203,270.00

*Thinning areas without houses may be accomplished at a lower price per acre.

5.2.1.2 Single Land Owner Projects

1. Complete Colorado State Land Shaded Fuel Break – CSFS has completed a shaded fuel break treatment across the southern boundary of the State land adjacent to the northern boundary of FL. There is approximately 6.5 acres left to treat (see the Fuels Mitigation Map). CSFS is planning to complete this fuel break, as funding allows.

- Lead: CSFS
- Maintenance: CSFS
- Costs: Labor and equipment costs for logging and or mowing, slash disposal, possible pile burning
- Outcome: Increase shaded fuel break continuity on northern boundary of FL, help prevent the spread of fire from the forested ridge on State land into the subdivision

Complete CSFS Shaded Fuel Break Estimate			
Labor Category	Hours	Rate	Extended
CSFS project management time	80	\$27.00	\$2,160.00
Labor Subtotal			\$2,160.00
Directs	Cost/unit	# Units	Extended
Thinning 6.5 acres	\$800	45	\$36,000.00
Directs Subtotal			\$36,000.00
BUDGET			\$38,160.00

*Thinning areas without houses may be accomplished at a lower price per acre.

2. Ranson’s Shaded Fuel Break – The northern boundary of FL is composed of BLM, private and CSFS (see above project) land. The private land is owned by the Ranson’s. The BLM has conducted fuels mitigation all around the Ranson parcel (WUI Map). If the Ranson’s conducted fuels mitigation on their property, it would create a continuous fuel break. The FL CWPP Team

proposes that the BLM and Upper Pine write a letter to the Ranson's explaining why creating a 13-acre shaded fuel break on the southern boundary of their property (Fuels Mitigation Map) would help create a continuous fuel break. BLM and Upper Pine might be able to provide funding to cover some of the implementation costs.

- Lead: undecided – Upper Pine and BLM
- Maintenance: Upper Pine, BLM, and the Ranson's would need to come to agreement regarding costs of implementation and future maintenance
- Costs: Labor and equipment costs for fuels mitigation and possibly logging, slash disposal, time coordinating project
- Outcome: Increased shaded fuel break continuity on northern boundary of FL, increased forest health for Ranson's parcel, decreased likelihood that a fire would spread from FL into the Ranson's parcel

Ranson's Shaded Fuel Break Project Estimate			
Labor Category	Hours	Rate	Extended
Upper Pine project management time	20	\$27.00	\$540.00
Labor Subtotal			\$540.00
Directs	Cost/unit	# Units	Extended
Thinning 13 acres	\$1,000	13	\$13,000.00
Directs Subtotal			\$13,000.00
BUDGET			\$13,540.00

5.2.2 Increased Responsibility and Funding for Forest Lakes Metro District

1. Creating a Fuels Mitigation Fund for FLMD – The FLMD is funded by fees paid by property owners at FL. FLMD could help create a less fire prone community if their funding and responsibility was increased to cover the associated costs. Several landowners recommended adding a \$3-5/month fee to the current FLMD fees. This money would go into a general fund and cover the cost of fuels mitigation in the ROW, brush pile management, and curbside slash pickup days.

- Lead: FLMD
- Volunteer Team: FireWise Ambassador at FL, property owners
- Costs: Labor costs associated with fee increase
- Outcome: FLMD would have funds to implement the FLMD lead projects in this FL CWPP, including FLMD Common Space fuels mitigation, brush pile management, and curbside brush pickup days

Creating a Fuels Mitigation Fund for FLMD Estimate			
Labor Category	Hours	Rate	Extended
FLMD project management time	20	\$27.00	\$540.00
Labor Subtotal			\$540.00
Directs	Cost/unit	# Units	Extended
none	\$0	0	\$0.00
Directs Subtotal			\$0.00
BUDGET			\$540.00

2. FLMD Common Space Fuels Mitigation Projects – FLMD has jurisdiction over 357 acres of FL road ROWs and common areas (see gold shaded areas on Community Map). If the FLMD could create a fuels mitigation fund, it could conduct and maintain fuels mitigation along road ROWs and common areas, such as the water tank lots and the area around Lake Simpatico. Fuels mitigation in the road ROWs would also facilitate snowplowing and road maintenance. FLMD Common Space Fuels Mitigation Project would also help protect vital infrastructure at FL, including water supply and electricity.

- Lead: FLMD
- Maintenance: FLMD
- Costs: Labor and equipment costs for fuels mitigation, slash disposal, boundary survey expenses, time coordinating project and working with landowners concerning the ROW alignment
- Outcome: increases the chances of protecting vital infrastructure, such as water and electricity, in the advent of a wildfire

FLMD Common Space Fuels Mitigation Projects Estimate			
Labor Category	Hours	Rate	Extended
FLMD project management time	40	\$27.00	\$1,080.00
Labor Subtotal			\$1,080.00
Directs	Cost/unit	# Units	Extended
Thinning 357 acres	\$1,000	357	\$357,000.00
Directs Subtotal			\$357,000.00
BUDGET			\$358,080.00

3. Brush Pile Management – FLMD maintains a brush pile in the Pine River Valley for the residents of FL. If the multi-parcel fuels mitigation projects in this plan are completed, the present brush pile system would not be able to handle the additional fuel loading. The FL CWPP Planning Team recommends that FLMD and Upper Pine jointly prepare a “Brush Pile Management Plan.” This plan would define burn parameters, maximum fuel loading, weather conditions, liability, and

staffing to supervise burning and ensure the brush pile does not become a trash pile. This Brush Pile Management Plan would also analyze other options for disposal, including grinding. Currently, the brush pile is open from 7:30AM to 3:30 PM during the week 8:00 AM to 3:00 PM on Saturday. The Planning Team recommends that FLMD extend the hours from 8:00 AM to 3PM on Sunday to allow landowners to dispose of slash on the weekend, and that they create a “Thank You Sign” to post at the brush pile.

- Lead: FLMD
- Maintenance: FLMD
- Costs: Labor and equipment cost to create and implement brush pile management plan
- Outcome: make slash disposal more convenient to landowners and make brush pile management safer for FLMD

Brush Pile Management Memo and Extended Hours Estimate			
Labor Category	Hours	Rate	Extended
1, 4 hour meeting with 3 government staff*	12	\$27.00	\$324.00
FLMD writing memo	4	\$27.00	\$108.00
Extending brush pile hours	8	\$27.00	\$216.00
Labor Subtotal			\$432.00
Directs	Cost/unit	# Units	Extended
none, covered above			
Directs Subtotal			\$0.00
BUDGET			\$432.00

4. Curbside Brush Pickup Days – With increased funding the FLMD could manage a spring and fall curbside brush pickup day. This would help landowners conduct fuels mitigation on their properties—since many landowners do not have a way to haul brush to the brush pile.

- Lead: FLMD
- Volunteer Team: FireWise Ambassador at FL, property owners
- Costs: Labor, truck and trailer equipment costs
- Outcome: Facilitate fuels reduction on individual lots in FL

Curbside Brush Pickup Program Estimate			
Labor Category	Hours	Rate	Extended
FLMD advertising time	4	\$27.00	\$108.00
1 FLMD picking up slash for 2 days/year	16	\$27.00	\$432.00
Labor Subtotal			\$540.00
Directs	Cost/unit	# Units	Extended
none, covered above			
Directs Subtotal			\$0.00
BUDGET			\$540.00

5.2.3 Long-term Wildfire Risk Reduction Planning with WUI Partners

The community of FL is affected by the actions of its neighbors and the surrounding regulatory environment. The FL CWPP Planning Team recommends the following long-term planning actions:

1. La Plata County – Currently, La Plata County does not regulate fuels mitigation or conduct FireWise planning. The FL CWPP Planning Team suggests creating a team of volunteers who are interested in changing the Land Use Plan and the Tax Code, to encourage fuels mitigation, penalize lack of mitigation, and regulate driveway width and slope to facilitate emergency response.
 - Lead: Volunteer Team comprised of FireWise Ambassador at FL, property owners, and CSFS
 - Costs: Labor from volunteer team, county costs of changing codes, regulation, and hiring an inspector
 - Outcome: Encourages policy changes at the County level to create economic incentives for fuels reduction at FL and surrounding areas
 - A cost estimate was not created, because this action is spearheaded by volunteers.

2. Surrounding Private Landowners – The FL CWPP Planning Team would like to create and mail a letter to all the parcel owners in the FL WUI area, which is approximately 1,200 people, letting them know that they influence fire danger at FL and are covered under the FL CWPP.
 - Lead: Volunteer Team comprised of FireWise Ambassador at FL, property owners, and support from CSFS and Upper Pine
 - Costs: Labor from volunteer team, printing, mailing costs
 - Outcome: Encourages surrounding landowners to complete fuels mitigation projects and lets them know that they are covered under the FL CWPP umbrella
 - A cost estimate was not created, because this action is spearheaded by volunteers.

3. Surrounding Government Lands – The FL CWPP Planning Team requests that the surrounding BLM, USFS, and CSFS plan for and maintain their forest treatments within the FL WUI area (WUI Map). This includes mechanical thinning and prescribed (Rx) burning.

- a. Lead: Government Agency, either CSFS, BLM and USF (SJPL)
- b. Costs: Labor, planning, thinning and burning re-treatment costs.
- c. Outcome: Wild fire mitigation treatments around FL are maintained
- d. A cost estimate was not created, because this request is a normal part of current government jobs.

These areas include:

- Grassy Mountain Shaded Fuel Break, CSFS, 2007-Present: CSFS has completed the majority of a shaded fuel break on the FL boundary. The FL CWPP Planning team requests that this project be completed to the BLM border, that slash disposal be completed, that the area is prescribed burned, and that the CSFS plan to maintain the shaded fuel break with future Rx burns by 2017, or as needed before then.
- FL Project 1, Mechanical Thinning, SJPLC, 2003: The SJPLC completed thinning and burning slash piles in the section of the center of FL in 2003. The Planning Team requests SJPLC add the maintenance of this area to their planning horizon. The Columbine Fire Management Officer said that they will conduct reconnaissance planning in the summer of 2011 to assess what maintenance might be required (S. Legarza, personal communication, 3/28/11).
- FL Project II, Mechanical Thinning, SJPLC, 2008: This thinning and slash pile burning project was recently completed by the SJPLC. The FL CWPP Planning Team requests that this project be maintained and added to the SJPLC planning horizon.
- Grassy Mountain RX Burn, SJPLC, 1999-2000: The FL CWPP Planning Team requests that this project be maintained and added to the SJPLC planning horizon for future Rx burning. The Columbine Fire Management Officer said they will conduct reconnaissance planning in the summer of 2011 to assess what maintenance might be required (S. Legarza, personal communication, 3/28/11).
- Wickenson Mountain RX Burn, SJPLC, 1990: The FL CWPP Planning Team requests that this project be maintained and added to the SJPLC planning horizon. The Columbine Fire Management Officer said that this project retreatment is already in process. A fire line was installed in 2007 and public outreach has been completed. The SJPC is waiting for the right fire weather conditions to re-burn Wickenson Mountain (S. Legarza, personal communication, 3/28/11).
- Little Bear Mechanical Thinning Treatment 2004 and Prescribed Burn 2007, SJPLC: The FL CWPP Planning Team requests that this project be maintained and added to the

SJPLC planning horizon. The Columbine Fire Management Officer said they will conduct reconnaissance planning in the future, to assess what maintenance might be required (S. Legarza, personal communication, 3/28/11).

5.3 Education and Community Outreach

In order for things to change at FL, the residents of FL must believe that implementing fuels reduction projects are worthy of their time and investment. The following ideas for increasing education and community involvement were contributed by the FL CWPP Planning Team and FL residents. Cost estimates are not detailed for this section, because each project will be lead by volunteers.

5.3.1 FireWise Ambassador at FL

1. Create a team of FireWise Ambassador at FL – These Ambassadors would help implement the FL CWPP and increase public participation throughout the subdivision. These Ambassadors would provide leadership to volunteers at FL that are interested in helping the community with wildfire-related projects. Lead: the FireWise Coordinator and existing FireWise Ambassadors, Upper Pine and FLMD assistance
 - Costs: Volunteer labor
 - Outcome: Provide Upper Pine with the assistance they need to implement CWPP projects, increase community education and participation, distribute information about possible grant funding assistance for fuels mitigation work

5.3.2 Potential Project Ideas for FireWise Ambassadors

1. Encourage all residents to register their cell phones with reverse 9-1-1 (see Appendix C).
2. Find creative funding and/or assistance to help implement projects:
 - Help those who cannot afford fuels mitigation by organizing groups of volunteers—such as students, AmeriCorps, mandated community service, scouts
 - Research and find grant opportunities
3. Notify the FL Community about the CWPP actions by:
 - Using social media
 - Maintaining fire information at the mailboxes
 - Sending a targeted mailing to owners of lots that are endangering their neighbors. Offer funding assistance, if available
 - Requesting a large Smokey Bear Forest Service sign that says Fire Risk Today is Low, Medium, or High. FLMD would install the sign, and UP would maintain the daily fire rating.

4. Organize events to raise public awareness. Ideas include:

- Organize an annual FireWise event that brings the community together.
- Organize lectures and field trips about fire, fuels reduction, chainsaw safety, and forest health for interested people in the community.
- Organize an educational hike to the top of Forest Lakes, led by a resident who lived through the Missionary Ridge Fire, to discuss what it was like to live in Forest Lakes through that event.
- Organize a “Tour of Defensible Spaces” event, where people could look at properties that have been mitigated for wildfire. This will help people visualize what defensible space looks like, so they can imagine what their property will look like.

5. Reward people that have completed fuels mitigation by:

- Providing signs for individual landowners who create model defensible space, distributed by CSFS or FireWise.
- Promoting the planting of aspen after thinning—organize an aspen sale at a reduced price in collaboration with the CSFS or local nurseries.

6. Create custom FL information about fire related topics, including:

- An informational packet that every new homeowner receives at the closing of a property that includes the importance of creating and maintaining defensible space, has contact information for additional resources, a map of the evacuation route, and information about what to do in case of a fire.
- Create a brochure about thinning that is FL specific. Focus on how mitigation looks good and improves property values.

7. Recruit realtors into the process by providing education and training.

8. Discourage the use of fireworks in FL by passing out information before the 4th of July.

9. Change FL covenants when the opportunity arises (See Section 3.5 of the FL CWPP above).

10. Encourage a firewood business at Forest Lakes, ideas include:

- Recruit a business to buy firewood from property owners who do mitigation, and then sell the wood to Forest Lakes residents who burn wood. Perhaps help provide a lot or cleared area for the business to stage wood.
- Or, create a “wood exchange” where residents could bring their wood to stage, and other residents could take firewood in exchange for making a trip or two with their trailers full of brush to the brush pile.

5.4 Monitoring and Evaluation

The various projects recommended in this FL CWPP will be monitored and evaluated by the lead of each project. Project leads are encouraged to keep detailed project files documenting the process for each project. Upper Pine and the FireWise Ambassadors will play a primary role in most projects, and will have assistance from the multi-agency FL CWPP Implementation Team (past Planning Team).

The FL CWPP Implementation Team will create a summary every June of the tasks outlined in this CWPP. This summary report will include task completion status, lessons learned, additional resources needed, and standards used to measure success. This will help the FL CWPP Implementation Team to identify unmet needs and collaborative solutions. This will also provide support for Upper Pine and the FireWise Ambassadors.

Upper Pine will be responsible for updating this CWPP with new information and changing priorities. It is recommended that the CWPP be updated annually, if needed, when the Project Summary Report is submitted.

MAPS

The maps associated with the FL CWPP include:

	Map Description	Original Map Size	FL CWPP Hardcopy Size
Map 1	Location Map	36 x 36 inches	Reduced to 11 x 17 inches
Map 2	WUI Map	36 x 36 inches	Reduced to 11 x 17 inches
Map 3	Community Map	36 x 36 inches	Reduced to 11 x 17 inches
Map 4	Evacuation Hazard Map	36 x 36 inches	Reduced to 11 x 17 inches
Map 5	Ingress/Egress Options Map	11 x 17 inches	11 x 17 inches
Map 6	Fuels Mitigation Map	11 x 17 inches	11 x 17 inches

If you would like to view the full 36 x 36 inch FL CWPP maps, please contact:

Contact	Physical Address	Phone Number
Dale Kortz	Forest Lakes Metro District Office 271 North Mountain View Dr. #107 Bayfield, CO 81122	970-884-2925
Rich Graeber	Upper Pine River Fire Protection District Office 515 Sower Drive Bayfield, CO 81122	970- 884-9508

APPENDICES

Appendix A- FL CWPP Planning Team, Schedule and Meeting Minutes

Appendix B- Public Involvement Strategy

Appendix C- Public Handouts and Advertising Materials

Appendix D- Creating Wildfire Defensible Zones and Contractor List

Appendix E- FireWise Construction and Design Materials

Appendix F- Fire Behavior at Forest Lakes

Appendix G- Estimated Treatment Costs