



San Jacinto Mountains Community Wildfire Protection Plan

Approved

Riverside County Mountain
Area Safety Taskforce
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Photo by Ron Perry

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1.0 Executive Summary

The primary mission of the Mountain Area Safety Taskforce (MAST) and the Mountain Communities Fire Safe Council (MCFSC) is to prepare for and mitigate the likelihood of a disastrous fire in the mountain communities while restoring the forest to a healthy state. Restoring forest health within the Wildland Urban Interface (WUI), as defined in the Community Wildfire Protection Plan (CWPP), not only benefits the communities in the forest but also protects the forest itself. Reducing the risk of catastrophic wildfires in the mountains also protects the communities located below the forest from potential flooding and debris flows. In the process, the organizations focus on helping residents and visitors to understand that they do not live in houses with trees in the yard but rather in a forest with houses in it.

The CWPP is authorized by the Healthy Forest Restoration Act of 2003 (HFRA 2003). HFRA emphasizes the need for federal agencies to collaborate with communities in developing hazardous fuel reduction projects and places priority on treatment areas identified by communities themselves through development of a CWPP. Priority areas include the WUI, watersheds, areas impacted by windthrow, insect or disease epidemics, and critical wildlife habitats that would be negatively impacted by a catastrophic wildfire. The CWPP requires agreement among local government, local fire districts, and the state agency responsible for forest management. The CWPP must also be developed in consultation with interested parties and the applicable federal agency managing the land surrounding the at-risk communities.

Riverside County third district supervisor Jeff Stone and staff have been strong supporters and advocates of this plan. As a public safety advocate, Supervisor Stone commends the diligent effort of MAST and the Mountain Communities Fire Safe Council. This CWPP is an exemplary example of how community partnerships work to improve a neighborhood's quality of life.

This plan addresses the needs of communities from the top to the bottom of the San Jacinto Mountains. This inclusiveness is meant to ensure that every community has a voice in the protection plan. It also recognizes that all areas of the mountains are a potential starting point for a catastrophic fire. There have been massive multiagency fuel reduction efforts underway for the last several years that have already gone a long way in accomplishing many of the goals identified in the CWPP. This CWPP recommends proactive fuel management including strategic fuelbreaks, strengthening of abatement enforcement ordinances, enhanced outreach and education programs, and a comprehensive evacuation and preparedness program. The CWPP is a living document that will evolve over time. MAST and MCFSC will manage the ongoing maintenance of the plan.

The San Jacinto Mountains have much the same fire problem as other locations in Southern California. Decades of fire suppression have created a critical fuel load in virtually every fuel type. The disastrous fire season of 1910 prompted a national policy of fire exclusion through aggressive fire suppression and prevention activities. An additional factor that changed the condition of the San Jacinto Mountains was decades of logging. This practice

removed old trees in massive quantities and new trees grew up in even-aged stands. The forests of these mountains are not first generation forests. With the advent of development within the wildlands, fires could no longer be allowed to run without considering effects on people's lives and property. This fire exclusion policy has resulted in a tremendous buildup of wildland fire fuels and a significant change in forest composition and stand structure. Fire cannot be arbitrarily reintroduced into the environment without first evaluating and mitigating the effects of this fire exclusion.

Many of the initial organizational requirements have been underway through MAST. MAST has been gathering together the decision makers in the community for the last two years on a monthly basis. One of the main activities of the MAST organization has been to prioritize, organize, and monitor the removal of dead trees killed by the bark beetle infestation. As part of this effort, the firefighting agencies have been engaged in an ongoing fire threat analysis. In 2003, ESRI provided a GIS laboratory for the MAST agencies to develop a multiagency map base for analysis and mapping of tree mortality and resulting activities. All these resources have been a tremendous springboard for the development of the SJCWPP.

1.1 CWPP Goals

- Facilitating and assisting in removal of dangerous fuels to achieve optimal protection of people, property, and habitat
- Continuing and expanding education of residents and interest groups to assist in creating greater safety from fire
- Continuing to support the work of federal, state, and fire protection agency resources in creating a safer environment in the San Jacinto Mountains

1.2 Key Issues Identified in the CWPP

- The definition of Wildland Urban Interface
- Community-prioritized fuel treatment projects
- Abatement and ignitability
- Insurance
- Evacuation

1.2.1 The Definition of Wildland Urban Interface

The WUI shall be inclusive.

The WUI is defined as a geographic area where human habitation and its developments intermix with wildland or vegetative fire fuels. This human development may consist of both interface and intermix communities. The typical boundaries of a WUI exist without reference to municipal city limits or urban growth boundaries. The significance of the

WUI is that it defines the boundary of the CWPP and where recommended actions may apply. The Healthy Forest Restoration Act of 2003 encourages the community to evaluate other factors, such as watershed, and recreational use that are important to the local community so it can define the WUI to reflect the full spectrum of local considerations. The WUI defined in the CWPP supersedes other WUI definitions.

1.2.2 Community-Prioritized Fuel Treatment Projects

The community identified, recommended, and prioritized agency fuel treatment projects. There is a complete listing of the agency projects in section 10.

1.2.3 Abatement and Ignitability

The community and fire agencies are seeking voluntary compliance. Education and outreach programs will be made available to encourage voluntary compliance. When voluntary compliance fails, abatement enforcement is a very high priority for the communities. The current enforcement regulations are seen as ineffective. Resources to monitor and enforce abatement are inadequate. The situation is complicated by the fact that so many houses are vacation homes. (See section 9.1.)

Recommendations

1. The CWPP recommends the county amend ordinance 695.1 for more enforceable abatement regulations for the San Jacinto Mountains area. The CWPP also recommends that a tax lien program be developed, staffed, and funded as part of the enforcement compliance strategy on both developed and undeveloped lots.
2. Increase inspections and mailings to initiate abatement.
3. Focus on highest risk areas to begin with.
4. Enforce a real estate sales abatement requirement.
5. Report violations to the Fire Safe Council or the local fire station.
6. Develop a mediation process for neighbor-to-neighbor abatement disputes.
7. Change the law on planting flammable ornamentals.
8. The Fire Safe Council will assist homeowners with noncompliant neighbors.
9. MAST will publish fire safe landscaping guidelines containing a list of less flammable plants.
10. Increase education for abatement alternatives that minimize erosion.

11. Streamline process for abatement along roads.
12. Improve the outreach program to provide regulations to everyone in the community.
13. Provide a program to educate the community about removal choices.
14. Institute a fire resistant structures retrofitting program to make existing structures fire resistant.

1.2.4 Insurance

Insurance companies should become more involved with the community and develop a realistic understanding of the fire threat and appropriate mitigation measures for the San Jacinto Mountains area. Statewide rules developed in Sacramento need to be adjusted to fit the realities of this community.

Recommendations

1. MAST members and community representatives will work with agencies and elected officials to assure that insurance abatement requirements are reasonable, consistent, and achievable.
2. The Fire Safe Council should invite the insurance companies to participate in the community fire planning effort to better understand the specific issues, capabilities, and constraints of the San Jacinto Mountains area.
3. Educate the community on what insurance companies are looking for and be proactive in providing that information to them.
4. Insurance companies should offer reduced premiums for fire-resistant structures.

1.2.5 Evacuation

1. Create a neighbor network to facilitate evacuation.
2. Provide evacuation notices (door hangers) to identify evacuation status.
3. Provide education and outreach about available animal evacuation programs.
4. Publicize animal shelter locations.
5. Make sure evacuation routes are adequately marked.
6. Expand evacuation mapping throughout the mountain communities by adding Twin Pines, Poppet Flats, Snow Creek, and Skyland Ranch to the MAST evacuation plan.

7. MAST agencies should distribute evacuation leaflets during an evacuation.
8. Maintain road clearance—California Department of Transportation, USFS, the county, and private owners.
9. Install signs with emergency radio station frequency information.
10. Extend transportation corridor fuels reduction beyond national forest boundaries.
11. Study the possibility of secondary access to Twin Pines Road to Hwy. 243 between Poppet Flats and Vista Grande.
12. Improve mapping throughout the mountain area.
13. Implement reverse 911.
14. Develop and maintain a database of the disabled persons needing assistance during evacuations.
 - a. Provide Fire Safe Council information to law enforcement.
15. Increase radio station WNKI's (emergency radio station) power.

The MAST agencies worked together to produce the *Riverside County Mountain Communities Citizen Evacuation Guide*. The guide includes critical preparedness, contact, and evacuation logistics information. The entire *Riverside County Mountain Communities Citizen Evacuation Guide* is included in appendix G.

2.0 Introduction

2.1 Goals

- Facilitating and assisting in removal of dangerous fuels to achieve optimal protection of people, property and habitat.
- Continuing and expanding education of residents and interest groups to assist in creating greater safety from fire.
- Continuing to support the work of federal, state, and fire protection agency resources in creating a safer environment in the San Jacinto Mountains.
- Supporting agency priorities for safety projects including assessment of values at risk; evacuation plans; ability to defend specific properties; identification of critical facilities

2.2 Plan Location

The San Jacinto Mountains are located approximately 100 miles east of the cities of the Los Angeles basin. The plan covers an area of approximately 521 square miles (333,593 acres). Approximately 248,638 acres or 58 percent of the area are within the San Jacinto Ranger District of the San Bernardino National Forest, and 161,541 acres or 41 percent of the area is within the Santa Rosa and San Jacinto Mountains National Monument. The remaining land is either privately owned or is part of a state, county, or water district park. (See Map – 1.)

The elevation ranges from just below 1,000 feet up to 10,834 feet above sea level. This range of elevations and accompanying differences in temperature, precipitation and other environmental variables are significant factors contributing to the area's remarkable variety of plant and animal species. Many canyons in the mountains support riparian areas not typical of a desert environment. Streams and seeps also support many palm oases. (See Map – 2.)

The San Jacinto Mountains are part of the Peninsular Range Province, one of the largest geological units in North America. The Peninsular Range Province begins in Mexico at the terminus of the Baja Peninsula, and runs northwest for approximately 900 miles, ending in the San Jacinto Mountains. Within the San Jacinto Mountains is San Jacinto Peak, world-renowned as the steepest escarpment in North America. The peak rises from 800 to 10,834 feet in less than seven horizontal miles. This dramatic change in elevation results in diverse and unique vegetation zones through the mountain range.

The elevation profile of the San Jacinto Mountains consists of six vegetation zones that are based primarily on temperature and precipitation, which are in turn regulated by elevation and latitudinal location. Due to effects from the Pacific Ocean, the western slopes of the San Jacinto Mountains are cooler and receive significantly more moisture, while the eastern side

is hotter and drier. Below 4,000 feet on the western side, coastal sage scrub and valley grassland dominate. Also on the western slopes, between 4,000 and 6,000 feet, chaparral is the dominant vegetation. Common chaparral species include chamise, manzanita, and ribbonwood (redshank). On both sides of the mountains, montane coniferous forest occurs from roughly 5,500 to 9,000 feet in elevation. Vegetation in this area includes Jeffery pine, ponderosa pine, incense cedar, and sugar pine. At the uppermost 2,000 feet of the San Jacinto Mountains, limber and lodgepole pine dominate, and together are known as the subalpine forest zone. On the eastern side of the San Jacinto Mountains, creosote bush is a predominant vegetation type up to 3,500 feet. Other eastside species include: brittlebush and barrel cactus at the lower elevations. And from 3,500 to 7,000 feet, chaparral and pinyon-juniper woodland reign. Vegetation in this range includes ribbonwood, pinyon pine, manzanita, Nolina, and California juniper. Above 7,000 feet on the eastern slopes, montane coniferous and subalpine forest occur as they do on the western side.

One unique aspect of the San Jacinto Mountains is its isolation of both the mountain and the province from other mountainous regions. On the western side of the Peninsular Range Province is the Pacific Ocean. Only in southern California does a part of the province have terrestrial connections to other parts of the North American continent. However, the Pacific Ocean acts as a barrier for plants and animal distribution to the west. On the eastern and southern side of the province is the Salton Trough, which includes the Salton Sea and incorporates the largest area of land below sea level in the Western Hemisphere. This area is also one of the hottest and most arid areas in North America, effectively reducing plant and animal distribution to the east. To the north, the San Jacinto Mountains are separated from the Transverse Ranges by the San Geronio Pass. The result of this "island" isolation is an assemblage of species unique to this region.

2.3 Demographics

The mountain supports a relatively sparse permanent population of approximately 11,000, less than 1 percent of the county population. The growth rate from 1990 to 2000 was approximately 20 percent which is less than half that of the surrounding flatland communities. The Idyllwild-Pine Cove area is the most densely populated area on the mountain, with the rest stretched out along the Hwy. 243/74 corridor. The population tends to be a little older, with 20 percent of the population 65 years old or above compared to 12 percent as the national average. Although surrounded by reservations, Native Americans represent only about five percent of the population represented by the plan. The average household income was approximately \$41,000 in 2000 compared to a statewide average of \$65,000. (See Map – 3.)

2.3.1 Characteristics of San Jacinto Mountains Communities

(See Map – 4.)

2.3.1.1 Governance

- The Plan area is dominated by the USFS which manages 58 percent of the land. Twenty-three percent of the area is privately owned or part of the County Parks system; federal land managed by the BLM accounts for 7 percent. California State Parks manages 6 percent of the land, including the San Jacinto Wilderness. Indian tribes own the remaining 5 percent of the land.
- All of the communities within the San Jacinto Mountains are unincorporated.
- State, county, and independent Community Service Areas serve the mountain communities.

2.3.1.2 Transportation

- Hwy. 243 and Hwy. 74 together comprise a transportation "spine" north and south across the mountain. Four routes from the mountain extend from this spine; Hwy. 74 from Mountain Center to Hemet; Hwy. 243 from Mountain Center to Banning; Hwy. 74/371 from Mountain Center to Anza; Hwy. 74 from Mountain Center to Palm Desert. Both the Anza and Palm Desert turn offs are at the southern end of the San Jacinto Ranger District. All evacuations will rely on these routes.
- All highways are two lanes, although there are passing lanes in some areas.
- Hwy. 74 has numerous paved turnouts, often equipped with emergency call boxes.
- The Riverside County Transportation and Land Management Agency (TLMA) maintains the county road systems within some of the communities.
- Many roads in smallest communities are unpaved and are "dedicated but not accepted for maintenance" by the county.
- State transportation, fire agencies, and Southern California Edison have removed dead trees along the major highways and done some additional brush removal to make evacuation safer.

2.4 History

The Cahuilla Indians were first to live in the San Jacinto Mountains. Much of Tribal life centered on the lush vegetation and abundant water in the area known as Indian Canyons, site of North America's largest natural fan palm oases. Juan Bautista de Anza led a famous inland expedition through the mountains in 1774 and again a year later. Rancho San Jacinto, an outlying cattle ranch of Mission San Luis Rey, was founded sometime after 1816 and gave its name to the mountains. Rancho San Jacinto Viejo was granted by the Mexican government to Jose Antonio Estudillo in 1842. Estudillo and his Mexican and Indian

vaqueros tended large herds of cattle in the valley and depended on water that flowed from the mountains. Cattleman soon rode into the mountains upon American occupation of California. What is now Garner Valley, just outside the National Monument boundary, provided high meadows for cattle raising for Charles Thomas, as well as other cattle raising families—Hamiltons, Tripps, Reeds, Arnaizes and Wellmans. A drought from 1862 to 1865 drove cattlemen into the mountains in search of water for thirsty cattle.

During this period, there were decades of large scale logging in the San Jacinto Mountains. This practice removed old trees in massive quantities and new trees grew up in even-aged stands. The forests of these mountains are not first generation forests.

The post-WWII period saw a rise in mountain residents, which had begun in 1920 with the increase in mountain home development. In 1945, there were fewer than 450 residents living in Idyllwild, Pine Cove, and Mountain Center. But by 1950, the Idyllwild School of Music and the Arts had held its first summer session, and by the end of the 1950s, the mountain population had risen to 2,500. During the 1960s, the southern California population boom continued and was coupled with a boom in affordable vehicles and motorcycles. The mountain communities continued to provide recreation destinations for southern Californians. Along with the social benefits provided by these land uses came increases in access routes, surface disturbances, and impacts to natural and cultural resources. But with visitation also came an increased public awareness and concern for the desert and mountain environments.

2.5 Climate

The San Jacinto Mountains climate is Mediterranean, with cool rainy winters, and hot dry summers. Rainfall ranges from under four inches in the lowest desert reaches, to over 32 inches at the higher elevations of the western slope. The area experiences frequent prolonged droughts, extending for years.
(See Map – 5.)

2.6 Extreme Weather Events

The area experiences extreme wind events known as Santa Ana winds. The Santa Anas are often accompanied by single digit humidity. The winds occur most often in late fall, at the end of the summer dry period that may have lasted between five and six months. During the summer dry lightning may also occur triggering many lightning strike fires at the higher elevations.

2.7 Partners

The principal partners directly involved in the development of the SJCWPP include

- Community Representatives:
 - Poppet Flats
 - Snow Creek
 - Twin Pines
 - Idyllwild/Pine Cove
 - Mountain Center
 - Garner Valley
 - Pinyon Crest
 - Pinewood
 - Ramona Band of the Cahuilla Indians

- Mountain Communities Fire Safe Council (MCFSC)

- Idyllwild Chamber of Commerce

- Idyllwild Board of Realtors

- Riverside County Office of Emergency Services

- Idyllwild Fire Department

- The United States Forest Service, San Bernardino National Forest, San Jacinto Ranger District (USFS)

- California Department of Forestry and Fire Protection (CDF) Riverside Ranger Unit

- Natural Resource Conservation Service (NRCS)

- Bureau of Land Management (BLM)

2.8 Relationship to Other Plans

Federal Policies that apply to the San Bernardino National Forest and San Jacinto Ranger District include The Healthy Forest Restoration Act which incorporates a framework of policies to enable fuel reduction in a timely way to create a healthy forest while protecting forest values.

The Land Management Plan, Part 1 Southern California National Forests Vision, and the Land Management Plan, for the San Bernardino National Forest—These are two interdependent plans that guide all activities on the National Forests in Southern California, and more detailed guidance for the San Bernardino National Forest. All projects and actions identified in the CWPP must work within the guidelines set forth in these two plans.

The National Monument Plan—all activities and projects that result from the SJCWPP must work within the policy guidelines defined in the Santa Rosa and San Jacinto Mountains National Monument Proposed Management Plan and Final Environmental Impact Statement.

The BLM Plan is the South Coast Resource Management Plan, June 1994. The South Coast RMP documents where and how BLM plans to administer public lands within the South Coast planning area that includes areas outside of the San Jacinto and Santa Rosa Mountains National Monument including areas such as Poppet Flats, Rancho Encino, and Twin Pines.

The Disaster Mitigation Act of 2000, DMA 2000, sets policies as a basis for plans to avoid disasters including (1) a planning process, (2) an assessment of risks, (3) an action plan for mitigation, and (4) a plan for maintenance and updating process. The CWPP should become an integral part in the DMA 2000 risk analysis and mitigation planning effort for the mountain area.

The National Fire Plan policies (NFP), a long term plan to reduce hazards to communities and natural resources and protect lives.

The Western Governor's Association Ten Year Comprehensive Strategy for Reducing Wildland Fire Risks and subsequent implementation plan.

Federal Wildland Fire Management Policy.

State Policies: The California Fire Plan: goals to reduce total costs of fire by protecting assets at risk through pre-fire management and increasing success of suppression through initial attack. The CDF has a Unit Fire Management Plan that is specifically relevant to the San Jacinto Mountains. A significant development in fuel reduction on private properties is legislation passed in 2004 that increases fuel removal on properties. Enforcement to these standards will become effective in 2005.

Local Interagency Policies and Policy Implementation: Federal, state, county, and local agencies, working as the Mountain Area Safety Task Force (MAST), have jointly developed policies and plans for the San Jacinto Ranger district. Member agencies include the USFS, Riverside County Fire Department, BLM, CDF, Idyllwild Fire Department (a local independent fire department), county Office of Emergency Services and other agencies. In addition, the California Department of Transportation, water districts, utilities, and our Mountain Communities Fire Safe Council participate in MAST. Some implementation of these policies has been accomplished.

County of Riverside: The county has policies in place for responding to fire and post-fire flooding in the County's Seismic Safety Element of the Riverside County General Plan and in detailed plans stewarded by the Office of Emergency Services, County-CDF fire response plans, and Sheriff Department. Under the current threat from a high inventory of dead and dying trees and dangerous underbrush on the public and private lands, department policies are coordinated among county agencies to reduce the risk of fire and post-fire flooding.

County of Riverside's Ordinance No. 787.1 requires fuel reduction, removal of hazardous storage and debris, and adequate access for new and expanding uses in high fire hazard areas. The communities within the San Jacinto Ranger District are in the high fire hazard areas. In addition, the county building code incorporates regulations related to materials and design that may increase fire risk.

Local Policies: Idyllwild Fire Protection District has policies requiring abatement of fire hazards and coordination with other agencies. These are intended to be implemented through code enforcement.

Councils of Government and relevant policies: Three Councils of Government overlay portions of Riverside County. The Southern California Association of Governments includes five counties, including Riverside County. The Western Riverside County Council of Governments includes communities on the north-, west- and south-facing slopes of Mount San Jacinto. The Coachella Valley Association of Governments (CVAG) serves the eastern slopes of the San Jacinto Mountains and the Coachella Valley desert communities to Spring Crest and some of the Pinyon area communities.

The Western Riverside Council of Government (WRCOG) represents all of the western county, including the western and northern slopes of the San Jacinto Mountains. Policies and plans related to Riverside County's implementation of the Multi-species, Habitat Conservation Plan (MSHCP) on private land are overseen by WRCOG. The Coachella Valley Association of Governments (CVAG) coordinates policies related to private lands in the desert and Native American lands on the eastern slopes of the San Jacinto Mountains. CVAG and the Agua Caliente leadership have had significant success with joint land use policy decisions on tribal land. The Southern California Association of Governments, SCAG, develops policies for seven counties and obtains and distributes grants related to housing, transportation and other issues. SCAG's activities focus primarily on urban issues.

Native American lands: A National Monument and four tribal land areas exist on portions of the San Jacinto Mountains. These include the Soboba Band of Mission Indians lands at the base of the western slope. The Morongo Reservation owns several sections of land on the northern San Jacinto Mountains and has major assets across I-10. The Agua Caliente tribal lands are on the lower eastern slopes adjacent to Palm Springs. The Cahuilla reservation is on the south slope, adjacent to Anza. The tribal councils set their own policies on land use and management. The Soboba band has sent representatives to meetings on the CWPP.

2.9 Grants/Current Funding

When the tree mortality emergency first became evident in 2002, the Riverside County Board of Supervisors allocated nearly one-half million dollars in funds to assist with mitigating the hazard on private lands.

Due to the massive tree mortality rate, the San Bernardino National Forest received Congressional earmarks to fund dead tree removal from hazardous areas. In 2004, the

San Jacinto district received approximately \$4 million for treatments. In 2005, the amount went up to \$7.75 million. This year the funding has gone down to approximately \$1.2 million. The future of special funding is uncertain.

The Natural Resources Conservation Service through Public Law 74-46, the Soil Conservation and Domestic Allotment Act, has allocated 20 million dollars for tree mortality treatments in Riverside County. This funding is focused on projects that protect soil stability and watershed health. The funding is expected to be spent in the next three years.

The Mountain Communities Fire Safe Council has been successful in applying for additional grants since the start up grant. The Environmental Assessment was approved in June 2004. These 2004 grants focus on fuel reduction on private property at the most vulnerable borders of our communities. As of April 24, 2005, we have implemented two grants to significantly reduce overstocked fuel on the perimeter of the community. A third grant is nearing completion. Our experience with grant oversight and our relationship to fully insured and qualified contractors suggest more expedited grant implementation in the future. MCFSC has been awarded three additional grants to further reduce overstock of fuels in roughly the same areas. We have been notified that a third round of fuel reduction grants will be available soon.

The California Department of Forestry, Southern California Edison, and the Natural Resource Conservation Service has greatly enhanced community safety by removal of dead trees from large parcels and the grant areas. However, this removal of dead trees temporarily reduced property owners' sense of urgency relative to further fuel reductions. The U.S. Forest Service is active in fuel reduction projects on the San Jacinto Ranger District adjacent to several communities.

Through Town Hall meetings and other contacts with the public, we have made progress in reaching the objectives of our grants. Experienced "Woodies" have worked with property owners to ensure that adequate fuel reduction is being achieved and meets the grantor's and MCFSC's safety objectives. The Mountain Communities Fire Safe Council is continuing to recruit and welcome additional communities to become members of our council. We are also willing to assist other communities in the San Jacinto Mountains to initiate their own CWPP through independent Fire Safe Councils or through property owners associations. An additional chapter is being formed in the Rancho Encino community adjacent to Silent Valley and Twin Pines. We have made offers of briefings to the largest unaffiliated property owners' association and plan to include three other nearby "neighborhoods" in our invitation. (See description of San Jacinto Mountain communities below.)

Educating our neighbors and our council members is a key goal and accomplishment of our Mountain Communities Fire Safe Council. Participants share information with our neighboring communities in the San Jacinto Mountains. As members of the Inland Empire Fire Safe Alliance, we have learned from techniques from other FSCs on a regular basis. Our president participated in a two day workshop at Lake Tahoe in 2003. Other officers have also participated in the Mountain Summit at the University of Redlands in June 2003; the Governor's Blue Ribbon Committee studying the October 2003 fires, a Congressional

hearing in San Bernardino County and in conferences on development of the Community Wildfire Protection Plans. In January 2005, diverse local interest groups and several of our officers participated in a four-day "Fireshed workshop" presented by the United States Forest Service to identify areas of high risk for fire in the San Jacinto Ranger District. A united commitment to reducing risk from wildfire was displayed by these disparate participants with the support and subtle leadership of the U.S. Forest Service personnel.

3.0 Planning Process

3.1 Coordination and Planning

The combination of extended drought- and bark beetle-killed trees triggered the formation the Mountain Area Safety Task Force and the Mountain Communities Fire Safe Council. These two groups represent most of the organizations and communities affected by the SJCWPP. A core group was formed from these two organizations to coordinate the creation of the SJCWPP. The process continued through the summer, culminating in four community outreach sessions in different parts of the mountains.

MAST was formed in 2003 to mitigate the threat to life, property, watershed and the ecosystem. The MAST is organized using the Incident Command System (ICS) with a unified command; formal Incident Action Plans (IAPs) are produced and followed by the MAST members. The Mountain Area Safety Task Force includes representatives from over thirty entities with a role in emergency response in the San Jacinto Mountains.

- United States Dept. of Agriculture, United States Forest Service
- United States Dept. of Interior, Bureau of Land Management
- U.S. Natural Resources Conservation Service
- Representatives of Congressional Office holders
- California Office of Emergency Services
- Representatives of State Senators and Assemblymen
- California Department of Forestry and Fire Protection
- California Highway Patrol
- California Office of Emergency Services
- California Department of Transportation (CALTRANS)
- California Department of Fish and Game
- State and Regional Air Quality Management District
- California Department of Parks and Recreation
- California State Parks
- Riverside County Office of Emergency Services
- Riverside County Sheriff's Department
- Riverside County Fire Dept. (CDF contract)
- Riverside County Flood Control District
- Riverside County Waste Management
- Riverside County Parks Department/Nature Center
- Riverside County Transportation and Land Management Agency
- Idyllwild Fire Protection District (Independent)
- Independent water districts: Pine Cove Water District, Idyllwild Water District, Fern Valley Water District, Lake Hemet Municipal Water District (LHMWD purveys water to the San Jacinto Valley below the mountain and to Garner Valley residents)
- Private: Southern California Edison Company; private camp grounds; property owners associations

A MAST cooperative project to demonstrate a safe and healthy urban forest is nearly complete on a five-acre parcel near the Mountain Resource Center. This project, located on the main highway through the mountain communities, will be a model, fire safe woodland. CDF has worked in cooperation with MCFSC, the Pine Cove Water District, and SCE to plan, develop, and execute the project.

3.2 Process Overview

There are eight recommended steps in developing a Community Wildfire Protection Plan:

- Step 1: Convene Decision makers
- Step 2: Involve Federal Agencies
- Step 3: Engage Interested Parties
- Step 4: Establish a community Basemap
- Step 5: Develop a community Risk assessment
- Step 6: Establish Community Hazard Reduction Priorities and Recommendations to Reduce Structural Ignitability
- Step 7: Develop an Action Plan and an Assessment Strategy
- Step 8: Finalize the Community Wildfire Protection Plan

This is the current status of each of the steps:

- **Step 1:** Formation of an operating (or core) group with representation from the Riverside County Board of Supervisors (senior staff in emergency services and planning may be delegated planning responsibility), Idyllwild Fire Protection District (an independent district), the California Department of Forestry and Fire Protection (CDF), and Riverside County Fire Department/CDF. CDF has dual roles. Riverside County contracts for fire services with CDF throughout all county areas. CDF also has statutory responsibility to protect State Responsibility Area (SRA), which consists of the nonfederally held land within the forest. CDF also provides fire protection for Bureau of Indian Affairs holdings. The operating group identifies representation of each level of public involvement in the CWPP.
- **Step 2:** The core team worked with the United States Forest Service (USFS) and the Bureau of Land Management (BLM), drawing on their mapping capability, experience in natural resource planning and land management expertise. USFS and BLM will implement priorities established by the CWPP. The National Resources Conservation Service will assist with on the ground fuel removal on large public and

private properties where high fuel hazards exist. The Federal Office of Emergency Services may also participate in the planning process. These agencies may incorporate public input early in the process in such exercises as "Fire Shed" planning (Spring 2005) and Town Hall meetings (Fall 2004 and Spring 2005). These agencies will be responsible for developing mapping that reflects the priorities for the CWPP established by agencies, property owners and other residents.

- **Step 3: Engage Interested Parties:** The core group identified communities that would be logical participants in the CWPP process. Members of the MCFSC contacted individuals within each community to act as members of the CWPP planning group. A series of community meetings was planned to help gain public input into the process. The group decided to have a meeting in each of the three main geographic areas. The Northern area would represent Snow Creek, Poppet flats, and Twin Pines. The Central meeting would cover Pinewood, Pine Cove, Idyllwild, and Mountain Center. The Southern meeting would address Garner Valley, Pinyon, Springcrest, and other small communities. The goal was identify issues without trying to answer questions, or solve the problem. A presentation was developed to introduce the goals of the CWPP, and introduce potential topics for discussion. The group then had about an hour to list issues related to fire threat in their community. Two note takers recorded the ideas for each speaker.

The first of the meetings was held in Vista Grande on September 7, 2005. Participants came from Rancho Encino Estates, Twin Pines, and Snow Creek. People were enthusiastic, and had very clear and positive input. Evacuation was a very high priority for the group, possibly because it was a week after Hurricane Katrina hit the gulf, and the results of improper evacuation hit home. Fire threat from the west far down the hill was considered a high priority as was fuel reduction along Hwy. 243 and all feed evacuation routes. Abatement enforcement and insurance were also extremely important. A fairly comprehensive list of resources and community assets was developed. The complete listing for the meeting is in appendix C.

The second meeting was held the following night in Garner Valley. It was attended by residents of Garner Valley, Mountain Center, Pinyon Crest, and the desert side of the mountain. Evacuation, abatement and insurance were again high on people's agendas. The evacuation of domestic animals was a significant issue with the Garner Valley residents. Communication and warning were also priorities, and have been the focus of efforts by the Garner Valley association. Expediting the environmental review process was a concern from some of the folks, who thought the CWPP would circumvent the NEPA process.

The third meeting was held on September 10, at the Idyllwild Town Hall. Again, evacuation and warning were significant issues, specifically, sirens, warning and evacuation for disabled persons. Environmental sensitivity in abatement efforts was important to a number of attendees.

The fourth meeting was a Community Workshop held at the Idyllwild school. Issues gained from the first three meetings defined the structure. After a brief presentation recapping the first three meetings and the purpose of the workshop, the group was divided up by north, central, and southern groups. Three groups of fire agency professionals organized by three topic areas, Fuels Treatment/Vegetation Management; WUI and Environmental Issues—Abatement, Ignitability, Insurance; and Evacuation and Communication, rotated among the groups. The goal was to identify specific actions based on the issues developed from the three community meetings. Note takers were assigned to each team. (The workshop notes are included in appendix D.) The final SJCWPP addresses the issues identified in the workshop. Issues not acted on will have a response in appendix D following the section on the Workshop notes.

- **Step 4:** Establish a Community Basemap: The community basemap was developed as a collaborative effort between the USFS, CDF, and ESRI. ESRI set up a server and Web site to accommodate the data from all the various agencies participating in the MAST efforts. Data from all the agencies has been loaded and integrated. This has helped coordinate efforts among the various agencies. Fire threat based on fuel load, slope, aspect and frequency was developed by the CDF Fire and Resource Assessment Program (FRAP).
- **Step 5:** Develop a Community Risk Assessment: Fire threat was compared to various values on the mountain to determine the level of risk for various sites. The plan area has 80 percent Fire Threat in the very high or extreme levels, and virtually everything on the mountain is at risk.
- **Step 6:** Establish Community Hazard Reduction Priorities and Recommendations to Reduce Structural Ignitability: Fuel reduction priorities have been worked out in the collaborative process of the MAST. A Fireshed workshop was held in January that included community participation. From that, fuel reduction priorities were further refined, and vetted with the community.
- **Step 7:** Develop an Action Plan and an Assessment Strategy: The October 13 workshop is the cornerstone of the community prioritization effort. The MAST developed priorities based on similar principles prior to the formation of the CWPP committee. Their efforts have been catalogued, and have been integrated into the SJCWPP.
- **Step 8:** Finalize the Community Wildfire Protection Plan: The signature page of this document will include the signatures of
 - The Idyllwild Fire Department (the local Fire Department)
 - Riverside County Fire Department (CDF) (the local Fire Department)
 - The California Department of Forestry and Fire Protection (the State Fire Agency)
 - Riverside County Board of Supervisors (Local Government)

4.0 Wildland Urban Interface

4.1 Considerations

The WUI is defined as a geographic area where human habitation and their developments intermix with wildland or vegetative fire fuels. This human development may consist of both interface and intermix communities. Typically, these communities meet or exceed housing densities of one structure per five acres, with natural vegetation coverage of at least 50 percent of the land area. The typical boundaries of a WUI exist without reference to municipal city limits or urban growth boundaries. The significance of the WUI is that it defines the area to which the CWPP actions apply. The Healthy Forest Restoration Act of 2003 encourages the community to evaluate other factors that are important to the local community, so it can define the WUI to reflect the full spectrum of local considerations. The WUI defined in the CWPP supersedes other WUI definitions.

The management of the potential for wildfire within the WUI is of even greater importance when these areas are located in or adjacent to watersheds and experience heavy recreational use. Both of these factors are present in the San Jacinto Mountains. The key to the preservation of water quality and other forest resource values within the San Jacinto Mountains watershed is contingent upon our ability to manage the geographical distribution and intensity of wildfires occurring within the watershed. The majority of wildfires which have burned in the watershed during the last century have occurred at lower elevations within the WUI and have burned into the watershed in response to upslope wind patterns, slope, aspect and vegetative patterns.

The WUI shall be Inclusive

(See Map – 6.)

The WUI shall include all the communities that can be affected by catastrophic fire in the San Jacinto Mountains. The WUI shall include strategic fuel breaks that can help prevent the occurrence of a catastrophic fire. The WUI shall include projects that ensure the integrity of the local watersheds. The WUI shall include projects that ensure slope and soil stability. The WUI shall include areas that are critical to the aesthetic appeal of the Mountains, clean air, clean water, wildlife, and recreation.

There are approximately 20 communities within the WUI. They range in full-time population from 50 to 3,000 people. Many of the mountain community homes are owned by people who live off the hill and keep their mountain property as a second residence. The communities are located in desert, chaparral, and conifer forests. They are along the main highway, and down miles of dirt roads. There are children, retirees, disabled people, and numerous animals in these communities. This plan must address all their concerns, and the WUI must ensure their inclusion.

Weather records show that during both the 1993 and 2003 firestorms, the Keenwild RAWs station recorded wind speed and relative humidity of 57 MPH, 6 percent, and 38 MPH, 12 percent, respectively, on the same days as fires were affecting other areas. This illustrates that the ingredients for the same types of fire events are present. In order to reduce the possibility of a fire reaching catastrophic proportions, strategic fuel breaks well outside the developed community are necessary. During the community meetings, the need for fuel treatments miles from the nearest houses was stressed as a way to mitigate the effects of a large catastrophic fire. It was the general consensus that the WUI needed to include these areas, so they would be considered for funding.

Protection of watersheds has been a consistent reason for expanded WUI's in the southwestern United States. Water is precious throughout Southern California. The San Jacinto Mountains are a critical watershed for hundreds of thousands of people living in Western Riverside Valleys. Any degradation of the watershed is detrimental to this critical water source.

Soil and slope stability are often severely compromised by fires. After the 2003 firestorms, 16 people died in the Christmas debris flows in San Bernardino. This was a direct result of the fires. In 2004, severe winter rains on denuded slopes washed out virtually every fire access road in the mountains. Many access roads to communities were blocked and damaged for months as well. These impacts affect people's livelihoods, as well as increasing already critical safety issues.

Although difficult to quantify, the aesthetic appeal of the San Jacinto Mountains is critical to both the livelihoods and lifestyle of the inhabitants of the mountain. It has world class majesty, and its primary use is as a recreation, vacation, and retirement location, due to its beauty. An extensive fire that ruins the view shed on this mountain would have catastrophic economic impacts on many residents of the community whether or not it burned down a single house.

4.2 Description of the WUI Boundaries

WUI boundaries: The CWPP Planning Committee, in consultation with mountain firefighting agencies and the MCFSC, has recommended that the outer boundary of the WUI be the USFS Boundary, and the National Monument Boundary North of Hwy. 74. This planning area is also the definition of the San Jacinto Mountains CWPP Wildland Urban Interface (WUI).

■ The WUI is roughly bounded by:

- South: the unincorporated community of Anza and the Cahuilla Reservation
- East: the Agua Caliente tribal lands and city boundaries of Palm Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells
- North: several sections of Morongo Reservation (Cahuilla) lands; the unincorporated community of Cabazon and the southerly boundaries of the City of Banning
- West: the tribal lands of the Soboba Band of Mission Indians; unincorporated areas of Valle Vista with a mix of urban and rural uses; and a large watershed tributary to the San Jacinto River
- Subareas: are identified by communities; geographic features including watersheds; and federal, state and local public lands

4.3 Community Legal Structure and Jurisdictions in WUI

■ Federal

- San Bernardino National Forest (San Jacinto Ranger District) has a central office in Idyllwild with management, emergency, planning and tourist functions. USFS also operates fire stations at Vista Grande, Keenwild, Kenworthy, Cranston, Anza/Tripp Flats, Alandale and Cabazon which is co-located with Riverside County Fire Station 24. Federal SBNF lookout stations have been staffed sporadically at several locations in the forest.
- Bureau of Land Management and the Forest Service oversee the eastern and southern foothill areas of the National Monument. The BLM fire station is co-located at Pinyon with Riverside County Fire Department. There are two federal post offices, at Mountain Center and Idyllwild.

■ State: State Parks, Mt. San Jacinto Wilderness, State Responsibility Areas; California Department of Transportation. There are four State (CDF) staffed County Fire Stations within the WUI in Pinyon, Garner Valley, Pine Cove, and Cabazon. In addition, there is one CDF state station immediately adjacent to the WUI in Anza, which is a shared location with the USFS Tripp Flats Engine.

■ County: Public day use parks, campgrounds, McCall Equestrian Park, and the Nature Center are owned by Riverside County and operated by the Parks Department. The County of Riverside provides government services to private property including land use, health and welfare services, real properties services, property related services, road maintenance, emergency services and other services to residents of the San Jacinto Mountains. A juvenile detention facility has existed on Twin Pines Road east of Hwy. 243 for half a century. Detainees have been evacuated numerous times from the 400 acre site of the facility.

- **Cities:** There are no incorporated cities within the San Jacinto Mountains.
- **Idyllwild Fire Protection District:** provides fire protection and ambulance service for Idyllwild and provides ambulance transport for Pine Cove.
- **Lake Hemet Municipal Water District:** operates a reservoir supplying water to eastern areas of the San Jacinto Valley and also supplies water to residents of the mountain in Garner Valley.
- **Other public water districts:**
 - Idyllwild Water District provides water and sewer service to Idyllwild below Fern Valley corners.
 - Fern Valley Water District provides water service to the Fern Valley above Idyllwild.
 - Pine Cove Water District serves Pine Cove and adjacent areas.
 - High Valleys Water District serves the northern communities on the mountain and currently is supplied with water pumped up from Banning. Exploration of a more local water supply is underway.
 - **Private Water Systems:** Several private water systems serving communities include Pinyon Crest and other communities on the southern end of the mountain. A few of the Pinyon area developments have stored water, as well as wells.
- **Schools:** Hemet Unified School District: provides educational services at Idyllwild School (K–8) to most mountain students and provides K–12 educational facilities in Anza Valley just outside of the SBNF on the southern end of the mountain. Some students residing in the northern part of the mountain attend Banning Schools in the San Geronio Pass. In addition, teenagers incarcerated for minor offenses serve up to ninety days at Twin Pines youth camp and are taught at that facility.
- **Utilities:** The Southern California Edison Corporation has been extensively involved in fuel reduction throughout the San Jacinto Mountain communities and continues to participate in interagency and community meetings on fuel abatement. SCE provides electric service to all communities on the mountain. Propane is provided by three vendors, two of which have tanks and stored fuel at locations on the mountain—Lower Pine Crest in Idyllwild and on Hwy. 243 between Mountain Center and Idyllwild.

ANZA Electric provides power to some areas in the WUI.

5.0 Community Descriptions

5.1 North

(See Map – 4.)

- Windy Point is a small community at the bottom of Blaisdale Canyon on the outskirts of the City of Palm Springs approximately four miles east of Snow Creek.

Snow Creek Village (See Map – 8.) is a private community just west of the Palm Springs city limits. It is situated on an alluvial fan at approximately 1,300-ft. elevation five miles due north of San Jacinto peak. The area is surrounded by federal and state land managed by BLM and CDF, respectively.

The University of California Riverside (UCR) manages the Canyon to the west, where there are multiple waterfalls and a creek flows consistently. In the canyon to the east, the Desert Water Agency captures water from Falls Creek. The Pacific Crest Trail passes across the northernmost section of Snow Creek Village, then crosses the desert floor heading towards San Geronio.

Notes and letters dating back to the 1890s show that the area was of interest to John Muir. He provided water for steam engines by creating a rock channel for water to flow from Snow Creek Village to the rail road tracks to the north. The channel is still intact, although covered with dirt. There is a grave marker for a two-year-old baby boy dated 1917 in one of the common areas.

There are 39 homes in Snow Creek. They are populated by 33 full time residents and eight renters (guests). Four homes are considered to be rentals; the owners live elsewhere. Four homes are weekend homes. Three homes have children. The five members of the board of directors of the homeowners association (HOA) have monthly meetings to notify, educate, and hear concerns of the homeowners. All directors are homeowners in the village. There are three common areas within the village controlled by the HOA. Two are natural desert and vegetation, and the third is an olive grove. There is no livestock allowed, just family pets. All roads in the village are owned and maintained by the Snow Creek HOA. Snow Creek road is the only access to the village. It is maintained by Riverside County. It was impassable, and left residents stranded for five days after the 2005 spring floods.

Electricity and phone service comes in on utility poles along Snow Creek road, and power to the entire village is sometimes interrupted by wind knocking poles down. There are fire hydrants throughout the village. Cabazon County Fire Station has life safety and structure protection responsibility within the village.

- Poppet Flats/Rancho Encino Estates/Twin Pines Area (See Maps – 9 & 10)

The northern part of the San Jacinto Mountain Range includes the areas of Poppet Flats, Rancho Encino Estates, and Twin Pines. Entering the San Jacinto Mountains from the

north on Hwy. 243, you climb from the floor of the San Gorgonio Pass (Banning with an elevation of 2,500 ft.) along a picturesque two-lane road bordered with desert sage, wild lilac, manzanita, creosote shrubs, and numerous outcroppings of rock. As you reach the 4,000 ft. level, you cross the edge of McMullen Flats, now known as Twin Pines.

Twin Pines is rapidly developing as a rural oasis for affluent residents desiring the mountain atmosphere within close driving distance of the 10 freeway. Many residents of Twin Pines commute daily to areas as far away as Orange County and Los Angeles. Once the site of the Sam McMullen Ranch, Twin Pines boasts of small orchards and ranches, residential sites, and a Riverside County facility for juvenile offenders. The only public access to the Twin Pines area is via Twin Pines Road, which is one of the few paved roads in the area. Most of the roads are narrow, rough, and unpaved. Both the juvenile facility's residents and the general population have been evacuated numerous times because of fire. The Twin Pines juvenile facility is approximately 400 acres and includes barracks, a gymnasium, and numerous outbuildings. It should be considered as a shelter in place should evacuation prove infeasible. Twin Pines has an estimated population of 175. An additional 75 individuals make up the residents and staff of the Twin Pines Boys Ranch.

About a mile and a half south of Twin Pines Road is Poppet Flats Road leading to Silent Valley Club, a private five star recreational vehicle resort. Established in 1974 as a private campground, it is affiliated with Coast to Coast and Passport America. With 850 camping sites, it potentially could have more than 2,000 individuals in need of evacuation in event of a wildfire. As most of the campers arrived in motor homes, evacuation in time of a wildfire will prove to be a challenge. The meadow near the campground has been used regularly as a staging area for firefighters. Silent Valley is located on the site of the old Poppett Ranch. In the 1800s the valley was used by local Indians for their fall meeting place. Large boulders in the area still bear the indentations made by Indian women grinding acorns from the many Oak trees in the valley.

In the early days of Hollywood, movie stars and city dignitaries used this area as a hunting club, providing the ideal escape from the stress of the city. The lakes were stocked with trout from Forest Home Hatchery, and Ringed Necked Mongolian Chinese Pheasants were imported to provide an opportunity for Pheasant hunting.

Located downstream from the Poppet Ranch was the Pierce Ranch. In 1926, the ranch was subdivided to provide parcels of land for hunters to purchase and set up weekend residences. Ownership of land also provided membership in the Rancho Encino Mountain Club, which was established to promote the hunting club. In 1929, the San Jacinto Mountain Club was incorporated to conduct social activities for the benefit of its members and guests and to seek solutions to problems common to owners of the property in the area from which the membership derives. Changed to Rancho Encino Mountain Club in August of 1993, the Rancho Encino Mountain Club officers have recently been involved in the writing of this CWPP. Indications also suggest a desire for the association to become a chapter of the Idyllwild Mountain Community Fire Safety Council.

Rancho Encino does boast of a Volunteer Fire Department organized in the early 70s. In 1984, the San Jacinto Mountain Club, now known as The Rancho Encino Mountain Club, donated a parcel of land for a fire station. Station 63 was built by Riverside County Fire Department and staffed by the volunteer fire company. In 1994, an additional parcel was donated to the county by the homeowners association (Rancho Encino Mountain Club). The fire station was enlarged in the mid 90s and now has its own engine. A brush collection site was established behind the fire station to encourage local residents to clear their properties. Within the last few years, the county fire staff have used a chipper to recycle the brush.

Unfortunately, as the Rancho Encino Mountain Club Track #2 was developed, the width of most roads in the development were only designated as 30 feet wide. To bring these roads up to county standards would necessitate substantial investment and loss of property by the residents. Periodically, roads within the community are severely damaged by heavy rains. Access to and from the fire station has been interrupted by washouts of roads, such as the Deer Trail Culvert, which became impassable in January 2005. Thankfully, the Riverside County Board of Supervisors were able to arrange for funding for the rebuilding of the culvert. Work has begun on the Culvert and should be completed by the end of January 2006. Residents of the area are extremely thankful. The current population of the Rancho Encino area is approximately 175 individuals.

Perched above the cities of San Jacinto and Hemet and the Soboba Reservation, Rancho Encino Estates has been an entry point for wildfire traveling up ravines, (especially Castile Canyon) from the Soboba reservation below. Residents are made up of retirees, weekenders, and others who either work locally or commute off the mountain. Residents of this area have been forced to evacuate several times in the last 15 years using Hwy. 243. Steep grades and narrow roads in the valley make evacuation a challenge. Equally challenging is the task of the fire department protecting homes on these narrow, steep roads.

The area is served by the High Valleys Water District. Established in the late 60s to serve the Twin Pines area, it was expanded in the early 70s to include the Rancho Encino area. The High Valleys Water District installed a system of water lines and storage tanks, bringing water to the area from the base of the San Jacinto Mountains near Banning. Currently, The High Valleys Water District purchases its water from the City of Banning, which now owns the water rights to the pumping area. Silent Valley has its own wells to provide water for the campground. Recently, funding was provided by a special grant to explore for a local water supply. A well was drilled on Riverside County Parks property located in the McMullen Flats. Other sources for providing an adequate supply of water for new developments in the area are currently being explored.

Just south of Poppet Flats Road is the Diamond Zen Center, a Buddhist Retreat. Originally called Hungry Hollow, it served as one of the relay stations for the Banning Idyllwild Stagecoach Line, which operated in the late 1800s.

Rancho Encino, Silent Valley, Twin Pines, and nearby scattered developments are subject to fire moved by strong winds from the north and east (Santa Ana winds) and from prevailing westerly winds that also funnel through the narrow San Gorgonio Pass. Most K–12 students attend Banning schools at the foot of the mountain and are transported by school bus. A few attend Idyllwild School, a K–8 school, in Idyllwild.

The nearest full time professional fire fighting organization is the USFS Vista Grande station, home of the Vista Grande "Hot Shots." While the Hot Shots are often sent to fires off the San Jacinto Mountain, they respond to local fires and other emergencies throughout the year. Alandale station, a second USFS station closer to Pine Cove, responds to fire and other emergencies throughout the northern part of the mountain.

In 2004, a combination of long unburned fuel and dry winds resulted in the Verbenia fire. The Verbenia fire entered old, high fuel areas that had not burned in decades, presenting a newly perceived high risk location. There are local concerns that this might be a model of fires to come.

There are scattered small communities (See Map – 11.) between Twin Pines and Pine Cove including Pinewood, Stonewood, and the Zen center well off the highway and several retreat centers and inns. As with the entire mountain, many camps are located off the highway, often accessed by several miles of dirt roads. There are seldom secondary roads for evacuation. A major concern with all of these camps is the lack of buses continually available for evacuation.

- **Pine Cove (See Map – 12.)** has a semi-official population of 350 permanent residents, many of whom are retired. As with all of these communities, second home owners and visitors triple the population during summer or holiday weekends. There is also vacation housing.

Pine Cove is another well defined community, surrounded by public lands. It is adjacent to a state park that has had little fuel reduction in recent years. It is flanked by two watersheds that are fire prone. The land is fairly steep and trees and shrubs are dense within and adjacent to the community. Below the highway (west/southwest) vegetation includes pines, cedars, oak and chaparral. It is a high priority area for fuel reduction.

Public services in Pine Cove include the Pine Cove Water District which extends several miles south of Dutch Flats, a meadow area adjacent to Franklin Street. The Pine Cove County Water District has provided water to adjacent communities during times of fire. Edison provides power throughout the mountain. There is no natural gas service for the San Jacinto Mountains; however, several propane companies

provide service to residences and businesses. Two have locations on the mountain, one at Mountain Center and one in the central part of Idyllwild.

The Mountain Resource Center is also located off Franklin and adjacent to Dutch Flats. The MRC includes offices for CDF, Riverside County Fire, MCFSC, California Highway Patrol, and includes offices for the County Office of Emergency Services and other county agencies.

Pine Cove also has a fully staffed county fire station at Marion View and Hwy. 243 in the center of the community. The Pine Cove station began as a volunteer station and still relies on volunteers for major events. An ambulance operates out of the Station. Cooperative agreements are in place among fire related agencies.

■ **Idyllwild-Fern Valley**
(See Map – 13.)

- **Community Description:** Idyllwild-Fern Valley residents have cherished mountain aesthetics for a century. The area has the largest concentration of population of the defined communities on the mountain, with an official census population of 2,300 permanent residents. Many of the residents are retired or have aged in place. More than two thirds of the homes are second homes so that the resident population is often triple that number in summer and on weekends. In addition, there are many inns, B&Bs, and motels that are kept busy throughout the year. Major events such as the Jazz Festival may bring as many as 50,000 people to Idyllwild for a three-day weekend in late August. Many of these visitors have limited knowledge of streets and emergency facilities.

The community is bound by SBNF lands except for small areas bound by State park lands, county park lands, and some undeveloped properties on the community's periphery. It is a mixed conifer, oak and chaparral environment.

Circulation: From 1900 through 1925 three developers laid out the streets and original lots. The street pattern considered views rather than efficiency. Early homes are wood construction and some retain shingle roofs. Streets were laid out and homes built with a focus on rustic living.

In recent years larger homes have been built, requiring more water for day-to-day living. Many are at the urban wildland interface. A long-time local resident who is a civil engineer indicates that only about 400 additional homes could be built according to established lot lines and the county's zoning and subdivision requirements (and limitations on septic tank efficiency and water consumption). Construction is further limited by periodic droughts compounding fire risk.

Tourism and related traffic of today's magnitude was not envisioned in those early days. As with most San Jacinto Mountain communities, there are limited vehicle routes to the main highway, especially in Fern Valley in the higher elevations.

State Hwy. 243, a two lane road, passes north and south through Idyllwild, the only avenue to leave Idyllwild. At Mountain Center, five miles south, Hwy. 74 branches off to the San Jacinto Valley with the major (longer) fork proceeding south to alternative highways to Anza (west) or the Coachella Valley (east). Hwy. 243 to the north passes through several communities before descending to the San Gorgonio Pass community of Banning.

- **Community services:** Commercial-tourist services are present in greater proportion than permanent residents, reflecting the large number of day and vacation visitors. An increasing number of day tourists visit Idyllwild by tour buses or on their own. In addition, family and youth camps are located within Idyllwild, and the renowned Idyllwild Arts Academy typically has 150 students plus staff in residence.

Medical services are available from a medical office staffed part time by a physician and full time by a physician assistant; a dentist, two physical therapy and two chiropractors' offices.

WNKI, a local radio station, broadcasts information during emergencies, coordinating with KATY located in Temecula and covering a broader area. WNKI also broadcasts routine information of public interest. A volunteer group, RACES, has utilized private radios to broadcast emergency information. The local newspaper, the Town Crier, maintains a Web site with information on emergencies that are not immediately ended.

- **Public services:** Federal services include a post office and maintenance of the back bone Hwy. 243 from Mountain Center to Twin Pines. The headquarters of the San Jacinto Ranger District of the San Bernardino National Forest is located on Hwy. 243 and responds to fires throughout the area and is trained to back up other agencies in emergencies. The U.S. Forest Service coordinates responses to large fires and other major events along with city, state, and county agencies. In addition, the USFS has a planning unit that preplans emergency response, reforestation, anti erosion plantings and other long term development and uses of the San Jacinto Ranger District. On the east and northern portion of the San Jacinto Mountains is the Santa Rosa and San Jacinto Mountains National Monument maintained by the U.S. Forest Service and the U.S. Bureau of Land Management.

The federal Natural Resources and Conservation agency has worked aggressively to remove dead and dying trees on large parcels within Idyllwild and Fern Valley and other communities. Their work has significantly reduced the threat to residents.

California Department of Forestry and Fire Protection (CDF): With offices at the County's Mountain Resource Center, CDF works as a state agency in cooperation with the Riverside County Fire Department. Apart from response to fire and

maintenance of state lands, CDF has worked actively to reduce fuel, especially along evacuation routes. Using inmates from state conservation camps, especially Bautista Conservation Camp, trees and brush have been significantly reduced along major road corridors.

California Department of Transportation (CALTRANS) and California Highway Patrol (CHP): CALTRANS is responsible for maintaining Hwys. 243 and 74 on the mountain. The CHP is charged with vehicle code enforcement on public roads, is an additional law enforcement presence, and is a major player in the event of an emergency on the mountain.

Riverside County Fire Department: The County of Riverside contracts with the State of California to provide services through CDF to be the County Fire Department that services all communities on the mountain, except for Idyllwild where there is no County Fire or CDF Fire Station because of the existence of the Idyllwild Fire Protection District. Riverside County Fire is an all-risk fire department, responding to structure fires, vehicle accidents, hazardous materials incidents, technical rescues, and medical emergencies as well as responding to vegetation fires in cooperation with the other fire agencies.

The Riverside County Sheriff's Department provides around-the-clock deputies for the San Jacinto Mountains.

The County of Riverside road department (TLMA) is responsible for snow clearance and road maintenance on county roads in the communities of the San Jacinto Mountains. Most roads other than Hwy. 243 were offered for dedication in the 1950s to 1970s; some were accepted for maintenance by the county and others were not. Some private roads exist in most of the mountain communities.

The County of Riverside Parks Department has several recreation programs in Idyllwild. It operates a Nature Center with museum, meeting room and hiking trails. The county also operates several camps, including a large camp adjacent to the highway in Idyllwild. Humber Park and other smaller parks exist in both Idyllwild and Pine Cove.

The Idyllwild Fire Protection District was established in the 1950s to provide organized response to fire. IFPD is an independent fire department and is supported by parcel fees authorized decades ago. IFPD has around-the-clock fire and paramedic response, including ambulance service to the nearest base station hospital. IFPD receives numerous "patients" who walk in with everything from snake bites to fractures and heart attacks.

These public agencies have formed a consortium to address the current drought related dangers. Besides the above agencies, participants include county Office of Emergency Services, California Office of Emergency Services.

There is a strong volunteer base in Idyllwild. A number of organizations train and practice emergency response and threat reduction. These include the Mountain Community Patrol, Mountain Emergency Services Committee (MEMSCOMM), the Mountain Community Fire Safe Council, and the Riverside Chapter American Red Cross.

The County Office of Aging and the HELP Center are located in Idyllwild. Local churches and homeowner associations also help in assisting this population with evacuation or "sheltering in place."

- **Mountain Center (See Map – 14.)** is located less than five miles to the south of Idyllwild. The community is in a mixed chaparral and conifer zone. Its official identity is defined by a U.S. Post Office standing at the intersection of Hwy. 74 and Hwy. 243.

Mountain Center has 365 permanent (census) residents utilizing a variety of housing types including predominantly mobile homes and single family homes. Commercial services have decreased in the immediate area with many residents relying on the Idyllwild community for basic needs. Several miles further south, a major campground at Lake Hemet Municipal Water District's lake/dam site includes a grocery store utilized by Mountain Center residents and campground visitors. A U.S. Post Office is the only government building in Mountain Center and serves an area along fifteen miles of highway. Morning Sky, a large residential facility for children with learning and other disabilities, is located at Mountain Center. The Garner Valley county fire station is located at Morris Ranch Road and provides life safety and structure fire protection for this community. The Keenwild USFS fire station is located in Mountain Center and provides wildland fire protection as well as augmenting RVC on nonwildland fire calls.

From Mountain Center to the south and east there are scattered camps, homes, and ranches. Many of these are hidden away in the hills at the end of long dirt roads. An exception is a large lot development in Garner Valley and nearby Thomas Mountain residences.

- **Garner Valley Association (See Map – 15.)** lies in the central part of the San Jacinto Ranger District between Mountain Center and Pinyon. This development, subdivided in the 1970s, had been part of the first ranch in the San Jacinto Mountains. It is currently a large meadow area studded with conifers. Most lots are five acres. Groundwater is high in some areas and surface and subsurface flow contribute to Lake Hemet, a dammed reservoir serving the eastern part of the San Jacinto Valley below. Unlike some of the area's small communities, the Garner Valley Association provides boundaries for their development and has a property owners association. The POA Board has been very active, holding regular meetings on area affairs and distributing newsletters.

- **Other Garner Valley Area Communities** include Thomas Mountain and Apple Canyon areas and Baldy Mountain Mobile Home Park. All are reached by dirt roads or partially paved routes. There are also a few horse ranches in this area.

Apple Canyon is an example of a small community nestled in a valley reached by paved and unpaved roads. It is three miles from Hwy. 74. Baldy Mountain Mobile Home Park is a small, but dense community that has been subject to fire invasion in the past.

- **Pinyon Area**

(See Map – 16.)

There are several communities along Hwy. 74 from the intersection with highway to Anza. The vegetation is at the border between cacti and chaparral and small pines. Most of these communities are along private, usually dirt, roads. Some roads are gated. Homeowners or property owners associations are a usual pattern. Many of the residents are part timers. Full time residents tend to be oriented toward the desert communities for health, educational and shopping purposes. They are served by the CDF station on Hwy. 74 a few miles below the Hwy. 371 and Hwy. 74 intersection.

The larger community has suffered several fires and has been defended by the local CDF fire station. A high proportion of residents are over sixty years old and retired. Other residents commute to the desert communities to the east for medical and commercial services and/or employment.

- **Pinyon Crest** is one of several communities on "Palms to Pines" Hwy. 74. Pinyon Crest is a small, gated community in a Sonoran high-desert environmental setting. Pinyon Crest has a chapter of the Mt. Communities Fire Safe Council and members have participated in community clean up programs to remove brush and other fuel. Three seats on the MCFSC Board are allocated to Pinyon Crest residents and MCFSC provides equipment and volunteers for abatement.

- The following is a list of private camps in the mountain area:

Girl Scout Skyline Camp	Thousand Trails Resort
Girl Scout Camp Azalea Trails	Silent Valley Resort
Girl Scout Camp Joe Sherman	Idyllwild Pines
Boy Scout Camp Emerson	Camp Maranatha
Apple Canyon Center	Astrocamp
Pines Springs Ranch	Alhatti Christian Resort
Pathfinder Ranch	Buckhorn Camp
Zen Mountain Center	Camp Alandale
Tahquitz Pines	Lake Hemet Campground

There are also USFS, State Park, and Riverside County Open Space and Park District campgrounds on the mountain.

6.0 Forest Conditions and Wildfire in the Plan Area

6.1 Topography and Fuels

The San Jacinto Mountain area is characterized by extreme topography. The average slope for the entire area is 33 percent. Although there are valleys, they are relatively small and narrow and there is very little distance from the valley floor to steep terrain. The fuels fall into three main categories: desert scrub, chaparral, and mixed conifer.

6.2 Fire History

The San Jacinto Mountains have the dubious honor of having a rich fire history. Since 1928 there have been 14 fires of more than 10,000 acres that have affected the plan area. There have been 40 other fires of between 1,000 and 10,000 acres. As active as this history is, the main conifer area has escaped without a burn other than localized lightning strike fires. This isn't due to lack of fire hazard. On the contrary, it is due to the obvious hazard that has prompted an intensive effort to fight fire on the mountain in the Idyllwild/Pine Cove area. This has resulted in a extremely dangerous level of tree density. (See Map – 17.)

6.3 Weather Factors

The San Jacinto Mountains experience periodic Santa Ana winds particularly in the late fall after months without significant precipitation. The Keenwild Remote Automated Weather Station (RAWS), located at 4,900-foot elevation near Mountain Center, recorded Easterly winds up to 57 miles an hour and 6 percent humidity during the 1993 Southern California Firestorms, and winds of 38 miles and hour and 12 percent humidity during the 2003 firestorms. This clearly illustrates that the same weather that devastated nearby counties affected the San Jacinto Mountains. Many of the areas that burned in San Diego County have not burned in over 80 years. They had a fire start at a bad time in a bad spot, and the wind did the rest. It is important to note that the fire spread of many Santa Ana driven fires go down slope to the west in the beginning, but as the weather shifts burn back to the east, often for considerable distances due to brisk onshore winds pushing a well developed fire front.

6.4 Natural and Existing Fuel Breaks

The only Natural fuel breaks are the rock cliffs on the mountain. The USFS and CDF have been creating fuel breaks for years. (See Map 18.)

6.5 Fire Threat Analysis

The California Department of Forestry and Fire Protection has developed a fire threat analysis map in GIS using a combination of factors. Slope, aspect, fuel load, and fire frequency were combined to assess the fire threat throughout the state. The analysis shows that 80 percent of the plan area has either very high or extreme fire threat. See the Fire Threat Methodology in appendix H.

(See map – 19.)

Very high tree densities combined with an extreme incidence of tree mortality in the conifer forest above approximately 5,000 feet (See Maps – 20 & 21.) on the western slope of the mountains have contributed to a very dangerous fire situation.

Threats to specific communities

Snow Creek	Map - 22
Twin Pines	Map - 23
Poppet Flat	Map - 24
Pinewood	Map – 25
Pine Cove	Map – 26
Idyllwild	Map – 27
Mountain Center	Map – 28
Garner Valley	Map – 29
Pinyon Area	Map – 30

7.0 Values at Risk

7.1 Communities

There are approximately 8100 housing units, and 11,000 people in the plan area. There is no detailed accounting of the number of units that have high susceptibility to fire. Most houses have wood exteriors. Many have too much vegetation with the defensible space. All the communities are surrounded by very high to extreme fire threat. There are many animals as well.

7.2 Infrastructure

7.2.1 Water

Lake Hemet and other reservoirs and streams are at risk from sediment after a fire. Nitrogen loads would also increase after a fire, and the lakes, reservoirs, and streams may experience eutrophication (algal blooms, fish kills) due to extra nitrogen loads.

7.2.2 Energy

The electrical lines are those required to service. There are no high capacity transmission lines or gas lines.

7.2.3 Communication

The plan area has cell, microwave, and radio towers. These vital communication sites have received special attention and fuel treatment by the MAST agencies. Telephone lines are linked by telephone poles.

7.3 Watershed

The west side of the mountains feed into the Santa Ana watershed. There are a number of recharge basins on the valley floor at the base of the mountains. There is a water line that crosses the northwest corner of the plan area. There is also risk to the natural groundwater recharge capability in the upper San Jacinto Upper Pressure Zone.

Canyon Lake and Lake Elsinore, two waterbodies at the terminus of the San Jacinto River watershed, are listed on the federal Clean Water Act Section 303 (d) list of impaired waters for excessive nutrients (nitrogen and phosphorus). The Regional Board has adopted regulations (known as Total Maximum Daily Loads [TMDLs]) to control nitrogen and phosphorus runoff from all sources, including the forested lands.

7.4 Viewshed

One of the most significant values at risk in the plan area is the natural beauty of the mountains. They are not just a representative group of mountains with the certain elevation specs. Mt. San Jacinto is one of the most dramatic mountains in the world. It is surrounded by burgeoning urban sprawl. A devastating fire that burns a significant portion of the mountain will devastate one of nature's visual treats for decades.

8.0 Fire Protection Capability

8.1 Locally Applied Fire Policies

Local Implementation of Federal Fire Policies: Local Fire Plans, land management plans of BLM, USFS.

- California Fire Plan considers prefire management/initial attack. Used in forums to provide expert information to stakeholders on assets protected. Describe focused pre-fire management prescriptions.
- Local Policies: The California Department of Forestry and Fire Protection contracts with Riverside County for fire services which are sub-contracted with 16 of the county's cities. Several of these directly interface with public lands, including Native American holdings.
- County Policies: County ordinances require brush clearance and fire breaks. Enforcement is by CDF or IFPD. Some discussion has included the USFS related to fire prevention through brush and tree clearance, fire breaks, fire suppression and planning.
- Community Fire Safe Plan(s) and Fire Safe Councils including our Mountain Communities Fire Safe Council.

Firefighting Resources

USFS—The Forest Service has 7 fire stations within the plan area.
The District has 74 firefighters supporting the 7 stations on the forest.
(5 Patrols, single person in a truck)
Vista Grande—1 fire truck Water Tender Vista Grande Hot Shots
Alandale—1 fire truck
Tripp Flats/Anza
Cabazon
Keenwild—1 fire truck Water Tender Helibase—1 Helicopter
Kenworthy—1 fire truck
Cranston—1 fire truck

Riverside County Fire Department has

Poppet Flats—Volunteer Type 3, administered by RVC
Pinyon—1 fire engine—1 BLM engine colocated at the RVC Pinyon station
Mountain Battalion Chief who manages all of the RVC and CDF resources on the mountain

CDF has

Pinyon—1 fire engine, squad, water tender; 2 fire captains; 2 engineers; 3 firefighters;
1 BLM engine

Pine Cove—1 medic fire engine, 1 fire engine staffed by volunteers and 1 rescue engine
Garner Valley—1 fire engine, 1 fire engine medic reserve, and quad water tender
Helicopter in Hemet—2 S2T airtankers, 1,100 gallons of retardant, 1 air tactics guidance
plane
Bautista Conservation Camp within the national forest boundary—6 inmate fire crews
Anza Forest Fire Station—1 state engine, 1 county fire engine, 1 water tender, 1 squad
and a USFS engine collocated at the station
Additional fire engines, crews, chief officers and bulldozers located adjacent to the
CWPP area

Idyllwild Fire Department

1 Medic engine, 1 structure engine, 2 brush fire engines, 3 medic ambulances (1 4-wheel
drive), 75' Aerial Ladder Truck, 6 paramedics, 15 Paid call EMTs, Reserve Lt 3, 4
captains, 2 engineers plus chief, Paramedics Prevention Program, building and plan
checks, Training officer, EMS coordinator, Chief Prevention officer

Community Resources

There is a significant difference between the various communities based on the "official"
firefighting resources proximate to the community. The USFS has the watershed fire
protection responsibility for most of the SJCWPP area. In the Idyllwild/Pine Cove area,
where there are extensive firefighting resources provided by the Idyllwild Fire
Department and Riverside County Fire Department, there is not a need for individuals in
the community to provide their own firefighting resources. However, on the edges of the
CWPP area boundary, where water is also scarcer, there is a necessity for maintaining
adequate water in tanks, and some equipment in place to supplement firefighting
resources. There is a comprehensive listing of community firefighting resources in the
Assets section of appendix C—Community Meeting Notes.

9.0 Community Preparedness

9.1 Vegetative Fuel Abatement

In the community meetings, abatement, the removal of flammable vegetation from private property, emerged as one of the most important issues for local residents. Many homeowners on the mountain simply have not cleared dangerous vegetation from their property. The reason for the concern is that unabated properties create islands of ignition that can spread to other properties that have protected themselves effectively from the forest threat. The problem of non-abatement is aggravated in the San Jacinto Mountains by the high vacancy rate, which exceeds 60 percent in the core Idyllwild-Pine Cove area. (See Map – 31.) Since many homeowners only occupy their homes occasionally, it is difficult for them to develop a sense of community responsibility, or have much interaction with outreach programs. Additionally, many properties are rentals, with the occupants having little knowledge of the proper abatement and general fire safe concepts. Other techniques, such as employing sustainable practices (planting with native and drought resistant and fire resistant plants), avoiding erosion and other negative effects, should be employed to reduce the vegetation problem.

Enforcement of the abatement ordinance is very difficult. The process is cumbersome and time consuming for the enforcing agency. There are fines, but they are often less than the cost of abatement and many homeowners just consider it an economic trade-off. There was an overwhelming consensus from all the community meetings that abatement enforcement needed to be strengthened considerably to make the mountains fire safe.

The fire protection agencies within MAST and its predecessor, CRMP (Coordinated Resource Management Planning group), have agreed to use uniform enforcement standards and documentation. In addition, they have divided up the enforcement areas geographically between the agencies.

Grant funding secured in the mid-90s and early 2,000s did fund a tax lien program developed for the clearing of vegetation fuel hazards off of vacant lots using County Ordinance 695. However, the program was discontinued after the grant funds were expended and new grant funding requests were rejected. Although the program worked well in this limited scope, it was hampered by lack of staffing to support the work and the great expense for brush removal contracts. Fuel abatement work in the forest ecosystem is significantly more complex and expensive than the hazard abatement work undertaken in the lower elevations by Riverside County Fire Department. There they only have to contend with grass and weeds working relatively flat ground versus tall brush and trees and some very steep terrain on the mountain. There are environmental protection factors such as endangered species, forest health assessments, and fire hazard severity determinations, soil analysis, and other requirements that can be unique to each and every parcel on the mountain.

9.2 Insurance

There were three main issues and possibilities concerning fire insurance in the plan area.

1. The cost is too high.
2. It is unavailable.
3. The required abatement distance is too great.

There was a strong consensus among the participants in the community meetings that the cost of insurance increased dramatically in recent years. For retirees on fixed incomes this is becoming a difficult burden to meet. Others have had a difficult time finding insurance at all. Due to the effects of SB 1369, insurance companies have adopted abatement requirements that many feel are unreasonable. In many cases there is an abatement distance requirement that exceeds the distance to their property line. The homeowner has no control over other people's property, but apparently the insurance companies are requiring it anyway. Many felt that the insurance companies really have no sense of reality for the local area, and are just invoking broad brush policies to protect themselves.

Abatement rules Senate Bill (SB) 1369 amended both Public Resources Code (PRC) 4291 and Government Code (GC) 51182 in the following manner:

- Increases minimum clearance requirement from 30' to 100'.
- Provides for state law or local ordinance, rule, or regulation to specify distances greater than 100'.
- Allows insurance companies to require home/building owners to maintain firebreaks greater than 100'.

A high percentage of structures still have wood shake roofs. A retrofitting program to make them fire safe might reduce insurance premiums.

9.3 Evacuation

Evacuation is a major concern for many residents of the San Jacinto Mountains. The main issues concerning evacuation that came out of the community meetings are:

1. Transportation, few roads leading out of the mountains.
 - a. One lane out narrow winding roads
 - b. Fuel treatments needed on sections of main roads, and many feeder roads
2. Adequate warning
3. Disabled/Elderly
4. Pets

Riverside County has put together an excellent brochure addressing the issues. (See appendix G, Riverside County Mountain Communities Citizen Evacuation Guide.)

■ Transportation overview

- Hwy. 243 and Hwy. 74 together comprise a transportation "spine" north and south across the mountain. Four routes from the mountain extend from this spine: Hwy. 74 from Mountain Center to Hemet; Hwy. 243 from Mountain Center to Banning; Hwys. 74 and 371 from Mountain Center to Anza; Hwy. 74 from Mountain Center to Palm Desert. Both the Anza and Palm Desert turn offs are at the southern end of the San Jacinto Ranger District. All evacuations will rely on these routes.
- All roads are two lanes, although there are left turn lanes in some areas.
- Hwy. 74 has numerous paved turnouts, often equipped with emergency call boxes.
- Most roads in small communities are unpaved.
- State transportation and fire agencies and Southern California Edison have removed substantial vegetation along the major highways and created some additional turnouts to make evacuation safer.

■ Warning

- Evacuation Mountain Emergency Services Committee (MEMSCOMM) includes many of the MAST entities, but also includes Home/Property Owners' Associations, businesses, the Riverside Chapter of the American Red Cross, Mountain Disaster Preparedness, Mountain Community Patrol, service organizations, the local schools and many others.
- Multiple entities disperse information to the public on the progress of projects carried out by the MAST agencies. Our President and other MCFSC officers attend the bi-monthly meetings of MAST as well as MEMSCOMM. MCFSC liaisons are able to communicate information gathered at MAST and MEMSCOMM to the general public. In addition, our local newspaper has extensively covered the actions of the agencies and information from the MCFSC meetings.

10.0 Community Action Plan

The following section identifies actions that have been recommended by community members from the community meetings, or workshop, and actions recommended by the firefighting or other public agencies responsible for public safety in the Plan area. This list of projects is not all inclusive and represents only current and planned projects. Any area within the defined WUI may be considered for additional projects.

■ Fuel Reduction Priorities

The following priority projects were supported by the community at the public meetings.

● USFS

The forest service has a large number of projects envisioned and in progress for the plan area. The following is a description of the major forest service projects recommended by the SJCWPP.

In Progress

Baldy Extension Prescribed Burn **95 Acres**

Prescribed burn west of Mountain Center

Bonita Vista Fuel Reduction **2,900 Acres**

Mechanical thinning, hand thinning, and prescribed burns to reduce fuel loading adjacent to the community of Bonita Vista south of Idyllwild.

Garner Valley Fuel Reduction **3,260 Acres**

Mechanical thinning, hand thinning, and prescribed burns to reduce fuel loading adjacent to Thomas Mountain Village and organizational camps in Garner Valley.

Planned or in Planning

243 Evacuation Route **967 Acres**

Mechanical thinning, hand thinning, and prescribed burns to reduce fuel loading along Hwy. 243.

Hwy. 74 Evacuation Route **750–1,000 Acres**

Mechanical thinning, hand thinning, and prescribed burns to reduce fuel loading along Hwy. 74.

Santa Rosa Hazard Tree Removal 9 Miles (Linear)

Falling and removal of mortality along Santa Rosa Truck Trail.

Pinyon Fuel Reduction 553 Acres

This fuel project will create a fuel break several hundred feet around the perimeter of the Pinyon Community.

Thomas Mountain Fuel Reduction 6,216 Acres

On Thomas Mountain west of Garner Valley, mechanical thinning, hand thinning, and prescribed burns.

Fuel Break Maintenance 2,000 Acres (Approximate)

Continuing maintenance of existing and historic fuel breaks

North Fork Fuel Reduction 4,091 Acres

Extensive area of fuel reduction north and west of the Idyllwild/Pine Cove communities. Mechanical thinning, hand thinning, and prescribed burns.

Idyllwild West Fuel Reduction 1,069 Acres

Mechanical thinning, hand thinning, and prescribed burns west of Idyllwild.

May Valley Fuel Reduction 1,888 Acres

Mechanical thinning, hand thinning, and prescribed burns to reduce fuel loading southeast of Idyllwild.

- CDF Fuel Treatment Projects

Project Name	PROJECT DESCRIPTION	SITE DESCRIPTION	Priority
Red Hill—B4 Phase I	Formerly RRU-2 This project provides a defensible space zone between the community and the national forest lands on the western side of the mountain communities on private land.	Begins near Hwy. 243 in Pine Cove. Use a segment of the Red Hill Truck Trail Road and skirts the western flank toward the Idyllwild School of Arts near Control Road.	High
CALTrans—Safety Corridor	Phase I: Removal of dead or dying trees along the state highway for a safe corridor in the event of community evacuation	The length of forested state Hwys. 243 and 74	High
Red Hill DFPZ—Phase II	Formerly RRU 2.1 This is the second phase of the Red Hill DFPZ on private property and next to USFS property. The planning component was completed in Phase I.	On the west side of the community between Pine Cove and Idyllwild	High
CALTrans—Safety Corridor #2	Formerly RRU-63 and 4 Phase II: Removal of dead or dying trees along the state highway for a safe corridor in the event of community evacuation	The length of forested state Hwys. 243 and 74	High
Logan Creek WLPZ Rehab	Formerly RRU 1.2 Rehabilitation of a 100 section of Logan Creek following tree removal operations. Major removal of overstory exposed surface area to debris impacting the creek. This project is the rehab of this project.	Logan Creek x Logan Creek Road in Pine Cove	Medium
Red Hill WLPZ Rehab	Formerly RRU 1.2 Rehab along a 200' section of an unnamed drainage on the Red Hill DFPZ. This area was impacted by heavy tree	Pine Cove Road x Red Hill Truck Trail Road	Medium

10.0 Community Action Plan

Project Name	PROJECT DESCRIPTION	SITE DESCRIPTION	Priority
	mortality near structures requiring their removal. Heavy rains washed debris into the drainage and blocked one culvert.		
Buckhorn Hwy. Tree Limbing	Formerly RRU 1.3 Project treats a 1/4 mile long curved section on Hwy. 243 near Franklin Drive to increase the visibility on Hwy. 243 for cars while improving the health of the residual stand. Tasks include limbing large trees and thinning small trees.	Hwy. 243 x Franklin Drive	Medium
Bear Trap Creek WLPZ Rehab	Formerly RRU 1.4 This project treats the WLPZ portion of Beartrap Creek (class II) that has been impacted by heavy tree mortality. Project is with the Red Hill VMP. Work includes hand removal of dead tree debris from the WLPZ and hauling to tub grinder.	Beartrap WLPZ section, which begins at West Camp to where the trail to Boy Scout camp splits off from creek.	Medium
Idyllwild County Park Nature Trail Rehab	Formerly RRU 1.5 Felling of large dead hazard trees and removal of debris from already fallen trees along the Riverside County Park nature trail system to make them safe and passable until a dead tree and debris removal project can occur winter of 2005/2006.	Within the Idyllwild Riverside County Park	Medium
Lawler Lodge County Park Rehab	Formerly RRU 1.6 Fuels hazard reduction, protection of historic building, and restoration of trail system in this county park following severe tree mortality	Hwy. 243 x Lawler Lodge County Park	High

Project Name	PROJECT DESCRIPTION	SITE DESCRIPTION	Priority
Pine Cove: Infrastructure Protection	Formerly RRU 3 Increasing DFPZ near Pine Cove Water District Tanks and the Radio Towers near Pine Cove Water Districts water tanks. Project primarily is the removal of the understory vegetation and enhance local site area.	PC radio towers site off of Marion Ridge Rd. and the water tank sites off of Hwy. 243	High
Idyllwild WD: Infrastructure Protection	Formerly RRU 3.1 Tree removal project on Idyllwild Water District, MAST identified infrastructure protection.	Foster Lake x Sherman Drive	High
Idyllwild WD: Infrastructure Protection #2	Formerly RRU 3.2 Tree felling to project the Idyllwild Water Districts water tanks inside Mt. San Jacinto State Park. MAST identified DFPZ protection.	Rockdale Spur x State Park Property	High
Deadman's Curve Cleanup	Formerly RRU 4.1 This project is a coordinated cleanup of dead tree debris from a previous felling operation. Project is critical to protect vital escape route/transportation corridor.	Hwy. 243 x Deadman's Curve	High
MRC Demonstration Zone	Formerly RRU 5.1 To demonstrate the process of inventory, assessment, marking, and the removal of trees within the community for the purpose of creating a healthier forest	Hwy. 243 x Franklin Drive	Low
Spring 2005 Planting	Formerly RRU 6.1 Spring 2005 planting of 1,000 Jeffery Pine seedlings at various locations	Buckhorn Camp x Hwy. 243	Low
Saunders Meadow Rd - Chipping Project	Formerly RRU 4 Transportation Corridor protection along Saunders Meadow Road opposite the Idyllwild Transfer Station.	Saunders Mdw. Rd. opposite Idyllwild Transfer Station	Medium

10.0 Community Action Plan

Project Name	PROJECT DESCRIPTION	SITE DESCRIPTION	Priority
	These trees were cut several years ago by the CDF Bug Crew, but the slash was never cleaned up.		
Pine Cove Infrastructure Protection, Lower Site	Creation of Defensible Fuel Profile Zone around the lower PCWD water tank site that will protect the infrastructure and be a safety zone for firefighters. MAST identified infrastructure protection.	Pine Cove Water District tanks along Hwy. 243 between Deadman's Curve and Marion Ridge Road	High
Apple Canyon Ranch	Project consists of removal of dead and dying trees and potential green tree thinning and tree planting. Project will also protect prehistoric archaeological site from further resource degradation.	Apple Canyon Ranch in the Bonita Vista area	Medium
Stone Creek Campground Rehab	Rehabilitate State Park Campground forested area severely impacted by bark beetle mortality.	Stone Creek Campground, Dark Canyon Rd X Hwy. 243	High
Slate Way Tree Removal	Removing hazard trees along Slate Way in Pine Cove	Slate Way in Pine Cove	Medium
Oak Glen Camp: Dead Tree Felling	Removal of beetle-killed trees on camp compound	Oak Glen Camp	Medium
Point of Rocks: Hazard Tree Removal	Beetle-killed trees in fuel break area behind homes	Idyllwild area behind Rockdale	High
Goldenrod VMP	Prescribed burn tree and brush thinning to protect the community	Idyllwild near transfer station	High
Baldy VMP	Prescribed burn tree and brush thinning to protect the community	Baldy Mountain Village	High
Baldy Extension VMP	Prescribed burn tree and brush thinning to protect the community	McCall Park	High
Pinyon VMP	Prescribed burn tree and brush thinning to protect the community	Pinyon Crest	High

Project Name	PROJECT DESCRIPTION	SITE DESCRIPTION	Priority
Spring Crest VMP	Prescribed burn tree and brush thinning to protect the community	Spring Crest (near Pinyon)	High
Hurkey Creek: Diseased Tree Removal and Green Tree Thinning	Remove beetle-killed and diseased trees to improve forest health and safety of the public	Hurkey Creek	Medium
Coldwater Creek WLPZ	Creek restoration following heavy beetle caused mortality	Mountain Center	Medium
Hwy. 243 Thinning/VMP: Fuels Reduction Project	Extend the USFS 243 project onto private lands to protect transportation corridor	Various locations in the mountain communities	Medium
Utility Line Thinning/Sanitation	Removal of damaged for forest health and fuels reduction	Various locations in the mountain communities	Low
Fern Valley Log Deck Removal	Removal of decked log piles from within the community	Fern Valley area of Idyllwild	Medium
Silver Fir Soil Erosion Rehab	Soil erosion mitigation measures following dead tree removal	South edge of Cedar Glen	High

- BLM Fuels Projects

- ◆ Poppet Poppet Flats-Rancho Encino
 Prescribed fire: 1,100 acres
 Portions of the burn have been completed with additional burning and follow-up maintenance planned.
- ◆ North Mtn Poppet Flats-Rancho Encino
 Fuel Break maintenance: 380 acres
 Fuel break maintenance is planned.
- ◆ Snow Creek Snow Creek
 Hazardous fuel reduction: 20 acres
 Invasive hazardous fuel reduction is planned for the area.
- ◆ Pinyon Pinyon Crest-Pinyon Pines
 Fuel break/Hazardous fuel reduction: 300 acres

A fuel break is planned along with hazardous fuel reduction around the community.

- ◆ Potrero Poppet Flats-Rancho Encino
 Prescribed burn: 400 acres
 A prescribed burn is planned to reduce hazardous fuels and attempt to restore native species. This project would protect the Poppet area from a possible fire downhill to the north.
- ◆ Santa Rosa Pinyon Crest-Pinyon Pines
 Prescribed fire: 300 acres
 A prescribed burn is planned to reduce hazardous fuels to protect the Pinyon area and the monument.
- ◆ Monument Twin Pines, Cove Communities, Pinyon Crest-Pinyon Pines
 Hazardous fuel reduction: 750 acres
- Certain areas of the monument have been identified as needing hazardous fuels reduction treatments in the Snow Creek, Cabazon, Pinyon, and Santa Rosa Mountain areas.

Resource Conservation Service (NRCS) Fuel Treatment Projects:

Priority Area	No. of Trees	No. of Parcels	Acres Treated
Idyllwild North	2,500	1	185
Pietrok	159	1	36
Idyllwild South	6,155	28	62
Buckhorn	700	1	118
Saunders Meadow	939	1	50
Fern Valley HOA	2,231	46	120
Pinewood	1,592	45	130
Fern Valley 15.7ac.	767	4	16
Lia Hona Lodge	912	1	40
Emerson Scouts	2,569	5	155
Skyland Ranch	413	1	201
County Park	3,500	4	322
Idyllwild Water District	4,065	6	417
Douglas/Missett	2,889	7	129
Whitney	270	1	45
Guided Discoveries	871	20	135
Alhatti	1,260	2	99

Priority Area	No. of Trees	No. of Parcels	Acres Treated
Zen/Tyler	500		80
Lawler Lodge	300		20
Eagles Nest	800		40
Camp Sherman	100	2	220
Wilderness properties	2,600	20	100
Hwy. 243 evac. Route	500	1	400
Dominegoni	300	1	25
Lake Hemet Water Dist.	100	1	100
CDF funded projects	0	1	0
State Parks	3,000	1	250
Pine Springs Ranch	400	8	150

Fuel Reduction Projects conducted by the Mountain Communities Fire Safe Council

Mountain Communities Fire Safe Council
 Statistics as of 2/17/06

Total Contracts Paid	Number of Acres Treated	Number of Parcels Treated	Number of Contracts Completed
GRANT	Total	Total	Total
Strawberry Valley	75,215	13.57	32
Tahquitz	70,475	14.07	24
Pine Cove III	27,475	5.71	16
Logan Creek	165,730	86.39	82
Southern Idyllwild	140,925	32.98	52
Western Idyllwild	99,115	18.78	39
West Ridge	138,185	38.9	104
South Ridge	128,880	42.55	80
Grand Total	846,000	252.95	429

Specific Fuel Reduction Recommendations From the Community Workshop

- Remove burn piles within one year of creation
- Remove dead trees near Rockdale loop above Jameson
- Hwy. 74 Corridor fuel reduction
- Increase the use of the Masticator
- Encourage cooperative efforts on private property
- Deerfoot lane clear logs near trail

- Hwy. 243 corridor fuel reduction
- Removal of Selected Trees From Under Utility Lines

This is a sponsored program that identifies and removes trees that need to be removed from underneath utility lines to accomplish public safety, savings for rate payers, forest health improvement, and aesthetic benefits. Many trees growing under, and around power lines are not suited for that location because they need to be repeatedly topped, compromising their ability to resist insects and disease and their structural integrity. This project formulated a plan and developed partnerships, funding mechanisms, and public education for removing these trees. The plan addresses replacing trees with more appropriate plants where screening is an issue.

- High Valleys Park- plan for CDF
Underbrush/Oaks
Tons of fire fuel
Right now, open dialog
Acquisition of land has clauses about wood removal
Talk to county about residents coming and taking wood (Fuel from High Valleys Park?)

Community Treatments:

Many of the treatments affect multiple communities, partially dependent on the location of a fire start, and which way the wind is blowing. The following maps will show treatments around each community.

Poppet Flat	Map – 32
Pinewood	Map – 33
Pine Cove	Map – 34
Idyllwild	Map – 35
Mountain Center	Map – 36
Garner Valley	Map – 37
Pinyon Area	Map – 38

■ Hazardous Vegetation Abatement

The community and fire agencies are seeking voluntary compliance. Education and outreach programs will be made available to encourage voluntary compliance.

When voluntary compliance fails, abatement enforcement is a very high priority for the communities. The current enforcement regulations are seen as ineffective. Resources to monitor and enforce abatement are inadequate. The situation is complicated by the fact that so many houses are vacation homes. (See Section 9.1)

Recommendations:

1. The CWPP recommends county amends ordinance 695.1 for more enforceable abatement regulations for the San Jacinto Mountains area. The CWPP also recommends that a tax lien program be developed, staffed and funded as part of the enforcement compliance strategy on both developed and undeveloped lots.
2. Increase inspections and mailings to initiate abatement.
3. Focus on highest risk areas to begin with.
4. Enforce real estate sales abatement requirement.
5. Report violations to the Fire Safe Council or the local fire Station.
6. Develop a mediation process for neighbor to neighbor abatement disputes.
7. Change the law on planting flammable ornamentals.
8. The Fire Safe Council will assist homeowners with noncompliant neighbors.
9. MAST will publish lists of nonflammable plants.
10. Increase education for abatement alternatives that minimize erosion.
11. Streamline process for abatement along roads.
12. Improve the outreach program to provide regulations to everyone in the community.
13. Provide a program to educate community about removal choices.

■ Insurance

Insurance companies should become more involved with the community and develop a realistic understanding of the fire threat and appropriate mitigation measures for the San Jacinto Mountains area. Statewide rules developed in Sacramento need to be adjusted to fit the realities of this community.

Recommendations

1. MAST members and community representatives will work with agencies and elected officials to assure that insurance abatement requirements are reasonable, consistent, and achievable.

2. The Fire Safe Council should invite the insurance companies to participate in the community fire planning effort to better understand the specific issues, capabilities, and constraints of the San Jacinto Mountains area.
3. Educate the community on what insurance companies are looking for and be proactive in providing that information to them.
4. Reduced premiums for building design and materials – replacing shingled roofs with non-wood material; exterior materials consisting of stucco, metal siding, brick, concrete block, and rock; reduced overhangs or boxed eaves; under-eave vents located near the roofline rather than near the wall; exterior vents faced away from possible fire corridors and covered with < ¼ inch wire mesh; windows and doors made of thick, tempered safety glass and protected with nonflammable shutters; stone walls to deflect heat; and properly placed rooftop sprinklers or misters pumped by an independent power source.

■ Evacuation

1. Create a Neighbor Network to facilitate evacuation.
2. Evacuation notices (door hangers) to identify evacuation status.
3. Education and Outreach about available animal evacuation programs.
 - a. REARS-OES
 - b. Living Free
 - c. ARF Animal Rescue Foundation
 - d. Hilltop Horsemen
4. Publicize animal shelter location.
5. Make sure evacuation routes are adequately marked.
6. Expand evacuation mapping throughout the mountain communities by adding Twin Pines, Poppet Flats, Snow Creek, and Skyland Ranch to the MAST evacuation plan.
7. MAST and the CHP should distribute evacuation leaflets during an evacuation.
8. Maintain road clearance—CALTRANS, USFS, County Roads, and private owners.
9. Install signs with emergency radio station information.
10. Extend transportation corridor fuels reduction beyond national forest boundaries.
11. Study the possibility of secondary access to Twin Pines Rd. to Hwy. 243 between Poppet Flats and Vista Grande.
12. Improve Mapping throughout the mountain area.

13. Reverse 911.

14. List of disabled.

a. FSC info to Law Enforcement

15. Increase Radio Station WNKI's power.

■ Firefighting Resources:

1. The Pine Cove Water District has established a plan to extend its 6" and 8" main lines onto USFS lands. These lines will follow existing fire roads and fuel breaks on the western flank of Pine Cove and Idyllwild.

- The purpose of these lines is to provide water for firefighters and equipment. Fire hydrants will be installed every 500' and also in critical areas to establish safety zones for personnel.
- This proposed project would install over two miles of pipeline and add 25 new hydrants. Estimated cost will be \$650,000.00. The project is greatly supported by personnel from CDF and the U.S. Forest Service.

2. One major component of integrated fire protection for the mountain is fire roads (a.k.a. truck trail systems) that both the USFS and CDF use to access fires before they reach the community. They are also very useful for prescribed burns and other fuel management activities. These roads must be evaluated and maintained annually to keep them in usable condition.

■ Fire Resistant Structures.

Retrofitting program to make existing structures fire resistant.

11.0 Environmental Concerns

There was concern among members of the community that the CWPP would reduce sensitivity to environmental issues for the sake of increasing fire safety. Among concerns were: the extent of the WUI, maintaining wild and scenic rivers, maintaining roadless areas, preservation of wildlife habitat, the potential of good fire-wise design in structures and landscapes, and eliminating NEPA requirements. The comments from the community related to environmental concerns are included in appendix B.

■ The Extent of the WUI

The extent of the WUI was proposed by a core group composed of community representatives, the Mountain Communities Fires Safe Council, and fire fighting agencies. The proposed WUI was then displayed at each of the community meetings and the final workshop. Although there was not a formal vote, approximately 100 individuals attended the meetings and expressed approval of the proposed WUI boundary. At two of the community meetings, and the workshop, about four to five individuals did express concern about the extent of the WUI. The concerns centered on how far from structures the WUI should extend. Previous to the CWPP process, the maximum was considered to be 1.5 miles. One of the purposes of the CWPP process is to consider other values such as watershed in the WUI definition. This is a result of the devastating effect that fires have had on watersheds in the southwest over the last few years. The most focused concern about the extent came from the Center for Biological Diversity (CBD). The CBD cites studies demonstrating the lack of need for fuel treatments outside of the 1.5 limit. The studies focus on the radiant ignition of structures due to flame length. Within that context the argument holds true. However, much of the area has not been able to maintain adequate defensible space, or fire-wise structure design, so spot fires from burning embers can start structure fires independent of the main fire's flame length. Additionally, local firefighters stress that strategic fuel treatments allow them the opportunity to successfully contain non-Santa Ana wind-driven fires.

Historically the main wildfire threat to the San Jacinto mountain communities has been fire coming from the lower elevations during typical summer weather conditions (i.e., west, southwest, and upslope winds). The Santa Ana winds also present a very real threat to the communities in and around the San Jacinto and Santa Rosa mountains. While the majority of fuel reduction projects are designed for community protection, other values are taken into consideration: watershed quality, wildlife habitat and continued viability of forested areas. These projects are not designed to 'stop' wildfires under all conditions; in fact very little can be done to eliminate wildfire threat to life, property and resources under the most extreme weather conditions that regularly present themselves in Southern California. What these projects do is create strategically placed areas of modified vegetation that offer suppression resources an enhanced opportunity to successfully 'catch' wildfires before they cause destruction of life, property and resources. Since all of these areas will not be effective under all conditions, it is necessary to place these projects over a wide

11.0 Environmental Concerns

spatial distribution. This is especially true given the fire behavior characteristics of chaparral in the volatile climate of Southern California.

The area included in the CWPP has experienced numerous large fires that demonstrate the need for treatments across the broad landscape: Soboba 1974, Vista 1972, Dry Falls 1980, Palm 1994, and Bee 1996 fires. Each covered large distances burning both chaparral and timber in most cases. The Bee Fire demonstrates in particular how strategically placed broadcast burns can affect the outcome of large fires. Three broadcast burn projects on ridgelines almost two miles from town modified the fire behavior at the head of the fire, offered enhanced suppression opportunities and significantly changed the outcome of the fire. (figure 11-1)

Figure 11-1
The Final Perimeter of the 1996 Bee Fire

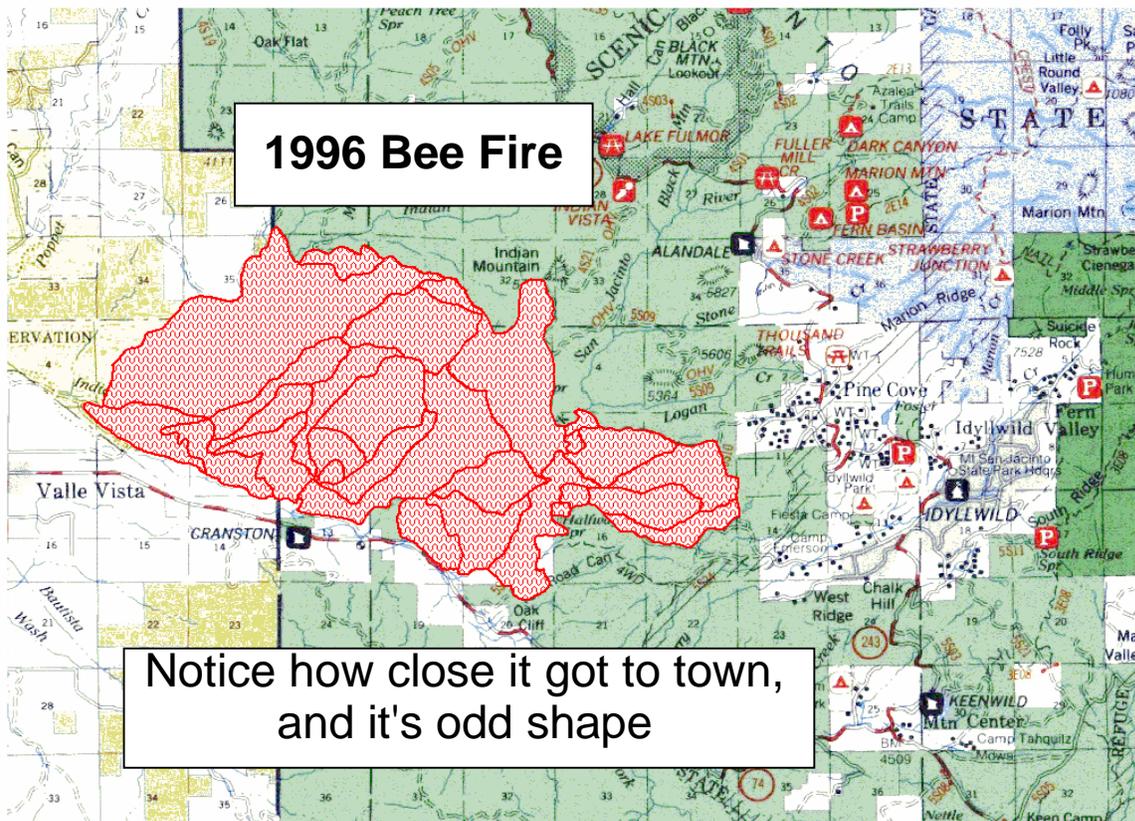


Figure 11-2
The Location of Prescribed Burns in the 1980s

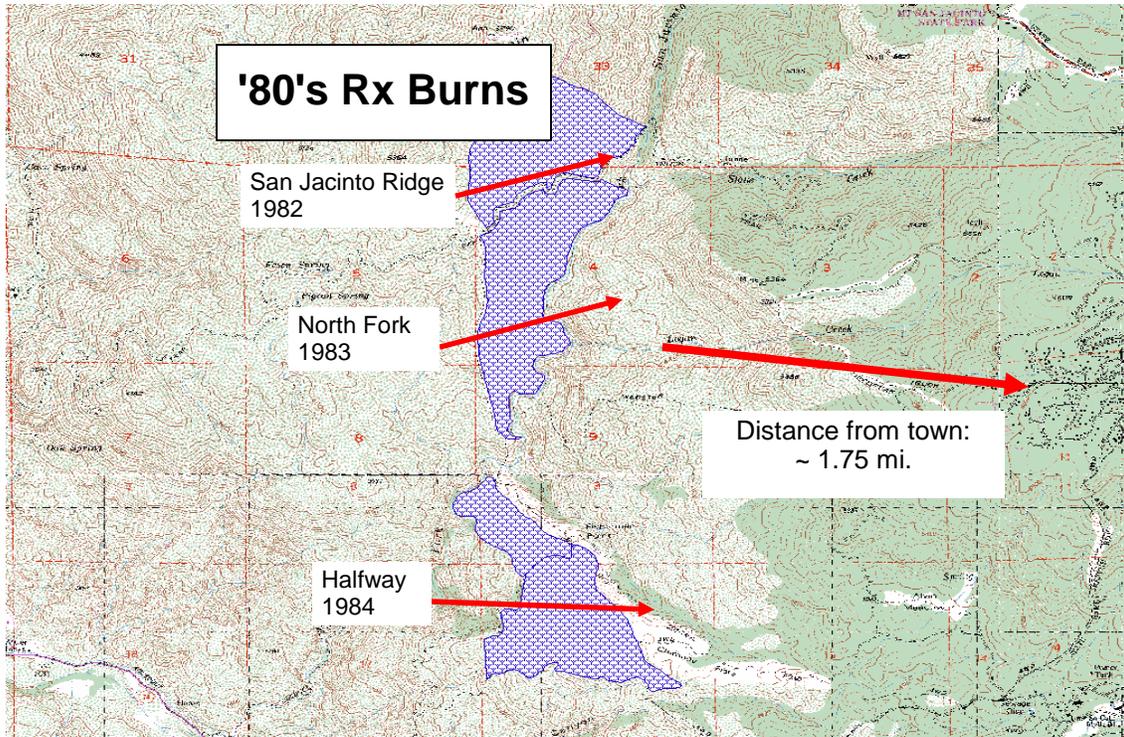
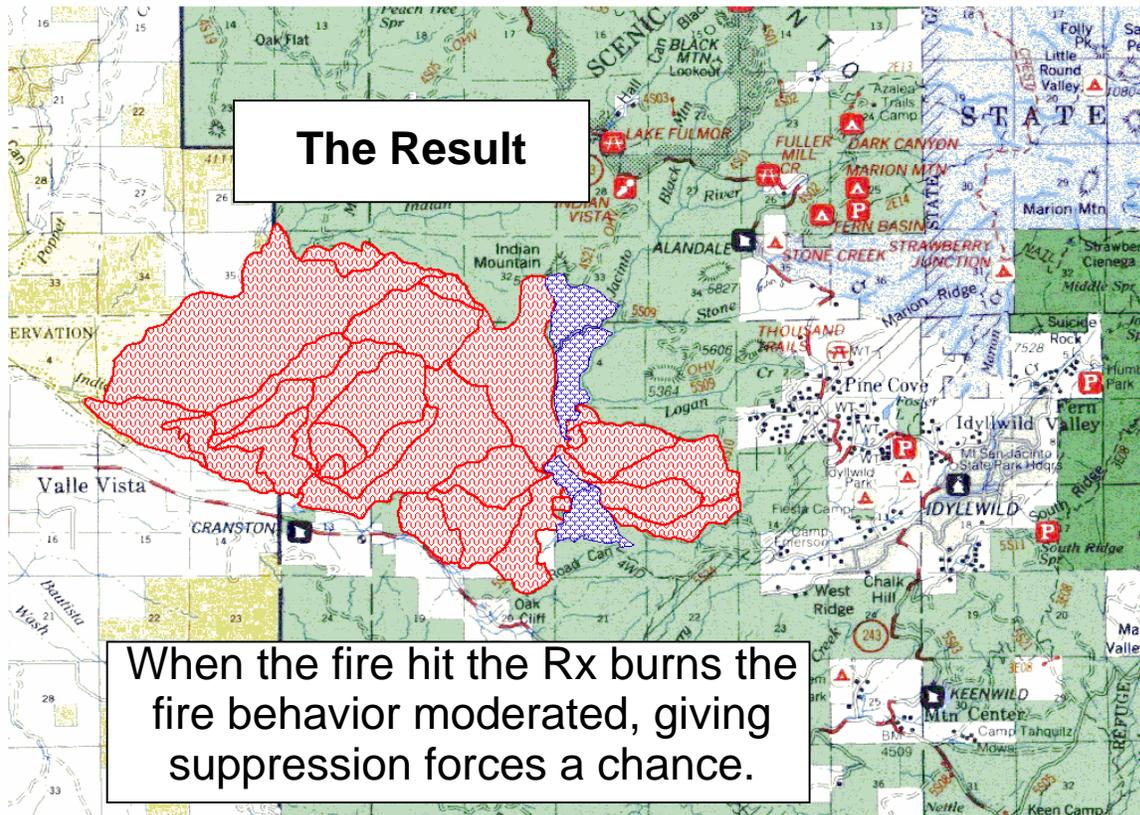


Figure 11-3
The Impact of the Prescribed Burn on the Final Perimeter



■ Wild and Scenic Rivers

Bautista Creek, Fuller Mill Creek, North Fork San Jacinto River, and Palm Canyon Creek were found eligible for addition into the National Wild and Scenic Rivers System in the recent Land Management Plan for the San Bernardino National Forest. Once a river is found eligible for wild and scenic river status, the Forest Service begins protective management of the river and its corridor (usually ¼ mile on either side of the river). The Forest Service is required to protect an eligible river's free-flowing character and potential classification (wild, scenic, or recreational) and enhance its outstandingly remarkable values (scenic, recreational, geologic, fish and wildlife, cultural, botanical, historic, or other similar value) until suitability studies are completed and final recommendations regarding the rivers' designations are made to Congress. Proposed new facilities, management actions, or uses on Forest Service lands are not allowed if they have the potential to affect the eligibility or potential classification of the river segment. Potential direct, indirect, and cumulative impacts need to be taken into account when considering any specific project that may affect any of these four eligible wild and scenic rivers.

Canyon Lake and Lake Elsinore, two water bodies at the terminus of the San Jacinto River watershed, are listed on the federal Clean Water Act Section 303 (d) list of impaired waters for excessive nutrients (nitrogen and phosphorus). The Regional Board has adopted regulations (known as Total Maximum Daily Loads [TMDLs]) to control nitrogen and phosphorus runoff from all sources, including the forested lands. We would like a discussion about the projects and their effects on the nitrogen and phosphorus loads from the project areas.

■ Roadless Areas

Wilderness and recommended wilderness areas and project proposals, including other roadless areas of San Jacinto Ranger District, should be examined for their direct effects, indirect effects, and cumulative impacts on the roadless character of these areas. Projects should also be evaluated for these same impacts on designated and recommended wilderness areas. Pyramid Peak (A) and Cactus Springs (A) were both recommended for wilderness designation in the recent Land Management Plan for the San Bernardino National Forest. Once a roadless area is recommended for wilderness, the Forest Service begins protective management of the area to maintain (and enhance to the extent possible) its wilderness qualities and potential for inclusion into the National Wilderness Preservation System until Congressional action is taken to designate the area as wilderness. As with designated wilderness areas, potential direct, indirect, and cumulative impacts need to be taken into account when considering any specific project that may affect any of these areas and the loss of their wilderness characteristics.

■ Wildlife and botanical Resources

Includes threatened and endangered species, and critical biological zones. Concerns include the potential direct, indirect, and cumulative impacts of specific projects that may affect wildlife (including threatened, endangered and sensitive species), habitat fragmentation, suitability and connectivity, biological resources (aquatic and terrestrial), and critical biological zones.

■ Fire-Wise Design

As many as 35–40 percent of the structures on the mountain have shake roofs that should be replaced. Other useful design changes are: building design and materials—replacing shingled roofs with nonwood material; exterior materials consisting of stucco, metal siding, brick, concrete block, and rock; reduced overhangs or boxed eaves; under-eave vents located near the roofline rather than near the wall; exterior vents faced away from possible fire corridors and covered with < ¼ inch wire mesh; windows and doors made of thick, tempered safety glass and protected with nonflammable shutters; stone walls to deflect heat; and properly placed rooftop sprinklers or misters pumped by an independent power source. Currently there doesn't appear to be any incentive program to encourage retrofitting.

Part of Fire-Wise design is sustainable practices (landscaping with native, drought resistant and fire resistant plants) and avoiding erosion and other negative effects.

■ NEPA requirements

Environmental/NEPA Responsibilities under the Healthy Forest Restoration Act of 2003

(Please see appendix F for the full text of the law.)

The CWPP is not a NEPA document; it basically aims to identify the assets at risk within the community and surrounding lands (regardless of ownership), and what steps might be taken to best prevent losses from the inevitable wildfire. This may include, for example, upgrades in infrastructure such as emergency communications or fire hydrants as well as vegetation treatments in key areas.

The plan only recommends action steps, but does so in a coordinated way as opposed to in an agency by agency, or neighborhood by neighborhood fashion. It also serves as a central point for data pertaining to planning the recommended action steps for use in grant applications and other planning efforts for individual projects, again regardless of ownership.

The idea with this plan being created in a collaborative fashion is that the typical avenues for public involvement as required by NEPA will be in addition to the process that the CWPP has undergone in its development. NEPA is triggered only if a federal agency proposes a project. Some of the recommended action steps in the CWPP will be taken on FS land for example, so the appropriate level of NEPA will be carried out at the time the project is initiated. And finally, the provisions set forth in the HFRA or the NFMA provisions for the creation of Land and Resource Management Plans (Forest Plans) do not apply to activities on private lands. Other federal laws however, such as ESA, etc., or state laws (i.e. CEQA, may apply to private lands for action steps as recommended by the CWPP).

CWPP's primary purpose with regard to specific project identification is to prioritize projects in terms of their effectiveness and feasibility for protecting values-at-risk. Projects may or may not fall, totally or in part, on federal land. Each project is evaluated on an individual basis regardless of its identification in a CWPP as being a high priority to be implemented; however, projects that have been identified should be evaluated first.

If projects do fall on federal lands, then projects will undergo the appropriate National Environmental Policy Act analysis. HFRA identifies CWPP as a process for communities to designate their WUI based on local conditions including topography, fuel type, fire history, values at risk in the community, firefighting capabilities, and other factors. CWPP projects must follow all recovery plans for endangered species, and may not be conducted in wilderness areas.

The intent of the HFRA is to increase public participation and involvement early on in the NEPA process. Under HFRA, the NEPA analysis can include the use of a categorical exclusion for prescribed burning projects under 4,500 acres and mechanical treatments under 1,000 acres as well as reforestation projects for burned lands and a few other categories established by the Department of Agriculture. Also, projects that meet the above requirements can be analyzed using a version of an environmental analysis (EA) that requires the analysis of only one action alternative, and a no-action alternative, as opposed to multiple action alternatives and a no-action alternative. Additionally, this HFRA EA changes the appeals process for these projects from a post-decisional time frame to a predecisional "objection" process. And lastly, if a HFRA project is litigated, the reviewing judge is instructed to weigh the short-term environmental consequences of implementing the project against the long-term environmental consequences of not implementing the project (i.e., the increased risk of catastrophic wildfire).

The HFRA environmental analysis processes have been authorized to implement projects that have been identified by the community, local fire officials, and agencies as being a high priority, and critical for protecting values at risk. The short-term risk of environmental degradation should be weighed carefully against the longer-term risk of a severe wildfire's potentially catastrophic effect on both the environment and communities. Additionally, the public processes for HFRA NEPA analyses are geared toward early participation rather than post-decisional appeal.

The HFRA provides NEPA procedures for authorized fuel-reduction projects on NFS and BLM lands in the WUIs of at-risk communities. Under HFRA Section 101(1), an at-risk community is one that:

- Is an interface community as defined in the Federal Register notice of January 4, 2001 (66 FR 753), or a group of homes and other structures with basic infrastructure and services (such as utilities and collectively maintained transportation routes) in or adjacent to federal land
- Has conditions conducive to a large-scale wildland fire
- Faces a significant threat to human life or property as a result of a wildland fire.

The HFRA is intended to build on work carrying out fuel treatments in and around communities under the National Fire Plan (<http://www.fireplan.gov>) and A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment: 10-Year Comprehensive Strategy Implementation Plan (May 2002, <http://www.fireplan.gov/reports/11-23-en.pdf>).

The HFRA encourages the development of Community Wildfire Protection Plans. Section 101(3) describes a Community Wildfire Protection Plan as one that:

- Is developed in the context of the collaborative agreements and guidance established by the Wildland Fire Leadership Council and agreed to by the local government, local

fire department, and state agency responsible for forest management, in consultation with interested parties and the federal land-management agencies that manage land in the vicinity of an at-risk community.

- Identifies and sets priorities for areas needing hazardous-fuel-reduction treatments and recommends the types and methods of treatment on federal and non-federal lands that will protect one or more at-risk communities and their essential infrastructure.
- Recommends measures to reduce the chance that a fire will ignite structures throughout an at-risk community.

The HFRA directs the USDA Forest Service and DOI BLM, in accordance with A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment: 10-Year Comprehensive Strategy Implementation Plan (May 2002), to "develop an annual program of work for Federal land that gives priority to authorized hazardous fuel reduction projects that provide for protecting at-risk communities or watersheds or that implement Community Wildfire Protection Plans" (Section 103(a)). The USDA Forest Service and DOI BLM will consider recommendations made in such plans (Section 103(b)(1)).

Additionally, Section 103(d)(2) requires that when providing financial assistance for authorized hazardous-fuel-reduction projects on non-federal land, federal agencies will consider recommendations made by at-risk communities that have developed Community Wildland Fire Protection Plans and give priority in allocating funding to communities that have adopted such plans or that have taken measures to encourage willing property owners to reduce fire risk on private property.

Federal involvement in planning and developing Community Wildfire Protection Plans under Section 103(b) is exempt from the Federal Advisory Committee Act and NEPA. Except as otherwise provided in Section 104 of the HFRA, NEPA requirements continue to apply when federal actions are implemented in the WUI and elsewhere.

The HFRA of 2003 includes a section titled Rural Revitalization Through Forestry. This section allocates \$5 million per year.

SEC. 202. RURAL REVITALIZATION THROUGH FORESTRY.

Section 2371 of the Food, Agriculture, Conservation, and Trade Act of 1990 (7 U.S.C. 6601) is amended by adding at the end the following:

(d) RURAL REVITALIZATION TECHNOLOGIES

(1) IN GENERAL—The Secretary of Agriculture, acting through the Chief of the Forest Service, in consultation with the State and Private Forestry Technology Marketing Unit at the Forest Products Laboratory, and in collaboration with eligible institutions, may carry out a program--

- (A) to accelerate adoption of technologies using biomass and small-diameter materials;
- (B) to create community-based enterprises through marketing activities and demonstration projects; and
- (C) to establish small-scale business enterprises to make use of biomass and small-diameter materials.

(2) AUTHORIZATION OF APPROPRIATIONS—There is authorized to be appropriated to carry out this subsection \$5,000,000 for each of fiscal years 2004 through 2008.

12.0 Monitoring Plan

12.1 Administrative Oversight and CWPP Monitoring

- **Monitoring and Assessment Plan:** To coordinate tracking and monitoring of the implementation of this CWPP, a Review Team should be established to include, at a minimum, representatives from MAST and the MCFSC, the environmental community, and citizens at large. Initiating activities right after formal approval of the CWPP and utilizing input from various sources, the Review Team should evaluate and report on the accomplishments and challenges in meeting the overall goal of this plan:

To protect the San Jacinto Mountains communities, and associated values and infrastructure, from catastrophic wildfire by means of:

- An educated and involved public
- Implementation of forest treatment projects designed to reduce wildfire threat and improve long-term forest health, in a progressive and prioritized manner
- Utilization of FireWise building techniques and principles
- Public Information Monitoring—Public attitudes toward both ongoing and proposed treatments, and the agencies/organizations promoting and implementing them, are critical to success. Assessment of these attitudes will be on-going, and will include review of the following indicators:
 - ◆ Editorials and other media coverage
 - ◆ Letters to editor
 - ◆ Requests for assistance
- Economic Impacts—If we are to achieve success, a sustainable utilization component is essential. Of importance will be the success in attracting viable small diameter wood-based businesses into the area and evaluating their resulting economic impact. Once in place, evaluation of this aspect will be coordinated with the Idyllwild Chamber of Commerce.

The Review Team should hold their initial meeting as soon as the CWPP is approved and establish a process to help facilitate implementation of the plan among the various land management agencies and to design and implement the monitoring program. A formal convening of the Team should also be scheduled for six months after adoption of the CWPP to complete a comprehensive review of the Plan and develop any recommended revisions. Thereafter, the Team should meet at least annually to review progress and make recommendations for appropriate revisions to the document.

- **Roles and Responsibilities of Stakeholders:** Successful implementation of the CWPP cannot be done without major cooperation from all. Without continued collaboration and mutual assistance, this plan will only provide a false sense of security. Wildfire does not recognize property boundaries, and neither can we.

12.2 Document Maintenance

Maintenance of this document should be the responsibility of the review team. It should be scheduled in the agenda for the MAST meetings to ensure that issues are brought forward, and update tasks are assigned and carried out.

12.3 Grants/Funding

The participating MAST and MCFSC agencies and members should pursue grant opportunities that implement the projects and activities identified in the SJCWPP.

Appendix A

Abbreviations and Acronyms

Appendix A—Abbreviations and Acronyms

ARC	American Red Cross
BA	Basal Area
BDF	San Bernardino National Forest
BLM	Bureau of Land Management
CDF	California Department of Forestry and Fire Protection
CT	Commercial Thin
CWPP	Community Wildfire Protection Plan
dbh	Diameter at Breast Height
FEMA	Federal Emergency Management Agency
FS	Forest Service
GIS	Geographic Information System
HFI	Healthy Forests Initiative
HFRA	Health Forests Restoration Act of 2003
HP	Hand Pile
ICS	Incident Command System
LS	Lop and Scatter
MAS	Masticate
MAST	Mountain Area Safety Taskforce
MCFSC	Mountain Communities Fire Safe Council
NF	National Forest
NFP	National Fire Plan
NWS	National Weather Service
OES	Office of Emergency Services
OHV	Off Highway Vehicle
REARS-OES	Riverside Emergency Animal Rescue System
RVC	Riverside County Fire Department
RT	Recommended Treatment
PCT	Precommercial Thin
Prune	Prune Branches
SBNF	San Bernardino National Forest
SMZ	Stream Management Zone
SR	State Route
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WUI	Wildland-Urban Interface

Appendix B

Public Comments to the Draft

Under Separate Cover

Appendix C

Community Meeting Notes

Appendix C—Community Meeting Notes

Results of Community Meetings

Strategic Fuel Reduction/Vegetation Management, WUI and Environmental Impacts

■ Fuels Reduction and Vegetation Management

- North
 - ◆ Back side of Poppet Flats has huge dense brush areas and is a huge wind tunnel. There is a desire among some residents for a larger fuel break there. Is it BLM land? It is in a canyon and is an accident waiting to happen and would wipe out Poppet Flats.
 - ◆ There is no fuel break that crosses Truck Trail Road within a mile of Bear St. crosstrail.
 - ◆ Concerns about if certain communities had priority over others (Twin Pines vs. Idyllwild)
 - ◆ Can inmates be used for HFR projects?
 - ◆ Very important for community to identify common problems and to create CWPP to address them
 - ◆ Small communities can unite/align with larger CWPP area to pool resources
- South
 - ◆ 647 dead Pinyon Trees
 - ◆ NRCS may be able to help

■ WUI

- North
 - ◆ Windy Point has a large amount of very combustible fuels and a fire there could take over the Monument. There was a desire to extend the WUI to include the Windy Point area.
 - ◆ A broad, all-encompassing WUI was supported by all present.
- South
 - ◆ Extend it on NW corner to incorporate where many starts are
 - The Soboba Reservation interested in collaborating-CDF/BLM will coordinate

■ Environmental Impacts:

● South

- ◆ CWPP relative to SHEEP and WILDERNESS
- ◆ Methods of abatement increase erosion and affects Lake Hemet and Santa Ana/San Jacinto Watershed
- ◆ Bautista Creek issues
- ◆ National Monument Steering Committee should be informed/included
- ◆ Questions about NEPA expediting within WUI...what exactly does this mean?
- ◆ Concern was expressed about the extent of the WUI, particularly on the desert side of the mountains.

● Central

- ◆ What does "expediting NEPA" mean?
- ◆ More education on environmental gardening/fire-safe landscaping
- ◆ How do private owners protect environment, habitat and still perform abatement?
- ◆ Agencies should get better clarification of these issues and educate public.
- ◆ Wilderness
- ◆ Proposed Wild and Scenic Rivers: how does HFR impact this?
- ◆ Endangered Species
- ◆ Need for Environmental Ed. on local level
- ◆ Pine-needle topsoil removal issue: needles being taken off hill, rivers turn roads to mud, mud kills wildlife in rivers, good example of why we need more education
- ◆ Be careful of flammable welcome mat!!
- ◆ Concern over what "Promoting Rural Growth" means...Steering Committee needs to research this.
- ◆ Concern was expressed about the extent of the WUI

Abatement, Ignitability, and Insurance

■ Abatement

● North

- ◆ BLM should use sheep once a year to graze down the brush
- ◆ Highway between Twin Pines and Poppet Flats: Saturday work party needed, get property owners involved to do clearing. Is a county permit needed?
- ◆ Twin Pines: Private, Absent Property Owners: need way to enforce abatement on their property. Same in Poppet Flats: the houses are very close together, there needs to be a stiffer fine/penalty system, it is a huge problem, can the 100-ft rule

- be used? There used to be an abatement hotline, now it is only in the city. Can we get it back??
- ◆ Idea of waiting until it snows then dropping napalm in ring around community to create fuel break.
 - ◆ Hwy. 243 between Twin Pines and Poppet Flats is Private Property and we need to get owners on line. Need 30 ft clearance on highway.
 - ◆ Twin Pines: Discussion about whether or not Utility easements were for public use and needed to be kept open...
- South
 - ◆ Much concern over undeveloped land: no one has authority to make undeveloped property owners abate
 - ◆ There needs to be some enforcement
 - ◆ In GV the HOA should ticket. CDF can't force them, and the \$200 fine is easier to pay than paying \$1,500 to abate, so it would be better to have the HOA enforce.
 - ◆ GVHOA mandates 350 ft setbacks from buildings
 - ◆ How can the community get cooperation for abatement along boundaries...need to collaborate with USFS.
 - ◆ Issue of neighbors throwing weeds/cut grass over fence onto other people's property: who can help??
 - ◆ Abatement distances are often beyond boundaries of property, and absentee owners are not motivated...major actor should be local and/or district. Board of supervisors may be sympathetic because other counties share same issues. New supervisor could be sympathetic, need to start dialogue. This will be manpower intensive.
 - ◆ Opinion that it is important for people to realize that chaparral is normal and does not need abatement
 - ◆ Fish and Game should be included in planning so that they don't have issue that could hinder us later on.
 - ◆ Dead Pinyon tree removal
 - Central
 - ◆ Issue of unoccupied/absent owners: (Brought UP AT ALL 3 MEETINGS)
 - Need to make recommendation in CWPP on how to address this
 - ◆ How to report problems to agencies
 - ◆ Who is responsible as far as clearing branches from power lines?
 - ◆ Storing water in soil: composting and mulching: helps in fire abatement

■ Ignitability

- North
 - ◆ More clipping for overgrown roads and properties
- South
 - ◆ Bill set specific distances from houses for each type of fuel. This bill will affect all of California. San Diego is already enforcing it.
 - ◆ Alternating rows/clearances: creates internal fuel break (PLANNED DEVELOPMENT)
 - ◆ Charts to help plan around property (propane tanks, etc.)
 - ◆ Underground propane tanks?? Installation??
 - ◆ Require developments to include water sprinklers
- Central
 - ◆ Fire Safe Guarding glass: often very expensive
 - ◆ Barricade Gel: lasts for five years—maybe find way to buy it in bulk and make it available to all. Fire Dept. needs to know who has it—an issue that needs to be revisited yearly
 - ◆ Spray windows, take off curtains

■ Insurance

- South
 - ◆ Hard to get!!
 - ◆ 350 ft. abatement from structure required by some companies: impossible on many lots
 - ◆ Expensive
 - ◆ Turned down from aerial photography
 - ◆ CA Fair Plan used to insure, not anymore—\$900/year went to \$1,700/year
 - ◆ Bring in insurance agents to help write plan??
- Central
 - ◆ Enlist insurance to encourage abatement—but what about areas that agencies have turned their backs on?? Maybe asking too much to have Insurance support our cause

■ Evacuation and Communications

- North

Evacuation

- ◆ Adequate maps for some areas, not for others
- ◆ Poppet Flats: Three ways out of Poppet Flats: 1. BI Road; 2. Poppet Flats Road; 3. Poppet Truck Trail Road (needs to be marked),
 - Fire Dept. used to clear it, not anymore, now cleared with grader, Soboba Tribe is being more cooperative, needs more maintenance and CDF is aware of it.
- ◆ BI Highway is hard to navigate, needs to be marked and maintained.
 - County is talking about closing BI road and putting gates on top and bottom.
- ◆ Concerns about Animal Evac—need to coordinate CERT teams with Fire and Police Department, need community participation...
- ◆ Snow Creek: Flooding is big concern. The only road out gets washed away in floods, County says it is too expensive to fix.
- ◆ Poppet Flats, Rancho Encino and Twin Pines: High Valley Disaster Preparedness Team: Have monthly meetings and have 2 storage containers, one at the park in Twin Pines, and one next to the Mountain Club in Poppet Flats. They are trying to get more Twin Pines members...
- ◆ Poppet Flats: private campground that can be used as staging and evacuation area H2O: there are also ponds close to Vista Grande.
- ◆ Area orientation is necessary and is often mistaken for confusion by community
- ◆ There needs to be maintenance on the road surface and the HF adjacent to road.

Communication

- ◆ Need a network so agencies know what everyone is doing and where to go
- ◆ Communication is crucial: There is a HAM radio operator. The Disaster Preparedness team wants to get involved with RACES.
- ◆ The Highway Patrol and Sheriff's Department have good antenna system.
- ◆ The CHP tower could coordinate communication
- ◆ Cell phones, and pagers don't work. There is no NEXTEL.
- ◆ At top of Poppet Flats road there is a cell site, and Air Network is trying to get service into Poppet Flats.
- ◆ All of Poppet Flats fire-hydrants have been GPS'd by SCA
- ◆ Need a community contact in each location so agencies can know details. Often coordinated by Water Agency.
- ◆ Possibility of a Community Web site for Emergencies only? But if phones are down so is the internet—need back-up plan

- ◆ Volunteers: In Poppet Flats communication is biggest problem, only one woman has pager and information, if they could communicate with Perris it would be better. They need a repeater.

- South

Evacuation

- ◆ Garner Valley: How will community and emergency preparedness team be notified that they need to evacuate?
- ◆ Preparedness is key issue!
- ◆ Hwy. 74 is only way out
- ◆ Hwy. 371?
- ◆ Which way do we go?
 - Incident Commander will tell people which way to go
- ◆ It is 1.5 miles from Pinyon Crest to Hwy. 74
- ◆ Dead Trees along Evac. Routes: ongoing process to abate H2O
- ◆ Garner Valley has asked Anza Electric for a generator but didn't get it. They need one!
- ◆ Pine Cove Water District left big generator at Mountain Resource Center. It is a great resource for Garner Valley.
- ◆ Many homeowners have their own generators.

- Animal Evacuation

- ◆ Many horses in Garner Valley
- ◆ Fern Valley Horse Association (Ron Cropmle??) has a way to get horses out
- ◆ Llamas??
- ◆ REARS:
- ◆ Animal Control in Charge, outside folks help out
- ◆ Need safe areas where people/animals can congregate
- ◆ Signs in window listing pets??

- **Senior Citizen Concerns**

- ◆ What are the plans for evacuation? In Pinyon Crest, Wes Goldman could have issues

Communication

- Garner Valley has no cell-phone service.
 - ◆ They do have a Ham radio at Commons that can contact RACES.

- ◆ They are negotiating with Cingular, but no cell service yet.
- ◆ Some people have satellites.
- Pinyon Crest: No cell phones. Some satellites. No other way of communicating!!!
- Reverse 911
 - ◆ Is it on the way?
 - ◆ Who will get it?
 - ◆ If there is no phone, it is no good.
 - ◆ Absentee Owners/weekenders: how do we share this with them??
 - ◆ WNKI: Emergency Radio Station, reaches to Mountain Center
- Central

Evacuation

- ◆ Be ready to go!
- ◆ Contact Riverside Chapter American Red Cross to do disaster prep. training
- ◆ MCFSC is currently discussing disabled person issue, and could organize a workshop to help us all learn more
- Idyllwild is an Unincorporated Area: we can suggest that the County makes a listing of "disabled/infirm" but nothing ever happens.
- We can't put all responsibility on MCFSC—who is going to be responsible for other actions??
- Idea of using Edison's records to identify disabled/seniors. But how do you keep it up to date?
- Kay said to let MCFSC know about specific issues and they can organize workshops about how to discuss them
- ◆ Trees touching Hwy. 243, won't be able to evacuate
- ◆ Widen right-of-ways to allow better evacuation on side roads that lead to Hwy. 243
- ◆ Non-Highway corridor issues, safe areas: What constitutes one? Where are they?
- ◆ If evacuated, where do you go? Relocation Center? Depends on where fire goes...
- ◆ Camps: 100s of children, vans and buses drop kids off and leave—plan of rounding kids up and putting them in clearing is not good enough
- Animal Evacuation
 - ◆ -Domestic animals in shelters: health issue?
 - ◆ -REARS to create animal shelter???

- ◆ Animals/Livestock: Mountain Center has Animal Sanctuary
- ◆ There should be a listing of the resources available for animal evacuation

Communication

- ◆ WNKI not getting info about fires out fast enough, nor are Web sites—how does info get out to public? Idea of a bulletin board in Idyllwild, signs in various places about road closures etc. Can't get WNKI in all surrounding areas
- ◆ Many present wanted an audible siren: will let you know when to check WNKI 1610 AM radio: local emergency station horn/siren system?? Initial notification of emergency. Experts in Pine Cove don't want it?
- ◆ When work off-hill, have no idea what is going on up here—how do you access info when off-hill
- ◆ Communication concerns: how reliable are phones??
- ◆ Repeater Station
- ◆ In Big Cedar Glen, ½ of the population is part-time and have no phones
- ◆ Evacuation Notification: different systems for alerting residents: radio station, working on reverse 911 (will it include cell-phones?)

■ Assets:

● North

- ◆ Poppet Flats: 250 people
- ◆ Snow Creek: 39 residences, 60 people?? (Blair has 25)
- ◆ Boys Ranch in Twin Pines: lots of staff and changing population: 16 staff, 142 wards. Is there a possibility to get wards to do HFR? They also have a big well: 8 inch.
- ◆ Vista Grande Area: 8 permanent residents and Fire Staff.
- ◆ Silent Valley: 6500 residents max. (if all full)
- ◆ Zen Center: Adding new barracks, 100 residents.
- ◆ Girls Camp: There are girls there 3 out of every 4 weekends. Rec. Officer should be able to tell us how many...

● South

- ◆ Garner Valley:
 - 305 five-acre parcels in Garner Valley Property Association
 - Fire Hydrants throughout development
 - Emergency Preparedness Committee
 - GV Commons have radio, operators, and first aid supplies
 - 7 sections, each with Captain, with radio communication
 - Water supplied by LHWD

- ◆ Spring Crest:
 - 14 homes Paved roads
 - Obsolete water system
 - Some are drilling private wells

- ◆ Alpine: Palm Canyon Road & 74
 - Approximately 180 homes-Dirt roads
 - Recently homeowners have formed a group and purchased a road grader
 - Water system has 45 meters—43 actually using service.
 - Water is limited to 5,000 gallons per household at a cost of \$60.00 (Month?)
 - If a household uses 10,000 gallons, they are billed \$350.00
 - All those not on the system have private wells, apparently water is being trucked in as wells are drying up.
 - Alpine has between 40,000 and 125,000 gallons of water storage

- ◆ Pinyon Pines: Pinyon Drive and 74
 - Approximately 100 homes, eighty serviced by their water company. The balance is on private wells.
 - They have about 130,000 gallons of storage.
 - They have dirt roads that are never worked, and few street signs.

- ◆ Pinyon Crest:
 - 8.5 miles of private road
 - 83 homes
 - Each home has 1500-2500 gallons water storage required by the CCRs
 - Storage capacity of 150,000 in addition to the home storage
 - 20 fire hydrants, marked with blue reflectors
 - They own a grader, skiploader, and water truck.
 - Roads are maintained, and have street signs from each direction
 - Trying to get community to abate more
 - 202 properties, 84 developed.
 - 160 people total
 - 411 electricity meters between Pinyon and Garner
 - Currently there is emergency communication system
 - Younger generation wants more communication and older gen. wants less
 - Leases and maintains Forestry rd. #6S03 which provides their rear entrance/exit

- ◆ Chapman Ranch: Carrizo & 74
 - 10 homes on two roads
 - 5 water tanks, all metered
 - One well 24,000 gallon of storage
 - Backhoe which is used after rains

- Tractor
- Phones are only method of communication
- Are in process of putting in electric gate, not sure if sirens open it

- ◆ Royal Carrizo: Royal Carrizo and 74
 - 22 homes
 - Dirt roads which are maintained

- Central
 - ◆ Idyllwild has 3,000 lots. Population is less than 6,000
 - Many visitors, organizational camps
 - On weekends, population goes up to 20,000
 - 70% of homes are second homes, depends on holiday weekends
 - Peak numbers are important to know: more kids in camps, "worst case potential"
 - Pop. can get to over 10,000 (Idyllwild)
 - Need to be considerate of disabled/special needs/less mobile, and CWPP needs to incorporate some provisions for them
 - Not everyone has vehicles to evacuate

 - ◆ Bigger communities tend to be less united than smaller ones.
 - ◆ There should be a listing made of all the Camps
 - ◆ Idea of using already gathered data, letting agencies create draft CWPP, then letting community give feedback and suggestions
 - ◆ Idea of encouraging H2O district to look for deeper/more permanent H2O sources

- Fire Fighting Resources:
 - North
 - ◆ Local fire station 63 is in Poppet Flats
 - ◆ Private Fire Station at 16700 Hwy. 243. 2 tanks: 6,000 and 3,000. Have fire-engine hook-ups and pumps. Also has own fire truck and 1,000 gallon pumper. There is access from Hwy. 243 to tanks and hook-ups.
 - ◆ 1 million 210 thousand gallons of water storage, always full and gravity fed.
 - ◆ Agua Caliente property: 3 reservoirs at Hwy. 243 and Grant. They have been used before. 2 staging areas with water and electricity: Tahquitz Canyon and Baylick Ranch??
 - ◆ Twin Pines: 80 water meters, 250 people.
 - ◆ Marcel Ranch south of 16700 HWY. 243 has several (3) very large dams and they always offer water.
 - ◆ Zen Center: 3 active gravity wells, minimal capacity.

- ◆ Girls Camp: 220,000 gallon storage tank.
- ◆ Tractors are available through Water Company at Poppet Flats. They have a back loader and a skip loader.

- South
 - ◆ Praise for how agencies collaborated/coordinated to respond to Blaisedell fire.
 - However, it was noted that when there are multiple fires the resources get stretched thin

 - ◆ Need for community Fire-fighting kit (shovels, gloves, etc.) to handle starts within community
 - ◆ ANZA Electric: needs to be contacted, there have been 2 fires in one year off their poles. They put down chemical after they clear. Is it toxic?? It gets horses sick!! They need to be told to clear but not spray.
 - ◆ Volunteers: Pinyon Chapter of MCFSC. Idyllwild and Pine Cove have great advantage because they have a lot of volunteer support. Garner Valley and Pinyon Crest need to get more involved to get more volunteers. Should they create their own FSC??
 - ◆ 30 fire hydrants,
 - ◆ Road grader, skip loader and Water Truck
 - ◆ Generator that automatically goes on when power is out and checks itself every Friday.
 - ◆ There are electric gates that emergency vehicles can get through. The gates are run on the generator.
 - ◆ 6 Water Reservoirs that hold 150,000 gallons
 - ◆ Every house has 1500-2500 gallons on property
 - ◆ 9 wells: 6 are in operation and produce 3 million gallons/month
 - ◆ Water is scarce at Pinyon Flat: there is a 200 ft well which is not deep enough.
 - ◆ At Pinyon Crest there are 12 1,400 ft wells
 - ◆ Mountain Center:
 - 29250 HWY. 243: has well, 5,000 gallon tank, 4 inch pipe, Disaster Preparedness garage, 50 ft from property, full of supplies

 - ◆ 2 Water tanks: 200, 000 and 500,000 (??) gallons

- Central
 - ◆ Lodge Rd. at Palomar: 2,000 gallon H2O tank, fire-truck accessible: both places blue tagged
 - ◆ Where can private citizens buy tanks
 - ◆ Is there a registry where people can register their equipment with fire agencies?
 - ◆ Tank at McCall park

- ◆ Living Animal Sanctuary: 80-90,000 gallon capacity in tanks, Perimeter Fire Hydrant available
- ◆ Have Water Districts flushed out hydrants? As of last year, Fern Valley and Pine cove have been flushing regularly.
- ◆ Earthquakes can impact H2O system: need to consider what happens if earthquake prohibits evacuation and get more education on what to do if caught in houses.
- ◆ H2O Availability
- ◆ Roof water catchment for rain/snow: should be put on public buildings/shops

Appendix D

Notes from Community Workshop

Appendix D—Notes from Community Workshop

October 13, 2005
Idyllwild School

The purpose of this workshop was to identify actions items to address the issues raised in the previous community meetings.

Idyllwild–Pine Cove

■ Fuels/Vegetation Management, WUI and Environmental Issues

Incorporated in action—Deerfoot Lane—logs are stored on trail—Riverside County Fire grant funds have been offered to the logs' owner to remove and dispose of the logs. If some logs are on fed land it is a USFS enforcement issue.

Covered under project specific environmental review—concern about habitat in abated areas

CWPP integration w/Fireshed—Dan Felix responded CWPP incorporates FIRESHED

Action—Community Reach consensus on definition of WUI—definition integrated into CWPP

Safety of dead brush—remove or burn piles within one year of creation—Included in CWPP

Move boundary of WUI further east to mitigate Santa Ana-driven fires moving from the east into Idyllwild—Included in WUI definition

Whose jurisdiction is Rockdale loop above Jameson (Dead Trees)—Current CDF project

Define WUI in the plan (no proposed action)—Included in CWPP

Cut and remove all dead trees north of Idyllwild (all the way to Cabazon). Multiple projects planned in strategic locations, but total removal is not realistic.

Get rid of piles of logs on private property—Current CDF project

Investigate ways to minimize a lot of topsoil destruction by heavy equipment while removing dead trees—Project specific

Retain green trees greater than 16 inches diameter breast high—(DBH)
¼ mile outside of community, and 15 of the largest snags—Project specific

■ **Abatement, Ignitability, and Insurance**

*Jim Taylor/Blair—County ordinance suggestion for vacant homes (private property accountability)—**INCLUDED IN ACTION PLAN**

Education information about abatement strategies that are not just about material down to mineral soil (source of info for wildlife, protection of habitat, mitigation of erosion)—**IN ACTION PLAN**

Neighbor-to-neighbor mediation process for facilitating abatement—**IN ACTION PLAN**

Education in making homes fire wise—**IN ACTION PLAN**

Need county ordinance to get private property owners to "clean up", private developed properties—**IN THE ACTION PLAN**

All public buildings should be guttered to capture rainwater for irrigation and firefighting—**Outside scope of the CWPP**

Property check-up enforcement—**IN THE ACTION PLAN**

Rotation of inspections mail, self inspection. They are behind—**IN THE ACTION PLAN**

Push county towards abatement laws that are enforceable—**IN THE ACTION PLAN**

*Bill 1628—revive and apply, call officials; County will address in AP

Reporting violations: Current Practice

1. Fire Safe Council form letter
2. Fire Station

Who Enforces?

1. CDF, long drawn out process
2. Judges

Neighbor communication/mediation process to handle weeds put on property—**IN THE ACTION PLAN**

Fuels around propane tanks, what to do—**IN CURRENT LAW**

1. Techniques can handle this

Alternative erosion control techniques that still control fuels—**IN THE ACTION PLAN**

Action—Right to turn off neighbor's propane tank—yes do it!

Barrier between fuel and house—Resolved in new legislation amending 4291-PRC Code

Forest Service Differs from CDF on enforcement MAST coordinates enforcement standards

State law requiring insurance companies to go by CDF standards-County—IN THE ACTION PLAN

Insurance Companies can pick their rules—IN THE ACTION PLAN

Definition of what a structure is PRC 4291 CA Public Resource Code

We cannot require abatement of ornamentals. Can be done under PRC 4291

Plant fire safe vegetation remove flammables—IN THE ACTION PLAN

Educational program advising on flammable and nonflammable plants—IN THE ACTION PLAN

Change the law on planting flammable ornamentals—IN THE ACTION PLAN

What can the city (county?) do to regulate flammable ornamentals?—IN THE ACTION PLAN

Publish list of non-flammable plants—IN THE ACTION PLAN

1. Sunset.com// fire safe plants (not there)
2. Riverside county weed abatement

Tax break for fire safety, just like environmental tax breaks. Outside scope of CWPP
Get the garden club involved. Suggest partnership with MCFSC

Make laws to enforce responsibility of neighbors to clear fuels. Take a picture—IN THE ACTION PLAN

Send a registered letter to a neighbor—Outside Scope of CWPP

Appeal process for insurance—IN THE ACTION PLAN

- Will not renew
- Invite California's insurance office.
- Try State Farm

■ **Evacuation and Communication**

1. Siren—It has been reviewed by subject matter experts and is not considered a viable option at this time.
Warning-OES
 - Reverse 911—256 calls per min. Early warning system planned for completion.
June 1, 2006 add to—IN THE ACTION PLAN
 - EAS-sends notification over radio—CURRENT PRACTICE
 - Weather Radio—CURRENT PRACTICE
 - Officers go door to door—CURRENT PRACTICE
2. Neighbor network—IN THE ACTION PLAN
3. Door Hangers—IN THE ACTION PLAN
4. List of disabled—IN THE ACTION PLAN
 - FSC info to Law Enforcement
5. Animals—IN THE ACTION PLAN
 - REARS-OES
 - Living Free
 - ARF
 - Coordinated agreement with Perris Fairgrounds-OES
 - Hilltop Horsemen
6. Animals in shelters—Outside scope of CWPP
7. Road Safety MAST—Current and proposed projects
8. Stalled Vehicles - CHP—CURRENT PRACTICE
9. Notify Motor home owners that they may not be allowed on the road—Outside the scope of the CWPP
10. Camps—CURRENT PRACTICE
OES-
 - Keep buses
 - Move from camp to camp
 - 1 hr RTA & Sunline
11. Put animal shelters in newspaper—IN THE ACTION PLAN
ITC-JP

12. Place for Pets—Outside scope of CWPP
13. Increase WNKI Power—IN THE ACTION PLAN
 - Bob & OES
14. Development Red Hill Trk Trail RSO—As funding permits

■ **Fuels/Vegetation Management, WUI and Environmental Issues—South Area**

Find out if Soboba wants to be a part of this CWPP as an addendum to this process. Offer of participation has been made, addendum would be required.

Keep Dunn and Sloan Rd. open for administrative and firefighting access—Outside scope of CWPP—Will be addressed by Monument Agencies

Maintain roads—As funding permits

Get ½- 1 hour workshop to inform the Board of Sups Office regarding the CWPP process—Accomplished

Clean up residential lots to meet fire safe standards using enforcement education and grants—IN THE ACTION PLAN

Develop additional H2O for firefighting resources

Pursue outreach to Ramona and Santa Rosa Reservations—Put in IN THE ACTION PLAN

Hwy. 74 corridor Hazardous fuels reduction—Current and planned projects

Investigate Lake Hemet Water District Collaboration in regards to H2O/firefighting—CURRENT PRACTICE

Out Reach Anza Co-op—put in IN THE ACTION PLAN

- Electric power based responses (ignition source) & power line infrastructure protection

Preference for hand crew—CURRENT PRACTICE used where appropriate

- Better in rocky ground
- Cut and stack piles
- Burn? Chip?

Increased use of Masticator—CURRENT PRACTICE used where appropriate

- Cost effective

- Leaves chips in tracks
- OHV routes post signs
- Adjustable height
- Ground disturbance
- Track widths 8, 12 ft

■ **Abatement, Ignitability, and Insurance-South Area**

Vacant lots—IN THE ACTION PLAN

County Ordinance (Going up?)—IN THE ACTION PLAN

Insurance Boundaries 100 to 300 ft clearance—IN THE ACTION PLAN

Policy increases, or no insurance at all.

Can affect a neighbor's willingness to abate property.

Start at high risk areas—IN THE ACTION PLAN

Agencies under pressure—some more likely to insure than others (State Farm?)
Information

Enforceability—residents are largely only part time residents—IN THE ACTION PLAN

Controlled Burns in the wilderness-Forest Service and State Parks in the process of doing
the environmental analysis for San Jacinto Wilderness

Leadership from insurance companies to help set standards to provide insurance to home
owners—IN THE ACTION PLAN

Current version of regulations available to people in community—CURRENT
PRACTICE

Cost for tree removal (abondment) \$100 Million—Information

Educate people of different removal choices—IN THE ACTION PLAN

Encourage cooperating on private property in Pinyon area—coordinating fuel treatment
plan-NRCS, CDF, USFS, BLM (Dan Felix)—IN THE ACTION PLAN

Find opportunities to protect or improve sheep habitat thru CWPP (Kristen Allison)—
Project Specific

Increase education for abatement alternatives to minimize erosion on private property.
(Kristen Allison)—IN THE ACTION PLAN

Road signage and maintenance on private roads. (Dan Felix, Kevin Turner)—IN THE ACTION PLAN

■ **Fuels/Vegetation Management, WUI and Environmental Issues (North Area)**

Find out the ownership of NE quarter of section 10 (by Poppet Truck Trail)

- Propose a fuelbreak at this location BLM Land—COMPLETED PROJECT

Encourage land management agencies to consider use of herbicide in the abatement of hazardous fuels—Project Specific

Encourage Caltrans to clean shoulders between Poppet Flat and Mt. Edna Rd—IN THE ACTION PLAN

Wind tunnel-Soboba fires Fuel break- Information

- 1989 it burned, gained attention from CDF since. Fires start on reservation at times and then enter Poppet Flats area.
- Landowners work together to encourage fuel clearance
- Landowners can probably clean on County Land, although not legal.

BLM treat south side of Poppet Flat area—help for home owners—COMPLETED PROJECT

■ **Abatement, Ignitability, and Insurance-North Area**

Snow Creek-Grass growth—Information

Lack of buffer zone 30-100 ft clearance—Most complied Information

- BLM Contracted to CDF?
- USFS does wildland suppression not structure protection (CDF does)
- ICS (the Incident Command System)– will use the closest available resource to fight a fire/frequency problems
- National Forest foots the bill.

Habitat sensitivity within Snow Creek—Project Specific

Enforcement for current seller to abate property—Information

CDF hazard surveys – residents will get notices, CDF can cite, residents can go to court, if they refuse CDF will abate (months long process)

How can we speed up this process?—IN THE ACTION PLAN

- Must go to judges

- Possibly a neighborhood watch

Can report violations to—CURRENT PRACTICE

1. Local fire station
2. Call hotline

- High Valleys Park-put in action plan for CDF
- Underbrush/Oaks
- Tons of fire fuel
- Right now- open dialogue
- Acquisition of land has clauses about wood removal

Talk to county about residents coming and taking wood (Fuel from High Valleys Park?)—Put IN THE ACTION PLAN

Abatement on road between Poppet Flats and Lake Fulmor—Current and proposed projects

Funding from \$30 Million to \$5 million??—Information

Who do you contact for abatement on Hwy. 243? Information

- Caltrans
- Encroachment permit requirement

Streamline bureaucratic process for abatement permits along roads—IN THE ACTION PLAN

Prescribed burns—Information

Undergoing update until late December

Assure public with notifications—Information

1. Poppet Flats-
 - CDF 10 year scoping plan
 - BLM 7 year plan
2. Twin Pines

Abatement of parcels with vacant land—IN THE ACTION PLAN

Action Plan- Mountain top inside recommend Riverside County Abatement Ordinance—IN THE ACTION PLAN

- Process would be challenging
- County most likely owns them anyway??
- Title cannot change for some time

Companies are getting more strict and canceling. They are not in touch with locals and the on the ground conditions—IN THE ACTION PLAN

Action-Insurance companies need to be more knowledgeable about local conditions—IN THE ACTION PLAN

Great variance between companies, and even agents—Information
The company does not want you to know why.

- Provide current info to company before you apply.
- Be informed about what they are looking for.
 - ◆ Can you send a rep pictures?
 - ◆ Documents?
 - ◆ Maps?

Fire Safe Council does influence insurance companies—Information

- The MCFSC should invite the insurance companies to participate.

In cooperation with CDF, extend Hwy. 243 evacuation route plan into private lands.
(Ed Wieringa)—IN THE ACTION PLAN

Study to provide an alternate secondary access for Twin Pines Rd. to Hwy. 243 between Poppet Flats & Vista Grande—IN THE ACTION PLAN

Get county abatement plan to incorporate Mt. Area- FSC, CDF/CO Fire—IN THE ACTION PLAN

Vacant parcel program between BLM and private property (Ernie Wright)—IN THE ACTION PLAN

■ Evacuation and Communication Snow Creek/Poppet Flats

1. Potential Closure of B & I road (Needed for evacuation)—Rumor
 - Who?-Peter Lent OES (CLEM)
2. Markers on Truck Trail—IN THE ACTION PLAN
 - Consider Code
3. Mapping—IN THE ACTION PLAN
 - ESRI-Dave K.
4. Evacuation Plan—IN THE ACTION PLAN

- Add Twin Pines, Poppet Flats (Rancho Encino Mountain Tract #2), Snow Creek, Skyland Ranch.
5. Evacuation Leaflets for CHP/MAST to distribute—IN THE ACTION PLAN
6. Animals—CURRENT PRACTICE
- REARS-OES
7. Establish 2 areas for citizens to meet—CURRENT PRACTICE
- Mt Disaster Team (H.V>)-Harvey
 - Coordinate with OES
8. Web site for local emergency info—CURRENT PRACTICE
- OES
9. Road clearance—IN THE ACTION PLAN
- CALTRANS
 - USFS
- New Signs for evacuation—IN THE ACTION PLAN
- Off the hill truck trails
 - Poppet Flats truck trail, and B & I not recommended as evacuation route
- Correct Maps—Housing is shifted; overlay must be redone—IN THE ACTION PLAN
- Better Road signage on county and private roads—IN THE ACTION PLAN
- Repair Deer Trail culvert to fire station—Current project

Appendix E

Maps

Under Separate Cover

Appendix F

Healthy Forest Restoration Act of 2003

Under Separate Cover

Appendix G

Riverside County Mountain Communities Citizen Evacuation Guide

Under Separate Cover

Appendix H

Fire Threat Methodology

Under Separate Cover

Appendix I

Glossary

Appendix I—Glossary

Age class: A classification of trees of a certain range of ages.

Aspect: The direction in which any piece of land faces.

Basal area: The cross-sectional area of tree boles in a forested area as measured at the diameter at breast height (dbh).

Biological Diversity: The variety of living organisms considered at all levels of organization, including the genetic, species, and higher taxonomic levels, and the variety of habitats and ecosystems, as well as the processes occurring therein.

Bole: The main stem or trunk of a tree.

Canopy: The more or less continuous cover of branches and foliage formed collectively by adjacent trees and other woody species in a forest stand. Where significant height differences occur between trees within a stand, formation of a multiple canopies (multilayered) can result.

Coarse Woody Material: Portion of tree that has fallen or been cut and left in the woods. Pieces are at least 16 inches in diameter (small end) and at least 16 feet long.

Cohort: A group of trees developing after a single disturbance, commonly consisting of trees of similar age, although it can include a considerable range of tree ages of seedling or sprout origin and trees that predate the disturbance.

Crown Class: A class of tree based on crown position relative to the crowns of adjacent trees.

Dominant: Crowns extend above the general level of crown cover of others of the same stratum and are not physically restricted from above, although possibly somewhat crowded by other trees on the sides.

Co-dominant: Crowns form a general level of crown stratum and are not physically restricted from above, but are more or less crowded by other trees from the sides.

Intermediate: Trees are shorter, but their crowns extend into the general level of dominant and co-dominant trees, free from physical restrictions from above, but quite crowded from the sides.

Suppressed: Also known as overtopped. Crowns are entirely below the general level of dominant and co-dominant trees and are physically restricted from immediately above.

Crown fire: Fire that advances through the tops of trees.

Defensible fuel reduction zones: Areas of modified and reduced fuels that extend beyond fuel breaks to include a larger area of decreased fuels. These would include managed stands with reduced amounts, continuities, and/or distributions of fuels that would provide additional zones of opportunity for controlling wildfire.

Density management: Cutting of trees for a variety of purposes including, but not limited to: accelerating tree growth, improving forest health, opening the forest canopy, promoting wildlife and/or accelerating the attainment of old growth characteristics if maintenance or restoration of biological diversity is the objective.

Diameter at breast height (dbh): The diameter of a tree 4.5 feet above the ground on the uphill side of the tree.

Down, dead woody fuels: Dead twigs, branches, stems, and boles of trees and shrubs that have fallen and lie on or near the ground.

Eco-type: A more or less homogeneous natural community type which occupies specific niches in the landscape. More or less synonymous with "landscape unit," but landscape units often will sub-divide an eco-type (often based on steepness of slope).

Fire hazard: The kind, volume, condition, arrangement, and location of fuels and vegetation that creates an increased threat of ignition, rate of spread, and resistance to control of wildfire.

Fire regime: The characteristic frequency, extent, intensity and seasonality of fires within an ecosystem.

Fire risk: The chance of various ignition sources, either lightning or human-caused, causing a fire.

Fire season: The period of time, usually during the summer and fall, when there are drier conditions and higher temperatures, and restrictions and rules designed to minimize forest fire risks are put into effect.

Fire severity: Measures the effect of fire on an ecosystem, especially the effect on plants. Fires are commonly classed as low, medium, and high.

Fire weather conditions: The state of the atmosphere within 5 to 10 miles of the earth's surface indicated by measures of temperature, pressure, wind speed, wind direction, humidity, visibility, clouds, and precipitation. The potential for fire weather conditions to influence fire behavior is generally described in terms of low to extreme.

Forest Health: The ability of forest ecosystems to remain productive, resilient, and stable over time and to withstand the effects of periodic natural or human-caused stresses such as drought, insect attack, disease, climatic changes, fire, flood, resource management practices and resource demands.

Fuel continuity: A qualitative description of the distribution of fuel both horizontally and vertically. Continuous fuels readily support fire spread. The larger the fuel discontinuity, the greater the fire intensity required for fire spread.

Fuel break: A strip of land in which vegetation has been manipulated such that fires burning into one are more easily controlled.

Ladder fuels: Flammable vegetation that provides vertical continuity between the surface fuels and tree crowns.

Landscape unit: A defined area of land with relatively consistent topography and vegetation.

Log Decomposition Class: Any of five stages of deterioration of logs in the forest; stages range from essentially sound (class 1) to almost total decomposition (class 5).

Lop and scatter: A method of slash treatment in which slash is cut into smaller pieces and spread out to decrease fuel accumulations so that it lies closer to the ground to increase decomposition rate.

Mature Stand: Traditionally defined as a discrete stand of trees for which the annual net rate of growth has peaked. Stands are generally greater than 80-100 years old and less than 180-200 years old. Stand age, diameter of dominant trees, and stand structure at maturity vary by forest cover types and local site conditions. Mature stands generally contain trees with a smaller average diameter, less age class variation, and less structural complexity than old-growth stands of the same forest type.

Plant association: A group of plant communities which share the same set of dominant species and usually grow in a specific range of habitat conditions. There can be significant variation between sites and there is a great deal of variation at different successional pathways, vegetation trends and management opportunities.

Plant community: An area of vegetation in which the same set of species is present in all layers (tree, shrub, herb/grass, moss, and lichen)

Plant series or PAG: A group of plant associations that share a common feature of favoring development of particular tree species that will become dominant over time if the forest matures without disturbance.

Prescribed underburning: involves the controlled application of fire to understory vegetation and downed woody material when fuel moisture, soil moisture, and weather and atmospheric conditions allow for the fire to be confined to a predetermined area and intensity to achieve the planned resource objectives. (USDA, 2001)

Relative Density Index: The ratio of the actual stand density to the maximum stand density attainable in a stand. Used as a way to measure quantitative differences between stand densities. Measured on a scale between 0 and 1.00.

Release: A term used to indicate the increased growth that occurs in a tree or stand of trees following stand density reduction.

Restoration Ecology: The study of theoretical principles and applications in population and community ecology aimed to restore and rehabilitate highly disturbed or degraded ecosystems to their more natural states.

Riparian area: A geographic area (150-300') influenced by an aquatic component and adjacent upland areas.

Silviculture: The art and science guiding the establishment, growth, composition, health and quality of vegetation in forests and woodlands to meet the diverse needs and values of landowners and society on a sustainable basis.

Site productivity: The capacity of an area of land to produce carbon-based life forms.

Slash: Tree tops, branches, bark, and other typically non-merchantable debris left after forest management activities.

Snag: Any standing dead or partially dead tree at least sixteen inches in diameter at breast height (dbh) and at least sixteen feet tall.

Stand (Tree Stand): An aggregation of trees occupying a specific area and sufficiently uniform in composition, age, arrangement, and condition so that it is distinguishable from the forest in adjoining areas.

Stand Density: An expression of the number and size of trees on a forest site. May be expressed in terms of numbers of trees per acre, basal area, stand density index, or relative density index.

Stand Density Index: A measure of stand density independent of site quality and age. From the stand density index, an approximate number of trees, of a chosen diameter, capable of being supported on an acre can be determined.

Stocking level: The number of trees in any given area expressed as trees/acre.