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5. Lake County Community Context

5.1. Social and Political Setting¹

Lake County is a regional, geopolitical unit of the State of California. A Board of Supervisors consisting of five members governs the county, each elected for a four-year term of office. Each of the five supervisors is responsible for representing one of the five districts in the county. The terms of office are staggered so that two are elected in one general election and three in the next.

District 1 – The ‘South County’ includes the communities of Middletown, Hidden Valley, Cobb, Lower Lake, and a portion of the City of Clearlake, and is currently represented by Supervisor Jim Comstock.

District 2 – This district’s northern border is Highway 20 to Colusa County, which forms the district’s eastern border. It includes the majority of the City of Clearlake, Clearlake Park, Windflower Point, and a large stretch of Clear Lake’s shoreline. Supervisor Jeff Smith currently represents it.

District 3 – This ‘Northshore’ District includes Blue Lakes, Upper Lake, Nice, Lucerne, Glenhaven, Clearlake Oaks, Lake Pillsbury, and Spring Valley, and is currently represented by Supervisor Denise Rushing.

District 4 – This district includes Lakeport, Scotts Valley, Finley, Lampson Airport area, Highland Springs, part of the reclamation area near Upper Lake, and a large area of Clear Lake Shoreline. It is the largest agricultural area in the county. Supervisor Anthony Farrington currently represents it.

District 5 – This district includes Kelseyville, Clear Lake Rivas, Buckingham, Loch Lomond, and parts of the Cobb Mountain area. It has a large agricultural area known for pears, wine grapes, and wineries. Supervisor Rob Brown currently represents it.

5.1.1. Community Legal Structure and Jurisdictional Boundaries

Lake County is within the US 1st Congressional District, State Senate District 2, and the 1st State Assembly District. As stated above, there are five districts within the county. These districts represent the two incorporated cities, Lakeport and Clearlake, as well as eleven unincorporated areas and six areas of special interests.

Aside from Lakeport and Clearlake, the rest of the county is unincorporated. The County is responsible for providing services such as police, libraries and more. The County of Lake is also responsible for building and maintaining county infrastructure such as parks, county buildings, roads, etc. There are approximately 600 miles of roads that are county-maintained, in addition to the many privately maintained roads.

Lake County and the two cities maintain their own building departments. The county’s governs the unincorporated areas. These departments regulate building standards and codes throughout the county. Lake County adopted the 2007 California Fire Code and additionally made changes to chapter 5 of the Lake County Code to adopt defensible space. The County has also adopted the International Wildland-Urban Interface Code. Finally, they enforce chapter 7A of the 2007 California Fire Code with respect to the WUI building standards.

There are a variety of state, federal, and county jurisdictions within the county. For example, CAL FIRE, USFS, BLM, and county Fire Protection Districts (FPDs) have individual jurisdictions in regards to emergency response. Potential jurisdictional conflicts are generally resolved through mutual aid or other such agreements (*see Chapter 6 for more information on fire protection and mutual aid*).

¹ Information for this section came from the County of Lake website: www.co.lake.ca.us.

5.2. Public Lands Fire Management

There are several land management agencies in Lake County who manage properties for the public. They are generally funded from taxpayer dollars.

5.2.1. Federal Lands

USDA Forest Service: Mendocino National Forest

Within Lake County, the USDA Forest Service's Mendocino National Forest (MNF) manages 256,725 acres. The MNF consists of most of the northern portion of the county. The general land use activity is primarily recreation, although some timber management occurs. There are many designated trails and roads for hiking and off highway vehicle (OHV) use. There are also several campgrounds within the forest.

The 1995 Mendocino National Forest Plan guides MNF management. A Fire Management Plan was developed in 2008. MNF has an active fuels management plan that incorporates thinning and prescribed fire. It is also in the process of developing a formal prevention program to participate in public events and school programs, a signage program, and direct contact with forest users.² Currently MNF fire prevention staff are providing education to area schools. Smokey Bear is often used to help educate children about the proper use and risks of fire (e.g. be careful with matches).

MNF is active in fire suppression, as well as using fire on the landscape. They use prescribed fire as a tool for fuels reduction and ecological restoration, and allow some natural fires to burn ("wildland fire use"). These natural occurring fires are monitored and suppressed if they threaten communities.

Fire as a tool for public lands management is supported by many, including a collection of resource professionals with the *Restore the Mendo* campaign.³ In 2007, the Lake County Board of Supervisors signed a resolution⁴ supporting prescribed fire and mechanical thinning in the Mendocino National Forest stating that they:

"Support an increase in additional funding, staffing, and efforts to restore a fire management program utilizing, when appropriate, low-severity fire and/or mechanical thinning in the MNF and which recognizes and manages wildfire use in a manner that balances and protects the healthful air quality and good prevailing visibility of the Lake County Air Basin."⁵

MNF has implemented several projects to reduce fuels around wildland-urban interface communities. These include pre-commercial thinning in High Valley (180 acres) and Horse Mountain (400 acres). The Twin Valley Timber Stand Improvement (TSI) project focuses on thinning knobcone pine in order to protect plantations that were planted prior to the 1996 *Fork Fire*. The Elk Mountain Road fuelbreak (approximately 600 acres) was designed to protect the communities of Lake Pillsbury and private property in the fuelbreak area, as well as a *Late Successional Reserve* (LSR) around Pine Mountain. Work for this project began in the Howard Mill area in 2002. Most is now completed from lower Deer Valley Road to the 17N74 Road. Fuel reduction around Lake Pillsbury summer homes and Sunset Campground provides defensible space around homes that have 100-year leases with the USFS. Pre-commercial thinning—the removal of small non-merchantable trees—around Lakeview Campground was completed in order to reduce surface and ladder fuels. *See Figure 5-1 for more information.*

² U.S Forest Service Pacific Southwest Region, Mendocino National Forest. 2008 Fire Management Plan.

³ Restore the Mendo. *The Mendocino National Forest – Controlled burns protect people and property, restore forests, and save taxpayer dollars.* www.restorethemendo.org.

⁴ Lake County Board of Supervisors. *Resolution in Support of a Fire Management Plan.* July 17, 2007. http://restorethemendo.typepad.com/my_weblog/files/lake_county_resolution.GIF.
http://restorethemendo.typepad.com/my_weblog/files/lake_county_resolution_page_2.GIF.

⁵ Lake County Board of Supervisors. July 17, 2007.

MNF is proposing several more projects here. The Westshore Hazardous Fuels Reduction project will create a fuelbreak along approximately 1.5 miles of Erickson Ridge, just northwest of Lake Pillsbury along Forest Service Road 20N04. This area is heavily used for recreation, which can lead to increased human-caused ignitions. It will utilize hand thinning, prescribed burning, and a timber sale to reduce fuels. However, the project has been put out to bid two times, with no current bids. It is anticipated that the fuels reduction component (about 50% of the entire project) will be contracted this year (2009). A shaded fuelbreak, along with prescribed fire, has been proposed along High Valley Road. Two additional projects are the Boardman Ridge and South Ridge Understory Burns. These projects are proposed in order to treat vegetative fuels and reduce the risk of catastrophic wildfires.

Two additional projects are proposed to help restore the ecosystem and reduce fuel loads. The Round Burn project proposes to thin 35-year-old plantations established after the 1966 *Round Fire*. The goal is to control tree densities, improve forest health, and reduce vegetative fuels. The Pine Mountain project will focus on thinning fuels in order to protect, enhance, and maintain LSRs within the forest.

Finally, there is the approximately 11,000-acre prescribed burn north of the Eel River and west of Soda Creek. The MNF also plans on continuing pre-commercial thinning in High Valley in order to reduce fuel loads and minimize the chances of catastrophic wildfires.

In addition to fuel reduction projects and fire suppression activities, personnel from the MNF participate in the Lake County Fire Safe Council. Their expertise regarding fire management and forest health is useful in planning fuel reduction projects, as well as public education and outreach.

Figure 5-1. Mendocino National Forest Existing Projects

Community, Structure, or Area at Risk	Project Name	Method of Treatment	Acres Treated	Expected Completion Date
Upper Lake/Lake Pillsbury	Elk Mountain Fuelbreak	Hand/Mechanical Thin Fuelbreak	762	2011
Lake Pillsbury	Southridge Prescribed Fire	Prescribed Fire Only	1141	2012
Lake Pillsbury Ranch	Booth Crossing Fuelbreak	Hand/Mechanical Thin Fuelbreak	200	2012
Lake Pillsbury	Pillsbury Ranch Fuelbreak	Hand/Mechanical Thin Fuelbreak	32	2010
Lake Pillsbury Home Sites	Pillsbury Home Sites Fuel Reduction	Hand/Mechanical Thin	536	2011

USDI Bureau of Land Management: Ukiah Field Office

Within Lake County, the US Department of Interior, Bureau of Land Management (BLM) manages 117,157 acres. This includes the Cache Creek Natural Area (27,245 acres), Cow Mountain Recreational Area (52,000 acres), Knoxville Recreational Area (approximately 4,000 acres), Indian Valley Recreation Area (approximately 31,000 acres), a portion of The Geysers (approximately 2,000 acres), and the Black Forest/Mt. Konocti (912 acres). The primary land-use activity within these areas is recreation such as hiking, OHV use, horseback riding, bird watching, and other outdoor activities, in addition to resource conservation.

The 2006 Ukiah Resource Management Plan (URMP) guides management of BLM lands within the county. Regarding fire management, the URMP provides direction for the creation of a Fire Management Plan (FMP) which would provide guidance regarding wildfire suppression; fuels management (prescribed fire and mechanical treatments); fire rehabilitation, stabilization and restoration; and prevention and risk management education. The relevant fire goals of the URMP are:

- The goal of wildfire suppression on BLM properties is to: “provide an appropriate management response on all wildland fires, emphasizing firefighter and public safety.”⁶
- Some of the many important management actions associated with this goal are to: “Prioritize fires based on values to be protected commensurate with cost... Identify high priority wildfire risk areas (e.g., wildland urban interface, critical habitats, and cultural areas) in the FMP... Limit the intensity of fire suppression efforts to the most economical response consistent with human and resource values at risk, prohibit the use of bulldozers and other heavy equipment in sensitive areas, protect sensitive cultural resource sites from damage by fire and/or fire suppression actions... Coordinate with tribes if known Traditional Cultural Properties are involved in wildland fires based on resource specialist information.”⁷
- The goals of fuels management on BLM properties are to: “Manage fuels to mimic the natural role of fire while enhancing resource values, reduce fire risk to the wildland urban interface (WUI) communities, promote greater diversity within plant communities with the use of fire, protect riparian and wetland areas, improve ecological conditions and reduce the risk of catastrophic wildfire through the use of prescribed burning, and improve ecological conditions and reduce the risk of catastrophic wildfire through mechanical treatments.”⁸
- Some of the management actions identified to obtain these goals are to: “Monitor fire/fuels treatment effects and adjust plans as needed... Develop prescribed burn units within the Cache Creek, Cow Mountain, and Indian Valley management units that will be treated on a rotational basis, develop and maintain fuel breaks along the WUI using prescribed fire, mechanical, hand, biological and/or chemical treatments... Use fire as a natural land management tool for the control and eradication of noxious weeds... Utilize prescribed burning to manage the chaparral community for fuel hazard reduction, wildlife habitat improvement, increased local water yield and watershed enhancement, and to work collaboratively with managing partners to design and implement prescribed fire and fuels management projects across agency boundaries, where this interaction will improve the overall success of the project.”⁹
- The goal for fire prevention and risk mitigation and education is to: “Increase [the] public’s knowledge of the natural role of fire in the ecosystem, and hazards and risks associated with living in the WUI.”¹⁰
- The management actions associated with this goal are to: “Work with communities, Fire Safe Councils, and other federal and state agencies in the development and implementation of risk assessment and community protection plans, educate the public on fire risk and prevention measures, employ fire prevention strategies that reduce human ignition occurrence on public land within the Ukiah Field Office.”¹¹

As mentioned above, some of the methods for fuels management used by the BLM include prescribed burning, mastication, and grazing. In order to reduce fuels around WUI communities, BLM has implemented many projects, including the Black Forest shaded fuelbreak, Little Cow Mountain fuelbreak, and several other prescribed fire and mechanical applications. Most of BLM’s prescribed fire applications

⁶ Ukiah Resource Management Plan (URMP). U.S. Department of the Interior Bureau of Land Management Ukiah Field Office. 2006. p. 16.

⁷ URMP. Pp. 16-17.

⁸ URMP. Pp. 17-18.

⁹ URMP. Pp. 17-18.

¹⁰ URMP. p. 19.

¹¹ URMP. p. 19.

are completed in cooperation with CAL FIRE’s Vegetation Management Program (VMP). All prescribed fire applications are done in cooperation with Lake County Air Quality Management District (LCAQMD) to properly identify and mitigate air quality issues. This cooperation helps create prescribed fire applications that can span several different public and private ownerships, with positive results on the landscape and for air quality.

BLM is currently planning on several additional fuel reduction projects within the county. Mechanical mastication is being planned to expand the Little Cow Mountain Fuelbreak by 60 acres. BLM is also planning to use prescribed fire on Pyramid Ridge and The Geysers. These two prescribed fire applications will treat 4,000 acres and 228 acres respectively. Both of these prescribed fire applications will be in coordination with CAL FIRE and the LCAQMD.

In addition to these fuel management activities, BLM is involved with the Lake County Fire Safe Council in the form of a technical advisor and planning partner.

Figure 5-2. BLM Existing Projects

Community, Structure, or Area at Risk	Project Name	Method of Treatment	Funding Needs	Acres Treated	Expected Completion Date
Scott Valley, Lakeport, Ukiah, Talmadge	Little Cow Mountain Fuelbreak	Mechanical Mastication	\$40,000	40	1 st Phase Complete, Maintenance Begun
Buckingham, Mt. Konocti	Black Forest Shaded Fuel Break	Thinning	\$12,500	12	9/30/2009
Clearlake	Payne Ranch Interior Meadows	Prescribed Burn	\$10,000	175	9/30/2009
Scott Valley, Lakeport, Ukiah, Talmadge	Pyramid Ridge VMP	Prescribed Burn	\$75,000	4000	9/30/2011
Cobb, Middletown, Kelseyville, Lakeport	Geysers VMP	Prescribed Burn	\$10,000	228	9/30/2011
Scott Valley, Lakeport, Ukiah, Talmadge	Little Cow Mountain Fuelbreak Extension	Mechanical Mastication	\$63,000	60	9/30/2012
Kelseyville	Black Forest Fuelbreak	Mechanical Thinning	\$7,000	25	9/30/2012
Scotts Valley, Lakeport	Pyramid Ridge VMP	Prescribed Burn	\$30,000	300	9/30/2012
Spring Valley	Indian Valley Units 3&4	Prescribed Burn	\$60,000	6000	9/30/2012
Scotts Valley, Lakeport	Little Cow Mountain	Mastication/Mowing	\$7,000	20	9/30/2012
Anderson Springs	Geysers VMP	Prescribed Burn	\$93,000	308	9/30/2014
Spring Valley	Indian Valley Units 1&2	Prescribed Burn	\$60,000	6000	9/30/2018
Blue Lakes, Scotts Valley	North Cow Mountain VMP	Prescribed Burn	\$180,000	5,000	9/30/2020
Clearlake	Payne Ranch VMP	Prescribed Burn	\$45,000	300	9/30/2020

5.2.2. California State Lands

California Department of Fish and Game

The California Department of Fish and Game (DFG) manages lands throughout California for their natural values, recreational opportunities, and wildlife habitat. Within Lake County, DFG manages Loch Lomond Vernal Pool Ecological Reserve, as well as the Clear Lake, Indian Valley, and Cache Creek

Wildlife Areas. DFG also cooperatively manages Boggs Lake Ecological Reserve with The Nature Conservancy. Loch Lomond and Boggs Lake Ecological Reserves are managed primarily for recreation and natural resource protection. Clear Lake Wildlife Area is only accessed by boat and is used for hunting, sight seeing, wildlife viewing, etc.

The Cache Creek Wildlife Area is cooperatively managed with BLM under a Memorandum of Understanding agreement. The 2004 Cache Creek Coordinated Resource Management Plan provides direction for the management of this area, along with the BLM's Ukiah Resource Management Plan (URMP). The primary use of this area is the protection of natural resources, education, and primitive recreational opportunities.

According to the URMP, several goals regarding habitat improvement and wildfire mitigation are identified for this area. Such goals include the removal of invasive species, such as yellow star thistle, and implementing an average annual and decadal prescribed fire application of 1,000 to 10,000 acres. Along with these prescribed fire application goals, the URMP aims to treat 500 acres per decade using mechanical methods. The URMP also aims to maintain the current level of habitat development to benefit game species and fisheries.

The Indian Valley Wildlife Area is also cooperatively managed with the BLM. This area consists of high-water lands surrounding Indian Valley Reservoir, and is managed for recreational use and wildlife habitat.

The URMP goals regarding habitat improvement and wildfire mitigation for the Indian Valley area include the implementation of annual and decadal prescribed fire application of 600 and 6,000 acres respectively. They also include treating up to 300 acres per decade using mechanical methods. The plan aims to remove up to 20 acres annually of non-native species, such as medusa head and arundo, to benefit both game and non-game species' habitat development.

California Department of Forestry and Fire Protection (CAL FIRE)¹²

CAL FIRE operates eight Demonstration State Forests in California, including Boggs Mountain Demonstration State Forest (BMDSF) in Lake County. BMDSF is a 3,493-acre mixed conifer forest.

“The primary State Forest management objective for demonstration forests is two-fold: “1) achieve an active research and demonstration program, and 2) achieve maximum sustained production of high quality timber products, while developing an all-aged forest with the widest possible diversity of forest structures.”¹³

In addition to these objectives, the forest provides recreational activities such as hiking, camping, and hunting. The Boggs Mountain Management Plan (2008) provides direction on forest management forest.

“The timber management program under this plan is expected to produce a sustainable harvest, maintaining the productive capacity of the soils in perpetuity. Harvest levels help to support the research programs attributed to the forest.”¹⁴

Silvicultural methods aimed at fire hazard reduction are the cornerstones of planned management at Boggs Mountain. Maximization of forest health and productivity is another major goal at BMDSF. Fire resilience is managed through controlling vegetation density found within the forest. Well-designed

¹² Information for this section was taken primarily from the 2008 Boggs Mountain Demonstration State Forest Management Plan. www.fire.ca.gov/resource_mgt/downloads/BoggsMtn/Boggs_2008_DraftMgtPlan_HE_060408.pdf

¹³ Boggs Mountain Demonstration State Forest Management Plan (BMDSFMP). California Department of Forestry and Fire Protection. The Resource Agency of the State of California. 2008. p 5.

¹⁴ BMDSFMP. p 24.

fuelbreaks will alter the behavior of wildland fire entering the fuel-altered zone. Both surface and crown fire behavior may be reduced.¹⁵ This reduction in fire behavior may allow firefighters to control a fire.

In order to lower the fire risk at BMDSF,

“Shaded fuel breaks are being constructed along the entire 22 mile-Forest road system by Conservation Camp Crews. Forest fuels reduction through timber harvesting and stocking control, as well as brush and slash control will be ongoing programs which will supplement and eventually replace the fuel break system as the Forest's main defense against wildfire.”¹⁶

BMDSF will continue to use prescribed fire on the forest in order to reduce fuel loads and maintain a natural ecosystem. A smoke management plan is created annually with the LCAQMD to initiate prescribed burning. Under this plan up to 600 acres can be burned annually; due to weather issues generally half of this gets completed. According to BMDSF:

“Fire is a natural ecosystem process within the Forest. Fire exclusion over the long run is not possible and is generally not desirable in maintaining natural ecosystem processes. The use of prescribed fire can facilitate fire hazard reduction, silvicultural and habitat research, and ecosystem management research.”¹⁷

These activities are designed to assist in reducing wildfire threats to the greater Cobb Mountain area. Removal of small vegetation (small trees and other vegetative fuels) can be expensive. However, BMDSF has committed to taking an active role in exploring the economic feasibility of harvesting these low-value resources, for stand improvement and fire-hazard reduction.

California State Parks

Within Lake County, California State Parks manages Clear Lake State Park (300 acres) and Anderson Marsh State Historic Park (870 acres). Both of these parks receive thousands of visitors annually. Clear Lake State Park is located on the lakeshore, and provides recreational opportunities such as fishing and sight seeing.

Anderson Marsh State Historic Park (AMSHP) is located on the southeast end of Clear Lake and contains some of the oldest archeological sites in the state park system. Interpretative trails, wildlife viewing, cultural site viewing, and other recreational opportunities like boating are available to visitors. This park is mostly undeveloped and is guided by the 1998 AMSHP General Plan. As a result of fire suppression, vegetative fuels have accumulated in many areas, leading to an increased fire risk for both the park and surrounding communities such as Clearlake. The AMSHP General Plan identifies the need to develop a fire management plan for the reintroduction of fire as well as proper fire suppression activities. This has yet to be accomplished. A policy within the AMSHP General Plan regarding fire use states:

“In accord with the department’s prescribed fire management policies, fire shall be restored to its natural role in suitable ecosystems at AMSHP. A fire management plan that details an ongoing program of prescribed fire use shall be prepared and maintained.

“The plan for prescribed fire use shall contain program objectives, guidelines and treatment constraints, specific burning plans, and provisions for monitoring and evaluation. Particular care shall be taken to minimize deleterious effects of the unit’s natural, cultural, and scenic resources. Artificial modifications and processes shall be minimized. A program of prescribed fire use shall not preclude in any way the necessity for wildfire prevention and suppression.”¹⁸

¹⁵ Agee, J.K. et al. 2000. “The Use of Shaded Fuelbreaks in Landscape Fire Management.” *Forest Ecology and Management* 127: Pp 55-56, p. 1.

¹⁶ BMDSFMP. p 38.

¹⁷ BMDSFMP. p 38.

¹⁸ Anderson Marsh State Historic Park General Plan. 1998. Pp. 61-62.

The AMSHP General Plan identifies the need to create a plan for prevention, pre-suppression, and suppression activities. This plan will focus on avoiding aesthetic impacts to the natural area by using the least environmentally damaging fire suppression activities, and the proper placement of fuelbreaks and fire access roads. Fire mitigation activities such as these will help keep the park in its most natural state, while helping to keep visitors safe.

5.2.3. Tribal Lands

With approximately 10,000 to 12,000 years of human presence in the vicinity of Clear Lake, there is a significant amount of Native American heritage in Lake County. The indigenous populations were diverse across landscape and culture. At least seven different languages and dialects were associated with this area, with ties to tribes as far south as Peru. The Pomo Nation was one of the largest Native American nations in Northern California prior to European settlement. The county is now home to seven Native American tribes: six Pomo, and one Miwok tribe (Middletown Rancheria).

Today Native American land ownership in Lake County ranges from very small plots to approximately 1,200 acres (owned by the Robinson Rancheria of the Pomo Indians). Robinson Rancheria includes a casino and a housing development. Big Valley (approximately 240 acres) and Middletown Rancherias (approximately 110 acres) each have a casino as well. Elem Indian Colony and Scotts Valley Band of Pomo Indians both maintain property ownerships of approximately 52 acres and 35 acres respectively. The Habematolel Pomo of Upper Lake has 29 acres, 18 are located on the original Rancheria. Vegetative fuels on individual home sites and community property are cleared every year and firebreaks are maintained annually. The remaining tribes do not presently own land in Lake County.

In order to maintain cultural and natural resources, reduce vegetative fuels, and restore ecosystems, several projects have been initiated throughout the county. Robinson Rancheria is implementing fuels reduction on their lands. To protect homes, a ten-foot-wide fuelbreak is maintained around the subdivision annually. A firebreak (in the form of a tractor line put in prior to tribal ownership) located behind the casino and up to the Hogback Ridge is maintained by tribal members. Vegetative fuels on private roads behind the casino leading up the ridge are also reduced in order to provide access for tribal members and emergency personnel. However, some county roads near the Rancheria are not maintained. They have a buildup of vegetative fuels and are a fire risk. Stream restoration, the cultivation of native vegetation, and removal of exotic species such as Scotch broom are also taking place here. This includes restoration along Middle Creek, Alley Creek, and the casino land.

The Middletown Rancheria owns the Twin Pine Casino south of Middletown. In 2006 the South Lake Council Fire Safe Council built a 1.2-mile shaded fuelbreak around rancheria lands, to help protect the casino and surrounding properties.

Other than these larger fuel reduction and restoration projects, and the smaller-scale reduction of fuel and noxious weeds around homes, tribal lands within the county remain mostly in their undeveloped state. Many tribes are actively trying to generate a land base to provide homes and services for tribal members. Many historical land practices gained from the indigenous communities, such as the use of fire as a management tool, are no longer practiced due to a minimal (or nonexistent) land base among these tribes.

5.3. Community Planning Context

There are several planning documents in Lake County that address wildfire issues. These include:

- 2008 Lake County General Plan (GP)
- 2005 Natural Hazard Mitigation Plan (HMP)
- 2007 Local Agency Formation Commission (LAFCO) Report
- 2009 Emergency Operations Plans (draft), including the 2004 Interface Wildland Fire Contingency Plan.

Integrating this CWPP planning effort with these other plans is important to the success of wildfire prevention in Lake County. Below is a summary of some of the relevant components of each of these other plans.

5.3.1. General Plan

The Lake County General Plan was approved in 2008. It guides planning and development activities. Pertinent goals and policies within the General Plan are identified below.

Land Use

The General Plan (GP) identifies several different land use categories. The two that are most relevant for wildfire interface issues are Rural Lands and Rural Residential.

Rural lands are areas that are “primarily in their natural state, although some agricultural production, especially vineyards, can occur on these lands. The category is appropriate for areas that are remote, or characterized by steep topography, fire hazards, and limited access. Typical uses permitted by right include, but are not limited to, animal raising, crop production, single family residences, game preserves and fisheries.”¹⁹

Rural Residential land “is designed to provide single-family residential development in a semi-rural setting. Large lot residential development with small-scale agricultural activities is appropriate. These areas are intended to act as a buffer area between the urban residential development and the agricultural areas of the County. Building intensity should be greater where public services such as major roads, community water systems, or public sewerage are available.”²⁰

Rural and Rural Residential lands tend to occur in the interface areas around the county, (*see General Plan Land Use Map*²¹ for more information). The GP recognizes the fire threats to these rural areas and has created specific policies to address them, including Policy HS-7.6. Development Guidelines:

“The County should consider fire hazards in evaluating development proposals. Within designated areas where population or residential building densities may be inappropriate to the hazards present, measures should be developed and adopted to mitigate risk to life and property loss. Lands designated as having high and extreme wildfire hazards may be developed provided that the following guidelines are satisfied:

- Development should be limited to Rural Residential or Rural lands only; and cluster development is encouraged.
- Developers and/or subsequent owners must assume responsibility for ongoing fire prevention maintenance activities for the project, including; abatement of fuel buildup, fire break maintenance, access provision, and provision of adequate water supply to meet fire flow.
- Separately developed dwellings with an individual private water supply shall provide an acceptable guaranteed minimum supply of water²², in addition to the amount required for domestic needs.”²³

Several actions are identified in Chapter 8 of this CWPP regarding ensuring defensible space, and reducing fuels in these areas.

The other relevant component of the GP Land Use element is regarding paper lot consolidation. The General Plan defines paper lots as “Preexisting nonconforming parcels created during the 1920s. The lots are typically small and irregularly shaped in multiple ownership with a lack of infrastructure. Most of Lake

¹⁹ Lake County General Plan (GP). 2008. Pp. 3-10.

²⁰ Lake County General Plan (GP). 2008. Pp. 3-10.

²¹ General Plan Land Use Map.

www.co.lake.ca.us/Assets/CDD/2008+General+Plan+Final+Version/2008+General+Plan+Docs/Maps2.pdf.

²² 2,500 gallons minimum required by CAL FIRE, for those not on municipal water system.

²³ GP. Pp. 7-19.

County’s paper lots are located in Nice, Lucerne, and Clearlake Oaks.”²⁴ They tend to be in areas with high fuels and narrow winding roads, and pose a threat to the neighboring communities. GP Policy LU 1-6. Paper Lot Consolidation addresses this issue as follows:

“Paper subdivision lots that are in tax default should be considered for use as open space, trail access or watershed protection and held by an appropriate entity for that purpose. If determined not to be feasible, then alternatively the County shall encourage consolidation of paper lots into developable lots, especially those lots with an irregular shape, inadequate size for practical uses, and lack of infrastructure.”²⁵

Actions have been identified in Chapter 8 of this CWPP to minimize WUI fire threats on paper lots. Additional GP land use goals and policies regarding smart growth and clustered development are clearly in line with the goals and policies of this CWPP.

Health and Safety

Chapter 7, the Health and Safety element of the General Plan begins with Goal HS-1: “To ensure the County is protected from injury and damage resulting from natural catastrophes, man-made events, and hazardous conditions.”²⁶ Policies HS-1.1 through 1.5 are especially relevant to wildfire mitigation:

“Policy HS-1.1 Development Constraints: The County shall permit development only in areas where the potential danger to the health and safety of people can be mitigated to an acceptable level.

Policy HS-1.2 Maintain Emergency Public Services: The County shall ensure that during natural catastrophes and emergency situations, the County can continue to provide essential emergency services.

Policy HS-1.3 Building and Fire Codes: The County shall ensure all buildings for human habitation are designed in compliance with the Uniform Building Code and other requirements based on risk (e.g., seismic hazards, flooding), type of occupancy, and location (e.g., floodplain, fault).

Policy HS-1.4 Hazard Awareness and Public Education: The County shall continue to promote awareness and education among residents regarding possible natural hazards, including soil conditions, earthquakes, flooding, Naturally Occurring Asbestos and fire hazards, and emergency procedures.

Policy HS-1.5 Interagency Coordination: The County shall work with other federal, state and local agencies to assure the continued presence and operation of services essential to public health and safety during times of emergency.”²⁷

Section 7.7 Urban and Wildland Fire Hazards, is the most relevant to this plan, and includes the following:

“Goal HS-7: To minimize the possibility of the loss of life, injury, or damage to property as a result of urban and wildland fire hazards.

Policy HS-7.1 Consultation with Fire Service Districts: The County shall consult with the appropriate fire service district or California [Department] of Forestry [and Fire Protection] in areas designated as high and extreme fire hazard, for particular regulations or design requirements prior to issuance of a building permit or approval of subdivisions...

²⁴ GP. Pp. 3-3.

²⁵ GP. Pp. 3-16.

²⁶ GP. Pp. 7-4.

²⁷ GP. Pp. 7-4.

Policy HS-7.2 Encourage Cluster Development: In areas designated as high or extreme fire hazard, the County should encourage cluster developments to provide for more localized and effective fire protection measures such as consolidations of fuel build-up abatement, firebreak maintenance, fire fighting equipment access, and water service provision.

Policy HS-7.3 Fuel Modification Programs: The County shall actively support fuel modification and reduction programs on public and private lands throughout the County, and shall encourage methods other than burning in order to minimize air quality impacts.

Policy HS-7.4 Wildland Fire Management Plans: The County shall require the development of wildland fire management plans for projects adjoining significant areas of open space that may have high fuel loads.

Policy HS-7.5 Fuel Breaks: Fuel breaks of at least 30 feet should be maintained around all structures. Additional fuel breaks or fuel modifications up to 100 feet around structures should be required when the fire officials find that extra hazardous conditions exist. Secondary fuel breaks up to 200 feet in width should be required when the fire authority finds that additional precautions are necessary. Fire buffers should be created along heavily traveled roads within high and extreme hazard areas by thinning, discing, or controlled burning. Parks, golf courses, utility corridors, roads, and greenbelts should be located so that they may serve a double function as fuel breaks.

Policy HS-7.6 Development Guidelines (*see Land Use above*).

Policy HS-7.7 Fire Resistant Building Materials: The exterior of residential units should be composed of fire-resistant materials and designed to reduce fire vulnerability within high and extreme fire hazard areas.”²⁸

Section 7.8 Emergency Response relates to fire protection as described in Chapter 6 of this CWPP. The Emergency Operations Plan is addressed in 5.3.4 below. The following are the relevant Goals and Policies.

“Goal HS-8: To ensure the maintenance of the Emergency Operations Plan in order to maintain its effectiveness in preparing and responding to a natural or human-made disaster.

Policy HS-8.1 Coordinate Emergency Response Services with Local Agencies,

Policy HS-8.2 Emergency Response Exercises,

Policy HS-8.3 Maintain Emergency Evacuation Plans,

Policy HS-8.4 Develop Interim Disaster Plan,

Policy HS-8.6 Insurance Provisions,

Policy HS-8.8 Coordinate with Cities and Other Local Agencies,

Policy HS-8.10 Mutual Aid Agreement, and

Policy HS-8.11 Critical Facilities.”²⁹

Several action items in Chapter 8 are related to enhancing emergency response to better prepare Lake County communities for wildfire.

²⁸ GP. Pp. 7-16-17.

²⁹ GP. Pp. 7-19-20.

Open Space and Recreation

Finally, policies in the Open Space and Recreation element are germane to this plan generally in that they deal with management and use of wildlands. The following policies are discussed in Chapter 8 of this CWPP.

“Policy OSC-1.7 Encourage Planting of Native Vegetation: The County shall encourage the planting of native trees, shrubs, and grasslands in order to preserve the visual integrity of the landscape, provide habitat conditions suitable for native vegetation, and ensure that a maximum number and variety of well-adapted plants are maintained.

Policy OSC-1.8 Native Vegetation for Landscaping: The County shall develop a list of native vegetation to be used as a landscaping palette for use by citizens and developers.

Policy OSC-1.9 Open Space Buffers: The County shall require buffer areas between development projects and significant watercourses, riparian vegetation, and wetlands.

Policy OSC-2.1 Design Guidelines for Structures in Rural Areas: In the rural areas of the County (located outside of Community Growth Boundaries) structures built within the immediate foreground view of a scenic roadway should reflect the following guidelines.

- Structures should be sited back, to the extent feasible, from the roadway edge a sufficient distance to minimize intrusion upon the natural features and backdrops as viewed from the roadway or adjacent residences.
- Structures should be sited to minimize obstruction of views of significant natural features, such as Clear Lake and Mt. Konocti. Increased height should only be allowed when building orientation provides for increased side-setbacks that provide view corridors.

Policy OSC-2.3 Signage Program: The County should establish a coordinated Countywide roadway signage program which would provide the following: identification of routes and major destinations; traffic information on speed, signalization, etc.; and identification and directional information for both public and commercial facilities serving the community and recreation visitors.

Policy OSC-2.7 Landscaping Techniques: Landscaping should be utilized to help frame and direct attention to major views, away from unattractive developments, and these developments should be screened from public views to the extent practical. Additionally, selective cutting and pruning should be permitted to enable establishment or improvement of roadway views.

Policy OSC-2.15 Ridgeline Protections / Hilltop Protections: The County shall develop an ordinance that provides guidelines for development on or near ridgelines and hilltops.

Policy OSC-6.12 Open Space Preservation: The County shall preserve natural open space resources through the concentration of development in existing communities, use of cluster development techniques, maintaining large lot sizes in agricultural areas, avoiding conversion of lands currently used for agricultural production, and limiting development in areas constrained by natural hazards.

Policy OSC-6.15 Ridgeline Trails: Locate trails, where feasible, along the ridgelines to enhance scenic viewpoints of Clear Lake, Mt. Konocti, low-lying valleys and the distant wilderness areas.”³⁰

Much of the direction of the General Plan is in line with this CWPP. Policies such as the building and maintaining of fuelbreaks, support of fuel modification programs, use of fire-resistant building material, and others help communities become more prepared for wildfire. The preservation of open space, watersheds, and viewsheds, and limits to urban sprawl help protect Lake County’s scenic and natural

³⁰ GP, Pp. 9-7; 8; 10; 11; 14; 17.

resource values. On the other hand, development within rural residential and rural lands could create emergency response access issues if not planned carefully. Homes built in these areas may be hard to defend during wildfire because of their large distribution over the landscape. Therefore, excellent defensible space and access will be crucial in these areas. Mitigation measures such as those described in this CWPP should take place on all of these types of developments. This will be further addressed in Chapter 8's Action Plan.

5.3.2. Natural Hazard Mitigation Plan

The Lake County Natural Hazard Mitigation Plan (HMP) was published in 2005, in conformance with the Disaster Mitigation Act 2000. The HMP is particularly relevant to this CWPP, as it directly addresses wildfire issues. The HMP also provides eligibility for Lake County to various federal funding sources (e.g. FEMA Pre-Disaster Mitigation Grants), which can be used to mitigate wildfire in the county.

The HMP determines that there is a “High to Very High Probability of a wildland fire in Lake County, and a High Risk associated with this natural hazard.”³¹

“The greatest natural hazard threat to lives and property is a wildland interface fire. Wildland fire is the highest-scoring natural hazard threat in the Natural Hazard Probability/Risk Assessment Scoring Matrix and also is identified as the greatest natural hazard threat in the Natural Hazard Rating Table by every participant of the Lake County HMP. Therefore, it is clearly indicated that mitigation actions focused toward reducing the threat of wildland fire in the County have the greatest cost-to-benefits ratios and will provide the greatest mitigative relief for the residents of Lake County.”³²

Thus, the actions identified in this plan are critical to the health and safety of Lake County. Following are the applicable actions from the HMP:

Action 1.1.1: The County should encourage development and dissemination of maps relating to fire hazard to help educate and assist builders and homeowners to comply with wildfire interface mitigation activities.

Action 1.1.2: The County should coordinate with the California Department of Forestry & Fire Protection and countywide Fire Districts in developing GIS-based maps of fire access trails, firebreaks, water sources, and structures within moderate to very-high fire severity zones.

Action 1.1.3: The County should prepare Structure Protection and Mutual Aid Fire Contingency Plans for each of the identified Urban Interface Communities in coordination with the California Department of Forestry & Fire Protection and local Fire Districts.

Action 1.1.4: The County should prepare Evacuation Route Contingency Plans for each of the identified Urban Interface Communities in coordination with the California Department of Forestry & Fire Protection and local Fire Districts.

Action 1.2.1: The County should continue to review new development in high fire-hazard areas to assure that adequate access roads, onsite fire protection systems, signage, flame-retardant building materials, defensible space, and firebreaks are provided as required by state regulations and county ordinances.

Action 1.2.2: The County should develop comprehensive defensible space ordinances to minimize risk throughout the identified urban interface zones. The ordinance is expected to include homeowner's insights, regulatory requirements, and best practices. The ordinance will incorporate the Hazardous Fire Areas Fire Protection Standards.

Action 1.2.3: The County should investigate the development and adoption of minimum standards to location, design, and construction of buildings and structures or

³¹ Lake County Natural Hazard Mitigation Plan (HMP). p. 18.

³² HMP. p. 79.

portions thereof for the protection of life and property, to resist damage from wildland-interface fires, and to mitigate building and structure fires from spreading to wildland fuels.

Action 1.2.4: The County should develop criteria and a process for a Fire Protection Plan.

Action 9.1.1: Provide community education through service programs offered by the County Office of Emergency Services and training for the Community Emergency Response Team (CERT) program.

Action 9.1.3: The County should continue to support the education and awareness programs developed and distributed by public services organizations such as the Red Cross.”³³

As will be shown later in this CWPP, especially the Action Plan in Chapter 8, many of the actions proposed in the 2005 HMP remain applicable. Implementation measures are addressed in Chapter 8. Incorporating this CWPP into the next update to the Natural Hazard Mitigation Plan will be an important step towards policy integration.

5.3.3. LAFCO Municipal Service Review and Sphere of Influence

The 2007 Lake County Fire Protection Districts, Municipal Service Review and Sphere of Influence document was adopted on October 19, 2007. Its relevance to this document is mainly in its analysis of the state of fire protection agencies in the county. Similar, and more current, information is presented in Chapter 6 of this plan. Resources in the Local Agency Formation Commission (LAFCO) report were used to confirm and expand information in Chapters 6 and 7 in this CWPP.

The LAFCO report states following components should be in a “Fire Safe Plan:”

“The overall purpose of a Fire Safe plan is to clearly identify a policy statement and implementation program leading to elimination of loss of life and reduction of property loss from wildfires through pro-active efforts countywide. Purposes (anticipated outcomes) of the plan are:

1. To minimize property loss and prevent the loss of life from wildland fire through prescribed fuel treatments, the identification of safety zones, development of evacuation procedures, identification of evacuation routes, fire-safe education, and public outreach.
2. To provide a framework for identification and prioritization of fuels-reduction projects within and adjacent to communities.
3. To establish and prioritize overall countywide fire-safe planning guidelines for determining the need for and priority of fuels treatments.
4. To identify feasible biomass utilization projects. Economic values of biomass removal projects can range from value-added industries such as furniture building to the production of chips, saw logs, and firewood.
5. To establish a sustainable implementation program. The plan proposes an implementation program that requires community leadership and land stewardship to ensure sustainability.”

This CWPP addresses these five items throughout this document, principally in Chapters 7, 8, and 9.

5.3.4. Emergency Operations Plans

A series of Emergency Operations Plans (EOPs) are being revised in 2009 at the same time as this CWPP document. The EOPs, and the previous version (2004) of the Interface Wildland Fire Contingency Plan, were reviewed for this CWPP. The EOPs are written to provide direction to local emergency service

³³ HMP. Pp. 69-70-78.

providers in the event of an emergency. This CWPP, on the other hand, is designed in large part to prevent or minimize those emergencies. The CWPP also identifies needed resources and actions to assist in effective emergency response, in line with the county's EOPs, as outlined in the Action Plan in Chapter 8.

5.3.5. Land Use Goals and Objectives

The overall land use goals of the Lake County General Plan are:

- “To encourage the overall economic and social growth of the County while maintaining its quality of life standards.
- To clearly differentiate between areas within Lake County appropriate for higher intensity urban services and land uses (i.e., high density residential, high density commercial and industrial) from areas where rural or resource use should be emphasized.
- To provide adequate land in a range of residential densities to accommodate the housing needs of all income groups expected to reside in the County, and ensure a high quality of development.
- To maintain economic vitality and promote the development of commercial uses that are compatible with surrounding land uses and meet the present and future needs of Lake County residents, the regional community, and visitors.
- To designate adequate land for, and promote development of, industrial uses to meet the present and future needs of Lake County residents for jobs and to maintain economic vitality.
- To maintain a healthy and diverse local economy that meets the present and future employment, shopping, recreational, and service needs of Lake County residents.
- To preserve Lake County communities' character and scale, including their design heritage and historic character.
- To provide for the ongoing administration and implementation of the General Plan.”³⁴

As stated elsewhere in this document, integrating wildfire prevention planning into over all land-use planning is essential for the success of both. This CWPP attempts to create actions that are in support of these overall goals.

Land Use and Development Trends

Lake County is in the interface between the bedroom communities of the Bay Area and the more resource-dependent communities to the north. Its history as an agricultural community based on orchards is rapidly being changed into a landscape of wineries, bringing with it a different set of land managers. Recreation is now the principal activity on most of the public lands in the county.

New Lake County residents are principally retirees and Bay Area commuters (especially in Sonoma and Napa). People are retiring to Lake County for several reasons, among them the scenic beauty and clean air. Therefore, actions need to be taken to minimize wildfire conflagrations, in ways that will not negatively affect this population, especially those who are susceptible to air-pollution impacts.

The Lake County population is not growing as quickly as in neighboring counties, however development is happening here, often at a rapid pace. Ensuring that any new development meets clear fire safety and defensible space guidelines, including adequate water supply and storage, and safe emergency ingress and egress, is a fundamental step in ensuring the fire safety of current and future residents.

5.4. Community Infrastructure to Address and Implement Objectives

The Lake County Fire Safe Council (LCFSC) was established in order to educate residents on wildfire threats and actions to ameliorate such threats. The LCFSC will also pursue grants and other funding sources to implement fuel-reduction projects, and to provide services as described in this CWPP. Working in conjunction with Lake County Fire Protection Districts, the USFS, CAL FIRE, BLM, South Lake County FSC, and other groups, the LCFSC will move forward with expertise and guidance from a variety of stakeholders and service providers. The LCFSC will provide the leadership to implement this CWPP.

³⁴ Rein, Jeff. Personal communication. County of Lake. February 23, 2009.