

Living with Wildfire: Lake County CWPP Overview and Summary .....	1
I. Plan Purpose, Principles, and Background .....	1
I.A. Overall Plan Purpose .....	1
I.B. Conservation Principles for Community Wildfire Protection .....	2
I.C. Fire Safe Objectives .....	2
I.D. CWPP Document Organization .....	2
I.E. Introduction to Lake County, California .....	3
I.F. Communities at Risk .....	4
II. CWPP Planning Process Overview .....	5
II.A. Planning Area Boundaries .....	5
II.B. Planning Process Summary .....	5
II.C. Stakeholders .....	5
III. Wildfire Environment of Lake County, California .....	6
IV. Fire Ecology and Management of Lake County Wildlands .....	7
V. Lake County Fire Protection Organizations .....	7
VI. Lake County Risk Assessment .....	8
VI.A. Lake County Assets at Risk .....	8
VI.B. Conflicts Between Natural Assets and Human Occupation .....	9
VI.C. Assets, Risks, and Priorities Table .....	10
VII. Lake County Community Wildfire Protection Plan, Action Plan Summary .....	13
VIII. Fire Safety and Defensible Space for Lake County Residents and Land Managers .....	27
IX. Facilitating Lake County Fire Safety in the Long Term .....	28
IX.A. Monitoring .....	28
IX.B. Updating This Plan .....	28
IX.C. Needed Resources .....	28

# Living with Wildfire: Lake County CWPP Overview and Summary

Lake County evolved with fire, and fire will continue to shape the landscape. Residents are familiar with the potential repercussions and reality of wildfire; they understand that it is not a question of *if* a wildfire will occur, but rather *when*. The challenge is how to proactively prepare our homes, neighborhoods, communities, and wildlands for coexisting with wildfire instead of reacting to it. A Community Wildfire Protection Plan (CWPP) provides the information and tools residents and agencies need to reduce catastrophic wildfires, protect vital community assets, and live in better balance with the land. This CWPP is a strategic roadmap for Lake County citizens to successfully live with wildfire.

This document summarizes the process, information, and analysis for the Lake County CWPP. The Lake County CWPP identifies wildfire risks and hazards, and actions to reduce them, in Lake County, California. It also provides residents with a step-by-step guide on how to fire-safe their homes, communities, and wildlands, and how to best contend with an impending wildfire.

Detailed information for each of the sections below can be found in the CWPP's relevant chapters and appendices, which are referenced below for more information. A summary of the overall document organization is found below in Section I.D.

Sponsored by the County of Lake and the Lake County Fire Safe Council, the Lake County CWPP represents the collective knowledge, work, and community effort of many individuals and organizations. Registered Professional Forester Tracy Katelman of ForEverGreen Forestry was hired to create this CWPP.

## I. Plan Purpose, Principles, and Background

### I.A. Overall Plan Purpose

The purpose of the Lake County CWPP is:

- To identify priority projects that reduce risks and hazards from wildfire while protecting conservation values in Lake County, California. Goals are to be achieved principally through prioritization and implementation of fuel hazard reduction, fire safety, community education, and fire-protection projects and activities.
- To provide community priorities for conservation-based fuel reduction on public lands, and to provide community direction for federal land management in Lake County.
- To provide conservation-based, fire-safety educational information to residents of Lake County.
- To provide a positive balance among fire prevention, conservation, and wildlife protection.
- To coordinate fire protection strategies across property boundaries, including evacuation planning and preparation.
- To encourage the integration of private land management goals with community needs and expectations for fire safety.
- To create ecologically sustainable biomass utilization and removal projects within Lake County.
- To provide a guiding document for future actions of the Lake County Fire Safe Council, land management agencies, private landowners, and local emergency service providers.
- To provide a guiding document for governmental agencies in developing fire safe practices and policies.
- To meet the requirements under the National Fire Plan and other government funding sources.

## **I.B. Conservation Principles for Community Wildfire Protection**

This document is based on the following Conservation Principles.

- 1. Remember the Vegetation (Native Trees and Other Plants)**
  - a. Discover and monitor your forest and vegetation's dynamic changes.
  - b. Act conservatively.
  - c. Protect native species that share your home.
  - d. Keep the oldest and biggest trees.
- 2. Remember the Wildlife**
  - a. Provide local wildlife a place to live.
  - b. Provide access to food and water.
  - c. Protect future generations of wildlife.
  - d. Value the standing dead trees.
  - e. Conserve rare and endangered species.
- 3. Remember the Soil**
  - a. Maintain the life in your soil.
  - b. Ensure that your soil cover is fire safe.
  - c. Minimize erosion.
  - d. Protect your soil after a fire.
- 4. Remember the People**
  - a. Plan your actions with your neighbors.
  - b. Find experienced workers and treat them well.
  - c. Work with your local fire department.

*For a complete description of the Conservation Principles, see Chapter 1, Section 1.8.*

## **I.C. Fire Safe Objectives**

This Plan was developed as a result of concerns about community and firefighter health and safety, as well as the desire to conserve and protect Lake County's natural resources. The objectives identified in this CWPP are:

- To minimize fire ignitions.
- To decrease the intensity of wildfires.
- To decrease the damage from wildfires.
- To increase the fire permeability of the landscape, to allow wildfire to spread through a community with minimal negative impact.
- To increase wildfire resiliency, for both the community and environment to rebound quickly after a wildfire.

These objectives for fire safety drove the development of the assessment and action plan.

*For more information on these objectives, see Chapter 1, Section 1.7.*

## **I.D. CWPP Document Organization**

This CWPP is organized into nine chapters, six appendices, and three references. The appendices and references contain several pages that can be copied and/or removed for ongoing local reference. The content and purpose of each document is described below.

**Living with Wildfire: Lake County CWPP Overview and Summary** – is a summary of all the CWPP documents, including the Risk Assessment the Action Plan tables. It functions as an overview of the full CWPP.

**Chapter 1 – Plan Introduction** is an introduction to the document and to Lake County. This chapter is especially written for those unfamiliar with Lake County.

**Chapter 2 – Lake County Fire Safe Planning Process** summarizes this CWPP's public process, outlining the steps taken to meet the collaboration requirements of a CWPP.

**Chapter 3 – Wildfire: Current Environment and Behavior** introduces wildfire concepts and issues in Lake County. This chapter provides a basic introduction to fire science for residents who want to better understand it.

**Chapter 4 – Fire Ecology and Management of Lake County Vegetation Types** summarizes the common vegetation types found in Lake County, their fire ecology, and conservation and fuel management considerations. This chapter provides background information for those in Lake County who would like to manage their lands to reduce wildfire risks and hazards while restoring ecological functions.

**Chapter 5 – Lake County Community Context** describes the social, political, and community-planning context in the county; including a discussion of land ownership and management. The purpose of this chapter is to facilitate better integration of fire planning into the county’s existing planning and land management.

**Chapter 6 – Fire Protection Organizations** summarizes current fire protection resources and issues in Lake County, and identifies needs.

**Chapter 7 – Risk Assessment: Identifying and Evaluating Assets at Risk** summarizes assets at risk and the community risk assessment process and results.

**Chapter 8 – Action Plan** identifies actions to reduce risks and hazards from wildfire in Lake County.

**Chapter 9 – Facilitating Lake County Fire Safety in the Long Term** discusses monitoring and long-term steps to maintain and update this CWPP.

**Appendix A – Community Meeting Notes** contains the notes from the community meetings held for this Plan in the fall of 2008.

**Appendices B1 – Community Meeting Data, and B2 – Maps,** contain a summary of the data and the maps generated from the community meetings.

**Appendix C– Wildland Fire Safety at Home** explains conservation-based, wildfire-safety principles and practices that can be used around homes and structures to improve residential fire safety.

**Appendix D – Wildland Fuel Hazard Reduction** describes conservation-based fuel-reduction methodologies and prescriptions that can be used on Lake County’s wildlands, both public and private.

**Appendix E – GIS Data** contains a description of maps created and sources used.

**Appendix F – Fire-Safety Information** is a set of Internet links and other background documents.

**Appendix G – Fire History Data** contains the data supporting the fire history maps in Chapter 3.

There is a series of reference information in separate documents. These contain general information that can be used by residents to further fire safety in the county. The references include:

**Reference I – Glossary** defines the terms used in this Plan. Upon first appearance within the text, all glossary terms are italicized.

**Reference II – Internet Links for Further Information** provides references for further information on topics discussed throughout this Plan.

**Reference III – Literature Cited** provides references for literature cited in this Plan.

## **I.E. Introduction to Lake County, California**

Lake County lies in northern California’s Coast Range, about 100 miles north of San Francisco, 90 miles northwest of Sacramento, and 35 miles east of the Pacific Ocean. The county was officially formed in 1861, and is part of the US 1st Congressional District and California Senate District 2. In 2007, it was estimated that 64,664 people resided in Lake County.<sup>1</sup>

Lake County has a total land base of 1,327 square miles (849,678 acres), and approximately 51% (435,500 acres) of the county is managed publicly by the US Forest Service, US Bureau of Land Management, Department of Fish and Game, California State Parks, and the County of Lake. The northern portion of Lake County is predominantly the Mendocino National Forest and includes portions of the Snow Mountain, Yuki, and Sanhedrin Wilderness areas. *See Map 1-1 for an overview of Lake County land ownership.*

Clear Lake, the largest natural freshwater lake entirely within California, is the centerpiece of the county. It has a total surface area of 68 square miles, more than 100 hundred miles of shoreline, and sits at an elevation of

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<sup>1</sup> U.S. Census Bureau. *State & County Quickfacts*. <http://quickfacts.census.gov>.

1,326 ft. above sea level. Most Lake County communities—hence the greatest population density in the area—are situated around the lake.

There are four main watersheds in the county: Upper Cache Creek, Upper Putah Creek, Upper Stony Creek, and the Upper Mainstem Eel River. Cache Creek, portions of which are recognized as a State Wild and Scenic River, flows south/southeast in the eastern portion of the county. Putah Creek flows south/southeast in the southern portion of the county, and Stony Creek flows southeast in the very northeastern portion of the county. The Eel River flows south into Scott Dam to form Lake Pillsbury, and then flows west out of Lake Pillsbury in the northern portion of the county. Topography within the county is mainly hilly and mountainous with several large agricultural valleys, and elevations ranging from approximately 640 to 6,873 ft.

The climate in Lake County is characterized by cool wet winters and hot dry summers. The average annual precipitation ranges from 24 inches in the lower areas to 70+ inches in the mountainous regions, mostly in the form of rain (*For more precipitation information, see the Hydrology Map 3-1 in Chapter 3*). Temperatures range from an average low of 32° F in the winter months to average highs of 95° F in the summer months.

For decades, Lake County has enjoyed some of the cleanest air in the nation.<sup>2</sup> In 2009, the county ranked 3<sup>rd</sup> cleanest in the US in terms of particulate pollution in the atmosphere.<sup>3</sup> For the past 20 years, strong local support for clean air measures has enabled the county to fully comply with the Federal Clean Air Standards and the more rigorous California standards for ozone and other air pollutants. No other Air District in California matches that record.<sup>4</sup>

Within Lake County there are seven Native American tribes. Robinson Rancheria of the Pomo tribe is the largest landowner of the seven, with 1,200 acres.

Lake County is in the interface between the bedroom communities of the Bay Area to the south and the more natural resource-dependent communities to the north. Its history as an agricultural community full of orchards (it was formerly known as the pear capital of the world) is quickly being transformed into a landscape of wineries. Recreation is now the principal activity on most of the public lands in the county. New residents are mostly retirees and Bay Area commuters.

In 2007 it was estimated that over 16% of Lake County residents lived below the federal poverty level, and another 16% (not necessarily the same) were over the age of 65.<sup>5</sup> These population demographics help guide the need for fire-safety programs within the county, such as low income and elderly/disabled assistance.

Several planning efforts have been undertaken in Lake County that have relevance for wildfire policy and management. These include the 2008 General Plan, the 2007 LAFCO Municipal Service Review, the 2005 Natural Hazard Mitigation Plan (HMP), and the 2009 Draft Emergency Operations Plans, including the 2004 Interface Wildland Fire Contingency Plan. The relevant sections of these documents are summarized in Chapter 5. Action items that pertain to these planning efforts are included in Chapter 8 and Figure 2 below.

*For more background information on Lake County, see Chapters 1 and 5.*

## **I.F. Communities at Risk**

Most of the population centers in Lake County have been designated either at the federal or state level as “communities within the vicinity of federal lands that are at high risk from wildfire”—more commonly known as “Communities at Risk” or CAR. These CAR designated communities are: Anderson Springs, Blue Lakes, Cobb, Clearlake, Clearlake Oaks, Glenhaven, Hidden Valley Lake, Kelseyville, Loch Lomond, Lakeport, Lower Lake, Lucerne, Middletown, Nice, The Geysers, Upper Lake, and Witter Springs.

This CWPP process has identified and recommended the following 13 communities to be designated as Communities at Risk: Buckingham, Clear Lake Riviera, Coyote Valley, Double Eagle, Harbin Hot Springs, Kono Tayee, Lake Pillsbury, Morgan Valley, Riviera Heights, Riviera West, Soda Bay, Spring Valley, and Twin Lakes. *For more information on Lake County Communities at Risk, see Chapters 1 and 8.*

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<sup>2</sup> Lake County Air Quality Management District (LCAQMD). [www.lcaqmd.net](http://www.lcaqmd.net)

<sup>3</sup> American Lung Association. *State of the Air Report 2009*. p. 24. [www.lungusa2.org/sota/2009/SOTA-2009-Full-Print.pdf](http://www.lungusa2.org/sota/2009/SOTA-2009-Full-Print.pdf)

<sup>4</sup> LCAQMD Public Information Release. Douglas Gearhart. Air Pollution Control Officer. May 1, 2009.

<sup>5</sup> U.S. Census Bureau. *State & County Quickfacts*. <http://quickfacts.census.gov>.

## II. CWPP Planning Process Overview

### II.A. Planning Area Boundaries

This CWPP covers the entirety of Lake County, California. For purposes of this document, the county was divided into ten planning areas to maximize community input. The planning areas are listed here, starting from the northwest area of the county and moving to the southeast:

- Lake Pillsbury, Blue Lakes, Upper Lake
- Scotts Valley, Lakeport
- Nice, Lucerne
- Spring Valley, Double Eagle
- Paradise Valley, Kono Tayee, Glenhaven, Clearlake Oaks
- Soda Bay, Rivas, Buckingham
- Jago Bay, Lower Lake, Clearlake
- Finley, Kelseyville
- Cobb Mountain
- Hidden Valley, Middletown

### II.B. Planning Process Summary

This CWPP was created to maximize collaboration, one of the requirements of CWPPs. One of its goals was to educate residents regarding fire safety and defensible space. Therefore, the planning process was designed to facilitate public participation and input. A series of ten community meetings was held in October 2008, in each of the planning areas listed above. Community outreach regarding the CWPP and the reconstituted Lake County Fire Safe Council was done jointly. A website was developed for the Plan and the Fire Safe Council on the county's site: [www.co.lake.ca.us/FireSafeCouncil.htm](http://www.co.lake.ca.us/FireSafeCouncil.htm).

In addition to the public meetings, a community-based Internal Review Committee reviewed the document between January and April 2009. The Public Draft was released on May 7, 2009, providing residents until July 1<sup>st</sup> for review and comment. The final Plan was published in August of 2009.

### II.C. Stakeholders

In addition to the approximately 150 individuals who attended community meetings, the following organizations participated in this process:

- Bureau of Land Management (BLM)
- California Department of Forestry and Fire Protection (CAL FIRE)
- Cities of Clearlake and Lakeport
- Clear Lake Riviera Community Association
- County of Lake
- East Lake and West Lake Resource Conservation Districts
- Habematolel Pomo of Upper Lake
- Kelseyville, Lake County, Lake Pillsbury, Lakeport, Northshore, and South Lake County Fire Protection Districts
- Lake County Air Quality Management District
- Lake County Fire Safe Council
- Mendocino National Forest
- South Lake Fire Safe Council
- University of California Cooperative Extension
- USDA Natural Resources Conservation Service

### III. Wildfire Environment of Lake County, California

From the grasslands and chaparral to the pine/oak woodlands and conifer forests, it is generally believed today that fires in the rural landscape of Lake County are less frequent and more severe compared to the patterns present before Europeans settled the area. This region evolved with fire, and fire will continue to shape it. Much of the vegetation in the county is adapted to, meaning it has evolved with, fire. For example, ponderosa pine (*Pinus ponderosa*) and incense cedar (*Calocedrus decurrens*) both produce very thick bark with age, helping them to withstand the heat of low and moderate intensity fire. Understanding fire and its role in the ecosystem will help us to better coexist with it, resulting in less catastrophic wildfire.

Lake County is no exception to the increasingly common problem of property loss and habitat destruction from wildfire. Fuel loads have been accumulating to unnaturally high levels throughout the region due to decades of fire suppression and prevalent land-management practices. This has led to an increase in large, catastrophic wildfires. In 2008, fire protection agencies responded to 687 fires in Lake County. One of the largest fires that year was the *Walker Fire*, burning a total of 14,500 acres in the Walker Ridge area near Colusa County. It started at the same time as the extensive lightning strike fires burned throughout northern California, stressing local fire protection resources. *For more information see Maps 3-3 and 3-4 in Chapter 3.*

One of the tools used to predict fire behavior based on vegetation type is called “fuel models.” Fuel models give fire managers a general idea of the type of vegetation that can be found in a given area, and how it is expected to burn. Of the standard 13 fuel models identified in California by CAL FIRE, eight can be found in Lake County. They are: Grass, Pine/Grass, Tall Chaparral, Light Brush, Intermediate Brush, Hardwood/Conifer Light, Medium Conifer, and Heavy Conifer. *For more information see Map 3-2 in Chapter 3.*

Fuel models are combined with topographic slope and fuel density information to provide a fuel hazard assessment of fire behavior under extreme conditions. CAL FIRE’s recent Fire Hazard Severity Zones (FHSZ) analysis is based on fuels, terrain, and weather. Most of Lake County’s wildland areas are mapped within Very High Fire Hazard Severity Zones, as are the communities of Nice, Lucerne, the Rivas, Cobb, Lake Pillsbury, and a few others. However, most of the county’s residents live in High or Moderate FHSZs around Clear Lake and the valleys. *For more information see Map 3-5 in Chapter 3.*

Another tool used to understand fire is “fire regime.” Fire regime is a measurement of fire’s historic natural occurrence in the landscape. It includes the season, frequency, intensity, and spatial distribution of fire. In other words, it models how often fire historically would burn through a certain place and at what intensity. A standardized set of five fire regimes is used nationwide. There are two pre-settlement fire regimes found in Lake County: Fire Regime I—a natural fire-return interval between 0–35 years of low-severity fire, and Fire Regime III—a frequency of between 35–100 years of mixed-severity fire.

The difference in fire regime between pre- and post-European settlement is described by the “condition class,” or degree of departure from the historical natural fire regime. The greater the departure from the natural fire regime, the greater the variations to ecological components and the higher the risk of losing key ecosystem components. All three condition class levels (of low, moderate, and high departure from historical conditions) are present in Lake County. The largest area in Lake County (at 45%) contains those ecosystems with a low departure from their natural fire regime, and hence low risk of key ecosystem loss. Another 22% are at a moderate departure. Those areas with a significant departure and high risk of ecosystem loss, are 20% of the county lands, and located primarily in the mountainous regions of the north and south. Finally, 13% are not classified because they are not wildlands. *For more information on fire regime and condition class, see Section 3.7, and Maps 3-6 and 3-7 in Chapter 3.*

## IV. Fire Ecology and Management of Lake County Wildlands

Many of the plant communities found in Lake County are considered “fire-adapted”—having evolved with, and responding positively to, wildfire. Chapter 4 describes the vegetative communities of the county and their respective fire ecology. The vegetation types are categorized as follows: grassland, chaparral and chamise/chaparral, foothill woodland, ponderosa pine/mixed conifer, closed-cone pine/cypress, and montane hardwood/conifer. For each vegetation type, the role of fire in shaping the assemblage of plants, the nature of the fire regime, and the common vegetative adaptations to fire are discussed. *See Map 4-1 Lake County Vegetation Types in Chapter 4.*

Each of the county’s ecosystem types has a unique fire-behavior pattern and history, which suggests appropriate fuel-modification treatments. For example, grasslands tend to burn more often, with fire passing through fairly quickly. Fire in a grassland system serves to reduce the amount of accumulated dead plant material, and can be beneficial for native grasses over introduced (and often invasive) annual grasses. Fuel-modification treatments for grasslands can employ various methods, including “weed-eating” or grazing. These methods minimize smoke from controlled burning which is another fuel-modification option.

In contrast, montane hardwood/conifer areas are often thickly forested with larger trees. Historically, fires were generally frequent in this area. Periodic fire and other fuel-reduction methods in montane hardwood/conifer forests can reduce the competition for water and nutrients, by reducing the understory tree and shrub component. Fuel buildup here can dangerously affect the health and diversity of these forests, as well as increase the risk of catastrophic fire. Many options exist for fuel-modification treatments in this vegetation type.

This chapter provides fuel-reduction prescriptions for each vegetation type to aid Lake County residents and land managers in effectively reducing fuels in an ecologically appropriate manner. Each type and associated prescribed treatment varies with site-specific factors. Management prescriptions are included that: A) are consistent with the natural disturbance expected for each vegetation type, B) promote the Conservation Principles identified in Chapter 1, and C) improve the fire resiliency of the vegetation type.

*In-depth descriptions of fire ecology and treatments are found by vegetation type, in their respective sections of Chapter 4.*

## V. Lake County Fire Protection Organizations

In Lake County, there are six county Fire Protection Districts (FPDs):

- Kelseyville FPD
- Lake County FPD
- Lake Pillsbury FPD
- Lakeport FPD
- Northshore FPD
- South Lake County FPD

There are also two state and federal fire protection agencies that provide fire protection in the county:

- California Department of Forestry and Fire Protection (CAL FIRE), Sonoma-Lake-Napa Unit. CAL FIRE also provides emergency fire and medical services to all Bureau of Land Management lands in Lake County.
- US Forest Service, Mendocino National Forest

*For more information on fire agency jurisdictions and resources, see Map 6-1 Lake County Fire Protection Resources.*

All of these departments take pride in the work they do for the communities in which they serve. The support given by the approximately 160 volunteers echoes a long tradition of service that makes each department unique and productive.

All of the county’s FPDs provide first-response fire and medical service. Generally medical calls make up ½ or more of all first-response calls. Overall fire-protection capacity varies district by district, and is described in detail in each district’s respective section in Chapter 6. Fire-agency identified resource needs vary as well; principal needs are summarized here:

## **Fire Protection Needs**

- **Kelseyville FPD:** Wildland-urban interface training, Arson Investigator I and II course availability, and a stable funding source.
- **Lake County FPD:** Funding to cover additional personnel and stations.
- **Lake Pillsbury FPD:** Addition of paid firefighters, radio communications, and additional sites for 911-use, as well as more funding for training and equipment replacement.
- **Lakeport FPD:** Replacement of one structural engine and one wildland engine, plus an additional wildland engine.
- **Northshore FPD:** Replacement of a 2,000-gallon water tender, SCBAs (Self Contained Breathing Apparatus), turnouts, radios, and personnel training.
- **South Lake County FPD:** Additional staffing and the addition of two more stations within the district, continued support from the Board of Supervisors in the adoption of Fire Codes, and a fire-sprinkler ordinance.
- **CAL FIRE:** Funding for training, equipment replacement/upgrades, repair/maintenance, and staffing Konocti Lookout. Establishment of stronger mutual-aid agreements and cross-training with Fire Protection Districts.
- **Mendocino National Forest:** Replacement of Engine MNF43, addition of a bulldozer and transportation vehicles to the fleet, and establishment of stronger mutual-aid agreements and cross-training with Fire Protection Districts.

*For more information on fire protection, see Chapter 6.*

## **VI. Lake County Risk Assessment**

The assets (or values) of the county are the precious and often unquantifiable elements, which make up the quilted fabric of community life. These include homes, community infrastructure, cultural resources, wildlife habitat, natural resources, air quality, recreational facilities and areas, historical structures, and other important attributes upon which individual communities rely.

Assets at risk are those things that are essential or important to the quality of life, that can be at risk of destruction or loss from wildfire. Information on community assets was gathered through community meetings, the public comment process, and researching local property values and existing community infrastructure.

### **VI.A. Lake County Assets at Risk**

#### **Homes and Structures**

In addition to protecting human lives, homes are considered one of the highest priorities for protection. All homes are considered to be of equal community value in this analysis. Homes are generally concentrated within town centers (especially around Clear Lake) and along the major roadways. Even though homes not directly adjacent to wildlands often burn during wildfire events, it is the remote homes and those on the edges of communities that are at the greatest risk, as they are generally the first to be reached by a wildfire.

#### **General Infrastructure Assets**

Infrastructure within Lake County includes all of the roads, utilities, water, and all other services that help Lake County residents live here. Some of these include: the major road systems within the county, Highway 20 and State Routes, 29, 53, and 175; the two county airstrips; The Geysers geothermal power generation facility; communication towers; PGE-maintained transmission lines and substations; approximately 95 water service providers; and other public and private utilities.

#### **Commercial Assets**

The primary commercial centers within the county are the incorporated and unincorporated metropolitan areas surrounding Clear Lake. Areas not directly adjacent to Clear Lake, such as Middletown, Kelseyville, and Coyote Valley, also have important commercial centers to protect. Lake County is also a year-round tourism and recreational destination. Boating, fishing, camping, wine tasting, sight seeing, and many other recreational activities help bring in monies that aid in the development of community infrastructure and services.

#### **Schools**

There are seven school districts in Lake County. There are also three parochial schools and two community colleges within the county to make up a total of 53 schools.

## **Medical Facilities**

There are two hospitals and three nursing homes within the county as well as six senior centers. These facilities are essential to the health, safety, and lifestyle of Lake County residents.

## **Cultural Assets**

People have been living in Lake County for up to 12,000 years; the most-notable human habitation being that of the Pomo Indians, several tribes of whom still remain. Cultural resources accumulated throughout this history include: bedrock mortars, grassland sites for basket making, oak trees for acorn gathering, ceremonial gathering places, and more. Post-settlement assets are abundant within the county as well. Historic downtown areas are found in Kelseyville, Lakeport, Lower Lake, and Upper Lake. Valued historical buildings (such as barns, schools, and churches) exist throughout the county. High-intensity fire poses a threat to all of these cultural assets.

## **Natural Assets**

Lake County is ecologically rich; there are many natural assets to protect and responsibly steward. Many of the natural assets are located in remote areas that have associated high fire threat and hazard conditions. The State Parks, State Forest, National Forest, and Wilderness Areas are all important ecological areas within the county. They provide critical habitat for threatened and endangered plants and wildlife. Recreational and research opportunities, scenic vistas, and more are associated with these natural assets. The major natural resource businesses within the county include agriculture, cattle ranches, and wineries.

*For more information on assets at risk, see Chapter 7.*

## **VI.B. Conflicts Between Natural Assets and Human Occupation**

Human encroachment into highly flammable wildland areas creates a conflict that often threatens life, property, and the natural environment. These areas are often aesthetically pleasing and provide an atmosphere in which many seek to live. This is quite apparent in Lake County, as residents slowly expand into these beautiful, but highly flammable and remote areas farther away from Clear Lake and the agricultural valleys. This type of encroachment into wildland areas will continue to be a significant threat to both the human communities and the ecosystem in which they live.

*The following table summarizes the risk assessment undertaken for this CWPP.*

**VI.C. Assets, Risks, and Priorities Table**

*Figure 1. Summary of Assets and Associated Wildfire Risks for Medium and High Risk Communities in Lake County<sup>6,7</sup>*

<b>Community, Structure, or Area at Risk</b>	<b>Assets at Risk</b>	<b>Fuel Hazard</b>	<b>Risk of Wildfire Occurrence</b>	<b>Structural Ignitability</b>	<b>Fire-Fighting Capability</b>	<b>Overall Risk</b>	<b>Observations</b>
<b>Anderson Springs</b>	Med	High	High	High	Low	<b>High</b>	High fuels, older wooden homes, small and windy roads, remote, significant wildfire threat. Good local FSC. Limited water.
<b>Clear Lake Riviera</b>	High	High	High	Med	Med	<b>High</b>	High-value real estate, with high fuels in a dense development. Wildfire threat from Hwy 29 could threaten rest of Rivas. Fire station with limited staffing. Water is limited.
<b>Double Eagle</b>	Low	High	High	High	Low	<b>High</b>	Very remote development, surrounded by fuels with high wildfire threat. Very bad roads/access. Minimal fire protection. Limited water.
<b>Greater Cobb Area including Loch Lomond</b>	High	High	High	High	Med	<b>High</b>	High fuels, older wooden homes, fire stations staffed only during fire season. Includes surrounding areas and forested landscape. Significant wildfire threat, access issues. Limited water. Good local FSC.
<b>Harbin Hot Springs and Other Springs</b>	Med-High	High	High	High	Low	<b>High</b>	High fuels, important tourist/recreational destinations, high ignition risk from many visitors, very limited access/evacuation.
<b>Jago Bay, Point Lakeview</b>	High	High	Med	High	Low	<b>High</b>	Tight roads, heavy fuels, older homes. Wildfire threat from Hwy 29 could threaten Rivas. Difficult access/evacuation. Limited water.
<b>Lake Pillsbury</b>	Low	High	High	High	Low	<b>High</b>	High wildfire threat, surrounding fuels. USFS in-holding community, limited fire protection capacity. Limited water supply outside LP Ranch.
<b>Lakeport</b>	High	Med	High	Med	High	<b>High</b>	High values and historical areas, with significant wildfire threat from BLM to east, some urban areas with high fuels and density.

<sup>6</sup> This table is adapted from Step 5a of the CFA Simplified CWPP Template. p. 5. <http://cafirealliance.org/cwpp/>.

<sup>7</sup> Communities that obtained an Overall Risk of “Low” were not included in this list; see text in Chapter 7, section 7.2 for the list of these communities.

Community, Structure, or Area at Risk	Assets at Risk	Fuel Hazard	Risk of Wildfire Occurrence	Structural Ignitability	Fire-Fighting Capability	Overall Risk	Observations
<b>Spring Valley and Long Valley</b>	Med	Med-High	High	Med-High	Low	<b>High</b>	Good clearance, limited fuels within Spring Valley development. Higher fuels, wildfire threat in surrounding areas. Limited water supply. Remote.
<b>Clearlake Oaks</b>	Med	High	High	Med	Med	<b>High-Med</b>	Wildfire threat during extreme fire weather, with high interface fuels and ignition potential. Good fire protection, limited water supply.
<b>Glenhaven</b>	Med	High	High	Med	Med	<b>High-Med</b>	Narrow strip along Hwy 20, potentially blocked to limit evacuation. High wildfire threat during extreme fire weather, high interface fuels. High ignition potential. Limited water.
<b>Hilderbrand District</b>	Med	High	High	High	Med	<b>High-Med</b>	Residential area along highway, older homes. No hydrants, local fire history.
<b>Hidden Valley and Coyote Valley</b>	High	Med-High	Med-High	Med	Med-High	<b>High-Med</b>	High fuels in the interface. Threat of wildfire from east/northeast. HV Lake HOA great fuel-reduction program. Other areas have access and water issues.
<b>Lucerne</b>	Med	High	High	High	High	<b>High-Med</b>	High wildfire threat from FS during extreme fire weather, with high interface fuels. Some historic sites. Good fire protection and water supply.
<b>Nice</b>	Med	High	High	High	High	<b>High-Med</b>	High threat of wildfire from FS during extreme fire weather event, combined with high fuels in the interface. Good fire protection and water supply.
<b>Riviera Heights*</b>	High	High	Med	Med	Low	<b>High-Med</b>	High-value real estate, with high fuels in a dense development. Not significant wildfire threat, but significant ember threat from local ignitions. Fire station with limited staffing. Good water supply.
<b>Riviera West*</b>	High	High	Med	Med	Low	<b>High-Med</b>	High-value real estate, with high fuels in a dense development. Access issues. Not significant wildfire threat, but significant ember threat from local ignitions. Good water supply, no fire station.
<b>Blue Lakes</b>	Low	High	High	High	Low	<b>Med-High</b>	High fuels and windy roads behind Lakes. Potential evacuation/access issues. No community water system, water source is the lakes.
<b>Clearlake</b>	High	Med	High	High	High	<b>Med-High</b>	Principal urban center. High fuels to east, some subdivisions with high fuels, many older homes. Good local fire protection.

Community, Structure, or Area at Risk	Assets at Risk	Fuel Hazard	Risk of Wildfire Occurrence	Structural Ignitability	Fire-Fighting Capability	Overall Risk	Observations
<b>Morgan Valley</b>	Med	Med-High	High-Med	High	Med	<b>Med-High</b>	Rural interface east of Lower Lake, potential wildfire threat from public lands to east. Water and fire protection issues.
<b>Scotts Valley</b>	Med	Med	High	Med	Med	<b>Med-High</b>	Agricultural valley between Lakeport and BLM. Excellent controlled-burn history and interest. Wildfire threat from BLM lands. Water issues.
<b>Buckingham*</b>	High	Med	Med	Med-Low	Low	<b>Med</b>	Very high-value real estate, limited water supply. Limited wildfire threat. Access/evacuation issues.
<b>Jerusalem Valley</b>	Low	Med	High	High	Low	<b>Med</b>	Access/evacuation issues, surrounding fuels.
<b>Kelseyville Interface</b>	Med	High	Med	Med	Med	<b>Med</b>	Fuels and wildfire threat from SW and SE, some remote neighborhoods. Mount Konocti fuel issues.
<b>Kono Tayee</b>	Med	Med	Med	High	Low-Med	<b>Med</b>	Some fuels on steep slopes, wildfire threat during extreme weather events. Adequate water.
<b>Lower Lake</b>	Med-High	Med	Med-High	Med	High	<b>Med</b>	Small community with historical district. Heavier fuels and windy roads at outskirts (see Morgan Valley and Twin Lakes). Local fire protection.
<b>Soda Bay*</b>	Med	High	Med	Med	Med	<b>Med</b>	Some fuels, history of local ignitions. Some wildfire threat from State Park to west.
<b>Twin Lakes</b>	Med	Med	Med	Med	Med	<b>Med</b>	Some fuels. Many homes and roads.
<b>Upper Lake</b>	Med	Low	High	Med	Med	<b>Med</b>	Historic, town center, limited fuels. Higher fuels in interface. National Forest wildfire threat during extreme weather events. Water system issues.

**\*The Exception: The Rivas**

The most obvious distinction in Lake County between “risk of wildfire occurrence” as shown in this table, and the possibility of a large wildland urban interface conflagration is that of the Rivas communities (Soda Bay, Riviera Heights, Buckingham, and Riviera West). Everyone in the county by and large agrees that the Rivas would be the worst place for a rural fire to occur. There are large, expensive homes, with a lot of local fuels, and limited access, water supply, and fire-fighting capabilities. However, the chance of a fire coming into the Rivas from the neighboring wildlands is not high. A fire would need to come down Mount Konocti, or around it from the Highway 29 corridor. The probability of either of these occurring is not high. (However, this could happen in the eastern end of the Rivas, in Clear Lake Riviera, Point Lakeview, and Jago Bay.) Therefore, the Rivas area is not ranked as having a high risk of wildfire occurrence, even though a local fire there would quickly simulate extreme wildfire conditions. That said, prioritizing treatment of fuels, implementing defensible space, and reducing structural ignitability are all actions that must happen in the Rivas, and as soon as is feasible. As stated here and elsewhere in this document, the potential damage from an interface fire in the Rivas would likely be greater than anywhere else in the county. It is for this reason that the Rivas area is listed as a top priority area for action within the Action Plan (Chapter 8) even though it did not receive a “high” overall risk ranking in this analysis.

*For more information on the Lake County risk assessment, see Chapter 7.*

## VII. Lake County Community Wildfire Protection Plan, Action Plan Summary

This Plan identifies several actions to reduce hazards and risks from wildfire and decrease structural ignitability in Lake County. The following table summarizes these actions, which were identified through a collaborative public process.

In an ideal world, all of these action items would be implemented expeditiously. However, this Plan is being released in one of the greatest economic downturns in our recent history. Funds for public projects are scarce, especially at the state level. Although it is the intention of CWPP authors and signers that all the action items in this document be implemented as so designated, implementation will need to be done subject to the availability of funds and other resources for this purpose.

Identified action items are followed by an “S” (short, 1-2 years), “M” (medium, 2-5 years), “L” (long, 5-10 years), or “O” (ongoing), for implementation priority. In addition, a “★” indicates those action items that will be relatively easy to implement or have already been completed.

The following actions are proposed for the Lake County Community Wildfire Protection Plan.

**Figure 2. Lake County Action Plan Summary**

<b>DESIGNATION OF WILDLAND-URBAN INTERFACE AREAS</b>	Federal agencies accept CWPP Wildland-Urban Interface (WUI) designations, including those previously identified by CAL FIRE. S, ★ (See Map 8-1.)
	Federal agencies work with Lake County Fire Safe Council, South Lake Fire Safe Council, and other interested community members to agree on projects proposed within Lake County WUI areas. S, ★
<b>DESIGNATION OF COMMUNITIES AT RISK</b>	Lake County Community Development Department add the following Lake County communities to the Communities at Risk list: S, ★ Buckingham, Clear Lake Riviera, Coyote Valley, Double Eagle, Harbin Hot Springs, Kono Tayee, Lake Pillsbury, Morgan Valley, Riviera Heights, Riviera West, Soda Bay, Spring Valley, Twin Lakes
<b>ADVANCING DEFENSIBLE SPACE</b>	<b>Target Areas in Lake County for Defensible Space, Fire Safe Construction, and Alternate Access Programs:</b> Rivieras: Soda Bay, Riviera West, Riviera Heights, Buckingham, Clear Lake Riviera, Point Lakeview, Jago Bay; Hidden Valley and Coyote Valley, especially outlying areas beyond Hidden Valley Lakes; Cobb Mountain Area, including Cobb, Loch Lomond, and Anderson Springs; Harbin Hot Springs and neighboring resorts; Double Eagle Ranch; Lake Pillsbury; Northshore communities interface, especially around Nice and Lucerne; Lakeport interface
	County, Cities, Federal Agencies, Fire Safe Councils, and other related agencies focus fire safety and prevention efforts in the Target Areas listed above, including defensible space, fire-resistant building, and providing for alternate access routes. S
	County and City Community Development Departments work with the Lake County Fire Safe Council and other Plan Partners to develop a comprehensive defensible-space ordinance. S
	Homeowner’s Associations in Target Areas work with Lake County Fire Safe Council and Fire Protection Districts to develop fire safe guidelines for all residents. S
	County apply General Plan (GP) <u>Policy HS-7.6, Development Guidelines</u> to target areas listed above. M
<b>RESIDENTIAL FUEL-REDUCTION ORDINANCE</b>	County work with Fire Protection Districts and other interested parties to develop countywide residential fuel-reduction ordinance based on current state law, with county enforcement, that ensures appropriate defensible-space clearance around all structures. S
	County Code Enforcement work with Fire Protection Districts and other interested partners to ensure abatement ordinance applies to clearance on abandoned lots and absentee-owned parcels that threaten neighboring parcels. S

	County develop provisions in ordinance language to place liens against properties to cover incurred costs. <b>S</b>
	County provide a funded, countywide enforcement officer to enforce ordinance, in cooperation with Fire Protection Districts. <b>M</b>
	Lake County Fire Safe Council develop a list of known local fee-for-service contractors to implement residential fuel-reduction ordinance. <b>S</b>
	Cities work with same partners to implement similar fuel-reduction ordinance programs within their jurisdictions. <b>M</b>
<b>DEFENSIBLE SPACE AND NEW DEVELOPMENT</b>	In addition to the policies set forth in <u>GP Policy HS-7.6, Development Guidelines</u> , and in accordance with <u>GP Policy HS-7.5, Fuel Breaks</u> , the County will require new developments in high risk and hazard areas as defined in this CWPP to create fire-safe landscaping within the 100-foot defensible space zone of all structures. <b>M</b>
	County Community Development will work with the Lake County Fire Safe Council, Fire Protection Districts, and other Plan Partners to identify the requirements for Wildland Fire Management Plans for new developments as required by <u>GP Policy HS-7.4</u> . In addition to those outlined in the General Plan, these plans will be required for all new developments within the Target Areas as identified in this CWPP. Plans will include the following minimum components. Description of: <ul style="list-style-type: none"> <li>- Ingress, egress, and primary and alternate evacuation routes, and safety zones/evacuation sites.</li> <li>- Adequate water storage and pressure to meet fire flows during drought conditions.</li> <li>- Fire-safe building to minimize structural ignitability.</li> <li>- Fire-free zone within first 5 feet surrounding structures.</li> <li>- Fire-resistant landscaping, including easily maintainable defensible space in the first 30 feet.</li> <li>- Fire protection coordination, including access through gates, to water, fuels shut-off, landing zones, safe zones, etc.</li> <li>- Strategic landscape fuel treatments to reduce wildfire ingress or egress, based on Conservation Principles. <b>M</b></li> </ul>
	General Plan <u>Policy LU.3.2 Rural Development</u> , <u>Policy LU.3.3 Clustering of Rural Development</u> , and <u>Policy HS-7.2 Encourage Cluster Development</u> shall focus development in areas of highest potential fire safety within parcels or clusters, while maximizing efficient use of fire protection resources (e.g. access and water). Road standards should include adequate evacuation capability, unhindered access for emergency vehicles, and wherever possible shaded fuelbreaks along roadways, perimeters, and around development clusters, planned with respect to conservation-based principles and local aesthetics. <b>M</b>
	County ensure <u>Policy OSC-2.1 Design Guidelines for Structures in Rural Areas</u> and <u>Policy OSC-2.7 Landscaping Techniques</u> are done in conjunction with creating adequate defensible space around all new structures in high hazard or risk areas as identified in this plan, and favor fire-resistant landscaping. <b>M</b>
	Cities of Lakeport and Clearlake model similar defensible space and new development programs for their jurisdictions to those developed countywide. <b>M</b>
	County Community Development Department will provide applicants for new building permits with copies of the current Fire Hazard Severity Zone maps ( <i>see Chapter 3</i> ) as well as copies of relevant policies from this plan and others regarding construction in high hazard areas. <b>S</b>

<b>COMMUNITY DEFENSIBLE SPACE AND FUEL-REDUCTION PROGRAMS</b>	Lake County residents implement defensible space around all structures, and on all residential parcels within the county. <b>S, O</b>
	Lake County residents work with neighbors, and on neighboring properties (with the owner’s permission) to create neighborhood-wide defensible space. <b>S, O</b>
	Lake County Fire Safe Council work with Plan Partners to provide information and resources to help residents create defensible space around their homes and in their neighborhoods. <b>S, ★</b>
	Lake County Fire Safe Council work with Plan Partners to explore incentive programs to help residents create defensible space around their homes and in their neighborhoods. <b>M</b>
	Lake County Fire Safe Council work with Plan Partners, Social Services, Senior Centers, schools, and other community and social service organizations to develop programs to create defensible space for elderly and disabled residents who are not able to do this for themselves. <b>S, O</b>
	Lake County Community Development Department work with Humboldt County to explore possibility of a similar “Firesafe Homes and Forests Cost Share Program” in Lake County. <b>M</b>
<b>COMMUNITY CHIPPING PROGRAM</b>	Lake County Fire Safe Council work with West Lake RCD to develop a program to provide community chipping days throughout the county, in partnership with the South Lake FSC for its area of influence, and other interested partners throughout the county, including Homeowners Associations. <b>S, O</b>
	All interested partners support the countywide community chipper program of the Lake County Fire Safe Council, by contributing resources, and helping to secure ongoing funding, as possible. <b>S, O</b>
<b>FIREWISE COMMUNITIES PROGRAM</b>	County work with Fire Safe Councils, MNF, and BLM to assist in the development and implementation of Firewise Communities Programs for all applicable and/or interested areas within Lake County. <b>S, M</b>
<b>REDUCING FUELS</b>	Lake County FSC work with appropriate land management agencies to obtain funding to maintain existing cooperative fuel-reduction projects throughout the county. <b>O</b>
	Public land-management agencies, tribal experts, and CAL FIRE in cooperation with LCAQMD <sup>8</sup> and Fire Safe Councils educate residents on the positive and negative aspects of controlled burning and prescribed fire and other fuel-reduction options. <b>S</b>
	Lake County Fire Safe Council work with land-management agencies to develop an “Adopt a Fuelbreak” program for maintenance of fuelbreaks. Work with CAL FIRE, tribal experts, and other fire and resource professionals to employ appropriate maintenance practices. <b>M</b>
	County support fuel-reduction efforts, consistent with <u>GP Policy HS-7.3 Fuel Modification Programs</u> , by streamlining permitting processes wherever applicable and/or providing in-kind support, such as Public Works resources. <b>M</b>
	County work with state and federal agencies and Lake County Fire Safe Council to promote creation of shaded fuelbreaks along perimeters and ridges of open space buffers, planned with respect to conservation-based principles and local aesthetics, and consistent with <u>GP Policy OSC-1.9 Open Space Buffers</u> and <u>Policy OSC-2.15 Ridgeline / Hilltop Protections</u> . <b>L</b>
	County work with state and federal agencies and Lake County Fire Safe Council to explore the creation of a system of ridgeline shaded fuelbreaks or firebreaks planned with respect to conservation-based principles and local aesthetics, and in accordance with <u>GP Policy OSC-6.15 Ridgeline Trails</u> . <b>L</b>

<sup>8</sup> Lake County Air Quality Management District

<b>PRIORITY FUEL-REDUCTION PROJECTS</b>	Lake County Fire Safe Council work with applicable agency and Plan Partners, (including MNF, BLM, CAL FIRE, RCDs, etc.), to explore funding and to implement the strategic fuelbreaks and fuel-reduction efforts identified in this CWPP throughout Lake County. <b>S, M, L</b> See Figure 3: Lake County Fuel-Reduction Priorities, following this table for a complete listing of priority projects.
<b>REDUCING STRUCTURAL IGNITABILITY</b>	
<b>WUI BUILDING STANDARDS</b>	County implement <u>GP Policies HS-1.3 Building and Fire Codes</u> , and <u>HS-7.7 Fire Resistant Building Materials</u> by continuing to adopt the most current California Wildland-Urban Interface Building Code, especially Chapters 7 and 7A. <b>S, O, ★</b>
	County and Cities stay current on applicable wildland-urban interface standards and new legislation through the State of California Fire Marshal’s Office. <b>O, ★</b>
	County and Cities Community Development, Fire Protection Districts, and Fire Safe Councils educate decision-makers and residents on the importance of and implementation of WUI Building Codes, including appropriate building materials. <b>S</b>
	Fire Agencies work with Fire Safe Councils to perform risk assessments within their jurisdictions. <b>M</b>
<b>ROOFING</b>	Fire Agencies, County Community Development, federal partners, and Fire Safe Council continue to educate residents on the importance of replacing untreated wood-shake roofs. <b>S</b>
	County and Cities develop incentive-based programs for residents to replace untreated wood-shake roofs. <b>M</b>
<b>WINDOWS</b>	Fire Safe Councils, utilities, and interested partners educate residents on need to have double-paned windows throughout their homes with recommendations to upgrade to tempered glass for fire safety where possible. <b>O</b>
	Fire Safe Councils, utilities, and interested partners explore incentive programs to upgrade windows to double pane or higher standards. <b>M</b>
<b>DECKS</b>	Fire Safe Councils and other Plan Partners educate residents on importance of fire-safe decking. <b>O</b>
<b>OUTBUILDINGS</b>	Fire Safe Councils and others educate residents on need for separation of heat loads from residences. <b>O</b>
	County Code Enforcement, work with Fire Protection Districts and CAL FIRE to enforce clearing 30-100 feet (or to the property line) around structures, as per State law and the proposed countywide residential fuel-reduction ordinance. <b>M</b>
<b>WOODPILES AND OTHER FUEL SOURCES</b>	Fire Safe Councils and other Plan Partners educate residents on need to have a minimum of thirty feet separation of firewood piles and woodsheds from residences. <b>O</b>
	Fire Safe Councils and other Plan Partners educate residents on need to have vegetative and flammable material clearance around propane tanks and other fuel storage areas near residences, and keep these at least thirty feet from homes and outbuildings. <b>O</b>
	Fire Safe Councils and other Plan Partners educate residents on the risks of having wood fences attached to homes. <b>O</b>

<b>ENHANCING FIRE PROTECTION</b>	
<b>RESOURCES FOR FIRE PROTECTION</b>	County, Kelseyville FPD, and CAL FIRE explore the possibility of an Amador Plan to provide additional coverage in the Rivas area. <b>M</b>
	County, Northshore FPD, and CAL FIRE explore the possibility of an Amador Plan to provide additional coverage in the Glenhaven area. <b>M</b>
	County work with Kelseyville FPD, Lake County FPD, and local Homeowner's Associations to provide additional fire protection staffing and resources to the Riviera Heights, Point Lakeview, and Clear Lake Riviera fire stations. <b>M</b>
	Lake Pillsbury FPD, County, Forest Service, Pacific Gas and Electric (PGE), and Fire Chiefs explore options for additional funding and other resources for Lake Pillsbury FPD, including volunteer training opportunities on weekends. <b>M</b>
	Mendocino National Forest and PGE work with Lake Pillsbury FPD to provide additional equipment and fire protection services in the Lake Pillsbury areas. <b>M</b>
	Fire Protection Districts work with Lake County Fire Safe Council, and city, county, and federal agencies to develop a countywide volunteer firefighter recruitment program, especially targeting those communities with primarily volunteer staffing. <b>M</b>
	CAL FIRE evaluate options for repair and staffing of Mt. Konocti Lookout. <b>M</b>
<b>WATER</b>	Lake County Fire Safe Council, RCDs, watershed councils, and other interested partners educate rural residents on the needs and benefits of water storage. <b>S</b>
	Lake County Fire Safe Council and Plan Partners explore funding for a water storage program (water tanks or water tenders) in rural lands, especially on private lands not adjacent to federal lands, in areas such as Cobb Mountain, Hidden Valley Rancho, Jerusalem Grade, Morgan Valley, and Noble Ranch. <b>M</b>
	Lake County Fire Safe Council and Plan Partners explore funding for a water storage tank program on private lands not adjacent to federal lands, especially in Cobb Mountain, Hidden Valley Rancho, Jerusalem Grade, Morgan Valley, and Noble Ranch. <b>M</b>
	Fire Safe Councils, CAL FIRE, local governments, watershed councils, and other interested partners explore incentives for increasing water storage on private properties. <b>L</b>
	County and city governments, Fire Safe Councils, CAL FIRE, LCAQMD, social service agencies, and other interested partners explore options and incentives for funding low-income, rural water storage. <b>M</b>
	County, South Lake FPD, CAL FIRE, Calpine, and South Lake Fire Safe Council work with Cobb Area County Water District to develop additional water sources and capacity for fire protection. <b>M</b>
	County and Kelseyville FPD work with Buckingham Homeowner's Association to develop adequate water for fire protection within the development. <b>M</b>
	County and Kelseyville FPD work with Homeowner's Associations in the Rivas to improve their hydrant systems. <b>M</b>
	Clearlake Oaks County Water District improve the hydrants on Widgeon Way and the Avenues. <b>L</b>
	Glenhaven Community Water develop a hydrant system for Glenhaven. <b>L</b>
	County work with Lakeport FPD, CAL FIRE, BLM, and other partners to explore water sources for fire protection in Scotts Valley, including the purchase of additional water tenders. <b>M</b>
	County work with Northshore FPD, CAL FIRE, USFS, and other partners to explore water sources for fire protection in Upper Lake, including the purchase of additional water tenders. <b>M</b>

	Upper Lake Water District support the project to increase water line capacity and storage in the Upper Lake water system, including closing the loop from Old Lucerne to Main Street. <b>M</b>
	County, South Lake FPD, and CAL FIRE explore options to expand the hydrant system to the east side of Middletown and out Butts Canyon Road. <b>L</b>
	Callayomi County Water District work with South Lake FPD to explore hydrant system for Hilderbrand District, along Highway 29 south to the Napa County border, if and when service becomes available. <b>M</b>
	County work with Fire Chiefs to develop a policy whereby the County Assessor will not increase property values and taxes when water storage is added to private properties for the purpose of fire protection. <b>M</b>
	County Community Development ensure water for fire suppression needs is included in the development of the Integrated Water Management Plan, especially in terms of future development. <b>M</b>
<b>ROADS</b>	County and Cities Public Works Departments work with Fire Chiefs, Law Enforcement, Caltrans, Lake County/City Area Planning Council (APC), and CHP to identify road ingress and egress issues that increase emergency response times. <b>S</b>
	County and Cities Public Works Departments work with Caltrans, APC, and interested partners to secure funding and other resources to repair priority ingress & egress sites. <b>O</b>
<b>SIGNAGE OF ROADS AND STRUCTURES (ADDRESSING)</b>	Law Enforcement, CAL FIRE, federal agencies, County, and Cities collaborate to enforce existing signage requirements for streets and residences. <b>O</b>
	Law Enforcement, CAL FIRE, Fire Chiefs, federal, county, and city agencies, and Fire Safe Councils explore incentives for private road and address signage conformance, including public education. <b>M</b>
	Fire Agencies implement model signage program, similar to that developed by South Lake FPD, to expand it to other areas of the county. <b>S</b>
	County ensure all signage created in accordance with <u>GP Policy OSC 2.3 Signage Program</u> meets fire protection standards. <b>O</b>
<b>EVACUATION PLANNING AND EMERGENCY PREPAREDNESS</b>	
<b>DEVELOPING EVACUATION ROUTES AND SITES</b>	County OES, Law Enforcement, CAL FIRE, Lake Transit Authority, Caltrans, CHP, Red Cross, federal agencies, Fire Chiefs, and Fire Safe Councils collaborate to develop a detailed evacuation plan and update it as needed, using the information generated in this plan as a base. <b>M</b>
	County OES, Law Enforcement, CAL FIRE, federal agencies, Fire Chiefs, Fire Safe Councils, Red Cross, and Senior Centers develop and distribute evacuation-planning materials for all areas of the county based on the South Lake FSC Evacuation Plan model to educate residents on evacuation options in their communities. <b>O</b>
	County Social Services, OES, Senior Centers, Lake Transit Authority, Lake Family Resource Center, Law Enforcement, Fire Protection Districts, Redwood Coast Regional Center, Red Cross, Lake County Fire Safe Council, and other interested local, state, and federal agencies identify leadership and resources to develop evacuation programs for vulnerable populations. <b>M</b>
	County OES, Law Enforcement, CAL FIRE, APC, Caltrans, CHP, Red Cross, federal agencies, Fire Chiefs, and Fire Safe Councils explore roles and needs of using the county airport, airstrips, and heliports in evacuation planning. <b>M</b>
<b>GATES</b>	Law Enforcement, CAL FIRE, Fire Chiefs, federal agencies, Fire Safe Councils, and Homeowners Associations initiate informational programs to educate residents about the importance of easily passable gates during emergencies. <b>S</b>

	County, Law Enforcement, Fire Chiefs, CAL FIRE, Fire Safe Councils, and Homeowners Associations explore incentives and options for fire-safe gates. <b>M</b>
	Hidden Valley Lakes Homeowners Association work with South Lake FPD to provide access through gates to Hidden Valley Ranchos for evacuation and fire protection. <b>S</b>
<b>ALTERNATE EVACUATION ROUTES</b>	County OES, Fire Chiefs, Law Enforcement, Lake Transit Authority, Caltrans, CHP, CAL FIRE, federal agencies, and Fire Safe Councils collaborate to explore the following evacuation routes: <b>M</b>
	- Alternate evacuation routes out of Riviera West and Clear Lake Riviera subdivisions to the south.
	- Alternate evacuation route out of north side of Clear Lake Riviera subdivision to Soda Bay Road.
	- Alternate evacuation route out of Riviera Heights Subdivision off of Westridge Drive or Circle to Soda Bay Road.
	- Alternate evacuation route out of Anderson Springs to Socrates Mine Road.
	- Alternate evacuation route out of Double Eagle to Benmore Canyon or Walker Ridge Roads.
	- Alternate evacuation route between Twin Lakes Subdivision and Perini Road.
	- Alternate evacuation route out of Donovan Valley.
	- Additional evacuation routes out of Gifford Springs and Jerusalem Grade.
	- Improve Point Lakeview Road for evacuation.
	- Brush back Seigler Canyon Road to improve it as evacuation route.
	- Options for evacuating lakeside communities with boats.
	Mendocino National Forest, County, and Northshore FPD explore feasibility of opening Garner Ranch Road to make safe evacuation route out of New Long Valley and Spring Valley. <b>L</b>
	Mendocino National Forest, BLM, County, and Northshore FPD explore feasibility of opening Wolf Creek Road north to Bartlett Springs to make safe evacuation route out of Spring Valley. <b>M</b>
	County Public Works, Fire Chiefs, Caltrans, Law Enforcement, and APC explore options to improve roads and signage in Anderson Springs, Widgeon Way, Jerusalem Grade, Double Eagle, Blue Lakes Road, and Laurel Dell Road. <b>M</b>
<b>EVACUATION SITES</b>	County OES, fire chiefs, law enforcement, CAL FIRE, federal agencies, Fire Safe Councils, Red Cross, County Social Services, and Senior Centers develop and/or upgrade appropriate sites identified at community meetings to function as evacuation sites and/or disaster centers during emergency situations. <b>M</b>
<b>EMERGENCY NOTIFICATION AND COMMUNICATIONS</b>	County OES, Fire Chiefs, Law Enforcement, CAL FIRE, and federal agencies explore options for emergency alert sirens and other emergency communication options for remote areas such as Lake Pillsbury and Double Eagle Ranch, and upgrading sirens in Cobb and Loch Lomond. <b>M</b>
<b>EMERGENCY PLANNING AND COORDINATION</b>	County OES organize regular coordination meetings (quarterly at a minimum) between Law Enforcement, Fire Protection Districts, County Community Development, Cities, APC, Fire Safe Councils, other emergency response providers including relevant state and federal agencies, and other interested partners to coordinate joint prevention and emergency response activities. <b>S</b>
	County OES organize regular, periodic, documented emergency response trainings and exercises, ranging from local to regionally synchronized, and from tabletop to detailed simulations. Follow sessions with after-learning period to facilitate effective communication and learning among partners, including Law Enforcement, Fire Protection Districts, County Community Development, Cities, APC, Fire Safe Councils, and other emergency response providers. <b>S</b>

	County explore and identify appropriate local structure for seeking state and national emergency response and pre-disaster funding. <b>S, ★</b>
	County OES, Law Enforcement, Fire Protection Districts, and applicable city, state, and federal agencies maintain and update Lake County emergency response data with the County Information Technology Department (IT) to be shared with all participating agencies in accordance with <u>GP Policy HS-8.8 Coordinate with Cities and Other Local Agencies</u> and <u>Policy HS-8.11 Critical Facilities</u> . <b>O</b>
	County IT provide current available data and maps to any and all agencies and organizations (including Fire Safe Councils) participating in emergency response in Lake County. <b>O</b>
	Fire Protection Districts, CAL FIRE, law enforcement, and Fire Safe Councils work with County IT to update and maintain the Fire Run map book. <b>S, O</b>
	County IT work with OES, Law Enforcement, FPDs, CAL FIRE, APC, FSCs, and other interested partners to develop a GIS-based database of existing and proposed evacuation routes, sites, medical facilities, emergency call boxes, and other relevant evacuation resources. <b>M</b>
<b>RESIDENTIAL EMERGENCY PREPAREDNESS</b>	Lake County residents be prepared for wildfire and other emergencies by creating family disaster and evacuation plans. <b>S, O</b>
	Residents in remote, rural areas and Target Areas ( <i>see above</i> ) consider storing their most valuable items in a fire-safe urban area during extreme fire weather conditions. <b>S, O</b>
	County of Lake, Social Services, Red Cross, and other interested partners work with Seniors Centers to upgrade to Disaster Center Readiness level. <b>M</b>
	County OES and Social Services work with Senior Centers and other interested local, state, and federal partners to develop emergency planning resources and potential evacuation sites for all county residents. <b>M</b>
	County OES and Social Services work with local Senior Centers, Lake County Family Resource Center, and Red Cross to help residents plan and prepare for emergencies. <b>O</b>
	County OES, Law Enforcement, CAL FIRE, federal agencies, Fire Chiefs, Fire Safe Councils, Red Cross, Senior Centers, and Lake County Family Resource Center conduct disaster preparedness and emergency response drills for high-risk communities countywide. <b>S, O</b>
	County OES work with Spring Valley CERT to enhance and improve services. <b>M</b>
	County OES work with high-risk communities and Target Areas to develop new or enhance existing CERT programs. <b>M</b>
<b>SHELTERING IN PLACE</b>	County OES and Red Cross work with Fire Safe Councils, Fire Protection Districts, Law Enforcement, CAL FIRE, MNF, and BLM to develop local safety information in the event citizens are unable to evacuate. <b>M</b>
<b>EVACUATION PLANS FOR PETS AND LIVESTOCK</b>	Lake County Fire Safe Council work with Plan Partners, Red Cross, Humane Society, and local veterinarians to identify existing options for local pet and livestock emergency evacuation. Work through local feed stores, veterinarians, boarding facilities, and animal associations to educate residents on options. <b>M</b>
<b>INTEGRATING POLICY</b>	County Community Development work with OES, Mendocino National Forest, Bureau of Land Management, CAL FIRE, APC, and other relevant partners to ensure integration between planning efforts in Lake County that could affect the county's long-term fire safety, including at the community and Area Plan planning level. <b>O</b>
	County develop mandatory, enforceable disclosure regulations for all local real estate transactions regarding the wildfire risks and hazards identified in this CWPP. <b>M</b>
	County prioritize <u>GP Policy LU-1.6 Paper Lot Consolidation</u> in order to minimize WUI fire threats, especially in the communities of Nice and Lucerne. In those areas where paper lots are turned into open space, management plans shall include creation of shaded fuelbreaks along perimeters or ridges using conservation-based principles. <b>M</b>

	Lake County Fire Safe Council work with Community Development and the local insurance industry to educate the industry on appropriate local defensible space practices, and provide materials for them to share with policyholders in accordance with <u>GP Policy HS-8.6 Insurance Provisions</u> . <b>S</b>
	Community Development work with Lake County Fire Safe Council to develop a fire-safe landscaping document to distribute to Lake County residents, in accordance with <u>GP Policy OSC-1.7 Encourage Planting of Native Vegetation</u> and <u>Policy OSC-1.8 Native Vegetation for Landscaping</u> . <b>S</b>
	County incorporate the fire planning concepts and actions outlined in this CWPP in its planning for Mount Konocti Public Lands. <b>M</b>
<b>PROMOTING FIRE SAFE EDUCATION</b>	Lake County Fire Safe Council work with CAL FIRE, MNF, BLM, NRCS <sup>9</sup> , County, Cities, insurance industry, and others to implement a countywide community fire-safety education program, including Public Service Announcements in all local media. <b>S</b>
	Lake County Fire Safe Council work with federal agencies, County, Cities, and other interested partners to develop and fund a regular “Living with Wildfire” newspaper or magazine for Lake County residents. <b>S, O</b>
	Lake County Fire Safe Council work with CAL FIRE, MNF, BLM, and tribal experts to develop and implement a countywide education program on the benefits and risks of using controlled burning/prescribed fire, including the importance of minimizing air pollution during burning. <b>M</b>
	Lake County Fire Safe Council work with FPDs to explore a “Big Red Truck Program” (similar to that of Trinity Fire Safe Council) for defensible space education and assessments. Research state and federal funding options for the program. <b>M</b>
<b>FIRE-SAFETY EDUCATION IN SCHOOLS</b>	Lake County Fire Safe Council work with agencies and school districts to implement fire-safety curricula in all grade levels throughout the county, in conjunction with community educational projects. <b>M</b>
	Lake County Fire Safe Council work with 4-H chapters to develop local fire-safety educational programs for local youth. <b>S</b>
	Lake County Fire Safe Council work with Chamber of Commerce and local industries to fund and develop a service-learning program in local high schools focused on fire safety and defensible space. <b>M</b>
<b>FIRE-SAFETY EDUCATION FOR NEW RESIDENTS AND TOURISTS</b>	Lake County Fire Safe Council, CAL FIRE, MNF, BLM, Fire Chiefs, and local governments develop fire-safety educational programs for real estate and development industries. <b>M</b>
	Lake County Fire Safe Council, County Visitor Information Center, CAL FIRE, MNF, BLM, Fire Chiefs, Chamber of Commerce, and local governments develop fire-safety educational programs for local tourism industries. <b>S</b>
	Lake County Fire Safe Council, CAL FIRE, MNF, BLM, Fire Chiefs, County Community Development, and local governments target fire-safety educational efforts to new residents, especially those coming from urban areas and others with little experience with fire in the wildland-urban interface. <b>M</b>
	Fire Safe Councils work with Senior Centers to develop a welcome-neighbor program—offering a welcome basket with fire-safety information for new residents. <b>S</b>

<sup>9</sup> USDA Natural Resources Conservation Service

<b>UTILIZING EXCESS FUELS</b>	Local economic development interests, Resource Conservation Districts, and Lake County Fire Safe Council explore options for utilization of materials generated from hazardous fuel-reduction efforts, including those collected through the County Green Waste program. <b>L</b>
	Lake County Fire Safe Council and Resource Conservation Districts work with landscaping community to utilize materials generated from the chipping and Green Waste programs, potentially as a funding source for these programs. <b>M</b>
	County and Cities work with Social Services to develop a voucher program to utilize Green Waste collection for low-income residents who are not already participating in refuse pickup service. <b>S</b>
	County and Cities Public Services work with Social Services to develop volunteer green waste pickup program for low-income, senior, and disabled residents who are unable to use other programs. <b>S</b>
	Fire Safe Councils work with local governments and LCAQMD to develop Green Waste collection days. <b>S</b>
	Lake County Fire Safe Council, MNF, and BLM investigate biomass options in neighboring counties for utilization of fuels from Lake County fuel-reduction efforts. <b>M</b>
<b>FACILITATING LAKE COUNTY FIRE SAFETY IN THE LONG TERM</b>	Public and private sector organizations, agencies, and individuals work with LCFSC and SLFSC to develop ongoing financial and in-kind support for FSC activities and development. <b>O</b>
	Lake County Board of Supervisors appoint county representatives to actively and regularly participate in the Lake County Fire Safe Council. These appointees could represent Community Development, Emergency Services, the Planning Commission, Social Services, Public Works, and/or the Board of Supervisors. <b>S, ★</b>
	All local, state, and federal public and private land management agencies appoint a representative to actively and regularly participate in the Lake County Fire Safe Council. <b>S, ★</b>
	Public and private sector organizations, agencies, and individuals (including County, RAC <sup>10</sup> , MNF, BLM, and CAL FIRE) facilitate long-term funding to maintain a staff coordinator position at LCFSC. <b>O</b>
	Lake County FSC work with members and local, state, and federal partners to develop a strategic plan for the FSC to identify a successful long-term management structure and funding sources. <b>S</b>
	Lake County and South Lake FSCs work with MNF, BLM, RCDs, NRCS, and others to develop a long-term ecological monitoring program to track the effects of project activities on ecological processes and functions. <b>M</b>
	Lake County FSC work with Plan Partners to develop and implement a Strategic Planning Matrix to track project implementation. <b>S, O, ★</b>
	Lake County FSC, County, Cities, Fire Chiefs, and all plan signatories review the Lake County CWPP at least every five years and update it as needed, using a collaborative public process. <b>M</b>

<sup>10</sup> Mendocino National Forest Resource Advisory Council

**Figure 3. Lake County Fuel-Reduction Priorities<sup>11</sup>**

<b>Community, Structure, or Area at Risk</b>	<b>Project Area/Description</b>	<b>Treatment</b>	<b>Priority 1<sup>12</sup>, 2, 3</b>
All	Ongoing Fuelbreak Maintenance	Maintenance	1-2-3
All	Ongoing Prescribed Burning in MNF	Control Burn	1-2-3
Anderson Springs	Anderson Valley Road	Shaded Fuelbreak	1
Anderson Springs	BLM lands around the Geysers, CAL FIRE VMP	Control Burn	1
Blue Lakes	Ridgeline Fuelbreak from Blue Lakes to Highway 20 E	Shaded/Fuelbreak	1
Buckingham	Soda Bay Road (Black Forest)	Shaded Fuelbreak	1
Clear Lake Riviera	Fuelbreak around development, into and around Community Growth Boundary	Fuel Reduction, Shaded Fuelbreak	1
Clearlake	Chapman Tract	Fuel Reduction and Defensible Space	1
Clearlake Oaks	Cerrito and Alta Vista Drives clearance; Opening of Evacuation site at top (at water tank)	Clearance, Shaded Fuelbreak	1
Clearlake Oaks	Widgeon Way, Lakeview, Konocti Roads	Clearance	1
Cobb	Whispering Pines Fuel Reduction and Defensible Space	Shaded Fuelbreak with Defensible Space Assistance	1
Cobb	Bottle Rock Road	Shaded Fuelbreak, VMP	1
Cobb	Highway 175 Evacuation, Roadside Fuelbreak	Shaded Fuelbreak	1
Double Eagle	Double Eagle Road and spurs	Roadside Clearance Above and Below	1
Harbin Hot Springs and Neighboring Springs	Brush Clearing on Harbin Springs Road	Brush Clearing	1
Harbin Hot Springs and Neighboring Springs	Defensible Space and Fuel Reduction in the Various Hot Springs Resorts in the Area	Defensible Space and Fuel Reduction	1
Hidden Valley	Hidden Valley Fuel Break, Phase 1	Fuelbreak /Defensible Space	1
Hidden Valley and Coyote Valley	West of Yankee Valley Road and Honey Hills Drive	Fuelbreak and/or Control Burn	1
Kelseyville Interface	Highway 29 to Lower Lake, Where Fuels are Dense	Shaded Fuelbreak	1
Kelseyville, Soda Bay, Buckingham, Riviera Heights, Riviera West, Clear Lake Riviera, Point Lakeview	Soda Bay Road	Shaded/Fuelbreak	1
Lake Pillsbury	Lake Pillsbury Ranch Road	Fuel Reduction	1
Lake Pillsbury, Upper Lake	Elk Mountain Road	Fuelbreak	1
Loch Lomond	Loch Lomond Road	Shaded Fuelbreak	1

<sup>11</sup> Priorities are approximately considered as 1: 0-5 years, 2: 6-10 years, 3: 11+ years.

<sup>12</sup> Existing projects that are deemed important are also listed as 1st priority if they will be ongoing for several years.

<b>Community, Structure, or Area at Risk</b>	<b>Project Area/Description</b>	<b>Treatment</b>	<b>Priority 1<sup>2</sup>, 2, 3</b>
Lower Lake, Cobb Mountain, Rivas, Kelseyville	Highway 175	Shaded/Fuelbreak	1
Lucerne	Fuel Reduction on Paper Subdivisions off of Ogden Road South of Town	Fuel Reduction	1
Lucerne	High Valley Road Shaded Fuelbreak	Shaded Fuelbreak	1
Morgan Valley	Rocky Creek Road	Fuel Reduction, Shaded Fuelbreak	1
Nice	Fuel Reduction on Paper Subdivisions Northwest of Town (between/around Sherman to Pyle Road)	Fuel Reduction	1
Nice, Lucerne, Upper Lake	Hogback Ridge Shaded Fuelbreak	Shaded Fuelbreak	1
Point Lakeview	Point Lakeview Road	Shaded/Fuelbreak	1
Point Lakeview	Anderson to Panorama to Sunrise Road	Shaded/Fuelbreak	1
Riviera Heights	Fuelbreak between development and Soda Bay	Fuel Reduction, Shaded Fuelbreak	1
Riviera West	Fuelbreak around development	Fuel Reduction, Shaded Fuelbreak	1
Scotts Valley	Continue control burn program for westside Scotts Valley	Control Burn	1
Scotts Valley	Hendricks Road	Brushing/Road Clearance	1
Scotts Valley	Cow Mountain Fuelbreak	Maintenance	1
Spring Valley	Wolf Ridge and Quartz Canyon	Control Burn	1
Upper Lake	Fuelbreak east side of Rancheria		1
Upper Lake	Pitney Ridge (east of Upper Lake)	Shaded/Fuelbreak	1
Upper Lake, Nice, Lucerne, Glenhaven, Clearlake Oaks	High Glade Lookout to High Valley	Fuelbreak	1
Glenhaven	Glenhaven Drive and Leila Drive	Clearance, Shaded Fuelbreak	2
Blue Lakes	Control Burn North of Blue Lakes	Control Burn	2
Buckingham	Little Borax Lake Road	Fuel Reduction, Shaded Fuelbreak	2
Clear Lake Riviera	Wheeler Point	Fuel Reduction	2
Clearlake	Highway 53, Evacuation Route	Fuel Reduction, Shaded Fuelbreak	2
Clearlake	Clearlake Park	Fuel Reduction and Defensible Space	2
Clearlake	Sulfur Bank/Borax Lake	Fuel Reduction	2
Clearlake Oaks, Glenhaven	Hazardous Fuel Reduction in Hills behind Towns	Fuel Reduction	2
Cobb	Westside 175 and Bottle Rock Area	Shaded Fuelbreak, Fuel Reduction	2
Cobb	Gifford Springs Fuel Reduction and Defensible Space	Shaded Fuelbreak with Defensible Space Assistance	2

<b>Community, Structure, or Area at Risk</b>	<b>Project Area/Description</b>	<b>Treatment</b>	<b>Priority 1<sup>2</sup>, 2, 3</b>
Cobb	Pine Grove, Hobergs, and Other Populated Areas not yet Treated	Fuel Reduction	2
Double Eagle	Walker Ridge	Fuelbreak	2
Glenhaven	Harvey Drive	Clearance, Shaded Fuelbreak	2
Harbin Hot Springs and Neighboring Springs	Fuelbreak and Improved Access along Ridge Road Northwest of Harbin Springs Road	Shaded/Fuelbreak	2
Hidden Valley	Hidden Valley Fuel Break, Phase 2	Fuelbreak /Defensible Space	2
Hidden Valley and Coyote Valley	Spruce Grove Road	Shaded Fuelbreak	2
Hilderbrand District	29 Fire Fuels Clearance	Fuel Reduction	2
Jerusalem Valley	Jerusalem Grade Road	Shaded/Fuelbreak, Clearance	2
Kelseyville Interface	Upper Kelsey Creek along Roads	Shaded Fuelbreak	2
Kelseyville Interface	Highland Springs Recreational Area, Highland Springs Road	Shaded Fuelbreak	2
Kelseyville Interface	Mount Konocti	Fuel Hazard Reduction	2
Kelseyville Interface	Adobe Creek, Fuel Reduction along Roads and adjacent to Defensible Space Areas	Wildland Fuel Hazard Reduction, Shaded Fuelbreaks	2
Lake Pillsbury	Rice Fork Fuel Reduction, South of Scott Dam	Fuel Reduction	2
Lake Pillsbury	Northeast of Lake Pillsbury Ranch	Control Burn	2
Lakeport	Brewery Hill	Fuel Reduction, Defensible Space	2
Lakeport	North Lakeport Fuelbreak and Defensible Space	Shaded/Fuelbreak, Defensible Space	2
Loch Lomond	Cooper and Water Company Lands	Shaded Fuelbreak	2
Loch Lomond	Parady Property	Control Burn	2
Loch Lomond	Bonanza Springs	Shaded Fuelbreak	2
Loch Lomond	Siegler Springs North	Shaded Fuelbreak	2
Loch Lomond	Siegler Canyon	Shaded Fuelbreak	2
Loch Lomond	Shenandoah Road	Shaded Fuelbreak	2
Long Valley, New Long Valley	Garner Ranch Road	Shaded Fuelbreak, Clearance, Road Repair	2
Lower Lake, Morgan Valley	Ridge southwest of Dry Creek	Shaded Fuelbreak, Control Burn	2
Lucerne	Fuel Reduction on Hillside behind Town, between Bartlett Springs and High Valley	Fuel Reduction and Eventual Control Burn	2
Lucerne	Fuel Reduction on Paper Subdivisions off of Bartlett Springs and Foothill Drive, North of Town	Fuel Reduction	2
Lucerne	Fuel Reduction in North Side Canyon behind Rancho Vista	Fuel Reduction	2
Middletown	Dry Creek Road	Brush Clearing	2
Middletown	Middletown Rancheria	Brush Clearing, Control Burn	2
Riviera Heights	Fuelbreak around Development	Fuel Reduction, Shaded Fuelbreak	2

<b>Community, Structure, or Area at Risk</b>	<b>Project Area/Description</b>	<b>Treatment</b>	<b>Priority 1<sup>2</sup>, 2, 3</b>
Riviera West	BLM Buckingham Bluff Properties between Riviera West, Buckingham, and Riviera Heights, Fuel Reduction with Control Burn Where Possible	Hazardous Fuel Reduction, Control Burn	2
Scotts Valley	Cow Mountain Fuelbreak Expansion	Fuelbreak	2
Scotts Valley	Upper Scotts Creek Watershed	Control Burn Mosaic	2
Twin Lakes	Twin Lakes Defensible Space and Neighborhood Fuel Reduction	Defensible Space, Fuel Reduction	2
Twin Lakes	Murphy Springs/Perini Hill – Organize Neighborhood through LCFSC	Fuel Reduction and Defensible Space	2
Guenoc Ranch	Northwest of Proposed Development, between McCreary Lake and Coast Guard	Shaded/Fuelbreak	3
Finley	Ecologically Appropriate Tule Fuel Reduction	Fuel Reduction	3
Harbin Hot Springs and Neighboring Springs	Shaded Fuelbreak North of Harbin	Shaded Fuelbreak	3
Kono Tayee	Bruner Road	Shaded Fuelbreak	3
Lower Lake, Morgan Valley	Ridge between Herndon Creek, Ferris Canyon, and Cache Creek	Shaded Fuelbreak	3

*For more information on the Action Plan, see Chapter 8.*

## VIII. Fire Safety and Defensible Space for Lake County Residents and Land Managers

Residents in the “wildland-urban interface,” or “WUI” (pronounced “woo-ee”), are usually at the greatest risk from wildfire. When they understand what steps they can take to make their homes and properties more fire safe, they are generally motivated to do so. Appendix C of this CWPP includes general and specific description of how Lake County residents can prepare for and eventually defend themselves when faced with wildfire.

Wildfire behavior depends on fuel, weather, and topography. “Fuel” refers to all burnable materials including (but not limited to) living or dead vegetation, structures (including homes), and chemicals that may feed a fire. Fuel is the one factor that communities have some capacity to control. This Plan focuses on how fuel can be mitigated to enhance community safety while protecting conservation values. It also outlines necessary steps to increase the success of fire protection efforts (e.g. adequate addressing, signage and roads, proper turnarounds, secondary access, water supply, etc.).

One of the most important concepts introduced in this CWPP is that of defensible space. This means creating a space around residences/structures to enhance the chances of structural and human survivability. It also means creating a home that fire fighters can safely defend. A structure has a greater than 80% chance of surviving a wildfire if it has adequate defensible space and is made of ignition-resistant materials.<sup>13</sup> This CWPP documents the various elements that make up defensible space in clear, action-oriented terms. It includes various ways that residents can enhance their chances of surviving a fire, including the use of ignition-resistant building materials and construction methods, water storage, escape plans, landscaping, and fuel hazard reduction.

Additionally, various actions that community members can take when a wildfire threatens are identified. These include actions such as safe and effective evacuation, keeping friends and family members informed of plans and whereabouts, gas/propane shut-off, water preparation and use, preparing homes to survive an oncoming fire, and emergency communication.

Beyond the home, fuel reduction in the wildland-urban interface is critical to help create fire-safe communities, and eventually fire-permeable and fire-resilient landscapes. Wildland fuel hazard reduction methods are described in Appendix D, with practices identified that are consistent with the Conservation Principles. This document includes comprehensive information on all types of fuel-reduction methods so land owners and managers can knowledgeably choose the most appropriate practices for their particular site within Lake County. The intent is to inform and empower Lake County landowners (large to small) to work together on fuel management toward a fire-safe community, and a healthier wildland environment. This is where innovative, ecologically savvy fuel-reduction treatments can be accomplished, in an effort to begin the restoration process for previously impacted and degraded landscapes.

*For more information on fire safety and fuel reduction, see Appendices C, D, and F.*

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<sup>13</sup> Ethan Foote. “Wildland-Urban Interface Ignition-Resistant Building Construction Recommendations” from the 2004 Community Wildfire Protection Plan Workshops, by the California Fire Alliance and the California Fire Safe Council. August 2004.

## **IX. Facilitating Lake County Fire Safety in the Long Term**

A community fire plan is only as effective as the community charged with implementing it. Lake County is fortunate to have many people and resources committed to fire safety over the long-term. The will to succeed and the *social capital* exist now within Lake County for the effective implementation of this CWPP.

### **IX.A. Monitoring**

Monitoring the success of CWPP-identified actions is important to the ongoing success of these fire safety and prevention efforts. This CWPP is based on the collective experience of participants, Lake County knowledge, lessons learned from Fire Safe Councils statewide, and the best available science. However, community fuel reduction and fire safety is an evolving field. Restoring landscapes to be more fire adaptive is a long-term process. Mistakes will be made; they are part of re-learning how to live in balance with wildfire, rather than trying to control and suppress it regardless of the cost. Hence, it is important to monitor the actions identified within this CWPP to understand the actual impact they are having meeting its objectives: to minimize ignitions, decrease intensity, decrease damage, increase permeability, and increase resiliency. In addition to how successful projects are to reduce fuels and the impact of fire, monitoring also refers to tracking how projects affect ecological process and function. From the outset, projects need to be designed to have minimal adverse ecological impact.

Chapter 9 includes suggestions for how to monitor both the projects implemented from this CWPP, and their ecological impact. A Strategic Planning Matrix is shown for ongoing project and CWPP monitoring and implementation. Ongoing project maintenance is also discussed.

*For more information on monitoring and maintenance, see Chapter 9.*

### **IX.B. Updating This Plan**

No plan is ever permanent. This CWPP was written in 2009 based on current conditions and best available information. The field of fire safety is rapidly changing. It is likely that new developments will occur in the coming years. Therefore, it will be important to review this CWPP at least every five years (depending on available resources). This process can be facilitated by the Lake County Fire Safe Council. Copies of this CWPP will be available for public review at the Lake County Administrative Office (Courthouse), public libraries, and other locations throughout the county.

### **IX.C. Needed Resources**

The Lake County Fire Safe Council will be the principal organization charged with implementing this CWPP. Therefore, it will need to have a structure in place to oversee plan implementation. A coordinator was hired in 2009 with funding from the County of Lake. It will be important to maintain and augment this funding source over time, to ensure CWPP and project continuity.

The success of the Fire Safe Council will also depend on the ability of participating organizations to contribute resources to the Council and its projects. A strategic plan for the Council will need to be developed to identify both a successful long-term management structure that maximizes resident and agency participation, and a long-term funding strategy to ensure its survival.

*For more information on updating this CWPP and needed resources, see Chapter 9.*