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7. Risk Assessment: Identifying and Evaluating Assets at Risk

7.1. Assets at Risk in Lake County

One of the primary goals of this CWPP is to identify ways to protect lives, property, natural resources, and wildlands from wildfire. Assets at risk are those things that are essential and important to the quality of life within the county, that can be at risk of destruction or loss from wildfire.

The term ‘assets’ however may not fully convey the community value found in the infrastructure of Lake County. Like much of northern California, Lake County’s communities have evolved with a connection to the land and the history of the region. This has created what could be described as high community values, springing from a shared *sense of place*¹, strong family and neighbor ties, and enjoying community life with a *bioregional*² flavor. 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 houses, community infrastructure, cultural resources, wildlife habitat, natural resources, air quality, recreational facilities and areas, historical structures, and any other important attribute that individual communities rely on for their quality of life.

All of Lake County’s valuable assets are important to the quality of life throughout the county. Yet some assets will take higher priority for wildfire mitigation than others, when we take into consideration community investment and an assessment of the overall risk of fire. This prioritization occurs because some assets can be deemed more essential to the community than others would.

As each community in Lake County has developed, critical infrastructure has been built, in order to serve the needs of growing populations. This investment of homes and community infrastructure has led to certain areas that have higher overall net values (and risks) than other areas, when compared with areas that have less assets and/or less risk of wildfire. (*See Map 7-1 Net Property Values, below*)

Communities can suffer greatly if highly valued and essential infrastructure is damaged or destroyed during a wildfire or other disaster. Some communities contain infrastructure that is critical to the entire county, such as hospitals or utilities, which naturally makes the risk of loss much graver in the event of a wildfire. Many of the more populated areas in Lake County contain the county’s most critical facilities: hospitals, fire stations, schools, government facilities, water sources/storage, major thoroughfares, and many others. These areas, such as the cities of Lakeport and Clearlake, have a higher concentration of community assets, thus having a higher value. When a high-value concentration area combines with a presence of hazardous fuels and a high fire threat, it is an area the community considers more at risk of loss due to wildfire (*See Maps 3-4 Fire Hazard Severity Zones and 3-7 Fire Threat, in Chapter 3 for more information regarding fire hazards and threats*).

In October 2008, eleven CWPP public meetings were held throughout Lake County in order to educate the public about the risks of wildfire, as well as to identify local community assets. Some of the most important community infrastructure assets and values identified at these meetings included schools, churches, fire stations, hospitals, senior centers, neighborhoods, commercial districts, golf courses, campgrounds, and others.

7.1.1. Homes and Structures

In addition to protecting human lives, homes are considered one of the highest priorities for protection within Lake County. According to projections from the US Census in 2005, there were approximately 34,982 homes in Lake County. Homes within the county are generally concentrated within town centers and along the major roadways, such as Highway 20 and State Routes 29, 175, and 53.

¹ Sense of Place: A feeling and understanding of the unique place in which one lives, derived from the mix of natural and cultural features in the landscape and community. Sense of place can also mean rooting and defining oneself in terms of a given piece of land, watershed, or bioregion.

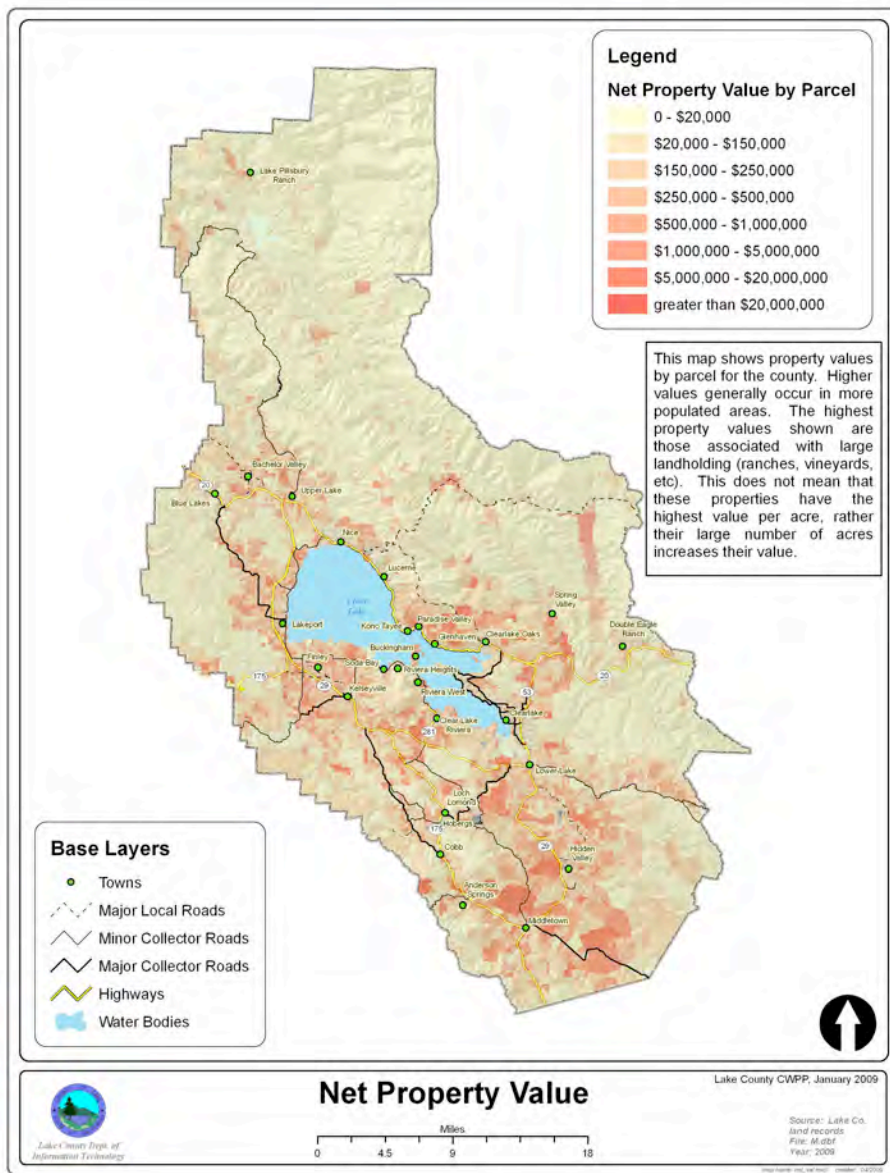
² Bioregional/Bioregion: The characteristic features of an area (bioregion) constituting a natural ecological community of contiguous geographic terrain, delineated by natural rather than artificial borders: the region's climate, local aspects of seasons, particular landforms, watersheds, soils, native plants and animals. Humans are also counted as an integral aspect of a bioregion’s life.

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Much of Lake County’s population surrounds Clear Lake. Some populated areas, however, are more remote and may be harder to defend than the more localized and compact communities surrounding the Lake and along the main transportation corridors. Populated but remote areas such as Lake Pillsbury, Spring Valley, Double Eagle, the communities on Cobb Mountain, and other outlying areas are considered valuable assets within the county. 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 because they are generally the first to be reached by a fire. Keep in mind that homes with untreated wood shake roofs are at the highest risk, even when they are in the middle of a community. The sparks created from a fire often land on roofs and ignite the structures that are well away from the approaching fire. This is why Senator Feinstein has recently introduced her “Fire Safe Communities” legislation to support communities that make replacement of wood shake roofs mandatory.

The following map shows property values by parcel for the county. Higher property values generally occur in the more modern populated areas. However, the highest property values shown are those associated with large landholdings (ranches, etc.). This does not mean that these properties have the highest value per acre, rather that their large number of acres increases their total value.

Map 7-1. Net Property Values



7.1.2. General Infrastructure Assets

Infrastructure within Lake County includes all of the structures (both public and private), roads, utilities, water, and all other services that help Lake County residents live here. The major road systems within the county, Highway 20 and State Routes, 29, 53, and 175, are essential assets and therefore a high priority. Erosion following a wildfire event can pose a significant threat to the transportation infrastructure in the case of landslides. Fire suppression efforts often utilize roads to strategically place equipment and personnel during wildfires. Fire prevention efforts can focus on reducing the fuel loads along the transportation corridors in order to reduce risks during evacuation scenarios, as well as increasing the efficiency of fire suppression efforts.

Airstrips are important infrastructure in the county. They provide recreational opportunities, emergency landing sites, potential evacuation sites, and help create a destination for visitors. There are several airstrips that can be used as emergency landing or evacuation destinations. These airstrips include Gravelly Valley Airstrip in Lake Pillsbury (US Forest Service), and Lampson Field south of Lakeport. It is important to maintain these in order to keep them functional for both emergencies and recreational uses.

The public and private utilities within Lake County are important assets. Geothermal power plants, electrical transmission lines, and communication towers are all at significant risk from wildfire. Many of these are in remote areas that have high fire threats, which causes them to have higher risks.

Lake County is fortunate to have the Geysers, the largest geothermal power generation facility in the world. The Geysers consists of several power-generating sites within a thirty-square-mile stretch along the Sonoma/Lake County boarder. These facilities produce enough electricity to power approximately 850,000 homes. Energy produced at the Geysers provides energy to customers south of the Golden Gate Bridge up to the Oregon border. Wildfire is a major threat to these facilities because of their remoteness and adjacency to highly flammable vegetative fuels. In 2004, the *Geysers Fire* burned roughly 12,500 acres here. For this and other reasons, The Geysers is included as a “Community At Risk” from wildfire (*see Chapter 1 for more information on Communities at Risk*).

PG&E maintains transmission lines, as well as a dozen substations within Lake County. Some of the substations are active while others are for future use, and are located in both rural and suburban areas. All substations are maintained to meet the minimum state requirements of 100 feet of clearance, with additional clearance where feasible. In most instances all of the vegetation is removed and gravel is placed on the ground, for access and to eliminate flammable material. Protecting these substations and transmission lines is critical to the power needs of residents and visitors.

Communication towers have traditionally been located on top of peaks, such as Mt. Konocti, and can be threatened by wildfire. In order to minimize visual impacts towers are now built below the ridgelines. Some of the towers receive power from underground lines, while some have aboveground lines. Aboveground power lines pose a wildfire threat as a possible ignition source, such as a tree falling into them. All communication towers have backup power supplies either in the form of batteries or propane. They are required to have fire alarms, fire extinguishers, and maintain a minimum fuel clearance of 100 ft. Within this 100 ft. clearance, many of the towers are void of vegetation or have gravel for access and to limit the amount of flammable material. Fire Protection Districts have access to all of communication towers.

The communication tower on Mt Konocti is being rebuilt to provide more space for communications infrastructure. This tower is one of the most centrally located in the county and contains emergency communications systems. Emergency service personnel use these systems in order to communicate on certain frequencies throughout the county. The protection of this tower specifically—as well as protection of all of the towers within the county—is important for the communication needs of all residents and emergency service providers.

Gas usage within the county comes in the form of propane. There are several propane distributors within the county to meet local gas needs. These providers generally have large storage tanks (upwards of 30,000 gallons or more). The tanks are located in both suburban and rural settings. Storage tanks are inspected yearly for function and to ensure their minimum 100 ft. fuel clearance.

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The security of clean water is fundamental to all communities. Increased surface runoff following a wildfire can cause inputs of nutrients, ash, and other particulate matter into the county water sources. These inputs can also cause water treatment facilities to function incorrectly; this was the case following the Fork Fire of 1996.

There are many water districts found throughout the county to supply clean water to residents and visitors. Facilities maintained by these districts, such as treatment plants, pumps, and storage facilities can be damaged during or following a wildfire. The proper maintenance of all of this infrastructure, as well as reducing the fire severity in source watersheds, is critical in maintaining clean water throughout the county. Water treatment and distribution infrastructure is important for the health and safety of county's residents.

7.1.3. 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 Hidden Valley, also have important commercial centers to protect. Local businesses provide jobs and services for residents and visitors. A strong entrepreneurial spirit is present among local business owners, many of whom are active in their support for local chambers of commerce and numerous local business associations. Helping to protect local business from wildfire is important in maintaining commerce.

Lake County is also a year-round tourism and recreational destination, although tourism peaks in summer. 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. During wildfire events tourism and recreational opportunities are often reduced or eliminated due to actual or perceived dangers visitors may face, and reduced air quality.

Major recreation areas include the county's lakes, most notably Clear Lake. Other important recreational locations include Snow Mountain Wilderness area, Cache Creek Wilderness area, Mendocino National Forest, Anderson Marsh, Boggs State Demonstration Forest, and numerous campgrounds, casinos, and hot springs throughout the county. Areas within the Mendocino National Forest, wilderness areas, hot springs, and the Demonstration Forest are the most vulnerable to wildfire because of their remoteness as well as their natural association with fire.

Lake County benefits greatly from its tourism industry. Protecting commercial centers that service the needs of local businesses and tourists is a high priority for fire protection before and during a wildfire.

7.1.4. Schools

There are seven school districts in Lake County: Kelseyville Unified, Konocti Unified, Lakeport Unified, Lucerne Elementary, Middletown Unified, Upper Lake Union Elementary, , and Upper Lake Union High School District. There are also three parochial schools and two community colleges within the county to make up a total of 53 schools. These schools are major community investments that are critical to the future of Lake County. Many schools are located in areas that have medium to high fire threat values. Implementing proper emergency drills for evacuation is crucial to the safety of the students. Emergency plans for each school should be effectively communicated to parents to help eliminate confusion should an emergency occur.

7.1.5. Medical Facilities

There are two hospitals and three nursing homes within the county as well as six senior assistant centers. These facilities are essential to the health, safety, and lifestyle of Lake County residents. The hospitals and senior assistant centers are located in various places within the county. Implementing proper emergency drills for evacuation in medical facilities is critical to the safety of patients, staff, and visitors. Likewise, each senior center should implement emergency evacuation plans to help ensure safety during an emergency.

Figure 7-2. Lake County Medical Facilities and Senior Centers

Name	Address	Emergency Power Supply
Sutter Lakeside Hospital	5176 Hill Rd. East, Lakeport	Generator
St. Helena Hospital	15630 18th Ave., Clearlake	Generator
Meadowood Nursing Center	3805 Dexter Lane, Clearlake	Generator

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Evergreen Lakeport Healthcare Center	1291 Craig Ave., Lakeport	Generator
Lakeport Skilled Nursing Center Inc.	625 16th St., Lakeport	Generator
Highlands Senior Service Center	3245 Bowers Ave., Clearlake	Handheld lights w/ batteries
Kelseyville Seniors, Inc.	5245 3 rd St., Kelseyville	Handheld lights w/ batteries
Lakeport Senior Center	527 Konocti Ave., Lakeport	Handheld lights w/ batteries
Live Oak Senior Center	12502 Foothill Blvd., Clearlake	Handheld lights w/ batteries
Lucerne Alpine Senior Center Inc.	10 th and Country Club Dr., Lucerne	Handheld lights w/ batteries
Middletown Senior Citizens, Inc.	15299 Central Park Rd., Middletown	Handheld lights w/ batteries

7.1.6. Cultural Assets

People have been living in Lake County for 10,000 to 12,000 years. The most notable human habitation of Lake County is that of the Pomo Indians, several bands of which still remain. More than 10,000 years ago, the land that is now Lake County was occupied and managed entirely by Pomo Indians. Today, approximately 1,600 acres remain in tribal ownership in the county.

Throughout this time of human habitation cultural resources have accumulated throughout the county, including: bedrock mortars, grassland sites for basket making, oak trees for acorn gathering, ceremonial gathering places, and more.

Threats to these valuable resources are due primarily to development and subdivisions. Many of the cultural gathering sites for items such as sedges, which provide valuable basket material, are within private land holdings, leaving these sites out of reach as a cultural resource to local tribal members. High-intensity fire poses a threat to resources such as oak stands that provide acorn-gathering sites for local tribes. These types of fires can kill oaks, while low-intensity fire can help with oak regeneration and seed protection. For example the low intensity fire that had been used for thousands of years helped to reduce insects that can damage mast crops.

Post-settlement assets are abundant within the county as well. There are many historical buildings such as barns, schools, and churches that are valued by local residents and visitors. Some of these buildings include The Brickhouse Tavern, Loch Lomond General Store, and Lower Lake School. Historical resorts such as Forest Lakes Resort, the resorts in Blue Lakes, and Pine Grove Resort are all valued within the county. Historic downtown areas are found in Kelseyville, Lakeport, Lower Lake, and Upper Lake. Historic ranches and farm equipment are also at risk from wildfire. Efforts are being made to preserve and consolidate many of these resources through collection for a museum.

7.1.7. Natural Assets

Lake County is ecologically rich, and there are many natural assets to protect and responsibly steward. Natural assets can be as equally important and valuable as property or material assets. Natural assets directly and indirectly contribute significantly to the quality of life, economy, and ecological diversity of the county. Many of these natural assets are located in remote areas that have associated high fire threat and hazard conditions.

During the CWPP community meetings, many of the county’s natural assets were identified. Some of these include (in no particular order of importance): scenic vistas, Harbin Hot Springs, High Valley Ranch, Boggs Lake Reserve, Clear Lake, Big Pines Campground, and many more.

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 such as the bald eagle, Northern spotted owl, Boggs Lake hedge-hyssop, and many more (*see Chapter 3 for more information on threatened and endangered species in the county, and Chapter 4 for vegetation types*).

Recreational and research opportunities, scenic vistas, and more are associated with these natural assets. An overall lack of fire as a result of fire suppression has caused many of these areas to become overly dense, with high fire threats. In many cases this overcrowding causes plants and trees to become stressed and unhealthy, leaving the site at greater risk of high-intensity wildfire. The increasing human population adjacent to many of Lake County’s natural assets is further reason to emphasize these areas as high priorities for protection (*See section 7.1.8 below, Conflicts Between Natural Assets and Human Occupation*).

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Among the natural resources of every community is the very air we breathe. Lake County is fortunate to have exceptionally clean air. The county is known for nineteen years of Designated Clean Air Achievement.³ The American Lung Association (ALA) found in 2007 that Lake County's air quality ranked 3rd cleanest in the nation for particulate pollution.⁴ As this Plan goes to print, the recent 2009 report released by the ALA reaffirms that Lake County ranks an "A" grade in air quality standards, and third healthiest air in the nation.⁵ This air quality is a treasured asset that needs to be protected. Wildfires can burn out of control for days or weeks, and the ash and smoke pollution in the air is a risk to the community as well as the natural environment. Vegetation and plant life can also be harmed by atmospheric pollution and smoke.

The major natural resource businesses within the county include agriculture and wineries. Lake County currently has 24 local wineries that offer scenic views, recreational and tourism opportunities, local products, revenue, and jobs. Ranches within the county provide grazing land, recreational activities, and local food. Both of these natural resource-based industries can be affected by wildfire. The wineries may be at risk from wildfire because of their dependence on long-lived grape vines. Due to the arrangement of grape vines within vineyards, fire is not likely to burn through them, although during the late summer months, dry and brittle vines can pose a fire risk. If a wildfire was to burn through a vineyard, it could destroy valuable natural resources that take a lot of time and energy to replace. With the loss of a winery, valuable tourism and agricultural dollars would be lost within the county.

Cattle ranches may be at greatest risk from wildfire because of their fairly natural arrangement. Fire can quickly sweep through thousands of acres of ranchland, potentially damaging grazing habitat. On the other hand, ranches can benefit from wildfire as new growth and essential nutrient recycling resulting from a wildfire replenishes the burned over area. Thus, controlled burning is used as a management tool on many ranchlands.

Agricultural lands that are managed for food crops (such as strawberries, pumpkins, etc.) are not at great risk from wildfire because of the heavy management that takes place on them. However, fruit and nut tree orchards, such as Lake County's walnut orchards, could sustain damage from direct flame contact or even the heat of a wildfire. Although the understory vegetation tends to be eliminated in orchards, making it very difficult for a fire to move through, the heat of a fire could damage a portion, or all, of a tree. Should a wildfire become intense enough to damage or destroy orchards, it would have negative economic impacts on the local economy.

All of Lake County's natural resources and resource-based industries are a high priority for protection before and during a wildfire.

7.1.8. 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. Most vegetation types found within Lake County have the potential to carry high intensity wildland fires. In fact, most are dependant to some extent on fire to remain vigorous (*see Chapter 4 for more information*). At the same time, 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 highly flammable and remote areas such as Cobb Mountain, and the wildland-urban interface around the shoreline communities. The greatest threat generally occurs where the wildland meets the community, although wildfire can burn down houses well inside communities.

The various Rivas communities are built within and adjacent to highly flammable vegetation. This vegetation, combined with steep slopes, very limited access, and expensive investments (i.e. homes and other community infrastructure), creates a major conflict between human habitation and the natural values, or assets, that make it a desirable place to live. Therefore, the Rivas area is one of the most problematic in the county in terms of fire prevention and protection.

³ <http://www.lcaqmd.net/>. Lake County Air Quality Management District.

⁴ California Air Pollution Control Officers Association (CAPCOA) Newsletter. Volume 19, Issue 9. September 2007.

⁵ American Lung Association. State of the Air Report 2009. p. 24 and p. 54. www.lungusa2.org/sota/2009/SOTA-2009-Full-Print.pdf.

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Another example can be found in the Cobb Mountain area. Homes continue to be built in remote areas with highly flammable vegetation. Many of the homes here are summer residences that are not well maintained in terms of fire protection. Access to some of these neighborhoods is on thin and windy roads; these are problematic during evacuations and other emergencies. 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 inhabit.

Concurrently, positive work is occurring throughout Lake County to address these issues and conflicts. The South Lake Fire Safe Council has implemented several projects in the Cobb Mountain area. The Clear Lake Riviera Community Association in cooperation with the Kelseyville Fire Protection District has implemented a simple and effective fire safety program for the subdivision that can be used as a model for other developments throughout the county.

Other examples include various shaded fuelbreaks and fuel reduction projects around areas such as the Lakeview Campground, Konocti Lookout, and Boggs State Forest. These projects are not meant to eliminate fire, but to minimize the intensity of fire around communities and their assets. Projects such as these are helping to address some of the conflicts between natural assets and human occupation. If residents, agencies, and related organizations implement the projects proposed in Chapter 8 of this plan, the risk associated with wildfire to Lake County's assets can truly be minimized.

7.2. Assessing Risks in Lake County

The following table summarizes the communities, assets, risks and fire-fighting capabilities in Lake County to develop an overall risk ranking for all included communities. Each of these areas is explained below.

Community, Structure, or Area at Risk

These are generally the communities at risk from wildfire in Lake County, including those already designated—and those proposed to be designated—in this plan. Additional communities were identified on this list if they contained a population center and their overall risk rating was either “Medium” or “High.” The communities of Middletown, Kelseyville, Finley, Clear Lake Keys, and Bachelor Valley/Witter Springs resulted in a “Low” overall risk rating from this analysis; therefore they were not included in this table. Where there were clearly differing areas of risk within the same community, those communities were separated out. For example, Lower Lake, Morgan Valley, and Twin Lakes were identified separately as they have distinct issues in terms of wildfire.

Assets at Risk

This information was compiled from this chapter, local property values, and the information gathered at community meetings. All neighborhoods and population centers are assumed to be important local assets and values. The ratings in this column compare the overall assets based on the information described above.

Fuel Hazard

Fuel hazards describe the amount of fuels in a given area that could burn during a fire. Fuel hazards were based principally on fire threat, fire history, and fire hazard severity zones as developed by CAL FIRE and described in Chapter 3. This was combined with information gathered through local field tours in October 2008, and aerial photography available through Google Earth. Further information was provided from data gathered at the community meetings.

Risk of Wildfire Occurrence

Risk of wildfire occurrence refers only to the possibility of a wildfire occurring in the given community. It does not reflect the possibility of a fire starting locally, including one that may simulate wildfire conditions. This information was taken from CAL FIRE's fire threat information, information gathered through local field tours, and topographical and wildland vegetation analysis using Lake County GIS data and Google Earth.

Structural Ignitability

Structural ignitability means the ability of buildings, especially homes, to burn. This information was based on visual surveys and local information. Older, wooden homes generally have higher structural ignitability than newer homes—especially those homes with tile or metal roofs.

Fire-fighting Capability

Fire-fighting capability describes the ease with which firefighters can get to a community to fight a fire. This information was taken largely from Chapter 6. Supplemental water flow (and other information) was also taken from the 2007 LAFCO Final Report⁶. It is based on factors such as how close a fire station is, the level of equipment and/or staffing, and the amount and pressure of water available for firefighting.

Overall Risk

The overall risk category is a sum of the above categories, and the analysis done for each. The higher the ranking in each of the categories (except fire-fighting capability) leads to a higher overall risk. The higher the ranking in the fire-fighting capability column brings the overall risk down.

Observations

Observations include a general summary of the factors that lead to the rankings in the various categories, especially in the case of anomalies.

⁶ Lake County Fire Protection Districts. Municipal Service Review and Sphere of Influence. October 19, 2007.

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Figure 7-3. Summary of Assets and Associated Wildfire Risks for Medium and High Risk Communities in Lake County^{7,8}

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

⁷ This table is adapted from Step 5a of the CFA Simplified CWPP Template. p. 5. cafirealliance.org/cwpp/.

⁸ Communities that obtained an Overall Risk of “Low” were not included in this list.

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Community, Structure, or Area at Risk	Assets at Risk	Fuel Hazard	Risk of Wildfire Occurrence	Structural Ignitability	Fire-Fighting Capability	Overall Risk	Observations
Spring Valley and Long Valley	Med	Med-High	High	Med-High	Low	High	Good clearance and limited fuels within Spring Valley development. Higher fuels and significant wildfire threat in surrounding areas. Water supply is limited. Remote.
Glenhaven	Med	Med	High	Med	Med	High-Med	Narrow strip along Hwy 20, potentially blocked to limit evacuation. High threat of wildfire during extreme fire weather event, combined with high fuels in the interface. Limited water.
Hidden Valley and Coyote Valley	High	Med-High	Med-High	Med	Med-High	High-Med	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.
Lucerne	Med	High	High	High	High	High-Med	High threat of wildfire from FS during extreme fire weather event, combined with high fuels in the interface. Some historic sites. Good fire protection and water supply.
Nice	Med	High	High	High	High	High-Med	High threat of wildfire from FS during extreme fire weather event, combined with high fuels in the interface. Good fire protection and water supply.
Riviera Heights*	High	High	Med	Med	Low	High-Med	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.
Riviera West*	High	High	Med	Med	Low	High-Med	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 local fire station.
Clearlake	High	Med	High	High	High	Med-High	Principal urban center. High fuels to east, some subdivisions with high fuels, many older second homes.
Clearlake Oaks	Med	High	High	Med	Med	Med-High	Semi-urban area along Lake and Highway 20. Threat of wildfire during extreme fire weather event, combined with high fuels in the interface. Good fire protection, water supply is limited.

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Community, Structure, or Area at Risk	Assets at Risk	Fuel Hazard	Risk of Wildfire Occurrence	Structural Ignitability	Fire-Fighting Capability	Overall Risk	Observations
Morgan Valley	Med	Med-High	High-Med	High	Med	Med-High	Rural interface east of Lower Lake, potential wildfire threat from public lands to east. Potential water and fire protection issues.
Scotts Valley	Med	Med	High	Med	Med	Med-High	Agricultural valley between Lakeport and BLM. Fuels and wildfire history, excellent controlled-burn history and interest. Significant wildfire threat from BLM lands. Water supply issues.
Blue Lakes	Low	High	High	High	Low	Med	High fuels and windy roads behind Lakes. Potential evacuation/access issues. No water system, water source is the lakes.
Buckingham*	High	Med	Med	Med-Low	Low	Med	Very high-value real estate, limited water supply. Not significant wildfire threat. Access/evacuation issues.
Jerusalem Valley	Low	Med	High	High	Low	Med	Access/evacuation issues, surrounding fuels.
Kelseyville Interface	Med	High	Med	Med	Med	Med	Fuels and wildfire threat from southwest and southeast, some remote neighborhoods. Mount Konocti fuel issues.
Kono Tayee	Med	Med	Med	High	Low-Med	Med	Some fuels on steep slopes, wildfire threat during extreme weather events. Adequate water.
Lower Lake	Med-High	Med	Med-High	Med	High	Med	Small community with historical district. Heavier fuels and windy roads at outskirts (see Morgan Valley and Twin Lakes). Local fire protection.
Soda Bay*	Med	High	Med	Med	Med	Med	Some fuels, history of local ignitions. Some wildfire threat from State Park to west.
Twin Lakes	Med	Med	Med	Med	Med	Med	Development with some fuels. Many homes and roads.
Upper Lake	Med	Low	High	Med	Med	Med	Historic, town center with limited fuels. Higher fuels in interface. Threat of wildfire from National Forest lands during extreme weather events. Water system issues.

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***The Exception: The Rivas**

The most obvious distinction in Lake County between risk of wildfire occurrence, 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 generally 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).