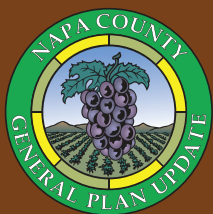
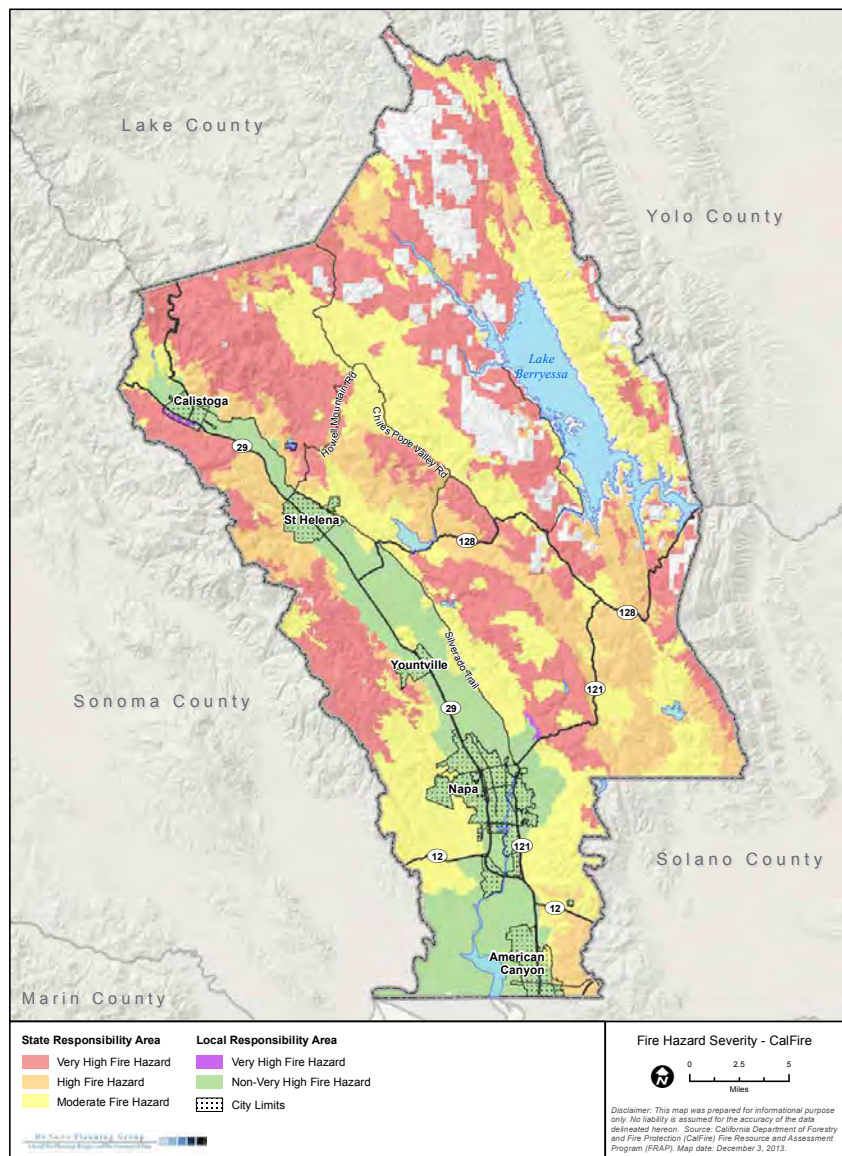


NAPA COUNTY

Wildland Fire Background Report



August 2014





This Wildland Fire Background Report reviews conditions associated with wildland fire risks consistent with the requirements of Senate Bill 1241 as set forth at Government Code Section 65302(g)(3)(A). This Wildland Fire Background Report identifies fire service providers, describes the regulatory setting associated with wildland fire, and describes existing conditions associated with wildland fire hazards. This is a supporting document to the Safety Element goal, policy, and action set addressing wildland fire hazards, prepared in accordance with the requirements of Paragraphs (B) and (C) of Government Code Section Government Code Section 65302(g)(3).

Wildland Fire Hazards

Napa County has a long and active wildfire history. The County is characterized by narrow valleys surrounded by steep, hilly terrain. With its long, dry summers and rugged topography, Napa County has a high wildland fire potential. The interface in the County between wildland areas and development exposes residents, businesses, and community facilities to wildland fire risks. In the last several decades, the combination of firefighting technology, fire suppression policy, environmental regulations, and development trends has led to increasing fuel loads, greater occupancy of remote wildlands, and greater potential for catastrophic wildfire.

Climate and landscape characteristics are among the most important factors influencing hazard levels. Weather characteristics such as wind, temperature, humidity and fuel moisture content affect the potential for fire. A fire typically burns faster and with more intensity when air temperature is high, relative humidity is low, and winds are strong. Of the four weather characteristics, wind is the dominant factor in spreading fire since burning embers can easily be carried with the wind to adjacent exposed areas, starting additional fires. While the County has a characteristic southerly wind that originates from the San Francisco Bay (which becomes a factor in fire suppression), during the dry season the County experiences an occasional strong north wind that is recognized as a significant factor in the spread of wildland fires.

Landscape characteristics such as steep slopes also contribute to fire hazard by intensifying the effects of wind and making fire suppression difficult. Fires burn faster as they burn up-slope. Vegetation type influences wildfire hazard levels as well. For example, landscapes dominated by chaparral are more flammable than other vegetation types. The combination of highly flammable vegetation, steep inaccessible wildlands, and high levels of recreational use can result in wildfire risk and hazards of major proportions. Such wildfire risk and hazards expose residential and other development within the County to an increased danger of conflagration, threatening life and property protection.

REGULATORY SETTING

Fire Protection Service Providers

Wildland fire protection in California is the responsibility of either the State, local government, or the federal government. State responsibility areas (SRAs) are areas where CAL FIRE has legal responsibility for wildland fire protection. Local responsibility areas (LRAs) in Napa County include incorporated cities and cultivated agriculture lands.

The County of Napa contracts with the California Department of Forestry (CAL FIRE) for fire protection services as the Napa County Fire Department (NCFD). CAL FIRE operates under a Strategic Fire Plan, which is prepared by CAL FIRE and approved by the County Board of Supervisors. The Napa County Fire Chief is responsible for the direction and coordination of fire protection services by these organizations on a Countywide basis. The County contracts with the cities of St. Helena and Calistoga, and Schell-Vista Fire Protection District for the provision of fire protection services to specified unincorporated areas adjoining these agencies. The NCFD provides fire and emergency service dispatching for the City of St. Helena, Calistoga and Napa State Hospital Fire Departments. The Town of Yountville and the California Veterans Home contract with the County to provide fire services to those jurisdictions.

CAL FIRE provides services to the County through the South Division of CAL FIRE's Sonoma-Lake-



Napa unit. The South Division is comprised of 5 State and 2 County Fire Stations (St. Helena, Las Posadas, Spanish Flat, Gordon Valley, Napa, Greenwood Ranch and Yountville Station) which house 8 Schedule “B” engines, 1 dozer, 4 Schedule “A” engines and a Schedule “A” truck. There is a Schedule “A” contract at Napa, Greenwood Ranch, Yountville and St. Helena Stations and “Amador” contracts at Napa and Spanish Flat Stations. The Sonoma-Lake-Napa CDF Unit Chief also serves as the County's Fire Chief, coordinating fire protection services for all County fire agencies. The Napa County Fire Department, staffed by CAL FIRE, oversees nine volunteer departments. A Memorandum of Understanding between Napa County and the nine volunteer fire departments establishes the volunteer departments, the volunteer chiefs, and the chief's advisory board.

In addition to fire protection provided by NCFD/CAL FIRE, there are five local fire departments and several volunteer fire departments providing fire protection to various portions of the County. The American Canyon Fire Protection District, Napa Fire Department, St. Helena Fire Department, Calistoga Fire Department, and the Napa State Hospital Fire Department provide services through contracts and aid agreements. The Schnell-Vista Fire Protection District, the Knights Valley Volunteer Fire Department, and the Mountain Volunteer Fire Department are located outside the County but provide limited services to the County under necessary circumstances.

The U.S. Bureau of Reclamation (USBR) manages property along Lake Berryessa within Napa County. USBR has an agreement with CAL FIRE that applies to all lands administered by USBR authorizing CAL FIRE to develop and implement appropriate plans for the suppression of wildland fire occurring within the reservoir lake-line. This includes activities to reduce fuel, maintain fire roads, and improve wildlife habitat, and is in force.

Wildfire Plans and Regulations

FIRE HAZARD SEVERITY ZONES

California State law (Public Resources Code Sections 4201 through 4204 and Government Code Sections 51175 through 51189) requires the identification of fire hazard severity zones. Fire prevention areas under state jurisdiction are referred to as “SRAs.” In SRAs, the California Department of Forestry and Fire Protection (CAL FIRE) is required to delineate three hazard ranges: moderate, high, and very high. In “LRAs,” which are under the jurisdiction of local entities (e.g., cities, counties), only very high fire hazard severity zones are required to be identified.

CAL FIRE developed the Fire Hazard Model as a way to measure physical fire behavior in order to predict the damage a fire is likely to cause. The Fire Hazard Model considers the likelihood of an area burning over a 30 to 50 year time period and how the area might burn, including the speed at which a wildfire moves, the intensity or amount of heat the fire produces, and the crown fire potential (likelihood of fires burning up into trees and tall brush). The Fire Hazard Model considers the wildland fuels. Fuel is that part of the natural vegetation that burns during the wildfire and vegetation changes over time. The model considers the potential vegetation over a 50-year time horizon. The model also considers topography, especially the steepness of the slopes. Weather (temperature, humidity, and wind) has a significant influence on fire behavior. The model recognizes that some areas of California have more frequent and severe wildfires than other areas. Finally, the model considers the production of burning fire brands (embers), how far they move, and how receptive the landing site is to new fires. The Fire Hazard Model assigns a score of moderate, high, or very high fire hazard to all SRAs.

Figure WF-1 identifies the fire hazard severity zones for Napa County. The areas with a higher risk of catastrophic wildland fire are represented in red, while the areas in yellow represent the lowest fire hazard risk. Urban areas where there was no significant source of vegetation to carry the fire were considered zero risk areas. Figure WF-1 shows two areas that fall in the LRA very high fire hazard severity zone: an area in the Silverado Country Club near Atlas Peak Road and a second area in the hills just west of Calistoga.



DEFENSIBLE SPACE REQUIREMENTS

The concept of defensible space is a cornerstone of fire safety regulations. The intent is to reduce the intensity of a wildland fire by reducing the volume and density of fuels (e.g., vegetation that can transmit fire from the natural growth to a building or structure), to provide increased safety for fire equipment and evacuating civilians, and to provide a point of attack or defense from a wildland fire. Defensible space is characterized by the establishment and maintenance of emergency vehicle access, emergency water reserves, street names, building identification, and fuel modification measures. CAL FIRE has established minimum fire safety standards that apply to the SRA. Government Code Section 51182 and Public Resources Code Section 4291 establish defensible space and fuel management requirements for areas that may be subject to wildfires (e.g., mountainous areas, forested areas, brush- or grass-covered lands, or land covered with flammable materials). Owners, leasers, managers, and operators of a building or structure in potential wildfire hazard areas are required to: maintain defensible space of 100 feet (but not beyond the property line without consent by the adjacent landowner) from each side of the structure that is within a very high fire hazard severity zone, remove any portion of a tree that is within 10 feet of a chimney outlet, maintain trees, shrubs, and plants adjacent to or overhanging a building, and maintain the roof of a structure free of vegetative materials. .

VEGETATION MANAGEMENT PROGRAM

CAL FIRE has a fuel reduction program called the Vegetation Management Program. Limited funding is available to conduct fuel management activities primarily by burning on parcels or aggregates of parcels of 100 acres or more. The objective of the Vegetation Management Program is to prevent high intensity wildfire through fuel modification. If brush can be kept at the medium fuel load level as described above, then the intensity of fire can be reduced substantially.

CALIFORNIA FIRE PLAN

The State Board of Forestry and Fire Protection and CAL FIRE have developed the California Fire Plan in an effort to reduce the overall costs and losses from wildfire in California. The California Fire Plan establishes goals and policies intended to reduce and prevent the impacts of fire through both fire suppression efforts and fire prevention efforts.

STRATEGIC FIRE PLAN SONOMA-LAKE-NAPA UNIT 2013 (FIRE PLAN)

The Fire Plan's is intended to identify the high value, high-risk areas within the six counties of Sonoma, Lake, Napa, Solano, Yolo, and Colusa to provide the planning basis for reducing the damaging effects of wildfire. The Fire Plan outlines a program designed to reduce total government costs and citizen losses from wildland fire in the unit. The Fire Plan addresses such factors as: firefighter and public safety, wildland-urban interface, prescribed fire suppression, preparedness, protection, priorities, and inter-agency cooperation.

NAPA OPERATIONAL AREA HAZARD MITIGATION PLAN (OAHMP)

The OAHMP was developed to ensure the most effective and economical allocation of resources for protection of people and property prior to the onset of a natural or technological disaster, including fires. The OAHMP identifies the County's potential hazards, their likelihood and frequency of occurrence, and a set of near-term, mid-term, and long-term mitigation measures were created to address these risks. The OAHMP identifies flood, agricultural pestilence, earthquake, and wildland interface fire as the hazards with the highest potential for frequency and severity. Goal 3 and Actions 3.1.1 through 3.4.4 address fire safety.

EMERGENCY RESPONSE/EVACUATION PLANS

The State of California passed legislation authorizing the Office of Emergency Services (OES) to prepare a Standard Emergency Management System (SEMS) program, which sets forth measures by which a jurisdiction should handle emergency disasters. Non-compliance with SEMS could result in the State withholding disaster relief from the non-complying jurisdiction in the event of an emergency disaster. The preservation of life, property and the environment is an inherent responsibility of local, state, and federal



government. Napa County, in cooperation with the cities of Napa, American Canyon, Yountville, St Helena, Calistoga, and special districts, prepared the Emergency Operations Plan to ensure the most effective and economical allocation of resources for protection of people and property in time of an emergency. The plan establishes the emergency organization, assigns tasks, specifies policies and general procedures, and provides for coordination of planning efforts of the various emergency staff and service elements utilizing the Standardized Emergency Management System (SEMS). The objective of the plan is to incorporate and coordinate all the facilities and personnel of the County and Operational Area member jurisdictions into an efficient organization capable of responding effectively to any emergency.

NAPA COUNTY CODE

Chapter 8.24, Fire Protection. Chapter 8.24 establishes requirements for burning, including obtaining a written fire permit for burning between April 1 and December 1, limitation on hours during which burning can be conducted, and limitations on unsupervised burning.

Chapter 8.36, Fire Protection – Weed and Rubbish Abatement. Chapter 8.36 requires property owners to abate the accumulation of combustible vegetation or rubbish where it is considered a public nuisance, including within 100 feet of any structure and where it creates certain fire hazards. Chapter 8.36 provides for abatement by the County where the property owner fails to comply with the abatement requirements.

Chapter 15.12, Building Code. The County has adopted the 2010 Edition of the California Building Code, which is based on the 2009 International Building Code with modifications by the State of California in Title 24 Part 2 of the California Code of Regulations, with modifications as set forth in County Code Chapter 15.12. Chapter 7 of the California Building Code requires fire and smoke protection features in new development to safeguard against the spread of fire and smoke within a building as well as to or from buildings. Chapter 7A of the California Building Code requires new buildings built in any fire hazard severity zone within SRAs or any wildland-urban interface to be constructed to established minimum standards to ensure that the buildings are designed and built to resist the intrusion of flames and burning embers projected by a vegetation fire. Since January 1, 2008 all new construction in the SRA moderate, high or very high fire hazard severity zones and in the local very high fire hazard severity zone has been in compliance with Chapter 7A of the California Building Code, Materials and Construction Methods for Exterior Wildfire Exposure.

Chapter 15.32, Fire Code. The County has adopted the 2010 Edition of the California Fire Code, which is based on the 2009 International Fire Code with modifications by the State of California in Title 24 Part 9 of the California Code of Regulations, with modifications as set forth in County Code Chapter 15.32. The California Fire Code establishes standards for fire department access, fire hydrants, automatic sprinkler systems, fire-resistance-rated construction, fire alarm systems, fire and explosion hazards safety, wine caves, hazardous materials storage and use, provisions intended to protect and assist first responders, industrial processes, and many other general and specialized fire-safety elements for new and existing buildings and premises.

NAPA FIREWISE

Napa Firewise is a community-based fire awareness program endorsed by Napa County, the cities in the County, and city and county fire professionals. Napa Firewise was formed to provide the residents of Napa County with information on the dangers that wildland fire poses, a better understand of fire ecology in ways that predict risk while respecting and considering the natural evolution of fire in wildland settings, and to provide specific steps residents and property owners can take to protect themselves, their family and their neighbors in the event a wildland fire occurs.

Napa Firewise provides extensive information and services to the community regarding fire safety. A comprehensive guide to defensible space, addressing defensible space planning, landscaping and planting, firebrand hazards, and methods to “fire harden” structures is available on the Napa Firewise website. Napa Firewise provides community risk evaluations and works with communities to form Fire Safe Councils, develop Community Wildfire Protection Plans, and secure grant funding for local projects.



Napa Firewise provides free chipping to County residents.

HISTORICAL WILDFIRES

The Fire Plan identifies that past fire history on the western side of the Napa Valley (Dry Creek-Lakoya) is limited with major fires 40 to 70 years ago burning well into Sonoma County within 1 to 3 days and that eastern slopes have not burned since the 1920s. Fuels on the western aspects are generally lighter and drier. The Fire Plan indicates that past fire history on the eastern side of the Napa Valley is limited with major fires 25 to 50 years ago burning along the Silverado Trail into Atlas Peak (Silverado Country Club) and from Monticello Road to Wild Horse Valley Road within 1 to 2 days. In the 1960's and again in 2008, fires occurred on and were generally held to, the western aspect between the communities of Angwin and Deer Park.

There are two primary sources for historical fire data: the CAL FIRE Fire and Resource Assessment Program (FRAP) and U.S. Geological Survey (USGS) Federal Wildland Fire Occurrence data.

FRAP has established an on-going fire perimeter data capture process in order to update vegetative fuel rank maps. CAL FIRE/FRAP, the U.S. Department of Agriculture Forest Service Region 5 Remote Sensing Lab, the Bureau of Land Management (BLM), and the National Park Service (NPS) jointly develop the comprehensive fire perimeter GIS layer for public and private lands throughout California. The data from 1950 to 2001 includes U.S. Forest Service wildland fires 10 acres and greater and CAL FIRE fires 300 acres and greater. In 2002, the NPS and BLM began providing data on fires 10 acres and greater and CAL FIRE criteria expanded to include timber fires of at least 10 acres, brush fires of 50 acres and greater, grass fires of 300 acres and greater, wildland fires destroying 3 or more structures, and wildland fires causing \$300,000 or more in damage. The FRAP data is not complete, fires may be missing or have incorrect attributes reported. In some cases, the different agencies provided duplicate or conflicting data.

As shown in Table 1, FRAP data includes 113 fires affecting Napa County from pre-1950 through the current decade. Fires located within and/or on the border of Napa County are included in the FRAP data. A high of 43 fires was reported in the 1950's. The data includes 17 fires affecting 50,077.1 acres in the 2000's and 2 fires affecting 704.5 acres in the current decade. Figure WF-2 depicts the location of fires reported in the FRAP data through 2011. Appendix A includes a list of the fires, including the fire name, number as shown in Figure WF-2, year, acreage affected, alarm date, control date, and comments regarding the fire. As shown in Table 2, the majority of fires reported are over 500 acres. This is likely due at least in part to the high acreage cutoff (300 acres) for CAL FIRE data collected prior to 2002.

TABLE 1: HISTORICAL FRAP FIRE DATA

Decade	Number of Fires	Acres Affected
Pre-1950	1	212.8
1950's	43	49,227.0
1960's	25	105,207.8
1970's	7	18,410.2
1980's	12	90,774.9
1990's	6	46,931.4
2000's	17	50,077.1
2010-2012	2	704.5
Total	113	361,545.7

Source: FRAP, 2013



TABLE 2: FRAP DATA BY DECADE AND SIZE OF FIRE

Decade	Size of Fire									Total
	1.0-5.0	10.1-25.0	25.1-50.0	50.1-100.0	100.1-200.0	200.1-300.0	300.1-400.0	400.1-500.0	> 500.0	
Pre-1950	-	-	-	-	-	1	-	-	-	1
1950's	-	-	-	-	2	8	4	3	26	43
1960's	-	-	-	-	1	3	2	2	17	25
1970's	-	-	-	1	-	-	1	1	4	7
1980's	-	-	-	-	-	1	-	1	10	12
1990's	-	-	-	-	-	-	1	-	5	6
2000's	1	1	2	4	3	1	1	-	4	17
2010's	-	-	-	-	1				1	2
Total	1	1	2	5	7	14	9	7	67	113

Source: FRAP, 2013

The USGS Federal Wildland Fire Occurrence data is based on fire records collected by Federal land management agencies for fires that occurred from 1980 through 2012. Fires located within and/or on the border of Napa County are included in the USGS data. As shown in Table 3, the USGS data identifies that 175 fires affecting a total of 28,808.5 acres occurred from 1980 through 2012. A high of 151 fires, which affected a total of 3,139.0 acres, was reported in the 2000's. As shown in Table 4, the majority of USGS fire data represents small fires (less than one acre). Figure WF-3 depicts the location and relative size of the fires reported in the USGS data. Appendix B includes a list of the fires, including the fire name, number as shown in Figure WF-3, year, and acreage affected.

TABLE 3: HISTORICAL USGS FIRE DATA

Decade	Number of Fires	Acres Affected
1980's	5	25,631.0
1990's	18	32.7
2000's	151	3,139.0
2010-2012	1	5.8
Total	175	28,808.5

Source: USGS, 2013

TABLE 4: USGS DATA BY DECADE AND SIZE OF FIRE

Decade	Size of Fire									Total
	<1	1.0-5.0	5.1-10.0	10.1-25.0	25.1-50.0	50.1-100.0	100.1-200.0	200.1-500.0	>500.0	
1980's	-	-	-	-	-	1	-	-	4	5
1990's	11	6	-	1	-	-	-	-	-	18
2000's	96	31	6	6	3	3	3	1	2	151
2010's	-	1	-	-	-	-	-	-	-	1
Total	107	38	6	7	3	4	3	1	6	175

Source: USGS, 2013



EXISTING AND PLANNED LAND USES IN VERY HIGH FIRE HAZARD SEVERITY ZONES AND SRAS

Table 5 identifies land uses by total acreage within SRA (moderate, high, and very high fire hazard severity) and LRA (very high fire hazard severity). Existing land uses have been consolidated into 13 categories based on the land uses reported by the Napa County Assessor. Lands designated vacant (undeveloped) or without any identified use total 195,193.67 acres (53%) and represent the majority of lands designated SRA and/or very high fire hazard severity zones. Existing land uses that include a residence comprise 105,355.07 acres (28.7%) of lands designated SRA and/or very high fire hazard severity zones. Commercial/office and industrial uses total 2,28.5 acres (less than 1%) of lands designated SRA and/or very high fire hazard severity zones. Vineyards and wineries (excluding those with a residence) represent 68,874.63 acres (19%) of lands designated SRA and/or very high fire hazard severity zones; all vineyards and wineries (including those with a residence) represent 77,258.91 acres (21%). Contract lands, including those with a residence, represent 39,587.44 acres (11%) of lands designated SRA and/or very high fire hazard severity zones.

Figure WF-4 depicts existing land uses in SRA and the LRA very high fire hazard severity zone. Public facilities, including schools, medical facilities/offices, police and fire stations, churches, and government buildings are shown on Figure WF-5. Two clusters of public facilities in the SRAs and very high fire hazard severity zone are located in Deer Park and Angwin. Within the very high fire hazard severity zone in both the SRA and LRA, most of the public facilities are spread out and include primarily sheriff's and fire stations, churches, and schools.

**TABLE 5: EXISTING LAND USES IN
VERY HIGH FIRE HAZARD SEVERITY ZONES AND SRAS**

Existing Land Use	Acreage
Commercial/Office	2,117.77
Contract Land	25,481.92
Contract Land with Residential	14,105.52
Industrial	110.73
Manufactured Home Park	31.82
Multifamily Residential	210.41
Rural Residential	51,327.83
Single Family Residential	833.91
Undeveloped/Vacant	195,190.65
Vineyard	8,384.28
Vineyard/Winery	30,129.05
Vineyard/Winery with Residential	38,745.58
No Identified Land Use	3.02
TOTAL	366,672.48

Table 6 identifies planned land uses, based on the General Plan land use designations, for lands within SRAs (moderate, high, and very high fire hazard severity) and LRAs (very high fire hazard severity). The vast majority of lands (99%) within SRAs and/or very high fire hazard severity zones are not designated for primarily residential use or for development with regularly occupied structures (commercial, public facilities, etc.). A total of 367,642.56 acres (99%) of land within these areas are designated Agricultural Resource; Agriculture, Watershed, and Open Space; and Mineral Resources. Lands designated Urban Residential, Rural Residential, Industrial, and Public-Institutional represent 2,844.85 acres (less than 1%) of lands within SRAs and/or very high fire hazard severity zones; these land use designations are anticipated to be developed and used on a regular basis. Study Area and Incorporated City total 1,123.58



acres (less than 1%). Figure WF-5 identifies planned land uses within SRAs and very high fire hazards severity zones.

**TABLE 6: PLANNED LAND USES BY GENERAL PLAN LAND USE DESIGNATION
IN VERY HIGH FIRE HAZARD SEVERITY ZONES AND SRAS**

Planned Land Use	Acreage
Agricultural Resource	23,303.28
Agriculture, Watershed, and Open Space	343,035.16
Industrial	598.92
Mineral Resources	1,304.12
Public-Institutional	383.44
Rural Residential	1,738.09
Study Area	84.52
Urban Residential	124.40
Incorporated City	1,039.06
TOTAL	371,610.99

FIGURE WF-1: FIRE HAZARD SEVERITY ZONES

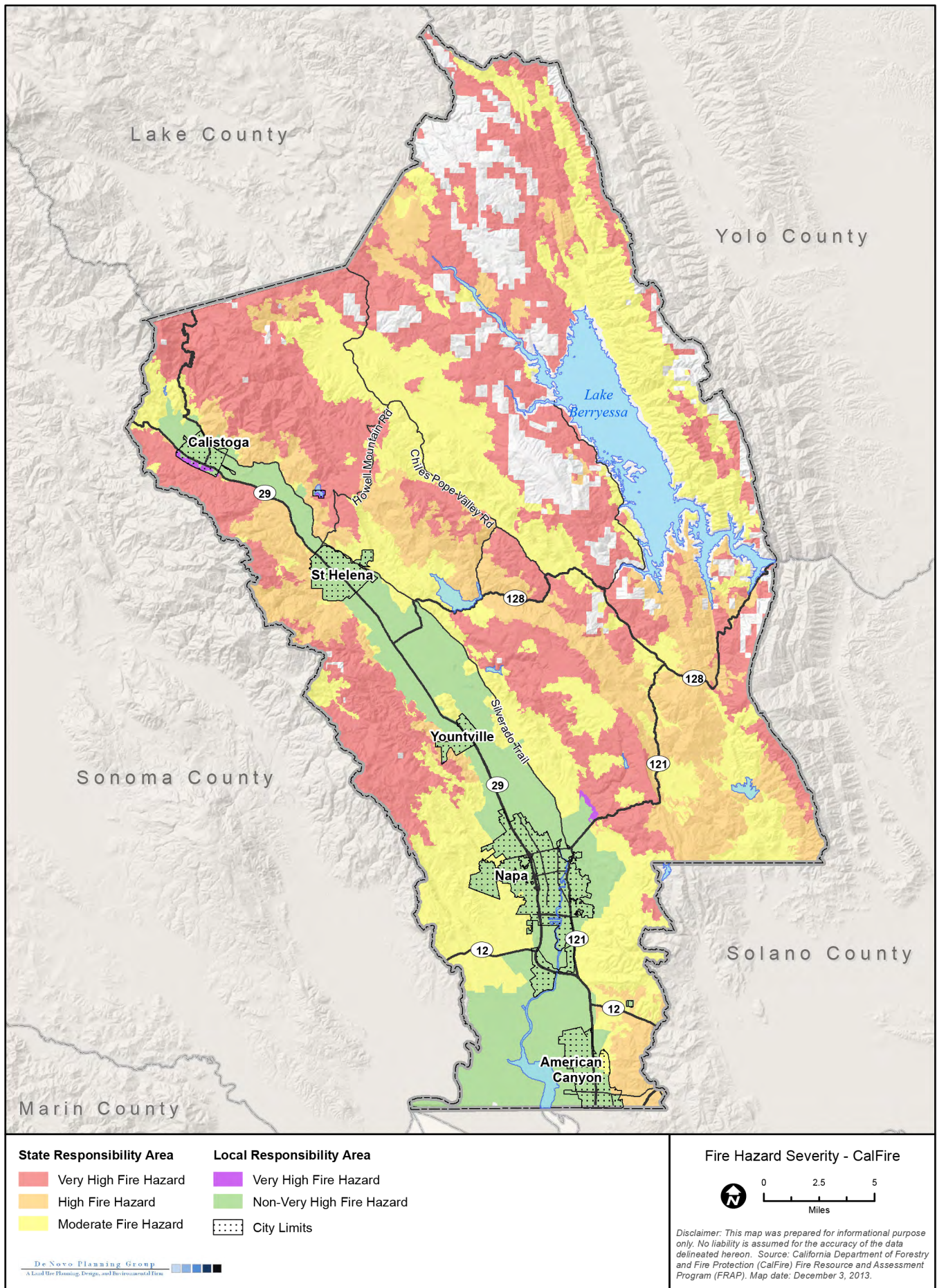
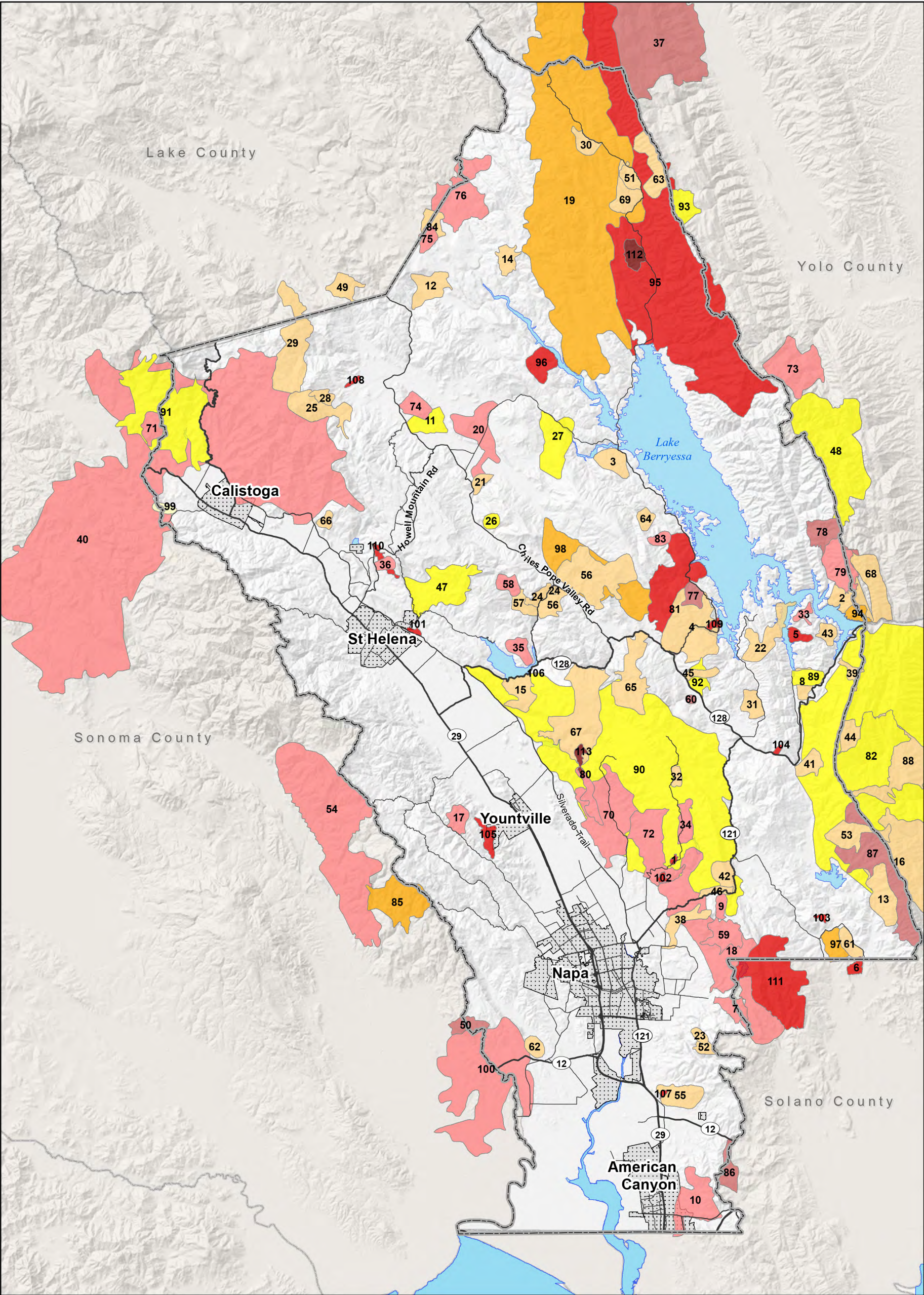


FIGURE WF-2: HISTORICAL WILDLAND FIRES - FRAP



FRAP - Decade of Fire

Pre-1950	1980's
1950's	1990's
1960's	2000's
1970's	2010's

Wildland Fire History - CalFire

Disclaimer: This map was prepared for informational purpose only. No liability is assumed for the accuracy of the data delineated hereon. Source: California Department of Forestry and Fire Protection (CalFire) Fire Resource and Assessment Program (FRAP). Other source: Napa County GIS, California Spatial Information Library. Map date: December 8, 2013.

FIGURE WF-3: HISTORICAL WILDLAND FIRES - USGS

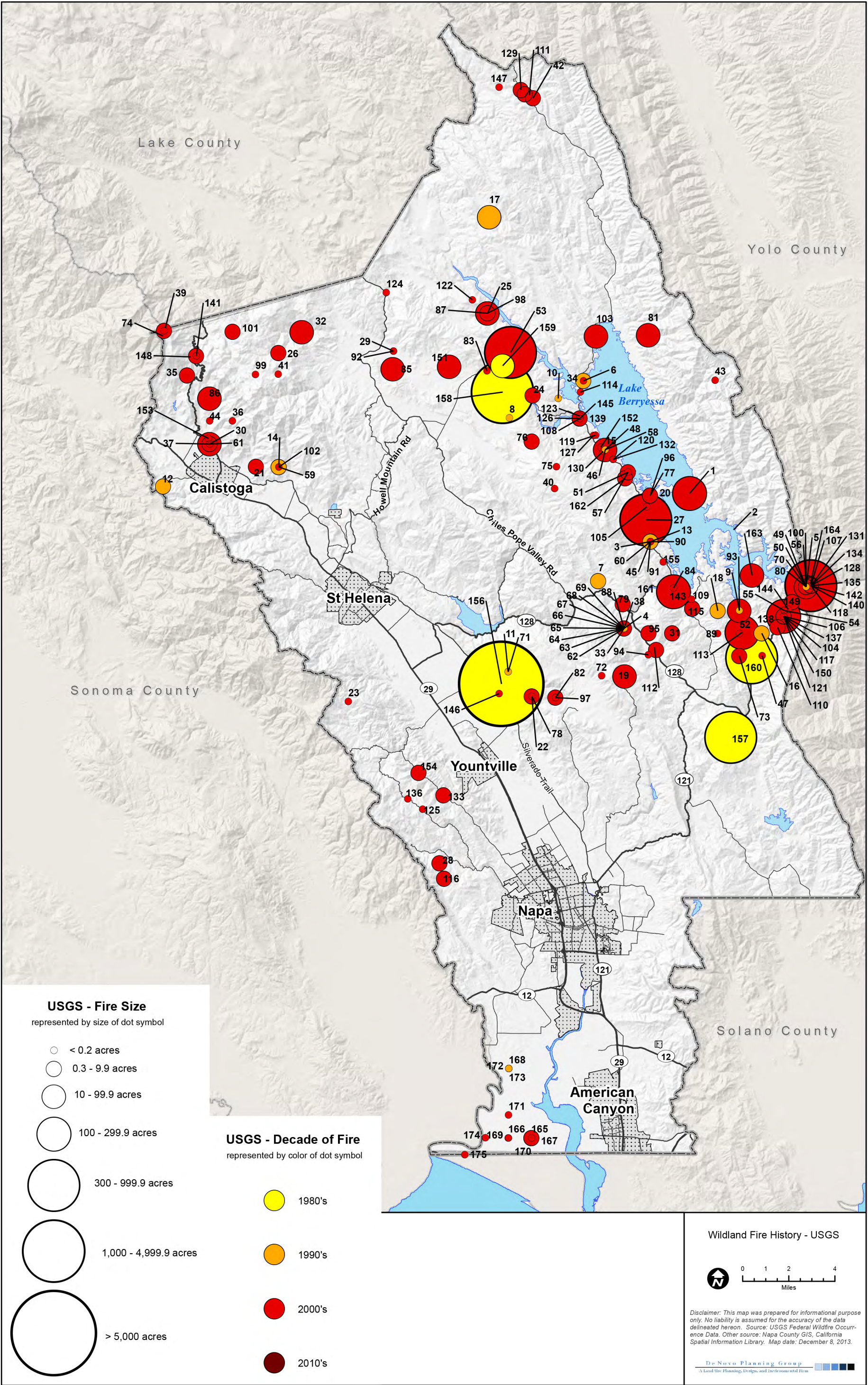


FIGURE WF-4: EXISTING LAND USES - STATE RESPONSIBILITY AREA AND VERY HIGH FIRE HAZARD ZONE

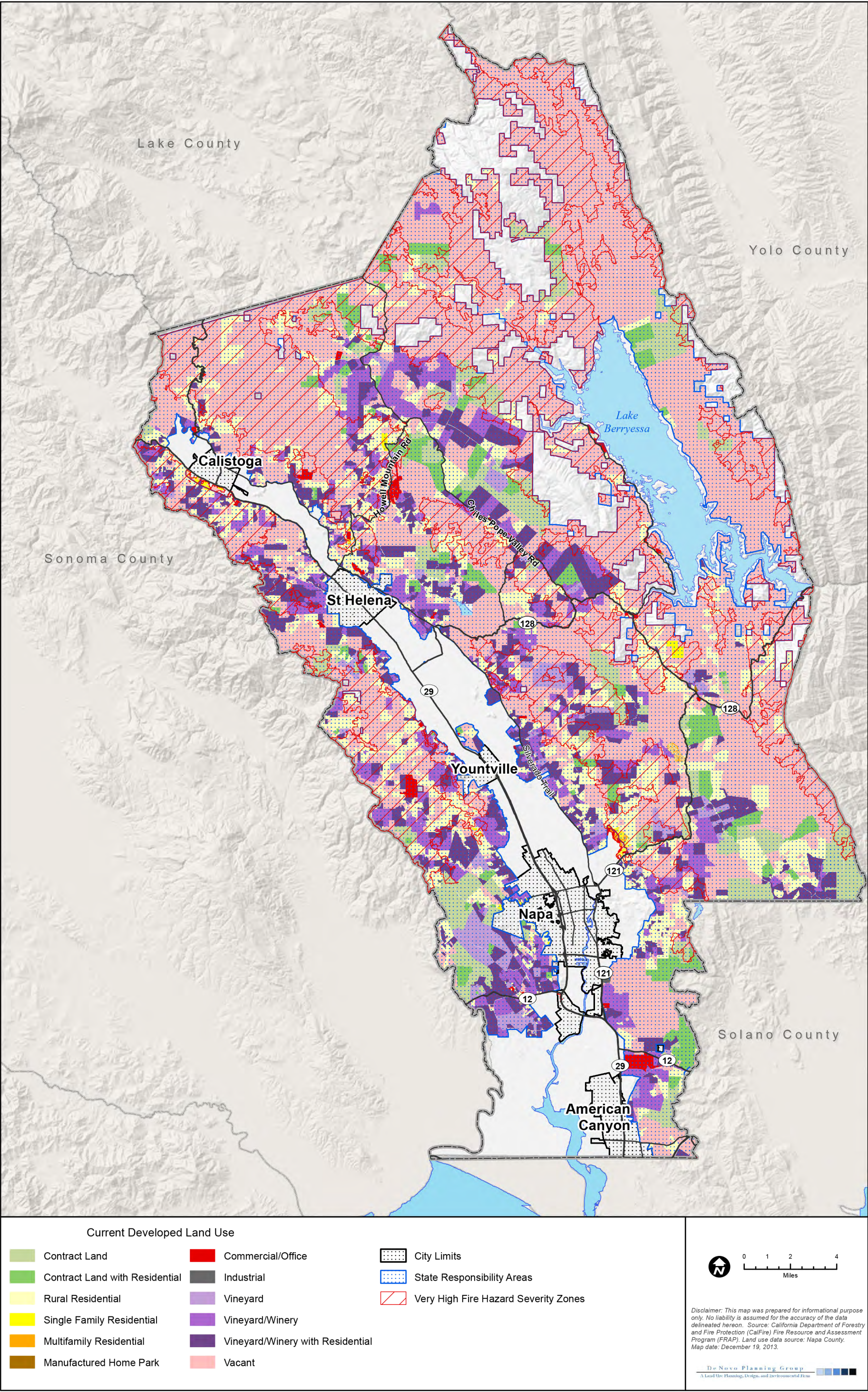
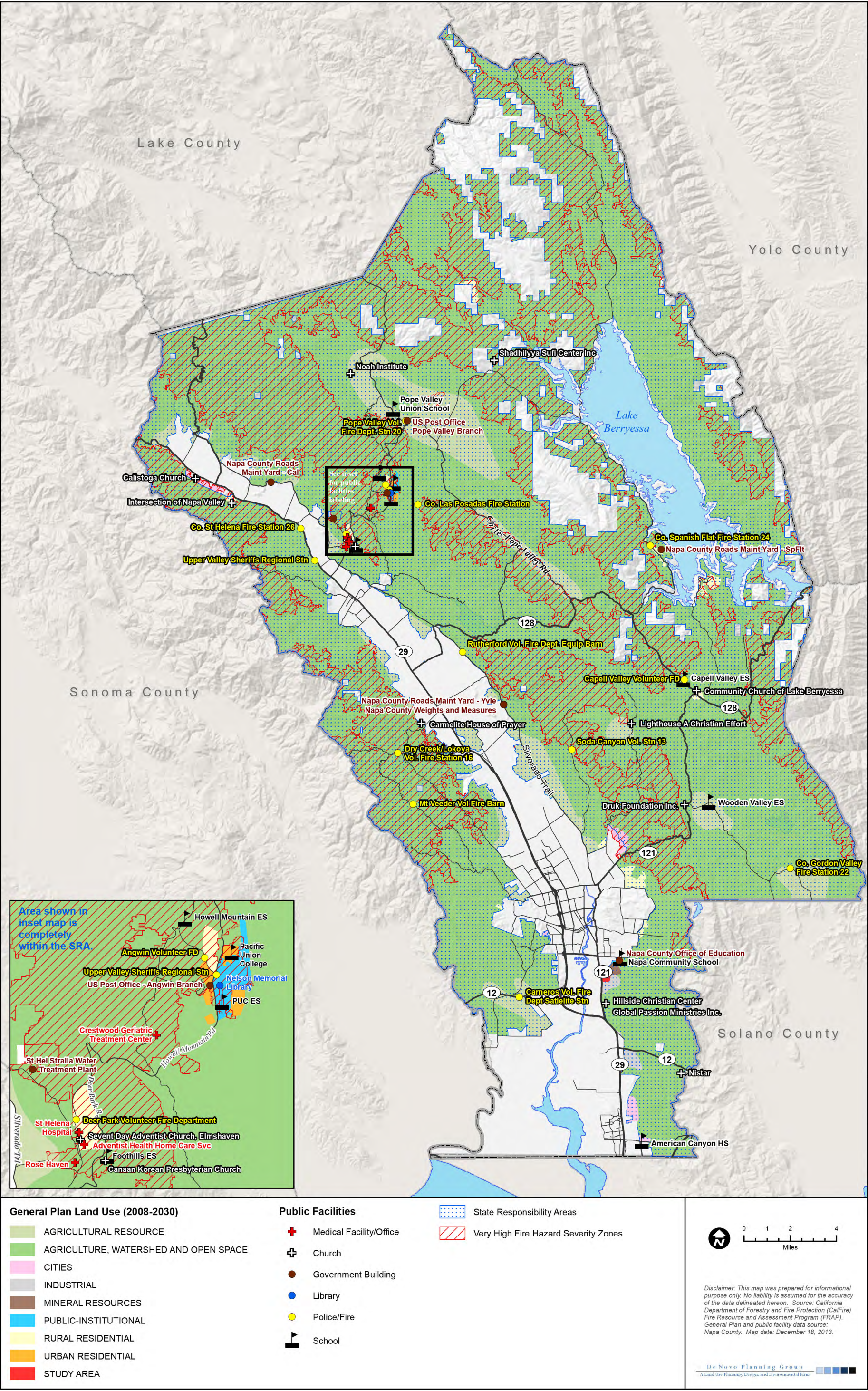


FIGURE WF-5: GENERAL PLAN LAND USE DESIGNATIONS AND PUBLIC FACILITIES
IN THE STATE RESPONSIBILITY AREA AND VERY HIGH FIRE HAZARD ZONES



Appendix A - Historical Wildland Fires - FRAP Data

Map #	Year	Fire Name	Agency	Alarm Date	Containment Date	Comments	Estimated Acreage
1	2007	PEAK	CDF	20070711	20070711		46.3
2	1955	ROCKY RIDGE	CDF	19550912	0		1,479.4
3	1955	SAMUEL SPRINGS	CDF	19550807	0		696.4
4	1955	STATE HWY 128 #2	CDF	19550903	0		3,155.6
5	2005	PLEASURE	CDF	20050916	20050917		261.5
6	2005	GORDON	CDF	20051002	20051002		193.8
7	1964	ROADSIDE #22	CDF	19640711	0		538.9
8	1952	CLIFF MEAGHER	CDF	19520928	0		509.6
9	1961	LEOMA LAKES	CDF	19610903	0		245.9
10	1961	M. WATSON	CDF	19610902	0		1,831.8
11	1980	TURKEY	CDF	19800913	0		817.5
12	1951	ROUTAN CREEK	CDF	19510911	0		948.9
13	1953	R. BUCKELY	CDF	19531004	0		1,258.4
14	1955	CEMENT CREEK	CDF	19550904	0		498.1
15	1955	COUNTRY ROADSIDE #14	CDF	19550802	0		853.1
16	1955	GATES CANYON	CDF	19550902	0		5,551.8
17	1962	ROADSIDE #19	CDF	19620814	0		490.5
18	1964	ROADSIDE #42	CDF	19640921	0		8,956.8
19	1999	SIXTEEN	CDF	19991016	19991018	Containment date based on incident final perimeter map	37,893.1
20	1961	POPE VALLEY SERIES	CDF	19610902	0		1,702.2
21	1957	J. STEGGE	CDF	19570707	0		251.2
22	1951	WRAGG CANYON	CDF	19510911	0		1,178.4
23	1953	J. TUTEUR	CDF	19531008	0		186.8
24	1959	CHILES MILL	CDF	19591030	0		306.8
25	1959	G. HEIBEL	CDF	19591029	0		1,411.6
26	1983	POPE	CDF	19830828	0		226.1
27	1983	POPE CANYON	CDF	19830710	0		1,682.2
28	1957	C. SCOTT	CDF	19570921	0		273.6
29	1952	OAT HILL MINE	CDF	19521003	0		2,666.6
30	1952	PUBLIC DOMAIN #3	CDF	19520901	0		436.6

Appendix A - Historical Wildland Fires - FRAP Data

Map #	Year	Fire Name	Agency	Alarm Date	Containment Date	Comments	Estimated Acreage
31	1958	GEORGE MOSKOWITE	CDF	19580703	0		502.9
32	1958	ROADSIDE #34	CDF	19580926	0		192.9
33	1961	R. COOMBA	CDF	19610903	0		194.1
34	1961	ROADSIDE #32	CDF	19610904	0		568.9
35	1964	P.G.&E. #6	CDF	19640921	0		452.7
36	1964	ROADSIDE #14	CDF	19640625	0		230.8
37	1972	POCKET GULCH	CDF	19720714	0		10,431.4
38	1953	B. HICKEY	CDF	19530825	0		671.4
39	1955	P. LOPEZ	CDF	19550821	0		274.2
40	1964	C. HANLY	CDF	19640919	0		55,960.7
41	1953	S. SAMUELS	CDF	19530913	0		501.5
42	1953	STATE HIGHWAY 37 #3	CDF	19531005	0		605.2
43	1953	T. VIEU	CDF	19530910	0		331.6
44	1957	PETERSON ESTATES #2	CDF	19570902	0		6,258.8
45	1957	STATE HWY 128 #1	CDF	19570708	0		278.3
46	1957	STATE HWY 37 #1	CDF	19570802	0		248.9
47	1983	HOWELL MTN. FIRE	CDF	19830000	0		2,353.6
48	1988	BLUE FIRE	CDF	19880921	0		5,964.4
49	1951	GEO. SNYDER	CDF	19510912	0		629.1
50	1972	ARROWHEAD	CDF	19720714	0		484.6
51	1952	L. GAMBLE	CDF	19520901	0		376.2
52	1952	LAKE MARIE	CDF	19520906	0		297.6
53	1954	MIX CANYON	CDF	19541026	0		1,032.0
54	1964	NUNS CANYON	CDF	19640919	0		9,807.7
55	1954	CORMAN ESTATE	CDF	19540620	0		930.6
56	1954	COUNTY ROADSIDE #19	CDF	19540727	0		3,490.4
57	1954	DE LA BRIANDIAS #2	CDF	19540620	0		552.4
58	1961	DE LA BRIANDIAS	CDF	19611116	0		387.5
59	1961	E. PROCTOR	CDF	19610708	0		876.7
60	1978	HARRINGTON	CDF	19780709	0		81.3
61	1954	S. O'KELL	CDF	19540620	0		420.0

Appendix A - Historical Wildland Fires - FRAP Data

Map #	Year	Fire Name	Agency	Alarm Date	Containment Date	Comments	Estimated Acreage
62	1954	W. GROTHE	CDF	19540707	0		344.0
63	1956	L.J. GAMBLE	CDF	19560915	0		1,170.4
64	1958	B. BISHOP 950 ESCAPE	CDF	19580905	0		300.5
65	1959	C. KUHN	CDF	19591030	0		1,815.7
66	1959	C. SAVIEZ	CDF	19590627	0		205.4
67	1959	R. WILSON	CDF	19591203	0		3,504.4
68	1959	RECREATION BEACH	CDF	19590618	0		1,494.5
69	1959	ROADSIDE #41	CDF	19590810	0		1,135.3
70	1960	C. FOSBERG #2	CDF	19601015	0		3,797.0
71	1960	MORRISON	CDF	19601015	0		537.8
72	1960	NAPA SODA SPRINGS	CDF	19600620	0		2,244.8
73	1960	P. & B. SCRIBNER #2	CDF	19600721	0		2,161.5
74	1960	ROADSIDE #20	CDF	19600821	0		576.3
75	1963	FOLEY FARM RI ESCAPE	CDF	19630927	0		382.9
76	1966	JERICO	CDF	19660806	0		2,677.2
77	1979	PLUNKETT	CDF	19790716	0		391.7
78	1979	ROCKWELL GAP	CDF	19790911	0		2,012.2
79	1968	PORTUGUESE CANYON	CDF	19680829	0		1,321.5
80	1968	STAGS LAKE	CDF	19680627	0		562.2
81	2000	BERRYESSA	CDF	20000613	0		4,859.9
82	1985	MILLER	CDF	19850831	0		3,622.1
83	1969	CEDAR RIDGE	CDF	19690809	0		255.6
84	1996	GUENOC	CDF	19960000	0		649.3
85	1996	PG&E #8	CDF	19960802	0		2,106.8
86	1973	AZEVEDO #2	CDF	19730908	0		615.7
87	1973	SIGNAL HILL	CDF	19730908	0		4,393.4
88	1988	MILLER	CDF	19880917	0		34,564.5
89	1988	RESORT	CDF	19880918	0		483.3
90	1981	ATLAS PEAK	CDF	19810622	0		33,606.4
91	1982	SILVERADO	CDF	19820911	0		6,218.8
92	1982	STEELE CANYON	CDF	19820911	0		523.3

Appendix A - Historical Wildland Fires - FRAP Data

Map #	Year	Fire Name	Agency	Alarm Date	Containment Date	Comments	Estimated Acreage
93	1983	MARCH #2	CDF	19830911	0		712.6
94	1997	MARKLEY	CDF	19970803	0		333.6
95	2004	RUMSEY	CDF	20041010	20041017		38,763.0
96	2002	POPE	CDF	20020809	20020812		753.9
97	1992	WOODEN FIRE	CDF	19920000	0		836.0
98	1995	PRIEST FIRE	CDF	19950000	0		5,112.6
99	1939		CDF	0	0		212.8
100	1965		CDF	0	0		8,445.7
101	2003	SILVERADO	CDF	20031029	20031030		69.3
102	2006	ATLAS	CDF	20061025	20061026	During North Winds	71.2
103	2006	WAKEFIELD	CDF	20060628	20060628	Off of Hidden Springs in Gordon Valley	66.3
104	2006	128	CDF	20060707	20060707		57.2
105	2006	NAPA	CDF	20060922	20060924	During North Winds	377.3
106	2006	SAGE	CDF	20060727	20060727	Large dollar loss due to burned vineyard	2.6
107	2008	KELLY	CDF	20080619	20080619		32.6
108	2008	AETNA	CDF	20080814	20080814		76.7
109	2008	CAPELL	OTH	20080815	20080815	Started on BOR Lake Berryessa Property	110.4
110	2008	DEER	CDF	20081010	20081012	Occured during strong North Wind Event	233.1
111	2008	WILD	CDF	20080621	20080627		4,102.0
112	2011	KNOXVILLE	CDF	20110813	20110816		507.8
113	2012	SODA	CDF	20120223	20120226		196.7

Appendix B - Historical Wildland Fires - USGS Data

Map #	Year	Fire Name	Agency	State Date	Estimated Acres
2	2006	Windy Point	BIA	7/30/06	0.0
5	1998	HYBLE	BLM		0.1
8	1998	SUPERY	BLM		0.1
4	1998	TURTLE	BLM	6/25/98	0.1
9	1999	BONNER	BLM	6/22/99	0.1
168	1999	BUCHLI	FWS	4/16/99	0.1
172	1999	DUHIG	FWS	4/16/99	0.1
15	1999	KNOXVILLE	BLM	8/15/99	0.1
10	1999	PGE 8	BLM	6/26/99	0.1
11	1999	SILVERADO	BLM	6/30/99	0.1
33	2001	29	BLM	5/26/01	0.1
34	2001	GOOSE	BLM	6/23/01	0.1
30	2001	HIGHWAY	BLM		0.1
173	2001	HOFFMAN	FWS	5/9/01	0.1
40	2001	HOWELL	BLM	8/27/01	0.1
29	2001	PACIFIC	BLM	3/25/01	0.1
36	2001	PALISADES	BLM	7/24/01	0.1
38	2001	SPOT	BLM	7/30/01	0.1
49	2002	128	BLM	7/11/02	0.1
50	2002	128A	BLM	7/11/02	0.1
169	2002	CALLBOX	FWS	9/15/02	0.1
46	2002	KNOXVILLE	BLM	6/22/02	0.1
44	2002	LAWLEY	BLM	5/22/02	0.1
45	2002	LOOP	BLM	6/12/02	0.1
43	2002	MACALLISTER	BLM	3/28/02	0.1
54	2002	MARKLEY	BLM	8/25/02	0.1
55	2002	MARKLEY 2	BLM	8/25/02	0.1
52	2002	PLEASURE COVE	BLM		0.1
58	2002	RANCHO	BLM	9/21/02	0.1
60	2002	SQUIREL	BLM	11/2/02	0.1
47	2002	WRAGG2	BLM	6/23/02	0.1
75	2003	CEDAR ROUGHS	BLM		0.1
74	2003	HWY 29	BLM	8/17/03	0.1
80	2003	MARCLAY	BLM	10/18/03	0.1
165	2003	MCKINNON	FWS	9/14/03	0.1
72	2003	MONDAVI	BLM	7/25/03	0.1
71	2003	POWERLINE	BLM		0.1
166	2003	SOSCOL	FWS	9/8/03	0.1
92	2004	ANGWIN	BLM	8/18/04	0.1
83	2004	BRITTEN	BLM	3/31/04	0.1
89	2004	CANYON	BLM	7/16/04	0.1
84	2004	CAPELL	BLM		0.1
171	2004	DEALY	FWS	8/9/04	0.1
102	2004	DUTCH	BLM	12/16/04	0.1

Appendix B - Historical Wildland Fires - USGS Data

Map #	Year	Fire Name	Agency	State Date	Estimated Acres
82	2004	SILVERADO	BLM	3/16/04	0.1
99	2004	SILVERADO	BLM	10/11/04	0.1
90	2004	SPANISH FLAT	BLM	7/19/04	0.1
91	2004	SPANISH FLAT 2	BLM	7/29/04	0.1
94	2004	TURTLE	BLM	8/28/04	0.1
88	2004	VETS HOME	BLM	7/14/04	0.1
108	2005	BRIDGE	BLM	7/25/05	0.1
175	2005	MNF ASSIST DEER FIRE	FWS	8/9/05	0.1
105	2005	OAK SHORES	BLM		0.1
114	2006	PUTAH	BLM	1/13/06	0.1
119	2007	UNNAMED FIRE 3282	BLM	1/10/07	0.1
120	2007	UNNAMED FIRE 3284	BLM	1/23/07	0.1
121	2007	UNNAMED FIRE 3285	BLM		0.1
122	2007	UNNAMED FIRE 3286	BLM	2/21/07	0.1
123	2007	UNNAMED FIRE 3287	BLM		0.1
124	2007	UNNAMED FIRE 3290	BLM		0.1
125	2007	UNNAMED FIRE 3292	BLM		0.1
127	2007	UNNAMED FIRE 3293	BLM	5/11/07	0.1
132	2007	UNNAMED FIRE 3294	BLM		0.1
136	2007	UNNAMED FIRE 3296	BLM	6/25/07	0.1
140	2007	UNNAMED FIRE 3299	BLM		0.1
141	2007	UNNAMED FIRE 3300	BLM	7/13/07	0.1
143	2007	UNNAMED FIRE 3301	BLM	7/21/07	0.1
144	2007	UNNAMED FIRE 3303	BLM	7/29/07	0.1
145	2007	UNNAMED FIRE 3304	BLM		0.1
146	2007	UNNAMED FIRE 3306	BLM		0.1
147	2007	UNNAMED FIRE 3308	BLM	8/19/07	0.1
152	2007	UNNAMED FIRE 3313	BLM	10/8/07	0.1
153	2007	UNNAMED FIRE 3315	BLM	10/21/07	0.1
155	2007	UNNAMED FIRE 3319	BLM	12/14/07	0.1
130	2007	UNNAMED FIRE 3471	BLM	5/26/07	0.1
131	2007	UNNAMED FIRE 3472	BLM	5/28/07	0.1
134	2007	UNNAMED FIRE 3473	BLM	6/18/07	0.1
23	2000	GRAYWOOD	BLM	9/14/00	0.2
41	2001	AETNA	BLM	9/24/01	0.2
174	2001	SEARS POINT	FWS	6/24/01	0.2
57	2002	COYOTE	BLM	9/15/02	0.2
78	2003	SILVERADO	BLM	10/2/03	0.2
62	2003	TURTLE1	BLM	6/22/03	0.2
63	2003	TURTLE2	BLM	6/22/03	0.2
65	2003	TURTLE4	BLM	6/22/03	0.2
66	2003	TURTLE5	BLM	6/22/03	0.2
67	2003	TURTLE6	BLM	6/22/03	0.2
69	2003	TURTLE8	BLM	6/22/03	0.2

Appendix B - Historical Wildland Fires - USGS Data

Map #	Year	Fire Name	Agency	State Date	Estimated Acres
13	1999	SUGARLOAF	BLM	7/27/99	0.3
59	2002	LOMMEL	BLM	10/29/02	0.3
51	2002	RANCHO	BLM	7/20/02	0.3
64	2003	TURTLE3	BLM	6/22/03	0.3
68	2003	TURTLE7	BLM	6/22/03	0.3
109	2005	STEEL 2	BLM		0.3
126	2007	UNNAMED FIRE 3535	BLM		0.3
133	2007	UNNAMED FIRE 3537	BLM	6/10/07	0.3
135	2007	UNNAMED FIRE 3538	BLM	6/25/07	0.3
139	2007	UNNAMED FIRE 3539	BLM		0.3
3	1998	PGE	BLM	6/16/98	0.5
20	2000	COYOTE	BLM	6/25/00	0.5
26	2000	ETNA	BLM	10/23/00	0.5
70	2003	DAM	BLM		0.5
96	2004	OAK	BLM	9/24/04	0.5
107	2005	DAMN	BLM	7/19/05	0.5
106	2005	MARKELY 2	BLM		0.5
110	2005	MARKLEY	BLM	8/31/05	0.5
115	2006	STEELE	BLM	7/23/06	0.5
6	1998	GAMBLE	BLM	8/12/98	1.0
7	1998	PRIEST	BLM	8/15/98	1.0
18	1999	CARLSEN	BLM	12/21/99	1.0
14	1999	CLOVER FLAT	BLM	8/15/99	1.0
16	1999	MARKLEY	BLM	9/22/99	1.0
12	1999	PETRIFIED	BLM	7/26/99	1.0
22	2000	SILVERADO	BLM		1.0
56	2002	MARKLEY	BLM	8/30/02	1.0
73	2003	CARLSON	BLM	7/27/03	1.0
95	2004	CAPELL	BLM		1.0
101	2004	LIVERMORE	BLM	11/20/04	1.0
97	2004	SODA	BLM	10/11/04	1.0
87	2004	WAGON	BLM		1.0
111	2005	BERRYESSA	BLM		1.0
112	2005	CAPELL	BLM		1.0
129	2007	UNNAMED FIRE 3640	BLM	5/25/07	1.0
137	2007	UNNAMED FIRE 3643	BLM	6/30/07	1.0
138	2007	UNNAMED FIRE 3644	BLM	6/30/07	1.0
142	2007	UNNAMED FIRE 3646	BLM	7/17/07	1.0
148	2007	UNNAMED FIRE 3651	BLM	8/30/07	1.0
149	2007	UNNAMED FIRE 3653	BLM	9/11/07	1.0
150	2007	UNNAMED FIRE 3654	BLM	9/12/07	1.0
162	2008	Berryessa Marina	BOR	8/14/08	1.0
35	2001	ROBERTS	BLM		1.5
21	2000	PICKETT	BLM	7/25/00	2.0

Appendix B - Historical Wildland Fires - USGS Data

Map #	Year	Fire Name	Agency	State Date	Estimated Acres
24	2000	POPE	BLM	10/18/00	2.0
170	2002	CANYON	FWS	7/2/02	2.0
167	2003	BARROW	FWS	8/17/03	2.0
77	2003	OAK 2	BLM	9/21/03	2.0
31	2001	WOODEN	BLM	5/25/01	3.0
79	2003	CONN	BLM	10/16/03	3.0
61	2003	OAT	BLM	6/18/03	3.0
154	2007	UNNAMED FIRE 3753	BLM	11/20/07	3.0
28	2001	PARTRICK	BLM	3/16/01	5.0
76	2003	HARDIN 2	BLM		5.0
117	2006	128	BLM		5.0
118	2006	DAMM	BLM	8/23/06	5.0
164	2011	Highlands	BOR		5.8
39	2001	SANTA CLARA	BLM	8/15/01	8.0
42	2002	KNOXVILLE	BLM	2/14/02	8.0
116	2006	PARTRICK	BLM	7/28/06	8.0
32	2001	JAMES	BLM	5/26/01	10.0
103	2005	POE	BLM		10.0
151	2007	UNNAMED FIRE 3777	BLM	9/19/07	10.0
86	2004	LAWLEY	BLM	6/27/04	11.0
85	2004	JULIANA	BLM		12.0
98	2004	SNELL	BLM	10/11/04	14.0
37	2001	PALASAIDES	BLM	7/24/01	15.0
48	2002	PINE	BLM		15.0
163	2009	East Ridge	BOR	6/27/09	20.0
17	1999	DEVIL	BLM	9/22/99	25.0
25	2000	STAGE COACH	BLM	10/21/00	35.0
93	2004	CAPELL	BLM	8/28/04	35.0
100	2004	HWY 128	BLM	10/15/04	50.0
159	1983	WALTER SP	BLM	9/21/83	51.0
81	2003	GAMBLE	BLM	11/17/03	58.9
19	2000	ATLAS	BLM	6/13/00	60.0
104	2005	MARKLEY	BLM		100.0
161	2008	Spanish Flat	BOR	8/15/08	110.0
1	2002	Circle	BLM		147.0
113	2005	PLEASURE	BLM	9/16/05	180.0
128	2007	UNNAMED FIRE 3799	BLM	5/18/07	450.0
157	1982	R RANCH	BLM	9/11/82	600.0
160	1988	RESORT	BLM	9/18/88	780.0
53	2002	POPE	BLM		800.0
27	2000	LNU BERRY	BLM	6/13/00	896.0
158	1983	POPE CYN	BLM	7/10/83	1200.0
156	1981	ATLAS PK	BLM	6/22/81	23000.0